UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

EARTHQUAKE DATA REPORT

APRIL 1989

by

U.S. Geological Survey

NATIONAL EARTHQUAKE INFORMATION CENTER[1]

Open-File Report 89-604-A

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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 April, 1989

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.).

See editing on OF-89-602

EDR No. 4-89
Part 1 of 2
P. 1-150

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.

APR 01, 1989 01h 27m 55.60± 0.39s
42.771 N ± 3.8km 18.585 E ± 3.4km
DEPTH = 5.0km (geophysicist)
YUGOSLAVIA (383)
MD 3.5 (TRI), 2.7 (TTG).

BRY	0.13	347	iPgd	27 58.10	-0.4
			iSg	28 01.50	
NKY	0.31	82	iPgd	28 01.30	-0.5
			iSg	28 07.00	
HCY	0.33	191	iPgd	28 01.30	-0.9
			iSg	28 07.00	
BDV	0.52	160	ePg	28 05.40	-0.6
			iSg	28 15.00	
TTG	0.60	124	ePg	28 06.50	-1.2
			eSg	28 16.50	
PLE	0.81	46	ePg	28 10.70	-1.3
			eSg	28 24.00	
ULC	0.95	148	ePg	28 13.80	-0.3
			eSg	28 28.00	
IVA	0.97	84	ePg	28 15.20	0.6
			eSg	28 30.00	
SDA	1.01	138	ePg	28 15.20	0.0
PVY	1.04	99	ePg	28 15.80	0.0
			eSg	28 32.00	
BCI	1.17	110	ePn	28 19.20	1.4
PUK	1.21	126	ePn	28 18.80	0.2
HVAR	1.62	285	iPnd	28 24.50	-0.4
			iSg	28 47.80	
TIR	1.71	146	ePn	28 28.20	2.0
PHP	1.75	128	ePn	28 29.50	2.7X
BRT	2.15	209	P	28 33.70	1.0
BERA	2.30	153	ePn	28 40.20	5.4X
BEO	2.46	33	e(Pn)	29 07.00	30.1X
SGO	3.30	229	P	28 48.70	-0.3
MGR	3.48	222	P	28 51.00	-0.5
VBY	3.63	320	e(Pn)	28 55.00	1.3
			eSn	29 41.80	
SDI	3.70	255	P	28 54.60	-0.1
TRI	4.54	312	ePn	29 19.70	13.2X
			eSn	30 01.80	
			eSb	30 16.20	
			eSg	30 20.40	
VOY	4.68	316	ePn	29 08.60	-0.1
			eSn	30 06.00	

S.D. = 0.9 on 20 of 24 obs.

% APR 01, 1989 01h 31m 26.83± 0.78s
30.954 S ± 5.9km 116.836 E ± 8.4km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

BAL	0.36	342	iPd	31 34.10	-0.2
			iS	31 39.60	
WA4	0.49	44	iP	31 36.50	-0.2
			iS	31 43.30	
KLB	1.02	129	iPd	31 46.20	0.2
			iS	31 59.20	
MUN	1.15	208	eP	31 48.20	-0.2
			iS	32 02.80	
MRWA	1.88	337	eP	31 59.70	0.4
			iS	32 23.90	

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

& APR 01, 1989 03h 41m 55.03s
60.704 N 151.134 W
DEPTH = 51.6km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

NKA	0.06	308	iP	42 04.62	3.3
SLKM	0.49	113	iP	42 06.16	-0.3
RDT	0.64	259	iP	42 07.65	-0.6
			iS	42 17.54	
SPU	0.66	317	iP	42 07.82	-0.6
			iS	42 18.86	
NNL	0.67	187	iP	42 09.15	0.6
CGLM	0.74	325	iP	42 09.11	-0.5
CRP	0.75	319	iP	42 09.38	-0.4
			iS	42 21.22	
RED	0.86	251	iP	42 10.31	-0.8
			eS	42 22.71	
PMS	0.94	54	iP	42 11.68	-0.5
BRLK	0.95	172	eP	42 13.35	1.0
			eS	42 25.99	
SEW	1.03	125	eP	42 12.68	-0.7
			iS	42 28.64	
ILIM	1.10	236	iP	42 13.58	-0.9
			iS	42 28.61	
PWA	1.13	32	iP	42 14.28	-0.4
CNPM	1.18	183	iP	42 14.99	-0.6
			iS	42 31.24	
XLV	1.29	193	eP	42 16.33	-0.6
			eS	42 34.69	
SKT	1.30	352	iP	42 16.54	-0.6
PLRM	1.32	47	eP	42 16.29	-1.1
PME	1.38	47	eP	42 17.40	-0.8
			eS	42 34.66	
GHO	1.51	44	iP	42 19.12	-1.1
KNIM	1.72	100	iP	42 20.53	-2.5
PDB	1.78	240	iP	42 22.44	-1.4
MTU	1.87	111	eP	42 23.22	-2.0
GLI	1.99	83	eP	42 23.70	-3.1
SVW	2.23	282	iP	42 27.79	-2.5
VZW	2.27	79	eP	42 28.47	-2.3
FID	2.29	87	iP	42 27.87	-3.2
HIN	2.31	96	eP	42 28.58	-2.8
VLZ	2.38	78	eP	42 30.34	-2.0
KLU	2.65	70	eP	42 34.00	-2.3
CVA	2.66	91	eP	42 33.53	-2.7
TOA	2.77	57	iP	42 41.03	3.1
KTH	2.86	2	eP	42 39.44	0.1
			eS	43 14.69	
SGAM	2.93	91	eP	42 36.74	-3.5
KDC	3.05	194	eP	42 40.52	-1.3
RAGM	3.21	93	eP	42 40.23	-4.0
TTA	3.22	316	eP	42 42.26	-2.1
GLB	3.63	75	eP	42 47.22	-3.0
BALM	4.31	82	eP	42 56.05	-3.7

38 obs. associated

APR 01, 1989 04h 30m 51.75± 1.18s
5.271 N ± 4.9km 126.514 E ±11.5km
DEPTH = 63.3 ± 10.7 km
4.8mb (14 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV	2.03	333	eP	31 24.00	-0.3
			eS	31 55.40	
MNI	4.15	204	ePd	31 54.50	0.3
BAG	12.51	333	eP	33 54.50	5.4X
MTN	18.57	166	eP	35 04.70	-1.6
PJG	19.89	64	eP	35 42.10	21.3X
GUA	19.91	64	eP	35 42.30	21.3X
KNA	21.00	174	eP	35 32.00	-0.2
KGM	23.37	263	eP	35 59.00	3.4X
WB5	26.16	163	eP	36 22.50	0.4
			i	36 41.10	
			eS	41 06.40	
WRA	26.21	163	Pd	36 24.50	1.9
	0.7s		10.20nm		4.5mb
PPI	26.70	258	eP	36 29.00	1.9
MBL	27.07	194	eP	36 29.00	-1.4
WHN	27.63	337	eP	36 35.00	-0.3
GYA	28.34	320	P	36 42.00	0.0
			pP	37 00.40	80kmX
			PcP	39 55.00	
QIS	28.71	154	eP	36 45.00	-0.2
ASPA	29.65	166	iPd	36 53.40	-0.3
	0.8s		9.00nm		4.5mb
NANU	29.68	201	eP	36 54.10	0.2
CHG	30.07	299	eP	36 58.00	0.5
WARB	31.27	180	eP	37 03.00	-4.9X
	0.7s		11.00nm		4.7mb
CTA	31.81	143	iPd	37 17.50	4.8X
	1.0s		10.00nm		4.6mb
MEKA	32.62	193	eP	37 20.00	0.3
CD2	33.29	323	eP	37 24.00	-1.5
TIY	34.75	340	eP	37 38.00	-0.1
BJI	35.85	346	eP	37 48.00	0.8
FORR	35.95	178	iPd	37 48.10	0.0
COOL	36.31	188	eP	37 50.00	-1.3
SNY	36.49	356	iPd	37 54.60	2.0
BAL	36.89	194	eP	37 56.00	-0.1
LZH	37.08	329	eP	37 57.00	-0.8
	1.5s		88.00nm		5.5mb
KLB	37.60	192	eP	38 02.00	0.0
	0.4s		4.00nm		4.7mb
HHC	37.88	341	eP	38 05.50	1.0
MUN	38.32	194	iPd	38 08.80	0.7
NWAO	39.00	192	iPd	38 15.00	1.3
	0.4s		7.00nm		4.9mb
GTA	41.68	328	eP	38 35.60	-0.3
GUN	44.66	305	P	39 01.00	0.4
	0.8s		39.00nm		5.3mb
PKI	44.92	304	P	39 02.60	-0.1
	0.8s		11.00nm		4.7mb
KKN	45.11	304	P	39 04.20	0.2
	0.8s		17.00nm		4.9mb
DMN	45.18	304	P	39 05.00	0.3
GKN	45.71	304	P	39 09.00	0.3
MAIO	68.42	307	eP	41 47.00	-2.3
INK	88.82	21	eP	43 48.00	8.3X
SOD	88.97	338	eP	43 40.00	-0.5
SUF	90.09	333	eP	43 46.00	0.2
	0.4s		3.30nm		5.0mb
MBC	90.51	13	eP	43 49.00	1.5
DAG	95.72	352	iPd	44 11.80	0.3
	0.6s		6.67nm		5.3mb
HFS	96.56	332	ePKP	44 13.80	-1.8
	0.5s		0.90nm		4.6mb
NAO	97.58	334	P	44 19.20	-1.0
	0.8s		4.90nm		5.1mb

S.D. = 1.0 on 40 of 47 obs.

? APR 01, 1989 04h 45m 57.04±11.32s
32.562 S ±45.9km 69.632 W ±67.4km
DEPTH = 10.0km (geophysicist)
MENDOZA PROVINCE, ARGENTINA (139)

JACH	0.82	261	iPd	46 12.70	-0.3
			eS	46 30.00	
FCH	0.94	216	eP	46 14.50	-0.7
			iS	46 32.70	
PEL	1.06	237	iPc	46 17.30	0.3
			iS	46 37.20	
SAN	1.24	224	iPd	46 20.50	0.4
			iS	46 39.70	
TACH	1.54	225	iPd	46 25.00	0.4
			iS	46 52.00	

S.D. = 0.7 on 5 of 5 obs.

• APR 01, 1989 05h 17m 37.96± 0.75s
19.290 S ± 9.3km 127.767 E ± 9.1km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

KNA	3.65	15	eP	18 36.50	0.9
			eS	19 28.00	
WB5	6.25	96	eP	19 13.20	0.6
			eS	20 21.20	
WARB	6.94	188	iPc	19 21.70	-0.5
	0.2s		5.00nm		5.3mb X
			eS	20 36.00	
MTN	7.18	27	iPc	19 24.20	-1.3
	0.2s		17.00nm		5.9mb X
			eS	20 39.20	
ASPA	7.18	128	iPd	19 30.60	4.9X
	0.5s		17.00nm		5.5mb X
			eS	20 47.00	
MBL	7.68	255	eP	19 33.00	0.4
	0.3s		4.00nm		5.2mb X
			iS	20 54.70	
NANU	11.89	252	iPd	20 30.50	-0.1
	0.3s		1.00nm		4.7mb X
			eS	22 33.00	

S.D. = 1.0 on 6 of 7 obs.

? APR 01, 1989 08h 22m 21.90± 0.66s
37.607 N ± 9.8km 71.208 E ±11.0km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	8.20	207	iPc	24 21.40	-0.3
			eS	25 42.60	
GKN	14.79	126	P	25 51.50	0.9
KKN	15.35	126	P	25 57.20	-0.7
DMN	15.36	126	P	25 59.10	1.0
PKI	15.58	126	P	26 00.40	-0.7
NAO	43.77	322	P	30 27.00	1.3
	0.5s		0.80nm		3.8mb
MBC	66.23	3	eP	33 08.00	-0.1
INK	72.79	9	eP	33 48.00	-0.4
YKA	80.14	3	P	34 28.60	-1.0

S.D. = 1.0 on 9 of 9 obs.

APR 01, 1989 08h 27m 43.86± 0.77s
35.497 N ±11.6km 24.035 E ± 8.2km
DEPTH = 113.0 ± 12.2 km

01d 08h

CRETE (370)

VAM	0.16	124	iPd	27 59.10	-0.6
NPS	1.31	100	eP	28 09.10	0.1
ITM	2.39	315	iPd	28 23.90	1.3
ATH	2.48	354	eP	28 22.30	-1.4
KAP	2.56	88	eP	28 24.90	0.1
YER	3.80	63	ePn	28 44.70	3.2X
VLS	3.85	315	eP	28 43.20	1.1
NEO	3.86	351	iPd	28 41.90	-0.4
PRK	4.14	25	eP	28 43.40	-2.7X
KSL	4.55	81	eP	28 53.60	1.9
PLG	4.89	355	eP	28 55.50	-0.9
ELL	4.92	74	ePn	28 57.60	0.8
KZN	5.12	340	eP	29 00.40	0.8
LCI	6.81	317	P	29 20.60	-2.1
BRT	7.60	317	P	29 33.00	-0.5
MGR	8.15	307	P	29 41.70	0.7
SGO	8.54	309	P	29 47.00	0.8
DSI	10.24	109	iP	30 07.80	-1.3
PRNI	10.54	116	iP	30 12.30	-0.8
MBH	10.78	119	iPd	30 16.50	0.4

S.D. = 1.2 on 18 of 20 obs.

% APR 01, 1989 08h 42m 49.79± 0.83s
39.289 N ± 7.4km 27.702 E ± 8.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.78	66	iPg	43 05.00	-0.1
			eSg	43 15.00	
IZM	0.95	201	ePn	43 08.00	0.0
BNT	1.08	9	iPn	43 09.90	-0.2
KCT	1.08	28	iPn	43 10.40	0.2
EZN	1.19	297	ePn	43 12.00	0.0

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

% APR 01, 1989 08h 58m 35.46± 0.84s
41.278 N ± 6.2km 19.989 E ±10.6km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MG 2.8 (TIR).

TIR	0.12	307	iPgc	58 37.70	-0.7
PHP	0.53	39	iPgc	58 45.00	-1.2
BERA	0.58	183	iPg	58 46.20	-0.9
SDA	0.82	334	ePg	58 52.20	0.8
KKS	0.86	21	ePg	58 52.80	0.9
BCI	1.09	3	ePn	59 00.00	4.1X
LSK	1.22	157	ePn	58 59.30	1.1

S.D. = 1.3 on 6 of 7 obs.

• APR 01, 1989 09h 10m 21.01± 1.95s
13.133 S ±11.2km 34.089 E ±19.8km
DEPTH = 10.0km (geophysicist)
4.3mb (1 obs.)
MALAWI (577)

CLK	2.67	161	iPn	12 02.00	57.0X
SONG	2.76	207	iPnd	11 06.80	0.5
			eSn	11 32.20	
			eSg	11 43.80	
PTZ	2.89	247	iPn	11 08.80	0.7
			i	11 13.90	
			i	11 17.30	
			iSg	11 22.50	
IKZ	3.27	334	iPn	11 44.00	30.6X
			eSn	14 12.00	
KRI	5.67	229	iPg	11 48.20	0.6
			iS	12 34.40	
			iSg	12 45.90	
LSZ	6.11	249	iPn	11 52.50	-1.1
			i	12 03.50	
			iSn	13 01.40	
			i	13 17.00	
			iSg	13 28.00	
KMZ	8.04	267	iPn	12 20.70	-0.2
			i	12 31.70	
			iSn	13 54.10	
			i	14 05.50	
			iSg	14 48.00	
BUL	8.72	216	iPn	12 22.60	-7.8X
			iSn	13 52.00	
			iSg	14 38.00	
SLR	13.68	203	eP	13 28.10	-9.5X
			S	15 48.00	
KSR	14.36	207	eP	13 57.00	10.4X
			S	16 20.50	
PRY	15.06	203	eP	13 45.50	-10.3X
			S	16 10.00	
HVD	19.11	203	eP	14 46.00	-0.8
KIC	43.16	294	P	18 24.00	0.1
TIC	43.54	295	P	18 27.10	0.2
	0.5s		2.50nm		4.3mb

S.D. = 0.8 on 8 of 14 obs.

• APR 01, 1989 09h 25m 43.72± 2.73s
63.561 N ±11.9km 164.270 W ±24.7km
DEPTH = 33.0km (normal)
ALASKA (676)
ML 4.1 (PMR).

TTA	3.79	96	iPd	26 41.50	0.3
SVW	4.72	118	ePc	26 54.20	-0.3
IMA	5.18	56	ePd	27 00.50	-0.5
PMS	7.21	102	eP	27 29.00	-0.5
PMR	7.26	99	eP	27 29.60	-0.5
FBA	7.30	72	iPc	27 29.50	-1.2
KDC	8.20	130	eP	27 43.20	-0.1
BRW	8.29	17	eP	27 43.50	-0.9
TOA	8.41	92	eP	27 47.80	1.6
DWY	10.96	76	P	28 21.90	0.7
INK	13.31	56	eP	29 04.00	11.5X
MBC	19.25	31	eP	30 09.00	1.4
YKA	22.10	70	eP	30 40.30	3.1X

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

% APR 01, 1989 09h 51m 52.49± 0.79s
39.133 N ± 6.6km 27.612 E ± 8.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.78	201	ePg	52 07.80	0.0
			eSg	52 19.00	
DST	0.92	59	iPn	52 10.00	-0.1
EZN	1.21	305	ePn	52 15.00	0.0
EDC	1.23	9	ePn	52 15.50	0.2
BNT	1.24	11	iPn	52 15.40	-0.2
KCT	1.25	27	iPn	52 15.90	0.1

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

% APR 01, 1989 10h 05m 02.61± 0.88s
39.163 N ± 7.7km 27.583 E ± 8.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.80	198	ePg	05 18.00	-0.2
			iSg	05 29.50	
DST	0.92	61	iPg	05 20.90	0.6
			eSg	05 34.90	
EZN	1.18	305	ePn	05 25.00	0.4
BNT	1.22	12	iPn	05 24.80	-0.5
KCT	1.24	29	iPn	05 25.30	-0.3

S.D. = 0.7 on 5 of 5 obs.

• APR 01, 1989 10h 16m 35.73± 2.18s
50.003 N ± 8.9km 127.791 W ±19.7km
DEPTH = 10.0km (geophysicist)
4.2mb (2 obs.)
VANCOUVER ISLAND REGION (25)

PHC	0.74	18	ePn	16 50.00	-0.2
			Sn	17 14.50	
GDR	1.15	100	ePn	16 57.00	-0.1
CBB	1.57	88	Pn	17 04.59	1.0
BTB	1.57	109	Pn	17 02.89	-0.9
MCW	3.50	110	eP	17 31.00	-0.3
MBW	4.04	105	eP	17 38.00	-1.0
PNT	5.35	94	eP	17 58.00	0.4
	0.5s		5.00nm		4.4mb X
KVN	12.94	144	eP	19 42.50	0.1
YKA	14.46	25	P	19 58.30	-3.8X
BW06	14.49	113	eP	20 04.00	1.1
	1.1s		5.95nm		4.1mb
FFC	16.41	63	eP	20 27.50	0.0
	0.9s		22.00nm		4.3mb

S.D. = 0.8 on 10 of 11 obs.

APR 01, 1989 11h 34m 38.71± 0.52s
3.152 S ± 6.8km 127.909 E ±14.4km
DEPTH = 33.0km (normal)
5.1mb (6 obs.)
CERAM (272)

MNI	5.50	326	eP	36 00.00	-0.5
			eS	37 01.80	
MTN	10.15	162	iPd	37 38.90	33.7X
	0.7s		15.00nm		
WB5	17.78	160	eP	38 45.20	-0.3
WRA	17.83	160	Pd	38 46.50	0.4
	0.7s		5.40nm		3.8mb X
MBL	19.55	203	eP	39 06.30	-0.5
ASPA	21.20	165	iPd	39 23.90	-0.1
	1.0s		38.00nm		4.8mb
NANU	22.72	211	iPd	39 39.30	0.2
	0.8s		53.00nm		5.1mb
GYA	35.90	326	P	41 38.80	0.7
CHG	35.90	309	eP	41 39.00	0.9
CD2	40.96	328	eP	42 19.90	-0.2
LZH	45.05	332	eP	42 53.50	0.0
	1.5s		44.00nm		5.1mb
GTA	49.62	331	eP	43 28.80	-0.4
GUN	50.88	310	P	43 39.40	0.1
	0.6s		21.00nm		5.3mb
PKI	51.07	310	P	43 40.40	-0.3
KKN	51.28	310	P	43 42.00	-0.2
	0.6s		9.00nm		4.9mb
DMN	51.32	309	P	43 42.60	0.1
GKN	51.88	310	P	43 46.60	0.0
	0.8s		17.00nm		5.1mb

S.D. = 0.4 on 16 of 17 obs.

APR 01, 1989 11h 36m 12.57± 0.74s
5.119 S ± 8.5km 151.477 E ± 7.3km
DEPTH = 109.7 ± 10.4 km
4.8mb (5 obs.)
NEW BRITAIN REGION (192)

RAB	1.15	37	iPd	36 34.20	-1.5
	0.4s		3864.41nm		
			iS	36 50.00	
BGA	3.82	106	eP	37 11.00	0.4
			eS	37 57.00	
PAA	4.16	107	eP	37 14.00	-1.2
			eS	38 00.00	
LAT	4.71	251	iPc	37 23.50	0.9
PMG	6.05	225	iPd	37 41.50	0.5
			eS	38 52.00	
HNR	9.43	118	eP	38 29.00	1.9
			eS	40 17.00	
CTA	15.72	198	iPc	39 52.90	3.7X
	0.5s		30.63nm		4.8mb
			i	39 54.00	
			i	40 06.00	
			i	40 13.00	
			i	41 26.00	
			e	42 30.00	
QIS	19.20	216	eP	40 30.00	-0.5
GUA	19.65	341	eP	40 36.70	1.4
	1.0s		664.00nm		5.9mb X
PJG	19.71	341	eP	40 36.40	0.5
RMQ	21.41	187	iPc	40 53.70	0.6
	1.0s		137.00nm		5.3mb
			e	41 12.00	
MTN	21.50	248	iPd	40 55.20	1.2
	0.4s		11.00nm		4.6mb
			eS	44 45.10	
			eScP	48 20.40	
BRS	22.18	177	iPc	41 01.00	0.3
			i	41 11.00	
			i	41 32.50	
WB5	22.20	227	eP	41 01.00	0.1
			i	41 21.10	
			eS	44 59.00	
			eScP	48 21.00	
DZM	22.22	141	iPc	41 00.60	-0.6
WRA	22.25	227	Pc	41 01.50	0.1
	0.5s		8.00nm		4.3mb
BWA	29.30	185	eP	42 08.90	2.1
CAN	30.14	184	eP	42 14.00	-0.2
WARB	31.66	226	eP	42 21.00	-6.7X
ADE	31.96	200	ePc	42 29.60	-0.6
MBL	34.58	240	eP	42 52.00	-1.0
COOL	38.34	224	eP	43 23.00	-1.5
			e	43 46.00	
NANU	38.81	240	eP	43 28.00	-0.5
KLB	41.13	226	eP	43 45.00	-2.5
			e	44 09.00	
SPA	84.92	180	ePc	48 31.00	-5.3X
	0.9s		18.18nm		5.0mb

S.D. = 1.2 on 22 of 25 obs.

% APR 01, 1989 11h 43m 25.79± 0.90s
41.209 N ± 6.2km 20.005 E ±11.1km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MG 2.4 (TIR).

TIR	0.17	323	iPgc	43 29.90	0.2
BERA	0.51	185	ePg	43 36.10	0.0
PHP	0.58	34	iPgc	43 37.00	-0.5
SDA	0.89	335	ePg	43 42.40	-0.4
KKS	0.92	19	ePg	43 44.00	0.7

S.D. = 0.7 on 5 of 5 obs.

APR 01, 1989 12h 31m 36.55± 0.76s
40.872 N ±10.9km 22.780 E ± 7.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)

PLG	0.71	134	eP	31 50.10	-0.5
			eS	32 02.50	
KZN	0.95	234	eP	31 54.60	-0.2
KBN	1.51	261	ePn	32 08.60	4.9X
LSK	1.81	247	ePn	32 07.30	-0.8
RDO	2.10	82	eP	32 14.00	1.8
KDZ	2.13	68	iPc	32 12.00	-0.7
BERA	2.16	266	ePn	32 14.20	1.2
DIM	2.38	59	eP	32 20.00	3.8X
EZN	2.90	110	ePn	32 28.00	4.4X
JMB	3.26	60	Pg	32 35.00	6.2X
MLR	5.16	26	eP	32 55.00	-0.8

S.D. = 1.3 on 7 of 11 obs.

APR 01, 1989 13h 19m 45.76± 0.85s
39.214 N ± 7.5km 23.664 E ± 8.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.35	285	iPgd	19 51.60	-1.5
PLG	1.17	352	iPbc	20 07.50	-0.1
			eSb	20 24.00	
ATH	1.24	178	ePb	20 07.90	-0.9
KZN	1.82	307	ePb	20 16.60	-0.9
PRK	2.03	88	ePb	20 26.40	6.1X
EZN	2.15	73	ePn	20 22.00	-0.1
ITM	2.45	215	ePb	20 27.70	1.3
LSK	2.54	293	ePn	20 28.30	0.5
KBN	2.60	304	ePn	20 30.20	1.6
VLS	2.62	248	ePg	20 32.00	3.2X
BERA	3.22	299	ePn	20 40.80	3.5X

S.D. = 1.3 on 8 of 11 obs.

% APR 01, 1989 15h 06m 37.90± 1.39s
37.937 N ± 9.3km 27.337 E ±12.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.46	353	iPg	06 47.40	0.1
			eSg	06 53.10	
YER	1.10	137	iPn	06 58.30	-0.3
KHL	1.77	77	iPn	07 09.90	1.1
DST	1.95	31	iPn	07 11.40	0.0
EZN	2.04	338	ePn	07 13.00	0.3
ELL	2.37	119	ePn	07 23.00	5.5X
EDC	2.44	9	ePn	07 18.50	0.1
KCT	2.44	19	iPn	07 17.70	-0.7
ALT	2.45	62	ePn	07 18.00	-0.6
YLV	3.06	30	iPn	07 33.20	5.9X

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

? APR 01, 1989 17h 10m 09.34± 5.84s
37.616 N ±31.4km 20.551 E ±45.9km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
ML 3.3 (ATH).

VLS	0.56	3	ePg	10 20.10	-0.6
			eSg	10 27.00	
ITM	1.18	111	ePb	10 31.10	-0.3
			eSg	10 49.80	
ATH	2.53	B1	ePn	10 51.60	0.5
NEO	2.69	50	ePn	10 52.90	-0.6
KZN	2.85	19	ePb	10 56.80	1.0

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

? APR 01, 1989 21h 15m 19.40± 3.32s
61.561 N ±24.9km 146.476 W ±24.3km
DEPTH = 33.0km (normal)
SOUTHERN ALASKA (2)
ML 3.1 (PMR).

TOA	0.56	15	iPd	15 31.00	0.0
PMR	1.27	273	iPc	15 40.50	-0.4
			iS	15 57.50	
PMS	1.52	259	iPd	15 44.60	0.0
PWA	1.63	275	ePd	15 45.70	-0.4
FBA	3.40	350	eP	16 12.00	0.5
TTA	4.67	291	eP	16 30.80	1.4
IMA	5.53	328	eP	16 40.50	-1.2

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

APR 01, 1989 21h 29m 58.70± 0.40s
32.849 N ± 7.7km 39.816 W ± 8.1km
DEPTH = 10.0km (geophysicist)
4.4mb (9 obs.)
NORTH ATLANTIC RIDGE (403)

LFF	33.46	57	eP	36 40.90	1.0
	0.6s		3.60nm		4.5mb
TCF	34.66	55	eP	36 50.60	0.3
	0.6s		6.30nm		4.7mb
BGF	35.13	54	eP	36 54.20	-0.1
	0.8s		5.90nm		4.5mb
SMF	35.82	54	eP	37 00.40	0.3
	1.0s		8.00nm		4.5mb
LOR	35.91	53	eP	37 01.00	0.1
	0.8s		4.00nm		4.3mb
LBF	35.95	54	eP	37 01.40	0.1
	1.0s		4.00nm		4.2mb
ITR	41.40	178	eP	37 47.90	1.1
LIC	41.80	122	P	37 49.32	-0.9
KIC	41.92	121	P	37 50.60	-0.6
CLL	42.31	48	e(P)	37 54.00	0.0
HFS	44.12	35	eP	38 08.40	-0.2
	0.6s		1.30nm		3.9mb
FFC	48.11	316	eP	38 40.00	-0.3
	0.8s		8.00nm		4.9mb
BAO	48.84	190	e(P)	38 44.00	-2.4
SUF	50.42	33	iP	38 58.10	0.1
SOD	51.10	27	eP	39 02.00	-1.1
YKA	54.50	327	P	39 28.80	0.3
BW06	54.55	302	eP	39 28.00	-1.4
	1.2s		3.42nm		4.3mb
ITA	55.11	186	eP	39 35.70	2.0
ZOBO	55.84	213	P	39 38.30	-1.1
			LR	57 32.00	
MBC	55.89	343	eP	39 38.00	-0.4
LPB	56.06	213	P	39 42.00	1.3
EUR	60.15	300	eP	40 11.10	2.1
INK	61.25	335	eP	40 16.00	0.1
KVN	61.85	300	eP	40 20.10	-0.4
			e	40 26.00	

S.D. = 1.1 on 24 of 24 obs.

APR 01, 1989 21h 58m 14.19± 0.20s
32.797 S ± 4.9km 69.947 W ± 4.0km
DEPTH = 109.7km (8 depth phases)
5.5mb (22 obs.)
MENDOZA PROVINCE, ARGENTINA (139)
Felt (V) at Santiago, Chile.
Also felt in the Valparaiso,
Chile area.
FAULT PLANE SOLUTION: P-Waves

NP1:	Strike= 25	Dip=75	Slip= -60
NP2:	139	33	-152

Principal Axes:

T		Plg=24	Azm= 92
P		51	329

Comment: The focal mechanism is poorly controlled and corresponds to normal faulting with a moderate strike-slip component. The preferred fault plane is NP1.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 31C
Centroid Location:
Origin Time 21:58:18.4 0.4
Lat 32.86S 0.04 Lon 70.19W 0.08
Dep 119.0 3.2 Half-duration 1.6
Moment Tensor; Scale 10**16 Nm
Mrr=-4.81 0.42 Mtt=-1.82 0.87
Mff= 6.63 0.93 Mrt=-1.82 0.38
Mrf=-9.20 0.44 Mtf=-0.40 0.62
Principal Axes:

T	Val= 11.76	Plg=29	Azm= 93
N	-1.47	9	188
P	-10.30	59	294

Best Double Couple: Mo=1.1*10**17
NP1: Strike=158 Dip=18 Slip=-122
NP2: 10 75 -80

ZON	1.65	41	iPc	58 46.00	2.8
CFA	1.87	51	iPd	58 43.80	-2.3
RFA	2.32	148	iPc	58 51.00	-0.9
CYA	5.62	41	ePc	59 35.60	-1.2
SLA	8.94	27	eP	00 21.20	-0.9
ITB7	15.77	65	e(P)	01 49.70	-1.6
ITB1	15.87	63	e(P)	01 51.40	-1.1
ITB	15.92	64	e(P)	01 54.80	1.6
LPB	16.28	6	Pd	02 02.00	3.9X
	1.4s		265.12nm		5.3mb
			Lg	05 07.00	
			LR	05 14.00	
ARE	16.32	355	eP	01 56.00	-2.5
ZOBO	16.54	6	Pd	02 03.00	1.5
Z	24s		0.42um		
			LR	05 20.00	
PPD	19.68	62	iP	02 37.00	-0.1
NNA	21.66	341	iPd	02 58.00	0.9
	1.2s		110.94nm		5.1mb
VAO	22.49	70	iPc	03 05.80	0.6
			e	03 08.30	9kmX
ITA	24.61	71	iPc	03 27.00	1.0
			e	03 33.80	24kmX
			e	03 47.70	
BMA	24.89	73	ePc	03 28.40	0.1
			i	03 41.10	51kmX
			i	03 50.60	
ATB	33.73	33	e(P)	04 47.80	0.8
SOB1	35.65	55	eP	05 03.30	-0.2
ITR	37.70	58	eP	05 19.40	-1.3
SPA	57.38	180	ePd	07 52.10	-1.0
	1.0s		70.00nm		5.6mb
			e	08 19.00	111km
TBI	69.31	255	iP	09 11.60	-0.1
	0.9s		110.00nm		5.7mb
RSCP	69.60	346	P	09 12.50	-0.7
	0.9s		126.05nm		5.7mb
BLA	70.33	351	P	09 17.00	-0.6
RUV	71.50	264	iP	09 24.90	-0.2
	1.1s		70.00nm		5.4mb
VAH	71.69	263	iP	09 26.00	-0.2
	1.1s		50.00nm		5.2mb
TVO	71.79	260	iP	09 26.80	-0.1
	1.1s		715.00nm		6.4mb
TPT	71.80	264	iP	09 26.80	-0.1
	1.1s		60.00nm		5.3mb
PPN	72.06	260	iP	09 28.10	-0.3
	1.1s		70.00nm		5.4mb
PAE	72.12	260	iP	09 28.50	-0.2
	1.1s		240.00nm		5.9mb
PPT	72.16	260	iP	09 29.00	0.0
	1.1s		350.00nm		6.1mb
AFR	72.34	260	iP	09 29.70	-0.4
	1.1s		90.00nm		5.5mb
LNO	72.51	338	P	09 26.40	-4.1X
LIC	72.73	71	Pc	09 32.30	-0.1
FVM	72.96	343	P	09 32.50	-0.7
	1.0s		170.00nm		5.8mb
			pP	09 59.00	103km
TIC	72.99	70	P	09 34.04	0.2
KIC	73.04	71	Pc	09 34.14	0.0
	0.7s		17.00nm		5.0mb
MAW	73.83	163	eP	09 37.00	-0.9
CLE	74.69	351	iP	09 42.30	-0.8
ALQ	75.59	330	ePd	09 47.90	-0.8
	1.2s		69.53nm		5.3mb
KUK	76.44	73	eP	09 54.00	0.4
GLA	77.96	323	eP	10 01.00	-0.7
HVD	78.22	119	iPc	10 14.00	10.5X
	0.9s		50.42nm		
GAC	78.29	356	ePd	10 03.50	0.4
BAR	78.62	321	eP	10 06.00	0.7
GLD	79.24	333	P	10 09.00	0.3
PLM	79.25	322	eP	10 09.00	0.1
GOL	79.25	333	P	10 08.50	-0.4
RVR	80.01	322	eP	10 13.00	0.3
MWC	80.55	321	eP	10 16.00	0.2

01d 22h

PAS	80.55	321	eP	10	13.00	-2.6
GSC	80.74	323	eP	10	17.00	0.4
SBB	80.79	322	eP	10	17.00	0.1
CLC	81.54	323	eP	10	21.00	0.2
SYP	81.80	320	eP	10	08.00	-14.3X
BCH	82.36	321	P	10	26.50	1.4
TNP	83.11	324	P	10	29.50	0.4
	1.2s	125.00nm			5.7mb	
PRI	83.39	321	ePd	10	31.30	0.9
BW06	83.51	332	P	10	30.50	-0.5
	1.2s	51.37nm			5.3mb	
FRI	83.53	322	ePd	10	30.00	-0.9
MNA	83.85	324	e(P)	10	33.30	0.6
LLA	83.90	321	eP	10	33.70	0.9
PRS	83.91	321	ePd	10	33.90	1.1
KVN	84.30	324	P	10	35.00	0.0
			pP	11	00.50	96kmX
CMB	84.67	322	iPd	10	37.20	0.5
GCC	84.76	321	ePd	10	38.10	1.0
MHC	84.81	321	ePd	10	38.50	1.0
PCC	85.32	321	eP	10	41.60	1.8
BKS	85.52	321	iPc	10	42.20	1.4
	1.2s	125.00nm			5.7mb	
RSON	85.89	345	P	10	41.50	-0.9
	0.9s	46.22nm			5.5mb	
BUL	86.17	111	iPc	10	45.40	0.6
ORV	86.39	323	ePd	10	45.90	0.8
BGMT	86.55	332	ePd	10	46.20	0.1
TIO	86.76	50	iP	10	50.00	2.7
			i	11	18.60	109km
SXM	86.98	333	ePd	10	48.40	0.3
LCCM	86.98	332	ePd	10	48.30	0.3
MIN	87.04	323	eP	10	47.80	-0.6
LTCM	87.20	323	P	10	49.00	0.0
LRM	87.20	332	ePd	10	49.50	0.3
SCH	87.30	2	eP	10	49.00	-0.1
KMZ	87.59	104	eP	10	52.00	0.4
			i	11	22.00	115km
WDC	87.69	323	iPd	10	50.60	-0.7
			e	11	18.40	105km
HRY	87.69	333	ePd	10	51.70	0.4
LSZ	88.50	107	iP	10	58.00	2.0
			i	11	28.00	115km
FHC	88.59	322	eP	10	56.90	1.2
SES	90.46	335	ePd	11	03.80	-0.4
			pP	11	34.00	115km
FFC	91.43	342	iPd	11	07.70	-0.8
	1.2s	42.00nm			5.6mb	
PTZ	91.60	108	iP	11	12.00	1.6
			i	11	40.00	105km
PNT	92.92	330	eP	11	15.00	-0.5
	0.9s	35.00nm			5.7mb	
EDM	93.60	336	ePd	11	16.80	-1.8
YKC	101.45	341	ePdiff	11	53.00	-0.9
YKA	101.50	341	ePdiff	11	53.80	-0.3
MBC	113.10	349	ePKP	16	38.00	-0.9
HFS	114.84	33	ePKP	16	39.60	-3.1X
	0.6s	1.00nm				
NUR	120.12	35	iPKP	16	52.20	-0.5
SUF	121.31	32	iPKP	16	54.10	-0.8
	0.5s	3.60nm				
WB5	122.69	207	ePKP	16	57.30	-1.6
			e	20	22.30	
MAIO	138.59	71	ePKP	17	29.00	0.1
QUE	143.34	82	iPKPd	17	37.00	-0.6
GBA	144.66	115	PKPd	17	38.00	-1.9
	1.0s	25.50nm				
PPI	145.69	163	ePKPc	17	41.50	-0.3
HYB	147.78	111	ePKPc	17	44.00	-1.1
	1.0s	70.00nm				
PSI	148.29	158	iPKPd	17	47.40	1.5
	0.7s	92.50nm				
KGM	148.73	167	ePKPc	17	49.80	3.1X
IPM	150.69	161	ePKPd	17	53.40	3.8X
	0.9s	96.00nm				
NDI	151.55	89	ePKP	17	51.00	0.5
SNG	153.04	159	ePKP	18	11.70	18.7X
MAT	156.58	287	(PKP)	18	06.00	8.8X
	1.1s	11.39nm				
WMQ	159.35	51	PKP	18	00.00	-0.3
MDJ	160.77	314	ePKP	18	00.50	-1.1
CHG	162.87	142	ePKP	18	05.00	0.5
LSA	163.54	96	PKP	18	06.70	1.2
GTA	169.41	49	PKPd	18	09.80	0.6
SSE	170.39	263	e(PKP)	18	04.50	-5.3X
			e	19	25.00	
BJI	171.25	327	ePKP	18	09.00	-0.9
HHC	171.87	352	ePKP	18	10.00	-0.3
BTO	172.21	0	ePKP	18	11.00	0.5
NJ2	172.52	267	PKPc	18	11.20	0.5
GYA	173.03	154	PKP	18	11.00	-0.2
TIA	173.24	302	ePKP	18	11.10	0.2
LZH	173.91	56	ePKP	18	17.00	5.6X
	2.5s	79.00nm				
CD2	174.32	108	PKP	18	12.20	0.7
WHN	175.70	240	ePKP	18	13.00	1.2
XAN	178.44	37	PKP	18	12.20	0.0

S.D. = 1.0 on 112 of 123 obs.

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* APR 01, 1989 22h 22m 59.01± 1.18s
34.438 N ±16.0km 26.770 E ±12.0km
DEPTH = 136.8 ± 32.4 km
CRETE (370)
MD 3.7 (ATH).

KAP	1.16	17	iPbc	23	24.10	-0.2
NPS	1.26	311	ePb	23	33.10	7.8X
YER	2.96	24	ePn	23	47.00	1.0
ELL	3.44	47	iPn	23	52.10	-0.3
BCK	4.32	45	ePn	24	03.90	-0.2
ITM	4.79	306	ePn	24	10.10	-0.2
CSS	5.43	83	eP	25	11.07	52.1X
DSI	7.78	109	eP	24	49.00	-1.7
PRNI	8.06	118	e(P)	24	55.00	0.4
MBH	8.30	122	eP	24	59.00	1.2

S.D. = 1.2 on 8 of 10 obs.

APR 02, 1989 00h 14m 20.31± 0.29s
44.623 N ± 2.3km 7.049 E ± 3.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.5 (GEN).

PZZ	0.12	162	P	14	23.88	0.4
			S	14	25.94	
DOI	0.18	130	Pc	14	25.10	0.6
			eSg	14	28.40	
FOUF	0.21	244	P	14	24.46	-0.4
			Sg	14	26.66	
RRL	0.35	328	P	14	27.70	0.1
			S	14	32.77	
STV	0.43	152	P	14	29.12	0.1
			S	14	34.65	
BNI	0.51	328	P	14	30.60	0.0
			eSg	14	37.10	
RSP	0.55	16	P	14	31.87	0.4
			S	14	39.27	
TOUF	0.63	167	Pg	14	32.78	-0.3
ROB	0.67	119	P	14	33.67	-0.1
			S	14	42.55	
AUTN	0.68	156	Pg	14	33.87	-0.2
			Sg	14	42.42	
MVIF	0.73	174	Pg	14	34.71	-0.1
			Sg	14	44.36	
SAOF	0.73	150	Pg	14	34.69	0.0
AURF	0.76	165	Pg	14	35.30	0.0
SBF	0.81	160	Pg	14	36.60	0.6
			Sg	14	46.80	
LSD	0.84	5	P	14	36.95	0.3
			S	14	48.09	
CALN	0.88	188	Pg	14	37.29	0.0
			Sg	14	49.00	
LPG	0.90	347	Pg	14	37.00	-0.8
			Sg	14	50.80	
REVF	0.91	165	Pg	14	38.67	0.9
LPL	0.92	346	Pg	14	38.40	0.3
			Sg	14	51.20	
FIN	0.93	116	P	14	38.12	0.1
			S	14	50.33	
IMI	0.93	139	P	14	38.02	-0.2
			S	14	50.02	
FRF	1.10	195	Pn	14	40.80	-0.2
			Pg	14	41.80	
			Sg	14	54.60	
LRG	1.27	203	Pg	14	44.40	0.5
			Sg	15	01.40	
LMR	1.35	197	Pg	14	45.50	0.4
			Sg	15	02.40	
CVF	2.44	147	Pn	14	58.40	-2.5
			Sn	15	24.80	

S.D. = 0.7 on 25 of 25 obs.

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* APR 02, 1989 00h 37m 50.56± 0.77s
12.117 S ± 8.7km 166.130 E ±13.3km
DEPTH = 33.0km (normal)
4.8mb (2 obs.)
SANTA CRUZ ISLANDS (184)

HNR	6.63	293	eP	39	29.00	0.7
			eS	40	41.00	
VSG	6.92	294	eP	39	31.00	-1.3
			eS	40	46.00	
DZM	9.90	178	iPc	40	13.10	-0.7
			iS	42	25.10	
CTA	20.66	245	iPc	42	30.40	0.1
	1.2s	17.97nm			4.3mb	
			i	42	39.00	
RMQ	21.72	226	eP	42	42.00	1.1
WB5	31.45	252	eP	44	10.00	-1.5
MTN	34.17	265	eP	44	35.80	0.7
SSE	60.88	316	e(P)	48	01.50	-0.9
CN2	66.85	329	eP	48	40.00	-1.4
BJI	69.55	321	eP	48	58.00	-0.2
TIY	70.60	317	eP	49	05.60	0.8
XAN	71.12	312	eP	49	07.10	-0.9
CD2	73.55	307	eP	49	24.00	1.5
BTO	73.74	319	eP	49	23.00	-0.4
LZH	75.75	312	eP	49	36.00	0.8
	1.5s	44.00nm			5.2mb	
GTA	80.07	314	P	49	59.40	0.5
KKN	87.65	299	P	50	38.20	0.6
DMN	87.75	299	P	50	38.90	0.7
GKN	88.25	299	P	50	40.40	-0.1
SOB1	145.79	127	ePKP	57	24.90	-3.6X
			e	57	46.40	

S.D. = 1.0 on 19 of 20 obs.

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* APR 02, 1989 01h 10m 19.99± 1.70s
19.791 S ±16.7km 175.487 W ±13.9km
DEPTH = 231.7 ± 13.9 km
5.1mb (15 obs.)
TONGA ISLANDS (173)

SVA	5.97	285	iP	11	49.80	1.8
VUN	6.00	286	ePc	11	49.20	0.8
AFI	6.84	32	eP	11	57.20	-2.0
			eS	13	07.90	
DZM	17.03	259	iPc	14	06.90	0.9
VSG	26.16	290	P	15	34.00	-1.1
MSZ	28.39	205	P	16	03.00	8.2X
BRS	29.99	249	iPc	16	09.00	-0.2
RMQ	33.47	252	eP	16	40.00	0.6
			e	16	53.00	
CAN	34.86	236	eP	16	52.40	1.3
			i	16	55.70	
BWA	35.08	238	eP	16	53.20	0.3
			i	16	56.00	
CTA	35.91	263	iPd	17	00.20	0.1
	0.8s	213.81nm			5.8mb	
			i	17	50.70	
			i	25	54.00	
PMG	37.51	281	eP	17	13.00	-0.5
	1.0s	80.00nm			5.2mb	
QIS	42.06	261	eP	17	49.00	-1.8
ASPA	46.98	256	iPd	18	29.30	-0.7
	0.7s	96.00nm			5.3mb	
WB5	47.02	261	iPd	18	30.10	-0.2
WRA	47.04	261	Pd	18	26.30	-4.1X
	0.5s	33.80nm			5.0mb	
MTN	51.53	269	iPd	19	03.00	-1.6
	0.4s	44.00nm			5.3mb	
			e	20	26.00	
FORR	51.70	246	eP	19	04.30	-1.4
KNA	53.05	265	iPd	19	14.80	-1.0
	0.7s	102.00nm			5.4mb	
WARB	53.29	252	iPc	19	11.00	-6.5X
	0.7s	50.00nm			5.1mb	
MBL	60.22	256	iPc	20	05.40	-0.9
	0.5s	41.00nm			5.4mb	
MEKA	60.45	250	eP	20	07.00	-0.8
KLB	60.49	244	eP	20	07.00	-1.0
	0.8s	23.00nm			4.9mb	
NWAO	60.79	243	eP	20	10.00	0.0
	0.5s	5.00nm			4.4mb	
BAL	61.50	245	eP	20	14.00	-0.7
	0.6s	11.00nm			4.7mb	
NANU	63.86	254	iPc	20	30.40	0.1
	0.6s	36.00nm			5.3mb	
SPA	70.33	180	e(P)	21	11.60	1.4
	1.0s	15.00nm			4.7mb	
MAT	71.07	322	(P)	21	14.00	-0.8

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PSI     86.75 274 iPc    22 39.00   -0.6
BJI     87.07 314 eP     22 42.00    1.5
CHG     92.23 289 ePd    23 07.20    2.2
        0.9s      8.40nm          4.8mb
CHTO    92.23 289 iP     23 06.90    1.9
        0.7s      5.72nm          4.7mb
INK     92.99  14 eP     23 10.00    2.6
NAO    138.76 355 PKP    29 16.10   -3.5X
        0.8s      1.50nm
KRA    147.40 341 ePKP   29 39.50    4.8X
KSP    147.64 346 iPKPd  29 41.00    5.9X
CLL    147.84 350 iPKPd  29 41.40    6.0X
        1.0s     19.00nm
                   e     30 47.00
SPC    148.07 340 ePKP   29 42.30    6.2X
MOX    148.70 351 e(PKP) 29 44.00    7.2X
PRU    148.83 347 PKPd   29 44.00    7.0X
                   e     29 48.00
MLR    148.85 330 ePKPc  29 44.00    6.6X
HRI    149.14 302 ePKP   29 46.00    7.8X
GRF    149.69 351 ePKP   29 47.80    9.4X
                   e     29 54.40
DOU    149.76 360 PKP    29 46.60    8.2X
KHC    149.84 348 iPKP   29 47.10    8.4X
        1.2s      7.50nm
ZST    149.89 343 ePKP   29 46.80    8.1X
DSI    149.91 299 ePKPd  29 47.00    7.8X
WLF    150.17 358 PKP    29 48.10    9.1X
                   e     29 54.70
BZS    150.63 335 ePKP   29 48.50    8.6X
MBH    150.77 296 iPKPd  29 50.20    9.6X
FLN    150.82   7 ePKP   29 49.00    8.9X
        1.0s     16.00nm
LDF    151.02   6 ePKP   29 49.20    8.8X
        1.0s      9.60nm
GRR    151.14   7 ePKP   29 49.90    9.3X
        0.8s     14.50nm
CDF    151.36 356 ePKP   29 50.40    9.4X
        0.6s      3.60nm
LPF    151.47   8 ePKP   29 50.50    9.5X
        0.8s     13.40nm
HAU    151.82 357 ePKP   29 51.10    9.5X
        0.8s      6.40nm
KBA    151.84 347 iPKPd  29 51.00    9.1X
        0.7s      4.10nm
                   i     29 52.80
                   i     29 54.50
BSF    151.97 357 ePKP   29 51.40    9.4X
LOR    152.59   1 ePKP   29 53.00   10.3X
        0.8s      5.90nm
SSF    152.79   2 ePKP   29 53.70   10.7X
        0.7s      3.70nm
LBF    152.87   1 ePKP   29 53.70   10.5X
        0.8s      2.60nm
      S.D. = 1.3  on  30 of  61 obs.
-------------------------------------
   APR  02, 1989  01h 24m 11.59± 0.69s
   36.212 N ± 9.7km   28.036 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 DODECANESE ISLANDS                (369)
      MD 3.2 (ATH).

YER     0.94  12 ePn    24 29.80    0.2
KAP     0.96 227 ePb    24 29.50   -0.4
KSL     1.26  94 ePb    24 35.40    0.5
ELL     1.60  70 ePn    24 40.00   -0.1
NPS     2.19 245 ePn    24 48.90    0.4
BCK     2.40  58 ePn    24 51.00   -0.6
      S.D. = 0.6  on   6 of   6 obs.
-------------------------------------
?  APR  02, 1989  01h 59m 52.61± 4.80s
   66.006 N ±32.2km  156.407 W ±32.8km
   DEPTH =  33.0km  (normal)
 ALASKA                            (676)
      ML 3.2 (PMR).

IMA     1.12  86 iPd   00 12.30    0.2
TTA     3.09 177 eP    00 41.20    0.9
FBA     3.76 103 eP    00 49.20   -0.5
SVW     4.93 176 eP    01 05.40   -0.9
PMR     5.48 141 eP    01 13.80   -0.1
TOA     5.96 126 eP    01 21.30    0.5
      S.D. = 0.9  on   6 of   6 obs.
-------------------------------------
?  APR  02, 1989  02h 01m 04.88± 1.01s
   41.261 N ± 7.9km   20.427 E ±10.2km
   DEPTH =  10.0km  (geophysicist)

 ALBANIA                           (391)

PHP     0.43   1 ePg   01 13.60    0.0
TIR     0.43 282 ePg   01 13.70    0.0
KBN     0.70 155 ePg   01 18.70    0.0
KKS     0.81 359 ePg   01 25.00    4.4X
SDA     1.03 318 ePg   01 24.20    0.0
      S.D. = 0.1  on   4 of   5 obs.
-------------------------------------
?  APR  02, 1989  02h 41m 32.22± 2.26s
   13.595 S ±16.1km  167.773 E ±32.8km
   DEPTH =  33.0km  (normal)
   4.1mb (  1 obs.)
 VANUATU ISLANDS                   (186)

DZM     8.52 188 iPc    43 37.10    0.6
                 iS     45 14.20
VSG     9.00 298 eP     43 44.00    1.0
RMQ    21.96 231 iPc    46 27.20    2.2X
WB5    32.56 254 eP     48 01.00   -1.8
WRA    32.59 254 Pc     48 01.00   -2.0X
        0.6s      1.70nm          4.1mb
MEKA   47.75 246 eP     50 08.60    0.3
MAT    57.14 332 eP     51 18.00   -0.1
ITR   145.80 129 e(PKP) 01 13.00    2.9X
      S.D. = 1.5  on   5 of   8 obs.
-------------------------------------
   APR  02, 1989  03h 46m 19.81± 0.37s
   44.627 N ± 2.7km    7.041 E ± 4.8km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 2.3 (GEN), 2.3 (LDG).

PZZ     0.13 161 P      46 22.99   -0.1
                 S      46 25.46
FOUF    0.21 242 P      46 23.60   -0.8
                 Sg     46 25.68
RRL     0.34 328 P      46 26.91   -0.1
                 S      46 32.23
STV     0.43 152 P      46 28.30   -0.4
                 S      46 34.07
RSP     0.55  16 P      46 31.01    0.1
                 S      46 38.48
ROB     0.68 119 P      46 32.87   -0.5
                 S      46 42.17
SBF     0.82 160 Pg     46 37.00    1.3
                 Sg     46 46.70
LSD     0.83   6 P      46 36.27    0.2
                 S      46 47.30
LPG     0.89 347 Pg     46 37.20    0.0
                 Sg     46 49.60
LPL     0.92 346 Pg     46 37.60    0.1
                 Sg     46 50.00
IMI     0.94 139 P      46 37.23   -0.6
                 S      46 49.12
FRF     1.10 195 Pn     46 40.40   -0.1
                 Pg     46 41.10
                 Sg     46 56.20
LRG     1.27 203 Pg     46 43.80    0.4
                 Sg     47 01.40
LMR     1.35 197 Pg     46 45.00    0.4
                 Sg     47 04.40
      S.D. = 0.6  on  14 of  14 obs.
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*  APR  02, 1989  05h 12m 24.95± 1.13s
   17.237 N ±13.5km   62.005 W ± 9.7km
   DEPTH =  33.0km  (normal)
 LEEWARD ISLANDS                   ( 92)
      ML 3.6 (FDF).

ANG     0.19 116 eP     12 31.80    0.4
MGH     0.55 201 eP     12 36.00   -0.3
                 S      13 00.00
SKI     0.71 278 eP     12 38.60    0.1
SKDB    0.78 282 eP     12 39.39   -0.1
PAG     1.24 165 eP     12 47.30    1.2
                 S      13 19.00
DEG     1.29 135 eP     12 46.00   -0.8
BBL     1.78 163 eP     12 53.50   -0.4
      S.D. = 0.8  on   7 of   7 obs.
-------------------------------------
*  APR  02, 1989  05h 28m 19.96± 0.50s
    8.098 S ±12.2km  107.716 E ±11.2km
   DEPTH =  33.0km  (normal)
   4.6mb (  4 obs.)
 JAVA                              (277)

TRT     4.89  86 iPc    29 35.00    1.9
                 iS     30 11.40
NANU   16.23 153 eP     32 07.00   -0.1
        0.2s      3.00nm          4.1mb
                 eS     34 54.00
MBL    17.48 139 eP     32 22.00   -0.9
                 eS     35 18.00
KNA    21.94 112 eP     33 12.00   -0.6
MTN    23.50 104 iPd    33 28.10    0.2
        0.5s     25.00nm          5.0mb
WRA    28.34 117 Pc     34 12.70   -0.4
        0.5s      2.60nm          4.2mb
WB5    28.34 117 eP     34 12.60   -0.6
STK    39.38 132 iPd    35 49.50    1.1
PKI    41.52 329 P      36 07.00    0.7
DMN    41.70 329 P      36 07.80    0.0
KKN    41.76 329 P      36 08.80    0.6
GKN    42.26 329 P      36 11.40   -0.8
BUL    77.07 251 iPc    40 15.10    2.8
SUF    93.28 333 iP     41 32.00   -0.3
        0.4s      2.10nm          4.9mb
SOD    94.00 337 eP     41 34.00   -1.5
INK   107.88  20 ePdiff 42 34.00   -3.8X
YKA   117.64  21 PKP    47 03.40   -0.5
PPD   143.68 214 e(PKP) 48 02.00    7.9X
SOB1  144.32 242 ePKP   47 55.10   -0.3
LNO   144.97  34 PKPd   47 54.50   -1.3
      S.D. = 1.2  on  18 of  20 obs.
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   APR  02, 1989  06h 42m 04.57± 0.67s
   28.252 N ± 4.6km   57.315 E ± 2.1km
   DEPTH =  44.3 ±  6.5 km
   5.3mb ( 55 obs.)  4.8Msz ( 10 obs.)
 SOUTHERN IRAN                     (353)
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 14S, 24C
      Centroid Location:
      Origin Time        06:42: 9.4 0.5
      Lat 27.91N 0.06 Lon  57.25E 0.06
      Dep  42.8 BDY Half-duration  1.7
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 8.44 0.44  Mtt=-8.13 0.72
        Mff=-0.31 0.58  Mrt= 7.87 1.11
        Mrf= 2.29 1.10  Mtf=-3.85 0.55
       Principal Axes:
        T  Val= 11.62  Plg=69  Azm=350
        N        1.21      4       251
        P      -12.83     21       159
      Best Double Couple:Mo=1.2*10**17
       NP1:Strike=242 Dip=24 Slip=  81
       NP2:        72     66        94

SHI     4.42 289 eP     43 13.00    1.9
BBU     6.43 253 iPn    43 36.90   -2.3
BEE     6.45 251 iPn    43 37.70   -1.7
                 (Sn)   44 45.80
DHR     6.67 255 eP     43 41.00   -1.6
                 eS     44 52.00
MAIO    8.23  12 iPc    44 08.20    3.8X
        0.8s     71.38nm          5.7mb
                 eS     45 44.00
QUE     8.64  75 iPd    44 11.00    0.9
                 eS     45 54.00
TEH     9.00 328 eP     44 21.00    6.0X
RYD    10.21 252 iPc    44 26.60   -5.0X
BHD    12.19 297 iPd    44 58.50    0.2
                 iPP    45 04.00
                 i      46 09.00
                 iS     47 03.00
                 iSS    47 51.00
                 i      48 49.00
                 i      49 06.00
SLY    12.42 309 eP     45 02.00    0.7
                 i      45 08.50
                 i      45 15.00
                 iS     47 14.80
                 i      47 17.50
                 i      47 19.00
OASM   12.46 263 iPd    44 57.00   -4.9X
KMSA   14.07 239 iPd    45 16.40   -6.8X
MSL    14.45 308 ePd    45 24.50   -3.6X
                 e      45 28.00
                 ePP    45 34.00
                 eS     48 02.00
                 e      48 24.00
                 e      50 50.00
```

02d 06h

ABHA		16.66	236	eP	45	50.40	-6.4X	KRA		35.72	318	iP	49	00.00	-0.7					eS	56	20.00							
NDI		17.51	84	iPc	46	06.00	-1.1			0.9s		183.00nm			6.0mb					LR	07	30.00							
		1.0s		70.00nm			4.7mb					i	49	10.50			GRF		40.94	314	iPc	49	47.50	3.2X
				iS	49	07.50		GMB		35.81	297	P	49	02.80	1.0			1.1s		50.00nm			5.2mb
POO		17.98	119	iPc	46	13.70	0.7	SRO		35.91	314	iP	49	02.70	0.3			Z 22s		0.70um			4.5Msz
				iS	49	36.50						i	49	10.70			CGL		40.98	299	P	49	46.40	1.5
WAJH		18.57	268	eP	46	19.70	-0.5	HVAR		35.99	305	iPd	49	01.90	-1.2		MDI		41.18	308	P	49	46.10	-0.2
AYN		18.73	277	eP	46	21.40	-0.7	ATN		36.12	297	Pc	49	05.40	1.1		BOB		41.23	307	P	49	47.50	0.7
KSH		19.07	49	eP	46	24.50	-1.7	MGR		36.21	300	P	49	05.40	0.4		GEN		41.56	306	P	49	47.21	-2.2
	Z	14s		5.30um				PZI		36.51	295	P	49	08.30	0.6		VAI		41.84	308	P	49	50.70	-1.0
	N	10s		6.40um				GTA		36.71	61	iPc	49	09.40	0.0		COP		42.09	323	iPc	49	55.50	1.9
				pP	46	35.00	44kmX			0.6s		0.10nm			2.9mb X			1.0s		80.00nm			5.4mb
HRI		19.19	290	eP	46	26.50	-1.2		Z	16s		0.80um			4.6MszX					i	50	03.00		
DSI		19.30	285	eP	46	30.00	1.3		E	12s		0.70um					IMI		42.26	305	P	49	55.21	0.0
SRFA		19.44	277	eP	46	30.70	0.4					pP	49	18.50	31kmX		ROB		42.30	306	P	49	55.21	-0.4
HQL		19.55	278	eP	46	31.30	-0.1	ZST		36.80	314	iP	49	09.10	-0.8		ORO		42.36	308	P	49	55.50	-0.7
BADA		19.63	276	eP	46	31.40	-1.0					e	01	56.70			ORX		42.36	308	P	49	54.90	-1.3
MBH		19.68	280	iPd	46	32.50	-0.4	PTJ		36.92	310	eP	49	10.00	-1.0		SAOF		42.50	305	P	49	57.37	0.1
FAM		20.93	295	eP	46	50.00	4.2X	DUI		37.21	303	P	49	15.80	2.3		SBF		42.58	305	eP	49	57.80	-0.1
LFK		21.37	295	iP	46	33.50	-16.8X	VBY		37.31	309	ePc	49	14.70	0.6		AUTN		42.59	305	P	49	58.07	-0.2
CSS		21.47	294	eP	46	52.00	0.8	VKA		37.32	314	ePc	49	13.50	-0.8		AURF		42.66	305	P	49	58.26	-0.3
KVT		21.61	312	iP	46	53.50	0.9			1.5s		112.00nm			5.6mb		STV		42.69	306	P	49	57.88	-0.9
PPCY		22.25	294	eP	47	00.00	1.0					i(Sn)	01	11.50			TOUF		42.73	305	P	49	59.04	-0.2
HYB		22.31	114	ePc	47	00.00	0.2					iSg	01	48.30			DOI		42.77	306	P	49	58.20	-1.3
		1.0s		100.00nm			5.2mb	RFI		37.52	302	P	49	17.80	1.8		MVIF		42.79	305	P	49	59.19	-0.5
				eS	51	08.00		MCT		37.55	296	P	49	19.90	3.4X		RSP		42.82	307	P	49	57.26	-2.6
KAS		23.26	310	iPd	47	10.80	1.9	SDI		37.70	303	Pd	49	18.10	0.6		PZZ		42.87	306	P	49	58.90	-1.5
BBTK		23.32	306	iP	47	20.00	10.4X	LJU		37.92	310	eP	49	20.00	0.7		LSD		42.92	307	P	50	00.13	-0.8
BBTK		23.32	306	iPc	47	11.00	1.4	CEY		37.93	309	ePc	49	19.50	0.1		CALN		42.97	305	P	50	00.65	-0.5
GBA		23.73	124	Pc	47	14.30	0.8	AQU		38.08	304	P	49	22.50	1.7		FOUF		43.10	306	P	50	01.69	-0.3
		0.6s		2.80nm			3.9mb X	KSP		38.17	318	iPc	49	21.20	-0.2		FRF		43.13	305	eP	50	01.70	-0.6
GKN		24.08	84	P	47	18.40	1.3			1.2s		72.00nm			5.4mb				0.9s		37.30nm			5.1mb
BCK		24.19	299	eP	47	19.50	1.5					i	49	31.30			RRL		43.13	307	P	50	01.57	-1.0
DMN		24.54	85	P	47	22.80	1.0	VOY		38.35	309	iPc	49	22.60	-0.5		LPG		43.21	307	eP	50	02.50	-0.8
ELL		24.56	297	iP	47	23.30	1.7	TRI		38.37	309	eP	49	22.60	-0.5		BNI		43.22	307	P	50	02.50	-0.7
KKN		24.67	84	P	47	24.00	1.1	RDP		38.52	302	P	49	26.00	1.5		CDF		43.23	312	eP	50	01.80	-1.3
KSL		24.69	296	eP	47	23.40	0.7	ARV		38.57	305	Pc	49	25.30	0.5				0.8s		5.30nm			4.3mb
PKI		24.82	85	P	47	25.20	0.7	MNS		38.61	303	Pd	49	25.80	0.6		SOD		43.30	343	iP	50	03.90	0.6
ALT		24.99	303	eP	47	26.70	1.0	RBL		38.66	310	Pc	49	25.40	-0.2		LRG		43.33	304	eP	50	03.40	-0.5
GUN		25.18	84	P	47	28.60	0.7	ASS		38.71	305	Pd	49	26.80	0.7				0.9s		30.70nm			5.0mb
KHL		25.23	301	iP	47	28.50	0.6	KBA		38.95	311	iPc	49	27.80	-0.4		HFS		43.34	330	eP	50	03.10	-0.6
GPA		25.24	305	iP	47	28.80	0.8			1.2s		89.60nm			5.5mb				1.1s		33.80nm			5.0mb
HRT		25.88	306	eP	47	33.50	-0.5					i	49	35.70				Z	19s		0.76um			4.6Msz
YER		25.91	297	eP	47	34.60	0.3					i	49	38.20							LR	09	33.00		
KOD		26.06	129	eP	47	38.00	1.9					i	50	42.30			BSF		43.46	311	eP	50	03.90	-1.2
DST		26.25	303	iP	47	37.80	0.4					e	59	48.00					0.8s		13.40nm			4.7mb
KAP		26.53	294	eP	47	41.30	1.3	PRU		38.95	316	Pc	49	27.50	-0.4		GYA		43.63	80	P	50	06.00	-0.7
IZM		26.97	300	eP	47	45.30	1.3					e	49	35.90				E	16s		0.60um			
NPS		27.77	293	eP	47	52.00	0.8	RSM		38.98	306	P	49	29.40	1.2						pP	50	16.00	34kmX
PRK		27.92	301	eP	48	03.20	10.7X	NUR		39.04	335	iP	49	28.50	0.0						PP	51	50.00	
EZN		28.02	302	eP	47	53.00	-0.4		Z	19s		1.30um			4.8Msz						S	56	34.00	
JMB		28.62	308	iP	48	00.00	1.2					LR	10	20.00			HAU		43.78	311	eP	50	06.30	-1.2
WMQ		28.86	49	P	48	01.50	0.4	CHG		39.14	95	eP	49	30.00	0.1				0.7s		17.60nm			4.9mb
	Z	21s		4.50um			5.1Msz			1.0s		10.50nm			4.6mb		WLF		44.16	313	P	50	09.70	-0.8
	E	10s		0.90um				CHTO		39.14	95	eP	49	29.80	-0.1						e	50	20.60	
				pP	48	12.50	41kmX			1.0s		9.50nm			4.6mb		XAN		44.17	69	iPc	50	09.60	-1.3
VAM		28.93	293	eP	48	02.00	0.3	FVI		39.22	310	P	49	29.90	-0.3		WTS		44.19	317	eP	50	11.20	0.5
RDO		28.95	305	iPd	48	02.40	0.6	CRE		39.30	305	P	49	32.00	1.0				1.0s		29.00nm			5.0mb
DIM		29.22	307	iPc	48	05.00	0.8	KHC		39.31	314	iPc	49	30.50	-0.4						e	50	22.00	
LSA		29.58	79	P	48	08.80	0.7			1.2s		102.00nm			5.5mb		MEM		44.41	315	Pc	50	13.00	0.4
	E	12s		1.00um								e	49	38.80							e	50	21.00	
				eS	53	02.00		SFI		39.41	306	P	49	33.40	1.6		WIT		44.46	318	eP	50	13.50	0.6
ATH		29.63	298	eP	48	13.20	5.3X	PGD		39.50	306	P	49	34.40	1.7						e	50	23.50	
PVL		29.73	309	iP	48	10.00	1.2	FIR		39.82	305	eP	49	35.00	-0.1		ENN		44.49	315	eP	50	13.50	0.3
PLD		29.83	306	eP	48	10.00	0.4	LZH		39.85	67	iPc	49	36.00	0.3				1.2s		69.00nm			5.3mb
VRI		29.83	314	ePc	48	10.00	0.3			1.0s		167.00nm			5.8mb						e	50	22.40	
MLR		30.17	313	ePd	48	14.50	1.6		Z	20s		1.10um			4.7Msz		BTO		44.58	60	eP	50	15.00	0.8
NEO		30.24	300	eP	48	07.60	-5.8X		E	12s		0.50um						Z	17s		2.30um			5.2MszX
PLG		30.29	302	iPd	48	14.90	1.0	CTI		39.89	309	P	49	35.70	-0.2			N	15s		0.04um			
MMB		30.38	305	iPd	48	15.00	0.4	SUF		40.03	338	iP	49	37.10	0.5			E	17s		1.80um			
CMP		30.67	312	ePc	48	22.00	4.9X	MME		40.27	306	P	49	39.90	0.7						pP	50	25.00	34kmX
ITM		30.93	296	eP	48	18.50	-1.0	CLL		40.29	317	iPc	49	39.10	0.2		NAO		44.92	330	P	50	15.60	-0.9
VTS		31.03	307	iP	48	21.00	0.6			1.5s		130.00nm			5.5mb				0.9s		12.60nm			4.8mb
KZN		31.53	302	eP	48	24.90	0.1					i	49	47.00			KEV		45.05	346	iP	50	17.80	0.4
VLS		32.10	298	eP	48	28.50	-1.2	BDI		40.33	306	Pc	49	38.90	-0.5				0.7s		24.00nm			5.2mb
KBN		32.31	302	iPd	48	32.70	1.3	PII		40.34	305	P	49	39.00	-0.4		DOU		45.22	314	Pc	50	19.90	0.8
BMR		32.60	316	ePc	48	37.00	3.0X	KMI		40.53	84	Pc+	49	42.00	0.5						PcP	51	58.90	
SRN		32.79	301	eP	48	35.80	0.1		Z	18s		0.90um			4.7Msz		LBF		45.26	309	eP	50	18.90	-0.6
PHP		32.80	304	iPd	48	35.20	-0.5					pP	49	48.00	20kmX				1.0s		38.00nm			5.2mb
BERA		32.97	302	iPc	48	37.00	-0.2					sP	49	51.50			SMF		45.33	309	eP	50	19.30	-0.7
BZS		33.04	311	eP	48	37.00	-0.8					S	55	48.00			LOR		45.37	310	eP	50	19.40	-0.9
TIR		33.15	303	eP	48	38.00	-0.8					sS	56	02.00					1.0s		32.00nm			5.2mb
BEO		33.58	309	eP	48	41.50	-1.0	SAL		40.59	308	Pd	49	42.00	0.6		UCC		45.48	315	P	50	22.60	1.6
PSZ		34.94	314	eP	48	54.30	0.0	MOX		40.94	316	ePc	49	44.00	-0.3						e	50	29.40	
SPC		35.20	317	eP	48	56.60	0.0			1.4s		31.00nm			4.8mb		SNF		45.48	314	P	50	20.60	-0.5
GRI		35.42	298	P	48	58.90	0.5		Z	30s		1.00um			4.5MszX						e	50	29.30	
TDS		35.56	299	Pc	49	01.40	1.8					e	49	53.50			SSF		45.59	309	eP	50	21.60	-0.4

		1.0s	58.00nm		5.4mb		KBS	54.42	350	eP	51 29.00	0.0		BSF	1.60	292	Pn	59 29.11	-0.1
	AVF	45.67	309	eP	50 21.80	-0.9		SNY	54.67	57	iPc	51 29.60	-1.7				Pg	59 31.59	
		1.2s	66.60nm		5.4mb			SSE	54.88	70	Pc	51 32.00	-1.0		CDF	1.64	316	Pn	59 29.92	0.2
	HHC	45.75	59	Pc	50 24.20	0.7			1.0s		32.00nm		5.3mb		ORX	1.76	204	P	59 31.00	-0.5
	Z	18s	1.20um		4.9Msz				Z 18s		0.70um		4.8Msz					S	59 53.84	
	ETER	45.88	303	eP	50 25.00	0.6			E 14s		0.40um				ORO	1.76	204	P	59 35.00	3.4X
	BGF	46.01	309	eP	50 24.70	-0.6					pP	51 44.20	43kmX					eSn	59 53.30	
		1.0s	40.80nm		5.3mb						e(S)	59 20.00			HAU	1.94	294	Pn	59 34.00	-0.1
	RGS	46.05	332	eP	50 26.00	0.7		BUL	55.54	213	iPd	51 38.60	0.6					Pg	59 39.50	
	MAF	46.18	308	eP	50 26.40	-0.3		CN2	55.76	54	Pc	51 38.00	-1.2					Sg	00 04.40	
		1.0s	48.00nm		5.4mb				Z 18s		1.80um		5.2Msz		SAL	1.95	146	P	59 33.60	-0.5
	TCF	46.43	308	eP	50 28.30	-0.4			E 12s		0.60um				GWF	1.96	333	Pn	59 34.41	0.1
		1.2s	74.30nm		5.5mb						pP	51 48.00	33kmX					Pg	59 39.07	
	CAF	46.48	306	eP	50 29.10	0.0		MDJ	58.57	53	eP	51 57.00	-2.0		CTI	2.19	122	P	59 37.70	0.0
	TIY	46.61	64	Pc	50 30.30	0.0		AKU	58.63	332	iP	52 00.10	0.9		LSD	2.19	216	P	59 40.69	2.8
		0.8s	0.10nm		2.8mb X				0.8s		17.91nm		5.2mb					S	00 08.61	
	N	16s	1.20um					KOGH	58.65	259	eP	51 52.00	-8.1X		VITF	2.25	297	Pn	59 38.40	-0.1
			pP	50 39.50	31kmX			KUK	58.71	259	eP	51 56.00	-4.5X		LPL	2.33	223	Pn	59 39.40	-0.5
			eS	57 21.50				LEGH	58.81	259	eP	51 53.00	-8.2X					Pg	59 46.40	
	RJF	46.88	307	eP	50 32.30	0.1		KIC	62.44	262	P	52 24.68	-1.2					Sg	00 13.20	
		1.0s	124.00nm		5.8mb			TIC	62.55	263	P	52 25.26	-1.3		LPG	2.34	222	Pn	59 39.60	-0.4
	LSF	46.90	308	eP	50 31.80	-0.6		LIC	62.75	262	P	52 26.68	-1.2					Pg	59 46.00	
		1.2s	32.70nm		5.2mb			TSRJ	65.55	61	P	52 44.80	-1.1					Sg	00 14.20	
	TRO	46.91	343	iP	50 31.98	-0.1		ALE	65.83	353	ePc	52 46.90	-0.1		RSP	2.42	211	P	59 43.00	2.1
	LPO	47.10	306	eP	50 33.90	-0.1			1.0s		38.00nm		5.4mb					S	00 13.46	
		1.0s	68.00nm		5.6mb			MTMJ	66.63	60	P	52 51.40	-1.5		FVI	2.68	103	P	59 47.30	2.8
	LFF	47.42	306	eP	50 36.40	-0.1		MAT	66.95	60	eP	52 53.00	-1.8		BNI	2.72	217	P	59 50.00	4.7X
		1.0s	132.00nm		5.9mb				1.1s		41.77nm		5.4mb		RRL	2.79	214	P	59 48.30	2.0
	EBR	47.70	301	eP	50 40.00	1.3		IIDJ	67.06	61	eP	52 52.60	-3.0X					S	00 20.84	
	MFF	48.07	309	eP	50 40.60	-1.0		NIIJ	67.32	59	eP	52 55.30	-1.8		GRF	2.86	30	ePg	59 48.20	1.0
		1.2s	32.10nm		5.2mb			CHJJ	67.71	60	P	52 57.80	-1.8					e(Sn)	00 06.80	
	LDF	48.14	311	eP	50 40.80	-1.2		MKS	68.42	109	ePc	53 04.00	-0.3					eSg	00 17.60	
		0.6s	14.40nm		5.2mb			KAKJ	68.55	60	eP	53 01.60	-3.2X		KBA	2.98	92	eP	59 48.00	-0.9
	FLN	48.38	312	eP	50 43.10	-0.8		MBC	75.74	359	ePc	53 46.80	0.1					iPg	59 53.50	
		0.8s	18.80nm		5.2mb				0.9s		29.00nm		5.2mb					i	59 55.70	
	GRR	48.61	311	eP	50 44.80	-0.9		BRW	77.88	11	eP	53 59.30	0.6					i	59 56.90	
		1.0s	20.00nm		5.1mb			MTN	82.20	109	iPd	54 23.70	1.1					iSn	00 18.20	
	QIZ	48.67	89	eP	50 47.40	0.8			0.8s		51.00nm		5.6mb					iSg	00 30.70	
	LPF	48.72	311	eP	50 45.70	-0.8		IMA	83.03	12	eP	54 26.50	0.1		WLF	3.07	323	Pn	59 50.60	0.6
		0.8s	9.10nm		4.9mb				1.1s		23.40nm		5.2mb					i	59 59.40	
	ECHE	48.91	299	eP	50 49.00	0.8		INK	83.40	4	eP	54 28.00	0.0		RBL	3.24	103	P	59 54.90	2.3
	PTZ	49.17	214	P	50 50.40	0.0					pP	54 43.00	52kmX		BDI	3.38	160	P	59 53.50	-1.1
	WHN	49.29	73	P	50 51.00	-0.1		SCH	84.39	331	eP	54 33.00	-0.3		LBF	3.43	267	Pn	59 55.20	-0.1
	Z	16s	1.20um		5.0MszX			FBA	85.12	10	eP	54 36.90	0.1					Pg	00 06.40	
	N	10s	0.30um					TTA	85.33	15	eP	54 38.70	0.7					Sg	00 49.00	
	E	10s	0.41um					WARB	85.80	123	eP	54 35.00	-5.8X		LOR	3.50	272	Pn	59 56.40	0.2
	BJI	49.31	60	eP	50 51.00	-0.2		PMR	87.95	12	eP	54 50.80	0.1					Pg	00 06.80	
	Z	18s	1.50um		5.0Msz				1.2s		46.90nm		5.6mb					Sg	00 51.00	
	N	10s	0.30um					WRA	88.47	113	Pd	54 55.10	1.3		SBF	3.55	198	Pn	59 57.40	0.3
			e	52 13.00					0.7s		17.90nm		5.5mb					Sn	00 34.60	
	EVIA	50.20	298	eP	50 58.00	-0.2		YKA	89.34	356	eP	54 58.40	1.1		SMF	3.58	262	Pn	59 57.20	-0.1
	TIA	50.52	65	Pc	50 59.70	-0.8		YKC	89.35	356	ePc	54 58.00	0.7					Pg	00 07.80	
	N	15s	0.80um						1.0s		26.00nm		5.5mb					Sn	00 34.20	
	EKA	50.59	320	Pd	50 59.70	-1.0		ASPA	90.02	117	eP	55 02.00	0.9					Sg	00 54.00	
		0.7s	8.00nm		4.8mb				0.7s		18.00nm		5.5mb		VOY	3.59	108	ePn	59 57.20	-0.4
	TAF	50.69	293	iPd	51 03.00	1.1		KDC	90.75	15	eP	55 04.20	0.3					e(Sn)	00 46.30	
			i	51 28.00				QIS	93.06	112	eP	55 15.00	-0.1		KHC	3.60	57	iPn	59 55.20	-2.5
	AFC	51.20	297	eP	51 05.00	-0.8		GAC	94.82	329	eP	55 23.00	0.1					Pg	00 03.40	
	GUD	51.23	301	iPd	51 06.10	0.1		FFC	95.46	348	eP	55 25.50	-0.2					Sn	00 36.80	
	TOL	51.24	300	iPd	51 06.00	0.1			1.1s		17.00nm		5.4mb					Sg	00 52.00	
		1.0s	60.00nm		5.6mb			EDM	98.47	354	ePc	55 39.70	0.3		TRI	3.64	113	ePd	00 53.50	55.3X
	EBAN	51.26	298	eP	51 06.00	-0.1		ZOBO	128.49	271	PKP	01 10.00	0.4		SSF	3.75	269	Pn	59 59.70	-0.1
	LSZ	51.65	217	eP	51 10.00	0.7		LPB	128.57	271	PKP	01 11.00	1.4					Pg	00 12.40	
	MAL	51.97	296	iPd	51 11.00	-0.4		ARE	131.54	273	ePKP	01 15.00	-0.1					Sg	00 59.00	
	ETA	52.19	316	eP	51 12.30	-0.6			S.D. = 0.9		on 260 of 284 obs.				MOX	3.82	26	ePn	00 04.00	3.2X
	ECP	52.28	316	eP	51 11.40	-2.1		----------										ePg	00 17.00	
	DLE	52.42	317	eP	51 15.50	0.9		APR 02, 1989 06h 59m 00.66± 0.38s										iSg	01 05.00	
	EHOR	52.45	298	eP	51 14.00	-1.1		47.245 N ± 4.2km 8.991 E ± 3.9km							AVF	3.88	265	Pn	00 00.80	-0.9
	EPRU	52.58	296	eP	51 14.50	-1.6		DEPTH = 10.0km (geophysicist)										Pg	00 16.60	
	DMU	52.66	318	eP	51 16.80	0.4		SWITZERLAND					(544)					Sg	01 02.20	
	NJ2	52.72	70	Pd	51 16.60	-0.5		ML 3.3 (GRF), 3.2 (LDG), 3.2							MEM	3.90	331	iPnd	00 01.70	-0.1
	N	13s	0.40um					(KBA). MD 3.0 (STR).							LJU	4.00	105	e(Pn)	00 12.60	9.3X
	E	15s	0.60um															e(Sn)	00 53.00	
			pP	51 28.00	39kmX		FEL	0.91	314	Pn	59 19.40	1.2		ENN	4.06	331	ePn	00 03.50	-0.6
	LIJA	52.73	296	eP	51 20.00	2.7					Pg	59 19.84				0.8s	30.00nm			
	EPLA	52.76	300	eP	51 17.20	-0.2		BBS	1.03	283	Pn	59 21.17	1.0					iSn	00 53.00	
	SRQ	52.81	296	eP	51 17.00	-0.8					Pg	59 21.85			DOU	4.08	316	Pn	00 03.80	-0.5
	EJIF	52.85	296	eP	51 17.00	-1.1					Sg	59 37.00						Sn	00 53.00	
	DCN	52.86	317	eP	51 18.40	0.6		VAI	1.39	186	Pd	59 24.00	-2.0		SNF	4.51	318	Pnc	00 11.00	0.5
	ALJ	52.92	296	eP	51 18.50	-0.2					eSn	59 41.50			PRU	4.59	51	ePn	00 26.50	14.8X
	OJEN	52.97	295	eP	51 19.50	0.5		MOF	1.40	296	Pn	59 26.39	0.1					e	01 21.50	
	MOMI	53.08	296	eP	51 19.00	-0.7					Pg	59 28.16						Sg	01 28.00	
	PLAT	53.14	296	eP	51 20.00	-0.2					Sg	59 48.16			VBY	4.67	110	e(Pn)	00 25.20	12.3X
	IFR	53.15	292	iP	51 13.00	-7.5X		LOMF	1.48	275	Pn	59 27.33	0.0					e(Sn)	01 07.20	
			i	51 21.00							Pg	59 29.19			TCF	4.76	261	Pn	00 12.80	-1.3
	ERUA	53.27	303	eP	51 21.00	0.0					Sg	59 50.59						Sn	01 03.60	
	CNIL	53.33	296	eP	51 20.00	-1.5		MDI	1.55	161	P	59 26.20	-2.1		CLL	4.84	31	(Pg)	00 59.00	43.7X

02d 07h

		eSg	01 35.00		
KSP	6.00	50 eP	01 01.00	29.4X	
		eS	02 01.50		
		e	02 13.00		
GRR	6.73	283 Pn	00 39.60	-2.3	
S.D. = 1.3		on 39 of 48 obs.			

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* APR 02, 1989 07h 21m 26.25± 0.95s
29.587 S ±10.2km 68.073 W ±11.6km
DEPTH = 150.0 ± 14.3 km
SAN JUAN PROVINCE, ARGENTINA (137)

CFA	2.02	184 iPd	21 01.50	-60.5X	
ZON	2.02	195 iPc	21 39.60	-22.5X	
CYA	2.30	61 iPc	22 04.70	-0.7	
JACH	3.77	214 ePd	22 35.00	10.8X	
FCH	4.18	206 iPd	22 39.50	9.6X	
SAN	4.44	209 iPd	22 40.20	7.1X	
PCH	4.53	207 iPd	22 41.50	7.2X	
TACH	4.73	210 iPd	22 41.10	4.2X	
RFA	5.18	184 iPc	22 20.30	-22.7X	
LNV	5.20	212 iPd	22 43.20	0.1	
SLA	5.36	26 ePc	22 46.50	1.1	
LPB	12.99	360 P	24 30.00	3.2X	
		eLR	51 20.00		
ZOBO	13.26	360 P	24 30.00	-0.3	
Z 20s		0.38um			
		LR	52 04.00		
ARE	13.44	346 iPc	24 32.00	-0.4	
PPD	16.85	67 eP	25 14.20	-0.5	
		e	25 16.60		
VAO	20.01	76 eP	25 47.90	-1.4	
		e	26 11.90		
ITA	22.18	77 eP	26 12.60	1.5	
		e	26 34.80		
BAO	23.11	57 eP	26 20.50	0.6	
S.D. = 1.2		on 9 of 18 obs.			

? APR 02, 1989 09h 21m 21.07± 2.47s
43.974 N ±16.0km 149.062 E ±22.9km
DEPTH = 33.0km (normal)
3.9mb (1 obs.)
KURIL ISLANDS REGION (222)

KUSJ	3.28	256 P	22 10.10	-1.3	
		S	22 40.70		
HOOJ	4.51	251 P	22 29.70	0.9	
		S	23 14.60		
ASAJ	4.63	274 eP	22 30.90	0.4	
MRRJ	6.04	258 eP	22 50.40	0.0	
		eS	23 52.40		
AOMJ	7.29	245 eP	23 08.00	0.1	
OFUJ	7.39	231 eP	23 09.60	0.2	
		eS	24 25.80		
YAMJ	8.94	233 eP	23 31.50	0.6	
MAT	11.12	232 eP	24 00.00	-0.8	
CHTO	48.68	255 e(P)	30 04.30	0.2	
0.7s		0.79nm	3.9mb		
KKN	52.88	275 P	30 36.00	-0.2	
S.D. = 0.7		on 10 of 10 obs.			

APR 02, 1989 09h 25m 21.47± 0.43s
8.846 S ± 5.1km 127.134 E ± 9.9km
DEPTH = 33.0km (normal)
4.9mb (5 obs.)
TIMOR (289)

KUPT	3.71	249 eP	26 37.50	19.6X	
		eS	27 14.50		
MTN	5.59	136 eP	26 49.10	4.6X	
KNA	7.04	167 eP	27 05.00	0.0	
0.3s		30.00nm	5.7mb X		
		eS	28 24.00		
MKS	8.42	295 ePd	27 25.00	0.9	
WB5	13.01	148 eP	28 24.70	-2.1X	
		iS	30 45.20		
WRA	13.05	148 Pd	28 25.50	-1.8X	
0.6s		19.80nm	5.3mb		
MBL	14.12	209 eP	28 36.00	-5.3X	
ASPA	16.10	157 iPc	29 06.30	-0.8	
QIS	16.75	135 eP	29 15.00	-0.3	
		eS	32 15.00		
WARB	17.25	181 eP	29 14.00	-7.6X	
		eS	32 18.00		
NANU	17.61	218 eP	29 24.50	-1.6	
PMG	19.78	93 eP	30 00.00	8.1X	
CTA	21.60	123 iPc	30 16.30	5.6X	
1.0s		14.00nm	4.3mb		
		e	30 23.00		
		e	34 08.00		
		e	34 21.50		
		eS	34 44.00		
		i	34 56.00		
		e(ScP)	36 52.00		
		iPcS	37 07.90		
		e	39 04.00		
FORR	21.91	178 eP	30 14.50	0.8	
0.5s		22.00nm	4.8mb		
COOL	22.63	193 eP	30 21.00	0.1	
MRWA	22.81	206 eP	30 23.00	0.4	
BAL	23.74	203 eP	30 32.50	0.8	
KLB	24.25	200 eP	30 37.00	0.3	
MUN	25.16	202 eP	30 46.00	0.7	
NWAO	25.65	200 eP	30 50.00	0.0	
ADE	28.08	160 e(P)	31 23.00	10.8X	
TOO	33.07	153 eP	32 08.00	11.7X	
BDT	38.02	313 eP	32 37.30	-1.2	
CHTO	39.09	315 eP	32 47.30	-0.3	
1.2s		13.50nm	4.6mb		
		pP	32 54.90	26kmX	
GYA	40.33	331 P	32 59.00	1.1	
		pP	33 06.60	26kmX	
KMI	41.29	325 Pd	33 07.50	1.6	
		pP	33 15.00	25kmX	
NJ2	41.43	349 Pd	33 08.40	1.8	
CD2	45.44	331 eP	33 39.40	0.1	
XAN	46.02	339 eP	33 42.10	-1.7	
LZH	49.78	335 eP	35 14.00	60.7X	
1.5s		44.00nm			
GUN	54.10	314 P	34 44.80	-1.2	
0.5s		12.00nm	5.2mb		
PKI	54.24	313 P	34 46.20	-0.8	
GTA	54.29	334 eP	34 47.00	0.0	
DMN	54.48	313 P	34 48.20	-0.5	
GKN	55.04	313 P	34 52.20	-0.6	
WMQ	63.45	329 P	35 50.10	-0.4	
MAIO	77.66	310 iPd	37 17.50	0.8	
ALQ	124.68	54 ePKP	44 24.00	3.9X	
ARE	148.82	144 e(PKP)	45 13.00	8.4X	
LPB	150.62	149 PKP	45 07.40	0.0	
		e	45 18.00		
ZOBO	150.83	149 PKP	45 18.30	10.3X	
S.D. = 0.9		on 27 of 41 obs.			

? APR 02, 1989 09h 29m 35.24± 6.22s
34.470 N ±42.4km 140.178 E ±30.3km
DEPTH = 10.0km (geophysicist)
NEAR EAST COAST OF HONSHU, JAPAN(228)
MG 2.8 (JMA). Felt (I JMA) at Tateyama.

TAT	0.57	334 eP	29 47.00	0.2	
		iS	29 51.30		
KAKJ	1.73	360 iPd	30 05.60	0.1	
		S	30 22.50		
CHJJ	1.85	329 P	30 06.20	-1.0	
		eS	30 24.00		
IIDJ	2.12	299 iPd	30 11.40	0.2	
		S	30 33.10		
MAT	2.62	323 eP	30 19.00	0.7	
		eS	30 43.00		
MTMJ	2.86	318 eP	30 21.40	-0.5	
S.D. = 0.8		on 6 of 6 obs.			

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* APR 02, 1989 10h 30m 13.90± 0.67s
35.297 N ±14.5km 46.507 E ± 9.5km
DEPTH = 5.0km (geophysicist)
4.3mb (2 obs.)
IRAN-IRAQ BORDER REGION (346)

SLY	0.88	290 iPgd	30 30.00	-1.2	
KER	1.06	152 ePd	30 34.00	-0.5	
BHD	2.68	222 ePnd	31 03.00	4.6X	
		iSn	31 35.50		
		iS*	31 39.50		
MSL	2.94	293 ePnc	31 03.00	0.9	
		iP*	31 07.50		
		ePg	31 13.00		
		iSn	31 39.50		
		iSg	31 51.50		
TEH	4.00	82 eP	31 28.00	10.6X	
MAIO	10.60	81 eP	32 48.00	-1.6	
MLR	18.63	309 eP	34 34.00	-0.3	
SPC	23.74	314 eP	35 29.40	1.6	
ZST	25.27	310 eP	35 42.30	-0.1	
KSP	26.75	315 eP	35 56.50	0.4	
KBA	27.39	306 eP	36 02.00	-0.2	
1.2s		5.20nm	4.2mb		
		e	03 01.50		
		e	03 43.00		
KHC	27.78	310 eP	36 05.50	-0.1	
HFS	32.64	330 eP	36 45.90	-2.6	
0.5s		2.30nm	4.4mb		
GKN	33.11	92 P	36 53.40	0.2	
DMN	33.65	92 P	37 01.20	3.2X	
KKN	33.72	92 P	37 00.20	1.6	
YKA	81.37	351 P	42 34.50	2.0	
S.D. = 1.4		on 14 of 17 obs.			

APR 02, 1989 10h 35m 57.15± 0.33s
11.063 N ± 5.5km 85.352 W ± 4.5km
DEPTH = 70.0 ± 4.3 km
5.0mb (26 obs.)
NICARAGUA (75)
MD 5.2 (HDC). Felt (V) ot Ploya Hermosa and Playa del Coco; (IV) at Nicoya ond Santa Cruz; (III) ot Puntarenas; (II) at Atenas and Los Chiles, Costa Rica. Felt at San Jose and in southern Costa Rica. Felt (III) at Monagua, Nicaragua.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 29C
Centroid Lacatian:
Origin Time 10:36: 1.8 0.6
Lat 10.98N 0.07 Lon 85.26W 0.08
Dep 80.5 9.3 Half-duration 1.8
Moment Tensor; Scale 10**16 Nm
Mrr=-1.00 0.71 Mtt= 0.75 1.09
Mff= 0.25 1.42 Mrt= 9.58 0.73
Mrf=-7.74 0.68 Mtf=-3.43 0.96
Principal Axes:
T Val= 14.02 Plg=39 Azm= 41
N -2.90 2 309
P -11.11 51 216
Best Dauble Cauple:Mo=1.3*10**17
NP1:Strike=150 Dip= 6 Slip= -69
NP2: 309 84 -92

RIN3	0.27	186 iPd	36 06.30	-2.1	
		S	36 16.00		
JTS	0.86	153 iPd	36 12.30	-1.9	
VACR	0.88	131 iPd	36 15.60	1.1	
JUD	0.92	192 iPc	36 07.80	-7.1X	
		S	36 17.70		
SRA	1.32	138 iPc	36 20.10	-0.1	
POA2	1.40	129 iPd	36 22.70	1.3	
VPS2	1.40	128 iPc	36 22.90	1.4	
HDC2	1.58	131 iPd	36 25.30	1.5	
		S	36 49.60		
SJS	1.70	131 iPc	36 26.30	1.0	
		S	36 59.90		
IRZ2	1.80	127 iPd	36 28.30	1.4X	
ICR	1.84	126 iPc	36 29.00	1.4	
LCR2	1.87	135 iPc	36 28.00	0.3	
QCR	1.99	144 iPc	36 28.20	-1.1	
QPS	2.04	144 ePc	36 28.40	-1.5	
BUS	2.17	134 iPc	36 32.50	0.4	
IDC	2.75	148 ePc	36 37.80	-2.1	
TIG	2.86	135 ePd	36 41.40	0.0	
ACR	3.22	138 eP	36 47.00	0.6	
CTCR	3.34	130 ePc	36 48.00	-0.3	
PBC	3.48	139 ePd	36 49.20	-0.9	
UPA	6.09	109 iPd	37 29.30	2.7X	
1.0s		112.00nm	5.2mb X		
		i(S)	38 41.00		
TPX	7.74	300 (P)	37 49.00	-0.5	
		iS	39 16.00		
GCM	9.03	25 P	38 14.45	7.3X	
OXX	12.55	300 (P)	38 54.50	-0.3	
		iS	41 16.50		
PSO	12.64	140 eP	38 57.00	0.8	
BOG	12.88	119 eP	39 08.00	8.7X	
		eS	41 50.00		
IISM	14.03	306 (P)	39 09.00	-5.0X	
		eS	41 52.00		
IIT	14.80	304 (P)	39 26.00	1.7	
ACX	15.21	294 (P)	39 30.00	0.6	
IIC	15.95	305 (P)	39 45.00	5.9X	

CRX	16.11	303 (P)	39	43.50	2.4X
HBF	22.24	11 P	40	53.00	3.7X
SGS	22.47	11 P	40	57.00	5.5X
PRM	23.08	6 P	41	02.00	4.6X
JSC	23.41	9 P	41	05.40	4.8X
LHS	23.67	9 P	41	07.20	4.0X
PWLA	23.94	355 P	41	07.40	1.6
NNA	24.41	159 eP	41	11.30	0.7
RSCP	24.43	360 P	41	13.20	2.6X
	0.9s	96.64nm			5.3mb
GBTN	24.51	2 P	41	14.50	3.1X
TKL	24.53	3 P	41	14.40	2.9X
OLY	24.96	348 P	41	15.40	-0.1
ELC	26.34	353 P	41	28.40	0.1
BLA	26.41	9 P	41	32.00	2.9X
	1.4s	150.54nm			5.3mb
NAV	26.46	8 P	41	32.30	2.8X
LNO	26.49	341 Pd	41	29.50	-0.1
FVM	27.19	351 P	41	35.50	-0.6
CVL	27.51	12 P	41	41.80	2.8X
CBN	27.96	13 iPd	41	46.50	3.5X
	1.1s	60.00nm			5.1mb
CLE	30.49	6 iP	42	07.10	1.5
ALQ	30.56	324 eP	42	05.50	-1.1
	1.1s	39.56nm			5.1mb
Z	20s	0.62um			4.3Msz
ARE	30.59	153 eP	42	08.00	0.9
ZOBO	32.06	148 P	42	20.90	0.6
Z	22s	1.03um			4.5Msz
		S	47	40.00	
		LR	53	24.00	
LPB	32.30	148 P	42	23.00	0.8
Z	20s	1.42um			4.7Msz
		e	53	23.00	
GLD	33.57	332 P	42	32.30	-0.5
	1.3s	80.46nm			5.4mb
GOL	33.60	331 P	42	32.30	-0.9
GLA	34.79	314 eP	42	43.00	-0.2
GAC	35.54	12 eP	42	51.00	1.7
ATB	35.91	112 Pc	42	52.90	0.1
PLM	36.41	313 eP	42	58.00	1.0
PEC	36.89	313 P	43	01.60	0.7
RVR	37.10	313 eP	43	03.00	0.4
DAU	37.12	326 P	43	03.80	0.7
GSC	37.38	315 eP	43	05.00	0.0
MWC	37.70	313 eP	43	09.00	1.1
PAS	37.75	313 eP	43	09.00	0.9
SBB	37.77	314 eP	43	09.00	0.7
DUG	37.84	325 P	43	09.40	0.5
BW06	37.98	331 P	43	09.20	-1.0
	1.1s	34.23nm			5.2mb
CLC	38.20	315 eP	43	12.00	0.1
ISA	38.73	315 eP	43	17.00	0.7
TNP	39.19	319 P	43	20.90	0.5
	1.1s	48.70nm			5.3mb
EUR	39.24	321 iP	43	21.00	0.3
	0.3s	28.46nm			5.7mb
IMW	39.49	331 P	43	21.80	-1.0
MNA	40.00	319 eP	43	28.20	1.3
PHAM	40.17	314 P	43	29.00	0.8
FRI	40.26	316 eP	43	28.20	-0.7
		ePcP	45	31.10	
RSON	40.27	352 P	43	27.20	-1.6
KVN	40.31	319 P	43	30.00	0.4
HPI	40.42	329 P	43	30.50	0.0
PRI	40.51	314 eP	43	31.10	0.0
SLA	40.51	152 ePd	43	31.90	0.7
LLA	40.93	314 eP	43	34.10	-0.3
		ePcP	45	34.20	
		eScP	49	21.00	
BGMT	41.00	331 eP	43	35.30	0.1
PRS	41.10	314 eP	43	35.60	-0.2
		ePcP	45	35.00	
CMB	41.26	317 ePc	43	37.30	0.1
		ePcP	45	35.20	
		eScP	49	21.80	
SAO	41.36	314 e(P)	43	37.60	-0.3
LRM	41.63	331 eP	43	40.80	0.4
ARN	41.70	315 P	43	41.50	0.7
GCC	41.87	314 eP	43	42.20	0.1
PCC	42.37	315 eP	43	46.50	0.4
BKS	42.45	315 ePc	43	47.60	0.8
	1.3s	103.00nm			5.5mb
Z	20s	0.40um			4.3Msz
N	20s	1.10um			
E	20s	1.00um			
BRK	42.46	315 eP	43	47.50	0.6
ORV	42.80	318 eP	43	50.10	0.4
MIN	43.28	319 eP	43	52.80	-1.0
WDC	44.01	319 ePc	43	56.80	-2.7X
		ePcP	45	43.20	
SES	44.55	337 eP	44	04.00	0.3
		pP	44	28.00	102kmX
FHC	45.07	318 eP	44	08.00	0.0
FFC	45.50	347 eP	44	10.50	-0.6
	0.7s	10.00nm			4.8mb
BAO	45.52	125 eP	44	12.30	0.4
SCH	46.05	15 eP	44	16.00	0.5
PPD	46.87	135 eP	44	20.60	-1.8
PNT	47.54	330 eP	44	26.00	-1.4
EDM	47.66	338 ePd	44	26.60	-1.7
VAO	50.58	132 eP	44	49.60	-1.5
ITA	51.89	130 eP	44	52.50	-8.8X
YKC	55.44	344 eP	45	25.00	-1.5
YKA	55.49	344 P	45	26.60	-0.3
INK	65.14	342 eP	46	31.00	-1.5
MBC	67.67	352 eP	46	47.00	-1.5
MAL	76.25	55 iPd	47	41.50	1.4
TOL	76.35	52 eP	47	41.00	0.3
AAPN	76.44	54 iP	47	42.00	0.6
ALOJ	76.47	54 iP	47	42.50	1.0
ATEJ	76.55	55 iP	47	43.00	1.0
ASMO	76.74	54 iP	47	43.70	0.7
APHE	76.81	54 iP	47	44.00	0.5
LPF	78.07	43 eP	47	49.40	-0.5
	1.2s	23.80nm			5.0mb
GRR	78.18	43 eP	47	50.20	-0.3
	0.8s	17.10nm			5.0mb
FLN	78.40	42 eP	47	51.40	-0.3
	0.7s	11.00nm			4.9mb
LDF	78.65	42 eP	47	52.70	-0.4
	0.8s	13.40nm			4.9mb
MFF	78.78	44 eP	47	53.40	-0.4
	1.0s	12.00nm			4.8mb
EPF	79.41	48 eP	47	57.50	0.0
	1.0s	14.00nm			4.8mb
LFF	79.53	46 eP	47	57.50	-0.4
	0.8s	16.10nm			5.0mb
LPO	79.87	46 eP	47	59.40	-0.4
	1.0s	13.60nm			4.8mb
RJF	80.04	46 eP	48	00.20	-0.5
	1.0s	8.00nm			4.6mb
TCF	80.43	45 eP	48	02.20	-0.6
	0.8s	6.70nm			4.6mb
BGF	80.83	44 eP	48	04.00	-0.9
	0.8s	8.50nm			4.7mb
LOR	81.44	44 eP	48	07.20	-0.8
	1.0s	6.80nm			4.5mb
DOU	81.58	41 P	48	08.50	-0.1
WLF	82.64	41 P	48	16.20	2.1
HAU	83.01	43 eP	48	15.50	-0.7
BSF	83.33	43 eP	48	17.00	-0.9
NAO	83.43	29 P	48	17.30	-0.7
	0.9s	4.70nm			4.5mb
CDF	83.56	42 eP	48	18.30	-0.8
HFS	84.96	30 eP	48	23.80	-1.9
	0.4s	0.90nm			4.2mb
GRF	85.87	40 eP	48	38.70	8.2X
	2.2s	99.00nm			5.5mb
Z	21s	0.60um			5.0Msz
CLL	86.62	38 iP	48	34.00	-0.1
		e	48	53.00	
BRG	87.31	39 e(P)	48	37.20	-0.2
	1.0s	14.00nm			5.1mb
KHC	87.50	41 eP	48	38.40	-0.1
MAJO	117.38	321 ePdiff	51	04.60	11.0X
		epP	51	52.60	
KSH	126.82	18 ePKP	55	11.70	16.7X
POO	144.14	35 ePKP	55	49.30	21.8X
HYB	147.54	30 ePKP	55	22.50	-10.6X

S.D. = 0.9 on 117 of 144 abs.

APR 02, 1989 10h 43m 32.79± 0.13s
5.428 S ± 2.5km 146.785 E ± 3.0km
DEPTH = 250.8km (5 depth phases)
5.6mb (41 obs.)

EAST PAPUA NEW GUINEA REGION (207)

FAULT PLANE SOLUTION: P-Waves
NP1:Strike=300 Dip=72 Slip= -90
NP2: 120 18 -90
Principal Axes:
T Plg=27 Azm= 30
P 63 210

Comment: The focal mechonism is moderately well controlled ond corresponds to normol faulting. The preferred fault plane is NP1.

MOMENT TENSOR SOLUTION
Dep 238 No. of sta: 6
Moment Tensor; Scole 10**17 Nm
Mrr=-1.05 Mtt= 0.89
Mff= 0.16 Mrt= 2.11
Mrf=-1.67 Mtf=-0.38
Principal oxes:
T Vol= 2.86 Plg=34 Azm= 33
N 0.06 5 126
P -2.92 55 224
Best Double Couple:Mo=2.9*10**17
NP1:Strike=101 Dip=12 Slip=-116
NP2: 307 80 -85
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 13S, 25C
Centroid Location:
Origin Time 10:43:39.0 0.6
Lat 5.23S 0.05 Lon 146.85E 0.04
Dep 227.8 2.3 Half-durotion 2.5
Moment Tensor; Scale 10**17 Nm
Mrr= 0.04 0.08 Mtt=-1.06 0.14
Mff= 1.02 0.16 Mrt= 2.51 0.10
Mrf=-1.69 0.10 Mtf= 0.27 0.12
Principal Axes:
T Val= 2.88 Plg=45 Azm= 55
N 0.58 17 307
P -3.46 40 202
Best Double Couple:Mo=3.2*10**17
NP1:Strike=225 Dip=17 Slip= 8
NP2: 128 88 107

LAT	1.24	170 iPc	44	07.50	-2.1
MNDI	3.19	257 iP	44	28.00	-0.1
PMG	3.97	175 iPc+	44	34.50	-2.3
		eS	45	22.00	
RAB	5.50	77 iPc+	44	53.20	-2.2
	0.6s	3040.00nm			6.4mb
		iS	46	00.00	
JAY	6.72	295 ePd	45	10.00	-0.7
	0.8s	896.10nm			5.8mb
BGA	8.38	95 eP	45	32.00	0.2
PAA	8.70	96 e(P)	45	30.00	-5.9X
VSG	13.37	107 iPd	46	32.80	-1.7
HNR	13.64	108 iPc	46	36.00	-1.8
	0.9s	974.79nm			6.1mb
		eS	49	06.00	
CTA	14.58	182 iPd-	46	50.20	0.9
	0.9s	373.95nm			5.8mb
Z	19s	1.22um			
		i(PP)	47	02.00	
		i(PPP)	47	19.50	
		i	47	46.00	
		i(sP)	48	08.00	
		e	49	16.00	
		eS	49	32.00	
		i	49	47.00	
		iPcP	51	12.50	
		eScP	54	34.00	
		i	57	14.00	
		i(ScS)	57	54.00	
CTAO	14.58	182 ePd	46	50.32	1.0
		iS	49	34.54	
QIS	16.58	204 iPd	47	11.90	-0.8
		e	49	09.00	
		e	50	14.00	
MTN	17.11	243 iPd	47	17.20	-1.2
		eS	50	23.00	
AAI	18.61	275 eP	47	35.00	1.0
WB5	18.77	219 iPd	47	35.30	-0.3
		iS	50	54.10	
GUA	18.93	354 eP	47	37.00	-0.3
	0.8s	471.64nm			6.1mb
GUMO	18.99	354 eP	47	36.80	-1.0
	0.8s	450.95nm			6.0mb
PJG	18.99	354 eP	47	36.50	-1.3
KNA	20.45	239 eP	47	51.70	-0.7
	0.4s	393.00nm			6.3mb
		iS	51	25.60	
RMQ	21.03	175 iPd	47	59.60	1.6
	0.6s	224.00nm			5.9mb
ASPA	21.97	213 iPd	48	08.90	1.6
	0.8s	2667.00nm			6.8mb X

02d 10h

			eS	51	57.60				1.0s	0.02nm		1.4mb X			0.5s	21.13nm		5.1mb
BRS	22.58	166	iPd	48	12.80	-0.3					S	58	20.00					iSn	55	47.20		
			i(S)	52	07.00						sS	59	52.00			RKT	77.09	112	iP	55	00.10	-0.3
MNI	22.96	287	ePd	48	16.90	0.1		HOOJ	47.69	356	eP	51	46.80	0.8		0.9s	70.00nm	5.4mb
DZM	25.21	133	iPc	48	36.10	-1.6		MRRJ	47.91	354	eP	51	47.40	-0.3		KDC	79.53	28	eP	55	13.00	0.1
			iS	49	49.40			KUSJ	48.33	358	eP	51	50.70	-0.3		SVW	79.81	25	eP	55	15.20	0.8
STK	26.76	190	iPd	48	51.00	-0.6		PSI	48.48	278	e(P)	51	53.00	0.4		MAW	82.69	203	eP	55	30.00	0.8
			e	49	05.00	57kmX		ASAJ	49.46	356	P	51	59.90	0.4		PMR	82.79	26	eP	55	29.20	-0.5
			e	49	37.00			TIA	49.88	328	Pc	52	02.00	-0.9			0.9s	41.70nm	5.2mb
MKS	27.20	269	ePc	48	56.00	0.3		N	15s	0.40um						IMA	83.10	21	ePc	55	31.70	0.2
WARB	28.22	221	iPd	48	59.20	-5.6X		E	15s	0.60um							1.0s	27.50nm	5.0mb
			eS	54	00.00						eS	58	53.00			TOA	84.28	26	eP	55	38.00	0.6
BWA	28.89	177	iPd	49	10.10	-0.5		DL2	49.88	334	P	52	03.30	0.5		SPA	84.61	180	ePd	55	38.10	-1.0
			eScP	55	34.00			GYA	50.15	311	P	52	06.20	1.0			1.1s	106.55nm	5.6mb
CAN	29.82	176	iPd	49	18.30	-0.5					pP	52	57.00	232kmX					i	56	35.40	237kmX
			e	50	07.80	250km					S	59	00.00			COL	84.74	23	ePc	55	38.43	-1.1
			eScP	55	37.20						sS	00	32.00						e	56	35.54	236kmX
CNB	29.84	176	eP	49	19.00	0.0		SNY	51.58	338	Pc	52	14.00	-1.6					eSKS	05	38.91	
ADE	30.33	193	iPd	49	22.80	-0.4					iS	59	16.00						e	05	48.30	
	0.7s	301.37nm				6.0mb					sS	00	46.00			FBA	84.74	23	iPc	55	38.30	-1.2
MBL	30.45	237	iPd	49	23.90	-0.5		MDJ	52.16	344	eP	52	19.30	-0.5					e	56	38.30	249km
FORR	30.79	213	iPd	49	25.00	-2.2		Z	20s	0.90um		4.8Msz							i	56	46.70	
TOO	32.01	182	iPd	49	38.40	0.5					S	59	15.00			BRW	84.93	16	eP	55	40.80	0.5
	0.8s	147.00nm				5.7mb		KMI	52.48	307	eP	52	23.50	0.7		INK	91.20	21	iPd	56	09.70	-0.4
VUN	33.37	115	iPd	49	49.10	-0.6		Z	18s	0.50um		4.6Msz				WDC	94.00	50	eP	56	25.00	1.4
BAG	33.81	310	eP	49	53.00	-0.6					S	59	34.00			BKS	94.07	52	ePc	56	25.50	1.5
TRT	34.00	264	ePd	49	54.80	-0.3		CN2	52.65	341	eP	52	22.00	-1.4			0.9s	73.00nm	5.8mb
MEKA	34.21	229	eP	49	56.80	0.0					pP	53	18.00	256km		GCC	94.20	53	e(P)	56	25.50	0.9
NANU	34.66	238	iPd	50	00.30	-0.3					PcP	53	29.00			PRS	94.66	54	eP	56	28.00	1.2
COOL	34.95	220	iPd	50	02.70	-0.3					ScP	57	03.00			ORV	94.74	51	eP	56	27.80	0.8
	0.3s	75.00nm				5.7mb					eS	59	26.00			LLA	95.02	54	eP	56	29.60	1.2
TAU	37.33	179	iPd	50	23.30	0.6		CHG	52.93	298	eP	52	26.80	0.9		PRI	95.22	54	eP	56	30.80	1.3
MRWA	37.51	227	iPd	50	24.70	0.2		CHTO	52.93	298	ePd	52	25.90	0.0		CMB	95.54	52	eP	56	31.60	0.8
	0.3s	77.00nm				5.7mb			0.8s	5.67nm		4.1mb X				FRI	96.03	53	eP	56	33.60	0.7
KLB	37.64	223	iPd	50	25.10	-0.4					pP	53	20.30	248km		MBC	96.16	14	eP	56	32.00	-0.7
	0.4s	115.00nm				5.8mb		XAN	53.11	320	eP	52	25.70	-1.3		PNT	96.43	41	eP	56	35.00	0.5
BAL	37.78	225	iPd	50	26.70	0.0					S	59	37.00				0.9s	16.00nm	5.3mb
	0.4s	98.00nm				5.7mb		BJI	53.30	331	eP	52	27.00	-1.2		YKA	98.77	28	P	56	45.10	0.4
NWAO	38.81	221	eP	50	35.00	-0.2					eS	59	37.00			YKC	98.83	28	eP	56	44.50	-0.5
	0.7s	109.00nm				5.5mb		TIY	53.51	326	eP	52	29.40	-0.6			1.0s	14.00nm	5.3mb
			i	52	09.70	528kmX		Z	20s	0.60um		4.6Msz				EUR	99.01	51	eP	56	47.70	1.0
MUN	38.93	223	iPd	50	36.30	0.2		CD2	54.72	314	eP	52	39.00	0.2			0.8s	6.34nm	5.1mb
	0.9s	282.00nm				5.8mb		HHC	56.24	328	eP	52	49.30	-0.2		EDM	100.23	37	ePdiff	56	54.00	2.4X
KAGJ	39.45	338	P	50	40.40	0.0		BTO	56.88	327	P	52	54.00	0.0		SES	101.92	40	ePdiff	57	01.00	1.8
RKG	39.67	220	iPc	50	45.70	3.5X					PcP	53	53.00			SLR	112.83	239	ePKP	01	43.00	0.8
	0.6s	255.00nm				5.9mb		LZH	57.64	319	eP	53	00.00	0.5		BUL	114.17	245	iPKPd	01	44.20	-0.8
KUMJ	40.69	339	eP	50	50.20	-0.3			1.0s	93.00nm		5.4mb				SLL	114.89	337	ePKP	01	44.00	-0.9
QZH	40.79	319	P	50	52.00	0.6		HIA	59.35	340	iPc	53	10.25	-0.5			0.4s	0.80nm	
N	10s	0.30um									epPc	53	59.74	217kmX		BRG	120.11	328	e(PKP)	01	56.10	1.0
E	10s	0.30um									ePcP	54	00.07			KHC	121.24	326	PKP	01	57.70	0.3
		S	56	38.00							eS	01	00.45			ARE	136.34	121	e(PKP)	02	21.00	-6.6X
WKYJ	40.83	346	eP	50	50.80	-0.9					eScS	02	34.36			ITB1	143.69	146	ePKP	02	32.30	-7.8X
TKSJ	41.01	344	eP	50	52.40	-0.7		GTA	62.17	320	iPd	53	30.50	0.5		TIO	144.82	319	iPKP	02	43.00	0.9
IIDJ	41.54	349	P	50	56.70	-0.8		Z	22s	0.80um		4.8Msz				SHGH	146.99	273	ePKP	02	48.50	2.6X
KRP	41.60	145	Pd	51	17.00	19.1X		SMY	62.40	18	eP	53	31.70	0.6		LEGH	147.12	272	ePKP	02	50.00	3.9X
KAKJ	41.87	352	P	50	59.00	-1.1		PPN	63.40	107	iP	53	39.00	0.7		KOGH	147.19	273	ePKP	02	50.00	3.7X
CHJJ	41.90	351	P	50	59.40	-0.9			1.0s	75.00nm		5.4mb				KUK	147.32	273	ePKP	02	50.00	3.5X
TSRJ	41.99	347	P	51	00.80	-0.3		TVO	63.58	107	iP	53	41.20	1.7					e	03	51.00	
SHNJ	42.04	340	eP	51	00.80	-0.7			1.0s	70.00nm		5.3mb				PPD	147.46	148	ePKP	02	47.00	0.5
YONJ	42.30	344	eP	51	03.00	-0.6		LSA	63.73	307	P	53	41.60	0.8					e	02	49.70	
MAT	42.51	350	iPc	51	04.30	-1.0		PMO	64.79	104	iP	53	48.10	0.9					e	02	52.30	
	1.2s	189.06nm				5.3mb			1.0s	180.00nm		5.8mb				VAO	148.71	155	ePKP	02	50.20	1.7
		iS	57	04.00				ADK	65.03	24	eP	53	48.30	0.2					e	02	54.20	
MTMJ	42.63	349	P	51	05.50	-0.9			0.8s	109.60nm		5.6mb				MGH	149.46	66	ePKP	02	54.08	4.4X
NIIJ	43.06	351	P	51	09.40	-0.3		VAH	65.05	104	iP	53	49.20	0.3		BMA	150.07	159	ePKP	02	57.60	7.1X
MSZ	43.24	158	P	51	11.80	0.7			1.0s	100.00nm		5.5mb							e	03	04.10	
	0.3s	31.00nm				5.1mb		TPT	65.06	104	iP	53	49.70	0.8		PAG	150.16	67	ePKP	02	56.00	5.2X
GZH	43.25	312	P	51	14.00	2.6			1.0s	130.00nm		5.6mb				ITA	150.17	158	ePKP	02	58.70	7.7X
		eS	57	20.50				RUV	65.29	104	iP	53	51.00	0.6		BBL	150.49	68	ePKP	02	56.53	5.3X
OIZ	43.75	305	P	51	16.40	0.8			1.0s	105.00nm		5.5mb				DEG	150.64	66	ePKP	02	55.47	3.9X
SSE	43.79	328	Pc	51	16.00	0.4		GUN	67.38	303	P	54	03.40	-0.5		DSVT	150.68	68	ePKP	02	58.99	7.5X
	1.1s	64.00nm				4.9mb		PKI	67.66	303	P	54	05.60	0.0		DTMT	150.69	68	ePKP	02	56.85	5.2X
Z	16s	0.40um				4.4MszX			0.8s	13.00nm		4.7mb							e	02	57.59	
E	11s	0.30um						KKN	67.84	303	P	54	05.80	-0.8		TCE	151.28	78	ePKP	02	57.51	5.0X
		PcP	52	15.30					0.6s	19.00nm		5.0mb				SLB	151.35	71	ePKP	02	58.90	6.3X
		S	57	27.00				DMN	67.92	303	P	54	07.40	0.2		TPP	151.62	78	ePKP	03	00.55	7.6X
		i	58	52.00					0.6s	36.00nm		5.3mb				TRN	151.62	78	ePKP	02	59.05	6.1X
YAMJ	43.83	352	eP	51	16.00	0.1		GKN	68.45	303	P	54	09.60	-0.6		KIC	151.66	273	PKP	02	59.48	6.4X
OFUJ	44.54	354	eP	51	21.10	-0.3			0.6s	30.00nm		5.2mb				TIC	151.94	274	PKP	03	00.28	6.8X
NJ2	45.79	326	Pd	51	32.30	0.9		KOD	70.76	283	eP	54	26.00	1.3		LIC	151.95	273	PKP	03	00.00	6.5X
		pP	52	29.00	270kmX			HYB	71.06	290	eP	54	39.00	12.9X		TBH	151.97	78	ePKP	02	58.71	5.2X
		S	57	57.00				GBA	71.37	286	Pd	54	27.50	-0.3		BAO	154.46	145	ePKP	02	52.00	-5.1X
		sS	59	28.00					0.6s	2.50nm		4.1mb X				SOB1	163.57	152	ePKP	03	08.10	0.8
AOMJ	46.14	353	eP	51	35.60	1.6		WMQ	72.22	319	Pd	54	33.00	0.5		ITR	164.98	160	ePKP	03	08.50	-0.1
IPM	46.77	281	ePc	51	39.40	0.0					S	03	38.00			S.D. = 0.9 on 147 of 176 obs.						
		e	52	32.80	251km			SDN	74.49	28	eP	54	44.70	-0.5		---						
WHN	47.36	321	Pd	51	45.20	1.5		NDI	74.90	301	iPnc	54	48.00	-0.1		APR 02, 1989 12h 22m 37.62± 0.69s						

36.176 N ± 9.1km 28.010 E ± 7.9km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
MD 3.5 (ATH).

KAP	0.92	228	ePb	22 55.20	0.0
YER	0.98	13	iPn	22 55.70	-0.6
KSL	1.27	92	ePb	23 00.90	-0.4
ELL	1.63	69	iPn	23 11.20	4.6X
NPS	2.15	246	ePn	23 14.10	0.0
IZM	2.30	345	ePg	23 43.40	27.2X
			eSg	23 54.40	
BCK	2.43	57	ePn	23 18.50	0.4
KHL	2.46	29	ePn	23 19.00	0.5
DST	3.46	8	ePn	23 44.70	12.1X
EZN	3.88	340	ePn	23 50.00	11.5X

S.D. = 0.5 on 6 of 10 obs.

% APR 02, 1989 12h 55m 29.52± 0.62s
46.618 N ± 4.8km 6.584 E ± 6.8km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
ML 2.7 (LDG).

LPL	1.11	175	Pg	55 50.60	0.1
			Sg	56 04.60	
LPG	1.13	174	Pg	55 50.80	0.0
			Sg	56 05.40	
BSF	1.22	7	Pg	55 53.40	1.1
			Sg	56 11.60	
HAU	1.40	353	Pn	55 54.40	-0.7
			Pg	55 56.00	
			Sg	56 15.50	
LBF	1.83	283	Pg	56 00.80	-0.5
			Sg	56 22.80	
CDF	1.86	14	Pn	56 01.10	-0.6
			Pg	56 05.60	
			Sg	56 31.20	
SMF	1.89	272	Pg	56 01.60	-0.5
			Sg	56 24.00	
LOR	1.98	290	Pg	56 03.60	0.2
			Sg	56 26.80	
SSF	2.16	283	Pg	56 06.80	0.8
			Sg	56 33.00	
AVF	2.23	276	Pg	56 07.20	0.1
			Sg	56 34.40	
BGF	2.58	270	Pn	56 08.10	-3.9X
			Sg	56 45.00	

S.D. = 0.7 on 10 of 11 obs.

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* APR 02, 1989 14h 11m 04.45± 0.83s
36.052 N ±16.1km 31.182 E ±15.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ELL	1.24	304	iPn	11 27.70	0.1
BCK	1.48	341	ePn	11 31.00	-0.3
PPCY	1.50	140	eP	11 32.50	1.1
CSS	2.06	121	eP	11 38.50	-1.1
YER	2.57	296	ePn	11 46.10	-0.8
KHL	2.63	330	ePn	11 48.60	0.9

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

% APR 02, 1989 14h 43m 34.42± 0.94s
39.084 N ± 8.1km 29.136 E ±11.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.65	323	iPg	43 48.80	1.3
			eSg	43 57.70	
KHL	0.82	158	iPg	43 51.10	0.8
			iSg	44 03.10	
YLV	1.49	7	iPn	44 00.90	-0.4
GPA	1.51	37	iPn	44 00.90	-0.6
IZM	1.62	246	ePn	44 02.00	-1.1

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

? APR 02, 1989 14h 50m 52.64± 0.61s
12.366 N ±39.3km 144.360 E ±97.6km
DEPTH = 33.0km (normal)
SOUTH OF MARIANA ISLANDS (210)

GUA	1.28	25	eP	51 14.70	0.3
			eS	51 29.70	
GUMO	1.31	22	eP	51 14.50	-0.3
PJG	1.31	22	eP	51 14.70	-0.1
MTN	28.28	208	iPc	56 45.60	0.4
WB5	33.52	197	iPd	57 32.00	0.5
WRA	33.59	197	Pd	57 32.10	0.0
	0.4s		6.00nm	4.9mb	
ASPA	37.24	196	iPd	58 03.30	0.1
	0.5s		15.00nm	5.1mb	
FORR	45.72	200	iPc	59 11.50	-1.0
	0.3s		8.00nm	5.1mb	

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

? APR 02, 1989 15h 23m 33.56± 1.24s
23.822 N ± 7.3km 142.563 E ±40.8km
DEPTH = 33.0km (normal)
4.6mb (2 obs.)
VOLCANO ISLANDS REGION (213)

IIDJ	12.30	342	P	26 30.80	1.5
CHJJ	12.57	347	P	26 32.80	0.0
MAT	13.22	344	eP	26 41.00	-0.5
MTMJ	13.37	343	P	26 43.70	0.2
NIIJ	13.72	348	P	26 47.00	-1.0
WB5	44.17	191	eP	31 41.30	0.2
WRA	44.23	191	Pd	31 42.20	0.6
	0.4s		1.70nm	4.2mb	
GUN	50.79	287	P	32 33.00	-0.4
FORR	56.10	195	eP	33 11.30	-0.7
	0.3s		4.00nm	4.9mb	

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

? APR 02, 1989 16h 12m 20.88± 3.48s
22.652 S ±39.9km 66.746 W ±63.7km
DEPTH = 325.9 ± 40.2 km
JUJUY PROVINCE, ARGENTINA (128)

SLA	2.36	151	iPc	13 13.20	-0.2
ZOBO	6.48	348	P	13 58.00	0.2
PPD	14.30	90	eP	15 31.70	0.0
VAO	18.24	95	eP	16 14.10	0.9
			e	16 17.70	
BAO	19.03	72	eP	16 21.00	-0.3
ITA	20.37	93	eP	16 39.80	5.3X
ATB	23.85	38	Pc	17 07.40	0.1
SOB1	28.16	66	eP	17 45.40	-0.8
GBA	144.87	99	PKPd	31 30.80	9.3X
	0.4s		1.80nm		
HYB	147.04	93	ePKP	31 38.00	13.0X

S.D. = 0.7 on 7 of 10 obs.

APR 02, 1989 17h 37m 27.13± 0.64s
35.194 N ± 6.5km 135.552 E ± 6.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN HONSHU, JAPAN (232)
MG 3.6 (JMA). Felt (I JMA) at Kyoto.

KYO	0.24	140	eP	37 32.00	-0.2
			iS	37 36.30	
TSRJ	0.49	46	iPd	37 36.30	-0.8
			S	37 42.40	
WKYJ	0.97	178	iP+	37 45.80	0.2
			S	37 58.60	
YONJ	1.71	270	P	37 57.30	0.2
			S	38 20.00	
TKSJ	1.73	226	P	37 57.10	-0.3
			S	38 21.40	
IIDJ	1.95	81	P	38 00.40	-0.3
			S	38 26.40	
MTMJ	2.30	52	P	38 09.20	3.5X
MAT	2.54	57	eP	38 10.00	0.9
			iS	38 45.40	
CHJJ	2.93	72	eP	38 15.00	0.4

S.D. = 0.6 on 8 of 9 obs.

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* APR 02, 1989 18h 26m 49.84± 0.71s
37.740 N ± 9.5km 36.755 E ± 7.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KVT	3.38	351	iP	27 43.60	-0.1
BBTK	3.76	305	ePn	27 50.00	0.7
			iPg	28 04.00	
			iSg	29 05.00	
CSS	3.91	226	eP	27 47.00	-4.3X
HRI	4.54	191	eP	27 51.00	-9.2X
BCK	4.90	269	eP	28 05.00	-0.4
MSL	5.29	103	ePn	28 12.00	1.2
			iP•	28 21.00	
			iSn	29 14.00	
ELL	5.55	262	eP	28 14.20	-0.4
DSI	6.26	191	eP	28 25.00	0.6
SLY	7.35	104	ePnd	28 59.00	19.3X
			iSn	30 22.00	
			iS•	30 41.50	
BHD	7.65	123	ePnd	28 48.00	4.0X
			eSn	30 29.00	
			i	30 45.00	
			iS•	31 03.50	
MBH	8.10	192	eP	29 00.00	9.7X
KER	9.04	109	eP	29 02.00	-1.4
PRU	20.07	315	P	31 23.00	-3.0X
KHC	20.23	312	P	31 24.20	-3.6X

S.D. = 1.1 on 7 of 14 obs.

APR 02, 1989 20h 52m 02.67± 0.33s
30.941 S ± 5.7km 179.998 E ± 3.7km
DEPTH = 399.9 ± 3.2 km
5.1mb (32 obs.)
KERMADEC ISLANDS REGION (177)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 27C
Centroid Locotion:
Origin Time 20:52: 6.1 0.8
Lat 31.10S 0.09 Lon 179.91W 0.06
Dep 428.2 3.1 Half-duration 1.8
Moment Tensor; Scale 10**17 Nm
Mrr=-1.13 0.08 Mtt=-0.32 0.15
Mff= 1.45 0.11 Mrt=-0.15 0.10
Mrf=-0.16 0.12 Mtf= 0.11 0.09
Principol Axes:

	Val=	Plg=	Azm=
T	1.47	4	94
N	-0.31	9	184
P	-1.17	80	342

Best Double Couple:Mo=1.3**10**17
NP1:Strike=174 Dip=42 Slip=-104
NP2: 12 50 -78

RAO	2.47	48	iP	53 03.40	1.3
			eS	53 45.80	
KRP	7.88	207	P	54 02.00	5.0X
			i	55 21.00	
			e	55 39.80	
WEL	11.15	201	P	54 35.50	0.6
			S	56 34.00	
SVA	12.84	353	eP	54 53.00	-1.2
VUN	12.95	353	eP	54 53.00	-2.4
DZM	15.00	303	iPc	55 18.80	1.5
			iS	58 01.20	
MSZ	16.68	211	P	55 33.00	-1.4
			S	58 28.00	
PVC	16.90	318	iP	55 42.50	5.7X
BRS	24.01	272	iPc	56 47.00	1.9
			i	57 12.00	
			i	00 35.00	
CAN	26.27	252	eP	57 06.80	1.4
			e	57 43.50	
BWA	26.75	254	iPd	57 09.70	0.0
			i	58 26.90	
			ePcP	00 18.80	
RMQ	27.71	271	iPc	57 20.20	2.1
			e	57 35.00	
			e	57 53.00	
			e	58 34.00	
TBI	28.15	82	iP	57 22.60	0.6
	1.0s		160.00nm	5.3mb	
HNR	28.40	315	eP	57 23.00	-1.2
			eS	01 40.00	
TAU	28.55	236	iPc	57 27.80	2.5
VSG	28.68	315	eP	57 26.00	-0.8
TOO	29.16	247	eP	57 33.00	2.2
	0.9s		99.00nm	5.1mb	
			e	58 55.00	
			e	00 26.00	
AFR	30.51	71	iP	57 42.40	-0.2
	1.0s		160.00nm	5.3mb	
PAE	30.60	71	iP	57 43.40	0.0
	1.0s		115.00nm	5.2mb	
PPT	30.66	71	iP	57 44.00	0.1
	1.0s		145.00nm	5.3mb	
PPN	30.79	71	iP	57 45.00	-0.1
	1.0s		80.00nm	5.0mb	
TVO	30.81	72	iP	57 46.00	0.7
	1.0s		75.00nm	5.0mb	
CTA	32.20	282	iPd	57 58.60	1.4
	0.6s		251.67nm	5.7mb	

02d 20h

			i	58	20.00		RVR	87.51	48	eP	04	08.00	0.7	LEGH	154.84	180	ePKP	11	08.00	-1.8
			iS	02	41.30		SBB	87.67	47	eP	04	09.00	0.9	LIC	154.96	168	PKP	11	10.24	0.3
			e	05	12.00		FRI	88.03	44	ePd	04	10.50	0.8	MLR	155.11	313	ePKP	11	18.00	8.6X
STK	32.68	258	iPd	58	03.40	2.2	MDJ	88.11	327	Pd	04	10.50	0.6	SHGH	155.12	180	ePKP	11	10.50	0.4
	0.6s	57.00nm			5.1mb		DL2	88.19	318	Pd	04	11.00	0.6	KIC	155.15	169	PKP	11	10.50	0.3
PMO	33.39	69	iP	58	06.80	-0.4	FHC	88.19	39	ePd	04	10.80	0.4		1.0s	24.50nm				
	1.0s	55.00nm			4.8mb		CMB	88.32	43	ePd	04	11.60	0.5	KOGH	155.27	179	ePKP	11	11.50	1.1
VAH	33.47	70	iP	58	08.00	0.1	CLC	88.54	46	eP	04	13.00	0.8	KUK	155.37	179	ePKP	11	11.00	0.5
	1.0s	85.00nm			5.0mb		GLA	88.55	50	eP	04	14.00	1.7	TIC	155.38	168	PKP	11	10.88	0.4
TPT	33.62	69	iP	58	08.80	-0.4	GSC	88.71	47	eP	04	12.00	-1.0		0.9s	25.00nm				
	1.0s	85.00nm			5.0mb		ORV	88.71	41	ePd	04	13.30	0.5	SPC	156.20	326	ePKP	11	10.50	-0.4
RUV	33.70	70	iP	58	10.20	0.4	WDC	88.83	40	ePd	04	14.10	0.8				i	11	40.90	
	1.0s	50.00nm			4.8mb		TIA	89.09	314	Pd	04	15.50	0.9	KSP	156.71	333	ePKP	11	11.30	0.1
ADE	34.70	252	iPd	58	19.90	1.7	SNY	89.12	321	iPd	04	14.60	0.0		0.9s	73.00nm				
	1.0s	92.00nm			5.1mb		MIN	89.18	41	e(P)	04	15.10	-0.1				ic	11	22.00	
PMG	37.31	298	eP	58	41.00	1.0	CN2	89.54	324	iPd	04	16.60	0.1				ic	11	43.00	
	1.1s	113.92nm			5.1mb					epP	05	53.40	420kmX	CLL	157.48	338	ePKP	11	11.00	-1.1
QIS	37.64	276	iPd	58	42.90	0.1	GYA	90.33	301	iPd	04	20.20	-0.5		1.3s	120.00nm				
ASPA	41.37	268	iPd	59	13.30	0.1	BJI	92.11	316	eP	04	29.00	0.6				i	11	23.30	
	0.4s	88.00nm			5.4mb		CHG	92.15	291	ePd	04	30.00	0.9				i	11	46.00	
			eS	04	53.20			1.0s	10.75nm			4.7mb		BRG	157.54	336	iPKPc	11	11.70	-0.5
WRA	42.40	274	Pd	59	21.20	-0.3	CHTO	92.15	291	iP	04	29.00	0.0		1.0s	20.00nm				
	0.8s	116.30nm			5.3mb			0.9s	7.46nm			4.6mb					i	11	23.50	
WB5	42.40	274	iPd	59	21.60	0.1				pP	06	11.50	448kmX				i	11	45.50	
			iS	05	09.20		TIY	92.96	313	eP	04	33.50	1.0	BZS	157.68	317	ePKPc	11	12.00	-0.5
FORR	44.19	256	iPd	59	35.30	-0.2	XAN	93.08	308	P	04	33.50	0.4				e	29	48.50	
			e	05	37.00		CD2	94.93	303	eP	04	42.50	0.9	PRU	158.06	334	ePKP	11	25.00	12.2X
WARB	46.74	262	iPd	59	48.20	-7.3X	GTA	102.12	309	ePdiff	05	14.60	0.6				i	11	49.00	
			eS	06	05.00		INK	104.77	16	ePdiff	09	36.00	251.2X	SRO	158.08	325	ePKP	11	12.90	0.0
MTN	48.38	281	iPd	00	07.20	-0.8	YKA	106.68	26	PKP	09	40.70	-0.9				i	11	49.80	
	0.7s	171.00nm			5.5mb		PKI	107.25	292	PKP	09	43.00	-1.2	ZST	158.39	328	iPKP	11	12.60	-0.6
			eS	06	35.30		KKN	107.45	292	PKP	09	43.60	-0.9				i	11	50.40	
KNA	49.00	276	iPd	00	12.60	-0.1	DMN	107.51	292	PKP	09	43.80	-0.8	KHC	159.13	334	iPKPc	11	14.00	-0.1
	0.5s	52.00nm			5.1mb		WMQ	112.21	309	PKP	09	51.80	-1.0		1.0s	7.00nm				
COOL	49.96	254	iPd	00	19.00	-0.9	MBC	113.32	13	ePKP	09	52.00	-1.9				i	11	54.50	
	0.4s	44.00nm			5.1mb			0.7s	11.00nm					KBA	160.88	331	e(PKP)	11	12.50	-3.6X
KLB	52.54	252	iPd	00	37.70	-1.1	KSH	119.01	301	ePKP	10	06.40	0.4		0.7s	3.70nm				
	0.4s	27.00nm			4.9mb		GAC	121.06	52	ePKP	10	08.00	-1.5				e	11	22.50	
NWAO	52.59	250	eP	00	38.00	-1.2	BUL	122.25	212	iPKPc	10	12.00	-0.7				e	12	00.50	
MEKA	53.46	258	eP	00	44.20	-1.4	QUE	123.18	288	ePKP	10	13.00	-1.4				e	15	42.00	
BAL	53.69	253	iPc	00	46.00	-1.2	ALE	124.02	8	ePKP	10	13.00	-1.3	GWF	161.08	344	PKP	11	15.48	-0.6
MBL	54.37	265	iPd	00	50.70	-1.5		0.7s	6.00nm					FEL	162.01	342	PKP	11	16.00	-1.2
	0.5s	43.00nm			5.0mb		SOB1	124.05	129	ePKP	10	15.20	-1.1	VITF	162.15	347	PKP	11	16.41	-0.6
MRWA	54.71	254	eP	00	53.40	-1.1	KRI	124.62	215	iPKPc	10	19.60	2.2X	MOF	162.25	344	PKP	11	16.41	-0.9
NANU	57.49	262	iPd	01	13.10	-0.8	PTZ	125.90	219	iPKP	10	19.30	-0.6	BSF	162.35	345	PKP	11	16.41	-1.1
	0.3s	12.00nm			4.8mb		ITR	126.01	131	ePKP	10	19.30	-0.8	LOR	163.43	351	ePKP	11	18.50	0.1
SPA	59.23	180	iPd	01	27.00	1.5	LSZ	126.65	215	iPKP	10	21.20	-0.2		1.2s	17.80nm				
	1.0s	200.00nm			5.5mb		FRB	126.73	31	ePKP	10	18.00	-1.9	SSF	163.68	351	ePKP	11	19.00	0.3
			i	02	09.20		SCH	127.83	42	ePKP	10	21.00	-1.3		1.0s	10.00nm				
MNI	61.45	291	ePc	01	19.20	-21.5X	KMZ	129.35	213	iPKP	10	27.90	1.4	LBF	163.69	350	ePKP	11	18.90	0.1
MKS	62.15	281	iPc	01	45.00	-0.2	MAIO	130.83	293	iPKPd	10	28.00	-0.7		1.2s	16.00nm				
TRT	66.68	275	iPd	02	14.10	0.0	NAI	132.57	234	ePKP	10	33.50	0.7	LSF	164.67	356	ePKP	11	19.70	0.1
	0.4s	95.40nm			5.9mb			1.0s	10.00nm						1.0s	12.80nm				
KKM	71.10	289	ePd	02	40.30	-0.6	KEV	138.25	346	ePKP	10	42.00	0.4	RJF	165.61	356	ePKP	11	19.50	-0.9
	0.9s	74.10nm			5.3mb			0.5s	16.80nm						1.2s	17.80nm				
CHJJ	76.95	327	P	03	12.90	-0.6	SOD	140.26	344	ePKP	10	36.00	-9.2X	CAF	165.94	354	ePKP	11	21.10	0.4
IIDJ	77.01	326	P	03	13.00	-0.9	BHD	142.54	286	ePKPc	10	49.00	-1.3		1.0s	6.00nm				
MAT	77.72	327	iPd	03	16.60	-1.2	AKU	143.50	12	iPKP	10	49.40	-1.5	LFF	166.01	358	ePKP	11	19.80	-0.9
	1.2s	129.69nm			5.5mb			1.0s	40.00nm						1.2s	17.80nm				
MTMJ	77.95	326	P	03	18.40	-0.7	MSL	143.90	290	iPKPc	10	51.00	-1.5	LRG	166.53	340	ePKP	11	13.60	-7.6X
TSRJ	78.00	325	P	03	19.20	0.0	SUF	144.04	340	iPKP	10	49.30	-2.6X		0.8s	6.40nm				
KGM	79.63	279	eP	03	28.20	-0.2		0.6s	199.00nm					EPF	167.93	359	ePKP	11	21.50	-0.8
HOOJ	80.40	333	eP	03	33.80	2.1	NUR	146.20	338	ePKP	10	56.00	0.4		0.8s	10.70nm				
KUSJ	80.48	335	eP	03	32.20	0.1	RGS	147.21	351	iPKP	10	58.70	1.6	TOL	170.49	19	ePKP	11	25.00	1.2
QZH	80.87	306	P	03	35.00	0.5	BNG	148.37	217	iPKPc	11	00.10	-0.4		1.0s	120.00nm				
N	16s	0.70um						0.3s	85.00nm								i	32	27.50	
MRRJ	81.31	332	eP	03	36.50	0.1				id	11	03.90			S.D. = 1.0 on 159 of 183 obs.					
ASAJ	82.13	334	eP	03	41.90	1.3	UPP	148.75	343	iPKP	11	01.70	2.1X	----------						
IPM	82.92	280	ePd	03	45.00	-0.3				i	11	07.90		? APR 02, 1989 21h 22m 02.54± 1.69s						
	1.1s	73.50nm			5.3mb		NAO	149.26	350	PKP	10	59.00	-1.4	31.300 S ±13.9km 68.371 W ±38.2km						
SSE	83.18	312	P	03	46.00	-0.2	KVT	149.32	299	iPKP	11	05.60	4.4X	DEPTH = 116.0 ± 18.6 km						
	1.0s	24.00nm			4.9mb		HFS	149.40	347	ePKP	10	59.20	-1.4	SAN JUAN PROVINCE, ARGENTINA (137)						
GZH	83.45	302	Pd	03	48.50	0.8		0.5s	66.80nm											
QIZ	83.68	296	eP	03	49.80	0.9	HYA	149.49	354	iPKPd	11	05.19	4.5X	CFA	0.33	160.	iPc	22	19.50	0.1
PSI	83.73	277	iPd	03	48.50	-0.8	SUE	149.71	355	iPKP	11	05.91	4.9X				S	22	28.00	
	0.6s	30.30nm			5.2mb		HRI	149.72	284	ePKP	11	08.00	5.9X	ZON	0.36	227	iPd	22	19.50	-0.1
NJ2	85.30	312	Pd	03	57.20	0.5	DSI	149.82	280	iPKP	11	07.00	4.8X				eS	22	29.00	
PRS	86.60	44	ePd	04	04.10	1.2	MBH	149.95	277	ePKP	11	08.50	6.1X	RFA	3.46	181	iPc	22	55.70	0.0
GCC	86.70	43	ePd	04	04.40	1.1	ASK	150.25	355	iPKPd	11	07.19	5.3X	CYA	3.62	39	ePc	22	57.70	-0.1
PCC	86.80	42	eP	04	04.50	0.7	BER	150.34	355	iPKPd	11	07.47	5.5X	SLA	7.02	22	eP	23	44.50	0.1
PRI	86.89	44	ePd	04	05.90	1.5	ODD1	150.69	353	iPKPd	11	08.55	5.9X	S.D. = 0.2 on 5 of 5 obs.						
BAR	87.12	49	eP	04	07.00	1.5	KAS	150.98	300	iPKPd	11	05.00	1.3	----------						
MHC	87.12	43	ePd	04	06.70	1.2	BLS1	151.18	353	iPKP	11	09.98	6.5X	APR 02, 1989 21h 24m 36.96± 0.69s						
BRK	87.12	42	ePd	04	06.40	1.1	KMY	151.51	354	iPKPd	11	10.16	6.4X	32.621 N ± 2.7km 47.782 E ± 2.0km						
MWC	87.22	47	eP	04	07.00	0.8	BBTK	151.98	298	iPKPc	11	04.50	-0.8	DEPTH = 32.8 ± 5.2 km						
WHN	87.31	308	Pd	04	07.30	0.9				i	11	12.00		5.4mb (71 obs.) 5.0Msz (7 obs.)						
PLM	87.42	48	eP	04	08.00	0.9	BCK	153.95	293	ePKP	11	06.10	-1.9	IRAN-IRAQ BORDER REGION (346)						

02d 21h

Felt at Ilam and Ahvaz, Iran.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 30C
Centroid Location:
Origin Time 21:24:40.1 0.9
Lat 32.89N 0.09 Lan 47.62E 0.09
Dep 15.0 FIX Half-duration 1.8
Moment Tensor; Scale 10**17 Nm
Mrr=-0.10 0.06 Mtt=-0.05 0.09
Mff= 0.15 0.07 Mrt= 0.68 0.21
Mrf=-1.02 0.17 Mtf= 0.89 0.06
Principal Axes:
T Val= 1.12 Plg=29 Azm=112
N 0.60 40 355
P -1.72 37 227
Best Double Couple:Mo=1.4*10**17
NP1:Strike=256 Dip=40 Slip= -7
NP2: 351 85 -130

KER	1.82	342	iPc	25	08.20	1.6
BHD	2.93	284	iPnd	25	24.50	2.3
			iP*	25	28.00	
			iPg	25	32.50	
			iSn	25	58.50	
			i	26	07.00	
			i	26	12.00	
SLY	3.52	328	iPnd	25	32.00	1.3
			iP*	25	37.00	
			iPg	25	42.00	
			iSn	26	10.00	
			iSg	26	21.00	
TEH	4.31	43	eP	25	42.00	0.0
SHI	5.03	125	eP	25	53.00	0.7
MSL	5.36	316	iPnd	25	56.00	-0.7
			iP*	26	06.00	
			iPg	26	17.50	
			iSn	26	55.00	
			i	27	29.50	
DHR	6.62	161	eP	26	15.00	0.5
			iS	27	33.00	
BBU	6.80	159	ePn	26	16.90	0.0
			(Sn)	27	22.90	
BEE	7.00	159	(Pn)	26	18.70	-1.1
BJA	7.05	159	ePn	26	19.70	-0.8
QASM	7.49	211	iPd	26	25.40	-1.3
RYD	7.94	188	iPd	26	32.00	-1.0
			iS	27	41.00	
HRI	10.14	277	eP	27	01.90	-1.6
MAIO	10.34	66	iPd	27	05.50	-0.7
	0.7s		9.85nm		5.2mb	
			eS	29	10.00	
MML	10.44	272	eP	27	05.90	-1.6
ZNT	10.78	271	eP	27	11.00	-1.1
AYN	10.80	253	eP	27	10.00	-2.4
MBH	11.41	259	eP	27	18.30	-2.3
HQL	11.43	256	eP	27	20.00	-0.9
SRFA	11.44	255	eP	27	18.00	-3.0X
WAJH	11.70	240	iPc	27	22.40	-2.2
BADA	11.75	253	eP	27	22.70	-2.5
LFK	12.13	287	eP	27	27.00	-3.4X
CSS	12.25	285	eP	27	33.50	1.5
KMSA	12.55	194	iPc	27	33.40	-2.7X
KVT	12.62	315	iP	27	36.60	-0.4
PPCY	13.04	284	eP	27	44.00	1.5
BBTK	14.09	305	iPc	27	57.00	0.5
			i	28	04.50	
			eS	30	10.00	
KAS	14.19	312	eP	27	59.00	1.4
HLW	14.33	263	eP	28	05.00	5.5X
			iS	30	40.00	
			e	32	00.00	
			e	32	36.00	
BCK	14.89	294	iP	28	08.60	1.8
ABHA	15.01	199	eP	28	08.40	-0.3
ELL	15.27	291	iP	28	13.20	1.4
KSL	15.43	288	eP	28	15.90	2.1
KHL	15.92	296	iP	28	20.20	0.0
GPA	15.99	304	eP	28	21.00	0.0
JIZN	16.23	197	eP	28	26.70	2.6
QUE	16.54	93	eP	28	27.00	-1.3
			eS	31	36.00	
YER	16.62	291	iP	28	28.30	-0.7
HRT	16.65	305	eP	28	28.00	-1.4
YLV	16.76	303	iP	28	30.80	0.0
GBZT	16.79	304	eP	28	34.50	3.4X
DST	16.96	300	iP	28	36.60	3.3X

ISK	17.17	305	eP	28	35.00	-0.8
KAP	17.32	285	eP	28	40.10	2.3
KCT	17.37	301	iP	28	37.80	-0.5
CTT	17.64	304	eP	28	41.00	-0.7
BNT	17.72	301	iP	28	40.80	-1.9
EDC	17.75	301	iP	28	43.50	0.4
DMK	18.37	306	eP	28	49.00	-1.7
NPS	18.58	284	iPc	28	54.00	0.6
PRK	18.61	297	iPd	28	54.10	0.4
EZN	18.72	299	eP	28	55.00	0.0
JMB	19.43	306	iP	29	04.00	0.6
TLB	19.46	314	ePd	29	02.50	-1.2
RDO	19.68	302	eP	29	05.60	-0.6
CFR	19.71	315	iPc	29	05.50	-0.9
VAM	19.74	285	iPc	29	06.60	-0.3
KDZ	19.94	303	iPc	29	09.00	0.1
DIM	19.99	304	iPd	29	09.00	-0.4
ATH	20.33	292	eP	29	13.50	0.5
RZN	20.44	303	iPc	29	13.00	-1.4
BRD	20.54	315	ePd	29	17.00	1.9
PVL	20.57	307	iPc	29	17.00	1.6
BUC	20.58	311	ePd	29	15.00	-0.5
PPE	20.59	317	ePd	29	14.50	-1.1
PLD	20.59	304	eP	29	15.00	-0.6
BUC1	20.60	311	ePc	29	16.00	0.3
BIR	20.61	317	eP	29	17.00	1.2
ISR	20.65	313	iPd	29	17.00	0.7
VRI	20.92	315	iPd	29	19.00	0.0
NEO	20.93	296	eP	29	19.30	0.1
CLI	20.97	318	ePd	29	20.00	0.5
PLG	21.00	299	eP	29	20.10	0.2
PGB	21.12	305	iPc	29	21.00	-0.1
MMB	21.12	302	eP	29	20.00	-1.1
MLR	21.20	314	ePc	29	22.50	0.5
CMP	21.65	312	iPc	29	31.00	4.6X
ITM	21.66	289	eP	29	26.20	-0.4
PTT	21.69	317	eP	29	27.00	0.2
DRA	21.88	310	ePd	29	30.00	1.3
KZN	22.23	298	eP	29	32.10	-0.2
VLS	22.81	292	eP	29	37.20	-0.7
DEV	23.26	312	iPd	29	43.00	0.7
CJR1	23.27	314	eP	29	43.90	1.5
SRN	23.49	296	iPc	29	45.20	0.7
PHP	23.52	300	iPc	29	45.80	1.0
KKS	23.63	301	eP	29	49.00	3.1X
BERA	23.67	298	eP	29	46.70	0.5
KSH	23.74	65	eP	29	49.50	2.4
	Z 20s		5.00um		5.0Msz	
	N 16s		14.80um			
BMR	23.75	316	ePd	29	48.00	1.0
TIR	23.86	299	iPc	29	48.50	0.4
VLO	23.97	297	eP	29	50.00	0.9
PVY	24.08	302	eP	29	51.50	1.1
TIM	24.27	310	iPc	29	54.10	2.1
BEO	24.43	308	iPc	29	53.50	-0.1
			e(S)	34	16.00	
ULC	24.45	301	eP	29	55.00	1.1
TTG	24.55	302	iP	29	55.50	0.7
PLE	24.69	304	eP	29	57.00	0.7
BDV	24.83	301	eP	29	57.80	0.3
AAE	24.92	202	eP	30	02.70	3.8X
HCY	25.10	301	eP	30	00.00	-0.1
LCI	25.11	296	P	29	58.90	-1.2
BRY	25.18	302	eP	30	00.60	-0.4
NDI	25.59	91	eP	30	05.00	0.2
			eS	34	40.00	
BRT	25.75	297	P	30	05.90	-0.3
PSZ	26.01	314	iP	30	09.20	0.6
TDS	26.26	294	P	30	11.60	0.7
BOM	26.28	115	eP	30	15.50	4.3X
			eS	34	54.50	
BUD	26.36	313	iPc	30	12.00	0.3
SOI	26.37	291	P	30	12.90	1.0
SPC	26.38	317	eP	30	12.60	0.4
			e	35	08.50	
			e	35	36.30	
HVAR	26.74	302	iPd	30	14.50	-0.7
MSI	26.77	291	P	30	18.90	3.4X
ATN	26.84	291	P	30	17.80	1.6
MGR	26.90	295	P	30	17.50	0.7
SRO	26.93	313	iPc	30	18.20	1.2
KRA	26.98	318	ePc	30	16.80	-0.6
	0.9s	296.00nm			5.9mb	
			i	30	17.50	
			i	30	18.90	
			e	30	24.80	
SGO	27.14	296	P	30	19.60	0.7

MEU	27.25	289	P	30	21.70	1.6
POO	27.29	115	eP	30	21.20	0.7
MNO	27.44	290	P	30	25.60	3.7X
BSS	27.54	297	P	30	23.50	0.9
ZAG	27.74	308	iP	30	24.60	0.3
PTJ	27.78	308	eP	30	24.80	0.0
ZST	27.83	313	eP	30	25.40	0.3
	Z 13s		2.50um			5.0MszX
			e	35	36.00	
DUI	27.91	298	P	30	27.00	0.9
VBY	28.14	307	iPc	30	28.70	0.7
VKA	28.34	313	ePc	30	28.00	-1.8
	1.0s		97.00nm			5.5mb
			e	31	46.00	
SDI	28.40	298	P	30	30.80	0.4
CEY	28.76	307	ePc	30	33.50	-0.1
LJU	28.77	307	ePc	30	34.40	0.7
VOY	29.20	307	iPc	30	37.60	0.0
TRI	29.20	307	eP	30	36.40	-1.1
			i	30	37.40	
RDP	29.22	298	P	30	38.00	0.2
ARV	29.31	302	Pc	30	38.90	0.4
MNS	29.33	300	P	30	39.00	0.3
KSP	29.41	318	eP	30	38.30	-1.1
	1.1s		81.00nm			5.4mb
			id	30	39.10	
			e	35	45.00	
ASS	29.44	301	P	30	39.90	0.1
RBL	29.53	308	Pd	30	40.90	0.4
KMR	29.64	311	iP-	30	42.10	0.6
			i	30	59.40	
			e	31	30.00	
RSM	29.73	303	Pd	30	43.80	1.5
KBA	29.85	309	iPc	30	43.30	-0.3
	1.0s		113.00nm			5.6mb
			i	30	51.50	
			i	31	35.90	
			i	33	22.00	
CRE	30.04	302	P	30	46.00	0.8
PRU	30.08	315	P	30	45.20	-0.1
	Z 16s		1.80um			4.8MszX
	E 16s		1.30um			
			e	35	42.00	
FVI	30.09	308	P	30	45.70	0.3
SFI	30.16	302	P	30	47.90	1.8
PGD	30.24	302	Pc	30	48.90	1.8
KHC	30.35	313	iPc	30	47.40	-0.4
	1.2s		34.00nm			5.0mb
			e	31	24.50	
MAO	30.45	299	P	30	48.40	-0.3
FIR	30.56	302	eP	30	50.00	0.4
CTI	30.72	306	P	30	51.00	-0.1
BRG	30.77	316	iP	30	50.60	-0.8
	1.0s		50.00nm			5.3mb
			i	30	55.80	
MME	31.02	303	P	30	54.90	0.9
BDI	31.07	302	Pc	30	54.00	-0.3
PII	31.08	302	P	30	53.20	-0.9
SAL	31.39	305	Pd	30	57.60	0.7
CLL	31.49	317	iPc	30	56.90	-0.8
	1.3s		84.00nm			5.4mb
			i	31	19.90	
HYB	31.58	111	iPd	30	59.20	0.3
	1.0s		70.00nm			5.5mb
			eS	36	08.00	
NUR	31.76	338	iP	30	58.50	-1.5
	Z 20s		3.70um			5.1Msz
			LR	45	30.00	
GRF	31.99	313	iPc	31	01.80	-0.3
	1.1s		177.00nm			5.9mb
MDI	31.99	305	Pd	31	02.40	0.3
BOB	32.00	304	Pd	31	03.60	1.2
GKN	32.04	88	P	31	03.00	0.0
MOX	32.06	315	eP	31	02.00	-0.8
	1.7s		41.00nm			5.1mb
	Z 12s		1.00um			4.7MszX
	N 16s		1.30um			
			eS	36	40.00	
			eLR	40	30.00	
CVF	32.15	299	P	31	03.70	0.1
GEN	32.31	303	P	31	03.84	-1.1
DMN	32.56	89	P	31	08.00	0.4
	0.8s		66.00nm			5.6mb
KKN	32.65	88	P	31	08.60	0.2
VAI	32.65	305	P	31	07.10	-0.8
CKI	32.77	303	P	31	08.30	-0.7
FIN	32.80	302	P	31	08.46	-0.8

02d 21h

PKI	32.83	89	P	31	09.90	-0.2			1.0s	60.00nm		5.4mb	PTO	45.21	298	eP	32	54.50	1.8
IMI	32.99	302	P	31	11.23	0.2	CAF	37.24	303	eP	31	46.50	-0.7	VAL	45.73	313	iP	32	55.60	-1.0
WMQ	33.00	59	P	31	11.40	0.3		1.2s		41.60nm		5.2mb		LZH	45.87	69	eP	32	58.50	0.3
Z	15s	1.30um			4.8MszX		RJF	37.64	303	eP	31	50.40	-0.2		2.0s	165.00nm			5.6mb	
E	12s	1.20um						0.9s		43.80nm		5.3mb		Z	24s	2.90um			5.1MszX	
GBA	33.02	118	Pd	31	11.30	-0.1	LSF	37.70	305	eP	31	50.30	-0.7	N	18s	2.60um				
	0.7s	6.90nm			4.7mb			0.8s		16.10nm		4.9mb		TIO	46.38	283	eP	33	08.00	5.8X
ROB	33.05	302	P	31	11.33	-0.2	LPO	37.85	302	eP	31	51.90	-0.4	CD2	47.15	76	eP	33	08.00	-0.2
SUF	33.11	342	iP	31	10.70	-1.0		0.8s		21.40nm		5.1mb		CHG	47.68	94	ePd	33	12.00	-0.5
	0.7s	164.30nm			6.0mb		LFF	38.18	303	eP	31	54.50	-0.5		1.1s	16.46nm			5.0mb	
GUN	33.12	88	P	31	12.70	0.1		0.8s		51.00nm		5.4mb		CHTO	47.68	94	eP	33	12.10	-0.3
ORX	33.16	305	P	31	10.92	-1.6	EBR	38.39	296	eP	31	57.00	0.2		1.0s	10.75nm			4.8mb	
SAOF	33.24	302	P	31	13.63	0.5	RGS	38.42	334	eP	31	56.00	-0.8	KMI	48.26	84	Pd	33	16.50	-0.7
SBF	33.31	301	eP	31	13.30	-0.5	EPF	38.44	300	eP	31	55.90	-1.4	Z	20s	0.80um			4.7Msz	
AUTN	33.33	302	P	31	14.41	0.2		0.8s		9.40nm		4.7mb		N	17s	1.00um				
AURF	33.39	302	P	31	14.54	0.0	MFF	38.88	305	eP	31	59.80	-1.1			pP		33	25.50	30kmX
STV	33.43	302	P	31	14.51	-0.4		0.8s		35.90nm		5.2mb				sP		33	29.00	
TOUF	33.46	302	P	31	15.36	0.1	KEV	38.96	349	iP	32	01.20	0.0			eS		40	14.00	
DOI	33.52	303	P	31	14.20	-1.4		0.6s		20.90nm		5.1mb				sS		40	36.00	
MVIF	33.52	302	P	31	15.77	0.1	LDF	39.03	309	eP	32	00.80	-1.3	BDT	48.46	96	eP	33	17.20	-1.2
FEL	33.55	309	P	31	14.32	-1.6		0.7s		29.50nm		5.2mb		PTZ	49.19	201	iPc	33	26.00	1.9
RSP	33.59	304	P	31	14.20	-2.1	BNG	39.16	230	iPd	32	03.70	0.2			i		34	43.20	
PZZ	33.62	303	P	31	15.02	-1.6		0.7s		50.00nm		5.4mb		BTO	49.68	62	eP	33	28.20	0.5
CALN	33.70	301	P	31	16.40	-0.8				id	32	18.80		Z	17s	1.90um			5.2MszX	
LSD	33.70	304	P	31	17.69	0.3				id	37	57.50		N	17s	1.70um				
UPP	33.75	333	iP	31	14.30	-3.0X	ACU	39.28	293	eP	32	05.00	0.6	KMZ	50.40	208	iPc	33	35.00	1.6
		i		31	22.00		FLN	39.29	309	eP	32	03.30	-0.9		0.6s	11.70nm			5.1mb	
BBS	33.80	308	P	31	17.09	-0.9		0.6s		32.40nm		5.3mb				i		33	50.00	
FOUF	33.85	303	P	31	18.90	0.6	MOL	39.30	332	iPd	32	03.83	-0.3	XAN	50.42	71	eP	33	30.60	-2.8
FRF	33.85	301	eP	31	18.00	-0.4	GRR	39.50	308	eP	32	05.00	-1.0	N	15s	1.20um				
	1.0s	49.60nm			5.4mb			0.8s		60.10nm		5.4mb		E	16s	1.50um				
RRL	33.89	303	P	31	18.82	-0.2	LPF	39.59	308	eP	32	05.70	-1.1			S		40	50.00	
LMR	33.94	300	eP	31	18.90	-0.2		1.1s		87.90nm		5.4mb		HHC	50.77	61	eP	33	37.00	0.9
	1.0s	28.00nm			5.1mb		ECHE	39.60	294	eP	32	08.80	1.7	N	15s	1.20um				
BNI	33.99	304	Pc	31	19.20	-0.5	ETOR	40.32	296	eP	32	03.80	-9.2X			eS		40	54.00	
LPG	33.99	304	eP	31	19.30	-0.7	TRO	40.42	345	eP	32	12.57	-0.7	AKU	50.87	331	iP	33	37.70	1.4
	0.9s	102.30nm			5.8mb		TRO	40.42	345	iPd	32	13.10	-0.2		0.9s	20.17nm			5.1mb	
GWF	34.05	311	P	31	18.15	-2.0	ECRI	40.54	299	eP	32	15.60	0.8	GYA	51.04	81	iPd	33	37.40	-0.9
LRG	34.05	301	eP	31	20.10	0.0	EVIA	40.90	293	eP	32	19.00	1.2	Z	18s	1.20um			5.0Msz	
	1.2s	59.50nm			5.4mb		TAF	41.46	287	iPd	32	24.50	2.1	E	18s	1.90um				
MOF	34.13	309	P	31	19.56	-1.3				i	32	33.00				S		40	52.00	
CDF	34.15	310	P	31	19.08	-1.9	ESY	41.73	319	iPd	32	24.50	0.3	LSZ	51.18	205	iPd	33	41.40	2.0
LOMF	34.23	308	P	31	21.15	-0.6		0.7s		90.00nm		5.6mb		SHGH	51.78	250	eP	33	44.00	0.1
BSF	34.35	308	P	31	21.39	-1.4	AFC	41.91	291	eP	32	27.00	0.8	KOGH	51.85	250	eP	33	44.50	0.1
HAU	34.67	309	eP	31	24.20	-1.3	EKA	41.91	318	Pd	32	25.60	-0.1	KUK	51.89	250	eP	33	44.00	-0.7
	0.8s	26.80nm			5.2mb			0.7s		45.90nm		5.3mb		LEGH	52.06	250	eP	33	42.50	-3.5X
VITF	34.95	309	P	31	26.33	-1.4	GUD	41.93	296	eP	32	27.00	0.8	KRI	52.15	202	iPc	33	51.00	4.3X
WLF	35.15	311	P	31	29.40	0.0	EBL	41.94	319	iPd	32	26.40	0.4	TIY	52.17	65	iPd	33	50.20	3.5X
NAI	35.27	199	iPd	31	35.00	3.9X		0.6s		76.00nm		5.6mb		N	20s	3.10um				
	1.0s	25.00nm			5.1mb		EBAN	41.96	293	eP	32	27.20	0.8			eS		41	10.00	
KOD	35.28	122	eP	31	32.50	1.2	EDI	42.05	319	iPd	32	27.00	0.2	DAG	53.17	345	iPd	33	52.20	-1.3
WTS	35.35	316	iPc	31	31.90	0.8		0.7s		81.00nm		5.6mb			1.2s	31.25nm			5.2mb	
	0.8s	134.00nm			5.9mb		GTA	42.14	66	eP	32	28.20	0.2	BJI	54.38	61	eP	34	03.00	0.2
MEM	35.46	313	P	31	33.60	1.5	Z	16s	1.60um			5.0MszX		Z	22s	1.30um			5.0Msz	
HFS	35.48	331	eP	31	31.10	-1.1	N	14s	1.40um					N	17s	1.50um				
	0.6s	130.80nm			6.0mb					ScP	38	10.30				eS		41	24.00	
Z	17s	0.77um			4.5MszX		EBH	42.29	320	ePd	32	28.40	-0.4	SNG	55.08	105	eP	34	06.00	-2.2
		LR		44	41.00		ELO	42.45	320	ePd	32	29.90	-0.2	KIC	55.29	254	Pd	34	09.54	-0.3
ENN	35.55	313	ePc	31	32.50	-0.3	MAL	42.69	291	iPd	32	33.80	1.5		0.9s	36.50nm			5.4mb	
	0.8s	33.00nm			5.3mb		EAB	42.74	319	ePd	32	32.30	-0.2	TIC	55.36	254	P	34	09.74	-0.6
WIT	35.68	317	eP	31	35.00	1.1		0.8s		64.00nm		5.4mb		BUL	55.58	202	iPc	34	12.80	0.9
LBF	36.10	306	eP	31	36.70	-0.9	EHOR	43.15	292	eP	32	36.70	0.6	LIC	55.60	254	P	34	11.74	-0.3
	1.2s	65.40nm			5.4mb		EPRU	43.29	291	eP	32	37.00	-0.3	WHN	55.89	73	eP	34	14.50	0.6
SMF	36.15	306	eP	31	36.90	-1.1	ETA	43.31	314	iPc	32	37.20	0.0	Z	24s	2.10um			5.1MszX	
LOR	36.21	307	eP	31	37.60	-0.9		0.5s		57.00nm		5.6mb		N	14s	0.97um				
	0.8s	28.70nm			5.2mb		ECP	43.36	313	iPc	32	37.40	-0.2	E	14s	0.97um				
PLDF	36.22	305	P	31	37.97	-0.7		0.6s		220.00nm		6.1mb				S		42	04.00	
DOU	36.23	312	P	31	38.60	0.1	LIJA	43.45	291	iP	32	38.00	-0.6	TIA	56.20	66	eP	34	16.90	0.8
	0.7s	24.40nm			5.2mb		EPLA	43.46	296	eP	32	39.50	0.9	N	21s	2.80um				
		ScP		37	47.10		SRO	43.54	290	iP	32	40.00	0.7	PSI	56.36	111	iPd	34	16.50	-1.0
LBL	36.42	303	P	31	39.76	-0.4	DLE	43.57	315	eP	32	39.10	-0.2	QIZ	56.77	88	eP	34	19.40	-1.1
SSF	36.43	307	eP	31	39.70	-0.6		0.8s		198.00nm		5.9mb		IPM	56.91	108	ePd	34	20.40	-1.1
AVF	36.50	306	eP	31	39.80	-1.1	EJIF	43.58	290	eP	32	39.00	-0.6		0.8s	96.40nm			5.9mb	
SNF	36.51	312	P	31	41.30	0.4	ECB	43.63	314	iPc	32	40.70	1.0	NJ2	58.95	70	eP	34	35.00	-0.4
UCC	36.53	313	P+	31	42.60	1.6		1.1s		189.00nm		5.8mb		N	21s	1.50um				
AGO	36.57	305	P	31	40.96	-0.6	ALJ	43.64	291	iP	32	40.00	-0.2	E	20s	1.40um				
ETER	36.58	298	e(P)	31	42.00	0.4	MOMI	43.80	290	iP	32	42.00	0.6			S		42	46.00	
ESEL	36.62	294	e(P)	31	43.00	1.0	DMU	43.85	316	eP	32	41.30	-0.3	CN2	59.96	55	Pc	34	41.30	-1.0
PYM	36.63	304	P	31	41.07	-1.1		0.6s		94.00nm		5.8mb		Z	16s	1.30um			5.2MszX	
BGF	36.82	306	eP	31	42.90	-0.7	PLAT	43.87	290	iP	32	42.00	0.0	E	13s	1.20um				
SOD	36.94	347	eP	31	44.00	-0.3	IFR	43.94	286	iPd	32	45.50	2.7	ALE	60.42	352	eP	34	45.00	0.0
MAF	36.98	305	eP	31	44.60	-0.4	ERUA	43.98	299	eP	32	43.80	1.0		0.8s	11.00nm			5.0mb	
LSA	37.04	83	P	31	46.40	0.2	DCN	44.01	315	eP	32	42.70	-0.2	SLR	60.93	200	iPc	34	51.00	1.8
		S		37	25.40			0.8s		221.00nm		6.0mb			1.0s	30.00nm			5.4mb	
NAO	37.05	331	P	31	44.10	-1.2	EMON	44.01	301	eP	32	43.80	0.7	SSE	61.15	70	eP	34	51.20	0.7
	0.6s	22.00nm			5.2mb		CNIL	44.05	290	iP	32	43.00	-0.4	Z	18s	1.40um			5.2Msz	
TCF	37.23	305	eP	31	46.70	-0.4	EVAL	44.37	292	eP	32	46.20	0.2	N	16s	0.80um				

E 17s 1.40um
eS 43 14.00
PRY 62.29 200 iPd 34 56.50 -1.9
0.7s 15.00nm 5.2mb
i 34 58.50
GDH 63.75 337 iPc 35 06.80 -0.6
0.8s 29.85nm 5.4mb
e 35 32.00
i 37 24.00
HVD 66.33 201 iPd 35 36.00 11.4X
0.5s 28.17nm
MBC 71.10 357 eP 35 53.00 -0.4
0.6s 13.00nm 5.2mb
FRB 71.70 335 eP 35 57.00 -0.1
0.9s 47.00nm 5.5mb
MAT 71.76 58 ePKP 35 57.00 -1.1
BRW 74.92 8 eP 36 16.40 0.6
SCH 76.44 327 eP 36 25.00 0.2
INK 79.38 0 eP 36 40.00 -0.6
IMA 80.24 9 eP 36 46.20 0.7
1.2s 37.10nm 5.3mb
FBA 82.04 7 eP 36 55.50 0.7
YKC 84.16 352 eP 37 06.00 0.3
YKA 84.16 352 eP 37 06.20 0.5
TOA 84.94 7 eP 37 10.30 0.6
PMR 85.12 8 eP 37 11.00 0.5
1.3s 37.70nm 5.4mb
GAC 86.65 324 eP 37 19.50 1.1
FFC 89.19 343 eP 37 30.50 0.0
0.7s 10.00nm 5.2mb
MEKA 89.43 122 eP 37 32.50 0.6
0.7s 39.00nm 5.8mb
ITR 91.49 261 eP 37 39.70 -2.0
EDM 92.95 349 eP 37 48.50 0.5
SES 95.25 347 eP 38 00.00 1.4
WB5 97.70 109 eP 38 11.70 1.7
WRA 97.72 109 Pc 38 11.70 1.7
0.7s 2.10nm 4.8mb
CCH 119.08 267 ePKP 43 15.00 -9.9X
ZOBO 120.23 269 PKP 43 28.00 0.5
Z 20s 0.44um 5.1Msz
LR 26 16.00
LPB 120.33 269 ePKP 43 31.00 3.5X
Z 16s 1.01um 5.6MszX
LR 26 48.00
CNCB 120.37 269 PKP 43 29.60 1.9
SPA 122.45 180 ePKPc 43 30.30 0.7
1.0s 20.00nm
S.D. = 1.0 on 339 of 361 obs.

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* APR 02, 1989 21h 30m 30.75± 0.83s
6.602 N ±13.5km 73.416 W ±12.2km
DEPTH = 188.9 ± 12.0 km
4.4mb (2 obs.)
NORTHERN COLOMBIA (99)

FUQ 1.17 196 eP 30 59.50 -1.8
BOG 2.07 198 iPc 31 12.00 2.1
iS 31 42.50
UPA 6.51 292 iPd 32 04.80 -0.5
1.1s 50.63nm 4.7mb X
S 33 18.00
PSO 6.64 216 eP 32 12.50 5.1X
TCE 12.23 70 eP 33 22.24 2.3X
TPP 12.40 72 eP 33 26.06 4.0X
TRN 12.54 70 eP 33 24.95 1.1
SLB 14.13 59 eP 33 43.58 -0.4
ZOBO 23.32 167 P 35 26.00 2.2X
ATB 23.33 114 Pc 35 23.70 0.5
LPB 23.58 167 (P) 35 30.00 3.9X
CNCB 23.87 167 P 35 32.00 2.9X
CCH 24.89 163 P 35 38.00 -0.3
SCH 48.37 5 eP 38 55.00 -0.1
LIC 67.91 86 Pc 41 09.04 -2.5X
KIC 68.18 86 Pc 41 11.00 -2.2
0.7s 11.00nm 4.7mb
MBC 73.96 350 eP 41 48.00 1.5
NAO 81.47 30 P 42 28.00 0.2
0.8s 2.70nm 4.0mb
ASPA 148.75 234 iPKPc 50 00.00 6.2X
0.7s 8.00nm
WB5 149.97 241 ePKP 50 03.50 7.7X
S.D. = 1.5 on 11 of 20 obs.

? APR 03, 1989 00h 05m 58.82± 1.10s
36.183 N ±12.0km 27.232 E ±12.6km
DEPTH = 10.0km (geophysicist)

DODECANESE ISLANDS (389)
MD 3.2 (ATH).

KAP 0.63 184 iPgd 00 11.10 -0.4
eSg 00 21.60
YER 1.27 41 ePn 00 22.10 -0.4
NPS 1.61 236 ePb 00 27.60 0.3
KSL 1.90 91 ePn 00 32.10 0.5
VAM 2.58 253 ePb 00 48.80 7.4X
S.D. = 0.8 on 4 of 5 obs.

& APR 03, 1989 00h 09m 05.41s
60.639 N 150.551 W
DEPTH = 38.1km
KENAI PENINSULA, ALASKA (14)
<AGS-P>. ML 3.1 (PMR).

SLKM 0.21 129 iP 09 12.70 0.0
eS 09 18.90
NKA 0.35 287 iP 09 15.36 1.2
NNL 0.70 212 iP 09 19.09 0.2
SEW 0.77 134 iP 09 18.84 -0.9
PMS 0.78 38 iPd 09 19.00 -1.0
BRLK 0.89 191 eP 09 20.83 -0.8
eS 09 32.85
SPU 0.91 307 iP 09 21.08 -0.9
RDT 0.92 267 iP 09 21.28 -0.7
iS 09 33.90
CGLM 0.98 314 iP 09 22.12 -0.8
CRP 1.01 310 iP 09 22.59 -0.8
PWA 1.07 18 iPd 09 23.40 -0.6
RED 1.12 260 iP 09 24.05 -0.9
eS 09 38.89
CNPM 1.17 197 iP 09 24.98 -0.6
PLRM 1.18 35 iP 09 24.77 -0.9
PMR 1.18 35 iPd 09 24.80 -0.8
PME 1.24 36 iP 09 25.85 -0.6
eS 09 41.51
ILIM 1.32 246 iP 09 27.01 -0.8
iS 09 44.34
XLV 1.33 207 iP 09 27.05 -0.7
GHO 1.38 34 iP 09 27.97 -0.7
iS 09 46.51
KNIM 1.42 101 iP 09 26.96 -2.2
SKT 1.43 341 iP 09 28.48 -0.7
eS 09 47.28
MTU 1.58 113 eP 09 29.60 -1.8
GLI 1.71 80 eP 09 31.24 -2.1
VZW 2.00 76 eP 09 35.57 -2.0
FID 2.01 85 eP 09 34.73 -2.8
PDB 2.01 246 eP 09 36.99 -0.6
HIN 2.02 95 eP 09 37.44 -0.3
VLZ 2.12 75 eP 09 37.41 -1.7
CVA 2.37 90 eP 09 43.10 0.4
KLU 2.41 67 iP 09 41.55 -1.8
SVW 2.52 283 iPc 09 43.40 -1.5
TOA 2.57 53 ePc 09 44.70 -0.9
SGAM 2.64 91 eP 09 45.07 -1.5
KTH 2.93 357 eP 09 51.12 0.4
eS 10 27.10
KDC 3.07 200 iPd 09 50.20 -2.3
GLB 3.38 73 eP 09 54.37 -2.7
TTA 3.47 314 eP 09 57.00 -1.3
BALM 4.04 81 eP 10 03.10 -3.4
FBA 4.46 15 eP 10 10.60 -1.7
IMA 5.63 347 eP 10 27.80 -1.1
40 obs. associoted

? APR 03, 1989 00h 26m 22.30± 3.53s
10.754 N ±22.4km 60.818 W ±31.3km
DEPTH = 10.0km (geophysicist)
TRINIDAD (98)
MD 3.3 (TRN).

TRN 0.59 260 eP 26 34.67 0.5
eS 26 47.59
TPP 0.76 235 eP 26 36.88 -0.3
eS 26 48.69
TCE 0.92 267 eP 26 39.30 -0.6
eS 26 53.34
SVB 2.54 350 eP 27 03.03 -1.2
eS 27 39.72
SVV 2.58 351 eP 27 04.33 -0.5
eS 27 40.37
SSV 2.58 352 eP 27 06.47 1.5
eS 27 41.23
SLB 3.06 356 eP 27 19.08 7.4X
eS 27 54.36
S.D. = 1.2 on 6 of 7 obs.

? APR 03, 1989 01h 18m 13.10± 2.50s
51.635 N ±46.1km 170.311 W ±18.7km
DEPTH = 33.0km (normal)
4.5mb (2 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)
ML 4.3 (PMR).

ADK 3.97 276 ePc 19 13.50 0.4
SDN 6.93 54 eP 19 53.60 -1.3
KDC 11.97 52 eP 21 05.60 1.4
SVW 12.47 35 eP 21 17.40 6.4X
TTA 13.67 29 eP 21 29.40 2.7
PMS 14.91 42 eP 21 40.90 -2.0
INK 24.28 33 eP 23 28.00 0.1
YKA 31.17 48 eP 24 32.20 1.5
MBC 31.43 21 eP 24 32.00 -0.9
SUF 65.25 352 iP 28 52.00 -1.0
NAO 67.89 359 P 29 08.60 -1.2
0.7s 1.60nm 4.2mb
HFS 68.54 358 eP 29 12.20 -1.6
0.4s 4.00nm 4.9mb
GUN 76.56 298 P 30 02.40 0.3
GKN 77.17 299 P 30 05.70 0.5
KBA 81.62 357 eP 30 30.00 1.1
S.D. = 1.5 on 14 of 15 obs.

? APR 03, 1989 01h 37m 21.28± 8.63s
33.079 S ±24.5km 72.312 W ±68.4km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)

ROCH 1.10 85 iPd 37 40.00 -0.6
LNV 1.15 140 iPd 37 41.20 0.1
iS 37 53.70
TACH 1.28 117 iPd 37 42.50 -0.5
iS 38 56.30
SAN 1.43 106 eP 37 45.00 -0.2
JACH 1.50 75 ePd 37 46.50 0.2
iS 38 05.00
PCH 1.60 110 iPc 37 48.20 0.5
iS 38 07.00
FCH 1.71 99 iPd 37 50.00 0.4
iS 38 12.00
S.D. = 0.6 on 7 of 7 obs.

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* APR 03, 1989 01h 45m 50.73± 1.71s
10.715 N ±14.5km 62.390 W ± 9.7km
DEPTH = 92.1 ± 29.8 km
NEAR COAST OF VENEZUELA (97)
MD 3.9 (TRN). Felt (II) on
Trinidad.

TCE 0.63 92 iPc 46 06.73 -0.2
TRN 0.97 94 iPd 46 10.33 -0.2
eS 46 23.84
TPP 1.00 113 iP 46 11.14 0.3
eS 46 24.82
GRW 1.60 26 eP 46 18.31 -0.1
CUM 1.77 262 iPd 46 20.50 0.1
iS 46 43.50
FCV 2.67 25 eP 46 33.91 1.3
SVB 2.77 24 eP 46 33.60 -0.5
SVV 2.83 24 eP 46 34.47 -0.3
eS 47 10.76
SSV 2.85 24 eP 46 35.28 0.1
eS 47 11.28
SLB 3.36 23 eP 46 41.97 -0.2
eS 47 20.69
SLW 3.58 23 eP 46 45.67 0.5
eS 47 27.19
BIM 3.99 19 eP 46 50.17 -0.7
S 47 13.40
MVM 4.09 21 iPc 46 51.67 -0.5
FDF 4.17 17 iPc 46 52.63 -0.8
S 47 36.80
DSC 4.58 13 eP 46 59.50 0.6
eS 47 50.56
DSVT 4.60 12 eP 47 01.14 2.0
eS 47 51.14
DTMT 4.60 13 eP 46 58.68 -0.7
eS 47 50.44
DPMT 4.62 12 eP 47 00.08 0.5
eS 47 52.34
BBL 4.86 10 eP 47 03.00 0.1

03d 01h

		S	47 52.00		
PAG	5.33	7 eP	47 09.00	-0.4	
		S	48 06.00		
DEG	5.71	13 eP	47 14.70	-0.1	
		S	48 12.00		
MGH	5.97	2 eP	47 17.50	-0.8	
		S	48 24.00		

S.D. = 0.7 on 22 of 22 obs.

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* APR 03, 1989 03h 19m 30.48± 0.92s
31.591 S ± 6.5km 68.680 W ±11.6km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

ZON	0.04	1 iPd	19 31.30	-1.4	
CFA	0.38	93 iPc	19 37.50	-0.7	
MDZ	1.30	186 eP	19 55.10	0.5	
		i	20 13.90		
		iS	20 17.40		
RFA	3.18	177 ePd	20 20.30	-1.2	
CYA	4.01	39 e(P)	20 33.10	-0.2	
SLA	7.39	23 eP	21 21.20	0.0	

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

? APR 03, 1989 04h 26m 52.22± 0.99s
21.363 S ±29.8km 173.746 W ±13.4km
DEPTH = 33.0km (normal)
4.7mb (6 obs.)
TONGA ISLANDS (173)

VUN	8.06	293 eP	28 50.00	0.0	
DZM	18.42	264 iPc	31 08.20	1.3	
ASPA	48.20	257 iPd	35 30.90	-0.9	
	1.4s	22.00nm		5.0mb	
WRA	48.42	262 P	35 32.00	-1.5	
	1.0s	6.30nm		4.6mb	
MTN	53.14	270 eP	36 07.70	-1.8	
NANU	65.00	254 iPd	37 32.20	0.6	
	0.5s	9.00nm		5.1mb	
KVN	79.49	41 P	38 57.10	-0.3	
ALQ	84.88	50 eP	39 26.00	0.6	
	1.0s	4.00nm		4.6mb	
PNT	85.21	32 eP	39 27.00	0.6	
BW06	86.92	42 P	39 35.00	-0.4	
	0.9s	2.12nm		4.4mb	
FBA	88.28	11 P	39 40.00	-1.1	
	1.0s	6.00nm		4.9mb	
SNG	88.54	278 eP	39 46.20	2.8	
YKA	95.67	24 eP	40 15.50	0.2	
KSP	149.54	347 ePKPc	46 40.00	5.2X	
CLL	149.65	352 iPKPd	46 40.70	5.7X	
	1.5s	25.00nm			
BRG	149.93	350 ePKP	46 40.70	5.3X	
	0.8s	12.00nm			
		e	46 44.60		
SPC	150.08	341 ePKP	46 34.00	-2.0X	
PRU	150.69	349 PKP	46 43.00	6.4X	
BBTK	150.85	315 iPKPd	46 44.50	7.2X	
KHC	151.68	350 iPKPd	46 46.00	7.8X	
ZST	151.84	345 ePKP	46 46.00	7.6X	

S.D. = 1.4 on 13 of 21 obs.

% APR 03, 1989 05h 16m 06.98± 3.49s
39.667 N ±23.0km 29.360 E ±18.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.57	264 iPg	16 18.60	0.0	
		iSg	16 24.60		
YLV	0.90	1 ePg	16 24.20	-0.1	
KCT	0.97	307 iPg	16 25.70	0.3	
		iSg	16 36.20		
HRT	1.18	11 ePn	16 29.00	0.0	
BNT	1.30	302 iPn	16 30.70	-0.4	

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

? APR 03, 1989 05h 16m 58.09± 6.63s
33.905 S ±24.1km 72.079 W ±42.7km
DEPTH = 10.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)

LNV	0.56	95 iPd	17 10.00	0.6	
TACH	0.98	76 iPd	17 16.50	-0.3	
CHCH	1.19	92 iPd	17 20.00	-0.3	
SAN	1.27	70 iPc	17 21.50	-0.1	
		iS	17 40.20		
ROCH	1.29	44 iPd	17 22.50	0.3	
PCH	1.33	78 iPd	17 22.50	-0.3	
FCH	1.60	69 iPc	17 26.70	-0.1	
		iS	17 49.70		
JACH	1.74	46 iPd	17 28.70	0.0	
		iS	17 52.50		

S.D. = 0.4 on 8 of 8 obs.

APR 03, 1989 06h 58m 44.24± 0.34s
39.322 N ± 3.6km 25.516 E ± 3.0km
DEPTH = 11.4 ± 2.1 km
3.7mb (2 obs.)
AEGEAN SEA (365)
ML 3.6 (ATH).

PRK	0.59	97 iPnc	58 57.00	0.9	
EZN	0.80	51 iPg	59 00.20	0.5	
IZM	1.65	124 iPn	59 13.20	0.0	
NEO	1.78	270 ePn	59 14.00	-1.1	
RDO	1.82	1 iPnc	59 16.00	0.4	
PLG	1.91	304 ePn	59 17.00	0.0	
ATH	1.95	227 ePn	59 16.50	-1.0	
EDC	2.08	60 iPn	59 19.50	0.1	
BNT	2.12	60 iPn	59 19.70	-0.3	
KDZ	2.33	358 iPc	59 26.00	3.0X	
		iSg	59 51.00		
KCT	2.38	66 iPn	59 24.20	0.5	
DST	2.43	82 iPn	59 24.60	0.2	
RZN	2.44	346 iP	59 25.00	0.3	
MMB	2.64	330 eP	59 27.00	-0.5	
		iSg	00 08.00		
DIM	2.73	0 iP	59 29.00	0.4	
PLD	2.85	348 eP	59 31.00	0.7	
		iSg	00 18.00		
CTT	2.88	50 ePn	59 30.00	-0.8	
DMK	3.02	34 iPn	59 32.60	-0.2	
KZN	3.05	290 ePn	59 31.60	-1.6	
YER	3.08	134 iPn	59 33.70	-0.1	
KKB	3.14	325 iP	59 35.00	0.4	
		Sg	00 23.00		
ISK	3.22	56 ePn	59 34.00	-1.7	
JMB	3.24	14 iP	59 36.00	0.0	
PGB	3.38	343 iP	59 38.00	0.0	
HRT	3.52	63 ePn	59 38.00	-2.0	
ITM	3.54	234 ePn	59 40.30	0.0	
VTS	3.70	333 iP	59 44.00	1.3	
		iSg	00 43.00		
GPA	3.82	74 ePn	59 44.40	0.2	
PVL	3.89	358 iPc	59 45.00	-0.2	
VLS	4.02	255 ePn	59 47.10	0.1	
ELL	4.32	125 ePn	59 55.20	3.8X	
BCK	4.40	113 ePn	59 46.00	-6.5X	
BUC1	5.04	4 eP	00 26.00	24.7X	
TLB	5.59	19 ePc	00 08.50	-0.7	
BBTK	5.62	82 eP	00 32.00	22.2X	
ISR	5.86	7 eP	00 19.00	5.9X	
CMP	5.95	357 ePc	00 14.00	-0.3	
MLR	6.17	3 ePc	00 17.50	0.0	
CFR	6.18	18 eP	00 16.00	-1.4	
VRI	6.60	7 iPc	00 23.50	0.0	
DEV	6.83	344 ePc	00 26.00	-0.7	
BZS	6.92	337 ePd	00 27.50	-0.4	
CLI	7.34	10 ePd	00 23.50	-10.3X	
NAO	23.39	342 P	03 56.10	2.7	
	0.7s	1.30nm		3.6mb	
BCAO	35.30	192 eP	05 42.00	0.8	
	0.8s	1.46nm		3.9mb	

S.D. = 0.9 on 38 of 45 obs.

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* APR 03, 1989 08h 36m 23.99± 0.78s
38.174 N ± 8.2km 138.333 E ±10.3km
DEPTH = 236.0 ± 6.7 km
4.2mb (4 obs.)
NEAR WEST COAST OF HONSHU, JAPAN(226)

MAT	1.63	184 iPd	37 02.30	-0.1	
		eS	37 31.00		
MDJ	9.19	317 eP	38 33.50	0.2	
CN2	11.24	304 eP	38 59.60	0.3	
BJI	17.30	283 eP	40 11.00	-1.2	
CHTO	39.26	252 eP	43 31.60	0.3	
	0.5s	2.68nm		4.0mb	
		e	43 35.90		
GUN	44.63	273 P	44 15.40	0.2	
PKI	45.16	273 P	44 19.10	-0.2	
KKN	45.16	273 P	44 19.70	0.5	
	0.7s	34.00nm		4.8mb	
DMN	45.38	273 P	44 21.10	0.1	
GKN	45.57	274 P	44 22.40	0.1	
MBC	56.13	16 eP	45 41.00	0.4	
WRA	57.93	184 eP	45 53.50	-0.2	
GBA	58.90	263 P	46 01.00	0.4	
	0.4s	3.70nm		4.4mb	
SUF	65.85	332 iP	46 45.10	-0.6	
NAO	72.46	336 P	47 25.70	-0.3	
	0.8s	2.30nm		4.0mb	

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

% APR 03, 1989 08h 58m 49.62± 0.86s
39.270 N ± 7.3km 27.725 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.78	64 iPg	59 05.50	0.7	
		eSg	59 15.00		
IZM	0.94	203 ePn	59 07.20	-0.4	
EDC	1.08	6 ePn	59 09.50	-0.4	
KCT	1.09	26 iPn	59 10.10	-0.1	
BNT	1.10	8 iPn	59 09.60	-0.6	
EZN	1.22	298 ePn	59 13.00	0.8	

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

APR 03, 1989 09h 10m 42.50± 0.55s
46.056 N ± 5.8km 14.138 E ± 4.8km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.7 (KBA), 2.1 (LJU). MD 2.7 (LJU). Felt (IV) ot Poljone nad Skofjo Loko.

VOY	0.17	262 iPgc	10 46.60	0.1	
		eSg	10 50.30		
LJU	0.28	92 iPgc	10 47.70	-0.6	
		eSg	10 52.00		
CEY	0.38	147 iPgd	10 49.40	-0.8	
		iSg	10 55.40		
TRI	0.43	217 iPg	10 51.10	-0.2	
		iSg	10 55.80		
RBL	0.55	315 P	10 52.50	-1.3	
		eSg	11 01.10		
VBY	0.96	125 ePg	11 01.70	1.0	
		iSg	11 15.30		
		iSn	11 19.50		
FVI	1.08	300 P	11 04.30	1.5	
		eSg	11 20.60		
KBA	1.16	332 iPgd	11 03.60	-0.7	
		id	11 06.30		
		iSg	11 20.30		
		i	11 22.70		
PTJ	1.28	96 ePg	11 06.70	0.4	
ZST	2.95	42 eP	12 25.60	55.4X	
KHC	3.10	353 ePg	11 32.90	0.5	
		Sg	12 11.00		

S.D. = 1.0 on 10 of 11 obs.

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* APR 03, 1989 09h 14m 29.63± 1.11s
39.654 N ±12.1km 142.378 E ±21.6km
DEPTH = 69.3 ± 8.8 km
NEAR EAST COAST OF HONSHU, JAPAN(228)
MG 3.7 (JMA). Felt (II JMA) at Miyako.

MIY	0.32	268 iP+	14 40.00	-0.9	
		iS	14 43.40		
NIIJ	3.58	229 P	15 24.80	0.9	
KAKJ	3.86	208 P	15 27.00	-0.8	
KUSJ	3.86	26 P	15 27.80	0.0	
		S	16 09.30		
ASAJ	4.46	2 eP	15 37.10	0.8	
CHJJ	4.49	218 eP	15 37.10	0.4	
MAT	4.52	228 eP	15 38.00	0.8	
	0.8s	26.12nm			
GUN	47.70	274 P	23 01.00	-0.6	
KKN	48.22	274 P	23 05.40	-0.1	
GKN	48.61	275 P	23 07.90	-0.5	

S.D. = 0.8 on 10 of 10 obs.

% APR 03, 1989 09h 33m 05.65± 2.33s
39.589 N ± 8.0km 30.515 E ±25.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ALT	0.62	211 ePg	33 18.40	0.2	
		eSg	33 27.90		
GPA	0.72	347 ePn	33 19.50	-0.3	

YLV	1.31	318	iPn	33 30.60	0.6
HRT	1.39	332	ePn	33 31.10	0.0
DST	1.46	271	ePn	33 31.50	-0.6

S.D. = 0.7 on 5 of 5 obs.

APR 03, 1989 09h 58m 05.26± 0.84s
46.110 N ± 7.7km 14.106 E ± 6.9km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.1 (KBA), 1.9 (LJU). MD 1.7 (TRI).

VOY	0.17	242	iPgc	58 09.70	0.6
			eSg	58 13.40	
LJU	0.30	102	ePg	58 10.90	-0.7
			eSg	58 14.40	
CEY	0.43	149	ePg	58 12.90	-1.2
			eSg	58 18.40	
TRI	0.47	211	e(Pg)	58 14.20	-0.5
RBL	0.50	312	Pc	58 15.90	0.5
			eSg	58 24.30	
VBY	1.01	127	e(Pg)	58 26.50	2.2
			eSg	58 38.90	
FVI	1.04	298	P	58 28.20	3.4X
			eSg	58 43.70	
KBA	1.10	332	iPgd	58 25.30	-0.8
			i	58 39.60	
			i(Sg)	58 43.70	

S.D. = 1.4 on 7 of 8 obs.

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* APR 03, 1989 11h 29m 32.30± 1.23s
17.897 N ± 8.8km 99.654 W ±15.4km
DEPTH = 33.0km (normal)
GUERRERO, MEXICO (59)

III	0.51	20	iPc	29 44.58	1.4
			iS	29 52.09	
ACX	1.04	191	iP	29 50.39	-0.2
			iS	30 07.40	
IIT	1.70	49	iPc	29 59.27	-1.0
			iS	30 15.35	
IIC	1.90	11	iPc	30 02.90	-0.4
			iS	30 20.00	
IISM	2.42	63	iPc	30 09.72	-0.7
			iS	30 28.14	
OXX	2.91	106	iP	30 18.50	0.9

S.D. = 1.2 on 6 of 6 obs.

% APR 03, 1989 13h 15m 57.11± 1.20s
60.006 N ± 5.0km 4.772 E ±11.8km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

BER	0.47	36	iP	16 06.66	0.0
			iSg	16 13.44	
ASK	0.52	24	iPd	16 07.60	-0.1
			eS	16 14.78	
KMY	0.83	163	iP	16 13.09	-0.1
			eS	16 23.49	
			eSg	16 27.23	
ODD1	0.94	95	eP	16 15.04	0.0
			eS	16 28.58	
			iSg	16 30.30	
SUE	1.05	360	iP	16 17.07	0.1
			eS	16 32.49	
BLS1	1.21	120	iP	16 19.83	0.1
			eS	16 34.31	
HYA	1.36	30	iP	16 21.99	0.0
			iS	16 41.34	

S.D. = 0.1 on 7 of 7 obs.

? APR 03, 1989 14h 19m 39.76±24.74s
44.237 N ±143.km 7.532 E ±51.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
MD 1.5 (STR).

SAOF	0.25	176	Pg	19 45.12	0.0
AUTN	0.25	197	Pg	19 45.20	0.0
			Sg	19 50.81	
TOUF	0.30	223	Pg	19 46.12	0.0
			Sg	19 54.56	
MVIF	0.44	219	Pg	19 48.76	0.0
			Sg	19 56.18	

S.D. = 0.1 on 4 of 4 obs.

& APR 03, 1989 16h 35m 24.60s
62.236 N 151.20¢ W
DEPTH = 78.1km
CENTRAL ALASKA (1)
<AGS-P>.

SKT	0.30	211	iP	35 36.38	-0.5
			eS	35 45.70	
PWA	0.86	133	eP	35 41.82	-0.3
SPU	1.13	201	eP	35 44.81	-0.7
			eS	36 01.02	
PME	1.19	120	eP	35 45.33	-0.9
KTH	1.33	5	iP	35 47.08	-1.0
			eS	36 03.85	

5 obs. associated

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* APR 03, 1989 17h 04m 18.29± 3.57s
15.695 N ±10.6km 60.027 W ±30.8km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.6 (FDF).

DEG	1.17	302	eP	04 38.90	-1.3
			S	04 56.30	
MGG	1.26	280	eP	04 41.90	0.2
CRM	1.27	223	eP	04 41.70	-0.2
BBL	1.41	263	eP	04 43.83	-0.2
			S	05 03.80	
MVM	1.41	217	eP	04 43.27	-0.7
FDF	1.45	229	eP	04 45.04	0.5
			S	05 12.10	
BIM	1.55	221	eP	04 45.67	-0.3
SEG	1.59	297	eP	04 45.80	-0.7
PAG	1.63	282	eP	04 47.80	0.7
			S	05 09.60	
SLW	1.88	208	eP	04 55.59	4.8X
			e	04 58.63	
SLB	2.10	208	eP	04 54.13	0.1
			e	04 58.63	
			eS	05 27.65	
MGH	2.34	296	eP	04 58.90	1.5

S.D. = 0.8 on 11 of 12 obs.

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* APR 03, 1989 17h 08m 53.43± 0.97s
39.254 N ± 8.3km 23.485 E ±10.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.7 (ATH).

NEO	0.21	285	iPgd	08 59.00	1.0
PLG	1.12	358	iPbc	09 14.80	0.4
ATH	1.29	172	ePb	09 16.50	-0.9
KZN	1.69	309	ePg	09 27.20	4.0X
EZN	2.27	75	ePn	09 33.00	1.5
MMB	2.34	4	iPd	09 31.00	-1.6
RDO	2.46	39	ePb	09 40.30	6.1X
KKB	2.63	353	iP	09 36.00	-0.6

S.D. = 1.5 on 6 of 8 obs.

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* APR 03, 1989 17h 45m 07.56± 0.94s
3.555 N ±12.1km 124.562 E ±20.5km
DEPTH = 323.3 ± 8.3 km
4.3mb (7 obs.)
CELEBES SEA (262)

MNI	2.12	172	iPd	45 57.60	0.0
			eS	46 38.60	
AAI	8.06	153	eP	47 45.00	42.2X
MTN	17.55	158	iPd	48 53.80	0.7
MBL	24.99	190	eP	50 04.50	-0.1
WRA	25.25	158	eP	50 06.20	-0.8
			eS	54 05.00	
NANU	27.42	198	iPd	50 26.70	0.3
	0.3s		4.00nm		4.3mb
CHG	29.28	303	eP	50 42.80	-0.2
CHTO	29.28	303	iP	50 42.90	-0.1
	0.6s		4.63nm		4.1mb
MRWA	33.61	194	iPc	51 20.20	0.0
	0.4s		6.00nm		4.4mb
GUN	44.09	307	P	52 47.10	0.3
PKI	44.32	307	P	52 48.50	-0.1
	0.5s		11.00nm		4.4mb
KKN	44.52	307	P	52 50.20	0.2
	0.4s		16.00nm		4.7mb
DMN	44.58	307	P	52 50.80	0.2
GKN	45.12	307	P	52 54.70	0.0
	0.5s		13.00nm		4.5mb

HYB	47.14	290	ePc	53 10.30	-0.1
GBA	47.57	285	Pd	53 13.40	-0.2
	0.7s		5.50nm		3.9mb
FRB	112.16	6	ePdiff	59 19.00	7.9X
KIC	128.43	281	PKP	03 28.40	-10.3X
LIC	128.74	281	PKP	03 29.00	-10.2X

S.D. = 0.4 on 15 of 19 obs.

& APR 03, 1989 17h 46m 34.40s
37.422 N 121.795 W
DEPTH = 9.0km
4.5mb (3 obs.) 4.3Msz (1 obs.)
CENTRAL CALIFORNIA (39)
<BRK>. ML 4.7 (BRK).
Mo=2.2•10••16 Nm (BRK). Slight damage (VI) at Son Jose. Felt (V) at Gilroy, Monte Serono, Santa Clara, Santa Cruz and Sunnyvale. Felt (IV) at Alviso, Brisbane, Brookdale, Burlingame, Campbell, Coyote, Felton, Fremont, Livermore, Los Altos, Los Gatos, Millbrae, Modesto, Monterey, Mountoin View, New Almaden, Pleasanton, Redwood Estates, San Anselmo, Son Bruno, Son Carlos, Son Francisco, Son Martin, San Moteo and Stockton. Felt from Monterey to Santa Rosa.

MHC	0.15	123	iPc	46 37.70	-0.1
ARN	0.22	109	iPc	46 38.70	-0.4
GCC	0.42	202	iPd	46 43.00	0.0
PCC	0.47	280	iPc	46 43.60	-0.4
BKS	0.57	323	iPd	46 45.55	-0.4
			eS	46 53.60	
BRK	0.58	321	iPc	46 45.70	-0.4
ZSP	0.64	325	iPd	46 46.90	-0.3
SAO	0.71	157	iPd	46 48.20	-0.4
			iS	46 58.60	
LLA	1.05	139	iPc	46 52.80	-1.6
PRS	1.14	162	iPd	46 54.40	-1.4
CM8	1.27	61	iPc	46 56.60	-1.6
NWRM	1.35	320	eP	46 57.00	-2.3
PRI	1.57	144	iPc	47 00.80	-1.8
FRI	1.72	104	iPd	47 02.50	-2.2
PHAM	1.94	144	eP	47 05.80	-2.1
ORV	2.14	6	ePd	47 08.10	-2.7
BCH	2.63	148	eP	47 15.00	-2.8
MIN	2.92	3	eP	47 19.90	-2.1
MNA	3.05	70	eP	47 25.50	1.7
BLP	3.07	158	eP	47 21.20	-2.8
PPK	3.09	89	ePc	47 23.60	-0.9
SVP	3.19	84	ePc	47 24.80	-1.1
WDC	3.21	350	ePc	47 22.50	-3.4
LCH	3.31	92	eP	47 26.20	-1.4
KVN	3.33	60	eP	47 25.60	-2.3
MGM	3.42	88	ePc	47 27.80	-1.4
MZP	3.52	84	eP	47 29.00	-1.6
TMO	3.56	99	eP	47 29.10	-2.1
GMN	3.62	91	eP	47 30.40	-1.6
TNP	3.69	78	eP	47 31.00	-2.0
MCA	3.69	101	eP	47 30.70	-2.2
FHC	3.78	334	ePd	47 33.40	-0.7
SGV	3.83	95	eP	47 33.30	-1.6
PANV	3.90	104	eP	47 33.40	-2.6
FMT	4.09	99	eP	47 36.40	-2.1
BMTN	4.11	90	eP	47 37.80	-1.1
OSM	4.22	109	iPc	47 37.80	-2.5
YMT1	4.25	96	iP	47 39.50	-1.3
GWY	4.29	105	eP	47 38.50	-3.1
YMT5	4.30	95	iP	47 40.20	-1.4
TMBR	4.33	93	eP	47 39.50	-2.7
YMT6	4.34	96	eP	47 40.70	-1.5
YMT3	4.35	97	eP	47 40.60	-1.7
AMR	4.38	102	eP	47 40.00	-2.7
CDH1	4.41	96	ePc	47 41.40	-1.8
SDH	4.43	98	eP	47 41.50	-2.0
LSM	4.47	97	eP	47 41.10	-2.8
LOP	4.53	95	eP	47 42.80	-2.1
JON	4.66	100	ePc	47 44.60	-2.1
EUR	5.01	64	iP	47 49.60	-2.2
PEC	5.16	132	eP	47 50.00	-3.7
SRG	5.36	83	eP	47 53.90	-2.7
DLM	5.61	86	eP	47 58.40	-1.9
PLM	5.72	134	eP	47 58.00	-3.7

03d 17h

MSU	7.68	79	eP	48	28.00	-1.3
BW06	10.79	56	eP	49	12.50	0.2
LRM	10.92	37	eP	49	16.20	2.2
ALQ	12.64	97	eP	49	37.30	0.0
SES	15.09	27	eP	50	09.00	-0.3
EDM	16.86	18	eP	50	29.50	-2.5
FFC	21.97	32	eP	51	27.50	-2.6
	1.0s	20.00nm			4.5mb	
PMR	29.58	334	eP	52	45.70	4.3
INK	31.62	352	eP	52	58.00	-1.4
IMA	34.08	337	eP	53	18.00	-3.0
	0.8s	2.16nm			4.1mb	
MBC	38.93	1	eP	54	01.00	-0.7
DAG	56.80	16	iPd	56	22.80	2.0
	0.5s	4.93nm			4.8mb	
ZOBO	73.47	126	P	58	11.00	1.1
Z	20s	0.15um			4.3Msz	
		LR		26	32.00	
BRG	83.86	26	e(P)	59	10.20	4.7
KHC	85.18	28	eP	59	12.00	-0.2
	69 obs. associated					

APR 03, 1989 18h 01m 41.62± 0.79s
45.983 N ± 8.4km 14.099 E ± 6.9km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 1.8 (KBA), 1.6 (LJU).

VOY	0.15	289	iPgc	01	45.60	0.4
			eSg	01	49.30	
LJU	0.31	79	ePg	01	46.80	-1.3
			e(Sg)	01	50.40	
			e	01	53.00	
CEY	0.33	137	ePg	01	48.60	0.0
			eSg	05	44.00	
TRI	0.36	221	e(Pg)	01	48.10	-0.9
			i(Sg)	01	57.30	
RBL	0.59	321	P	01	51.50	-2.1
			eSg	02	01.00	
VBY	0.94	120	ePg	02	01.00	1.4
			e(Sg)	02	15.50	
FVI	1.10	304	P	02	03.50	1.3
KBA	1.21	335	ePg	02	05.50	1.2
			i	02	20.50	
			iSg	02	22.30	
S.D. = 1.5 on 8 of 8 obs.						

? APR 03, 1989 18h 06m 10.69± 5.36s
14.934 S ±39.5km 167.989 E ±85.8km
DEPTH = 194.5 ± 27.9 km
4.9mb (1 obs.)
VANUATU ISLANDS (186)

PVC	2.81	174	iP	06	58.20	0.0
			iS	07	33.00	
DZM	7.25	191	iPd	07	54.90	-0.2
			i	09	13.60	
HNR	9.57	304	eP	08	25.00	-0.4
VSG	9.87	304	eP	08	30.00	0.7
RMQ	21.32	234	eP	10	44.00	0.8
WRA	32.45	256	eP	12	23.30	-1.4
ASPA	33.25	250	iPd	12	30.90	-0.8
	0.9s	28.00nm			4.9mb	
FORR	39.78	240	eP	13	27.50	1.3
FLN	144.96	347	ePKP	25	31.30	5.3X
	0.6s	9.70nm				
LDF	145.04	346	ePKP	25	31.30	5.1X
	0.8s	10.70nm				
LOR	145.16	341	ePKP	25	32.60	6.1X
	0.7s	4.80nm				
LBF	145.37	341	ePKP	25	33.20	6.3X
	1.0s	14.80nm				
SSF	145.45	341	ePKP	25	33.80	6.8X
	1.0s	18.00nm				
LPG	145.67	336	ePKP	25	34.60	6.8X
	0.8s	8.00nm				
SMF	145.72	340	ePKP	25	34.50	7.1X
	0.8s	4.50nm				
AVF	145.74	341	ePKP	25	34.60	7.2X
	0.8s	5.30nm				
LPF	145.77	347	ePKP	25	34.30	6.9X
	0.9s	16.30nm				
MAF	146.50	342	ePKP	25	35.60	6.9X
	0.8s	5.90nm				
BNG	148.17	254	ePKPc	25	40.50	8.1X
	0.6s	3.00nm				
S.D. = 1.2 on 8 of 19 obs.						

APR 03, 1989 19h 32m 41.11± 0.70s
41.616 N ± 4.6km 143.896 E ± 6.9km
DEPTH = 43.4 ± 5.7 km
4.8mb (12 obs.) 5.0Msz (1 obs.)
HOKKAIDO, JAPAN REGION (224)
Felt (I JMA) at Urakawo.

HOOJ	0.89	330	iP+	32	57.50	0.2
			S	33	10.60	
URA	0.99	303	eP	33	00.00	1.2
			iS	33	14.90	
KUSJ	1.60	22	P	33	07.20	-0.1
			S	33	27.60	
MRRJ	2.25	292	P	33	16.60	-0.1
			S	33	46.90	
ASAJ	2.67	340	P	33	22.20	-0.4
AOMJ	2.86	250	P	33	26.20	0.8
			S	34	01.40	
OFUJ	3.05	215	P	33	27.90	-0.1
			eS	34	04.30	
YAMJ	4.54	222	P	33	49.00	-0.2
NIIJ	5.78	223	eP	34	07.60	1.0
KAKJ	6.13	209	P	34	09.70	-1.8
			S	35	16.50	
MAT	6.73	223	eP	34	19.00	-0.9
	0.6s	12.67nm			4.8mb	
			(S)	35	24.00	
CHJJ	6.75	216	P	34	20.90	0.7
			S	35	32.80	
MTMJ	6.90	225	eP	34	21.20	-1.2
IIDJ	7.71	219	P	34	34.20	0.5
MDJ	10.88	291	eP	35	17.50	0.3
CN2	13.74	285	Pd	35	53.30	-2.0
Z	16s	1.40um				
E	16s	1.20um				
BJI	21.00	275	eP	37	19.00	-4.1X
NJ2	22.13	253	Pc	37	36.40	2.0
GTA	33.32	281	eP	39	16.80	-0.1
WMQ	40.67	293	P	40	19.00	0.2
BRW	41.45	25	eP	40	25.40	0.8
IMA	41.78	33	eP	40	28.60	1.0
	1.0s	10.60nm			4.5mb	
FBA	44.22	35	eP	40	48.30	0.9
CHTO	44.38	253	iP	40	50.00	0.9
	0.8s	2.38nm			4.0mb	
GUN	48.73	273	P	41	24.20	0.4
KKN	49.25	273	P	41	28.00	0.4
PKI	49.27	273	P	41	28.10	0.2
INK	49.44	29	eP	41	29.00	0.7
DMN	49.47	273	P	41	29.90	0.5
	0.8s	36.00nm			5.5mb	
GKN	49.61	274	P	41	30.40	0.0
	0.5s	20.00nm			5.4mb	
MBC	51.59	18	eP	41	44.00	-0.5
YKA	58.90	32	eP	42	43.10	5.5X
KEV	59.85	339	eP	42	42.00	-2.1
DAG	61.38	356	iPd	42	53.10	-1.3
	0.5s	7.04nm			5.0mb	
SOD	61.50	337	iP	42	54.30	-1.0
GBA	63.52	265	Pd	43	09.10	-0.3
	0.9s	5.70nm			4.7mb	
SUF	64.76	333	iP	43	15.70	-1.2
	0.5s	6.60nm			4.9mb	
NUR	66.81	332	iP	43	29.00	-1.0
FFC	68.83	35	eP	43	43.00	0.3
	0.8s	8.00nm			4.8mb	
HFS	70.70	336	eP	43	53.10	-0.9
	0.8s	7.00nm			4.7mb	
Z	18s	0.72um			5.0Msz	
		LR		17	01.00	
NAO	70.98	338	P	43	54.80	-0.9
	0.9s	5.50nm			4.5mb	
FRB	71.87	15	eP	44	01.00	0.0
KSP	77.20	329	eP	44	32.00	0.2
CLL	78.06	331	iP	44	36.80	0.3
PRU	78.56	329	eP	44	40.00	0.7
KHC	79.62	329	iPd	44	46.30	1.2
GRF	80.04	331	eP	44	48.80	1.5
	0.9s	7.00nm			4.6mb	
LWI	110.09	286	iPKP+	51	13.10	2.8X
KRI	119.06	273	iPKPc	51	17.00	-10.2X
			ipP	51	34.00	
LSZ	119.15	275	iPKP	51	26.50	-0.9
			i	51	34.60	
			i	51	42.00	
KMZ	119.75	279	ePKP	51	23.00	-5.5X
			i	51	40.40	
			i	52	07.00	
SLR	125.32	265	iPKPd	51	46.00	7.0X
	0.9s	50.42nm				
			i	02	04.00	
PRY	126.58	265	iPKPc	51	52.70	11.2X
	0.7s	12.50nm				
BFS	127.08	265	ePKP	51	54.50	12.1X
	0.5s	28.17nm				
SOB1	147.45	9	ePKP	52	23.30	3.7X
S.D. = 1.0 on 46 of 55 obs.						

APR 03, 1989 19h 39m 32.28± 0.13s
25.170 N ± 3.1km 94.652 E ± 2.6km
DEPTH = 66.5km (5 depth phoses)
5.2mb (70 obs.)
BURMA-INDIA BORDER REGION (294)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 24C
Centroid Location:
Origin Time 19:39:37.8 0.4
Lat 25.15N 0.06 Lon 94.81E 0.06
Dep 85.3 3.2 Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr=-0.34 0.10 Mtt=-1.41 0.16
Mff= 1.75 0.18 Mrt=-0.40 0.10
Mrf= 0.27 0.11 Mtf= 2.16 0.15
Principal Axes:

T	Val= 2.85	Plg= 1	Azm=297
N	-0.24	78	202
P	-2.61	12	27

Best Double Couple:Mo=2.7*10**17
NP1:Strike= 71 Dip=81 Slip= -8
NP2: 163 82 -171

LSA	5.48	326	iPc	40	53.80	0.1
			S	41	55.00	
KMI	7.33	89	iPd-	41	23.50	4.3X
N	10s	27.60um				
			sP	41	45.00	
			iS	42	48.00	
CHG	7.47	147	iPnc	41	21.20	0.2
			eSn	43	00.00	
CHTO	7.47	147	iPc	41	21.60	0.6
GUN	8.32	291	P	41	30.50	-2.5
PKI	8.63	288	P	41	34.40	-2.8
KKN	8.79	289	P	41	37.00	-2.4
BDT	8.87	152	ePg	41	49.00	8.9X
			eS	44	04.00	
DMN	8.90	288	P	41	38.00	-2.8
GKN	9.40	290	P	41	44.40	-3.2X
CD2	9.87	53	eP	41	52.30	-1.6
			S	43	45.00	
GYA	10.90	81	iPd	42	08.00	0.0
	4.0s	1.80nm			3.4mb X	
			S	44	08.00	
NNT	13.40	158	eP	42	42.00	0.9
LZH	13.45	34	iPd	42	40.00	-1.7
	3.0s	1650.00nm			6.2mb	
Z	26s	5.70um				
			pP	42	50.00	
			Lg	46	35.00	
GTA	14.85	16	iPd	42	56.80	-3.2X
	1.8s	0.30nm			2.3mb X	
Z	12s	1.30um				
			pP	43	12.80	
			sP	43	21.00	
			ScP	51	35.00	
			ScS	55	11.40	
XAN	15.22	51	eP	43	00.00	-4.8X
N	10s	5.70um				
QIZ	15.34	110	eP	43	05.00	-1.3
Z	13s	2.70um				
N	13s	3.30um				
E	12s	2.40um				
			eS	46	00.00	
			sS	46	14.00	
NDI	15.94	287	iPc	43	07.90	-5.9X
	0.6s	220.00nm			5.5mb	
			iS	45	54.00	
HYB	16.86	246	iPc	43	25.90	0.4
	1.0s	195.00nm			5.2mb	
			i	43	43.00	
			iS	46	14.00	
GZH	17.19	93	P	43	30.50	1.0
E	10s	2.30um				

				eS	46	42.00		CN2		31.20	46	eP	45	46.00	-1.3	BUC1	57.89	308	eP	49	20.00	0.5
HKC	18.10	95	iP	43	42.70	2.0			Z	12s		1.00um			4.7MszX	SUF	58.10	330	iP	49	21.30	0.5
			S	47	06.00				E	10s		0.60um					0.3s		20.30nm			5.7mb
WHN	18.22	68	eP	43	38.00	-4.1X						pP	46	05.50	84kmX	KAP	58.14	298	eP	49	21.50	0.0
	8.0s		0.93nm			2.0mb X						PcP	48	40.30					ePP	49	39.00	
	Z 10s		3.80um									eS	50	38.00		EZN	58.16	303	eP	49	20.00	-1.5
			sP	44	12.00							iScP	52	15.60		CMP	58.51	309	ePc	49	25.00	1.0
			S	47	00.00			MAID		32.03	299	iPc	45	55.40	0.7	SOD	58.59	335	iP	49	24.60	0.5
			isS	47	20.00					0.9s		37.30nm			5.2mb	RDO	58.59	304	eP	49	24.50	0.0
SNG	18.78	161	eP	43	47.80	-1.2						eS	51	04.00		NUR	58.61	327	iP	49	24.50	0.1
	1.1s		270.89nm			5.4mb		MDJ		34.25	47	eP	46	12.00	-1.8		0.5s		32.30nm			5.7mb
			eS	47	16.00				Z	10s		1.00um			4.8MszX		Z 18s		1.10um			5.0Msz
WMQ	19.46	345	P	43	56.70	0.3			E	12s		1.20um							eS	57	20.00	
	Z 10s		4.00um									epP	46	33.00	90kmX				LR	17	00.00	
	N 10s		2.60um									esP	46	44.50		KDZ	58.61	305	iPc	49	25.00	0.3
			S	47	30.00			DAV		34.58	116	eP	46	19.00	2.1	KEV	58.90	338	iP	49	27.00	0.7
TIY	19.62	46	Pd	43	55.00	-3.1X		MNI		37.48	124	eP	46	42.70	1.4		0.7s		33.40nm			5.6mb
	6.0s		0.90nm			2.2mb X		TEH		38.49	296	eP	47	00.00	10.2X				eS	57	28.00	
	E 10s		2.20um					MKS		38.66	138	iPd	46	52.00	0.8	PLD	59.09	305	eP	49	27.00	-0.9
			PP	44	14.00			MAT		38.78	62	eP	46	50.00	-2.1	RZN	59.13	305	iP	49	29.00	0.5
			S	47	28.00					1.0s		27.00nm			5.1mb	WRA	59.16	136	Pd	49	26.70	-2.0
GBA	19.88	238	Pd	43	59.90	-0.9						eS	52	38.00			1.2s		31.90nm			5.3mb
	1.4s		39.10nm			4.5mb		BJA		39.59	281	iP	46	59.20	0.3	BAL	59.35	158	eP	49	29.00	-0.8
BTO	20.03	36	iPd	44	01.20	-1.3				0.5s		93.00nm			5.9mb	BMR	59.37	312	ePd	49	39.00	9.2X
	N 11s		2.80um					BBU		39.70	281	iP	47	00.50	0.7	PGB	59.43	306	iP	49	30.00	-0.4
	E 11s		4.10um					DHR		39.97	282	iPc	47	03.00	1.0	NPS	59.45	297	eP	49	30.00	-0.6
			PP	44	24.00			KER		41.96	294	eP	47	33.00	14.5X				ePP	49	48.00	
			S	47	44.00			SLY		43.27	296	ePKPc	47	31.00	2.1	MMB	59.88	305	iP	49	33.00	-0.5
			SS	48	14.00							i	47	46.50		DEV	59.94	310	iPd	49	34.00	0.2
POO	20.39	255	iP	44	06.40	0.2						i	49	28.00		VTS	60.12	306	iP	49	35.00	-0.3
	1.0s		140.00nm			5.2mb						e	53	53.00		PLG	60.27	304	eP	49	35.80	-0.3
HHC	21.05	38	iPd	44	12.50	-0.4						eSKS	54	24.00		KKB	60.32	305	eP	49	35.00	-1.4
	Z 20s		3.80um			4.8Msz		RYD		43.38	280	iPc	47	30.50	0.5	MUN	60.44	159	iPd	49	36.00	-1.2
	N 11s		2.90um					BHD		44.26	293	iPKPd	47	37.00	0.0	KLB	60.61	157	eP	49	36.00	-2.4
	E 11s		4.10um									iPP	47	54.00		BZS	60.87	310	eP	49	40.50	0.4
			eS	48	01.50							iSKS	54	05.00		COOL	61.24	154	eP	49	41.00	-1.7
BOM	21.17	257	iPc	44	14.30	0.3						i	54	32.50			0.3s		5.00nm			5.1mb
			eS	48	01.50			MSL		45.17	297	ePKP	47	43.00	-1.3	SPC	61.38	314	eP	49	44.40	0.6
KSH	21.20	317	Pc	44	15.90	1.5						e	48	01.50		KRA	61.49	315	eP	49	44.30	0.1
	Z 16s		5.30um			5.0MszX						eSKS	54	12.00			0.8s		28.00nm			5.4mb
	E 12s		3.80um					QASM		45.85	283	eP	47	50.00	0.2	KZN	61.54	304	eP	49	44.00	-0.9
			pP	44	30.00	62km		KMSA		46.29	275	iPc	47	52.70	-0.6				ePP	50	00.70	
			S	48	08.00			ABHA		48.47	273	iPc	48	13.40	2.7	NWAO	61.65	158	eP	49	42.00	-3.4X
IPM	21.37	162	ePc	44	15.40	-0.7		KVT		50.68	303	iP	48	28.10	1.1		0.5s		11.00nm			5.2mb
	0.6s		118.30nm			5.4mb		ARO		50.72	264	iP+	48	45.20	17.5X		Z 20s		0.40um			4.6Msz
QZH	21.69	85	iPc	44	18.50	-0.7		HRI		51.47	293	eP	48	34.00	0.8	ASPA	61.67	139	iPc	49	44.80	-1.0
	Z 12s		2.20um			4.8MszX		NANU		51.59	155	iPd	48	33.80	-0.2				epP	49	54.50	32kmX
	N 10s		8.70um									e	48	51.00		TRO	61.68	337	iP+	49	45.70	0.5
			S	48	16.00			MTN		51.89	133	eP	48	33.00	-3.4X	PSZ	61.76	313	eP	49	46.00	-0.2
KOD	22.07	231	iPd	44	24.20	0.8						e	48	40.00		NAI	61.79	254	iPd	49	50.50	3.5X
	0.8s		101.49nm			5.3mb		AYN		51.93	288	eP	48	37.00	0.4		1.0s		11.00nm			4.9mb
			eS	48	24.00			WAJH		51.98	284	iPc	48	37.40	0.4	BEO	61.79	309	eP	49	45.50	-0.8
TIA	22.19	55	eP	44	22.80	-1.3		DSI		52.01	291	eP	48	37.00	-0.1	ITM	62.00	300	eP	49	46.40	-1.5
	Z 16s		1.90um			4.6MszX		MBL		52.15	150	eP	48	37.40	-0.8	UPP	62.11	326	iP	49	46.80	-1.4
	N 10s		1.30um					KAS		52.39	304	eP	48	41.00	1.0				i	49	55.80	
			S	48	22.50			KNA		52.53	137	iPc	48	40.00	-1.2	KBN	62.21	304	eP	49	48.00	-1.1
NJ2	22.30	67	Pc	44	23.60	-1.6				0.6s		54.00nm			5.8mb	PHP	62.30	306	iPc	49	54.00	4.3X
	Z 12s		2.20um			4.8MszX		SRFA		52.62	288	iPc	48	41.70	0.0	BUD	62.40	312	eP	49	50.00	-0.3
			S	48	22.00			HOL		52.67	289	iPc	48	43.00	0.8	LSK	62.45	304	eP	49	49.90	-1.0
PSI	22.72	169	iPc	44	29.50	0.0		MBH		52.73	289	iPc	48	42.00	-0.6	BCI	62.45	306	eP	49	49.00	-1.7
	0.7s		73.50nm			5.2mb		BADA		52.86	288	iPc	48	43.70	0.2	PUK	62.64	306	eP	49	51.20	-0.8
KLM	22.95	162	eP	44	33.00	1.3		BBTK		53.23	302	iPc	48	47.00	0.7	TIR	62.78	305	eP	49	51.00	-2.0
BJI	23.34	45	eP	44	32.00	-3.3X						i	49	04.00		SRO	62.83	313	eP	49	53.30	0.2
	Z 12s		1.50um			4.7MszX		GPA		55.07	303	eP	48	59.40	-0.3				i	50	09.60	
	E 10s		1.30um					BCK		55.14	299	eP	48	58.20	-2.1	BERA	62.84	304	eP	49	52.50	-0.8
			eS	48	44.00			ALT		55.34	301	iP	49	01.80	0.1	VLS	62.84	302	eP	49	51.10	-2.3
			e	49	12.00			HRT		55.51	303	eP	49	03.00	0.2	TPE	62.87	304	eP	49	46.80	-6.8X
			eScP	51	52.50			ELL		55.77	299	iP	49	04.30	-0.6	SDA	62.93	306	eP	49	52.50	-1.4
			e	52	26.00			ISK		55.95	304	eP	49	05.00	-0.9	QIS	63.05	132	eP	49	54.00	-0.9
SSE	24.10	70	eP	44	42.00	-0.8		KSL		56.12	298	eP	49	05.80	-1.4	ZST	63.57	313	iP	49	57.70	-0.4
	1.0s		24.00nm			4.6mb		CFR		56.32	309	ePd	49	08.50	0.0				i	50	04.20	
	N 10s		1.50um					MEKA		56.40	154	eP	49	08.00	-1.3				i	50	15.80	
			pP	45	02.00	90kmX				0.7s		19.00nm			5.3mb	KSP	63.70	316	iPd	49	59.30	0.4
			S	48	59.00			DST		56.43	302	iP	49	09.40	0.0		1.0s		56.00nm			5.5mb
			sS	49	36.00			TLB		56.44	308	ePc	49	09.00	-0.3	HFS	64.06	327	eP	50	00.90	-0.2
ANP	24.30	84	eP	44	44.00	-0.9		PPE		56.64	310	ePc	49	16.50	5.7X		0.9s		51.90nm			5.5mb
KGM	24.49	159	ePd	44	47.30	0.7		DMK		56.85	305	eP	49	11.00	-1.4	KBS	64.08	348	eP	50	01.00	0.0
BAG	25.72	105	eP	45	01.00	2.6		CLI		56.86	310	ePd	49	12.50	0.1	VKA	64.08	313	iP	50	08.00	6.6X
PPI	26.07	167	eP	45	02.00	0.6		BNT		56.88	303	iP	49	11.40	-1.2		0.8s		27.30nm			5.3mb
DL2	26.54	52	eP	45	04.20	-1.3		EDC		56.93	303	iP	49	12.50	-0.4				i	50	19.80	
	N 12s		1.40um					YER		57.01	299	eP	49	13.00	-0.6	SMY	64.11	42	P	50	02.40	0.9
			eS	49	31.00			VRI		57.28	310	iPc	49	16.00	0.7		1.0s		163.33nm			5.9mb
KKM	28.07	129	eP	45	38.40	18.6X		ISR		57.46	309	ePd	49	18.00	1.4	FORR	64.25	148	eP	50	01.50	-1.1
SNY	29.10	48	eP	45	26.80	-1.9		IZM		57.63	301	eP	49	22.00	4.1X	PRU	64.94	315	Pd	50	07.50	0.5
	N 34s		2.40um					MRWA		57.83	158	eP	49	19.00	-0.3				e	50	12.00	
	E 31s		1.20um							0.3s		3.00nm			4.9mb	NRA0	65.05	327	P	50	07.00	-0.5
			S	50	13.00			MLR		57.85	309	iPc	49	20.00	0.5	BRG	65.17	316	iP	50	08.80	0.4

03d 19h

0.9s 30.00nm 5.3mb
i 50 14.00
RGS 65.29 330 eP 50 09.00 0.1
VBY 65.29 310 eP 50 09.30 0.0
NAO 65.39 328 P 50 09.10 -0.5
0.8s 38.10nm 5.4mb
KMR 65.56 313 i(P) 50 27.40 16.4X
CLL 65.68 317 iPd 50 11.90 0.3
1.2s 25.00nm 5.1mb
e 50 16.00
i 50 28.30
LJU 65.68 311 e(P) 50 12.00 0.2
KHC 65.72 315 iPd 50 12.30 0.3
1.0s 14.00nm 4.9mb
e 50 24.50
CEY 65.82 311 eP 50 13.00 0.3
VOY 66.12 311 eP 50 15.00 0.3
RBL 66.26 312 P 50 14.10 -1.5
KBA 66.27 312 e(P) 50 15.00 -0.8
1.1s 45.60nm 5.4mb
i 50 20.00
i 50 39.40
TRI 66.28 311 P 50 16.00 0.4
MOX 66.66 317 eP 50 19.00 1.0
1.6s 85.00nm 5.5mb
e 50 25.00
e 50 35.00
FVI 66.76 312 P 50 26.80 8.2X
GRF 67.11 316 iPd 50 22.00 1.1
1.2s 24.00nm 5.0mb
e 50 27.10
e 50 38.90
SDI 67.15 307 P 50 31.00 9.7X
NPA 67.19 240 e(P) 50 26.00 4.2X
ARV 67.35 309 P 50 32.50 10.0X
CTI 67.64 312 P 50 23.00 -1.4
ASS 67.65 308 P 50 26.00 1.6
e 50 43.00
PGD 68.11 309 P 50 44.80 17.3X
SAL 68.51 311 P 50 33.00 3.4X
BDI 68.85 310 P 50 39.50 7.6X
PII 68.99 309 P 50 36.00 3.4X
WIT 69.18 320 eP 50 42.00 8.4X
e 50 54.50
LWI 69.27 257 eP+ 50 36.40 1.4
WTS 69.30 319 e(P) 50 36.00 1.7
0.9s 35.00nm 5.3mb
ic 50 42.30
i 50 54.00
BOB 69.46 311 P 50 42.50 6.9X
GWF 69.57 315 P 50 36.92 0.8
FEL 69.60 314 P 50 36.55 0.1
ADK 69.82 41 P 50 38.90 1.4
CDF 69.94 315 P 50 38.43 0.0
MEM 70.15 317 Pc 50 45.70 6.2X
ENN 70.15 318 e(P) 50 40.50 0.9
1.0s 20.00nm 5.0mb
ic 50 47.00
i 50 58.00
MOF 70.18 314 P 50 40.44 0.5
WLF 70.31 316 P 50 42.10 1.6
BSF 70.41 314 P 50 41.28 -0.1
LOMF 70.52 314 P 50 40.07 -1.9
DAG 70.82 347 iPd 50 42.30 -0.9
0.7s 17.12nm 5.1mb
i 51 00.00
VITF 70.82 315 P 50 43.77 0.1
LPG 71.09 312 eP 50 46.00 0.2
0.6s 9.00nm 4.9mb
DOU 71.16 317 P 50 46.50 0.8
e 50 58.30
SNF 71.23 318 P 50 45.90 -0.2
e 51 05.80
BNI 71.28 312 P 50 52.80 6.1X
ALE 71.96 357 ePd 50 50.40 0.4
0.7s 11.00nm 4.9mb
pP 51 08.50 67km
BRW 72.11 19 ePd 50 52.20 1.2
STK 72.30 139 eP 50 52.00 -0.7
LOR 72.47 314 eP 50 53.50 -0.1
0.8s 9.40nm 4.8mb
LBF 72.48 314 eP 50 53.70 0.0
0.8s 12.00nm 4.9mb
SMF 72.68 314 eP 50 54.70 -0.1
0.6s 13.50nm 5.1mb
SSF 72.77 314 eP 50 55.70 0.4
0.8s 18.80nm 5.1mb

ADE 72.93 143 eP 50 56.50 0.1
AVF 72.95 314 eP 50 56.40 0.0
0.8s 17.40nm 5.0mb
PTZ 73.07 245 iP 50 58.50 0.8
1.0s 37.40nm 5.3mb
i 51 15.40
i 51 21.00
RMQ 73.23 131 eP 50 59.00 0.7
BGF 73.36 314 eP 50 59.00 0.2
0.7s 5.90nm 4.6mb
MAF 73.65 314 eP 51 01.10 0.6
0.7s 8.80nm 4.8mb
TCF 73.86 314 eP 51 02.50 0.8
0.7s 12.50nm 5.0mb
EKA 73.93 324 P 51 10.00 8.1X
0.9s 14.10nm 4.9mb
LDF 74.56 317 eP 51 06.00 0.3
0.8s 18.80nm 5.1mb
RJF 74.65 313 eP 51 07.30 1.0
1.0s 24.00nm 5.1mb
LPO 75.09 313 eP 51 09.60 0.8
0.8s 16.10nm 5.0mb
GRR 75.09 317 eP 51 09.10 0.4
0.8s 16.10nm 5.0mb
MFF 75.28 315 eP 51 10.10 0.2
0.8s 11.80nm 4.9mb
LFF 75.29 313 eP 51 10.80 0.8
0.8s 14.50nm 5.0mb
LPF 75.33 316 eP 51 10.80 0.7
0.8s 11.80nm 4.9mb
IMA 75.54 23 ePd 51 11.80 0.6
1.1s 75.00nm 5.5mb
BNG 75.56 268 iPc 51 11.90 -0.1
0.4s 90.00nm 6.1mb
ic 51 29.50
ic 52 36.80
BCAO 75.57 268 iP 51 11.70 -0.4
0.8s 12.99nm 4.9mb
pP 51 29.70 66km
AKU 76.12 337 iP 51 16.70 2.5
1.6s 106.67nm 5.5mb
TTA 76.18 26 ePd 51 15.60 0.8
epP 51 43.20 107kmX
DMU 76.50 323 eP 51 18.20 1.6
MBC 76.65 8 ePd 51 17.60 0.6
0.8s 37.00nm 5.4mb
pP 51 37.00 72km
BWA 78.19 137 eP 51 27.30 1.1
e 51 49.10
FBA 78.24 23 ePd 51 26.40 0.4
BUL 78.41 241 iPc 51 28.20 0.4
0.9s 23.95nm 5.1mb
ipP 51 46.40 66km
i 51 54.00
TOO 78.59 141 eP 51 29.00 0.7
CAN 79.14 137 eP 51 36.00 4.6X
e 51 58.00
VAL 79.17 322 eP 51 35.00 3.8X
PMR 79.63 26 ePd 51 34.00 0.5
1.2s 312.50nm 6.1mb
epP 51 59.00 95kmX
GUD 80.28 310 e(P) 51 38.80 1.1
KDC 80.31 30 eP 51 36.90 -0.3
INK 80.33 16 iPd 51 37.90 0.7
0.7s 23.00nm 5.2mb
TOA 80.47 25 eP 51 39.80 1.6
TOL 80.52 310 eP 51 40.00 1.2
ePP 55 02.00
GDH 83.06 349 iPd 51 52.20 0.8
0.9s 35.29nm 5.3mb
TAU 83.29 144 eP 51 53.00 0.1
IFR 84.04 304 iP 51 59.50 2.2
SIT 87.95 25 P 52 17.50 1.7
1.0s 57.00nm 5.7mb
YKA 89.57 13 eP 52 24.60 1.1
YKC 89.61 13 iPd 52 23.80 0.1
0.8s 27.00nm 5.6mb
FRB 90.40 353 ePd 52 28.70 1.5
EDM 98.23 17 ePd 53 04.00 0.6
FFC 99.16 10 iPd 53 07.40 -0.1
0.8s 15.00nm 5.6mb
PNT 99.80 22 eP 53 12.00 1.4
LON 101.19 25 Pdiff 53 18.00 1.3
LRM 105.17 19 ePKP 57 41.30 -7.6X

BW06 108.80 19 PKP 57 52.50 -3.3X
KVN 109.15 26 PKP 57 57.00 0.5
SPA 115.02 180 e(PKP) 58 06.50 -0.3
1.0s 6.50nm
ALQ 116.96 19 ePKP 58 11.50 -0.1
ITR 132.51 282 ePKP 58 47.90 6.3X
ATB 141.42 299 PKPc 59 01.10 2.9X
BAO 143.83 278 e(PKP) 58 54.00 -8.4X
VAO 144.97 265 ePKP 59 04.20 0.1
e 59 23.20
ICR 145.03 357 ePKPd 59 04.40 -0.5
LCR2 145.28 358 ePKP 59 04.20 -0.8
BUS 145.45 357 ePKP 59 05.00 -0.6
OCR 145.58 358 ePKP 59 06.00 0.7
UPA 145.59 350 iPKPc 59 05.00 -0.3
1.0s 106.00nm
FUQ 147.52 338 ePKP 59 20.00 11.1X
PPD 148.70 269 ePKP 59 14.60 4.4X
PSO 152.67 342 ePKP 59 20.00 3.2X
ZOBO 161.63 296 PKP 59 29.00 1.2
Z 20s 0.23um
LR 43 44.00
LPB 161.75 295 ePKP 59 20.00 -7.7X
CNCB 161.79 294 PKP 59 26.00 -1.9
S.D. = 1.0 on 235 of 282 obs.

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* APR 03, 1989 22h 20m 30.63± 1.20s
39.731 N ± 8.7km 122.680 W ± 9.6km
DEPTH = 5.0km (geophysicist)
NORTHERN CALIFORNIA (36)
ML 2.7 (BRK).

LTCM 0.64 42 eP 20 44.30 0.9
WDC 0.85 7 ePd 20 47.30 -0.3
iS 21 00.10
ORV 0.93 101 ePc 20 47.40 -1.4
iS 21 00.00
MIN 1.03 53 iPd 20 50.20 -0.4
eS 21 05.20
i 21 06.90
FHC 1.46 317 e(P) 20 57.60 -0.1
CMB 2.47 133 e(P) 21 12.70 0.5
KVN 3.61 99 e(P) 21 29.50 0.9
S.D. = 1.0 on 7 of 7 obs.

& APR 03, 1989 23h 15m 17.50s
36.770 N 121.258 W
DEPTH = 7.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.5 (BRK). Felt ot
Prunedole.

SAO 0.15 268 iPd 15 20.80 0.0
iS 15 23.75
LLA 0.30 121 iPc 15 23.30 -0.2
PRS 0.45 192 iPd 15 26.00 -0.5
ARN 0.62 339 iPc 15 29.50 -0.4
GCC 0.65 294 ePc 15 29.20 -1.3
i 15 41.00
MHC 0.65 332 ePc 15 29.65 -0.9
eS 15 39.95
PRI 0.79 143 ePd 15 33.00 -0.2
PCC 1.16 309 ePc 15 37.60 -1.8
PHAM 1.16 143 eP 15 39.00 -0.5
FRI 1.26 79 iPc 15 40.30 -0.9
iS 15 56.60
BKS 1.35 325 ePc 15 40.30 -2.4
BRK 1.36 324 ePc 15 41.10 -1.7
CMB 1.44 29 ePc 15 42.80 -1.3
iS 16 01.60
BCH 1.85 149 eP 15 48.50 -1.4
KVN 3.38 47 e(P) 16 13.20 1.3
15 obs. associated

APR 03, 1989 23h 37m 04.49± 0.59s
40.353 N ± 5.5km 20.554 E ± 5.5km
DEPTH = 5.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 3.1 (ATH).

LSK 0.21 170 iPgc 37 07.60 -1.1
TPE 0.42 262 iPgc 37 14.50 1.6
BERA 0.58 307 iPgc 37 14.40 -1.7
SRN 0.64 222 iPg 37 17.30 0.1
KZN 0.93 92 ePg 37 21.10 -1.7
TIR 1.12 332 ePn 37 25.20 -0.8
PHP 1.34 356 iPnd 37 29.20 -0.4

LACI	1.43	334	ePn	37 31.70	0.6
KKS	1.72	356	ePn	37 37.00	1.7X
PUK	1.76	344	iPn	37 37.20	1.4
SDA	1.84	335	ePn	37 37.10	0.1
LCI	1.99	270	P	37 38.50	-0.6
BCI	2.04	350	ePn	37 42.30	2.4X
VLS	2.17	179	ePn	37 43.90	2.1X
PLG	2.21	89	ePb	37 43.50	1.1
NEO	2.31	116	ePn	37 45.10	1.3
ITM	3.35	161	ePg	38 08.00	9.5X

S.D. = 1.3 on 13 of 17 obs.

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* APR 04, 1989 01h 13m 43.48± 0.58s
42.820 N ±11.8km 144.260 E ±12.9km
DEPTH = 33.0km (normal)
4.7mb (7 obs.)
HOKKAIDO, JAPAN REGION (224)

MAT	7.81	219	eP	15 38.00	0.3
	0.7s		17.12nm		5.2mb X
FBA	43.08	35	eP	21 43.00	1.4
	0.9s		2.00nm		3.9mb
INK	48.26	30	eP	22 23.00	0.3
MBC	50.36	18	eP	22 39.00	0.3
YKA	57.74	33	P	23 33.70	0.7
DAG	60.20	356	iPd	23 49.90	0.0
	0.9s		6.72nm		4.8mb
SOD	60.50	337	iP	23 45.40	-6.7X
SUF	63.81	333	iP	24 14.30	0.1
	0.4s		8.20nm		5.2mb
NUR	65.88	332	iP	24 27.80	0.2
FFC	67.69	35	eP	24 38.50	-0.7
	0.9s		10.00nm		4.9mb
KVN	69.59	55	eP	24 51.00	-0.4
HFS	69.71	336	eP	24 51.20	-0.3
	0.6s		12.30nm		5.1mb
NAO	69.97	338	P	24 53.00	-0.1
	0.7s		4.60nm		4.7mb
FRB	70.64	15	eP	24 56.00	-1.1
BW06	72.10	48	eP	25 06.00	-0.6
	0.5s		0.54nm		3.8mb
CLL	77.13	331	eP	25 35.00	0.0

S.D. = 0.7 on 15 of 16 obs.

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* APR 04, 1989 06h 39m 58.26± 0.88s
44.044 N ± 7.5km 112.045 W ±10.2km
DEPTH = 5.0km (geophysicist)
EASTERN IDAHO (457)
ML 3.0 (BUT).

HPI	0.83	247	iPc	40 15.40	0.4
RRI2	0.86	142	iP	40 15.20	-0.3
CCMT	1.05	326	iPc	40 17.90	-0.8
BGMT	1.19	0	ePn	40 28.10	7.0X
MEMT	1.74	26	ePn	40 40.90	11.4X
LRM	1.80	351	ePn	40 30.30	-0.1
BUT	2.00	350	ePg	40 37.30	4.0X
			eSn	40 58.20	
			eSg	41 01.80	
HRY	2.67	3	ePn	40 43.70	0.9

S.D. = 0.9 on 5 of 8 obs.

% APR 04, 1989 08h 44m 29.20± 0.78s
39.160 N ± 6.5km 27.553 E ± 8.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.79	197	ePg	44 44.60	-0.1
			iSg	44 56.10	
DST	0.94	62	iPg	44 47.30	0.1
			eSg	45 00.30	
EZN	1.16	305	ePn	44 51.00	0.1
EDC	1.21	11	ePn	44 51.50	-0.2
BNT	1.23	13	iPn	44 51.80	-0.2
KCT	1.25	29	iPn	44 52.80	0.3

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

% APR 04, 1989 08h 50m 16.66± 1.20s
60.145 N ± 4.9km 4.756 E ±11.3km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.0 (BER).

BER	0.37	50	iP+	50 24.36	0.0
			iSg	50 29.90	
ASK	0.40	33	iP	50 24.89	0.0
			eSg	50 30.53	
SUE	0.92	0	iP	50 33.91	-0.2
			eS	50 47.55	
KMY	0.97	165	eP	50 35.15	0.1
			iPg	50 36.45	
			eS	50 47.66	
			eSg	50 49.71	
ODD1	0.97	103	iPd	50 34.87	-0.2
			iPg	50 36.60	
			eS	50 47.86	
			iSg	50 50.61	
HYA	1.24	34	iPd	50 40.06	0.3
			eS	50 54.74	
			eSg	50 57.52	
BLS1	1.29	125	iP	50 40.68	0.0
			eS	50 57.38	
MOL	2.78	28	iP	50 59.09	-2.9X
			eS	51 35.01	

S.D. = 0.2 on 7 of 8 obs.

APR 04, 1989 09h 14m 03.32± 0.88s
25.870 S ± 9.6km 179.192 E ± 9.0km
DEPTH = 512.4 ± 10.0 km
4.5mb (6 obs.)
SOUTH OF FIJI ISLANDS (171)

SVA	7.75	355	eP	15 57.40	-1.0
VUN	7.85	355	eP	15 59.50	-0.1
MBU	8.86	357	ePd	16 10.20	0.1
DZM	12.25	285	iPc	16 47.00	1.5
KRP	12.41	194	P	16 47.30	0.3
RMQ	27.29	262	eP	19 09.00	1.1
TOO	30.79	239	eP	19 38.00	-0.1
ADE	35.87	246	eP	20 20.60	-0.1
ASPA	41.03	263	iPc	21 02.40	-0.5
	0.9s		21.00nm		4.7mb
			iS	26 36.70	
WRA	41.58	269	Pc	21 06.10	-1.2
	0.7s		10.30nm		4.5mb
FORR	44.92	251	iPd	21 32.40	-1.0
	0.4s		15.00nm		4.9mb
MAT	73.11	326	eP	24 42.00	-0.5
	1.1s		25.32nm		4.7mb
PRS	83.46	44	eP	25 39.10	1.6
PLM	84.62	49	eP	25 44.00	0.4
SBB	84.76	47	eP	25 43.00	-1.0
ISA	84.91	46	eP	25 45.00	0.2
FRI	84.91	45	ePc	25 44.80	0.2
CMB	85.13	44	ePc	25 46.00	0.2
WDC	85.43	41	ePc	25 47.70	0.6
CLC	85.57	47	eP	25 48.00	0.1
TPC	85.61	49	eP	25 48.00	-0.1
GLA	85.85	50	eP	25 50.00	0.7
KVN	87.17	44	iP	25 55.10	-0.6
EUR	88.76	44	eP	26 03.10	-0.1
CHTO	89.69	291	eP	26 08.50	1.0
	1.0s		2.50nm		4.1mb
BW06	94.61	44	eP	26 29.50	-0.5
	1.0s		1.00nm		3.9mb
SOB1	127.70	127	ePKP	32 10.90	-1.3
UPP	143.71	344	iPKP	32 31.50	-8.8X
NAO	144.16	350	PKP	32 38.80	-2.3X
	0.7s		14.50nm		
HFS	144.32	348	ePKP	32 38.80	-2.5X
	0.5s		12.60nm		

S.D. = 0.8 on 27 of 30 obs.

% APR 04, 1989 09h 20m 56.41± 1.15s
60.033 N ± 4.8km 4.846 E ±11.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

BER	0.43	35	iP	21 05.03	-0.1
			eSg	21 11.52	
ASK	0.48	21	iP	21 05.98	-0.2
			iSg	21 13.52	
KMY	0.85	166	eP	21 12.68	-0.1
			iPg	21 13.80	
			eS	21 25.41	
			eSg	21 26.58	
ODD1	0.90	97	iP	21 13.74	0.0
			eS	21 28.30	
SUE	1.03	358	iP	21 15.88	0.1
			eS	21 30.53	
BLS1	1.19	122	iP	21 18.79	0.1
			eS	21 35.51	
HYA	1.32	30	iPd	21 20.96	0.3
			eS	21 39.64	

S.D. = 0.2 on 7 of 7 obs.

% APR 04, 1989 10h 01m 30.33± 1.22s
60.551 N ± 7.1km 4.909 E ±14.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

SUE	0.51	352	iP	01 40.70	0.0
			iSg	01 48.40	
HYA	0.88	45	eP	01 47.20	0.0
			iS	02 01.00	
ODD1	1.07	126	iP	01 50.50	0.0
			eS	02 05.80	
			iSg	02 07.20	
KMY	1.35	173	iP	01 55.20	0.0
			eS	02 12.50	

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

APR 04, 1989 11h 03m 58.54± 1.33s
22.815 S ± 9.3km 176.947 W ± 6.3km
DEPTH = 176.5 ± 11.9 km
4.9mb (20 obs.)
SOUTH OF FIJI ISLANDS (171)

VUN	6.43	317	eP	05 32.50	0.5
RAR	16.01	88	P	07 34.00	-1.4
			S	10 28.00	
BRS	27.76	254	iPc	09 33.50	0.7
			i	10 20.50	
RMQ	31.33	256	iPc	10 06.40	2.0
CAN	32.11	239	iPc	10 13.20	2.1
BWA	32.38	241	iPc	10 13.10	-0.4
CTA	34.30	267	iPc	10 30.60	0.5
	0.8s		76.87nm		5.4mb
			i	10 34.00	
TOO	35.39	237	eP	10 40.50	1.4
TAU	35.72	227	eP	10 43.00	1.2
PMG	36.86	285	eP	10 52.00	0.4
	1.0s		116.00nm		5.5mb
QIS	40.33	265	eP	11 19.00	-1.4
ADE	40.37	242	eP	11 21.00	0.4
ASPA	44.99	259	iPd	11 57.00	-1.1
	0.9s		90.00nm		5.3mb
			ipP	12 42.00	208kmX
WRA	45.29	264	Pd	11 59.20	-1.3
	0.5s		18.90nm		4.9mb
FORR	49.28	248	iPc	12 30.90	-0.4
	0.5s		70.00nm		5.5mb
MTN	50.20	272	iPd	12 38.00	-0.5
	0.7s		72.00nm		5.4mb
WARB	51.11	254	iPd	12 38.20	-7.1X
	0.3s		10.00nm		4.9mb
KNA	51.49	268	eP	12 48.00	-0.3
	0.4s		47.00nm		5.5mb
COOL	55.22	247	iPc	13 14.50	-1.0
KLB	57.99	246	iPc	13 34.40	-0.6
	0.3s		5.00nm		4.8mb
NWAO	58.23	244	eP	13 36.00	-0.7
MBL	58.24	259	iPc	13 35.50	-1.4
BAL	59.04	247	eP	13 41.40	-0.9
MUN	59.23	245	eP	13 43.00	-0.6
MRWA	59.89	249	eP	13 48.00	-0.1
	0.3s		3.00nm		4.6mb
NANU	61.76	256	eP	14 00.00	-0.8
SPA	67.32	180	e(P)	14 40.30	4.1X
	1.0s		10.00nm		4.5mb
PRS	78.83	43	e(P)	15 44.00	0.7
MAW	79.73	200	eP	15 57.00	9.4X
FRI	80.28	43	e(P)	15 51.80	0.8
CMB	80.51	42	ePc	15 52.50	0.2
ORV	80.79	40	eP	15 54.20	0.5
WDC	80.84	39	ePc	15 54.70	0.8
MIN	81.23	40	e(P)	15 56.20	0.1
TNP	82.52	43	P	16 03.00	0.1
	1.0s		5.00nm		4.2mb
KVN	82.54	42	P	16 02.40	-0.6
EUR	84.13	43	iP	16 11.40	0.3
	1.0s		5.38nm		4.3mb
SVW	85.39	10	eP	16 16.00	-0.6
MSU	86.02	45	P	16 21.30	0.8
PMR	87.04	13	eP	16 24.20	-0.4
	1.2s		35.20nm		5.1mb
TTA	87.05	9	P	16 24.00	-0.7
	1.2s		27.65nm		5.0mb
DPW	87.86	35	P	16 29.40	0.5

04d 11h

PNT	88.03	33	eP	16	30.00	0.4
	0.8s		8.00nm			4.7mb
ALQ	88.09	51	eP	16	30.30	-0.2
	1.2s		5.47nm			4.4mb
			epP	17	17.80	191kmX
BW06	89.98	43	P	16	39.00	-0.3
	0.8s		3.39nm			4.4mb
FBA	90.29	12	eP	16	38.50	-1.3
IMA	90.36	9	eP	16	39.70	-0.6
	1.1s		11.70nm			4.8mb
GOL	91.16	47	P	16	45.60	0.8
CHG	91.94	289	eP	16	49.50	1.1
CHTO	91.94	289	eP	16	49.30	0.9
	0.8s		8.78nm			4.9mb
			pP	17	35.90	186kmX
SES	93.16	36	eP	16	54.00	0.6
INK	96.24	15	eP	17	07.00	-0.1
SOB1	126.48	122	ePKP	22	43.20	0.3
BUL	130.55	212	ePKP	23	00.20	9.6X
NAI	139.33	238	iPKPc	23	18.00	10.6X
	1.0s		7.00nm			
HFS	141.97	351	ePKP	23	03.30	-7.2X
	0.3s		2.30nm			
BBTK	149.66	311	ePKP	23	29.00	5.1X
KRA	149.75	338	ePKP	23	28.10	4.6X
	1.3s		58.00nm			
KSP	150.18	343	ePKP	23	29.50	5.3X
			e	24	21.80	
CLL	150.52	347	iPKPc	23	31.20	6.6X
	1.4s		32.00nm			
			e	24	21.00	
BRG	150.73	346	iPKP	23	31.00	6.0X
	1.2s		32.00nm			
			e	24	17.00	
			eSg	26	14.80	
PRU	151.42	344	PKPc	23	33.10	7.1X
MOX	151.43	349	ePKPc	23	32.00	5.9X
			e	23	39.00	
DEV	151.90	330	iPKPd	23	33.00	6.1X
ZST	152.30	340	ePKP	23	33.50	6.1X
KHC	152.45	345	ePKP	23	35.00	7.4X
BNG	156.37	222	ePKPd	23	41.50	7.5X
	0.7s		15.00nm			
			id	23	51.20	
			ic	24	09.80	
KIC	162.00	154	PKP	23	50.40	10.3X
TIC	162.14	153	PKP	23	50.90	10.6X
	S.D. = 0.9		on	50	of	69 obs.

? APR 04, 1989 11h 21m 46.21± 1.66s
45.868 N ±19.2km 14.650 E ± 9.1km
DEPTH = 5.0km (geophysicist)
YUGOSLAVIA (383)

LJU	0.19	335	ePg	21	49.70	-0.5
			e(Sg)	21	52.90	
			e	21	55.00	
VOY	0.55	287	ePg	21	57.00	-0.3
			e	22	07.00	
VBY	0.56	130	ePg	22	03.20	5.8X
			e(Sg)	22	13.80	
PTJ	0.91	88	ePg	22	04.10	-0.1
			eSg	22	19.50	
KBA	1.51	324	iP	22	15.00	0.9
	0.6s		4.20nm			
			i	22	31.20	
			i(Sg)	22	34.30	
	S.D. = 1.1		on	4	of	5 obs.

APR 04, 1989 11h 32m 11.84± 0.57s
26.897 N ± 7.4km 34.917 E ± 8.6km
DEPTH = 10.0km (geophysicist)
4.4mb (3 obs.)
RED SEA (554)

MBH	2.86	359	eP	32	52.00	-6.3X
KOT	4.07	319	ePn	33	13.50	-1.9
HLW	4.32	314	eP	33	16.00	-3.0X
			eS	34	07.00	
DSI	4.67	5	eP	33	23.00	-1.1
RZN	16.97	333	eP	36	15.00	4.0X
PVL	18.05	337	iPc	36	25.00	0.7
VTS	18.35	332	iP	36	31.00	2.9X
CFR	19.04	345	ePd	36	37.00	0.6
MAIO	22.89	60	eP	37	21.00	4.2X
ZST	25.41	332	e(P)	37	41.00	0.1
KRA	25.83	338	eP	37	45.80	1.0
			e	37	51.60	
KBA	26.35	326	e(P)	37	50.00	0.1
	1.0s		17.60nm			4.7mb
			i	37	56.60	
BNG	27.27	218	ePd	37	58.80	0.4
	1.0s		8.00nm			4.4mb
			id	38	11.20	
BCAO	27.28	218	eP	37	57.80	-0.6
	1.2s		5.90nm			4.2mb
KHC	27.67	329	Pc	38	02.20	0.4
KSP	27.81	334	eP	38	06.20	3.2X
PRU	27.87	331	eP	38	04.50	1.0
CLL	29.50	332	e(P)	38	22.00	3.8X
MOX	29.64	329	e(P)	38	19.00	-0.5
			e	38	25.00	
GKN	43.89	77	P	40	20.50	-0.1
KKN	44.49	77	P	40	25.60	0.1
PKI	44.64	77	P	40	26.50	-0.4
INK	84.70	356	eP	44	53.00	6.3X
	S.D. = 0.9		on	15	of	23 obs.

% APR 04, 1989 11h 38m 43.35± 0.98s
59.365 N ± 9.2km 6.062 E ± 6.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

BLS1	0.39	86	iP	38	51.45	0.0
			iSg	38	56.62	
KMY	0.45	250	iPc	38	52.41	0.0
			eS	38	58.38	
ODD1	0.62	27	iP	38	55.81	0.0
			eSg	39	03.68	
ASK	1.20	339	eP	39	05.81	0.1
			eS	39	21.57	
HYA	1.81	2	eP	39	14.68	0.0
			eS	39	39.63	
	S.D. = 0.1		on	5	of	5 obs.

% APR 04, 1989 13h 12m 46.85± 0.92s
60.646 N ± 6.1km 6.304 E ±10.4km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.7 (BER).

HYA	0.52	354	iP	12	57.60	0.1
			eSg	13	05.73	
ASK	0.57	254	eP	12	58.08	-0.3
			eS	13	04.54	
			eSg	13	05.75	
ODD1	0.75	167	iP	13	01.33	-0.3
			iS	13	09.81	
			iSg	13	11.61	
SUE	0.86	299	eP	13	03.20	-0.2
			eS	13	14.65	
BLS1	1.29	168	eP	13	10.35	-0.4
			eS	13	27.25	
KMY	1.53	201	iP	13	15.34	1.1
			eS	13	33.03	
			iSg	13	35.06	
	S.D. = 0.7		on	6	of	6 obs.

? APR 04, 1989 14h 03m 57.58± 1.86s
23.315 S ±29.1km 179.471 W ±22.4km
DEPTH = 539.3 ± 24.0 km
4.6mb (5 obs.)
SOUTH OF FIJI ISLANDS (171)

VUN	5.62	340	eP	05	32.50	-0.5
MBU	6.53	345	ePc	05	52.90	11.4X
DZM	13.06	273	iPc	06	49.20	1.6
HNR	24.05	302	eP	08	36.00	4.0X
RMO	28.95	257	eP	09	15.00	-0.1
CTA	31.96	269	iPd	09	41.90	1.1
	0.5s		49.30nm			5.4mb
ASPA	42.61	260	iPd	11	07.60	-0.4
	0.5s		14.00nm			4.7mb
WRA	42.93	265	Pd	11	10.10	-0.4
	0.6s		8.50nm			4.5mb
FORR	46.93	249	iPc	11	39.50	-1.7
MTN	47.90	274	eP	11	48.00	-0.8
WARB	48.73	255	iPc	11	47.70	-7.3X
MBL	55.86	260	iPc	12	45.60	-0.7
	0.4s		4.00nm			4.1mb
NANU	59.39	257	eP	13	10.40	0.2
SPA	66.83	180	ePc	13	57.90	0.6
	0.8s		15.00nm			4.6mb
CHTO	89.93	290	e(P)	16	01.50	1.0
BRG	150.58	343	i(PKP)	22	56.80	13.6X
	S.D. = 1.1		on	12	of	16 obs.

& APR 04, 1989 16h 35m 28.34s
62.479 N 150.920 W
DEPTH = 73.9km
CENTRAL ALASKA (1)
<AGS-P>.

SKT	0.58	210	iP	35	41.92	-0.5
PWA	0.97	149	iPc	35	45.90	-0.9
KTH	1.08	360	iP	35	47.59	-0.8
GHO	1.18	126	iP	35	48.84	-0.8
			iS	36	05.90	
PLRM	1.23	136	iP	35	49.20	-1.0
			iS	36	06.64	
PMR	1.23	136	iPc	35	49.20	-1.0
PME	1.23	133	iP	35	49.61	-0.7
CGLM	1.28	204	iP	35	50.00	-1.0
			iS	36	07.24	
CRP	1.35	206	iP	35	51.09	-0.9
PMS	1.40	152	iPc	35	51.20	-1.3
SPU	1.41	203	iP	35	51.51	-1.2
MCK	1.55	35	eP	35	53.32	-1.2
NKA	1.75	185	iP	35	58.78	1.6
SLKM	2.01	170	iP	35	59.99	-0.8
RDT	2.04	201	iP	36	00.31	-1.0
TOA	2.25	98	iPc	36	02.90	-1.3
RED	2.25	204	eP	36	03.36	-0.8
WRH	2.37	31	eP	36	03.62	-2.1
TTA	2.39	283	iPc	36	04.60	-1.5
GLI	2.43	130	iP	36	04.22	-2.4
			iS	36	33.12	
NNL	2.45	184	eP	36	07.58	0.7
SEW	2.49	163	eP	36	09.30	2.0
VZW	2.52	123	eP	36	05.51	-2.3
KLU	2.56	111	iP	36	05.99	-2.5
PAX	2.56	76	eP	36	07.13	-1.3
VLZ	2.56	120	eP	36	05.49	-2.9
CCB	2.58	31	eP	36	06.40	-2.3
ILIM	2.60	203	eP	36	08.29	-0.7
SVW	2.62	240	iPd	36	07.90	-1.4
KNIM	2.63	143	iP	36	05.83	-3.5
DDM	2.65	58	eP	36	09.19	-0.5
FID	2.74	127	iP	36	08.34	-2.6
			eS	36	40.80	
FBA	2.80	28	eP	36	09.90	-1.8
MTU	2.96	146	eP	36	10.35	-3.6
GLM	2.97	30	eP	36	11.95	-2.2
CNPM	2.97	183	eP	36	13.52	-0.6
HIN	2.98	133	iP	36	11.69	-2.5
OPT	3.05	203	eP	36	15.12	-0.1
PDB	3.13	212	eP	36	15.10	-1.2
CVA	3.15	126	eP	36	13.85	-2.7
SGAM	3.38	123	eP	36	16.76	-3.1
GLB	3.52	104	eP	36	18.95	-2.8
RAGM	3.66	122	eP	36	21.61	-2.2
IMA	3.80	343	iPc	36	23.70	-2.1
BALM	4.32	106	eP	36	29.54	-3.6
CTGM	4.81	104	eP	36	36.79	-3.2
			eS	37	30.95	
KDC	4.81	190	eP	36	36.79	-3.0
DWY	5.42	68	P	36	45.00	-3.4
HYT	6.60	99	P	37	01.00	-3.9
MBC	17.34	25	eP	39	24.00	-2.4
	50 obs. ossocioted					

APR 04, 1989 17h 08m 08.63± 0.60s
46.438 N ± 8.0km 5.041 E ± 5.5km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.1 (LDG).

SMF	0.85	284	Pg	08	26.40	1.3
			Sg	08	38.50	
LBF	0.91	307	Pn	08	26.30	0.2
			Pg	08	26.80	
			Sg	08	39.60	
LOR	1.16	316	Pn	08	29.90	-0.4
			Pg	08	30.80	
			Sg	08	45.80	
AVF	1.22	287	Pn	08	31.40	0.1
			Pg	08	32.50	
			Sg	08	49.20	
SSF	1.23	301	Pn	08	31.30	-0.1
			Pg	08	32.80	

		Sg	08 48.00			
LPL	1.50	127	Pn	08 35.20	-0.6	
			Pg	08 38.20		
			Sg	08 55.50		
LPG	1.52	128	Pn	08 35.60	-0.5	
			Sg	08 56.00		
BGF	1.52	275	Pn	08 36.00	0.1	
			Pg	08 39.60		
			Sg	09 00.00		
MAF	1.73	264	Pn	08 38.00	-0.9	
			Pg	08 43.20		
			Sg	09 06.00		
HAU	1.80	29	Pn	08 37.60	-2.4	
			Sn	09 01.20		
BSF	1.84	40	Pg	08 43.20	2.6	
			Sg	09 06.00		
TCF	1.97	267	Pn	08 42.40	0.0	
			Pg	08 47.60		
			Sg	09 12.60		
FOUF	2.27	147	P	08 47.65	1.0	
LSF	2.44	267	Pn	08 48.80	-0.3	
			Pg	08 56.00		
			Sg	09 33.30		
DOU	3.67	355	P	09 44.30	37.7X	

S.D. = 1.2 on 14 of 15 obs.

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* APR 04, 1989 17h 17m 19.32± 1.10s
6.912 S ± 8.4km 129.525 E ±12.6km
DEPTH = 165.1 ± 13.7 km
4.6mb (6 obs.)
BANDA SEA (280)

AAI	3.47	337	iPd	18 14.50	0.8	
MTN	6.10	165	iPd	18 47.40	-1.0	
			eS	19 51.00		
KNA	8.81	185	iPd	19 32.50	8.0X	
			eS	20 55.00		
WRA	13.77	161	iPc	20 24.30	-4.6X	
			iS	22 51.80		
QIS	16.72	145	iPc	21 03.70	-1.7	
			e	21 05.80		
			eS	23 58.80		
MBL	16.99	213	eP	21 08.50	-0.2	
ASPA	17.18	166	iPd	21 10.50	-0.6	
	0.7s		43.00nm		4.9mb	
			eS	24 13.50		
PMG	17.63	99	eP	21 18.00	1.7	
WARB	19.36	188	eP	21 29.00	-5.6X	
NANU	20.59	219	eP	21 48.00	1.0	
MEKA	22.21	207	eP	22 04.00	1.1	
FORR	23.85	183	eP	22 20.00	1.3	
GUN	54.54	311	P	26 32.40	-0.7	
	0.6s		13.00nm		4.9mb	
PKI	54.71	311	P	26 33.00	-1.3	
	0.5s		3.00nm		4.3mb	
KKN	54.92	311	P	26 34.90	-0.8	
	0.5s		3.00nm		4.3mb	
DMN	54.96	311	P	26 35.30	-0.7	
GKN	55.52	311	P	26 39.10	-0.8	
	0.4s		6.00nm		4.8mb	
GBA	55.58	292	Pc	26 41.90	1.6	
	0.4s		0.90nm		4.0mb	
MAW	74.86	201	eP	28 25.50	-17.5X	

S.D. = 1.3 on 15 of 19 obs.

? APR 04, 1989 17h 38m 26.88± 6.76s
32.476 S ±44.7km 71.613 W ±32.1km
DEPTH = 24.6 ± 7.9 km
NEAR COAST OF CENTRAL CHILE (135)

ROCH	0.71	134	iP	38 40.50	-0.2	
JACH	0.89	104	iP	38 43.60	0.0	
SAN	1.26	141	iPd	38 48.70	-0.3	
			iS	39 04.00		
TACH	1.30	154	iPd	38 49.50	-0.1	
			iS	39 06.00		
FCH	1.40	128	iPd	38 51.30	0.0	
PCH	1.47	141	eP	38 52.00	-0.1	
			iS	39 11.00		
LNV	1.48	173	iPd	38 51.90	-0.3	
			iS	39 10.00		
CHCH	1.66	151	iPd	38 55.70	0.9	
			iS	39 16.00		

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

APR 04, 1989 18h 10m 16.45± 0.73s
39.181 N ± 7.2km 23.378 E ± 7.2km
DEPTH = 25.4 ± 7.0 km
AEGEAN SEA (365)
ML 2.8 (ATH).

NEQ	0.17	316	ePb	10 22.20	0.3	
			eSb	10 26.40		
PLG	1.19	2	iPnc	10 37.70	0.1	
			eSn	10 53.30		
ATH	1.24	167	ePn	10 38.00	-0.1	
KZN	1.67	313	ePb	10 47.00	2.5	
PRK	2.25	87	ePb	10 54.80	2.1	
EZN	2.37	73	ePn	10 55.00	0.6	
VLS	2.40	246	ePn	10 55.00	0.1	
MMB	2.42	6	eP	10 55.00	-0.2	
			iS	11 22.00		
RDO	2.57	39	ePn	10 56.50	-0.8	
KKB	2.69	355	iP	10 59.00	0.0	
KDZ	2.92	32	eP	11 03.00	0.8	

S.D. = 1.2 on 11 of 11 obs.

? APR 04, 1989 18h 15m 57.08± 1.26s
7.104 S ±16.2km 129.591 E ±23.0km
DEPTH = 163.8 ± 40.1 km
BANDA SEA (280)

AAI	3.67	338	iPd	16 54.00	0.0	
MTN	5.90	165	iPc	17 24.60	1.1	
			eS	18 26.00		
KNA	8.63	185	eP	17 59.00	-0.8	
			eS	19 30.00		
WRA	13.57	161	Pc	19 02.00	-2.2	
	0.4s		3.70nm		4.1mb	
QIS	16.52	145	eP	19 41.00	0.1	
			eS	22 57.00		
MBL	16.86	213	eP	19 45.20	0.2	
ASPA	16.98	166	iPc	19 48.10	1.6	
			eS	22 50.70		

S.D. = 1.8 on 7 of 7 obs.

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* APR 04, 1989 18h 31m 52.85± 3.59s
44.517 N ±15.2km 6.754 E ±27.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.4 (GEN).

FOUF	0.02	59	P	31 55.26	0.5	
			Sg	31 56.29		
PZZ	0.25	93	P	31 57.90	-0.3	
			S	32 01.52		
RRL	0.40	3	P	32 00.71	-0.5	
			S	32 06.35		
STV	0.49	123	P	32 02.37	-0.5	
			S	32 08.67		
RSP	0.73	29	P	32 06.70	-0.6	
			S	32 16.09		
ROB	0.83	105	P	32 08.36	-0.6	
			S	32 18.55		

S.D. = 0.5 on 6 of 6 obs.

& APR 04, 1989 19h 09m 57.01s
18.972 N 155.288 W
DEPTH = 23.9km
4.6mb (6 obs.)
HAWAII (613)
<HVO-P>. MD 4.4 (HVO). Felt (IV) ot Ninole ond (III) at Paauhou. Also felt ot Howaii Volcanoes Notionol Pork, Hawoiion Ocean View Estotes, Honokaa, Kona, Pohala, Papaikou, Naalehu, Paradise Park, Royol Gardens and Woimeo.

PPL	0.25	318	iPd	10 02.46	-0.7	
			iS	10 06.76		
HTC	0.29	338	iPd	10 03.09	-0.7	
			iS	10 07.50		
PWH	0.32	11	iPd	10 03.54	-0.7	
			iS	10 08.03		
HLP	0.33	356	iPd	10 03.82	-0.6	
WOH	0.34	324	iPd	10 03.83	-0.9	
KAE	0.35	25	iPd	10 03.97	-0.7	
SPT	0.36	272	iPd	10 03.61	-1.2	
			iS	10 08.65		
KNH	0.36	360	iPd	10 04.15	-0.8	
DES	0.37	345	iPd	10 04.13	-1.1	
AHA	0.40	3	iPd	10 04.52	-1.1	
			iS	10 09.77		
PUH	0.41	9	iPd	10 04.47	-1.3	
			iS	10 09.62		
MKA	0.41	17	iPd	10 04.56	-1.2	
OUT	0.42	1	iPd	10 04.63	-1.2	
KHU	0.42	311	iPd	10 04.72	-1.2	
CPK	0.42	355	iPd	10 04.71	-1.3	
WHA	0.42	32	iPc	10 04.89	-1.0	
RIM	0.42	1	iPd	10 04.78	-1.2	
AIN	0.43	338	iPd	10 05.31	-0.9	
ESR	0.44	6	iPd	10 04.94	-1.3	
NPH	0.44	1	iPd	10 04.87	-1.4	
UWE	0.45	359	iPc	10 05.40	-1.0	
KFH	0.46	345	iPd	10 05.73	-1.0	
MLX	0.49	354	iPd	10 05.83	-1.2	
TRH	0.51	331	iPd	10 06.23	-1.3	
DAH	0.52	317	iPd	10 06.18	-1.7	
MLH	0.53	350	iPd	10 06.61	-1.2	
HUL	0.53	33	iPc	10 06.24	-1.4	
			iS	10 12.82		
SWH	0.57	328	iPd	10 06.68	-1.9	
WIH	0.57	331	iPd	10 06.92	-1.7	
MVH	0.57	22	iPd	10 06.87	-1.5	
PLL	0.58	344	iPd	10 07.24	-1.5	
KUH	0.62	298	iPd	10 07.39	-1.9	
WOB	0.63	334	iPd	10 07.78	-1.8	
POH	0.63	40	iPc	10 07.73	-1.6	
HMH	0.66	344	iPd	10 08.49	-1.5	
HBH	0.67	33	iPc	10 08.10	-1.8	
KPO	0.67	39	iPc	10 08.12	-1.9	
KIH	0.70	320	iPd	10 08.96	-1.7	
NGH	0.77	19	iPd	10 09.78	-1.8	
HIL	0.77	14	iPd	10 09.86	-1.7	
			iS	10 18.86		
CPH	0.79	311	iPd	10 09.55	-2.4	
HPU	0.82	349	iPd	10 10.62	-2.2	
HUH	0.88	324	iPd	10 11.61	-2.1	
KKU	0.91	357	iPd	10 12.26	-2.0	
WKH	0.95	338	iPd	10 12.20	-2.6	
KOH	1.24	338	iPd	10 15.81	-3.2	
HLK	2.00	333	iPd	10 26.36	-3.8	
			eS	10 47.26		
HON	3.46	313	P	10 46.40	-4.3	
OPA	3.72	317	P	10 49.60	-4.7	
ARN	34.69	51	eP	16 47.50	0.4	
ORV	35.61	48	eP	16 55.30	0.4	
MWC	36.36	58	eP	17 02.00	0.5	
ISA	36.44	55	eP	17 02.00	0.0	
SBB	36.67	57	eP	17 04.00	0.0	
RVR	36.85	58	eP	17 03.00	-2.4	
PLM	37.12	60	eP	17 09.00	1.1	
BAR	37.13	61	eP	17 08.00	0.2	
CLC	37.16	55	eP	17 08.00	-0.1	
GSC	37.64	56	eP	17 13.00	0.9	
KVN	37.83	50	eP	17 14.50	0.7	
TPC	37.95	59	eP	17 15.00	0.3	
TNP	38.15	52	eP	17 17.30	0.8	
	0.7s		5.41nm		4.5mb	
LON	38.98	37	eP	17 24.00	0.9	
PNT	41.63	35	eP	17 46.00	1.1	
	0.6s		9.00nm		4.7mb	
MSU	42.07	53	eP	17 50.00	1.1	
PMR	42.80	4	eP	17 54.50	0.3	
	0.7s		10.17nm		4.7mb	
			epP	18 02.00	25kmX	
DAU	43.27	51	eP	17 59.00	0.2	
TTA	43.92	360	eP	18 03.00	-0.5	
	0.6s		6.16nm		4.6mb	
			epP	18 10.30	24kmX	
ALQ	45.89	59	eP	18 20.00	0.2	
	0.8s		6.41nm		4.6mb	
FBA	46.17	4	eP	18 21.00	-0.3	
	0.8s		8.62nm		4.8mb	
			epP	18 28.00	23kmX	
EDM	47.04	33	eP	18 27.60	-0.8	
GOL	47.49	53	P	18 29.60	-2.9	
GLD	47.61	53	P	18 30.00	-3.3	
INK	51.19	10	eP	18 59.00	-1.1	
YKA	51.73	23	eP	19 03.90	-0.4	
MBC	60.19	9	eP	20 04.00	-0.9	
MAT	60.30	302	eP	20 07.00	0.7	
FRB	71.74	28	eP	21 17.00	-1.9	

78 obs. associated

? APR 04, 1989 19h 38m 22.49± 1.19s
37.870 N ±11.3km 28.311 E ±11.5km
DEPTH = 10.0km (geophysicist)

04d 19h

TURKEY (366)

YER	0.73	182	iPn	38 45.10	8.2X
IZM	0.98	303	ePn	38 41.30	0.2
ELL	1.70	131	iPn	38 52.30	-0.1
DST	1.75	8	iPn	38 52.00	-1.1
BCK	1.85	102	iPn	38 48.50	-6.1X
KCT	2.38	1	iPn	39 06.60	4.5X
EZN	2.49	322	ePn	39 10.20	6.5X
EDC	2.50	352	ePn	39 11.50	7.7X
BNT	2.50	353	ePn	39 04.10	0.2
GPA	2.87	32	ePn	39 10.00	0.8
BBTK	3.99	59	eP	39 29.00	3.8X
			eS	40 17.00	

S.D. = 1.0 on 5 of 11 obs.

APR 04, 1989 20h 10m 52.15± 0.56s
25.017 N ± 2.8km 123.359 E ± 3.7km
DEPTH = 141.2 ± 5.5 km
5.0mb (27 obs.)

NORTHEAST OF TAIWAN (245)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 18C
Centroid Location:
Origin Time 20:10:50.0 0.6
Lat 24.62N 0.08 Lon 122.96E 0.11
Dep 121.1 5.2 Half-duration 1.7
Moment Tensor; Scale 10**16 Nm
Mrr= 5.57 0.86 Mtt=-2.88 1.13
Mff=-2.69 1.46 Mrt=-9.64 0.76
Mrf=-0.60 0.78 Mtf=-4.05 1.10
Principal Axes:
T Val= 12.08 Plg=55 Azm=192
N -1.18 19 73
P -10.89 28 332
Best Double Couple:Mo=1.1*10**17
NP1:Strike= 22 Dip=24 Slip= 37
NP2: 258 76 110

ANP	1.68	276	iPc	11 23.00	-0.5
	0.9s	1546.22nm			
			eS	11 47.50	
QZH	4.33	270	P	11 56.20	-1.1
			S	12 41.60	
SSE	6.35	343	iP-	12 24.00	-0.6
	3.0s	1.80nm			2.9mb X
			sP	13 36.00	
			S	13 44.00	
			i	14 05.00	
NJ2	8.05	332	iPd	12 46.90	-0.5
			S	14 23.00	
BAG	8.95	197	eP	12 58.00	-1.7
			eS	14 36.00	
GZH	9.35	260	eP	13 04.20	-0.6
			eS	14 46.00	
WHN	9.69	307	iPd	13 09.00	-0.3
	1.0s	0.17nm			2.7mb X
			eS	14 51.50	
OCP	10.55	192	eP	13 16.00	-4.6X
TIA	12.38	336	Pd	13 46.20	1.6
	6.0s	1.40nm			2.7mb X
QIZ	13.87	247	eP	14 04.00	0.1
N	15s	1.10um			
			eS	16 38.00	
DL2	13.92	354	Pd	14 05.00	0.6
	4.0s	1.10nm			2.5mb X
GYA	15.12	279	P	14 21.20	1.5
XAN	15.44	309	Pd	14 22.70	-0.9
			S	17 15.00	
TIY	15.71	326	iPd	14 29.00	2.1
	6.0s	2.00nm			2.6mb X
BJI	16.15	340	Pd-	14 33.50	1.2
	5.0s	1.40nm			2.5mb X
			esP	14 52.50	
			eS	17 36.00	
SNY	16.77	1	iPd	14 40.00	0.1
	5.0s	1.70nm			2.6mb X
			sP	15 13.00	
			S	17 48.00	
MAT	17.14	44	eP	14 45.00	0.4
	0.5s	7.04nm			4.2mb
			eS	17 52.00	
DAV	17.95	173	eP	14 53.00	-1.3
CD2	18.27	293	iPd	14 57.10	-0.7
			S	18 17.00	
HHC	18.61	331	iPd	15 01.80	0.5
	2.5s	1.60nm			2.9mb X
N	11s	0.60um			
			eS	18 30.00	
KMI	18.68	275	Pc	15 04.00	1.7
Z	14s	0.80um			
			pP	15 10.00	
			sP	15 13.50	
			i	15 43.50	
			S	18 30.00	
			sS	18 40.00	
CN2	18.82	5	Pd	15 02.00	-1.4
	3.0s	0.60nm			2.4mb X
			sP	15 40.00	
			eS	18 24.00	
			ePcP	19 21.60	
			ScP	22 45.00	
			ScS	26 26.00	
BTO	19.12	328	iPd	15 07.00	0.3
N	10s	0.50um			
E	10s	0.50um			
			PP	15 27.00	
			S	18 38.00	
			sS	18 45.00	
LZH	20.07	308	P	15 17.00	0.5
	5.0s	811.00nm			5.4mb X
			S	18 53.00	
KKM	20.07	201	ePc	15 16.70	0.1
MDJ	20.20	13	eP	15 17.50	-0.1
N	10s	1.40um			
			epP	15 44.00	152kmX
			S	18 55.00	
			SS	19 30.00	
TSM	21.29	195	ePd	15 28.30	-0.4
GUMO	23.23	115	eP	15 49.80	2.2
	1.3s	549.02nm			5.8mb
PJG	23.23	115	eP	15 50.00	2.4
GUA	23.29	115	eP	15 49.70	1.4
CHG	23.46	260	eP	15 51.10	1.2
	1.1s	34.81nm			4.7mb
CHTO	23.46	260	eP	15 51.00	1.1
	1.1s	30.33nm			4.7mb
MNI	23.48	176	ePd	15 50.50	0.4
GTA	24.46	312	iPd	15 58.50	-0.9
	1.4s	0.10nm			2.1mb X
SHL	28.43	278	iP	16 35.50	-0.4
			iS	21 12.00	
LSA	28.93	287	P	16 40.50	-0.1
IPM	29.55	230	ePc	16 46.40	0.7
	0.6s	50.20nm			5.4mb
KGM	29.94	223	eP	16 49.80	0.7
MKS	30.29	188	ePc	16 52.00	-0.1
PSI	32.36	231	ePc	17 10.00	-0.2
	1.1s	37.10nm			5.1mb
GUN	33.59	283	P	17 21.00	-0.3
	0.6s	20.00nm			5.0mb
PPI	33.69	225	eP	17 22.00	0.2
PKI	34.03	283	P	17 24.20	-0.8
	0.6s	9.00nm			4.7mb
KKN	34.13	283	P	17 25.20	-0.5
	0.6s	17.00nm			5.0mb
DMN	34.30	283	P	17 26.70	-0.5
	0.5s	8.00nm			4.7mb
WMQ	34.54	312	P	17 28.50	-0.4
Z	10s	0.40um			4.5MszX
			PP	18 47.20	
			ScP	23 33.00	
GKN	34.68	284	P	17 29.70	-0.7
	0.4s	8.00nm			4.8mb
MTN	38.39	168	iPc	18 00.60	-0.7
			e	20 13.00	
NDI	41.14	286	iPc	18 23.60	-0.3
PMG	41.34	143	iPc	18 26.50	0.9
	1.1s	96.20nm			5.4mb
KSH	42.11	302	eP	18 33.00	1.0
HYB	42.30	269	eP	18 34.00	0.4
GBA	44.61	264	Pc	18 53.00	0.8
	0.8s	9.70nm			4.5mb
KOD	45.91	260	eP	19 05.00	2.2
WRA	45.95	166	Pc	19 02.30	-0.3
	0.5s	35.40nm			5.3mb
MBL	46.03	185	iPc	19 02.40	-0.8
	0.5s	26.00nm			5.2mb
POO	46.23	272	iP	19 05.70	0.7
NANU	47.90	190	eP	19 17.70	-0.2
QIS	47.98	159	iPc	19 18.60	0.1
ASPA	49.46	167	ePc	19 29.80	-0.1
	0.5s	94.00nm			5.8mb
			iPcP	20 50.10	
			iS	26 29.30	
WARB	51.00	176	iPc	19 36.00	-5.5X
MEKA	51.54	186	iPc	19 44.50	-1.1
	0.4s	13.00nm			5.1mb
MRWA	54.39	188	eP	20 05.50	-1.0
MAIO	55.20	298	iPd	20 13.60	1.0
			e	20 46.00	
			eS	27 51.00	
COOL	55.62	182	iPc	20 14.70	-0.8
	0.4s	22.00nm			5.4mb
FORR	55.74	175	iPc	20 15.90	-0.3
	0.4s	64.00nm			5.9mb X
KLB	56.54	186	iPd	20 21.80	-0.2
RMQ	56.77	153	eP	20 24.00	0.3
NWAO	57.92	186	eP	20 31.50	-0.1
STK	59.20	162	iPc	20 40.20	-0.3
	0.4s	19.00nm			5.4mb
			e	21 28.00	
SDN	62.01	39	eP	20 57.40	-1.9
TTA	63.80	30	eP	21 10.80	-0.3
SVW	64.13	32	eP	21 13.30	0.1
IMA	64.58	27	eP	21 15.50	-0.6
	1.0s	7.50nm			4.6mb
CAN	64.73	157	iPc	21 17.40	0.1
TAB	65.23	302	eP	21 03.00	-17.8X
TOO	65.64	161	iPc	21 23.70	0.6
KDC	66.14	36	eP	21 25.50	-0.5
PMR	67.16	31	eP	21 31.30	-1.1
	0.5s	10.20nm			4.9mb
FBA	67.16	28	eP	21 31.90	-0.5
SOD	69.72	336	iP	21 47.40	-0.7
SUF	71.29	331	iP	21 56.50	-1.2
INK	71.71	22	eP	21 59.00	-1.1
			pP	22 31.00	129kmX
MBC	72.01	13	eP	22 01.00	-0.8
	0.5s	13.00nm			4.9mb
ALE	72.64	1	eP	22 05.00	-0.4
NUR	72.69	329	eP	22 05.00	-0.9
Z	19s	0.20um			4.4Msz
			LR	57 10.00	
DAG	75.86	352	iPd	22 22.60	-1.3
	0.9s	16.81nm			4.8mb
			i	22 56.30	
PRNI	76.48	297	iPd	22 29.00	0.7
MBH	76.78	297	eP	22 30.00	0.1
VRI	76.84	315	ePc	22 31.00	1.1
MLR	77.49	314	ePc	22 33.00	-0.7
HFS	77.80	331	eP	22 34.10	-0.8
	0.6s	9.60nm			4.7mb
Z	17s	0.12um			4.3MszX
			LR	58 04.00	
NRA0	78.43	332	P	22 36.00	-2.3
NAO	78.68	333	P	22 38.60	-1.1
	0.6s	3.70nm			4.3mb
DEV	79.28	316	ePc	22 44.00	0.7
KRA	79.29	320	eP	22 33.40	-9.8X
			e	22 48.50	
YKA	81.43	23	eP	22 54.80	0.6
YKC	81.49	23	iPd	22 54.50	0.0
	0.3s	7.00nm			4.9mb
CLL	82.57	324	eP	23 00.00	-0.4
KHC	83.37	322	P	23 06.00	1.4
			e	23 39.00	
AVY	85.55	247	eP	23 17.40	1.3
HTW	86.94	38	P	23 20.70	-1.7
			pP	23 52.00	121kmX
PNT	87.24	36	eP	23 25.00	1.3
EDM	87.90	30	iPd	23 27.80	1.0
SES	90.85	31	ePd	23 41.40	0.7
FRB	91.04	5	ePd	23 40.40	-0.8
FFC	91.57	24	iPd	23 43.70	-0.2
	0.5s	22.00nm			5.6mb
KVN	94.22	43	P	23 57.80	1.1
			pP	24 30.00	123kmX
TNP	95.36	44	P	24 03.00	1.1
			pP	24 36.00	127kmX
KIC	120.67	295	PKP	29 29.40	-0.1
ZOBO	166.18	53	ePKP	30 47.00	4.5X
			e	31 44.00	

S.D. = 1.0 on 106 of 111 obs.

? APR 04, 1989 21h 20m 06.93± 9.14s
37.194 N ±65.2km 17.893 E ±42.4km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)

```
SOI      1.70 302 P      20 36.60  -0.2
                 eSn     20 54.50
ATN      2.16 297 P      20 43.50   0.1
TDS      2.75 334 Pc     20 52.60   0.8
LCI      3.14   1 P      20 57.80   0.5
MGR      3.46 329 P      21 01.60  -0.3
                 eSn     21 38.00
BRT      3.72 352 P      21 04.60  -1.0
SGO      3.92 330 P      21 08.50   0.1
      S.D. = 0.7  on   7 of   7 obs.
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&  APR  04, 1989  22h 46m 59.22s
   58.181 N          151.546 W
   DEPTH =  50.1km
 KODIAK ISLAND REGION                ( 13)
      <AGS-P>. ML 4.0 (PMR).

KDC      0.67 230 iPd    47 11.90  -0.7
XLV      1.28 356 eP     47 20.12  -0.9
                 eS      47 36.79
CNPM     1.36   7 iP     47 21.16  -1.0
                 iS      47 39.81
NNL      1.87   4 eP     47 28.28  -1.1
ILIM     2.04 340 iP     47 30.26  -1.5
                 iS      47 58.33
PDB      2.12 321 iP     47 30.95  -1.9
SEW      2.21  28 iP     47 31.94  -2.2
                 iS      48 03.10
SLKM     2.43  16 eP     47 34.32  -3.0
RDT      2.44 350 eP     47 35.12  -2.4
NKA      2.58   3 eP     47 38.83  -0.4
MTU      2.71  46 eP     47 39.43  -1.8
KNIM     2.92  40 eP     47 41.35  -3.0
SPU      3.02 355 eP     47 42.79  -3.0
CRP      3.11 355 eP     47 45.06  -2.1
CGLM     3.15 356 iP     47 45.67  -1.9
PMS      3.23  17 eP     47 46.30  -2.5
HIN      3.41  47 eP     47 48.93  -2.3
GLI      3.53  38 eP     47 49.43  -3.5
PWA      3.58  13 eP     47 51.13  -2.5
SVW      3.59 327 eP     47 50.90  -2.9
PLRM     3.63  19 eP     47 51.48  -2.8
PMR      3.63  19 ePc    47 51.50  -2.8
FID      3.65  43 eP     47 51.38  -3.2
PME      3.68  19 eP     47 52.41  -2.6
CVA      3.80  49 eP     47 54.04  -2.6
SKT      3.81   0 eP     47 54.27  -2.6
GHO      3.84  19 eP     47 54.34  -3.0
VZW      3.84  39 eP     47 54.63  -2.7
VLZ      3.97  40 eP     47 56.87  -2.2
SGAM     3.99  52 eP     47 57.10  -2.3
RAGM     4.16  55 eP     47 59.72  -2.1
KLU      4.37  38 eP     48 02.26  -2.5
TOA      4.76  32 eP     48 08.80  -1.6
GLB      5.09  47 eP     48 12.14  -2.9
TTA      5.25 337 eP     48 13.40  -3.8
KTH      5.40   3 eP     48 17.37  -1.9
BALM     5.48  55 eP     48 17.50  -3.0
BCPM     6.39  69 eP     48 30.28  -2.9
FBA      6.98  13 eP     48 37.56  -3.7
IMA      7.98 354 eP     48 54.50  -0.8
YKA     18.60  61 P      51 25.10  10.8
MBC     21.44  20 eP     51 47.00   2.5
      42 obs. ossociated
-------------------------------------------
   APR  05, 1989  00h 04m 27.78± 0.40s
    3.473 S ± 5.3km  136.515 E ± 7.6km
   DEPTH =  81.0km  (  2 depth phoses)
    5.1mb (  7 obs.)
 WEST IRIAN                          (201)

JAY      4.29  77 ePd    05 32.00  -0.1
MNDI     7.60 111 eP     06 21.00   2.8X
MTN     10.73 209 iPc    07 00.20  -0.4
                 eS      08 51.00
KNA     14.39 211 iPd    07 49.50   0.7
        0.3s     54.00nm          5.3mb
                 eS      10 21.00
WRA     16.51 187 P      08 15.00  -0.8
        0.3s      2.20nm          3.8mb X
QIS     17.25 170 iPc    08 23.20  -1.8
                 eS      11 26.00
CTA     19.05 151 iPd    08 47.50   1.0
        0.4s      5.51nm          4.2mb
                 i       08 51.00
                 i(PP)   09 05.00
                 i(S)    12 14.00

ASPA    20.23 187 iPd    09 00.70   1.8
        0.6s     66.00nm          5.1mb
                 ePP     09 17.40  82km
                 eS      12 35.60
CHG     43.10 302 ePd    12 21.90   0.0
        0.8s     13.43nm          4.8mb
CHTO    43.10 302 iP     12 22.00   0.1
        0.7s     10.48nm          4.8mb
                 pP      12 41.50  80km
XAN     45.49 327 P      12 40.60  -0.2
LZH     49.81 325 eP     13 15.00   0.3
GTA     54.41 325 eP     13 49.00   0.0
GUN     57.84 306 P      14 14.10   0.1
PKI     58.08 306 P      14 15.00  -0.7
KKN     58.28 306 P      14 16.70  -0.2
        0.7s     26.00nm          5.5mb
DMN     58.35 305 P      14 17.30  -0.1
        0.7s     42.00nm          5.7mb
GKN     58.88 306 P      14 21.10   0.1
MBC     96.70  14 eP     17 50.00   0.2
CNCB   148.51 131 ePKP   24 09.00   4.3X
LPB    148.59 130 ePKP   24 11.00   6.4X
ZOBO   148.72 130 ePKP   24 09.00   4.0X
      S.D. = 0.8  on  18 of  22 obs.
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    APR  05, 1989  01h 30m 19.94± 0.38s
    46.887 N ± 8.1km  154.046 E ± 5.3km
    DEPTH =  34.6km  (  2 depth phoses)
    5.2mb ( 35 obs.)  4.4Msz (  1 obs.)
  KURIL ISLANDS REGION                (222)

KUSJ     7.62 244 eP     32 07.20  -4.2X
                 eS      33 29.50
ASAJ     8.48 255 P      32 24.00   0.7
HOOJ     8.89 243 P      32 26.60  -2.4X
                 eS      34 01.90
MRRJ    10.26 249 eP     32 42.90  -4.9X
                 S       34 34.10
MAT     15.68 234 eP     33 59.00  -0.8X
                 (S)     37 01.00
MDJ     17.20 271 eP     34 18.00  -1.0
      Z  15s      1.30um
                 eS      37 20.00
CN2     20.29 272 eP     34 50.00  -5.2X
      Z  16s      1.00um          4.3MszX
      E  15s      0.80um
                 eS      38 39.00
SHK     20.29 240 eP     34 55.80   0.5
SNY     22.28 268 eP     35 13.60  -1.8
      Z  16s      1.00um          4.3MszX
      N  16s      0.60um
      E  17s      0.70um
BJI     28.12 270 eP     36 10.00  -0.5
      Z  14s      0.90um          4.5MszX
                 eS      41 06.00
TIA     29.37 262 eP     36 21.00  -0.8
SSE     29.75 250 Pc     36 25.80   0.6
        0.7s     12.00nm          4.8mb
NJ2     30.65 254 Pd     36 33.60   0.5
HHC     30.92 274 eP     36 34.80  -0.8
TIY     31.79 269 eP     36 43.20  -0.1
      E  16s      0.70um
WHN     34.59 256 P      37 07.00  -0.4
FBA     35.66  38 P      37 16.00  -0.2
        0.9s     15.63nm          4.9mb
QZH     35.67 245 eP     37 17.30   0.6
XAN     36.16 266 iPc    37 20.10  -0.8
LZH     38.52 272 eP     37 41.50   0.6
        1.5s     88.00nm          5.4mb
GTA     39.58 279 eP     37 49.40  -0.2
INK     41.19  33 ePc    38 03.20   0.9
CD2     41.53 266 eP     38 05.80   0.2
GYA     42.37 258 iPc    38 12.40  -0.2
MBC     44.25  20 eP     38 27.00  -0.1
WMQ     45.47 292 Pd     38 36.60  -0.8
      Z  16s      0.70um          4.7MszX
KMI     45.90 260 eP     38 42.00   0.9
ALE     49.54   6 ePc    39 08.30  -0.3
        0.8s     24.00nm          5.3mb
YKA     50.43  37 eP     39 16.10   0.5
LSA     50.90 274 iPc    39 20.30   0.1
CHTO    52.77 257 iPc    39 34.20   0.3
        1.0s     14.00nm          4.9mb
                 pP      39 44.00  32km
PNT     54.63  53 eP     39 47.00  -0.2
GUN     55.63 276 P      39 54.70  -0.4
KKN     56.11 276 P      39 58.50   0.0

PKI     56.16 276 P      39 58.40  -0.6
DMN     56.35 276 P      40 00.20   0.0
GKN     56.41 276 P      40 00.30  -0.3
KEV     57.43 341 eP     40 05.00  -2.0
SOD     59.35 339 iP     40 18.30  -2.2
FFC     60.22  40 eP     40 26.50  -0.1
        0.8s     10.00nm          5.0mb
LRM     60.60  53 eP     40 30.10   0.5
NDI     61.00 282 iPc    40 31.00  -1.2
        0.6s    100.00nm          6.1mb
KVN     61.54  62 P      40 35.00  -1.0
EUR     62.55  61 eP     40 42.90   0.1
                 pP      40 54.00  37km
TNP     62.68  63 P      40 43.00  -0.7
SUF     63.15 336 eP     40 44.00  -2.1
BW06    64.14  54 P      40 53.00  -0.2
        1.0s     5.63nm          4.6mb
FRB     64.71  19 eP     40 55.00  -1.3
NUR     65.36 335 iP     40 58.80  -1.6
      Z  18s      0.20um          4.4Msz
                 LR      13 40.00
RSON    66.53  40 P      41 06.50  -1.6
AKU     67.60 356 eP     41 16.20   1.6
        0.8s     14.93nm          5.1mb
UPP     67.82 338 iP     41 14.30  -1.8
NRA0    68.51 341 P      41 18.40  -2.0
GOL     68.54  55 P      41 21.00  -0.3
HFS     68.55 340 eP     41 19.20  -1.5
        0.6s     39.50nm          5.7mb
      Z  16s      0.09um          4.1MszX
                 LR      10 37.00
NAO     68.58 342 P      41 19.40  -1.5
        1.0s     35.40nm          5.4mb
WRA     68.86 200 Pc     41 21.80  -1.2
        0.6s      1.30nm          4.2mb X
ALQ     71.22  59 eP     41 37.50  -0.1
        1.0s      3.50nm          4.4mb
KRA     75.60 331 eP     42 03.00   0.4
        0.7s     34.00nm          5.4mb
KSP     76.06 334 eP     42 04.80  -0.5
SPC     76.25 331 eP     42 06.60   0.0
CLL     76.60 336 iPc    42 07.30  -0.9
        0.9s     52.00nm          5.5mb
VRI     76.70 325 ePd    42 09.00   0.1
BRG     76.73 335 iP     42 08.90  -0.1
        1.0s     20.00nm          5.1mb
                 i       42 28.50  73kmX
MLR     77.32 325 ePd    42 13.00   0.5
PRU     77.34 335 Pd     42 12.60   0.2
        0.8s     20.70nm          5.2mb
MOX     77.58 337 eP     42 14.00   0.3
        1.0s     28.00nm          5.2mb
FVM     77.74  47 P      42 14.50  -0.3
PSN     77.92 323 eP     42 17.00   1.4
SRO     78.08 331 i(P)   42 18.10   1.7
ZST     78.14 332 eP     42 17.10   0.3
KHC     78.39 335 iPc    42 17.40  -0.8
        1.0s     17.00nm          5.0mb
GRF     78.55 336 iPc    42 19.00  -0.1
        0.9s     53.00nm          5.5mb
BZS     78.84 328 eP     42 20.50  -0.1
ELC     78.88  47 P      42 21.00   0.0
BBTK    79.04 318 eP     42 22.00   0.0
MEM     79.04 340 P      42 21.30  -0.3
UCC     79.24 341 P      42 24.50   1.7
PVL     79.46 325 eP     42 25.00   1.0
SNF     79.53 341 P      42 26.00   1.7
JMB     79.58 323 eP     42 25.00   0.3
DOU     79.85 341 P      42 27.60   1.6
        1.0s     30.50nm          5.2mb
KBA     80.30 334 iPd    42 29.00   0.2
        0.8s     39.00nm          5.4mb
DIM     80.36 324 iP     42 30.00   1.1
PTJ     80.54 332 e(P)   42 29.00  -0.9
PLD     80.65 324 eP     42 32.00   1.6
KDZ     80.74 324 eP     42 33.00   2.0
CDF     80.77 338 eP     42 31.10   0.0
        0.8s     16.10nm          5.1mb
VTS     80.82 326 iP     42 32.00   0.4
HAU     81.38 339 eP     42 34.00  -0.2
        0.9s     14.40nm          5.0mb
BSF     81.43 338 eP     42 35.40   0.8
        0.9s     11.10nm          4.9mb
MMB     81.47 325 eP     42 35.00   0.2
KKB     81.49 325 eP     42 35.00   0.1
LOR     82.67 340 eP     42 41.10   0.2
        1.2s     38.60nm          5.3mb
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05d 01h

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LBF      82.91 340 eP     42 42.00   -0.2
         1.0s     10.80nm          4.9mb
SSF      82.95 340 eP     42 44.20    1.8
         1.0s     16.00nm          5.1mb
AVF      83.24 340 eP     42 44.20    0.4
         1.0s     22.00nm          5.2mb
SMF      83.26 340 eP     42 44.30    0.3
         1.0s     32.80nm          5.4mb
LPG      83.61 338 eP     42 47.00    0.9
         0.8s     19.30nm          5.3mb
MAF      83.96 341 eP     42 48.20    0.7
         1.0s     28.00nm          5.4mb
TCF      83.97 341 eP     42 48.00    0.3
         1.2s     23.80nm          5.2mb
LSF      84.16 341 eP     42 49.40    0.8
         1.2s     22.00nm          5.2mb
DSI      84.36 311 eP     42 51.00    1.3
SBF      84.94 336 eP     42 54.50    1.9
         1.0s     41.60nm          5.6mb
PRNI     85.53 311 ePd    42 56.00    0.3
LMR      85.68 337 eP     42 56.50    0.3
         1.0s     29.60nm          5.5mb
MBH      86.05 310 eP     42 59.00    0.8
PPD     147.83  48 ePKP   50 08.90    9.1X
      S.D. = 0.9   on 102 of 108 obs.
-------------------------------------------
?  APR  05, 1989   02h 25m 36.82±12.59s
   39.627 N ±54.4km   142.577 E ±89.0km
   DEPTH =  33.0km  (normal)
 NEAR EAST COAST OF HONSHU, JAPAN(228)
      MG 3.6 (JMA). Felt (II JMA) at
      Miyako and (I JMA) at Ofunoto.

MIY      0.47 272 P       25 46.80   -0.2
                  iS      25 50.70
OFUJ     0.89 233 iP+     25 52.40   -0.6
                  S       26 02.00
YAMJ     2.46 235 P       26 14.40   -1.1
KAKJ     3.91 210 P       26 35.40   -0.6
                  eS      27 19.40
CHJJ     4.56 220 P       26 46.00    0.7
                  eS      27 39.70
MAT      4.62 230 eP      26 47.00    0.8
IIDJ     5.56 223 P       26 58.90   -0.5
TSRJ     6.64 234 eP      27 14.80    0.2
      S.D. = 0.8   on   8 of   8 obs.
-------------------------------------------
   APR  05, 1989   04h 36m 01.18± 0.94s
   46.442 N ± 8.2km   12.378 E ± 8.1km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                   (545)
      ML 2.0 (KBA). MD 2.5 (LJU).

FVI      0.32  61 P       36 06.60   -1.2
                  eSg     36 11.00
CTI      0.64 232 P       36 13.70   -0.4
                  eSg     36 23.70
KBA      0.92  46 iPgd    36 18.70   -0.2
                  iSg     36 28.80
                  i       36 30.30
VOY      1.13 111 ePg     36 23.20    0.8
                  eSg     36 37.50
TRI      1.21 127 e(Pg)   36 23.70    0.0
                  i(Sg)   36 42.00
VBY      2.22 114 eP      37 06.20   27.7X
                  eSg     37 13.40
KHC      2.81  16 ePn     36 48.00    1.0
                  ePg     36 59.80
                  Sg      37 35.30
      S.D. = 1.0   on   6 of   7 obs.
-------------------------------------------
&  APR  05, 1989   08h 00m 58.82s
   62.394 N          151.445 W
   DEPTH =  87.2km
 CENTRAL ALASKA                   (  1)
      <AGS-P>.

SKT      0.42 185 iP      01 12.22   -0.6
PWA      1.05 135 eP      01 18.36   -0.8
CGLM     1.12 194 eP      01 19.34   -0.8
CRP      1.18 197 eP      01 20.42   -0.5
                  eS      01 37.26
KTH      1.19  11 iP      01 19.97   -1.0
                  eS      01 35.86
SPU      1.25 194 iP      01 20.96   -0.7
                  iS      01 38.60
GHO      1.34 117 iP      01 22.13   -0.7
                  iS      01 42.37
PLRM     1.36 125 eP      01 21.85   -1.1
PME      1.37 123 eP      01 22.44   -0.7
                  eS      01 41.81
PMS      1.46 141 eP      01 23.34   -1.0
NKA      1.66 176 eP      01 28.26    1.4
RDT      1.88 195 eP      01 29.28   -0.7
SLKM     1.98 162 eP      01 29.19   -2.1
                  eS      01 56.61
TTA      2.18 286 eP      01 32.40   -1.5
NNL      2.36 178 eP      01 37.59    1.2
SVW      2.37 239 eP      01 32.97   -3.5
ILIM     2.43 198 eP      01 36.61   -0.8
TOA      2.48  94 eP      01 36.72   -1.4
VZW      2.69 118 eP      01 38.83   -2.0
KNIM     2.72 137 eP      01 37.21   -4.1
KLU      2.76 107 eP      01 39.20   -2.7
CNPM     2.88 178 eP      01 43.07   -0.4
FID      2.89 123 eP      01 40.52   -3.1
PDB      2.94 208 eP      01 43.30   -0.9
FBA      3.00  31 eP      01 42.98   -2.1
HIN      3.11 128 eP      01 50.60    4.0
      26 obs. associated
-------------------------------------------
%  APR  05, 1989   09h 23m 32.39± 0.87s
   39.148 N ± 7.1km   27.610 E ± 9.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)

IZM      0.80 200 ePg     23 47.80   -0.1
                  eSg     23 59.10
DST      0.91  60 iPg     23 50.10    0.2
                  eSg     24 05.10
EZN      1.20 305 ePn     23 55.00    0.2
EDC      1.21   9 ePn     23 54.50   -0.5
BNT      1.23  11 iPn     23 55.40    0.1
      S.D. = 0.4   on   5 of   5 obs.
-------------------------------------------
*  APR  05, 1989   10h 57m 52.10± 0.62s
   3.009 N ±10.8km   127.900 E ±12.1km
   DEPTH =  33.0km  (normal)
   4.3mb (  1 obs.)
 TALAUD ISLANDS                   (263)

MTN     16.08 169 eP      01 42.00    4.6X
GUMO    19.79  57 eP      02 23.00    0.3
WRA     23.67 165 iPd     03 01.50   -0.2
ASPA    27.15 168 eP      03 34.50    0.0
CHG     32.39 301 eP      04 21.50    0.2
BJI     38.36 345 eP      05 08.00   -3.8X
LZH     39.71 329 eP      05 22.50   -0.9
GUN     47.09 306 P       06 23.60    0.2
GBA     50.93 285 Pd      06 53.20    0.4
        0.6s     2.30nm          4.3mb
      S.D. = 0.6   on   7 of   9 obs.
-------------------------------------------
*  APR  05, 1989   10h 58m 35.27± 1.37s
   35.344 N ±26.3km   24.531 E ± 7.1km
   DEPTH =  10.0km  (geophysicist)
 CRETE                            (370)
      MD 3.8 (ATH).

VAM      0.28 283 ePg     58 41.00   -0.1
NPS      0.89  95 ePg     58 53.00    0.7
KAP      2.17  84 ePn     59 11.00   -0.9
ITM      2.79 312 ePn     59 21.00    0.2
YER      3.52  58 iPn     59 31.30    0.1
ELL      4.58  71 ePn     59 43.40   -2.9X
      S.D. = 0.8   on   5 of   6 obs.
-------------------------------------------
   APR  05, 1989   11h 27m 48.09± 0.40s
   20.790 S ± 8.6km   69.923 W ± 8.1km
   DEPTH =  36.9km  ( 16 depth phases)
   4.8mb ( 11 obs.)
 NORTHERN CHILE                   (123)

CNCB     4.37  25 P       29 02.00    7.7X
                  i       29 03.10
ARE      4.55 341 iPd     28 57.20    0.5
                  iS      29 44.90
LPB      4.57  23 P       29 07.00    9.9X
        1.0s  1580.00nm
ZOBO     4.81  21 P       29 05.00    4.4X
      Z  24s      1.59um
                  i       29 08.00
                  S       30 16.00
                  LR      31 04.00
CCH      4.93  47 P       29 09.20    7.2X
SLA      5.66 135 ePd     29 16.60    4.4X
CYA      8.49 155 ePd     29 50.50   -1.2
ZON     10.77 174 eP      30 28.00    5.0X
RFA     13.99 175 ePd     31 01.10   -4.9X
ITB1    14.84 108 e(P)    31 14.90   -2.2
ITB     15.03 108 e(P)    31 20.80    1.2
PPD     17.38  97 eP      31 58.30    8.8X
BAO     21.45  80 eP      32 36.90    1.4
ITA     23.50  98 eP      32 57.30    1.3
                  e       33 14.60
BMA     24.00  99 eP      33 02.20    1.6
ATB     24.49  47 Pd      33 05.60    0.3
ITR     32.65  73 eP      34 18.30   -0.7
JSC     55.82 349 P       37 23.50   -0.5
                  pP      37 34.00   35km
CVL     59.01 352 P       37 46.50    0.0
                  pP      37 57.00   35km
ELC     60.56 342 P       37 55.00   -2.2
                  pP      38 06.00   37km
FVM     61.56 342 P       38 02.50   -1.5
                  pP      38 13.50   37km
RSNY    65.15 356 P       38 25.50   -2.0
                  pP      38 38.70   46km
ALQ     65.39 327 eP      38 29.00   -0.4
        0.6s     4.00nm          4.7mb
                  epP     38 40.00   36km
GAC     66.37 356 eP      38 47.00   11.9X
CBM     67.42   1 P       38 42.70    0.8
                  pP      38 53.30   34km
GLD     68.65 331 P       38 52.00    2.0
                  pP      39 01.50   30km
GOL     68.68 331 P       38 50.50    0.3
                  pP      39 01.50   36km
LIC     69.10  75 P       38 52.40   -0.6
        0.6s     6.00nm          4.8mb
TIC     69.29  74 P       38 53.50   -0.7
SPA     69.34 180 iPc     38 54.10    0.2
        1.0s    40.50nm          5.4mb
                  e       39 21.60
KIC     69.42  75 Pc      38 54.40   -0.6
        0.5s     7.50nm          5.0mb
MSU     71.06 326 P       39 04.50   -0.3
                  pP      39 17.00   43km
BW06    73.03 331 P       39 16.40    0.0
        0.8s     4.02nm          4.5mb
                  pP      39 27.00   34km
KUK     73.31  77 eP      39 18.00   -0.3
TNP     73.50 323 P       39 20.00    0.8
        0.7s     1.30nm          4.0mb
                  pP      39 31.50   38km
EUR     73.79 325 eP      39 21.90    1.0
                  pP      39 33.00   37km
RSON    74.35 345 P       39 22.50   -1.1
        1.0s     5.00nm          4.5mb
                  pP      39 34.50   40km
KVN     74.67 323 P       39 26.50    0.6
                  pP      39 37.70   37km
SCH     75.35   2 eP      39 29.00   -0.2
SES     79.63 335 eP      39 54.00    0.9
                  pP      40 05.00   36km
FFC     80.06 342 eP      39 54.00   -1.3
        0.8s     8.00nm          4.8mb
PNT     82.57 330 eP      40 10.00    1.5
        0.7s     8.00nm          4.9mb
EDM     82.72 335 ePc     40 08.50   -0.8
FRB     84.26   1 eP      40 17.00    0.3
BLF     85.20 119 eP      40 21.50   -1.1
MAW     85.28 164 eP      40 22.80    0.8
PRY     87.05 118 iPc     40 31.70   -0.1
YKC     90.16 341 eP      40 45.50    0.1
        1.0s    10.00nm          5.1mb
                  pP      40 47.50   6kmX
YKA     90.21 341 eP      40 46.20    0.6
BUL     90.56 112 iPc     40 49.70    1.3
        1.0s    13.00nm          5.2mb
KRI     92.69 109 iPc     41 04.00    5.7X
INK     99.95 340 eP      41 41.00   11.0X
WRA    133.07 212 PKPd    47 05.40    3.2X
        0.8s     0.60nm
GBA    148.05  98 PKPc    47 28.80   -0.1
        0.6s     5.30nm
NDI    149.21  69 ePKP    47 35.50    5.1X
MAT    150.89 309 ePKP    47 38.00    5.3X
        0.9s    20.17nm
      S.D. = 1.1   on  42 of  56 obs.
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% APR 05, 1989 11h 54m 03.04± 1.56s
47.517 N ±11.9km 6.652 E ±14.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.5 (LDG).

BSF	0.33	17	Pg	54 10.00	0.1
			Sg	54 17.10	
HAU	0.53	337	Pg	54 13.70	-0.1
			Sg	54 23.60	
CDF	0.99	25	Pg	54 21.80	-0.1
			Sg	54 36.80	
LBF	1.90	255	Pg	54 35.20	-0.6
			Sg	54 58.00	
LOR	1.91	264	Pg	54 36.50	0.5
			Sg	54 59.00	
SMF	2.11	247	Pg	54 39.00	0.2

S.D. = 0.5 on 6 of 6 obs.

& APR 05, 1989 12h 01m 18.66s
48.807 N 122.070 W
DEPTH = 2.4km
WASHINGTON (29)
<SEA>. CL 2.8 (SEA). Felt at Deming.

MBW	0.11	101	iPd	01 21.76	0.7
			eS	01 24.09	
CMW	0.38	185	iPd	01 25.84	-0.5
RPW	0.51	134	iPd	01 28.15	-0.8
MCW	0.52	256	eP	01 28.26	-0.8
			eS	01 35.37	
OHW	0.57	213	eP	01 29.61	-0.5
			eS	01 37.94	
JCW	0.62	171	iPd	01 30.02	-1.0
			eS	01 38.46	
BLH	0.97	178	eP	01 36.74	-1.1
BLN	1.00	217	eP	01 36.78	-1.6
HTW	1.02	169	eP	01 37.20	-1.6
PGW	1.05	200	eP	01 38.60	-0.5
STW	1.25	239	eP	01 40.23	-2.4
SPW	1.26	185	eP	01 42.36	-0.4
HDW	1.33	210	eP	01 41.96	-2.1
GMW	1.35	201	eP	01 42.27	-2.0
NLW	1.36	122	eP	01 43.21	-1.5
LON	2.07	175	eP	01 54.70	-0.1
BMW	2.46	199	eP	01 59.40	-1.1
SHW	2.62	183	eP	02 03.50	0.7
DPW	2.74	109	eP	02 08.20	3.7

19 obs. ossociated

% APR 05, 1989 12h 03m 26.25± 0.67s
60.629 N ± 5.5km 6.251 E ± 6.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

HYA	0.54	357	iP	03 36.63	-0.5
			iSg	03 44.60	
ASK	0.54	255	eP	03 37.09	-0.1
			eS	03 44.34	
ODD1	0.74	165	iP	03 40.11	-0.7
			eSg	03 48.87	
SUE	0.85	301	eP	03 42.78	0.2
			eS	03 54.26	
BLS1	1.28	167	eP	03 49.55	-0.4
			eS	04 06.49	
KMY	1.51	200	eP	03 54.20	0.9
			eS	04 13.70	
NRA0	2.61	85	iPc	04 09.80	0.7
			iSg	04 46.50	

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

• APR 05, 1989 12h 34m 46.74± 0.74s
18.976 N ± 5.0km 145.329 E ±18.1km
DEPTH = 231.8 ± 9.2 km
4.4mb (5 obs.)
MARIANA ISLANDS (216)

GUMO	5.38	185	eP	36 07.60	0.3
PJG	5.38	185	eP	36 07.50	0.2
GUA	5.42	184	eP	36 07.30	-0.6
	0.6s	149.33nm		5.2mb	
			eS	37 07.80	
IIDJ	17.70	340	P	38 40.10	0.3
KAKJ	17.75	346	P	38 40.50	0.3
CHJJ	17.90	343	P	38 41.60	-0.2
MAT	18.59	342	eP	38 48.00	-0.9
	0.7s	13.70nm		4.6mb	
MTMJ	18.75	341	P	38 50.40	-0.3
NIIJ	19.02	344	P	38 54.20	0.9
WRA	40.15	196	Pd	42 01.80	-0.1
	0.4s	2.20nm		4.0mb	
ASPA	43.83	195	eP	42 31.90	0.2
MBL	47.06	213	eP	42 57.10	0.0
	0.3s	1.00nm		3.7mb	
WARB	48.42	203	eP	43 02.00	-5.6X
INK	69.26	23	eP	45 30.00	-0.1
MBC	72.97	14	eP	45 52.00	-0.1
YKA	77.91	28	eP	46 20.20	0.1
FFC	87.05	32	eP	47 12.00	5.0X
	0.7s	8.00nm		4.7mb	
ZOBO	148.03	90	ePKP	54 07.00	2.8X
LP8	148.10	91	(PKP)	54 00.00	-4.1X
CNCB	148.25	91	PKP	54 08.70	4.1X

S.D. = 0.5 on 15 of 20 obs.

APR 05, 1989 12h 47m 32.51± 0.51s
40.852 N ± 3.7km 30.471 E ± 5.8km
DEPTH = 10.0km (geophysicist)
3.8mb (2 obs.)
TURKEY (366)
Felt at Adapazari.

GPA	0.58	192	iPg	47 44.50	0.3
HRT	0.61	267	ePg	47 44.30	-0.5
GBZT	0.78	266	iPgc	47 47.60	-0.1
			iSg	47 58.20	
ISK	1.09	282	ePg	47 52.80	-0.2
			eSg	48 06.80	
CTT	1.57	281	ePn	48 01.30	0.8
ALT	1.82	189	ePn	48 04.20	0.1
DST	1.88	229	iPn	48 06.10	1.1
BNT	2.00	257	iPn	48 05.80	-1.0
B8TK	2.02	119	ePnd	48 07.50	0.4
			iPg	48 10.50	
			iSg	48 40.00	
EDC	2.05	257	iPn	48 07.50	0.1
DMK	2.26	296	ePn	48 10.90	0.4
KHL	2.63	196	ePn	48 14.50	-1.3
EZN	3.33	253	ePn	48 18.00	-7.7X
BCK	3.39	178	ePn	48 26.00	-0.6
IZM	3.48	226	ePn	48 27.00	-0.9
YER	4.08	205	iPn	48 49.20	12.8X
ELL	4.12	186	ePn	48 38.40	1.4
TLB	4.14	335	ePc	48 37.50	0.4
KVT	4.23	85	iPn	48 52.70	14.2X
CFR	4.65	339	ePc	48 44.00	-0.4
ISR	5.16	327	eP	48 50.00	-1.7
MLR	5.70	326	ePd	49 00.50	1.2
VRI	5.71	333	ePd	48 58.50	-0.9
CMP	5.94	320	ePc	49 04.00	1.4
DEV	7.46	315	ePd	49 25.00	1.0
NUR	20.01	352	eP	52 06.00	-1.9
HFS	21.94	337	eP	52 27.50	-0.1
	0.4s	1.00nm		3.6mb	
SUF	22.05	355	eP	52 26.00	-2.8X
NAO	23.35	335	P	52 42.60	1.0
	1.0s	4.40nm		4.0mb	
GUN	46.80	88	P	55 56.00	-8.5X

S.D. = 1.0 on 25 of 30 obs.

APR 05, 1989 15h 09m 06.52± 0.87s
34.667 N ± 3.8km 24.146 E ± 2.6km
DEPTH = 32.7 ± 6.5 km
4.8mb (43 obs.) 4.2Msz (1 obs.)
CRETE (370)
ML 4.4 (ATH).

VAM	0.74	3	ePb	09 23.00	2.5
NPS	1.34	63	iPbc	09 34.60	5.5X
KAP	2.63	70	iPnc	09 52.00	4.3X
ITM	3.09	325	ePn	09 55.50	1.4
ATH	3.32	354	iPnc	09 58.50	1.2
YER	4.16	53	iPn	10 12.50	3.1X
IZM	4.49	33	ePn	10 16.10	2.0
VLS	4.53	322	ePn	10 15.00	0.4
			eSn	11 04.00	
KSL	4.67	70	ePn	10 18.60	2.0
NEO	4.69	351	ePn	10 17.20	0.4
PRK	4.88	20	iPnc	10 19.70	0.3
ELL	5.13	64	iPn	10 24.90	1.7
EZN	5.43	18	ePn	10 27.40	0.1
KHL	5.66	48	iPn	10 32.60	1.9
PLG	5.72	355	ePn	10 31.50	0.0
BCK	5.92	60	iPn	10 35.80	1.5
KZN	5.94	342	ePn	10 34.50	0.0
DST	6.09	35	iPn	10 38.10	1.4
LSK	6.16	334	iPnd	10 38.90	1.3
SRN	6.16	329	iPn	10 37.20	-0.4
EDC	6.39	26	eP	10 41.50	0.7
BNT	6.42	27	iPn	10 41.30	0.0
ALT	6.48	46	iP	10 44.10	1.9
KBN	6.51	337	ePn	10 43.60	1.2
RDO	6.56	9	ePn	10 44.20	1.0
PPCY	6.75	86	eP	10 44.50	-1.4
BERA	6.88	332	iPnd	10 46.90	-0.8
CTT	7.30	26	eP	10 54.00	0.4
SOI	7.36	300	P	10 54.50	0.1
GBZT	7.41	33	eP	10 55.80	0.7
GPA	7.45	39	eP	10 58.10	2.4
TIR	7.47	334	ePn	10 44.70	-11.3X
ISK	7.48	30	eP	10 55.80	-0.2
LCI	7.50	321	P	10 53.00	-3.3X
HRT	7.54	34	eP	10 57.00	0.0
CSS	7.56	85	eP	10 55.50	-1.7
			eSn	12 17.50	
PHP	7.59	339	iPnd	11 01.50	3.9X
DMK	7.69	21	iP	10 58.70	-0.3
LFK	7.73	83	ePn	10 58.50	-1.1
HLW	7.75	126	eP	11 02.00	2.1
			eS	12 20.00	
ATN	7.82	299	P	10 58.50	-2.4
KOT	8.04	124	eP	11 03.00	-0.9
			S	12 29.50	
FAM	8.11	85	eP	11 04.50	-0.4
SDA	8.19	335	ePn	11 04.20	-1.8
BRT	8.28	320	P	11 06.00	-1.3
MNO	8.30	296	P	11 08.00	0.3
BBTK	8.59	51	iPc	11 12.00	0.3
TTG	8.64	335	ePn	11 09.20	-3.0X
			eSn	12 40.00	
NKY	9.07	335	ePn	11 14.50	-3.8X
			eSn	12 50.50	
BRY	9.31	334	ePn	11 18.00	-3.6X
			eSn	12 56.30	
HRI	9.73	95	eP	11 25.00	-2.4
BUC	9.85	8	ePd	11 24.00	-4.9X
DSI	9.91	105	iPd	11 27.50	-2.3
BURJ	10.01	101	Pc	11 30.10	-1.1
SALJ	10.01	102	Pd	11 29.00	-2.2
MKRJ	10.13	105	P	11 31.50	-1.3
MASJ	10.13	104	Pd	11 31.50	-1.3
MBH	10.32	115	iP	11 35.00	-0.3
CMP	10.61	3	ePc	11 38.00	-1.3
ISR	10.62	9	ePd	11 40.00	0.5
SDI	10.74	314	P	11 37.50	-3.7X
MLR	10.90	7	ePc	11 43.00	-0.4
CFR	10.94	15	eP	11 42.00	-1.8
BZS	11.11	351	eP	11 45.50	-0.5
DEV	11.24	356	ePd	11 47.00	-0.9
VRI	11.36	9	ePd	11 49.00	-0.5
MNS	11.82	314	P	11 55.50	-0.3
ARV	12.38	319	P	12 01.50	-1.8
VBY	12.78	331	eP	12 04.70	-3.8X
			iS	14 20.20	
PTJ	12.83	333	eP	12 03.80	-5.6X
CEY	13.31	329	eP	12 13.00	-2.6
			eS	14 32.50	
LJU	13.51	330	eP	12 15.00	-3.2X
			e(S)	14 36.20	
VOY	13.77	329	eP	12 18.20	-3.5X
			eS	14 42.90	
ZST	14.50	341	eP	12 36.80	5.6X
	Z 17s		3.50um		
			e	16 21.60	
			LR	19 30.00	
KBA	14.83	330	iPd	12 33.80	-1.8
	1.0s	34.50nm		4.7mb	
			i	12 44.00	
			e	15 22.00	
MSL	15.57	78	eP	12 43.50	-1.7
KRA	15.69	350	eP	12 44.80	-1.8
			i	12 57.80	
SBF	15.85	310	eP	12 52.70	4.0X
	0.6s	34.20nm		4.7mb	
STV	16.11	311	P	12 53.15	1.1
PZZ	16.38	312	P	12 55.61	0.0
KHC	16.43	335	P	12 54.40	-1.7
			i	12 59.60	
RRL	16.79	313	P	13 02.38	1.5

05d 15h

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PRU     16.85 338 ePc    13 01.40    0.0
                  e      13 02.50
LSD     16.86 315 P      13 08.99    7.3X
KSP     17.15 343 ePd    13 06.90    1.8
        1.1s     36.00nm          4.4mb
GRF     17.77 332 ePc    13 13.60    0.8
        1.5s    252.00nm          5.1mb
                  e      13 28.00
BRG     17.82 338 eP     13 13.00   -0.4
        1.6s     62.00nm          4.5mb
                  e      14 31.00
TAB     18.18  73 e(P)   13 25.00    6.9X
MOF     18.31 321 P      13 18.00   -1.6
MOX     18.39 334 iPd    13 22.00    1.5
        1.2s     39.00nm          4.5mb
     Z  16s      1.20um
     N  18s      1.10um
     E  16s      0.70um
                  eLR    18 20.00
BSF     18.47 321 P      13 20.31   -1.3
CLL     18.49 338 iPd    13 21.80    0.2
        1.4s     51.00nm          4.5mb
CDF     18.60 323 P      13 21.86   -1.3
GWF     18.81 324 P      13 25.98    0.3
HAU     18.81 320 eP     13 25.20   -0.5
        0.8s     42.90nm          4.7mb
VITF    19.14 321 P      13 28.55   -0.9
SMF     19.44 314 eP     13 32.30   -0.8
        0.7s      9.90nm          4.2mb
LBF     19.54 315 eP     13 32.80   -1.4
        0.6s      9.00nm          4.2mb
LOR     19.76 316 eP     13 35.50   -1.0
        0.5s      6.80nm          4.2mb
AVF     19.81 314 eP     13 36.30   -0.7
        0.8s     17.40nm          4.4mb
SSF     19.85 315 eP     13 37.90    0.4
        0.8s     23.30nm          4.5mb
WLF     19.98 324 P      13 39.70    0.9
BGF     19.99 313 eP     13 38.90   -0.1
        0.9s     26.80nm          4.6mb
MAF     20.00 312 eP     13 39.00   -0.1
        1.0s     46.00nm          4.8mb
LPO     20.25 306 eP     13 41.60    0.0
        0.8s     40.20nm          4.8mb
TCF     20.26 312 eP     13 42.00    0.2
        0.8s     30.80nm          4.7mb
LFF     20.64 307 eP     13 45.80    0.1
        0.6s     24.10nm          4.7mb
LSF     20.66 311 eP     13 46.40    0.5
MEM     20.69 326 P      13 46.60    0.4
ENN     20.84 326 iPd    13 48.60    0.9
        1.0s     61.00nm          4.9mb
DOU     21.03 323 Pc     13 48.90   -0.7
        1.0s    163.90nm          5.4mb
                  e      14 02.30
WTS     21.33 330 iPd    13 53.40    0.8
        0.8s     38.00nm          4.9mb
SNF     21.45 324 P      13 53.80   -0.1
MFF     21.86 310 eP     13 58.10    0.1
        0.8s     29.50nm          4.8mb
AFC     22.53 285 e(P)   14 08.50    3.5X
APHE    22.66 284 eP     14 09.20    3.0
ASMO    22.69 285 eP     14 11.00    4.5X
LDF     22.74 315 eP     14 06.30   -0.4
        0.7s     46.30nm          5.1mb
ATEJ    22.92 284 eP     14 11.00    2.2
ALOJ    22.99 284 eP     14 11.50    2.1
LPF     23.02 313 eP     14 09.70    0.2
FLN     23.03 315 eP     14 09.50    0.0
        0.7s     66.10nm          5.2mb
GRR     23.07 314 eP     14 10.10    0.1
        0.7s     37.40nm          5.0mb
GUD     23.13 293 e(P)   14 12.00    1.2
UPP     25.56 352 eP     14 30.00   -3.8X
NUR     25.86   1 iP     14 34.90   -1.6
     Z  23s      1.50um          4.5MszX
                  LR     25 20.00
HFS     26.38 348 eP     14 39.30   -2.0
        0.4s     42.40nm          5.4mb
     Z  18s      0.60um          4.2Msz
                  LR     23 38.00
NRA0    27.33 346 P      14 57.00    7.0X
NAO     27.55 346 P      14 49.90   -2.1
        0.5s     15.40nm          4.9mb
SUF     28.10   2 iP     14 54.90   -2.1
        0.6s      8.50nm          4.6mb
MAIO    28.74  76 eP     15 04.00    0.9
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BNG     30.53 191 iPc    15 20.70    1.6
        0.7s     27.00nm          5.2mb
                  ic     15 35.10
SOD     32.78   2 iP     15 36.30   -2.0
KEV     35.18   2 eP     15 56.00   -3.0X
KUK     36.27 224 eP     16 09.00    0.2
TIC     38.73 231 Pc     16 29.70    0.2
KIC     38.77 230 Pc     16 29.90    0.1
        0.4s      8.50nm          4.9mb
LIC     39.06 230 Pc     16 32.40    0.2
        0.4s      9.50nm          4.9mb
NDI     45.13  82 eP     17 23.00    1.3
DAG     46.37 347 iPd    17 30.40   -0.5
        0.7s     10.27nm          4.9mb
KMZ     47.88 178 iPd    17 45.60    2.0
                  i      18 02.00
WMQ     48.97  59 P      17 52.50    0.7
                  S      24 53.50
PTZ     49.12 171 eP     17 52.00   -1.1
HYB     51.21  95 eP     18 09.00   -0.1
GKN     51.43  80 P      18 11.00    0.1
KRI     51.47 173 iPc    18 15.20    4.1X
DMN     51.97  80 P      18 15.80    0.7
KKN     52.04  80 P      18 15.70    0.2
PKI     52.23  80 P      18 17.10    0.0
        1.1s     73.00nm          5.6mb
GBA     52.31 100 Pd     18 17.50    0.1
        0.5s      3.10nm          4.5mb
GUN     52.48  79 P      18 19.00    0.0
ALE     55.39 351 eP     18 38.00   -1.3
        0.7s      5.00nm          4.7mb
GTA     58.93  61 eP     19 05.00    0.0
FRB     60.67 329 eP     19 16.00   -0.4
SCH     63.00 319 eP     19 32.00   -0.2
LZH     63.16  63 eP     19 33.50   -0.2
        1.0s     37.00nm          5.5mb
CD2     65.34  68 eP     19 48.20    0.3
HHC     66.60  56 Pd     19 56.80    0.9
CHG     67.28  82 ePd    20 00.60    0.2
        1.1s     13.29nm          5.0mb
CHTO    67.28  82 iPd    20 00.70    0.3
        1.3s     17.16nm          5.0mb
XAN     67.80  63 eP     20 02.70   -0.8
TIY     68.63  58 Pd     20 09.00    0.4
     Z  16s      0.50um          4.8MszX
GYA     69.69  71 P      20 15.60    0.3
BJI     70.10  55 eP     20 17.50    0.1
NNT     71.16  88 eP     20 24.00   -0.3
TIA     72.64  58 eP     20 32.10   -0.7
WHN     73.51  64 eP     20 38.50    0.5
SNY     74.02  50 Pd     20 40.40   -0.3
CN2     74.12  48 Pc     20 41.20   -0.1
                  pP     20 53.40   41kmX
INK     75.99 352 eP     20 51.00   -0.5
NJ2     76.02  61 Pc     20 51.80   -0.6
YKA     77.66 342 eP     21 01.60    0.7
IMA     79.57 359 eP     21 12.30    0.8
        0.9s     13.40nm          4.9mb
FFC     79.67 332 iPd    21 12.80    0.8
        0.8s     19.00nm          5.1mb
FBA     80.56 357 eP     21 17.10    0.5
TTA     82.74   0 eP     21 29.00    0.9
TOA     83.25 355 eP     21 22.40   -8.3X
PMR     83.93 357 eP     21 34.40    0.4
        1.0s     14.40nm          5.1mb
SVW     84.57 360 eP     21 38.80    1.4
MAT     86.27  47 eP     21 47.00    0.7
        1.5s     50.00nm          5.5mb
BW06    92.07 328 P      22 13.00   -0.9
        1.0s      1.88nm          4.5mb
     S.D. = 1.2  on 155 of 181 obs.
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?  APR  05, 1989  16h 11m 27.42± 2.16s
     9.777 N ±34.1km   56.541 E ±14.6km
     DEPTH =  10.0km  (geophysicist)
     4.9mb (  5 obs.)
  CARLSBERG RIDGE                (421)

GBA     20.81  77 Pd     16 11.40   -0.2
        0.4s      0.90nm          3.5mb X
HYB     22.69  68 eP     16 24.00   -6.6X
MAIO    26.54   5 iPc    17 07.70    0.4
GKN     32.04  52 P      17 56.40   -0.4
DMN     32.22  53 P      17 58.60    0.1
KKN     32.44  53 P      18 00.40    0.0
        0.7s     24.00nm          5.2mb
PKI     32.44  53 P      18 00.30   -0.2
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        0.6s     14.00nm          5.1mb
GUN     32.97  53 P      18 05.00   -0.1
CHTO    41.97  73 eP     19 21.20    0.7
        1.0s      1.50nm          3.7mb
MLR     44.22 329 ePd    19 42.50    3.9X
NUR     55.90 342 eP     21 03.00   -4.5X
SUF     57.21 344 iP     21 17.10    0.2
HFS     59.49 337 eP     21 32.60   -0.2
        0.4s      1.00nm          4.3mb
KEV     62.83 349 eP     21 55.00   -0.3
        0.7s     14.70nm          5.3mb
     S.D. = 0.4  on  11 of  14 obs.
-------------------------------------
?  APR  05, 1989  18h 06m 04.29± 0.96s
   23.017 N ±15.5km  142.458 E ±21.9km
   DEPTH =  33.0km  (normal)
   4.5mb (  4 obs.) 3.9Msz (  1 obs.)
 VOLCANO ISLANDS REGION           (213)

SSE     20.56 298 P      10 42.00   -0.8
        1.0s     24.00nm          4.5mb
     Z  20s      0.50um          3.9Msz
                  S      14 40.00
                  sS     14 50.00
CHTO    40.75 272 eP     13 45.80    1.7
        1.2s     11.46nm          4.5mb
WRA     43.43 191 eP     14 05.30   -0.5
ASPA    47.14 191 eP     14 35.40   -0.1
INK     66.64  24 eP     17 02.00    8.6X
SUF     80.97 335 iP     18 16.40   -0.3
FFC     85.06  32 eP     18 39.00    1.2
        1.1s     13.00nm          5.0mb
NAO     87.76 338 P      18 49.80   -1.2
        0.9s      2.80nm          4.5mb
ZOBO   150.47  82 PKP    25 57.00    7.0X
LPB    150.57  83 (PKP)  25 58.00    8.1X
CNCB   150.76  83 PKP    25 57.60    7.2X
     S.D. = 1.3  on   7 of  11 obs.
-------------------------------------
*  APR  05, 1989  18h 44m 45.68± 1.14s
   18.122 S ±14.4km  178.072 W ±15.0km
   DEPTH = 620.0 ± 10.9 km
   4.9mb ( 13 obs.)
 FIJI ISLANDS REGION              (181)

MBU      3.27 290 iPd    46 08.00   -0.4
DZM     15.06 252 iPc    47 54.70    0.6
RMQ     31.73 249 iPd    50 23.70    1.1
        0.6s     35.00nm          5.2mb
CTA     33.73 261 iPd    50 39.50    0.1
        0.8s     48.88nm          5.2mb
                  i      51 22.00
CAN     33.83 233 iPd    50 41.00    0.8
BWA     33.96 235 eP     50 40.30   -0.9
PMG     34.81 280 eP     50 50.00    1.6
        0.9s    107.56nm          5.4mb
TOO     37.28 231 eP     51 09.00    0.5
STK     38.81 241 iPd    51 22.20    1.3
        0.5s     27.00nm          5.0mb
QIS     39.93 259 iPd    51 29.60   -0.4
WRA     44.91 260 Pd     52 07.90   -1.1
        0.6s     17.70nm          4.7mb
ASPA    45.04 254 iPd    52 10.10    0.1
        0.8s    136.00nm          5.5mb
                  eS     58 04.10
                  eScS   01 02.70
MTN     49.12 269 eP     52 40.00   -0.7
FORR    50.17 245 iPd    52 48.10   -0.1
        0.4s     45.00nm          5.3mb
WARB    51.51 251 iPd    52 51.20   -6.9X
COOL    56.15 245 iPd    53 29.70   -0.9
        0.4s     10.00nm          4.4mb
MBL     58.24 256 iPd    53 44.20   -0.6
        0.4s     15.00nm          4.6mb
MEKA    58.73 249 eP     53 47.00   -1.1
KLB     59.02 244 eP     53 49.10   -0.8
        0.6s     22.00nm          4.6mb
NWAO    59.39 242 iPc    53 52.20   -0.1
BAL     59.98 245 eP     53 55.70   -0.5
MUN     60.31 243 iPc    53 58.30   -0.1
NANU    61.97 254 eP     54 09.40    0.2
        0.3s     22.00nm          5.0mb
MAT     68.27 323 eP     54 47.00   -1.0
SPA     71.99 180 iPc    55 09.80    0.2
        0.9s     12.73nm          4.5mb
KVN     79.83  43 iP     55 52.90    0.3
CHTO    89.37 290 eP     56 41.00    2.0
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0.7s 2.38nm 4.2mb
S.D. = 0.9 on 26 of 27 obs.

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* APR 05, 1989 21h 43m 33.38± 0.87s
36.710 N ±11.4km 71.568 E ± 8.4km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	7.56	212	eP	45 24.00	-0.3
			eS	46 42.50	
NDI	9.31	148	e(P)	45 49.00	0.7
GKN	14.04	124	P	46 52.30	0.1
	0.4s		8.00nm		4.8mb X
KKN	14.61	124	P	46 59.50	-0.2
DMN	14.61	125	P	46 59.90	0.1
PKI	14.84	124	P	47 02.40	-0.4
GUN	14.93	122	P	47 03.90	-0.2
NAO	44.66	323	P	51 44.50	0.1
	0.7s		1.10nm		3.8mb

S.D. = 0.4 on 8 of 8 obs.

? APR 05, 1989 21h 45m 46.82± 5.50s
51.051 N ±24.8km 15.780 E ±39.8km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.0 (VKA), 2.7 (KBA).

BRG	1.17	262	ePg	46 08.00	-0.7
			iSg	46 27.90	
PRU	1.33	217	Pg	46 12.50	1.2
			e	46 14.50	
			Sn	46 29.00	
			Sg	46 37.20	
CLL	1.77	280	e(Pg)	46 18.00	0.4
			eSg	46 42.00	
KHC	2.39	217	Pn	46 26.50	-0.2
			Pg	46 32.20	
			Sn	47 01.20	
			Sg	47 12.40	
MOX	2.67	263	eP	46 36.00	5.4X
			eSg	47 16.00	
VKA	2.81	173	iPgc	46 39.50	6.9X
	0.5s		15.50nm		
			e(Sg)	47 25.00	
KBA	4.29	203	ePn	46 53.00	-0.7
			e	48 13.50	

S.D. = 1.2 on 5 of 7 obs.

% APR 05, 1989 22h 04m 33.92± 0.58s
40.573 N ± 4.8km 27.988 E ± 6.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

BNT	0.22	193	iPg	04 38.70	0.0
EDC	0.25	203	iPg	04 39.50	0.4
			iSg	04 41.50	
KCT	0.43	139	iPg	04 42.70	0.0
CTT	0.66	30	ePg	04 47.30	0.2
ISK	0.95	58	ePg	04 52.70	0.7
			eSg	05 06.20	
DMK	1.26	352	ePn	04 57.20	-0.1
HRT	1.30	78	ePn	04 57.20	-0.8
EZN	1.48	240	ePn	05 00.20	-0.3

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

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* APR 05, 1989 22h 33m 50.15± 1.17s
11.384 S ±15.2km 122.832 E ±12.8km
DEPTH = 151.4 ± 14.4 km
4.8mb (7 obs.)
SOUTH OF TIMOR (293)

KUG	1.42	32	eP	34 19.50	0.2
			e(S)	34 51.30	
KNA	7.22	128	iPd	35 33.90	-0.4
			eS	37 08.00	
MTN	8.24	101	eP	35 41.00	-7.0X
	0.5s		200.00nm		6.0mb X
			eS	37 22.00	
MBL	10.14	196	eP	36 12.50	-0.5
			eS	38 12.00	
NANU	13.12	211	eP	36 46.10	-5.8X
			eS	39 15.00	
WRA	13.97	129	Pd	37 02.10	-0.6
	0.2s		3.30nm		4.3mb
WARB	15.15	167	eP	37 17.00	-0.7
			eS	40 18.00	
ASPA	16.13	141	iPc	37 34.40	4.6X
	0.5s		71.00nm		5.3mb
			eS	40 42.10	
QIS	18.51	122	iPd	37 58.60	1.0
	0.7s		123.00nm		5.3mb
			eS	41 33.00	
MRWA	18.86	199	eP	38 00.70	-0.5
			e	38 08.00	
			eS	41 33.00	
COOL	19.47	184	eP	38 09.00	1.5
			eS	41 55.00	
BAL	19.95	196	eP	38 13.00	0.5
			e	38 25.00	
			eS	42 03.00	
FORR	19.98	167	eP	38 17.00	4.3X
	0.4s		24.00nm		5.0mb
KLB	20.65	192	eP	38 20.40	0.9
	0.3s		7.00nm		4.6mb
			eS	42 16.00	
MUN	21.39	196	eP	38 26.40	-0.4
			i	38 42.50	
			eS	42 34.00	
NWAO	22.05	193	eP	38 34.50	1.2
	0.3s		6.00nm		4.5mb
			e	38 52.00	
			eS	42 46.00	
STK	26.75	143	eP	39 20.00	2.5X
BRS	32.30	124	iPc	40 07.60	0.8
BWA	32.71	139	eP	40 14.70	4.4X
SPA	78.69	180	e(P)	45 34.00	-2.8
	0.5s		10.65nm		4.8mb

S.D. = 1.3 on 14 of 20 obs.

& APR 05, 1989 22h 33m 55.12s
60.068 N 152.821 W
DEPTH = 90.3km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.07	280	iP	34 07.61	1.1
			iS	34 18.11	
RED	0.35	4	iP	34 08.64	-0.6
			eS	34 19.71	
OPT	0.46	207	iP	34 09.29	-0.6
			eS	34 20.93	
RDT	0.55	22	iP	34 09.89	-0.7
PDB	0.75	248	iP	34 11.59	-0.8
			iS	34 24.32	
AUL	0.76	205	iP	34 11.72	-0.7
			eS	34 25.84	
NNL	0.77	91	iP	34 12.97	0.4
			iS	34 25.33	
XLV	0.83	137	eP	34 12.52	-0.7
			eS	34 26.49	
CNPM	0.97	123	eP	34 13.86	-0.9
			iS	34 29.43	
NKA	1.04	49	eP	34 16.46	0.9
SPU	1.18	18	eP	34 16.58	-0.7
CRP	1.25	15	eP	34 17.99	-0.3
SLKM	1.37	70	iP	34 19.00	-0.6
SEW	1.69	87	eP	34 23.94	0.2
SVW	1.73	308	eP	34 22.75	-1.6
PMS	1.99	52	eP	34 25.96	-1.9
			eS	34 50.48	
SKT	2.02	18	eP	34 26.98	-1.2
PWA	2.14	41	eP	34 29.00	-0.8
PLRM	2.37	48	eP	34 31.23	-1.6
KNIM	2.55	81	iP	34 32.21	-3.2
GHO	2.56	46	eP	34 33.51	-2.0
MTU	2.60	90	eP	34 33.94	-2.0
GLI	2.95	72	eP	34 38.16	-2.6
			eS	35 09.95	
FID	3.22	75	eP	34 40.36	-4.1
VZW	3.25	69	eP	34 42.11	-2.9
KLU	3.67	64	eP	34 47.78	-3.1
TOA	3.82	55	eP	34 50.91	-1.9

27 obs. associated

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* APR 05, 1989 22h 36m 35.96± 0.84s
45.875 N ±17.1km 150.571 E ±12.2km
DEPTH = 33.0km (normal)
4.5mb (12 obs.)
KURIL ISLANDS (221)

KUSJ	5.03	239	P	37 51.20	0.2
			S	38 42.30	
ASAJ	5.89	255	eP	38 09.00	5.8X
HOOJ	6.30	239	P	38 10.40	1.5
			S	39 15.30	
MRRJ	7.65	247	eP	38 29.70	1.9
			eS	39 49.20	
MAT	13.16	229	eP	39 40.00	-3.0X
MDJ	14.83	273	eP	40 07.50	2.6
SNY	19.84	268	eP	41 06.00	-0.7
BJI	25.70	269	eP	42 06.00	1.4
HHC	28.60	274	eP	42 32.00	0.9
GTA	37.36	279	iPc	43 48.00	0.8
FBA	37.94	38	eP	43 52.60	1.0
	0.5s		0.40nm		3.5mb
CD2	39.04	264	eP	44 00.60	-0.7
INK	43.33	32	eP	44 40.00	4.1X
CHG	50.20	255	eP	45 29.00	-1.6
CHTO	50.20	255	eP	45 29.00	-1.6
	0.9s		3.84nm		4.4mb
YKA	52.67	36	eP	45 50.60	1.8
GUN	53.31	274	P	45 53.60	-0.8
KKN	53.80	274	P	45 57.20	-0.6
PKI	53.85	274	P	45 57.00	-1.3
DMN	54.04	274	P	45 58.80	-0.8
GKN	54.12	275	P	45 59.10	-1.0
	0.5s		16.00nm		5.3mb
SOD	59.42	338	eP	46 37.00	-0.1
FFC	62.53	39	iPd	46 59.10	0.7
	0.7s		8.00nm		5.0mb
SUF	63.06	335	eP	47 01.00	-0.7
	0.3s		2.60nm		4.8mb
KVN	64.13	60	eP	47 09.30	-0.1
NUR	65.23	334	iP	47 14.60	-1.3
FRB	66.44	18	eP	47 23.00	-0.5
BW06	66.68	52	eP	47 26.00	0.3
	0.8s		2.14nm		4.3mb
WRA	67.14	197	Pc	47 23.60	-4.9X
	0.6s		2.80nm		4.5mb
GBA	68.64	268	Pc	47 35.20	-2.8
	0.6s		1.60nm		4.3mb
NAO	68.75	340	P	47 37.00	-1.1
	0.9s		6.00nm		4.7mb
KSP	75.87	332	eP	48 20.30	-0.1
CLL	76.51	334	iPd	48 23.90	0.0
	0.9s		19.00nm		5.1mb
PRU	77.18	333	eP	48 28.50	0.8
KHC	78.24	333	iPd	48 34.60	1.0
GRF	78.47	334	eP	48 30.60	-4.3X
	0.8s		2.00nm		4.2mb
			e	48 36.50	
KBA	80.11	332	i(P)	48 45.20	1.2
	1.0s		4.20nm		4.4mb

S.D. = 1.3 on 32 of 37 obs.

APR 05, 1989 23h 47m 49.39± 0.18s
20.857 S ± 4.5km 69.028 W ± 4.8km
DEPTH = 112.0km (24 depth phases)
5.7mb (46 obs.)
NORTHERN CHILE (123)
Felt (IV) in northern Chile ond ports of southern Peru.
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 21S, 55C
Centroid Locotion:
Origin Time 23:47:54.8 0.2
Lat 21.13S 0.02 Lon 69.09W 0.03
Dep 122.3 1.3 Holf-durotion 4.6
Moment Tensor; Scole 10**18 Nm
Mrr=-1.43 0.04 Mtt=-0.79 0.08
Mff= 2.22 0.07 Mrt= 0.43 0.04
Mrf=-1.15 0.04 Mtf=-0.60 0.07
Principol Axes:

T	Vol= 2.69	Plg=16	Azm= 78
N	-0.86	11	345
P	-1.83	70	222

Best Double Couple:Mo=2.3*10**18
NP1:Strike=185 Dip=30 Slip= -67
NP2: 339 62 -103

CNCB	4.15	14	iPc	48 56.90	4.6X
LPB	4.39	12	Pc	49 01.00	5.5X
			LR	50 30.00	
ZOBO	4.64	11	Pc	49 02.00	2.9X
			i	49 03.20	
ARE	4.96	331	iPd	49 03.10	0.0
			i(S)	49 40.60	
SLA	5.05	140	ePc	48 57.10	-7.1X
CYA	8.11	159	ePc	49 34.50	-11.4X

05d 23h

RFA	13.87	178	ePc	50	49.20	-13.1X	TBT	69.70	47	iP	58	50.80	1.7				isSS	14	58.00										
ITB1	14.02	108	e(P)	50	54.90	-9.4X	BAR	70.05	318	eP	58	53.00	1.8				epP	59	56.90										
ITB	14.21	109	e(P)	50	57.30	-9.5X				e	59	32.00	162kmX	GCC	76.20	319	ePd	59	27.50	0.5									
ITB7	14.32	110	e(P)	50	54.50	-13.7X	PLM	70.62	319	eP	58	56.00	1.1	SBA	76.44	190	iPd-	59	26.30	-1.5									
PPD	16.54	97	eP	51	36.40	0.4	TPC	70.64	320	eP	58	55.00	0.2	PCC	76.74	319	eP	59	30.40	0.4									
VAO	20.57	100	iPd	52	13.80	-7.6X	CTFE	70.71	48	eP	58	57.60	2.3	BKS	76.89	319	ePd	59	31.50	0.7									
			i	52	15.10	5kmX	PEC	71.17	319	P	58	58.00	0.0		1.5s	952.00nm				6.4mb									
BAO	20.64	79	eP	52	16.50	-5.6X	RVR	71.37	319	eP	58	59.00	-0.1		Z 20s	1.00um				5.1Msz									
ITA	22.66	98	eP	52	35.70	-6.6X	CIS	71.61	318	eP	59	04.00	3.4X		N 20s	1.00um													
PSO	23.37	339	eP	52	52.00	2.7X	GSC	71.91	320	eP	59	03.00	0.6		E 20s	0.50um													
ATB	23.93	45	Pc	52	51.70	-2.6X	MWC	71.94	319	eP	59	03.00	0.2				esP	00	10.80										
RDJ	24.02	100	iPd	52	50.40	-4.7X	PAS	71.96	319	eP	59	03.00	0.4				eS	09	14.40										
BOG	25.80	348	iPd	53	16.00	3.8X				ePcP	59	19.00					e	09	47.20										
			iS	57	40.00					esP	59	40.00					esS	10	04.00										
SOB1	29.48	71	eP	53	39.90	-5.2X	SBB	72.11	319	eP	59	04.00	0.4				eSS	14	29.60										
			i	53	40.90	4kmX	CFTV	72.20	49	eP	59	04.50	0.3				e	14	44.00										
UPA	31.40	340	iPc	54	04.00	2.1	KUK	72.51	76	ePc	59	03.00	-3.3X				esSS	15	05.60										
	2.0s	1294.12nm				6.3mb		1.0s	12.50nm				4.7mb X				e	15	39.60										
	Z 20s	5.32um				5.2Msz				S	08	20.00					e	15	49.20										
			i	54	29.80	117km	CLC	72.73	320	eP	59	07.00	-0.2	BRK	76.90	319	eP	59	31.40	0.6									
CUM	31.49	9	eP	54	02.00	-0.7				e	59	47.00	165kmX	LRM	77.17	330	eP	59	32.90	0.4									
			i	04	23.60	8kmX	ISA	73.16	320	eP	59	10.00	0.3	TUH	77.39	121	iPc	59	32.20	-1.6									
			i	54	04.20		SYP	73.33	318	eP	59	10.00	-0.8		0.5s	56.34nm				5.6mb									
TPP	31.86	14	eP	54	08.88	3.0X	BW06	73.51	330	P	59	10.80	-1.0	CER	77.49	121	eP	59	42.00	7.6X									
ITR	31.87	72	eP	54	01.30	-4.8X		1.5s	228.83nm				5.8mb		1.0s	60.00nm				5.4mb									
			i	54	42.90	202kmX	TBI	73.60	251	iP	59	13.80	1.3				i	59	49.00	22kmX									
TBH	32.11	15	eP	54	09.81	1.7		1.2s	340.00nm				6.0mb	ORV	77.53	321	ePd	59	35.40	1.1									
TCE	32.16	14	eP	54	10.31	1.8	BLP	73.62	318	P	59	12.70	0.4				epP	00	03.80	111km									
TRN	32.19	14	eP	54	09.84	1.1	TNP	74.06	322	P	59	15.80	0.7				isP	00	15.50										
GRW	33.60	13	eP	54	22.11	1.0	RUV	74.07	260	iP	59	16.50	1.2	MIN	78.10	322	eP	59	37.00	-0.7									
FCV	34.65	13	eP	54	34.52	4.5X		1.5s	660.00nm				6.2mb	TIO	78.51	51	iP	59	41.50	1.4									
SVB	34.76	13	eP	54	29.86	-1.2	VAH	74.29	259	iP	59	17.70	1.2				i	00	08.50	104km									
SVV	34.82	13	eP	54	32.07	0.6		1.5s	740.00nm				6.3mb	WDC	78.80	321	ePd	59	40.00	-1.3									
SSV	34.83	13	eP	54	32.19	0.5	EUR	74.33	324	iP	59	17.20	0.5				epP	00	09.20	114km									
SLB	35.35	13	eP	54	36.56	0.6		0.5s	21.28nm				5.2mb				isP	00	20.40										
BIM	36.01	13	eP	54	40.50	-1.0	TPT	74.35	260	iP	59	18.50	1.6				ePcP	59	59.40										
MVM	36.08	13	eP	54	41.03	-1.1		1.5s	990.00nm				6.4mb	AVE	79.69	48	iP	59	47.00	0.8									
FDF	36.20	13	eP	54	42.93	-0.2	RSON	74.64	344	P	59	16.20	-1.7				i	00	15.00	108km									
8BL	36.90	12	eP	54	48.00	-1.0		1.0s	200.00nm				5.9mb				i	00	58.50										
PAG	37.36	12	eP	54	50.00	-2.9X				pP	59	46.00	118km	FHC	79.79	321	ePd	59	47.60	1.0									
DEG	37.76	13	eP	54	55.00	-1.2	FRI	74.78	320	ePd	59	18.20	-0.8	SES	80.05	334	ePd	59	47.70	-0.1									
MGH	37.94	11	eP	55	10.00	12.3X				esP	00	01.00			1.6s	1186.00nm				6.4mb									
MGP	38.67	3	P	55	02.50	-1.3				epP	59	47.00	113km				pP	00	01.50	48kmX									
SJG	38.83	4	eP	55	03.40	-1.8	PRI	74.81	319	ePd	59	20.00	0.7	FFC	80.39	341	iPd	59	48.90	-0.6									
APR	39.13	3	P	55	07.00	-0.6	MNA	74.84	322	eP	59	20.20	0.7		1.7s	480.00nm				6.0mb									
AIA	44.49	177	eP	55	47.30	-3.5X	TVO	75.00	256	iP	59	22.00	1.2	IFR	81.42	49	iP	59	55.00	-0.5									
HBF	54.57	348	P	57	08.00	-0.2		1.5s	785.00nm				6.3mb				i	00	15.00	6kmX									
JSC	56.05	348	P	57	17.50	-1.3	KVN	75.23	323	P	59	22.00	0.3				i	59	57.00										
RSCP	58.30	344	P	57	33.00	-1.7	PPN	75.24	257	iP	59	23.10	1.1	CNIL	82.30	47	iP	00	07.50	7.7X									
BLA	58.75	349	P	57	37.00	-0.8		1.5s	125.00nm				5.5mb	PLAT	82.36	47	iP	00	08.00	7.8X									
C8N	59.27	352	eP	57	40.00	-1.3	LLA	75.29	319	ePd	59	22.50	0.6	LON	82.41	326	P	59	59.60	-0.7									
ELC	60.88	342	P	57	50.60	-1.7				esP	00	02.70		EVAL	82.49	45	e(P)	00	01.40	0.6									
PNJ	61.63	356	iP	57	58.00	0.7				epP	59	50.50	109km	MOMI	82.50	47	iP	00	06.00	5.1X									
TBR	61.87	356	P	57	58.00	-0.9	PAE	75.34	256	iP	59	23.60	1.0	OJEN	82.50	47	iP	00	07.00	6.0X									
LNO	61.89	336	P	57	58.10	-0.9		1.5s	555.00nm				6.1mb	SRQ	82.70	47	iP	00	07.00	5.1X									
FVM	61.89	341	P	57	57.00	-2.1	PPT	75.36	257	iP	59	24.00	1.3	EDM	83.13	335	iP	00	02.50	-1.3									
CLE	63.10	349	iP	58	06.40	-0.6		1.5s	575.00nm				6.2mb		1.2s	697.00nm				6.4mb									
INY	63.36	354	P	58	10.00	1.3	Z 20s	1.00um					5.1Msz				pP	00	33.00	118km									
			S	06	40.00		PRS	75.37	319	ePd	59	23.00	0.6	EPRU	83.17	46	e(P)	00	08.00	3.6X									
			sS	07	29.00					epP	59	51.20	110km	PTO	83.30	41	eP	00	03.40	-1.4									
			pP	58	38.00	114km	SCH	75.39	1	ePd	59	21.30	-0.7				eS	10	16.00										
			sP	58	48.00			1.0s	151.00nm				5.8mb	FRS	83.51	119	iPc	00	06.50	0.2									
DHN	63.92	353	P	58	12.00	-0.4				pP	59	50.00	113km		1.0s	30.00nm				5.2mb									
DLA	64.44	350	P	58	14.40	-1.3	AFR	75.56	257	iP	59	24.90	1.1	MAL	83.61	47	iPd	00	07.70	1.2									
LDN	64.56	350	P	58	15.20	-1.3		1.5s	410.00nm				6.0mb				iS	10	22.00										
ELF	64.73	350	P	58	16.20	-1.4	SAO	75.69	319	eP	59	24.10	-0.1	EHOR	83.62	46	e(P)	00	08.00	1.5									
BNH	65.16	358	P	58	21.60	1.3				isP	00	13.00		ATEJ	83.98	47	iP	00	10.00	1.4									
RSNY	65.28	356	P	58	20.00	-1.1				ePP	02	24.00		TAF	84.01	49	eP	00	10.00	1.3									
	1.2s	142.53nm				5.8mb				ipPP	02	56.00	127kmX	ALOJ	84.01	47	iP	00	08.00	-0.7									
			pP	58	48.00	113km				e	03	16.00		AAPN	84.11	47	iPc	00	09.00	-0.2									
PTN	65.34	355	P	58	21.00	-0.4				ipP	59	56.00		APHE	84.22	47	iPd	00	09.50	-0.3									
ALQ	65.90	327	iPd-	58	25.40	-0.1	CMB	75.88	321	ePd	59	25.60	0.4	EPLA	84.29	43	e(P)	00	10.50	0.6									
	1.7s	673.08nm				6.3mb				esP	00	05.80		FRB	84.32	0	eP	00	09.00	-0.4									
			epP	58	52.00	106km				e	59	37.20			1.3s	183.00nm				5.8mb									
GAC	66.50	355	ePc	58	28.50	-0.3				ePcP	59	45.30		ASMO	84.39	47	iP	00	09.00	-1.6									
			pP	58	56.00	110km				epP	59	54.30	112km	CRT	84.40	47	iP	00	11.50	0.9									
CBM	67.47	1	P	58	34.20	-0.8	ARN	76.12	319	P	59	27.00	0.4	BLF	84.44	119	eP	00	05.50	-5.7X									
LIC	68.32	74	Pc	58	37.00	-3.9X	MHC	76.18	319	ePd	59	27.90	0.8		1.0s	230.00nm				6.0mb									
TIC	68.50	74	Pc	58	38.10	-4.0X				esP	00	08.20					i	00	34.50	111km									
KIC	68.63	74	Pc	58	39.00	-3.9X				ePP	02	25.00		ERUA	84.91	41	e(P)	00	14.80	1.9									
	0.7s	152.50nm				6.0mb				isPP	03	05.00		MAW	84.98	163	eP	00	09.30	-3.6X									
			S	07	33.00					epPPP	04	42.00	114km		1.0s	370.00nm				6.2mb									
GLD	69.12	331	P	58	46.00	0.5				i	05	03.00					e	00	34.00	93kmX									
GOL	69.14	331	P	58	45.20	-0.6				iS	09	11.00		TOL	85.51	44	iPc	00	16.00	0.0									
CVVD	69.15	48	iPc	58	47.80	2.0				esS	09	51.00			1.0s	440.00nm				6.4mb									
GLA	69.18	320	eP	58	46.00	0.1				e	12	28.00					ePP	04	08.00										
			e	59	10.00	93kmX				eSS	14	18.00					iS	10	37.00										

isS 11 22.00
eSS 16 25.00
GUD 85.84 44 e(P) 00 18.50 0.7
EVIA 85.89 46 e(P) 00 20.00 2.0
SEK 85.90 119 eP 00 16.00 -2.5
1.0s 35.00nm 5.3mb
KSR 86.18 116 eP 00 24.00 4.1X
0.7s 27.50nm 5.4mb
i 00 49.00 94kmX
PRY 86.28 117 eP 00 15.70 -4.7X
0.9s 26.92nm 5.2mb
i 00 23.50 25kmX
ETOR 87.29 44 e(P) 00 26.50 1.7
SLR 87.39 116 eP 00 24.50 -1.2
0.6s 4.00nm 4.6mb X
Z 18s 5.50um 6.0Msz
ECHE 87.40 46 e(P) 00 25.50 0.3
VAL 88.73 32 eP 00 41.00 9.8X
S 10 52.00
EBR 88.98 45 (P) 00 45.00 12.4X
eS 10 56.00
BCAO 89.29 85 eP 00 32.20 -2.6X
pP 01 02.50 116km
BNG 89.30 85 iPd 00 32.20 -2.6X
1.1s 50.00nm 5.5mb
id 00 34.20 6kmX
id 01 02.30
ic 04 00.20
KMZ 89.73 104 iP 00 34.40 -2.5X
i 01 04.40 114km
BUL 89.75 111 iPc 00 33.90 -3.1X
1.0s 29.00nm 5.3mb
ipP 00 41.50 24kmX
iPP 01 03.00
iS 11 18.30
YKC 90.49 341 ePd 00 38.50 -0.7
1.1s 310.00nm 6.4mb
pP 01 09.00 116km
YKA 90.55 341 eP 00 39.50 0.0
DCN 91.02 32 eP 00 53.20 11.4X
LSZ 91.19 107 eP 00 46.00 2.4X
i 01 19.40 129kmX
i 11 11.00
i 11 35.00
i 12 28.00
DLE 91.35 32 eP 00 49.30 6.0X
MFF 91.38 40 eP 00 46.20 2.6X
0.8s 13.40nm 5.2mb
DMU 91.52 32 eP 00 44.80 0.7
LPF 91.55 38 eP 00 46.60 2.2
1.0s 12.00nm 5.1mb
KRI 91.88 109 eP 00 49.00 2.2
ipP 01 18.40 111km
iPP 04 21.00
iS 11 43.30
LSF 92.22 41 eP 00 51.40 3.8X
0.8s 9.90nm 5.1mb
TCF 92.66 41 eP 00 53.20 3.6X
0.7s 6.60nm 5.0mb
MAF 92.85 41 eP 00 54.20 3.8X
1.2s 17.80nm 5.2mb
BGF 93.17 41 eP 00 55.20 3.3X
1.3s 36.10nm 5.5mb
SSF 93.81 41 eP 00 58.40 3.6X
1.1s 8.30nm 5.0mb
LBF 94.06 41 eP 00 59.30 3.3X
1.0s 6.00nm 4.9mb
LOR 94.11 41 eP 00 59.50 3.3X
1.2s 11.90nm 5.2mb
PTZ 94.39 107 eP 00 58.00 -0.4
i 01 27.50 112km
i 04 43.40
AKU 94.48 19 iP 01 13.30 15.8X
1.1s 30.38nm
DOU 95.79 38 P 01 14.50 10.7X
e 01 32.00 61kmX
SKS 11 33.00
S 12 12.00
SNF 95.79 38 P 01 15.00 11.2X
e 01 32.70 62kmX
BSF 96.15 41 eP 01 09.10 3.4X
WLF 96.52 39 P 01 11.00 3.9X
e 01 34.90 88kmX
MSZ 96.66 217 e(P) 01 10.30 2.2
CDF 96.68 41 eP 01 11.40 3.4X
MEM 96.83 38 P 01 19.30 10.9X
e 01 35.80 57kmX

ENN 96.85 38 eP 01 21.00 12.5X
1.0s 54.00nm
e 01 36.50 53kmX
PII 96.94 46 P 01 11.50 2.4X
e 01 37.00 94kmX
BDI 97.11 46 P 01 13.00 2.9X
e 01 14.50 5kmX
PGD 97.80 46 P 01 13.50 0.2
WTS 97.86 37 eP 01 24.50 11.5X
0.7s 151.00nm
e 01 41.00 57kmX
MNS 97.92 48 P 01 14.50 0.8
e 01 40.50 97kmX
SDI 98.47 49 P 01 18.50 2.3X
e 01 44.00 94kmX
CTI 98.54 44 P 01 16.50 0.0
e 01 44.00 103km
FVI 99.46 44 P 01 21.50 1.0
RBL 99.92 44 P 01 23.00 0.3
KBA 99.99 43 eP 01 26.00 2.8X
1.2s 20.30nm 5.6mb
i 01 33.30
e 01 50.50
e 04 31.50
e 05 25.00
e 06 03.00
MOX 100.14 40 ePdiff01 28.00 4.4X
1.2s 23.00nm 5.7mb
Z 18s 0.90um 5.3Msz
E 18s 0.70um
epP 01 52.00
ePP 05 26.00
eSKS 11 45.00
e 12 50.00
iSP 14 15.00
ePKKP 18 07.00
iLR 34 50.00
INK 100.30 340 ePdiff01 22.00 -1.9
KHC 100.83 42 Pdiff 01 37.50 10.8X
e 05 29.80
CLL 101.19 39 ePdiff01 32.00 3.7X
Z 17s 1.00um 5.4MszX
epP 01 57.00
eSKS 12 00.00
PRU 101.70 41 ePdiff01 36.30 5.8X
Z 18s 1.00um 5.4Msz
N 18s 0.50um
E 18s 0.50um
e 01 41.50
NAO 103.17 30 Pdiff 01 51.60 14.8X
1.4s 19.90nm
ALE 103.23 1 ePdiff01 37.00 0.3
0.7s 6.00nm 5.6mb
PMR 103.53 331 Pdiff 01 38.40 0.0
FBA 104.03 334 Pdiff 01 39.00 -1.6
BZS 105.04 47 ePKP 05 42.00 -17.8X
DEV 105.98 47 ePKPd 05 50.00 -11.5X
IMA 106.71 335 Pdiff 01 53.00 0.3
CMP 107.30 48 ePKPc 06 05.00 0.9
MLR 107.97 47 ePdiff02 00.50 1.7
MLR 107.97 47 ePKPd 06 19.00 13.5X
VRI 108.59 47 ePKP 06 05.00 -1.5
TAB 122.24 57 ePKP 06 32.00 -0.9
e 08 09.00
KER 122.66 62 ePKP 06 33.00 -0.8
FORR 126.02 198 ePKP 06 37.00 -3.3X
NWAO 126.19 187 ePKP 06 39.00 -1.6
CTA 126.64 223 iPKP 06 41.50 -0.3
1.6s 205.00nm
e 08 36.00
ePP 10 36.00
e(SKS)18 38.00
ePS 19 12.00
eSS 24 16.00
e 26 24.00
MUN 127.23 186 ePKP 06 41.00 -1.6
1.1s 2.00nm
KLB 127.45 187 ePKP 06 39.70 -3.3X
BAL 128.54 186 ePKP 06 43.50 -1.6
QIS 130.22 216 ePKP 06 46.00 -2.6
ASPA 130.43 208 iPKPd 06 45.50 -3.5X
1.3s 99.00nm
MAIO 132.78 59 ePKP 06 52.00 -1.2
i 09 17.00
eS 19 22.00
PMG 133.42 233 ePKP 06 54.00 -0.8
WRA 133.45 211 ePKP 06 38.20 -16.6X

i 06 53.00
e 09 18.80
e 10 05.30
WRA 133.45 211 PKPc 06 51.50 -3.3X
1.5s 102.00nm
JAY 142.74 235 ePKPd 07 08.00 -4.1X
KUSJ 144.16 316 PKP 07 10.00 -3.5X
ASAJ 144.97 319 PKP 07 14.10 -0.8
HOOJ 145.42 316 ePKP 07 15.90 0.2
KUG 146.77 203 ePKP 07 39.00 20.3X
1.0s 332.80nm
GUA 146.82 263 ePKP 07 18.30 -0.5
1.0s 1160.00nm
MRRJ 146.83 317 PKP 07 17.90 -0.1
GUMO 146.88 263 ePKP 07 18.80 -0.1
1.2s 2144.44nm
PJG 146.88 263 ePKP 07 18.40 -0.5
GBA 147.22 97 PKPc 07 17.10 -2.3X
1.4s 274.10nm
OFUJ 148.01 311 PKP 07 21.20 1.2
AOMJ 148.22 315 ePKP 07 22.70 2.4
WMQ 150.01 35 PKP 07 21.40 -1.7
KAKJ 150.28 307 PKP 07 24.60 1.0
NIIJ 150.71 310 PKP 07 23.90 -0.3
CHJJ 151.22 308 ePKP 07 26.20 1.2
TRT 151.57 183 ePKPc 07 25.70 -0.4
0.9s 91.10nm
MAT 151.58 309 ePKP 07 20.00 -5.6X
Z 20s 1.06um 5.6Msz
MDJ 151.73 331 PKP 07 25.00 -0.5
e 07 43.00
sPKP 08 12.00
PP 11 15.00
SS 30 30.00
MTMJ 151.86 310 ePKP 07 26.70 0.6
IIDJ 152.25 307 PKP 07 27.10 0.5
MKS 152.78 199 ePKPc 07 28.00 0.1
TSRJ 153.65 309 ePKP 07 29.50 1.0
CN2 154.13 335 PKP 07 27.00 -1.9X
6.5s 1.20nm
e 07 51.00
PP 11 24.00
eSS 30 48.00
KSI 154.31 160 ePKP 07 30.20 0.2
e 09 30.00
GKN 155.02 68 PKP 07 30.00 -0.8
DMN 155.50 69 PKP 07 30.20 -1.4X
KKN 155.62 69 PKP 07 30.00 -1.7X
1.0s 68.00nm
PKI 155.77 69 PKP 07 30.20 -1.9X
1.1s 80.00nm
GUN 156.12 68 PKP 07 30.70 -1.9X
MNI 156.43 217 ePKP 07 32.00 -0.9
SNY 156.54 336 iPKPd 07 32.00 -0.2
N 38s 2.10um
PSI 158.47 145 ePKPc 07 33.90 -1.4
KUMJ 158.83 307 PKP 07 35.70 0.5
GTA 159.17 25 PKPd 07 34.40 -1.1
Z 28s 1.00um 5.5MszX
e 08 05.00
SKKS 18 34.00
SS 31 38.00
DL2 159.81 335 PKP 07 35.00 -1.0
e 08 16.00
PP 11 58.00
LSA 160.05 60 iPKPc 07 37.00 -0.2
pPKP 08 07.00
PP 12 00.00
HHC 160.06 359 PKP 07 37.00 0.6
Z 40s 3.00um
BTO 160.30 2 iPKPd 07 37.00 0.3
DAV 160.32 228 ePKP 07 35.00 -2.3X
BJI 160.37 348 ePKP 07 36.00 -0.6
Z 16s 0.90um
epPKP 08 04.00
ePP 11 59.00
eSS 32 00.00
SNG 163.11 142 ePKP 07 38.40 -1.6
1.3s 169.23nm
TIY 163.15 356 iPKPd 07 40.00 0.4
7.0s 1.20nm
E 15s 1.60um
pPKP 08 10.00
e 08 32.00
e 08 59.00
iPP 12 15.00
SS 32 29.00

6d 00h

TIA	163.78	342	PKP	07	39.50	-0.6
			e	08	35.10	
SSE	166.29	320	PKP	07	40.00	-2.4X
	4.0s		1.00nm			
	Z 20s		0.90um			
			e	08	44.00	
			sPKP	09	22.00	
			i	13	14.00	
			eSS	32	42.00	
XAN	166.74	7	PKPd	07	42.00	-0.8
NJ2	166.81	329	PKPc	07	42.00	-0.8
	7.0s		1.40nm			
			PP	12	34.00	
CD2	168.07	31	PKP	07	43.30	-0.5
			pPKP	08	14.00	
			iSKKS	19	20.50	
BDT	168.13	106	ePKP	07	41.50	-2.6X
	1.2s		9.00nm			
CHTO	168.50	98	ePKP	07	42.70	-1.6
QCP	168.56	239	ePKP	07	22.00	-22.4X
ANP	169.38	296	ePKP	07	44.00	-0.8
BAG	169.88	246	ePKP	07	44.00	-1.4
			e	12	43.00	
WHN	169.89	343	PKPd	07	44.50	-0.3
	8.0s		1.85nm			
			pPKP	08	14.00	
			e	09	00.00	
			e	09	30.00	
			PP	12	48.50	
			SKKS	19	16.00	
			SS	33	36.00	
KMI	171.31	59	PKPc	07	47.50	1.5
	Z 55s		4.50um			
			pPKP	08	15.00	
			e	09	12.50	
			PP	13	02.00	
			pPP	13	25.00	
			SKKS	19	35.00	
QZH	171.88	302	PKPd	07	45.00	-0.9
	7.0s		2.00nm			
	E 18s		3.70um			
			pPKP	08	16.00	
			sPKP	08	28.00	
			PP	13	00.00	
			SKKS	19	40.00	
GYA	173.17	34	iPKPd	07	46.00	-0.5
QIZ	177.89	150	ePKP	07	49.00	1.3
			e	09	32.00	
			PP	13	26.00	

S.D. = 1.1 on 199 of 295 obs.

APR 06, 1989 00h 34m 12.62± 0.73s
40.578 N ± 5.3km 19.704 E ± 7.4km
DEPTH = 5.0km (geophysicist)
ALBANIA (391)

VLO	0.19	236	iPgd	34	15.40	-1.2
BERA	0.22	56	iPgc	34	16.10	-1.1
TPE	0.37	140	iPgc	34	22.40	2.4X
SRN	0.73	162	iPg	34	29.10	1.8
TIR	0.78	9	iPg	34	29.20	1.0
LSK	0.81	122	ePg	34	28.00	-0.8
LACI	1.06	0	ePn	34	33.00	0.0
PHP	1.24	26	ePn	34	36.00	-0.1
PUK	1.47	5	ePn	34	40.30	0.6
KKS	1.59	19	ePn	34	47.80	6.4X
KZN	1.60	99	eP	34	41.50	-0.2
			eS	35	08.00	

S.D. = 1.1 on 9 of 11 obs.

APR 06, 1989 02h 35m 51.31± 0.35s
44.511 N ± 4.4km 71.144 W ± 3.0km
DEPTH = 5.0km (geophysicist)
NORTHERN NEW ENGLAND (474)

mbLg 3.4 (NEIS), 3.5 (WES). Felt (IV) at Berlin, Gorham and Lancaster, New Hampshire. Also felt (IV) at Bethel, Maine; Guildhall and Lunenburg, Vermont. Felt (III) at Bartlett, Groveton, Jefferson, Lisbon, Littleton, Milan, Randaph, Sonbornville ond Woodsville, New Hompshire. Also felt (III) at Bryant Pond, East Andover, Hanover, Locke Mills, Mexico, Rumford Center, Rumford Point, West Bethel and West Paris, Maine.

BNH	0.11	315	iPd	35	53.80	0.1
TRM	0.69	111	P	36	05.12	0.1
			S	36	14.30	
DVT	0.86	302	P	36	07.10	-1.2
HKM	1.08	82	P	36	12.12	0.0
			S	36	26.20	
HNH	1.15	226	P	36	12.94	-0.3
			S	36	28.42	
BLVT	1.56	222	P	36	20.20	0.5
			S	36	40.84	
MIM	1.67	63	eP	36	21.50	0.3
IVT	1.70	235	P	36	21.92	0.2
WES	2.13	184	P	36	27.70	-0.3
RSNY	2.42	272	eP	36	32.00	-0.2
EMM	2.62	84	eP	36	34.50	-0.5
PTN	2.75	273	eP	36	37.00	0.2
CBM	3.22	40	eP	36	43.50	0.1
GAC	3.29	293	eP	36	46.00	1.5
TBR	4.06	215	eP	36	55.50	0.1
DHN	5.38	254	eP	37	13.80	-0.5
SCH	10.69	14	eP	38	23.00	-5.1X

S.D. = 0.6 on 16 of 17 obs.

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* APR 06, 1989 03h 24m 39.69± 0.71s
11.019 S ±12.1km 167.047 E ±16.0km
DEPTH = 33.0km (normal)
4.4mb (5 obs.) 4.1Msz (1 obs.)
SANTA CRUZ ISLANDS (184)

HNR	7.16	282	eP	26	35.00	10.1X
DZM	11.00	183	iPc	27	18.20	0.1
BRS	21.10	218	eP	29	29.00	5.1X
CTA	21.95	243	iPc	29	34.00	1.6
	0.9s		8.82nm			4.2mb
	Z 21s		0.72um			4.1Msz
			ipP	29	38.80	17kmX
			i(sP)	29	50.30	
			e(PcP)	33	25.00	
			eS	33	40.00	
RMQ	23.12	226	eP	29	45.00	1.1
WRA	32.69	250	Pc	31	09.30	-2.1
	1.2s		7.10nm			4.4mb
GUA	32.83	317	eP	31	18.20	5.6X
MSZ	33.54	179	eP	31	22.70	4.3X
CN2	66.38	328	eP	35	26.50	-1.0
BJI	69.27	320	eP	35	50.00	4.3X
TIY	70.41	317	eP	35	52.30	-0.6
	Z 32s		1.00um			4.9MszX
			eS	45	10.00	
CHTO	73.38	293	e(P)	36	11.20	0.4
	1.0s		2.00nm			4.1mb
SPA	79.05	180	ePc	36	41.00	-1.1
	1.0s		10.00nm			4.8mb
GTA	79.96	313	eP	36	48.60	1.1
WDC	82.67	46	eP	37	05.80	4.4X
CMB	83.35	49	e(P)	37	06.20	1.1
EUR	87.08	49	eP	37	24.50	0.6
	1.3s		6.46nm			4.7mb
SOB1	145.70	125	ePKP	44	16.20	-1.3
			e	44	20.60	
			e	44	29.40	
ITR	147.93	127	ePKP	44	26.90	5.8X
BNG	148.13	261	iPKPc	44	24.00	2.6X
	0.8s		35.00nm			
			id	44	25.50	
			id	44	29.70	

S.D. = 1.3 on 12 of 20 obs.

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* APR 06, 1989 04h 13m 37.66± 2.13s
29.675 S ±12.1km 71.071 W ±21.2km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)

ZON	2.78	133	eP	14	23.00	-0.1
CFA	3.11	129	e(P)	14	21.00	-6.7X
			S	15	03.00	
CYA	4.78	76	ePc	14	51.00	-0.5
RFA	5.54	157	ePd	14	56.00	-6.2X
SLA	6.99	47	ePc	15	22.60	-0.2
CCH	13.04	21	eP	16	57.00	11.0X
CNCB	13.12	13	Pc	16	48.00	0.8
ARE	13.16	358	eP	16	55.00	7.5X
LPB	13.36	12	P	16	50.00	-0.3
ZOBO	13.62	12	P	16	53.30	-0.5
	Z 24s		0.18um			
			LR	21	24.00	
PPD	19.33	71	eP	18	06.80	0.9

S.D. = 0.7 on 7 of 11 obs.

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* APR 06, 1989 05h 47m 52.64± 1.97s
25.120 N ±24.7km 95.257 E ±20.5km
DEPTH = 115.9 ± 21.1 km
4.1mb (2 obs.)
BURMA-INDIA BORDER REGION (294)

CHG	7.15	151	ePd	49	36.40	0.3
	0.9s		28.36nm			4.8mb X
CHTO	7.15	151	iPd	49	37.00	0.9
GUN	8.85	290	P	49	59.40	-0.1
PKI	9.16	288	P	50	03.40	-0.3
	0.5s		18.00nm			5.1mb X
KKN	9.33	289	P	50	05.50	-0.3
	0.3s		12.00nm			5.2mb X
DMN	9.44	287	P	50	06.70	-0.6
GKN	9.93	289	P	50	13.70	-0.2
	0.3s		15.00nm			5.3mb X
GBA	20.32	239	Pd	52	22.40	0.8
	0.6s		3.40nm			3.9mb
WRA	58.75	136	iPc	57	38.10	-2.7
NAO	65.72	328	P	58	28.80	2.2
	0.6s		3.10nm			4.4mb
PPD	149.25	269	e(PKP)	07	40.00	14.8X

S.D. = 1.5 on 10 of 11 obs.

? APR 06, 1989 06h 45m 43.22± 0.63s
16.157 S ±21.9km 173.139 W ±18.1km
DEPTH = 33.0km (normal)
4.7mb (5 obs.)
TONGA ISLANDS (173)

AFI	2.59	31	P	46	06.50	-17.3X
			(S)	46	40.00	
			e	50	00.00	
VUN	8.24	256	eP	47	48.00	4.6X
DZM	20.16	250	iPc	50	23.20	5.4X
WRA	49.92	257	eP	54	35.10	-1.0
ASPA	50.12	252	iPc	54	36.70	-1.0
	1.2s		17.00nm			4.9mb
MTN	53.92	266	eP	55	06.10	-0.1
WARB	56.61	249	eP	55	18.00	-7.7X
KLB	64.11	242	eP	56	16.50	-0.2
SPA	73.95	180	e(P)	57	17.60	0.6
	1.0s		6.50nm			4.6mb
PNT	80.52	32	eP	57	53.00	-0.5
	0.7s		10.00nm			4.9mb
FBA	83.09	11	iP	58	05.40	-1.1
	0.8s		4.00nm			4.6mb
SXM	83.36	38	eP	58	08.40	-0.2
SES	85.68	35	eP	58	19.00	-0.9
EDM	86.00	31	eP	58	20.00	-1.4
BJI	86.17	313	eP	58	25.00	2.5
			eS	09	08.00	
INK	88.94	14	eP	58	35.00	-0.2
YKA	90.69	23	P	58	45.10	1.6
CHTO	93.18	289	eP	58	56.00	0.1
	1.0s		1.75nm			4.4mb
KRA	144.57	345	ePKP	05	16.10	-1.8
SPC	145.29	345	ePKP	05	19.10	-0.3
MOX	145.38	355	ePKP	05	20.00	0.7
PRU	145.69	351	ePKP	05	20.90	1.1
VRI	146.03	335	ePKPc	05	21.50	0.9
MLR	146.66	335	ePKPd	05	23.00	1.3
KHC	146.66	352	ePKP	05	24.00	2.5X
	1.4s		15.00nm			
			e	05	35.50	
ZST	146.96	347	ePKP	05	25.20	3.3X
SRO	147.05	346	ePKP	05	25.20	3.1X
BZS	148.13	340	ePKP	05	37.00	13.1X
LOR	148.88	4	ePKP	05	29.60	4.5X
	1.2s		8.90nm			
SSF	149.06	4	ePKP	05	30.40	5.0X
	1.0s		12.80nm			
LBF	149.17	4	ePKP	05	30.40	4.8X
	1.2s		14.80nm			
AVF	149.32	5	ePKP	05	30.30	4.6X
	1.1s		12.20nm			
PGB	149.80	334	ePKP	05	32.00	5.3X
CEY	149.83	349	e(PKP)	05	32.50	5.9X
DSI	149.86	306	e(PKP)	05	30.00	3.0X
VBY	149.90	348	e(PKP)	05	31.60	4.9X
KDZ	149.98	332	ePKP	05	32.00	5.1X

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 VTS    150.16 335 ePKP  05 33.00   5.6X
 PRNI   150.65 304 iPKPd 05 36.00   7.7X
 MMB    150.78 334 ePKP  05 32.00   3.8X
 KKB    150.82 335 ePKP  05 35.00   6.8X
 MBH    150.95 303 ePKP  05 36.00   7.3X
       S.D. = 1.2  on  20 of  42 obs.
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    APR  06, 1989  06h 47m 20.73± 0.47s
    51.479 N ±11.7km  175.730 W ± 4.9km
    DEPTH =  33.0km  (normal)
    4.7mb ( 10 obs.)
  ANDREANOF ISLANDS, ALEUTIAN IS.  (  7)
       Felt on Adak.

 ADK      0.72 305 iP     47 36.30    1.9
 SMY      6.39 285 eP     48 56.00    1.1
 SDN      9.88  61 eP     49 44.70    1.3
 KDC     14.81  56 eP     50 48.80   -0.4
 TTA     15.59  35 eP     51 01.40    2.0
 PMR     17.69  45 eP     51 26.40    0.6
 IMA     18.40  29 eP     51 35.90    1.3
         1.2s    16.20nm          4.1mb
 FBA     19.70  36 eP     51 48.80   -1.1
 INK     26.28  34 eP     52 53.00   -1.4
 YKA     33.76  47 eP     54 00.10   -0.8
 LON     34.93  76 eP     54 12.50    1.2
 PNT     35.09  71 eP     54 13.00    0.4
         0.7s    15.00nm          5.0mb
 EDM     37.08  62 iP     54 29.50    0.2
         0.7s    43.00nm          5.4mb
 WDC     37.72  85 e(P)   54 42.30    7.6X
 MIN     38.44  85 e(P)   54 47.70    6.7X
 SES     39.58  65 eP     54 50.00   -0.3
 CMB     40.57  87 e(P)   55 16.50   17.9X
 PRS     41.01  90 e(P)   55 20.50   18.4X
 KVN     41.38  84 eP     55 06.50    1.1
 SNY     41.65 281 eP     55 07.70    0.5
 EUR     42.45  82 iP     55 16.00    1.9
         0.2s    5.86nm           5.0mb
 FFC     42.51  56 eP     55 13.00   -1.2
         0.5s    3.00nm           4.3mb
 TNP     42.52  85 eP     55 15.00    0.3
         0.8s    2.70nm           4.0mb
 SBB     44.28  89 eP     55 37.00    8.1X
 BW06    44.44  74 eP     55 30.50    0.2
         0.6s    8.43nm           4.8mb
 DL2     44.58 279 eP     55 31.00   -0.1
 PLM     45.76  90 eP     55 43.00    2.1
 BJI     47.22 284 eP     55 52.50    0.5
 RSON    48.81  57 eP     56 02.50   -1.8
 ALQ     51.19  80 eP     56 23.00    0.1
         1.0s    3.25nm           4.2mb
 FRB     51.92  33 eP     56 25.00   -2.8
 XAN     55.52 283 P      56 54.00   -0.8
 FVM     58.76  67 eP     57 15.70   -1.9
 CD2     60.83 284 eP     57 30.60   -1.4
 BLA     64.93  61 eP     57 58.00   -1.1
 CVL     65.44  60 eP     58 01.50   -0.7
 JSC     66.60  64 eP     58 09.50   -0.2
 CHG     72.64 278 eP     58 46.30   -0.6
 GUN     73.59 294 P      58 52.10   -0.6
 KKN     74.02 294 P      58 54.70   -0.4
 PKI     74.11 294 P      58 55.60   -0.2
 GKN     74.22 295 P      58 56.00   -0.2
         0.5s    8.00nm           5.0mb
 DMN     74.26 294 P      58 57.30    0.8
 WRA     83.45 226 Pd     59 46.50    0.5
         1.1s    8.90nm           4.8mb
 BNG    122.98 343 ePKPc 06 15.20    0.0
         0.6s    3.00nm
                   id     06 39.00
 SLR    148.45 315 ePKP  07 04.00    2.3X
         1.0s    30.00nm
 KSR    149.16 317 ePKP  07 05.00    2.1X
 PRY    149.84 316 iPKPc 07 08.00    4.2X
         1.0s    20.00nm
 SEK    150.98 314 iPKPc 07 12.00    6.5X
         0.6s    33.33nm
 BLF    152.29 315 iPKPd 07 12.00    4.6X
         1.0s    50.00nm
      S.D. = 1.2  on  40 of  50 obs.
-------------------------------------
&  APR  06, 1989  07h 32m 24.94s
    60.116 N          153.289 W
    DEPTH = 146.7km
  SOUTHERN ALASKA                (  2)
       <AGS-P>.
```

```
 ILIM     0.17 102 iP     32 44.27   0.8
                   iS     32 59.98
 RED      0.40  40 iP     32 44.95   0.8
                   eS     32 59.54
 OPT      0.47 176 iP     32 45.35  -0.7
                   eS     33 00.56
 PDB      0.56 234 iP     32 45.46  -1.0
 RDT      0.64  43 iP     32 46.33  -0.7
                   iS     33 03.35
 AUL      0.74 186 eP     32 46.81  -0.8
                   eS     33 04.18
 AUI      0.79 185 eP     32 47.11  -0.8
                   eS     33 04.29
 HOM      0.95 118 iP     32 48.75  -0.4
                   eS     33 07.49
 NNL      1.00  93 iP     32 49.65   0.0
 XLV      1.03 129 iP     32 48.77  -1.2
                   eS     33 07.32
 CNPM     1.19 119 iP     32 50.65  -0.8
                   iS     33 09.98
 NKA      1.20  57 P      32 52.17   0.7
 CDD      1.20 189 iP     32 50.23  -1.4
                   eS     33 09.97
 SPU      1.23  29 iP     32 51.04  -0.8
                   iS     33 11.45
 BRLK     1.26 105 iP     32 51.42  -0.7
                   eS     33 11.99
 CRP      1.28  25 iP     32 51.95  -0.6
 CGLM     1.35  27 iP     32 52.34  -0.8
 SVW      1.52 312 iP     32 53.68  -1.2
 SLKM     1.58  74 iP     32 53.98  -1.5
 SEW      1.92  89 eP     32 57.70  -1.6
 SKT      2.06  24 iP     32 59.83  -1.1
 PMS      2.16  57 eP     33 00.30  -1.9
 KDC      2.41 170 iPd    33 02.10  -3.1
 PLRM     2.52  52 eP     33 03.67  -2.9
 PMR      2.52  52 eP     33 03.80  -2.7
 PME      2.58  52 eP     33 04.63  -2.7
 GHO      2.70  50 iP     33 06.47  -2.5
 KNIM     2.78  83 iP     33 07.22  -2.7
 MTU      2.83  90 iP     33 09.32  -1.2
 TTA      3.11 336 iP     33 12.50  -1.7
 GLI      3.16  73 eP     33 12.10  -2.7
 HIN      3.39  82 iP     33 15.95  -1.9
 FID      3.44  76 iP     33 16.14  -2.2
 VZW      3.45  71 eP     33 16.12  -2.5
 VLZ      3.58  70 eP     33 17.91  -2.2
 MID      3.58  98 eP     33 18.23  -2.0
 KTH      3.63  17 eP     33 18.92  -2.0
 CVA      3.77  80 iP     33 20.90  -1.9
 KLU      3.87  66 iP     33 21.52  -2.6
 TOA      3.99  57 eP     33 23.80  -1.9
 SGAM     4.04  81 iP     33 24.38  -1.9
                   eS     34 07.26
 RAGM     4.30  83 iP     33 27.74  -2.1
 GLB      4.83  70 eP     33 34.64  -2.3
 FBA      5.43  26 eP     33 42.20  -2.7
 BALM     5.48  76 iP     33 43.94  -1.7
 CTGM     5.96  77 eP     33 50.61  -1.6
 IMA      5.98 358 eP     33 50.40  -2.0
 DWY      7.60  53 P      34 11.80  -2.3
 INK     11.84  38 eP     35 10.00   0.1
 YKA     18.54  66 P      36 30.40  -2.0
       50 obs. associated
-------------------------------------
    APR  06, 1989  08h 05m 57.10± 0.15s
    19.306 S ± 5.0km  169.002 E ± 3.7km
    DEPTH = 165.7km  (geophysicist)
    6.1mb ( 30 obs.)
  VANUATU ISLANDS                (186)
       mb 6.3 (BRK). Felt at Chepenehe,
       Layalty Islands and Noumea, New
       Caledonia. Two events about 4
       seconds apart. Depth from
       broadband displacement
       seismagroms, based on second,
       larger event.
       FAULT PLANE SOLUTION: P-Waves
        NP1:Strike=158 Dip=75 Slip=  90
        NP2:       338     15        90
        Principal Axes:
         T                Plg=60  Azm= 68
         P                   30       248
       Comment: The focal mechanism is
         moderately well controlled and
         corresponds to reverse
         faulting. The preferred fault
```

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         plane is NP2.
       RADIATED ENERGY
        No. of sta:  10  Focal mech.  F
        Energy          0.3±0.1*10**15 Nm
       MOMENT TENSOR SOLUTION
       Dep 151              No. of sta: 12
       Moment Tensor;     Scale 10**19 Nm
         Mrr= 1.47          Mtt=-0.34
         Mff=-1.14          Mrt= 0.50
         Mrf=-2.12          Mtf= 0.26
        Principal axes:
         T  Val=  2.69   Plg=61   Azm= 78
         N       -0.26      1        346
         P       -2.43     29        255
       Best Double Couple:Mo=2.6*10**19
        NP1:Strike=343 Dip=16 Slip=  87
        NP2:       166     74        91
       CENTROID, MOMENT TENSOR     (HRV)
       Data Used: GDSN
       L.P.B.: 23S, 62C  M.W.: 18S, 47C
       Centroid Location:
       Origin Time        08:06: 7.6 0.1
       Lat 19.48S 0.01 Lon 168.94E 0.01
       Dep 164.6 0.5 Half-duration 11.0
       Moment Tensor;     Scale 10**19 Nm
         Mrr= 1.34 0.02   Mtt=-0.17 0.02
         Mff=-1.17 0.02   Mrt= 0.37 0.02
         Mrf=-2.33 0.02   Mtf= 0.64 0.02
        Principal Axes:
         T  Val=  2.73   Plg=59   Azm= 90
         N       0.04       8        346
         P      -2.77      29        252
       Best Double Couple:Mo=2.8*10**19
        NP1:Strike=318 Dip=17 Slip=  61
        NP2:       169     75        99

 PVC      1.69 337 iPc    05 28.20 -62.0X
                   iS     06 53.00
 DZM      3.65 221 iPc    06 53.00  -0.9
                   iS     07 31.10
 SVA      9.04  84 iPd    08 04.20  -1.0
 VUN      9.06  83 eP     08 04.80  -0.7
 HNR     13.16 317 eP     09 05.00   6.1X
                   eS     11 35.00
 VSG     13.44 317 iP     09 08.00   5.5X
                   eS     11 39.00
 BRS     16.92 239 iPd    09 46.30   0.6
                   iScP   17 46.60
                   iScS   21 32.40
 PAA     18.44 313 eP     10 08.00   5.2X
 BGA     18.76 312 eP     10 06.00  -0.2
 AFI     19.18  77 ePc    10 08.75  -1.7
                   e      10 35.57
                   e      14 32.04
                   e      22 00.00
 KRP     19.41 164 P      10 12.00  -0.6
                   i      11 04.00
 RMO     19.96 245 iPd    10 19.30   0.9
                   e      11 52.00
                   e      17 57.00
 CTA     21.43 264 iPd-   10 32.80  -0.3
         1.0s    52.50nm          5.0mb X
                   i      10 35.40
                   i      10 36.00
                   i      10 39.00
                   i      10 55.00
                   e(PP)  11 30.00
                   e(pP)  12 40.00
                   iS     13 31.00
                   i      13 33.00
                   i      14 00.00
                   i      14 33.00
                   i(PcP) 15 18.00
                   iScP   17 53.00
                   iScS   21 38.00
 CTAO    21.43 264 ePd    10 38.80   5.7X
                   epP    11 07.93 152kmX
                   eS     14 30.30
 CTAO    21.43 264 eP     10 33.50   0.4
                   ec     10 38.80
                   e      11 07.93
                   eS     14 30.30
 RIV     21.49 224 iPd    10 35.10   1.6
                   e      10 40.00
                   e      11 11.00
                   eS     14 32.00
                   e      16 56.00
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06d 08h

RAB	22.26	310	eP	10 44.00	2.8
			iS	14 40.00	
WEL	22.46	169	iP+	10 44.00	1.2
			pP	11 15.00	157kmX
			sP	11 34.00	
			e	12 37.00	
			S	14 36.00	
			sS	15 35.00	
			ScP	18 00.00	
			ScS	21 43.00	
			sScS	22 53.00	
PMG	23.31	292	iPd-	10 50.50	-0.9
CNB	23.57	223	iPc	10 54.50	0.7
LAT	24.81	298	iPc	11 10.50	4.9X
MSZ	25.31	182	P	11 11.50	1.7
			PP	11 48.70	
TOO	27.42	224	iPc	11 29.10	-0.1
			e	12 09.00	
STK	27.62	238	iPd	11 30.60	-0.5
			e	11 32.30	
			e	12 13.00	
			e	18 17.00	
QIS	27.65	262	iPd	11 29.60	-1.8
			e	11 35.00	
			e	12 45.00	
			e	18 15.00	
MNDI	27.91	295	eP	11 36.00	2.0
BFD	29.18	227	iPd	11 44.10	-0.8
			e	11 47.00	
			e	18 11.50	
RAR	29.33	99	P	11 44.00	-2.4
			S	18 32.00	
TAU	29.80	213	iPc	11 50.00	-0.3
			i	11 54.00	
			i	11 56.10	
			e	12 56.00	
			eS	16 38.00	
ADE	30.99	234	ePd	12 00.00	-1.0
	0.8s	507.46nm			6.3mb
JAY	32.31	298	ePd	12 11.00	-1.6
WRA	32.62	263	Pd	12 12.00	-3.2X
	0.7s	95.20nm			5.6mb
ASPA	32.90	256	iPd	12 15.70	-1.9
Z	20s	143.00um			6.7Msz
			epP	12 56.10	194kmX
			eS	17 25.80	
			eScP	18 32.90	
			LR	25 04.10	
KNA	38.47	269	eP	13 03.00	-1.7
FORR	38.59	245	iPd	13 04.40	-1.2
TBI	38.81	103	iP	13 10.30	2.9
	1.3s	1540.00nm			6.5mb
AFR	39.08	94	iP	13 10.50	0.7
PAE	39.25	95	iP	13 12.00	0.8
PPT	39.27	94	iP	13 12.20	0.9
	1.4s	1210.00nm			6.4mb
Z	18s	35.00um			6.2Msz
PPN	39.41	94	iP	13 13.20	0.7
WARB	39.53	252	iPd	13 05.80	-7.6X
TVO	39.54	95	iP	13 14.40	0.8
GUA	40.35	322	eP	13 19.80	-0.3
	0.9s	242.02nm			5.8mb
GUMO	40.42	322	eP	13 20.00	-0.7
	1.3s	980.39nm			6.3mb
PMO	41.33	91	iP	13 29.40	1.2
VAH	41.53	91	iP	13 30.30	0.4
TPT	41.59	91	iP	13 31.40	1.0
RUV	41.77	91	iP	13 32.70	0.8
AAI	42.74	286	eP	13 45.10	5.3X
	0.4s	40.20nm			5.4mb
COOL	44.55	245	eP	13 53.00	-1.2
MBL	46.03	259	iPd	14 04.80	-1.1
KLB	47.48	245	iPd	14 15.20	-2.0
NWAO	47.98	243	eP	14 19.50	-1.6
MNI	48.00	290	ePd	14 21.50	0.1
BAL	48.36	246	eP	14 21.70	-2.3
MUN	48.81	244	eP	14 26.00	-1.5
Z	20s	45.60um			6.5Msz
			eS	21 22.00	
			e	29 28.00	
MRWA	48.97	248	eP	14 28.00	-0.8
	0.4s	39.00nm			5.4mb
NANU	49.83	256	iPd	14 34.30	-1.0
DAV	50.17	297	eP-	14 42.00	4.0X
MKS	50.20	280	ePc	14 37.00	-1.2
HON	51.70	40	P	15 00.00	10.6X
Z	20s	37.23um			6.4Msz

OPA	51.97	40	P	14 49.50	-1.9
RKT	52.11	105	iP	14 54.00	1.5
	1.0s	365.00nm			6.0mb
PFH	52.31	45	P	14 55.50	1.5
TSM	55.28	290	eP	15 20.50	4.8X
TRT	55.79	274	iPd	15 17.40	-2.1
	0.7s	114.80nm			5.8mb
			eS	17 22.70	
OCP	57.99	302	eP	15 32.00	-2.8X
SBA	58.59	181	iPd+	15 39.00	0.8
	0.9s	386.55nm			6.3mb
BAG	59.38	303	eP	15 41.70	-3.0X
			e	16 23.50	
			eS	23 44.00	
KAKJ	61.58	334	P	16 00.40	1.4
CHJJ	61.95	333	P	16 03.40	2.0
IIDJ	61.95	331	eP	16 02.90	1.4
WKYJ	62.01	329	eP	16 03.90	2.0
KAGJ	62.13	323	P	16 05.30	2.6
TKSJ	62.59	328	eP	16 08.20	2.5
MAJO	62.71	332	ePc	16 08.96	2.5
			e	16 48.86	
			e	17 09.05	
MAT	62.71	332	eP	16 05.00	-1.4
	1.2s	35.94nm			5.1mb
Z	20s	6.03um			5.8Msz
			eS	24 23.00	
TSRJ	62.89	330	P	16 10.00	2.4
MTMJ	62.92	332	P	16 05.30	-2.7X
NIIJ	62.95	333	eP	16 09.30	1.3
KUMJ	63.17	324	eP	16 12.00	2.4
YAMJ	63.32	335	eP	16 13.00	2.6
OFUJ	63.47	336	P	16 10.70	-0.7
SHK	63.72	327	eP	16 10.20	-2.9X
YONJ	63.83	328	eP	16 15.20	1.3
ANP	63.95	312	eP+	16 18.00	3.1X
			iS	24 44.00	
SHNJ	64.23	326	P	16 18.10	1.7
HOOJ	65.81	339	eP	16 29.50	3.1X
QZH	65.88	310	eP	16 29.00	1.8
	5.5s	2.10nm			3.2mb X
N	23s	12.80um			
			pP	17 07.00	159kmX
			PP	18 58.50	
			iS	25 08.00	
			SS	29 23.00	
KUSJ	66.00	341	eP	16 28.70	1.1
KSI	66.55	274	ePc	16 28.80	-2.9X
	1.2s	30.00nm			5.0mb X
			e	22 15.00	
MRRJ	66.61	338	eP	16 36.00	4.5X
ASAJ	67.57	340	eP	16 37.70	0.2
HKC	67.68	305	P	16 42.10	3.5X
			S	25 30.00	
KGM	67.84	280	ePc	16 38.20	-1.6
			e	16 45.60	
			e	17 20.80	
SSE	67.97	317	P	16 42.50	2.3
	8.0s	11.10nm			3.7mb X
Z	20s	8.90um			6.0Msz
N	14s	3.30um			
E	14s	6.00um			
			i	17 41.00	
			iS	25 28.00	
			isS	26 33.00	
GZH	68.75	305	P	16 48.80	3.6X
Z	48s	26.80um			6.1MszX
			pP	17 26.00	154kmX
			sS	26 40.00	
QIZ	69.42	300	eP	16 51.00	1.6
			pP	17 28.50	155kmX
			sS	27 00.00	
NJ2	70.10	316	Pc	16 51.50	-1.7
			pP	17 33.00	173kmX
SPA	70.81	180	ePc	16 56.00	-1.3
	1.0s	325.00nm			6.1mb
Z	19s	19.37um			6.4Msz
			i	17 36.10	
IPM	70.91	282	ePd	16 57.10	-1.5
			e	17 04.00	
SMY	71.87	3	P	17 02.80	-0.6
Z	20s	14.00um			6.2Msz
ADK	71.98	9	P	17 03.00	-1.1
	1.0s	920.00nm			6.5mb
WHN	72.23	312	eP	17 04.00	-2.0
	1.5s	0.67nm			3.1mb X
Z	24s	16.80um			6.2MszX

N	16s	4.23um			
E	18s	7.59um			
			pP	17 46.00	174kmX
			iS	26 20.00	
SNG	72.28	284	eP	17 05.80	-0.8
	1.1s	316.46nm			6.0mb
			eS	26 12.40	
DL2	72.93	323	Pc	17 13.00	3.1X
N	14s	2.70um			
E	16s	5.70um			
			pP	17 51.00	155kmX
			sP	18 10.00	
			S	26 29.00	
MDJ	73.08	332	eP	17 09.50	-1.1
Z	20s	6.50um			5.9Msz
E	18s	6.30um			
			epP	17 50.00	167kmX
			esP	18 13.00	
			S	26 22.50	
			sS	27 36.00	
TIA	73.84	319	eP	17 13.50	-1.8
Z	50s	20.20um			6.0MszX
N	14s	7.60um			
E	16s	11.20um			
			pP	17 53.70	165kmX
			S	26 34.10	
SNY	73.91	326	Pc	17 18.40	2.9
Z	19s	5.50um			5.9Msz
N	15s	4.10um			
E	13s	1.00um			
			pP	18 00.00	171kmX
			S	26 40.00	
			sS	27 43.00	
CN2	74.40	329	Pd	17 16.00	-2.3
	2.5s	3.00nm			3.6mb X
			pP	18 02.00	191kmX
			PP	20 11.00	
			S	26 45.00	
			iSS	31 30.00	
GYA	75.67	305	iPc	17 29.60	3.5X
Z	34s	11.20um			5.9MszX
N	18s	4.30um			
E	18s	4.70um			
			S	26 58.00	
			sS	28 08.00	
BJI	76.85	321	eP	17 30.50	-1.7
Z	48s	36.50um			6.3MszX
N	17s	4.50um			
			esP	18 15.00	
			eS	27 13.00	
			esS	28 10.00	
TIY	77.73	317	eP	17 36.50	-0.7
N	23s	22.80um			
			pP	18 20.50	181kmX
			PP	20 41.00	
			iS	27 23.00	
BDT	77.77	293	eP	17 36.10	-1.6
	1.1s	159.70nm			5.7mb
XAN	77.99	313	P	17 37.00	-1.7
			pP	18 22.00	185kmX
			S	27 24.00	
KMI	78.12	302	ePc	17 44.53	4.7X
			epP	18 25.58	167kmX
			esP	18 41.64	
			iS	27 28.00	
			SS	28 15.00	
			iSKKS	28 38.00	
MAW	78.29	202	eP	17 39.70	0.0
	1.0s	324.00nm			6.0mb
CHG	78.48	295	ePd	17 41.00	-0.6
	1.3s	48.08nm			5.1mb
			eS	27 36.00	
CHTO	78.48	295	eP	17 40.26	-1.3
			e	17 45.72	
			e	18 26.44	
			e	18 42.34	
CD2	80.10	308	P	17 49.30	-0.8
Z	20s	3.90um			5.8Msz
N	12s	6.60um			
			pP	18 33.00	178kmX
			SKS	27 48.00	
			sS	28 53.00	
HHC	80.13	320	Pc	17 49.60	-0.5
Z	48s	42.30um			6.4MszX
N	16s	7.60um			
E	16s	3.20um			
			pP	18 34.00	181kmX

BTO		80.94	319	eP	17	53.60	-0.8	TTA		86.46	15	eP	18	22.00	0.2	GKN		94.10	298	P	18	56.40	-1.9
	Z	18s		6.20um			6.0Msz	MID		86.51	21	eP	18	25.60	3.7X	KOD		94.76	279	eP	19	01.20	-0.5
	E	18s		6.60um				AIA		86.54	160	eP	18	20.70	-1.5	GBA		95.85	282	P	19	14.00	7.7X
				pP	18	40.00	190kmX	GTA		87.01	314	Pd	18	23.80	-1.2			1.2s		85.50nm			6.0mb
				PP	21	05.00			Z	21s		5.80um			6.0Msz	LRM		95.96	44	eP	19	08.60	2.1
				S	27	56.50			E	16s		4.00um				HYB		96.02	286	eP	19	05.50	-1.5
HIA		81.06	330	ePc	17	53.42	-1.3					pP	19	09.50	184kmX	HYB		96.02	286	eP	19	12.50	5.5X
				ec	17	58.55						PP	22	02.00				1.4s		125.00nm			6.1mb
				e	18	39.94						S	28	41.00		ALQ		96.52	55	iPc+	19	07.00	-2.2
				e	18	57.15		WDC		87.07	45	ePc	18	23.80	-1.3			1.3s		182.69nm			6.3mb
				ePP	21	14.30						i	18	27.80			Z	20s		10.28um			6.3Msz
LZH		82.61	312	eP	18	03.00	-0.2					iPcP	18	30.50		ANMO		96.52	55	ePDIF	19	11.85	2.6
		3.5s	1605.00nm				6.2mb X					iPP	21	55.90						e	19	14.99	
	Z	68s		45.80um			6.3MszX					ePˈPˈ	44	31.00						e	20	11.44	
	N	17s		5.50um				PMR		87.26	19	eP	18	24.20	-1.3					ePP	22	45.97	
	E	17s		3.80um					Z	20s		7.50um			6.1Msz	INK		96.68	18	eP	19	06.00	-2.9X
				sP	18	48.00		PAS		87.27	52	eP	18	24.00	-2.2			1.1s		388.00nm			6.7mb
				SKS	28	16.00						epP	18	30.00	19kmX	BW06		96.83	47	P	19	08.00	-2.5
				S	29	08.00						ePP	22	48.00		WMO		97.09	314	P	19	10.60	-0.8
LZH		82.61	312	eP	18	07.80	4.6X					eSKS	28	40.00			E	20s		7.90um			
		3.5s	1605.00nm				6.2mb X					ePS	29	50.00						pP	19	55.00	177kmX
				e	18	12.27						epPS	31	16.00						SKS	29	36.00	
				e	18	49.68						ePKKP	35	05.00		EDM		98.11	36	eP	19	15.00	-0.7
KDC		83.17	20	eP	18	02.80	-2.6X					eSS	36	06.00		SES		98.46	40	eP	19	19.00	1.6
SVW		85.03	16	eP	18	14.20	-0.5					eSKKP	39	00.00				0.7s		52.00nm			6.1mb
PCC		85.72	48	ePc	18	18.10	-0.5					eSSS	39	01.00		GOL		98.83	51	P	19	23.00	3.4X
				iPcP	18	25.70						ScS	41	36.00			Z	20s		8.50um			6.2Msz
GCC		85.77	49	ePc	18	17.60	-1.2					eLg	43	12.00		GLD		98.96	51	P	19	23.00	2.9
				iPcP	18	26.10						eLR	45	37.00			Z	20s		12.00um			6.4Msz
PRS		85.89	49	ePc	18	18.60	-0.9	ORV		87.29	46	ePc	18	24.90	-1.3	NDI		100.53	297	ePdiff	19	31.00	3.7X
				e	18	22.30						iPcP	18	32.90						iS	29	55.00	
				ePP	21	47.90		CMB		87.37	48	ePc	18	25.20	-1.4	POO		100.62	286	ePdiff	19	12.00	-16.0X
BRK		85.98	48	ePc	18	18.80	-1.0					i	18	29.00		YKA		100.83	27	Pdiff	19	27.50	-0.3
				iPcP	18	27.10						iPcP	18	33.80		YKC		100.88	27	ePdiff	19	28.00	0.0X
				ePP	21	46.70						ePP	21	58.80				1.5s		330.00nm			6.7mb
BKS		86.00	48	ePd	18	19.30	-0.7					e	31	08.60		RFA		103.39	134	ePdiff	19	43.50	3.5X
		0.9s	455.00nm				6.3mb					ePˈPˈ	44	29.00		FFC		104.97	37	ePdiff	19	51.50	5.1X
	Z	20s		11.00um			6.3Msz	FRI		87.38	49	ePc	18	25.20	-1.4			1.6s		57.00nm			6.3mb
	N	20s		10.00um								i	18	29.10		LNO		105.16	57	Pdiff	19	52.20	4.6X
	E	20s		8.00um								iPcP	18	35.60		RSON		109.28	42	Pdiff	20	08.00	2.4X
				ePcP	18	26.50						ePˈPˈ	44	30.00		ARE		110.72	117	e(PKP)	24	07.00	-5.9X
				epP	19	04.00	180kmX	MWC		87.39	52	eP	18	26.00	-1.0	SLA		111.23	127	e(PKP)	24	14.10	0.6
				i	19	19.00		MIN		87.58	46	ePc	18	26.00	-1.8	UPA		113.10	88	ePdiff	20	29.20	5.8X
				esP	19	25.50						i	18	30.60			Z	20s		24.11um			6.8Msz
				ePP	21	49.00						iPcP	18	34.50						i	25	07.00	
				ipPP	22	40.00						ePˈPˈ	44	30.00		UPA		113.10	88	iPKPc	24	16.40	-0.7
				eS	28	26.80		ISA		87.70	51	eP	18	27.00	-1.3	CNCB		113.48	119	ePdiff	20	25.00	-0.7
				eScS	28	31.60		SBB		87.76	52	eP	18	27.00	-1.6	CNCB		113.48	119	PKP	24	20.00	1.5
				e	28	50.00		BAR		87.79	54	eP	18	27.00	-1.8	LPB		113.52	119	ePdiff	20	27.00	1.2X
				eSP	29	32.00		RVR		87.80	53	eP	18	27.00	-1.7	LPB		113.52	119	ePKP	24	22.00	3.6X
				esS	29	48.00		PLM		87.92	54	eP	18	28.00	-1.6		Z	16s		13.47um			6.6MszX
				e	30	30.00		CLC		88.41	51	eP	18	30.00	-1.7					LR	34	29.00	
				e	30	34.00		GSC		88.78	52	eP	18	34.00	0.5	ZOBO		113.63	118	ePdiff	20	32.00	5.6X
				e	30	37.60		TPC		88.85	53	eP	18	33.00	-0.8	ZOBO		113.63	118	PKP	24	20.00	1.2
				esSP	30	56.00		SIT		89.10	27	eP	18	35.00	0.7	ALE		113.78	6	ePKP	24	17.00	0.4
				isSS	35	46.00		MNA		89.12	49	e(P)	18	33.80	-1.3			0.9s		26.00nm			
				eLQ	41	18.00						ePcP	18	42.00		CCH		114.70	120	PKP	24	23.00	2.5X
				e	41	34.40		GLA		89.36	55	eP	18	35.00	-1.2	MAIO		116.65	302	ePKP	24	23.00	-0.4
				e	41	44.80		LSA		89.37	302	P	18	40.20	3.3X			1.2s		37.50nm			
				e	42	08.00		KVN		89.42	48	P	18	34.80	-1.8					i	24	30.00	
				e	43	30.00		BMW		89.46	40	P	18	36.00	-0.4	CLE		116.96	53	iPKP	24	23.70	-0.1
SAO		86.04	49	eP	18	18.50	-1.7	IMA		89.64	14	eP	18	35.80	-1.1	ITB7		119.05	135	e(PKP)	24	30.10	1.9
				e	18	22.80				1.5s		277.80nm			6.0mb	ITB1		119.22	134	e(PKP)	24	25.30	-3.2X
				iPcP	18	27.20		TNP		89.64	49	P	18	35.80	-1.8	ITB		119.25	135	e(PKP)	24	29.80	1.2
SYP		86.09	51	eP	18	20.00	-0.7	COL		90.21	17	ePc	18	39.20	-0.2	KBS		119.39	355	ePKP	24	29.00	1.7
MHC		86.16	48	ePc	18	20.10	-0.9					ec	18	43.67		DHN		119.47	51	PKP	24	27.00	-1.5
				e	18	23.70						e	19	24.56		SEK		119.70	219	ePKP	24	20.00	-9.6X
				iPcP	18	28.30						e	19	36.65				0.4s		21.19nm			
				ipP	19	14.00	221kmX					ePP	22	18.13						i	24	37.00	
				i	19	26.00						eSKS	29	00.75		NPA		119.89	239	ePKP	24	34.00	4.0X
				i	21	25.00						eS	29	19.62						e	25	17.00	
				ePP	21	46.80						e	30	07.29						iPKKP	34	44.10	
				isPP	23	03.00						e	30	31.13						iPS	38	29.30	
				eS	28	37.00						e	31	39.33		BLF		119.96	218	ePKP	24	26.00	-4.0X
				esS	29	53.00		FBA		90.21	17	eP	18	36.60	-2.8X	FRS		119.97	216	ePKP	24	34.60	4.8X
				isPS	31	01.00		PGC		90.39	38	eP	18	40.00	-0.4			1.0s		15.00nm			
				e	35	14.00				1.2s	1607.00nm				6.9mb	CER		120.17	209	ePKP	24	49.50	19.3X
				esSS	35	42.00		LON		90.45	40	P	18	39.00	-1.9			0.6s		7.14nm			
				eLQ	41	57.00		HTW		90.97	39	P	18	44.00	0.7					i	24	52.50	
				eLR	46	20.00		EUR		91.11	48	iP	18	42.80	-1.6	TUH		120.29	209	ePKP	24	32.50	2.2
FHC		86.21	44	ePc	18	20.40	-0.6			1.0s		30.38nm			5.4mb			0.6s		13.33nm			
				iPcP	18	28.60		PNT		92.93	38	eP	18	51.00	-1.2	INY		120.73	52	Pdiff	21	00.00	3.3X
ARN		86.25	48	P	18	19.00	-2.2			1.0s		384.00nm			6.5mb					PP	26	04.00	
PRI		86.31	50	ePc	18	21.00	-0.7	GUN		93.03	298	P	18	54.50	0.9	INY		120.73	52	PKP	24	30.00	-0.9
				e	18	24.60		PKI		93.31	298	P	18	53.50	-1.4	PRY		120.81	220	ePKP	24	31.20	-0.5
				iPcP	18	29.20		KKN		93.49	298	P	18	54.40	-1.2			0.7s		20.00nm			
LLA		86.33	49	ePc	18	20.50	-1.1	DMN		93.58	298	P	18	55.20	-0.8					e	34	35.00	

06d 08h

SLR	121.16	222	PKP	24	36.00	3.6X				i	25	01.20		EBH	142.69	353	ePKP	25	11.20	-0.6
	1.0s		95.00nm							i	28	14.00		KAP	142.72	304	ePKP	25	11.70	-0.8
	Z 22s		24.44um			6.8Msz	ATB	133.67	115	e(PKP)	24	44.10	-12.4X	BUD	142.76	326	iPKP	25	12.00	-0.2
			e	34	37.00		RGS	133.90	347	ePKP	24	51.00	-4.4X	EAB	142.84	354	ePKP	25	12.20	0.2
GAC	121.30	48	ePKP	24	31.50	-0.3	KVT	134.56	309	iPKP	25	01.10	3.6X	CLL	142.88	335	ePKP	25	09.00	-3.2X
FRB	121.31	26	ePdiff	21	08.00	9.3X	UPP	134.60	340	iPKP	24	50.50	-6.3X		1.7s		850.00nm			
FRB	121.31	26	ePKP	24	31.00	-0.3				i	25	03.40			Z 21s		3.50um			6.1Msz
PTN	121.73	49	PKP	24	31.00	-1.7				i	28	15.40					pPKP	25	52.00	
KSR	121.93	221	ePKP	24	37.50	3.6X	HFS	135.56	343	ePKP	24	47.00	-11.7X				iSKP	28	35.20	
RSNY	122.06	49	PKP	24	31.00	-2.3X		0.8s		9.30nm				ESY	142.90	352	ePKP	25	12.40	0.2
TBR	122.46	53	PKP	24	31.00	-3.2X		Z 18s		2.63um			6.0Msz	SRO	142.93	327	i(PKP)	25	13.30	0.9
PNJ	122.52	53	ePKP	24	34.80	0.5				LR	20	44.00		VTS	142.98	316	ePKP	25	11.00	-1.9X
PPD	123.07	134	ePKP	24	42.30	6.3X	NAO	135.73	345	PKP	24	52.00	-7.0X	EAU	143.08	353	ePKP	25	09.20	-3.3X
			e	24	45.20			1.4s		154.50nm					0.6s		290.00nm			
DHR	123.65	289	ePKP	24	39.00	2.0	WAJH	135.80	288	ePKP	24	59.00	-1.2	PRU	143.23	332	ePKP	25	11.40	-1.5
GDH	123.72	17	ePdiff	21	20.00	10.8X	KAS	136.14	310	ePKP	25	03.50	3.0X		Z 20s		3.90um			6.2Msz
			i	24	41.00		HRI	136.20	298	e(PKP)	25	04.00	3.1X		N 20s		3.40um			
			i	26	23.00		AYN	136.29	292	ePKP	25	01.00	0.0		E 19s		1.40um			
BUL	124.83	227	ePKP	24	38.80	-0.8	DSI	136.67	296	e(PKP)	25	03.00	1.3				e	25	18.00	
			iPKKP	34	21.40		PRNI	137.09	294	ePKPd	24	57.50	-5.1X	ZST	143.29	328	e(PKP)	25	12.10	-0.9
			iPS	35	06.10		HOL	137.10	292	ePKP	25	04.00	1.4				i	25	13.40	
			i	38	23.00		ANTO	137.27	308	ePKP	25	06.16	3.5X				i	25	17.80	
KRI	126.30	231	iPKPc	24	45.90	3.3X				ePPP	28	25.39					i	28	30.80	
			iSKP	28	11.00					epPPP	28	27.04					i	29	10.00	
			iPKKP	34	19.50		BBTK	137.30	308	ePdiff	22	04.00	-6.5X				e	37	14.80	
			iPS	38	15.00		BBTK	137.30	308	ePKP	24	58.00	-4.8X	KKB	143.40	315	ePKP	25	09.00	-4.5X
SOD	126.33	343	iPKP	24	41.80	0.9	LFK	137.72	301	ePKP	25	04.00	0.3	EKA	143.54	352	PKP	25	10.00	-3.2X
SOD	126.33	343	ePKP	24	35.00	-5.9X	CSS	137.93	301	ePKP	25	02.50	-1.5		0.4s		5.60nm			
			i	24	41.80		PPE	138.50	319	ePKP	25	07.00	2.4X	VKA	143.63	329	iPKPc	25	14.50	0.9
			eSKP	27	53.00		CLI	138.55	320	ePKPc	25	07.50	2.7X		1.3s		970.00nm			
TRO	126.47	347	iPKP	24	42.30	1.2	CFR	138.62	318	ePKP	25	05.00	0.2				i	25	18.30	
PTZ	126.62	234	iPKP	24	44.00	0.8	PPCY	138.74	301	ePKP	25	11.00	5.6X				ipPKP	25	55.80	
			i	26	44.00		PTT	138.90	321	ePKP	25	12.00	6.6X				e(PP)	28	38.00	
			i	38	12.00		GPA	138.97	310	ePKP	25	10.30	4.6X				ipPP	29	11.00	
RYD	126.64	287	ePKP	24	44.50	1.6	SOB1	139.12	131	ePKP	24	55.60	-11.1X				e	37	09.00	
KER	126.69	299	ePKP	24	47.00	4.2X	BRD	139.17	318	ePKPc	25	12.00	6.1X				e	39	52.00	
ITA	127.08	140	ePKP	24	44.90	0.8	VRI	139.21	319	ePKPc	25	06.00	0.0	PLG	143.81	313	ePKP	25	13.50	-0.8
			e	24	48.40		PSN	139.23	315	iPKP	25	14.00	8.0X	MOX	143.95	335	ePKPc+	25	12.00	-2.1X
TAB	127.17	304	e(PKP)	24	48.00	4.3X	HRT	139.26	311	ePKP	25	04.00	-2.3X		1.5s		2542.00nm			
			i	25	29.00		GBZT	139.43	311	ePKP	25	12.20	5.7X		Z 14s		7.90um			6.6MszX
RDJ	127.56	142	ePKP	24	49.60	5.0X	BCK	139.57	305	ePKP	25	04.50	-2.5X				i	25	17.00	
			i	26	49.20		ISK	139.61	311	ePKP	25	14.00	7.2X				i	25	26.00	
ARO	127.69	270	iPKP+	24	53.20	8.0X	ISR	139.66	318	ePKPc	25	13.00	6.2X				ipPKP	25	56.00	
SLY	127.97	300	ePKPc	24	49.00	4.0X	MLR	139.87	319	ePKPc	25	09.00	1.7				iSS	47	05.00	
			i	24	51.40		CTT	140.03	312	ePKP	25	12.00	4.4X	NPS	144.03	304	ePKP	25	14.60	-0.1
			e	25	25.00		KHL	140.14	307	ePKP	25	05.10	-2.9X	KHC	144.29	332	PKP	25	11.90	-2.9X
			e	27	33.50		BMR	140.20	323	ePKPd	25	08.00	0.4				i	25	15.50	
KMSA	128.00	281	ePKP	24	44.64	-1.0	DMK	140.25	313	ePKP	25	06.00	-1.9X	NEO	144.41	311	ePKP	25	15.10	-0.2
JNW	128.25	359	ePKP	24	52.30	7.8X	BUC	140.27	317	ePKPc	25	08.00	0.1	WTS	144.52	341	iPKPd	25	13.90	-1.1
LSZ	128.35	231	iPKP	24	47.00	0.5	ELL	140.27	305	ePKP	25	06.50	-1.8X		0.7s		326.00nm			
			i	27	34.00		BUC1	140.34	317	ePKP	25	10.00	2.0				i	25	16.00	
BHD	128.97	298	ePKPd	24	50.50	3.5X	DST	140.41	309	ePKP	25	05.90	-2.5X				ePP	28	44.50	
			e	24	55.50		CMP	140.54	319	ePKPc	25	22.00	13.6X	ATH	144.58	309	ePKP	25	16.40	0.8
			e	25	33.00		KRA	140.66	328	ePKP	25	06.70	-1.7	KMR	144.82	330	iPKP+	25	15.30	-0.4
OASM	129.54	288	ePKP	24	50.70	2.3X		Z 20s		5.60um			6.3Msz				i	25	18.00	
SUF	129.68	339	ePKP	24	40.00	-7.4X		N 20s		2.40um							i	25	22.40	
BAO	129.70	131	e(PKP)	24	28.00	-21.0X				e	25	08.40					ipPKP	26	01.60	
MSL	129.83	302	ePKPc	24	50.00	1.4				i	25	17.60					iPP	28	48.60	
			e	24	55.00					e	25	23.30					eSKSP	38	42.00	
			e	25	34.50		KSL	140.68	304	ePKP	25	09.10	0.2	GRF	144.86	335	iPKPd	25	13.60	-2.1X
TCE	130.38	92	ePKP	24	52.58	2.4X	EDC	140.71	311	iPKP	25	09.50	0.7		Z 21s		4.00um			6.2Msz
TPP	130.56	93	ePKP	24	52.96	2.4X	JMB	140.79	314	ePKP	25	29.00	20.1X				e	25	15.30	
AAE	130.83	265	ePKP	24	56.00	4.5X	SPC	141.06	327	ePKP	25	08.00	-1.4				e	25	22.40	
TBH	130.97	93	ePKP	24	57.61	6.3X				i	25	10.50		DBN	144.90	343	iPKP+	25	16.00	0.4
KMZ	131.26	231	iPKP	24	51.00	-1.0				i	25	16.10					i(pPKP	25	58.00	
			i	24	56.00		ITR	141.16	133	ePKP	25	01.40	-9.0X				i(sPKP	26	28.00	
			i	27	16.00					e	25	03.20					ePP	28	40.00	
			i	28	10.50					e	25	07.70					eSP	39	48.00	
			i	29	21.00		PVL	141.30	316	ePKP	25	11.00	1.2				eSS	47	24.00	
SVB	131.52	89	ePKP	24	44.48	-7.9X	DRA	141.31	319	ePKP	25	13.00	3.3X	KZN	144.99	314	ePKP	25	17.00	0.7
SVV	131.57	89	ePKP	24	50.90	-1.5	YER	141.42	306	ePKP	25	08.10	-2.2X	KKS	145.04	317	ePKP	25	14.50	-1.7X
NUR	131.71	337	ePKP	24	44.00	-7.3X	DIM	141.68	314	ePKP	25	10.00	-0.5	BCI	145.10	318	ePKP	25	16.60	0.3
	0.7s		66.70nm				IZM	141.81	308	ePKP	25	06.00	-4.9X	PHP	145.21	317	ePKP	25	15.10	-1.4
	Z 21s		6.10um			6.3Msz	KSP	141.84	332	ePKP	25	04.60	-5.9X	DMU	145.33	356	ePKP	25	14.20	-2.1X
			i	24	53.00			1.3s		396.00nm					0.7s		619.00nm			
			e	25	36.00					id	25	10.30		PUK	145.38	318	ePKP	25	17.40	0.6
			e	27	28.00					i	28	37.50		PTJ	145.40	326	ePKP	25	15.40	-1.4
			iSKP	28	07.90		GZR	141.85	321	iPKPc	25	15.00	4.2X	ZAG	145.44	326	ePKP	25	20.50	3.7X
			ePPP	29	00.00		KDZ	141.92	314	ePKP	25	09.00	-2.0X	KBN	145.49	315	ePKP	25	16.60	-0.4
			eSS	44	40.00		EZN	142.00	311	ePKP	25	09.50	-1.6	TTG	145.58	319	ePKP	25	17.50	0.4
PAG	131.73	85	ePKP	24	55.00	2.2X	RDO	142.05	313	ePKP	25	10.20	-0.9	SDA	145.65	318	ePKP	25	18.40	1.2
SLB	131.85	89	ePKP	24	50.08	-3.0X	PLD	142.21	315	ePKP	25	12.00	0.6	LACI	145.71	317	ePKP	25	18.00	0.7
FDF	131.96	87	ePKP	24	54.46	1.3	PRK	142.25	310	ePKP	25	13.10	1.5	TIR	145.76	317	ePKP	25	19.00	1.5
BIM	131.98	88	ePKP	24	56.77	3.5X	EDU	142.34	353	ePKP	25	08.60	-2.6X	ENN	145.86	341	iPKPc	25	17.70	0.4
MVM	132.16	88	ePKP	24	56.10	2.5X		0.8s		300.00nm					1.7s		4226.00nm			
AKU	133.41	4	ePKP	24	56.20	1.8	BZS	142.41	322	ePKPc	25	10.00	-1.6				i	25	23.40	
	1.8s		418.18nm				TIM	142.58	322	iPKPc	25	11.00	-0.9				e(pPKP	26	01.00	

			e(sPKP	26	14.00		MGR	149.17	318	PKP	25	29.00	6.0X	ACHM	161.19	342	ePKP	25	43.00	4.3X
			ePP	28	48.00		FIR	149.29	328	ePKP	25	28.00	5.0X	ALOJ	161.26	343	iPKP	25	44.00	5.1X
LSK	145.86	314	iPKPd	25	20.40	2.6X				i	25	34.00		APHE	161.29	341	iPKP	25	41.00	2.1
KBA	145.89	330	ePKP	25	16.00	-1.8X	SDI	149.29	322	PKP	25	26.00	2.8X	EPRU	161.69	345	ePKP	25	44.00	4.8X
	1.0s	451	.00nm				AZI	149.33	323	PKP	25	30.00	6.9X	MAL	161.71	343	iPKP	25	42.00	2.9X
			i	25	19.70		ORX	149.41	333	PKP	25	26.04	2.7X				iPP	30	54.00	
			i	25	23.20		BDI	149.41	329	PKP	25	26.50	3.2X	LIJA	161.80	346	iPKP	25	33.00	-6.4X
			ipPKP	25	56.60		FLN	149.41	346	ePKP	25	25.00	2.0X	GIBL	161.99	347	iPKP	25	36.50	-2.9X
			i	28	46.60		ORO	149.42	333	PKP	25	26.50	3.2X	ALJ	162.06	346	iPKP	25	42.00	2.4X
			iPP	28	50.50		BOB	149.43	331	PKP	25	27.00	3.7X	EJIF	162.24	345	ePKP	25	45.00	5.3X
			e	35	50.00		LDF	149.49	346	ePKP	25	25.80	2.6X	SRO	162.40	345	iPKP	25	46.00	6.2X
DCN	145.91	356	ePKP	25	17.30	0.0	MNS	149.49	324	PKP	25	25.00	1.6	MOMI	162.42	346	iPKP	25	45.00	5.1X
	0.8s	672	.00nm				LOR	149.58	340	ePKP	25	25.60	2.2X	CNIL	162.45	347	iPKP	25	44.00	4.1X
DLE	145.91	355	ePKP	25	17.50	0.2	PII	149.70	328	PKP	25	26.00	2.4X	OJEN	162.59	345	ePKP	25	46.00	5.9X
	0.7s	140	.00nm				GRR	149.85	346	ePKP	25	25.60	1.9	PLAT	162.63	346	iPKP	25	49.00	8.9X
MEM	145.97	341	PKP	25	17.90	0.4	SSF	149.88	340	ePKP	25	27.20	3.4X	TAF	162.78	335	iPKPd	25	47.00	6.6X
BERA	146.03	316	ePKP	25	19.10	1.2	RDP	149.88	323	PKP	25	30.00	6.0X				i	26	38.00	
VBY	146.03	326	ePKPc	25	19.30	1.5	LSD	149.89	334	PKP	25	28.23	4.0X	KUK	163.36	220	ePKP	25	47.00	5.6X
			e	28	47.00		GEN	149.94	331	PKP	25	27.68	3.8X	IFR	164.91	341	iPKP	25	42.50	-0.1
LJU	146.04	327	ePKP	25	18.80	1.0	SOI	149.96	314	PKP	25	30.00	5.9X				i	25	50.00	
			e	28	48.00		LPG	150.03	335	ePKP	25	27.90	3.4X				i	26	47.50	
TPE	146.19	315	ePKP	25	22.50	4.3X	RSP	150.10	334	PKP	25	28.01	3.7X	AVE	165.70	348	iPKP	25	47.00	4.0X
ITM	146.19	309	ePKP	25	21.10	2.8X	SMF	150.13	339	ePKP	25	27.50	3.3X				i	26	49.00	
RBL	146.24	329	PKP	25	17.00	-1.2	AVF	150.17	340	ePKP	25	27.40	3.2X				i	27	45.50	
UCC	146.30	342	PKP+	25	19.90	1.9	LPF	150.23	346	ePKP	25	26.10	1.9	LIC	165.76	205	PKP	25	45.00	1.4
			i	25	23.00		CKI	150.23	332	PKP	25	29.50	5.1X	KIC	165.76	206	PKP	25	45.00	1.4
			i	26	06.00		ATN	150.31	315	PKP	25	29.50	4.8X	TIC	166.14	206	PKP	25	45.20	1.3
			SS	47	28.00		BNI	150.42	334	PKP	25	28.00	3.1X	TBT	168.73	33	iPKP	25	53.10	7.8X
CEY	146.30	327	ePKP	25	18.80	0.5	FIN	150.43	331	PKP	25	27.83	3.1X	CTFE	169.68	27	iPKP	25	51.00	5.1X
			e	28	48.00		RRL	150.48	334	PKP	25	29.11	4.0X				iPP	27	07.60	
VOY	146.37	328	ePKP	25	17.50	-1.0	ROB	150.52	332	PKP	25	28.45	3.5X	GGC	170.25	25	ePKP	25	49.00	2.8X
			e	28	47.00		BGF	150.53	340	ePKP	25	26.70	1.9				iPP	27	10.50	
VLO	146.44	316	ePKP	25	19.50	0.9	DOI	150.62	333	PKP	25	29.50	4.4X	CFTV	170.51	17	iPKP	25	49.80	3.4X
ETA	146.47	355	ePKP	25	20.60	2.4X	PZZ	150.68	333	PKP	25	28.78	3.5X				iPP	27	11.20	
	0.8s	315	.00nm				STV	150.80	332	PKP	25	29.44	4.1X		S.D. = 1.3		on 282 of 533 obs.			
FVI	146.51	330	PKP	25	19.50	1.0	FOUF	150.80	333	PKP	25	27.37	2.2X	----------						
SNF	146.58	342	PKP	25	19.80	1.3				e	25	31.82		APR 06, 1989 08h 45m 54.15± 0.52s						
TRI	146.66	328	ePKPd	25	20.60	1.8	IMI	150.81	331	PKP	25	28.61	3.2X	33.480 N ± 5.4km 132.429 E ± 5.7km						
			i	26	02.90		SAOF	150.90	332	PKP	25	31.59	6.1X	DEPTH = 13.2 ± 4.0 km						
			i	29	34.00		MAF	150.92	340	ePKP	25	27.20	1.8	SHIKOKU, JAPAN						(236)
			e	38	50.00		MNO	150.95	315	PKP	25	33.50	7.5X	MG 3.9 (JMA). Felt (II JMA) ot						
			e	49	41.00		AUTN	150.95	332	PKP	25	31.59	5.8X	Uwajimo.						
WLF	146.74	340	PKP	25	20.00	1.3	TCF	150.97	341	ePKP	25	27.60	2.1X							
VLS	146.76	311	ePKP	25	23.00	3.8X	TOUF	151.01	332	PKP	25	31.44	5.6X	UWA	0.28	157	P	46	00.00	-0.2
GWF	146.82	337	PKP	25	20.94	2.0	SBF	151.05	332	ePKP	25	28.60	2.9X	SHK	1.07	11	iP	46	14.90	0.9
ECB	146.84	355	ePKP	25	21.90	3.1X	AURF	151.08	332	PKP	25	31.44	5.6X		0.2s	1333	.33nm			
	1.0s	355	.00nm				MVIF	151.15	332	PKP	25	31.59	5.6X	SHNJ	1.27	301	iP+	46	16.70	-0.8
DOU	146.86	342	PKPc+	25	19.40	0.5	LSF	151.21	342	ePKP	25	27.80	2.0X				S	46	32.70	
			e	26	02.00		MFF	151.35	344	ePKP	25	28.10	2.1X	TKSJ	1.44	69	P	46	19.80	0.0
			PKS	29	22.00		CVF	151.36	328	PKP	25	31.89	5.7X				eS	46	37.60	
			e	45	39.00		CALN	151.38	332	PKP	25	32.44	6.1X	KUMJ	1.64	235	iP+	46	22.30	-0.5
			SS	47	35.00		FRF	151.64	332	ePKP	25	29.70	3.2X				S	46	41.60	
ECP	146.99	355	ePKP	25	20.20	1.2	LRG	151.85	333	ePKP	25	30.10	3.3X	YONJ	1.91	26	P	46	26.70	0.1
	0.7s	350	.00nm					1.4s	1702	.00nm							eS	46	49.60	
STR	147.09	337	PKP	25	22.62	3.3X	LMR	151.88	332	ePKP	25	29.80	2.9X	KAGJ	2.63	210	eP	46	38.10	1.1
CDF	147.42	337	PKP	25	22.77	2.7X	FAI	151.98	315	PKP	25	35.00	7.8X	WKYJ	2.73	73	P	46	38.40	-0.1
CTI	147.45	330	PKP	25	22.00	1.8	RJF	152.07	341	ePKP	25	30.60	3.5X	TSRJ	3.58	54	P	46	51.00	0.5
LCI	147.52	316	PKP	25	27.00	6.7X	CAF	152.24	340	ePKP	25	30.40	3.0X	IIDJ	4.95	65	P	47	09.50	-0.4
FEL	147.58	336	PKP	25	22.67	2.3X	LVI	152.46	317	PKP	25	35.50	7.6X	MAT	5.64	56	eP	47	19.00	-0.7
BNG	147.61	247	iPKPc	25	21.30	0.0	LFF	152.64	342	ePKP	25	31.40	3.5X		S.D. = 0.7		on 11 of 11 obs.			
	0.9s	269	.00nm				EPF	154.49	340	ePKP	25	32.90	2.3X	----------						
			ic	25	26.80			1.2s	20	.80nm				& APR 06, 1989 09h 02m 15.87s						
			id	26	07.30		ECRI	155.68	345	ePKP	25	36.00	3.7X	60.288 N 153.699 W						
			id	32	20.80		STS	156.40	356	ePKP	25	36.00	2.9X	DEPTH = 192.2km						
BCAO	147.62	247	ePKP	25	23.34	2.0	EBR	156.41	338	iPKPc	25	35.80	2.7X	SOUTHERN ALASKA						(2)
BRT	147.71	318	PKP	25	25.50	4.9X				e	29	48.00		<AGS-P>.						
MOF	147.94	337	PKP	25	23.51	2.6X				e	30	26.00								
VITF	148.04	338	PKP	25	24.13	3.3X	ERUA	156.75	353	ePKP	25	37.50	3.9X	ILIM	0.42	119	iP	02	41.33	0.8
BSF	148.08	337	PKP	25	23.89	2.7X	ETOR	157.23	342	ePKP	25	38.00	3.7X				iS	03	01.74	
HAU	148.09	338	ePKP	25	22.40	1.4	GUD	157.94	346	ePKP	25	38.00	2.7X	RED	0.48	74	iP	02	41.47	0.7
	0.8s	596	.10nm				ECHE	158.01	339	ePKP	25	38.00	2.8X				eS	03	02.22	
BBS	148.11	336	PKP	25	26.19	5.1X	PTO	158.14	355	ePKP	25	38.30	3.1X	PDB	0.56	206	iP	02	41.47	0.5
AOI	148.21	325	ePKP	25	23.35	2.0	TOL	158.64	345	ePKP	25	39.53	3.6X	OPT	0.68	159	iP	02	42.44	-0.7
SAL	148.30	331	PKP	25	25.00	3.6X				e	26	19.10					eS	03	03.81	
LOMF	148.47	337	PKP	25	25.55	3.8X				ePP	29	56.37		RDT	0.70	65	iP	02	42.50	-0.9
SSO	148.48	325	e(PKP)	25	25.85	4.1X				ePPP	33	45.00		AUL	0.92	172	iP	02	43.81	-0.7
MDI	148.54	332	PKP	25	24.50	2.8X				ePPS	43	10.00		AUI	0.97	172	eP	02	44.00	-0.9
CIO	148.70	325	ePKP	25	24.28	2.0	EPLA	158.88	349	ePKP	25	41.00	4.8X	SPU	1.21	41	iP	02	45.81	-0.9
ALP	148.73	324	ePKP	25	24.12	1.7	EVIA	159.37	341	ePKP	25	41.00	4.2X	HOM	1.21	121	eP	02	46.22	-0.4
SFI	148.88	327	PKP	25	27.00	4.7X	EBAN	160.19	343	ePKP	25	41.20	3.6X	NNL	1.23	101	iP	02	46.38	-0.4
VAI	148.89	333	PKP	25	23.50	1.2	LIS	160.59	356	iPKPc	25	45.00	7.1X	CRP	1.24	37	iP	02	46.73	-0.4
TDS	148.93	317	PKP	25	30.00	7.4X	ENIJ	160.79	338	ePKP	25	42.50	4.2X	SVW	1.25	312	iP	02	45.90	-1.2
DUI	148.94	321	PKP	25	29.00	6.3X	EHOR	160.88	346	ePKP	25	43.00	4.7X				S	03	09.20	
PGD	148.98	327	PKP	25	26.50	3.7X	ASMO	160.93	342	iPKP	25	39.70	1.2	SVW	1.25	312	iP	02	45.95	-1.2
CRE	149.04	327	PKP	25	26.50	3.7X	AFC	160.97	341	ePKP	25	40.00	1.4	NKA	1.30	68	iP	02	47.79	0.4
ASS	149.04	325	PKP	25	25.00	2.2X	CRT	161.04	342	ePKP	25	43.00	4.4X	XLV	1.30	129	eP	02	46.25	-1.2
SGO	149.08	319	PKP	25	27.50	4.7X	AAPN	161.08	343	iPKP	25	41.00	2.3X				eS	03	39.88	

06d 09h

CGLM	1.32	38	iP	02 46.99	-0.7
CDD	1.36	179	iP	02 46.72	-1.3
			eS	03 12.30	
CNPM	1.46	121	iP	02 48.17	-0.7
			iS	03 12.30	
BRLK	1.51	109	eP	02 48.73	-0.6
			eS	03 14.14	
SLKM	1.74	81	iP	02 49.84	-1.7
			iS	03 13.49	
SKT	2.00	31	iP	02 53.44	-0.7
SEW	2.13	93	iP	02 54.34	-1.2
PMS	2.25	63	iP	02 55.02	-1.8
PWA	2.31	52	iP	02 55.45	-2.0
PLRM	2.59	58	eP	02 57.80	-2.8
KDC	2.62	166	iP	02 58.05	-3.0
PME	2.64	57	eP	02 58.71	-2.6
GHO	2.76	55	iP	03 00.40	-2.4
TTA	2.87	338	iP	03 02.66	-1.4
			eS	03 38.30	
KNIM	2.97	86	iP	03 02.94	-2.2
			eS	03 40.32	
MTU	3.04	93	eP	03 05.13	-0.9
GLI	3.31	77	eP	03 06.38	-3.0
KTH	3.53	21	iP	03 09.99	-2.1
HIN	3.58	85	eP	03 10.81	-1.9
FID	3.60	79	eP	03 10.14	-2.8
VZW	3.60	74	eP	03 10.88	-2.1
VLZ	3.72	74	eP	03 12.42	-1.9
MID	3.81	100	iP	03 14.58	-0.9
CVA	3.95	83	eP	03 15.90	-1.3
KLU	3.99	69	iP	03 16.28	-1.6
TOA	4.07	60	iP	03 17.89	-1.0
SGAM	4.22	83	eP	03 18.94	-1.8
			eS	04 07.85	
RAGM	4.49	85	eP	03 22.94	-1.2
GLB	4.97	72	eP	03 29.36	-1.0
FBA	5.37	28	iP	03 33.34	-2.2
BALM	5.63	77	iP	03 38.14	-0.9
CTGM	6.12	78	iP	03 44.79	-0.7
BCPM	7.04	87	eP	03 52.63	-4.6
DWY	7.66	54	P	04 04.80	-0.9
HYT	8.00	79	P	04 10.00	-0.3
INK	11.83	39	eP	04 57.00	-2.5
YKA	18.65	66	P	06 19.90	-1.2

52 obs. associated

APR 06, 1989 09h 27m 09.01± 0.25s
44.582 N ± 2.0km 7.225 E ± 2.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.9 (LDG), 2.5 (GEN).

DOI	0.08	169	Pc	27 11.50	-0.1
			eSg	27 12.50	
PZZ	0.12	229	Pc	27 11.69	-0.4
			S	27 13.03	
FOUF	0.32	261	P	27 15.24	-0.4
			e	27 15.49	
			Sg	27 18.79	
STV	0.35	168	P	27 16.10	-0.1
			S	27 20.44	
RRL	0.46	317	Pc	27 18.22	-0.2
			S	27 24.04	
ROB	0.54	122	P	27 20.01	0.0
			S	27 27.27	
TOUF	0.57	178	Pg	27 20.28	-0.4
			Sg	27 27.44	
RSP	0.57	2	Pc	27 19.96	-0.7
AUTN	0.60	166	Pg	27 21.55	0.2
			Sg	27 28.58	
BNI	0.61	320	P	27 21.50	0.1
			eSg	27 29.50	
SAOF	0.64	158	Pg	27 21.38	-0.5
			Sg	27 29.56	
MVIF	0.69	184	Pg	27 22.29	-0.4
			Sg	27 31.79	
AURF	0.70	174	Pg	27 22.44	-0.4
			Sg	27 32.28	
SBF	0.73	168	Pg	27 24.00	0.5
			Sg	27 33.40	
CKI	0.77	101	P	27 24.50	0.4
			eSg	27 35.50	
FIN	0.80	118	Pd	27 24.49	0.0
IMI	0.82	144	P	27 24.80	-0.2
			S	27 35.37	
CALN	0.86	196	Pg	27 25.85	0.1
LSD	0.88	357	P	27 26.29	0.3
LPG	0.98	340	Pg	27 28.00	0.3
			Sg	27 40.60	
LPL	1.00	340	Pg	27 28.40	0.3
			Sg	27 41.60	
FRF	1.10	202	Pg	27 30.00	0.3
			Sg	27 43.60	
LRG	1.29	209	Pg	27 33.80	0.9
			Sg	27 50.40	
LMR	1.35	203	Pg	27 34.40	0.6
			Sg	27 51.50	

S.D. = 0.4 on 24 of 24 obs.

? APR 06, 1989 10h 32m 51.33± 9.98s
61.151 N ±43.8km 2.280 E ±69.6km
DEPTH = 10.0km (geophysicist)
NORWEGIAN SEA (642)
MD 2.1 (BER).

SUE	1.21	93	iP	33 14.26	0.5
			iS	33 22.46	
			iSg	33 23.19	
ASK	1.58	114	iP	33 19.15	-0.2
			iSg	33 31.34	
HYA	1.89	88	eP	33 23.91	0.0
			eS	33 32.91	
			e	33 40.83	
KMY	2.45	141	iPc	33 32.39	0.5
			eS	33 52.10	
			eSg	33 54.63	
ODD1	2.48	118	iP	33 31.74	-0.7
			iS	33 54.00	

S.D. = 0.7 on 5 of 5 obs.

? APR 06, 1989 10h 44m 24.56± 1.20s
60.909 N ± 7.7km 4.863 E ±13.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.7 (BER).

SUE	0.16	341	iP	44 28.20	0.0
			iSg	44 30.91	
ASK	0.46	159	eP	44 33.61	-0.3
			eS	44 40.74	
HYA	0.69	68	iP	44 38.13	-0.1
			iS	44 47.31	
			iSg	44 49.04	
ODD1	1.33	138	iP+	44 49.48	0.4
			eS	45 05.44	
			iSg	45 07.46	

S.D. = 0.5 on 4 of 4 obs.

% APR 06, 1989 10h 46m 30.08± 0.85s
41.154 N ±11.1km 28.892 E ± 6.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ISK	0.15	125	ePg	46 33.60	-0.1
			eSg	46 36.00	
CTT	0.35	269	ePg	46 36.70	-0.6
GBZT	0.56	131	ePg	46 41.60	0.3
			iSg	46 50.50	
HRT	0.67	119	ePg	46 43.20	-0.3
DMK	1.08	308	ePn	46 50.80	0.4
EDC	1.12	224	ePn	46 51.50	0.4

S.D. = 0.5 on 6 of 6 obs.

% APR 06, 1989 11h 26m 00.24± 0.79s
39.311 N ± 7.3km 27.723 E ± 7.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.76	67	iPg	26 14.90	-0.2
			eSg	26 27.00	
IZM	0.98	202	ePn	26 18.30	-0.6
EDC	1.04	6	ePn	26 19.50	-0.4
EZN	1.20	296	ePn	26 23.00	0.5
KHL	1.72	124	ePn	26 31.10	0.7

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

APR 06, 1989 11h 41m 48.92± 0.67s
40.015 N ± 5.5km 19.750 E ± 6.2km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MG 2.8 (TIR).

SRN	0.24	125	iPg	41 54.60	0.7
TPE	0.34	35	iPgc	41 56.50	0.5
VLO	0.49	337	iPg	41 59.00	0.1
LSK	0.67	78	iPgd	42 00.00	-2.2
BERA	0.70	12	ePg	42 01.70	-1.1
KBN	1.02	53	ePg	42 08.00	-0.1
TIR	1.33	4	ePn	42 14.50	1.0
LCI	1.41	284	P	42 13.50	-1.1
KZN	1.58	79	ePb	42 19.40	2.4X
LACI	1.62	359	ePn	42 20.60	3.0X
PHP	1.75	17	iPnc	42 21.10	1.6
VLS	1.95	160	ePn	42 23.00	0.6
PUK	2.03	3	ePn	42 23.50	0.0
KKS	2.12	13	ePn	42 29.00	4.2X
SOI	3.47	237	P	42 44.00	0.0

S.D. = 1.2 on 12 of 15 obs.

% APR 06, 1989 12h 30m 37.41± 0.62s
60.722 N ± 5.1km 5.536 E ± 6.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

ASK	0.29	215	iP+	30 43.43	-0.1
			eS	30 46.76	
			iSg	30 47.54	
SUE	0.51	312	iP	30 47.76	0.1
			eS	30 54.81	
HYA	0.55	35	eP	30 48.07	-0.4
			eS	30 55.18	
			eSg	30 57.23	
ODD1	0.98	146	eP	30 55.38	-0.6
			iPg	30 57.70	
			eS	31 09.34	
			eSg	31 12.17	
BLS1	1.48	154	eP	31 04.68	0.4
			eS	31 23.40	
KMY	1.52	186	eP	31 04.65	0.0
			iPg	31 05.55	
			eS	31 23.72	
NRA0	2.95	87	iPc	31 25.70	0.6

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

% APR 06, 1989 12h 31m 50.89± 0.67s
60.617 N ± 5.6km 5.492 E ± 7.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

ASK	0.20	228	iP	31 55.34	0.1
			iSg	31 58.20	
SUE	0.57	321	eP	32 02.21	-0.2
			iSg	32 10.44	
HYA	0.65	31	eP	32 04.00	0.2
			eSg	32 12.46	
			eS	32 59.63	
ODD1	0.91	141	eP	32 07.87	-0.4
			eS	32 19.85	
			eSg	32 23.27	
BLS1	1.40	151	eP	32 16.83	0.3
			eS	32 35.60	
			iSg	32 37.11	
KMY	1.41	185	eP	32 16.67	0.1
			eS	32 35.28	

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

APR 06, 1989 13h 05m 15.15± 0.37s
44.716 N ± 3.7km 3.585 W ± 3.9km
DEPTH = 10.0km (geophysicist)
BAY OF BISCAY (539)
ML 4.2 (LDG).

ECRI	2.25	159	ePn	05 54.50	1.5
			eSn	06 18.70	
EMON	2.99	246	ePn	06 03.80	0.4
			eSn	06 35.00	
MFF	3.06	51	Pn	06 06.00	1.6
			Sn	06 36.80	
LFF	3.09	84	Pn	06 06.10	1.3
			Sn	06 38.00	
EPF	3.30	119	Pn	06 07.50	-0.5
			Sn	06 44.00	
LPO	3.40	89	Pn	06 10.30	1.0
			Sn	06 46.00	
ERUA	3.48	229	ePn	06 10.30	-0.1
			eSn	06 45.80	
RJF	3.67	79	Pn	06 13.50	0.4
			Sn	06 53.10	
LPF	3.76	27	Pn	06 15.40	1.1

			Sn	06 56.00		
LSF	3.91	65	Pn	06 17.60	1.0	
CAF	4.03	85	Pn	06 18.30	0.1	
			Sn	07 00.50		
STS	4.03	245	ePn	06 17.80	-0.4	
			eSn	06 59.70		
ETOR	4.05	163	ePn	06 19.00	0.4	
			eSn	07 01.70		
GUD	4.09	186	ePn	06 19.00	-0.2	
			eSn	07 01.00		
GRR	4.13	26	Pn	06 20.50	1.0	
			Sn	07 04.30		
TCF	4.37	67	Pn	06 23.50	0.4	
			Sn	07 09.60		
LDF	4.55	30	Pn	06 26.20	0.6	
			Sn	07 14.00		
FLN	4.58	27	Pn	06 26.60	0.7	
			Sn	07 14.40		
MAF	4.58	69	Pn	06 25.80	-0.3	
			Sn	07 14.20		
BGF	4.87	66	Pn	06 30.00	-0.2	
			Sn	07 21.00		
EPLA	5.00	203	ePn	06 30.00	-2.0	
HYF	5.03	57	Pn	06 32.80	0.3	
			Sn	07 26.00		
ETER	5.27	115	eP	06 37.40	1.6	
AVF	5.28	64	Pn	06 35.30	-0.7	
			Sn	07 29.50		
SSF	5.48	62	Pn	06 38.60	-0.2	
			Sn	07 35.40		
SMF	5.55	67	Pn	06 39.50	-0.3	
			Sn	07 37.00		
LBF	5.75	64	Pn	06 41.80	-0.8	
			Sn	07 41.20		
LOR	5.78	61	Pn	06 42.40	-0.6	
			Sn	07 43.60		
HAU	7.62	61	Pn	07 06.40	-2.5	
			Sn	08 26.00		
ECP	7.69	347	eP	07 09.00	-0.8	
			eS	08 27.00		
DOU	7.73	43	iPd	07 09.30	-1.0	
SNF	7.86	40	iP	07 11.30	-0.9	
ECB	7.94	346	eP	07 14.00	0.7	
			eS	08 34.00		
ETA	8.17	349	eP	07 17.00	0.5	
			eS	08 42.00		
WLF	8.27	50	P	07 17.00	-0.9	
CDF	8.35	60	Pn	07 17.20	-1.9	
MEM	8.75	44	Pc	07 23.40	-1.2	
DLE	8.80	348	eP	07 24.90	-0.3	
			eS	08 55.00		
DCN	8.97	346	eP	07 29.00	1.5	
			eS	09 04.00		

S.D. = 1.0 on 39 of 39 obs.

? APR 06, 1989 13h 12m 58.70± 6.17s
58.099 N ±47.9km 6.353 E ±17.1km
DEPTH = 0.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.2 (BER). Probable explosion.

KMY	1.26	333	iPd	13 22.98	0.1	
			eS	13 38.11		
BLS1	1.32	11	iPd	13 23.90	-0.2	
			eS	13 38.96		
			iSg	13 41.69		
ODD1	1.82	4	iP	13 32.19	0.6	
			eS	13 53.20		
			iSg	13 55.12		
ASK	2.46	347	eP	13 40.43	-0.3	
			eS	14 10.28		
NRA0	3.74	43	iPc	13 58.90	-0.1	
			iS	14 41.50		
			iSg	14 53.50		

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

APR 06, 1989 13h 48m 44.35± 1.31s
43.925 N ±10.5km 146.686 E ± 6.3km
DEPTH = 123.9 ± 11.1 km
4.8mb (36 obs.)
KURIL ISLANDS (221)
Felt (II JMA) at Nemuro and (I JMA) at Kushiro, Hokkoido.

NEM	1.00	234	iPd	49 04.50	-2.4X	
			iS	49 19.10		
KUSJ	1.66	241	iPd	49 11.40	-2.8X	
			S	49 31.30		
KUS	1.92	241	iPd	49 15.70	-1.7X	
			iS	49 38.20		
ASAJ	2.92	275	iPd	49 30.90	0.5	
HOOJ	2.93	239	iPd	49 29.30	-1.1X	
			S	50 03.30		
MRRJ	4.37	252	P	49 48.00	-1.8X	
			S	50 37.50		
AOMJ	5.77	236	P	50 06.00	-2.8X	
			S	51 06.60		
OFUJ	6.13	220	P	50 09.30	-4.6X	
			eS	51 14.40		
YAMJ	7.63	223	P	50 30.60	-3.6X	
NIIJ	8.87	224	P	50 47.40	-3.5X	
			S	52 21.60		
KAKJ	9.18	215	P	50 49.70	-5.4X	
			S	52 27.00		
MAT	9.81	224	eP	51 00.00	-3.5X	
			eS	52 45.00		
CHJJ	9.83	219	P	50 59.90	-3.8X	
			S	52 43.70		
MTMJ	9.99	226	P	51 03.00	-2.9X	
IIDJ	10.80	222	P	51 13.30	-3.4X	
TSRJ	11.74	228	P	51 26.80	-2.1X	
MDJ	12.28	279	eP	51 34.00	-2.0X	
CN2	15.32	277	eP	52 11.80	-3.2X	
SNY	17.06	271	eP	52 36.50	0.0	
DL2	19.42	264	eP	53 04.00	0.9	
BJI	22.94	271	eP	53 38.00	-0.2	
			eS	57 32.00		
HHC	26.01	275	P	54 07.60	0.3	
TIY	26.52	268	eP	54 12.10	0.1	
BTO	27.20	276	P	54 18.00	-0.1	
			eS	58 52.00		
XAN	30.74	264	P	54 48.80	-0.9	
LZH	33.43	271	eP	55 14.50	1.2	
	1.2s		61.00nm		5.3mb	
GTA	34.93	279	P	55 26.00	0.0	
CD2	36.09	264	P	55 35.20	-0.5	
TTA	37.51	39	eP	55 48.00	0.7	
SVW	37.64	42	eP	55 49.40	1.0	
IMA	38.73	34	eP	55 57.50	0.0	
	0.6s		22.50nm		5.1mb	
KDC	39.43	47	eP	56 03.00	-0.2	
PMR	40.75	41	eP	56 14.00	0.0	
FBA	41.15	36	ePc	56 17.80	0.5	
TOA	42.09	40	eP	56 26.00	0.9	
INK	46.42	30	eP	56 59.00	-0.6	
CHG	47.01	253	eP	57 05.10	0.2	
CHTO	47.01	253	iP	57 05.50	0.7	
	0.7s		4.29nm		4.3mb	
GUN	50.67	273	P	57 32.80	-0.5	
KKN	51.17	273	P	57 36.80	-0.2	
PKI	51.21	273	P	57 37.00	-0.4	
DMN	51.40	273	P	57 38.60	-0.2	
GKN	51.51	274	P	57 39.00	-0.5	
	0.4s		10.00nm		5.1mb	
ALE	52.96	5	eP	57 47.00	-2.4	
	0.7s		10.00nm		4.9mb	
YKA	55.84	34	P	58 10.20	-0.3	
YKC	55.90	34	eP	58 10.00	-1.0	
KEV	58.43	339	eP	58 25.00	-3.7X	
SOD	60.17	337	iP	58 38.00	-2.7	
EDM	61.50	42	eP	58 49.00	-0.9	
SUF	63.62	334	iP	59 01.80	-1.8	
	0.6s		59.00nm		5.7mb	
WRA	64.55	193	eP	59 08.80	-1.3	
NUR	65.73	333	iP	59 15.80	-1.4	
FFC	65.76	36	iPc	59 17.40	-0.1	
	0.7s		13.00nm		5.0mb	
GBA	65.76	266	P	59 15.30	-2.8	
	0.6s		4.60nm		4.6mb	
LRM	66.49	48	eP	59 23.10	0.4	
KVN	67.50	57	P	59 29.80	0.7	
UPP	68.47	335	iP	59 32.50	-1.9	
TNP	68.65	57	P	59 36.60	0.3	
FRB	69.11	16	eP	59 37.00	-1.3	
HFS	69.40	337	eP	59 38.70	-1.4	
	0.5s		63.00nm		5.7mb	
NRA0	69.49	338	P	59 38.70	-2.0	
NAO	69.60	339	P	59 39.60	-1.8	
	0.8s		43.40nm		5.3mb	
BW06	70.05	50	P	59 44.90	0.2	
RSON	72.04	35	P	59 55.30	-0.9	
	0.5s		2.86nm		4.3mb	
KRA	75.53	328	eP	00 16.50	0.1	
	1.0s		50.00nm		5.3mb	
VRI	75.97	321	ePc	00 21.00	2.1	
KSP	76.25	330	iP	00 20.50	0.1	
MLR	76.61	322	ePc	00 23.00	0.3	
CLL	77.00	332	iPc	00 24.40	-0.1	
	1.2s		24.00nm		4.9mb	
PRU	77.58	331	eP	00 28.00	0.2	
SCH	77.59	19	eP	00 28.00	0.2	
EKA	77.86	343	Pc	00 30.30	1.1	
	0.7s		9.10nm		4.7mb	
KHC	78.65	331	P	00 34.20	0.5	
GRF	78.98	332	eP	00 36.40	1.0	
	0.7s		13.00nm		4.8mb	
KBA	80.46	330	ePd	00 44.00	0.4	
	0.7s		14.20nm		4.9mb	
CDF	81.38	334	eP	00 48.30	0.0	
	0.8s		8.00nm		4.6mb	
HAU	82.03	334	eP	00 51.30	-0.3	
	0.8s		6.40nm		4.5mb	
PRNI	83.30	306	ePc	00 59.50	1.1	
FLN	83.31	339	eP	00 58.40	0.3	
	0.5s		6.40nm		4.8mb	
LDF	83.37	339	eP	00 59.10	0.7	
	0.8s		13.40nm		4.9mb	
LOR	83.45	336	eP	00 59.10	0.2	
	0.7s		7.70nm		4.7mb	
LBF	83.67	335	eP	01 00.20	0.2	
	0.6s		3.00nm		4.4mb	
SSF	83.74	336	eP	01 00.70	0.4	
	0.6s		3.00nm		4.4mb	
GRR	83.75	339	eP	01 01.00	0.7	
	0.6s		9.00nm		4.8mb	
MBH	83.79	306	iPc	01 02.00	1.2	
SMF	84.02	335	eP	01 02.10	0.4	
	0.7s		14.30nm		5.0mb	
AVF	84.03	336	eP	01 02.30	0.5	
	0.6s		9.90nm		4.9mb	
LPG	84.12	333	eP	01 03.30	0.7	
	0.7s		11.00nm		4.8mb	
BGF	84.39	336	eP	01 04.60	1.0	
	0.6s		6.30nm		4.7mb	
MAF	84.78	336	eP	01 06.50	0.9	
	0.8s		15.30nm		4.9mb	
TCF	84.82	336	eP	01 06.50	0.7	
	0.7s		4.40nm		4.5mb	
LSF	85.05	337	eP	01 07.70	0.8	
	0.8s		20.10nm		5.1mb	
MFF	85.20	338	eP	01 08.50	0.9	
	0.7s		11.00nm		4.9mb	
RJF	85.92	336	eP	01 12.10	0.8	
	0.8s		8.00nm		4.7mb	
CAF	86.10	336	eP	01 13.60	1.4	
	0.8s		14.70nm		5.0mb	
LFF	86.48	337	eP	01 15.10	1.1	
	0.6s		14.40nm		5.1mb	
LPO	86.58	336	eP	01 15.90	1.4	
	0.6s		6.10nm		4.7mb	
KIC	123.69	325	PKP	07 28.40	-0.7	
ITR	144.69	9	ePKP	08 06.60	-1.5	
SOB1	144.79	13	ePKP	08 07.90	-0.4	
BAO	149.16	28	e(PKP)	08 17.00	1.6	

S.D. = 1.0 on 83 of 101 obs.

& APR 06, 1989 16h 04m 31.34s
60.720 N 150.771 W
DEPTH = 49.5km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

NKA	0.23	276	eP	04 41.22	2.6	
SLKM	0.34	128	iP	04 40.93	0.9	
			iS	04 48.91		
NNL	0.73	201	iP	04 46.10	0.8	
SPU	0.78	307	iP	04 45.49	-0.6	
			iS	04 56.51		
PMS	0.79	48	iP	04 45.93	-0.3	
RDT	0.82	260	iP	04 45.99	-0.7	
			iS	04 57.74		
CGLM	0.84	315	eP	04 46.37	-0.7	
CRP	0.87	310	iP	04 46.87	-0.7	
SEW	0.90	133	iP	04 47.13	-0.7	
			iS	05 00.48		
PWA	1.03	24	iP	04 49.38	-0.3	
RED	1.03	254	iP	04 48.85	-1.0	
			eS	05 03.40		
PLRM	1.18	42	iP	04 51.03	-0.8	
			iS	05 06.64		

06d 16h

CNPM	1.22	191	iP	04	51.85	-0.6
			iS	05	08.82	
PME	1.24	42	iP	04	52.04	-0.7
			iS	05	08.51	
ILIM	1.26	240	iP	04	52.20	-0.9
SKT	1.32	344	iP	04	53.00	-0.8
XLV	1.36	201	eP	04	53.65	-0.7
			eS	05	11.30	
GHO	1.38	39	iP	04	54.06	-0.7
KNIM	1.55	103	iP	04	54.75	-2.3
OPT	1.63	230	eP	04	57.47	-0.8
MTU	1.72	114	iP	04	58.01	-1.5
GLI	1.81	83	iP	04	58.00	-2.8
			iS	05	20.02	
AUL	1.89	226	eP	05	01.20	-0.8
PDB	1.95	243	eP	05	01.62	-1.2
VZW	2.09	79	eP	05	02.81	-2.1
FID	2.11	87	iP	05	02.01	-3.1
HIN	2.13	97	eP	05	03.52	-2.0
VLZ	2.21	77	iP	05	04.57	-1.9
CDD	2.31	220	iP	05	07.35	-0.6
SVW	2.40	281	eP	05	06.76	-2.6
KLU	2.48	70	iP	05	08.50	-2.0
CVA	2.48	92	eP	05	07.33	-3.0
TOA	2.61	56	eP	05	10.71	-1.6
SGAM	2.75	92	eP	05	11.59	-2.7
KTH	2.84	359	eP	05	14.83	-0.9
RAGM	3.03	94	eP	05	15.57	-2.7
KDC	3.11	197	iP	05	16.21	-3.2
TTA	3.33	314	eP	05	20.37	-2.2
GLB	3.46	75	iP	05	21.67	-2.7
BALM	4.13	82	iP	05	30.43	-3.5
FBA	4.41	17	eP	05	35.98	-1.8

41 obs. associated

APR 06, 1989 16h 10m 04.09± 0.61s
36.046 N ± 3.8km 114.661 W ± 5.7km
DEPTH = 5.0km (geophysicist)
SOUTHERN NEVADA (41)
ML 2.7 (NEIS). Felt in the Boulder City area and at Hoover Dam.

EMN	0.14	211	iP	10	06.80	-0.3
SHRG	0.61	319	iPc	10	15.80	-0.5
SPRG	1.13	305	eP	10	25.30	-0.5
EPR	1.20	339	eP	10	26.80	-0.2
NOP	1.21	274	eP	10	26.80	-0.4
JON	1.23	289	iPc	10	26.90	-0.6
PRN	1.39	347	ePc	10	31.40	1.1
LSM	1.47	299	iPd	10	31.50	0.1
SDH	1.48	294	iPc	10	31.50	0.0
AMR	1.51	284	eP	10	31.50	-0.3
YMT3	1.60	298	eP	10	33.50	0.4
GWY	1.63	275	eP	10	33.80	0.1
TNP	2.88	316	eP	10	53.00	1.2
GLA	2.99	183	e(P)	10	53.00	-0.1
MSU	3.16	38	eP	10	54.80	-0.9
PLM	3.24	215	eP	10	57.50	0.7
KVN	4.06	319	eP	11	08.50	0.1
ALQ	6.78	97	e(P)	12	10.00	23.1X

S.D. = 0.6 on 17 of 18 obs.

APR 06, 1989 16h 54m 29.91± 0.55s
19.072 S ± 7.8km 67.130 W ± 8.1km
DEPTH = 242.4 ± 6.0 km
4.8mb (3 obs.)
SOUTHERN BOLIVIA (125)

CCH	1.92	29	iPd	55	12.40	0.7
			S	55	40.00	
CNCB	2.39	340	iPc	55	17.00	0.5
LPB	2.69	340	iPc	55	20.00	0.6
	1.0s	1260.00nm				
			S	55	58.00	
ZOBO	2.94	341	iPc	55	22.10	-0.2
			S	56	04.00	
ARE	4.90	301	iPc	55	43.20	-1.9
			iS	56	37.30	
SLA	5.83	165	ePd	55	56.30	-0.2
			S	57	02.80	
PPD	15.10	104	eP	58	01.50	8.4X
RFA	15.68	184	ePd	58	00.60	0.6
BAO	18.58	82	e(P)	58	30.00	-1.6
VAO	19.22	105	eP	58	37.30	-0.6
ITA	21.23	103	eP	58	59.20	1.1
ATB	21.41	45	e(P)	59	01.00	1.5
BMA	21.76	104	eP	59	03.70	0.7
SOB1	27.23	73	eP	59	53.70	-0.1
ITR	29.64	74	eP	00	14.60	-0.6
ALQ	65.43	325	eP	04	48.60	-0.5
	0.8s	6.72nm			4.4mb	
LIC	66.11	74	P	04	52.60	-1.0
KIC	66.43	74	P	04	54.10	-1.5
EDM	82.30	334	iPd	06	24.90	-0.5
	0.5s	28.00nm			5.2mb	
PNT	82.46	328	eP	06	28.00	1.8
	0.6s	13.00nm			4.8mb	
FRB	82.55	359	eP	06	26.00	-0.3
YKA	89.48	340	P	07	01.10	0.9
WRA	135.88	210	PKPd	13	24.90	0.7
	0.8s	2.30nm				
GBA	145.61	94	PKP	13	44.00	2.5X
	0.4s	1.90nm				
MAT	151.76	313	ePKP	13	57.00	6.4X
	0.7s	5.48nm				
GKN	152.68	66	PKP	14	00.90	8.6X
	0.5s	11.00nm				
DMN	153.18	66	PKP	14	02.60	9.5X
KKN	153.29	66	PKP	14	02.40	9.2X
	0.5s	8.00nm				
PKI	153.45	66	PKP	14	02.50	8.9X
GUN	153.77	65	PKP	14	03.40	9.3X

S.D. = 1.1 on 22 of 30 obs.

? APR 06, 1989 17h 33m 24.35± 2.24s
29.736 S ±23.6km 177.856 W ±16.3km
DEPTH = 55.6 ± 16.4 km
5.0mb (6 obs.)
KERMADEC ISLANDS (178)
Felt (IV) on Raoul Island.

RAO	0.49	354	iP	33	35.60	-0.3
DZM	16.05	295	iPc	37	16.10	8.2X
BRS	25.87	268	iPc	38	56.00	3.4X
COO	26.14	261	eP	38	59.00	3.9X
CAN	28.41	250	eP	39	18.00	2.3
BWA	28.87	252	eP	39	20.00	0.1
RMQ	29.57	268	iPd	39	29.40	3.2X
CTA	33.82	278	iPd	40	05.00	1.6
	0.5s	15.49nm			5.2mb	
			e	40	24.50	
			i	40	31.00	
			i	45	07.50	
STK	34.76	256	iPd	40	13.80	2.4
ASPA	43.27	266	eP	41	22.00	-0.3
	0.6s	16.00nm			4.9mb	
WRA	44.20	271	iPc	41	29.90	0.1
FORR	46.29	254	eP	41	45.70	-0.6
WARB	48.76	260	eP	41	58.00	-7.7X
MTN	50.01	278	iPd	42	14.80	-0.5
	0.4s	10.00nm			5.2mb	
COOL	52.08	252	eP	42	29.40	-1.5
	0.5s	8.00nm			5.0mb	
MUN	55.84	250	eP	42	57.20	-1.2
MRWA	56.83	253	eP	43	03.30	-2.3
SPA	60.43	180	iP	43	36.20	5.9X
MAW	72.97	200	iPd	44	49.80	0.4
	0.9s	15.00nm			4.9mb	
MAT	77.77	325	eP	45	17.00	0.0
	1.0s	12.00nm			4.9mb	
IPM	84.56	278	eP	45	52.50	-0.7
FRI	85.88	43	eP	45	59.90	0.7
CMB	86.19	42	eP	46	01.10	0.3
WDC	86.72	39	eP	46	03.80	0.5
KVN	88.20	42	iP	46	10.60	-0.1
			pP	46	27.80	61kmX
SUF	143.52	342	iPKP	52	49.70	-3.9X
	0.5s	5.80nm				
NUR	145.73	340	iPKP	52	57.10	-0.3
NAO	148.37	352	PKP	53	04.40	2.7X
	0.6s	19.40nm				
BNG	150.44	215	iPKPc	53	11.30	5.0X
	0.4s	17.00nm				
DSI	151.41	282	ePKPc	53	14.00	6.8X
MBH	151.63	278	iPKPc	53	14.00	6.4X
EKA	154.14	7	PKPc	53	32.40	22.1X
	0.6s	5.30nm				
CLL	156.97	342	iPKP	53	27.40	13.2X
	0.6s	11.00nm				

S.D. = 1.2 on 20 of 33 obs.

APR 06, 1989 18h 34m 35.75± 0.76s
39.268 N ± 6.2km 23.496 E ± 8.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.21	280	ePb	34	39.90	-0.5
			eSb	34	44.80	
PLG	1.11	358	ePn	34	57.10	0.6
			eSn	35	13.40	
ATH	1.31	172	ePn	35	00.20	0.3
KZN	1.69	309	ePb	35	05.50	0.0
EZN	2.26	75	ePn	35	18.00	4.3X
MMB	2.33	4	ePd	35	14.00	-0.7
RZN	2.59	21	iP	35	19.00	0.4
KKB	2.62	353	iP	35	19.00	0.2
KDZ	2.79	31	eP	35	20.00	-1.3
VTS	3.33	356	eP	35	30.00	1.0

S.D. = 0.8 on 9 of 10 obs.

APR 06, 1989 18h 35m 03.83± 0.61s
46.235 N ± 5.8km 13.505 E ± 6.0km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 1.9 (LJU), 1.9 (KBA). MD 2.1 (TRI).

RBL	0.21	12	P	35	08.50	0.0
			eSg	35	12.00	
VOY	0.34	127	iPgc	35	10.40	-0.5
			eSg	35	16.00	
TRI	0.56	161	ePg	35	14.70	-0.4
			iSg	35	23.30	
FVI	0.62	306	P	35	16.00	-0.2
			eSg	35	24.50	
LJU	0.74	105	e(Pg)	35	19.20	0.8
			eSg	35	28.70	
KBA	0.85	353	iPgc	35	20.00	-0.4
			iSg	35	31.60	
CTI	1.30	262	P	35	28.50	0.5
			eSn	35	47.00	
VBY	1.43	120	eP	35	38.70	9.0X
			e(Sg)	35	49.90	
KHC	2.90	1	eP	36	07.10	16.2X

S.D. = 0.6 on 7 of 9 obs.

APR 06, 1989 18h 50m 44.48± 0.34s
40.321 S ± 7.0km 75.036 W ± 8.4km
DEPTH = 33.0km (normal)
5.2mb (16 obs.) 3.9Msz (1 obs.)
OFF COAST OF SOUTHERN CHILE (143)

RFA	7.61	45	ePd	52	34.50	-1.4
SLA	17.49	30	e(P)	54	52.00	4.4X
ARE	23.97	8	e(P)	55	58.00	0.8
CCH	24.12	21	P	55	59.30	0.7
CNCB	24.21	17	P	56	02.00	2.2
LPB	24.46	16	eP	56	04.00	2.0
ZOBO	24.71	16	P	56	05.00	0.4
	1.1s	22.62nm			4.7mb	
Z	20s	0.39um			3.9Msz	
			S	00	32.00	
			LR	06	12.00	
PPD	27.15	55	eP	56	35.60	9.0X
VAO	29.30	62	eP	56	47.40	1.2
			e	56	56.00	
ITA	31.27	64	eP	57	03.00	-0.9
			e	57	14.20	
			e	57	36.40	
BMA	31.44	65	eP	57	05.60	0.6
BAO	34.03	52	eP	57	26.20	-1.6
SOB1	43.35	54	eP	58	45.00	-0.3
			e	58	55.10	
SPA	49.87	180	ePd	59	36.70	0.3
	1.1s	54.76nm			5.5mb	
MAW	67.80	164	eP	01	40.00	-0.7
TUH	72.22	119	iPd	02	09.00	0.8
	1.0s	50.00nm			5.5mb	
CER	72.27	119	iPc	02	24.50	15.9X
	0.6s	15.71nm				
JSC	74.45	355	P	02	19.00	-1.9
BLA	77.31	356	P	02	35.00	-2.1
	0.7s	13.76nm			5.1mb	
ELC	78.32	348	P	02	40.80	-1.8
FRS	78.54	119	iPd	02	44.00	-0.2
	0.5s	28.17nm			5.5mb	
LIC	79.02	72	Pd	02	47.00	0.1
	0.6s	11.50nm			5.1mb	
FVM	79.19	348	P	02	45.80	-1.5

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TIC     79.31  72 P      02 48.40  -0.1
KIC     79.32  72 Pd     02 48.40  -0.2
         0.7s     9.00nm          4.9mb
ALQ     80.30 334 iPd    02 54.00   0.4
         1.0s    21.00nm          5.1mb
SEK     81.00 119 eP     02 58.50   0.9
         1.2s    62.50nm          5.5mb
PRY     81.81 118 iPc    03 01.20  -0.6
         0.7s     7.50nm          4.8mb
KSR     82.11 117 iPc    03 05.20   1.7
         0.7s    12.50nm          5.1mb
PLM     82.87 326 P      03 08.00   1.0
SLR     83.14 118 iPd    03 09.80   1.1
         0.8s    26.12nm          5.4mb
GOL     84.31 337 P      03 14.00  -0.4
RSNY    84.49   0 P      03 14.30  -0.4
PTN     84.51   0 P      03 14.30  -0.5
MIM     85.35   4 P      03 19.00   0.0
GAC     85.64 360 ePc    03 20.50   0.1
TNP     87.06 328 P      03 28.70   0.8
         0.9s     8.46nm          5.0mb
BUL     87.07 114 iPc    03 27.90  -0.5
         1.0s    37.00nm          5.6mb
                 ipP      03 38.30   33kmX
LLA     87.40 325 e(P)   03 31.10   1.7
KVN     88.25 328 P      03 33.60   0.0
CMB     88.35 326 eP     03 34.40   0.5
                 e        04 36.40
BW06    88.41 335 P      03 34.00  -0.3
         1.2s    17.98nm          5.3mb
ORV     90.09 326 eP     03 44.00   2.0
LRM     92.07 335 eP     03 52.10   0.8
RSON    92.26 348 P      03 50.00  -1.7
BNG     95.57  89 iPc    04 08.90   1.0
         0.8s     7.00nm          5.2mb
                 id       06 09.90
MBC    119.66 349 ePKP   09 30.00  -1.2
NAO    122.33  35 PKP    09 35.50  -1.2
         0.7s     1.80nm
GBA    144.08 130 PKPc   10 15.30  -3.4X
         0.6s    10.70nm
MAIO   144.39  82 iPKPd  10 16.80  -2.0
         0.7s    14.29nm
SNG    146.77 172 ePKP   10 14.00  -9.2X
QUE    147.57  96 ePKP   10 25.20   0.8
HYB    147.73 127 ePKPc  10 24.20  -0.5
         1.0s    60.00nm
MAT    153.77 272 (PKP)  10 40.00   6.8X
         1.0s    14.00nm
GKN    159.23 120 PKP    10 40.30  -0.2
DMN    159.27 122 PKP    10 41.00   0.3
PKI    159.44 122 PKP    10 40.90  -0.1
KKN    159.51 122 PKP    10 41.00   0.1
GUN    159.98 122 PKP    10 41.50  -0.1
      S.D. = 1.1  on  53 of  59 obs.
-------------------------------------
*  APR  06, 1989  18h 55m 16.57± 1.13s
   22.503 S ±16.5km  179.223 E ±13.4km
   DEPTH = 633.4 ± 12.5 km
   4.5mb (  8 obs.)
 SOUTH OF FIJI ISLANDS              (171)

VUN      4.53 351 eP     56 47.50  -0.9
DZM     11.84 270 iPc    57 55.20   1.3
RMO     27.97 256 iPc    00 22.90   1.8
CAN     29.25 237 eP     00 33.00   1.0
BWA     29.46 239 eP     00 32.20  -1.5
STK     34.61 246 iPd    01 18.10   1.4
ASPA    41.58 259 iPd    02 13.10  -0.1
         0.8s    23.00nm          4.7mb
WRA     41.80 265 iPd    02 14.00  -0.9
FORR    46.10 248 iPd    02 47.80  -0.2
         0.4s    37.00nm          5.2mb
MBL     54.82 259 eP     03 48.00  -3.5X
         0.4s    14.00nm          4.6mb
                 ipP      03 50.70   9kmX
KLB     54.87 246 eP     03 51.00  -0.7
MEKA    54.91 253 eP     03 51.00  -1.0
NWAO    55.17 245 iPc    03 53.40  -0.3
BAL     55.89 247 eP     03 57.70  -1.0
         0.4s    11.00nm          4.5mb
MUN     56.14 246 eP     04 00.00  -0.4
MRWA    56.71 249 eP     04 03.40  -0.9
         0.3s     4.00nm          4.1mb
NANU    58.40 257 iPd    04 15.40  -0.3
         0.4s    24.00nm          4.8mb
SPA     67.63 180 e(P)   05 14.90   1.0
         0.6s     8.13nm          4.4mb
MAT     70.34 326 iPc    05 29.30  -0.7
FRI     82.52  45 eP     06 36.10   0.4
CMB     82.69  44 eP     06 36.80   0.2
WDC     82.87  41 eP     06 38.10   0.7
ORV     82.88  42 eP     06 37.80   0.3
KVN     84.74  44 iP     06 46.90   0.1
CHG     88.51 291 eP     07 06.00   1.2
CHTO    88.51 291 iP     07 06.30   1.5
         0.9s     4.48nm          4.3mb
SOB1   129.62 124 ePKP   13 16.30  -1.1
SUF    135.86 343 ePKP   13 26.00  -1.7
         0.7s     2.80nm
NUR    138.07 341 iPKP   13 32.60   0.7
NAO    140.86 351 PKP    13 30.50  -6.5X
         0.5s     1.40nm
HRI    146.14 297 ePKP   13 50.00   3.1X
DSI    146.68 294 iPKPd  13 51.00   3.4X
EKA    147.17   3 PKP    13 50.00   2.4X
         1.1s    17.40nm
MBH    147.28 290 iPKPd  13 53.00   4.4X
KRA    148.05 334 ePKP   13 53.10   3.9X
MLR    148.38 323 ePKPc  13 54.00   3.9X
KSP    148.73 339 iPKPd  13 55.00   4.7X
CLL    149.31 343 iPKP   13 56.30   5.2X
         1.1s    38.00nm
                 i        14 03.50
PRU    150.04 340 iPKP   13 57.80   5.6X
MOX    150.28 344 ePKPc  13 59.00   6.4X
KHC    151.09 340 ePKP   13 44.50  -9.4X
                 e        14 00.00
GRF    151.26 344 ePKP   14 01.10   7.0X
         0.8s     7.00nm
DOU    152.14 353 PKPc   14 02.80   7.5X
      S.D. = 1.1  on  28 of  43 obs.
-------------------------------------
?  APR  06, 1989  18h 58m 33.80± 0.96s
   39.076 N ±11.0km   29.526 E ± 9.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)

ALT      0.46  92 iPg    58 43.00  -0.1
                 eSg      58 49.10
KHL      0.75 180 iPg    58 48.60   0.0
                 iSg      58 59.60
DST      0.87 308 iP     58 49.80  -0.8
                 eSg      59 00.00
GPA      1.35  26 iPn    59 02.00   3.3X
BNT      1.78 316 ePn    59 03.90  -0.9
EDC      1.80 315 ePn    59 07.00   1.8
      S.D. = 1.6  on   5 of   6 obs.
-------------------------------------
?  APR  06, 1989  18h 59m 18.59± 5.44s
    4.854 S ±56.1km  136.135 E ±19.7km
   DEPTH =  33.0km  (normal)
   4.4mb (  3 obs.)
 WEST IRIAN REGION                  (196)

MTN      9.35 212 iPc    01 35.30   1.1
                 eS       03 26.00
PMG     11.83 113 eP     02 08.00  -0.1
KNA     13.02 213 eP     02 23.00  -1.0
                 eS       04 53.00
WRA     15.10 186 Pc     02 56.10   4.8X
         0.5s     6.90nm          4.2mb
WRA     15.10 186 eP     02 50.20  -1.1
                 i        02 55.00
                 eS       05 36.80
QIS     15.97 168 eP     02 59.00  -3.5X
                 e        03 06.00
                 eS       05 33.00
CTA     18.06 148 iPc    03 29.00   0.2
         0.9s    18.91nm          4.2mb
                 i        09 18.00
ASPA    18.83 186 iPc    03 39.20   0.9
         0.7s    72.00nm          5.0mb
                 eS       07 08.70
      S.D. = 1.2  on   6 of   8 obs.
-------------------------------------
*  APR  06, 1989  19h 15m 05.29± 0.99s
   11.020 S ± 8.5km  166.739 E ±20.3km
   DEPTH =  33.0km  (normal)
   4.6mb (  5 obs.)  4.3Msz (  2 obs.)
 SANTA CRUZ ISLANDS                 (184)

DZM     10.99 181 iPc    17 41.00  -2.5
PMG     19.34 273 eP     19 34.00   3.0X
BRS     20.92 217 iPc    19 47.30  -0.3
                 i        19 53.20
CTA     21.68 243 iPd    19 57.00   1.7
         0.6s    10.67nm          4.4mb
       Z  22s     0.78um          4.1Msz
                 i(pP)    20 09.00   49kmX
                 eS       24 08.00
RMQ     22.90 225 iPc    20 08.70   1.3
COO     23.85 213 eP     20 17.00   0.4
WRA     32.41 250 Pc     21 33.60  -1.0
         1.1s     9.80nm          4.6mb
GUMO    32.69 318 eP     21 28.50  -8.5X
PJG     32.69 318 eP     21 28.00  -9.0X
MSZ     33.55 178 P      21 46.00   1.9
ASPA    33.68 244 iPc    21 44.10  -1.5
         0.7s    10.00nm          4.8mb
       Z  20s     0.91um          4.5Msz
                 LR       34 30.60
MBL     46.03 251 eP     23 28.00   0.1
         0.8s    16.00nm          5.0mb
                 e        23 34.00
SSE     60.52 315 eP     25 14.00  -0.7
NJ2     62.69 315 eP     25 29.40   0.1
CN2     66.22 329 Pd     25 51.20  -0.9
BJI     69.08 321 eP     26 10.00  -0.1
TIY     70.21 317 eP     26 16.80  -0.4
       Z  16s     0.70um          5.0MszX
XAN     70.83 312 eP     26 20.40  -0.6
CHTO    73.11 294 eP     26 34.90   0.1
         1.1s     2.65nm          4.1mb
LZH     75.46 312 e(P)   26 49.00   0.7
GTA     79.74 314 eP     27 12.30   0.4
PKI     87.48 299 PKP    27 57.40   5.7X
KKN     87.64 299 PKP    27 58.20   5.8X
DMN     87.75 299 PKP    27 58.80   5.9X
GKN     88.25 299 PKP    28 00.40   5.2X
SOB1   145.95 125 ePKP   34 40.30  -3.2X
                 e        34 44.70
BNG    147.83 261 iPKPc  34 48.00   1.4
         0.6s    39.00nm
                 ic       34 53.40
      S.D. = 1.2  on  19 of  27 obs.
-------------------------------------
*  APR  06, 1989  22h 10m 21.04± 0.96s
   45.967 N ±10.3km   15.493 E ± 7.3km
   DEPTH =  10.0km  (geophysicist)
 YUGOSLAVIA                         (383)
      MD 2.8 (LJU). ML 2.2 (KBA). Felt
      (V) at Brestanica.

PTJ      0.33 102 ePg    10 27.30  -0.6
                 eSg      10 33.50
VBY      0.49 200 e(Pg)  10 32.00   1.0
                 iSg      10 38.20
LJU      0.67 277 ePg    10 33.00  -1.4
                 eSg      10 42.90
CEY      0.78 253 e(Pg)  10 35.90  -0.3
                 eSg      10 47.30
VOY      1.12 274 ePn    10 40.60  -1.4
                 ePg      10 42.90
                 eSg      10 58.80
RBL      1.42 290 P      10 47.50   0.6
KBA      1.85 308 e(Pn)  10 54.50   1.2
                 iPgc     10 55.70
                 eSg      11 19.70
FVI      1.98 289 P      10 56.00   1.1
      S.D. = 1.3  on   8 of   8 obs.
-------------------------------------
%  APR  06, 1989  22h 16m 16.87± 0.83s
   40.094 N ± 6.5km   29.180 E ± 8.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)

DST      0.65 221 iPg    16 30.80   0.9
                 iSg      16 38.80
GBZT     0.72  16 ePg    16 32.00   0.9
HRT      0.82  27 ePg    16 29.00  -3.7X
GPA      0.89  77 ePg    16 34.30   0.4
                 iSg      16 47.80
ISK      0.97 355 ePg    16 35.30  -0.1
                 eSg      16 48.80
CTT      1.20 332 ePg    16 38.00  -1.2
ALT      1.26 145 iPn    16 39.40  -1.0
      S.D. = 1.2  on   6 of   7 obs.
-------------------------------------
%  APR  06, 1989  22h 19m 56.73± 0.71s
   40.095 N ± 5.5km   29.156 E ± 8.6km
```

06d 22h

DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.64	220	iPg	20 09.80	0.3
			iSg	20 19.80	
GBZT	0.73	18	ePg	20 12.00	1.0
HRT	0.82	28	ePg	20 09.00	-3.7X
GPA	0.90	77	ePg	20 14.30	0.2
			iSg	20 27.80	
ISK	0.97	356	ePg	20 14.60	-0.6
			eSg	20 28.80	
CTT	1.19	332	ePg	20 18.30	-0.6
ALT	1.27	144	iPn	20 19.10	-1.4
KHL	1.79	171	ePn	20 29.00	1.0

S.D. = 1.1 on 7 of 8 obs.

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* APR 06, 1989 22h 30m 38.13± 1.89s
33.640 N ±13.8km 24.568 E ±11.8km
DEPTH = 26.5 ± 9.0 km
3.5mb (1 obs.)
MEDITERRANEAN SEA (400)

NPS	1.83	28	ePb	31 08.50	0.1
KAP	2.87	48	ePb	31 24.30	1.2
YER	4.62	40	iP	31 46.90	-1.2
KSL	4.81	58	ePn	31 52.30	1.7
ELL	5.36	53	eP	31 57.50	-1.1
BCK	6.21	50	eP	32 07.00	-3.6X
DSI	9.35	100	eP	32 53.00	-1.2
PRNI	9.45	108	iPd	32 55.00	-0.6
MBH	9.59	111	eP	32 58.50	1.0
KHC	17.51	335	P	34 42.60	0.7
DOU	22.06	324	P	35 32.90	0.5
NAO	28.63	346	P	36 32.50	-1.7
	0.5s		0.50nm		3.5mb
GKN	51.27	79	P	39 42.20	0.1
DMN	51.81	79	P	39 46.60	0.3
KKN	51.88	79	P	39 46.90	0.1
PKI	52.07	79	P	39 48.80	0.4
GUN	52.33	79	P	39 50.20	-0.1

S.D. = 1.1 on 16 of 17 obs.

APR 06, 1989 22h 33m 41.05± 1.18s
19.652 S ± 7.4km 64.083 W ± 7.0km
DEPTH = 24.1 ± 9.0 km
5.0mb (6 obs.)
SOUTHERN BOLIVIA (125)

CCH	2.99	319	eP	34 30.00	1.8
			i	34 32.00	
			S	35 06.00	
CNCB	4.66	307	iPc	34 52.90	0.6
LPB	4.92	308	iPd	34 57.00	1.2
	1.0s	1600.00nm			
			eS	35 14.00	
			LR	36 08.00	
ZOBO	5.11	311	iPc	34 58.30	-0.3
Z	18s	1.29um			
			S	35 28.00	
			LR	36 26.00	
SLA	5.22	194	ePd	35 01.00	1.3
			S	35 20.10	
ARE	7.73	293	eP	35 34.00	-1.2
CYA	8.89	190	e(P)	35 51.00	-0.1
ITB1	10.27	121	eP	36 10.00	0.0
ITB	10.48	121	e(P)	36 05.40	-7.6X
ITB7	10.66	123	eP	36 09.40	-6.0X
PPD	12.17	103	eP	36 42.90	6.9X
			e	36 57.70	
RFA	15.55	194	ePd	37 18.00	-2.5
BAO	15.85	78	eP	37 23.00	-1.4
VAO	16.29	105	e(P)	37 28.80	-1.2
ITA	18.30	102	e(P)	37 59.00	3.6X
BMA	18.83	103	eP	38 18.20	16.5X
SOB1	24.71	68	eP	39 03.80	1.9
ITR	27.09	70	eP	39 24.60	0.6
LIC	63.52	72	P	44 12.20	0.1
TIC	63.71	72	P	44 13.10	-0.3
KIC	63.84	72	Pd	44 14.20	0.0
	0.8s	17.00nm			5.2mb
GAC	65.86	351	eP	44 25.50	-1.1
KUK	67.72	74	eP	44 40.00	0.9
SPA	70.47	180	e(P)	44 56.40	0.9
	1.0s	10.00nm			4.9mb
BW06	74.91	327	eP	45 19.10	-2.9
EUR	76.20	321	iP	45 29.30	-0.2
	0.5s	3.86nm			4.7mb
KVN	77.21	320	iP	45 34.40	-0.6
LLA	77.53	316	e(P)	45 36.70	0.1
CMB	78.01	318	eP	45 41.90	2.6
SBA	78.43	190	e(P)	45 49.20	8.3X
ORV	79.61	319	eP	45 48.10	0.2
WDC	80.86	319	eP	45 52.90	-1.6
FRB	83.20	358	eP	46 04.00	-2.1
EDM	84.11	333	iPd	46 09.60	-1.5
BNG	84.56	83	ePd	46 18.20	4.0X
	0.9s	8.00nm			4.9mb
			ic	46 21.50	
MAW	84.74	162	iPd	46 15.70	1.6
	1.0s	18.00nm			5.3mb
BUL	85.83	110	iPd	46 21.50	0.9
	0.7s	4.79nm			4.8mb
YKA	91.02	339	P	46 43.80	-0.3
GBA	142.70	93	PKP	53 21.00	6.2X
	0.4s	0.80nm			
NDI	143.70	68	ePKP	53 10.00	-6.2X
HYB	144.55	87	ePKP	53 16.50	-1.5
			e	53 23.00	
GKN	150.27	68	PKP	53 28.80	1.7
DMN	150.74	68	PKP	53 29.00	1.1
KKN	150.86	68	PKP	53 28.80	0.7
PKI	151.01	68	PKP	53 29.00	0.5
GUN	151.37	68	PKP	53 34.80	5.8X

S.D. = 1.4 on 36 of 46 obs.

APR 06, 1989 23h 36m 49.53± 0.87s
34.022 N ± 6.0km 24.804 E ± 3.3km
DEPTH = 45.3 ± 7.6 km
4.5mb (33 obs.)
CRETE (370)

NPS	1.41	28	ePn	37 15.50	2.4
KAP	2.48	51	ePb	37 31.30	3.0X
ITM	3.93	324	ePn	37 50.50	1.6
YER	4.20	41	iP	37 53.70	0.8
KSL	4.44	61	ePn	37 56.50	0.4
ELL	4.98	55	iP	38 04.00	0.2
VLS	5.37	322	ePn	38 08.90	-0.3
KHL	5.74	40	eP	38 14.10	-0.5
BCK	5.82	52	eP	38 15.50	-0.2
EZN	5.92	11	eP	38 16.00	-0.9
KOT	7.23	122	ePn	38 30.50	-4.8X
			S	39 49.00	
MMB	7.60	354	eP	38 39.00	-1.5
KDZ	7.63	3	eP	38 40.00	-0.9
SOI	8.16	302	P	38 45.50	-2.6X
LCI	8.34	321	P	38 47.00	-3.6X
ATN	8.61	301	P	38 52.50	-2.0X
BBTK	8.62	45	eP	38 54.00	-0.6
TDS	8.81	312	P	38 56.50	-0.7
HRI	9.15	92	e(P)	38 57.00	-5.0X
DSI	9.23	102	eP	38 57.00	-6.0X
			eS	39 35.00	
BURJ	9.37	98	P	39 00.00	-4.9X
KFNJ	9.39	100	P	39 01.50	-3.6X
MKRJ	9.45	102	Pc	39 02.00	-4.1X
MASJ	9.46	101	Pc	39 02.10	-4.1X
MBH	9.56	114	eP	39 03.50	-3.9X
MGR	9.58	312	P	39 05.50	-2.3X
SGO	9.99	314	P	39 14.00	0.7
MLR	11.49	4	eP	39 33.00	-0.9
			e	06 25.00	
VRI	11.92	7	eP	39 43.00	3.4X
ZST	15.29	340	eP	40 27.40	3.6X
VKA	15.58	338	eP	40 31.00	3.4X
	1.0s	33.60nm			4.5mb
KBA	15.66	330	eP	40 27.00	-1.7
	1.0s	3.50nm			3.5mb X
			i	40 34.90	
KHC	17.24	334	eP	40 47.80	-0.7
			i	40 51.00	
PRU	17.65	338	eP	40 53.60	0.0
	1.2s	24.80nm			4.2mb
KSP	17.92	342	eP	40 56.80	-0.1
GRF	18.59	331	eP	41 05.10	0.0
			e	41 06.70	
MOX	19.21	334	eP	41 13.00	0.5
	1.0s	17.00nm			4.3mb
CLL	19.29	337	iP	41 11.90	-1.4
	1.2s	41.00nm			4.6mb
BSF	19.31	321	eP	41 13.80	0.1
	0.8s	6.40nm			3.9mb
CDF	19.44	323	eP	41 14.90	-0.2
	0.8s	5.30nm			3.9mb
HAU	19.66	321	eP	41 17.50	0.1
	0.8s	18.80nm			4.4mb
LBF	20.38	316	eP	41 23.90	-1.0
	1.0s	16.00nm			4.3mb
CAF	20.59	309	eP	41 26.70	-0.4
	0.8s	8.00nm			4.1mb
LOR	20.60	316	eP	41 26.60	-0.6
	0.8s	10.70nm			4.2mb
SSF	20.69	315	eP	41 27.60	-0.5
	0.8s	4.50nm			3.9mb
WLF	20.82	324	P	41 31.70	2.3
BGF	20.83	313	eP	41 29.20	-0.3
	0.7s	13.60nm			4.4mb
MAF	20.84	312	eP	41 29.30	-0.3
	0.8s	8.00nm			4.1mb
LPO	21.07	307	eP	41 31.60	-0.4
	0.8s	8.00nm			4.1mb
RJF	21.10	309	eP	41 31.90	-0.4
LFF	21.46	308	eP	41 35.60	-0.3
	1.0s	25.60nm			4.6mb
MEM	21.53	326	P	41 37.70	1.2
DOU	21.87	323	Pc	41 40.30	0.4
	0.7s	28.90nm			4.8mb
MFF	22.69	311	eP	41 49.30	1.2
	0.8s	16.10nm			4.5mb
LDF	23.58	316	eP	41 56.60	-0.1
	0.8s	26.80nm			4.8mb
LPF	23.86	314	eP	42 00.20	0.8
	1.0s	28.00nm			4.7mb
FLN	23.87	316	eP	41 59.60	0.1
	0.6s	18.70nm			4.8mb
GRR	23.91	315	eP	42 00.80	0.9
	1.2s	49.90nm			4.9mb
LIJA	24.73	285	eP	42 09.50	1.4
SRO	24.73	284	eP	42 08.50	0.5
OJEN	24.88	283	eP	42 14.50	5.0X
ALJ	24.90	285	iP	42 11.50	1.8
MOMI	25.01	284	eP	42 12.00	1.3
GIBL	25.17	285	eP	42 12.00	-0.1
CNIL	25.27	284	eP	42 15.00	1.9
NUR	26.50	360	eP	42 24.00	-0.2
NAO	28.31	346	P	42 39.50	-1.1
	0.6s	1.70nm			3.9mb
SUF	28.73	1	iP	42 43.40	-1.0
EKA	28.81	326	P	42 45.00	-0.2
	1.1s	16.80nm			4.6mb
BNG	30.01	193	ePc	42 55.00	-1.3
	0.5s	3.00nm			4.3mb
TIC	38.76	232	P	44 10.00	-1.4
	0.8s	6.00nm			4.5mb
KIC	38.79	231	P	44 10.30	-1.4
	0.8s	15.50nm			4.9mb
LIC	39.08	232	P	44 13.00	-1.1
	0.8s	13.50nm			4.8mb
DAG	47.11	347	eP	45 18.00	-0.4
HYB	50.61	95	ePd	45 46.50	0.3
GKN	51.01	80	P	45 50.00	0.7
	0.8s	28.00nm			5.3mb
DMN	51.55	80	P	45 54.00	0.5
	0.8s	34.00nm			5.4mb
KKN	51.62	80	P	45 54.40	0.4
	0.8s	30.00nm			5.4mb
GBA	51.66	100	Pd	45 53.70	-0.4
	0.6s	5.40nm			4.7mb
PKI	51.81	80	P	45 55.40	-0.2
	0.8s	26.00nm			5.3mb
GUN	52.06	79	P	45 58.00	0.5
	0.8s	36.00nm			5.4mb
GTA	58.76	61	eP	46 45.00	-0.4
FRB	61.50	330	eP	47 03.50	-0.1
SCH	63.84	320	eP	47 19.00	-0.3
HHC	66.52	56	P	47 37.80	0.9
TIY	68.50	58	eP	47 49.00	-0.4
GYA	69.38	71	P	47 55.40	0.4
YKA	78.44	342	P	48 47.70	1.0

S.D. = 0.9 on 71 of 88 obs.

APR 06, 1989 23h 49m 47.68± 0.84s
4.255 S ± 6.5km 143.406 E ± 9.3km
DEPTH = 149.0 ± 10.4 km
5.0mb (13 obs.)
PAPUA NEW GUINEA (202)

MNDI	1.90	172	eP	50 22.50	0.3
LAT	4.30	124	eP	50 53.00	0.4
PMG	6.33	144	eP	51 19.00	-0.8
MTN	14.83	234	eP	53 12.40	1.1

	0.3s	20.00nm			4.9mb	
		e	55	47.00		
QIS	16.62	193 eP	53	33.00	-0.4	
		eS	56	37.00		
WRA	17.92	209 Pc	53	47.60	-1.4	
	0.5s	17.80nm			4.6mb	
KNA	18.37	231 eP	53	53.00	-0.8	
	0.5s	29.00nm			4.9mb	
ASPA	21.37	205 iPc	54	24.90	0.4	
	0.5s	10.00nm			4.5mb	
		i	54	31.70		
		eS	58	16.70		
WARB	27.08	215 iPd	55	12.90	-5.4X	
	0.4s	16.00nm			5.0mb	
FORR	30.13	207 eP	55	46.00	0.5	
	0.5s	36.00nm			5.4mb	
SSE	41.05	330 Pc	57	18.50	0.5	
	1.0s	49.00nm			5.1mb	
GYA	46.86	313 P	58	06.00	1.1	
CN2	50.50	343 Pc	58	31.70	-0.7	
TIY	50.71	328 eP	58	33.80	-0.4	
LZH	54.58	321 eP	59	03.00	0.0	
	1.5s	44.00nm			5.1mb	
GTA	59.14	322 iPc	59	35.00	-0.1	
GUN	63.93	304 P	00	07.40	-0.2	
PKI	64.20	303 P	00	09.10	-0.3	
KKN	64.38	303 P	00	10.30	-0.1	
	0.6s	13.00nm			5.0mb	
DMN	64.46	303 P	00	11.20	0.2	
	0.6s	19.00nm			5.2mb	
GKN	64.99	303 P	00	14.20	0.0	
	0.6s	28.00nm			5.4mb	
GBA	67.81	286 Pd	00	30.90	-1.1	
	0.4s	1.80nm			4.3mb	
MAW	82.48	202 eP	01	55.50	1.2	
SPA	85.77	180 e(P)	02	11.80	0.6	
	0.9s	9.55nm			4.6mb	
		e	02	45.40		
SUF	106.01	335 iPKP	07	51.40	-3.6X	
NUR	107.54	333 ePKP	07	39.00	-19.0X	
KIC	148.22	275 PKPc	09	18.30	3.3X	
TIC	148.48	276 PKPc	09	19.00	3.5X	
LIC	148.51	275 PKPc	09	19.40	3.9X	
	0.6s	6.00nm				
PPD	150.17	152 ePKP	09	30.80	13.0X	
	S.D. = 0.8	on 23 of 30 obs.				

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* APR 07, 1989 00h 41m 46.08± 1.76s
33.462 N ±17.6km 24.470 E ±13.4km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
MEDITERRANEAN SEA (400)
MD 4.0 (ATH).

NPS	2.03	27 ePn	42	19.40	0.8	
		eSn	42	54.50		
KAP	3.05	46 ePn	42	34.10	0.9	
ELL	5.53	52 eP	43	06.50	-1.9	
DSI	9.40	99 eP	44	02.00	-0.3	
PRNI	9.47	106 eP	44	04.00	0.7	
MBH	9.61	110 e(P)	44	09.00	3.9X	
KHC	17.63	336 iPc	45	54.00	3.3X	
PRU	18.07	339 eP	45	57.50	1.4	
GRF	18.96	333 eP	46	06.40	-0.5	
CLL	19.70	338 iP	46	14.30	-1.1	
	1.1s	12.00nm			4.1mb	
	S.D. = 1.4	on 8 of 10 obs.				

? APR 07, 1989 03h 25m 11.85± 1.05s
3.214 S ±22.8km 104.110 E ±29.8km
DEPTH = 341.0 ± 14.2 km
4.7mb (6 obs.)
SOUTHERN SUMATERA (274)

PPI	4.61	306 ePd	26	27.50	0.2	
		eS	27	27.50		
PSI	7.83	318 iPd	27	04.00	-0.6	
IPM	8.33	338 ePd	27	11.00	0.3	
	0.8s	66.70nm			4.8mb	
CHTO	22.47	347 e(P)	29	44.80	0.4	
	1.0s	5.00nm			3.8mb	
WRA	33.86	122 eP	31	24.80	-0.4	
ASPA	35.24	128 eP	31	36.60	-0.3	
		eS	36	41.90		
PKI	35.52	331 P	31	38.70	-0.8	
GUN	35.58	332 P	31	39.50	-0.5	
	0.5s	17.00nm			4.7mb	
FORR	35.62	143 eP	31	40.50	0.7	
	0.4s	26.00nm			4.9mb	
DMN	35.70	330 P	31	40.30	-0.6	
KKN	35.77	331 P	31	40.80	-0.6	
	0.5s	9.00nm			4.4mb	
GKN	36.26	330 P	31	47.80	2.3	
	0.4s	15.00nm			4.7mb	
SOB1	143.00	250 ePKP	44	05.60	-2.3X	
PPD	145.26	223 ePKP	44	19.70	8.2X	
	S.D. = 1.0	on 12 of 14 obs.				

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* APR 07, 1989 03h 27m 00.50± 1.04s
36.106 N ±11.1km 27.066 E ±11.0km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
MD 3.5 (ATH).

KAP	0.56	171 eP	27	11.50	-0.4	
		eS	27	19.80		
YER	1.42	43 ePn	27	26.00	-0.4	
NPS	1.45	235 eP	27	27.00	0.2	
KSL	2.04	89 eP	27	36.00	0.8	
ELL	2.38	74 ePn	27	40.00	-0.3	
BCK	3.13	63 ePn	27	54.00	3.1X	
	S.D. = 0.7	on 5 of 6 obs.				

? APR 07, 1989 04h 32m 34.88±10.89s
34.407 N ±87.0km 17.578 E ±30.5km
DEPTH = 10.0km (geophysicist)
MEDITERRANEAN SEA (400)
MD 3.4 (ATH).

VLS	4.48	32 ePb	33	42.30	-2.0	
ITM	4.49	51 ePn	34	03.00	18.5X	
SRN	5.79	19 ePn	34	03.60	0.7	
LSK	6.22	22 ePn	34	08.40	-0.6	
BERA	6.56	16 ePn	34	14.20	0.5	
NEO	6.66	41 ePn	34	16.70	1.5	
KBN	6.72	22 ePn	34	16.70	0.8	
KZN	6.77	28 ePn	34	16.40	-0.3	
TIR	7.16	14 ePn	34	25.70	3.6X	
OHR	7.16	20 ePn	34	22.00	-0.2	
PUK	7.84	13 ePn	34	32.90	1.3	
VAY	7.95	28 ePn	34	30.70	-2.5	
SKO	8.14	21 e(Pn)	34	51.00	15.1X	
BCI	8.18	13 ePn	34	37.10	0.7	
RDO	9.21	41 ePn	34	51.60	0.9	
KHC	15.01	350 eP	36	08.00	-0.6	
	S.D. = 1.3	on 13 of 16 obs.				

APR 07, 1989 04h 33m 01.29± 0.72s
43.393 N ± 4.8km 5.429 E ± 5.6km
DEPTH = 9.5 ± 3.8 km
NEAR SOUTH COAST OF FRANCE (379)
MD 3.0 (STR).

GELF	0.01	185 Pg	33	03.04	-0.1	
TREF	0.23	352 Pg	33	05.81	-0.5	
PUYF	0.24	55 Pg	33	05.81	-0.6	
PRAF	0.45	335 Pg	33	10.78	0.3	
VILF	0.50	24 Pg	33	10.73	-0.8	
TAVF	0.51	64 Pg	33	11.18	-0.4	
GANF	0.70	30 Pg	33	15.14	0.0	
CALN	1.12	71 Pg	33	22.90	0.4	
		Sg	33	39.21		
MVIF	1.35	67 Pn	33	26.32	0.0	
		Sg	33	45.50		
TOUF	1.46	64 Pn	33	28.06	0.1	
AURF	1.46	70 Pn	33	28.12	0.2	
FOUF	1.50	40 P	33	29.50	1.3	
		(Sg)	33	48.60		
AUTN	1.57	67 Pn	33	30.09	0.6	
		Sg	33	52.15		
SAOF	1.65	68 Pn	33	30.55	0.0	
CVF	2.66	107 Pn	33	44.18	-0.8	
	S.D. = 0.6	on 15 of 15 obs.				

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* APR 07, 1989 05h 43m 22.71± 0.79s
33.720 N ±11.4km 73.078 E ± 9.5km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
PAKISTAN (710)

NDI	6.15	144 iPc	44	55.50	1.9	
	0.5s	35.21nm			5.3mb X	
		eS	46	56.50		
QUE	6.29	238 eP	44	56.10	0.4	
		eS	46	09.50		
GKN	11.45	117 P	46	07.40	0.3	
DMN	12.01	117 P	46	14.80	0.0	
KKN	12.04	116 P	46	14.80	-0.3	
	0.8s	42.00nm			5.7mb X	
PKI	12.25	117 P	46	17.60	-0.5	
GUN	12.43	114 P	46	19.80	-0.7	
HYB	16.96	162 eP	47	17.00	-2.2	
GBA	20.41	168 Pd	48	00.50	0.8	
	0.6s	2.90nm			3.8mb	
CHG	27.44	116 eP	49	14.00	6.4X	
NBO	47.84	324 P	51	57.00	-1.9	
	0.6s	3.00nm			4.5mb	
MBC	70.02	3 eP	54	33.00	0.5	
YKA	83.92	4 P	55	51.90	1.7	
	S.D. = 1.4	on 12 of 13 obs.				

? APR 07, 1989 06h 35m 36.96± 1.55s
24.534 S ±37.1km 178.455 E ±21.1km
DEPTH = 646.2 ± 41.6 km
4.8mb (3 obs.)
SOUTH OF FIJI ISLANDS (171)

VUN	6.49	0 iPd	37	26.10	1.2	
MBU	7.53	2 ePd	37	32.40	-1.5	
DZM	11.31	280 iPd	38	09.90	0.7	
TAU	31.47	227 iPc	41	09.00	-1.3	
STK	33.18	249 eP	41	25.00	0.3	
	0.3s	8.00nm			4.8mb	
ASPA	40.55	262 iPc	42	24.90	0.2	
		eS	47	50.20		
WRA	40.96	267 eP	42	28.20	0.2	
FORR	44.73	250 iPc	42	56.40	-0.7	
	0.4s	32.00nm			5.1mb	
WARB	46.59	256 iPc	43	34.40	23.0X	
	0.3s	4.00nm				
SPA	65.61	180 e(P)	45	21.90	0.9	
	1.0s	9.50nm			4.1mb	
	S.D. = 1.2	on 9 of 10 obs.				

APR 07, 1989 06h 36m 13.55± 1.06s
48.090 N ± 5.4km 7.950 E ± 8.6km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.0 (LDG). MD 2.5 (STR).

FEL	0.22	169 Pg	36	18.65	0.3	
CDF	0.55	306 Pg	36	25.08	0.2	
MOF	0.60	247 Pg	36	25.64	-0.1	
BBS	0.69	206 Pg	36	27.01	-0.3	
BSF	0.82	252 Pg	36	28.89	-0.6	
		Sg	36	40.30		
GWF	0.91	346 Pg	36	30.33	-0.7	
		Sg	36	43.60		
LOMF	1.06	226 Pg	36	34.01	0.4	
		Sg	36	47.92		
HAU	1.08	266 Pg	36	33.80	-0.1	
		Sg	36	48.60		
VITF	1.32	276 Pg	36	38.69	0.7	
LPG	2.72	198 Pg	37	04.60	6.2X	
		Sg	37	40.40		
LOR	2.88	255 Pn	36	58.80	-1.6	
		Pg	37	08.40		
		Sg	37	45.00		
LBF	2.91	249 Pn	37	00.20	-0.6	
		Pg	37	08.80		
		Sg	37	45.60		
SMF	3.14	244 Pn	37	12.80	8.8X	
		Sg	37	51.80		
SSF	3.18	253 Pn	37	01.90	-2.6X	
		Pg	37	13.60		
		Sg	37	53.20		
AVF	3.38	249 Pg	37	17.40	10.0X	
		Sg	38	00.00		
BGF	3.79	248 Pg	37	25.00	11.7X	
		Sg	38	12.20		
KHC	3.88	72 ePg	37	25.50	11.0X	
		Sg	38	15.20		
MAF	4.12	245 Pg	37	30.80	12.9X	
		Sg	38	22.80		
	S.D. = 0.7	on 11 of 18 obs.				

? APR 07, 1989 06h 45m 29.02± 0.89s
15.075 S ±56.5km 174.851 W ±25.3km
DEPTH = 33.0km (normal)
TONGA ISLANDS (173)

07d 06h

AFI	3.19	69	iPd	46	18.50	0.3
			eS	46	46.00	
			e	47	15.10	
			e	47	23.90	
WRA	48.55	257	eP	54	12.40	1.0
ASPA	48.88	252	iPc	54	14.00	0.0
	0.8s	16.00nm			5.1mb	
FORR	54.28	243	eP	54	54.10	-0.4
	0.4s	16.00nm			5.4mb	
WARB	55.47	248	iPd	54	57.20	-6.0X
YKA	90.36	24	P	58	28.00	0.2
KHC	145.34	350	ePKP	05	04.00	-1.2
S.D. = 0.9 on 6 of 7 obs.						

APR 07, 1989 08h 26m 48.91± 0.61s
47.716 N ± 5.2km 105.602 W ± 6.6km
DEPTH = 5.0km (geophysicist)
MONTANA (456)
ML 3.5 (NEIS), 3.9 (BUT).

SXM	4.15	250	ePn	27	55.30	0.8
HRY	4.36	259	ePn	27	57.40	-0.1
SES	4.47	309	eP	28	00.00	1.1
LCCM	4.70	249	ePn	28	01.80	-0.6
BUT	5.07	253	ePg	28	16.80	9.3X
			eSg	29	28.40	
LRM	5.07	251	ePn	28	07.20	-0.5
BGMT	5.09	243	ePn	28	06.80	-1.1
BW06	5.67	211	eP	28	17.00	0.9
EDM	7.40	321	eP	28	40.50	0.3
GLD	7.97	178	e(P)	28	49.00	0.7
GOL	8.01	179	eP	28	47.80	-1.3
DAU	8.36	211	e(P)	28	54.00	0.1
RSON	8.39	64	eP	28	54.30	0.3
MSU	10.37	210	e(P)	29	22.00	0.4
YKA	15.65	344	P	30	30.40	-1.1
S.D. = 0.9 on 14 of 15 obs.						

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* APR 07, 1989 08h 51m 48.91± 1.32s
36.702 N ±13.4km 71.249 E ± 8.0km
DEPTH = 203.2 ± 17.0 km
4.3mb (4 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	7.42	210	iPc	53	37.00	1.3
			eS	54	56.50	
NDI	9.44	146	iPc	54	02.00	0.2
	0.6s	46.67nm			5.0mb	
			iS	55	38.20	
MAIO	9.47	271	eP	54	01.00	-1.3
			eS	55	52.00	
GKN	14.25	124	P	55	02.60	-0.4
KKN	14.82	123	P	55	10.00	-0.1
DMN	14.82	124	P	55	10.40	0.2
	0.6s	14.00nm			4.6mb	
PKI	15.04	123	P	55	13.00	0.0
GUN	15.15	121	P	55	14.20	-0.1
GBA	23.66	165	Pc	56	42.90	-0.3
	0.5s	2.40nm			4.1mb	
NAO	44.51	323	P	59	41.60	0.2
	0.5s	0.70nm			3.4mb	
MBC	67.13	3	eP	02	22.00	0.0
YKA	81.04	3	eP	03	43.00	1.3
FORR	85.74	134	eP	04	05.00	-1.0
S.D. = 0.8 on 13 of 13 obs.						

% APR 07, 1989 09h 24m 58.03± 0.85s
39.150 N ± 7.0km 27.582 E ± 8.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.79	198	ePg	25	13.50	0.0
			eSg	25	26.00	
DST	0.93	60	iPn	25	15.70	-0.1
EZN	1.18	305	ePn	25	20.00	-0.1
EDC	1.21	10	ePn	25	20.50	-0.1
BNT	1.23	12	iPn	25	21.20	0.3
S.D. = 0.2 on 5 of 5 obs.						

? APR 07, 1989 09h 55m 15.28± 3.91s
30.760 N ±33.3km 51.650 E ±13.3km
DEPTH = 33.0km (normal)
IRAN (348)
ML 3.4 (BMU).

SHI	1.35	145	eP	55	38.00	-0.1
DHR	4.63	197	eP	56	25.00	0.2
BBU	4.65	193	ePn	56	24.40	-0.6
			(Sn)	57	14.50	
BEE	4.83	192	ePn	56	28.40	0.9
BJA	4.84	191	ePn	56	27.40	-0.2
KER	5.25	314	eP	57	13.00	39.4X
RYD	7.49	218	eP	57	04.50	-0.5
QASM	8.53	239	eP	57	19.70	0.2
KHC	34.02	314	P	01	52.00	-6.2X
S.D. = 0.6 on 7 of 9 obs.						

APR 07, 1989 10h 33m 34.47± 0.38s
42.941 N ± 4.5km 18.403 E ± 4.0km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 4.0 (TRI), 3.2 (TTG).

BRY	0.11	111	iPgc	33	36.90	-0.6
			iSg	33	39.10	
NKY	0.46	106	iPgc	33	42.40	-1.4
			iSg	33	50.00	
HCY	0.50	172	ePg	33	43.20	-1.4
			eSg	33	51.50	
BDV	0.73	154	ePg	33	47.20	-1.6
			eSg	34	00.00	
TTG	0.81	129	iPgd	33	48.50	-1.7
			iSg	34	02.40	
PLE	0.82	61	ePg	33	49.60	-0.9
			eSg	34	03.00	
IVA	1.10	93	ePg	33	54.80	-0.4
			eSg	34	11.00	
PVY	1.21	106	ePg	33	56.50	-0.5
			eSg	34	15.00	
SDA	1.23	138	ePn	33	57.70	0.4
PUK	1.42	129	ePn	34	01.10	0.8
HVAR	1.45	280	iPn	33	59.50	-1.2
			iSg	34	21.80	
LACI	1.62	143	ePn	34	03.50	0.3
TIR	1.93	145	ePn	34	10.50	2.9
PHP	1.96	129	ePn	34	10.30	2.2
BRT	2.25	204	P	34	11.50	-0.8
BEO	2.39	38	eP	34	53.20	38.9X
SKO	2.45	112	ePn	34	19.00	3.9X
			iSn	34	49.00	
OHR	2.55	135	iPn	34	19.40	2.7
LCI	2.63	188	P	34	17.00	-0.6
SGO	3.32	225	P	34	28.00	0.5
VBY	3.42	320	ePn	34	30.20	1.3
			iSn	35	13.30	
PTJ	3.44	330	ePn	34	29.60	0.4
			eSn	35	10.60	
VAY	3.50	116	ePn	34	31.40	1.5
MGR	3.52	218	P	34	29.00	-1.3
BZS	3.53	40	ePd	34	29.00	-1.4
SDI	3.62	252	P	34	32.00	0.2
CEY	3.99	316	ePn	34	37.90	0.8
			eSn	35	29.00	
LJU	4.16	320	eP	35	07.50	28.2X
			e(Sn)	35	34.70	
ASS	4.21	274	P	34	40.80	0.6
TRI	4.33	311	ePn	34	41.10	-0.7
			eSn	35	32.30	
			iSg	35	55.50	
VOY	4.47	315	ePnc	34	44.00	0.2
			eSn	35	38.50	
RBL	4.91	317	P	34	49.90	-0.2
FVI	5.42	314	P	34	57.00	-0.2
KBA	5.47	321	iPnd	34	58.40	0.2
			eSn	36	03.50	
			i	36	44.30	
S.D. = 1.3 on 31 of 34 obs.						

& APR 07, 1989 12h 31m 41.84s
60.130 N 153.562 W
DEPTH = 155.4km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.31	99	iP	32	02.75	1.0
			eS	32	19.00	
PDB	0.47	223	eP	32	02.83	-1.1
			S	32	18.67	
RED	0.49	53	eP	32	03.25	-0.9
OPT	0.51	161	iP	32	03.56	-0.6
			eS	32	20.23	
CDD	1.20	182	iP	32	08.08	-1.2
			eS	32	27.78	
SPU	1.29	34	iP	32	09.56	-0.5
NKA	1.31	61	iP	32	10.94	0.8
CNPM	1.32	116	eP	32	09.38	-1.0
			eS	32	30.39	
CRP	1.33	31	eP	32	10.50	-0.1
			eS	32	36.70	
CGLM	1.41	32	eP	32	10.84	-0.4
			eS	32	35.82	
SLKM	1.71	76	eP	32	13.35	-1.0
			eS	32	36.86	
11 obs. associated						

APR 07, 1989 12h 54m 41.61± 0.68s
6.809 N ± 5.6km 73.036 W ± 6.1km
DEPTH = 150.6 ± 7.5 km
4.9mb (22 obs.)
NORTHERN COLOMBIA (99)
Felt at Cucuta, Bucaromanga and Duitomo.

FUQ	1.50	208	iP	55	09.00	-2.9
BOG	2.40	205	iPc	55	25.00	2.7
			iS	55	54.00	
UPA	6.79	289	iPd	56	17.50	-2.5
	0.7s	193.15nm			5.6mb	
			e	57	34.50	
PSO	7.03	218	iPd	56	25.50	1.9
CUM	9.49	67	iP	56	55.60	-0.4
ATB	23.07	115	Pc	59	35.10	0.3
ZOBO	23.44	168	P	59	39.00	-0.1
			S	04	14.00	
LPB	23.70	168	P	59	43.00	1.6
CNCB	23.99	168	iPd	59	45.00	0.6
JSC	28.37	346	P	00	24.40	0.8
PRM	28.48	344	P	00	25.80	1.2
GBTN	30.50	342	P	00	43.70	1.2
BLA	31.00	349	P	00	47.80	0.9
	0.7s	19.26nm			4.9mb	
PWLA	31.27	336	P	00	50.00	0.8
ELC	33.73	336	P	01	10.00	-0.5
TBR	34.20	358	P	01	14.90	0.4
FVM	34.81	336	P	01	20.00	0.2
CLE	35.35	349	iP	01	25.20	0.9
PPD	35.70	144	eP	01	33.80	6.3X
SOB1	35.76	116	eP	01	27.70	-0.4
PTN	37.65	358	P	01	45.30	1.7
BNH	37.67	2	P	01	44.60	0.9
EMM	38.09	6	P	01	48.80	1.6
MIM	38.44	5	P	01	51.20	1.1
GAC	38.80	357	eP	01	55.00	1.9
CBM	40.20	5	P	02	06.30	1.7
ALQ	41.58	317	eP	02	16.00	-0.3
	0.8s	3.17nm			4.0mb	
GLA	46.71	310	P	02	57.70	0.4
RSON	47.16	342	P	02	59.80	-0.7
	0.7s	64.18nm			5.4mb	
MSU	47.37	318	P	03	03.10	0.5
DAU	47.80	320	P	03	06.30	0.3
SCH	48.13	5	ePc	03	08.00	0.0
	0.6s	59.00nm			5.5mb	
BW06	48.14	324	P	03	08.00	-0.5
	1.0s	20.00nm			4.8mb	
PLM	48.39	309	P	03	10.80	0.3
DUG	48.68	319	P	03	13.00	0.4
PRN	48.79	315	P	03	13.50	0.0
YMT3	49.48	314	P	03	19.10	0.4
EUR	50.41	317	iP	03	25.80	-0.1
	0.2s	7.82nm			5.1mb	
TNP	50.63	315	P	03	27.80	0.2
	0.8s	5.64nm			4.3mb	
HPI	50.78	323	P	03	29.00	0.2
BCH	51.55	310	P	03	34.70	0.2
LRM	51.63	326	eP	03	34.90	-0.2
KVN	51.68	315	P	03	35.10	-0.4
FFC	53.13	339	eP	03	44.50	-1.1
	0.5s	15.00nm			5.1mb	
LBFM	55.29	316	P	04	00.80	-1.1
DPW	56.05	325	P	04	06.10	-1.0
EDM	56.67	332	iPd	04	09.90	-1.5
	0.5s	32.00nm			5.5mb	
FRB	56.92	2	ePc	04	11.40	-1.4
	0.6s	33.00nm			5.4mb	
PNT	57.61	326	ePc	04	18.00	0.1
	0.7s	10.00nm			4.9mb	
LON	57.62	322	P	04	17.40	-0.7
BMW	58.37	321	P	04	22.50	-0.8
GMW	58.58	323	P	04	23.00	-1.8
YKC	63.25	340	iPd	04	55.00	-0.9

	0.7s	20.00nm		5.2mb		
YKA	63.30	340 eP	04	55.50	-0.8	
TIC	67.49	86 P	05	22.10	-1.8	
LIC	67.52	86 P	05	22.60	-1.5	
	0.6s	10.50nm		4.8mb		
KIC	67.79	86 P	05	24.40	-1.4	
	0.6s	11.50nm		4.9mb		
INK	73.07	340 eP	05	56.00	-0.5	
MBC	73.83	350 eP	06	01.00	0.2	
	0.6s	9.00nm		4.7mb		
DAG	75.63	11 iPc	06	10.30	-0.8	
	0.5s	19.72nm		5.1mb		
ALE	75.82	1 ePc	06	12.00	-0.1	
	0.6s	12.00nm		4.8mb		
FBA	77.42	335 P	06	21.30	0.1	
	0.7s	5.81nm		4.4mb		
PMR	77.43	332 P	06	21.50	0.2	
	0.8s	10.34nm		4.6mb		
IMA	80.01	336 P	06	35.80	0.3	
TTA	80.78	333 P	06	39.80	0.3	
NB2	81.30	29 P	06	42.30	0.2	
	0.6s	3.40nm		4.3mb		
BNG	91.05	85 ePd	07	30.10	-0.7	
	0.5s	5.00nm		4.9mb		
GKN	139.22	31 PKP	13	53.60	0.3	
KKN	139.72	30 PKP	13	54.30	0.1	
QIS	145.56	243 iPKPd	14	03.90	-0.4	
	0.9s	26.00nm				
		i	14	44.60		
FORR	148.95	217 ePKP	14	13.00	3.6X	
ASPA	149.17	234 iPKPd	14	13.30	3.3X	
	0.6s	11.00nm				
WRA	150.40	241 iPKPd	14	16.80	4.9X	
WARB	153.11	222 ePKP	14	16.00	0.3	
CHG	153.34	17 ePKP	14	23.10	6.9X	

S.D. = 1.1 on 70 of 75 obs.

APR 07, 1989 13h 32m 11.64± 0.15s
51.341 N ± 4.5km 29.981 W ± 1.8km
DEPTH = 10.0km (geophysicist)
5.3mb (53 obs.) 4.8Msz (8 obs.)
NORTH ATLANTIC RIDGE (403)

VAL	12.28	79 eP	35	10.00	0.8	
DCN	14.01	73 eP	35	31.60	-0.6	
	0.7s	65.00nm		5.5mb		
DMU	14.23	71 eP	35	32.70	-2.4	
ECB	14.36	77 eP	35	46.80	10.0X	
	1.3s	231.00nm		5.7mb		
DLE	14.45	73 eP	35	37.50	-0.5	
	0.8s	52.00nm		5.2mb		
ECP	14.63	77 eP	35	46.70	6.4X	
	0.9s	304.00nm		5.9mb		
ETA	14.69	75 eP	35	47.20	6.2X	
	1.0s	323.00nm		5.8mb		
AKU	15.62	18 iP	36	02.80	9.7X	
	1.1s	131.65nm		5.1mb		
YRH	15.63	75 eP	35	59.00	5.6X	
EAB	15.87	62 eP	35	55.20	-1.2	
	0.9s	167.00nm		5.2mb		
EAU	16.33	64 eP	36	00.40	-1.9	
	0.9s	156.00nm		5.1mb		
EKA	16.46	65 Pd	36	05.20	1.2	
	1.0s	70.00nm		4.7mb		
STS	16.81	112 e(P)	36	11.20	2.7	
EMON	17.21	108 e(P)	36	14.00	0.5	
LPF	18.96	89 eP	36	34.70	-0.3	
	0.9s	57.00nm		4.8mb		
EPLA	20.05	115 e(P)	36	46.50	-1.1	
MFF	20.07	92 eP	36	47.00	-0.7	
	1.2s	148.70nm		5.2mb		
ECRI	20.58	104 eP	36	53.00	-0.1	
GUD	20.78	111 eP	36	54.50	-0.8	
GDH	21.16	337 iPd	36	59.30	0.6	
	1.5s	333.33nm		5.5mb		
		i	41	09.00		
		e	43	10.00		
TOL	21.34	112 iPc	37	00.00	-0.8	
	1.5s	444.44nm		5.6mb		
		eS	41	05.00		
LFF	21.37	95 eP	37	00.50	-0.6	
UCC	21.48	78 iP+	37	02.20	0.1	
		S	40	25.00		
SNF	21.50	79 Pc	37	00.60	-1.8	
BER	21.54	51 iP	37	05.20	2.6	
TCF	21.68	91 eP	37	03.70	-0.6	
RJF	21.69	94 eP	37	03.60	-0.7	
	1.6s	378.10nm		5.6mb		
LPO	21.77	96 eP	37	04.40	-0.8	
	1.4s	226.50nm		5.4mb		
DOU	21.81	80 P	37	05.00	-0.5	
	1.0s	327.80nm		5.7mb		
Z	18s	4.90um		5.0Msz		
		e	37	20.30		
		S	41	10.00		
ETOR	21.91	108 e(P)	37	06.80	0.1	
MAF	21.93	91 eP	37	06.20	-0.6	
BGF	21.97	90 eP	37	06.60	-0.5	
JNW	22.06	19 eP	37	13.20	5.4X	
EHOR	22.07	118 e(P)	37	07.50	-0.7	
EPF	22.09	100 eP	37	08.90	0.5	
	1.2s	63.60nm		4.9mb		
SSF	22.18	88 eP	37	08.70	-0.5	
AVF	22.19	89 eP	37	08.70	-0.6	
CAF	22.21	94 eP	37	08.80	-0.7	
SCH	22.21	293 eP	37	08.00	-1.5	
	1.0s	82.00nm		5.1mb		
LOR	22.32	87 eP	37	10.30	-0.3	
	1.1s	305.20nm		5.7mb		
WIT	22.42	72 eP	37	13.00	1.5	
ENN	22.44	77 eP	37	12.00	0.3	
	1.4s	379.00nm		5.7mb		
LBF	22.50	88 eP	37	12.20	-0.3	
MEM	22.54	78 P	37	12.60	0.0	
SMF	22.56	89 eP	37	12.50	-0.4	
WTS	22.68	74 ePc	37	14.50	0.5	
	1.2s	275.00nm		5.6mb		
		e	37	22.00		
EPRU	22.70	120 e(P)	37	16.00	1.5	
MOMI	22.91	122 iP	37	19.00	2.5	
EJIF	22.95	121 e(P)	37	18.00	1.1	
EVIA	23.06	113 e(P)	37	19.00	0.9	
SRQ	23.14	121 eP	37	19.50	0.7	
OJEN	23.17	122 eP	37	16.50	-2.7	
VITF	23.29	84 P	37	19.96	0.0	
ECHE	23.33	109 e(P)	37	21.00	0.4	
EBR	23.45	105 eP	37	22.00	0.3	
HAU	23.59	84 eP	37	23.30	0.2	
	1.3s	197.80nm		5.5mb		
FRB	23.70	316 eP	37	25.00	1.1	
	1.0s	171.00nm		5.6mb		
BSF	23.93	84 P	37	26.72	0.3	
CDF	24.02	82 P	37	27.32	0.0	
GWF	24.04	81 P	37	28.25	0.9	
LOMF	24.14	85 P	37	29.57	1.1	
ENIJ	24.37	115 e(P)	37	32.00	1.3	
AVE	24.40	129 iP	37	32.50	1.5	
NB2	24.49	51 P	37	32.00	0.4	
	0.9s	40.80nm		5.1mb		
NRA0	24.62	51 P	37	44.50	11.6X	
FEL	24.68	83 P	37	33.71	0.0	
LPG	24.88	89 eP	37	35.70	-0.2	
	1.6s	161.60nm		5.5mb		
BNI	25.04	90 P	37	37.50	0.3	
LSD	25.15	89 P	37	38.79	0.4	
RRL	25.17	90 P	37	38.79	0.2	
RSP	25.35	89 P	37	40.44	0.3	
IFR	25.37	125 iP	37	41.50	0.9	
PZZ	25.56	91 P	37	41.02	-1.1	
ORX	25.59	88 P	37	43.00	0.6	
ORO	25.59	88 P	37	44.00	1.6	
LRG	25.62	94 eP	37	42.20	-0.3	
	1.4s	116.70nm		5.4mb		
DOI	25.65	91 P	37	43.50	0.5	
LMR	25.77	94 eP	37	44.00	0.0	
	1.2s	53.50nm		5.1mb		
TAF	25.82	119 iP	37	48.00	3.4X	
STV	25.83	91 P	37	44.77	0.2	
MOX	25.94	75 eP	37	46.00	0.5	
	1.8s	104.00nm		5.2mb		
Z	14s	1.60um		4.7MszX		
N	15s	0.40um				
E	15s	1.20um				
		e	37	50.00		
		e	39	35.00		
		eLR	44	20.00		
VAI	25.98	87 P	37	46.00	0.2	
GRF	26.01	77 iPc	37	46.00	-0.1	
	1.1s	42.00nm		5.0mb		
Z	21s	2.00um		4.6Msz		
ROB	26.15	91 P	37	45.46	-2.0	
IMI	26.35	91 P	37	46.79	-2.6	
FIN	26.40	91 P	37	46.57	-3.2X	
TIO	26.43	132 iP	37	52.80	2.5	
MIM	26.45	272 P	37	51.10	0.9	
CLL	26.58	73 iPc	37	51.70	0.4	
	1.4s	72.00nm		5.2mb		
		eS	42	46.00		
MDI	26.61	86 P	37	52.00	0.4	
BOB	26.91	89 P	37	57.00	2.5	
KHC	27.65	77 iPc	38	01.40	0.2	
	1.0s	14.00nm		4.7mb		
UPP	27.65	53 iP	38	00.50	-0.5	
CTI	27.70	84 P	38	01.50	-0.3	
PRU	27.93	75 Pd	38	04.00	0.3	
	2.4s	77.10nm		5.1mb		
Z	14s	1.30um		4.7MszX		
N	16s	0.60um				
E	16s	1.00um				
		e	38	25.50		
BDI	27.97	89 P	38	03.00	-1.2	
MME	27.97	89 P	38	04.60	0.2	
PII	28.09	90 P	38	05.00	-0.2	
FVI	28.17	83 P	38	06.20	0.4	
KBA	28.31	81 iP	38	07.30	0.0	
	0.8s	16.20nm		4.9mb		
KMR	28.40	79 iP+	38	06.80	-1.1	
KSP	28.70	73 eP	38	10.80	0.2	
RBL	28.72	82 P	38	10.20	-0.7	
VOY	29.11	83 iPc	38	13.40	-1.0	
LJU	29.50	83 ePc	38	17.00	-0.8	
CEY	29.57	83 eP	38	18.00	-0.5	
VKA	29.66	77 eP	38	13.00	-6.2X	
	4.0s	358.00nm		5.5mb	X	
Z	14s	1.40um		4.7MszX		
		i	38	19.00		
		e	38	45.00		
		LR	51	18.00		
ARV	29.72	88 P	38	18.50	-1.4	
MNS	30.14	90 P	38	22.90	-0.7	
ZST	30.16	77 eP	38	23.50	-0.2	
Z	18s	2.50um		4.9Msz		
		e	44	49.50		
VBY	30.20	83 eP	38	23.70	-0.3	
RSNY	30.22	275 P	38	22.70	-1.6	
	1.3s	36.29nm		5.1mb		
PTJ	30.45	82 eP	38	24.10	-2.3	
SRO	31.06	77 eP	38	31.30	-0.3	
		e	41	24.70		
NUR	31.08	51 iP	38	31.00	-0.6	
Z	21s	1.40um		4.6Msz		
		LR	49	50.00		
KRA	31.16	72 eP	38	31.90	-0.5	
	0.3s	34.00nm		5.7mb		
Z	16s	2.40um		5.0MszX		
		e	38	35.30		
		e	38	39.30		
SDI	31.22	91 P	38	32.60	-0.5	
KBS	31.30	14 eP	38	37.80	4.4X	
SUF	31.54	47 iP	38	35.70	0.0	
	0.8s	26.20nm		5.2mb		
SOD	31.60	38 iP	38	35.10	-1.1	
SPC	31.67	74 eP	38	36.80	-0.4	
KEV	31.89	34 eP	38	37.00	-1.7	
PSZ	31.98	76 eP	38	41.00	1.2	
ALE	32.68	353 eP	38	46.00	0.5	
	1.0s	14.00nm		4.8mb		
DHN	33.38	274 P	38	51.80	-0.2	
BEO	33.75	81 eP	38	55.00	-0.1	
BZS	34.08	79 eP	38	57.00	-1.0	
SKO	35.85	85 iP	39	13.00	-0.1	
OHR	35.92	86 eP	39	11.30	-2.5	
	1.4s	0.11nm		2.5mb	X	
CLE	36.19	275 iP	39	16.30	0.2	
CVL	36.31	268 P	39	18.00	1.0	
CMP	36.35	77 ePc	39	14.00	-3.4X	
VTS	36.61	82 iP	39	20.00	0.3	
MLR	36.80	77 ePc	39	21.50	0.3	
VAY	36.91	85 eP	39	21.50	-0.6	
KKB	36.93	84 iP	39	23.00	0.8	
VRI	37.08	76 ePc	39	24.00	0.5	
PGB	37.23	82 eP	39	25.00	0.2	
MMB	37.48	83 iPc	39	28.00	1.1	
PVL	37.59	80 eP	39	27.00	-0.8	
PLD	37.81	82 iP	39	30.00	0.4	
RZN	38.04	83 iP	39	32.00	0.2	
CFR	38.30	76 eP	39	32.00	-1.6	
KDZ	38.50	82 iP	39	25.00	-10.5X	
JMB	38.77	80 iP	39	38.00	0.3	
RSON	38.88	295 P	39	37.00	-1.5	
	0.6s	13.71nm		4.8mb		

07d 13h

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JSC     40.40 265 P      39 51.60    0.4
SGS     40.65 264 P      39 54.00    0.7
MBC     40.73 338 eP     39 55.00    1.5
        1.0s     53.00nm          5.2mb
PRM     41.22 266 P      39 58.50    0.5
GBTN    41.36 269 P      39 59.70    0.6
FFC     41.68 304 eP     40 02.00    0.5
        1.4s     61.00nm          5.1mb
ELC     43.48 275 P      40 15.20   -1.2
FVM     43.80 277 P      40 18.30   -0.7
YKC     44.14 318 ePd    40 21.50    0.1
        1.0s     22.00nm          5.0mb
YKA     44.19 318 eP     40 22.60    0.8
PWLA    44.21 272 P      40 22.00   -0.4
OLY     46.01 275 P      40 36.00   -0.7
INK     48.06 331 eP     40 52.00   -0.4
EDM     48.25 307 eP     40 54.00   -0.2
SES     48.64 303 ePc    40 58.70    1.4
DSI     51.03  86 iPd    41 17.00    1.3
PRNI    51.62  88 eP     41 21.00    0.7
GLD     51.74 288 P      41 21.40    0.1
        1.1s    112.10nm          5.7mb
GOL     51.86 288 P      41 22.10   -0.2
MBH     51.94  88 eP     41 23.50    0.8
LRM     52.11 299 eP     41 23.90   -0.2
BW06    52.37 294 P      41 24.00   -2.0
        1.3s     94.77nm          5.6mb
MSL     52.64  76 eP     41 26.00   -1.8
TAB     53.46  73 eP     41 34.00    0.0
PNT     53.74 306 eP     41 38.00    2.2
        0.8s     10.00nm          4.9mb
HPI     53.79 297 P      41 36.50   -0.1
DPW     53.92 304 P      41 37.00   -0.2
FBA     54.58 332 eP     41 42.80    1.1
SLY     54.58  75 iPc    41 41.00   -1.1
DAU     54.86 293 P      41 44.70    0.1
IMA     55.31 336 eP     41 48.00    0.7
        1.1s     25.00nm          5.2mb
BHD     55.47  78 ePd    41 48.00   -0.6
ALQ     55.63 285 eP     41 49.70   -0.3
        1.5s     56.94nm          5.4mb
DUG     55.90 293 P      41 52.20    0.3
        1.0s     33.75nm          5.3mb
GMW     56.49 306 P      41 54.80   -1.1
LON     56.52 305 P      41 54.70   -1.4
MSU     56.65 291 P      41 56.90   -0.5
BMW     57.43 305 P      42 01.80   -0.8
PMR     57.46 330 eP     42 03.30    0.8
        1.1s     21.90nm          5.1mb
EUR     58.19 295 iP     42 08.50    0.3
        0.2s     51.64nm          6.2mb
TTA     58.42 334 eP     42 09.70    0.4
PRN     59.07 292 P      42 13.60   -0.7
KVN     59.69 296 P      42 17.60   -1.0
TNP     59.85 294 P      42 19.20   -0.6
EMN     59.92 291 P      42 19.80   -0.2
LBFM    60.21 300 P      42 21.80   -0.4
YMT3    60.28 293 P      42 20.50   -2.1
MIN     60.75 299 ePd    42 25.10   -0.7
SOB1    61.04 192 eP     42 32.30    4.6X
WDC     61.10 300 e(P)   42 25.40   -2.5
ORV     61.24 298 eP     42 27.90   -1.0
KDC     61.54 329 P      42 31.60    1.0
        1.0s     15.00nm          5.1mb
GSC     61.55 292 eP     42 31.00   -0.2
CLC     61.64 293 eP     42 32.00    0.2
CMB     61.68 296 eP     42 31.70   -0.3
BNG     61.71 122 iPd    42 31.10   -1.2
        0.9s     49.00nm          5.7mb
                  i      42 36.20
                  i      42 50.00
FHC     61.73 301 eP     42 33.10    0.8
TPC     61.94 290 eP     42 34.00    0.2
GLA     61.96 289 eP     42 34.00    0.1
FRI     62.03 295 eP     42 34.30    0.0
ISA     62.26 293 eP     42 36.00    0.1
MAIO    62.37  66 iPd    42 37.80    1.1
SBB     62.57 292 eP     42 38.00    0.0
RVR     62.80 291 eP     42 39.00   -0.4
ARN     62.81 296 P      42 40.10    0.6
MHC     62.88 296 eP     42 40.60    0.6
PLM     62.95 290 eP     42 41.00    0.4
LLA     63.00 295 eP     42 40.80    0.1
MWC     63.03 292 eP     42 39.00   -2.2
PAS     63.15 292 eP     42 42.00    0.3
PRI     63.18 295 eP     42 43.60    1.6
BAR     63.32 290 eP     42 43.00    0.1
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PRS     63.44 296 eP     42 43.80    0.2
SYP     63.93 293 eP     42 47.00    0.0
KSH     68.94  53 P      43 19.50    0.7
WMQ     70.94  43 P      43 32.00    1.1
      Z  20s      0.70um          4.9Msz
                  eS     52 54.00
ZOBO    75.11 218 P      43 55.00   -1.2
      Z  20s      0.26um          4.5Msz
                  i      44 50.80
                  LR     11 04.00
LPB     75.34 218 eP     43 58.00    0.7
        1.0s    480.00nm          6.5mb X
                  i      44 49.10
CCH     75.38 216 eP     43 42.00  -15.4X
CNCB    75.55 218 P      43 58.00   -0.6
                  i      44 45.30
GTA     79.55  37 Pd     44 20.30    0.2
BTO     82.01  30 eP     44 34.50    1.5
                  eS     54 52.50
HHC     82.25  28 eP     44 36.40    2.1
GKN     82.37  54 P      44 35.80    0.6
MDJ     82.80  15 eP     44 37.50    0.6
CN2     82.87  18 eP     44 38.00    0.7
      Z  18s      0.40um          4.8Msz
                  eS     54 58.00
KKN     82.87  54 P      44 38.80    0.9
        0.9s     32.00nm          5.5mb
DMN     82.93  54 P      44 39.30    1.1
GUN     83.08  53 P      44 40.10    1.0
PKI     83.12  54 P      44 40.00    0.7
LZH     83.98  36 eP     44 45.00    1.7
        1.0s      0.04nm          2.6mb X
      Z  20s      0.30um          4.7Msz
BJI     84.31  25 eP     44 45.00    0.3
                  eS     55 13.00
TIY     85.40  29 eP     44 51.50    1.2
      E  14s      0.40um
                  S      55 23.00
KRI     85.42 124 eP     44 53.90    3.3X
XAN     87.63  33 P      45 01.80    0.6
TIA     88.16  26 eP     45 04.60    0.9
CD2     88.55  38 eP     45 02.20   -3.5X
GBA     90.03  68 Pd     45 12.10   -0.7
        1.0s     13.40nm          5.1mb
WRA    146.33  27 ePKP   51 53.50    0.6
DZM    148.11 330 iPKPc  51 59.10    3.4X
ASPA   149.70  30 iPKPc  52 02.40    4.3X
        1.3s     31.00nm
      S.D. = 1.0  on 228 of 247 obs.
-------------------------------------------
   APR  07, 1989  13h 49m 48.33± 0.91s
   45.729 N ±10.3km   14.337 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 YUGOSLAVIA                        (383)
      MD 2.7 (LJU), 2.2 (TRI).

CEY      0.06  81 e(Pg) 49 50.00   -0.7
                  eSg    49 53.50
LJU      0.34  23 e(Pg) 49 55.00   -0.4
                  iSg    50 03.40
TRI      0.40 267 iPg    49 55.90   -0.7
                  iSg    50 02.50
VOY      0.43 314 iPgd   49 57.00   -0.2
                  eSg    50 07.50
VBY      0.68 109 eP     50 02.50    0.6
                  e(Sg)  50 05.70
FVI      1.38 309 P      50 14.80    1.2
                  eSg    50 37.50
      S.D. = 1.0  on   6 of   6 obs.
-------------------------------------------
?  APR  07, 1989  15h 27m 57.54± 0.75s
   59.508 S ±17.0km   29.698 W ±20.8km
   DEPTH =  10.0km  (geophysicist)
   4.5mb (  2 obs.)
 SOUTH SANDWICH ISLANDS REGION    (153)

SPA     30.66 180 e(P)   34 14.20    0.2
        1.0s      4.00nm          4.2mb
MAW     38.21 142 eP     35 18.20   -0.2
SOB1    50.90 346 e(P)   37 05.00    4.4X
CNCB    50.90 310 P      37 02.00    0.7
LPB     51.20 310 eP     37 02.00   -1.4
ZOBO    51.45 310 P      37 06.00    0.6
      Z  24s      0.13um          3.9MszX
                  LR     56 44.00
BNG     74.18  51 ePc    39 36.10    0.1
        0.6s      6.00nm          4.8mb
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                  i      39 41.90
KHC    113.87  29 ePdiff 42 50.40    5.3X
INK    147.55 318 ePKP   47 41.00    2.1X
      S.D. = 1.0  on   6 of   9 obs.
-------------------------------------------
%  APR  07, 1989  15h 28m 19.06± 0.66s
   60.634 N ± 5.4km    6.239 E ± 6.5km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                   (535)
      MD 1.9 (BER).

HYA      0.53 357 iP     28 29.47   -0.4
                  eS     28 37.56
ASK      0.54 254 eP     28 29.86   -0.1
                  eSg    28 37.28
ODD1     0.75 165 eP     28 33.13   -0.6
                  eS     28 41.99
SUE      0.84 301 eP     28 35.29    0.1
                  eS     28 45.51
BLS1     1.28 166 eP     28 42.38   -0.5
                  iS     28 59.53
KMY      1.51 200 eP     28 47.07    0.9
                  eS     29 06.90
NRA0     2.61  85 iPc    29 02.60    0.6
                  iPg    29 05.00
                  iSg    29 38.80
      S.D. = 0.7  on   7 of   7 obs.
-------------------------------------------
?  APR  07, 1989  16h 04m 04.73± 1.80s
    2.961 N ± 9.9km  126.990 E ±22.0km
   DEPTH =  88.6 ± 17.3 km
   4.3mb (  1 obs.)
 MOLUCCA PASSAGE                   (266)

MNI      2.62 235 ePd    04 46.00    0.1
DAV      4.34 341 eP     05 09.50   -0.1
WRA     23.88 163 eP     09 11.20    0.0
ASPA    27.31 166 eP     09 45.20    2.1X
WARB    28.97 181 eP     09 55.00   -3.1X
BJI     38.19 347 eP     11 17.50    0.2
GBA     50.06 285 Pc     12 52.70   -0.1
        0.4s      1.40nm          4.3mb
      S.D. = 0.3  on   5 of   7 obs.
-------------------------------------------
   APR  07, 1989  16h 25m 02.95± 0.70s
   43.295 N ± 5.1km   10.816 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                     (381)
      MD 3.0 (FIR).

PII      0.48 334 Pd     25 12.40   -0.2
                  eSg    25 18.90
FIR      0.58  33 ePg    25 14.00   -0.7
                  eSg    25 21.00
BDI      0.78 348 Pd     25 18.00   -0.3
                  eSg    25 29.40
PGD      0.88  48 Pd     25 19.90    0.0
                  eSg    25 32.50
CRE      0.89  68 P      25 20.50    0.4
                  eSg    25 34.00
MME      0.90 355 P      25 20.50    0.1
MAO      0.91 164 Pd     25 20.20   -0.2
                  eSg    25 32.90
SFI      0.98  50 P      25 21.80    0.3
                  eSg    25 37.00
ASS      1.37  99 P      25 28.10    0.0
BOB      1.77 327 P      25 34.50    0.6
      S.D. = 0.4  on  10 of  10 obs.
-------------------------------------------
*  APR  07, 1989  17h 15m 53.48± 0.79s
   39.233 N ± 7.1km   23.467 E ± 8.4km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                        (365)
      ML 2.9 (ATH).

NEO      0.20 291 ePg    15 58.00    0.1
PLG      1.14 359 ePb    16 14.50   -0.3
ATH      1.27 171 ePb    16 17.00   -0.1
KZN      1.69 310 ePg    16 27.00    3.7X
PRK      2.18  89 ePb    16 34.00    3.7X
VAY      2.20 342 ePn    16 30.70    0.2
EZN      2.29  74 ePn    16 32.00    0.2
OHR      2.77 313 ePn    16 45.30    6.5X
      S.D. = 0.3  on   5 of   8 obs.
-------------------------------------------
?  APR  07, 1989  17h 26m 05.13± 0.96s
   44.647 N ± 7.7km    6.927 E ±10.2km
```

DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.0 (GEN).

FOUF	0.16	221	P	26	08.78	0.0
			Sg	26	10.84	
PZZ	0.19	139	P	26	09.70	0.3
			S	26	12.93	
RRL	0.29	340	P	26	11.30	0.0
			S	26	15.86	
STV	0.49	145	P	26	14.89	-0.3
			S	26	21.80	

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

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* APR 07, 1989 18h 00m 34.78± 2.91s
36.611 N ±17.4km 141.612 E ±25.0km
DEPTH = 33.0km (normal)
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ	1.23	251	iPd	00	54.80	-0.9
			S	01	08.60	
YAMJ	2.00	322	P	01	06.70	-0.2
			S	01	30.70	
NIIJ	2.18	287	P	01	09.30	-0.2
			S	01	35.70	
CHJJ	2.19	256	P	01	08.70	-0.8
			S	01	32.30	
OFUJ	2.47	1	P	01	13.60	0.1
			S	01	43.80	
MAT	2.74	270	iPc	01	17.60	0.2
			eS	01	49.00	
MTMJ	3.06	271	P	01	22.80	0.7
IIDJ	3.20	250	iP+	01	25.10	1.1
			S	02	03.50	
TSRJ	4.68	258	P	01	49.10	4.1X

S.D. = 0.8 on 8 of 9 obs.

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* APR 07, 1989 18h 17m 03.14± 2.82s
41.157 N ±22.1km 20.019 E ±13.2km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.7 (SKO).

TIR	0.22	329	iPgc	17	08.00	0.1
LACI	0.53	334	iPgd	17	13.80	-0.1
OHR	0.59	94	ePg	17	14.30	-0.8
			iSg	17	25.00	
PHP	0.62	31	iPgc	17	14.40	-1.2
PUK	0.89	354	ePg	17	20.10	-0.1
SDA	0.94	336	ePg	17	21.00	-0.1
SKO	1.34	52	ePn	17	30.00	2.2
			iSn	17	46.00	

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

APR 07, 1989 18h 45m 22.27± 0.31s
12.516 S ± 4.0km 122.161 E ± 5.9km
DEPTH = 33.0km (normal)
5.2mb (7 obs.)
SOUTH OF TIMOR (293)

KUG	2.72	31	eP	46	29.50	24.9X
			eS	46	59.50	
KNA	7.17	117	eP	47	08.00	0.5
			eS	48	24.00	
MKS	7.72	340	ePc	47	15.50	0.2
			e(S)	48	41.00	
MTN	8.76	93	eP	47	30.00	0.3
			eS	48	59.00	
MBL	8.88	194	iPc	47	30.80	-0.5
			eS	49	03.00	
TRT	10.53	296	ePd	47	50.00	-4.0X
			eS	49	25.00	
NANU	11.82	211	eP	48	10.10	-1.5
			eS	50	12.00	
WRA	13.83	124	eP	48	35.00	-3.3X
			iS	50	57.00	
WARB	14.24	163	iPd	48	35.70	-8.0X
	0.4s		25.00nm		5.2mb	
			eS	51	07.00	
MEKA	14.43	193	eP	48	45.30	-0.9
	0.3s		52.00nm		5.6mb	
			e	51	15.00	
ASPA	15.72	136	iPc	49	02.50	-0.5
	0.7s		232.00nm		5.5mb	
Z	22s		0.29um		4.5Msz	
			eS	51	47.20	
			LR	55	02.70	
MRWA	17.58	198	iPc	49	27.00	0.5
	0.3s		13.00nm		4.5mb	
			eS	52	26.00	
COOL	18.30	183	eP	49	36.10	0.7
QIS	18.52	118	eP	49	37.00	-1.2
			e	49	38.00	
			eS	52	51.00	
BAL	18.70	195	eP	49	41.00	0.8
			eS	52	52.00	
FORR	19.05	164	eP	49	43.00	-1.5
	0.4s		14.00nm		4.5mb	
KLB	19.41	191	eP	49	50.00	1.2
			eS	53	12.00	
MUN	20.13	195	eP	49	57.60	1.2
			eS	53	26.00	
NWAO	20.81	192	eP	50	05.00	1.6
			eS	53	41.00	
RKG	21.96	191	eP	50	30.00	15.0X
			eS	54	20.00	
CTA	24.30	111	iPKP	50	53.00	15.0X
STK	26.28	140	eP	51	01.00	4.4X
			e	51	15.00	
PSI	27.59	302	eP	51	07.50	-1.2
CHG	38.64	323	eP	52	45.10	0.5
CHTO	38.64	323	eP	52	44.90	0.3
	0.8s		2.20nm		4.0mb X	
SSE	43.37	359	eP	53	34.00	10.8X
CD2	46.66	338	P	53	49.80	0.1
GBA	51.37	299	Pc	54	25.40	-0.8
LSA	51.53	325	P	54	28.40	0.6
GUN	53.39	319	P	54	41.20	-0.4
	0.8s		36.00nm		5.4mb	
PKI	53.46	319	P	54	41.60	-0.4
	0.6s		10.00nm		5.0mb	
DMN	53.68	318	P	54	43.40	-0.2
KKN	53.69	319	P	54	43.40	-0.2
GKN	54.25	318	P	54	47.20	-0.5
GTA	55.70	339	eP	54	58.40	0.4
WMQ	64.27	333	P	55	57.50	0.9
CNCB	149.19	161	PKP	05	14.50	8.3X
LPB	149.41	160	(PKP)	05	19.00	12.6X
ZOBO	149.65	160	ePKP	05	15.00	8.1X

S.D. = 0.9 on 28 of 39 obs.

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* APR 07, 1989 19h 13m 16.80± 1.61s
45.536 N ±15.6km 14.449 E ± 8.7km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.5 (LJU), 2.1 (TRI).

TRI	0.51	290	ePg	13	26.10	-1.0
			iSg	13	35.80	
LJU	0.51	7	ePg	13	26.50	-0.7
			eSg	13	33.90	
VBY	0.57	93	eP	13	28.30	0.0
			e(Sg)	13	32.40	
VOY	0.63	322	e(Pg)	13	28.50	-1.0
			eSg	13	39.90	
R8L	1.09	326	P	13	38.90	1.5
			eSg	13	53.90	
FVI	1.57	313	P	13	46.00	1.3
			eSg	14	06.00	
KBA	1.72	334	eP	14	14.00	26.9X
			iSg	14	15.50	

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

& APR 07, 1989 20h 07m 30.20s
33.620 N 117.900 W
DEPTH = 13.0km
5.0mb (27 obs.)
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 4.5 (PAS), 4.6 (BRK). Slight domage (VI) at Corono del Mar, Costo Meso and Newport Beoch. Felt (V) at Artesio, Anoheim, Bueno Pork, Comp Pendleton, Cypress, Dono Point, Gorden Grove, Huntington Beoch, Irvine, Loguno Beoch, Long Beoch, Oronge, Sonto Ano, Surfside ond Tustin. Felt (IV) at Avalon, Bellflower, Bansoll, Downey, Eost Irvine, El Toro, Lo Mirodo, Lokewood, Lomito, Los Angeles, Los Alomitos, Norwolk, Oceonside, Pico Rivero, Plocentio, Son Clemente, Son Luis Rey, South Gote, Stonton, Sunset Beoch and Yorba Lindo. Felt throughout much of southern Californio.

CIS	0.47	243	iPc	07	39.20	-0.6
RVR	0.57	49	iPc	07	41.20	-0.4
MWC	0.62	348	iPd	07	41.40	-1.1
PEC	0.67	66	iPc	07	43.10	-0.2
SCI	0.84	220	iPd	07	46.10	0.0
PLM	0.91	107	iPc	07	46.80	-0.6
CPE	1.00	138	iP	07	48.00	-0.8
SBB	1.07	3	iPd	07	49.50	-0.6
BAR	1.39	132	iPd	07	54.50	-0.8
ABL	1.64	319	ePd	07	57.90	-1.2
GSC	1.91	28	iPd	08	02.80	0.0
SYP	1.95	298	ePc	08	01.60	-1.8
CLC	2.21	6	iPd	08	06.30	-0.8
BLP	2.28	295	iPc	08	06.20	-1.8
BCH	2.39	311	ePd	08	08.40	-1.3
GLA	2.63	102	eP	08	11.80	-1.4
PHAM	3.02	318	eP	08	17.00	-1.6
PRI	3.39	319	eP	08	22.00	-1.9
FRI	3.67	337	eP	08	26.20	-1.7
LLA	3.89	321	eP	08	29.80	-1.2
PRS	3.93	314	eP	08	28.70	-2.8
SAO	4.27	318	eP	08	34.00	-2.4
			eS	09	23.00	
TNP	4.49	7	iPc	08	39.50	-0.1
ARN	4.76	322	eP	08	41.10	-2.2
MHC	4.81	322	eP	08	43.00	-1.1
			eS	09	53.60	
CMB	4.85	336	eP	08	43.30	-1.3
			eS	09	44.00	
KVN	5.42	358	eP	08	52.40	-0.5
8KS	5.52	322	ePd	08	51.50	-2.5
			eS	10	07.75	
			i	10	36.00	
EUR	6.05	14	iP	09	00.00	-1.8
MSU	6.73	42	eP	09	11.40	0.0
DUG	7.72	30	eP	09	26.30	1.2
ALQ	9.56	79	eP	09	52.00	1.3
BW06	11.25	33	eP	10	14.70	0.9
LRM	12.88	17	eP	10	41.30	5.4
LON	13.45	348	eP	10	52.00	8.9
DPW	14.24	359	eP	10	55.00	1.5
GMW	14.39	347	eP	11	00.00	4.5
PNT	15.74	356	eP	11	15.00	2.0
	0.9s		25.00nm		4.4mb	
EDM	19.86	8	eP	12	01.50	-2.2
FFC	23.88	23	eP	12	44.00	0.0
	0.8s		31.00nm		4.9mb	
YKC	28.96	3	eP	13	33.50	2.5
YKA	28.97	3	eP	13	33.80	2.7
PMR	34.39	334	eP	14	18.50	-0.2
	1.1s		9.40nm		4.6mb	
INK	35.87	350	eP	14	31.00	-0.2
FBA	36.19	339	P	14	35.40	1.3
	1.0s		7.50nm		4.5mb	
SVW	36.65	330	eP	14	38.00	0.0
TTA	37.78	333	eP	14	47.40	0.0
IMA	38.80	338	eP	14	55.70	-0.4
	1.0s		5.00nm		4.2mb	
FRB	42.66	30	eP	15	28.00	0.3
MBC	42.72	359	eP	15	29.00	1.0
	0.9s		16.00nm		4.7mb	
ALE	52.53	8	eP	16	44.00	-0.8
	0.7s		7.00nm		4.7mb	
SOD	75.81	13	eP	19	20.00	2.8
NB2	76.99	23	P	19	23.50	-0.4
	0.8s		3.00nm		4.4mb	
SUF	79.76	16	eP	19	40.00	1.0
	0.8s		7.30nm		4.7mb	
FLN	80.85	37	eP	19	49.00	3.9
	0.8s		10.70nm		4.9mb	
GRR	80.91	37	eP	19	49.40	4.0
	0.8s		11.80nm		5.0mb	
LPF	81.06	37	eP	19	50.20	4.1
	0.8s		10.70nm		4.9mb	
NUR	81.31	18	eP	19	51.00	3.8
MFF	82.46	38	eP	19	57.70	4.2
	0.8s		10.70nm		5.0mb	
LSF	83.55	37	eP	20	03.40	4.2
	1.2s		19.00nm		5.2mb	
TCF	83.87	37	eP	20	04.90	4.1
	0.6s		5.40nm		4.9mb	
SSF	83.98	36	eP	20	05.50	4.2

07d 20h

	1.0s	10.00nm		5.0mb		
BGF	84.00	37 eP	20	05.30	3.9	
	0.8s	18.80nm		5.4mb		
LOR	84.01	36 eP	20	05.70	4.2	
	0.8s	17.90nm		5.3mb		
LFF	84.04	39 eP	20	06.10	4.5	
	0.8s	11.80nm		5.2mb		
AVF	84.09	36 eP	20	05.80	3.9	
	0.8s	12.60nm		5.2mb		
MAF	84.10	37 eP	20	05.90	4.0	
	0.9s	19.60nm		5.3mb		
RJF	84.19	38 eP	20	06.50	4.1	
	0.8s	11.80nm		5.2mb		
LBF	84.26	36 eP	20	06.70	3.9	
	0.6s	3.00nm		4.7mb		
SMF	84.43	36 eP	20	07.30	3.7	
	0.8s	12.00nm		5.2mb		
LPO	84.44	39 eP	20	08.00	4.3	
	1.0s	17.60nm		5.2mb		
HAU	84.67	34 eP	20	08.80	4.0	
	0.8s	6.40nm		4.9mb		
CAF	84.73	38 eP	20	09.20	4.0	
	0.8s	34.90nm		5.6mb		
BUL	147.41	74 iPKPd	27	16.60	3.3	
	74 obs. ossacioted					

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* APR 07, 1989 20h 46m 20.42± 1.50s
34.103 N ±16.6km 135.214 E ± 7.7km
DEPTH = 10.0km (geophysicist)
NEAR S. COAST OF SOUTHERN HONSHU(233)
MG 3.1 (JMA). Felt (II JMA) at Wokoyomo.

WKY	0.13	343 iPd	46	22.70	-0.8	
		iS	46	23.30		
WKYJ	0.34	70 iPd	46	27.10	-0.3	
		S	46	32.00		
TKSJ	0.97	263 P	46	38.90	0.0	
		S	46	53.00		
TSRJ	1.56	24 P	46	49.10	0.8	
		S	47	08.40		
YONJ	1.80	307 P	46	52.10	0.3	
		S	47	14.70		
MAT	3.45	44 eP	47	26.00	10.7X	
		(S)	48	13.00		
S.D. = 0.9 on 5 of 6 obs.						

APR 07, 1989 20h 51m 48.49± 0.55s
2.428 S ± 7.0km 139.434 E ± 9.3km
DEPTH = 33.0km (normal)
4.6mb (5 obs.) 5.0Msz (1 obs.)
NEAR N. COAST OF WEST IRIAN (197)

JAY	1.27	94 iPd	52	08.50	-1.6	
MTN	13.22	218 eP	54	55.00	-1.5	
		e	54	58.00		
		e	57	21.00		
KNA	16.90	218 eP	55	44.00	-0.2	
QIS	18.02	179 eP	56	00.00	1.8	
		eS	59	23.00		
WRA	18.11	196 eP	55	57.80	-1.5	
		eS	59	11.30		
CTA	18.77	160 eP	56	09.00	1.5	
	1.0s	10.50nm		4.0mb		
ASPA	21.78	194 iPd	56	40.10	0.5	
	0.8s	14.00nm		4.4mb		
		eS	00	42.80		
BWA	32.92	166 eP	58	26.00	3.9X	
PSI	40.81	277 eP	59	28.90	0.0	
CHTO	45.07	300 eP	00	02.00	-1.5	
	0.8s	1.28nm		3.9mb		
CD2	47.46	317 eP	00	22.80	0.5	
GTA	55.28	323 eP	01	21.90	0.6	
GUN	59.62	304 P	01	52.60	0.2	
PKI	59.89	304 P	01	54.20	-0.1	
KKN	60.08	304 P	01	55.60	0.2	
DMN	60.16	304 P	01	56.20	0.2	
	0.6s	14.00nm		5.3mb		
GKN	60.68	304 P	01	59.60	0.2	
	0.8s	26.00nm		5.4mb		
WMQ	65.24	321 P	02	30.00	0.8	
CNCB	146.87	126 PKP	11	33.00	4.2X	
LPB	146.92	126 ePKP	11	40.00	11.3X	
ZOBO	147.04	125 ePKP	11	39.00	9.9X	
Z	22s	0.26um		5.0Msz		
		LR	53	20.00		
S.D. = 1.1 on 17 of 21 obs.						

? APR 07, 1989 20h 56m 49.06± 1.46s
34.108 N ±17.7km 135.227 E ± 7.6km
DEPTH = 10.0km (geophysicist)
NEAR S. COAST OF SOUTHERN HONSHU(233)
MG 2.7 (JMA). Felt (I JMA) at Wokoyomo.

WKY	0.13	337 eP	56	52.00	-0.1	
		iS	56	52.30		
WKYJ	0.32	70 iPd	56	55.80	0.0	
		S	57	00.70		
TKSJ	0.99	263 P	57	07.70	-0.1	
		S	57	21.60		
TSRJ	1.55	23 P	57	18.50	1.7X	
		S	57	37.10		
YONJ	1.81	307 P	57	20.70	0.2	
		eS	57	43.50		
S.D. = 0.3 on 4 of 5 obs.						

APR 07, 1989 21h 06m 21.54± 0.44s
58.685 S ± 6.5km 148.750 E ± 9.3km
DEPTH = 10.0km (geophysicist)
5.2mb (6 obs.) 5.1Msz (2 obs.)
WEST OF MACQUARIE ISLAND (701)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 17S, 30C
Centroid Locotion:
Origin Time 21:06:26.7 0.5
Lot 59.02S 0.05 Lon 148.35E 0.10
Dep 15.0 FIX Holf-durotion 2.3
Moment Tensor; Scale 10**17 Nm
Mrr= 0.16 0.08 Mtt= 1.18 0.10
Mff=-1.34 0.08 Mrt= 0.76 0.24
Mrf=-0.15 0.29 Mtf=-1.90 0.10
Principol Axes:

T Vol= 2.44	Plg=18	Azm= 27	
N	-0.06	71	225
P	-2.38	5	119

Best Double Couple:Mo=2.4*10**17
NP1:Strike=165 Dip=74 Slip= 9
NP2: 72 81 163

TAU	15.82	356 iPc	10	05.70	0.0	
		i	10	10.00		
		i	10	19.80		
MSZ	18.29	48 Pd	10	37.80	1.1	
	1.8s	780.00nm		5.6mb		
		pP	10	48.00		
SBA	20.18	169 e(P)	10	58.00	-0.4	
TOO	21.24	353 eP	11	10.00	0.4	
		e	11	13.00		
BFD	21.90	347 eP	11	17.00	0.7	
CAN	23.38	1 eP	11	31.00	0.1	
CNB	23.38	1 eP	11	31.00	0.0	
WEL	23.90	55 eP	11	36.00	0.1	
Z	20s	11.35um		5.3Msz		
		eS	16	06.00		
BWA	24.27	359 iPc	11	39.80	0.2	
ADE	24.65	340 eP	11	45.00	1.8	
	1.2s	115.63nm		5.4mb		
STK	27.24	347 eP	12	08.00	0.6	
FORR	31.19	324 eP	12	42.70	0.0	
BRS	31.41	7 iPd	12	44.80	0.1	
WARB	36.00	325 eP	13	18.00	-6.4X	
ASPA	36.56	337 iPc	13	28.30	-0.8	
	0.9s	22.00nm		5.0mb		
		eS	19	12.50		
MEKA	38.37	313 iPc	13	44.20	-0.1	
CTA	38.59	356 iPc	13	46.00	-0.2	
	0.9s	58.82nm		5.3mb		
Z	21s	1.83um		4.9Msz		
		i	13	54.00		
		ipP	14	15.00	129kmX	
		i	14	44.00		
		iPP	15	20.50		
		e(ScP)	19	06.00		
		iS	19	46.00		
		eSS	22	36.00		
		eSSS	23	24.00		
QIS	38.66	346 eP	13	45.00	-1.7	
DZM	38.73	27 iPc	13	45.40	-2.0	
WRA	40.09	339 eP	13	57.80	-0.8	
MBL	42.88	318 eP	14	21.00	-0.5	
	0.6s	23.00nm		5.1mb		
NANU	43.18	312 eP	14	24.00	0.1	
PMG	49.18	358 eP	15	11.00	-0.4	
PPI	69.28	307 eP	17	30.00	-0.7	
PSI	72.74	307 ePd	17	51.50	0.0	
SNG	76.11	310 eP	18	10.90	0.0	
		eS	27	28.20		
PRY	81.83	230 eP	18	42.00	-0.1	
BPI	82.28	231 eP	18	47.00	2.5	
KSR	83.01	230 eP	18	47.00	-1.3	
CHG	87.37	314 eP	19	11.00	1.3	
GBA	92.10	293 Pc	19	41.70	9.8X	
	0.6s	2.10nm		4.7mb		
MAIO	119.81	291 ePKP	25	13.00	0.1	
INK	138.62	33 ePKP	25	55.00	7.4X	
FFC	142.62	64 ePKP	25	56.50	1.3	
	0.9s	7.00nm				
VRI	143.47	276 ePKPc	25	54.00	-2.9X	
MLR	143.63	274 ePKPc	25	54.00	-3.4X	
CMP	143.95	273 ePKPc	25	55.00	-2.8X	
DEV	145.47	273 ePKPc	26	00.00	-0.3	
BEO	146.04	269 ePKP	25	56.00	-5.3X	
MBC	146.31	26 ePKP	25	59.00	-1.8	
	0.8s	23.00nm				
SPC	148.97	275 ePKP	26	06.60	0.5	
PTJ	149.11	267 ePKP	26	12.60	6.3X	
SRO	149.12	271 ePKP	26	17.90	11.8X	
		e	26	22.40		
IFR	149.37	226 iPKP	26	11.00	3.8X	
KRA	149.65	276 ePKP	26	11.50	4.7X	
		e	26	18.70		
ZST	150.00	271 e(PKP)	26	15.20	7.8X	
GAC	150.53	96 ePKP	26	20.00	11.7X	
KBA	151.25	266 ePKP	26	18.50	8.9X	
	1.0s	9.90nm				
		i	26	22.20		
KSP	152.01	275 ePKP	26	17.80	7.4X	
		e	26	47.50		
NUR	152.37	298 ePKP	26	24.00	13.5X	
KHC	152.41	270 ePKP	26	23.50	12.4X	
SUF	152.44	303 iPKP	26	17.50	6.9X	
SOD	153.35	313 ePKP	26	30.00	18.3X	
CLL	153.98	273 e(PKP)	26	26.00	12.9X	
		e	26	41.00		
S.D. = 1.0 on 34 of 54 obs.						

APR 07, 1989 21h 39m 39.11± 0.68s
20.434 N ± 7.3km 100.705 E ± 9.2km
DEPTH = 10.0km (geophysicist)
4.2mb (2 obs.)
SOUTHEAST ASIA (299)

CHG	2.31	226 ePnc	40	18.90	1.0	
		iPg	40	24.00		
		iSg	40	53.00		
CHTO	2.31	226 iPnc	40	19.10	1.2	
		iPg	40	24.50		
BDT	3.56	207 ePn	40	37.00	1.5	
		ePg	40	45.90		
		eSg	41	32.70		
NST	4.77	187 eP	40	57.50	4.8X	
KMI	5.03	22 Pgc	41	17.00	20.4X	
		Sg	42	07.00		
NNT	7.86	187 eP	41	34.00	-2.2	
GYA	8.12	41 P	41	39.00	-0.9	
		S	43	10.80		
GUN	15.43	302 P	43	19.20	0.3	
PKI	15.67	300 P	43	21.60	-0.4	
LZH	15.84	9 e(P)	43	25.50	1.6	
KKN	15.86	300 P	43	26.00	1.6	
DMN	15.93	300 P	43	24.90	-0.4	
GKN	16.47	300 P	43	30.60	-1.5	
GTA	18.93	358 eP	44	02.80	0.2	
E	11s	0.50um				
TIY	20.01	28 eP	44	16.00	1.1	
N	14s	1.80um				
E	14s	2.10um				
TIA	21.30	39 Pc	44	29.20	1.0	
BTO	21.61	20 eP	44	32.20	0.8	
VRI	64.59	312 ePc	50	19.00	0.1	
SUF	64.97	331 iP	50	20.20	-0.8	
HFS	71.04	328 eP	50	56.30	-2.7	
	0.5s	1.00nm		4.2mb		
NB2	72.11	329 P	51	04.10	-1.3	
	0.8s	1.80nm		4.2mb		
S.D. = 1.4 on 19 of 21 obs.						

APR 07, 1989 21h 40m 43.91± 2.64s
54.085 N ±25.7km 162.711 W ±18.1km

DEPTH = 33.0km (normal)
ALASKA PENINSULA (12)

PS4	1.36	21	eP	41	08.00	1.2
			eS	41	25.18	
PVV	1.40	22	eP	41	08.35	1.1
			eS	41	25.91	
SASA	1.80	45	eP	41	12.91	-0.1
			eS	41	33.52	
NGI	1.81	57	eP	41	12.39	-0.9
			eS	41	32.80	
CNBA	1.97	67	eP	41	14.33	-1.2
			eS	41	35.19	
IVF	2.58	44	eP	41	24.27	0.0
			eS	41	53.40	
KDC	6.81	53	eP	42	25.50	1.4
TTA	9.53	19	eP	43	00.50	-1.4
INK	19.73	32	eP	45	11.00	-2.2
YKA	26.06	52	P	46	18.20	2.6
MBC	27.49	21	eP	46	28.00	-0.5
FRB	45.20	39	eP	48	59.00	0.1
SUF	63.33	355	iP	51	11.20	-0.1

S.D. = 1.4 on 13 of 13 obs.

APR 07, 1989 21h 45m 18.65± 0.34s
20.576 N ± 4.8km 100.586 E ± 4.6km
DEPTH = 10.0km (geophysicist)
4.6mb (9 obs.)
SOUTHEAST ASIA (299)

CHG	2.34	222	iPnc	45	58.00	0.2
			iPg	46	03.20	
			iSg	46	31.00	
CHTO	2.34	222	iPnc	45	58.20	0.4
			iPg	46	02.70	
BDT	3.64	205	ePn	46	15.10	-1.1
			ePg	46	24.60	
			eSg	47	04.50	
NST	4.90	185	ePn	46	34.00	-0.1
			ePg	46	51.20	
			eSg	47	59.50	
KMI	4.94	23	ePn	46	36.00	1.1
Z	10s		1.30um			
			Pg	46	55.00	
			Sn	47	38.00	
			Sg	48	03.00	
GYA	8.08	42	iPnd	47	17.00	-2.0
			Sn	48	47.80	
			Sg	49	39.00	
OIZ	8.85	98	eP	47	28.10	-1.5
			eS	49	05.00	
CD2	10.68	15	eP	47	55.00	0.2
Z	10s		1.70um			5.3Msz
GZH	12.11	76	eP	48	13.40	-0.8
LSA	12.47	319	P	48	20.90	1.5
N	12s		1.36um			
E	11s		1.00um			
GUN	15.26	301	P	48	55.20	-1.1
PKI	15.50	300	P	48	58.40	-1.0
KKN	15.70	300	P	49	00.80	-1.0
LZH	15.72	10	P	49	04.00	2.1
	1.5s		0.09nm			1.8mb X
Z	26s		0.60um			
E	10s		0.87um			
			eS	54	13.00	
DMN	15.77	299	P	49	02.30	-0.4
	0.8s		49.00nm			4.8mb
WHN	15.88	49	P	49	01.50	-2.4
N	10s		0.83um			
E	10s		0.82um			
GKN	16.30	300	P	49	08.00	-1.5
PSI	17.85	185	ePd	49	33.60	4.8X
GTA	18.78	358	Pd	49	41.50	1.1
Z	10s		0.90um			
E	11s		1.70um			
TIY	19.94	29	Pc	49	54.00	0.3
NJ2	19.94	51	Pc	49	53.00	-0.6
N	10s		2.80um			
E	10s		2.90um			
HYB	21.07	265	ePc	50	04.50	-1.0
SSE	21.26	56	eP	50	06.00	-1.4
N	12s		0.80um			
TIA	21.26	39	Pd	50	07.40	0.0
N	15s		0.80um			
E	14s		0.90um			
BTO	21.52	20	P	50	11.00	1.0
Z	11s		1.30um			4.6MszX
N	11s		1.00um			
E	11s		0.90um			
			pP	50	16.00	18kmX
HHC	22.27	22	P	50	19.00	1.5
NDI	22.70	295	eP	50	22.50	0.7
GBA	23.17	256	Pd	50	26.20	-0.2
	0.8s		12.90nm			4.5mb
BJI	23.54	31	eP	50	32.00	2.2
Z	11s		0.60um			4.3MszX
N	11s		0.40um			
			eS	54	56.00	
POO	25.27	270	iP	50	47.70	0.9
	1.0s		36.00nm			5.0mb
WMQ	25.55	338	eP	50	51.50	2.2
E	10s		0.40um			
CN2	31.07	36	eP	51	37.80	-1.2
Z	14s		0.90um			4.6MszX
E	11s		0.50um			
QUE	31.76	294	eP	51	44.20	-1.4
MAIO	39.07	303	eP	52	48.00	0.3
NANU	45.29	160	eP	53	41.00	2.6
MBL	45.55	154	eP	53	42.00	1.5
ASPA	54.66	142	eP	54	51.50	1.3
CLI	63.98	313	eP	55	54.00	-0.5
VRI	64.41	312	ePc	55	57.50	0.2
SUF	64.79	331	iP	55	58.80	-0.6
SOD	65.02	336	iP	56	00.50	-0.3
KEV	65.18	338	eP	56	01.00	-0.9
NUR	65.40	328	eP	56	03.00	-0.4
Z	24s		0.50um			4.6MszX
			LR	46	30.00	
HFS	70.86	328	eP	56	36.60	-0.8
	0.6s		1.30nm			4.2mb
NB2	71.93	329	P	56	43.00	-0.9
	0.8s		4.30nm			4.6mb
ALE	76.78	358	eP	57	12.00	0.4
LPG	78.21	314	eP	57	21.40	0.9
	0.8s		4.00nm			4.5mb
LOR	79.57	317	eP	57	31.00	3.5X
	1.0s		4.80nm			4.4mb
SMF	79.78	316	eP	57	30.20	1.6
	0.6s		2.70nm			4.4mb
MBC	80.37	9	eP	57	31.00	-0.2
BNG	81.01	271	iPd	57	35.20	-0.6
	0.3s		4.00nm			4.9mb
INK	83.10	18	eP	57	45.00	-0.6

S.D. = 1.2 on 50 of 52 obs.

APR 07, 1989 22h 12m 42.12± 0.57s
39.284 N ± 5.4km 23.603 E ± 5.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.4 (ATH).

PLG	1.10	354	iPbc	13	03.00	0.3
ATH	1.31	176	ePb	13	05.50	-0.9
KZN	1.74	306	ePb	13	11.80	-0.9
PRK	2.07	90	ePb	13	20.00	2.7
EZN	2.17	75	ePn	13	18.00	-0.8
MMB	2.30	2	iPc	13	20.00	-0.8
RDO	2.38	38	ePn	13	20.60	-1.1
ITM	2.48	213	ePn	13	23.00	-0.2
KBN	2.53	303	ePn	13	23.60	-0.2
RZN	2.55	19	iP	13	24.00	-0.3
VLS	2.60	246	ePn	13	24.50	-0.5
KKB	2.61	351	iP	13	24.00	-1.1
KDZ	2.74	30	iPc	13	26.00	-0.9
SRN	2.85	283	ePn	13	29.80	1.4
PLD	2.94	16	eP	13	29.00	-0.7
BERA	3.14	298	ePn	13	33.80	1.2
PGB	3.29	7	iP	13	34.00	-0.8
VTS	3.32	355	iP	13	36.00	0.8
PHP	3.40	316	ePn	13	43.90	7.6X
EDC	3.45	71	ePn	13	47.00	10.0X
BNT	3.49	71	ePn	13	45.40	7.8X
MGR	6.26	280	P	14	34.50	17.7X
			eSg	14	38.50	
MLR	6.44	15	ePd	14	22.00	2.6
SGO	6.50	284	P	14	43.00	22.8X
			eSg	14	51.80	
VRI	6.97	18	eP	14	27.00	0.3

S.D. = 1.2 on 20 of 25 obs.

• APR 07, 1989 22h 35m 25.77± 1.34s
28.194 N ±18.7km 96.493 E ±10.6km
DEPTH = 33.0km (normal)
INDIA-CHINA BORDER REGION (313)

KMI	6.37	117	ePg	37	00.00	0.0
			Sg	38	06.50	
GUN	9.38	271	P	37	43.40	1.3
	0.5s		17.00nm			5.5mb X
CHG	9.60	166	eP	37	44.80	0.0
CHTO	9.60	166	e(P)	37	44.80	0.0
			e(S)	39	06.00	
PKI	9.83	269	P	37	48.00	-0.2
KKN	9.92	270	P	37	49.20	-0.2
	0.5s		9.00nm			5.3mb X
DMN	10.09	269	P	37	51.00	-0.7
GKN	10.47	272	P	37	56.60	-0.3
	0.4s		6.00nm			5.2mb X

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

• APR 07, 1989 22h 43m 22.52± 0.56s
19.067 S ±13.5km 167.656 E ±15.0km
DEPTH = 10.0km (geophysicist)
3.9mb (2 obs.)
VANUATU ISLANDS REGION (185)

PVC	1.46	25	iPd	43	46.90	-2.0
			iS	44	04.50	
DZM	3.20	201	iPc	44	12.60	-1.3
			iS	44	50.90	
CTA	20.19	264	iPc	48	00.90	0.6
	0.6s		4.33nm			4.0mb
			i	48	10.90	
ASPA	31.72	256	eP	49	47.70	-1.2
CHTO	77.22	295	eP	55	18.70	-0.2
	0.6s		0.70nm			3.9mb
WDC	87.81	46	e(P)	56	14.20	1.0
ORV	88.05	47	eP	56	14.40	0.0
CMB	88.16	49	eP	56	15.00	-0.1
FRI	88.20	50	eP	56	15.10	0.0
NAI	127.69	253	ePKP	02	45.00	14.0X
WLF	146.06	338	PKPc	03	04.20	0.9
BNG	146.53	248	iPKPc	03	05.50	0.3
	0.7s		5.00nm			
CDF	146.69	336	ePKP	03	05.10	0.6
	0.8s		8.00nm			
HAU	147.38	336	ePKP	03	07.10	1.5
LOR	148.90	338	ePKP	03	11.40	3.4X
	0.8s		4.00nm			
LBF	149.11	338	ePKP	03	11.80	3.4X
	0.8s		2.60nm			
SSF	149.21	339	ePKP	03	12.10	3.6X
	0.6s		1.80nm			

S.D. = 1.1 on 13 of 17 obs.

& APR 07, 1989 23h 17m 59.95s
57.346 N 143.075 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

RAGM	3.16	345	eP	18	45.28	-5.4
BCPM	3.17	33	eP	18	46.03	-4.8
			eS	19	22.23	
SGAM	3.35	342	eP	18	48.44	-5.0
			eS	19	26.44	
HIN	3.54	331	eP	18	51.98	-4.1
MTU	3.57	320	iP	18	51.05	-5.4
			eS	19	28.10	
KNIM	3.86	323	iP	18	54.25	-6.4
GLB	4.13	355	eP	18	58.44	-6.0
SIT	4.23	91	eP	18	55.38	-10.4
			eS	19	38.63	
SEW	4.32	312	eP	19	01.43	-5.7
			eS	19	49.40	
SLKM	4.87	314	eP	19	09.05	-6.0
CDD	5.82	290	eP	19	23.30	-5.0
SPU	6.00	314	eP	19	24.78	-6.1
PDB	6.31	297	eP	19	29.64	-5.6

13 obs. associated

APR 07, 1989 23h 24m 39.93± 0.89s
44.509 N ± 7.8km 6.867 E ± 7.4km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.8 (GEN).

FOUF	0.06	288	P	24	42.28	0.1
			Sg	24	43.24	
PZZ	0.17	91	P	24	44.36	0.5
			S	24	47.04	
RRL	0.42	352	P	24	48.51	0.0

07d 23h

		S	24 54.55		
STV	0.42	129 P	24 48.51	-0.1	
		S	24 53.93		
RSP	0.70	23 P	24 53.62	-0.2	
		S	25 02.60		
ROB	0.75	106 P	24 54.31	-0.4	

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

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* APR 07, 1989 23h 56m 07.35± 0.79s
36.023 N ±10.8km 25.922 E ± 7.3km
DEPTH = 33.0km (normal)
DODECANESE ISLANDS (369)
ML 3.9 (ATH).

NPS	0.80	198 eP	56 23.00	0.8	
KAP	1.12	114 eP	56 26.60	-0.2	
YER	2.20	59 ePn	56 43.40	1.1	
IZM	2.60	24 ePn	56 43.00	-5.0X	
ATH	2.63	318 eP	56 49.50	1.2	
KSL	2.97	87 eP	56 52.50	-0.7	
ELL	3.30	76 ePn	56 57.50	-0.5	
ITM	3.42	291 eP	56 58.00	-1.6	

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

APR 08, 1989 00h 04m 44.29± 0.29s
12.938 N ± 6.1km 44.938 W ± 5.4km
DEPTH = 10.0km (geophysicist)
4.7mb (21 obs.) 4.5Msz (1 obs.)
NORTH ATLANTIC RIDGE (403)

SLB	15.69	275 eP	08 28.96	1.7	
SVV	15.86	273 iP	08 30.13	0.8	
SVB	15.89	273 iP	08 30.75	0.9	
ATB	17.67	205 Pd	08 52.80	0.6	
SOB1	22.37	169 eP	09 43.20	-1.0	
		i	13 54.80		
		e	14 05.00		
ITR	22.51	163 eP	09 44.30	-1.3	
CCH	36.69	215 eP	11 55.00	1.2	
ZOBO	36.98	219 P	11 56.00	-0.6	
	Z 20s	0.88um		4.5Msz	
		LR	23 12.00		
LPB	37.17	219 P	11 58.40	0.5	
CNCB	37.31	218 P	11 59.30	0.0	
TIO	39.03	57 iP	12 15.40	2.2	
TIC	39.79	95 P	12 19.00	-0.6	
LIC	39.88	96 P	12 19.70	-0.5	
	1.0s	13.00nm		4.6mb	
KIC	40.12	95 P	12 21.60	-0.7	
	1.0s	16.00nm		4.7mb	
IFR	41.59	54 iP	12 37.40	3.1X	
EPF	49.13	44 eP	13 36.10	1.9	
	0.8s	4.50nm		4.5mb	
MFF	50.34	39 eP	13 44.60	1.2	
	0.8s	6.40nm		4.6mb	
LPO	50.36	42 eP	13 44.70	1.2	
	0.8s	5.30nm		4.5mb	
LPF	50.47	37 eP	13 45.60	1.3	
	0.8s	8.00nm		4.7mb	
CAF	51.03	42 eP	13 49.60	0.9	
	0.8s	5.30nm		4.5mb	
TCF	51.68	40 eP	13 55.10	1.5	
	0.8s	5.30nm		4.5mb	
BGF	52.19	40 eP	13 58.40	1.0	
	0.6s	5.40nm		4.7mb	
AVF	52.60	40 eP	14 00.90	0.4	
	0.7s	2.60nm		4.3mb	
LBF	53.07	40 eP	14 04.50	0.5	
	1.0s	4.00nm		4.3mb	
LOR	53.11	40 eP	14 04.90	0.6	
	0.8s	4.00nm		4.4mb	
FRB	53.38	347 eP	14 05.00	-0.9	
KBA	59.16	43 eP	14 47.00	-0.9	
	0.7s	3.30nm		4.6mb	
		e	14 54.00		
		e	14 57.00		
ALQ	59.42	303 eP	14 50.00	0.1	
	1.7s	24.04nm		5.1mb	
KHC	59.86	40 P	14 51.50	-1.0	
		i	14 59.00		
CLL	60.13	38 e(P)	14 53.00	-1.3	
FFC	60.73	326 eP	14 56.00	-2.3	
	0.9s	11.00nm		5.0mb	
ZST	61.89	42 e(P)	15 11.70	5.4X	
SRO	62.61	43 eP	15 11.50	0.5	
NB2	62.70	27 P	15 09.40	-2.1	
	0.8s	5.00nm		4.8mb	
BNG	63.19	92 iPd	15 15.90	0.4	
	1.0s	23.00nm		5.3mb	
		i	19 36.30		
HFS	63.48	29 eP	15 15.30	-1.2	
	0.7s	9.80nm		5.1mb	
KRA	64.10	40 eP	15 21.00	0.2	
		e	15 27.80		
SPC	64.13	41 eP	15 20.70	-0.6	
SES	64.93	320 ePc	15 25.00	-1.3	
DAG	65.29	6 eP	15 27.20	-0.9	
EDM	66.83	323 eP	15 37.00	-1.4	
MLR	67.50	46 ePc	15 42.50	-0.4	
YKA	69.25	332 eP	15 52.00	-1.2	
ALE	69.96	358 eP	15 56.00	-1.3	
	0.7s	7.00nm		4.9mb	
MBC	73.82	346 eP	16 21.00	0.6	
	0.7s	7.00nm		4.8mb	
MBH	74.95	62 e(P)	16 28.00	0.2	
PRNI	74.98	62 eP	16 28.00	0.0	
DSI	75.18	61 eP	16 30.00	0.9	
INK	77.56	338 ePd	16 41.00	-0.7	
FBA	83.76	335 eP	17 14.90	0.2	
PMS	85.66	332 eP	17 24.80	0.5	
IMA	85.68	337 eP	17 24.70	0.2	
	0.7s	5.70nm		4.9mb	
MAIO	93.74	52 eP	18 17.00	14.0X	

S.D. = 1.1 on 50 of 53 obs.

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* APR 08, 1989 00h 07m 00.81± 1.41s
0.374 S ±15.7km 126.240 E ±23.8km
DEPTH = 76.0 ± 14.3 km
4.9mb (4 obs.)
MOLUCCA SEA (269)

MNI	2.28	322 ePd	07 37.00	-0.1	
		eS	08 05.50		
AAI	3.83	149 eP	07 00.00	-58.5X	
		eS	07 43.00		
PCI	6.42	265 ePd	08 23.80	-11.0X	
MTN	13.31	159 eP	10 08.50	0.5	
WRA	21.00	158 iPc	11 39.80	-0.4	
PJG	23.09	52 eP	11 52.50	-8.3X	
GUA	23.10	53 eP	11 53.00	-7.9X	
QIS	23.94	148 eP	12 10.00	0.9	
ASPA	24.32	163 iPd	12 15.10	2.4X	
	0.5s	37.00nm		5.1mb	
		eS	16 36.90		
WARB	25.66	179 eP	12 23.00	-2.3	
STK	34.54	157 eP	13 45.00	1.0	
BJI	41.26	348 eP	14 38.50	-1.5	
GUN	47.83	309 P	15 33.90	0.5	
	0.7s	14.00nm		5.0mb	
PKI	48.03	309 P	15 35.10	0.1	
KKN	48.24	309 P	15 36.80	0.4	
DMN	48.29	309 P	15 37.30	0.5	
GKN	48.84	309 P	15 41.10	0.1	
HYB	50.15	293 eP	15 51.50	0.5	
GBA	50.29	288 Pc	15 51.80	-0.2	
	0.4s	1.00nm		4.2mb	
SPA	89.63	180 e(P)	19 54.30	3.0X	
	0.8s	4.58nm		4.8mb	
SLA	152.58	156 ePKPc	26 39.10	-4.6X	

S.D. = 1.1 on 14 of 21 obs.

APR 08, 1989 00h 09m 04.54± 0.49s
12.976 N ± 8.3km 44.780 W ± 8.1km
DEPTH = 10.0km (geophysicist)
4.4mb (4 obs.) 4.8Msz (1 obs.)
NORTH ATLANTIC RIDGE (403)

SLB	15.84	275 eP	12 50.03	0.6	
SVV	16.01	273 iP	12 51.59	0.0	
SVB	16.05	273 iP	12 51.91	-0.1	
ITR	22.50	163 eP	14 05.20	-0.6	
CCH	36.81	215 eP	16 21.00	6.0X	
ZOBO	37.11	219 P	16 17.80	-0.1	
LPB	37.29	219 P	16 20.00	0.7	
	Z 18s	1.37um		4.8Msz	
		eLR	25 15.00		
CNCB	37.44	218 P	16 21.00	0.4	
KHC	59.73	40 eP	19 10.90	-0.9	
NB2	62.60	27 P	19 31.80	0.7	
	0.8s	1.90nm		4.3mb	
BW06	62.82	312 eP	19 31.50	-1.6	
	1.1s	4.17nm		4.5mb	
HFS	63.37	29 eP	19 36.70	0.6	
	0.7s	1.60nm		4.3mb	
SES	65.00	320 eP	19 47.00	0.0	
KVN	69.03	307 eP	20 11.50	-1.4	
YKA	69.29	332 eP	20 13.50	-0.2	
ALE	69.93	358 eP	20 18.00	0.6	
	0.8s	8.00nm		4.9mb	
MBC	73.82	346 eP	20 42.00	1.4	
INK	77.58	338 eP	21 02.00	-0.1	

S.D. = 0.8 on 17 of 18 obs.

APR 08, 1989 00h 24m 32.54± 1.28s
32.012 S ± 6.7km 71.545 W ± 8.0km
DEPTH = 72.4 ± 9.8 km
5.5mb (15 obs.)
NEAR COAST OF CENTRAL CHILE (135)
Felt (III) at Valparaiso.

ZON	2.49	80 iPc	25 14.50	2.9	
		eS	25 44.00		
RFA	3.77	138 iPc	25 29.00	-0.5	
CYA	6.12	56 eP	26 01.00	-1.3	
CCH	15.37	20 P	28 06.00	-0.8	
CNCB	15.48	13 eP	28 05.00	-3.5X	
ARE	15.48	0 eP	28 06.00	-2.3	
LPB	15.73	12 eP	28 06.00	-5.5X	
	1.0s	440.00nm		5.6mb	
		i	28 13.70		
		LR	33 44.00		
ZOBO	15.98	12 P	28 11.00	-3.9X	
		LR	33 30.00		
ITB7	16.72	70 e(P)	28 22.30	-1.3	
ITB1	16.78	68 Pd	28 25.90	1.6	
ITB	16.85	69 Pd	28 26.30	1.1	
PPD	20.55	66 iPc	29 13.40	5.9X	
		e	29 19.00		
		e	29 23.30		
		e	29 47.10		
VAO	23.53	74 eP	29 35.80	-1.3	
		e	29 37.10		
ITA	25.68	75 iPc	29 57.30	-0.4	
ATB	33.86	36 Pc	31 09.50	-0.7	
ITR	38.45	60 iPc	31 48.00	-1.1	
SPA	58.16	180 e(P)	34 20.70	-0.3	
	0.9s	9.55nm		4.9mb	
	Z 21s	9.90um		5.9Msz	
		e	35 11.90		
LIC	73.76	72 Pc	36 01.00	0.0	
TUH	73.76	119 iPc	36 00.60	-0.2	
	1.0s	40.00nm		5.3mb	
CER	73.84	119 iPd	36 17.50	16.2X	
	1.0s	30.00nm			
TIC	74.01	71 Pc	36 02.20	-0.2	
KIC	74.07	72 Pc	36 02.60	-0.2	
	0.8s	161.00nm		6.0mb	
ALQ	74.24	331 eP	36 04.00	0.4	
	1.3s	16.83nm		4.8mb	
	Z 20s	0.89um		5.1Msz	
MAW	74.96	164 iPc	36 06.70	-0.4	
	1.0s	24.00nm		5.1mb	
WEGH	77.22	75 eP	36 21.00	0.3	
LEGH	77.37	75 eP	36 21.50	0.0	
TEGH	77.51	75 eP	36 22.50	0.3	
KUK	77.52	75 eP	36 22.00	-0.3	
KOGH	77.57	75 eP	36 22.50	-0.1	
SHGH	77.64	75 eP	36 24.00	1.0	
BLF	81.07	119 iPd	36 39.00	-2.5	
	0.9s	76.92nm		5.6mb	
EUR	82.21	327 iP	36 48.00	0.8	
	0.6s	5.90nm		4.7mb	
BFS	82.68	117 iPd	36 48.50	-1.4	
	1.0s	140.00nm		5.9mb	
PRY	83.18	117 iPd	36 51.30	-1.2	
	0.8s	31.25nm		5.3mb	
CMB	83.23	323 eP	36 53.10	0.9	
KSR	83.31	116 iPd	36 52.70	-0.5	
	0.7s	22.50nm		5.2mb	
BPI	84.00	117 iPc	36 57.20	0.5	
	0.8s	97.01nm		5.9mb	
SLR	84.43	117 eP	36 59.50	0.7	
	0.9s	73.11nm		5.7mb	
ORV	84.95	324 eP	37 02.10	1.4	
LRM	85.88	333 eP	37 06.50	1.0	
WDC	86.25	324 eP	37 07.00	-0.1	
SCH	86.57	3 eP	37 09.00	0.6	
TIO	87.31	51 iPc	37 14.60	1.9	
BUL	87.72	112 iPd	37 14.90	-0.1	
KMZ	89.09	105 iPc	37 22.00	0.4	
SES	89.18	336 eP	37 21.50	0.4	

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 LSZ     90.03 108 eP     37 27.00    1.0
 FFC     90.27 343 iPc    37 25.70   -0.3
         1.0s     24.00nm            5.4mb
 KRI     90.33 110 iPc    37 32.40    5.1X
 PNT     91.57 331 eP     37 33.00    0.9
 EDM     92.33 336 iPd    37 34.90   -0.7
 BNG     92.40  86 iPc    37 37.20    0.4
         0.4s     15.00nm            5.8mb
                  i       37 54.10
                  i       38 39.00
 PTZ     93.13 109 iP     37 42.00    1.8
 YKA    100.31 341 Pdiff  38 11.70    0.0
 MBC    112.06 349 ePKP   43 00.00    0.0
 HFS    114.92  33 ePKP   43 01.50   -4.4X
         0.6s     0.60nm
 WARB   119.58 199 iPdiff39 32.80   -5.6X
 NUR    120.25  35 iPKP   43 15.50   -0.5
         0.8s     14.70nm
 SUF    121.37  32 iPKP   43 17.50   -0.6
         0.6s      4.70nm
 SOO    122.22  27 ePKP   43 19.50   -0.1
 WRA    122.69 209 ePKP   43 20.80   -1.1
 MAIO   139.60  70 ePKP   43 44.00   -9.7X
 KSI    144.12 170 ePKPd  44 00.60   -1.5
                 e        45 45.00
 QUE    144.57  82 iPKPd  44 02.00   -0.7
 POO    146.11 105 iPKPc  44 07.70    2.3X
 GBA    146.22 116 PKPd   44 05.50   -0.1
         0.7s     30.20nm
 HYB    149.32 111 ePKPc  44 10.30   -0.2
         1.0s    100.00nm
                  i       44 15.00
                  e       44 30.00
 PSI    149.49 161 iPKPc  44 14.50    3.6X
         0.6s     24.90nm
 IPM    151.83 164 ePKPc  44 20.10    5.7X
         0.7s     47.90nm
 NDI    152.89  89 ePKP   44 23.00    7.5X
 GKN    159.00  95 PKP    44 24.10    0.5
 DMN    159.28  96 PKP    44 24.80    0.8
 KKN    159.48  96 PKP    44 24.80    0.6
 PKI    159.53  97 PKP    44 24.10   -0.3
 GUN    160.03  96 PKP    44 25.50    0.6
      S.D. = 1.0  on  62 of  75 obs.
-----------------------------------------
    APR  08, 1989  00h 57m 43.65± 0.51s
    33.999 N ± 6.5km   24.582 E ± 5.5km
    DEPTH =  33.0km  (normol)
    4.0mb (  5 obs.)
  MEDITERRANEAN SEA                (400)

 YER      4.35  43 iP      58 50.40    1.3
 ELL      5.14  56 eP      59 01.00    0.5
 BCK      5.98  53 eP      59 11.00   -1.3
 OHR      7.71 338 ePn     59 33.70   -2.7X
 SOI      8.01 303 Pd      59 40.50   -0.1
 LCI      8.24 322 P       59 42.20   -1.6
 MEU      8.45 294 P       59 46.60   -0.3
 ATN      8.47 302 P       59 47.00    0.0
 DSI      9.41 102 eP      59 54.00   -5.9X
                  eS      02 34.00
 PRNI     9.55 110 eP      59 57.00   -4.9X
 MBH      9.72 113 eP      00 04.00   -0.2
 SGO      9.87 314 P       00 07.00    0.8
 KHC     17.19 335 Pc      01 47.00    4.3X
 PRU     17.61 338 eP      01 50.00    2.1
 CLL     19.24 338 eP      02 08.00    0.2
         1.1s      8.00nm            3.9mb
 WLF     20.74 325 P       02 28.90    5.2X
 DOU     21.78 324 P       02 47.50   13.2X
 HFS     27.10 348 eP      03 23.90   -1.2
         0.5s      1.00nm            3.7mb
 NB2     28.40 346 P       03 36.10   -0.8
         0.6s      0.70nm            3.5mb
 BNG     29.95 192 ePc     03 50.90   -0.2
         0.9s      5.00nm            4.3mb
 TIC     38.60 232 P       05 05.80    0.3
 KIC     38.63 231 P       05 06.00    0.3
 LIC     38.92 231 P       05 08.40    0.3
         0.8s      5.50nm            4.4mb
      S.D. = 1.0  on  17 of  23 obs.
-----------------------------------------
%  APR  08, 1989  01h 15m 13.66± 2.32s
   36.813 N ±19.1km   30.139 E ±14.9km
   DEPTH =   5.0km  (geophysicist)
 TURKEY                            (366)
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 ELL      0.20 251 iPg     15 17.00   -0.7
 BCK      0.74  29 iPg     15 26.70   -1.7
                  eSg     15 39.00
 YER      1.52 283 iPn     15 43.80    2.2X
 KHL      1.58 342 iPn     15 42.70    0.2
 ALT      2.24 359 ePn     15 46.50   -5.5X
 IZM      2.78 306 ePn     16 00.80    1.1
 DST      3.03 337 ePn     16 03.10   -0.1
 BBTK     3.66  33 eP      16 14.00    1.8
 BNT      3.94 334 iPn     16 15.70   -0.4
      S.D. = 1.4  on   7 of   9 obs.
-----------------------------------------
&  APR  08, 1989  01h 16m 08.01s
    57.093 N          143.388 W
    DEPTH =  10.0km  (geophysicist)
  GULF OF ALASKA                   ( 15)
       <AGS-P>.

 PNL      3.33  37 iP      16 55.49   -5.7
 HQN      3.36  43 iP      16 55.52   -6.0
                  eS      17 32.10
 RAGM     3.37 349 eP      16 56.32   -5.5
 PCA      3.43  27 iP      16 57.20   -5.4
                  eS      17 36.40
 BCPM     3.48  33 iP      16 57.64   -5.6
                  eS      17 36.07
 SGAM     3.55 345 iP      16 58.93   -5.3
                  eS      17 38.78
 MTU      3.66 324 eP      17 00.39   -5.5
                  eS      17 40.16
 CVA      3.68 341 eP      16 59.77   -6.3
 HIN      3.69 335 eP      17 00.50   -5.8
 BALM     3.99   7 iP      17 05.14   -5.5
 FID      4.00 338 eP      17 04.64   -6.0
                  eS      17 49.97
 CTGM     4.03  14 iP      17 05.75   -5.4
 GLI      4.25 335 eP      17 07.62   -6.7
                  eS      17 53.33
 VZW      4.30 339 iP      17 08.48   -6.5
                  eS      17 55.40
 GLB      4.37 357 eP      17 09.99   -6.0
                  eS      17 57.44
 SEW      4.38 316 eP      17 09.42   -6.6
                  eS      17 57.54
 KLU      4.60 345 eP      17 13.05   -6.2
 CNPM     4.80 304 iP      17 15.80   -6.3
 HYT      4.82  37 P       17 18.80   -3.7
 SLKM     4.93 317 iP      17 18.11   -5.8
                  eS      18 12.46
 KDC      4.97 281 eP      17 18.87   -5.4
 NNL      5.09 309 eP      17 20.86   -5.2
 TOA      5.22 345 eP      17 24.27   -3.8
 PMS      5.24 325 eP      17 22.79   -5.4
                  eS      18 18.22
 PLRM     5.38 329 eP      17 25.60   -4.6
 PME      5.39 330 eP      17 25.92   -4.4
 GHO      5.48 331 eP      17 27.23   -4.4
 PWA      5.65 327 eP      17 28.78   -5.2
 ILIM     5.83 305 eP      17 30.05   -6.6
                  eS      18 34.74
 RDT      5.84 310 eP      17 30.22   -6.5
 SPU      6.06 316 eP      17 33.36   -6.4
                  eS      18 39.91
 CRP      6.15 317 eP      17 35.71   -5.5
 PDB      6.28 300 eP      17 36.53   -6.4
                  eS      18 44.50
 SKT      6.41 323 eP      17 38.87   -5.9
 SVW      7.47 308 eP      17 52.98   -6.7
 KTH      7.48 333 eP      17 53.77   -6.0
 YKA     15.37  57 P       19 49.60    3.3
        37 obs. associated
-----------------------------------------
&  APR  08, 1989  01h 22m 23.26s
    57.064 N          143.490 W
    DEPTH =  10.0km  (geophysicist)
    4.9mb ( 46 obs.)  4.7Msz (  3 obs.)
  GULF OF ALASKA                   ( 15)
       <AGS-P>. ML 4.8 (PMR). Ms 4.7
       (BRK).
       CENTROID, MOMENT TENSOR     (HRV)
       Data Used: GDSN
       L.P.B.: 15S, 24C
       Centroid Location:
       Origin Time        01:22:23.9 1.5
       Lat 57.27N 0.15 Lon 144.01W 0.17
       Dep  15.0 FIX Half-duration  1.5
       Moment Tensor;   Scale 10**16 Nm
```

```
          Mrr= 0.09 0.37  Mtt=-0.64 0.45
          Mff= 0.55 0.50  Mrt= 0.00 0.00
          Mrf= 0.00 0.00  Mtf= 5.23 0.49
        Principal Axes:
          T  Val=  5.22  Plg= 0  Azm=132
          N        0.09       90       180
          P       -5.30        0        42
    Best Double Couple:Mo=5.3*10**16
     NP1:Strike=177 Dip=90 Slip= 180
     NP2:        267      90         0

 MID      2.81 329 iP      23 03.52   -5.5
 YKU      3.19  37 iPd     23 09.20   -5.1
 PNL      3.39  38 iP      23 11.05   -6.2
 RAGM     3.39 350 iP      23 11.97   -5.3
 HQN      3.42  44 iP      23 11.34   -6.3
                  eS      23 49.40
 PCA      3.48  28 eP      23 12.77   -5.8
                  eS      23 51.40
 BCPM     3.53  33 iP      23 13.22   -6.1
 SGAM     3.56 346 iP      23 14.74   -4.9
                  eS      23 52.23
 MTU      3.65 325 iP      23 15.39   -5.7
                  eS      23 56.80
 CVA      3.69 342 iP      23 15.82   -5.6
 HIN      3.69 336 iP      23 16.13   -5.5
                  eS      23 56.31
 FID      4.01 339 iP      23 20.39   -5.6
 BALM     4.03   8 iP      23 20.98   -5.4
 CTGM     4.07  15 iP      23 21.46   -5.5
 GLI      4.26 336 eP      23 23.23   -6.3
 VZW      4.31 340 iP      23 24.05   -6.3
 VLZ      4.34 341 iP      23 24.49   -6.1
 SEW      4.36 317 iP      23 25.01   -6.0
                  eS      24 13.78
 GLB      4.39 358 iP      23 25.81   -5.8
 SIT      4.46  87 eP      23 24.00   -8.4
 KLU      4.61 345 iP      23 28.70   -6.0
 CNPM     4.77 304 eP      23 31.55   -5.4
 HYT      4.88  37 P       23 32.70   -5.9
 KDC      4.92 282 iP      23 34.24   -4.6
 SLKM     4.92 317 iP      23 33.14   -5.8
 XLV      4.96 302 iP      23 33.84   -5.7
                  eS      24 27.72
 NNL      5.06 309 iP      23 36.41   -4.5
 PMS      5.23 326 ePc     23 36.90   -6.4
 TOA      5.24 346 iP      23 38.03   -5.5
 PLRM     5.38 330 eP      23 41.14   -4.3
 PMR      5.38 330 eP      23 39.60   -5.9
 PME      5.38 331 eP      23 41.05   -4.5
 NKA      5.45 316 eP      23 42.65   -3.8
 GHO      5.48 332 eP      23 41.48   -5.4
 PWA      5.64 327 eP      23 42.70   -6.4
 WHC      5.70  46 P       23 43.70   -6.3
 ILIM     5.80 305 iP      23 45.79   -5.7
 RDT      5.82 311 eP      23 45.43   -6.2
                  eS      24 48.90
 SPU      6.04 317 eP      23 48.60   -6.2
                  eS      24 56.30
 CGLM     6.10 318 eP      23 50.12   -5.6
 CRP      6.13 317 iP      23 50.82   -5.4
 PDB      6.25 300 iP      23 51.84   -5.8
 SKT      6.40 324 eP      23 54.16   -5.8
 LIB      6.54 111 P       23 52.00   -9.8
 DWY      7.29  14 P       24 06.80   -5.5
 DLB      7.32  74 P       24 06.80   -6.0
 SVW      7.45 308 ePc     24 07.20   -7.3
                  id      24 08.10
 KTH      7.48 334 eP      24 09.33   -5.7
 FBA      8.13 347 eP      24 16.30   -7.8
 TTA      8.59 318 eP      24 24.10   -6.5
 FYU      9.57 356 eP      24 36.97   -6.9
 SDN      9.63 267 eP      24 41.30   -3.5
 IMA     10.24 336 eP      24 46.60   -6.7
 INK     12.15  18 eP      25 12.00   -7.1
 PGC     14.70 116 eP      25 50.00   -2.8
         1.2s    143.00nm            5.4mb
 MCW     14.98 115 eP      25 54.00   -2.6
 YKA     15.44  57 P       26 05.10    2.7
 YKC     15.49  58 ePc     25 56.30   -6.8
         0.8s     40.00nm            4.8mb
 GMW     15.78 118 eP      26 05.00   -2.0
 PNT     16.21 108 eP      26 09.00   -3.4
         1.2s    182.00nm            5.1mb
 BMW     16.35 122 eP      26 11.00   -3.3
 LON     16.82 119 eP      26 19.00   -1.2
 EDM     17.57  90 eP      26 24.50   -5.1
```

08d 01h

VGB		18.21	120	eP	26 36.50	-1.0
SES		20.18	95	eP	26 57.00	-3.4
FHC		20.59	134	eP	27 05.00	0.2
		1.2s	315.79nm			5.5mb
LBFM		20.99	129	eP	27 06.50	-2.6
WDC		21.36	132	eP	27 10.90	-1.7
MIN		21.94	130	eP	27 16.80	-1.8
LRM		22.17	107	eP	27 18.70	-2.3
ORV		22.65	131	eP	27 24.30	-1.2
FFC		23.14	78	ePc	27 27.00	-3.1
		0.9s	32.00nm			4.9mb
BRK		23.79	135	e(P)	27 37.20	0.7
BKS		23.80	135	eP	27 37.10	0.5
		0.8s	44.00nm			5.1mb
	Z	20s	2.60um			4.7Msz
	N	20s	1.40um			
	E	20s	2.10um			
CMB		24.40	131	eP	27 42.00	-0.6
		1.5s	61.59nm			5.0mb
MHC		24.49	134	eP	27 43.60	0.0
KVN		24.52	126	eP	27 42.50	-1.4
ARN		24.53	134	eP	27 43.00	-0.8
LLA		25.40	134	eP	27 52.10	0.0
PRS		25.48	135	eP	27 52.60	-0.3
FRI		25.57	132	eP	27 53.10	-0.5
TNP		25.71	126	eP	27 53.20	-2.0
		1.0s	31.67nm			5.0mb
BW06		25.78	109	eP	27 54.00	-1.9
		1.0s	22.50nm			4.8mb
PRI		25.92	134	eP	27 57.40	0.3
DUG		26.06	117	eP	27 57.00	-1.4
ISA		27.22	131	eP	28 14.00	5.0
CLC		27.45	130	eP	28 09.00	-2.1
SYP		27.61	135	eP	28 15.00	2.4
MSU		27.68	119	eP	28 11.50	-1.9
GSC		28.22	129	eP	28 17.00	-1.1
SBB		28.33	131	eP	28 17.00	-2.0
MWC		28.63	132	eP	28 21.00	-0.9
PAS		28.65	132	eP	28 26.00	4.1
RVR		29.11	131	eP	28 24.00	-2.0
RSON		29.38	81	eP	28 24.00	-4.2
		1.0s	25.00nm			5.0mb
TPC		29.57	129	eP	28 29.00	-1.2
PLM		29.88	131	eP	28 32.00	-1.1
GOL		30.18	109	eP	28 34.00	-1.8
		1.0s	40.00nm			5.2mb
GLD		30.22	108	eP	28 34.50	-1.6
		1.0s	40.00nm			5.2mb
BAR		30.54	132	eP	28 38.00	-0.8
GLA		30.99	129	eP	28 41.00	-1.8
ALE		32.71	14	eP	28 54.00	-3.3
		0.7s	14.00nm			5.0mb
ALQ		33.30	116	eP	29 01.00	-2.1
		1.0s	15.00nm			4.9mb
FRB		35.58	48	eP	29 19.00	-3.1
FVM		39.40	96	eP	29 51.50	-3.0
DAG		41.98	16	iPd	30 11.70	-3.5
		0.5s	31.69nm			5.3mb
JSC		47.13	91	eP	30 53.80	-3.3
KEV		53.30	4	eP	31 48.00	4.2
CN2		55.22	298	eP	31 54.00	-4.3
	Z	16s	0.90um			4.9MszX
	E	14s	0.40um			
			pP		32 04.50	35kmX
			eS		39 32.00	
SOD		55.66	5	iP	31 56.40	-4.7
SUF		60.28	5	iP	32 29.70	-3.9
		0.7s	5.40nm			4.8mb
NB2		60.57	14	P	32 31.00	-4.7
		0.7s	6.30nm			4.9mb
HFS		61.76	13	eP	32 38.40	-5.3
		0.8s	8.70nm			5.0mb
	Z	16s	0.35um			4.6MszX
			LR		58 39.00	
NUR		62.40	7	iP	32 44.00	-3.9
		0.8s	16.10nm			5.3mb
	Z	17s	0.50um			4.7MszX
			LR		02 30.00	
UPP		62.47	11	iP	32 44.00	-4.3
BJI		62.52	302	eP	32 45.00	-4.0
	Z	16s	0.60um			4.9MszX
EKA		63.44	24	P	33 01.00	6.1
		1.0s	6.70nm			4.8mb
HHC		63.97	305	eP	32 55.20	-3.5
	Z	16s	1.00um			5.1MszX
	N	10s	0.30um			
	E	10s	0.40um			

BTO		64.86	306	eP	33 01.00	-3.5
	Z	15s	1.70um			5.4MszX
	N	15s	1.20um			
	E	15s	1.10um			
			eS		41 33.00	
TIY		66.12	303	eP	33 11.00	-1.5
	N	11s	0.40um			
SSE		67.23	292	eP	33 17.00	-2.6
			i		33 25.50	
			eS		42 16.00	
NJ2		67.63	294	Pc	33 20.00	-2.1
	Z	20s	0.40um			4.6Msz
WTS		68.60	19	e(P)	33 25.00	-2.8
		0.8s	7.00nm			4.9mb
ENN		69.61	20	eP	33 31.50	-2.5
		1.0s	20.00nm			5.2mb
			e		33 40.00	
MEM		69.78	20	P	33 31.20	-3.8
DOU		69.99	21	P	33 46.90	10.5
GTA		70.15	313	eP	33 34.20	-3.5
	Z	20s	0.90um			5.0Msz
	N	12s	0.50um			
FLN		70.17	25	eP	33 34.50	-2.9
		0.6s	5.40nm			4.9mb
CLL		70.27	15	iPd	33 34.40	-3.6
		1.1s	10.00nm			4.9mb
			i		33 50.80	
LDF		70.41	25	eP	33 35.70	-3.2
		0.6s	5.40nm			4.9mb
GRR		70.43	25	eP	33 36.30	-2.8
		0.6s	3.60nm			4.7mb
MOX		70.71	16	ePc	33 37.50	-3.3
		1.1s	20.00nm			5.2mb
			eLR		54 40.00	
WLF		70.71	20	P	33 40.30	-0.4
LPF		70.72	26	eP	33 38.10	-2.7
		1.0s	12.00nm			5.0mb
WMQ		70.73	323	P	33 38.50	-2.6
XAN		70.76	303	P	33 38.00	-3.4
WHN		71.08	297	eP	33 41.50	-1.8
KSP		71.17	13	iPc	33 40.60	-3.0
LZH		71.30	308	eP	33 41.50	-3.3
	Z	16s	0.80um			5.1MszX
GRF		71.57	17	eP	33 47.00	1.0
		0.8s	12.00nm			5.1mb
PRU		71.78	15	ePc	33 44.50	-2.7
			e		34 00.50	
CDF		72.12	20	eP	33 46.60	-2.8
MFF		72.27	26	eP	33 47.60	-2.6
		0.8s	8.00nm			4.9mb
HAU		72.34	21	eP	33 47.70	-2.9
		0.7s	4.40nm			4.7mb
KRA		72.37	11	eP	33 47.40	-3.3
			e		33 54.10	
			e		34 04.00	
KHC		72.48	16	iPc	33 49.20	-2.2
		1.1s	9.00nm			4.8mb
			i		34 02.40	
LOR		72.54	23	eP	33 48.90	-2.9
		0.6s	6.30nm			4.9mb
BSF		72.59	20	eP	33 49.50	-2.7
SSF		72.66	23	eP	33 49.70	-2.8
		0.7s	4.80nm			4.7mb
LBF		72.83	23	eP	33 50.60	-2.9
		0.8s	5.30nm			4.7mb
AVF		72.88	23	eP	33 50.70	-3.1
		0.6s	7.50nm			5.0mb
LSF		72.99	25	eP	33 51.70	-2.7
		0.6s	5.40nm			4.8mb
BGF		73.00	24	eP	33 51.50	-2.9
		0.6s	5.70nm			4.8mb
TCF		73.11	24	eP	33 52.00	-3.2
		0.6s	5.40nm			4.8mb
SMF		73.13	23	eP	33 52.00	-3.2
		0.7s	7.70nm			4.9mb
MAF		73.25	24	eP	33 53.00	-3.0
		0.7s	6.60nm			4.8mb
SPC		73.26	11	iP	33 52.90	-3.3
ZST		73.87	13	eP	33 57.10	-2.4
RJF		73.88	25	eP	33 56.70	-2.9
		0.7s	4.40nm			4.6mb
LFF		74.05	26	eP	33 58.10	-2.4
		0.6s	5.40nm			4.8mb
LPO		74.39	25	eP	33 59.80	-2.8
		0.6s	5.40nm			4.8mb
SRO		74.40	13	eP	34 14.20	11.7
KBA		74.44	16	iPd	34 01.00	-2.1

		1.1s	22.80nm			5.1mb
			i		34 18.50	
LPG		74.82	21	eP	34 03.50	-1.9
		0.8s	5.30nm			4.6mb
CD2		75.73	305	eP	34 07.20	-3.3
CLI		76.47	7	ePc	34 11.00	-3.4
VRI		77.11	7	eP	34 16.00	-2.0
FIR		77.32	18	eP	34 16.00	-3.1
MLR		77.43	8	eP	34 18.50	-1.4
GYA		78.18	301	P	34 22.00	-2.3
SKO		80.52	11	eP	34 33.50	-3.1
VAY		81.28	11	eP	34 38.00	-2.6
OHR		81.30	12	eP	34 37.00	-3.8
EZN		83.09	8	eP	34 47.00	-3.0
BBTK		83.41	3	iPc	34 50.00	-1.8
MAIO		84.98	342	eP	34 59.00	-0.8
GUN		85.69	318	P	35 01.80	-1.9
KKN		86.02	318	P	35 03.60	-1.6
GKN		86.06	319	P	35 03.40	-1.9
PKI		86.17	318	P	35 04.20	-1.9
DMN		86.24	318	P	35 05.00	-1.4
		181 obs. associated				

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* APR 08, 1989 01h 24m 43.89± 1.84s
57.062 N ±23.4km 143.429 W ±10.1km
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
ML 4.6 (PGC). Many readings lost in codo of previous event.

HYT		4.86	37	P	26 00.00	1.1
KDC		4.95	282	eP	26 00.00	0.0
WHC		5.68	46	P	26 10.40	0.1
LIB		6.51	111	P	26 17.00	-4.9X
DWY		7.28	14	P	26 32.00	-0.9
DLB		7.29	74	P	26 32.50	-0.5
		S.D. = 1.0 on 5 of 6 obs.				

APR 08, 1989 01h 32m 48.56± 0.39s
37.731 S ± 9.8km 50.071 E ± 5.7km
DEPTH = 10.0km (geophysicist)
5.0mb (15 obs.) 4.9Msz (1 obs.)
ATLANTIC-INDIAN RISE (428)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 19S, 39C
Centroid Locotion:
Origin Time 01:32:56.2 0.7
Lot 37.57S 0.08 Lon 50.61E 0.09
Dep 15.0 FIX Holf-durotion 1.9
Moment Tensor; Scole 10**17 Nm
Mrr=-1.13 0.06 Mtt= 1.32 0.09
Mff=-0.18 0.06 Mrt= 0.65 0.20
Mrf= 0.02 0.16 Mtf=-0.06 0.05
Principol Axes:

T	Vol= 1.48	Plg=14	Azm= 2
N	-0.18	2	271
P	-1.30	76	172

Best Double Couple:Mo=1.4*10**17
NP1:Strike= 95 Dip=31 Slip= -85
NP2: 270 59 -93

AVY		18.85	353	eP	37 16.48	5.3X
PRY		21.87	293	iPd	37 41.20	-2.3
		1.1s	87.84nm			5.1mb
BPI		21.91	295	iPd	37 44.70	0.8
		0.8s	52.24nm			5.0mb
SLR		22.00	297	iPd	37 44.00	-0.7
		0.9s	25.21nm			4.6mb
	Z	18s	3.78um			4.9Msz
			e		42 09.50	
BFS		22.39	292	iPd	37 48.50	-0.1
		0.7s	27.40nm			4.8mb
KSR		22.91	294	iPd	37 53.20	-0.6
		1.2s	110.00nm			5.3mb
CER		25.36	271	eP	38 33.00	15.7X
		1.0s	20.00nm			
TUH		25.49	271	iPc	38 19.00	0.5
		1.0s	60.00nm			5.2mb
BUL		25.58	307	iPd	38 17.40	-2.2
CLK		25.70	325	iPc	38 20.50	-0.1
KRI		27.53	314	eP	38 46.90	9.4X
LSZ		29.58	313	eP	38 55.00	-1.0
MAW		30.78	170	eP	39 05.00	-1.0
			e		40 03.00	
KMZ		32.40	312	iP	39 19.00	-1.9
NAI		38.28	338	iPc	40 16.00	4.9X

BNG	51.17	318	iPc	41 53.30	-0.7
	0.9s	18.00nm			5.0mb
		i		43 10.50	
GBA	57.16	32	P	42 36.20	-1.7
	1.2s	14.80nm			4.9mb
PSI	60.48	60	ePc	43 02.20	1.1
HYB	61.05	31	eP	43 03.00	-1.8
TEGH	63.45	301	eP	43 23.00	2.0
LEGH	63.58	301	eP	43 23.00	1.2
SHGH	63.69	302	eP	43 22.00	-0.6
KOGH	63.94	302	eP	43 24.00	-0.3
KIC	67.23	298	P	43 45.00	-0.4
LIC	67.33	298	P	43 45.80	-0.2
TIC	67.62	298	P	43 47.60	-0.3
MBH	68.64	346	iPc	43 54.00	0.2
QUE	69.39	16	P	43 59.00	0.3
ASPA	71.25	106	iPd	44 09.90	-0.3
	1.2s	11.00nm			4.9mb
CHG	72.62	48	eP	44 18.80	0.6
CHTO	72.62	48	eP	44 17.00	-1.2
	1.0s	3.50nm			4.4mb
		pP		44 24.30	23kmX
DMN	72.83	32	P	44 19.20	-0.4
	0.8s	24.00nm			5.3mb
PKI	72.93	32	P	44 19.00	-1.2
GKN	72.98	32	P	44 19.60	-0.7
	1.2s	71.00nm			5.6mb
KKN	73.06	32	P	44 20.20	-0.7
	1.2s	65.00nm			5.6mb
GUN	73.42	33	P	44 22.60	-0.5
WRA	73.67	103	eP	44 25.00	0.5
MAIO	74.18	8	eP	44 27.00	0.0
TAB	75.50	357	eP	44 35.00	0.3
LSA	77.31	36	P	44 46.10	0.7
QIS	77.36	106	eP	44 46.00	0.6
SOI	81.69	333	P	45 10.00	1.8
ATN	81.98	333	P	45 12.00	2.3
VAY	82.59	339	eP	45 12.70	-0.1
CTA	82.66	110	iPKPc	45 12.00	-1.8
	1.2s	15.63nm			5.0mb
		i		45 22.50	
		e		57 14.00	
TDS	83.01	334	P	45 16.50	1.5
SKO	83.51	339	eP	45 18.00	0.4
ITR	83.52	264	eP	45 19.00	0.7
MLR	85.65	343	ePc	45 29.00	0.6
SDI	85.71	334	P	45 13.00	-15.6X
VRI	85.83	344	ePd	45 29.00	-0.1
CLI	86.36	344	eP	45 32.00	0.3
BEO	86.42	339	eP	45 32.50	0.5
TIO	86.78	314	iP	45 35.50	1.2
LZH	88.73	41	e(P)	45 44.50	0.9
GTA	89.33	36	eP	45 46.00	-0.3
VOY	89.50	336	e(P)	45 47.70	0.8
SRO	89.76	339	eP	45 48.90	1.0
ZST	90.45	339	eP	45 51.70	0.6
SPC	90.49	341	eP	45 51.70	0.1
KBA	90.60	336	eP	45 53.00	0.9
	1.5s	15.20nm			5.1mb
KRA	91.37	341	eP	45 55.80	0.5
KHC	92.34	337	eP	46 00.00	0.1
PRU	92.80	338	ePc	46 02.50	0.6
KSP	93.06	339	eP	46 04.40	1.3
CLL	94.43	338	eP	46 09.00	-0.4
IMA	148.48	18	ePKP	52 36.30	3.9X
	1.2s	29.30nm			
INK	149.31	3	ePKP	52 32.00	-1.5
PWA	153.03	21	ePKP	52 46.50	7.4X
YKA	153.48	344	ePKP	52 40.50	0.8
S.D. = 1.0 on 63 of 70 obs.					

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* APR 08, 1989 01h 47m 07.73± 1.18s
43.343 N ± 9.8km 21.191 E ±16.0km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MG 1.7 (BEO).

SKO	1.38	172	ePn	47 32.00	-1.0
BEO	1.57	341	ePn	47 36.50	0.8
			eSg	47 58.50	
VTS	1.66	116	eP	47 39.00	1.9
			eSg	48 00.00	
KKB	2.03	136	iP	47 43.00	0.6
OHR	2.25	188	eP	47 16.00	-29.6X
	1.7s	0.09nm			
BZS	2.29	7	ePc	47 45.50	-0.7
MMB	2.57	132	iP	47 50.00	-0.1
PVL	3.03	91	eP	47 55.00	-1.5
RZN	3.09	121	iP	48 06.00	8.4X
S.D. = 1.4 on 7 of 9 obs.					

APR 08, 1989 03h 06m 01.59± 0.16s
15.737 S ± 6.1km 173.001 W ± 3.8km
DEPTH = 32.7km (3 depth phases)
5.4mb (28 obs.) 5.7Msz (24 obs.)
TONGA ISLANDS (173)
Mo=1.3*10**18 Nm (PPT). Ms 5.7
(BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 41C
Centroid Locotion:
Origin Time 03:06: 8.7 0.2
Lat 15.90S 0.03 Lon 172.91W 0.03
Dep 15.0 BDY Half-duration 3.7
Moment Tensor; Scale 10**17 Nm
Mrr= 6.88 0.15 Mtt= 0.91 0.22
Mff=-7.80 0.21 Mrt=-1.18 0.46
Mrf= 8.23 0.61 Mtf= 0.38 0.15
Principal Axes:
T Val= 10.66 Plg=66 Azm=257
N 0.88 3 354
P -11.54 24 86
Best Double Couple:Mo=1.1*10**18
NP1:Strike=183 Dip=21 Slip= 99
NP2: 353 69 86

AFI	2.17	33	iPd	06 28.00	-8.2X
			e(S)	13 24.00	
MBU	8.04	260	ePc	08 05.30	6.2X
VUN	8.48	253	ePc	08 11.70	6.5X
RAR	13.68	115	P	09 09.00	-6.6X
			S	11 44.00	
PVC	18.01	261	iPc	10 15.70	4.6X
DZM	20.43	249	iPc	10 38.10	-0.9
PAE	22.51	98	eP	10 59.00	-0.9
	1.1s	90.00nm			5.1mb
PPT	22.51	98	eP	10 59.00	-1.0
	1.1s	130.00nm			5.3mb
PPN	22.65	98	eP	11 01.00	-0.3
	1.1s	60.00nm			5.0mb
TVO	22.83	98	eP	11 03.00	-0.1
	1.1s	100.00nm			5.2mb
TBI	23.42	113	eP	11 10.00	1.3
	1.6s	280.00nm			5.5mb
PMO	24.21	92	iP	11 17.30	0.8
	1.1s	60.00nm			5.1mb
KRP	24.31	202	P	11 20.90	3.6X
			e	12 06.00	
VAH	24.45	92	iP	11 19.10	0.3
	1.1s	70.00nm			5.1mb
TPT	24.48	92	iP	11 19.80	0.7
	1.1s	85.00nm			5.2mb
RUV	24.69	92	iP	11 21.20	0.1
	1.1s	90.00nm			5.3mb
HNR	27.12	280	eP	11 55.00	11.3X
			eS	16 39.00	
VSG	27.39	280	eP	11 55.00	8.7X
WEL	27.57	200	eP	11 52.00	4.4X
MSZ	33.05	205	P	12 39.00	2.9X
BRS	33.77	244	iPd	12 43.60	0.9
COO	35.33	239	eP	12 55.00	-1.1
RMQ	37.12	247	eP	13 10.00	-1.1
CNB	38.85	233	eP	13 25.00	-0.7
CTA	38.94	257	iPc+	13 25.00	-1.5
	1.5s	83.33nm			5.3mb
			i	13 40.00	
			isP	15 07.00	
			iPcP	15 48.00	
			e	18 22.00	
			e(SPP)	19 18.00	
			e	22 16.00	
			i	23 44.00	
CAN	39.13	233	eP	13 26.00	-2.0
BWA	39.29	234	eP	13 25.10	-4.2X
PMG	39.35	274	eP	13 30.00	0.1
HON	39.66	22	P	13 35.00	2.7X
Z	18s	3.61um			5.3Msz
CMS	40.59	240	eP	13 39.00	-1.0
TOO	42.55	231	eP	13 56.00	-0.1
STK	44.21	240	iPc	14 09.60	0.1
BFD	44.67	233	eP	14 13.00	-0.2
QIS	45.17	257	eP	14 16.00	-1.4
ADE	47.16	237	iPc	14 32.60	-0.4
JAY	47.43	281	ePd	14 35.00	-0.4
WRA	50.14	257	iPc	14 54.00	-2.2
ASPA	50.38	252	iPc	14 56.60	-1.4
Z	20s	19.35um			6.1Msz
			eS	22 05.30	
			LR	34 41.10	
GUA	50.78	303	eP	15 01.00	-0.1
GUMO	50.84	303	eP	15 01.10	-0.4
MTN	54.09	265	iPd	15 24.40	-1.5
			e	15 37.00	
FORR	55.58	243	iPd	15 35.10	-1.4
	0.5s	36.00nm			5.7mb
WARB	56.89	249	iPc	15 37.90	-8.2X
	0.8s	65.00nm			5.7mb
COOL	61.55	243	eP	16 16.80	-1.5
SBA	62.95	185	Pd+	16 30.60	3.8X
MBL	63.54	254	eP	16 29.00	-2.6
KLB	64.42	242	eP	16 36.50	-0.7
NWAO	64.79	241	eP	16 38.40	-1.2
Z	18s	5.90um			5.8Msz
N	18s	2.00um			
E	18s	5.90um			
			eS	25 30.00	
DAV	64.91	286	eP	16 39.00	-1.5
BAL	65.38	243	eP	16 42.70	-0.7
MUN	65.71	242	eP	16 45.00	-0.5
NANU	67.31	252	eP	16 56.40	0.6
PCI	67.79	276	ePc	17 01.50	2.5
SMY	69.09	352	P	17 10.00	3.8X
Z	20s	6.00um			5.8Msz
SYP	70.96	44	eP	17 28.00	9.8X
BCH	71.27	44	P	17 20.00	-0.1
BKS	71.51	40	eP	17 24.00	2.8X
Z	20s	3.00um			5.6Msz
N	20s	3.00um			
E	20s	2.30um			
			eS	26 40.00	
			eLQ	35 24.00	
			e	36 40.00	
			eLR	38 22.00	
MHC	71.55	41	e(P)	17 24.80	3.1X
QCP	71.78	292	eP	17 26.00	2.7X
PAS	71.97	45	eP	17 33.00	8.9X
MWC	72.09	45	eP	17 26.00	0.9
BAR	72.22	47	eP	17 26.00	0.4
FHC	72.30	37	P	17 28.00	2.0
	1.0s	26.00nm			5.2mb
RVR	72.44	46	eP	17 25.00	-1.9
PLM	72.45	47	eP	17 26.00	-1.2
SBB	72.51	45	eP	17 25.00	-2.4
FRI	72.58	42	eP	17 26.70	-0.9
ISA	72.62	44	eP	17 17.00	-11.0X
CMB	72.76	41	eP	17 28.10	-0.7
BAG	72.90	293	eP	17 28.00	-2.1
TRT	72.95	267	ePd	17 30.60	0.3
ORV	72.99	39	e(P)	17 29.30	-0.7
WDC	73.00	38	eP	17 30.10	0.0
CLC	73.30	44	eP	17 31.00	-1.0
MIN	73.42	39	eP	17 31.60	-1.1
TPC	73.42	47	eP	17 30.00	-2.7
GSC	73.55	45	eP	17 35.00	1.5
SPA	74.36	180	iPc	17 40.00	2.2
	1.3s	79.17nm			5.6mb
Z	18s	6.59um			6.0Msz
KVN	74.81	41	P	17 40.00	-0.8
TNP	74.82	43	P	17 40.00	-1.0
	1.0s	16.67nm			5.0mb
KDC	75.16	11	iPc	17 41.20	-0.9
BMW	76.41	33	P	17 50.00	0.4
EUR	76.42	42	iP	17 49.10	-0.9
	0.5s	6.38nm			4.9mb
LON	77.33	33	P	17 53.80	-0.9
GMW	77.34	32	P	17 54.60	-0.1
QZH	77.96	300	Pc	17 58.00	-0.5
	9.0s	1.70nm			3.1mb X
			eS	27 40.00	
MSU	78.40	44	P	18 01.60	0.6
SSE	78.47	307	P+	18 00.00	-1.2
	8.0s	0.90nm			2.8mb X
Z	22s	1.40um			5.2Msz
N	16s	0.90um			
E	16s	1.00um			
			S	28 08.00	
			sS	28 40.00	
PMR	79.37	11	eP	18 04.30	-1.2
	1.5s	83.30nm			5.5mb
Z	20s	4.00um			5.8Msz

08d 03h

MDJ 79.52 322 Pc 18 07.30 0.6
Z 22s 5.50um 5.9Msz
E 22s 8.40um
epP 18 15.50 26km
TTA 79.53 8 iPc 18 06.20 -0.2
PNT 80.09 32 ePc 18 09.00 -0.6
0.9s 43.00nm 5.4mb
TOA 80.43 12 iPc 18 11.00 -0.2
NJ2 80.67 307 Pc 18 14.00 0.9
7.0s 0.80nm 2.8mb X
ALQ 80.72 50 eP 18 13.00 -0.6
1.5s 69.44nm 5.4mb
Z 18s 2.41um 5.6Msz
CN2 81.59 320 iPc 18 18.00 0.4
6.0s 1.20nm 3.1mb X
Z 20s 3.30um 5.7Msz
E 17s 1.70um
pP 18 30.50 42km
SKS 28 35.00
DL2 81.69 314 Pc 18 19.80 1.6
Z 24s 1.30um 5.2MszX
GZH 81.69 297 P 18 20.00 1.4
SNY 81.78 318 iPc 18 19.60 1.0
Z 30s 1.70um 5.2MszX
E 30s 1.40um
SKS 28 36.50
LRM 82.04 38 eP 18 20.20 -0.1
BW06 82.27 42 P 18 20.00 -1.5
1.5s 74.37nm 5.5mb
FBA 82.65 11 iPc 18 22.00 -0.7
IMA 82.84 8 iPc 18 23.70 -0.1
1.7s 64.80nm 5.4mb
QIZ 83.39 292 P 18 29.00 1.6
WHN 83.60 304 Pc 18 28.00 -0.3
9.0s 0.97nm 2.9mb X
Z 20s 2.54um 5.6Msz
E 20s 1.75um
S 28 52.00
GOL 83.61 46 P 18 28.00 -0.5
Z 20s 2.00um 5.5Msz
TIA 83.72 310 Pc 18 29.70 0.9
Z 22s 1.80um 5.4Msz
N 20s 1.00um
E 20s 1.80um
eS 28 54.00
GLD 83.74 46 P 18 29.90 0.9
1.0s 60.00nm 5.7mb
SES 85.26 35 ePc 18 36.00 -0.2
1.3s 161.00nm 6.1mb
EDM 85.57 31 iPc 18 36.80 -0.9
1.4s 140.00nm 6.0mb
BJI 85.98 313 Pc+ 18 41.00 1.0
6.0s 0.80nm 3.1mb X
Z 24s 1.60um 5.3MszX
eS 29 16.00
MAW 87.60 199 iPc 18 50.00 2.6
1.2s 80.00nm 5.9mb
TIY 87.76 310 iPc 18 50.00 1.2
6.0s 0.90nm 3.2mb X
E 18s 1.30um
PP 22 13.00
S 29 22.50
SNG 88.46 278 eP 18 54.60 2.1
eS 29 34.00
INK 88.50 14 ePc 18 50.20 -1.4
GYA 88.54 298 iPc 18 54.00 1.2
5.0s 1.20nm 3.5mb X
PP 22 26.00
S 29 29.00
PSI 88.87 273 ePd 18 49.90 -4.6X
XAN 89.14 306 Pc 18 56.50 1.1
S 29 30.00
HHC 89.54 313 Pc 18 54.00 -3.2X
Z 30s 1.60um 5.3MszX
N 18s 1.10um
E 20s 1.20um
LOE 90.25 288 eP 19 02.50 1.7
YKA 90.25 23 P 18 59.90 0.0
YKC 90.29 23 ePc 18 59.80 -0.3
0.5s 5.00nm 5.1mb
BTO 90.55 312 iPc 19 03.20 1.3
Z 20s 1.80um 5.5Msz
E 20s 1.00um
eSKS 29 30.00
S 30 00.00
NST 91.24 286 eP 19 05.80 0.4
KMI 91.52 296 Pc 19 06.50 -0.4

Z 25s 2.10um 5.5MszX
E 18s 1.30um
S 29 35.00
S 29 54.00
sS 30 18.00
FFC 92.17 33 eP 19 07.50 -1.4
1.5s 47.00nm 5.7mb
CD2 92.31 301 eP 19 11.00 0.8
Z 21s 0.90um 5.2Msz
PP 22 48.00
SKS 29 47.00
CHG 93.18 289 eP 19 15.40 1.1
CHTO 93.18 289 eP 19 14.20 -0.1
pP 19 23.90 30km
LZH 93.73 306 eP 19 18.00 1.2
Z 32s 1.70um 5.3MszX
eS 29 50.00
(PS) 31 46.00
FVM 93.83 52 P 19 16.00 -1.0
RSON 95.46 39 P 19 21.50 -2.6
1.4s 23.58nm 5.4mb
MBC 97.18 11 eP 19 31.00 -0.5
GTA 97.69 309 eP 19 34.00 -0.7
Z 20s 1.50um 5.5Msz
E 20s 21.00um
SKS 30 14.00
LPB 99.28 110 eP 19 53.00 10.3X
Z 19s 2.08um 5.7Msz
LR 52 24.00
CNCB 99.30 110 eP 19 52.00 9.0X
ZOBO 99.35 110 P 19 48.00 4.8X
S 30 30.00
LR 52 36.00
HYB 111.78 283 ePKP 24 35.00 -0.7
KEV 124.59 352 ePKP 25 08.00 9.4X
SOB1 126.49 114 ePKP 25 06.60 2.6X
e 25 34.20
SOD 126.84 351 ePKP 25 14.00 11.0X
ITR 128.85 115 ePKP 25 08.20 -0.3
MAIO 129.23 304 ePKP 25 09.00 0.3
SUF 131.18 348 iPKP 25 11.40 0.0
PRY 133.16 205 ePKP 25 19.50 3.0X
NUR 133.49 348 ePKP 25 17.00 1.1
BPI 133.59 206 ePKP 25 19.50 2.1X
0.7s 13.70nm
SLR 133.86 207 ePKP 25 25.00 7.1X
Z 18s 3.78um 6.2Msz
KSR 134.34 205 e(PKP)25 10.00 -8.8X
NB2 134.66 357 PKP 25 17.00 -1.2
1.1s 7.70nm
BUL 138.50 211 iPKPc 25 26.50 -0.3
TAB 138.89 310 ePKP 25 27.00 0.0
PTZ 141.71 220 ePKP 25 29.50 -3.1X
LSZ 142.75 215 ePKP 25 31.00 -3.4X
DBN 143.69 2 ePKP 25 33.00 -1.7
e(PP) 28 52.00
WTS 143.83 0 ePKP 25 32.00 -3.0X
1.0s 12.00nm
KMSA 144.11 283 ePKP 25 34.70 -1.8
CLL 144.19 354 ePKP 25 33.00 -2.6X
Z 19s 1.00um 5.6Msz
KSP 144.19 350 ePKPd 25 33.50 -2.2X
0.9s 22.00nm
KRA 144.20 346 ePKP 25 32.60 -3.1X
e 25 44.40
e 28 46.00
KVT 144.38 321 iPKP 25 36.40 0.0
SPC 144.93 345 ePKP 25 35.90 -1.3
CLI 144.93 335 ePKP 25 36.50 -0.6
ARO 144.94 268 iPKP+ 25 39.40 1.3
UCC 144.96 3 PKP+ 25 36.00 -1.0
e- 25 40.00
MOX 144.98 355 ePKPc+25 35.50 -1.6
1.7s 55.00nm
Z 18s 1.50um 5.8Msz
N 18s 0.80um
E 18s 0.50um
ENN 145.05 1 iPKPc 25 36.20 -0.9
1.0s 66.00nm
e 25 41.00
PPE 145.06 335 ePKP 25 34.00 -3.3X
MEM 145.21 1 PKP 25 36.80 -0.6
SNF 145.24 3 PKP 25 27.30 -10.1X
PRU 145.29 351 PKPc 25 37.00 -0.6
1.8s 115.60nm
Z 20s 1.80um 5.8Msz
N 22s 1.80um

E 20s 0.60um
e 25 50.50
BMR 145.36 340 ePKPd 25 39.00 1.3
KMZ 145.53 214 iPKPd 25 40.00 0.8
i 25 46.50
i 25 57.50
KAS 145.55 323 PKPc 25 40.50 2.1X
CFR 145.66 333 ePKP 25 39.00 0.7
DOU 145.67 3 PKP+ 25 37.30 -0.9
e 25 49.90
e 28 59.00
VRI 145.71 335 ePKPc 25 39.00 0.5
ABHA 145.75 279 ePKP 25 42.40 2.8X
BRD 145.86 335 ePKP 25 40.00 1.3
GRF 145.96 355 iPKPc 25 39.50 0.7
Z 21s 2.00um 5.9Msz
NAI 146.04 243 iPKPc 25 46.00 5.8X
1.0s 25.00nm
WLF 146.16 1 PKPc 25 40.00 1.0
e 25 51.80
TLB 146.18 333 ePKPc 25 41.00 1.8
KHC 146.26 352 PKP 25 39.80 0.5
1.2s 60.00nm
e 25 49.00
MLR 146.33 336 ePKPd 25 40.00 0.3
ISR 146.38 335 iPKPc 25 41.50 1.9X
FLN 146.50 9 ePKP 25 37.30 -2.3X
ZST 146.58 348 ePKP 25 40.50 0.7
Z 21s 1.80um 5.8Msz
e 47 02.50
e 48 09.60
VKA 146.67 349 ePKP 25 41.50 1.6
6.0s 2463.00nm
SRO 146.68 346 iPKP 25 41.80 1.9X
LDF 146.72 9 ePKP 25 37.50 -2.5X
GRR 146.80 10 ePKP 25 38.00 -2.1
BUD 146.81 345 ePKP 25 40.00 -0.1
PSN 146.82 331 iPKPc 25 41.00 0.7
CMP 146.87 336 ePKPc 25 44.00 3.6X
BBTK 147.11 322 iPKPc 25 44.00 2.9X
DEV 147.12 339 iPKPc 25 43.00 2.3X
LPF 147.12 10 ePKP 25 39.90 -0.7
BUC 147.15 334 ePKPc 25 24.00 -16.8X
BUC1 147.24 334 ePKP 25 45.00 4.1X
KMR 147.24 351 iPKP+ 25 40.30 -0.5
i 25 43.70
i 26 11.00
CDF 147.41 360 ePKP 25 41.60 0.4
BZS 147.78 341 ePKP 25 42.00 0.3
TIM 147.80 341 iPKPc 25 49.00 7.2X
HAU 147.82 1 ePKP 25 42.70 0.9
BSF 148.00 0 ePKP 25 42.60 0.4
HRT 148.20 326 ePKP 25 43.00 0.3
GPA 148.22 325 ePKP 25 46.10 3.4X
KBA 148.31 352 ePKPc 25 45.00 2.2X
2.5s 93.80nm
i 25 59.00
e 29 08.50
e 29 31.00
ISK 148.35 327 ePKP 25 39.00 -3.8X
DMK 148.44 330 ePKP 25 47.00 4.0X
PVL 148.45 334 iPKPc 25 42.00 -0.9
LOR 148.45 4 ePKP 25 42.90 0.1
JMB 148.50 332 ePKP 25 43.00 0.0
YLV 148.54 326 ePKP 25 47.00 3.7X
CTT 148.61 328 ePKP 25 45.00 1.7
SSF 148.63 5 ePKP 25 43.30 0.2
MFF 148.65 9 ePKP 25 43.20 0.1
HRI 148.71 309 e(PKP)25 45.00 1.2
LBF 148.74 4 ePKP 25 43.20 -0.2
BEO 148.86 341 ePKP 25 47.00 3.5X
FVI 148.86 352 PKP 25 46.50 3.1X
AVF 148.89 5 ePKP 25 43.60 0.1
RBL 148.90 351 PKP 25 46.60 3.0X
PTJ 149.00 348 ePKP 25 47.40 3.6X
SMF 149.07 4 ePKP 25 44.30 0.5
BGF 149.08 6 ePKP 25 44.50 0.7
ZAG 149.08 348 ePKP 25 47.00 3.2X
LJU 149.13 350 e(PKP)25 40.50 -3.4X
e 25 44.40
ALT 149.18 323 ePKP 25 48.50 4.1X
LSF 149.24 7 ePKP 25 45.10 1.0
VOY 149.25 351 ePKP 25 47.70 3.5X
TCF 149.28 7 ePKP 25 44.70 0.5
MAF 149.38 6 ePKP 25 45.30 1.0
BNT 149.46 328 iPKP 25 49.10 4.5X
EDC 149.49 328 iPKP 25 50.00 5.4X

VBY	149.52	349	ePKPc	25	49.60	5.1X
TRI	149.58	351	ePKP	25	48.80	4.2X
			e	48	52.00	
DST	149.62	326	iPKP	25	50.10	5.2X
PLD	149.62	333	ePKP	25	44.00	-0.8
KDZ	149.68	332	ePKP	25	50.00	5.1X
DSI	149.72	306	e(PKP)	25	46.00	0.8
VTS	149.84	336	ePKP	25	46.00	0.7
VAI	149.93	358	PKP	25	49.70	4.6X
BCK	149.94	321	iPKP	25	49.00	3.5X
RZN	149.96	333	ePKP	25	45.00	-0.5
MDI	149.97	356	PKP	25	49.50	4.4X
KHL	150.01	323	ePKP	25	45.20	-0.4
RDO	150.02	331	ePKP	25	50.50	5.1X
SAL	150.07	355	PKP	25	50.00	4.7X
ORX	150.19	359	PKP	25	50.29	4.6X
ORO	150.19	359	PKP	25	50.50	4.8X
AYN	150.25	301	ePKP	25	47.40	1.3
LPG	150.33	0	ePKP	25	47.20	1.1
LSD	150.37	360	PKP	25	51.83	5.7X
LFF	150.41	9	ePKP	25	47.60	1.8
KKB	150.50	335	ePKP	25	46.00	-0.1
			i	25	52.00	
WAJH	150.57	296	ePKP	25	53.40	6.8X
CAF	150.61	7	ePKP	25	48.10	1.9X
EZN	150.66	329	ePKP	25	51.00	4.6X
RSP	150.68	360	PKP	25	50.80	4.4X
8NI	150.78	0	PKP	25	53.00	6.4X
ELL	150.81	320	ePKP	25	53.00	6.1X
MBH	150.84	303	ePKP	25	48.00	1.1
HOL	150.89	302	ePKP	25	48.00	1.0
SRFA	150.90	302	ePKP	25	49.30	2.3X
RRL	150.91	0	PKP	25	50.09	3.2X
BOB	150.99	356	PKP	26	00.30	13.5X
SKO	151.05	337	ePKP	25	53.00	6.1X
PRK	151.13	328	ePKP	25	53.50	6.4X
VAY	151.17	335	ePKP	25	52.60	5.5X
BADA	151.19	301	ePKP	25	48.40	0.9
IZM	151.23	326	ePKP	25	48.00	0.6
PZZ	151.32	360	PKP	25	50.60	3.2X
ROB	151.52	359	PKP	25	48.55	0.9
YER	151.54	323	ePKP	25	54.70	6.8X
PLG	151.58	333	ePKP	25	53.50	5.7X
STV	151.58	360	PKP	25	50.19	2.4X
FIN	151.60	358	PKP	25	48.14	0.4
BDI	151.60	355	PKP	25	57.00	9.2X
PGD	151.67	353	PKP	25	59.00	11.0X
FIR	151.82	353	ePKP	25	53.50	5.5X
ARV	151.87	351	PKP	25	55.00	6.9X
CRE	151.88	352	PKP	26	05.00	16.7X
IMI	151.91	359	PKP	25	50.29	2.0X
PII	151.95	355	PKP	26	02.00	13.8X
LWI	152.01	232	ePKP+	25	51.00	1.5
OHR	152.03	337	ePKP	25	48.30	-0.2
	1.4s		0.11nm			
			i	25	55.00	
ASS	152.33	351	PKP	25	55.00	6.1X
NEO	152.55	332	ePKP	25	55.50	6.3X
MNS	153.00	351	PKP	25	53.50	3.7X
KAP	153.27	321	ePKP	25	59.00	8.7X
ATH	153.39	330	ePKP	25	58.00	7.6X
SDI	153.46	349	PKP	25	51.50	1.0
TOL	154.08	20	ePKP	25	55.00	3.6X
			ePP	29	50.00	
NPS	154.39	323	ePKP	26	01.00	9.1X
MGR	154.57	345	PKP	26	11.00	19.1X
TDS	154.81	343	PKP	25	51.00	-1.3
MAL	156.76	24	iPKP-	26	00.00	5.0X
BNG	164.03	227	iPKPc	26	04.00	0.6
	0.9s		90.00nm			
			i	26	58.20	
			i	27	09.10	
			i	30	42.60	
LIC	164.88	127	PKP	26	04.10	0.0
TIC	165.15	126	PKP	26	04.10	-0.3
KIC	165.19	128	PKP	26	04.00	-0.4
S.D. = 1.1 on 190 of 303 obs.						

APR 08, 1989 03h 36m 46.21± 0.60s
39.409 N ± 3.0km 8.913 W ± 4.7km
DEPTH = 17.5 ± 4.8 km
4.5mb (11 obs.) 4.7Msz (1 obs.)
PORTUGAL (376)
Felt (V) in the Amiaes de Baixo oreo ond (II) at Porto.

MTH	0.56	203	iP	36	58.60	1.5
LIS	0.72	195	P	36	59.40	-0.4
			S	37	08.70	
COI	0.88	25	P	37	03.70	1.0
MOE	0.98	153	iP	37	03.80	-0.5
			iS	37	16.70	
MTE	1.45	46	P	37	13.10	1.4
PTO	1.74	8	P	37	17.20	1.4
			S	37	41.90	
EPLA	2.28	72	iPnc	37	24.10	0.4
FIG	2.46	159	iP	37	26.10	0.0
EVAL	2.49	136	ePn	37	27.20	0.6
			eSn	37	57.20	
FAR	2.50	162	P	37	26.70	0.0
EZAM	2.74	3	iPn	37	31.00	0.8
ERUA	3.27	24	iPn	37	38.10	0.4
			iSn	38	16.00	
EHOR	3.28	118	iPn	37	38.00	0.2
			eSn	38	15.00	
GIBL	3.48	137	iP	37	49.00	8.4X
STS	3.48	4	iPn	37	41.00	0.3
			eSn	38	21.00	
LIJA	3.73	131	iP	37	49.00	4.7X
ALJ	3.78	135	iP	37	45.00	0.0
CNIL	3.79	142	iP	37	45.00	0.0
TOL	3.78	81	iPnd	37	45.80	0.8
			iPb	37	52.50	
			iPg	37	57.00	
			iSn	38	30.00	
			iSb	38	40.00	
			iSg	38	45.50	
EPRU	3.79	129	ePn	37	45.40	0.3
GUD	3.86	70	ePn	37	45.80	-0.3
			eSn	38	28.50	
MOMI	3.98	140	iP	37	48.50	0.7
EJIF	4.02	136	ePn	37	48.80	0.6
			eSn	38	35.20	
PLAT	4.13	142	iP	37	50.00	0.2
EBAN	4.19	106	ePn	37	50.50	-0.3
			eSn	38	37.50	
EMON	4.20	16	iPn	37	50.80	0.0
			eSn	38	38.00	
OJEN	4.25	140	iP	37	51.00	-0.7
MAL	4.45	126	iPnc	37	56.00	1.6
			iSg	39	00.00	
AFC	4.74	115	ePn	37	58.70	0.0
			eSn	38	51.50	
EVIA	5.05	97	iPn	38	01.80	-1.2
			eSn	38	58.50	
ETOR	5.44	73	iPnc	38	08.00	-0.6
			eSn	39	08.00	
RBA	5.64	162	ePn	38	09.50	-1.8
			i	38	29.00	
			iSn	39	09.50	
ECRI	5.80	55	ePn	38	13.00	-0.6
			eSn	39	16.00	
ENIJ	5.81	113	ePn	38	13.70	0.1
			eSn	39	17.00	
ECHE	6.15	86	ePn	38	17.00	-1.4
			eSn	39	25.20	
AVE	6.22	168	iPn	38	18.00	-1.4
			iSn	39	25.50	
			i	39	28.00	
IFR	6.62	151	iPn	38	23.00	-2.3X
			iSn	39	32.00	
ACU	6.69	95	ePn	38	25.00	-1.1
			eSn	39	38.50	
TAF	6.93	129	iPn	38	27.00	-2.4X
			i	38	39.00	
			iSn	39	39.00	
			i	39	43.50	
			i	40	21.00	
EBR	7.35	76	ePn	38	33.00	-2.2X
			e	38	37.50	
			eSn	39	55.00	
			eSg	40	36.00	
EPF	7.86	60	Pn	38	41.50	-1.0
			Sn	40	04.00	
TIO	8.57	170	iPn	38	49.50	-3.0X
			iSn	39	21.00	
LFF	9.05	49	Pn	38	56.80	-2.1
			Sn	40	33.00	
LPO	9.17	52	Pn	38	58.00	-2.7X
			Sn	40	36.50	
ETER	9.37	68	ePn	39	01.40	-2.0
			eSn	40	44.00	
MFF	9.63	39	Pn	39	04.20	-2.8X
			Sn	40	46.40	
RJF	9.71	49	Pn	39	05.00	-3.0X
			Sn	40	48.80	
CAF	9.83	52	Pn	39	06.60	-3.2X
			Sn	40	52.00	
LSF	10.27	45	Pn	39	13.00	-2.7X
			Sn	41	02.00	
LPF	10.33	31	Pn	39	14.00	-2.4X
			Sn	41	02.00	
TCF	10.67	46	Pn	39	18.30	-2.9X
			Sn	41	12.00	
GRR	10.69	30	Pn	39	18.50	-2.9X
			Sn	41	10.50	
MAF	10.83	47	Pn	39	20.00	-3.4X
			Sn	41	16.00	
FLN	11.14	30	Pn	39	24.50	-3.0X
			Sn	41	21.30	
LDF	11.14	32	Pn	39	25.00	-2.6X
			Sn	41	21.20	
BGF	11.18	46	Pn	39	25.30	-2.9X
			Sn	41	24.00	
HYF	11.50	43	Pn	39	29.80	-2.7X
			Sn	41	30.00	
AVF	11.60	47	Pn	39	31.00	-2.9X
			Sn	41	33.40	
SMF	11.80	48	Pn	39	33.50	-3.1X
			Sn	41	38.50	
SSF	11.84	46	Pn	39	34.00	-3.2X
			Sn	41	39.50	
LBF	12.06	47	Pn	39	37.00	-3.2X
			Sn	41	45.00	
LRG	12.15	66	Pn	39	38.50	-2.9X
LOR	12.16	46	Pn	39	38.50	-3.0X
			Sn	41	46.50	
LMR	12.23	66	Pn	39	40.00	-2.4X
FRF	12.38	65	Pn	39	42.80	-1.6
VAL	12.57	356	eP	39	50.00	3.2X
			e	41	57.00	
CALN	12.60	65	P	39	45.00	-2.5X
BNI	12.85	59	P	39	57.50	6.7X
RRL	12.88	60	P	39	50.23	-1.0
ECP	12.89	7	iPc	39	48.90	-2.2X
			eS	42	01.00	
TOUF	12.92	64	P	39	49.00	-2.8X
PZZ	12.96	62	P	39	51.57	-0.7
SBF	13.01	65	Pn	39	51.00	-1.9
STV	13.03	63	P	39	52.29	-0.9
ECB	13.04	6	iPc	39	51.40	-1.7
			eS	42	06.00	
LPL	13.06	57	Pn	39	52.50	-1.1
RSP	13.27	59	P	39	56.08	-0.3
LSD	13.31	58	P	39	57.03	0.0
IMI	13.34	65	P	39	56.39	-0.9
ETA	13.42	7	eP	39	56.50	-1.6
			eS	42	17.00	
ROB	13.42	63	P	39	57.41	-0.9
FIN	13.64	64	P	39	59.77	-1.3
CVF	13.80	71	P	40	02.00	-1.2
VITF	13.88	46	P	40	02.50	-1.7
ORO	13.91	58	P	40	06.00	1.2
LOMF	13.91	50	P	40	03.00	-1.8
ORX	13.91	58	P	40	03.57	-1.3
HAU	13.97	47	Pn	40	02.20	-3.2X
DLE	13.98	6	eP	40	03.60	-1.8
			eS	42	27.80	
DCN	13.98	4	eP	40	04.50	-1.0
			eS	42	28.60	
DOU	14.34	37	P	40	08.20	-2.0
	0.4s		94.30nm			5.8mb X
			S	42	36.10	
MOF	14.34	49	P	40	18.74	8.4X
SNF	14.48	36	P	40	08.90	-3.2X
			S	42	45.60	
VAI	14.51	58	P	40	16.00	3.5X
DMU	14.56	5	iPc	40	11.30	-1.8
	0.5s		33.00nm			5.1mb
			eS	42	41.20	
BOB	14.64	63	P	40	15.50	1.2
CDF	14.71	47	P	40	19.52	4.3X
UCC	14.72	35	P	40	13.60	-1.6
			S	42	55.00	
WLF	14.82	41	P	40	14.10	-2.4X
			e	40	24.60	
			S	42	52.70	
FEL	14.87	50	P	40	19.65	2.3
GWF	15.21	46	P	40	21.84	0.2
MEM	15.35	38	P	40	21.80	-1.6
			S	43	05.90	

08d 03h

ENN	15.42	38	iPc	40	22.80	-1.5
	0.9s	71.00nm			4.9mb	
			e(S)	43	05.00	
SAL	15.60	60	P	40	38.00	11.3X
EKA	16.39	12	P	40	41.00	4.2X
	1.1s	18.20nm			4.1mb	
CTI	16.48	60	P	40	42.60	4.5X
MNS	16.59	73	P	40	43.00	3.6X
ASS	16.63	70	P	40	44.00	4.1X
WTS	16.66	36	iPc	40	39.40	-0.7
	0.9s	141.00nm			5.1mb	
			e(S)	43	41.00	
ARV	16.87	69	P	40	47.00	4.0X
WIT	17.16	34	eP	40	47.50	1.0
			e	41	09.50	
FVI	17.39	59	P	40	51.10	1.8
SDI	17.42	75	P	40	52.00	2.1
GRF	17.60	48	iPc	40	52.70	0.7
	1.5s	53.00nm			4.4mb	
RBL	17.87	60	P	40	56.90	1.5
KBA	17.90	57	eP	40	57.50	1.6
	0.7s	4.10nm			3.7mb	
			i	41	01.70	
VOY	17.98	61	e(P)	41	02.10	5.2X
MOX	18.28	45	eP	41	02.00	1.5
Z	14s	0.80um			5.1MszX	
N	13s	1.60um				
E	13s	0.90um				
		LQ		48	00.00	
		LR		49	00.00	
LJU	18.42	61	e(P)	41	04.50	2.3
KHC	18.75	51	iPc	41	08.40	2.2
	1.0s	14.00nm			4.1mb	
			e	46	52.50	
VBY	18.81	63	eP	41	09.80	2.8X
MGR	18.81	80	P	41	12.00	5.0X
PTJ	19.37	62	eP	41	12.10	-1.7
CLL	19.38	45	eP	41	14.00	0.2
	1.4s	23.00nm			4.3mb	
			e	45	46.00	
TDS	19.46	81	P	41	15.70	0.8
SOI	19.51	86	P	41	14.70	-0.7
PRU	19.66	50	eP	41	18.50	1.5
			e	47	14.50	
VKA	20.17	56	e(Pg)	41	03.00	-19.3X
			eSn	41	22.00	
			iSg	41	24.40	
ZST	20.65	56	eP	41	29.50	2.2
			e	48	09.60	
			e	48	36.00	
KSP	21.03	49	e(P)	41	24.00	-7.2X
			ec	41	39.30	
			e	47	09.30	
SRO	21.34	58	e(P)	41	37.00	2.6
OHR	22.69	76	eP	41	48.00	0.0
SPC	22.92	55	eP	41	55.40	5.1X
SKO	23.10	74	eP	41	53.50	1.6
VAY	24.00	75	eP	42	01.70	1.1
NB2	24.99	23	P	42	11.90	1.8
	1.3s	29.80nm			4.8mb	
UPP	26.41	30	iP	42	26.00	2.8X
NUR	29.67	34	iP	43	04.50	11.8X
Z	21s	1.90um			4.7Msz	
		LR		23	20.00	
SUF	31.42	31	eP	43	09.00	0.8
SOD	34.21	24	eP	43	31.00	-1.4
KEV	35.79	20	eP	43	48.00	2.1
FRB	42.23	325	eP	44	43.00	3.6X
BNG	42.78	137	ePc	44	54.00	9.5X
	0.8s	4.00nm			4.2mb	
ALE	46.57	352	eP	45	14.00	-0.2
	0.6s	5.00nm			4.7mb	
MBC	56.69	344	eP	46	30.00	-0.4
YKA	62.44	330	P	47	10.30	0.2
INK	64.95	340	eP	47	26.00	-0.5
EDM	67.10	321	iPc	47	40.10	-0.5
LRM	71.02	314	eP	48	05.70	0.5
ALQ	73.92	302	eP	48	20.00	-2.4
GKN	75.35	66	P	48	33.00	2.3

S.D. = 1.3 on 9B of 151 obs.

& APR 08, 1989 03h 40m 35.09s
60.086 N 153.231 W
DEPTH = 127.9km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.14	92	iP	40	52.10	0.8
			eS	41	05.81	
RED	0.40	34	iP	40	52.89	-0.9
OPT	0.43	180	iP	40	53.28	-0.6
			eS	41	07.86	
PDB	0.57	239	iP	40	53.67	-0.9
			S	41	08.11	
CNPM	1.15	118	eP	40	58.65	-1.0
			eS	41	17.21	
NKA	1.19	55	eP	41	00.82	0.9
SPU	1.24	27	iP	40	59.73	-0.9
			eS	41	19.82	
CRP	1.30	24	iP	41	00.73	-0.6
SLKM	1.56	73	iP	41	02.99	-1.1
SUA	1.84	40	eP	41	06.59	-1.0
			eS	41	31.49	
SEW	1.89	88	eP	41	06.52	-1.5
SKT	2.07	23	eP	41	09.14	-1.2

12 obs. associated

APR 08, 1989 04h 25m 04.93± 0.26s
42.830 N ± 3.0km 18.733 E ± 2.4km
DEPTH = 39.9 ± 9.7 km
3.7mb (4 obs.)
YUGOSLAVIA (383)
ML 4.5 (LJU), 4.3 (ZAG), 4.2 (ROM). MD 4.1 (TTG). Felt (VI) at Niksic and (IV) at Danilovgrad, Titograd, and Dubrovnik.

BRY	0.16	297	iPgc	25	09.20	-2.9
			iSg	25	13.50	
NKY	0.20	95	iPgc	25	08.80	-3.5X
			iSg	25	12.50	
HCY	0.42	204	iPgd	25	12.30	-2.3
			iSg	25	22.00	
BDV	0.55	173	iPgd	25	14.50	-1.9
			iSg	25	24.50	
TTG	0.56	136	iPgc	25	14.00	-2.4
			iSg	25	23.00	
PLE	0.70	44	iPgd	25	17.40	-1.1
			iSg	25	28.00	
IVA	0.86	87	iPgd	25	20.00	-0.7
			iSg	25	32.00	
PVY	0.94	104	iPgd	25	21.30	-0.7
			iSg	25	35.50	
ULC	0.95	156	iPgc	25	21.50	-0.4
			iSg	25	35.60	
SDA	0.99	145	iPgc	25	21.30	-1.2
BCI	1.09	115	iPgc	25	23.40	-0.5
PUK	1.16	132	ePn	25	24.90	-0.1
LACI	1.40	148	ePn	25	29.50	1.2
KKS	1.45	121	iPn	25	31.00	1.9
PHP	1.71	131	iPnc	25	34.50	1.8
TIR	1.71	150	iPnc	25	34.40	1.7
HVAR	1.71	282	iPg	25	34.10	1.3
			iSg	25	58.10	
SKO	2.18	112	iPnd	25	41.00	1.4
			iPb	25	44.00	
			iSn	26	09.00	
			iSb	26	12.80	
			LR	26	27.00	
BRT	2.26	211	P	25	42.10	1.4
OHR	2.31	137	iPnc	25	43.60	2.2
BERA	2.31	156	ePn	25	31.00	-10.4X
BEO	2.35	31	iPn	25	41.20	-0.7
			iSg	26	17.00	
VLO	2.43	166	iPnd	25	48.80	5.8X
LCI	2.56	193	P	25	43.80	-1.1
KBN	2.70	144	ePn	25	38.70	-8.2X
SRN	3.10	162	ePn	25	53.70	1.2
VAY	3.23	117	iPnc	25	55.60	1.2
VTS	3.31	93	iPd	25	56.00	0.3
			iSg	26	35.00	
KKB	3.37	105	iPd	25	58.00	1.6
DUI	3.38	251	P	25	57.90	1.2
KZN	3.40	137	ePn	25	57.50	0.6
TIM	3.41	31	iPd	26	08.20	11.2X
SGO	3.42	230	P	25	57.00	-0.2
BZS	3.47	36	ePc	25	56.50	-1.3
ZAG	3.58	327	iPn	26	00.70	1.4
			iSn	26	42.50	
			iSg	26	57.00	
MGR	3.60	223	P	25	59.90	0.3
TDS	3.65	210	P	26	01.00	0.7
PTJ	3.66	328	ePn	26	00.50	-0.1

			ePb	26	09.40	
			ePg	26	15.30	
			eSn	26	49.70	
VBY	3.66	318	iPn	26	02.90	2.4
			iPg	26	14.60	
			iSn	26	46.30	
			iSg	27	03.00	
ALP	3.80	271	iPn	26	03.48	0.9
			i(Sn)	26	48.94	
SDI	3.82	255	Pc	26	03.50	0.6
AOI	3.82	283	iPnd	26	03.83	1.0
			i(Sn)	26	48.66	
RFI	3.85	248	P	26	04.55	1.3
MMB	3.91	107	iPd	26	06.00	1.8
AZI	4.01	260	P	26	07.30	1.8
PGB	4.02	92	iPd	26	06.00	0.4
DEV	4.27	43	iPc	26	07.00	-2.2
ARV	4.29	281	P	26	10.20	0.8
PLG	4.30	123	ePn	26	10.40	0.8
GRI	4.38	204	P	26	09.31	-1.4
LJU	4.40	318	ePn	26	12.40	1.4
			e(Sn)	27	12.60	
			eSg	27	28.60	
DRA	4.41	63	eP	26	16.00	4.9X
ASS	4.46	275	P	26	12.70	0.7
PLD	4.48	97	eP	26	13.00	0.9
MNS	4.49	266	P	26	13.40	1.0
TRI	4.58	311	P	26	14.40	0.8
RMP	4.59	259	P	26	14.60	0.9
RDP	4.59	259	P	26	14.50	0.7
BUD	4.66	2	iPn	26	13.80	-0.8
RSM	4.71	286	P	26	16.80	1.4
VOY	4.72	314	iPn	26	17.40	1.8
			eSn	27	14.90	
			eSg	27	34.30	
PVL	4.85	83	iPd	26	16.00	-1.4
NEO	4.89	135	ePn	26	17.00	-1.0
SRO	4.99	357	iPn	26	19.10	-0.2
			i(Pg)	26	53.30	
			i(Sn)	27	32.80	
			e	54	01.40	
CRE	5.02	281	P	26	22.00	2.1
DIM	5.09	97	eP	26	22.00	1.2
KDZ	5.10	101	iPd	26	21.00	0.1
			iS	27	05.00	
GMB	5.15	206	P	26	21.47	-0.2
CMP	5.16	60	ePd	26	27.00	5.3X
RBL	5.16	316	P	26	22.50	0.7
SOI	5.17	204	P	26	21.30	-0.6
PGD	5.22	284	P	26	24.00	1.3
ATN	5.29	209	P	26	22.40	-1.2
RDO	5.34	106	ePn	26	25.00	0.7
ZST	5.49	349	iPn	26	25.90	-0.4
VVI	5.51	307	P	26	27.00	0.3
FIR	5.54	282	ePn	26	28.50	1.5
			iSn	27	30.00	
BUC	5.57	71	eP	26	44.00	16.4X
FVI	5.67	314	P	26	31.10	2.2
VKA	5.69	344	ePnd	26	29.50	0.3
	0.4s	53.80nm			5.4mb X	
			eSn	27	34.00	
			i	27	39.10	
KBA	5.71	320	iPnc	26	30.90	1.2
			iPgPg	26	58.40	
			i	27	24.80	
			iSn	27	34.30	
			i	27	40.30	
			i	27	47.70	
			i	28	17.70	
JMB	5.80	91	eP	26	32.00	1.2
MLR	5.83	60	ePc	26	31.50	0.2
BMR	5.89	33	ePd	26	55.00	22.9X
CTI	6.00	305	P	26	33.50	-0.3
BDI	6.05	285	P	26	36.30	1.9
PII	6.06	281	P	26	34.60	0.2
KMR	6.15	330	ePn	26	37.00	1.4
			i	27	05.80	
			i	27	54.70	
			i	28	28.70	
ITM	6.15	155	ePn	26	33.50	-2.2
ATH	6.16	140	ePn	26	34.80	-1.1
MEU	6.42	208	P	26	37.10	-2.5
SPC	6.45	9	ePn	26	38.80	-1.2
			i	26	54.90	
			e(Sn)	27	16.10	
EZN	6.45	115	ePn	26	24.00	-15.9X
VRI	6.48	59	ePc	26	42.50	2.1

PZI	6.49	208	P	26	40.90	0.4
DMK	6.76	96	ePn	26	46.00	1.7
TLB	6.97	72	ePd	26	43.00	-4.1
BOB	6.99	289	P	26	47.50	-0.1
MDI	7.11	298	P	26	47.50	-1.6
CFR	7.19	68	eP	26	53.00	2.8X
KHC	7.25	332	P	26	51.50	0.4
			e	27	03.40	
CVF	7.27	271	Pn	26	50.20	-1.2
KRA	7.28	6	eP	26	46.60	-4.8X
			e	27	08.80	
EDC	7.28	107	eP	26	50.00	-1.5
BNT	7.32	107	iP	26	52.10	0.1
PRU	7.72	339	iP	26	59.00	1.4
			e	29	05.50	
VAI	7.76	296	P	26	57.00	-1.2
DST	8.12	110	eP	27	04.10	0.8
KSP	8.19	349	eP	27	05.00	0.9
			i	27	11.20	
ORO	8.21	294	P	27	03.00	-1.6
HRT	8.41	100	eP	27	06.00	-1.2
GRF	8.61	325	iPnc	27	01.00	-8.9X
FRF	8.86	279	Pn	27	11.60	-1.8
LMR	8.96	277	Pn	27	12.80	-2.0
BNI	8.98	288	P	27	12.70	-2.5
LPG	9.02	291	Pn	27	14.40	-1.5
			Sn	28	51.60	
LPL	9.03	291	Pn	27	14.60	-1.4
LRG	9.07	278	Pn	27	13.00	-3.3X
MOX	9.21	330	ePn	27	18.00	-0.3
CDF	9.77	309	Pn	27	25.80	-0.3
BSF	9.78	305	Pn	27	25.60	-0.6
			Sn	29	10.00	
HAU	10.13	305	Pn	27	30.20	-0.6
			Sn	29	20.00	
LBF	11.26	297	Pn	27	43.60	-2.7X
			Sn	29	44.00	
SMF	11.26	295	Pn	27	43.80	-2.5
			Sn	29	46.20	
LOR	11.42	298	Pn	27	46.60	-1.8
			Sn	29	49.00	
AVF	11.62	295	Pn	27	49.10	-2.0
ENN	11.82	317	eP	27	59.50	5.7X
	0.5s	6.00nm			5.0mb	X
BGF	11.90	294	Pn	27	52.80	-2.2
			Sn	30	00.20	
WTS	12.20	323	eP	28	01.50	2.6
	0.8s	11.00nm			5.0mb	X
HFS	17.60	352	eP	29	06.70	-1.9
	0.5s	1.50nm			3.4mb	
NUR	18.07	9	iP	29	15.40	1.1
NB2	18.79	349	P	29	21.80	-1.5
	0.5s	2.00nm			3.6mb	
SUF	20.40	10	iP	29	39.60	-1.1
	0.6s	3.10nm			3.8mb	
BNG	38.23	180	iPd	32	23.00	0.1
	0.7s	6.00nm			4.6mb	
			i	32	32.50	
GKN	54.41	83	P	34	29.00	-1.5X
MBC	58.22	349	eP	35	03.00	6.1X
YKA	68.56	339	P	36	12.10	7.0X

S.D. = 1.4 on 118 of 137 obs.

APR 08, 1989 04h 50m 54.14± 0.30s
42.844 N ± 3.7km 18.755 E ± 3.0km
DEPTH = 23.4 ± 3.9 km
YUGOSLAVIA (383)
MD 3.2 (TTG). Felt (IV) in the Niksic area.

BRY	0.17	290	iPc	50	58.20	-1.2
			iSg	51	02.50	
NKY	0.18	100	iPgc	50	58.00	-1.5
			iSg	51	01.90	
HCY	0.44	206	iPgd	51	01.40	-1.9
			iSg	51	10.50	
TTG	0.56	138	iPgd	51	02.90	-2.3
			iSg	51	12.50	
BDV	0.56	175	iPgd	51	02.50	-2.8X
			iSg	51	12.40	
PLE	0.67	44	iPgd	51	06.20	-1.0
			iSg	51	17.10	
IVA	0.84	88	iPgd	51	09.00	-1.0
			iSg	51	21.50	
PVY	0.93	105	ePg	51	10.30	-1.3
			iSg	51	24.20	
ULC	0.95	157	ePg	51	10.40	-1.5
			iSg	51	25.00	
SDA	0.99	146	ePg	51	12.50	0.0
BCI	1.08	116	ePg	51	13.80	0.0
PUK	1.16	133	iPnc	51	14.40	-0.5
LACI	1.40	149	ePn	51	17.50	-0.8
PHP	1.70	132	ePn	51	24.60	1.9
TIR	1.71	151	iPnd	51	23.50	0.7
HVAR	1.73	282	iPn	51	23.10	0.1
			iSg	51	57.80	
SKO	2.17	113	iPn	51	31.00	1.5
			iSn	51	58.00	
BRT	2.28	211	P	51	35.00	3.9X
OHR	2.31	138	iPnc	51	33.00	1.5
BERA	2.32	157	ePn	51	32.00	0.5
BEO	2.33	31	ePn	51	33.80	2.1
			iSg	52	09.20	
VLO	2.44	167	ePn	51	35.20	2.0
LCI	2.58	194	P	51	39.00	3.7X
KBN	2.70	145	ePn	51	38.00	1.0
VAY	3.22	117	ePn	51	44.50	0.1
VTS	3.29	93	eP	51	45.00	-0.5
			eSg	52	24.00	
KKB	3.35	105	eP	51	47.00	0.7
DUI	3.40	251	P	51	48.00	1.0
SGO	3.45	230	P	51	46.30	-1.3
BZS	3.45	36	ePd	51	46.00	-1.6
MGR	3.62	223	P	51	50.50	0.4
PTJ	3.65	328	ePn	51	51.20	0.6
			eSn	52	40.20	
VBY	3.66	318	ePn	51	52.30	1.6
			ePg	52	04.20	
			eSn	52	35.50	
			eSg	52	50.30	
TDS	3.67	211	P	51	50.90	0.1
ALP	3.81	271	ePn	51	52.20	-0.7
			iSn	52	36.98	
AOI	3.83	282	e(Pn)	51	53.13	0.0
			eSn	52	37.19	
SDI	3.84	254	P	51	52.60	-0.6
MMB	3.90	107	eP	51	55.00	1.0
ARV	4.30	281	P	52	00.00	0.2
LJU	4.40	318	e(Pn)	52	02.00	0.9
			e	52	22.00	
			e(Sn)	52	53.00	
ASS	4.48	275	P	52	01.90	-0.4
MNS	4.51	266	P	52	03.00	0.3
RZN	4.57	103	iP	52	05.00	1.2
VOY	4.72	314	ePnc	52	06.10	0.3
			eSn	53	00.90	
KDZ	5.09	101	eP	52	11.00	0.1
PSZ	5.14	9	eP	52	09.50	-2.1
RBL	5.16	316	P	52	12.20	0.2
FVI	5.67	313	P	52	19.80	0.7
KBA	5.71	320	iPnc	52	20.00	0.1
			iSn	53	23.10	
			iSg	53	57.70	
CTI	6.01	305	P	52	22.70	-1.3
KHC	7.25	332	eP	52	41.90	0.7

S.D. = 1.2 on 48 of 51 obs.

APR 08, 1989 05h 45m 50.62± 0.79s
42.664 N ± 8.7km 2.412 W ± 9.0km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 3.2 (MDD).

ECRI	0.09	233	iPgc	45	54.00	0.7
			eSg	46	00.00	
ETOR	1.86	172	ePn	46	11.50	-11.4X
			eSn	46	30.00	
EPF	2.06	79	Pn	46	25.20	-0.5
			Sn	46	58.20	
GUD	2.40	213	iPnd	46	17.60	-13.2X
			eSn	46	42.30	
EBR	2.85	129	(Pn)	46	38.00	1.1
			e	47	07.00	
			e	47	16.00	
			e	47	23.00	
LFF	3.22	44	Pn	46	50.20	8.0X
			Sn	47	39.20	
ECHE	3.26	160	ePg	46	42.80	0.0
			eSg	47	17.30	
LPO	3.30	51	Pn	46	44.80	1.4
			Sn	47	32.00	
EPLA	3.79	228	ePg	46	50.00	-0.3
			eSg	47	29.00	
RJF	3.87	46	Pn	46	51.20	-0.3
			Sn	47	43.60	
CAF	3.95	54	Pn	46	51.50	-1.1
			Sn	47	39.00	
EVIA	4.02	181	ePg	46	52.80	-0.9
			eSg	47	33.80	

S.D. = 1.0 on 9 of 12 obs.

APR 08, 1989 05h 52m 36.27± 0.55s
5.483 S ± 7.8km 141.717 E ± 7.3km
DEPTH = 33.0km (normal)
4.5mb (6 obs.)
PAPUA NEW GUINEA (202)

MNDI	2.04	109	eP	53	09.00	-0.2
LAT	5.38	103	e(P)	54	04.00	7.6X
PMG	6.65	126	eP	54	13.00	-1.3
MTN	12.75	234	eP	55	38.00	-0.1
			e	57	58.00	
QIS	15.12	188	eP	56	09.00	-0.3
			eS	58	51.00	
			e	00	39.00	
CTA	15.17	163	iPc	56	15.00	5.1X
	1.4s	22.09nm			4.2mb	
			i	59	06.10	
			i(S)	00	38.00	
			i	00	52.00	
			i	01	07.50	
			i	01	22.50	
			i	04	16.00	
WRA	16.07	206	eP	56	20.80	-0.7
			eS	59	11.90	
KNA	16.30	230	eP	56	24.00	-0.4
			eS	01	30.00	
ASPA	19.58	202	eP	57	05.00	0.3
	0.5s	15.00nm			4.5mb	
			eS	00	36.00	
BRS	24.20	155	iPd	57	52.00	1.0
WARB	25.13	213	eP	57	56.00	-3.9X
	0.4s	5.00nm			4.5mb	
CHTO	48.57	301	eP	01	18.30	-0.5
	0.6s	1.40nm			4.2mb	
GUN	63.22	305	P	03	04.30	-0.2
PKI	63.48	304	P	03	05.70	-0.4
KKN	63.67	305	P	03	07.10	-0.1
	0.9s	21.00nm			5.2mb	
DMN	63.74	304	P	03	08.20	0.4
GKN	64.28	305	P	03	11.20	0.1
SPA	84.55	180	e(P)	05	09.90	2.6
	0.6s	3.66nm			4.7mb	

S.D. = 0.9 on 15 of 18 obs.

? APR 08, 1989 06h 33m 29.46± 2.58s
39.231 N ±12.8km 8.909 W ±25.1km
DEPTH = 5.0km (geophysicist)
PORTUGAL (376)
MG 3.0 (MDD).

PTO	1.92	7	iPnd	34	03.00	-0.1
			iSn	34	20.50	
EPLA	2.34	68	iPn	34	10.30	1.1
			iSn	34	33.40	
EVAL	2.36	133	iPn	34	10.00	0.4
			iSn	34	34.20	
EHOR	3.20	115	iPn	34	20.70	-0.7
			iSn	34	52.00	
GUD	3.92	67	iPn	34	31.00	-0.8
			iSn	35	12.00	

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

APR 08, 1989 07h 33m 01.67± 0.57s
39.289 N ± 4.6km 23.599 E ± 6.6km
DEPTH = 9.9 ± 3.6 km
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.29	274	iPgd	33	06.60	-1.2
			eSg	33	09.50	
PLG	1.09	354	iPbc	33	22.80	0.6
ATH	1.32	176	ePb	33	25.70	-0.3
KZN	1.74	306	ePn	33	32.00	-0.1
PRK	2.08	90	ePg	33	43.80	6.8X
EZN	2.18	75	ePn	33	45.00	6.6X
VAY	2.18	339	ePn	33	39.00	0.6
MMB	2.30	2	iPc	33	40.00	-0.3
			Sg	34	09.00	
RDO	2.38	38	ePn	33	41.00	-0.3
ITM	2.48	213	ePn	33	43.50	0.7

08d 07h

RZN	2.54	19	iPc	33 44.00	0.2
VLS	2.60	246	ePn	33 45.00	0.5
KKB	2.61	351	iPc	33 45.00	0.4
OHR	2.81	311	ePn	33 51.30	3.7X
IZM	3.00	106	eP	34 42.00	51.9X
SKO	3.14	329	ePn	33 56.00	3.8X
VTS	3.31	355	eP	33 55.00	0.3
PVL	4.14	18	eP	34 05.00	-1.2
MLR	6.44	15	ePc	34 42.50	3.6X

S.D. = 0.7 on 13 of 19 obs.

% APR 08, 1989 08h 02m 19.70± 0.86s
39.266 N ± 7.2km 27.730 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.77	64	ePg	02 35.10	0.3
IZM	0.94	203	ePn	02 37.50	-0.2
EDC	1.08	5	ePn	02 40.00	-0.1
BNT	1.10	8	iPn	02 40.00	-0.3
EZN	1.22	298	iPn	02 42.70	0.3

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

APR 08, 1989 08h 05m 44.46± 0.19s
37.257 N ± 3.4km 24.354 W ± 2.6km
DEPTH = 10.0km (geophysicist)
4.9mb (44 obs.) 4.4Msz (1 obs.)
AZORES ISLANDS REGION (404)
Felt (IV) on Santa Maria and (III) on southeastern Sao Miguel.

PDA	1.15	296	iP	06 06.10	0.1
			eS	06 20.00	
ADH	2.67	302	iP	06 28.00	-0.3
			iS	06 58.20	
PTO	12.82	68	iP	08 42.50	-6.9X
EZAM	13.01	63	eP	08 44.50	-7.4X
STS	13.34	60	eP	08 48.00	-8.3X
EMON	14.37	59	eP	09 03.00	-6.9X
AVE	14.39	101	eP	09 08.50	-1.7
			i	11 36.00	
			i	11 38.00	
EPLA	14.55	73	e(P)	09 05.80	-6.5X
EJIF	15.14	87	e(P)	09 20.50	0.5
EPRU	15.26	85	e(P)	09 22.30	0.7
TIO	15.50	109	iP	09 24.00	-0.8
			i	12 02.50	
GUD	16.07	72	eP	09 25.50	-6.7X
TOL	16.10	74	eP	09 29.00	-3.4X
			eS	12 46.00	
IFR	16.12	98	iP	09 27.50	-5.3X
			i	09 32.50	
TAF	17.91	91	iP	09 55.00	-0.3
			i	09 58.00	
ECB	19.51	34	eP	10 13.70	-0.8
	1.0s	111.00nm		5.1mb	
ECP	19.56	35	eP	10 14.20	-1.0
	1.1s	137.00nm		5.2mb	
EBR	19.61	72	(P)	10 16.00	0.2
			eS	14 02.00	
EPF	19.71	65	eP	10 16.60	-0.3
	1.0s	38.00nm		4.7mb	
ETA	19.99	34	eP	10 21.50	1.8
	1.0s	167.00nm		5.3mb	
DCN	19.99	31	eP	10 17.10	-2.6
	1.0s	97.00nm		5.1mb	
LPF	20.17	50	eP	10 21.50	-0.2
	0.8s	37.60nm		4.8mb	
MFF	20.22	55	eP	10 21.70	-0.5
	1.1s	141.60nm		5.2mb	
DLE	20.26	32	eP	10 20.40	-2.1
LFF	20.36	60	eP	10 23.00	-0.6
	0.8s	61.70nm		5.0mb	
GRR	20.43	50	eP	10 24.40	0.1
DMU	20.55	30	eP	10 25.60	0.1
LPO	20.61	61	eP	10 25.80	-0.5
	1.2s	95.20nm		5.0mb	
FLN	20.81	49	eP	10 28.10	-0.2
	1.2s	65.40nm		4.9mb	
LDF	20.96	50	eP	10 29.40	-0.4
	0.8s	21.40nm		4.6mb	
RJF	20.97	59	eP	10 29.10	-0.9
	1.0s	29.60nm		4.6mb	
LSF	21.22	57	eP	10 32.10	-0.5
	1.2s	84.40nm		5.0mb	
CAF	21.27	61	eP	10 32.40	-0.7
TCF	21.69	57	eP	10 37.40	0.1
MAF	21.91	57	eP	10 39.50	0.0
BGF	22.18	57	eP	10 42.50	0.3
	1.0s	22.80nm		4.6mb	
AVF	22.58	56	eP	10 47.30	1.2
	1.2s	47.60nm		4.9mb	
SSF	22.75	56	eP	10 49.30	1.5
SMF	22.87	57	eP	10 50.30	1.3
LOR	23.04	55	eP	10 51.70	1.0
	1.2s	63.60nm		5.0mb	
LBF	23.04	56	eP	10 52.00	1.3
	1.2s	80.30nm		5.1mb	
EKA	23.11	32	P	10 53.00	1.8
	0.7s	7.10nm		4.3mb	
SNF	24.35	48	Pc	11 03.50	0.2
DOU	24.38	49	P	11 04.20	0.6
UCC	24.50	47	Pd+	11 05.00	0.3
			S	15 30.00	
RRL	24.58	62	P	11 07.67	1.8
LPG	24.63	61	eP	11 07.60	1.1
	1.2s	30.90nm		4.8mb	
VITF	24.67	54	P	11 05.50	-0.9
PZZ	24.75	63	P	11 09.21	1.8
DOI	24.85	63	P	11 10.00	1.6
HAU	24.86	55	eP	11 08.20	-0.1
	0.8s	10.70nm		4.6mb	
STV	24.89	64	P	11 10.13	1.5
LSD	24.91	61	P	11 10.44	1.4
RSP	24.94	62	P	11 10.95	1.8
LOMF	25.02	56	P	11 10.34	0.4
BSF	25.10	55	P	11 10.57	-0.2
WLF	25.19	51	Pc	11 11.60	0.2
ROB	25.28	64	P	11 10.64	-1.8
MOF	25.33	55	P	11 13.23	0.4
MEM	25.41	49	Pd	11 14.10	0.7
ENN	25.41	48	eP	11 09.00	-4.5X
	1.0s	30.00nm		4.9mb	
ORX	25.51	61	P	11 13.21	-1.4
FIN	25.52	64	P	11 12.18	-2.4
CDF	25.56	54	P	11 14.55	-0.4
FEL	25.92	56	P	11 17.78	-0.6
GWF	25.92	53	P	11 18.73	0.4
VAI	26.09	60	P	11 21.00	1.2
WTS	26.37	46	eP	11 23.00	0.6
	1.0s	58.00nm		5.2mb	
SAL	27.28	61	P	11 30.00	-0.7
CTI	28.10	60	P	11 38.00	-0.4
CRE	28.19	66	P	11 39.00	-0.2
GRF	28.38	53	iPc	11 40.30	-0.4
	1.3s	48.00nm		5.1mb	
ASS	28.71	67	P	11 43.00	-0.8
MNS	28.75	68	P	11 44.00	-0.1
MOX	28.84	51	eP	11 45.00	0.2
	1.8s	46.00nm		5.0mb	
Z	16s	0.90um		4.5MszX	
E	16s	0.50um			
		e	16 40.00		
		LQ	23 40.00		
		LR	23 40.00		
ARV	28.91	66	P	11 45.00	-0.6
FVI	28.93	59	P	11 46.00	0.4
KBA	29.36	58	ePc	11 48.00	-1.8
	1.0s	9.90nm		4.6mb	
RBL	29.46	60	P	11 49.50	-1.0
SDI	29.63	69	P	11 51.50	-0.6
VOY	29.66	61	e(P)	11 51.00	-1.3
KHC	29.78	54	P	11 52.80	-0.6
CLL	29.85	50	iPd	11 53.80	-0.1
	1.6s	26.00nm		4.8mb	
		e	12 33.00		
DUI	30.11	69	P	11 56.50	0.1
VBY	30.59	62	e(P)	12 00.70	0.2
PTJ	31.09	61	eP	12 04.30	-0.7
MGR	31.10	72	P	12 05.00	0.0
BRT	32.25	71	P	12 14.50	-0.6
NB2	32.60	32	P	12 17.00	-1.0
	1.1s	10.00nm		4.7mb	
SRO	32.78	58	eP	12 19.50	-0.1
HFS	33.24	34	eP	12 23.40	-0.1
	0.5s	1.00nm		4.0mb	
KRA	34.01	54	eP	12 29.60	-0.7
	1.3s	77.00nm		5.5mb	
OHR	34.91	69	eP	12 38.80	0.5
	1.5s	0.13nm		2.6mb X	
TIC	35.20	145	P	12 40.30	-0.5
SKO	35.27	68	eP	12 41.00	-0.2
LIC	35.56	146	P	12 43.60	-0.3
KIC	35.57	145	P	12 43.50	-0.5
	1.2s	41.50nm		5.2mb	
DEV	35.94	61	ePd	12 46.00	-0.8
VAY	36.20	69	eP	12 48.70	-0.4
MMB	37.01	68	iPc	12 57.00	1.0
PGB	37.19	66	iPc	12 58.00	0.6
FRB	37.41	329	eP	13 01.00	2.1
PLD	37.65	67	eP	13 02.00	0.8
RZN	37.73	68	eP	13 02.00	-0.2
KUK	37.87	139	eP	13 03.00	-0.4
KOGH	38.03	139	eP	13 05.00	0.3
KDZ	38.25	68	eP	13 07.00	0.7
SHGH	38.27	139	eP	13 08.50	1.8
WEGH	38.40	139	eP	13 07.00	-0.8
LEGH	38.43	139	eP	13 08.50	0.5
TEGH	38.53	139	eP	13 09.00	0.1
DAG	39.69	2	iPd	13 18.60	0.7
	0.4s	13.56nm		5.0mb	
SUF	39.75	34	eP	13 22.00	3.5X
	0.6s	3.10nm		4.2mb	
IZM	40.35	72	eP	13 25.00	1.2
SOD	41.39	27	eP	13 31.00	-0.9
ALE	47.14	354	eP	14 18.00	-0.1
	0.8s	10.00nm		5.0mb	
ITR	47.64	199	eP	14 22.60	-0.1
			e	14 39.30	
ATB	47.94	219	Pd	14 25.90	0.8
RSCP	48.53	288	P	14 30.00	0.4
	0.8s	35.21nm		5.5mb	
SOB1	48.75	202	eP	14 30.70	-0.7
DSI	48.91	78	iPc	14 33.00	0.6
PRNI	49.11	80	ePc	14 34.00	-0.1
MBH	49.26	80	e(P)	14 26.00	-9.2X
RSON	49.86	309	P	14 33.20	-6.4X
	1.0s	10.00nm		4.7mb	
PWLA	50.64	288	P	14 46.40	0.7
ELC	50.67	291	P	14 46.40	0.5
BNG	51.02	119	iPd	14 48.00	-0.8
	0.3s	15.00nm		5.4mb	
			id	15 05.20	
FVM	51.31	292	P	14 51.00	0.2
	0.8s	45.45nm		5.5mb	
OLY	53.01	290	P	15 03.00	-0.6
FFC	53.83	315	iPc	15 09.50	0.2
	0.7s	9.00nm		4.9mb	
MBC	55.35	343	eP	15 19.00	-1.2
YKA	57.84	327	eP	15 38.30	0.2
SES	60.48	313	eP	15 56.00	-0.7
EDM	60.66	316	ePc	15 57.50	-0.3
GOL	61.34	300	P	16 02.80	-0.1
ITA	62.34	201	eP	16 09.70	0.0
INK	62.47	337	eP	16 08.00	-1.8
BW06	62.80	304	P	16 11.00	-1.6
	1.0s	12.50nm		5.1mb	
VAO	63.61	203	eP	16 18.70	0.9
PPD	64.21	208	eP	16 29.00	7.3X
ALQ	64.29	295	eP	16 22.20	-0.3
	1.0s	5.00nm		4.7mb	
MAIO	64.89	62	eP	16 27.00	0.8
PNT	65.93	314	eP	16 33.00	0.4
	0.7s	4.00nm		4.7mb	
MSU	66.57	301	P	16 37.80	0.6
CCH	67.10	224	eP	16 40.00	-0.7
ZOBO	67.32	226	P	16 39.00	-3.5X
Z	22s	0.26um		4.4Msz	
		e	16 42.00		
		LR	38 24.00		
LPB	67.52	226	P	16 38.00	-5.5X
CNCB	67.67	226	P	16 44.00	-0.7
IMA	69.87	340	e(P)	16 57.40	0.2
TNP	70.20	303	P	17 00.00	0.3
	0.9s	6.51nm		4.8mb	
KVN	70.27	304	P	17 00.00	-0.1
TOA	70.48	335	eP	17 01.40	0.6
PMR	71.83	336	eP	17 09.00	0.1
	0.7s	10.00nm		5.0mb	
KSR	79.14	134	eP	17 51.20	0.1
SLR	79.84	133	iPd	17 57.00	2.2
PRY	80.29	135	eP	17 54.50	-2.7
BLF	81.26	137	eP	18 03.50	1.2
GKN	87.02	57	PKP	18 32.60	0.9
KKN	87.59	57	PKP	18 35.40	0.9
DMN	87.59	57	PKP	18 35.60	1.0
PKI	87.82	57	PKP	18 36.00	0.2
GUN	87.91	56	PKP	18 37.00	0.8
HYB	89.47	69	eP	18 43.00	-0.4
GBA	91.01	72	Pd	18 49.90	-0.5

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        0.7s      4.60nm          4.9mb
 MBL  145.11  73 ePKP  25 23.00  -1.0
        0.6s      4.00nm
      S.D. = 0.9  on 150 of 165 obs.
-------------------------------------
%  APR  08, 1989  08h 31m 53.01± 0.88s
   39.150 N ± 7.2km   27.654 E ± 9.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)

IZM      0.81 202 ePg    32 08.70  -0.1
DST      0.88  59 iPn    32 10.10   0.1
EDC      1.21   8 ePn    32 15.00  -0.5
BNT      1.22  10 iPn    32 16.00   0.3
EZN      1.23 304 ePn    32 16.00   0.1
      S.D. = 0.4  on   5 of   5 obs.
-------------------------------------
?  APR  08, 1989  08h 49m 40.35± 6.45s
   60.824 N ±23.7km    2.560 E ±48.6km
   DEPTH =  10.0km  (geophysicist)
 NORTH SEA                         (534)
      MD 1.8 (BER).

SUE      1.10  77 eP    50 01.02   0.1
                iPg   50 02.18
                eS    50 11.15
ASK      1.34 104 eP    50 05.43   0.4
                eS    50 17.35
HYA      1.80  77 eP    50 12.39   0.8
                eS    50 29.70
KMY      2.11 139 eP    50 16.10   0.1
                eS    50 39.68
NRA0     4.40  87 iPc   50 47.50  -1.2
                iS    51 32.30
                eSg   51 52.30
      S.D. = 1.1  on   5 of   5 obs.
-------------------------------------
   APR  08, 1989  09h 03m 37.91± 0.51s
   26.321 N ± 8.0km   96.721 E ± 6.8km
   DEPTH =  33.0km  (normal)
   4.4mb (  4 obs.)
 BURMA                             (296)

KMI      5.56 101 Pgc   05 17.00  16.3X
                Sg    06 11.00
LSA      5.96 306 P     05 11.10   4.4X
CHG      7.75 164 eP    05 31.20  -0.1
                e     32 13.70
CHTO     7.75 164 eP    05 29.10  -2.2
GYA      8.92  87 P     05 47.20  -0.4
                S     07 30.00
GUN      9.79 282 P     06 00.20   0.4
LOE     10.01 151 eP    06 05.00   2.4
PKI     10.17 280 P     06 04.80  -0.3
KKN     10.30 281 P     06 06.40  -0.4
DMN     10.44 280 P     06 08.80   0.1
GKN     10.89 282 P     06 13.60  -1.1
        0.4s      5.00nm          5.1mb
LZH     11.48  30 e(P)  06 21.50  -1.2
     N  10s       0.50um
                Lg    09 54.00
HYB     19.03 246 eP    08 03.00   3.1X
MAIO    33.15 297 eP    10 15.00   1.5
SUF     58.06 329 iP    13 30.40   0.5
        0.5s      1.80nm          4.4mb
SOD     58.34 335 iP    13 32.20   0.4
WRA     58.72 138 eP    13 34.50  -0.5
HFS     64.13 326 eP    14 10.00  -1.0
        0.5s      1.40nm          4.3mb
NB2     65.20 328 P     14 17.80  -0.1
        0.7s      1.60nm          4.2mb
YKA     88.02  14 P     16 27.60   1.9
      S.D. = 1.2  on  17 of  20 obs.
-------------------------------------
*  APR  08, 1989  09h 29m 00.47± 0.68s
   49.824 S ±11.4km  164.601 E ±10.5km
   DEPTH =  10.0km  (geophysicist)
   4.9mb (  2 obs.)
 AUCKLAND ISLANDS REGION           (166)

CBZ      3.96 135 P     30 02.00  -0.5
MSZ      5.63  25 P     30 26.00  -0.1
                S     31 29.00
TAU     13.77 294 eP    32 14.00  -4.0X
                eS    34 29.00
TOO     18.40 304 eP    33 18.00   0.8
CAN     18.44 316 eP    33 17.10  -0.6
                e     33 23.90
                eS    36 23.00
                eTT   48 56.40
BWA     19.45 316 eP    33 29.00  -1.0
                i     33 33.10
                eTT   49 07.00
RMQ     26.31 326 iPd   34 39.10   1.1
CTA     33.08 327 iPc   35 38.20  -0.1
        0.8s     10.45nm          4.8mb
QIS     35.31 317 iPc   35 57.20  -0.4
ASPA    35.44 306 iPc   35 58.30  -0.4
        0.7s     13.00nm          4.9mb
WRA     38.31 310 eP    36 22.90   0.0
SPA     40.37 180 e(P)  36 50.20  10.4X
        0.9s      9.55nm
SES    123.00  49 ePKP  48 02.00   4.3X
INK    126.43  24 ePKP  48 07.00   3.3X
YKA    128.81  36 PKP   48 13.50   5.1X
ALE    144.43   9 ePKP  48 38.00   1.2
        1.0s     23.00nm
FRB    148.78  43 ePKP  48 52.00   7.7X
MLR    152.08 277 ePKPc 49 10.00  20.0X
      S.D. = 0.8  on  11 of  18 obs.
-------------------------------------
   APR  08, 1989  12h 40m 28.48± 0.90s
    0.755 S ± 8.4km  123.508 E ± 8.4km
   DEPTH =  74.8 ± 11.0 km
   4.7mb (  3 obs.)
 MINAHASSA PENINSULA               (265)

MNI      2.56  31 ePc    41 08.50   0.0
                eS    41 47.70
PCI      3.67 268 ePc    41 22.50  -1.6
                eS    41 58.00
AAI      5.51 122 eP     41 48.90  -1.0
MKS      5.99 222 ePc    41 57.00   0.5
                i(S)  43 14.00
TSM      7.35 312 ePd    42 17.50   2.3
WRA     21.82 152 eP     45 17.00   0.8
ASPA    24.91 157 iPd    45 47.00   0.9
CHG     30.99 310 eP     46 41.80   0.6
        0.9s     16.60nm          4.8mb
CHTO    30.99 310 eP     46 41.90   0.7
        0.8s      3.66nm          4.2mb
GUN     45.99 311 P      48 46.20  -0.5
        0.5s     13.00nm          5.1mb
PKI     46.17 311 P      48 47.20  -0.9
KKN     46.38 311 P      48 48.90  -0.7
DMN     46.42 310 P      48 49.50  -0.5
GKN     46.98 311 P      48 53.60  -0.7
      S.D. = 1.2  on  14 of  14 obs.
-------------------------------------
   APR  08, 1989  14h 44m 35.88± 0.48s
   47.350 N ± 9.1km  153.242 E ± 8.1km
   DEPTH =  55.9km  (  2 depth phases)
   4.9mb ( 23 obs.)
 KURIL ISLANDS                     (221)

MDJ     16.65 269 eP    48 28.50   1.8
CN2     19.73 270 eP    49 01.80  -1.7
SSE     29.40 248 eP    50 36.00   0.1
CD2     41.02 265 P     52 15.40   0.3
INK     41.10  33 eP    52 16.00   0.8
GYA     41.93 257 P     52 22.60  -0.1
KMI     45.44 259 Pc    52 51.50   0.3
YKA     50.39  37 P     53 29.60   0.7
CHG     52.34 256 ePc   53 44.50   0.2
CHTO    52.34 256 iP    53 44.80   0.5
        0.9s     16.20nm          5.1mb
                pP    53 56.40  41kmX
LAT     54.05 188 eP    54 14.00  17.3X
GUN     55.04 275 P     54 04.10  -0.3
        0.5s      7.00nm          4.9mb
KKN     55.52 275 P     54 07.90   0.1
PKI     55.58 275 P     54 04.20  -4.1X
DMN     55.76 275 P     54 10.00   0.5
GKN     55.82 276 P     54 09.80   0.0
        0.7s     16.00nm          5.2mb
SOD     58.72 339 eP    54 28.00  -1.6
FFC     60.22  40 eP    54 40.00  -0.1
        0.8s     12.00nm          5.1mb
LRM     60.76  53 iPd   54 44.70   0.5
                e     55 00.10  57km
SUF     62.50 336 iP    54 54.70  -0.6
FRB     64.45  19 eP    55 06.00  -2.1
NUR     64.70 335 iP    55 08.50  -1.2
HYB     67.07 271 eP    55 24.00  -1.5
UPP     67.19 337 iP    55 24.00  -1.6
NB2     67.69 341 P     55 28.00  -0.8
        0.8s     10.10nm          4.9mb
HFS     67.93 339 eP    55 29.50  -0.7
        0.4s     13.50nm          5.3mb
WRA     69.11 199 eP    55 36.50  -1.5
ASPA    72.81 199 iPc   56 00.50   0.3
        0.9s      9.00nm          4.7mb
                epP   56 15.90  55km
KSP     75.40 333 eP    56 15.00   0.1
CLL     75.95 336 iPc   56 17.30  -0.7
        0.9s     17.00nm          5.0mb
MLR     76.63 325 ePc   56 23.00   0.9
PRU     76.69 334 eP    56 22.00  -0.1
MOX     76.94 336 eP    56 23.00  -0.5
WTS     76.94 339 eP    56 24.00   0.5
        0.8s     18.00nm          5.1mb
ZST     77.47 332 eP    56 26.70   0.2
KHC     77.74 334 iP    56 18.30  -9.7X
GRF     77.91 336 eP    56 29.80   0.9
        0.8s     14.00nm          5.0mb
ENN     78.29 340 eP    56 31.50   0.6
        1.0s     19.00nm          5.0mb
MEM     78.42 339 P     56 31.60   0.0
KBA     79.64 333 iPd   56 39.30   0.7
        0.8s     14.30nm          5.0mb
CDF     80.14 338 eP    56 41.20   0.1
        1.0s      9.60nm          4.7mb
HAU     80.75 338 eP    56 44.40   0.1
        0.8s      5.30nm          4.5mb
BSF     80.80 338 eP    56 44.60   0.0
LOR     82.05 339 eP    56 51.40   0.3
        0.6s      5.40nm          4.7mb
LBF     82.28 339 eP    56 53.10   0.8
        0.8s      4.00nm          4.5mb
SSF     82.32 340 eP    56 53.00   0.5
        0.8s      2.60nm          4.3mb
AVF     82.62 340 eP    56 54.30   0.3
        0.8s      5.90nm          4.6mb
SMF     82.64 339 eP    56 54.50   0.4
        1.0s     12.00nm          4.9mb
LPG     82.97 337 eP    56 57.00   0.8
        0.8s      6.70nm          4.7mb
MAF     83.34 340 eP    56 58.40   0.7
        1.0s     18.00nm          5.0mb
TCF     83.35 340 eP    56 58.60   0.7
        0.8s      4.50nm          4.5mb
LSF     83.55 341 eP    56 59.60   0.8
        1.0s      8.00nm          4.7mb
      S.D. = 0.8  on  49 of  52 obs.
-------------------------------------
*  APR  08, 1989  15h 27m 12.28± 1.36s
   7.658 N ±12.6km   75.326 W ±13.6km
   DEPTH =  87.0 ± 14.1 km
 NORTHERN COLOMBIA                 ( 99)

FUQ      2.69 144 eP    27 56.00   1.4
BOG      3.27 157 eP    28 02.00  -0.6
                eS    28 53.00
UPA      4.37 288 iPd   28 16.60  -1.0
        0.7s    167.12nm
                iS    29 02.60
PSO      6.73 197 eP    28 51.00   0.3
ZOBO    24.82 163 P     32 27.90  -0.7
LPB     25.08 163 eP    32 31.00   0.2
CNCB    25.37 163 P     32 33.40  -0.3
ATB     25.48 114 Pd    32 33.40  -0.8
CCH     26.48 160 eP    32 45.00   1.3
SOB1    38.18 115 eP    34 23.60  -1.7
YKA     61.74 341 eP    37 24.00   0.4
MBC     72.60 350 eP    38 33.00   1.5
ASPA   147.77 237 iPKPd 46 49.00   2.6X
        1.1s      9.00nm
WRA    148.77 244 ePKP  46 52.20   4.2X
      S.D. = 1.2  on  12 of  14 obs.
-------------------------------------
?  APR  08, 1989  19h 52m 34.52± 1.26s
   51.526 N ±29.2km  179.314 W ±10.2km
   DEPTH =  33.0km  (normal)
   4.0mb (  1 obs.)
 ANDREANOF ISLANDS, ALEUTIAN IS. (  7)

ADK      1.67  77 eP    53 02.00   0.1
                e(S)  53 25.00
IMA     19.49  32 eP    57 02.00   0.5
YKA     35.36  46 eP    59 28.00  -0.4
NB2     67.47 354 P     03 28.20  -0.5
```

08d 20h

	0.8s	1.10nm		4.0mb	
GUN	71.50	292	P	03 54.40	0.1
KKN	71.94	292	P	03 56.80	0.1
GKN	72.15	293	P	03 58.00	0.1
	S.D. = 0.4	on	7 of	7 obs.	

? APR 08, 1989 20h 48m 44.26± 0.81s
19.794 S ±37.3km 174.066 E ±18.4km
DEPTH = 33.0km (normal)
VANUATU ISLANDS REGION (185)

VUN	4.53	68	ePd	49 52.30	0.0
			eS	50 36.30	
CAN	26.97	230	eP	54 28.20	3.3X
BWA	26.98	232	eP	54 24.80	-0.3
TOO	30.52	228	eP	54 57.00	0.2
WRA	37.30	263	eP	55 55.10	-0.2
ASPA	37.43	257	iPd	55 56.70	0.3
	0.9s	62.00nm		5.5mb X	
	S.D. = 0.4	on	5 of	6 obs.	

APR 08, 1989 21h 15m 40.90± 0.38s
44.881 N ± 4.6km 17.477 E ± 4.3km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 3.6 (ZAG), 3.4 (VKA), 3.2 (KBA), 2.7 (LJU). MD 3.6 (TRI). Felt (IV) at Banja Luko.

PTJ	1.48	314	iPn	16 05.80	-1.8
			iPg	16 09.40	
			iSg	16 25.60	
VBY	1.69	292	ePn	16 09.20	-1.4
			iPg	16 10.30	
			iSn	16 29.70	
HVAR	1.86	204	iPn	16 11.70	-1.3
			i	16 33.30	
			iSg	16 36.30	
BEO	2.12	91	ePn	16 23.60	6.8X
			iSn	16 52.40	
CEY	2.32	293	ePn	16 20.80	1.1
			eSn	16 46.90	
LJU	2.38	300	ePn	16 21.30	0.8
			e	16 23.90	
			eSn	16 50.00	
TRI	2.75	289	ePn	16 25.80	0.0
			iPg	16 29.40	
			iSg	17 02.10	
VOY	2.77	296	ePn	16 25.30	-1.0
			ePb	16 29.10	
			eSg	17 05.20	
BUD	2.82	22	iPn	16 36.00	9.3X
SRO	2.99	11	iPn	16 29.90	0.7
			e	16 43.10	
			i(Sn)	17 26.30	
BZS	3.01	74	ePc	16 31.00	1.5
RBL	3.15	301	P	16 33.10	1.5
ZST	3.33	356	i(Pn)	16 32.70	-1.3
			i	16 35.70	
			e	16 46.30	
			e	16 48.40	
			i	17 33.40	
VKA	3.48	347	i(Pn)	16 35.60	-0.5
			iSn	17 17.70	
			i	17 19.20	
			iSg	17 35.50	
KBA	3.62	309	ePn	16 40.50	2.1X
			iPgc	16 51.60	
			iSn	17 20.00	
			iSg	17 34.80	
FVI	3.71	299	P	16 41.00	1.6
ASS	3.92	244	P	16 43.00	0.5
BRT	4.01	183	P	16 42.50	-1.1
SKO	4.10	134	ePn	16 45.00	0.1
SDI	4.15	221	P	16 45.70	0.0
PGD	4.25	258	P	16 50.50	3.3X
CTI	4.26	288	P	16 48.50	1.1
MNS	4.28	236	P	16 49.50	1.9
OHR	4.49	146	ePn	16 51.80	1.3
VTS	4.74	117	eP	16 54.00	-0.3
MGR	4.95	197	P	16 55.50	-1.5
KHC	5.02	329	iP	16 56.40	-1.6
			e	17 52.50	
KKB	5.08	124	iPc	16 59.00	0.2
VAY	5.15	132	ePn	16 59.60	-0.3
PRU	5.48	340	eP	17 08.50	3.9X
			e	18 41.50	
MMB	5.63	124	eP	17 07.00	0.3
PVL	5.90	104	eP	17 10.00	-0.4
KSP	6.02	353	eP	17 19.90	7.8X
			e	18 19.00	
GRF	6.42	321	e(Pg)	17 53.00	35.2X
			e(Sg)	19 09.50	
	S.D. = 1.2	on	27 of	34 obs.	

* APR 08, 1989 21h 58m 46.47± 1.84s
17.909 N ±24.9km 101.275 W ±10.9km
DEPTH = 36.6km (4 depth phases)
4.5mb (7 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)
Felt at Ixtapa.

III	1.78	75	iP	59 15.72	0.1
			iS	59 45.37	
CRX	2.12	45	iP	59 24.00	3.5X
			iS	00 05.38	
IIC	2.66	46	(P)	59 30.00	1.8
			iS	00 08.00	
IIT	3.03	68	(P)	59 33.11	-0.3
			iS	00 19.58	
IISM	3.85	73	iP	59 44.71	-0.1
			iS	00 43.56	
OXX	4.42	100	iP	59 55.00	1.9
			iS	00 56.00	
ALQ	17.58	346	eP	02 53.00	2.4
	1.0s	4.25nm		3.5mb	
OLY	19.57	25	P	03 12.50	-1.8
			pP	03 22.00	40km
GOL	22.00	352	P	03 39.50	-0.1
FVM	22.14	23	P	03 37.80	-2.8X
			pP	03 47.50	36km
MSU	22.63	337	P	03 45.00	-0.7
TNP	24.47	328	P	04 04.50	0.9
	0.8s	3.92nm		4.0mb	
EUR	25.00	332	eP	04 09.20	0.5
			pP	04 19.20	37km
KVN	25.65	329	P	04 15.80	1.0
BW06	25.77	346	P	04 18.00	2.1
	0.8s	10.94nm		4.5mb	
BLA	26.57	39	P	04 21.00	-2.1
			pP	04 30.50	34km
LON	33.38	334	P	05 33.00	9.4X
FFC	36.75	359	eP	05 50.00	-2.1
	0.7s	5.00nm		4.5mb	
YKA	45.50	351	eP	07 04.50	0.6
INK	54.33	346	eP	08 10.00	-1.3
PMR	54.97	334	P	08 15.80	-0.3
	0.5s	2.32nm		4.5mb	
MBC	59.11	355	eP	08 44.00	-1.3
	0.7s	10.00nm		5.1mb	
DAG	70.97	14	iPd	10 00.60	-1.3
	0.7s	4.79nm		4.6mb	
	S.D. = 1.5	on	20 of	23 obs.	

APR 08, 1989 22h 42m 45.10± 0.67s
44.189 N ± 4.0km 7.245 E ± 6.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

STV	0.08	46	P	42 47.63	0.0
			S	42 49.25	
TOUF	0.18	179	Pg	42 48.97	-0.2
AUTN	0.23	146	Pg	42 50.11	-0.1
			Sg	42 53.60	
MVIF	0.30	193	Pg	42 51.89	0.5
SAOF	0.30	132	Pg	42 51.51	0.1
			Sg	42 55.51	
AURF	0.31	169	Pg	42 51.27	-0.3
			Sg	42 55.90	
PZZ	0.33	342	P	42 51.97	-0.1
			S	42 56.72	
ROB	0.46	77	P	42 54.65	0.1
			S	43 01.80	
	S.D. = 0.3	on	8 of	8 obs.	

* APR 08, 1989 22h 52m 21.37± 0.59s
22.824 S ±13.0km 69.452 E ±10.9km
DEPTH = 10.0km (geophysicist)
4.8mb (4 obs.)
MID-INDIAN RISE (429)

KRI	37.86	272	iPd	59 41.70	1.1
BUL	38.01	266	eP	59 40.60	-1.2
HYB	40.97	13	eP	00 12.00	5.9X
CHTO	50.43	37	eP	01 22.80	1.5
	1.2s	2.78nm		4.1mb	
DMN	52.37	18	P	01 35.80	-0.4
KKN	52.59	18	P	01 37.40	-0.4
GKN	52.61	17	P	01 37.20	-0.7
GUN	52.87	18	P	01 39.00	-1.1
BNG	56.60	292	iPd	02 07.20	0.1
	0.4s	5.00nm		4.9mb	
ASPA	58.75	105	iPd	02 22.10	-0.1
	1.3s	9.00nm		4.7mb	
WRA	60.06	101	eP	02 31.70	0.4
SPA	67.31	180	e(P)	03 18.00	-0.5
	1.0s	7.50nm		4.8mb	
CTA	70.75	104	e(P)	03 24.00	-16.2X
MLR	78.66	330	eP	04 26.50	1.3
YKA	140.26	3	PKP	12 03.10	11.4X
EDM	149.57	3	ePKP	12 13.50	5.9X
	S.D. = 1.0	on	12 of	16 obs.	

APR 08, 1989 23h 51m 24.44± 0.62s
37.765 N ± 6.7km 20.781 E ± 5.6km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
ML 3.5 (ATH).

VLS	0.44	340	ePg	51 32.60	-0.8
ITM	1.08	122	ePg	51 43.70	-1.1
SRN	2.20	344	ePn	52 04.10	2.6X
ATH	2.33	84	ePn	52 04.50	1.1
LSK	2.39	357	ePn	52 04.30	0.0
NEO	2.46	50	ePn	52 06.00	0.8
KZN	2.65	17	ePb	52 10.50	2.4X
OHR	3.34	0	ePn	52 14.00	-3.8X
LCI	3.38	320	P	52 17.70	-0.6
VAM	3.62	130	ePn	52 22.00	0.3
TIR	3.65	349	ePn	52 25.50	3.4X
VAY	3.81	21	ePn	52 22.70	-1.7
BRT	4.17	319	P	52 29.30	-0.1
SKO	4.23	7	ePn	52 31.00	0.6
BCI	4.63	353	ePn	52 36.20	0.2
MEU	4.70	264	Pc	52 36.70	-0.5
MGR	4.71	302	P	52 37.50	0.2
SGO	5.09	305	P	52 44.10	1.6
	S.D. = 1.0	on	14 of	18 obs.	

* APR 09, 1989 00h 28m 20.81± 1.46s
27.561 S ± 9.6km 69.436 W ±19.1km
DEPTH = 126.1 ± 23.3 km
NORTHERN CHILE (123)

CYA	3.34	106	iPc	29 11.90	-0.6
ZON	4.03	171	eP	29 23.00	1.3
SLA	4.53	52	ePc	29 29.00	0.4
RFA	7.23	174	ePd	30 04.30	-1.1
CNCB	10.78	7	eP	31 04.00	10.6X
LPB	11.05	7	(P)	31 05.00	8.3X
ZOBO	11.30	6	P	31 00.00	-0.2
VAO	20.81	82	eP	32 54.20	0.3
	S.D. = 1.3	on	6 of	8 obs.	

& APR 09, 1989 02h 07m 38.10s
35.200 N 120.800 W
DEPTH = 9.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.7 (BRK).

BCH	0.59	91	iPc	07 48.70	-1.2
PHAM	0.71	27	iPd	07 51.50	-0.8
BLP	0.72	153	eP	07 51.90	-0.4
PRI	0.95	7	eP	07 55.90	-0.4
			eS	08 09.10	
PKEM	1.03	33	eP	07 58.30	0.7
PRS	1.22	338	eP	07 59.30	-1.6
			eS	08 18.20	
ABL	1.34	105	eP	08 00.50	-2.6
LLA	1.42	355	eP	08 03.20	-0.9
			eS	08 24.90	
SAO	1.65	342	eP	08 05.20	-2.1
FRI	1.99	26	eP	08 11.50	-0.8
			eS	08 34.00	
KVN	4.41	29	e(P)	08 52.50	5.6
	11 obs. associated				

APR 09, 1989 02h 31m 36.17± 0.15s
29.177 N ± 3.4km 90.077 E ± 2.4km
DEPTH = 10.0km (geophysicist)

5.2mb (52 obs.) 4.7Msz (6 obs.)
TIBET (306)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 23C
Centroid Location:
Origin Time 02:31:42.7 0.7
Lat 28.74N 0.13 Lon 89.94E 0.10
Dep 15.0 FIX Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr=-5.44 0.44 Mtt=-0.83 0.56
Mff= 6.27 0.51 Mrt= 1.56 1.47
Mrf= 1.39 2.00 Mtf=-1.48 0.52
Principal Axes:
T Val= 6.66 Plg= 5 Azm=260
N -0.49 19 352
P -6.17 70 155
Best Double Couple:Mo=6.4*10**16
NP1:Strike=330 Dip=43 Slip=-119
NP2: 187 53 -65

LSA	1.07	61	iPgc	31 55.00	-1.6
			Sg	32 09.00	
GUN	3.90	252	Pc	32 41.00	3.2X
PKI	4.41	250	Pc	32 47.50	2.5
KKN	4.44	253	Pc	32 47.80	2.5
DMN	4.65	252	Pc	32 50.60	2.3
GKN	4.92	258	Pc	32 52.90	0.8
NDI	11.28	271	iPc	34 18.00	-2.4
KMI	11.98	107	P+	34 30.00	-0.1
Z	20s	12.20um			
E	10s	4.00um			
			pP	34 37.00	
			eS	36 32.00	
			S	36 35.00	
			sS	36 46.00	
CD2	11.98	78	P	34 31.20	1.2
Z	12s	5.20um			
N	10s	8.40um			
			S	36 41.00	
GTA	12.99	36	eP	34 44.80	1.2
Z	15s	3.60um			
E	10s	4.60um			
CHG	13.11	140	ePd	34 42.90	-2.2
	1.2s	125.00nm		5.9mb	
			eS	38 32.00	
CHTO	13.11	140	eP	34 42.70	-2.4
LZH	13.49	56	eP	34 50.00	-0.2
	5.0s	811.00nm		6.0mb X	
Z	28s	3.40um			
			eS	37 20.00	
BDT	14.43	143	eP	34 59.00	-3.4X
	1.0s	55.20nm		5.2mb	
WMO	14.74	353	eP	35 08.50	2.0
Z	11s	1.70um			
E	10s	1.60um			
			S	37 52.50	
GYA	14.93	96	P	35 09.40	0.3
	4.0s	1.20nm		2.7mb X	
Z	12s	2.50um			
N	10s	0.14um			
E	10s	2.80um			
			PP	35 21.00	
			S	37 51.00	
KSH	15.50	315	eP	35 18.00	1.5
N	14s	6.30um			
			S	38 18.00	
HYB	15.77	225	ePd	35 16.50	-3.5X
	1.0s	120.00nm		5.1mb	
			eS	38 08.00	
NST	16.33	143	eP	35 27.00	-0.1
XAN	16.76	68	P	35 31.50	-1.1
N	12s	4.40um			
POO	18.21	238	iPc	35 47.70	-3.1X
	1.0s	58.00nm		4.7mb	
NNT	18.79	149	eP	35 57.60	-0.3
GBA	19.43	220	Pc	36 05.40	-0.3
	0.8s	33.10nm		4.7mb	
BTO	19.89	50	iPc	36 11.50	0.9
Z	13s	1.90um			
N	13s	1.10um			
E	13s	2.10um			
			S	39 47.50	
OUE	20.12	279	iPc+	36 12.00	-1.2
			eS	40 00.00	
TIY	20.47	60	eP	36 15.90	-0.8
N	13s	2.20um			

			S	40 05.00	
OIZ	20.65	115	eP	36 19.00	0.4
N	16s	1.30um			
			S	40 02.00	
			sS	40 10.00	
HHC	21.04	51	Pc	36 23.50	0.9
Z	24s	3.20um		4.6MszX	
N	10s	1.30um			
E	12s	1.50um			
WHN	21.09	80	Pd	36 23.20	0.2
	1.2s	0.55nm		2.8mb X	
Z	24s	4.89um		4.8MszX	
E	10s	1.23um			
			S	40 18.00	
GZH	21.73	101	P	36 30.20	0.6
Z	16s	2.40um		4.7MszX	
N	11s	1.60um			
			SS	41 09.00	
KOD	22.24	215	eP	36 36.00	0.9
TIA	23.77	66	eP	36 50.70	1.1
Z	24s	3.00um		4.7MszX	
E	14s	1.60um			
BJI	23.98	56	eP	36 52.00	0.5
	4.0s	0.40nm		2.4mb X	
Z	20s	2.10um		4.6Msz	
N	14s	1.80um			
E	14s	1.00um			
			eS	41 20.00	
SNG	24.03	154	eP	36 53.90	1.7
	1.2s	196.88nm		5.6mb	
			eS	41 20.00	
NJ2	24.90	76	Pd	37 01.00	0.5
	4.0s	1.20nm		2.9mb X	
Z	20s	3.20um		4.8Msz	
N	14s	1.00um			
E	14s	1.60um			
			S	41 30.00	
OZH	25.71	93	eP	37 09.80	1.5
Z	18s	2.70um		4.8Msz	
E	14s	1.60um			
			eS	41 41.00	
IPM	26.57	155	ePd	37 16.90	0.6
	0.8s	57.30nm		5.3mb	
MAIO	26.61	293	iPc	37 18.50	1.9
SSE	26.93	78	P-	37 20.00	0.5
	5.0s	0.50nm		2.5mb X	
Z	16s	2.70um		4.9MszX	
N	13s	3.20um			
			S	42 00.00	
PSI	27.65	161	ePc	37 25.00	-1.1
	1.0s	32.80nm		5.0mb	
SNY	29.86	56	eP	37 46.50	0.7
Z	20s	1.70um		4.7Msz	
N	18s	1.50um			
			S	42 46.00	
CN2	31.70	53	eP	38 02.40	0.4
	3.0s	0.50nm		2.9mb X	
Z	18s	2.40um		4.9Msz	
N	10s	0.90um			
			pP	38 06.80	15kmX
			eS	43 16.00	
MDJ	34.78	53	eP	38 29.00	0.2
Z	17s	1.30um		4.7MszX	
			S	44 00.00	
BEE	35.09	274	iP	38 32.90	1.3
	0.4s	5.00nm		4.7mb	
BBU	35.09	275	eP	38 33.20	1.6
TSM	36.33	128	eP	38 40.50	-1.7
SLY	37.93	291	eP	38 49.00	-6.5X
BHD	39.05	288	eP	39 03.50	-1.4
			e	39 17.50	
MSL	39.79	293	eP	39 11.50	0.4
KAS	46.81	301	eP	40 09.00	1.1
BBTK	47.70	299	eP	40 14.50	-0.5
ALT	49.82	298	eP	40 30.50	-0.9
ELL	50.33	295	iP	40 34.50	-0.9
KHL	50.38	297	eP	40 35.00	-0.7
PSN	50.75	304	eP	40 39.00	0.7
VRI	51.61	307	ePc	40 45.50	0.7
JMB	52.05	303	eP	40 48.00	-0.1
MLR	52.19	307	ePc	40 50.00	0.7
			e	57 43.00	
SUF	52.59	329	iP	40 52.00	0.1
	0.5s	23.70nm		5.4mb	
EZN	52.61	300	eP	40 51.90	-0.4
KAP	52.73	294	eP	40 53.00	-0.3
CMP	52.84	307	ePc	40 58.00	3.9X

RDO	53.00	301	eP	40 57.00	1.8
KDZ	53.02	302	eP	40 56.00	0.6
NUR	53.03	326	iP	40 55.80	0.6
	0.7s	26.70nm		5.3mb	
SOD	53.24	334	eP	40 56.00	-0.6
RZN	53.53	302	eP	41 01.00	1.6
KEV	53.66	337	eP	41 00.00	0.3
	0.9s	37.20nm		5.4mb	
PGB	53.80	303	eP	41 02.00	0.8
NPS	54.04	294	eP	41 02.50	-0.4
DEV	54.27	308	ePc	41 03.50	-0.9
VTS	54.50	303	iP	41 06.00	-0.4
PLG	54.69	301	eP	41 07.50	-0.2
KKB	54.71	303	eP	41 08.00	0.2
VAM	55.13	295	eP	41 11.50	0.5
VAY	55.18	302	eP	41 10.00	-1.2
BZS	55.19	307	eP	41 10.50	-0.7
KRA	55.78	313	eP	41 14.20	-1.2
			e	41 16.20	
SKO	55.90	303	eP	41 16.00	-0.4
KZN	55.96	301	eP	41 17.50	0.5
TRO	56.41	337	eP	41 20.81	1.1
ITM	56.51	297	eP	41 19.50	-1.4
UPP	56.51	325	iP	41 19.80	-0.7
OHR	56.53	302	eP	41 19.50	-1.5
SRO	57.13	310	eP	41 25.30	0.2
MBL	57.68	147	eP	41 28.00	-1.3
	0.8s	8.00nm		4.8mb	
ZST	57.88	311	eP	41 28.60	-1.7
KSP	58.00	314	eP	41 30.80	-0.4
	1.1s	26.00nm		5.2mb	
LOF	58.27	335	eP	41 31.89	-0.9
NAI	59.20	249	eP	41 44.00	3.7X
BRT	59.24	303	P	41 40.00	0.1
PRU	59.24	313	ePd	41 39.00	-0.8
	1.5s	26.80nm		5.2mb	
HVAR	59.27	305	iP	41 39.10	-1.0
NB2	59.61	326	P	41 41.10	-1.2
	0.8s	18.00nm		5.3mb	
VBY	59.61	308	e(P)	41 44.10	1.7
CLL	59.98	315	iP	41 44.70	-0.2
	1.7s	31.00nm		5.2mb	
LJU	60.00	309	e(P)	41 44.70	-0.4
KHC	60.01	312	Pc	41 45.20	0.0
	1.0s	9.00nm		4.9mb	
CEY	60.13	309	e(P)	41 45.80	-0.3
TDS	60.18	301	P	41 47.00	0.6
VOY	60.43	309	e(P)	41 48.00	-0.2
KBA	60.58	310	e(P)	41 49.00	-0.3
	1.0s	5.30nm		4.6mb	
			i	41 53.40	
TRI	60.59	309	eP	41 48.30	-0.8
MGR	60.64	302	P	41 48.50	-1.0
MOX	60.96	314	eP	41 51.50	-0.1
	1.5s	39.00nm		5.3mb	
			e	55 00.00	
			LR	11 30.00	
DUI	61.06	304	P	41 53.00	0.5
FVI	61.06	310	P	41 49.00	-3.3X
GRF	61.41	313	iP	41 53.20	-1.5
Z	18s	0.30um		4.5Msz	
			e	41 57.70	
SDI	61.51	304	P	41 56.00	0.5
ARV	61.68	306	P	41 56.50	-0.1
CTI	61.95	309	P	41 56.00	-2.5
MNS	62.15	305	P	42 01.00	1.2
PGD	62.44	307	P	42 03.00	1.1
FIR	62.79	307	eP	42 05.00	1.0
AVY	62.90	226	iPc	42 04.90	-0.3
WIT	63.49	318	eP	42 12.00	3.6X
WTS	63.60	317	eP	42 08.00	-1.2
	0.8s	11.00nm		5.1mb	
GWF	63.86	313	P	42 11.69	0.6
FEL	63.90	312	P	42 10.33	-1.1
CDF	64.23	313	P	42 12.95	-0.6
MEM	64.45	315	P	42 16.50	1.8
ENN	64.45	316	eP	42 16.00	1.2
	0.9s	10.00nm		5.0mb	
MOF	64.48	312	P	42 14.62	-0.6
WLF	64.61	314	P	42 16.00	0.2
BSF	64.71	312	P	42 14.51	-2.2
WRA	64.87	134	eP	42 17.10	-0.8
HAU	64.94	313	eP	42 17.80	-0.3
	0.8s	10.70nm		5.1mb	
VITF	65.12	313	P	42 17.55	-1.6
LSD	65.14	310	P	42 19.76	0.0
RSP	65.16	309	P	42 18.74	-0.9

09d 02h

LPG 65.40 310 eP 42 21.30 -0.1
0.8s 20.60nm 5.4mb
DOU 65.46 315 P 42 22.60 1.3
e 42 54.90
PZZ 65.46 309 P 42 19.97 -1.7
SNF 65.53 316 P 42 19.40 -2.4
RRL 65.55 309 P 42 21.71 -0.6
BNI 65.59 309 P 42 21.00 -1.4
DAG 65.99 346 iPd 42 25.20 0.8
0.7s 7.53nm 5.0mb
LOR 66.77 312 eP 42 29.20 -0.6
1.2s 19.00nm 5.2mb
LBF 66.78 312 eP 42 29.50 -0.4
1.2s 19.00nm 5.2mb
SMF 66.98 312 eP 42 30.50 -0.7
0.8s 13.40nm 5.2mb
PMG 67.03 116 eP 42 32.00 0.1
SSF 67.06 312 eP 42 31.40 -0.3
0.8s 9.40nm 5.0mb
AVF 67.25 312 eP 42 32.40 -0.4
1.2s 26.70nm 5.3mb
BGF 67.66 312 eP 42 35.00 -0.4
0.8s 11.20nm 5.1mb
ALE 67.73 356 eP 42 34.00 -1.4
MAF 67.95 312 eP 42 37.30 0.0
1.1s 27.80nm 5.4mb
TCF 68.16 312 eP 42 38.70 0.1
1.0s 30.80nm 5.4mb
EKA 68.30 322 P 42 39.00 -0.3
1.0s 15.90nm 5.2mb
LSF 68.62 312 eP 42 41.30 -0.1
0.8s 8.50nm 5.0mb
CAF 68.72 310 eP 42 42.40 0.2
0.8s 14.70nm 5.2mb
QIS 68.74 130 eP 42 42.00 -0.5
LDF 68.86 315 eP 42 42.10 -0.8
0.8s 25.20nm 5.5mb
RJF 68.95 311 eP 42 44.00 0.5
0.8s 14.50nm 5.2mb
FLN 69.02 315 eP 42 43.50 -0.4
0.8s 13.40nm 5.2mb
GRR 69.39 315 eP 42 45.70 -0.4
0.8s 25.20nm 5.4mb
LPO 69.39 310 eP 42 46.60 0.4
0.8s 14.50nm 5.2mb
MFF 69.58 313 eP 42 47.10 -0.2
0.8s 8.00nm 4.9mb
LFF 69.60 311 eP 42 47.90 0.4
1.0s 24.00nm 5.3mb
BRW 69.63 18 eP 42 47.70 0.5
PTZ 71.25 241 iPd 42 57.50 -0.6
BNG 71.73 265 iPc 43 00.00 -0.9
0.9s 23.00nm 5.3mb
ic 43 15.90
CTA 73.03 125 iPc 43 08.50 0.1
1.0s 46.00nm 5.5mb
MBC 73.22 7 eP 43 09.00 0.3
0.8s 10.00nm 4.9mb
IMA 73.44 22 eP 43 11.00 0.7
1.2s 13.70nm 4.9mb
KRI 74.14 240 iPc 43 17.10 2.0
LSZ 74.29 242 ePc 43 16.00 0.0
KMZ 75.07 245 ePd 43 21.00 0.5
FBA 76.10 22 eP 43 26.00 0.6
BUL 76.91 238 iPd 43 30.10 -0.7
INK 77.60 15 eP 43 34.00 0.4
PMR 77.77 25 eP 43 35.20 0.5
1.0s 27.50nm 5.3mb
ADE 78.58 141 eP 43 40.50 0.9
KDC 78.85 29 eP 43 41.50 0.9
RMQ 78.91 129 eP 43 43.00 1.4
SLR 80.60 234 iPd 43 52.00 1.2
1.2s 39.06nm 5.3mb
BPI 81.05 233 iPc 43 55.20 2.0
0.7s 20.55nm 5.3mb
KSR 81.66 234 iPc 43 55.50 -0.9
PRY 81.91 233 iPd 43 57.20 -0.4
0.7s 7.50nm 4.9mb
BRS 82.26 127 eP 44 03.00 3.7X
BWA 83.89 135 eP 44 08.00 0.5
BLF 84.14 232 iPc 44 07.50 -1.6
CAN 84.84 135 eP 44 15.90 3.7X
YKA 86.53 11 P 44 21.60 1.3
YKC 86.56 11 ePc 44 20.60 0.2
0.9s 12.00nm 5.1mb
KIC 91.13 278 P 44 43.80 0.9
TIC 91.23 278 P 44 44.10 0.7

LIC 91.44 278 P 44 45.10 0.8
ALQ 114.34 15 ePKP 50 19.00 0.7
0.9s 2.73nm
SPA 119.01 180 ePKPc 50 25.90 -0.1
1.0s 7.00nm
PPD 144.58 273 ePKP 51 22.50 7.4X
CCH 155.26 293 ePKP 51 17.00 -14.7X
S.D. = 1.0 on 178 of 191 obs.

? APR 09, 1989 02h 32m 00.20± 2.61s
9.532 S ±33.3km 129.004 E ±18.8km
DEPTH = 209.4 ± 17.6 km
4.4mb (3 obs.)
TIMOR SEA (290)

MTN 3.90 148 eP 33 01.30 -0.3
eS 34 02.50
KUPT 5.36 263 eP 33 20.00 0.0
eS 34 22.00
KNA 6.18 182 eP 33 31.00 0.3
eS 34 56.00
WRA 11.56 154 eP 34 39.80 -0.6
eS 37 03.20
ASPA 14.81 162 iPc 35 24.80 3.7X
0.6s 15.00nm 4.6mb
QIS 14.99 138 eP 35 24.00 0.8
e 35 26.00
eS 38 16.00
WARB 16.71 187 iPd 35 38.60 -5.5X
0.3s 3.00nm 4.2mb
NANU 18.30 223 eP 35 53.00 -8.1X
0.3s 4.00nm 4.4mb
FORR 21.23 182 eP 36 31.00 0.5X
BWA 30.50 147 eP 37 56.10 0.3
CAN 31.49 148 eP 38 03.90 -0.5
CNCB 148.90 147 PKP 51 16.00 -5.9X
LPB 149.06 147 (PKP) 51 16.00 -5.9X
e 51 36.00
ZOBO 149.27 146 PKP 51 16.00 -6.5X
LR 54 22.00
S.D. = 0.7 on 7 of 14 obs.

APR 09, 1989 02h 54m 04.35± 0.30s
36.637 N ± 4.5km 42.211 E ± 3.5km
DEPTH = 33.0km (normal)
4.6mb (7 obs.)
IRAQ (375)

MSL 0.80 108 iPgd 54 18.00 -1.1
iSg 54 30.00
SLY 2.86 110 iPnd 54 49.00 0.4
iPg 54 58.00
iSn 55 26.00
iS* 55 31.00
iSg 55 39.50
TAB 3.58 65 eP 55 06.00 7.0X
i 55 09.50
BHD 3.80 151 ePnc 55 13.00 11.0X
iP* 55 21.00
iPg 55 30.00
iSn 56 05.00
iS* 56 16.50
iSg 56 27.50
KER 4.60 118 ePc 55 14.00 0.5
HRI 6.29 240 iPd 55 37.10 -0.2
KVT 6.54 315 eP 55 39.00 -1.8
FAM 6.87 259 eP 55 06.50 -38.8X
BURJ 6.92 232 P 55 46.00 -0.1
SALJ 7.10 231 P 55 49.60 0.9
MASJ 7.27 230 P 55 50.20 -0.9
OUTJ 7.41 226 P 55 53.90 0.9
CSS 7.41 260 eP 55 54.00 1.1
TEH 7.47 94 e(P) 56 15.00 21.0X
DSI 7.59 230 eP 55 53.50 -1.9
BBTK 8.10 296 eP 56 06.00 3.4X
i 56 31.00
iS 58 26.00
KAS 8.10 308 eP 56 23.50 20.9X
PPCY 8.21 261 eP 56 04.50 0.4
NOH 8.46 228 eP 56 07.00 -0.7
BCK 9.33 279 eP 56 18.00 -1.6
AYN 9.34 216 eP 56 20.00 0.3
HQL 9.49 221 eP 56 20.70 -1.1
SRFA 9.69 220 eP 56 23.70 -0.8
ALT 9.87 288 eP 56 26.50 -0.6
ELL 9.88 274 eP 56 28.50 1.2
BADA 10.12 219 eP 56 31.40 1.0

KHL 10.22 283 eP 56 33.00 1.0
QASM 10.57 174 eP 56 33.00 -3.7X
YLV 10.78 295 eP 56 38.00 -1.6
WAJH 11.49 206 eP 56 50.00 0.9
DHR 12.32 145 eP 56 57.00 -3.3X
RYD 12.46 161 eP 56 58.00 -4.3X
BBU 12.54 144 (Pn) 57 03.50 0.2
(Sn) 59 16.50
BEE 12.74 144 (Pn) 57 03.80 -2.1
KDZ 13.96 296 eP 57 30.00 8.1X
RZN 14.47 296 eP 57 33.00 4.1X
PGB 15.10 299 eP 57 37.00 0.0
MMB 15.17 295 eP 57 44.00 6.2X
VAY 15.97 293 eP 57 48.50 0.5
SKO 16.92 295 eP 58 01.00 0.8
OHR 17.25 292 eP 58 05.20 0.9
LCI 19.33 288 P 58 26.50 -3.1X
BRT 19.93 290 Pd 58 34.80 -1.4
TDS 20.55 286 P 58 43.00 0.4
SRO 20.84 310 eP 58 50.40 4.9X
KRA 20.93 317 eP 58 48.40 2.0
MGR 21.16 288 P 58 48.00 -0.8
QUE 21.60 100 eP 58 53.50 -0.1
ZST 21.74 310 eP 58 54.40 -0.2
DUI 22.05 292 P 58 58.00 0.1
SDI 22.54 292 P 59 02.00 -0.7
CEY 22.71 302 eP 59 18.50 14.2X
VOY 23.14 303 e(P) 59 08.80 0.2
KSP 23.34 316 eP 59 11.20 0.8
ARV 23.35 296 P 59 10.00 -0.5
MNS 23.43 293 P 59 10.00 -1.3
RBL 23.46 304 P 59 12.50 0.9
KBA 23.77 305 eP 59 12.50 -2.3
1.2s 12.50nm 4.3mb
i 59 22.00
i 59 30.50
PRU 23.99 313 eP 59 24.00 7.4X
e 59 44.40
KHC 24.25 310 P 59 19.90 0.6
PGD 24.27 297 P 59 22.50 2.8
CTI 24.67 302 P 59 25.00 1.6
CLL 25.42 314 eP 59 38.00 7.7X
NUR 26.39 340 iP 59 40.20 1.0
SUF 27.93 344 eP 59 52.00 -1.3
0.4s 1.70nm 4.1mb
BNI 27.99 299 P 59 53.00 -1.1
SOD 32.04 349 eP 00 27.00 -2.7
GKN 36.63 91 P 01 10.20 0.5
0.6s 32.00nm 5.4mb
DMN 37.17 91 P 01 15.60 1.2
KKN 37.24 91 P 01 15.40 0.5
0.6s 13.00nm 5.0mb
PKI 37.43 91 P 01 17.40 0.7
0.7s 16.00nm 5.0mb
GUN 37.67 91 P 01 19.20 0.5
BNG 38.72 220 ePd 01 28.90 1.7
0.7s 5.00nm 4.4mb
CHG 52.53 94 eP 03 16.00 -0.8
CHTO 52.53 94 eP 03 15.80 -1.0
0.5s 1.02nm 4.0mb
YKA 79.46 349 P 06 10.60 2.1
S.D. = 1.2 on 59 of 76 obs.

APR 09, 1989 04h 16m 27.44± 0.44s
59.960 N ± 8.4km 145.085 E ± 7.0km
DEPTH = 33.0km (normal)
4.9mb (27 obs.)
EASTERN SIBERIA (671)
Felt (III) at Magadan.

CN2 20.08 225 eP 21 00.40 -0.2
Z 12s 0.70um 4.2MszX
eS 24 44.00
SNY 22.48 226 eP 21 25.30 0.5
BRW 25.36 40 eP 21 54.90 2.4
e 21 59.00
BJI 26.89 235 eP 22 10.50 3.7X
Z 12s 0.60um 4.4MszX
N 10s 0.30um
eS 27 00.00
IMA 27.40 51 eP 22 11.10 -0.4
0.9s 10.40nm 4.5mb
TTA 27.46 58 P 22 16.40 4.5X
0.9s 5.21nm 4.2mb
FBA 30.11 52 eP 22 34.70 -0.9
TIY 30.41 238 eP 22 40.50 1.8
N 10s 0.80um

09d 04h

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                    eS     27 41.50
 TOA   31.96  56 eP     22 50.70  -1.3
 INK   33.88  41 eP     23 15.00   6.6X
 GTA   34.84 254 P      23 21.60   4.4X
 ALE   37.05   6 eP     23 36.00   0.7
       0.5s     3.00nm          4.4mb
 WMQ   37.58 271 eP     23 38.00  -2.2
 GYA   42.58 235 P      24 27.60   5.8X
 DAG   43.14 355 iPd    24 26.00   0.4
       0.7s     8.90nm          4.6mb
 YKA   43.65  41 P      24 31.90   2.0
 SOD   45.24 331 eP     24 43.00   0.3
 SUF   49.09 328 iP     25 13.30   0.5
       0.5s     6.50nm          4.9mb
 GUN   50.92 258 P      25 28.50   0.8
 EDM   50.96  49 ePc    25 31.10   3.8X
 KKN   51.32 259 P      25 31.10   0.5
 NUR   51.33 327 iP     25 29.20  -0.7
 PKI   51.44 259 P      25 31.00  -0.6
 GKN   51.46 260 P      25 31.80   0.2
       0.5s    10.00nm          5.0mb
 PNT   51.46  56 eP     25 34.00   2.8
       0.6s     3.00nm          4.4mb
 DMN   51.55 259 P      25 32.80   0.4
 FFC   53.83  41 eP     25 52.00   3.3X
       1.2s    25.00nm          5.1mb
 FRB   54.01  18 eP     25 48.00  -1.8
 SES   54.07  50 eP     25 55.00   4.4X
 NB2   54.18 334 P      25 50.40  -0.8
       0.8s     6.80nm          4.7mb
 LRM   57.19  54 eP     26 17.90   4.4X
 RSON  59.79  39 P      26 28.50  -2.6
 KVN   60.28  63 P      26 35.30   0.4
 BW06  60.88  54 P      26 38.20  -0.8
       0.8s     4.02nm          4.6mb
 KSP   62.07 326 eP     26 46.00  -0.6
                e      26 57.80
 EKA   62.30 340 Pd     26 48.00  -0.1
       0.6s     6.10nm          4.9mb
 CLL   62.54 328 iPc    26 49.10  -0.6
                i      26 57.80
 PRU   63.32 327 eP     27 06.50  11.6X
 MSU   63.33  59 P      26 56.00   0.6
 MOX   63.51 329 eP     26 56.00  -0.1
 ZST   64.21 324 e(P)   26 48.00 -12.7X
 DMU   64.30 342 eP     27 00.50  -0.7
 KHC   64.37 327 Pc     27 03.50   1.7
 GRF   64.49 329 e(P)   27 04.40   1.9
       1.1s    11.00nm          4.9mb
 DLE   64.83 342 eP     27 04.40  -0.2
 DCN   64.89 342 eP     27 04.90  -0.1
 GOL   65.17  53 P      27 07.00  -0.4
 KBA   66.30 326 eP     27 15.00   0.6
       0.7s     4.50nm          4.7mb
                i      27 22.70
                i      27 29.70
                i      27 36.10
 CDF   66.67 331 eP     27 16.80   0.2
       0.8s     8.00nm          4.9mb
 HAU   67.27 331 eP     27 20.40   0.0
 BSF   67.33 331 eP     27 20.90   0.1
 FLN   68.08 336 eP     27 25.30   0.0
       0.6s    15.10nm          5.3mb
 LDF   68.16 336 eP     27 25.80  -0.1
       0.7s    11.00nm          5.1mb
 GRR   68.51 336 eP     27 28.30   0.3
       0.8s    32.20nm          5.5mb
 LOR   68.55 333 eP     27 28.20  -0.1
       0.9s     8.80nm          4.8mb
 VAY   68.61 317 eP     27 27.00  -1.7
 LBF   68.79 333 eP     27 30.40   0.5
       1.0s     6.00nm          4.6mb
 SSF   68.83 333 eP     27 30.00   0.0
 LPF   68.89 336 eP     27 31.00   0.7
       0.8s    29.50nm          5.4mb
 OHR   69.40 318 eP     27 31.00  -2.7
 LPG   69.51 330 eP     27 35.40   0.8
       0.8s    11.20nm          5.0mb
 GAC   69.60  29 eP     27 33.00  -1.7
 MAF   69.83 333 eP     27 36.70   0.5
       0.8s    10.70nm          5.0mb
 TCF   69.85 334 eP     27 36.80   0.5
       1.0s    12.00nm          4.9mb
 LSF   70.04 334 eP     27 37.80   0.4
       0.8s    12.60nm          5.0mb
 MFF   70.07 335 eP     27 37.30  -0.3
       1.0s    16.00nm          5.0mb
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 CAF   71.17 333 eP     27 44.60   0.2
       1.0s    10.80nm          4.9mb
 EPF   73.36 334 eP     27 57.60   0.3
       0.7s     7.00nm          4.8mb
 WRA   80.10 190 eP     28 33.70  -1.4
 SPA  149.79 180 e(PKP)36 12.90   4.0X
       1.4s    10.78nm
      S.D. = 1.1  on  58 of  70 obs.
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   APR  09, 1989  04h 42m 59.56± 0.65s
   44.137 N ± 6.0km   21.655 E ± 7.9km
   DEPTH =  10.0km  (geophysicist)
 YUGOSLAVIA                      (383)
      ML 3.0 (TTG).

 BEO    1.10 309 iPg    43 18.60  -1.6
                iSg    43 32.20
 BZS    1.48 359 iPd    43 24.00  -2.2
 GZR    1.49  32 iPc    43 28.50   2.1
 IVA    1.80 226 ePg    43 32.50   1.6
                eSg    43 55.00
 PLE    1.83 245 ePg    43 32.50   1.1
                eSg    43 56.00
 VTS    1.92 143 iP     43 32.00  -0.7
 DEV    1.96  26 iPc    43 34.00   0.9
 PVY    1.97 219 ePn    43 36.00   2.6X
                eSn    44 01.00
 SKO    2.17 184 iPn    43 38.50   2.3
                iSn    44 09.00
 PGB    2.42 130 iP     43 40.00   0.1
 TTG    2.44 227 ePn    43 45.00   4.9X
                eSn    44 15.00
 KKB    2.50 155 iP     43 40.00  -0.9
 CMP    2.66  64 ePc    43 52.00   8.7X
 VAY    2.89 166 ePn    43 44.70  -1.8
 MMB    2.97 148 iPd    43 47.00  -0.6
 PLD    3.02 131 iPd    43 54.00   5.8X
 OHR    3.09 192 ePn    43 48.30  -1.0
 RZN    3.32 136 iP     43 53.00   0.2
 MLR    3.34  65 ePc    43 53.50   0.5
 KDZ    3.72 131 iPc    44 06.00   7.7X
      S.D. = 1.5  on  15 of  20 obs.
-------------------------------------
%  APR  09, 1989  05h 03m 44.50± 0.88s
   38.434 N ± 9.4km    1.197 W ± 7.8km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                           (377)
      MD 3.1 (MDD).

 EALH   0.60 197 iPgc   03 57.20   0.5
                eSg    04 05.30
 ACU    0.62  83 iPg    03 57.00   0.0
                eSg    04 03.00
 EVIA   1.05 282 iPgc   04 05.80   1.5
                iSg    04 19.60
 ECHE   1.17   9 ePg    04 06.30   0.0
                eSg    04 22.50
 EBAN   2.05 263 iPc    04 19.00  -0.5
                eSg    04 45.00
 ETOR   2.47 345 ePg    04 34.00   8.5X
                eSg    05 04.00
 GUD    3.18 315 eP     04 47.00  11.4X
                eS     05 24.00
 EHOR   3.25 260 ePn    04 35.00  -1.5
      S.D. = 1.3  on   6 of   8 obs.
-------------------------------------
   APR  09, 1989  05h 07m 50.60± 0.14s
   51.510 N ± 3.7km  178.386 W ± 2.0km
   DEPTH =  33.0km  (normal)
   5.2mb ( 59 obs.)  4.7Msz (  3 obs.)
 ANDREANOF ISLANDS, ALEUTIAN IS. (  7)
      ML 5.7 (PMR). Felt (III) on
      Adak.
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 19S, 35C
      Centroid Location:
      Origin Time        05:07:56.0 0.8
      Lat 51.92N 0.07 Lon 178.13W 0.10
      Dep  32.0 FIX Half-duration  1.5
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 6.50 0.36  Mtt=-5.07 0.51
        Mff=-1.43 0.40  Mrt= 4.86 1.09
        Mrf= 2.79 1.07  Mtf=-4.05 0.54
       Principal Axes:
        T  Val=  8.45  Plg=71  Azm=334
        N        1.18        2      239
```

```
        P       -9.63       19      148
   Best Double Couple:Mo=9.0*10**16
    NP1:Strike=235 Dip=26 Slip=  86
    NP2:          60      64      92

 ADK    1.12  70 iPc    08 13.00   3.0
 SMY    4.79 288 eP     09 04.20   2.0
 SVW   15.78  44 eP     11 36.20   4.4X
 KDC   16.18  57 eP     11 36.40  -0.3
 TTA   16.55  38 eP     11 45.20   3.7X
 PMS   18.54  47 eP     12 06.60   0.4
 PMR   18.85  46 eP     12 09.00  -0.9
   Z   20s      1.50um
 IMA   19.20  31 iPc    12 15.60   1.4
 TOA   20.34  46 eP     12 25.80  -0.7
 FBA   20.68  38 eP     12 30.50   0.6
 8RW   22.13  18 eP     12 45.90   1.5
 HYT   24.21  51 P      13 04.00  -1.0
 SIT   25.40  60 eP     13 16.80   0.6
 KUSJ  26.17 266 P      13 22.40  -1.0
 ASAJ  26.94 270 P      13 31.70   1.2
 INK   27.20  35 eP     13 32.00  -0.7
       0.5s     4.00nm          4.3mb
 NIIJ  33.13 261 P      14 26.10   0.6
 MBC   33.39  22 iPc    14 28.00   0.6
       0.5s    16.00nm          5.2mb
 CHJJ  33.90 260 P      14 33.20   1.0
 MTMJ  34.28 262 P      14 36.00   0.3
 MDJ   34.81 280 eP     14 38.50  -1.5
 IIDJ  34.93 260 P      14 42.00   0.8
 YKA   34.95  47 eP     14 40.70  -0.3
 YKC   35.02  47 ePc    14 41.00  -0.6
       0.4s    10.00nm          5.1mb
 MCW   35.03  72 eP     14 43.00   1.1
 GMW   35.57  74 eP     14 47.80   1.3
 TSRJ  36.09 262 P      14 50.70  -0.2
 LON   36.53  75 eP     14 55.30   0.6
 PNT   36.65  70 iPc    14 56.50   1.0
       1.0s   127.00nm          5.8mb
                pP     15 06.00  32kmX
 CN2   37.78 281 Pc     15 04.50  -0.5
   Z   26s      1.20um          4.6MszX
 DPW   38.15  71 eP     15 08.40   0.2
 FHC   38.34  84 eP     15 10.00   0.1
       1.0s    40.00nm          5.2mb
 EDM   38.52  61 ePc    15 10.50  -0.8
       0.7s    53.00nm          5.5mb
 SHK   38.79 264 eP     15 14.20   0.5
 LBFM  39.33  82 eP     15 19.00   0.6
 WDC   39.37  84 iPc    15 19.70   1.3
 SNY   40.01 280 iPc    15 24.50   0.8
 MIN   40.08  83 eP     15 25.00   0.5
 ORV   40.61  84 eP     15 29.00   0.3
 SES   41.07  64 eP     15 33.00   0.7
 BRK   41.16  87 eP     15 33.70   0.6
 BKS   41.17  87 eP     15 34.20   0.9
 MHC   41.87  87 eP     15 39.90   0.7
 ARN   41.93  87 eP     15 39.00  -0.6
 CMB   42.23  85 eP     15 42.00   0.0
       1.4s    37.51nm          4.9mb
 ALE   42.45  10 eP     15 43.50   0.2
       0.5s     7.00nm          4.6mb
 LRM   42.59  71 iPc    15 45.00  -0.1
                i      15 54.80
 PRS   42.67  88 eP     15 46.10   0.5
 LLA   42.76  87 eP     15 47.00   0.7
 KVN   43.03  82 eP     15 48.50  -0.2
 PRI   43.23  88 eP     15 51.20   0.9
 FRI   43.30  86 eP     15 51.00   0.4
 FFC   43.86  54 eP     15 53.50  -1.5
       0.5s     7.00nm          4.7mb
 EUR   44.08  80 iP     15 58.00   0.7
       1.0s    28.46nm          5.0mb
 TNP   44.17  83 eP     15 58.00   0.0
       1.0s    52.50nm          5.3mb
 SYP   44.70  89 eP     16 11.00   8.7X
 ISA   44.91  86 eP     16 04.00   0.2
 CLC   45.36  86 eP     16 07.00  -0.3
 BJI   45.60 282 eP     16 09.50   0.4
       4.0s     0.30nm          2.6mb X
   Z   24s      0.70um          4.5MszX
                eS     22 48.00
 SBB   45.94  87 eP     16 12.00   0.0
 BW06  46.02  73 iPc    16 13.00   0.3
 PAS   46.08  88 eP     16 14.00   1.0
 MWC   46.10  88 eP     16 13.00  -0.4
 GSC   46.18  86 eP     16 14.00   0.1
```

09d 05h

RVR	46.68	87	eP	16	17.00	-0.7	DZM	74.46	195	iPc	19	27.80	0.6	RJF	83.57	0	eP	20	16.60	0.3
MSU	47.01	79	eP	16	21.00	0.4	DMU	74.72	5	iPd	19	28.80	0.5		0.8s	19.80nm			5.3mb	
TIA	47.40	277	Pc	16	23.40	0.0		0.4s	31.00nm			5.7mb		RSP	83.60	356	P	20	17.04	0.4
PLM	47.42	88	eP	16	23.00	-0.9	DCN	75.25	5	iPd	19	31.40	0.1	BNI	83.72	356	P	20	18.50	1.2
TPC	47.43	86	eP	16	23.00	-0.8	DLE	75.35	5	eP	19	32.20	0.3	RRL	83.85	356	P	20	19.09	1.0
HHC	47.90	286	Pc	16	28.00	0.6	NDI	76.34	299	eP	19	37.50	-0.4	BOB	83.86	354	P	20	18.50	0.6
BAR	47.99	88	eP	16	27.00	-1.1	WTS	76.78	357	eP	19	40.00	0.1	LFF	83.93	1	eP	20	18.40	0.3
SSE	48.26	269	iP+	16	30.00	-0.1		0.6s	5.00nm			4.7mb			0.5s	20.90nm			5.6mb	
	1.0s	35.00nm			5.3mb		CLL	77.10	353	eP	19	41.00	-0.8	CAF	83.94	360	eP	20	18.50	0.2
Z	20s	0.50um			4.5Msz			1.8s	30.00nm			5.0mb			0.8s	20.60nm			5.3mb	
N	12s	0.20um							e		20	13.00		LPO	84.19	0	eP	20	19.50	0.1
		sP		16	46.00		KSP	77.27	351	eP	19	41.50	-1.2		0.6s	19.80nm			5.5mb	
		S		23	36.00		MTN	77.56	230	iPc	19	44.50	-0.2	DOI	84.24	356	P	20	19.20	-0.7
GLA	48.89	86	eP	16	35.00	-0.1		0.9s	118.00nm			5.9mb		PZZ	84.25	356	P	20	20.02	0.1
BTO	48.98	287	iPc	16	37.50	1.7	KRA	77.62	348	eP	19	44.00	-0.6	MME	84.35	353	Pc	20	21.50	0.9
N	15s	0.60um					CTA	77.73	214	iPd	19	45.30	-0.3	HYB	84.41	291	iPc	20	20.50	-0.5
E	15s	0.50um						1.1s	37.97nm			5.3mb			0.6s	83.40nm			6.1mb	
		esP		16	48.00		MOX	77.87	354	eP	19	46.00	0.0			e		20	31.00	
		S		23	37.00			1.8s	35.00nm			5.1mb		ROB	84.42	355	P	20	20.02	-0.7
NJ2	49.07	272	Pc	16	36.00	-0.3	ENN	78.03	357	iPd	19	47.40	0.5	BDI	84.49	354	P	20	22.00	0.9
TIY	49.33	282	iPc	16	39.50	1.1		0.7s	24.00nm			5.3mb		FIN	84.49	355	P	20	20.53	-0.5
N	20s	1.00um							e		20	18.50		STV	84.50	356	P	20	19.91	-1.2
		S		23	45.50		MEM	78.19	357	P	19	49.20	1.5	PGD	84.59	353	P	20	23.50	1.8
KBS	49.69	357	eP	16	41.10	0.6	PRU	78.28	352	P	19	48.00	-0.3	FIR	84.73	353	e(P)	20	22.50	0.4
RSON	50.17	55	eP	16	42.80	-1.8	SNF	78.33	358	P	19	48.70	0.2	TOUF	84.73	356	P	20	23.14	0.7
	0.6s	11.92nm			5.1mb		DOU	78.74	358	Pc	19	50.80	0.0	AUTN	84.74	356	P	20	23.25	0.7
GOL	50.39	73	ePc	16	47.00	0.2		0.6s	16.40nm			5.2mb		SAOF	84.75	356	P	20	23.40	1.1
	1.0s	85.00nm			5.7mb		SNG	78.82	267	eP	19	51.30	-0.5	IMI	84.81	355	P	20	22.58	-0.1
DAG	51.34	6	eP	16	53.00	-0.1	WLF	79.13	357	P	19	53.50	0.6	PII	84.84	354	P	20	22.30	-0.4
FRB	52.78	32	eP	17	03.00	-1.1	ZST	79.79	350	e(P)	19	56.80	0.3	MVIF	84.85	356	P	20	23.53	0.5
ALQ	52.82	79	ePc	17	04.20	-0.9	SRO	80.03	349	eP	20	02.40	4.6X	AURF	84.85	356	P	20	24.33	1.4
	1.2s	37.50nm			5.2mb		FLN	80.09	1	eP	19	57.80	-0.3	ARV	84.86	352	P	20	24.00	1.1
		e		17	14.00			0.8s	14.50nm			5.0mb		SBF	84.87	356	eP	20	22.80	-0.2
WHN	52.91	274	Pc	17	05.00	-0.5	LDF	80.27	1	eP	19	58.20	-0.8		0.6s	25.20nm			5.6mb	
	1.0s	0.08nm			2.6mb	X		0.5s	20.40nm			5.4mb		BBTK	85.05	336	iPc	20	24.00	0.0
		sP		17	18.50		CDF	80.34	356	eP	19	59.40	-0.2	FRF	85.21	356	eP	20	24.80	0.2
XAN	53.89	281	iPc	17	12.00	-0.7		0.6s	5.40nm			4.7mb			0.6s	10.80nm			5.2mb	
QZH	54.21	266	P	17	14.50	-0.6	GRR	80.46	2	eP	19	59.60	-0.5	ASS	85.31	352	P	20	25.50	0.3
LZH	55.60	286	iPc	17	26.00	0.7		0.6s	12.60nm			5.1mb		SKO	85.31	345	iP	20	25.50	0.4
	3.0s	0.40nm			2.9mb	X	HAU	80.78	357	eP	20	01.70	-0.1	LRG	85.33	357	eP	20	25.50	0.4
Z	22s	0.90um			4.8Msz			0.4s	8.00nm			5.1mb			0.6s	11.50nm			5.3mb	
GTA	55.76	292	iPc	17	25.70	-0.7	LPF	80.81	2	eP	20	01.80	-0.1	LMR	85.44	356	eP	20	26.10	0.4
	0.5s	0.10nm			3.1mb	X		0.8s	19.80nm			5.2mb			0.6s	16.20nm			5.4mb	
KEV	57.63	350	eP	17	47.00	7.8X	BSF	80.94	356	eP	20	02.70	-0.1	ASPA	85.76	223	iPc	20	27.20	-0.3
CD2	59.20	282	iPc	17	50.30	-0.4		0.4s	3.40nm			4.7mb			1.0s	22.00nm			5.3mb	
WMQ	59.49	303	P	17	51.40	-1.2	MLR	81.12	343	iPd	20	00.50	-3.3X	EPF	85.83	1	eP	20	27.10	-0.7
SCH	59.77	39	eP	17	52.00	-2.3	DEV	81.26	345	ePd	20	05.00	0.6		0.9s	11.40nm			5.1mb	
SOD	59.95	349	eP	17	54.00	-1.4	KBA	81.28	352	iPc	20	05.00	0.4	CVF	86.09	355	P	20	29.38	0.3
FVM	60.26	65	eP	17	56.20	-1.7		0.5s	44.70nm			5.7mb		POO	86.23	295	iPd	20	30.30	0.2
		epP		18	06.00	32kmX			i(pP)		20	22.40	63kmX	OHR	86.25	346	eP	20	29.50	-0.4
GYA	60.57	276	iPc	17	59.60	-0.6			i(sP)		20	29.20		DUI	86.54	350	P	20	32.00	0.7
OLY	61.39	68	eP	18	03.70	-1.9			i		21	08.80		SDI	86.56	351	P	20	30.90	-0.5
		epP		18	13.50	32kmX	CMP	81.50	344	ePc	20	08.00	2.3	RFI	86.94	351	P	20	34.95	1.8
GAC	62.67	50	eP	18	12.00	-1.9	LOR	81.58	358	eP	20	06.40	0.4	MGR	87.92	349	P	20	37.20	-0.7
KMI	63.96	278	Pc	18	22.50	-0.5		0.8s	13.90nm			5.0mb		GBA	88.07	289	Pc	20	37.70	-1.2
QIZ	64.03	268	eP	18	23.60	0.4	BZS	81.73	346	eP	20	06.50	-0.2		0.5s	23.40nm			5.7mb	
SUF	64.48	348	iP	18	24.40	-1.1	SSF	81.80	359	eP	20	07.50	0.4	TDS	88.30	349	P	20	39.50	-0.3
	0.5s	11.80nm			5.2mb			0.8s	9.90nm			4.9mb		GRI	89.12	348	P	20	43.20	-0.5
GBTN	65.41	63	eP	18	31.20	-0.8	FVI	81.81	352	P	20	07.10	0.0	STK	90.18	213	eP	20	49.00	0.6
		epP		18	41.00	31kmX	LBF	81.87	358	eP	20	07.40	-0.1	BWA	90.40	207	eP	20	49.70	0.3
BLA	66.36	60	eP	18	37.70	-0.4		1.0s	14.00nm			4.9mb		KOD	90.72	287	eP	20	51.80	0.0
	0.6s	9.01nm			5.0mb		RBL	81.89	352	P	20	07.20	-0.5	CAN	91.08	206	eP	20	53.00	0.5
TBR	66.66	53	eP	18	38.50	-1.4	AVF	82.07	359	eP	20	08.50	0.0	ZOBO	115.16	85	PKP	26	32.00	1.2
NUR	66.81	348	iP	18	39.00	-1.5		0.8s	9.40nm			4.9mb					LR	04	36.00	
Z	18s	0.40um			4.7Msz		SMF	82.21	358	eP	20	09.30	0.0	TIC	121.80	8	PKPc	26	41.90	-0.9
		LR		55	30.00			0.8s	22.80nm			5.3mb		KIC	122.10	7	PKPc	26	42.50	-0.9
NB2	67.54	355	P	18	43.80	-1.4	MFF	82.26	1	eP	20	09.50	0.0		0.5s	12.00nm				
	0.5s	3.80nm			4.7mb			0.6s	9.00nm			5.0mb		LIC	122.21	8	PKPc	26	42.90	-0.7
PRM	67.60	63	eP	18	45.00	-0.9	WRA	82.29	224	eP	20	08.50	-1.4		0.5s	11.50nm				
LSA	67.64	290	iPc	18	48.10	1.3	BGF	82.31	359	eP	20	09.80	0.0	BNG	122.42	340	iPKPc	26	43.00	-1.0
NRA0	67.82	355	P	18	44.40	-2.5		0.7s	5.50nm			4.7mb			0.3s	10.00nm				
JSC	68.07	62	eP	18	48.30	-0.5	CTI	82.44	353	P	20	10.40	-0.2				ic	26	54.00	
		epP		18	58.00	31kmX	BRS	82.56	206	iP	20	11.30	0.1	PPD	129.84	75	ePKP	27	04.90	6.8X
UPP	68.23	351	iP	18	47.60	-1.8	TCF	82.58	360	eP	20	11.50	0.3	KRI	138.86	317	iPKPd	27	17.80	2.4X
SGS	69.29	63	eP	18	56.20	-0.2		0.4s	4.20nm			4.9mb					iPP	31	07.00	
LOE	70.31	273	eP	19	01.50	-1.3	LSF	82.62	0	eP	20	11.80	0.4	SPA	141.32	180	e(PKP)	27	12.00	-6.3X
CHG	70.99	276	iPc	19	06.30	-0.6		0.4s	16.60nm			5.5mb			1.0s	5.50nm				
	1.1s	24.68nm			5.2mb		MAF	82.65	359	eP	20	12.00	0.4	BUL	142.23	316	ePKP	27	15.90	-5.5X
GUN	72.05	292	P	19	14.00	0.4		1.0s	22.00nm			5.2mb		MAW	146.75	218	iPKPd	27	27.00	-0.3
BDT	72.13	275	eP	19	12.00	-1.7	BEO	82.68	347	eP	20	11.50	-0.2		1.0s	75.00nm				
KKN	72.48	293	P	19	16.40	0.4	VAI	82.81	355	P	20	12.00	-0.3				i	27	29.10	
PKI	72.58	292	P	19	16.80	0.1	RMQ	82.87	209	eP	20	13.00	0.2	SLR	147.23	312	iPKPc	27	33.50	3.9X
GKN	72.69	293	P	19	17.20	0.0	ORX	83.08	356	P	20	14.07	0.1		0.9s	155.46nm				
DMN	72.72	293	P	19	18.00	0.5	LPG	83.27	356	eP	20	16.30	1.1	BPI	147.72	312	iPKPc	27	34.20	3.7X
EKA	73.45	3	Pd	19	20.90	0.0		0.6s	6.30nm			4.9mb		KSR	147.98	313	iPKPd	27	33.00	2.1X
	0.5s	3.80nm			4.6mb		LSD	83.29	356	P	20	16.33	1.1		1.0s	60.00nm				
KHT	74.25	274	eP	19	26.30	0.2	PSI	83.35	266	iPd	20	15.50	-0.1	PRY	148.62	312	iPKPd	27	34.70	2.8X

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        0.9s   103.85nm
 BFS   148.91 313 iPKPc 27 34.00   1.7X
        1.0s   330.00nm
 BLF   151.06 311 iPKPc 27 39.20   3.7X
        0.9s   141.54nm
               i      27 50.00
      S.D. = 0.8  on 224 of 240 obs.
-----------------------------------------
*  APR 09, 1989  07h 07m 32.38± 0.75s
   51.076 N ±18.1km  177.999 W ± 9.2km
   DEPTH =  33.0km  (normal)
   4.8mb (  8 obs.)
 ANDREANOF ISLANDS, ALEUTIAN IS. (  7)

ADK     1.15  45 iPc   07 53.20   1.0
SMY     5.16 292 eP    08 52.80   3.5X
KDC    16.21  56 eP    11 20.00   1.0
TTA    16.75  36 eP    11 28.00   2.2
IMA    19.45  30 eP    11 59.20   0.3
        1.0s     8.80nm          4.0mb
FBA    20.88  37 eP    12 11.80  -1.9
MBC    33.70  22 eP    14 10.00  -1.9
YKA    35.08  46 eP    14 23.00  -0.9
PNT    36.57  69 iPd   14 38.30   1.6
        0.6s     7.00nm          4.7mb
KVN    42.84  82 eP    15 29.60   0.6
BW06   45.92  72 eP    15 54.00   0.3
        0.6s     4.65nm          4.6mb
MSU    46.86  79 eP    16 02.50   1.3
RSON   50.22  55 eP    16 24.00  -2.7
GOL    50.29  73 eP    16 28.40   0.7
ALQ    52.66  79 e(P)  16 45.00  -0.7
        1.0s     1.50nm          3.9mb
FVM    60.22  65 eP    17 38.00  -1.4
ELC    61.39  65 eP    17 46.00  -1.3
GUN    72.44 293 P     18 58.00   0.3
KKN    72.88 293 P     19 00.80   0.7
        0.6s    31.00nm          5.5mb
PKI    72.97 293 P     19 01.20   0.4
        0.6s    15.00nm          5.2mb
GKN    73.09 294 P     19 02.00   0.7
        0.8s    28.00nm          5.3mb
DMN    73.11 293 P     19 02.40   0.9
HYB    84.79 291 eP    20 04.50  -0.2
GBA    88.45 290 Pd    20 21.60  -0.9
        0.6s     2.50nm          4.7mb
      S.D. = 1.3  on  23 of  24 obs.
-----------------------------------------
&  APR 09, 1989  07h 29m 03.60s
   34.250 N          117.100 W
   DEPTH =   8.0km
 SOUTHERN CALIFORNIA              ( 43)
      <PAS-P>. ML 3.2 (PAS).

RVR     0.34 222 iPc   29 10.20  -0.4
PEC     0.36 188 iP    29 10.60  -0.4
SBB     0.74 306 iPc   29 17.40  -1.0
MWC     0.79 268 iPc   29 18.50  -0.9
TPC     0.88  99 iPc   29 20.20  -0.6
PLM     0.92 167 iPd   29 20.50  -0.9
GSC     1.08  13 iPd   29 23.70  -0.4
ABL     1.85 289 eP    29 35.80  -0.3
GLA     2.24 122 eP    29 40.50  -1.1
BCH     2.63 292 eP    29 46.30  -0.9
BLP     2.75 277 eP    29 47.80  -0.9
TNP     3.83 359 eP    30 06.30   2.0
KVN     4.86 351 eP    30 20.00   1.1
EUR     5.30  10 iP    30 28.00   2.8
       0.2s     1.67nm          4.3mb
       14 obs. associated
-----------------------------------------
?  APR 09, 1989  07h 42m 22.66± 0.88s
   35.631 N ±19.2km   26.350 E ± 9.5km
   DEPTH =  33.0km  (normal)
 CRETE                            (370)
      MD 3.1 (ATH).

KAP     0.68  97 iPnc  42 35.60  -0.2
                eSn   42 44.50
NPS     0.71 239 iPnc  42 36.50   0.3
VAM     1.77 263 ePn   42 51.10  -0.3
YER     2.16  46 iPn   42 57.30   0.2
      S.D. = 0.5  on   4 of   4 obs.
-----------------------------------------
&  APR 09, 1989  07h 51m 37.94s
   61.547 N          151.827 W
   DEPTH =   0.1km

 SOUTHERN ALASKA                  (  2)
      <AGS-P>. ML 3.1 (PMR).

CGLM    0.26 200 eP    51 43.80   0.8
CRP     0.32 209 iP    51 45.05   0.7
                eS    51 49.41
SPU     0.38 197 iP    51 46.12   0.5
                eS    51 52.13
SKT     0.46  18 iP    51 47.22   0.2
SUA     0.53  99 iP    51 48.79   0.3
NKA     0.86 160 iP    51 56.50   1.5
PWA     0.94  83 iPc   51 55.90  -0.7
RDT     1.02 196 iP    51 56.49  -1.7
                eS    52 10.03
PMS     1.13 105 iPd   51 59.00  -1.1
RED     1.22 203 iP    51 59.89  -1.8
                eS    52 18.72
PLRM    1.29  87 iP    52 01.45  -1.3
                eS    52 18.01
PMR     1.29  87 ePd   52 01.20  -1.5
                eS    52 17.80
SLKM    1.30 142 iP    52 01.79  -1.2
                eS    52 19.00
PME     1.34  85 iP    52 02.64  -0.9
                eS    52 20.22
GHO     1.40  79 iP    52 03.90  -0.8
NNL     1.53 170 iP    52 06.65   0.0
ILIM    1.57 201 iP    52 06.10  -1.1
                eS    52 26.66
SEW     1.86 140 eP    52 10.37  -0.9
                eS    52 34.68
SVW     1.88 258 iPc   52 09.90  -1.8
OPT     2.02 201 eP    52 11.62  -2.1
                eS    52 39.63
CNPM    2.05 172 iP    52 13.15  -0.9
                eS    52 39.98
KTH     2.06  11 eP    52 13.22  -1.0
                eS    52 40.55
XLV     2.10 179 eP    52 12.62  -2.2
                eS    52 41.00
PDB     2.11 214 iP    52 13.82  -1.2
KNIM    2.33 119 iP    52 16.71  -1.4
GLI     2.39 104 iP    52 17.71  -1.2
                eS    52 49.42
TTA     2.40 307 ePc   52 17.20  -2.0
MTU     2.58 126 eP    52 21.15  -0.5
VZW     2.59  99 eP    52 21.41  -0.5
VLZ     2.68  97 iP    52 22.54  -0.5
                eS    53 00.67
FID     2.71 105 eP    52 22.06  -1.5
                eS    52 58.84
TOA     2.74  76 eP    52 25.12   1.1
KLU     2.83  89 eP    52 24.87  -0.5
HIN     2.84 112 eP    52 25.20  -0.3
SGAM    3.39 105 eP    52 31.37  -1.8
KDC     3.83 185 eP    52 38.20  -1.2
FBA     3.83  27 eP    52 37.00  -2.4
BALM    4.60  92 eP    52 49.43  -1.1
IMA     4.61 351 iPd   52 48.20  -2.4
       39 obs. associated
-----------------------------------------
&  APR 09, 1989  08h 45m 48.29s
   61.534 N          151.790 W
   DEPTH =   0.0km
 SOUTHERN ALASKA                  (  2)
      <AGS-P>.

CGLM    0.25 205 eP    45 54.17   0.9
                eS    45 58.10
CRP     0.32 213 iP    45 55.25   0.6
SPU     0.38 200 iP    45 56.24   0.4
                eS    46 02.00
SKT     0.46  15 iP    45 57.38  -0.2
SUA     0.51  98 iP    45 58.98   0.6
                eS    46 07.29
NKA     0.84 161 iP    46 06.62   1.6
PWA     0.92  82 iP    46 05.91  -0.8
RDT     1.01 198 iP    46 06.72  -1.7
                eS    46 20.15
PMS     1.11 104 iP    46 09.30  -0.8
RED     1.22 204 eP    46 10.02  -1.9
                eS    46 25.83
PLRM    1.27  86 iP    46 11.67  -1.1
SLKM    1.28 143 iP    46 11.98  -1.0
                eS    46 29.27
PME     1.32  85 iP    46 12.77  -0.9
                eS    46 29.98

GHO     1.39  79 eP    46 13.87  -1.0
                eS    46 32.69
NNL     1.52 171 iP    46 16.86   0.1
ILIM    1.57 202 iP    46 16.23  -1.3
                eS    46 35.90
SEW     1.84 140 eP    46 20.82  -0.5
                eS    46 45.50
SVW     1.90 259 iP    46 20.20  -2.1
CNPM    2.03 172 eP    46 24.06  -0.2
                eS    46 50.10
KTH     2.07  11 eP    46 22.70  -2.1
XLV     2.09 179 eP    46 23.03  -1.9
                eS    46 51.74
PDB     2.11 215 eP    46 24.17  -1.2
KNIM    2.31 119 iP    46 26.92  -1.3
GLI     2.37 104 iP    46 27.93  -1.1
                eS    47 02.93
TTA     2.42 307 eP    46 29.13  -0.8
MTU     2.56 126 eP    46 31.55  -0.1
VZW     2.57  98 eP    46 31.72  -0.2
VLZ     2.66  96 eP    46 32.81  -0.3
                eS    47 09.57
FID     2.69 105 eP    46 32.37  -1.3
TOA     2.73  75 iP    46 30.78  -3.4
KLU     2.81  88 iP    46 35.11  -0.4
                eS    47 10.33
HIN     2.82 112 eP    46 37.89   2.4
SGAM    3.37 105 eP    46 46.97   3.7
GLB     3.83  88 eP    46 47.11  -2.7
FBA     3.83  26 eP    46 47.55  -2.3
BALM    4.58  92 eP    46 57.62  -3.0
       36 obs. associated
-----------------------------------------
    APR 09, 1989  09h 14m 34.17± 0.28s
    16.265 S ±10.1km  172.845 W ± 6.2km
    DEPTH =  25.2km  (  3 depth phases)
    5.1mb ( 15 obs.)  4.9Msz (  2 obs.)
 SAMOA ISLANDS REGION             (169)
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 15S, 31C
      Centraid Location:
      Origin Time        09:14:42.9 0.6
      Lat 16.24S 0.06 Lon 172.79W 0.07
      Dep  15.0 FIX Half-duration  1.8
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 0.96 0.04  Mtt= 0.16 0.07
        Mff=-1.12 0.06  Mrt= 0.24 0.14
        Mrf= 0.84 0.19  Mtf=-0.16 0.04
       Principal Axes:
        T  Val=  1.28  Plg=69  Azm=297
        N        0.16       6       191
        P       -1.45      20        99
      Best Double Couple:Mo=1.4**10**17
       NP1:Strike=178 Dip=26 Slip=  76
       NP2:         13      65       97

AFI     2.56  24 iPd   15 06.20  -8.8X
                eS    15 30.50
                e     16 27.60
                e     17 52.00
                e     18 36.10
                e     19 19.90
                e     24 46.00
                e     26 31.60
SVA     8.51 256 eP    16 45.10   6.2X
RAR    13.32 114 P     17 29.00 -15.3X
                S     19 16.00
DZM    20.39 250 iPc   19 11.90  -0.2
TVO    22.61  97 eP    19 35.00   0.5
        1.2s   100.00nm          5.2mb
KRP    23.88 203 eP    19 53.00   6.4X
PMO    24.05  90 eP    19 49.00   0.5
        1.2s    75.00nm          5.1mb
VAH    24.29  91 eP    19 51.00   0.3
        1.2s    70.00nm          5.1mb
TPT    24.32  90 eP    19 52.00   0.9
        1.2s   100.00nm          5.3mb
SNZO   27.18 201 P     20 38.00  20.5X
BRS    33.67 245 iPc   21 23.20   7.8X
COO    35.19 240 eP    21 28.00  -0.5
RMQ    37.05 247 eP    21 43.00  -1.2
                e     21 52.00  30km
CNB    38.66 233 eP    21 54.00  -3.6X
CTA    38.98 258 eP    22 00.00  -0.4
                iS    28 16.00
                i     31 04.00
```

09d 09h

BWA	39.11	235	eP	22	02.00	0.6		E	12s	0.50um				KKB	151.04	335	iPKP	34	27.00	6.4X
PMG	39.54	275	e(P)	22	06.00	0.9	KMI	91.88	295	Pd	27	45.00	2.8X	CAF	151.11	7	ePKP	34	26.30	5.6X
TOO	42.34	232	eP	22	28.00	0.1	KHT	92.71	285	eP	27	48.80	2.9X	EZN	151.19	328	iPKP	34	27.30	6.4X
STK	44.08	241	eP	22	42.00	-0.1	CHG	93.49	288	eP	27	51.50	2.1	BNI	151.30	1	PKP	34	28.00	6.9X
ADE	47.00	237	e(P)	23	05.00	-0.3	CHTO	93.49	288	iP	27	51.70	2.3	SKO	151.59	337	iPKP	34	27.50	6.0X
WRA	50.17	257	eP	23	29.10	-1.0		1.0s		7.75nm			5.1mb	VAY	151.70	335	ePKP	34	27.70	6.1X
ASPA	50.36	253	iPd	23	30.10	-1.4				pP	28	00.20	26km	IZM	151.75	325	ePKP	34	25.00	3.1X
	1.2s		64.00nm			5.5mb	FVM	94.04	52	P	27	52.50	0.9	FIR	152.36	354	ePKP	34	30.00	7.5X
GUMO	51.25	303	eP	23	37.50	-0.8	LZH	94.16	306	eP	27	54.00	1.6	OHR	152.57	337	ePKP	34	30.30	7.3X
MTN	54.20	266	eP	23	59.00	-1.3	GTA	98.13	309	eP	28	11.00	0.6		1.1s		0.05nm			
FORR	55.47	244	eP	24	08.00	-1.4	MAIO	129.65	304	ePKP	33	44.00	0.8	BNG	163.77	225	ePKPd	34	38.10	1.2
	0.4s		10.00nm			5.2mb	BUL	138.13	211	ePKP	34	04.40	4.6X		0.9s		14.00nm			
KNA	55.95	262	eP	24	12.00	-1.0	KRI	140.35	215	iPKPc	34	11.50	7.6X				id	34	49.10	
WARB	56.84	249	eP	24	11.00	-8.4X	WTS	144.35	0	e(PKP)	34	21.00	11.4X				ic	35	31.50	
	0.5s		6.00nm			4.9mb		0.9s		7.00nm							id	35	41.00	
COOL	61.45	243	eP	24	49.80	-1.4	CLL	144.73	354	ePKP	34	11.00	0.7		S.D. = 1.2		on 76 of 158 obs.			
MEKA	64.06	248	eP	25	08.00	-0.6	KSP	144.73	350	ePKP	34	09.80	-0.5							
KLB	64.31	242	iPc	25	09.70	-0.4				ec	34	22.00								
BAL	65.28	243	eP	25	16.00	-0.4	KRA	144.74	346	ePKP	34	08.00	-2.3X		APR 09, 1989 09h 22m 34.81± 0.47s					
MUN	65.60	242	eP	25	18.50	0.1				e	34	16.80			20.791 S ± 5.3km 178.703 W ± 3.3km					
NANU	67.29	252	eP	25	29.00	-0.3	SPC	145.47	345	ePKP	34	11.60	-0.3		DEPTH = 593.1 ± 6.0 km					
SYP	71.24	44	eP	26	01.00	7.5X				e	34	21.80			5.1mb (30 obs.)					
BAR	72.46	47	eP	26	04.00	3.3X	MOX	145.52	355	ePKP	34	12.00	0.3		FIJI ISLANDS REGION					(181)
RVR	72.70	46	eP	26	02.00	-0.1		2.6s		141.00nm					CENTROID, MOMENT TENSOR					(HRV)
PLM	72.70	47	eP	26	01.00	-1.3				e	34	20.00			Data Used: GDSN					
SBB	72.78	45	eP	26	04.00	1.4	ENN	145.57	1	ePKP	34	18.50	6.8X		L.P.B.: 15S, 25C					
FRI	72.87	42	e(P)	26	02.70	-0.3	MEM	145.73	1	PKP	34	20.40	8.4X		Centroid Location:					
ISA	72.90	44	eP	26	03.00	-0.3	SNF	145.76	3	PKP	34	20.80	8.8X		Origin Time 09:22:41.6 0.8					
CMB	73.06	41	eP	26	03.00	-1.2	PRU	145.83	352	ePKPd	34	12.50	0.3		Lat 20.42S 0.08 Lon 179.23W 0.08					
WDC	73.33	38	e(P)	26	08.10	2.5X				e	34	21.50			Dep 604.1 5.4 Half-duration 2.0					
CLC	73.57	44	eP	26	07.00	-0.2	NAI	145.93	242	iPKPd	34	16.00	2.2X		Moment Tensor; Scale 10**17 Nm					
TPC	73.68	46	eP	26	10.00	2.2		1.0s		15.00nm					Mrr=-1.40 0.10 Mtt= 1.02 0.19					
SPA	73.84	180	e(P)	26	03.20	-5.2X	KAS	146.06	323	ePKP	34	16.00	3.0X		Mff= 0.38 0.19 Mrt=-0.69 0.18					
	1.0s		5.00nm			4.5mb	DOU	146.19	3	PKP	34	16.90	4.1X		Mrf=-1.13 0.16 Mtf=-0.56 0.15					
GLA	73.97	48	eP	26	09.00	-0.5	CFR	146.20	333	iPKPd	33	59.00	-13.9X		Principal Axes:					
KVN	75.10	41	P	26	15.00	-1.2	VRI	146.25	335	ePKP	34	23.50	10.4X		T Val= 1.34 Plg= 1 Azm=209					
TNP	75.11	42	P	26	15.10	-1.2	GRF	146.50	355	iPKP	34	14.40	1.1		N 0.84 30 118					
	0.9s		18.23nm			5.1mb				e	34	25.40			P -2.18 59 301					
KDC	75.64	11	P	26	17.00	-1.6	WLF	146.68	1	PKPc	34	16.50	3.0X		Best Double Couple:Mo=1.8**10**17					
	0.8s		27.59nm			5.3mb				e	34	26.40			NP1:Strike=326 Dip=51 Slip= -50					
EUR	76.71	42	eP	26	25.70	0.4	TLB	146.72	332	ePKP	34	16.00	2.2X		NP2: 92 53 -129					
BMW	76.77	33	P	26	27.50	2.2	KHC	146.80	352	PKP	34	15.80	1.9X	SVA	3.78	314	eP	23	58.00	-0.7
LON	77.69	33	P	26	29.00	-1.3				i	34	27.20					eS	24	34.00	
MSU	78.67	44	P	26	35.00	-1.2	MLR	146.87	336	ePKPd	34	16.50	2.3X	DZM	13.89	262	iPd	25	33.10	0.8
PMR	79.86	11	eP	26	39.90	-1.8	ZST	147.12	348	e(PKP)	34	16.40	2.1X				iS	28	03.90	
MDJ	80.03	322	eP	26	43.50	0.4	SRO	147.22	346	ePKP	34	18.00	3.5X	KRP	17.79	195	Pc	26	11.00	1.4
Z	25s		1.00um			5.1MszX	BBTK	147.62	322	ePKP	34	19.00	3.4X	WEL	21.17	194	P	26	39.70	-1.0
			S	36	50.00		DEV	147.66	339	iPKPd	34	18.00	2.7X		0.8s		274.63nm			5.9mb
TTA	80.03	8	P	26	40.00	-2.8	BZS	148.32	341	ePKP	34	20.00	3.7X	MSZ	26.27	202	P	27	26.00	0.0
	1.0s		17.50nm			5.0mb	HAU	148.34	1	ePKP	34	19.40	3.0X		0.8s		68.00nm			5.3mb
PNT	80.46	32	eP	26	44.00	-1.3	KBA	148.85	352	ePKP	34	22.00	4.6X	BRS	26.82	250	iPc	27	31.70	0.6
	1.1s		46.00nm			5.4mb		0.9s		8.80nm				AFR	27.50	88	iP	27	36.50	-0.5
ALQ	80.95	50	eP	26	45.00	-3.4X				i	34	33.50			0.6s		40.00nm			5.2mb
	1.2s		16.80nm			4.9mb	LOR	148.97	4	ePKP	34	21.60	4.2X	PAE	27.66	89	iP	27	37.90	-0.5
Z	18s		0.43um			4.8Msz	JMB	149.03	331	iPKP	34	23.00	5.4X		0.6s		30.00nm			5.1mb
			e	27	00.00	52kmX	SSF	149.14	5	ePKP	34	22.20	4.6X	PPT	27.68	88	iP	27	38.30	-0.3
CN2	82.09	320	Pc	26	54.00	0.1	MFF	149.15	10	ePKP	34	21.60	4.0X		0.6s		30.00nm			5.1mb
	3.0s		0.40nm			2.9mb X	LBF	149.26	4	ePKP	34	22.20	4.3X	PPN	27.82	88	iP	27	39.20	-0.6
Z	22s		0.60um			4.9Msz	AVF	149.40	5	ePKP	34	22.20	4.2X		0.6s		10.00nm			4.6mb
			pP	27	00.00	19km	FVI	149.40	352	PKP	34	23.00	5.0X	TVO	27.94	89	iP	27	40.40	-0.6
			eS	37	00.00		BEO	149.40	341	ePKP	34	21.50	3.5X		0.6s		45.00nm			5.3mb
LRM	82.37	38	eP	26	57.80	2.2	RBL	149.44	351	PKP	34	23.00	4.8X	COO	28.16	244	iPd	27	44.10	1.3
BW06	82.56	42	P	26	55.00	-1.7	SMF	149.58	5	ePKP	34	22.70	4.4X	PMO	29.84	84	iP	27	57.90	0.7
	1.0s		16.56nm			5.1mb	BGF	149.58	6	ePKP	34	22.90	4.6X		0.6s		15.00nm			4.8mb
FBA	83.14	10	eP	26	57.10	-1.8	LJU	149.68	350	e(PKP)	34	15.80	-2.7X	VAH	30.03	85	iP	27	58.80	0.0
GOL	83.87	46	P	27	02.50	-1.0	ALT	149.69	323	ePKP	34	24.50	5.7X		0.6s		15.00nm			4.8mb
TIA	84.17	310	eP	27	05.50	0.8	LSF	149.74	8	ePKP	34	23.10	4.6X	TPT	30.11	84	iP	27	59.00	-0.4
SES	85.61	34	eP	27	12.00	0.3	TCF	149.78	7	ePKP	34	23.40	4.8X		0.6s		20.00nm			4.9mb
EDM	85.94	31	eP	27	12.50	-0.7	VOY	149.79	351	ePKP	34	24.00	5.2X	RUV	30.27	85	iP	28	00.20	-0.6
BJI	86.45	313	eP	27	16.00	0.1	MAF	149.89	6	ePKP	34	23.80	5.0X		0.6s		25.00nm			5.0mb
	4.0s		0.30nm			2.9mb X	CEY	149.99	350	e(PKP)	34	24.50	5.5X	RMQ	30.29	253	eP	28	03.00	2.0
Z	24s		0.40um			4.7MszX	PGB	150.02	334	iPKP	34	25.00	5.8X	CAN	31.80	236	eP	28	14.20	0.5
			eSKS	37	40.00		VBY	150.07	349	ePKP	34	23.70	4.7X	BWA	31.99	238	eP	28	13.60	-1.6
			eS	38	00.00		CTI	150.07	354	PKP	34	25.00	5.8X	CTA	32.81	265	iPc	28	22.80	0.6
PPI	86.76	270	eP	27	28.00	9.9X	TRI	150.13	351	ePKP	34	24.50	5.4X		1.0s		63.50nm			5.2mb
TIY	88.21	310	P	27	26.00	1.4				e	34	34.20		PMG	34.77	284	iPd	28	38.00	-0.6
Z	25s		0.70um			5.0MszX	KDZ	150.21	332	iPKP	34	26.00	6.6X		0.9s		100.84nm			5.4mb
			S	38	10.50		VTS	150.38	336	iPKP	34	25.00	5.2X	TOO	35.19	234	iPd	28	43.10	1.2
SNG	88.68	278	eP	27	29.50	2.3	BCK	150.44	320	ePKP	34	24.00	4.0X	STK	37.07	244	eP	28	58.00	0.7
GYA	88.92	298	P	27	29.80	1.5	VAI	150.46	358	PKP	34	26.50	6.9X	QIS	38.93	263	eP	29	12.00	-0.6
INK	88.98	14	eP	27	27.00	-0.5	RZN	150.49	333	iPKP	34	26.00	5.9X				e	31	07.00	
PSI	89.05	273	ePd	27	30.50	1.4	MDI	150.50	356	PKP	34	34.00	14.4X	ASPA	43.81	257	iPd	29	50.70	-0.6
XAN	89.57	306	P	27	32.00	0.9	KHL	150.52	323	ePKP	34	26.30	6.2X		0.7s		57.00nm			5.2mb
HHC	90.00	313	eP	27	34.00	0.9	SAL	150.61	355	PKP	34	36.50	16.7X		Z 19s		2.93um			5.2Msz
LOE	90.55	288	eP	27	46.00	10.1X	LPG	150.85	1	ePKP	34	27.20	6.6X				iPcP	31	24.30	
YKA	90.68	23	P	27	35.30	-0.3	LFF	150.91	9	ePKP	34	25.90	5.6X				iS	35	37.00	
BTO	91.01	312	eP	27	39.50	1.8	MMB	151.00	334	iPKPc	34	28.00	7.4X				iScS	38	45.60	

			LR	43	43.10			LRM	89.35	40	eP	34	29.60	-0.5		ENN	149.86	354	ePKP	41	14.00	-0.1
WRA	43.91	262	iPd	29	51.10	-0.9		BW06	89.63	43	P	34	31.00	-0.5			0.8s		36.00nm			
			eS	35	39.00				1.0s		37.50nm			5.3mb					iP'P'	41	19.60	
MTN	48.51	271	iPd	30	26.20	-0.9		CHG	89.72	290	ePd	34	33.00	0.9					i	41	27.40	
FORR	48.54	247	eP	30	26.30	-0.8			0.9s		23.11nm			5.1mb		UCC	149.96	356	PKP	41	20.10	5.9X
	0.4s		19.00nm			5.0mb		CHTO	89.72	290	eP	34	33.20	1.2		MEM	150.01	354	PKPc	41	14.20	-0.1
GUA	49.42	311	eP	30	33.30	-0.4			0.7s		16.20nm			5.1mb					ed	41	19.70	
GUMO	49.49	311	eP	30	33.50	-0.6						pP	36	32.70	539kmX	KHC	150.07	344	iPKPc	41	14.50	0.0
PJG	49.49	311	eP	30	33.50	-0.6		CD2	90.39	303	eP	34	35.60	0.6					i	41	20.40	
KNA	49.96	267	eP	30	37.00	-0.7		GOL	91.00	48	P	34	37.50	-0.4					i	41	29.00	
WARB	50.12	253	iPd	30	30.80	-8.0X		LZH	92.42	308	eP	34	46.00	1.6		GRF	150.10	347	ePKP	41	14.50	0.0
	0.3s		5.00nm			4.5mb			2.0s		55.00nm			5.2mb					e	41	20.50	
COOL	54.51	246	eP	31	08.70	-1.5		SES	92.49	36	ePd	34	44.60	0.4					e	41	27.40	
MBL	57.05	258	iPc	31	26.60	-1.2		EDM	92.71	33	iP	34	45.00	-0.1		BZS	150.14	331	ePKPc	41	13.50	-1.1
	0.4s		17.00nm			4.6mb		INK	94.73	15	eP	34	53.00	-0.9		SNF	150.25	356	PKPd	41	20.30	5.7X
MEKA	57.28	251	eP	31	28.00	-1.3		YKA	97.05	25	P	35	04.60	0.1					ec	41	28.80	
KLB	57.33	245	eP	31	28.20	-1.4		DAG	123.08	5	iPKPc	40	23.60	-1.5		DIM	150.57	322	ePKP	41	21.00	5.6X
SBA	57.54	184	iPd	31	33.10	2.8			0.4s		7.63nm					DOU	150.64	356	PKP	41	21.60	6.3X
NWAO	57.65	244	eP	31	31.00	-0.7		MAIO	127.32	300	ePKP	40	34.00	-0.6		KDZ	150.88	321	iPKPd	41	22.00	6.1X
MUN	58.61	245	eP	31	37.50	-0.7					e	42	42.00			WLF	150.93	354	PKP	41	21.80	6.1X
NANU	60.69	255	eP	31	51.60	-0.4		KEV	128.63	349	ePKP	40	30.00	-5.9X					e	41	31.60	
	0.5s		26.00nm			4.8mb		SOB1	128.93	122	ePKP	40	36.50	-1.7		PLD	151.01	322	iPKP	41	22.00	5.9X
SPA	69.34	180	e(P)	32	46.50	1.1					e	43	04.10			PGB	151.02	324	iPKPd	41	23.00	6.8X
	1.0s		50.50nm			5.0mb		SOD	130.74	347	ePKP	40	34.00	-6.0X		RZN	151.27	322	iPKP	41	23.00	6.3X
ADK	72.38	1	eP	33	01.80	-1.0					eSKP	43	10.00			BEO	151.27	331	ePKP	41	22.00	5.6X
QZH	76.02	304	P	33	24.00	0.3		SUF	134.78	344	iPKP	40	38.60	-9.2X		GWF	151.42	351	PKP	41	16.63	0.1
SYP	78.35	46	eP	33	37.00	0.8		NUR	137.03	343	iPKP	40	42.90	-9.2X		VTS	151.52	325	iPKP	41	24.00	7.0X
PRS	78.48	44	ePd	33	37.60	0.9			0.7s		18.70nm					MMB	151.90	323	iPKPc	41	24.00	6.6X
GCC	78.50	43	ePd	33	37.40	0.7			Z 20s		0.30um			5.0Msz		KBA	152.01	342	ePKPd	41	23.00	5.4X
PCC	78.54	42	eP	33	37.70	0.8					i	40	51.00				1.0s		17.60nm			
SAO	78.69	44	eP	33	38.40	0.6					iSKP	43	31.00			CDF	152.03	351	PKP	41	16.91	-0.6
PRI	78.83	44	eP	33	38.80	0.1					LR	32	20.00			FLN	152.06	3	ePKP	41	24.50	7.1X
BRK	78.84	42	eP	33	39.20	0.7		NB2	139.19	353	PKP	40	46.10	-10.0X		KKB	152.08	324	iPKP	41	24.00	6.3X
BKS	78.86	42	eP	33	39.50	0.9			0.9s		8.10nm					LDF	152.24	2	ePKP	41	24.60	7.0X
	1.0s		65.00nm			5.0mb		EDU	144.15	4	ePKPc	41	03.70	-1.1		VITF	152.38	353	PKP	41	16.63	-1.2
MHC	78.91	43	ePd	33	40.00	0.9			0.7s		126.00nm					GRR	152.41	3	ePKP	41	25.50	7.6X
ARN	78.98	43	P	33	39.00	-0.3		EAB	144.40	5	ePKPc	41	04.50	-0.7		FEL	152.44	350	PKP	41	17.43	-0.7
PAS	79.36	47	eP	33	41.00	-0.3		EAU	144.82	5	ePKPc	41	06.00	0.0		RBL	152.52	341	PKP	41	17.00	-1.2
NJ2	79.56	310	Pd	33	42.50	0.2			0.9s		116.00nm					HAU	152.55	353	ePKP	41	25.80	7.7X
BAR	79.60	49	eP	33	43.00	0.4		EBL	144.92	4	ePKPc	41	06.20	0.0		LJU	152.57	340	(PKP)	41	18.00	-0.2
RVR	79.83	48	eP	33	43.00	-0.7		EKA	145.35	4	PKPd	41	07.00	0.1					i	41	25.40	
PLM	79.84	49	eP	33	44.00	0.0			1.0s		42.20nm					MOF	152.59	351	PKP	41	18.50	0.2
SBB	79.90	47	eP	33	44.00	-0.2		KAS	145.74	314	iPKPd	41	10.80	2.7X		FVI	152.61	343	PKP	41	25.00	6.8X
FRI	79.95	44	ePd	33	44.50	0.2		DMU	146.36	9	iPKPd	41	10.20	1.7		BSF	152.66	352	PKP	41	18.27	-0.2
ISA	80.01	46	eP	33	45.00	0.3			0.6s		75.00nm					VAY	152.73	323	ePKP	41	25.00	6.4X
CMB	80.12	43	ePd	33	45.50	0.2		DCN	146.84	9	ePKP	41	11.10	1.8					i	41	40.30	
			ePP	36	03.50				0.5s		109.00nm					LPF	152.76	3	ePKP	41	26.20	7.8X
WDC	80.32	40	iPd	33	47.00	0.9		DLE	147.00	9	ePKP	41	09.40	-0.2		VOY	152.79	341	e(PKP)	41	13.40	-5.2X
ORV	80.33	41	eP	33	46.80	0.6		BBTK	147.11	312	ePKP	41	14.00	3.6X					i	41	25.70	
MDJ	80.38	325	eP	33	46.50	0.2		KRA	147.27	338	iPKPc	41	12.80	2.7X		VBY	152.80	338	e(PKP)	41	17.50	-1.0
			S	43	04.00			VRI	147.45	326	iPKPc	41	14.00	3.4X					i	41	26.50	
CLC	80.68	46	eP	33	49.00	0.8		TLB	147.56	323	ePKPc	41	14.50	3.8X		SKO	152.90	326	ePKP	41	17.50	-1.3
MIN	80.74	41	eP	33	48.50	0.0		AYN	147.58	291	iPKPd	41	15.40	4.1X		LOMF	153.13	352	PKP	41	19.00	0.0
TPC	80.81	48	eP	33	49.00	0.1		WIT	147.77	354	ePKP	41	13.00	2.2X		CTI	153.42	344	PKP	41	27.00	7.5X
GSC	80.94	47	eP	33	50.00	0.4					iP'P'	41	15.60			LOR	153.51	356	ePKP	41	28.00	8.6X
GLA	81.11	50	eP	33	51.00	0.5		KSP	147.77	342	ePKPc	41	10.80	-0.1		SSF	153.73	357	ePKP	41	28.70	9.0X
KDC	81.24	14	eP	33	50.10	-0.3			1.0s		93.00nm					LBF	153.78	356	ePKP	41	28.60	8.7X
WHN	82.09	307	P	33	56.50	1.2					ic	41	15.00			OHR	153.84	325	ePKP	41	19.50	-0.6
CN2	82.13	323	Pd	33	55.20	0.0					i	41	19.20			MFF	154.23	2	ePKP	41	29.30	8.9X
			epP	36	02.40	598kmX					e	43	32.00			VAI	154.25	348	PKP	41	19.60	-0.8
KVN	82.17	43	P	33	55.90	0.1		SPC	147.88	336	ePKP	41	14.50	3.1X		BNI	155.40	351	PKP	41	32.50	10.3X
TNP	82.20	44	P	33	56.10	0.1		MLR	148.11	326	iPKPc	41	16.00	4.2X		FIR	155.62	342	ePKP	41	20.00	-2.4X
	0.8s		22.06nm			4.7mb		CLL	148.19	346	iPKP	41	11.10	-0.4		LIC	164.27	156	PKP	41	32.40	-0.1
			pP	36	05.00	608kmX					i	41	15.90			KIC	164.51	157	PKP	41	32.60	-0.1
BMW	83.60	35	P	34	03.00	0.4					pPKP	43	38.00			TIC	164.66	156	PKP	41	32.70	-0.2
EUR	83.78	44	iP	34	04.20	0.3		SRFA	148.28	292	iPKPc	41	17.00	4.6X			S.D. = 0.8		on 140 of 194 obs.			
	0.5s		8.64nm			4.6mb		HQL	148.36	292	ePKP	41	12.00	-0.5		----------						
SNG	83.88	280	eP	34	06.80	2.2		BADA	148.49	291	iPKPd	41	18.00	5.3X		* APR 09, 1989 09h 38m 29.11± 0.68s						
GMW	84.51	34	P	34	07.00	0.0		WTS	148.56	353	ePKP	41	12.00	0.0		9.799 S ± 9.3km 119.661 E ±10.1km						
LON	84.54	35	P	34	07.00	-0.2			1.0s		142.00nm					DEPTH = 33.0km (normal)						
TTA	85.34	10	eP	34	10.30	-0.4					iP'P'	41	16.50			4.2mb (2 obs.)						
PMR	85.45	14	eP	34	10.60	-0.5					i	41	22.10			SUMBA ISLAND REGION						(287)
	1.0s		45.00nm			5.1mb		CMP	148.72	327	ePKPc	41	22.00	9.4X								
BJI	85.64	316	eP	34	13.00	0.5		PRU	149.03	343	ePKPd	41	17.00	4.1X		KUPT	3.90	95	eP	39	54.50	26.3X
MSU	85.78	46	P	34	14.70	1.1			1.0s		43.40nm								eS	40	39.50	
TIY	86.98	312	iPd	34	19.50	0.4					e	41	24.50			MKS	4.56	358	iPd	39	37.50	0.0
PNT	87.26	34	ePd	34	20.00	-0.1		PSZ	149.05	335	e(PKP)	41	15.00	1.9X					iS	40	27.50	
	0.8s		43.00nm			5.3mb		MOX	149.11	347	ePKP	41	13.00	0.0		TRT	7.25	286	ePd	40	15.10	-0.4
XAN	87.79	308	iPc	34	25.00	2.1			1.4s		86.00nm								eS	41	02.50	
ALQ	88.10	52	eP	34	24.50	0.0					i	41	18.00			MBL	11.30	179	eP	41	07.00	-4.4X
	1.0s		13.75nm			4.7mb					i	41	24.00				0.4s		7.00nm			5.2mb X
			epP	36	31.00	582kmX		ALT	149.29	313	ePKP	41	17.50	3.7X					eS	43	02.00	
IMA	88.64	10	eP	34	26.00	-0.3		DEV	149.34	330	ePKPc	41	18.00	4.5X		MTN	11.65	106	eP	41	15.00	-1.1
	1.3s		49.50nm			5.2mb		BCK	149.66	310	ePKP	41	18.00	3.7X					eS	43	17.00	
FBA	88.67	13	eP	34	25.10	-1.1		SRO	149.74	337	iPKP	41	19.90	5.9X		NANU	13.29	197	eP	41	34.00	-4.1X
KMI	88.90	297	Pd	34	29.50	1.1		ZST	149.84	339	iPKP	41	19.80	5.7X					eS	43	50.00	
HHC	89.09	315	Pc	34	30.00	1.2					i	41	28.60			MEKA	16.76	184	eP	42	22.00	-1.1

09d 09h

		iS	45	10.40	
WRA	17.39	127 eP	42	20.20	-10.8X
		eS	45	35.30	
WARB	17.59	159 eP	42	26.00	-7.4X
	0.4s	7.00nm		4.1mb	
ASPA	19.37	137 iPd	42	54.80	-0.4
	1.4s	29.00nm		4.4mb	
		eS	46	22.50	
MRWA	19.62	190 eP	42	59.00	1.1
		eS	46	17.00	
QIS	21.99	121 eP	43	24.00	1.7
GUN	49.74	320 PKP	47	21.20	0.2
S.D. = 1.2 on 8 of 13 obs.					

? APR 09, 1989 10h 01m 37.74± 3.67s
47.166 N ±17.7km 7.276 E ±28.9km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
ML 2.3 (LDG).

BSF	0.74	334 Pg	01	52.40	0.0
		Sg	02	06.50	
HAU	1.05	324 Pg	01	57.40	-0.1
		Sg	02	14.60	
CDF	1.25	0 Pg	02	01.00	0.0
		Sg	02	20.60	
LBF	2.26	267 Pg	02	16.20	0.4
		Sg	02	47.20	
SMF	2.41	259 Pg	02	17.50	-0.4
		Sg	02	49.50	
S.D. = 0.4 on 5 of 5 obs.					

& APR 09, 1989 10h 33m 34.50s
50.461 N 119.517 W
DEPTH = 18.0km (geophysicist)
BRITISH COLUMBIA (23)
<PGC-P>. ML 3.5 (PGC). CL 3.6 (SEA). Felt at Enderby, Salmon Arm, Sorrento and Vernon.

PNT	1.15	183 iPc	33	54.40	-1.1
MNB	1.88	22 Pn	34	06.00	-0.3
VDB	2.21	230 Pnc	34	10.01	-0.8
		Pg	34	14.71	
		Sg	34	43.84	
WHB	2.23	263 Pn	34	10.84	-0.4
		Pg	34	14.07	
		S	34	43.14	
MBW	2.28	224 eP	34	11.42	-0.7
HNB	2.31	240 Pn	34	12.07	-0.2
		Pg	34	16.55	
		Sg	34	46.54	
RPW	2.40	214 eP	34	12.84	-0.7
NLW	2.44	193 iP	34	13.63	-0.7
DHW2	2.48	184 iP	34	13.82	-1.0
WPB	2.51	253 Pn	34	14.88	-0.3
		Pg	34	19.56	
		Sg	34	53.44	
CMW	2.65	221 eP	34	16.60	-0.7
DPW	2.73	161 eP	34	17.14	-1.2
SAW	2.76	178 eP	34	17.34	-1.4
JCW	2.76	216 eP	34	18.13	-0.6
WTV	2.78	186 eP	34	17.85	-1.2
MCW	2.80	232 eP	34	18.50	-0.8
HTW	3.04	210 eP	34	21.68	-1.0
EPH	3.11	181 eP	34	22.16	-1.5
ODS	3.20	171 eP	34	22.53	-2.4
TBM	3.37	193 eP	34	27.11	-0.3
WRD	3.50	176 eP	34	27.42	-1.8
VTG	3.52	185 eP	34	28.15	-1.3
EBG	3.62	191 eP	34	30.03	-1.0
GMW	3.62	218 eP	34	30.00	-1.0
CRF	3.64	179 eP	34	29.28	-1.9
LON	4.01	203 eP	34	36.50	0.0
EDM	4.72	52 eP	34	57.50	11.0
LRM	6.62	132 eP	35	10.80	-2.8
28 obs. associated					

? APR 09, 1989 10h 52m 21.53± 1.23s
19.257 N ±32.0km 95.730 E ±18.8km
DEPTH = 33.0km (normal)
3.9mb (1 obs.)
BURMA (296)

CHG	3.07	98 iPn	53	09.40	0.5
		iPg	53	19.30	
		iSn	53	44.00	
		iSg	53	53.30	
CHTO	3.07	98 eP	53	08.30	-0.6
BDT	3.70	122 ePn	53	17.80	0.1
		ePg	53	29.20	
		eSg	54	15.50	
KHT	5.22	148 ePg	54	02.50	23.1X
		eSg	55	13.00	
GUN	12.47	315 P	55	20.80	0.8
	0.4s	11.00nm		5.3mb	X
PKI	12.57	313 P	55	20.80	-0.5
	0.6s	10.00nm		5.1mb	X
GKN	13.38	313 P	55	31.20	-0.5
	0.6s	13.00nm		5.0mb	X
NB2	70.71	329 P	03	36.30	0.3
	0.7s	0.90nm		3.9mb	
S.D. = 0.7 on 7 of 8 obs.					

& APR 09, 1989 11h 24m 19.39s
40.419 N 110.942 W
DEPTH = 9.4km
UTAH (478)
<SLC-P>. ML 3.2 (SLC). Felt (II) at Tabiona.

DAU	0.24	269 iPc	24	24.80	0.2
HTU	0.33	320 P	24	26.30	0.0
JLU	0.42	64 P	24	28.50	0.5
DCU	0.45	270 P	24	28.60	0.1
DUG	1.45	262 eP	24	45.10	-0.8
MSU	2.13	207 eP	24	56.00	0.2
BW06	2.58	23 eP	25	02.00	-0.1
RW1	3.26	130 eP	25	11.70	-0.2
RW4	3.43	130 eP	25	14.40	0.0
EUR	3.98	258 eP	25	23.00	1.0
GOL	4.33	98 eP	25	28.50	1.3
TNP	5.40	246 eP	25	42.50	0.3
LRM	5.51	349 eP	25	48.70	4.9
KVN	5.68	258 eP	25	46.50	0.3
ALO	6.52	146 eP	25	57.80	-0.2
15 obs. associated					

* APR 09, 1989 12h 38m 15.83± 0.91s
6.536 S ± 9.2km 147.918 E ± 8.3km
DEPTH = 67.1 ± 9.0 km
4.8mb (5 obs.)
EAST PAPUA NEW GUINEA REGION (207)

LAT	0.92	263 iPd	38	32.00	-1.4
LMG	2.37	174 iP	38	53.00	-0.3
PMG	2.95	195 iPd	39	02.00	0.7
		eS	39	47.00	
MNDI	4.25	275 eP	39	21.00	1.2
RAB	4.83	61 eP	39	26.50	-1.3
JAY	8.22	299 ePc	40	17.50	2.6
OIS	16.10	209 eP	42	00.00	0.5
MTN	17.69	248 eP	42	19.00	-0.3
WRA	18.75	223 iPc	42	30.00	-2.2
RMO	19.86	178 iPd	42	45.50	1.3
	0.6s	31.00nm		4.8mb	
BRS	21.25	168 iPd	42	59.80	1.3
ASPA	21.72	217 ePd	43	03.00	-0.2
	0.5s	21.00nm		4.8mb	
		eS	47	07.60	
STK	25.90	192 eP	43	44.00	0.7
BWA	27.76	179 eP	44	03.90	3.6X
WARB	28.17	224 eP	43	57.00	-7.1X
	0.5s	8.00nm		4.6mb	
CAN	28.66	178 eP	44	09.90	1.5
FORR	30.50	215 eP	44	24.30	-0.5
MBL	30.82	239 eP	44	26.00	-1.7
MEKA	34.37	231 eP	44	58.50	-0.1
COOL	34.88	223 eP	45	02.50	-0.4
	0.3s	4.00nm		4.9mb	
NANU	35.05	240 eP	45	04.30	-0.1
MRWA	37.62	229 eP	45	26.40	0.4
KLB	37.62	225 iPd	45	25.80	-0.2
	0.4s	8.00nm		5.0mb	
NWAO	38.76	223 eP	45	35.00	-0.5
MUN	38.93	225 eP	45	36.00	-0.9
S.D. = 1.2 on 23 of 25 obs.					

* APR 09, 1989 12h 47m 22.57± 0.78s
2.675 N ±10.2km 128.533 E ±12.5km
DEPTH = 33.0km (normal)
5.1mb (6 obs.)
HALMAHERA (267)

MNI	3.89	252 eP	48	22.40	0.9
		eS	49	07.30	
QIS	25.51	155 eP	52	50.00	0.1
		e	53	05.00	
CHG	33.10	301 eP	53	57.90	0.0
CHTO	33.10	301 eP	53	58.10	0.2
XAN	36.18	332 P	54	24.00	-0.1
BJI	38.85	345 eP	54	46.00	-0.4
LZH	40.33	328 eP	55	01.00	2.1
GTA	44.93	328 eP	55	36.80	0.4
GUN	47.80	306 P	55	59.40	-0.1
PKI	48.04	305 P	56	00.80	-0.6
	0.6s	9.00nm		5.0mb	
KKN	48.24	306 P	56	02.60	-0.1
	0.6s	14.00nm		5.2mb	
DMN	48.31	305 P	56	03.40	0.1
	0.8s	27.00nm		5.3mb	
GKN	48.84	305 P	56	07.00	-0.3
	0.6s	11.00nm		5.1mb	
HYB	51.17	290 eP	56	24.50	-0.6
	0.8s	23.10nm		5.2mb	
GBA	51.63	285 P	56	27.00	-1.5
	0.9s	6.50nm		4.6mb	
WMQ	54.62	325 eP	56	50.40	0.0
S.D. = 0.8 on 16 of 16 obs.					

% APR 09, 1989 12h 50m 40.22± 0.93s
39.369 N ± 8.6km 28.360 E ± 9.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.31	41 iPg	50	45.70	-1.1
		iSg	50	50.70	
EDC	1.05	339 ePn	51	00.00	0.0
IZM	1.29	222 ePn	51	04.00	-0.2
ALT	1.40	102 ePn	51	06.00	0.2
YLV	1.43	33 iPn	51	07.30	1.1
S.D. = 1.1 on 5 of 5 obs.					

? APR 09, 1989 13h 06m 07.49± 0.88s
40.881 N ±15.0km 122.385 E ±16.6km
DEPTH = 10.0km (geophysicist)
NORTHEASTERN CHINA (658)
ML 3.8 (BJI).

SNY	1.30	43 iPnd	06	31.30	-0.3
		iPg	06	32.30	
		Sg	06	49.00	
DL2	2.06	197 Pgd	06	42.50	0.0
		Sg	07	08.30	
CN2	3.70	37 ePn	07	06.20	0.3
		Pgc	07	16.30	
		Sn	07	41.00	
		Sg	08	04.00	
MDJ	6.49	52 ePg	08	04.00	18.7X
		Sg	09	30.50	
TIY	8.34	251 eP	08	11.30	-0.1
S.D. = 0.4 on 4 of 5 obs.					

% APR 09, 1989 13h 21m 59.53± 0.66s
39.368 N ± 5.6km 28.373 E ± 6.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.31	40 iPg	22	05.70	-0.3
		iSg	22	10.70	
BNT	1.05	341 iPn	22	18.80	-0.5
EDC	1.05	338 iPn	22	20.00	0.6
IZM	1.30	222 iPn	22	23.40	-0.2
KHL	1.38	139 ePn	22	25.30	0.5
ALT	1.39	102 ePn	22	24.50	-0.5
GPA	1.75	58 ePn	22	30.50	0.3
S.D. = 0.6 on 7 of 7 obs.					

* APR 09, 1989 15h 48m 46.13± 0.38s
2.930 N ± 7.5km 84.347 W ± 8.8km
DEPTH = 10.0km (geophysicist)
5.0mb (19 obs.)
OFF COAST OF CENTRAL AMERICA (76)

BUS	6.61	5 iPd	50	26.20	0.0
SJS	6.97	2 iPd	50	32.20	1.3
SRA	7.11	359 eP	50	34.00	1.1
PSO	7.23	104 eP	50	35.00	0.2
UPA	7.68	38 iPd	50	45.00	4.2X
	1.6s	353.33nm		6.3mb	X
BOG	10.40	80 eP	51	25.00	6.3X

ARE	23.08	147	eP	53	54.00	0.6
ZOBO	24.92	140	P	54	10.90	-0.7
			S	59	06.00	
LPB	25.13	141	P	54	15.00	1.5
	1.0s	60.00nm			5.2mb	
	Z 15s	1.33um			4.6MszX	
		(PP)		55	51.00	
		LR		03	54.00	
CNCB	25.42	141	P	54	16.20	-0.1
PRM	31.05	3	P	55	07.00	0.5
ALQ	37.90	330	eP	56	05.50	-0.1
	1.1s	14.87nm			4.7mb	
GOL	41.28	335	P	56	33.50	-0.1
BAR	42.35	318	eP	56	44.00	1.8
TPC	42.83	320	eP	56	46.00	-0.2
PLM	42.89	319	eP	56	48.00	1.2
RVR	43.62	319	eP	56	52.00	-0.5
MWC	44.21	319	eP	57	04.00	6.5X
SBB	44.34	319	eP	57	02.00	3.6X
CLC	44.89	321	eP	57	04.00	1.1
ISA	45.36	320	eP	57	07.00	0.4
BW06	45.60	334	P	57	08.00	-0.6
	1.0s	9.38nm			4.7mb	
BCH	46.12	318	P	57	13.00	0.3
ITA	46.16	125	eP	57	13.20	-0.2
EUR	46.35	326	iP	57	14.80	0.3
	1.0s	3.85nm			4.4mb	
ITR	47.23	105	e(P)	57	20.00	-1.6
RSON	48.41	352	P	57	28.30	-2.0
	1.3s	38.31nm			5.3mb	
SES	52.40	339	eP	58	02.00	1.1
PNT	55.11	333	ePc	58	21.00	0.2
EDM	55.54	339	eP	58	21.50	-2.4
FRB	61.78	8	eP	59	05.00	-2.1
YKA	63.54	345	P	59	18.50	-0.3
INK	73.15	343	eP	00	18.00	-0.5
MBC	75.81	352	eP	00	33.00	-0.7
	0.5s	6.00nm			4.9mb	
FBA	76.33	337	P	00	36.00	-0.8
IMA	79.04	337	P	00	51.00	-1.0
	1.2s	6.63nm			4.5mb	
TTA	79.11	334	P	00	50.00	-2.3
KIC	79.36	84	P	00	52.50	-2.0
ALE	80.10	3	eP	00	56.00	-1.2
	1.0s	16.00nm			5.0mb	
		pP		02	32.00	427kmX
DAG	81.69	12	eP	01	04.00	-1.7
LPO	84.78	46	eP	01	22.40	0.3
	1.2s	20.20nm			5.2mb	
LSF	85.04	44	eP	01	23.90	0.5
	1.2s	11.90nm			5.0mb	
TCF	85.52	44	eP	01	26.20	0.4
	1.4s	26.10nm			5.2mb	
MAF	85.76	44	eP	01	27.40	0.4
	1.2s	17.80nm			5.1mb	
BGF	85.96	44	eP	01	28.10	0.2
	1.2s	26.70nm			5.3mb	
SSF	86.41	43	eP	01	30.10	0.0
	1.4s	17.40nm			5.1mb	
LOR	86.65	43	eP	01	30.80	-0.5
	1.2s	8.90nm			4.8mb	
LBF	86.73	43	eP	01	31.50	-0.3
	1.0s	4.00nm			4.6mb	
DOU	87.09	40	Pc	01	34.30	0.9
ENN	87.92	39	eP	01	44.50	7.2X
	1.0s	12.00nm			5.2mb	
		e		03	13.00	
MEM	87.98	40	P	01	38.40	0.8
WLF	88.11	41	P	01	38.70	0.4
WTS	88.43	38	eP	01	41.00	1.3
	1.0s	12.00nm			5.2mb	
		e		01	47.00	
		e		03	16.00	
SPA	92.91	180	e(P)	02	06.20	5.7X
	1.0s	13.00nm			5.3mb	
KHC	92.99	41	eP	02	03.00	1.9
ZST	95.45	41	eP	02	19.60	7.2X
WRA	138.64	243	ePKP	08	19.80	4.7X
GKN	147.47	18	PKP	08	30.00	-0.3
KKN	147.87	17	PKP	08	32.20	1.2
	0.7s	14.00nm				
GUN	147.93	16	PKP	08	32.60	1.3
	0.7s	27.00nm				
DMN	147.98	18	PKP	08	32.60	1.3
PKI	148.11	17	PKP	08	32.40	0.8
KMI	151.28	347	ePKP	08	35.00	-1.3
	S.D. = 1.1	on	55 of	63	obs.	

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* APR 09, 1989 15h 50m 13.35± 1.13s
2.557 N ±18.8km 84.419 W ±11.1km
DEPTH = 10.0km (geophysicist)
4.9mb (8 obs.)
OFF COAST OF CENTRAL AMERICA (76)

UPA	8.02	37	iPd	52	13.40	0.6
	2.0s	541.18nm			6.4mb	X
LPB	24.89	140	eP	55	51.00	12.6X
ALQ	38.18	330	iP	57	36.00	0.8
	1.1s	12.34nm			4.6mb	
		pP		57	41.70	19kmX
GLD	41.56	336	eP	58	03.90	0.8
	1.5s	50.00nm			5.0mb	
GOL	41.58	335	eP	58	03.20	-0.1
	1.3s	22.92nm			4.7mb	
		pP		58	10.20	24kmX
GLA	41.61	320	eP	58	04.00	0.6
TPC	43.07	320	eP	58	16.00	0.7
PLM	43.12	319	eP	58	16.00	0.1
RVR	43.85	319	eP	58	22.00	0.4
SBB	44.57	320	eP	58	28.00	0.4
CLC	45.14	321	eP	58	32.00	-0.1
ISA	45.60	320	eP	58	35.00	-0.7
BW06	45.90	334	eP	58	38.30	0.1
	1.0s	9.25nm			4.7mb	
ITR	47.21	104	e(P)	58	49.00	0.3
RSON	48.76	352	eP	58	58.00	-2.2
	1.5s	18.43nm			4.9mb	
SES	52.72	339	eP	59	36.00	5.5X
PNT	55.41	333	ePc	59	50.00	-0.1
YKA	63.88	345	P	00	54.20	5.9X
INK	73.48	343	eP	01	46.00	-1.6
ALE	80.47	3	eP	02	32.00	5.6X
EKA	82.93	35	P	02	46.00	6.3X
	1.2s	24.00nm			5.3mb	
DOU	87.42	40	eP	03	09.10	6.9X
ENN	88.26	39	eP	03	13.00	6.8X
MEM	88.31	40	eP	03	13.60	7.2X
WLF	88.44	41	eP	03	13.00	5.9X
CLL	92.67	39	eP	03	34.00	7.3X
	1.6s	19.00nm			5.3mb	
KBA	93.43	43	eP	03	25.00	-5.6X
	1.5s	8.90nm			4.9mb	
		e		03	36.00	
HYB	154.00	40	ePKP	10	34.50	27.1X
	S.D. = 0.9	on	16 of	28	obs.	

& APR 09, 1989 16h 03m 53.75s
58.966 N 153.016 W
DEPTH = 74.9km
KODIAK ISLAND REGION (13)
<AGS-P>.

CDD	0.33	264	iP	04	04.96	-0.9
			eS	04	14.08	
AUE	0.43	335	eP	04	06.14	-0.4
			eS	04	14.58	
AUL	0.47	333	eP	04	06.82	-0.1
OPT	0.70	351	iP	04	08.73	-0.5
			eS	04	19.97	
XLV	0.83	53	eP	04	09.89	-0.8
			eS	04	22.21	
PDB	1.02	324	iP	04	12.17	-0.8
CNPM	1.07	58	iP	04	12.89	-0.8
			eS	04	27.29	
ILIM	1.12	1	iP	04	13.38	-0.9
			eS	04	28.26	
KDC	1.25	167	iP	04	15.02	-0.9
			eS	04	30.09	
NNL	1.39	38	iP	04	18.04	0.2
			eS	04	35.62	
RDT	1.64	11	iP	04	20.51	-0.8
			eS	04	40.25	
NKA	2.00	26	eP	04	27.44	1.5
SLKM	2.10	41	iP	04	26.13	-1.3
			eS	04	50.28	
SEW	2.15	56	eP	04	25.96	-2.1
			eS	04	49.99	
SPU	2.27	12	iP	04	29.32	-0.6
			eS	04	56.69	
CRP	2.35	10	eP	04	30.78	-0.3
			eS	04	58.90	
CGLM	2.40	12	eP	04	31.17	-0.6
			eS	04	59.44	
SVW	2.52	330	iP	04	32.18	-1.1

PMS	2.87	36	iP	04	37.00	-1.1
			eS	05	10.07	
MTU	2.92	67	eP	04	37.02	-1.8
			eS	05	08.43	
KNIM	3.02	60	iP	04	37.66	-2.5
PWA	3.11	29	eP	04	40.67	-0.8
SKT	3.11	13	eP	04	40.54	-1.0
GHO	3.47	34	eP	04	45.20	-1.4
GLI	3.55	55	eP	04	44.07	-3.5
HIN	3.60	64	eP	04	46.37	-2.0
FID	3.75	59	eP	04	46.94	-3.5
			eS	05	25.83	
VZW	3.86	54	eP	04	49.23	-2.8
VLZ	3.99	54	eP	04	51.83	-1.9
SGAM	4.24	65	eP	04	54.89	-2.4
			eS	05	40.40	
KLU	4.35	51	iP	04	56.67	-2.3
			eS	05	42.83	
TOA	4.62	44	eP	05	01.04	-1.6
			eS	05	52.14	
BALM	5.74	64	eP	05	16.03	-2.3
	33 obs. associated					

APR 09, 1989 16h 45m 36.79± 0.47s
39.376 N ± 4.3km 28.419 E ± 5.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.2 (ATH).

DST	0.28	35	iPg	45	43.70	1.0
			iSg	45	45.70	
BNT	1.05	339	iPg	45	56.70	0.1
EDC	1.06	336	iPg	45	57.00	0.2
			eSg	46	11.00	
IZM	1.33	223	iPn	46	00.60	-0.8
ALT	1.35	103	iPn	46	02.50	0.7
KHL	1.36	140	iPn	46	02.30	0.5
YLV	1.40	31	iPn	46	02.20	-0.2
GBZT	1.62	29	ePn	46	10.60	5.2X
			iSg	46	33.80	
PRK	1.67	266	ePn	46	07.20	1.0
			eSn	46	31.00	
EZN	1.68	286	iPn	46	06.90	0.6
GPA	1.72	57	iPn	46	07.60	0.7
HRT	1.73	33	ePn	46	05.20	-2.0
ISK	1.76	16	ePn	46	07.00	-0.4
CTT	1.77	0	ePn	46	07.00	-0.6
YER	2.24	183	iPn	46	13.70	-0.8
DMK	2.49	349	ePn	46	18.00	-0.1
RDO	2.83	310	ePn	46	26.90	4.1X
BBTK	3.39	81	eP	46	42.00	11.1X
			eS	47	29.00	
	S.D. = 0.9	on	15 of	18	obs.	

APR 09, 1989 16h 57m 06.52± 0.27s
20.527 S ± 7.6km 174.378 E ± 5.9km
DEPTH = 33.0km (normal)
5.1mb (12 obs.) 5.1Msz (2 obs.)
VANUATU ISLANDS REGION (185)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 31C
Centroid Location:
Origin Time 16:57:11.8 0.5
Lat 20.34S 0.06 Lon 173.91E 0.04
Dep 39.6 4.9 Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr=-0.04 0.04 Mtt=-0.06 0.08
Mff= 0.11 0.08 Mrt= 0.16 0.10
Mrf= 0.25 0.10 Mtf=-1.41 0.05
Principal Axes:

	Vol=	1.43	Plg=	3	Azm=	227
N		0.01		78		329
P		-1.45		12		136

Best Double Couple:Mo=1.4*10**17
NP1:Strike=272 Dip=80 Slip=-174
NP2: 181 84 -10

SVA	4.54	59	ePc	58	08.90	-5.8X
DZM	7.55	257	iPd	58	55.30	-2.0
HNR	17.76	306	eP	01	13.00	0.0
WEL	20.70	179	eP	01	46.00	-0.4
			S	05	48.00	
BRS	20.88	247	iPc	01	48.10	-0.3
			i	01	56.70	
			i	02	01.50	
COO	22.58	239	iPd	02	06.20	0.7

09d 17h

RMO	24.21	251	eP	02	22.00	0.7
	0.9s	123.00nm			5.5mb	
MSZ	24.67	191	eP	02	24.80	-0.7
CTA	26.37	266	eP	02	42.00	0.3
			iS	07	15.00	
CAN	26.73	231	eP	02	46.00	1.0
PMG	28.48	289	eP	03	00.00	-0.9
WRA	37.51	264	eP	04	16.10	-3.2X
ASPA	37.55	258	iPc	04	17.10	-2.6
	1.5s	18.00nm			4.7mb	
Z	22s	2.91um			5.0MszX	
		LR		18	13.10	
MBL	50.76	259	eP	06	03.00	-2.8X
SPA	69.60	180	e(P)	08	15.30	1.0
	2.0s	55.00nm			5.3mb	
MDJ	76.64	329	eP	08	57.50	1.9
CN2	78.14	326	Pd	09	02.80	-1.1
Z	22s	0.90um			5.1Msz	
GYA	80.55	303	P	09	18.00	0.4
BJI	81.04	319	eP	09	20.00	0.4
Z	24s	0.40um			4.7MszX	
		eSKS		19	28.00	
		eS		20	09.00	
TIY	82.11	315	eP	09	25.60	0.2
Z	30s	0.90um			5.0MszX	
XAN	82.58	310	P	09	27.50	-0.4
KMI	83.08	300	eP	09	32.00	1.1
BCH	83.23	49	P	09	31.00	-0.3
ARN	83.35	46	P	09	31.50	-0.2
CHG	83.60	293	ePc	09	33.70	0.4
	1.0s	14.50nm			5.1mb	
CHTO	83.60	293	eP	09	33.70	0.4
	1.2s	34.38nm			5.4mb	
		pP		09	39.50	18kmX
HHC	84.39	317	P	09	38.00	1.0
FRI	84.41	47	eP	09	36.60	-0.4
WDC	84.42	43	e(P)	09	36.50	-0.5
BAR	84.46	52	eP	09	56.00	18.6X
CMB	84.48	46	eP	09	36.80	-0.7
ORV	84.54	44	e(P)	09	37.10	-0.5
RVR	84.57	51	eP	09	38.00	0.1
SBB	84.58	50	eP	09	38.00	-0.1
ISA	84.60	49	eP	09	38.00	-0.1
PLM	84.64	52	eP	09	38.00	-0.5
CD2	84.89	306	eP	09	39.20	-0.4
CLC	85.30	49	eP	09	41.00	-0.6
TPC	85.59	51	eP	09	43.00	-0.1
GLA	86.00	53	eP	09	45.00	-0.2
TTA	86.40	13	P	09	47.00	0.5
	0.8s	5.17nm			4.8mb	
PMR	86.89	17	P	09	48.00	-0.8
	0.8s	3.79nm			4.7mb	
LZH	87.21	310	eP	09	53.50	2.3X
	1.5s	44.00nm			5.5mb	
Z	25s	0.60um			4.9MszX	
EUR	88.20	47	iP	09	56.00	0.1
	0.3s	4.81nm			5.3mb	
FBA	89.97	15	P	10	06.00	2.6X
	0.8s	3.79nm			4.7mb	
MSU	90.38	49	P	10	11.00	4.8X
PNT	90.81	37	eP	10	07.00	-0.6
	0.9s	12.00nm			5.2mb	
GTA	91.56	312	eP	10	12.40	1.0
ALQ	93.10	54	eP	10	18.00	-0.7
	1.2s	7.42nm			5.0mb	
Z	19s	0.90um			5.2Msz	
BW06	94.00	46	P	10	24.70	2.0
INK	96.29	17	eP	10	30.00	-2.3
CNCB	108.44	117	ePdiff	11	52.00	23.4X
NB2	137.83	348	PKP	16	29.60	0.6
	1.0s	2.10nm				
SLL	137.90	346	ePKP	16	24.50	-4.6X
	0.5s	0.60nm				
MLR	144.05	321	ePKP	16	33.00	-7.6X
KRA	144.24	332	ePKP	16	42.70	2.1X
SPC	144.73	330	ePKP	16	41.70	0.0
KSP	145.17	336	ePKPd	16	40.30	-1.8
			i	16	47.00	
EKA	145.20	358	PKP	16	46.00	4.0X
	1.3s	44.40nm				
DEV	145.56	324	ePKPc	16	48.00	5.0X
CLL	145.98	339	ePKP	16	43.00	-0.5
	2.0s	68.00nm				
WIT	146.40	346	ePKP	16	55.00	10.9X
BZS	146.43	324	ePKP	16	48.00	3.6X
PRU	146.53	336	ePKP	16	45.00	0.6
			e	16	49.00	
SRO	146.61	330	e(PKP)	16	51.50	6.9X
ZST	146.88	332	e(PKP)	16	51.20	6.2X
MOX	147.01	340	ePKP	16	48.00	2.8X
	1.6s	43.00nm				
			e	16	54.00	
WTS	147.13	346	ePKP	16	51.00	5.7X
	1.0s	13.00nm				
BEO	147.57	324	ePKP	16	51.00	4.8X
KHC	147.59	336	ePKP	16	48.00	1.8
			i	16	54.00	
GRF	147.96	339	ePKP	16	47.70	1.0
			e	16	54.10	
ENN	148.48	346	ePKP	16	56.00	8.5X
	1.0s	16.00nm				
MEM	148.61	346	PKP	16	52.40	4.7X
SKO	148.72	319	iPKP	16	55.70	7.5X
	1.8s	55.00nm				
SNF	149.07	348	PKP	16	57.60	9.2X
KBA	149.35	334	ePKP	16	51.00	1.7
	1.0s	8.10nm				
			i	16	57.60	
DOU	149.40	347	PKP	16	56.70	7.7X
WLF	149.45	345	PKP	16	55.20	6.2X
OHR	149.61	318	ePKP	16	56.50	6.8X
LJU	149.65	332	e(PKP)	16	55.00	5.5X
GWF	149.69	343	PKP	16	58.73	9.2X
VBY	149.73	330	ePKP	16	59.80	10.2X
RBL	149.76	333	PKP	16	57.50	7.8X
VOY	149.94	332	e(PKP)	16	52.40	2.3X
			e	16	58.80	
FVI	149.97	334	PKP	16	58.00	8.1X
CDF	150.30	343	PKP	16	59.99	9.5X
FEL	150.57	341	PKP	17	00.79	9.8X
VITF	150.83	344	PKP	16	57.42	6.3X
MOF	150.85	342	PKP	17	01.26	9.9X
CTI	150.87	335	PKP	16	55.00	3.5X
HAU	150.93	343	ePKP	17	01.20	9.8X
BSF	150.97	343	PKP	17	01.54	10.0X
BBS	151.09	341	PKP	17	01.78	10.1X
FLN	151.53	353	ePKP	17	02.40	10.2X
BNG	151.57	239	ePKPc	16	54.30	1.0
	0.8s	14.00nm				
			ic	16	59.50	
LDF	151.65	352	ePKP	17	02.70	10.3X
GRR	151.94	353	ePKP	17	03.50	10.7X
VAI	152.10	338	PKP	17	03.00	9.9X
LOR	152.23	346	ePKP	17	04.30	11.0X
LPF	152.31	353	ePKP	17	04.00	10.7X
SSF	152.51	346	ePKP	17	05.00	11.3X
PGD	152.59	332	PKP	17	04.50	10.4X
MAF	153.51	347	ePKP	17	06.90	11.8X
BNI	153.51	340	PKP	17	09.00	13.7X

S.D. = 1.0 on 53 of 104 obs.

% APR 09, 1989 17h 01m 34.31± 0.73s
39.381 N ± 7.1km 28.411 E ± 7.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.28	37	iPg	01	40.60	0.4
			iSg	01	44.60	
EDC	1.05	337	ePn	01	53.00	-1.1
IZM	1.33	223	iPn	01	57.70	-1.2
ALT	1.36	103	iPn	02	00.00	0.6
KHL	1.37	140	iPn	01	59.30	-0.2
YLV	1.40	32	iPn	01	59.20	-0.7
EZN	1.67	286	ePn	02	05.90	2.2
GPA	1.72	58	iPn	02	05.10	0.6
HRT	1.73	33	ePn	02	04.00	-0.7

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

& APR 09, 1989 17h 36m 19.77s
57.570 N 148.739 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

KDC	2.02	277	eP	36	48.23	-6.0
CNPM	2.36	327	iP	36	53.88	-5.3
			eS	37	20.68	
MTU	2.49	13	iP	36	55.78	-5.2
			eS	37	24.46	
SEW	2.57	352	iP	36	56.50	-5.6
KNIM	2.84	10	iP	37	00.41	-5.5
			eS	37	32.30	
CDD	2.93	300	eP	37	02.16	-5.1
			eS	37	35.30	
AUI	3.03	308	eP	37	03.62	-5.0
			eS	37	38.65	
SLKM	3.04	346	eP	37	03.31	-5.6
			eS	37	37.98	
HIN	3.06	21	eP	37	03.94	-5.2
			eS	37	39.72	
OPT	3.14	314	eP	37	05.04	-5.2
			eS	37	41.84	
CVA	3.36	26	eP	37	08.08	-5.2
GLI	3.43	14	eP	37	08.77	-5.5
RED	3.54	326	eP	37	09.90	-6.0
PDB	3.61	310	eP	37	10.74	-6.2
YKA	17.60	59	P	40	33.70	7.4

15 obs. assaciated

% APR 09, 1989 17h 39m 11.18± 0.44s
39.362 N ± 3.9km 28.383 E ± 4.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.31	38	iPg	39	17.60	0.0
			iSg	39	20.60	
BNT	1.05	340	iPn	39	30.70	-0.4
EDC	1.06	338	iPn	39	32.00	0.8
IZM	1.30	223	iPn	39	34.90	-0.4
KHL	1.37	139	iPn	39	36.80	0.5
ALT	1.38	102	iPn	39	37.00	0.5
YLV	1.42	32	iPn	39	36.70	-0.4
GBZT	1.64	29	ePn	39	45.40	5.3X
			iSg	40	08.40	
EZN	1.66	287	iPn	39	40.90	0.5
GPA	1.75	57	iPn	39	42.10	0.3
HRT	1.76	34	ePn	39	39.00	-2.9X
ISK	1.78	17	ePn	39	41.00	-1.1
CTT	1.78	1	ePn	39	42.00	-0.2
YER	2.23	182	iPn	39	48.20	-0.5
DMK	2.50	349	ePn	39	53.00	0.4
BBTK	3.42	81	eP	40	16.00	10.3X
			eS	41	04.00	

S.D. = 0.6 on 13 of 16 obs.

? APR 09, 1989 17h 50m 35.76± 4.46s
20.256 S ±27.4km 178.878 W ±17.0km
DEPTH = 490.2 ± 52.3 km
4.2mb (10 obs.)
FIJI ISLANDS REGION (181)

KRP	18.26	194	P	54	19.00	0.2
ASPA	43.77	257	eP	57	58.80	0.1
	0.9s	6.00nm			4.1mb	
WRA	43.82	262	eP	57	59.10	0.1
MBL	57.01	257	iPc	59	34.50	-1.7
	0.3s	1.00nm			3.6mb	
ARN	78.71	43	P	01	48.50	0.7
TTA	84.85	10	P	02	18.30	-0.2
	0.7s	3.63nm			4.1mb	
PMR	84.98	14	P	02	18.20	-0.8
	0.7s	3.92nm			4.2mb	
PNT	86.92	34	eP	02	29.00	0.4
	0.7s	8.00nm			4.6mb	
ALQ	87.89	52	eP	02	33.30	-0.5
	1.0s	2.25nm			3.9mb	
IMA	88.15	10	P	02	34.50	0.3
	0.8s	3.45nm			4.2mb	
FBA	88.18	13	P	02	33.80	-0.5
	0.8s	10.34nm			4.7mb	
BW06	89.36	44	eP	02	40.70	0.2
	0.6s	2.91nm			4.3mb	
CHG	89.39	290	eP	02	41.90	1.1
CHTO	89.39	290	eP	02	41.90	1.2
	0.6s	2.67nm			4.3mb	
SUF	134.22	344	iPKP	08	56.00	-1.9
NUR	136.47	343	ePKP	09	01.00	-1.2
NB2	138.64	353	PKP	08	56.20	-10.1X
	0.6s	0.80nm				
HFS	139.17	350	ePKP	08	57.20	-10.0X
	0.4s	1.80nm				
Z	17s	0.17um			4.9MszX	
		LR		12	49.00	
EKA	144.83	4	PKP	09	16.00	-1.2
	1.0s	7.00nm				
KSP	147.21	342	ePKP	09	23.00	1.8
CLL	147.63	346	iPKPd	09	23.70	1.8
	0.9s	5.00nm				
			i	09	28.90	
WTS	148.01	353	ePKP	09	25.00	2.6X
	1.0s	17.00nm				

MOX	148.56	347	e(PKP)	09 26.00	2.6X
ENN	149.32	354	ePKP	09 30.00	5.5X
MEM	149.47	354	PKP	09 28.20	3.5X
KHC	149.51	344	ePKP	09 28.50	3.6X
WLF	150.38	353	PKP	09 30.80	4.7X

S.D. = 1.2 on 19 of 27 obs.

APR 09, 1989 19h 11m 25.98± 0.51s
39.373 N ± 4.8km 28.448 E ± 5.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.2 (ATH).

DST	0.27	31	iPg	11 32.10	0.4
			iSg	11 36.60	
EDC	1.07	335	iPg	11 46.00	-0.1
			eSg	12 00.00	
ALT	1.33	103	iPn	11 51.80	1.2
KHL	1.34	141	iPn	11 51.30	0.5
IZM	1.34	224	iPn	11 49.70	-1.1
YLV	1.39	30	iPn	11 51.20	-0.2
PRK	1.69	266	ePn	11 57.00	1.3
			eSn	12 19.50	
GPA	1.70	57	ePn	11 56.70	0.8
EZN	1.70	286	ePn	11 56.00	0.2
HRT	1.72	32	ePn	11 54.00	-2.2
ISK	1.75	15	ePn	11 56.00	-0.6
CTT	1.77	360	ePn	11 57.00	0.1
YER	2.24	183	ePn	12 02.50	-1.2
DMK	2.50	348	ePn	12 07.00	-0.3
RDO	2.85	309	ePn	12 13.50	1.3
BBTK	3.36	81	eP	12 32.00	12.3X
			eS	13 18.00	

S.D. = 1.1 on 15 of 16 obs.

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* APR 09, 1989 19h 39m 38.70± 1.08s
37.779 N ± 7.4km 14.778 E ±10.6km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.17	336	Pd	39 43.50	0.9
			eSg	39 48.50	
ATN	0.66	55	P	39 52.40	0.5
			eSg	40 03.00	
MEU	0.69	170	Pc	39 52.30	-0.1
SOI	1.05	73	P	39 59.00	0.5
			eSg	40 15.00	
TDS	2.24	33	P	40 15.70	-0.6
MGR	2.43	14	P	40 17.90	-1.2

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

? APR 09, 1989 19h 53m 16.19± 3.40s
11.373 S ±12.8km 33.991 E ±38.5km
DEPTH = 10.0km (geophysicist)
4.2mb (1 obs.)
MALAWI (577)

PTZ	3.86	222	iPn	54 17.00	0.0
			iSn	55 04.90	
			i	55 19.00	
			iSg	55 25.20	
LSZ	6.85	235	iPn	54 59.00	-0.4
			iSn	56 18.00	
			iSg	57 07.00	
KRI	6.89	218	iPn	55 00.00	0.1
			iSn	56 16.20	
			iSg	56 58.90	
KMZ	8.23	255	iPn	55 18.90	0.2
			iSn	56 52.00	
			iSg	57 50.50	
BNG	21.97	315	iPd	58 12.20	0.0
	0.6s		6.00nm		4.2mb

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

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* APR 09, 1989 20h 43m 18.63± 0.82s
51.819 N ±18.0km 174.509 W ± 8.6km
DEPTH = 33.0km (normal)
4.1mb (2 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK	1.35	274	iPc	43 41.40	0.1
KDC	13.99	56	eP	46 36.80	0.4
TTA	14.88	34	eP	46 54.00	5.9X
IMA	17.73	28	eP	47 24.30	0.0
KVN	40.59	85	eP	50 57.00	0.2
EUR	41.65	83	eP	51 06.00	0.5
TNP	41.73	86	eP	51 06.80	0.6
	0.8s		2.00nm		3.9mb
BW06	43.61	75	eP	51 20.25	-1.2
	0.6s		2.91nm		4.2mb
GOL	47.98	76	eP	51 55.70	-0.6
RSON	47.99	57	eP	51 52.00	-3.8X

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

APR 09, 1989 20h 44m 08.02± 0.74s
41.821 N ± 7.0km 22.875 E ± 6.8km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.8 (SKO).

KKB	0.16	74	iPg	44 12.00	0.2
VAY	0.55	205	iPg	44 19.00	-0.1
			iSg	44 26.40	
MMB	0.68	110	iPgc	44 21.00	-0.5
VTS	0.81	18	iPg	44 23.00	-0.8
SKO	1.08	279	iPgc	44 29.50	1.1
			iSg	44 45.00	
PLG	1.51	163	ePb	44 33.90	-1.2
KDZ	1.91	94	iPd	44 43.00	2.1
RDO	2.11	108	ePn	44 46.10	2.3X
			eSn	45 15.50	
BZS	3.90	347	ePc	45 08.50	-0.8

S.D. = 1.3 on 8 of 9 obs.

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* APR 09, 1989 20h 46m 28.45± 1.40s
41.855 N ± 9.3km 22.803 E ±11.7km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.3 (SKO).

KKB	0.21	87	iPgd	46 32.00	-1.0
VAY	0.56	198	iPg	46 39.30	-0.5
			iSg	46 47.00	
MMB	0.74	111	iPgc	46 42.00	-1.0
VTS	0.80	22	iPg	46 44.00	0.0
RZN	1.44	96	iP	46 54.00	-0.8
PLG	1.56	162	iPbc	46 56.60	0.3
			eSb	47 17.00	
KDZ	1.97	95	eP	47 03.00	0.8
RDO	2.17	108	ePn	47 07.30	2.2

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

APR 09, 1989 20h 50m 05.18± 0.57s
41.830 N ± 6.1km 22.863 E ± 5.3km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 3.1 (SKO). MD 2.9 (ATH).

KKB	0.17	77	iPgd	50 09.00	0.0
VAY	0.55	203	iPgc	50 15.60	-0.8
			iSg	50 22.40	
MMB	0.69	110	iPgc	50 18.00	-0.9
VTS	0.80	18	iPg	50 20.00	-0.9
SKO	1.07	278	iPgc	50 26.00	0.6
			i	50 29.50	
			iSg	50 41.00	
RZN	1.39	95	iPc	50 31.00	0.2
PLD	1.40	78	eP	50 31.00	0.3
PLG	1.52	163	iPbc	50 32.00	-0.5
			eSb	50 53.90	
OHR	1.71	246	ePn	50 37.00	1.8
KZN	1.73	209	ePb	50 35.10	-0.5
KDZ	1.92	95	iPc	50 39.00	0.8
RDO	2.12	108	ePn	50 42.70	1.6
NEO	2.54	174	ePb	50 50.20	3.1X
EZN	3.30	126	ePn	50 56.70	-1.2
BEO	3.47	330	eP	51 53.00	52.8X
DMK	3.66	89	ePn	51 15.00	12.0X
BZS	3.89	347	ePd	51 04.00	-2.3
MLR	4.29	30	eP	51 15.00	2.9X
VRI	4.91	33	eP	51 22.50	1.8

S.D. = 1.3 on 15 of 19 obs.

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* APR 09, 1989 20h 52m 32.88± 1.24s
41.818 N ± 9.1km 22.846 E ±11.9km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.2 (SKO).

KKB	0.18	75	iPgd	52 37.00	0.0
VAY	0.54	203	iPg	52 44.00	0.2
			iSg	52 51.50	
MMB	0.70	109	iPgc	52 46.00	-0.7
VTS	0.82	19	iPg	52 48.00	-0.8
PGB	1.22	53	iPg	52 57.00	1.3

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

& APR 09, 1989 20h 58m 29.50s
37.422 N 121.807 W
DEPTH = 6.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.3 (BRK). Felt (V) at San Jose. Felt (IV) at Alviso and Cupertino.

MHC	0.15	121	iPc	58 32.80	0.0
			iS	58 35.50	
ARN	0.23	108	iPc	58 33.90	-0.3
GCC	0.42	201	iPd	58 38.15	0.2
PCC	0.46	280	iPc	58 38.70	-0.1
BKS	0.57	323	iPc	58 40.77	-0.1
			eS	58 49.80	
BRK	0.58	322	iPc	58 40.80	-0.3
			iS	58 48.80	
ZSP	0.63	326	iPc	58 42.30	0.1
			iS	58 52.20	
SAO	0.72	156	iPd	58 43.60	-0.2
			iS	58 54.85	
LLA	1.06	139	iPd	58 48.50	-1.4
PRS	1.14	162	ePd	58 49.65	-1.6
CMB	1.28	61	iPc	58 52.20	-1.5
			iS	59 08.90	
NWRM	1.34	321	eP	58 52.40	-2.2
PRI	1.57	144	eP	58 56.50	-1.6
FRI	1.73	104	ePc	58 58.70	-1.6
			iS	59 18.40	
PKEM	1.92	134	eP	59 02.40	-0.7
PHAM	1.95	144	eP	59 01.40	-2.0
ORV	2.14	6	eP	59 04.30	-2.0
BCH	2.63	148	eP	59 10.50	-2.8
KVN	3.34	60	eP	59 22.50	-1.0
TNP	3.70	78	eP	59 27.00	-1.6
FHC	3.78	334	eP	59 29.00	-0.5
EUR	5.02	64	iP	00 07.00	19.6
	0.1s		12.39nm		

22 obs. ossocioted

? APR 09, 1989 21h 25m 49.58± 0.98s
44.603 N ± 8.8km 7.002 E ±10.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

PZZ	0.12	144	P	25 52.96	0.2
			S	25 55.46	
FOUF	0.17	245	P	25 53.50	0.0
			Sg	25 55.71	
RRL	0.35	334	P	25 56.92	0.0
			S	26 02.53	
STV	0.43	147	P	25 58.11	-0.2
			S	26 03.92	

S.D. = 0.3 on 4 of 4 obs.

APR 09, 1989 21h 46m 17.29± 0.41s
39.372 N ± 4.0km 28.428 E ± 4.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.2 (ATH).

DST	0.28	33	iPg	46 23.50	0.3
			iSg	46 26.60	
EDC	1.07	336	iPg	46 38.00	0.6
			eSg	46 52.00	
IZM	1.33	223	iPn	46 41.00	-0.9
ALT	1.34	103	iPn	46 42.70	0.6
KHL	1.35	140	iPn	46 42.80	0.6
YLV	1.40	31	iPn	46 42.60	-0.3
GBZT	1.62	29	ePn	46 50.50	4.6X
			iSg	47 13.90	
PRK	1.68	266	ePn	46 46.90	0.1
			eSn	47 11.10	
EZN	1.69	286	iPn	46 47.20	0.3
GPA	1.71	57	iPn	46 48.20	0.8
HRT	1.73	33	ePn	46 46.00	-1.6
ISK	1.76	16	ePn	46 47.00	-1.0
YER	2.24	183	iPn	46 54.40	-0.6
DMK	2.50	348	ePn	46 58.00	-0.6
BCK	2.55	138	ePn	46 59.60	0.1
RDO	2.83	310	ePn	47 04.70	1.3
BBTK	3.38	81	eP	47 22.50	11.2X
			eS	48 09.50	

09d 21h

MLR 6.39 344 ePc 47 54.00 0.2
S.D. = 0.8 on 16 of 18 obs.

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* APR 09, 1989 22h 01m 03.30± 0.73s
48.216 N ±14.6km 152.851 E ± 9.1km
DEPTH = 33.0km (normal)
4.8mb (21 obs.)
KURIL ISLANDS (221)

INK	40.52	33	eP	08 41.50	1.3
MBC	43.28	20	eP	09 04.00	1.2
YKA	49.86	37	P	09 55.30	0.5
CHTO	52.30	255	eP	10 14.10	0.2
	0.8s	4.03nm		4.4mb	
GUN	54.71	274	P	10 32.00	0.0
	0.4s	9.00nm		5.2mb	
KKN	55.19	274	P	10 35.60	0.3
	0.5s	13.00nm		5.2mb	
PKI	55.25	274	P	10 35.80	-0.1
DMN	55.42	274	P	10 37.40	0.3
	0.6s	19.00nm		5.3mb	
GKN	55.48	275	P	10 37.60	0.3
	0.5s	21.00nm		5.4mb	
LRM	60.45	53	eP	11 11.50	-0.7
SUF	61.60	335	iP	11 18.30	-1.1
NUR	63.81	334	iP	11 33.20	-0.8
BW06	64.02	54	eP	11 34.80	-1.2
	0.9s	1.06nm		3.9mb	
NB2	66.78	341	P	11 52.70	-0.5
	0.7s	2.80nm		4.5mb	
HFS	67.02	339	eP	11 53.80	-0.8
	0.4s	6.10nm		5.1mb	
KRA	74.05	331	eP	12 36.30	-0.9
CLL	75.06	335	iPc	12 42.50	-0.5
	0.8s	17.00nm		5.1mb	
MLR	75.76	325	ePd	12 48.00	0.6
PRU	75.79	334	eP	12 47.00	-0.2
WTS	76.04	339	iP	12 48.80	0.2
	0.8s	10.00nm		4.9mb	
MOX	76.04	336	e(P)	12 49.00	0.3
KHC	76.84	334	P	12 54.00	0.8
GRF	77.01	336	iPc	12 54.30	0.2
	0.9s	29.00nm		5.3mb	
ENN	77.39	339	iP	12 56.40	0.3
MEM	77.51	339	P	12 57.40	0.6
KBA	78.75	333	iPd	13 04.30	0.4
	0.7s	11.20nm		5.0mb	
CDF	79.23	337	eP	13 06.20	-0.2
	0.8s	5.30nm		4.6mb	
GRR	81.11	343	eP	13 16.20	-0.1
	0.8s	8.00nm		4.8mb	
LOR	81.14	339	eP	13 16.20	-0.3
	0.6s	2.70nm		4.4mb	
LBF	81.38	339	eP	13 17.50	-0.3
	0.6s	3.60nm		4.6mb	
SSF	81.42	339	eP	13 17.80	-0.1
	0.8s	2.60nm		4.3mb	
AVF	81.71	339	eP	13 19.30	-0.1
	0.6s	5.40nm		4.7mb	
SMF	81.73	339	eP	13 19.40	-0.2
	0.6s	2.70nm		4.4mb	
LPG	82.07	337	eP	13 22.10	0.4
	0.8s	5.90nm		4.7mb	
MAF	82.43	340	eP	13 23.50	0.3
	0.8s	13.40nm		5.1mb	
S.D. = 0.6		on	35 of	35 obs.	

APR 09, 1989 22h 04m 26.20± 0.40s
18.980 N ± 3.9km 145.073 E ± 5.2km
DEPTH = 553.9 ± 5.7 km
4.5mb (7 obs.)
MARIANA ISLANDS (216)

PJG	5.37	182	eP	06 00.40	0.3
GUMO	5.37	182	eP	06 00.20	0.1
	0.6s	103.25nm		5.0mb	
GUA	5.41	182	eP	06 00.50	0.0
	0.5s	152.11nm		5.3mb	
			eS	07 13.70	
IIDJ	17.61	340	P	08 00.60	0.0
			eS	10 59.00	
KAKJ	17.69	347	eP	08 01.80	0.5
			eS	10 54.20	
CHJJ	17.83	344	P	08 02.40	-0.2
			eS	10 58.60	
MTMJ	18.67	341	P	08 10.30	-0.5
NIIJ	18.95	345	P	08 13.00	-0.3
SSE	24.72	304	eP	09 06.00	0.1
MNI	26.40	231	ePc	09 20.00	-0.8
PMG	28.28	176	eP	09 37.00	-0.2
PCI	31.70	234	iPd	10 07.00	0.6
	0.7s	5.50nm		4.3mb	
MTN	34.48	205	iPc	10 28.90	-0.8
	0.7s	121.00nm		5.6mb X	
GYA	36.10	289	P	10 44.40	1.2
CD2	39.09	296	P	11 08.10	0.6
WRA	40.09	196	eP	11 15.10	-0.5
			eS	16 43.00	
CHTO	43.54	278	eP	11 43.00	-0.1
	0.7s	2.06nm		3.8mb	
SNG	44.74	261	eP	11 53.20	0.9
DZM	45.84	152	iPc	12 01.00	0.3
MBL	46.93	213	eP	12 08.00	-0.9
	0.6s	9.00nm		4.5mb	
NANU	50.38	216	eP	12 34.00	-0.7
BWA	53.20	177	eP	12 55.00	0.0
CAN	54.13	176	eP	13 01.70	0.2
MBC	73.03	14	eP	15 00.00	-0.9
YKA	78.02	28	eP	15 28.40	-0.1
WDC	79.66	51	ePd	15 38.10	0.5
MIN	80.41	51	eP	15 41.50	-0.2
BRK	80.63	53	e(P)	15 42.70	0.0
PCC	80.65	54	e(P)	15 42.50	-0.2
ORV	80.72	51	eP	15 43.00	-0.1
MHC	81.25	54	eP	15 46.40	0.3
PRS	81.76	55	ePd	15 48.90	0.4
CMB	82.00	53	ePd	15 50.00	0.3
LLA	82.00	54	eP	15 50.10	0.4
PRI	82.36	55	e(P)	15 52.20	0.5
FRI	82.83	53	ePd	15 54.00	0.2
CLC	84.82	54	eP	16 03.00	-0.8
LRM	84.94	43	eP	16 04.60	0.2
SBB	85.02	55	eP	16 05.00	0.2
GSC	85.61	54	eP	16 07.00	-0.6
SUF	85.64	336	iP	16 05.20	-1.9
PLM	86.23	56	eP	16 11.00	0.3
TPC	86.60	55	eP	16 12.00	-0.4
BAR	86.61	57	eP	16 11.00	-1.4
FFC	87.17	32	eP	16 14.50	-0.1
	0.9s	12 00nm		4.6mb	
GLA	87.93	56	eP	16 19.00	0.4
HFS	91.90	338	eP	16 29.10	-7.2X
	0.5s	0.50nm		3.8mb	
ARE	145.12	92	e(PKP)	23 05.00	1.7
LPB	148.34	91	ePKP	23 09.00	0.4
CNCB	148.50	91	PKP	23 10.00	1.0
S.D. = 0.7		on	49 of	50 obs.	

APR 09, 1989 22h 13m 30.21± 0.70s
41.817 N ± 6.7km 22.862 E ± 6.1km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.4 (SKO).

KKB	0.17	73	iPgd	13 34.00	-0.1
VAY	0.54	204	iPg	13 40.40	-0.8
			iSg	13 48.40	
MMB	0.69	109	iPg	13 43.00	-0.8
VTS	0.82	18	iPg	13 45.00	-1.1
SKO	1.07	279	iPg	13 51.20	0.8
			iSg	14 07.00	
PGB	1.21	52	iPg	13 53.00	0.1
RZN	1.39	95	iP	13 56.00	0.2
PLG	1.51	163	ePb	13 57.40	0.1
KDZ	1.92	94	eP	14 05.00	1.7
RDO	2.12	108	ePn	14 08.50	2.4X
			eSn	14 37.50	
BZS	3.90	347	ePd	14 41.00	9.5X
S.D. = 1.0		on	9 of	11 obs.	

APR 09, 1989 23h 08m 17.75± 0.73s
42.101 N ± 6.8km 15.581 E ± 7.4km
DEPTH = 10.0km (geophysicist)
ADRIATIC SEA (382)

DUI	0.95	243	P	08 36.40	0.5
			eSg	08 53.00	
HVAR	1.25	30	iPg	08 41.90	0.9
			i(Sg)	08 58.80	
SDI	1.38	254	P	08 42.50	-0.5
			eSg	09 03.90	
BSS	1.43	204	P	08 44.20	0.4
			eSg	09 05.50	
SGO	1.56	188	P	08 44.70	-0.8
BRT	1.73	135	P	08 46.80	-1.2
MGR	1.96	181	P	08 52.70	1.3
MNS	2.17	278	P	08 55.00	0.5
ARV	2.39	307	P	08 56.40	-1.2
S.D. = 1.1		on	9 of	9 obs.	

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* APR 09, 1989 23h 18m 17.72± 2.14s
36.487 N ±23.0km 1.286 E ±11.1km
DEPTH = 33.0km (normal)
ALGERIA (396)
MG 3.4 (MDD).

ACU	2.43	327	ePn	18 57.00	1.0
			eSn	19 26.00	
ENIJ	2.86	281	ePn	19 01.00	-1.0
			eSn	19 34.80	
ESEL	3.51	21	ePn	19 09.00	-2.3
			eSn	19 49.00	
ECHE	3.57	331	ePn	19 13.30	1.1
			eSn	19 54.30	
EVIA	3.70	307	ePn	19 14.00	0.0
			eSn	19 57.50	
AFC	3.95	283	ePn	19 17.20	-0.5
			eSn	20 01.00	
EBAN	4.38	294	ePn	19 24.00	0.4
			eSn	20 13.00	
MLR	20.61	56	eP	22 58.00	1.3
S.D. = 1.5		on	8 of	8 obs.	

? APR 09, 1989 23h 41m 37.53± 7.79s
40.945 N ±40.8km 19.674 E ±43.2km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 1.8 (SKO).

TIR	0.43	20	ePg	41 45.50	-0.7
LACI	0.69	2	ePg	41 50.70	-0.5
OHR	0.87	79	ePg	41 53.10	-1.2
			eSg	42 02.70	
PHP	0.94	38	ePg	41 51.00	-4.4X
KKS	1.26	26	ePg	42 01.50	0.6
SKO	1.68	52	ePg	42 08.50	1.4
			iSg	42 23.80	
S.D. = 1.5		on	5 of	6 obs.	

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* APR 09, 1989 23h 56m 39.33± 2.22s
44.244 N ± 4.0km 129.540 W ±21.4km
DEPTH = 10.0km (geophysicist)
4.2mb (1 obs.)
OFF COAST OF OREGON (30)

BMW	4.98	61	eP	57 54.50	-1.4
OBH	5.02	50	eP	57 56.24	-0.3
CPW	5.26	56	eP	57 58.33	-1.6
FHC	5.36	128	e(P)	58 00.50	-0.8
APW	5.41	61	eP	58 02.03	0.0
CZM	5.42	64	eP	58 01.65	-0.5
SHW	5.52	67	eP	58 03.59	0.0
HSR	5.54	67	eP	58 04.98	0.9
STW	5.64	44	eP	58 05.52	0.2
LMW	5.65	62	eP	58 05.11	-0.3
HDW	5.66	51	eP	58 05.52	-0.1
			eS	59 09.17	
VBEM	5.73	79	eP	58 06.77	0.1
GMW	5.76	53	eP	58 06.37	-0.5
			eS	59 10.23	
BLN	5.92	48	eP	58 09.96	0.9
RVC	5.96	60	eP	58 09.29	-0.5
LON	5.98	63	eP	58 09.40	-0.7
GLK	6.05	65	eP	58 11.10	0.0
WPW	6.13	64	eP	58 12.49	0.2
FMW	6.14	61	eP	58 12.75	0.3
BLH	6.34	53	eP	58 16.28	1.2
OHW	6.34	48	eP	58 15.64	0.6
WDC	6.34	123	eP	58 16.00	0.8
MCW	6.41	44	eP	58 16.00	-0.2
MBW	6.96	47	eP	58 24.20	0.3
MIN	7.06	121	e(P)	58 26.80	1.5
ORV	7.61	125	eP	58 32.50	-0.4
PNT	8.49	50	eP	58 45.00	-0.2
	0.5s	7.00nm		5.2mb X	
ARN	9.18	136	eP	58 53.50	-1.2
CMB	9.28	129	eP	58 55.00	-1.1
KVN	10.01	117	eP	59 07.00	0.7
FRI	10.40	131	e(P)	59 11.20	-0.3
LRM	12.20	77	eP	59 36.70	0.5
BW06	14.58	89	eP	00 10.00	2.3X

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GOL     18.51  96 eP     01 00.00    2.3X
ALQ     20.01 110 eP     01 17.00    1.8
YKA     20.24  20 eP     01 21.40    4.3X
FFC     20.62  50 eP     01 21.00   -0.1
        0.8s      9.00nm            4.2mb
      S.D. = 0.8  on  34 of  37 obs.
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% APR 10, 1989  00h 29m 42.01± 0.69s
  39.330 N ± 5.6km   28.375 E ± 7.2km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

DST     0.34  35 iPg    29 48.50   -0.5
                iSg    29 52.50
EDC     1.09 339 iPg    30 02.00   -0.5
                eSg    30 15.00
IZM     1.27 223 ePn    30 06.00    0.3
KHL     1.35 138 ePn    30 06.00   -0.9
ALT     1.38 101 ePn    30 08.00    0.7
YLV     1.45  32 iPn    30 08.40    0.0
GPA     1.77  57 ePn    30 13.00    0.1
HRT     1.79  33 ePn    30 14.00    0.8
      S.D. = 0.7  on   8 of   8 obs.
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   APR 10, 1989  00h 44m 56.90± 0.82s
  56.682 N ±12.9km  156.890 W ±10.5km
  DEPTH =  82.6 ± 43.0 km
 ALASKA PENINSULA                ( 12)

IVF     1.67 243 iPd    45 24.78   -0.2
                eS     45 45.16
SASA    2.43 238 eP     45 35.29    0.0
                eS     46 03.69
NGI     2.43 229 ePd    45 35.64    0.3
                eS     46 03.97
SQF     2.53 236 P      45 36.93    0.2
                eS     46 06.75
KDC     2.62  64 eP     45 37.90    0.0
                S      46 08.86
CDD     2.85  36 iP     45 41.07    0.0
                eS     46 14.12
PVV     3.05 247 ePd    45 43.53   -0.2
                eS     46 17.76
PS4     3.10 247 ePd    45 44.27   -0.2
                eS     46 18.23
AUI     3.24  33 eP     45 46.69    0.3
                eS     46 22.84
PDB     3.43  23 eP     45 48.58   -0.4
                S      46 25.93
OPT     3.55  32 eP     45 51.05    0.2
CNPM    4.14  44 eP     45 58.55   -0.5
RED     4.32  28 eP     46 01.80    0.1
SLKM    5.18  40 eP     46 13.17   -0.4
CRP     5.21  26 eP     46 14.73    0.7
                eS     46 35.38
      S.D. = 0.4  on  15 of  15 obs.
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   APR 10, 1989  01h 34m 02.85± 0.57s
  41.832 N ± 6.7km   22.870 E ± 4.7km
  DEPTH =  12.2 ±  4.6 km
 YUGOSLAVIA                      (383)
     ML 2.7 (SKO). MD 2.8 (ATH).

KKB     0.16  78 iPgd   34 07.00    0.2
                Sg     34 09.00
VAY     0.56 204 iPg    34 13.70   -0.3
                iSg    34 21.20
MMB     0.69 110 ePgc   34 16.00   -0.3
                Sg     34 25.00
SKO     1.08 278 iPg    34 24.00    1.1
                iSg    34 39.80
RZN     1.39  95 iPc    34 28.00   -0.1
                Sg     34 48.00
PLG     1.52 163 ePb    34 30.00    0.1
OHR     1.72 246 ePn    34 33.00    0.3
KZN     1.74 209 ePb    34 33.60    0.6
KDZ     1.91  95 iPd    34 37.00    1.4
                iS     35 12.00
RDO     2.12 108 ePn    34 41.50    3.0X
BZS     3.89 347 ePd    35 03.00   -0.6
MLR     4.28  30 eP     35 17.00    7.6X
      S.D. = 0.8  on  10 of  12 obs.
-------------------------------------
   APR 10, 1989  02h 34m 38.25± 0.56s
  44.235 N ± 3.3km  129.236 W ± 5.7km
  DEPTH =  10.0km  (geophysicist)
  4.3mb ( 11 obs.)

 OFF COAST OF OREGON             ( 30)

ONR     4.66  54 eP     35 50.30    0.0
BMW     4.79  60 eP     35 50.95   -1.3
OBH     4.86  49 eP     35 52.64   -0.6
RVW     4.97  65 eP     35 54.40   -0.3
CPW     5.08  55 eP     35 54.90   -1.4
FHC     5.18 130 e(P)   35 56.70   -1.0
APW     5.23  60 eP     35 58.24   -0.1
VLMM    5.28  73 eP     35 59.29    0.1
STD     5.34  66 eP     36 00.72    0.6
TDH     5.41  76 eP     36 01.25    0.2
LMW     5.46  61 eP     36 01.26   -0.4
HDW     5.50  49 eP     36 01.79   -0.5
                eS     37 05.38
STW     5.50  43 eP     36 02.10   -0.1
VBEM    5.52  79 eP     36 03.00    0.4
GMW     5.59  51 eP     36 02.41   -1.0
BLN     5.76  47 eP     36 06.24    0.4
RVC     5.77  59 eP     36 05.60   -0.5
LON     5.79  62 eP     36 05.50   -0.9
GLK     5.85  64 eP     36 07.42    0.2
WPW     5.94  63 eP     36 08.67    0.2
LBFM    6.13 116 eP     36 14.20    3.0X
WDC     6.16 124 e(P)   36 11.00   -0.4
MCW     6.27  43 eP     36 11.50   -1.6
MIN     6.86 122 e(P)   36 22.70    1.2
ORV     7.43 126 e(P)   36 29.70    0.5
PNT     8.33  49 eP     36 41.00   -0.9
        0.6s     22.00nm           5.6mb X
CMB     9.10 130 ePc    36 52.80    0.1
FRI    10.23 132 e(P)   37 07.90   -0.2
PRI    10.40 138 e(P)   37 10.40   -0.2
TNP    10.94 120 eP     37 19.00    0.9
        0.7s      7.56nm           5.2mb
ISA    11.89 132 eP     37 30.00   -0.8
LRM    11.99  77 eP     37 33.10    0.8
CLC    12.25 129 eP     37 36.00    0.4
SBB    12.97 133 eP     37 43.00   -2.3
GSC    13.07 129 eP     37 47.00    0.4
RVR    13.75 134 eP     37 51.00   -4.5X
SES    13.78  57 eP     37 58.00    2.1
MSU    14.02 108 eP     38 00.50    1.2
BW06   14.36  89 eP     38 04.50    0.7
        1.0s      7.50nm           4.3mb
TPC    14.37 130 eP     38 03.00   -0.7
PLM    14.51 134 eP     38 05.00   -0.7
BAR    15.14 135 eP     38 13.00   -0.8
GLA    15.83 130 eP     38 22.00   -0.7
GOL    18.29  96 eP     38 55.50    1.6
        1.0s     20.00nm           4.2mb
GLD    18.38  96 eP     38 57.00    2.1
        1.5s     78.13nm           4.7mb
ALQ    19.81 110 eP     39 13.50    1.6
        1.0s      6.25nm           3.9mb
YKA    20.17  20 eP     39 15.70    0.4
FFC    20.45  49 iPc    39 18.00   -0.3
        0.9s     20.00nm           4.5mb
PMR    20.97 333 eP     39 24.00    0.5
        0.8s      1.90nm           3.5mb
FBA    23.15 340 eP     39 48.00    2.7X
        1.0s      1.50nm           3.5mb
INK    24.24 356 eP     39 56.00    0.3
TTA    24.25 330 eP     39 56.00    0.0
RSON   24.70  62 eP     40 00.50    0.0
        1.0s      7.50nm           4.3mb
IMA    25.62 337 eP     40 10.00    0.8
        0.9s      4.20nm           4.1mb
BLA    37.20  84 eP     41 52.50    1.2
        1.5s     41.67nm           5.0mb
ZOBO   81.95 122 P      46 59.00   -1.3
      S.D. = 0.9  on  53 of  56 obs.
-------------------------------------
% APR 10, 1989  03h 32m 33.00± 0.96s
  39.370 N ± 8.6km   28.370 E ±10.6km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

DST     0.31  40 iPg    32 39.00   -0.4
                iSg    32 43.50
IZM     1.30 222 ePn    32 57.00   -0.1
KHL     1.38 139 ePn    32 58.40    0.0
ALT     1.39 103 ePn    32 58.50    0.0
YLV     1.42  33 iPn    32 59.40    0.5
      S.D. = 0.5  on   5 of   5 obs.
-------------------------------------
% APR 10, 1989  03h 37m 11.63± 1.00s
  40.021 N ±10.1km   30.434 E ± 8.2km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

GPA     0.28 340 iPg    37 17.90    0.3
                eSg    37 25.90
YLV     0.98 304 iPn    37 30.40    0.1
HRT     0.99 324 ePn    37 30.00   -0.5
DST     1.45 254 ePn    37 38.00    0.0
BBTK    1.80  95 eP     37 43.00    0.0
                iS     38 06.50
      S.D. = 0.4  on   5 of   5 obs.
-------------------------------------
?  APR 10, 1989  03h 37m 13.35± 4.39s
  17.980 S ±31.5km  178.741 W ±26.5km
  DEPTH = 685.9 ± 59.6 km
  4.7mb (  8 obs.)
 FIJI ISLANDS REGION             (181)

RMQ    31.19 248 iPd    42 42.80    0.0
CTA    33.12 261 iPd    42 58.70   -0.3
        0.8s     14.93nm           4.7mb
PMG    34.16 280 eP     43 08.00    0.5
        0.9s     43.70nm           5.0mb
STK    38.32 241 iPd    43 41.90    0.6
WRA    44.31 260 Pd     44 27.40   -0.9
        0.4s      6.10nm           4.4mb
ASPA   44.47 254 iPd    44 29.50    0.0
        0.7s     80.00nm           5.3mb
                eS     50 21.80
FORR   49.66 245 iPd    45 07.70   -0.4
        0.4s     54.00nm           5.3mb
WARB   50.96 251 eP     45 10.00   -7.7X
        0.3s      8.00nm           4.5mb
MBL    57.66 256 iPd    46 04.00   -0.1
        0.3s      9.00nm           4.5mb
NANU   61.40 254 iPd    46 29.30    0.7
PRS    76.50  44 ePc    47 57.60    0.2
FRI    77.98  45 e(P)   48 05.10    0.0
CMB    78.11  43 ePc    48 05.60   -0.3
WDC    78.20  40 e(P)   48 10.20    4.0X
PNT    84.97  34 eP     48 40.00    0.0
        0.7s      4.00nm           4.2mb
      S.D. = 0.5  on  13 of  15 obs.
-------------------------------------
   APR 10, 1989  03h 45m 29.00± 0.54s
  39.362 N ± 5.0km   28.487 E ± 5.9km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

DST     0.27  24 iPg    45 34.50   -0.2
                iSg    45 38.50
EDC     1.09 334 iPg    45 49.00   -0.6
                eSg    46 30.00
ALT     1.30 103 iPn    45 54.00    0.9
KHL     1.32 142 iPn    45 53.90    0.5
IZM     1.36 225 iPn    45 52.30   -1.7
YLV     1.38  29 iPn    45 54.90    0.5
GBZT    1.60  27 ePn    46 02.90    5.5X
                iSg    46 25.20
GPA     1.68  56 iPn    45 59.40    0.8
HRT     1.72  31 ePn    45 57.90   -1.2
EZN     1.73 286 ePn    46 00.50    1.2
ISK     1.76  14 ePn    45 59.00   -0.7
CTT     1.78 359 ePn    45 58.00   -2.1
YER     2.23 184 ePn    46 05.50   -1.1
BCK     2.52 138 ePn    46 11.10    0.5
DMK     2.52 347 ePn    46 10.00   -0.6
KDZ     3.27 315 eP     46 22.00    0.7
                eS     47 11.00
BBTK    3.34  80 eP     46 35.00   12.6X
                eS     47 22.00
DIM     3.50 321 eP     46 27.00    2.5
RZN     3.70 310 eP     46 28.00    0.4
      S.D. = 1.2  on  17 of  19 obs.
-------------------------------------
% APR 10, 1989  03h 50m 40.23± 0.82s
  39.381 N ± 7.6km   28.363 E ± 8.3km
  DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

DST     0.30  42 iPg    50 46.50   -0.1
                iSg    50 51.50
EDC     1.04 338 ePn    51 00.00    0.2
IZM     1.30 222 ePn    51 04.30   -0.1
ALT     1.40 103 ePn    51 06.00    0.2
YLV     1.42  33 iPn    51 05.90   -0.2
```

10d 03h

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

? APR 10, 1989 03h 54m 56.91± 2.54s
34.372 N ±18.7km 28.929 E ±34.9km
DEPTH = 10.0km (geophysicist)
EASTERN MEDITERRANEAN SEA (371)

ELL	2.50	18	ePn	55 38.00	-0.4
YER	2.81	349	iPn	55 43.00	0.3
DSI	6.10	115	eP	56 30.00	0.8
			eS	57 36.00	
PRNI	6.52	126	iPc	56 35.00	-0.2
MBH	6.82	131	eP	56 39.00	-0.4

S.D. = 0.7 on 5 of 5 obs.

% APR 10, 1989 04h 02m 45.45± 0.49s
39.379 N ± 4.7km 28.429 E ± 5.7km
DEPTH = 17.2 ± 5.8 km
TURKEY (366)

DST	0.27	34	iPg	02 51.50	-0.1
			iSg	02 54.50	
EDC	1.06	336	iPn	03 05.00	0.1
IZM	1.34	223	iPn	03 08.70	-0.7
ALT	1.35	103	iPn	03 10.00	0.5
KHL	1.36	141	iPn	03 10.40	0.7
YLV	1.39	31	iPg	03 09.40	-0.7
EZN	1.69	286	ePn	03 15.50	1.2
GPA	1.71	57	iPn	03 15.40	0.7
HRT	1.73	33	ePn	03 14.30	-0.6
ISK	1.75	16	ePn	03 15.00	-0.2
CTT	1.77	0	ePn	03 15.00	-0.5
YER	2.24	183	ePn	03 21.40	-1.0
DMK	2.49	348	ePn	03 26.00	0.1

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

% APR 10, 1989 04h 08m 16.71± 0.79s
39.403 N ± 7.2km 28.332 E ± 8.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	1.01	339	ePn	08 35.00	-0.8
IZM	1.31	220	ePn	08 41.50	0.6
KHL	1.42	139	ePn	08 41.90	-0.8
ALT	1.42	104	ePn	08 42.50	-0.2
HRT	1.75	35	ePn	08 48.00	0.7
GPA	1.76	59	ePn	08 48.00	0.5

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

% APR 10, 1989 05h 08m 29.23± 0.64s
39.375 N ± 5.4km 28.374 E ± 7.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.30	40	iPg	08 35.00	-0.6
			eSg	08 40.00	
EDC	1.05	338	iPg	08 50.00	1.0
			eSg	09 04.00	
IZM	1.31	222	iPn	08 53.20	-0.2
KHL	1.38	139	iPn	08 54.90	0.3
ALT	1.39	103	iPn	08 55.50	0.8
YLV	1.42	32	iPn	08 54.40	-0.7
EZN	1.65	287	ePn	09 01.00	2.7X
GPA	1.75	58	ePn	09 00.50	0.7
HRT	1.75	34	ePn	08 59.00	-0.9
YER	2.24	182	ePn	09 06.40	-0.5

S.D. = 0.8 on 9 of 10 obs.

APR 10, 1989 06h 48m 51.92± 0.69s
39.298 N ± 5.8km 23.623 E ± 7.3km
DEPTH = 8.9 ± 4.0 km
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.31	272	iPgd	48 58.40	0.1
PLG	1.08	353	iPbc	49 14.00	1.6
ATH	1.33	177	ePb	49 16.00	-0.5
KZN	1.75	306	ePb	49 22.10	-0.6
PRK	2.06	91	ePb	49 32.90	5.8X
EZN	2.15	75	ePn	49 34.00	5.5X
VAY	2.18	339	ePn	49 29.70	0.9
MMB	2.29	2	iPc	49 31.00	0.5
			iS	50 08.00	
RDO	2.36	38	ePn	49 31.70	0.3
LSK	2.48	291	ePn	49 38.30	5.1X
ITM	2.50	213	ePb	49 35.80	2.4
RZN	2.53	19	iPc	49 35.00	1.0
			S	50 05.00	
KBN	2.53	302	ePn	49 41.00	7.2X
KKB	2.60	351	iPgc	49 35.00	0.2
VLS	2.62	246	ePg	49 41.90	6.7X
KDZ	2.72	30	iPc	49 36.00	-0.6
			iS	50 21.00	
OHR	2.82	311	ePn	49 41.00	2.9X
SRN	2.86	283	ePn	49 43.80	5.3X
DIM	3.11	27	eP	49 53.00	11.0X
SKO	3.15	329	ePn	49 41.50	-1.1
VTS	3.31	355	iP	49 46.00	1.0
			i	50 27.00	
PVL	4.12	18	iPc	49 55.00	-1.4
MGR	6.28	280	P	50 26.40	-0.6
MLR	6.42	15	ePc	50 30.30	1.2
SGO	6.51	284	P	50 23.00	-7.3X
			eSg	50 25.70	

S.D. = 1.1 on 16 of 25 obs.

% APR 10, 1989 07h 37m 31.91± 0.85s
16.761 S ±13.7km 126.458 E ± 9.7km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

KNA	2.43	66	eP	38 12.80	0.5
			eS	38 45.00	
MTN	5.96	50	eP	39 02.00	-0.4
			eS	40 08.00	
MBL	7.64	234	eP	39 26.40	0.4
			iS	40 45.50	
WARB	9.38	179	eP	39 42.00	-8.1X
	0.2s		1.00nm	4.9mb X	
			eS	41 23.00	
ASPA	9.80	136	iPc	39 55.80	-0.2
	0.5s		14.00nm	5.6mb X	
			eS	41 33.40	
NANU	11.80	239	eP	40 23.00	-0.3
			eS	42 27.00	

S.D. = 0.5 on 5 of 6 obs.

• APR 10, 1989 08h 18m 05.28± 1.24s
41.835 N ± 9.4km 22.868 E ±10.8km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 1.8 (SKO).

KKB	0.16	79	Pg	18 08.00	-1.1
			Sg	18 12.00	
VAY	0.56	204	iPg	18 16.40	-0.2
			iSg	18 24.00	
MMB	0.69	111	iPgc	18 19.00	0.0
			Sg	18 27.00	
VTS	0.80	18	ePg	18 21.00	0.1
			iSg	18 32.00	
RZN	1.39	95	eP	18 32.00	1.1
			e	18 46.00	

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

• APR 10, 1989 08h 42m 39.51± 2.61s
44.196 N ±16.3km 129.344 W ±17.7km
DEPTH = 10.0km (geophysicist)
4.2mb (1 obs.)
OFF COAST OF OREGON (30)

STW	5.58	43	eP	44 04.39	-0.2
HDW	5.58	50	eP	44 04.86	0.2
VBEM	5.60	78	eP	44 05.50	0.4
GMW	5.67	51	eP	44 05.30	-0.6
BLN	5.84	47	eP	44 08.79	0.5
RVC	5.86	59	eP	44 08.02	-0.5
GLK	5.94	64	eP	44 10.53	0.8
WPW	6.03	63	eP	44 11.28	0.3
VIPM	6.26	84	eP	44 13.95	-0.4
OHW	6.27	46	eP	44 14.61	0.4
MCW	6.35	43	eP	44 15.18	-0.3
JCW	6.52	50	eP	44 17.90	0.1
CMW	6.55	47	eP	44 18.28	-0.1
MBW	6.89	46	eP	44 23.32	0.2
RPW	6.89	49	eP	44 22.69	-0.4
PNT	8.41	49	eP	44 44.00	-0.3
	0.4s		5.00nm	5.1mb X	
YKA	20.24	20	eP	47 17.60	0.4
FFC	20.54	49	eP	47 20.00	-0.5
	1.0s		13.00nm	4.2mb	

S.D. = 0.4 on 18 of 18 obs.

APR 10, 1989 10h 08m 40.62± 0.58s
6.948 S ± 6.9km 155.719 E ± 6.1km
DEPTH = 67.2 ± 5.6 km
4.9mb (7 obs.)
SOLOMON ISLANDS (193)
Felt (III) at Arawo, Bougoinville.

PAA	0.68	341	iPd	08 55.50	0.1
			eS	09 10.00	
BGA	0.96	326	iPd	08 59.00	0.2
			eS	09 07.00	
RAB	4.47	308	e(P)	09 59.50	12.0X
			iS	10 51.00	
VSG	4.57	120	eP	09 48.00	-0.9
			eS	10 49.00	
HNR	4.86	121	eP	09 53.00	0.1
			eS	10 58.00	
LAT	8.66	271	eP	10 44.00	-1.7
PMG	8.82	253	eP	10 49.00	1.1
	0.8s		46.27nm	5.4mb	
CTA	15.97	214	eP	12 25.00	2.4
	1.4s		45.35nm	4.4mb	
BRS	20.52	187	iPd	13 20.00	4.1X
RMQ	20.53	198	eP	13 15.00	-1.0
WRA	24.44	236	eP	13 53.50	-1.0
MTN	24.91	254	eP	13 59.00	0.0
ASPA	26.75	229	iPc	14 23.50	7.5X
Z	20s		0.23um	3.7Msz	
			LR	23 56.40	
LOE	58.56	295	eP	18 32.20	-0.9
NNT	58.93	289	eP	18 35.70	0.1
BDT	60.97	294	eP	18 35.70	-13.9X
CHG	61.53	296	ePc	18 53.10	-0.3
	1.1s		13.61nm	5.0mb	
CHTO	61.53	296	eP	18 53.10	-0.3
GUN	75.71	301	P	20 22.00	0.5
KKN	76.19	301	P	20 24.20	0.2
	0.7s		13.00nm	5.0mb	
DMN	76.29	300	P	20 25.00	0.4
	0.7s		15.00nm	5.0mb	
GKN	76.79	301	P	20 27.60	0.3
GBA	80.33	285	Pd	20 46.00	-0.5
	0.9s		2.90nm	4.2mb	
SPA	83.10	180	e(P)	21 01.10	0.9
	0.8s		8.75nm	4.8mb	
INK	89.42	21	eP	21 32.00	1.1
MBC	95.49	14	eP	21 59.00	0.2
YKA	95.96	28	eP	22 02.50	1.4
HFS	119.72	339	ePKP	27 23.30	-1.0
	0.3s		0.80nm		
CNCB	130.76	119	PKP	27 43.00	-4.5X
LPB	130.78	119	(PKP)	27 44.00	-3.3X
ZOBO	130.86	118	PKP	27 42.70	-5.0X
ITA	144.65	146	ePKP	28 11.60	-0.9
BMA	144.70	147	iPKPd	28 11.70	-0.5

S.D. = 1.0 on 26 of 33 obs.

APR 10, 1989 11h 38m 36.37± 0.80s
41.966 N ± 9.2km 24.487 E ± 6.0km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

PLD	0.21	49	iPg	38 40.00	-1.0
			iSg	38 44.00	
RZN	0.33	148	iPgd	38 44.00	0.8
			Sg	38 53.00	
PGB	0.63	338	Pg	38 45.00	-4.1X
			Sg	38 54.00	
MMB	0.68	237	iPgd	38 50.00	0.1
			Sg	39 03.00	
KDZ	0.76	114	iP	38 50.00	-1.3
			iS	39 05.00	
DIM	0.78	83	eP	38 53.00	1.4
			Sg	39 07.00	
KKB	1.05	265	eP	38 55.00	-1.2
			S	39 14.00	
VTS	1.14	304	iPg	38 59.00	1.2
			iSg	39 16.00	

S.D. = 1.4 on 7 of 8 obs.

? APR 10, 1989 11h 43m 06.95±12.52s
59.353 N ±46.4km 2.344 E ±95.4km
DEPTH = 10.0km (geophysicist)
NORTH SEA (534)
MD 2.3 (BER).

KMY	1.50	94	eP	43 33.68	-0.1

			eS	43 52.94		
ASK	1.83	50	iP+	43 38.74	0.1	
			eS	43 59.97		
SUE	2.09	34	iP	43 42.52	0.1	
			iS	44 06.00		
ODD1	2.25	74	iP	43 44.71	-0.1	
			eS	44 10.91		
BLS1	2.30	87	eP	43 45.74	0.2	
			eS	44 11.98		
HYA	2.64	45	iPd	43 50.13	-0.2	
			eS	44 18.86		
			iSg	44 21.35		

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

% APR 10, 1989 12h 10m 40.90± 1.48s
11.200 N ± 7.2km 61.788 W ±22.9km
DEPTH = 10.0km (geophysicist)
WINDWARD ISLANDS (95)
MD 3.4 (TRN).

TCE	0.50	176	iP	10 51.29	0.2	
			eS	11 03.14		
TRN	0.67	145	iPc	10 55.17	1.0	
			eS	11 09.14		
TPP	0.94	159	eP	10 57.95	-0.8	
			eS	11 12.71		
GRW	0.96	7	eP	10 59.28	0.0	
			eS	11 19.19		
TBH	1.00	135	eP	10 59.48	-0.4	
			eS	11 20.40		

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

• APR 10, 1989 12h 17m 15.13± 2.81s
2.667 N ± 9.0km 128.764 E ±14.6km
DEPTH = 261.6 ± 32.7 km
4.5mb (9 obs.)
HALMAHERA (267)

MTN	15.59	171	iPd	20 42.60	-0.8	
KNA	18.30	180	eP	21 13.00	0.6	
	0.3s		34.00nm		5.3mb	
WRA	23.13	167	iPd	22 00.20	0.3	
ASPA	26.65	169	iPc	22 32.00	-0.1	
	0.9s		9.00nm		4.4mb	
			eS	26 49.80		
CHG	33.31	301	ePd	23 30.50	-0.1	
	0.9s		11.76nm		4.5mb	
CHTO	33.31	301	iP	23 30.90	0.3	
	0.8s		9.33nm		4.4mb	
FORR	33.34	181	iPd	23 31.20	0.6	
	0.5s		17.00nm		4.9mb	
MAT	34.82	13	eP	23 43.00	-0.2	
	0.7s		3.42nm		4.0mb	
CD2	36.71	323	P	23 59.40	0.3	
LZH	40.45	328	eP	24 31.50	1.3	
	1.5s		26.00nm		4.4mb	
GTA	45.06	328	iPd	25 07.50	0.4	
GUN	47.99	306	P	25 30.70	0.3	
PKI	48.24	305	P	25 31.80	-0.5	
	0.7s		13.00nm		4.4mb	
KKN	48.43	305	P	25 33.60	0.0	
DMN	48.50	305	P	25 34.20	0.0	
GKN	49.03	305	P	25 38.10	-0.1	
HYB	51.38	290	eP	25 55.00	-0.9	
SLL	99.93	333	eP	30 29.90	-1.4	
	0.4s		1.80nm		4.9mb	

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

APR 10, 1989 13h 06m 49.14± 2.87s
3.213 S ±11.0km 128.012 E ±18.5km
DEPTH = 103.8 ± 32.1 km
4.7mb (3 obs.)
CERAM (272)

MTN	10.06	162	eP	09 13.00	0.8	
			e	11 11.00		
KNA	12.48	177	eP	09 43.50	-0.8	
WRA	17.74	160	eP	10 50.00	-1.0	
			eS	14 10.70		
MBL	19.53	203	eP	11 10.30	-0.8	
QIS	20.61	148	eP	11 22.00	-0.2	
ASPA	21.12	165	iPd	11 28.80	1.5	
	1.1s		49.00nm		4.8mb	
			epP	11 35.60	25kmX	
			eS	15 20.50		
NANU	22.73	211	eP	11 43.40	0.4	
WARB	22.88	183	eP	11 40.00	-4.5X	
	0.6s		6.00nm		4.1mb	
CTA	24.45	135	eP	12 16.00	16.2X	
MEKA	24.98	200	eP	12 05.00	0.3	
GYA	36.00	326	P	13 43.00	0.8	
CHG	36.02	309	eP	13 43.00	0.7	
CHTO	36.02	309	eP	13 43.10	0.8	
GTA	49.72	331	eP	15 33.20	0.3	
GUN	51.00	310	P	15 43.50	0.5	
PKI	51.19	310	P	15 44.30	-0.2	
KKN	51.40	310	P	15 46.10	0.2	
	0.7s		13.00nm		5.0mb	
DMN	51.44	309	P	15 46.50	0.2	
GKN	52.00	310	P	15 48.50	-1.8	
WMQ	59.16	327	eP	16 39.50	-1.9	
CNCB	154.60	142	PKP	26 45.00	13.0X	
LPB	154.73	141	(PKP)	26 50.00	18.0X	
ZOBO	154.92	141	ePKP	26 51.00	18.6X	

S.D. = 1.0 on 18 of 23 obs.

? APR 10, 1989 13h 40m 21.42± 4.04s
43.467 N ±35.4km 24.882 E ± 8.4km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

PVL	0.41	127	iPc	40 30.00	0.1	
			iS	40 35.00		
PGB	1.06	210	eP	40 41.00	-0.4	
			S	40 50.00		
DIM	1.50	161	eP	40 47.00	-1.3	
			eSg	41 06.00		
VTS	1.51	235	eP	40 48.00	-0.6	
			iSg	41 07.00		
RZN	1.78	184	P	40 52.00	-0.6	
			S	41 12.00		
KDZ	1.86	168	eP	40 55.00	1.4	
			iS	41 14.00		
MMB	2.06	205	iPd	40 57.00	0.5	
			iS	41 22.00		
KKB	2.08	220	eP	40 58.00	1.2	
			S	41 22.00		
MLR	2.16	20	eP	41 45.00	46.9X	
VAY	2.74	219	ePn	41 06.00	-0.3	

S.D. = 1.0 on 9 of 10 obs.

% APR 10, 1989 14h 47m 36.85± 0.73s
41.150 N ± 7.8km 28.494 E ± 5.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

CTT	0.05	267	ePg	47 37.80	-1.2	
ISK	0.44	101	ePg	47 45.60	-0.1	
DMK	0.87	321	iPg	47 54.40	0.8	
			eSg	48 06.40		
YLV	0.89	131	iPg	47 53.70	-0.2	
BNT	0.91	209	iPg	47 54.20	0.0	
EDC	0.93	211	iPg	47 55.00	0.3	
			eSg	48 09.00		
HRT	0.95	110	ePn	47 55.10	0.2	

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

% APR 10, 1989 14h 56m 05.61± 1.04s
40.527 N ± 7.8km 27.569 E ± 8.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.29	129	iPg	56 12.00	0.4	
			iSg	56 17.00		
BNT	0.32	122	iPg	56 12.70	0.5	
CTT	0.90	46	ePg	56 20.60	-2.3	
EZN	1.18	234	ePn	56 27.10	-0.6	
DST	1.23	138	iPn	56 28.40	-0.1	
DMK	1.30	6	ePn	56 31.40	1.7	
YLV	1.37	88	iPn	56 31.20	0.3	

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

• APR 10, 1989 15h 59m 52.98± 2.80s
44.504 N ± 9.8km 128.862 W ±28.0km
DEPTH = 10.0km (geophysicist)
4.1mb (1 obs.)
OFF COAST OF OREGON (30)

BMW	4.42	62	eP	01 01.50	-0.2	
GMW	5.21	52	eP	01 13.00	0.2	
LON	5.43	63	eP	01 16.80	0.8	
MCW	5.89	43	eP	01 22.10	-0.3	
MBW	6.43	46	eP	01 30.50	0.4	
PNT	7.95	49	eP	01 56.00	4.7X	
	0.5s		7.00nm		5.1mb X	
CMB	9.08	132	ePd	02 07.90	0.9	
			e	02 26.40		
KVN	9.71	120	eP	02 16.50	0.7	
EUR	10.82	113	iP	02 30.50	-0.7	
	0.2s		7.82nm		5.7mb X	
BW06	14.09	90	eP	03 18.50	3.6X	
GOL	18.06	97	eP	04 07.00	1.2	
ALQ	19.65	111	eP	04 23.00	-2.0	
YKA	19.83	20	P	04 27.60	1.2	
FFC	20.08	50	eP	04 27.00	-2.1	
	0.9s		10.00nm		4.1mb	

S.D. = 1.2 on 12 of 14 obs.

• APR 10, 1989 16h 13m 54.47± 1.31s
44.346 N ± 9.6km 129.202 W ±14.1km
DEPTH = 10.0km (geophysicist)
4.3mb (1 obs.)
OFF COAST OF OREGON (30)

BMW	4.71	61	eP	15 05.80	-1.6	
SHW	5.25	67	eP	15 16.50	1.5	
LON	5.72	63	eP	15 21.50	-0.1	
MCW	6.17	43	eP	15 27.00	-0.9	
WDC	6.20	125	ePc	15 36.00	7.8X	
MIN	6.90	123	ePc	15 45.00	6.7X	
ORV	7.47	127	ePc	15 46.70	0.6	
PNT	8.24	50	eP	15 59.00	2.2X	
CMB	9.16	130	ePc	16 10.70	1.1	
KVN	9.84	119	eP	16 18.00	-1.2	
FRI	10.29	132	ePc	16 28.60	3.5X	
EUR	10.99	112	eP	16 37.50	2.5X	
	0.8s		4.50nm		4.9mb X	
EDM	13.69	44	eP	17 11.00	0.1	
MSU	14.03	109	eP	17 20.80	5.1X	
BW06	14.33	89	eP	17 20.50	0.9	
YKA	20.06	20	eP	18 34.50	4.1X	
FFC	20.36	50	eP	18 34.00	0.4	
	1.3s		21.00nm		4.3mb	
INK	24.13	356	eP	19 22.00	11.1X	
IMA	25.53	337	eP	19 25.50	0.9	
ZOBO	81.99	122	eP	26 14.00	-2.7	
LPB	82.21	122	eP	26 29.00	11.3X	
CNCB	82.49	122	eP	26 20.00	0.7	

S.D. = 1.3 on 13 of 22 obs.

APR 10, 1989 17h 56m 51.44± 0.99s
44.332 N ± 5.6km 129.270 W ± 9.2km
DEPTH = 10.0km (geophysicist)
4.3mb (3 obs.)
OFF COAST OF OREGON (30)

KMOR	4.30	70	eP	57 57.58	-0.9	
NLO	4.47	65	eP	58 01.53	0.7	
ONR	4.62	55	eP	58 02.92	0.0	
BMW	4.76	61	eP	58 03.78	-1.3	
OBH	4.82	50	eP	58 05.83	0.1	
OOW	4.91	44	eP	58 07.45	0.4	
			eS	59 06.10		
RVW	4.95	66	eP	58 07.87	0.2	
CPW	5.05	56	eP	58 07.90	-1.1	
OTR	5.08	41	eP	58 09.52	0.1	
			eS	59 10.94		
SMW	5.11	52	eP	58 09.82	0.0	
LVP	5.15	68	eP	58 11.21	0.7	
APW	5.20	61	eP	58 11.40	0.2	
OSD	5.21	46	eP	58 11.16	-0.3	
MTMW	5.27	69	eP	58 12.44	0.2	
SHW	5.30	67	eP	58 13.37	0.7	
ESD	5.36	67	eP	58 14.15	0.6	
TDL	5.37	65	eP	58 13.74	0.1	
TDH	5.41	77	eP	58 14.35	0.1	
KOSW	5.42	64	eP	58 14.74	0.4	
LMW	5.43	62	eP	58 14.72	0.2	
STW	5.45	44	eP	58 14.66	0.1	
VBEM	5.53	80	eP	58 16.05	0.2	
GMW	5.55	52	eP	58 15.20	-0.9	
LON	5.77	63	eP	58 18.50	-0.7	
MCW	6.22	43	eP	58 25.30	-0.1	
WDC	6.23	125	e(P)	58 30.70	5.1X	
MBW	6.75	46	eP	58 33.50	0.3	
ORV	7.50	127	eP	58 45.00	1.5	
PNT	8.28	50	iP	58 55.00	0.5	
	0.5s		9.00nm		5.3mb X	
CMB	9.19	130	e(P)	59 08.60	1.6	
KVN	9.88	118	eP	59 14.00	-2.7	
FRI	10.31	132	e(P)	59 23.30	0.9	

10d 17h

EUR 11.03 111 eP 59 35.00 2.5X
1.0s 2.30nm 4.5mb
LRM 11.99 77 eP 59 47.80 2.3X
GOL 18.33 96 eP 01 10.50 2.9X
ALQ 19.86 110 eP 01 28.00 2.3X
YKA 20.09 20 eP 01 28.00 0.4
FFC 20.41 50 eP 01 31.00 0.0
0.7s 9.00nm 4.2mb
IMA 25.52 337 eP 02 22.40 0.9
1.0s 7.50nm 4.3mb
ZOBO 82.02 122 eP 09 11.00 -2.9
Z 20s 0.12um 4.2Msz
LR 35 36.00
S.D. = 1.0 on 35 of 40 obs.

& APR 10, 1989 18h 12m 16.00s
37.136 N 82.068 W
DEPTH = 0.0km
4.3mb (1 obs.)
WEST VIRGINIA (491)
<BLA>. mbLg 3.8 (BLA). Coal bump in Buchanan County, Virginia. Felt (III) at Mavisdale, Virginio.

NAV 1.03 80 iP 12 35.50 -1.0
BLA 1.32 86 eP 12 40.50 -0.8
GBTN 2.27 230 eP 12 56.40 1.1
JSC 2.93 167 eP 13 05.00 0.3
CVL 2.99 73 eP 13 06.00 0.4
PRM 3.06 185 eP 13 07.50 1.0
RSCP 3.23 243 eP 13 10.00 1.1
FFC 22.25 329 eP 17 15.00 -0.9
1.0s 12.00nm 4.3mb
LRM 24.24 301 eP 17 37.30 1.5
YKA 32.31 332 eP 18 48.10 -0.4
10 obs. assaciated

? APR 10, 1989 18h 23m 13.22± 6.16s
13.673 N ±18.8km 60.229 W ±54.6km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)
ML 3.1 (FDF).

SLB 0.80 281 iP 23 28.15 0.0
eS 23 38.09
SVV 1.02 250 eP 23 31.28 0.0
eS 23 47.37
SVB 1.07 248 iP 23 31.98 0.0
eS 23 48.05
MVM 1.09 324 eP 23 32.13 -0.1
S 23 45.30
BIM 1.17 316 eP 23 33.27 -0.1
S 23 46.80
CRM 1.26 328 eP 23 34.66 0.0
S 23 49.00
FDF 1.38 320 eP 23 36.61 0.2
S 23 52.60
S.D. = 0.1 on 7 of 7 obs.

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* APR 10, 1989 18h 28m 09.45± 1.00s
41.977 N ±11.8km 22.585 E ± 7.0km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.7 (SKO).

KKB 0.39 106 iPgd 28 16.00 -1.4
Sg 28 19.00
VAY 0.66 181 iPg 28 23.00 0.5
iSg 28 30.40
VTS 0.77 37 iPg 28 28.00 3.4X
iSg 28 29.00
SKO 0.85 270 ePg 28 25.50 -0.4
MMB 0.94 114 iPgc 28 25.00 -2.4X
Sg 28 35.00
PGB 1.31 63 ePg 28 34.00 0.3
Sg 28 50.00
RZN 1.62 100 iPd 28 38.00 -0.3
S 28 56.00
KDZ 2.14 98 iP 28 47.00 1.3
iS 29 11.00
DIM 2.20 87 eP 29 11.00 24.5X
iSg 29 18.00
S.D. = 1.2 on 6 of 9 obs.

APR 10, 1989 20h 52m 11.30± 0.58s
43.315 N ± 6.1km 20.989 E ± 4.7km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.7 (TTG).

IVA 0.91 241 ePg 52 27.50 -1.3
eSg 52 40.00
PVY 1.04 226 ePg 52 30.00 -1.0
eSg 52 42.60
PLE 1.16 271 ePg 52 32.00 -1.1
eSg 52 47.20
BCI 1.17 216 ePg 52 33.20 0.2
SKO 1.38 166 iPnd 52 35.70 -0.9
PUK 1.51 213 ePn 52 40.50 2.2
NKY 1.54 252 ePn 52 39.00 0.0
eSn 53 02.50
TTG 1.55 236 ePn 52 38.60 -0.3
eSn 53 01.00
BEO 1.55 346 iPn 52 40.50 1.5
eSg 53 02.80
PHP 1.68 194 ePn 52 41.60 0.8
SDA 1.70 221 ePn 52 42.40 1.3
VTS 1.78 113 iP 52 43.00 0.5
iSg 53 05.00
BDV 1.90 238 ePn 52 45.50 1.5
eSn 53 11.50
KKB 2.12 132 eP 52 47.00 -0.2
S 53 19.00
OHR 2.21 184 ePn 52 47.20 -1.4
VAY 2.31 149 ePn 52 48.60 -1.4
BZS 2.34 11 ePc 52 49.00 -1.4
PGB 2.46 107 eP 52 52.00 -0.1
MMB 2.66 129 iPd 52 55.00 0.0
iS 53 38.00
RZN 3.20 119 eP 53 04.00 1.2
S 53 53.00
KDZ 3.67 115 eP 54 06.00 56.6X
MLR 4.16 57 eP 53 34.00 17.6X
S.D. = 1.2 on 20 of 22 obs.

APR 10, 1989 20h 55m 44.86± 0.29s
10.145 S ± 5.2km 119.039 E ± 6.6km
DEPTH = 33.0km (normal)
5.0mb (13 obs.)
SUMBA ISLAND REGION (287)

MBL 10.98 176 eP 58 17.20 -5.6X
0.2s 12.00nm 5.7mb
eS 01 08.00
KNA 10.99 121 eP 58 22.00 -1.0
eS 00 19.00
MTN 12.15 104 eP 58 38.00 -0.6
eS 00 45.00
NANU 12.80 195 iPd 58 42.30 -5.0X
0.3s 13.00nm 5.5mb
eS 00 51.00
MEKA 16.39 182 eP 59 30.00 -4.1X
eS 02 10.00
WARB 17.50 157 iPd 59 39.80 -8.3X
0.4s 14.00nm 4.4mb
eS 02 41.00
KSI 17.56 290 ePd 59 49.50 0.7
e 01 15.00
WRA 17.68 125 eP 59 48.70 -1.7
eS 02 53.80
MRWA 19.19 188 eP 00 07.70 -1.0
0.3s 4.00nm 4.2mb
eS 03 17.00
ASPA 19.54 135 iPc 00 13.60 0.7
1.1s 60.00nm 4.8mb
Z 18s 0.75um
eS 03 44.60
LR 08 34.20
KGM 19.77 307 eP 00 16.80 1.5
BAL 20.47 186 eP 00 23.00 0.4
eS 03 50.00
COOL 20.73 175 eP 00 25.00 -0.2
eS 03 52.00
KLB 21.37 183 eP 00 33.40 1.6
eS 04 07.00
MUN 21.88 186 eP 00 42.00 5.1X
eS 04 21.00
FORR 22.26 159 eP 00 41.00 0.5
QIS 22.34 120 eP 00 43.00 1.4
e 00 56.00
e 04 45.00
NWAO 22.73 184 eP 00 46.00 0.7
eS 04 42.00

IPM 23.15 308 ePc 00 49.50 0.0
CTA 28.03 114 iPc 01 41.50 6.2X
1.0s 12.00nm 4.5mb
KHT 32.00 320 eP 02 10.50 -0.1
CHG 34.94 325 eP 02 36.00 0.0
CHTO 34.94 325 eP 02 36.60 0.6
1.0s 2.75nm 4.1mb
BRS 36.09 123 iPd 02 49.80 4.0X
i 03 13.30
NJ2 41.96 360 Pc 03 37.50 3.2X
CD2 43.38 341 eP 03 46.40 0.4
XAN 44.98 348 P 03 59.50 0.5
GBA 47.55 299 Pd 04 17.40 -2.1
0.7s 14.10nm 5.1mb
TIY 48.01 353 Pd 04 24.20 1.4
LZH 48.16 343 e(P) 04 23.00 -1.2
HYB 48.48 304 eP 04 25.00 -1.8
GUN 49.61 321 P 04 35.30 -0.4
0.7s 38.00nm 5.5mb
PKI 49.67 320 P 04 35.10 -1.1
0.7s 14.00nm 5.1mb
MAT 49.82 20 eP 04 37.00 0.3
0.7s 10.27nm 5.0mb
DMN 49.89 320 P 04 36.80 -0.9
0.7s 21.00nm 5.3mb
KKN 49.91 320 P 04 37.00 -0.8
BJI 50.00 357 eP 04 38.50 0.5
GKN 50.46 320 P 04 41.40 -0.6
0.7s 22.00nm 5.3mb
BTO 51.17 351 eP 04 48.60 1.5
GTA 52.44 341 eP 04 57.00 0.2
CN2 54.00 6 eP 05 08.00 0.0
MDJ 55.33 9 eP 05 18.00 0.3
WMQ 60.80 334 eP 05 56.00 -0.1
MAIO 72.54 313 eP 07 11.00 0.1
NB2 107.43 331 PKP 14 21.20 11.7X
YKA 115.21 24 PKP 14 27.30 3.1X
ITR 150.74 231 ePKPc 15 37.80 7.2X
SOB1 152.28 227 ePKP 15 41.90 9.0X
CNCB 152.33 165 ePKP 15 43.00 9.5X
LPB 152.57 165 (PKP) 15 42.00 8.3X
ZOBO 152.82 165 ePKP 15 52.00 17.8X
S.D. = 1.0 on 36 of 51 obs.

% APR 10, 1989 21h 14m 13.87± 1.13s
60.750 N ±25.7km 11.265 E ± 8.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
ML 1.8 (BER). Felt.

NRA0 0.14 96 iP 14 17.10 0.0
iS 14 20.20
ODD1 2.45 252 eP 14 54.52 -0.1
eS 15 21.05
iSg 15 27.34
HYA 2.51 282 eP 14 56.63 1.3
eSg 15 30.36
BLS1 2.61 240 eP 14 57.07 0.2
eS 15 23.14
iSg 15 31.50
SUE 3.19 278 eP 15 03.63 -1.4
eS 15 44.29
S.D. = 1.3 on 5 of 5 obs.

APR 10, 1989 21h 19m 03.69± 0.73s
35.198 N ±11.7km 137.164 E ± 7.2km
DEPTH = 43.0 ± 16.7 km
HONSHU, JAPAN (227)
MG 3.7 (JMA). Felt (I JMA) at Nagoya.

NAG 0.16 259 iP 19 11.40 0.4
iS 19 16.90
IIDJ 0.67 65 iP+ 19 15.50 -1.5
S 19 23.40
TSRJ 1.02 290 eP 19 22.20 0.4
eS 19 36.20
MTMJ 1.48 20 eP 19 28.10 -0.2
MAT 1.59 32 eP 19 29.00 -0.8
iS 19 49.80
WKYJ 1.62 233 P 19 30.20 -0.1
S 19 50.70
CHJJ 1.72 60 iP+ 19 31.90 0.3
eS 19 54.50
NIIJ 2.52 36 eP 19 43.90 0.8
KAKJ 2.65 67 eP 19 46.10 1.2
eS 20 15.80

TKSJ 2.84 246 iPd 19 47.50 -0.2
S 20 19.80
YONJ 3.03 271 P 19 50.00 -0.3
S.D. = 0.9 on 11 of 11 obs.

APR 10, 1989 21h 22m 21.35± 0.43s
46.591 N ± 4.7km 6.318 E ± 4.9km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
ML 3.1 (LDG).

LPL 1.11 165 Pg 22 41.50 -0.9
Sg 22 57.90
LPG 1.13 164 Pg 22 41.80 -1.0
Sg 22 58.40
LSD 1.27 152 P 22 44.09 -1.1
S 22 59.47
BSF 1.28 14 Pg 22 45.80 0.6
Sg 23 03.60
HAU 1.42 1 Pn 22 46.60 -0.6
Pg 22 48.10
Sg 23 07.80
ORX 1.50 129 P 22 48.05 -0.4
S 23 05.22
ORO 1.51 129 P 22 50.00 1.5
eSg 23 11.20
BNI 1.56 171 P 22 49.10 -0.2
eSg 23 10.50
RSP 1.58 155 P 22 49.92 0.3
S 23 09.72
LBF 1.66 285 Pg 22 50.80 0.2
Sg 23 15.30
RRL 1.70 169 P 22 52.33 0.9
S 23 11.95
SMF 1.71 273 Pg 22 53.50 2.2
Sg 23 16.00
LOR 1.82 293 Pn 22 53.00 0.1
Pg 22 56.20
Sg 23 18.60
VAI 1.85 112 P 22 54.90 1.6
CDF 1.93 19 Pn 22 53.20 -1.5
Pg 22 57.60
Sg 23 24.00
SSF 1.99 285 Pn 22 56.40 1.0
Pg 22 59.20
Sg 23 24.40
AVF 2.05 277 Pn 22 56.00 -0.3
Pg 23 02.00
Sg 23 26.00
PZZ 2.16 165 P 23 00.11 2.1
BGF 2.39 270 Pn 23 00.30 -0.9
Pg 23 07.00
Sg 23 37.20
STV 2.45 163 P 23 02.43 0.3
ROB 2.54 154 P 23 03.09 -0.3
MAF 2.62 263 Pn 23 04.10 -0.4
Sg 23 45.20
FIN 2.73 150 P 23 04.07 -2.0
TCF 2.86 265 Pn 23 06.50 -1.3
Sg 23 51.80
IMI 2.90 157 P 23 08.34 -0.1
WLF 3.08 358 eP 24 02.60 51.8X
LSF 3.33 266 Pg 23 24.40 9.9X
Sg 24 05.60
DOU 3.69 342 eP 23 31.80 12.2X
MEM 4.03 357 eP 24 33.40 69.1X
S.D. = 1.1 on 25 of 29 obs.

? APR 10, 1989 22h 57m 02.78± 6.41s
51.386 N ±40.5km 20.267 E ±39.5km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 2.9 (KRA), 2.8 (VKA).

KRA 1.35 189 iPgc 57 27.70 0.1
iSg 57 37.70
SPC 2.20 180 iPn 57 40.10 0.0
i(Sg) 58 01.20
KSP 2.56 259 ePn 57 45.00 0.0
iPg 57 48.50
iS 58 12.00
ZST 3.79 214 eP 58 01.70 -0.8
i 58 28.90
i 58 41.20
SRO 3.79 200 eP 58 29.60 27.1X
e 59 04.50
PRU 3.90 251 Pg 58 07.50 3.5X
Sg 58 42.00
BRG 4.01 265 e(P) 58 43.00 37.4X
eSg 58 56.50
VKA 4.04 221 iPgc 58 06.60 0.7
i(Sn) 58 32.00
iSg 58 39.90
CLL 4.55 272 e(P) 58 29.00 15.7X
eSg 59 22.00
KHC 4.85 245 ePg 58 12.60 -4.9X
Sg 59 11.70
S.D. = 0.8 on 5 of 10 obs.

APR 10, 1989 23h 05m 29.33± 0.73s
7.469 S ± 4.9km 156.875 E ± 5.4km
DEPTH = 39.8 ± 6.6 km
5.0mb (13 obs.)
SOLOMON ISLANDS (193)

PAA 1.80 310 iPd 05 59.60 1.1
iS 06 20.00
BGA 2.13 308 eP 06 03.00 -0.4
eS 06 27.00
VSG 3.32 122 iP 06 19.50 -0.7
HNR 3.61 123 iP 06 23.00 -1.2
iS 07 16.00
RAB 5.70 305 e(P) 06 26.50 -27.3X
eS 08 09.50
PMG 9.81 258 eP 07 57.00 6.0X
LAT 9.83 274 e(P) 07 52.00 0.7
CTA 16.23 218 iPd 09 19.20 3.0X
1.2s 82.03nm 4.7mb
iS 12 32.00
BRS 20.19 191 iPd 10 04.30 0.7
RMQ 20.43 201 eP 10 07.00 1.0
QIS 21.18 230 iPd 10 13.90 0.1
COO 23.46 191 iPc 10 38.20 2.0
WRA 25.12 238 iPd 10 52.00 -0.3
eS 14 26.20
MTN 25.89 256 eP 11 00.00 0.5
CMS 26.03 202 eP 11 00.80 0.2
ASPA 27.30 231 iPd 11 11.50 -0.9
1.2s 20.00nm 4.6mb
Z 22s 0.44um 4.0MszX
LR 20 42.80
STK 28.16 208 eP 11 22.00 1.9
CAN 28.65 194 eP 11 31.00 6.5X
WARB 34.26 233 eP 12 06.00 -7.9X
0.5s 6.00nm 4.8mb
FORR 35.57 225 eP 12 24.40 -0.6
0.4s 16.00nm 5.3mb
MBL 38.27 245 eP 12 47.00 -0.8
COOL 40.71 230 eP 13 06.70 -1.3
NANU 42.49 245 eP 13 22.00 -0.7
KLB 43.62 231 iPd 13 31.20 -0.6
0.4s 14.00nm 5.1mb
NWAO 44.60 230 eP 13 39.30 -0.4
MUN 44.99 232 eP 13 42.50 -0.3
MAT 47.15 339 eP 14 08.00 8.2X
0.8s 12.69nm 4.9mb
CN2 58.42 334 P 15 24.00 0.6
LOE 59.82 295 eP 15 32.20 -1.3
KHT 61.87 291 eP 15 47.50 0.1
CHG 62.79 295 ePd 15 53.00 -0.5
1.1s 20.57nm 5.2mb
CHTO 62.79 295 eP 15 53.00 -0.5
1.1s 16.78nm 5.1mb
pP 15 58.90 19kmX
CD2 63.54 310 P 15 58.60 0.2
LZH 65.96 315 eP 16 14.00 -0.1
1.5s 22.00nm 5.0mb
GTA 70.36 316 eP 16 41.80 0.3
GUN 76.96 301 P 17 20.80 0.4
0.8s 36.00nm 5.5mb
PKI 77.27 300 P 17 21.60 -0.5
KKN 77.44 301 P 17 22.80 -0.1
DMN 77.54 300 P 17 23.60 0.1
GKN 78.04 301 P 17 26.00 -0.1
0.6s 21.00nm 5.3mb
WMQ 80.44 317 P 17 39.50 0.8
HYB 81.19 289 eP 17 42.00 -1.0
GBA 81.57 285 Pc 17 44.50 -0.5
0.9s 12.80nm 4.9mb
SPA 82.58 180 e(P) 17 51.00 1.5
0.6s 4.47nm 4.7mb
INK 89.51 20 eP 18 24.00 0.7
MBC 95.72 14 eP 18 52.00 0.2
YKA 95.88 28 eP 18 54.70 1.9
BUL 122.19 241 iPKPd 24 21.80 -0.8
KHC 128.29 330 PKP 24 33.20 -0.1
ZOBO 129.61 118 PKP 24 37.00 -0.5
BNG 138.46 268 ePKPc 24 53.00 -0.7
0.4s 5.00nm
S.D. = 0.9 on 45 of 51 obs.

& APR 10, 1989 23h 42m 03.10s
37.955 N 122.315 W
DEPTH = 2.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.2 (BRK).
Mo=2.0•10••13 Nm (BRK). Felt at
EL Cerrito, El Sobronte ond
Richmond.

ZSP 0.05 102 iPc 42 03.80 -0.4
BRK 0.09 152 iPd 42 04.70 -0.3
eS 42 07.20
BKS 0.10 141 iPd 42 05.00 -0.1
eS 42 07.00
PCC 0.46 187 ePd 42 11.80 -0.4
iS 42 21.70
NWRM 0.67 318 eP 42 16.40 -0.2
MHC 0.81 139 iPc 42 18.68 -0.7
i 42 19.02
e(S) 42 31.85
ARN 0.87 134 eP 42 19.50 -1.0
GCC 0.96 165 ePc 42 20.90 -1.2
eS 42 34.60
SAO 1.38 149 eP 42 26.20 -3.0
CMB 1.53 86 ePc 42 30.50 -1.0
10 obs. assocloted

APR 10, 1989 23h 49m 49.30± 0.68s
36.366 N ± 6.1km 26.765 E ± 5.2km
DEPTH = 150.7 ± 12.0 km
DODECANESE ISLANDS (369)

KAP 0.88 158 eP 50 12.90 -0.5
YER 1.44 57 iPn 50 18.70 0.0
NPS 1.45 221 eP 50 18.10 -0.6
IZM 2.07 11 iPn 50 24.90 -0.8
KSL 2.29 95 iPc 50 29.00 0.7
VAM 2.29 246 eP 50 29.00 0.7
ELL 2.56 81 iPn 50 32.60 0.8
KHL 2.94 48 iPn 50 36.90 0.4
BCK 3.25 69 iPn 50 40.90 0.3
EZN 3.47 354 eP 50 42.60 -0.7
ITM 3.97 283 eP 50 50.50 0.6
HRI 8.00 110 eP 51 43.00 -0.9
DSI 8.60 121 eP 51 52.00 0.2
eS 53 25.00
MBH 9.46 132 eP 52 03.00 -0.2
S.D. = 0.7 on 14 of 14 obs.

APR 11, 1989 01h 07m 08.41± 0.64s
36.647 N ± 6.9km 27.935 E ± 7.2km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
ML 3.2 (ATH).

YER 0.56 30 iPg 07 19.00 -0.8
eSg 07 29.00
KAP 1.26 210 ePb 07 31.20 -0.5
KSL 1.43 111 ePb 07 33.50 -0.9
ELL 1.59 86 iPn 07 37.60 0.8
IZM 1.83 343 ePn 07 40.00 -0.1
KHL 2.10 37 ePn 07 44.40 0.3
BCK 2.27 68 ePn 07 47.20 0.5
NPS 2.34 234 ePn 07 48.20 0.7
S.D. = 0.8 on 8 of 8 obs.

APR 11, 1989 03h 56m 36.91± 0.10s
49.488 N ± 2.3km 159.185 E ± 2.1km
DEPTH = 16.4km (geophysicist)
6.3mb (80 obs.) 6.6Msz (23 obs.)
KURIL ISLANDS REGION (222)
Ms 6.1 (BRK), 6.0 (PAS).
Mo=3.0•10••19 Nm (PPT). Felt (V)
ot Severo-Kurilsk, Mys Vasilyevo
and on Shumshu; (IV) ot
Petropavlovsk-Kamchatskiy. Depth
from broadband displacement
seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=230 Dip=68 Slip= -90

11d 03h

NP2: 50 22 -90
Principal Axes:
T Plg=23 Azm=320
P 67 140
Comment: The focal mechanism is poorly controlled and corresponds to normal faulting. The preferred fault plane is NP1.
RADIATED ENERGY
No. of sto: 13 Focal mech. F
Energy 3.0±0.6*10**14 Nm
MOMENT TENSOR SOLUTION
Dep 26 No. of sto: 22
Moment Tensor; Scale 10**19 Nm
Mrr=-0.77 Mtt= 0.71
Mff= 0.06 Mrt= 0.48
Mrf= 0.51 Mtf= 0.35
Principal axes:
T Val= 1.10 Plg=20 Azm=332
N -0.03 13 237
P -1.07 66 116
Best Double Couple:Mo=1.1*10**19
NP1:Strike= 83 Dip=28 Slip= -62
NP2: 231 66 -104
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 51C M.W.: 15S, 31C
Centroid Location:
Origin Time 03:56:42.8 0.1
Lat 49.64N 0.01 Lon 159.41E 0.02
Dep 15.0 FIX Holf-duration 9.0
Moment Tensor; Scale 10**19 Nm
Mrr=-1.34 0.01 Mtt= 0.94 0.01
Mff= 0.40 0.01 Mrt= 0.48 0.05
Mrf= 0.25 0.05 Mtf= 0.73 0.01
Principal Axes:
T Val= 1.55 Plg=11 Azm=326
N -0.10 3 56
P -1.45 79 160
Best Double Couple:Mo=1.5*10**19
NP1:Strike= 52 Dip=35 Slip= -95
NP2: 238 56 -87
GEOSCOPE MOMENT TENSOR (PAR)
Dep 15.0 Holf-duration 8.0
Best Double Couple:Mo=2.0*10**19
NP1:Strike= 59 Dip=29 Slip= -71
NP2: 218 63 260

SKR 2.31 302 P 57 12.00 -2.8X
PET 3.55 355 P 57 31.00 -1.4
KUR 8.78 245 P 58 44.00 -1.9X
SMY 9.93 65 ePd 58 59.50 -2.3X
Z 18s 205.00um
YSS 11.26 264 P 59 20.00 0.1X
MGD 11.67 339 P 59 21.00 -4.5X
KUSJ 11.87 243 P 59 20.70 -7.5X
S 01 24.70
ASAJ 12.53 251 P 59 35.10 -2.1X
HOOJ 13.13 243 eP 59 39.60 -5.6X
SAP 13.91 249 eP 59 53.00 -2.3X
MRRJ 14.42 248 eP 59 57.10 -5.0X
ADK 15.46 72 eP 00 15.10 -0.5
AOMJ 15.98 243 eP 00 16.30 -6.1X
OFUJ 16.26 237 P 00 18.30 -7.6X
YAMJ 17.80 238 eP 00 39.70 -5.6X
NIIJ 19.04 238 eP 00 56.80 -3.7X
KAKJ 19.18 233 eP 00 58.70 -3.5X
CHJJ 19.92 235 eP 01 08.70 -1.9
MAJO 19.98 238 ePd 01 09.63 -1.6
ed 01 11.29
eS 05 08.09
MAT 19.98 238 P 01 09.00 -2.2
MTMJ 20.17 238 eP 01 11.70 -1.6
MDJ 20.67 268 Pc 01 14.50 -3.8X
Z 15s 86.30um 6.2MszX
N 13s 108.00um
epP 01 21.00 24kmX
esP 01 24.00
S 05 04.00
sS 05 12.50
MDJ 20.67 268 ePc 01 17.81 -0.5
esP 01 24.00
eS 05 07.52
IIDJ 20.93 236 P 01 19.40 -1.7
ILT 21.51 23 P 01 25.00 -1.6
TSRJ 21.95 239 eP 01 30.30 -1.0

WKYJ 23.13 238 eP 01 43.40 0.3
YONJ 23.63 242 P 01 47.50 -0.4
CN2 23.71 269 eP 01 45.00 -3.6X
6.0s 8.10nm 3.5mb X
Z 12s 57.30um 6.3MszX
N 12s 21.00um
E 12s 32.00um
PcP 05 35.60
S 05 56.00
TKSJ 24.17 240 eP 01 53.70 0.6
SHK 24.55 242 ePd 01 56.80 0.0
HIA 25.48 285 ePc 02 04.50 -1.1
ec 02 06.32
eS 06 33.14
SHNJ 25.76 244 eP 02 09.80 1.6
SNY 25.85 266 iPd 02 08.50 -0.5
8.0s 11.70nm 3.6mb X
N 14s 42.10um
E 16s 53.00um
sP 02 20.00
S 06 28.00
TIK 26.17 339 P 02 10.50 -1.2
KUMJ 27.06 242 eP 02 20.00 -0.2
SVW 27.64 48 ePd 02 25.90 0.6
TTA 27.65 44 ePd 02 25.40 0.0
KAGJ 28.02 240 eP 02 29.40 0.4
DL2 28.65 263 P 02 33.00 -1.5
N 12s 26.70um
E 12s 39.00um
S 07 19.00
IMA 29.18 38 ePd 02 38.50 -0.7
KDC 29.26 55 ePd 02 38.60 -1.2
BRW 29.69 27 ePd 02 43.20 -0.4
PMR 30.78 47 ePd 02 50.80 -2.5
0.8s 256.80nm 6.1mb
Z 18s 62.00um 6.3Msz
COL 31.46 41 ePd 02 58.80 -0.5
epPc 03 04.26 19kmX
eS 08 08.40
FBA 31.46 41 ePd 02 58.70 -0.6
BJI 31.58 269 ePd 03 00.89 0.3
9.0s 5.20nm 3.4mb X
epPc 03 06.52 20kmX
esPd 03 10.83
ePP 04 08.00
eS 08 04.00
TIA 33.13 262 eP 03 12.90 -1.2
N 13s 23.70um
E 12s 26.10um
S 08 30.00
SSE 33.86 251 Pc 03 20.00 -0.4
9.0s 6.20nm 3.5mb X
Z 20s 16.80um 5.8Msz
N 14s 26.30um
E 14s 11.90um
PcP 06 03.00
S 08 43.00
ScS 13 36.00
IRK 34.04 296 P 03 21.00 -0.9
HHC 34.17 274 Pc 03 23.20 0.0
N 13s 40.90um
E 13s 34.80um
PP 04 38.00
S 08 39.00
NJ2 34.66 255 Pd 03 26.60 -0.8
N 12s 18.10um
E 12s 23.40um
S 08 51.00
DWY 35.09 42 P 03 30.50 -0.3
ZAK 35.27 293 P 03 33.00 0.6
TIY 35.30 269 iPd 03 33.20 0.3
7.0s 6.30nm 3.6mb X
N 12s 44.70um
E 12s 40.30um
PP 04 55.00
S 09 04.00
sS 09 15.00
SS 11 29.00
ScS 13 52.00
BTO 35.30 274 P 03 32.00 -1.0
N 13s 51.90um
E 13s 50.40um
INK 37.12 35 iPd 03 47.60 -0.2
0.8s 208.00nm 6.0mb
GUMO 37.68 203 e(P) 03 50.00 -3.0X
0.8s 140.56nm 5.8mb
PJG 37.68 203 e(P) 03 50.50 -2.5

GUA 37.72 203 e(P) 03 52.00 -1.4
NRI 38.39 327 P 03 56.50 -1.9
SIT 38.49 53 ePd 04 00.80 1.4
Z 18s 72.00um 6.5Msz
WHN 38.53 258 Pd 03 59.00 -1.0
9.0s 5.97nm 3.3mb X
Z 16s 53.90um 6.5MszX
N 12s 19.30um
E 14s 33.70um
pP 04 10.00 39kmX
S 09 54.00
XAN 39.77 266 Pd 04 10.00 -0.5
N 11s 21.20um
E 12s 48.40um
QZH 39.87 247 iPd 04 11.50 0.2
8.0s 9.20nm 3.5mb X
Z 14s 18.00um 6.1MszX
E 13s 16.70um
S 10 13.00
SS 13 09.00
MBC 40.60 21 ePd 04 17.00 0.3
0.8s 295.00nm 6.1mb
LZH 41.84 273 ePd 04 28.81 1.2
7.5s 6234.00nm 6.4mb X
ed 04 30.80
epPc 04 33.61 16kmX
ePP 06 07.14
eS 10 49.37
esS 11 00.13
GTA 42.54 280 iPd 04 33.20 -0.1
Z 14s 72.40um 6.7MszX
N 13s 70.10um
PP 06 12.00
KHE 43.35 346 P 04 41.00 1.8
OPA 43.65 114 P 04 43.20 1.0
ELT 43.86 304 P 04 40.00 -3.5X
HON 43.94 114 ePc 04 44.76 0.3
Z 20s 31.91um 6.2Msz
ePPc 04 50.39 19kmX
GZH 44.44 251 P 04 48.00 -0.6
Z 16s 33.30um 6.4MszX
N 13s 21.80um
E 13s 26.50um
S 11 20.00
HKC 44.52 249 P 04 50.00 0.7
NVS 44.71 307 P 04 49.30 -1.1
MCO 45.03 250 eP 04 53.80 0.4
CD2 45.13 267 iPd 04 53.80 -0.4
Z 15s 16.80um 6.1MszX
N 13s 44.60um
S 11 24.00
BAG 45.41 237 eP 04 55.00 -1.7
eS 11 38.00
GYA 46.24 260 iPd 05 02.00 -1.1
4.0s 4.10nm 3.8mb X
Z 16s 15.30um 6.0MszX
N 13s 16.10um
E 13s 21.90um
PP 06 55.00
S 11 50.00
YKA 46.26 40 P 05 03.80 1.2
YKC 46.32 40 ePd 05 03.20 0.1
1.0s 350.00nm 6.3mb
ALE 46.57 7 ePd 05 05.20 0.3
0.7s 143.00nm 6.1mb
QCP 46.60 235 eP 05 06.00 0.2
WMQ 47.71 292 eP 05 15.10 0.7
epPc 05 20.72 19kmX
ePP 07 09.98
eS 12 12.69
esS 12 25.10
PGC 48.55 60 eP 05 21.00 0.3
0.9s 296.00nm 6.3mb
QIZ 49.63 250 Pd 05 30.00 0.5
Z 15s 33.10um 6.5MszX
E 14s 18.30um
pP 05 38.00 27kmX
PP 07 27.00
S 12 42.00
sS 12 53.00
KMI 49.70 262 ePd 05 29.71 -0.5
7.0s 3.00nm 3.4mb X
ed 05 31.37
esP 05 55.00
PcP 06 50.00
ePP 07 27.41
eS 12 40.44

			esS	12 54.79		
HTW	49.95	60	P	05 28.00	-3.7X	
PNT	50.32	57	iPd	05 34.30	-0.1	
KBS	50.38	352	eP	05 34.00	-0.5	
LON	50.51	61	ePd	05 35.50	-0.4	
			epPc	05 40.96	18kmX	
DAV	50.81	225	eP-	05 37.00	-1.4	
EDM	51.46	50	iPd	05 42.80	-0.2	
	0.9s	1049.00nm			6.8mb	
FHC	52.68	68	ePd	05 52.90	0.5	
LBFM	53.61	67	P	05 59.20	-0.3	
WDC	53.69	68	iPd	06 00.30	0.5	
			e	36 08.50		
RAB	53.81	189	eP	06 00.00	-0.8	
			iS	13 40.00		
DAG	54.01	359	iPd	06 00.40	-1.2	
	1.3s	551.92nm			6.4mb	
PRZ	54.03	296	P	06 05.00	2.5	
LSA	54.13	275	Pd	06 04.60	0.9	
N	16s	25.20um				
E	20s	55.70um				
			eS	13 46.00		
LTCM	54.17	68	P	06 03.00	-0.3	
SES	54.26	52	ePd	06 03.40	-0.5	
	1.0s	745.00nm			6.7mb	
			pP	06 29.00	106kmX	
MIN	54.40	67	iPd	06 05.10	-0.1	
AAA	54.40	297	P	06 05.00	-0.1	
SVE	54.56	318	P	06 05.00	-1.0	
ORV	54.95	68	iPd	06 08.70	-0.4	
BGA	55.52	185	eP	06 14.00	0.6	
BRK	55.54	70	ePd	06 13.20	-0.1	
			i	06 44.00		
			iS	14 01.00		
			eLR	22 28.00		
BKS	55.55	70	e(P)	06 13.00	-0.4	
Z	20s	17.00um			6.1Msz	
N	20s	1.50um				
E	20s	16.00um				
			e	14 04.00		
			eLQ	19 50.00		
			eLR	22 08.00		
PAA	55.65	184	eP	06 15.00	0.7	
PCC	55.70	71	eP	06 13.80	-0.7	
LOE	55.92	256	iPd	06 15.00	-1.3	
FFC	55.99	44	iPd	06 15.90	-0.5	
	1.1s	415.00nm			6.4mb	
FRU	56.02	298	P	06 16.00	-0.8	
KEV	56.06	342	ePc	06 17.39	0.7	
	1.0s	274.00nm			6.2mb	
			epPd	06 23.52	20kmX	
			ePP	08 20.00		
			ePP	08 28.33		
			eS	14 04.42		
			eSS	18 48.79		
HRY	56.08	56	ePd	06 17.10	-0.2	
NRN	56.09	296	P	06 16.00	-1.7	
GCC	56.23	71	ePd	06 18.20	-0.1	
MHC	56.25	70	ePd	06 18.70	0.0	
			e	06 57.00		
			eS	14 17.00		
			eSS	18 10.00		
			eLQ	20 08.00		
			e	21 49.00		
			eLR	22 49.00		
LRM	56.29	57	ePd	06 18.30	-0.7	
ARN	56.32	70	P	06 18.50	-0.5	
KKM	56.37	235	ePd	06 20.00	0.4	
	0.9s	66.80nm			5.7mb	
APA	56.41	338	P	06 17.50	-1.7	
SHL	56.45	271	iP	06 22.00	1.7	
			iS	14 14.00		
CMB	56.58	69	ePd	06 20.90	0.0	
			e	36 15.50		
LCCM	56.60	57	eP	06 20.50	-0.6	
CCMT	56.63	58	ePd	06 20.80	-0.6	
CHG	56.66	260	iPd-	06 21.50	-0.1	
	1.0s	260.00nm			6.2mb	
			eS	14 18.00		
CHTO	56.66	260	ePd	06 20.78	-0.8	
			ed	06 21.94		
			epPc	06 25.59	16kmX	
			ePP	08 28.66		
SAO	56.74	71	eP	06 21.50	-0.6	
SXM	56.77	56	iPd	06 22.20	-0.2	
BGMT	56.89	58	iPd	06 23.10	-0.2	
TSM	56.94	231	ePd	06 24.00	0.4	

PRS	57.07	71	ePd	06 24.20	-0.2	
LLA	57.15	71	ePd	06 25.00	0.0	
KVN	57.31	67	P	06 26.00	-0.3	
KSH	57.35	294	Pd	06 26.00	-0.4	
	8.0s	6.40nm			3.7mb X	
Z	52s	120.00um			6.6MszX	
E	14s	81.00um				
			S	14 24.00		
			sS	14 36.00		
PRI	57.63	71	eP	06 28.50	0.1	
FRI	57.66	69	ePd	06 28.10	-0.4	
			e	36 01.80		
MNA	57.67	67	e(P)d	06 28.80	0.0	
TRO	57.69	345	iP	06 27.30	-0.9	
BDT	57.78	259	iPd	06 29.20	-0.2	
	1.0s	248.00nm			6.2mb	
SOD	58.11	340	iP	06 29.40	-1.8	
			eP'P'	36 00.00		
NST	58.23	256	iPd	06 32.20	-0.4	
EUR	58.30	65	iP	06 33.30	0.0	
TNP	58.46	67	P	06 34.00	-0.4	
VSG	58.49	179	eP	06 33.00	-1.4	
ANR	58.64	297	P	06 35.30	0.0	
HNR	58.67	179	eP	06 35.00	-0.6	
			eS	14 40.00		
GUN	58.75	277	Pd	06 36.10	-0.6	
LMG	58.95	193	eP	06 37.00	-0.7	
SYP	59.11	72	eP	06 39.00	0.2	
GDH	59.15	13	iPc	06 37.20	-1.3	
	1.1s	473.42nm			6.5mb	
			i	06 43.00		
			e	14 42.00		
			e	35 03.00		
KKN	59.22	278	Pd	06 39.80	0.0	
ISA	59.28	70	eP	06 38.00	-1.9	
PKI	59.28	278	Pd	06 40.10	-0.3	
DMN	59.45	278	Pd	06 41.40	0.0	
JNW	59.46	355	iP	06 43.50	2.9	
GKN	59.49	278	Pd	06 41.40	-0.2	
PMG	59.59	194	eP	06 41.50	-0.5	
	1.5s	1111.11nm			6.8mb	
CLC	59.72	69	iPd	06 43.00	0.1	
KHT	59.87	257	iPd	06 44.60	0.6	
TAS	60.02	300	P	06 44.00	-0.9	
SBB	60.33	70	iPd	06 47.00	-0.1	
PAS	60.47	71	iPd	06 46.00	-2.0	
			ePcP	07 57.00		
			ePP	09 44.00		
			ePcS	11 48.00		
			eS	14 52.00		
			eSS	19 13.00		
			eLg	21 50.00		
			eLR	24 00.00		
MWC	60.49	71	eP	06 48.00	-0.4	
GSC	60.54	69	eP	06 48.00	-0.6	
NNT	60.80	254	iPd	06 50.60	0.2	
			e	36 16.50		
FRB	61.06	22	ePd	06 49.60	-2.0	
	1.2s	452.00nm			6.5mb	
RVR	61.07	71	iPd	06 51.50	-0.5	
TPC	61.80	70	eP	06 56.00	-1.1	
PLM	61.81	71	eP	06 56.00	-1.4	
SUF	62.11	338	iP	06 57.50	-1.2	
DSH	62.17	298	P	06 59.00	-0.5	
RSON	62.30	43	iPc	06 58.70	-1.5	
	1.0s	575.00nm			6.7mb	
Z	22s	41.80um			6.6Msz	
BAR	62.39	71	eP	07 00.00	-1.0	
SAM	62.43	300	P	07 00.50	-0.8	
GLA	63.27	70	eP	07 06.00	-0.8	
PUL	63.46	334	P	07 06.00	-1.6	
NDI	63.77	284	iPd	07 08.50	-1.6	
			iS	15 44.00		
GOL	64.24	59	P	07 20.00	6.6X	
Z	20s	30.00um			6.5Msz	
GLD	64.29	58	P	07 20.00	6.4X	
Z	20s	40.00um			6.6Msz	
NUR	64.37	337	iP	07 12.60	-1.0	
	0.6s	78.20nm			6.0mb	
			i	07 20.00		
			ePP	09 36.00		
			ePPP	11 05.00		
			eS	15 48.00		
			eP'P'	35 48.00		
MOS	64.39	328	P	07 12.00	-1.8	
SNG	64.43	250	eP	07 15.00	0.4	
	1.5s	1283.33nm			6.9mb	

			eS	15 54.20		
			e	35 16.10		
RGS	65.14	345	eP	07 22.00	3.5X	
AKU	65.14	359	iP	07 19.80	1.3	
	1.6s	706.67nm			6.6mb	
IPM	66.23	248	ePd	07 26.20	0.1	
	1.0s	86.60nm			5.9mb	
UPP	66.63	340	iPd	07 26.20	-1.8	
	1.5s	1100.00nm			6.8mb	
			i	07 30.50		
			i	07 33.20		
			iS	16 14.00		
			iP'P'	35 37.00		
MTN	66.81	210	iPd	07 29.20	-0.5	
NB2	66.85	344	P	07 28.10	-1.5	
KGM	66.91	244	ePc	07 31.60	1.2	
ANMO	66.95	63	ePd	07 30.84	0.1	
			epPc	07 35.80	16kmX	
ALQ	66.95	63	iPd-	07 30.80	0.0	
	1.0s	250.00nm			6.3mb	
Z	20s	16.31um			6.2Msz	
NRA0	67.07	343	P	07 28.40	-2.5	
PVC	67.41	171	iPc	07 35.10	1.7	
HYA	67.58	346	eP	07 34.91	0.9	
SUE	67.90	347	eP	07 39.07	3.0X	
AFI	68.13	149	eP	07 43.60	5.5X	
			S	16 44.00		
			eLR	18 00.00		
			e	27 00.00		
			e	32 40.00		
			e	36 00.00		
AFI	68.13	149	ePd	07 37.65	-0.4	
			epPc	07 43.28	18kmX	
			esPd	07 45.60		
			eS	16 44.00		
			e	27 00.00		
			e	32 40.00		
			e	36 00.00		
ASK	68.38	346	eP	07 40.05	1.0	
ASH	68.45	303	P	07 40.00	0.1	
BER	68.46	346	eP	07 38.23	-1.3	
VAN	68.58	304	P	07 40.30	-0.4	
ODD1	68.70	346	eP	07 42.05	0.9	
MAIO	69.01	301	iPd	07 43.20	-0.3	
	1.9s	257.08nm			6.1mb	
			eS	16 40.00		
SCH	69.15	26	ePd	07 43.10	-0.9	
	1.0s	40.00nm			5.5mb	
BLS1	69.16	345	eP	07 45.69	1.6	
MNK	69.22	332	P	07 36.00	-8.3X	
VUN	69.34	160	eP	07 46.00	0.6	
CTA	70.21	193	iPd-	07 49.80	-0.9	
	1.4s	418.60nm			6.4mb	
			iS	17 02.00		
			iSS	21 15.00		
KNA	70.30	211	iPd	07 50.80	-0.5	
GRO	70.80	315	P	07 54.00	-0.1	
HYB	70.92	275	iPd	07 54.60	-0.7	
	1.0s	350.00nm			6.4mb	
			i	08 10.50		
			i	08 20.50		
			iS	17 12.00		
BAK	71.05	310	P	08 00.00	4.3X	
PYA	71.46	317	P	07 57.00	-1.2	
SHE	71.49	311	P	07 58.00	-0.3	
DZM	71.53	173	iPc	07 59.30	0.5	
QIS	71.87	199	iPd	07 59.20	-1.6	
			e	08 02.00		
KSI	71.90	241	ePd	08 01.20	0.1	
			e	10 35.00		
LNO	72.22	55	P	08 01.70	-0.9	
WRA	72.56	204	iPd	08 03.80	-1.1	
POO	73.15	279	iPd	08 09.20	0.7	
	1.0s	64.00nm			5.6mb	
SOC	73.28	319	P	08 08.50	-0.4	
EDU	73.30	350	eP	08 08.80	0.0	
	1.1s	358.00nm			6.3mb	
FVM	73.44	51	P	08 08.60	-1.3	
GRS	73.48	312	P	08 10.00	-0.3	
ELF	73.61	42	P	08 08.65	-2.2	
EBH	73.65	350	eP	08 09.70	-1.1	
	0.8s	254.00nm			6.3mb	
DLA	73.77	42	P	08 10.15	-1.6	
LDN	73.79	42	P	08 09.55	-2.3	
EAB	73.80	350	eP	08 11.30	-0.4	
	1.0s	313.00nm			6.3mb	
TEH	73.82	306	ePd	08 06.50	-5.8X	

11d 04h

ERE	73.83	314	P	08	13.00	0.8
LVV	73.86	332	P	08	11.70	-0.4
ESY	73.87	349	eP	08	13.50	1.4
	0.8s	212.00nm			6.2mb	
GAC	73.95	37	ePd	08	11.20	-1.5
EAU	74.04	350	eP	08	15.20	2.1
	1.0s	396.00nm			6.4mb	
GBA	74.44	273	Pc	08	12.40	-3.6X
	1.0s	98.80nm			5.8mb	
SIM	74.47	323	P	08	15.00	-0.8
EKA	74.51	350	P	08	16.00	0.2
	0.5s	18.30nm			5.4mb	
TAB	74.60	311	eP-	08	18.00	1.2
KIS	74.68	327	P	08	16.00	-0.9
KRA	74.86	334	ePd	08	17.90	0.0
	1.0s	229.00nm			6.2mb	
Z	18s	60.00um			6.9Msz	
N	18s	48.40um				
		i		08	20.30	
		i		08	22.90	
		i		11	07.00	
		iS		17	57.00	
CLE	74.89	43	iP	08	17.30	-1.0
IAS	74.99	328	eP	08	19.00	0.3
PTN	75.09	37	P	08	17.30	-2.0
KSP	75.14	337	iPd	08	19.00	-0.5
	1.2s	489.00nm			6.4mb	
		id		08	23.50	
		iPP		11	02.30	
DHN	75.24	40	P	08	18.90	-1.3
RSNY	75.28	37	iP	08	18.00	-2.5
	1.0s	320.00nm			6.3mb	
Z	20s	62.15um			6.9Msz	
UZH	75.44	332	P	08	21.00	-0.2
WIT	75.45	343	eP	08	22.50	1.3
		i		08	42.00	
		iPP		11	14.00	
CLL	75.52	339	iPd	08	20.90	-0.8
	1.3s	225.00nm			6.1mb	
		i		08	40.70	
		iS		18	01.00	
		P'P'		35	38.00	
SPC	75.55	334	eP	08	21.90	-0.2
Z	17s	126.10um			7.3MszX	
		i		08	43.10	
		e(PP)		11	01.00	
		eS		18	07.80	
		LR		18	46.00	
CBM	75.58	31	P	08	20.00	-2.1
PTT	75.61	329	eP	08	22.00	-0.3
CLI	75.64	328	ePd	08	21.50	-1.0
BRG	75.70	338	iPd	08	21.50	-1.2
	1.2s	360.00nm			6.3mb	
		i		08	26.90	
		i		08	30.00	
		i		08	43.50	
		eS		18	06.00	
		eP'P'		35	31.00	
BAC	75.76	328	eP	08	17.00	-6.1X
BIR	75.77	328	eP	08	23.00	-0.1
PPE	75.81	328	ePd	08	24.50	1.1
BMR	75.91	331	ePc	08	29.00	5.1X
WTS	76.20	343	eP	08	25.50	0.0
	1.1s	375.00nm			6.4mb	
		i		08	44.70	
		ePP		11	17.50	
		eP'P'		35	45.00	
ASPA	76.23	204	iPd	08	26.10	0.1
	1.1s	344.00nm			6.3mb	
		ePKKP		27	42.90	
		eP'P'		35	32.30	
		e		39	14.30	
CEI	76.23	332	eP	08	36.00	10.3X
DMU	76.32	352	eP	08	26.60	0.4
	1.0s	186.00nm			6.1mb	
PRU	76.37	337	Pd	08	26.00	-0.5
Z	15s	102.50um			7.3MszX	
N	15s	82.50um				
E	16s	56.60um				
		e		08	28.50	
		PP		11	24.00	
		PPP		13	12.00	
		S		18	12.00	
DBN	76.40	344	iP-	08	27.00	0.4
Z	20s	32.40um			6.6Msz	
		iPP		11	20.00	
		ePPP		13	12.00	
		iS		18	17.00	
		eScS		18	48.00	
		eSS		23	16.00	
VRI	76.42	328	ePd	08	30.50	3.6X
MOX	76.46	339	eP-	08	26.00	-1.0
	1.4s	464.00nm			6.4mb	
Z	14s	74.20um			7.2MszX	
N	15s	2.60um				
E	14s	29.00um				
		i		08	31.00	
		i		08	49.00	
		iPP		11	18.00	
		iPPP		13	14.00	
		i		14	14.00	
		iS		18	15.00	
		iPPS		19	08.00	
		iSS		23	15.00	
		iSSS		26	48.00	
		eLQ		29	35.00	
		eLR		32	15.00	
		eP'P'		35	28.00	
BRD	76.62	328	ePd	08	32.20	4.2X
MIM	76.73	33	P	08	28.00	-0.5
BRS	76.74	186	iPc	08	28.90	0.1
		i		08	45.50	
DLE	76.89	351	eP	08	29.60	0.3
	0.9s	240.00nm			6.3mb	
KVT	76.89	319	iP	08	29.60	0.0
DCN	76.91	352	eP	08	29.80	0.4
	0.9s	154.00nm			6.1mb	
SLY	76.95	310	iPc	08	29.00	-0.9
		iPcP		08	40.00	
		iPP		11	16.50	
		iPPP		13	02.00	
		iS		18	19.00	
		iScS		18	33.00	
		iPS		19	25.00	
		iSS		24	18.00	
		iSSS		27	02.00	
MLR	77.02	328	iPd	08	30.00	-0.4
KER	77.11	308	eP	08	31.00	-0.1
YRH	77.14	350	eP	08	32.50	1.8
ZST	77.34	335	eP	08	31.60	-0.3
Z	18s	148.00um			7.3Msz	
		i		08	35.80	
		i		08	50.90	
		e(S)		18	22.00	
		e		18	53.00	
SRO	77.35	334	eP	08	31.80	-0.1
Z	18s	79.50um			7.1Msz	
		i		08	36.90	
		i		08	51.00	
		e		18	12.10	
		e		18	29.70	
KHC	77.40	338	iPd	08	32.50	0.2
	1.0s	192.50nm			6.1mb	
		i		08	55.00	
		S		18	26.00	
GRF	77.44	339	iPd	08	32.90	0.4
	1.5s	841.00nm			6.6mb	
Z	21s	53.00um			6.8Msz	
		eSKS		18	27.00	
ETA	77.44	351	eP	08	34.30	1.9
	0.9s	278.00nm			6.3mb	
GRFO	77.44	339	ePd	08	33.08	0.6
		epPc		08	37.55	14kmX
		ePP		11	24.99	
MSL	77.48	312	ePc	08	33.00	0.1
		ePcP		08	54.00	
		eS		18	20.00	
		eSKS		18	49.00	
		ePS		19	14.00	
VKA	77.49	336	ePd	08	32.50	-0.2
	5.0s	2910.00nm			6.6mb X	
Z	15s	52.60um			7.0MszX	
		i		11	20.70	
		iPP		11	30.80	
		eS		18	23.00	
		eSS		19	20.00	
		LR		49	26.00	
CMP	77.53	329	ePc	08	34.00	1.0
ENN	77.54	343	iPd	08	33.00	0.1
	1.1s	783.00nm			6.7mb	
		i		08	52.40	
		ePP		11	26.00	
		eP'P'		35	31.00	
KAS	77.60	321	iPd	08	35.10	1.5
MEM	77.67	343	Pd	08	33.60	-0.1
DEV	77.69	330	iPd	08	38.50	4.7X
RSCP	77.71	49	ePc	08	33.50	-0.7
	1.0s	305.00nm			6.3mb	
Z	20s	31.64um			6.6Msz	
UCC	77.80	344	iP-	08	34.00	-0.4
		i		08	45.00	
		PP		11	33.00	
		S		18	27.00	
		SS		23	27.00	
PSN	77.80	326	iPc	08	35.00	0.5
SHI	77.86	301	eP	08	35.00	-0.3
ECP	77.97	351	eP	08	36.10	0.9
	1.0s	470.00nm			6.5mb	
BUC1	77.99	328	ePd	08	32.00	-3.5X
SNF	78.09	344	Pd	08	36.00	0.0
KMR	78.26	337	iP-	08	37.30	0.3
		iPP		11	34.50	
		iPPP		13	20.40	
		iS		18	25.60	
		iSKS		18	39.00	
		iPS		19	09.60	
TBR	78.27	38	P	08	33.50	-3.7X
TIM	78.35	331	iPd	08	38.80	1.3
DOU	78.43	344	P	08	38.40	0.5
Z	22s	37.40um			6.7Msz	
		iPcP		08	46.60	
		PP		11	38.00	
		e		14	37.00	
		S		18	28.00	
		SS		23	36.00	
		P'P'		35	38.40	
PNJ	78.50	38	iP	08	38.20	-0.2
		pP		08	44.20	19kmX
GMTN	78.51	38	eP	08	36.70	-1.7
MBL	78.54	217	iPd	08	38.70	-0.1
	0.6s	138.00nm			6.2mb	
WLF	78.55	343	P	08	40.60	2.1
VAL	78.55	353	iP	08	44.00	5.5X
		S		18	39.00	
BLA	78.87	45	P	08	40.00	-0.6
GWF	78.90	341	P	08	40.83	0.3
CVL	79.12	43	P	08	41.00	-0.8
PVL	79.22	328	eP	08	42.00	-0.3
RAR	79.27	141	P	08	48.00	5.3X
		S		16	40.00	
BBTK	79.30	321	iPd	08	43.00	0.0
PMO	79.34	128	iP	08	45.30	2.1
	1.6s	810.00nm			6.5mb	
BHD	79.35	309	iPc	08	43.00	-0.2
		iPP		11	46.00	
		ePSP		13	57.00	
		iS		18	46.00	
KBA	79.36	337	iPd	08	43.70	0.4
	1.1s	570.00nm			6.5mb	
		i		08	48.20	
		e(S)		18	29.00	
		e		18	54.00	
CBN	79.41	42	iPc	08	43.80	0.4
	1.1s	374.40nm			6.3mb	
BEO	79.41	331	eP	08	43.00	-0.3
Z	19s	49.40um			6.9Msz	
		eS		18	45.00	
JMB	79.44	326	eP	08	43.00	-0.5
TPT	79.47	128	iP	08	46.70	2.8
	1.6s	1215.00nm			6.7mb	
CDF	79.51	341	P	08	43.06	-0.9
DMK	79.57	325	eP	08	44.00	-0.2
VAH	79.68	128	iP	08	46.90	1.9
	1.6s	610.00nm			6.4mb	
HRT	79.70	323	eP	08	43.80	-1.2
ISK	79.73	324	eP	08	39.00	-6.1X
PTJ	79.76	335	iPd	08	45.40	0.1
RUV	79.76	128	iP	08	47.40	1.9
	1.6s	1015.00nm			6.6mb	
GBZT	79.82	324	iPd	08	45.00	-0.6
ZAG	79.83	335	iPd	08	45.50	0.0
		iS		18	50.70	
FEL	79.87	341	P	08	44.96	-0.9
RBL	79.90	337	P	08	45.60	-0.4
CTT	79.90	324	eP	08	45.00	-1.0
GPA	79.91	323	iP	08	46.10	0.0
FVI	79.96	337	P	08	46.40	0.2
VITF	79.96	342	P	08	45.50	-0.7
COO	79.97	186	eP	08	47.60	1.2
		e		08	51.00	
		e		11	51.00	

LJU	80.01	336	eP	08	45.00	-1.5	SDA	82.24	331	eP	08	58.40	0.2	SALJ	84.60	315	P	09	11.30	0.7
			eS	18	52.00		LSD	82.35	341	P	09	01.96	2.8	FORR	84.63	206	iPd	09	10.80	0.4
YLV	80.04	324	iP	08	45.80	-1.1	PRK	82.36	325	eP	08	58.40	-0.6		0.4s	179.00nm				6.7mb
MOF	80.08	341	P	08	47.21	0.2	PLG	82.40	327	eP	08	58.30	-0.9	CVF	84.70	338	P	09	10.88	0.0
HAU	80.09	342	eP	08	46.70	-0.3	LPG	82.40	341	eP	09	00.00	0.5	KFNJ	84.73	315	P	09	11.10	0.0
	1.0s	106.20nm			5.8mb			1.6s	388.70nm			6.3mb		BSS	84.79	334	P	09	12.80	1.5
BSF	80.17	342	P	08	47.81	0.3	BOB	82.48	339	P	09	00.90	1.3	MASJ	84.82	314	P	09	12.00	0.3
VOY	80.19	336	ePd	08	46.40	-1.2	STK	82.51	195	eP	09	00.00	0.4	SGO	84.86	333	P	09	13.40	1.8
VBY	80.31	335	iPd	08	47.80	-0.3				e	09	05.00		CNB	84.88	188	eP	09	12.00	0.4
CEY	80.32	336	ePd	08	47.80	-0.4	LACI	82.52	331	eP	09	00.50	0.8	CAN	84.92	188	eP	09	12.20	0.4
BBS	80.36	341	P	08	47.80	-0.7	RSM	82.52	336	P	09	01.40	1.7	RYD	84.98	303	iPd	09	12.00	-0.6
PLD	80.42	327	iPc	08	49.00	0.2	MAF	82.53	344	eP	08	59.40	-0.4	MKRJ	85.00	314	P	09	11.90	-0.7
PRM	80.50	48	P	08	49.00	-0.3	TCF	82.53	344	eP	09	00.10	0.3	QUTJ	85.04	314	P	09	13.50	0.6
TRI	80.52	336	e(P)	08	32.30	-16.9X	AOI	82.57	336	eP	09	00.50	0.5	DSI	85.11	315	eP	09	12.00	-1.0
			i(PP)	11	56.00		PLDF	82.58	343	P	09	00.67	0.6	MGR	85.17	333	P	09	13.30	0.1
			e	15	13.00		AGO	82.59	343	P	09	01.08	1.0	KAP	85.24	323	eP	09	15.00	1.3
			e(S)	19	00.00		RSP	82.62	340	P	09	02.68	2.3	VLS	85.35	328	eP	09	13.50	-0.7
			e(SS)	24	12.00		MFF	82.62	346	eP	09	00.40	0.2	TDS	85.37	332	P	09	15.30	1.0
			e	30	00.00		OHR	82.64	330	iPd	08	59.80	-0.6	QASM	85.54	306	eP	09	15.00	-0.4
			e	33	55.60			1.1s	0.33nm			3.4mb X		TBI	85.67	134	iP	09	22.10	6.4X
TRI	80.52	336	P	08	48.80	-0.4				i	09	04.10			1.3s	305.00nm				6.3mb
AFR	80.55	131	iP	08	51.60	2.0				eS	19	15.50		MKT	85.74	314	ePd	09	16.60	0.3
	1.6s	1040.00nm			6.6mb		SFI	82.69	337	P	09	05.10	4.6X	ITM	85.78	327	eP	09	15.30	-1.0
KDZ	80.57	327	iPc	08	50.00	0.4	LSF	82.69	345	eP	09	00.90	0.3	EPF	86.02	345	eP	09	17.80	0.3
FLN	80.57	347	eP	08	49.00	-0.5	MME	82.72	338	P	09	02.20	1.1		0.7s	51.60nm				5.8mb
	1.0s	281.20nm			6.2mb		IZM	82.73	324	eP	08	59.00	-2.0	NPS	86.11	324	eP	09	16.10	-1.9
VVI	80.62	337	P	08	51.20	1.4	TIR	82.73	330	eP	09	01.70	0.9	GRI	86.12	332	P	09	18.28	0.2
LOMF	80.62	341	P	08	50.49	0.6	PGD	82.76	337	P	09	02.60	1.4	PRNI	86.31	314	iPd	09	19.10	0.0
PPT	80.67	131	iP	08	52.20	1.9	ARV	82.79	336	P	09	01.80	0.6	VAM	86.52	325	eP	09	09.00	-11.0X
	1.6s	1015.00nm			6.6mb		BNI	82.84	341	P	09	03.10	1.5	EMON	86.71	350	eP	09	22.00	1.1
Z	21s	46.00um			6.8Msz		FAM	82.86	317	eP	09	03.00	1.4	MBH	86.85	314	iPd	09	21.50	-0.2
LDF	80.68	346	eP	08	49.60	-0.5	BDI	82.87	338	P	09	02.30	0.7	COOL	86.88	212	eP	09	21.30	-0.3
PPN	80.71	131	iP	08	52.40	1.9	PYM	82.90	343	P	09	02.42	0.6		0.6s	38.00nm				5.8mb
WARB	80.72	209	iPd	08	44.30	-6.1X	GEN	82.93	339	P	09	01.90	0.1	ECRI	86.89	347	eP	09	22.50	0.7
	0.7s	313.00nm			6.4mb		RRL	82.94	341	P	09	03.19	1.0	SOI	86.92	332	P	09	21.40	-0.5
CTI	80.75	338	P	08	49.80	-0.8	FIR	82.97	337	iPd	09	04.00	2.0	AYN	87.07	313	eP	09	23.00	0.2
PAE	80.75	131	iP	08	52.70	2.0				iS	19	23.00		USI	87.19	334	P	09	27.90	4.7X
	1.6s	1065.00nm			6.6mb		CIO	83.02	336	eP	09	03.17	0.7	HOL	87.19	314	eP	09	23.70	0.3
BNT	80.78	324	iP	08	50.30	-0.4	KBN	83.07	329	eP	09	02.00	-0.6	MRWA	87.28	217	eP	09	23.60	0.1
RZN	80.79	327	eP	08	50.00	-0.9	CKI	83.08	339	P	09	02.90	0.3		0.5s	30.00nm				5.8mb
EDC	80.81	324	iP	08	51.00	0.2	ELL	83.11	321	iP	09	02.10	-0.9	STS	87.38	351	eP	09	26.00	1.9
RDO	80.97	326	eP	08	51.50	-0.1	CSS	83.18	318	eP	09	03.50	0.2	SRFA	87.41	313	eP	09	26.70	2.3
GRR	81.00	347	eP	08	51.60	-0.1	PII	83.21	338	P	09	04.50	1.3	TOO	87.53	191	iPc	09	26.10	1.5
TVO	81.02	131	iP	08	54.40	2.2	DOI	83.24	340	P	09	03.00	-0.5				e	09	30.00	
	1.6s	910.00nm			6.6mb		PZZ	83.27	340	P	09	03.94	0.2	CGL	87.62	337	P	09	28.84	3.4X
ALT	81.05	322	iP	08	51.20	-1.1	ASS	83.27	336	Pc	09	05.70	2.0	ERUA	87.72	350	eP	09	26.00	0.3
PLE	81.09	332	iPd	08	52.50	0.1	BERA	83.28	330	eP	09	03.50	-0.2	BADA	87.84	313	eP	09	27.70	1.2
DST	81.15	324	iP	08	52.20	-0.5	ALP	83.29	335	eP	09	04.07	0.2	ERC	87.98	334	P	09	32.40	5.3X
MMB	81.22	328	iPd	08	53.00	0.0	ROB	83.29	340	P	09	03.81	0.0	LVI	88.10	334	P	09	30.00	2.4
LOR	81.28	343	eP	08	53.10	-0.2	FIN	83.30	339	P	09	04.06	0.3	EZAM	88.13	351	eP	09	29.00	1.3
	0.9s	179.10nm			6.1mb		FOUF	83.31	341	P	08	58.15	-5.6X	EBR	88.13	344	eP	09	26.00	-1.7
IVA	81.34	331	eP	08	54.00	0.3	LBL	83.36	343	P	09	05.44	1.5				ePP	13	00.00	
LPF	81.37	347	eP	08	53.80	0.2	NEO	83.42	327	eP	09	03.90	-0.6				eS	20	02.00	
SAL	81.43	338	P	08	54.70	0.7	YER	83.43	323	iP	09	04.30	-0.3	EROQ	88.15	344	eP	09	31.00	3.2X
CMS	81.49	192	eP	09	13.70	19.4X	STV	83.47	340	P	09	04.27	-0.4	MEU	88.16	332	P	09	32.20	4.2X
			e	09	18.00		HRI	83.52	315	iPd	09	05.40	0.2	PZI	88.23	332	P	09	30.76	2.4
LBF	81.53	343	eP	08	54.20	-0.4	LSK	83.57	329	eP	09	05.00	-0.3	KRP	88.23	167	P	09	28.70	0.9
SSF	81.55	343	eP	08	54.60	0.0	RJF	83.61	344	eP	09	05.90	0.6		1.8s	2420.00nm				7.2mb
VAI	81.60	340	P	08	55.20	0.3	TPE	83.63	330	eP	09	08.00	2.5	BAL	88.24	216	eP	09	28.00	-0.1
SKO	81.65	330	iPd	08	55.00	-0.2	VLO	83.64	330	eP	09	05.00	-0.5	HLW	88.40	317	iPKP	09	30.00	0.8
			i	09	17.50		IMI	83.66	340	P	09	05.45	-0.2				e	13	02.00	
			i	15	26.00		SAOF	83.66	340	P	09	06.04	0.4				eS	20	00.00	
BBU	81.66	301	eP	08	54.50	-1.0	PPCY	83.68	319	eP	09	05.00	-0.8	ETOR	88.57	346	eP	09	30.00	0.0
	0.4s	117.00nm			6.3mb		AUTN	83.68	340	P	09	06.20	0.2	KLB	88.73	214	iPd	09	30.10	-0.4
BRY	81.74	332	eP	08	55.50	-0.3	TOUF	83.70	340	P	09	05.44	-0.6		0.6s	56.00nm				6.0mb
BCI	81.75	331	eP	08	56.70	1.1	AQU	83.73	335	P	09	07.00	0.9	WAJH	89.05	311	eP	09	32.40	0.1
BJA	81.75	300	(P)	08	56.90	0.9	KSL	83.78	321	eP	09	06.00	-0.3	GUD	89.06	347	eP	09	32.00	-0.4
DHR	81.77	301	iPd	08	55.50	-0.6	SBF	83.80	340	eP	09	06.10	-0.3	ECHE	89.59	345	eP	09	36.00	1.2
BEE	81.78	301	iP	08	56.50	0.4	CAF	83.87	344	eP	09	07.30	0.6	KMSA	89.61	302	eP	09	34.50	-0.7
EZN	81.84	325	iP	08	55.20	-1.0	MNS	83.90	336	P	09	06.80	-0.1	MUN	89.66	215	iPc	09	34.90	0.1
AVF	81.84	343	eP	08	56.00	-0.1	MEKA	83.96	216	eP	09	07.00	-0.2		0.9s	92.00nm				6.0mb
VAY	81.86	328	iPd	08	56.00	-0.3	BRT	83.99	332	P	09	09.90	2.6	TOL	89.79	347	ePd	09	36.30	0.6
	1.4s	0.61nm			3.5mb X		SRN	84.01	330	eP	09	07.30	-0.1				epPc	09	41.27	16kmX
SMF	81.89	343	eP	08	56.30	-0.1	CALN	84.03	340	P	09	07.80	0.1				ePP	13	01.90	
KKS	81.90	330	eP	08	57.00	0.6	DUI	84.08	334	P	09	10.20	2.3				ePPP	14	52.00	
KHL	81.91	322	iP	08	56.50	-0.2	BWA	84.09	189	iPd	09	08.00	0.3				eSKS	20	09.80	
TTG	81.94	331	eP	08	55.60	-1.1	LFF	84.09	345	eP	09	08.10	0.3				eS	20	34.21	
			eS	19	08.00		SDI	84.22	335	P	09	08.40	-0.1				iSS	25	33.00	
ORX	82.00	340	P	08	58.37	1.2	LPO	84.27	344	eP	09	08.90	0.3				eSSS	30	04.00	
ORO	82.01	340	P	08	59.20	2.0	FRF	84.27	340	eP	09	08.50	-0.2	EPLA	89.88	349	eP	09	36.00	-0.1
PUK	82.09	331	eP	08	59.30	1.8	MAO	84.27	337	P	09	09.10	0.4	NWAO	90.13	214	ePd	09	36.91	-0.1
HVAR	82.11	333	iP	08	57.60	0.0	MML	84.37	315	ePd	09	10.00	0.6		0.9s	343.00nm				6.6mb
BGF	82.16	344	eP	08	58.00	0.2	BURJ	84.39	315	P	09	09.20	-0.3				epPc	09	42.21	17kmX
HCY	82.16	332	eP	08	57.50	-0.4	LRG	84.43	340	eP	09	09.40	-0.1	ACU	90.54	344	eP	09	40.00	0.8
BDV	82.21	331	eP	08	57.50	-0.6	RMP	84.43	335	P	09	11.30	1.8	EVIA	90.77	346	eP	09	40.50	0.2
BCK	82.22	321	eP	08	56.70	-1.7	RDP	84.48	335	P	09	11.10	1.3	EALH	91.35	345	eP	09	43.00	0.1
PHP	82.24	330	eP	08	57.80	-0.4	RFI	84.55	334	P	09	12.31	2.2	WEL	91.43	168	P	09	45.00	2.3

11d 04h

	Z 20s	34.04um		6.8Msz		
	N 20s	34.04um				
	E 20s	36.88um				
		PP	13 10.00			
		SKS	20 18.00			
		S	20 42.00			
		PS	21 49.00			
		PPS	22 52.00			
		SS	27 00.00			
		SKKS	33 30.00			
EBAN	91.43 347	eP	09 43.50	0.2		
SNZO	91.44 168	ePd	09 43.08	0.3		
		epPc	09 47.05	12kmX		
EHOR	91.98 348	eP	09 46.00	0.2		
ASMO	92.22 346	iP	09 47.50	0.5		
ABHA	92.29 302	eP	09 48.70	0.9		
AFC	92.29 346	eP	09 47.20	-0.2		
AAPN	92.32 347	iPc	09 47.50	0.0		
CRT	92.36 346	iP	09 48.00	0.4		
EVAL	92.41 349	eP	09 49.00	1.2		
ALOJ	92.52 347	eP	09 52.50	4.1X		
APHE	92.61 346	eP	09 48.50	-0.4		
ATEJ	92.69 347	eP	09 48.60	-0.7		
MAL	92.94 347	iP	09 45.00	-5.2X		
		iPP	13 40.00			
		iS	20 56.00			
GCM	93.08 55	e(P)	09 51.30	0.2		
ALJ	93.16 348	iP	09 54.00	2.6		
EJIF	93.36 348	eP	09 52.80	0.7		
CNIL	93.52 348	iP	09 55.50	2.6		
MOMI	93.52 348	iP	09 54.00	1.1		
PLAT	93.72 348	iP	09 56.00	2.1		
MSZ	94.08 174	eP	10 03.00	8.2X		
TAF	94.49 345	iP	09 58.00	0.5		
		i	10 01.00			
IFR	96.19 347	iP	10 07.00	1.5		
		i	10 09.30			
		i	10 16.50			
AVE	96.72 349	iP	10 09.80	2.2		
		i	10 43.50			
TIO	99.04 348	iP	10 20.50	2.2		
UPA	102.53 60	ePdiff	10 35.00	1.1		
	Z 22s	8.44um		6.2Msz		
		i	14 42.00			
FUQ	108.64 57	ePdiff	11 17.50	16.0X		
BOG	109.16 58	ePdiff	11 06.00	2.2X		
BCAO	116.40 315	ePKP	15 24.22	2.7		
		ePP	16 16.36			
LWI	116.85 301	ePdiff	11 44.00	6.1X		
AVY	118.04 273	iPKPd	15 27.58	2.9X		
NPA	120.69 283	ePKP	15 34.00	4.4X		
		e	16 43.40			
KUK	121.76 336	ePKP	15 32.00	0.3		
		e	18 00.00			
KOGH	121.82 336	ePKP	15 30.50	-1.3		
		e	18 01.00			
SHGH	121.92 335	ePKP	15 33.00	1.1		
		e	16 58.00			
TEGH	122.19 335	ePKP	15 33.00	0.6		
		e	17 04.00			
LEGH	122.23 336	ePKP	15 32.00	-0.5		
		e	16 59.00			
WEGH	122.32 336	ePKP	15 32.00	-0.7		
		e	16 56.00			
TIC	122.43 341	PKP	15 32.60	-0.3		
KIC	122.64 341	PKP	15 32.80	-0.5		
	1.0s	37.00nm				
LIC	122.84 341	PKP	15 33.40	-0.3		
PTZ	124.99 291	iPKPd	15 37.80	-0.1		
		i	15 42.00			
		i	17 30.10			
ATB	126.79 41	PKP	15 40.60	-0.8		
SBA	127.15 178	PKPd	15 41.30	1.0		
ARE	127.59 70	ePKP	15 44.00	0.8		
KMZ	127.65 297	iPKP	15 41.20	-1.9		
		i	15 47.00			
		i	18 06.00			
LSZ	127.69 293	ePKP	15 44.00	0.8		
		e	15 48.00			
		i	18 03.20			
KRI	128.02 290	iPKPc	15 46.00	2.2		
		ePP	17 46.00			
ZOBO	129.48 66	Pdiff	12 48.00	13.5X		
	0.9s	73.53nm				
		i	15 47.20			
		LR	59 48.00			
LPB	129.70 66	ePKP	15 39.00	-8.4X		
	1.0s	310.00nm				
	Z 20s	5.32um		6.2Msz		
		i	15 48.00			
		PS	28 30.00			
		eLR	59 24.00			
CNCB	129.98 66	ePKP	15 37.00	-11.1X		
		i	15 49.00			
BUL	131.15 289	ePKP	15 49.60	-0.1		
		iPP	17 51.40			
		iSKP	19 16.20			
CCH	131.52 65	PKP	15 37.00	-13.7X		
		i	15 52.00			
KSR	136.41 285	ePKP	15 45.60	-14.0X		
	1.2s	70.00nm				
		i	16 04.20			
SOB1	136.49 29	ePKP	15 47.10	-12.8X		
		i	16 03.40			
PRY	136.79 283	ePKP	15 43.00	-17.3X		
	1.0s	70.00nm				
		i	16 02.80			
		i	18 45.60			
ITR	136.81 26	ePKP	15 48.20	-12.3X		
		e	15 54.70			
		e	16 00.70			
SLA	137.48 71	ePKPd	16 01.50	-0.1		
BLF	139.12 282	ePKP	15 53.00	-11.5X		
	1.2s	280.00nm				
		i	16 06.50			
SPA	139.30 180	e(PKP)	15 53.10	-10.5X		
	1.0s	21.00nm				
	Z 20s	8.15um		6.5Msz		
BAO	139.64 43	ePKP	15 56.00	-9.7X		
CYA	139.95 75	e(PKP)	15 57.20	-8.7X		
FRS	140.11 282	ePKP	15 57.00	-9.0X		
	1.0s	150.00nm				
		i	16 10.00			
RFA	142.38 85	ePKPc	16 04.50	-5.6X		
ITB1	143.98 59	ePKP	16 11.20	-1.7		
ITB	144.20 59	ePKP	16 11.10	-2.2		
ITB7	144.47 59	ePKP	16 11.80	-2.0		
CER	146.34 283	iPKPc	16 33.60	16.8X		
	1.0s	180.00nm				
TUH	146.39 284	iPKPd	16 19.50	2.7		
	0.9s	92.44nm				
VAO	146.50 47	ePKP	16 17.30	-0.1		
		e	16 24.20			
ITA	147.02 44	ePKPc	16 19.30	0.8		
BMA	147.54 43	ePKPd	16 19.20	0.2		
AIA	152.49 141	ePKP	16 31.80	6.7X		
	S.D. = 1.0	on 545 of 621 obs.				

APR 11, 1989 05h 23m 00.18± 0.48s
29.722 N ±11.6km 64.090 E ± 6.0km
DEPTH = 33.0km (normal)
4.6mb (7 obs.)
PAKISTAN (354)

MAIO	7.61 331	iPc	25 01.70	10.1X		
	0.5s	1.15nm				
		eS	26 48.00			
NDI	11.52 92	iPc	25 46.00	0.7		
	0.6s	53.33nm		5.9mb X		
		iS	27 41.50			
DHR	12.79 258	eP	26 03.50	1.2		
POO	14.25 139	iPc	26 20.70	-1.1		
		iS	29 15.20			
RYD	16.32 256	eP	26 46.50	-2.0		
HYB	18.03 130	eP	27 08.00	-1.9		
		eS	30 23.00			
GKN	18.08 90	P	27 11.30	0.6		
QASM	18.52 264	eP	27 15.00	-1.0		
DMN	18.56 91	P	27 19.10	2.4		
KKN	18.68 91	P	27 19.10	1.0		
	0.5s	22.00nm		4.6mb		
PKI	18.83 91	P	27 20.80	0.7		
	0.7s	16.00nm		4.3mb		
GUN	19.18 90	P	27 25.10	0.9		
GBA	20.24 140	P	27 34.00	-1.4		
	0.7s	5.30nm		4.0mb		
AYN	24.49 275	eP	28 18.40	0.8		
SRFA	25.19 275	eP	28 26.00	1.8		
HQL	25.25 276	eP	28 27.50	2.7		
BADA	25.41 275	eP	28 29.00	2.7		
MLR	33.71 308	ePd	29 41.00	0.4		
KHC	42.67 312	eP	30 54.50	-0.8		
		e	32 50.00			
BRG	42.71 314	iP	30 55.10	-0.4		
	0.9s	18.00nm		4.8mb		
SOD	43.78 340	eP	31 04.00	0.0		
MOX	44.13 314	eP	31 07.00	-0.1		
	1.0s	17.00nm		4.8mb		
KEV	45.25 343	eP	31 15.00	-0.8		
NB2	46.65 328	P	31 25.90	-1.1		
	0.6s	2.40nm		4.3mb		
MBC	74.27 1	eP	34 33.00	-2.2		
	0.8s	7.00nm		4.7mb		
		pP	35 11.00	155kmX		
INK	81.39 7	eP	35 13.00	-1.5		
YKA	88.10 359	eP	35 46.90	-1.4		
	S.D. = 1.5	on 26 of 27 obs.				

• APR 11, 1989 07h 14m 21.36± 0.62s
32.736 S ±14.4km 178.846 W ±11.7km
DEPTH = 33.0km (normal)
5.2mb (3 obs.) 4.8Msz (1 obs.)
SOUTH OF KERMADEC ISLANDS (179)

KRP	6.92 220	eP	16 04.00	1.0		
VUN	14.87 350	ePd	17 51.00	0.1		
MSZ	15.75 217	eP	17 58.00	-4.2X		
		eS	20 46.00			
DZM	16.82 305	iPc	18 20.90	4.9X		
BRS	25.09 275	iPc	19 48.10	3.5X		
BWA	27.26 257	eP	20 04.30	-0.3		
		i	20 19.10			
CTA	33.54 283	iPc	21 02.30	2.0		
	1.4s	120.93nm		5.6mb		
QIS	38.84 278	iPd	21 46.40	1.2		
ASPA	42.32 270	iPc	22 13.90	0.0		
	1.5s	56.00nm		5.1mb		
	Z 18s	1.25um		4.8Msz		
		LR	40 10.10			
WRA	43.52 275	Pd	22 24.00	0.3		
	0.5s	16.80nm		5.1mb		
FORR	44.74 258	eP	22 32.60	-0.8		
MTN	49.68 281	iPd	23 12.10	-0.2		
MBL	55.20 266	eP	23 51.90	-1.6		
NANU	58.21 262	eP	24 13.00	-1.8		
PLM	87.89 48	eP	27 09.00	0.0		
RVR	88.00 47	eP	27 09.00	-0.3		
SBB	88.19 46	eP	27 14.00	3.7X		
ISA	88.46 45	eP	27 13.00	1.4		
TPC	88.89 48	eP	27 14.00	0.3		
GLA	88.97 49	eP	27 24.00	9.9X		
CLC	89.09 45	eP	27 15.00	0.4		
MBC	114.84 13	ePKP	32 57.00	-2.1		
SOB1	122.16 129	e(PKP)	33 23.00	8.1X		
ALE	125.66 8	ePKP	33 18.00	-1.8		
SUF	146.06 340	iPKP	33 56.90	-0.9		
	0.6s	31.40nm				
BNG	147.48 214	iPKPd	34 02.50	0.9		
	0.9s	29.00nm				
		ic	34 16.70			
NUR	148.23 338	iPKP	34 03.50	2.2		
NB2	150.93 350	PKP	34 09.40	3.9X		
	0.9s	13.80nm				
MBH	151.09 273	ePKP	34 12.00	5.4X		
PRNI	151.13 274	ePKP	34 12.00	5.3X		
HFS	151.37 347	ePKP	34 10.40	4.3X		
	0.6s	10.30nm				
KIC	153.19 167	PKP	34 17.00	6.9X		
	S.D. = 1.3	on 21 of 32 obs.				

% APR 11, 1989 09h 55m 54.70± 1.27s
11.228 N ± 7.5km 61.694 W ±21.5km
DEPTH = 10.0km (geophysicist)
WINDWARD ISLANDS (95)
MD 3.0 (TRN).

TCE	0.53 186	eP	56 05.98	0.5		
		eS	56 18.74			
TRN	0.64 154	eP	56 08.60	1.0		
		eS	56 22.57			
GRW	0.93 2	eP	56 12.45	0.0		
		eS	56 30.45			
TPP	0.94 165	eP	56 10.98	-1.6		
		eS	56 24.30			
TBH	0.96 140	eP	56 13.02	0.0		
	S.D. = 1.4	on 5 of 5 obs.				

? APR 11, 1989 10h 59m 52.92± 4.29s
4.991 S ±43.4km 134.827 E ±15.6km
DEPTH = 33.0km (normal)
4.2mb (1 obs.)

WEST IRIAN REGION (196)

MTN	8.62	205	eP	01	59.00	0.6
			eS	03	40.00	
KNA	12.24	209	eP	02	46.90	-1.0
WRA	14.87	182	eP	03	18.80	-3.8X
			i	03	28.70	
			eS	06	08.30	
QIS	16.16	164	eP	03	38.00	-1.2
			eS	06	34.00	
ASPA	18.59	183	iPd	04	10.90	1.3
			eS	07	36.70	
CTA	18.68	144	iPd	04	11.10	0.4
	0.6s	9.33nm			4.2mb	
MBL	21.68	221	eP	04	43.00	0.0
FORR	26.49	193	eP	05	29.00	-0.1
	S.D. = 1.1	on	7 of	8 obs.		

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* APR 11, 1989 11h 26m 53.27± 0.51s
18.211 S ± 9.5km 167.316 E ± 9.6km
DEPTH = 33.0km (normal)
4.9mb (3 obs.) 4.4Msz (1 obs.)

VANUATU ISLANDS (186)

PVC	1.06	64	iPc	27	06.00	-5.8X
			iS	27	23.40	
DZM	3.93	192	iPc	27	46.40	-6.4X
			iS	28	27.60	
HNR	11.28	320	eP	29	36.00	0.7
			eS	32	07.00	
VSG	11.57	319	eP	29	38.00	-1.2
BRS	16.21	233	eP	30	41.00	0.7
RMQ	19.03	241	eP	31	16.00	0.7
CTA	19.98	261	iPd	31	26.00	0.1
	1.3s	86.54nm			4.9mb	
			iS	35	31.00	
KRP	20.92	162	P	31	44.00	8.6X
	1.0s	128.00nm			5.3mb	
CNB	23.33	220	eP	32	00.00	0.5
BWA	23.34	223	eP	31	58.70	-0.9
CMS	23.50	232	eP	32	20.00	18.9X
CAN	23.55	220	eP	32	02.50	0.9
QIS	26.23	260	eP	32	27.00	-0.2
STK	26.90	235	eP	32	33.00	-0.3
WRA	31.19	261	eP	33	09.20	-2.6
ASPA	31.63	254	iPc	33	13.70	-2.0
Z	21s	0.86um			4.4Msz	
			ipP	33	24.70	41kmX
			LR	44	51.30	
WARB	38.36	251	eP	34	05.00	-8.2X
MDJ	71.37	333	eP	38	18.50	6.7X
SPA	71.90	180	e(P)	38	14.20	-0.8
	1.0s	3.00nm			4.3mb	
			e	38	24.20	
GYA	73.74	306	P	38	32.40	6.0X
BJI	75.00	322	eP	38	33.00	-0.2
KMI	76.19	303	eP	38	41.50	0.9
CHG	76.57	295	eP	38	44.00	1.4
CD2	78.17	308	eP	38	51.20	-0.1
MAW	78.69	202	eP	39	03.00	9.6X
LZH	80.69	313	eP	39	06.00	1.1
			pP	39	17.50	38kmX
GTA	85.10	314	eP	39	28.60	1.2
WDC	87.44	46	eP	39	37.30	-1.4
ORV	87.71	47	e(P)	39	38.40	-1.6
CMB	87.84	49	ePc	39	39.00	-1.8
			e	39	42.30	
			e	39	50.60	
FRI	87.90	50	eP	39	39.80	-1.1
			e	39	42.50	
			e	39	50.60	
EUR	91.59	49	iP	39	59.80	1.3
	0.1s	16.16nm			6.4mb X	
PNT	93.08	39	eP	40	07.00	2.2
YKA	100.60	28	Pdiff	40	43.60	4.8X
SOB1	141.04	132	ePKP	46	24.00	1.1
ZST	141.52	328	ePKP	46	32.50	9.7X
SKO	142.54	317	iPKP	46	28.50	3.7X
OHR	143.37	316	ePKP	46	28.20	1.9
KBA	144.15	329	ePKP	46	35.00	7.4X
CEY	144.52	327	ePKP	46	16.90	-11.1X
FVI	144.76	329	PKP	46	39.50	11.2X
TRI	144.88	327	ePKP	46	32.40	3.8X
CTI	145.70	329	PKP	46	37.00	6.8X
CDF	145.78	336	ePKP	46	34.10	3.9X
	1.2s	35.70nm				
HAU	146.47	337	ePKP	46	36.30	5.1X
	1.1s	14.60nm				
BNG	146.54	250	ePKPc	46	33.50	1.1
	0.9s	27.00nm				
			ic	46	37.50	
			id	46	44.10	
ARV	146.80	325	PKP	46	36.00	4.1X
VAI	147.18	332	PKP	46	31.00	-1.3
PGD	147.20	327	PKP	46	41.00	8.3X
MNS	147.67	324	PKP	46	38.50	5.2X
BOB	147.70	330	PKP	46	41.00	7.6X
ORO	147.72	332	PKP	46	41.00	7.6X
LOR	148.00	339	ePKP	46	37.20	3.5X
	1.6s	43.50nm				
BGF	148.96	339	ePKP	46	42.60	7.4X
	1.0s	24.00nm				
	S.D. = 1.3	on	29 of	54 obs.		

APR 11, 1989 12h 23m 07.18± 0.72s
40.474 N ± 6.4km 23.406 E ± 8.0km
DEPTH = 10.0km (geophysicist)

GREECE (364)
MD 3.1 (ATH).

PLG	0.10	163	ePg	23	09.70	-0.3
VAY	1.06	323	iPn	23	28.00	0.9
			iSn	23	44.50	
MMB	1.14	12	iPgc	23	27.00	-1.5
			Sg	23	43.00	
NEO	1.17	187	ePb	23	28.00	-1.1
KZN	1.26	263	ePb	23	31.60	1.0
KKB	1.41	350	iPd	23	32.00	-0.9
			iSg	23	53.00	
RDO	1.75	67	ePb	23	37.00	-0.8
			eSb	23	58.00	
PLD	1.90	31	iPg	23	42.00	2.1
			iSg	24	07.00	
KDZ	1.92	52	iP	23	39.00	-1.3
			iS	24	02.00	
OHR	2.08	289	ePn	23	32.50	-10.1X
SKO	2.11	316	ePn	23	35.00	-7.9X
VTS	2.12	356	eP	23	42.00	-1.3
			iS	24	12.00	
DIM	2.25	45	iPg	23	47.00	2.0
			iSg	24	16.00	
PRK	2.52	118	ePb	23	50.00	1.2
DMK	3.55	66	ePn	24	20.00	16.5X
BEO	4.86	334	eP	24	29.00	7.0X
	S.D. = 1.5	on	12 of	16 obs.		

& APR 11, 1989 12h 31m 57.00s
33.930 N 118.628 W
DEPTH = 6.0km (geophysicist)

SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.1 (PAS). Felt (IV) ot Santo Monica.

ABL	1.04	332	eP	32	17.00	-0.2
PEC	1.22	91	eP	32	19.30	-0.8
PLM	1.58	111	eP	32	24.40	-1.4
BLP	1.60	294	eP	32	25.20	-0.6
BCH	1.74	317	eP	32	28.20	0.2
	5 obs. associated					

APR 11, 1989 13h 06m 16.19± 0.52s
63.651 N ± 5.2km 148.378 W ± 6.0km
DEPTH = 33.0km (normal)

CENTRAL ALASKA (1)
ML 3.2 (PMR).

FBA	1.28	11	ePc	06	37.90	0.0
TOA	1.85	146	iPc	06	46.60	0.4
PMR	2.10	190	eP	06	49.00	-0.6
PWA	2.12	200	eP	06	50.10	0.1
PMS	2.48	193	eP	06	55.30	0.2
IMA	3.32	319	ePc	07	07.30	0.2
DWY	3.98	80	P	07	15.80	-0.6
SVW	4.23	236	ePc	07	19.90	0.0
HYT	5.82	114	P	07	43.00	0.5
	S.D. = 0.4	on	9 of	9 obs.		

APR 11, 1989 13h 49m 15.26± 0.83s
34.895 N ± 5.1km 9.142 E ± 3.9km
DEPTH = 37.7 ± 8.3 km
4.8mb (14 obs.)

TUNISIA (397)

PTS	3.00	50	P	50	01.15	-0.4
MEU	5.18	63	P	50	29.80	-2.7
ATN	6.04	56	P	50	44.50	-0.1
SOI	6.41	58	P	50	48.50	-1.2
ESEL	6.96	316	eP	50	58.40	1.0
			e	52	15.00	
RMP	7.45	21	P	51	03.90	-0.3
TDS	7.45	48	P	51	05.00	0.7
CVF	7.66	358	Pn	51	08.00	0.7
			Sn	52	26.40	
MAO	7.67	11	P	51	07.80	0.4
SDI	7.73	27	P	51	07.00	-1.2
DUI	7.94	30	P	51	11.50	0.3
ACU	8.48	298	ePn	51	19.50	0.9
LMR	8.67	347	Pn	51	20.00	-1.2
			Sn	52	50.00	
LRG	8.82	347	Pn	51	21.50	-1.7
			Sn	52	54.00	
FRF	8.87	348	Pn	51	22.50	-1.4
			Sn	52	55.40	
ETER	8.88	328	ePn	51	25.00	0.9
CRE	8.99	13	P	51	26.50	0.8
EBR	9.04	313	(P)	51	23.00	-3.3X
SBF	9.05	352	Pn	51	24.90	-1.6
			Sn	52	59.20	
ARV	9.08	18	P	51	29.30	2.4
PGD	9.19	12	P	51	30.00	1.5
SFI	9.25	12	P	51	34.00	4.8X
ECHE	9.32	303	ePn	51	31.40	1.1
TAF	9.50	273	iP	51	30.00	-2.7
			i	53	24.00	
DOI	9.71	352	P	51	35.30	-0.3
BOB	9.86	1	P	51	41.00	3.3X
EVIA	10.06	295	ePn	51	41.00	0.5
BNI	10.32	350	P	51	46.30	2.3
EPF	10.62	323	Pn	51	48.80	0.7
			Sn	53	40.80	
LPG	10.75	351	Pn	51	51.60	1.6
VAI	10.96	359	P	51	55.00	2.4
OHR	11.09	53	eP	51	52.20	-2.2
CAF	11.39	334	Pn	51	57.60	-0.9
			Sn	53	57.00	
LPO	11.53	330	Pn	51	59.20	-1.1
			Sn	54	01.00	
CEY	11.55	19	e(P)	52	02.00	1.3
TOL	11.61	299	eP	51	58.00	-3.5X
			eS	54	19.00	
VOY	11.69	17	e(P)	52	04.60	2.0
IFR	11.90	267	iP	52	05.50	0.0
			i	52	07.50	
ECRI	11.91	314	ePn	52	09.00	3.4X
RJF	11.92	333	Pn	52	04.20	-1.3
LFF	11.92	330	Pn	52	04.60	-0.9
SKO	11.95	50	iP	52	05.00	-1.0
Z	15s	0.95um				
N	15s	0.87um				
E	14s	0.95um				
			LR	58	32.00	
MAF	12.36	338	Pn	52	10.80	-0.7
KBA	12.58	13	eP	52	14.50	0.0
	1.1s	15.80nm			5.0mb	
			i	52	18.30	
			iPP	52	30.00	
BGF	12.58	340	Pn	52	14.00	-0.5
BZS	14.31	38	ePc	52	37.00	-0.2
TIO	14.34	259	iP	52	44.40	6.7X
			i	56	33.50	
			i	57	22.00	
ZST	14.55	22	eP	52	48.40	8.1X
Z	13s	1.10um				
KHC	14.60	12	P	52	40.90	-0.1
	1.0s	10.00nm			4.2mb	
SRO	14.61	25	eP	52	46.90	5.8X
DOU	15.55	349	P	52	57.30	4.0X
	0.9s	70.00nm			4.9mb	
PRU	15.59	13	eP	52	53.50	-0.3
Z	14s	1.50um				
N	16s	0.80um				
E	16s	2.10um				
YER	15.65	76	eP	52	56.20	1.5
MOX	15.85	6	eP	53	01.00	3.9X
Z	16s	1.00um				
E	16s	0.90um				
			LQ	59	36.00	
			LR	59	42.00	
CMP	15.95	45	ePd	53	05.00	6.5X
BRG	16.35	11	iPc	53	07.00	3.6X
MLR	16.60	45	ePc	53	09.00	2.1

11d 13h

CLL	16.64	8	eP	53 08.00	0.9	
	1.6s	25.00nm		4.1mb		
KSP	16.76	16	eP	53 08.50	-0.2	
			ed	53 13.50		
KRA	17.09	24	eP	53 18.60	5.9X	
			e	53 27.60		
ALT	17.26	70	eP	53 16.50	1.5	
ADI	21.69	87	eP	54 08.00	3.2X	
EKA	22.14	341	P	54 09.00	0.0	
	1.0s	20.30nm		4.5mb		
PRNI	22.22	95	iPd	54 10.50	0.4	
HFS	25.43	5	eP	54 39.40	-1.4	
	1.0s	23.00nm		4.7mb		
Z	15s	0.24um		3.8MszX		
		LR		04 01.00		
NB2	26.20	2	P	54 47.30	-0.7	
	0.9s	7.00nm		4.2mb		
NUR	27.53	17	eP	55 00.00	0.0	
SUF	29.82	16	iP	55 19.20	-1.4	
	0.7s	21.20nm		5.0mb		
KUK	29.88	199	eP	55 21.00	-0.7	
KOGH	29.95	199	eP	55 25.00	2.7	
TIC	31.00	208	P	55 33.00	1.5	
KIC	31.15	207	P	55 31.10	-1.7	
LIC	31.38	208	Pc	55 33.50	-1.4	
BNG	31.54	162	ePd	55 36.00	-0.2	
	0.4s	4.00nm		4.6mb		
SOD	34.05	12	iP	55 56.20	-1.4	
MAIO	40.59	73	eP	56 54.00	1.0	
KMZ	50.63	159	iPc	58 13.00	0.1	
LSZ	53.07	157	iP	58 31.50	0.2	
PTZ	53.22	153	ePd	58 32.00	-0.4	
FRB	53.98	328	eP	58 35.00	-2.3	
SCH	54.54	316	eP	58 40.00	-1.6	
GKN	63.38	73	P	59 43.00	-0.4	
DMN	63.93	73	P	59 46.80	-0.4	
	0.8s	37.00nm		5.5mb		
KKN	63.99	73	P	59 46.80	-0.7	
	0.8s	18.00nm		5.2mb		
PKI	64.19	73	P	59 48.00	-1.0	
	1.0s	40.00nm		5.5mb		
GUN	64.40	73	P	59 49.60	-0.8	
	1.0s	50.00nm		5.5mb		
SOB1	64.49	237	eP	59 51.40	0.8	
YKC	72.97	336	ePc	00 42.40	0.0	
YKA	73.00	336	eP	00 43.10	0.5	
FFC	73.02	326	eP	00 42.00	-0.8	
	1.0s	11.00nm		4.8mb		
INK	73.40	346	eP	00 44.00	-0.8	
BAO	73.90	237	eP	00 49.70	1.1	
TIY	78.64	52	eP	01 01.50	-13.5X	
BJI	79.63	48	eP	01 11.00	-9.2X	
SES	80.04	326	eP	01 24.00	1.7	
CN2	82.59	41	Pc	01 31.20	-4.5X	
			pP	01 44.00	43kmX	
			sP	01 50.00		
LRM	83.92	323	eP	01 43.20	0.4	
MDJ	84.20	38	eP	01 39.00	-4.9X	
PNT	84.62	329	eP	01 48.00	2.1	
ZOBO	89.11	250	P	02 09.00	0.0	
LPB	89.25	249	(P)	02 19.00	9.6X	
CNCB	89.32	249	P	02 11.00	1.1	
TOO	144.92	107	iPKPd	08 50.90	1.0	
BWA	146.66	101	ePKP	08 56.10	3.1X	
CAN	147.31	103	ePKP	08 57.10	3.1X	
BRS	148.12	87	iPKPc	09 00.40	4.9X	
S.D. = 1.3 on 84 of 106 obs.						

? APR 11, 1989 13h 50m 08.53± 1.18s
35.858 N ±12.3km 81.233 E ±23.5km
DEPTH = 33.0km (normol)
4.1mb (3 obs.)
SOUTHERN XINJIANG, CHINA (321)

NDI	7.92	207	ePn	52 03.50	-0.7	
			eSn	53 21.50		
GUN	8.85	152	P	52 17.00	-0.5	
	0.5s	13.00nm		5.3mb	X	
DMN	8.86	157	P	52 13.60	-3.9X	
GBA	22.42	190	Pc	55 07.20	1.4	
	0.7s	1.90nm		3.7mb		
HFS	48.68	322	eP	58 51.40	0.2	
	0.4s	1.10nm		4.2mb		
NB2	49.87	323	P	58 59.90	-0.4	
	0.7s	2.00nm		4.3mb		
S.D. = 1.2 on 5 of 6 obs.						

APR 11, 1989 13h 53m 22.43± 0.38s
1.040 S ± 7.6km 126.558 E ±12.8km
DEPTH = 33.0km (normol)
5.0mb (7 obs.) 4.6Msz (1 obs.)
MOLUCCA SEA (269)

MTN	12.57	159	iPc	56 20.10	-1.8	
KNA	14.78	172	eP	56 50.40	-0.5	
WRA	20.27	158	iPc	57 54.70	-3.5X	
			eS	01 35.00		
MBL	21.05	198	eP	58 07.00	0.9	
QIS	23.21	148	iPd	58 26.70	-0.9	
			e	58 41.00		
ASPA	23.59	163	iPc	58 30.80	-0.5	
	1.0s	25.00nm		4.7mb		
			eS	02 41.90		
KSI	24.08	263	ePd	58 40.50	4.4X	
			e	59 40.00		
CTA	27.01	136	iPc	59 05.60	2.0	
	0.8s	11.19nm		4.5mb		
FORR	29.68	177	eP	59 26.00	-1.5	
CHG	33.55	307	eP	00 01.50	-0.2	
NJ2	33.71	348	Pc	00 02.60	-0.2	
STK	33.80	157	eP	00 04.00	0.3	
BRS	36.31	138	e(P)	00 26.00	0.8	
TIA	38.09	348	eP	00 39.00	-0.9	
XAN	38.63	336	iPd	00 44.10	-0.5	
CAN	40.00	151	eP	00 56.70	0.8	
LZH	42.57	332	eP	01 17.00	-0.1	
	1.5s	44.00nm		5.0mb		
SNY	42.75	357	iPc	01 16.80	-1.5	
GTA	47.13	332	P	01 53.90	0.3	
GUN	48.50	310	P	02 05.20	0.4	
	0.4s	14.00nm		5.3mb		
PKI	48.70	309	P	02 06.80	0.5	
KKN	48.90	309	P	02 07.40	-0.3	
	0.4s	8.00nm		5.1mb		
DMN	48.95	309	P	02 09.00	0.8	
HYB	50.71	294	ePc	02 22.20	0.8	
	1 0s	25.00nm		5.1mb		
GBA	50.80	288	Pd	02 21.30	-0.8	
	0.6s	6.90nm		4.8mb		
WMQ	56.56	327	Pc	03 04.50	0.2	
CNCB	157.19	142	PKP	13 29.20	11.5X	
LPB	157.33	141	ePKP	13 27.00	9.3X	
ZOBO	157.51	140	PKP	13 27.00	8.9X	
Z	20s	0.09um		4.6Msz		
		LR		36 20.00		
CCH	157.82	146	ePKP	13 20.10	2.0	
S.D. = 1.0 on 25 of 30 obs.						

APR 11, 1989 14h 02m 02.41± 0.50s
63.425 N ± 5.3km 147.630 W ± 5.3km
DEPTH = 33.0km (normol)
CENTRAL ALASKA (1)
ML 3.5 (PMR).

FBA	1.48	357	eP	02 27.20	0.2	
TOA	1.49	153	iPd	02 27.00	-0.1	
PMR	1.97	201	ePc	02 33.40	-0.6	
PWA	2.06	211	eP	02 35.10	-0.3	
PMS	2.37	203	eP	02 39.90	0.1	
DWY	3.70	77	P	02 58.00	-0.6	
IMA	3.71	318	ePc	02 58.50	-0.4	
TTA	3.83	266	eP	03 00.80	0.3	
SVW	4.40	242	eP	03 09.20	0.6	
HYT	5.42	114	P	03 24.00	0.9	
S.D. = 0.6 on 10 of 10 obs.						

• APR 11, 1989 14h 40m 39.91± 1.44s
6.867 S ±13.4km 147.742 E ±16.6km
DEPTH = 30.7 ± 6.7 km
EAST PAPUA NEW GUINEA REGION (207)

LAT	0.77	286	iPd	40 53.30	-1.2	
LMG	2.07	169	eP	41 13.00	-0.3	
PMG	2.59	193	eP	41 21.00	0.4	
			eS	41 59.50		
MNDI	4.12	280	eP	41 43.50	0.9	
WRA	18.39	224	eP	44 50.70	-3.7X	
			eS	48 08.00		
BRS	20.97	167	e(P)	45 23.00	0.0	
ASPA	21.35	217	iPc	45 26.50	-0.5	
GUN	68.96	303	P	51 44.80	-0.3	
	0.8s	12.00nm		5.0mb		
KKN	69.41	303	P	51 48.00	0.3	
DMN	69.50	303	P	51 48.40	0.1	
GKN	70.02	303	P	51 51.60	0.2	
S.D. = 0.7 on 10 of 11 obs.						

APR 11, 1989 14h 45m 27.04± 1.07s
40.294 N ± 8.1km 29.459 E ± 8.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YLV	0.28	346	iPg	45 33.50	0.5	
GBZT	0.49	359	ePg	45 38.50	1.4	
			iSg	45 43.50		
GPA	0.65	90	ePg	45 39.00	-1.1	
ISK	0.83	339	ePg	45 43.00	0.0	
DST	0.94	223	iPg	45 47.10	2.1	
CTT	1.16	318	ePg	45 48.00	-0.7	
BNT	1.18	274	iPg	45 47.50	-1.5	
EDC	1.22	273	iPg	45 49.00	-0.8	
			eSg	46 02.00		
S.D. = 1.5 on 8 of 8 obs.						

• APR 11, 1989 15h 30m 24.12± 0.72s
38.486 S ±13.4km 14.718 W ±13.7km
DEPTH = 10.0km (geophysicist)
4.8mb (3 obs.)
TRISTAN DA CUNHA REGION (411)

SOB1	37.45	314	eP	37 38.50	-1.0	
BUL	41.54	76	iPc	38 11.10	-2.4	
	0.7s	8.56nm		4.6mb		
KMZ	43.66	66	iPc	38 31.00	0.1	
LSZ	44.19	71	iP	38 35.10	-0.1	
KRI	44.28	73	iPc	38 37.40	1.5	
LIC	45.38	14	P	38 44.40	-0.1	
KIC	45.57	14	P	38 45.40	-0.6	
	0.9s	14.50nm		4.9mb		
TIC	45.80	13	P	38 47.40	-0.4	
PTZ	47.18	72	iP	38 58.00	-1.0	
SPA	51.70	180	e(P)	39 32.00	-1.3	
	1.2s	16.20nm		4.8mb		
BNG	52.65	43	iPd	39 39.80	-1.0	
	0.6s	19.00nm		5.2mb	X	
LWI	53.65	59	iPd	39 48.50	0.1	
OHR	85.60	26	eP	43 04.50	0.8	
VAY	86.41	27	eP	43 08.50	0.9	
SKO	86.58	26	iP	43 09.00	0.6	
KHC	90.77	18	eP	43 23.50	-4.7X	
SRO	90.82	22	eP	43 29.60	1.2	
ZST	90.83	21	eP	43 29.60	1.2	
MLR	91.25	27	ePc	43 31.00	0.4	
WRA	115.03	148	iPdiff	45 20.00	2.0	
YKA	127.70	325	PKP	49 29.40	-0.9	
INK	135.72	332	ePKP	49 41.00	-4.4X	
S.D. = 1.2 on 20 of 22 obs.						

APR 11, 1989 16h 18m 54.31± 1.34s
44.152 N ± 6.2km 8.197 E ±11.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.6 (LDG), 2.3 (GEN).

FIN	0.06	8	P	18 56.13	-0.5	
			S	18 57.40		
ROB	0.27	301	P	19 00.00	-0.1	
			S	19 03.89		
IMI	0.33	223	P	19 00.85	-0.3	
			S	19 05.62		
SBF	0.62	243	Pg	19 06.50	-0.4	
			Sg	19 16.00		
STV	0.63	279	P	19 06.59	-0.5	
			S	19 14.66		
PZZ	0.86	295	P	19 10.53	-0.5	
			S	19 22.21		
FRF	1.27	243	Pg	19 18.10	0.2	
			Sg	19 34.80		
LMR	1.47	237	Pg	19 20.60	-0.2	
			Sg	19 41.00		
LRG	1.50	243	Pg	19 22.40	1.1	
			Sg	19 42.90		
LPL	1.72	323	Pg	19 25.60	1.0	
S.D. = 0.7 on 10 of 10 obs.						

& APR 11, 1989 16h 32m 59.98s
47.274 N 122.907 W
DEPTH = 47.1km
WASHINGTON (29)
<SEA>. CL 2.8 (SEA).

MEW	0.19	112	eP	33 08.19	0.2
GMW	0.29	17	iPd	33 08.18	-0.6
SMW	0.30	279	iPc	33 08.82	-0.2
			eS	33 16.02	
CPW	0.34	208	iPc	33 08.98	-0.4
			eS	33 16.31	
HDW	0.39	345	iPd	33 09.46	-0.4
			iS	33 16.69	
GHW	0.49	118	iPc	33 10.55	-0.5
SPW	0.53	58	iPd	33 11.68	0.2
PGW	0.59	21	iP	33 12.10	-0.1
APW	0.65	164	iP	33 12.72	-0.3
OBH	0.65	275	iPd	33 12.51	-0.6
ONR	0.71	236	iPc	33 13.50	-0.4
RVC	0.72	117	iPc	33 13.80	-0.3
BLN	0.74	357	iP	33 14.05	-0.2
LMW	0.74	145	iP	33 13.92	-0.4
GSM	0.76	95	iPd	33 14.43	-0.2
OSD	0.77	316	iPc	33 14.61	-0.2
BLH	0.82	46	eP	33 14.70	-0.6
BMW	0.83	196	iPd	33 15.11	-0.4
CZM	0.88	162	eP	33 16.34	0.1
FMW	0.91	112	iPc	33 16.32	-0.5
HTW	0.94	55	eP	33 16.43	-0.6
KOSW	0.95	149	eP	33 17.03	-0.2
OOW	0.99	299	iPc	33 16.89	-0.8
STW	1.02	330	eP	33 17.73	-0.3
TDL	1.04	153	eP	33 18.44	-0.1
ERK	1.04	158	eP	33 18.28	-0.3
OHW	1.08	13	eP	33 18.81	-0.1
WPW	1.10	121	iPd	33 19.15	-0.1
RVW	1.13	174	eP	33 19.48	-0.2
JCW	1.13	35	iP	33 19.45	-0.3
STD	1.14	155	eP	33 19.93	0.0
FL2	1.14	160	eP	33 19.82	-0.2
YEL	1.17	155	eP	33 20.72	0.3
SHW	1.18	157	eP	33 20.67	0.2
ESD	1.20	154	eP	33 21.13	0.4
HSR	1.21	155	eP	33 21.29	0.3
JLK	1.24	155	eP	33 21.47	0.2
NLO	1.24	198	eP	33 20.93	-0.4
LVP	1.25	164	eP	33 21.38	-0.1
OTR	1.26	310	iPc	33 20.76	-0.8
CMW	1.27	24	eP	33 21.57	-0.1
CDFW	1.30	153	eP	33 22.32	0.2
MTMW	1.34	159	eP	33 22.95	0.3
MCW	1.41	2	eP	33 23.25	-0.3
RPW	1.50	38	eP	33 24.83	-0.1
NAC	1.52	110	eP	33 25.33	0.1

46 obs. assocloted

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* APR 11, 1989 16h 56m 41.23± 0.90s
27.685 S ±11.9km 26.363 E ±15.9km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
MG 3.5 (BUL).

PRY	1.24	53	iPc	57 05.20	0.3
			S	57 21.50	
KIM	1.75	232	iPc	57 14.50	1.9
			S	57 39.00	
KSR	1.87	15	iPc	57 18.30	3.9X
			S	57 45.00	
FRS	2.25	204	iPd	57 18.00	-1.7
			S	57 43.00	
SLR	2.59	42	iPc	57 25.50	0.8
			S	57 56.50	
BUL	7.78	16	iPn	58 38.00	-0.1
			iSn	00 01.00	
			iSg	00 06.80	
CER	8.32	225	eP	59 01.00	15.6X
			(S)	00 36.00	
TUH	8.36	226	eP	58 51.50	5.5X
			(S)	00 30.00	
KRI	11.21	16	iPn	59 17.50	-7.9X
			iSn	01 16.20	
			iSg	02 38.00	
LSZ	12.46	8	iPn	59 42.00	-0.3
			iSn	01 57.00	
			iSg	03 19.00	
KMZ	14.17	358	iPn	00 04.00	-0.9
			iSn	02 39.50	
			iSg	04 19.00	

S.D. = 1.4 on 7 of 11 obs.

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* APR 11, 1989 18h 04m 25.55± 1.80s
24.056 N ±15.7km 120.846 E ±15.3km
DEPTH = 33.0km (normal)
TAIWAN (244)

QZH	2.24	294	ePn	05 01.50	0.5
			iSn	05 41.50	
GZH	6.95	264	eP	06 06.50	-1.2
SSE	7.02	2	eP	06 08.80	0.2
			eS	07 30.00	
			eLg	08 28.00	
NJ2	8.16	348	eP	06 24.60	0.0
			eS	07 53.40	
WHN	8.67	320	P	06 31.70	0.1
			eS	08 17.50	
GYA	13.06	284	P	07 30.60	-0.9
			S	09 56.60	
BJI	16.42	347	eP	08 25.00	10.0X
LZH	18.95	313	eP	08 29.00	-17.6X
CHG	21.04	260	eP	09 10.90	1.9
YKA	83.21	23	eP	16 48.90	-0.7

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

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* APR 11, 1989 19h 01m 20.23± 2.77s
11.736 N ± 9.8km 59.843 W ±33.0km
DEPTH = 10.0km (geophysicist)
NORTH ATLANTIC OCEAN (402)
ML 4.0 (FDF). MD 3.8 (TRN).

TBH	1.73	224	eP	01 52.88	2.4
			eS	02 15.20	
TRN	1.87	235	eP	01 51.12	-1.5
			eS	02 10.80	
SVB	2.05	318	iP	01 55.61	0.4
			eS	02 24.80	
SVV	2.07	320	eP	01 55.52	0.1
TPP	2.12	228	eP	01 55.39	-0.7
			eS	02 17.50	
TCE	2.14	241	eP	01 55.97	-0.5
			eS	02 21.17	
SLB	2.38	331	eP	02 00.39	0.4
			eS	02 31.53	
MVM	2.98	340	eP	02 08.29	-0.2
BIM	3.01	337	eP	02 09.04	0.2
			S	02 44.50	
CRM	3.18	341	eP	02 11.16	0.0
			S	02 47.00	
FDF	3.24	337	eP	02 12.62	0.5
			S	02 50.30	
BBL	4.09	337	eP	02 24.60	0.5
PAG	4.63	338	eP	02 32.20	0.3
			S	03 23.50	
DEG	4.70	346	eP	02 31.38	-1.6
			S	03 21.00	
SEG	4.91	341	eP	02 35.70	-0.2

S.D. = 1.0 on 15 of 15 obs.

APR 11, 1989 19h 40m 59.87± 0.67s
35.991 N ± 8.2km 139.951 E ± 7.1km
DEPTH = 63.7 ± 4.5 km
4.7mb (3 obs.)
NEAR S. COAST OF HONSHU, JAPAN (230)
Felt (III JMA) at Utsunomiyo, (II JMA) at Mito and (I JMA) at Kumogoyo and Nikko.

KAKJ	0.28	40	iP+	41 09.90	-0.4
			S	41 16.00	
KMG	0.48	289	iPd	41 11.60	-0.5
			iS	41 19.40	
UTS	0.55	353	iPd	41 12.00	-0.9
			iS	41 19.60	
MIT	0.57	47	iP+	41 13.10	0.1
			iS	41 22.30	
CHJJ	0.78	274	iPd	41 14.50	-1.0
NIIJ	1.46	329	P	41 23.90	-0.6
			S	41 42.20	
IIDJ	1.74	254	P	41 29.90	1.5
			S	41 50.80	
MTMJ	1.83	289	iPd	41 29.80	0.0
YAMJ	2.18	2	iPd	41 34.80	0.3
TSRJ	3.26	263	P	41 50.50	0.8
OFUJ	3.37	23	P	41 50.60	-0.6
WKYJ	3.99	245	P	41 59.90	0.0
AOMJ	4.57	4	eP	42 10.00	1.9
TKSJ	5.24	249	P	42 17.40	-0.2
YONJ	5.35	263	P	42 19.80	0.8
BJI	19.15	289	eP	45 22.00	1.2
GUN	46.09	276	P	49 19.50	-0.3
KKN	46.62	276	P	49 23.40	-0.4
GKN	47.05	277	P	49 26.30	-0.9
	0.8s		48.00nm		5.5mb
WRA	55.88	186	eP	50 33.50	0.2
MBC	57.86	16	eP	50 47.00	0.3
GBA	59.96	265	Pd	51 00.50	-1.5
	0.6s		3.00nm		4.6mb
YKA	65.30	30	eP	51 38.70	1.9
SUF	68.38	333	iP	51 55.50	-0.8
NUR	70.31	332	iP	52 07.50	-0.6
NB2	74.69	337	P	52 33.60	-0.4
	0.5s		1.50nm		4.2mb
ZOBO	148.23	59	PKP	00 43.80	5.9X
LPB	148.43	59	(PKP)	00 48.00	10.0X
CNCB	148.70	60	PKP	00 43.70	5.1X

S.D. = 1.0 on 26 of 29 obs.

? APR 11, 1989 20h 08m 41.64± 1.72s
5.529 S ±15.2km 29.568 E ±23.5km
DEPTH = 10.0km (geophysicist)
LAKE TANGANYIKA REGION (572)
MG 4.1 (LSZ).

KMZ	8.69	205	iPn	10 50.00	-0.6
			iSn	12 21.00	
			iSg	13 12.00	
PTZ	8.84	169	iPn	10 52.00	-0.5
			iSn	12 26.00	
			iSg	13 10.00	
LSZ	9.78	188	iPn	11 05.00	-0.6
			iSn	12 49.90	
			iSg	13 47.00	
KRI	11.23	180	iPnc	11 27.50	2.0
			iSn	13 26.90	
			iSg	14 37.90	
CLK	11.40	153	iPnd	11 27.30	-0.4
			iSn	13 28.20	
			iSg	14 39.00	
BNG	14.80	312	ePc	12 13.00	0.1
	0.5s		3.00nm		4.1mb
			ic	15 20.30	
			ic	16 24.00	
			ic	16 57.90	

S.D. = 1.3 on 6 of 6 obs.

% APR 11, 1989 20h 26m 21.65± 1.05s
60.257 N ± 5.3km 5.017 E ±12.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.5 (BER).

ASK	0.24	21	iP+	26 27.15	0.3
			iSg	26 30.60	
SUE	0.81	351	eP	26 37.13	-0.2
			eS	26 49.29	
			eSg	26 51.89	
ODD1	0.88	112	iP	26 38.18	-0.4
			eS	26 49.81	
			eSg	26 53.05	
KMY	1.05	174	iP	26 41.55	0.1
			iPg	26 43.29	
			S	26 56.51	
			iSg	26 58.43	
HYA	1.08	32	iP	26 41.88	0.0
			eS	26 53.27	
			eSg	26 57.09	
BLS1	1.26	133	eP	26 45.38	0.2
			eS	27 00.43	
			eSg	27 03.55	
NRA0	3.26	79	ePg	27 18.70	4.8X
			eSg	28 07.10	

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

APR 11, 1989 20h 40m 34.80± 0.31s
44.624 N ± 2.3km 7.043 E ± 3.8km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.5 (GEN), 2.4 (LDG).

PZZ	0.13	161	P	40 38.12	0.1
			S	40 40.23	
FOUF	0.21	243	P	40 38.74	-0.6
			Sg	40 41.27	
RRL	0.35	328	P	40 41.99	-0.1
			S	40 47.26	
STV	0.43	152	P	40 43.42	-0.2
			S	40 49.04	

11d 20h

RSP	0.55	16	P	40	46.10	0.2
			S	40	53.56	
ROB	0.68	119	P	40	48.04	-0.3
			S	40	57.54	
SBF	0.81	160	Pg	40	51.00	0.4
			Sg	41	01.30	
LSD	0.84	5	P	40	51.13	0.0
			S	41	01.86	
LPG	0.90	347	Pg	40	52.30	0.1
			Sg	41	04.10	
LPL	0.92	346	Pg	40	52.60	0.1
			Sg	41	04.60	
FIN	0.93	116	P	40	52.37	-0.3
			S	41	04.87	
IMI	0.94	139	P	40	52.63	-0.1
			S	41	05.13	
FRF	1.10	195	Pg	40	55.80	0.3
			Sg	41	09.00	
LRG	1.27	203	Pg	40	58.60	0.3
			Sg	41	15.30	
LMR	1.35	197	Pg	40	59.60	0.0
			Sg	41	17.00	

S.D. = 0.3 on 15 of 15 obs.

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* APR 11, 1989 21h 26m 12.64± 1.86s
41.956 N ±15.2km 19.212 E ± 8.6km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MD 2.2 (TTG).

ULC	0.03	76	iPgd	26	12.60	-2.1
			iSg	26	13.50	
BDV	0.43	319	iPgc	26	20.70	-0.8
			iSg	26	28.00	
TTG	0.47	4	ePg	26	21.50	-0.8
			eSg	26	29.50	
HCY	0.72	313	ePg	26	26.00	-0.8
			eSg	26	37.40	
PVY	0.85	41	ePg	26	29.20	0.0
			eSg	26	41.00	
NKY	0.87	350	ePg	26	29.00	-0.5
			eSg	26	42.00	
IVA	1.05	29	ePg	26	32.40	0.0
			eSg	26	47.00	
BRY	1.07	333	ePg	26	34.50	1.7
			eSg	26	50.00	
PLE	1.38	6	ePg	26	40.80	2.8X
			eSg	27	02.50	
SKO	1.66	89	iPn	26	43.00	1.1

S.D. = 1.3 on 9 of 10 obs.

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* APR 11, 1989 22h 02m 26.78± 2.83s
40.727 N ± 9.0km 29.739 E ±23.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT	0.11	330	ePg	02	29.00	-0.7
GBZT	0.23	286	ePg	02	38.20	6.5X
YLV	0.32	240	iPg	02	32.80	-0.7
			iSg	02	38.80	
ISK	0.62	304	ePg	02	40.00	0.8
CTT	1.08	293	ePn	02	47.00	0.0
DST	1.41	218	ePn	02	53.00	0.5

S.D. = 1.0 on 5 of 6 obs.

& APR 11, 1989 22h 57m 53.29s
60.137 N 153.036 W
DEPTH = 120.3km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.07	146	iP	58	09.42	1.0
			eS	58	22.25	
RED	0.31	25	iP	58	09.78	0.7
			eS	58	23.61	
RDT	0.54	35	iP	58	11.19	-0.7
			eS	58	25.89	
PDB	0.68	239	iP	58	11.93	-0.8
AUL	0.78	195	iP	58	12.92	-0.7
			eS	58	27.74	
AUI	0.83	194	iP	58	13.11	-0.9
			eS	58	27.68	
HOM	0.85	124	eP	58	13.72	-0.5
			eS	58	30.24	
NNL	0.88	95	iP	58	14.51	0.0
XLV	0.95	135	iP	58	14.15	-1.0
			eS	58	30.56	
NKA	1.08	55	iP	58	17.30	0.9
CNPM	1.10	123	iP	58	15.92	-0.7
			eS	58	33.70	
BRLK	1.15	108	eP	58	16.06	-1.1
SPU	1.15	24	iP	58	16.54	-0.8
			eS	58	34.61	
CRP	1.21	21	iP	58	17.48	-0.6
			eS	58	35.00	
CGLM	1.28	23	iP	58	17.99	-0.7
SLKM	1.45	74	iP	58	19.43	-1.1
			eS	58	39.14	
SVW	1.60	309	iP	58	20.89	-1.5
SEW	1.80	90	iP	58	23.27	-1.4
PMS	2.04	55	eP	58	26.40	-1.4
PWA	2.17	44	eP	58	27.80	-1.5
PLRM	2.40	51	eP	58	31.10	-1.3
PMR	2.40	51	eP	58	30.90	-1.5
KDC	2.41	173	iPd	58	29.80	-2.7
GHO	2.59	49	eP	58	32.77	-2.2
KNIM	2.65	83	iP	58	32.65	-3.0
			eS	59	03.87	
MTU	2.70	91	eP	58	34.89	-1.4
			eS	59	06.73	
GLI	3.03	73	eP	58	39.15	-1.5
TTA	3.14	334	ePd	58	40.10	-2.2
FID	3.31	76	eP	58	42.20	-2.2
			eS	59	17.65	
VZW	3.33	71	eP	58	41.91	-2.8
			eS	59	18.26	
VLZ	3.45	70	iP	58	44.99	-1.2
			eS	59	22.51	
KTH	3.57	15	eP	58	45.80	-2.2
KLU	3.74	66	eP	58	47.49	-2.8
			eS	59	29.04	
TOA	3.87	56	ePc	58	50.10	-1.9
GLB	4.71	70	eP	59	01.84	-1.5
BALM	5.35	76	eP	59	10.06	-2.1
			eS	00	07.28	
FBA	5.36	25	eP	59	09.20	-3.0
CTGM	5.83	77	eP	59	17.32	-1.5
IMA	5.96	357	eP	59	18.40	-2.2
PCA	6.39	85	eP	59	24.95	-1.4
YKA	18.41	66	P	01	57.90	-3.5
MBC	19.90	23	eP	02	13.00	-3.9

42 obs. ossocioted

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* APR 11, 1989 23h 08m 02.82± 0.67s
18.261 N ±13.7km 65.339 W ± 5.6km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)
Minor damage in eastern Puerto Rico. Felt throughout eastern Puerto Rico ond western Virgin Islands.

LPR	0.51	275	P	08	14.20	1.1
CSB	0.78	272	P	08	18.50	0.5
SJG	0.79	259	iP	08	19.00	0.9
APR	1.34	279	P	08	26.00	-1.4
MGP	1.68	262	P	08	32.30	-0.1
MCP	1.69	276	P	08	30.80	-1.7
SKDB	2.56	109	eP	08	44.28	-0.7
			eS	09	15.78	
SKI	2.64	110	eP	08	46.97	0.7
ANG	3.52	108	eP	08	53.11	-5.6X
			eS	09	31.52	
SGS	20.16	320	P	12	41.00	0.9
JSC	21:36	321	P	12	58.10	5.6X
PRM	21.90	319	P	13	05.20	7.3X
CVL	22.75	332	P	13	06.00	-0.4
BLA	23.06	328	P	13	23.10	13.6X
	0.9s		20.44nm			
TKL	23.81	320	P	13	32.20	15.5X
GBTN	24.08	320	P	13	35.40	16.1X
RSCP	24.90	318	P	13	45.20	17.9X
	0.4s		2.97nm			
YKA	55.68	335	P	17	41.70	0.4
MBC	64.15	348	eP	18	32.00	-7.3X

S.D. = 1.1 on 11 of 19 obs.

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* APR 12, 1989 00h 01m 19.61± 0.80s
31.160 N ± 8.4km 50.539 E ±11.4km
DEPTH = 33.0km (normal)
IRAN (348)

SHI	2.29	131	eP	01	56.00	0.0
KER	4.30	319	eP	02	25.00	0.5
TEH	4.62	9	ePc	02	24.50	-4.6X
DHR	4.85	184	eP	01	33.50	-58.7X
BBU	4.93	181	iP	02	34.70	1.4
	0.3s		26.00nm			
BEE	5.12	180	eP	02	39.50	3.4X
BJA	5.15	179	iP	02	34.90	-1.5
BHD	5.62	294	eP	02	50.00	6.9X
			i	03	28.00	
			iS	04	02.00	
			i	04	10.00	
SLY	6.11	318	eP	02	49.50	-0.5
			i	03	41.00	
			i	03	43.00	
TAB	7.71	334	eP	03	28.00	15.4X
QASM	7.96	232	eP	03	05.70	-10.3X
MAIO	9.05	53	eP	03	31.00	0.0
KMSA	12.04	208	eP	04	04.30	-7.6X

S.D. = 1.3 on 6 of 13 obs.

? APR 12, 1989 01h 28m 14.85± 1.39s
0.529 N ±14.4km 132.572 E ±48.8km
DEPTH = 33.0km (normal)
4.9mb (1 obs.) 3.9Msz (1 obs.)
WEST IRIAN REGION (196)

MTN	13.37	186	eP	31	24.00	-0.8
KNA	16.61	193	iPc	32	06.90	0.0
WRA	20.42	175	iPd	32	51.40	-0.7
QIS	22.06	162	eP	33	08.00	-0.7
ASPA	24.09	177	iPd	33	30.90	2.4
	1.0s		44.00nm			4.9mb
	Z 21s		0.45um			3.9Msz
			eS	37	44.50	
			LR	43	40.10	
BJI	42.07	341	eP	36	05.00	-0.2
GUN	52.32	306	P	37	33.00	6.6X

S.D. = 1.6 on 6 of 7 obs.

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* APR 12, 1989 03h 37m 32.70± 0.90s
39.265 N ± 7.8km 23.560 E ±10.0km
DEPTH = 11.5 ± 7.1 km
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.26	279	ePb	37	38.10	-0.3
PLG	1.11	355	ePn	37	53.60	0.2
			eSn	38	10.00	
ATH	1.30	175	ePb	37	55.60	-1.0
			eSn	38	11.00	
KZN	1.73	308	ePn	38	03.10	0.3
PRK	2.11	90	ePn	38	10.00	1.8
VAY	2.19	340	ePn	38	10.00	0.6
MMB	2.32	3	iPc	38	10.00	-1.4
			iS	38	38.00	
RZN	2.58	20	iPc	38	14.00	-1.1
			e	38	40.00	
			S	38	56.00	
KKB	2.62	352	iP	38	15.00	-0.7
			e	38	47.00	
OHR	2.81	312	ePn	38	20.00	1.7

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

APR 12, 1989 04h 26m 07.46± 0.40s
44.245 N ± 2.4km 6.753 E ± 3.6km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.3 (GEN), 2.1 (LDG).

FOUF	0.28	4	P	26	13.00	-0.4
			Sg	26	16.95	
PZZ	0.36	44	P	26	15.00	0.1
			S	26	20.57	
STV	0.41	90	P	26	15.77	-0.1
			S	26	21.83	
TOUF	0.43	123	Pg	26	16.03	-0.2
MVIF	0.45	140	Pg	26	17.02	0.3
			Sg	26	23.90	
AUTN	0.55	117	Pg	26	18.84	0.3
AURF	0.55	131	Pg	26	18.59	0.0
			Sg	26	26.78	
SBF	0.62	128	Pg	26	19.40	-0.6
			Sg	26	29.00	
SAOF	0.63	114	Pg	26	20.05	-0.2
RRL	0.68	2	P	26	20.58	-0.5
			S	26	29.71	
FRF	0.69	186	Pg	26	20.60	-0.5
			Sg	26	30.10	

ROB	0.80 86	P	26 23.45	0.3	
		S	26 33.50		
LRG	0.84 200	Pg	26 24.50	0.8	
		Sg	26 34.80		
IMI	0.88 112	P	26 24.66	0.2	
		S	26 36.34		
LMR	0.93 191	Pg	26 24.80	-0.4	
		Sg	26 37.30		
FIN	1.05 91	P	26 27.35	0.1	
		S	26 40.23		
LPG	1.25 360	Pg	26 31.40	0.5	
LPL	1.27 359	Pg	26 31.50	0.3	

S.D. = 0.4 on 18 of 18 obs.

APR 12, 1989 04h 46m 59.98± 0.22s
44.299 N ± 2.8km 10.798 E ± 2.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
MD 3.7 (TRI), ML 3.7 (LDG), 3.6 (KBA). Felt at Pistoio.

MME	0.13 214	Pd	47 03.50	0.2	
BDI	0.28 212	Pd	47 06.00	0.2	
		eSg	47 10.20		
PII	0.61 199	Pc	47 11.60	-0.7	
FIR	0.62 147	iPgc	47 11.70	-0.7	
		iSg	47 22.00		
PGD	0.79 122	P	47 15.30	-0.1	
		eSg	47 27.80		
SFI	0.85 116	P	47 16.90	0.6	
		eSg	47 27.50		
CRE	1.07 128	P	47 20.80	0.6	
		eSg	47 35.00		
BOB	1.07 296	P	47 21.80	1.6	
		eSg	47 38.10		
RSM	1.25 107	P	47 24.20	1.1	
SAL	1.32 352	P	47 25.90	1.5	
		eSg	47 45.90		
GEN	1.35 276	Pn	47 25.51	0.8	
		Pg	47 26.84		
		Sn	47 42.07		
MDI	1.67 333	P	47 32.50	3.2X	
		eSn	47 54.10		
ARV	1.74 117	P	47 31.60	1.1	
CKI	1.81 275	P	47 31.50	0.1	
		eSn	47 55.60		
ASS	1.83 132	P	47 30.30	-1.4	
CTI	1.85 19	P	47 31.90	-0.2	
		eSg	47 56.50		
FIN	1.86 268	Pn	47 32.13	-0.1	
		Pg	47 35.15		
		Sn	47 53.92		
MAO	1.90 172	P	47 32.10	-0.6	
CIO	2.03 122	e(Pn)	47 35.34	0.7	
		i(Sn)	48 16.04		
VVI	2.04 34	P	47 36.20	1.4	
ROB	2.10 271	Pn	47 35.46	-0.3	
		Pg	47 38.38		
		Sn	47 59.76		
VAI	2.13 318	P	47 38.10	2.1	
IMI	2.13 261	P	47 35.38	-0.8	
		S	47 59.15		
AOI	2.16 109	ePn	47 38.89	2.4	
		iSn	48 18.08		
CVF	2.23 220	Pn	47 36.16	-1.4	
		Sg	48 00.92		
MNS	2.35 144	P	47 39.10	-0.2	
SAOF	2.36 264	Pn	47 39.40	0.1	
ORO	2.40 305	P	47 41.20	1.2	
ORX	2.40 305	P	47 40.92	0.8	
		S	48 10.07		
AUTN	2.45 264	Pn	47 40.69	-0.1	
		Sg	48 17.46		
SBF	2.46 261	Pn	47 40.20	-0.7	
		Sn	48 11.40		
STV	2.50 270	P	47 41.53	0.2	
		S	48 09.76		
ALP	2.53 126	e(Pn)	47 43.77	1.9	
		i(Sn)	48 17.60		
TRI	2.53 55	iPnc	47 40.70	-1.1	
		iSg	48 11.00		
		i	48 30.70		
AURF	2.53 262	Pn	47 41.52	-0.4	
REVF	2.54 258	Pn	47 41.48	-0.4	
DOI	2.55 276	P	47 42.50	0.3	
TOUF	2.57 265	Pn	47 42.78	0.2	
		Sg	48 20.65		
MVIF	2.66 263	Pn	47 43.69	-0.1	
PZZ	2.66 276	P	47 40.84	-2.9X	
RSP	2.66 290	P	47 46.38	2.6	
FVI	2.69 31	P	47 43.80	-0.2	
VOY	2.79 51	iPnc	47 44.70	-0.9	
		eSn	48 19.40		
CALN	2.87 260	Pn	47 46.76	0.0	
		Sg	48 30.36		
FOUF	2.89 276	Pn	47 47.00	0.2	
		(Sn)	48 22.10		
RBL	2.90 41	P	47 46.10	-1.0	
RRL	2.93 284	P	47 49.02	1.3	
		S	48 19.45		
CEY	2.95 59	ePn	47 46.50	-1.2	
		eSn	48 22.00		
BNI	3.04 286	P	47 49.30	0.2	
FRF	3.09 258	Pn	47 49.10	-0.6	
		Sn	48 25.30		
LPG	3.12 294	Pn	47 50.50	0.2	
		Sn	48 28.20		
LPL	3.14 294	Pn	47 51.00	0.4	
LJU	3.17 55	e(Pn)	47 50.40	-0.4	
		eSn	48 28.50		
LMR	3.25 254	Pn	47 50.60	-1.4	
		Sn	48 27.20		
KBA	3.30 32	iPnc	47 54.90	2.0	
		iPgc	48 06.30		
		i	48 07.50		
		i	48 31.00		
		iSn	48 35.10		
		i	48 48.40		
		iSg	48 53.10		
LRG	3.32 257	Pn	47 52.40	-0.6	
		Sn	48 30.20		
VBY	3.39 68	ePn	47 53.60	-0.4	
		e(Sn)	48 34.00		
TAVF	3.49 260	Pn	47 55.79	0.4	
GANF	3.53 267	Pn	47 56.95	0.9	
VILF	3.69 265	Pn	47 58.89	0.6	
PUYF	3.76 260	Pn	47 59.36	0.0	
PTJ	3.99 65	ePn	48 03.10	0.6	
		eSn	48 43.70		
GELF	3.99 259	Pn	48 02.37	-0.2	
CDF	4.78 331	Pn	48 13.40	-0.4	
HAU	4.83 322	Pn	48 14.20	-0.2	
		Sn	49 08.40		
KHC	5.20 21	iP	48 19.00	-0.6	
		e	48 37.50		
GRF	5.40 3	e(Pn)	48 47.00	24.5X	
SMF	5.43 298	Pn	48 23.00	0.1	
		Sn	49 22.90		
LBF	5.48 302	Pn	48 23.80	0.0	
		Sn	49 25.80		
LOR	5.69 304	Pn	48 26.70	0.1	
		Sn	49 30.20		
SSF	5.81 301	Pn	48 28.00	-0.2	
BGF	6.03 295	Pn	48 31.10	-0.3	
MAF	6.12 291	Pn	48 32.30	-0.3	
PRU	6.24 23	eP	48 47.50	13.3X	
		e	50 26.50		
CAF	6.27 279	Pn	48 33.30	-1.5	
MOX	6.38 5	eP	48 45.00	8.8X	
		e	49 43.00		
		e	49 55.00		
BRG	6.91 17	ePn	48 42.00	-1.8	
		ePg	49 15.00		
		eSg	50 55.00		
CLL	7.17 11	e(P)	48 45.00	-2.3	
		e	50 23.00		
DOU	7.17 326	P	49 02.10	14.7X	
KSP	7.53 28	eP	48 49.70	-2.7	
		e	51 24.50		
EPF	7.69 264	Pn	48 52.10	-2.6	

S.D. = 1.1 on 75 of 81 obs.

APR 12, 1989 05h 05m 15.96± 0.26s
13.308 N ± 4.3km 39.984 E ± 4.1km
DEPTH = 33.0km (normol)
4.9mb (29 obs.)
ETHIOPIA (558)
ML 5.0 (ARO).

DAF	3.01 124	eP+	06 02.00	-0.4	
SGH	3.19 125	eP+	06 05.02	0.0	
TDD	3.22 117	eP+	06 03.20	-2.2	
ARO	3.31 122	eP+	06 06.48	-0.3	
AAE	4.42 196	eP	06 23.50	0.7	
ABHA	5.59 28	ePc	06 38.10	-1.1	
TAIF	7.95 2	ePd	07 12.60	0.3	
QASM	13.15 14	eP	08 24.70	1.7	
AYN	15.92 347	ePd	09 04.00	4.8X	
SRFA	16.17 345	ePd	09 07.30	4.9X	
HQL	16.53 345	ePd	09 04.00	-2.9	
LWI	19.02 216	e(P)	09 49.50	11.4X	
		eS	13 37.00		
BNG	22.92 249	iPc	10 18.80	0.4	
	0.6s	15.00nm		4.7mb	
		id	10 30.90		
SKO	32.79 334	iP	11 48.50	0.2	
	1.4s	40.00nm		5.1mb	
MLR	34.22 342	iPd	12 03.20	2.4	
CLI	34.82 345	eP	12 07.00	1.2	
BZS	35.77 338	eP	12 13.50	-0.3	
GBA	36.40 85	Pd	12 28.70	9.2X	
	0.4s	0.40nm		3.7mb X	
PTJ	38.31 333	eP	12 35.30	0.0	
VOY	39.36 331	eP	12 44.90	0.8	
ZST	39.64 336	eP	12 46.30	0.0	
KRA	40.15 340	iPd	12 51.00	0.5	
	0.7s	30.00nm		5.2mb	
		e	13 06.30		
FVI	40.30 331	Pc	12 52.50	0.9	
KBA	40.39 332	iPd	12 53.20	0.5	
	1.1s	15.80nm		4.7mb	
		i	12 57.00		
IMI	41.05 324	P	12 57.13	-0.9	
FIN	41.05 325	P	12 58.06	0.1	
ROB	41.30 325	P	13 00.21	0.2	
STV	41.58 324	P	13 02.98	0.6	
KHC	41.82 334	iPd	13 04.20	-0.1	
	1.0s	10.50nm		4.5mb	
PZZ	41.86 324	P	13 03.59	-1.2	
PRU	42.09 336	eP	13 05.50	-0.8	
KSP	42.09 338	eP	13 06.80	0.4	
RSP	42.17 325	P	13 06.47	-0.8	
RRL	42.29 325	P	13 08.41	0.0	
LSD	42.42 326	P	13 09.23	-0.2	
LPG	42.67 325	eP	13 10.60	-0.9	
	0.8s	6.70nm		4.4mb	
BRG	43.02 336	iP	13 13.50	-0.4	
	1.3s	20.00nm		4.7mb	
GRF	43.27 333	eP	13 15.60	-0.4	
CLL	43.73 336	iPd	13 18.90	-0.8	
	1.3s	17.00nm		4.7mb	
MOX	43.80 334	ePc	13 20.00	-0.3	
	1.6s	34.00nm		4.9mb	
GKN	44.01 63	P	13 23.10	0.5	
CDF	44.25 329	eP	13 23.70	-0.4	
	0.8s	9.40nm		4.7mb	
DMN	44.36 64	P	13 26.20	0.7	
HAU	44.46 328	eP	13 25.10	-0.6	
	0.8s	12.10nm		4.8mb	
KKN	44.54 64	P	13 27.50	0.6	
	0.7s	11.00nm		4.8mb	
KIC	44.55 266	P	13 26.70	-0.2	
PKI	44.62 64	P	13 27.70	0.0	
TIC	44.76 266	P	13 28.40	-0.2	
LIC	44.86 265	P	13 29.40	0.0	
CAF	45.05 322	eP	13 31.30	0.8	
	0.8s	10.75nm		4.8mb	
GUN	45.08 64	P	13 31.80	0.4	
LBF	45.10 325	eP	13 30.30	-0.6	
	0.8s	19.50nm		5.1mb	
LOR	45.33 326	eP	13 32.20	-0.5	
	0.8s	17.45nm		5.0mb	
AVF	45.33 325	eP	13 31.70	-1.0	
	0.6s	11.70nm		5.0mb	
SSF	45.41 325	eP	13 32.60	-0.7	
	0.6s	4.50nm		4.6mb	
LPO	45.45 321	eP	13 34.10	0.5	
	0.7s	8.80nm		4.8mb	
MAF	45.46 324	eP	13 33.70	0.0	
	0.8s	10.75nm		4.8mb	
BGF	45.49 324	eP	13 33.70	-0.2	
	0.8s	22.85nm		5.1mb	
RJF	45.58 322	eP	13 35.20	0.6	
	0.8s	8.05nm		4.7mb	
LFF	45.85 321	eP	13 37.50	0.7	
	0.7s	17.65nm		5.1mb	
MEM	46.32 331	Pc	13 40.90	0.6	
ENN	46.46 331	eP	13 42.00	0.5	
	1.0s	20.00nm		5.0mb	
		e	13 46.00		
DOU	46.68 329	Pc	13 43.00	-0.2	

12d 05h

	0.7s	15.50nm			5.1mb	
WTS	46.88	332	eP	13	45.50	0.8
	1.1s	32.00nm			5.2mb	
NUR	48.45	350	iP	13	56.80	-0.1
	0.6s	15.60nm			5.2mb	
SUF	50.32	352	iP	14	11.20	0.0
	0.5s	11.00nm			5.1mb	
NB2	52.04	343	P	14	23.30	-1.2
	0.9s	12.60nm			4.9mb	
EKA	53.59	331	P	14	35.00	-0.9
	0.7s	8.80nm			4.9mb	
SOD	54.73	354	iP	14	43.70	-0.5
GYA	63.46	67	P	15	46.00	0.5
CN2	77.67	48	eP	17	12.00	1.0
ALE	78.50	352	eP	17	16.00	1.1
MBC	89.77	355	eP	18	13.00	1.0
S.D. = 0.8		on	69 of	73	obs.	

& APR 12, 1989 06h 39m 38.40s
37.805 N 121.732 W
DEPTH = 12.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.6 (BRK).
Mo=5.1*10**14 Nm (BRK). Felt (IV) at Dublin and Pleasanton; (III) at San Lorenzo. Also felt at Livermore.

BKS	0.40	280	iPc	39	46.45	-0.3
			i	39	46.85	
			iS	39	52.70	
BRK	0.42	279	iPc	39	46.70	-0.4
ZSP	0.44	289	iPc	39	47.20	-0.2
MHC	0.47	171	iPd	39	47.90	-0.2
			iS	39	54.75	
ARN	0.48	161	iPc	39	47.90	-0.4
PCC	0.60	240	iPc	39	49.60	-0.7
GCC	0.80	195	iPc	39	52.90	-0.9
SAO	1.06	167	eP	39	56.80	-1.4
CMB	1.09	77	iPc	39	57.70	-1.0
NWRM	1.12	306	eP	39	57.60	-1.6
LLA	1.34	152	iPd	40	01.70	-1.2
ORV	1.76	6	eP	40	07.50	-1.3
FRI	1.80	116	iPc	40	07.90	-1.6
PHAM	2.24	151	eP	40	14.80	-1.0
LTCM	2.42	353	eP	40	17.00	-1.3
BCH	2.93	153	eP	40	23.70	-2.1
PPK	3.06	96	eP	40	30.00	2.4
KVN	3.11	65	eP	40	27.30	-1.1
LBFM	3.54	358	eP	40	34.00	-0.5
ABL	3.58	145	eP	40	33.00	-2.0
YMT4	4.32	101	eP	40	45.40	-0.1
TMBR	4.33	99	eP	40	44.30	-1.3
YMT6	4.35	101	eP	40	45.70	-0.2
CDH1	4.42	101	eP	40	46.10	-0.8
LSM	4.48	102	eP	40	47.30	-0.5
NOP	4.77	109	eP	40	50.80	-1.1
EUR	4.81	68	iP	40	51.20	-1.4
27 obs. associated						

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* APR 12, 1989 06h 47m 31.00± 2.83s
11.281 S ±13.0km 167.101 E ±15.5km
DEPTH = 41.7 ± 22.8 km
4.8mb (3 obs.)
SANTA CRUZ ISLANDS (184)

HNR	7.27	284	eP	49	18.00	0.5
			eS	50	52.00	
DZM	10.75	183	iPc	50	05.10	-0.4
BRS	20.93	218	iPc	52	13.30	0.6
CTA	21.88	244	eP	52	23.00	0.8
			iS	56	37.00	
RMO	22.98	226	eP	52	34.40	1.4
WB5	32.62	251	eP	54	00.00	-1.2
WRA	32.65	251	Pd	54	00.60	-0.9
	0.9s	3.80nm			4.3mb	
GUMO	33.12	318	eP	54	21.00	15.5X
ASPA	33.88	244	eP	54	10.60	-1.6
Z	22s	0.78um			4.4MszX	
			LR	06	15.40	
BJI	69.50	320	(P)	58	36.50	-0.9
LZH	75.90	312	eP	59	16.00	0.5
SPA	78.79	180	e(P)	59	30.80	-0.1
	1.0s	14.50nm			4.9mb	
EUR	87.21	49	iP	00	14.50	-0.2
	0.2s	2.79nm			5.2mb	
SOB1	145.51	125	ePKP	07	06.80	-0.6
			e	07	11.10	
BNG	148.14	260	iPKPd	07	14.00	2.4
	0.7s	33.00nm				
			i	07	19.80	
			i	07	45.90	
S.D. = 1.2		on	14 of	15	obs.	

APR 12, 1989 07h 26m 27.92± 0.56s
41.440 N ± 6.2km 142.227 E ±10.2km
DEPTH = 72.0 ± 7.2 km
4.1mb (1 obs.)
HOKKAIDO, JAPAN REGION (224)
Felt (II JMA) at Hochinohe.

HAC	1.06	210	eP	26	48.00	0.5
			S	27	00.30	
HOOJ	1.23	40	P	26	51.10	1.4
			S	27	08.90	
MRRJ	1.31	319	iPd	26	49.60	-1.1
			eS	27	05.70	
AOMJ	1.66	239	P	26	55.40	0.0
			S	27	15.90	
OFUJ	2.40	190	P	27	05.80	0.1
			eS	27	34.90	
KUSJ	2.48	47	eP	27	06.90	0.1
			S	27	36.00	
ASAJ	2.69	6	eP	27	08.80	-1.0
YAMJ	3.67	208	eP	27	23.80	0.3
NIIJ	4.88	212	eP	27	41.90	1.4
KAKJ	5.47	198	eP	27	46.60	-2.0
			eS	28	48.30	
MAT	5.81	214	(P)	27	47.00	-6.4X
MTMJ	5.95	217	P	27	56.70	1.3
IIDJ	6.85	211	eP	28	05.90	-1.9
BJI	19.77	275	eP	30	51.00	-3.7X
CHG	43.13	252	eP	34	23.80	0.9
GUN	47.49	272	P	34	58.70	0.7
KKN	48.00	272	P	35	01.50	-0.3
PKI	48.02	272	P	35	02.10	0.0
DMN	48.23	272	P	35	04.20	0.6
GKN	48.37	273	P	35	05.10	0.5
WB5	61.44	188	eP	36	37.80	-1.2
NB2	70.38	337	P	37	35.20	-0.4
	0.4s	0.90nm			4.1mb	
BUL	120.58	269	iPdiff	41	51.90	13.6X
S.D. = 1.1		on	20 of	23	obs.	

& APR 12, 1989 08h 40m 38.70s
31.700 N 115.760 W
DEPTH = 6.0km (geophysicist)
BAJA CALIFORNIA (48)
<PAS-P>. ML 3.4 (PAS).

IKP	0.99	343	ePd	40	56.90	-1.0
BAR	1.25	322	iPc	41	01.10	-1.1
GLA	1.56	30	iPd	41	06.00	-1.1
CPE	1.63	316	iPc	41	07.70	-0.4
PLM	1.89	331	ePc	41	11.90	-0.1
PEC	2.48	332	eP	41	19.70	-0.7
ABL	4.27	318	eP	41	46.00	0.0
OSM	4.35	348	eP	41	45.90	-1.0
NOP	4.43	356	eP	41	47.00	-1.1
GWY	4.54	351	eP	41	48.50	-1.1
JON	4.74	357	eP	41	51.50	-0.9
PANV	4.82	347	eP	41	52.40	-1.3
SDH	4.96	355	eP	41	55.20	-0.3
SPRG	4.98	360	eP	41	55.30	-0.6
BCH	5.01	315	eP	41	56.40	0.0
LSM	5.05	355	eP	41	56.00	-0.8
YMT3	5.10	354	eP	41	56.60	-1.0
CPX	5.22	357	eP	41	58.10	-1.2
TMBR	5.35	355	eP	42	00.30	-0.9
SGV	5.37	349	eP	42	00.50	-1.0
PHAM	5.65	318	eP	42	05.00	-0.3
LCH	5.74	345	eP	42	06.00	-0.6
DLM	5.95	8	eP	42	09.00	-0.7
KVN	7.58	346	eP	42	31.80	-0.8
24 obs. associated						

APR 12, 1989 10h 05m 43.21± 0.36s
38.098 N ± 4.0km 22.029 E ± 2.8km
DEPTH = 10.0km (geophysicist)
4.4mb (10 obs.) 3.7Msz (1 obs.)
GREECE (364)
ML 4.3 (ATH). Minor damage at Leondion. Felt throughout Akhaia.

ITM	0.92	185	ePg	05	59.50	-1.3
VLS	1.14	274	iPbc	06	02.50	-2.0
ATH	1.34	95	iPgc	06	09.10	1.2
NEO	1.53	37	ePb	06	11.50	0.9
KZN	2.21	355	ePn	06	21.50	0.9
SRN	2.38	319	iPn	06	25.10	2.3
PLG	2.52	25	ePn	06	23.50	-1.4
KBN	2.69	340	iPnd	06	30.70	3.4X
BERA	3.06	329	ePn	06	34.60	2.2
VLO	3.08	321	ePn	06	36.40	3.7X
OHR	3.16	343	iPn	06	35.70	1.8
VAM	3.20	146	ePn	06	35.00	0.5
VAY	3.25	7	iPn	06	35.30	0.2
PRK	3.51	70	ePn	06	39.00	0.1
TIR	3.65	333	ePn	06	41.00	0.1
MMB	3.72	20	iPd	06	41.00	-1.0
			iS	07	14.00	
EZN	3.77	61	iP	06	42.30	-0.3
PHP	3.79	342	iPnd	06	44.00	1.2
KKB	3.85	12	iPd	06	44.00	0.2
			S	07	25.00	
LCI	3.87	306	P	06	43.00	-1.1
SKO	3.90	354	iPnd	06	45.10	0.7
	1.1s	150.00nm				
			iPb	06	52.70	
			iSn	07	31.50	
			iSb	07	42.50	
			iSg	07	49.00	
			LR	08	19.00	
LACI	3.96	334	iPnd	06	46.60	1.4
NPS	4.04	133	ePn	06	46.70	0.3
RDO	4.07	41	ePn	06	45.70	-1.2
IZM	4.13	84	iP	06	48.10	0.4
RZN	4.14	29	iPd	06	48.00	0.0
			S	07	37.00	
KKS	4.16	343	ePn	06	52.50	4.4X
PUK	4.27	338	ePn	06	50.70	1.1
SDA	4.37	334	ePn	06	53.60	2.5
KDZ	4.40	35	iPc	06	50.00	-1.6
			iS	07	28.00	
			iSg	07	40.00	
ULC	4.41	332	ePn	06	52.00	0.3
			eSn	07	40.00	
PLD	4.50	26	eP	06	54.00	1.1
BCI	4.52	341	ePn	06	54.50	1.3
VTS	4.58	11	iP	06	55.00	0.8
			iSg	08	00.00	
BRT	4.65	308	Pd	06	54.30	-0.9
TDS	4.71	291	P	06	56.90	0.9
SOI	4.71	272	P	07	05.50	9.5X
PGB	4.74	19	eP	06	56.00	-0.4
			eS	07	59.00	
DIM	4.77	33	eP	06	56.00	-0.9
TTG	4.82	335	ePn	06	58.00	0.6
			eSn	07	50.30	
BDV	4.85	331	ePn	06	57.50	-0.4
			eSn	07	50.00	
KAP	4.85	120	ePn	06	59.00	1.1
EDC	5.06	62	eP	07	02.00	1.1
YER	5.06	99	iP	07	01.40	0.5
BNT	5.10	62	iP	07	00.00	-1.5
HCY	5.11	329	ePn	07	01.00	-0.7
			eSn	07	57.20	
DST	5.37	72	iP	07	04.90	-0.4
BRY	5.48	332	ePn	07	06.60	-0.4
			eSn	08	06.00	
JMB	5.58	37	eP	07	06.00	-2.3
			S	08	34.00	
PLE	5.60	340	ePn	07	08.10	-0.5
			eSn	08	10.00	
DMK	5.76	48	eP	07	10.00	-0.8
SGO	5.76	297	P	07	10.40	-0.4
KHL	5.91	86	iP	07	13.50	0.6
BSS	6.20	298	P	07	16.00	-1.0
YLV	6.20	64	iP	07	16.50	-0.6
KSL	6.35	106	ePn	07	20.00	0.9
ALT	6.40	79	iP	07	19.70	-0.3
ELL	6.41	100	iP	07	22.10	1.9
HRT	6.51	63	eP	07	19.00	-2.4
HVAR	6.61	322	ePn	07	20.70	-2.1
			iSn	08	35.20	
GPA	6.79	69	iP	07	25.10	-0.3
BCK	6.81	93	iP	07	26.30	0.6
BEO	6.82	351	ePn	07	27.00	1.3
			eSg	09	39.00	
DUI	6.82	304	Pc	07	25.30	-0.6
BUC1	6.93	25	eP	06	44.00	-43.2X

PSN	7.27	38	iPc	07	32.00	0.0
SDI	7.27	302	P	07	31.70	-0.4
CMP	7.51	16	ePd	07	37.00	1.6
BZS	7.52	358	eP	07	41.00	5.5X
MLR	7.94	20	iPc	07	40.00	-1.6
MNS	8.33	304	P	07	46.50	-0.5
VRI	8.51	23	ePc	07	49.00	-0.4
BBTK	8.54	75	eP	07	50.00	0.1
ASS	8.69	308	P	07	51.00	-0.9
ARV	8.75	311	P	07	50.50	-2.2
VBY	8.96	328	ePn	07	56.30	0.8
			eSn	09	34.60	
PTJ	9.01	332	e(P)	07	57.40	1.1
			e	09	31.00	
CRE	9.42	309	P	08	01.00	-1.0
PGD	9.69	310	P	08	05.00	-0.9
LJU	9.70	327	e(Pn)	08	06.10	0.4
			e(Sn)	09	43.80	
TRI	9.78	324	eP	08	06.40	-0.5
			e	09	54.20	
VOY	9.97	325	eP	08	06.90	-2.6
			eS	09	54.80	
RBL	10.43	326	P	08	20.00	4.2X
FVI	10.90	324	P	08	25.50	3.4X
KBA	11.02	327	eP	08	20.00	-4.0X
			i	08	27.80	
KHC	12.60	334	eP	08	45.30	0.0
			e	08	53.50	
PRU	13.04	338	eP	09	01.50	10.5X
Z	13s		0.90um			
N	13s		0.80um			
E	14s		1.00um			
MOX	14.57	333	ePc	09	25.00	13.9X
	1.3s		19.00nm			
Z	19s		1.00um			
E	15s		0.70um			
			LQ	15	30.00	
CLL	14.67	337	eP	09	16.00	3.6X
	2.3s		58.00nm		4.7mb	
SMF	15.90	308	eP	09	33.30	4.8X
	1.2s		31.25nm		4.3mb	
LBF	15.97	310	eP	09	33.20	3.8X
	1.0s		16.00nm		4.1mb	
LOR	16.17	310	eP	09	34.50	2.5
	1.0s		16.00nm		4.1mb	
AVF	16.26	308	eP	09	36.10	2.9
	1.1s		26.85nm		4.3mb	
SSF	16.29	309	eP	09	36.10	2.6
	1.0s		51.00nm		4.6mb	
BGF	16.48	307	eP	09	39.40	3.4X
	1.2s		34.20nm		4.4mb	
NUR	22.49	3	iP	10	49.50	5.6X
Z	20s		0.30um		3.7Msz	
			LR	20	10.00	
HFS	22.68	349	eP	10	45.50	-0.3
	0.5s		5.60nm		4.3mb	
NB2	23.95	347	P	10	56.40	-1.7
	1.2s		18.30nm		4.5mb	
SUF	24.78	5	eP	11	05.00	-1.1
BNG	33.66	186	iPc	12	27.00	0.7
	0.6s		11.00nm		5.0mb	
			i	12	36.10	
WMQ	48.76	61	P	14	30.70	0.7
ALE	51.74	350	eP	14	56.00	3.8X
GKN	52.56	81	P	14	56.00	-3.3X
KRI	55.10	171	eP	15	21.30	3.4X
FRB	56.85	328	eP	15	28.00	-1.9
BUL	58.26	173	eP	15	26.30	-14.1X
GTA	58.81	62	eP	15	38.80	-5.4X
MBC	63.32	350	eP	16	13.00	-1.0
INK	72.34	351	eP	17	10.00	-0.5
CN2	73.07	47	eP	17	14.50	-0.7
YKA	73.87	341	eP	17	19.50	0.0
S.D. = 1.2 on 90 of 111 obs.						

APR 12, 1989 10h 46m 02.66± 0.63s
39.246 N ± 5.4km 23.560 E ± 7.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.5 (ATH).

NEO	0.27	283	ePg	46	09.20	0.9
PLG	1.13	356	ePb	46	24.50	0.6
			eSb	46	40.50	
ATH	1.28	174	ePb	46	25.00	-1.3
KZN	1.74	308	ePn	46	33.50	0.3
PRK	2.11	89	ePb	46	41.00	2.6
VAY	2.21	340	ePn	46	40.40	0.6
MMB	2.34	3	iPc	46	41.00	-0.9
			iS	47	09.00	
RDO	2.43	38	ePb	46	46.50	3.5X
ITM	2.43	212	ePn	46	43.00	-0.1
RZN	2.59	20	eP	46	45.00	-0.5
			S	47	26.00	
KKB	2.64	352	iPc	46	46.00	-0.1
			eS	47	17.00	
KDZ	2.79	30	iP	46	47.00	-1.2
			iS	47	24.00	
OHR	2.82	312	ePn	46	51.80	3.2X
PLD	2.99	17	eP	46	51.00	0.1
SKO	3.17	330	ePn	46	58.00	4.5X
PGB	3.33	8	eP	46	55.00	-0.9
			S	47	53.00	
VTS	3.35	356	eP	46	56.00	-0.3
			iSg	47	55.00	
HVAR	6.65	309	iPg	46	47.50	-55.3X
			iSg	46	53.60	
S.D. = 1.1 on 14 of 18 obs.						

% APR 12, 1989 11h 35m 03.33± 0.86s
37.978 N ± 6.4km 21.847 E ±12.8km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
MG 3.6 (TRN).

ITM	0.80	175	ePn	35	19.00	0.1
ATH	1.48	90	ePn	35	29.60	-0.3
KZN	2.33	359	ePn	35	43.00	0.7
PLG	2.70	27	ePn	35	48.00	0.5
OHR	3.23	346	ePn	35	55.00	-0.1
VAY	3.38	9	ePn	35	57.40	0.2
SKO	4.00	356	ePn	36	05.00	-1.0
S.D. = 0.7 on 7 of 7 obs.						

& APR 12, 1989 12h 12m 45.19s
48.419 N 122.230 W
DEPTH = 0.6km
WASHINGTON (29)
<SEA>. CL 1.5 (SEA). Felt at
Mount Vernon.

CMW	0.07	86	iPd	12	46.92	0.2
			eS	12	48.54	
JCW	0.30	138	iP	12	51.11	-0.1
MBW	0.43	31	eP	12	53.65	0.0
MCW	0.48	303	eP	12	54.19	-0.5
RPW	0.48	86	eP	12	54.45	-0.3
BLH	0.60	167	eP	12	56.80	-0.3
BLN	0.64	231	eP	12	57.41	-0.7
HTW	0.69	153	eP	12	57.99	-1.0
HDW	0.95	216	eP	13	01.99	-2.1
			eS	13	15.05	
9 obs. associated						

? APR 12, 1989 12h 45m 29.89± 1.87s
7.562 S ±17.1km 131.075 E ±22.4km
DEPTH = 33.0km (normal)
4.3mb (4 obs.)
TANIMBAR ISLANDS REGION (281)

MTN	5.25	179	iPd	46	52.60	4.4X
			eS	47	48.00	
KNA	8.45	195	eP	47	33.80	0.8
	0.2s		78.00nm		6.5mb X	
			eS	49	02.00	
WB5	12.65	166	eP	48	29.20	-1.2
			eS	50	45.00	
WRA	12.71	166	Pc	48	30.70	-0.5
	0.5s		8.30nm		5.1mb	
QIS	15.33	148	e(P)	49	00.00	-5.6X
			eS	51	47.00	
ASPA	16.24	171	eP	49	18.60	1.3
	0.4s		14.00nm		4.4mb	
			eS	52	08.40	
MBL	17.34	218	eP	49	29.10	-2.0
	0.4s		8.00nm		4.2mb	
			eS	52	30.00	
WARB	18.99	192	eP	49	44.00	-7.5X
	0.3s		3.00nm		4.0mb	
			eS	52	04.00	
NANU	21.13	223	eP	50	15.00	0.7
FORR	23.34	186	eP	50	39.50	3.4X
MRWA	25.80	211	eP	51	01.00	1.2
GUN	56.12	311	P	55	09.00	-0.2
CNCB	149.31	142	PKPc	05	23.20	9.1X
LPB	149.45	142	(PKP)	05	21.00	6.9X
ZOBO	149.64	141	PKP	05	23.70	9.1X
S.D. = 1.4 on 8 of 15 obs.						

APR 12, 1989 13h 53m 29.78± 0.49s
38.090 N ± 4.2km 22.080 E ± 3.3km
DEPTH = 14.2 ± 2.9 km
4.2mb (8 obs.)
GREECE (364)
ML 4.0 (ATH).

ITM	0.92	188	ePb	53	45.20	-1.7
ATH	1.30	95	ePn	53	54.50	1.2
NEO	1.51	36	ePb	53	57.30	1.0
KZN	2.23	354	ePn	54	07.00	0.2
SRN	2.41	318	iPn	54	10.50	1.2
PLG	2.51	25	ePn	54	10.50	-0.3
KBN	2.71	339	iPnd	54	16.30	2.7
TPE	2.73	325	ePn	54	17.20	3.4X
BERA	3.09	328	ePn	54	19.90	1.0
VLO	3.11	321	ePn	54	22.80	3.6X
VAM	3.17	147	ePn	54	20.00	-0.2
OHR	3.18	342	iPn	54	21.10	0.9
VAY	3.25	7	iPn	54	21.00	-0.2
PRK	3.48	69	ePn	54	23.30	-1.2
TIR	3.67	333	ePn	54	27.70	0.4
MMB	3.72	19	iPc	54	27.00	-1.0
EZN	3.74	61	ePn	54	27.30	-0.9
PHP	3.81	341	ePn	54	30.50	1.4
KKB	3.85	11	iPd	54	30.00	0.2
			S	55	18.00	
SKO	3.91	353	iPnc	54	31.20	0.6
			iPg	54	47.00	
			iSn	55	19.00	
			iSb	55	30.00	
			LR	56	02.00	
LCI	3.91	306	P	54	30.00	-0.6
LACI	3.98	333	ePn	54	30.60	-1.0
NPS	4.00	134	ePn	54	33.00	1.1
RDO	4.05	40	ePn	54	32.00	-0.6
IZM	4.09	84	iP	54	33.60	0.4
RZN	4.13	29	iPc	54	33.00	-0.8
			S	55	23.00	
KKS	4.18	343	ePn	54	36.00	1.6
PUK	4.29	33B	ePn	54	37.00	1.0
KDZ	4.38	35	iP	54	36.00	-1.4
			iS	55	25.00	
SDA	4.39	334	ePn	54	34.10	-3.3X
PLD	4.49	26	eP	54	42.00	3.2X
BCI	4.54	341	ePn	54	45.50	6.0X
VTS	4.58	10	eP	54	40.00	-0.3
			iSg	55	34.00	
BRT	4.69	308	P	54	40.00	-1.7
PGB	4.73	19	eP	54	43.00	0.6
			e	55	43.00	
TDS	4.75	291	P	54	45.10	2.5
KAP	4.81	120	ePn	54	44.50	1.1
YER	5.02	99	iP	54	47.60	1.2
DST	5.33	71	iP	54	50.90	0.0
MGR	5.47	294	P	54	53.00	0.2
JMB	5.56	37	eP	54	54.00	-0.1
			S	55	59.00	
DMK	5.74	48	eP	54	53.00	-3.5X
SGO	5.80	297	P	54	57.10	-0.2
KHL	5.87	85	iP	54	59.50	1.1
BSS	6.24	298	P	55	03.00	-0.6
ALT	6.37	79	iP	55	05.70	0.2
ELL	6.37	100	eP	55	09.10	3.5X
GPA	6.76	68	iP	55	10.50	-0.5
BEO	6.83	350	ePn	55	46.00	34.1X
DUI	6.86	304	P	55	11.50	-0.9
BUC	7.00	24	eP	56	04.00	49.7X
SDI	7.31	302	P	55	18.60	0.0
CMP	7.51	16	ePd	55	09.00	-12.4X
MLR	7.94	20	eP	55	28.00	0.5
MNS	8.37	304	P	55	31.50	-2.0
VRI	8.51	22	ePd	55	35.00	-0.3
VBY	8.99	328	eP	55	37.50	-4.4X
			eS	57	22.90	
PTJ	9.03	332	e(P)	55	44.00	1.3
CEY	9.53	326	e(P)	55	46.00	-3.5X
			eS	57	34.00	
LJU	9.72	327	e(P)	55	47.00	-5.1X
			eS	57	40.50	
VOY	10.00	325	eP	55	53.50	-2.4
			eS	57	40.90	

12d 13h

KBA	11.04	327	eP	56 08.00	-2.4
KHC	12.63	334	eP	56 31.20	-0.4
CLL	14.69	337	eP	57 04.00	5.3X
LBF	16.00	309	eP	57 18.10	2.2
	0.8s	6.70nm		3.8mb	
LOR	16.21	310	eP	57 19.20	0.8
	0.8s	8.05nm		3.9mb	
AVF	16.30	308	eP	57 22.50	2.9X
	1.0s	16.00nm		4.1mb	
SSF	16.33	309	eP	57 22.10	2.2
	1.0s	32.00nm		4.4mb	
NUR	22.50	3	eP	58 44.00	14.2X
HFS	22.70	349	eP	58 30.50	-1.3
	0.8s	6.90nm		4.2mb	
NB2	23.96	347	P	58 42.70	-1.5
	0.7s	3.20nm		4.0mb	
EKA	24.22	324	Pd	58 45.50	-1.1
	0.9s	13.50nm		4.5mb	
SUF	24.78	4	eP	58 51.00	-1.0
BNG	33.65	186	ePd	00 12.40	0.3
	0.4s	5.00nm		4.8mb	
GKN	52.52	81	P	02 44.00	-0.9
DMN	53.07	82	P	02 48.90	-0.2
YKA	73.89	341	P	05 05.30	-0.2

S.D. = 1.2 on 61 of 77 obs.

% APR 12, 1989 15h 48m 52.62± 0.82s
39.041 N ± 7.0km 27.629 E ± 8.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.70	204	iPg	49 05.50	-1.0
			iSg	49 16.00	
DST	0.96	54	ePg	49 09.80	-1.1
			eSg	49 23.80	
EZN	1.28	308	ePn	49 17.40	1.1
EDC	1.32	8	iPn	49 17.00	0.1
BNT	1.33	10	iPn	49 16.40	-0.8
KHL	1.65	115	ePn	49 22.50	0.7
ALT	1.93	89	ePn	49 27.00	1.1

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

& APR 12, 1989 16h 37m 06.40s
40.797 N 124.668 W
DEPTH = 15.0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3.4 (BRK).

FHC	0.52	89	iPc	37 16.50	-0.2
			iS	37 23.40	
WDC	1.63	97	iPc	37 32.60	-2.1
			i	37 39.40	
			eS	37 51.60	
LTCM	2.03	106	eP	37 39.00	-1.4
LBFM	2.17	74	eP	37 41.30	-1.4
MIN	2.38	100	iPc	37 42.90	-2.6
			i	38 11.90	
ORV	2.73	116	eP	37 47.90	-2.5
KVN	5.34	107	eP	38 25.00	-2.7
	7 obs. associated				

APR 12, 1989 17h 02m 11.74± 0.56s
35.285 N ± 6.1km 135.445 E ± 5.0km
DEPTH = 370.9 ± 5.7 km
4.2mb (10 obs.)
SOUTHERN HONSHU, JAPAN (232)

SHK	2.39	253	iPd	03 09.30	1.1
	0.3s	1740.26nm			
MAT	2.57	60	iPd	03 08.70	-0.8
			iS	03 53.80	
MDJ	10.34	336	Pc	04 34.50	-0.1
SNY	11.35	309	iPc	04 47.60	0.9
			S	06 54.00	
CN2	11.48	321	iPc	04 48.00	-0.2
	2.0s	0.40nm		2.5mb X	
			S	06 56.00	
DL2	11.61	292	P	04 50.40	0.6
BJI	15.98	293	eP	05 36.00	-1.9
WHN	18.32	261	eP	06 03.00	1.2
TIY	18.65	284	Pd	06 05.00	-0.2
XAN	21.83	274	P	06 36.00	0.0
LZH	25.63	281	e(P)	07 18.00	7.1X
	2.0s	55.00nm		4.6mb	
GYA	26.15	258	P	07 15.00	-0.6
			S	11 18.40	
GTA	28.51	289	eP	07 36.00	-0.4
WMQ	37.35	298	eP	08 51.50	-0.1
GUN	42.49	274	P	09 35.40	1.4
KKN	43.03	274	P	09 38.70	0.6
GKN	43.47	275	P	09 42.20	0.7
IMA	50.63	30	P	10 36.00	-0.1
	0.8s	2.59nm		3.6mb	
KDC	51.65	41	P	10 42.40	-1.0
PMR	52.88	35	P	10 51.30	-1.2
FBA	53.13	31	P	10 54.40	0.1
HYB	53.29	266	eP	10 56.50	0.4
WB5	54.87	181	iPd	11 06.00	-1.2
WRA	54.93	181	Pc	11 06.70	-0.9
	0.5s	3.20nm		4.0mb	
GBA	56.23	263	Pc	11 16.10	-0.8
	0.9s	3.90nm		3.8mb	
MBL	58.06	197	eP	11 28.30	-1.0
INK	58.11	26	eP	11 28.00	-1.2
ASPA	58.65	182	iPd	11 32.70	-0.6
	0.5s	10.00nm		4.5mb	
MBC	59.54	16	eP	11 38.00	-0.9
PVC	61.27	144	iPc	11 46.90	-4.1X
DZM	64.17	148	iPc	12 09.80	-0.1
FORR	66.14	187	iPc	12 22.10	0.0
SUF	67.31	332	iP	12 28.10	-1.0
	0.4s	1.60nm		4.1mb	
YKA	67.69	28	eP	12 31.70	0.3
NUR	69.14	330	iP	12 39.30	-1.0
HFS	73.60	334	eP	13 05.50	-1.0
	0.5s	5.10nm		4.5mb	
NB2	73.84	335	P	13 07.30	-0.6
	0.4s	1.50nm		4.0mb	
WDC	75.94	50	ePc	13 20.80	0.8
ORV	77.18	51	e(P)	13 27.00	0.2
FFC	77.71	30	eP	13 29.00	-0.4
	0.8s	11.00nm		4.7mb	
LRM	78.71	41	eP	13 36.10	0.8
CMB	78.77	51	ePc	13 36.20	0.7
PRS	79.13	53	ePc	13 38.10	0.7
KVN	79.61	49	P	13 40.80	0.7
FRI	79.82	52	e(P)	13 41.70	0.7
TNP	80.75	50	P	13 46.80	0.7
BW06	82.27	42	P	13 54.00	0.1
	1.0s	5.31nm		4.3mb	
MSU	83.56	47	P	14 01.50	1.1
ZOBO	151.68	54	PKP	21 25.60	7.3X
LPB	151.89	54	ePKP	21 21.00	2.6
CNCB	152.16	55	ePKP	21 20.00	1.1
			i	21 27.50	

S.D. = 0.9 on 48 of 51 obs.

& APR 12, 1989 17h 10m 29.50s
40.818 N 124.682 W
DEPTH = 14.0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3.3 (BRK).

FHC	0.53	92	iPc	10 39.80	-0.3
			iS	10 46.80	
WDC	1.65	98	iPd	10 55.80	-2.3
			i	11 02.70	
			eS	11 14.90	
LTCM	2.04	107	eP	11 02.00	-1.8
LBFM	2.18	75	eP	11 04.60	-1.4
MIN	2.39	100	iPd	11 06.60	-2.4
ORV	2.74	116	eP	11 11.40	-2.5
KVN	5.36	107	eP	11 48.00	-3.1
	7 obs. associated				

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* APR 12, 1989 17h 26m 59.76± 2.69s
51.103 N ±24.1km 15.992 E ±15.3km
DEPTH = 10.0km (geophysicist)
POLAND (548)

KSP	0.32	144	iPd	27 06.20	-0.3
	0.6s	47.00nm			
			iS	27 14.70	
			i	27 17.30	
BRG	1.31	261	ePg	27 22.90	-1.1
			iSg	27 42.90	
PRU	1.45	220	Pg	27 27.00	1.0
			Sn	27 43.90	
			Sg	27 51.80	
			e	27 56.30	
CLL	1.89	277	ePg	27 33.00	0.6
			eSg	27 58.00	
KHC	2.51	219	ePn	27 41.10	-0.2
			Pg	27 47.00	
			eSg	28 16.20	

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

APR 12, 1989 18h 22m 05.86± 1.00s
40.342 N ±11.0km 21.842 E ± 6.4km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MG 3.2 (TIR).

KZN	0.06	237	iPgd	22 06.50	-1.7
KBN	0.83	290	iPgd	22 20.00	-1.9
OHR	1.10	314	iPn	22 24.90	-1.7
			iSn	22 42.40	
VAY	1.12	29	iPn	22 25.70	-1.2
TPE	1.40	269	ePn	22 33.80	2.4
SRN	1.49	252	ePn	22 32.00	-0.6
BERA	1.49	285	ePn	22 32.30	-0.3
SKO	1.66	350	iPn	22 33.50	-1.6
			i	22 36.60	
PHP	1.71	322	ePn	22 35.10	-0.7
KKB	1.79	31	eP	22 37.00	0.0
			S	23 07.00	
VLO	1.80	275	ePn	22 39.30	2.2
TIR	1.80	304	ePn	22 37.70	0.5
MMB	1.89	48	eP	22 38.00	-0.6
			iS	23 06.00	
LACI	2.07	309	ePn	22 42.50	1.5
PUK	2.25	320	ePn	22 46.80	3.2X
BCI	2.42	327	ePn	22 47.00	0.9
VTS	2.47	24	iPg	22 48.00	1.1
			iSg	23 25.00	
RZN	2.56	57	eP	22 49.00	0.8
			S	23 30.00	
PGB	2.81	38	eP	22 52.00	0.2
			eS	23 42.00	
KDZ	3.00	63	eP	22 53.00	-1.4
			eS	23 25.00	
BZS	5.27	358	eP	23 31.00	4.4X
MLR	5.96	29	iPc	23 38.50	2.1
VRI	6.58	31	eP	23 42.00	-3.0X

S.D. = 1.5 on 20 of 23 obs.

? APR 12, 1989 18h 30m 18.64± 1.78s
25.646 N ±12.9km 144.070 E ±71.1km
DEPTH = 33.0km (normol)
4.5mb (3 obs.)
VOLCANO ISLANDS REGION (213)

KAKJ	11.04	343	P	32 58.70	1.4
CHJJ	11.25	338	P	33 00.30	0.2
MAT	11.96	337	(P)	33 09.00	-0.8
MTMJ	12.15	335	P	33 12.30	-0.1
WB5	46.22	193	iPc	38 42.90	0.4
WRA	46.29	193	Pc	38 43.20	0.1
	0.7s	8.50nm		4.8mb	
FORR	58.22	196	eP	40 12.00	0.0
SUF	79.21	336	iP	42 21.10	-0.5
	0.4s	2.10nm		4.5mb	
HFS	85.41	338	eP	42 53.10	-0.7
	0.3s	0.60nm		4.3mb	

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

APR 12, 1989 19h 09m 37.93± 0.79s
43.683 N ± 4.6km 8.414 E ± 6.4km
DEPTH = 10.0km (geophysicist)
CORSICA (380)
ML 2.7 (GEN), 2.7 (LDG).

IMI	0.44	301	P	09 46.86	-0.1
			S	09 52.53	
FIN	0.55	344	P	09 48.15	-0.8
			S	09 55.22	
SAOF	0.69	296	Pg	09 51.52	-0.1
			Sg	10 00.37	
ROB	0.73	328	P	09 51.30	-1.0
			S	10 00.53	
SBF	0.73	285	Pg	09 53.00	0.7
			Sg	10 02.60	
CKI	0.75	353	Pd	09 51.60	-1.0
			eSg	10 00.10	
AUTN	0.78	294	Pg	09 53.30	0.0
AURF	0.81	285	Pg	09 54.53	0.8
			Sg	10 05.24	
TOUF	0.91	292	Pg	09 55.95	0.5
			Sg	10 08.53	
MVIF	0.94	284	Pg	09 55.98	0.0
STV	0.97	306	P	09 56.09	-0.3

			S	10	07.61	
CALN	1.11	274	Pg	09	58.55	-0.3
CVF	1.16	163	Pg	09	59.98	0.3
			Sg	10	15.13	
DOI	1.18	315	Pc	10	00.00	0.1
			eSg	10	13.90	
PZZ	1.25	311	P	10	01.38	0.1
			S	10	16.22	
FRF	1.29	265	Pn	10	00.90	-0.9
			Sn	10	16.80	
LMR	1.43	257	Pn	10	03.00	-0.9
			Sn	10	20.10	
LRG	1.51	262	Pn	10	04.70	-0.3
			Sn	10	23.00	
			Sg	10	25.30	
RSP	1.69	331	P	10	07.02	-0.7
RRL	1.70	317	P	10	07.64	-0.4
			S	10	27.21	
BNI	1.85	318	P	10	11.00	0.9
LPG	2.17	327	Pn	10	16.70	1.8
LPL	2.19	327	Pn	10	16.90	1.8

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

APR 12, 1989 19h 24m 02.75± 0.57s
38.104 N ± 5.3km 21.972 E ± 3.7km
DEPTH = 28.0 ± 5.3 km
4.2mb (11 obs.)
GREECE (364)
ML 3.9 (ATH).

ITM	0.92	182	ePg	24	17.70	-2.1
ATH	1.38	95	ePg	24	26.50	0.2
NEO	1.55	39	ePb	24	29.50	0.7
SRN	2.35	320	iPn	24	42.80	2.7
PLG	2.54	26	ePn	24	42.30	-0.7
TPE	2.67	326	iPnc	24	49.00	4.3X
BERA	3.03	330	ePn	24	51.60	1.7
VLO	3.04	322	iPn	24	51.30	1.2
OHR	3.14	344	iPn	24	54.00	2.5
VAM	3.23	146	ePn	24	53.00	0.2
VAY	3.25	8	iPn	24	53.40	0.5
PRK	3.55	70	ePn	24	57.00	-0.3
TIR	3.62	334	ePn	24	59.00	0.7
MMB	3.73	21	iPc	25	00.00	0.1
			iS	25	33.00	
PHP	3.77	342	ePn	25	03.10	2.8
EZN	3.80	62	iPn	24	59.90	-0.9
LCI	3.83	307	P	24	59.40	-1.9
KKB	3.85	12	eP	25	01.00	-0.6
			eS	25	50.00	
SKO	3.88	354	iPnc	25	03.50	1.5
			iPg	25	18.90	
			iSn	25	48.50	
			iSb	26	02.50	
			LR	26	35.00	
KKS	4.14	344	ePn	25	09.00	3.3X
RZN	4.15	30	iPc	25	05.00	-1.0
			S	25	56.00	
IZM	4.17	84	iP	25	06.10	-0.1
PUK	4.24	339	ePn	25	08.00	0.9
SDA	4.34	335	ePn	25	13.80	5.3X
KDZ	4.42	36	iP	25	08.00	-1.7
			eS	25	47.00	
BCI	4.50	342	ePn	25	12.00	1.2
PLD	4.51	27	eP	25	14.00	3.1X
VTS	4.58	12	iP	25	14.00	1.9
			iSg	26	07.00	
BRT	4.61	308	P	25	12.00	-0.4
TDS	4.66	291	P	25	15.10	2.0
SOI	4.67	271	P	25	23.00	9.8X
PGB	4.75	20	eP	25	15.00	0.7
			e	26	13.00	
KAP	4.89	120	ePn	25	18.00	1.7
YER	5.10	99	eP	25	19.80	0.4
MGR	5.39	294	P	25	23.30	0.0
DST	5.41	72	eP	25	19.80	-3.9X
JMB	5.60	38	eP	25	26.00	-0.4
SGO	5.72	297	P	25	28.20	0.2
DMK	5.79	48	eP	25	28.00	-1.0
KHL	5.95	86	iP	25	31.50	0.1
BSS	6.16	298	Pc	25	33.70	-0.5
ALT	6.45	79	iP	25	37.70	-0.7
ELL	6.46	100	iP	25	39.60	1.0
DUI	6.78	304	P	25	43.00	-0.1
GPA	6.83	69	iP	25	42.80	-0.9
BCK	6.85	93	eP	25	44.30	0.2
BUC1	6.94	25	eP	26	16.00	30.8X
SDI	7.23	302	P	25	49.30	0.0
PSN	7.29	38	iPc	25	50.00	0.0
BZS	7.51	358	eP	25	57.50	4.4X
CMP	7.52	17	ePd	25	50.00	-3.2X
MLR	7.95	21	ePd	26	00.00	0.5
MNS	8.29	304	P	26	03.00	-1.1
VRI	8.53	23	ePc	26	06.00	-1.3
ARV	8.71	311	P	26	08.00	-1.9
VBY	8.93	328	ePn	26	10.90	-1.9
			eSn	27	48.60	
PTJ	8.98	332	eP	26	12.60	-1.0
CEY	9.47	326	eP	26	18.50	-1.9
			eS	28	02.60	
LJU	9.67	328	e(P)	26	21.50	-1.5
			eS	28	10.90	
TRI	9.75	324	eP	26	21.90	-2.2
			e	28	11.30	
PSZ	9.93	352	eP	26	27.60	0.9
VOY	9.94	325	eP	26	23.80	-3.0X
			eS	28	09.60	
RBL	10.40	326	P	26	30.50	-2.6
FVI	10.87	324	P	26	37.50	-1.9
KBA	10.99	327	eP	26	40.00	-1.3
	1.0s		4.20nm			4.6mb
			i	26	47.70	
			i	27	04.60	
			i	28	44.30	
CTI	11.03	319	P	26	38.50	-3.3X
KHC	12.58	334	eP	27	00.80	-1.8
CLL	14.65	337	eP	27	34.00	4.3X
	1.9s		18.00nm			4.2mb
SMF	15.86	308	eP	27	45.70	0.1
	1.0s		10.00nm			3.9mb
LBF	15.93	310	eP	27	48.00	1.5
	0.8s		7.40nm			3.9mb
LOR	16.13	310	eP	27	51.60	2.6
	1.0s		9.00nm			3.9mb
SSF	16.25	309	eP	27	54.00	3.5X
	1.0s		48.00nm			4.6mb
DOU	17.25	320	P	28	07.60	4.5X
	0.6s		6.40nm			3.9mb
NUR	22.49	3	iP	29	01.70	0.7
HFS	22.67	349	eP	29	01.50	-1.2
	0.7s		6.00nm			4.2mb
NB2	23.93	347	P	29	12.80	-2.3
	1.0s		11.00nm			4.3mb
EKA	24.16	324	P	29	20.00	2.8
	0.9s		10.10nm			4.4mb
SUF	24.78	5	iP	29	24.50	1.3
BNG	33.66	186	ePc	30	44.10	0.8
	0.5s		5.00nm			4.7mb
GKN	52.60	81	P	33	16.00	-0.5
FRB	56.82	328	eP	33	46.00	-0.6
INK	72.33	351	eP	35	27.00	-0.2
YKA	73.85	341	eP	35	37.40	1.2

S.D. = 1.4 on 69 of 83 obs.

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* APR 12, 1989 20h 10m 53.62± 2.81s
44.600 N ± 8.4km 6.620 E ±24.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.5 (GEN).

FOUF	0.14	121	P	10	57.05	0.2
			Sg	10	58.94	
RRL	0.34	20	P	11	00.55	-0.2
			S	11	05.54	
PZZ	0.36	105	P	11	00.92	-0.1
			S	11	06.28	
STV	0.62	125	P	11	05.73	-0.4
			S	11	14.44	
RSP	0.71	39	P	11	07.85	0.1
			S	11	17.41	
LSD	0.94	24	P	11	11.80	0.1
			S	11	23.87	
ROB	0.95	108	P	11	11.86	0.2
			S	11	24.23	
IMI	1.14	127	P	11	15.13	0.1

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

& APR 12, 1989 20h 17m 06.90s
38.800 N 122.800 W
DEPTH = 1.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 2.6 (BRK).

BRK	1.02	155	ePc	17	27.00	0.0
			eS	17	42.10	
BKS	1.02	154	iPc	17	27.33	0.2
			iS	17	42.30	
ORV	1.26	53	ePc	17	30.20	-0.9
PCC	1.34	166	ePc	17	32.90	0.4
MHC	1.72	148	e(P)	17	36.40	-1.9
ARN	1.76	145	eP	17	37.80	-1.0
CMB	2.04	111	ePc	17	41.50	-1.4
KVN	3.67	85	eP	18	04.30	-2.0

8 obs. ossociated

% APR 12, 1989 21h 11m 49.05± 0.91s
31.655 N ± 5.3km 35.671 E ±15.3km
DEPTH = 10.0km (geophysicist)
DEAD SEA REGION (373)

MASJ	0.08	29	Pc	11	52.70	1.1
MKRJ	0.11	194	P	11	52.20	0.3
KFNJ	0.21	1	P	11	53.60	0.1
SALJ	0.35	2	Pd	11	55.80	-0.6
QUTJ	0.46	141	P	11	57.90	-0.5
BURJ	0.56	8	P	12	00.10	-0.4

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

APR 12, 1989 21h 43m 50.49± 0.40s
39.273 N ± 3.8km 23.592 E ± 2.9km
DEPTH = 11.0 ± 2.7 km
4.0mb (7 obs.)
AEGEAN SEA (365)
ML 3.6 (ATH).

NEO	0.29	277	ePg	43	56.00	-0.6
PLG	1.11	354	ePg	44	11.70	0.5
ATH	1.30	176	iPbd	44	14.50	0.0
KZN	1.74	307	ePb	44	20.50	-0.4
PRK	2.08	90	ePn	44	26.40	0.7
EZN	2.18	74	iPn	44	27.40	0.2
VAY	2.19	339	iPn	44	27.20	-0.1
MMB	2.32	3	iPc	44	29.00	-0.2
			iS	44	59.00	
RDO	2.39	38	ePn	44	30.00	-0.2
ITM	2.47	213	ePn	44	31.80	0.5
RZN	2.56	19	iPc	44	33.00	0.3
			S	45	01.00	
KKB	2.62	352	iPc	44	33.00	-0.4
			S	45	04.00	
KDZ	2.75	30	iPd	44	34.00	-1.3
			iS	45	04.00	
OHR	2.82	312	iPn	44	37.10	0.8
SRN	2.84	283	ePn	44	38.50	1.9
PLD	2.95	16	eP	44	40.00	1.9
IZM	3.00	106	iPn	44	39.80	1.0
BERA	3.14	298	ePn	44	42.40	1.6
DIM	3.14	27	iP	44	40.00	-0.8
SKO	3.15	329	iPn	44	41.00	0.0
Z	10s		0.66um			
N	10s		0.29um			
E	10s		1.34um			
			iPg	44	55.00	
			iSn	45	26.00	
			iSb	45	37.50	
PGB	3.30	7	iPc	44	43.00	-0.2
			S	45	22.00	
VTS	3.33	355	iPd	44	44.00	0.4
			iSg	45	21.00	
VLO	3.37	292	ePn	44	43.30	-0.8
EDC	3.46	71	iPn	44	55.00	9.6X
TIR	3.52	307	ePn	44	48.00	1.8
LACI	3.79	310	ePn	44	51.50	1.5
VAM	3.89	173	ePn	44	50.00	-1.5
DST	3.91	84	ePn	44	52.80	0.9
JMB	3.91	34	eP	44	50.00	-1.8
			S	45	59.00	
PUK	3.95	316	ePn	44	53.50	1.3
DMK	4.07	50	ePn	44	55.00	1.0
BCI	4.09	320	ePn	44	54.90	0.7
YER	4.27	119	ePn	44	57.60	0.7
NPS	4.32	157	ePn	44	59.00	1.5
LCI	4.47	285	P	44	57.30	-2.4
YLV	4.63	72	ePn	45	01.00	-1.1
KAP	4.68	141	ePn	45	02.70	-0.1
KHL	4.73	100	ePn	45	04.50	1.0
ALT	5.07	90	iPn	45	08.80	0.5
BRT	5.16	290	Pd	45	08.60	-0.8
GPA	5.27	77	ePn	45	09.20	-1.9
DRA	5.42	5	eP	45	17.00	3.8X
PSN	5.59	37	eP	45	14.00	-1.6

12d 21h

TDS	5.63	276	P	45	17.00	0.9
BCK	5.79	106	eP	45	18.80	0.4
SOI	6.02	261	Pd	45	20.40	-1.1
CMP	6.09	10	ePd	45	23.00	0.5
MGR	6.26	280	Pd	45	24.00	-1.0
SGO	6.50	284	P	45	26.80	-1.5
BZS	6.51	348	ePc	45	26.90	-1.9
BSS	6.91	285	P	45	33.50	-0.7
VRI	6.99	18	iPd	45	35.50	0.3
BBTK	7.11	83	eP	46	10.00	33.0X
MEU	7.16	255	P	45	33.60	-4.1X
DUI	7.36	292	P	45	38.00	-2.6
SDI	7.84	291	P	45	46.20	-1.0
KHC	12.18	327	P	46	46.50	-0.3
LPG	13.90	302	eP	47	18.40	8.4X
	0.6s		6.30nm			4.6mb
SMF	16.20	303	eP	47	42.10	2.5
	0.8s		6.70nm			3.8mb
AVF	16.57	304	eP	47	46.10	1.9
	0.6s		4.50nm			3.8mb
BGF	16.82	302	eP	47	49.10	1.7
	0.6s		7.20nm			4.0mb
MAF	16.91	301	eP	47	50.60	2.1
	0.8s		6.70nm			3.8mb
EKA	24.01	321	Pc	49	04.90	-0.9
	1.1s		8.20nm			4.2mb
BNG	34.98	189	iPc	50	43.30	-1.5
	0.6s		12.00nm			4.9mb

S.D. = 1.3 on 59 of 64 obs.

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* APR 12, 1989 22h 23m 38.43± 0.59s
59.958 S ±11.8km 53.619 W ±16.5km
DEPTH = 10.0km (geophysicist)
5.0mb (5 obs.)
SCOTIA SEA (150)

SPA	30.21	180	e(P)	29	52.80	1.8
	1.0s		19.00nm			4.9mb
SLA	36.17	342	ePc	30	42.90	0.0
ITA	38.08	13	eP	31	01.20	2.1
CCH	43.48	342	eP	31	44.00	0.4
BAO	44.45	8	e(P)	31	44.00	-7.2X
MAW	44.58	151	eP	31	54.10	2.5
ZOBO	44.89	340	P	31	56.00	0.7
	Z 24s		0.28um			4.1MszX
			LR	49	40.00	
SOB1	51.54	16	iPc	32	46.70	0.3
			e	32	52.20	
ITR	52.36	19	eP	32	52.90	0.4
FRS	59.30	97	eP	33	42.50	0.2
PRY	62.69	97	iPc	34	04.50	-1.1
	0.8s		9.38nm			5.0mb
KSR	63.28	96	eP	34	08.00	-1.5
	0.7s		7.50nm			5.0mb
SLR	64.08	97	eP	34	13.00	-1.7
	0.9s		10.92nm			5.0mb
BUL	68.92	94	iPd	34	44.80	-0.8
			ipP	34	52.60	25kmX
LSZ	72.81	91	iP	35	11.00	1.9
			i	35	19.50	
KMZ	73.18	88	iPd	35	12.50	1.3
KIC	76.48	50	P	35	30.50	0.6
TIC	76.63	50	P	35	30.40	-0.4
BNG	84.99	72	iPd	36	16.50	1.5
	0.5s		9.00nm			5.3mb
			i	36	25.10	
GBA	121.55	121	PKPd	42	32.20	-1.2
	0.8s		4.50nm			
FRB	123.90	352	ePKP	42	36.00	-0.6
HYB	125.42	120	ePKP	42	40.00	-0.9
			e	42	49.50	
NB2	130.60	35	PKP	42	47.40	-2.2
	1.1s		8.10nm			
HFS	130.62	37	ePKP	42	48.90	-0.7
	0.9s		9.00nm			
YKA	130.70	328	PKP	42	50.90	1.3
DMN	137.22	120	PKP	43	03.10	-0.4
PKI	137.32	121	PKP	43	03.10	-0.7
GKN	137.36	120	PKP	43	00.20	-3.4X
KKN	137.45	121	PKP	43	02.80	-1.1
GUN	137.82	121	PKP	43	05.40	0.7
INK	140.30	325	ePKP	43	05.00	-2.5
MBC	142.15	339	ePKP	43	06.00	-4.6X

S.D. = 1.4 on 29 of 32 obs.

APR 12, 1989 23h 31m 59.95± 0.62s
39.278 N ± 5.4km 23.498 E ± 9.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

PLG	1.10	358	ePb	32	21.00	0.5
ATH	1.32	172	iPbd	32	23.00	-1.2
KZN	1.68	308	ePb	32	29.80	0.2
PRK	2.15	90	ePn	32	40.00	3.6X
VAY	2.16	341	iPn	32	37.30	0.8
EZN	2.25	75	ePn	32	40.40	2.6
MMB	2.32	4	iPc	32	38.00	-0.7
			iS	33	07.00	
ITM	2.43	211	ePn	32	41.00	0.6
RDO	2.43	39	ePn	32	42.50	2.2
RZN	2.58	21	iPc	32	42.00	-0.6
			S	33	13.00	
KKB	2.60	353	iPc	32	43.00	0.2
			iS	33	14.00	
OHR	2.76	312	ePn	32	46.20	1.1
KDZ	2.78	31	iPd	32	43.00	-2.4
			iS	33	14.00	
PLD	2.97	18	eP	32	48.00	0.1
SKO	3.11	330	ePn	32	54.00	4.0X
			i	33	07.50	
PGB	3.31	9	eP	32	52.00	-0.8
			Sg	33	47.00	
VTS	3.32	356	iP	32	54.00	0.9
			iSg	33	34.00	
VAM	3.90	172	ePn	33	02.50	1.2
PVL	4.17	19	eP	33	03.00	-2.0
MLR	6.47	15	iPc	33	37.00	-0.6
BNG	34.97	189	ePd	38	52.40	-2.0
	0.4s		4.00nm			4.6mb X

S.D. = 1.4 on 19 of 21 obs.

% APR 12, 1989 23h 49m 25.62± 0.74s
39.576 N ± 7.9km 28.856 E ± 7.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.18	280	iPg	49	29.70	0.0
			iSg	49	32.70	
YLV	1.07	22	iPn	49	45.70	0.0
EDC	1.08	316	ePn	49	46.00	0.0
ALT	1.10	118	ePn	49	46.50	0.1
KHL	1.35	157	ePn	49	50.50	-0.1

S.D. = 0.1 on 5 of 5 obs.

? APR 12, 1989 23h 57m 05.11± 3.03s
35.776 N ±25.3km 140.654 E ±23.5km
DEPTH = 69.5 ± 13.2 km
4.2mb (1 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ	0.58	318	iPd	57	16.90	-1.9
			S	57	25.60	
CHJJ	1.37	282	iPd	57	27.70	-1.1
NIIJ	1.98	318	iP	57	37.20	0.2
			eS	58	02.00	
MAT	2.12	292	iPd	57	39.20	0.2
			iS	58	11.00	
IIDJ	2.25	263	P	57	41.50	0.6
			S	58	09.40	
MTMJ	2.44	290	P	57	43.60	0.0
YAMJ	2.44	349	eP	57	44.80	1.3
OFUJ	3.39	13	P	57	57.00	0.2
			eS	58	37.00	
TSRJ	3.81	268	eP	58	04.90	2.3
BJI	19.76	290	eP	01	30.00	-2.0
GUN	46.68	276	P	05	29.70	0.6
KKN	47.21	277	P	05	32.40	-0.7
GKN	47.64	277	P	05	36.80	0.3
HYB	57.56	269	eP	06	49.50	-0.6
NB2	75.11	337	P	08	41.40	0.4
	0.9s		2.80nm			4.2mb

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

APR 13, 1989 00h 08m 34.68± 0.75s
38.604 N ± 8.3km 27.291 E ± 7.8km
DEPTH = 13.9 ± 6.2 km
TURKEY (366)

IZM	0.21	186	iPg	08	39.10	-0.5
PRK	1.02	309	ePb	08	53.50	-0.1
			eSb	09	06.70	
EZN	1.43	329	iPn	08	59.40	-0.8
DST	1.44	46	iPn	09	00.70	0.3
YER	1.66	152	ePn	09	03.90	0.3
KHL	1.77	98	iPn	09	07.00	1.8
EDC	1.80	14	iPn	09	05.00	-0.4
ALT	2.25	78	ePn	09	12.50	0.4
YLV	2.54	39	iPn	09	14.60	-1.5
BCK	2.84	113	ePn	09	19.00	-1.5
RDO	2.88	333	ePn	09	22.50	1.7
HRT	2.88	39	ePn	09	24.00	3.1X
GPA	2.88	53	ePn	09	25.00	4.0X

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

? APR 13, 1989 00h 42m 15.97± 1.71s
10.692 N ±22.6km 86.459 W ±19.3km
DEPTH = 33.0km (normal)
OFF COAST OF COSTA RICA (77)
MD 4.2 (HDC).

JUD	1.04	120	ePd	42	33.40	-0.9
RIN3	1.07	85	ePd	42	34.50	-0.2
JTS	1.53	105	ePc	42	40.90	-0.5
CAO	1.66	126	ePd	42	42.40	-0.8
EPA	1.96	111	eP	42	47.60	0.0
SRA	2.07	107	ePc	42	49.10	-0.1
HDC2	2.39	106	eP	42	53.40	-0.3
SJS	2.48	107	eP	42	55.50	0.4
LCR2	2.59	111	eP	42	56.00	-0.7
IRZ2	2.62	106	eP	42	56.80	-0.5
ICR	2.68	105	eP	43	00.00	1.9
VCR	2.85	101	iPc	42	32.50	-27.6X
SOB1	49.45	112	iPc	51	08.70	3.3X
			e	51	12.10	
			e	51	16.40	
			e	51	39.70	
ITR	51.56	110	iPc	51	24.10	2.7
			e	51	27.60	
			e	51	35.40	
YKA	55.55	345	P	51	49.30	-0.9

S.D. = 1.2 on 13 of 15 obs.

APR 13, 1989 00h 43m 11.28± 0.16s
39.533 S ± 4.7km 75.002 W ± 4.4km
DEPTH = 33.0km (normal)
5.8mb (27 obs.) 5.5Msz (6 obs.)
OFF COAST OF CENTRAL CHILE (134)
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 5 Dip=75 Slip= -90
NP2: 185 15 -90
Principal Axes:
T Plg=30 Azm= 95
P 60 275
Comment: The focal mechanism is poorly controlled and corresponds to normal faulting. The preferred fault plane is NP1.
MOMENT TENSOR SOLUTION
Dep 8 No. of sto: 5
Moment Tensor; Scale 10**17 Nm
Mrr=-3.30 Mtt= 0.23
Mff= 3.07 Mrt= 0.05
Mrf=-4.53 Mtf= 0.75
Principal axes:

T	Val= 5.50	Plg=27	Azm= 98
N	0.18	7	4
P	-5.68	62	262

Best Double Couple:Mo=5.6*10**17
NP1:Strike=204 Dip=19 Slip= -69
NP2: 2 72 -97
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 19S, 44C
Centroid Location:
Origin Time 00:43:10.8 0.2
Lat 39.96S 0.03 Lon 75.07W 0.04
Dep 15.0 BDY Half-durotion 2.5
Moment Tensor; Scale 10**17 Nm
Mrr=-4.21 0.10 Mtt=-0.61 0.13
Mff= 4.82 0.14 Mrt= 2.24 0.30
Mrf=-2.67 0.41 Mtf= 0.23 0.11
Principal Axes:

T	Val= 5.58	Plg=16	Azm= 86
N	0.30	21	350
P	-5.88	63	211

Best Double Couple:Mo=5.7*10**17
NP1:Strike=204 Dip=34 Slip= -51
NP2: 339 64 -113

RFA	7.06	50	ePc	44	52.50	-2.5	KSR	82.45	117	iPc	55	31.80	-0.2	ENN	114.35	43	ePKPc	01	49.00	0.4
CYA	13.43	37	e(P)	46	12.00	-10.0X		1.0s	65.00nm			5.6mb			0.8s	12.00nm				
BAA	14.08	75	P	46	32.00	1.6	TPC	82.52	327	eP	55	33.00	1.1			e	01	58.50		
SLA	16.80	31	ePd	47	00.30	-5.5X	PEC	82.82	326	P	55	34.60	1.2	WRA	114.79	211	PKPc	01	49.00	-1.4
ITB7	22.64	57	eP	48	09.80	-0.9	RVR	83.00	326	eP	55	35.00	0.7		0.7s	3.10nm				
ITB1	22.84	56	eP	48	11.90	-0.7	PAS	83.48	325	eP	55	38.00	1.3	WB5	114.83	211	ePKP	01	49.00	-1.5
ITB	22.85	56	eP	48	12.20	-0.5	SLR	83.48	118	iPd	55	36.50	-0.8	WTS	115.48	43	ePKPc	01	52.00	1.3
ARE	23.19	9	iPd	48	17.00	0.6		1.0s	100.00nm			5.9mb			0.9s	11.00nm				
CCH	23.38	22	P	48	20.00	1.8	Z	20s	3.55um			5.7Msz				e	02	01.00		
CNCB	23.45	17	iPd	48	21.20	2.0	MWC	83.49	325	eP	55	38.00	0.9	INK	116.00	339	ePKP	01	50.00	-1.2
LPB	23.69	17	iPd	48	23.90	2.5	GOL	83.60	337	P	55	37.10	-0.5			pP	02	54.00		
	1.0s	190.00nm				5.6mb	GLD	83.60	337	P	55	37.30	-0.2	KBA	116.59	50	ePKP	01	51.50	-1.8
Z	18s	3.78um				4.9Msz		1.2s	181.82nm			6.1mb			1.1s	5.30nm				
		S		52	42.00		RSNY	83.70	0	P	55	38.50	0.9	MOX	117.38	46	ePKP	01	55.00	0.6
		LR		57	46.00			1.2s	174.71nm			6.1mb			1.2s	32.00nm				
ZOBO	23.94	16	P	48	24.80	0.8	PTN	83.72	0	P	55	38.30	0.6		Z 18s	0.90um			5.4Msz	
		S		52	44.00		SBB	83.78	326	eP	55	38.00	-0.4		E 18s	0.50um				
		LR		57	28.00		BNH	83.81	3	P	55	37.80	-0.3			e	02	04.00		
PPD	26.68	56	eP	48	48.70	-0.5	GSC	83.87	327	eP	55	40.00	1.2			e	12	45.00		
		e		48	50.40		EMM	84.16	5	P	55	40.50	0.6			e	24	00.00		
		e		48	53.50		MIM	84.56	4	P	55	40.90	-1.0			LQ	55	00.00		
VAO	28.92	64	eP	49	09.00	-0.5	SYP	84.61	324	eP	55	44.00	1.4			LR	55	00.00		
		e		49	12.00		CLC	84.64	326	eP	55	43.00	0.4	KHC	117.74	48	iPKPc	01	55.00	-0.2
		e		49	20.90		MSU	84.82	332	P	55	43.90	0.2		1.0s	7.00nm				
ITA	30.91	65	ePc	49	27.70	0.2	GAC	84.85	360	eP	55	43.50	0.2	OHR	118.31	59	ePKP	01	56.50	-0.1
		e		49	31.20		ISA	84.89	326	eP	55	45.00	1.1	CLL	118.47	46	iPKP	01	57.10	0.7
BMA	31.09	66	eP	49	29.90	1.1	BCH	85.20	324	P	55	46.60	1.1		1.4s	33.00nm				
		e		49	31.60		DAU	86.17	333	P	55	51.00	0.5			i	02	05.90		
		e		49	39.70		PRI	86.26	325	eP	55	51.90	1.1	PRU	118.70	47	PKPc	01	57.50	0.6
RDJ	31.63	68	eP	49	39.60	6.2X	TNP	86.41	328	P	55	51.00	-0.6		Z 17s	0.80um			5.4MszX	
BAO	33.53	52	eP	49	49.50	-0.7		1.3s	102.04nm			5.9mb		BRG	118.78	46	iPKPc	01	57.50	0.4
ATB	41.58	36	Pd	50	57.00	-0.6	DUG	86.53	332	P	55	52.30	0.3		1.0s	30.00nm				
BOG	43.94	1	eP	51	18.00	0.7	FRI	86.55	326	ePd	55	51.80	-0.1			e	02	06.00		
		iS		57	55.00		PRS	86.74	324	eP	55	54.20	1.3	MBC	118.89	349	ePKP	01	55.00	-1.5
SPA	50.66	180	iPd	52	09.60	0.4	LLA	86.78	325	eP	55	54.20	1.0		0.8s	14.00nm				
	1.1s	59.52nm				5.5mb	MNA	87.10	327	e(P)	55	55.40	0.6	SKO	119.15	58	ePKP	01	56.60	-1.5
		i		52	54.40		EUR	87.11	329	iP	55	54.60	-0.4		Z 20s	1.17um			5.5Msz	
RUV	66.98	269	iP	54	03.20	0.1		0.2s	19.26nm			6.0mb			N 20s	0.64um				
	0.8s	25.00nm				5.4mb	BUL	87.36	114	iPc	55	56.40	-0.2		E 20s	1.08um				
VAH	67.14	269	iP	54	04.20	0.1	GCC	87.59	324	eP	55	58.20	1.2			LR	54	20.00		
	0.8s	30.00nm				5.4mb	KVN	87.60	328	P	55	56.00	-1.3	ZST	119.35	50	e(PKP)	01	56.80	-1.4
TPT	67.28	269	iP	54	03.70	-1.3	ARN	87.65	325	P	55	58.60	1.2		Z 18s	1.30um			5.6Msz	
	0.8s	30.00nm				5.4mb	MHC	87.69	325	ePd	55	58.70	1.0	VAY	119.59	59	ePKP	01	59.30	0.4
MAW	68.54	164	iPd	54	12.00	-0.1	BW06	87.71	335	P	55	56.80	-1.0	SRO	119.90	51	ePKP	01	57.60	-1.6
	1.0s	105.00nm				5.9mb		1.3s	163.93nm			6.1mb		KSP	120.09	47	iPKPc	02	00.30	0.7
HBF	72.27	355	P	54	33.50	-1.5	CMB	87.71	326	ePd	55	58.20	0.6	BZS	120.94	54	ePKP	02	01.50	0.2
SGS	72.54	355	P	54	35.40	-1.2	PCC	88.16	324	e(P)	56	00.60	0.9	DAG	121.19	13	iPKPc	02	00.30	-0.6
PRM	73.56	354	P	54	41.00	-1.6	BKS	88.40	324	ePd	56	02.10	1.2		0.9s	9.24nm				
JSC	73.67	355	P	54	42.00	-1.2		1.4s	188.00nm			6.2mb				i	12	02.30		
TKL	75.26	353	P	54	51.00	-1.3	BRK	88.41	324	ePd	56	02.00	1.1	KRA	121.85	49	ePKP	02	03.40	0.5
GBTN	75.31	352	P	54	51.40	-1.2	ORV	89.46	326	ePd	56	06.80	0.9			e	02	13.60		
RSCP	75.40	351	P	54	51.50	-1.7	KMZ	89.71	107	iPc	56	09.00	1.2	NB2	121.94	35	PKP	02	01.20	-1.6
	1.4s	235.85nm				6.0mb		1.3s	48.00nm			5.6mb			0.9s	16.30nm				
OLY	76.20	346	P	54	55.70	-2.0			i		56	18.20		ALE	121.96	2	ePKP	02	02.00	-0.3
BLA	76.53	356	P	54	58.00	-1.6			i		59	41.00			0.7s	5.00nm				
NAV	76.66	355	P	54	59.20	-1.1	MIN	90.16	326	eP	56	09.20	-0.1	MBH	122.81	77	ePKP	02	07.00	1.7
CVL	77.20	357	P	55	02.70	-0.5	LSZ	90.25	110	iPc	56	12.60	2.3	PRNI	123.18	76	e(PKP)	02	07.00	0.9
ELC	77.55	348	P	55	02.80	-2.4		1.5s	131.00nm			6.0mb		BCK	123.32	67	iPKP	02	05.80	-0.4
SNZO	77.59	226	eP	55	08.00	2.5	WDC	90.75	326	iPd	56	11.40	-0.4	MLR	123.64	56	ePKPd	02	06.50	-0.2
		S		05	04.00		LBFM	91.10	327	P	56	14.00	0.3	ALT	123.70	65	ePKP	02	06.50	-0.5
		SS		10	06.00		LRM	91.37	335	eP	56	15.10	0.2	ZNT	124.13	74	ePKP	02	09.00	1.1
FVM	78.43	348	P	55	08.00	-2.0	RSON	91.50	348	P	56	13.50	-1.5	VRI	124.29	56	ePKPd	02	07.70	-0.1
LIC	78.75	72	P	55	12.60	0.3		1.4s	70.75nm			5.9mb		BBTK	125.89	65	iPKPc	02	12.00	0.7
FRS	78.90	119	iPd	55	13.50	0.5	FHC	91.57	325	eP	56	17.10	1.5	NUR	127.96	38	iPKP	02	13.40	-0.9
	1.0s	120.00nm				5.9mb	PTZ	93.21	111	iPd	56	26.00	2.1		0.7s	26.70nm				
TIC	79.04	72	P	55	14.00	0.1		0.9s	32.40nm			5.8mb		SUF	129.17	36	iPKP	02	15.80	-0.8
KIC	79.06	72	P	55	14.00	0.0			i		56	43.50			0.7s	8.30nm				
	1.1s	92.50nm				5.7mb	VGB	94.10	330	P	56	27.30	0.1	SOD	130.16	30	iPKP	02	18.00	-0.4
KRP	79.38	229	P	55	16.20	0.8	TIO	94.16	53	iP	56	29.40	1.5	BHD	131.61	78	ePKPc	02	23.00	0.8
ALQ	79.60	334	iPd	55	16.20	-0.5	TOO	94.73	211	eP	56	30.00	-0.6			ePKS	05	50.00		
	1.0s	132.50nm				5.9mb	SES	94.98	338	ePc	56	30.50	-0.7	MSL	131.98	73	ePKPc	02	23.00	0.2
Z	20s	1.54um				5.3Msz	LON	95.53	330	P	56	32.20	-1.5			ePKS	05	51.50		
ANMO	79.60	334	ePd	55	16.17	-0.5	BNG	95.53	89	iPd	56	35.30	0.7	SLY	133.42	75	iPKPc	02	26.00	0.5
		epPc		55	19.48	11kmX		0.8s	27.00nm			5.7mb		TAB	134.96	72	ePKP	02	28.00	-0.6
TBR	80.30	1	P	55	20.40	0.4			i		56	45.40		GUMO	136.48	245	ePKP	02	26.00	-5.9X
GLA	81.10	327	eP	55	25.00	0.5			i		57	00.00		KOD	141.90	132	ePKP	02	42.00	-0.2
BAR	81.57	325	eP	55	28.00	1.0	BMW	95.86	329	P	56	34.70	-0.6	PSI	142.92	170	ePKPd	02	39.90	-3.7X
BFS	81.71	118	iPc	55	27.00	-1.1	GMW	96.56	330	P	56	38.10	-0.3	MAIO	144.25	80	iPKPd	02	43.20	-2.2
	0.7s	178.08nm				6.2mb	FFC	96.70	345	iPc	56	37.80	-1.0	GBA	144.56	129	PKPd	02	45.10	-1.2
LEGH	81.98	76	eP	55	30.00	0.6		1.4s	63.00nm			5.9mb			2.2s	430.20nm				
DHN	82.03	358	P	55	28.50	-0.5	PNT	96.84	332	eP	56	40.00	0.4	IPM	145.02	173	ePKPc	02	45.00	-2.2
PRY	82.16	118	ePc	55	30.00	-0.5	IFR	97.25	52	iP	56	43.00	1.0		1.1s	101.10nm				
	0.6s	17.86nm				5.3mb	EDM	98.16	338	iPc	56	49.00	3.6X	POO	145.92	119	iPKPd	02	50.00	1.4
KUK	82.19	75	eP	55	32.00	1.5		1.1s	57.00nm			6.0mb		SNG	147.55	172	ePKP	02	50.40	-0.9
KOGH	82.22	76	eP	55	31.00	0.3	YKA	106.55	342	Pdiff	57	22.90	0.1	HYB	148.18	126	ePKP	02	52.00	-0.3
PLM	82.23	326	eP	55	31.00	0.5	ASPA	111.57	208	ePKP	01	43.30	-0.9	KUSJ	150.15	290	ePKP	02	58.70	4.2X
SHGH	82.27	76	eP	55	31.00	0.1	MEM	114.31	44	PKP	01	48.90	0.4	OFUJ	151.74	281	ePKP	03	03.60	6.6X

13d 01h

ASAJ	151.75	292	ePKP	03	02.60	5.7X
CHJJ	153.00	273	PKP	03	05.70	6.8X
IIDJ	153.66	272	PKP	03	07.70	7.7X
MAT	153.76	274	(PKP)	03	04.00	4.0X
KHT	154.71	165	ePKP	03	01.60	-0.2
KSH	157.64	81	PKP	03	06.00	0.8
			PP	07	13.00	
CHG	158.70	164	ePKP	03	07.00	0.2
CHTO	158.70	164	ePKP	03	05.63	-1.1
GKN	159.59	118	PKP	03	08.10	0.4
	1.0s		64.00nm			
DMN	159.65	120	PKP	03	08.40	0.4
	1.2s		67.00nm			
PKI	159.83	120	PKP	03	08.30	0.0
	1.0s		56.00nm			
KKN	159.88	120	PKP	03	08.60	0.4
	1.1s		56.00nm			
GUN	160.36	120	PKP	03	09.60	0.8
MDJ	161.08	294	ePKP	03	06.00	-2.5
	Z 20s		0.70um			
			ePP	07	30.00	
CN2	164.14	292	PKPd	03	08.00	-3.6X
	7.0s		0.40nm			
	E 10s		0.60um			
			pPKP	03	19.00	
			e	04	05.00	
			ePP	07	50.00	
			SKKS	14	32.00	
SSE	164.35	242	ePKP	03	08.00	-4.2X
			i	04	06.00	
LSA	164.98	127	ePKP	03	14.20	0.8
KMI	165.51	172	ePKP	03	13.94	0.3
SNY	165.71	285	PKPd	03	09.00	-4.0X
WMO	166.38	66	ePKP	03	14.07	0.5
NJ2	166.51	241	PKPc	03	13.00	-0.9
			e	04	15.00	
GYA	166.89	187	iPKPd	03	14.00	-0.6
			e	04	19.00	
DL2	167.08	273	ePKP	03	13.00	-1.2
			ePP	08	06.00	
WHN	168.21	223	ePKP	03	15.50	0.3
			e	04	25.00	
TIA	169.86	255	PKPc	03	15.90	-0.1
CD2	171.34	173	PKP	03	17.30	0.3
			PP	08	26.00	
BJI	171.38	277	ePKP	03	15.00	-1.6
XAN	173.68	211	PKP	03	18.50	0.7
TIY	173.90	255	iPKPd	03	18.00	0.2
	E 18s		1.50um			
HHC	174.80	287	PKPd	03	19.00	0.9
GTA	175.99	90	iPKPd	03	18.70	0.3
BTO	176.00	287	PKP	03	18.00	-0.3
			e	04	57.00	
			PP	08	49.00	
			SKKS	15	37.00	
			eSS	30	11.00	
LZH	176.44	165	ePKP	03	18.50	-0.1
	8.0s		873.00nm			
			i	08	49.00	
	S.D. = 1.0		on 190 of 205 obs.			

% APR 13, 1989 00h 50m 29.98± 0.76s
40.106 N ± 5.6km 29.325 E ± 7.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YLV	0.46	4	ePg	50	40.00	0.6
DST	0.73	227	iPg	50	43.70	-0.7
			eSg	50	52.70	
HRT	0.76	20	ePn	50	44.00	-0.9
BNT	1.10	284	ePn	50	50.70	0.0
EDC	1.14	283	ePn	50	52.00	0.6
ALT	1.21	150	iPn	50	53.10	0.5
CTT	1.24	327	ePn	50	53.00	-0.1
	S.D. = 0.8		on 7 of 7 obs.			

? APR 13, 1989 01h 15m 19.13± 4.12s
41.697 N ±28.9km 12.692 E ±24.6km
DEPTH = 10.7 ± 8.0 km
SOUTHERN ITALY (390)

RDP	0.06	17	Pd	15	21.50	-0.1
			eSg	15	23.80	
RMP	0.11	4	Pc	15	22.00	-0.1
			eSg	15	24.20	
MNS	0.69	359	P	15	32.00	-0.7
			iSg	15	43.30	
SDI	0.84	89	P	15	35.20	-0.2
			eSg	15	47.80	
AQU	0.84	39	P	15	35.50	0.1
			eSg	15	48.20	
ASS	1.37	359	Pd	15	44.30	0.0
			eSn	16	02.60	
ARV	1.81	6	P	15	51.40	0.9
			(Sn)	16	12.90	
	S.D. = 0.7		on 7 of 7 obs.			

APR 13, 1989 01h 30m 51.50± 0.80s
16.429 N ± 4.1km 119.916 E ± 4.0km
DEPTH = 53.9 ± 7.4 km
4.9mb (22 obs.) 4.0Msz (2 obs.)
LUZON, PHILIPPINE ISLANDS (249)

BAG	0.64	91	ePc+	31	06.90	2.0
OCP	2.10	148	eP	31	32.00	7.1X
HKC	7.97	318	iP	32	43.40	-3.9X
			S	34	05.20	
MCO	8.25	314	eP	32	46.00	-5.2X
			eS	34	10.80	
QZH	8.56	352	P	32	50.50	-5.0X
QIZ	9.94	287	Pc	33	09.30	-5.2X
	E 19s		2.00um			
DAV	10.81	149	eP	33	36.00	9.7X
SSE	14.65	4	P	34	16.50	-0.6
	1.1s		52.00nm		4.8mb	
	Z 20s		0.90um			
	E 16s		0.50um			
			e	35	20.00	
WHN	14.94	341	eP	34	20.00	-0.9
	Z 16s		0.84um			
	E 14s		0.65um			
			pP	34	26.00	
			eSS	37	24.00	
NJ2	15.58	357	Pc	34	29.00	-0.2
GYA	15.85	311	iPd	34	37.40	4.6X
	N 14s		1.10um			
	E 14s		0.70um			
LOE	17.43	276	eP	34	52.20	-0.3
KAGJ	17.77	32	eP	34	56.80	0.1
KMI	18.23	301	Pd	35	04.00	1.4
	Z 20s		1.40um			
			eS	38	36.00	
			sS	38	45.00	
KUMJ	18.84	30	P	35	09.00	-0.7
NST	19.03	271	eP	35	15.20	3.2X
TIA	19.86	353	Pd	35	20.10	-0.8
			eS	39	03.00	
NNT	19.90	262	eP	35	20.00	-1.5
BDT	20.03	275	iPc	35	23.20	0.4
	0.8s		83.50nm		5.1mb	
CHG	20.13	280	iPc	35	23.80	0.0
	0.9s		38.24nm		4.7mb	
XAN	20.13	333	eP	35	22.50	-1.3
			S	39	03.00	
SHNJ	20.29	28	P	35	24.50	-0.9
KHT	20.60	268	eP	35	29.50	0.8
CD2	20.62	317	P	35	28.00	-0.9
	Z 15s		0.50um		4.0MszX	
			S	39	18.00	
			sS	39	27.00	
SNG	20.99	246	eP	35	33.80	1.1
TKSJ	21.61	33	eP	35	38.50	-0.3
IPM	21.96	240	ePc	35	43.70	1.2
	1.0s		85.20nm		5.1mb	
TIY	22.21	344	eP	35	44.80	0.0
	E 17s		1.30um			
			S	39	45.00	
YONJ	22.27	30	P	35	44.00	-1.3
DL2	22.44	4	P	35	46.50	-0.5
	Z 18s		0.50um		4.0Msz	
			eS	39	48.00	
WKYJ	22.63	36	P	35	49.10	0.1
BJI	23.75	353	ePd	36	01.00	1.3
	4.0s		0.30nm		2.1mb X	
	Z 18s		0.60um		4.1Msz	
			eS	40	20.00	
TSRJ	23.83	34	P	36	01.50	1.0
LZH	24.24	327	eP	36	06.50	1.7
	1.5s		110.00nm		5.1mb	
IIDJ	24.86	37	P	36	10.10	-0.4
HHC	25.39	345	eP	36	16.20	0.7
SNY	25.51	6	Pd	36	15.70	-0.8
BTO	25.57	342	eP	36	16.00	-1.2
	N 12s		0.20um			
	E 12s		0.20um			
MTMJ	25.59	35	eP	36	16.60	-0.9
MAT	25.78	36	(P)	36	20.00	0.9
	1.0s		18.00nm		4.6mb	
CHJJ	25.88	37	eP	36	18.40	-1.7
CN2	27.69	9	eP	36	35.00	-1.4
GTA	28.85	327	P	36	42.40	-4.7X
MDJ	29.26	14	eP	36	49.50	-1.1
LSA	29.48	302	Pc	36	53.90	0.5
KNA	33.14	164	eP	37	23.90	-1.0
GUN	33.42	296	Pc	37	27.60	-0.1
PKI	33.75	295	Pc	37	29.80	-0.8
KKN	33.91	296	Pc	37	31.20	-0.7
DMN	34.02	295	Pc	37	32.20	-0.7
GKN	34.51	296	Pc	37	36.10	-0.9
MBL	37.35	180	iPd	38	00.30	-0.4
WMO	38.59	322	eP	38	13.30	2.2
WB5	38.78	158	eP	38	10.90	-1.8
WRA	38.82	158	Pd	38	12.20	-0.9
	1.1s		10.60nm		4.6mb	
NANU	38.99	186	eP	38	14.20	-0.2
HYB	39.53	278	ePc	38	19.00	-0.1
	1.0s		40.00nm		5.2mb	
			e	38	34.50	
GBA	41.07	272	Pd	38	31.40	-0.4
	0.8s		13.00nm		4.7mb	
KOD	41.70	267	eP	38	34.80	-2.5
ASPA	42.13	161	iPc	38	39.50	-0.8
	1.1s		18.00nm		4.7mb	
KSH	44.52	310	eP	39	01.00	1.2
FORR	47.66	170	eP	39	25.00	0.6
QUE	50.13	296	eP	39	43.00	-0.8
MAIO	56.75	303	iPc	40	32.60	0.0
	0.6s		6.73nm		4.9mb	
BRW	72.42	20	ePd	42	14.50	0.9
TTA	72.83	28	ePd	42	17.10	0.9
SVW	73.10	30	ePd	42	19.20	1.4
IMA	73.67	25	ePd	42	22.10	1.0
	0.8s		15.80nm		5.0mb	
PMR	76.16	30	ePd	42	35.30	0.1
	0.6s		17.60nm		5.2mb	
SOD	76.24	337	iP	42	35.90	0.3
FBA	76.24	26	eP	42	36.00	0.3
SUF	77.27	332	iP	42	40.90	-0.5
	0.5s		5.20nm		4.8mb	
TOA	77.45	29	ePd	42	44.00	1.5
PRNI	77.60	298	eP	42	45.00	1.0
MBH	77.82	298	iPd	42	46.00	0.9
NUR	78.42	330	iP	42	47.40	-0.4
AVY	79.20	247	iPc	42	53.96	0.9
VRI	80.57	315	ePd	43	00.50	0.8
INK	80.84	21	eP	43	00.00	-0.7
			pP	43	13.00	44kmX
MBC	81.05	12	eP	43	02.00	0.3
	0.6s		12.00nm		5.0mb	
MLR	81.20	315	ePd	43	03.00	-0.2
ALE	81.22	0	eP	43	03.50	1.1
	0.6s		4.00nm		4.5mb	
UPP	81.98	330	iP	43	05.70	-1.0
KRA	83.82	320	eP	43	16.50	0.1
			e	43	29.60	
DAG	83.83	351	iPd	43	15.20	-0.8
	0.6s		11.33nm		5.1mb	
NB2	84.50	332	P	43	18.80	-0.9
	0.7s		6.40nm		4.8mb	
VAY	84.70	311	eP	43	20.00	-1.0
SKO	85.31	312	iP	43	23.50	-0.6
KSP	85.75	322	iPc	43	26.30	0.2
PRU	87.11	321	eP	43	31.50	-1.3
			e	44	24.90	
BRG	87.12	322	eP	43	33.50	0.7
CLL	87.50	323	e(P)	43	48.00	13.4X
KHC	88.02	321	eP	43	40.00	2.8
KBA	88.96	319	e(P)	43	42.50	0.5
	0.7s		2.60nm		4.7mb	
			i	43	56.10	
GRF	89.20	322	eP	43	44.10	1.3
	0.7s		7.00nm		5.1mb	
YKA	90.56	22	P	43	50.30	1.5
YKC	90.61	22	eP	43	50.50	1.4
CDF	92.09	322	eP	43	56.50	0.2
	1.0s		8.00nm		5.1mb	
BSF	92.65	322	eP	43	59.10	0.2
	1.0s		8.00nm		5.1mb	
BUL	96.70	251	iPc	44	17.70	-0.2
FRB	99.81	4	eP	44	39.00	7.9X
FFC	100.69	23	ePdiff	44	47.00	11.9X

0.8s 5.00nm
KIC 120.76 288 PKP 49 40.00 -0.1
0.6s 7.00nm
TIC 120.91 288 PKP 49 40.20 -0.2
LIC 121.08 288 PKP 49 40.60 -0.1
0.6s 6.50nm
S.D. = 1.0 on 93 of 105 obs.

APR 13, 1989 02h 07m 35.90± 0.47s
34.183 N ± 6.6km 96.713 E ± 6.0km
DEPTH = 33.0km (normol)
4.4mb (3 obs.)
QINGHAI PROVINCE, CHINA (325)

GTA 5.78 25 eP 09 02.50 0.8
S 10 12.00
LZH 6.14 70 eP 09 06.50 -0.4
1.5s 66.00nm 5.1mb X
Z 16s 2.60um
Lg 10 41.00
e 10 53.00
LSA 6.50 228 Pc 09 15.90 3.7X
S 10 34.00
SHL 9.55 207 eP 09 54.00 -0.4
iS 11 38.50
KMI 10.44 148 Pd 10 05.50 -1.0
Z 15s 3.50um
eS 11 50.00
GUN 11.19 239 P 10 16.60 -0.4
GYA 11.53 129 P 10 20.20 -1.2
KKN 11.69 240 P 10 23.20 -0.4
0.4s 18.00nm 5.6mb X
PKI 11.73 239 P 10 22.50 -1.8
WMQ 11.90 327 P 10 25.00 -1.3
N 10s 1.30um
DMN 11.92 240 P 10 25.90 -0.9
0.9s 50.00nm 5.7mb X
GKN 12.04 242 P 10 27.60 -0.7
BTO 12.36 55 eP 10 30.50 -2.0
epP 10 40.50
TIY 13.22 70 eP 10 44.10 0.3
E 10s 0.70um
HHC 13.53 56 eP 10 48.00 0.1
Z 24s 1.40um
N 11s 1.10um
E 11s 0.80um
CHG 15.44 172 iPd 11 13.00 0.1
1.1s 34.81nm 4.5mb
eS 16 14.00
BJI 16.58 64 eP 11 32.50 5.2X
Z 10s 0.96um
LOE 17.30 164 eP 11 36.80 0.2
KHT 19.39 175 eP 12 04.80 2.7
HYB 23.30 229 eP 12 43.50 1.7
GBA 26.93 225 Pc 13 16.00 -0.1
0.7s 2.30nm 3.9mb
MNS 63.93 305 P 18 02.30 -5.6X
eSg 18 11.90
RDP 64.16 304 Pd 17 51.50 -17.9X
eSg 17 56.20
MBC 67.50 9 eP 18 32.00 1.7
INK 71.22 18 eP 18 58.00 4.9X
BNG 77.73 267 ePd 19 33.60 2.1
0.5s 3.00nm 4.6mb
BUL 84.31 241 iPd 20 07.00 0.8
S.D. = 1.3 on 22 of 27 obs.

APR 13, 1989 02h 10m 01.02± 0.59s
38.919 N ± 6.0km 24.961 E ± 5.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

PRK 1.07 72 ePb 10 22.50 1.3
ATH 1.36 226 ePn 10 24.50 -1.5
EZN 1.39 49 iPn 10 15.90 -10.5X
NEO 1.41 287 ePb 10 29.00 2.3
PLG 1.87 322 ePn 10 33.50 0.2
IZM 1.88 105 ePn 10 34.10 0.6
RDO 2.27 11 ePn 10 39.00 -0.1
EDC 2.66 57 ePn 10 50.00 5.4X
KDZ 2.75 7 iP 10 45.00 -1.0
iS 11 15.00
iSg 11 22.00
RZN 2.77 356 iPc 10 47.00 0.5
KZN 2.83 300 ePn 10 46.00 -1.1
MMB 2.83 341 iPc 10 47.00 -0.1
i 11 19.00
DST 2.93 75 ePn 10 54.70 6.2X
ITM 2.96 235 ePn 10 49.00 0.1
VAY 3.02 323 ePn 10 50.30 0.6
KKB 3.28 335 iPd 10 54.00 0.6
e 11 46.00
DMK 3.60 35 iPn 10 57.10 -0.9
PGB 3.68 351 eP 10 59.00 -0.2
S 12 00.00
YLV 3.78 63 ePn 10 57.00 -3.7X
OHR 3.87 306 ePn 11 11.20 9.2X
ALT 4.01 86 ePn 11 03.50 -0.5
PVL 4.30 4 eP 11 07.00 -1.0
S.D. = 1.0 on 17 of 22 obs.

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* APR 13, 1989 02h 17m 56.37± 1.00s
39.402 N ± 8.9km 23.537 E ±10.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (ATH).

PLG 0.97 356 ePg 18 15.00 0.1
ATH 1.43 174 ePb 18 20.70 -1.7
KZN 1.63 304 ePn 18 27.50 2.2
VAY 2.05 339 ePn 18 31.60 0.3
PRK 2.13 93 ePb 18 34.00 1.6
MMB 2.19 4 eP 18 32.00 -1.4
iS 18 59.00
i 40 47.00
EZN 2.19 78 ePn 18 34.40 1.0
RDO 2.32 41 ePb 18 38.50 3.3X
RZN 2.45 21 eP 18 36.00 -1.2
S 19 06.00
KKB 2.49 352 iPc 18 37.00 -0.5
iS 19 09.00
KDZ 2.66 32 eP 18 37.00 -3.1X
iS 19 07.00
OHR 2.70 310 ePn 18 44.00 3.3X
PGB 3.18 8 eP 18 47.00 -0.4
S 19 41.00
S.D. = 1.5 on 10 of 13 obs.

APR 13, 1989 02h 39m 50.39± 0.59s
45.413 N ± 6.9km 26.138 E ± 6.8km
DEPTH = 10.0km (geophysicist)
ROMANIA (358)

VRI 0.62 42 iPc 40 09.00 6.2X
BRD 0.65 80 iPc 40 11.20 7.8X
PPE 1.31 52 iPc 40 15.00 0.4
BIR 1.35 50 eP 40 15.00 -0.1
CLI 1.39 35 iPc 40 15.20 -0.6
CFR 1.44 98 iPc 40 16.20 -0.3
TLB 1.58 121 iPc 40 19.20 0.8
CVD 1.73 128 eP 40 30.00 9.4X
PSN 2.27 139 iPd 40 33.00 4.6X
PVL 2.27 195 eP 40 33.00 4.5X
BZS 3.19 275 iPc 40 42.00 0.6
PGB 3.20 207 eP 40 40.00 -1.7
i 41 22.00
VTS 3.52 218 iP 40 47.00 0.6
KDZ 3.80 188 eP 40 50.00 -0.2
RZN 3.86 196 iPd 40 52.00 0.7
S.D. = 0.9 on 10 of 15 obs.

% APR 13, 1989 02h 42m 45.23± 1.28s
38.599 N ± 7.2km 27.145 E ±13.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM 0.22 155 iPg 42 50.80 0.8
EZN 1.38 333 iPn 43 10.90 0.4
DST 1.53 48 iPn 43 12.70 0.0
YER 1.72 148 ePn 43 15.30 -0.1
EDC 1.83 17 iPn 43 17.00 0.0
KHL 1.89 98 ePn 43 20.50 2.6
ALT 2.36 78 ePn 43 24.50 -0.2
YLV 2.61 41 ePn 43 27.00 -1.3
ELL 2.87 129 ePn 43 30.00 -1.9
BCK 2.95 112 ePn 43 32.00 -1.0
HRT 2.95 40 ePn 43 32.00 -1.0
GPA 2.98 54 ePn 43 35.00 1.6
S.D. = 1.4 on 12 of 12 obs.

% APR 13, 1989 02h 46m 23.36± 1.09s
38.603 N ± 6.9km 27.153 E ±12.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM 0.22 157 iPg 46 28.20 0.0
EZN 1.38 332 ePn 46 48.60 0.0
DST 1.52 48 iPn 46 50.70 0.0
YER 1.72 148 ePn 46 53.00 -0.5
EDC 1.83 17 ePn 46 56.00 1.0
KHL 1.88 98 ePn 46 57.50 1.6
ALT 2.35 78 ePn 47 02.00 -0.8
YLV 2.61 40 ePn 47 05.00 -1.3
S.D. = 1.1 on 8 of 8 obs.

? APR 13, 1989 03h 26m 27.86± 6.38s
38.070 S ±60.1km 73.555 W ±54.1km
DEPTH = 33.0km (normol)
NEAR COAST OF CENTRAL CHILE (135)

ITB7 20.90 57 e(P) 31 09.60 -0.2
ITB1 21.09 56 eP 31 12.40 0.7
ITB 21.10 57 e(P) 31 11.00 -0.9
CCH 21.61 20 (PKP) 31 22.50 5.1X
CNCB 21.74 15 P 31 20.00 1.0
LPB 21.99 14 eP 31 21.00 -0.3
ZOBO 22.24 14 eP 31 23.00 -1.0
PPD 24.93 56 eP 31 50.20 0.7
VAO 27.26 64 eP 32 10.90 -0.2
ITA 29.28 66 eP 32 29.50 -0.1
BMA 29.48 67 eP 32 30.70 -0.4
SOB1 41.09 54 eP 34 10.90 0.6
ITR 43.03 56 e(P) 34 33.00 6.8X
S.D. = 0.8 on 11 of 13 obs.

APR 13, 1989 03h 33m 28.32± 1.01s
38.640 N ± 6.4km 27.241 E ±11.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM 0.24 176 ePg 33 33.10 -0.4
EZN 1.38 329 iPn 33 53.90 0.3
DST 1.45 48 iPn 33 55.70 1.1
YER 1.71 151 iPn 33 57.70 -0.7
EDC 1.77 16 ePn 34 00.00 0.8
KHL 1.82 99 ePn 34 01.00 1.0
ALT 2.28 79 ePn 34 07.50 0.8
YLV 2.53 40 ePn 34 09.00 -1.2
ELL 2.84 131 ePn 34 16.00 1.4
HRT 2.87 40 ePn 34 13.00 -2.0
GPA 2.89 54 ePn 34 20.00 4.7X
BCK 2.89 113 ePn 34 14.00 -1.4
BBTK 4.45 73 eP 34 58.00 20.5X
eS 36 01.00
S.D. = 1.3 on 11 of 13 obs.

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* APR 13, 1989 03h 49m 43.77± 0.55s
27.287 S ±13.9km 177.143 W ±12.2km
DEPTH = 33.0km (normol)
4.8mb (1 obs.)
KERMADEC ISLANDS REGION (177)

RAO 2.07 199 iP 50 15.80 -1.1
eS 50 44.00
DZM 15.79 286 iPc 53 35.00 9.6X
TOO 32.98 242 eP 56 03.00 -14.7X
e 56 10.00
CTA 34.18 274 iPc 56 30.90 2.5
iPcP 59 10.30
iS 02 04.00
i 04 30.00
STK 36.02 253 eP 56 46.00 2.1
e 57 03.00
ASPA 44.12 263 eP 57 50.60 -0.4
Z 18s 4.70um 5.4MszX
eS 03 36.80
LR 09 40.20
WB5 44.82 269 eP 57 55.80 -0.9
GUMO 54.86 313 eP 59 12.00 -1.4
MAT 76.14 324 eP 01 09.00 -21.1X
PRS 82.23 42 ePd 02 03.80 0.8
MHC 82.74 41 ePd 02 06.80 1.0
FRI 83.66 43 ePd 02 11.70 1.3
CMB 83.95 42 ePd 02 12.30 0.4
WDC 84.42 39 eP 02 14.90 0.8
MIN 84.79 39 ePd 02 15.30 -0.9
LBFM 85.31 38 P 02 19.30 0.5
TNP 85.88 43 P 02 18.20 -3.5X
KVN 85.97 42 P 02 18.50 -3.6X
MDJ 86.50 325 eP 02 22.40 -2.0

13d 04h

CN2	88.13	322	Pd	02	31.80	-0.4
TIA	88.42	312	Pd	02	34.30	0.5
MSU	89.28	45	P	02	36.50	-1.7
ALQ	91.04	51	eP	02	46.00	-0.4
	1.0s	4.50nm			4.8mb	
BJI	91.25	315	eP	02	46.00	-0.9
TIY	92.36	312	eP	02	51.80	-0.4
	N 15s	0.50um				
SOB1	124.21	124	e(PKP)	08	48.00	6.5X
SUF	141.39	343	iPKP	09	06.60	-5.7X
BHD	143.82	290	ePKPd	09	14.00	-3.4X
MSL	144.80	295	ePKPd	09	16.00	-3.0X
NB2	145.78	353	PKP	09	16.60	-3.4X
	1.0s	8.40nm				
BNG	152.79	216	ePKPd	09	32.80	0.6
	0.9s	18.00nm				
			i	09	36.30	
			i	09	48.60	
KSP	154.35	340	ePKP	09	53.70	20.5X
			e	11	52.00	
			e	24	09.80	
	S.D. = 1.3	on	21 af	32	abs.	

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* APR 13, 1989 04h 04m 30.14± 0.86s
53.482 S ±13.6km 140.176 E ±21.5km
DEPTH = 10.0km (geophysicist)
5.1mb (4 obs.)
WEST OF MACQUARIE ISLAND (701)

TOO	16.33	15	eP	08	21.00	0.0
ADE	18.54	356	eP	08	50.00	1.5
CAN	19.19	22	eP	08	59.00	2.5
CNB	19.28	23	eP	08	57.00	-0.7
BWA	19.93	20	eP	09	05.30	0.5
STK	21.61	3	iPd	09	22.60	0.5
FORR	24.26	334	iPc	09	50.30	2.3
	0.4s	35.00nm			5.3mb	
RMQ	27.71	17	eP	10	19.60	-0.7
QIS	32.87	359	iPd	11	04.90	-1.2
CTA	33.66	10	iPc	11	11.80	-1.2
	1.0s	14.00nm			4.8mb	
WRA	33.78	350	Pd	11	12.60	-1.5
	0.8s	24.40nm			5.2mb	X
WB5	33.84	350	iPd	11	12.90	-1.7
MTN	41.17	347	iPc	12	16.10	0.0
IPM	66.52	317	ePc	15	21.30	-0.8
	1.0s	33.90nm			5.5mb	
CHG	80.28	321	eP	16	43.00	0.5
GBA	85.48	300	Pd	17	06.30	-2.9
	0.9s	4.80nm			4.7mb	
PKI	93.61	313	P	17	47.10	-0.7
GUN	93.71	314	P	17	48.30	0.1
DMN	93.78	313	P	17	48.30	-0.2
KKN	93.86	313	P	17	48.60	-0.2
GKN	94.33	313	P	17	50.40	-0.4
YKA	141.53	46	ePKP	23	59.70	-2.1
FFC	144.59	62	ePKP	24	05.00	-2.3
	0.9s	13.00nm				
RBL	145.65	280	PKP	24	10.00	0.5
KBA	146.11	281	e(PKP)	24	10.00	-0.4
	0.9s	2.90nm				
FVI	146.19	280	PKP	24	10.50	0.3
CTI	146.57	278	PKP	24	12.50	1.5
PRU	146.84	286	ePKP	24	13.00	1.8
KHC	146.99	285	iPKPd	24	13.90	2.4
	1.0s	4.50nm				
BRG	147.58	288	iPKP	24	16.00	3.7X
	0.8s	12.00nm				
			i	24	30.00	
CLL	148.30	288	ePKP	24	16.00	2.5
ALE	150.15	6	ePKP	24	25.00	9.5X
NB2	152.04	306	PKP	24	32.40	13.5X
	0.9s	1.90nm				
	S.D. = 1.5	on	30 of	33	abs.	

& APR 13, 1989 05h 02m 35.60s
37.420 N 121.813 W
DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.0 (BRK).
Mo=1.7*10**14 Nm (BRK). Felt at San Jose.

MHC	0.16	120	iPc	02	38.88	0.0
			iS	02	41.60	
ARN	0.23	107	iP	02	40.00	-0.4
GCC	0.42	201	iPd	02	44.20	0.2
			iS	02	51.30	
PCC	0.46	280	iPc	02	44.80	0.0
BKS	0.57	324	iPc	02	46.88	0.0
			eS	02	56.10	
BRK	0.58	322	iPc	02	46.80	-0.3
ZSP	0.63	326	iPc	02	48.30	0.1
			iS	02	58.50	
SAO	0.72	156	iPd	02	49.70	-0.2
			iS	03	00.90	
LLA	1.06	139	iPd	02	54.70	-1.4
PRS	1.14	162	ePd	02	55.80	-1.7
CMB	1.29	61	iPd	02	58.50	-1.5
NWRM	1.34	321	eP	02	57.90	-2.9
PRI	1.57	144	ePd	03	02.90	-1.5
FRI	1.73	104	ePc	03	04.70	-1.8
PHAM	1.95	144	eP	03	08.00	-1.7
KVN	3.35	60	eP	03	27.30	-2.5
EUR	5.03	64	iP	04	13.00	19.3
	0.2s	3.35nm				
	17 abs. assaciated					

? APR 13, 1989 05h 26m 27.14± 7.93s
17.816 N ±24.0km 65.629 W ±53.9km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)
Felt at Caguas.

LPR	0.54	335	P	26	38.00	-0.1
SJG	0.58	301	iP	26	38.90	0.1
			S	26	46.10	
CSB	0.69	313	P	26	40.80	0.0
APR	1.23	301	P	26	49.80	-0.1
MGP	1.40	278	P	26	52.40	-0.3
MCP	1.53	293	P	26	55.00	0.4
	S.D. = 0.3	on	6 af	6	obs.	

? APR 13, 1989 05h 45m 23.99± 5.79s
17.816 N ±21.7km 65.664 W ±35.8km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.53	338	P	45	34.70	0.0
SJG	0.55	303	iP	45	35.10	0.0
			S	45	42.60	
CSB	0.66	315	P	45	37.10	-0.1
APR	1.20	302	P	45	46.50	0.2
MGP	1.37	278	P	45	49.10	0.0
	S.D. = 0.2	on	5 of	5	obs.	

% APR 13, 1989 06h 33m 51.04± 1.03s
38.610 N ± 7.3km 27.192 E ±16.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.22	165	iPg	33	56.60	0.8
EZN	1.39	331	ePn	34	16.50	0.1
DST	1.50	48	ePn	34	18.60	0.6
YER	1.71	149	ePn	34	20.00	-1.1
EDC	1.81	16	ePn	34	22.00	-0.5
	S.D. = 1.1	on	5 of	5	obs.	

? APR 13, 1989 07h 16m 40.41± 5.78s
35.700 N ±39.3km 141.391 E ±33.9km
DEPTH = 30.9 ± 7.7 km
NEAR EAST COAST OF HONSHU, JAPAN(228)
MG 3.6 (JMA). Felt (I JMA) at Mita.

MIT	1.01	313	iPd	16	58.60	0.2
			iS	17	07.90	
KAKJ	1.11	297	P	16	58.90	-0.9
			S	17	09.00	
CHJJ	1.98	281	P	17	12.20	-0.2
NIIJ	2.46	309	P	17	19.50	0.2
YAMJ	2.70	337	eP	17	22.50	-0.1
MAT	2.71	289	iPd	17	23.30	0.5
			iS	17	50.70	
MTMJ	3.03	288	P	17	27.70	0.2
OFUJ	3.38	4	eP	17	32.30	0.0
	S.D. = 0.6	on	8 of	8	abs.	

APR 13, 1989 07h 25m 36.70± 0.17s
24.472 N ± 3.5km 92.505 E ± 3.3km
DEPTH = 33.0km (normal)
5.1mb (44 abs.) 5.0Msz (9 obs.)
INDIA-BANGLADESH BORDER REGION (315)
Felt in the Dhaka-Chittagong area, Bangladesh. Also felt in the Agartala-Silchar area, India.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 23C
Centroid Location:
Origin Time 07:25:37.9 0.8
Lat 24.25N 0.09 Lon 91.71E 0.16
Dep 33.0 FIX Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr= 0.43 0.09 Mtt=-0.61 0.09
Mff= 0.18 0.14 Mrt=-0.13 0.15
Mrf=-1.69 0.13 Mtf= 0.18 0.08
Principal Axes:

T	Val= 2.01	Plg=47	Azm= 97
N	-0.63	6	1
P	-1.39	43	265

Best Double Couple:Mo=1.7*10**17

NP1:Strike=291	Dip= 6	Slip= 20
NP2: 181	88	96

SHL	1.23	333	iP	25	58.20	0.4
			iS	26	14.70	
LSA	5.35	347	Pn	26	56.80	0.1
CHG	8.22	132	iPnd	27	36.70	0.1
			iS	29	02.50	
KMI	9.32	84	Pc+	27	54.50	2.4
	5.0s	0.90nm			3.2mb	X
	Z 20s	32.20um			4.9Msz	
	N 10s	10.30um				
			sP	28	29.00	
			S	29	44.00	
BDT	9.41	139	iPd	27	53.20	0.1
	1.0s	386.40nm			6.6mb	X
LOE	11.12	127	eP	28	16.00	-0.5
KHT	11.21	148	iPd	28	15.50	-2.3
			e	30	19.00	
NST	11.31	139	eP	28	20.00	0.9
CD2	11.85	55	P	28	24.80	-1.7
	N 12s	10.20um				
GYA	12.94	78	P	28	40.00	-1.1
	Z 18s	6.80um				
	N 10s	4.80um				
	E 10s	3.40um				
			S	31	07.00	
NNT	13.66	149	eP	28	53.50	3.1X
NDI	14.31	290	eP	28	54.00	-4.9X
HYB	14.80	244	iPd	28	59.00	-6.4X
			iS	31	29.50	
LZH	15.15	38	eP	29	08.00	-2.1
	Z 20s	7.10um				
	N 10s	5.60um				
			pP	29	19.00	
			eS	32	10.00	
			Lg	33	31.00	
GTA	16.12	21	eP	29	20.00	-2.6
	Z 18s	7.30um				
	E 11s	5.40um				
			pP	29	28.80	
			sP	29	33.00	
			S	32	28.00	
QIZ	16.99	105	P	29	36.60	3.1X
	Z 15s	4.30um				
	N 13s	5.10um				
XAN	17.19	53	Pd	29	32.50	-3.5X
	N 14s	5.66um				
	E 14s	2.08um				
			S	32	45.00	
GBA	17.86	235	Pd	29	38.50	-5.9X
	0.9s	11.50nm			4.0mb	X
POO	18.33	255	iPd	29	46.40	-3.8X
	0.8s	94.03nm			5.0mb	
SNG	18.87	154	eP	29	56.10	-0.7
			eS	33	22.10	
BOM	19.11	257	eP	29	55.70	-3.9X
			iS	33	13.50	
GZH	19.12	90	Pc	29	59.50	-0.2
	Z 17s	8.50um				
	E 15s	7.10um				
			eS	33	27.00	
WMQ	19.70	350	P	30	04.50	-1.8
	Z 20s	3.80um				
	E 10s	3.00um				
			S	33	45.00	
HKC	20.00	92	P	30	10.00	0.6
KOD	20.13	228	iPd	30	09.80	-1.4

```
        1.0s    26.00nm          4.5mb
                  eS     33 55.00
WHN    20.28  68 Pc     30 12.00   -0.3
       4.0s     0.82nm           2.4mb X
     Z 18s     14.70um           5.4Msz
     N 15s      5.00um
     E 14s      7.14um
                  pP     30 17.00   19kmX
                  S      33 54.00
KSH    20.44 321 eP     30 12.40   -1.6
     Z 15s      6.70um           5.1MszX
     N 13s     11.30um
                  S      33 59.50
IPM    21.41 156 ePd    30 24.00    0.0
       1.0s    132.30nm           5.3mb
                  e      30 30.90
TIY    21.52  47 Pc     30 24.50   -0.5
       0.8s     0.10nm           2.3mb X
     N 12s      1.90um
     E 14s      2.40um
                  pP     30 29.50   18kmX
                  sP     30 40.00
                  S      34 20.00
BTO    21.77  38 P      30 27.00   -0.5
     N 12s      4.80um
     E 12s      8.20um
                  sP     30 41.00
                  S      34 21.00
                  sS     34 39.50
PSI    22.52 163 ePc    30 34.60   -0.4
       1.1s    49.90nm           4.9mb
HHC    22.82  40 P      30 39.60    1.7
     N 10s      2.80um
     E 13s      4.00um
                  sP     30 51.00
QZH    23.70  83 P      30 46.70    0.3
       5.0s     1.10nm           2.6mb X
     Z 17s      8.50um           5.3MszX
     N 12s      5.20um
                  S      35 05.00
TIA    24.18  55 Pc     30 52.30    1.2
     Z 16s      4.50um           5.0MszX
     N 11s      0.60um
     E 14s      4.50um
                  eS     35 08.00
NJ2    24.37  66 iPc    30 53.00    0.1
       4.0s     1.00nm           2.7mb X
     N 15s      2.00um
     E 15s      6.20um
                  S      35 09.00
KGM    24.65 153 eP     30 58.00    2.2
BJI    25.22  46 eP     31 03.00    2.0
       8.0s     0.60nm           2.2mb X
     Z 21s      2.50um           4.7Msz
     N 12s      1.70um
                  eS     35 30.00
SSE    26.17  69 P+     31 12.00    2.1
       1.0s    86.00nm           5.3mb
     Z 18s      4.20um           5.0Msz
     N 12s      3.00um
                  pP     31 24.00   47kmX
                  eS     35 54.00
                  sS     36 14.00
                  SS     36 18.00
BAG    27.46 102 eP     31 22.90    0.8
DL2    28.51  53 eP     31 30.00   -1.1
     Z 18s      1.80um           4.7Msz
     N 20s      4.90um
     E 16s      1.90um
                  eS     36 12.00
MAIO   30.67 300 eP     31 51.00    0.4
SNY    31.02  48 eP     31 53.00   -0.5
     Z 18s      2.20um           4.9Msz
     E 14s      1.30um
                  S      36 55.00
TSM    31.80 125 eP     31 58.50   -2.0
CN2    33.09  46 Pd     32 12.00    0.5
     Z 16s      2.30um           5.0MszX
     E 13s      1.20um
                  eS     37 30.00
DAV    36.07 113 eP     32 38.00    0.6
MDJ    36.15  47 eP     32 35.00   -2.8
     Z 24s      1.20um           4.6MszX
     E 12s      1.20um
                  esP    32 52.00
                  PP     34 00.00
MAT    40.83  62 iPc    33 17.00    0.1

        1.2s    39.06nm          5.0mb
     Z 21s      1.79um           4.9Msz
                  eS     39 28.00
TAB    41.33 300 eP     33 31.00    9.8X
RYD    41.58 280 eP     33 23.70    0.5
SLY    41.83 297 ePd    33 19.00   -6.1X
                  i      33 35.00
BHD    42.73 293 ePc    33 32.00   -0.5
QASM   44.10 283 eP     33 44.00    0.2
GUMO   50.41  92 eP     34 34.00    0.7
GUA    50.47  92 eP     34 33.20   -0.6
ZNT    50.66 293 eP     34 37.00    2.0
PRNI   50.93 290 e(P)   34 37.00   -0.2
MBH    51.12 289 e(P)   34 38.00   -0.5
KAS    51.16 304 eP     34 40.50    1.7
NANU   51.83 153 eP     34 44.00    0.2
MBL    52.57 147 iPd    34 49.20   -0.3
       0.5s    18.00nm           5.3mb
MTN    52.89 130 eP     34 51.00   -1.0
KNA    53.39 135 eP     34 54.50   -1.0
ALT    54.04 302 eP     34 58.50   -1.8
ELL    54.39 299 iP     35 00.60   -2.4
CFR    55.24 309 eP     35 12.00    3.2X
                  e      52 32.00
TLB    55.33 308 eP     35 10.00    0.5
CLI    55.83 311 eP     35 15.00    1.9
VRI    56.23 310 eP     35 16.00    0.0
ISR    56.38 309 eP     35 26.00    8.9X
MEKA   56.67 152 iPd    35 19.10   -0.2
SUF    57.72 330 iP     35 25.20   -1.1
       0.4s     9.80nm           5.2mb
MRWA   57.96 156 eP     35 28.00   -0.3
NUR    58.13 327 eP     35 30.00    0.8
                  eS     43 28.00
SOD    58.40 336 eP     35 30.00   -1.0
KEV    58.82 338 eP     35 35.00    1.1
                  eS     43 40.00
WB5    60.04 134 iPc    35 42.00   -0.9
                  i      35 56.20
WRA    60.07 134 Pc     35 42.60   -0.5
       0.6s    19.40nm           5.4mb
WARB   60.20 144 eP     35 36.00   -8.0X
       0.5s    22.00nm           5.5mb
MUN    60.53 157 eP     35 45.00   -1.0
       1.1s     1.00nm           3.9mb X
KRA    60.60 315 eP     35 54.10    7.7X
                  e      36 08.10
KLB    60.76 155 eP     35 47.00   -0.6
AVY    61.34 229 iPc    35 53.56    1.5
COOL   61.50 152 eP     35 52.00   -0.7
UPP    61.60 326 iP     35 51.90   -1.1
NWAO   61.76 156 eP     35 50.00   -4.4X
ASPA   62.46 137 iPc    35 58.50   -0.8
       0.8s    40.00nm           5.6mb
                  epP    36 10.90   43kmX
ZST    62.63 313 e(P)   36 07.00    6.9X
     Z 18s      1.40um           5.2Msz
KSP    62.85 316 eP     36 01.00   -0.6
                  e      36 10.00
QIS    64.06 130 eP     36 09.00   -0.8
PRU    64.07 315 eP     36 09.50   -0.1
     Z 22s      1.50um           5.1Msz
     N 26s      3.20um
                  e      36 18.00
BRG    64.33 316 eP     36 13.00    1.8
       1.2s    27.00nm           5.2mb
                  e      36 20.10
NRA0   64.59 328 P      36 12.20   -0.6
FORR   64.72 146 iPd    36 14.70    0.8
       0.5s    22.00nm           5.5mb
NB2    64.72 328 P      36 11.90   -1.8
       0.9s    23.30nm           5.3mb
KHC    64.81 315 P      36 14.80    0.3
                  e      36 37.50
CLL    64.86 317 eP     36 12.00   -2.6
                  i      36 23.00
KBA    65.30 312 iP     36 29.40   11.6X
MOX    65.82 316 eP     36 20.00   -0.9
       1.3s    29.00nm           5.2mb
     Z 20s      1.80um           5.3Msz
     N 32s      2.00um
     E 32s      0.60um
                  e      36 30.00
                  eLR    00 40.00
LWI    67.21 256 iPd    36 31.60    1.1
WTS    68.53 319 eP     36 38.00    0.1
       1.0s    39.00nm           5.4mb

                  e      36 47.50
CTA    68.54 125 iPd    36 38.80    0.3
       1.2s    31.25nm           5.3mb
CLK    68.86 241 iPd    36 38.50   -2.1
ENN    69.35 317 e(P)   36 52.50    9.5X
       0.9s    11.00nm           4.9mb
WLF    69.46 316 P      36 45.60    1.9
HAU    69.74 314 eP     36 45.10   -0.4
       0.8s     8.05nm           4.8mb
DOU    70.33 317 Pc     36 49.00    0.0
                  e      36 58.50
DAG    71.05 347 eP     36 53.50    0.5
LOR    71.56 314 eP     36 56.10   -0.4
       0.8s     6.05nm           4.7mb
LBF    71.56 314 eP     36 56.30   -0.3
       0.8s    12.10nm           5.0mb
SMF    71.75 314 eP     36 57.40   -0.3
       0.8s    17.45nm           5.1mb
SSF    71.85 314 eP     36 58.00   -0.2
       0.8s    22.85nm           5.2mb
AVF    72.03 314 eP     36 58.20   -1.1
       0.8s    10.75nm           4.9mb
ALE    72.54 357 eP     37 02.00    0.2
       0.5s     4.00nm           4.7mb
MAF    72.71 313 eP     37 03.60    0.2
       1.0s    36.00nm           5.3mb
TCF    72.93 313 eP     37 04.80    0.1
       0.8s    17.45nm           5.1mb
ALE    73.44 357 eP     37 08.40    0.7
       0.8s    13.45nm           5.0mb
ADE    73.56 142 eP     37 08.80    0.4
BNG    73.58 267 iPd    37 07.10   -1.9
       0.6s    12.00nm           5.1mb
RJF    73.69 313 eP     37 09.90    0.8
       0.8s    13.45nm           5.0mb
LDF    73.72 316 eP     37 08.10   -1.1
       0.8s    16.10nm           5.1mb
KRI    73.79 243 iPc    37 11.30    1.1
                  ipP    37 23.00   39kmX
LPO    74.11 312 eP     37 12.00    0.5
       0.8s    16.10nm           5.1mb
LSZ    74.14 245 iPc    37 11.90   -0.3
       0.8s    12.70nm           5.0mb
                  i      37 23.50
                  e      37 44.00
GRR    74.25 316 eP     37 11.20   -1.0
       0.8s     8.05nm           4.8mb
RMQ    74.28 129 iPc    37 14.10    1.4
LFF    74.33 312 eP     37 13.10    0.3
       0.8s    21.50nm           5.2mb
MFF    74.38 314 eP     37 13.00    0.0
       0.8s    10.75nm           4.9mb
KMZ    75.18 248 eP     37 19.00    0.8
                  i      37 28.00
BUL    76.36 240 iPc    37 23.50   -1.4
IMA    76.94  23 eP     37 28.40    1.0
MBC    77.60   7 eP     37 31.00    0.3
       0.8s    11.00nm           4.9mb
TTA    77.67  26 P      37 31.00   -0.3
       1.6s    24.59nm           5.0mb
BRS    77.69 128 iP     37 32.30    0.3
SVW    78.74  27 eP     37 38.20    1.0
TOO    79.29 140 eP     37 41.00    0.4
FBA    79.63  22 eP     37 42.80    0.9
SLR    79.66 236 iPc    37 43.00    0.1
       0.4s    33.90nm           5.7mb
                  i      37 53.00
CAN    79.96 136 eP     37 44.80    0.6
KSR    80.77 236 eP     37 48.00   -0.9
       0.8s    18.75nm           5.1mb
                  i      38 02.50
PRY    80.92 235 eP     37 48.70   -0.9
       0.8s     9.38nm           4.8mb
PMR    81.10  25 eP     37 50.30    0.6
BFS    81.42 235 eP     37 52.00   -0.2
INK    81.54  16 ePc    37 53.00    1.1
KDC    81.88  29 P      37 52.30   -1.6
       1.2s    24.24nm           5.1mb
TOA    81.91  24 eP     37 55.20    1.1
YKA    90.67  12 P      38 39.10    2.0
FRB    90.82 352 eP     38 37.00   -0.7
KIC    93.95 279 P      38 54.60    1.6
       0.9s     8.00nm           5.1mb
TIC    94.08 279 P      38 55.00    1.4
LIC    94.27 279 P      38 56.00    1.6
FFC   100.15   8 ePdiff39 21.00    0.7
```

13d 07h

1.2s 10.00nm 5.2mb
ITR 130.72 280 ePKP 44 46.40 -0.5
SOB1 133.13 281 ePKP 44 55.30 3.8X
BAO 141.97 276 ePKP 45 08.50 0.5
PPD 146.72 267 ePKP 45 17.30 1.6
e 45 27.60
CCH 158.86 285 (PKP) 45 36.00 2.8
ZOBO 160.11 291 PKP 45 38.50 3.5X
Z 24s 0.45um
LPB 160.20 290 ePKP 45 35.00 0.1
Z 18s 1.37um
CNCB 160.22 289 ePKP 45 37.00 1.9
S.D. = 1.2 on 140 of 160 obs.

? APR 13, 1989 07h 28m 40.75± 5.75s
38.249 N ±50.4km 26.376 E ±22.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

IZM 0.71 78 iPg 28 55.30 0.5
EZN 1.58 359 ePn 29 21.10 12.4X
YER 1.88 126 ePn 29 21.50 8.3X
DST 2.22 52 iPn 29 17.60 -0.6
EDC 2.39 28 ePn 29 22.00 1.4
YLV 3.28 44 ePn 29 32.00 -1.3
BZS 8.17 336 eP 30 42.00 -0.1
e 53 30.00
S.D. = 1.4 on 5 of 7 obs.

% APR 13, 1989 07h 45m 13.97± 0.95s
40.829 N ± 7.5km 27.913 E ± 8.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC 0.48 184 iPg 45 24.00 0.2
iSg 45 30.00
DMK 1.00 353 iPg 45 33.60 0.7
eSg 45 47.60
YLV 1.14 103 iPn 45 36.00 0.6
HRT 1.33 90 ePn 45 37.00 -1.6
DST 1.34 156 iPn 45 39.60 0.9
EZN 1.57 231 ePn 45 41.00 -1.0
S.D. = 1.3 on 6 of 6 obs.

APR 13, 1989 07h 49m 20.38± 0.24s
41.764 N ± 5.3km 45.855 E ± 3.6km
DEPTH = 33.0km (normal)
4.8mb (29 obs.)
EASTERN CAUCASUS (337)
Felt (V) at Tbilisi and Stepanavan; (IV) at Kirovakon, Tumonyon and Krasnoselsk; (III) at Bakurioni and Makhochkalo.

TAB 3.71 174 eP 50 20.00 3.1
MSL 5.77 202 ePc 50 55.50 9.5X
e 51 07.50
e 52 25.00
SLY 6.16 183 ePnc 51 01.00 9.6X
ePx 51 13.00
iPg 51 26.00
iSn 52 05.00
iSg 52 38.50
KVT 7.40 268 ePn 51 11.50 2.6
TEH 7.41 143 eP 51 14.00 5.0X
BHD 8.55 188 ePc 51 29.00 4.1X
e 53 06.00
e 54 07.00
e 55 05.00
MAIO 11.92 113 eP 52 10.00 -1.1
0.6s 15.43nm 5.3mb
eS 54 15.00
TLB 13.31 288 eP 52 35.00 5.6X
ELL 13.33 253 iP 52 32.60 2.8
CLI 14.16 296 eP 52 47.00 6.4X
VRI 14.40 293 eP 52 52.00 8.2X
ISR 14.42 290 eP 52 49.00 4.9X
MLR 14.89 291 iPd 52 50.00 -0.2
CMP 15.50 290 ePd 53 05.00 7.0X
KOT 16.37 228 eP 53 10.00 0.8
DEV 17.05 292 eP 53 05.50 -12.2X
SKO 18.18 279 iP 53 33.00 1.3
OHR 18.78 276 iP 53 39.80 0.5
1.3s 0.13nm 2.0mb X
PSZ 19.36 297 eP 53 46.30 0.2
KRA 19.77 304 eP 53 49.60 -0.8
e 53 54.10

BUD 19.88 296 iP 53 50.00 -1.6
ZST 21.25 297 eP 54 05.60 -0.1
PTJ 21.89 291 eP 54 11.40 -0.9
KSP 22.22 304 eP 54 15.50 0.1
e 54 17.20
id 54 32.20
NUR 22.82 333 eP 54 22.00 0.9
KSH 22.93 86 eP 54 22.00 -0.7
PRU 23.17 301 P 54 25.20 0.5
e 54 39.50
RBL 23.55 292 P 54 30.00 1.4
KHC 23.68 299 P 54 22.60 -7.1X
e 54 44.50
BRG 23.69 304 eP 54 32.20 2.5
2.0s 48.00nm 4.7mb
KBA 23.71 294 iPc 54 31.00 0.8
1.1s 36.00nm 4.8mb
SUF 24.01 338 iP 54 32.80 0.1
0.5s 7.50nm 4.5mb
FVI 24.10 293 P 54 34.00 0.3
ARV 24.19 285 P 54 36.00 1.3
CLL 24.35 304 iP 54 37.20 1.1
1.3s 41.00nm 4.8mb
e 54 49.00
CRE 24.89 286 P 54 43.00 1.5
CTI 24.89 292 P 54 41.00 -0.6
PGD 25.03 286 P 54 44.00 1.1
MOX 25.11 302 eP 54 55.00 11.5X
MDI 26.26 291 P 54 54.00 -0.1
SOD 27.72 344 eP 55 06.00 -1.3
NRA0 28.17 324 P 55 09.40 -2.0
LPG 28.36 291 eP 55 12.50 -1.1
0.8s 6.70nm 4.4mb
NB2 28.45 324 P 55 11.40 -2.6
0.6s 2.20nm 4.0mb
MEM 28.67 302 P 55 16.90 0.9
FRF 28.71 287 eP 55 15.40 -1.0
0.8s 32.25nm 5.1mb
KEV 29.71 347 eP 55 27.00 1.8
LBF 30.11 294 eP 55 29.50 0.4
1.0s 10.00nm 4.6mb
SMF 30.24 294 eP 55 30.50 0.4
0.8s 7.40nm 4.5mb
SSF 30.43 295 eP 55 32.10 0.3
1.0s 7.00nm 4.4mb
WMQ 30.54 72 iPd 55 34.20 1.3
AVF 30.56 294 eP 55 32.40 -0.5
1.0s 12.00nm 4.6mb
GKN 34.35 101 Pc 56 07.60 1.2
DMN 34.92 101 Pc 56 12.70 1.4
KKN 34.94 101 Pc 56 12.60 1.1
PKI 35.16 101 Pc 56 14.70 1.2
GUN 35.32 100 Pc 56 16.10 1.3
HYB 37.02 121 eP 56 29.50 0.6
GBA 39.22 126 Pc 56 47.00 -0.2
1.1s 5.70nm 4.2mb
GTA 40.48 75 iPc 56 58.70 1.0
DAG 43.98 343 eP 57 25.00 -0.6
BNG 44.46 221 iPc 57 28.40 -1.8
0.4s 16.00nm 5.2mb
LZH 44.74 77 eP 57 32.50 0.0
1.0s 82.00nm 5.6mb
CD2 47.09 84 eP 57 51.80 0.8
KMI 49.41 91 Pc 58 09.50 0.2
TIY 50.21 71 Pd 58 15.90 0.9
CHG 50.33 100 eP 58 16.20 0.1
GYA 51.60 87 P 58 25.20 -0.6
DL2 56.05 66 eP 58 58.00 -0.2
TIC 56.96 247 P 59 02.74 -2.3
KIC 56.97 246 Pc 59 02.86 -2.3
LIC 57.27 246 Pc 59 04.90 -2.3
KMZ 57.96 203 iPc 59 11.30 -0.8
0.9s 31.10nm 5.4mb
e 59 22.10
iS 10 55.00
i 11 34.00
LSZ 59.05 200 iPd 59 19.00 -0.7
0.8s 6.70nm 4.8mb
i 01 29.20
iS 12 20.00
i 12 41.80
i 14 05.50
PSI 61.31 114 eP 59 32.60 -2.5
MBC 61.89 356 ePc 59 38.10 -0.2
0.7s 12.00nm 5.1mb
FRB 62.81 333 ePc 59 42.90 -1.6
BUL 63.63 198 iPd 59 48.50 -2.0

i 02 04.50
BRW 66.09 8 P 00 05.10 -0.6
KSR 69.54 198 iPd 00 26.00 -2.0
1.0s 10.00nm 4.8mb
e 02 55.00
INK 70.25 360 ePc 00 30.40 -1.2
PRY 70.43 197 eP 00 31.90 -1.5
1.1s 33.78nm 5.3mb
e 02 57.00
BFS 70.56 198 eP 00 31.00 -3.1X
IMA 71.44 8 ePc 00 38.90 -0.2
1.0s 9.20nm 4.8mb
FBA 73.14 6 ePc 00 48.80 -0.1
TTA 74.19 10 P 00 55.00 -0.2
1.0s 7.50nm 4.6mb
YKC 74.91 351 ePc 00 58.70 -0.5
1.0s 12.00nm 4.8mb
YKA 74.91 351 eP 00 59.30 0.1
TOA 76.03 6 eP 01 06.20 0.5
PMR 76.28 7 eP 01 06.60 -0.4
0.9s 6.00nm 4.6mb
KDC 79.67 10 P 01 26.30 0.7
0.8s 20.69nm 5.2mb
FFC 80.03 342 iPc 01 27.50 -0.2
0.7s 17.00nm 5.2mb
RSON 81.23 335 P 01 33.70 -0.4
0.5s 7.64nm 5.0mb
EDM 83.71 348 iPc 01 47.00 0.1
SES 86.02 345 eP 01 59.00 0.4
BLA 87.35 320 P 02 14.60 9.3X
PNT 88.41 351 eP 02 10.00 -0.1
0.6s 3.00nm 4.8mb
JSC 90.10 319 P 02 17.70 -0.6
LRM 90.67 345 eP 02 21.50 0.3
PRM 90.80 319 P 02 21.70 0.1
FVM 91.18 327 P 02 22.90 -0.3
BW06 92.97 342 P 02 32.60 0.8
GOL 94.80 338 P 02 40.00 -0.3
MSU 97.63 343 P 02 53.90 0.8
ALQ 99.55 337 eP 03 01.50 -0.3
1.0s 1.25nm 4.4mb
MAW 109.80 173 ePKP 07 34.00 -14.4X
S.D. = 1.2 on 91 of 106 obs.

APR 13, 1989 07h 55m 11.38± 0.22s
13.263 N ± 3.8km 39.925 E ± 3.3km
DEPTH = 33.0km (normal)
5.3mb (43 obs.) 5.2Msz (1 obs.)
ETHIOPIA (558)
ML 5.2 (ARO).

DAF 3.03 123 ePc 55 57.24 -0.9
SGH 3.21 124 ePc 56 00.52 -0.2
GBR 3.25 130 eP+ 56 00.96 -0.3
TDD 3.25 116 ePc 56 00.38 -0.9
ARO 3.33 121 ePc 56 01.94 -0.6
S 00 55.20
OBO 3.52 111 ePc 56 04.32 -0.8
ATA 3.68 119 ePc 56 06.28 -1.0
AAE 4.36 195 eP 56 18.50 1.2
TAIF 8.00 3 eP 57 07.80 -0.6
RYD 13.03 28 ePd 58 21.00 4.1X
NAI 14.77 192 iPd 58 45.50 5.5X
S 02 56.00
DHR 16.13 35 eP 58 59.00 1.7
SRFA 16.20 345 eP 58 57.70 -0.5
PRNI 17.60 346 eP 59 15.00 -0.8
HLW 18.33 336 ePd 59 24.00 -0.8
e 03 31.00
LWI 18.95 216 iPd 59 38.60 5.9X
iS 03 25.60
ZNT 19.41 347 eP 59 38.00 0.2
HRI 20.28 350 e(P) 59 48.00 0.8
BHD 20.33 11 ePc 59 46.00 -1.5
ePP 00 27.00
eS 03 48.00
e 06 04.50
eLQ 07 31.00
eLR 08 38.00
KER 21.98 16 ePd 00 04.50 0.0
CSS 22.41 346 eP 00 09.50 0.9
SLY 22.80 12 ePc 00 12.00 -0.4
BNG 22.85 249 iPc 00 14.30 1.2
1.2s 135.00nm 5.3mb
i 06 02.30
i 06 53.00
i 07 11.50

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                    i     09 00.30
 MSL    23.20    7 ePd    00 17.50    1.2
                   eS     04 47.00
                   eLQ    08 41.00
 ELL    25.05  341 iP     00 35.60    1.3
 TAB    25.35   12 eP     00 40.00    2.8
 BCK    25.50  343 eP     00 38.80    0.3
 YER    25.95  338 eP     00 43.90    1.2
 ALT    27.12  343 eP     00 52.50   -0.9
 BBTK   27.22  348 iPd    00 55.00    0.7
 MAIO   28.90   34 eP     01 11.00    1.5
 VAY    31.79  335 iP     01 35.00    0.0
 OHR    32.39  332 iP     01 40.00   -0.3
        1.4s    0.11nm              2.6mb X
 SKO    32.81  334 iPd    01 44.00    0.1
        1.5s   120.00nm             5.6mb
 TLB    32.83  344 eP     01 44.00    0.0
 CFR    33.36  345 iPc    01 48.00   -0.5
 ISR    33.75  343 iPc    01 52.00   -0.1
 MLR    34.25  342 iP     01 58.00    1.5
 CMP    34.32  341 ePc    01 58.00    1.0
 VRI    34.37  344 eP     01 37.00  -20.4X
 CLI    34.85  345 iPc    02 01.00   -0.5
 SDI    36.32  326 P      02 08.10   -5.9X
                   eSg    02 19.80
 GBA    36.46   85 Pc     02 23.80    8.3X
        0.9s    1.10nm              3.8mb X
 AZI    36.72  326 P      02 04.20  -13.0X
                   eSg    02 12.00
 AQU    36.98  327 P      02 08.30  -11.3X
                   eSg    02 19.20
 MNS    37.40  326 P      02 04.80  -18.2X
                   eSg    02 15.00
 HYB    37.44   79 eP     02 25.50    1.8
 ASS    37.87  327 P      02 16.80  -10.3X
                   eSn    02 34.20
 PTJ    38.33  333 eP     02 30.80   -0.1
 VBY    38.34  332 e(P)   02 31.50    0.6
 CEY    38.90  331 eP     02 36.50    0.8
 SPC    39.33  340 iPd    02 39.30    0.0
 VOY    39.37  331 iPd    02 40.40    0.8
 ZST    39.66  336 iPd    02 42.00    0.2
 KRA    40.17  340 eP     02 46.00   -0.1
                   e      02 52.10
 FVI    40.31  331 Pc     02 48.50    1.3
 SLR    40.39  196 iPc    02 52.50    4.3X
 KBA    40.40  332 iPd    02 48.70    0.5
        1.1s    30.70nm             5.0mb
 CTI    40.46  329 P      02 49.00    0.4
 MDI    41.26  328 P      02 55.50    0.5
 ROB    41.30  325 P      02 55.94    0.5
 STV    41.58  324 P      02 58.71    0.9
 KHC    41.84  334 Pd     02 59.50   -0.3
        1.2s    30.00nm             4.9mb
 PZZ    41.87  324 P      02 59.73   -0.5
 ORX    42.08  326 P      03 00.86   -1.1
 PRU    42.10  336 ePd    03 01.80   -0.1
        1.4s    30.00nm             4.8mb
 KSP    42.11  338 ePd    03 01.50   -0.5
        1.0s    31.00nm             5.0mb
                   e      03 37.70
 RSP    42.18  325 P      03 02.19   -0.5
 RRL    42.30  325 P      03 04.86    1.0
 LSD    42.42  326 P      03 04.86   -0.1
 LPG    42.67  325 eP     03 05.90   -1.1
        0.8s    13.45nm             4.7mb
 BRG    43.04  336 iP     03 09.00   -0.5
        1.3s    75.00nm             5.3mb
 GRF    43.28  333 iPd    03 10.80   -0.8
        1.3s    71.00nm             5.3mb
 BBS    43.52  328 P      03 12.99   -0.5
 FEL    43.53  329 P      03 13.28   -0.5
 CLL    43.75  336 iP     03 14.70   -0.6
        1.5s    53.00nm             5.1mb
                   i      05 02.60
 LOMF   43.80  328 P      03 15.48   -0.4
 MOX    43.82  334 ePd    03 15.00   -0.9
        1.4s    54.00nm             5.1mb
 MOF    43.96  328 P      03 16.64   -0.6
 GKN    44.09   63 P      03 18.60    0.0
        1.0s    66.00nm             5.4mb
 BSF    44.12  328 P      03 17.91   -0.6
 CDF    44.26  329 P      03 18.81   -0.8
 DMN    44.43   64 P      03 21.60    0.1
        0.8s    37.00nm             5.3mb
 GWF    44.46  330 P      03 20.52   -0.6
 HAU    44.47  328 eP     03 20.50   -0.7

        1.0s    32.00nm             5.1mb
 KIC    44.49  266 Pc     03 22.18    0.4
 KKN    44.61   64 P      03 23.20    0.3
        1.0s    48.00nm             5.3mb
 PKI    44.69   64 P      03 23.40   -0.3
        0.9s    29.00nm             5.1mb
 TIC    44.70  266 Pc     03 23.80    0.3
 VITF   44.79  328 P      03 23.01   -0.7
 LIC    44.80  265 Pc     03 24.60    0.3
 SMF    44.98  325 eP     03 24.60   -0.7
        1.2s    34.20nm             5.1mb
 CAF    45.05  322 eP     03 26.30    0.4
        1.0s    54.00nm             5.4mb
 LBF    45.10  325 eP     03 25.40   -1.0
        1.0s    62.00nm             5.5mb
 GUN    45.15   64 P      03 27.50    0.1
        1.0s    55.00nm             5.4mb
 LOR    45.34  326 eP     03 27.30   -0.9
        0.9s    44.20nm             5.4mb
 AVF    45.34  325 eP     03 27.20   -0.9
        1.0s    25.00nm             5.1mb
 SSF    45.41  325 eP     03 27.70   -1.0
        1.0s    22.00nm             5.0mb
 LPO    45.45  321 eP     03 29.40    0.3
        0.8s    25.50nm             5.2mb
 MAF    45.46  324 eP     03 28.50   -0.6
        0.8s    21.50nm             5.1mb
 APHE   45.48  309 eP     03 31.50    1.9
 BGF    45.49  324 eP     03 29.00   -0.4
        1.0s    62.00nm             5.5mb
 IFR    45.58  304 iPd    03 31.50    1.0
 RJF    45.58  322 eP     03 29.90   -0.2
        1.0s    26.00nm             5.1mb
 WLF    45.64  330 P      03 30.50    0.1
 ASMO   45.66  310 eP     03 30.50   -0.5
 ATEJ   45.71  309 eP     03 33.00    1.5
 ALOJ   45.85  309 eP     03 34.20    1.7
 LFF    45.85  321 eP     03 32.60    0.4
        0.8s    57.75nm             5.6mb
 AAPN   45.92  309 eP     03 32.70   -0.4
 LSF    46.08  323 eP     03 34.00    0.0
        1.0s    42.00nm             5.3mb
 MEM    46.33  331 Pd     03 36.20    0.4
 ENN    46.47  331 ePd    03 37.00    0.0
        1.0s    46.00nm             5.4mb
 DOU    46.69  329 P      03 38.50   -0.2
        0.7s    26.70nm             5.3mb
 WTS    46.89  332 iPd    03 40.70    0.4
        1.0s    56.00nm             5.5mb
 SNF    47.10  329 P      03 41.80   -0.2
 WIT    47.52  333 eP     03 46.50    1.3
 LDF    48.29  325 eP     03 50.10   -1.3
        1.0s    16.00nm             5.0mb
 NUR    48.48  350 iP     03 52.40   -0.2
        0.8s    38.10nm             5.5mb
      Z 20s     2.80um              5.2Msz
                  LR      04 00.00
 LPF    48.51  324 eP     03 51.90   -1.1
        0.8s    22.85nm             5.3mb
 FLN    48.59  325 eP     03 52.30   -1.3
        1.0s    40.00nm             5.4mb
 GRR    48.60  325 eP     03 52.50   -1.2
        1.0s    40.00nm             5.4mb
 UPP    49.35  345 iP     03 57.80   -1.5
 SUF    50.35  352 iP     04 06.70   -0.2
        0.8s    47.20nm             5.5mb
 WMQ    50.88   44 Pc     04 12.20    0.8
 NB2    52.07  343 P      04 18.50   -1.6
        1.0s    44.60nm             5.4mb
 EKA    53.60  331 Pd     04 30.20   -1.2
        0.8s    14.20nm             5.0mb
 SOD    54.77  354 iP     04 39.70   -0.2
 KEV    57.04  355 eP     04 55.00   -1.2
        0.8s    30.80nm             5.4mb
 GTA    58.50   52 eP     05 07.00   -0.1
 LZH    61.29   56 eP     05 24.00   -2.3
        1.5s    44.00nm             5.4mb
 GYA    63.53   67 P      05 41.00   -0.3
 XAN    65.37   59 Pc     05 53.00   -0.1
 HHC    67.59   51 eP     06 08.00    0.8
 TIY    68.23   55 eP     06 12.00    0.8
 DAG    70.22  348 eP     06 22.00   -0.7
 BJI    71.11   52 eP     06 29.50    0.8
 NJ2    73.79   60 Pd     06 46.00    1.3
 DL2    75.39   53 eP     06 55.00    1.2
 CN2    77.75   48 Pd     07 07.70    0.9
                  sP      07 21.00

 ALE    78.53  352 eP     07 12.00    1.5
        1.4s    38.00nm             5.2mb
 FRB    86.16  335 eP     07 50.00   -0.3
 MBC    89.81  355 eP     08 08.00    0.4
 FFC   105.00  338 ePKP   13 33.00    1.5X
        1.4s    25.00nm
      S.D. = 0.9  on 132 of 144 obs.
-------------------------------------------
*  APR 13, 1989  08h 04m 41.21± 1.17s
   38.579 N ± 6.9km   27.191 E ±12.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)

 IZM     0.19  163 iPg    04 45.60    0.2
 EZN     1.41  332 ePn    05 06.50   -0.4
 DST     1.52   47 iPn    05 07.60   -0.9
 YER     1.68  149 iPn    05 10.90    0.1
 EDC     1.84   16 ePn    05 13.00   -0.1
 KHL     1.85   97 ePn    05 14.50    1.2
 ALT     2.33   77 ePn    05 19.50   -0.8
 YLV     2.60   40 ePn    05 24.00   -0.1
 GBZT    2.81   38 ePn    05 30.50    3.5X
                   iSg    06 12.50
 ELL     2.83  129 ePn    05 28.60    1.2
 BCK     2.91  112 ePn    05 26.00   -2.4
 HRT     2.94   40 ePn    05 31.00    2.1
 DMK     3.27    7 ePn    05 37.00    3.5X
 BBTK    4.51   72 eP     06 10.00   18.8X
                   eS     07 13.00
      S.D. = 1.4  on  11 of  14 obs.
-------------------------------------------
%  APR 13, 1989  08h 22m 49.62± 1.09s
   38.615 N ± 7.6km   27.180 E ±14.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)

 IZM     0.23  163 iPg    22 54.60    0.1
 EZN     1.38  331 iPn    23 14.50   -0.3
 DST     1.50   48 iPn    23 16.60    0.0
 YER     1.72  149 ePn    23 23.40    3.6X
 EDC     1.81   17 iPn    23 22.00    1.0
 YLV     2.58   40 iPn    23 31.50   -0.7
      S.D. = 0.9  on   5 of   6 obs.
-------------------------------------------
*  APR 13, 1989  08h 44m 56.05± 1.40s
   38.636 N ± 7.1km   27.285 E ±16.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                              (366)

 IZM     0.24  184 iPg    45 01.00   -0.2
 DST     1.42   47 iPn    45 22.60    0.6
 YER     1.69  152 iPn    45 25.40   -0.5
 EDC     1.77   14 iPn    45 27.00    0.2
 KHL     1.78   99 ePn    45 25.50   -1.7
 ALT     2.25   78 iPn    45 34.50    0.6
 YLV     2.51   39 iPn    45 37.00   -0.7
 GBZT    2.72   37 ePn    45 49.00    8.4X
 ELL     2.81  131 iPn    45 43.60    1.7
 BBTK    4.42   72 eP     46 26.00   21.2X
                   e      47 28.00
      S.D. = 1.2  on   8 of  10 obs.
-------------------------------------------
   APR 13, 1989  09h 03m 39.59± 0.52s
   27.972 S ± 5.3km   66.491 W ± 7.2km
   DEPTH = 172.5 ±  5.4 km
   4.3mb (  5 obs.)
 CATAMARCA PROVINCE, ARGENTINA    (130)

 CYA     0.77  128 iPd    04 07.20    1.9
                   S      04 26.00
 SLA     3.35   16 ePc    04 35.00    2.0
                   S      05 12.90
 CFA     3.93  202 iPd    04 40.00   -0.2
                   S      05 24.50
 ZON     4.04  208 iPc    04 41.00   -0.6
 RFA     6.98  193 iPc    05 18.30   -2.1
 CCH    10.55    2 eP     06 08.20    0.6
 CNCB   11.19  353 Pc     06 15.00   -1.3
 LPB    11.48  352 P      06 19.00   -0.9
 ZOBO   11.74  352 P      06 21.50   -2.0
 PPD    14.97   70 eP     07 03.60   -0.3
                   e      07 06.70
                   i      07 10.30
 VAO    18.30   79 iPc    07 43.10   -0.1
                   i      07 49.80
 ITA    20.48   79 eP     08 06.60    0.8
                   e      08 09.50
```

13d 09h

		e	08	12.60		
BMA	20.85	80 iPd	08	09.70	0.5	
BAO	21.08	58 eP	08	05.00	-6.6X	
		e	08	11.00		
SOB1	30.49	57 eP	09	36.50	-2.0	
ITR	32.64	60 eP	09	55.40	-1.8	
SPA	62.19	180 ePd	13	45.20	0.5	
	0.9s	31.82nm		5.2mb		
KIC	68.61	70 P	14	24.80	-1.3	
	0.6s	5.00nm		4.5mb		
ALQ	73.09	327 eP	14	53.40	0.6	
	0.8s	2.43nm		4.0mb		
MAW	77.53	162 eP	15	18.00	0.9	
PEC	78.03	319 P	15	21.40	0.9	
MSU	78.73	325 P	15	25.20	0.8	
DAU	79.73	327 P	15	29.60	-0.3	
BW06	80.79	329 P	15	35.00	-0.3	
	0.7s	3.47nm		4.2mb		
RSON	82.09	343 P	15	41.40	-0.1	
	0.8s	5.28nm		4.3mb		
KVN	82.24	322 P	15	43.10	0.2	
LRM	84.47	330 eP	15	54.90	0.9	
BUL	85.08	110 iPc	15	58.30	0.7	
LBFM	85.92	322 P	16	02.00	0.7	
DPW	88.62	328 P	16	15.00	1.0	
EDM	90.52	334 ePc	16	22.10	-0.5	
YKA	97.99	340 eP	16	57.40	1.0	
ASPA	125.02	203 iPKPd	22	21.00	-0.2	
	0.5s	13.00nm				
WRA	128.28	205 PKPd	22	27.40	-0.1	
	0.5s	2.60nm				
WB5	128.33	205 ePKP	22	27.30	-0.3	
GBA	143.53	106 PKPc	22	56.40	0.6	
	0.7s	4.10nm				
GKN	154.53	83 PKP	23	29.60	16.9X	
	0.4s	8.00nm				
DMN	154.89	84 PKP	23	30.60	17.3X	
KKN	155.07	84 PKP	23	30.80	17.3X	
	0.5s	4.00nm				
PKI	155.15	84 PKP	23	30.80	17.0X	
	S.D. = 1.1	on 35 of 40 obs.				

% APR 13, 1989 09h 52m 03.07± 0.82s
60.693 N ± 6.2km 6.009 E ± 9.4km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

ASK	0.45	243 eP	52	12.31	0.0	
		iSg	52	18.51		
HYA	0.48	10 eP	52	12.84	0.0	
		eS	52	21.47		
ODD1	0.84	158 iP	52	19.14	-0.2	
		iSg	52	29.88		
BLS1	1.37	162 iP	52	28.57	0.3	
		iS	52	45.71		
KMY	1.53	195 eP	52	30.37	-0.1	
		iS	52	51.00		
	S.D. = 0.3	on 5 of 5 obs.				

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* APR 13, 1989 10h 47m 44.95± 0.59s
27.353 N ± 9.5km 142.566 E ±11.6km
DEPTH = 33.0km (normal)
4.7mb (10 obs.)
BONIN ISLANDS REGION (212)
Felt (I JMA) on Chichi-shima.

CBI	0.43	233 iPd	47	56.80	2.3	
		iS	48	06.10		
CHJJ	9.19	342 P	49	56.10	-2.1	
MAT	9.88	339 eP	50	06.00	-1.8	
CN2	21.45	324 eP	52	34.70	2.3	
CD2	33.97	285 P	54	26.40	-1.2	
MTN	41.47	197 eP	55	29.00	-1.5	
WB5	47.62	190 iPc	56	17.90	-2.0	
WRA	47.69	190 Pc	56	18.60	-1.8	
	0.5s	2.60nm		4.5mb		
GUN	49.82	285 P	56	36.70	-0.7	
	0.4s	12.00nm		5.3mb		
PKI	50.31	284 P	56	41.70	0.7	
	0.5s	3.00nm		4.6mb		
KKN	50.37	285 P	56	42.20	0.8	
	0.4s	4.00nm		4.8mb		
DMN	50.56	284 P	56	43.60	0.7	
	0.4s	7.00nm		5.0mb		
GKN	50.87	285 P	56	46.00	0.9	
	0.4s	4.00nm		4.7mb		
INK	62.66	25 eP	58	08.00	-0.2	
MBC	65.55	15 eP	58	27.00	0.0	
YKA	71.76	28 eP	59	05.30	-0.3	
WDC	76.21	51 ePc	59	13.90	-17.9X	
SUF	77.10	335 iP	59	36.40	0.1	
	0.5s	2.80nm		4.5mb		
CMB	78.80	53 ePc	59	48.60	2.3	
FRI	79.74	54 e(P)	59	54.00	2.7	
LRM	80.45	43 eP	59	55.30	0.1	
FFC	81.34	32 eP	59	59.00	-0.4	
	1.0s	12.00nm		4.9mb		
HFS	83.32	337 eP	00	08.90	-0.7	
	0.5s	2.80nm		4.6mb		
NB2	83.50	338 P	00	10.00	-0.5	
	1.1s	4.00nm		4.5mb		
ZOBO	149.53	75 ePKP	07	29.00	-0.1	
LPB	149.67	76 (PKP)	07	34.00	4.9X	
CNCB	149.89	76 ePKP	07	35.00	5.4X	
	S.D. = 1.5	on 24 of 27 obs.				

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* APR 13, 1989 12h 00m 57.02± 0.79s
22.045 S ±13.5km 68.314 W ±12.4km
DEPTH = 116.2km (4 depth phases)
4.1mb (2 obs.)
NORTHERN CHILE (123)

SLA	3.72	136 ePc	01	56.00	2.2	
CCH	5.07	24 PKP	02	18.00	5.7X	
LPB	5.49	2 ePKP	02	20.00	1.9	
	0.9s	16.81nm		4.3mb X		
Z	22s	0.74um				
ZOBO	5.75	2 PKP	02	23.00	1.1	
Z	22s	0.63um				
ITB1	13.05	104 Pc	04	06.50	7.4X	
ITB	13.24	105 e(P)	04	07.00	5.4X	
PPD	15.77	93 eP	04	35.00	1.2	
VAO	19.74	97 eP	05	18.10	-2.0	
BAO	20.25	75 eP	05	23.00	-2.5	
ITA	21.86	95 eP	05	42.10	0.4	
ATB	24.32	42 Pd	06	04.50	-0.8	
ALQ	67.25	327 eP	11	40.30	-1.0	
	0.8s	4.48nm		4.4mb		
		epP	12	09.00	115km	
GOL	70.50	330 P	12	00.30	-0.9	
		pP	12	29.80	118km	
MSU	72.94	325 P	12	15.30	-0.4	
		pP	12	44.70	116km	
DAU	73.88	327 P	12	21.50	0.3	
TNP	75.40	322 P	12	30.20	0.3	
	0.7s	1.37nm		3.9mb		
KVN	76.57	322 P	12	35.60	-0.8	
		pP	13	05.00	115km	
DPW	82.73	329 P	13	09.30	0.3	
YKA	91.88	340 P	13	52.90	0.2	
RZN	106.50	51 ePKP	19	22.00	12.0X	
TAIF	114.31	76 ePKP	19	27.70	2.2	
GBA	146.39	99 PKPd	20	23.50	-1.6	
	0.5s	1.80nm				
	S.D. = 1.5	on 18 of 22 obs.				

APR 13, 1989 12h 17m 31.30± 0.29s
13.290 N ± 4.5km 39.980 E ± 4.8km
DEPTH = 33.0km (normal)
4.9mb (23 obs.) 4.9Msz (1 obs.)
ETHIOPIA (558)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 35C
Centroid Location:
Origin Time 12:17:25.7 0.9
Lat 12.94N 0.06 Lon 39.48E 0.06
Dep 15.0 FIX Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr=-1.60 0.04 Mtt= 0.21 0.06
Mff= 1.39 0.06 Mrt= 0.54 0.19
Mrf=-0.25 0.19 Mtf=-0.69 0.05
Principal Axes:
T Val= 1.77 Plg= 8 Azm= 64
N -0.02 13 332
P -1.75 75 185
Best Double Couple:Mo=1.8*10**17
NP1:Strike=168 Dip=39 Slip= -70
NP2: 323 54 -106

DAF	3.00	124 P	18	15.84	-1.8	
SGH	3.18	125 P	18	18.89	-1.4	
TDD	3.22	117 eP+	18	19.05	-1.6	
GBR	3.23	131 P	18	20.22	-0.7	
ARO	3.30	122 P	18	20.37	-1.6	
MKL	3.47	116 ePc	18	23.05	-1.3	
OBO	3.48	111 ePc	18	22.83	-1.7	
ATA	3.64	120 P	18	25.21	-1.5	
AAE	4.40	196 eP	18	37.00	-0.8	
ABHA	5.61	28 eP	18	52.30	-2.5	
RYD	12.98	28 ePd	20	38.30	2.2	
NAI	14.81	193 iPc	21	03.00	2.6	
		iS	21	06.00		
		S	25	07.50		
AYN	15.94	347 eP	21	18.70	4.0X	
DHR	16.08	35 ePd	21	18.30	1.7	
MBH	17.07	345 e(P)	21	31.00	2.0	
PRNI	17.59	346 e(P)	21	35.00	-0.6	
HLW	18.33	335 iPd	21	44.00	-0.7	
		eS	25	17.00		
		e	26	52.00		
DSI	18.68	348 eP	21	49.00	0.0	
LWI	19.00	217 iPd	21	54.60	1.3	
		iS	25	45.00		
BHD	20.30	11 ePd	22	07.00	-0.1	
		iPPP	22	50.00		
		eS	26	01.50		
		eSSS	26	52.00		
		iLQ	29	17.00		
KER	21.94	16 eP	22	25.00	1.0	
SLY	22.76	12 ePd	22	32.00	0.1	
		iPPP	23	21.50		
		eS	26	44.40		
		ePcS	29	48.00		
		iLQ	30	56.00		
		iLR	32	04.50		
BNG	22.91	249 iPc	22	34.10	0.5	
	0.6s	28.00nm		4.9mb		
		i	23	57.70		
MSL	23.17	7 ePd	22	38.00	2.1	
		eS	26	54.00		
		eScP	29	30.00		
		eLQ	31	14.50		
		eLR	33	51.00		
TAB	25.31	12 eP	22	59.00	2.2	
MAIO	28.85	34 eP	23	28.00	-1.0	
BOM	32.00	76 eP	23	35.60	-21.4X	
		eS	29	08.60		
OHR	32.39	332 eP	24	01.80	1.6	
SKO	32.81	334 eP	24	04.00	0.2	
		iS	29	23.00		
MLR	34.24	342 iPc	24	18.00	1.7	
CMP	34.31	341 ePc	24	14.00	-2.8	
VRI	34.36	344 eP	24	20.00	2.8	
BUL	35.05	199 iPd	24	23.50	0.0	
BZS	35.78	338 eP	24	28.00	-1.3	
GBA	36.41	85 P	24	39.00	4.1X	
	1.4s	27.40nm		5.0mb		
HYB	37.38	79 eP	24	44.50	1.4	
		eS	30	22.00		
NDI	37.81	60 iPc	24	49.00	2.4	
PTJ	38.33	333 eP	24	50.40	-0.4	
PSZ	38.37	338 eP	24	50.90	-0.2	
SPC	39.32	340 eP	25	00.60	1.4	
ZST	39.65	336 eP	25	02.30	0.6	
Z	10s	1.00um		4.9MszX		
KRA	40.17	340 eP	25	04.70	-1.2	
		e	25	20.70		
FVI	40.31	331 P	25	07.50	0.4	
KUK	40.34	264 eP	25	09.00	1.1	
KBA	40.40	332 eP	25	08.00	-0.1	
SLR	40.43	196 iPc	25	10.50	2.0	
KSR	40.95	198 eP	25	14.00	1.2	
KSH	41.03	44 P	25	18.00	4.7X	
Z	16s	4.70um		5.4MszX		
N	10s	1.90um				
PRY	41.78	197 iPd	25	21.20	1.6	
	1.2s	50.00nm		5.1mb		
KHC	41.84	334 P	25	18.00	-1.7	
		e	25	40.10		
PRU	42.10	336 eP	25	20.00	-1.8	
	2.4s	53.40nm		4.8mb		
		e	27	19.00		
KSP	42.11	338 eP	25	21.50	-0.4	
LPG	42.68	325 eP	25	26.00	-1.0	
	0.8s	12.10nm		4.7mb		
BRG	43.03	336 eP	25	28.00	-1.4	
	2.4s	75.00nm		5.0mb		
CLL	43.75	336 eP	25	33.00	-2.2	
		e	25	52.00		

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GKN    44.03   63 P      25 37.50  -0.5
       0.6s     25.00nm            5.2mb
DMN    44.37   64 P      25 40.60  -0.3
       0.6s     29.00nm            5.3mb
KIC    44.55  266 Pc     25 41.66  -0.5
       0.8s      7.50nm            4.6mb
KKN    44.55   64 P      25 41.30  -1.0
PKI    44.63   64 P      25 42.40  -0.7
       0.6s     23.00nm            5.2mb
TIC    44.76  266 P      25 43.22  -0.7
LIC    44.85  265 P      25 44.14  -0.5
       0.7s      7.50nm            4.7mb
GUN    45.09   64 P      25 46.20  -0.6
LOR    45.34  326 eP     25 45.30  -2.8
       1.0s     18.00nm            4.9mb
AVF    45.35  325 eP     25 44.90  -3.2X
       1.2s     14.90nm            4.8mb
SSF    45.42  325 eP     25 46.10  -2.6
       1.2s     11.90nm            4.7mb
BGF    45.50  324 eP     25 47.30  -2.1
       1.0s     21.00nm            5.0mb
IFR    45.61  304 iPc    25 51.00   0.4
MEM    46.33  331 P      25 55.30  -0.5
ENN    46.48  331 eP     25 57.00   0.1
       1.0s     14.00nm            4.9mb
DOU    46.69  329 P      25 57.00  -1.7
WTS    46.89  332 eP     26 01.50   1.3
       1.0s     16.00nm            5.0mb
NUR    48.46  350 eP     26 11.00  -1.4
     Z 17s       0.50um            4.6MszX
                 LR      51 10.00
LSA    49.93   62 P      26 25.70   0.9
                 S       33 41.00
SHL    50.17   68 eP     26 27.00   0.7
                 eS      33 42.00
SUF    50.33  352 iP     26 25.50  -1.2
       0.6s     13.50nm            5.1mb
HFS    50.61  343 eP     26 26.70  -2.2
       0.8s     10.30nm            4.9mb
     Z 17s       0.21um            4.2MszX
                 LR      49 20.00
WMQ    50.82   44 P      26 32.40   1.5
     Z 36s       1.50um            4.8MszX
     E 22s       4.20um
NB2    52.05  343 P      26 37.70  -2.2
       0.6s      2.90nm            4.4mb
EKA    53.60  331 P      26 58.00   6.6X
       0.6s      3.50nm            4.5mb
CHG    56.72   76 eP     27 15.40   0.7
GTA    58.44   52 iPc    27 27.80   1.2
     Z 24s       1.40um            5.0MszX
     E 14s       0.80um
                 S       35 35.00
                 sS      35 52.00
KMI    59.97   69 Pc+    27 38.50   1.0
     Z 28s       1.10um            4.8MszX
                 eS      35 32.00
                 sS      35 52.00
LZH    61.23   56 eP     27 46.50   0.6
       2.5s    118.00nm            5.6mb
     Z 28s       1.60um            5.0MszX
GYA    63.47   67 iPc    28 01.00   0.1
       3.0s      0.70nm            3.3mb X
                 S       36 38.00
XAN    65.31   59 P      28 13.30   0.7
BTO    66.35   51 P      28 20.00   0.7
     N 16s       0.40um
     E 16s       1.00um
HHC    67.53   51 Pc     28 28.00   1.2
     Z 28s       1.60um            5.1MszX
TIY    68.17   55 eP     28 32.80   2.0
     N 16s       0.80um
                 S       37 34.00
WHN    70.01   62 eP     28 42.50   0.4
DAG    70.21  348 iPd    28 43.00   0.5
       0.8s      5.22nm            4.7mb
BJI    71.05   52 eP     28 50.00   1.8
       5.0s      0.30nm            2.6mb X
     Z 28s       1.40um            5.1MszX
     E 14s       0.50um
                 eS      37 08.00
                 eSS     41 36.00
DL2    75.33   53 eP     29 13.00  -0.3
     Z 18s       0.60um            4.9Msz
                 eS      38 54.00
CN2    77.69   48 Pc     29 28.00   1.6
       4.0s      0.60nm            3.0mb X
```

```
                 S       39 22.00
ALE    78.51  352 eP     29 32.00   1.7
FRB    86.16  335 eP     30 10.00  -0.2
MBC    89.79  355 eP     30 28.00   0.6
       S.D. = 1.4   on  91 of  97 obs.
-----------------------------------------
    APR  13, 1989  12h 18m 23.82± 0.74s
    38.652 N ± 5.7km    27.192 E ± 8.9km
    DEPTH =  10.0km  (geophysicist)
  TURKEY                            (366)
       Felt at Izmir.

IZM    0.26  168 ePg    18 29.00  -0.3
EZN    1.35  330 iPn    18 48.50  -0.1
DST    1.47   49 ePn    18 51.10   0.7
YER    1.74  150 iPn    18 53.60  -0.8
EDC    1.77   17 iPn    18 54.00  -0.7
KHL    1.86   99 iPn    18 56.50   0.4
ALT    2.31   79 iPn    19 02.70   0.0
YLV    2.55   41 iPn    19 05.80  -0.1
GBZT   2.75   38 ePn    19 16.00   7.2X
ELL    2.87  131 iPn    19 11.60   1.0
HRT    2.89   41 ePn    19 10.00  -0.7
DMK    3.20    8 ePn    19 13.00  -2.0
KDZ    3.29  336 iP     19 16.00  -0.4
                 iS      20 08.00
JMB    3.84  353 eP     20 21.00  56.8X
BBTK   4.48   73 eP     19 53.50  20.0X
                 iS      20 56.00
PVL    4.77  343 eP     19 38.00   0.6
MLR    6.90  353 eP     20 10.00   2.5
VRI    7.22  357 eP     20 07.00  -4.9X
       S.D. = 1.1   on  14 of  18 obs.
-----------------------------------------
*  APR  13, 1989  12h 35m 04.38± 1.31s
    13.336 N ±15.9km    39.963 E ±18.4km
    DEPTH =  33.0km  (normal)
    4.4mb (  2 obs.)
  ETHIOPIA                          (558)
       ML 4.3 (ARO).

TDD    3.25  118 eP+    35 54.37   0.1
ARO    3.34  122 eP+    35 55.00  -0.6
                 S       36 48.00
MKL    3.50  117 eP+    35 58.61   0.7
ABHA   5.57   28 ePc    36 26.30  -1.1
TAIF   7.92    3 eP     37 01.60   1.2
MAIO  28.82   34 eP     41 08.00   6.2X
POO   32.96   76 eP     41 09.50 -29.0X
KHC   41.79  334 P      42 51.00  -1.4
PRU   42.05  336 eP     42 53.60  -0.9
HFS   50.56  343 ePKP   44 04.10   2.5
       0.3s      0.80nm            4.2mb
NB2   52.01  343 P      44 12.10  -0.5
       1.1s      7.70nm            4.6mb
       S.D. = 1.5   on   9 of  11 obs.
-----------------------------------------
&  APR  13, 1989  12h 55m 20.19s
    61.710 N          149.657 W
    DEPTH =  30.4km
  SOUTHERN ALASKA                   (  2)
       <AGS-P>.

PWA    0.12  241 iP     55 26.06   0.3
PLRM   0.28  115 iP     55 26.74  -0.6
                 eS      55 33.05
PME    0.31  105 iP     55 27.24  -0.6
                 eS      55 33.74
GHO    0.35   80 iP     55 28.00  -0.5
                 eS      55 35.29
PMS    0.47  174 iP     55 29.47  -0.7
CGLM   1.20  251 iP     55 39.98  -1.0
                 eS      55 55.62
NKA    1.24  219 eP     55 42.12   0.7
SLKM   1.24  193 eP     55 39.99  -1.5
SPU    1.27  246 iP     55 40.94  -1.0
                 eS      55 58.33
CRP    1.28  251 iP     55 41.49  -0.7
                 eS      55 58.41
SEW    1.62  176 eP     55 46.54  -0.4
TOA    1.70   75 iP     55 47.69  -0.5
RDT    1.75  231 iP     55 47.76  -1.3
                 eS      56 10.64
KLU    1.80   95 iP     55 48.09  -1.6
                 eS      56 10.17
NNL    1.86  206 eP     55 52.21   1.8
KTH    1.94  343 eP     55 50.72  -1.0
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RED    1.99  231 eP     55 50.77  -1.7
                 S       56 16.40
HIN    2.02  129 iP     55 50.56  -2.3
                 eS      56 16.50
MCK    2.06    9 eP     55 52.54  -0.8
CVA    2.23  120 eP     55 53.19  -2.5
ILIM   2.30  226 eP     55 55.75  -1.0
                 eS      56 24.01
CNPM   2.33  200 eP     55 57.35   0.2
PAX    2.33   55 iP     55 56.87  -0.4
SGAM   2.48  117 eP     55 56.43  -2.9
                 eS      56 29.80
RAGM   2.76  117 eP     56 04.51   1.2
GLB    2.81   93 eP     56 02.45  -1.6
SVW    2.93  261 eP     56 03.51  -2.2
PDB    2.95  231 eP     56 03.73  -2.2
HDA    2.97   23 eP     56 04.87  -1.5
CCB    3.07   15 eP     56 05.44  -2.2
RDS    3.20   12 eP     56 07.74  -1.8
TTA    3.21  295 eP     56 07.47  -2.3
FBA    3.31   14 eP     56 09.38  -1.7
                 eS      56 47.85
GLM    3.45   16 eP     56 11.15  -2.0
BALM   3.58   98 eP     56 13.35  -1.8
CTGM   4.08   97 eP     56 23.86   1.7
       36 obs. associated
-----------------------------------------
    APR  13, 1989  13h 00m 48.78± 0.36s
    13.351 N ± 6.0km    40.011 E ± 5.9km
    DEPTH =  33.0km  (normal)
    4.8mb ( 16 obs.)
  ETHIOPIA                          (558)
       ML 4.8 (ARO).

DAF    3.01  125 ePc    01 34.23  -1.0
SGH    3.19  126 ePc    01 37.39  -0.5
TDD    3.22  118 ePc    01 37.17  -1.0
GBR    3.24  132 ePc    01 38.33  -0.3
ARO    3.31  123 eP+    01 38.77  -0.8
MKL    3.47  118 eP+    01 43.45   1.6
OBO    3.48  113 eP+    01 40.97  -1.0
ATA    3.65  121 eP+    01 45.82   1.5
ABHA   5.54   28 ePc    02 10.60  -0.7
TAIF   7.90    2 eP     02 44.30  -0.2
SRFA  16.14  345 eP     04 35.00   0.2
PRNI  17.54  345 e(P)   04 54.00   1.6
NOH   17.87  346 eP     04 57.00   0.4
BNG   22.96  249 iPd    05 53.00   1.4
       1.0s     15.00nm            4.4mb
SKO   32.77  334 eP     07 20.50  -0.4
MLR   34.19  342 iPc    07 35.00   1.6
VRI   34.31  343 iPc    07 35.00   0.8
BZS   35.74  338 eP     07 46.00  -0.4
SPC   39.27  339 eP     08 16.60   0.3
ZST   39.61  336 iP     08 19.00   0.1
KRA   40.12  340 eP     08 22.70  -0.3
                 e       08 26.20
KHC   41.80  334 iPc    08 36.70  -0.2
       1.0s      7.00nm            4.3mb
PRU   42.06  336 P      08 38.80  -0.1
KSP   42.06  338 eP     08 38.50  -0.5
LPG   42.65  325 eP     08 52.10   7.9X
       0.8s     11.40nm            4.7mb
BRG   42.99  336 eP     08 46.00  -0.5
       1.3s     16.00nm            4.6mb
CLL   43.70  336 iPc    08 51.70  -0.6
       1.7s     29.00nm            4.8mb
MOX   43.77  334 eP     08 52.00  -0.9
       1.2s     18.00nm            4.7mb
GKN   43.97   63 P      08 56.00   1.0
BSF   44.09  328 eP     08 55.50  -0.2
       0.8s     12.10nm            4.8mb
DMN   44.32   64 P      08 59.20   1.2
       0.9s     30.00nm            5.1mb
KKN   44.50   64 P      08 59.90   0.5
PKI   44.57   64 P      09 00.90   0.8
LBF   45.08  325 eP     09 03.00  -0.6
       0.9s     13.10nm            4.8mb
LOR   45.31  326 eP     09 04.80  -0.6
       1.0s     19.00nm            5.0mb
SSF   45.39  325 eP     09 05.40  -0.5
       1.0s     10.00nm            4.7mb
BGF   45.47  324 eP     09 06.50  -0.1
       0.8s     17.45nm            5.0mb
MEM   46.29  330 P      09 13.30   0.3
DOU   46.65  329 Pc     09 15.40  -0.5
NUR   48.41  350 eP     09 29.00  -0.5
```

13d 13h

SUF 50.28 352 iP 09 43.40 -0.4
0.5s 6.60nm 4.9mb
HFS 50.56 343 eP 09 44.80 -1.2
1.0s 15.90nm 5.0mb
NB2 52.01 343 P 09 55.90 -1.1
1.1s 16.60nm 4.9mb
EKA 53.56 331 P 10 10.00 1.4
3.0s 226.50nm 5.6mb
S.D. = 0.9 on 43 of 44 obs.

APR 13, 1989 13h 04m 04.10± 0.65s
38.626 N ± 5.5km 27.275 E ± 8.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM 0.23 182 iPg 04 08.70 -0.3
EZN 1.41 329 ePn 04 28.50 -1.2
DST 1.44 47 ePn 04 30.60 0.4
YER 1.69 152 iPn 04 33.00 -0.9
EDC 1.78 15 iPn 04 36.00 0.9
KHL 1.79 99 iPn 04 35.50 0.2
BNT 1.80 16 iPn 04 34.30 -1.1
ALT 2.26 78 iPn 04 42.50 0.4
ELL 2.81 131 iPn 04 51.10 1.1
HRT 2.87 39 ePn 04 50.00 -0.7
DMK 3.21 6 ePn 04 54.00 -1.6
KDZ 3.34 335 iP 04 57.00 -0.4
iS 05 49.00
RZN 3.63 328 eP 05 03.00 1.3
DIM 3.67 339 eP 05 04.00 1.9
JMB 3.87 352 eP 05 21.00 16.1X
BBTK 4.43 72 eP 05 29.00 16.0X
eS 06 36.00
PVL 4.82 343 eP 05 13.00 -5.3X
S.D. = 1.1 on 14 of 17 obs.

• APR 13, 1989 13h 55m 49.57± 1.50s
5.911 S ±14.7km 130.544 E ±18.9km
DEPTH = 33.0km (normal)
4.1mb (2 obs.)
BANDA SEA (280)

AAI 3.22 313 eP 56 38.90 -0.1
MTN 6.92 175 iPc 57 35.20 3.9X
eS 58 44.00
KNA 9.93 190 eP 58 13.70 0.5
0.3s 52.00nm 6.3mb X
eS 59 52.00
WB5 14.37 165 eP 59 10.80 -2.0
eS 01 40.00
WRA 14.43 166 Pd 59 12.70 -0.8
0.5s 5.30nm 4.3mb
QIS 17.01 150 eP 59 48.00 1.3
eS 02 39.00
ASPA 17.95 170 eP 59 59.30 0.9
eS 03 07.50
MBL 18.37 213 iPd 00 03.90 0.3
0.3s 3.00nm 3.9mb
eS 03 08.00
NANU 22.00 220 eP 00 42.60 -0.2
UCC 116.86 325 iPKP 14 50.00 17.6X
S.D. = 1.2 on 8 of 10 obs.

% APR 13, 1989 14h 14m 31.77± 1.43s
11.375 N ± 5.5km 61.799 W ±27.1km
DEPTH = 10.0km (geophysicist)
WINDWARD ISLANDS (95)
MG 3.6 (TRN).

TCE 0.68 176 iPc 14 45.76 0.6
eS 14 57.81
TRN 0.82 152 iPd 14 48.79 1.1
eS 15 02.92
TPP 1.11 162 iP 14 50.98 -1.5
eS 15 08.62
TBH 1.14 141 iP 14 52.97 -0.2
eS 15 13.70
SVB 1.96 16 iP 15 05.34 -0.1
eS 15 38.89
SVV 2.01 16 eP 15 06.21 0.0
eS 15 39.34
SLB 2.55 17 eP 15 13.85 0.0
eS 15 51.35
S.D. = 1.0 on 7 of 7 obs.

APR 13, 1989 14h 34m 37.58± 0.30s
45.767 N ± 3.5km 26.691 E ± 4.5km
DEPTH = 119.6 ± 4.4 km
4.7mb (3 obs.)
ROMANIA (358)

VRI 0.11 13 eP 34 54.00 0.5
MLR 0.59 243 iPc 34 57.00 0.5
ISR 0.64 189 iPc 34 56.00 -0.7
PPE 0.79 55 iP 34 59.00 1.1
BAC 0.81 10 iPc 34 51.00 -7.1X
BIR 0.82 52 iPc 34 55.50 -2.7
CLI 0.88 28 iPd 34 59.00 0.2
CFR 1.18 119 iPd 34 32.00 -29.7X
PTT 1.19 350 iPc 35 07.00 5.2X
CMP 1.26 247 iPc 35 05.00 2.3
BUC 1.42 197 iP 35 04.30 -0.1
TLB 1.51 141 iPc 35 05.00 -0.5
IAS 1.55 23 iPd 35 06.00 0.1
CVD 1.72 146 P 35 21.00 13.0X
DRA 2.04 239 iPd 35 12.00 0.1
DEV 2.65 274 iPc 35 19.50 -0.4
PVL 2.73 201 iPd 35 22.00 1.1
iS 35 52.00
BMR 2.91 312 iPc 35 25.00 1.7
JMB 3.30 181 iP 35 28.00 -0.6
iS 35 55.00
BZS 3.56 269 iPc 35 32.00 0.0
PGB 3.69 210 iP 35 34.00 0.1
iS 36 04.00
PLD 3.93 202 eP 35 36.00 -1.1
iSg 36 08.00
DMK 4.02 169 iPn 35 38.10 -0.2
VTS 4.04 220 iPd 35 38.00 -0.7
iS 36 13.00
KDZ 4.22 193 iPd 35 41.00 0.0
iSg 36 28.00
RZN 4.32 200 iP 35 42.00 -0.5
BEO 4.50 260 ePn 36 07.50 22.7X
RDO 4.69 191 ePb 35 47.00 -0.4
MMB 4.70 208 iPc 35 48.00 0.5
iS 36 28.00
CTT 4.79 164 ePn 35 52.00 3.3X
ISK 5.01 159 ePn 35 53.00 1.4
PSZ 5.14 297 eP 35 53.00 -0.5
VAY 5.36 215 iPn 35 55.70 -0.7
GBZT 5.37 157 ePn 36 02.00 5.4X
SKO 5.37 227 ePn 35 55.00 -1.6
iSn 36 39.00
HRT 5.40 155 ePn 35 51.80 -5.3X
BNT 5.48 170 ePn 35 56.80 -1.4
YLV 5.56 158 ePn 36 02.00 2.8
PLG 5.89 205 ePb 36 03.50 -0.3
EZN 5.94 183 eP 36 04.50 0.0
OHR 6.33 225 ePn 36 09.80 0.0
NEO 6.94 203 ePn 36 17.00 -1.2
TRI 9.04 274 iPc 36 48.10 1.6
KHC 9.50 295 eP 36 54.00 1.3
NUR 14.82 356 eP 38 00.00 -1.9
SUF 16.99 359 eP 38 25.00 -3.9X
0.4s 5.60nm 4.2mb
NB2 17.79 335 P 38 36.40 -2.4
0.6s 1.40nm 3.4mb X
SOD 21.66 360 iP 39 19.20 0.1
KEV 24.06 0 eP 39 43.00 0.7
GKN 48.54 91 P 43 11.10 0.6
DMN 49.11 91 P 43 15.60 0.6
0.4s 7.00nm 4.9mb
KKN 49.12 90 P 43 15.40 0.4
0.6s 189.00nm 6.1mb X
PKI 49.35 91 P 43 17.10 0.2
GUN 49.47 90 P 43 18.30 0.4
0.5s 8.00nm 4.9mb
CHG 64.47 89 eP 45 03.00 -0.5
YKA 67.74 342 eP 45 23.60 0.0
S.D. = 1.1 on 47 of 56 obs.

? APR 13, 1989 14h 38m 28.66± 0.88s
4.108 N ±24.2km 32.507 W ±18.7km
DEPTH = 10.0km (geophysicist)
CENTRAL MID-ATLANTIC RIDGE (406)

ATB 21.03 250 e(P) 43 10.50 -4.6X
ZOBO 40.62 239 (P) 46 15.00 3.6X
Z 24s 0.39um 4.2MszX
LR 58 44.00
LPB 40.72 239 (P) 46 13.00 1.0
Z 19s 1.39um 4.8Msz
LR 00 23.00
CNCB 40.75 238 eP 46 12.00 -0.4
BNG 50.90 88 iPd 47 32.00 -0.6
0.5s 8.00nm 4.9mb
MLR 65.31 41 iPc 49 13.00 -0.3
NB2 65.61 22 P 49 16.80 2.0
1.1s 3.90nm 4.5mb
VRI 65.96 41 iPc 49 06.00 -11.3X
FFC 74.88 326 eP 50 10.00 -1.3
1.2s 16.00nm 4.9mb
EDM 81.24 323 eP 50 46.00 -0.3
S.D. = 1.3 on 7 of 10 obs.

• APR 13, 1989 15h 52m 46.90± 1.52s
5.727 S ± 9.2km 131.027 E ±16.2km
DEPTH = 111.3 ± 13.3 km
4.9mb (4 obs.)
BANDA SEA (280)

AAI 3.48 306 eP 53 41.00 0.9
MTN 7.08 179 iPd 54 29.50 0.1
eS 55 44.00
KNA 10.20 192 iPc 55 10.00 -1.7
0.2s 73.00nm 6.2mb X
eS 56 57.00
WB5 14.44 167 eP 56 03.00 -4.2X
i 56 05.20
eS 58 37.30
iPcP 01 44.90
WRA 14.49 167 P 56 20.00 12.0X
0.2s 2.20nm
QIS 16.93 151 eP 56 34.00 -4.5X
e 56 39.00
eS 59 32.00
ASPA 18.05 171 iPc 56 50.90 -1.2
0.6s 59.00nm 5.0mb
eS 00 02.90
MBL 18.79 214 eP 57 00.40 0.0
CTA 20.56 135 eP 57 20.00 1.2
WARB 20.77 191 eP 57 15.00 -5.9X
0.3s 4.00nm 4.2mb
NANU 22.45 220 eP 57 39.00 1.5
FORR 25.14 186 eP 58 04.00 0.8
0.5s 20.00nm 4.8mb
MRWA 27.35 210 eP 58 24.20 0.8
CHG 39.93 308 eP 00 12.10 0.2
GUN 54.91 310 P 02 08.40 -0.5
PKI 55.10 309 Pc 02 09.60 -0.7
KKN 55.30 309 P 02 11.20 -0.4
DMN 55.35 309 P 02 11.60 -0.4
GKN 55.90 309 P 02 15.50 -0.4
0.4s 14.00nm 5.3mb
S.D. = 1.0 on 15 of 19 obs.

APR 13, 1989 16h 08m 40.25± 0.39s
38.623 N ± 3.6km 27.188 E ± 4.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM 0.23 165 iPg 08 45.30 0.0
PRK 0.95 311 eP 08 59.90 1.6
eS 09 14.40
EZN 1.38 331 iPn 09 05.60 0.2
DST 1.49 48 iPn 09 07.50 0.4
YER 1.72 149 iPn 09 09.90 -0.5
EDC 1.80 17 iPn 09 12.00 0.5
BNT 1.82 18 iPn 09 11.30 -0.6
KHL 1.86 99 iPn 09 13.00 0.5
ALT 2.32 78 iPn 09 19.50 0.3
YLV 2.57 40 iPn 09 21.80 -0.9
CTT 2.70 20 ePn 09 23.00 -1.4
GBZT 2.78 38 ePn 09 33.00 7.4X
RDO 2.82 334 eP 09 26.90 0.7
ISK 2.83 30 ePn 09 28.00 1.7
ELL 2.86 130 iPn 09 27.60 0.8
HRT 2.91 40 iPn 09 26.10 -1.4
BCK 2.92 112 iPn 09 27.80 0.1
KAP 3.07 180 eP 09 28.70 -0.9
KSL 3.14 142 eP 09 32.50 1.8
DMK 3.22 8 iPn 09 31.30 -0.6
KDZ 3.31 336 iPc 09 33.00 -0.2
iS 10 25.00
NPS 3.58 201 eP 09 35.50 -1.5
RZN 3.60 329 eP 09 34.00 -3.4X
DIM 3.65 340 eP 09 37.00 -0.9
JMB 3.87 353 iP 09 54.00 13.0X
Sg 10 45.00
MMB 3.98 319 iPc 09 43.00 0.4

		iS	10 28.00		
VAY	4.46	309 ePn	10 06.40	17.1X	
BBTK	4.50	73 eP	10 09.00	18.9X	
		eS	11 09.00		
KKB	4.51	317 eP	09 34.00	-16.2X	
PGB	4.55	331 eP	09 50.00	-0.7	
PVL	4.80	344 eP	09 54.00	-0.2	
VTS	4.99	324 iP	09 58.00	0.9	
		eS	10 56.00		

S.D. = 1.0 on 26 of 32 obs.

% APR 13, 1989 16h 17m 29.19± 0.88s
38.665 N ± 5.9km 27.234 E ±11.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.27	175 iPg	17 34.00	-0.9	
EZN	1.36	329 ePn	17 54.00	-0.1	
DST	1.43	49 iPn	17 55.50	0.2	
YER	1.74	151 ePn	18 01.00	1.3	
EDC	1.75	16 ePn	18 01.00	1.3	
BNT	1.77	17 iPn	17 59.30	-0.8	
KHL	1.83	100 iPn	18 04.50	3.5X	
ALT	2.28	79 ePn	18 07.00	-0.5	
YLV	2.52	40 iPn	18 10.30	-0.6	

S.D. = 1.0 on 8 of 9 obs.

• APR 13, 1989 16h 19m 49.78± 1.69s
33.563 N ±14.9km 24.709 E ±15.2km
DEPTH = 10.0km (geophysicist)
MEDITERRANEAN SEA (400)
MD 3.8 (ATH).

NPS	1.85	24 eP	20 21.40	-0.5	
VAM	1.89	347 eP	20 21.60	-0.7	
KAP	2.84	45 eP	20 36.70	0.7	
ITM	4.26	329 eP	20 56.80	0.6	
KOT	7.06	119 ePn	21 35.50	-0.2	
		S	22 51.00		

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

• APR 13, 1989 16h 58m 50.87± 0.72s
2.103 N ±12.0km 126.162 E ±14.8km
DEPTH = 33.0km (normal)
4.7mb (3 obs.)
MOLUCCA PASSAGE (266)

KKM	10.66	292 ePd	01 31.00	6.4X	
	0.6s	46.60nm		5.9mb X	
JAY	15.25	107 ePc	02 27.70	2.2	
		e	03 02.00		
MTN	15.65	162 eP	02 29.00	-1.7	
KNA	17.92	172 eP	02 59.70	0.3	
WB5	23.28	160 eP	03 55.30	-1.4	
		eS	08 05.00		
WRA	23.33	160 Pc	03 56.80	-0.4	
	0.4s	9.80nm		4.7mb	
MBL	23.93	195 eP	04 05.00	2.0	
QIS	26.09	150 eP	04 22.00	-1.6	
NANU	26.62	202 eP	04 31.10	2.7	
ASPA	26.70	164 iPd	04 28.60	-0.5	
CHG	31.41	304 eP	05 12.20	0.8	
FORR	32.82	177 iPc	05 23.20	-0.3	
	0.4s	22.00nm		5.4mb X	
GUN	46.24	308 P	07 15.50	0.0	
PKI	46.46	307 P	07 16.80	-0.4	
	0.5s	8.00nm		4.9mb	
KKN	46.66	307 P	07 18.40	-0.3	
	0.6s	15.00nm		5.1mb X	
DMN	46.72	307 P	07 19.00	-0.2	
	0.7s	21.00nm		5.2mb X	
GKN	47.27	307 P	07 23.20	-0.2	
	0.6s	19.00nm		5.3mb X	
GBA	49.50	286 Pd	07 39.60	-1.0	
	0.9s	3.00nm		4.3mb	

S.D. = 1.4 on 17 of 18 obs.

% APR 13, 1989 17h 10m 15.93± 1.75s
38.559 N ±11.3km 26.960 E ±18.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

IZM	0.29	124 iPg	10 21.70	-0.3	
EZN	1.36	339 ePn	10 41.00	0.2	
DST	1.67	51 iPn	10 43.50	-1.8	
YER	1.77	143 ePn	10 46.20	-0.6	
EDC	1.92	21 ePn	10 50.00	1.1	
BNT	1.94	22 iPn	10 48.80	-0.5	
KHL	2.03	96 ePn	10 52.50	1.9	

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

? APR 13, 1989 18h 49m 24.67± 0.45s
55.879 N ±21.4km 160.904 W ±13.2km
DEPTH = 168.0 ± 10.8 km
4.0mb (2 obs.)
ALASKA PENINSULA (12)

SASA	0.59	157 iPc	49 48.74	0.1	
		eS	50 05.32		
SQF	0.69	163 eP	49 49.21	-0.1	
		eS	50 06.50		
PVV	0.71	225 eP	49 49.37	0.0	
		eS	50 06.40		
PS4	0.76	227 ePc	49 49.78	0.0	
		eS	50 07.35		
IVF	0.77	88 eP	49 49.81	0.0	
		eS	50 07.31		
NGI	0.97	150 iPc	49 51.35	0.2	
		eS	50 09.89		
CNBA	1.30	144 iPc	49 53.89	-0.1	
		eS	50 14.88		
YKA	24.16	55 P	54 32.00	5.9X	
SUF	61.61	356 iP	59 25.80	0.0	
NB2	63.26	4 P	59 36.80	0.0	
	0.8s	1.20nm		3.8mb	
NUR	63.87	357 iP	59 40.90	0.2	
HFS	64.25	3 eP	59 42.90	-0.2	
	0.4s	1.00nm		4.1mb	

S.D. = 0.2 on 11 of 12 obs.

• APR 13, 1989 19h 36m 11.54± 1.34s
51.204 N ±15.9km 15.552 E ± 7.0km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.7 (VKA), 3.4 (KBA).

KSP	0.59	127 iPd	36 17.00	-6.5X	
	0.6s	166.00nm			
		iS	36 25.60		
BRG	1.07	253 ePn	36 32.50	0.9	
		iPg	36 34.00		
		iSg	36 53.00		
PRU	1.38	208 Pn	36 36.50	-0.3	
		ePg	36 38.00		
		Sn	37 01.50		
CLL	1.61	275 ePn	36 39.00	-1.0	
		iPg	36 42.50		
		iSg	37 09.80		
KHC	2.43	212 iPn	36 51.50	-0.5	
		Pg	36 58.00		
		Sn	37 16.00		
		Sg	37 35.30		
MOX	2.55	259 ePn	36 54.00	0.3	
		iPg	37 02.00		
		iSg	37 42.00		
VKA	2.98	170 iPgc	37 04.70	4.9X	
		i	37 05.20		
		iSg	37 46.50		
		i	37 51.70		
KRA	3.02	111 eP	36 58.60	-1.6	
		eS	37 35.20		
GRF	3.15	243 ePn	37 03.00	0.8	
		e(Pg)	37 15.10		
		eSg	38 01.70		
SPC	3.63	122 eP	37 11.30	2.2	
KBA	4.38	200 ePn	37 19.00	-0.7	
		i	38 22.10		
		iSg	38 36.90		
		i	38 41.00		
FOUF	8.90	225 P	38 22.82	-0.2	
		Sg	38 23.66		

S.D. = 1.3 on 10 of 12 obs.

APR 13, 1989 20h 04m 19.64± 0.92s
36.514 N ± 8.5km 24.025 E ± 7.3km
DEPTH = 65.9 ± 11.6 km
3.9mb (5 obs.)
SOUTHERN GREECE (368)
MD 3.7 (ATH).

VAM	1.11	173 ePg	04 32.40	-7.3X	
		eSg	04 44.30		
ATH	1.48	350 ePg	04 47.50	3.0X	
NPS	1.79	134 ePb	04 44.10	-4.9X	
ITM	1.81	292 ePn	04 49.30	0.1	
		eSn	05 16.00		
KAP	2.73	110 ePb	05 00.40	-1.6	
NEO	2.86	347 ePn	05 03.90	0.1	
IZM	3.19	53 eP	05 18.00	9.5X	
PRK	3.25	32 ePn	05 09.10	-0.2	
YER	3.47	78 eP	05 13.00	0.5	
EZN	3.77	28 eP	05 15.00	-1.5	
PLG	3.88	353 ePn	05 17.80	-0.4	
KZN	4.18	336 ePn	05 22.50	0.1	
KSL	4.51	93 ePn	05 26.30	-0.6	
ELL	4.74	85 iP	05 31.10	0.8	
VAY	4.93	347 ePn	05 33.00	0.1	
MMB	5.07	357 iPd	05 35.00	0.1	
RZN	5.19	6 eP	05 36.00	-0.8	
KDZ	5.24	11 iP	05 40.00	2.7	
BCK	5.34	78 eP	05 40.40	1.7	
KKB	5.39	352 eP	05 39.00	-0.4	
SKO	5.81	341 ePn	05 40.00	-5.2X	
DOU	19.52	320 P	08 45.70	1.5	
	0.7s	5.50nm		3.9mb	
HFS	24.55	348 eP	09 33.70	-0.5	
	0.4s	0.80nm		3.5mb	
NB2	25.86	346 P	09 45.00	-1.5	
	0.9s	1.20nm		3.4mb	
EKA	26.40	324 Pc	09 51.20	-0.3	
	0.7s	5.20nm		4.2mb	
BNG	32.32	190 ePd	10 45.00	0.4	
	0.4s	3.00nm		4.5mb	

S.D. = 1.1 on 21 of 26 obs.

• APR 13, 1989 21h 34m 43.55± 1.52s
50.730 N ±13.1km 14.244 E ±14.8km
DEPTH = 10.0km (geophysicist)
CZECHOSLOVAKIA (547)
ML 3.4 (VKA).

BRG	0.24	307 iPg	34 54.00	5.4X	
		iSg	35 14.00		
PRU	0.77	165 Pg	34 58.50	0.0	
		e	35 03.50		
		Sn	35 15.50		
		Sg	35 21.70		
CLL	0.98	307 ePg	35 02.00	-0.1	
		eSg	35 29.00		
KHC	1.66	195 ePn	35 12.60	-0.2	
		Pg	35 18.90		
		Sg	35 47.00		
MOX	1.67	268 ePg	35 21.50	8.5X	
		iSg	36 02.00		
GRF	2.20	243 e(Pg)	35 20.90	0.2	
		eSg	36 21.00		
VKA	2.81	150 eP	35 29.50	0.1	
		i(Sg)	36 10.50		

S.D. = 0.2 on 5 of 7 obs.

APR 13, 1989 21h 39m 29.09± 0.44s
39.549 N ± 3.9km 29.157 E ± 4.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.41	278 iPg	39 35.50	-2.0	
		eSg	39 41.50		
ALT	0.89	123 iPg	39 45.00	-1.2	
		eSg	39 58.50		
BNT	1.25	311 iPn	39 52.10	-0.1	
KHL	1.26	167 iPn	39 52.50	0.0	
GBZT	1.26	10 ePn	39 53.20	0.8	
		iSg	40 15.00		
EDC	1.27	309 iPn	39 53.00	0.3	
HRT	1.33	17 iPn	39 54.10	0.5	
ISK	1.52	357 ePn	39 55.00	-1.2	
IZM	1.87	233 iPn	40 02.70	1.2	
EZN	2.20	278 ePn	40 06.70	0.5	
PRK	2.26	263 eP	40 06.90	-0.1	
		eS	40 40.50		
BCK	2.37	151 ePn	40 08.90	0.2	
DMK	2.51	335 ePn	40 10.00	-0.5	
YER	2.51	196 ePn	40 10.00	-0.6	
BBTK	2.80	83 eP	40 23.00	8.2X	
		eS	41 04.50		
ELL	2.86	168 iPn	40 16.60	0.9	
RDO	3.19	301 eP	40 28.80	8.5X	
		eS	41 11.00		
RZN	4.00	304 eP	40 32.00	0.1	
MMB	4.61	298 iPc	40 41.00	0.5	
		iS	41 59.00		

13d 21h

```
PVL      4.66 323 eP     40 42.00    0.9
PGB      4.82 310 eP     40 40.00   -3.5X
VAY      5.33 292 (P)    41 34.00   43.4X
MLR      6.40 339 eP     41 34.50   28.8X
VRI      6.57 345 eP     41 33.00   25.0X
      S.D. = 0.9  on  18 of  24 obs.
-------------------------------------------
   APR  13, 1989  22h 39m 10.36± 0.95s
   40.384 N ± 6.4km   25.953 E ±10.7km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                          (365)
      MD 2.9 (ATH).

EZN      0.63 153 iPg    39 22.20   -0.7
                 iSg    39 31.20
RDO      0.82 338 ePb    39 26.30    0.0
                 eSb    39 40.00
PRK      1.16 168 ePb    39 32.60    0.5
EDC      1.46  91 iPn    39 37.00    0.2
BNT      1.50  90 iPn    39 37.60    0.2
DMK      1.98  43 ePn    39 44.00   -0.3
DST      2.20 110 iPn    39 50.50    3.0X
VAY      2.73 291 ePn    40 01.40    6.4X
      S.D. = 0.6  on   6 of   8 obs.
-------------------------------------------
?  APR  13, 1989  23h 45m 12.98± 6.88s
   70.111 N ±53.5km    8.342 E ±49.4km
   DEPTH =   0.2km  (geophysicist)
 NORWEGIAN SEA                       (642)
      MD 3.1 (BER).

TRO      3.69  92 eP     46 12.40    0.0
                 eS     46 47.50
MOL      7.58 183 eP     47 07.24   -0.1
HYA      9.03 187 iP     47 27.60    0.2
                 eS     49 04.30
NRA0     9.51 170 iPc    47 33.60   -0.5
                 iS     49 09.30
HFS     10.26 165 eP     47 44.90    0.4
        0.5s      2.00nm          4.9mb
      S.D. = 0.5  on   5 of   5 obs.
-------------------------------------------
   APR  14, 1989  01h 15m 44.55± 0.98s
   14.879 S ± 7.4km  167.211 E ± 5.9km
   DEPTH = 158.2 ±  8.7 km
   5.2mb ( 17 obs.)
 VANUATU ISLANDS                     (186)
      CENTROID, MOMENT TENSOR        (HRV)
      Data Used: GDSN
      L.P.B.:  9S, 17C
      Centroid Location:
      Origin Time        01:15:48.2 1.7
      Lat 15.44S 0.18 Lon 166.97E 0.17
      Dep 133.4 6.0 Half-duration  1.5
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 1.21 0.52   Mtt= 2.69 0.93
        Mff=-3.90 0.82   Mrt=-3.51 0.68
        Mrf=-0.31 0.61   Mtf= 3.71 0.87
       Principal Axes:
        T  Val=  6.50   Plg=33   Azm=159
        N       -0.71      55       316
        P       -5.79      11        62
      Best Double Couple:Mo=6.1*10**16
       NP1:Strike=196 Dip=59 Slip= 163
       NP2:       295     76        32

PVC      3.03 160 iPc    16 32.00   -1.2
                 iS     17 09.50
DZM      7.19 186 iPc    17 26.40   -1.9
                 iS     18 49.30
HNR      8.93 307 eP     17 51.00   -0.4
                 eS     19 27.00
VSG      9.22 306 iP     17 56.00    0.7
                 iS     19 35.00
NDF     10.24 108 ePc    18 09.50    0.9
BRS     18.32 225 iPd    19 50.80    1.4
                 eS     23 16.00
PMG     20.34 283 iPd    20 06.00   -4.3X
        1.0s   120.00nm          5.3mb
CTA     20.64 252 iPd    20 14.10    0.8
        0.9s    96.64nm          5.2mb
                 iS     24 00.00
RMQ     20.74 233 iPc    20 16.60    2.3
                 i      20 18.30
COO     21.03 219 iPc    20 19.30    2.2
KRP     24.11 164 P      20 47.00    0.1
        1.0s   289.00nm          5.8mb

BWA     25.81 218 iPc    21 01.90   -0.9
CAN     26.11 216 iPc    21 05.90    0.4
QIS     26.88 254 iPd    21 12.30   -0.3
STK     28.86 230 iPc    21 31.40    1.1
        0.3s    26.00nm          5.4mb
TOO     29.70 216 eP     21 38.00    0.3
MSZ     29.70 179 Pc     21 36.80   -0.7
        0.7s    56.00nm          5.4mb
WB5     31.70 256 eP     21 53.80   -1.6
WRA     31.73 256 Pc     21 54.30   -1.4
        0.6s     4.70nm          4.4mb
ASPA    32.57 249 iPd    22 02.00   -1.0
        0.4s     2.00nm          4.2mb
                  iS    27 05.60
                 eScS   32 13.60
FORR    39.16 239 iPc    22 59.00    0.6
        0.4s    24.00nm          5.3mb
WARB    39.47 247 iPd    22 54.20   -6.9X
        0.3s     6.00nm          4.8mb
TVO     41.81 100 iP     23 21.10    0.6
        0.8s    65.00nm          5.3mb
PMO     43.32  96 iP     23 33.60    1.0
        0.8s    50.00nm          5.2mb
VAH     43.55  97 iP     23 34.80    0.3
        0.8s    40.00nm          5.1mb
TPT     43.58  96 iP     23 35.70    0.9
        0.8s    40.00nm          5.1mb
RUV     43.79  97 iP     23 37.10    0.6
        0.8s    50.00nm          5.2mb
MBL     45.36 255 iPd    23 49.30    0.5
        0.4s    16.00nm          5.0mb
MRWA    49.20 244 iPd    24 18.70    0.0
NANU    49.34 253 iPd    24 20.30    0.4
        0.3s     5.00nm          4.7mb
GYA     71.75 305 P      26 51.60   -0.2
TIY     73.33 317 eP     27 02.80    2.1
CHG     75.09 294 eP     27 12.40    1.3
SPA     75.22 180 ePc    27 11.10   -0.2
        1.0s    52.00nm          5.2mb
CD2     76.06 308 eP     27 14.00   -2.4
MAW     81.73 202 eP     27 46.40    0.2
YKA     97.70  27 eP     29 02.30    0.3
SUF    124.96 339 iPKP   34 25.90   -0.9
        0.5s     3.30nm
BUL    126.45 231 iPKPc  34 30.10   -1.1
        1.0s    11.50nm
NUR    126.99 338 iPKP   34 30.30   -0.5
KRI    127.62 235 iPKPc  34 35.90    2.4
NB2    130.75 345 PKP    34 37.70   -0.3
        0.8s     2.10nm
HFS    130.85 343 ePKP   34 37.80   -0.4
        0.4s     0.80nm
SOB1   143.27 129 ePKP   35 01.60   -0.9
HAU    143.37 338 ePKP   34 59.30   -2.4
        0.8s     9.40nm
ARV    143.99 327 PKP    35 04.00    1.1
VAI    144.18 334 PKPc   35 01.10   -1.9
PGD    144.34 329 PKP    35 03.00   -0.7
CRE    144.40 329 PKP    35 02.50   -1.2
ASS    144.43 327 PKP    35 02.50   -1.2
TDS    144.51 320 PKPc   35 03.30   -0.6
SGO    144.60 322 PKPc   35 03.00   -0.9
MME    144.60 330 PKP    35 03.80   -0.4
FIR    144.64 329 ePKP   35 03.00   -0.9
ORX    144.70 334 PKP    35 02.74   -1.4
ORO    144.71 334 PKP    35 03.00   -1.2
MGR    144.71 321 PKP    35 02.50   -1.7
FLN    144.73 346 iPKPc  35 02.70   -1.2
        0.6s    12.65nm
SDI    144.73 324 PKPc   35 02.70   -1.5
BDI    144.75 330 PKP    35 01.50   -2.7
BOB    144.75 332 PKPc   35 03.70   -0.5
LDF    144.80 345 iPKPc  35 02.80   -1.2
        0.8s    14.80nm
LOR    144.86 340 iPKPc  35 03.90   -0.3
        0.8s    21.50nm
MNS    144.90 326 PKP    35 03.50   -1.0
PII    145.04 330 PKPc   35 03.00   -1.6
LBF    145.07 340 iPKPc  35 04.50   -0.1
        1.0s    37.00nm
SSF    145.16 340 iPKPc  35 05.00    0.3
GRR    145.17 346 iPKPc  35 04.40   -0.3
        0.8s    48.35nm
LSD    145.18 335 PKP    35 05.71    0.5
LPG    145.31 336 iPKPc  35 05.90    0.5
        1.0s    50.00nm
RSP    145.39 335 PKP    35 05.20   -0.1

ITR    145.39 131 ePKP   35 03.60   -2.5
SMF    145.41 340 iPKPc  35 05.30    0.1
        0.8s    28.20nm
AVF    145.44 340 iPKPc  35 05.40    0.2
        0.8s    17.45nm
LPF    145.54 346 iPKPc  35 05.80    0.5
        0.8s    47.00nm
SOI    145.60 318 PKPc   35 06.40    0.7
BNI    145.71 335 PKPc   35 06.90    1.0
FIN    145.74 333 PKP    35 05.81    0.0
RRL    145.77 335 PKP    35 07.25    1.1
BGF    145.81 341 iPKPc  35 06.70    0.8
        1.0s    48.00nm
ROB    145.82 333 PKP    35 06.02    0.0
PZZ    145.98 334 PKP    35 06.12   -0.3
IMI    146.12 333 PKP    35 07.05    0.5
MAF    146.20 341 iPKPc  35 07.90    1.4
        1.0s    32.00nm
TCF    146.25 341 iPKPc  35 08.30    1.7
        0.8s    21.50nm
LSF    146.50 342 iPKPc  35 08.60    1.6
        0.8s    32.25nm
MFF    146.65 344 iPKPc  35 09.00    1.8
        0.7s    44.10nm
FRF    146.94 334 ePKP   35 09.70    2.0
        1.0s    28.00nm
LRG    147.14 334 ePKP   35 10.60    2.5
        0.8s    14.75nm
LMR    147.18 334 ePKP   35 10.40    2.3
        1.0s    44.00nm
RJF    147.35 341 iPKPc  35 11.20    2.8
        0.8s    17.45nm
BNG    147.46 255 ePKPc  35 09.60    0.1
        0.2s   100.00nm
                  i      35 12.00
                  i      35 47.20
                  i      36 45.40
CAF    147.51 340 iPKPc  35 11.90    3.2X
        0.8s    10.75nm
LFF    147.92 342 iPKPc  35 12.60    3.3X
        0.8s    32.25nm
LPO    148.01 341 iPKPc  35 12.90    3.5X
        0.8s    21.50nm
EPF    149.77 341 ePKP   35 17.20    4.9X
        0.8s     9.40nm
KIC    168.42 224 PKP    35 33.50   -0.5
      S.D. = 1.3  on  91 of  97 obs.
-------------------------------------------
?  APR  14, 1989  01h 57m 08.62± 2.55s
   42.143 N ±48.4km  145.970 E ±22.4km
   DEPTH =  33.0km  (normal)
   4.8mb (  4 obs.)
 HOKKAIDO, JAPAN REGION              (224)

INK     48.23  29 eP     05 47.00   -0.6
MBC     50.61  18 eP     06 05.00   -0.8
GKN     51.12 275 P      06 10.00   -0.5
YKA     57.62  33 eP     06 58.00    0.7
KEV     59.91 339 eP     07 12.00   -1.2
SOD     61.62 337 iP     07 27.30    2.5
SUF     64.98 334 iP     07 46.60   -0.4
        0.5s     8.50nm          5.1mb X
NUR     67.07 333 eP     08 00.00   -0.3
FFC     67.51  36 eP     08 04.00    0.8
        0.9s     8.00nm          4.8mb
NB2     70.78 339 P      08 23.30    0.0
        0.7s     7.10nm          4.8mb
HFS     70.83 337 eP     08 23.30   -0.2
        0.5s    10.90nm          5.2mb
FRB     70.96  15 eP     08 23.00   -1.2
EKA     79.41 343 Pd     09 13.70    1.2
        0.6s     3.10nm          4.5mb
      S.D. = 1.1  on  13 of  13 obs.
-------------------------------------------
*  APR  14, 1989  02h 34m 00.04± 1.17s
   9.342 S ± 9.2km  118.658 E ±16.0km
   DEPTH =  33.0km  (normal)
 SUMBAWA ISLAND REGION               (285)

MKS      4.18  11 iPc    35 03.00    0.0
MBL     11.80 175 eP     36 48.30   -0.9
                 eS     38 50.00
MTN     12.72 107 iPd    37 01.00   -0.5
NANU    13.48 192 eP     37 12.00    0.5
                 iS     39 29.50
WB5     18.44 126 eP     38 15.90    0.9
      S.D. = 1.0  on   5 of   5 obs.
```

? APR 14, 1989 04h 17m 48.09± 6.32s
39.046 N ±50.0km 23.669 E ±11.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

NEO	0.43	307	ePg	17 56.60	-0.3
PLG	1.34	353	ePb	18 12.60	-0.2
			eSb	18 28.00	
EZN	2.20	68	ePn	18 38.00	12.8X
VAY	2.42	340	ePn	18 29.30	1.0
MMB	2.54	1	eP	18 29.00	-1.1
			eS	19 59.00	
RZN	2.76	17	iP	18 34.00	0.7
			Sg	19 16.00	
KDZ	2.92	27	iP	18 35.00	-0.5
			eS	19 14.00	
			eS	31 36.00	
VTS	3.56	355	eP	18 45.00	0.4

S.D. = 0.9 on 7 of 8 obs.

& APR 14, 1989 05h 55m 14.11s
59.928 N 153.222 W
DEPTH = 126.4km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.20	41	eP	55 30.91	0.7
			iS	55 44.82	
PDB	0.51	254	iP	55 32.10	-1.0
			S	55 46.50	
RED	0.54	24	iP	55 32.49	-0.9
RDT	0.77	32	iP	55 34.12	-0.9
NNL	0.97	82	iP	55 36.83	0.1
CDD	1.02	192	eP	55 36.03	-1.2
CNPM	1.08	111	iP	55 36.89	-1.0
			iS	55 54.12	
NKA	1.28	49	eP	55 40.77	0.9
SPU	1.38	24	iP	55 40.02	-1.0
			eS	56 00.27	
CRP	1.44	21	iP	55 41.15	-0.7
			iS	56 01.15	
CGLM	1.51	23	eP	55 41.53	-1.0
SLKM	1.61	67	eP	55 42.20	-1.4
SVW	1.68	316	iP	55 42.98	-1.5
SEW	1.90	83	iP	55 45.65	-1.4
			eS	56 10.02	
KDC	2.22	170	iP	55 48.07	-3.0
			eS	56 15.52	
PMS	2.24	52	eP	55 49.64	-1.7
			eS	56 17.09	
GHO	2.80	47	eP	55 56.22	-2.5
TTA	3.30	337	eP	56 02.55	-2.7
KLU	3.92	63	iP	56 10.65	-2.9
GLB	4.87	68	eP	56 24.03	-2.4

20 obs. associated

APR 14, 1989 05h 57m 06.58± 0.71s
37.586 N ± 6.6km 20.873 E ± 5.8km
DEPTH = 53.7 ± 8.2 km
3.9mb (3 obs.)
IONIAN SEA (399)
MD 3.6 (ATH).

VLS	0.63	339	ePb	57 17.00	-2.7
ITM	0.93	115	ePn	57 22.50	-1.2
ATH	2.29	79	ePn	57 43.50	1.0
NEO	2.52	46	ePn	57 47.00	1.1
TPE	2.79	346	ePn	57 50.50	0.8
KZN	2.81	14	ePn	57 51.20	1.2
KBN	3.03	359	ePn	57 55.20	2.0
PLG	3.43	35	ePn	57 58.00	-0.9
VAM	3.45	128	ePn	57 59.50	0.4
OHR	3.52	359	ePn	58 00.80	0.7
TIR	3.84	349	ePn	58 05.00	0.5
SOI	3.85	279	P	58 04.30	-0.3
			eSn	58 42.70	
PHP	4.11	355	ePn	58 08.50	0.2
LACI	4.14	348	ePn	58 07.50	-1.3
SKO	4.40	6	iPn	58 11.30	-1.2
NPS	4.47	120	ePn	58 14.50	1.1
KKS	4.50	356	ePn	58 09.00	-4.7X
MMB	4.57	28	ePc	58 14.00	-0.8
KKB	4.60	21	iP	58 15.00	-0.3
BCI	4.82	353	ePn	58 18.10	-0.2
MGR	4.87	303	P	58 20.00	0.9
RZN	5.06	35	iPc	58 22.00	0.1
SGO	5.25	306	P	58 26.00	1.6
VTS	5.31	19	iP	58 26.00	0.6
KDZ	5.36	39	eP	58 25.00	-1.0
MLR	8.76	24	eP	59 15.00	1.6
VBY	8.96	334	e(Pn)	59 22.70	6.7X
VRI	9.36	26	eP	59 09.00	-12.5X
VOY	9.91	331	eP	59 26.60	-2.5
			eS	01 12.60	
HFS	23.03	351	eP	02 07.20	-0.3
	0.6s		4.90nm		4.1mb
EKA	24.07	325	Pc	02 19.40	1.7
	0.5s		2.00nm		3.9mb
NB2	24.25	349	P	02 19.60	0.2
	0.5s		1.40nm		3.7mb
SUF	25.37	6	eP	02 29.00	-1.0
GKN	53.54	80	P	06 23.60	-0.7
DMN	54.09	81	P	06 27.80	-0.7
KKN	54.15	80	P	06 28.20	-0.6

S.D. = 1.2 on 33 of 36 obs.

? APR 14, 1989 06h 39m 13.84± 2.25s
49.365 N ±55.8km 155.969 E ±34.0km
DEPTH = 33.0km (normol)
4.6mb (2 obs.)
KURIL ISLANDS (221)

INK	38.41	34	eP	46 33.00	-0.3
MBC	41.48	21	eP	46 59.00	0.4
YKA	47.68	39	eP	47 48.60	0.1
CHG	54.58	257	eP	48 42.00	0.8
GUN	56.68	275	P	48 56.80	0.1
KKN	57.15	276	P	48 59.00	-0.9
PKI	57.21	275	P	49 00.60	0.1
DMN	57.38	276	P	49 02.00	0.4
GKN	57.42	276	P	49 02.00	0.3
GBA	72.35	270	Pd	50 37.40	-0.9
	0.7s		2.20nm		4.3mb
KBA	78.62	335	iP	51 08.20	-5.5X
	0.7s		12.20nm		5.0mb
			i	51 15.00	
			i	51 44.60	

S.D. = 0.6 on 10 of 11 obs.

& APR 14, 1989 06h 45m 55.00s
36.563 N 121.202 W
DEPTH = 8.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.3 (BRK).

LLA	0.21	75	iPc	45 59.30	-0.2
PRS	0.27	210	iPd	46 00.50	0.0
SAO	0.28	316	iPc	46 00.30	-0.5
			eS	46 04.40	
PRI	0.60	134	iPd	46 06.70	-0.5
GCC	0.79	306	iPc	46 09.30	-1.2
ARN	0.83	341	iPd	46 11.00	-0.2
MHC	0.85	336	iPd	46 11.37	-0.3
			eS	46 24.10	
PHAM	0.97	138	eP	46 12.90	-0.8
PKEM	1.01	119	eP	46 14.30	-0.1
FRI	1.27	70	iPc	46 17.20	-1.6
			iS	46 33.70	
PCC	1.33	315	iPc	46 18.00	-1.7
BKS	1.55	328	ePd	46 20.90	-2.0
BRK	1.56	327	e(P)	46 20.90	-2.1
CMB	1.61	24	eP	46 22.20	-1.6
			eS	46 42.30	
BCH	1.65	146	eP	46 22.30	-2.1
BLP	2.10	162	eP	46 29.00	-1.9
NWRM	2.32	325	eP	46 30.90	-3.1
ABL	2.35	136	eP	46 33.00	-1.7
ORV	3.00	356	eP	46 41.80	-1.9
KVN	3.49	44	eP	46 50.40	-0.5
EUR	5.06	53	iP	47 29.20	16.1

21 obs. associated

& APR 14, 1989 07h 00m 30.93s
58.422 N 142.716 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

YKU	1.92	52	eP	00 59.41	-4.5
			eS	01 20.76	
PCA	2.10	36	iP	01 01.60	-5.1
MID	2.13	300	iP	01 01.92	-5.1
RAGM	2.21	334	iP	01 03.17	-5.1
			eS	01 28.00	
SGAM	2.44	330	eP	01 06.63	-4.8
			eS	01 35.00	
BALM	2.63	4	iP	01 09.06	-5.2
CVA	2.63	325	eP	01 08.43	-5.7
			eS	01 38.40	
CTGM	2.65	15	eP	01 09.19	-5.3
			eS	01 39.52	
HIN	2.77	317	iP	01 11.02	-5.2
			eS	01 43.40	
GLB	3.08	350	iP	01 14.93	-5.6
KLU	3.48	334	iP	01 20.51	-5.7
			iS	01 59.19	
HYT	3.58	45	P	01 23.00	-4.7
SEW	3.85	299	eP	01 24.72	-6.6
TOA	4.08	336	eP	01 29.60	-5.1
SLKM	4.36	302	eP	01 32.13	-6.6
PMS	4.47	312	iP	01 34.92	-5.3
CNPM	4.55	288	eP	01 36.03	-5.3
GHO	4.58	320	eP	01 35.99	-5.8
KDC	5.23	267	eP	01 45.56	-5.4
RDT	5.39	298	eP	01 46.19	-7.1
SPU	5.47	304	eP	01 46.86	-7.6
ILIM	5.51	292	eP	01 49.40	-5.7
PDB	6.07	288	eP	01 56.89	-5.9

23 obs. associated

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* APR 14, 1989 07h 17m 43.69± 2.22s
11.008 S ±12.2km 164.165 E ±14.6km
DEPTH = 49.9 ± 19.0 km
4.8mb (2 obs.) 4.1Msz (1 obs.)
SANTA CRUZ ISLANDS REGION (183)

HNR	4.44	290	eP	18 50.00	-0.2
			eS	19 44.00	
VSG	4.72	291	eP	18 55.00	0.8
			eS	19 50.00	
DZM	11.22	169	iPc	20 23.10	-1.2
			iS	22 22.80	
CTA	19.46	240	iPd	22 10.50	1.1
	0.8s		61.94nm		4.9mb
			iS	25 57.00	
BRS	19.50	212	iPd	22 12.20	2.4
RMQ	21.18	221	eP	22 30.00	2.9X
WB5	30.00	249	eP	23 49.30	-0.8
WRA	30.04	249	Pd	23 50.40	-0.1
	0.9s		10.80nm		4.6mb
ASPA	31.43	242	iPd	24 01.40	-1.3
Z	19s		0.44um		4.1Msz
			LR	36 05.20	
KNA	34.73	258	eP	24 29.50	-1.8
BJI	67.49	322	(P)	28 35.50	-1.2
CHG	70.79	294	eP	29 05.00	7.5X
LZH	73.59	313	e(P)	29 11.00	-2.9X
ORV	85.14	48	eP	30 28.40	12.5X
CMB	85.50	50	eP	30 30.50	12.7X
DMN	85.53	299	P	30 10.00	-8.5X
INK	90.37	19	eP	30 42.00	1.6
LRM	93.24	44	eP	30 54.10	-0.4
YKA	95.65	27	P	31 04.20	-0.6
BNG	145.33	262	ePKPc	37 20.40	1.7
	0.9s		14.00nm		
			id	37 25.00	
			id	37 41.80	
SOB1	147.99	128	ePKP	37 26.00	3.0X
			e	37 31.70	
ITR	150.16	130	ePKP	37 42.70	16.3X

S.D. = 1.5 on 14 of 22 obs.

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* APR 14, 1989 07h 56m 45.12± 1.29s
6.954 N ±10.1km 72.998 W ±15.2km
DEPTH = 150.3 ± 15.5 km
4.6mb (4 obs.)
NORTHERN COLOMBIA (99)

FUQ	1.65	207	eP	57 16.50	-0.5
BOG	2.55	205	iPc	57 29.00	1.3
			iS	58 00.00	
CHN	3.27	233	eP	57 37.00	0.3
UPA	6.78	288	ePc	58 21.70	-1.7
	0.7s		32.88nm		4.8mb X
			iS	59 41.50	
PSO	7.17	217	eP	58 29.00	0.0
ZOBO	23.57	168	P	01 44.00	0.1
Z	24s		0.05um		2.9MszX
			LR	17 08.00	
LPB	23.83	168	eP	01 45.00	-1.2

14d 08h

CNCB	24.13	168	P	01	50.00	0.8
SOB1	35.79	116	e(P)	03	32.00	0.1
SCH	47.99	5	eP	05	12.00	1.6
FRB	56.78	2	eP	06	15.00	-0.3
YKA	63.18	340	eP	06	59.40	0.4
LIC	67.47	86	P	07	26.40	-0.9
	0.6s	5.00nm			4.5mb	
KIC	67.74	86	Pd	07	28.00	-1.0
	0.7s	7.50nm			4.6mb	
MBC	73.69	350	ePc	08	04.60	1.0
	0.6s	7.00nm			4.6mb	
BNG	91.00	85	ePd	09	34.00	-0.1
	0.6s	3.00nm			4.6mb	
ASPA	149.29	234	iPKPc	16	17.20	3.4X
	0.7s	7.00nm				
WB5	150.51	241	ePKP	16	20.30	4.7X
S.D. = 1.0 on 16 of 18 obs.						

& APR 14, 1989 08h 56m 06.35s
59.809 N 153.404 W
DEPTH = 119.6km
SOUTHERN ALASKA (2)
<AGS-P>.

OPT	0.18	151	iP	56	22.43	0.9
			eS	56	34.94	
ILIM	0.35	39	iP	56	23.00	-0.8
			iS	56	36.70	
PDB	0.40	267	iP	56	23.10	-0.8
			S	56	35.97	
AUL	0.43	182	iP	56	23.41	-0.7
AUI	0.48	181	eP	56	23.48	-0.9
RED	0.69	27	iP	56	25.26	-0.7
			eS	56	39.64	
CDD	0.89	188	iP	56	26.57	-1.1
			eS	56	41.64	
CNPM	1.14	104	eP	56	28.65	-1.4
			eS	56	45.98	
SPU	1.53	25	eP	56	33.86	-0.7
SLKM	1.74	65	eP	56	36.20	-0.8
SEW	2.01	80	eP	56	38.98	-1.4
11 obs. associated						

APR 14, 1989 10h 03m 27.77± 0.61s
19.116 N ± 5.4km 69.598 W ± 4.9km
DEPTH = 93.5 ± 7.6 km
4.8mb (14 obs.)
DOMINICAN REPUBLIC REGION (88)

MCP	2.46	106	P	04	08.00	1.2
MGP	2.62	114	P	04	10.50	1.5
APR	2.79	103	P	04	12.30	0.9
CSB	3.36	104	P	04	19.00	-0.2
SJG	3.42	106	iP	04	20.00	0.0
			S	05	00.00	
LPR	3.62	102	P	04	23.00	0.2
SKI	6.76	104	eP	05	16.54	10.4X
MGH	7.42	108	eP	05	14.20	-1.1
			S	06	37.00	
PAG	8.15	111	eP	05	24.50	-0.8
			S	07	16.00	
SEG	8.17	108	eP	05	25.01	-0.5
SFG	8.50	108	eP	05	29.20	-0.8
BBL	8.54	113	eP	05	29.62	-1.0
DEG	8.60	108	eP	05	29.55	-1.9
DPMT	8.74	115	eP	05	34.58	1.3
			eS	06	25.28	
DSVT	8.76	115	eP	05	34.67	1.1
			eS	06	25.04	
DTMT	8.78	115	eP	05	34.78	0.9
			eS	06	25.30	
FDF	9.18	117	eP	05	38.16	-1.2
BIM	9.36	118	eP	05	40.70	-1.0
MVM	9.49	117	eP	05	44.12	0.6
SLB	9.75	121	eP	05	54.09	7.0X
			eS	07	29.48	
SVB	9.90	125	eP	05	48.22	-0.8
			eS	07	32.20	
SVV	9.90	124	eP	05	48.37	-0.7
FCV	9.97	125	eP	05	49.25	-0.8
TCE	11.29	137	eP	06	08.69	1.0
			eS	08	09.14	
TRN	11.56	136	eP	06	12.32	1.2
			eS	08	11.75	
TPP	11.77	137	eP	06	23.22	9.2X
			eS	08	12.84	
TBH	11.90	135	eP	06	19.79	4.1X
UPA	13.93	225	iPc	06	42.60	0.2
	1.0s	32.00nm			4.6mb	X
			e	09	08.70	
SGS	17.08	327	P	07	21.00	-1.1
JSC	18.32	328	P	07	36.40	-0.9
PRM	18.75	325	P	07	41.10	-1.0
CBN	20.19	342	eP	07	57.60	0.4
			e	08	19.00	
BLA	20.37	334	P	07	58.20	-0.9
TKL	20.69	326	P	08	01.90	-0.5
GBTN	20.94	325	P	08	05.00	0.2
RSCP	21.66	323	P	08	12.80	0.8
	0.8s	29.93nm			4.7mb	
ELC	24.95	321	P	08	43.70	-0.2
MIM	26.06	1	P	08	55.70	1.7
FVM	26.13	320	P	08	54.30	-0.5
GAC	26.96	351	ePc	09	04.20	2.0
ZOBO	35.19	178	eP	09	58.00	-17.5X
			e	10	17.00	
LPB	35.46	178	eP	10	24.00	6.5X
SCH	35.70	3	eP	10	20.00	1.2
CNCB	35.74	177	P	10	20.00	-0.1
ALQ	36.18	303	eP	10	23.40	0.0
	1.0s	6.00nm			4.5mb	
GLD	36.88	312	P	10	29.70	0.5
	0.9s	26.32nm			5.2mb	
GOL	36.97	311	P	10	29.80	-0.2
RSON	36.98	335	P	10	28.80	-0.8
	0.8s	35.21nm			5.3mb	
SOB1	39.91	132	eP	11	09.10	14.7X
BAO	40.55	147	eP	10	56.00	-3.8X
BW06	41.07	314	P	11	03.60	-0.3
	1.0s	11.25nm			4.7mb	
DAU	41.44	310	P	11	07.10	0.0
MSU	41.57	307	P	11	08.50	0.4
DUG	42.51	309	P	11	16.50	0.8
GLA	42.61	298	P	11	17.70	1.2
FFC	43.25	333	eP	11	20.00	-1.3
	0.5s	14.00nm			5.0mb	
LRM	44.16	317	ePc	11	30.00	0.9
FRB	44.60	1	eP	11	32.00	0.0
PPD	44.63	156	eP	11	31.50	-1.3
EUR	44.68	307	iP	11	33.80	0.4
	0.5s	2.13nm			4.2mb	
SES	45.27	323	ePc	11	38.70	1.1
TNP	45.34	305	P	11	38.90	0.3
	0.8s	9.80nm			4.7mb	
KVN	46.20	306	P	11	45.50	0.2
FRI	47.11	303	eP	11	52.00	-0.3
BCH	47.19	301	P	11	54.30	1.2
PHAM	47.52	301	P	11	55.50	-0.1
PRI	47.77	302	e(P)	11	51.50	-6.1X
CMB	47.80	304	eP	11	57.70	0.0
EDM	47.87	326	ePc	11	57.30	-0.7
LLA	48.05	302	eP	11	59.90	0.3
PRS	48.36	302	eP	12	02.00	0.0
SAO	48.47	302	eP	12	03.30	0.5
DPW	48.57	318	P	12	03.10	-0.5
ARN	48.61	303	P	12	04.50	0.6
MHC	48.69	303	e(P)	12	05.70	1.0
ORV	48.89	306	eP	12	06.40	0.4
LBFM	49.48	308	P	12	10.40	-0.5
WDC	49.84	307	eP	12	11.30	-2.0
YKC	53.16	336	ePc	12	36.70	-1.2
YKA	53.22	336	eP	12	37.50	-0.9
EKA	61.11	37	P	13	34.00	-0.2
	1.1s	6.50nm			4.6mb	
MBC	62.47	348	eP	13	42.00	-0.9
	0.7s	25.00nm			5.3mb	
INK	62.82	338	eP	13	44.00	-1.4
DAG	62.98	12	iPd	13	45.90	-0.4
	0.6s	6.00nm			4.7mb	
ALE	63.52	1	eP	13	49.00	-0.8
	0.6s	14.00nm			5.1mb	
KIC	64.21	92	P	13	55.50	0.2
NB2	69.03	31	P	14	26.10	1.0
	0.8s	3.90nm			4.3mb	
KHC	71.38	43	iPd	14	41.00	1.4
ARV	71.78	49	Pc	14	35.50	-6.6X
			eSg	14	37.10	
VAY	79.21	50	eP	15	30.00	5.8X
MLR	80.38	45	iPc	15	34.00	3.5X
BNG	86.82	86	iPd	16	05.30	1.7
	0.5s	5.00nm			4.8mb	
			id	16	28.20	
RMQ	143.99	251	iPKPd	22	52.50	-2.0
WB5	157.40	264	ePKP	23	25.20	10.6X
WRA	157.42	264	PKP	23	16.00	1.3
	1.1s	3.30nm				
S.D. = 1.0 on 82 of 95 obs.						

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* APR 14, 1989 10h 28m 59.87± 1.88s
37.661 N ±20.0km 24.912 E ±11.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 2.7 (ATH).

ATH	1.00	289	ePb	29	19.20	0.5
NEO	2.11	322	ePn	29	34.00	-1.7
ITM	2.42	259	ePn	29	40.20	0.0
PLG	2.94	338	ePn	29	48.80	1.3
DST	3.50	55	iPg	29	55.40	0.0
			eSg	30	03.40	
BNT	3.57	40	iPn	30	09.80	13.4X
S.D. = 1.5 on 5 of 6 obs.						

APR 14, 1989 10h 55m 27.36± 1.23s
15.031 N ± 4.8km 59.602 W ±12.3km
DEPTH = 22.4 ± 4.4 km
LEEWARD ISLANDS (92)
ML 3.9 (FDF).

CRM	1.30	258	eP	55	50.05	-0.2
MVM	1.34	249	iPc	55	50.57	-0.2
BIM	1.51	250	iPc	55	53.08	-0.2
FDF	1.53	259	iPc	55	53.16	-0.4
			S	56	14.10	
DTMT	1.70	277	eP	55	56.80	0.7
			eS	56	28.08	
DSVT	1.72	277	eP	55	57.14	0.9
			eS	56	28.00	
DPMT	1.74	278	eP	55	56.80	0.3
			eS	56	26.59	
SLB	1.84	230	eP	55	57.80	-0.3
			eS	56	17.88	
BBL	1.88	285	eP	55	59.42	0.8
			S	56	24.70	
DEG	1.90	312	eP	55	58.41	-0.5
			S	56	22.30	
SFG	1.96	309	eP	55	59.60	-0.1
PAG	2.24	297	eP	56	04.90	1.1
			S	56	32.80	
SEG	2.28	307	eP	56	05.03	0.6
SVV	2.31	223	eP	56	04.43	-0.4
			eS	56	37.33	
SVB	2.37	223	eP	56	05.21	-0.4
			eS	56	37.51	
FCV	2.45	221	eP	56	06.02	-0.8
			eS	56	34.57	
MGH	3.02	304	eP	56	19.80	4.9X
SKI	3.78	308	eP	56	18.71	-7.0X
			eS	56	27.61	
TRN	4.70	202	eP	56	38.41	-0.3
			eS	57	28.60	
TBH	4.74	198	eP	56	40.43	1.1
			eS	57	32.05	
TCE	4.79	206	eP	56	40.70	0.7
			eS	57	31.17	
TPP	5.02	201	eP	56	48.49	5.2X
			eS	57	36.35	
ATB	19.61	158	e(P)	59	52.10	-5.3X
UPA	20.39	255	eP	00	05.20	-0.4
ZOBO	32.22	195	eP	01	58.00	1.0
YKA	60.95	334	eP	05	39.60	-1.2
S.D. = 0.7 on 22 of 26 obs.						

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* APR 14, 1989 11h 07m 41.96± 0.88s
38.629 N ± 5.8km 27.168 E ±13.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.24	162	iPg	07	47.30	0.1
EZN	1.36	332	iPn	08	07.10	0.2
DST	1.50	49	iPn	08	09.30	0.4
YER	1.73	149	ePn	08	12.10	-0.2
EDC	1.80	17	iPn	08	13.00	-0.2
BNT	1.82	18	iPn	08	13.30	-0.2
BBTK	4.51	73	eP	09	22.50	30.6X
			eS	10	14.00	
S.D. = 0.3 on 6 of 7 obs.						

& APR 14, 1989 11h 11m 48.31s
47.655 N 122.200 W
DEPTH = 0.1km

WASHINGTON (29)
<SEA>. CL 1.5 (SEA). Felt in the Juanita Creek area.

SPW	0.11	197	eP	11	51.38	1.0
BLH	0.21	32	eP	11	52.93	0.3
HTW	0.33	63	eP	11	54.56	-0.3
			eS	11	59.97	
GMW	0.41	255	eP	11	56.63	0.1
GSM	0.53	149	eP	11	58.38	-0.5
JCW	0.57	19	eP	11	58.87	-0.8
HDW	0.58	270	eP	11	58.99	-0.8
BLN	0.63	304	eP	11	59.63	-1.2
CMW	0.77	4	eP	12	02.77	-0.9
FMW	0.81	153	eP	12	03.11	-1.3
RPW	0.92	30	eP	12	05.34	-1.3
APW	1.05	197	eP	12	07.07	-2.0
MCW	1.11	338	eP	12	07.98	-2.1
MBW	1.15	10	eP	12	09.46	-1.4
EBG	1.34	123	eP	12	13.38	-0.6

15 obs. associated

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* APR 14, 1989 11h 17m 44.77± 0.53s
37.879 N ±13.5km 72.415 E ±11.5km
DEPTH = 33.0km (normal)
4.3mb (6 obs.)
TAJIK SSR (715)

NDI	10.01	155	iPd	20	16.50	7.2X
	0.8s	29.85nm			5.6mb	X
			eS	27	32.00	
MAIO	10.44	265	eP	20	15.00	-0.4
			e	22	04.00	
GKN	14.21	130	P	21	07.00	1.2
KKN	14.75	129	P	21	13.00	0.0
DMN	14.78	130	P	21	14.00	0.6
PKI	14.99	130	P	21	16.60	0.3
GUN	15.04	127	P	21	15.00	-1.9
GBA	24.59	168	Pc	23	08.70	5.6X
	0.7s	4.10nm			4.1mb	
SUF	37.37	327	iP	24	55.80	0.1
NUR	37.39	323	eP	24	57.00	1.1
HFS	42.70	321	eP	25	39.50	-0.3
	0.4s	1.30nm			4.0mb	
NB2	43.97	322	P	25	50.50	0.2
	0.7s	3.00nm			4.2mb	
EKA	52.09	315	P	26	59.00	5.5X
	0.8s	2.50nm			4.2mb	
BNG	59.19	250	ePd	27	53.10	8.0X
	0.5s	3.00nm			4.7mb	
MBC	65.91	3	eP	28	28.00	-0.9
	0.8s	14.00nm			5.1mb	
INK	72.36	10	eP	29	13.00	4.3X
YKA	79.81	3	eP	29	57.10	6.3X

S.D. = 1.0 on 11 of 17 obs.

APR 14, 1989 11h 34m 16.10± 1.11s
40.253 N ± 8.5km 19.872 E ± 8.6km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MD 3.2 (ATH).

VLO	0.36	307	iPg	34	21.70	-1.8
BERA	0.45	7	ePg	34	23.50	-1.8
KBN	0.81	62	iPgc	34	31.50	-0.3
TIR	1.09	360	ePn	34	38.00	1.4
OHR	1.11	39	iPn	34	36.40	-0.6
LACI	1.39	355	ePn	34	44.00	2.6
KZN	1.45	87	ePn	34	41.40	-1.1
PHP	1.50	17	ePn	34	44.00	1.0
SKO	2.09	34	ePn	34	51.50	0.0
VLS	2.15	165	ePg	34	53.00	0.6
VAY	2.31	62	ePn	34	54.30	-0.5
MMB	3.21	64	eP	35	08.00	0.4

S.D. = 1.4 on 12 of 12 obs.

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* APR 14, 1989 11h 44m 39.60± 0.66s
53.122 N ±14.0km 171.401 E ± 6.7km
DEPTH = 33.0km (normal)
4.9mb (8 obs.)
NEAR ISLANDS, ALEUTIAN ISLANDS (5)

SMY	1.68	102	ePd	45	07.40	0.3
TTA	19.63	47	eP	49	08.00	0.0
INK	29.65	38	eP	50	43.00	-0.7
MBC	34.32	23	eP	51	24.00	-0.4
YKA	38.38	46	eP	51	59.70	0.8
EDM	43.12	58	eP	52	38.50	0.4
KVN	48.90	77	e(P)	53	24.00	-0.2
EUR	49.86	75	iP	53	31.50	-0.2
	0.2s	3.35nm			5.0mb	
BW06	51.37	68	eP	53	42.80	-0.3
FRB	54.52	28	eP	54	04.00	-1.8
SUF	61.31	343	iP	54	53.00	-0.6
	0.6s	6.30nm			4.9mb	
NUR	63.64	342	iP	55	09.10	0.0
	0.7s	12.00nm			5.1mb	
NB2	65.10	350	P	55	18.20	-0.4
	0.8s	7.80nm			4.9mb	
GUN	65.59	284	P	55	22.00	-0.6
HFS	65.69	348	eP	55	21.50	-0.8
	0.6s	4.70nm			4.8mb	
KKN	66.03	285	P	55	25.00	-0.3
PKI	66.12	284	P	55	25.60	-0.4
	0.6s	7.00nm			4.9mb	
GKN	66.25	285	P	55	26.20	-0.4
EKA	71.82	357	Pc	56	00.80	0.5
	0.8s	7.60nm			4.8mb	
PRU	75.42	345	Pd	56	22.00	0.7
KHC	76.40	345	Pc	56	28.40	1.4
ZST	76.72	343	eP	56	30.10	1.4
KBA	78.44	345	iP	56	40.30	1.9
	0.8s	14.30nm			5.0mb	

S.D. = 0.9 on 23 of 23 obs.

? APR 14, 1989 11h 54m 49.00± 3.59s
44.600 N ±37.6km 27.478 E ±10.7km
DEPTH = 10.0km (geophysicist)
ROMANIA (358)

MLR	1.41	310	eP	56	06.00	51.2X
PVL	2.08	229	iPd	55	23.00	-1.3
			iS	55	27.00	
JMB	2.23	197	eP	55	40.00	13.5X
			Sg	55	55.00	
DIM	2.92	210	eP	55	38.00	1.7
			Sg	55	52.00	
RZN	3.54	216	iP	55	45.00	-0.3
VTS	3.69	239	iP	55	49.00	1.5
			iSg	56	10.00	
MMB	4.07	224	iPd	55	53.00	0.3
			iSg	56	20.00	
KKB	4.22	231	eP	55	53.00	-1.7
			Sg	56	24.00	
BNT	4.25	175	iPn	55	54.80	-0.5
KAS	5.63	123	iPd	56	14.80	0.0

S.D. = 1.4 on 8 of 10 obs.

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* APR 14, 1989 12h 33m 43.83± 1.08s
40.663 N ±11.8km 29.990 E ±10.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT	0.29	303	iPg	33	49.00	-0.9
GPA	0.45	147	iPg	33	50.50	-2.4
			eSg	33	56.70	
ISK	0.81	300	ePg	33	58.20	-1.4
DST	1.49	225	iPn	34	11.30	0.7
BNT	1.61	260	iPn	34	12.80	0.5
ALT	1.61	177	ePn	34	12.60	0.2
EDC	1.65	260	iPn	34	14.00	1.0
DMK	2.04	305	iPn	34	19.20	0.5
BBTK	2.27	110	eP	34	24.00	1.9
			eS	34	57.00	

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

APR 14, 1989 12h 52m 26.76± 1.06s
19.201 N ± 3.8km 145.522 E ± 4.0km
DEPTH = 167.9 ± 10.2 km
5.4mb (36 obs.)
MARIANA ISLANDS (216)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 25C
Centroid Location:
Origin Time 12:52:28.1 0.9
Lat 19.46N 0.07 Lon 145.08E 0.10
Dep 156.1 3.8 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr=-1.67 0.63 Mtt= 3.36 0.67
Mff=-1.70 0.76 Mrt=-6.86 0.54
Mrf= 0.54 0.64 Mtf= 2.03 0.66
Principal Axes:
T Val= 8.34 Plg=34 Azm=171
N -1.38 18 273
P -6.96 50 27
Best Double Couple:Mo=7.6*10**16
NP1:Strike=211 Dip=20 Slip=-154
NP2: 96 81 -71

GUMO	5.62	187	eP	53	50.10	0.7
PJG	5.62	187	eP	53	50.00	0.6
GUA	5.66	186	ePd	53	50.00	0.0
	0.4s	2508.48nm			6.8mb	X
			eS	54	52.30	
SHK	19.06	326	ePc	56	26.70	-11.9X
DAV	22.82	241	eP	57	18.00	1.9
BAG	23.90	267	eP	57	30.00	3.3X
RAB	24.15	164	iPc	57	17.60	-11.2X
	1.0s	1016.00nm				
SSE	24.95	303	P	57	35.00	-1.2
	1.0s	24.00nm			4.7mb	
			sP	58	06.00	
			PP	58	24.00	
			eS	01	56.00	
QZH	25.58	288	Pd	57	43.70	1.7
BGA	26.93	158	eP	57	59.00	4.5X
PAA	27.18	158	eP	57	58.00	1.3
PMG	28.47	177	eP	58	06.00	-2.2
	0.8s	179.10nm			5.9mb	
DL2	28.52	319	eP	58	07.00	-1.5
MDJ	28.62	336	eP	58	08.00	-1.3
SNY	29.27	325	Pc	58	13.00	-2.1
CN2	29.75	330	eP	58	17.00	-2.3
Z	20s	0.30um			3.9Msz	
TIA	30.16	310	Pc	58	22.20	-0.9
WHN	30.35	298	eP	58	25.50	0.7
			pP	59	00.00	165kmX
TSM	30.65	244	ePc	58	30.00	2.5
KKM	31.38	249	ePc	58	36.00	2.0
VSG	31.54	152	eP	58	33.00	-2.3
HNR	31.81	152	eP	58	35.00	-2.5
BJI	32.66	316	Pc	58	44.00	-0.8
			eS	03	48.00	
QIZ	33.68	276	eP	58	55.60	1.8
TIY	34.20	310	eP	58	58.20	0.0
N	10s	0.20um				
E	13s	0.20um				
MTN	34.86	205	iPc	59	03.70	-0.1
	0.7s	179.00nm			5.9mb	
			e	59	39.00	
XAN	35.69	302	P	59	10.00	-0.8
HHC	36.13	314	P	59	14.00	-0.5
GYA	36.43	289	P	59	18.20	1.0
BTO	37.09	313	P	59	22.00	-0.5
KNA	38.44	207	eP	59	34.40	0.5
CTA	39.05	179	iPd	59	38.00	-0.9
	1.0s	45.00nm			5.1mb	
CD2	39.38	296	P	59	41.60	0.0
QIS	39.93	189	eP	59	45.00	-1.1
	1.0s	60.00nm			5.2mb	
			e	01	03.00	
LZH	40.23	303	eP	59	48.00	-0.7
	2.0s	82.00nm			5.0mb	
			i	00	14.00	
WB5	40.35	196	iPc	59	49.80	0.3
			eS	05	22.30	
WRA	40.42	196	Pd	59	50.90	0.8
	0.6s	93.20nm			5.6mb	
NST	43.36	273	iPd	00	16.90	2.7
CHG	43.94	277	eP	00	19.80	0.9
	1.2s	16.02nm			4.5mb	
ASPA	44.09	195	iPc	00	19.60	-0.4
	0.7s	88.00nm			5.5mb	
			eS	06	33.70	
GTA	44.11	307	eP	00	19.60	-0.6
NNT	44.43	269	iPc	00	24.90	2.1
KGM	44.68	253	eP	00	28.00	3.2X
KHT	44.99	272	eP	00	29.50	2.2
SNG	45.19	261	eP	00	21.60	-7.2X
RMQ	45.52	176	iPd	00	30.00	-1.2
			i	00	32.90	
IPM	45.74	257	ePc	00	36.10	2.9
DZM	45.84	152	iPc	00	33.10	-0.8
BRS	46.85	171	iPd	00	40.50	-1.2
MBL	47.34	213	iPd	00	46.30	0.7
	0.5s	28.00nm			5.1mb	
WARB	48.70	203	iPc	00	48.60	-7.4X
	0.6s	151.00nm			5.8mb	
COO	49.87	173	eP	01	04.00	-0.9
LSA	50.20	293	P	01	09.50	1.4

14d 13h

NANU	50.81	217	eP	01	12.60	0.5
STK	50.93	184	eP	01	13.00	0.1
FORR	52.50	199	iPd	01	24.30	-0.3
	0.4s	71.00nm			5.7mb	
MEKA	52.54	211	iPd	01	25.10	0.1
BWA	53.40	177	eP	01	30.00	-1.2
WMQ	53.86	311	iPc	01	34.70	0.0
CAN	54.32	176	eP	01	35.30	-2.6
GUN	54.91	291	P	01	42.80	0.0
COOL	55.03	206	iPd	01	42.50	-0.7
PKI	55.35	291	P	01	45.40	-0.6
KKN	55.45	291	P	01	44.20	-2.4
MRWA	55.94	211	eP	01	49.00	-0.7
	0.3s	6.00nm			4.9mb	
GKN	55.99	291	P	01	50.00	-0.4
TOO	56.47	180	iPd	01	52.70	-0.6
BAL	56.75	210	eP	01	55.00	-0.4
KLB	57.10	208	iPd	01	57.70	-0.1
MUN	58.13	209	eP	02	05.00	0.0
NWAO	58.46	208	iPd	02	07.50	0.2
TTA	58.88	27	P	02	09.40	-0.6
	1.0s	112.50nm			5.7mb	
KDC	59.07	33	P	02	10.50	-0.7
	1.0s	120.00nm			5.7mb	
RKG	59.53	207	iPc	02	28.30	13.7X
	0.9s	175.00nm				
PMR	61.60	30	P	02	26.70	-1.6
BRW	61.83	18	P	02	29.40	-0.3
NDI	62.42	293	eP	02	33.00	-1.3
	0.7s	21.92nm			5.2mb	
HYB	63.24	280	eP	02	39.50	-0.4
KRP	63.44	154	P	02	40.80	0.1
GBA	65.21	276	Pd	02	50.40	-2.1
	0.9s	8.10nm			4.6mb	
MSZ	66.77	163	P	03	00.80	-1.1
SIT	68.23	35	P	03	10.40	-0.5
	1.0s	100.00nm			5.6mb	
INK	68.98	23	iPd	03	14.10	-1.2
	0.9s	186.00nm			5.9mb	
MBC	72.71	14	ePd	03	36.90	-0.7
	1.0s	102.00nm			5.5mb	
MAIO	75.78	304	eP	03	56.00	-0.1
			e	04	36.00	
PGC	76.50	43	eP	04	00.00	0.4
	0.8s	76.00nm			5.5mb	
MCW	76.89	43	P	04	02.90	1.0
GMW	77.20	44	P	04	04.80	1.2
ALE	77.62	4	iPd	04	05.90	0.6
	0.7s	93.00nm			5.6mb	
YKA	77.63	28	eP	04	05.60	0.1
YKC	77.69	28	ePd	04	15.70	9.8X
	1.0s	105.00nm			5.5mb	
LON	78.05	45	P	04	08.30	0.0
FHC	78.08	51	ePd	04	10.00	1.4
PNT	78.77	42	iPd	04	12.60	0.5
	1.1s	90.00nm			5.4mb	
KBS	78.78	352	eP	04	11.80	0.2
VGB	79.07	46	P	04	14.60	0.7
WDC	79.19	51	iPd	04	15.20	0.6
LBFM	79.45	50	P	04	17.00	0.7
NWRM	79.52	53	P	04	16.90	0.6
LTCM	79.60	51	P	04	17.30	0.5
MIN	79.94	51	ePd	04	18.70	-0.1
DPW	80.09	43	P	04	20.00	0.7
BRK	80.16	53	ePd	04	20.30	0.5
PCC	80.17	54	ePd	04	20.00	0.2
BKS	80.18	53	ePd	04	20.30	0.4
	0.9s	153.00nm			5.7mb	
ORV	80.25	52	iPd	04	20.40	0.2
GCC	80.60	54	ePd	04	22.40	0.3
MHC	80.78	54	iPd	04	23.80	0.6
ARN	80.86	54	P	04	24.40	0.9
SAO	81.10	54	ePd	04	24.70	-0.1
EDM	81.28	37	iPd	04	25.40	0.0
	1.1s	149.00nm			5.6mb	
PRS	81.29	55	iPd	04	26.40	0.7
KEV	81.41	342	iP	04	25.10	-0.5
	0.7s	33.40nm			5.2mb	
CMB	81.53	53	iPd	04	27.60	0.6
LLA	81.53	54	ePd	04	27.60	0.6
PRI	81.89	55	ePd	04	30.00	1.0
PHAM	82.19	55	P	04	31.90	1.5
FRI	82.36	54	iPd	04	31.70	0.5
BLP	82.58	56	P	04	33.40	1.0
BCH	82.63	55	P	04	33.80	0.9
SOD	82.83	340	iP	04	32.40	-0.7
KVN	82.91	51	P	04	35.00	0.7
SYP	82.92	56	eP	04	35.00	0.6
MNA	83.07	52	ePd	04	36.10	1.0
ISA	83.73	55	eP	04	38.00	-0.4
TRO	83.74	344	eP	04	36.80	-0.9
DAG	83.77	356	iPd	04	36.30	-1.3
	0.7s	10.27nm			4.7mb	
TNP	83.88	52	P	04	40.00	0.7
EUR	84.33	50	iP	04	41.60	0.1
	0.2s	63.64nm			6.1mb	
CLC	84.35	54	eP	04	41.00	-0.5
PAS	84.46	56	eP	04	42.00	0.1
LRM	84.49	43	iPd	04	42.50	0.3
MWC	84.52	56	eP	04	33.00	-9.5X
SBB	84.55	55	eP	04	43.00	0.5
GSC	85.13	54	eP	04	46.00	0.6
RVR	85.13	56	eP	04	45.00	-0.3
PEC	85.34	56	P	04	46.80	0.4
SUF	85.61	336	iP	04	45.30	-1.8
	0.4s	8.90nm			4.9mb	
PLM	85.75	56	eP	04	49.00	0.3
TPC	86.13	55	eP	04	50.00	-0.3
BAR	86.13	57	eP	04	50.00	-0.3
DUG	86.34	49	P	04	52.10	0.7
FFC	86.76	32	iPd	04	52.80	-0.1
	0.9s	60.00nm			5.5mb	
DAU	87.36	48	P	04	57.00	0.5
MSU	87.44	50	P	04	58.80	2.0
GLA	87.46	56	eP	04	57.00	0.3
NUR	87.47	335	iP	04	54.40	-1.7
	0.5s	16.80nm			5.2mb	
BW06	87.59	45	P	04	57.30	-0.1
UPP	90.62	337	iP	05	07.60	-3.3X
GOL	91.76	47	P	05	17.80	0.8
	1.0s	52.50nm			5.6mb	
NB2	92.05	340	P	05	15.40	-2.2
	0.7s	4.20nm			4.6mb	
RSON	93.07	33	P	05	21.40	-1.0
	1.0s	17.50nm			5.2mb	
ALQ	93.08	51	eP	05	23.00	-0.1
	1.0s	15.75nm			5.2mb	
			e	06	05.00	
FRB	93.17	14	eP	05	21.00	-1.7
LIC	141.53	308	PKP	11	34.20	-6.2X
ARE	144.70	92	i(PKP)	11	46.70	0.6
ZOBO	147.85	90	ePKP	11	52.00	0.4
	Z 20s		0.15um		4.8Msz	
			i	11	55.70	
			eLR	32	20.00	
LPB	147.92	91	PKP	11	52.80	1.2
CNCB	148.08	91	PKP	11	35.30	-16.7X
	S.D. = 1.1	on 146 of 159 obs.				

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* APR 14, 1989 13h 02m 50.29± 0.96s
38.182 N ± 9.9km 20.705 E ± 9.4km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.4 (ATH).

VLS	0.09	267	ePg	02	52.40	-0.5
ITM	1.39	136	ePb	03	16.40	0.6
NEO	2.27	60	ePn	03	28.00	-0.4
KZN	2.28	21	ePn	03	29.50	0.9
OHR	2.93	1	ePn	03	38.50	0.8
PLG	3.05	43	ePn	03	38.10	-1.4
VAY	3.45	24	ePn	03	48.00	2.9X
SKO	3.83	8	ePn	03	55.00	4.5X
	S.D. = 1.2	on 6 of 8 obs.				

APR 14, 1989 13h 02m 52.66± 0.27s
18.172 S ± 4.9km 178.393 W ± 3.3km
DEPTH = 635.7 ± 3.3 km
5.4mb (37 obs.)
FIJI ISLANDS REGION (181)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 19S, 44C
Centroid Locotion:
Origin Time 13:03: 0.5 0.7
Lot 17.87S 0.05 Lon 178.74W 0.05
Dep 648.0 2.4 Holf-duration 2.8
Moment Tensor; Scole 10**17 Nm
Mrr=-3.29 0.11 Mtt= 2.49 0.18
Mff= 0.80 0.18 Mrt= 2.22 0.17
Mrf=-1.40 0.16 Mtf= 2.57 0.17
Principol Axes:

T	Vol= 4.50	Plg= 8	Azm=328
N	0.43	31	63
P	-4.93	57	225

Best Double Couple:Mo=4.7*10**17
NP1:Strike= 27 Dip=46 Slip=-136
NP2: 263 60 -53

SVA	3.00	271	iPd	04	15.20	0.2
			eS	05	11.30	
VUN	3.00	273	iPd	04	15.00	-0.1
			eS	05	26.00	
NDF	3.98	275	iPd	04	21.90	1.0
			eS	05	38.50	
AFI	7.64	57	iPd	04	56.00	5.7X
			eS	05	26.00	
			eLR	05	39.50	
PVC	12.66	270	iPc	05	39.00	1.3
DZM	14.76	252	iPd	05	58.10	0.1
			iS	08	30.70	
KRP	20.39	194	P	06	51.00	1.0
	1.0s	511.00nm			6.0mb	
			S	08	12.80	
WEL	23.77	193	P	07	19.00	-1.3
	0.8s	668.66nm			6.3mb	
			S	10	49.00	
AFR	27.23	93	iP	07	50.30	-0.4
	0.8s	80.00nm			5.4mb	
PAE	27.41	93	iP	07	52.00	-0.2
	0.8s	55.00nm			5.2mb	
PPT	27.42	93	iP	07	52.00	-0.4
	0.8s	130.00nm			5.6mb	
TBI	27.51	106	iP	07	54.80	1.7
	0.8s	170.00nm			5.7mb	
PPN	27.56	93	iP	07	53.10	-0.5
	0.8s	40.00nm			5.1mb	
TVO	27.71	94	iP	07	54.60	-0.3
	0.8s	90.00nm			5.5mb	
BRS	28.07	246	iPc	07	57.50	-0.4
			i	08	28.50	
			i	09	47.50	
			iPcP	10	51.70	
			iS	12	02.00	
			i	12	41.40	
			iScS	17	33.40	
PAA	28.07	292	eP	07	57.50	-0.6
BGA	28.41	292	eP	07	56.00	-5.1X
MSZ	28.80	201	P	08	03.10	-0.8
	0.5s	86.00nm			5.6mb	
			S	12	09.00	
PMO	29.38	88	iP	08	09.10	0.0
	0.8s	35.00nm			5.0mb	
VAH	29.59	89	iP	08	10.50	-0.4
	0.8s	25.00nm			4.9mb	
TPT	29.65	88	iP	08	11.30	-0.1
	0.8s	50.00nm			5.2mb	
COO	29.65	240	iPd	08	12.20	0.8
	1.2s	524.00nm			6.0mb	
			i	10	01.70	
			e	12	46.00	
RUV	29.83	89	iP	08	12.80	-0.1
	0.8s	50.00nm			5.2mb	
RIV	31.35	234	eP	08	26.70	1.2
			e	08	51.00	
RMO	31.43	249	iPd	08	27.20	0.9
	0.7s	316.00nm			6.1mb	
			e	08	36.50	
			i	10	16.90	
CNB	33.28	233	iPc	08	42.80	1.0
			e	10	32.00	
CTA	33.42	261	iPd	08	42.70	-0.4
	1.0s	401.50nm			6.0mb	
			i	09	07.90	
			i	10	32.00	
			i	12	55.00	
			iS	13	20.00	
			i	15	10.00	
			i	16	26.00	
CAN	33.56	233	iPd	08	44.70	0.6
			i	09	14.00	
			iPcP	10	33.90	
			eScP	13	28.80	
BWA	33.68	235	iPd	08	43.30	-1.8
			iPcP	10	34.00	
PMG	34.52	280	iPd	08	52.50	0.3
	1.0s	510.00nm			6.1mb	
TOO	37.02	231	iPd	09	13.50	1.0
			i	11	03.70	
			e	14	17.00	
STK	38.52	241	iPd	09	25.80	1.1

	0.9s	655.00nm			6.2mb			0.2s	11.16nm			5.0mb						e	25	13.50								
		i	11	15.30			GMW	82.19	34	P	14	10.00	0.1		ITR	132.28	121	ePKP	20	46.60	-11.8X
QIS	39.62	260 iPd	09	32.80	-0.9		IPM	82.50	277	ePd	14	12.80	0.7					e	20	58.20									
	1.1s	193.00nm			5.5mb			1.0s	173.10nm			5.6mb						e	22	47.60									
		e	11	23.00						e	16	02.10						e	23	28.10									
ADE	41.51	238 iPd	09	48.70	0.2		TTA	82.73	10	P	14	11.80	-0.5					e	25	17.60									
WB5	44.58	260 iPd	10	11.60	-0.9			1.0s	35.00nm			4.9mb			SUF	132.35	345	iPKP	20	55.60	-1.4								
		i	12	00.80			PMR	82.85	14	P	14	11.70	-1.1			0.5s		7.80nm											
		eS	16	01.00			MCW	82.86	33	P	14	13.60	0.4		NUR	134.61	344	ePKP	21	00.00	-1.4								
WRA	44.60	260 Pc	10	12.00	-0.7		AIA	83.25	157	eP	14	17.10	2.2		PTZ	136.44	224	ePKPc	21	06.00	-0.4								
	1.1s	242.90nm			5.6mb		MAW	83.62	200	iPd	14	17.90	1.2			1.0s		33.00nm											
ASPA	44.74	254 iPd	10	13.00	-0.7			1.1s	292.00nm			5.8mb						i	21	39.00									
	1.0s	1383.00nm			6.4mb					e	16	07.00						e	22	56.00									
		ePcP	12	02.80			SNG	83.73	280	eP	14	19.70	1.6					e	23	43.00									
		iS	16	04.60				1.1s	220.25nm			5.7mb			NB2	136.64	353	PKP	20	56.90	-8.4X								
		eScS	19	02.30						e	16	09.10				0.9s		11.70nm											
MTN	48.81	269 iPd	10	42.70	-1.7		BJI	83.98	315	eP	14	19.00	0.2		UPP	136.78	348	iPKP	20	56.40	-9.1X								
		ePcP	12	32.80						epP	16	29.00	611kmX		HFS	137.19	351	ePKP	20	54.20	-12.1X								
		eS	17	03.60						eSKS	23	42.00				0.4s		5.70nm											
FORR	49.88	245 iPd	10	51.10	-1.0					eS	23	54.00			LSZ	137.68	220	iPKP	21	00.50	-8.2X								
KNA	50.46	264 iPd	10	55.30	-1.3		PNT	84.94	34	eP	14	24.00	0.7					i	21	10.90									
	0.3s	61.00nm			5.5mb			0.7s	13.00nm			4.7mb						i	22	49.00									
WARB	51.21	251 iPd	10	53.30	-8.6X		GYA	85.18	300	iPd	14	25.80	0.7					i	23	48.00									
DRV	55.42	199 iP	11	31.00	0.1		TIY	85.45	312	Pc	14	27.20	1.1		NAI	140.34	245	iPKPc	21	08.50	-5.2X								
COOL	55.86	245 iPd	11	32.90	-1.6		LOE	86.14	290	eP	14	30.00	0.3			1.0s		25.00nm											
KLB	58.72	244 iPd	11	52.80	-1.0					e	16	14.00			DMU	143.74	9	iPKPd	21	16.40	-1.6								
NWAO	59.10	242 iPd	11	55.40	-0.9		ALQ	86.25	52	eP	14	30.00	-0.2		KAS	144.08	317	iPKPc	21	19.20	0.1								
SBA	60.16	184 iPd	12	04.40	1.9			1.0s	13.50nm			4.6mb			DCN	144.22	9	iPKPd	21	18.10	-0.7								
NANU	61.67	254 iPd	12	12.90	-0.2					epP	16	20.20	494kmX		DLE	144.38	8	ePKP	21	18.70	-0.4								
	0.3s	39.00nm			5.2mb		NNT	86.33	284	iPd	14	31.90	1.3		CLI	144.66	329	iPKPc	21	19.00	-0.9								
TSM	66.43	283 ePc	12	44.20	1.2		XAN	86.43	307	Pd	14	31.50	0.7		PTT	144.81	330	ePKP	21	21.00	0.9								
TRT	67.70	269 iPd	12	57.00	6.1X		NST	86.99	287	eP	14	35.50	1.8		KRA	144.96	339	ePKP	21	19.60	-0.6								
KKM	68.82	284 ePd	12	57.20	-0.4		HHC	87.47	314	P	14	36.00	0.4			0.9s		80.00nm											
ADK	69.77	1 P	12	59.70	-2.6		BW06	87.54	43	P	14	36.40	0.3					e	21	28.40									
	0.6s	49.26nm			5.1mb			1.0s	20.63nm			4.8mb			ETA	145.01	8	ePKP	21	20.50	0.3								
SHK	70.08	319 eP	13	04.10	-0.4		KMI	87.96	297	Pd-	14	39.50	1.1			0.9s		67.00nm											
SPA	71.94	180 iPd	13	16.10	1.0					sP	16	30.00			WIT	145.20	355	ePKP	21	22.50	2.0								
	1.0s	231.50nm			5.7mb					eS	24	08.00						e	23	12.50									
		i	13	33.70						i	24	34.00			ECB	145.25	9	ePKP	21	21.00	0.4								
SYP	76.33	46 eP	13	40.00	0.1		KHT	88.10	286	eP	14	40.30	1.5			1.1s		145.00nm											
GCC	76.40	43 e(P)	13	40.30	0.3		BTO	88.41	314	eP	14	40.00	0.0		KSP	145.37	344	ePKP	21	20.60	-0.3								
PRS	76.41	44 ePc	13	40.80	0.7					SKS	24	10.00			VRI	145.41	329	iPKPc	21	23.00	1.9								
		e	15	49.20			GOL	89.03	48	P	14	43.30	0.3		ECP	145.49	9	ePKP	21	21.50	0.5								
PCC	76.42	43 eP	13	40.30	0.2			1.0s	30.00nm			5.1mb				1.1s		116.00nm											
SAO	76.60	44 eP	13	41.30	0.2		CHG	89.10	290	iPd	14	44.90	1.4		BBTK	145.51	315	iPKP	21	21.00	-0.6								
BCH	76.63	46 P	13	42.50	1.1			1.0s	50.00nm			5.3mb			SPC	145.59	338	ePKP	21	21.00	-0.6								
PRI	76.77	45 eP	13	43.80	1.6					e	16	34.00						e	23	11.50									
		e	15	51.80			CD2	89.22	303	eP	14	44.20	0.3					e	23	50.00									
MHC	76.81	43 eP	13	43.00	0.6					S	24	46.50			TLB	145.61	326	iPKPd	21	23.00	1.6								
ARN	76.88	43 P	13	43.40	0.7		EDM	90.37	33	eP	14	48.00	-0.6		CLL	145.72	347	iPKP	21	21.10	-0.3								
PAS	77.38	48 eP	13	45.00	-0.4		LZH	91.06	308	eP	14	53.00	0.6			1.2s		210.00nm											
MWC	77.50	48 eP	13	46.00	-0.2			1.5s	88.00nm			5.5mb						i	21	23.20									
BAR	77.68	49 eP	13	47.00	0.0					i	16	48.00						pPKP	23	46.80									
RVR	77.86	48 eP	13	48.00	0.1					i	25	03.50			BRG	145.92	346	iPKPc	21	21.90	0.1								
FRI	77.88	44 eP	13	48.10	0.2		INK	92.13	15	eP	14	55.00	-1.4			1.4s		120.00nm											
		e	15	56.90			YKA	94.56	25	P	15	07.40	-0.1					i	21	23.50									
PLM	77.89	49 eP	13	49.00	0.7		GTA	95.21	310	Pc	15	11.40	0.2					e	22	14.00									
SBB	77.91	47 eP	13	48.00	-0.2		DMN	103.79	295	Pdiff	15	51.00	0.9		HRI	145.95	303	ePKP	21	23.00	0.5								
PEC	77.96	48 P	13	49.10	0.6		HYB	107.29	283	ePKP	20	10.00	-0.6		WTS	146.00	354	iPKP	21	21.70	-0.1								
ISA	77.99	46 eP	13	49.00	0.4		GBA	107.38	279	PKPc	20	08.50	-2.2			0.9s		117.00nm											
CMB	78.02	43 ePc	13	48.80	0.1			0.7s	2.40nm									iPKKP	21	23.60									
		e	15	58.30			DAG	120.46	5	iPKPd	20	31.20	-2.7					e	21	28.00									
NJ2	78.12	310 Pc	13	50.00	0.8			1.0s	13.00nm									i	23	12.20									
		S	22	53.00						i	22	06.00						i	23	13.90									
WDC	78.13	40 ePc	13	49.40	0.2					i	30	44.80						e	23	18.50									
		e	15	59.10			AVY	121.59	233	ePKP	20	38.08	0.1					e	23	46.00									
ORV	78.18	41 eP	13	49.30	-0.1		KEV	126.12	349	iPKP	20	44.50	-0.5					e	23	48.50									
		e	15	59.00				0.8s	23.50nm									e	23	53.00									
MDJ	78.41	325 eP	13	51.00	0.5		MAIO	126.23	302	iPKPd	20	46.00	-0.4		ISR	146.01	328	iPKPd	21	24.00	1.8								
		S	23	00.00				1.5s	32.66nm						MLR	146.06	329	iPKPd	21	21.00	-1.4								
KDC	78.64	14 P	13	51.10	-0.3		FRS	127.15	206	iPKPd	20	48.50	0.3		LWI	146.41	236	iPKP-	21	27.50	3.5X								
	1.0s	100.00nm			5.3mb			1.0s	80.00nm						PRU	146.60	345	ePKPd	21	22.10	-0.8								
CLC	78.67	46 eP	13	52.00	-0.2					i	22	39.00						i	21	25.50									
TPC	78.86	49 eP	13	53.00	-0.2		SOD	128.26	348	iPKP	20	48.00	-1.1					i	23	15.50									
GSC	78.95	47 eP	13	54.00	0.3		PRY	128.62	210	iPKPc	20	50.00	-1.3		MOX	146.63	348	ePKPc	21	23.00	0.1								
GLA	79.21	50 eP	13	56.00	1.0			1.2s	110.00nm							1.6s		105.00nm											
KGM	79.51	276 eP	13	57.00	0.1		BFS	128.97	209	ePKPd	20	52.50	0.6					i	21	26.00									
		e	15	47.50				1.0s	40.00nm									ipPKP	23	12.00									
KVN	80.07	43 P	13	59.90	0.3		SLR	129.23	212	iPKPc	20	52.50	0.0					i	23	15.00									
TNP	80.13	45 P	14	00.90	1.0		KSR	129.79	210	iPKPc	20	51.50	-2.1					ePP	23	48.00									
	1.0s	10.83nm			4.3mb X			1.0s	20.00nm						CMP	146.67	329	ePKPc	21	26.00	2.8								
CN2	80.24	322 Pd	14	00.40	0.4		SOB1	130.00	119	ePKP	20	43.60	-10.5X		PSZ	146.78	337	ePKP	21	23.10	-0.3								
		S	23	16.00						e	23	17.40			GPA	146.88	318	iPKP	21	25.70	2.0								
WHN	80.77	306 eP	14	03.50	0.5					e	25	08.90			ENN	147.30	355	ePKP	21	24.00	0.1								
		iS	23	23.00			NPA	130.32	231	ePKP	20	54.40	-0.2			0.9s		45.00nm											
SHW	81.67	36 P	14	08.40	1.0					e	22	45.50						iPKKP	21	27.30									
EUR	81.70	44 iP	14	08.10	0.2					e	23	23.50						e	21	32.50									

14d 13h

			e	23	17.50	
			e	23	21.00	
			e	23	49.50	
			e	23	52.50	
PRNI	147.36	298	ePKP	21	24.00	-0.8
UCC	147.37	357	PKPd-	21	27.60	3.5X
			e	23	51.00	
SRO	147.43	339	iPKP	21	28.00	3.7X
			i	23	18.50	
			i	23	50.40	
MEM	147.45	355	PKPc	21	24.30	0.1
			e	21	27.50	
ZST	147.50	341	ePKP	21	24.60	0.2
			i	21	28.60	
			e	23	14.40	
			i	23	18.10	
			e	23	48.20	
MBH	147.59	297	e(PKP)	21	25.00	-0.1
GRF	147.62	348	iPKP	21	24.30	-0.3
			e	21	28.80	
KHC	147.63	345	iPKPd	21	24.60	0.0
			i	21	28.70	
			i	23	14.80	
SNF	147.66	357	PKPd	21	28.20	3.7X
ALT	147.68	316	ePKP	21	26.60	1.5
VKA	147.68	341	ePKP	21	24.00	-0.7
	1.0s	112.00nm				
			i	21	28.70	
JMB	147.80	324	iPKPd	21	29.00	3.9X
BZS	147.97	333	ePKPc	21	24.50	-0.7
PVL	147.97	326	iPKP	21	30.00	4.7X
DOU	148.06	356	PKP	21	26.30	1.1
			i	21	29.10	
BCK	148.16	313	ePKP	21	24.20	-1.7
BNT	148.34	320	iPKP	21	29.30	3.3X
WLF	148.37	354	PKP	21	26.20	0.5
			i	21	30.60	
KMR	148.49	344	ePKP	21	26.00	0.0
			i	21	30.80	
			ipPKP	23	52.30	
DIM	148.66	324	iPKP	21	31.00	4.6X
GWF	148.89	352	PKP	21	26.84	0.3
ELL	148.98	312	iPKP	21	31.10	3.9X
KDZ	148.99	324	ePKP	21	32.00	5.1X
PGB	149.05	327	iPKPd	21	32.00	4.9X
PLD	149.08	325	ePKP	21	32.00	5.0X
BEO	149.10	333	e(PKP)	21	31.50	4.6X
RZN	149.36	325	ePKP	21	27.00	-0.7
FLN	149.44	3	ePKP	21	26.70	-0.6
	1.2s	65.45nm				
CDF	149.49	353	PKP	21	27.38	-0.2
KBA	149.60	344	iPKPc	21	26.80	-1.1
	1.1s	91.20nm				
			i	21	32.00	
LDF	149.62	2	ePKP	21	26.90	-0.7
	1.2s	44.65nm				
EZN	149.64	320	iPKP	21	32.90	5.0X
GRR	149.79	3	ePKP	21	27.60	-0.3
	1.2s	41.65nm				
VITF	149.82	354	PKP	21	28.58	0.7
PTJ	149.89	340	ePKP	21	28.10	-0.1
YER	149.91	314	iPKP	21	33.50	5.0X
FEL	149.91	351	PKP	21	27.52	-0.7
MMB	149.96	326	iPKPd	21	34.00	5.6X
HAU	149.99	354	ePKP	21	28.00	-0.2
	1.0s	10.00nm				
MOF	150.05	353	PKP	21	27.96	-0.5
BSF	150.12	353	PKP	21	29.18	0.6
RBL	150.12	343	PKP	21	28.40	-0.2
LPF	150.14	4	ePKP	21	28.10	-0.3
	1.2s	53.55nm				
FVI	150.19	344	PKP	21	27.80	-0.7
LJU	150.21	342	ePKP	21	28.70	0.1
			i	21	34.50	
VOY	150.41	343	ePKP	21	28.10	-0.9
			i	21	34.20	
VBY	150.47	340	ePKP	21	28.60	-0.4
			i	21	35.30	
CEY	150.52	342	ePKP	21	28.50	-0.6
			i	21	35.00	
LOMF	150.58	353	PKP	21	29.90	0.6
TRI	150.74	342	iPKPd	21	35.10	5.7X
VAY	150.76	327	ePKP	21	34.50	4.9X
SKO	150.86	329	iPKP	21	27.00	-2.7
	1.8s	62.00nm				
			i	21	35.00	
LOR	150.92	357	ePKP	21	29.40	-0.3

	1.2s	23.80nm				
CTI	150.98	346	PKP	21	29.50	-0.4
SSF	151.15	357	ePKP	21	29.90	-0.1
	1.0s	24.00nm				
LBF	151.20	357	ePKP	21	29.80	-0.3
	1.2s	26.80nm				
AVF	151.42	357	ePKP	21	29.90	-0.5
	1.0s	10.00nm				
SMF	151.55	357	ePKP	21	30.30	-0.3
	1.0s	17.00nm				
MFF	151.61	3	ePKP	21	29.90	-0.7
	1.2s	41.65nm				
SAL	151.65	347	PKP	21	30.50	-0.2
BGF	151.67	358	ePKP	21	30.40	-0.3
	1.0s	20.00nm				
VAI	151.75	349	PKPc	21	30.50	-0.3
OHR	151.83	328	iPKP	21	30.80	-0.4
	1.2s	0.22nm				
			i	21	37.90	
TCF	151.96	359	ePKP	21	30.80	-0.4
	1.0s	36.00nm				
LSF	152.00	0	ePKP	21	31.00	-0.2
	1.0s	30.00nm				
MAF	152.02	359	ePKP	21	31.20	-0.1
	1.2s	16.35nm				
ORO	152.12	350	PKP	21	38.50	7.0X
AGO	152.17	358	PKP	21	30.99	-0.5
PLDF	152.23	357	PKP	21	31.61	0.0
LPG	152.42	352	ePKP	21	32.40	0.2
	1.2s	25.30nm				
PYM	152.48	358	PKP	21	31.64	-0.4
RSM	152.75	343	PKP	21	40.50	8.2X
BNI	152.87	352	PKP	21	34.00	1.3
LBL	152.98	357	PKP	21	32.33	-0.2
ARV	153.00	342	PKP	21	33.00	0.3
BDI	153.10	346	PKP	21	32.50	-0.4
FIR	153.21	344	ePKP	21	41.00	8.1X
BNG	158.53	233	iPKPd	21	40.30	-0.3
	0.5s	43.00nm				
			id	22	07.50	
			ic	22	21.00	
			ic	24	10.20	
IFR	163.57	20	iPKPd	21	47.50	2.1
LIC	166.48	151	PKP	21	47.80	-0.3
	1.1s	63.00nm				
KIC	166.73	151	PKP	21	48.08	-0.2
	1.0s	38.50nm				
TIC	166.85	150	PKP	21	48.10	-0.3
	1.1s	59.50nm				
SHGH	167.73	172	ePKP	21	47.50	-1.5
KOGH	167.85	171	ePKP	21	48.00	-1.1
KUK	167.94	171	ePKP	21	57.00	7.9X
	S.D. = 0.9	on 223 of 256 obs.				

? APR 14, 1989 13h 03m 44.31± 1.19s
25.273 S ±23.4km 174.663 W ±14.1km
DEPTH = 33.0km (normal)
SOUTH OF TONGA ISLANDS (175)

VUN	9.65	317	eP	06	04.00	0.0
			eS	07	16.00	
DZM	17.60	277	iPc	07	48.70	-0.1
FORR	50.35	250	eP	12	40.30	0.0
	0.4s	194.00nm			6.5mb	X
MWC	79.91	45	eP	15	55.00	3.3X
GSC	81.39	44	eP	16	03.00	3.6X
PGC	86.66	31	eP	16	24.00	-1.5
ALQ	88.05	50	eP	16	42.60	9.7X
	1.2s	27.34nm			5.4mb	
			epP	18	44.00	553kmX
PNT	88.95	32	iPc	16	38.20	1.6
	1.2s	63.00nm			5.8mb	X
EDM	94.47	32	eP	17	02.00	-0.1
INK	98.09	14	eP	17	12.00	-6.1X
FFC	100.93	34	ePdiff	17	34.00	2.7X
	1.5s	32.00nm			5.7mb	X
MBC	106.79	12	ePdiff	17	50.00	-7.0X
AKU	136.92	14	iPKP	23	24.00	19.3X
	1.5s	177.78nm				
NB2	144.02	355	PKP	23	29.20	11.6X
	1.1s	10.20nm				
	S.D. = 1.3	on 6 of 14 obs.				

APR 14, 1989 13h 04m 42.24± 1.14s
18.180 S ± 8.1km 178.475 W ± 6.3km
DEPTH = 635.2 ± 14.0 km
5.0mb (12 obs.)

FIJI ISLANDS REGION (181)

KRP	20.36	194	P	08	41.00	1.6
			S	10	08.00	
WEL	23.75	193	P	09	09.00	-0.6
			S	12	40.00	
MSZ	28.77	200	P	09	44.20	-9.0X
			S	14	00.00	
PMG	34.45	280	eP	10	42.50	1.4
	0.9s	230.25nm			5.8mb	
ASPA	44.66	255	iPd	11	41.10	-21.6X
	0.5s	96.00nm				
			ePcP	13	30.00	
			eS	17	54.00	
			eScS	20	52.30	
KNA	50.38	264	eP	12	43.00	-2.6
	0.5s	87.00nm			5.4mb	
WARB	51.13	251	eP	12	43.00	-7.9X
	0.4s	82.00nm			5.4mb	
DRV	55.39	199	iPc	13	20.80	0.5
COOL	55.78	245	eP	13	22.00	-1.6
MBL	57.85	256	eP	13	37.10	-0.6
	0.4s	64.00nm			5.2mb	
MEKA	58.35	250	eP	13	40.30	-0.7
KLB	58.65	244	eP	13	42.00	-0.9
NWAO	59.03	242	eP	13	45.00	-0.4
BAL	59.61	245	eP	13	48.00	-1.3
MUN	59.94	243	eP	13	52.00	0.5
MRWA	60.34	246	eP	13	53.80	-0.3
	0.6s	29.00nm			4.7mb	
NANU	61.59	254	iPd	14	02.30	0.1
TRT	67.63	269	ePd	14	40.10	0.1
	0.8s	130.30nm			5.4mb	
SPA	71.93	180	e(P)	15	06.20	1.6
	1.0s	115.50nm			5.4mb	
			e	15	17.90	
SYP	76.40	46	eP	15	30.00	0.2
			e	15	48.00	
PRS	76.47	44	eP	15	30.00	0.0
			e	17	42.70	
SAO	76.66	44	eP	15	31.40	0.3
BCH	76.69	46	P	15	32.00	0.6
			pP	15	50.00	66kmX
PRI	76.83	45	e(P)	15	32.20	0.1
MHC	76.87	43	eP	15	32.20	-0.1
ARN	76.94	43	P	15	33.20	0.6
			pP	15	52.80	73kmX
BAR	77.75	50	eP	15	27.00	-10.0X
			e	15	45.00	
RVR	77.93	48	eP	15	41.00	3.1X
			e	15	56.00	
FRI	77.94	44	eP	15	37.30	-0.5
			e	17	44.10	
PLM	77.96	49	eP	15	38.00	-0.3
			e	15	56.00	
SBB	77.98	47	eP	15	38.00	-0.2
			e	15	57.00	
PEC	78.03	48	P	15	38.10	-0.3
ISA	78.05	46	eP	15	39.00	0.4
			e	15	58.00	
CMB	78.08	43	eP	15	38.10	-0.5
			e	17	51.40	
WDC	78.19	40	eP	15	38.80	-0.3
			e	17	52.40	
ORV	78.24	41	e(P)	15	39.00	-0.4
MDJ	78.37	325	eP	15	40.00	0.1
CLC	78.73	46	eP	15	42.00	-0.1
			e	16	01.00	
TPC	78.93	49	eP	15	44.00	0.9
			e	16	03.00	
LBFM	79.04	40	P	15	43.60	-0.2
			pP	16	04.10	76kmX
GLA	79.28	50	eP	15	46.00	1.0
			e	16	05.00	
KVN	80.13	43	P	15	48.30	-1.2
			pP	16	09.30	78kmX
SNY	80.15	320	eP	15	50.00	0.8
TNP	80.19	45	P	15	49.70	-0.2
			pP	16	10.00	75kmX
CN2	80.20	322	eP	15	44.70	-4.7X
TIA	81.38	312	Pc	15	56.50	0.8
GMW	82.25	34	P	16	00.00	0.3
TTA	82.75	10	P	16	01.30	-0.7
	0.8s	12.07nm			4.5mb	
PMR	82.88	14	P	16	01.70	-0.8
	0.8s	15.52nm			4.6mb	
			pP	16	22.50	77kmX

BJI	83.93	315	eP	16	08.50	0.3
DPW	84.94	36	P	16	12.40	-0.6
PNT	84.99	34	eP	16	13.00	-0.2
	0.8s	14.00nm				4.6mb
TIY	85.40	312	iPc	16	17.20	1.7
	N 12s	0.30um				
	E 13s	0.20um				
NNT	86.25	284	iPc	16	21.70	1.8
ALQ	86.31	52	P	16	20.40	0.3
	1.0s	10.00nm				4.5mb
HHC	87.42	314	Pc	16	26.80	1.8
BW06	87.60	43	P	16	25.80	-0.2
	0.9s	14.57nm				4.7mb
		pP		16	49.10	86kmX
EDM	90.42	33	eP	16	38.00	-0.4
INK	92.16	15	eP	16	44.00	-2.1
YKA	94.60	25	P	16	57.70	0.4
GTA	95.16	310	eP	17	01.20	0.7
KEV	126.12	349	ePKP	22	33.00	-1.6
SOD	128.25	348	ePKP	22	38.00	-0.7
SUF	132.33	345	ePKP	22	45.00	-1.6
	0.6s	11.10nm				
NUR	134.60	344	iPKP	22	50.40	-0.6
NB2	136.64	353	PKP	22	47.10	-7.9X
	0.8s	7.30nm				
HFS	137.19	351	ePKP	22	45.60	-10.3X
	0.4s	5.10nm				
DMU	143.76	8	iPKPd	23	06.20	-1.5
	0.6s	50.00nm				
KAS	144.04	317	iPKPc	23	08.80	0.1
DCN	144.24	9	ePKP	23	07.80	-0.7
DLE	144.40	8	ePKP	23	08.50	-0.3
KRA	144.94	339	iPKPd	23	10.60	0.8
	0.7s	56.00nm				
ETA	145.03	8	ePKP	23	10.40	0.5
	0.7s	41.00nm				
ECB	145.27	9	iPKPc	23	11.20	0.9
KSP	145.35	343	iPKP	23	12.10	1.6
	0.8s	115.00nm				
		e		23	44.60	
ECP	145.51	9	iPKPc	23	11.80	1.2
CLL	145.71	347	iPKP	23	11.20	0.2
	1.1s	150.00nm				
		i		23	12.80	
		eSKP		25	53.00	
BRG	145.91	346	iPKPc	23	11.60	0.2
	1.3s	75.00nm				
		i		23	13.50	
		e		23	47.00	
MEM	147.45	355	PKP	23	17.40	3.6X
		e		23	50.70	
GRF	147.61	348	ePKP	23	14.60	0.4
		e		23	18.70	
VKA	147.66	341	ePKP	23	14.00	-0.3
	1.0s	57.60nm				
		i		23	18.30	
SNF	147.67	357	PKP	23	17.50	3.3X
DOU	148.07	356	PKP	23	18.90	4.1X
	0.7s	57.80nm				
		e		23	50.40	
WLF	148.37	354	iPKP	23	20.50	5.2X
		e		23	54.40	
KMR	148.47	344	iPKP-	23	20.70	5.1X
DIM	148.62	324	ePKP	23	30.00	14.1X
BEO	149.08	333	e(PKP)	23	22.00	5.5X
RZN	149.32	325	iPKP	23	22.00	4.7X
FLN	149.45	3	ePKP	23	16.90	-0.1
	1.0s	24.00nm				
VTS	149.48	327	iPKPc	23	23.00	5.5X
KBA	149.58	344	ePKP	23	17.00	-0.5
	0.9s	37.60nm				
		i		23	22.20	
EZN	149.59	320	iPKP	23	22.10	4.7X
LDF	149.63	2	ePKP	23	16.90	-0.4
	1.0s	20.00nm				
GRR	149.81	3	ePKP	23	17.80	0.3
	1.0s	16.00nm				
MMB	149.92	326	iPKP	23	23.00	5.0X
HAU	149.99	354	ePKP	23	18.00	0.1
	0.8s	5.35nm				
KKB	150.07	327	iPKPd	23	24.00	5.8X
LPF	150.15	3	ePKP	23	18.00	0.0
	1.0s	20.00nm				
LJU	150.19	342	ePKP	23	18.70	0.5
		i		23	24.60	
		e		23	55.00	
VOY	150.39	342	ePKP	23	19.00	0.4
		i		23	24.30	
VBY	150.45	340	iPKPc	23	18.90	0.3
		i		23	25.10	
CEY	150.50	341	ePKP	23	19.00	0.3
		i		23	25.00	
TRI	150.72	342	iPKPd	23	25.10	6.1X
VAY	150.73	326	iPKP	23	25.00	5.9X
SKO	150.83	329	iPKP	23	25.00	5.7X
	1.8s	145.00nm				
		i		23	59.80	
LOR	150.93	357	ePKP	23	19.40	0.1
	1.0s	12.00nm				
SSF	151.15	357	ePKP	23	20.10	0.5
	1.0s	11.00nm				
LBF	151.20	357	ePKP	23	20.30	0.6
	0.8s	5.35nm				
MFF	151.62	2	ePKP	23	20.50	0.2
	1.0s	20.00nm				
OHR	151.79	328	iPKP	23	28.00	7.2X
TCF	151.97	359	ePKP	23	21.10	0.3
	1.2s	23.80nm				
LSF	152.01	360	ePKP	23	20.90	0.0
	0.8s	13.45nm				
MAF	152.02	358	ePKP	23	20.70	-0.2
	0.8s	6.70nm				
FIR	153.19	344	ePKP	23	31.00	8.5X
LIC	166.51	151	PKPc	23	37.50	-0.2
KIC	166.76	152	PKPc	23	37.30	-0.6
	0.8s	18.00nm				
TIC	166.88	150	PKPc	23	37.50	-0.5

S.D. = 0.8 on 92 of 117 obs.

APR 14, 1989 14h 53m 57.71± 0.29s
42.303 N ± 3.2km 19.851 E ± 2.9km
DEPTH = 10.0km (geophysicist)
3.2mb (1 obs.)
YUGOSLAVIA (383)
MD 3.8 (ATH), 3.5 (TTG).

BCI	0.17	68	iPg	54	00.00	-1.6
PUK	0.26	173	iPgc	54	02.10	-1.1
PVY	0.31	17	iPgc	54	02.20	-1.9
			iSg	54	07.30	
SDA	0.39	223	iPgc	54	05.00	-0.7
TTG	0.46	286	iPgc	54	05.20	-1.8
			iSg	54	13.00	
KKS	0.47	118	iPg	54	06.00	-1.3
ULC	0.56	233	ePg	54	08.40	-0.7
			eSg	54	18.00	
IVA	0.57	3	ePg	54	07.70	-1.6
			eSg	54	17.50	
LACI	0.67	189	iPgd	54	10.50	-0.6
PHP	0.76	144	iPgc	54	10.60	-1.9
BDV	0.76	269	ePg	54	11.50	-1.1
			iSg	54	25.50	
NKY	0.81	309	ePg	54	12.00	-1.5
			eSg	54	26.00	
TIR	0.96	179	iPg	54	16.20	0.3
HCY	1.01	279	iPgc	54	16.20	-0.7
			iSg	54	34.10	
PLE	1.08	342	ePg	54	17.90	-0.2
			eSg	54	35.50	
BRY	1.14	302	ePg	54	17.90	-1.2
			eSg	54	36.00	
SKO	1.23	105	iPgd	54	18.50	-2.0
	0.9s	370.00nm				
			i	54	22.00	
			iSg	54	35.50	
			iSn	54	37.30	
OHR	1.39	149	iPn	54	22.50	-0.6
BERA	1.60	177	iPgd	54	27.70	1.6
KBN	1.83	156	iPnd	54	32.00	2.6
VLO	1.85	188	ePn	54	33.30	3.6X
TPE	2.01	177	ePn	54	36.00	4.0X
VAY	2.26	115	iPn	54	36.20	0.6
LCI	2.43	217	P	54	36.90	-1.2
BRT	2.44	235	P	54	38.50	0.2
KZN	2.46	143	ePb	54	39.50	0.9
VTS	2.50	82	iP	54	39.00	-0.2
			iPg	54	54.00	
			iSg	55	22.00	
BEO	2.56	10	ePn	54	45.00	5.2X
			eSg	55	21.00	
HVAR	2.66	290	iPn	54	42.00	0.7
			iSn	55	16.50	
MMB	2.98	103	eP	54	47.00	1.1
			i	54	53.00	
			i	55	36.00	
PGB	3.20	84	eP	54	50.00	0.9
PLG	3.32	124	ePn	54	52.00	1.2
BZS	3.55	20	ePc	54	53.00	-0.9
GZR	3.74	33	ePd	55	05.00	8.2X
SGO	3.83	244	P	54	57.30	-0.7
MGR	3.90	238	P	54	58.90	0.0
			eSn	55	45.60	
NEO	3.94	138	ePn	55	00.50	1.0
DUI	4.07	263	P	55	02.50	1.1
BSS	4.08	250	P	55	01.50	0.1
DIM	4.23	92	eP	55	12.00	8.4X
			Sg	56	18.00	
RDO	4.41	103	ePn	55	06.50	0.3
SDI	4.54	264	P	55	09.00	1.0
PTJ	4.56	323	ePn	55	10.30	1.9
			eSn	56	10.90	
VBY	4.61	316	ePn	55	11.30	2.3
			ePg	55	29.30	
			iSn	56	06.10	
			iSb	56	20.90	
			eSg	56	30.50	
ALP	4.66	278	ePn	55	09.97	0.0
			eSn	56	05.46	
CMP	4.78	50	eP	55	23.00	11.4X
BUC	5.02	63	eF	54	20.00	-54.8X
CIO	5.02	282	ePn	55	28.98	14.1X
			eSn	56	27.23	
SOI	5.13	216	P	55	13.50	-2.8X
CEY	5.21	313	ePn	55	19.50	2.0
			eSn	56	21.80	
ARV	5.21	286	P	55	18.00	0.4
MNS	5.32	273	P	55	19.40	0.3
LJU	5.35	316	ePn	55	21.70	2.2
			eSn	56	26.00	
ASS	5.36	281	P	55	19.90	0.2
MLR	5.43	52	eP	55	23.00	2.1
TRI	5.56	310	ePn	55	23.80	1.4
			eSn	56	27.00	
			iSg	56	58.20	
PSZ	5.62	0	eP	55	21.60	-1.7
SRO	5.62	349	eP	55	52.40	29.2X
VOY	5.68	313	iPn	55	25.10	0.9
			eSn	56	32.10	
VRI	6.10	52	eP	55	30.00	-0.1
RBL	6.11	315	P	55	31.10	0.8
PGD	6.16	288	P	55	31.30	0.3
ZST	6.20	343	eP	55	44.90	13.4X
FVI	6.63	313	P	55	38.60	1.0
KBA	6.65	318	iPd	55	39.50	1.4
	1.3s	37.50nm				5.2mb X
			i	56	16.30	
			i	57	12.60	
			i	57	47.00	
CTI	6.98	305	P	55	40.90	-1.7
			eSn	56	59.60	
KHC	8.11	329	Pc	56	00.60	2.3
			e	56	34.90	
LPG	9.98	293	eP	56	24.60	0.2
	0.6s	4.05nm				5.0mb X
BSF	10.76	305	eP	56	34.80	-0.1
SMF	12.23	296	eP	56	52.60	-2.2
	0.8s	8.75nm				5.1mb X
LBF	12.23	298	eP	56	53.10	-1.8
	1.0s	12.00nm				5.1mb X
LOR	12.39	299	eP	56	54.90	-2.1
	1.0s	5.00nm				4.7mb X
NB2	19.48	347	P	58	27.50	0.0
	0.8s	1.10nm				3.2mb

S.D. = 1.3 on 62 of 73 obs.

APR 14, 1989 16h 19m 01.97± 0.43s
17.794 N ±11.2km 65.616 W ± 6.7km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.57	335	P	19	13.30	-0.2
SJG	0.60	302	iP	19	14.00	-0.1
CSB	0.71	314	P	19	16.00	0.0
APR	1.25	302	P	19	25.10	-0.1
MGP	1.42	279	P	19	27.80	0.0
MCP	1.55	294	P	19	30.00	0.3
MGH	3.42	108	eP	19	57.36	0.9
			S	20	38.00	
PAG	4.16	114	eP	20	06.80	-0.1
			S	20	52.00	
SEG	4.17	109	eP	20	07.52	0.5

14d 16h

DOG	4.21	114	eP	20 07.50	-0.2
BBL	4.56	119	eP	20 11.86	-0.8
DEG	4.60	108	eP	20 12.98	-0.3

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

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* APR 14, 1989 16h 31m 35.67± 1.38s
14.085 S ±25.8km 34.143 E ± 9.3km
DEPTH = 10.0km (geophysicist)
MALAWI (577)
MG 3.7 (LSZ).

PTZ	2.72	266	iPn	32 22.00	1.6
			i	32 35.00	
			iSn	33 06.00	
NPA	5.05	102	eP	32 53.30	0.1
			eSn	33 38.00	
			eSg	33 59.40	
LSZ	5.88	258	iPn	33 05.00	-0.2
			i	33 15.80	
			iSn	34 15.00	
			iSg	34 48.00	
BUL	8.01	221	iPc	33 34.90	-0.2
KMZ	8.10	273	iPn	33 35.00	-1.3
			i	33 46.00	
			iSn	34 03.00	
			i	34 18.00	
			iSg	34 55.00	

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

% APR 14, 1989 17h 05m 42.97± 3.35s
16.863 N ±27.6km 61.783 W ±10.9km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.1 (FDF).

MGH	0.44	251	eP	05 52.20	0.3
			S	06 03.20	
SEG	0.53	150	eP	05 55.20	1.5
			S	06 16.00	
PAG	0.83	173	eP	05 58.50	-0.6
			S	06 21.80	
DOG	0.84	169	eP	05 58.57	-0.7
DEG	0.88	128	eP	05 59.50	-0.5
			S	06 24.30	
BBL	1.36	168	eP	06 05.20	-2.8X

S.D. = 1.3 on 5 of 6 obs.

APR 14, 1989 17h 50m 51.07± 0.73s
49.100 N ± 7.6km 6.889 E ± 8.4km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
MD 2.6 (STR).

GWF	0.50	104	Pg	51 00.67	-0.5
CDF	0.73	159	Pg	51 05.07	-0.5
WLF	0.74	320	iPd	51 04.00	-1.6
VITF	1.07	215	Pg	51 10.95	-0.2
FEL	1.43	148	Pg	51 18.21	1.0
			Sg	51 37.08	
MEM	1.62	340	P	51 20.60	1.0
DOU	1.80	305	P	51 23.10	0.8
			iS	51 42.70	
			e	05 11.10	

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

? APR 14, 1989 18h 19m 14.89± 1.89s
19.533 S ±27.7km 177.580 W ±22.9km
DEPTH = 436.5 ± 14.9 km
4.8mb (5 obs.)
FIJI ISLANDS REGION (181)

SVA	4.01	290	eP	20 29.90	0.0
VUN	4.04	291	eP	20 29.90	-0.4
DZM	15.15	258	iPc	22 30.90	1.4
CAN	33.38	235	eP	25 24.00	7.3X
BWA	33.55	237	eP	25 20.70	2.6
CTA	33.99	263	iP	25 22.10	0.2
	0.8s	28.36nm		4.7mb	
ASPA	45.13	256	eP	26 50.80	-1.7
			eS	32 59.20	
FORR	50.01	246	eP	27 28.60	-0.9
	0.4s	26.00nm		4.9mb	
KNA	51.10	265	eP	27 37.00	-0.7
MBL	58.36	257	iPd	28 28.20	-0.8
	0.3s	12.00nm		4.8mb	
MEKA	58.69	250	eP	28 30.00	-1.2
NANU	62.03	254	iPd	28 53.30	-0.2
	0.5s	16.00nm		4.8mb	
SPA	70.59	180	e(P)	29 45.80	-0.4
	1.0s	3.50nm		3.9mb	
PNT	85.64	34	eP	31 07.00	0.2
CHG	90.29	290	ePd	31 31.00	1.8
SLL	138.37	352	ePKP	37 41.60	-9.0X
	0.4s	1.10nm			
EKA	144.01	5	PKP	37 58.00	-2.6X
	1.0s	7.00nm			
HRI	147.32	302	iPKPd	38 10.40	3.5X
JVI	148.00	299	iPKPd	38 12.30	4.5X
MBH	148.88	295	iPKPd	38 14.50	5.2X
FLN	150.75	4	ePKP	38 17.30	5.8X
	0.6s	5.40nm			
CDF	150.92	353	ePKP	38 18.30	6.4X
LDF	150.94	3	ePKP	38 17.30	5.5X
	0.4s	3.45nm			
GRR	151.09	5	ePKP	38 18.10	6.1X
	0.4s	3.45nm			
HAU	151.42	354	ePKP	38 19.20	6.6X
	0.6s	3.60nm			
LPF	151.43	5	ePKP	38 18.80	6.3X
	0.6s	10.80nm			
BSF	151.55	354	ePKP	38 19.50	6.6X
LOR	152.31	358	ePKP	38 21.20	7.3X
	0.8s	6.05nm			
TCF	153.32	0	ePKP	38 23.10	7.8X
LSF	153.34	1	ePKP	38 23.30	8.0X
	1.0s	13.00nm			

S.D. = 1.4 on 14 of 30 obs.

APR 14, 1989 19h 45m 08.04± 0.78s
67.561 N ± 8.3km 142.655 W ± 7.1km
DEPTH = 33.0km (normal)
ALASKA (676)

FBA	3.39	220	eP	46 00.20	0.4
INK	3.53	74	eP	46 02.00	0.2
DWY	3.76	158	P	46 05.10	0.0
IMA	4.61	256	eP	46 16.60	-0.7
BRW	6.22	314	eP	46 40.00	0.2
PMR	6.61	208	eP	46 46.70	1.5
HYT	7.12	159	P	46 51.80	-0.9
TTA	7.27	237	eP	46 54.00	-0.7
MBC	11.21	29	eP	47 44.00	-4.7X
YKA	12.81	100	eP	48 05.60	-4.6X

S.D. = 0.9 on 8 of 10 obs.

APR 14, 1989 20h 08m 00.32± 0.53s
44.381 N ± 3.6km 7.171 E ± 6.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.6 (LDG).

FOUF	0.32	298	P	08 05.83	-1.0
			Sg	08 09.43	
TOUF	0.37	171	Pg	08 07.71	-0.3
AUTN	0.43	154	Pg	08 08.93	-0.2
			Sg	08 15.13	
SAOF	0.48	145	Pg	08 09.96	-0.2
			Sg	08 16.88	
MVIF	0.49	182	Pg	08 09.91	-0.3
			Sg	08 16.53	
AURF	0.51	167	Pg	08 10.28	-0.3
SBF	0.55	160	Pg	08 12.00	0.4
			Sg	08 18.90	
CALN	0.66	198	Pg	08 13.05	-0.5
FRF	0.90	205	Pg	08 18.20	0.6
			Sg	08 28.40	
LRG	1.10	213	Pg	08 21.50	0.6
			Sg	08 35.50	
LMR	1.15	205	Pg	08 22.50	0.7
			Sg	08 35.80	
LPG	1.16	345	Pg	08 22.30	0.2
			Sg	08 38.30	
LPL	1.18	345	Pg	08 22.90	0.5
			Sg	08 39.70	

S.D. = 0.6 on 13 of 13 obs.

APR 14, 1989 20h 23m 57.26± 0.79s
42.352 N ± 4.7km 19.913 E ± 3.9km
DEPTH = 13.8 ± 8.4 km
YUGOSLAVIA (383)
MD 2.2 (TTG).

BCI	0.12	83	iPg	24 00.60	0.0
PVY	0.25	10	iPgc	24 03.00	0.1
			iSg	24 08.50	
SDA	0.46	223	ePg	24 06.20	-0.3
KKS	0.46	127	ePg	24 06.60	0.0
TTG	0.49	279	iPgc	24 06.10	-1.0
			iSg	24 14.70	
ULC	0.63	232	ePg	24 09.50	0.0
			eSg	24 20.00	
LACI	0.73	192	ePg	24 12.40	1.2
PHP	0.77	149	ePg	24 11.00	-0.9
BDV	0.81	266	eP	24 12.70	0.1
			eSg	24 26.30	
NKY	0.82	305	ePg	24 12.50	-0.3
			eSg	24 26.00	
HCY	1.05	276	iPgc	24 17.10	0.3
			iSg	24 33.50	
BRY	1.15	299	ePg	24 19.20	0.7
			eSg	24 37.00	
SKO	1.20	108	iPn	24 19.50	0.3
			iSn	24 38.00	

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

? APR 14, 1989 20h 36m 12.08± 8.75s
17.814 N ±28.5km 65.649 W ±57.0km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)
Felt in eastern Puerto Rico.

LPR	0.53	337	P	36 22.90	0.0
SJG	0.56	302	iP	36 23.30	-0.2
CSB	0.68	314	P	36 25.60	0.1
APR	1.21	302	P	36 34.80	0.2
MGP	1.38	278	P	36 37.40	0.0

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

APR 14, 1989 22h 51m 52.46± 0.37s
23.322 N ± 5.1km 99.308 E ± 4.7km
DEPTH = 33.0km (normal)
4.6mb (8 obs.)
BURMA-CHINA BORDER REGION (297)
ML 4.7 (BJI).

KMI	3.61	60	ePn	52 46.50	-1.2
			Pg	52 55.50	
			Sg	53 41.00	
CHG	4.50	184	ePn	52 59.30	-0.8
			iPg	53 16.20	
			iSg	54 14.30	
SHL	7.13	290	iP	53 37.50	0.2
			eS	55 05.50	
GYA	7.37	63	Pn	53 40.00	-0.7
			Sn	54 56.00	
			Sg	55 38.00	
NST	7.65	174	ePn	53 43.50	-0.9
			eSg	56 01.50	
KHT	8.52	185	ePn	53 56.50	0.0
			ePg	54 31.00	
			eSg	56 31.50	
CD2	8.53	27	eP	53 55.40	-1.3
LSA	9.68	313	P	54 15.60	2.6
QIZ	10.72	112	eP	54 29.50	2.7
			eS	56 33.00	
GUN	12.95	293	P	54 56.60	-0.6
PKI	13.25	292	P	55 00.20	-1.0
	0.8s	24.00nm		5.2mb	
LZH	13.31	16	eP	55 03.50	1.7
KKN	13.42	292	P	55 02.20	-1.1
DMN	13.52	291	P	55 03.20	-1.4
XAN	13.60	36	P	55 00.00	-5.4X
N	10s	1.50um			
E	10s	0.80um			
GKN	14.03	292	P	55 10.20	-1.0
	0.8s	42.00nm		5.2mb	
WHN	15.21	59	eP	55 23.00	-3.5X
GTA	16.05	1	eP	55 37.40	0.0
			pP	55 42.80	
TIY	18.24	35	eP	56 03.30	-1.4
N	13s	1.20um			
E	13s	0.90um			
BTO	19.45	25	eP	56 18.00	-1.3
			eS	59 47.00	
TIA	20.06	46	eP	56 26.90	1.1
N	15s	0.80um			
E	15s	1.20um			
HHC	20.29	28	P	56 27.30	-0.9
N	10s	0.50um			
E	10s	0.70um			
HYB	20.32	257	eP	56 29.00	0.4

1.0s 25.00nm 4.5mb
NDI 20.55 290 eP 56 31.50 0.6
0.9s 33.61nm 4.7mb
BJI 21.93 37 eP 56 44.00 -0.8
WMQ 22.58 338 P 56 53.50 2.3
KOD 24.58 242 eP 57 15.00 3.8X
MAIO 36.64 300 eP 59 03.00 5.1X
WB5 54.89 139 eP 01 22.00 -0.4
WRA 54.93 139 Pd 01 23.30 0.7
0.7s 2.50nm 4.4mb
SUF 61.83 330 iP 02 11.00 0.7
0.6s 3.40nm 4.7mb
SOD 62.04 335 iP 02 12.10 0.4
KEV 62.21 338 eP 02 13.00 0.2
HFS 67.91 327 eP 02 50.10 0.4
0.8s 3.50nm 4.5mb
NB2 68.98 329 P 02 56.30 -0.1
0.7s 2.30nm 4.4mb
MBC 77.85 9 eP 03 48.00 0.2
INK 80.86 17 eP 04 04.00 -0.1
BUL 81.33 244 eP 04 08.20 0.6
S.D. = 1.2 on 34 of 38 obs.

APR 14, 1989 22h 57m 59.64± 0.41s
41.132 N ± 6.7km 74.525 E ± 6.8km
DEPTH = 33.0km (normal)
4.6mb (4 obs.)
KIRGHIZ SSR (716)

KSH 2.01 146 Pn 58 40.00 7.9X
Sg 59 09.50
WMQ 10.09 70 P 00 25.50 0.0
MAIO 12.69 253 iPd 00 59.80 -0.8
eS 03 20.00
GKN 15.50 144 P 01 37.80 0.2
KKN 15.97 143 P 01 43.40 -0.3
PKI 16.22 143 P 01 47.00 0.0
HYB 23.89 170 eP 03 17.00 5.8X
SUF 35.63 324 iP 04 56.40 0.5
0.5s 1.80nm 4.3mb
SOD 36.85 331 iP 05 06.30 0.2
HFS 41.27 319 eP 05 43.30 0.3
0.9s 3.40nm 4.1mb
DAG 51.12 343 eP 07 00.00 -0.7
BNG 61.85 250 ePd 08 19.10 1.0
0.4s 6.00nm 5.1mb
MBC 62.57 4 ePc 08 21.20 -0.8
0.8s 9.00nm 5.0mb
YKA 76.46 4 eP 09 47.60 0.4
S.D. = 0.6 on 12 of 14 obs.

APR 14, 1989 23h 24m 19.30± 0.57s
17.845 N ±10.5km 65.624 W ± 6.2km
DEPTH = 21.5 ± 7.6 km
PUERTO RICO REGION (90)
Felt in eastern Puerto Rico.

LPR 0.52 333 P 24 29.50 -0.2
SJG 0.57 298 iP 24 30.40 -0.1
CSB 0.67 311 P 24 32.00 -0.3
APR 1.22 300 P 24 41.00 -0.1
MGP 1.40 277 P 24 44.00 0.3
MCP 1.52 292 P 24 46.20 0.7
MGH 3.44 108 eP 25 14.00 1.1
S 25 52.00
PAG 4.18 115 eP 25 23.20 -0.3
SEG 4.19 109 eP 25 24.00 0.5
BBL 4.60 120 eP 25 28.20 -1.1
DEG 4.62 109 eP 25 30.00 0.2
ZOBO 33.99 184 eP 31 04.00 -0.4
YKA 55.94 335 eP 33 57.50 -0.4
S.D. = 0.7 on 13 of 13 obs.

APR 14, 1989 23h 30m 39.83± 0.23s
32.632 N ± 4.1km 47.743 E ± 3.7km
DEPTH = 33.0km (normal)
4.6mb (24 obs.)
IRAN-IRAQ BORDER REGION (346)

KER 1.80 343 ePc 31 11.00 1.9
BHD 2.89 284 ePnd 31 32.00 7.4X
iPg 31 38.50
iSn 32 03.50
i 32 10.50
i 32 15.00
i 32 19.00
i 32 24.00

SLY 3.50 328 ePnd 31 34.50 1.3
iP• 31 41.00
iSn 32 16.00
iS• 32 23.00
iSg 32 28.50
TEH 4.33 43 eP 31 46.00 0.9
SHI 5.07 125 eP 31 56.00 0.3
MSL 5.33 316 ePnc 31 58.00 -1.1
iSn 33 00.00
TAB 5.55 348 eP 32 24.00 21.7X
BBU 6.82 159 ePn 32 20.90 0.8
eSn 33 34.20
BEE 7.02 159 ePn 32 25.50 2.5
BJA 7.07 159 ePn 32 25.40 1.7
QASM 7.48 210 iPc 32 42.30 12.8X
RYD 7.95 187 eP 32 36.50 0.5
MAIO 10.37 66 eP 33 11.00 1.6
PRNI 11.12 262 iPc 33 19.00 -0.6
MBH 11.38 259 eP 33 21.00 -2.0
WAJH 11.68 239 eP 33 26.20 -0.9
KMSA 12.55 194 iPc 33 36.70 -2.3
KDZ 19.90 303 eP 35 12.00 0.6
ISR 20.62 313 iPc 35 22.00 3.1X
VRI 20.89 315 iPc 35 22.00 0.5
CLI 20.94 318 eP 35 26.00 4.0X
MMB 21.08 302 eP 35 23.00 -0.6
MLR 21.16 314 iPc 35 28.00 3.5X
VTS 21.76 304 eP 35 34.00 3.4X
SKO 22.83 302 iP 35 43.00 2.0
BZS 23.94 310 eP 35 52.00 0.4
PSZ 25.98 314 eP 36 13.70 2.5
SPC 26.35 317 e(P) 36 15.50 0.8
SRO 26.90 313 eP 36 20.60 1.1
KRA 26.95 318 eP 36 20.30 0.3
e 36 22.80
SGO 27.10 296 P 36 22.00 0.6
ZST 27.80 313 eP 36 27.70 0.0
DUI 27.88 298 P 36 30.50 1.9
VBY 28.11 307 e(P) 36 31.40 0.9
VOY 29.17 307 iP 36 40.40 0.2
ARV 29.27 302 P 36 41.70 0.6
MNS 29.29 300 P 36 42.00 0.7
KSP 29.38 318 eP 36 41.50 -0.4
e 37 20.00
ASS 29.40 301 P 36 44.00 1.7
KBA 29.82 309 iPc 36 46.00 -0.1
0.7s 6.10nm 4.5mb
PGD 30.21 302 P 36 51.30 1.7
CTI 30.68 306 P 36 54.00 0.3
MME 30.99 303 P 36 57.80 1.3
BDI 31.04 302 P 36 57.00 0.2
CLL 31.46 317 iP 37 00.00 -0.3
1.1s 10.00nm 4.6mb
HYB 31.62 111 eP 37 02.00 -0.1
NUR 31.74 338 eP 37 01.00 -1.6
GRF 31.95 313 iPc 37 04.60 -0.1
1.0s 18.00nm 4.9mb
e 37 11.00
BOB 31.96 303 Pc 37 06.10 1.2
GKN 32.08 88 P 37 05.60 -0.6
DMN 32.59 89 P 37 10.00 -0.8
KKN 32.68 88 P 37 11.20 -0.3
0.8s 30.00nm 5.2mb
PKI 32.86 89 P 37 12.60 -0.6
GBA 33.06 118 Pd 37 14.60 0.1
0.7s 3.40nm 4.4mb
SUF 33.09 342 eP 37 13.00 -1.4
GUN 33.15 88 P 37 15.40 -0.4
SBF 33.28 301 eP 37 16.10 -0.3
0.6s 23.45nm 5.3mb
BNI 33.95 304 P 37 22.10 -0.2
LPG 33.96 304 eP 37 22.20 -0.3
0.7s 25.35nm 5.3mb
HFS 35.46 331 eP 37 33.90 -0.9
0.4s 12.80nm 5.2mb
LBF 36.06 306 eP 37 39.30 -0.9
0.8s 4.05nm 4.4mb
SMF 36.11 306 eP 37 40.10 -0.4
0.8s 22.85nm 5.1mb
LOR 36.18 307 eP 37 40.20 -0.9
0.6s 2.70nm 4.3mb
DOU 36.19 312 Pc 37 42.60 1.5
SSF 36.39 307 eP 37 42.40 -0.5
0.8s 10.75nm 4.8mb
AVF 36.46 306 eP 37 42.90 -0.5
1.0s 12.00nm 4.7mb
BGF 36.79 306 eP 37 45.50 -0.7

0.8s 7.40nm 4.6mb
SOD 36.92 347 iP 37 46.70 -0.3
NB2 36.98 331 P 37 46.10 -1.6
0.7s 3.00nm 4.3mb
TCF 37.20 305 eP 37 49.40 -0.3
1.0s 8.00nm 4.5mb
MFF 38.85 305 eP 38 02.60 -0.9
0.8s 5.35nm 4.4mb
KEV 38.94 349 eP 38 02.00 -1.9
SHL 38.99 89 iP 38 04.40 -0.7
LDF 39.00 309 eP 38 03.60 -1.1
0.6s 4.50nm 4.4mb
BNG 39.14 230 iPd 38 07.00 0.8
0.4s 8.00nm 4.8mb
id 38 09.60
FLN 39.25 309 eP 38 05.80 -1.0
0.6s 5.40nm 4.5mb
GRR 39.47 308 eP 38 07.60 -1.0
0.8s 10.75nm 4.7mb
EKA 41.88 318 Pc 38 28.50 0.2
0.7s 6.10nm 4.4mb
ETA 43.28 314 eP 38 39.80 0.0
ECP 43.33 313 eP 38 39.80 -0.3
DLE 43.54 315 eP 38 41.80 -0.1
DMU 43.82 316 eP 38 44.10 -0.1
DCN 43.98 315 eP 38 45.50 0.0
CHG 47.71 94 eP 39 14.90 -0.7
KIC 55.26 254 P 40 12.00 -0.5
LIC 55.57 254 P 40 14.40 -0.3
0.7s 5.50nm 4.7mb
IPM 56.94 108 ePc 40 22.90 -1.6
0.7s 27.60nm 5.4mb
MBC 71.08 357 eP 41 55.00 -1.1
FRB 71.67 335 eP 41 59.00 -0.8
YKA 84.15 352 eP 43 08.70 0.2
S.D. = 1.0 on 83 of 90 obs.

APR 14, 1989 23h 35m 30.15± 1.64s
33.642 S ± 5.8km 71.633 W ±12.9km
DEPTH = 15.4 ± 12.3 km
NEAR COAST OF CENTRAL CHILE (135)

LCCH 0.17 18 iP 35 35.00 0.4
iS 36 40.80
LNV 0.36 149 iP 35 37.50 -0.2
TACH 0.58 91 iPd 35 41.50 0.0
iS 35 54.00
SAN 0.83 77 iP 35 46.00 0.2
ROCH 0.85 38 iP 35 45.60 -0.6
CHCH 0.87 110 iP 35 45.60 -0.8
iS 36 01.50
PCH 0.93 89 iPd 35 48.00 0.4
iS 36 05.50
PEL 0.94 58 iPd 35 47.80 0.2
iS 36 05.20
FCH 1.16 75 iPc 35 51.60 -0.1
iS 36 12.30
JACH 1.30 43 iP 35 53.50 -0.2
iS 36 14.30
RFA 2.86 114 ePd 36 16.80 0.8
S.D. = 0.6 on 11 of 11 obs.

% APR 15, 1989 00h 27m 28.24± 1.23s
44.002 N ±16.4km 7.436 E ± 7.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
MD 1.0 (STR).

AUTN 0.01 223 Pg 27 29.79 -0.5
SAOF 0.09 101 Pg 27 30.81 0.0
Sg 27 32.30
TOUF 0.14 275 Pg 27 31.70 0.0
AURF 0.14 214 Pg 27 31.58 0.0
MVIF 0.23 243 Pg 27 33.28 0.0
Sg 27 37.07
S.D. = 0.3 on 5 of 5 obs.

APR 15, 1989 02h 24m 00.68± 1.34s
7.193 S ± 8.3km 126.935 E ± 8.5km
DEPTH = 325.0 ± 15.3 km
4.8mb (5 obs.)
BANDA SEA (280)

MTN 6.97 144 iPd 25 43.60 0.7
KNA 8.69 168 eP 26 04.40 0.8
eS 27 43.00
JAY 14.48 72 ePd 27 12.80 -0.9

15d 02h

WB5	14.53	151	iPc	27	12.60	-1.5
WRA	14.57	151	Pc	27	12.50	-2.1
	0.6s	35.60nm			4.9mb	
MBL	15.49	206	iPc	27	24.40	-0.1
	0.4s	59.00nm			5.3mb	
ASPA	17.69	159	iPc	27	47.80	0.2
	0.3s	350.00nm			6.2mb	X
		e		30	50.40	
		eS		30	59.60	
QIS	18.09	139	iPc	27	50.90	-0.6
	0.2s	17.00nm			5.1mb	X
		e		30	58.00	
NANU	18.82	215	eP	27	59.80	0.9
WARB	18.89	181	iPc	27	53.20	-6.4X
	0.2s	16.00nm			5.0mb	
PMG	20.13	98	eP	28	13.00	1.2
CTA	22.70	126	iPc	28	37.00	0.4
FORR	23.56	177	iPc	28	44.00	-0.4
	0.4s	48.00nm			5.2mb	X
MRWA	24.21	204	eP	28	50.00	-0.5
KLB	25.74	198	eP	29	04.00	-0.3
NWAO	27.14	198	eP	29	17.00	0.1
STK	28.11	153	iPd	29	25.50	0.0
	0.4s	9.00nm			4.6mb	
BWA	33.57	147	eP	30	14.70	1.9
CAN	34.56	147	eP	30	26.00	4.9X
LZH	48.21	335	e(P)	32	11.00	-0.4
GUN	52.83	313	P	32	46.40	0.1
	0.4s	6.00nm			4.3mb	
GKN	53.78	312	P	32	52.80	-0.2
ALQ	123.85	53	ePKP	42	23.00	0.6
	0.8s	1.31nm				

S.D. = 1.0 on 21 of 23 obs.

% APR 15, 1989 03h 02m 17.63± 0.68s
40.803 N ± 5.3km 27.955 E ± 6.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.46	189	iPg	02	26.50	-0.5
			iSg	02	34.50	
CTT	0.50	46	ePg	02	27.80	0.1
ISK	0.88	72	ePg	02	34.50	0.0
			eSg	02	49.00	
DMK	1.03	352	iPn	02	37.10	0.0
HRT	1.30	89	ePn	02	41.30	-0.4
DST	1.30	156	iPn	02	42.50	0.7
EZN	1.58	232	ePn	02	45.80	0.1

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

APR 15, 1989 05h 42m 13.48± 0.70s
44.227 N ± 3.4km 6.329 E ± 6.1km
DEPTH = 2.1 ± 5.7 km
FRANCE (538)
ML 2.5 (LDG).

FOUF	0.44	47	P	42	22.53	0.2
			Sg	42	26.67	
PZZ	0.62	63	P	42	25.47	-0.4
			S	42	33.51	
FRF	0.70	161	Pg	42	27.50	-0.1
			Sg	42	37.30	
STV	0.72	88	P	42	27.12	-0.7
			S	42	36.39	
RRL	0.77	25	P	42	28.38	-0.4
			S	42	38.35	
LRG	0.77	178	Pg	42	28.80	-0.1
			Sg	42	40.20	
SBF	0.88	114	Pg	42	31.20	0.1
LMR	0.90	172	Pg	42	31.30	-0.2
			Sg	42	44.30	
ROB	1.11	86	P	42	34.85	-0.2
			S	42	50.38	
RSP	1.14	35	P	42	34.95	-0.6
			S	42	50.64	
IMI	1.17	105	P	42	36.62	0.5
			S	42	52.74	
LPG	1.31	13	Pg	42	38.80	0.2
LPL	1.32	12	Pg	42	39.20	0.4
			Sg	42	58.00	
FIN	1.35	90	P	42	39.40	0.2

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

? APR 15, 1989 06h 35m 03.21± 2.93s
50.338 N ±26.7km 18.372 E ±23.8km
DEPTH = 10.0km (geophysicist)
POLAND (548)

KRA	1.05	105	ePg	35	12.30	-10.6X
			iSg	35	22.40	
KSP	1.42	292	ePn	35	29.80	0.8
			iPg	35	32.60	
			iS	35	56.40	
ZST	2.30	202	e(P)	35	48.60	6.9X
			e	36	40.50	
			e	48	03.70	
PRU	2.49	263	ePn	35	43.50	-0.9
			ePg	35	51.90	
			eSg	36	28.00	
SRO	2.53	181	e(P)	35	46.40	1.5
			e	36	30.10	
PSZ	2.62	157	eP	35	45.30	-1.1
BRG	2.87	282	ePg	35	58.00	8.2X
			eSg	36	40.00	
KHC	3.34	251	Pn	35	56.20	-0.3
			Pg	36	06.60	
			Sg	36	54.50	
CLL	3.54	288	ePg	36	12.00	12.7X
			eSg	37	04.00	

S.D. = 1.5 on 5 of 9 obs.

APR 15, 1989 06h 40m 24.95± 0.45s
87.118 N ± 4.9km 47.405 E ± 9.9km
DEPTH = 10.0km (geophysicist)
4.4mb (18 obs.)
NORTH OF FRANZ JOSEF LAND (644)

ALE	8.95	307	eP	42	35.00	-2.0
DAG	12.43	258	eP	43	25.00	0.6
	0.8s	20.90nm			5.4mb	
MBC	16.68	349	eP	44	20.00	0.2
	0.7s	7.00nm			3.9mb	
KEV	17.68	204	eP	44	36.00	3.7X
SOD	20.08	204	iP	44	57.80	-2.9
INK	24.73	1	ePn	45	46.00	-0.9
SUF	24.76	204	eP	45	47.00	-0.2
IMA	26.80	19	P	46	05.00	-1.5
NB2	26.83	220	P	46	06.10	-0.6
	0.8s	7.60nm			4.4mb	
NRA0	27.13	219	P	46	04.40	-4.9X
APO	27.25	217	eP	46	09.40	-1.0
	0.9s	7.40nm			4.4mb	
FBA	28.06	14	P	46	17.50	-0.2
TTA	29.91	21	P	46	33.50	-1.0
	0.9s	8.85nm			4.6mb	
YKA	30.44	344	eP	46	39.40	0.4
CLL	36.52	217	eP	47	31.00	-0.7
			e	47	38.00	
BRG	36.92	216	eP	47	35.00	-0.1
	1.0s	10.00nm			4.5mb	
			e	47	42.00	
MOX	37.22	218	iPd	47	39.00	1.4
			e	47	45.00	
KRA	37.58	209	eP	47	44.90	4.3X
			e	47	57.80	
CDF	39.60	222	eP	47	58.50	0.9
	0.8s	8.05nm			4.4mb	
EDM	39.71	342	ePc	47	59.80	1.3
HAU	40.04	223	eP	48	01.90	0.7
	0.8s	5.35nm			4.3mb	
BSF	40.19	223	eP	48	03.10	0.5
	0.8s	6.70nm			4.4mb	
LOR	40.86	226	eP	48	08.40	0.5
	0.6s	2.70nm			4.1mb	
SSF	41.08	226	eP	48	09.30	-0.4
	0.6s	2.70nm			4.2mb	
LBF	41.14	226	eP	48	10.90	0.6
BGF	41.61	227	eP	48	14.80	0.8
	1.0s	18.00nm			4.8mb	
RSON	41.62	323	P	48	14.80	0.7
SES	42.50	340	eP	48	24.00	2.6
LON	46.30	350	P	48	51.50	-0.4
LRM	47.10	341	eP	48	58.20	-0.3
BW06	50.09	338	P	49	22.30	0.6
	0.9s	5.56nm			4.5mb	
LZH	52.53	122	eP	49	41.50	1.3
GOL	53.08	334	P	49	44.80	0.4
	0.8s	5.95nm			4.6mb	
KVN	53.95	346	P	49	51.00	0.4
TNP	54.91	345	P	49	57.50	-0.2
	0.7s	2.78nm			4.4mb	
RSCP	56.59	314	P	50	09.00	-0.7
MEO	57.82	327	eP	50	18.10	-0.2
	0.7s	1.90nm			4.2mb	
ALQ	57.85	335	eP	50	18.60	-0.2
	1.0s	4.50nm			4.5mb	
BNG	83.06	209	iPc	52	51.00	-0.5
	0.9s	14.00nm			5.2mb	
			id	52	58.10	

S.D. = 1.0 on 36 of 39 obs.

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* APR 15, 1989 07h 23m 19.62± 0.85s
38.060 N ± 8.2km 21.915 E ± 9.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (ATH).

ITM	0.88	179	ePn	23	37.10	0.6
VLS	1.05	277	ePn	23	38.60	-0.9
			eSn	23	56.00	
ATH	1.43	93	ePn	23	45.20	-0.3
			eSn	24	06.50	
NEO	1.61	39	ePn	23	47.50	-0.7
KZN	2.25	357	ePb	23	59.20	1.7
PLG	2.60	27	ePn	24	02.00	-0.4
OHR	3.17	345	ePn	24	14.00	3.5X

S.D. = 1.3 on 6 of 7 obs.

? APR 15, 1989 07h 51m 10.19± 5.96s
17.851 N ±24.4km 65.721 W ±34.2km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.48	343	P	51	19.80	-0.1
SJG	0.48	302	iP	51	20.20	0.2
CSB	0.60	317	P	51	22.10	-0.3
APR	1.13	302	P	51	31.50	0.1
MGP	1.31	277	P	51	34.00	-0.4
MCP	1.44	293	P	51	36.80	0.5

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

APR 15, 1989 07h 56m 53.38± 0.34s
42.284 N ± 3.3km 19.877 E ± 3.3km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 3.4 (ATH), 3.2 (TTG).

BCI	0.16	60	iPg	56	56.50	-0.6
PUK	0.24	177	iPg	56	57.30	-1.2
PVY	0.32	13	iPgc	56	58.50	-1.5
			iSg	57	04.00	
SDA	0.39	227	iPgd	57	00.00	-1.3
KKS	0.45	118	iPg	57	01.50	-1.0
TTG	0.48	288	iPgc	57	01.50	-1.6
			iSg	57	09.10	
ULC	0.57	236	iPgd	57	04.50	-0.4
			iSg	57	16.30	
IVA	0.59	1	ePg	57	03.50	-1.8
			eSg	57	13.50	
LACI	0.66	191	iPgd	57	06.20	-0.3
PHP	0.73	145	iPgc	57	06.50	-1.2
BDV	0.78	270	iPgd	57	08.00	-0.6
			iSg	57	23.00	
NKY	0.84	309	ePg	57	08.00	-1.6
			eSg	57	22.60	
TIR	0.94	180	iPgc	57	11.80	0.6
HCY	1.03	280	iPgc	57	12.50	-0.4
			iSg	57	30.00	
PLE	1.10	341	ePg	57	14.00	-0.2
			eSg	57	30.00	
BRY	1.16	302	iPgd	57	14.00	-1.2
			eSg	57	34.50	
SKO	1.20	105	iPgd	57	15.00	-0.8
			i	57	18.00	
			iSg	57	32.00	
			iSn	57	33.80	
OHR	1.36	149	iPnd	57	20.00	1.6
BERA	1.58	178	ePn	57	23.70	2.2
VAY	2.23	115	iPn	57	34.00	3.1X
KKB	2.42	99	eP	57	35.00	1.3
			iSg	58	19.00	
LCI	2.43	217	P	57	32.00	-1.7
KZN	2.44	144	ePb	57	34.20	0.3
BRT	2.45	236	P	57	35.00	1.0
BEO	2.57	9	ePn	57	43.50	7.8X
HVAR	2.68	291	i(Pn)	57	37.70	0.4
			iSn	58	13.20	
MMB	2.96	102	iPc	57	46.00	4.8X
PLG	3.30	124	ePn	57	46.90	0.8
BZS	3.56	20	ePc	57	48.50	-1.2
GZR	3.75	33	ePc	58	02.50	9.9X
SGO	3.84	245	Pd	57	53.30	-0.5

```
                    eSn   58 36.40
MGR    3.90 238 P        57 55.70   1.0
BSS    4.09 250 P        57 56.00  -1.3
DUI    4.09 263 P        57 58.50   1.2
SDI    4.55 265 P        58 04.30   0.3
PTJ    4.59 323 eP       58 05.00   0.6
VBY    4.64 316 ePn      58 07.70   2.6
                eSn      59 01.20
                eSb      59 15.90
                eSg      59 25.00
CEY    5.23 313 ePn      58 15.60   2.1
                eSn      59 18.00
MNS    5.34 273 P        58 15.00   0.0
LJU    5.38 316 e(Pn)    58 17.60   2.0
                e(Sn)    59 22.80
MLR    5.43  52 eP       58 17.00   0.5
                e        17 34.50
TRI    5.58 310 e(Pn)    58 18.50   0.1
                i(Sn)    59 24.50
                i        59 54.30
VOY    5.71 313 ePn      58 21.00   0.7
                eSn      59 28.00
RBL    6.14 315 Pd       58 24.90  -1.5
PGD    6.18 288 P        58 28.00   1.0
MAO    6.47 274 P        58 29.80  -1.2
FVI    6.66 313 P        58 34.00   0.4
KBA    6.68 318 eP       58 35.00   0.9
      1.2s    16.70nm              4.9mb X
                i        00 44.00
CTI    7.01 305 P        58 38.00  -0.7
KHC    8.14 329 P        58 56.50   2.1
     S.D. = 1.2  on  46 of  50 obs.
-------------------------------------
*  APR 15, 1989  08h 04m 03.49± 0.78s
   3.779 N ±10.9km   82.721 W ±18.2km
   DEPTH =  33.0km  (normal)
   4.6mb (  5 obs.)
 SOUTH OF PANAMA                 ( 83)

BUS    5.83 350 iPd      05 28.50  -1.9
PSO    5.97 115 eP       05 31.00  -1.3
UPA    6.06  31 iPd      05 35.50   2.3
      0.6s   208.00nm              6.0mb X
     Z 18s     1.79um
SJS    6.26 348 eP       05 34.50  -1.7
SRA    6.49 345 eP       05 37.80  -1.6
BOG    8.67  84 eP       06 19.00   9.0X
ARE   22.97 151 eP       09 08.00   1.3
ZOBO  24.60 144 Pc       09 22.20  -0.6
      1.0s    16.25nm              4.6mb
     Z 24s     0.30um              3.7MszX
               eLR       17 16.00
LPB   24.82 145 P        09 24.00  -0.8
      1.3s   134.62nm              5.4mb
     Z 16s     1.68um              4.6MszX
                i        09 26.70
               eLR       19 24.00
CNCB  25.11 145 P        09 27.00  -0.7
ALQ   38.02 328 eP       11 22.30   1.6
      0.8s     2.05nm              4.0mb
ITA   45.34 127 e(P)     12 29.00   8.0X
FFC   53.15 346 eP       13 21.00   0.7
      1.0s     9.00nm              4.7mb
PNT   55.13 331 eP       13 34.00  -0.9
      0.6s     4.00nm              4.6mb
YKA   63.17 344 P        14 31.50   1.2
INK   72.83 342 eP       15 32.00   1.5
MBC   75.21 352 eP       15 45.00   0.8
GKN  146.14  20 PKP      23 48.00   6.1X
     S.D. = 1.5  on  15 of  18 obs.
-------------------------------------
*  APR 15, 1989  08h 06m 13.30± 1.98s
   35.443 N ±15.9km  141.112 E ±15.4km
   DEPTH =  33.0km  (normal)
   4.1mb (  2 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ   1.08 315 iPd      06 30.80  -1.3
               S         06 41.00
CHJJ   1.83 290 P        06 42.10  -0.8
NIIJ   2.47 317 iPd      06 51.50  -0.6
IIDJ   2.61 272 P        06 54.70   0.5
YAMJ   2.86 343 P        06 58.40   0.8
MTMJ   2.91 294 eP       06 58.60   0.1
OFUJ   3.66   7 eP       07 09.80   0.9
               S         07 49.40
TSRJ   4.19 273 eP       07 18.30   1.9

GBA   60.86 266 Pd       16 24.10  -1.0
      0.6s     1.50nm              4.3mb
NB2   75.56 337 P        17 55.50  -0.5
      0.7s     1.00nm              3.9mb
     S.D. = 1.1  on  10 of  10 obs.
-------------------------------------
%  APR 15, 1989  08h 58m 24.56± 0.64s
   39.489 N ± 5.8km   29.067 E ± 5.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

DST    0.36 289 iPg      58 31.50  -0.5
               iSg       58 37.50
ALT    0.92 118 ePg      58 42.00  -0.2
               eSg       58 55.00
YLV    1.10  12 iPn      58 45.50   0.2
KHL    1.22 163 ePn      58 47.50   0.2
GPA    1.25  50 ePn      58 47.70   0.0
EDC    1.26 313 ePn      58 48.50   0.5
HRT    1.41  19 ePn      58 50.00  -0.3
     S.D. = 0.4  on   7 of   7 obs.
-------------------------------------
   APR 15, 1989  10h 15m 08.05± 0.69s
   46.042 N ± 7.3km   14.142 E ± 5.6km
   DEPTH =  10.0km  (geophysicist)
 YUGOSLAVIA                      (383)
     ML 1.9 (KBA).

VOY    0.17 267 iPgc     15 12.00   0.0
               eSg       15 15.90
LJU    0.27  90 ePgc     15 12.90  -0.9
               eSg       15 16.50
               e         15 19.00
CEY    0.36 147 iPg      15 15.10  -0.4
               eSg       15 21.00
TRI    0.43 219 P        15 16.60  -0.1
               eSg       15 23.70
RBL    0.56 315 Pc       15 18.10  -1.4
               eSg       15 27.70
VBY    0.95 124 e(Pg)    15 30.00   3.9X
               iSg       15 42.10
FVI    1.09 301 P        15 30.10   1.6
               eSg       15 45.50
KBA    1.17 332 iPgc     15 30.00  -0.1
               iSg       15 45.00
                i        15 48.70
PTJ    1.27  96 e(Pg)    15 33.10   1.3
               eSg       15 46.70
     S.D. = 1.2  on   8 of   9 obs.
-------------------------------------
*  APR 15, 1989  12h 10m 45.22± 1.10s
   41.845 N ± 8.3km   22.759 E ± 9.4km
   DEPTH =  10.0km  (geophysicist)
 YUGOSLAVIA                      (383)
     ML 2.7 (SKO).

KKB    0.24  85 iPg      10 50.00  -0.4
               iSg       10 53.00
VAY    0.54 195 iPg      10 56.30   0.1
               iSg       11 03.60
MMB    0.77 109 iPgc     10 59.00  -1.3
               Sg        11 09.00
SKO    0.99 278 iPg      10 06.80 -57.3X
               iSg       10 22.00
PGB    1.26  56 iPg      11 09.00   0.3
               iSg       11 23.00
KDZ    2.00  95 iPd      11 21.00   1.6
               iSg       11 45.00
BZS    3.86 348 ePc      11 45.50  -0.4
     S.D. = 1.2  on   6 of   7 obs.
-------------------------------------
*  APR 15, 1989  12h 30m 50.54± 0.75s
   3.128 S ± 6.5km   147.335 E ±16.9km
   DEPTH =  33.0km  (normal)
   4.7mb (  4 obs.)  4.6Msz (  4 obs.)
 BISMARCK SEA                    (203)

LAT    3.52 185 eP       31 45.00   0.8
RAB    4.94 102 eP       31 50.00 -14.4X
               iS        32 52.00
PMG    6.24 182 eP       32 24.00   1.2
HNR   14.01 117 e(P)     34 00.00  -8.9X
GUA   16.73 352 eP       34 40.50  -3.7X
GUMO  16.79 352 eP       34 40.50  -4.4X
CTA   16.89 183 eP       34 48.00   1.8
      1.9s   157.89nm              4.8mb
               iS        38 14.00

MTN   18.71 238 iPc      35 09.30   0.5
      0.9s    45.00nm              4.7mb
QIS   18.89 203 eP       35 10.00  -1.0
WB5   20.92 216 eP       35 32.00  -0.9
WRA   20.98 216 Pd       35 32.80  -0.7
      1.4s    33.90nm              4.6mb
RMQ   23.27 177 eP       35 55.00  -1.2
ASPA  24.20 211 eP       36 05.80   0.5
     Z 17s     2.43um              4.8MszX
               eS        40 35.70
               LR        46 39.30
BRS   24.68 168 eP       36 09.00  -0.9
               eS        40 45.00
BWA   31.15 178 eP       37 07.90  -0.8
SSE   42.18 326 P        38 43.00   1.1
     Z 20s     0.90um              4.7Msz
     E 12s     0.30um
               eS        45 00.00
               SS        48 20.00
QIZ   42.95 302 eP       38 53.00   4.6X
               eS        45 15.00
NJ2   44.22 325 Pd       39 00.00   1.5
     Z 20s     0.70um              4.6Msz
                S        45 36.00
WHN   45.96 319 eP       39 14.00   1.6
     Z 20s     0.76um              4.6Msz
               eS        46 00.00
TIA   48.24 327 eP       39 29.00  -1.3
     Z 22s     0.90um              4.7Msz
     E 12s     0.40um
               eS        46 29.00
CD2   53.56 313 eP       40 09.00  -1.7
BTO   55.28 326 eP       40 22.00  -1.3
     N 13s     0.30um
     E 13s     0.30um
               eS        48 04.50
LZH   56.29 318 eP       40 31.00   0.3
      2.0s    55.00nm              5.2mb
INK   88.88  21 eP       43 43.00   0.6
YKA   96.49  28 P        44 21.70   4.1X
     S.D. = 1.2  on  19 of  25 obs.
-------------------------------------
   APR 15, 1989  14h 22m 34.23± 0.57s
   41.837 N ± 5.9km   23.692 E ± 4.9km
   DEPTH =  10.0km  (geophysicist)
 GREECE-BULGARIA BORDER REGION   (363)
     ML 2.4 (SKO).

MMB    0.25 174 iPgd     22 40.00   0.5
               Sg        22 44.00
KKB    0.46 274 iPg      22 43.00  -0.5
               iSg       22 47.00
RZN    0.78 101 iPg      22 49.00  -0.6
               iSg       23 02.00
VTS    0.84 335 iPg      22 51.00   0.5
               iSg       23 03.00
VAY    0.99 239 ePg      22 53.20   0.3
               eSg       23 05.60
KDZ    1.30  98 iPc      22 58.00  -0.4
               iS        23 16.00
PVL    1.84  41 iPd      23 07.00   1.0
               iS        23 30.00
BZS    4.07 339 ePd      23 37.00  -0.8
     S.D. = 0.7  on   8 of   8 obs.
-------------------------------------
   APR 15, 1989  14h 26m 41.25± 0.12s
   8.453 N ± 2.3km   61.039 W ± 2.2km
   DEPTH =  23.0km  (geophysicist)
   5.8mb ( 64 obs.)  5.1Msz (  3 obs.)
 VENEZUELA                       (101)
     Felt on southern Trinidod. Depth
     from broodband displocement
     seismograms.
     FAULT PLANE SOLUTION: P-Woves
      NP1:Strike= 95 Dip=75 Slip= -50
      NP2:       202     42      -157
      Principal Axes:
        T              Plg=20  Azm=156
        P                45      45
     Comment: The focal mechonism is
       poorly controlled ond
       corresponds to strike-slip
       faulting with o moderote
       normol component. The
       preferred foult plone is not
       determined.
     RADIATED ENERGY
```

15d 14h

No. of sta: 5 Focal mech. C
Energy 8.4±3.5*10**12 Nm
MOMENT TENSOR SOLUTION
Dep 13 No. of sta: 6
Moment Tensor; Scale 10**17 Nm
Mrr=-0.73 Mtt= 0.86
Mff=-0.13 Mrt=-0.67
Mrf= 0.50 Mtf= 1.03
Principal axes:
T Val= 1.56 Plg= 9 Azm=151
N -0.01 44 249
P -1.55 45 52
Best Double Cauple:Mo=1.6*10**17
NP1:Strike=202 Dip=53 Slip=-151
NP2: 93 67 -41
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 20S, 42C
Centroid Location:
Origin Time 14:26:41.4 0.6
Lat 8.50N 0.06 Lon 60.32W 0.06
Dep 18.5 4.6 Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr=-0.47 0.04 Mtt= 0.46 0.05
Mff= 0.00 0.06 Mrt=-1.10 0.29
Mrf=-0.27 0.13 Mtf= 0.79 0.04
Principal Axes:
T Val= 1.60 Plg=28 Azm=149
N -0.36 26 254
P -1.24 51 20
Best Double Cauple:Mo=1.4*10**17
NP1:Strike=194 Dip=29 Slip=-153
NP2: 80 77 -63

TPP	1.90	348	eP	27 16.10	3.4X
TBH	2.02	359	iP	27 16.91	2.4
			eS	27 39.93	
TRN	2.21	351	eP	27 18.73	1.5
			eS	27 44.66	
TCE	2.34	343	iP	27 21.05	2.0
PIG	2.70	4	iP	27 25.84	1.7
BOT	2.72	7	iP	27 25.34	1.0
CUM	3.68	303	iPc	27 40.80	2.7
			iS	28 13.80	
FCV	4.68	358	eP	27 52.98	0.7
SVB	4.79	358	eP	27 54.10	0.2
SVV	4.84	358	eP	27 54.86	0.3
SLB	5.34	360	eP	28 01.73	0.0
			eS	28 59.57	
BIM	6.03	360	iPd	28 11.00	-0.3
MVM	6.07	1	iPd	28 11.02	-0.9
FDF	6.24	359	iPd	28 13.81	-0.6
			S	29 08.10	
CRM	6.26	1	iPd	28 13.85	-0.8
DSVT	6.74	357	eP	28 21.41	0.0
DTMT	6.75	357	eP	28 21.24	-0.3
			eS	29 32.49	
DPMT	6.77	357	eP	28 21.42	-0.4
BBL	7.04	357	ePd	28 24.94	-0.7
PAG	7.56	355	ePd	28 32.83	-0.1
			S	30 27.00	
SFG	7.75	359	eP	28 34.12	-1.5
DEG	7.81	360	eP	28 34.80	-1.7
			S	30 34.00	
SEG	7.91	357	eP	28 37.03	-0.8
MGH	8.30	352	eP	28 43.03	-0.2
ANG	8.68	355	iP	28 47.64	-0.9
			eS	30 19.23	
SKI	8.98	350	eP	28 47.77	-4.9X
SJG	10.81	333	eP	29 17.50	-0.3
CSB	10.97	334	P	29 22.00	2.0
MGP	11.17	329	P	29 22.50	-0.2
MCP	11.53	330	P	29 28.00	0.4
FUQ	12.95	258	eP	29 48.00	1.0
BOG	13.49	254	eP	30 00.00	5.9X
PSO	17.75	247	eP	30 50.50	1.4
UPA	18.29	273	ePc	30 56.00	0.7
Z	18s	3.61um			
			i	31 04.50	
GCM	22.47	301	eP	31 43.50	3.1X
			(pP)	31 53.10	35kmX
ZOBO	25.54	196	ePc	32 12.08	1.3
CNGB	26.02	195	iPc	32 16.20	1.0
SOB1	26.65	131	eP	32 22.80	2.3
ARE	26.83	203	eP	32 20.00	-2.4
ITR	28.29	127	eP	32 34.70	-0.6
PPD	31.76	163	eP	33 05.70	-0.4

CBN	33.09	336	eP	33 17.00	-0.5
ANT	33.25	196	eP	33 17.00	-2.0
			i	33 21.80	
SLA	33.26	187	eP	33 11.80	-7.6X
BLA	33.59	331	P	33 23.00	1.0
	1.0s	100.00nm			5.7mb
VAO	34.16	156	eP	33 27.40	0.3
			epP	33 32.50	17kmX
TBR	34.59	342	P	33 30.60	0.1
BMA	35.10	152	eP	33 34.40	-0.7
			e	33 40.30	
EMM	36.58	352	P	33 48.90	1.6
CYA	36.97	187	e(P)	33 48.50	-2.3
BNH	37.08	348	P	33 53.20	1.6
MIM	37.30	351	P	33 54.50	1.1
CLE	37.57	334	iP	33 56.40	0.7
GAC	39.15	344	ePd	34 09.50	0.7
FVM	39.59	323	P	34 12.50	-0.2
	1.0s	170.00nm			5.7mb
LNO	41.83	316	Pd	34 25.90	-5.1X
			e	34 37.30	
PEL	42.37	192	eP	34 17.70	-17.9X
			i	34 22.50	
			i	34 34.50	
MEO	43.24	313	iPd	34 41.10	-1.5
	1.8s	158.60nm			5.5mb
RRO	43.40	314	iPd	34 43.70	-0.2
	0.7s	123.60nm			5.8mb
			e	34 51.20	
SCH	46.47	355	ePd	35 09.50	1.3
	1.2s	701.00nm			6.5mb
ALQ	49.18	309	iPd	35 30.00	0.1
	0.9s	56.72nm			5.6mb
			e	35 37.50	
ANMO	49.18	309	ePd	35 29.67	-0.2
			epPc	35 36.46	23kmX
RSON	50.15	334	P	35 36.00	-0.9
	1.0s	300.00nm			6.3mb
BW06	54.46	317	P	36 09.00	-0.6
	1.0s	92.50nm			5.8mb
TIO	54.76	58	iP	36 11.00	-0.8
			i	36 40.40	
AVE	55.17	55	iPc	36 15.00	0.4
GLA	55.24	304	P	36 16.40	1.2
FRB	55.46	356	iPd	36 15.90	-0.2
TIC	55.52	88	Pd	36 15.90	-1.6
LIC	55.56	88	P	36 16.50	-1.2
KIC	55.83	88	Pd	36 18.30	-1.4
	1.0s	120.00nm			5.9mb
FFC	56.46	333	iPd	36 22.10	-1.5
	0.8s	82.00nm			5.8mb
TPC	56.48	305	eP	36 24.00	-0.1
BAR	56.67	304	eP	36 25.00	-0.5
EVAL	56.81	50	iPd	36 26.50	0.1
PLM	56.97	304	eP	36 28.00	0.2
CNIL	57.02	52	iP	36 30.00	2.2
IFR	57.08	56	iPd	36 28.50	-0.1
GIBL	57.22	52	iP	36 30.00	0.7
MOMI	57.27	52	iP	36 31.50	1.9
PEC	57.33	305	P	36 30.40	0.2
			pP	36 38.10	25kmX
OJEN	57.35	52	eP	36 32.00	1.7
GSC	57.37	307	eP	36 30.00	-0.5
ALJ	57.45	52	iP	36 32.00	1.0
EJIF	57.50	52	iPd	36 32.00	0.8
SRQ	57.52	52	eP	36 31.50	0.1
RVR	57.53	305	eP	36 31.00	-0.5
LRM	57.60	320	ePd	36 31.40	-0.7
			e	36 38.70	
LIJA	57.65	52	iP	36 30.50	-1.9
EPRU	57.81	52	eP	36 33.50	0.1
EUR	57.83	312	iP	36 33.10	-0.7
	0.7s	65.85nm			5.8mb
ERUA	58.00	45	eP	36 34.70	0.1
EHOR	58.02	51	iPd	36 34.80	0.0
EPLA	58.03	48	iPd	36 34.80	-0.1
CLC	58.12	307	eP	36 35.00	-0.6
MWC	58.13	305	eP	36 35.00	-0.9
PAS	58.21	305	eP	36 36.00	-0.2
TNP	58.38	310	P	36 37.70	0.0
MAL	58.39	52	eP	36 38.00	0.6
SES	58.72	325	eP	36 39.00	-0.6
	1.2s	876.00nm			6.7mb
			pP	36 47.00	26kmX
ATEJ	58.74	52	iPd	36 40.60	0.5
AAPN	58.76	51	iPd	36 40.10	-0.1
ISA	58.78	307	eP	36 40.00	-0.3

ACHM	58.93	52	iPc	36 41.60	0.3
APHE	59.01	52	iPd	36 42.60	0.7
ASMO	59.06	51	iPd	36 42.40	0.1
AFC	59.19	52	iPd	36 43.90	0.7
MNA	59.19	310	eP	36 43.30	0.1
EBAN	59.22	51	iPd	36 43.20	-0.1
KVN	59.30	311	P	36 44.00	-0.1
TOL	59.47	49	ePd	36 44.30	-0.7
			epPc	36 51.42	23kmX
GUD	59.60	48	iPd	36 45.90	-0.1
SYP	59.75	305	eP	36 46.00	-1.1
BCH	59.96	306	P	36 49.00	0.5
			pP	36 57.00	26kmX
FRI	60.04	308	iPd	36 47.40	-1.5
			epP	36 54.90	25kmX
BLP	60.10	305	P	36 49.30	0.0
			pP	36 56.60	24kmX
KUK	60.17	88	eP	36 49.00	-1.1
EVIA	60.32	50	iPd	36 51.00	0.1
PHAM	60.34	306	P	36 50.80	-0.2
PRI	60.62	307	e(P)	36 52.60	-0.4
CMB	60.80	309	iPd	36 53.80	-0.3
LLA	60.93	307	iPd	36 54.40	-0.6
			epP	37 02.50	26kmX
ETOR	61.19	48	iPd	36 57.20	0.5
PRS	61.21	307	iPd	36 56.60	-0.3
EDM	61.29	327	iPd	36 56.00	-1.2
			pP	37 03.80	25kmX
ECRI	61.33	46	iPd	36 58.10	0.5
SAO	61.36	307	ePd	36 57.50	-0.4
ARN	61.54	308	P	36 59.80	0.6
MHC	61.63	308	ePd	37 00.30	0.4
ECHE	61.70	50	eP	37 01.00	0.8
GCC	61.84	307	ePd	37 01.30	0.2
ORV	61.99	310	ePd	37 01.90	-0.2
DCN	62.13	33	eP	37 01.80	-0.9
	1.2s	136.00nm			6.0mb
ECP	62.14	35	eP	37 08.30	5.5X
	1.0s	79.00nm			5.8mb
BKS	62.19	308	iPd	37 03.80	0.3
	0.9s	73.00nm			5.8mb
			iS	45 38.00	
BRK	62.21	308	ePd	37 03.60	0.0
PCC	62.24	308	ePd	37 03.70	0.0
MIN	62.24	311	iPd	37 03.00	-1.0
			epP	37 10.80	25kmX
ETA	62.44	34	eP	37 04.10	-0.7
	0.9s	79.00nm			5.9mb
DLE	62.50	33	eP	37 04.80	-0.4
DMU	62.56	33	eP	37 04.80	-0.8
	0.5s	45.00nm			5.9mb
LTCM	62.60	311	P	37 05.40	-0.7
LBFM	62.68	312	P	37 06.70	-0.2
NWRM	62.81	309	P	37 08.00	0.5
WDC	62.99	311	iPd	37 06.30	-2.4
			epP	37 13.90	25kmX
EROO	63.00	48	iPd	37 09.00	0.2
EBR	63.07	48	eP	37 08.00	-1.1
PNT	63.39	321	ePd	37 11.00	-0.2
EPF	63.46	46	eP	37 12.10	0.3
LPF	63.88	40	eP	37 13.80	-0.6
	0.6s	48.70nm			5.8mb
LON	64.01	318	ePd	37 13.78	-1.6
			epPc	37 21.39	24kmX
MFF	64.05	42	eP	37 15.10	-0.5
	0.6s	27.95nm			5.6mb
GRR	64.10	40	eP	37 15.10	-0.8
	0.8s	59.10nm			5.8mb
FHC	64.11	311	ePd	37 16.70	0.6
			epP	37 24.20	24kmX
LFF	64.21	44	eP	37 16.20	-0.4
FLN	64.45	40	eP	37 17.50	-0.6
	0.6s	50.50nm			5.8mb
LPO	64.46	44	eP	37 17.90	-0.4
LDF	64.63	40	eP	37 18.40	-0.9
	0.8s	36.25nm			5.6mb
ESEL	64.65	50	eP	37 20.00	0.4
RJF	64.83	44	eP	37 20.10	-0.6
	0.8s	59.10nm			5.8mb
EAB	64.87	31	ePd	37 19.30	-1.4
LSF	65.08	43	eP	37 21.80	-0.5
ETER	65.11	47	eP	37 23.00	0.5
CAF	65.12	44	eP	37 22.10	-0.5
EKA	65.14	32	P	37 20.00	-2.4
	2.4s	204.40nm			5.8mb
EAU	65.18	32	ePd	37 21.60	-1.1
	1.1s	102.00nm			5.9mb

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ELO	65.30	31	ePd	37	22.10	-1.4	SDI	73.12	49	Pd	38	12.10	0.1	PLG	80.39	50	eP	38	54.00	1.3
EBH	65.32	31	ePd	37	22.30	-1.3	KBA	73.23	43	iPd	38	12.00	-0.7	NUR	80.58	30	iP	38	53.00	-0.1
EBL	65.37	32	ePd	37	22.70	-1.2		1.2s	163.00nm			5.9mb			Z 21s	0.20um			4.4Msz	
PGC	65.60	320	eP	37	25.00	-0.5				i	38	15.20					LR	11	00.00	
EDU	65.69	31	ePd	37	25.20	-0.7				e	39	13.50		PGB	80.82	48	iP	38	56.00	1.1
	0.8s	135.00nm			6.1mb		RBL	73.32	44	Pd	38	12.70	-0.4	COL	81.03	334	ePd	38	56.04	0.6
MAF	65.77	43	eP	37	25.80	-0.9	TRI	73.39	45	ePd	38	12.80	-0.6				ePPc	39	03.99	25kmX
PYM	65.96	44	P	37	27.87	-0.1	CLL	73.48	39	iPd	38	13.60	-0.2	FBA	81.03	334	P	38	56.00	0.5
LBL	66.01	44	P	37	28.38	0.2		1.2s	140.00nm			5.9mb			1.0s	45.00nm			5.5mb	
AGO	66.11	43	P	37	28.55	-0.3				ipP	38	21.40	25kmX	PLD	81.25	49	iP	38	58.00	0.9
YKC	66.23	336	ePd	37	28.00	-1.3	VOY	73.51	45	iPd	38	14.10	-0.1	SUF	81.26	28	iP	38	56.50	-0.2
	0.4s	23.00nm			5.7mb		KHC	73.59	41	iPd	38	14.50	-0.1	RZN	81.28	49	iP	38	59.00	1.5
		pP		37	35.50	24kmX		1.4s	120.00nm			5.7mb		CMP	81.30	45	ePc	38	57.00	-0.4
YKA	66.29	336	P	37	28.90	-0.8				i	38	22.40		SOD	81.36	23	iP	38	57.20	0.0
PLDF	66.42	43	P	37	30.67	-0.3	DUI	73.60	49	Pd	38	15.40	0.6	KEV	81.45	21	iP	38	57.80	0.2
SSF	66.59	42	eP	37	30.90	-1.0	KMR	73.85	42	iP-	38	15.70	-0.3	PVL	81.64	48	iPd	38	58.00	-1.1
LOR	66.87	42	eP	37	32.60	-1.2	CEY	73.85	45	ePd	38	16.50	0.4	PMR	81.72	331	P	39	00.30	1.2
LBF	66.89	42	eP	37	32.80	-1.1	LJU	73.95	45	iPd	38	17.00	0.3		1.0s	62.50nm			5.6mb	
LRG	67.86	47	eP	37	39.70	-0.3	BRG	74.02	40	iPd	38	17.10	0.2				pP	39	08.10	25kmX
	0.8s	65.80nm			5.8mb			1.2s	120.00nm			5.8mb		KDZ	81.81	49	iPd	39	01.00	1.0
SNF	67.91	39	Pd	37	39.30	-0.8				ipP	38	24.90	25kmX	DIM	81.87	49	iPc	39	01.00	0.7
LMR	67.94	47	eP	37	40.20	-0.3	ALE	74.06	360	iPd	38	16.40	-0.2	MLR	81.93	45	iPd	39	02.50	1.8
DOU	68.00	39	Pd	37	40.00	-0.8		0.6s	30.00nm			5.5mb		RDO	81.93	50	eP	39	01.60	1.0
	0.7s	36.70nm			5.6mb		NB2	74.08	29	P	38	17.00	-0.1	ISR	82.38	46	iPc	39	03.00	0.0
FRF	68.08	46	eP	37	40.80	-0.6		0.9s	85.70nm			5.8mb		VRI	82.45	45	ePc	39	04.00	0.7
CALN	68.28	46	P	37	42.71	-0.1	RGS	74.14	27	eP	38	17.50	0.1	NPS	82.46	55	eP	39	05.00	1.4
FOUF	68.34	45	P	37	43.74	0.8	NRA0	74.17	29	P	38	17.40	-0.2	JMB	82.61	48	eP	39	05.00	0.8
8NI	68.35	45	P	37	43.50	0.3	SGO	74.19	50	Pd	38	18.50	0.4	IMA	83.41	336	P	39	09.40	1.4
RRL	68.40	45	P	37	44.05	0.4	PRU	74.30	40	iPd	38	18.60	0.0	BRW	83.89	341	P	39	11.70	1.5
VITF	68.48	41	P	37	43.02	-0.7		1.5s	178.60nm			5.9mb		TTA	84.80	333	P	39	15.40	0.4
LPG	68.48	44	eP	37	44.30	0.1				e	38	27.50			1.0s	25.00nm			5.4mb	
MVIF	68.49	46	P	37	43.97	-0.2	MGR	74.36	51	Pd	38	19.60	0.5	CER	86.61	124	eP	39	30.00	5.5X
PZZ	68.56	46	P	37	44.98	0.5	VBY	74.42	45	iPd	38	19.70	0.3		1.0s	20.00nm			5.3mb	
TOUF	68.58	46	P	37	44.56	-0.2	MBC	74.57	348	iPd	38	20.20	0.5				e	39	40.20	
AURF	68.62	46	P	37	44.58	-0.3		0.8s	166.00nm			6.1mb		KMZ	88.93	104	ePc	39	37.00	1.0
DOI	68.66	46	Pd	37	45.30	0.2	PTJ	74.93	45	iPd	38	22.40	-0.1		1.0s	56.30nm			5.8mb	
STV	68.67	46	P	37	45.28	0.1	TDS	74.95	51	P	38	23.20	0.6				i	39	43.00	
HAU	68.68	42	eP	37	43.70	-1.3	HFS	75.12	30	eP	38	22.90	-0.2	LWI	90.17	92	iPd	39	43.30	1.2
	0.8s	52.40nm			5.7mb			0.7s	115.90nm			6.0mb		PRNI	90.95	59	iPd	39	46.50	1.4
SBF	68.69	46	eP	37	44.90	-0.4		Z 16s	0.11um			4.2MszX		MBH	90.95	60	iPd	39	46.50	1.4
AUTN	68.71	46	P	37	45.38	-0.2				LR	07	00.00		FRS	91.00	120	iPd	39	45.00	-0.3
LSD	68.75	45	P	37	46.41	0.5	HVAR	75.15	48	iPd	38	23.30	-0.3		1.0s	20.00nm			5.4mb	
RSP	68.77	45	P	37	46.21	0.4	VKA	75.33	42	ePd	38	23.50	-1.1	DSI	91.05	58	iPd	39	47.00	1.5
SAOF	68.80	46	P	37	45.90	0.0		2.0s	224.00nm			5.9mb		PAE	91.15	252	eP	39	54.00	7.9X
LOMF	68.87	42	P	37	45.71	-0.6	KSP	75.49	40	iPd	38	25.50	0.0		1.2s	100.00nm			6.0mb	
WLF	68.89	40	Pd	37	46.00	-0.2		0.9s	760.00nm			6.7mb		LSZ	91.45	105	iPd	39	50.00	2.3
BSF	68.94	42	P	37	45.73	-1.0				i	38	33.20			1.2s	102.60nm			6.1mb	
ENN	68.98	39	iPd	37	46.10	-0.7	INK	75.74	339	iPd	38	26.10	-0.4				i	39	55.50	
	0.8s	71.00nm			5.9mb			1.0s	92.00nm			5.8mb					i	43	14.50	
IMI	69.02	46	P	37	46.72	-0.6	ZST	75.84	42	iPd	38	27.60	0.1	BUL	92.54	110	iPd	39	52.90	0.2
ROB	69.07	46	P	37	47.23	-0.3		0.8s	92.00nm			5.9mb			1.0s	10.50nm			5.2mb	
MOF	69.16	42	P	37	46.71	-1.4				i	38	34.70					ipP	39	58.00	16kmX
FIN	69.29	46	P	37	48.36	-0.6	SRO	76.64	43	eP	38	31.90	-0.1	SLR	93.01	115	iPd	39	55.00	0.2
ORO	69.35	44	P	37	49.50	0.1		1.3s	240.00nm			6.1mb			0.9s	33.61nm			5.8mb	
ORX	69.36	44	P	37	48.77	-0.6	UPP	77.04	31	iPd	38	33.00	-0.9	KRI	93.03	106	iPc	39	58.40	3.4X
CDF	69.36	41	P	37	48.61	-0.7		0.8s	200.00nm			6.2mb					ipP	40	04.00	17kmX
CKI	69.38	46	P	37	49.00	-0.4	BUD	77.11	43	iPd	38	34.00	-0.6	PTZ	94.33	104	iPc	40	02.20	1.2
CVF	69.54	48	P	37	50.25	-0.2	SDA	77.37	49	eP	38	38.40	2.3				i	40	08.10	
GWF	69.69	41	P	37	50.86	-0.4	LACI	77.53	49	iPd	38	38.30	1.3	SPA	98.40	180	e(P)	40	25.10	6.6X
STR	69.72	41	P	37	50.89	-0.4	TIR	77.65	50	iPc	38	39.70	2.0		1.0s	7.00nm			5.2mb	
FEL	69.75	42	P	37	50.91	-0.9	PSZ	77.71	43	iP	38	38.80	0.8		Z 19s	0.89um			5.3Msz	
WTS	69.79	38	iPd	37	51.60	-0.1	KRA	77.78	41	iPd	38	38.80	0.6	WMQ	120.75	26	PKP	45	33.00	-0.4
	1.0s	250.00nm			6.3mb			1.0s	124.00nm			5.9mb		CN2	127.66	354	ePKP	45	45.60	-1.0
GEN	69.84	46	P	37	51.13	-1.0	BCI	77.80	49	iP	38	39.90	1.5	GTA	129.17	19	PKPd	45	49.50	-0.3
WIT	69.89	37	ePd	37	52.50	0.2	SPC	77.96	42	iPd	38	40.50	1.0	HHC	130.47	7	PKPc	45	53.00	0.8
	1.1s	1035.00nm			6.9mb X		KKS	78.05	49	iP	38	42.00	2.1	BTO	130.50	9	ePKP	45	53.00	0.8
VAI	69.94	44	Pd	37	52.20	-0.5	BEO	78.07	46	eP	38	40.50	0.6	GKN	130.86	41	PKP	45	53.40	0.0
BOB	70.25	46	Pd	37	54.80	0.0	PHP	78.08	49	iPd	38	41.40	1.4	KKN	131.42	41	PKP	45	54.20	-0.3
PII	70.89	47	P	37	58.10	-0.5	OHR	78.36	50	iP	38	42.80	1.1		0.6s	25.00nm				
BDI	70.98	46	P	37	58.00	-1.3		1.6s	0.30nm			3.1mb X		DMN	131.43	41	PKP	45	54.20	-0.4
SAL	71.12	45	P	37	59.10	-0.8	KBS	78.50	11	eP	38	43.50	1.8	PKI	131.65	41	PKP	45	54.40	-0.7
PGD	71.77	47	P	38	03.00	-1.1	TRO	78.63	21	iP	38	43.30	0.8	BJI	131.68	3	ePKP	45	54.00	-0.3
DAG	71.90	9	iPd	38	03.70	-0.4	SKO	78.82	49	iPd	38	45.00	0.9	GUN	131.73	40	PKP	45	54.80	-0.5
	1.1s	79.75nm			5.7mb			1.2s	120.00nm			5.8mb		DZM	132.43	248	iPKPc	45	56.10	-0.3
CRE	71.91	47	P	38	08.00	3.1X				i	38	49.50		HYB	132.51	57	ePKP	45	55.00	-1.6
CTI	71.95	44	P	38	04.50	-0.6	BZS	78.88	45	eP	38	45.00	0.6	GBA	133.31	62	PKPd	45	57.30	-0.8
GRFO	72.13	41	ePd	38	05.58	-0.4	BCAO	79.06	87	ePd	38	46.02	0.0		0.8s	9.00nm				
		ePPc		38	12.87	23kmX				ePPc	38	53.31	23kmX	LZH	133.47	17	ePKP	45	57.50	-0.6
GRF	72.13	41	iPd	38	05.70	-0.3	BNG	79.08	87	iPd	38	46.00	-0.1		2.0s	55.00nm				
	1.5s	208.00nm			5.9mb			0.8s	117.00nm			6.0mb					pP	46	04.50	
RDP	72.31	49	P	38	07.80	0.6				ic	38	51.50		TIY	133.67	7	ePKP	45	57.60	-0.7
MNS	72.33	48	Pd	38	07.50	0.2				ic	39	29.90			Z 22s	0.60um			5.3Msz	
ASS	72.37	48	Pd	38	06.50	-1.1	KZN	79.12	51	eP	38	46.90	1.0				PP	48	33.50	
MOX	72.52	40	iPd	38	08.00	-0.2	VAY	79.69	50	iP	38	50.00	1.2	TIA	135.54	2	ePKP	46	01.60	-0.2
	1.8s	96.00nm			5.5mb			1.2s	0.12nm			2.8mb X		XAN	136.68	12	PKP	46	02.40	-1.7
ARV	72.61	47	P	38	07.50	-1.5	VTS	80.11	48	iPd	38	53.00	1.7	CD2	138.23	20	ePKP	46	07.00	-0.1
FVI	72.79	44	P	38	09.50	-0.3	NEO	80.28	52	eP	38	52.50	0.4	SSE	140.62	357	ePKP	46	10.30	-1.0

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CAN	141.66	221	ePKP	46	10.70	-2.5
			e	46	21.30	
BWA	142.58	222	ePKP	46	11.60	-3.2X
			e	46	17.00	
BRS	142.91	235	iPKPd	46	16.10	0.6
KMI	143.07	25	PKPd	46	12.50	-3.6X
GYA	143.30	19	PKP	46	12.80	-3.5X
BFD	144.30	213	ePKP	46	21.00	3.5X
			i	46	27.60	
GUA	146.22	310	ePKP	46	21.30	-0.1
	0.8s	197.01nm				
GUMO	146.22	310	ePKP	46	21.50	0.1
CHG	146.48	36	iPKPd	46	21.50	-0.2
	1.0s	64.00nm				
CHTO	146.48	36	ePKP	46	21.70	0.0
RMO	146.53	234	iPKPd	46	23.10	1.5
			i	46	30.00	
ADE	148.00	212	e(PKP)	46	26.50	2.7
STK	148.60	219	ePKP	46	25.20	0.4
			e	46	34.00	
KHT	149.33	41	ePKP	46	27.00	0.7
CTA	151.18	243	iPKPc	46	30.00	1.0
	1.0s	25.00nm				
			i	46	35.00	
			i	46	40.80	
QIZ	151.25	18	ePKP	46	30.60	1.5
NNT	151.68	43	ePKP	46	30.50	0.7
PMG	152.14	266	ePKP	46	32.00	1.5
SNG	156.01	50	ePKP	46	31.50	-4.4X
QIS	156.71	237	iPKPd	46	37.00	0.4
	0.9s	34.00nm				
			i	47	12.10	
PSI	157.16	62	ePKPd	46	38.00	0.6
	1.0s	17.00nm				
			e	52	30.00	
ASPA	159.18	222	iPKPd	46	39.60	0.1
	1.1s	27.00nm				
			i	46	45.20	
			i	47	21.50	
WRA	161.24	231	PKPd	46	41.80	0.1
	1.4s	40.60nm				
WB5	161.25	231	ePKP	46	41.70	0.0
			i	47	31.20	
MTN	167.27	249	ePKP	46	46.80	-0.4
			e	47	53.00	
S.D. = 0.9 on 358 of 376 obs.						

? APR 15, 1989 15h 04m 08.73± 0.75s
13.587 N ±19.3km 120.378 E ±20.3km
DEPTH = 33.0km (normal)
4.6mb (2 obs.)
MINDORO, PHILIPPINE ISLANDS (250)

GUN	35.13	299	P	11	02.00	0.2
PKI	35.43	299	P	11	04.00	-0.4
KKN	35.60	299	P	11	06.00	0.3
DMN	35.70	299	P	11	06.40	-0.2
WB5	35.99	157	eP	11	08.80	0.0
GKN	36.21	299	P	11	11.00	0.2
SOD	79.01	337	eP	16	11.00	0.3
SUF	79.97	332	iP	16	16.00	0.1
	0.6s	2.40nm			4.4mb	
NB2	87.22	333	P	16	52.40	-0.5
	0.8s	4.50nm			4.8mb	
S.D. = 0.4 on 9 of 9 obs.						

APR 15, 1989 16h 03m 04.59± 0.57s
40.542 N ± 5.0km 139.396 E ± 5.5km
DEPTH = 40.6 ± 6.7 km
4.8mb (16 obs.)
NEAR WEST COAST OF HONSHU, JAPAN(226)

AOMJ	0.75	88	iPd	03	18.40	-0.3
MRRJ	2.26	33	P	03	39.40	-0.9
			eS	04	07.80	
OFUJ	2.28	129	P	03	40.50	-0.1
YAMJ	2.42	168	P	03	41.80	-0.8
NIIJ	3.31	185	P	03	54.00	-1.2
			eS	04	29.50	
HOOJ	3.45	57	P	03	58.30	1.1
			S	04	41.10	
MTMJ	4.14	198	P	04	07.50	0.4
			eS	05	10.10	
ASAJ	4.31	33	eP	04	09.80	0.5
KAKJ	4.37	172	P	04	13.00	2.7
CHJJ	4.50	184	eP	04	16.90	4.8X
KUSJ	4.72	56	P	04	14.50	-0.7
			eS	05	10.30	
CN2	10.85	292	eP	05	39.80	-0.6
Z	12s	0.80um				
N	10s	0.40um				
BJI	17.72	276	(P)	07	10.50	0.7
Z	12s	0.24um			4.8MszX	
			eS	10	34.00	
TIA	17.98	263	eP	07	14.40	1.4
N	11s	0.40um				
E	11s	0.30um				
HHC	21.08	280	eP	07	48.00	0.3
GTA	30.18	281	eP	09	11.00	-2.3
KKN	45.89	271	P	11	24.00	-1.2
INK	52.01	28	ePc	12	11.60	0.0
MBC	53.62	17	eP	12	23.00	-0.5
WB5	60.29	185	eP	13	10.10	-1.2
WRA	60.36	185	Pc	13	10.40	-1.4
	0.7s	3.40nm			4.6mb	
SOD	61.12	336	eP	13	21.00	4.4X
YKA	61.58	30	eP	13	19.80	0.1
SUF	64.15	332	iP	13	35.60	-1.1
	0.5s	4.10nm			4.8mb	
NUR	66.12	331	eP	13	33.00	-16.4X
HFS	70.25	334	eP	14	13.70	-1.4
	0.4s	1.10nm			4.2mb	
NB2	70.35	336	P	14	14.20	-1.6
	1.0s	6.90nm			4.6mb	
FFC	71.60	32	eP	14	23.50	0.1
	1.1s	17.00nm			4.9mb	
FRB	73.71	13	eP	14	35.00	-0.5
BRG	77.24	328	e(P)	14	56.40	0.5
CLL	77.28	329	eP	14	56.00	0.0
PRU	77.68	327	P	14	59.00	0.7
KHC	78.74	327	eP	15	05.10	0.9
GRF	79.25	329	eP	15	08.50	1.6
	0.9s	10.00nm			4.8mb	
HAU	82.51	330	eP	15	23.90	-0.2
LOR	84.05	331	eP	15	32.00	0.0
	0.6s	5.85nm			4.9mb	
LDF	84.30	334	eP	15	33.10	-0.1
	0.8s	10.75nm			5.0mb	
SSF	84.35	331	eP	15	33.80	0.3
	1.0s	6.00nm			4.7mb	
LPG	84.43	329	eP	15	34.60	0.3
	0.7s	5.50nm			4.8mb	
SMF	84.58	331	eP	15	35.00	0.3
SMF	84.58	331	eP	15	35.10	0.4
	0.7s	4.40nm			4.7mb	
AVF	84.64	331	eP	15	35.20	0.3
	0.7s	6.60nm			4.9mb	
LPF	85.09	335	eP	15	37.60	0.4
	0.6s	9.00nm			5.1mb	
MAF	85.41	332	eP	15	39.60	0.7
	0.8s	10.75nm			5.1mb	
LSF	85.76	332	eP	15	41.20	0.6
	0.6s	4.95nm			4.9mb	
MFF	86.04	333	eP	15	42.60	0.7
	0.8s	9.40nm			5.1mb	
ZOBO	146.04	53	PKP	22	43.00	1.1
LPB	146.26	53	ePKP	22	45.00	3.0X
CNCB	146.54	53	PKP	22	45.90	3.3X
ITR	148.29	356	ePKP	22	48.40	3.6X
RFA	157.25	84	ePKPc	22	52.10	-5.0X
S.D. = 1.0 on 44 of 51 obs.						

APR 15, 1989 16h 39m 51.15± 0.55s
36.557 N ± 5.7km 89.711 W ± 5.2km
DEPTH = 5.0km (geophysicist)
NEW MADRID, MISSOURI REGION (486)
mbLg 3.0 (NEIS).

GRT	0.37	142	eP	39	59.00	0.4
ELC	0.82	28	eP	40	07.20	-0.4
FVM	1.53	338	eP	40	20.00	0.8
OLY	1.77	234	eP	40	23.00	0.3
PWLA	2.07	139	eP	40	26.50	-0.4
RLO	4.31	266	ePn	40	58.70	-0.1
UYO	4.55	240	ePn	41	02.70	0.4
LNO	4.96	264	ePn	41	07.70	-0.2
TUL	4.96	264	(Pn)	41	07.30	-0.8
			eSn	42	04.50	
S.D. = 0.6 on 9 of 9 obs.						

APR 15, 1989 17h 22m 02.43± 0.58s
39.853 N ± 7.2km 19.602 E ± 4.9km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 3.4 (ATH).

VLO	0.62	352	eP	22	39.20	24.3X
KBN	1.21	50	iPgc	22	23.60	-1.3
LCI	1.35	291	Pd	22	25.70	-1.6
TIR	1.51	8	iPnc	22	29.70	0.3
OHR	1.55	36	iPn	22	29.30	-0.9
KZN	1.72	74	ePn	22	34.50	1.8
LACI	1.78	3	iPn	22	29.40	-4.0X
VLS	1.84	155	ePn	22	34.00	-0.3
PHP	1.94	19	e(Pn)	22	45.30	9.6X
BRT	2.10	300	P	22	40.00	1.9
SDA	2.16	358	eP	22	40.00	1.1
KKS	2.30	15	eP	22	36.00	-5.0X
SKO	2.53	33	iPn	22	43.60	-0.7
VAY	2.69	56	ePn	22	47.00	0.4
NEO	2.85	100	ePn	22	49.50	0.7
PLG	2.99	79	ePn	22	50.00	-0.8
MGR	3.12	277	P	22	53.00	0.4
SOI	3.29	238	P	22	55.00	0.0
SGO	3.36	283	P	22	55.10	-0.9
S.D. = 1.1 on 15 of 19 obs.						

? APR 15, 1989 17h 40m 01.99± 4.83s
5.715 S ±46.8km 130.141 E ±21.5km
DEPTH = 33.0km (normal)
4.6mb (2 obs.)
BANDA SEA (280)

MTN	7.15	172	iPc	41	49.00	2.0
			eS	42	59.50	
KNA	10.06	188	eP	42	27.10	-0.3
	0.2s	45.00nm			6.4mb	X
			eS	44	08.00	
WB5	14.67	164	eP	43	26.00	-3.1X
			e	43	27.80	
			eS	45	57.30	
WRA	14.72	164	Pd	43	27.60	-2.2
	0.2s	4.90nm			4.6mb	
QIS	17.38	149	eP	44	04.60	0.8
			eS	46	59.00	
ASPA	18.21	169	iPc	44	13.60	-0.5
	0.6s	31.00nm			4.6mb	
			eS	47	17.90	
MBL	18.32	212	eP	44	15.20	-0.2
			eS	47	17.00	
WARB	20.63	189	eP	44	34.00	-7.4X
NANU	21.90	219	eP	44	54.50	0.3
FORR	25.08	184	eP	45	25.00	-0.1
S.D. = 1.4 on 8 of 10 obs.						

? APR 15, 1989 18h 15m 56.31± 6.12s
38.280 N ±32.2km 20.232 E ±44.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.4 (ATH).

VLS	0.30	110	ePg	16	02.50	-0.1
KZN	2.35	30	ePb	16	36.90	1.3
NEO	2.55	65	ePb	16	39.20	0.8
OHR	2.86	9	ePn	16	42.70	-0.2
PLG	3.25	49	ePn	16	47.20	-1.2
VAY	3.53	30	ePn	16	51.70	-0.6
SKO	3.80	14	ePn	17	09.20	13.0X
S.D. = 1.2 on 6 of 7 obs.						

APR 15, 1989 18h 43m 17.46± 0.96s
5.341 S ± 8.0km 145.516 E ± 6.3km
DEPTH = 94.6 ± 8.9 km
4.7mb (4 obs.)
EAST PAPUA NEW GUINEA REGION (207)

LAT	1.97	132	eP	43	49.50	-0.4
MNDI	2.02	246	eP	43	53.00	2.2
PMG	4.36	158	iPc	44	21.00	-1.6
	0.6s	266.67nm				
			eS	45	10.00	
LMG	4.40	144	eP	44	23.00	-0.4
VSG	14.61	106	eP	46	46.00	5.3X
CTA	14.68	177	iPc	46	46.90	5.3X
	0.9s	23.11nm			4.4mb	
HNR	14.88	107	eP	46	45.00	0.9
MTN	16.04	241	eP	46	58.90	0.1
	0.5s	50.00nm			5.0mb	
QIS	16.18	200	eP	47	00.00	-0.6
			eS	49	56.00	
WB5	18.07	216	eP	47	23.00	-0.9

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WRA    18.14 216 Pc    47 23.70  -1.0
       0.6s     7.40nm          4.1mb
KNA    19.43 237 eP    47 37.50  -1.5
RMQ    21.26 172 eP    47 59.00   1.3
ASPA   21.38 210 iPd   47 58.90  -0.1
BRS    22.99 163 iPd   48 15.20   0.4
COO    25.81 167 eP    48 42.30   0.7
STK    26.66 187 eP    48 50.00   0.7
           e           48 51.00
WARB   27.48 219 eP    48 50.10  -6.7X
BWA    29.06 175 eP    49 11.80   0.8
MBL    29.45 235 eP    49 11.00  -3.6X
CAN    30.01 174 eP    49 20.00   0.6
FORR   30.20 211 eP    49 20.30  -0.7
       0.5s    15.00nm          5.0mb
NANU   33.65 236 eP    49 51.70   0.4
MRWA   36.65 226 eP    50 17.50   0.8
CHG    51.78 299 eP    52 28.00  10.1X
LZH    56.75 320 e(P)  52 54.50   0.3
GTA    61.30 321 eP    53 25.00  -0.5
WMQ    71.33 320 eP    54 28.20  -0.8
INK    91.59  22 eP    56 14.00  -0.5
     S.D. = 1.0  on  24 of  29 obs.
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   APR 15, 1989  20h 34m 08.93± 0.11s
   29.987 N ± 2.8km   99.195 E ± 2.2km
   DEPTH = 13.3km  (geophysicist)
   6.2mb ( 68 obs.)  6.2Msz ( 18 obs.)
 SICHUAN PROVINCE, CHINA          (307)
      Four people killed, 5 injured
      and considerable damage in the
      Batang area. Seven people
      killed, at least 37 injured and
      additional damage in the area
      due to a number of aftershocks.
      Depth from broadband
      displacement seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike= 85 Dip=40 Slip= -90
       NP2:       265     50      -90
       Principal Axes:
        T              Plg= 5  Azm=355
        P                 85       175
      Comment: The focal mechanism is
        poorly controlled and
        corresponds to normal
        faulting. The preferred fault
        plane is not determined.
      RADIATED ENERGY
       No. of sta:   9  Focal mech.  F
       Energy        1.0±0.2*10**14 Nm
      MOMENT TENSOR SOLUTION
      Dep   7           No. of sta: 14
      Moment Tensor;   Scale 10**18 Nm
        Mrr=-3.16       Mtt= 3.62
        Mff=-0.47       Mrt= 0.28
        Mrf=-0.79       Mtf=-0.52
       Principal axes:
        T  Val=  3.70  Plg= 3  Azm=  8
        N       -0.33      15       99
        P       -3.37      75      266
      Best Double Couple:Mo=3.5*10**18
       NP1:Strike= 83 Dip=44 Slip=-111
       NP2:       291     50      -71
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 15S, 38C  M.W.: 19S, 39C
      Centroid Location:
      Origin Time        20:34:21.2 0.1
      Lat 29.92N 0.01 Lon  99.37E 0.02
      Dep  15.0 BDY Half-duration  6.3
      Moment Tensor;   Scale 10**18 Nm
        Mrr=-4.32 0.05  Mtt= 4.49 0.04
        Mff=-0.16 0.05  Mrt=-2.70 0.28
        Mrf=-1.17 0.26  Mtf= 0.57 0.04
       Principal Axes:
        T  Val=  5.38  Plg=16  Azm=171
        N       -0.11       8       78
        P       -5.27      72      323
      Best Double Couple:Mo=5.3*10**18
       NP1:Strike=273 Dip=29 Slip= -73
       NP2:       74      62      -99

CD2    4.05  76 iPnd  35 15.60   3.7X
           Sn       35 59.00
KMI    5.78 146 Pg    35 37.00   0.5
LSA    6.99 270 Pn    35 57.00   3.1
           Pg       36 16.00
           Sn       37 17.50
LZH    7.23  31 eP    36 02.52   5.6X
       4.0s  1169.00nm          6.4mb X
           S        37 22.00
           Lg       37 56.00
           e        38 04.00
LZH    7.23  31 eP    35 58.00   1.1
       4.0s  1169.00nm          6.4mb X
           S        37 22.00
           Lg       37 56.00
           e        38 04.00
GYA    7.47 116 P     36 02.00   1.8
XAN    9.19  61 P     36 25.00   0.9
           S        38 00.00
GTA    9.42   3 Pc    36 28.60   1.3
       8.0s    10.10nm          4.2mb X
           S        38 12.00
CHG   11.13 181 ePn   36 53.00   2.3
           eSn      38 53.00
GUN   11.84 263 P     37 01.20   0.4
PKI   12.33 262 P     37 06.00  -1.3
KKN   12.39 263 P     37 07.20  -0.8
DMN   12.58 263 P     37 09.40  -1.2
GKN   12.90 265 P     37 12.80  -1.9
WHN   13.11  84 eP    37 14.00  -3.4X
       8.0s    4.63nm          3.7mb X
     Z 12s   341.00um
           iS       39 38.00
TIY   13.42  51 Pc    37 21.00  -0.6
     Z 10s    87.10um          4.7Msz
           S        39 53.50
BTO   13.78  37 iPd   37 27.00   0.7
       4.0s    10.00nm          4.0mb X
           sP       37 35.00
           S        40 01.00
NST   14.27 176 iPd   37 35.50   2.8
GZH   14.40 115 eP    37 31.80  -2.5
QIZ   14.58 136 iPc   37 39.00   2.3
       9.0s    6.30nm          3.2mb X
     N 15s   251.00um
     E 15s   226.00um
           S        40 22.00
           sS       40 28.00
           SS       40 39.00
HHC   14.79  40 eP    37 40.00   0.5
       5.0s    8.20nm          3.5mb X
     Z 10s    73.60um
           PP       37 52.00
           S        40 22.00
           SS       40 46.00
MCO   15.09 118 eP    37 44.00   0.6
KHT   15.14 182 iPc   37 46.00   1.9
           i        42 13.00
HKC   15.46 116 eP    37 47.50  -0.7
           S        40 37.00
TIA   16.25  63 Pd    37 58.90   0.6
     Z 10s    41.50um
     N 10s    71.50um
     E 10s    43.00um
           PP       38 09.00
           S        41 00.00
           sS       41 11.00
WMQ   16.57 330 ePc   38 06.22   3.8X
           eS       41 23.38
NJ2   16.98  78 iPd   38 06.00  -1.6
       6.5s    11.90nm          3.2mb X
BJI   17.12  50 ePd   38 11.13   1.8
       5.0s    4.90nm          2.9mb X
           epPc     38 16.60
           eS       41 34.39
NNT   17.32 178 eP    38 12.20   0.3
QZH   17.93 102 iPd   38 18.00  -1.4
       6.0s    15.00nm          3.3mb X
     N 10s    88.00um
           pP       38 25.00
           PP       38 30.00
SSE   18.98  81 iP-   38 32.00  -0.3
       1.5s   704.00nm          5.7mb
     Z 14s    62.20um
     N 10s    16.00um
     E 10s    38.90um
           iS       42 10.00
           SS       42 42.00
NDI   19.21 272 iPd   38 33.50  -1.7
           iS       42 03.00
ANP   20.35  98 iP-   38 50.00   2.2
           iS       42 40.20
DL2    20.49  58 iPd   38 50.00   1.0
       5.0s    18.40nm          3.7mb X
     Z 12s    27.10um          5.8MszX
     N 12s    40.80um
     E 12s     3.40um
           S        42 38.00
KSH    21.24 303 iPd   38 58.00   1.1
     Z 10s    59.10um          6.3MszX
     E 34s   158.00um
           iS       42 56.00
HYB    22.62 241 iPd   39 11.00   0.3
       1.2s  1300.00nm          6.3mb
           iS       43 16.00
SNG    22.73 176 eP    39 13.40   1.6
       1.1s   151.90nm          5.4mb
           eS       43 21.00
SNY    22.93  52 iPc   39 12.00  -1.6
       7.0s    16.20nm          3.7mb X
     Z 12s    48.00um          6.2MszX
     N 10s    31.10um
     E 10s    30.20um
           iS       43 20.00
BAG    23.80 120 ePd-  39 24.00   1.6
           eS       43 37.00
HIA    24.78  33 ePd   39 33.75   2.2
           epP      39 38.22  16kmX
           e        39 38.89
           eS       44 05.67
           esS      44 14.61
CN2    24.99  49 Pd    39 34.00   0.5
       5.0s    14.00nm          3.9mb X
     Z 20s    50.20um          6.0Msz
     E 10s    27.50um
           eS       43 48.00
IPM    25.33 176 ePc   39 36.90  -0.1
       1.0s    48.50nm          5.1mb X
           e        39 44.10
POO    25.71 249 iPd   39 40.70   0.2
       2.0s  1470.59nm          6.3mb
GBA    25.88 236 P     39 49.00   6.9X
       0.8s   296.10nm          6.0mb
PSI    27.14 181 ePc   39 53.00  -0.7
MDJ    28.05  50 ePd   40 01.77   0.0
           epPc     40 07.23  19kmX
           eS       44 48.06
           e        45 15.54
KGM    28.09 171 eP    40 05.00   2.6
SHK    28.60  72 ePd   40 07.10   0.3
TSM    31.23 142 eP    40 28.00  -2.3
TSRJ   31.30  70 eP    40 30.90   0.0
MTMJ   32.78  68 eP    40 43.50  -0.4
MAJO   33.10  68 eP    40 45.14  -1.5
           ePP      42 01.20
MAT    33.10  68 P     40 46.00  -0.6
DAV    33.66 127 eP    40 54.00   2.4
MAIO   33.66 291 iPd-  40 52.50   0.9
           eS       46 16.00
NIIJ   33.74  67 eP    40 50.00  -2.1
YAMJ   34.58  65 eP    40 59.40   0.1
MRRJ   35.65  58 P     41 08.30  -0.1
OFUJ   35.88  64 eP    41 09.60  -0.8
ASAJ   37.00  55 P     41 17.20  -2.6
HOOJ   37.28  58 eP    41 24.80   2.6
YSS    37.52  51 P     41 24.00  -0.1
KUSJ   38.39  57 eP    41 31.40   0.0
TEH    40.25 291 eP    41 58.00  10.7X
SHI    40.27 282 eP    41 50.00   2.5
BJA    42.84 277 iP    42 08.30  -0.1
BBU    42.91 277 iP    42 08.90   0.0
BEE    42.91 277 iP    42 09.10   0.2
       0.6s   499.00nm          6.4mb
DHR    43.15 278 iPd   42 11.30   0.4
KER    43.92 290 ePd   42 20.00   2.8
TAB    44.05 295 iP-   42 20.00   1.7
SLY    45.02 292 iPc   42 27.00   1.1
           iPcP     43 56.30
           iPP      44 20.50
           iPPP     44 53.50
           iS       49 04.00
           iPS      49 14.00
           iSS      52 25.00
           iSSS     53 19.00
           iLQ      59 00.00
           iLR      01 27.00
GUMO   45.12 101 eP-   42 27.50   0.5
       1.3s   496.73nm          6.3mb
```

15d 20h

GUA	45.19	101	eP-	42	27.00	-0.5				e	52	04.00		BAL	62.52	163	eP	44	33.00	-1.5
	Z 19s	12.50um			5.9Msz		MLR	58.04	307	iPd	44	03.50	-0.4	SRO	62.61	311	eP	44	34.80	-0.1
BHD	46.34	289	ePc	42	36.00	-0.3	BUC	58.16	306	ePd	44	09.00	4.5X				e	13	46.40	
			ePcP	43	53.00		BUC1	58.22	306	iPc	44	06.00	1.1	OHR	62.77	304	iP	44	37.20	1.1
			ePP	44	30.50		JMB	58.24	304	eP	44	05.00	-0.1		1.4s	0.21nm			3.1mb X	
			iS	49	27.00		YER	58.29	297	eP	44	04.80	-0.8				eS	53	07.00	
			ePSP	50	37.00		LAT	58.56	120	eP	44	08.00	0.3	ASPA	62.91	144	iPd	44	35.50	-1.7
			eScS	52	24.00		CMP	58.71	307	eP	44	09.00	0.6	KSP	63.09	315	iPd	44	38.00	-0.1
			eSS	52	42.00		IZM	58.73	299	iP	44	11.00	2.3		1.2s	240.00nm			6.2mb	
RYD	46.67	277	iPd	42	38.60	-0.6	TRO	58.86	336	iP	44	08.00	-1.1				e	13	40.00	
MSL	46.79	293	ePc	42	39.50	-0.4	EZN	59.07	301	eP	44	09.00	-1.9	RGS	63.19	329	iPc	44	40.90	2.4
			ePcP	44	09.00		DIM	59.10	304	eP	44	07.00	-4.1X	NRA0	63.22	327	P	44	37.40	-1.4
			eS	49	28.50		BMR	59.25	310	eP	44	14.00	1.9	ZST	63.29	312	iP	44	38.20	-1.2
			eSS	53	06.00		MEKA	59.25	160	eP	44	11.10	-1.2		Z 18s	36.00um			6.6Msz	
OASM	48.88	280	ePd	42	55.70	-0.8		0.7s	105.00nm			6.1mb					i	44	47.80	
JAY	51.14	122	ePc	43	12.80	-1.0	KDZ	59.28	303	iPd	44	13.00	0.6				e	47	05.80	
KVT	51.56	301	eP	43	16.80	0.1	RDO	59.32	303	eP	44	12.00	-0.6				e(S)	53	19.60	
MTN	52.54	139	eP	43	24.20	0.0	DRA	59.38	307	eP	44	12.00	-1.0	NB2	63.30	327	P	44	38.20	-1.2
			e	44	08.60		KAP	59.59	296	eP	44	03.90	-10.7X	OIS	63.55	137	eP	44	39.00	-2.4
			e	45	49.00		PLD	59.68	304	eP	44	16.00	0.9				i	44	44.60	
KAS	53.21	301	iPd	43	29.20	0.1	RZN	59.78	303	eP	44	16.00	0.0	MUN	63.71	164	eP	44	41.00	-1.3
HRI	53.39	291	iP	43	31.40	0.8	CEI	59.93	311	eP	44	20.00	3.3X		0.8s	264.00nm			6.5mb	
BURJ	53.65	290	P	43	32.10	-0.3	PGB	59.96	304	eP	44	17.00	-0.1	KLB	63.73	162	eP	44	41.00	-1.4
KNA	53.67	144	eP	43	29.00	-3.5X	AAE	59.97	263	eP	44	17.80	-0.2	VKA	63.78	312	eP	44	30.00	-12.7X
OUTJ	53.69	289	P	43	33.50	0.7	WB5	60.04	141	iPd	44	16.10	-1.8		5.0s	4366.00nm				
SALJ	53.77	289	P	43	34.00	0.7				ePP	46	33.20			Z 18s	21.50um			6.4Msz	
KFNJ	53.81	289	P	43	34.00	0.5				e	50	45.00					e	44	45.50	
MASJ	53.82	289	P	43	34.10	0.5	WRA	60.08	141	Pd	44	22.00	3.8X				i	45	21.90	
MKRJ	53.93	289	P	43	34.80	0.4		0.7s	182.90nm			6.3mb					i	47	09.50	
ANTO	54.21	300	eP	43	36.53	0.1	GZR	60.24	308	ePd	44	19.00	0.0				e	48	35.00	
			epPc	43	41.66	17kmX	KBS	60.27	347	iP	44	20.00	1.2				i	48	49.00	
			esPc	43	43.48		UPP	60.43	325	iPd	44	19.10	-0.9				LR	16	05.00	
			ePP	45	50.82			1.0s	1400.00nm			7.0mb		PRU	64.41	315	Pd	44	47.00	0.3
			ePPP	46	57.48					iS	52	36.00			1.9s	524.60nm			6.4mb	
BBTK	54.24	300	iPd	43	37.00	0.3	PMG	60.49	123	eP	44	20.00	-1.1		Z 20s	15.40um			6.2Msz	
AYN	54.41	286	ePd	43	37.30	-0.6	MMB	60.52	303	iPc	44	20.00	-0.9		N 19s	30.20um				
NANU	54.56	161	eP	43	38.30	-0.7	VTS	60.63	305	iPd	44	20.00	-1.8		E 20s	9.70um				
	0.7s	65.00nm			5.8mb		NPS	60.89	296	eP	44	22.90	-0.6				e	44	56.00	
MBL	54.59	156	eP	43	38.00	-1.3	LMG	60.89	121	eP	44	28.00	4.0X				S	53	22.00	
LFK	54.66	294	eP	43	30.00	-9.8X	KKB	60.91	304	eP	44	22.00	-1.5				PS	54	34.00	
WAJH	54.79	282	ePd	43	40.50	-0.3	BZS	60.97	308	ePc	44	23.50	-0.4				SS	57	34.00	
PRNI	54.80	288	iPd	43	41.00	0.1	RAB	60.99	114	iP-	44	26.00	1.5	BRG	64.52	316	iPd	44	47.20	-0.2
CSS	54.90	294	eP	43	41.00	-0.5				eS	53	02.00			1.3s	340.00nm			6.4mb	
MBH	55.07	287	iPd	43	47.00	4.2X	MRWA	61.02	163	eP	44	24.00	-0.4				i	44	50.00	
ARO	55.25	263	iPd	43	43.30	-1.1	KRA	61.02	314	eP	44	23.60	-0.6				i	44	56.50	
PPCY	55.70	294	eP	43	47.50	0.3		1.5s	520.00nm			6.4mb					eS	53	30.00	
GPA	55.99	301	eP	43	48.00	-1.3		Z 18s	21.40um			6.3Msz					eP'P'	13	36.00	
SOD	56.01	334	iP	43	48.80	-0.2		N 22s	42.80um					MOL	64.58	329	eP	44	47.38	-0.3
KEV	56.04	336	eP	43	49.07	-0.2				i	44	26.90		PTJ	64.70	310	iPd	44	48.40	-0.4
			epPc	43	53.87	16kmX				i	44	33.00		ZAG	64.71	310	iPd	44	49.00	0.2
			ePP	45	56.09					iS	52	48.00					iS	53	37.50	
			ePPP	47	20.23					e	54	21.00		NWAO	64.86	163	eP	44	49.11	-0.7
			eS	51	43.75		SPC	61.03	313	iPd	44	25.10	0.6		0.8s	201.00nm			6.3mb	
			esS	51	48.39					i	45	12.50					epPc	44	53.74	15kmX
			e	55	20.59		PLG	61.05	302	eP	44	23.90	-0.7				ePP	47	15.93	
			eSS	56	04.79		TIM	61.21	309	iPd	44	30.50	5.0X	CLL	64.96	316	iPd	44	49.90	-0.4
SUF	56.09	328	iP	43	49.20	-0.5	VAY	61.43	303	iP	44	25.70	-1.4		1.8s	350.00nm			6.2mb	
HRT	56.35	301	eP	43	49.00	-2.9		2.0s	0.82nm			3.5mb X					iPcP	45	23.80	
ALT	56.41	299	eP	43	51.10	-1.3	NEO	61.52	301	eP	44	26.80	-0.9				eS	53	31.00	
BCK	56.43	297	eP	43	50.30	-2.2	ATH	61.54	300	eP	44	28.80	1.0				P'P'	13	39.00	
CFR	56.57	307	iPc	43	53.00	-0.3				ePP	46	49.20		LCI	65.07	304	P	44	49.80	-1.3
IAS	56.62	309	eP	43	55.00	1.3				ePPS	52	51.20		HVAR	65.22	307	iPd	44	50.70	-1.4
YLV	56.63	301	iP	43	52.70	-1.2	WARB	61.73	152	iPc	44	20.70	-8.6X	KMR	65.24	313	iP-	44	52.50	0.3
ISK	56.75	302	eP	43	54.00	-0.7		0.5s	41.00nm			5.8mb					i	45	27.40	
PSN	56.84	305	iPc	43	56.00	0.7	VAM	61.95	297	eP	44	27.00	-3.7X				iPP	47	17.90	
NUR	56.87	325	iP	43	55.10	-0.2	BEO	61.97	308	eP	44	30.50	-0.2				eS	53	34.00	
	1.0s	264.00nm			6.2mb			N 22s	80.00um					KHC	65.26	314	iPd	44	52.50	0.2
	Z 16s	25.20um			6.4MszX					eS	52	53.00					e	45	02.00	
			i	43	58.00		SKO	62.06	304	iPd	44	30.00	-1.4				S	53	48.00	
			ePP	46	08.00			2.0s	1020.00nm			6.7mb		VBY	65.29	310	ePd	44	52.70	0.2
			eS	51	48.00			Z 23s	11.48um			6.0MszX		BRT	65.43	304	P	44	53.50	0.0
			eSS	55	40.00			N 23s	25.50um					LJU	65.60	310	eP	44	54.50	0.0
			LR	07	50.00			E 23s	28.28um								e	47	18.50	
KHL	57.03	298	iP	43	55.50	-1.4				i	44	33.50					eS	53	42.00	
ELL	57.13	297	iP	43	56.60	-1.0				i	44	39.00		HYA	65.62	328	iP	44	56.00	1.7
CTT	57.19	302	eP	43	57.00	-0.8				iPP	46	48.40		CEY	65.77	310	ePd	44	55.00	-0.6
BRD	57.27	307	eP	44	05.00	6.6X				iS	52	55.00		RKG	65.90	164	eP	45	00.00	3.6X
DST	57.40	300	iP	43	58.40	-1.0				iPS	53	15.00		MOX	66.00	316	eP-	44	57.00	0.0
VRI	57.43	308	ePd	44	00.00	0.5				iScS	54	29.00			1.9s	431.00nm			6.3mb	
DMK	57.54	303	eP	44	00.00	-0.2				iSS	57	01.00			Z 16s	19.40um			6.4MszX	
KSL	57.55	296	eP	44	00.80	0.4				iSSS	59	42.00			N 20s	34.30um				
ISR	57.70	307	iPd	44	02.50	1.1				LR	14	30.00			E 18s	10.00um				
BNT	57.75	301	iP	44	00.70	-1.1	KZN	62.30	303	eP	44	31.20	-1.9				iPP	47	28.00	
EDC	57.80	301	iP	44	02.50	0.5	HFS	62.32	326	eP	44	32.20	-0.6				ePPP	49	10.00	
SMY	57.85	44	P	44	01.00	-1.3		0.9s	250.20nm			6.4mb					eS	53	48.00	
	Z 18s	9.90um			6.0Msz			Z 17s	22.77um			6.4MszX					eSS	58	00.00	
HLW	57.96	288	ePd	44	03.00	-0.4				LR	10	17.00					eSSS	01	13.00	

15d 20h

				iLR	05	50.00		MEM	69.36	317	P	45	18.60	0.6	LDF	73.82	317	eP	45	44.60	-0.2
				eP'P'	13	40.00		BOB	69.41	310	P	45	19.30	0.7	LSF	73.87	314	eP	45	44.90	-0.3
VOY	66.03	311	eP		44	56.80	-0.6	CDF	69.42	315	P	45	18.36	-0.3	FLN	73.96	317	eP	45	45.40	-0.2
KBA	66.05	312	iPd		44	57.00	-0.6	AVY	69.43	232	eP	45	18.16	-1.0		1.6s	254.95nm			6.0mb	
	1.5s	439.00nm				6.4mb		VAI	69.44	312	Pd	45	17.60	-1.0	KDC	74.12	32	P	45	45.20	-1.1
			i	45	03.70			IMA	69.53	25	P	45	16.80	-2.2	CAF	74.13	313	eP	45	47.30	0.6
			i	45	06.40			WLF	69.63	316	P	45	21.70	2.0	LWI	74.24	258	iPd	45	47.30	-0.7
			i	45	14.70						i	45	23.90		GRR	74.35	317	eP	45	47.80	-0.1
			ePP	46	42.50						P'P'	13	24.50		INK	74.56	18	ePd	45	47.80	-0.9
			(ScP)	50	21.00			MOF	69.72	314	P	45	20.67	0.2		1.0s	26.00nm			5.2mb	
			e	50	30.00			BSF	69.94	314	P	45	22.73	0.9				pP	46	04.00	58kmX
			esS	51	39.00			VSG	70.00	114	eP	45	26.00	3.5X	ADE	74.57	147	iPd	45	49.00	-0.3
RBL	66.11	311	P	44	57.10	-0.8		ORX	70.04	312	P	45	21.88	-0.6		1.0s	310.00nm			6.3mb	
TRI	66.22	310	ePd	44	57.70	-0.7		ORO	70.04	312	P	45	24.00	1.5	LPF	74.63	317	eP	45	49.80	0.4
			ePP	47	32.00			TTA	70.07	28	P	45	21.10	-1.2		1.0s	124.00nm			5.9mb	
			eS	53	48.00			LOMF	70.11	314	P	45	22.15	-0.7	MFF	74.75	315	eP	45	50.30	0.1
			e	55	44.00			HAU	70.15	315	eP	45	22.50	-0.5		1.6s	342.05nm			6.1mb	
			eSS	59	09.00				1.0s	106.00nm			5.9mb		ETER	74.79	310	e(P)	45	53.50	3.0X
			eSSS	01	20.00			UCC	70.25	318	Pc-	45	26.90	3.4X	LPO	74.80	313	eP	45	50.90	0.4
BRW	66.25	20	P	44	57.60	-0.7					S	54	48.00		LFF	74.96	313	eP	45	52.10	0.6
BER	66.26	327	iP	45	01.00	2.5		HNR	70.29	114	eP-	45	25.00	0.7	DMU	75.02	324	eP	45	52.40	0.8
FORR	66.45	153	eP	44	58.80	-1.2		VITF	70.29	315	P	45	23.67	-0.1		1.0s	232.00nm			6.2mb	
	0.5s	129.00nm				6.4mb		CKI	70.31	310	P	45	26.00	2.0	DLE	75.14	323	eP	45	52.80	0.5
TDS	66.46	303	P	45	00.20	0.1		DOU	70.39	317	Pc	45	24.90	0.5		1.0s	216.00nm			6.1mb	
GRF	66.54	315	iPd	45	01.00	0.5					e	45	27.60		ETA	75.27	323	eP	45	54.40	1.4
Z	21s	20.00um				6.3Msz					e	47	16.00			1.4s	570.00nm			6.4mb	
			e	45	04.70						PP	48	03.00		DCN	75.49	324	eP	45	54.40	0.1
GRFO	66.55	315	eP	45	01.62	1.1					S	54	38.00			1.3s	472.00nm			6.4mb	
			epPc	45	06.42	15kmX		SNF	70.41	318	P	45	24.50	0.0	ECP	75.61	322	eP	45	56.10	1.1
			ePP	47	31.98			FIN	70.44	310	P	45	24.75	-0.1		1.0s	255.00nm			6.2mb	
FVI	66.58	311	P	44	59.20	-1.5		ROB	70.63	310	P	45	25.78	-0.3	ESEL	75.91	308	e(P)	46	01.00	4.0X
MGR	66.86	304	P	45	02.60	-0.1		LSD	70.64	312	P	45	26.91	0.6	EPF	76.10	312	eP	45	57.80	-0.3
SGO	66.89	305	P	45	02.60	-0.2		CVF	70.64	308	P	45	26.95	0.9		0.8s	41.60nm			5.6mb	
VVI	67.01	311	eP	45	03.70	0.1		RSP	70.69	311	P	45	25.57	-0.9	BRS	76.68	133	iPd	46	01.80	0.4
DAG	67.03	347	iPd	45	00.30	-2.9		IMI	70.77	310	P	45	27.21	0.3				i	46	07.00	
	1.3s	292.31nm				6.3mb		LPG	70.88	312	eP	45	27.90	0.0				i	46	10.90	
AOI	67.05	308	iP	45	03.21	-0.7			1.0s	140.60nm			6.0mb					i	46	18.50	
DUI	67.11	306	P	45	03.50	-0.8		DOI	70.96	311	P	45	27.20	-0.9				iS	55	52.00	
BSS	67.17	305	P	45	03.80	-0.8		SAOF	70.96	310	P	45	28.34	0.3	EBR	77.04	310	eP	46	04.00	0.7
SOI	67.22	302	P	45	02.60	-2.4		STV	71.01	311	P	45	28.24	-0.2				ePP	49	00.00	
CTA	67.31	132	iPc	45	04.50	-1.2		AUTN	71.04	310	P	45	28.64	-0.1				eS	55	56.00	
	1.3s	600.96nm				6.6mb		PZZ	71.05	311	P	45	27.93	-0.8	EROQ	77.10	310	e(P)	46	04.00	0.4
			i	45	17.30			SBF	71.09	310	eP	45	28.50	-0.4	VAL	77.77	323	iP	46	11.00	4.0X
			i	45	45.80			RRL	71.09	311	P	45	29.06	0.0				S	56	02.00	
			iS	54	03.00			BNI	71.11	312	P	45	27.90	-1.2	BFD	78.19	146	eP	46	08.00	-1.5
CTAO	67.31	132	eP	45	05.47	-0.3		AURF	71.15	310	P	45	28.95	-0.3	COO	78.36	136	eP	46	11.00	0.4
			epPc	45	09.28	12kmX		TOUF	71.15	310	P	45	28.95	-0.5				e	46	17.00	
ALP	67.34	307	eP	45	05.29	-0.5		MBC	71.31	9	eP	45	28.00	-1.5				e	46	27.00	
ALE	67.36	357	eP	45	04.00	-1.3			1.0s	147.00nm			6.1mb		ECHE	78.62	309	eP	46	14.50	2.4
	0.8s	21.00nm				5.4mb		CALN	71.50	310	P	45	32.07	0.7	PTZ	78.73	246	iPc	46	11.00	-2.0
JNW	67.42	340	eP	45	13.80	8.1X		FRF	71.73	310	eP	45	32.30	-0.3		1.3s	156.00nm			5.9mb	
CIO	67.49	308	eP	45	07.07	0.4		EDU	71.79	325	ePd	45	32.40	-0.3				e	46	19.00	
CTI	67.50	311	P	45	06.20	-0.6			0.9s	228.00nm			6.3mb					i	46	39.00	
ARV	67.52	308	P	45	06.80	0.0		ESY	71.88	325	ePd	45	32.60	-0.7				i	48	11.10	
SDI	67.55	306	P	45	06.20	-0.9		LMR	71.92	310	eP	45	33.50	-0.2				i	49	09.90	
AQU	67.61	307	P	45	10.80	3.4X		LRG	71.97	310	eP	45	34.00	0.0				i	49	56.00	
RSM	67.70	309	P	45	08.20	0.3			1.6s	485.85nm			6.3mb		8WA	79.13	140	eP	46	15.30	0.5
ASS	67.86	308	P	45	08.90	-0.2		LOR	71.99	315	eP	45	33.50	-0.6	BNG	79.70	269	iPd	46	16.80	-1.6
MNS	68.10	307	P	45	09.20	-1.3			1.0s	78.10nm			5.7mb			0.7s	120.00nm			6.0mb	
SFI	68.11	309	P	45	09.50	-1.0		LBF	72.04	314	eP	45	33.90	-0.5				id	46	24.10	
CRE	68.15	309	P	45	12.00	1.1		EBL	72.16	325	ePd	45	34.70	-0.2				ic	49	17.00	
WIT	68.16	319	iP	45	12.10	1.5		EDI	72.16	325	ePd	45	34.80	-0.1				id	56	41.40	
			i	45	15.00			ELO	72.17	325	ePd	45	34.60	-0.4	BCAO	79.71	269	ePd	46	18.85	0.4
PGD	68.22	309	P	45	12.30	0.9			1.0s	178.00nm			6.1mb		EALH	79.78	308	eP	46	19.00	0.7
RDP	68.30	307	P	45	10.70	-1.1		EBH	72.18	325	ePd	45	34.70	-0.3	TOO	79.96	144	eP	46	19.00	-0.2
WTS	68.38	318	eP	45	12.50	0.5		COL	72.24	24	eP	45	34.68	-0.6				e	46	25.00	
	0.9s	199.00nm				6.3mb					epPc	45	39.15	14kmX	CAN	80.11	141	eP	46	20.50	0.4
			i	45	15.60						ePP	48	18.88		EVIA	80.13	309	eP	46	22.00	1.7
SAL	68.39	311	P	45	11.50	-0.7					ePPP	50	06.15		GUD	80.20	311	iPc	46	21.90	1.2
FIR	68.57	309	eP	45	13.50	0.2					eS	55	00.59		CNB	80.31	140	eP	46	20.00	-1.1
			iS	54	12.00						eSKS	55	36.01					e	46	26.00	
MME	68.79	310	eP	45	15.90	0.9					eSS	59	53.96		TOL	80.52	311	ePd	46	25.28	3.0X
MDI	68.86	311	P	45	13.80	-1.3		FBA	72.24	24	P	45	33.70	-1.5				epPc	46	27.93	8kmX
BDI	68.90	309	P	45	15.30	-0.2		SMF	72.26	314	eP	45	35.20	-0.6				ePP	49	29.34	
GWF	69.00	315	P	45	15.58	-0.4		SSF	72.30	314	eP	45	35.70	-0.2				eSKS	56	36.13	
STR	69.06	315	P	45	16.91	0.7		EAU	72.33	325	ePd	45	35.70	-0.3				eS	56	41.21	
PII	69.08	309	P	45	15.90	-0.6			0.8s	194.00nm			6.2mb		ENIJ	80.78	307	eP	46	25.00	1.3
USI	69.09	303	P	45	14.00	-2.6		AVF	72.51	314	eP	45	36.70	-0.4	EBAN	81.24	309	eP	46	27.00	0.9
FEL	69.17	314	P	45	16.71	-0.4		BGF	72.92	314	eP	45	39.40	-0.2	AFC	81.54	308	e(P)	46	27.00	-0.9
DBN	69.27	319	iP-	45	20.00	2.5		NPA	73.07	241	iPd	45	41.30	0.4	KRI	81.56	245	iPd	46	25.50	-2.6
			iS	54	32.00			MAF	73.24	314	eP	45	41.70	0.2	CRT	81.61	308	eP	46	28.50	0.4
			eScS	55	28.00			TCF	73.43	314	eP	45	42.90	0.3	ASMO	81.62	308	iPc	46	30.50	2.3
			eSS	59	05.00			RMQ	73.52	135	iPd	45	43.90	0.6	EPLA	81.75	312	eP	46	30.00	1.2
			eSSS	02	18.00			STK	73.52	143	eP	45	42.00	-1.2	STS	81.79	315	eP	46	31.00	2.2
ENN	69.35	317	iP	45	18.10	0.1					i	45	44.90		APHE	81.80	308	iPc	46	31.50	2.3
	0.9s	139.00nm				6.1mb		PMR	73.53	28	P	45	41.10	-1.7	ACHM	81.81	308	eP	46	31.50	2.3
			i	45	21.00			Z	20s	19.00um			6.4Msz		LSZ	81.82	247	iPd	46	29.40	-0.1

15d 20h

	1.3s	246.70nm		6.1mb		
		i	46	36.00		
		i	46	57.00		
		i	47	11.00		
SIT	81.88	27 P	46	30.10	1.2	
	1.4s	272.73nm		6.1mb		
	Z 22s	16.13um		6.3Msz		
AAPN	81.91	308 iPc	46	30.50	0.8	
ATEJ	82.04	308 iPc	46	32.00	1.6	
EHOR	82.40	309 eP	46	33.00	0.9	
MAL	82.41	308 iP-	46	35.00	2.9X	
		iS	56	52.00		
		iPS	57	35.00		
KMZ	82.72	250 iPd	46	34.80	0.6	
	1.3s	42.70nm		5.4mb		
		i	46	41.00		
		i	46	48.00		
		e	48	20.00		
PTO	82.78	314 eP	46	14.80	-19.2X	
		eS	56	55.00		
DZM	82.79	120 iPc	46	25.90	-8.5X	
EPRU	82.84	309 eP	46	36.00	1.5	
LIJA	83.00	309 iP	46	39.00	3.6X	
ALJ	83.25	308 iP	46	43.00	6.3X	
EJIF	83.28	308 eP	46	37.00	0.3	
SRO	83.32	308 eP	46	43.00	6.1X	
GIBL	83.40	309 iP	46	43.00	5.7X	
OJEN	83.51	308 eP	46	45.00	7.0X	
MOMI	83.52	308 iP	46	39.50	1.6	
EVAL	83.53	310 eP	46	39.50	1.6	
PLAT	83.65	308 iP	46	40.50	1.9	
CNIL	83.72	308 iP	46	39.00	0.1	
YKA	83.93	15 P	46	40.00	0.5	
YKC	83.98	15 ePc	46	39.00	-0.7	
	1.0s	130.00nm		6.1mb		
BUL	84.22	243 iPc+	46	40.80	-1.0	
	0.9s	218.49nm		6.4mb		
	Z 18s	21.99um		6.6Msz		
	N 18s	15.12um				
		iS	57	05.80		
IFR	84.61	306 iPc	46	45.50	1.8	
		i	46	49.00		
FRB	86.08	355 eP	46	48.00	-2.2	
	1.5s	245.00nm		6.2mb		
AVE	86.33	306 iP	46	53.00	1.0	
		i	47	16.50		
TIO	87.53	304 iP	47	00.00	1.9	
		i	50	26.50		
SLR	87.64	239 iPd-	46	59.00	0.4	
	1.0s	200.00nm		6.4mb		
	Z 18s	27.49um		6.7Msz		
		S	57	10.50		
KSR	88.74	239 eP	47	02.70	-1.2	
	0.8s	50.00nm		5.9mb		
		i	47	09.00		
MBU	89.62	110 eP	47	07.00	-1.0	
FRS	92.06	237 iPd	47	22.50	3.6X	
	1.0s	75.00nm		6.0mb		
EDM	92.43	19 iPc	47	20.60	0.1	
	1.0s	179.00nm		6.4mb		
PGC	92.92	27 eP	47	26.00	3.2X	
MCW	93.14	26 P	47	27.70	3.8X	
FFC	93.68	12 eP	47	25.00	-1.2	
	1.1s	66.00nm		5.9mb		
PNT	93.81	24 eP	47	27.00	0.1	
	1.2s	130.00nm		6.2mb		
GMW	94.08	27 P	47	29.40	1.2	
HTW	94.27	26 P	47	25.00	-4.1X	
SCH	94.69	352 eP	47	29.00	-1.8	
BMW	94.77	28 P	47	33.00	1.5	
LON	95.12	27 P	47	30.80	-2.2	
KUK	95.17	280 eP	47	53.00	19.4X	
		e	51	24.00		
SES	95.60	19 eP	47	35.00	-0.2	
	1.2s	93.00nm		6.1mb		
VGB	96.54	27 P	47	42.50	3.0X	
MSZ	97.11	138 P	47	44.50	2.8	
		PP	51	35.00		
KRP	98.18	129 P	47	53.00	6.3X	
CER	98.33	236 eP	47	32.50	-15.0X	
	0.8s	18.75nm				
		i	48	10.00		
RSON	98.71	8 P	47	50.00	0.9	
	1.6s	54.21nm		5.9mb		
	Z 20s	6.78um		6.1Msz		
KIC	98.80	283 P	47	51.00	0.9	
TIC	98.89	283 P	47	51.40	0.9	
LIC	99.11	283 P	47	52.30	0.8	
LRM	99.27	22 eP	47	54.50	2.4	
SNZO	99.41	132 P	48	02.00	9.9X	
		PP	52	10.00		
		SKS	58	38.00		
		PS	01	08.00		
LBFM	99.50	30 P	47	56.00	2.8X	
WDC	99.84	31 eP	47	55.10	0.6	
		ePP	52	00.80		
MAW	101.04	193 ePdiff	48	03.00	4.0X	
ORV	101.14	31 ePdiff	48	04.80	4.6X	
		ePP	52	15.90		
		ePKKP	04	39.30		
BKS	102.17	32 e(Pdif	48	07.70	2.9X	
		iS	58	52.00		
		i	00	02.00		
		i(PS)	01	22.00		
		eSS	07	00.00		
		iSSS	11	12.00		
		i	17	00.00		
MHC	102.87	32 iPdiff	48	13.00	4.9X	
		iPP	52	24.00		
		iSKS	59	03.00		
		e	00	13.00		
		eSP	01	38.00		
		eSPP	02	29.00		
		ePKKS	07	35.00		
		eLQ	17	55.00		
		eLR	24	14.00		
CMB	102.88	31 ePdiff	48	10.00	2.0	
		ePP	52	25.20		
		ePKKP	04	31.80		
BW06	102.92	21 Pdiff	48	15.20	6.9X	
	1.3s	7.17nm		5.2mb		
KVN	103.03	29 Pdiff	48	11.80	3.0X	
EUR	103.53	27 i(Pdif	48	14.10	3.0X	
	0.8s	4.72nm		5.3mb		
PRS	103.82	33 e(Pdif	48	14.50	2.3	
		ePKKP	04	28.40		
FRI	104.04	31 e(Pdif	48	16.80	3.7X	
RSNY	105.60	355 Pdiff	48	25.60	5.7X	
	0.8s	7.04nm		5.7mb		
MSU	105.83	25 Pdiff	48	23.30	1.9	
SYP	105.95	33 ePKP	52	45.00	10.6X	
SBB	106.80	31 ePKP	52	34.00	-1.9	
GLD	107.00	19 Pdiff	48	30.00	3.5X	
	Z 20s	3.50um		5.9Msz		
GOL	107.00	20 Pdiff	48	31.40	4.8X	
	Z 20s	7.50um		6.2Msz		
MWC	107.09	32 ePKP	52	45.00	8.4X	
RVR	107.59	31 ePKP	52	36.00	-1.3	
TPC	108.08	30 ePKP	52	27.00	-11.3X	
PLM	108.36	31 ePKP	52	46.00	7.0X	
BAR	109.01	32 ePKP	52	49.00	8.9X	
GLA	109.51	30 ePKP	52	49.00	8.0X	
ALQ	111.04	22 ePdiff	48	45.00	0.4	
	Z 20s	4.70um		6.1Msz		
MEO	113.43	16 e(PKP)	52	29.20	-19.2X	
	2.0s	32.80nm				
SBA	114.57	168 ePKP	52	51.40	2.1	
UYO	114.90	12 ePKP	52	52.30	1.1	
TPT	117.25	92 iPKP	53	02.60	6.5X	
	1.0s	40.00nm				
VAH	117.35	92 iPKP	53	02.40	6.1X	
	1.0s	35.00nm				
RUV	117.54	92 iPKP	53	02.80	6.1X	
	1.0s	40.00nm				
SPA	119.82	180 e(PKP)	52	57.90	-1.8	
	1.0s	44.00nm				
	Z 20s	6.44um		6.3Msz		
ITR	135.13	289 ePKP	53	23.40	-7.0X	
		e	53	33.50		
SOB1	137.40	291 ePKP	53	27.10	-7.7X	
		e	56	18.80		
UPA	141.24	358 (PKP)+	53	39.00	-2.7	
	Z 20s	2.66um		6.0Msz		
		i	56	42.00		
ATB	142.09	309 PKPc	53	37.80	-5.4X	
BMG	142.41	347 ePKP	53	25.00	-18.9X	
AIA	143.24	192 ePKP	53	43.10	-0.5	
BOG	144.99	348 iPKP	53	48.00	-0.6	
RDJ	145.73	273 iPKP+	53	50.00	0.9	
BMA	146.47	274 ePKP	53	51.20	0.8	
		e	53	55.10		
BAO	146.69	288 ePKP	53	47.00	-4.0X	
VAO	149.01	275 ePKP	53	55.40	0.9	
PPD	152.39	280 ePKP	54	00.90	1.4	
ZOBO	162.07	317 PKP	54	12.00	-0.1	
	1.0s	47.50nm				
		LR	52	44.00		
LPB	162.26	316 PKP	54	13.70	1.6	
	1.0s	180.00nm				
	Z 24s	5.43um				
		SS	56	43.00		
CNCB	162.40	315 iPKPc	54	13.90	1.5	
ARE	164.06	326 ePKP	54	13.00	-0.7	
SLA	165.43	287 ePKPc	54	14.90	0.4	
RFA	168.53	242 ePKPc	54	16.00	-0.4	
ANT	168.81	302 ePKP	54	17.50	0.7	
		i	54	20.40		
SAN	170.70	246 ePKP	54	20.00	2.4	
PEL	170.81	247 ePKP	54	18.00	0.3	
	2.2s	869.23nm				
		e	55	35.50		
		e	59	23.50		
LNV	171.09	241 ePKP	54	18.00	0.3	
LCCH	171.40	244 ePKP	54	16.00	-1.9	
	S.D. = 1.2	on 406 of 479 obs.				

? APR 15, 1989 21h 05m 27.67± 0.85s
29.919 N ±14.1km 99.377 E ±19.2km
DEPTH = 33.0km (normal)
4.6mb (3 obs.)
SICHUAN PROVINCE, CHINA (307)

HYB	22.73	241 eP	10	28.00	0.0	
MAIO	33.83	292 eP	12	04.00	-5.1X	
SOD	56.14	334 eP	15	06.00	0.1	
SUF	56.23	328 iP	15	06.80	0.2	
	0.8s	5.00nm		4.6mb		
WB5	59.89	141 eP	15	32.80	0.0	
HFS	62.46	326 eP	15	50.00	0.3	
	0.6s	3.00nm		4.6mb		
NB2	63.45	327 P	15	55.70	-0.6	
	0.8s	3.40nm		4.5mb		
	S.D. = 0.4	on 6 of 7 obs.				

? APR 15, 1989 21h 16m 43.67± 2.80s
30.516 N ±34.0km 98.451 E ±30.1km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
TIBET (306)

GUN	11.29	260 P	19	26.80	0.8	
PKI	11.78	259 P	19	31.80	-0.9	
KKN	11.83	260 P	19	33.40	0.1	
DMN	12.03	259 P	19	37.20	1.2	
GKN	12.32	262 P	19	38.60	-1.2	
HYB	22.33	239 eP	21	40.00	-0.1	
NB2	62.51	327 P	27	06.10	0.0	
	0.7s	1.00nm		4.1mb		
	S.D. = 1.0	on 7 of 7 obs.				

APR 15, 1989 22h 03m 27.56± 0.34s
42.035 N ± 4.0km 142.612 E ± 5.1km
DEPTH = 72.1 ± 3.3 km
4.8mb (15 obs.)
HOKKAIDO, JAPAN REGION (224)
Felt (I JMA) at Hiroo, Tomokomai, Urakawa and Obihiro. Also felt (I JMA) at Hachinohe, Honshu.

URA	0.18	45 iP+	03	38.00	0.0	
		iS	03	45.80		
HOO	0.58	64 P	03	00.00	-41.5X	
HOOJ	0.61	55 iP+	03	41.80	0.0	
		S	03	52.30		
TMR	0.97	308 eP	03	00.00	-46.0X	
OBI	0.99	27 eP	03	47.00	0.7	
		S	04	01.90		
MRRJ	1.21	289 iPd	03	48.00	-1.1	
		S	04	03.30		
SAP	1.39	318 iP	03	50.90	-0.6	
		iS	04	08.00		
HAC	1.72	209 eP	03	56.00	0.1	
		S	04	16.60		
KUSJ	1.88	55 P	03	58.10	0.0	
		S	04	21.10		
ASAJ	2.08	1 P	04	01.40	0.5	
		eS	04	28.70		
AOMJ	2.24	230 P	04	03.70	0.6	
		S	04	31.30		
OFUJ	3.04	194 P	04	13.70	-0.6	

		S	04 49.80		
YAMJ	4.33	208 P	04 32.70	0.3	
NIIJ	5.54	211 P	04 48.90	-0.4	
KAKJ	6.12	199 P	04 54.00	-3.4X	
		S	06 00.90		
MTMJ	6.60	216 P	05 04.70	0.7	
CHJJ	6.61	206 P	05 02.30	-1.8	
IIDJ	7.50	211 P	05 17.10	0.6	
TSRJ	8.30	221 P	05 28.60	1.2	
MDJ	9.83	290 eP	05 49.50	1.1	
CN2	12.71	284 eP	06 20.00	-6.9X	
BJI	20.02	273 eP	07 53.50	-3.4X	
TIA	20.57	262 eP	08 00.50	-2.1	
WHN	25.39	252 eP	08 50.50	0.9	
XAN	27.57	264 eP	09 11.00	1.3	
GTA	32.30	280 eP	09 51.60	0.0	
WMQ	39.63	292 P	10 54.20	0.6	
CHG	43.59	252 eP	11 30.20	4.0X	
GUN	47.76	272 P	12 00.00	0.3	
KKN	48.27	272 P	12 03.20	-0.2	
PKI	48.29	272 P	12 03.60	-0.2	
DMN	48.50	272 P	12 05.40	0.2	
GKN	48.63	273 P	12 06.20	0.0	
INK	49.54	29 eP	12 12.00	-0.4	
MBC	51.48	18 eP	12 26.00	-1.1	
ALE	55.07	4 eP	12 53.00	-0.5	
YKA	59.05	32 eP	13 22.50	0.6	
KEV	59.12	339 eP	13 21.00	-1.3	
SOD	60.74	337 iP	13 31.50	-1.9	
DAG	60.89	355 eP	13 31.00	-3.3X	
WB5	62.07	189 eP	13 41.90	-0.9	
WRA	62.14	189 Pc	13 42.50	-0.7	
	0.5s	2.20nm	4.5mb		
SUF	63.95	333 iP	13 53.60	-1.2	
	0.6s	5.10nm	4.6mb		
NUR	65.99	331 iP	14 06.80	-1.1	
	0.7s	9.30nm	4.8mb		
FFC	69.03	34 iPd	14 27.30	0.3	
	0.7s	8.00nm	4.8mb		
HFS	69.92	336 eP	14 31.00	-1.4	
	0.5s	7.00nm	4.8mb		
NB2	69.94	337 P	14 31.50	-1.1	
	0.7s	6.70nm	4.7mb		
LRM	69.97	46 eP	14 34.10	0.8	
FRB	71.70	14 eP	14 42.00	-1.1	
CLL	77.22	330 eP	15 15.00	0.0	
PRU	77.70	329 eP	15 18.00	0.4	
KHC	78.77	329 Pd	15 24.60	1.0	
GRF	79.20	330 eP	15 27.00	1.1	
	0.8s	10.00nm	4.8mb		
LOR	83.86	333 eP	15 50.50	0.3	
	0.8s	7.40nm	4.8mb		
LBF	84.06	333 eP	15 52.10	0.8	
	0.8s	6.70nm	4.7mb		
SSF	84.16	333 eP	15 52.60	0.9	
	0.8s	7.40nm	4.8mb		
SMF	84.40	333 eP	15 53.50	0.5	
	0.8s	6.70nm	4.7mb		
AVF	84.44	333 eP	15 53.70	0.6	
	0.7s	7.15nm	4.8mb		
BGF	84.82	333 eP	15 55.00	0.0	
	1.0s	11.00nm	4.9mb		
MAF	85.20	333 eP	15 57.30	0.3	
	1.1s	23.20nm	5.1mb		
GAC	86.27	26 eP	16 03.50	1.2	
CAF	86.51	333 eP	16 05.00	1.5	
	0.8s	6.70nm	4.8mb		
LFF	86.94	334 eP	16 06.00	0.5	

S.D. = 0.9 on 56 of 63 obs.

APR 15, 1989 22h 33m 32.50± 0.89s
24.828 N ± 6.8km 122.440 E ± 8.9km
DEPTH = 117.9 ± 7.8 km
4.5mb (1 obs.)
TAIWAN REGION (243)

ANP	0.91	293 iPd	33 54.00	0.2	
	0.8s	656.72nm			
		eS	34 08.90		
QZH	3.50	273 iPnc	34 25.50	-0.6	
		Sn	35 03.30		
SSE	6.34	350 ePn	35 04.30	-0.6	
		Lg	37 11.50		
WHN	9.15	310 eP	35 42.50	-0.5	
GYA	14.32	280 P	36 55.20	4.1X	
XAN	14.92	311 P	37 00.00	1.5	
TIY	15.42	329 eP	37 08.60	3.8X	
BJI	16.06	342 (P)	37 14.00	1.4	
BTO	18.85	330 eP	37 46.60	0.6	
CN2	19.09	7 iPc	37 47.20	-1.2	
GUN	32.82	283 P	39 57.20	0.0	
PKI	33.26	283 P	40 00.60	-0.4	
KKN	33.36	283 P	40 01.60	-0.1	
DMN	33.53	283 P	40 02.80	-0.4	
GKN	33.92	284 P	40 06.20	-0.2	
WB5	45.93	164 eP	41 45.10	-0.1	
WRA	45.98	164 Pc	41 45.90	0.3	
	0.8s	6.70nm	4.5mb		
ASPA	49.47	166 iPc	42 13.30	0.6	
WARB	50.87	175 eP	42 16.00	-7.3X	
YKA	81.93	23 eP	45 39.60	-0.3	

S.D. = 0.8 on 17 of 20 obs.

APR 15, 1989 23h 48m 36.81± 0.61s
13.723 S ± 7.1km 171.926 E ± 4.3km
DEPTH = 601.9 ± 7.8 km
5.2mb (36 obs.)
VANUATU ISLANDS REGION (185)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 9S, 13C
Centroid Locotion:
Origin Time 23:48:42.9 1.6
Lot 13.69S FIX;Lon 171.89E FIX
Dep 575.010.8 Half-durotion 2.0
Moment Tensor; Scole 10**17 Nm
Mrr= 0.56 0.26 Mtt= 0.05 0.68
Mff=-0.61 0.60 Mrt= 0.23 0.49
Mrf=-2.12 0.57 Mtf=-1.62 0.37
Principol Axes:
T Val= 2.73 Plg=41 Azm= 55
N 0.02 36 185
P -2.75 28 298
Best Double Couple:Mo=2.7*10**17
NP1:Strike= 80 Dip=37 Slip= 168
NP2: 179 83 53

PVC	5.30	221 iPc	50 16.50	3.9X	
MBU	7.31	117 eP	50 31.70	1.4	
VUN	7.60	125 ePd	50 35.50	2.6	
SVA	7.65	126 eP	50 33.30	-0.1	
DZM	9.80	211 iPc	50 56.40	2.3	
		iS	52 51.50		
		ScP	58 40.30		
HNR	12.49	289 iPd	51 21.00	0.7	
	0.9s	571.43nm	5.8mb		
VSG	12.77	289 eP	51 23.00	-0.1	
BRS	22.46	230 iPd	52 53.90	-0.4	
		i	53 13.00		
		iS	56 23.00		
		iScP	59 06.30		
KRP	24.32	173 P	53 10.60	0.0	
COO	24.94	224 iPc	53 16.20	-0.1	
RMO	25.14	236 iPd	53 18.50	0.4	
	0.5s	56.00nm	5.4mb		
		i	53 34.00		
CTA	25.35	252 iPc	53 19.80	-0.1	
	0.8s	38.81nm	5.1mb		
		iS	57 05.80		
CNB	29.59	219 iPd	53 57.00	0.4	
BWA	29.62	222 iPc	53 55.00	-1.8	
CAN	29.82	220 iPc	53 58.10	-0.4	
MSZ	31.03	186 P	54 07.00	-1.5	
QIS	31.58	253 iPc	54 13.10	-0.4	
	0.5s	49.00nm	5.4mb		
		e	58 40.00		
STK	33.13	232 iPc	54 27.10	0.8	
	0.2s	126.00nm	6.2mb		
TOO	33.43	220 eP	54 29.00	0.2	
BFD	35.09	223 iPc	54 43.00	0.4	
WB5	36.42	255 iPc	54 52.90	-0.7	
		eS	59 52.10		
WRA	36.45	255 P	54 54.00	0.1	
	0.3s	21.70nm	5.3mb		
ADE	36.66	229 iPc	54 56.00	0.5	
	0.6s	96.00nm	5.6mb		
PAE	37.22	101 iP	54 59.30	-0.9	
	0.9s	50.00nm	5.1mb		
PPT	37.23	101 iP	54 59.70	-0.6	
	0.9s	50.00nm	5.1mb		
ASPA	37.25	249 iPc	55 00.10	-0.4	
	0.5s	197.00nm	6.0mb		
		epP	55 16.20	64kmX	
		i	59 54.10		
PPN	37.36	101 iP	55 00.60	-0.8	
	0.9s	30.00nm	4.9mb		
TVO	37.54	101 iP	55 02.20	-0.7	
	0.9s	100.00nm	5.4mb		
PMO	38.91	97 iP	55 14.20	0.3	
	0.9s	85.00nm	5.3mb		
VAH	39.15	97 iP	55 16.00	0.1	
	0.9s	70.00nm	5.2mb		
TPT	39.17	97 iP	55 16.20	0.1	
	0.9s	60.00nm	5.1mb		
RUV	39.39	97 iP	55 17.80	-0.1	
	0.9s	80.00nm	5.2mb		
MTN	39.68	266 iPd	55 20.00	-0.2	
	0.5s	125.00nm	5.7mb		
		eS	00 40.60		
KNA	41.74	262 iPc	55 36.00	-0.5	
	0.4s	53.00nm	5.4mb		
FORR	43.68	240 iPc	55 51.20	-0.3	
	0.4s	194.00nm	6.0mb		
WARB	44.12	247 iPc	55 47.50	-7.6X	
	0.3s	35.00nm	5.4mb		
COOL	49.56	241 eP	56 35.00	-1.1	
MBL	50.07	254 iPc	56 39.10	-0.8	
	0.5s	46.00nm	5.2mb		
MEKA	51.40	247 iPc	56 48.80	-0.8	
	0.3s	10.00nm	4.7mb		
KLB	52.53	241 iPc	56 56.00	-1.6	
	0.5s	39.00nm	5.1mb		
NWAO	53.14	239 iPc	57 00.80	-1.2	
	1.0s	337.00nm	5.7mb		
BAL	53.32	242 eP	57 02.00	-1.3	
MRWA	53.82	244 eP	57 05.70	-1.1	
	0.3s	8.00nm	4.5mb		
MUN	53.88	240 eP	57 06.00	-1.2	
	0.6s	98.00nm	5.3mb		
NANU	54.05	252 iPd	57 07.80	-0.6	
	0.3s	23.00nm	5.0mb		
SBA	64.19	181 P+	58 15.10	0.2	
NJ2	68.20	313 Pc	58 40.40	0.2	
MDJ	69.63	329 eP	58 49.00	0.5	
DL2	70.31	320 eP	58 52.50	0.0	
WHN	70.71	310 P	58 54.60	-0.4	
CN2	71.22	326 iPd	58 57.40	-0.3	
TIA	71.68	316 eP	59 00.40	-0.2	
BJI	74.40	319 eP	59 16.50	0.6	
GYA	74.92	303 P	59 18.00	-1.2	
TIY	75.66	315 eP	59 22.80	-0.2	
SPA	76.37	180 ePc	59 25.90	-0.6	
	1.0s	26.00nm	4.7mb		
XAN	76.41	310 Pc	59 27.00	-0.1	
HHC	77.82	318 Pc	59 36.00	1.4	
BTO	78.72	317 eP	59 40.00	0.7	
CHG	78.82	293 iPc	59 40.20	0.0	
	0.8s	12.87nm	4.4mb		
CD2	79.04	306 eP	59 41.40	0.3	
PCC	79.91	47 ePd	59 44.70	-0.7	
GCC	79.98	48 ePd	59 45.20	-0.6	
PRS	80.14	49 ePd	59 46.40	-0.3	
BRK	80.16	47 eP	59 45.90	-0.8	
BKS	80.17	47 iPd	59 46.60	-0.2	
	0.8s	38.00nm	4.9mb		
SAO	80.27	48 eP	59 46.40	-0.9	
FHC	80.27	44 eP	59 47.20	-0.1	
MHC	80.37	48 ePd	59 47.70	-0.3	
SYP	80.43	51 eP	59 49.00	0.6	
LLA	80.57	49 ePd	59 48.40	-0.5	
PRI	80.57	49 ePd	59 48.90	-0.2	
LZH	81.05	310 eP	59 52.00	0.4	
	2.0s	82.00nm	4.9mb		
WDC	81.15	45 ePd	59 51.30	-0.5	
ORV	81.42	46 ePd	59 52.20	-1.0	
CMB	81.56	48 ePd	59 53.20	-0.8	
FRI	81.63	49 ePd	59 53.50	-0.7	
SBB	82.12	52 eP	59 55.00	-1.9	
RVR	82.20	52 eP	59 56.00	-1.2	
BAR	82.26	54 eP	59 57.00	-0.5	
PLM	82.36	53 eP	59 58.00	-0.2	
CLC	82.73	51 eP	00 00.00	0.1	
TPC	83.27	53 eP	00 01.00	-1.6	
GLA	83.84	54 eP	00 05.00	-0.4	
MAW	84.48	201 eP	00 08.00	0.1	
GTA	85.28	312 iPc	00 12.40	0.0	
	1.0s	0.10nm	2.4mb X		
EUR	85.31	48 iP	00 12.00	-0.6	
	0.2s	38.80nm	5.7mb		
PNT	86.83	38 eP	00 19.00	-0.4	
LRM	89.99	43 eP	00 34.90	0.5	

16d 00h

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INK     90.53  18 eP     00 34.00   -2.1
ALQ     91.03  54 eP     00 38.00   -1.4
         1.0s     11.50nm          4.9mb
SES     92.38  39 eP     00 45.00    0.0
GUN     92.89 298 P      00 47.80   -0.5
PKI     93.22 297 P      00 49.10   -0.7
KKN     93.38 298 P      00 49.80   -0.6
         0.8s     18.00nm          5.2mb
DMN     93.49 297 P      00 50.50   -0.4
         0.6s     11.00nm          5.2mb
GKN     93.98 298 P      00 52.10   -0.9
         0.9s     18.00nm          5.3mb
YKA     94.61  27 P      00 53.80   -1.1
MBC     98.30  13 eP     01 10.00   -1.4
KEV    119.86 347 ePKP   06 19.00   -1.3
SOD    121.77 345 ePKP   06 22.00   -2.0
PPD    124.68 129 e(PKP) 06 30.00   -1.2
APO    130.57 346 ePKP   06 28.20  -13.0X
         0.4s      1.90nm
BUL    130.66 228 iPKP   06 41.60   -1.2
                  iSKP   09 10.40
NB2    130.72 348 PKP    06 39.60   -1.9
         0.8s      5.00nm
KRI    131.97 232 iPKPd  06 46.80    1.5
CLL    138.82 340 ePKP   06 58.00    1.0
BRG    138.87 339 e(PKP) 06 53.00   -4.1X
SOB1   140.25 123 ePKP   06 44.30  -16.4X
                  e      09 39.50
SKO    141.97 323 ePKP   06 58.50   -4.4X
KBA    142.22 336 iPKP   06 59.10   -4.3X
         0.9s      8.80nm
                  i      07 02.50
DOU    142.28 347 PKP    06 59.60   -3.5X
WLF    142.31 345 PKP    07 00.70   -2.4
ITR    142.50 125 e(PKP) 06 57.00   -7.6X
GWF    142.54 343 PKP    07 00.54   -3.1X
LJU    142.56 334 e(PKP) 07 00.00   -3.8X
RBL    142.65 335 PKPc   07 00.10   -3.9X
VBY    142.67 333 e(PKP) 07 01.80   -2.1
FVI    142.84 336 PKP    07 02.50   -1.6
VOY    142.84 334 e(PKP) 07 01.90   -2.5
OHR    142.89 323 iPKP   07 01.30   -3.2X
         0.9s      0.12nm
CDF    143.15 343 PKP    07 02.04   -2.7
FEL    143.41 342 PKP    07 02.86   -2.4
VITF   143.68 344 PKP    07 03.92   -1.6
MOF    143.70 343 PKP    07 04.54   -1.2
CTI    143.74 337 PKPc   07 03.30   -2.6
HAU    143.78 344 ePKP   07 04.40   -1.4
         0.9s     89.60nm
BSF    143.81 343 PKP    07 05.76   -0.2
LOMF   144.24 343 PKP    07 05.99   -0.7
FLN    144.50 351 ePKP   07 06.50   -0.4
         0.9s    115.15nm
SAL    144.53 337 PKP    07 05.70   -1.4
LDF    144.61 351 ePKP   07 06.50   -0.6
         1.0s     74.00nm
MDI    144.69 338 PKP    07 06.40   -0.9
GRR    144.92 352 ePKP   07 07.80    0.1
         1.0s     96.00nm
VAI    144.94 339 PKPc   07 07.20   -0.5
LOR    145.10 346 ePKP   07 08.40    0.4
         0.9s     45.05nm
ARV    145.27 333 PKP    07 09.70    1.3
LPF    145.30 352 ePKP   07 09.00    0.7
         1.0s    112.00nm
LBF    145.34 345 ePKP   07 09.00    0.5
         1.0s     36.00nm
SSF    145.38 346 ePKP   07 09.40    0.9
SFI    145.40 334 PKP    07 11.20    2.6
ORX    145.41 340 PKP    07 08.91    0.2
ORO    145.42 340 PKPc   07 09.20    0.5
PGD    145.50 334 PKP    07 10.00    1.0
BOB    145.65 338 PKP    07 09.90    0.8
MME    145.65 336 PKPc   07 10.30    1.0
AVF    145.67 346 ePKP   07 09.70    0.8
         0.8s     23.50nm
SMF    145.69 345 ePKP   07 10.50    1.5
ASS    145.73 333 PKP    07 09.30    0.0
FIR    145.77 335 ePKP   07 10.00    0.8
BDI    145.80 336 PKP    07 09.20   -0.2
LSD    145.84 341 PKP    07 10.86    1.3
LPG    145.93 341 ePKP   07 11.50    1.7
         0.8s     33.60nm
DUI    145.97 329 PKP    07 11.60    1.9
BGF    146.00 346 ePKP   07 11.00    1.5
         0.8s     42.30nm
RSP    146.08 340 PKP    07 10.55    0.7
PII    146.12 335 PKP    07 09.70    0.0
SDI    146.25 330 PKP    07 11.10    1.0
MNS    146.27 332 PKP    07 11.20    1.1
SGO    146.34 327 PKP    07 11.00    0.8
BNI    146.35 341 PKP    07 10.40    0.1
MAF    146.39 347 ePKP   07 12.00    1.9
         0.9s     36.85nm
TCF    146.40 347 ePKP   07 12.30    2.1
         0.8s     35.60nm
TDS    146.41 325 PKPc   07 12.20    1.8
RRL    146.43 341 PKP    07 12.60    2.0
MFF    146.55 350 ePKP   07 12.40    2.0
         0.8s     53.75nm
FIN    146.58 339 PKP    07 12.09    1.6
LSF    146.58 348 ePKP   07 12.40    2.0
         0.8s     41.65nm
ROB    146.62 339 PKP    07 11.78    1.1
DOI    146.65 340 PKP    07 09.50   -1.2
PZZ    146.70 340 PKP    07 11.78    0.9
RDP    146.74 331 PKP    07 11.50    0.6
FOUF   146.78 340 PKP    07 12.67    1.9
STV    146.86 340 PKP    07 11.58    0.5
IMI    146.95 339 PKP    07 12.60    1.4
SAOF   147.00 339 PKP    07 13.54    2.3
AUTN   147.04 339 PKP    07 13.63    2.1
TOUF   147.08 339 PKP    07 14.34    2.8
SBF    147.15 339 ePKP   07 13.60    2.1
         1.0s     78.00nm
AURF   147.17 339 PKP    07 14.34    2.8
MVIF   147.22 339 PKP    07 13.84    2.1
CALN   147.44 340 PKP    07 13.54    1.5
RJF    147.49 347 ePKP   07 15.10    3.2X
         0.9s     22.53nm
SOI    147.64 323 PKP    07 15.50    3.1X
FRF    147.69 340 ePKP   07 15.10    2.8
         0.9s     36.05nm
CAF    147.73 346 ePKP   07 15.90    3.5X
         1.0s     26.00nm
CVF    147.74 336 PKP    07 15.97    3.5X
LRG    147.88 340 ePKP   07 15.70    3.1X
         1.0s     48.00nm
LMR    147.94 340 ePKP   07 15.80    3.1X
         1.0s     50.00nm
LFF    148.00 348 ePKP   07 16.90    4.2X
         1.0s     48.00nm
LPO    148.15 347 ePKP   07 16.80    3.8X
         0.8s     30.90nm
BNG    152.17 253 iPKPc  07 19.80   -0.1
         0.7s     12.00nm
                  id     07 26.20
                  id     07 39.40
                  ic     09 54.00
LIC    171.97 202 PKP    07 38.80    0.1
KIC    171.98 204 PKP    07 38.60   -0.1
         1.0s     10.00nm
       S.D. = 1.2  on 173 of 194 obs.
-------------------------------------
%  APR  16, 1989  00h 20m 37.07± 0.82s
   39.374 N ± 7.0km   27.730 E ± 8.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

DST      0.73  71 iPg    20 51.40   -0.1
                  iSg    21 02.40
EDC      0.98   6 iPg    20 55.50   -0.1
                  iSg    21 09.50
BNT      0.99   8 iPg    20 56.10    0.2
                  iSg    21 09.10
IZM      1.04 201 ePn     20 56.80    0.1
EZN      1.18 293 ePn     20 58.90   -0.1
ALT      1.88  99 ePn     21 14.00    4.4X
       S.D. = 0.2  on   5 of   6 obs.
-------------------------------------
?  APR  16, 1989  00h 26m 44.67± 6.09s
   10.862 S ±48.8km  165.491 E ±60.7km
   DEPTH =  33.0km  (normol)
   4.9mb (  4 obs.)  3.8Msz (  1 obs.)
 SANTA CRUZ ISLANDS              (184)

HNR      5.64 284 eP     28 08.00   -0.4
                  eS     29 09.00
VSG      5.91 285 eP     28 14.00    1.7
                  eS     29 15.00
DZM     11.18 175 iPc    29 25.90    0.4
BRS     20.34 214 iPd    31 21.30    0.3
CTA     20.67 241 iPd    31 24.00   -0.5
         1.2s     54.69nm          4.8mb
RMQ     22.16 223 iPc    31 40.50    1.0
WB5     31.27 250 eP     33 02.80   -1.2
WRA     31.31 249 Pc     33 03.50   -0.8
         0.8s      7.20nm          4.6mb
ASPA    32.65 243 iPd    33 14.70   -1.4
         1.1s     25.00nm          5.0mb
      Z  21s      0.21um           3.8Msz
                  LR     44 32.70
WARB    39.68 242 iPd    34 08.20   -7.5X
         0.6s     19.00nm          5.0mb
MEKA    46.87 244 eP     35 14.70    0.8
BNG    146.64 262 iPKPd  46 28.20    4.2X
         0.9s     18.00nm
                  ic     46 32.40
SOB1   147.04 126 ePKP   46 30.90    6.3X
ITR    149.24 128 ePKP   46 36.80    8.7X
       S.D. = 1.2  on  10 of  14 obs.
-------------------------------------
%  APR  16, 1989  00h 50m 07.34± 0.72s
   39.405 N ± 6.2km   27.697 E ± 7.2km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

DST      0.75  74 iPg    50 21.40   -0.6
                  iSg    50 32.40
EDC      0.95   8 iPg    50 25.50    0.1
                  iSg    50 39.50
BNT      0.97  10 iPg    50 25.60   -0.1
                  iSg    50 39.10
IZM      1.06 199 ePn     50 26.80   -0.6
EZN      1.14 292 ePn     50 28.90    0.2
KHL      1.79 127 ePn     50 39.50    0.9
       S.D. = 0.7  on   6 of   6 obs.
-------------------------------------
?  APR  16, 1989  01h 10m 06.11± 2.71s
   51.989 N ±40.6km  176.253 E ±13.5km
   DEPTH =  33.0km  (normol)
   4.1mb (  1 obs.)
 RAT ISLANDS, ALEUTIAN ISLANDS   (  6)

SMY      1.51 300 eP     10 32.20    1.1
                  e(S)   11 13.00
ADK      4.37  89 e(P)   11 13.00    1.1
TTA     18.34  43 eP     14 21.00    1.7
KDC     18.77  60 eP     14 22.50   -2.0
IMA     20.64  35 eP     14 45.70    0.6
MBC     34.21  23 eP     16 50.00    0.0
YKA     37.04  46 P      17 15.20    1.1
FRB     54.07  30 eP     19 27.00   -2.1
NB2     66.69 352 P      20 53.80   -1.5
         0.7s      1.30nm          4.1mb
       S.D. = 1.7  on   9 of   9 obs.
-------------------------------------
?  APR  16, 1989  03h 48m 39.58± 9.67s
   17.993 N ±44.3km   65.700 W ±67.7km
   DEPTH =  33.0km  (normol)
 PUERTO RICO REGION              ( 90)

LPR      0.35 333 P      48 47.90   -0.2
SJG      0.44 286 iP     48 48.30   -1.1
                  S      48 56.10
CSB      0.53 304 P      48 50.50   -0.1
                  S      48 59.50
APR      1.08 295 P      48 59.50    1.0
MGP      1.32 271 P      49 02.10    0.2
       S.D. = 1.1  on   5 of   5 obs.
-------------------------------------
%  APR  16, 1989  04h 37m 58.25± 0.93s
   40.841 N ± 7.2km   27.779 E ± 9.5km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

EDC      0.50 173 iPg    38 08.50    0.1
                  iSg    38 15.50
CTT      0.58  58 ePg    38 09.90   -0.1
DMK      0.98 359 iPg    38 17.80    1.0
                  iSg    38 30.90
ISK      0.99  77 ePg    38 16.00   -1.1
DST      1.40 152 iPn    38 25.40    1.6
HRT      1.43  90 ePn    38 24.00   -0.3
EZN      1.50 228 ePn    38 24.00   -1.2
       S.D. = 1.3  on   7 of   7 obs.
-------------------------------------
   APR  16, 1989  04h 46m 29.60± 0.92s
   47.572 N ± 5.5km   12.183 E ±11.4km
   DEPTH =  10.0km  (geophysicist)
```

AUSTRIA (546)
ML 3.0 (VKA), 2.3 (KBA). Felt (V) at Woergl.

KBA	0.93	122	iPgc	46 46.60	-0.9
			i(Sg)	47 00.10	
FVI	1.06	157	P	46 48.40	-1.2
			eSg	47 00.00	
RBL	1.48	140	P	46 56.40	0.1
CTI	1.57	194	P	46 57.80	0.2
KHC	1.82	30	Pn	47 01.50	0.3
			Pg	47 08.20	
			Sg	47 28.50	
VOY	1.94	142	ePn	47 04.80	1.8
			eSn	47 31.70	
GRF	2.22	344	ePn	46 56.40	-10.5X
			ePg	46 58.30	
			eSg	47 18.60	
VKA	2.87	74	iPnc	47 16.30	0.1
			iPg	47 25.10	
			eSn	47 50.50	
			i(Sg)	48 04.70	
PRU	2.88	32	ePn	47 16.30	0.0
			Pg	47 25.00	
			eSg	47 59.50	
MOX	3.10	353	ePn	47 19.00	-0.4
			ePg	47 30.00	
			eSn	47 55.00	
			iSg	48 10.00	

S.D. = 1.0 on 9 of 10 obs.

% APR 16, 1989 05h 23m 04.22± 1.58s
37.903 N ±13.3km 27.356 E ±18.9km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

IZM	0.50	352	iPg	23 15.00	0.6
			eSg	23 23.30	
YER	1.06	136	iPn	23 24.20	-0.1
KHL	1.76	76	iPn	23 34.50	-0.5
DST	1.97	30	iPn	23 41.40	3.4X
EZN	2.08	338	ePn	23 39.00	-0.6
ELL	2.34	119	ePn	23 44.00	0.6
EDC	2.47	9	ePn	23 50.50	5.3X

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

APR 16, 1989 05h 24m 23.34± 0.34s
26.533 N ± 2.5km 126.388 E ± 2.6km
DEPTH = 133.3 ± 3.2 km
5.3mb (54 obs.)

RYUKYU ISLANDS (238)
Felt (II JMA) on Kume-shimo.
Also felt (II JMA) at Noha ond (I JMA) at Nago, Okinawa.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 24C
Centroid Location:
Origin Time 05:24:25.3 0.5
Lat 26.33N 0.04 Lon 125.96E 0.08
Dep 125.9 2.2 Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr=-1.09 0.09 Mtt= 0.85 0.12
Mff= 0.24 0.14 Mrt=-0.20 0.07
Mrf= 1.38 0.09 Mtf=-0.56 0.11
Principol Axes:

	Val=	Plg=	Azm=
T	1.57	23	227
N	0.39	22	327
P	-1.96	57	95

Best Double Couple:Mo=1.8*10**17
NP1:Strike=281 Dip=29 Slip=-140
NP2: 155 72 -67

KMJ	0.42	117	iP+	24 42.00	-0.6
			iS	24 55.00	
NAH	1.20	105	iP+	24 48.40	-0.4
			iS	25 05.80	
NGO	1.42	87	iP+	24 50.70	-0.4
			iS	25 09.20	
ANP	4.59	254	eP+	25 34.00	2.0
KAGJ	6.09	39	P	25 49.70	-2.5
			eS	26 58.20	
SSE	6.44	316	P	25 57.50	0.5
	1.0s		330.00nm		5.6mb X
Z	12s		2.30um		
			i	26 28.00	
			S	27 09.00	
			Lg	27 50.00	
KUMJ	7.12	32	eP	26 05.20	-1.0
QZH	7.21	259	iPc	26 07.50	0.1
	5.0s		4.80nm		3.3mb X
			S	27 27.00	
NJ2	8.57	312	iPc	26 27.00	1.2
	3.0s		0.90nm		2.9mb X
			S	28 01.00	
SHNJ	8.59	27	eP	26 25.70	-0.3
SHK	9.64	33	eP	26 36.00	-4.0X
TKSJ	9.95	40	P	26 38.90	-5.2X
			eS	28 23.70	
YONJ	10.55	33	eP	26 46.10	-6.0X
WKYJ	11.03	44	eP	26 52.70	-5.8X
WHN	11.31	293	Pc	27 03.50	1.4
	1.2s		0.14nm		2.5mb X
BAG	11.43	209	eP	27 02.00	-1.8
HKC	11.90	252	eP	27 08.00	-1.8
GZH	12.33	257	eP	27 14.30	-1.2
TIA	12.47	323	eP	27 18.50	1.3
E	12s		2.30um		
			eS	29 34.50	
DL2	12.97	343	P	27 25.00	1.3
	5.0s		0.90nm		2.5mb X
Z	12s		1.60um		5.2Msz
E	10s		2.20um		
MTMJ	13.96	41	eP	27 40.30	3.8X
MAT	14.17	42	(P)	27 40.00	0.9
			eS	30 26.00	
CHJJ	14.35	46	P	27 46.00	4.7X
SNY	15.43	352	iPc	27 56.20	1.3
	5.0s		0.80nm		2.3mb X
			S	30 48.50	
BJI	15.93	330	eP	28 02.50	1.3
	4.0s		0.80nm		2.4mb X
Z	14s		1.47um		5.2Msz
N	12s		1.00um		
			epP	28 50.00	
			eS	31 04.00	
TIY	16.23	317	iPc	28 07.00	2.1
	1.0s		0.20nm		2.4mb X
			S	31 08.00	
XAN	16.83	301	P	28 12.80	0.5
N	10s		2.40um		
QIZ	16.98	247	Pc	28 15.00	0.8
	6.0s		1.70nm		2.5mb X
E	11s		1.00um		
			eS	31 11.00	
			sS	31 28.00	
CN2	17.25	358	eP	28 17.00	-0.3
	5.0s		0.60nm		2.1mb X
			sP	29 00.00	
			eS	31 25.00	
GYA	17.66	274	P	28 22.60	0.0
	5.0s		1.50nm		2.5mb X
Z	12s		1.50um		
N	12s		5.10um		
E	12s		1.90um		
OFUJ	17.90	42	eP	28 22.60	-2.6
MDJ	18.23	7	eP	28 28.50	-0.4
HHC	18.83	323	Pc	28 35.00	-0.4
	4.0s		0.30nm		2.0mb X
N	11s		1.28um		
			S	32 07.00	
DAV	19.35	182	eP	28 42.00	1.0
			eS	32 19.80	
BTO	19.52	320	P	28 42.50	-0.1
N	13s		2.10um		
E	13s		2.00um		
			S	32 12.00	
CD2	20.31	288	eP	28 49.00	-1.7
			S	32 23.50	
KMI	21.33	271	Pc	29 01.50	0.3
	4.0s		0.80nm		2.5mb X
Z	16s		4.90um		5.0MszX
			pP	29 23.00	104kmX
			PP	29 32.00	
			sP	29 40.00	
			S	32 46.00	
			iS	32 49.00	
			sS	33 26.00	
			SS	33 39.00	
LZH	21.45	302	P	29 02.50	0.3
	1.5s		220.00nm		5.3mb
			sP	29 30.00	
			S	32 53.00	
			SS	33 40.00	
GUMO	21.58	123	eP	29 05.30	1.9
	1.4s		815.38nm		5.9mb
PJG	21.58	123	eP	29 05.00	1.6
			TT	51 09.00	
GUA	21.64	123	eP	29 05.50	1.5
	1.2s		625.00nm		5.9mb
ASAJ	21.92	33	eP	29 07.30	0.7
KUSJ	22.27	37	eP	29 10.70	0.8
KKM	22.57	207	ePc	29 14.80	1.6
TSM	23.57	201	eP	29 24.50	1.7
GTA	25.62	307	iPc	29 40.80	-1.3
Z	12s		1.00um		4.6MszX
CHG	26.42	259	iPc	29 50.00	0.5
	1.0s		91.25nm		5.3mb
			eS	34 20.00	
NST	26.72	251	iPc	29 54.00	1.9
NNT	28.61	246	iPd	30 10.60	1.4
LSA	31.17	284	P	30 32.00	-0.3
IPM	32.62	232	ePc	30 45.50	1.0
	0.9s		97.20nm		5.6mb
PSI	35.43	233	ePc	31 09.50	1.0
WMQ	35.64	309	Pc	31 08.20	-1.9
Z	16s		0.70um		4.5MszX
			eS	36 32.00	
GUN	35.94	282	Pc	31 12.70	-0.4
PKI	36.39	281	Pc	31 16.20	-0.7
KKN	36.48	282	Pc	31 17.00	-0.5
DMN	36.66	281	Pc	31 18.40	-0.6
GKN	37.01	282	Pc	31 21.40	-0.5
LAT	38.57	146	eP	31 35.00	0.2
MTN	39.41	173	eP	31 39.70	-2.0
	0.8s		155.00nm		5.8mb
PMG	41.03	148	eP	31 54.50	-0.5
KNA	42.09	177	iPd	32 03.20	-0.5
KSH	43.68	300	P	32 19.00	2.4
HYB	45.06	269	eP	32 28.00	0.2
WB5	46.78	170	iPd	32 40.30	-0.9
GBA	47.48	264	Pc	32 47.00	0.2
	0.8s		54.10nm		5.3mb
MBL	47.83	188	eP	32 48.30	-1.0
VSG	48.09	133	eP	32 51.00	-0.5
QIS	48.53	163	iPd	32 54.20	-0.6
	0.9s		106.00nm		5.6mb
POO	48.90	272	iPc	32 57.30	-0.5
CTA	50.19	155	iPd	33 07.30	-0.2
	1.0s		110.00nm		5.6mb
			iS	40 11.00	
ASPA	50.43	171	iPd	33 08.00	-1.2
	1.0s		57.00nm		5.4mb
Z	22s		0.27um		4.2MszX
			iPcP	34 26.30	
			eS	40 12.30	
			LR	53 03.10	
QUE	51.92	289	eP	33 19.40	-1.4
WARB	52.41	180	iPd	33 16.30	-7.8X
	0.4s		16.00nm		5.2mb
MEKA	53.38	189	iPd	33 30.50	-0.7
	0.4s		16.00nm		5.3mb
MRWA	56.32	191	iPc	33 52.10	-0.4
MAIO	56.91	298	iPc	33 57.40	0.6
			i	34 30.00	
			eS	41 44.00	
RMQ	56.95	156	iPd	33 56.90	0.0
FORR	57.08	178	iPd	33 57.00	-0.7
	0.3s		58.00nm		6.0mb
COOL	57.31	185	iPd	33 58.40	-1.0
	0.3s		10.00nm		5.3mb
BRS	59.32	153	iPc	34 12.00	-1.4
NWAO	59.77	189	iPd	34 16.00	-0.4
STK	59.87	165	iPd	34 16.70	-0.4
	0.2s		17.00nm		5.7mb
BRW	60.91	21	iPc	34 23.20	-0.5
TTA	61.11	31	eP	34 25.00	-0.4
COO	61.81	155	eP	34 30.00	-0.3
DZM	61.96	137	iPc	34 30.10	-1.4
IMA	62.00	27	eP	34 31.00	-0.3
	0.9s		16.70nm		5.0mb
ADE	62.27	169	iPd	34 32.80	-0.4
	1.0s		106.00nm		5.7mb
KDC	63.31	36	eP	34 39.40	-0.4
PWA	64.08	32	iPc	34 44.60	-0.2
BWA	64.12	160	iPd	34 46.30	0.9
PMR	64.44	32	ePc	34 46.70	-0.4
	0.7s		11.40nm		4.9mb
FBA	64.55	28	eP	34 47.30	-0.5
CAN	65.13	160	iPd	34 52.20	0.3
CNB	65.24	159	iPc	34 53.40	0.8

16d 05h

0.8s 91.00nm 5.8mb
TOA 65.74 31 eP 34 56.50 0.9
TOO 66.24 163 eP 35 00.00 1.0
SLY 68.09 300 ePc 35 09.00 -1.7
i 35 43.00
KEV 68.55 338 iP 35 11.50 -1.5
0.5s 9.80nm 4.9mb
e 35 47.00
INK 69.26 23 iPc 35 17.10 -0.2
1.0s 58.00nm 5.4mb
pP 35 51.00 139kmX
SOD 69.46 336 iP 35 17.20 -1.4
e 35 53.00
MSL 69.67 301 ePd 35 20.00 -0.4
e 35 52.00
BHD 69.69 298 ePd 35 20.00 -0.6
e 35 52.00
eS 45 09.00
MBC 69.92 13 eP 35 20.00 -1.3
0.5s 28.00nm 5.3mb
RYD 70.77 289 ePc 35 26.20 -1.1
ALE 71.09 1 eP 35 28.00 -0.2
0.6s 8.00nm 4.7mb
NUR 72.79 330 iP 35 37.60 -0.9
0.5s 18.20nm 5.1mb
Z 16s 0.20um 4.5MszX
e 36 13.00
LR 11 50.00
KVT 73.33 308 eP 35 42.40 0.2
KMSA 74.20 285 ePc 35 46.90 -0.6
DAG 74.75 352 iPd 35 48.00 -1.7
0.7s 11.64nm 4.8mb
UPP 76.22 331 iP 35 56.70 -1.5
1.0s 100.00nm 5.5mb
i 36 31.80
HRI 76.46 300 eP 36 00.00 -0.3
CLI 77.07 316 eP 36 03.00 -0.3
HFS 77.78 332 eP 36 05.50 -1.3
0.5s 14.90nm 5.0mb
PRNI 78.20 298 iPc 36 10.00 0.2
NB2 78.31 333 P 36 08.60 -1.2
0.7s 13.90nm 4.8mb
MLR 78.37 315 iPc 36 10.00 -0.6
MBH 78.52 298 iPc 36 12.00 0.5
WAJH 78.62 294 ePc 36 12.90 0.8
BADA 78.93 296 ePc 36 14.10 0.4
YKA 78.94 24 eP 36 14.00 0.9
YKC 79.00 24 ePd 36 13.50 0.0
0.5s 12.00nm 4.9mb
ELL 79.43 306 iP 36 15.70 -0.8
KRA 79.85 321 eP 36 17.40 -0.9
0.5s 54.00nm 5.6mb
e 36 26.20
SPC 80.10 320 iP 36 20.20 0.3
MSZ 80.37 151 P 36 21.90 1.0
KDZ 80.42 312 eP 36 05.00 -16.5X
PGB 80.84 313 eP 36 23.00 -0.7
RZN 80.87 312 iPc 36 25.00 0.9
e 36 59.00
BZS 81.02 317 eP 36 23.50 -1.0
VTS 81.45 313 iPc 36 27.00 0.0
KSP 81.46 323 iPc 36 27.10 0.4
0.9s 38.00nm 5.2mb
KKB 81.87 313 iPc 36 29.00 0.0
e 37 05.00
SRO 81.90 320 eP 36 34.30 5.3X
ZST 82.40 320 eP 36 31.70 0.1
e 36 41.10
PGC 82.66 39 eP 36 35.00 2.1
BRG 82.70 324 iPc 36 33.30 0.2
1.1s 30.00nm 5.0mb
i 37 09.50
VKA 82.81 321 iPc 36 34.70 0.9
0.7s 26.60nm 5.2mb
PRU 82.87 323 P 36 34.50 0.5
1.0s 17.40nm 4.9mb
e 37 10.00
SKO 82.89 313 iPc 36 34.70 0.4
0.8s 50.00nm 5.4mb
i 37 10.00
CLL 82.95 325 iPc 36 34.50 0.1
1.1s 34.00nm 5.1mb
ipP 37 10.00 140kmX
KHC 83.86 322 iPd 36 39.90 0.7
MOX 84.05 324 eP 36 41.00 1.0
Z 50s 0.80um 4.7MszX
eLR 05 00.00

PTJ 84.28 319 e(P) 36 41.20 -0.2
PNT 84.40 37 eP 36 42.00 0.2
0.9s 16.00nm 4.9mb
GRF 84.81 324 iPc 36 44.90 1.1
1.5s 97.00nm 5.4mb
VBY 84.91 319 iP 36 45.20 0.8
KBA 85.14 321 eP 36 45.00 -0.8
EDM 85.21 31 iPd 36 46.80 1.0
0.7s 29.00nm 5.3mb
CEY 85.27 319 eP 36 46.00 -0.2
RBL 85.37 320 Pd 36 46.40 -0.4
VOY 85.42 320 iPc 36 46.50 -0.5
FVI 85.74 321 Pd 36 48.10 -0.3
FHC 86.52 46 ePd 36 54.20 1.7
CTI 86.69 321 P 36 53.20 -0.1
WLF 87.45 326 iP 36 57.40 0.7
WDC 87.56 45 ePd 36 58.30 0.8
CDF 87.65 324 eP 36 57.70 -0.2
0.8s 10.75nm 4.9mb
EKA 87.78 334 Pd 36 57.40 -0.8
0.5s 3.30nm 4.6mb
SFI 87.81 319 P 37 04.20 5.7X
PGD 87.91 319 P 37 00.70 1.4
DOU 87.94 327 Pc 36 59.30 0.2
0.9s 35.00nm 5.4mb
SES 88.13 33 ePd 37 00.70 0.6
pP 37 33.00 125kmX
FIR 88.24 319 e(PKP) 37 01.00 0.4
BSF 88.27 324 eP 37 00.20 -0.7
MIN 88.29 45 ePd 37 01.30 0.1
MME 88.32 320 Pd 37 02.80 1.4
HAU 88.39 324 eP 37 00.70 -0.7
0.8s 8.05nm 4.8mb
VAI 88.42 322 Pd 37 01.20 -0.2
BOB 88.70 321 P 37 03.50 0.5
ORV 88.79 46 eP 37 03.70 0.3
ORX 89.00 322 P 37 03.39 -1.0
FFC 89.05 26 iPd 37 04.50 0.2
0.6s 26.00nm 5.5mb
BRK 89.23 47 e(P) 37 05.80 0.4
BKS 89.24 47 ePd 37 07.00 1.5
FRB 89.26 7 eP 37 04.00 -1.1
PCC 89.35 48 ePd 37 06.20 0.2
LSD 89.56 322 P 37 07.60 0.4
RSP 89.69 322 P 37 07.80 0.1
FIN 89.74 321 P 37 07.49 -0.3
LPG 89.76 322 eP 37 08.10 -0.1
0.6s 5.80nm 4.8mb
GCC 89.87 48 e(P) 37 08.80 0.4
ROB 89.88 321 P 37 07.90 -0.6
MHC 89.93 48 ePd 37 09.50 0.6
BNI 90.08 322 P 37 08.70 -0.8
RRL 90.10 322 P 37 09.54 -0.2
IMI 90.11 321 P 37 09.54 0.0
PZZ 90.18 321 P 37 09.03 -0.9
STV 90.22 321 P 37 08.62 -1.5
CVF 90.36 319 eP 37 10.80 0.1
0.6s 14.45nm 5.3mb
CMB 90.37 47 ePd 37 11.50 0.7
LRM 90.38 37 eP 37 11.90 0.9
SBF 90.40 321 eP 37 10.60 -0.3
0.6s 29.75nm 5.6mb
SMF 90.57 324 eP 37 10.90 -0.7
0.8s 5.35nm 4.7mb
PRS 90.67 48 ePd 37 12.90 0.7
AVF 90.73 325 eP 37 11.30 -0.9
0.8s 6.70nm 4.8mb
LLA 90.80 48 ePd 37 13.90 1.1
FRF 91.03 321 eP 37 13.20 -0.5
0.6s 10.80nm 5.2mb
LMR 91.25 321 eP 37 14.50 -0.2
0.8s 18.80nm 5.3mb
PRI 91.25 48 ePd 37 16.30 1.3
LRG 91.26 321 eP 37 14.70 0.0
0.6s 17.15nm 5.4mb
FRI 91.40 47 eP 37 15.90 0.4
MAF 91.52 325 eP 37 16.30 0.4
1.0s 11.00nm 5.0mb
EUR 92.31 43 iP 37 21.00 1.0
0.2s 10.61nm 5.7mb
SPA 116.38 180 e(PKP) 42 51.90 -0.2
1.0s 9.00nm
KIC 122.47 297 PKP 43 05.00 0.0
TIC 122.52 298 PKP 43 05.50 0.4
ZOBO 163.08 56 PKP 44 14.00 2.2
LPB 163.26 56 ePKP 44 15.00 3.2X
S.D. = 1.0 on 199 of 210 obs.

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* APR 16, 1989 06h 20m 54.98± 0.91s
13.855 N ± 6.2km 43.113 E ±40.0km
DEPTH = 10.0km (geophysicist)
WESTERN ARABIAN PENINSULA (555)
ML 4.1 (ARO).

OBO 1.87 175 iP+ 21 27.27 0.1
TDD 2.05 186 iP+ 21 29.90 0.0
MKL 2.13 179 eP+ 21 30.91 -0.1
DAF 2.31 194 eP 21 33.70 0.1
ARO 2.33 186 P 21 34.09 0.1
S 22 09.63
SGH 2.45 191 P 21 35.52 -0.2
JIZN 3.10 355 eP 21 44.80 0.0
ABHA 4.38 355 eP 21 56.00 -7.4X
KMSA 6.61 11 eP 22 46.30 11.6X
S.D. = 0.1 on 7 of 9 obs.

APR 16, 1989 06h 50m 24.46± 0.19s
1.012 N ± 3.5km 120.061 E ± 5.3km
DEPTH = 27.1km (6 depth phases)
5.3mb (27 obs.) 4.9Msz (15 obs.)
MINAHASSA PENINSULA (265)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 39C
Centroid Location:
Origin Time 06:50:29.6 0.4
Lat 1.52N 0.05 Lon 120.28E 0.07
Dep 35.1 4.3 Half-durotion 2.3
Moment Tensor; Scale 10**17 Nm
Mrr= 1.44 0.13 Mtt=-1.08 0.12
Mff=-0.36 0.22 Mrt=-1.66 0.29
Mrf= 0.07 0.21 Mtf=-1.08 0.12
Principal Axes:
T Val= 2.38 Plg=59 Azm=204
N -0.03 23 71
P -2.35 21 332
Best Double Couple:Mo=2.4*10**17
NP1:Strike= 28 Dip=31 Slip= 43
NP2: 260 69 114

TSM 3.76 328 iPc 51 21.80 -0.2
i 51 32.00
e 52 07.50
KKM 6.30 323 ePd 51 57.00 -1.2
0.5s 166.70nm 6.1mb
i 52 21.00
DAV 8.16 42 eP 52 20.00 -4.2X
BAG 15.31 2 eP 54 01.00 0.3
eS 56 46.00
KGM 16.77 274 eP 54 23.50 4.4X
MTN 17.61 142 eP 54 30.00 0.3
0.5s 223.00nm 5.5mb
KNA 18.74 153 eP 54 43.50 -0.2
0.6s 100.00nm 5.2mb
IPM 19.34 281 ePc 54 51.40 0.5
0.9s 25.50nm 4.5mb
SNG 20.33 288 eP 55 02.00 0.5
eS 58 48.20
QIZ 20.52 331 eP 55 01.00 -2.4
N 16s 1.70um
E 17s 1.90um
pP 55 08.00 26km
eS 58 49.00
sS 59 04.00
JAY 20.93 100 ePc 55 07.50 -0.3
PSI 21.19 275 ePc 55 11.70 1.4
0.9s 27.20nm 4.7mb
HKC 21.93 345 P 55 18.00 0.3
MBL 22.04 181 eP 55 18.20 -0.6
0.5s 38.00nm 5.1mb
GZH 22.89 344 eP 55 28.00 0.8
E 12s 1.60um
eS 59 35.00
NNT 23.20 301 iPd 55 31.60 1.3
QZH 23.83 357 P 55 36.00 -0.3
N 12s 2.40um
NANU 23.84 190 eP 55 36.80 0.3
ANP 24.07 3 eP 55 39.00 0.2
WB5 25.06 147 iPc 55 46.80 -1.5
WRA 25.10 147 Pd 55 48.00 -0.6
1.0s 247.70nm 5.8mb
CHG 27.24 312 ePd 56 07.00 -1.5
1.2s 69.92nm 5.2mb
eS 00 48.00

```
MEKA    27.50 183 iPd    56 10.30  -0.5
        0.5s   106.00nm          5.8mb
GUMO    27.55  62 eP     56 16.00   4.7X
WARB    27.77 167 eP     56 05.00  -8.3X
        0.5s    20.00nm          5.1mb
ASPA    27.98 152 iPc    56 14.10  -1.0
        0.6s   123.00nm          5.8mb
     Z  18s     4.09um          5.1Msz
                LR       08 44.20
GYA     28.39 334 iPd    56 18.80  -0.2
     Z  24s     1.70um          4.6MszX
     N  14s     2.50um
     E  14s     1.10um
QIS     28.74 139 eP     56 19.00  -3.0X
PMG     28.90 112 eP     56 22.50  -1.0
KMI     29.23 326 Pd     56 27.50   0.8
     Z  20s     2.60um          4.8Msz
     E  15s     1.60um
                pP       56 36.00   30km
                S        01 16.00
                sS       01 24.00
WHN     29.87 350 P      56 33.00   1.0
     Z  20s     3.18um          5.0Msz
     E  12s     1.22um
                S        01 32.00
SSE     29.94   2 P      56 33.50   0.9
        6.0s     0.90nm          2.8mb X
     Z  18s     2.00um          4.8Msz
     N  14s     1.30um
     E  14s     0.60um
                S        01 16.00
                sS       01 30.00
MRWA    30.31 187 eP     56 35.70  -0.3
        0.5s    13.00nm          5.0mb
NJ2     30.89 358 Pc     56 40.20  -0.8
     N  15s     1.20um
     E  15s     0.80um
                S        01 44.00
BAL     31.60 186 eP     56 46.50  -0.8
COOL    31.74 178 eP     56 47.00  -1.5
KLB     32.50 184 iPd    56 54.40  -0.7
        0.6s    35.00nm          5.5mb
FORR    32.59 167 eP     56 54.60  -1.3
        0.6s    66.00nm          5.7mb
MUN     33.01 186 eP     56 58.40  -1.2
CTA     33.15 131 iPd    57 01.90   1.0
        1.2s    92.19nm          5.6mb
                i        57 12.30
                iPP      58 16.00
                iS       02 26.00
CD2     33.51 334 eP     57 02.00  -2.0
     Z  18s     1.36um          4.7Msz
     E  16s     2.19um
NWAO    33.86 184 iPd    57 06.50  -0.5
        0.6s    70.00nm          5.8mb
     Z  20s     2.20um          4.9Msz
     N  20s     1.60um
     E  20s     2.20um
                eS       02 48.00
XAN     34.47 344 P      57 11.00  -1.3
     N  15s     1.70um
     E  15s     1.20um
                S        02 40.10
RKG     35.01 184 eP     57 21.50   4.6X
TIA     35.13 356 eP     57 17.80   0.0
     Z  18s     2.40um          5.0Msz
     N  20s     3.10um
                eS       02 44.00
TIY     37.19 350 eP     57 34.60  -0.7
     E  15s     1.20um
                PP       59 04.50
                S        03 23.00
DL2     37.74   2 eP     57 40.00   0.2
     Z  18s     1.30um          4.8Msz
     N  16s     1.30um
                pP       57 48.00   27km
                eS       03 29.00
LZH     38.01 338 P      57 43.50   1.2
        2.0s   110.00nm          5.3mb
     N  12s     0.60um
     E  16s     0.90um
                PP       59 09.00
                e(S)     03 29.00
STK     38.55 150 iPc    57 46.70   0.0
RMO     38.90 137 eP     57 49.00  -0.7
BJI     39.01 355 eP     57 50.50   0.1
     Z  18s     2.97um          5.2Msz
     N  18s     1.76um
                ePP      59 24.00
                eS       03 48.00
MAT     39.14  23 iPd    57 48.80  -2.8
        1.1s    46.84nm          5.1mb
     Z  20s     1.42um          4.8Msz
                eS       03 47.00
LSA     39.63 319 P      57 56.40   0.1
     E  17s     1.30um
                S        04 03.00
ADE     39.82 156 eP     57 58.00   0.7
        0.9s    75.63nm          5.4mb
HHC     40.40 350 Pd     58 03.00   1.0
     Z  18s     2.50um          5.1Msz
     N  15s     1.60um
     E  15s     0.70um
                PP       59 43.00
                eS       04 15.00
BTO     40.44 348 eP     58 03.00   0.6
     N  18s     2.20um
     E  18s     2.10um
                pP       58 15.00   44kmX
                PP       59 30.00
SNY     40.75   4 Pc     58 03.90  -0.9
     Z  20s     1.80um          4.9Msz
     N  21s     1.80um
     E  16s     1.40um
                S        04 13.00
GUN     42.25 312 P      58 17.60  -0.2
BRS     42.27 134 iPc    58 17.90   0.4
PKI     42.42 312 P      58 19.10   0.0
GTA     42.45 337 eP     58 18.50  -0.5
        1.0s     0.10nm          2.5mb X
     Z  16s     1.20um          4.9MszX
     E  14s     1.30um
                pP       58 26.00   25km
                S        04 41.50
                sS       04 56.00
KKN     42.63 312 P      58 21.00   0.3
DMN     42.67 311 P      58 21.30   0.2
CN2     42.87   6 eP     58 21.60  -0.6
     Z  18s     3.00um          5.2Msz
     N  16s     1.00um
     E  16s     1.00um
                pP       58 29.60   27km
                ScP      04 03.00
                eS       04 36.00
                ScS      08 19.00
GKN     43.23 312 P      58 24.80  -0.7
KOD     43.32 284 eP     58 30.00   3.5X
BFD     43.33 154 eP     58 26.00   0.0
COO     43.64 139 iPd    58 30.00   1.4
                e        58 32.00
HYB     43.94 294 eP     58 30.00  -1.2
                e        58 42.00
GBA     43.99 289 Pd     58 32.30   0.7
        1.0s    10.80nm          4.6mb
BWA     44.15 146 iPc    58 34.00   1.2
MDJ     44.23  10 eP     58 32.60  -0.6
     Z  20s     1.80um          5.0Msz
     E  14s     0.80um
                epP      58 41.00   28km
                S        04 56.00
TOO     45.02 151 eP     58 41.00   1.3
CAN     45.13 146 iPc    58 40.70   0.1
CNB     45.33 146 iPd    58 43.60   1.4
HOOJ    46.17  24 eP     58 50.50   1.9
KUSJ    47.35  25 eP     58 58.60   0.7
ASAJ    47.38  22 eP     58 58.60   0.4
POO     48.55 294 iPc    59 07.30  -0.4
        0.9s    16.81nm          5.1mb
BOM     49.59 294 ePc    58 53.30 -22.4X
                eS       06 25.30
DZM     50.71 120 iPc    59 24.10  -0.3
WMQ     51.44 330 P      59 30.50   1.0
     Z  24s     1.20um          4.8MszX
     E  17s     1.60um
                S        06 51.00
KSH     55.45 319 P      00 01.50   2.2
     E  15s     2.40um
QUE     58.10 305 eP     00 17.00  -1.4
                e(S)     08 17.00
MAIO    65.97 310 eP     01 10.00  -0.9
        1.0s    22.50nm          5.2mb
                eS       10 02.00
AVY     73.64 250 iPc    01 59.02   0.8
TAB     76.60 309 eP     02 12.00  -2.8
                e        02 18.00
SLY     76.87 306 ePc    02 16.00  -0.1
MSL     78.87 307 ePd    02 32.50   5.4X
MAW     78.96 199 eP     02 28.00   1.0
NAI     83.28 269 iPd    02 48.50  -2.6
        0.6s     3.33nm          4.7mb
HRI     84.69 303 iP     03 01.60   3.9X
DSI     84.94 301 e(P)   03 01.00   2.2
MBH     85.31 300 eP     03 01.00   0.3
BBTK    87.28 310 eP     03 14.00   3.6X
PTZ     89.01 256 iP     03 30.20  11.2X
                i        03 48.50
KEV     90.12 340 eP     03 23.00  -0.1
SOD     90.40 337 iP     03 24.00  -0.4
                i        03 35.00
SPA     91.00 180 e(P)   03 27.40   0.0
        0.8s     7.08nm          5.1mb
     Z  20s     1.40um          5.4Msz
BUL     91.70 250 iPc    03 31.80   0.3
        1.0s     5.50nm          4.9mb
                iPP      05 21.80
SLR     92.04 244 iPc    03 47.20  14.2X
        1.0s    20.00nm
LSZ     92.07 255 iP     03 34.90   1.7
KMZ     94.34 257 eP     03 46.00   2.3
INK     95.09  21 eP     03 52.00   6.0X
KRA     95.73 320 eP     03 59.70  10.4X
SLL     97.32 331 eP     03 57.50   1.2
        0.8s     7.90nm          5.3mb
NB2     98.16 332 P      03 59.60  -0.5
        1.1s     7.70nm          5.1mb
DAG     98.99 351 eP     04 13.00   9.5X
MOX    100.83 322 e(Pdif 04 21.00   8.7X
ALQ    123.73  46 ePKP   09 23.00   0.8
        1.0s     4.50nm
LNV    145.51 163 ePKP   09 59.90  -2.4
PEL    146.48 164 iPKPd  10 05.50   1.4
JACH   146.94 163 ePKP   10 05.00   0.1
BAO    161.29 218 ePKP   10 04.80 -19.8X
LPB    162.61 153 ePKP   10 28.00   1.7
ZOBO   162.83 152 PKP    10 28.50   1.8
                eLR      30 40.00
      S.D. = 1.1  on  98 of 116 obs.
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*  APR 16, 1989  07h 15m 39.71± 0.77s
   24.324 S ±10.7km   67.216 W ±11.9km
   DEPTH = 200.3 ± 12.9 km
 CHILE-ARGENTINA BORDER REGION   (127)

SLA      1.62 105 iPc    16 14.50  -0.5
                S        16 40.00
ANT      2.99 281 ePc    16 29.20  -0.5
                i        17 01.60
                iS       17 05.10
CYA      4.30 163 ePd    16 46.40   0.6
LPB      7.80 354 P      17 33.00   1.2
ZOBO     8.06 354 P      17 35.00  -0.4
PPD     14.80  84 eP     19 00.90   0.2
                e        19 03.50
VAO     18.60  90 eP     19 44.20  -0.2
                e        19 45.70
BAO     20.01  68 eP     19 50.00  -8.9X
ITA     20.76  89 eP     20 07.40   0.9
ITR     31.54  66 e(P)   21 44.00  -1.3
      S.D. = 1.0  on   9 of  10 obs.
-------------------------------------
*  APR 16, 1989  07h 28m 14.68± 0.67s
   39.513 N ±10.0km   74.191 E ±13.0km
   DEPTH =  33.0km  (normal)
   4.1mb (  4 obs.)
 SOUTHERN XINJIANG, CHINA        (321)

QUE     11.04 215 eP     30 53.40  -0.1
                eS       32 56.50
GKN     14.38 140 P      31 37.20  -0.8
KKN     14.88 138 P      31 43.90  -0.7
        0.5s     7.00nm          4.3mb
HYB     22.34 169 eP     33 12.00   0.8
HFS     42.33 320 eP     36 06.20  -0.5
        0.5s     1.70nm          4.0mb
NB2     43.56 321 P      36 16.40  -0.4
        0.7s     1.50nm          3.9mb
MBC     64.20   4 eP     38 48.00   0.2
WRA     81.53 124 Pd     40 31.90   1.5
        0.6s     1.60nm          4.2mb
      S.D. = 1.0  on   8 of   8 obs.
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16d 08h

* APR 16, 1989 08h 04m 29.57± 0.50s
4.612 N ±11.1km 32.651 W ±10.5km
DEPTH = 10.0km (geophysicist)
4.9mb (11 obs.) 4.7Msz (2 obs.)
CENTRAL MID-ATLANTIC RIDGE (406)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 18C
Centroid Location:
Origin Time 08:04:34.2 1.2
Lat 4.74N FIX;Lon 32.62W FIX
Dep 15.0 FIX Half-duration 1.6
Moment Tensor; Scale 10**16 Nm
Mrr=-2.93 0.48 Mtt=-0.59 0.96
Mff= 3.52 0.75 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf=-0.47 0.40
Principal Axes:
T Val= 3.57 Plg= 0 Azm=264
N -0.64 0 174
P -2.93 90 180
Best Double Couple:Mo=3.3*10**16
NP1:Strike=354 Dip=45 Slip= -90
NP2: 174 45 -90

ITR	14.48	203	eP	07 54.80	-1.8
SOB1	16.00	211	eP	08 24.20	7.7X
ATB	21.07	248	e(P)	09 24.80	8.3X
ZOBO	40.76	239	P	12 14.00	0.6
Z	20s		0.76um		4.6Msz
			LR	26 48.00	
LPB	40.86	238	eP	12 16.00	1.9
Z	16s		1.35um		4.9MszX
			eLR	26 14.00	
UPA	46.73	278	eP	13 02.60	1.5
BNG	51.03	88	iPc	13 34.30	-0.1
	0.8s		18.00nm		5.1mb
			id	13 36.20	
			id	13 41.10	
SCH	57.13	337	eP	14 18.00	-0.7
TRI	57.42	37	iPc	14 21.50	0.8
			i	14 28.00	
KHC	59.12	34	Pc	14 32.40	-0.3
ZST	60.64	36	eP	14 43.40	0.3
SKO	60.71	44	eP	14 41.00	-2.7
SRO	61.17	37	eP	14 48.40	1.7
VAY	61.26	45	eP	14 54.70	7.3X
BZS	62.26	40	eP	14 54.00	0.0
SPC	62.95	36	eP	15 01.00	2.2
KRA	63.17	35	eP	14 59.90	0.0
FRB	64.49	343	eP	15 08.00	-0.4
MLR	65.03	41	eP	15 12.00	-0.4
NB2	65.19	22	P	15 12.30	-0.8
	1.0s		6.40nm		4.8mb
APO	65.91	23	eP	15 16.80	-0.8
	1.3s		18.90nm		5.1mb
RSON	68.43	323	P	15 32.20	-1.6
	1.0s		7.50nm		4.8mb
NUR	70.38	26	eP	15 48.00	2.6
GOL	73.78	310	P	16 07.00	0.5
	1.1s		16.03nm		5.0mb
ALQ	74.10	305	eP	16 09.20	0.8
	1.0s		5.00nm		4.5mb
Z	20s		0.67um		4.9Msz
SOD	74.29	20	iP	16 08.50	-0.1
			i	16 15.20	
FFC	74.38	326	eP	16 07.00	-2.3
	1.2s		28.00nm		5.2mb
MSL	75.85	54	ePd	16 13.00	-5.1X
BHD	76.65	57	eP	16 19.00	-3.7X
BW06	77.27	313	P	16 24.20	-2.1
	1.2s		9.42nm		4.8mb
ALE	78.88	356	eP	16 34.00	-0.1
MSU	78.95	308	P	16 35.40	-0.2
SES	79.06	320	eP	16 36.00	0.3
LRM	79.60	316	eP	16 39.60	0.6
EDM	80.75	323	eP	16 45.00	0.3
	1.0s		36.00nm		5.3mb
YKA	82.21	332	eP	16 53.00	1.0
TNP	82.90	308	P	16 56.30	-0.2
	1.0s		4.17nm		4.6mb
KVN	83.59	309	P	16 56.40	-3.5X
PNT	84.55	319	eP	17 11.00	6.7X
MBC	84.76	346	eP	17 04.00	-0.9
SPA	94.58	180	e(P)	17 51.90	0.3
	1.0s		7.00nm		5.0mb
WRA	160.18	141	PKP	24 37.00	5.9X
	0.3s		2.00nm		

S.D. = 1.3 on 34 of 42 obs.

? APR 16, 1989 08h 07m 11.45± 4.16s
38.705 N ±16.1km 19.730 E ±40.1km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
MD 3.2 (ATH).

VLS	0.86	128	ePb	07 28.00	0.0
KZN	2.25	44	ePn	07 50.00	0.7
OHR	2.54	19	ePn	07 52.80	-0.6
LIT	2.55	56	ePn	07 53.00	-0.6
VAY	3.40	39	ePn	08 11.00	5.4X
SKO	3.52	21	ePn	08 07.70	0.5

S.D. = 0.8 on 5 of 6 obs.

APR 16, 1989 08h 32m 56.05± 0.94s
38.640 N ± 9.7km 102.524 E ± 6.7km
DEPTH = 66.3 ± 13.3 km
4.3mb (7 obs.)
GANSU PROVINCE, CHINA (322)

GTA	2.25	291	iPnc	33 31.70	-0.1
			Pg	33 33.20	
			Sg	34 04.20	
LZH	2.76	157	Pn	33 39.00	0.0
			Pg	33 41.50	
			Sn	34 11.50	
			Sg	34 15.00	
BTO	6.11	69	ePn	34 25.00	-0.9
N	12s		0.50um		
E	12s		0.50um		
XAN	6.91	130	Pn	34 36.60	-0.3
			Pg	34 56.40	
			Sg	36 23.50	
HHC	7.31	70	ePn	34 41.20	-1.3
			Pg	35 05.30	
			Sg	36 38.10	
TIY	7.86	94	ePn	34 52.20	2.1
			ePg	35 12.50	
			Sg	36 52.90	
GUN	17.53	237	P	36 58.80	1.1
	0.6s		13.00nm		4.3mb
KKN	18.00	238	P	37 03.60	0.1
	0.6s		8.00nm		4.1mb
PKI	18.06	237	P	37 03.40	-0.9
DMN	18.24	238	P	37 06.30	-0.1
GKN	18.30	240	P	37 07.60	0.6
	0.5s		5.00nm		4.0mb
SOD	49.67	331	eP	41 56.00	13.5X
SUF	50.44	324	iP	41 49.50	1.0
	0.5s		1.70nm		4.3mb
NUR	51.55	322	eP	41 56.00	-0.9
HFS	56.88	323	eP	42 36.40	0.4
	0.4s		1.70nm		4.5mb
NB2	57.69	325	P	42 41.70	0.0
	0.6s		1.40nm		4.3mb
IKZ	81.02	249	ePd	45 18.00	12.6X
FFC	84.66	14	eP	45 25.00	1.7
	1.2s		21.00nm		5.1mb
LSZ	87.64	248	ePc	45 36.00	-2.6
KRP	101.52	129	Pdiff	47 00.00	18.3X

S.D. = 1.3 on 17 of 20 obs.

APR 16, 1989 08h 35m 03.25± 0.25s
4.462 N ± 6.2km 32.573 W ± 4.2km
DEPTH = 10.0km (geophysicist)
5.4mb (18 obs.) 4.9Msz (3 obs.)
CENTRAL MID-ATLANTIC RIDGE (406)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 24C
Centroid Location:
Origin Time 08:35: 9.8 0.8
Lat 4.73N 0.08 Lon 32.41W 0.06
Dep 15.0 FIX Half-duration 1.6
Moment Tensor; Scale 10**16 Nm
Mrr=-7.98 0.46 Mtt= 1.12 0.63
Mff= 6.86 0.77 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf=-0.61 0.47
Principal Axes:
T Val= 6.93 Plg= 0 Azm=264
N 1.06 0 174
P -7.98 90 180
Best Double Couple:Mo=7.5*10**16
NP1:Strike=354 Dip=45 Slip= -90
NP2: 174 45 -90

ITR	14.37	204	eP	38 28.60	-0.3
SOB1	15.91	211	eP	38 53.80	4.8X
ATB	21.09	249	Pc	39 49.90	-0.5
LIC	27.48	85	P	40 51.20	-0.6
	1.4s		28.50nm		4.8mb
TIC	27.51	84	P	40 51.40	-0.7
KIC	27.77	85	P	40 53.60	-0.9
	1.4s		30.50nm		4.9mb
SLA	43.20	226	ePd	43 07.50	0.9
ARE	43.73	241	eP	43 10.00	-1.1
UPA	46.83	278	iPd+	43 37.00	1.5
PEL	51.97	221	eP	44 11.50	-3.4X
SAN	52.15	221	eP	44 15.00	-1.3
DOU	55.19	28	P	44 39.10	0.7
			e	50 36.00	
GAC	55.47	325	eP	44 40.50	0.1
SCH	57.30	337	eP	44 53.00	-0.5
TRI	57.49	37	iPc	44 54.90	0.0
WTS	57.51	28	eP	44 54.00	-0.9
	1.0s		11.00nm		4.8mb
VOY	57.73	37	e(P)	44 56.70	-0.1
RBL	57.75	36	P	44 57.00	0.1
CEY	57.90	37	eP	44 58.00	0.1
LJU	58.12	37	e(P)	44 59.00	-0.4
GRF	58.25	32	eP	44 44.50	-15.8X
	1.2s		17.00nm		
Z	20s		0.70um		4.8Msz
VBY	58.29	38	eP	45 00.90	0.4
MOX	59.02	31	eP	45 05.00	-0.6
	2.5s		162.00nm		5.7mb
			eLR	04 35.00	
KHC	59.21	33	Pc	45 06.40	-0.5
			e	51 10.90	
			i	51 59.00	
OHR	59.99	44	eP	45 09.20	-3.3X
CLL	60.12	31	iPc	45 12.90	-0.2
	2.0s		45.00nm		5.3mb
PRU	60.20	33	Pc	45 13.20	-0.5
	2.5s		98.00nm		5.5mb
Z	19s		0.70um		4.8Msz
BRG	60.37	32	iP	45 14.20	-0.6
	1.6s		42.00nm		5.3mb
			i	45 21.50	
KMZ	60.64	108	iP	45 17.90	0.5
ZST	60.72	36	eP	45 16.30	-0.9
			i	50 16.60	
			e	51 14.50	
SKO	60.77	44	iPc	45 18.20	0.5
	1.5s		70.00nm		5.6mb
BEO	61.25	40	eP	45 22.00	1.1
SRO	61.25	37	eP	45 21.00	0.2
			e	47 23.20	
			e	51 29.70	
VAY	61.31	45	eP	45 21.60	0.2
KSP	61.60	33	eP	45 23.00	-0.2
LWI	61.68	95	ePd	45 23.30	-1.4
KKB	61.87	44	iPc	45 26.00	0.8
VTS	62.22	44	iPc	45 28.00	0.3
			e	02 42.00	
MMB	62.22	45	iPc	45 29.00	1.4
BZS	62.32	40	ePd	45 28.00	-0.1
PGB	62.86	44	eP	45 33.00	1.1
RZN	62.95	45	iPd	45 33.00	0.4
SPC	63.02	36	eP	45 32.80	-0.2
			e	51 41.40	
KRA	63.24	35	eP	45 34.00	-0.1
	1.2s		58.00nm		5.6mb
			e	45 40.10	
KDZ	63.43	45	eP	45 34.00	-1.6
DIM	63.65	45	eP	45 37.00	0.0
CMP	64.41	41	iPc	45 42.00	0.0
FRB	64.66	343	eP	45 41.00	-2.2
MLR	65.09	41	iPc	45 46.50	0.0
NB2	65.30	22	P	45 46.70	-0.8
	1.6s		54.70nm		5.5mb
ISR	65.37	42	eP	45 48.00	-0.2
HFS	65.68	23	eP	45 46.70	-3.1X
	2.1s		173.50nm		5.9mb
Z	16s		0.28um		4.6MszX
			LR	08 30.00	
VRI	65.73	41	iPc	45 49.00	-1.5
PTZ	66.03	108	iP	45 53.20	0.3
CLI	66.33	41	eP	45 54.00	-0.3
PRNI	68.43	59	iPc	46 09.00	1.1
RSON	68.60	323	P	46 06.10	-2.4
	1.7s		45.32nm		5.4mb
DSI	68.92	58	eP	46 12.00	1.2

HRI	69.46	56	eP	46	10.00	-4.3X
NUR	70.47	26	eP	46	20.00	0.3
DAG	72.65	3	iPc	46	31.20	-1.3
	1.5s	41.67nm			5.3mb	
GLD	73.83	310	P	46	40.60	0.2
GOL	73.94	310	P	46	40.80	-0.3
ALQ	74.25	305	eP	46	43.00	0.1
	1.8s	48.86nm			5.2mb	
Z	20s	1.60um			5.3Msz	
FFC	74.55	326	eP	46	42.50	-1.5
	1.0s	28.00nm			5.2mb	
KEV	75.63	18	eP	46	50.00	0.1
MSL	75.87	54	ePd	46	53.00	1.1
BHD	76.66	57	ePd	46	59.00	2.6
BW06	77.43	313	P	47	00.10	-0.7
SLY	77.72	55	iPd	47	03.50	1.3
			e	53	02.00	
ALE	79.03	356	eP	47	08.00	-0.6
MSU	79.10	308	P	47	10.00	-0.1
SES	79.23	320	ePc	47	10.00	-0.3
DUG	79.68	310	P	47	13.40	0.3
LRM	79.76	316	eP	47	14.30	0.8
EDM	80.92	323	iPc	47	19.00	-0.2
	1.5s	147.00nm			5.8mb	
EUR	82.09	309	iP	47	26.20	0.3
	1.0s	9.23nm			4.8mb	
YKA	82.38	332	eP	47	27.80	1.2
PLM	82.80	303	P	47	31.00	1.3
TNP	83.06	308	P	47	31.60	0.7
	1.7s	43.48nm			5.4mb	
KVN	83.74	309	P	47	34.10	-0.3
PNT	84.72	319	ePc	47	40.00	1.2
MBC	84.93	346	eP	47	39.00	-0.4
CMB	85.56	308	ePc	47	44.10	0.8
			e	53	47.40	
			e	54	36.60	
PRI	85.86	306	ePc	47	45.60	0.7
			e	54	38.20	
LLA	86.06	306	ePc	47	46.90	1.1
			e	54	39.40	
LON	86.26	316	P	47	46.20	-0.4
ORV	86.36	309	ePc	47	47.80	0.6
			e	54	40.00	
MIN	86.40	310	ePc	47	47.40	-0.2
			e	53	50.90	
			e	54	38.70	
PRS	86.42	306	eP	47	48.80	1.2
MHC	86.58	307	ePc	47	49.80	1.3
GMW	86.89	317	P	47	48.40	-1.2
BRK	87.05	308	ePc	47	51.70	1.2
WDC	87.10	310	ePc	47	49.70	-1.1
			e	54	34.10	
BMW	87.25	316	P	47	51.70	0.2
MAIO	89.05	54	eP	48	02.00	1.6
INK	89.92	339	eP	48	03.00	-0.6
PSI	131.02	83	ePKPc	54	34.50	16.5X
SNG	131.87	76	ePKP	54	19.20	-0.4
SSE	136.67	34	ePKP	54	15.50	-12.7X
MEKA	144.68	132	ePKP	54	41.20	-1.5
ADE	148.59	166	iPKPc	54	53.60	4.7X
S.D. = 0.9 on 93 of 102 obs.						

APR 16, 1989 08h 43m 04.12± 0.35s
22.000 S ± 8.9km 169.914 E ± 7.2km
DEPTH = 33.0km (normol)
5.2mb (13 obs.) 5.1Msz (3 obs.)
LOYALTY ISLANDS REGION (189)

DZM	3.22	268	iPd	43	52.00	-1.6
			iS	44	30.70	
PVC	4.50	340	iP	44	11.00	-0.7
SVA	8.91	66	eP	45	13.20	-0.4
VUN	8.96	65	ePd	45	14.50	0.1
MBU	9.69	60	eP	45	25.00	0.5
HNR	15.74	321	eP	46	45.00	-0.1
			eS	49	52.00	
VSG	16.02	321	eP	46	50.00	1.2
BRS	16.47	248	iPd	46	54.90	0.5
COO	18.26	238	eP	47	19.00	2.2
SNZO	19.67	169	eP	47	33.00	-0.3
			S	51	22.00	
RMQ	19.80	253	eP	47	36.00	1.2
CTA	22.16	271	iPd	48	01.60	2.7
	1.3s	33.65nm			4.6mb	
			iS	52	04.00	
CNB	22.33	229	iPc	48	04.30	3.7X
	0.2s	44.00nm			5.6mb	
CAN	22.59	229	eP	48	05.10	2.0
			e	54	54.70	
TOO	26.16	228	iPc	48	38.20	0.9
STK	27.03	243	iPc	48	46.00	0.7
ASPA	33.18	260	iPd	49	38.40	-1.6
	1.3s	26.00nm			5.0mb	
Z	22s	2.29um			4.8Msz	
			LR	01	53.40	
WRA	33.24	267	Pd	49	38.20	-2.3
	1.4s	30.00nm			5.0mb	
MTN	38.02	277	iPd	50	20.40	-0.8
	0.5s	21.00nm			5.3mb	
FORR	38.29	248	iPc	50	23.10	-0.2
	0.4s	24.00nm			5.4mb	
WARB	39.59	255	iPc	50	26.10	-8.2X
GUMO	43.06	323	eP	51	18.50	15.7X
COOL	44.27	248	eP	51	11.00	-1.5
MBL	46.41	261	iPc	51	29.20	-0.4
MEKA	46.80	254	eP	51	32.00	-0.7
KLB	47.15	247	eP	51	34.00	-1.4
	0.5s	7.00nm			4.9mb	
NWAO	47.57	245	iPc	51	38.00	-0.7
	0.6s	21.00nm			5.3mb	
Z	20s	2.10um			5.1Msz	
N	20s	1.00um				
E	20s	2.10um				
MUN	48.46	246	eP	51	44.00	-1.6
SBA	55.93	181	P	52	41.00	0.2
MAT	65.48	332	iPd	53	43.60	-2.6
	0.9s	44.54nm			5.6mb	
SPA	68.13	180	e(P)	54	01.40	-1.5
	1.0s	23.00nm			5.2mb	
Z	20s	1.26um			5.1Msz	
			e	55	22.00	
MAW	76.13	202	eP	54	49.50	-0.5
BJI	79.47	321	eP	55	08.00	-0.8
			eS	05	10.00	
KMI	80.26	302	Pc	55	15.00	1.2
			pP	55	32.00	61kmX
			S	05	22.00	
CHG	80.37	295	eP	55	14.70	0.5
	1.0s	15.00nm			4.9mb	
LZH	85.04	312	eP	55	40.50	2.5
	2.5s	79.00nm			5.5mb	
GUN	95.05	298	PKP	56	26.90	1.3
DMN	95.58	297	PKP	56	28.40	0.5
	0.8s	20.00nm			5.6mb	
FRB	123.33	27	ePKP	01	55.00	-3.6X
BUL	123.58	225	ePKP	02	00.40	-0.3
SUF	132.49	338	iPKP	02	17.40	1.1
	0.6s	2.20nm				
APO	137.97	343	ePKP	02	17.70	-9.1X
	0.9s	5.70nm				
NB2	138.26	345	PKP	02	19.60	-7.7X
	0.7s	1.00nm				
IZM	144.10	306	ePKP	02	35.90	-2.5
KSP	144.60	331	iPKPd	02	36.20	-2.5
PGB	144.86	314	ePKP	02	38.00	-1.5
BZS	145.03	320	ePKP	02	38.00	-1.6
EDU	145.10	353	ePKPd	02	36.70	-2.7
	0.8s	99.00nm				
ELO	145.25	354	ePKPd	02	37.00	-2.7
EBH	145.45	354	ePKPd	02	37.90	-2.1
MMB	145.56	312	ePKP	02	40.00	-0.7
EAB	145.59	354	ePKPd	02	38.40	-1.8
BRG	145.61	333	iPKPd	02	39.40	-1.0
	0.8s	50.00nm				
SRO	145.63	325	iPKP	02	39.70	-0.9
CLL	145.67	334	iPKPd	02	39.60	-0.9
	0.9s	60.00nm				
EAU	145.84	353	ePKPd	02	39.50	-1.2
	0.7s	144.00nm				
SRS	145.84	312	ePKP	02	40.00	-1.2
PRU	146.00	331	PKPd	02	40.80	-0.3
	2.0s	58.60nm				
			e	02	44.90	
ZST	146.01	327	ePKP	02	41.30	0.1
EKA	146.31	353	PKPd	02	40.40	-1.1
	0.7s	16.00nm				
VAY	146.46	313	ePKP	02	42.00	-0.2
WIT	146.66	341	ePKP	02	43.50	1.5
MOX	146.74	335	ePKP	02	43.00	0.7
	2.5s	153.00nm				
SKO	146.94	314	iPKP	02	44.00	1.1
			i	02	53.30	
LIT	147.02	311	ePKP	02	44.90	1.8
KHC	147.05	331	iPKPd	02	44.30	1.4
	0.7s	12.00nm				
			e	02	53.50	
BNG	147.22	242	ePKPd	02	43.70	-0.5
	0.7s	18.00nm				
			ic	02	46.30	
			id	02	55.80	
WTS	147.33	341	ePKP	02	44.50	1.4
	1.1s	26.00nm				
OHR	147.75	313	ePKP	02	41.70	-2.6X
	0.8s	0.05nm				
DMU	148.06	356	ePKP	02	45.60	1.3
	0.7s	28.00nm				
PTJ	148.09	325	ePKP	02	46.90	2.2
DCN	148.63	357	ePKP	02	47.30	2.1
	0.7s	38.00nm				
KBA	148.63	329	ePKP	02	48.00	2.3
	0.7s	21.10nm				
			i	02	52.90	
ENN	148.67	340	ePKP	02	47.50	2.1
	0.8s	11.00nm				
VBY	148.72	325	ePKP	02	48.10	2.5
LJU	148.75	326	ePKP	02	48.20	2.5
CEY	149.01	326	ePKP	02	49.60	3.5X
VOY	149.09	327	ePKP	02	48.30	2.0
TRI	149.37	326	ePKP	02	42.00	-4.6X
WLF	149.55	339	PKP	02	53.80	7.1X
DOU	149.67	341	PKPc	02	51.60	4.7X
	0.9s	35.00nm				
ECP	149.74	355	ePKP	02	48.60	1.7
CDF	150.21	336	ePKP	02	52.20	4.3X
	0.9s	11.45nm				
BSF	150.88	336	ePKP	02	53.70	4.7X
	0.8s	10.75nm				
HAU	150.90	337	ePKP	02	52.90	4.0X
	0.8s	12.10nm				
FLN	152.22	346	ePKP	02	53.70	2.9X
	0.8s	12.10nm				
LOR	152.39	339	ePKP	02	54.90	3.8X
	1.0s	14.00nm				
LBF	152.60	339	ePKP	02	55.40	4.0X
SSF	152.69	340	ePKP	02	55.40	3.9X
	1.0s	13.00nm				
LPG	152.81	334	ePKP	02	58.80	6.7X
	0.8s	12.10nm				
S.D. = 1.5 on 71 of 90 obs.						

APR 16, 1989 08h 51m 11.72± 0.99s
39.199 N ± 7.4km 23.687 E ± 9.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.6 (THE).

NEO	0.38	287	ePg	51	18.00	-1.4
PAIG	0.73	360	iPgc	51	27.20	1.2
			iSg	51	38.60	
OUR	1.16	11	iPg	51	34.10	0.8
PLG	1.19	351	ePn	51	34.00	0.1
ATH	1.23	179	ePg	51	35.20	0.7
LIT	1.29	315	ePg	51	36.40	0.8
			iSg	51	52.10	
SRS	1.92	358	ePn	51	44.60	-0.1
			eSn	52	08.70	
GRG	2.01	331	ePn	51	46.40	0.3
			eSn	52	10.40	
VAY	2.29	338	eP	52	14.50	24.5X
RDO	2.41	36	ePn	51	49.50	-2.2
SKO	3.26	329	iP	52	10.30	6.5X
BEO	6.11	338	eP	52	14.00	-30.2X
S.D. = 1.3 on 9 of 12 obs.						

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* APR 16, 1989 09h 19m 26.10± 0.93s
23.056 S ±17.8km 114.850 W ±19.0km
DEPTH = 10.0km (geophysicist)
4.6Msz (2 obs.)
EASTER ISLAND REGION (685)

PEL	39.98	115	eP	27	02.50	-0.2
LPB	44.32	90	eP	27	39.00	0.2
Z	20s	1.06um			4.8Msz	
			LR	41	14.00	
ZOBO	44.37	90	P	27	39.30	-0.1
Z	22s	0.58um			4.5Msz	
			LR	41	12.00	
BAR	55.45	358	eP	29	04.00	0.8
GLA	55.79	0	eP	29	07.00	1.3
TPC	56.86	359	eP	29	14.00	0.7
ISA	58.50	357	eP	29	24.00	-0.8

16d 09h

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CLC     58.61 357 eP     29 24.00   -1.6
FRI     59.90 356 e(P)   29 32.80   -1.6
MHC     60.41 354 e(P)   29 38.20    0.1
CMB     60.99 355 eP     29 41.60   -0.3
EUR     62.22 359 iP     29 50.50    0.0
         0.2s    16.75nm          5.9mb
WDC     63.71 353 eP     29 54.90   -5.1X
PNT     72.17 357 eP     30 54.00    1.2
EDM     75.96   1 eP     31 14.00   -0.7
YKA     85.25   0 eP     32 04.60    1.0
KMI    145.69 281 PKPc   39 06.50   -0.8
CHG    148.20 269 ePKP   39 12.00    0.8
      S.D. = 1.0  on  17 of  18 obs.
-------------------------------------
?  APR  16, 1989  09h 29m 16.78± 0.86s
    4.936 N ±17.4km   32.408 W ±21.0km
    DEPTH =  10.0km  (geophysicist)
    4.9mb (  2 obs.)
 CENTRAL MID-ATLANTIC RIDGE        (406)

SOB1    16.40 211 e(P)   33 09.00    0.2
ATB     21.42 248 e(P)   34 01.00   -6.2X
BNG     50.78  88 iPc    38 19.00   -0.7
         0.5s     8.00nm          4.9mb
                  id      40 36.00
MLR     64.63  42 iPd    39 58.00    1.0
FFC     74.25 326 eP     40 54.00   -1.8
         1.2s    17.00nm          5.0mb
YKA     82.04 332 eP     41 39.50    1.2
MBC     84.51 346 eP     41 51.00    0.2
      S.D. = 1.4  on   6 of   7 obs.
-------------------------------------
    APR  16, 1989  09h 46m 01.85± 0.72s
    39.105 N ± 6.0km   27.619 E ± 7.4km
    DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)

IZM      0.76 202 ePg    46 16.40   -0.3
                  eSg    46 28.40
DST      0.93  57 iPg    46 19.30   -0.3
                  eSg    46 23.30
EZN      1.23 306 ePn    46 25.00    0.2
EDC      1.25   9 iPn    46 25.50    0.3
BNT      1.27  10 iPn    46 25.00   -0.4
KHL      1.68 117 ePn    46 32.00    0.5
TRI     12.17 307 eP     49 23.10   24.9X
      S.D. = 0.5  on   6 of   7 obs.
-------------------------------------
    APR  16, 1989  10h 33m 05.59± 0.56s
    34.229 N ± 7.6km   33.798 E ±12.9km
    DEPTH =  29.0 ±  8.1 km
 CYPRUS                            (372)

CSS      0.83 332 eP     33 21.00   -0.2
LFK      1.07 348 iPn    33 25.00    0.3
ADI      1.65 134 eP     33 33.00    0.0
ATZ      1.87 138 iPc    33 36.10    0.0
                  eS     33 56.60
ZNT      2.24 152 iP     33 41.20   -0.2
                  eS     34 06.00
MBH      4.54 168 iP     34 14.40    0.3
KOT      4.60 202 ePn    34 15.00    0.0
                  S      35 07.00
YER      5.34 304 iPn    34 25.40   -0.1
      S.D. = 0.3  on   8 of   8 obs.
-------------------------------------
    APR  16, 1989  10h 51m 16.52± 0.21s
     4.630 N ± 5.2km   32.664 W ± 3.4km
    DEPTH =  10.0km  (geophysicist)
    5.4mb ( 50 obs.)  5.4Msz ( 12 obs.)
 CENTRAL MID-ATLANTIC RIDGE        (406)
      Ms 5.6 (BRK).
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 19S, 45C
      Centroid Location:
      Origin Time          10:51:26.8 0.3
      Lat  4.89N 0.04 Lon  32.31W 0.03
      Dep  15.0 FIX Half-durotion  2.6
      Moment Tensor;   Scale 10**17 Nm
        Mrr=-3.44 0.07  Mtt= 0.14 0.09
        Mff= 3.30 0.11  Mrt=-0.16 0.25
        Mrf= 0.66 0.34  Mtf=-0.13 0.08
       Principal Axes:
        T  Val=  3.37  Plg= 6  Azm=267
        N        0.14       2       177
        P       -3.51      84        68

      Best Double Couple:Mo=3.4*10**17
       NP1:Strike=   0 Dip=39 Slip= -87
       NP2:        176      51      -93

ITR     14.49 203 eP     54 40.20   -3.5X
                  e      54 49.60
SOB1    16.01 211 eP     55 04.40    0.9
ATB     21.07 248 e(P)   56 02.00   -1.4
LIC     27.56  85 P      57 06.56    0.7
         1.6s   199.50nm          5.6mb
TIC     27.58  85 P      57 06.72    0.7
         1.7s   122.50nm          5.4mb
KIC     27.85  85 P      57 09.14    0.7
         1.8s   148.50nm          5.5mb
RDJ     29.24 200 eP     57 29.60    8.8X
ITA     29.31 203 eP     57 22.80    0.9
BMA     29.39 202 eP     57 22.80    0.5
                  e      57 28.90
TIO     35.44  39 iP     58 16.00    0.8
                  i      58 56.40
IFR     38.51  38 iP     58 41.00   -0.1
BMG     40.26 275 eP     58 43.00  -12.8X
ZOBO    40.76 239 P      59 00.00   -0.4
         1.0s    15.00nm          4.7mb
                  S      05 20.00
                  LR     11 06.00
LPB     40.86 238 P      59 02.00    1.0
         1.5s   288.89nm          5.8mb
      Z  20s     6.74um          5.5Msz
                  eLR    11 11.00
                  S      11 52.00
FUQ     40.92 273 eP     59 01.50    0.0
BOG     41.26 272 eP     59 08.00    3.7X
                  iS     05 24.00
SLA     43.26 226 ePc    59 20.00   -0.2
TOL     43.57  32 eP     59 26.00    3.6X
PSO     44.73 267 eP     59 32.50   -0.1
UPA     46.71 278 ePc    59 49.00    1.1
         1.0s    74.00nm          5.7mb
      Z  20s     1.95um          5.1Msz
                  i      06 46.00
BNG     51.04  88 iPd    00 20.00   -1.5
         0.9s    99.00nm          5.7mb
                  ic     00 23.90
                  id     00 29.30
                  ic     01 28.00
MAF     51.46  31 eP     00 24.40    0.3
         1.2s    44.60nm          5.3mb
BGF     51.83  31 eP     00 27.10    0.2
         1.2s    47.60nm          5.3mb
PEL     52.04 221 eP     00 11.30  -17.4X
SSF     52.51  31 eP     00 32.00    0.0
         1.0s    18.00nm          5.0mb
CBN     52.59 316 eP     00 33.00    0.2
SBF     52.64  36 eP     00 33.30    0.2
         1.2s   130.90nm          5.7mb
LBF     52.70  31 eP     00 33.70    0.2
         1.0s    18.00nm          5.0mb
STV     52.80  35 P      00 35.60    1.3
PZZ     52.82  35 P      00 36.42    1.8
LOR     52.83  31 eP     00 33.90   -0.5
         1.2s    23.80nm          5.0mb
RRL     52.89  34 P      00 36.72    1.5
DOI     52.91  35 P      00 37.40    2.3
BNI     52.91  34 Pc     00 37.00    1.8
IMI     52.93  36 P      00 35.80    0.5
ROB     53.14  36 P      00 38.80    1.9
LPG     53.23  34 eP     00 38.10    0.4
         1.2s    47.60nm          5.3mb
FIN     53.29  36 P      00 39.39    1.5
RSP     53.30  34 P      00 39.39    1.3
LSD     53.43  34 P      00 40.11    0.9
LHS     53.51 310 P      00 39.10   -0.5
JSC     53.78 310 P      00 40.70   -0.9
ORO     53.99  34 P      00 44.60    1.5
ORX     54.00  34 P      00 42.77   -0.4
BLA     54.32 313 P      00 46.10    0.5
         1.0s    45.00nm          5.5mb
BOB     54.34  36 P      00 47.20    1.6
PIL     54.40  38 P      00 48.20    2.3
HAU     54.58  31 eP     00 46.90   -0.4
         1.0s    36.00nm          5.4mb
VAI     54.58  35 P      00 46.80   -0.5
BDI     54.63  37 P      00 48.60    0.8
BSF     54.70  32 eP     00 48.10   -0.2
         1.0s    24.00nm          5.2mb
FIR     54.88  38 eP     00 52.00    2.5

MNS     55.05  40 P      00 51.20    0.4
DOU     55.09  28 Pc     00 49.90   -1.0
         1.0s   102.80nm          5.8mb
PGD     55.21  38 P      00 52.50    0.3
SNF     55.23  28 Pd     00 52.00    0.1
GAC     55.28 325 eP     00 55.00    2.6
SFI     55.32  38 P      00 47.00   -5.7X
CDF     55.32  31 eP     00 52.40   -0.4
         1.2s    41.60nm          5.3mb
ASS     55.38  39 P      00 52.80   -0.5
SAL     55.44  36 P      00 55.20    1.7
SDI     55.45  41 P      00 47.30   -6.5X
UCC     55.46  28 P      00 52.90   -0.7
ARV     55.77  39 P      00 58.00    2.0
EKA     55.84  20 P      00 56.00   -0.3
         1.5s    45.50nm          5.3mb
DUI     55.85  42 P      00 57.00    0.3
SGO     55.92  43 P      00 57.50    0.5
MEM     56.11  29 Pc     00 58.40    0.2
ENN     56.17  28 eP     00 59.50    0.8
         1.0s    60.00nm          5.6mb
                  e      01 07.50
CTI     56.34  36 P      00 59.10   -1.1
GBTN    56.54 310 P      01 01.30   -0.4
SCH     57.11 337 eP     01 04.00   -1.5
FVI     57.29  36 P      01 06.90    0.1
WTS     57.40  28 eP     01 08.00    0.6
         1.1s    61.00nm          5.5mb
                  e      01 16.00
TRI     57.41  37 iPd    01 08.40    0.8
RSCP    57.57 310 P      01 09.20    0.2
         1.2s    41.38nm          5.3mb
VOY     57.65  37 eP     01 08.20   -1.3
RBL     57.67  36 P      01 10.10    0.5
WIT     57.88  27 eP     01 10.50   -0.3
                  e      01 20.00
KBA     57.88  35 ePc    01 08.00   -3.2X
         1.5s    57.10nm          5.4mb
                  i      01 12.50
                  i      01 18.20
                  i      01 31.00
LJU     58.04  37 eP     01 12.90    0.8
GRF     58.16  32 eP     01 13.10    0.2
      Z  19s     3.00um          5.4Msz
                  e      01 21.80
VBY     58.21  38 eP     01 11.80   -1.5
ZAG     58.81  38 eP     01 20.20    2.8
PTJ     58.83  38 e(P)   01 17.30   -0.4
MOX     58.92  31 eP     01 18.00   -0.2
         2.2s   151.00nm          5.7mb
                  e      01 20.00
                  eS     09 30.00
                  eSSS   15 50.00
                  iLR    18 50.00
KHC     59.12  34 Pc     01 18.80   -0.8
         1.0s    14.00nm          5.0mb
                  i      01 27.80
OHR     59.94  45 iP     01 28.80    3.4X
CLL     60.02  31 eP     01 26.00    0.3
      Z  18s     1.00um          5.0Msz
PRU     60.11  33 eP     01 22.50   -3.8X
      Z  18s     2.10um          5.3Msz
      N  19s     1.10um
      E  20s     1.70um
                  e      01 28.00
VKA     60.21  36 eP     01 27.00   -0.1
         3.0s   448.00nm          6.1mb
BRG     60.27  32 eP     01 26.60   -0.8
         1.4s    36.00nm          5.3mb
      N  20s     2.50um
      E  20s     0.50um
ZST     60.64  36 eP     01 28.40   -1.6
      Z  19s     3.50um          5.5Msz
                  i      01 32.60
SKO     60.71  44 iPc    01 30.30   -0.3
         1.2s    84.00nm          5.7mb
      Z  19s     1.57um          5.2Msz
      N  19s     1.40um
      E  19s     1.76um
                  i      01 39.20
                  iS     09 56.00
                  LR     27 30.00
LIT     60.77  46 eP     01 30.40   -0.7
KMZ     60.78 108 iP     01 30.00   -1.6
                  i      02 28.80
GRG     61.01  45 eP     01 31.70   -1.0
SRO     61.17  37 eP     01 33.80    0.2
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BEO	61.18	41	eP	01	34.00	0.3
VAY	61.26	45	eP	01	33.50	-0.8
KSP	61.51	33	eP	01	34.50	-1.4
PAIG	61.57	47	eP	01	35.70	-0.8
SOH	61.64	46	eP	01	36.90	-0.1
KKB	61.81	44	iPc	01	37.00	-1.1
SRS	61.91	45	eP	01	37.80	-1.0
OUR	61.92	46	eP	01	36.80	-2.1
CER	61.95	132	eP	01	35.00	-4.2X
FVM	62.01	311	P	01	37.60	-1.9
OLY	62.12	308	P	01	39.20	-1.1
VTS	62.16	44	iP	01	40.00	-0.6
MMB	62.17	45	eP	01	40.00	-0.5
BZS	62.25	40	eP	01	40.50	-0.5
PGB	62.81	44	iPd	01	45.00	0.2
RZN	62.90	45	eP	01	45.00	-0.5
SPC	62.94	36	eP	01	44.40	-1.3
PLD	63.03	45	eP	01	47.00	0.9
KRA	63.16	35	eP	01	46.50	-0.3
	1.1s	86.00nm			5.9mb	
	Z 22s	1.80um			5.2Msz	
	N 16s	1.50um				
		i	01	50.40		
		i	01	55.40		
PRK	63.26	48	eP	01	48.00	0.3
RDO	63.31	46	eP	01	48.60	0.6
KDZ	63.38	45	eP	01	49.00	0.5
LSZ	63.41	110	eP	01	48.00	-1.2
		i	01	57.00		
		i	02	28.80		
EZN	63.47	48	eP	01	48.00	-1.1
DIM	63.59	45	eP	01	50.00	0.1
IZM	63.76	49	eP	01	50.00	-1.1
PVL	63.84	44	eP	01	50.00	-1.5
BMR	64.26	39	eP	01	57.00	2.8
CMP	64.35	41	ePc	01	56.00	1.2
FRB	64.47	343	eP	01	54.00	-1.2
BUL	65.00	115	eP	02	10.40	10.8X
MLR	65.02	41	iPd	01	59.00	-0.4
DMK	65.10	46	eP	01	58.00	-1.7
KRI	65.10	111	eP	02	01.30	1.0
KSR	65.15	121	eP	02	05.00	4.4X
FRS	65.17	126	iPd	01	59.00	-1.3
	1.0s	50.00nm			5.7mb	
NB2	65.18	22	P	01	58.30	-1.7
	1.1s	36.80nm			5.5mb	
ISR	65.30	42	iPc	02	00.00	-1.0
ELL	65.38	52	iP	02	01.60	-0.2
KHL	65.46	50	eP	02	01.50	-0.7
VVO	65.47	307	eP	02	02.20	0.0
HFS	65.56	23	eP	02	00.80	-1.5
	2.0s	247.40nm			6.1mb	
	Z 17s	1.01um			5.1MszX	
		LR	23	03.00		
LNO	65.63	307	eP	02	03.10	0.0
BRD	65.77	42	eP	02	06.00	2.1
PSN	65.95	44	iPd	02	05.00	-0.1
PRY	65.98	122	eP	02	11.70	5.9X
	1.0s	20.00nm			5.3mb	
SIO	66.01	307	eP	02	05.10	-0.6
ALT	66.08	49	eP	02	03.20	-3.0X
TLB	66.13	43	iPd	02	06.50	0.3
CLI	66.26	41	iPc	02	06.00	-1.1
SLR	66.30	121	iPc	02	12.60	4.7X
PPE	66.37	41	eP	02	06.00	-1.8
CFR	66.40	42	eP	02	05.00	-2.9
PCO	66.74	308	eP	02	10.30	0.0
OCO	66.89	307	e(P)	02	10.90	-0.5
UPP	67.01	25	iP	02	10.80	-0.7
RRO	67.59	306	e(P)	02	16.00	0.2
MBH	68.24	60	iPc	02	20.00	0.1
BBTK	68.26	49	eP	02	19.50	-0.5
RSON	68.41	323	P	02	18.10	-2.5
	1.0s	27.50nm			5.4mb	
DSI	68.91	58	iPc	02	24.00	0.0
MML	69.05	57	iPc	02	25.70	0.7
NAI	69.65	93	eP	02	30.00	0.8
NUR	70.37	26	iP	02	32.40	0.1
	Z 23s	2.10um			5.3MszX	
		e	11	52.00		
		LR	29	00.00		
KVT	70.97	48	eP	02	35.00	-1.5
SUF	72.00	24	iP	02	41.40	-0.8
	0.7s	7.50nm			4.9mb	
DAG	72.49	3	iPc	02	44.10	-0.7
	1.0s	21.00nm			5.2mb	
GOL	73.76	310	P	02	53.30	0.0
	1.2s	81.97nm			5.6mb	
	Z 20s	0.24um			4.5Msz	
ALO	74.08	305	eP	02	55.00	-0.2
	1.4s	41.28nm			5.3mb	
	Z 20s	6.33um			5.9Msz	
SOD	74.28	20	iP	02	54.60	-0.9
FFC	74.36	326	eP	02	55.00	-1.1
	0.9s	52.00nm			5.6mb	
KEV	75.50	18	eP	03	02.00	-0.4
	0.7s	20.00nm			5.3mb	
MSL	75.85	54	ePc	03	05.50	0.4
BHD	76.65	57	eP	03	09.00	-0.6
SLY	77.70	55	ePc	03	16.00	0.7
DAU	78.33	310	P	03	19.00	-0.2
TAB	78.49	52	eP	03	23.00	3.1X
ALE	78.86	356	eP	03	21.00	0.1
	1.0s	14.00nm			5.0mb	
MSU	78.92	308	P	03	22.90	0.5
SES	79.04	320	ePc	03	23.10	0.6
	1.3s	126.00nm			5.8mb	
LRM	79.58	316	eP	03	24.20	-1.6
EDM	80.73	323	ePd	03	31.00	-0.5
	1.1s	179.00nm			6.0mb	
GLA	80.93	303	eP	03	35.00	2.0
EUR	81.91	309	iP	03	38.60	0.4
	0.5s	5.05nm			4.9mb	
TPC	81.95	304	eP	03	39.00	0.7
YKC	82.13	332	ePc	03	38.00	-0.5
YKA	82.19	332	eP	03	39.20	0.3
BAR	82.48	302	eP	03	42.00	0.9
PLM	82.63	303	eP	03	43.00	0.9
TNP	82.88	308	P	03	43.40	0.1
RVR	83.05	304	eP	03	45.00	1.0
CLC	83.21	305	eP	03	46.00	1.2
SBB	83.41	304	eP	03	46.00	0.1
KVN	83.57	309	P	03	44.80	-2.0
MWC	83.61	304	eP	03	49.00	1.9
PAS	83.71	304	eP	03	47.00	-0.3
ISA	83.92	305	eP	03	50.00	1.5
PNT	84.53	319	ePc	03	52.00	0.8
	1.4s	74.00nm			5.7mb	
MBC	84.74	346	eP	03	51.00	-0.7
	0.9s	30.00nm			5.5mb	
FRI	84.88	307	e(P)	03	53.10	0.0
SYP	85.19	304	eP	03	53.00	-1.9
BCH	85.25	305	P	03	56.10	0.9
CMB	85.38	308	ePc	03	56.80	1.1
PRI	85.69	306	e(P)	03	57.80	0.5
LLA	85.89	306	ePc	03	59.60	1.4
LON	86.08	316	P	03	58.90	-0.1
ORV	86.19	309	ePc	04	00.30	0.7
MIN	86.23	310	ePc	04	00.40	0.4
PRS	86.25	306	ePc	04	01.00	1.0
ARN	86.32	307	P	03	59.30	-1.1
LBFM	86.39	311	P	04	01.00	0.1
MHC	86.41	307	eP	04	02.60	1.7
GMW	86.70	317	P	04	01.00	-1.0
BKS	86.85	308	iPd	04	00.20	-2.7
	0.6s	15.00nm			5.4mb	
	Z 20s	2.80um			5.7Msz	
	E 20s	2.40um				
		iS	14	51.00		
		iPS	15	50.00		
		e(SS)	20	16.00		
		eLQ	27	31.00		
		eLR	32	36.00		
WDC	86.93	310	ePc	04	02.50	-0.7
PGC	87.08	318	eP	04	05.00	1.3
MAIO	89.03	54	eP	04	15.00	1.5
INK	89.73	339	eP	04	16.00	0.0
SPA	94.60	180	e(P)	04	40.10	1.4
	1.0s	11.00nm			5.2mb	
FBA	96.20	337	eP	04	45.00	-0.9
IMA	97.83	339	eP	04	53.70	0.3
	0.7s	4.30nm			5.2mb	
LZH	122.60	41	(PKP)	10	14.50	-0.1
CD2	125.43	47	ePKP	10	19.80	-0.4
TIY	126.83	35	ePKP	10	22.60	-0.1
	E 13s	0.30um				
CHG	126.96	62	ePKP	10	23.10	-0.3
BJI	127.12	30	ePKP	10	23.00	0.0
XAN	127.15	40	PKP	10	23.20	-0.2
CN2	127.91	20	ePKP	10	23.50	-1.0
	8.0s	0.40nm				
	Z 22s	1.30um			5.6Msz	
	E 13s	0.40um				
		sPKP	10	31.00		
		ePP	12	20.50		
GYA	129.96	50	PKP	10	29.20	0.1
NANU	144.45	123	ePKP	10	54.40	-1.2
MEKA	144.85	131	ePKP	10	54.00	-2.2
BAG	146.28	51	ePKP	11	00.00	0.9
TOO	147.17	177	ePKP	11	03.00	3.2X
MBL	148.65	124	ePKP	11	05.00	2.4
ADE	148.77	166	ePKP	11	06.70	4.3X
CNB	149.41	183	ePKP	11	08.00	4.6X
CAN	149.42	183	ePKP	11	06.90	3.5X
BWA	150.34	182	ePKP	11	10.10	5.3X
COO	153.84	189	ePKP	11	04.00	-6.0X
BRS	156.78	192	ePKP	11	03.00	-11.0X
ASPA	157.06	147	ePKP	11	12.60	-1.9
	1.5s	12.00nm				
GUMO	161.74	8	ePKP	11	24.70	5.0X
	S.D. = 1.1	on 214 of 240 obs.				

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* APR 16, 1989 11h 05m 29.32± 0.60s
31.582 S ±20.2km 177.735 W ±11.4km
DEPTH = 33.0km (normal)
4.8mb (5 obs.) 4.8Msz (1 obs.)
KERMADEC ISLANDS REGION (177)

DZM	16.99	300	iPc	09	28.50	2.4
CTA	34.23	281	eP	12	14.00	-0.2
	0.9s	18.49nm			5.0mb	
ASPA	43.29	268	iPd	13	29.00	-0.8
	0.8s	12.00nm			4.7mb	
WRA	44.38	273	Pd	13	37.60	-1.0
	0.8s	11.00nm			4.7mb	
WB5	44.38	273	iPd	13	37.50	-1.1
SPA	58.59	180	e(P)	15	27.20	2.0
	1.0s	6.50nm			4.7mb	
	Z 20s	0.68um			4.8Msz	
PEL	85.78	126	eP	18	06.50	-0.3
PLM	86.42	47	eP	18	10.00	0.1
RVR	86.52	46	eP	18	06.00	-4.2X
ISA	86.98	44	eP	18	12.00	-0.4
TPC	87.42	47	eP	18	15.00	0.4
GLA	87.51	48	eP	18	15.00	0.0
CLC	87.61	45	eP	18	16.00	0.5
EUR	91.01	43	iP	18	31.00	-0.6
	0.2s	5.02nm			5.5mb	
SUF	145.30	341	iPKP	25	01.70	-2.8
	0.6s	15.20nm				
MSL	145.94	289	ePKPd	25	05.50	-0.9
NUR	147.50	339	ePKP	25	09.00	0.9
	Z 23s	2.10um			5.9MszX	
		LR	29	00.00		
BNG	148.96	213	iPKPd	25	15.70	3.8X
	0.8s	11.00nm				
		id	25	39.80		
NB2	149.95	351	PKP	25	13.90	1.9
	1.1s	6.10nm				
APO	150.02	348	ePKP	25	15.20	3.1X
	0.6s	3.70nm				
	S.D. = 1.4	on 17 of 20 obs.				

APR 16, 1989 11h 49m 38.64± 0.38s
25.137 N ± 7.1km 95.846 E ± 4.6km
DEPTH = 33.0km (normal)
4.7mb (14 obs.) 4.2Msz (1 obs.)
BURMA-INDIA BORDER REGION (294)

KMI	6.25	89	ePn	51	14.00	2.8
			Pg	51	40.00	
			eSn	52	20.00	
			Sg	52	56.00	
CHG	6.92	155	ePn	51	18.50	-1.9
			eSg	53	07.50	
CD2	9.05	49	eP	51	49.00	-1.1
			eS	53	30.00	
PKI	9.67	287	P	51	56.20	-2.7
KKN	9.83	288	P	51	58.40	-2.6
GYA	9.84	80	P	52	01.00	0.0
GKN	10.43	288	P	52	07.00	-2.2
LZH	12.90	30	eP	52	41.00	-1.4
		i		53	56.50	
XAN	14.41	49	P	53	00.00	-2.3
	N 10s	0.90um				
	E 10s	0.70um				
GTA	14.62	12	eP	53	05.00	0.0
	N 11s	1.40um				
WHN	17.22	68	eP	53	38.20	-0.1
	Z 20s	1.53um				
	N 10s	0.83um				

16d 11h

	E	10s	0.66um			
HYB		17.84	248 eP	53	46.50	0.4
			eS	56	56.00	
TIY		18.87	44 eP	53	57.00	-1.7
	N	25s	4.10um			
BTD		19.44	34 eP	54	04.00	-1.4
	N	15s	1.00um			
	E	15s	1.60um			
WMQ		19.79	342 P	54	10.10	1.0
HHC		20.43	36 eP	54	16.50	0.7
	N	15s	0.60um			
	E	15s	0.40um			
GBA		20.79	240 Pd	54	19.50	0.0
		0.9s	12.40nm			4.3mb
NJ2		21.32	66 Pc	54	25.80	0.9
	Z	24s	1.00um			4.1MszX
TIA		21.33	54 eP	54	25.60	0.7
	E	10s	0.60um			
			eS	58	20.00	
POO		21.43	257 eP	54	27.50	1.3
BJI		22.60	44 eP	54	39.00	1.4
KOD		22.90	233 eP	54	43.00	2.0
SSE		23.10	69 P	54	43.40	0.9
		1.0s	15.00nm			4.4mb
	Z	20s	0.90um			4.2Msz
	N	10s	0.40um			
			S	59	00.00	
QUE		26.05	288 eP	55	13.00	2.0
PRNI		53.56	290 e(P)	58	58.00	-0.7
VRI		58.13	310 iPc	59	34.00	2.6
WB5		58.36	136 eP	59	31.50	-1.7
SUF		58.68	330 iP	59	35.70	0.8
MLR		58.71	309 iPc	59	36.00	0.4
SOD		59.07	335 eP	59	38.00	0.4
NUR		59.22	327 eP	59	40.00	1.3
ASPA		60.94	140 iPc	59	50.00	-0.9
		1.3s	15.00nm			5.0mb
KSP		64.48	316 eP	00	14.50	0.4
HFS		64.68	327 eP	00	16.00	0.7
		0.5s	2.50nm			4.6mb
NB2		65.78	328 P	00	22.80	0.4
		0.6s	1.70nm			4.3mb
WLF		71.08	317 P	00	57.60	2.2
DAG		71.09	347 eP	00	54.90	-0.2
FIN		71.31	311 P	00	57.23	0.2
IMI		71.62	310 P	00	58.77	-0.2
LSD		71.66	312 P	00	59.59	0.2
LPG		71.92	312 eP	01	00.60	-0.4
		0.8s	12.00nm			4.9mb
RRL		72.07	312 P	01	03.08	1.2
LOR		73.27	315 eP	01	07.70	-0.8
		0.6s	3.60nm			4.5mb
SMF		73.48	314 eP	01	09.20	-0.6
		1.0s	18.00nm			5.0mb
SSF		73.56	315 eP	01	10.20	0.0
		0.6s	9.30nm			5.0mb
AVF		73.75	314 eP	01	11.00	-0.3
		0.8s	9.90nm			4.9mb
EKA		74.60	324 Pc	01	15.80	-0.2
		0.9s	6.30nm			4.6mb
RJF		75.46	313 eP	01	21.80	0.6
		0.6s	5.40nm			4.7mb
LPO		75.91	313 eP	01	24.10	0.4
		0.8s	19.80nm			5.2mb
MBC		76.53	8 eP	01	26.00	-0.7
BNG		76.64	269 iPc	01	28.00	-0.4
		0.6s	5.00nm			4.7mb
BUL		79.34	242 eP	01	42.10	-1.1
INK		80.05	17 eP	01	46.00	-0.1
BAO		144.90	279 e(PKP)	09	00.00	-14.9X
	S.D. = 1.3		on 53 of 54 obs.			

? APR 16, 1989 12h 28m 41.95± 4.01s
46.329 N ±33.5km 12.660 E ±23.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (KBA).

FVI		0.28	18 P	28	51.80	4.0X
			eSg	28	59.00	
VVI		0.38	205 P	28	49.70	-0.1
RBL		0.64	80 P	28	54.50	-0.3
			eSg	29	02.90	
CTI		0.76	249 P	29	02.60	5.8X
			eSg	29	15.40	
KBA		0.89	32 iPgd	29	05.80	6.7X
			i	29	13.00	
			iSg	29	16.10	
VOY		0.91	109 eP	28	58.20	-1.2
			eS	29	10.00	
TRI		0.99	128 iP	29	11.00	10.3X
			i	29	15.00	
LJU		1.33	102 ePn	29	07.60	1.1
			iSg	29	26.40	
VBY		1.99	114 e(Pn)	29	16.50	0.5
			eSn	29	42.90	
KHC		2.87	12 eP	30	06.00	37.4X
	S.D. = 1.2		on 5 of 10 obs.			

? APR 16, 1989 13h 13m 49.65± 3.43s
5.930 S ±31.0km 107.806 E ±34.0km
DEPTH = 33.0km (normal)
4.8mb (4 obs.)
JAVA (277)

NANU		18.14	156 eP	18	02.00	1.2
			eS	21	01.00	
MBL		19.11	144 eP	18	11.70	-0.9
			eS	21	15.00	
KNA		22.76	117 eP	18	50.00	-0.4
MEKA		22.97	155 eP	18	53.80	1.3
		0.4s	7.00nm			4.5mb
			eS	22	52.00	
MTN		24.00	108 eP	19	04.30	1.8
MRWA		24.42	162 eP	19	08.00	1.5
			e	19	33.00	
			eS	23	27.00	
BAL		25.93	162 eP	19	21.00	0.2
WARB		27.00	140 eP	19	21.60	-9.1X
			e	19	56.00	
			eS	24	16.00	
MUN		27.08	164 iPc	19	31.70	0.4
			e	20	09.00	
KLB		27.18	161 eP	19	31.30	-0.9
COOL		27.81	155 eP	19	36.40	-1.5
			e	20	17.00	
			eS	24	44.00	
NWAO		28.26	163 eP	19	41.00	-1.0
WB5		29.30	121 eP	19	50.50	-1.1
			e	20	33.80	
			eS	25	27.20	
WRA		29.31	121 P	19	52.00	0.4
		0.4s	1.40nm			4.0mb
ASPA		30.68	128 iPd	20	02.90	-0.9
		0.5s	15.00nm			5.0mb
			epP	20	54.70	262kmX
FORR		31.27	145 eP	20	07.50	-1.3
QIS		34.10	118 eP	20	33.00	-0.6
STK		40.78	134 iPc	21	30.00	0.5
		0.4s	33.00nm			5.4mb
BWA		47.00	133 eP	22	20.70	0.9
CAN		47.84	133 eP	22	26.80	0.4
	S.D. = 1.1		on 19 of 20 obs.			

% APR 16, 1989 13h 15m 32.87± 0.52s
42.585 N ± 4.2km 18.992 E ± 4.8km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.0 (TTG).

NKY		0.23	1 ePg	15	38.00	0.2
			eSg	15	42.50	
TTG		0.25	128 iPgc	15	38.60	0.4
			iSg	15	43.40	
BDV		0.32	202 ePg	15	40.10	0.5
			eSg	15	46.50	
HCY		0.39	250 iPgc	15	40.80	-0.1
			iSg	15	47.80	
BRY		0.46	314 ePg	15	42.00	-0.2
			eSg	15	49.00	
ULC		0.65	163 ePg	15	45.20	-0.7
			eSg	15	56.00	
PVY		0.73	89 ePg	15	47.00	-0.2
			eSg	15	58.70	
PLE		0.80	22 ePg	15	48.60	0.1
			eSg	16	00.60	
	S.D. = 0.4		on 8 of 8 obs.			

APR 16, 1989 13h 22m 37.50± 0.32s
42.639 N ± 3.2km 18.965 E ± 3.4km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 3.0 (TTG).

NKY		0.18	8 iPgd	22	42.80	1.3
			iSg	22	47.20	
TTG		0.30	134 iPgc	22	43.10	-0.7
			iSg	22	48.50	
BDV		0.37	196 iPd	22	44.60	-0.5
			iSg	22	50.20	
HCY		0.39	241 iPgd	22	45.30	-0.3
			iSg	22	52.20	
BRY		0.41	310 iPgc	22	46.20	0.4
			iSg	22	53.90	
ULC		0.71	163 ePg	22	50.30	-1.2
			eSg	23	00.60	
IVA		0.73	71 iPgd	22	51.60	-0.2
			iSg	23	02.60	
SDA		0.74	147 ePg	22	52.00	0.1
PVY		0.75	93 iPgd	22	51.50	-0.7
			eSg	23	02.60	
PLE		0.76	24 iPgc	22	52.30	-0.1
			iSg	23	05.00	
KKS		1.21	117 iPg	23	00.80	0.8
PHP		1.45	130 ePn	23	04.40	0.7
TIR		1.46	152 iPnc	23	05.10	1.3
HVAR		1.93	287 iPn	23	10.70	0.1
			iSn	23	36.20	
SKO		1.95	109 iPn	23	10.00	-1.0
OHR		2.05	137 ePn	23	13.20	0.7
BERA		2.07	159 ePn	23	15.80	3.1X
BEO		2.43	26 ePn	23	24.50	6.6X
KBN		2.44	145 ePn	23	19.20	1.2
VAY		2.99	115 ePn	23	32.50	6.7X
BZS		3.54	32 ePd	23	32.50	-1.0
PTJ		3.91	328 e(Pn)	23	38.00	-1.0
			eSn	24	36.10	
VBY		3.92	318 ePn	23	39.70	0.7
			iSn	24	31.60	
CEY		4.50	315 eP	23	48.00	0.7
			e(Sn)	24	44.00	
TRI		4.84	311 ePn	23	51.30	-0.8
			iSn	24	47.50	
			iSg	25	16.50	
VOY		4.97	315 ePn	23	53.70	-0.3
			eSn	24	53.30	
	S.D. = 0.8		on 23 of 26 obs.			

% APR 16, 1989 14h 38m 22.04± 1.42s
15.503 N ± 8.5km 60.885 W ±20.9km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.8 (FDF).

BBL		0.57	272 eP	38	35.67	2.0
CRM		0.75	182 eP	38	36.99	0.9
			S	38	53.60	
FDF		0.81	199 iPd	38	37.23	0.2
			S	38	54.04	
DEG		0.82	348 eP	38	38.90	1.7
			S	38	55.90	
PAG		0.93	304 eP	38	38.42	-0.4
			S	38	54.40	
MVM		0.94	181 eP	38	38.46	-0.5
			S	38	56.80	
BIM		1.00	190 eP	38	38.69	-1.1
SEG		1.07	326 eP	38	40.25	-0.6
			S	38	58.50	
MGH		1.76	314 eP	38	48.50	-2.2
	S.D. = 1.5		on 9 of 9 obs.			

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* APR 16, 1989 14h 53m 03.55± 0.90s
34.991 N ± 7.9km 140.709 E ±14.4km
DEPTH = 33.0km (normal)
4.7mb (1 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (I JMA) ot Utsunomiyo.

KAKJ		1.29	340 iPd	53	26.70	1.4
			S	53	34.50	
UTS		1.69	337 eP	53	31.00	-0.2
			S	53	40.70	
CHJJ		1.75	308 iP	53	33.00	0.9
			S	53	45.90	
IIDJ		2.34	283 P	53	45.80	5.2X
			S	54	08.90	
MAT		2.55	308 iPd	53	43.30	-0.3
			eS	54	05.00	
NIIJ		2.64	329 P	53	42.60	-2.1
			S	54	06.80	
MTMJ		2.85	305 iPd	53	48.20	0.5

YAMJ	3.22	351	P	53 52.60	-0.4
TSRJ	3.90	279	P	54 07.40	4.7X
OFUJ	4.15	10	iP+	54 06.90	0.7
			eS	54 47.00	
AOMJ	5.57	357	eP	54 25.70	-0.5
WB5	54.90	187	eP	02 31.30	-2.0
WRA	54.96	187	P	02 34.00	0.2
	0.4s	3.10nm		4.7mb	
ASPA	58.69	187	eP	03 01.90	1.7
FORR	66.56	192	eP	03 41.10	-11.2X

S.D. = 1.3 on 12 of 15 obs.

• APR 16, 1989 14h 57m 15.56± 0.51s
0.757 N ± 7.4km 120.994 E ±12.5km
DEPTH = 33.0km (normal)
4.8mb (2 obs.)
MINAHASSA PENINSULA (265)

TSM	4.51	320	eP	58 24.00	0.6
			e	58 26.50	
			e	59 16.20	
KKM	7.09	318	ePd	58 59.50	-0.4
MBL	21.81	183	eP	02 07.00	0.1
WARB	27.33	169	eP	02 51.50	-8.1X
	0.4s	4.00nm		4.4mb	
MRWA	30.19	189	eP	03 24.30	-0.9
BJI	39.34	354	eP	04 43.00	-0.5
GTA	43.06	336	eP	05 14.00	-0.2
GUN	43.12	312	P	05 15.60	0.5
PKI	43.29	311	P	05 16.60	0.1
KKN	43.50	311	P	05 18.40	0.3
DMN	43.54	311	P	05 18.80	0.4
GKN	44.10	311	P	05 22.60	-0.2
	1.0s	34.00nm		5.1mb	
MDJ	44.33	9	eP	05 24.00	-0.3
CAN	44.41	147	eP	05 26.00	0.9
HYB	44.89	294	eP	05 29.00	-0.3

S.D. = 0.5 on 14 of 15 obs.

• APR 16, 1989 15h 08m 12.87± 1.42s
4.140 S ± 9.4km 142.510 E ± 7.8km
DEPTH = 66.2 ± 13.5 km
4.5mb (3 obs.)
PAPUA NEW GUINEA (202)

MNDI	2.31	150	eP	08 51.00	1.5
LAT	5.12	119	eP	09 29.50	0.7
PMG	6.98	139	eP	09 52.00	-2.7
MTN	14.19	232	eP	11 31.50	-0.5
			eS	14 02.00	
CTA	16.27	167	e(P)	12 18.00	19.3X
QIS	16.56	190	eP	12 02.00	-0.4
			eS	14 57.00	
			e	16 57.00	
WB5	17.54	206	iPc	12 15.20	0.6
			eS	15 24.80	
WRA	17.61	206	Pd	12 15.80	0.4
	0.7s	13.90nm		4.3mb	
KNA	17.77	229	eP	12 17.00	-0.4
ASPA	21.12	202	eP	12 54.50	0.2
			eS	16 45.10	
BRS	25.11	158	iPc	13 33.80	0.6
WARB	26.68	213	eP	13 40.50	-7.1X
MBL	27.78	231	eP	13 58.00	0.3
BWA	30.63	170	eP	14 23.70	0.6
CAN	31.60	170	eP	14 31.20	-0.4
COOL	33.36	215	eP	14 47.00	0.0
	0.4s	7.00nm		4.9mb	
MRWA	35.41	222	eP	15 04.00	-0.5
GUN	63.12	304	P	18 37.00	0.4
KKN	63.57	304	P	18 39.40	-0.1
DMN	63.66	303	P	18 40.20	0.1
GKN	64.18	304	P	18 43.00	-0.4
SPA	85.89	180	e(P)	20 46.60	0.0
	1.0s	4.50nm		4.5mb	

S.D. = 0.9 on 20 of 22 obs.

& APR 16, 1989 15h 35m 55.10s
48.421 N 122.225 W
DEPTH = 0.1km
WASHINGTON (29)
<SEA>. CL 2.7 (SEA).

CMW	0.07	88	iP	35 56.87	0.3
OHW	0.23	245	eP	35 59.52	-0.1
JCW	0.30	139	iP	36 00.85	-0.3
			eS	36 05.87	
MBW	0.42	31	eP	36 03.67	0.1
RPW	0.47	86	eP	36 04.29	-0.3
MCW	0.48	303	eP	36 03.91	-0.8
BLH	0.60	167	eP	36 06.84	-0.2
BLN	0.65	231	eP	36 07.14	-0.9
PGW	0.65	203	eP	36 07.79	-0.3
HTW	0.69	154	eP	36 07.87	-1.0
SPW	0.87	181	eP	36 12.18	-0.3
GMW	0.95	204	eP	36 12.17	-1.9
HDW	0.95	216	eP	36 12.00	-2.2
STW	1.00	255	ePd	36 13.07	-1.9
OSD	1.16	239	eP	36 16.09	-1.7
GSM	1.25	166	eP	36 17.77	-1.6
OLQ	1.30	235	eP	36 20.89	0.8
NLW	1.31	105	eP	36 19.40	-0.9
LON	1.70	170	eP	36 25.00	-1.2
BMW	2.06	200	eP	36 30.50	-1.0
SHW	2.23	180	eP	36 33.50	-0.5

21 obs. associated

& APR 16, 1989 15h 48m 08.37s
60.091 N 153.605 W
DEPTH = 159.1km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.32	92	iP	48 29.61	0.8
			iS	48 47.00	
PDB	0.42	224	iP	48 29.62	0.5
OPT	0.48	157	iP	48 30.43	-0.5
			eS	48 47.30	
RED	0.53	51	eP	48 30.42	-0.8
AUL	0.72	173	eP	48 31.58	-0.6
AUI	0.76	173	eP	48 32.00	-0.5
CDD	1.17	181	iP	48 34.48	-1.3
			eS	48 55.74	
CNPM	1.32	114	iP	48 36.21	-1.0
			eS	48 57.63	
SPU	1.33	34	iP	48 36.49	-0.9
			eS	48 58.67	
NKA	1.34	60	eP	48 38.32	1.0
			eS	48 58.87	
SEW	2.08	88	eP	48 44.08	-1.2
SKT	2.15	27	iP	48 45.45	-0.7
MTU	2.99	89	eP	48 55.00	-1.5

13 obs. associated

? APR 16, 1989 16h 18m 57.50± 4.38s
23.227 S ±37.9km 178.117 W ±46.7km
DEPTH = 348.1 ± 35.3 km
4.5mb (1 obs.)
SOUTH OF FIJI ISLANDS (171)

VUN	6.10	328	eP	20 30.00	0.0
DZM	14.30	272	iPc	22 07.50	0.2
CAN	30.97	240	eP	24 45.80	0.3
BWA	31.24	242	eP	24 47.50	-0.3
WB5	44.17	265	iPd	26 34.40	-0.4
FORR	48.12	249	iPc	27 05.00	-0.3
WARB	49.96	255	eP	27 11.00	-8.4X
MBL	57.10	259	iPd	28 11.00	0.0
NANU	60.62	256	iPd	28 35.40	0.5
	0.4s	6.00nm		4.5mb	

S.D. = 0.4 on 8 of 9 obs.

APR 16, 1989 18h 25m 52.29± 0.95s
29.872 N ± 7.1km 99.270 E ± 5.3km
DEPTH = 35.0 ± 10.7 km
5.1mb (11 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	4.01	74	ePn	26 53.40	0.4
			ePg	27 02.20	
			Sg	27 55.00	
KMI	5.65	146	ePg	27 17.00	0.8
	Z 12s	1.40um			
			Sg	28 31.00	
LZH	7.29	31	eP	27 40.50	1.2
			Lg	29 35.00	
GYA	7.36	116	P	27 39.60	-0.6
			eS	28 56.00	
XAN	9.19	61	P	28 01.60	-4.0X
GTA	9.53	3	eP	28 10.20	-0.1
CHG	11.01	182	eP	28 39.00	8.5X
GUN	11.90	264	P	28 41.40	-1.4
	0.4s	17.00nm		5.6mb	
PKI	12.38	263	P	28 48.00	-1.3
	0.6s	25.00nm		5.5mb	
KKN	12.44	264	P	28 49.60	-0.4
	0.4s	18.00nm		5.5mb	
DMN	12.63	263	P	28 52.10	-0.5
	0.6s	21.00nm		5.4mb	
GKN	12.95	265	P	28 53.40	-3.3X
	0.5s	22.00nm		5.5mb	
BTO	13.83	36	eP	29 06.00	-2.2
HHC	14.83	39	eP	29 24.20	2.9X
TIA	16.24	62	eP	29 41.80	2.4
WMQ	16.70	330	P	29 47.60	2.4
BJI	17.15	49	eP	29 51.50	0.8
SSE	18.93	81	eP	30 11.50	-1.3
			eS	36 20.00	
			esS	36 46.00	
NDI	19.27	272	eP	30 10.50	-6.4X
DL2	20.49	58	eP	30 29.20	-0.6
KSH	21.36	303	eP	30 40.30	1.5
HYB	22.62	241	eP	30 54.50	3.1X
CN2	25.02	49	Pc	31 14.00	-0.4
GBA	25.87	236	Pd	31 23.70	1.1
	0.6s	4.20nm		4.2mb	
SOD	56.14	334	iP	35 29.70	-0.6
KEV	56.17	336	eP	35 30.00	-0.6
SUF	56.22	328	iP	35 30.50	-0.5
	0.6s	4.70nm		4.7mb	
VRI	57.55	308	iPc	35 41.00	0.4
MLR	58.16	308	iPc	35 46.00	0.9
WB5	59.91	141	eP	35 56.80	-0.5
WRA	59.95	141	Pd	35 57.20	-0.4
	0.7s	5.80nm		4.8mb	
HFS	62.45	326	eP	36 13.30	-0.7
	0.6s	5.70nm		4.9mb	
NB2	63.43	327	P	36 19.30	-1.3
	0.7s	4.40nm		4.7mb	
AVY	69.41	232	eP	37 00.20	0.9
MBC	71.41	9	eP	37 09.00	-1.4
FBA	72.31	24	eP	37 14.20	-1.7
BUL	84.22	243	iPc	38 23.00	1.0
	0.8s	3.73nm		4.6mb	
BAO	146.79	288	e(PKP)	45 34.00	2.8

S.D. = 1.3 on 32 of 38 obs.

% APR 16, 1989 18h 33m 35.00± 3.93s
42.300 N ±26.1km 19.877 E ±20.1km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.5 (TTG).

PVY	0.30	14	ePg	33 41.30	-0.1
			iSg	33 46.00	
TTG	0.47	286	iPgc	33 44.20	-0.4
			iSg	33 52.00	
IVA	0.57	2	ePg	33 46.60	0.0
			eSg	33 55.00	
BDV	0.78	269	ePg	33 50.30	0.1
			eSg	34 04.50	
NKY	0.83	309	ePg	33 51.50	0.4
			eSg	34 06.00	
HCY	1.03	279	ePg	33 54.50	0.0
			eSg	34 12.00	

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

% APR 16, 1989 19h 46m 11.58± 1.33s
39.360 N ±10.9km 16.977 E ±11.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

TDS	0.58	301	P	46 22.30	-1.0
			eSn	47 29.60	
LCI	1.23	37	P	46 35.20	0.8
			eSg	46 55.30	
MGR	1.34	306	P	46 36.60	0.3
			eSn	47 43.70	
SOI	1.47	210	P	46 38.00	-0.1
			eSn	47 45.40	
BRT	1.53	6	P	46 37.30	-1.6
			eSn	47 44.20	
SGO	1.75	314	P	46 43.80	1.6
			eSn	47 50.30	

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

APR 16, 1989 19h 48m 14.69± 0.14s
21.039 S ± 4.8km 178.942 W ± 3.3km
DEPTH = 609.7km (8 depth phases)
5.7mb (57 obs.)
FIJI ISLANDS REGION (181)

16d 19h

mb 5.4 (BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 48C
Centroid Location:
Origin Time 19:48:22.9 0.2
Lat 20.79S 0.02 Lon 179.18W 0.02
Dep 600.8 1.3 Half-duration 5.1
Moment Tensor; Scale 10**18 Nm
Mrr=-1.51 0.04 Mtt= 0.06 0.06
Mff= 1.46 0.06 Mrt=-1.51 0.06
Mrf=-1.89 0.06 Mtf=-1.09 0.06
Principal Axes:
T Val= 2.43 Plg=21 Azm= 78
N 0.98 30 182
P -3.41 51 319
Best Double Couple:Mo=2.9*10**18
NP1:Strike=127 Dip=36 Slip=-150
NP2: 12 73 -58

SVA	3.80	319	iPc	49	37.70	-2.2
			eS	50	02.90	
VUN	3.88	321	iPc	49	38.00	-2.5
			eS	50	04.00	
OVA	3.96	327	P	49	39.30	-1.8
KRO	4.03	337	iPd	49	39.10	-2.4
MBU	4.61	331	ePc	49	44.40	-1.3
NDF	4.72	313	iPc	49	46.00	-0.4
			eS	51	05.20	
NDE	4.73	339	ePc	49	45.20	-1.4
RAO	8.23	174	iP	50	14.90	-1.9
			iS	51	45.70	
PVC	12.47	283	iPc	50	58.50	0.6
			iS	53	21.00	
DZM	13.64	263	iPc	51	09.50	0.1
			iS	53	37.20	
			ScP	58	30.00	
			ScS	02	09.90	
KRP	17.49	195	P	51	47.00	0.8
			S	54	50.00	
RAR	17.89	94	P	51	49.00	-1.0
			S	53	53.00	
SNZO	20.91	194	P	52	15.30	-2.4
			sP	54	48.00	
			S	55	27.00	
			ScP	58	41.00	
			sPcP	59	24.00	
			ScS	02	25.00	
HNR	23.37	296	eP	52	40.00	-0.1
	0.8s	298.51nm			6.0mb	
			eS	56	12.00	
VSG	23.67	296	eP	52	41.00	-1.7
BRS	26.52	251	iPd	53	08.00	0.3
			i	53	39.40	
			i	54	06.00	
			i	54	11.70	
			i	54	41.00	
			i	55	46.00	
			iPcP	56	10.00	
			iS	57	08.00	
			iScP	58	58.00	
			iScS	02	53.00	
TBI	27.37	100	iP	53	14.00	-1.0
	0.8s	165.00nm			5.7mb	
AFR	27.73	88	iP	53	15.90	-2.2
			eScP	59	01.00	
COO	27.85	244	eP	53	20.00	0.8
	0.5s	78.00nm			5.6mb	
			e	56	22.00	
			e	59	03.00	
PAE	27.89	88	iP	53	17.20	-2.3
	1.0s	290.00nm			5.9mb	
			eScP	59	01.00	
PPT	27.91	88	iP	53	17.50	-2.2
	1.0s	485.00nm			6.1mb	
			eScP	59	02.00	
PPN	28.05	88	iP	53	18.60	-2.3
			eScP	59	02.00	
TVO	28.17	89	iP	53	19.80	-2.3
PAA	28.77	297	eP	53	26.00	-1.3
RMO	30.01	253	iPd	53	38.60	1.0
	1.0s	196.00nm			5.7mb	
			i	54	10.00	
			e	55	14.00	
			e	56	20.00	
			e	59	10.00	
PMO	30.09	84	iP	53	36.00	-2.4
	1.0s	485.00nm			6.1mb	
			iScP	59	10.50	
VAH	30.28	84	iP	53	37.20	-2.7
	1.0s	455.00nm			6.1mb	
			iScP	59	10.80	
TPT	30.36	84	iP	53	38.20	-2.4
	1.0s	605.00nm			6.2mb	
			iScP	59	11.30	
RUV	30.52	84	iP	53	39.50	-2.5
	1.0s	785.00nm			6.3mb	
CNB	31.19	236	iPc	53	48.50	0.9
			e	55	23.70	
			e	56	23.00	
			e	59	14.00	
CAN	31.48	236	eP	53	50.00	0.0
			ePcP	55	28.30	
			eScP	59	13.40	
BWA	31.67	238	eP	53	50.00	-1.6
			ePcP	55	27.30	
			eScP	59	13.40	
CTA	32.56	265	iPd	53	59.00	-0.2
	0.7s	200.68nm			5.9mb	
			iPP	55	37.10	
			iPcP	56	27.70	
			i	56	43.00	
			i	57	40.00	
			iS	58	34.00	
			iScP	59	19.00	
			iSS	01	42.00	
			iScS	03	19.00	
RAB	32.68	297	e(P)	53	58.00	-2.2
			iS	58	32.00	
LMG	33.92	286	eP	54	12.00	1.3
PMG	34.62	284	iPc	54	15.80	-0.5
	0.9s	983.19nm			6.4mb	
TOO	34.87	234	eP	54	19.60	1.4
			e	57	21.00	
LAT	35.92	289	eP	54	28.00	1.0
STK	36.76	245	iPd	54	34.60	0.8
			e	54	36.00	
			e	54	38.00	
			e	57	37.00	
BFD	37.01	236	eP	54	36.00	0.3
			e	56	44.00	
QIS	38.68	263	eP	54	48.00	-1.5
			e	54	53.00	
			e	56	42.00	
			e	59	40.00	
ADE	39.59	240	e(P)	54	56.70	-0.1
	0.6s	52.00nm			5.2mb	
RKT	40.69	101	iP	55	04.40	-1.1
	0.8s	165.00nm			5.6mb	
			eScP	01	37.00	
JAY	43.38	290	ePd	55	25.80	-1.1
ASPA	43.54	257	iPd	55	27.50	-0.5
	1.0s	438.00nm			5.9mb	
			epP	57	01.60	507kmX
			eScP	00	00.10	
			e	00	56.10	
			eS	01	13.90	
			eScS	04	22.80	
WB5	43.64	263	iPd	55	27.50	-1.3
WRA	43.65	263	Pc	55	27.20	-1.7
	0.8s	109.30nm			5.4mb	
HON	46.81	27	P	55	53.40	0.5
OPA	47.13	27	P	55	55.20	-0.1
FORR	48.24	247	iPd	56	02.70	-0.9
MTN	48.29	271	iPc	56	02.90	-1.4
			eS	02	22.00	
GUA	49.41	311	eP	56	11.30	-1.1
	0.8s	758.21nm			6.2mb	
GUMO	49.48	311	eP	56	12.00	-0.9
	1.0s	816.00nm			6.2mb	
PJG	49.48	311	eP	56	11.90	-1.0
KNA	49.72	267	iPd	56	13.60	-1.2
	0.4s	127.00nm			5.8mb	
WARB	49.83	253	iPd	56	06.40	-9.1X
	0.3s	32.00nm			5.4mb	
			eS	02	33.00	
DRV	52.55	199	eP	56	34.60	0.0
COOL	54.20	247	eP	56	45.00	-1.8
	0.4s	24.00nm			4.9mb	
MBL	56.78	258	iPd	57	03.40	-1.3
MEKA	56.98	251	eP	57	04.00	-2.0
	0.4s	47.00nm			5.1mb	
KLB	57.03	245	iPd	57	05.20	-1.0
	0.7s	212.00nm			5.5mb	
SBA	57.28	184	P+	57	09.40	2.2
NWAO	57.34	244	eP	57	07.00	-1.3
	0.6s	83.00nm			5.1mb	
	Z 20s	2.00um			5.2Msz	
RKG	57.43	242	eP	57	08.00	-0.9
BAL	58.03	246	eP	57	12.00	-1.1
	0.6s	76.00nm			5.1mb	
MUN	58.30	245	eP	57	14.10	-0.7
	0.7s	183.00nm			5.4mb	
MRWA	58.83	248	iPd	57	17.20	-1.1
	0.5s	69.00nm			5.1mb	
NANU	60.41	255	iPd	57	28.30	-0.5
DAV	61.21	291	eP	57	33.00	-1.1
TSM	66.61	285	eP	58	10.00	1.9
KAKJ	68.82	325	eP	58	19.30	-1.7
KKM	69.05	285	ePd	58	22.80	-0.1
	0.9s	183.50nm			5.6mb	
SPA	69.09	180	iPd	58	23.00	0.5
	1.0s	109.50nm			5.3mb	
	Z 18s	0.75um			5.0Msz	
			e	58	47.00	
CHJJ	69.33	325	P	58	23.60	-0.5
IIDJ	69.51	323	P	58	24.60	-0.6
WKYJ	69.93	321	eP	58	27.60	-0.1
BAG	70.03	297	eP	58	27.20	-1.6
			eS	06	52.00	
MAT	70.12	324	iPd	58	27.30	-1.4
	0.8s	138.06nm			5.5mb	
	Z 20s	1.06um			5.1Msz	
			eS	06	52.00	
NIIJ	70.22	325	eP	58	29.10	-0.1
OFUJ	70.25	328	P	58	28.90	-0.5
MTMJ	70.38	324	P	58	29.80	-0.5
YAMJ	70.38	327	eP	58	30.10	0.0
TSRJ	70.64	322	P	58	31.80	0.1
TKSJ	70.69	320	eP	58	32.10	0.1
KAGJ	70.80	316	eP	58	32.80	0.1
KUMJ	71.71	317	eP	58	37.90	-0.1
YONJ	71.87	320	eP	58	38.30	-0.6
SHK	71.89	320	iP	58	38.50	-0.5
	0.8s	477.61nm			6.1mb	
AOMJ	72.03	329	eP	58	41.30	1.7
KUSJ	72.05	333	eP	58	38.50	-1.2
HOOJ	72.10	332	eP	58	40.60	0.6
SHNJ	72.58	318	eP	58	42.00	-0.9
ADK	72.63	1	iPc	58	41.30	-1.5
	0.7s	314.30nm			6.0mb	
MRRJ	73.14	330	eP	58	45.80	-0.1
SMY	73.70	356	eP	58	47.40	-1.4
ASAJ	73.77	332	eP	58	50.40	1.0
OZH	75.98	304	Pd	59	01.00	-1.0
			S	07	58.00	
SSE	77.36	311	P-	59	09.00	-0.3
	1.0s	64.00nm			5.0mb	
	Z 24s	2.50um			5.5MszX	
	N 16s	0.90um				
	E 16s	1.50um				
			sP	59	16.00	
			PP	02	02.00	
			eS	08	13.00	
			sS	08	28.00	
HKC	78.17	300	iP	59	15.00	1.2
BLP	78.42	46	P	59	15.70	0.8
SYP	78.68	46	eP	59	17.00	0.6
PRS	78.82	44	ePd	59	17.90	1.0
			epP	01	25.80	610km
			esP	02	24.70	
GCC	78.83	43	ePd	59	17.90	0.9
PCC	78.87	43	ePd	59	17.80	0.7
BCH	78.99	46	P	59	18.60	0.6
SAO	79.02	44	eP	59	18.50	0.5
NWRM	79.14	42	P	59	18.90	0.4
PHAM	79.16	45	P	59	19.60	0.8
PRI	79.16	45	eP	59	20.00	1.1
BRK	79.17	42	ePd	59	19.50	0.8
BKS	79.19	42	iPd	59	19.90	1.1
	0.7s	97.00nm			5.4mb	
			epP	01	20.00	562kmX
			isP	02	28.00	
			e	05	09.00	
			iS	08	35.00	
			esS	12	15.00	
			eLQ	20	38.00	
GZH	79.22	300	eP	59	20.30	1.0
			eS	08	30.00	
MHC	79.24	43	ePd	59	20.20	0.9
			epP	01	28.40	611km

			esP	02	28.00			LON	84.87	35	P	59	47.40	0.2			0.8s	12.00nm		5.7mb								
			iS	08	39.00			PGC	85.19	33	eP	59	49.00	0.4		KKN	104.41	294	Pdiff	01	18.80	1.8						
			eSP	09	27.00				0.9s	80.00nm			5.4mb				0.8s	14.00nm		5.8mb								
			e	11	42.00			MCW	85.53	33	P	59	50.90	0.6		DMN	104.51	294	Pdiff	01	18.50	1.0						
			esS	12	25.00			HTW	85.54	35	P	59	54.00	3.6X			0.9s	35.00nm		6.1mb								
			esPS	12	57.00			TTA	85.63	10	P	59	50.00	-0.6		GKN	105.01	295	Pdiff	01	20.20	0.6						
			e	13	23.00				1.0s	500.00nm			6.2mb				0.8s	21.00nm		6.0mb								
LLA	79.26	44	e(P)	59	19.90	0.6		BJI	85.66	316	eP	59	51.00	-0.1		GBA	107.30	278	Pdiffc	01	36.90	7.2X						
			esP	02	27.80				7.0s	0.91nm			2.6mb	X			0.9s	2.70nm		5.1mb								
KGM	79.29	276	ePc	59	20.80	0.9					sP	03	00.00			HYB	107.41	282	ePKP	05	34.00	-1.2						
ARN	79.32	43	P	59	19.60	0.0					eSKS	09	20.00			GAC	114.02	48	ePKP	05	45.00	-2.0						
NJ2	79.55	310	iPd	59	21.00	0.2					eS	09	40.00			ALE	114.13	7	ePKP	05	44.00	-2.2						
	8.0s	1.70nm				2.5mb	X				esS	13	26.00				0.6s	8.00nm										
			S	08	39.00			PMR	85.75	14	P	59	49.70	-1.3		KSH	114.46	305	ePKP	05	48.50	0.3						
PAS	79.70	47	eP	59	22.00	0.4			1.0s	92.50nm			5.4mb			FRB	117.67	28	ePKP	05	51.00	-2.3						
MWC	79.82	47	eP	59	23.00	0.6		SIT	85.95	22	eP	59	51.70	-0.4		AVY	119.45	232	ePKP	05	58.10	-0.3						
FHC	79.93	39	ePd	59	23.90	1.2		MSU	86.12	46	P	59	54.70	1.0		BAO	119.62	123	ePKP	05	52.00	-6.7X						
BAR	79.93	49	eP	59	23.00	0.1		GYA	86.15	300	P	59	54.40	0.5		SCH	119.67	38	ePKP	05	55.00	-2.5						
RVR	80.16	48	eP	59	25.00	1.0					sP	03	06.00			KBS	121.85	358	ePKP	06	00.40	-0.5						
PLM	80.17	49	eP	59	25.00	0.7					sS	13	30.00			CER	123.17	198	ePKP	06	19.80	14.9X						
SBB	80.23	47	eP	59	25.00	0.6		NNT	86.54	285	iPc	59	57.20	1.4		DAG	123.35	5	iPKPd	06	01.40	-2.5						
PEC	80.25	48	P	59	24.30	-0.2		TIY	86.98	312	iPd	59	58.00	0.4			0.8s	37.31nm										
OIZ	80.28	295	eP	59	24.00	-0.8			1.4s	0.20nm			2.7mb	X		FRS	124.36	206	iPKPc	06	07.00	-0.2						
FRI	80.28	44	ePd	59	24.80	0.3					sP	03	08.00				0.6s	60.00nm										
			esP	02	33.30			NST	87.36	288	eP	00	02.00	2.4		SEK	124.62	209	ePKP	06	08.50	0.4						
ISA	80.34	46	eP	59	26.00	1.0		DPW	87.50	36	P	00	00.10	0.3			1.0s	20.00nm										
CMB	80.46	43	ePd	59	26.00	0.5		PNT	87.59	34	iPc	00	00.80	0.7		PRY	125.88	209	iPKPc	06	10.00	-0.5						
			epP	01	33.80	606km			1.0s	245.00nm			5.9mb				1.0s	40.00nm										
			esP	02	34.20			XAN	87.76	308	Pd	00	02.00	0.8		SLR	126.52	211	iPKPc	06	11.00	-0.8						
MDJ	80.46	325	eP	59	25.50	0.3		PTI	88.22	42	P	00	02.10	-1.2			1.0s	30.00nm										
			ePP	02	34.00			ALQ	88.43	52	eP	00	04.50	0.0					e	08	22.00							
			S	08	40.00				0.9s	23.53nm			5.0mb			KSR	127.06	209	ePKP	06	11.00	-1.8						
			ScS	09	00.00			KMI	88.81	297	Pd	00	07.50	1.0		MAIO	127.26	300	ePKP	06	12.00	-0.8						
WDC	80.65	40	iPd	59	27.20	0.9		IMA	88.92	10	iPc	00	05.50	-0.5			1.0s	17.00nm										
			epP	01	35.10	606km			0.9s	83.30nm			5.6mb						i	08	23.00							
			esP	02	35.40			FBA	88.96	13	iPc	00	04.80	-1.2		NPA	128.09	229	iPKPc	06	15.30	0.5						
ORV	80.66	41	iPd	59	27.00	0.6		HHC	89.10	315	Pd	00	07.00	-0.3					eSKP	08	44.00							
			epP	01	34.90	606km			7.0s	0.70nm			2.7mb	X		KEV	128.83	349	ePKP	06	10.00	-4.6X						
			esP	02	35.50						sP	03	18.00				0.7s	29.40nm										
LTCM	80.67	41	P	59	27.20	0.7					SKS	09	42.00						i	06	14.50							
MAW	80.76	200	eP	59	27.00	0.5		CHG	89.60	290	iPd	00	11.00	1.1					eSKP	08	32.00							
AIA	80.82	157	eP	59	28.90	2.1			1.0s	192.50nm			6.0mb			SOB1	128.99	122	ePKP	06	05.50	-11.1X						
CLC	81.02	46	eP	59	29.00	0.6					eS	09	46.00						i	06	15.20							
MIN	81.07	41	e(P)	59	29.20	0.5		LRM	89.69	40	eP	00	10.50	0.4					e	08	41.30							
TPC	81.14	48	eP	59	30.00	0.9		BW06	89.96	44	P	00	11.10	-0.3		TRO	130.21	352	iPKP	06	16.00	-1.2						
GSC	81.27	47	eP	59	30.00	0.3			0.8s	35.71nm			5.3mb			SOD	130.93	347	iPKP	06	14.20	-4.5X						
GLA	81.45	50	eP	59	31.00	0.4		BTO	90.01	314	eP	00	12.50	1.0					i	06	18.00							
DL2	81.52	317	eP	59	31.00	0.2		CD2	90.34	303	eP	00	14.60	1.4					iSKP	08	49.00							
			epP	01	40.00	611km					pP	02	21.50	582kmX		BUL	130.99	215	ePKP	06	18.90	-1.5						
			sP	02	38.00						sP	03	25.00						iSKP	08	51.80							
			S	08	52.00						SKS	09	47.00			ITR	131.20	123	ePKP	06	19.40	-1.4						
KDC	81.53	14	eP	59	30.50	0.1		GOL	91.33	48	P	00	18.50	0.7					e	08	39.90							
SNY	82.06	320	Pd	59	33.00	-0.4		GLD	91.46	48	P	00	19.50	1.2					e	08	48.50							
			S	08	55.50			LNV	92.03	128	eP	00	22.00	1.0		KRI	133.09	219	iPKPc	06	26.60	2.2						
WHN	82.06	307	P	59	34.20	0.6		LZH	92.40	308	eP	00	23.50	0.8					iSKP	09	02.10							
	8.0s	1.54nm				2.6mb	X		1.0s	230.00nm			6.2mb			PTZ	134.02	223	iPKP	06	11.80	-14.4X						
			PP	02	55.20						i	02	31.00						i	06	27.40							
			S	08	58.00						i	04	11.00						i	06	52.50							
			SS	14	44.00						SKS	09	59.00						i	08	03.00							
MNA	82.12	44	e(P)	59	34.80	0.8					S	10	39.00			SUF	134.96	344	ePKP	06	13.00	-13.4X						
CN2	82.19	323	iPd	59	33.70	-0.3					i	13	26.00			LSZ	135.15	219	ePKP	06	18.00	-10.4X						
	4.0s	1.00nm				2.7mb	X	SAN	92.82	127	eP	00	25.00	0.3					i	06	30.00							
			pP	01	40.00	593kmX		SES	92.83	36	ePc	00	24.10	-0.1					i	09	06.00							
			sP	02	39.00				0.9s	75.00nm			5.7mb						i	09	12.80							
			ePP	02	50.00			PEL	92.94	127	iPc	00	25.80	0.5		NUR	137.20	343	ePKP	06	19.00	-11.7X						
			S	08	50.00				1.1s	41.77nm			5.4mb				0.8s	146.70nm										
IPM	82.36	278	ePd	59	36.00	0.5		EDM	93.04	33	eP	00	24.00	-1.1			Z 23s	0.60um			5.3MszX							
	0.9s	263.70nm				5.8mb		BRW	93.38	7	iPc	00	25.60	-0.6					i	06	30.00							
KVN	82.50	43	P	59	35.60	-0.4		INK	95.02	15	eP	00	32.00	-1.7					iSKP	09	10.00							
			pP	01	45.00	611km			0.8s	24.00nm			5.5mb						LR	58	00.00							
TNP	82.53	45	P	59	35.40	-0.7					pP	02	47.00	626kmX		KER	137.47	298	ePKP	06	25.00	-7.3X						
			pP	01	46.00	618km		GTA	96.63	310	eP	00	41.60	-0.2		RGS	137.56	354	ePKP	06	21.30	-10.0X						
TIA	82.99	313	Pd	59	38.20	0.0		YKA	97.37	25	P	00	43.90	-0.5		TAB	137.57	304	ePKP	06	24.00	-8.3X						
	9.0s	1.20nm				2.4mb	X	YKC	97.41	25	eP	00	43.50	-1.1					e	09	12.00							
			S	09	04.00				0.7s	8.00nm			5.1mb			KMZ	137.96	218	iPKP	06	26.20	-7.4X						
PSI	83.62	275	ePc	59	42.40	0.6		FFC	99.70	35	eP	00	55.00	0.0					i	06	36.40							
	0.8s	202.00nm				5.8mb			1.2s	16.00nm			5.3mb						i	06	44.50							
SNG	83.71	280	eP	59	43.80	1.6		CNCB	102.56	114	ePdiff	01	13.00	3.6X					i	08	15.00							
	0.7s	283.56nm				6.0mb					e	05	27.00						i	08	25.20							
			eS	09	22.10			LPB	102.59	113	(Pdiff	01	14.00	4.7X		NAI	138.60	242	ePKP	06	28.00	-7.0X						
BMW	83.93	35	P	59	43.30	0.6					e	05	23.00			SLY	138.62	300	ePKPc	06	14.00	-20.1X						
SVW	83.99	11	ePc	59	42.00	-0.7		ZOBO	102.68	113	ePdiff	01	17.00	7.1X		NB2	139.40	352	PKP	06	25.40	-9.4X						
EUR	84.12	44	iP	59	44.00	0.0			Z 24s	0.73um			5.1MszX				0.9s	44.50nm										
	0.2s	34.05nm				5.6mb					LR	13	56.00			UPP	139.46	347	iPKP	06	25.20	-9.6X						
SHW	84.29	36	P	59	45.40	0.8		MBC	103.49	12	ePdiff	01	11.00	-0.5			0.8s	100.00nm										
VGB	84.68	37	P	59	47.30	0.9		GUN	103.93	295	Pdiff	01	17.00	2.0		BHD	139.83	297	ePKP	06	21.00	-15.3X						
GMW	84.84	34	P	59	47.50	0.5		PKI	104.24	294	Pdiff	01	17.10	0.7					ePP	09	09.00							

16d 20h

			ePKS	10	14.00			PRU	149.20	343	PKP	06	52.00	0.6		SRS	152.34	321	ePKP	06	58.20	1.9
HFS	139.92	350	ePKP	06	26.80	-8.9X					e	06	56.70			PTJ	152.36	337	ePKP	06	55.20	-1.1
	0.9s	132.40nm						PPCY	149.26	303	ePKP	06	56.50	4.6X		VITF	152.60	353	PKP	07	03.42	7.0X
MSL	140.37	302	ePKPc	06	31.50	-5.7X		ALT	149.29	312	ePKP	06	52.30	0.3		FEL	152.64	350	PKP	06	57.93	1.2
			ePP	09	10.00			MOX	149.30	347	ePKP	06	51.00	-0.6		RBL	152.68	341	PKP	06	58.40	1.7
			ePKS	09	46.00				1.4s	171.00nm						KNT	152.71	322	ePKP	06	56.00	-0.8
OASM	140.87	286	ePKP	06	33.30	-5.2X			Z 20s	1.50um				5.8Msz		LJU	152.73	339	ePKP	06	56.00	-0.7
KVT	144.31	312	ePKP	06	43.60	-0.3					i	06	57.00						e	09	27.00	
LWI	144.32	233	iPKP-	06	45.80	0.8					epPKP	09	10.00			HAU	152.76	352	ePKP	06	58.40	1.7
EDU	144.41	4	ePKP	06	41.80	-1.7					iPP	10	15.00				0.8s	81.60nm				
EAB	144.67	5	ePKP	06	42.80	-1.2					PPP	13	40.00			FVI	152.78	342	PKP	06	59.18	2.5
EDI	145.02	4	ePKP	06	44.20	-0.4					ePSKS	20	35.00			VAY	152.79	323	ePKP	06	55.00	-1.9
	1.0s	280.00nm									e	29	00.00						i	07	03.50	
EBL	145.18	4	ePKP	06	44.50	-0.4					e	36	00.00						i	09	35.50	
EKA	145.61	4	PKP	06	45.00	-0.6					e	38	40.00			MOF	152.80	351	PKP	06	58.99	2.1
	0.8s	90.90nm						CTT	149.37	317	ePKP	06	54.00	2.1		BSF	152.87	352	ePKP	06	59.10	2.1
KAS	145.75	314	ePKP	06	47.50	1.1		DMK	149.41	319	ePKP	06	51.00	-1.0			0.8s	40.20nm				
IAS	146.22	327	ePKP	06	51.00	4.2X		DEV	149.44	329	iPKPd	06	56.60	4.7X		PLG	152.89	320	ePKP	07	03.50	6.3X
DMU	146.64	9	iPKPd	06	48.90	1.6		BCK	149.65	309	ePKP	06	52.50	-0.1		KAP	152.94	308	ePKP	07	04.00	6.7X
	0.6s	295.00nm						JMB	149.75	321	ePKP	06	52.00	-0.5		VOY	152.95	340	ePKP	06	56.20	-0.9
CLI	146.78	326	iPKPc	06	50.00	2.2					i	07	10.00						i	07	04.40	
BIR	146.79	325	ePKP	06	51.00	3.3X					e	09	20.00			VBY	152.95	338	iPKPd	06	59.20	2.2
PPE	146.83	325	iPKPd	06	50.00	2.2		GZR	149.85	329	ePKP	06	56.00	3.4X		SKO	152.97	325	ePKP	06	56.50	-0.7
PTT	146.99	327	ePKP	06	32.50	-15.6X		SRO	149.88	337	i(PKP)	06	57.80	5.3X					i	07	04.30	
BBTK	147.10	312	ePKP	06	47.00	-1.6					i	07	09.50						i	07	20.00	
			i	06	50.00			ZST	149.99	338	e(PKP)	06	53.40	0.8					i	09	22.60	
DCN	147.12	9	iPKPd	06	48.30	0.3					i	06	58.30						i	10	58.00	
	0.8s	494.00nm									i	07	07.60						i	14	01.00	
QUTJ	147.13	295	PKP	06	51.80	2.9					e	10	17.20			CEY	153.03	339	ePKP	06	59.40	2.2
WAJH	147.13	286	ePKP	06	49.70	0.8					e	13	11.50			TRI	153.27	340	iPKPd	06	57.60	0.2
BURJ	147.17	297	PKP	06	48.10	-0.8		PVL	150.00	323	ePKP	06	54.00	1.2					i	07	05.10	
CFR	147.19	324	ePKP	06	48.00	-0.4		KHL	150.03	311	ePKP	06	52.50	-0.7					i	09	16.00	
SALJ	147.28	297	PKP	06	52.10	3.0X		DST	150.04	314	iPKP	06	57.20	4.1X					e	09	28.50	
DLE	147.28	8	ePKP	06	48.40	0.1		ENN	150.09	354	ePKP	06	52.50	-0.2					i	10	57.00	
	0.9s	186.00nm							0.9s	168.00nm									i	14	06.00	
MASJ	147.30	296	PKP	06	52.30	3.2X					e	06	58.00						e	20	02.00	
MKRJ	147.40	296	PKP	06	52.70	3.4X					i	07	06.30						e	24	08.00	
KRA	147.41	337	ePKP	06	48.40	-0.2		BNT	150.12	316	iPKP	06	57.60	4.5X					e	29	22.00	
	0.8s	151.00nm						EDC	150.16	316	iPKP	06	58.50	5.4X		LOMF	153.34	351	PKP	07	03.19	5.6X
			i	06	51.80			UCC	150.19	356	PKP	06	58.80	6.0X		VVI	153.43	342	PKP	07	06.32	8.6X
			i	06	55.80			VKA	150.19	339	ePKP	06	54.00	1.0		CTI	153.59	343	PKPc	06	58.70	0.7
			i	06	58.90				0.7s	94.00nm									epP	07	21.90	
			e	10	16.00						i	06	58.00			LIT	153.63	321	ePKP	06	57.00	-1.1
AYN	147.46	291	ePKP	06	49.00	-0.3					e	09	20.00			PHP	153.70	326	iPKPd	06	58.50	0.4
VRI	147.52	326	iPKPd	06	51.00	2.0		MEM	150.23	354	PKP	06	53.40	0.5		LOR	153.74	356	ePKP	06	58.60	0.6
BRD	147.58	325	iPKPc	06	54.00	4.9X		BZS	150.24	330	ePKP	06	52.00	-1.1			0.8s	44.30nm				
TLB	147.62	323	iPKPc	06	51.50	2.4		KHC	150.24	343	iPKPc	06	53.00	-0.1		OHR	153.92	325	ePKP	07	00.60	2.1
BMR	147.84	331	ePKPc	06	54.00	4.6X					i	06	59.10				1.1s	0.07nm				
ETA	147.90	8	ePKP	06	51.60	2.3		ELL	150.43	308	ePKP	06	53.10	-0.8					i	07	07.90	
	0.8s	158.00nm						SNF	150.48	356	PKPd	06	56.40	3.1X					i	07	24.00	
FAM	147.93	303	ePKP	06	54.00	4.1X		DOU	150.87	355	PKP	06	55.10	1.2		KZN	153.92	322	ePKP	06	58.00	-0.6
KSP	147.93	342	ePKPc	06	49.00	-0.5					i	07	00.20			SDA	153.95	328	ePKP	06	58.00	-0.4
	1.0s	265.00nm						KDZ	150.93	320	ePKP	06	52.00	-2.3		SSF	153.97	356	ePKP	06	58.50	0.2
			id	06	52.70			KMR	151.06	342	ePKP	06	54.00	-0.3			0.8s	37.60nm				
YRH	147.96	7	iPKPc	06	51.90	2.5					i	07	00.30			LBF	154.01	355	ePKP	06	58.70	0.3
	0.8s	119.00nm									i	07	12.10				0.8s	22.80nm				
WIT	147.99	354	ePKP	06	51.00	1.6		PGB	151.09	323	ePKP	06	56.00	1.4		NPS	154.22	309	ePKP	07	01.00	2.0
			i	06	54.20						i	07	01.00			AVF	154.24	356	ePKP	06	59.30	0.6
SPC	148.01	336	ePKP	06	49.10	-0.8		WLF	151.15	353	PKP	06	57.60	3.3X			0.8s	16.10nm				
			i	06	54.90						i	07	01.50			KBN	154.24	324	ePKP	07	01.10	2.3
			e	09	17.30			RDO	151.16	320	ePKP	07	00.50	5.9X		TIR	154.25	326	e(PKP)	06	57.50	-1.4
ISR	148.10	325	iPKPc	06	53.50	3.5X		RZN	151.32	321	ePKP	06	54.00	-1.1		SAL	154.29	345	PKP	07	00.90	2.1
HQL	148.25	292	ePKP	06	52.30	1.7					i	07	01.00						epP	07	24.50	
BADA	148.37	290	ePKP	06	52.00	1.2					e	07	14.00			MDI	154.32	346	PKP	07	06.60	7.8X
CLL	148.37	346	ePKP	06	50.00	-0.1		BEO	151.38	330	ePKP	06	57.50	2.7					epP	07	22.80	
	1.0s	220.00nm									i	07	01.00			VAI	154.44	347	PKP	06	59.40	0.5
			i	06	53.90			EZN	151.43	317	ePKP	06	54.00	-1.0					epP	07	21.30	
			pPKP	09	13.00			YER	151.45	310	iPKP	07	11.40	16.2X		HVAR	154.45	333	iPKP	07	07.70	8.6X
ECP	148.39	9	iPKPc	06	54.30	4.3X		IZM	151.56	313	iPKP	07	01.70	6.4X		BGF	154.50	357	ePKP	07	00.00	0.9
	0.9s	175.00nm						VTS	151.59	324	ePKP	06	56.00	0.6			0.8s	26.80nm				
CSS	148.46	303	ePKP	06	55.00	4.2X					i	07	03.00			BERA	154.66	325	ePKP	07	07.40	8.0X
BRG	148.55	344	iPKP	06	49.70	-0.7		GWF	151.63	351	PKP	06	55.30	0.2		TCF	154.80	358	ePKP	06	59.60	0.1
	0.6s	12.00nm						PRK	151.78	316	ePKP	07	00.00	4.5X			1.0s	34.00nm				
			i	06	52.00			MMB	151.96	322	ePKP	06	55.00	-0.8		ORO	154.83	349	PKP	07	08.50	8.8X
GPA	148.57	314	ePKP	06	48.70	-2.1		STR	151.99	350	PKP	06	59.59	4.1X					epP	07	28.80	
HRT	148.74	316	ePKP	06	50.00	-1.1		KKB	152.14	323	ePKP	06	55.00	-1.0		LSF	154.85	359	ePKP	06	59.90	0.3
WTS	148.78	353	ePKP	06	50.50	-0.1					i	07	03.00				1.0s	40.00nm				
	0.8s	80.00nm									e	07	17.00			LPG	155.16	350	ePKP	07	01.20	0.8
			i	06	54.90						e	09	25.00				1.0s	26.00nm				
			i	07	04.50			KBA	152.17	342	ePKP	06	54.00	-2.1		VAM	155.17	310	ePKP	07	02.00	1.7
CMP	148.81	326	ePKP	06	54.00	3.0X			1.0s	152.00nm						RSM	155.28	340	PKP	07	13.30	13.1X
DBN	148.83	355	ePKP	07	01.00	10.3X					ic	06	57.70						epP	07	30.70	
			e	09	17.00						ic	07	03.00			BOB	155.34	346	PKP	07	05.00	4.6X
			e	10	16.00						i	07	06.30						epP	07	29.80	
			e	13	31.00						e	09	25.50			ARV	155.51	339	PKP	06	58.40	-2.2
GBZT	148.90	316	ePKP	06	58.60	7.4X					i	11	03.70			PGD	155.56	341	PKP	07	03.29	2.5
ISK	149.01	316	ePKP	06	49.00	-2.4		CDF	152.24	351	PKP	06	59.24	3.2X		FIR	155.79	342	e(PKP)	07	02.00	1.1

ASS	155.98	339	PKP	07	14.70	13.4X
			epP	07	32.80	
BNG	156.31	228	iPKPc	07	02.10	-0.4
	0.7s		11.00nm			
			ic	07	35.20	
			id	08	30.30	
			id	10	37.60	
SDI	156.75	335	PKP	07	14.20	11.9X
			epP	07	44.40	
TDS	157.29	328	PKPc	07	04.00	1.1
SOI	158.64	326	PKP	07	22.00	17.6X
GIBL	163.13	20	iPKP	07	10.00	0.9
AAPN	163.18	14	ePKP	07	09.70	0.5
ASMO	163.21	13	ePKP	07	09.50	0.2
ALJ	163.37	19	iPKP	07	12.50	3.1X
ACHM	163.44	14	ePKP	07	10.00	0.5
CNIL	163.51	21	iPKP	07	13.50	4.1X
ATEJ	163.58	15	ePKP	07	09.50	-0.2
APHE	163.61	14	ePKP	07	10.00	0.3
MOMI	163.66	20	iPKP	07	13.50	3.9X
SRQ	163.83	19	ePKP	07	16.00	6.3X
PLAT	163.83	20	iPKP	07	13.00	3.2X
OJEN	163.92	20	ePKP	07	14.00	4.1X
KIC	164.36	158	PKP	07	10.50	-0.4
	0.8s		31.50nm			
TIC	164.53	157	PKP	07	10.78	-0.2
	0.8s		40.00nm			
AVE	165.66	30	iPKP	07	13.50	2.1
			i	08	15.00	
IFR	166.41	23	iPKP	07	15.00	2.8
TIO	167.64	36	iPKP	07	14.00	0.9
S.D. = 1.2 on 338 of 416 obs.						

APR 16, 1989 19h 51m 01.04± 1.02s
29.801 N ±10.4km 99.196 E ± 6.9km
DEPTH = 43.1 ± 12.6 km
4.9mb (7 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	4.10	73	ePn	52	04.10	1.3
			Pg	52	09.20	
			Sg	53	02.40	
LZM	7.38	31	eP	52	50.00	0.8
			(Lg)	54	58.00	
GYA	7.39	115	Pn	52	48.00	-1.2
GTA	9.60	3	eP	53	18.40	-1.4
CHG	10.94	181	eP	53	50.00	12.0X
GUN	11.82	264	P	53	49.90	-0.4
PKI	12.31	263	P	53	55.90	-0.8
	0.6s		23.00nm		5.4mb	
KKN	12.37	264	P	53	57.20	-0.2
DMN	12.56	263	P	53	59.50	-0.5
	0.6s		29.00nm		5.5mb	
GKN	12.88	266	P	54	02.10	-2.1
	0.4s		14.00nm		5.3mb	
TIY	13.54	51	eP	54	18.50	5.8X
WMO	16.73	330	P	54	55.70	1.9
BJI	17.24	49	eP	55	01.00	0.8
NDI	19.21	272	iPc	55	24.30	0.0
KSH	21.34	303	eP	55	48.50	1.8
HYB	22.53	241	eP	56	01.00	2.5
CN2	25.11	49	eP	56	21.60	-1.6
GBA	25.78	236	Pd	56	31.70	2.0
	0.7s		4.60nm		4.1mb	
SOD	56.17	334	eP	00	38.00	-0.4
SUF	56.24	328	iP	00	38.70	-0.3
	0.6s		3.80nm		4.6mb	
VRI	57.54	308	eP	00	49.00	0.6
MLR	58.15	308	iPc	00	54.00	1.2
UPP	60.58	325	iP	01	08.40	-0.8
HFS	62.47	326	eP	01	21.10	-0.9
	0.8s		7.30nm		4.9mb	
NB2	63.46	327	P	01	27.70	-0.9
	0.7s		3.70nm		4.6mb	
ITR	135.19	289	ePdiff	07	18.80	-1.5
			e	09	39.20	
			e	09	47.80	
S.D. = 1.4 on 24 of 26 obs.						

• APR 16, 1989 22h 17m 12.97± 0.68s
32.515 N ± 9.9km 47.787 E ± 9.1km
DEPTH = 33.0km (normal)
4.6mb (6 obs.)
IRAN-IRAQ BORDER REGION (346)

KER	1.92	343	eP	17	45.50	1.4
BHD	2.96	286	ePn	18	06.00	7.3X
			i	18	12.50	
SLY	3.62	329	ePnd	18	10.50	2.5
			iSn	18	50.50	
			iSg	19	05.00	
MSL	5.44	316	ePd	18	49.00	15.2X
			eS	19	33.50	
TAB	5.67	348	eP	18	56.00	18.8X
QASM	7.40	211	eP	19	02.00	0.5
MAIO	10.38	65	eP	19	43.00	0.3
VRI	21.00	316	eP	22	00.00	4.2X
MLR	21.27	314	eP	22	02.00	3.3X
HYB	31.54	111	eP	23	35.50	1.0
GKN	32.04	88	P	23	38.90	-0.1
	0.4s		4.00nm		4.7mb	
DMN	32.56	89	P	23	43.60	0.0
KKN	32.65	88	P	23	44.40	0.0
	0.5s		6.00nm		4.7mb	
PKI	32.82	89	P	23	46.00	0.0
GUN	33.12	88	P	23	48.70	0.1
	0.6s		10.00nm		4.9mb	
SUF	33.21	342	eP	23	47.00	-1.6
	0.4s		2.20nm		4.4mb	
HFS	35.58	331	eP	24	07.40	-1.5
	0.4s		3.90nm		4.7mb	
NB2	37.10	331	P	24	20.20	-1.6
	0.5s		0.70nm		3.8mb	
MBC	71.20	357	eP	28	29.00	-1.0
S.D. = 1.3 on 14 of 19 obs.						

• APR 16, 1989 23h 33m 37.63± 1.26s
41.201 N ± 9.6km 20.048 E ±10.8km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.7 (SKO).

TIR	0.20	317	iPgc	33	41.60	-0.4
PHP	0.57	31	iPgc	33	48.60	-0.5
OHR	0.57	99	iPg	33	48.80	-0.5
			iSg	33	58.20	
KBN	0.82	135	ePg	33	53.80	0.3
KKS	0.92	17	ePg	33	56.00	0.9
SKO	1.30	53	iPg	34	04.80	3.1X
			iSg	34	18.00	
VAY	1.91	86	ePn	34	13.40	3.0X
S.D. = 0.9 on 5 of 7 obs.						

APR 17, 1989 01h 59m 52.36± 0.85s
39.316 N ± 8.1km 23.460 E ± 7.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

NEO	0.18	267	ePg	59	57.00	0.5
PLG	1.06	359	ePb	00	13.00	0.7
			eSb	00	29.00	
ATH	1.36	171	ePb	00	15.50	-1.8
KZN	1.63	308	ePb	00	22.00	0.7
VAY	2.11	342	ePn	00	29.40	1.2
PRK	2.18	91	ePn	00	31.30	2.1
EZN	2.27	76	ePn	00	32.00	1.5
MMB	2.28	5	iPc	00	30.00	-0.6
RDO	2.42	40	ePn	00	32.20	-0.4
RZN	2.56	22	iPc	00	33.00	-1.7
KKB	2.56	354	eP	00	34.00	-0.6
OHR	2.71	312	ePn	00	42.20	5.3X
KDZ	2.77	32	eP	00	36.00	-1.6
PGB	3.27	9	eP	00	38.00	-6.8X
S.D. = 1.4 on 12 of 14 obs.						

APR 17, 1989 02h 59m 07.98± 1.53s
29.865 N ± 5.9km 99.049 E ± 4.1km
DEPTH = 24.7 ± 12.7 km
4.9mb (9 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	4.20	74	ePn	00	13.80	1.7
			Pg	00	24.90	
			Sg	01	19.30	
KMI	5.75	144	Pnc	00	35.50	1.3
			Pgc	00	52.00	
LSA	6.87	271	P	00	54.30	4.2X
			S	02	11.00	
LZH	7.40	32	e(P)	00	57.00	-0.3
N	10s		1.90um			
			Lg	03	03.00	
GYA	7.53	115	P	00	58.60	-0.5
SHL	7.66	238	iP	01	02.20	1.3
			iS	02	30.00	
XAN	9.36	61	P	01	22.60	-1.8
GTA	9.54	4	eP	01	28.40	1.4
CHG	11.00	181	eP	02	02.90	16.0X
GUN	11.70	264	P	01	57.00	0.2
PKI	12.19	263	P	02	02.20	-1.1
KKN	12.25	264	P	02	04.40	0.4
DMN	12.44	263	P	02	06.40	-0.2
GKN	12.76	265	P	02	09.00	-1.8
QIZ	14.58	135	eP	02	32.40	-2.2
N	13s		1.20um			
TIA	16.42	63	Pd	03	02.70	4.4X
WMO	16.61	330	P	03	04.30	3.6X
BJI	17.30	49	eP	03	09.00	-0.3
NDI	19.08	272	eP	03	31.00	-0.4
SNY	23.11	52	eP	04	14.00	1.2
CN2	25.17	49	eP	04	34.20	1.5
GBA	25.71	236	Pd	04	39.30	1.3
	0.7s		8.20nm		4.5mb	
SOD	56.06	334	iP	08	47.00	0.2
KEV	56.11	336	eP	08	47.00	-0.1
	0.5s		11.20nm		5.2mb	
SUF	56.12	328	iP	08	47.20	-0.1
	0.4s		11.30nm		5.3mb	
NUR	56.90	325	iP	08	52.70	-0.2
VRI	57.40	308	iPc	08	58.00	1.3
MLR	58.01	307	iPc	09	02.00	0.9
WB5	60.03	141	iPc	09	15.00	-0.2
WRA	60.07	141	Pd	09	15.60	0.2
	0.5s		3.60nm		4.8mb	
UPP	60.46	325	iP	09	17.20	-0.4
HFS	62.35	326	eP	09	30.10	-0.3
	0.5s		8.90nm		5.2mb	
Z	16s		0.04um		3.7MszX	
			LR	33	16.00	
NB2	63.34	327	P	09	36.30	-0.7
	0.6s		7.20nm		5.0mb	
LPG	70.87	312	eP	10	25.50	0.3
	0.8s		5.90nm		4.8mb	
MBC	71.45	9	eP	10	27.00	-0.7
LOR	71.98	315	eP	10	31.00	-0.5
	0.8s		2.60nm		4.3mb	
SSF	72.29	314	eP	10	33.20	0.0
	0.8s		5.90nm		4.7mb	
FBA	72.40	24	eP	10	32.50	-1.1
INK	74.72	18	eP	10	45.50	-1.4
BUL	84.05	243	iPd	11	39.20	1.0
YKA	84.08	15	P	11	38.10	0.5
S.D. = 1.0 on 37 of 41 obs.						

• APR 17, 1989 03h 49m 37.55± 0.90s
28.764 S ±14.9km 123.728 E ± 8.8km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

COOL	3.08	226	eP	50	28.70	1.5
			eS	51	08.00	
WARB	3.65	46	eP	50	35.40	0.1
			eS	51	20.00	
FORR	4.33	120	eP	50	44.70	-0.2
			iS	51	30.10	
KLB	5.89	240	eP	51	06.00	-0.9
			iS	52	06.30	
MRWA	6.79	264	eP	51	20.10	0.5
			eS	52	32.00	
MUN	7.24	242	eP	51	25.00	-1.0
			eS	52	38.00	
S.D. = 1.2 on 6 of 6 obs.						

APR 17, 1989 04h 29m 36.62± 0.82s
35.582 N ± 7.7km 140.249 E ± 9.0km
DEPTH = 77.7 ± 8.9 km
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (I JMA) at Yokohoma and Ajiro.

YOK	0.51	254	iPd	29	50.90	0.6
			iS	30	00.60	
KAKJ	0.62	354	iP+	29	51.00	-0.5
			S	30	00.20	
AJI	1.08	241	P	29	56.40	-0.4
			iS	30	09.50	
CHJJ	1.12	295	iPd	29	57.10	-0.2
			S	30	11.00	
IIDJ	1.91	268	P	30	08.00	0.2
			eS	30	29.90	
MAT	1.91	301	iPd	30	07.80	0.0
			eS	30	30.00	

17d 04h

```
NIIJ     1.94 329 P      30 08.10   0.0
                 eS     30 31.20
MTMJ     2.22 298 P      30 12.00  -0.1
TSRJ     3.48 270 eP     30 29.70   0.2
OFUJ     3.67  18 P      30 32.50   0.4
                 S      31 13.00
WB5     55.44 187 eP     39 05.20  -0.1
      S.D. = 0.4  on  11 of  11 obs.
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?  APR  17, 1989  04h 29m 43.83± 7.41s
   18.005 N ±40.5km   65.707 W ±51.1km
   DEPTH =  33.0km  (normal)
 PUERTO RICO REGION                ( 90)

LPR      0.34 333 P      29 52.00  -0.2
SJG      0.43 284 iP     29 52.40  -1.1
                 S      29 59.80
CSB      0.51 304 P      29 54.50  -0.2
                 S      30 03.50
APR      1.07 295 P      30 03.60   1.0
MGP      1.32 270 P      30 06.20   0.2
      S.D. = 1.1  on   5 of   5 obs.
-----------------------------------------
*  APR  17, 1989  04h 55m 26.77± 1.18s
   30.644 S ± 7.8km   71.683 W ±10.4km
   DEPTH =  43.8 ± 12.0 km
   4.9mb ( 14 obs.)  4.8Msz (  1 obs.)
 NEAR COAST OF CENTRAL CHILE       (135)
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used: GDSN
      L.P.B.: 14S, 20C
      Centroid Location:
      Origin Time        04:55:28.8 0.8
      Lat 30.92S 0.12 Lon  71.85W 0.13
      Dep  15.0 FIX Half-duration  1.5
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 4.43 0.39   Mtt= 1.65 0.69
        Mff=-6.08 0.73   Mrt= 0.34 1.13
        Mrf=-5.02 1.60   Mtf= 0.80 0.46
       Principal Axes:
        T  Val=  6.44  Plg=68  Azm= 90
        N        1.73      2      355
        P       -8.17     22      265
      Best Double Couple:Mo=7.3*10**16
       NP1:Strike=351 Dip=23 Slip=  85
       NP2:       176     67      92

JACH     2.23 156 iP     56 03.50   1.3
ROCH     2.39 166 iPd    56 04.20  -0.3
PEL      2.63 161 iPc    56 08.10   0.3
ZON      2.73 110 iPc    56 13.50   4.3X
LCCH     2.82 178 iPc    56 08.20  -2.3
FCH      2.93 157 iPd    56 13.20   1.0
                 iS     57 00.60
SAN      2.93 163 iPc    56 11.70  -0.3
                 iS     56 16.20
TACH     3.07 168 iPc    56 13.40  -0.5
                 iS     57 00.50
CFA      3.11 109 iPd    56 19.00   4.5X
PCH      3.13 162 iPd    56 15.00   0.1
                 iS     57 03.50
LNV      3.31 176 iP     56 14.10  -3.3X
                 iS     56 22.10
CHCH     3.39 165 iPd    56 19.00   0.3
                 iS     57 12.10
RFA      4.93 147 ePc    56 41.30   1.0
CYA      5.58  68 eP     56 50.50   1.0
ANT      7.00  10 eP     57 01.50  -7.9X
                 eS     58 57.50
                 i      59 04.80
SLA      8.05  44 ePd    57 23.90  -0.2
ARE     14.12   1 eP     58 38.00  -8.3X
LPB     14.42  14 P      58 50.80   0.4
      1.1s    101.27nm          5.3mb
                 S      01 52.00
                 LR     03 54.00
ZOBQ    14.67  14 P      58 47.00  -6.8X
      0.8s     31.98nm          4.8mb
    Z  16s      2.24um
                 i      58 53.00
                 S      01 47.00
                 LR     03 24.00
ITA     25.46  78 eP     00 54.40   1.6
BMA     25.80  79 eP     00 54.20  -1.4
BAQ     26.33  61 eP     00 52.00  -8.6X
SOB1    35.75  60 eP     02 21.70  -1.9
                 e      04 50.50

ITR     37.90  62 eP     02 41.70   0.1
SPA     59.53 180 e(P)   05 27.10  -0.8
      1.0s       9.50nm          4.9mb
                 e      05 35.50
RSCP    67.18 348 P      06 15.90  -2.4
      1.1s      29.07nm          5.2mb
UYO     67.95 340 eP     06 20.90  -2.3
ELC     69.54 345 P      06 29.70  -3.2X
FVM     70.48 344 P      06 36.20  -2.5
ALQ     73.00 331 eP     06 53.80  -0.2
      1.4s      17.44nm          4.8mb
LIC     73.45  72 P      06 56.60  -0.2
TIC     73.69  72 P      06 58.00  -0.2
KIC     73.76  72 P      06 58.20  -0.4
      0.9s       7.50nm          4.6mb
CER     74.62 120 eP     07 20.00  16.6X
MAW     76.31 164 eP     07 12.00  -0.3
GLD     76.65 334 P      07 17.80   3.0X
      1.3s      41.38nm          5.3mb
GOL     76.67 334 P      07 14.80  -0.2
      1.1s      21.47nm          5.1mb
MSU     78.48 329 P      07 33.20   8.2X
DAU     79.64 330 P      07 31.60   0.2
TNP     80.51 325 P      07 34.60  -1.3
      1.2s       9.41nm          4.6mb
PRI     80.79 322 ePc    07 39.80   2.5
BW06    80.93 333 P      07 38.80   0.8
      1.2s       9.42nm          4.6mb
EUR     81.01 327 iP     07 38.80   0.3
      1.0s       3.85nm          4.3mb
PRS     81.31 321 ePc    07 40.90   1.0
KVN     81.70 325 P      07 40.80  -1.3
CMB     82.07 323 ePc    07 46.10   2.3
MHC     82.21 322 e(P)   07 47.30   2.6
RSON    83.45 346 P      07 48.30  -2.3
      0.8s       5.28nm          4.7mb
ORV     83.79 324 e(P)   07 53.00   0.4
MIN     84.43 324 eP     07 58.50   2.5
LRM     84.61 333 eP     07 57.50   0.6
WDC     85.08 324 ePc    08 00.10   1.1
SES     87.89 336 eP     08 12.00  -0.6
FFC     88.94 343 eP     08 15.00  -2.5
      1.0s      11.00nm          5.1mb
LON     89.33 328 P      08 21.40   1.8
BNG     92.43  86 ePd    08 35.70   1.1
      0.5s       4.00nm          5.1mb
                 id     12 03.30
NUR    119.19  34 ePKP   14 14.00   2.1
    Z  18s       0.20um          4.8Msz
                 LR     08 30.00
SUF    120.28  32 iPKP   14 12.80  -1.1
HYB    149.90 109 ePKP   15 13.50   4.2X
PSI    150.82 160 ePKPd  15 19.90   9.1X
SNG    155.56 161 ePKP   15 42.30  24.9X
GKN    159.19  91 PKP    15 21.00  -0.7
      S.D. = 1.4  on  48 of  62 obs.
-----------------------------------------
?  APR  17, 1989  05h 00m 38.22± 8.45s
   31.033 S ±55.2km   71.515 W ±53.5km
   DEPTH =  33.0km  (normal)
 NEAR COAST OF CENTRAL CHILE       (135)

JACH     1.82 155 iP     01 06.20  -1.7
                 iS     01 36.60
ROCH     1.98 168 eP     01 06.00  -4.3X
PEL      2.22 162 iP     01 14.70   1.2
LCCH     2.44 181 iP     01 16.00  -0.5
ZON      2.48 103 e(P)   01 17.00  -0.3
FCH      2.51 156 eP     01 18.00   0.1
                 iS     02 01.00
SAN      2.52 164 eP     01 19.20   1.4
TACH     2.66 170 eP     01 16.50  -3.2X
                 iS     02 01.50
PCH      2.72 162 iP     01 24.00   3.4X
                 iS     02 08.50
CFA      2.86 102 iPd    01 22.50  -0.1
CHCH     2.98 166 iPd    01 23.00  -1.3
                 iS     02 19.50
      S.D. = 1.3  on   8 of  11 obs.
-----------------------------------------
   APR  17, 1989  05h 47m 26.64± 0.28s
   45.252 N ± 2.4km     7.511 E ± 2.9km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                    (545)
      ML 3.5 (LDG). MD 3.1 (STR).

ORO      0.50  41 P      47 37.00   0.2

                 eSg    47 45.30
LPG      0.59 295 Pg     47 37.70  -1.1
                 Sg     47 43.70
LPL      0.61 296 Pg     47 38.10  -1.0
                 Sg     47 44.60
BNI      0.62 252 Pd     47 38.40  -0.9
                 eSg    47 48.90
DOI      0.77 194 Pc     47 40.60  -1.2
FOUF     0.89 216 P      47 43.43  -0.2
                 Sg     47 53.45
CKI      0.99 146 P      47 46.20   0.8
                 eSg    48 01.90
VAI      1.08  55 P      47 46.90   0.0
                 eSg    48 04.10
TOUF     1.25 189 Pg     47 48.30  -1.8
AUTN     1.26 183 Pg     47 48.60  -1.6
SAOF     1.27 179 Pg     47 48.84  -1.3
AURF     1.37 186 Pg     47 50.20  -1.7
MVIF     1.38 191 Pg     47 50.51  -1.5
SBF      1.39 182 Pn     47 51.00  -1.1
                 Sg     48 11.30
BOB      1.46 109 P      47 55.50   2.4
                 eSg    48 13.90
REVF     1.51 184 Pg     47 53.68  -0.2
CALN     1.56 197 Pg     47 54.61   0.0
MDI      1.63  70 P      47 55.40  -0.1
                 eSn    48 18.70
GANF     1.70 223 Pg     47 58.99   2.5
FRF      1.80 200 Pn     47 58.60   0.7
                 Sg     48 21.70
VILF     1.90 223 Pg     48 01.72   2.3
                 Sg     48 29.28
TAVF     1.94 213 Pg     48 02.06   2.1
                 Sg     48 27.93
LRG      1.98 205 Pn     48 01.20   0.7
                 Pg     48 02.60
                 Sg     48 27.70
LMR      2.05 201 Pn     48 01.80   0.3
                 Sg     48 30.00
SSB      2.10 272 Pn     48 03.01   0.7
PUYF     2.15 218 Pg     48 05.21   2.1
PRAF     2.21 230 Pg     48 07.22   3.2X
TREF     2.23 224 Pg     48 07.62   3.4X
GELF     2.39 219 Pg     48 10.42   3.9X
BDI      2.50 117 P      48 07.40  -0.7
MOF      2.61 354 Pn     48 10.23   0.5
BSF      2.63 349 Pn     48 10.50   0.6
                 Sg     48 50.20
PII      2.64 124 P      48 10.20   0.2
FEL      2.65   7 Pn     48 10.97   0.7
                 Sg     48 50.14
PLDF     2.82 286 Pn     48 13.33   0.6
HAU      2.87 344 Pn     48 13.00  -0.3
SMF      2.91 300 Pn     48 14.00   0.1
                 Sg     48 57.20
LBF      3.01 306 Pn     48 15.50   0.3
                 Pg     48 23.10
                 Sg     49 01.00
LBL      3.01 271 Pn     48 15.52   0.3
VITF     3.15 341 Pn     48 17.27   0.2
CDF      3.17 357 Pn     48 16.83  -0.7
AGO      3.17 286 Pn     48 17.90   0.3
PYM      3.21 281 Pn     48 18.20   0.1
LQR      3.24 310 Pn     48 18.50   0.0
                 Pg     48 29.40
                 Sg     49 07.20
AVF      3.28 299 Pn     48 19.00  -0.1
                 Pg     48 28.20
                 Sg     49 09.20
SSF      3.32 304 Pn     48 19.80   0.1
                 Pg     48 29.90
BGF      3.51 294 Pn     48 22.50   0.2
                 Sn     48 59.60
                 Sg     49 17.50
MAF      3.60 287 Pn     48 23.50  -0.1
                 Pg     48 34.50
                 Sg     49 20.20
GWF      3.73   1 Pn     48 24.58  -0.9
TCF      3.85 287 Pn     48 27.30   0.1
                 Pg     48 39.20
                 Sn     49 11.00
                 Sg     49 26.80
CAF      3.87 267 Pn     48 28.20   0.7
RJF      4.23 273 Pn     48 31.80  -0.8
                 Sg     49 37.60
LSF      4.30 286 Pn     48 33.80   0.1
                 Sg     49 41.90
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LPO      4.52 265 Pn     48 37.90    1.2
LFF      4.80 269 Pn     48 40.70    0.0
DOU      5.23 339 P      48 46.30   -0.4
                  i      48 49.60
MFF      5.51 287 Pn     48 50.50   -0.2
KHC      5.67  45 eP     48 03.00  -50.0X
FLN      6.50 306 Pn     49 04.20   -0.4
LPF      6.51 298 Pn     49 03.80   -1.0
GRR      6.54 302 Pn     49 03.70   -1.6
     S.D. = 1.0  on  57 of  61 obs.
-------------------------------------
*  APR 17, 1989  06h 29m 53.98± 0.60s
   44.390 N ±10.3km  141.467 E ±16.5km
   DEPTH =  33.0km  (normal)
   4.7mb (  2 obs.)
 HOKKAIDO, JAPAN  REGION          (224)

MAT      8.22 199 eP     31 54.00    0.1
       0.8s     12.69nm          5.1mb X
IMA     40.47  35 eP     37 30.70   -0.1
FBA     43.00  36 eP     37 51.40    0.1
INK     47.91  30 eP     38 30.00   -0.4
MBC     49.50  18 eP     38 44.00    1.4
YKA     57.50  32 eP     39 41.20   -0.6
SUF     61.48 332 eP     40 09.00   -0.3
NUR     63.53 330 eP     40 23.00    0.2
HFS     67.43 335 eP     40 48.00    0.0
       0.3s     3.20nm          4.9mb
NB2     67.45 336 P      40 47.80   -0.3
       0.7s     2.60nm          4.4mb
     S.D. = 0.6  on  10 of  10 obs.
-------------------------------------
?  APR 17, 1989  06h 33m 16.25± 0.93s
   6.245 S ±16.7km  151.057 E ±12.0km
   DEPTH =  33.0km  (normal)
   4.4mb (  2 obs.)
 NEW BRITAIN REGION               (192)

RAB      2.32  29 e(P)   33 53.50    0.6
LMG      3.91 227 eP     34 15.00   -0.7
LAT      4.05 264 eP     34 28.00   10.5X
BGA      4.10  89 eP     34 18.50    0.2
PAA      4.41  91 eP     34 22.00   -0.7
PMG      4.98 231 eP     34 33.00    2.2
                  eS     35 30.00
RMQ     20.25 186 iPd    37 52.90    1.2
WB5     21.13 229 iPc    37 59.80   -1.0
WRA     21.19 228 Pd     37 59.00   -2.4
       0.7s     5.00nm          4.0mb
ASPA    23.92 222 iPd    38 29.00    0.7
       1.1s    35.00nm          4.8mb
WARB    30.59 227 eP     39 20.50   -9.0X
     S.D. = 1.6  on   9 of  11 obs.
-------------------------------------
*  APR 17, 1989  06h 33m 47.71± 1.91s
   36.343 N ±10.3km   27.684 E ± 9.4km
   DEPTH =  98.8 ± 34.4 km
 DODECANESE ISLANDS               (369)

KAP      0.89 208 iPd    34 06.60   -0.5
                  eS     34 19.40
YER      0.93  31 iPg    34 07.80    0.2
                  iSg    34 20.80
KSL      1.55  98 eP     34 15.90    1.0
ELL      1.84  77 ePn    34 18.00   -0.7
NPS      2.00 238 eP     34 21.00    0.2
IZM      2.08 351 iPn    34 22.10    0.3
KHL      2.46  36 iPn    34 26.50   -0.5
     S.D. = 0.9  on   7 of   7 obs.
-------------------------------------
&  APR 17, 1989  08h 19m 54.37s
   59.806 N          153.724 W
   DEPTH = 141.2km
 SOUTHERN ALASKA                  (  2)
      <AGS-P>.

PDB      0.24 266 iP     20 12.88    0.6
                  S      20 27.32
OPT      0.29 121 iP     20 13.50    1.0
                  eS     20 27.15
AUL      0.45 161 iP     20 14.15   -0.5
ILIM     0.47  54 iP     20 14.10   -0.8
                  iS     20 30.20
RED      0.78  37 iP     20 15.85   -1.0
CDD      0.88 177 iP     20 16.55   -1.0
                  eS     20 33.47
CNPM     1.29 101 eP     20 20.23   -1.2
                  eS     20 39.73
NKA      1.56  52 iP     20 24.99    0.8
SPU      1.61  30 iP     20 23.84   -1.0
CRP      1.66  27 iP     20 24.83   -0.7
                  eS     20 49.13
CGLM     1.73  29 eP     20 25.41   -0.9
                  eS     20 50.39
        11 obs. ossociated
-------------------------------------
*  APR 17, 1989  08h 56m 17.08± 0.87s
   39.089 N ± 7.1km   27.612 E ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)

IZM      0.74 202 ePg    56 31.60   -0.1
                  eSg    56 43.10
DST      0.94  56 iPg    56 35.20    0.1
                  eSg    56 49.20
EZN      1.24 307 ePn    56 40.20    0.1
EDC      1.27   9 ePn    56 40.50   -0.2
BNT      1.29  11 iPn    56 40.90    0.0
     S.D. = 0.2  on   5 of   5 obs.
-------------------------------------
%  APR 17, 1989  09h 11m 36.60± 0.70s
   37.397 N ± 6.1km    2.297 W ± 6.4km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                            (377)
      MG 2.9 (MDD).

ENIJ     0.43 171 iPgd   11 45.40    0.0
                  eSg    11 51.00
EALH     0.83  56 ePg    11 52.70    0.0
                  eSg    12 04.00
AFC      1.00 262 ePg    11 55.60   -0.1
EVIA     1.25 353 ePg    11 59.80   -0.1
                  eSg    12 16.80
EBAN     1.41 303 ePn    12 02.40    0.1
                  eSn    12 21.20
EHOR     2.38 281 ePn    12 16.30    0.0
     S.D. = 0.1  on   6 of   6 obs.
-------------------------------------
?  APR 17, 1989  09h 26m 53.31±12.35s
   32.940 S ±31.0km   72.027 W ±96.7km
   DEPTH =  33.0km  (normal)
 OFF COAST OF CENTRAL CHILE       (134)

ROCH     0.85  92 iP     27 08.50   -0.6
PEL      1.14 101 iPd    27 13.40    0.3
                  iS     27 26.90
TACH     1.16 128 iP     27 12.60   -0.7
                  iS     27 25.80
JACH     1.23  78 iP     27 14.60    0.2
                  iS     27 29.50
SAN      1.25 114 iPc    27 14.50   -0.1
                  iS     27 27.50
PCH      1.44 119 iPd    27 17.40    0.0
                  iS     27 35.00
FCH      1.51 105 iP     27 19.10    0.5
                  iS     27 37.00
CHCH     1.52 131 iPd    27 19.00    0.5
                  iS     27 36.50
     S.D. = 0.5  on   8 of   8 obs.
-------------------------------------
*  APR 17, 1989  09h 34m 31.52± 0.84s
   11.349 S ±10.6km  119.208 E ±12.5km
   DEPTH =  33.0km  (normal)
   4.2mb (  4 obs.)
 SOUTH OF SUMBA ISLAND            (292)

MBL      9.77 177 iPc    36 50.40   -2.5
       0.3s     15.00nm          5.7mb X
                  iS     38 31.00
KNA     10.27 116 eP     36 58.00   -1.8
                  eS     38 50.00
NANU    11.69 197 eP     37 15.00   -4.1X
                  eS     39 13.00
MEKA    15.20 182 eP     38 04.20   -1.3
       0.3s     8.00nm          4.5mb
                  eS     40 38.00
WARB    16.34 156 eP     38 11.80   -8.4X
       0.4s     7.00nm          4.1mb
                  eS     41 03.00
WB5     16.87 122 eP     38 26.70   -0.3
                  eS     41 23.50
MRWA    18.03 189 eP     38 41.40    0.1
       0.3s     6.00nm          4.2mb
                  eS     41 42.00
ASPA    18.59 133 eP     38 49.90    1.6
                  eS     42 05.50
BAL     19.30 187 eP     38 57.00    0.3
                  eS     42 12.00
COOL    19.52 175 eP     39 00.00    0.8
                  iS     42 21.50
KLB     20.19 184 eP     39 08.00    1.7
                  eS     42 32.00
MUN     20.72 187 eP     39 16.00    4.3X
                  eS     42 45.00
FORR    21.08 158 eP     39 17.40    2.0
NWAO    21.55 185 eP     39 20.00   -0.2
                  eS     43 06.00
GBA     48.28 300 Pd     43 11.10   -0.7
       0.8s     2.40nm          4.3mb
GUN     50.65 321 P      43 30.60    0.4
PKI     50.70 320 P      43 30.40   -0.2
MEU    108.11 305 PKP    52 38.90  -19.3X
                  eSg    52 46.80
SLA    143.85 173 e(PKP) 54 24.80   18.7X
ZOBO   151.62 165 ePKP   54 30.00   10.8X
     S.D. = 1.4  on  14 of  20 obs.
-------------------------------------
   APR 17, 1989  09h 52m 23.11± 0.69s
   32.345 S ± 8.2km   70.081 W ± 9.8km
   DEPTH =  33.0km  (normal)
 CHILE-ARGENTINA BORDER REGION    (127)

JACH     0.55 232 eP     52 37.50    3.0X
PEL      0.95 212 iPd    52 41.00    0.9
FCH      1.00 190 iPc    52 43.00    1.9
ROCH     1.00 231 iP     52 41.40    0.3
SAN      1.21 204 iPd    52 44.20    0.4
                  iS     53 02.50
PCH      1.32 196 iPc    52 46.00    0.5
ZON      1.43  57 iPd    52 47.50    0.4
TACH     1.49 209 iPd    52 46.90   -1.0
CHCH     1.66 197 iPd    52 50.00   -0.3
                  iS     53 12.00
LCCH     1.69 228 iPd    52 48.90   -1.8
                  iS     53 09.50
CFA      1.73  65 iPc    52 51.00   -0.4
                  S      53 19.00
RFA      2.77 151 iPc    53 05.00   -1.2
CYA      5.37  45 ePd    53 36.50   -6.5X
LPB     15.84   7 eP     56 06.00    0.2
ITA     24.58  73 eP     57 24.70  -17.0X
BAO     26.07  56 e(P)   57 44.00  -11.6X
LIC     72.69  71 P      04 00.30   10.4X
KIC     73.00  71 P      04 02.00   10.3X
     S.D. = 1.1  on  12 of  18 obs.
-------------------------------------
   APR 17, 1989  11h 15m 52.45± 0.78s
    6.932 S ± 5.5km  129.426 E ± 7.0km
   DEPTH =  77.6 ±  7.4 km
   5.0mb ( 12 obs.)
 BANDA SEA                        (280)

AAI      3.45 339 iPc    16 54.20    9.3X
MTN      6.11 164 iPc    17 24.00    1.9
KNA      8.79 184 iPd    17 59.20    0.2
       0.3s    165.00nm          6.3mb X
                  eS     19 30.00
WB5     13.74 160 iPc    19 01.70   -3.5X
WRA     13.79 160 Pd     19 03.30   -2.5
       0.7s     93.10nm          5.3mb
MNDI    14.16  88 eP     19 13.00    2.1
OIS     16.76 145 iPc    19 42.20   -1.5
       0.7s     92.00nm          5.1mb
                  eS     22 33.40
MBL     16.92 212 eP     19 47.00    1.3
                  eS     22 43.00
ASPA    17.19 166 ePc    19 46.70   -2.4
     Z  19s      0.47um
                  eS     22 39.00
                  LR     26 50.60
LAT     17.45  90 eP     19 59.00    6.6X
PMG     17.72  99 eP     19 58.00    2.4
WARB    19.33 188 eP     20 06.70   -7.7X
       0.5s     22.00nm          4.7mb
                  e      20 11.00
                  eS     23 31.00
NANU    20.51 219 iPd    20 28.00    1.3
                  eS     24 14.00
CTA     20.92 130 iPc    20 31.00    0.2
       1.0s     50.00nm          4.8mb
MEKA    22.15 207 eP     20 44.20    1.1
```

17d 11h

			eS	24 41.00		
FORR	23.83	183	iPd	20 59.30	0.0	
	0.4s	173.00nm			5.8mb	
			eS	25 23.00		
COOL	25.06	197	iPc	21 11.10	-0.1	
MRWA	25.53	208	iPc	21 16.30	0.7	
	0.3s	6.00nm			4.6mb	
			eS	26 04.00		
BAL	26.40	205	eP	21 23.70	0.1	
RMQ	26.77	139	eP	21 26.10	-0.9	
			e	21 58.40		
KLB	26.85	202	eP	21 27.80	0.2	
STK	27.30	157	iPd	21 30.90	-0.8	
	0.5s	22.00nm			5.0mb	
MUN	27.80	205	iPc	21 36.40	0.1	
NWAO	28.24	202	iPc	21 40.40	0.2	
ADE	29.18	164	e(P)	21 48.50	-0.2	
BRS	30.08	135	iPd	21 55.00	-1.8	
			i	22 28.50		
			i	24 56.00		
BWA	32.49	150	iPd	22 18.30	0.5	
			e	23 16.50		
CAN	33.49	150	iPd	22 26.10	-0.4	
TOO	33.82	157	eP	22 29.00	-0.3	
DZM	38.73	117	iPc	23 10.20	-0.9	
CHG	39.47	311	eP	23 18.80	1.7	
XAN	45.14	336	P	24 02.40	-0.7	
BJI	48.31	346	eP	24 27.50	-0.4	
LZH	49.08	332	e(P)	24 34.00	-0.1	
GTA	53.64	332	P	25 08.00	-0.3	
GUN	54.48	311	P	25 14.50	-0.5	
PKI	54.65	311	P	25 15.60	-0.6	
	0.5s	10.00nm			5.1mb	
KKN	54.86	311	P	25 17.00	-0.6	
	0.5s	10.00nm			5.1mb	
DMN	54.90	311	P	25 17.50	-0.4	
GKN	55.46	311	P	25 21.40	-0.4	
	0.4s	22.00nm			5.5mb	
GBA	55.50	292	P	25 22.00	-0.1	
	0.4s	2.00nm			4.5mb	
WMQ	63.03	327	eP	26 11.00	-2.6	
MAW	74.81	201	eP	27 25.00	-0.7	
SPA	83.11	180	ePd	28 09.90	-1.0	
	0.7s	9.77nm			4.9mb	
YKA	107.94	26	PKP	34 12.20	-0.1	
LIC	134.76	272	PKP	35 05.00	0.0	
TIC	134.78	272	PKP	35 04.90	-0.1	
ITB7	147.95	174	PKPc	35 29.40	1.5	
ITB	148.27	174	ePKP	35 30.70	2.2	
ITB1	148.39	173	ePKP	35 30.70	2.1	
ARE	148.88	138	ePKP	35 33.00	3.0X	
ITA	150.31	191	ePKP	35 37.10	5.1X	
CNCB	150.80	144	PKP	35 34.00	0.8	
LPB	150.95	144	PKP	35 40.00	6.8X	
	0.9s	50.42nm				
ZOBO	151.14	143	PKP	35 34.00	0.3	
PPD	151.21	179	ePKP	35 37.80	4.8X	
			e	35 45.90		

S.D. = 1.2 on 48 of 56 obs.

% APR 17, 1989 12h 17m 02.06± 1.42s
39.303 N ± 7.4km 16.891 E ±16.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

TDS	0.56	310	Pd	17 12.50	-0.8	
			eSg	17 22.40		
MGR	1.33	309	P	17 27.00	0.5	
SOI	1.39	208	P	17 28.40	0.9	
BRT	1.59	9	P	17 30.10	-0.2	
SGO	1.75	316	P	17 33.20	0.7	
MEU	2.69	216	P	17 45.20	-1.0	

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

% APR 17, 1989 12h 57m 13.07± 0.88s
11.459 N ± 6.0km 61.479 W ±25.2km
DEPTH = 10.0km (geophysicist)
WINDWARD ISLANDS (95)
MD 3.3 (TRN).

GRW	0.72	346	eP	57 42.41	15.1X	
TCE	0.80	200	eP	57 28.32	-0.4	
			eS	57 35.44		
TRN	0.81	175	eP	57 29.35	0.6	
			eS	57 38.59		
TBH	1.05	157	eP	57 32.61	-0.3	
			eS	57 42.46		
TPP	1.14	179	eP	57 29.54	-4.8X	
			eS	57 38.71		
SVB	1.82	7	eP	57 45.51	0.9	
SVV	1.87	8	eP	57 46.26	0.9	
SLB	2.39	10	eP	57 51.15	-1.8	

S.D. = 1.4 on 6 of 8 obs.

APR 17, 1989 13h 05m 14.98± 0.51s
37.995 S ± 8.7km 175.742 E ± 8.5km
DEPTH = 293.4 ± 5.4 km
5.0mb (21 obs.)
NORTH ISLAND, NEW ZEALAND (159)

KRP	0.18	293	iPd	05 53.70	1.3	
	1.0s	2270.00nm				
WTZ	0.99	90	P	05 54.00	-0.8	
CNZ	1.21	187	P	05 58.00	1.8	
			S	06 31.00		
GBZ	1.79	353	P	05 59.70	-0.1	
			S	06 38.90		
HBZ	2.07	80	iPc	06 01.20	-0.8	
			S	06 28.00		
WEL	3.37	193	P	06 15.20	0.8	
COB	3.87	216	P	06 19.70	-0.1	
RTY	4.41	209	P	06 26.60	0.7	
			S	07 23.00		
KAI	5.61	215	P	06 39.90	0.0	
			S	07 44.00		
KKZ	5.64	195	P	06 30.10	-10.2X	
CMZ	6.06	202	P	06 45.40	0.0	
TMP	7.60	212	P	07 03.00	-1.3	
			S	08 22.00		
MSZ	8.89	219	P	07 17.20	-2.9	
			S	08 55.00		
DZM	17.78	331	iPc	09 03.10	-1.6	
COO	21.01	283	iPc	09 40.30	3.5X	
	0.7s	85.00nm			5.2mb	
CNB	21.31	269	iPd	09 43.40	3.8X	
CAN	21.60	269	iPc	09 45.00	2.6	
BRS	21.98	292	iPd	09 48.20	2.1	
BWA	22.30	271	iPc	09 48.90	-0.3	
TOO	23.87	262	iPc	10 05.90	2.1	
RMQ	25.46	289	eP	10 20.00	1.6	
STK	28.54	272	iPc	10 47.20	1.2	
	0.5s	25.00nm			5.0mb	
ADE	29.80	264	eP	10 58.30	1.2	
	0.5s	118.31nm			5.7mb	
CTA	31.16	297	iPc	11 08.90	-0.1	
	0.9s	32.77nm			4.9mb	
QIS	35.72	289	iPc	11 47.30	-0.4	
	0.5s	11.00nm			4.6mb	
PPT	36.52	66	iP	11 52.80	-1.7	
	0.6s	35.00nm			5.0mb	
PPN	36.65	66	iP	11 54.40	-1.1	
	0.6s	40.00nm			5.1mb	
ASPA	38.34	280	iPc	12 09.10	-0.5	
	0.6s	172.00nm			5.6mb	
			eS	17 39.10		
FORR	39.59	266	iPc	12 20.30	0.6	
	0.5s	222.00nm			5.8mb	
WRA	40.06	285	Pc	12 20.50	-3.2X	
	0.9s	44.70nm			4.8mb	
WB5	40.08	285	eP	12 22.70	-1.1	
SBA	40.15	183	Pd	12 27.60	3.9X	
WARB	42.79	271	iPc	12 36.70	-9.2X	
	0.4s	23.00nm			4.8mb	
COOL	45.04	262	iPc	13 03.10	-0.6	
	0.3s	34.00nm			5.2mb	
KNA	46.81	285	iPc	13 16.80	-0.7	
	0.4s	30.00nm			5.0mb	
MTN	46.85	290	iPd	13 17.10	-0.8	
	0.6s	68.00nm			5.2mb	
NWAO	47.25	258	eP	13 20.10	-0.8	
	0.5s	21.00nm			4.7mb	
KLB	47.39	259	iPc	13 21.20	-0.7	
	0.3s	29.00nm			5.1mb	
MUN	48.43	258	eP	13 29.00	-0.9	
BAL	48.62	260	eP	13 30.40	-1.0	
MEKA	48.99	266	iPc	13 33.10	-1.2	
	0.5s	83.00nm			5.3mb	
MRWA	49.78	261	iPd	13 39.40	-0.9	
	0.3s	6.00nm			4.4mb	
MBL	50.70	273	iPc	13 45.40	-1.9	
	0.5s	99.00nm			5.5mb	
SPA	52.19	180	ePc	13 59.00	1.1	
	0.8s	34.58nm			4.8mb	
NANU	53.37	269	iPc	14 05.90	-1.0	
	0.5s	19.00nm			4.8mb	
MAW	63.35	203	eP	15 13.00	-1.8	
CHG	91.47	293	eP	17 48.80	-0.5	
KEV	144.07	342	ePKP	24 12.00	-3.9X	
SOD	145.86	339	ePKP	24 19.00	0.0	
KUK	148.14	187	ePKP	24 30.00	5.7X	
LIC	148.37	179	PKP	24 26.50	1.9	
KIC	148.51	179	PKP	24 27.18	2.3	
SUF	149.10	333	ePKP	24 26.00	1.7	
NUR	151.04	330	ePKP	24 30.00	2.8	

S.D. = 1.4 on 46 of 54 obs.

? APR 17, 1989 13h 34m 26.22± 8.37s
18.037 N ±43.0km 65.692 W ±59.0km
DEPTH = 33.0km (normal)
PUERTO RICO REGION (90)

LPR	0.32	328	P	34 34.00	-0.3	
SJG	0.44	280	iP	34 34.50	-1.5	
			S	34 41.50		
CSB	0.51	300	P	34 36.50	-0.5	
			S	34 43.50		
APR	1.07	293	P	34 45.80	0.9	
MGP	1.33	269	P	34 48.60	0.0	
MCP	1.40	286	P	34 51.00	1.3	

S.D. = 1.3 on 6 of 6 obs.

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* APR 17, 1989 13h 59m 16.72± 1.56s
32.818 N ± 6.9km 130.639 E ±18.8km
DEPTH = 10.0km (geophysicist)
KYUSHU, JAPAN (235)
MG 2.9 (JMA). Felt (I JMA) at Kumamoto.

KUM	0.06	98	iPd	59 19.30	0.3	
			iS	59 21.30		
KUMJ	0.32	150	iP+	59 22.80	-0.6	
			S	59 27.00		
SHNJ	1.36	17	P	59 41.30	-0.4	
			S	59 59.50		
KAGJ	1.64	173	P	59 46.20	0.5	
YONJ	3.33	44	eP	00 10.10	0.2	

S.D. = 0.7 on 5 of 5 obs.

APR 17, 1989 14h 20m 31.14± 1.64s
8.179 S ± 4.8km 112.924 E ± 6.6km
DEPTH = 112.8 ± 16.7 km
5.1mb (15 obs.)
JAVA (277)

KGM	13.94	316	eP	23 52.60	7.6X	
NANU	14.52	170	iPd	23 52.50	0.1	
			eS	26 21.00		
MBL	14.53	153	eP	23 51.40	-1.1	
	0.3s	36.00nm			5.1mb	
			eS	26 19.00		
KNA	17.22	117	eP	24 25.90	-0.3	
			eS	27 26.00		
IPM	17.36	316	ePd	24 29.20	1.3	
MTN	18.49	106	iPc	24 40.70	-0.6	
	0.4s	43.00nm			5.1mb	
			eS	27 56.60		
MEKA	19.09	164	iPc	24 48.00	0.3	
			eS	28 10.00		
MRWA	21.13	173	eP	25 08.40	-0.1	
WARB	22.15	146	eP	25 10.90	-7.8X	
			e	25 27.00		
			eS	29 13.00		
BAL	22.59	171	eP	25 24.00	1.1	
			e	25 41.00		
KLB	23.73	170	eP	25 33.50	-0.4	
			e	25 55.00		
WB5	23.80	121	eP	25 34.00	-0.8	
			eS	30 03.20		
WRA	23.80	122	Pc	25 35.20	0.4	
	0.5s	44.50nm			5.2mb	
COOL	23.86	162	eP	25 34.00	-1.2	
			e	25 53.00		
			eS	29 57.00		
MUN	23.88	173	eP	25 36.00	0.6	
			e	25 57.00		
NWAO	24.95	171	eP	25 45.00	-0.5	
	Z 20s	0.10um			3.3Msz	
			e	26 10.00		
ASPA	25.32	130	iPd	25 48.90	-0.2	
	0.8s	74.00nm			5.2mb	
			epP	26 19.40	149kmX	

FORR	26.64	150	eP	26	00.00	-1.1
			e	26	32.00	
			eS	31	07.00	
QIS	28.57	118	eP	26	18.00	-0.7
CHG	30.16	333	eP	26	33.50	0.7
CTA	34.34	114	iPd	27	09.30	0.1
	0.9s	45.80nm			5.3mb	
KMI	34.55	344	Pc	27	27.00	15.8X
GYA	34.96	350	P	27	15.60	1.1
			PcP	29	44.60	
STK	35.59	135	iPd	27	19.80	0.2
	0.5s	68.00nm			5.8mb	
			e	30	49.00	
WHN	38.52	2	P	27	45.50	1.3
RMQ	38.56	123	iPd	27	46.10	1.5
	0.7s	20.00nm			5.1mb	
			e	30	08.80	
SSE	39.84	11	Pc	27	56.70	1.6
	1.0s	24.00nm			5.0mb	
CD2	39.85	348	iPc	27	56.20	1.0
NJ2	40.40	8	Pc	28	01.60	2.0
			ScP	33	34.00	
GBA	41.35	301	Pd	28	04.20	-3.5X
	0.7s	16.70nm			4.9mb	
TOO	41.52	140	eP	28	09.00	0.1
BWA	41.77	134	eP	28	12.30	1.3
XAN	42.16	355	P	28	14.20	0.1
BRS	42.23	122	iPc	28	16.10	1.2
			i	28	48.20	
			i	29	35.40	
			i	34	22.00	
HYB	42.43	307	iPc	28	15.80	-0.8
	1.0s	100.00nm			5.5mb	
			e	28	26.50	
CAN	42.64	135	eP	28	18.30	0.2
			e	28	52.00	
COO	42.66	127	iPc	28	20.30	1.9
	0.7s	19.00nm			5.0mb	
			e	29	35.60	
LSA	43.10	332	Pc	28	23.60	1.3
TIA	44.33	5	Pc	28	31.20	-0.4
GUN	44.40	325	P	28	32.80	0.0
PKI	44.41	324	P	28	32.40	-0.4
DMN	44.62	324	P	28	34.00	-0.4
KKN	44.65	324	P	28	34.20	-0.4
LZH	44.85	350	P	28	37.00	1.0
	1.5s	110.00nm			5.4mb	
GKN	45.18	324	P	28	38.40	-0.3
TIY	45.65	359	eP	28	42.00	-0.1
VSG	46.24	95	eP	28	46.00	-1.1
HNR	46.46	95	eP	28	49.00	0.1
POO	46.80	305	iPc	28	51.20	-0.3
BJI	48.07	3	eP	29	01.00	0.0
			e	30	32.00	
BTO	48.61	357	P	29	05.00	-0.3
HHC	48.80	359	Pc	29	06.80	0.1
GTA	48.88	347	iPc	29	08.40	0.9
			PcP	30	29.80	
			ScS	38	40.80	
NDI	50.30	318	iPc	29	15.70	-2.6
	0.7s	102.74nm			5.9mb	
MAT	50.42	27	eP	29	17.00	-2.1
	0.7s	13.70nm			5.0mb	
SNY	50.71	10	iPc	29	19.80	-1.4
CN2	52.97	11	Pc	29	36.00	-2.0
			ScP	34	26.00	
MDJ	54.66	15	eP	29	49.30	-1.2
WMQ	56.58	338	Pc	30	04.00	-0.4
MSZ	59.72	137	P	30	26.40	0.3
MAIO	66.85	315	eP	31	11.00	-2.2
			i	31	40.00	
MAW	68.03	198	eP	31	20.00	0.0
PRNI	83.80	302	iPc	32	50.50	1.0
HRI	83.87	305	iP	32	51.50	1.6
VRI	93.17	316	ePc	33	34.00	0.2
MLR	93.66	315	eP	33	35.30	-0.9
SUF	95.72	332	iP	33	43.70	-1.4
	0.5s	2.50nm			4.9mb	
UYO	143.89	40	ePKP	39	51.00	-4.2X
ITR	146.86	240	ePKP	40	02.00	1.2
	S.D. = 1.1	on	64 of	69	obs.	

? APR 17, 1989 14h 24m 03.67± 0.92s
31.895 S ±17.2km 177.998 W ±16.5km
DEPTH = 33.0km (normal)
KERMADEC ISLANDS REGION (177)

KRP	8.02	220	eP	26	13.00	12.2X
MSZ	16.85	217	P	27	57.40	-1.0
DZM	16.95	301	iPc	28	00.60	0.6
PVC	18.76	315	iPc	28	13.50	-8.8X
CAN	27.63	254	eP	29	52.10	1.9
BWA	28.16	256	eP	29	54.50	-0.5
CTA	34.07	281	iPd	30	46.80	-0.4
	1.0s	52.00nm			5.4mb X	
			eS	36	17.00	
WRA	44.17	274	Pc	32	10.80	-0.5
	0.9s	27.00nm			5.1mb X	
WB5	44.18	274	eP	32	10.80	-0.5
MAW	70.91	201	eP	35	20.00	0.9
BHD	144.44	284	ePKPd	43	34.00	-4.3X
SUF	145.52	341	iPKP	43	33.90	-5.3X
	0.7s	26.20nm				
MSL	145.83	289	ePKPd	43	38.00	-2.6
NUR	147.71	339	ePKP	43	41.00	-1.8
BNG	148.58	213	iPKPc	43	47.50	1.8
	0.8s	28.00nm				
			id	43	59.80	
			ic	44	21.90	
NB2	150.22	351	PKP	43	46.90	0.1
	1.1s	12.80nm				
HFS	150.70	348	ePKP	43	48.20	0.8
	0.9s	11.00nm				
KVT	151.28	298	ePKP	43	50.20	1.2
	S.D. = 1.4	on	14 of	18	obs.	

APR 17, 1989 15h 36m 48.21± 0.53s
40.517 N ± 4.5km 29.363 E ± 5.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

GBZT	0.28	13	iPgc	36	54.10	0.0
			iSg	36	58.60	
HRT	0.38	37	iPg	36	56.20	0.1
ISK	0.60	337	ePg	37	00.00	-0.2
GPA	0.76	107	ePg	37	03.20	0.2
			eSg	37	14.20	
CTT	0.95	312	ePg	37	06.00	-0.3
DST	1.07	212	iP	37	08.10	-0.3
			eSg	37	22.10	
EDC	1.16	262	iPn	37	10.50	0.7
ALT	1.57	158	ePn	37	16.10	-0.2
	S.D. = 0.4	on	8 of	8	obs.	

& APR 17, 1989 15h 39m 46.49s
60.055 N 152.836 W
DEPTH = 103.6km
4.6mb (3 obs.)
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.07	292	iP	40	00.77	1.2
RED	0.37	5	iP	40	01.35	-0.8
OPT	0.45	206	iP	40	01.98	-0.6
RDT	0.56	22	iP	40	02.95	-0.5
HOM	0.72	123	eP	40	04.35	-0.3
			eS	40	19.35	
PDB	0.73	249	iP	40	03.89	-0.9
			iS	40	17.46	
AUL	0.74	204	iP	40	04.18	-0.7
NNL	0.77	90	iP	40	05.31	0.2
			iS	40	19.54	
AUI	0.78	203	iP	40	04.35	-0.9
XLV	0.83	136	iP	40	04.88	-0.8
			eS	40	19.89	
CNPM	0.97	123	iP	40	06.81	-0.3
BRLK	1.03	106	eP	40	06.87	-0.9
			eS	40	23.48	
NKA	1.05	48	iP	40	09.06	1.1
			iS	40	24.87	
SPU	1.19	18	iP	40	09.06	-0.6
CDD	1.20	200	iP	40	08.40	-1.4
CRP	1.26	15	iP	40	10.01	-0.6
CGLM	1.32	18	iP	40	10.50	-0.7
SLKM	1.38	70	iP	40	10.53	-1.4
			iS	40	31.85	
SEW	1.70	87	eP	40	13.80	-2.0
			iS	40	34.54	
SVW	1.73	309	iPd	40	14.50	-1.8
SUA	1.75	35	iP	40	15.96	-0.6
			iS	40	38.94	
PMS	2.01	52	iPc	40	18.50	-1.3
SKT	2.03	18	iP	40	19.05	-1.1
PWA	2.16	41	iPc	40	20.40	-1.3

KDC	2.32	175	iPd	40	21.20	-2.7
PLRM	2.38	48	iP	40	22.48	-2.2
			iS	40	51.07	
PMR	2.38	48	iPc	40	22.50	-2.2
PME	2.44	48	iP	40	23.44	-2.1
KNK	2.55	56	iP	40	24.77	-2.2
GHO	2.57	46	iP	40	25.32	-2.1
			iS	40	55.38	
HIN	3.18	81	eP	40	32.36	-3.2
			eS	41	07.05	
TTA	3.26	334	iP	40	34.45	-2.3
MID	3.35	98	eP	40	36.00	-1.8
CVA	3.56	79	eP	40	37.18	-3.5
KTH	3.63	14	eP	40	39.49	-2.2
			eS	41	22.30	
KLU	3.69	64	iP	40	39.70	-2.8
			iS	41	20.52	
SGAM	3.83	80	eP	40	40.60	-3.7
TOA	3.83	55	iPc	40	42.30	-2.2
RAGM	4.08	82	eP	40	44.74	-3.2
			eS	41	31.10	
KAIM	4.23	88	iP	40	42.02	-7.9
HMT	4.29	83	eP	40	48.69	-2.0
GLB	4.64	69	iP	40	52.39	-3.2
WAX	4.99	81	eP	40	56.45	-4.0
BALM	5.27	75	eP	41	00.93	-3.4
FBA	5.39	24	ePd	41	02.70	-3.2
CTGM	5.76	76	iP	41	08.84	-2.2
			eS	42	11.45	
IMA	6.05	357	ePd	41	12.20	-2.9
PCA	6.30	84	iP	41	16.16	-2.3
BCPM	6.62	85	eP	41	19.95	-2.9
PNL	6.78	87	iP	41	21.84	-3.2
HON	7.08	89	iP	41	25.73	-3.3
FYU	7.37	24	eP	41	29.01	-4.0
DWY	7.46	52	P	41	31.20	-3.0
HYT	7.62	78	P	41	33.70	-2.9
SIT	9.63	101	eP	41	59.90	-3.7
BRW	11.41	354	ePd	42	22.60	-4.7
INK	11.75	37	eP	42	29.00	-2.7
YKA	18.35	66	P	43	52.30	-2.9
MBC	19.94	23	eP	44	07.00	-4.9
	0.6s	18.00nm			4.6mb	
KVN	30.25	118	eP	45	54.00	4.6
BW06	31.32	104	eP	46	03.30	4.5
FRB	37.16	47	eP	46	51.00	2.8
ALQ	38.96	109	eP	46	57.00	-6.9
DAG	40.41	15	eP	47	10.60	-4.4
SOD	52.88	0	iP	48	49.40	-3.5
SUF	57.55	1	iP	49	23.40	-3.2
	0.5s	4.40nm			4.7mb	
HFS	59.69	8	eP	49	36.10	-5.4
	0.3s	1.50nm			4.6mb	
NUR	59.75	1	iP	49	38.60	-3.3
Z	19s	0.20um			4.3Msz	
		LR		53	30.00	
	68 obs. ossociated					

& APR 17, 1989 16h 24m 33.20s
38.778 N 122.775 W
DEPTH = 5.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 3.6 (BRK).
Mo=4.6•10••14 Nm (BRK). Felt at St. Helena.

ZSP	0.93	154	ePc	24	51.30	0.0
			iS	25	06.00	
BRK	0.99	156	iPd	24	52.40	0.0
			iS	25	06.30	
BKS	1.00	155	iPbc	24	51.90	-0.6
			iPgc	24	52.70	
			iS	25	06.10	
			i	25	13.00	
			i	25	18.80	
ORV	1.26	52	ePc	24	55.50	-1.5
PCC	1.31	166	ePc	24	56.30	-1.6
MHC	1.69	148	ePc	25	02.00	-1.6
ARN	1.73	145	eP	25	02.20	-2.0
MIN	1.81	30	ePc	25	04.30	-1.1
WDC	1.81	6	e(P)	25	04.00	-1.2
			e	25	06.80	
GCC	1.85	160	ePc	25	03.60	-2.2
CM8	2.02	111	iPd	25	07.50	-0.8
			iS	25	32.90	
SAO	2.27	152	eP	25	09.00	-2.9
LBFM	2.65	15	eP	25	19.00	1.4

17d 16h

PRS 2.69 155 ePd 25 15.50 -2.4
FRI 3.01 125 eP 25 22.30 -0.1
PRI 3.12 147 e(P) 25 22.80 -1.3
KVN 3.66 84 eP 25 30.00 -1.8
EUR 5.34 80 iP 25 55.00 -0.7
0.2s 7.82nm 5.0mb X
18 obs. ossociated

? APR 17, 1989 16h 30m 54.35± 2.26s
23.695 N ±20.9km 122.363 E ±23.8km
DEPTH = 33.0km (normal)
4.3mb (1 obs.)
TAIWAN REGION (243)
Felt on eastern Taiwan.

ANP 1.67 333 ePd 31 21.20 -0.6
1.0s 4064.00nm
eS 31 41.50
QZH 3.66 291 iPnd 31 46.30 -3.7X
N 10s 1.80um
Sn 32 23.70
SSE 7.45 352 P 32 41.50 -1.9
Z 18s 0.90um
N 12s 1.50um
Lg 34 55.50
GYA 14.49 284 P 34 24.00 4.9X
E 12s 0.80um
S 36 47.00
XAN 15.63 314 P 34 35.50 1.6
TIY 16.36 331 eP 34 45.00 1.9
N 12s 0.40um
BJI 17.11 344 eP 34 57.00 4.4X
HHC 19.36 335 eP 35 19.80 -0.4
LZH 20.21 312 eP 35 29.50 0.1
2.0s 33.00nm 4.3mb
e(S) 41 39.00
KKN 33.57 285 P 37 33.50 -0.3
GKN 34.13 285 P 37 37.20 -1.4
INK 73.27 22 eP 42 25.00 1.2
YKA 83.00 23 P 43 21.90 4.6X
S.D. = 1.5 on 9 of 13 obs.

APR 17, 1989 17h 08m 37.29± 1.49s
3.768 S ± 7.9km 138.071 E ± 6.6km
DEPTH = 86.0 ± 15.0 km
4.7mb (7 obs.)
WEST IRIAN (201)

MNDI 6.05 113 eP 10 06.50 0.3
PMG 10.62 122 eP 11 08.50 0.0
1.3s 376.92nm 6.2mb X
MTN 11.33 217 eP 11 18.20 0.2
eS 13 20.00
KNA 15.02 217 eP 12 07.40 1.2
0.3s 17.00nm 4.8mb
eS 14 45.00
WB5 16.42 192 eP 12 21.80 -2.1
WRA 16.48 192 P 12 25.00 0.3
0.8s 19.90nm 4.4mb
QIS 16.76 175 eP 12 26.40 -1.7
1.0s 93.00nm 5.0mb
eS 15 23.30
CTA 18.08 154 iPd 12 45.20 0.8
1.1s 118.35nm 5.0mb
ASPA 20.19 191 iPd 13 08.10 0.5
1.1s 122.00nm 5.1mb
eS 16 43.90
HNR 22.44 106 eP 13 30.00 -0.1
MBL 24.76 224 eP 13 53.00 0.5
WARB 24.84 205 eP 13 45.60 -7.6X
eS 18 24.00
BRS 27.37 151 iPc 14 16.00 -0.5
FORR 28.53 198 eP 14 26.30 -0.5
NANU 28.74 227 eP 14 29.00 0.2
BWA 31.98 164 eP 14 58.80 1.4
CAN 32.99 163 eP 15 06.50 0.4
CHG 44.58 302 eP 16 43.00 0.2
BJI 48.01 337 eP 17 28.00 18.5X
GUN 59.27 306 P 18 32.20 -0.7
KKN 59.71 305 P 18 35.80 0.0
DMN 59.78 305 P 18 36.00 -0.3
GKN 60.32 305 P 18 39.00 -0.8
GBA 62.58 287 P 18 56.00 1.1
0.9s 3.40nm 4.4mb
SPA 86.26 180 e(P) 21 10.00 -0.5
0.9s 2.73nm 4.3mb
PRU 113.93 324 ePdiff 23 35.50 19.4X

S.D. = 0.9 on 23 of 26 obs.

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* APR 17, 1989 17h 32m 16.37± 1.79s
2.881 S ± 8.7km 138.924 E ±10.1km
DEPTH = 59.4 ± 17.2 km
5.1mb (7 obs.)
WEST IRIAN (201)

JAY 1.82 78 iPd 32 35.00 -10.8X
iS 32 51.50
MNDI 5.73 125 eP 33 40.00 -1.1
LAT 8.88 115 e(P) 34 26.00 1.4
PMG 10.44 129 eP 34 46.00 0.1
MTN 12.55 217 iPd 35 04.40 -9.8X
0.6s 67.00nm 5.7mb
KNA 16.23 217 eP 36 03.50 1.4
WB5 17.47 194 eP 36 16.20 -1.4
eS 39 24.00
WRA 17.54 194 Pd 36 19.00 0.6
0.5s 4.40nm 3.9mb X
QIS 17.58 178 eP 36 16.30 -2.7
CTA 18.54 158 eP 36 32.00 1.3
VSG 21.61 108 P 36 59.00 -4.3X
RMQ 25.30 159 eP 37 40.00 1.0
MBL 25.99 224 eP 37 47.00 1.5
WARB 26.00 206 iPd 37 37.80 -7.8X
0.4s 8.00nm 4.6mb
BRS 27.74 153 iPc 38 00.00 -1.5
FORR 29.64 199 eP 38 17.00 -1.4
BWA 32.61 165 eP 38 45.70 1.2
CAN 33.60 165 eP 38 53.10 -0.1
BJI 47.54 336 eP 40 46.50 -1.2
CN2 48.02 347 P 40 50.60 -0.9
GTA 55.33 324 P 41 47.00 0.4
GUN 59.46 305 P 42 16.00 -0.2
0.7s 13.00nm 5.2mb
PKI 59.72 304 P 42 18.10 0.1
KKN 59.91 304 P 42 19.60 0.5
0.7s 11.00nm 5.1mb
DMN 59.99 304 P 42 20.20 0.5
GKN 60.52 304 P 42 23.70 0.5
0.7s 14.00nm 5.2mb
GBA 63.14 287 Pd 42 40.60 0.0
0.9s 2.20nm 4.2mb
WMQ 65.28 322 P 42 54.40 0.1
MAIO 83.19 307 iPd 44 39.60 1.7
SPA 87.14 180 e(P) 44 57.80 0.8
0.8s 12.50nm 5.2mb
KIC 143.63 277 PKP 51 44.90 -2.4
TIC 143.88 277 PKP 51 45.70 -2.0
LIC 143.92 277 PKP 51 45.90 -1.9
CNCB 147.01 127 ePKP 51 55.00 1.5
LPB 147.06 127 PKP 51 54.50 1.0
ZOBO 147.19 126 PKP 51 55.00 1.1
S.D. = 1.3 on 32 of 36 obs.

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* APR 17, 1989 19h 28m 53.17± 1.24s
9.614 S ±14.9km 122.629 E ±10.7km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
SAVU SEA (288)

KNA 8.55 136 eP 30 57.40 -0.2
0.3s 37.00nm 6.1mb X
eS 32 29.00
MTN 8.94 112 eP 31 03.40 0.4
eS 32 41.00
MBL 11.79 193 eP 31 42.10 0.0
iS 33 43.70
NANU 14.56 207 eP 32 18.30 -0.5
eS 34 50.00
WB5 15.25 133 eP 32 25.20 -2.7
eS 35 05.70
WRA 15.28 134 Pd 32 26.30 -1.9
0.5s 9.90nm 4.3mb
WARB 16.91 168 eP 32 43.00 -6.1X
eS 35 43.00
MEKA 17.35 192 eP 32 58.00 3.5X
eS 35 56.00
ASPA 17.64 144 iPd 32 59.50 1.3
0.6s 30.00nm 4.6mb
eS 36 06.90
QIS 19.65 126 eP 33 22.90 0.5
0.7s 25.00nm 4.6mb
MRWA 20.47 197 eP 33 31.30 0.4
eS 37 06.00
FORR 21.74 167 eP 33 44.00 0.4
STK 28.28 144 iPc 34 46.90 1.2
0.7s 3.00nm 4.1mb
BRS 33.47 126 iP 35 33.60 1.9
PKI 51.63 317 P 37 58.60 -0.8
S.D. = 1.4 on 13 of 15 obs.

& APR 17, 1989 19h 52m 59.90s
35.200 N 120.900 W
DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.8 (BRK).

BCH 0.67 91 iPc 53 13.20 -0.1
PHAM 0.76 33 iPd 53 14.50 -0.6
BLP 0.76 147 eP 53 15.30 0.2
PRI 0.96 11 ePd 53 18.00 -0.7
iS 53 30.90
PKEM 1.07 37 eP 53 22.00 1.4
PRS 1.19 341 ePc 53 20.50 -2.1
LLA 1.41 359 ePd 53 24.30 -2.0
ABL 1.42 104 eP 53 24.70 -1.9
SAO 1.62 344 iPc 53 26.50 -2.7
iS 53 48.70
i 53 50.85
FRI 2.03 28 eP 53 33.20 -1.9
CMB 2.86 8 e(P) 53 35.40 -11.7
KVN 4.45 29 eP 54 05.70 -4.0
12 obs. ossocioted

APR 17, 1989 19h 53m 54.69± 2.22s
23.417 N ± 7.1km 123.407 E ± 5.8km
DEPTH = 24.2 ± 15.4 km
4.5mb (10 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

ANP 2.46 316 eP 54 26.00 -8.2X
QZH 4.65 290 iPd 55 03.50 -1.7
N 12s 2.40um
S 55 55.50
SSE 7.90 346 P 55 50.00 -0.9
Lg 58 00.00
GZH 9.26 270 eP 56 09.00 -0.8
E 11s 1.10um
eS 57 46.60
NJ2 9.50 336 Pd 56 11.40 -1.6
N 10s 0.90um
E 10s 0.90um
QIZ 13.38 254 eP 57 06.60 1.0
N 13s 0.80um
XAN 16.52 313 P 57 49.80 3.4X
N 10s 0.90um
E 12s 1.00um
TIY 17.08 329 eP 57 56.80 3.3X
E 10s 0.70um
IIDJ 17.41 43 eP 58 11.80 14.1X
BJI 17.67 341 eP 58 01.50 0.8
Z 14s 0.59um
N 11s 0.55um
eS 01 22.00
MTMJ 18.07 40 eP 58 08.00 2.1
MAT 18.29 41 (P) 58 09.00 0.5
0.9s 8.40nm 3.9mb
SNY 18.36 0 eP 58 09.40 0.1
Z 15s 0.90um
N 12s 0.70um
E 12s 1.00um
eS 01 34.00
CHJJ 18.45 43 P 58 11.30 0.8
KMI 18.92 279 Pd 58 18.50 2.0
Z 12s 1.40um
N 12s 0.90um
eS 01 52.00
sS 02 05.00
CD2 18.99 297 eP 58 17.20 0.0
HHC 20.03 333 eP 58 29.00 0.2
Z 16s 0.80um 4.2MszX
N 11s 0.50um
E 11s 0.50um
CN2 20.40 4 Pc 58 31.40 -1.1
Z 13s 1.80um 4.6MszX
N 11s 0.90um
BTO 20.51 330 eP 58 34.00 0.2
N 12s 0.80um
E 11s 1.70um
LZH 21.11 311 eP 58 41.00 0.9
3.0s 122.00nm 4.8mb
N 10s 468.00um

E 14s 588.00um

LOE	21.17	258	iPc	58	41.00	0.4
CHG	23.26	263	iPc	59	03.00	1.6
	1.1s	12.66nm			4.4mb	
GTA	25.57	314	ePz	59	23.40	-0.2
Z	14s	0.72um			4.3MszX	
E	11s	0.80um				
GUN	34.03	286	P	00	39.40	-0.1
PKI	34.46	285	P	00	43.40	0.2
KKN	34.57	285	P	00	43.20	-0.8
DMN	34.73	285	P	00	45.40	0.0
GKN	35.13	286	P	00	49.00	0.3
WRA	44.40	165	Pc	02	03.70	-1.6
	0.8s	7.20nm			4.6mb	
GBA	44.51	266	Pd	02	06.60	0.3
	0.9s	3.00nm			4.2mb	
ASPA	47.90	167	iPc	02	31.90	-1.2
	1.1s	10.00nm			4.8mb	
WARB	49.41	176	eP	02	35.20	-9.4X
MAIO	56.00	299	eP	03	34.00	0.2
SVW	65.45	32	eP	04	36.00	-1.6
IMA	65.98	26	eP	04	41.50	0.4
	1.0s	3.80nm			4.5mb	
PMR	68.50	31	eP	04	55.00	-1.8
KEV	70.44	338	eP	05	07.00	-1.6
SOD	71.19	336	iP	05	13.10	-0.1
SUF	72.71	331	eP	05	22.00	-0.2
INK	73.17	22	eP	05	25.00	0.2
MBC	73.56	13	eP	05	26.00	-1.0
NUR	74.08	329	eP	05	37.00	6.7X
ALE	74.23	1	eP	05	31.00	0.1
DAG	77.44	352	eP	05	48.40	-0.7
VRI	77.99	315	ePc	05	53.00	0.3
MLR	78.64	315	ePc	05	56.00	-0.4
HFS	79.22	331	eP	05	58.80	-0.3
	0.6s	1.10nm			4.1mb	
Z	15s	0.13um			4.4MszX	
		LR		42	26.00	
NB2	79.84	333	P	06	01.90	-0.6
	0.9s	5.10nm			4.6mb	
YKA	82.87	23	eP	06	20.40	2.1
PRU	83.68	322	eP	06	23.20	0.5
KHC	84.65	322	P	06	28.50	0.9
AVY	84.96	247	eP	06	30.30	0.5
EDM	89.26	30	eP	06	51.50	1.5
FFC	93.00	24	eP	07	07.50	0.2
	0.9s	9.00nm			5.2mb	
S.D. = 1.0 on 48 of 54 obs.						

? APR 17, 1989 20h 14m 57.43± 7.32s
18.015 N ±39.6km 65.708 W ±50.7km
DEPTH = 33.0km (normal)
PUERTO RICO REGION (90)

LPR	0.33	332	P	15	05.50	-0.1
SJG	0.43	283	iP	15	06.00	-1.1
			S	15	13.70	
CSB	0.51	303	P	15	08.00	-0.2
APR	1.07	295	P	15	17.00	0.9
			S	15	33.40	
MGP	1.31	270	P	15	19.80	0.2
S.D. = 1.0 on 5 of 5 obs.						

% APR 17, 1989 21h 01m 55.58± 0.65s
40.267 N ± 6.1km 29.215 E ± 5.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT	0.65	32	iPg	02	08.50	-0.1
DST	0.80	215	iP	02	10.10	-1.1
			eSg	02	22.10	
ISK	0.81	352	ePg	02	11.10	-0.1
GPA	0.84	88	ePg	02	11.00	-0.8
BNT	0.99	276	iPg	02	14.20	-0.2
EDC	1.04	275	iPg	02	15.50	0.3
CTT	1.06	326	iPg	02	16.10	0.5
ALT	1.39	150	iPn	02	22.60	1.5
S.D. = 0.9 on 8 of 8 obs.						

APR 17, 1989 21h 28m 15.58± 1.59s
18.254 N ± 4.9km 119.244 E ± 5.9km
DEPTH = 51.8 ± 14.0 km
4.7mb (9 obs.)
PHILIPPINE ISLANDS REGION (248)

HKC	6.24	311	P	29	42.10	-5.2X
MCO	6.58	307	eP	29	46.70	-5.5X
			eS	30	56.00	
GZH	7.32	312	eP	29	56.60	-5.9X
QIZ	8.95	276	Pd	30	19.10	-5.9X
E	15s	0.90um				
			eS	31	54.40	
GYA	14.21	307	iPd	31	32.00	-3.7X
E	12s	0.40um				
LOE	16.70	270	eP	32	07.00	-0.6
XAN	18.23	332	P	32	27.10	0.6
CD2	18.87	315	eP	32	34.00	-0.4
CHG	19.26	275	eP	32	39.00	0.1
TIY	20.28	344	Pd	32	49.40	-0.3
N	16s	0.50um				
BJI	21.87	354	eP	33	05.50	-0.1
LZH	22.38	326	e(P)	33	11.00	0.1
HHC	23.47	345	eP	33	22.00	0.6
BTO	23.64	342	eP	33	23.00	-0.1
SNY	23.79	8	eP	33	24.80	0.5
GTA	26.98	325	eP	33	54.00	-0.5
GUN	32.07	294	P	34	40.80	0.5
PKI	32.43	293	P	34	43.20	-0.2
KKN	32.58	293	P	34	44.60	0.0
DMN	32.70	293	P	34	45.70	0.0
	1.0s	22.00nm			4.9mb	
GKN	33.17	293	P	34	49.80	-0.2
	1.0s	32.00nm			5.1mb	
HYB	38.69	275	eP	35	37.00	0.6
GBA	40.41	270	Pc	35	50.80	0.2
	0.5s	1.90nm			4.1mb	
WB5	40.70	158	eP	35	51.90	-1.0
WRA	40.75	158	P	35	54.00	0.7
	0.6s	1.70nm			4.0mb	
ASPA	44.05	161	iPd	36	20.50	0.2
			i	36	32.60	
MAIO	55.23	302	iPc	37	46.50	0.5
TTA	71.54	29	eP	39	33.40	0.5
KEV	73.80	339	eP	39	45.00	-1.0
SOD	74.32	336	iP	39	48.90	-0.1
FBA	74.89	26	eP	39	51.90	-0.5
PMR	74.90	30	eP	39	52.00	-0.4
SUF	75.36	332	iP	39	54.60	-0.5
	0.5s	6.10nm			4.8mb	
NUR	76.53	330	iP	40	01.20	-0.5
VRI	78.84	315	ePd	40	15.80	1.0
MBC	79.41	12	eP	40	17.00	-0.3
MLR	79.47	314	ePc	40	18.50	0.2
HFS	81.83	331	ePKP	40	29.00	-1.3
	0.5s	1.50nm			4.3mb	
NB2	82.60	332	P	40	33.60	-0.7
	0.9s	3.50nm			4.4mb	
BRG	85.30	322	iP	40	48.80	0.7
	1.0s	16.00nm			5.1mb	
CLL	85.67	323	eP	40	50.20	0.2
	0.9s	12.00nm			5.1mb	
YKA	89.11	22	P	41	07.50	1.0
S.D. = 0.6 on 37 of 42 obs.						

APR 17, 1989 23h 05m 12.25± 0.48s
29.779 N ± 9.6km 99.113 E ± 5.5km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	4.17	73	ePn	06	14.60	-0.6
			Pg	06	25.20	
			Sg	07	13.10	
KMI	5.65	144	Pn	06	37.50	1.2
E	10s	1.40um				
LZH	7.44	31	eP	07	23.50	22.1X
	1.5s	110.00nm				
GYA	7.44	115	ePn	07	00.60	-0.8
SHL	7.66	239	iP	07	09.40	4.9X
			eS	08	34.50	
XAN	9.35	60	P	07	23.00	-4.9X
GTA	9.63	3	eP	07	38.00	6.3X
PKI	12.23	263	P	08	08.40	1.0
KKN	12.30	264	P	08	08.00	-0.1
GKN	12.81	266	P	08	14.00	-0.9
TIA	16.41	62	eP	09	02.70	1.1
SUF	56.23	328	eP	14	52.00	0.8
	0.4s	1.20nm			4.3mb	
W85	59.93	141	eP	15	16.80	-0.8
WRA	59.96	141	Pd	15	17.70	-0.2
	0.7s	4.30nm			4.7mb	
HFS	62.45	326	eP	15	33.80	-0.4
	0.4s	1.50nm			4.5mb	
NB2	63.44	327	P	15	40.40	-0.4
	1.0s	3.60nm			4.4mb	
S.D. = 0.9 on 12 of 16 obs.						

APR 18, 1989 00h 01m 36.37± 0.68s
33.718 N ± 7.5km 133.462 E ± 6.7km
DEPTH = 10.0km (geophysicist)
SHIKOKU, JAPAN (236)
MG 3.8 (JMA). Felt (I JMA) ot Kochi.

KOC	0.18	159	iP+	01	38.70	-1.6
			S	01	41.30	
TKSJ	0.56	61	iPd	01	46.00	-1.6
			S	01	53.00	
SHK	1.04	322	iPc	01	55.00	-1.0
YONJ	1.47	0	iP+	02	02.40	-0.5
			S	02	21.70	
WKYJ	1.84	74	P	02	08.70	0.4
			S	02	34.10	
SHNJ	2.00	282	P	02	10.00	-0.5
			S	02	36.60	
KUMJ	2.50	243	eP	02	18.50	0.7
			eS	02	50.10	
TSRJ	2.76	48	eP	02	23.10	1.7
			eS	02	56.00	
KAGJ	3.33	221	eP	02	30.80	1.2
			eS	03	12.20	
IIDJ	4.07	63	eP	02	41.30	1.3
MAT	4.80	53	(P)	02	46.00	-4.5X
			eS	03	48.00	
S.D. = 1.4 on 10 of 11 obs.						

APR 18, 1989 00h 47m 58.13± 0.33s
39.296 N ± 3.7km 23.600 E ± 2.9km
DEPTH = 10.0km (geophysicist)
3.9mb (9 obs.)
AEGEAN SEA (365)
ML 3.7 (ATH).

NEO	0.29	272	iPbd	48	04.40	0.1
PLG	1.08	354	iPnc	48	19.80	1.3
ATH	1.32	176	iPbd	48	22.00	-0.6
KZN	1.73	306	iPnc	48	28.50	0.0
PRK	2.07	91	ePn	48	33.50	0.1
VAY	2.17	339	iPn	48	34.60	-0.2
EZN	2.17	75	ePn	48	34.00	-0.8
MMB	2.29	2	iPc	48	36.00	-0.6
RDO	2.37	38	ePn	48	37.60	0.0
LSK	2.47	291	iPnd	48	40.00	0.9
KBN	2.52	303	iPnc	48	40.20	0.5
RZN	2.54	19	iPc	48	41.00	0.8
			iSg	49	11.00	
KKB	2.60	351	iP	48	41.00	0.1
VLS	2.61	246	ePn	48	41.50	0.5
KDZ	2.73	30	iPc	48	43.00	0.2
OHR	2.81	311	iPn	48	44.10	0.1
SRN	2.84	283	iPn	48	42.60	-1.7
PLD	2.93	16	iPc	48	46.00	0.5
			iSg	49	42.00	
TPE	2.94	291	iPnc	48	51.00	5.3X
IZM	3.00	106	ePn	48	46.80	0.2
DIM	3.12	28	iPc	48	49.00	0.8
SKO	3.14	329	iPnc	48	48.40	-0.1
E	12s	1.67um				
			iPb	48	57.00	
			eSn	49	37.00	
			i	49	45.00	
VTS	3.31	355	iPc	48	52.00	0.9
VLO	3.37	292	ePn	48	55.00	3.2X
PHP	3.39	316	iPnc	48	52.00	-0.1
EDC	3.45	71	iPn	48	53.50	0.6
BNT	3.49	71	iPn	48	53.10	-0.5
TIR	3.51	307	ePn	48	56.00	2.2
KKS	3.69	320	ePn	48	58.00	1.7
LACI	3.78	309	ePn	48	58.80	1.2
DST	3.90	84	iPn	49	00.00	0.5
VAM	3.91	173	ePn	48	59.50	0.0
PUK	3.93	315	iPn	49	00.80	1.0
DMK	4.05	50	ePn	49	00.40	-1.1
BCI	4.07	320	iPnd	49	02.40	0.7
PVL	4.13	18	iPc	49	01.00	-1.5
CTT	4.13	62	ePn	49	12.00	9.3X
SDA	4.14	312	ePn	49	18.00	15.3X
YER	4.27	119	ePn	49	04.80	0.0
NPS	4.33	158	ePn	49	06.50	0.9
LCI	4.47	285	P	49	05.40	-2.0
ISK	4.54	65	ePn	49	15.00	6.6X

18d 00h

KAP	4.70	142	ePn	49	10.20	-0.5
GBZT	4.73	70	ePn	49	29.00	17.8X
KHL	4.73	100	ePn	49	14.00	2.7
HRT	4.90	70	eP	49	24.00	10.4X
ALT	5.07	91	iPn	49	16.70	0.7
BRT	5.15	290	Pd	49	16.30	-0.9
			eSn	50	10.30	
BUC1	5.36	19	eP	49	50.00	29.9X
BUC	5.44	19	eP	49	51.00	29.8X
PSN	5.57	37	eP	49	22.00	-1.0
ELL	5.59	115	eP	49	30.00	6.5X
TDS	5.63	276	Pd	49	25.90	2.0
BEO	6.00	338	e(Pn)	49	36.50	7.5X
SOI	6.03	261	Pc	49	27.20	-2.2
			eSn	50	33.10	
CMP	6.06	10	iPd	49	31.00	1.0
ISR	6.23	20	ePc	49	32.00	-0.4
TLB	6.24	31	ePd	49	31.80	-0.5
MGR	6.26	280	Pc	49	32.60	-0.2
MLR	6.43	15	iPc	49	34.50	-0.8
BZS	6.48	348	ePc	49	33.50	-2.4
DEV	6.60	356	ePc	49	40.00	2.4
CFR	6.78	28	ePc	49	39.50	-0.6
VRI	6.96	18	iPc	49	43.50	0.9
BBTK	7.10	83	eP	49	51.50	6.8X
MEU	7.17	255	Pc	49	41.90	-3.8X
			eSn	50	59.80	
PPE	7.52	22	eP	49	54.80	4.4X
CLI	7.74	19	ePc	49	52.80	-0.7
SDI	7.83	291	P	49	53.90	-1.0
PTJ	8.67	322	eP	50	04.10	-2.5
VBY	8.75	318	eP	50	06.10	-1.5
			eS	51	43.80	
VOY	9.81	316	eP	50	19.90	-2.5
			eS	52	10.80	
KBA	10.79	319	eP	50	47.00	11.2X
	0.7s		2.00nm			
KHC	12.17	327	iP	50	53.50	-0.9
			e	51	02.60	
LPG	13.90	302	eP	51	24.90	7.3X
	0.8s		8.50nm		4.6mb	
LBF	16.23	305	eP	51	49.80	2.1
	0.6s		2.70nm		3.6mb	
LOR	16.41	305	eP	51	51.40	1.5
	0.8s		2.60nm		3.4mb	
AVF	16.56	303	eP	51	53.40	1.5
	0.8s		8.00nm		3.9mb	
BGF	16.82	302	eP	51	56.50	1.4
	0.7s		7.00nm		3.9mb	
MAF	16.90	301	eP	51	58.00	1.8
	0.6s		3.60nm		3.7mb	
NUR	21.25	1	eP	52	44.00	-2.3
SLL	22.16	346	eP	52	53.40	-2.1
	0.5s		1.80nm		3.8mb	
SUF	23.51	3	iP	53	08.90	0.2
EKA	24.00	321	Pd	53	13.00	-0.5
	1.0s		12.30nm		4.4mb	
BNG	35.00	189	iPd	54	51.20	-1.6
	0.4s		5.00nm		4.7mb	
YKA	73.14	341	eP	59	06.30	-23.9X

S.D. = 1.3 on 69 of 86 obs.

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* APR 18, 1989 00h 50m 59.36± 0.92s
39.261 N ± 8.5km 23.532 E ± 8.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.24	281	iPgd	51	05.00	0.4
PLG	1.11	357	iPbc	51	20.00	-0.3
ATH	1.30	174	ePb	51	22.50	-0.8
KZN	1.71	308	ePb	51	30.00	0.5
PRK	2.13	90	ePb	51	39.20	3.8X
EZN	2.23	74	ePn	51	39.00	2.1
MMB	2.33	4	iPc	51	42.00	3.6X
RZN	2.59	20	iP	51	42.00	-0.1
KKB	2.63	353	iP	51	32.00	-10.5X
KDZ	2.79	30	eP	51	43.00	-1.8

S.D. = 1.5 on 7 of 10 obs.

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* APR 18, 1989 01h 20m 56.35± 0.97s
6.336 S ±20.4km 154.072 E ± 8.0km
DEPTH = 54.2 ± 20.0 km
SOLOMON ISLANDS (193)

BGA	1.12	81	eP	21	16.00	-0.1
			eS	21	30.00	
PAA	1.41	89	eP	21	20.00	-0.1
			eS	21	34.00	
RAB	2.85	318	e(P)	21	41.00	0.6
			iS	22	19.50	
VSG	6.30	118	eP	22	34.00	5.1X
			eS	23	57.00	
LAT	7.03	267	eP	22	37.50	-1.7
PMG	7.50	246	eP	22	47.00	1.3
RFA	122.73	139	ePdiff	36	30.80	12.1X
CYA	128.31	134	ePdiff	36	43.70	0.0

S.D. = 1.6 on 6 of 8 obs.

& APR 18, 1989 01h 25m 11.12s
60.066 N 152.774 W
DEPTH = 98.1km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.09	279	iP	25	24.38	0.9
			iS	25	35.58	
RED	0.35	0	iP	25	25.31	-0.8
			eS	25	37.18	
OPT	0.47	209	iP	25	26.19	-0.6
			eS	25	38.78	
RDT	0.54	20	iP	25	26.55	-0.8
			iS	25	38.51	
HOM	0.70	125	eP	25	28.44	-0.2
NNL	0.74	91	iP	25	29.12	0.1
			eS	25	41.98	
AUL	0.76	206	iP	25	28.59	-0.6
			eS	25	42.13	
PDB	0.77	249	iP	25	28.42	-0.8
			iS	25	41.27	
XLV	0.81	139	eP	25	28.83	-0.9
			eS	25	43.50	
CNPM	0.95	124	iP	25	30.38	-0.8
			iS	25	45.61	
BRLK	1.00	107	eP	25	30.70	-1.0
			eS	25	46.84	
NKA	1.02	48	iP	25	32.89	1.0
SPU	1.17	17	iP	25	32.84	-0.9
			iS	25	50.07	
CDD	1.22	202	iP	25	33.01	-1.3
			eS	25	50.86	
CRP	1.24	14	iP	25	34.07	-0.6
CGLM	1.30	17	iP	25	34.63	-0.7
			eS	25	52.66	
SLKM	1.35	70	eP	25	34.09	-1.7
SEW	1.67	87	iP	25	37.80	-1.9
			eS	25	58.40	
SUA	1.72	35	iP	25	40.08	-0.5
SVW	1.75	308	iPc	25	39.40	-1.5
PMS	1.98	52	ePc	25	42.80	-1.1
SKT	2.01	17	iP	25	43.52	-0.8
PWA	2.13	40	iP	25	45.06	-0.8
KDC	2.33	176	eP	25	46.10	-2.4
PLRM	2.35	48	eP	25	46.93	-1.8
PMR	2.35	48	iPc	25	47.10	-1.7
PME	2.41	48	eP	25	47.96	-1.6
KNK	2.51	56	iP	25	48.91	-2.1
			iS	26	17.82	
KNIM	2.53	81	iP	25	48.32	-2.9
GHO	2.54	46	iP	25	49.68	-1.8
MTU	2.57	90	iP	25	48.90	-2.9
GLI	2.93	71	eP	25	51.81	-4.8
HIN	3.15	81	eP	25	56.61	-3.0
FID	3.20	75	eP	25	55.38	-4.9
VZW	3.23	69	iP	25	57.47	-3.3
TTA	3.27	333	iP	25	59.18	-2.1
MID	3.32	98	iPd	26	00.50	-1.4
VLZ	3.35	69	eP	25	58.08	-4.3
CVA	3.53	79	eP	26	01.03	-3.8
			eS	26	40.30	
KLU	3.65	64	iP	26	03.75	-2.9
SGAM	3.79	80	eP	26	04.69	-3.8
TOA	3.80	55	ePc	26	06.60	-2.1
RAGM	4.05	82	eP	26	10.00	-2.1
HMT	4.26	83	eP	26	12.94	-2.0
GLB	4.61	69	iP	26	16.47	-3.3
WAX	4.96	81	eP	26	20.52	-4.1
BALM	5.24	75	eP	26	25.23	-3.3
FBA	5.37	23	eP	26	22.60	-7.7
CTGM	5.72	76	eP	26	30.93	-4.4
IMA	6.04	356	eP	26	37.50	-2.1
PCA	6.27	84	eP	26	40.28	-2.4
PCA	6.27	84	eP	26	40.42	-2.2
BCPM	6.59	85	eP	26	44.28	-2.8
PNL	6.75	88	eP	26	46.11	-3.1
HON	7.05	89	eP	26	49.80	-3.5
HYT	7.59	78	P	26	58.00	-2.9
SIT	9.60	101	e(P)	27	25.00	-3.0
INK	11.72	37	eP	27	52.00	-4.2
YKA	18.32	66	P	29	16.80	-3.1
FRB	37.13	47	eP	32	11.00	-2.1

60 obs. associated

? APR 18, 1989 01h 35m 17.74± 7.26s
30.673 S ±46.9km 71.916 W ±42.8km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

JACH	2.30	151	iPd	35	53.60	-0.6
			iS	36	16.00	
ROCH	2.42	162	iPd	35	56.00	0.0
			iS	36	22.20	
PEL	2.68	157	iPc	35	59.20	-0.3
			iS	36	23.90	
			iS	36	27.30	
LCCH	2.81	174	iPc	36	01.90	0.6
			iS	36	37.00	
ZON	2.91	108	iPd	36	03.00	0.2
FCH	2.99	153	eP	36	04.50	0.3
			iS	36	36.00	
TACH	3.09	165	iPc	36	05.10	-0.2
			iS	36	41.00	
PCH	3.17	158	iPc	36	07.60	1.0
			iS	36	50.00	
CFA	3.29	107	iPc	36	08.00	-0.2
LNV	3.30	173	iPc	36	07.60	-0.7
			iS	36	50.00	
CHCH	3.42	162	iPd	36	10.00	-0.1
			iS	36	45.00	

S.D. = 0.6 on 11 of 11 obs.

APR 18, 1989 02h 01m 27.13± 0.34s
21.538 S ± 5.1km 178.955 W ± 3.5km
DEPTH = 579.6 ± 3.6 km
5.2mb (36 obs.)
FIJI ISLANDS REGION (181)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 20S, 31C
Centroid Location:
Origin Time 02:01:34.9 0.6
Lat 21.23S 0.05 Lon 179.40W 0.05
Dep 603.5 3.0 Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr=-1.18 0.05 Mtt= 0.20 0.09
Mff= 0.98 0.08 Mrt=-1.07 0.08
Mrf=-0.58 0.09 Mtf= 0.32 0.08
Principal Axes:

T	Val= 1.48	Plg=22	Azm=123
N	0.33	16	220
P	-1.81	62	344

Best Double Couple:Mo=1.6*10**17
NP1:Strike=185 Dip=27 Slip=-128
NP2: 47 69 -73

SVA	4.19	324	ePc	02	04.00	-48.9X
			eS	04	04.00	
VUN	4.27	325	eP	02	53.20	-0.4
OVA	4.38	331	P	02	53.60	-0.9
KRO	4.48	339	iPc	02	55.40	0.1
MBU	5.04	334	ePc	03	00.70	1.0
NDF	5.06	317	eP	03	01.00	1.2
NDE	5.19	341	P	03	02.10	1.1
AFI	10.21	43	P	03	45.50	-2.8
PVC	12.58	285	iPd	04	13.50	1.8
DZM	13.57	265	iPc	04	22.50	0.8
			iS	06	53.30	
WEL	20.39	194	P	05	26.00	-0.5
			S	08	35.00	
VSG	23.88	297	eP	05	56.00	-2.3
BRS	26.35	252	iPd	06	20.30	0.3
			iPcP	09	27.00	
			iS	10	17.00	
TBI	27.30	99	iP	06	29.80	1.6
	0.8s		60.00nm		5.3mb	
AFR	27.76	87	iP	06	32.00	-0.3
	0.8s		80.00nm		5.4mb	
TVO	28.20	88	iP	06	36.40	0.2
	0.8s		70.00nm		5.3mb	
PMO	30.16	83	iP	06	52.60	-0.3
	0.8s		40.00nm		5.1mb	

18d 02h

VAH	30.34	83	iP	06	53.80	-0.6	MHC	79.61	43	ePd	12	36.80	0.6	LZH	92.69	308	e(P)	13	40.00	0.9			
	0.8s	45.00nm			5.2mb		LLA	79.63	44	eP	12	36.70	0.6		1.0s	38.00nm			5.4mb				
TPT	30.42	83	iP	06	55.00	-0.1	ARN	79.69	43	P	12	36.80	0.4	SES	93.23	36	ePd	13	40.50	-0.6			
	0.8s	55.00nm			5.2mb		NJ2	79.86	310	Pd	12	38.00	0.7	EDM	93.46	33	ePd	13	41.00	-1.1			
RUV	30.58	83	iP	06	56.20	-0.3	PAS	80.04	47	eP	12	38.00	-0.3	INK	95.50	15	ePd	13	49.20	-1.7			
	0.8s	95.00nm			5.5mb		MWC	80.16	47	eP	12	39.00	-0.2	GTA	96.94	310	eP	13	58.00	-0.2			
CNB	30.91	237	eP	07	01.00	1.8	BAR	80.27	49	eP	12	40.00	0.5	YKA	97.82	25	P	14	01.60	0.1			
CAN	31.20	237	eP	07	02.90	1.3	MAW	80.29	200	eP	12	39.00	0.0	MBC	103.98	12	ePdiff	18	41.00	252.3X			
BWA	31.40	239	eP	07	02.20	-1.1	FHC	80.32	39	ePd	12	40.80	1.2	PKI	104.43	294	Pdiff	14	37.70	5.4X			
CTA	32.51	266	iPc	07	12.90	0.1	RVR	80.50	48	eP	12	41.00	0.3	GKN	105.21	294	PKP	18	44.80	-1.5			
	0.7s	60.96nm			5.3mb		SBB	80.58	47	eP	12	41.00	-0.2	FRB	118.12	28	ePKP	19	08.00	-1.5			
			iPcP	09	41.60		PEC	80.59	48	P	12	41.10	-0.1	AVY	119.14	232	ePKP	19	12.56	-0.5			
			iS	11	46.20		FRI	80.65	44	ePd	12	41.40	0.1	CER	122.70	198	ePKP	19	01.00	-18.3X			
			iScP	12	33.80		ISA	80.69	46	eP	12	42.00	0.3				e	19	11.00				
			iScS	16	36.20		CMB	80.83	43	iPd	12	42.70	0.4	DAG	123.84	5	ePKP	19	18.00	-2.2			
TOO	34.57	235	iPd	07	31.10	1.3	MDJ	80.86	326	eP	12	43.50	1.3		0.8s	17.16nm							
PMG	34.73	285	eP	07	31.50	0.2	WDC	81.04	40	iPd	12	43.90	0.6	MAIO	127.49	300	ePKP	19	28.00	-0.6			
STK	36.54	245	iPd	07	47.10	1.1	ORV	81.04	41	ePd	12	43.50	0.2	SOB1	128.73	122	ePKP	19	29.90	-1.5			
	0.4s	11.00nm			4.8mb		LTCM	81.06	40	P	12	44.00	0.6	KEV	129.31	349	ePKP	19	26.00	-4.8X			
QIS	38.61	264	iPc	08	02.50	-0.5	CLC	81.37	46	eP	12	45.00	-0.2	BUL	130.58	215	iPKPd	19	33.60	-1.3			
	0.4s	10.00nm			4.7mb		MIN	81.46	41	iPd	12	45.70	0.1		0.7s	10.62nm							
ADE	39.34	241	eP	08	09.10	0.2	TPC	81.48	48	eP	12	46.00	0.3				iSKP	22	04.50				
ASPA	43.42	258	iPc	08	41.30	-0.1	GSC	81.62	47	eP	12	47.00	0.5	ITR	130.94	124	ePKP	19	34.20	-1.4			
	0.6s	70.00nm			5.4mb		GLA	81.77	50	eP	12	47.00	-0.2				e	22	04.40				
			iPcP	10	16.60		LBFM	81.90	40	P	12	48.60	0.7	SOD	131.41	347	iPKP	19	32.30	-2.6			
			ePcS	14	08.90		KDC	82.02	14	eP	12	47.90	0.1	KRI	132.69	219	iPKPc	19	41.90	2.9			
			iS	14	25.50		TMD	82.05	45	P	12	49.10	0.3				iSKP	22	15.20				
			iScS	17	37.40		GWY	82.20	46	P	12	49.30	-0.1	PTZ	133.65	223	iPKP	19	42.00	1.2			
WB5	43.57	263	iP	08	41.30	-1.3	GMN	82.43	45	P	12	51.00	0.3				e	22	17.00				
			eS	14	26.80		AMR	82.45	46	P	12	50.80	0.3	LSZ	134.75	218	iPKP	19	38.00	-4.9X			
WRA	43.58	263	Pd	08	41.80	-0.9	MNA	82.48	44	eP	12	51.30	0.5				i	19	44.50				
	0.8s	34.90nm			4.9mb		NOP	82.51	47	P	12	51.20	0.3				i	22	20.00				
FORR	48.03	247	iPd	09	15.90	-0.6	MZP	82.57	45	P	12	51.50	0.1				i	22	25.30				
	0.5s	100.00nm			5.6mb		CN2	82.58	323	iPd	12	51.00	0.1	SUF	135.43	344	iPKP	19	27.70	-14.9X			
MTN	48.29	272	iPd	09	17.40	-1.3	BMTN	82.83	45	P	12	52.70	0.0	KMZ	137.56	217	iPKP	19	40.00	-8.2X			
			eScP	13	35.20		TNP	82.89	44	P	12	53.20	0.3				i	19	47.00				
			eS	15	35.50			1.0s	50.00nm			5.0mb					i	22	28.00				
WARB	49.67	253	iPd	09	20.00	-8.7X	SPRG	83.06	46	P	12	54.40	0.7	NUR	137.67	343	ePKP	19	35.00	-11.9X			
	0.3s	11.00nm			4.9mb		KRNA	83.25	45	P	12	55.10	0.4		0.8s	27.90nm							
KNA	49.69	267	iPc	09	28.20	-0.7	TIA	83.32	313	Pd	12	55.20	0.4				i	19	45.50				
	0.5s	73.00nm			5.5mb		HCR	83.49	45	P	12	56.40	0.5				eSKP	22	27.00				
DRV	52.08	199	eP	09	46.20	0.5	QCS	83.57	45	P	12	55.90	-0.4	NAI	138.35	242	ePKP	19	43.00	-6.9X			
COOL	54.00	247	eP	09	58.70	-1.2	SNG	83.78	280	eP	12	59.30	1.8	NB2	139.89	352	PKP	19	42.60	-8.4X			
MBL	56.67	258	iPd	10	17.50	-1.0	WRN	83.91	45	P	12	57.60	-0.3		0.9s	18.30nm							
	0.4s	57.00nm			5.2mb		BMW	84.34	35	P	13	00.30	0.6	UPP	139.94	347	iPKP	19	42.20	-8.8X			
SBA	56.78	184	Pd	10	21.50	3.1X	EUR	84.48	44	iP	13	00.70	-0.1	HFS	140.41	350	ePKP	19	43.30	-8.6X			
KLB	56.81	246	iPd	10	18.60	-0.7		0.9s	8.12nm			4.4mb			0.9s	45.10nm							
	0.3s	9.00nm			4.5mb		SHW	84.70	36	P	13	02.40	0.8	LWI	144.01	232	iPKPd	20	00.10	0.3			
MEKA	56.82	252	eP	10	18.40	-1.0	VGB	85.09	37	P	13	03.70	0.4	KVT	144.63	311	ePKP	19	59.60	-0.2			
	0.5s	14.00nm			4.5mb		GMW	85.26	34	P	13	03.90	-0.1	EDU	144.91	4	ePKPd	19	58.80	-0.9			
NWAO	57.11	244	iPc	10	21.10	-0.2	LON	85.28	35	P	13	03.80	-0.4		0.8s	142.00nm							
MUN	58.08	245	iPd	10	27.40	-0.5	PGC	85.61	33	eP	13	06.00	0.4	ESY	145.56	4	ePKPd	20	00.60	-0.2			
	0.5s	77.00nm			5.2mb		MCW	85.95	33	P	13	07.80	0.4	EKA	146.11	4	PKP	20	00.00	-1.7			
MRWA	58.63	248	iPd	10	31.00	-0.7	HTW	85.95	35	P	13	07.40	0.0		0.8s	69.50nm							
	0.5s	9.00nm			4.3mb		BJI	86.01	316	eP	13	08.00	0.3	DMU	147.13	9	iPKPd	20	05.70	2.3			
NANU	60.27	256	iPd	10	42.40	-0.1	TTA	86.12	10	eP	13	07.40	-0.5		0.8s	182.00nm							
	0.4s	40.00nm			5.1mb		PMR	86.23	14	ePd	13	07.60	-0.8	CLI	147.19	326	iPKPd	20	06.60	2.8			
SPA	68.59	180	ePd	11	35.60	1.3		0.9s	70.80nm			5.4mb		BIR	147.19	325	ePKP	20	07.00	3.3X			
	0.9s	37.27nm			4.9mb		GYA	86.39	300	iPd	13	10.80	0.7	HRI	147.20	298	iPKPd	20	08.00	3.7X			
			e	13	34.70		MSU	86.47	46	P	13	11.00	0.6	PPE	147.23	325	ePKPc	20	06.50	2.7			
KAKJ	69.22	326	P	11	37.60	-0.6	NNT	86.66	285	iPd	13	13.00	1.6	QUTJ	147.33	295	PKP	20	08.00	3.4X			
CHJJ	69.73	325	P	11	40.60	-0.6	LDE	86.77	290	eP	13	12.60	0.7	BURJ	147.39	296	PKP	20	08.20	3.6X			
IIDJ	69.90	324	P	11	41.60	-0.7	DUG	86.91	45	P	13	13.00	0.7	BBTK	147.42	311	iPKPc	20	24.00	19.5X			
MAT	70.52	324	iPd	11	44.80	-1.1	TIY	87.31	312	eP	13	14.90	0.8	SALJ	147.49	296	PKP	20	08.20	3.4X			
	0.8s	50.75nm			5.1mb		TOA	87.36	15	eP	13	13.80	0.0	MASJ	147.51	296	PKP	20	08.40	3.6X			
MTMJ	70.77	324	P	11	46.90	-0.5	DPW	87.91	36	P	13	16.80	0.1	CFR	147.58	323	iPKPd	20	07.00	2.6			
TSRJ	71.02	322	P	11	48.40	-0.4	PNT	88.01	34	iPd	13	17.50	0.5	MKRJ	147.60	295	PKP	20	08.30	3.3X			
KUSJ	72.49	333	eP	11	56.50	-0.5		1.0s	101.00nm			5.6mb		DCN	147.61	9	iPKPd	20	03.80	-0.4			
ADK	73.13	1	ePd	11	59.00	-1.4	DAU	88.05	45	P	13	18.60	0.8		0.8s	142.00nm							
	0.8s	164.40nm			5.6mb		XAN	88.05	308	P	13	18.30	0.7	DLE	147.77	9	ePKP	20	03.50	-0.9			
SMY	74.20	356	eP	12	06.00	-0.4	PTI	88.59	42	P	13	20.80	0.7		0.8s	41.00nm							
ASAJ	74.20	332	eP	12	07.70	1.0	ALQ	88.74	52	ePd	13	20.30	-0.7	DSI	147.82	295	iPKPd	20	09.00	3.8X			
QZH	76.24	304	Pd	12	18.30	0.0		1.0s	22.50nm			5.0mb		KRA	147.87	337	iPKPd	20	07.80	3.1X			
SSE	77.67	311	Pd	12	26.00	0.1				epP	15	32.00	612kmX		0.9s	64.00nm							
	1.0s	24.00nm			4.6mb		KMI	89.03	297	Pd	13	24.00	1.5				e	20	13.20				
SYP	79.03	46	eP	12	34.00	0.8	IMA	89.42	10	ePd	13	22.80	-0.5	BRD	147.98	324	ePKPc	20	10.00	5.0X			
PRS	79.18	44	ePd	12	34.70	0.9		0.9s	29.20nm			5.2mb		TLB	148.01	322	ePKP	20	04.50	-0.6			
GCC	79.20	43	ePd	12	34.30	0.5	FBA	89.44	13	ePd	13	22.00	-1.3	BMR	148.27	331	ePKPc	20	04.00	-1.4			
PCC	79.24	43	ePd	12	34.40	0.4	CHG	89.76	290	iPd	13	27.40	1.7	PRNI	148.33	293	iPKPd	20	11.00	4.9X			
KGM	79.34	276	eP	12	36.20	1.2		0.9s	48.32nm			5.4mb		ETA	148.40	8	ePKP	20	08.80	3.4X			
BCH	79.35	46	P	12	35.10	0.3	LRM	90.08	40	eP	13	25.60	-1.3	KSP	148.40	341	ePKPc	20	05.50	0.0			
SAO	79.39	44	eP	12	34.90	0.0	BW06	90.33	44	P	13	28.00	-0.2		1.0s	122.00nm							
NWRM	79.51	41	P	12	35.70	0.3		1.0s	41.88nm			5.4mb					id	20	09.90				
PRI	79.53	44	ePc	12	36.50	0.8	CD2	90.60	303	eP	13	30.60	1.2				i	20	10.00				
BRK	79.55	42	ePd	12	36.00	0.4	GOL	91.67	48	P	13	34.30	-0.2	VAL	148.41	13	iPKP	20	09.00	3.6X			
BKS	79.56	42	iPc	12	36.90	1.2	GLD	91.80	48	P	13	35.10	0.2	PSN	148.46	321	iPKPc	20	11.00	5.2X			
	0.9s	51.00nm			5.0mb			1.1s	28.93nm			5.2mb		SPC	148.46	336	ePKP	20	10.10	4.2X			

18d 02h

WIT	148.48	353	ePKP	20	08.50	3.0X
	1.0s	490.00nm				
			ePKKP	20	10.50	
ISR	148.50	324	ePKPc	20	10.00	4.1X
MLR	148.59	325	iPKPd	20	10.00	3.8X
CSS	148.72	302	ePKP	20	10.50	4.0X
CLL	148.85	345	iPKP	20	05.80	-0.4
	1.0s	185.00nm				
			i	20	10.60	
			pPKP	22	29.00	
ECP	148.88	9	ePKP	20	09.70	3.6X
	1.1s	123.00nm				
CJR1	148.91	329	ePKP	20	11.50	5.1X
BRG	149.02	344	iPKP	20	05.60	-0.8
			i	20	11.00	
HRT	149.08	315	ePKP	20	08.00	1.1
CMP	149.21	326	ePKPc	20	12.00	5.0X
GBZT	149.24	315	iPKPd	20	11.00	3.9X
WTS	149.27	353	iPKPc	20	06.80	0.1
	1.0s	26.00nm				
			iPKKP	20	11.40	
			e	20	18.00	
PPCY	149.52	303	ePKP	20	12.00	4.3X
ALT	149.61	312	ePKP	20	12.20	4.3X
PRU	149.67	343	PKPd	20	12.50	5.1X
	0.9s	76.80nm				
			e	20	20.20	
DMK	149.78	318	ePKP	20	12.60	4.7X
MOX	149.78	347	ePKP	20	07.00	-0.6
	1.0s	88.00nm				
			i	20	13.00	
			i	20	20.50	
DEV	149.86	329	iPKPc	20	13.00	5.1X
BCK	149.95	308	ePKP	20	06.70	-1.7
JMB	150.12	320	iPKP	20	14.00	5.6X
GZR	150.27	328	ePKPc	20	14.50	5.9X
SRO	150.33	336	iPKPd	20	15.00	6.5X
			i	20	24.00	
KHL	150.35	311	iPKP	20	13.90	4.9X
DST	150.37	314	ePKP	20	14.00	5.1X
PVL	150.39	323	ePKP	20	15.00	6.3X
ZST	150.44	338	ePKP	20	07.20	-1.5
			i	20	14.10	
BNT	150.46	316	iPKP	20	15.10	6.1X
ENN	150.58	354	ePKP	20	08.50	-0.3
	0.9s	11.00nm				
			iPKKPc	20	14.40	
			i	20	24.30	
			e	20	28.50	
VKA	150.65	339	(PKP)	20	13.00	4.0X
	0.8s	68.20nm				
			i	20	15.20	
			i	20	24.90	
UCC	150.68	356	PKP-	20	11.00	2.1
			e	20	14.90	
KHC	150.71	343	iPKP	20	08.40	-0.7
			i	20	15.50	
			i	20	25.00	
MEM	150.73	354	PKPc	20	08.70	-0.3
			id	20	14.90	
ELL	150.73	308	ePKP	20	09.00	-0.6
GRF	150.77	346	iPKPd	20	15.60	6.5X
			e	20	25.80	
SNF	150.97	356	PKPc	20	15.20	5.9X
			e	20	25.60	
DIM	151.00	320	ePKP	20	16.00	6.3X
KDZ	151.31	320	iPKPd	20	17.00	6.8X
DOU	151.36	355	iPKPd	20	16.30	6.3X
PGB	151.48	323	ePKP	20	17.00	6.5X
WLF	151.64	353	PKPc	20	10.70	0.4
			i	20	17.40	
RZN	151.70	321	ePKP	20	17.00	6.0X
YER	151.75	309	iPKP	20	17.20	6.2X
EZN	151.78	316	ePKP	20	16.40	5.5X
BEO	151.80	330	ePKP	20	17.50	6.8X
IZM	151.89	313	ePKP	20	17.30	6.1X
GWF	152.12	351	PKP	20	10.35	-0.8
MMB	152.34	321	iPKPd	20	18.00	6.3X
STR	152.48	350	PKP	20	11.58	0.0
KKB	152.53	323	iPKP	20	19.00	7.1X
KBA	152.64	342	ePKP	20	10.50	-1.6
	1.0s	36.60nm				
			i	20	18.60	
			i	20	33.70	
CDF	152.72	351	PKP	20	11.45	-0.6
FLN	152.81	2	ePKP	20	11.80	-0.2
	0.8s	13.40nm				
PTJ	152.81	337	ePKP	20	11.70	-0.6
LDF	152.99	2	ePKP	20	11.80	-0.5
	0.8s	9.10nm				
VITF	153.09	353	PKP	20	12.30	-0.1
FEL	153.13	350	PKP	20	11.43	-1.3
RBL	153.14	341	PKP	20	19.50	6.8X
			e	20	34.20	
GRR	153.17	3	ePKP	20	11.40	-1.1
	1.0s	8.00nm				
VAY	153.18	322	iPKP	20	19.30	6.5X
			i	20	35.40	
LJU	153.19	339	e(PKP)	20	20.10	7.4X
FVI	153.24	342	PKP	20	19.30	6.6X
			i	20	34.20	
HAU	153.25	352	ePKP	20	13.90	1.2
	0.8s	5.30nm				
MOF	153.29	351	PKP	20	12.63	-0.3
BSF	153.36	351	PKP	20	12.70	-0.3
SKO	153.37	325	iPKP	20	20.50	7.4X
			i	20	36.50	
VBY	153.40	337	e(PKP)	20	21.00	8.0X
VOY	153.41	340	ePKP	20	11.30	-1.8
			i	20	20.30	
CEY	153.49	339	ePKP	20	21.00	7.9X
LPF	153.51	3	ePKP	20	11.90	-1.1
	1.0s	8.00nm				
TRI	153.74	340	iPKPd	20	21.00	7.6X
			i	20	36.70	
LOMF	153.83	351	PKP	20	13.91	0.3
LOR	154.23	356	ePKP	20	14.10	0.1
	0.8s	3.20nm				
SSF	154.46	356	ePKP	20	14.60	0.3
	1.0s	36.00nm				
LBF	154.50	355	ePKP	20	14.60	0.1
	1.0s	6.00nm				
VAI	154.92	347	PKP	20	23.20	8.3X
			e	20	41.80	
MFF	154.98	2	ePKP	20	15.10	0.1
	0.8s	5.30nm				
TCF	155.29	358	ePKP	20	15.70	0.2
	0.8s	9.40nm				
ORO	155.31	348	PKP	20	25.00	9.3X
			e	20	44.00	
LSF	155.35	359	ePKP	20	15.50	-0.1
	0.8s	8.00nm				
MAF	155.35	357	ePKP	20	15.80	0.2
	1.1s	13.10nm				
LPG	155.65	350	ePKP	20	16.70	0.3
	1.0s	6.00nm				
BOB	155.82	345	PKP	20	28.60	12.2X
			e	20	46.60	
BNG	155.97	227	iPKPd	20	16.50	-0.9
	0.7s	12.00nm				
			id	20	48.40	
BNI	156.09	350	PKP	20	26.90	10.1X
			e	20	48.40	
FIR	156.25	341	ePKP	20	21.00	4.2X
CKI	156.40	347	PKP	20	22.20	5.2X
			e	20	38.80	
LIC	163.68	158	PKP	20	25.46	-0.1
	0.9s	31.00nm				
KIC	163.91	159	PKP	20	25.62	-0.2
	0.9s	28.00nm				
TIC	164.07	158	PKP	20	25.72	-0.3
	0.9s	28.00nm				

S.D. = 0.9 on 216 of 295 obs.

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* APR 18, 1989 02h 41m 59.44± 0.70s
52.607 N ±15.7km 169.152 W ± 7.3km
DEPTH = 33.0km (normal)
4.6mb (6 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

ADK	4.69	264	e(P)	43	10.00	0.4
KDC	10.82	55	eP	44	34.10	-0.8
SVW	11.27	36	eP	44	46.70	5.6X
TTA	12.47	29	eP	45	02.30	5.0X
PMS	13.71	43	eP	45	13.50	-0.1
TOA	15.54	43	eP	45	37.80	0.3
	0.6s	12.20nm			4.3mb	
INK	23.08	34	eP	47	02.00	-0.5
YKA	29.99	49	eP	48	07.90	1.3
MBC	30.27	21	eP	48	10.00	1.1
SES	35.40	70	eP	48	54.00	0.1
KVN	37.27	90	eP	49	22.50	12.6X
BW06	40.22	80	eP	49	34.90	0.3
FRB	48.71	36	eP	50	42.00	0.0
SUF	64.39	352	eP	52	34.00	0.2
NB2	66.70	360	P	52	48.00	-0.7
	0.7s	2.40nm			4.4mb	
HFS	67.59	358	eP	52	53.60	-0.6
	0.6s	7.10nm			4.9mb	
GUN	76.73	299	P	53	49.40	0.0
	0.8s	13.00nm			5.0mb	
KKN	77.14	299	P	53	51.80	0.3
	0.6s	4.00nm			4.6mb	
PKI	77.25	299	P	53	51.80	-0.4
GKN	77.31	300	P	53	52.40	0.0
DMN	77.38	299	P	53	53.20	0.3
KBA	80.67	358	iPc	54	12.10	1.8X
	0.7s	4.10nm			4.5mb	
BUL	144.78	330	iPKPc	01	33.30	-1.2
SLR	150.12	327	iPKPd	01	48.50	5.6X

S.D. = 0.7 on 19 of 24 abs.

APR 18, 1989 03h 04m 20.45± 0.40s
28.914 N ± 6.3km 95.764 E ± 5.1km
DEPTH = 33.0km (normal)
4.5mb (7 abs.)
INDIA-CHINA BORDER REGION (313)

LSA	4.10	282	Pc	05	27.50	4.6X
SHL	4.80	227	eP	05	33.00	0.5
			iS	06	27.50	
GUN	8.76	266	P	06	28.40	0.2
PKI	9.23	264	P	06	34.00	-0.6
KKN	9.30	266	P	06	35.20	-0.4
DMN	9.49	265	P	06	38.20	0.1
GKN	9.84	267	P	06	41.20	-1.6
GYA	9.97	102	iPc	06	44.00	-0.6
CHG	10.47	163	eP	06	51.70	0.4
GTA	10.99	17	eP	06	57.40	-1.2
WMQ	16.22	339	Pc	08	12.20	4.8X
SUF	55.42	328	iP	13	54.30	0.7
	0.5s	3.50nm			4.6mb	
SOD	55.64	334	eP	13	56.00	0.8
WRA	61.20	138	Pc	14	33.90	-0.6
	0.4s	1.80nm			4.6mb	
HFS	61.51	326	eP	14	35.60	-0.5
	0.4s	1.70nm			4.5mb	
NB2	62.57	327	P	14	43.00	-0.2
	0.7s	2.90nm			4.5mb	
LPG	69.36	311	eP	15	28.40	1.2
	0.8s	4.00nm			4.5mb	
LBF	70.62	313	eP	15	35.10	0.5
	0.8s	2.60nm			4.3mb	
SSF	70.89	314	eP	15	36.80	0.6
	0.6s	3.60nm			4.6mb	
MBC	72.82	8	eP	15	48.00	0.9
INK	76.47	17	eP	16	08.00	-0.2

S.D. = 0.8 on 19 of 21 abs.

APR 18, 1989 03h 53m 23.90± 0.87s
39.305 N ± 6.9km 23.608 E ± 9.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.8 (ATH).

NEO	0.30	270	iPgd	53	29.40	-0.7
PLG	1.07	353	iPbc	53	45.60	1.5
ATH	1.33	176	ePb	53	49.00	0.5
KZN	1.73	306	ePg	53	58.40	4.1X
VAY	2.16	339	ePn	54	01.20	0.7
MMB	2.28	2	iPc	54	02.00	-0.2
RZN	2.53	19	iPc	54	06.00	0.2
KKB	2.59	351	iPc	54	06.00	-0.5
KDZ	2.72	30	eP	54	07.00	-1.4

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

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* APR 18, 1989 04h 21m 58.44± 1.28s
21.848 S ± 8.0km 70.492 W ±11.9km
DEPTH = 51.9 ± 12.1 km
4.4mb (4 obs.)
NEAR COAST OF NORTHERN CHILE (122)

ANT	1.85	178	eP	22	27.50	-0.8
			iS	23	00.50	
			i	23	03.00	
ARE	5.44	350	iPd	23	15.00	-4.3X
			eS	24	11.00	
LPB	5.75	24	P	23	25.00	1.2
	1.0s	280.00nm			5.6mb X	
			i	23	30.00	
			LR	25	36.00	

ZOBO	5.98	22	eP	23	27.00	-0.2
Z	22s	0.58um				
			LR	25	30.00	
CCH	6.04	43	eP	23	34.00	6.2X
VAO	21.77	97	eP	26	47.50	-0.2
ITA	23.89	96	eP	27	09.40	0.7
ATB	25.60	46	Pc	27	24.50	-0.1
SOB1	31.09	71	eP	28	12.80	-1.4
ITR	33.47	72	eP	28	42.90	7.9X
ALQ	66.00	328	eP	32	41.00	-0.9
	0.9s	2.94nm			4.3mb	
SPA	68.29	180	ePc	32	57.90	1.9
	1.0s	4.00nm			4.4mb	
LRM	77.37	331	eP	33	50.20	0.6
SES	80.36	335	eP	34	05.00	-0.5
FFC	80.90	342	eP	34	07.00	-1.2
	1.0s	9.00nm			4.7mb	
PNT	83.22	330	eP	34	21.00	0.6
	0.6s	3.00nm			4.5mb	
YKA	91.03	341	eP	34	58.20	0.3
GBA	148.42	100	PKPd	41	42.20	4.3X
	1.0s	7.70nm				
S.D. = 1.1		on	14 of	18	obs.	

& APR 18, 1989 06h 59m 50.20s
38.793 N 122.772 W
DEPTH = 4.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 3.1 (BRK).

NWRM	0.35	195	eP	59	57.20	0.0
ZSP	0.94	154	e(P)	00	07.80	-0.9
			eS	00	22.70	
BRK	1.00	156	eP	00	08.90	-0.8
			eS	00	23.50	
BKS	1.01	155	iPd	00	09.60	-0.2
			iS	00	23.50	
			i	00	24.50	
ORV	1.25	52	ePc	00	12.80	-1.1
PCC	1.33	166	eP	00	12.80	-2.5
MHC	1.70	148	ePc	00	19.30	-1.6
ARN	1.74	145	eP	00	20.00	-1.4
MIN	1.79	30	ePc	00	21.00	-1.3
WDC	1.79	6	eP	00	22.70	0.6
CMB	2.02	111	ePc	00	24.20	-1.3
			eS	00	51.90	
SAO	2.28	152	eP	00	26.70	-2.5
FRI	3.02	126	e(P)	00	39.70	0.1
KVN	3.65	84	eP	00	46.50	-2.4
14 obs. associated						

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* APR 18, 1989 07h 58m 11.02± 2.07s
9.788 S ±25.3km 127.882 E ±11.5km
DEPTH = 249.8 ± 14.7 km
4.6mb (2 obs.)
TIMOR SEA (290)

KUG	4.25	265	ePc	59	18.30	0.1
KNA	5.99	172	iPd	59	40.20	0.6
	0.2s	25.00nm			4.8mb	X
			eS	01	09.00	
WB5	11.83	149	iPd	00	53.20	-0.4
			iS	03	23.00	
WRA	11.87	149	Pd	00	54.60	0.5
	0.4s	7.10nm			4.2mb	
MBL	13.71	213	eP	01	16.00	-0.8
ASPA	14.95	158	eP	01	35.70	3.6X
	0.6s	29.00nm			4.9mb	
			i	01	37.80	
			eS	04	37.90	
QIS	15.57	135	iPd	01	38.50	-1.0
WARB	16.35	184	eP	01	43.80	-4.7X
MEKA	18.93	207	eP	02	16.50	1.0
MRWA	22.31	208	eP	02	48.00	-0.7
BWA	30.90	146	eP	04	07.30	0.7
S.D. = 0.9		on	9 of	11	obs.	

APR 18, 1989 08h 20m 16.42± 0.46s
31.635 N ± 6.4km 104.118 E ± 6.0km
DEPTH = 33.0km (normal)
4.3mb (5 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	0.79	203	ePg	20	32.00	0.9
			Sg	20	44.40	
LZH	4.45	357	Pn	21	24.50	1.0
			Pg	21	38.00	
			Sg	22	30.00	
XAN	4.70	58	Pn	21	27.00	0.1
			Pg	21	39.60	
			Sn	22	22.00	
			Sg	22	42.00	
GYA	5.62	156	iPnd	21	40.00	0.1
			Pg	22	03.00	
			Sn	22	43.00	
			Sg	23	12.00	
BTO	10.13	26	eP	22	44.00	1.2
N	10s	0.40um				
E	10s	0.40um				
GUN	16.26	261	P	24	04.10	-0.2
	0.8s	20.00nm			4.3mb	
PKI	16.77	261	P	24	10.60	-0.1
	0.8s	20.00nm			4.3mb	
KKN	16.81	262	P	24	11.00	-0.1
	0.8s	16.00nm			4.2mb	
DMN	17.01	261	P	24	13.60	0.0
	0.8s	29.00nm			4.5mb	
GKN	17.29	263	P	24	17.20	0.2
CN2	20.72	48	eP	24	56.00	-0.4
WB5	58.87	146	eP	30	14.50	0.1
NB2	64.22	327	P	30	49.70	-0.4
	0.6s	0.60nm			3.9mb	
INK	71.65	19	eP	31	34.00	-2.3
YKA	81.18	17	eP	32	33.90	4.1X
S.D. = 0.9		on	14 of	15	obs.	

% APR 18, 1989 08h 33m 51.79± 0.58s
60.717 N ± 4.8km 5.544 E ± 6.3km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

ASK	0.29	216	iP+	33	57.83	0.0
			iSg	34	02.02	
SUE	0.51	312	eP	34	01.81	-0.4
			eS	34	09.28	
HYA	0.55	35	iPc	34	02.55	-0.3
			iS	34	10.59	
ODD1	0.97	146	eP	34	09.18	-1.1
			eS	34	22.93	
BLS1	1.48	154	iP	34	19.03	0.5
			eS	34	38.97	
KMY	1.52	186	eP	34	19.47	0.5
			eS	34	37.39	
			iSg	34	40.03	
MOL	2.09	26	eP	34	27.92	0.6
			eS	34	51.39	
NRA0	2.95	87	eP	34	39.60	0.1
			iPg	34	43.20	
			eSg	35	22.40	
S.D. = 0.7		on	8 of	8	obs.	

APR 18, 1989 08h 48m 46.66± 0.59s
50.664 N ± 5.7km 114.160 W ± 7.2km
DEPTH = 5.0km (geophysicist)
ALBERTA PROVINCE, CANADA (24)

EDM	2.61	11	eP	49	30.00	-0.2
MNB	3.06	302	e(Pn)	49	37.00	0.2
PNT	3.77	251	eP	49	47.00	0.3
DPW	3.85	225	eP	49	47.50	-0.4
HRY	4.25	158	ePn	49	54.00	0.5
BUT	4.77	167	ePg	50	17.30	16.1X
			eSg	51	16.70	
SXM	4.93	155	ePn	50	03.80	0.5
LRM	4.98	166	ePn	50	04.10	0.0
MEMT	5.50	156	ePn	50	11.10	-0.3
BGMT	5.62	165	ePn	50	13.40	0.3
CCMT	5.82	171	ePn	50	15.00	-0.9
S.D. = 0.5		on	10 of	11	abs.	

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* APR 18, 1989 09h 14m 34.35± 1.00s
34.245 N ±10.2km 26.617 E ± 7.9km
DEPTH = 33.0km (normal)
CRETE (370)

NPS	1.31	321	ePnc	14	55.50	-1.0
KAP	1.38	19	ePn	14	58.00	0.5
VAM	2.30	301	ePn	15	11.50	0.8
KSL	3.07	52	ePn	15	22.20	0.6
YER	3.19	25	iPn	15	22.80	-0.5
ELL	3.67	46	iPn	15	30.20	0.0
BCK	4.55	44	ePn	15	38.70	-4.1X
DSI	7.84	107	eP	16	28.00	-0.9
			eS	17	54.00	
PRNI	8.09	116	e(P)	16	33.00	0.5
S.D. = 0.8		on	8 of	9	obs.	

APR 18, 1989 09h 54m 51.98± 1.24s
30.648 S ± 6.8km 71.990 W ±11.1km
DEPTH = 40.6 ± 12.9 km
4.6mb (7 obs.)
NEAR COAST OF CENTRAL CHILE (135)

JACH	2.35	150	iPc	55	48.00	18.9X
			iS	56	23.40	
ROCH	2.46	160	iP	55	30.90	0.1
PEL	2.72	156	iPc	55	34.10	-0.2
LCCH	2.84	173	iPd	55	35.00	-0.9
			iS	56	21.90	
ZON	2.98	108	eP	55	39.00	1.1
PCH	3.22	157	iPd	55	41.40	0.0
			iS	56	20.00	
LNV	3.33	172	iPc	55	48.00	5.1X
			iS	56	23.40	
CFA	3.36	108	iPd	55	45.50	2.2
CHCH	3.47	161	eP	55	44.50	-0.4
			iS	56	37.60	
RFA	5.07	145	ePc	56	07.60	0.0
CYA	5.83	69	ePc	56	17.30	-0.9
ANT	7.06	12	e(P)	56	25.00	-10.4X
SLA	8.24	46	ePc	56	53.10	1.0
ARE	14.13	2	eP	58	07.00	-4.8X
CCH	14.24	23	eP	58	20.50	7.2X
LPB	14.49	15	P	58	18.00	1.3
	1.0s	44.00nm			4.9mb	X
Z	15s	2.13um			4.0MszX	
			LR	03	14.00	
ZOBO	14.74	15	P	58	18.00	-2.1
	0.6s	8.71nm			4.3mb	
Z	16s	1.21um			4.8Msz	
			LR	03	08.00	
PPD	20.40	70	eP	59	26.20	-2.0
VAO	23.56	77	eP	00	00.30	0.6
BMA	26.06	79	eP	00	21.70	-1.8
ITR	38.13	62	eP	02	23.40	14.2X
FVM	70.42	345	P	06	02.50	-1.3
	1.0s	17.00nm			5.0mb	
ALQ	72.87	331	eP	06	19.00	0.2
	1.2s	7.03nm			4.5mb	
MAW	76.38	164	eP	06	38.00	-0.3
GLD	76.54	334	P	06	44.00	4.2X
	1.0s	36.00nm			5.3mb	
GOL	76.55	334	P	06	40.50	0.5
	1.0s	8.50nm			4.7mb	
PV09	77.02	331	P	06	43.50	0.9
TNP	80.36	325	P	07	01.50	0.8
	1.0s	4.25nm			4.4mb	
BW06	80.81	333	P	07	02.50	-0.5
	1.1s	5.95nm			4.5mb	
KVN	81.55	325	P	07	07.50	0.6
GBA	147.14	114	PKPd	14	32.20	1.6
	0.7s	2.20nm				
HYB	150.15	109	ePKP	14	40.00	4.7X
S.D. = 1.2		on	24 of	32	obs.	

APR 18, 1989 10h 45m 47.66± 0.78s
34.669 N ± 7.6km 110.925 W ± 4.9km
DEPTH = 5.0km (geophysicist)
EASTERN ARIZONA (495)
ML 3.5 (NEIS).

FLAG	0.77	310	P	46	02.00	-1.3
WMZ	1.25	293	P	46	11.00	-0.4
			e(S)	46	27.00	
GCAZ	1.69	325	P	46	19.00	1.1
EMN	3.37	293	eP	46	43.00	0.9
GLA	3.62	245	eP	46	45.70	0.0
ALQ	3.69	84	iPnc	46	47.20	0.5
			i	46	56.00	
			e(Sn)	47	41.00	
MSU	3.97	346	eP	46	51.50	0.8
PV10	4.00	22	eP	46	50.50	-0.7
PV09	4.08	20	eP	46	52.90	0.5
PRN	4.32	310	eP	46	56.50	0.9
NOP	4.51	290	eP	46	59.00	0.7
YMT3	4.94	297	eP	47	05.80	1.4X
PEC	5.22	263	eP	47	07.50	-0.8
DUG	5.72	345	e(P)	47	14.80	-0.6
DAU	5.74	357	eP	47	16.40	0.5
TNP	6.11	306	eP	47	20.30	-0.7

18d 10h

EUR	6.27	321	iP	47 15.00	-8.4X
GOL	6.70	40	eP	47 28.50	-0.9
KVN	7.22	309	e(P)	47 38.50	1.8X
BW06	8.17	7	eP	47 49.50	-0.4

S.D. = 0.8 on 17 of 20 obs.

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* APR 18, 1989 11h 08m 22.63± 1.39s
30.666 S ± 7.8km 71.520 W ±21.6km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

JACH	2.16	159	iP	08 57.00	-0.1
			iS	09 29.50	
ROCH	2.34	169	eP	08 58.00	-1.8
PEL	2.57	164	iPc	09 01.40	-1.5
			iS	09 32.50	
LCCH	2.80	181	iPc	09 06.50	0.4
			iS	09 49.00	
PCH	3.07	164	eP	09 09.50	-0.5
			i	09 47.80	
LNV	3.28	178	iP	09 15.60	2.7
			iS	10 02.50	
RFA	4.83	149	ePd	09 35.50	0.5
CYA	5.46	67	eP	09 44.50	0.7
ANT	7.00	8	e(P)	10 05.00	-0.5
SLA	7.97	44	e(P)	10 19.20	0.0
ARE	14.14	0	e(P)	11 53.00	10.0X

S.D. = 1.4 on 10 of 11 obs.

% APR 18, 1989 11h 33m 30.47± 1.25s
60.901 N ± 7.2km 4.844 E ±12.8km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.5 (BER).

SUE	0.16	346	iPd	33 34.19	0.0
			iSg	33 36.18	
ASK	0.45	157	eP	33 39.64	0.0
			eSg	33 46.61	
HYA	0.71	67	iP	33 43.88	-0.5
			iS	33 54.20	
ODD1	1.33	137	iP	33 54.85	-0.2
			eS	34 13.12	
NRA0	3.29	90	iPd	34 23.70	0.7
			eSg	35 10.70	

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

APR 18, 1989 12h 33m 52.16± 0.11s
23.834 S ± 3.7km 179.944 E ± 2.4km
DEPTH = 523.7km (geophysicist)
5.8mb (50 obs.)
SOUTH OF FIJI ISLANDS (171)
mb 5.9 (BRK). Depth from broadband displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=190 Dip=82 Slip= 90
NP2: 10 8 90
Principal Axes:
T Plg=53 Azm=100
P 37 280
Comment: The focal mechanism is poorly controlled and corresponds to reverse faulting. The preferred fault plane is NP2.
RADIATED ENERGY
No. of sta: 7 Focal mech. M
Energy 5.2±1.5*10**12 Nm
MOMENT TENSOR SOLUTION
Dep 548 No. of sta: 13
Moment Tensor; Scale 10**18 Nm
Mrr= 0.42 Mtt=-0.09
Mff=-0.33 Mrt= 0.02
Mrf=-1.46 Mtf=-0.44
Principal axes:
T Val= 1.60 Plg=50 Azm= 75
N -0.06 16 185
P -1.54 35 286
Best Double Couple:Mo=1.6*10**18
NP1:Strike= 67 Dip=18 Slip= 154
NP2: 182 82 74
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 30C
Centroid Location:
Origin Time 12:34: 1.2 0.3
Lat 23.87S 0.03 Lon 179.79E 0.02
Dep 547.9 1.3 Half-duration 3.8
Moment Tensor; Scale 10**17 Nm
Mrr= 1.55 0.14 Mtt=-0.35 0.23
Mff=-1.20 0.21 Mrt=-2.80 0.22
Mrf=-9.42 0.22 Mtf=-3.97 0.19
Principal Axes:
T Val= 9.72 Plg=48 Azm= 85
N 1.73 18 196
P -11.45 36 300
Best Double Couple:Mo=1.1*10**18
NP1:Strike= 85 Dip=19 Slip= 160
NP2: 194 84 72

RAO	5.73	161	iP	35 28.70	1.0	
			eS	36 44.90		
SVA	5.86	346	iPd	35 30.30	1.3	
NDF	6.48	338	eP	35 36.90	1.9	
PVC	12.45	297	iPd	36 37.50	1.4	
			iS	38 53.00		
DZM	12.56	275	iPd	36 39.10	1.7	
			iS	38 57.90		
			ScP	44 15.90		
			ScS	47 56.10		
AFI	12.60	40	ePc	36 33.70	-4.0X	
			eS	38 44.00		
WEL	17.93	193	P	37 31.00	0.4	
			S	40 25.00		
			ScP	44 23.00		
			ScS	48 04.50		
RAR	18.92	86	P	37 40.00	-0.2	
			S	41 39.00		
MSZ	22.99	202	P	38 18.20	0.6	
			S	41 49.00		
BRS	24.73	256	iPc+	38 34.70	1.1	
			i	38 49.80		
			i	41 05.00		
			iS	42 19.70		
			iScP	44 43.00		
			iScS	48 33.70		
COO	25.80	249	iPd	38 44.30	1.4	
			iScP	44 46.70		
RIV	27.03	242	eP	38 55.00	1.3	
			e	42 57.00		
TBI	28.02	95	iP	39 02.40	0.0	
	0.8s	195.00nm			5.7mb	
			iScP	44 51.10		
RMO	28.32	258	iPd	39 06.70	1.7	
	1.1s	778.00nm			6.2mb	
			e	40 34.00		
			iScP	44 54.30		
CNB	28.84	240	eP	39 10.00	0.4	
			e	40 23.70		
			e	44 54.00		
AFR	28.97	83	iP	39 09.90	-0.8	
			iScP	44 53.40		
PAE	29.12	84	iP	39 11.20	-0.8	
	1.0s	290.00nm			5.8mb	
			iScP	44 54.10		
CAN	29.13	240	iPd	39 12.80	0.8	
			iPcP	40 42.10		
			e	43 29.10		
			iScP	44 55.30		
PPT	29.15	83	iP	39 11.50	-0.8	
	1.0s	485.00nm			6.0mb	
			iScP	44 54.20		
PAA	29.26	303	eP	39 12.00	-1.3	
BWA	29.38	242	iPd	39 12.80	-1.4	
			iPcP	40 42.00		
			e	43 29.30		
			iScP	44 54.90		
BGA	29.59	302	e(P)	39 13.00	-3.3X	
CTA	31.42	270	iPd-	39 32.10	0.3	
	1.0s	520.00nm			6.1mb	
			i	40 05.30		
			i	40 44.50		
			iPP	41 01.00		
			iPcP	42 09.20		
			iS	44 02.00		
			iScP	45 03.80		
			iPcS	45 55.00		
			iSS	46 52.00		
			iScS	49 04.00		
CTAO	31.42	270	iPd	39 32.58	0.8	
			epP	41 01.69	520kmX	
PMO	31.51	80	iP	39 31.80	-0.7	
	1.0s	365.00nm			5.9mb	
			iScP	45 02.50		
VAH	31.67	80	iP	39 32.60	-1.2	
	1.0s	335.00nm			5.9mb	
			iScP	45 02.70		
TPT	31.77	80	iP	39 34.00	-0.6	
	1.0s	665.00nm			6.2mb	
			iScP	45 03.40		
RUV	31.91	80	iP	39 35.00	-0.8	
	1.0s	545.00nm			6.1mb	
			iScP	45 03.60		
TOO	32.44	237	iPd	39 41.40	1.2	
	0.4s	154.00nm			5.9mb	
			e	39 52.00		
			e	44 18.00		
RAB	33.15	302	eP	39 44.00	-2.3	
	0.6s	320.00nm			6.1mb	
LMG	33.81	291	eP	39 51.50	-0.5	
PMG	34.43	289	iPd-	39 57.50	0.5	
	1.0s	1460.00nm			6.5mb	
STK	34.70	248	iPc	39 59.90	0.7	
	0.4s	66.00nm			5.6mb	
			eS	45 15.10		
LAT	35.94	293	eP	40 09.50	-0.1	
ADE	37.36	243	iPd	40 21.30	0.2	
	1.1s	556.96nm			6.1mb	
QIS	37.41	267	ePd	40 21.00	-0.6	
	1.2s	450.00nm			5.9mb	
			iScP	45 25.20		
MNDI	39.04	291	eP	40 36.50	1.3	
RKT	41.22	98	iP	40 52.40	-0.1	
	1.0s	215.00nm			5.6mb	
ASPA	42.00	261	iPd	40 58.80	0.1	
	1.1s	1180.00nm			6.3mb	
Z	19s	1.76um			5.0Msz	
			e	41 12.60		
			e	42 34.20		
			eScP	45 43.30		
			e	46 32.40		
			eS	46 37.10		
			eScS	50 01.80		
			LR	57 05.50		
WB5	42.35	266	iPd	41 00.90	-0.6	
			iS	45 45.20		
			i	46 07.00		
			eS	46 40.70		
WRA	42.36	266	Pd	41 00.20	-1.3	
	0.7s	148.00nm			5.6mb	
FORR	46.25	249	iPd	41 31.00	-0.6	
MTN	47.40	274	iPd	41 39.30	-1.3	
			iScP	46 06.20		
			eS	47 54.80		
WARB	48.08	256	iPd	41 36.60	-9.1X	
			eS	47 50.00		
KNA	48.61	270	iPd	41 49.20	-0.6	
	0.3s	158.00nm			6.0mb	
HON	49.75	27	P	41 57.50	-0.6	
OPA	50.08	27	P	41 59.70	-0.8	
GUA	50.52	314	iPd	42 03.20	-0.6	
	1.3s	1676.92nm			6.3mb	
GUMO	50.59	314	eP	42 03.30	-1.0	
	1.4s	1861.54nm			6.3mb	
PJG	50.59	314	ePd	42 03.30	-1.0	
COOL	52.19	249	iPd	42 14.40	-1.6	
	0.3s	49.00nm			5.4mb	
AAI	53.74	284	ePc	42 26.00	-1.3	
SBA	54.44	183	Pd	42 33.40	2.1	
KLB	54.96	247	iPd	42 34.70	-0.9	
	0.4s	105.00nm			5.5mb	
MEKA	55.16	253	iPd	42 35.50	-1.6	
	0.4s	39.00nm			5.1mb	
NWAO	55.22	246	iPd	42 36.30	-1.1	
	0.3s	63.00nm			5.4mb	
			epPd	44 19.21	525kmX	
MBL	55.24	260	iPd	42 36.30	-1.4	
RKG	55.25	244	iPd	42 36.50	-1.1	
	0.8s	438.00nm			5.8mb	
BAL	56.01	248	iPd	42 41.70	-1.2	
	0.4s	51.00nm			5.2mb	
MUN	56.21	246	iPd	42 43.40	-0.9	
	0.4s	661.00nm			6.3mb	
MRWA	56.86	250	iPd	42 47.90	-0.9	
	0.4s	105.00nm			5.5mb	
NANU	58.75	257	iPd	43 01.10	-0.6	
MKS	60.94	278	iPc	43 16.00	-0.3	
DAV	61.30	293	ePd-	43 16.00	-2.6	
SPA	66.31	180	iPc	43 50.40	0.4	
	1.0s	259.50nm			5.8mb	

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			e	44	10.80						epP	47	18.50	554kmX		SDH	84.99	46	P	45	33.20	0.2
TSM	66.35	286	ePc	43	51.20	0.5					ePP	48	34.90			YMT3	85.02	46	P	45	33.30	0.1
KKM	68.83	287	ePd	44	05.50	-0.5		ABL	82.04	46	P	45	19.30	0.7		JON	85.03	47	P	45	33.30	0.1
	1.0s	336.60nm			5.9mb			ARN	82.05	43	P	45	19.10	0.7		YMT4	85.03	46	P	45	33.50	0.2
KAKJ	70.55	327	P	44	15.10	-0.4					pP	49	00.00			YMT5	85.06	46	P	45	33.50	0.1
CHJJ	71.03	326	P	44	17.80	-0.6		PKEM	82.18	45	P	45	20.10	1.1		LSM	85.09	46	P	45	34.00	0.5
IIDJ	71.16	325	P	44	18.60	-0.6		MDJ	82.18	326	iPd	45	19.58	0.8		CDH1	85.13	46	P	45	33.90	0.2
MAJO	71.81	326	iPd	44	22.13	-0.8					eSKS	54	47.09			BMTN	85.16	46	P	45	33.80	-0.2
MAT	71.81	326	iPd-	44	21.90	-1.0		PAS	82.34	48	eP	45	19.00	-0.8		TMBR	85.18	46	P	45	34.00	-0.1
	1.6s	453.33nm			5.8mb			MWC	82.46	48	eP	45	20.00	-0.7		LOP	85.22	46	P	45	34.50	0.2
			iS	53	02.00			BAR	82.53	50	iP+	45	20.00	-0.8		KVN	85.23	44	P	45	34.10	-0.2
MTMJ	72.06	325	P	44	24.00	-0.4		FHC	82.73	39	ePc	45	22.80	1.1		TNP	85.23	45	P	45	34.30	0.0
OFUJ	72.11	330	eP	44	24.20	-0.3		RVR	82.79	48	iP+	45	22.50	0.4			1.1s	123.38nm			5.5mb	
YAMJ	72.16	328	eP	44	24.80	-0.1					e	47	19.00			BGB	85.28	46	P	45	34.40	-0.2
TSRJ	72.24	324	P	44	25.40	0.0		PEC	82.88	48	P	45	22.80	0.2		CPX	85.34	46	P	45	34.80	0.1
HOOJ	74.07	333	eP	44	36.40	0.8		DL2	82.88	318	P	45	23.00	0.6		GLR	85.51	46	P	45	35.50	-0.1
KUSJ	74.08	334	eP	44	35.80	0.1			4.0s	0.90nm			2.7mb X			KRNA	85.58	45	P	45	36.10	0.1
ANP	74.67	307	eP	44	39.00	-0.5					S	54	50.00			BLT	85.61	46	P	45	35.80	-0.3
MRRJ	75.06	331	eP	44	41.40	0.3					sS	58	25.00			GMR	85.75	46	P	45	36.70	-0.1
ADK	75.45	2	iPc	44	42.60	-0.4		SBB	82.88	47	iP+	45	22.50	-0.1		HCR	85.83	45	P	45	37.30	0.1
	1.1s	600.00nm			6.0mb						e	47	19.00			WRN	86.24	46	P	45	38.60	-0.5
ASAJ	75.77	333	eP	44	46.60	1.6		WHN	82.92	308	iPd	45	23.50	0.7		PRN	86.27	46	P	45	39.70	0.5
SMY	76.41	356	eP	44	47.80	-0.5			4.0s	1.57nm			2.9mb X			MTI	86.27	46	P	45	39.30	0.1
OZH	76.70	305	iPd	44	50.00	-0.5					pP	47	18.00	523kmX		NNT	86.27	285	ePd	45	40.80	1.4
	4.0s	1.90nm			2.9mb X						iS	54	52.00			NPN	86.48	46	P	45	40.50	0.2
			pP	46	42.00	520kmX		FRI	82.99	45	ePc	45	23.20	0.2		SRG	86.52	46	P	45	40.60	0.1
			S	53	52.00						epP	47	19.80	534kmX		DLM	86.59	46	P	45	41.20	0.4
			ScS	54	14.00						eSKPP'	14	22.90			LOE	86.61	291	eP	45	41.40	0.4
MAW	77.79	200	eP	44	56.90	1.1		ISA	83.01	46	iP+	45	23.50	0.2		GYA	86.67	301	iPd	45	41.50	0.2
	0.9s	63.00nm			5.0mb						e	47	24.00				3.0s	1.20nm			3.1mb X	
			e	44	59.10			CMB	83.19	43	ePc	45	24.11	0.1					pP	47	37.00	522kmX
SSE	78.41	312	Pc	44	59.00	-0.6					epP	47	20.80	534kmX					sP	48	32.00	
	5.0s	0.80nm			2.4mb X						ePP	48	44.00						PP	49	10.00	
Z	24s	1.00um			5.1MszX						eS	55	05.22			BMW	86.80	35	P	45	42.10	0.7
E	14s	0.40um						SNG	83.20	281	ePd-	45	25.60	1.1		EUR	86.83	44	iP	45	41.50	-0.5
			sP	45	11.50				1.3s	430.77nm			5.8mb				0.5s	18.62nm			5.1mb	
			i	46	58.00						e	54	57.50			SVW	86.92	12	eP	45	41.00	-0.7
			PP	47	34.00			ORV	83.43	42	iPc	45	25.40	0.2		BJI	86.95	316	Pd-	45	43.00	0.8
			i	47	52.00						ePP	48	46.00				4.0s	0.82nm			2.8mb X	
			S	54	10.00						eSKPP'	14	21.70						pP	47	38.00	519kmX
			sS	54	22.90			WDC	83.44	40	iPc	45	25.70	0.5					eSKS	55	18.00	
KGM	78.60	277	ePc	45	01.10	0.1					epP	47	22.20	533kmX					eS	55	40.00	
	1.3s	1004.70nm			6.1mb						ePP	48	46.40			SHW	87.15	36	P	45	44.20	1.0
AIA	78.65	157	eP	45	01.70	1.4					eSKS	54	58.20			NST	87.24	288	eP	45	46.00	2.0
GZH	79.73	301	iPc	45	06.80	0.1					eSKPP'	14	21.70			VGB	87.52	37	P	45	44.90	0.0
	5.0s	0.90nm			2.5mb X			LTCM	83.46	41	P	45	25.70	0.4		GMW	87.72	35	P	45	46.10	0.4
			pP	47	00.00	521kmX		SNY	83.56	321	iPd	45	26.00	0.3		LON	87.73	36	ePc	45	45.12	-0.7
			iS	54	26.80						S	54	54.00			PGC	88.08	34	eP	45	47.00	-0.3
QIZ	80.52	296	Pd	45	11.00	0.1		CLC	83.68	46	iP+	45	27.00	0.4			1.3s	218.00nm			5.8mb	
			eS	54	33.00						e	47	28.00			TIY	88.11	313	iPd	45	49.00	1.2
NJ2	80.58	311	Pd	45	11.40	0.5		TPC	83.76	49	iP+	45	27.50	0.5			1.0s	0.20nm			2.9mb X	
	4.0s	1.20nm			2.7mb X						e	47	28.00						pP	47	44.00	517kmX
			pP	47	04.00	516kmX		CN2	83.80	324	iPd	45	27.00	0.1		HTW	88.41	35	P	45	49.00	0.1
			sP	48	05.00				3.0s	1.50nm			3.1mb X			MCW	88.41	34	P	45	49.80	0.9
			S	54	34.00						pP	47	20.00	513kmX		TTA	88.55	11	eP	45	49.00	-0.3
BLP	81.09	46	P	45	14.40	0.9					iPP	48	48.00			XAN	88.66	308	Pd	45	50.90	0.5
SYP	81.35	46	eP	45	15.00	0.0					iSKS	54	54.00						pP	47	48.00	528kmX
PRS	81.53	44	iPc	45	16.40	0.7					iS	55	09.00			PMR	88.69	14	ePc	45	48.90	-1.0
			epP	47	16.00	554kmX					sS	58	30.00				0.9s	52.10nm			5.4mb	
			ePP	48	30.50			MIN	83.85	41	ePc	45	27.20	-0.2		MSU	88.78	47	P	45	52.00	0.9
GCC	81.56	43	iPc	45	16.40	0.6					epP	47	24.40	536kmX					pP	47	51.70	541kmX
			epP	47	16.00	554kmX					e(SKS)	55	15.70			SIT	88.92	23	eP	45	51.60	0.7
			ePP	48	30.50						eSKPP'	14	19.70			KMI	89.19	298	iPd	45	54.69	1.4
PCC	81.61	43	ePc	45	16.40	0.3		GSC	83.92	47	eP	45	28.00	0.2			2.0s	1.30nm			3.5mb X	
			epP	47	16.00	554kmX		GLA	84.02	50	iP+	45	29.50	1.2					epPd	47	50.01	517kmX
BCH	81.67	46	P	45	17.40	0.8					e	47	24.00						esP	48	47.00	
IPM	81.74	279	ePd	45	17.00	-0.3		TIA	84.15	314	Pd	45	29.50	0.7					ePP	49	40.37	
	0.7s	249.30nm			5.9mb			OSM	84.25	47	P	45	29.20	-0.1					eSKS	55	32.61	
			e	45	50.80			LBFM	84.30	40	P	45	30.40	0.7					eS	55	59.93	
SAO	81.75	44	ePc	45	17.00	0.2		PANV	84.35	46	P	45	29.70	-0.3		DUG	89.25	45	P	45	53.10	0.0
PHAM	81.85	45	P	45	18.00	0.6		MCA	84.37	46	P	45	29.80	-0.1			1.3s	52.85nm			5.3mb	
PRI	81.87	45	ePc	45	18.30	0.7		TMO	84.38	46	P	45	30.20	0.0		CHG	89.61	291	iPd-	45	56.30	1.3
			epP	47	18.00	554kmX		PPK	84.41	45	P	45	30.10	-0.2			1.4s	441.86nm			6.2mb	
			eSKPP'	14	24.30			LCH	84.47	45	P	45	30.10	-0.4					e	46	52.80	
NWRM	81.90	42	P	45	17.80	0.3		KDC	84.48	14	eP	45	30.40	0.5					e	55	36.00	
BRK	81.92	43	ePc	45	18.20	0.6		GWY	84.51	47	P	45	30.50	-0.3		CHTO	89.61	291	iPd	45	55.29	0.3
			epP	47	17.90	554kmX		SVP	84.65	45	P	45	31.10	-0.5					epPd	47	51.17	520kmX
			ePP	48	34.20			MGM	84.68	45	P	45	31.30	-0.4					ePP	49	36.28	
BKS	81.94	43	iPc	45	18.50	0.8		FMT	84.70	46	P	45	31.70	0.1		HIA	90.32	325	iPd	45	57.73	0.1
	1.2s	450.00nm			5.9mb			SGV	84.72	46	P	45	31.90	0.1					epP	47	51.67	509kmX
			iS	54	51.00			GMN	84.76	45	P	45	31.90	-0.2					ePP	49	39.41	
			iSS	00	28.00			AMR	84.76	47	P	45	31.90	0.0					iSKS	55	36.43	
			eLQ	07	04.00			NOP	84.82	47	P	45	32.30	0.1		HHC	90.34	315	iPd	45	58.20	0.2
LLA	81.98	44	ePc	45	18.40	0.4		MNA	84.84	44	ePc	45	32.80	0.5		DPW	90.36	36	P	45	57.80	-0.1
			epP	47	18.50	556kmX		MZP	84.91	45	P	45	32.50	-0.3		DAU	90.38	45	P	45	58.80	0.3
			ePP	48	34.60			YMT2	84.97	46	P	45	33.20	0.3		PNT	90.47	35	iPc	45	59.10	0.8
MHC	81.98	43	iPc	45	18.80	0.7		YMT1	84.98	46	P	45	33.10	0.1		ALQ	90.96	52	iPc	46	01.10	-0.1

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			epP	48	00.50	538kmX	
ANMO	90.96	52	iPc	46	00.74	-0.4	
PTI	90.96	43	P	46	01.60	0.7	
CD2	91.00	303	iPd	46	02.40	1.2	
			pP	47	59.00	523kmX	
			SKS	55	41.00		
			S	56	15.00		
LNV	91.14	128	eP	46	02.10	0.2	
BTO	91.21	314	iPd	46	03.00	0.9	
IMA	91.84	10	eP	46	04.60	0.1	
	1.1s	12.50nm				4.8mb	
FBA	91.90	13	ePc	46	02.70	-1.9	
PCH	91.96	128	eP	46	06.00	0.2	
PEL	92.07	128	iPc	46	05.30	-1.0	
	1.1s	94.94nm				5.7mb	
LRM	92.48	40	eP	46	07.70	-0.3	
BW06	92.69	44	P	46	08.30	-0.7	
	1.4s	86.29nm				5.6mb	
			pP	48	10.80	555kmX	
RFA	92.83	130	ePc	46	10.00	0.2	
LZH	93.29	308	P	46	13.00	1.2	
	1.5s	132.00nm				5.8mb	
			i	48	10.00		
			SKS	55	54.00		
			S	56	40.00		
GOL	93.96	48	P	46	14.80	-0.1	
GLD	94.08	48	P	46	15.80	0.4	
	1.3s	140.80nm				5.9mb	
SES	95.67	37	ePc	46	21.30	-0.8	
EDM	95.93	34	eP	46	22.00	-1.2	
GTA	97.61	310	Pd	46	31.60	0.3	
INK	97.98	16	eP	46	31.00	-1.1	
SHL	98.31	294	iP	46	34.50	-0.3	
			eS	56	20.00		
YKA	100.32	25	Pdiff	46	44.50	1.7	
LPB	102.40	114	Pdiff	46	57.00	3.4X	
			PP	51	11.00		
ZOBO	102.51	114	Pdiff	46	57.00	2.7	
			SKS	56	48.00		
			LR	16	12.00		
GUN	104.15	294	Pdiff	47	01.50	0.4	
PKI	104.43	294	Pdiff	47	02.60	0.3	
KKN	104.61	294	Pdiff	47	03.40	0.4	
DMN	104.70	294	Pdiff	47	03.80	0.4	
	1.0s	45.00nm				6.3mb	
GKN	105.22	294	Pdiff	47	05.70	0.1	
MBC	106.43	13	ePdiff	47	09.00	-0.6	
HYB	106.99	282	ePKP	51	32.00	11.8X	
WMQ	107.65	311	Pdiff	47	16.00	0.1	
			SKS	57	02.00		
AVY	116.93	232	ePKP	51	38.00	-1.4	
FRB	120.61	29	ePKP	51	43.00	-1.7	
SEK	121.69	209	iPKPc	51	58.00	9.9X	
	0.5s	7.04nm					
SLR	123.60	211	ePKP	51	50.00	-1.9	
KSR	124.13	210	ePKP	51	50.70	-2.3	
NPA	125.48	229	iPKP	51	57.00	1.4	
			e	53	54.80		
			e	54	22.70		
MAIO	127.71	298	ePKP	51	59.00	-0.5	
SOB1	128.32	125	ePKP	51	48.90	-12.2X	
			i	51	59.70		
			e	52	03.00		
			e	54	08.70		
			e	54	28.60		
KRI	130.27	218	iPKPc	52	06.40	1.5	
			ipP	52	17.30		
ITR	130.46	126	ePKPc	52	03.80	-1.4	
			e	54	16.50		
			e	54	33.30		
			i	54	38.70		
KEV	131.34	348	ePKP	52	04.00	-1.2	
			iSKP	54	40.00		
SOD	133.40	346	ePKP	52	03.00	-6.1X	
			iSKP	54	47.00		
SUF	137.32	343	iPKP	52	03.80	-12.9X	
	0.4s	5.40nm					
SLY	139.06	297	ePKPc	52	20.00	-0.7	
			i	55	04.50		
NUR	139.53	341	ePKP	52	11.00	-9.7X	
	Z 24s	0.20um				4.8MszX	
			iSKP	55	04.80		
BHD	140.10	294	ePKPd	52	17.00	-5.6X	
			ePP	55	10.00		
			e	55	22.50		
			eSKKS	01	27.00		
			eSKKKS	01	56.00		
MSL	140.89	299	ePKPd	52	17.00	-7.0X	
			iPP	55	11.50		
			e	55	24.50		
			eSKKS	01	27.00		
LWI	141.80	231	iPKPc	52	23.30	-3.2X	
UPP	141.92	346	iPKP	52	18.80	-6.2X	
			i	54	30.00		
			i	55	10.50		
NB2	142.01	351	PKP	52	20.00	-5.2X	
	0.5s	10.60nm					
NRA0	142.25	351	PKP	52	20.10	-5.5X	
HFS	142.47	349	ePKP	52	21.00	-5.0X	
	0.4s	95.00nm					
BER	143.28	356	iPKP	52	24.70	-2.6	
KVT	145.32	308	ePKP	52	32.20	0.7	
KAS	146.84	310	iPKPd	52	36.80	2.9	
HRI	147.31	295	ePKP	52	35.00	0.0	
MASJ	147.50	292	PKP	52	38.90	3.6X	
KFNJ	147.52	292	PKP	52	38.70	3.5X	
MKRJ	147.58	292	PKP	52	38.70	3.3X	
MKRJ	147.58	292	PKP	52	39.20	3.8X	
DSI	147.80	292	iPKPd	52	39.50	3.8X	
ANTO	148.06	308	ePKP	52	39.95	4.0X	
			epPKPd	54	42.45		
BBTK	148.10	308	ePKP	52	35.00	-1.1	
MBH	148.34	288	iPKPd	52	41.00	4.4X	
CLI	148.45	323	iPKPc	52	40.50	4.2X	
EKA	148.46	3	PKP	52	35.00	-0.9	
	0.4s	15.20nm					
PPE	148.46	322	ePKP	52	40.50	4.2X	
PTT	148.71	324	ePKP	52	40.00	3.4X	
CFR	148.73	320	ePKPd	52	40.60	3.9X	
LFK	148.78	299	iPKP	52	41.60	4.4X	
TLB	149.13	319	ePKPc	52	41.60	4.3X	
VRI	149.17	322	ePKPc	52	41.00	3.6X	
BRD	149.19	321	ePKPc	52	43.00	5.6X	
KRA	149.53	334	iPKPd	52	42.80	5.1X	
	0.4s	85.00nm					
			e	52	49.80		
			e	54	48.10		
DMU	149.54	8	iPKPc	52	42.10	4.5X	
	0.4s	45.00nm					
GPA	149.68	310	iPKP	52	42.90	4.6X	
ISR	149.70	321	iPKPc	52	43.80	5.6X	
BMR	149.71	328	ePKPc	52	30.00	-8.1X	
MLR	149.83	322	ePKPc	52	37.00	-1.5	
HRT	149.90	311	ePKP	52	43.00	4.3X	
DCN	150.03	9	iPKPc	52	43.00	4.6X	
	0.5s	79.00nm					
GBZT	150.07	311	iPKPd	52	44.00	5.2X	
SPC	150.08	333	ePKP	52	38.50	-0.4	
			i	52	44.80		
			e	54	49.40		
DLE	150.18	8	iPKPc	52	43.30	4.7X	
KSP	150.21	339	iPKPc	52	44.30	5.6X	
	0.5s	141.00nm					
			i	52	53.20		
			e	54	49.00		
ALT	150.29	308	iPKP	52	44.80	5.4X	
BUC	150.38	320	ePKPd	52	44.00	4.8X	
BUC1	150.46	320	iPKPc	52	54.00	14.7X	
WIT	150.61	352	ePKP	52	46.00	6.8X	
CLL	150.77	343	ePKP	52	39.00	-0.6	
ETA	150.80	8	ePKP	52	45.00	5.4X	
			e	52	54.00		
YRH	150.84	6	ePKP	52	44.30	4.7X	
	0.6s	37.00nm					
			e	52	54.00		
BRG	150.91	342	iPKP	52	41.30	1.5	
			i	52	45.50		
			i	52	56.00		
			epPKP	54	51.00		
KHL	150.99	307	iPKP	52	45.50	5.1X	
JMB	151.16	317	iPKPd	52	47.00	6.6X	
PSZ	151.20	332	ePKP	52	46.10	5.7X	
ELL	151.23	304	iPKP	52	47.20	6.3X	
ECP	151.29	8	ePKP	52	45.70	5.4X	
			e	52	55.00		
BNT	151.30	312	iPKP	52	47.40	6.7X	
WTS	151.39	351	ePKP	52	47.00	6.6X	
	0.7s	41.00nm					
			e	52	57.00		
PRU	151.51	340	iPKPd	52	47.40	6.7X	
			e	52	52.70		
PVL	151.52	319	ePKP	52	48.00	7.1X	
MOX	151.74	344	ePKP	52	40.00	-1.0	
	1.3s	22.00nm					
			i	52	47.50		
			i	52	59.00		
			e	54	38.00		
			epPKP	54	53.00		
			e	03	45.00		
			eSKSP	05	50.00		
			e	15	55.00		
SRO	151.96	333	ePKP	52	48.90	7.5X	
			e	53	01.20		
DIM	152.04	317	iPKP	52	49.00	7.3X	
ZST	152.13	335	iPKP	52	48.60	7.0X	
			i	53	01.50		
			e	53	17.10		
			e	54	55.00		
KDZ	152.32	316	iPKP	52	49.00	6.8X	
YER	152.33	305	iPKP	52	49.60	7.2X	
KHC	152.56	340	PKP	52	42.20	-0.1	
			i	52	49.60		
			i	53	03.40		
IZM	152.60	308	ePKP	52	49.00	6.3X	
EZN	152.63	312	ePKP	52	45.00	2.4	
ENN	152.72	352	ePKP	52	50.50	8.1X	
	0.7s	37.00nm					
			i	53	03.00		
RZN	152.75	317	iPKP	52	50.00	7.0X	
MEM	152.86	352	PKP	52	49.70	7.2X	
			e	53	04.20		
VTS	153.15	320	iPKP	52	51.00	7.5X	
MMB	153.42	317	iPKPd	52	52.00	8.3X	
DOU	153.53	353	PKP	52	52.30	8.8X	
			e	53	06.80		
BNG	153.66	226	iPKPd	52	44.20	-0.6	
	0.5s	105.00nm					
			i	53	08.50		
			i	54	07.70		
			i	55	04.20		
KBA	154.44	338	iPKP	52	54.00	8.9X	
	0.7s	14.20nm					
LJU	154.90	336	ePKP	52	51.20	5.7X	
			e	53	12.50		
VBY	155.06	334	ePKP	52	55.30	9.6X	
			e	53	13.40		
FLN	155.12	1	ePKP	52	44.80	-0.9	
	1.0s	20.00nm					
VOY	155.15	336	ePKP	52	54.40	8.4X	
			i	53	13.00		
CEY	155.20	335	ePKP	52	55.00	9.0X	
			i	53	13.80		
GRR	155.49	1	ePKP	52	45.50	-0.7	
	1.0s	12.00nm					
LPF	155.84	2	ePKP	52	46.00	-0.7	
	1.2s	20.20nm					
LOR	156.41	353	ePKP	52	46.90	-0.6	
	1.0s	6.00nm					
SSF	156.65	354	ePKP	52	46.20	-1.6	
	1.0s	16.00nm					
LBF	156.67	353	ePKP	52	46.30	-1.6	
	1.2s	10.10nm					
MFF	157.28	0	ePKP	52	47.70	-0.8	
	1.2s	17.80nm					
TCF	157.52	356	ePKP	52	48.30	-0.6	
	1.0s	8.80nm					
LSF	157.60	357	ePKP	52	48.20	-0.7	
	1.2s	14.80nm					
RJF	158.54	357	ePKP	52	49.70	-0.3	
	1.2s	20.20nm					
CAF	158.89	356	ePKP	52	50.40	-0.1	
	1.3s	14.40nm					
EPF	160.85	359	ePKP	52	52.40	-0.2	
	1.1s	12.20nm					
LIC	161.85	164	PKP	52	53.58	-0.7	
	1.3s	69.00nm					
KIC	162.05	165	PKP	52	53.98	-0.6	
	1.2s	48.50nm					
TIC	162.26	164	PKP	52	54.24	-0.5	
	1.3s	65.50nm					
IFR	169.38	24	iPKP	53	01.50	1.4	
			i	54	17.50		
TIO	170.47	41	iPKP	53	01.50	0.8	
	S.D. = 0.9 on 277 of 351 obs.						

? APR 18, 1989 12h 56m 45.89± 1.05s
37.235 N ±41.2km 52.718 E ±19.8km
DEPTH = 33.0km (normal)
CASPIAN SEA (338)

SHI	7.57	181	eP	58	43.00	6.1X	

EDR No. 4-89
Part 2 of 2
P. 151-299

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 Ms 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.

HRT	18.25	288	ePg	00 58.10	-0.1
GKN	28.31	100	PKP	02 43.50	4.8X
DMN	28.86	100	PKP	02 45.20	1.4
KKN	28.91	99	PKP	02 45.40	1.2
PKI	29.11	100	PKP	02 45.60	-0.6
GUN	29.33	99	PKP	02 45.90	-2.2
HYB	30.11	124	eP	02 55.00	0.2
GBA	32.25	130	Pd	02 57.30	-16.2X
	1.0s	11.70nm			
SOD	33.60	342	eP	03 35.00	10.2X
SLL	34.02	326	eP	03 28.70	0.2
	0.9s	16.30nm		5.0mb	

S.D. = 1.5 on 7 of 11 obs.

APR 18, 1989 14h 45m 11.11± 0.39s
39.266 N ± 3.9km 23.599 E ± 3.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO	0.29	278	ePg	45 17.80	0.5
PLG	1.11	354	ePb	45 32.80	0.8
ATH	1.30	176	ePb	45 35.00	-0.1
KZN	1.75	307	ePb	45 41.50	-0.3
PRK	2.08	90	ePg	45 50.00	3.6X
EZN	2.18	74	ePn	45 49.00	1.1
VAY	2.20	339	iPn	45 48.70	0.5
MMB	2.32	2	eP	45 49.00	-1.0
RDO	2.39	38	ePn	45 50.00	-0.9
ITM	2.46	213	ePn	45 52.00	0.0
LSK	2.48	292	ePn	45 52.80	0.6
KBN	2.53	303	ePn	45 52.00	-0.9
RZN	2.56	19	iPd	45 54.00	0.4
			iSg	46 24.00	
VLS	2.59	246	ePb	45 57.50	3.7X
KDZ	2.76	30	iPd	45 55.00	-1.1
OHR	2.83	312	iPn	45 57.20	0.0
TPE	2.95	292	ePn	46 06.00	7.2X
IZM	2.99	106	ePn	46 02.00	2.5
BERA	3.15	298	ePn	46 03.30	1.7
SKO	3.16	329	iPn	46 01.50	-0.4
PGB	3.31	7	eP	46 04.00	0.0
VTS	3.34	355	iP	46 06.00	1.5
VLO	3.38	292	ePn	46 13.50	8.6X
PHP	3.41	316	ePn	46 05.10	-0.3
EDC	3.46	70	ePn	46 07.00	0.9
BNT	3.50	71	iPn	46 06.30	-0.4
TIR	3.53	307	ePn	46 12.00	4.9X
VAM	3.88	173	ePn	46 10.00	-2.1
DST	3.91	83	eP	46 17.00	4.5X
PUK	3.95	316	ePn	46 14.90	1.8
DMK	4.07	50	ePn	46 14.00	-0.7
BCI	4.09	320	ePn	46 14.90	-0.1
PVL	4.16	18	eP	46 15.00	-0.9
NPS	4.31	157	ePn	46 19.50	1.3
KAP	4.67	141	ePn	45 22.70	-60.7X
MGR	6.26	281	P	46 45.60	-0.2
			eSn	47 54.40	
MLR	6.46	15	ePc	46 48.20	-0.5
BZS	6.51	348	eP	46 47.50	-1.8
VRI	6.99	18	ePc	46 55.80	-0.2
BNG	34.97	189	ePc	52 03.60	-1.9
	0.4s	4.00nm		4.6mb X	

S.D. = 1.1 on 33 of 40 obs.

% APR 18, 1989 15h 33m 21.03± 1.61s
42.331 N ±10.6km 19.852 E ±11.0km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.5 (TTG).

PVY	0.28	19	ePg	33 26.90	0.0
			eSg	33 32.00	
TTG	0.45	283	ePg	33 29.70	-0.5
			eSg	33 37.20	
ULC	0.58	231	ePg	33 32.70	-0.1
			eSg	33 44.00	
BDV	0.76	267	ePg	33 36.00	0.1
			eSg	33 50.00	
HCY	1.01	277	ePg	33 40.50	0.4
			eSg	33 58.00	
BRY	1.12	301	ePg	33 42.30	0.2
			eSg	34 03.00	

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

& APR 18, 1989 17h 02m 20.87s
10.599 N 85.032 W
DEPTH = 165.4km
COSTA RICA (78)
<HDC>. MD 4.1 (HDC).

JTS	0.32	166	iPc	02 43.50	-1.2
			S	03 01.40	
RIN3	0.39	299	ePc	02 43.90	-1.1
			S	03 02.10	
JUD	0.67	229	iPc	02 45.40	0.2
			S	03 04.50	
EPA	0.74	145	iPc	02 45.60	0.0
			S	03 04.80	
POA2	0.88	119	eP	02 46.50	-0.3
CAO	0.90	184	ePc	02 46.30	-0.3
			S	03 07.30	
HDC2	1.06	123	eP	02 48.30	0.3
IRZ2	1.28	119	eP	02 50.90	0.6
			S	03 13.70	
QPS	1.48	143	ePc	02 52.40	0.6
			S	03 15.90	
CDM	1.62	130	ePd	02 53.60	-0.1
			S	03 19.70	
TIG	2.31	132	iPd	03 01.60	0.6
			S	03 02.90	
CTCR	2.81	127	ePd	03 07.50	0.3

12 obs. associated

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* APR 18, 1989 17h 13m 47.16± 1.21s
52.119 N ±15.0km 175.560 E ± 7.6km
DEPTH = 68.8 ± 10.6 km
4.0mb (2 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)

SMY	1.08	305	iPd	14 06.80	-0.1
ADK	4.80	90	eP	14 58.00	-0.5
SVW	18.09	49	eP	17 56.20	1.2
TTA	18.53	43	eP	18 00.70	0.3
KDC	19.08	60	ePd	18 04.30	-2.3X
IMA	20.78	36	eP	18 24.20	-0.2
PMS	20.98	51	eP	18 26.00	-0.4
NB2	66.50	352	P	24 29.70	-1.4
	0.8s	1.10nm		3.9mb	
GUN	68.31	288	P	24 43.60	0.3
KKN	68.75	288	P	24 46.20	0.4
WRA	80.25	219	Pd	25 51.80	0.2
	0.4s	1.10nm		4.1mb	

S.D. = 0.8 on 10 of 11 obs.

APR 18, 1989 17h 14m 12.17± 0.79s
39.293 N ± 6.1km 23.545 E ± 8.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.25	273	ePb	14 17.30	-0.2
			eSb	14 20.50	
PLG	1.08	356	ePn	14 32.80	0.3
			eSn	14 48.00	
ATH	1.33	174	ePn	14 36.70	0.1
KZN	1.70	307	ePb	14 42.00	-0.1
MMB	2.30	3	iPc	14 50.00	-0.7
RZN	2.55	20	eP	14 54.00	-0.5
OHR	2.78	312	ePn	15 05.70	8.1X
VTS	3.31	356	eP	15 06.00	0.9

S.D. = 0.6 on 7 of 8 obs.

& APR 18, 1989 18h 15m 35.70s
33.690 N 120.080 W
DEPTH = 6.0km (geophysicist)
OFF COAST OF CALIFORNIA (38)
<PAS-P>. ML 3.0 (PAS).

SYP	0.84	6	iPc	15 51.30	-1.1
BLP	0.91	343	iPc	15 52.30	-1.1
ABL	1.36	31	eP	15 59.80	-1.5
CIS	1.43	101	iPc	16 01.20	-1.0
SCI	1.47	118	eP	16 02.20	-0.5
BCH	1.49	360	eP	16 01.70	-1.4
PHAM	2.16	353	eP	16 11.50	-1.2
PEC	2.44	84	eP	16 16.70	-0.1
KVN	5.58	16	e(P)	17 01.00	-0.5

9 obs. associated

? APR 18, 1989 18h 29m 01.89± 7.67s
18.327 N ±59.3km 62.034 W ±14.0km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 2.9 (FDF).

ANG	1.18	170	eP	29 23.94	0.0
			eS	29 27.01	
SKI	1.19	214	eP	29 24.04	-0.1
			eS	29 27.72	
MGH	1.61	186	eP	29 30.90	0.5
			S	29 40.70	
SEG	1.98	165	eP	29 35.63	-0.1
DEG	2.21	155	eP	29 39.29	0.1
PAG	2.31	172	eP	29 40.30	-0.3
			S	29 58.20	

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

APR 18, 1989 19h 00m 22.70± 0.50s
63.493 N ± 5.2km 148.660 W ± 6.0km
DEPTH = 33.0km (normal)
CENTRAL ALASKA (1)
ML 3.8 (PMR). Felt (IV) at Cantwell.

FBA	1.46	15	eP	00 47.10	0.1
TOA	1.80	140	eP	00 52.50	0.5
PMR	1.92	187	iPd	00 53.00	-0.6
PMS	2.30	191	eP	00 59.80	0.8
IMA	3.36	323	iPc	01 14.30	0.0
TTA	3.38	264	ePd	01 14.30	-0.1
SVW	4.04	237	eP	01 23.20	-0.6
DWY	4.14	78	P	01 24.60	-0.5
HYT	5.87	112	P	01 51.00	1.2
KDC	6.06	200	eP	01 51.90	-0.4
INK	7.84	45	eP	02 15.50	-1.7
BRW	8.43	342	eP	02 26.80	1.4

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

? APR 18, 1989 19h 10m 14.39± 5.41s
29.518 S ±16.9km 178.807 W ±25.0km
DEPTH = 226.9 ± 44.8 km
4.7mb (6 obs.)
KERMADEC ISLANDS (178)

DZM	15.20	296	iPc	13 38.90	-0.4
BRS	25.05	268	iPc	15 21.10	1.4
CAN	27.71	250	eP	15 44.80	1.1
BWA	28.16	251	eP	15 47.90	0.2
RMQ	28.75	268	iPc	15 54.60	1.6
	0.7s	36.00nm		5.2mb	
CTA	32.97	278	iPc	16 30.20	0.3
	0.9s	64.71nm		5.3mb	
ASPA	42.46	266	iPc	17 48.10	-0.8
	1.1s	15.00nm		4.4mb	
WB5	43.37	272	eP	17 55.20	-1.0
WRA	43.37	272	Pc	17 55.30	-0.9
	0.6s	7.20nm		4.3mb	
FORR	45.55	254	eP	18 11.50	-1.8
SBA	48.86	184	P	18 39.60	1.2
SPA	60.65	180	e(P)	20 01.80	-1.7
	1.0s	10.50nm		4.5mb	
MAT	77.12	326	iPc	21 42.80	-1.3
	1.2s	39.06nm		5.0mb	
SSE	83.00	312	eP	22 15.00	-0.3
BJI	91.80	316	eP	22 58.00	0.7
BUL	124.00	211	ePKP	28 46.50	-1.2
SOD	139.16	345	ePKP	29 06.00	-8.9X
SUF	143.05	341	iPKP	29 17.20	-4.6X
	0.5s	9.30nm			
MSL	144.35	292	ePKPc	29 23.50	-1.4
NUR	145.25	340	iPKP	29 24.40	-1.2
UPP	147.68	345	iPKP	29 30.50	0.9
KVT	149.50	302	ePKP	29 37.80	4.7X
BNG	150.13	217	iPKPd	29 39.10	4.2X
	0.6s	17.00nm			
			i	29 45.50	
HRI	150.35	286	ePKP	29 41.00	6.2X
DSI	150.55	283	ePKP	29 40.00	5.1X
MBH	150.78	279	iPKPc	29 41.50	6.2X
KAS	151.11	303	ePKP	29 42.20	6.6X
BBTK	152.20	300	iPKPc	29 44.50	7.2X
MLR	154.85	316	ePKPc	29 43.50	2.8
KRA	155.06	331	ePKP	29 41.30	0.6
			e	29 51.80	
CLL	156.51	341	iPKP	29 43.70	1.1
	1.0s	26.00nm			
			e	29 53.00	
			i	30 11.40	

S.D. = 1.4 on 22 of 31 obs.

18d 19h

APR 18, 1989 19h 28m 25.85± 0.67s
58.294 N ± 6.1km 6.769 E ±11.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.0 (BER).

BLS1	1.10	2	eP	29	18.84	32.3X
			eS	29	47.81	
			eSg	29	56.01	
KMY	1.22	320	eP	29	09.76	21.3X
			eS	29	31.77	
ASK	2.34	341	eP	29	05.44	0.5
			eS	29	20.29	
			eSg	29	23.54	
HYA	2.90	354	eP	29	11.94	-0.9
			eS	29	35.50	
			iSg	29	43.10	
NB2	3.56	37	PKP	29	28.80	6.5X
	0.9s		30.70nm			
SLL	4.00	54	eP	29	28.80	0.3
	0.8s		57.30nm			
EKA	6.21	246	P	30	00.00	0.3
	0.7s		4.50nm		4.4mb	
WTS	6.31	180	eP	30	14.50	13.3X
	0.8s		7.00nm			
ENN	7.56	184	eP	30	19.50	0.8
	1.0s		29.00nm		5.4mb	
MEM	7.71	184	P	30	20.70	-0.1
SNF	7.93	192	P	30	22.80	-1.1

S.D. = 0.9 on 7 of 11 obs.

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* APR 18, 1989 19h 28m 46.87± 0.87s
43.454 N ±13.4km 12.640 E ± 6.9km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

ZST	5.67	32	e(P)	30	17.80	4.6X
SRO	5.90	40	eP	30	17.00	0.6
GRF	6.32	352	iPKPc	30	21.70	-0.6
HAU	6.33	318	eP	30	31.30	8.8X
	0.8s		5.30nm		4.5mb	
OHR	6.49	108	eP	30	25.50	0.7
SKO	6.65	100	iPc	30	26.00	-1.0
	1.1s		33.00nm		5.2mb	
PRU	6.67	11	P	30	15.20	-12.0X
SMF	7.00	300	eP	30	38.60	6.7X
	1.0s		14.00nm		5.1mb	
LBF	7.06	303	eP	30	36.90	4.1X
	0.8s		2.60nm		4.4mb	
MOX	7.23	355	ePKP	30	16.50	-18.6X
	1.3s		22.00nm			
LOR	7.27	305	eP	30	35.70	0.1
	0.6s		1.80nm		4.4mb	
AVF	7.37	300	eP	30	38.00	1.0
	0.9s		4.90nm		4.7mb	
SSF	7.39	302	eP	30	36.90	-0.4
	1.0s		8.80nm		4.9mb	
BRG	7.48	6	iPc	30	12.50	-26.0X
	1.2s		32.00nm			
			e	30	20.00	
MAF	7.68	295	eP	30	41.00	-0.4
	0.8s		4.00nm		4.7mb	

S.D. = 0.8 on 8 of 15 obs.

? APR 18, 1989 19h 43m 45.38± 3.45s
9.549 S ±36.9km 129.796 E ±21.6km
DEPTH = 283.5 ± 18.8 km
4.5mb (3 obs.)
TIMOR SEA (290)

MTN	3.53	158	eP	44	41.30	-4.7X
			eS	45	44.00	
KUG	6.15	264	eP	45	16.50	-0.2
			eS	46	30.50	
KNA	6.24	189	eP	45	17.90	0.0
	0.3s		35.00nm		4.9mb	
			eS	46	51.00	
WB5	11.18	157	eP	46	19.00	-0.3
			eS	48	42.50	
WRA	11.23	157	Pd	46	20.40	0.5
	0.6s		5.20nm		3.9mb	
ASPA	14.58	165	eP	47	05.70	4.9X
	0.6s		19.00nm		4.6mb	
			eS	50	01.90	
MBL	15.01	219	eP	47	06.00	0.1
WARB	16.81	190	eP	47	25.00	-0.7
NANU	18.83	225	eP	47	47.00	0.5

S.D. = 0.6 on 7 of 9 obs.

& APR 18, 1989 21h 28m 15.30s
57.778 N 143.129 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

MID	2.36	316	eP	28	49.73	-4.9
PCA	2.76	31	iP	28	55.06	-5.4
			eS	29	26.15	
MTU	3.23	315	eP	29	01.54	-5.5
			eS	29	37.45	
BALM	3.29	7	iP	29	02.50	-5.6
			eS	29	39.99	
CTGM	3.33	15	eP	29	02.81	-5.7
			eS	29	38.38	
KNIM	3.51	319	iP	29	04.95	-6.0
			eS	29	42.00	
GLB	3.69	355	iP	29	07.86	-5.8
GLI	3.72	329	eP	29	06.38	-7.6
KLU	3.99	340	iP	29	11.90	-5.9
SEW	4.02	308	eP	29	12.55	-5.6
HYT	4.20	41	P	29	16.40	-4.5
SIT	4.28	96	eP	29	13.83	-8.1

12 obs. associated

& APR 18, 1989 21h 46m 30.22s
58.092 N 151.656 W
DEPTH = 53.0km (geophysicist)
KODIAK ISLAND REGION (13)
<AGS-P>.

KDC	0.56	233	iP	46	41.79	-0.7
			iS	46	50.17	
CDD	1.34	310	eP	46	51.83	-1.1
			eS	47	08.86	
CNPM	1.45	8	eP	46	53.25	-1.3
			eS	47	13.80	
AUI	1.55	324	eP	46	54.71	-1.1
			eS	47	13.85	
OPT	1.77	333	eP	46	58.22	-0.7
			eS	47	20.12	
NNL	1.97	5	eP	47	00.70	-1.0
ILIM	2.10	342	iP	47	02.27	-1.4
			eS	47	30.25	
PDB	2.15	323	eP	47	02.43	-1.8
			eS	47	28.73	
SEW	2.32	28	eP	47	04.69	-1.9
RED	2.40	347	eP	47	06.06	-1.9
RDT	2.52	352	eP	47	07.28	-2.3
			eS	47	35.75	
SLKM	2.53	16	eP	47	07.83	-1.9
KNIM	3.03	40	eP	47	14.49	-2.3
			eS	47	45.27	
SPU	3.11	356	eP	47	15.29	-2.7
CRP	3.20	356	eP	47	16.98	-2.3
CGLM	3.23	357	eP	47	17.56	-2.2
SVW	3.64	328	eP	47	22.71	-2.7
GLI	3.64	38	eP	47	22.58	-2.8
			eS	48	00.63	
FID	3.76	43	eP	47	23.94	-3.1
SKT	3.90	1	eP	47	26.51	-2.6
GHO	3.94	19	eP	47	27.17	-2.5
VZW	3.95	39	eP	47	26.82	-3.0
VLZ	4.07	39	eP	47	29.39	-2.1
KLU	4.47	38	eP	47	34.85	-2.3
GLB	5.20	46	eP	47	44.67	-2.7
BALM	5.58	54	eP	47	50.34	-2.4

26 obs. associated

& APR 18, 1989 21h 54m 57.48s
58.095 N 151.657 W
DEPTH = 53.0km (geophysicist)
KODIAK ISLAND REGION (13)
<AGS-P>.

KDC	0.57	232	iP	55	09.10	-0.6
			iS	55	17.37	
XLV	1.36	359	eP	55	19.69	-0.8
CNPM	1.45	8	iP	55	20.75	-1.0
			eS	55	41.00	
OPT	1.76	333	eP	55	25.44	-0.7
			eS	55	49.85	
NNL	1.96	5	eP	55	27.79	-1.1
ILIM	2.10	342	iP	55	29.59	-1.3
			iS	55	55.86	
PDB	2.15	323	eP	55	29.54	-2.0
			eS	55	55.23	
SEW	2.31	29	eP	55	31.58	-2.2
RED	2.40	347	eP	55	33.27	-1.9
RDT	2.52	352	eP	55	34.68	-2.1
			eS	56	03.25	
SLKM	2.53	16	eP	55	34.84	-2.1
KNIM	3.03	40	eP	55	41.51	-2.6
			eS	56	14.66	
SPU	3.10	356	eP	55	42.47	-2.7
CGLM	3.23	357	eP	55	44.69	-2.3
SVW	3.63	328	eP	55	49.80	-2.8
GLI	3.64	38	eP	55	49.76	-2.8
FID	3.75	43	eP	55	50.98	-3.3
SKT	3.90	1	eP	55	53.47	-2.9
GHO	3.94	19	eP	55	54.31	-2.6
VZW	3.95	39	eP	55	54.70	-2.3
KLU	4.47	38	eP	56	01.94	-2.5

21 obs. associated

% APR 18, 1989 22h 02m 11.98± 0.85s
39.310 N ± 8.7km 28.977 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.40	318	iPg	02	19.90	-0.3
			eSg	02	26.00	
ALT	0.92	106	ePn	02	30.90	1.3
KHL	1.07	156	iPn	02	31.50	-0.7
BNT	1.32	322	iPn	02	36.60	0.2
EDC	1.34	321	ePn	02	37.50	0.8
GPA	1.42	46	ePn	02	37.00	-0.8
HRT	1.60	19	ePn	02	40.00	-0.4

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

% APR 18, 1989 22h 12m 38.30± 2.01s
18.183 N ±23.0km 66.080 W ±12.4km
DEPTH = 30.8 ± 12.3 km
PUERTO RICO REGION (90)

SJG	0.10	223	iP	12	43.70	-0.1
			S	12	47.00	
CSB	0.13	325	P	12	44.10	0.1
LPR	0.24	58	P	12	45.10	0.0
APR	0.68	294	P	12	51.50	0.0
			S	13	01.50	
MGP	0.98	260	P	12	56.00	0.2
MCP	1.01	284	P	12	56.20	-0.1

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

APR 18, 1989 22h 33m 26.81± 0.53s
51.552 N ± 4.8km 16.042 E ± 5.2km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 4.0 (VKA), 3.8 (KBA).

KSP	0.73	167	iP	33	39.50	-1.6
	0.3s		111.00nm			
			iS	33	49.00	
BRG	1.48	244	iPn	33	53.30	-0.2
			iPg	33	54.60	
			iSg	34	13.80	
PRU	1.83	212	Pn	33	58.80	0.2
			Sn	34	17.50	
			Sg	34	24.00	
CLL	1.92	264	iPn	33	59.40	-0.4
			iPg	34	03.00	
			iSg	34	28.20	
KRA	2.89	120	eP	34	20.50	6.8X
			iS	35	00.70	
KHC	2.89	214	iPn	34	13.60	-0.2
			iPg	34	19.90	
			iSn	34	47.00	
			Sg	35	10.00	
MOX	2.93	254	iPn	34	15.00	0.7
			iPg	34	22.00	
			iSg	35	02.00	
VKA	3.30	177	e(Pn)	34	20.00	0.5
	0.5s		85.90nm			
			iPgd	34	27.80	
			i	34	45.60	
			iSg	35	11.80	
ZST	3.43	168	e(Pn)	34	21.70	0.3
			e	34	30.20	
			e	35	07.60	
			e(Sn)	35	19.00	
			e	02	11.50	

		e	02 23.50		
		i	02 35.30		
		i(Sn)	03 05.20		
SPC	3.58	130 eP	34 24.80	1.1	
		i	34 36.00		
		i	35 12.10		
		i	35 23.80		
GRF	3.59	241 ePn	34 23.90	0.2	
		ePg	34 35.80		
		eSg	35 23.00		
KMR	3.71	200 ePn	34 26.00	0.6	
		iPg	34 37.40		
		iSg	35 25.30		
SRO	4.02	158 eP	34 44.80	15.1X	
		e(Sn)	35 26.70		
KBA	4.81	203 iPnd	34 40.50	-0.7	
	0.5s	7.50nm			
		i	35 47.80		
		iSg	35 59.00		
		i	36 03.80		
RBL	5.37	199 P	34 45.50	-3.4X	
		eSn	36 18.80		
FVI	5.41	205 P	34 48.90	-0.5	
		eSn	36 26.50		
PTJ	5.66	181 eP	35 14.00	20.9X	
VOY	5.70	195 e(Pn)	34 54.90	1.2	
		eSn	36 31.20		
WTS	5.75	278 ePn	35 02.50	8.3X	
		eSn	36 03.50		
		eSg	36 29.00		
VBY	6.07	185 e(Pn)	34 57.80	-1.0	
CTI	6.22	209 P	35 01.20	0.2	
		eSn	36 47.80		
MEM	6.40	265 P	35 03.30	0.0	
		e	06 16.80		
ENN	6.41	267 e(Pn)	35 09.00	5.4X	
		e(Sn)	36 10.00		
		eSg	36 41.00		
WLF	6.57	257 P	35 13.70	7.9X	
		e	06 08.20		
DOU	7.40	263 P	35 17.30	-0.1	
NUR	10.18	25 iP	35 54.20	-1.7	
SUF	12.45	22 iP	36 27.90	1.3	
S.D. = 0.9 on 20 of 27 obs.					

APR 18, 1989 23h 01m 45.78± 0.54s
50.476 N ± 5.3km 18.868 E ± 6.3km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.6 (KBA), 3.2 (VKA).

KRA	0.81	121 iPg	02 01.30	-0.1	
		iSg	02 12.50		
SPC	1.57	145 iPnd	02 14.10	0.2	
		i(Sg)	02 34.90		
KSP	1.68	284 iPd	02 16.50	1.2	
	1.0s	167.00nm			
		ic	02 19.50		
		i	02 42.50		
SRO	2.69	188 e(Pn)	02 32.40	2.5	
		e	02 38.80		
		e	03 16.50		
		e	03 25.90		
VKA	2.77	218 ePn	02 29.80	-1.2	
		i	02 40.10		
		iSg	03 10.00		
PRU	2.82	262 ePn	02 31.60	-0.1	
		Pg	02 38.90		
		Sg	03 13.50		
BRG	3.16	279 iPg	02 45.00	8.6X	
		iSg	03 30.00		
KHC	3.68	251 iPn	02 43.90	-0.1	
		Pg	02 50.20		
		Sg	03 35.60		
CLL	3.81	285 ePg	02 58.00	12.3X	
		iSg	03 51.00		
KMR	3.93	234 (Pn)	02 48.00	0.5	
		ePg	02 59.00		
		eSg	03 48.00		
MOX	4.63	275 (Pn)	03 06.00	8.7X	
		(Sg)	04 15.00		
GRF	4.99	264 e(Pg)	03 19.80	17.4X	
		eSg	04 25.80		
KBA	4.99	229 ePn	03 01.50	-1.1	
		i	04 05.50		
		iSg	04 22.70		
BZS	5.20	158 eP	03 04.00	-1.4	
APO	10.46	346 eP	04 18.40	-0.4	
	0.4s	0.90nm		4.5mb	
NUR	10.57	16 iP	04 20.80	0.6	
NB2	11.42	341 P	04 30.90	-1.0	
	0.9s	1.90nm		4.4mb	
SUF	12.90	15 eP	04 52.00	0.4	
S.D. = 1.1 on 14 of 18 obs.					

& APR 18, 1989 23h 18m 04.73s
62.020 N 151.596 W
DEPTH = 95.0km
CENTRAL ALASKA (1)
<AGS-P>.

SKT	0.05	142 iP	18 17.65	1.1	
		iS	18 27.52		
SUA	0.69	144 iP	18 21.87	-0.1	
CGLM	0.74	196 iP	18 21.60	-0.8	
		iS	18 34.42		
CRP	0.80	200 eP	18 22.47	-0.7	
		eS	18 36.02		
SPU	0.87	195 iP	18 22.70	-1.0	
PWA	0.90	114 iP	18 23.42	-0.5	
PMS	1.25	128 eP	18 27.01	-1.0	
		iS	18 45.15		
PLRM	1.25	109 eP	18 26.44	-1.5	
		eS	18 44.72		
PME	1.28	107 eP	18 27.10	-1.2	
GHO	1.29	100 iP	18 27.40	-1.2	
		iS	18 45.87		
NKA	1.29	172 eP	18 29.64	1.1	
RDT	1.50	195 iP	18 30.28	-1.0	
		iS	18 50.55		
KTH	1.57	11 iP	18 30.82	-1.3	
		eS	18 49.70		
KNK	1.62	111 iP	18 31.15	-1.5	
		iS	18 52.37		
SLKM	1.66	156 eP	18 32.67	-0.5	
		iS	18 53.29		
RED	1.70	200 iP	18 32.98	-0.9	
		eS	18 55.48		
ILIM	2.06	199 eP	18 37.13	-1.3	
SVW	2.13	246 iP	18 37.87	-1.6	
SEW	2.19	151 eP	18 38.72	-1.4	
		eS	19 04.19		
TTA	2.25	296 eP	18 39.02	-2.0	
GLI	2.45	116 iP	18 40.57	-3.0	
		eS	19 10.17		
CNPM	2.51	176 eP	18 44.54	0.0	
KNIM	2.51	130 iP	18 40.77	-3.7	
TOA	2.56	86 eP	18 44.23	-0.9	
		iS	19 16.31		
PDB	2.57	211 iP	18 44.42	-0.9	
VZW	2.60	110 eP	18 43.46	-2.3	
VLZ	2.67	107 eP	18 43.79	-2.8	
KLU	2.75	99 iP	18 45.52	-2.3	
		iS	19 18.32		
FID	2.77	115 eP	18 44.30	-3.8	
FBA	3.36	29 eP	18 53.73	-2.3	
GLB	3.75	95 eP	18 59.14	-2.4	
31 obs. associated					

APR 19, 1989 00h 08m 19.65± 0.16s
31.310 S ± 5.8km 177.815 W ± 4.1km
DEPTH = 10.5km (geophysicist)
5.6mb (17 obs.) 5.9Msz (27 abs.)
KERMADEC ISLANDS REGION (177)
Ms 6.2 (BRK). Mo=9.0*10**17 Nm
(PPT). Depth from broadband
displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 15 Dip=70 Slip= 90
NP2: 195 20 90
Principal Axes:
T Plg=65 Azm=285
P 25 105
Comment: The focal mechanism is
poorly controlled and
corresponds to reverse
faulting. The preferred fault
plane is NP2.
MOMENT TENSOR SOLUTION
Dep 10 No. of sta: 14
Moment Tensor; Scale 10**17 Nm
Mrr= 3.68 Mtt=-1.25
Mff=-2.42 Mrt= 0.18
Mrf= 4.57 Mtf=-2.53
Principal axes:
T Val= 6.27 Plg=59 Azm=254
N -0.26 20 20
P -6.01 23 119
Best Double Couple:Mo=6.1*10**17
NP1:Strike=242 Dip=28 Slip= 135
NP2: 13 71 69
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 39C
Centroid Location:
Origin Time 00:08:27.4 0.4
Lat 31.36S 0.03 Lon 177.54W 0.04
Dep 19.7 1.6 Half-duration 3.2
Moment Tensor; Scale 10**17 Nm
Mrr= 4.57 0.12 Mtt= 0.69 0.14
Mff=-5.26 0.14 Mrt= 0.79 0.26
Mrf= 3.73 0.46 Mtf=-2.29 0.13
Principal Axes:
T Val= 5.82 Plg=71 Azm=271
N 1.43 5 16
P -7.25 18 108
Best Double Couple:Mo=6.5*10**17
NP1:Strike=206 Dip=28 Slip= 101
NP2: 14 63 84

SNZO	11.66	209 eP	11 05.00	-3.9X	
		eS	13 05.00		
VUN	13.67	345 eP	11 37.00	1.1	
DZM	16.79	299 iPd	12 22.40	5.9X	
MSZ	17.41	216 P	12 19.20	-4.8X	
		S	15 24.00		
AFI	18.19	19 eP	12 32.26	-1.7	
		eS	16 02.81		
PVC	18.46	314 iPc	12 42.50	5.3X	
RAR	19.03	62 P	12 36.00	-8.1X	
		S	15 40.00		
BRS	25.89	271 iPc-	13 56.50	3.1X	
		i	14 08.50		
		iS	18 39.00		
COO	25.96	264 eP	13 58.00	4.0X	
CNB	27.65	253 eP	14 10.00	0.5	
CAN	27.94	253 eP	14 13.50	1.4	
		i	14 24.00		
BWA	28.46	255 eP	14 15.60	-1.2	
		i	14 28.30		
RMQ	29.59	271 eP	14 29.00	2.0	
		e	17 33.00		
		e	21 17.00		
HNR	30.02	312 eP+	14 30.00	-0.8	
		eS	18 52.00		
TOO	30.76	248 eP	14 38.00	0.7	
		e	17 47.00		
PMO	31.80	66 eP	14 39.00	-7.5X	
	1.0s	55.00nm		5.4mb	
VAH	31.87	67 eP	14 41.00	-6.1X	
	1.0s	40.00nm		5.3mb	
BFD	33.11	249 eP	14 58.00	0.2	
CTA	34.11	280 iPc+	15 07.80	1.1	
	1.2s	223.44nm		6.0mb	
		i	16 34.00		
		iS	20 31.00		
		iScP	21 31.00		
CTAO	34.11	280 ePc	15 08.32	1.7	
		epPd	15 11.30	10kmX	
		esPd	15 13.12		
		ePP	16 36.38		
STK	34.44	258 eP	15 10.00	0.6	
ADE	36.38	252 iPd	15 26.30	0.4	
	1.2s	103.13nm		5.5mb	
QIS	39.55	275 iPd	15 53.20	0.6	
		i	16 07.60		
		e	20 02.00		
LAT	41.03	299 eP	16 06.00	1.3	
ASPA	43.23	268 iPc	16 22.20	-0.6	
	1.2s	92.00nm		5.4mb	
Z	17s	27.51um		6.2MszX	
		epP	16 36.40	54kmX	
		eS	22 47.90		
		LR	35 52.50		
DRV	43.37	203 eP	16 25.00	1.7	
WRA	44.29	273 Pd	16 32.60	1.2	
	0.7s	58.30nm		5.6mb	
WB5	44.30	273 eP	16 31.80	0.3	
FORR	45.92	256 iPc	16 43.80	-0.4	
	0.5s	30.00nm		5.5mb	
SBA	47.14	184 P+	16 55.50	2.2	

19d 00h

JAY	48.46	298	ePd	17	04.20	-0.2
WARB	48.54	261	eP	16	55.00	-10.0X
KNA	50.90	275	eP	17	23.20	0.1
COOL	51.65	254	eP	17	27.00	-1.7
KLB	54.20	252	eP	17	45.00	-2.6
NWAO	54.23	250	eP	17	42.00	-5.7X
Z	20s		3.70um			5.4Msz
N	20s		1.20um			
E	20s		4.00um			
			eS	25	36.00	
MEKA	55.21	258	eP	17	53.00	-2.1
MUN	55.34	251	eP	17	54.00	-1.9
HON	55.67	22	P	17	50.00	-8.3X
Z	20s		3.72um			5.5Msz
MBL	56.20	264	eP	18	00.20	-2.0
GUMO	57.24	315	eP	18	07.50	-2.1
SPA	58.86	180	e(P)	18	19.90	-0.8
	1.0s		49.50nm			5.6mb
Z	20s		10.54um			6.0Msz
			e	18	42.50	
NANU	59.28	261	iPc	18	22.70	-1.2
	0.6s		28.00nm			5.6mb
DAV	66.16	295	eP	19	07.00	-2.7
TRT	68.58	274	ePc	19	25.00	0.0
MAW	71.52	201	eP	19	41.30	-0.8
	1.2s		157.00nm			6.0mb
MAT	79.08	325	eP	20	24.00	-1.6
	1.3s		51.92nm			5.4mb
Z	20s		1.77um			5.4Msz
			eS	30	24.00	
OZH	82.61	305	P	20	43.00	-1.4
	6.0s		1.40nm			3.3mb X
Z	18s		1.80um			5.5Msz
E	18s		1.50um			
			S	30	56.00	
			sS	31	15.00	
SSE	84.82	311	P+	20	55.00	-0.5
	6.0s		0.90nm			3.2mb X
Z	22s		1.60um			5.4Msz
N	16s		0.80um			
E	16s		0.90um			
			SKS	31	24.00	
			S	31	45.00	
IPM	84.83	278	ePc	20	56.00	0.0
			e	21	06.00	
SYP	85.16	45	eP	20	58.00	0.7
GZH	85.25	300	P	20	59.20	1.4
			S	31	27.50	
OIZ	85.52	295	Pd	21	02.00	2.7
			PP	24	27.00	
			eS	31	32.00	
BCH	85.54	44	P	21	00.00	0.8
PRS	85.58	42	ePd	20	59.70	0.4
GCC	85.71	42	eP	21	00.20	0.4
PCC	85.83	41	eP	21	00.60	0.2
SAN	85.83	127	eP	21	02.00	1.2
SAO	85.84	42	eP	21	00.50	0.0
			eS	31	32.00	
			eSPP	34	36.00	
			eSS	37	19.00	
			e	44	34.00	
			e	49	30.00	
PRI	85.86	43	eP	21	01.50	0.7
BAR	85.96	48	eP	21	01.00	-0.2
PEL	85.99	127	iPc	21	00.70	-0.9
	1.2s		118.75nm			5.9mb
PAS	86.00	46	eP	21	01.00	-0.4
			eSKS	31	24.00	
			ePS	32	38.00	
			eSS	37	17.00	
			eSSS	40	16.00	
			eLg	44	14.00	
			eLR	47	01.00	
LLA	86.03	42	eP	21	01.70	0.2
MWC	86.12	46	eP	21	01.00	-1.2
MHC	86.13	42	ePd	21	02.70	0.6
BRK	86.16	41	eP	21	02.40	0.4
			e	49	04.00	
BKS	86.18	41	iPc	21	03.20	1.1
	1.2s		106.00nm			5.9mb
Z	20s		10.00um			6.2Msz
N	20s		8.00um			
E	20s		6.00um			
			iS	31	33.00	
			eSS	37	24.00	
			eSSS	41	20.00	
			iLQ	43	47.00	
			iLQ	44	13.00	
			eLR	47	50.00	
ARN	86.20	42	P	21	03.00	0.7
RVR	86.39	46	eP	21	03.00	-0.3
PEC	86.45	47	P	21	03.60	-0.1
SNG	86.54	280	eP	21	04.70	0.3
			e	31	56.30	
SBB	86.57	46	eP	21	04.00	-0.3
ISA	86.83	45	eP	21	06.00	0.5
NJ2	86.95	311	Pc	21	06.00	-0.1
	6.0s		1.00nm			3.2mb X
			S	31	36.00	
FRI	87.00	43	ePd	21	06.30	0.1
TPC	87.29	47	eP	21	08.00	0.3
FHC	87.31	38	eP	21	08.30	0.6
CMB	87.33	42	ePd	21	07.90	0.1
			ePP	24	32.10	
GLA	87.38	49	eP	21	09.00	0.8
CLC	87.46	45	eP	21	09.00	0.5
GSC	87.60	46	eP	21	09.00	-0.3
ORV	87.76	40	eP	21	09.40	-0.4
WDC	87.92	39	ePd	21	10.60	0.1
MIN	88.26	39	eP	21	11.80	-0.6
MNA	88.88	43	eP	21	15.40	0.0
WHN	89.02	307	P	21	14.00	-2.0
	6.0s		0.73nm			3.1mb X
Z	20s		1.27um			5.3Msz
N	16s		0.91um			
E	16s		0.91um			
			ePP	24	46.00	
TNP	89.20	43	P	21	16.80	-0.2
	1.4s		117.71nm			6.0mb
KVN	89.33	42	P	21	16.80	-0.8
MDJ	89.46	325	ePc	21	18.15	0.4
Z	20s		3.50um			5.8Msz
			epPd	21	21.30	10kmX
			esP	21	23.28	
			eS	32	17.00	
DL2	89.72	317	P	21	20.00	0.9
	4.0s		0.70nm			3.3mb X
			sS	32	18.00	
SNY	90.59	320	Pc	21	22.80	-0.3
Z	25s		2.00um			5.5MszX
N	22s		1.40um			
E	23s		0.90um			
			sS	32	27.00	
TIA	90.70	313	Pd	21	24.30	0.5
E	14s		0.50um			
EUR	90.86	43	iP	21	25.20	0.5
	1.0s		18.85nm			5.4mb
CN2	90.96	323	Pc	21	24.00	-0.7
	4.0s		0.60nm			3.3mb X
Z	20s		2.30um			5.6Msz
E	16s		1.30um			
			pP	21	30.00	19kmX
			sP	21	33.00	
			PP	24	55.00	
LOE	91.04	290	eP	21	26.50	0.8
KDC	91.24	13	P	21	25.70	0.0
	1.2s		94.70nm			6.0mb
BMW	91.77	34	P	21	29.40	0.9
SHW	92.06	35	P	21	31.10	1.2
GYA	92.14	300	iPc	21	32.00	1.3
N	18s		2.10um			
			SKS	32	04.00	
VGB	92.31	36	P	21	31.20	0.2
MSU	92.51	46	P	21	32.30	0.0
LON	92.66	35	P	21	32.60	0.0
GMW	92.75	34	P	21	33.30	0.4
BJI	93.68	315	eP+	21	38.00	0.7
Z	20s		1.80um			5.5Msz
N	16s		0.50um			
E	18s		1.20um			
			eSKS	32	12.00	
			eS	32	56.00	
ALQ	94.02	51	eP	21	39.00	-0.3
	1.4s		16.28nm			5.2mb
Z	18s		6.96um			6.2Msz
ANMO	94.02	51	ePc	21	39.18	-0.1
			epPd	21	42.16	9kmX
			esP	21	44.64	
CHTO	94.03	289	ePc	21	39.29	-0.1
			epPd	21	42.27	9kmX
KMI	94.37	297	ePKP	21	41.00	-0.2
TIY	94.59	312	eP	21	42.50	0.8
N	17s		1.30um			
			SKS	32	10.00	
SLA	94.62	122	ePc	21	41.60	-0.8
XAN	94.79	307	P	21	45.00	2.4
N	10s		0.40um			
E	10s		0.40um			
			SKS	32	20.00	
PMR	95.45	13	eP	21	44.80	-0.2
PNT	95.50	34	eP	21	46.00	0.5
TTA	95.52	10	eP	21	45.70	0.3
BW06	96.69	44	P	21	50.50	-0.9
CD2	96.70	302	eP	21	52.80	1.3
LRM	96.90	40	eP	21	52.20	-0.1
HHC	96.98	314	P	21	53.00	0.5
Z	30s		1.60um			5.3MszX
			SKS	32	32.50	
CNCB	97.44	115	P	21	55.00	-0.8
GOL	97.46	48	P	21	54.90	-0.1
Z	20s		8.50um			6.2Msz
LPB	97.51	114	P	22	00.00	4.0X
Z	18s		3.78um			5.9Msz
			SKS	32	35.00	
			LR	55	06.00	
GLD	97.58	48	P	21	54.90	-0.5
Z	20s		8.00um			6.2Msz
BTO	97.79	313	eP	21	56.00	-0.2
E	15s		1.10um			
CCH	98.53	116	(P)	21	59.00	-1.4
FBA	98.72	12	P	21	59.20	-0.5
EDM	101.03	34	ePdiff	22	10.00	-0.6
GTA	103.82	308	ePdiff	22	23.20	-0.3
Z	18s		1.34um			5.5Msz
E	14s		0.80um			
			SKS	33	07.00	
INK	104.61	16	ePdiff	22	09.00	-17.1X
RSCP	109.08	60	PKP	26	30.00	-21.3X
Z	20s		5.65um			6.1Msz
PKI	109.13	291	PKP	26	44.00	-8.0X
RSON	110.14	42	PKP	26	30.00	-22.7X
Z	20s		5.08um			6.1Msz
MBC	113.26	13	ePKP	26	56.00	-1.9
FRS	115.42	202	ePKP	27	05.00	1.5
RSNY	120.14	54	PKP	27	00.00	-12.0X
Z	20s		7.34um			6.3Msz
KSH	120.81	300	ePKP	27	14.00	0.4
E	17s		2.40um			
			eSKS	34	18.00	
			eSKKS	35	50.00	
SOB1	122.34	127	ePKP	27	16.10	-1.0
			e	27	36.90	
BUL	122.90	210	iPKPd	27	17.00	-1.2
	1.0s		5.00nm			
ALE	124.12	8	ePKP	27	17.00	-1.7
	1.0s		12.00nm			
ITR	124.34	129	ePKP	27	21.60	0.6
FRB	126.07	31	ePKP	27	01.00	-21.8X
PTZ	126.75	216	iPKP	27	19.20	-6.5X
SCH	126.83	42	ePKP	27	23.00	-1.6
LSZ	127.38	212	ePKP	27	26.00	-0.9
			i	27	53.00	
KMZ	130.03	211	iPKP	27	33.00	1.0
			i	27	47.20	
			i	29	49.10	
MAIO	132.71	292	ePKP	27	36.00	-0.5
			i	31	07.00	
LWI	138.12	222	ePKP-	27	38.00	-9.6X
KEV	139.04	347	ePKP	27	34.00	-13.2X
SOD	141.11	345	ePKP	27	44.00	-7.0X
TAB	143.35	293	iPKP+	27	52.00	-4.1X
SLY	143.82	289	ePKPc	27	53.00	-3.7X
BHD	144.44	285	ePKPd	27	56.00	-1.8
			e	28	51.50	
			e	31	38.00	
SUF	145.02	341	iPKP	27	55.90	-2.0
	1.1s		279.50nm			
MSL	145.79	290	ePKPd	28	00.50	0.4
			e	28	17.00	
			e	31	56.00	
			eSKKKS	38	18.50	
NUR	147.22	340	iPKP	28	02.70	1.1
	1.0s		280.00nm			
Z	22s		2.50um			6.0Msz
			i	28	16.50	
			LR	31	10.00	
RGS	147.84	353	ePKP	28	04.50	2.0
BNG	149.15	213	iPKPd	28	06.10	0.0
	1.0s		128.00nm			
			i	28	10.40	
			i	28	30.00	

			i	29	35.40	
			i	31	58.40	
BCAO	149.16	213	ePKP	28	09.66	3.5X
			ePP	31	38.90	
UPP	149.63	345	iPKP	28	09.20	3.8X
NB2	149.67	351	PKP	28	04.20	-1.3
	1.3s		92.20nm			
HFS	150.16	348	ePKP	28	08.70	2.5
	1.2s		77.80nm			
	Z 19s		0.95um			5.6Msz
			LR	23	58.00	
KVT	151.14	299	ePKP	28	13.00	4.7X
HRI	151.63	283	e(PKP)	28	16.00	6.6X
DSI	151.73	279	e(PKP)	28	16.00	6.6X
MBH	151.85	275	iPKPd	28	16.50	6.8X
KAS	152.78	300	ePKP	28	18.50	7.7X
BBTK	153.81	297	iPKP	28	14.00	1.7
LIC	154.15	163	PKP	28	14.80	1.5
	1.4s		45.50nm			
KIC	154.35	164	PKP	28	14.80	1.2
	1.4s		41.50nm			
LEGH	154.38	175	ePKP	28	17.50	3.9X
TIC	154.55	163	PKP	28	15.00	1.1
	1.4s		37.00nm			
KOGH	154.80	174	ePKP	28	15.00	0.8
KUK	154.89	174	ePKP	28	12.00	-2.3
HRT	155.92	301	ePKP	28	15.00	0.0
ISR	156.52	313	ePKP	28	16.00	0.3
MLR	156.72	314	ePKPc	28	16.00	-0.1
BMR	156.93	321	ePKPc	28	30.00	13.9X
KRA	157.04	330	ePKP	28	16.70	0.6
	Z 20s		2.30um			6.0Msz
	N 20s		2.40um			
			e	28	20.20	
			e	28	34.20	
			e	39	19.00	
BUC	157.13	312	ePKP	28	30.00	13.6X
BUC1	157.20	312	ePKP	28	14.00	-2.5
SPC	157.54	328	e(PKP)	28	17.40	0.4
			e	28	48.50	
KSP	157.85	336	ePKP	28	15.50	-1.6
CLL	158.47	341	ePKP	28	19.00	1.2
	Z 17s		2.00um			6.0MszX
			i	28	53.80	
BRG	158.59	339	ePKP	28	17.50	-0.4
	Z 18s		2.00um			6.0Msz
	N 18s		2.00um			
	E 18s		1.00um			
			e	28	52.00	
			i	29	07.00	
			e	29	17.00	
			e	39	32.00	
WTS	159.05	352	e(PKP)	28	19.50	1.2
	1.2s		32.00nm			
			e	28	55.50	
			e	29	07.50	
DBN	159.11	355	ePKP	28	17.00	-1.4
	Z 19s		2.20um			6.0Msz
			e	28	51.00	
			e	33	10.00	
			e	42	58.00	
			e(SS)	54	04.00	
			e(SSS)	01	09.00	
PRU	159.17	337	ePKP	28	24.50	5.9X
	Z 18s		2.90um			6.2Msz
	N 18s		0.60um			
	E 20s		2.00um			
			e	28	55.50	
BZS	159.21	319	ePKP	28	17.50	-1.2
TIM	159.35	320	ePKPc	28	16.40	-2.5
SRO	159.42	328	ePKP	28	22.80	3.9X
			i	28	57.60	
MOX	159.44	343	ePKP+	28	18.00	-0.9
	1.4s		39.00nm			
	Z 18s		2.20um			6.0Msz
	N 18s		1.10um			
	E 18s		17.70um			
			e	28	34.00	
			e	28	58.00	
			e	29	30.00	
			eSKKS	39	30.00	
			eSKSP	43	00.00	
			eSS	53	00.00	
ZST	159.67	330	ePKP	28	19.60	0.4
	Z 18s		3.30um			6.2Msz
			i	28	37.60	
VTS	159.83	310	ePKP	28	20.00	0.2
VKA	159.94	332	ePKP	28	17.00	-2.5
	5.0s		485.00nm			
BEO	160.34	318	ePKP	28	19.00	-1.0
VAY	160.81	307	ePKP	28	19.00	-1.6
			i	29	03.00	
KMR	160.95	335	iPKP-	28	22.00	1.5
			i	29	00.70	
			ePP	32	48.00	
DOU	161.15	355	PKP	28	27.70	7.1X
			e	42	29.00	
			e	43	13.00	
SKO	161.28	310	iPKP	28	21.00	0.0
	Z 18s		1.76um			
	N 18s		1.37um			
	E 18s		0.69um			
			i	29	05.50	
			iPP	32	48.00	
			iSKKS	39	37.00	
			iSKSP	43	12.00	
			LR	59	20.00	
WLF	161.42	352	PKP	28	25.30	4.4X
			e	29	07.00	
PTJ	161.93	328	ePKP	28	39.60	17.9X
KBA	162.07	335	ePKP	28	21.00	-0.9
OHR	162.11	308	ePKP	28	14.20	-7.8X
LJU	162.44	330	e(PKP)	28	22.00	-0.1
FLN	162.45	6	ePKP	28	22.10	0.1
CDF	162.48	349	ePKP	28	21.80	-0.4
VBY	162.55	328	e(PKP)	28	22.60	0.4
LDF	162.65	5	ePKP	28	22.30	0.1
VOY	162.72	332	e(PKP)	28	26.60	4.1X
			e	29	10.10	
CEY	162.73	330	e(PKP)	28	25.50	3.1X
			e	29	10.50	
GRR	162.79	7	ePKP	28	22.60	0.3
HAU	163.03	350	ePKP	28	22.40	-0.2
TRI	163.03	331	iPKPc	28	22.00	-0.6
			i	29	00.00	
			e	32	54.00	
			e	35	42.00	
			e	43	08.00	
			e	46	22.00	
			e	54	44.00	
			e	00	22.00	
LPF	163.12	7	ePKP	28	22.90	0.3
BSF	163.13	349	ePKP	28	22.50	-0.3
LOR	164.01	356	ePKP	28	23.80	0.2
SSF	164.24	357	ePKP	28	24.10	0.3
LBF	164.29	355	ePKP	28	24.00	0.1
AVF	164.51	357	ePKP	28	23.80	-0.2
MFF	164.62	6	ePKP	28	24.30	0.1
SMF	164.63	356	ePKP	28	24.10	-0.1
BGF	164.77	358	ePKP	28	24.50	0.2
TCF	165.04	360	ePKP	28	24.80	0.2
LSF	165.07	2	ePKP	28	24.80	0.2
MAF	165.11	359	ePKP	28	24.70	0.1
RJF	166.02	2	ePKP	28	25.70	0.3
LFF	166.35	4	ePKP	28	26.30	0.7
CAF	166.41	0	ePKP	28	26.40	0.7
LPO	166.63	3	ePKP	28	26.80	0.9
PTO	166.90	39	ePKP	28	26.00	-0.2
EPF	168.21	7	ePKP	28	27.90	0.8
TOL	170.06	29	ePKP	28	30.00	1.7
			ePKKP	29	45.00	
			ePP	33	35.00	
			eSKKS	40	17.00	
			ePPS	47	40.00	
			eSS	54	42.00	
EBR	170.41	8	ePKP	28	38.00	9.6X
			ePP	33	32.00	
MAL	172.31	44	iPKP+	28	30.00	0.7
			iSS	55	06.00	
IFR	173.44	68	iPKPc	28	32.00	1.9
	S.D. = 1.1		on 191 of 235 obs.			

? APR 19, 1989 03h 12m 55.05± 5.30s
16.710 N ±24.3km 59.684 W ±38.5km
DEPTH = 22.4 ± 5.6 km
LEEWARD ISLANDS (92)
ML 3.7 (FDF).

DEG	1.38	254	ePc	13	17.90	-1.2
			S	13	33.70	
SFG	1.52	253	eP	13	20.10	-1.0
SEG	1.77	260	eP	13	24.19	-0.5
			S	13	44.20	
PAG	2.03	251	eP	13	28.20	-0.4
			S	13	52.20	
BBL	2.09	236	eP	13	27.85	-1.5
			S	13	51.60	
ANG	2.10	282	eP	13	28.81	-0.7
			eS	13	57.25	
DTMT	2.17	228	eP	13	30.39	-0.2
			eS	13	57.58	
DPMT	2.18	229	eP	13	31.62	1.0
			eS	13	57.58	
DSVT	2.19	228	eP	13	31.30	0.5
			eS	13	57.58	
FDF	2.42	216	eP	13	32.30	-1.8
			S	14	00.20	
MGH	2.43	271	eP	13	33.69	-0.5
MVM	2.44	209	eP	13	32.74	-1.6
			S	14	00.00	
BIM	2.56	212	eP	13	34.47	-1.6
			S	14	04.70	
SKI	2.99	282	eP	13	29.48	-12.6X
			eS	13	56.42	
SLB	3.15	285	eP	13	44.03	-0.5
			eS	14	18.99	
SVV	3.68	204	eP	13	51.95	-0.1
			eS	14	34.78	
SVB	3.74	204	eP	13	52.54	-0.3
			eS	14	35.49	
	S.D. = 0.9		on 16 of 17 obs.			

APR 19, 1989 03h 32m 45.60± 0.78s
39.648 N ± 7.9km 28.958 E ± 6.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.26	261	iPg	32	49.90	-1.2
			iSg	32	53.90	
BNT	1.07	312	iPg	33	06.00	0.3
ALT	1.07	123	iPn	33	07.20	1.4
EDC	1.09	310	iPg	33	06.50	0.4
			eSg	33	20.50	
GBZT	1.20	18	ePg	33	27.00	19.1X
GPA	1.22	58	ePn	33	08.30	0.0
HRT	1.29	25	ePn	33	09.00	-0.6
KHL	1.39	161	ePn	33	09.10	-2.1
IZM	1.82	227	ePn	33	19.00	1.8
	S.D. = 1.5		on 8 of 9 obs.			

* APR 19, 1989 03h 46m 08.46± 1.10s
36.247 N ±11.4km 27.090 E ±11.7km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)

KAP	0.70	174	eP	46	21.70	-0.5
			eS	46	29.70	
YER	1.31	47	iPn	46	32.30	-0.4
NPS	1.55	231	eP	46	36.50	0.3
KSL	2.02	93	eP	46	43.50	0.6
ELL	2.33	77	ePn	46	48.30	0.8
BCK	3.06	66	ePn	46	57.00	-0.8
	S.D. = 0.8		on 6 of 6 obs.			

% APR 19, 1989 03h 59m 16.30± 0.98s
39.100 N ± 8.2km 27.842 E ±10.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.79	50	iPg	59	31.50	-0.2
			eSg	59	44.90	
IZM	0.83	213	iPg	59	32.60	0.1
			iSg	59	46.10	
EDC	1.25	1	iPg	59	39.50	0.1
BNT	1.26	3	iPn	59	40.00	0.4
EZN	1.38	302	ePn	59	41.20	-0.3
	S.D. = 0.4		on 5 of 5 obs.			

? APR 19, 1989 05h 55m 20.33± 4.81s
61.500 N ±24.3km 3.934 E ±29.9km
DEPTH = 10.0km (geophysicist)
NORWEGIAN SEA (642)
MD 2.3 (8ER).

SUE	0.60	138	iP	55	31.85	-0.5
			iSg	55	35.64	
HYA	1.14	106	iPd	55	41.75	0.2
			iS	55	52.76	
ASK	1.19	148	iP	55	42.44	-0.1
			eS	55	53.90	
BER	1.31	148	iP	55	44.26	-0.3

19d 05h

		iSg	55	57.32		
ODD1	2.07	139 eP	55	57.21		1.6
		eS	56	16.52		
		iSg	56	19.34		
KMY	2.39	164 eP	55	59.59		-0.5
		iPg	56	03.30		
		eS	56	24.59		
		iSg	56	30.15		
BLS1	2.56	145 eP	56	02.70		0.1
		eS	56	28.77		
		iSg	56	33.79		
NRA0	3.77	98 iPc	56	19.20		-0.5
		iS	56	58.20		
		iSg	57	11.60		

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

? APR 19, 1989 06h 01m 58.19± 0.93s
38.176 N ± 9.2km 3.876 W ± 9.0km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 2.7 (MDD).

EBAN	0.07	99 iPg	02	00.00		-0.6
AFC	0.96	164 ePg	02	17.00		0.5
		eSg	02	31.80		
EHOR	1.14	252 ePg	02	19.20		-0.3
		eSg	02	36.00		
EVIA	1.17	66 ePg	02	15.80		-4.4X
		eSg	02	30.00		
GUD	2.47	355 ePg	02	39.60		0.3
		eSg	03	07.50		

S.D. = 0.9 on 4 of 5 obs.

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* APR 19, 1989 07h 03m 59.31± 0.37s
31.521 S ±13.3km 177.763 W ± 7.5km
DEPTH = 60.8km (2 depth phases)
5.2mb (8 obs.)
KERMADEC ISLANDS REGION (177)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 14S, 22C
Centroid Location:
Origin Time 07:04: 1.5 1.9
Lot 31.15S 0.12 Lon 177.66W 0.14
Dep 40.9 7.2 Half-durotion 1.4
Moment Tensor; Scale 10**16 Nm
Mrr= 3.52 0.33 Mtt= 0.58 0.50
Mff=-4.10 0.38 Mrt=-0.74 0.59
Mrf= 1.91 0.81 Mtf=-2.51 0.44
Principol Axes:

T	Vol= 4.48	Plg=62	Azm=220
N	0.95	26	17
P	-5.43	10	112

Best Double Couple:Mo=4.9**10**16
NP1:Strike=230 Dip=42 Slip= 131
NP2: 0 60 59

DZM	16.93	300 iPc	07	56.00		2.3
MSZ	17.27	216 P	07	51.00		-6.6X
BRS	25.94	272 iPd	09	29.10		1.3
CAN	27.93	253 eP	09	46.80		1.0
BWA	28.44	255 eP	09	48.30		-2.1
RMQ	29.64	271 eP	10	03.00		1.8
TOO	30.73	248 eP	10	11.80		1.1
BFD	33.08	249 eP	10	30.00		-1.2
CTA	34.19	281 iPc	10	40.90		-0.1
	1.1s	88.61nm				5.6mb
		i	10	52.90		
		iS	16	14.00		
QIS	39.61	275 eP	11	26.00		-0.7
ASPA	43.26	268 iPd	11	54.60		-2.0
	0.9s	38.00nm				5.2mb
Z	17s	1.85um				5.0MszX
		LR	31	15.10		
WRA	44.35	273 Pd	12	04.60		-0.8
	0.7s	31.20nm				5.2mb
FORR	45.91	256 eP	12	16.10		-1.6
SBA	46.94	184 eP	12	28.00		2.8
WARB	48.55	262 eP	12	28.00		-10.5X
SPA	58.65	180 e(P)	13	52.10		-0.4
	1.2s	25.35nm				5.2mb
Z	20s	0.54um				4.7Msz
		e	14	13.80		
MAW	71.33	201 eP	15	18.00		4.0X
	0.3s	34.00nm				5.8mb
PRS	85.71	42 eP	16	33.30		0.6
GCC	85.84	42 eP	16	34.30		1.0
BAR	86.07	48 eP	16	34.00		-0.6
MWC	86.23	46 eP	16	38.00		2.4
MHC	86.26	42 eP	16	35.80		0.2
BKS	86.31	41 ePc	16	29.10		-6.5X
RVR	86.50	46 eP	16	36.00		-0.7
SB8	86.69	46 eP	16	37.00		-0.7
ISA	86.95	45 eP	16	39.00		0.1
FRI	87.13	43 eP	16	39.80		0.2
TPC	87.40	47 eP	16	41.00		-0.1
CMB	87.46	42 eP	16	40.90		-0.4
GLA	87.48	48 eP	16	43.00		1.5
CLC	87.58	45 eP	16	42.00		0.1
GSC	87.72	46 eP	16	43.00		0.4
ORV	87.90	40 e(P)	16	43.10		-0.2
WDC	88.06	39 eP	16	43.70		-0.3
MIN	88.39	39 e(P)	16	45.00		-0.9
TNP	89.32	43 P	16	50.60		0.2
	1.3s	23.81nm				5.3mb
		pP	17	08.00		61km
KVN	89.46	42 P	16	50.80		-0.2
		pP	17	08.00		60km
EUR	90.98	43 iP	16	58.10		0.0
	0.5s	3.32nm				5.0mb
ANT	91.46	119 e(P)	16	09.00		-51.4X
MSU	92.62	46 P	17	06.40		0.8
ALQ	94.11	51 eP	17	11.60		-0.9
	1.4s	5.81nm				4.8mb
Z	18s	0.43um				5.0Msz
BW06	96.81	44 P	17	23.40		-1.3
FRB	126.23	31 ePKP	22	54.00		-1.7
SUF	145.23	341 iPKP	23	29.10		-1.7
MSL	145.90	289 ePKPd	23	33.00		0.2
NUR	147.43	339 iPKP	23	35.80		1.4
BNG	149.00	213 iPKPc	23	42.00		3.6X
	1.5s	163.00nm				
		i	23	45.90		
		i	24	10.10		
NB2	149.89	351 PKP	23	37.70		-0.6
	0.9s	9.10nm				
HFS	150.38	348 ePKP	23	43.20		4.2X
	1.1s	22.20nm				
KVT	151.28	299 ePKP	23	47.00		5.9X
DSI	151.81	279 ePKP	23	49.50		7.4X
MBH	151.92	275 ePKP	23	50.00		7.7X
VRI	156.24	314 ePKPd	24	17.50		29.7X
CLL	158.69	341 iPKPd	24	25.60		35.1X
	1.3s	15.00nm				
BRG	158.80	339 iPKPc	24	26.40		35.8X
	1.0s	14.00nm				
PRU	159.38	337 PKP	24	29.20		37.9X
MOX	159.66	343 e(PKP)	24	30.00		38.4X
ZST	159.87	330 ePKP	23	52.00		0.1
		e	24	30.20		
KHC	160.44	337 iPKPc	24	34.50		42.0X

S.D. = 1.2 on 43 of 59 obs.

% APR 19, 1989 07h 30m 46.98± 0.75s
40.273 N ± 7.1km 29.557 E ± 6.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT	0.55	9 ePg	30	58.50		0.2
GPA	0.58	88 ePg	30	58.50		-0.2
		iSg	31	07.00		
DST	0.98	227 iPg	31	05.80		0.2
		eSg	31	16.80		
BNT	1.25	274 ePn	31	10.00		-0.3
ALT	1.29	160 ePn	31	11.00		0.0

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

APR 19, 1989 07h 32m 23.14± 1.21s
36.469 N ± 7.5km 73.415 E ± 6.8km
DEPTH = 44.5 ± 13.2 km
4.9mb (15 obs.)
NORTHWESTERN KASHMIR (720)

KSH	3.60	33 Pn	33	20.50		2.5
QUE	8.27	223 eP	34	29.50		5.9X
NDI	8.40	156 iPd	34	32.00		6.9X
	0.4s	33.90nm				5.7mb
MAIO	11.22	273 iPd	35	03.00		-1.0
		eS	37	05.00		
GKN	12.70	128 P	35	23.80		0.0
WMQ	13.15	52 P	35	29.00		-0.6
KKN	13.26	127 P	35	30.40		-0.8
	0.5s	26.00nm				5.4mb
DMN	13.27	128 P	35	32.10		0.7
	0.5s	27.00nm				5.4mb
PKI	13.49	128 P	35	33.60		-0.8
	0.8s	40.00nm				5.3mb
GUN	13.56	125 P	35	34.20		-1.1
GBA	23.05	170 Pc	37	34.00		8.5X
	0.5s	3.00nm				4.0mb
LZH	24.49	82 e(P)	37	40.00		0.4
GYA	29.94	100 P	38	34.20		4.8X
MLR	36.49	299 ePc	39	28.30		2.3
SUF	38.99	327 eP	39	46.00		-0.5
SOD	40.60	334 eP	39	59.00		-0.7
HFS	44.29	322 eP	40	29.60		-0.3
	1.3s	26.70nm				4.9mb
NB2	45.58	323 P	40	39.20		-1.0
	1.1s	11.80nm				4.7mb
BSF	49.25	305 eP	41	09.20		0.0
HAU	49.50	306 eP	41	10.00		-1.1
LPG	49.81	302 eP	41	14.40		0.6
L8F	51.30	305 eP	41	24.30		-0.5
LOR	51.31	305 eP	41	24.10		-0.7
SMF	51.48	304 eP	41	25.80		-0.3
SSF	51.60	305 eP	41	26.50		-0.5
AVF	51.77	305 eP	41	27.90		-0.4
	0.8s	8.00nm				4.8mb
MAF	52.45	304 eP	41	33.60		0.2
	0.9s	8.10nm				4.7mb
TCF	52.66	304 eP	41	35.20		0.1
	1.0s	8.00nm				4.7mb
ALE	59.28	354 eP	42	21.00		-1.0
	0.5s	3.00nm				4.7mb
BNG	59.47	251 ePc	42	25.20		1.0
	0.7s	6.00nm				4.8mb
MBC	67.27	3 eP	43	14.00		-0.6
	0.6s	9.00nm				5.0mb
BUL	70.44	225 iPd	43	38.00		2.9
INK	73.61	10 ePd	43	52.60		-0.5
YKA	81.17	4 P	44	35.70		0.7
YKC	81.19	4 eP	44	35.50		0.4
	0.7s	8.00nm				4.8mb
FFC	89.09	357 eP	45	15.00		0.3
	1.0s	14.00nm				5.2mb

S.D. = 1.1 on 32 of 36 obs.

APR 19, 1989 08h 59m 49.69± 0.61s
16.355 N ± 9.0km 98.682 W ± 5.8km
DEPTH = 10.0km (geophysicist)
4.9mb (24 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX	1.24	295 eP	00	10.80		-1.9
		iS	00	24.00		
OXX	2.01	69 iP	00	25.80		1.5
		iS	00	52.30		
III	2.14	340 iPc	00	26.70		0.5
		iS	00	53.00		
IIT	2.67	8 eP	00	34.50		0.7
IISM	2.90	25 iP	00	37.50		0.8
		iS	01	21.00		
UNM	3.00	351 (P)	00	41.80		3.4X
		iS	01	24.50		
CRX	3.18	343 iPd	00	43.20		2.2
		iS	01	32.30		
IIC	3.44	351 eP	00	45.00		0.3
		iS	01	15.00		
MRX	4.10	325 eP	00	54.80		1.1
SCX	5.81	85 P	01	20.00		2.0
UYO	18.14	11 ePc	04	00.90		-2.4
ALQ	19.78	341 iPc	04	22.30		-0.9
	0.8s	16.79nm				4.4mb
UPA	20.06	109 eP	04	27.80		1.8
GLA	22.12	322 eP	04	47.00		-0.1
RSCP	22.45	29 P	04	51.00		0.7
	1.0s	70.00nm				5.1mb
FVM	22.74	17 P	04	51.00		-2.1
	1.1s	48.78nm				4.9mb
BAR	23.01	318 eP	04	57.00		1.1
TPC	23.58	322 eP	05	03.00		1.5
JSC	23.74	38 P	05	02.80		-0.1
PV09	23.89	339 P	05	05.50		0.8
GOL	23.98	347 P	05	06.10		0.6
	1.0s	95.00nm				5.3mb
GLD	24.00	348 P	05	06.00		0.4
	1.3s	137.93nm				5.4mb
RVR	24.31	320 eP	05	10.00		1.5
GSC	24.86	323 eP	05	17.00		3.1X
MWC	24.89	319 eP	05	10.00		-4.3X
S8B	25.05	320 eP	05	17.00		1.3

CLC	25.68	323	eP	05	22.00	0.4
ISA	26.10	321	eP	05	26.00	0.5
BLA	26.31	34	P	05	26.80	-0.6
	1.0s	17.00nm			4.7mb	
BCH	26.79	318	P	05	34.50	2.6
TNP	27.10	327	P	05	34.50	-0.4
	1.0s	5.00nm			4.2mb	
EUR	27.54	330	iP	05	39.00	0.1
	0.8s	3.10nm			4.1mb	
BW06	27.93	343	P	05	41.00	-1.4
	1.5s	34.32nm			4.9mb	
KVN	28.28	327	P	05	46.00	0.5
CMB	28.83	323	P	05	51.00	0.7
	1.0s	5.00nm			4.3mb	
LRM	31.56	341	eP	06	14.70	0.0
PNT	37.02	337	eP	07	02.00	0.7
FFC	38.38	357	iPc	07	12.10	-0.5
	1.0s	33.00nm			5.0mb	
EDM	38.55	346	ePc	07	13.20	-0.9
	0.8s	26.00nm			5.0mb	
SCH	45.58	25	eP	08	11.00	-0.5
YKC	47.39	350	ePc	08	24.50	-1.2
	0.7s	10.00nm			5.0mb	
YKA	47.43	350	P	08	25.40	-0.6
FRB	51.69	17	eP	08	57.50	-1.2
INK	56.44	345	eP	09	32.00	-1.6
FBA	58.59	338	P	09	48.00	-0.8
	1.0s	5.50nm			4.6mb	
MBC	60.88	354	eP	10	03.00	-1.3
SOB1	62.56	110	e(P)	10	16.00	-0.6
ALE	67.73	5	eP	10	47.00	-2.0
	0.7s	4.00nm			4.7mb	
EKA	79.81	35	Pd	11	59.30	-0.3
	0.8s	4.10nm			4.5mb	
LPF	83.01	42	eP	12	16.20	-0.3
GRR	83.02	42	eP	12	16.50	-0.1
	0.9s	9.80nm			5.0mb	
FLN	83.15	41	eP	12	17.40	0.1
	0.8s	8.00nm			5.0mb	
LDF	83.43	41	eP	12	18.60	-0.1
	0.8s	6.40nm			4.9mb	
EPF	85.42	47	eP	12	29.10	0.2
	0.8s	5.90nm			4.8mb	
RJF	85.51	44	eP	12	29.20	-0.1
	0.9s	6.50nm			4.8mb	
TCF	85.65	43	eP	12	29.70	-0.3
	0.9s	8.10nm			4.9mb	
MAF	85.91	43	eP	12	30.90	-0.3
	1.0s	16.00nm			5.1mb	
SSF	86.24	42	eP	12	32.30	-0.5
LOR	86.39	42	eP	12	33.20	-0.4
	0.9s	9.80nm			5.0mb	
LBF	86.56	42	eP	12	33.90	-0.6
GBA	149.99	8	PKPd	19	41.60	3.9X
	0.4s	1.20nm				
S.D. = 1.1 on 57 of 61 obs.						

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* APR 19, 1989 11h 13m 41.49± 0.43s
42.702 S ± 9.4km 83.394 W ±10.5km
DEPTH = 10.0km (geophysicist)
4.9mb (5 obs.)
WEST CHILE RISE (686)

SLA	23.22	45	ePd	18	55.00	5.3X
CNCB	28.97	32	P	19	45.00	1.1
LPB	29.18	31	P	19	47.00	1.4
ZOBO	29.41	31	P	19	47.00	-0.9
	Z 24s	0.28um			3.8MszX	
		LR		28	14.00	
SPA	47.49	180	e(P)	22	18.80	0.5
	1.0s	9.50nm			4.8mb	
SOB1	49.91	61	eP	22	36.50	-0.8
		e		22	42.40	
ITR	51.85	63	eP	22	52.40	0.3
		e		22	57.10	
CRX	63.60	343	iP	23	58.30	-16.7X
UYO	77.17	351	eP	25	35.50	-1.2
ALQ	80.10	341	eP	25	52.50	-0.5
	1.1s	16.77nm			4.9mb	
GOL	84.40	343	P	26	15.00	-0.3
LIC	85.70	78	PKP	26	22.00	0.0
TIC	85.99	77	PKP	26	23.10	-0.3
KIC	86.00	78	PKP	26	23.20	-0.3
TNP	86.09	334	P	26	23.80	0.2
	1.0s	9.58nm			4.9mb	
EUR	86.97	335	iP	26	28.50	0.5
	0.8s	4.28nm			4.7mb	

KVN	87.25	334	P	26	29.50	0.2
BW06	88.29	341	P	26	33.50	-0.7
BUL	91.62	119	iPc	26	49.90	-0.4
	1.0s	8.00nm			5.0mb	
LRM	91.86	340	eP	26	51.50	0.7
GBA	146.61	145	PKPc	33	23.60	0.1
	0.5s	3.60nm				
MAT	147.62	273	ePKP	33	25.00	0.4
	1.2s	39.06nm				
MAIO	150.83	90	ePKP	33	34.00	4.3X
S.D. = 0.7 on 20 of 23 obs.						

% APR 19, 1989 11h 55m 47.72± 0.88s
39.117 N ± 7.2km 27.614 E ± 9.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.77	201	ePg	56	02.60	-0.2
			eSg	56	15.10	
DST	0.93	58	iPn	56	05.80	0.4
EZN	1.22	306	ePn	56	10.80	0.3
EDC	1.24	9	iPn	56	10.50	-0.3
BNT	1.26	11	iPn	56	10.90	-0.2
S.D. = 0.5 on 5 of 5 obs.						

APR 19, 1989 12h 26m 41.80± 0.72s
42.551 N ± 7.8km 24.172 E ± 7.8km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

PGB	0.00	257	eP	26	41.00	-2.7
RZN	0.95	155	iPg	27	01.00	0.9
PVL	1.08	52	iPd	26	59.00	-3.1X
VAY	1.71	225	iPn	27	11.50	-0.3
RDO	1.74	144	ePn	27	11.70	-0.4
			eSn	27	36.60	
JMB	1.79	92	iP	27	14.00	1.1
SKO	2.11	255	iPn	27	19.00	1.4
			eSn	27	42.00	
PLG	2.24	194	ePn	27	19.00	-0.6
DMK	2.76	104	ePn	27	26.00	-0.9
ISR	3.10	33	ePc	27	34.00	2.3
MLR	3.21	23	ePc	27	33.60	0.3
VRI	3.79	28	eP	27	40.50	-1.0
TRI	8.12	296	iPg	29	22.20	39.6X
			iSg	29	25.30	
S.D. = 1.5 on 11 of 13 obs.						

? APR 19, 1989 12h 43m 33.01± 2.40s
13.456 N ±20.3km 90.740 W ±17.1km
DEPTH = 47.9 ± 18.3 km
4.7mb (8 obs.)
NEAR COAST OF GUATEMALA (71)

TPX	2.06	314	eP	44	03.50	-2.4
			iS	44	32.00	
SCX	3.74	331	(P)	44	31.20	1.5
			iS	45	15.00	
OXX	6.81	303	(P)	45	14.00	0.9
			iS	46	23.50	
RSCP	22.53	11	P	48	32.00	1.9
TKL	22.98	15	P	48	36.00	1.6
ALQ	25.68	329	eP	49	01.00	0.5
	0.8s	1.31nm			3.5mb X	
GOL	29.15	336	P	49	32.00	-0.1
MSU	31.37	327	P	49	49.00	-2.7
BW06	33.44	334	P	50	11.00	1.3
TNP	33.98	321	P	50	14.50	0.0
	0.7s	1.30nm			4.0mb	
EUR	34.15	324	iP	50	17.80	1.8
	0.2s	3.35nm			4.9mb	
KVN	35.13	322	P	50	24.50	0.2
LRM	37.12	335	eP	50	41.40	0.4
RSON	37.38	357	P	50	40.80	-2.0
	0.7s	17.50nm			5.1mb	
FFC	42.11	350	eP	51	21.00	-0.9
	0.7s	8.00nm			4.6mb	
LON	42.19	328	P	51	22.80	0.0
PNT	42.92	332	eP	51	29.00	0.3
	0.6s	6.00nm			4.5mb	
YKA	51.84	346	P	52	37.20	-1.1
SOB1	54.36	112	eP	52	57.30	-0.4
FBA	64.23	337	P	54	02.00	-3.0X
MBC	64.60	353	eP	54	05.00	-2.3
TIC	84.33	85	PKP	56	01.90	-0.1
LIC	84.42	85	PKP	56	02.40	0.0
	0.8s	7.50nm			4.8mb	

KIC	84.67	85	PKP	56	03.40	-0.2
	0.8s	9.50nm			5.0mb	
APO	85.46	29	eP	56	05.10	-1.6
	0.4s	0.70nm			4.2mb	
CHG	146.54	343	ePKP	03	11.20	1.1
LOE	146.96	338	ePKP	03	13.00	2.2
GBA	150.67	24	PKPc	03	22.20	5.6X
	0.7s	4.70nm				
S.D. = 1.5 on 26 of 28 obs.						

? APR 19, 1989 13h 09m 25.24± 4.18s
27.916 S ±12.7km 178.545 W ±21.6km
DEPTH = 267.9 ± 35.0 km
4.1mb (2 obs.)
KERMADEC ISLANDS REGION (177)

DZM	14.80	290	iPc	12	43.80	0.0
			iS	15	41.20	
BRS	25.39	264	iPd	14	30.20	0.0
HNR	27.36	308	P	14	52.00	4.0X
CTA	33.00	276	iPc	15	38.10	0.7
	0.7s	21.23nm			4.8mb X	
ASPA	42.82	265	eP	16	58.00	-0.9
WB5	43.57	270	iPc	17	04.50	-0.4
WRA	43.57	270	Pd	17	03.90	-1.0
	0.8s	8.00nm			4.1mb	
FORR	46.22	253	eP	17	25.00	-0.6
SBA	50.47	184	Pd	17	59.10	1.6
SPA	62.24	180	e(P)	19	20.30	-0.5
	0.9s	5.00nm			4.2mb	
CHJJ	75.15	326	P	20	38.60	-1.1
IIDJ	75.26	324	P	20	39.80	-0.6
MAT	75.93	325	iPc	20	43.40	-0.7
	1.0s	37.00nm			5.1mb X	
MTMJ	76.17	325	P	20	45.20	-0.3
MDJ	86.31	326	eP	21	38.00	0.1
WHN	86.47	307	P	21	40.50	1.6
CN2	87.88	323	Pd	21	45.60	0.2
BJI	90.82	316	eP	22	00.00	0.9
TIY	91.86	312	iPc	22	05.80	1.7
XAN	92.23	308	P	22	07.50	1.6
CD2	94.36	303	eP	22	16.80	1.1
BUL	125.48	212	iPKPc	27	56.90	0.2
SOD	137.68	346	ePKP	28	10.00	-8.2X
SUF	141.61	342	iPKP	28	19.40	-6.0X
	0.3s	2.80nm				
NUR	143.82	341	iPKP	28	26.00	-3.3X
UPP	146.20	345	iPKP	28	32.40	-0.9
	1.2s	100.00nm				
		i		29	24.80	
NB2	146.23	351	PKP	28	33.30	-0.1
	0.5s	9.90nm				
HFS	146.72	349	ePKP	28	32.40	-1.7
	0.6s	21.60nm				
KVT	148.82	304	ePKP	28	43.00	4.8X
HRI	150.09	289	ePKP	28	47.20	6.8X
DSI	150.39	285	iPKPd	28	47.70	7.0X
PRNI	150.66	283	iPKPd	28	48.50	7.3X
BNG	151.54	218	ePKPd	28	42.10	-0.9
	0.4s	21.00nm				
		i		28	49.90	
VRI	153.17	319	ePKPc	29	06.00	21.7X
S.D. = 1.0 on 25 of 34 obs.						

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* APR 19, 1989 13h 25m 36.24± 1.07s
5.451 S ±14.2km 129.856 E ±16.2km
DEPTH = 197.2 ± 13.4 km
4.5mb (4 obs.)
BANDA SEA (280)

AAI	2.41	317	ePc	26	19.30	0.0
MTN	7.46	170	iPc	27	23.90	0.5
			eS	28	39.70	
KNA	10.29	186	eP	28	00.00	-0.3
	0.3s	20.00nm			5.0mb X	
			eS	29	49.00	
WB5	15.00	163	iPd	28	59.50	-0.4
			eS	31	41.20	
WRA	15.05	164	Pc	29	00.40	-0.1
	0.3s	5.70nm			4.5mb	
QIS	17.75	149	iPc	29	32.10	-0.2
	0.2s	17.00nm			5.1mb X	
			eS	32	42.00	
MBL	18.39	211	iPc	29	38.30	-0.7
	0.3s	7.00nm			4.6mb	
ASPA	18.53	168	iPc	29	41.10	0.6
	0.6s	134.00nm			5.6mb X	

19d 13h

			i	29	44.90	
			eS	33	00.40	
WARB	20.84	188	eP	29	57.20	-6.7X
	0.3s		5.00nm			4.5mb
NANU	21.93	218	iPd	30	15.20	0.7
	0.3s		4.00nm			4.4mb
FORR	25.32	184	eP	30	46.30	-0.2

S.D. = 0.6 on 10 of 11 obs.

& APR 19, 1989 13h 27m 13.90s
48.696 N 123.343 W
DEPTH = 20.0km
VANCOUVER ISLAND REGION (25)
<PGC>. ML 2.9 (PGC). CL 2.9 (SEA). Felt on the Saanich Peninsula from Sidney to Victoria. Also felt on Salt Spring Island.

PGC	0.09	237	iPc	27	17.63	-0.1
			S	27	20.05	
SNB	0.14	55	iPc	27	18.26	0.0
VGZ	0.28	177	iPc	27	19.74	-0.6
			S	27	24.01	
MCW	0.34	93	iPc	27	20.63	-0.6
			eS	27	25.78	
STW	0.59	202	eP	27	24.59	-0.8
OHW	0.66	124	iPd	27	25.52	-1.0
			eS	27	33.86	
NAB	0.68	321	iPd	27	25.87	-1.1
			iS	27	34.86	
BIB	0.71	2	iPd	27	26.44	-1.0
			S	27	35.85	
BLN	0.73	160	iPd	27	26.81	-1.1
			eS	27	36.10	
PFB	0.74	261	iPc	27	26.93	-1.0
			S	27	36.81	
HNB	0.77	41	iPc	27	27.39	-1.0
			S	27	37.48	
CMW	0.86	108	eP	27	28.92	-1.1
			eS	27	41.19	
VDB	0.88	68	P	27	29.20	-1.2
OSD	0.91	195	iPd	27	30.15	-0.8
MBW	0.96	84	eP	27	30.83	-1.0
PGW	1.01	150	eP	27	31.39	-1.1
HDW	1.07	169	eP	27	31.84	-1.8
JCW	1.07	118	eP	27	32.03	-1.6
OLQ	1.08	197	eP	27	35.90	2.2
GMW	1.21	162	eP	27	33.98	-1.7
BLH	1.23	134	eP	27	35.16	-0.8
RPW	1.24	101	eP	27	35.25	-1.0
SPW	1.36	147	eP	27	37.57	-0.2
SMW	1.38	180	eP	27	38.48	0.4
HTW	1.38	130	eP	27	37.14	-1.0

25 obs. associated

? APR 19, 1989 13h 35m 07.62± 0.88s
43.962 N ± 9.4km 7.309 E ± 9.1km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 1.0 (STR).

TOUF	0.07	320	Pg	35	10.08	-0.1
AURF	0.08	170	Pg	35	10.06	-0.1
AUTN	0.09	69	Pg	35	10.51	0.1
MVIF	0.13	240	Pg	35	11.01	0.1
			Sg	35	13.38	

S.D. = 0.2 on 4 of 4 obs.

APR 19, 1989 13h 41m 37.36± 0.90s
36.414 N ± 6.5km 5.550 W ± 7.6km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)

MOMI	0.17	236	iP	41	42.00	0.8
SRO	0.21	138	iP	41	43.00	1.1
OJEN	0.31	178	iP	41	43.00	-0.9
PLAT	0.34	210	iP	41	43.50	-0.8
CNIL	0.41	264	iP	41	46.00	0.3
LIJA	0.50	13	iP	41	47.00	-0.4

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

APR 19, 1989 14h 48m 56.70± 0.46s
17.858 N ± 6.8km 105.228 W ± 4.8km
DEPTH = 10.0km (geophysicist)
5.1mb (10 obs.) 5.4Msz (7 obs.)
OFF COAST OF JALISCO, MEXICO (54)

Ms 5.7 (BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 39C
Centroid Location:
Origin Time 14:49: 2.1 0.4
Lat 17.99N 0.04 Lon 105.47W 0.04
Dep 15.0 FIX Half-duration 2.9
Moment Tensor; Scale 10**17 Nm
Mrr=-0.40 0.10 Mtt=-4.72 0.13
Mff= 5.12 0.16 Mrt= 0.03 0.39
Mrf=-0.64 0.35 Mtf=-1.44 0.11
Principal Axes:

T	Val= 5.40	Plg= 6	Azm= 82
N	-0.47	84	254
P	-4.93	1	352

Best Double Couple:Mo=5.2*10**17
NP1:Strike=127 Dip=85 Slip= 176
NP2: 217 86 5

COLM	1.96	48	P	49	28.20	-2.3
MRX	4.24	64	P	50	04.50	1.7
			S	51	06.00	
ACX	5.22	100	iPd	50	15.50	-1.3
MZX	5.43	348	iP	50	18.20	-1.5
CRX	5.48	73	P	50	21.80	1.1
UNM	5.92	75	(P)	50	29.80	3.0
IIC	5.97	71	P	50	28.60	1.1
IISM	7.54	80	eP	50	49.20	-0.1
OXX	8.15	94	iP	50	58.00	-0.2
ALQ	17.05	357	iPd-	52	58.80	1.8
	1.5s		305.56nm			5.2mb
Z	20s		31.91um			
			iS	56	18.00	
GLA	17.42	332	eP	53	03.00	1.5
BAR	18.00	327	eP	53	10.00	1.3
TPC	18.86	331	eP	53	21.00	1.8
UYO	18.88	29	eP	53	17.70	-1.8
PEC	19.21	328	P	53	23.80	0.2
MWC	19.93	327	eP	53	27.00	-4.8X
PAS	19.93	327	eP	53	32.00	0.4
			ePg	54	24.00	
			eS	57	20.00	
			ePcP	57	24.00	
			eLg	58	09.00	
			eLR	58	48.00	
SBB	20.18	329	eP	53	34.00	-0.3
GSC	20.19	332	eP	53	35.00	0.5
CLC	20.98	331	eP	53	42.00	-0.6
SYP	21.19	324	eP	53	45.00	0.2
ISA	21.28	329	eP	53	46.00	0.4
BCH	21.74	325	P	53	50.00	-0.3
GLD	21.82	0	P	53	51.00	-0.2
PRI	22.77	326	eP	54	01.50	1.0
PWLA	22.90	39	P	54	02.30	0.6
FRI	22.93	329	ePd	54	02.50	0.5
LLA	23.27	327	eP	54	05.70	0.3
PRS	23.29	325	eP	54	06.70	1.2
EUR	23.48	339	iP	54	09.50	1.9
	1.0s		38.85nm			4.9mb
FVM	23.88	30	P	54	10.50	-0.7
ELC	23.93	33	P	54	11.40	-0.3
CMB	24.09	330	ePd	54	13.80	0.5
GCC	24.14	326	e(P)	54	13.50	-0.2
MHC	24.18	327	ePd	54	14.50	0.2
BKS	24.90	327	iPc	54	23.20	2.1
	1.6s		113.00nm			5.3mb
Z	20s		15.00um			5.5Msz
N	20s		14.00um			
E	20s		14.00um			
			iS	58	51.00	
			eLQ	59	44.00	
			eLR	01	12.00	
BW06	25.11	352	P	54	23.00	-0.4
GBTN	25.73	42	P	54	29.40	0.4
ORV	25.82	330	e(P)	54	30.00	0.2
TKL	26.00	43	P	54	30.40	-1.2
UPA	26.47	106	(P)+	54	36.50	0.5
Z	20s		6.06um			5.1Msz
MIN	26.50	331	eP	54	35.50	-0.7
JSC	26.93	48	P	54	40.30	0.2
WDC	27.12	330	e(P)	54	41.30	-0.4
FHC	27.99	329	e(P)	54	50.70	1.0
LRM	28.52	349	ePd	54	54.80	0.1
BLA	29.10	44	P	55	00.00	0.2
CBN	31.67	45	eP	55	22.00	-0.4
PSO	32.03	118	eP	55	27.50	1.2
FUQ	33.14	108	eP	55	39.50	3.6X
BOG	33.20	110	eP	55	38.00	1.6
			eS	01	02.00	
PNT	33.47	343	eP	55	39.00	0.9
EDM	35.86	352	ePd	55	57.50	-1.0
FFC	36.88	3	iPd	56	06.00	-1.0
	1.6s		132.00nm			5.5mb
RSNY	37.00	37	P	56	06.30	-1.9
	1.2s		27.59nm			4.9mb
GAC	37.16	35	eP	56	10.50	1.0
BNH	38.96	39	P	56	25.80	1.1
MIM	40.64	40	P	56	38.40	-0.1
YKC	45.04	354	eP	57	12.50	-1.6
SCH	47.13	29	eP	57	30.00	-0.8
ZOBO	49.86	131	eP	57	53.00	-0.1
Z	20s		2.34um			5.2Msz
			S	05	08.00	
			LR	15	04.00	
LPB	50.05	131	P	57	55.00	0.6
Z	19s		4.17um			5.5Msz
			S	05	10.00	
			LR	15	36.00	
CNCB	50.32	131	P	57	55.00	-1.6
CCH	52.02	130	P	58	08.50	-0.7
FRB	52.22	20	eP	58	09.00	-0.7
TOA	52.60	337	eP	58	13.10	0.3
KDC	52.85	330	eP	58	13.70	-0.8
PMR	53.43	336	eP	58	18.00	-0.7
	1.5s		40.10nm			5.2mb
Z	20s		0.50um			4.6Msz
INK	53.51	347	ePd	58	17.90	-1.3
FBA	54.91	339	eP	58	28.30	-1.3
SVW	55.85	333	eP	58	34.60	-1.9
ATB	56.30	107	e(P)	58	40.90	0.6
TTA	56.87	335	eP	58	41.80	-2.1
IMA	57.59	339	eP	58	47.50	-1.5
MBC	58.87	356	ePd	58	56.10	-1.5
	1.0s		39.00nm			5.5mb
BRW	61.34	343	P	59	11.40	-3.2X
ALE	66.81	6	eP	59	46.00	-4.2X
	1.4s		30.00nm			5.3mb
SOB1	68.97	108	eP	00	02.80	-2.0
ITR	71.05	106	eP	00	23.30	5.8X
KBS	77.59	10	eP	01	03.50	9.4X
EKA	82.16	34	P	01	27.00	8.0X
	1.2s		11.60nm			4.9mb
NB2	86.57	26	P	01	40.50	-0.7
	1.1s		4.40nm			4.6mb
AVE	86.67	56	eP	01	48.00	5.8X
CLL	92.61	34	eP	02	17.00	7.2X
Z	19s		2.00um			5.6Msz
BRG	93.35	34	e(P)	02	18.50	5.3X
			e	02	50.00	
			e	06	14.00	
KHC	94.11	35	eP	02	31.50	14.7X
KMR	95.01	36	e(P)	02	23.00	2.1
KBA	95.10	37	i(P)	02	31.00	9.4X
ZST	96.56	35	eP	02	41.30	13.3X
Z	22s		2.50um			5.7Msz
			e	02	47.70	
FRS	133.55	114	e(PKP)	08	23.50	7.9X
SNG	144.36	312	ePKP	08	30.80	-4.9X
IPM	145.82	308	ePKPd	08	39.00	0.7
PSI	148.63	308	iPKPc	08	46.50	3.8X

S.D. = 1.2 on 77 of 93 obs.

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* APR 19, 1989 15h 00m 33.53± 1.03s
17.643 N ±14.2km 105.077 W ±10.8km
DEPTH = 10.0km (geophysicist)
OFF COAST OF JALISCO, MEXICO (54)

MRX	4.22	60	eP	01	39.50	0.2
ACX	5.05	98	iP	01	50.70	-0.4
IISM	7.44	78	eP	02	24.50	-0.2
OXX	8.00	93	eP	02	33.50	0.7
ALQ	17.27	356	eP	04	35.00	-1.6
	1.8s		48.86nm			4.3mb X
GLA	17.68	332	eP	04	41.00	-0.5
BAR	18.26	327	eP	04	48.00	-0.7
TPC	19.11	331	eP	04	59.00	-0.2
ISA	21.53	329	eP	05	27.00	2.0
ZOBO	49.61	131	P	09	27.00	-1.0
LPB	49.80	131	eP	09	35.00	5.7X
CNCB	50.07	131	P	09	31.00	-0.5
INK	53.75	347	eP	09	49.00	-8.8X
UPP	90.00	25	iP	13	36.60	2.2
			i	13	39.60	

```
FRS    133.33 114 ePdiff16 37.00 -12.1X
SLR    136.10 109 ePdiff16 53.50  -8.2X
     S.D. = 1.3  on  12 of  16 obs.
--------------------------------------
*  APR  19, 1989  16h 15m 28.86± 1.11s
   17.659 N ±15.4km  105.270 W ±13.4km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  2 obs.)
 OFF COAST OF JALISCO, MEXICO     ( 54)

MRX      4.37  62 iP     16 37.80   1.0
                 iS     17 37.50
ALO     17.25 357 eP     19 32.80   1.2
        1.8s    26.14nm          4.1mb
UYO     19.08  28 eP     19 52.40  -1.6
GOL     21.96 360 P      20 25.50   0.6
GLD     22.01   0 P      20 26.00   0.7
KVN     24.07 335 P      20 30.50 -14.9X
FVM     24.07  30 P      20 45.00  -0.2
ELC     24.12  33 P      20 46.00   0.3
RSCP    24.99  41 P      20 54.20  -0.1
BW06    25.30 353 P      20 49.00  -8.4X
FFC     37.08   3 eP     22 40.00  -0.9
        0.8s     6.00nm          4.4mb
YKA     45.26 354 P      23 55.50   7.5X
MBC     59.06 356 eP     25 30.00  -1.1
BRS    108.28 246 iPdiff29 53.70   0.7
                  i     30 26.10
                  i     30 48.00
COO    109.59 243 ePdiff30 09.00  10.2X
CAN    112.64 239 ePdiff30 25.80  13.6X
BWA    113.02 240 ePdiff30 17.90   3.9X
TOO    115.64 236 e(Pdif30 29.00   3.5X
WMO    117.68 349 iPKPd 34 16.50  -0.6
     Z  12s      0.70um          5.5MszX
BFD    117.97 237 ePdiff30 17.00 -18.8X
                  e     31 00.00
                  e     36 37.00
     S.D. = 1.0  on  12 of  20 obs.
--------------------------------------
   APR  19, 1989  16h 23m 52.45± 1.24s
    6.947 S ± 4.5km  129.905 E ± 6.1km
   DEPTH =  68.8 ± 13.5 km
   5.2mb ( 14 obs.)
 BANDA SEA                        (280)

AAI      3.66 332 ePc    24 55.00   7.1X
                 eS     25 42.20
MTN      5.98 168 eP     25 21.30   0.8
KNA      8.82 187 eP     25 58.70  -0.9
                 eS     27 29.00
MNI      9.75 329 eP     26 19.50   7.1X
JAY     11.63  68 ePc    26 38.20   0.4
                 eS     28 34.50
WB5     13.57 162 iPd    27 00.30  -3.0X
WRA     13.62 162 Pd     27 01.20  -2.8
        0.3s    19.40nm          5.1mb
MNDI    13.69  88 eP     27 06.50   1.4
TSM     16.21 313 eP     27 44.00   6.7X
OIS     16.47 146 eP     27 38.00  -2.7
                 eS     30 27.00
ASPA    17.06 167 iPd    27 46.60  -1.5
        0.5s   134.00nm          5.4mb
                 eS     30 42.40
TRT     17.15 266 ePc    27 52.50   3.4X
MBL     17.16 214 eP     27 49.00  -0.3
        0.6s   121.00nm          5.3mb
                 eS     30 44.00
PMG     17.25  99 eP     27 52.50   2.1
KKM     18.79 313 ePd    28 11.00   1.7
                 e      28 19.00
WARB    19.38 189 eP     28 07.40  -8.3X
        0.4s    34.00nm          5.0mb
                 eS     31 30.00
CTA     20.55 131 iPc    28 28.70   0.9
        1.1s    88.61nm          5.0mb
                 i      28 32.80
                 i      28 41.10
NANU    20.81 220 iPd    28 31.70   1.3
        0.3s    27.00nm          5.1mb
MEKA    22.35 208 eP     28 47.00   1.1
                 eS     32 54.00
FORR    23.84 184 iPc    29 01.50   1.3
        0.4s    69.00nm          5.5mb
COOL    25.19 198 eP     29 13.70   0.5
MRWA    25.74 209 iPd    29 18.90   0.5
        0.4s    13.00nm          4.8mb

                 e      29 44.00
                 iS     34 11.40
RMO     26.45 139 eP     29 25.00   0.1
                 e      29 49.00
                 e      34 43.00
BAL     26.59 206 eP     29 26.60   0.4
KLB     27.02 203 iPd    29 30.60   0.6
        0.5s    19.00nm          4.9mb
                 eS     34 36.00
STK     27.10 158 eP     29 31.00   0.3
                 e      29 55.00
                 eS     34 38.00
NWAO    28.41 203 eP     29 43.00   0.5
                 e      30 05.00
ADE     29.04 165 e(P)   29 43.10  -5.2X
IPM     31.02 291 ePd    30 05.50  -0.5
                 e      30 08.00
PSI     32.37 286 ePc    30 17.80   0.0
        0.6s    30.30nm          5.3mb
LOE     36.89 311 eP     30 56.50   0.1
CHG     39.84 310 iPc    31 21.80   0.7
        0.9s    33.19nm          5.2mb
WHN     40.15 339 P      31 24.50   1.1
NJ2     40.19 345 Pc     31 24.60   0.9
TSRJ    42.64   7 P      31 44.30   0.5
CHJJ    43.61  11 P      31 50.90  -0.7
MTMJ    43.93   9 P      31 54.10  -0.3
MAT     43.95  10 eP     31 53.00  -1.4
        0.8s     7.46nm          4.5mb
CD2     45.21 328 eP     32 04.20  -0.4
XAN     45.35 335 Pd     32 05.00  -0.7
TIY     47.33 341 iPd    32 21.40   0.1
BJI     48.44 346 eP     32 29.00  -0.8
LZH     49.31 332 eP     32 37.00   0.2
        1.5s    44.00nm          5.3mb
     Z  12s     1.30um          5.1MszX
HHC     50.46 342 eP     32 45.60   0.2
CN2     50.67 356 Pd     32 46.20  -0.6
BTO     50.73 340 eP     32 46.40  -1.1
GTA     53.88 331 iPd    33 11.00   0.0
PKI     55.02 311 P      33 19.00  -0.8
KKN     55.23 311 P      33 20.60  -0.6
DMN     55.27 310 P      33 21.00  -0.5
        0.5s    24.00nm          5.5mb
GKN     55.83 311 P      33 24.80  -0.6
MAIO    78.58 309 iPc    35 48.40  -0.1
AVY     80.40 252 eP     36 00.00   1.2
LPG    117.86 318 ePKP   42 32.70  -0.5
        0.5s     2.10nm
BGF    119.99 321 ePKP   42 36.70  -0.2
        0.6s     3.90nm
MFF    121.84 322 ePKP   42 39.90  -0.5
CNCB   150.50 143 iPKPc  43 41.00   7.1X
LPB    150.65 143 PKP    43 41.00   7.1X
UPA    150.78  84 (PKP)  43 39.60   6.0X
ZOBO   150.84 142 PKP    43 41.00   6.6X
CCH    151.09 147 PKP    43 42.00   7.6X
PPD    151.18 178 e(PKP) 43 40.00   5.9X
     S.D. = 1.0  on  49 of  62 obs.
--------------------------------------
&  APR  19, 1989  16h 38m 22.55s
   60.737 N          151.901 W
   DEPTH =  76.2km
 KENAI PENINSULA, ALASKA          ( 14)
      <AGS-P>.

RDT      0.30 237 iP     38 34.34  -0.3
                 eS     38 44.31
NKA      0.33  89 iP     38 36.35   1.7
SPU      0.45 351 iP     38 35.19  -0.6
                 iS     38 45.89
RED      0.54 234 iP     38 36.04  -0.5
                 eS     38 47.14
CRP      0.55 347 iP     38 36.37  -0.4
CGLM     0.58 355 iP     38 36.40  -0.5
NNL      0.76 156 iP     38 39.27   0.5
ILIM     0.84 219 iP     38 38.93  -0.9
                 iS     38 52.43
SLKM     0.86 105 iP     38 39.08  -0.9
SUA      0.92  37 iP     38 40.36  -0.4
                 iS     38 55.03
PMS      1.25  65 eP     38 44.19  -0.7
                 eS     39 01.30
CNPM     1.26 164 iP     38 43.89  -1.1
                 iS     39 01.23
SKT      1.26   8 P      38 43.84  -1.1
OPT      1.27 212 iP     38 44.59  -0.6

                 eS     39 02.14
XLV      1.29 176 eP     38 44.26  -1.1
                 eS     39 03.40
PWA      1.34  46 eP     38 45.68  -0.3
SEW      1.37 117 eP     38 44.85  -1.5
PDB      1.49 231 iP     38 46.49  -1.5
                 iS     39 05.55
AUL      1.56 210 iP     38 48.23  -0.7
PLRM     1.59  56 eP     38 47.68  -1.7
PME      1.65  56 eP     38 48.63  -1.5
GHO      1.77  53 eP     38 50.08  -1.8
SVW      1.86 283 eP     38 50.84  -2.1
CDD      2.02 207 eP     38 53.79  -1.4
KNIM     2.09  99 eP     38 52.91  -3.3
MTU      2.24 108 eP     38 55.34  -2.9
GLI      2.36  84 eP     38 56.36  -3.5
                 eS     39 23.68
VZW      2.63  81 eP     39 01.01  -2.7
FID      2.66  87 eP     39 01.89  -2.2
VLZ      2.75  79 eP     39 02.44  -2.7
KTH      2.86   9 eP     39 04.66  -2.3
TTA      2.94 320 eP     39 05.54  -2.4
KLU      3.00  73 iP     39 06.04  -2.8
TOA      3.08  61 eP     39 08.25  -1.6
       34 obs. associated
--------------------------------------
   APR  19, 1989  16h 40m 28.38± 0.44s
   30.133 N ± 7.6km   90.046 E ± 5.2km
   DEPTH =  33.0km  (normal)
   4.5mb (  5 obs.)
 TIBET                            (306)

LSA      1.05 114 iPgc    40 45.00  -2.3
                 Sg     41 02.00
KKN      4.78 242 P       41 40.80   0.6
PKI      4.80 239 P       41 41.80   1.2
DMN      5.01 241 P       41 43.80   0.3
GKN      5.19 247 P       41 46.20   0.3
NDI     11.28 266 eP      43 09.00  -1.3
                 eS     45 07.50
WMQ     13.79 353 eP     43 44.50   0.7
CHG     13.87 142 eP     43 44.80  -0.1
GYA     15.09 100 P      44 01.40   0.5
BTO     19.31  52 eP     44 55.00   1.4
     N  13s      0.80um
                 eS     48 36.00
QUE     19.97 276 eP     45 01.30   0.4
HHC     20.47  53 eP     45 05.80  -0.2
WHN     20.98  83 eP     45 13.00   1.9
     E  12s      0.49um
                 S      49 07.00
BJI     23.48  58 eP     45 41.00   5.2X
SNG     24.90 154 eP     45 54.40   4.6X
MAIO    26.22 292 eP     46 03.00   0.9
        1.0s    12.50nm          4.5mb
MLR     51.60 306 eP     49 33.50  -0.2
SUF     51.76 328 iP     49 34.30  -0.2
SOD     52.37 334 eP     49 40.00   0.9
HFS     57.67 325 eP     50 16.70  -0.9
        0.5s     0.90nm          4.1mb
NB2     58.80 326 P      50 23.70  -1.9
        1.0s     3.80nm          4.5mb
LPG     64.77 309 eP     51 05.10  -1.1
        0.9s     5.50nm          4.7mb
TCF     67.51 311 eP     51 22.50  -0.8
        1.0s     6.00nm          4.6mb
     S.D. = 1.1  on  21 of  23 obs.
--------------------------------------
&  APR  19, 1989  17h 30m 56.95s
   61.226 N          151.858 W
   DEPTH =  81.7km
 SOUTHERN ALASKA                  (  2)
      <AGS-P>.

SPU      0.10 245 iP     31 08.51   1.3
                 eS     31 17.79
CGLM     0.11 319 iP     31 08.55   1.3
CRP      0.15 286 eP     31 08.90   1.4
NKA      0.57 148 iP     31 13.33   1.7
                 eS     31 24.60
SUA      0.59  66 iP     31 11.66  -0.3
                 eS     31 23.61
RDT      0.71 203 eP     31 03.60  -9.5
SKT      0.77  12 iP     31 12.71  -1.1
                 eS     31 25.64
RED      0.93 209 eP     31 14.84  -0.7
PWA      1.04  65 eP     31 16.47  -0.4
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19d 17h

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SLKM     1.08 131 eP     31 17.19  -0.2
                 eS     31 32.31
PME      1.42  72 eP     31 20.24  -1.4
                 eS     31 38.76
CNPM     1.73 169 eP     31 24.61  -1.3
PDB      1.85 220 iP     31 26.39  -1.0
       13 obs. associated
-----------------------------------------
% APR 19, 1989  19h 06m 15.09± 0.82s
  37.651 N ± 7.5km   30.013 E ± 8.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

BCK      0.50 112 iPg    06 25.00  -0.2
                 iSg    06 34.80
KHL      0.77 330 iPn    06 29.20  -1.0
ELL      0.91 185 ePn    06 32.30  -0.2
ALT      1.40   3 ePn    06 41.70   0.9
YER      1.47 250 ePn    06 42.20   0.5
     S.D. = 1.1  on   5 of   5 obs.
-----------------------------------------
% APR 19, 1989  19h 30m 36.86± 0.69s
  40.137 N ± 6.3km   29.345 E ± 6.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

HRT      0.73  20 ePg    30 50.50  -0.7
GPA      0.75  78 ePg    30 50.80  -0.8
DST      0.77 226 iPg    30 50.70  -1.2
                 iSg    31 00.70
ISK      0.95 347 ePg    30 55.90   0.9
BNT      1.11 282 iPg    30 57.70   0.0
EDC      1.15 281 iPg    30 58.50   0.1
                 eSg    31 11.50
CTT      1.23 326 ePn    31 00.00   0.3
ALT      1.23 151 iPn    31 01.20   1.4
     S.D. = 1.0  on   8 of   8 obs.
-----------------------------------------
* APR 19, 1989  19h 49m 34.69± 0.89s
  37.711 N ± 7.4km   14.693 E ± 7.6km
   DEPTH =  10.0km  (geophysicist)
 SICILY                          (398)

MNO      0.22   0 Pc     49 40.20   0.6
                 eSg    49 44.30
GIB      0.60 298 P      49 46.40  -0.4
                 eSg    49 54.80
MEU      0.64 163 Pc     49 47.80   0.2
                 eSg    49 58.00
ATN      0.76  53 P      49 49.10  -0.4
SOI      1.14  71 P      49 55.80  -0.1
                 eSg    50 13.20
     S.D. = 0.6  on   5 of   5 obs.
-----------------------------------------
& APR 19, 1989  20h 08m 41.00s
  59.692 N          153.084 W
   DEPTH =  99.4km
 SOUTHERN ALASKA                 (  2)
     <AGS-P>.

OPT      0.08 242 iP     08 54.60   1.1
AUL      0.36 210 iP     08 55.58  -0.4
ILIM     0.39   9 iP     08 55.81  -0.5
                 iS     09 08.20
AUI      0.40 206 eP     08 55.58  -0.7
PDB      0.57 280 iP     08 56.68  -0.8
RED      0.75  12 iP     08 58.50  -0.6
CDD      0.82 201 iP     08 58.70  -1.1
RDT      0.95  21 eP     09 00.50  -0.7
                 iS     09 15.70
CNPM     0.95  99 iP     09 00.25  -0.9
                 eS     09 15.70
NNL      0.97  68 eP     09 01.45   0.1
SPU      1.58  18 iP     09 07.75  -0.9
CRP      1.65  16 eP     09 09.03  -0.6
                 S      09 31.71
SLKM     1.65  59 eP     09 08.49  -1.1
CGLM     1.71  18 iP     09 09.61  -0.7
SEW      1.88  76 eP     09 10.78  -1.6
SVW      1.90 320 iP     09 11.48  -1.3
SUA      2.12  32 eP     09 15.05  -0.7
                 S      09 41.27
SKT      2.42  18 eP     09 18.46  -1.2
MTU      2.76  81 eP     09 22.51  -1.7
KNIM     2.76  74 iP     09 21.70  -2.6
GLI      3.21  66 eP     09 27.64  -2.8
KLU      3.97  60 eP     09 38.52  -2.3

       22 obs. ossociated
-----------------------------------------
   APR 19, 1989  20h 25m 30.11± 0.71s
  37.849 N ± 8.2km   14.705 E ± 5.8km
   DEPTH =  10.0km  (geophysicist)
 SICILY                          (398)

MNO      0.08 354 Pd     25 35.90   3.1X
                 eSg    25 38.70
GIB      0.55 285 Pd     25 41.50   0.1
                 eSg    25 50.00
MSI      0.76  62 Pd     25 46.40   1.5
                 eSg    25 59.20
MEU      0.77 166 Pd     25 43.50  -1.7
                 eSg    25 54.00
MCT      0.88 256 P      25 49.30   2.2
SOI      1.09  78 P      25 51.40   0.8
                 eSg    26 06.90
USI      1.48 306 P      25 54.60  -2.1
                 eSg    26 16.10
CVT      1.53 264 P      25 57.30  -0.1
ERC      1.68 277 P      26 00.40   0.6
                 eSn    26 17.60
TDS      2.21  35 P      26 07.20  -0.2
                 eSn    26 33.90
MGR      2.38  16 Pd     26 08.90  -0.9
SGO      2.75  10 P      26 15.20   0.2
BRT      3.59  32 P      26 26.40  -0.6
     S.D. = 1.4  on  12 of  13 obs.
-----------------------------------------
   APR 19, 1989  21h 34m 44.44± 0.81s
  37.818 N ± 8.5km   14.744 E ± 6.7km
   DEPTH =  10.0km  (geophysicist)
 SICILY                          (398)

MNO      0.12 341 Pc     34 50.40   2.8
                 eSg    34 53.60
GIB      0.59 287 P      34 56.10  -0.4
                 eSg    35 06.10
MEU      0.73 168 P      34 58.00  -0.9
                 eSg    35 08.40
MCT      0.90 258 P      35 03.90   2.1
                 eSg    35 15.70
SOI      1.07  76 P      35 05.90   1.4
                 eSg    35 20.10
USI      1.52 306 P      35 09.30  -2.3
                 eSg    35 32.50
CVT      1.55 265 Pc     35 11.90  -0.2
ERC      1.72 278 Pd     35 15.20   0.6
LVI      1.91 276 P      35 16.60  -0.7
                 eSn    35 42.40
TDS      2.22  34 P      35 21.60  -0.2
MGR      2.40  15 P      35 23.40  -1.0
SGO      2.77   9 P      35 29.10  -0.5
BRT      3.60  31 P      35 40.90  -0.5
     S.D. = 1.5  on  13 of  13 obs.
-----------------------------------------
* APR 19, 1989  22h 05m 57.84± 0.63s
  44.707 N ±11.1km  147.685 E ±11.5km
   DEPTH =  33.0km  (normal)
   4.6mb (  2 obs.)
 KURIL ISLANDS                   (221)

OFUJ     7.19 221 eP     07 42.50  -0.8
NIIJ     9.93 224 eP     08 19.70  -1.6
MAT     10.87 225 (P)    08 33.00  -1.2
                 eS     11 43.00
CHJJ    10.89 220 eP     08 36.50   2.1
MTMJ    11.04 226 eP     08 35.50  -1.1
MDJ     12.89 276 eP     08 56.00  -5.2X
     Z  15s      1.10um
                 S      11 25.00
CN2     15.96 275 Pc     09 42.00   0.7
     Z  18s      0.90um
     E  12s      0.40um
                 eS     12 36.00
BJI     23.66 270 eP     11 07.00   0.1
     Z  14s      0.29um          3.9MszX
                 eS     15 16.00
HHC     26.65 274 eP     11 35.60   0.2
TIY     27.27 268 eP     11 45.40   4.4X
     N  15s      0.50um
                 S      16 24.00
                 sS     16 35.00
BTO     27.84 275 eP     11 46.50   0.3
     Z  15s      0.70um          4.4MszX
     N  15s      0.80um
                 eS     16 31.50
GTA     35.52 279 eP     12 54.20   0.5
     E  13s      0.41um
IMA     37.67  35 eP     13 10.00  -1.4
FBA     40.10  37 eP     13 30.60  -0.9
INK     45.38  31 eP     14 13.00  -1.4
CHG     47.92 254 eP     14 34.50  -0.5
YKA     54.79  34 P      15 28.10   1.8
FFC     64.70  37 eP     16 35.00   0.5
     1.0s     11.00nm          4.9mb
WB5     65.41 194 eP     16 41.70   2.4
WRA     65.48 194 Pd     16 40.00   0.2
     0.6s     1.30nm           4.2mb
     S.D. = 1.3  on  18 of  20 obs.
-----------------------------------------
   APR 19, 1989  22h 39m 28.70± 0.17s
  37.257 N ± 1.3km  115.096 W ± 1.5km
   DEPTH =   3.2 ±  1.1 km
 SOUTHERN NEVADA                 ( 41)
     ML 3.5 (NEIS).

PRN      0.15  14 iPc    39 32.40   0.5
NPN      0.41  18 iP     39 36.90  -0.1
MTI      0.44 341 iPc    39 37.70   0.1
DLM      0.45  39 iP     39 37.10  -0.6
GMR      0.54 278 iP     39 40.00   0.4
SRG      0.62   2 eP     39 41.00  -0.2
GLR      0.74 266 iP     39 43.80   0.3
WRN      0.82 332 iPc    39 44.70  -0.4
OCS      0.83 308 iPc    39 45.30   0.1
CPX      0.83 247 eP     39 45.30   0.0
BLT      0.85 286 eP     39 45.50  -0.1
BGB      0.93 257 eP     39 46.90  -0.3
LOP      0.95 245 eP     39 47.40  -0.1
SSP      0.96 250 eP     39 47.70   0.0
TMBR     1.05 258 iP     39 49.50   0.2
CDH1     1.05 248 eP     39 49.20  -0.1
LSM      1.07 242 iPc    39 49.60   0.0
YMT6     1.12 250 iP     39 50.60   0.2
KRNA     1.13 296 iPc    39 51.10   0.5
YMT5     1.14 252 eP     39 50.90   0.1
JON      1.15 225 eP     39 50.60  -0.3
YMT3     1.15 246 eP     39 51.00   0.0
YMT4     1.16 250 eP     39 51.20   0.1
SDH      1.17 239 eP     39 51.40   0.2
YMT2     1.21 247 eP     39 51.90   0.0
YMT1     1.22 251 eP     39 52.30   0.3
BMTN     1.23 272 eP     39 52.70   0.3
CTS      1.36 288 eP     39 54.60   0.0
EMN      1.36 168 eP     39 54.60   0.1
AMR      1.40 233 iP     39 55.40   0.3
NOP      1.41 217 eP     39 55.20  -0.1
HCR      1.44 313 iPc    39 55.80  -0.1
FMT      1.48 246 eP     39 56.40   0.0
SGV      1.57 260 iP     39 57.90   0.2
GWY      1.66 230 eP     39 58.60  -0.3
GMN      1.73 272 eP     40 00.00   0.0
GVN      1.81 263 iP     40 01.10   0.0
PANV     1.82 243 eP     40 01.20  -0.1
MOA      1.85 252 eP     40 01.60   0.0
MZP      1.87 284 eP     40 01.90  -0.3
TNP      1.87 297 iPc    40 02.10   0.0
TMO      1.90 257 iP     40 02.40  -0.2
MGM      1.92 276 eP     40 02.80   0.0
OSM      1.92 228 eP     40 02.10  -0.5
LCH      2.04 270 eP     40 04.10  -0.3
SVP      2.20 283 eP     40 06.70  -0.2
PPK      2.25 275 eP     40 07.20  -0.3
EUR      2.33 343 iP     40 08.50  -0.2
     0.2s     15.07nm
MSU      2.63  61 eP     40 12.80  -0.2
KVN      2.97 308 eP     40 17.40  -0.4
PEC      3.76 207 eP     40 28.50  -0.3
GLA      4.20 177 eP     40 35.00  -0.1
CMB      4.27 282 eP     40 39.50   3.4X
BCH      4.53 244 eP     40 39.50  -0.4
PV09     4.88  73 eP     40 46.00   1.0
BW06     6.96  36 eP     41 14.50   0.2
     S.D. = 0.3  on  55 of  56 obs.
-----------------------------------------
   APR 19, 1989  23h 40m 33.09± 0.74s
  42.602 N ± 6.1km   18.959 E ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 YUGOSLAVIA                      (383)
     MD 2.0 (TTG).

NKY      0.21   8 iPgd   40 37.70  -0.1
```

			iSg	40	42.20	
TTG	0.28	128	iPgc	40	38.30	-0.7
			iSg	40	43.10	
BDV	0.33	197	iPgc	40	40.00	0.0
			eSg	40	46.50	
BRY	0.43	314	ePg	40	41.80	-0.1
			eSg	40	49.00	
ULC	0.67	161	ePg	40	46.00	-0.5
			eSg	40	56.40	
OHR	2.03	137	e(Pn)	41	09.00	1.3

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

? APR 19, 1989 23h 54m 57.28± 2.70s
7.182 N ±23.7km 73.811 W ±46.2km
DEPTH = 128.7 ± 32.3 km
NORTHERN COLOMBIA (99)

FUQ	1.70	178	eP	55	36.00	7.7X
BOG	2.55	186	iPc	55	39.00	0.0
			iS	56	11.00	
UPA	5.94	288	(P)	57	26.50	62.3X
			e	57	44.60	
LPB	24.23	167	eP	00	12.00	7.9X
CNCB	24.52	166	eP	00	07.00	0.0
BAO	34.18	132	e(P)	01	05.00	-27.5X
SOB1	36.62	116	eP	01	18.40	-34.7X
ITR	38.66	114	eP	02	02.20	-8.0X
			e	02	14.90	
YKA	62.69	340	P	05	10.30	0.0
M8C	73.33	350	eP	06	16.00	0.0
ZST	85.31	42	eP	07	30.70	9.7X
			e	22	33.60	
SRO	86.16	42	eP	07	25.30	0.1
MLR	91.72	44	iPc	07	53.00	1.4
VRI	92.17	43	eP	07	52.00	-1.5

S.D. = 1.2 on 7 of 14 obs.

• APR 20, 1989 00h 10m 37.67± 0.73s
46.862 N ±14.7km 152.900 E ±10.8km
DEPTH = 33.0km (normal)
4.8mb (8 obs.) 4.3Msz (1 obs.)
KURIL ISLANDS (221)

KUSJ	6.92	240	P	12	17.50	-1.8
			eS	13	31.60	
ASAJ	7.71	253	eP	12	33.90	3.5X
HOOJ	8.19	240	eP	12	37.80	0.8
			eS	14	04.00	
MDJ	16.42	271	eP	14	27.50	0.5
HHC	30.14	274	eP	16	46.90	0.3
CD2	40.74	265	eP	18	17.80	0.8
GYA	41.60	257	P	18	24.00	-0.1
INK	41.64	32	iPc	18	25.00	1.2
			pP	18	42.50	71kmX
MBC	44.54	20	eP	18	48.00	0.6
ALE	49.65	6	eP	19	27.00	-0.3
	0.7s	7.00nm			4.8mb	
YKA	50.92	37	eP	19	38.20	0.9
CHG	52.00	256	eP	19	46.20	0.2
KKN	55.33	275	P	20	11.20	0.5
PKI	55.38	275	P	20	11.20	-0.1
DMN	55.57	275	P	20	12.80	0.3
GKN	55.64	276	P	20	13.00	0.1
EDM	56.34	46	iP	20	17.00	-0.5
FFC	60.75	40	eP	20	48.00	-0.1
	1.0s	17.00nm			5.1mb	
LRM	61.24	53	eP	20	52.10	0.2
SUF	62.85	335	eP	21	01.00	-1.0
FRB	64.99	19	eP	21	14.00	-2.0
NUR	65.04	335	iP	21	15.30	-1.1
Z	21s	0.20um			4.3Msz	
		LR		34	40.00	
NB2	68.08	341	P	21	34.60	-1.1
	0.9s	9.30nm			4.9mb	
HFS	68.30	339	eP	21	35.70	-1.3
	0.7s	12.50nm			5.1mb	
GBA	70.28	269	Pc	21	48.70	-1.1
	0.8s	3.80nm			4.5mb	
VRI	76.27	325	eP	22	25.00	0.6
CLL	76.30	335	iPd	22	24.20	-0.3
	1.1s	11.00nm			4.8mb	
MLR	76.89	325	iPc	22	28.80	0.7
PRU	77.02	334	eP	22	16.00	-12.5X
KHC	78.07	334	P	22	34.50	0.1
GRF	78.26	336	eP	22	36.40	1.0
	0.8s	8.00nm			4.8mb	
KBA	79.97	333	iPd	22	45.30	0.4
	0.8s	4.80nm			4.5mb	
PRNI	84.95	310	e(P)	23	12.20	1.5
MBH	85.47	310	eP	23	09.00	-4.2X

S.D. = 0.9 on 31 of 34 obs.

APR 20, 1989 00h 37m 24.18± 0.48s
42.350 N ± 5.2km 19.999 E ± 3.6km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.4 (TTG).

BCI	0.05	72	iPgd	37	26.40	0.1
PVY	0.25	356	ePg	37	29.90	0.4
			eSg	37	34.50	
PUK	0.32	194	iPgc	37	25.00	-5.8X
KKS	0.41	132	ePg	37	32.50	-0.1
SDA	0.50	228	ePg	37	34.80	0.5
TTG	0.55	279	ePg	37	34.50	-0.9
			iSg	37	44.10	
ULC	0.68	235	ePg	37	37.50	-0.2
			eSg	37	47.50	
LACI	0.75	197	ePg	37	44.50	5.7X
BDV	0.87	266	ePg	37	41.00	0.1
			eSg	37	56.00	
HCY	1.12	275	ePg	37	45.30	0.2
			eSg	38	02.50	
SKO	1.14	109	ePg	37	45.00	-0.4
			eSg	38	03.50	
OHR	1.38	154	ePn	37	49.80	0.4

S.D. = 0.5 on 10 of 12 obs.

? APR 20, 1989 00h 56m 13.28±10.24s
32.359 S ±60.8km 72.051 W ±59.1km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)

ROCH	1.07	125	iPc	56	31.50	-0.7
			iS	56	41.00	
LCCH	1.18	160	iPd	56	33.50	-0.1
			iS	56	45.00	
JACH	1.27	105	iP	56	35.20	0.2
			iS	56	48.50	
PEL	1.39	125	iPd	56	36.70	0.1
			iS	56	50.50	
SAN	1.60	133	iP	56	39.10	-0.5
			iS	56	56.30	
LNV	1.68	162	iP	56	40.50	-0.2
			iS	56	58.20	
PCH	1.80	135	iPd	56	43.00	0.3
			iS	57	04.90	
CHCH	1.96	144	iPd	56	45.80	0.9
			iS	57	08.00	

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

& APR 20, 1989 01h 07m 02.55s
59.892 N 150.464 W
DEPTH = 50.1km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

BRLK	0.25	239	iP	07	11.06	-0.3
NNL	0.44	290	iP	07	13.71	0.5
CNPM	0.54	227	iP	07	13.60	-0.8
SEW	0.55	67	iP	07	13.86	-0.6
			eS	07	23.05	
SLKM	0.63	11	iP	07	15.45	-0.1
			S	07	25.57	
HOM	0.64	249	eP	07	15.37	-0.3
XLV	0.77	236	iP	07	16.28	-1.1
NKA	0.94	336	iP	07	20.92	1.3
RDT	1.19	306	iP	07	22.15	-1.0
ILIM	1.27	280	iP	07	23.02	-1.3
RED	1.27	296	iP	07	23.17	-1.2
MTU	1.42	85	eP	07	24.44	-1.9
OPT	1.42	261	iP	07	25.57	-0.8
PMS	1.43	18	iP	07	26.05	-0.5
KNIM	1.44	70	iP	07	24.90	-1.7
SPU	1.51	329	iP	07	27.04	-0.7
AUE	1.57	251	iP	07	27.92	-0.5
SUA	1.58	355	iP	07	28.15	-0.6
AUL	1.59	253	eP	07	28.33	-0.4
AUH	1.60	252	eP	07	28.55	-0.4
AUI	1.61	251	eP	07	28.27	-0.7
CGLM	1.61	332	iP	07	28.65	-0.5
CRP	1.61	330	P	07	28.77	-0.4
PWA	1.79	9	iP	07	30.78	-0.7
KNK	1.82	32	iP	07	31.03	-0.9
PLRM	1.83	20	iP	07	31.09	-1.0
PME	1.88	21	iP	07	32.02	-0.8
PDB	1.89	268	iP	07	31.44	-1.4
			iS	07	54.32	
CDD	1.89	241	eP	07	31.77	-1.2
GLI	1.94	58	iP	07	31.38	-2.4
			iS	07	53.56	
GHO	2.03	21	iP	07	34.21	-0.8
			iS	08	01.62	
MID	2.14	101	iP	07	35.23	-1.3
SKT	2.16	347	iP	07	36.15	-0.6
FID	2.16	65	iP	07	34.19	-2.6
			iS	07	58.69	
VZW	2.26	57	iP	07	36.26	-2.0
VLZ	2.39	57	iP	07	38.17	-1.8
			iS	08	06.01	
KLU	2.75	52	iP	07	43.70	-1.6
			iS	08	14.92	
SVW	2.83	298	iP	07	43.98	-2.4
TOA	3.05	41	iP	07	48.65	-0.9
GLB	3.62	62	iP	07	54.95	-2.7
KTH	3.68	357	eP	07	58.21	-0.2
PAX	3.91	36	eP	08	00.08	-1.6
MCK	3.92	10	eP	08	01.16	-0.6
TTA	4.05	321	eP	08	01.43	-2.2
BALM	4.18	71	eP	08	02.13	-3.4
LVY	4.38	7	eP	08	07.16	-1.0
DDM	4.48	27	eP	08	09.12	-0.5
CTGM	4.65	73	eP	08	08.95	-3.2
			eS	08	57.23	
WRH	4.73	13	eP	08	11.36	-1.7
NEA	4.75	7	eP	08	11.40	-2.0
HDA	4.82	18	eP	08	12.83	-1.6
CCB	4.93	13	eP	08	13.92	-2.1
RDS	5.07	11	eP	08	16.07	-1.9
PCA	5.13	83	eP	08	15.91	-3.0
FBA	5.18	13	eP	08	17.53	-1.9
GLM	5.31	14	eP	08	19.29	-2.1
IMA	6.37	348	eP	08	34.09	-2.2
HYT	6.50	76	P	08	35.00	-3.1
DWY	6.66	47	P	08	37.20	-3.0
FYU	7.10	17	eP	08	43.60	-2.7
INK	11.18	34	eP	09	38.00	-4.3
MBC	19.64	22	eP	11	27.00	-2.3

62 obs. associated

• APR 20, 1989 02h 16m 05.97± 2.81s
55.494 N ±28.5km 4.826 W ±13.0km
DEPTH = 10.0km (geophysicist)
UNITED KINGDOM (533)

EKA	0.96	99	Pd	16	24.30	0.0
	0.2s	10.70nm				
DMU	2.00	218	eP	16	40.10	-0.1
DLE	2.43	205	eP	16	46.40	0.1
DCN	2.59	215	eP	16	48.50	0.0
YRH	2.67	177	eP	16	49.60	-0.2
ETA	2.92	197	eP	16	53.60	0.3
ECP	3.44	196	eP	17	00.50	-0.2

S.D. = 0.2 on 7 of 7 obs.

? APR 20, 1989 02h 45m 45.59± 3.08s
44.194 N ±58.7km 150.005 E ±34.7km
DEPTH = 33.0km (normal)
4.2mb (1 obs.)
KURIL ISLANDS REGION (222)

KUSJ	4.00	256	P	46	42.90	-3.1X
			S	47	26.00	
HOOJ	5.23	252	eP	47	03.50	0.0
			eS	48	00.90	
ASAJ	5.30	272	eP	47	05.30	0.8
MRRJ	6.75	258	eP	47	24.30	-0.6
			eS	48	38.50	
INK	44.97	31	ePd	54	00.60	1.7
MBC	47.73	19	eP	54	19.00	-1.6
NB2	69.91	340	P	56	51.70	-3.2X
	1.0s	2.30nm			4.2mb	
KHC	79.54	333	eP	57	50.00	-0.4

S.D. = 1.5 on 6 of 8 obs.

• APR 20, 1989 03h 14m 02.50± 1.15s
22.708 N ±13.2km 121.691 E ±16.3km
DEPTH = 33.0km (normal)
4.0mb (3 obs.)
TAIWAN REGION (243)

20d 03h

ANP		2.47	356	eP	14 42.00	0.6
QZH		3.61	309	Pn	14 54.70	-2.7
				Sn	15 30.00	
SSE		8.37	357	ePn	16 03.00	-1.4
	Z	12s		0.50um		
	N	11s		0.50um		
				Lg	18 20.00	
NJ2		9.64	345	eP	16 25.80	3.8X
	Z	12s		0.50um		
				eS	18 02.40	
WHN		10.20	321	eP	16 25.50	-4.1X
	N	12s		0.96um		
	E	11s		0.88um		
				S	18 09.80	
QIZ		11.66	254	eP	16 58.00	8.3X
GYA		14.17	288	P	17 23.00	-0.1
	E	10s		0.80um		
				S	19 47.40	
TIY		16.94	334	eP	18 02.40	3.7X
	N	11s		0.80um		
	E	11s		0.50um		
BJI		17.90	346	(P)	18 05.50	-5.0X
CD2		17.96	301	eP	18 12.60	1.2
BTO		20.38	334	eP	18 36.00	-3.2X
	N	12s		0.80um		
	E	12s		1.00um		
LZH		20.44	315	e(P)	18 42.00	2.1
CHG		21.61	264	eP	18 58.10	6.3X
KKN		33.24	286	P	20 48.00	8.9X
WRA		44.15	163	P	22 19.00	9.0X
		0.4s		0.70nm	3.8mb	
WARB		48.84	174	eP	22 46.00	-0.8
SOD		71.19	336	eP	25 20.00	0.3
SUF		72.57	331	iP	25 28.30	0.3
SLL		79.09	331	eP	26 05.10	0.2
		0.5s		1.00nm	4.1mb	
NB2		79.74	332	P	26 08.80	0.3
		0.8s		1.30nm	4.0mb	
YKA		84.14	23	P	26 38.60	7.3X
	S.D. = 1.4 on 11 of 21 obs.					

% APR 20, 1989 04h 36m 04.02± 1.44s
15.355 N ± 5.5km 60.777 W ±17.4km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 2.5 (FDF).

BBL		0.70	284	eP	36 17.50	-0.3
FDF		0.72	210	eP	36 18.53	0.4
				S	36 32.40	
MVM		0.80	188	eP	36 19.92	0.3
				S	36 34.60	
BIM		0.88	199	eP	36 20.38	-0.6
				S	36 36.30	
DEG		0.99	344	eP	36 22.40	-0.4
				S	36 38.50	
SEG		1.26	326	eP	36 28.00	0.7
	S.D. = 0.6 on 6 of 6 obs.					

? APR 20, 1989 05h 31m 29.99± 1.16s
44.318 N ±26.4km 149.840 E ±20.0km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
KURIL ISLANDS (221)

KUSJ		3.91	254	P	32 27.30	-1.9
				eS	33 09.30	
HOOJ		5.15	250	P	32 48.60	1.8
				eS	33 45.10	
ASAJ		5.18	270	eP	32 51.60	4.4X
INK		44.93	31	eP	39 42.50	-0.4
YKA		54.24	35	P	40 54.40	0.0
WRA		65.50	196	Pd	42 12.00	-0.1
		0.8s		2.80nm	4.4mb	
NB2		69.76	340	P	42 35.40	-3.0X
		0.4s		0.50nm	3.9mb	
KHC		79.38	332	eP	43 34.50	0.6
	S.D. = 1.6 on 6 of 8 obs.					

APR 20, 1989 06h 13m 53.29± 0.95s
13.328 N ± 9.3km 90.757 W ± 5.9km
DEPTH = 64.5 ± 6.2 km
4.8mb (18 obs.)
NEAR COAST OF GUATEMALA (71)

IXG		0.89	19	iPc	14 10.40	-0.1
TER		0.97	4	ePd	14 11.00	-0.5
MYT		0.98	43	ePd	14 13.00	1.3
FUG		1.12	356	iPd	14 12.50	-1.0
REC		1.13	12	iPd	14 13.90	0.3
MMG		1.21	3	iPc	14 14.90	0.1
ITG		1.26	356	iPc	14 15.50	-0.1
GCG		1.27	10	ePd	14 16.50	1.0
				S	14 55.50	
YUP		1.27	47	iPc	14 09.30	-6.3X
BVA		1.34	5	eP	14 17.50	1.0
SLP		1.48	18	ePc	14 19.50	1.1
KKG		2.05	323	iPd	14 22.10	-4.2X
				S	14 45.00	
SBG		2.19	325	ePd	14 25.00	-3.4X
OXX		6.86	304	iP	15 31.80	-2.0
				iS	17 04.30	
IISM		8.49	312	(P)	15 51.00	-5.1X
IIT		9.20	309	(P)	16 06.30	0.2
ACX		9.47	293	iP	16 05.30	-4.2X
III		9.77	302	iP	16 11.80	-2.0
				iS	18 09.50	
IIC		10.36	309	(P)	16 21.80	-0.2
CRX		10.48	306	(P)	16 20.00	-3.6X
GCM		10.77	55	eP	16 32.25	5.0X
UPA		11.83	110	ePc	16 40.60	-0.8
		1.0s		28.00nm	5.2mb X	
	Z	18s		0.76um		
MRX		11.84	304	eP	16 40.50	-1.1
OLY		22.09	358	P	18 44.80	0.4
RSCP		22.66	11	P	18 51.00	0.9
TKL		23.11	15	P	18 55.00	0.6
ELC		23.90	3	P	19 02.20	0.2
ALQ		25.78	329	ePc	19 20.30	0.2
		0.8s		5.22nm	4.1mb	
GOL		29.26	337	P	19 51.00	-0.8
		0.8s		7.89nm	4.4mb	
GLA		29.45	316	eP	19 54.00	0.7
TPC		30.89	316	eP	20 07.00	1.0
DHN		31.34	18	P	20 09.00	-0.8
MSU		31.47	327	P	20 11.80	0.6
RVR		31.73	315	eP	20 15.00	1.7
DAU		32.42	330	P	20 19.00	-0.6
SBB		32.43	316	eP	20 20.00	0.5
CLC		32.93	318	eP	20 24.00	0.2
ISA		33.42	317	eP	20 29.00	0.9
BW06		33.54	335	P	20 28.50	-0.8
		0.8s		4.02nm	4.4mb	
RSNY		34.06	21	P	20 31.70	-1.8
TNP		34.07	321	P	20 34.30	0.5
		1.2s		10.75nm	4.7mb	
EUR		34.25	324	iP	20 37.00	1.6
		0.2s		17.30nm	5.6mb	
MNA		34.86	321	e(P)	20 42.20	1.6
FRI		34.99	317	ePc	20 41.20	-0.3
PRI		35.16	316	eP	20 43.80	0.7
KVN		35.21	322	P	20 44.00	0.4
PRS		35.75	315	e(P)	20 49.30	1.4
SAO		36.03	316	ePc	20 52.30	2.0
CMB		36.03	318	ePc	20 51.00	0.7
ARN		36.40	317	P	20 54.20	0.7
MHC		36.47	317	ePc	20 55.00	0.9
ZOBO		36.95	142	P	20 56.00	-2.8
				eLR	33 12.00	
LRM		37.23	335	eP	21 01.10	0.6
RSON		37.50	357	P	21 00.70	-1.8
		0.8s		63.38nm	5.6mb	
MIN		38.15	321	ePc	21 08.80	0.6
WDC		38.86	320	ePc	21 12.50	-1.5
FHC		39.89	320	ePc	21 23.90	1.3
FFC		42.23	350	iPc	21 41.00	-0.5
		0.9s		22.00nm	4.9mb	
LON		42.29	328	P	21 42.50	0.3
EDM		43.66	340	iPc	21 52.60	-0.6
		0.9s		57.00nm	5.4mb	
SCH		45.45	19	eP	22 06.00	-1.5
YKA		51.96	346	P	22 56.80	-0.9
FRB		52.70	12	eP	23 01.00	-2.2
SOB1		54.33	112	eP	23 16.30	0.4
				e	23 22.80	
ITR		56.41	110	eP	23 30.50	-0.4
				e	23 39.80	
INK		61.42	343	ePc	24 03.30	-1.5
PMR		63.56	333	P	24 18.00	-1.1
		1.0s		12.00nm	4.9mb	
FBA		64.34	337	P	24 22.90	-1.3
		0.8s		7.24nm	4.7mb	
				pP	24 58.00	146kmX
MBC		64.73	353	eP	24 25.00	-1.5
		0.7s		10.00nm	4.9mb	
TTA		67.04	333	P	24 40.00	-1.6
		1.0s		6.25nm	4.5mb	
IMA		67.05	337	P	24 39.70	-2.0
ALE		70.15	4	eP	24 58.00	-2.4
		0.8s		8.00nm	4.7mb	
NB2		84.16	29	P	26 18.50	0.0
		0.9s		2.60nm	4.3mb	
TIC		84.36	85	P	26 21.26	0.8
		0.8s		11.50nm	5.0mb	
LIC		84.45	85	P	26 21.86	1.0
		0.8s		12.50nm	5.0mb	
KIC		84.70	85	P	26 23.12	1.1
		0.7s		12.50nm	5.1mb	
HFS		85.60	29	eP	26 25.20	-0.5
		0.9s		6.80nm	4.7mb	
KUK		88.97	84	eP	26 44.00	1.1
KOGH		89.11	84	eP	26 45.00	1.4
WRA		136.39	255	PKPd	33 18.90	8.6X
		0.6s		1.70nm		
CHG		146.66	343	ePKPc	33 30.50	2.0
		1.3s		27.88nm		
LOE		147.07	338	ePKP	33 31.50	2.4
HYB		147.68	19	ePKPd	33 33.80	3.7X
		1.2s		30.00nm		
GBA		150.80	24	PKPc	33 41.10	6.2X
		1.1s		27.00nm		
NNT		152.23	338	ePKP	33 47.30	10.2X
	S.D. = 1.2 on 74 of 85 obs.					

& APR 20, 1989 06h 35m 55.35s
58.946 N 152.128 W
DEPTH = 66.3km
KODIAK ISLAND REGION (13)
<AGS-P>.

CNPM		0.74	38	iP	36 09.98	-0.7
				iS	36 20.80	
HOM		0.76	19	eP	36 10.24	-0.6
				eS	36 21.85	
AUI		0.77	301	iP	36 10.22	-0.9
CDD		0.79	269	iP	36 10.31	-1.0
OPT		0.91	322	eP	36 11.94	-0.8
				eS	36 25.28	
BRLK		1.04	37	iP	36 13.77	-0.7
				eS	36 28.75	
NNL		1.18	21	iP	36 16.45	0.2
ILIM		1.21	340	iP	36 15.95	-0.9
				iS	36 32.49	
PDB		1.35	310	iP	36 17.73	-0.9
				iS	36 35.34	
RED		1.51	348	eP	36 19.98	-0.9
				eS	36 39.13	
RDT		1.64	355	iP	36 21.85	-0.7
SEW		1.79	48	iP	36 23.27	-1.3
SLKM		1.84	31	iP	36 24.33	-1.0
				iS	36 46.84	
NKA		1.86	14	iP	36 26.50	1.0
SPU		2.24	1	iP	36 30.39	-0.6
CRP		2.33	360	iP	36 31.89	-0.4
CGLM		2.37	1	iP	36 32.37	-0.4
SUA		2.62	15	iP	36 35.50	-0.8
KNIM		2.64	56	iP	36 34.39	-2.0
PMS		2.64	28	iP	36 35.66	-0.8
PWA		2.94	21	eP	36 39.46	-1.1
PLRM		3.05	28	iP	36 40.56	-1.5
SKT		3.06	5	iP	36 41.82	-0.5
KNK		3.08	35	iP	36 40.96	-1.7
PME		3.10	28	iP	36 41.42	-1.5
GLI		3.19	50	iP	36 41.48	-2.7
GHO		3.25	28	iP	36 43.62	-1.5
FID		3.38	55	iP	36 44.09	-2.7
VZW		3.51	50	iP	36 46.60	-2.1
VLZ		3.64	51	iP	36 48.58	-1.8
KLU		4.01	48	iP	36 53.98	-1.8
TOA		4.32	40	iP	36 59.12	-1.0
TTA		4.42	336	eP	36 59.74	-1.8
GLB		4.85	55	iP	37 04.95	-2.5
BALM		5.34	63	iP	37 11.71	-2.7
CTGM		5.79	65	eP	37 18.69	-2.1
PCA		6.15	74	iP	37 23.71	-2.0
FBA		6.31	17	eP	37 25.22	-2.7
YKA		18.51	63	P	40 08.80	0.5
	39 obs. associated					

? APR 20, 1989 06h 53m 26.30± 1.01s
35.951 N ±31.6km 70.316 E ±27.2km

DEPTH = 33.0km (normal)
3.8mb (2 obs.)
HINDU KUSH REGION (718)

NDI	9.30	139	eP	55 41.00	-0.1	
GKN	14.50	119	P	56 51.80	0.6	
DMN	15.07	119	P	56 59.10	0.4	
KKN	15.08	118	P	56 58.60	-0.2	
PKI	15.30	119	P	57 02.40	0.6	
GUN	15.44	117	P	57 02.40	-1.3	
HFS	43.16	322	eP	01 25.50	0.4	
	0.4s	1.10nm		4.0mb		
NB2	44.49	323	P	01 35.60	-0.4	
	0.4s	0.50nm		3.7mb		
YKA	81.82	2	P	05 38.40	-4.5X	

S.D. = 0.8 on 8 of 9 obs.

APR 20, 1989 06h 53m 33.06± 0.93s
2.968 N ± 4.3km 126.400 E ± 6.5km
DEPTH = 94.3 ± 8.9 km
4.9mb (15 obs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 35C
Centroid Location:
Origin Time 06:53:32.5 0.4
Lat 3.07N 0.05 Lon 126.43E 0.06
Dep 33.3 3.2 Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr= 0.87 0.05 Mtt= 0.32 0.05
Mff=-1.19 0.08 Mrt= 0.48 0.08
Mrf= 1.25 0.14 Mtf=-0.11 0.06
Principal Axes:

	Val=	Plg=	Azm=
T	1.58	61	308
N	0.24	12	195
P	-1.82	26	99

Best Double Couple:Mo=1.7*10**17
NP1:Strike=163 Dip=22 Slip= 56
NP2: 19 72 103

MNI	2.17	226	iPd	54 07.80	-0.5	
			eS	54 40.50		
DAV	4.17	349	eP	54 38.00	2.3	
TSM	8.41	279	eP	55 35.00	1.0	
KKM	10.60	287	eP	56 05.50	1.7	
QCP	12.73	336	eP	56 32.00	0.1	
BAG	14.53	337	eP	56 57.00	1.4	
JAY	15.30	111	ePd	57 05.80	0.6	
MTN	16.40	163	iPd	57 15.30	-3.7X	
			eS	00 20.30		
KNA	18.74	173	eP	57 45.00	-2.5	
ANP	22.58	348	eP	58 30.00	3.5X	
QIZ	22.74	316	eP	58 29.00	1.0	
GZH	23.66	329	eP	58 36.40	-0.5	
WB5	24.02	161	iPd	58 39.20	-1.2	
			iS	02 54.20		
WRA	24.07	161	Pc	58 40.00	-0.9	
	0.5s	24.50nm		4.9mb		
MBL	24.83	195	iPd	58 58.90	10.8X	
SNG	26.01	280	eP	59 05.20	6.0X	
QIS	26.73	152	eP	59 04.00	-1.6	
ASPA	27.46	165	iPc	59 11.20	-1.1	
	0.5s	10.00nm		4.6mb		
			eS	03 48.90		
NANU	27.51	202	iPd	59 13.70	1.1	
	0.5s	14.00nm		4.8mb		
LOE	28.14	302	eP	59 17.20	-1.3	
SSE	28.41	351	eP	59 15.00	-5.7X	
Z	20s	0.50um		4.1Msz		
		eS		04 00.00		
		esS		04 20.00		
WARB	28.98	180	eP	59 18.20	-7.7X	
	0.4s	10.00nm		4.8mb		
NJ2	29.79	347	Pc	59 33.60	0.6	
GYA	30.06	323	P	59 35.00	-0.7	
CTA	30.08	140	eP	59 40.00	4.2X	
MEKA	30.37	194	eP	59 38.00	-0.3	
CHG	31.14	302	ePc	59 44.10	-1.1	
	1.2s	19.53nm		4.7mb		
		eS		05 12.00		
KMI	31.69	316	Pd	59 50.50	0.4	
MRWA	33.52	197	eP	00 06.00	0.3	
TSRJ	33.60	14	eP	00 05.90	-0.4	
FORR	33.67	177	iPd	00 05.30	-1.6	
	0.3s	23.00nm		5.5mb		
IIDJ	34.06	17	eP	00 10.50	0.1	
CHJJ	34.92	18	eP	00 16.70	-0.9	
XAN	34.95	334	P	00 15.70	-2.3	
CD2	35.07	325	eP	00 17.00	-2.0	
MTMJ	35.07	16	eP	00 18.20	-0.8	
MAT	35.14	17	eP	00 19.00	-0.5	
	0.7s	11.64nm		4.9mb		
		(S)		05 43.00		
NIIJ	36.02	17	eP	00 26.30	-0.6	
DL2	36.03	354	Pc	00 27.00	0.0	
TIY	36.88	341	eP	00 33.80	-0.4	
Z	30s	1.90um		4.7MszX		
STK	37.54	159	eP	00 39.00	-0.8	
BJI	38.05	347	Pd	00 43.50	-0.4	
SNY	38.77	357	Pc	00 49.80	-0.1	
Z	30s	0.80um		4.4MszX		
N	30s	0.70um				
E	29s	0.70um				
		S		06 44.00		
LZH	38.99	330	eP	00 52.00	-0.1	
	1.5s	132.00nm		5.6mb		
ADE	39.47	164	eP	00 57.10	1.3	
	0.8s	22.39nm		5.1mb		
BRS	39.47	142	iPc	00 55.10	-0.8	
HHC	40.02	342	eP	00 59.60	-0.8	
CN2	40.67	359	eP	01 03.40	-2.1	
Z	20s	0.50um		4.4Msz		
		pP		01 18.00	57kmX	
		ePP		02 39.00		
MDJ	41.57	3	eP	01 13.20	0.3	
BWA	42.57	153	eP	01 22.30	1.0	
BFD	42.67	161	eP	01 23.00	1.0	
LSA	42.70	312	P	01 23.80	0.9	
GTA	43.58	330	eP	01 28.30	-1.2	
CAN	43.58	153	eP	01 30.00	0.5	
GUN	45.91	307	P	01 47.60	-1.0	
PKI	46.14	306	P	01 49.80	-0.6	
KKN	46.34	306	P	01 51.00	-0.8	
DMN	46.40	306	P	01 51.00	-1.4	
GKN	46.95	306	P	01 55.60	-1.0	
HYB	49.07	290	ePc	02 12.00	-1.0	
	1.0s	50.00nm		5.4mb		
KOD	49.09	281	eP	02 13.20	-0.3	
GBA	49.49	285	Pd	02 15.30	-0.9	
	0.5s	11.40nm		5.1mb		
WMQ	53.16	326	Pd	02 42.50	-1.0	
Z	26s	0.80um		4.7MszX		
POO	53.67	291	eP	02 44.50	-3.1X	
MAIO	69.71	308	eP	04 35.00	0.0	
AVY	80.26	250	eP	05 37.30	1.6	
TTA	81.72	27	eP	05 44.00	1.7	
IMA	83.21	24	eP	05 50.70	0.6	
	1.1s	13.30nm		4.8mb		
PMR	84.77	29	eP	05 58.00	0.3	
DSI	89.33	301	e(P)	06 12.00	-8.5X	
NAI	89.66	269	eP	06 25.00	2.3	
PRNI	89.73	300	iPc	06 24.00	1.5	
MBH	89.86	300	iPd	06 25.00	2.0	
INK	90.99	21	ePd	06 28.50	1.1	
			pP	06 48.00	70kmX	
SOD	91.04	338	eP	06 27.00	-0.7	
SUF	92.08	333	iP	06 32.20	-0.3	
	0.4s	2.90nm		5.0mb		
MBC	92.76	13	eP	06 36.00	0.5	
VRI	94.62	316	ePc	06 46.00	1.4	
HFS	98.53	332	eP	07 01.00	-1.0	
	0.4s	1.00nm		4.7mb		
NB2	99.32	333	P	07 04.70	-1.0	
	0.7s	2.30nm		4.9mb		
YKA	100.32	24	Pdiff	07 13.50	3.4X	
UYO	126.69	43	ePKP	12 29.20	1.6	
KIC	130.35	281	PKP	12 36.60	1.5	
LIC	130.65	281	PKP	12 37.60	1.9	
LNV	144.98	154	ePKP	13 05.00	3.7X	
SAN	145.73	154	ePKP	13 06.00	3.3X	
PEL	145.98	154	ePKP	13 05.70	2.5	
CNCB	160.28	135	ePKP	13 32.00	8.0X	
LPB	160.38	134	ePKP	13 33.00	9.1X	
ZOBO	160.54	134	ePKP	13 27.00	2.7	

S.D. = 1.2 on 76 of 90 obs.

APR 20, 1989 07h 54m 03.14± 0.32s
7.775 S ± 9.2km 107.922 E ± 9.7km
DEPTH = 33.0km (normal)
4.7mb (4 obs.)
JAVA (277)

NANU	16.42	154	eP	57 47.50	-5.3X	
			eS	00 35.00		
MEKA	21.28	153	eP	58 50.00	0.9	
			eS	02 30.00		
MRWA	22.64	161	eP	59 04.00	1.3	
			eS	03 00.00		
MTN	23.37	104	iPd	59 10.60	0.7	
	0.4s	15.00nm		4.9mb		
WARB	25.54	138	eP	59 22.30	-8.4X	
			eS	04 03.00		
WB5	28.30	118	eP	59 55.20	-0.8	
WRA	28.30	118	Pd	59 55.00	-1.0	
	0.4s	2.10nm		4.2mb		
ASPA	29.49	125	eP	00 05.60	-1.2	
GYA	34.05	358	P	00 48.00	1.3	
KOD	35.21	300	eP	01 01.00	4.0X	
GBA	36.98	305	Pc	01 11.00	-0.5	
	0.6s	4.60nm		4.5mb		
HYB	38.33	311	eP	01 23.50	0.6	
STK	39.45	132	iPd	01 31.90	-0.2	
	0.4s	11.00nm		5.0mb		
PKI	41.34	329	PKP	01 48.60	0.5	
GUN	41.39	330	PKP	01 48.40	-0.1	
DMN	41.53	329	PKP	01 50.40	0.9	
KKN	41.59	329	PKP	01 50.60	0.6	
XAN	41.59	1	P	01 49.50	-0.2	
GKN	42.09	329	PKP	01 53.60	-0.4	
BRS	46.68	120	iPc	02 31.20	0.4	
NDI	46.81	322	iPc	02 31.00	-0.7	
MAIO	63.13	317	eP	04 29.00	-1.2	
BUL	77.37	251	iPc	05 56.40	-0.7	
MBH	79.34	302	eP	06 08.00	0.4	
PRNI	79.40	303	iPc	06 08.00	0.0	
SUF	93.09	333	eP	07 14.00	-0.6	
SOD	93.78	337	iP	07 16.90	-0.8	
YKA	117.26	21	ePKP	12 45.90	-0.5	
CYA	143.49	189	e(PKP)	13 50.50	13.6X	
UYO	146.60	35	iPKP	13 43.20	1.3	
BAO	146.68	226	e(PKP)	13 33.00	-9.6X	
SLA	147.06	191	ePKPd	13 22.70	-20.4X	
CUM	171.75	289	ePKP	14 06.00	-4.1X	
			i	14 18.80		
			e	19 36.00		
			i	21 09.00		

S.D. = 0.8 on 26 of 33 obs.

APR 20, 1989 08h 08m 51.09± 0.16s
9.259 S ± 3.6km 79.033 W ± 3.6km
DEPTH = 63.0km (geophysicist)
5.8mb (55 obs.)
OFF COAST OF NORTHERN PERU (108)
Felt at Limo, Chimbote and Trujillo. Depth from broadband displacement seismograms.
RADIATED ENERGY
No. of sta: 4 Focal mech. C
Energy 1.2±0.6*10**13 Nm
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 19S, 42C
Centroid Location:
Origin Time 08:08:56.4 0.3
Lat 9.43S 0.03 Lon 79.16W 0.04
Dep 63.1 2.3 Half-duration 2.4
Moment Tensor; Scale 10**17 Nm
Mrr=-3.00 0.10 Mtt= 0.68 0.13
Mff= 2.32 0.19 Mrt=-0.46 0.11
Mrf= 0.40 0.11 Mtf=-1.35 0.11
Principal Axes:

	Val=	Plg=	Azm=
T	3.14	5	240
N	-0.07	4	150
P	-3.07	83	24

Best Double Couple:Mo=3.1*10**17
NP1:Strike=335 Dip=40 Slip= -84
NP2: 147 51 -95

ARE	10.26	135	eP	11 19.00	0.5	
			iS	13 46.30		
PSO	10.52	9	eP	11 22.00	-0.1	
ZOBO	12.71	124	PKP	11 48.90	-2.7	
	0.8s	86.53nm		5.7mb	X	
LPB	12.87	125	PKP	11 54.00	0.4	
	1.0s	84.00nm		5.5mb		
CNCB	13.12	126	PKP	11 56.70	-0.2	
CHN	14.54	14	iPd	12 19.00	3.9X	
BOG	14.65	20	eP	12 18.00	1.2	
			eS	15 12.00		
CCH	14.91	124	P	12 18.00	-2.1	

20d 08h

FUQ	15.55	20	iP	12	35.00	6.6X				pP	18	31.40	66kmX	LLA	60.26	322	ePd	18	55.10	-0.3
ANT	16.56	151	eP	12	44.00	3.3X	GOL	54.49	335	P	18	14.00	-1.0				ePP	19	11.90	63kmX
BMG	17.27	20	eP	12	45.00	-4.8X	GAC	54.80	3	eP	18	15.50	-1.2	PRS	60.33	321	ePd	18	55.70	-0.2
UPA	18.13	358	iPc-	13	01.70	1.5	MIM	54.99	9	P	18	17.80	-0.4				ipP	19	13.00	66kmX
	1.7s	476.92nm			5.4mb		PV09	55.18	331	eP	18	19.50	-0.5	CMB	60.85	323	ePd	18	59.20	-0.2
			i	13	08.50					ipP	18	36.30	64kmX				ePP	19	16.20	64kmX
			i	16	25.00		TPC	55.61	323	eP	18	23.00	0.1				eP'P'	48	25.50	
QCR	19.27	344	iPc	13	14.50	0.9				e	18	39.00		MHC	61.15	322	eP	19	01.80	0.2
LCR2	19.51	345	iPc	13	14.50	-2.0				e	19	21.00					ePP	19	18.80	64kmX
SJS	19.72	345	iPd	13	20.50	2.0				e	19	40.00		GCC	61.17	321	eP	19	01.40	-0.1
SRA	19.96	344	iPc	13	22.50	1.5	PEC	56.14	322	P	18	26.80	0.1				ePP	19	18.40	64kmX
JACH	24.58	163	eP	14	24.50	17.8X	RVR	56.34	322	eP	18	28.00	-0.1	RSON	61.21	349	iP	19	00.10	-1.5
PEL	24.99	163	iPd	14	11.10	0.6				e	18	45.00			1.0s	251.50nm			6.3mb	
	1.1s	205.06nm			5.5mb		MSU	56.68	329	P	18	30.60	-0.1				ipP	19	16.60	62kmX
			i	14	26.70		CBM	56.78	9	eP	18	29.50	-1.5	PCC	61.70	322	eP	19	04.90	-0.2
LCCH	25.06	165	eP	14	29.50	18.4X	GSC	56.89	323	eP	18	33.00	0.9				epP	19	12.10	23kmX
FCH	25.27	163	eP	14	16.00	2.5				e	18	49.00		BKS	61.86	322	iPc	19	07.10	0.9
SAN	25.28	163	eP	14	14.50	1.2	MWC	56.91	321	eP	18	33.00	0.6				ipP	19	23.30	60kmX
LNV	25.56	165	eP	14	16.50	0.7				e	18	48.00		BRK	61.87	322	eP	19	06.10	-0.1
TPP	26.16	42	eP	14	23.25	1.8	PAS	56.93	321	eP	18	33.00	0.7				epP	19	23.40	65kmX
TCE	26.24	41	eP	14	24.35	2.1				e	18	48.00		LRM	62.49	334	ePd	19	09.70	-0.9
TRN	26.43	42	eP	14	24.39	0.4	SBB	57.08	322	eP	18	33.00	-0.4				e	19	26.90	
TBH	26.54	43	eP	14	25.24	0.3				e	18	50.00		ORV	62.51	324	ePd	19	10.60	0.1
RFA	27.18	161	ePd	14	30.50	-0.2	SPRG	57.29	325	P	18	35.50	0.6				ipP	19	28.00	66kmX
ATB	27.29	79	Pd	14	29.80	-2.0				pP	18	52.50	65kmX				eP'P'	48	20.80	
ITB1	28.03	126	eP	14	37.10	-1.3	PRN	57.38	326	P	18	35.60	0.1	NWRM	62.62	322	P	19	11.80	0.6
ITB7	28.43	127	e(P)	14	41.20	-0.9				pP	18	52.70	65kmX	MIN	63.09	325	ePd	19	13.10	-1.4
GCM	28.46	355	eP	14	43.65	1.3	OSM	57.38	324	P	18	35.50	0.0				epP	19	30.80	67kmX
ACX	33.14	321	(P)	15	25.30	1.6				pP	18	52.30	64kmX				eP'P'	48	17.10	
VAO	33.60	118	eP	15	25.80	-2.0	GWY	57.42	324	P	18	35.50	-0.4	WDC	63.78	324	ePd	19	17.80	-1.1
IIT	33.92	326	(P)	15	33.50	2.7	AMR	57.46	324	P	18	35.80	-0.2				ipP	19	33.60	58kmX
III	34.07	324	(P)	15	33.80	1.9				pP	18	52.70	64kmX				eP'P'	48	15.40	
CRX	35.00	325	(P)	15	40.20	0.1	NPN	57.49	327	P	18	36.50	0.1	SCH	64.66	8	ePd	19	22.90	-1.4
IIC	35.05	325	eP	15	43.30	2.8	LSM	57.58	325	P	18	36.80	-0.2		1.1s	106.00nm			5.7mb	
ITA	35.41	116	eP	15	42.90	-0.6				pP	18	53.90	65kmX	FHC	64.77	324	ePd	19	25.80	0.5
BMA	35.98	116	eP	15	47.10	-1.0	MTI	57.69	326	P	18	37.80	0.0				epP	19	43.20	65kmX
MRX	36.12	323	eP	15	51.80	2.7				pP	18	54.60	64kmX	VGB	66.16	329	P	19	35.00	0.9
ITR	40.10	93	eP	16	21.80	-0.7	DAU	57.70	331	P	18	37.70	-0.2				pP	19	51.80	62kmX
			e	16	34.10		YMT3	57.70	325	P	18	37.90	0.2	FFC	66.60	346	ePd	19	35.30	-1.4
			e	16	43.40		CLC	57.71	323	eP	18	38.00	0.2		0.9s	54.00nm			5.5mb	
HBF	41.97	358	P	16	37.60	0.1				e	18	54.00		DPW	66.60	332	P	19	37.00	0.0
SGS	42.24	358	P	16	39.80	0.1	GMR	57.72	326	P	18	38.20	0.2	RUV	66.84	257	iP	19	57.20	18.2X
JSC	43.35	357	eP	16	48.10	-0.6				pP	18	55.10	64kmX		1.2s	90.00nm				
			epP	17	04.00	63kmX	SRG	57.73	327	P	18	38.10	0.1	VAH	67.08	257	iP	19	58.60	18.2X
			iPcP	18	36.00		YMT6	57.74	325	P	18	38.00	-0.1		1.2s	80.00nm				
LHS	43.53	358	P	16	48.50	-1.7	GLR	57.76	325	P	18	38.10	-0.2	TPT	67.08	258	iP	19	59.00	18.5X
PWLA	44.82	349	P	16	59.30	-1.3				pP	18	55.20	65kmX		1.2s	125.00nm				
TKL	44.90	355	P	17	01.00	-0.3	FMT	57.80	324	P	18	38.50	0.0	PMO	67.35	258	iP	20	00.60	18.4X
GBTN	44.95	354	P	17	00.60	-1.1				pP	18	55.30	64kmX		1.2s	135.00nm				
RSCP	45.04	352	iP	17	00.70	-1.8	PANV	57.82	324	P	18	38.20	-0.5	LON	67.53	330	ePd	19	42.45	-0.4
	1.5s	260.58nm			5.8mb					pP	18	55.00	64kmX				ePPc	19	58.18	57kmX
			ipP	17	17.00	64kmX	TMBR	57.85	325	P	18	38.80	-0.2	BMW	68.06	329	P	19	47.10	0.9
			ePcP	18	41.70		WRN	58.09	326	P	18	40.70	0.1	PNT	68.30	333	ePd	19	48.00	0.4
UYO	45.60	342	iPc	17	06.90	0.1				pP	18	57.90	66kmX		1.1s	101.00nm			5.7mb	
OLY	46.04	346	P	17	09.80	-0.5	QCS	58.11	326	P	18	41.20	0.4				pP	20	05.00	63kmX
BLA	46.24	358	iP	17	11.30	-0.6				pP	18	58.30	65kmX	GMW	68.56	330	P	19	48.40	-0.8
	0.7s	31.51nm			5.4mb		ISA	58.13	322	eP	18	41.00	0.3				pP	20	05.20	62kmX
			ipP	17	27.80	65kmX				e	18	57.00		EDM	68.74	339	iPd	19	48.90	-1.4
			iPcP	18	46.00		TMO	58.28	324	P	18	41.80	-0.2		1.3s	540.00nm			6.3mb	
			ePP	19	26.40					pP	18	58.90	65kmX				pP	20	06.00	63kmX
CVL	47.00	1	P	17	17.20	-0.6	DUG	58.28	330	P	18	42.60	0.8	MCW	69.36	331	P	19	54.50	0.4
CBN	47.24	2	eP	17	19.90	0.2	SYP	58.30	321	eP	18	42.00	-0.1	PGC	69.64	330	eP	19	57.00	1.3
	1.0s	68.00nm			5.5mb					e	18	59.00					pP	20	13.00	58kmX
			e	17	43.00		KRNA	58.35	326	P	18	42.70	0.2	FRB	73.23	5	ePd	20	15.60	-1.3
LNO	47.62	342	P	17	20.40	-2.3				pP	18	59.60	64kmX		0.6s	48.00nm			5.6mb	
			e	17	37.00		LCH	58.71	324	P	18	44.40	-0.5	LIC	75.33	81	P	20	30.08	0.0
FVM	48.19	348	iP	17	25.80	-1.3				pP	19	01.20	64kmX	TIC	75.42	81	P	20	30.62	0.0
			ipP	17	42.30	65kmX	HCR	58.73	326	P	18	45.60	0.5	KIC	75.64	81	P	20	31.42	-0.4
			iPcP	18	53.00		MGM	58.77	325	P	18	45.20	-0.2		0.7s	59.00nm			5.6mb	
GMTN	50.09	5	eP	17	40.60	-1.1				pP	19	02.20	65kmX	YKC	76.58	344	ePd	20	35.00	-1.1
PNJ	50.12	5	eP	17	42.00	0.2	BCH	58.80	321	eP	18	46.20	0.7		0.5s	27.00nm			5.5mb	
TBR	50.34	5	P	17	43.40	-0.2				epP	19	02.60	62kmX				pP	20	51.00	57kmX
ALQ	51.05	331	iPd-	17	49.50	0.2	BW06	58.81	334	P	18	44.00	-1.6	YKA	76.63	344	P	20	35.90	-0.5
	1.0s	90.00nm			5.8mb		MZP	58.89	325	P	18	46.00	-0.3	KUK	79.87	82	eP	20	55.00	-0.2
Z	20s	0.71um			4.7Msz		PPK	59.00	324	P	18	46.50	-0.4	LEGH	79.96	83	eP	20	56.00	0.4
			epP	18	05.00	59kmX				pP	19	03.60	65kmX	KOGH	79.98	82	eP	20	56.00	0.2
ANMO	51.05	331	iPd	17	49.67	0.3	TNP	59.06	325	P	18	47.40	0.0	AVE	80.02	54	iPc	20	57.60	2.1
			epPd	18	06.89	67kmX	EUR	59.38	327	iP	18	49.50	-0.1				i	21	15.50	
CHI	51.52	352	iP	17	50.00	-2.5		1.0s	29.81nm			5.4mb		SHGH	80.15	82	eP	20	57.00	0.4
DHN	51.84	1	P	17	53.30	-1.6	FRI	59.76	323	ePd	18	50.60	-1.3	SPA	80.80	180	e(P)	20	59.90	0.6
PTN	53.70	4	P	18	07.80	-0.9				epP	19	07.10	62kmX		0.9s	69.09nm			5.6mb	
RSNY	53.71	4	eP	18	07.00	-1.7				eP'P'	48	26.60		Z	19s	0.34um			4.7Msz	
	1.5s	133.63nm			5.7mb		PRI	59.78	322	ePd	18	52.40	0.2	EVAL	81.86	50	eP	21	06.20	1.1
GLA	54.15	323	eP	18	12.00	-0.3				epP	19	09.20	63kmX	IFR	81.91	54	iPc	21	08.00	2.3
			e	18	28.00		MNA	59.83	325	e(P)	18	52.80	0.2	CNIL	82.02	51	iP	21	08.50	2.6
GLD	54.47	335	P	18	14.20	-0.5	PTI	60.14	332	P	18	54.80	0.2	PLAT	82.17	52	iP	21	10.00	3.2X
	1.6s	268.52nm			6.0mb		KVN	60.23	326	P	18	55.00	-0.4	GIBL	82.23	51	iP	21	09.50	2.4

MOMI	82.26	51	iP	21	10.00	2.8
OJEN	82.34	52	iP	21	07.00	-0.7
ALJ	82.46	51	iP	21	09.50	1.1
SRQ	82.51	51	iP	21	11.00	2.5
LIJA	82.67	51	iP	21	11.50	2.0
EPRU	82.83	51	eP	21	12.00	1.8
EHOR	83.07	50	eP	21	12.00	0.6
ERUA	83.11	45	eP	21	12.50	1.0
EPLA	83.13	48	eP	21	12.50	0.8
MAL	83.39	51	iPd	21	14.00	1.0
			iS	31	31.00	
ATEJ	83.75	51	iP	21	16.70	1.6
AAPN	83.78	51	iP	21	16.00	0.9
ACHM	83.94	51	iP	21	17.60	1.7
APHE	84.01	51	iP	21	18.00	1.7
ASMO	84.08	51	iP	21	17.70	1.0
CRT	84.14	51	eP	21	18.00	1.1
AFC	84.20	51	eP	21	18.50	1.2
EBAN	84.27	50	eP	21	18.50	1.0
TAF	84.43	54	iPc	21	17.50	-0.9
VAL	84.52	35	eP	21	09.00	-9.3X
TOL	84.57	48	ePd	21	19.82	0.9
	1.6s	1000.00nm			6.6mb	
			esP	21	43.82	
			eS	31	42.00	
GUD	84.71	48	eP	21	20.50	0.7
EVIA	85.37	50	eP	21	24.20	1.1
SBA	85.96	191	(P)	21	27.80	2.6
INK	86.28	342	iPd	21	26.60	-0.2
	1.1s	192.00nm			6.2mb	
			pP	21	44.50	64kmX
ETOR	86.29	48	eP	21	28.50	0.9
ECRI	86.44	46	eP	21	28.50	0.3
DCN	86.71	35	eP	21	29.40	0.2
	1.2s	116.00nm			5.9mb	
ECHE	86.77	49	eP	21	30.50	0.6
ECP	86.84	36	eP	21	29.50	-0.3
	1.3s	294.00nm			6.3mb	
AKU	86.96	21	eP	21	31.30	1.2
	1.6s	120.00nm			5.8mb	
ETA	87.10	36	eP	21	30.80	-0.3
	1.2s	152.00nm			6.1mb	
DLE	87.11	35	eP	21	30.80	-0.3
DMU	87.11	34	eP	21	31.60	0.5
TOA	87.75	334	eP	21	34.50	0.4
EBR	88.16	48	eP	21	34.00	-2.4
			eS	32	36.00	
MBC	88.57	351	ePd	21	37.80	0.1
	0.7s	130.00nm			6.3mb	
			pP	21	56.00	65kmX
EPF	88.58	46	eP	21	38.10	-0.4
	1.3s	72.20nm			5.8mb	
PMR	88.84	333	eP	21	39.20	0.0
	1.2s	42.10nm			5.6mb	
LPF	88.89	41	eP	21	38.50	-1.3
	1.1s	60.50nm			5.8mb	
GRR	89.10	41	eP	21	39.80	-1.0
	1.2s	71.40nm			5.8mb	
MFF	89.12	43	eP	21	39.80	-1.1
	1.1s	55.60nm			5.8mb	
LFF	89.32	44	eP	21	40.90	-0.9
	1.3s	82.30nm			5.8mb	
FLN	89.44	40	eP	21	41.60	-0.7
	1.2s	85.60nm			5.9mb	
COL	89.54	337	iPd	21	42.36	-0.2
			epPd	22	00.74	65kmX
			esP	22	06.04	
FBA	89.54	337	ePd	21	42.00	-0.5
LPO	89.56	45	eP	21	42.10	-0.9
	1.3s	64.90nm			5.7mb	
LDF	89.63	41	eP	21	42.10	-1.1
	1.1s	68.30nm			5.8mb	
EKA	89.63	34	P	21	43.00	-0.1
	1.6s	126.60nm			5.9mb	
RJF	89.93	44	eP	21	43.70	-1.1
	1.3s	50.50nm			5.6mb	
LSF	90.16	43	eP	21	44.90	-0.9
	1.3s	46.90nm			5.6mb	
CAF	90.23	45	eP	21	45.20	-1.0
	1.3s	54.10nm			5.7mb	
TCF	90.63	43	eP	21	46.90	-1.1
MAF	90.85	43	eP	21	47.80	-1.2
	1.3s	43.30nm			5.7mb	
BGF	91.12	43	eP	21	49.10	-1.1
	1.3s	64.90nm			5.9mb	
AVF	91.50	43	eP	21	50.60	-1.3
	1.2s	22.00nm			5.4mb	
SVW	91.64	332	eP	21	50.70	-1.6
SSF	91.66	43	eP	21	51.30	-1.4
	1.3s	21.60nm			5.4mb	
SMF	91.80	43	eP	21	52.20	-1.1
	1.5s	73.10nm			5.9mb	
LOR	91.94	43	eP	21	52.70	-1.3
	1.5s	41.70nm			5.6mb	
LBF	91.96	43	eP	21	52.70	-1.4
ALE	91.96	2	eP	21	53.00	-0.4
	1.6s	138.00nm			6.1mb	
			pP	22	15.00	80kmX
IMA	92.25	337	ePd	21	54.70	-0.5
	1.2s	93.00nm			6.1mb	
TTA	92.31	334	eP	21	54.20	-1.2
SNF	92.85	39	P	21	58.30	0.3
DOU	92.96	40	Pc	21	59.00	0.4
	1.0s	33.30nm			5.7mb	
LRG	92.97	47	eP	21	58.50	-0.2
	1.3s	60.60nm			5.9mb	
LMR	93.06	47	eP	21	58.60	-0.5
FRF	93.19	47	eP	21	59.10	-0.7
	1.3s	72.20nm			5.9mb	
CALN	93.40	46	P	22	00.73	-0.2
RRL	93.52	45	P	22	01.76	0.2
VITF	93.52	42	P	22	01.41	0.3
LPG	93.59	45	eP	22	01.90	-0.1
MVIF	93.61	46	P	22	02.01	0.1
PZZ	93.67	46	P	22	02.89	0.7
TOUF	93.70	46	P	22	01.84	-0.5
HAU	93.73	42	eP	22	01.40	-0.8
AURF	93.73	46	P	22	02.12	-0.3
STV	93.79	46	P	22	03.09	0.5
SBF	93.81	46	eP	22	01.90	-0.8
	1.3s	64.90nm			5.9mb	
AUTN	93.82	46	P	22	02.16	-0.8
LSD	93.86	45	P	22	04.02	0.9
WLF	93.88	40	P	22	03.50	0.8
RSP	93.88	45	P	22	03.92	0.8
SAOF	93.91	46	P	22	02.81	-0.3
ENN	93.92	39	iPc	22	03.40	0.5
	1.0s	25.00nm			5.6mb	
LOMF	93.94	43	P	22	02.91	-0.4
MEM	93.95	40	P	22	03.70	0.7
BSF	94.00	42	eP	22	02.70	-0.8
ROB	94.18	46	P	22	04.63	0.2
MOF	94.23	42	P	22	03.35	-1.2
CDF	94.41	42	P	22	05.12	-0.3
BBS	94.42	43	P	22	05.51	0.1
CVF	94.65	48	P	22	06.39	-0.2
WTS	94.67	38	eP	22	07.50	1.2
GWF	94.72	41	P	22	06.93	0.2
FEL	94.82	42	P	22	07.32	0.0
GRF	97.15	41	eP	22	19.20	1.5
MOX	97.49	40	eP	22	20.00	0.7
			eLR	27	00.00	
KBA	98.32	44	i(P)	22	23.30	0.0
CLL	98.42	39	ePc	22	24.00	0.6
	2.3s	63.00nm			5.7mb	
KHC	98.63	42	iPc	22	25.10	0.6
KMR	98.92	43	iP-	22	25.40	-0.4
			ePP	26	20.00	
BRG	98.98	40	iPc	22	27.00	1.0
	1.4s	26.00nm			5.6mb	
PRU	99.31	41	P	22	28.20	0.7
	Z 15s	1.30um			5.6MszX	
	N 14s	0.50um				
	E 15s	1.20um				
			e	26	09.00	
HFS	99.32	30	eP	22	26.90	-0.4
	1.6s	57.30nm			5.9mb	
ZST	100.92	43	ePdiff	22	35.30	0.5
			e	22	54.40	
			e	26	41.80	
SRO	101.72	43	ePdiff	22	38.30	-0.1
			e	27	14.60	
			e	48	59.00	
OHR	103.42	50	ePdiff	22	47.30	1.1
MLR	107.04	45	ePKPc	27	28.00	16.2X
CTA	126.74	236	iPKPd	27	49.90	-0.1
	0.7s	28.08nm				
			i	28	09.00	
FORR	132.38	212	ePKP	27	59.00	-1.4
MAIO	133.77	48	iPKPc	28	03.90	0.8
ASPA	134.09	224	iPKPd	28	03.70	-0.3
	0.7s	28.00nm				
			e	28	20.00	
			ePS	31	49.80	
WRA	136.16	228	PKPd	28	07.90	0.0
	0.6s	17.70nm				
WB5	136.18	228	iPKPd	28	07.20	-0.8
			i	28	24.20	
MAT	136.69	315	(PKP)	27	56.00	-12.5X
MDJ	136.95	330	ePKP	28	08.00	-0.7
CN2	139.53	332	PKPd	28	09.00	-4.5X
	Z 24s	0.60um			5.3MszX	
			PP	31	07.00	
SHK	141.58	316	ePKP	28	11.20	-6.3X
SNY	141.93	332	PKPc	28	12.20	-5.6X
KSH	142.55	33	ePKP	28	15.50	-3.7X
MTN	142.85	234	ePKP	28	16.60	-3.5X
SHNJ	142.89	316	ePKP	28	14.10	-5.6X
WMQ	143.68	16	ePKP	28	17.20	-3.7X
	0.5s	0.60nm				
			ePP	31	28.07	
KUMJ	143.97	314	PKP	28	17.90	-3.7X
MBL	144.54	211	iPKPd	28	20.20	-2.7
KAGJ	144.65	312	ePKP	28	20.40	-2.4
DL2	145.15	331	PKP	28	21.50	-1.9
NANU	145.31	204	ePKP	28	23.50	-0.6
BJI	146.48	339	ePKP	28	25.67	0.1
HHC	147.16	345	PKPc	28	27.80	1.0
			pPKP	28	46.00	
BTO	147.77	347	PKP	28	28.00	0.2
			sPKP	28	48.00	
TIA	149.41	334	PKPc	28	30.40	0.0
TIY	149.84	342	ePKP	28	29.60	-1.5
	Z 24s	1.00um			5.5MszX	
			e	28	35.00	
			sPKP	28	53.00	
			PP	32	08.00	
GTA	149.96	2	PKP	28	30.80	-0.5
NDI	150.48	46	iPKPd	28	37.00	4.8X
SSE	151.26	322	PKPd	28	34.00	0.8
POO	152.14	68	ePKP	28	41.50	6.5X
LZH	153.17	355	ePKP	28	36.50	0.4
	2.0s	247.00nm				
			i	28	56.50	
XAN	154.28	345	PKP	28	38.00	0.5
WHN	155.41	331	ePKP	28	39.00	0.0
	Z 20s	0.64um			5.4Msz	
			pPKP	28	57.00	
			e	29	04.00	
			e	29	22.00	
			PP	32	40.20	
GKN	155.83	37	PKP	28	39.80	-0.2
KKN	156.37	37	PKP	28	40.60	-0.2
DMN	156.40	37	PKP	28	40.60	-0.3
GBA	156.54	77	PKPc	28	41.10	0.1
	1.7s	70.20nm				
PKI	156.60	37	PKP	28	40.80	-0.4
GUN	156.62	35	PKP	28	41.20	-0.1
HYB	156.75	67	ePKP	28	41.20	-0.1
KOD	156.82	86	ePKP	28	42.80	1.0
LSA	157.68	23	PKP	28	44.10	1.4
CD2	158.30	354	PKP	28	43.90	1.1
GYA	162.06	343	iPKPc	28	48.00	1.1
			pPKP	29	06.00	
			e	29	33.00	
			PP	33	16.00	
KMI	164.13	354	PKPc	28	50.50	1.3
			sPKP	29	08.50	
QIZ	167.03	319	ePKP	28	47.00	-4.4X
CHG	170.30	11	ePKP	28	54.00	0.5
	1.5s	45.14nm				
			e	30	09.00	
LOE	171.87	355	ePKP	29	11.80	17.7X
PSI	173.17	163	ePKPc	28	54.60	-0.2
SNG	177.90	170	ePKP	28	56.30	0.4
			e	30	44.00	

S.D. = 1.0 on 299 of 325 obs.

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* APR 20, 1989 08h 12m 32.43± 1.42s
39.899 N ±18.3km 29.817 W ±12.7km
DEPTH = 10.0km (geophysicist)
4.5mb (14 obs.)
AZORES ISLANDS (405)

TOL	19.76	82	eP	17	09.00	3.6X
MAL	20.17	91	iPc	17	10.80	1.1
IFR	20.76	100	iP	17	15.00	-1.1
LPF	22.15	59	eP	17	30.40	0.6
TAF	22.32	94	iPd	17	32.00	0.3
GRR	22.34	58	eP	17	32.30	0.6
	0.9s	13.10nm			4.4mb	

20d 08h

MFF	22.54	63 eP	17 33.80	0.1	
	1.2s	20.20nm		4.5mb	
FLN	22.66	57 eP	17 35.70	0.8	
	1.1s	14.60nm		4.4mb	
LDF	22.86	58 eP	17 38.00	1.2	
	1.0s	13.60nm		4.4mb	
LFF	23.04	67 eP	17 38.00	-0.6	
	1.3s	43.30nm		4.8mb	
LPO	23.35	68 eP	17 41.10	-0.5	
	1.3s	28.80nm		4.7mb	
EKA	23.48	40 P	17 44.00	1.2	
	1.1s	8.90nm		4.2mb	
LSF	23.66	64 eP	17 44.50	-0.1	
	1.2s	20.80nm		4.6mb	
CAF	23.98	67 eP	17 46.90	-0.8	
TCF	24.13	64 eP	17 48.60	-0.6	
MAF	24.38	64 eP	17 50.40	-1.2	
	1.1s	14.60nm		4.5mb	
BGF	24.59	64 eP	17 53.70	0.1	
	1.1s	17.00nm		4.6mb	
SSF	25.08	62 eP	17 58.20	-0.1	
	1.3s	12.20nm		4.4mb	
SMF	25.28	63 eP	18 00.10	-0.2	
	1.3s	25.20nm		4.7mb	
LOR	25.33	62 eP	18 00.50	-0.3	
	0.9s	5.50nm		4.2mb	
LBF	25.39	63 eP	18 01.10	-0.3	
HAU	27.07	61 eP	18 17.40	0.6	
CDF	27.71	60 eP	18 22.10	-0.7	
KBA	31.80	63 iP	18 59.00	-0.3	
KHC	31.91	59 eP	19 01.60	1.6	
PRU	32.54	57 eP	19 05.50	0.0	
FRB	32.95	329 eP	19 10.00	1.2	
SUF	40.06	36 iP	20 08.50	-0.5	
	0.8s	11.00nm		4.6mb	
SOD	41.09	29 eP	20 16.00	-1.4	
ALE	44.07	354 eP	20 40.00	-1.6	
GKN	89.04	54 P	25 30.00	0.7	
S.D. = 0.9 on 30 of 31 obs.					

APR 20, 1989 08h 42m 03.46± 0.29s
40.001 N ± 6.8km 29.869 W ± 3.5km
DEPTH = 10.0km (geophysicist)
4.9mb (38 obs.) 4.7Msz (2 obs.)
AZORES ISLANDS REGION (404)

CALA	1.68	147 eP	42 29.00	-4.1X	
		iS	42 47.70		
HOR	1.76	146 eP	42 29.70	-4.4X	
		iS	42 47.70		
ADH	2.45	123 iP	42 38.90	-5.1X	
		iS	43 04.90		
TOL	19.78	82 eP	46 34.00	-2.7	
MAL	20.21	91 iPd	46 48.00	6.9X	
AAPN	20.27	89 eP	46 39.50	-2.4	
ATEJ	20.46	90 eP	46 43.10	-0.9	
ASMO	20.54	89 eP	46 45.50	0.7	
APHE	20.70	90 eP	46 47.50	1.1	
LPF	22.13	59 eP	46 59.90	-0.8	
GRR	22.32	58 eP	47 01.80	-0.7	
	0.9s	20.90nm		4.6mb	
TAF	22.37	95 ePd	47 04.00	0.8	
MFF	22.53	63 eP	47 05.30	0.7	
	1.3s	43.30nm		4.8mb	
FLN	22.64	58 eP	47 04.80	-0.9	
EPF	22.76	72 eP	47 09.00	2.0	
	1.3s	43.30nm		4.8mb	
LDF	22.84	58 eP	47 06.50	-1.2	
	1.3s	28.80nm		4.6mb	
LFF	23.03	68 eP	47 11.00	1.4	
	1.3s	46.20nm		4.9mb	
LPO	23.35	68 eP	47 14.10	1.5	
	1.2s	29.70nm		4.7mb	
EKA	23.43	40 Pd	47 12.50	-0.8	
	1.2s	18.90nm		4.5mb	
RJF	23.59	67 eP	47 16.60	1.6	
LSF	23.65	64 eP	47 15.80	0.2	
	1.5s	67.90nm		5.0mb	
CAF	23.97	68 eP	47 18.00	-0.7	
	1.2s	17.80nm		4.5mb	
TCF	24.12	64 eP	47 20.20	0.0	
	1.5s	57.40nm		5.0mb	
MAF	24.37	64 eP	47 22.10	-0.4	
	1.0s	20.00nm		4.7mb	
BGF	24.58	64 eP	47 24.10	-0.5	
	0.9s	24.50nm		4.9mb	
AVF	24.94	63 eP	47 29.80	1.7	
	1.6s	43.50nm		4.9mb	
SSF	25.07	63 eP	47 29.10	-0.1	
	1.5s	33.40nm		4.8mb	
SMF	25.27	64 eP	47 33.30	2.1	
	1.5s	47.00nm		5.0mb	
LOR	25.32	62 eP	47 31.80	0.1	
LBF	25.38	63 eP	47 32.40	0.1	
SNF	26.02	55 P	47 39.50	1.4	
DOU	26.14	56 P	47 41.80	2.5	
		S	51 50.00		
HAU	27.05	61 eP	47 46.80	-0.9	
WLF	27.08	57 P	47 49.50	1.7	
ENN	27.09	55 eP	47 53.00	5.0X	
	1.0s	11.00nm		4.5mb	
MEM	27.12	55 P	47 54.40	6.2X	
LPG	27.28	66 eP	47 52.70	2.6	
BSF	27.34	61 eP	47 51.50	1.1	
CDF	27.70	60 eP	47 53.50	-0.1	
	1.0s	17.60nm		4.8mb	
WTS	27.86	52 eP	47 54.50	-0.4	
	1.1s	21.00nm		4.8mb	
MOX	30.67	56 e(P)	48 20.00	-0.2	
	1.6s	15.00nm		4.6mb	
BRG	32.16	55 e(P)	48 32.60	-0.6	
	2.0s	34.00nm		4.9mb	
PRU	32.52	57 P	48 34.90	-1.4	
	2.0s	58.60nm		5.2mb	
		e	50 33.20		
NB2	32.74	36 P	48 37.20	-1.0	
	1.0s	6.70nm		4.5mb	
NRA0	32.78	37 P	48 35.40	-3.1X	
FRB	32.84	329 eP	48 38.00	-0.9	
HFS	33.60	39 eP	48 47.60	2.0	
	1.2s	17.30nm		4.9mb	
ZST	34.26	60 e(P)	48 52.90	1.5	
KRA	36.00	57 eP	49 06.40	0.1	
SPC	36.26	58 eP	49 07.40	-1.3	
BZS	37.65	64 eP	49 19.00	-1.1	
NUR	39.01	40 eP	49 35.00	3.6X	
Z	21s	1.20um		4.7Msz	
		LR	04 20.00		
SUF	40.00	36 iP	49 38.90	-0.7	
	0.9s	23.30nm		4.9mb	
TIC	40.00	140 iPc	49 39.50	-0.6	
	1.2s	22.50nm		4.7mb	
LIC	40.36	140 P	49 42.10	-0.9	
KIC	40.39	139 P	49 42.70	-0.6	
	1.2s	9.00nm		4.3mb	
MLR	40.65	63 ePc	49 49.00	3.7X	
SOD	41.02	29 eP	49 47.00	-0.9	
ALE	43.96	354 eP	50 11.00	-0.8	
RSON	44.77	306 P	50 17.00	-1.7	
	1.3s	24.19nm		4.9mb	
FFC	48.82	313 eP	50 51.00	0.5	
	1.3s	36.00nm		5.3mb	
ITR	49.16	191 eP	50 53.80	0.3	
SOB1	50.01	194 eP	51 00.30	0.2	
		e	51 05.30		
UYO	50.86	285 eP	51 08.70	2.3	
MBC	51.44	342 eP	51 10.00	-0.3	
PRNI	52.85	79 iPc	51 21.00	-0.5	
YKA	53.15	325 P	51 24.80	1.6	
EDM	55.67	314 eP	51 41.50	-0.3	
GLD	56.11	296 P	51 44.00	-1.4	
BNG	56.12	116 ePc	51 43.20	-2.3	
	1.1s	21.00nm		5.1mb	
		i	51 47.60		
GOL	56.24	296 P	51 45.70	-0.7	
	1.3s	31.25nm		5.2mb	
BW06	57.69	301 P	51 55.00	-1.7	
	1.1s	26.79nm		5.2mb	
LRM	58.20	305 eP	52 00.00	-0.2	
INK	58.20	335 eP	51 58.00	-1.5	
ALQ	59.24	292 eP	52 07.80	0.2	
	1.2s	7.81nm		4.7mb	
Z	18s	0.60um		4.8Msz	
PNT	60.90	312 eP	52 20.00	1.5	
MSU	61.46	298 P	52 22.50	-0.3	
EUR	63.52	300 iP	52 36.20	-0.2	
	0.3s	5.19nm		5.2mb	
VAO	64.67	197 eP	52 43.80	0.1	
FBA	64.81	335 P	52 42.40	-1.7	
	1.5s	13.51nm		4.9mb	
TNP	65.08	300 P	52 46.00	-0.6	
	1.2s	26.88nm		5.3mb	
KVN	65.15	301 P	52 46.00	-1.0	
IMA	65.78	338 P	52 49.80	-0.7	
	1.5s	27.03nm		5.2mb	
GLA	66.16	294 eP	52 55.00	1.7	
GSC	66.30	297 eP	52 55.00	0.7	
ZOBO	66.35	220 P	52 55.70	0.5	
TPC	66.43	295 eP	52 56.00	0.9	
CLC	66.56	298 eP	52 56.00	0.1	
MIN	66.73	304 ePc	52 56.80	-0.2	
CMB	67.21	301 ePc	53 00.50	0.5	
ISA	67.24	298 eP	53 01.00	0.8	
FRI	67.34	300 ePc	53 03.00	2.3	
SBB	67.34	297 eP	53 02.00	1.1	
MAIO	67.40	61 eP	53 01.00	-0.3	
RVR	67.41	296 eP	53 01.00	-0.3	
PMR	67.50	333 P	53 00.00	-1.3	
	1.0s	11.25nm		5.0mb	
MHC	68.42	301 ePc	53 08.70	1.0	
PRI	68.45	300 e(P)	53 08.90	1.0	
TTA	68.77	337 P	53 07.00	-2.4	
PRS	68.81	300 e(P)	53 10.70	0.7	
WMQ	79.37	41 eP	54 11.00	-0.1	
Z	28s	0.80um		4.9MszX	
GKN	89.01	54 PKP	55 00.00	-0.2	
OMN	89.58	54 PKP	55 03.00	0.0	
PKI	89.79	53 PKP	55 04.20	0.1	
BTO	91.85	29 eP	55 09.00	-4.1X	
LZH	93.13	36 eP	55 18.50	-0.6	
	2.0s	55.00nm		5.6mb	
SPA	129.81	180 e(PKP)	01 04.70	-9.0X	
	1.0s	5.50nm			
S.D. = 1.2 on 96 of 107 obs.					

? APR 20, 1989 09h 37m 37.31± 3.38s
44.476 N ±20.5km 128.738 W ±22.7km
DEPTH = 10.0km (geophysicist)
4.0mb (1 obs.)
OFF COAST OF OREGON (30)

VLMM	4.87	75 eP	38 53.59	1.2	
TDL	4.96	66 eP	38 53.78	0.1	
CDFW	5.00	68 eP	38 54.83	0.7	
KOSW	5.01	64 eP	38 54.54	0.1	
HDW	5.07	49 eP	38 55.05	-0.2	
STW	5.08	42 eP	38 54.93	-0.4	
VBEM	5.13	81 eP	38 56.52	0.4	
GMW	5.16	51 eP	38 55.86	-0.6	
ASR	5.31	69 eP	38 59.23	0.5	
RVC	5.34	60 eP	38 57.80	-1.3	
WPW	5.51	64 eP	39 02.30	0.7	
OHW	5.76	46 eP	39 05.01	0.1	
VIPM	5.81	87 eP	39 04.43	-1.3	
MCW	5.85	42 eP	39 05.90	-0.3	
HTW	5.87	53 eP	39 06.41	-0.1	
JCW	6.00	49 eP	39 08.18	-0.1	
CMW	6.04	47 eP	39 09.21	0.3	
EBG	6.22	64 eP	39 12.00	0.6	
YKA	19.83	20 eP	42 12.10	1.4	
FFC	20.03	50 eP	42 11.00	-1.9	
	0.8s	6.00nm		4.0mb	
S.D. = 0.9 on 20 of 20 obs.					

APR 20, 1989 09h 48m 21.38± 0.50s
44.281 N ± 3.7km 7.492 E ± 5.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

DOI	0.28	322 Pd	48 27.20	-0.2	
		eSg	48 31.60		
AUTN	0.29	189 Pg	48 27.32	-0.2	
SAOF	0.30	171 Pg	48 27.41	-0.2	
TOUF	0.32	213 Pg	48 27.84	-0.3	
AURF	0.41	197 Pg	48 29.64	-0.2	
		Sg	48 37.66		
MVIF	0.46	213 Pg	48 30.64	-0.1	
CKI	0.58	75 P	48 33.10	-0.1	
CALN	0.68	220 Pg	48 36.12	1.1	
BNI	0.97	323 Pc	48 39.70	-0.2	
		eSg	48 52.60		
BOB	1.48	70 P	48 48.50	0.4	
S.D. = 0.5 on 10 of 10 obs.					

APR 20, 1989 10h 40m 33.44± 1.37s
34.784 N ± 9.0km 140.866 E ±10.1km
DEPTH = 62.1 ± 9.1 km
4.7mb (7 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (I JMA) on Oshimo.

OSM	1.22	269	iP+	40 54.00	-0.7
			S	41 08.10	
KAKJ	1.53	338	P	40 58.70	-0.1
CHJJ	1.98	310	iPd	41 04.80	-0.4
			eS	41 25.90	
IIDJ	2.52	287	iPd	41 13.40	0.6
			eS	41 42.60	
MAT	2.78	310	iPd	41 16.30	-0.2
			iS	41 48.00	
NIIJ	2.88	329	P	41 17.40	-0.4
MTMJ	3.07	307	P	41 20.60	-0.1
YAMJ	3.45	349	P	41 26.80	1.0
			eS	42 07.70	
TSRJ	4.07	282	P	41 34.80	0.2
OFUJ	4.34	8	P	41 37.50	-0.8
			S	42 24.60	
WKYJ	4.39	264	eP	41 38.90	-0.2
TKSJ	5.69	264	P	41 58.30	0.9
			S	43 05.80	
AOMJ	5.78	356	eP	41 58.80	0.3
YONJ	6.09	276	eP	42 03.60	0.7
GUN	46.97	277	P	49 00.50	0.0
	0.6s	10.00nm			4.9mb
PKI	47.49	277	P	49 04.00	-0.5
	0.7s	6.00nm			4.7mb
KKN	47.51	278	P	49 04.40	-0.1
	0.7s	10.00nm			4.9mb
DMN	47.72	277	P	49 05.90	-0.4
GKN	47.95	278	P	49 07.80	-0.1
	0.8s	14.00nm			5.0mb
WB5	54.71	187	eP	49 59.00	0.4
WRA	54.78	188	Pc	50 04.30	5.2X
	1.2s	5.30nm			4.4mb
GBA	60.61	266	Pc	50 39.10	-1.1
	0.6s	2.10nm			4.4mb
NB2	76.09	337	P	52 17.10	1.4
	0.8s	1.80nm			4.1mb
LPB	148.36	62	(PKP)	00 21.00	9.4X
CNCB	148.62	63	PKP	00 20.60	8.3X

S.D. = 0.7 on 22 of 25 obs.

% APR 20, 1989 11h 14m 49.91± 0.70s
39.300 N ± 6.7km 28.924 E ± 7.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.38	323	ePg	14 56.00	-1.8
ALT	0.95	104	ePg	15 08.50	0.4
KCT	1.04	335	iPn	15 10.30	0.7
KHL	1.08	154	iPg	15 09.30	-1.0
			eSg	15 23.30	
BNT	1.31	324	iPn	15 13.40	-0.7
EDC	1.33	322	iPn	15 15.50	1.1
GPA	1.45	47	ePn	15 16.30	0.0
IZM	1.58	236	ePn	15 19.00	1.0
HRT	1.62	20	ePn	15 19.00	0.3

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

% APR 20, 1989 11h 16m 50.73± 0.56s
39.267 N ± 5.4km 28.932 E ± 5.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.41	325	iPg	16 58.60	-0.6
			iSg	17 05.60	
ALT	0.94	103	ePg	17 08.50	-0.2
			eSg	17 20.50	
KHL	1.05	154	iPg	17 10.30	-0.3
			eSg	17 24.30	
KCT	1.08	336	iPn	17 10.80	-0.2
BNT	1.34	325	iPn	17 14.90	-0.5
EDC	1.36	323	iPn	17 16.50	0.9
GPA	1.47	46	ePn	17 17.80	0.5
IZM	1.57	237	ePn	17 19.00	0.3
HRT	1.65	20	ePn	17 20.00	0.1

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

APR 20, 1989 11h 28m 09.18± 1.27s
28.858 N ± 8.5km 139.185 E ± 7.2km
DEPTH = 470.1 ± 13.6 km
4.5mb (10 obs.)
BONIN ISLANDS REGION (212)

MAT	7.71	354	iPc	30 01.70	-1.3
	0.8s	108.21nm			5.1mb
			eS	31 30.00	
NJ2	17.81	285	Pd	31 49.50	0.8
SNY	18.12	320	iPd	31 52.80	1.2
CN2	18.53	327	Pd	31 57.00	1.4
QZH	18.77	263	eP	31 58.00	-0.1
TIA	19.97	297	Pc	32 10.10	0.5
WHN	21.63	281	Pc	32 26.50	1.3
BJI	21.95	307	eP	32 27.00	-1.0
TIY	23.98	299	eP	32 46.60	-0.1
GYA	28.86	273	iPc	33 30.00	0.0
LZH	30.55	293	eP	33 45.00	0.3
	1.5s	44.00nm			4.7mb
CD2	30.71	283	eP	33 45.00	-0.9
KMI	32.61	272	Pc	34 03.00	0.7
GTA	34.01	299	Pd	34 13.70	-0.1
WMQ	43.39	304	eP	35 30.50	0.2
GUN	46.57	282	P	35 55.60	0.1
PKI	47.06	282	P	35 59.10	-0.1
	0.8s	24.00nm			4.7mb
KKN	47.12	282	P	35 59.60	0.1
DMN	47.31	282	P	36 01.00	0.0
	0.6s	31.00nm			4.9mb
GKN	47.61	283	P	36 03.50	0.3
WB5	48.67	186	iPd	36 09.80	-1.2
WRA	48.74	186	P	36 12.00	0.5
	0.3s	2.30nm			4.1mb
GBA	58.94	269	Pd	37 23.00	-1.4
	0.9s	11.10nm			4.3mb
INK	62.54	25	eP	37 46.50	-0.8
MBC	64.88	15	eP	38 02.00	-0.2
	0.4s	5.00nm			4.5mb
KEV	70.44	340	eP	38 36.00	-0.1
SOD	71.79	338	eP	38 44.00	0.0
YKA	71.85	28	eP	38 44.50	0.1
SUF	74.46	334	eP	38 58.00	-1.3
PNT	75.43	42	eP	39 05.00	0.0
NUR	76.29	332	eP	39 02.00	-7.4X
	0.7s	10.70nm			4.5mb
			i	39 09.20	
WDC	77.59	51	ePc	39 18.10	1.2
UPP	79.47	334	iP	39 25.40	-1.0
CMB	80.26	52	ePc	39 32.40	1.3
PRS	80.39	54	eP	39 33.10	1.3
HFS	80.75	336	eP	39 32.30	-0.8
	0.6s	3.90nm			4.2mb
NB2	80.98	337	P	39 33.80	-0.6
	0.7s	4.80nm			4.2mb
BUL	117.00	261	iPdiff	41 57.00	-23.0X
	1.0s	5.50nm			
SLR	119.32	255	ePdiff	42 11.50	-18.7X

S.D. = 0.9 on 36 of 39 obs.

APR 20, 1989 11h 46m 09.30± 0.82s
36.281 N ± 6.8km 5.543 W ± 7.4km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)

SRO	0.14	100	eP	46 12.50	-0.1
MOMI	0.15	286	eP	46 13.00	0.2
OJEN	0.18	179	eP	46 14.50	1.1
PLAT	0.24	228	eP	46 12.50	-1.9
ALJ	0.40	353	eP	46 20.50	3.1X
CNIL	0.42	282	eP	46 19.00	1.1
LIJA	0.63	10	eP	46 21.50	-0.4
GIBL	0.64	329	eP	46 22.00	-0.1

S.D. = 1.2 on 7 of 8 obs.

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* APR 20, 1989 12h 11m 39.77± 0.51s
38.845 N ±12.9km 71.721 E ±10.4km
DEPTH = 33.0km (normal)
4.5mb (7 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

MAIO	10.03	259	eP	14 04.00	-0.8
			eS	15 55.00	
NDI	11.12	154	eP	14 15.00	-4.5X
GKN	15.25	131	P	15 15.00	0.5
KKN	15.79	130	P	15 20.20	-1.3
DMN	15.82	131	P	15 23.40	1.5
PKI	16.03	130	P	15 24.50	-0.2
SUF	36.27	326	eP	18 42.00	0.6
NUR	36.29	322	eP	18 35.00	-6.7X
HFS	41.60	320	eP	19 24.90	-0.9
	0.4s	1.80nm			4.2mb
NB2	42.88	321	P	19 36.70	0.3
	0.9s	2.40nm			3.9mb
LPG	47.44	300	eP	20 14.50	1.2
	0.7s	5.50nm			4.7mb
AVF	49.33	303	eP	20 27.50	-0.1
	0.7s	3.30nm			4.5mb
MAF	50.02	302	eP	20 33.90	1.0
	0.7s	4.80nm			4.6mb
TCF	50.24	302	eP	20 35.50	1.0
	0.6s	1.80nm			4.3mb
BNG	59.03	249	ePd	21 38.10	-0.9
	0.9s	9.00nm			4.9mb
			i	21 43.60	
MBC	64.97	3	eP	22 16.00	-1.9

S.D. = 1.1 on 14 of 16 obs.

? APR 20, 1989 12h 13m 59.67± 1.77s
7.003 N ±11.0km 76.214 W ±15.0km
DEPTH = 34.1 ± 19.4 km
4.2mb (1 obs.)
NORTHERN COLOMBIA (99)

CHN	2.11	164	iPc	14 33.00	-0.5
FUQ	2.89	122	eP	14 47.00	2.2
BMG	3.12	89	iPd	14 46.00	-1.7
BOG	3.19	138	eP	14 53.50	4.5X
			eS	15 34.50	
UPA	3.83	301	ePd	14 52.70	-5.1X
	0.6s	36.00nm			
			iS	15 48.00	
PSO	5.88	191	eP	15 28.00	0.8
ZOBO	24.47	161	P	19 16.80	-0.8
LPB	24.72	161	(P)	19 18.00	-1.9
			e	19 40.00	
CNCB	25.02	161	P	19 20.00	-2.9X
UYO	31.86	331	eP	20 24.00	0.2
ALQ	39.33	319	eP	21 27.20	-0.5
	1.0s	5.00nm			4.2mb
LRM	49.72	327	eP	22 50.40	-0.5
EDM	55.07	334	eP	23 29.50	-1.0
PNT	55.70	327	eP	23 36.00	0.9
KHC	84.62	41	P	26 32.40	1.2
BZS	90.50	44	ePd	26 46.00	-13.5X
ASPA	146.68	237	iPKPd	33 40.70	2.0X
	1.0s	11.00nm			
GBA	146.78	52	PKPd	33 40.50	1.5
	0.7s	4.70nm			
WB5	147.69	244	ePKP	33 44.00	3.6X
WRA	147.70	243	PKP	33 45.00	4.6X
	0.7s	3.00nm			

S.D. = 1.5 on 13 of 20 obs.

APR 20, 1989 12h 45m 52.77± 0.16s
38.494 N ± 1.8km 117.806 W ± 1.6km
DEPTH = 4.0 ± 1.1 km
4.3mb (4 obs.)
NEVADA (37)
ML 4.2 (BRK). Felt (IV) at Mina, (III) at Luning and Monhottan.

MNA	0.28	258	iPc	45 58.50	0.0
KVN	0.60	338	iPc	46 04.70	-0.1
TNP	0.62	131	iPc	46 05.80	0.6
SVP	0.78	180	iPc	46 08.00	-0.4
MZP	0.86	157	iPc	46 09.70	-0.4
PPK	1.07	184	iPc	46 13.70	0.1
MGM	1.08	167	iPc	46 13.70	-0.1
HCR	1.11	103	iPc	46 14.70	0.4
CTS	1.19	134	iP	46 16.00	0.3
LCH	1.26	174	iP	46 17.10	0.2
GMN	1.27	160	iPc	46 17.20	0.2
KRNA	1.35	123	iPc	46 18.80	0.2
BMTN	1.52	142	iPc	46 21.10	0.2
GVN	1.54	166	iPc	46 21.30	0.2
SGV	1.63	158	iPc	46 22.30	-0.2
OCS	1.66	115	iPc	46 22.90	0.0
BLT	1.67	127	iPc	46 23.20	0.1
TMO	1.72	169	iP	46 23.50	-0.3
EUR	1.74	55	iP	46 25.00	0.8
WRN	1.82	106	iPc	46 25.10	-0.2
TMBR	1.84	142	iP	46 25.70	0.1
MCA	1.89	167	iPc	46 26.40	0.3
GLR	1.92	132	iPc	46 26.80	0.1
BGB	1.92	139	iPc	46 26.80	0.1
YMT5	1.92	146	iPc	46 26.90	0.2
YMT1	1.93	148	iP	46 27.00	0.3
YMT4	1.96	146	iP	46 27.40	0.1
YMT6	1.98	145	iP	46 27.60	0.1
GMR	1.98	125	iPc	46 26.70	-0.9
YMT2	2.00	148	iP	46 28.00	0.2
CDH1	2.01	144	iP	46 28.00	-0.1
FMT	2.02	156	eP	46 28.30	0.2

20d 12h

YMT3	2.03	147	iP	46	28.20	-0.1
CMB	2.08	258	eP	46	27.90	-1.0
FRI	2.13	226	iPc	46	29.50	0.0
			iSb	46	59.00	
LSM	2.13	145	iP	46	29.90	0.2
MTI	2.16	111	iPc	46	30.00	-0.2
PANV	2.17	165	eP	46	30.40	0.1
SDH	2.18	147	eP	46	30.50	0.0
SRG	2.24	105	iPc	46	31.30	-0.1
AMR	2.35	153	eP	46	33.00	0.2
SPRG	2.40	138	eP	46	33.30	-0.3
NPN	2.42	109	iPc	46	33.70	-0.2
PRN	2.43	116	iP	46	34.00	-0.1
JON	2.46	146	eP	46	34.70	0.3
GWY	2.48	158	iPc	46	34.50	-0.2
DLM	2.58	109	iPc	46	35.80	-0.4
OSM	2.63	163	P	46	36.40	-0.4
CLC	2.68	176	ePc	46	37.30	-0.2
NOP	2.70	150	eP	46	37.50	-0.4
ORV	3.07	291	eP	46	42.00	-0.9
LLA	3.12	234	ePbd	46	48.70	5.0X
ARN	3.16	250	eP	46	43.70	-0.6
MHC	3.24	250	eP	46	45.00	-0.6
			iS	47	33.45	
			i	47	35.80	
			i	47	37.55	
PRI	3.27	225	e(Pn)	46	47.80	1.8
			ePbc	46	50.60	
SAO	3.36	240	e(P)	46	47.45	0.2
			e(Pb)	46	52.20	
MIN	3.47	303	ePc	46	48.50	-0.4
BKS	3.54	261	ePc	46	49.55	-0.2
			i	46	57.90	
			eS	47	44.20	
			i	47	44.25	
ZSP	3.55	262	ePbc	46	56.70	7.0X
BRK	3.56	261	e(Pb)	46	55.70	5.7X
PRS	3.56	234	e(Pn)	46	52.00	2.0
			ePbc	46	54.40	
GCC	3.63	248	e(Pn)	46	53.10	2.2
			e(Pb)	46	57.20	
PCC	3.75	256	ePbc	46	59.00	6.4X
BCH	3.77	210	eP	46	52.20	-0.9
ABL	3.81	198	eP	46	53.30	-0.5
WDC	4.21	301	ePc	46	58.10	-1.1
DUG	4.23	65	eP	46	59.50	-0.1
LBFM	4.24	314	eP	47	00.00	0.2
MSU	4.42	88	eP	47	02.40	0.0
PEC	4.62	173	eP	47	04.70	-0.4
GLA	5.95	155	eP	47	22.80	-1.0
BW06	7.59	53	eP	47	47.00	-0.1
LRM	8.33	27	eP	47	59.10	1.7
LON	8.76	342	eP	48	03.50	0.3
ALQ	9.78	108	eP	48	30.00	12.6X
EDM	15.05	10	ePc	49	28.00	0.2
UYO	19.29	96	eP	50	20.70	-0.6
RSON	21.02	46	eP	50	37.70	-2.0
	0.7s		5.11nm			4.0mb
OLY	21.22	90	eP	50	43.00	1.1
YKA	24.11	4	eP	51	10.80	0.7
PMR	30.12	330	eP	52	05.70	0.3
	1.0s		7.50nm			4.5mb
FBA	31.73	336	eP	52	19.70	0.2
	1.0s		5.00nm			4.4mb
IMA	34.38	335	eP	52	41.70	-1.0
	0.8s		2.59nm			4.2mb
FRB	38.47	33	eP	53	17.00	-0.1

S.D. = 0.7 on 79 of 84 obs.

? APR 20, 1989 13h 06m 00.38± 0.74s
46.223 S ±16.1km 75.631 W ±23.5km
DEPTH = 33.0km (normal)
4.9mb (5 obs.) 4.9Msz (1 obs.)
NEAR COAST OF SOUTHERN CHILE (144)

PEL	13.60	18	iPc	09	01.50	-11.8X
	0.8s		29.85nm			
ARE	29.87	8	e(P)	11	57.00	-10.4X
CNCB	30.01	15	P	12	07.70	-1.2
LPB	30.26	14	P	12	09.00	-2.0
Z	17s		9.52um			5.5MszX
			S	17	10.00	
			eLR	21	04.00	
ZOBO	30.52	14	P	12	07.00	-6.4X
			S	17	08.00	
			eLR	21	12.00	
SPA	43.97	180	e(P)	14	06.20	0.3
	1.0s		5.00nm			4.3mb
Z	18s		1.49um			4.9Msz
SOB1	47.33	50	eP	14	34.30	1.4
ITR	49.04	52	eP	14	48.40	2.2
LIC	81.27	72	P	18	22.60	7.9X
KIC	81.56	72	P	18	24.00	7.8X
TIC	81.59	71	P	18	24.20	7.8X
UYO	81.80	344	eP	18	11.90	-5.1X
BUL	85.07	114	eP	18	32.50	-1.8
	1.0s		3.00nm			4.4mb
ALQ	85.44	335	P	18	36.30	0.5
	1.2s		20.83nm			5.2mb
GOL	89.59	337	P	18	55.80	0.0
GLD	89.59	338	P	18	56.60	0.9
MSU	90.50	332	P	18	59.90	-0.1
PRS	91.91	325	eP	19	12.20	6.0X
CMB	93.00	326	eP	19	11.40	0.2
KVN	93.03	328	P	19	07.40	-4.1X
BW06	93.60	336	P	19	14.60	0.4
	1.4s		9.86nm			5.0mb
BNG	96.07	90	ePd	19	35.90	10.0X
	0.9s		9.00nm			5.2mb
KKB	123.86	63	ePdiff	21	38.00	8.7X
VTS	124.34	62	ePdiff	21	18.00	-13.5X
PGB	124.90	63	ePdiff	21	20.00	-13.9X
KDZ	125.18	64	iPdiff	21	24.00	-11.1X
HYB	144.17	135	ePKP	25	32.50	-2.1
MAIO	145.25	90	iPKPd	25	34.60	-1.4
CHG	152.30	169	ePKP	25	56.00	8.7X
GKN	156.06	133	PKP	25	55.00	2.5

S.D. = 1.6 on 15 of 30 obs.

APR 20, 1989 13h 59m 39.81± 0.64s
37.793 N ± 6.5km 2.557 W ± 6.4km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 3.4 (MDD). Felt (III) in the Galera area.

EVIA	0.84	3	iPgc	59	56.10	-0.1
			eSg	00	08.50	
ENIJ	0.86	162	iPg	59	55.30	-1.2
			eSg	00	07.50	
EALH	0.90	86	ePg	59	57.30	0.2
			eSg	00	10.00	
AFC	0.95	236	ePg	59	58.50	0.4
EBAN	1.04	291	iPg	59	59.50	0.1
			eSg	00	13.50	
MAL	1.82	235	iPnc	00	13.80	2.4
			iSg	00	38.00	
ACU	1.84	66	eP	00	15.50	3.8X
			eS	00	38.80	
EHOR	2.13	272	ePg	00	14.00	-1.9
			eSg	00	39.50	
ECHE	2.18	34	ePn	00	17.60	0.9
			eSn	00	44.30	
EPRU	2.29	250	ePn	00	17.80	-0.4
TOL	2.39	331	ePg	00	25.00	5.4X
			eSg	00	55.50	
LIJA	2.44	249	iP	00	33.00	12.5X
ALJ	2.68	246	iP	00	32.00	8.2X
GIBL	2.87	251	iP	00	33.50	7.0X
ETOR	3.05	7	ePn	00	28.80	-0.2
			eSn	01	04.50	
GUD	3.10	337	ePg	00	40.70	10.9X
			eSg	01	16.50	
EPF	5.68	22	Pn	01	06.00	-0.3
			Sn	02	40.60	

S.D. = 1.2 on 11 of 17 obs.

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* APR 20, 1989 15h 02m 16.52± 0.43s
45.712 S ± 9.0km 75.560 W ±11.4km
DEPTH = 10.0km (geophysicist)
5.5mb (14 obs.) 5.3Msz (2 obs.)
OFF COAST OF SOUTHERN CHILE (143)

LNV	12.16	17	eP	05	11.00	-1.7
RFA	12.19	29	ePd	05	10.50	-2.6
PCH	12.68	20	iP	05	16.00	-3.7X
SAN	12.81	19	eP	05	16.50	-4.9X
PEL	13.10	18	iPc	05	21.50	-3.8X
	1.3s		153.85nm			6.0mb
SLA	22.46	25	ePc	07	17.00	-0.2
ITB	27.04	47	e(P)	08	01.00	0.2
ITB1	27.07	46	e(P)	08	01.00	0.0
CCH	29.32	19	eP	08	22.00	0.3
CNCB	29.51	15	P	08	24.00	0.3
LPB	29.76	15	P	08	27.00	1.2
Z	17s		8.84um			5.5MszX
			LR	17	20.00	
ZOBO	30.01	14	P	08	27.20	-1.0
			LR	17	36.00	
VAO	32.42	55	eP	08	50.70	1.8
ITA	34.23	58	eP	09	08.00	3.2X
BAO	37.86	47	eP	09	33.00	-2.3
SPA	44.48	180	e(P)	10	26.80	-2.6
	1.0s		4.50nm			4.3mb X
Z	20s		1.04um			4.8Msz
ATB	46.92	33	Pd	10	49.40	0.4
SOB1	46.97	50	eP	10	50.30	0.8
			e	10	58.70	
ITR	48.69	53	eP	11	02.80	-0.1
SBA	51.07	194	e(P)	11	20.60	0.2
UPA	54.56	355	ePc	12	06.00	19.0X
	1.3s		73.08nm			
PPN	66.47	269	iP	13	08.40	0.1
	1.2s		75.00nm			5.8mb
VAH	66.76	272	eP	13	10.00	-0.2
	1.2s		60.00nm			5.7mb
TUH	70.02	117	eP	13	30.00	-0.3
	1.0s		30.00nm			5.4mb
CER	70.07	117	iPc	13	45.00	14.4X
GRM	74.53	122	iPd	13	56.50	-0.6
	0.9s		25.21nm			5.2mb
			i	14	05.40	
SWZ	78.09	117	eP	14	15.00	-2.4
SEK	78.71	119	iPd	14	20.00	-0.7
	1.0s		40.00nm			5.4mb
JSC	79.79	355	P	14	27.00	1.0
BPI	80.50	118	iPc	14	31.50	1.0
	1.2s		78.13nm			5.6mb
SLR	80.97	118	iPc	14	31.50	-1.4
	1.3s		86.54nm			5.6mb
Z	20s		3.90um			5.8Msz
LIC	81.06	72	P	14	34.12	0.8
	0.9s		17.00nm			5.1mb
KIC	81.36	72	P	14	35.42	0.6
TIC	81.38	71	P	14	35.90	1.0
BLA	82.66	356	P	14	44.20	3.1X
ELC	83.53	349	P	14	48.00	2.5
KUK	84.17	75	eP	14	53.00	3.7X
KOGH	84.18	75	eP	14	50.50	1.1
SHGH	84.20	75	eP	14	54.00	4.6X
ALQ	85.00	335	P	14	50.80	-2.4
	1.2s		30.38nm			5.4mb
BUL	85.24	114	iPc	14	54.30	-0.5
KMZ	88.26	107	eP	15	11.00	1.4
LSZ	88.50	110	iP	15	13.00	2.2
GOL	89.13	337	P	15	11.00	-2.3
	1.2s		32.79nm			5.5mb
MSU	90.07	332	P	15	18.00	0.3
PTZ	91.32	112	iP	15	29.50	5.6X
TNP	91.44	328	P	15	26.50	2.5
	1.0s		7.92nm			5.0mb
PRS	91.52	325	e(P)	15	25.50	1.4
CMB	92.60	326	eP	15	31.60	2.5
KVN	92.62	328	P	15	34.80	5.5X
BW06	93.16	336	P	15	30.00	-1.8
	1.1s		8.56nm			5.1mb
BNG	96.02	90	iPc	15	46.50	1.1
	0.7s		15.00nm			5.6mb
			i	15	50.30	
			i	19	48.60	
RSON	97.46	349	P	15	52.00	1.1
INK	121.61	338	ePKP	21	08.00	-2.5
OHR	121.73	62	ePKP	20	52.00	-19.7X
KHC	122.08	51	ePKP	21	15.90	3.8X
VAY	122.95	63	ePKP	21	13.40	-0.5
CLL	122.98	48	e(PKP)	21	13.00	-0.7
FBA	123.65	331	PKP	21	11.00	-3.6X
MBH	124.42	81	ePKPc	21	21.00	3.8X
PRNI	124.84	80	ePKP	21	22.00	4.0X
MBC	124.87	348	ePKP	21	14.00	-2.7
	1.0s		14.00nm			
TTA	125.54	326	PKP	21	13.00	-5.5X
KRA	126.07	53	ePKP	21	22.50	2.7
IMA	126.34	330	PKP	21	17.50	-2.5
	1.0s		4.13nm			
NB2	127.16	38	PKP	21	20.00	-1.6
	1.4s		11.90nm			
MLR	127.26	60	ePKPd	21	25.50	3.1X
HFS	127.82	39	ePKP	21	24.90	2.1
	0.5s		1.00nm			
VRI	127.92	60	ePKPc	21	25.00	1.5

ALE	128.15	2	ePKP	21	24.00	1.1
GBA	140.69	136	PKP	21	30.00	-18.3X
	0.3s		4.10nm			
HYB	144.50	134	ePKP	21	50.00	-4.9X
	1.0s		45.00nm			
MAIO	145.20	89	iPKPd	21	54.80	-0.9
	1.4s		52.88nm			
NNT	146.75	172	ePKP	21	58.20	-0.5
LOE	151.69	175	ePKP	22	10.40	4.1X
CHJJ	152.33	262	ePKP	22	10.50	3.8X
CHG	152.79	169	ePKP	22	12.50	4.7X
NIIJ	152.93	264	ePKP	22	12.70	5.2X
MAT	153.13	262	(PKP)	22	15.00	7.2X
	1.0s		10.00nm			
MTMJ	153.43	262	ePKP	22	15.00	6.6X
PKI	156.42	134	PKP	22	13.00	0.0
LZH	170.37	177	ePKP	22	27.00	1.7
	2.0s		55.00nm			

S.D. = 1.6 on 56 of 82 obs.

? APR 20, 1989 16h 14m 14.27± 1.59s
20.065 N ±13.1km 144.416 E ±25.9km
DEPTH = 33.0km (normal)
4.6mb (5 obs.)
MARIANA ISLANDS (216)

CHJJ	16.62	344	eP	18	07.60	1.3
TSRJ	17.11	336	P	18	12.70	0.2
MAT	17.29	343	(P)	18	14.00	-0.8
MTMJ	17.45	342	eP	18	16.10	-0.7
GUN	53.63	290	P	23	36.10	0.7
PKI	54.08	290	P	23	37.30	-1.3
	0.4s		3.00nm		4.7mb	
KKN	54.17	290	P	23	39.50	0.3
DMN	54.34	290	P	23	40.80	0.3
GKN	54.71	291	P	23	43.20	0.1
	0.4s		7.00nm		5.0mb	
SUF	84.40	336	iP	26	44.50	0.1
	0.5s		2.00nm		4.6mb	
HFS	90.67	338	eP	27	14.50	-0.2
	0.4s		1.10nm		4.5mb	
NB2	90.88	339	P	27	15.80	0.1
	0.7s		0.80nm		4.2mb	

S.D. = 0.8 on 12 of 12 obs.

? APR 20, 1989 16h 14m 39.92± 8.47s
9.926 S ±81.4km 124.044 E ±31.7km
DEPTH = 33.0km (normal)
4.5mb (2 obs.)
TIMOR (289)

MTN	7.53	113	iPc	16	31.30	1.1
			eS	17	57.60	
MBL	11.88	199	eP	17	31.00	0.9
			eS	19	31.00	
WB5	14.04	136	eP	17	57.30	-1.5
			eS	20	32.80	
WRA	14.07	136	P	17	59.00	-0.2
	0.2s		1.90nm		4.4mb	
WARB	16.36	172	eP	18	22.20	-6.6X
ASPA	16.59	147	eP	18	33.30	1.5
	0.4s		18.00nm		4.6mb	
			eS	20	49.20	
QIS	18.34	127	iPc	18	53.40	-0.2
			i	18	55.40	
			eS	20	43.00	
FORR	21.16	170	eP	19	23.00	-1.6

S.D. = 1.5 on 7 of 8 obs.

& APR 20, 1989 16h 29m 07.37s
59.776 N 153.180 W
DEPTH = 103.7km
SOUTHERN ALASKA (2)
<AGS-P>.

OPT	0.13	192	iP	29	21.49	1.0
			eS	29	32.39	
ILIM	0.32	20	iP	29	21.99	-0.8
			iS	29	33.94	
AUL	0.42	198	iP	29	22.71	-0.5
			eS	29	35.06	
PDB	0.51	272	iP	29	23.11	-0.7
RED	0.68	17	iP	29	24.51	-0.8
			eS	29	37.97	
XLV	0.81	113	eP	29	25.44	-0.9
CDD	0.88	196	iP	29	26.20	-0.9
			eS	29	41.64	
RDT	0.89	25	iP	29	26.50	-0.8
			iS	29	41.03	
NNL	0.99	73	eP	29	28.23	0.0
CNPM	1.02	103	iP	29	27.68	-0.9
			iS	29	43.58	
SPU	1.52	21	iP	29	33.35	-1.1
CRP	1.58	18	eP	29	34.66	-0.7
CGLM	1.64	20	iP	29	35.25	-0.8
SLKM	1.65	62	eP	29	35.20	-0.9
SVW	1.80	319	eP	29	36.64	-1.4
SEW	1.91	78	iP	29	37.89	-1.4
			iS	30	02.22	
SUA	2.08	34	eP	29	41.03	-0.7
			eS	30	06.59	
PMS	2.32	49	eP	29	43.67	-1.2
SKT	2.35	19	eP	29	44.11	-1.2
PLRM	2.70	46	eP	29	47.96	-1.9
PME	2.76	46	eP	29	49.22	-1.5
KNIM	2.79	76	iP	29	48.47	-2.6
MTU	2.80	83	eP	29	49.46	-1.7
KNK	2.85	53	eP	29	49.75	-2.2
GHO	2.89	44	eP	29	50.45	-2.1
TTA	3.45	338	eP	29	57.94	-2.2
FID	3.48	71	eP	29	57.48	-3.0
VZW	3.53	66	eP	29	58.76	-2.4
KLU	3.97	61	eP	30	04.37	-2.9
TOA	4.14	53	eP	30	08.14	-1.4

30 obs. associated

APR 20, 1989 17h 26m 51.98± 0.79s
49.124 N ± 6.5km 6.820 E ±12.5km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
MD 1.5 (STR).

WLF	0.70	321	iPd	27	05.10	-0.6
CDF	0.77	157	Pg	27	06.20	-0.9
VITF	1.06	212	Pg	27	12.04	0.1
			Sg	27	26.73	
MOF	1.29	171	Pg	27	16.49	0.5
			Sg	27	34.22	
BSF	1.29	181	Pg	27	16.16	0.1
			Sg	27	34.26	
FEL	1.48	147	Pg	27	18.98	0.2
			Sg	27	39.05	
MEM	1.58	341	P	27	20.60	0.6

S.D. = 0.7 on 7 of 7 obs.

APR 20, 1989 18h 47m 40.27± 0.44s
35.769 N ± 4.8km 21.757 E ± 4.1km
DEPTH = 10.0km (geophysicist)
4.4mb (7 obs.)
MEDITERRANEAN SEA (400)
ML 4.2 (ATH).

ITM	1.41	6	ePb	48	06.40	0.4
VAM	2.02	100	ePb	48	17.00	2.2
VLS	2.58	339	ePn	48	25.00	2.2
ATH	2.70	35	ePb	48	28.50	4.0X
NPS	3.19	98	ePn	48	31.10	-0.3
NEO	3.72	18	ePb	48	41.00	2.0
KAP	4.42	91	ePn	48	50.20	1.3
LSK	4.47	349	ePn	48	50.10	0.5
KZN	4.53	0	ePn	48	51.60	1.1
PLG	4.79	16	ePn	48	55.40	1.3
KBN	4.90	352	ePn	48	58.00	2.3
PRK	4.99	45	ePn	48	59.50	2.5
VLO	5.02	340	ePn	49	07.50	10.2X
SOI	5.11	298	Pc	48	58.90	0.2
			eSn	49	54.70	
IZM	5.12	58	eP	49	11.00	12.1X
BERA	5.13	344	ePn	48	59.10	0.2
OHR	5.39	352	iPnd	49	02.80	0.2
EZN	5.43	40	eP	49	06.00	2.8
YER	5.43	74	eP	49	03.60	0.2
LCI	5.46	328	P	49	02.20	-1.3
			eSn	50	00.40	
ATN	5.58	297	P	49	05.80	0.5
			eSn	50	04.10	
VAY	5.58	6	iPn	49	04.80	-0.5
MEU	5.66	286	P	49	07.50	0.9
			eSn	50	08.30	
TIR	5.76	346	ePn	49	07.00	-0.8
TDS	5.79	314	P	49	08.40	0.2
PHP	6.00	351	iPnc	49	11.50	0.4
MMB	6.01	14	iPd	49	11.00	-0.4
LACI	6.07	345	ePn	49	10.00	-2.2
RDO	6.13	28	ePn	49	12.60	-0.4
KKB	6.18	9	iPc	49	13.00	-0.7
SKO	6.20	358	iPn	49	13.00	-1.0
			i	49	20.50	
RZN	6.35	20	eP	49	14.00	-2.3
KKS	6.38	351	ePn	49	20.00	3.4X
PUK	6.43	348	ePn	49	16.60	-0.7
SDA	6.48	345	ePn	49	19.00	1.0
KDZ	6.53	25	iPd	49	18.00	-0.7
MGR	6.56	314	Pc	49	18.80	-0.3
ELL	6.66	79	eP	49	19.90	-0.8
BCI	6.72	349	ePn	49	21.00	-0.3
VTS	6.91	9	iP	49	26.00	1.9
SGO	6.97	315	P	49	25.20	0.3
PGB	7.02	15	eP	49	30.00	4.3X
BCK	7.30	74	eP	49	30.90	1.3
JMB	7.67	28	iPc	49	20.00	-14.6X
PVL	7.93	19	eP	49	31.00	-7.3X
SDI	8.58	316	P	49	46.50	-0.9
BBTK	9.61	62	eP	50	02.00	0.3
CMP	9.81	14	ePc	49	54.00	-10.4X
MLR	10.22	17	ePc	50	11.50	1.4
VRI	10.77	19	ePd	50	19.50	2.0
VBY	10.90	335	eP	50	18.30	-1.0
			eS	52	11.40	
PTJ	11.03	338	eP	50	20.40	-0.7
CEY	11.40	333	e(P)	50	27.50	1.4
			e(S)	52	25.00	
LJU	11.62	334	eP	50	38.50	9.4X
			e(S)	52	20.00	
			e	52	30.00	
VOY	11.84	332	eP	50	30.50	-1.7
			eS	52	33.00	
DSI	12.10	106	eP	50	31.00	-4.5X
PRNI	12.35	112	eP	50	38.00	-1.0
MBH	12.56	115	eP	50	39.00	-2.7
KBA	12.93	333	eP	50	50.00	3.1X
KHC	14.64	338	eP	51	09.90	0.7
PRU	15.15	342	eP	51	15.50	-0.3
			e	51	18.00	
BRG	16.12	342	e(P)	51	44.00	15.7X
CDF	16.55	324	eP	51	39.80	5.9X
HAU	16.73	322	eP	51	40.50	4.4X
	0.9s		6.50nm		3.8mb	
CLL	16.76	341	(Pg)	51	40.00	3.5X
			(Sg)	52	03.00	
MFF	19.65	310	eP	52	17.00	4.9X
LDF	20.58	315	eP	52	21.50	-0.2
LPF	20.84	313	eP	52	24.50	0.1
	0.8s		6.40nm		4.0mb	
FLN	20.87	315	eP	52	23.30	-1.4
	1.0s		20.00nm		4.4mb	
GRR	20.90	314	eP	52	24.00	-1.0
NUR	24.83	3	eP	53	03.00	-0.6
HFS	24.93	350	eP	53	03.10	-1.6
	0.9s		11.30nm		4.6mb	
NB2	26.17	348	P	53	15.60	-0.7
	0.7s		2.90nm		4.1mb	
SUF	27.11	4	iP	53	23.70	-1.2
BNG	31.32	186	iPc	54	04.90	1.9
	0.5s		13.00nm		5.1mb	
			i	54	11.50	
SOD	31.77	4	iP	54	05.10	-1.3
KEV	34.16	3	eP	54	25.00	-2.2
TIC	37.99	227	P	55	01.60	1.4
KIC	38.05	226	P	55	02.00	1.3
LIC	38.33	226	Pc	55	04.60	1.6
WMQ	50.09	59	P	56	36.30	-1.1
GKN	53.16	80	P	56	58.80	-2.0
DMN	53.70	80	P	57	03.10	-1.8
KKN	53.76	79	P	57	03.40	-1.9
PKI	53.96	80	P	57	06.00	-0.9
CN2	74.81	47	eP	59	21.80	-0.6
YKA	75.99	341	eP	59	29.40	0.6
FFC	77.76	330	eP	59	40.00	1.2
	0.7s		5.00nm		4.7mb	

S.D. = 1.3 on 72 of 88 obs.

& APR 20, 1989 19h 57m 12.33s
58.490 N 142.803 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

PCA	2.07	38	eP	57	42.47	-5.2
BALM	2.57	5	eP	57	49.06	-5.7
CTGM	2.59	16	eP	57	49.52	-5.6

20d 19h

			iS	58	19.98	
FID	2.94	322	eP	57	53.00	-6.9
GLB	3.00	351	eP	57	54.96	-5.9
KNIM	3.14	309	eP	57	58.92	-3.8
VZW	3.20	325	eP	58	00.33	-3.3
KLU	3.40	334	eP	58	00.76	-5.7
HYT	3.57	47	P	58	04.00	-4.9
TOA	4.00	337	eP	58	09.84	-5.1
KNK	4.08	318	eP	58	11.30	-4.8
SLKM	4.29	301	eP	58	16.75	-2.4
PMS	4.39	312	eP	58	15.34	-5.2
GHO	4.49	320	eP	58	17.04	-5.0

14 obs. associated

APR 20, 1989 20h 31m 00.42± 0.18s
11.974 N ± 3.7km 142.942 E ± 4.3km
DEPTH = 33.0km (normal)
5.1mb (18 obs.) 4.2Msz (2 obs.)
SOUTH OF MARIANA ISLANDS (210)

PJG	2.47	49	iPc	31	29.30	-9.9X
GUA	2.47	51	iPc	31	29.40	-9.9X
			eS	32	08.50	
PMG	21.65	169	eP	35	48.50	-1.7
IIDJ	23.84	350	P	36	11.00	-0.6
CHJJ	24.23	352	P	36	14.60	-0.7
TSRJ	24.29	346	P	36	12.60	-3.3X
MAT	24.83	351	iPd	36	20.00	-1.1
			eS	40	56.00	
MTMJ	24.94	350	P	36	21.90	-0.4
NIIJ	25.41	353	P	36	25.50	-1.0
SSE	27.68	317	Pd	36	47.80	0.3
Z	24s		0.40um			3.9MszX
			e(S)	41	48.00	
CTA	32.03	174	iPd	37	25.60	-0.7
	1.0s		25.00nm			5.1mb
WHN	32.27	309	Pc	37	29.00	0.6
QIS	32.49	186	eP	37	29.00	-1.3
WB5	32.76	195	eP	37	31.70	-1.0
WRA	32.83	195	Pc	37	32.90	-0.4
	1.2s		32.00nm			5.1mb
TIA	33.53	320	eP	37	39.00	-0.2
ASPA	36.51	194	iPd	38	04.70	-0.1
	0.5s		18.00nm			5.2mb
Z	18s		0.43um			4.3Msz
			LR	53	36.50	
BJI	36.60	325	eP	38	05.00	-0.3
GYA	37.01	298	P	38	10.60	1.4
			PcP	40	30.60	
TIY	37.42	319	Pc	38	13.00	0.6
XAN	37.97	311	P	38	17.40	0.4
BRS	40.28	166	iPd	38	36.10	-0.1
BTO	40.62	321	P	38	39.60	0.6
CD2	40.78	304	eP	38	40.60	0.2
DZM	40.94	146	iPd	38	41.90	0.1
WARB	41.11	203	eP	38	35.90	-7.2X
SNG	41.97	267	eP	38	52.00	1.7
NNT	42.19	276	eP	38	38.60	-13.5X
LZH	42.61	311	eP	38	56.50	1.0
NANU	43.59	218	eP	39	04.40	1.1
PSI	44.56	262	eP	39	12.80	1.4
BWA	46.43	174	eP	39	25.50	-0.5
GTA	46.87	313	iPc	39	29.80	0.2
			PcP	41	02.60	
CAN	47.38	173	eP	39	33.50	0.0
TOO	49.34	177	iPc	39	49.40	0.8
	0.9s		7.00nm			4.7mb
GUN	55.47	296	Pc	40	35.40	0.3
PKI	55.86	295	Pc	40	37.30	-0.6
	0.6s		10.00nm			5.0mb
KKN	55.99	295	Pc	40	38.20	-0.5
	0.8s		16.00nm			5.1mb
DMN	56.13	295	Pc	40	39.40	-0.3
	0.7s		21.00nm			5.3mb
GKN	56.57	296	Pc	40	42.40	-0.4
	0.6s		22.00nm			5.4mb
WMQ	56.91	315	Pc	40	44.50	-0.3
HYB	62.28	283	eP	41	21.50	-0.6
SVW	65.96	28	eP	41	44.70	-0.7
TTA	66.42	26	eP	41	47.50	-0.9
IMA	68.47	23	eP	42	00.70	-0.6
	0.8s		6.50nm			4.8mb
PMR	69.09	28	eP	42	03.20	-1.8
BRW	69.42	17	P	42	07.00	0.1
FBA	70.47	25	eP	42	12.20	-1.2
TOA	70.57	28	P	42	13.80	-0.3
INK	76.57	22	eP	42	48.00	-0.9
MAIO	77.78	305	iPc	42	57.40	1.1
MBC	80.28	14	eP	43	09.00	-0.1
	0.5s		9.00nm			5.0mb
BMW	84.04	44	P	43	30.00	0.8
GMW	84.13	43	P	43	30.40	0.8
ALE	84.94	3	ePc	43	33.70	0.7
	0.9s		40.00nm			5.6mb
LON	84.94	43	P	43	34.00	0.3
YKA	85.15	27	eP	43	34.70	0.4
YKC	85.21	27	ePc	43	34.50	-0.1
	0.5s		10.00nm			5.3mb
WDC	85.71	50	eP	43	39.10	1.5
PNT	85.82	41	iP	43	39.00	1.0
	0.9s		25.00nm			5.4mb
ORV	86.71	50	eP	43	43.70	1.2
ARN	87.17	53	P	43	45.00	0.2
PRS	87.52	54	eP	43	47.20	0.7
CMB	87.90	52	eP	43	48.60	0.2
PRI	88.12	54	eP	43	50.80	1.3
EDM	88.55	36	iPd	43	51.80	0.6
FRI	88.67	53	eP	43	52.00	0.0
SOD	88.73	340	iP	43	50.80	-0.9
BCH	88.80	54	P	43	53.60	0.8
KVN	89.39	50	P	43	56.00	0.4
TNP	90.31	51	P	44	00.20	0.2
	0.6s		6.64nm			5.1mb
PAS	90.58	55	eP	44	01.00	0.0
CLC	90.61	53	eP	44	02.00	0.8
MWC	90.66	55	eP	44	01.00	-0.6
SBB	90.72	54	eP	44	02.00	0.2
SUF	91.16	336	iP	44	01.70	-1.4
	0.7s		10.80nm			5.3mb
RVR	91.26	55	eP	44	04.00	-0.1
GSC	91.37	54	eP	44	06.00	1.3
LRM	91.44	43	eP	44	05.40	0.3
PEC	91.46	55	P	44	05.50	0.4
PLM	91.84	56	P	44	07.50	0.4
TPC	92.29	55	eP	44	09.00	0.0
NUR	92.89	334	iP	44	09.90	-1.2
GLA	93.57	55	eP	44	15.00	0.2
FFC	94.17	32	eP	44	17.00	-0.1
	0.8s		14.00nm			5.4mb
HFS	97.55	337	eP	44	30.10	-2.3
	0.4s		1.50nm			4.9mb
Z	18s		0.06um			4.1Msz
			LR	27	57.00	
NB2	97.87	338	P	44	32.10	-1.8
	0.7s		3.50nm			5.0mb
ALQ	99.52	51	eP	44	42.70	0.6
BNG	122.36	283	iPKPd	49	55.30	0.5
	0.5s		5.00nm			
KIC	143.06	298	PKP	50	30.00	-3.7X
TIC	143.16	298	PKP	50	30.00	-3.9X
LIC	143.37	298	PKP	50	31.00	-3.2X
ZOBO	149.59	102	PKP	50	50.80	5.8X
LPB	149.60	102	(PKP)	50	48.00	3.2X
CNCB	149.69	103	PKP	50	51.60	6.5X

S.D. = 0.8 on 84 of 95 obs.

APR 20, 1989 22h 59m 54.07± 0.08s
57.166 N ± 1.7km 121.976 E ± 1.7km
DEPTH = 26.3km (geophysicist)
6.1mb (65 obs.) 6.5Msz (21 obs.)
EASTERN USSR (656)

Ms 6.3 (BRK), 5.9 (PAS). Felt (VI) at Khani, Olekso and Yuktali; (V) at Ikabya, Kuvykta, Khatymi, Neryungri and Berkakit; (IV) at Yakutsk, Chita and Blagoveshchensk. Also felt strongly at Ust-Nyukzho. Depth from broadband displacement seismograms.

FAULT PLANE SOLUTION: P-Waves
NP1:Strike=129 Dip=75 Slip= 90
NP2: 309 15 90
Principal Axes:
T Plg=60 Azm= 39
P 30 219

Comment: The focal mechanism is poorly controlled and corresponds to reverse faulting. The preferred fault plane is NP2.

RADIATED ENERGY
No. of sta: 7 Focal mech. M
Energy 0.6±0.2*10**14 Nm

MOMENT TENSOR SOLUTION
Dep 22 No. of sta: 18
Moment Tensor; Scale 10**18 Nm
Mrr= 0.91 Mtt= 0.23
Mff=-1.15 Mrt= 1.97
Mrf=-1.68 Mtf= 0.87
Principal axes:
T Val= 2.74 Plg=53 Azm= 22
N 0.34 16 134
P -3.08 32 234
Best Double Couple:Mo=2.9*10**18
NP1:Strike= 7 Dip=19 Slip= 145
NP2: 131 79 74
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 44C M.W.: 13S, 23C
Centroid Location:
Origin Time 23:00: 1.4 0.2
Lat 57.03N 0.01 Lon 121.23E 0.04
Dep 48.3 1.8 Half-duration 5.0
Moment Tensor; Scale 10**18 Nm
Mrr= 0.35 0.04 Mtt= 0.61 0.04
Mff=-0.96 0.05 Mrt= 1.82 0.08
Mrf= 0.25 0.06 Mtf= 2.36 0.04
Principal Axes:
T Val= 3.25 Plg=30 Azm=329
N -0.32 54 113
P -2.93 17 229
Best Double Couple:Mo=3.1*10**18
NP1:Strike= 6 Dip=56 Slip= 170
NP2: 101 82 35
GEOSCOPE MOMENT TENSOR (PAR)
Dep 25.0 Half-duration 7.0
Best Double Couple:Mo=5.0*10**18
NP1:Strike=115 Dip=86 Slip= 68
NP2: 14 23 168

CN2	13.56	169	Pd	03	03.00	-3.9X
	5.0s		11.50nm			4.0mb X
E	10s		375.00um			
			iS	05	30.00	
SNY	15.39	175	iPd	03	29.00	-1.8
N	15s		211.00um			
E	15s		67.90um			
			S	06	22.00	
YSS	16.23	120	P	03	51.00	9.4X
BJI	17.55	195	eP	03	57.99	-0.2
			eS	07	24.56	
HHC	17.67	207	eP	04	00.60	0.8
Z	20s		193.00um			
E	10s		69.60um			
DL2	18.27	181	iPc	04	07.50	0.4
N	12s		236.00um			
E	10s		194.00um			
			S	07	29.00	
BTO	18.30	210	iPd	04	08.00	0.4
	9.0s		19.50nm			3.3mb X
ASAJ	18.40	126	P	04	09.50	0.8
MRRJ	19.12	132	eP	04	15.50	-2.0
HOOJ	20.08	128	eP	04	24.50	-3.5X
KUSJ	20.13	125	eP	04	25.60	-2.9
AOMJ	20.45	136	eP	04	31.60	-0.2
TIY	20.47	202	iPd	04	32.80	0.6
	9.0s		8.60nm			3.1mb X
			S	08	23.00	
TIA	21.21	191	Pd	04	39.00	-0.7
E	13s		330.00um			
OFUJ	22.22	136	eP	04	49.60	-0.2
YAMJ	22.43	140	eP	04	50.20	-1.7
GTA	22.91	229	iPd	04	57.80	1.0
Z	12s		116.00um			6.5MszX
E	10s		100.00um			
			pP	05	02.00	15kmX
			S	09	01.50	
NIIJ	22.92	143	P	05	07.10	10.4X
MTMJ	23.15	146	P	05	04.40	5.3X
MAT	23.31	145	iPc	05	00.20	-0.4
			eS	09	06.00	
YONJ	23.31	156	eP	04	58.60	-2.0
TSRJ	23.60	150	P	05	02.90	-0.5
SHK	23.78	158	ePd	05	04.00	-1.0
SHNJ	23.87	161	P	05	05.70	-0.2
CHJJ	24.01	144	P	05	06.70	-0.6
IIDJ	24.20	147	P	05	08.20	-1.0
KAKJ	24.25	142	P	05	09.90	0.3
LZH	24.34	218	ePd	05	13.34	2.6
			ed	05	15.66	

esP 05 36.00
PcP 08 45.00
eS 09 34.27
sS 09 55.00
TKSJ 24.60 155 eP 05 11.70 -1.3
WKYJ 24.75 152 eP 05 14.40 -0.1
XAN 24.78 207 Pd 05 15.20 0.4
NJ2 25.20 186 iPd 05 19.20 0.4
N 15s 159.00um
E 11s 37.30um
S 09 42.00
WMQ 25.25 253 eP 05 20.51 1.2
8.0s 5.80nm 3.3mb X
e 05 24.48
eS 09 58.21
sS 12 14.00
KUMJ 25.37 162 eP 05 20.30 -0.1
SSE 26.07 182 Pc 05 25.50 -1.4
1.0s 61.00nm 5.2mb
Z 16s 62.30um 6.2MszX
N 12s 49.60um
E 14s 79.00um
S 09 57.00
sS 10 08.00
KAGJ 26.70 163 eP 05 36.00 3.3X
WHN 27.14 195 Pd 05 36.50 -0.2
7.0s 4.22nm 3.2mb X
Z 22s 71.80um 6.2Msz
iS 10 14.00
CD2 29.14 213 iPd 05 54.70 -0.2
Z 18s 57.30um 6.2Msz
E 12s 54.70um
S 10 46.50
ANP 31.96 181 eP- 06 22.00 2.2
eS 11 36.00
QZH 32.29 186 Pd 06 20.00 -2.6
7.0s 1.10nm 2.9mb X
Z 15s 86.40um 6.6MszX
E 13s 47.40um
sS 11 40.00
GYA 32.58 206 iPd 06 24.80 -0.5
4.0s 2.00nm 3.4mb X
N 14s 151.00um
E 14s 133.00um
PP 07 33.00
KSH 34.54 259 P 06 43.60 1.4
sP 06 56.00
PP 08 02.50
S 12 13.00
GZH 34.62 194 eP 06 41.60 -1.2
Z 18s 85.20um 6.5Msz
N 14s 29.10um
E 12s 42.60um
PP 07 56.00
eS 12 02.00
BRW 34.87 34 eP 06 44.90 0.4
LSA 34.87 231 Pd 06 47.30 1.8
N 10s 52.80um
E 10s 46.20um
eS 12 12.00
KMI 34.88 211 ePd 06 44.67 -0.7
ed 06 46.83
epPc 06 50.30 19kmX
ePP 08 11.09
esS 12 34.10
ADK 34.91 72 P 06 42.20 -2.9X
1.0s 50.00nm 5.4mb
HKC 35.29 193 iP 06 47.70 -0.8
S 12 16.00
MCO 35.54 194 eP 06 49.00 -1.7
IMA 38.05 41 eP 07 11.80 0.3
KBS 38.13 343 iP 07 12.50 0.6
TTA 38.71 46 eP 07 16.70 -0.4
GUN 38.74 236 Pd 07 19.10 1.1
KKN 39.11 237 Pd 07 22.60 1.6
QIZ 39.14 198 eP 07 21.00 0.1
N 11s 24.70um
E 12s 86.40um
sP 07 38.00
PP 08 56.00
eS 13 23.00
sS 13 38.00
GKN 39.23 238 Pd 07 23.40 1.6
PKI 39.24 237 Pd 07 23.40 1.2
DMN 39.35 237 Pd 07 24.60 1.6
KEV 39.67 327 iPc 07 25.30 0.5
0.7s 69.40nm 5.5mb

ALE 40.54 1 iPc 07 32.50 0.6
0.9s 119.00nm 5.6mb
BAG 40.70 182 eP- 07 34.00 0.0
eS 13 40.00
COL 40.75 41 ePc 07 33.72 -0.1
ePP 09 21.98
eS 13 43.62
esS 13 55.70
FBA 40.75 41 eP 07 34.50 0.7
SOD 41.10 324 iP 07 47.20 10.6X
MBC 41.27 19 iPc 07 38.00 0.1
1.0s 420.00nm 6.1mb
pP 09 30.00
CHG 41.95 214 iPd- 07 44.30 0.2
1.0s 82.50nm 5.4mb
Z 20s 1.77um 4.9MszX
N 20s 3.07um
E 19s 2.00um
e 09 26.00
eS 14 00.00
CHTO 41.95 214 ePd 07 43.63 -0.5
ed 07 45.45
epP 07 48.93 18kmX
ePP 09 26.43
TRO 42.06 329 iP+ 07 44.90 0.5
PMR 42.14 45 eP 07 44.70 -0.5
0.8s 57.10nm 5.4mb
NDI 42.24 247 iPd 07 47.00 0.6
LOE 42.49 209 iPd 07 47.60 -1.0
INK 43.30 32 ePc 07 55.20 0.6
1.1s 406.00nm 6.1mb
pP 08 09.00 52kmX
SUF 44.05 319 iP 08 01.20 0.5
DWY 44.17 39 P 08 01.50 -0.2
NST 44.58 211 eP 08 07.00 1.5
MAIO 45.76 271 iPd 08 16.40 1.5
eS 15 04.00
NUR 46.02 317 iPc+ 08 16.40 -0.1
0.7s 220.20nm 6.2mb
i 08 19.20
e 10 00.00
e 15 00.00
e 17 48.00
PJG 46.86 149 eP 08 29.00 5.5X
JNW 47.39 340 iP 08 32.50 5.3X
NNT 47.63 210 iPd 08 30.10 0.5
UPP 49.02 320 iPc 08 38.70 -1.2
0.8s 400.00nm 6.5mb
i 08 41.40
iPP 10 34.00
iS 15 41.00
iSS 19 14.00
RGS 49.08 326 iPc 08 40.40 0.1
DAV 50.03 175 eP 08 51.00 2.9X
HFS 50.17 322 eP 08 48.20 -0.6
0.6s 237.00nm 6.4mb
Z 18s 38.89um 6.5Msz
LR 28 49.00
NB2 50.32 324 P 08 49.60 -0.3
NRA0 50.44 323 P 08 50.00 -0.8
SIT 50.44 44 eP 08 51.70 0.9
Z 20s 60.00um 6.6Msz
TEH 50.59 277 eP 08 55.00 2.6
HYB 51.15 237 iPd 08 56.10 -0.6
1.0s 90.00nm 5.7mb
e 09 10.50
eS 16 10.00
KKM 51.19 187 ePd 08 57.00 0.0
TAB 51.58 283 iP+ 09 02.00 2.1
HYA 51.79 326 iPc 09 00.94 -0.1
SUE 52.30 327 iP 09 04.91 0.0
POO 52.41 243 eP 09 06.00 -0.3
iS 16 32.50
SNG 52.59 207 eP 09 08.00 0.5
0.8s 62.69nm 5.6mb
eS 16 26.40
ASK 52.63 326 eP 09 06.87 -0.5
ODD1 52.64 325 iP 09 07.59 0.1
BER 52.67 326 eP 09 05.32 -2.3
TSM 52.89 185 eP 09 12.00 2.3
YKA 52.89 29 P 09 08.90 -0.3
YKC 52.93 29 ePc 09 08.50 -1.1
1.3s 585.00nm 6.4mb

pP 09 19.00 35kmX
BLS1 52.99 325 eP 09 10.33 0.1
KMY 53.63 325 iP 09 14.69 0.0
AKU 53.82 341 iP 09 17.40 1.4
1.2s 212.50nm 6.0mb
i 09 31.70
i 13 39.00
SLY 53.86 281 iPd 09 18.00 1.3
iPcP 10 18.50
iS 16 54.00
e 18 05.00
eScS 19 04.00
e 19 40.00
eSS 21 04.00
eSSS 23 03.00
eLQ 29 03.00
KER 53.94 279 ePc 09 20.00 2.5
MSL 54.52 284 ePd 09 23.00 1.4
e 09 34.00
eS 17 01.30
eScS 19 10.00
KVT 54.68 292 eP 09 23.60 0.8
CLI 54.82 303 iPc 09 24.00 0.2
BIR 54.88 302 eP 09 24.00 -0.1
PTT 54.95 304 eP 09 27.00 2.4
BAC 54.99 303 eP 09 20.00 -4.9X
IPM 54.99 206 ePd 09 24.90 -0.3
0.9s 42.50nm 5.5mb
GBA 55.00 236 Pd 09 24.10 -1.2
0.8s 13.30nm 5.0mb X
KRA 55.40 310 iPc 09 27.70 -0.1
1.3s 423.00nm 6.3mb
Z 18s 65.50um 6.8Msz
N 18s 38.70um
i 09 30.40
i 09 38.50
e 11 35.00
e 17 09.00
CFR 55.45 301 ePc 09 28.50 0.3
VRI 55.59 303 iPc 09 30.00 0.7
BMR 55.68 306 iPd 09 33.00 3.1X
BRD 55.71 302 eP 09 39.50 9.3X
REY 55.90 342 iP 09 46.70 15.5X
SPC 55.93 309 iPc 09 32.80 0.9
LR 23 30.00
BHD 56.22 280 ePd 09 35.00 1.1
pP 09 49.00 51kmX
ePcP 10 33.00
eS 17 24.00
eScS 19 04.00
eSS 23 46.00
ISR 56.23 302 iPc 09 35.50 1.5
MLR 56.24 303 ePc 09 34.50 0.4
KSP 56.28 313 iPc 09 34.50 0.3
1.3s 493.00nm 6.4mb
CJR1 56.35 305 eP 09 35.20 0.5
PSN 56.57 300 eP 09 37.00 0.7
CMP 56.82 303 ePc 09 28.00 -10.2X
KGM 56.97 202 eP 09 40.00 0.6
BUC 56.99 302 iPc 09 41.00 1.7
BUC1 57.07 302 iPc 09 42.00 2.1
BRG 57.18 314 iPc 09 40.30 -0.3
1.3s 360.00nm 6.2mb
N 17s 37.00um
E 17s 40.00um
i 09 42.50
i 12 44.00
eS 17 34.00
eScS 19 28.00
CLL 57.20 315 iPc 09 40.00 -0.8
1.3s 490.00nm 6.4mb
i 09 54.80
iScP 14 29.80
eS 17 33.00
BBTK 57.26 294 ePc 09 42.00 0.5
DEV 57.31 305 ePc 09 43.00 1.4
PSI 57.32 208 ePd 09 40.60 -1.3
DRA 57.63 303 eP 09 43.00 -0.8
PRU 57.65 313 iPc 09 44.00 0.1
1.5s 223.20nm 6.0mb
Z 19s 54.40um 6.7Msz
N 16s 42.90um
E 18s 25.50um
e 09 56.50
ePP 11 52.00
eS 17 40.00
GZR 57.75 305 ePc 09 47.00 2.3

20d 23h

BUD		57.77	309	e(P)	09	44.00	-0.7	DBN		59.43	320	iP+	09	57.00	0.7	YER	61.57	295	iP	10	10.70	-0.5
SRO		57.81	309	eP	09	45.90	0.9		Z	20s	33.40um				6.5Msz	BRY	61.59	306	eP	10	10.70	-0.6
				i	11	46.50						e(pP)	10	08.00	37kmX	TTG	61.65	305	eP	10	10.80	-0.7
ZST		58.02	310	eP	09	46.80	0.3					ePP	12	09.00					eS	18	32.00		
	Z	18s	81.00um				6.9Msz					ePPP	13	30.00		PUK	61.67	304	eP	10	06.80	-4.8X
				i	11	56.00						iS	18	06.00		MCW	61.69	43	P	10	12.20	0.4
				e(S)	18	01.50						i	18	17.00		PHP	61.70	304	eP	10	11.60	-0.3
				LR	18	37.00						eScS	19	45.00		VVI	61.71	312	Pc	10	11.20	-0.7
HRT		58.03	297	eP	09	44.00	-2.8	DST		59.48	296	iP	09	56.60	-0.3	RYD	61.71	272	ePd	10	11.20	-1.0
BZS		58.09	306	ePc	09	47.00	0.0	VTS		59.73	302	iPc	09	58.00	-0.7				iS	18	32.80		
GPA		58.13	296	eP	09	47.60	0.2	RZN		59.73	301	iPd	09	57.00	-1.8	KSL	61.72	293	eP	10	12.10	0.0
ISK		58.14	297	eP	09	47.00	-0.4	RDO		59.77	300	eP	09	59.00	0.3	CDF	61.73	317	P	10	11.58	-0.5
GBZT		58.17	297	iPd	09	48.80	1.2	PPI		60.00	205	eP	10	04.00	3.5X	DMU	61.73	328	iPc	10	11.60	-0.3
TIM		58.17	306	iPc	09	45.20	-2.4	KHL		60.03	295	iP	10	00.40	-0.3	SALJ	61.82	286	P	10	13.80	0.9
DMK		58.19	299	iP	09	47.50	-0.3	BCK		60.17	294	eP	10	01.00	-0.7	SDA	61.87	304	eP	10	12.70	-0.3
JMB		58.25	300	iPc	09	48.00	-0.2	MMB		60.27	301	iPc	10	02.00	-0.2	FEL	61.89	316	P	10	12.42	-0.9
PVL		58.26	301	iPc	09	48.00	-0.2	ENN		60.27	319	iPc	10	01.70	-0.4	KFNJ	61.94	286	P	10	14.20	0.6
MOX		58.27	315	iPc+	09	47.50	-0.7			1.0s	292.00nm				6.4mb	BDV	61.96	305	eP	10	13.00	-0.6
		1.3s	546.00nm				6.5mb					i	10	04.30		CTI	61.97	312	P	10	13.80	0.0
	Z	60s	10.30um				5.5MszX					e	10	13.50		HCY	61.97	305	eP	10	12.70	-1.0
	N	13s	29.40um					PTJ		60.31	309	iPc	10	02.20	-0.3	YRH	62.00	327	eP	10	13.00	-0.7
	E	19s	14.80um					KKB		60.35	302	iPc	10	03.00	0.2	OHR	62.00	303	iPc	10	13.70	-0.3
				i	10	00.00		FAM		60.36	289	eP	10	05.00	2.2		1.6s	0.34nm			3.2mb X	
				iPP	11	58.00		ZAG		60.37	309	ePc	10	02.50	-0.3				i	10	23.70		
				iS	17	48.00						i	13	49.00					i	10	47.80		
				iLR	27	00.00		MEM		60.38	319	Pc	10	02.30	-0.4	MASJ	62.02	286	P	10	15.00	0.7
VKA		58.29	311	iPc	09	48.60	0.2	EZN		60.42	298	eP	10	03.40	0.2	ULC	62.02	305	eP	10	13.70	-0.4
		4.3s	2086.00nm				6.5mb X	KBA		60.45	312	iPc	10	04.20	0.6	LACI	62.08	304	eP	10	13.60	-0.8
	Z	11s	15.20um				6.4MszX			1.1s	356.00nm				6.4mb	DLE	62.17	328	iPc	10	14.40	-0.4
				ipP	10	00.50	41kmX					i	10	07.40			0.6s	60.00nm			5.9mb	
				iPP	11	59.80						i	10	10.50		KZN	62.19	302	eP	10	14.60	-0.7
				eS	17	50.00						i	10	15.40		MKRJ	62.20	286	P	10	15.70	0.2
				LR	40	15.00						i	13	39.40		OUTJ	62.21	285	P	10	16.20	0.7
EDU		58.32	328	ePc	09	48.00	-0.5					eS	18	15.00		MKS	62.21	183	i(P)	10	11.80	-3.6X
WIT		58.33	320	iPc	09	49.40	0.8	CSS		60.73	290	eP	10	05.50	0.1	TIR	62.24	304	eP	10	15.20	-0.3
				i	09	52.10		LJU		60.79	310	eP	10	05.50	-0.2	MOF	62.25	316	P	10	14.77	-0.8
DHR		58.53	270	ePd	09	51.00	0.7					e	12	20.00		HVAR	62.29	307	iP	10	14.80	-1.0
ELO		58.59	328	ePc	09	49.90	-0.5					e	13	38.00		OASM	62.29	276	ePd	10	17.00	0.9
		0.8s	187.00nm				6.2mb					eS	18	21.00		NEO	62.31	300	eP	10	16.00	0.0
KHC		58.71	313	iPc	09	51.80	0.4	HRI		60.80	287	eP	10	06.00	0.0	DSI	62.32	286	ePc	10	10.00	-6.1X
		1.2s	305.00nm				6.3mb	UCC		60.80	320	P+	10	05.10	-0.5	PNT	62.32	41	iPc	10	15.00	-1.0
				e	10	31.50						e-	10	17.00			1.1s	191.00nm			6.1mb	
				S	17	54.00						S	18	21.00		DCN	62.33	328	iPc	10	15.60	-0.3
EBH		58.72	328	ePc	09	50.90	-0.4	PLE		60.87	305	eP	10	06.70	0.3		0.8s	237.00nm			6.4mb	
		0.8s	153.00nm				6.2mb	RBL		60.87	311	P	10	06.30	0.0	VITF	62.37	317	P	10	15.72	-0.5
ESY		58.74	327	eP+	09	50.90	-0.5	PRK		60.90	298	eP	10	06.60	0.1	KBN	62.38	303	eP	10	16.70	0.3
		0.9s	164.00nm				6.1mb	VBY		60.92	310	iPc	10	06.30	-0.3	BSF	62.39	317	P	10	15.77	-0.8
EDI		58.90	327	ePc	09	52.10	-0.4	IVA		61.01	305	eP	10	07.60	0.3	HAU	62.41	317	eP	10	15.20	-1.4
WTS		58.95	319	iPc	09	52.60	-0.3	VAY		61.02	302	iPd	10	07.40	0.1		1.2s	124.90nm			5.9mb	
		1.0s	449.00nm				6.5mb			1.7s	0.40nm				3.3mb X	BBS	62.43	316	P	10	16.36	-0.4
				i	09	55.20		SKO		61.02	303	iPc	10	07.20	-0.1	ETA	62.59	327	eP	10	17.30	-0.3
				i	10	04.00				1.7s	59.00nm				5.4mb		1.2s	408.00nm			6.4mb	
EBL		58.99	327	ePc	09	52.40	-0.8		Z	18s	56.16um				6.8Msz				e	10	31.00		
		0.9s	169.00nm				6.2mb		N	18s	51.44um					GMW	62.65	44	P	10	18.40	0.3
EAB		59.01	328	eP+	09	52.90	-0.4		E	20s	30.07um					LOMF	62.78	316	P	10	18.62	-0.5
EAU		59.05	328	ePc	09	53.30	-0.3					ipP	10	19.00	41kmX	SAL	62.78	313	Pc	10	19.60	0.6
DIM		59.07	300	eP	09	54.00	0.1					iPP	12	22.00		HTW	62.81	43	P	10	18.40	-0.9
KCT		59.11	297	eP	09	54.00	-0.3					iPPP	13	37.00		LSK	62.86	302	eP	10	19.70	0.0
FRB		59.15	5	ePc	09	52.00	-2.1					iS	18	26.00		FFC	62.90	27	iPc	10	17.90	-1.8
		0.7s	94.00nm				6.0mb					iSKS	19	52.00			0.7s	44.00nm			5.7mb	
ALT		59.18	295	eP	09	54.50	-0.3					iSS	22	18.00		MDI	62.97	313	Pc	10	19.20	-1.0
GRF		59.18	315	iPc	09	50.30	-4.4X					iSSS	24	54.00		ECP	63.09	327	eP	10	21.00	0.1
	Z	20s	24.00um				6.3Msz					LR	39	12.50			0.9s	508.00nm			6.7mb	
				e	09	57.80		VOY		61.07	311	ePc	10	06.60	-1.1				e	10	35.00		
				e	10	06.50		ELL		61.07	293	iP	10	07.40	-0.4	VLO	63.11	303	eP	10	21.70	0.5
				eS	18	02.00		FVI		61.07	312	P	10	07.20	-0.3	ATH	63.13	299	eP	10	22.00	0.6
GRFO		59.19	315	iPc	09	54.78	0.1	SNF		61.07	320	P	10	06.80	-0.7				eS	18	52.00		
				epPd	10	01.57	22kmX	EDM		61.08	34	iPc	10	06.70	-0.9	AOI	63.20	309	eP	10	21.23	-0.6
				ePP	12	07.21						pP	10	19.00	43kmX	VAI	63.26	314	P	10	21.50	-0.6
BEO		59.23	306	eP	09	54.00	-0.9	CEY		61.08	310	ePc	10	07.40	-0.3	SRN	63.35	303	eP	10	23.20	0.4
	N	17s	49.00um					IZM		61.08	297	eP	10	06.90	-0.9	KAP	63.37	295	eP	10	22.00	-1.0
				iPP	12	07.50		WLF		61.11	318	Pc	10	07.20	-0.5	BMW	63.37	45	P	10	23.10	0.1
				eS	18	00.00		GWF		61.13	317	P	10	07.60	-0.4	ARV	63.52	310	P	10	23.80	-0.2
EDC		59.28	298	iP	09	55.50	0.1	PVY		61.20	304	eP	10	08.70	0.1	SFI	63.63	311	P	10	25.50	0.9
PGB		59.32	302	iPc	09	56.00	0.3	PPCY		61.29	290	eP	10	08.50	-0.7	LON	63.68	43	ePc	10	23.63	-1.4
KMR		59.35	312	iP+	09	56.20	0.4	BCI		61.33	304	eP	10	09.40	0.0				esP	10	34.72		
				ipP	10	08.10	41kmX	PLG		61.36	301	eP	10	09.90	0.3				ePP	12	46.49		
				iPcP	10	44.20		TRI		61.38	311	iPc	10	08.70	-1.0	CIO	63.68	309	eP	10	25.93	0.8
				iPP	12	08.30						iPP	12	25.20		PGD	63.72	311	P	10	26.00	0.6
				i	13	21.40						iPPP	13	52.30		ORX	63.77	314	P	10	24.93	-0.7
				iS	17	59.80						eS	18	31.00		ORO	63.77	314	P	10	25.10	-0.6
				isS	18	18.00						iSP	19	00.00		BRT	63.81	305	P	10	25.80	-0.1
				iScS	19	40.70						eSS	22	50.00		ALP	63.84	309	eP	10	25.93	-0.3
EKA		59.40	327	Pc	09	55.60	-0.4					eSSS	25	50.00		MME	63.88	312	Pc	10	27.40	0.8
		0.7s	174.60nm				6.3mb	JAY		61.39	159	ePc	10	08.70	-1.3	BOB	63.91	313	Pc	10	26.50	0.0
PLD		59.41	301	eP	09	54.00	-2.3	STR		61.40	316	P	10	09.74	0.0	LOR	63.95	318	eP	10	24.90	-1.8
KDZ		59.43	300	iPd	09	57.00	0.5	PGC		61.48	43	eP	10	10.00	-0.3		1.1s	305.20nm			6.3mb	

20d 23h

FIR	63.99	311	eP	10	27.00	0.0	CCMT	68.46	39	iPc	10	56.30	0.6				eS	20	50.00				
MBH	64.01	285	iPc	10	27.50	0.3	BGMT	68.46	38	iPc	10	55.90	0.2	LCH	73.42	46	eP	11	26.20	0.6			
LBF	64.14	318	eP	10	26.30	-1.7	ETER	68.55	316	eP	10	57.00	1.0	PKEM	73.45	48	P	11	26.90	1.3			
FLN	64.20	322	eP	10	26.70	-1.6	WDC	68.60	48	iPc	10	56.60	0.2	GMN	73.51	46	iP	11	27.10	0.9			
	0.8s	281.20nm			6.4mb					eP'P'	39	11.80		PHAM	73.53	49	P	11	26.70	0.6			
LDF	64.22	321	eP	10	26.70	-1.7	EPF	68.86	318	eP	10	57.10	-0.9	WRN	73.56	44	iP	11	26.80	0.4			
LSD	64.23	315	P	10	29.03	0.1		0.8s	62.90nm			5.8mb		GVN	73.74	46	iPc	11	28.40	1.1			
SSF	64.25	318	eP	10	27.20	-1.5	PAA	68.89	144	eP	11	04.00	5.5X	EPLA	73.74	321	iPc	11	28.00	0.7			
PII	64.34	312	Pc	10	28.70	-0.5	PMG	69.50	153	eP	11	10.00	8.0X	EVIA	73.75	318	iPc	11	28.00	0.6			
LPG	64.35	315	eP	10	29.00	-0.7	ORV	69.89	47	iPc	11	03.80	-0.5	BLT	73.79	45	eP	11	27.70	-0.1			
	1.2s	297.50nm			6.3mb		MTN	70.17	171	iPc	11	05.30	-0.8	SRG	73.84	44	iP	11	28.80	0.8			
NPS	64.37	296	eP	10	27.90	-1.7		0.7s	123.00nm			6.1mb		SGV	73.88	46	iPc	11	29.10	0.8			
DUI	64.38	308	Pc	10	29.80	0.1	ECRI	70.25	320	eP	11	07.00	0.5	TMO	73.89	46	ePc	11	29.10	0.7			
GEN	64.40	313	P	10	28.10	-1.5	ESEL	70.72	314	eP	11	10.00	0.7	MTI	73.95	44	iPc	11	29.30	0.7			
VAL	64.41	329	iP	10	29.20	-0.3	EBR	70.72	317	eP	11	10.00	0.7	GMR	74.06	45	eP	11	29.70	0.4			
			S	19	04.00					ePP	13	46.00		MCA	74.07	46	eP	11	29.70	0.5			
VLS	64.44	301	eP	10	29.10	-1.0				ePPP	15	29.00		GLR	74.08	45	ePc	11	29.60	0.2			
RSP	64.45	315	P	10	28.82	-1.3				eS	20	24.00		TMBR	74.09	45	iP	11	30.00	0.5			
SMF	64.48	318	eP	10	28.70	-1.5	EROQ	70.75	317	eP	11	09.50	0.0	NPN	74.10	44	eP	11	30.00	0.5			
SRFA	64.51	284	eP	10	31.20	0.7	BRK	71.02	49	eP	11	11.40	0.3	BGB	74.14	45	eP	11	29.70	-0.1			
AVF	64.54	318	eP	10	29.00	-1.5	Z	20s	20.00um			6.4Msz		YMT5	74.18	45	iP	11	30.50	0.6			
ITM	64.62	299	eP	10	29.60	-1.6	BKS	71.03	49	iPc	11	11.80	0.6	YMT1	74.19	45	iP	11	31.00	1.0			
GRR	64.65	322	eP	10	29.50	-1.7		0.7s	61.00nm			5.8mb		DLM	74.21	44	eP	11	30.50	0.3			
CKI	64.65	313	P	10	31.10	-0.2	Z	20s	18.00um			6.3Msz		BCH	74.22	49	eP	11	31.10	0.9			
BNI	64.76	315	P	10	32.20	0.1	N	20s	9.00um					YMT4	74.22	45	iP	11	30.90	0.7			
RRL	64.83	315	P	10	32.72	0.0	E	20s	14.00um					YMT6	74.23	45	iP	11	30.70	0.5			
FIN	64.86	313	P	10	31.49	-1.2				ePP	13	57.00		CDH1	74.26	45	eP	11	30.50	0.0			
SGO	64.91	306	Pc	10	33.20	0.3				ePPP	15	44.00		YMT2	74.26	45	iP	11	31.20	0.8			
BGF	64.92	318	eP	10	31.70	-1.3				iS	20	28.00		PRN	74.27	44	iP	11	31.10	0.6			
ROB	64.92	314	P	10	31.90	-1.2				eSS	25	20.00		FMT	74.28	46	ePc	11	31.00	0.5			
BSS	64.94	307	Pc	10	34.60	1.4				e(SSS)	28	26.00		YMT3	74.29	45	iP	11	31.00	0.4			
VAM	64.95	297	eP	10	32.00	-1.3				eLQ	31	14.00		MSU	74.35	41	P	11	32.00	0.9			
DOI	65.00	314	P	10	31.90	-1.7				eLR	33	52.00		PANV	74.36	46	iP	11	31.80	0.7			
LPF	65.02	322	eP	10	32.00	-1.6	PCC	71.29	49	ePc	11	12.90	0.1	LSM	74.39	45	iP	11	31.50	0.4			
RDP	65.04	309	Pc	10	33.50	-0.4	BW06	71.46	37	P	11	13.50	-0.6	ISA	74.46	47	eP	11	31.00	-0.5			
PZZ	65.05	314	P	10	32.21	-1.8		1.0s	65.00nm			5.7mb		ARO	74.50	267	iP+	11	33.40	1.4			
PLDF	65.13	317	P	10	33.83	-0.7	CMB	71.64	47	ePc	11	15.10	0.1	AMR	74.61	45	iP	11	33.30	1.0			
MGR	65.14	306	Pc	10	33.80	-0.7				eS	20	36.12		EBAN	74.63	318	iPc	11	33.30	0.9			
MAO	65.16	310	P	10	34.10	-0.5				esS	20	49.86		CLC	74.67	47	eP	11	33.00	0.3			
STV	65.18	314	P	10	32.41	-2.4				eSKS	21	15.79		JON	74.71	45	ePc	11	33.60	0.6			
TDS	65.19	305	Pc	10	35.70	0.9				esSKS	21	33.45		GWY	74.72	46	eP	11	33.70	0.6			
IMI	65.24	313	P	10	34.67	-0.5	ETOR	71.66	318	iPc	11	15.80	0.7	OSM	74.83	46	iPc	11	34.10	0.5			
AGO	65.24	318	P	10	34.85	-0.3	KVN	71.67	45	P	11	15.80	0.5	SYP	74.83	49	eP	11	34.00	0.2			
MAF	65.31	318	eP	10	34.50	-1.0	MHC	71.73	49	iPc	11	15.90	0.3	NOP	74.97	45	iPc	11	35.30	0.8			
SAOF	65.31	314	P	10	35.30	-0.3	ARN	71.77	49	P	11	16.30	0.6	SHRG	75.02	44	eP	11	35.70	0.8			
AUTN	65.35	314	P	10	35.06	-1.0	GCC	71.85	49	ePc	11	16.40	0.3	ENIJ	75.11	317	eP	11	35.00	-0.2			
TCF	65.38	319	eP	10	34.70	-1.3	ERUA	72.02	323	iPc	11	17.70	0.6	ASMO	75.33	318	iPc	11	37.00	0.4			
TOUF	65.40	314	P	10	36.01	-0.4	STS	72.04	324	eP	11	17.00	-0.2	AFC	75.35	318	eP	11	37.00	0.3			
SBF	65.46	314	eP	10	35.30	-1.3	EUR	72.10	44	iP	11	18.40	0.5	CRT	75.43	318	eP	11	38.00	1.0			
AURF	65.48	314	P	10	36.42	-0.3		0.2s	71.17nm			6.3mb		PV09	75.44	39	iPd	11	37.60	0.2			
MVIF	65.54	314	P	10	37.19	0.0	SAO	72.30	49	eP	11	19.00	0.1				i	11	50.00				
PYM	65.55	318	P	10	36.62	-0.5				ePP	14	24.00		GSC	75.44	46	eP	11	37.00	-0.2			
LSF	65.66	319	eP	10	36.40	-1.3				ePPP	15	59.00		EHOR	75.46	319	iPc	11	38.00	0.9			
CALN	65.77	314	P	10	37.98	-0.6				e	17	48.00		AAPN	75.51	318	iPc	11	38.00	0.4			
HLW	65.79	288	iPc	10	40.00	1.3				iS	20	46.00		SBB	75.57	47	eP	11	38.00	0.1			
			e	10	52.00					e	25	20.00		ACHM	75.59	318	iP	11	38.40	0.4			
			e	13	04.00					e	27	43.00		GOL	75.60	36	P	11	38.80	0.6			
			eS	19	26.00					ePKKP	29	28.00		Z	20s	24.00um			6.5Msz				
GRI	65.84	304	P	10	39.40	0.4				e	36	51.00		GLD	75.60	36	P	11	39.20	1.1			
LBL	65.90	317	P	10	39.17	0.0	ECHE	72.34	317	eP	11	20.00	0.9	Z	20s	35.00um			6.7Msz				
MFF	65.94	320	eP	10	38.30	-1.2	GUD	72.56	320	iPc	11	20.80	0.3	APHE	75.67	318	iPd	11	39.40	0.9			
CVF	65.97	312	P	10	39.11	-0.7	DUG	72.63	41	P	11	21.80	0.9	ALOJ	75.68	318	iPc	11	38.90	0.3			
WAJH	65.98	281	eP	10	40.30	0.3	LLA	72.64	49	ePc	11	21.60	0.8	ATEJ	75.82	318	iPd	11	39.60	0.2			
FRF	66.02	314	eP	10	38.70	-1.4	PRS	72.70	49	iPc	11	21.70	0.5	MWC	75.88	48	eP	11	40.00	0.2			
	1.3s	219.50nm			6.1mb		EZAM	72.75	324	eP	11	21.80	0.4	PAS	75.90	48	eP	11	39.00	-0.7			
LRG	66.22	314	eP	10	40.70	-0.6	FRI	72.81	48	iPc	11	22.00	0.2				ePcP	11	54.00				
	1.3s	161.70nm			6.0mb		TNP	72.85	45	P	11	22.70	0.4				ePP	14	30.00				
LMR	66.27	314	eP	10	40.50	-1.1	KNA	72.86	173	eP	11	21.30	-0.9				ePPP	16	40.00				
	1.1s	102.50nm			5.9mb		SVP	72.94	46	iPc	11	23.40	0.4				eS	21	24.00				
RJF	66.47	318	eP	10	41.90	-1.0	HCR	73.02	45	eP	11	23.40	0.1				ePS	22	16.00				
	1.3s	180.50nm			6.0mb		ACU	73.08	316	eP	11	26.80	3.4X				eSS	26	25.00				
CAF	66.60	318	eP	10	43.40	-0.4	MZP	73.12	45	iP	11	24.30	0.3				esSS	27	23.00				
SOI	66.61	304	Pc	10	43.70	-0.2	PPK	73.15	46	iPc	11	24.80	0.7				eSSS	30	40.00				
LAT	66.81	153	e(P)	10	46.00	0.7	PRI	73.16	49	iPc	11	25.30	1.3				eLg	31	48.00				
LFF	67.07	319	eP	10	45.90	-0.8	TOL	73.20	319	iPc	11	24.82	0.7				eSKKP	33	46.00				
LPO	67.13	318	eP	10	46.40	-0.7		1.2s	406.25nm			6.3mb					eLR	34	51.00				
	1.2s	136.80nm			6.0mb					esP	11	36.74		CBM	75.93	7	P	11	39.60	0.0			
HRY	67.23	37	ePc	10	47.80	-0.1				ePPP	13	49.00		LIS	75.99	323	iP	11	40.50	0.4			
BUT	67.60	38	eP	10	50.80	0.5				ePP	14	07.54		MAL	76.13	318	iPc	11	41.00	0.1			
LRM	67.80	38	iPc	10	51.70	0.0				eS	20	50.94					iPP	14	34.00				
FHC	67.83	48	ePc	10	52.60	1.0				esS	21	05.34		EVAL	76.20	320	iPc	11	42.00	0.7			
LCCM	67.98	38	iPc	10	52.60	-0.1				eSKS	21	31.11		EPRU	76.22	319	eP	11	42.50	1.0			
LBFM	68.21	47	P	10	54.70	0.5				esSKS	21	44.35		LIJA	76.34	319	iP	11	43.50	1.3			
LVI	68.33	307	Pc	10	54.70	0.0				SS	25	20.00		RVR	76.35	47	eP	11	41.00	-1.2			
RSON	68.40	23	P	10	53.10	-1.9				SSS	29	20.00		PEC	76.53	47	eP	11	43.00	-0.3			
	0.5s	70.66nm			6.0mb		MGM	73.30	46	iPc	11	25.60	0.6	GIBL	76.60	319	iP	11	44.50	0.9			
Z	20s	25.99um			6.5Msz		HNR	73.31	141	eP	11	30.00	5.1X	ALJ	76.61	319	iP	11	45.50	1.7			

20d 23h

TPC	76.78	46	eP	11	45.00	0.3
SRQ	76.90	319	iP	11	47.00	1.8
MOMI	76.97	319	iP	11	46.50	0.9
CNIL	77.04	319	iP	11	47.50	1.5
OJEN	77.10	319	iP	11	48.00	1.5
PLM	77.12	47	P	11	47.40	0.6
WB5	77.45	168	iPd	11	47.20	-1.1
WRA	77.51	168	Pc	11	48.20	-0.5
	0.7s	45.10nm			5.6mb	
MIM	77.54	8	P	11	49.50	0.9
PTN	77.64	12	P	11	49.20	0.0
RSNY	77.72	12	P	11	50.10	0.5
	0.9s	120.45nm			5.9mb	
Z	20s	42.94um			6.8Msz	
BNH	78.01	10	eP	11	51.60	0.4
MBL	78.04	182	iPd	11	51.10	-0.4
ELF	78.12	17	P	11	51.50	-0.3
EMM	78.16	7	eP	11	52.90	0.9
GLA	78.19	46	eP	11	53.00	0.5
CHI	78.21	22	iP	11	51.80	-0.5
LDN	78.29	17	P	11	52.30	-0.5
DLA	78.40	17	P	11	53.25	-0.1
AAE	78.79	269	eP	11	57.50	1.1
QIS	78.82	163	eP	11	55.00	-0.9
			e	12	03.00	
DHN	78.95	15	eP	11	56.00	-0.4
IFR	79.26	317	iPd	11	59.00	0.5
INY	79.55	14	iPc	11	59.00	-0.7
ANMO	79.56	39	iPc	12	00.14	0.1
			esP	12	12.06	
			ePP	15	03.89	
ALQ	79.56	39	iPc	12	00.50	0.4
	1.3s	173.08nm			5.9mb	
Z	20s	19.50um			6.4Msz	
NANU	79.60	186	eP	12	00.10	0.1
CTA	79.60	157	iPc	12	01.00	0.9
	0.8s	45.52nm			5.5mb	
			i	12	10.10	
			i	14	22.50	
			i	15	08.00	
			iS	21	00.00	
			i	26	01.00	
HRV	80.05	10	ePc	12	03.41	1.1
			esP	12	14.83	
			eS	22	07.33	
			eSKS	22	19.80	
AVE	80.29	319	iP	12	05.50	1.7
TBR	81.11	12	P	12	08.40	0.4
ASPA	81.14	169	iPd	12	07.70	-0.5
Z	23s	9.68um			6.1MszX	
		LR		47	14.60	
FVM	81.35	25	P	12	09.00	-0.2
	1.2s	220.59nm			6.1mb	
PNJ	81.35	12	iP	12	09.90	0.7
GMTN	81.37	12	iP	12	09.80	0.5
ELC	82.29	25	iP	12	14.20	0.1
TIO	82.37	318	iP	12	15.00	0.1
WARB	83.11	176	eP	12	10.10	-8.3X
	0.7s	43.00nm			5.7mb	
OLY	83.46	27	P	12	19.50	-0.7
MEKA	83.50	183	eP	12	20.00	-0.3
CBN	83.60	15	eP	12	21.30	0.4
CVL	83.66	16	P	12	21.60	0.4
NAV	83.93	18	eP	12	22.50	-0.2
BLA	84.10	18	iP	12	23.40	-0.1
	0.9s	12.60nm			5.1mb	
RSCP	84.70	22	iP	12	26.20	-0.3
	1.0s	115.00nm			6.1mb	
PWLA	84.76	24	eP	12	26.50	-0.3
GBTN	84.91	21	eP	12	27.50	-0.1
MRWA	86.19	185	eP	12	34.00	0.3
RMQ	86.34	156	eP	12	36.00	1.5
LHS	86.70	19	eP	12	36.70	0.3
PRM	86.80	20	P	12	37.20	0.2
JSC	86.81	19	eP	12	37.10	0.1
CFTV	87.05	322	iPc	12	39.40	1.1
			iPP	14	46.50	
DZM	87.29	139	iPd	12	40.00	0.7
BAL	87.54	185	eP	12	40.00	-0.2
CTFE	87.70	324	iP	12	45.00	3.6X
COOL	87.71	181	iPc	12	40.50	-0.6
GGC	87.84	323	eP	12	52.20	10.1X
BRS	88.15	153	iPc	12	44.30	1.0
			i	12	52.00	
			i	13	15.20	
			iS	23	10.00	
			i	24	50.00	

NAI	88.43	265	iPd	12	48.00	2.7
KLB	88.48	184	eP	12	44.00	-0.7
MUN	88.93	185	eP	12	46.00	-0.9
NWAO	89.83	184	eP	12	50.00	-1.1
Z	20s	3.20um			5.7Msz	
STK	90.24	163	eP	12	54.00	1.0
ADE	92.86	166	iPc	13	05.40	0.3
	0.6s	22.67nm			5.8mb	
BNG	93.54	284	iPc	13	09.60	0.8
	0.8s	23.00nm			5.7mb	
			i	14	40.10	
			i	16	19.10	
BCAO	93.55	284	ePc	13	09.52	0.7
			esP	13	21.77	
			ePP	16	56.62	
LWI	93.59	271	eP+	13	10.50	1.3
BWA	93.94	158	eP	13	11.80	1.8
CAN	94.92	158	eP	13	15.70	1.2
			e	13	26.20	
SNZO	107.63	141	ePdiff	14	32.00	20.6X
			ePP	18	55.00	
			SKS	24	44.00	
			PS	28	06.00	
			SS	34	08.00	
UPA	111.76	23	(PKP)	18	25.00	-2.9
Z	21s	11.11um			6.4Msz	
			i	19	14.00	
			i	28	48.00	
SEK	115.61	257	ePKP	18	37.00	1.8
	1.0s	13.00nm				
SWZ	115.93	260	ePKP	18	32.00	-3.8X
PSO	119.78	22	ePKP	18	42.50	-1.3
GRM	120.09	254	ePKP	18	52.00	8.6X
ATB	126.08	353	PKPc	18	54.70	-0.7
ITR	129.36	335	ePKPd	19	01.40	-0.3
SOB1	130.34	338	ePKP	19	03.50	-0.1
			e	19	20.10	
MAW	131.86	206	ePKP	18	55.00	-9.8X
SBA	137.53	167	ePKP	19	15.50	0.1
BAO	137.86	346	e(PKP)	19	06.00	-11.9X
ARE	138.12	20	ePKP	19	17.00	-1.6
ZOBO	138.47	15	PKP	19	09.00	-10.6X
			LR	06	48.00	
LPB	138.73	15	ePKP	19	19.00	-0.9
			LR	06	54.00	
			(PKS)	24	20.00	
CNCB	139.02	15	PKP	19	11.00	-9.6X
CCH	139.82	12	ePKP	19	22.00	0.4
ITA	143.91	339	ePKP	19	28.60	-0.1
BMA	144.11	338	iPKPd	19	27.30	-1.4
			i	19	39.20	
			e	19	46.20	
VAO	144.93	342	ePKP	19	29.70	-0.4
			e	19	32.50	
			e	19	33.00	
			e	19	41.50	
ANT	145.38	20	ePKP	19	31.00	0.3
SPA	146.99	180	e(PKP)	19	31.90	-0.4
	1.1s	78.57nm				
Z	20s	4.55um			6.3Msz	
			e	20	06.90	
SLA	147.15	13	ePKPc	19	34.20	0.3
ITB1	147.40	354	e(PKP)	19	35.00	1.0
ITB	147.54	354	e(PKP)	19	32.60	-1.7
ITB7	147.86	353	e(PKP)	19	35.50	0.7
CYA	150.77	14	e(PKP)	19	40.00	0.8
SNA	153.25	218	iPKPc	19	51.60	10.2X
	0.9s	108.40nm				
PEL	154.46	25	ePKP	19	52.50	8.2X
	1.0s	50.00nm				
SAN	154.76	25	ePKP	19	57.50	12.8X
LNV	155.06	27	ePKP	19	54.00	9.0X
RFA	156.51	22	e(PKP)	19	47.00	-0.1
S.D. = 0.9	on 545 of 584 obs.					

? APR 20, 1989 23h 26m 46.56± 1.18s
29.120 S ± 9.3km 70.554 W ±45.8km
DEPTH = 33.0km (normal)
CENTRAL CHILE (136)

JACH	3.55	181	iP	27	41.00	0.2
			iS	28	32.00	
ROCH	3.86	186	iPd	27	44.00	-1.3
PEL	4.01	182	iPd	27	46.40	-0.9
			iS	28	46.20	
SAN	4.32	181	eP	27	54.70	3.0X
LCCH	4.43	191	eP	27	52.50	-0.7

PCH	4.49	180	eP	27	56.40	2.3
			iS	28	01.60	
CHCH	4.80	181	eP	27	59.70	1.3
			iS	28	17.30	
LNV	4.88	188	eP	27	56.00	-3.4X
			iS	28	14.30	
RFA	5.91	163	iPd	28	13.20	-0.9
ARE	12.63	356	e(P)	29	47.00	0.0
S.D. = 1.5	on 8 of 10 obs.					

& APR 20, 1989 23h 44m 33.20s
37.258 N 121.677 W
DEPTH = 4.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.2 (BRK).
Mo=1.4*10**14 Nm (BRK).

MHC	0.09	19	iPd	44	34.95	-0.3
			iS	44	36.75	
ARN	0.15	52	iPd	44	35.60	-0.6
GCC	0.34	228	iPd	44	40.60	0.5
SAO	0.53	159	iPd	44	43.70	0.0
			eS	44	51.75	
PCC	0.61	293	iPc	44	45.00	-0.4
BKS	0.76	324	iPc	44	48.18	-0.2
			iS	45	00.30	
			i	45	01.50	
BRK	0.77	323	iPc	44	48.10	-0.5
			iS	45	01.10	
LLA	0.87	137	iPd	44	49.40	-1.1
PRS	0.96	165	iPd	44	50.90	-1.1
CMB	1.29	53	iPd	44	56.20	-1.4
			iS	45	13.20	
PRI	1.38	144	eP	44	57.90	-1.4
NWRM	1.53	322	eP	44	59.80	-1.6
FRI	1.60	99	eP	45	00.00	-2.3
			eS	45	20.50	
PHAM	1.75	144	eP	45	02.60	-2.0
ORV	2.30	3	eP	45	12.00	-0.5
KVN	3.34	57	eP	45	25.80	-1.7
TNP	3.63	76	eP	45	28.50	-3.1
17 obs. associated						

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* APR 21, 1989 00h 24m 17.22± 1.27s
41.265 N ±11.9km 22.760 E ± 8.2km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)

KNT	0.15	135	iPgc	24	20.80	0.2
			iSg	24	22.90	
VAY	0.15	291	iPg	24	20.70	-0.1
			iSg	24	23.60	
GRG	0.41	221	iPgc	24	25.90	0.3
			iSg	24	32.30	
SOH	0.63	134	iPgd	24	30.10	0.2
			iSg	24	38.20	
THE	0.65	166	ePg	24	29.70	-0.5
S.D. = 0.4	on 5 of 5 obs.					

? APR 21, 1989 01h 06m 13.65± 2.84s
21.040 S ±15.2km 68.451 W ±46.7km
DEPTH = 132.9 ± 23.4 km
CHILE-BOLIVIA BORDER REGION (124)

ANT	3.22	214	e(P)	06	39.00	-24.8X
CNCB	4.23	6	P	07	20.00	2.0X
CCH	4.24	31	eP	07	18.00	0.1
LPB	4.50	4	P	07	20.00	-1.4
1.0s	40.00nm					
SLA	4.57	144	ePd	07	22.30	0.2
ZOBO	4.76	4	iPd	07	26.20	1.2
ITB1	13.45	108	eP	09	27.40	7.0X
PPD	15.98	97	eP	09	54.80	2.5X
VAO	20.01	100	eP	10	37.50	-0.7
			e	10	38.10	
ITA	22.10	98	e(P)	11	07.00	7.7X
SOB1	29.03	70	e(P)	12	04.00	0.6
S.D. = 1.4	on 6 of 11 obs.					

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* APR 21, 1989 01h 33m 46.59± 2.21s
11.135 N ± 9.6km 62.132 W ±26.9km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)
MD 3.6 (TRN).

TCE	0.57	139	eP	33	58.33	0.1
			eS	34	09.16	

```
TRN      0.86 124 eP     34 01.74   -0.6
                 eS     34 14.52
TPP      1.05 140 eP     34 06.09    1.0
                 eS     34 20.91
TBH      1.23 122 eP     34 06.32   -1.2
                 eS     34 22.85
PIG      1.27  89 eP     34 08.90    0.8
                 eS     34 29.07
BIM      3.52  17 eP     34 40.16   -0.2
                 S      35 22.50
MVM      3.61  19 eP     34 42.02    0.5
FDF      3.70  15 eP     34 42.51   -0.4
                 S      35 26.10
      S.D. = 0.9  on   8 of   8 obs.
-----------------------------------------
?  APR  21, 1989  03h 01m 48.14± 3.61s
   7.416 S ±29.2km  128.494 E ±26.6km
   DEPTH = 145.5 ± 41.1 km
   4.9mb (  3 obs.)
 BANDA SEA                          (280)

MTN      5.99 155 iPc    03 15.90    0.3
      0.5s    183.00nm          5.6mb X
                 eS     04 19.50
KNA      8.29 178 iPd    03 46.30   -0.3
      0.3s     67.00nm          5.8mb X
                 eS     05 13.00
WB5     13.64 156 eP     04 53.20   -3.6X
                 iS     07 12.50
QIS     16.92 142 iPc    05 37.40   -0.4
                 eS     08 32.00
ASPA    16.97 163 eP     05 38.80    0.4
      0.5s     24.00nm          4.8mb
                 eS     08 39.30
WARB    18.75 185 eP     05 51.10   -7.4X
GUN     54.11 312 P      11 00.90    0.1
      0.5s     10.00nm          4.9mb
PKI     54.27 312 P      11 01.80   -0.1
GKN     55.08 312 P      11 07.60    0.1
      0.4s     10.00nm          5.0mb
      S.D. = 0.4  on   7 of   9 obs.
-----------------------------------------
?  APR  21, 1989  04h 17m 05.14± 3.18s
   0.134 N ±41.8km  123.438 E ±69.4km
   DEPTH = 197.7 ± 52.6 km
   4.7mb (  2 obs.)
 MINAHASSA PENINSULA                (265)

MNI      1.91  47 ePc    17 43.00    0.1
MTN     14.98 150 eP     20 28.00   -0.5
WB5     22.59 152 eP     21 49.50   -0.3
ASPA    25.75 157 eP     22 20.40    1.0
CHG     30.38 309 eP     23 02.00    1.2
GUN     45.36 311 P      25 05.90   -0.1
      0.7s     28.00nm          4.8mb
PKI     45.55 310 P      25 07.00   -0.4
KKN     45.76 310 P      25 08.70   -0.3
DMN     45.80 310 P      25 09.10   -0.3
GKN     46.35 310 P      25 13.30   -0.3
      0.7s     16.00nm          4.6mb
      S.D. = 0.7  on  10 of  10 obs.
-----------------------------------------
*  APR  21, 1989  05h 35m 33.48± 1.20s
   10.189 S ±10.1km  161.377 E ±13.6km
   DEPTH = 100.5 ± 12.1 km
   4.7mb (  2 obs.)
 SOLOMON ISLANDS                    (193)

HNR      1.60 298 iPc    36 00.80   -0.6
                 iS     36 21.50
SVO      1.85 304 iP     36 04.50   -0.2
                 iS     36 39.00
VSG      1.89 299 iP     36 05.00   -0.1
                 iS     36 39.00
PAA      6.99 303 eP     37 16.00    1.0
BGA      7.33 303 eP     37 16.00   -3.7X
DZM     12.77 158 iPc    38 32.70    0.0
                 iS     40 48.50
CTA     17.59 234 iPc    39 35.00    1.2
      1.1s    51.90nm          4.7mb
BRS     18.94 204 iPd    39 57.50    8.1X
WB5     27.77 247 ePKP   41 13.70   -1.2
                 i      41 36.80
ASPA    29.43 239 eP     41 50.30   20.4X
SPA     79.88 180 e(P)   47 31.90   -0.5
      0.7s      7.81nm          4.6mb
FBA     83.90  19 eP     47 52.00   -1.0
EUR     90.79  50 iP     48 28.50    1.4
      0.2s      8.09nm          5.6mb X
YKA     96.20  28 eP     48 51.00    0.0
SOB1   150.63 130 e(PKP)55 14.00    3.5X
      S.D. = 1.0  on  11 of  15 obs.
-----------------------------------------
?  APR  21, 1989  07h 29m 36.40± 1.72s
   41.290 N ±16.0km   22.772 E ± 9.2km
   DEPTH =  10.0km  (geophysicist)
 YUGOSLAVIA                         (383)
      ML 1.4 (SKO).

VAY      0.16 282 iPg    29 40.00    0.0
                 iSg    29 43.00
KNT      0.16 143 iPgc   29 40.00   -0.1
                 iSg    29 41.50
GRG      0.44 220 iPgc   29 45.30    0.0
                 iSg    29 51.50
SOH      0.64 137 iPgd   29 49.40    0.1
                 iSg    29 56.70
      S.D. = 0.1  on   4 of   4 obs.
-----------------------------------------
   APR  21, 1989  08h 16m 06.50± 0.86s
   36.495 N ± 7.5km   26.755 E ± 6.1km
   DEPTH = 156.7 ± 16.0 km
 DODECANESE ISLANDS                 (369)

KAP      1.00 160 eP     16 31.20   -1.0
YER      1.38  62 iPn    16 35.10   -0.7
NPS      1.54 217 eP     16 37.00   -0.3
                 eS     16 58.00
IZM      1.94  12 iPn    16 41.40   -0.4
KSL      2.32  99 eP     16 46.50    0.4
                 eS     17 14.60
VAM      2.34 243 eP     16 47.60    1.2
ELL      2.55  83 iPn    16 49.90    0.8
KHL      2.86  50 iPn    16 53.50    0.5
BCK      3.22  71 ePn    16 58.50    1.0
EZN      3.34 354 ePn    16 58.00   -1.0
ITM      3.93 281 eP     17 08.10    1.4
KOT      7.81 146 ePn    17 57.50   -0.8
                 S      19 20.00
MGR      9.52 296 Pd     18 20.10   -1.0
      S.D. = 1.0  on  13 of  13 obs.
-----------------------------------------
*  APR  21, 1989  08h 38m 20.52± 1.22s
   27.949 N ±20.0km   64.271 E ±13.6km
   DEPTH =  33.0km  (normal)
   4.4mb (  2 obs.)
 PAKISTAN                           (354)

MAIO     9.26 335 eP     40 36.00    1.2
                 eS     43 38.00
NDI     11.43  83 iPc    41 05.20    0.7
      0.5s     24.65nm          5.6mb X
                 iS     43 07.00
POO     12.85 135 eP     41 31.50    7.9X
HYB     16.82 126 eP     42 16.00    0.8
DMN     18.44  86 P      42 35.00   -0.6
PKI     18.71  86 P      42 38.20   -0.7
NUR     42.07 332 eP     46 10.00   -0.5
SUF     42.74 335 iP     46 15.90    0.0
      0.4s      6.20nm          4.7mb
SOD     45.49 341 iP     46 38.40    0.3
NB2     48.24 329 P      46 58.80   -1.1
      0.7s      1.60nm          4.2mb
INK     83.13   7 eP     50 58.00   14.1X
YKA     89.87 359 eP     51 33.60   16.5X
      S.D. = 0.9  on   9 of  12 obs.
-----------------------------------------
&  APR  21, 1989  09h 40m 43.70s
   47.392 N          122.056 W
   DEPTH =   4.5km
 WASHINGTON                         ( 29)
      <SEA>. CL 2.8 (SEA). Felt at
      Covington.

SPW      0.21 322 iPd    40 48.37    0.5
                 iS     40 51.84
BLH      0.45   2 iPd    40 51.99   -0.6
RVC      0.45 173 iPd    40 52.38   -0.4
                 eS     40 59.00
HTW      0.46  25 iPd    40 52.03   -0.8
                 eS     40 58.54
GMW      0.52 288 eP     40 53.04   -1.1
                 eS     41 01.77
LON      0.66 165 eP     40 55.50   -1.5
HDW      0.72 291 eP     40 56.39   -1.8
                 eS     41 06.86
WPW      0.78 153 eP     40 57.84   -1.5
JCW      0.81   6 iPd    40 58.18   -1.7
APW      0.84 209 eP     40 58.38   -2.1
CPW      0.85 241 eP     40 58.69   -1.9
TWW      0.85 107 eP     40 59.82   -0.8
BLN      0.87 315 eP     40 58.75   -2.3
SMW      0.88 266 eP     40 59.33   -1.8
KOSW     0.94 186 eP     41 00.11   -2.0
CZM      1.01 198 eP     41 01.30   -2.0
TBM      1.02 102 eP     41 02.35   -1.2
CMW      1.03 358 eP     41 02.14   -1.7
TDL      1.05 186 eP     41 01.93   -2.1
NAC      1.07 128 eP     41 03.22   -1.1
ERK      1.10 190 eP     41 02.80   -2.2
RPW      1.12  19 iPd    41 03.49   -1.7
EBG      1.12 115 eP     41 04.36   -1.0
STD      1.16 186 eP     41 03.84   -2.1
YEL      1.19 184 eP     41 04.22   -2.3
OSD      1.19 292 eP     41 04.72   -1.9
ESD      1.20 183 eP     41 04.78   -1.9
SHW      1.21 186 eP     41 04.91   -1.9
FL2      1.21 190 eP     41 04.88   -2.0
BMW      1.22 222 ePd    41 04.90   -2.0
OLQ      1.22 284 eP     41 04.80   -2.1
HSR      1.22 184 eP     41 05.56   -1.5
OBH      1.23 268 eP     41 04.83   -2.3
JLK      1.25 183 eP     41 05.45   -2.0
CDFW     1.28 180 eP     41 05.73   -2.2
ONR      1.28 247 eP     41 05.95   -2.0
ASR      1.28 165 eP     41 06.15   -1.9
STW      1.33 305 eP     41 08.26   -0.5
RVW      1.33 201 eP     41 06.44   -2.4
LVP      1.35 191 eP     41 07.24   -1.9
NLW      1.35  59 eP     41 07.93   -1.3
YAKW     1.36 129 eP     41 08.11   -1.3
MTMW     1.37 185 eP     41 07.48   -2.1
MCW      1.39 338 eP     41 07.50   -2.3
MBW      1.40   4 iPd    41 08.41   -1.7
MXC      1.46 123 eP     41 09.81   -1.0
WTV      1.46  77 eP     41 09.85   -1.0
VTG      1.48 106 eP     41 10.21   -0.8
      48 obs. ossocioted
-----------------------------------------
%  APR  21, 1989  09h 55m 32.39± 0.70s
   38.613 N ± 6.4km   27.947 E ± 7.6km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)

IZM      0.58 248 iPg    55 44.00   -0.1
DST      1.12  28 iPn    55 53.00   -0.5
KHL      1.27 103 ePn    55 56.00    0.0
YER      1.50 170 ePn    55 59.50    0.1
KCT      1.66  11 iPn    56 02.50    0.8
EDC      1.73 358 iPn    56 02.50   -0.2
      S.D. = 0.5  on   6 of   6 obs.
-----------------------------------------
   APR  21, 1989  12h 10m 44.54± 0.48s
   38.389 N ± 5.0km   22.129 E ± 4.1km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  9 obs.)
 GREECE                             (364)
      ML 3.5 (ATH).

ITM      1.22 188 ePb    11 05.60   -1.6
VLS      1.23 261 ePb    11 05.00   -2.4
NEO      1.25  43 ePb    11 08.00    0.1
ATH      1.32 108 ePb    11 09.00    0.1
                 eSb    11 27.00
LIT      1.73   9 ePbd   11 14.80   -0.1
                 eSb    11 36.20
KZN      1.94 352 ePn    11 18.50    0.6
PAIG     1.95  38 ePb    11 16.80   -1.2
PLG      2.23  27 ePn    11 21.00   -1.1
THE      2.33  16 ePn    11 22.60   -0.9
GRG      2.57   5 ePn    11 27.20    0.2
SOH      2.61  21 ePn    11 27.40   -0.1
KNT      2.83  12 ePn    11 31.00    0.4
                 eSn    12 03.40
OHR      2.91 340 iPnd   11 33.60    1.9
SRS      2.95  22 ePn    11 31.50   -0.8
VAY      2.95   6 iPn    11 32.40    0.2
PRK      3.35  74 ePn    11 39.50    1.6
VAM      3.41 150 ePn    11 38.50   -0.3
MMB      3.42  21 iPc    11 38.00   -1.1
KKB      3.55  12 iP     11 40.00   -0.8
```

21d 12h

EZN	3.57	65	eP	11 43.00	2.0
SKO	3.62	352	iPn	11 43.90	2.1
			iPg	11 55.20	
			iSn	12 27.00	
			iSb	12 38.50	
			LR	13 08.50	
RDO	3.81	43	ePn	11 42.70	-1.7
RZN	3.85	30	iP	11 44.00	-1.2
IZM	4.03	88	eP	11 48.00	0.3
KDZ	4.12	37	eP	11 46.00	-2.9X
NPS	4.19	137	ePn	11 50.00	0.1
VTS	4.28	11	iPc	11 52.00	0.7
PGB	4.44	20	eP	11 55.00	1.5
TDS	4.69	288	P	11 57.50	0.5
KAP	4.93	123	ePn	12 02.00	1.5
MGR	5.39	291	P	12 06.40	-0.6
PVL	5.40	26	eP	12 05.00	-2.0
SGO	5.70	294	P	12 10.50	-0.8
BSS	6.14	295	P	12 16.40	-1.1
ELL	6.39	102	eP	12 25.90	4.7X
MLR	7.64	21	ePd	12 38.00	-0.7
VRI	8.22	23	ePc	12 46.50	-0.1
ARV	8.62	309	P	12 50.30	-2.0
VBY	8.76	326	ePn	12 51.80	-2.3
			eSn	14 29.20	
CEY	9.31	325	e(P)	12 59.00	-2.7
			eS	14 44.50	
LJU	9.50	326	e(P)	13 05.50	1.2
			eS	14 52.00	
VOY	9.78	324	eP	13 05.30	-2.9X
			eS	14 51.60	
LPG	13.46	307	eP	14 00.60	2.3
HAU	14.97	315	eP	14 21.90	4.1X
SMF	15.78	307	eP	14 30.90	2.5X
	0.7s		6.60nm		3.9mb
LBF	15.85	309	eP	14 32.20	3.0X
	0.9s		18.00nm		4.3mb
LOR	16.04	309	eP	14 34.40	2.7X
AVF	16.15	307	eP	14 34.80	1.8
	0.9s		12.10nm		4.0mb
SSF	16.17	308	eP	14 35.30	2.0
	1.1s		29.30nm		4.3mb
CAF	16.34	300	eP	14 36.10	0.6
	0.8s		4.00nm		3.6mb
BGF	16.37	306	eP	14 37.70	1.8
	0.9s		27.80nm		4.4mb
MAF	16.43	305	eP	14 38.50	1.9
TCF	16.68	305	eP	14 41.90	2.1
RJF	16.82	301	eP	14 42.20	0.6
MFF	18.32	304	eP	14 59.20	-1.0
	1.0s		12.00nm		4.0mb
NB2	23.68	347	P	15 54.90	-2.0
	0.8s		6.00nm		4.2mb
EKA	24.00	323	P	15 58.00	-1.9
	0.7s		6.90nm		4.4mb
YKA	73.62	341	eP	22 21.50	2.1

S.D. = 1.5 on 51 of 58 obs.

APR 21, 1989 12h 17m 35.58± 0.52s
42.752 N ± 3.1km 13.334 E ± 5.0km
DEPTH = 10.2 ± 5.1 km
CENTRAL ITALY (381)

ALP	0.18	81	iPgc	17 39.91	0.2
			iSg	17 44.13	
AQU	0.40	173	P	17 43.70	-0.1
			eSg	17 50.10	
CIO	0.46	343	iPg	17 44.91	-0.1
			iSg	17 52.89	
SSO	0.54	7	ePgd	17 46.99	0.4
			iSg	17 56.96	
ASS	0.59	303	Pd	17 47.50	0.0
			eSg	17 57.80	
MNS	0.61	233	P	17 47.70	-0.1
			eSg	17 58.00	
AZI	0.77	174	P	17 50.00	-0.5
ARV	0.80	339	Pc	17 51.10	0.0
			eSg	18 04.40	
AOI	0.82	14	iPg	17 51.09	-0.4
			iSg	18 05.12	
RDP	1.09	205	P	17 57.00	0.9
SFI	1.59	318	P	18 04.60	0.8
			eSn	18 25.90	
PGD	1.63	314	P	18 04.80	0.3
TRI	2.97	6	iP	18 58.10	34.5X
			i	19 17.10	
BOB	3.46	307	P	18 29.70	-0.9

S.D. = 0.6 on 13 of 14 obs.

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* APR 21, 1989 12h 46m 29.70± 1.02s
21.652 N ±14.8km 95.494 E ±11.1km
DEPTH = 58.8 ± 18.7 km
4.7mb (3 obs.)
BURMA (296)

CHG	4.30	130	ePn	47 34.10	0.0
			ePg	47 46.20	
			eSg	48 40.50	
SHL	5.11	320	iP	47 46.00	0.2
			eS	48 46.50	
KMI	7.50	61	ePg	48 43.00	23.9X
			Sg	50 12.00	
GUN	10.73	307	P	49 03.20	-0.3
	0.4s		4.00nm		4.8mb
PKI	10.90	305	P	49 06.60	0.7
KKN	11.11	305	P	49 10.70	2.1X
GKN	11.71	305	P	49 15.90	-0.7
	0.4s		6.00nm		5.0mb
LZH	16.12	25	eP	50 14.00	-0.1
	1.5s		22.00nm		4.1mb
INK	83.47	16	eP	58 52.00	0.1

S.D. = 0.6 on 7 of 9 obs.

% APR 21, 1989 13h 34m 35.32± 2.47s
59.046 N ±22.7km 5.966 E ± 6.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.0 (BER).

KMY	0.41	294	iPc	34 43.60	0.0
			iS	34 48.24	
BLS1	0.56	52	eP	34 46.79	0.0
			eS	34 53.78	
ODD1	0.93	21	eP	34 53.21	0.1
			eS	35 05.59	
ASK	1.49	345	iP	35 02.39	0.3
			eS	35 20.46	
HYA	2.13	3	eP	35 11.04	-0.3
			eS	35 34.43	
			eSg	35 41.77	
NRA0	3.28	57	iPc	35 27.80	0.0
			iS	36 06.70	
			iSg	36 18.50	

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

APR 21, 1989 13h 51m 37.79± 0.72s
37.397 N ± 6.0km 23.554 E ±10.7km
DEPTH = 21.1 ± 8.3 km
SOUTHERN GREECE (368)
ML 3.3 (ATH).

ATH	0.59	13	ePg	51 49.00	-0.3
			eSg	51 58.00	
ITM	1.32	261	ePn	52 01.00	0.0
NEO	1.92	352	ePn	52 09.20	-0.6
VAM	2.05	165	ePn	52 12.00	0.3
VLS	2.47	289	ePn	52 18.60	0.9
NPS	2.70	141	ePn	52 22.00	1.1
PRK	2.82	48	ePg	52 32.50	9.9X
LIT	2.82	343	ePn	52 22.00	-0.6
PLG	2.97	358	ePn	52 23.30	-1.4
KZN	3.22	335	ePn	52 29.40	1.1
EZN	3.25	41	eP	52 36.00	7.3X
KAP	3.45	121	ePn	52 36.00	4.5X
VAY	3.99	349	eP	52 40.00	0.9
RDO	4.05	22	ePn	52 41.20	1.3
OHR	4.28	331	eP	52 46.50	3.2X
BNG	33.12	189	ePc	58 12.70	-1.9
	0.4s		5.00nm		4.8mb

S.D. = 1.2 on 12 of 16 obs.

APR 21, 1989 14h 06m 27.00± 0.71s
39.386 N ± 5.8km 26.417 E ± 7.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.5 (ATH).

PRK	0.18	219	iPgc	06 31.80	0.8
EZN	0.45	351	iPg	06 35.10	-1.0
			iSg	06 40.80	
IZM	1.19	146	ePn	06 48.00	-1.2
EDC	1.47	49	iPn	06 54.50	1.0
DST	1.72	82	ePn	06 57.40	0.1
KCT	1.72	59	iPn	06 57.20	0.0
RDO	1.88	339	ePn	06 59.10	-0.4
			eSn	07 25.00	
PLG	2.49	294	ePb	07 13.70	5.4X
DMK	2.64	22	ePn	07 11.00	0.7
GBZT	2.71	58	ePg	07 01.10	-10.3X

S.D. = 0.9 on 8 of 10 obs.

APR 21, 1989 15h 10m 06.10± 0.41s
42.341 N ± 4.4km 19.870 E ± 3.6km
DEPTH = 6.7 ± 3.8 km
YUGOSLAVIA (383)
MD 2.9 (TTG).

PVY	0.27	17	iPgc	10 11.70	0.1
			iSg	10 17.00	
TTG	0.46	281	iPgc	10 15.00	-0.4
			iSg	10 23.70	
IVA	0.53	2	iPgd	10 17.00	0.2
			eSg	10 26.50	
BDV	0.78	266	iPgd	10 21.00	-0.5
			iSg	10 35.00	
NKY	0.80	306	ePg	10 21.50	-0.5
			eSg	10 36.00	
HCY	1.02	276	ePg	10 25.60	-0.1
			iSg	10 44.00	
BRY	1.13	300	ePg	10 27.50	-0.1
			eSg	10 46.50	
SKO	1.22	107	iPg	10 28.00	-1.2
	0.8s		314.00nm		
			i	10 31.20	
			iSg	10 43.50	
			iSn	10 46.20	
			Lg	10 50.00	
OHR	1.41	150	iPn	10 31.40	-0.9
VAY	2.26	116	ePn	10 45.30	0.8
BRT	2.48	235	P	10 47.90	0.3
KNT	2.55	116	ePn	10 52.20	3.6X
LIT	2.99	138	ePn	10 55.60	0.8
MGR	3.93	237	Pc	11 08.50	0.3
			eSn	11 54.80	
PTJ	4.54	323	eP	11 20.50	3.6X
VBY	4.59	315	ePn	11 23.40	5.8X
			eS	12 16.00	
CEY	5.19	313	e(Pn)	11 28.80	2.7X
			eSn	12 32.00	
LJU	5.33	316	eP	11 46.00	17.9X
			eSn	12 36.00	
ASS	5.36	280	P	11 29.40	0.8
VOY	5.66	313	ePn	11 32.90	0.1
			eSn	12 41.60	

S.D. = 0.7 on 15 of 20 obs.

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* APR 21, 1989 16h 15m 04.72± 2.42s
42.931 N ±17.9km 19.454 E ±11.5km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.1 (TTG).

NKY	0.36	251	ePg	15 12.20	0.1
			eSg	15 15.00	
TTG	0.52	196	ePg	15 15.60	0.3
			eSg	15 21.00	
BRY	0.67	268	ePg	15 18.40	0.3
			eSg	15 26.00	
HCY	0.85	236	ePg	15 20.50	-0.7
			eSg	15 31.20	
OHR	2.08	151	e(Pn)	15 40.00	-0.1

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

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* APR 21, 1989 18h 39m 11.38± 1.28s
18.311 N ± 9.1km 100.829 W ±12.0km
DEPTH = 33.0km (normal)
GUERRERO, MEXICO (59)

III	1.29	87	iPc	39 33.50	0.0
			iS	39 47.00	
CRX	1.54	45	eP	39 32.00	-5.1X
			iS	39 52.50	
ACX	1.71	147	iP	39 39.00	-0.3
			iS	39 55.20	
UNM	1.86	57	eP	39 41.30	-0.5
			iS	39 57.80	
IIC	2.07	45	iPc	39 45.50	0.6
			iS	39 56.20	
IIT	2.49	73	iP	39 50.00	-0.8
			iS	40 06.00	
IISM	3.34	78	eP	40 02.60	0.0

```
                    iS     40 19.50
OXX      4.10 107   iP     40 14.30    0.8
                    iS     40 57.00
INK     54.05 346 ePc      48 34.50    0.0
     S.D. = 0.6  on   8 of   9 obs.
-----------------------------------------
   APR 21, 1989  19h 08m 41.01± 0.41s
   57.168 N ± 4.4km  123.768 E ± 9.3km
   DEPTH =  33.0km  (normal)
   4.8mb ( 19 obs.)
 EASTERN USSR                        (656)

MDJ     13.09 161 eP     11 52.70    5.7X
                  S      14 08.00
BJI     17.84 199 eP     12 47.00   -1.0
     Z  12s      0.60um
                 Lg      17 52.00
HHC     18.14 211 eP     12 51.50   -0.4
     Z  16s      0.80um
BTO     18.82 214 eP     12 58.00   -2.3
     N  10s      0.40um
     E  10s      0.70um
TIA     21.43 195 eP     13 29.10    1.0
MAT     22.78 149 eP     13 41.00   -0.5
        1.1s     8.86nm          4.2mb
LZH     24.96 221 eP     14 04.00    1.2
XAN     25.24 210 eP     14 07.70    2.4
WMQ     26.19 255 eP     14 12.60   -1.5
     Z  10s      0.40um          4.3MszX
GYA     33.03 209 P      15 16.20    0.9
GKN     40.06 240 P      16 06.00   -8.8X
MBC     40.95  19 eP     16 20.00   -1.3
SOD     41.66 325 iP     16 28.00    0.7
INK     42.78  32 eP     16 37.00    0.6
SUF     44.69 319 iP     16 43.60   -8.3X
NUR     46.68 318 iP     16 58.80   -8.9X
UPP     49.64 320 iP     17 30.00   -0.7
NB2     50.89 325 P      17 30.90   -9.4X
        0.8s     7.10nm          4.7mb
YKA     52.40  30 eP     17 51.10   -0.5
KSP     56.99 314 iPc    18 25.10   -0.2
BRG     57.88 315 e(P)   18 31.50    0.0
        1.0s    12.00nm          4.9mb
CLL     57.89 316 iPc    18 31.40   -0.1
        0.9s    14.00nm          5.0mb
PRU     58.35 314 eP     18 35.50    0.7
MOX     58.94 317 eP     18 39.00    0.0
FRB     59.04   6 eP     18 43.00    3.6X
KHC     59.41 314 P      18 34.40   -7.9X
                  i      18 43.20
EKA     59.92 328 Pc     18 46.30    0.7
        0.7s     7.70nm          4.9mb
KBA     61.17 313 eP     18 47.00   -7.4X
        0.8s     6.90nm          4.8mb
                  ic     18 55.70
                  e      33 03.00
                  e      33 20.00
CDF     62.39 318 P      19 02.10   -0.4
FEL     62.57 317 P      19 03.42   -0.3
VITF    63.03 318 P      19 06.27   -0.2
BSF     63.05 318 P      19 06.14   -0.8
LOMF    63.44 317 P      19 04.75   -4.7X
LOR     64.59 319 eP     19 16.60   -0.3
        0.7s     5.50nm          4.8mb
LBF     64.79 319 eP     19 17.90   -0.3
        0.7s     3.70nm          4.6mb
FLN     64.79 323 eP     19 18.30    0.2
        0.7s     9.70nm          5.0mb
LDF     64.82 322 eP     19 18.20   -0.1
        0.8s    17.10nm          5.2mb
SSF     64.89 319 eP     19 19.00    0.2
        0.8s     5.30nm          4.7mb
LPG     65.03 316 eP     19 20.80    0.7
        0.9s    11.40nm          5.0mb
SMF     65.13 319 eP     19 20.20   -0.1
        0.8s     8.00nm          4.9mb
AVF     65.18 319 eP     19 20.50   -0.1
GRR     65.24 323 eP     19 21.00    0.0
        0.7s    14.10nm          5.2mb
BGF     65.56 319 eP     19 23.10    0.0
LPF     65.61 323 eP     19 23.50    0.1
TCF     66.02 320 eP     19 26.40    0.4
        0.9s     3.90nm          4.5mb
LSF     66.29 320 eP     19 28.00    0.3
        0.8s     7.20nm          4.8mb
MFF     66.56 321 eP     19 29.90    0.5
        0.8s    10.70nm          5.0mb

EPF     69.50 319 eP     19 48.60    0.7
        0.5s     1.40nm          4.3mb
WB5     77.26 170 eP     20 29.20   -4.1X
WRA     77.32 170 Pd     20 29.90   -3.7X
        1.1s     5.30nm          4.5mb
     S.D. = 0.8  on  39 of  50 obs.
-----------------------------------------
   APR 21, 1989  19h 28m 51.68± 0.61s
   40.519 N ± 6.4km  15.789 E ± 6.0km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                      (390)

SGO      0.37 276 Pd     28 59.30    0.1
                 eSg     29 06.60
MGR      0.42 205 Pc     28 59.30   -1.0
                 eSg     29 09.10
BSS      0.80 290 P      29 09.40    2.3
                 eSg     29 21.20
TDS      0.96 154 P      29 10.90    1.0
                 eSg     29 25.80
BRT      1.13  71 P      29 10.00   -2.9X
                 eSg     29 26.90
LCI      1.66  96 P      29 22.40    1.4
                 eSn     29 44.50
SDI      1.90 309 P      29 25.40    0.9
ATN      2.37 186 P      29 30.10   -1.1
SOI      2.45 175 Pd     29 31.70   -0.6
OHR      3.85  80 ePn    29 52.00   -0.3
SKO      4.50  69 ePn    30 00.50   -1.0
VBY      5.00 356 e(Pn)  30 08.20   -0.3
                 eSn     31 05.20
LIT      5.14  92 ePn    30 11.80    1.3
VAY      5.20  79 ePn    30 16.60    5.2X
PTJ      5.38   1 eP     30 37.20   23.2X
LJU      5.60 351 eP     30 35.00   18.0X
                 e(Sn)   31 18.80
VOY      5.68 347 e(Pn)  30 15.60   -2.6
     S.D. = 1.5  on  13 of  17 obs.
-----------------------------------------
%  APR 21, 1989  19h 43m 59.89± 0.93s
   40.524 N ± 9.0km  15.880 E ± 6.6km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN ITALY                      (390)

SGO      0.44 275 Pd     44 08.40   -0.4
                 eSg     44 15.70
MGR      0.46 213 Pc     44 08.50   -0.7
                 eSg     44 15.20
BSS      0.86 288 P      44 17.20    0.8
                 eSg     44 29.10
TDS      0.93 158 P      44 18.50    0.8
BRT      1.07  70 Pc     44 19.50   -0.5
                 eSg     44 35.40
     S.D. = 1.0  on   5 of   5 obs.
-----------------------------------------
   APR 21, 1989  20h 34m 28.35± 1.12s
   16.366 N ± 5.7km  122.198 E ± 6.5km
   DEPTH =  61.3 ± 10.6 km
   4.7mb ( 10 obs.)
 LUZON, PHILIPPINE ISLANDS           (249)

BAG      1.55 272 iPd-   34 53.50   -0.8
OCP      2.03 212 eP     34 37.00  -23.8X
OZH      9.18 339 eP     36 40.00   -0.5
     E  10s      0.48um
DAV      9.79 160 eP     36 50.00    0.9
OIZ     12.07 285 eP     37 19.20   -0.6
GYA     17.59 307 P      38 33.00    2.0
LOE     19.62 276 eP     38 55.00    0.4
                 e       43 40.50
KMI     20.16 299 Pd     39 02.00    1.4
     Z  16s      1.60um          4.5MszX
                 pP      39 10.00   30kmX
                 eS      42 32.00
                 SS      43 00.00
TIA     20.27 348 eP     39 00.90   -0.5
XAN     21.27 328 Pd     39 12.00    0.4
NNT     22.07 263 eP     39 20.00    0.4
                 e       43 59.00
CD2     22.20 314 eP     39 21.40    0.5
CHG     22.30 280 eP     39 23.30    1.4
                 e       44 02.60
TIY     22.94 340 Pc     39 30.00    1.8
     N  15s      0.90um
SNY     25.40   2 eP     39 50.20   -1.4
LZH     25.54 324 eP     39 54.00    0.8
     Z  24s      0.90um          4.2MszX

                 pP      40 03.00   32kmX
HHC     26.08 341 eP     39 58.00    0.0
BTO     26.36 339 eP     40 01.00    0.4
     N  12s      0.20um
     E  12s      0.30um
GTA     30.15 324 eP     40 34.10   -0.7
GUN     35.42 295 P      41 20.40   -0.6
        0.5s    14.00nm          5.1mb
PKI     35.77 295 P      41 22.60   -1.3
KKN     35.92 295 P      41 24.20   -0.9
        0.4s     4.00nm          4.7mb
DMN     36.04 295 P      41 25.00   -1.1
        0.4s     5.00nm          4.8mb
GKN     36.52 295 P      41 28.90   -1.1
        0.4s     5.00nm          4.8mb
WB5     37.95 161 iPd    41 41.00   -0.9
WRA     38.00 161 Pd     41 41.40   -0.9
        0.9s     9.30nm          4.7mb
HYB     41.71 278 eP     42 14.00    0.9
WARB    42.51 174 eP     42 11.30   -8.2X
GBA     43.26 273 P      42 34.00    8.2X
        0.4s     3.10nm          4.4mb
BRS     52.65 145 iPc    43 39.60    1.0
                  eS     49 52.00
MAIO    58.62 303 eP     44 22.00    0.3
TTA     71.84  28 eP     45 46.20   -0.1
                  e      46 29.90
IMA     72.80  25 eP     45 52.40    0.4
        0.8s     4.30nm          4.4mb
PMR     75.13  30 eP     46 05.00   -0.4
        0.7s     4.30nm          4.5mb
TOA     76.45  29 eP     46 13.60    0.6
KEV     76.57 339 eP     46 13.00   -0.4
SOD     77.16 337 iP     46 16.90    0.2
SUF     78.35 332 iP     46 22.60   -0.7
        0.4s     6.70nm          5.0mb
NUR     79.57 330 iP     46 29.70   -0.3
     Z  19s      0.20um          4.5Msz
                 LR      33 00.00
INK     80.10  21 eP     46 33.00    0.3
MBC     80.65  12 eP     46 35.00   -0.5
NB2     85.57 333 P      47 00.90   -0.1
        0.6s     5.10nm          4.8mb
YKA     89.77  23 eP     47 22.40    1.2
     S.D. = 0.9  on  40 of  43 obs.
-----------------------------------------
   APR 21, 1989  20h 36m 04.23± 0.50s
   13.302 N ± 3.0km  144.381 E ± 3.5km
   DEPTH = 114.9 ±  4.6 km
   5.2mb ( 25 obs.)
 MARIANA ISLANDS                     (216)
      Felt (III) on Guam.
      CENTROID, MOMENT TENSOR        (HRV)
      Doto Used: GDSN
      L.P.B.: 16S, 26C
      Centroid Locotion:
      Origin Time          20:36: 8.6 0.4
      Lat 13.19N 0.04 Lon 144.04E 0.06
      Dep 107.2 3.1 Holf-durotion  1.8
      Moment Tensor;    Scale 10**16 Nm
        Mrr=-4.70 0.46  Mtt= 7.44 0.65
        Mff=-2.74 0.72  Mrt= 3.49 0.49
        Mrf= 6.64 0.46  Mtf=-8.57 0.66
       Principol Axes:
        T  Val= 12.32  Plg= 1  Azm=210
        N       1.48       50       301
        P     -13.80       39       119
      Best Double Couple:Mo=1.3*10**17
       NP1:Strike=262 Dip=62 Slip=-150
       NP2:       157     64      -31

PJG      0.55  59 iP     36 22.30    0.1
GUA      0.57  65 iP     36 22.20   -0.1
                 e(S)    36 38.30
RAB     19.02 155 iPd    40 20.40    0.5
MNI     22.65 240 ePc    40 57.50    1.0
PMG     22.73 173 eP     40 57.00   -0.2
IIDJ    22.84 346 eP     40 59.00    0.8
CHJJ    23.16 349 P      41 01.30    0.0
MAT     23.80 348 iPc    41 06.40   -1.0
        1.1s    81.01nm          5.1mb
     Z  20s      1.42um          4.4Msz
                  eS     45 13.00
MTMJ    23.92 347 P      41 08.90    0.1
NIIJ    24.32 350 P      41 12.20   -0.2
SVO     27.06 145 eP     41 36.00   -1.9
VSG     27.09 145 eP     41 38.00   -0.2
```

21d 20h

MTN		29.11	207	iPd	41 55.70	-0.7
		0.9s		75.00nm		5.4mb
WHN		32.57	307	eP	42 26.00	-0.6
CTA		33.23	177	iPc	42 33.10	0.7
		0.8s		47.76nm		5.3mb
TIA		33.45	318	eP	42 34.20	0.0
MDJ		33.67	341	eP	42 35.50	-0.5
	Z	24s		0.93um		4.4MszX
				S	47 50.00	
QIS		33.97	188	iPd	42 38.60	-0.2
		1.0s		75.00nm		5.4mb
WB5		34.41	197	iPc	42 42.00	-0.6
				eS	48 00.70	
				eScP	48 49.00	
CN2		34.47	335	eP	42 41.40	-1.4
	Z	20s		1.20um		4.6Msz
	E	13s		0.60um		
WRA		34.48	197	Pd	42 43.00	-0.2
		0.8s		41.30nm		5.3mb
BJI		36.38	322	eP	42 59.50	0.5
	Z	36s		0.86um		4.3MszX
				e	48 56.00	
TIY		37.40	316	Pd	43 09.00	1.2
				pP	43 32.00	97kmX
GYA		37.66	296	P	43 11.60	1.5
				ScS	53 11.20	
TRT		37.81	238	ePd	43 12.00	0.7
		1.0s		69.30nm		5.5mb
ASPA		38.14	196	eP	43 15.10	1.1
		0.6s		30.00nm		5.3mb
	Z	20s		0.52um		4.3Msz
				e	44 43.40	
				eS	48 57.30	
				e	53 13.50	
				LR	57 57.90	
XAN		38.20	309	P	43 14.90	0.4
HHC		39.68	320	eP	43 27.50	0.8
BTO		40.53	319	P	43 34.60	1.0
KMI		40.88	293	eP	43 38.50	1.6
				pP	43 50.00	41kmX
				sP	44 03.00	
CD2		41.24	302	eP	43 39.80	0.2
				S	49 44.90	
DZM		41.28	148	iPd	43 40.10	0.1
MBL		41.88	216	iPc	43 45.00	0.2
KGM		42.13	258	eP	43 48.00	1.0
WARB		42.87	204	eP	43 45.20	-7.7X
		0.3s		7.00nm		4.9mb
IPM		43.63	263	ePd	44 00.10	0.9
CMS		44.55	178	eP	44 06.00	-0.3
STK		45.00	183	eP	44 09.60	-0.3
		0.5s		36.00nm		5.4mb
NANU		45.49	219	iPc	44 14.50	0.6
PSI		46.15	261	ePd	44 19.60	0.4
FORR		46.60	199	eP	44 22.70	0.2
		0.5s		33.00nm		5.4mb
MEKA		46.96	212	eP	44 25.00	-0.5
GTA		47.01	312	iPd	44 26.40	0.5
BWA		47.62	175	eP	44 28.10	-2.4
CAN		48.55	175	eP	44 37.50	-0.2
COOL		49.28	207	iPd	44 42.60	-0.8
MRWA		50.38	213	iPd	44 51.90	0.2
		0.4s		9.00nm		5.1mb
TOO		50.61	179	iPc	44 54.50	1.1
		0.6s		34.00nm		5.5mb
SHL		50.70	292	iP	44 54.00	-0.5
				eS	52 00.70	
BAL		51.13	211	iPd	44 57.90	0.5
KLB		51.43	209	iPd	44 58.80	-0.8
LSA		51.70	297	P	45 03.20	0.8
MUN		52.49	210	iPd	45 07.00	-0.6
NWAO		52.78	209	iPd	45 09.00	-0.7
GUN		56.18	295	P	45 34.60	-0.5
PKI		56.58	294	P	45 37.00	-0.9
		0.5s		8.00nm		5.0mb
KKN		56.71	295	P	45 37.70	-0.9
		0.8s		12.00nm		4.9mb
DMN		56.85	294	P	45 38.90	-0.8
WMO		56.99	314	Pd	45 40.50	0.3
	Z	12s		0.34um		4.7MszX
				eS	53 21.00	
GKN		57.28	295	P	45 41.80	-0.8
HYB		63.35	283	eP	46 23.00	-0.8
NDI		63.82	296	eP	46 26.00	-0.8
TTA		64.62	26	P	46 29.80	-1.6
GBA		64.90	279	Pc	46 32.70	-1.2
		1.3s		13.20nm		4.7mb
PMR		67.26	28	eP	46 45.30	-2.8
		0.7s		5.70nm		4.6mb
PMO		72.67	110	iP	47 23.10	1.4
		1.2s		85.00nm		5.4mb
TPT		72.92	110	iP	47 24.50	1.4
		1.2s		95.00nm		5.5mb
RUV		73.20	111	iP	47 26.20	1.4
		1.2s		50.00nm		5.2mb
INK		74.81	22	eP	47 32.00	-1.2
MAIO		78.18	305	eP	47 53.00	0.2
MBC		78.66	14	eP	47 54.00	-0.6
BMW		82.12	44	P	48 14.00	0.5
GMW		82.21	43	P	48 14.00	0.2
FHC		82.66	50	P	48 17.00	0.6
		0.9s		38.46nm		5.3mb
LON		83.02	44	P	48 18.00	-0.1
YKC		83.39	27	eP	48 19.00	-0.6
ALE		83.54	3	eP	48 22.00	1.9
		0.7s		6.00nm		4.6mb
WDC		83.78	50	iPd	48 22.50	0.5
PNT		83.90	41	eP	48 22.00	-0.5
		0.7s		18.00nm		5.1mb
LBFM		84.10	49	P	48 24.00	0.1
ORV		84.78	51	iPd	48 27.10	0.0
MHC		85.17	53	iPd	48 29.70	0.5
ARN		85.25	53	P	48 30.00	0.5
PRS		85.61	54	iPd	48 31.90	0.7
CMB		85.98	52	ePd	48 33.50	0.4
PRI		86.20	54	iPd	48 35.40	1.1
EDM		86.66	36	iPd	48 36.00	-0.1
FRI		86.75	53	iPd	48 36.90	0.1
BCH		86.89	55	P	48 38.00	0.3
SYP		87.14	55	eP	48 40.00	1.1
KVN		87.46	51	P	48 40.50	0.0
TNP		88.39	51	P	48 45.00	0.1
		0.8s		31.86nm		5.4mb
PAS		88.68	55	eP	48 46.00	-0.1
CLC		88.70	54	eP	48 46.00	-0.3
MWC		88.75	55	eP	48 47.00	0.3
SBB		88.81	55	eP	48 47.00	0.1
SES		88.92	38	ePd	48 45.00	-2.0
RVR		89.36	55	eP	48 49.00	-0.3
GSC		89.46	54	eP	48 50.00	0.1
LRM		89.52	43	eP	48 50.20	0.0
PEC		89.55	55	P	48 50.00	-0.3
PLM		89.94	56	P	48 52.00	-0.3
BAR		90.28	56	eP	48 54.00	0.3
TPC		90.38	55	eP	48 54.00	-0.2
GLA		91.66	56	eP	49 01.00	1.0
FFC		92.31	32	eP	49 02.00	-0.5
		0.8s		5.00nm		4.8mb
BW06		92.50	45	P	49 03.50	-0.5
		0.6s		3.78nm		4.9mb
GOL		96.57	47	P	49 23.00	0.3
ALQ		97.59	52	eP	49 22.00	-5.3X
BNG		123.41	284	ePKPc	54 50.30	-0.1
		0.4s		4.00nm		
KIC		143.64	301	PKP	55 26.50	-1.6
		0.6s		4.00nm		
TIC		143.72	301	PKP	55 26.70	-1.6
		0.6s		4.50nm		
LIC		143.95	301	PKP	55 26.00	-2.7X
ZOBO		148.45	99	PKP	55 38.00	1.3
				i	55 41.30	
				LR	44 56.00	
LPB		148.47	100	ePKP	55 39.00	2.5X
		0.9s		92.44nm		
				i	55 42.20	
CNCB		148.58	100	PKP	55 38.80	1.9
CCH		150.30	102	PKPd	55 46.50	7.3X
		S.D. = 0.9		on 112 of 117 obs.		

% APR 21, 1989 21h 02m 46.90± 0.93s
37.762 N ± 7.6km 29.172 E ± 9.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL		0.62	26	iPg	02 59.00	-0.5
				iSg	03 09.50	
YER		0.95	229	iPn	03 04.70	-0.3
BCK		1.16	105	ePn	03 08.10	-0.6
ELL		1.17	150	ePn	03 09.40	0.6
ALT		1.49	29	ePn	03 14.60	0.9
IZM		1.64	293	ePn	03 19.00	3.2X
		S.D. = 0.9		on 5 of 6 obs.		

% APR 21, 1989 22h 06m 27.75± 0.84s
40.524 N ±11.2km 15.856 E ± 6.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

SGO		0.42	275	Pd	06 36.50	0.2
				eSg	06 43.70	
MGR		0.45	211	Pc	06 36.50	-0.4
				eSg	06 43.90	
BSS		0.84	289	P	06 44.00	0.0
				eSg	06 57.90	
BRT		1.08	71	P	06 47.20	-0.9
				eSg	07 02.10	
LCI		1.61	96	P	06 57.40	1.1
		S.D. = 1.1		on 5 of 5 obs.		

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* APR 21, 1989 22h 20m 21.03± 1.47s
37.537 N ±13.3km 20.621 E ± 6.2km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
ML 3.4 (ATH).

VLS		0.64	358	iPgd	20 33.00	-0.9
				eSg	20 39.60	
ATH		2.49	79	ePn	21 02.00	-0.2
NEO		2.70	48	ePn	21 00.80	-4.5X
KZN		2.91	18	ePb	21 11.00	2.8X
LIT		2.95	29	ePn	21 09.10	0.4
				eSn	21 32.80	
OHR		3.57	2	iPn	21 18.20	0.5
PLG		3.59	37	ePn	21 17.50	-0.4
THE		3.59	30	ePn	21 18.60	0.8
SOI		3.66	280	P	21 56.90	38.1X
SOH		3.91	32	ePn	21 21.10	-1.3
KNT		4.03	25	ePn	21 24.60	0.6
				eSn	21 57.60	
VAY		4.07	21	ePn	21 25.00	0.4
SRS		4.25	32	ePn	21 27.70	0.4
SKO		4.47	8	ePn	21 30.00	-0.4
MGR		4.73	305	P	21 33.90	-0.2
SGO		5.12	308	P	21 39.80	0.3
		S.D. = 0.7		on 13 of 16 obs.		

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* APR 21, 1989 23h 16m 30.47± 1.48s
36.439 N ± 9.6km 71.253 E ± 9.9km
DEPTH = 87.3 ± 17.4 km
4.1mb (2 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

KSH		4.80	50	eP	17 43.60	1.7
NDI		9.22	145	iPd	18 41.80	-0.9
		0.5s		30.99nm		5.4mb X
				iS	20 14.80	
MAIO		9.49	273	iPc	18 46.00	-0.3
		0.6s		10.66nm		4.9mb X
				eS	20 27.00	
GKN		14.10	123	P	19 42.20	-5.3X
WMO		14.57	55	P	19 51.40	-2.0
DMN		14.67	123	P	19 49.70	-5.3X
KKN		14.67	122	P	19 49.00	-6.0X
PKI		14.90	122	P	19 52.70	-5.3X
GUN		15.01	120	P	19 53.30	-6.1X
HYB		20.02	159	eP	20 58.50	-0.3
GTA		22.69	74	P	21 26.10	0.7
GBA		23.41	165	Pd	21 33.60	1.3
		0.4s		1.40nm		3.7mb
NUR		38.00	324	iP	23 41.70	0.6
SUF		38.08	328	iP	23 42.50	0.7
NB2		44.55	323	P	24 34.50	-0.5
		0.6s		4.40nm		4.5mb
MBC		67.39	3	eP	27 16.00	-1.8
YKA		81.30	3	eP	28 38.60	0.7
		S.D. = 1.4		on 12 of 17 obs.		

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* APR 22, 1989 00h 51m 10.03± 0.93s
51.079 N ±19.6km 178.578 W ± 8.2km
DEPTH = 33.0km (normal)
5.2mb (5 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK		1.43	55	iPc	51 33.70	-0.2
SMY		4.82	293	e(P)	52 21.00	-1.1
TTA		16.97	37	eP	55 07.00	0.8
IMA		19.64	31	eP	55 39.00	0.4
FBA		21.10	37	eP	55 55.00	1.4
MBC		33.83	22	eP	57 48.00	-2.7
YKA		35.34	46	eP	58 05.10	1.3
KVN		43.21	82	eP	59 10.00	0.4

BW06	46.26	72 eP	59 33.00	-1.1	
	0.8s	2.68nm		4.2mb	
RSON	50.51	55 eP	00 06.00	-0.6	
GOL	50.63	73 eP	00 07.00	-1.0	
GUN	72.10	292 P	02 34.00	0.7	
KKN	72.54	293 P	02 36.40	0.6	
	0.6s	28.00nm		5.4mb	
PKI	72.63	292 P	02 36.70	0.3	
	0.6s	19.00nm		5.3mb	
GKN	72.75	293 P	02 37.40	0.5	
	0.6s	20.00nm		5.3mb	
DMN	72.78	293 P	02 37.60	0.4	
	0.7s	15.00nm		5.1mb	
	S.D. = 1.2	on 16 of 16 obs.			

? APR 22, 1989 04h 06m 39.47± 1.06s
44.564 N ± 9.9km 7.276 E ± 9.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

PZZ	0.14	245 P	06 42.93	0.0	
		S	06 44.92		
STV	0.32	174 P	06 46.11	-0.1	
		S	06 50.47		
RRL	0.50	316 P	06 49.61	0.0	
		S	06 56.39		
ROB	0.50	122 P	06 49.72	0.0	
		S	06 56.55		
	S.D. = 0.1	on 4 of 4 obs.			

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* APR 22, 1989 04h 48m 30.85± 0.43s
35.576 S ±12.3km 102.935 W ± 6.9km
DEPTH = 10.0km (geophysicist)
5.0mb (10 obs.) 4.8Msz (2 obs.)
SOUTHERN PACIFIC OCEAN (692)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 19S, 42C
Centroid Location:
Origin Time 04:48:35.5 0.3
Lat 36.05S 0.04 Lon 102.82W 0.04
Dep 15.0 FIX Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr=-0.59 0.05 Mtt=-0.25 0.06
Mff= 0.84 0.06 Mrt= 0.39 0.15
Mrf=-0.19 0.18 Mtf=-1.78 0.05
Principal Axes:

T	Val= 2.21	Plg= 8	Azm= 53
N	-0.60	76	290
P	-1.61	12	145

Best Double Couple:Mo=1.9*10**17
NP1:Strike=189 Dip=76 Slip= -3
NP2: 279 87 -166

LCCH	25.87	94 eP	54 06.00	1.6	
LNV	25.89	96 eP	54 03.00	-1.5	
SAN	26.62	95 eP	54 08.00	-3.3X	
PEL	26.67	94 eP	54 13.00	1.2	
ARE	33.86	64 eP	55 16.00	0.0	
SLA	33.95	82 ePc	55 16.20	-0.5	
CNCB	36.25	68 P	55 37.90	1.1	
LPB	36.33	68 iPd	55 39.80	2.5	
	1.1s	179.75nm		5.8mb X	
		S	01 30.00		
		LR	05 52.00		
ZOBO	36.48	67 P	55 39.70	1.0	
	1.1s	63.81nm		5.4mb	
		S	01 28.00		
		LR	06 04.00		
CCH	37.31	71 Pd	55 48.50	3.1X	
RUV	44.55	285 iP	56 45.10	0.4	
	0.9s	20.00nm		5.0mb	
VAH	44.71	285 iP	56 46.30	0.3	
	0.9s	30.00nm		5.2mb	
TPT	44.85	286 iP	56 46.80	-0.3	
	0.9s	25.00nm		5.1mb	
PPN	44.86	281 iP	56 47.60	0.4	
	0.9s	20.00nm		5.0mb	
PPD	46.72	88 eP	57 00.60	-1.3	
UPA	49.51	31 (P)	57 24.00	0.4	
Z	19s	2.08um		5.2Msz	
VAO	49.80	91 eP	57 25.90	-0.1	
BMA	52.24	93 eP	57 47.00	2.5	
ATB	56.74	68 Pc	58 15.10	-2.3	
SOB1	62.00	81 eP	58 51.90	-2.0	
ITR	64.25	82 eP	59 07.60	-1.1	
PLM	69.80	348 P	59 46.10	2.6X	
UYO	69.83	7 eP	59 43.00	-0.4	
ALQ	70.23	357 eP	59 47.10	1.0	
	1.0s	4.00nm		4.5mb	
TUL	71.43	6 eP	59 54.30	1.2	
	1.0s	4.30nm		4.5mb	
Z	20s	0.25um		4.5Msz	
		LR	19 27.00		
LNO	71.43	6 eP	59 52.50	-0.5	
PWLA	71.55	13 P	59 53.20	-0.6	
JSC	72.39	19 P	59 58.30	-0.5	
TKL	73.08	16 P	00 05.60	2.7X	
PRS	73.57	345 e(P)	00 08.30	2.6X	
FRI	73.86	346 e(P)	00 07.80	0.4	
FVM	74.10	10 P	00 08.60	-0.2	
TNP	74.47	348 P	00 11.30	0.1	
GOL	74.94	358 P	00 14.50	0.6	
CMB	75.01	346 eP	00 14.50	0.4	
KVN	75.57	348 P	00 16.60	-0.9	
DAU	76.00	353 P	00 20.00	0.0	
WDC	77.90	345 eP	00 30.60	0.4	
BW06	78.21	355 P	00 31.40	-0.7	
	0.7s	12.43nm		5.1mb	
LRM	81.48	353 eP	00 53.00	3.4X	
LON	83.69	347 P	01 01.00	0.2	
BMW	83.70	346 P	01 01.40	0.6	
DPW	84.19	350 P	01 03.90	0.6	
GAC	84.62	19 eP	01 06.00	0.6	
PNT	85.81	349 eP	01 14.00	2.7X	
SES	85.90	355 eP	00 57.00	-14.7X	
RSON	86.45	6 P	01 12.20	-2.1	
	0.9s	9.45nm		5.0mb	
FFC	89.94	1 eP	01 30.00	-0.9	
	1.1s	10.00nm		5.0mb	
YKA	98.18	355 eP	02 08.50	0.1	
EPF	122.08	57 ePKP	07 37.30	10.3X	
	1.0s	8.80nm			
BGF	124.90	54 ePKP	07 33.20	0.9	
	1.1s	9.70nm			
AVF	125.30	54 ePKP	07 33.20	0.2	
	0.8s	2.60nm			
SMF	125.58	54 ePKP	07 33.20	-0.5	
	0.9s	3.90nm			
LBF	125.77	54 ePKP	07 33.80	-0.3	
	0.8s	4.50nm			
LOR	125.77	53 ePKP	07 32.90	-1.1	
LPG	127.22	56 ePKP	07 37.50	0.3	
	1.1s	9.70nm			
KHC	132.51	53 ePKP	07 46.50	-0.3	
MDJ	139.43	299 ePKP	07 56.50	-3.4X	
MBH	144.22	87 ePKP	08 06.00	-2.7X	
BBTK	144.96	69 ePKP	08 08.00	-1.9	
ZNT	145.15	83 ePKP	08 09.00	-1.3	
DSI	145.22	84 ePKP	08 09.00	-1.4	
NJ2	145.29	276 ePKP	08 06.70	-3.8X	
KVT	147.58	68 ePKP	08 16.00	2.0	
TIA	147.70	283 ePKP	08 14.80	0.5	
WHN	148.48	272 ePKP	08 13.50	-2.2	
BJI	148.95	290 ePKP	08 19.00	2.8X	
LOE	151.58	237 ePKP	08 25.50	4.7X	
HHC	152.50	291 ePKP	08 36.20	14.6X	
CHG	154.45	235 ePKP	08 27.00	2.2	
GTA	161.56	289 ePKP	08 31.80	-0.9	
PKI	169.31	224 PKP	08 42.00	2.2	
	S.D. = 1.2	on 57 of 72 obs.			

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* APR 22, 1989 06h 15m 17.35± 0.65s
0.997 S ± 9.6km 123.202 E ±12.2km
DEPTH = 33.0km (normal)
4.5mb (2 obs.)
MINAHASSA PENINSULA (265)

MNI	2.92	34 ePd	16 02.60	0.0	
		eS	16 45.00		
WB5	21.72	150 eP	20 07.50	-0.3	
WRA	21.76	151 Pd	20 08.50	0.3	
	0.5s	3.10nm		4.0mb	
GUN	45.92	312 P	23 39.40	-0.1	
	0.5s	9.00nm		5.0mb	
PKI	46.10	311 P	23 40.80	0.0	
KKN	46.31	311 P	23 42.40	0.1	
	S.D. = 0.2	on 6 of 6 obs.			

APR 22, 1989 06h 19m 37.11± 0.35s
8.966 S ± 8.7km 115.512 E ± 8.8km
DEPTH = 33.0km (normal)
4.7mb (6 obs.)

BALI ISLAND REGION (283)

MKS	5.41	47 ePc	22 07.50	69.9X	
MBL	12.82	162 iPd	22 32.00	-7.8X	
		eS	24 47.00		
NANU	13.52	180 iPd	22 27.20	-21.8X	
		eS	25 05.00		
KNA	14.59	119 eP	23 02.40	-0.8	
		eS	25 32.00		
MTN	15.81	106 eP	23 19.30	0.3	
		eS	26 04.70		
MEKA	17.79	171 eP	23 45.00	1.1	
	0.3s	25.00nm		4.8mb	
		eS	26 44.00		
MRWA	20.15	179 eP	24 16.00	4.5X	
	0.3s	9.00nm		4.6mb	
		eS	27 41.00		
PSI	20.19	304 iPc	24 17.50	5.6X	
WB5	21.22	123 eP	24 22.30	-0.2	
		eS	28 12.20		
WRA	21.22	123 Pd	24 23.00	0.4	
	0.3s	1.20nm		3.8mb	
BAL	21.56	177 eP	24 34.00	8.1X	
		eS	28 16.00		
COOL	22.43	167 iPd	24 45.50	10.9X	
		eS	29 31.00		
KLB	22.61	175 eP	24 48.00	11.7X	
		eS	28 37.00		
ASPA	22.87	132 ePc	24 39.00	0.0	
	0.7s	20.00nm		4.7mb	
		eS	28 52.10		
NWAO	23.90	176 eP	25 04.00	15.2X	
		eS	29 06.00		
FORR	24.74	153 eP	24 56.60	-0.3	
		e	25 15.00		
		eS	29 32.00		
CHG	32.08	329 eP	26 04.50	1.0	
SHL	41.32	327 iP	27 22.40	0.7	
GBA	43.95	300 Pc	27 42.10	-1.0	
	0.6s	6.30nm		4.6mb	
GUN	46.54	323 P	28 04.20	0.2	
	0.6s	29.00nm		5.4mb	
PKI	46.57	322 P	28 04.00	-0.3	
DMN	46.78	322 P	28 05.70	-0.1	
KKN	46.81	322 P	28 05.80	-0.2	
GKN	47.35	322 P	28 10.00	-0.2	
MAW	68.12	199 eP	30 35.00	-0.6	
PPD	146.59	203 ePKP	39 10.90	-5.3X	
ITR	148.63	237 ePKP	39 23.50	3.9X	
BAO	150.60	214 e(PKP)	39 05.00	-17.7X	
	S.D. = 0.6	on 16 of 28 obs.			

? APR 22, 1989 07h 15m 56.99± 5.73s
17.827 N ±21.5km 65.670 W ±35.3km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.52	338 P	16 07.50	0.1	
SJG	0.54	302 iP	16 07.90	0.0	
		S	16 14.11		
CSB	0.65	315 P	16 09.90	-0.1	
		S	16 18.13		
APR	1.19	302 P	16 19.20	0.1	
MGP	1.36	278 P	16 22.00	0.0	
	S.D. = 0.1	on 5 of 5 obs.			

? APR 22, 1989 07h 44m 41.63± 2.73s
24.943 N ±11.0km 123.940 E ±35.2km
DEPTH = 108.8 ± 28.9 km
4.5mb (4 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

ANP	2.21	277 eP	45 18.30	0.4	
SSE	6.59	339 P	46 17.00	-0.5	
	0.8s	20.00nm		4.6mb	
		pP	46 26.00		
		eLg	48 15.00		
WB5	45.69	166 eP	52 52.90	-0.5	
WRA	45.75	166 Pd	52 53.80	0.0	
	0.5s	3.20nm		4.4mb	
ASPA	49.28	168 ePc	53 21.40	0.1	
	0.5s	15.00nm		5.2mb	
NB2	78.72	333 P	56 32.60	-0.5	
	0.5s	0.60nm		3.7mb	
YKA	81.29	24 eP	56 47.80	1.1	
	S.D. = 0.9	on 7 of 7 obs.			

22d 08h

APR 22, 1989 08h 03m 25.14± 0.77s
40.513 N ± 6.1km 23.526 E ± 9.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)

SOH	0.34	337	iPgc	03 32.30	0.2
			iSg	03 36.80	
OUR	0.39	117	iPgd	03 33.00	-0.1
			eSg	03 38.20	
THE	0.44	286	ePg	03 39.70	5.5X
			eSg	03 40.50	
PAIG	0.60	169	ePg	03 37.10	-0.1
			eSg	03 45.40	
SRS	0.61	5	ePg	03 36.50	-0.9
			iSg	03 45.10	
KNT	0.80	324	ePg	03 40.80	0.0
			eSg	03 52.10	
MMB	1.09	8	ePgd	03 45.00	-0.6
KKB	1.39	346	iPgc	03 51.00	0.4
RZN	1.48	37	eP	03 53.00	1.0
KDZ	1.83	51	eP	04 00.00	3.2X

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

APR 22, 1989 10h 58m 19.61± 0.58s
40.945 N ± 5.0km 20.551 E ± 6.5km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 3.0 (ATH).

TIR	0.65	308	ePg	58 32.20	-0.5
PHP	0.75	354	iPgc	58 33.10	-1.1
TPE	0.77	213	ePg	58 35.40	0.8
LSK	0.79	177	ePg	58 34.40	-0.7
KZN	1.13	124	ePb	58 40.00	-0.8
SKO	1.22	33	iPg	58 42.60	0.2
			iSg	58 57.50	
SDA	1.33	324	ePg	58 41.00	-3.1X
BCI	1.47	346	ePn	58 47.10	1.1
VAY	1.57	75	ePn	58 48.00	0.4
LIT	1.70	119	ePn	58 50.00	0.5
PLG	2.27	104	ePg	59 04.00	6.2X

S.D. = 0.9 on 9 of 11 obs.

APR 22, 1989 11h 50m 39.29± 0.39s
21.293 S ± 6.2km 179.193 W ± 4.3km
DEPTH = 613.5 ± 4.7 km
4.9mb (20 obs.)
FIJI ISLANDS REGION (181)

SVA	3.86	325	ePc	52 05.30	0.1
VUN	3.95	326	ePc	52 06.00	0.2
KRO	4.18	341	iPc	52 07.70	0.3
MBU	4.73	335	ePc	52 12.70	1.3
NDF	4.73	317	ePc	52 15.00	3.6X
NDE	4.89	343	ePc	52 13.90	1.2
AFI	10.19	45	eP	52 58.00	-2.5
			eS	54 47.60	
BRS	26.22	251	iPc	55 29.90	0.5
TBI	27.56	100	iP	55 41.70	0.6
	0.5s	15.00nm		4.9mb	
AFR	27.97	87	iP	55 44.20	-0.5
	0.8s	25.00nm		4.9mb	
PPN	28.30	88	iP	55 46.60	-0.9
	0.8s	20.00nm		4.8mb	
TVO	28.41	88	iP	55 47.80	-0.7
	0.8s	35.00nm		5.0mb	
VAH	30.53	84	iP	56 05.80	-0.7
	0.8s	25.00nm		4.9mb	
TPT	30.62	84	iP	56 06.90	-0.3
	0.8s	25.00nm		4.9mb	
RUV	30.78	84	iP	56 07.30	-1.2
	0.8s	20.00nm		4.8mb	
CAN	31.14	236	eP	56 11.50	-0.1
			iScP	01 34.30	
BWA	31.34	238	eP	56 11.60	-1.6
			iScP	01 34.40	
CTA	32.31	266	iPd	56 21.30	-0.2
CMS	32.81	245	eP	56 26.00	0.4
PMG	34.45	285	eP	56 40.00	0.7
TOO	34.53	234	eP	56 40.20	0.4
	0.6s	17.00nm		4.8mb	
STK	36.45	245	iPd	56 56.30	0.7
JAY	43.25	290	ePc	57 49.70	-0.5
ASPA	43.26	258	eP	57 49.60	-0.6
	0.5s	15.00nm		4.8mb	
			eS	03 32.30	
			i	06 43.50	
WB5	43.38	263	eP	57 50.00	-1.2
			ePP	59 02.80	
			eS	03 34.70	
OPA	47.46	27	P	58 21.20	-1.0
FORR	47.92	247	eP	58 24.50	-1.2
	0.5s	63.00nm		5.4mb	
MTN	48.06	272	iPc	58 25.70	-1.2
	0.4s	9.00nm		4.6mb	
			i	02 40.20	
			eS	04 40.00	
GUA	49.40	311	eP	58 36.40	-0.3
SBA	57.01	184	Pc	59 32.00	2.3
NANU	60.12	256	iPc	59 50.50	-0.7
	0.5s	29.00nm		4.8mb	
SPA	68.84	180	iPc	00 45.90	0.6
	0.7s	78.13nm		5.3mb	
			i	01 04.20	
CHJJ	69.40	325	P	00 48.60	-0.2
IIDJ	69.57	324	P	00 49.30	-0.6
MAT	70.19	325	eP	00 52.00	-1.4
	0.9s	30.25nm		4.8mb	
MTMJ	70.45	324	P	00 54.60	-0.4
ADK	72.89	2	iPd	01 07.40	-1.2
	0.5s	96.30nm		5.6mb	
SMY	73.94	356	eP	01 13.10	-1.3
PRS	79.16	44	eP	01 44.00	1.0
NWRM	79.48	42	P	01 44.90	0.3
BRK	79.52	42	e(P)	01 45.50	0.7
NJ2	79.53	310	Pc	01 46.00	1.0
ARN	79.66	43	P	01 46.40	0.8
MAW	80.44	200	eP	01 49.50	0.4
PLM	80.51	49	P	01 51.30	1.0
FRI	80.63	44	e(P)	01 51.00	0.4
CMB	80.80	43	ePd	01 52.00	0.5
WDC	80.99	40	ePd	01 53.00	0.6
ORV	81.00	41	P	01 53.00	0.5
MIN	81.42	41	ePd	01 54.60	-0.1
GLA	81.79	50	P	01 57.50	0.9
LBFM	81.85	40	P	01 57.80	0.8
CN2	82.25	323	iPd	01 58.60	0.0
KVN	82.85	43	P	02 02.20	0.2
TNP	82.87	45	P	02 02.30	0.2
	0.8s	7.35nm		4.3mb	
GMW	85.18	34	P	02 13.60	0.7
BJI	85.68	316	eP	02 16.00	0.6
MCW	85.87	34	P	02 16.90	0.7
TTA	85.92	10	eP	02 15.70	-0.5
PMR	86.05	14	iPd	02 16.10	-0.6
	1.0s	37.50nm		5.1mb	
TIY	86.98	312	eP	02 23.00	1.2
	Z 16s	0.40um		4.9MszX	
TOA	87.18	15	eP	02 22.10	-0.2
XAN	87.73	308	P	02 26.50	1.1
DPW	87.85	36	P	02 25.80	0.2
PNT	87.93	34	iPd	02 26.80	0.9
	0.8s	22.00nm		5.0mb	
ALQ	88.77	52	eP	02 31.00	0.7
IMA	89.21	10	ePd	02 31.20	-0.4
	0.8s	12.00nm		4.9mb	
FBA	89.26	13	ePd	02 30.30	-1.3
BW06	90.31	44	P	02 37.50	0.2
	0.8s	5.36nm		4.5mb	
			pP	04 52.90	632kmX
INK	95.33	15	eP	02 59.00	-0.3
YKA	97.70	25	eP	03 09.90	-0.3
BUL	130.65	215	iPKPd	08 43.10	-0.9
			iSKP	11 11.90	
ITR	131.26	124	ePKP	08 43.60	-1.5
			e	11 13.70	
NB2	139.62	352	PKP	08 50.60	-8.8X
	0.5s	1.40nm			
LWI	143.98	233	iPKPc	09 08.70	0.1
EKA	145.88	4	PKP	09 11.00	0.8
	0.7s	10.20nm			
DMU	146.92	8	iPKPc	09 14.60	2.7
DCN	147.41	9	ePKP	09 19.40	6.7X
DLE	147.57	8	iPKPc	09 20.30	7.3X
KSP	148.10	341	ePKP	09 18.60	4.7X
	0.9s	28.00nm			
			ic	09 24.00	
			e	11 40.00	
CLL	148.56	345	iPKP	09 19.30	4.7X
	1.3s	21.00nm			
			i	09 24.50	
			e	11 41.00	
BRG	148.73	344	iPKP	09 19.50	4.6X
	1.0s	16.00nm			
			i	09 25.50	
PRU	149.37	342	iPKP	09 20.70	4.8X
			i	09 28.80	
MOX	149.50	346	ePKP	09 29.00	12.9X
SRO	150.01	336	ePKP	09 31.70	14.8X
ZST	150.13	338	ePKP	09 32.20	15.1X
			e	11 48.00	
KHC	150.41	343	ePKP	09 23.90	6.4X
			e	09 33.50	
MEM	150.46	353	PKP	09 23.70	6.3X
GRF	150.48	346	e(PKP)	09 24.50	6.9X
			e	09 33.70	
SNF	150.71	355	PKP	09 24.00	6.2X
DOU	151.10	355	PKPc	09 25.00	6.5X
			e	09 34.90	
WLF	151.37	353	ePKP	09 36.20	17.4X
BNG	155.97	228	ePKPd	09 25.90	-0.4
	0.5s	28.00nm			
			id	09 57.90	
LIC	163.99	159	PKP	09 34.24	-0.5
	0.7s	8.50nm			
KIC	164.21	159	PKP	09 34.46	-0.5
	0.9s	12.50nm			
TIC	164.38	158	PKP	09 34.50	-0.6
	0.7s	6.00nm			

S.D. = 0.9 on 79 of 96 obs.

% APR 22, 1989 12h 05m 28.12± 0.90s
39.254 N ± 7.5km 27.733 E ± 8.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.78	63	ePn	05 43.30	0.0
IZM	0.93	203	ePn	05 45.90	0.0
EDC	1.10	5	ePn	05 48.00	-0.7
BNT	1.11	7	iPn	05 49.60	0.7
EZN	1.23	298	ePn	05 51.00	0.0

S.D. = 0.7 on 5 of 5 obs.

% APR 22, 1989 12h 12m 52.51± 0.87s
39.124 N ± 7.2km 27.578 E ± 9.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.77	199	ePg	13 07.40	-0.1
			eSg	13 18.90	
DST	0.95	59	ePn	13 10.80	0.2
EZN	1.20	306	ePn	13 15.00	0.2
EDC	1.24	10	ePn	13 15.00	-0.6
BNT	1.26	12	iPn	13 16.10	0.2

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

APR 22, 1989 12h 18m 09.85± 0.27s
44.624 N ± 2.1km 7.039 E ± 3.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.6 (LDG), 2.4 (GEN).

PZZ	0.13	159	P	18 13.30	0.2
			S	18 15.75	
DOI	0.19	129	Pc	18 14.50	0.4
			eSg	18 17.90	
RRL	0.35	329	P	18 17.15	0.0
			S	18 22.33	
STV	0.43	152	P	18 18.54	-0.1
			S	18 24.59	
BNI	0.50	329	Pc	18 19.80	-0.2
			eSg	18 26.80	
RSP	0.55	16	P	18 21.49	0.4
			S	18 28.71	
TOUF	0.63	166	Pg	18 22.16	-0.5
ROB	0.68	119	P	18 23.17	-0.2
			S	18 32.71	
AUTN	0.69	156	Pg	18 23.42	-0.2
			Sg	18 32.96	
MVIF	0.73	174	Pg	18 24.05	-0.3
			Sg	18 34.80	
SAOF	0.74	150	Pg	18 24.12	-0.2
			Sg	18 33.42	
AURF	0.77	164	Pg	18 23.80	-1.1
			Sg	18 34.93	
SBF	0.81	159	Pg	18 26.50	0.9
			Sg	18 36.80	
LSD	0.84	6	P	18 26.54	0.3
			S	18 37.53	
CALN	0.88	187	Pg	18 26.75	-0.1
LPG	0.90	347	Pg	18 26.50	-0.7

			Sg	18 36.80		
LPL	0.92	346	Pg	18 27.70	0.1	
			Sg	18 40.40		
FIN	0.93	116	P	18 27.81	0.1	
			S	18 39.95		
IMI	0.94	139	P	18 27.93	0.1	
			S	18 40.05		
FRF	1.10	195	Pg	18 30.40	-0.1	
			Sg	18 44.60		
LRG	1.27	203	Pg	18 34.00	0.6	
			Sg	18 50.20		
LMR	1.35	197	Pg	18 35.10	0.5	
			Sg	18 52.60		

S.D. = 0.5 on 22 of 22 obs.

? APR 22, 1989 12h 19m 56.32± 1.21s
44.605 N ± 9.8km 6.999 E ±20.4km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.0 (GEN).

PZZ	0.12	144	P	19 59.70	0.2	
			S	20 02.13		
RRL	0.35	334	P	20 03.60	0.0	
			S	20 08.73		
STV	0.43	147	P	20 04.94	-0.2	
			S	20 10.54		
RSP	0.58	18	P	20 08.08	0.0	
			S	20 14.81		

S.D. = 0.3 on 4 of 4 obs.

APR 22, 1989 12h 31m 58.77± 0.48s
1.177 S ± 5.9km 136.925 E ± 9.8km
DEPTH = 33.0km (normal)
5.2mb (2 obs.) 4.0Msz (1 obs.)
WEST IRIAN REGION (196)

JAY	4.00	109	ePd	32 59.00	-0.4	
MTN	12.94	206	eP	35 01.30	-1.8	
			eS	37 20.40		
KNA	16.57	209	eP	35 50.40	0.1	
WB5	18.76	188	eP	36 18.30	0.7	
			eS	39 38.20		
WRA	18.82	188	Pd	36 19.10	0.7	
	1.1s		8.30nm		3.9mb X	
QIS	19.44	172	eP	36 24.00	-1.6	
CTA	20.89	155	iP	36 42.50	1.6	
ASPA	22.55	187	eP	36 58.00	0.5	
	0.9s		71.00nm		5.1mb X	
	Z 19s		0.53um		4.0Msz	
			eS	41 09.90		
			LR	46 34.00		
BRS	30.17	151	iPc	38 12.50	4.1X	
FORR	30.67	195	eP	38 14.00	1.4	
ADE	33.66	177	e(P)	38 37.40	-1.4	
PSI	38.18	276	ePc	39 19.00	1.6	
XAN	43.81	326	eP	40 03.70	0.2	
CD2	44.86	318	eP	40 12.00	0.0	
BJI	45.19	337	eP	40 14.00	-0.5	
CN2	45.94	348	eP	40 23.40	3.1X	
LZH	48.19	324	eP	40 34.00	-4.4X	
			pP	40 45.50	41kmX	
BTO	48.27	332	eP	40 40.00	1.2	
GTA	52.79	324	eP	41 13.30	0.0	
GUN	56.85	305	P	41 42.90	-0.5	
PKI	57.12	304	P	41 44.40	-0.8	
KKN	57.30	304	P	41 45.70	-0.7	
	0.8s		17.00nm		5.1mb	
DMN	57.38	304	P	41 46.50	-0.5	
GKN	57.91	304	P	41 50.10	-0.5	
	0.8s		24.00nm		5.3mb	
WMQ	62.71	322	P	42 23.50	0.5	
SPA	88.83	180	e(P)	44 58.00	7.3X	
	1.0s		10.00nm		5.1mb X	
YKA	99.51	27	eP	45 47.40	7.9X	

S.D. = 1.0 on 22 of 27 obs.

? APR 22, 1989 12h 59m 15.94± 0.90s
34.413 N ±11.7km 134.825 E ± 7.6km
DEPTH = 10.0km (geophysicist)
NEAR S. COAST OF SOUTHERN HONSHU(233)
MG 3.4 (JMA). Felt (I JMA) at Sumoto.

WKYJ	0.66	107	iPd	59 28.90	-0.3	
			iS	59 37.70		
TKSJ	0.77	237	iP+	59 31.30	0.3	
			eS	59 42.60		
YONJ	1.36	305	iP+	59 40.50	-0.4	
			S	59 58.00		
TSRJ	1.47	40	P	59 42.90	0.4	
			S	00 02.30		
IIDJ	2.75	66	eP	00 05.50	4.6X	
			eS	00 37.00		

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

? APR 22, 1989 13h 21m 29.28± 6.01s
38.817 N ±43.3km 23.740 E ±21.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.3 (ATH).

NEO	0.63	321	ePb	21 41.80	-0.2	
PAIG	1.11	358	iPg	21 50.50	0.4	
			iSg	22 00.90		
PLG	1.57	352	ePn	21 57.00	-0.3	
			eSn	22 12.60		
LIT	1.61	323	ePb	21 57.60	-0.2	
			eSb	22 13.20		
THE	1.91	342	ePb	22 02.20	0.1	
SOH	2.02	352	ePb	22 04.00	0.1	
KZN	2.13	315	ePn	22 06.00	0.6	
SRS	2.30	357	ePn	22 07.60	-0.2	
GRG	2.37	335	ePn	22 08.30	-0.6	
KNT	2.43	345	ePn	22 09.80	0.2	
VAY	2.66	341	ePn	22 13.00	0.1	
OHR	3.22	316	ePn	22 30.20	9.3X	

S.D. = 0.4 on 11 of 12 obs.

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* APR 22, 1989 13h 55m 49.78± 0.97s
24.172 N ±11.5km 125.239 E ±18.8km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)
Felt (I JMA) on Miyako-jimo.

MYK	0.61	4	eP	56 02.00	0.1	
			iS	56 09.80		
ANP	3.53	287	eP	56 49.50	5.7X	
KKN	35.99	284	P	02 50.00	0.0	
GKN	36.55	285	P	02 54.70	0.1	
WB5	44.68	168	eP	04 01.50	0.0	
WRA	44.74	168	P	04 11.00	9.1X	
	0.7s		2.50nm		4.2mb	
NB2	79.94	333	P	07 56.60	-0.2	
	0.8s		2.10nm		4.2mb	

S.D. = 0.2 on 5 of 7 obs.

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* APR 22, 1989 14h 17m 39.84± 1.26s
17.302 N ±16.4km 94.925 E ±14.8km
DEPTH = 33.0km (normal)
BURMA (296)

CHG	4.11	68	iPn	18 42.30	0.3	
			iSg	19 24.00		
NNT	6.60	135	iPc	19 16.90	-0.2	
SHL	8.70	342	eP	19 45.50	-1.0	
GUN	13.45	323	P	20 52.60	1.4	
	0.4s		10.00nm		5.1mb	
KKN	13.71	321	P	20 54.10	-0.4	

S.D. = 1.3 on 5 of 5 obs.

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* APR 22, 1989 14h 53m 20.38± 0.89s
13.246 N ±10.8km 144.738 E ±17.0km
DEPTH = 56.2 ± 10.1 km
4.9mb (3 obs.)
MARIANA ISLANDS (216)
Felt (III) on Guom.

GUA	0.34	30	iPd	53 30.20	-0.3	
			e(S)	53 36.50		
PJG	0.36	20	ePd	53 30.70	0.0	
MAT	23.93	347	(P)	58 31.00	0.9	
WB5	34.46	197	eP	00 05.20	0.2	
WRA	34.53	197	Pd	00 05.40	-0.2	
	0.8s		4.30nm		4.4mb	
BJI	36.63	322	eP	00 36.00	12.8X	
ASPA	38.19	196	eP	00 36.80	0.4	
	0.5s		9.00nm		4.9mb	
DZM	41.05	149	iPc	01 00.50	0.3	
GUN	56.52	295	P	03 00.50	0.5	
	0.5s		11.00nm		5.2mb	
PKI	56.92	294	P	03 02.80	0.0	
KKN	57.04	295	P	03 04.00	0.4	
DMN	57.19	294	P	03 05.30	0.6	
GKN	57.62	295	P	03 07.80	0.3	
HYB	63.70	283	eP	03 48.00	-0.8	
INK	74.73	22	eP	05 05.00	9.3X	
BNG	123.76	285	ePKPd	12 15.10	0.5	
	0.4s		5.00nm			
KIC	143.97	301	PKP	12 50.32	-1.9	
	0.4s		9.50nm			
TIC	144.04	302	PKP	12 50.46	-1.9	
	0.4s		9.50nm			
LIC	144.28	301	PKPc	12 51.40	-1.3	
	0.4s		24.00nm			
LPB	148.12	100	(PKP)	13 06.00	6.5X	
CNCB	148.22	101	PKP	13 02.00	2.2	

S.D. = 1.1 on 18 of 21 obs.

APR 22, 1989 15h 15m 45.73± 0.31s
38.153 N ± 2.4km 117.811 W ± 2.7km
DEPTH = 7.9 ± 1.8 km
NEVADA (37)
ML 3.2 (NEIS).

MNA	0.39	316	iPc	15 53.40	-0.3	
SVP	0.44	179	iPc	15 54.80	0.1	
TNP	0.47	98	iPd	15 56.20	0.9	
MZP	0.56	143	iPc	15 57.50	0.4	
PPK	0.73	186	iPc	16 00.30	-0.1	
MGM	0.75	161	iPc	16 00.90	0.1	
KVN	0.92	346	iPc	16 03.10	-0.6	
LCH	0.93	172	iPc	16 03.80	0.1	
GMN	0.96	153	iPc	16 04.60	0.3	
CTS	0.99	120	eP	16 05.00	0.1	
HCR	1.09	85	eP	16 07.00	0.5	
KRNA	1.20	110	eP	16 09.00	0.5	
SGV	1.32	152	iPc	16 10.70	0.2	
TMO	1.38	166	iPc	16 11.50	0.0	
OCS	1.55	104	eP	16 13.50	-0.3	
MCA	1.56	164	iPc	16 14.00	0.2	
TMBR	1.59	134	iP	16 14.60	0.2	
YMT5	1.65	139	iPc	16 15.40	0.1	
YMT6	1.71	139	iP	16 16.30	0.2	
FMT	1.72	151	iPc	16 16.40	0.2	
YMT3	1.76	140	iP	16 16.80	0.0	
WRN	1.76	95	eP	16 16.60	-0.3	
PANV	1.84	162	eP	16 18.00	-0.1	
CPX	1.85	131	eP	16 18.00	-0.2	
LSM	1.87	139	eP	16 18.50	0.1	
SDH	1.91	142	eP	16 19.10	0.1	
EUR	1.96	47	iP	16 21.00	1.2	
CMB	2.03	267	eP	16 22.00	1.3	
AMR	2.05	148	eP	16 21.10	0.1	
MTI	2.06	103	eP	16 20.70	-0.6	
GWY	2.17	155	eP	16 22.30	-0.5	
JON	2.19	141	eP	16 23.20	0.2	
QSM	2.31	161	eP	16 24.00	-0.7	
NPN	2.33	102	eP	16 24.50	-0.6	
ARN	3.06	256	eP	16 39.50	4.2X	

S.D. = 0.5 on 34 of 35 obs.

APR 22, 1989 15h 23m 13.31± 0.34s
38.145 N ± 2.6km 117.818 W ± 3.0km
DEPTH = 8.5 ± 2.0 km
NEVADA (37)
ML 2.9 (NEIS).

MNA	0.39	317	iPc	23 20.80	-0.5	
SVP	0.43	178	iPc	23 22.20	0.1	
TNP	0.48	97	iPd	23 23.70	0.7	
MZP	0.56	142	iPc	23 25.00	0.3	
PPK	0.72	186	iPc	23 27.80	0.0	
MGM	0.75	160	iPc	23 28.30	0.0	
LCH	0.92	171	iPc	23 31.30	0.2	
KVN	0.93	346	iPc	23 30.50	-0.9	
GMN	0.95	152	iPc	23 32.10	0.3	
CTS	0.99	119	eP	23 32.70	0.3	
HCR	1.09	85	eP	23 34.40	0.3	
KRNA	1.21	109	eP	23 36.40	0.3	
SGV	1.32	152	iPc	23 38.20	0.3	
TMO	1.38	166	iPc	23 39.10	0.1	
OCS	1.55	103	eP	23 41.30	-0.1	
MCA	1.55	164	iPc	23 41.50	0.3	
TMBR	1.59	134	iP	23 42.00	0.1	
YMT5	1.65	139	iPc	23 42.90	0.1	
YMT6	1.71	138	iP	23 43.70	0.1	
FMT	1.72	151	iPc	23 43.90	0.2	
YMT3	1.76	140	iP	23 44.20	-0.1	
PANV	1.84	162	eP	23 45.40	-0.1	

22d 15h

CPX	1.85	130	eP	23 45.50	-0.2
LSM	1.87	138	eP	23 45.80	0.0
SDH	1.91	141	eP	23 46.50	0.1
EUR	1.97	47	iP	23 49.00	1.6
CMB	2.03	268	eP	23 49.70	1.5
AMR	2.05	148	eP	23 48.60	0.2
MTI	2.07	102	eP	23 48.20	-0.6
GWY	2.16	155	eP	23 49.70	-0.5
JON	2.18	141	eP	23 50.50	0.1
OSM	2.30	160	eP	23 51.50	-0.6
NPN	2.33	101	eP	23 52.00	-0.7
NOP	2.41	146	eP	23 53.10	-0.6
ARN	3.05	256	eP	24 07.00	4.3X

S.D. = 0.5 on 34 of 35 obs.

APR 22, 1989 15h 56m 25.82± 1.04s
36.068 N ± 7.8km 1.582 W ± 8.5km
DEPTH = 10.0km (geophysicist)
WESTERN MEDITERRANEAN SEA (387)
MG 3.5 (MDD).

ENIJ	1.04	331	iPnd	56 45.00	-0.4
EMEL	1.36	236	iPnc	56 50.80	0.1
			eSn	57 06.00	
TAF	1.42	209	iPg	56 51.00	-0.8
			i	56 57.00	
			i	57 00.00	
			i(Sg)	57 09.00	
			i	57 15.00	
EALH	1.79	4	iPnc	56 57.20	0.2
			eSn	57 17.00	
AFC	1.97	307	ePn	56 59.70	-0.1
MAL	2.38	287	ePn	57 04.00	-1.4
			iSg	57 28.00	
ACU	2.61	21	ePn	57 09.20	0.4
			eSn	57 37.50	
EVIA	2.67	344	ePn	57 10.00	0.3
			eSn	57 39.50	
EBAN	2.73	321	ePn	57 10.00	-0.6
			eSn	57 39.70	
SRQ	3.07	275	iP	57 13.50	-1.8
EJIF	3.16	278	ePn	57 17.50	0.9
			eSn	57 50.00	
LIJA	3.20	286	iP	57 19.00	1.9
OJEN	3.20	272	iP	57 20.00	2.8X
ALJ	3.30	282	iP	57 18.00	-0.7
MOMI	3.36	276	iP	57 21.50	2.1
PLAT	3.38	272	iP	57 21.50	1.7
EHOR	3.42	302	ePn	57 18.70	-1.5
			eSn	57 55.00	
CNIL	3.63	276	iP	57 23.00	-0.2
TOL	4.28	334	ePn	57 34.50	2.1
			ePb	57 44.50	
			ePg	57 52.00	
			eSn	58 17.50	
			eSb	58 39.50	
			eSg	58 47.50	
GUD	4.99	337	ePn	57 41.80	-0.9
			eSn	58 34.70	
ESEL	5.12	42	ePn	57 44.20	-0.1
			eSn	58 40.50	
EPLA	5.34	320	ePn	57 46.20	-1.3

S.D. = 1.2 on 21 of 22 obs.

APR 22, 1989 17h 37m 16.02± 0.68s
26.654 N ±11.5km 96.827 E ± 5.7km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)
BURMA (296)

SHL	4.57	257	iP	38 25.50	0.6
			iS	39 02.50	
CD2	7.41	54	ePg	39 06.20	1.5
Z	14s		0.90um		
E	11s		0.80um		
GUN	9.82	280	P	39 38.50	0.1
PKI	10.21	278	P	39 43.10	-0.7
KKN	10.34	279	P	39 45.00	-0.4
DMN	10.48	278	P	39 46.90	-0.5
GKN	10.92	280	P	39 52.20	-1.1
LZH	11.15	31	eP	39 55.00	-1.3
Z	14s		0.70um		
XAN	12.77	52	eP	40 10.70	-7.3X
GTA	12.96	10	eP	40 21.40	0.7
Z	14s		0.60um		
N	12s		0.50um		
BTO	17.69	35	eP	41 20.50	-1.0
N	14s		0.60um		
E	14s		0.60um		
HHC	18.69	37	eP	41 33.40	-0.4
HYB	19.25	245	eP	41 34.00	-6.7X
TIA	19.74	56	eP	41 44.10	-1.8
BJI	20.91	45	eP	41 58.00	0.1
SSE	21.77	73	eP	42 01.50	-5.3X
Z	16s		0.40um		3.9MszX
MAIO	33.09	296	eP	43 51.00	0.0
SUF	57.83	329	iP	47 06.90	0.6
	0.4s		1.50nm		4.4mb
SOD	58.08	335	eP	47 09.00	0.9
KEV	58.28	337	eP	47 12.00	2.6X
MLR	58.45	309	ePd	47 12.00	0.9
NUR	58.45	326	iP	47 10.90	0.2
WRA	58.90	138	P	47 14.00	-0.4
	0.7s		2.90nm		4.5mb
NB2	64.97	328	P	47 54.30	-0.3
	0.7s		1.60nm		4.2mb
MBC	74.91	8	eP	48 55.00	0.1
INK	78.35	17	eP	49 14.00	-0.2
YKA	87.67	14	P	50 04.40	2.2

S.D. = 1.0 on 23 of 27 obs.

? APR 22, 1989 18h 48m 27.61± 3.85s
61.612 N ±13.0km 3.343 E ±33.8km
DEPTH = 10.0km (geophysicist)
NORWEGIAN SEA (642)
MD 2.6 (BER).

SUE	0.88	129	iP	48 45.85	1.3
			iS	48 57.92	
HYA	1.44	107	eP	48 53.65	0.0
			iPg	48 55.62	
			eS	49 13.18	
			iSg	49 16.05	
ASK	1.45	141	iP	48 54.34	0.5
			eS	49 13.00	
BER	1.57	141	iP	48 55.66	0.2
			eS	49 14.74	
MOL	2.20	62	iP	49 03.70	-1.0
ODD1	2.35	135	iP	49 06.78	-0.1
			eS	49 33.94	
			iSg	49 44.17	
KMY	2.59	158	iP	49 09.87	-0.3
			iS	49 38.63	
BLS3	2.70	143	iP	49 11.55	-0.3
			eS	49 41.08	
BLS1	2.82	141	iP	49 13.37	-0.2
			iS	49 45.15	
RGS	3.60	64	eP	49 26.60	2.1
			eS	50 04.60	
NRA0	4.07	99	iPc	49 28.90	-2.2
			iS	50 14.10	
			eSg	50 34.70	

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

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* APR 22, 1989 19h 25m 50.81± 2.51s
44.410 N ±10.2km 6.469 E ±17.6km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

PZZ	0.46	78	P	26 00.33	0.1
			S	26 06.80	
RRL	0.56	24	P	26 02.33	0.0
			S	26 09.88	
DOI	0.56	80	Pd	26 01.90	-0.4
			eSg	26 07.30	
STV	0.64	105	P	26 03.18	-0.5
			S	26 11.52	
BNI	0.66	13	P	26 03.80	-0.2
			eSg	26 12.40	
RSP	0.93	37	P	26 09.05	0.4
			S	26 21.07	
ROB	1.01	96	P	26 10.26	0.3
IMI	1.14	116	P	26 12.36	0.2
LSD	1.16	25	P	26 12.47	-0.1
			S	26 27.08	
FIN	1.26	99	P	26 14.39	0.1

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

? APR 22, 1989 19h 29m 59.15± 2.07s
9.195 N ±15.2km 125.554 E ±30.9km
DEPTH = 41.0 ± 21.0 km
MINDANAO, PHILIPPINE ISLANDS (259)

DAV	2.09	179	eP	30 32.50	0.0
BAG	8.66	326	eP	32 05.00	-0.1
SSE	22.17	350	eP	34 53.00	-0.2
BJI	31.83	346	eP	36 26.00	3.7X
GUN	41.72	302	P	37 47.90	1.5
MAIO	65.34	306	eP	40 39.00	-0.8
INK	85.54	21	eP	42 35.00	1.1
SUF	86.18	333	iP	42 35.80	-1.4
NUR	87.39	331	iP	42 54.40	11.3X
YKA	95.02	24	eP	43 23.50	4.9X

S.D. = 1.4 on 7 of 10 obs.

APR 22, 1989 19h 50m 00.50± 0.47s
39.281 N ± 4.8km 29.006 E ± 5.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.44	318	iPg	50 08.70	-0.7
ALT	0.89	104	ePg	50 17.00	-0.6
			eSg	50 29.50	
KHL	1.04	157	iPg	50 20.50	0.3
			iSg	50 34.00	
KCT	1.09	333	iPg	50 21.00	0.0
BNT	1.36	322	iPn	50 26.10	0.6
EDC	1.38	321	iPn	50 25.30	-0.5
GPA	1.42	45	ePn	50 26.20	-0.2
GBZT	1.54	12	ePn	50 30.80	2.8X
			iPg	50 32.70	
			iSg	50 53.90	
HRT	1.62	18	ePn	50 28.00	-1.2
IZM	1.62	238	iPn	50 30.20	0.9
ISK	1.78	1	ePn	50 33.00	1.5
CTT	1.92	347	ePn	50 35.50	2.0
PRK	2.12	270	ePn	50 36.10	-0.4
			eSn	51 07.00	
EZN	2.14	286	iPn	50 36.30	-0.4
BCK	2.20	145	ePn	50 37.00	-0.7
YER	2.22	195	iPn	50 41.50	3.6X
ELL	2.63	164	iPn	50 44.50	0.7
DMK	2.71	340	ePn	50 48.30	3.4X
BBTK	2.96	78	eP	50 57.00	8.6X
			eS	51 37.00	
RDO	3.24	306	ePn	50 56.30	3.9X
KDZ	3.62	312	eP	51 08.00	10.2X
MMB	4.64	301	eP	51 11.00	-1.3
VTS	5.50	309	eP	52 15.00	50.5X

S.D. = 1.0 on 16 of 23 obs.

APR 22, 1989 19h 50m 45.58± 0.49s
29.618 N ± 6.9km 141.357 E ±10.1km
DEPTH = 33.0km (normal)
4.5mb (8 obs.)
SOUTH OF HONSHU, JAPAN (211)

IIDJ	6.53	334	P	52 26.40	4.5X
KAKJ	6.64	352	P	52 22.70	-0.7
CHJJ	6.71	343	P	52 24.70	0.3
MAT	7.39	340	eP	52 35.00	1.1
	0.5s		24.65nm		5.5mb X
			eS	53 55.00	
MTMJ	7.56	338	P	52 38.70	2.4
NIIJ	7.85	346	P	52 38.80	-1.5
YAMJ	8.60	353	eP	52 49.00	-1.8
OFUJ	9.44	1	eP	53 00.10	-2.2
MDJ	17.64	331	eP	54 51.50	1.3
CN2	19.01	322	eP	55 14.00	6.9X
GTA	35.33	297	eP	57 39.30	-0.6
CHG	39.95	264	eP	58 19.00	0.3
WB5	49.67	189	eP	59 35.20	-1.1
WRA	49.74	189	Pc	59 36.00	-0.8
	0.4s		2.30nm		4.6mb
PMR	54.72	33	eP	00 12.20	-1.4
	1.0s		8.00nm		4.7mb
FBA	55.49	29	eP	00 19.70	0.5
	1.0s		5.50nm		4.5mb
GBA	60.85	270	Pd	01 09.10	11.7X
	0.3s		3.10nm		
MBC	63.65	15	eP	01 15.00	-0.3
YKA	70.28	29	P	01 57.20	-0.1
KEV	70.37	340	eP	01 58.00	0.3
SOD	71.79	338	iP	02 06.70	0.4
PNT	73.60	42	iP	02 18.00	0.7
SUF	74.60	334	iP	02 23.00	0.2
	0.5s		2.80nm		4.5mb
NUR	76.49	333	iP	02 33.70	0.2
KVN	79.37	51	eP	02 51.00	0.9
LRM	79.53	43	eP	02 51.90	1.0
			e	23 08.40	

FFC	79.99	32	eP	02	53.00	0.2
	0.7s		6.00nm			4.7mb
TNP	80.45	52	eP	02	56.20	0.3
	1.0s		3.75nm			4.3mb
EUR	80.59	50	iP	02	56.80	0.1
	0.8s		4.72nm			4.5mb
NB2	81.01	338	P	02	57.00	-1.2
	1.1s		5.60nm			4.5mb
BW06	82.93	45	eP	03	10.00	1.2
FRB	83.99	13	eP	03	14.00	0.6
ZOBO	149.88	70	PKP	10	36.00	5.8X
LPB	150.03	71	(PKP)	10	41.00	10.8X
CNCB	150.27	71	PKP	10	37.60	6.8X
S.D. = 1.1		on	29 of	35	obs.	

? APR 22, 1989 20h 02m 30.60± 1.31s
42.790 N ± 7.8km 18.530 E ±13.5km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.0 (TTG).

BRY	0.11	5	iPd	02	33.30	-0.3
			iSg	02	35.50	
HCY	0.34	184	ePg	02	36.50	-1.2
			eSg	02	42.50	
NKY	0.35	86	ePg	02	36.60	-1.2
			eSg	02	42.50	
BDV	0.55	156	ePg	02	42.00	0.2
			eSg	02	49.50	
S.D. = 1.2		on	4 of	4	obs.	

% APR 22, 1989 21h 22m 27.94± 0.57s
37.956 N ± 8.0km 14.135 E ± 4.3km
DEPTH = 10.0km (geophysicist)
SICILY (398)

GIB	0.09	291	Pd	22	29.90	-0.7
			eSg	22	32.00	
MNO	0.44	93	Pc	22	37.20	0.2
			eSg	22	45.30	
MCT	0.51	231	P	22	38.50	0.1
			eSg	22	45.90	
MEU	1.06	143	Pc	22	46.90	-1.1
			eSg	23	03.60	
ATN	1.07	79	Pd	22	48.30	0.2
CVT	1.10	256	P	22	49.00	0.4
ERC	1.22	274	P	22	51.30	0.5
SOI	1.52	85	Pc	22	56.40	1.2
			eSn	23	15.90	
MGR	2.44	26	P	23	07.50	-1.0
LCI	3.80	50	P	24	06.20	38.4X
S.D. = 0.9		on	9 of	10	obs.	

APR 22, 1989 22h 17m 43.39± 0.44s
39.218 N ± 3.4km 23.583 E ± 4.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.29	288	ePg	17	49.50	0.0
PAIG	0.71	6	iPgc	17	58.50	1.1
			iSg	18	09.20	
PLG	1.16	355	ePb	18	05.00	-0.1
			eSb	18	21.00	
LIT	1.22	317	iPb	18	06.20	0.1
			eSb	18	22.20	
ATH	1.25	175	ePb	18	06.00	-0.6
			eSb	18	22.00	
THE	1.49	342	ePb	18	10.30	0.1
			eSb	18	29.50	
SOH	1.61	354	ePbc	18	12.00	0.0
KZN	1.77	308	ePb	18	14.60	0.3
SRS	1.90	0	ePn	18	15.60	-0.5
			eSn	18	37.80	
GRG	1.96	333	ePnc	18	16.70	-0.3
			eSn	18	41.40	
KNT	2.01	345	ePnc	18	18.00	0.3
			eSn	18	43.60	
EZN	2.21	73	ePn	18	21.00	0.4
VAY	2.24	340	ePn	18	21.30	0.3
MMB	2.37	3	ePc	18	22.00	-1.0
ITM	2.42	213	ePb	18	24.00	0.4
RDO	2.44	37	ePg	18	30.60	6.7X
VLS	2.56	247	ePb	18	26.00	0.3
RZN	2.61	19	iPc	18	36.00	9.5X
KDZ	2.80	29	eP	18	21.00	-8.1X
OHR	2.85	312	ePn	18	29.30	-0.5
VTS	3.38	355	eP	18	37.00	-0.4
S.D. = 0.5		on	18 of	21	obs.	

APR 22, 1989 23h 04m 08.35± 0.41s
39.206 N ± 3.7km 23.589 E ± 3.9km
DEPTH = 10.7 ± 2.4 km
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.30	290	ePg	04	15.00	0.3
PAIG	0.72	6	iPgc	04	24.00	1.5
			iSg	04	35.10	
PLG	1.17	355	ePb	04	30.50	0.3
			eSb	04	46.00	
LIT	1.23	317	iPbd	04	31.60	0.4
			iSb	04	49.00	
ATH	1.24	175	ePb	04	31.20	0.0
			eSb	04	47.00	
THE	1.50	342	iPbc	04	35.70	0.5
			iSb	04	54.20	
SOH	1.62	354	iPbc	04	37.70	0.7
KZN	1.78	309	ePb	04	40.00	0.6
SRS	1.91	0	iPnc	04	41.10	0.0
			eSn	05	03.30	
GRG	1.97	333	ePnc	04	42.50	0.4
			eSn	05	06.80	
KNT	2.02	345	ePnc	04	43.60	0.8
			eSn	05	07.10	
PRK	2.08	88	ePb	04	47.10	3.4X
EZN	2.21	73	ePn	04	45.00	-0.4
VAY	2.25	340	ePn	04	46.00	-0.1
MMB	2.38	3	iPc	04	47.00	-1.0
ITM	2.41	213	ePn	04	47.00	-1.4
RDO	2.45	37	ePn	04	50.00	1.2
KBN	2.56	304	ePn	04	51.00	0.5
VLS	2.56	247	ePb	04	51.60	1.1
RZN	2.62	19	eP	04	51.00	-0.6
KKB	2.69	352	iPc	04	52.00	-0.3
KDZ	2.81	29	iP	04	53.00	-1.1
OHR	2.86	313	iPn	04	35.40	-19.4X
TPE	2.96	293	ePn	05	02.00	5.8X
PLD	3.02	16	eP	04	58.00	1.1
SKO	3.21	330	ePn	04	51.00	-8.7X
PGB	3.37	7	eP	05	05.00	3.0X
VTS	3.40	355	iPc	05	03.00	0.5
PHP	3.45	317	ePn	05	14.40	11.3X
EDC	3.49	70	ePn	05	10.00	6.4X
BNT	3.53	70	ePn	05	09.00	4.8X
TIR	3.56	308	ePn	05	16.70	12.0X
VAM	3.82	172	ePn	05	10.00	1.6
DST	3.92	83	eP	05	10.20	0.3
SDA	4.19	313	ePn	05	25.30	11.7X
PVL	4.22	18	eP	05	12.00	-2.0
LCI	4.49	286	Pc	05	16.10	-1.7
MGR	6.27	281	P	05	43.10	0.1
MLR	6.52	15	eP	05	46.50	-0.2
BSS	6.93	286	Pd	05	52.00	-0.3
SDI	7.86	292	Pd	06	04.80	-0.6
S.D. = 0.9		on	31 of	41	obs.	

% APR 22, 1989 23h 11m 47.78± 2.57s
38.484 N ±14.2km 15.387 E ±14.8km
DEPTH = 150.0 ± 30.6 km
SICILY (398)

ATN	0.33	169	Pc	12	08.20	-0.3
			eSn	12	23.40	
SOI	0.67	128	Pd	12	10.70	0.4
			eSn	12	26.50	
MNO	0.78	225	Pd	12	11.50	0.2
GIB	1.18	246	P	12	13.20	-1.3
TDS	1.39	32	Pd	12	17.40	0.9
MEU	1.43	195	P	12	16.70	-0.3
MCT	1.62	239	P	12	20.30	1.1
MGR	1.66	4	Pc	12	20.10	0.8
LCI	2.71	46	Pc	12	32.20	0.2
			eSn	13	05.50	
BRT	2.77	30	Pd	12	31.10	-1.7
			eSn	13	04.80	
S.D. = 1.1		on	10 of	10	obs.	

% APR 22, 1989 23h 21m 46.50± 0.82s
39.287 N ± 8.0km 28.970 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.41	320	iPg	21	54.10	-0.9
			eSg	22	01.10	
ALT	0.92	104	iPg	22	04.00	-0.1
			iSg	22	16.00	
KHL	1.06	156	ePg	22	06.50	0.1
			eSg	22	19.50	
KCT	1.07	334	iPn	22	06.90	0.2
EDC	1.36	322	ePn	22	12.00	0.6
GPA	1.44	45	ePn	22	12.00	-0.6
HRT	1.62	19	ePn	22	16.00	0.7
S.D. = 0.7		on	7 of	7	obs.	

? APR 22, 1989 23h 33m 46.70± 8.38s
38.892 N ±18.5km 18.116 E ±72.2km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
ML 3.1 (ATH).

VLS	2.07	109	ePg	34	17.00	-4.9X
OHR	3.03	42	ePn	34	34.80	-0.8
KZN	3.16	62	ePn	34	39.00	1.5
ITM	3.46	118	ePb	34	42.00	0.3
SKO	3.99	38	ePn	34	59.90	10.7X
NEO	4.00	82	ePb	34	48.00	-1.3
VAY	4.19	53	ePn	34	52.30	0.3
PLG	4.37	69	ePn	34	54.70	0.0
S.D. = 1.3		on	6 of	8	obs.	

% APR 22, 1989 23h 56m 54.92± 0.96s
39.219 N ±12.2km 28.845 E ±14.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.42	337	iPg	57	03.10	-0.4
			eSg	57	10.10	
ALT	1.00	99	ePg	57	14.00	0.1
			eSg	57	27.00	
KHL	1.04	149	ePn	57	14.50	-0.1
KCT	1.09	340	iPn	57	20.90	5.4X
BNT	1.34	328	iPn	57	19.90	0.3
EDC	1.36	326	ePn	57	20.00	0.2
S.D. = 0.4		on	5 of	6	obs.	

% APR 23, 1989 00h 18m 02.19± 0.68s
39.304 N ± 6.5km 29.024 E ± 7.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.43	315	iPg	18	09.90	-1.1
ALT	0.88	106	ePg	18	18.50	-0.7
KHL	1.05	158	iPg	18	22.00	-0.1
			iSg	18	36.00	
KCT	1.07	332	iPg	18	20.90	-1.5
BNT	1.35	321	iPn	18	27.40	0.4
EDC	1.37	320	iPn	18	26.80	-0.5
GPA	1.40	45	ePn	18	27.80	0.1
HRT	1.59	18	ePn	18	30.00	-0.5
IZM	1.65	237	ePn	18	32.00	0.7
ISK	1.76	1	ePn	18	34.00	1.1
CTT	1.90	346	ePn	18	37.00	2.1
S.D. = 1.2		on	11 of	11	obs.	

APR 23, 1989 00h 35m 50.89± 0.53s
21.199 N ± 6.5km 119.558 E ± 8.0km
DEPTH = 33.0km (normal)
4.1mb (4 obs.)
TAIWAN REGION (243)

QZH	3.83	347	ePn	36	47.00	-1.9
Z	12s		2.17um			
N	10s		1.56um			
			Sn	37	26.60	
ANP	4.36	24	eP	36	54.80	-1.8
BAG	4.86	168	eP	37	03.00	-0.8
GZH	6.06	289	Pn	37	17.30	-3.3X
E	10s		1.80um			
QIZ	9.38	258	eP	38	05.00	-1.9
E	15s		1.70um			
			eS	39	51.00	
SSE	9.96	8	e(P)	38	12.50	-2.3X
Z	18s		0.50um			
E	13s		0.60um			
			Lg	40	47.50	
GYA	12.91	296	P	38	54.60	-0.3
N	12s		0.80um			
E	12s		0.80um			
			S	41	26.40	
TIA	15.11	352	eP	39	24.70	1.1

23d 00h

	E	12s	0.70um			
XAN		15.87	326 P	39	38.40	4.9X
	N	10s	0.06um			
	E	11s	0.70um			
CD2		17.16	308 P	39	52.20	2.4X
BJI		19.00	352 eP	40	12.00	-0.4
	Z	14s	0.41um			
	N	11s	0.30um			
CHG		19.52	267 eP	40	26.50	7.9X
LZH		20.21	321 eP	40	26.00	0.0
		2.0s	55.00nm		4.6mb	
	Z	10s	0.80um		4.4MszX	
HHC		20.73	343 eP	40	32.00	0.7
SNY		20.85	8 eP	40	33.40	1.1
BTO		20.97	339 eP	40	32.00	-1.7
	Z	10s	0.50um		4.2MszX	
	N	10s	0.50um			
	E	10s	0.30um			
			eS	44	27.00	
CN2		23.07	11 eP	40	50.40	-4.0X
	Z	16s	0.80um		4.3MszX	
MDJ		24.79	17 eP	41	14.00	2.9X
GTA		24.81	321 eP	41	12.00	0.5
	Z	15s	0.30um		3.9MszX	
	E	12s	0.50um			
GUN		31.28	289 P	42	11.00	0.4
PKI		31.67	288 P	42	14.80	0.8
KKN		31.80	289 P	42	15.80	0.8
DMN		31.94	288 P	42	17.00	0.7
GKN		32.39	289 P	42	20.00	0.0
WB5		43.32	159 eP	44	00.30	8.7X
WRA		43.37	160 Pd	43	52.00	0.0
		0.2s	0.50nm		3.9mb	
FBA		72.14	27 eP	47	13.20	-0.6
		1.0s	3.00nm		4.2mb	
SUF		72.93	331 eP	47	19.00	0.5
MBC		76.48	12 eP	47	39.00	0.3
INK		76.54	21 eP	47	39.00	-0.1
NB2		80.15	332 P	48	00.00	1.0
		0.8s	1.50nm		4.0mb	
KSP		81.82	321 eP	48	10.40	2.4X
YKA		86.29	22 P	48	32.20	1.8
	S.D. = 1.1		on 24 of 33 obs.			

? APR 23, 1989 01h 51m 00.16± 0.92s
37.724 N ± 7.9km 15.007 E ± 8.2km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO		0.32	310 Pc	51	06.90	0.0
ATN		0.57	39 P	51	11.70	0.1
MEU		0.62	186 P	51	12.80	0.0
			eSn	51	22.60	
SOI		0.90	67 P	51	17.30	-0.1
			eSn	51	31.80	
	S.D. = 0.1		on 4 of 4 obs.			

APR 23, 1989 02h 25m 05.36± 0.29s
39.224 N ± 3.1km 23.648 E ± 2.7km
DEPTH = 10.0km (geophysicist)
4.1mb (6 obs.)
AEGEAN SEA (365)
ML 4.1 (ATH).

NEO		0.34	284 ePb	25	12.00	-0.4
PAIG		0.70	2 iPgc	25	20.90	1.7
			iSg	25	31.80	
PLG		1.16	352 ePg	25	27.70	0.7
ATH		1.25	178 ePb	25	28.10	-0.5
			eSb	25	44.00	
LIT		1.25	315 iPbd	25	28.60	0.0
			iSb	25	44.50	
THE		1.50	340 iPbd	25	32.50	0.2
			iSb	25	51.40	
SOH		1.61	352 iPbc	25	34.80	0.8
KZN		1.81	307 iPbd	25	36.90	0.1
SRS		1.89	359 ePnc	25	38.40	0.4
			eSn	26	01.40	
GRG		1.98	331 ePnc	25	39.40	0.1
			eSn	26	03.80	
KNT		2.02	344 ePnc	25	40.70	0.9
			eSn	26	05.60	
PRK		2.04	89 ePb	25	40.10	0.0
VAY		2.25	339 iPn	25	42.70	-0.5
MMB		2.36	1 iPc	25	44.00	-0.8
RDO		2.40	36 ePn	25	44.60	-0.7
ITM		2.45	214 ePn	25	46.00	0.0
LSK		2.53	292 iPnd	25	47.50	0.3
KBN		2.59	304 iPnd	25	48.00	0.0
RZN		2.59	18 iPc	25	48.00	-0.2
VLS		2.61	247 ePn	25	48.70	0.4
KKB		2.67	351 iPc	25	49.00	-0.2
KDZ		2.77	29 iPc	25	50.00	-0.6
OHR		2.88	312 iPn	25	52.20	0.0
IZM		2.94	105 iPn	25	53.50	0.5
PLD		2.99	15 iPc	25	54.00	0.4
TPE		3.00	292 iPnd	25	56.50	2.7X
DIM		3.17	26 iP	25	56.00	-0.1
SKO		3.22	329 iPnd	25	57.30	0.4
PGB		3.35	7 iPc	25	58.00	-0.8
VTS		3.38	354 iPc	26	00.00	0.6
EDC		3.44	70 ePn	26	00.30	0.3
PHP		3.47	316 ePn	26	01.40	1.0
BNT		3.48	70 iPn	26	01.40	0.8
TIR		3.59	307 ePn	26	03.70	1.6
KCT		3.77	73 ePn	26	05.00	0.2
VAM		3.84	173 ePn	26	06.20	0.5
DST		3.88	83 ePn	26	07.50	1.2
JMB		3.93	34 eP	26	05.00	-2.0
DMK		4.07	49 iPn	26	07.90	-1.0
BCI		4.15	320 ePn	26	10.10	0.0
PVL		4.19	17 iPc	26	09.00	-1.6
YER		4.21	118 iPn	26	11.10	0.1
SDA		4.21	313 ePn	26	13.40	2.4
NPS		4.25	158 ePn	26	13.00	1.3
LCI		4.53	286 Pd	26	13.10	-2.3
KAP		4.62	141 ePn	26	16.10	-0.7
KHL		4.68	99 ePn	26	18.00	0.2
HRT		4.89	69 ePn	26	20.00	-0.7
ALT		5.03	90 eP	26	23.00	0.3
BRT		5.21	291 Pc	26	24.40	-0.9
DRA		5.47	5 iPd	26	28.00	-0.8
ELL		5.53	115 eP	26	32.10	2.3
PSN		5.61	36 eP	26	29.00	-1.8
TDS		5.68	277 P	26	32.70	0.9
BCK		5.73	106 iP	26	33.00	0.3
BEO		6.08	338 eP	26	33.50	-3.8X
COZ		6.11	5 ePd	26	37.00	-1.0
CMP		6.13	9 ePd	26	40.00	1.9
GZR		6.20	354 ePd	26	40.00	0.9
MGR		6.31	281 P	26	40.00	-0.7
MLR		6.49	14 ePc	26	42.50	-0.9
SGO		6.55	284 P	26	42.70	-1.4
BZS		6.56	347 ePd	26	41.50	-2.7X
DEV		6.68	356 ePd	26	43.00	-2.9X
CFR		6.83	28 ePc	26	46.00	-1.9
BSS		6.97	286 Pc	26	48.90	-1.0
VRI		7.02	18 iPc	26	51.00	0.4
MEU		7.19	256 P	26	50.20	-2.9
CLI		7.79	19 iPc	27	01.00	-0.5
SDI		7.90	291 Pc	27	01.90	-1.1
PTJ		8.75	322 eP	27	12.90	-2.1
LPG		13.97	302 eP	28	33.20	7.4X
		0.7s	4.80nm		4.4mb	
SMF		16.27	304 eP	28	58.60	3.2X
LBF		16.30	305 eP	28	58.10	2.3
		0.7s	2.20nm		3.4mb	
SSF		16.63	305 eP	29	01.80	1.9
AVF		16.63	304 eP	29	01.80	1.8
		0.7s	2.20nm		3.4mb	
BGF		16.89	302 eP	29	05.00	1.8
		0.7s	6.60nm		3.9mb	
EKA		24.08	321 P	30	25.00	3.5X
		1.5s	21.20nm		4.5mb	
BNG		34.94	189 ePc	31	57.30	-2.2
		0.6s	7.00nm		4.7mb	
YKA		73.22	341 eP	36	39.40	1.5
	S.D. = 1.2		on 73 of 80 obs.			

APR 23, 1989 03h 00m 03.44± 0.77s
40.325 S ± 6.8km 175.997 E ± 7.1km
DEPTH = 41.7 ± 7.1 km
5.1mb (6 obs.)
NORTH ISLAND, NEW ZEALAND (159)

CNZ		1.18	343 P	00	26.20	2.4
WEL		1.34	224 iPd	00	25.40	-0.6
			S	00	41.00	
NEZ		1.80	305 P	00	35.00	2.3
			S	01	08.70	
TAZ		2.13	11 P	00	38.10	0.9
GNZ		2.30	44 P	00	38.20	-1.4
WTZ		2.46	19 P	00	41.60	-0.3
COB		2.60	252 Pc	00	42.70	-1.2
HBZ		3.26	34 P	00	51.90	-1.4
KKZ		3.54	208 P	00	42.80	-14.5X
CMZ		4.11	216 eP	01	05.30	0.0
			S	01	44.00	
GBZ		4.12	354 P	01	12.70	7.2X
DZM		19.92	333 iPc	04	34.00	-0.6
COO		21.86	289 eP	04	57.00	2.8X
CAN		21.87	275 eP	05	04.00	9.7X
BRS		23.12	297 iPc	05	09.60	2.9X
			i	05	17.90	
TOO		23.83	267 eP	05	14.40	0.9
		0.7s	22.00nm		4.8mb	
			i	05	24.40	
BFD		26.19	266 eP	05	36.00	0.2
			e	05	44.00	
ADE		29.85	268 iPc	06	08.90	-0.2
		0.8s	29.85nm		5.1mb	
CTA		32.43	300 eP	06	31.00	-0.8
QIS		36.70	292 eP	07	07.00	-1.4
PMG		40.05	312 eP	07	37.00	0.7
WRA		40.89	287 Pd	07	42.40	-0.8
		0.5s	18.50nm		5.1mb	
WB5		40.91	287 iPc	07	41.70	-1.7
MTN		47.87	292 iPd	08	38.20	-1.1
		0.7s	32.00nm		5.5mb	
SPA		49.87	180 iPd	08	55.60	1.2
		0.7s	15.23nm		5.1mb	
			i	09	05.60	
PEL		84.44	129 iPc	12	34.40	1.4
		0.9s	19.33nm		5.2mb	
YKA		116.49	29 ePKP	18	43.20	-0.1
MBC		123.19	15 ePKP	18	55.00	-0.7
		0.8s	14.00nm			
SHGH		145.57	187 ePKP	19	39.00	-0.2
KOGH		145.74	187 ePKP	19	40.00	0.5
KUK		145.86	186 ePKP	19	40.00	0.3
LIC		146.04	178 PKP	19	40.30	0.4
KIC		146.18	179 PKP	19	40.80	0.6
		0.9s	20.00nm			
KEV		146.34	341 ePKP	19	46.00	7.2X
TIC		146.45	178 PKP	19	41.46	0.8
KVT		149.81	285 ePKP	19	50.00	4.8X
SUF		151.25	331 iPKP	19	52.00	5.5X
		0.5s	3.50nm			
NUR		153.14	328 iPKP	19	57.10	7.8X
			e	20	06.00	
	S.D. = 1.1		on 29 of 38 obs.			

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* APR 23, 1989 03h 25m 32.06± 1.18s
31.739 S ± 9.8km 67.629 W ±10.4km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA		0.54	284 iPd	25	42.50	-0.4
ZON		0.92	282 iPc	25	49.00	-0.6
			eS	26	02.00	
PEL		2.94	241 iPc	26	21.50	1.8
			iS	27	02.70	
RFA		3.10	193 ePd	26	21.00	-1.0
CHCH		3.36	229 ePd	26	33.80	8.1X
CYA		3.65	26 ePc	26	30.00	0.2
LNV		3.88	234 eP	26	33.00	0.1
	S.D. = 1.3		on 6 of 7 obs.			

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* APR 23, 1989 03h 51m 57.23± 0.60s
39.052 N ±11.6km 72.655 E ±10.4km
DEPTH = 33.0km (normal)
4.5mb (6 obs.)
KIRGHIZ SSR (716)

MAIO		10.79	259 eP	54	32.00	-0.5
			eS	56	30.00	
NDI		11.01	159 iPc	54	41.50	6.0X
		0.5s	17.61nm		5.5mb X	
			iS	56	40.00	
GKN		14.86	134 P	55	26.50	-0.3
KKN		15.38	133 P	55	33.00	-0.7
		0.6s	13.00nm		4.3mb	
DMN		15.43	134 P	55	34.60	0.3
		0.5s	14.00nm		4.4mb	
PKI		15.63	133 P	55	35.30	-1.6
GUN		15.64	131 P	55	37.80	0.7
GTA		21.02	80 iPc	56	41.50	1.0
SHL		21.04	124 eP	56	42.30	1.6
			eS	00	34.00	
CD2		26.65	98 P	57	38.00	3.2X
MLR		34.76	296 ePc	58	49.00	2.5

SUF 36.50 326 iP 59 04.20 3.3X
NUR 36.58 322 eP 59 05.00 3.5X
KHC 42.61 304 eP 59 57.00 5.2X
NB2 43.17 321 P 59 55.00 -1.2
0.5s 0.80nm 3.7mb
BNG 59.78 249 ePc 02 10.40 8.8X
0.8s 6.00nm 4.8mb
MBC 64.73 3 eP 02 33.00 -0.8
0.5s 7.00nm 5.0mb
INK 71.18 10 eP 03 14.00 -0.1
FBA 71.65 17 eP 03 15.50 -1.6
1.0s 4.00nm 4.4mb
YKA 78.63 3 P 03 57.60 0.8
S.D. = 1.3 on 14 of 20 obs.

APR 23, 1989 04h 45m 29.70± 0.63s
63.271 N ± 6.4km 150.655 W ± 7.4km
DEPTH = 33.0km (normal)
CENTRAL ALASKA (1)
ML 3.3 (PMR).

PWA 1.67 167 eP 45 58.30 1.3
PMR 1.83 157 iPd 45 59.00 -0.3
eS 46 23.00
FBA 2.06 36 iPd 46 03.20 0.5
PMS 2.10 165 iPc 46 02.90 -0.3
TOA 2.38 118 iPd 46 06.50 -0.7
TTA 2.46 264 iPd 46 08.80 0.4
IMA 3.09 337 iPd 46 17.10 -0.4
SVW 3.18 229 ePd 46 18.00 -0.6
DWY 5.06 76 P 46 41.40 -3.8X
S.D. = 0.8 on 8 of 9 obs.

APR 23, 1989 05h 13m 52.93± 0.62s
35.921 N ± 7.6km 140.250 E ± 7.2km
DEPTH = 78.1 ± 5.9 km
4.3mb (2 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (I JMA) at Mito, Tokyo and Utsunomiyo.

KAKJ 0.29 348 iPd 14 04.00 -1.1
S 14 11.00
TOK 0.46 240 iPd 14 07.50 1.2
iS 14 17.70
MIT 0.49 21 iP+ 14 06.40 -0.1
S 14 15.40
CHJJ 1.03 277 iPd 14 11.70 -0.7
eS 14 26.80
NIIJ 1.66 323 P 14 20.30 -0.3
eS 14 42.20
MAT 1.76 291 iPd 14 22.20 0.1
iS 14 43.10
IIDJ 1.95 258 iPd 14 25.70 1.0
S 14 49.60
MTMJ 2.08 289 iPd 14 27.00 0.4
S 14 52.10
YAMJ 2.25 356 P 14 29.30 0.5
S 14 57.90
OFUJ 3.35 19 P 14 43.70 -0.3
S 15 22.40
TSRJ 3.49 265 P 14 46.60 0.6
WKYJ 4.18 247 P 14 56.20 0.5
S 15 41.10
TKSJ 5.45 251 eP 15 12.60 -0.7
YONJ 5.58 264 eP 15 14.20 -1.0
BJI 19.40 289 eP 18 11.00 -4.3X
WB5 55.77 187 eP 23 23.80 -0.2
INK 55.80 27 eP 23 25.00 1.3
WRA 55.84 187 Pc 23 24.00 -0.5
0.7s 2.30nm 4.3mb
GBA 60.19 265 Pc 23 54.50 -0.6
0.7s 1.70nm 4.3mb
S.D. = 0.8 on 18 of 19 obs.

? APR 23, 1989 05h 46m 41.00± 1.22s
16.661 S ±51.6km 173.789 W ±43.9km
DEPTH = 33.0km (normal)
4.6mb (5 obs.)
TONGA ISLANDS (173)

AFI 3.35 36 iPd 47 32.70 0.2
eS 48 07.50
ASPA 49.38 253 iPc 55 29.40 -0.3
0.8s 25.00nm 5.3mb
TNP 76.01 43 eP 58 26.20 -0.9
1.0s 10.00nm 4.8mb

PNT 81.27 32 eP 58 55.00 -0.2
0.7s 5.00nm 4.6mb
ALQ 81.89 50 eP 59 00.00 1.0
1.0s 3.00nm 4.3mb
BW06 83.46 42 eP 59 05.80 -1.2
1.0s 3.75nm 4.5mb
KSP 144.95 349 ePKP 06 16.00 -0.3
e 06 40.50
PRU 146.08 350 ePKP 06 20.00 1.7
e 06 42.50
KHC 147.06 351 ePKP 06 23.30 3.4X
S.D. = 1.1 on 8 of 9 obs.

APR 23, 1989 06h 10m 25.38± 0.40s
39.327 N ± 9.2km 73.214 E ± 8.6km
DEPTH = 33.0km (normal)
4.6mb (9 obs.)
TAJIK-XINJIANG BORDER REGION (719)

NDI 11.12 161 eP 13 08.00 2.8
0.5s 21.13nm 5.6mb X
eS 15 06.00
MAIO 11.27 259 eP 12 57.00 -10.2X
0.7s 6.35nm
eS 14 56.00
WMQ 11.74 63 Pd 13 15.90 2.3
Z 10s 0.40um
S 15 32.50
GKN 14.75 137 P 13 52.00 -1.5
KKN 15.26 135 P 13 58.40 -1.9
0.6s 14.00nm 4.4mb
DMN 15.31 136 P 13 59.40 -1.6
GUN 15.50 133 P 14 04.40 0.9
PKI 15.51 135 P 14 00.30 -3.3X
GTA 20.55 81 iPc 15 07.40 3.6X
SHL 20.84 126 iP 15 08.20 1.3
eS 19 04.00
GBA 25.89 171 P 16 02.00 6.0X
0.8s 9.70nm 4.5mb
CD2 26.26 99 eP 16 03.40 4.0X
VRI 34.44 296 ePc 17 12.50 0.7
MLR 35.03 296 iPc 17 16.50 -0.5
SUF 36.52 325 eP 17 29.00 -0.2
0.6s 4.70nm 4.6mb
NUR 36.63 322 eP 17 30.00 -0.1
KHC 42.82 304 P 18 23.40 1.7
LPG 48.20 300 eP 19 05.90 1.1
0.7s 3.30nm 4.5mb
LOR 49.58 303 eP 19 15.50 0.4
SSF 49.87 303 eP 19 17.50 0.2
AVF 50.05 303 eP 19 19.00 0.3
0.8s 4.50nm 4.5mb
MAF 50.75 302 eP 19 23.80 -0.2
LDF 51.71 306 eP 19 30.60 -0.6
GRR 52.24 306 eP 19 34.60 -0.6
0.8s 9.10nm 4.8mb
BNG 60.28 249 iPd 20 32.60 -0.6
1.0s 15.00nm 5.1mb
MBC 64.43 3 ePc 20 58.80 -1.2
0.6s 11.00nm 5.1mb
INK 70.83 10 eP 21 40.00 -0.2
FBA 71.26 17 eP 21 42.50 -0.4
1.0s 5.50nm 4.6mb
YKA 78.33 4 P 22 23.10 -0.2
WB5 82.02 124 eP 22 43.20 -0.4
FFC 86.23 357 eP 23 03.00 -1.5
S.D. = 1.2 on 26 of 31 obs.

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* APR 23, 1989 06h 45m 55.19± 0.48s
37.545 S ± 9.9km 176.255 E ±11.2km
DEPTH = 276.5 ± 5.1 km
4.4mb (4 obs.)
NORTH ISLAND, NEW ZEALAND (159)

TAZ 0.72 164 iPd 46 33.00 1.1
WTZ 0.73 127 P 46 31.80 -0.1
GBZ 1.46 335 P 46 37.20 1.1
S 47 12.60
HBZ 1.63 93 P 46 36.30 -0.9
CNZ 1.74 198 P 46 39.00 0.7
GNZ 1.77 129 P 46 37.80 -0.5
S 47 04.00
WEL 3.91 197 P 46 59.00 -0.6
S 47 49.00
COB 4.47 217 P 47 04.80 -1.2
S 48 00.00
DZM 17.60 328 iPc 49 43.10 -1.1

PMG 38.39 309 eP 52 52.00 0.3
ASPA 38.67 279 iPc 52 54.20 0.2
0.6s 16.00nm 4.6mb
FORR 40.03 265 eP 53 05.50 0.4
0.4s 11.00nm 4.6mb
WRA 40.34 284 Pc 53 07.40 -0.3
0.6s 6.50nm 4.2mb
WB5 40.36 284 iPc 53 07.70 -0.2
SPA 52.64 180 ePc 54 43.10 0.0
1.0s 9.00nm 4.2mb
KEV 143.77 342 ePKP 04 52.00 -5.6X
SOD 145.58 340 ePKP 04 58.00 -2.7
LIC 148.80 178 PKP 05 09.00 1.5
SUF 148.88 334 iPKP 05 06.20 0.1
0.4s 4.60nm
KIC 148.95 178 PKP 05 09.00 1.3
TIC 149.22 178 PKP 05 08.90 0.7
NUR 150.84 331 iPKP 05 11.80 2.7X
0.6s 17.00nm
S.D. = 1.1 on 20 of 22 obs.

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* APR 23, 1989 06h 47m 27.66± 2.52s
39.613 N ±19.8km 22.792 E ± 8.5km
DEPTH = 10.0km (geophysicist)
GREECE (364)

LIT 0.54 335 ePg 47 37.80 -0.8
iSg 47 48.80
PAIG 0.75 65 ePg 47 42.20 -0.2
THE 1.03 7 ePb 47 47.60 0.6
SOH 1.28 19 ePb 47 51.60 0.1
GRG 1.38 348 ePb 47 53.60 0.7
eSb 48 14.80
KNT 1.55 3 ePn 47 55.20 -0.1
eSn 48 18.80
SRS 1.62 22 ePn 47 55.90 -0.5
eSn 48 20.00
OHR 2.14 315 ePn 48 04.00 0.1
S.D. = 0.6 on 8 of 8 obs.

? APR 23, 1989 07h 08m 22.01± 1.02s
23.807 N ±33.9km 93.698 E ±27.3km
DEPTH = 33.0km (normal)
BURMA-INDIA BORDER REGION (294)

SHL 2.41 317 iP 09 00.00 -0.1
eS 09 41.80
CHG 6.97 134 eP 10 04.50 0.0
GUN 8.14 302 P 10 22.00 0.8
PKI 8.36 298 P 10 24.50 0.2
0.4s 12.00nm 5.4mb
KKN 8.56 299 P 10 26.80 -0.1
DMN 8.62 298 P 10 27.60 -0.2
GKN 9.16 299 P 10 34.50 -0.7
S.D. = 0.5 on 7 of 7 obs.

? APR 23, 1989 07h 44m 06.27± 8.91s
42.158 N ±62.5km 22.688 E ±21.5km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
ML 1.8 (SKO).

VAY 0.84 186 iPg 44 22.60 0.1
iSg 44 29.70
KNT 1.01 171 iPgc 44 24.80 -0.6
iSg 44 32.70
GRG 1.22 190 ePg 44 29.60 0.6
eSg 44 40.90
SRS 1.24 147 ePg 44 29.40 0.1
eSg 44 41.20
SOH 1.43 159 ePg 44 32.70 0.5
eSg 44 45.60
LIT 2.06 184 e(Pb) 44 40.70 -0.7
S.D. = 0.7 on 6 of 6 obs.

APR 23, 1989 07h 50m 30.40± 1.06s
14.826 S ± 6.8km 166.692 E ± 5.6km
DEPTH = 61.1 ± 8.9 km
5.0mb (14 obs.)
VANUATU ISLANDS (186)

PVC 3.29 152 iP 51 22.00 1.4
iS 52 01.00
DZM 7.21 182 iPd 52 11.40 -4.2X
iS 53 33.00
HNR 8.50 308 eP 52 33.00 -0.3
eS 54 06.00

23d 07h

SVO	8.78	309	eP	52	38.00	0.8
			eS	54	14.00	
VSG	8.79	308	eP	52	36.00	-1.4
			eS	54	15.00	
BRS	18.00	224	iPc	54	42.00	4.0X
CTA	20.18	252	iPd	55	02.90	0.3
	1.1s	18.35nm			4.3mb	
BWA	25.55	217	eP	55	54.30	-0.9
			i	56	00.60	
QIS	26.41	254	eP	56	03.00	-0.2
WB5	31.23	256	eP	56	45.10	-1.4
WRA	31.26	256	Pd	56	45.40	-1.3
	1.2s	15.40nm			4.6mb	
ASPA	32.12	249	iPc	56	52.90	-1.4
Z	21s	1.21um			4.6Msz	
		LR		0B	34.20	
MTN	34.56	269	eP	57	15.50	0.0
KNA	36.56	263	eP	57	30.50	-1.9
FORR	38.75	239	iPd	57	51.00	0.4
	0.5s	14.00nm			5.1mb	
AFR	41.83	100	iP	58	16.80	0.7
	1.0s	30.00nm			5.0mb	
PAE	42.01	100	iP	58	18.20	0.6
	1.0s	25.00nm			4.9mb	
PPT	42.02	100	iP	58	18.40	0.7
	1.0s	55.00nm			5.3mb	
TVO	42.32	100	iP	58	19.60	-0.6
	1.0s	45.00nm			5.2mb	
SBA	63.04	180	Pd	00	53.90	1.0
NJ2	65.36	316	Pd	01	08.80	0.2
WHN	67.59	312	P	01	23.00	0.1
DL2	68.04	323	eP	01	27.00	1.5
MDJ	68.10	332	eP	01	25.50	-0.3
PSI	69.29	279	eP	01	33.00	-0.7
CN2	69.44	329	Pc	01	33.50	-0.5
GYA	71.31	305	P	01	46.00	0.0
BJI	71.99	321	ePc	01	49.50	0.0
TIY	72.95	318	Pc	01	56.00	0.6
KMI	73.88	302	Pc	02	03.00	1.8
CHG	74.61	295	ePc	02	06.30	1.0
	1.0s	11.25nm			4.8mb	
SPA	75.27	180	e(P)	02	08.00	-0.5
	1.0s	14.50nm			4.9mb	
HHC	75.30	320	eP	02	09.40	0.5
CD2	75.63	308	P	02	11.70	0.8
BTO	76.13	319	eP	02	14.40	0.8
LZH	77.97	313	eP	02	25.50	1.5
	2.0s	110.00nm			5.5mb	
TTA	82.77	16	eP	02	48.30	-0.6
SHL	83.12	299	iP	02	52.80	1.2
PMR	83.78	20	eP	02	53.00	-0.9
	1.4s	0.90nm			3.6mb	X
IMA	85.89	15	eP	03	04.20	-0.4
	1.2s	23.40nm			5.2mb	
FBA	86.61	18	eP	03	06.00	-2.0
KVN	88.13	49	eP	03	14.80	-1.2
TNP	88.44	50	eP	03	16.50	-1.1
GUN	88.95	299	P	03	20.80	0.3
PKI	89.25	299	P	03	22.00	0.2
KKN	89.43	299	P	03	23.00	0.5
	0.8s	22.00nm			5.5mb	
BRW	89.44	11	eP	03	21.20	-0.1
DMN	89.52	299	P	03	23.60	0.6
EUR	89.83	49	iP	03	23.00	-1.2
	0.6s	2.56nm			4.7mb	
GKN	90.03	299	P	03	25.20	-0.1
PNT	90.83	39	eP	03	27.00	-1.3
WMQ	92.40	315	P	03	36.50	0.8
GBA	92.71	283	Pd	03	38.70	1.2
	0.6s	4.20nm			5.0mb	
YKA	97.89	27	P	03	59.00	-1.2
SUF	124.73	339	iPKP	09	23.60	-0.6
	0.6s	3.10nm				
BUL	126.09	231	ePKP	09	27.90	-0.5
NUR	126.75	338	ePKP	09	28.00	-0.2
PPD	127.75	134	ePKP	09	29.80	-1.6
SPC	136.11	328	ePKP	09	48.20	1.5
BRG	137.86	334	e(PKP)	09	50.50	0.8
	1.4s	17.00nm				
ZST	138.33	329	e(PKP)	09	51.20	0.6
KHC	139.32	333	PKP	09	54.00	1.6
HAU	143.13	338	ePKP	09	57.60	-1.6
SOB1	143.69	129	ePKP	10	00.70	-0.4
VAI	143.91	334	PKP	09	51.70	-8.8X
TDS	144.14	319	PKP	09	59.90	-1.2
FIR	144.34	329	ePKP	10	00.00	-1.3
ORX	144.44	334	PKP	09	59.27	-2.3X
FLN	144.55	345	ePKP	10	00.20	-1.3
	0.9s	18.00nm				
LDF	144.62	345	ePKP	10	00.10	-1.5
	1.0s	24.00nm				
LOR	144.64	340	ePKP	10	01.00	-0.8
	1.0s	19.00nm				
LBF	144.84	339	ePKP	10	01.50	-0.7
	1.1s	36.65nm				
LSD	144.92	335	PKP	10	02.24	-0.4
SSF	144.93	340	iPKPc	10	01.90	-0.4
	1.1s	76.90nm				
GRR	144.99	345	iPKPc	10	01.70	-0.6
	0.9s	39.30nm				
LPG	145.06	335	iPKPc	10	02.80	-0.1
	0.9s	34.40nm				
RSP	145.13	334	PKP	10	00.70	-2.1
SMF	145.18	339	iPKPc	10	02.40	-0.3
	1.2s	74.40nm				
AVF	145.22	340	iPKPc	10	02.40	-0.3
	1.1s	48.85nm				
LPF	145.37	345	iPKPc	10	03.00	0.1
	1.1s	58.60nm				
BNI	145.45	335	PKPc	10	03.80	0.4
FIN	145.46	332	PKP	10	02.55	-0.7
RRL	145.51	334	PKP	10	03.88	0.2
ROB	145.54	333	PKP	10	02.86	-0.6
BGF	145.59	340	iPKPc	10	03.80	0.4
	1.0s	60.00nm				
PZZ	145.71	334	PKP	10	01.73	-2.1
ITR	145.81	132	ePKP	10	03.10	-1.6
IMI	145.84	332	PKP	10	03.37	-0.6
PLDF	145.85	339	PKP	10	04.93	1.0
AGO	145.94	339	PKP	10	04.85	0.8
MAF	145.98	340	iPKPc	10	05.10	1.0
	1.3s	63.20nm				
TCF	146.04	341	iPKPc	10	05.40	1.2
	1.3s	54.15nm				
SBF	146.08	333	iPKPc	10	05.20	0.8
	0.9s	42.60nm				
PYM	146.25	339	PKP	10	06.10	1.5
LSF	146.29	341	iPKPc	10	05.90	1.3
	0.9s	26.20nm				
CVF	146.41	330	ePKP	10	05.90	1.0
	1.0s	46.00nm				
MFF	146.46	343	iPKPc	10	06.40	1.6
	0.7s	26.45nm				
LBL	146.61	339	PKP	10	07.59	2.5
FRF	146.66	333	iPKPc	10	06.80	1.6
	0.9s	47.50nm				
LRG	146.87	333	iPKPc	10	07.80	2.3
	1.4s	113.25nm				
LMR	146.91	333	iPKPc	10	07.70	2.1
	1.3s	90.25nm				
BNG	146.99	255	ePKPd	10	06.10	-0.6
	0.3s	30.00nm				
			ic	10	08.40	
			ic	10	51.50	
RJF	147.14	341	iPKPc	10	08.70	2.8X
	1.3s	68.60nm				
CAF	147.29	340	ePKP	10	09.40	3.2X
	1.1s	30.50nm				
LFF	147.71	341	iPKPc	10	10.20	3.4X
	1.1s	39.05nm				
LPO	147.80	340	iPKPc	10	10.50	3.5X
	0.9s	29.50nm				
EPF	149.55	340	iPKPc	10	15.30	5.4X
	0.9s	13.90nm				

S.D. = 1.1 on 98 of 107 obs.

% APR 23, 1989 07h 55m 02.43± 2.19s
36.081 N ±11.7km 1.657 W ±20.3km
DEPTH = 10.0km (geophysicist)
WESTERN MEDITERRANEAN SEA (387)
MG 3.1 (MDD).

ENIJ	1.00	333	iPnd	55	20.70	-0.6
			iSn	55	31.80	
EMEL	1.31	234	iPnc	55	26.60	-0.1
			eSn	55	42.00	
EALH	1.78	6	ePn	55	33.20	-0.3
			eSn	55	51.60	
AFC	1.92	308	ePn	55	35.60	0.0
EVIA	2.64	345	ePn	55	46.50	0.6
			eSn	56	15.70	
EBAN	2.69	321	ePn	55	46.80	0.3
			eSn	56	17.00	
TOL	4.24	334	ePg	56	27.00	18.5X
			eSg	57	16.00	

S.D. = 0.6 on 6 of 7 obs.

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* APR 23, 1989 08h 27m 49.46± 0.59s
58.730 S ±15.8km 25.261 W ±11.9km
DEPTH = 33.0km (normal)
5.2mb (5 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

PEL	39.52	290	iPd	35	18.80	0.2
	0.6s	26.67nm			5.2mb	
			e	35	32.50	
PPD	41.15	322	eP	35	31.30	-0.7
SOB1	50.83	340	eP	36	48.50	-0.2
ITR	50.86	343	ePc	36	48.80	-0.1
BUL	54.48	69	iPd	37	15.20	-0.9
LIC	66.75	22	Pc	38	39.90	0.5
	0.6s	11.50nm			5.2mb	
KIC	66.94	22	Pc	38	40.98	0.4
	0.7s	11.00nm			5.1mb	
TIC	67.16	22	Pc	38	42.34	0.3
	0.7s	12.00nm			5.1mb	
BNG	71.95	47	iPd	39	11.60	0.2
	0.6s	23.00nm			5.4mb	
			ic	39	36.10	
NB2	122.76	20	PKP	46	41.50	-0.4
	1.0s	2.40nm				
DMN	123.67	92	PKP	46	45.20	0.1
GKN	123.74	91	PKP	46	44.90	-0.2
PKI	123.80	92	PKP	46	45.30	-0.1
FRB	126.53	338	ePKP	46	49.00	-0.1
YKC	138.78	315	ePKP	47	11.00	-1.3
YKA	138.84	315	ePKP	47	12.60	0.2
MBC	146.86	334	ePKP	47	28.00	2.0
	0.7s	20.00nm				
INK	148.52	317	iPKPd	47	32.30	3.5X

S.D. = 0.8 on 17 of 18 obs.

? APR 23, 1989 08h 45m 28.76± 9.75s
17.354 N ±64.7km 61.103 W ±36.5km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.1 (FDF).

SEG	1.02	202	eP	45	48.28	0.2
			S	46	05.50	
DEG	1.04	178	eP	45	47.90	-0.5
MGH	1.24	240	eP	45	51.60	-0.2
			S	46	10.60	
PAG	1.43	203	eP	45	54.80	0.0
			S	46	16.50	
BBL	1.86	191	eP	46	01.30	0.4

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

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* APR 23, 1989 08h 47m 06.50± 0.90s
5.611 S ±14.6km 151.149 E ±12.5km
DEPTH = 10.0km (geophysicist)
4.0mb (1 obs.)
NEW BRITAIN REGION (192)

RAB	1.74	36	iPc	47	36.70	-0.2
	0.6s	2240.00nm				
			iS	47	54.10	
BGA	4.05	98	eP	48	14.00	4.1X
LAT	4.25	256	eP	48	24.50	11.7X
PAA	4.37	99	eP	48	15.00	0.4
			eS	48	45.00	
LMG	4.43	222	eP	49	12.00	56.6X
PMG	5.47	226	eP	48	42.50	12.4X
	0.7s	61.64nm				
WB5	21.62	228	iPc	51	59.10	0.1
WRA	21.68	227	P	52	01.00	1.4
	0.3s	2.10nm			4.0mb	
BRS	21.72	176	iPd	51	59.40	-0.5
ASPA	24.46	221	eP	52	25.70	-1.1

S.D. = 1.1 on 6 of 10 obs.

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* APR 23, 1989 08h 50m 34.03± 0.76s
44.197 N ± 8.5km 17.772 E ±12.3km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.7 (TTG).

BRY	1.41	156	ePg	50	58.40	-1.5
			eSg	51	19.50	
PLE	1.46	126	ePg	50	58.80	-1.7
			eSg	51	19.00	

NKY	1.65	147	ePn	51	02.00	-1.2
			eSn	51	26.10	
HCY	1.83	163	ePn	51	06.60	0.9
			eSn	51	32.60	
BEO	2.02	71	ePn	51	09.50	1.0
			eSg	51	36.50	
IVA	2.04	130	ePn	51	09.40	0.6
			eSn	51	37.50	
BDV	2.06	158	ePn	51	10.60	1.5
			eSn	51	39.40	
TTG	2.07	148	ePn	51	09.50	0.2
			eSn	51	38.00	
PTJ	2.13	324	eP	51	09.70	-0.5
PVY	2.27	134	ePn	51	11.50	-0.7
			eSn	51	41.00	
BCI	2.48	137	ePn	51	17.40	2.3X
ULC	2.48	154	ePn	51	16.50	1.4
			eSn	51	51.50	
SDA	2.52	149	ePn	51	18.50	2.9X
LACI	2.93	150	ePn	51	25.00	3.6X
TRI	3.22	299	e(Pn)	51	34.60	9.0X
			i(Pg)	51	38.60	
			i(Sg)	52	12.00	
			i	52	21.60	
OHR	3.81	143	ePn	51	31.20	-2.8X
KHC	5.72	331	P	52	01.20	0.2

S.D. = 1.2 on 12 of 17 obs.

? APR 23, 1989 10h 51m 51.01± 5.72s
31.978 S ±30.7km 71.713 W ±46.3km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

PEL	1.45	144	iPc	52	15.00	-0.2
			iS	52	31.40	
SAN	1.72	149	eP	52	19.00	-0.1
LNV	1.99	173	iP	52	22.80	-0.1
			iS	52	50.00	
CHCH	2.14	156	iPd	52	25.60	0.4
			iS	52	50.80	
ZON	2.62	81	eP	52	32.00	0.0
			eS	52	49.00	

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

% APR 23, 1989 11h 49m 14.31± 1.15s
16.944 N ±11.6km 61.637 W ±12.7km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.6 (FDF).

ANG	0.28	319	eP	49	21.98	0.2
SEG	0.55	167	eP	49	26.02	0.4
			S	49	35.30	
MGH	0.60	248	eP	49	26.00	-0.3
			S	49	36.40	
DEG	0.84	138	eP	49	29.32	-0.4
			S	49	42.00	
PAG	0.91	183	eP	49	31.00	0.2
			S	49	44.50	

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

& APR 23, 1989 12h 18m 05.13s
59.740 N 152.829 W
DEPTH = 90.3km
SOUTHERN ALASKA (2)
<AGS-P>.

OPT	0.22	247	iP	18	18.00	1.1
			eS	18	26.64	
ILIM	0.35	349	P	18	18.51	-0.6
AUL	0.47	221	iP	18	19.48	-0.4
HOM	0.61	97	iP	18	20.71	-0.3
			eS	18	34.40	
XLV	0.63	116	iP	18	20.50	-0.8
			eS	18	33.66	
RED	0.68	2	iP	18	21.00	-0.8
			eS	18	33.43	
PDB	0.69	275	iP	18	21.05	-0.8
			iS	18	33.14	
NNL	0.83	68	iP	18	23.44	0.2
CNPM	0.84	104	iP	18	22.59	-0.8
			iS	18	36.22	
RDT	0.86	14	iP	18	22.88	-0.8
			iS	18	36.82	
CDD	0.91	208	eP	18	23.04	-1.2
			eS	18	38.22	
BRLK	0.98	88	iP	18	23.95	-1.0
			eS	18	39.07	
NKA	1.28	38	iP	18	29.50	1.0
SPU	1.50	15	iP	18	30.43	-0.9
			iS	18	50.16	
SLKM	1.52	58	iP	18	30.21	-1.3
CRP	1.57	12	iP	18	31.64	-0.7
CGLM	1.62	14	iP	18	32.22	-0.8
SEW	1.74	76	eP	18	33.13	-1.3
SVW	1.95	316	iP	18	35.64	-1.6
SUA	2.01	30	iP	18	37.55	-0.6
PMS	2.21	46	iP	18	39.92	-0.9
SKT	2.34	15	iP	18	41.20	-1.2
PWA	2.40	36	eP	18	42.39	-0.9
PLRM	2.60	43	eP	18	44.01	-2.0
MTU	2.62	82	eP	18	45.26	-1.1
KNIM	2.63	74	iP	18	43.74	-2.6
PME	2.66	43	eP	18	45.18	-1.6
KNK	2.73	50	eP	18	45.75	-2.1
GHO	2.80	42	eP	18	46.87	-1.9
GLI	3.07	66	iP	18	50.45	-2.1
HIN	3.24	76	eP	18	52.20	-2.6
MID	3.32	93	eP	18	54.67	-1.1
FID	3.32	70	eP	18	53.35	-2.6
VZW	3.38	64	eP	18	54.03	-2.8
VLZ	3.51	64	eP	18	56.59	-1.9
TTA	3.55	336	iP	18	57.03	-2.1
CVA	3.63	74	eP	18	57.11	-3.0
			eS	19	37.40	
KLU	3.83	60	iP	19	00.34	-2.7
SGAM	3.89	75	eP	19	00.61	-3.1
			eS	19	44.10	
TOA	4.02	51	iP	19	04.01	-1.7
RAGM	4.14	77	eP	19	03.82	-3.4
GLB	4.76	65	eP	19	12.85	-3.1
BALM	5.36	71	eP	19	21.02	-3.3
FBA	5.68	22	eP	19	26.52	-2.1
CTGM	5.84	73	eP	19	28.93	-2.0
PCA	6.33	81	eP	19	35.21	-2.5
DWY	7.66	50	P	19	53.00	-2.8
HYT	7.69	75	P	19	54.40	-2.0

48 obs. associated

? APR 23, 1989 12h 54m 05.52±13.10s
17.918 N ±60.4km 65.745 W ±56.6km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.41	343	P	54	13.90	0.1
SJG	0.43	297	iP	54	14.50	0.2
			S	54	23.10	
CSB	0.54	313	P	54	16.30	-0.1
			S	54	24.30	
APR	1.08	300	P	54	25.70	-0.1

S.D. = 0.3 on 4 of 4 obs.

APR 23, 1989 13h 03m 10.99± 1.11s
36.183 N ± 9.2km 139.132 E ± 6.8km
DEPTH = 73.3 ± 15.7 km
HONSHU, JAPAN (227)

CHJJ	0.17	219	iPd	03	22.30	0.3
			eS	03	30.80	
MAT	0.83	296	iPc	03	27.40	-0.4
			eS	03	40.00	
KAKJ	0.84	88	iP+	03	27.50	-0.4
			S	03	40.00	
NIIJ	1.06	354	iPd	03	30.70	0.1
			S	03	45.70	
MTMJ	1.14	291	iP+	03	31.80	0.0
IIDJ	1.21	235	iPd	03	33.10	0.4
			S	03	49.60	
YAMJ	2.11	20	iPd	03	45.10	0.3
TSRJ	2.64	257	P	03	51.90	-0.2
OFUJ	3.52	34	P	04	04.60	0.2
			S	04	46.80	

S.D. = 0.4 on 9 of 9 obs.

• APR 23, 1989 13h 47m 21.99± 0.51s
16.570 S ±18.9km 172.250 W ±12.4km
DEPTH = 33.4km (8 depth phases)
5.0mb (12 obs.) 5.0Msz (2 obs.)
SAMOA ISLANDS REGION (169)

AFI	2.68	10	eP	47	54.50	-9.4X
			eS	48	06.10	
			e	51	00.00	
RAR	12.68	113	P	50	20.00	-2.8X
			S	53	16.00	
DZM	20.83	251	iPc	52	03.10	-0.3
COO	35.53	240	iPc	54	17.20	-0.9
CMS	40.81	241	iPc	55	01.70	-0.4
ASPA	50.81	253	iPc	56	19.30	-2.3
	0.8s		24.00nm			5.2mb
	Z 18s		1.95um			5.1Msz
			LR	16	48.00	
BCH	71.38	43	P	58	41.00	0.0
FRI	72.71	42	eP	58	48.30	-0.4
			e	58	59.00	35km
CMB	72.92	41	eP	58	50.00	0.0
			e	59	00.40	33km
SPA	73.54	180	ePc	59	05.30	12.0X
	1.0s		17.50nm			
TMO	74.09	43	P	58	58.50	1.4
YMT5	74.77	43	P	59	01.30	0.4
TMBR	74.89	43	P	59	02.00	0.4
TNP	74.95	42	P	59	01.00	-1.0
	1.0s		17.50nm			5.0mb
			pP	59	12.00	36km
KVN	74.96	41	P	59	01.50	-0.5
			pP	59	12.00	34km
SHRG	75.41	44	P	59	02.00	-2.6
EUR	76.56	41	iP	59	11.20	0.1
	0.6s		1.92nm			4.3mb
PMR	80.05	11	P	59	27.90	-1.5
	1.0s		17.50nm			5.0mb
TTA	80.26	7	P	59	29.80	-0.8
	1.0s		17.50nm			5.0mb
PNT	80.41	32	eP	59	32.00	0.4
	0.9s		19.00nm			5.1mb
			pP	59	42.00	32km
ALQ	80.71	49	P	59	34.50	0.7
	1.1s		10.31nm			4.7mb
			pP	59	45.00	33km
LRM	82.26	38	eP	59	42.20	0.5
BW06	82.41	41	P	59	42.00	-0.5
	1.0s		8.00nm			4.7mb
CN2	82.69	320	eP	59	43.60	0.0
			pP	59	54.00	33km
			eSKS	09	56.00	
SNY	82.88	317	eP	59	43.40	-1.2
FBA	83.34	10	P	59	44.90	-1.6
	1.0s		42.50nm			5.5mb
IMA	83.57	8	P	59	47.00	-0.8
	1.0s		7.50nm			4.8mb
GOL	83.67	46	P	59	50.00	0.9
	1.0s		25.00nm			5.3mb
			pP	00	00.00	32km
EDM	85.91	31	ePd	59	58.80	-0.9
BJI	87.07	313	eP	00	05.00	-0.6
			eS	10	48.00	
TIY	88.85	310	eP	00	15.00	0.7
	Z 18s		0.40um			4.9Msz
			S	11	04.50	
INK	89.14	13	eP	00	14.00	-0.9
GYA	89.56	298	P	00	20.00	2.0
PSI	89.63	273	ePc	00	01.40	-17.0X
XAN	90.21	305	eP	00	21.00	0.3
PEL	90.41	125	ePc	00	26.20	4.4X
	0.8s		12.69nm			5.3mb
YKA	90.73	23	eP	00	23.00	0.6
CHG	94.12	288	eP	00	41.00	2.0
ZOBO	98.39	110	(P)	00	57.00	-2.1
			S	11	48.00	
			LR	33	50.00	
AVY	127.18	230	ePKP	06	06.60	-19.1X
CLL	145.09	354	ePKP	06	57.00	-0.5
KSP	145.13	351	ePKP	06	57.00	-0.6
KRA	145.18	346	ePKP	06	56.60	-1.0
			e	07	07.10	
MOX	145.87	356	ePKP	06	59.00	0.2
	1.8s		35.00nm			
			e	07	09.00	
MEM	146.02	2	PKP	07	03.60	4.6X
SNF	146.03	4	PKP	07	01.00	1.9
PRU	146.22	352	PKP	07	00.00	0.6
			e	07	33.00	
DOU	146.46	4	PKP	07	01.20	1.4
VRI	146.76	336	ePKPc	07	01.00	0.6
GRF	146.84	356	iPKPc	07	02.20	1.7
			e	07	14.10	
WLF	146.97	2	PKP	07	02.30	1.7
KHC	147.18	353	PKPc	07	04.20	3.2X
			e	07	14.40	
FLN	147.20	10	ePKP	07	02.20	1.2

23d 14h

MLR	147.38	336	ePKPc	07	04.50	2.9X
LDF	147.42	10	ePKP	07	02.30	0.9
GRR	147.49	11	ePKP	07	03.10	1.6
	0.9s	11.45nm				
ZST	147.54	348	ePKP	07	06.70	5.1X
SRO	147.65	347	ePKP	07	04.60	2.9X
LPF	147.80	11	ePKP	07	03.70	1.7
	1.3s	32.50nm				
CMP	147.92	337	ePKPd	07	10.00	7.7X
BBTK	148.21	322	ePKP	07	07.00	3.9X
CDF	148.24	1	ePKP	07	05.40	2.6X
HAU	148.63	2	ePKP	07	06.20	2.8X
BZS	148.80	341	ePKP	07	07.50	3.8X
LOR	149.22	5	ePKP	07	07.80	3.5X
	1.1s	9.75nm				
MFF	149.34	11	ePKP	07	07.60	3.1X
SSF	149.39	6	ePKP	07	08.50	3.9X
	1.4s	30.50nm				
LBF	149.51	5	ePKP	07	08.70	3.9X
	1.7s	36.75nm				
AVF	149.65	6	ePKP	07	08.60	3.7X
	1.2s	10.40nm				
BGF	149.82	7	ePKP	07	09.40	4.2X
SMF	149.84	5	ePKP	07	09.30	4.0X
LSF	149.96	9	ePKP	07	09.60	4.2X
TCF	150.01	8	ePKP	07	09.60	4.0X
MAF	150.12	7	ePKP	07	10.20	4.5X
	1.1s	18.30nm				
RJF	150.88	9	ePKP	07	12.00	5.1X
LPG	151.15	1	ePKP	07	13.70	6.1X
S.D. = 1.2 on 48 of 76 obs.						

APR 23, 1989 13h 55m 12.52± 1.16s
8.914 S ± 7.9km 117.970 E ± 9.5km
DEPTH = 117.7 ± 14.4 km
4.2mb (2 obs.)
SUMBAWA ISLAND REGION (285)

MKS	3.96	22	iPd	56	15.00	2.6
TRT	5.41	282	iPd	56	32.00	-0.2
			iS	57	35.40	
KUG	5.68	103	ePd	56	58.00	22.1X
			eS	57	59.00	
MBL	12.31	172	eP	58	04.00	-0.9
			eS	00	04.00	
KNA	12.54	124	eP	58	06.00	-2.0
			eS	00	19.00	
MTN	13.50	108	eP	58	18.30	-2.2
			eS	00	41.30	
NANU	13.77	190	eP	58	19.00	-5.0X
			eS	00	40.00	
MEKA	17.61	178	eP	59	11.80	-0.2
			eS	02	09.00	
WARB	19.05	155	eP	59	20.50	-7.7X
WB5	19.24	126	eP	59	26.70	-3.6X
			eS	02	54.80	
WRA	19.26	126	Pd	59	31.00	0.5
	0.2s	1.20nm			3.9mb	
MRWA	20.28	185	eP	59	40.60	-0.4
			eS	03	12.00	
ASPA	21.16	136	eP	59	51.20	1.4
	0.5s	10.00nm			4.4mb	
			eS	03	38.10	
BAL	21.61	183	eP	59	56.00	1.7
			e	00	09.00	
			eS	03	43.00	
COOL	22.06	173	eP	59	58.50	-0.2
			i	00	14.50	
			eS	03	53.00	
KLB	22.57	180	eP	00	04.00	0.4
			e	00	20.00	
			eS	04	04.00	
FORR	23.78	158	eP	00	16.50	1.1
QIS	23.88	121	eP	00	17.00	0.6
			eS	04	43.00	
NWAO	23.91	182	eP	00	17.00	0.4
			e	00	38.00	
			eS	04	35.00	
GUN	48.00	321	P	03	41.40	-0.6
PKI	48.06	320	P	03	41.20	-1.2
KKN	48.29	320	P	03	43.00	-1.1
GKN	48.85	320	P	03	47.20	-1.1
BUL	86.38	250	iPKPd	07	44.90	1.4
ITR	150.65	234	ePKP	14	54.90	7.5X
S.D. = 1.4 on 20 of 25 obs.						

% APR 23, 1989 13h 56m 53.45± 1.03s
38.964 N ± 7.9km 27.172 E ±10.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.57	173	iPg	57	04.20	-0.8
EZN	1.08	323	ePn	57	14.60	0.8
DST	1.30	60	ePn	57	17.30	-0.2
EDC	1.48	21	ePn	57	19.00	-1.1
KCT	1.58	35	iPn	57	21.40	-0.1
KHL	1.95	108	ePn	57	28.50	1.5
S.D. = 1.3 on 6 of 6 obs.						

? APR 23, 1989 14h 17m 04.80±10.92s
18.260 N ±85.3km 61.265 W ±23.5km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.7 (FDF).

ANG	1.22	206	eP	17	27.28	-0.3
			eS	17	48.66	
MGH	1.78	211	eP	17	35.60	-0.2
			S	18	01.50	
SEG	1.86	187	eP	17	37.40	0.4
DEG	1.95	174	eP	17	37.60	-0.7
PAG	2.25	190	eP	17	43.60	0.8
			S	18	15.60	
BBL	2.73	184	eP	17	49.40	-0.1
S.D. = 0.7 on 6 of 6 obs.						

% APR 23, 1989 14h 23m 49.76± 0.85s
39.106 N ± 7.3km 27.572 E ± 8.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.75	199	ePg	24	04.50	0.1
			eSg	24	15.50	
DST	0.96	58	iPn	24	07.80	-0.2
EZN	1.20	307	ePn	24	12.00	-0.2
EDC	1.26	10	ePn	24	13.30	0.1
KCT	1.29	28	iPn	24	13.90	0.2
S.D. = 0.3 on 5 of 5 obs.						

? APR 23, 1989 15h 17m 15.98± 9.18s
6.103 S ±85.0km 135.238 E ±17.5km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
AROE ISLANDS REGION (204)

MTN	7.83	211	eP	19	12.20	1.7
			eS	20	55.00	
KNA	11.50	213	eP	19	59.50	-1.5
WB5	13.72	183	eP	20	30.20	-0.4
			e	20	40.50	
			eS	23	17.30	
WRA	13.79	184	Pd	20	31.60	0.1
	0.6s	2.00nm			4.1mb	
QIS	14.98	164	eP	20	47.00	-0.1
			eS	23	46.00	
ASPA	17.51	184	eP	21	21.70	2.3X
	0.6s	25.00nm			4.5mb	
			eS	24	45.40	
CTA	17.54	143	eP	21	20.00	0.2
CNCB	147.67	135	PKP	36	47.00	-10.6X
LPB	147.77	135	PKP	36	49.00	-8.6X
ZOBO	147.93	134	PKP	36	48.00	-10.0X
S.D. = 1.3 on 6 of 10 obs.						

APR 23, 1989 15h 22m 34.17± 0.29s
44.958 N ± 6.2km 150.238 E ± 4.6km
DEPTH = 89.1km (3 depth phases)
4.9mb (43 obs.)
KURIL ISLANDS REGION (222)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 29C
Centroid Locatian:
Origin Time 15:22:32.5 0.7
Lat 45.37N 0.05 Lon 150.65E 0.09
Dep 44.2 4.7 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 5.30 0.27 Mtt=-2.09 0.41
Mff=-3.21 0.41 Mrt= 0.42 0.57
Mrf= 2.66 0.61 Mtf=-3.30 0.41
Principal Axes:

T	Val= 6.10	Plg=72	Azm=257
N	0.36	13	35
P	-6.46	12	128

Best Double Couple:Mo=6.3*10**16
NP1:Strike=235 Dip=35 Slip= 114
NP2: 27 58 74

KUSJ	4.40	247	P	23	36.80	-3.0X
			eS	24	25.00	
ASAJ	5.49	264	P	23	54.80	-0.3
HOOJ	5.66	245	P	23	56.50	-0.9
			S	24	59.40	
SAP	6.70	257	eP	24	15.00	3.3X
			eS	25	27.00	
MRRJ	7.11	252	P	24	16.00	-1.3
			eS	25	36.40	
AOMJ	8.48	242	P	24	35.70	-0.5
			S	26	05.40	
OFUJ	8.67	230	P	24	35.10	-3.6X
			S	26	08.70	
YAMJ	10.21	232	P	24	57.30	-2.3
NIIJ	11.45	232	P	25	14.50	-1.7
CHJJ	12.33	228	P	25	27.80	0.0
MAT	12.39	231	(P)	25	27.00	-1.6
	0.6s	10.67nm			4.8mb	
MTMJ	12.59	233	P	25	30.30	-1.0
MDJ	14.67	276	eP	25	58.50	0.3
Z	18s	2.60um				
E	15s	1.40um				
			S	28	42.00	
CN2	17.74	275	Pc	26	35.40	-1.3
	4.0s	0.30nm			1.9mb X	
Z	20s	2.10um			5.5Msz	
E	14s	1.10um				
SNY	19.59	270	Pc	26	54.00	-3.6X
Z	19s	1.50um				
N	18s	0.90um				
E	20s	0.90um				
			S	30	30.00	
DL2	22.06	264	eP	27	23.00	0.5
			eS	31	20.00	
BJI	25.47	271	eP	27	55.00	-0.3
Z	20s	1.03um			4.3Msz	
E	14s	0.50um				
			eS	32	20.00	
SSE	26.58	249	P	28	08.00	2.5X
	0.8s	12.00nm			4.5mb	
Z	18s	0.50um			4.1Msz	
N	16s	0.50um				
			eS	32	56.00	
			esS	33	04.00	
NJ2	27.55	253	Pd	28	15.60	1.3
HHC	28.44	275	eP	28	22.60	0.2
Z	18s	1.90um			4.7Msz	
E	16s	1.60um				
			S	33	06.00	
TIY	29.09	269	eP	28	29.00	0.7
N	16s	0.70um				
			sS	33	38.50	
BTO	29.62	276	eP	28	34.00	1.0
N	15s	0.70um				
E	15s	1.50um				
			PP	29	27.00	
			eS	33	27.00	
WHN	31.53	255	P	28	51.00	1.3
XAN	33.37	265	P	29	05.60	-0.1
LZH	35.94	272	eP	29	27.50	-0.4
	1.5s	55.00nm			5.3mb	
Z	30s	1.20um			4.5MszX	
GTA	37.28	280	Pc	29	39.00	0.0
Z	15s	1.46um			4.9MszX	
CD2	38.72	265	P	29	51.80	0.7
FBA	38.81	37	iP	29	50.90	-0.4
	0.8s	11.03nm			4.8mb	
GYA	39.36	257	iPd	29	58.00	1.5
			PcP	32	06.00	
KMI	42.93	259	Pc	30	27.00	1.1
Z	20s	0.60um			4.5Msz	
			pP	30	39.50	46kmX
			sP	30	44.50	
			eS	36	50.00	
WMQ	43.71	292	P	30	30.50	-1.3
Z	24s	0.80um			4.5MszX	
INK	44.23	31	iPc	30	35.00	-0.6
MBC	46.96	19	eP	30	55.00	-2.1
LSA	48.36	273	P	31	11.00	1.8
CHG	49.74	256	iPc	31	21.00	1.7
	1.0s	12.25nm			4.9mb	
SHL	50.31	268	iP	31	24.20	0.4
ALE	51.72	5	eP	31	31.00	-2.6

```
        0.6s      4.00nm            4.6mb
 GUN   53.14 274 P       31 46.20    0.9
 YKA   53.55  35 P       31 47.00   -0.4
 KKN   53.64 275 P       31 59.80   11.0X
 PKI   53.68 274 P       31 50.00    0.8
 GKN   53.97 275 P       31 52.00    0.9
        0.8s     44.00nm            5.5mb
 PNT   57.91  51 iPd     32 19.00    0.1
        0.7s      6.00nm            4.8mb
 NDI   58.77 281 iPc     32 24.50   -0.7
 EDM   59.00  44 iPc     32 25.80   -0.7
        0.6s     21.00nm            5.4mb
 WDC   61.15  60 ePc     32 42.20    0.9
 PSI   61.56 242 eP      32 45.00    0.7
 MIN   61.86  60 ePc     32 46.40    0.1
 ORV   62.40  61 eP      32 49.70    0.1
 FFC   63.40  38 eP      32 55.50   -0.5
        0.7s     23.00nm            5.2mb
 SUF   63.79 335 iP      32 56.40   -2.0
        0.3s      1.20nm            4.3mb
 LRM   63.88  51 eP      33 00.00    0.4
 CMB   64.01  61 ePc     33 01.00    0.7
 KVN   64.80  59 iP      33 06.10    0.5
 TNP   65.94  60 iP      33 14.10    1.2
        1.1s     12.99nm            4.8mb
 MAIO  65.94 298 eP      33 13.00    0.2
 NUR   65.95 334 eP      33 11.00   -1.3
     Z  20s      1.10um            5.1Msz
              LR      04 20.00
 WB5   66.13 196 eP      33 17.00    3.1X
 WRA   66.20 196 Pd      33 17.40    3.1X
        0.4s      1.00nm            4.1mb
 FRB   67.38  18 eP      33 19.00   -2.3
 BW06  67.43  52 iP      33 22.10   -0.2
        0.9s      7.42nm            4.6mb
 GBA   68.36 268 Pd      33 27.30   -0.8
        0.7s     11.10nm            4.9mb
 RSON  69.70  37 iP      33 34.80   -1.0
        0.8s     24.44nm            5.1mb
 ALQ   74.50  56 eP      34 05.20    0.4
 KRA   75.97 330 eP      34 11.60   -1.0
                 e       34 33.60   83km
 KSP   76.57 332 ePc     34 15.50   -0.5
 SPC   76.58 329 eP      34 15.70   -0.6
 VRI   76.71 323 ePd     34 18.50    1.7
 CLL   77.23 334 iPc     34 18.70   -0.9
        0.9s     18.00nm            4.9mb
                 e       34 47.00  110kmX
 MLR   77.34 323 ePc     34 20.50    0.0
 EKA   77.57 345 Pd      34 21.10   -0.3
        0.9s      8.20nm            4.6mb
 PSN   77.80 321 eP      34 24.00    1.1
 PRU   77.89 333 P       34 23.00   -0.2
 CMP   77.90 324 ePc     34 25.00    1.5
 MOX   78.24 335 eP      34 25.00   -0.2
 WTS   78.41 338 eP      34 25.50   -0.5
        0.5s      8.00nm            4.8mb
 SRO   78.44 329 iP      34 26.70    0.4
 ZST   78.55 330 e(P)    34 27.20    0.3
 KHC   78.94 333 iPc     34 29.00   -0.1
        0.9s     24.00nm            5.1mb
                 e       34 52.50   89km
 DMU   79.60 346 eP      34 32.40   -0.1
 ENN   79.76 338 eP      34 33.00   -0.4
        1.0s     16.00nm            4.8mb
 MEM   79.88 338 Pc      34 33.40   -0.6
 DLE   80.13 346 eP      34 35.00   -0.3
 DCN   80.20 347 eP      34 35.50   -0.2
 SNF   80.42 339 Pc      34 36.50   -0.4
 PGB   80.47 323 eP      34 37.00   -0.4
 DOU   80.72 338 P       34 38.40   -0.1
 KBA   80.81 332 iPd     34 39.70    0.5
        0.7s     14.20nm            5.0mb
                 i       35 04.80   95km
 VTS   80.85 323 iP      34 40.00    0.5
 GWF   80.91 336 P       34 38.89   -0.7
 RZN   80.93 322 eP      34 40.00    0.0
 GAC   81.09  31 eP      34 40.50    0.1
 KKB   81.49 323 eP      34 43.00    0.3
 CDF   81.52 336 P       34 42.35   -0.5
 FEL   81.78 335 P       34 43.62   -0.6
 VITF  82.06 337 P       34 45.27   -0.2
 MOF   82.06 336 P       34 45.09   -0.6
 SKO   82.10 324 iPc     34 45.70   -0.1
        1.0s     32.00nm            5.2mb
     Z  19s      0.50um            4.9Msz
              LR      14 42.00

 HAU   82.15 336 eP      34 45.70   -0.3
 VAY   82.16 323 eP      34 46.50    0.4
 BSF   82.18 336 P       34 45.50   -0.8
 LOMF  82.61 336 P       34 48.03   -0.5
 FLN   83.21 341 iPc     34 51.70    0.2
        0.7s     11.00nm            4.9mb
 ZNT   83.25 309 eP      34 54.00    2.1
 LDF   83.29 341 eP      34 51.90    0.1
 LOR   83.51 338 iPc     34 53.00   -0.1
        0.7s      9.20nm            4.8mb
 GRR   83.65 341 iPc     34 54.10    0.4
        0.8s     30.60nm            5.3mb
 LBF   83.74 338 eP      34 54.30    0.0
        0.7s      4.80nm            4.6mb
 SSF   83.80 338 eP      34 54.70    0.2
        0.7s      8.10nm            4.8mb
 LPF   84.03 341 eP      34 56.20    0.6
        0.8s     19.80nm            5.1mb
 AVF   84.09 338 eP      34 56.30    0.4
        1.0s     16.00nm            4.9mb
 SMF   84.09 337 iPc     34 56.20    0.2
        0.8s     20.10nm            5.1mb
 LSD   84.22 335 P       34 57.16    0.2
 LPG   84.30 335 eP      34 58.10    0.7
        0.9s     13.10nm            4.9mb
 BGF   84.44 338 eP      34 58.50    0.8
        0.7s      6.60nm            4.7mb
 RSP   84.47 335 P       34 57.67   -0.3
 PRNI  84.71 308 eP      35 00.00    0.6
 RRL   84.82 335 P       35 00.34    0.4
 MAF   84.82 338 eP      35 00.60    1.0
        1.0s     34.80nm            5.3mb
 TCF   84.85 338 eP      35 00.60    0.8
        0.9s     13.10nm            4.9mb
 FIN   85.02 334 P       34 59.72   -1.0
 ROB   85.05 334 P       35 00.24   -0.6
 LSF   85.07 339 iPc     35 01.70    0.8
        0.9s     20.30nm            5.1mb
 PZZ   85.10 334 P       34 59.52   -1.7
 MFF   85.16 340 iPc     35 02.10    0.8
        0.7s     13.20nm            5.0mb
 MBH   85.21 308 iPc     35 02.50    0.7
 IMI   85.39 334 P       35 01.98   -0.6
 RJF   85.95 338 eP      35 06.20    0.9
        0.7s      7.40nm            4.8mb
 CAF   86.15 338 iPc     35 07.80    1.5
        0.8s     19.30nm            5.2mb
 LRG   86.28 335 eP      35 07.40    0.5
        0.9s     16.30nm            5.1mb
 LMR   86.34 334 eP      35 07.70    0.5
        0.9s     16.30nm            5.1mb
 LFF   86.49 339 eP      35 08.30    0.4
        0.7s     18.50nm            5.2mb
 LPO   86.61 338 eP      35 09.00    0.5
        0.7s      7.40nm            4.9mb
 TIC  124.03 330 PKP     41 25.00    1.1
 KIC  124.19 329 PKP     41 25.20    1.0
 LIC  124.42 330 PKP     41 25.50    0.9
 ZOBO 136.95  61 ePKP    41 48.00   -1.1
 CNCB 137.45  61 PKP     41 53.00    3.0X
 ITR  143.17  14 e(PKP)  41 57.00   -2.7X
 PEL  146.44  84 ePKP    42 07.50    2.8X
 BAO  146.96  34 ePKP    42 08.50    2.4X
 PPD  151.09  45 ePKP    42 20.10    7.9X
      S.D. = 0.9  on 129 of 142 obs.
-------------------------------------
*  APR  23, 1989  15h 41m 45.04± 2.59s
   44.060 N ±17.4km    7.316 E ±14.5km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                  (545)
      ML 2.0 (GEN).

 STV     0.18   2 P       41 49.03   -0.2
                 S       41 50.12
 ROB     0.46  59 P       41 54.44    0.0
                 S       41 59.86
 PZZ     0.47 341 P       41 54.78    0.1
                 S       41 59.97
 FIN     0.66  77 P       41 58.38    0.2
 MMB    12.30  96 iP      44 43.00   -0.1
      S.D. = 0.2  on   5 of   5 obs.
-------------------------------------
&  APR  23, 1989  16h 17m 22.39s
   61.256 N          151.839 W
   DEPTH =  86.2km
 SOUTHERN ALASKA                 (  2)
      <AGS-P>.

 CGLM  0.10 303 iP      17 34.57    1.3
 SPU   0.13 234 iP      17 34.67    1.4
 CRP   0.15 274 iP      17 34.86    1.4
 SUA   0.57  68 iP      17 37.38   -0.3
 NKA   0.59 150 iP      17 39.06    1.4
 RDT   0.74 202 iP      17 38.85   -0.4
                eS      17 51.80
 SKT   0.74  11 iP      17 38.54   -0.7
 PWA   1.02  66 iPc     17 42.00   -0.3
 SLKM  1.09 133 iP      17 42.40   -0.8
 PMS   1.10  90 iPc     17 42.00   -1.4
 NNL   1.25 167 iP      17 45.50    0.4
 ILIM  1.30 206 iP      17 45.28   -0.6
                iS      18 03.50
 PLRM  1.35  74 iP      17 44.81   -1.5
                eS      18 02.49
 PMR   1.35  74 iPc     17 44.90   -1.4
 PME   1.40  73 iP      17 45.69   -1.3
 GHO   1.49  68 iP      17 46.96   -1.4
                iS      18 05.17
 BRLK  1.57 162 eP      17 48.91   -0.4
                eS      18 10.00
 KNK   1.64  83 iP      17 48.64   -1.6
 SEW   1.65 133 eP      17 48.86   -1.4
 OPT   1.75 204 eP      17 51.30   -0.4
                eS      18 15.48
 CNPM  1.76 170 iP      17 50.80   -1.0
 XLV   1.81 178 eP      17 51.11   -1.3
 SVW   1.84 267 iPc     17 51.80   -1.1
 PDB   1.88 219 iP      17 52.75   -0.6
 KNIM  2.21 113 iP      17 54.48   -3.3
 GLI   2.34  97 iP      17 56.14   -3.5
 KTH   2.34  10 eP      17 58.35   -1.4
 MTU   2.42 120 eP      17 58.17   -2.6
 CDD   2.50 202 iP      18 01.20   -0.7
 VZW   2.57  92 iP      18 00.01   -2.8
 TTA   2.58 312 iPc     18 01.70   -1.3
 FID   2.66  99 iP      18 00.22   -3.8
 VLZ   2.67  90 iP      18 01.33   -2.8
 TOA   2.83  70 iPc     18 05.00   -1.4
 KLU   2.86  83 iP      18 04.04   -2.8
 GLB   3.87  84 eP      18 17.66   -3.1
 FBA   4.09  25 ePd     18 21.00   -2.8
 BALM  4.61  89 eP      18 27.32   -3.8
 IMA   4.90 351 ePd     18 32.40   -2.8
 CTGM  5.10  89 eP      18 35.11   -2.9
 PCA   5.81  96 eP      18 43.54   -4.3
 DWY   6.37  58 P       18 52.30   -3.1
 HYT   6.98  87 P       19 00.80   -3.1
 INK  10.50  40 eP      19 47.00   -4.7
 YKA  17.44  70 P       21 21.70    0.6
 MBC  18.64  24 eP      21 31.00   -4.4
      46 obs. ossocioted
-------------------------------------
*  APR  23, 1989  16h 35m 27.66± 0.98s
   3.373 S ± 9.3km  139.769 E ± 8.5km
   DEPTH =  96.7 ±  9.2 km
   4.4mb (  2 obs.)
 WEST IRIAN                      (201)

 JAY   1.27  48 iPc     35 51.00   -0.2
                iS      36 06.00
 MNDI  4.76 126 eP      36 40.00    1.4
 LAT   7.91 115 eP      37 21.00   -0.7
 PMG   9.48 130 eP      37 42.50   -0.6
 MTN  12.71 222 eP      38 25.50   -0.6
                eS      40 39.70
 KNA  16.39 221 eP      39 14.50    1.2
                eS      42 06.00
 QIS  17.08 181 eP      39 20.00   -1.9
                i       39 25.60
                eS      42 25.00
 WB5  17.23 197 eP      39 24.00    0.2
                eS-     42 28.20
 WRA  17.30 197 Pd      39 24.80    0.2
        0.3s      2.90nm            4.0mb
 CTA  17.78 160 iP      39 32.00    1.6
 PCI  20.07 277 ePc     40 02.00    6.3X
 ASPA 20.96 195 iPd     40 04.70   -0.1
                e       40 28.80
                eS      43 50.00
 WARB 25.94 208 eP      40 43.00   -9.8X
 BRS  26.93 154 iPd     41 01.00   -0.8
 BWA  31.93 166 eP      41 46.90    0.7
 COOL 32.52 211 iPd     41 50.90   -0.6
        0.4s      6.00nm            4.7mb
 CAN  32.92 166 eP      41 54.50   -0.4
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23d 16h

CNCB 146.04 127 PKP 54 59.00 0.4
LPB 146.10 127 PKP 54 59.00 0.5
ZOBO 146.22 126 PKP 54 58.80 -0.1
S.D. = 1.0 on 18 of 20 obs.

APR 23, 1989 17h 18m 04.30± 1.84s
2.690 S ± 7.4km 141.482 E ± 8.1km
DEPTH = 17.9 ± 13.9 km
4.2mb (2 obs.)
NEAR N COAST OF PAPUA NEW GUINEA(200)

JAY 0.80 283 iPc 18 20.00 0.7
MNDI 4.07 148 eP 19 09.00 1.7
MTN 14.38 225 iPc 21 26.90 -2.2
QIS 17.85 186 eP 22 14.00 0.5
WB5 18.44 202 eP 22 20.00 -0.9
eS 25 48.20
WRA 18.51 202 Pc 22 21.00 -0.7
0.5s 5.20nm 4.0mb
VSG 19.26 111 P 22 29.00 -1.9
SVO 19.32 110 P 22 31.00 -0.6
HNR 19.54 111 eP 22 33.00 -1.0
PCI 21.71 274 ePd 23 06.00 9.5X
ASPA 22.11 199 iPc 23 01.40 0.9
0.6s 11.00nm 4.5mb
Z 17s 0.32um 3.8MszX
LR 31 45.00
WARB 27.36 210 eP 23 41.50 -9.1X
BWA 32.23 169 eP 24 35.00 1.1
CAN 33.21 169 eP 24 43.10 0.7
CN2 48.47 345 eP 26 47.40 -0.4
sP 26 54.00
GTA 56.73 322 eP 27 50.10 0.5
GUN 61.46 304 P 28 23.00 0.1
KKN 61.92 303 P 28 24.50 -1.4
GKN 62.53 303 P 28 29.90 0.1
WMQ 66.73 321 eP 28 57.20 0.4
INK 90.62 22 eP 31 07.00 0.4
CNCB 145.05 125 PKP 37 45.00 1.0
LPB 145.09 124 PKP 37 49.00 5.2X
ZOBO 145.20 124 iPKPc 37 45.00 0.8
S.D. = 1.1 on 21 of 24 obs.

• APR 23, 1989 17h 56m 14.80± 1.84s
14.012 N ±20.8km 93.220 E ±11.8km
DEPTH = 33.0km (normal)
4.2mb (1 obs.)
ANDAMAN ISLANDS REGION (703)

NNT 6.50 102 eP 57 50.50 -0.1
CHG 7.28 48 eP 58 01.20 -0.4
LOE 8.86 67 eP 58 24.00 0.4
SHL 11.56 354 eP 58 57.00 -3.8X
eS 01 06.00
PKI 15.33 333 P 59 50.80 0.0
0.5s 8.00nm 4.2mb
GBA 15.34 270 Pd 00 01.30 10.7X
0.3s 1.50nm
DMN 15.50 332 P 59 52.70 -0.2
KKN 15.58 333 P 59 54.00 0.1
LZH 23.96 22 eP 01 27.50 0.2
S.D. = 0.3 on 7 of 9 obs.

• APR 23, 1989 18h 11m 32.84± 3.02s
40.515 N ± 9.4km 24.293 E ±27.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG 0.75 219 iPg 11 47.20 -0.3
iSg 11 57.40
SOH 0.78 293 ePg 11 47.80 -0.2
SRS 0.80 319 ePg 11 48.40 0.0
eSg 11 58.50
MMB 1.15 338 ePg 11 53.00 -1.4
KNT 1.24 302 ePg 11 55.20 -0.7
eSg 12 11.10
VAY 1.53 302 ePn 12 01.60 1.3
KKB 1.63 326 iP 12 03.00 1.3
PGB 2.04 357 eP 12 36.00 28.4X
S.D. = 1.3 on 7 of 8 obs.

• APR 23, 1989 19h 11m 27.38± 1.05s
66.946 N ± 6.8km 156.186 W ±13.0km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 4.0 (PMR).

IMA 1.34 130 iPd 11 53.10 0.5
FBA 4.01 117 ePd 12 30.00 -0.7
TTA 4.03 179 eP 12 30.30 -0.9
BRW 4.38 358 eP 12 37.40 1.4
SVW 5.87 177 iPc 12 56.30 -0.8
PWA 5.98 150 eP 12 58.90 0.3
PMR 6.19 147 eP 13 01.00 -0.5
eS 13 38.60
PMS 6.41 150 eP 13 06.20 1.4
TOA 6.50 134 ePc 13 07.40 1.4
DWY 7.54 105 P 13 20.00 -0.5
MBC 14.55 35 eP 14 54.00 -1.5
YKA 18.03 85 P 15 44.80 4.9X
S.D. = 1.2 on 11 of 12 obs.

? APR 23, 1989 19h 20m 35.59± 8.31s
66.887 N ±63.6km 156.278 W ±33.1km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
Small precursor.

IMA 1.33 127 ePd 21 00.70 0.0
TTA 3.98 178 eP 21 39.20 0.6
FBA 4.01 116 eP 21 39.00 0.0
SVW 5.81 177 eP 22 03.90 -0.6
PMR 6.16 146 eP 22 06.20 -3.1X
S.D. = 0.9 on 4 of 5 obs.

APR 23, 1989 19h 21m 06.47± 0.11s
66.960 N ± 2.1km 156.289 W ± 2.3km
DEPTH = 6.3km (geophysicist)
5.7mb (65 obs.) 5.1Msz (16 obs.)
ALASKA (676)
ML 5.3 (PMR). Ms 4.8 (BRK). Felt (IV) at Ambler and Kobuk. Felt (III) at Huslia. Depth from broadband displacement seismograms.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 19S, 37C
Centroid Location:
Origin Time 19:21:10.4 0.3
Lat 67.30N 0.05 Lon 157.02W 0.08
Dep 15.0 BDY Half-duration 2.1
Moment Tensor; Scale 10**17 Nm
Mrr=-1.62 0.05 Mtt=-0.20 0.06
Mff= 1.82 0.06 Mrt=-0.01 0.18
Mrf= 0.39 0.25 Mtf=-0.45 0.06
Principal Axes:
T Val= 1.96 Plg= 6 Azm=258
N -0.29 3 348
P -1.67 83 104
Best Double Couple:Mo=1.8*10**17
NP1:Strike=345 Dip=39 Slip= -95
NP2: 171 51 -86

IMA 1.38 129 iP 21 31.10 -1.2
FBA 4.05 117 iPd 22 09.20 -1.0
TTA 4.05 178 ePd 22 09.00 -1.3
BRW 4.37 358 eP 22 13.90 -0.9
PWA 6.01 149 iPc 22 37.50 -0.5
PMR 6.22 147 iPd 22 40.00 -0.9
PMS 6.45 150 eP 22 44.00 -0.2
TOA 6.53 133 eP 22 45.20 -0.3
INK 8.77 71 eP 23 14.00 -2.5
HYT 10.28 118 P 23 36.00 -1.5
SIT 13.89 125 eP 24 27.10 1.2
MBC 14.56 35 eP 24 32.00 -2.6
YKA 18.07 84 P 25 18.40 -0.9
YKC 18.13 84 ePd 25 19.00 -1.0
1.0s 250.00nm 5.3mb
ADK 18.18 224 eP 25 21.30 0.6
1.0s 225.00nm 5.3mb
SMY 20.30 240 eP 25 44.00 -1.3
Z 20s 7.50um 5.0Msz
EDM 24.80 102 eP 26 30.50 0.5
ALE 24.80 18 eP 26 30.00 0.2
0.7s 85.00nm 5.5mb
PGC 24.85 121 eP 26 34.00 3.5X
MCW 25.04 120 eP 26 33.50 1.1
PNT 25.62 115 ePc 26 39.00 1.2
0.9s 191.00nm 5.8mb
BMW 26.82 123 eP 26 51.50 2.5
LON 27.06 121 eP 26 51.00 -0.1
SHW 27.40 122 eP 26 54.00 -0.3
FFC 28.12 89 eP 27 00.00 -0.6

1.1s 84.00nm 5.5mb
VGB 28.48 121 eP 27 04.00 0.0
LRM 31.17 111 eP 27 29.60 1.4
FHC 31.69 129 e(P) 27 33.00 0.5
WDC 32.33 128 ePc 27 38.20 0.1
ePcP 30 25.30
MIN 32.84 127 eP 27 42.40 -0.3
ePcP 30 27.60
ORV 33.59 127 eP 27 48.00 -1.1
ePcP 30 29.50
FRB 33.88 53 eP 27 50.00 -1.3
1.0s 65.00nm 5.5mb
KBS 34.17 4 iP 27 54.60 0.9
BW06 34.85 110 eP 28 00.30 0.1
1.3s 66.60nm 5.3mb
BRK 34.90 129 eP 28 00.30 0.0
BKS 34.91 129 eP 28 00.00 -0.4
1.0s 100.00nm 5.6mb
Z 20s 0.90um 4.5Msz
N 20s 0.50um
E 20s 1.80um
e 31 35.20
eS 33 34.80
eLQ 36 20.40
eLR 38 44.00
KVN 35.15 123 eP 28 03.00 0.3
CMB 35.33 127 eP 28 03.50 -0.6
iPcP 30 35.10
EUR 35.47 120 iP 28 06.00 0.5
0.2s 22.33nm 5.7mb
MHC 35.58 129 eP 28 06.40 0.1
ARN 35.61 129 eP 28 06.00 -0.4
MNA 35.69 124 e(P) 28 09.00 1.7
DUG 35.93 116 eP 28 10.00 0.7
TNP 36.31 123 eP 28 12.80 0.2
0.8s 24.51nm 5.1mb
LLA 36.46 128 eP 28 13.80 0.2
FRI 36.50 127 eP 28 13.80 -0.1
ePcP 30 27.90
PRS 36.59 129 eP 28 14.80 0.1
ePcP 30 39.00
PRI 36.99 128 eP 28 19.10 0.9
ISA 38.11 126 eP 28 30.00 2.4
CLC 38.25 125 eP 28 29.00 0.3
SYP 38.69 129 eP 28 32.00 -0.5
GSC 38.98 124 eP 28 36.00 1.1
GOL 39.08 108 eP 28 37.00 1.2
GLD 39.09 108 eP 28 36.50 0.7
SBB 39.22 126 eP 28 36.00 -0.8
e 30 49.00
MWC 39.57 126 eP 28 41.00 1.1
PAS 39.60 127 eP 28 43.00 3.1X
RVR 40.00 126 eP 28 43.00 -0.2
e 30 49.00
PEC 40.16 126 eP 28 44.50 -0.1
TPC 40.32 124 eP 28 47.00 1.0
e 30 50.00
PLM 40.75 125 eP 28 48.50 -1.1
SCH 41.27 61 eP 28 53.00 -0.4
BAR 41.44 126 eP 28 56.00 1.0
GLA 41.69 123 eP 28 57.00 -0.2
e 30 55.00
ANMO 42.88 113 ePd 29 07.81 0.7
epPc 29 10.12 8kmX
ePP 30 51.10
ALQ 42.89 113 eP 29 07.80 0.7
1.0s 50.00nm 5.2mb
KEV 43.53 358 eP 29 10.00 -1.7
HIA 43.81 290 ePd 29 14.26 0.0
epPc 29 16.42 7kmX
ePP 30 57.23
eS 35 36.84
eSS 39 07.96
OFUJ 43.88 263 eP 29 14.60 -0.3
MDJ 43.91 278 eP 29 14.50 -0.6
Z 15s 6.10um 5.6MszX
E 12s 2.40um
S 35 47.00
AKU 44.33 23 eP 29 21.20 3.0X
1.5s 200.00nm 5.8mb
YAMJ 45.30 264 eP 29 26.60 0.2
GAC 45.59 76 eP 29 28.00 -0.5
SOD 45.93 358 iP 29 30.90 0.0
SIO 45.99 102 e(P) 29 32.90 1.1
LNO 46.04 101 P 29 29.80 -2.3
RLO 46.11 100 eP 29 32.20 -0.6
CN2 46.21 281 Pd 29 32.00 -1.4

4.0s 0.80nm 3.1mb X
Z 14s 3.70um 5.5MszX
E 12s 3.10um
PP 31 19.00
iSS 39 30.00
FVM 46.32 94 eP 29 33.80 -0.6
NIIJ 46.52 264 P 29 36.20 0.3
VVO 46.57 101 e(P) 29 34.00 -2.3
PTN 46.73 76 eP 29 36.70 -0.8
RSNY 46.92 76 eP 29 38.40 -0.7
1.0s 90.00nm 5.8mb
CBM 47.31 69 eP 29 40.80 -1.3
MAJO 47.44 264 ePd 29 42.73 -0.5
MAT 47.44 264 eP 29 43.00 -0.3
1.3s 126.92nm 5.9mb
Z 20s 1.77um 5.0Msz
eS 36 39.00
MTMJ 47.56 265 P 29 44.50 0.2
UYO 48.09 101 iP 29 47.10 -1.3
MIM 48.40 71 eP 29 50.00 -0.6
SNY 48.61 281 iPd 29 51.00 -1.3
Z 13s 4.60um 5.6MszX
N 14s 1.90um
E 13s 5.30um
TBR 49.94 78 eP 30 01.00 -1.6
RGS 49.96 8 iP 30 04.00 1.6
SUF 50.61 359 iP 30 06.80 -0.5
0.7s 29.20nm 5.3mb
BLA 50.93 86 eP 30 09.50 -0.7
1.0s 100.00nm 5.7mb
CBN 51.26 82 eP 30 13.50 0.9
1.1s 95.00nm 5.6mb
DL2 51.88 281 Pd 30 17.50 0.2
Z 20s 2.20um 5.2Msz
N 12s 1.40um
E 12s 2.50um
S 37 39.00
BER 52.24 11 iP 30 21.50 1.7
NRA0 52.30 8 P 30 18.00 -2.2
NUR 52.83 359 iP 30 23.30 -0.9
1.1s 247.10nm 6.1mb
Z 19s 1.00um 4.9Msz
LR 59 10.00
PRM 52.90 89 eP 30 24.00 -1.0
BJI 52.98 286 eP 30 24.50 -1.1
5.0s 0.49nm 2.7mb X
Z 20s 2.10um 5.2Msz
N 13s 1.15um
E 13s 2.13um
eS 37 52.00
eSS 42 00.00
UPP 53.41 4 iP 30 26.70 -1.7
i 30 28.70
i 31 35.40
HHC 54.00 290 Pc 30 32.80 -0.4
Z 15s 6.70um 5.8MszX
N 14s 4.10um
E 14s 2.80um
S 38 08.00
BTO 54.79 292 eP 30 38.00 -1.0
Z 14s 6.20um 5.8MszX
N 14s 5.30um
S 38 12.00
SS 41 51.00
TIA 55.97 283 P 30 46.80 -0.6
N 15s 1.40um
E 16s 1.70um
S 38 35.50
EKA 56.37 18 Pd 30 49.70 -0.4
1.2s 162.40nm 5.9mb
TIY 56.43 288 eP 30 49.50 -1.3
Z 17s 4.80um 5.7MszX
N 17s 9.00um
E 17s 8.40um
S 38 42.00
DMU 57.28 21 eP 30 58.10 1.5
DCN 57.77 21 eP 31 00.50 0.5
DLE 57.93 21 eP 31 01.90 0.8
1.1s 87.00nm 5.7mb
ETA 58.55 21 eP 31 06.20 0.7
1.0s 134.00nm 6.0mb
SSE 58.91 277 P 31 07.50 -0.7
1.0s 20.00nm 5.2mb
Z 20s 0.90um 4.9Msz
N 12s 1.50um
E 12s 1.00um
eS 39 14.00

esS 39 23.00
PS 39 32.00
eSS 42 16.00
NJ2 58.97 279 Pc 31 07.00 -1.7
N 14s 0.80um
E 13s 2.30um
ECP 59.03 21 eP 31 09.40 0.6
1.2s 190.00nm 6.1mb
WMQ 59.38 311 ePd 31 10.94 -0.6
Z 18s 2.20um 5.3Msz
E 12s 1.00um
epPc 31 12.93 7kmX
eS 39 20.72
GTA 59.47 299 iPd 31 11.20 -1.0
1.2s 0.09nm 2.8mb X
Z 15s 1.46um 5.2MszX
N 15s 4.26um
S 39 18.80
WIT 59.86 12 eP 31 14.00 -0.5
1.1s 230.00nm 6.2mb
e(PcP)32 03.00
WTS 60.68 12 eP 31 20.20 0.0
1.0s 65.00nm 5.7mb
e(PcP)31 39.50
XAN 60.99 289 P 31 21.00 -1.6
N 18s 4.80um
E 17s 6.90um
S 39 40.00
LZH 61.02 294 eP 31 22.00 -0.9
6.0s 0.83nm 3.0mb X
Z 18s 5.20um 5.7Msz
N 15s 2.60um
eS 39 32.00
UCC 61.66 14 P+ 31 28.30 1.5
CLL 61.78 8 iPd 31 26.30 -1.3
1.7s 180.00nm 6.0mb
ENN 61.83 13 iPc 31 27.90 -0.1
1.1s 93.00nm 5.9mb
i(PcP)32 10.70
SNF 61.93 14 P 31 28.40 -0.3
MEM 61.99 13 Pc 31 28.70 -0.4
WHN 62.06 282 Pd 31 29.50 -0.2
Z 16s 2.88um 5.5MszX
N 12s 0.98um
E 13s 0.90um
S 39 54.00
BRG 62.26 7 iPc 31 30.10 -0.8
1.4s 28.00nm 5.3mb
i 31 32.20
i 32 12.40
MOX 62.36 9 eP 31 31.00 -0.6
1.6s 170.00nm 6.0mb
Z 21s 0.70um 4.8Msz
eLQ 47 00.00
eLR 50 00.00
eP'P' 00 41.00
DOU 62.37 14 Pc 31 31.30 -0.3
KSP 62.39 5 eP 31 31.40 -0.3
1.2s 98.00nm 5.9mb
ic 31 33.50
i 32 12.50
WLF 62.94 13 Pc 31 37.00 1.7
FLN 63.15 18 eP 31 35.90 -0.8
1.2s 71.40nm 5.7mb
PRU 63.17 7 P 31 37.00 0.1
e 31 39.20
KRA 63.28 3 eP 31 37.00 -0.6
1.1s 122.00nm 6.0mb
Z 20s 0.90um 4.9Msz
N 20s 1.00um
e 31 38.80
e 31 54.50
GRFO 63.29 9 ePc 31 37.89 0.2
epPc 31 39.54 5kmX
GRF 63.29 9 eP 31 37.50 -0.2
Z 20s 1.00um 5.0Msz
e 31 40.10
LDF 63.36 17 eP 31 37.20 -0.9
1.2s 65.40nm 5.7mb
GRR 63.47 18 eP 31 38.20 -0.7
1.2s 71.40nm 5.7mb
GWF 63.75 12 P 31 40.49 -0.2
LPF 63.80 18 eP 31 40.70 -0.3
1.2s 67.80nm 5.7mb
KHC 63.98 7 iPc 31 43.00 0.7
1.2s 90.00nm 5.8mb
STR 64.15 12 P 31 43.91 0.6

SPC 64.15 3 eP 31 43.70 0.1
CDF 64.28 12 P 31 44.19 -0.1
VITF 64.36 13 P 31 44.66 0.0
HAU 64.61 13 eP 31 45.70 -0.7
1.3s 115.50nm 5.9mb
BSF 64.82 13 P 31 47.54 -0.3
MOF 64.82 12 P 31 47.59 -0.3
FEL 64.87 12 P 31 47.73 -0.5
VKA 64.97 5 eP 31 49.00 0.4
1.6s 173.00nm 6.0mb
ZST 65.07 5 eP 31 49.80 0.6
e(S) 40 45.00
KMR 65.08 7 iP+ 31 50.00 0.6
LOR 65.10 15 eP 31 48.80 -0.8
1.1s 73.20nm 5.8mb
BBS 65.24 12 P 31 50.19 -0.3
SSF 65.27 15 eP 31 50.20 -0.4
LOMF 65.30 13 P 31 50.85 0.0
MFF 65.32 18 eP 31 50.30 -0.6
1.2s 89.20nm 5.8mb
LBF 65.39 15 eP 31 50.70 -0.8
1.2s 41.60nm 5.5mb
PSZ 65.42 3 eP 31 52.80 1.2
SRO 65.48 4 iP 31 52.90 1.0
AVF 65.52 15 eP 31 51.30 -0.9
1.2s 90.40nm 5.9mb
BGF 65.70 16 eP 31 52.70 -0.7
1.2s 92.20nm 5.9mb
BMR 65.70 0 iPd 31 57.00 3.7X
CD2 65.71 292 P 31 52.50 -1.2
5.0s 0.80nm 3.2mb X
Z 16s 4.00um 5.7MszX
N 15s 4.90um
eS 40 34.00
SMF 65.72 15 eP 31 52.50 -1.0
1.2s 92.20nm 5.9mb
BUD 65.83 3 eP 31 54.00 -0.1
LSF 65.86 17 eP 31 53.90 -0.5
TCF 65.90 16 eP 31 54.00 -0.7
1.2s 56.50nm 5.6mb
MAF 66.00 16 eP 31 54.80 -0.5
1.2s 41.60nm 5.5mb
KBA 66.02 8 eP 31 55.00 -0.6
1.1s 203.00nm 6.2mb
i 31 58.70
i 32 06.10
AGO 66.23 16 P 31 56.86 0.1
PLDF 66.36 15 P 31 57.75 0.0
FVI 66.47 8 P 31 57.60 -0.6
PYM 66.52 16 P 31 58.69 0.0
RBL 66.67 8 Pc 31 58.90 -0.7
KSH 66.71 318 eP 32 01.00 0.9
Z 22s 2.60um 5.4Msz
N 13s 3.00um
RJF 66.79 17 eP 31 59.60 -0.8
1.4s 55.70nm 5.6mb
VAI 66.93 11 P 32 00.40 -0.8
LBL 67.05 16 P 32 02.15 0.2
LFF 67.06 18 eP 32 01.70 -0.3
1.4s 113.20nm 5.9mb
ORX 67.10 12 P 32 02.86 0.4
LSD 67.20 13 P 32 04.09 0.8
CAF 67.23 17 eP 32 02.70 -0.5
1.3s 101.00nm 5.9mb
SAL 67.31 10 Pc 32 03.30 -0.3
PTJ 67.32 6 iPc 32 03.10 -0.7
LPO 67.37 17 eP 32 03.30 -0.7
1.2s 79.70nm 5.8mb
ZAG 67.40 6 eP 32 05.20 1.0
TRI 67.41 8 iPc 32 05.50 1.3
VRI 67.48 358 ePc 32 05.00 0.3
DEV 67.49 1 ePd 32 06.00 1.3
RSP 67.52 13 P 32 05.63 0.5
BNI 67.56 13 Pc 32 06.50 1.1
RRL 67.70 13 P 32 07.58 1.2
BZS 67.75 2 eP 32 05.00 -1.3
MLR 67.87 358 iPc 32 08.50 1.2
BOB 68.07 11 Pc 32 09.10 0.6
CMP 68.10 359 ePd 32 10.00 1.4
CFR 68.14 357 iPc 32 08.50 -0.2
PZZ 68.14 13 P 32 10.35 1.3
ROB 68.42 12 P 32 10.35 -0.3
STV 68.42 13 P 32 10.15 -0.6
BEO 68.52 2 e(P) 32 10.50 -0.7
FIN 68.53 12 P 32 11.07 -0.2
TOUF 68.65 13 P 32 12.50 0.3
GYA 68.65 287 iPd 32 11.50 -0.9

23d 19h

		5.0s		1.00nm			3.3mb X	GPA	72.96	355	eP	32	38.90	0.8		1.0s		6.70nm			5.2mb	
	Z	18s		1.60um			5.3Msz	BNT	72.97	357	iP	32	38.90	0.8	PTZ	127.09	351	iPKP	40	12.90	0.0
	N	18s		2.40um				EDC	72.98	357	eP	32	37.00	-1.1	LSZ	128.27	354	iPKP	40	15.90	0.8
	E	18s		2.10um				TPE	73.04	3	eP	32	41.40	2.9X	AVY	129.54	330	ePKP	40	18.30	0.8
				S	41	13.00		MGR	73.05	7	Pc	32	38.00	-0.5	BUL	133.09	354	iPKPc	40	22.50	-1.7X
AUTN		68.68	13	P	32	12.89	0.4	KZN	73.05	2	eP	32	38.70	0.0		1.0s		10.00nm			
DRA		68.69	360	iPd	32	13.00	0.8	LSK	73.19	2	iPc	32	40.00	0.5				iPP	42	49.50	
SAOF		68.70	12	P	32	12.28	-0.1	LIT	73.27	1	eP	32	40.20	0.4	SLR	138.67	354	ePKP	40	26.00	-8.6X
MME		68.73	10	Pc	32	13.40	0.6	BBTK	73.30	353	eP	32	41.00	0.8	BPI	139.11	354	ePKP	40	26.70	-8.7X
MVIF		68.75	13	P	32	12.95	0.1	PAIG	73.44	0	eP	32	41.40	0.6	SBA	146.28	193	PKP	40	48.60	2.5X
AURF		68.78	13	P	32	12.95	0.0	SRN	73.45	3	iP	32	42.30	1.5	SPA	156.82	180	e(PKP)	41	01.10	-0.9
IMI		68.80	12	P	32	12.51	-0.5	MAIO	73.51	330	eP	32	42.00	0.6		1.0s		25.00nm			
SBF		68.81	13	eP	32	13.10	0.0				eS	42	16.00					i	41	33.20	
CALN		68.87	13	P	32	13.56	0.0	EZN	73.53	358	eP	32	40.70	-0.6		S.D. = 0.9		on 330 of 347 obs.			
EPF		68.89	18	eP	32	12.60	-1.0	TDS	73.56	6	P	32	42.30	0.8	----------						
		0.8s		11.20nm			5.1mb	DST	73.70	356	eP	32	42.70	0.3		APR 23, 1989 19h 51m 24.36± 0.33s					
FRF		69.04	13	eP	32	14.30	-0.1	TAB	73.88	342	eP	32	44.00	0.4		39.230 N ± 3.3km 23.676 E ± 2.8km					
		1.4s		174.20nm			6.1mb	AAPN	73.90	23	eP	32	46.50	2.8X		DEPTH = 10.1 ± 2.0 km					
SFI		69.08	9	Pc	32	15.90	1.3	ASMO	73.91	22	eP	32	45.00	1.2		3.7mb (1 obs.)					
RSM		69.11	9	P	32	15.90	1.1	NEO	74.06	0	eP	32	44.50	0.1		AEGEAN SEA					(365)
PGD		69.12	9	Pc	32	16.30	1.2	ALOJ	74.10	23	eP	32	48.00	3.1X		ML 3.4 (ATH).					
LRG		69.12	13	eP	32	15.10	0.2	PRK	74.10	358	eP	32	45.00	0.4							
		1.3s		129.90nm			6.0mb	ACHM	74.15	23	eP	32	46.50	1.4	NEO	0.36	282	ePg	51	30.80	-1.0
FIR		69.18	10	eP	32	17.00	1.8	ALT	74.20	355	iP	32	45.00	-0.4	PAIG	0.70	0	iPgc	51	39.60	1.5
PII		69.19	10	P	32	14.70	-0.6	ATEJ	74.31	23	eP	32	49.50	3.4X				iSg	51	51.00	
LMR		69.25	13	eP	32	15.90	0.2	APHE	74.32	23	eP	32	47.50	1.3	PLG	1.16	351	ePg	51	46.30	0.3
		1.4s		139.40nm			6.0mb	MAL	74.43	23	iPd	32	50.80	4.2X	ATH	1.26	179	iPbd	51	47.30	-0.4
ARV		69.57	8	P	32	17.60	0.0	GUN	74.61	306	Pc	32	48.50	0.2				eSb	52	04.20	
PSN		69.64	357	iP	32	19.00	1.0	SHL	74.79	300	iP	32	48.00	-1.1	LIT	1.26	314	iPbc	51	47.20	-0.6
ASS		69.98	9	Pc	32	20.60	0.4	KKN	74.91	306	Pc	32	50.10	0.3				iSb	52	05.20	
PVL		70.15	359	iPc	32	22.00	0.9	GKN	74.92	307	Pc	32	50.00	0.2	THE	1.50	339	iPbc	51	51.30	0.0
CVF		70.22	12	P	32	21.03	-0.6	IZM	74.93	357	eP	32	39.00	-10.5X				iSb	52	11.10	
VTS		70.78	0	iP	32	25.00	-0.2	KHL	74.95	355	iP	32	49.50	-0.2	SOH	1.61	351	ePb	51	53.10	0.2
PGB		70.82	360	eP	32	25.00	-0.3	PKI	75.07	306	Pc	32	50.80	-0.1	KZN	1.82	307	ePb	51	55.50	-0.5
JMB		70.88	358	eP	32	25.00	-0.6	GIB	75.12	8	P	32	50.80	0.1	SRS	1.89	358	ePnc	51	56.50	-0.4
BCI		70.97	3	eP	32	28.40	2.3	SOI	75.13	6	Pc	32	50.00	-0.6				iSn	52	20.00	
LSA		71.23	302	Pd	32	29.50	1.0	DMN	75.14	306	Pc	32	51.40	0.2	GRG	1.98	331	ePn	51	57.90	-0.4
	E	15s		1.39um					1.1s		107.00nm			5.8mb	PRK	2.02	89	ePg	52	03.10	4.3X
				pP	32	37.00	24kmX	VLS	75.16	3	eP	32	51.00	0.2	KNT	2.02	343	ePn	51	59.10	0.3
RDP		71.29	9	P	32	28.60	0.4	ATH	75.40	360	eP	32	51.60	-0.5				eSn	52	25.80	
PUK		71.29	3	eP	32	28.70	0.7	BCK	75.77	354	iP	32	53.00	-1.4	EZN	2.13	73	ePn	51	59.70	-0.8
SDA		71.31	3	eP	32	25.60	-2.5	MSL	75.92	344	ePd	32	55.50	0.4	VAY	2.25	338	iPn	52	02.40	0.2
DIM		71.31	359	eP	32	29.00	0.8	ITM	76.18	1	eP	32	56.40	-0.2	MMB	2.36	1	iPc	52	03.00	-0.7
KMI		71.32	290	ePd	32	27.70	-1.1	ELL	76.51	355	eP	32	58.10	-0.5	RDO	2.39	36	ePn	52	03.40	-0.7
	Z	18s		3.30um			5.6Msz	NDI	76.51	313	iPc	32	58.50	-0.1	ITM	2.47	214	ePn	52	05.20	-0.1
	N	14s		1.80um							eS	42	45.00		LSK	2.55	292	ePn	52	06.20	-0.2
				epPc	32	29.52	6kmX	KSL	77.15	355	eP	33	03.00	1.0	RZN	2.58	18	iPc	52	07.00	0.0
				PcP	32	46.00		KER	77.44	340	eP	33	06.00	2.2	KBN	2.60	303	iPnc	52	07.50	0.3
				sP	33	03.50		KAP	77.78	357	eP	33	03.70	-1.7	VLS	2.63	247	ePn	52	08.00	0.4
				ePP	35	06.61		VAM	77.95	360	eP	33	06.50	0.1	KKB	2.67	350	iPc	52	08.00	-0.2
				ePPP	36	55.41		NPS	78.09	358	eP	33	05.20	-2.0	KDZ	2.76	28	iPc	52	08.00	-1.4
				eS	41	45.92		CHG	78.48	291	ePd	33	08.90	-0.7	OHR	2.90	311	iPn	52	11.60	0.2
				SS	46	28.00			1.7s		57.69nm			5.4mb	SRN	2.91	284	iPn	52	13.80	2.2
SKO		71.39	2	iPc	32	29.00	0.3	CHTO	78.48	291	eP	33	08.48	-1.1	IZM	2.92	105	ePn	52	12.20	0.4
		1.4s		320.00nm			6.2mb				epPc	33	10.63	7kmX	PLD	2.98	15	eP	52	13.00	0.6
	Z	20s		0.51um			4.8Msz	LOE	78.74	288	eP	33	10.00	-1.0	BERA	3.22	298	ePn	52	17.40	1.5
	N	20s		0.57um				BHD	78.84	342	ePc	33	11.00	-0.3	SKO	3.23	329	iPn	52	16.00	0.0
	E	20s		0.57um				DAV	78.87	262	eP	33	13.00	1.2				i	52	25.50	
				iPcP	32	48.50		BURJ	80.71	350	P	33	21.20	-0.3				iSn	52	56.50	
				iS	41	48.00		ZNT	80.74	350	eP	33	22.00	0.4	VTS	3.38	354	iP	52	18.00	-0.3
TOL		71.39	22	iPd	32	31.50	2.7X	KFNJ	81.07	350	P	33	23.70	0.5	EDC	3.41	70	ePn	52	18.00	-0.7
		1.3s		211.54nm			6.1mb	MASJ	81.20	350	P	33	25.10	1.0	BNT	3.46	70	ePn	52	20.40	1.1
				eS	41	50.00		MKRJ	81.38	350	P	33	25.20	0.2	PHP	3.48	316	ePn	52	19.10	-0.5
SDI		71.40	8	Pc	32	28.50	-0.3	TPT	81.96	172	iP	33	29.30	1.4	TIR	3.60	307	ePn	52	23.00	1.7
PHP		71.65	3	iPc	32	30.60	0.4		1.4s		50.00nm			5.4mb	KKS	3.77	320	ePn	52	25.00	1.2
RZN		71.68	359	iP	32	30.00	-0.7	PMO	81.96	172	iP	33	28.10	0.2	VAM	3.84	174	ePn	52	26.20	1.5
LACI		71.69	3	eP	32	30.50	0.0		1.4s		75.00nm			5.6mb	DST	3.85	83	ePn	52	26.20	1.2
KDZ		71.71	359	iP	32	32.00	1.4	RUV	82.18	171	iP	33	30.50	1.5	JMB	3.91	33	iP	52	36.00	10.2X
KVT		71.88	350	eP	32	32.00	0.3		1.4s		60.00nm			5.5mb				eSg	53	34.00	
TIR		71.98	3	iPd	32	34.50	2.3	VAH	82.21	172	iP	33	29.10	-0.1	PUK	4.02	316	ePn	52	29.30	2.0
VAY		72.05	1	iP	32	32.40	-0.2		1.4s		75.00nm			5.6mb	BCI	4.16	320	ePn	52	29.40	0.2
KNT		72.21	1	eP	32	33.70	0.1	SVO	82.25	224	eP	33	30.00	0.4	PVL	4.17	17	iPc	52	28.00	-1.4
RDO		72.22	359	eP	32	34.40	0.8	PRNI	82.62	350	iP	33	31.00	-0.5	YER	4.19	119	ePn	52	29.00	-0.8
ISK		72.23	356	eP	32	33.00	-0.7	MBH	83.20	350	iP	33	35.00	0.6	SDA	4.22	313	ePn	52	35.00	4.8X
OHR		72.24	2	iPc	32	34.10	0.3	KKM	83.50	270	ePc	33	37.20	0.9	NPS	4.25	158	ePn	52	31.80	1.2
		1.5s		0.43nm			3.3mb X	AYN	84.02	349	ePc	33	39.70	1.2	ISK	4.51	64	ePn	52	33.00	-1.3
				e	32	53.30		TSM	84.43	268	ePd	33	42.50	1.7	KHL	4.66	99	eP	52	37.00	0.5
SRS		72.25	0	eP	32	33.80	-0.1	BADA	84.43	350	ePc	33	41.50	0.9	BRT	5.23	290	Pd	52	43.30	-1.2
BAG		72.34	270	eP	32	34.00	-0.9	PMG	86.29	236	eP	33	50.00	0.0				eSn	53	42.60	
BSS		72.36	7	P	32	35.00	0.5	WAJH	86.65	348	iPc	33	53.00	1.3	TDS	5.70	277	Pd	52	49.60	-1.5
GRG		72.41	1	eP	32	35.10	0.3	RYD	86.99	339	ePd	33	54.00	0.5				eSn	53	52.70	
HRT		72.45	355	eP	32	35.00	-0.1	POO	87.07	313	eP	33	55.00	1.0	CMP	6.12	9	ePc	52	56.00	-1.0
SOH		72.55	0	eP	32	36.30	0.6	SNG	88.53	285	eP	33	56.80	-4.1X	MGR	6.33	281	P	52	58.90	-1.1
SGO		72.62	7	P	32	36.60	0.6	CTA	96.59	233	iPd	34	40.00	2.1	MLR	6.48	14	ePc	53	01.50	-0.7
BERA		72.63	3	eP	32	35.90	-0.1		1.1s		18.99nm			5.6mb	BZS	6.56	347	ePc	53	00.50	-2.7X
KBN		72.72	2	eP	32	38.00	1.4	WB5	100.37	244	ePdiff	34	54.80	-0.3	SGO	6.57	284	Pd	53	01.60	-1.8
THE		72.74	1	eP	32	35.20	-1.5	WRA	100.44	244	Pdiff	34	58.00	2.6X	BSS	6.99	286	Pd	53	07.90	-1.3

VRI	7.01	18	ePd	53	10.50	1.1
MEU	7.21	256	P	53	08.00	-4.4X
SDI	7.91	291	P	53	21.50	-0.8
BGF	16.90	302	eP	55	24.10	1.7
	0.7s		4.40nm			3.7mb
BNG	34.95	189	iPd	58	16.60	-1.9
	0.4s		6.00nm			4.8mb X

S.D. = 1.1 on 54 of 59 obs.

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* APR 23, 1989 20h 13m 28.50± 1.21s
66.980 N ± 6.9km 156.236 W ±14.5km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.3 (PMR).

IMA	1.37	131	iP	13	54.00	-0.4
FBA	4.04	117	eP	14	31.80	-0.5
TTA	4.07	179	eP	14	31.90	-0.9
BRW	4.35	358	eP	14	37.00	0.3
PWA	6.02	150	eP	15	00.30	0.0
PMR	6.23	147	eP	15	02.80	-0.4
PMS	6.45	150	eP	15	07.50	1.0
TOA	6.53	134	eP	15	08.60	0.9
DWY	7.57	105	P	15	20.00	-2.0
INK	8.74	71	eP	15	40.00	1.6
MBC	14.54	35	eP	16	55.00	-1.4
YKA	18.05	85	P	17	47.20	6.0X

S.D. = 1.2 on 11 of 12 obs.

APR 23, 1989 21h 31m 19.49± 0.82s
66.946 N ± 5.1km 156.296 W ± 9.6km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.9 (PMR).

IMA	1.37	129	iPc	31	45.60	0.3
TTA	4.03	178	eP	32	23.00	-0.3
FBA	4.04	117	iPd	32	23.20	-0.1
BRW	4.38	358	eP	32	28.80	0.7
SVW	5.87	177	iPc	32	49.00	-0.2
PMR	6.21	147	eP	32	54.20	0.2
TOA	6.53	133	eP	32	59.00	0.4
DWY	7.58	105	P	33	13.00	-0.2
INK	8.77	71	eP	33	30.00	0.2
MBC	14.58	35	eP	34	47.00	-0.9
YKA	18.08	84	P	35	35.40	2.9X

S.D. = 0.5 on 10 of 11 obs.

APR 23, 1989 21h 35m 34.29± 1.78s
6.538 S ± 8.3km 105.826 E ± 8.6km
DEPTH = 74.8 ± 15.9 km
5.1mb (10 obs.)
SUNDA STRAIT (276)

TRT	6.86	100	ePd	37	17.00	2.7
KGM	8.86	344	ePc	37	47.60	5.7X
SNG	14.58	339	eP	38	56.50	-1.6
			e	41	25.00	
PCI	15.05	69	ePd	39	11.00	6.8X
KKM	16.24	40	ePd	39	25.50	6.1X
NANU	18.48	151	eP	39	42.00	-4.8X
			eS	42	45.00	
MBL	19.88	138	eP	40	02.00	-0.2
NNT	19.94	342	eP	40	04.50	1.6
MEKA	23.35	150	eP	40	36.00	-0.8
LOE	24.13	350	eP	40	44.00	-0.5
KNA	24.27	114	eP	40	45.50	-0.4
MTN	25.70	106	eP	40	58.40	-1.0
CHG	26.09	345	ePc	41	02.90	0.0
	1.0s		15.00nm			4.5mb
WB5	30.72	118	iPc	41	43.20	-1.4
WRA	30.72	118	Pd	41	43.70	-0.9
	0.7s		6.50nm			4.5mb
ASPA	31.90	125	eP	41	52.80	-2.1
KOD	32.79	300	eP	42	04.50	1.4
GYA	32.81	1	P	42	04.00	1.2
GBA	34.57	305	Pd	42	18.40	0.4
	0.6s		18.20nm			5.2mb
SHL	34.67	338	iP	42	17.10	-1.9
			e	44	52.10	
QIS	35.57	116	eP	42	26.00	-0.6
PKI	39.24	331	P	42	56.20	-1.4
	0.4s		12.00nm			5.2mb
GUN	39.30	332	P	42	57.20	-0.9
DMN	39.42	330	P	42	57.60	-1.4
KKN	39.48	331	P	42	58.40	-1.1
GKN	39.97	330	P	43	02.40	-1.0
POO	40.19	309	iPc	43	06.20	1.0
	0.9s		20.17nm			5.0mb
XAN	40.46	4	P	43	07.40	0.2
PMG	41.01	97	eP	43	13.00	1.0
	1.0s		80.00nm			5.5mb
ADE	41.43	138	eP	43	15.20	0.0
CTA	41.45	113	eP	43	16.00	0.5
STK	41.81	132	iPd	43	19.00	0.7
TIY	44.45	7	Pd	43	40.80	1.1
Z	26s		0.60um			4.4MszX
NDI	44.57	323	iP	43	39.20	-1.5
	0.7s		61.64nm			5.5mb
BJI	47.32	11	eP	44	03.00	0.7
			PcP	45	32.50	
BRS	49.09	121	iPc	44	16.80	0.5
WMQ	52.74	344	P	44	43.40	-0.3
CN2	53.16	18	iPc	44	46.00	-0.7
			iPcP	45	54.00	
VSG	53.40	97	eP	44	49.00	0.0
MAIO	60.82	318	iPc	45	40.00	-1.2
TAB	70.82	314	eP	46	45.00	-0.2
BUL	75.80	251	eP	47	13.30	-1.3
MBH	76.93	302	iPc	47	21.00	0.4
PRNI	76.99	303	iPc	47	21.50	0.6
JVI	77.13	305	eP	47	22.00	0.4
BBTK	81.34	312	eP	47	44.50	0.2
PSN	85.62	315	eP	48	06.00	0.2
JMB	86.50	313	eP	48	12.00	1.8
VRI	87.11	317	ePc	48	15.00	1.8
PVL	87.55	314	eP	48	17.00	1.8
MLR	87.57	316	iPc	48	17.00	1.5
RZN	87.70	312	iP	48	17.00	0.7
BNG	87.80	275	iPd	48	17.30	0.1
	0.5s		5.00nm			4.9mb
LIT	89.09	310	ePc	48	23.00	0.2
SUF	91.05	333	iP	48	31.90	0.6
	0.4s		4.20nm			5.1mb
NUR	91.31	331	iP	48	33.40	0.9
	0.6s		13.00nm			5.5mb
KEV	92.23	340	eP	48	35.00	-1.6
YKA	116.83	20	PKP	54	11.80	0.4
EDM	123.61	27	ePKPc	54	20.70	-4.0X
LNO	144.68	31	ePKP	55	03.30	-1.0
TUL	144.68	31	iPKPd	55	04.00	-0.4
	1.2s		44.10nm			
			e	55	18.50	
RLO	144.87	30	ePKP	55	04.30	-0.5
VVO	145.15	32	ePKPd	55	06.00	0.8
BAO	145.97	229	e(PKP)	55	08.30	1.0
UYO	146.72	32	iPKP	55	01.60	-6.3X
CNCB	156.01	195	ePKP	55	26.00	3.3X
LPB	156.30	195	ePKP	55	29.00	6.1X
ZOBO	156.56	195	ePKP	55	28.00	4.5X

S.D. = 1.1 on 59 of 68 obs.

% APR 23, 1989 22h 14m 47.67± 0.74s
39.305 N ± 8.7km 29.013 E ± 8.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.42	315	iP	14	55.90	-0.4
			eSg	15	03.10	
ALT	0.89	106	ePg	15	05.00	0.2
			eSg	15	16.50	
KHL	1.06	158	iPn	15	07.50	-0.2
BNT	1.35	322	iPn	15	12.80	0.4
EDC	1.37	320	ePn	15	13.00	0.3
GPA	1.40	45	ePn	15	13.00	-0.3

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

APR 23, 1989 22h 17m 50.05± 0.55s
39.319 N ± 5.7km 29.022 E ± 6.5km
DEPTH = 9.2 ± 4.9 km
TURKEY (366)

DST	0.42	313	iP	17	58.60	0.0
ALT	0.89	107	ePg	18	07.00	-0.2
KHL	1.07	158	iPg	18	10.00	-0.3
			iSg	18	24.00	
BNT	1.34	321	iPn	18	14.30	-0.5
EDC	1.36	319	ePn	18	15.00	-0.1
GPA	1.39	45	ePn	18	16.40	0.9
GBZT	1.50	12	ePn	18	23.00	5.9X
HRT	1.58	18	ePn	18	16.00	-2.3
IZM	1.65	237	ePn	18	19.50	0.1
ISK	1.74	1	ePn	18	22.40	1.8
CTT	1.88	346	ePn	18	25.00	2.4X
EZN	2.14	285	iPn	18	26.20	-0.2
BCK	2.23	146	ePn	18	27.00	-0.7
YER	2.26	195	iPn	18	31.60	3.5X
ELL	2.66	164	ePn	18	34.60	0.7
DMK	2.68	339	ePn	18	37.00	2.9X
BBTK	2.94	79	eP	18	46.00	8.2X
			eS	19	28.00	

S.D. = 1.1 on 12 of 17 obs.

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* APR 23, 1989 22h 19m 12.36± 0.99s
66.900 N ± 6.6km 156.293 W ±13.1km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.1 (PMR).

IMA	1.34	127	iPd	19	37.60	-0.1
TTA	3.99	178	eP	20	15.70	0.2
FBA	4.02	116	ePc	20	14.90	-1.0
BRW	4.43	358	eP	20	22.00	0.3
SVW	5.82	177	eP	20	40.40	-1.1
PMR	6.17	146	eP	20	47.50	1.2
TOA	6.49	133	eP	20	51.70	0.7
MBC	14.61	35	eP	22	41.00	-0.3

S.D. = 0.9 on 8 of 8 obs.

? APR 23, 1989 22h 31m 24.13± 1.13s
33.463 S ±11.0km 70.899 W ±15.3km
DEPTH = 33.0km (normol)
CHILE-ARGENTINA BORDER REGION (127)

SAN	0.20	87	eP	31	31.50	0.7
			iS	31	40.00	
PEL	0.37	29	iPc	31	32.40	-0.4
			iS	31	41.00	
CHCH	0.51	156	iPc	31	34.50	-0.5
			iS	31	45.80	
LNV	0.65	221	iPd	31	37.00	0.2
			iS	31	49.60	

S.D. = 1.0 on 4 of 4 obs.

APR 23, 1989 23h 32m 20.64± 0.53s
41.764 N ± 5.4km 12.684 E ± 4.5km
DEPTH = 16.8 ± 4.5 km
SOUTHERN ITALY (390)
ML 3.4 (KBA).

RMP	0.05	17	Pc	32	23.20	-0.7
			eSg	32	24.50	
AZI	0.60	68	Pc	32	32.80	0.4
			eSg	32	39.40	
MNS	0.62	360	P	32	33.10	0.4
			eSg	32	41.60	
AQU	0.80	42	P	32	36.60	0.9
			eSg	32	45.50	
SDI	0.85	94	Pc	32	36.60	0.0
			eSg	32	49.40	
RFI	1.08	115	P	32	41.25	0.8
ASS	1.31	359	P	32	45.00	0.9
			eSg	33	01.80	
MAO	1.31	300	P	32	44.80	0.6
			eSg	33	04.90	
DUI	1.33	94	P	32	46.00	1.5
ARV	1.74	6	P	32	52.50	2.1
			eSn	33	12.40	
BSS	1.87	121	P	32	54.00	1.8
RSM	2.17	356	P	33	00.85	4.4X
RSM	2.17	356	P	32	56.80	0.3
PGD	2.23	342	P	32	59.50	2.0
SFI	2.24	344	Pd	32	57.50	0.0
FIR	2.27	333	ePn	33	04.00	6.1X
SGO	2.32	120	P	32	59.40	0.8
PII	2.52	322	P	33	03.00	1.5
MGR	2.71	126	P	33	05.00	0.7
MME	2.83	330	P	33	06.70	0.6
CVF	2.95	287	Pn	33	07.70	0.1
			Sn	33	42.90	
BRT	3.52	103	P	33	14.40	-1.3
BOB	3.82	323	P	33	21.10	1.1
TRI	4.02	11	iPnd	33	22.50	-0.2
			iSn	34	09.90	
			iSg	34	32.40	
RBL	4.72	7	Pd	33	31.00	-1.8
			eSn	34	23.00	
PTJ	4.76	29	e(P)	33	32.90	-0.6
FRF	4.80	294	Pn	33	33.10	-0.8
LMR	4.82	291	Pn	33	32.90	-1.3
FVI	4.83	1	Pd	33	32.20	-2.0

23d 23h

LRG	4.96	292	Pn	33 35.40	-0.7
KBA	5.33	5	iPnd	33 42.00	0.4
			iPP	33 49.50	
			e	34 38.00	
			iSn	34 43.80	
			i	35 22.00	
LPG	5.70	313	Pn	33 50.80	4.0X
LPL	5.72	313	Pn	33 51.80	4.7X
SKO	6.54	85	ePn	34 07.00	8.5X
VKA	6.99	20	ePn	34 05.00	0.3
			eSn	35 24.50	
KHC	7.39	5	eP	34 09.30	-1.1
			e	35 33.00	
VAY	7.43	90	ePn	34 17.00	6.1X

S.D. = 1.1 on 31 of 37 obs.

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* APR 23, 1989 23h 44m 36.63± 3.20s
2.101 S ±25.1km 128.465 E ±19.5km
DEPTH = 60.7 ± 22.6 km
4.3mb (2 obs.)
CERAM SEA (270)

AAI	1.60	190	ePd	45 03.00	0.0
			eS	45 17.50	
PCI	8.71	278	ePd	46 42.00	-0.4
MKS	9.49	251	iPc	46 54.00	0.8
MTN	11.00	166	eP	47 13.40	-0.3
			eS	49 11.40	
WB5	18.59	162	eP	48 49.00	-2.5X
			eS	52 09.20	
WRA	18.64	162	P	48 52.00	-0.1
	0.7s		7.20nm		4.0mb
QIS	21.32	150	eP	49 21.00	0.4
ASPA	22.08	167	iPc	49 28.30	0.2
	0.8s		108.00nm		5.3mb X
			eS	53 23.20	
NANU	23.91	211	eP	49 45.30	-0.6
CTA	24.93	137	iPd	50 00.00	4.2X
	1.2s		30.47nm		4.7mb

S.D. = 0.6 on 8 of 10 obs.

APR 23, 1989 23h 47m 27.38± 0.87s
66.970 N ± 5.3km 156.350 W ±10.3km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.7 (PMR).

IMA	1.40	129	iPc	47 53.60	-0.1
TTA	4.06	178	ePd	48 31.10	-0.4
FBA	4.07	117	iPd	48 31.20	-0.4
BRW	4.36	358	iPc	48 36.30	0.6
SVW	5.89	177	ePd	48 56.90	-0.6
			ic	48 57.10	
PMR	6.24	146	eP	49 02.20	-0.1
PMS	6.47	150	eP	49 06.60	1.0
TOA	6.56	133	eP	49 08.00	1.1
DWY	7.61	105	P	49 21.00	-0.5
INK	8.79	71	eP	49 38.00	0.1
MBC	14.57	35	eP	50 55.00	-0.7
YKA	18.09	84	P	51 43.00	2.3X

S.D. = 0.7 on 11 of 12 obs.

APR 23, 1989 23h 56m 19.48± 0.35s
41.966 N ± 3.5km 23.509 E ± 3.4km
DEPTH = 7.0 ± 2.9 km
GREECE-BULGARIA BORDER REGION (363)
ML 2.5 (SKO).

KKB	0.33	253	iPg	56 26.00	-0.3
			iSg	56 30.00	
VTS	0.66	340	iPg	56 33.00	0.2
PGB	0.76	40	iPg	56 34.00	-0.7
SRS	0.85	176	iPgc	56 35.00	-1.2
			iSg	56 45.70	
PLD	0.90	81	ePg	56 37.00	0.0
			iSg	56 50.00	
KNT	0.92	210	iPgc	56 36.70	-0.7
			iSg	56 48.00	
RZN	0.94	107	iPg	56 37.00	-0.9
VAY	0.95	228	iPg	56 37.40	-0.5
			iSg	56 50.00	
SOH	1.15	186	iPgc	56 40.40	-0.9
GRG	1.31	220	iPgc	56 43.80	-0.2
			iSg	57 00.50	
THE	1.39	197	ePb	56 45.20	-0.1
			iSb	57 02.70	
KDZ	1.46	102	iPc	56 45.00	-1.3
			iSg	57 06.00	
DIM	1.51	86	ePg	56 48.00	1.0
SKO	1.54	271	ePn	56 48.00	0.6
			iSn	57 06.00	
PLG	1.59	182	ePn	56 48.00	-0.2
			eSn	57 09.70	
RDO	1.73	118	ePn	56 50.90	0.8
			eSn	57 14.50	
PVL	1.84	47	eP	56 51.00	-0.7
			iSg	57 16.00	
LIT	2.02	203	ePn	56 56.30	2.0
PAIG	2.04	176	ePn	56 54.80	0.2
			eSn	57 21.90	
JMB	2.34	77	eP	56 59.00	0.1
NEO	2.67	185	ePn	57 03.50	-0.1
EZN	3.02	134	ePn	57 09.40	0.8
BZS	3.90	340	iPc	57 21.00	0.0
MLR	3.94	26	ePc	57 27.00	5.2X
VRI	4.54	30	ePc	57 23.50	-6.7X

S.D. = 0.8 on 23 of 25 obs.

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* APR 24, 1989 00h 50m 40.90± 1.76s
66.989 N ±10.7km 156.390 W ±21.5km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.8 (PMR).

IMA	1.43	129	ePc	51 08.20	0.6
TTA	4.08	178	ePd	51 45.60	0.3
FBA	4.10	117	ePd	51 45.90	0.4
SVW	5.91	176	ePc	52 11.60	0.3
PMR	6.27	146	ePd	52 16.90	0.7
MBC	14.56	35	eP	54 11.00	1.8
YKA	18.11	84	P	55 00.40	6.1X
PNT	25.67	115	iPc	56 15.60	2.7X
LRM	31.21	111	eP	57 04.20	1.0
LNO	46.08	101	e(P)	59 05.30	-1.8
TUL	46.08	101	eP	59 06.30	-0.9
	0.8s		5.50nm		4.6mb X
RLO	46.16	100	eP	59 07.40	-0.4
VVO	46.61	101	(P)	59 09.30	-2.0

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

APR 24, 1989 01h 09m 45.20± 0.91s
66.905 N ± 6.3km 156.331 W ±11.1km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.3 (PMR).

IMA	1.36	127	ePc	10 10.80	0.0
TTA	3.99	178	eP	10 48.20	-0.3
FBA	4.04	116	eP	10 48.60	-0.4
BRW	4.42	358	eP	10 54.40	0.0
SVW	5.83	177	eP	11 14.50	0.1
PMR	6.18	146	eP	11 19.70	0.4
INK	8.80	70	eP	11 56.00	0.1

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

APR 24, 1989 01h 30m 41.92± 0.61s
28.795 N ± 5.2km 129.569 E ± 4.8km
DEPTH = 32.5 ± 5.5 km
4.9mb (3 obs.)
RYUKYU ISLANDS (238)
Felt (II JMA) at Noze.

NZJ	0.42	189	iP+	30 51.30	0.0
			iS	30 59.00	
KAGJ	2.64	25	iP+	31 23.10	-0.1
			eS	31 53.40	
KUMJ	3.88	16	P	31 42.00	1.2
			S	32 28.10	
SHNJ	5.47	14	P	32 05.80	2.5X
SHK	6.30	24	eP	32 15.20	0.1
TKSJ	6.43	35	P	32 16.70	-0.2
YONJ	7.18	26	P	32 27.10	-0.2
			eS	33 48.30	
WKYJ	7.46	42	P	32 30.60	-0.7
			eS	33 52.90	
SSE	7.63	290	eP	32 29.50	-4.0X
Z	16s		0.40um		
N	12s		0.50um		
E	12s		1.10um		
			eLg	34 53.00	
TSRJ	8.64	37	P	32 47.10	-0.6
IIDJ	9.71	45	P	33 02.20	-0.3
MTMJ	10.41	40	P	33 12.00	-0.1
MAT	10.61	41	(P)	33 15.00	0.2
	0.5s		9.86nm		5.3mb
BJI	15.73	319	eP	34 23.00	0.4
Z	12s		0.60um		
N	13s		0.61um		
			eS	37 30.00	
TIY	16.85	306	eP	34 38.00	1.1
N	16s		1.20um		
			eS	37 37.00	
XAN	18.37	292	Pc	34 55.80	-0.1
N	18s		0.48um		
E	17s		0.69um		
HHC	19.01	314	P	35 04.20	0.5
BTO	19.88	311	eP	35 12.60	-0.8
GYA	20.42	269	iPc	35 19.00	-0.2
N	15s		2.20um		
CD2	22.47	282	P	35 38.60	-1.2
N	10s		1.10um		
LZH	22.85	295	eP	35 43.00	-0.6
	2.0s		55.00nm		4.7mb
GTA	26.71	301	eP	36 18.80	-1.4
	1.0s		0.03nm		1.9mb X
CHG	29.65	257	eP	37 03.90	17.0X
GUN	38.30	279	P	38 03.00	1.3
WB5	48.61	174	eP	39 25.20	0.6
KEV	67.50	338	eP	41 32.00	-4.4X
RBL	85.41	321	Pc	43 33.70	16.2X
			eSg	43 42.30	
FVI	85.74	322	P	43 29.20	10.2X
			eSg	43 36.40	
FFC	85.77	27	eP	43 20.00	1.0
	0.6s		5.00nm		4.9mb
DRV	95.49	176	eP	44 03.80	-0.2

S.D. = 0.8 on 24 of 30 obs.

APR 24, 1989 01h 34m 01.25± 0.45s
57.317 N ± 4.1km 121.904 E ± 9.9km
DEPTH = 33.0km (normal)
4.8mb (22 obs.) 4.4Msz (3 obs.)
EASTERN USSR (656)

MDJ	13.59	156	eP	37 15.50	1.6
CN2	13.72	169	Pc	37 09.00	-6.5X
Z	11s		2.80um		
			eS	39 36.00	
SNY	15.54	175	eP	37 40.80	1.5
BJI	17.69	195	eP	38 04.00	-2.4
E	11s		4.40um		
			Lg	43 15.00	
HHC	17.78	206	eP	38 07.80	0.1
Z	14s		17.50um		
BTO	18.41	210	eP	38 14.50	-1.0
			S	41 37.50	
TIY	20.59	202	eP	38 38.70	-1.1
Z	21s		1.66um		4.4Msz
E	18s		18.40um		
GTA	22.98	228	eP	39 03.40	-0.4
LZH	24.43	217	eP	39 18.00	0.0
	1.5s		44.00nm		4.8mb
Z	20s		1.20um		4.4Msz
E	10s		1.20um		
WMQ	25.26	252	eP	39 28.20	2.5
NJ2	25.35	186	Pc	39 25.00	-1.5
GUN	38.79	236	P	41 25.00	0.3
KKN	39.16	237	P	41 28.40	0.7
	0.8s		16.00nm		4.8mb
GKN	39.27	238	P	41 29.30	0.8
PKI	39.29	236	P	41 29.20	0.3
DMN	39.40	237	P	41 30.20	0.6
	0.9s		13.00nm		4.7mb
SOD	40.95	324	iP	41 42.80	1.1
SUF	43.91	319	eP	42 07.00	1.2
	0.5s		7.50nm		4.7mb
NUR	45.89	317	iP	42 22.60	0.9
Z	18s		0.40um		4.4Msz
			LR	03 20.00	
NRA0	50.29	323	P	42 55.40	-0.5
KRA	55.27	310	eP	43 33.00	-0.2
KSP	56.15	313	eP	43 40.00	0.5
			e	46 31.00	
BRG	57.05	314	eP	43 45.20	-0.7
	1.0s		20.00nm		5.1mb
CLL	57.07	315	iP	43 45.70	-0.4
	1.4s		18.00nm		4.9mb
PRU	57.52	313	eP	43 48.50	-0.7
			e	43 58.50	
MOX	58.13	315	eP	43 54.00	0.5
	1.3s		32.00nm		5.2mb

			e	44 02.50		
			e	46 30.00		
			LR	13 00.00		
KHC	58.58	313	iPc	43 57.50	0.8	
			e	44 06.40		
GRF	59.05	315	eP	44 03.90	3.9X	
	1.1s		9.00nm		4.8mb	
EKA	59.25	327	Pd	44 01.50	0.3	
	0.9s		10.20nm		5.0mb	
MEM	60.24	319	P	44 10.60	2.6X	
KBA	60.32	312	eP	44 09.50	0.6	
	1.0s		7.70nm		4.8mb	
			i	46 52.30		
LOR	63.81	318	eP	44 31.20	-0.8	
	0.8s		7.20nm		4.8mb	
LBF	64.01	318	eP	44 32.50	-0.8	
	0.8s		4.00nm		4.6mb	
FLN	64.05	322	eP	44 33.10	-0.5	
	0.5s		7.20nm		5.0mb	
LDF	64.08	321	eP	44 33.00	-0.7	
	0.5s		9.30nm		5.1mb	
SSF	64.11	318	eP	44 33.50	-0.5	
	0.8s		2.60nm		4.4mb	
LPG	64.22	315	eP	44 35.40	0.3	
	0.8s		5.30nm		4.7mb	
SMF	64.34	318	eP	44 34.70	-0.8	
	1.0s		6.00nm		4.6mb	
GRR	64.50	322	eP	44 35.80	-0.7	
	0.5s		7.80nm		5.1mb	
LPF	64.87	322	eP	44 38.30	-0.6	
	0.5s		2.00nm		4.5mb	
TCF	65.24	318	eP	44 40.80	-0.5	
LSF	65.52	319	eP	44 42.70	-0.3	
MFF	65.80	320	eP	44 44.80	0.0	
	0.5s		4.30nm		4.8mb	
EPF	68.72	318	eP	45 03.30	-0.1	
	0.5s		2.10nm		4.5mb	
LNO	81.84	30	e(P)	46 18.10	0.2	
TUL	81.84	30	e(P)	46 18.40	0.4	
	1.2s		5.90nm		4.5mb	
ZOBO	138.33	15	(PKP)	53 37.00	11.5X	
LPB	138.60	15	(PKP)	53 39.00	13.2X	
CNCB	138.89	14	(PKP)	53 43.00	16.6X	
	S.D. = 0.9		on	43 of	49 obs.	

& APR 24, 1989 01h 35m 31.15s
59.528 N 152.804 W
DEPTH = 85.2km
4.6mb (31 obs.)
SOUTHERN ALASKA (2)
<AGS-P>. Felt (IV) at Homer and Ninilchik. Felt (III) at Anchorage and Port Graham.

OPT	0.25	300	iP	35 43.47	-0.5
XLV	0.56	97	iP	35 45.55	-0.5
ILIM	0.56	352	iP	35 45.29	-0.9
HOM	0.60	77	iP	35 46.28	-0.2
			eS	35 58.18	
CDD	0.74	216	iP	35 47.08	-0.8
PDB	0.75	291	iP	35 47.10	-0.9
CNPM	0.80	89	iP	35 47.92	-0.6
			iS	36 00.50	
RED	0.89	1	iP	35 48.90	-0.8
NNL	0.92	55	iP	35 49.95	0.1
BRLK	1.00	76	iP	35 49.95	-0.9
RDT	1.07	11	iP	35 50.88	-0.8
			iS	36 06.23	
NKA	1.45	32	iP	35 57.41	1.0
SLKM	1.63	52	iP	35 57.39	-1.4
SPU	1.70	12	iP	35 59.12	-0.7
CRP	1.77	10	iP	36 00.41	-0.5
SEW	1.79	70	iP	35 58.91	-2.0
CGLM	1.83	12	iP	36 01.01	-0.5
SVW	2.12	320	iPd	36 04.40	-1.0
SUA	2.19	27	iP	36 06.01	-0.5
PMS	2.36	42	iPd	36 07.50	-1.1
SKT	2.54	14	iP	36 10.06	-1.1
			iS	36 41.60	
PWA	2.57	33	iP	36 10.64	-0.9
MTU	2.65	78	eP	36 10.87	-1.7
KNIM	2.68	70	iP	36 10.21	-2.8
			iS	36 40.70	
PLRM	2.75	40	iP	36 12.26	-1.7
PMR	2.75	40	iPd	36 12.20	-1.8
PME	2.81	40	iP	36 13.23	-1.6
KNK	2.87	47	iP	36 13.66	-1.9
GHO	2.95	39	iP	36 15.11	-1.7
GLI	3.16	62	iP	36 16.42	-3.2
MID	3.30	89	ePc	36 19.70	-1.8
FID	3.39	66	iP	36 19.53	-3.3
VZW	3.47	61	iP	36 21.35	-2.6
VLZ	3.60	61	iP	36 23.23	-2.4
CVA	3.68	71	iP	36 23.80	-3.0
			eS	37 04.78	
TTA	3.75	337	Pd	36 26.40	-1.5
KLU	3.93	57	iP	36 28.06	-2.4
SGAM	3.94	72	iP	36 27.32	-3.1
TOA	4.15	49	iPd	36 31.50	-2.0
RAGM	4.18	75	eP	36 30.80	-3.0
			eS	37 17.99	
GLB	4.84	63	iP	36 40.17	-2.9
BALM	5.42	69	eP	36 47.66	-3.5
FBA	5.88	21	eP	36 54.10	-3.3
CTGM	5.89	71	eP	36 54.74	-3.0
PCA	6.36	79	eP	37 01.54	-2.6
			eS	38 09.34	
IMA	6.58	357	ePd	37 04.50	-2.7
YKU	6.65	84	ePc	37 06.20	-1.8
PNL	6.81	83	iP	37 07.29	-3.0
HON	7.09	85	iP	37 10.72	-3.4
HYT	7.74	74	P	37 20.50	-2.7
DWY	7.79	49	P	37 20.50	-3.2
SIT	9.53	97	eP	37 42.60	-4.8
BRW	11.94	354	eP	38 15.30	-4.3
INK	12.16	36	eP	38 18.00	-4.5
	0.7s		59.00nm		5.5mb
			pP	38 31.00	
YKA	18.56	64	P	39 40.90	-2.6
YKC	18.62	64	eP	39 42.00	-2.2
	0.8s		27.00nm		4.6mb
MBC	20.42	22	eP	39 59.00	-4.0
	0.6s		23.00nm		4.7mb
PNT	21.61	103	eP	40 16.00	0.7
	0.8s		18.00nm		4.5mb
			pP	40 33.00	77kmX
EDM	22.47	89	ePd	40 24.20	0.5
FFC	27.43	77	eP	41 09.00	-1.3
	0.7s		4.00nm		4.1mb
LRM	27.55	102	eP	41 30.20	18.5
KVN	29.99	118	P	41 34.40	0.8
			pP	41 53.80	84kmX
TNP	31.1B	118	P	41 44.00	-0.1
	1.0s		6.67nm		4.3mb
			pP	42 04.60	90kmX
BW06	31.18	103	P	41 44.50	0.4
	0.8s		2.68nm		4.0mb
			pP	42 03.80	83kmX
RSON	33.76	78	P	42 05.10	-1.0
	0.6s		7.15nm		4.7mb
			pP	42 24.60	83kmX
FRB	37.51	47	eP	42 36.00	-1.6
ALQ	38.78	108	eP	43 08.00	19.1
	0.9s		2.94nm		
GAC	46.20	71	eP	43 50.00	1.3
			pP	44 08.00	72kmX
MAT	48.91	274	(P)	44 07.00	-3.0
	0.7s		13.70nm		5.0mb
LPF	70.34	20	eP	46 34.60	-2.3
GRF	70.36	11	eP	46 39.10	2.0
	0.9s		7.00nm		4.6mb
HAU	71.48	15	eP	46 41.30	-2.5
	0.5s		4.30nm		4.6mb
BSF	71.71	14	eP	46 42.60	-2.7
	0.6s		1.80nm		4.1mb
LOR	71.86	16	eP	46 43.50	-2.6
	0.7s		7.70nm		4.7mb
MFF	71.88	19	eP	46 43.80	-2.4
	0.6s		5.40nm		4.6mb
SSF	72.01	17	eP	46 44.60	-2.4
	0.7s		11.00nm		4.9mb
LBF	72.16	16	eP	46 45.30	-2.6
	0.7s		4.80nm		4.5mb
AVF	72.25	17	eP	46 45.80	-2.6
	0.5s		8.70nm		4.9mb
BGF	72.41	17	eP	46 46.80	-2.5
	0.5s		8.00nm		4.9mb
SMF	72.47	17	eP	46 46.90	-2.8
	0.7s		5.50nm		4.6mb
LSF	72.50	18	eP	46 47.40	-2.5
	0.7s		9.20nm		4.8mb
TCF	72.57	18	eP	46 47.90	-2.4
	0.7s		4.40nm		4.5mb
MAF	72.69	18	eP	46 48.40	-2.6
	0.5s		2.90nm		4.4mb
LFF	73.64	19	eP	46 54.50	-2.0
	0.6s		4.30nm		4.5mb
CAF	73.87	18	eP	46 56.00	-1.9
	0.7s		3.30nm		4.3mb
LPO	73.97	19	eP	46 56.40	-2.0
	0.5s		6.40nm		4.8mb
LPG	74.00	15	eP	46 57.40	-1.5
	0.9s		5.50nm		4.4mb
EPF	75.43	20	eP	47 04.10	-2.8
SBF	75.69	15	eP	47 05.80	-2.6
	0.7s		5.20nm		4.5mb
GUN	80.43	310	P	47 34.60	-0.3
KKN	80.78	310	P	47 36.20	-0.4
	0.6s		7.00nm		4.7mb
GKN	80.83	311	P	47 36.40	-0.4
	0.8s		17.00nm		5.0mb
PKI	80.92	310	P	47 37.00	-0.5
	0.7s		10.00nm		4.8mb
DMN	81.01	310	P	47 37.60	-0.2
	0.6s		10.00nm		4.9mb
	94 obs. associated				

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* APR 24, 1989 02h 01m 44.90± 2.23s
35.612 N ±20.9km 139.573 E ±11.3km
DEPTH = 10.0km (geophysicist)
NEAR S. COAST OF HONSHU, JAPAN (230)

CHJJ	0.64	313	iPd	01 57.20	-0.5
			S	02 06.70	
KAKJ	0.77	39	iP+	01 59.80	0.0
IIDJ	1.36	265	P	02 09.70	-0.2
			S	02 27.60	
MAT	1.44	310	(P)	02 11.00	-0.1
			iS	02 31.80	
MTMJ	1.73	305	P	02 16.20	0.9
	S.D. = 0.8		on	5 of	5 obs.

& APR 24, 1989 02h 04m 14.33s
62.292 N 151.231 W
DEPTH = 83.1km
CENTRAL ALASKA (1)
<AGS-P>.

SKT	0.34	204	iP	04 26.91	-0.5
			iS	04 36.76	
SUA	0.86	164	iP	04 31.96	-0.4
			iS	04 45.86	
PWA	0.91	135	eP	04 31.87	-0.8
CGLM	1.05	201	eP	04 33.90	-0.7
			eS	04 49.89	
CRP	1.12	204	eP	04 35.03	-0.4
			eS	04 51.09	
SPU	1.18	200	eP	04 35.37	-0.7
			eS	04 51.87	
GHO	1.21	115	eP	04 35.97	-0.5
PLRM	1.22	124	iP	04 35.80	-0.7
PME	1.23	122	eP	04 35.93	-0.8
			eS	04 54.90	
KTH	1.27	6	iP	04 36.33	-1.0
			eS	04 52.65	
PMS	1.32	142	eP	04 37.17	-0.7
			iS	04 55.66	
KNK	1.58	123	iP	04 40.30	-1.0
RDT	1.81	199	eP	04 44.01	-0.4
			eS	05 07.36	
SLKM	1.86	164	eP	04 44.44	-0.5
			iS	05 06.46	
TTA	2.30	288	eP	04 48.98	-2.1
SEW	2.36	158	eP	04 50.90	-0.8
ILIM	2.37	201	eP	04 51.61	-0.4
TOA	2.38	92	eP	04 53.05	1.0
			eS	05 23.64	
SVW	2.41	242	eP	04 51.05	-1.4
GLI	2.43	124	eP	04 55.17	2.4
VZW	2.55	117	eP	04 54.19	-0.2
KNIM	2.58	138	iP	04 51.37	-3.4
KLU	2.64	105	eP	04 53.15	-2.5
FID	2.75	122	eP	04 54.37	-2.8
CNPM	2.78	180	eP	04 58.25	0.7
MTU	2.89	142	eP	05 02.80	3.7
PDB	2.90	211	eP	04 58.23	-0.9
FBA	3.04	29	eP	04 59.22	-1.8
	28 obs. associated				

& APR 24, 1989 02h 28m 13.08s
59.660 N 153.092 W

24d 02h

DEPTH = 101.3km
SOUTHERN ALASKA (2)
<AGS-P>.

OPT	0.07	264	iP	28 26.69	0.9
			eS	28 38.05	
AUL	0.33	212	iP	28 27.72	-0.4
			eS	28 38.95	
ILIM	0.43	9	iP	28 28.23	-0.6
			iS	28 40.44	
PDB	0.57	283	iP	28 28.93	-0.8
			iS	28 41.52	
XLV	0.73	106	eP	28 30.49	-0.6
			eS	28 44.03	
RED	0.78	12	iP	28 30.82	-0.9
			eS	28 44.69	
CDD	0.79	201	iP	28 30.73	-1.0
			eS	28 44.41	
CNPM	0.95	97	iP	28 32.57	-0.8
			iS	28 47.53	
RDT	0.98	20	iP	28 32.91	-0.8
			iS	28 47.74	
NNL	0.98	66	eP	28 33.75	0.0
SPU	1.61	18	iP	28 40.20	-1.0
SLKM	1.67	58	eP	28 40.84	-1.1
CRP	1.68	16	eP	28 41.47	-0.7
			eS	29 03.68	
CGLM	1.74	18	iP	28 41.96	-0.9
SEW	1.89	75	eP	28 43.29	-1.4
			eS	29 06.10	
SVW	1.92	320	iP	28 43.71	-1.5
SUA	2.15	32	eP	28 47.61	-0.7
PMS	2.36	46	eP	28 49.96	-1.1
			iS	29 16.71	
SKT	2.45	18	eP	28 50.92	-1.3
PWA	2.55	37	eP	28 52.16	-1.3
PLRM	2.75	43	eP	28 54.62	-1.6
MTU	2.77	81	eP	28 54.93	-1.5
KNIM	2.78	73	iP	28 54.16	-2.4
KNK	2.89	51	eP	28 56.39	-1.7
GHO	2.95	42	eP	28 56.85	-2.1
FID	3.48	69	eP	29 02.90	-3.2
VZW	3.54	64	eP	29 05.41	-1.6
TTA	3.57	338	eP	29 05.28	-2.2
VLZ	3.66	63	eP	29 07.22	-1.4
KLU	3.99	59	eP	29 10.46	-2.7
TOA	4.18	51	eP	29 14.50	-1.3

31 obs. assaciated

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* APR 24, 1989 03h 07m 17.55± 1.23s
17.668 N ±14.3km 105.222 W ±15.5km
DEPTH = 33.0km (normal)
4.2mb (9 obs.)
OFF COAST OF JALISCO, MEXICO (54)

IISM	7.57	79	eP	09 07.50	-0.9
ALQ	17.24	357	P	11 19.50	1.9
	1.3s	9.40nm		3.8mb	
UYO	19.05	28	eP	11 41.50	1.8
VVO	19.52	24	e(P)	11 38.60	-6.5X
SIO	19.67	22	eP	11 44.00	-2.8
TUL	20.00	23	eP	11 49.80	-0.5
	0.9s	12.30nm		4.2mb	
LNO	20.01	23	eP	11 51.50	1.3
RLO	20.52	24	e(P)	11 52.50	-3.2X
PV09	21.03	351	P	12 00.70	-0.6
GOL	21.95	360	P	12 12.00	1.5
	1.0s	7.50nm		4.1mb	
GLD	22.00	0	P	12 10.50	-0.4
TNP	22.89	335	P	12 20.50	0.8
	1.0s	3.75nm		3.8mb	
EUR	23.66	339	iP	12 27.60	0.4
	0.2s	5.58nm		4.7mb	
FVM	24.04	30	P	12 30.50	-0.1
	0.9s	6.78nm		4.2mb	
KVN	24.08	335	P	12 31.00	-0.2
BW06	25.30	353	P	12 42.00	-0.9
	1.0s	2.75nm		3.8mb	
RSON	34.37	13	P	14 05.00	1.6
	1.0s	6.00nm		4.5mb	
FFC	37.07	3	eP	14 24.00	-2.2
	1.2s	19.00nm		4.8mb	
YKA	45.26	354	eP	15 37.00	3.6X
ZOBO	49.73	131	eP	16 11.00	1.4
LPB	49.92	131	P	16 16.00	5.1X
CNCB	50.19	131	eP	16 13.00	-0.1
INK	53.69	347	eP	16 36.00	-2.1

S.D. = 1.5 on 19 of 23 abs.

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* APR 24, 1989 03h 57m 22.95± 1.14s
66.870 N ± 7.8km 156.390 W ±13.7km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.3 (PMR).

IMA	1.35	125	iPd	57 49.10	0.6
TTA	3.96	177	eP	58 26.40	0.7
FBA	4.04	115	iPd	58 26.30	-0.5
BRW	4.46	359	eP	58 32.20	-0.4
SVW	5.80	176	ePc	58 52.10	0.4
PMR	6.17	146	eP	58 55.20	-1.6
INK	8.83	70	eP	59 35.00	0.9

S.D. = 1.1 on 7 of 7 abs.

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* APR 24, 1989 04h 12m 55.42± 2.05s
17.445 N ±19.7km 61.991 W ±11.8km
DEPTH = 30.9 ± 10.9 km
LEEWARD ISLANDS (92)
ML 2.7 (FDF). MD 2.8 (TRN).

ANG	0.33	152	eP	13 03.40	0.1
			eS	13 11.45	
NEV	0.63	241	eP	13 08.01	0.0
			eS	13 17.31	
SKI	0.72	261	eP	13 09.24	-0.1
			eS	13 19.15	
MGH	0.75	197	eP	13 09.71	-0.1
			S	13 19.90	
SKDB	0.78	267	eP	13 10.29	0.1
			eS	13 19.96	
SEG	1.14	156	eP	13 15.29	0.1
			S	13 29.90	
DEG	1.44	141	eP	13 19.75	0.2
			S	13 39.00	
PAG	1.44	168	eP	13 20.14	0.5
			S	13 39.50	
BBL	1.97	165	eP	13 34.80	7.4X

S.D. = 0.3 on 8 of 9 abs.

? APR 24, 1989 04h 13m 35.36± 5.03s
17.513 N ±43.1km 61.961 W ±24.6km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.7 (FDF). MD 2.9 (TRN).

ANG	0.38	161	eP	13 44.03	-0.1
			eS	13 50.86	
NEV	0.69	237	eP	13 49.08	0.4
			eS	13 57.67	
SKI	0.76	257	eP	13 49.49	-0.2
			eS	13 59.79	
MGH	0.83	197	eP	13 50.22	-0.4
			eS	14 01.23	
PAG	1.50	170	eP	14 00.60	0.3
			S	14 20.00	

S.D. = 0.5 an 5 of 5 abs.

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* APR 24, 1989 04h 15m 01.37± 2.74s
66.917 N ±17.6km 156.306 W ±21.6km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.0 (PMR).

IMA	1.36	128	iPc	15 27.20	0.2
TTA	4.01	178	eP	16 04.90	0.1
FBA	4.03	116	eP	16 04.60	-0.5
SVW	5.84	177	eP	16 30.60	-0.1
PMR	6.19	146	eP	16 35.60	0.1
INK	8.79	70	eP	17 12.00	0.1

S.D. = 0.3 an 6 of 6 abs.

& APR 24, 1989 05h 32m 07.32s
60.032 N 152.926 W
DEPTH = 107.0km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.05	341	iP	32 21.68	0.9
			iS	32 33.53	
RED	0.40	11	iP	32 22.83	-0.7
			eS	32 35.59	
OPT	0.41	202	iP	32 22.97	-0.6
			eS	32 34.61	
RDT	0.60	25	iP	32 24.19	-0.7
			eS	32 37.85	
PDB	0.68	250	iP	32 24.73	-0.8
			iS	32 38.24	
NNL	0.82	89	eP	32 26.87	0.2
CNPM	0.99	120	iP	32 27.79	-0.7
			iS	32 44.21	
NKA	1.10	49	eP	32 30.41	0.8
CDD	1.16	199	iP	32 29.23	-1.2
			eS	32 46.24	
SPU	1.23	20	eP	32 30.45	-0.7
			eS	32 48.49	
CRP	1.30	17	eP	32 31.14	-0.9
CGLM	1.36	19	eP	32 31.92	-0.8
			eS	32 51.14	
SLKM	1.43	69	iP	32 32.56	-1.0
			iS	32 51.34	
SEW	1.74	86	iP	32 35.82	-1.5
			eS	32 57.26	
SUA	1.79	36	eP	32 37.53	-0.6
PMS	2.06	52	eP	32 40.22	-1.2
			eS	33 04.55	
SKT	2.07	19	eP	32 40.48	-1.1
PWA	2.21	41	eP	32 42.16	-1.2
KNK	2.60	56	eP	32 46.04	-2.5
KNIM	2.61	81	iP	32 46.22	-2.5
GHO	2.62	47	eP	32 46.59	-2.4
MTU	2.65	89	eP	32 47.53	-1.7
			eS	33 17.89	
FID	3.28	75	eP	32 55.26	-2.5
			eS	33 30.38	
VZW	3.31	69	eP	32 57.17	-1.1
KLU	3.74	64	eP	33 00.84	-3.2
TOA	3.88	55	eP	33 03.68	-2.4

26 abs. assaciated

APR 24, 1989 08h 47m 41.68± 0.86s
66.919 N ± 5.4km 156.268 W ± 9.8km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 4.3 (PMR).

IMA	1.35	128	eP	48 07.80	0.7
TTA	4.01	178	eP	48 44.90	-0.2
FBA	4.02	116	iPd	48 45.20	0.0
BRW	4.41	358	iPd	48 51.20	0.5
SVW	5.84	177	ePc	49 10.70	-0.4
PMR	6.18	147	eP	49 15.70	-0.1
TOA	6.50	133	eP	49 21.30	0.9
DWY	7.56	104	P	49 34.00	-1.1
INK	8.77	71	eP	49 52.00	0.0
MBC	14.59	35	eP	51 10.00	-0.3
YKA	18.07	84	P	51 57.20	2.6X

S.D. = 0.7 an 10 of 11 abs.

APR 24, 1989 09h 07m 05.48± 0.42s
39.228 N ± 3.4km 23.555 E ± 4.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.27	287	iPgc	07 11.00	-0.2
PAIG	0.70	8	iPgc	07 20.10	0.7
			eSg	07 31.90	
PLG	1.15	356	iPbc	07 27.00	0.0
OUR	1.15	16	ePbc	07 27.10	0.1
LIT	1.20	317	ePbc	07 27.90	0.1
			eSb	07 44.50	
ATH	1.26	174	ePb	07 28.80	-0.1
SOH	1.60	355	ePb	07 34.10	0.2
KZN	1.75	309	ePb	07 35.90	-0.2
SRS	1.89	1	ePn	07 37.60	-0.4
			eSn	08 01.30	
GRG	1.94	333	ePn	07 38.50	-0.3
			eSn	08 03.10	
KNT	2.00	346	ePn	07 40.00	0.4
VAY	2.22	340	ePn	07 43.20	0.3
EZN	2.22	74	ePn	07 43.00	0.1
MMB	2.36	3	iPd	07 44.00	-0.9
ITM	2.41	213	ePb	07 45.90	0.3
RDO	2.44	38	ePn	07 51.70	5.7X
RZN	2.61	19	eP	07 48.00	-0.6
KKB	2.66	352	iPc	07 49.00	-0.2
KDZ	2.81	30	eP	08 04.00	12.8X
OHR	2.83	313	ePn	07 58.50	6.9X
VTS	3.37	356	eP	08 00.00	0.7

S.D. = 0.4 an 18 of 21 abs.

APR 24, 1989 09h 18m 04.59± 0.85s
66.919 N ± 5.6km 156.347 W ±11.8km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.8 (PMR).

IMA	1.37	127	iPd	18 30.40	0.0
TTA	4.01	178	eP	19 07.90	-0.2
FBA	4.05	116	eP	19 08.30	-0.2
BRW	4.41	358	eP	19 14.00	0.4
SVW	5.84	177	eP	19 33.70	-0.3
PMR	6.20	146	ePd	19 39.20	0.3
TOA	6.52	133	eP	19 44.10	0.5
MBC	14.61	35	eP	21 33.00	-0.5
YKA	18.10	84	P	22 20.10	2.2X

S.D. = 0.4 on 8 of 9 obs.

% APR 24, 1989 11h 49m 07.23± 0.92s
39.160 N ± 8.0km 27.564 E ± 9.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.80	197	ePg	49 22.80	0.1
			eSg	49 34.00	
DST	0.94	61	ePn	49 24.70	-0.4
EZN	1.17	305	ePn	49 29.00	0.0
EDC	1.21	11	ePn	49 29.00	-0.7
KCT	1.25	29	ePn	49 31.50	1.1

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

% APR 24, 1989 12h 11m 18.17± 1.06s
40.362 N ± 8.5km 20.498 E ±13.7km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

LSK	0.23	160	iPnd	11 23.00	-0.1
TPE	0.38	260	ePn	11 30.50	4.6X
BERA	0.54	309	ePn	11 32.60	3.5X
VLO	0.77	278	iPn	11 33.00	-0.2
TIR	1.09	334	ePn	11 42.20	3.5X
PHP	1.33	358	ePn	11 41.00	-1.6
KKS	1.71	358	ePn	11 49.50	1.3
SDA	1.82	336	ePn	11 50.20	0.5

S.D. = 1.5 on 5 of 8 obs.

? APR 24, 1989 12h 15m 14.33± 2.51s
1.206 N ±21.3km 98.908 E ±20.2km
DEPTH = 107.2 ± 20.1 km
4.9mb (5 obs.)
NORTHERN SUMATERA (706)

PSI	1.48	1	iPd	15 41.20	0.1
TSI	2.31	351	iPc	16 15.50	23.8X
IPM	3.96	32	ePc	16 13.20	-0.9
	0.6s	72.80nm			
			e	16 51.50	
			e	19 58.80	
KGM	4.48	80	ePc	16 21.80	0.6
			e	17 39.70	
SNG	6.17	16	eP	16 37.50	-7.0X
CHG	17.50	0	eP	19 14.50	1.4
GUN	29.34	336	PKP	21 08.60	-1.0
	0.6s	25.00nm		5.0mb	
GKN	29.94	334	PKP	21 13.60	-1.1
WB5	40.59	123	iPd	22 44.70	-0.5
WRA	40.60	123	Pd	22 49.10	3.8X
	0.4s	6.40nm		4.8mb	
ASPA	42.04	128	iPc	23 01.30	4.2X
	0.4s	9.00nm		4.9mb	
LPG	90.66	315	eP	28 07.40	0.9
	0.9s	6.50nm		4.8mb	
HAU	90.83	318	eP	28 07.60	0.7
	0.9s	6.50nm		4.8mb	
PPD	144.38	232	ePKP	34 40.30	-0.1

S.D. = 1.1 on 10 of 14 obs.

& APR 24, 1989 12h 32m 59.85s
62.478 N 151.222 W
DEPTH = 87.3km
CENTRAL ALASKA (1)
<AGS-P>.

SKT	0.52	196	iP	33 14.15	-0.5
SUA	1.04	167	eP	33 19.84	-0.4
			eS	33 35.32	
PWA	1.04	142	iP	33 19.50	-0.6
KTH	1.09	7	iP	33 19.79	-1.0
			eS	33 34.49	
CGLM	1.23	198	eP	33 21.48	-1.1
			eS	33 38.43	
GHO	1.29	122	eP	33 22.91	-0.4
			iS	33 42.30	
CRP	1.29	200	iP	33 23.24	-0.1
PLRM	1.33	131	eP	33 22.82	-0.8
PME	1.34	129	eP	33 23.15	-0.6
SPU	1.36	197	eP	33 23.27	-0.8
			eS	33 43.02	
PMS	1.47	147	iP	33 24.94	-0.5
			iS	33 44.84	
KNK	1.69	128	iP	33 27.60	-0.8
NKA	1.74	180	eP	33 30.69	1.7
RDT	1.99	197	eP	33 32.10	-0.4
RED	2.20	200	eP	33 34.78	-0.5
TTA	2.25	284	eP	33 34.17	-1.8
TOA	2.39	97	eP	33 37.10	-0.7
SEW	2.53	159	eP	33 38.70	-1.0
ILIM	2.55	200	eP	33 39.62	-0.4
VZW	2.64	121	eP	33 43.18	2.0
VLZ	2.69	118	eP	33 43.09	1.3
KLU	2.69	109	eP	33 40.76	-1.2
FID	2.85	125	eP	33 46.62	2.5
FBA	2.87	31	iP	33 42.75	-1.6
PDB	3.06	209	eP	33 46.05	-0.9

25 obs. associated

APR 24, 1989 12h 50m 51.18± 0.63s
43.459 N ± 4.4km 5.454 E ± 4.8km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.5 (STR).

GELF	0.08	194	Pg	50 53.31	-0.3
TREF	0.17	343	Pg	50 54.65	-0.5
PUYF	0.19	68	Pg	50 54.71	-0.8
BERF	0.23	130	Pg	50 56.45	0.4
PRAF	0.40	329	Pg	50 59.95	0.5
VILF	0.44	26	Pg	51 00.12	0.0
TAVF	0.47	70	Pg	50 59.79	-0.9
GANF	0.63	31	Pg	51 03.59	-0.3
CALN	1.08	74	Pg	51 12.82	1.2
MVIF	1.31	70	Pn	51 15.55	0.1
			Sg	51 34.96	
TOUF	1.41	66	Pn	51 17.43	0.3
			Sg	51 38.54	
AURF	1.43	72	Pn	51 17.43	0.2
AUTN	1.53	69	Pn	51 19.30	0.5
			Sg	51 41.42	
CVF	2.66	108	Pn	51 34.37	-0.5

S.D. = 0.6 on 14 of 14 obs.

? APR 24, 1989 13h 00m 28.22± 5.80s
50.561 N ±30.8km 6.310 E ±37.9km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
MD 1.8 (UCC).

MEM	0.20	284	iP	00 32.50	-0.1
			iS	00 35.90	
WLF	0.90	186	iP	00 45.50	0.0
DOU	1.19	248	P	00 50.40	-0.1
			S	01 07.70	
SNF	1.29	269	iP	00 52.30	0.1
			iS	01 10.70	

S.D. = 0.2 on 4 of 4 obs.

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* APR 24, 1989 13h 13m 05.65± 3.25s
4.067 N ±16.4km 126.869 E ±21.3km
DEPTH = 65.5 ± 29.2 km
4.6mb (2 obs.)
TALAUD ISLANDS (263)

MNI	3.30	218	ePc	13 56.50	0.4
MTN	17.33	166	eP	17 03.30	-1.5
WB5	24.91	163	iPd	18 24.80	0.6
WRA	24.97	163	Pc	18 25.60	0.9
	0.8s	9.00nm		4.3mb	
LOE	27.98	300	iPd	18 52.80	0.4
CHG	30.97	300	eP	19 19.00	-0.1
XAN	34.18	333	Pd	19 46.20	-0.7
LZH	38.28	329	eP	20 22.00	0.3
GTA	42.88	329	eP	21 00.00	0.6
GUN	45.64	306	P	21 22.20	0.1
KKN	46.08	305	P	21 25.40	0.0
GKN	46.69	305	P	21 30.00	-0.1
GBA	49.67	284	Pc	21 52.10	-1.1
	0.5s	7.30nm		5.0mb	

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

% APR 24, 1989 13h 24m 19.78± 1.11s
41.223 N ±10.5km 28.984 E ± 6.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ISK	0.17	160	ePg	24 22.60	-1.0
CTT	0.42	260	ePg	24 28.40	-0.1
HRT	0.65	128	ePg	24 32.30	-0.6
DMK	1.10	303	iPn	24 40.10	-0.3
BNT	1.18	223	iPn	24 42.40	0.5
EDC	1.22	225	ePn	24 42.50	0.0
GPA	1.37	132	ePn	24 46.40	1.4

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

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* APR 24, 1989 13h 33m 38.50± 0.96s
66.929 N ± 7.4km 156.310 W ±13.6km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.4 (PMR).

IMA	1.36	128	eP	34 04.70	0.4
TTA	4.02	178	eP	34 42.10	0.0
FBA	4.04	116	ePd	34 42.00	-0.3
BRW	4.40	358	ePc	34 47.40	0.0
SVW	5.85	177	eP	35 08.00	0.0
PMR	6.20	146	eP	35 12.70	-0.1

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

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* APR 24, 1989 13h 38m 15.71± 1.06s
66.950 N ± 7.9km 156.321 W ±13.1km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 4.1 (PMR).

IMA	1.38	129	iPc	38 41.90	0.2
TTA	4.04	178	ePd	39 19.20	-0.4
FBA	4.05	117	iPd	39 19.50	-0.2
BRW	4.38	358	eP	39 24.40	0.1
PMR	6.22	146	ePd	39 50.50	0.2
TOA	6.54	133	eP	39 55.60	0.7
DWY	7.59	105	P	40 09.00	-0.6
YKA	18.09	84	P	42 31.70	2.8X

S.D. = 0.5 on 7 of 8 obs.

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* APR 24, 1989 13h 47m 17.19± 0.97s
66.861 N ± 7.6km 156.331 W ±12.6km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.2 (PMR).

IMA	1.33	126	ePd	47 42.80	0.5
TTA	3.95	178	eP	48 19.70	-0.1
FBA	4.02	115	ePd	48 20.10	-0.6
BRW	4.47	358	eP	48 27.10	0.1
SVW	5.79	177	eP	48 45.80	0.0
PMR	6.15	146	eP	48 50.90	0.1

S.D. = 0.5 on 6 of 6 obs.

? APR 24, 1989 13h 51m 40.64± 7.20s
16.271 N ±81.0km 99.684 W ±31.0km
DEPTH = 33.0km (normol)
3.8mb (2 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)
Felt at Acapulco.

IIT	3.03	25	(P)	52 29.20	1.5
			iS	53 08.00	
UNM	3.08	9	iP	52 00.00	-28.4X
			iS	52 31.70	
IISM	3.48	39	iP	52 32.50	-1.3
			iS	53 15.50	
UYO	18.43	14	eP	55 54.70	-0.6
ALQ	19.56	343	P	56 07.00	-1.9
	0.8s	3.93nm		3.7mb	
RSCP	23.00	31	P	56 55.40	11.8X
	0.6s	3.58nm			
GOL	23.86	349	P	56 53.80	1.5
BW06	27.74	344	P	57 29.60	1.2
	0.8s	2.46nm		3.9mb	
KVN	27.84	328	P	57 28.30	-1.0
YKA	47.35	351	eP	00 13.70	0.7

S.D. = 1.6 on 8 of 10 obs.

24d 14h

* APR 24, 1989 14h 06m 48.34± 1.25s
7.222 S ± 9.2km 129.979 E ±10.8km
DEPTH = 100.0 ± 15.5 km
4.7mb (5 obs.)
BANDA SEA (280)

AAI	3.94	333	ePd	07	48.50	0.8
MTN	5.70	169	iPc	08	11.70	-0.4
KNA	8.56	188	iPd	08	50.30	-0.9
	0.2s	85.00nm				6.1mb X
			eS	10	20.00	
WB5	13.28	162	eP	09	49.50	-4.7X
			eS	12	09.00	
WRA	13.34	162	Pd	09	51.50	-3.4X
	0.4s	13.30nm				4.8mb
QIS	16.21	146	eP	10	27.00	-4.5X
			eS	13	17.00	
ASPA	16.78	167	iPc	10	36.80	-1.9
	0.6s	57.00nm				5.0mb
			eS	13	36.10	
MBL	16.98	214	eP	10	41.20	0.1
	0.3s	5.00nm				4.2mb
			eS	13	41.00	
PMG	17.13	98	eP	10	44.00	1.0
WARB	19.12	189	eP	10	58.00	-8.3X
	0.3s	6.00nm				4.5mb
			eS	14	25.00	
CTA	20.31	131	iPd	11	18.40	-0.3
NANU	20.65	221	iPc	11	23.30	1.3
			eS	15	08.00	
MEKA	22.15	208	eP	11	38.30	1.4
			eS	15	41.00	
FORR	23.57	184	iPd	11	51.30	0.6
	0.4s	17.00nm				4.8mb
MRWA	25.54	209	eP	12	10.00	0.6
			eS	16	58.00	
STK	26.82	158	iPd	12	20.80	-0.3
BWA	31.97	150	eP	13	07.90	0.9
CAN	32.97	151	eP	13	15.60	-0.1
GUN	55.08	311	P	16	10.00	-2.8
CNCB	150.24	143	PKPc	26	31.80	6.4X
ZOBO	150.58	143	PKP	26	31.70	5.7X
Z	24s	0.08um				4.4MszX
			LR	35	20.00	

S.D. = 1.3 on 15 of 21 obs.

APR 24, 1989 14h 26m 36.01± 0.66s
43.392 N ± 5.2km 5.448 E ± 4.8km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.6 (STR).

GELF	0.02	240	Pg	26	37.83	-0.1
BERF	0.19	114	Pg	26	40.65	0.3
PUYF	0.23	53	Pg	26	40.05	-0.9
TREF	0.24	349	Pg	26	40.44	-0.6
PRAF	0.46	334	Pg	26	45.74	0.4
TAVF	0.50	63	Pg	26	45.74	-0.4
VILF	0.50	23	Pg	26	46.39	0.2
GANF	0.69	29	Pg	26	49.94	0.2
TOUF	1.45	64	Pn	27	02.31	-0.1
			Sg	27	22.73	
TOUF	1.45	64	Pn	27	03.05	0.6
AUTN	1.56	67	Pn	27	05.04	1.0
			Sg	27	26.60	
CVF	2.64	107	Pn	27	18.75	-0.7

S.D. = 0.6 on 12 of 12 obs.

& APR 24, 1989 14h 30m 30.04s
59.945 N 153.412 W
DEPTH = 129.5km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.26	59	iP	30	47.50	0.8
			eS	31	02.00	
OPT	0.31	162	iP	30	47.93	1.1
			eS	31	02.03	
PDB	0.42	249	iP	30	47.87	-1.0
RED	0.57	34	iP	30	49.13	-0.7
CDD	1.03	187	iP	30	52.46	-1.0
CNPM	1.18	110	iP	30	53.95	-1.0
			eS	31	12.25	
SPU	1.41	28	iP	30	56.59	-0.9
CGLM	1.53	26	iP	30	58.17	-0.8
			eS	31	20.87	
SLKM	1.69	69	eP	30	59.45	-1.2
SEW	2.00	84	eP	31	02.66	-1.7
			eS	31	28.34	

10 obs. associated

& APR 24, 1989 14h 58m 02.62s
59.892 N 152.292 W
DEPTH = 78.6km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.39	300	iP	58	14.96	-0.6
HOM	0.40	125	eP	58	15.47	-0.1
			eS	58	26.26	
NNL	0.52	73	iP	58	17.11	0.5
			eS	58	27.52	
XLV	0.53	146	eP	58	16.00	-0.6
			eS	58	26.81	
OPT	0.53	244	iP	58	16.27	-0.5
			eS	58	26.57	
RED	0.58	336	iP	58	16.48	-0.8
CNPM	0.65	124	iP	58	17.53	-0.3
			iS	58	29.61	
RDT	0.69	355	iP	58	17.60	-0.7
			iS	58	29.55	
AUI	0.80	226	eP	58	18.89	-0.6
			eS	58	30.32	
PDB	0.97	265	iP	58	20.20	-1.2
			iS	58	33.59	
NKA	1.00	31	eP	58	23.02	1.2
			eS	58	36.81	
CDD	1.19	216	eP	58	23.11	-1.1
SLKM	1.20	58	iP	58	23.21	-1.2
			iS	58	40.42	
SPU	1.30	5	iP	58	25.04	-0.7
			iS	58	43.23	
CRP	1.38	3	iP	58	26.40	-0.5
			iS	58	45.98	
CGLM	1.43	6	iP	58	26.97	-0.4
SEW	1.44	80	eP	58	26.43	-1.1
			iS	58	44.04	
SUA	1.75	25	eP	58	31.32	-0.5
PMS	1.91	44	eP	58	33.30	-0.6
SVW	2.05	308	iPc	58	34.00	-1.8
PWA	2.13	33	iPc	58	36.10	-0.6
SKT	2.13	10	iP	58	35.78	-1.0
PLRM	2.31	41	eP	58	37.69	-1.5
PMR	2.31	41	eP	58	37.80	-1.4
KNIM	2.33	77	iP	58	37.03	-2.5
MTU	2.34	86	eP	58	37.98	-1.7
PME	2.37	41	eP	58	38.68	-1.3
KNK	2.43	49	iP	58	39.18	-1.8
GHO	2.51	40	iP	58	40.62	-1.4
GLI	2.76	67	iP	58	42.57	-3.0
FID	3.02	71	eP	58	45.69	-3.4
			eS	59	18.33	
VZW	3.07	65	eP	58	47.17	-2.7
VLZ	3.20	65	eP	58	49.29	-2.2
KLU	3.52	60	eP	58	53.76	-2.4
TTA	3.53	331	eP	58	54.40	-1.9
TOA	3.72	51	eP	58	57.10	-1.7
GLB	4.45	66	eP	59	06.21	-3.0
BALM	5.06	73	eP	59	15.39	-2.2
FBA	5.44	21	eP	59	20.40	-2.5
CTGM	5.53	74	eP	59	22.40	-1.9
IMA	6.23	355	eP	59	32.30	-1.7

41 obs. associated

? APR 24, 1989 15h 10m 03.32± 5.18s
42.466 N ±35.7km 19.873 E ±11.7km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MG 2.0 (TIR).

PUK	0.42	178	iPgc	10	11.70	-0.2
SDA	0.53	212	iPgd	10	13.80	-0.2
KKS	0.56	134	iPg	10	15.00	0.4
LACI	0.84	188	iPgd	10	19.80	0.3
PHP	0.88	151	iPgd	10	19.50	-0.8
TIR	1.12	180	ePg	10	25.00	0.7
BERA	1.76	178	ePn	10	38.10	4.1X
KBN	1.97	159	ePn	10	41.00	3.9X
VLO	2.02	188	ePn	10	37.60	-0.1
LSK	2.38	166	ePn	10	47.20	4.2X

S.D. = 0.6 on 7 of 10 obs.

APR 24, 1989 15h 25m 13.21± 0.67s
43.126 N ± 5.1km 13.216 E ± 6.2km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

CIO	0.09	323	iPg	25	16.08	0.2
			iSg	25	17.39	
ASS	0.41	262	P	25	21.70	0.1
			eSg	25	27.60	
ARV	0.42	332	P	25	21.70	-0.1
			eSg	25	28.30	
ALP	0.44	142	iPgd	25	22.27	0.1
			iSg	25	29.61	
AOI	0.51	33	iPg	25	23.43	-0.1
			iSg	25	31.97	
MNS	0.84	208	P	25	29.20	-0.2
			eSg	25	42.10	

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

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* APR 24, 1989 15h 51m 33.50± 0.98s
66.877 N ± 7.7km 156.331 W ±12.8km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.8 (PMR).

IMA	1.34	126	iPc	51	59.30	0.5
TTA	3.97	178	ePd	52	36.30	-0.1
FBA	4.03	116	ePd	52	36.40	-0.7
BRW	4.45	358	eP	52	43.20	0.1
SVW	5.80	177	eP	53	02.20	-0.1
PMR	6.16	146	eP	53	07.50	0.2
YKA	18.10	84	P	55	52.30	5.5X

S.D. = 0.5 on 6 of 7 obs.

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* APR 24, 1989 16h 29m 36.99± 1.82s
36.732 N ±12.3km 71.619 E ± 7.8km
DEPTH = 54.3 ± 22.3 km
4.5mb (6 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	7.60	212	eP	31	27.50	-0.4
			eS	32	47.50	
NDI	9.31	148	e(Pn)	32	24.00	32.8X
			eSn	33	28.00	
MAIO	9.77	271	eP	31	58.00	0.4
			eS	33	36.00	
GKN	14.02	125	P	32	54.70	0.3
	0.5s	20.00nm				5.0mb
KKN	14.58	124	P	33	01.00	-0.9
	0.7s	18.00nm				4.6mb
DMN	14.59	125	P	33	02.30	0.3
	0.5s	10.00nm				4.5mb
PKI	14.81	124	P	33	05.10	0.1
GUN	14.91	122	P	33	06.40	0.1
HYB	20.19	160	eP	34	11.50	1.6
GBA	23.61	166	Pd	34	42.70	-1.1
	0.5s	3.90nm				4.1mb
SUF	37.99	328	iP	36	51.70	0.8
HFS	43.19	322	eP	37	33.80	0.0
	0.4s	3.80nm				4.5mb
NAO	44.67	323	P	37	44.80	-1.0
	0.4s	1.70nm				4.2mb

S.D. = 0.9 on 12 of 13 obs.

---

* APR 24, 1989 16h 32m 45.88± 0.97s
8.940 S ±12.3km 123.843 E ±11.4km
DEPTH = 33.0km (normal)
4.1mb (3 obs.)
FLORES ISLAND REGION (286)

MTN	8.14	119	eP	34	46.10	1.4
			eS	36	09.00	
KNA	8.30	145	iPc	34	46.40	-0.6
	0.3s	50.00nm				6.1mb X
			iS	36	10.80	
MBL	12.75	197	eP	35	47.20	-0.5
			eS	38	01.00	
WB5	14.90	138	eP	36	14.00	-1.9
			iS	38	46.20	
WRA	14.92	138	P	36	18.00	1.7
	0.3s	1.90nm				3.9mb
NANU	15.72	210	eP	36	31.00	4.4X
			eS	39	12.00	
WARB	17.35	172	eP	36	38.00	-9.3X
	0.3s	3.00nm				4.0mb
			eS	39	40.00	
ASPA	17.52	148	iPc	36	49.50	0.1
	0.5s	28.00nm				4.6mb
			eS	39	48.60	

```
MEKA    18.29 195 eP     37 01.00   2.2
                  eS     40 11.00
QIS     19.10 129 iPd    37 08.40  -0.4
                  eS     40 23.00
MRWA    21.48 199 eP     37 33.50  -0.3
                  eS     41 21.00
FORR    22.16 170 eP     37 39.00  -1.6
GUN     51.87 316 P      41 54.00   0.1
PKI     51.98 316 P      41 54.60  -0.1
      S.D. = 1.4  on  12 of  14 obs.
-------------------------------------
   APR 24, 1989  16h 49m 54.82± 0.79s
   43.127 N ± 6.4km   13.197 E ± 6.0km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                  (381)

CIO     0.08 330 iPg     49 57.80   0.4
                  iSg    49 59.21
SSO     0.23  44 ePg     50 00.58   0.8
                  iSg    50 05.31
ASS     0.40 262 P       50 03.00   0.0
                  eSg    50 08.90
ARV     0.42 333 P       50 02.90  -0.4
                  eSg    50 09.70
ALP     0.44 141 iPgd    50 03.76  -0.2
                  iSg    50 11.04
AOI     0.52  35 iPg     50 04.62  -0.7
                  iSg    50 13.31
      S.D. = 0.7  on   6 of   6 obs.
-------------------------------------
   APR 24, 1989  16h 59m 48.45± 0.47s
   33.916 N ± 6.1km   87.896 E ± 7.0km
   DEPTH =  33.0km  (normal)
   4.4mb (  7 obs.)
 TIBET                          (306)

GUN     6.23 197 P       01 21.40   0.5
      0.8s     26.00nm          5.0mb
KKN     6.51 201 P       01 24.80   0.2
      0.5s     10.00nm          4.9mb
GKN     6.52 206 P       01 24.40  -0.4
PKI     6.68 199 P       01 26.80  -0.3
DMN     6.73 202 P       01 27.80   0.1
GTA    11.03  57 eP      02 27.80   0.7
GYA    17.83 110 P       03 56.40   0.6
CHG    17.98 144 eP      03 58.50   0.9
HYB    18.44 209 eP      04 03.00  -0.3
BTO    18.81  63 eP      04 07.00  -0.7
TIY    20.24  72 eP      04 22.70  -0.9
    N  10s      0.40um
GBA    22.34 208 Pc      04 43.20  -1.7
      0.7s      2.70nm          3.8mb
WHN    22.61  91 eP      04 44.00  -3.5X
MAIO   23.32 284 eP      04 57.00   2.5
SUF    47.60 327 eP      08 23.00   0.3
      0.4s      1.70nm          4.4mb
HFS    53.55 323 eP      09 07.20  -0.7
      0.5s      1.40nm          4.2mb
NAO    54.87 324 P       09 16.60  -1.1
      0.9s      2.30nm          4.2mb
WB5    69.43 133 eP      10 35.20 -20.3X
WRA    69.47 133 Pc      10 56.00   0.3
      0.6s      4.00nm          4.7mb
      S.D. = 1.0  on  17 of  19 obs.
-------------------------------------
&  APR 24, 1989  17h 04m 18.96s
   61.308 N          151.910 W
   DEPTH =  95.4km
 SOUTHERN ALASKA                (  2)
     <AGS-P>.

CGLM    0.05 270 iP      04 32.03   1.1
                  eS     04 42.73
CRP     0.13 251 eP      04 32.22   1.1
SPU     0.14 209 iP      04 32.10   1.1
SUA     0.58  74 iP      04 35.24  -0.1
                  eS     04 47.68
SKT     0.70  15 eP      04 35.29  -0.9
                  eS     04 48.25
RED     0.99 206 iP      04 38.35  -0.9
PWA     1.03  70 eP      04 39.43  -0.2
SLKM    1.15 133 eP      04 41.24   0.1
PME     1.42  76 eP      04 43.04  -1.3
                  eS     05 02.70
CNPM    1.82 169 eP      04 48.12  -1.4
PDB     1.90 217 iP      04 49.32  -1.2
KNIM    2.26 113 eP      04 52.35  -3.0
KTH     2.30  11 eP      04 53.69  -2.3
KLU     2.89  84 eP      05 01.21  -2.7
      14 obs. associated
-------------------------------------
?  APR 24, 1989  17h 12m 29.22± 1.08s
   16.688 S ±42.7km   174.727 W ±31.0km
   DEPTH =  33.0km  (normal)
   4.8mb (  2 obs.)  4.2Msz (  1 obs.)
 TONGA ISLANDS                  (173)

ASPA   48.51 253 iPd     21 11.10  -0.2
     Z  19s      0.25um          4.2Msz
                  LR     40 13.00
TNP    76.65  43 P       24 18.70  -0.2
PMR    80.64  12 P       24 46.00   6.2X
TTA    80.70   9 P       24 40.50   0.2
ALQ    82.60  50 eP      24 51.00   0.1
      1.3s      7.69nm          4.6mb
FBA    83.90  11 P       24 56.00  -0.6
      0.8s      9.48nm          5.0mb
IMA    84.01   8 P       24 56.90  -0.5
BW06   84.08  42 P       24 57.50  -0.8
YKA    91.78  24 eP      25 36.10   1.6
KSP   144.80 348 ePKPc    32 03.70  -0.6
CLL   144.91 352 ePKP     32 03.00  -1.4
SPC   145.37 343 ePKP     32 06.60   1.0
MOX   145.74 353 ePKP     32 06.00   0.1
      1.6s     25.00nm
PRU   145.95 349 PKPc     32 07.50   1.2
      1.4s     22.00nm
MLR   146.47 333 ePKP     32 10.00   2.5X
GRF   146.73 353 e(PKP)   32 09.90   2.3X
                  e      32 11.70
KHC   146.94 350 iPKPc    32 10.90   2.9X
ZST   147.11 345 ePKP     32 10.60   2.4X
SRO   147.16 344 ePKP     32 13.40   5.2X
PRNI  149.65 302 ePKP     32 18.00   5.2X
MBH   149.94 301 ePKP     32 19.00   5.8X
VBY   150.08 346 ePKPc    32 18.90   6.0X
      S.D. = 0.9  on  13 of  22 obs.
-------------------------------------
*  APR 24, 1989  17h 45m 16.51± 1.06s
   46.469 N ± 9.9km   13.597 E ±11.6km
   DEPTH =  10.0km  (geophysicist)
 AUSTRIA                        (546)
     ML 1.9 (KBA).

RBL     0.03 216 Pd      45 18.20  -0.4
                  eSg    45 20.70
VOY     0.48 155 iPg     45 25.20  -1.2
                  eSg    45 32.90
FVI     0.58 283 P       45 28.90   0.7
                  eSg    45 38.80
KBA     0.63 344 iPgc    45 28.50  -0.9
                  iSg    45 38.20
TRI     0.77 171 ePg     45 34.10   2.6X
                  iSg    45 42.70
VBY     1.51 129 ePn     45 45.20   1.7
                  eSg    46 06.90
KHC     2.66 360 ePn     46 02.70   2.4X
                  ePg    46 11.00
                  Sg     46 48.90
      S.D. = 1.7  on   5 of   7 obs.
-------------------------------------
   APR 24, 1989  18h 04m 19.65± 0.58s
   6.335 S ± 5.0km  130.174 E ± 7.3km
   DEPTH = 171.6 ±  6.8 km
   5.0mb ( 10 obs.)
 BANDA SEA                      (280)

AAI     3.29 323 ePc     05 12.50   0.5
                  eS     05 47.70
MTN     6.54 172 iPd     05 53.10  -1.4
                  eS     06 47.00
MNI     9.38 325 ePd     06 32.50   0.3
KNA     9.46 188 eP      06 30.90  -2.3
      0.2s    100.00nm          6.0mb X
                  iS     08 09.60
MKS    10.71 275 ePc     07 02.50  12.9X
JAY    11.16  71 ePc     06 53.50  -2.0
WB5    14.07 164 eP      07 29.00  -3.7X
                  eS     09 48.00
WRA    14.12 164 Pd      07 29.70  -3.7X
      0.7s     18.70nm          4.6mb
QIS    16.84 148 eP      08 06.00  -0.9
                  eS     10 57.00
PMG    17.09 101 iPd     08 11.20   1.2
      0.6s     73.33nm          5.2mb
ASPA   17.60 169 iPd     08 15.00  -0.9
      0.8s     93.00nm          5.2mb
                  eS     11 25.50
MBL    17.82 213 eP      08 18.20   0.0
                  i      08 25.70
                  eS     11 24.00
KKM    18.58 311 ePc     08 26.00  -0.5
      0.4s     57.70nm          5.3mb
WARB   20.02 189 eP      08 33.50  -7.7X
                  eS     12 10.00
CTA    20.75 133 iPd     08 50.10   1.6
      1.1s     27.85nm          4.6mb
NANU   21.44 220 eP      08 56.50   1.3
                  eS     12 59.00
MEKA   23.02 208 eP      09 12.40   1.9
                  eS     13 32.00
FORR   24.46 184 eP      09 25.00   0.8
      0.4s     22.00nm          5.1mb
MRWA   26.41 209 eP      09 43.00   0.9
PSI    32.47 285 ePd     10 35.50  -0.5
BWA    32.64 151 eP      10 40.10   2.7X
CAN    33.65 152 eP      10 47.40   1.4
NNT    35.62 302 eP      11 02.80  -0.1
SSE    38.20 347 Pc      11 25.00   0.7
      0.8s      9.00nm          4.5mb
CHG    39.65 310 ePc     11 37.00   0.5
      0.9s     43.70nm          5.1mb
                  e      13 20.90
NJ2    39.67 345 Pd      11 37.50   1.1
GYA    39.78 326 P       11 37.80   0.2
KMI    41.11 321 eP      11 50.00   1.4
                  sP     13 29.00
MAT    43.31   9 eP      12 05.00  -1.1
CD2    44.84 327 P       12 18.20  -0.2
XAN    44.91 335 P       12 18.30  -0.7
TIY    46.84 341 iPd     12 34.50   0.3
BJI    47.92 346 eP      12 42.00  -0.4
LZH    48.90 332 eP      12 50.50   0.2
      1.5s     44.00nm          4.8mb
CN2    50.08 356 Pc      12 58.60  -0.3
GUN    54.65 311 Pc      13 33.50   0.0
PKI    54.83 310 Pc      13 34.70  -0.1
KOD    55.01 287 eP      13 36.00  -0.2
KKN    55.04 310 Pc      13 36.10  -0.1
DMN    55.08 310 Pc      13 36.50   0.0
GKN    55.64 310 Pc      13 40.40   0.0
GBA    55.98 291 Pc      13 39.90  -2.9
      1.0s     22.60nm          5.0mb
HYB    56.18 296 eP      13 43.00  -1.3
POO    60.77 295 eP      14 16.00   0.0
NDI    61.72 307 iPc     14 20.20  -2.0
                  eSn    18 18.00
WMQ    62.94 327 Pc      14 30.60   0.6
MAIO   78.40 309 iPc     16 04.60   1.6
YKA   107.08  26 ePKP    22 28.00   1.7
HFS   108.46 332 ePKP    22 11.10 -17.8X
      0.4s      6.20nm
NAO   109.52 333 PKP     22 18.80 -12.1X
      0.5s      1.90nm
UPA   150.45  83 ePKPc   23 54.00   6.4X
CNCB  150.83 142 PKPc    23 57.90   9.1X
LPB   150.97 142 ePKP    23 58.00   9.2X
ZOBO  151.15 141 PKP     23 52.60   3.3X
                  i      23 58.00
CCH   151.45 146 ePKP    24 00.00  10.6X
      S.D. = 1.2  on  43 of  55 obs.
-------------------------------------
*  APR 24, 1989  18h 11m 41.43± 1.47s
   24.520 N ±12.6km   95.002 E ±10.6km
   DEPTH =  99.4 ± 17.0 km
   4.7mb (  4 obs.)
 BURMA                          (296)

CHTO    6.76 146 eP      13 20.20   0.5
KMI     7.06  84 Pc      13 29.00   5.0X
GUN     8.86 294 P       13 48.50  -0.3
PKI     9.15 291 P       13 52.60  -0.1
KKN     9.32 293 P       13 54.00  -0.9
DMN     9.41 291 P       13 55.70  -0.5
GKN     9.93 293 P       14 02.40  -0.7
HYB    16.90 248 eP      15 35.50   2.2
                  eS     18 28.00
GBA    19.81 240 Pc      16 06.90   0.3
      0.4s      5.00nm          4.2mb
KOD    21.91 233 eP      16 32.00   3.9X
SSE    24.04  68 P       16 50.00   1.7
```

24d 18h

1.0s 23.00nm 4.6mb
WB5 58.45 136 iPc 21 27.50 -1.8
WRA 58.48 136 Pc 21 27.90 -1.6
0.3s 2.90nm 4.8mb
SUF 58.82 330 iP 21 31.80 0.4
0.3s 2.90nm 4.9mb
WARB 58.96 147 eP 21 22.50 -10.2X
SOD 59.31 335 iP 21 35.20 0.5
NUR 59.32 327 eP 21 35.00 0.1
PPD 149.00 268 ePKP 31 20.30 4.7X
S.D. = 1.3 on 14 of 18 obs.

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* APR 24, 1989 19h 02m 01.84± 1.69s
36.018 N ±13.6km 28.063 E ±10.5km
DEPTH = 114.3 ± 28.1 km
DODECANESE ISLANDS (369)

KAP 0.86 237 iPbd 02 22.00 -0.3
YER 1.13 9 ePn 02 24.10 -1.0
KSL 1.24 85 ePb 02 26.50 0.3
ELL 1.66 63 iPn 02 32.10 0.8
NPS 2.13 250 ePn 02 38.00 0.8
BCK 2.49 54 ePn 02 42.00 0.1
KOT 6.85 151 ePn 03 40.50 -0.6
S.D. = 1.0 on 7 of 7 obs.

& APR 24, 1989 19h 19m 26.50s
59.588 N 152.839 W
DEPTH = 100.2km
SOUTHERN ALASKA (2)
<AGS-P>.

OPT 0.21 288 iP 19 40.45 1.0
eS 19 52.07
AUL 0.37 236 eP 19 41.23 -0.4
AUI 0.39 230 iP 19 41.26 -0.5
ILIM 0.50 353 iP 19 41.89 -0.7
XLV 0.59 103 iP 19 42.37 -0.8
eS 19 55.48
PDB 0.72 287 eP 19 43.42 -0.9
iS 19 56.98
CDD 0.78 212 iP 19 43.91 -1.0
CNPM 0.82 94 iP 19 44.51 -0.8
RED 0.83 2 iP 19 44.73 -0.8
NNL 0.90 59 eP 19 46.08 -0.1
eS 20 02.73
RDT 1.01 12 iP 19 46.64 -0.8
iS 20 02.26
NKA 1.41 34 iP 19 53.42 1.4
SLKM 1.61 54 eP 19 52.94 -1.6
SPU 1.65 13 eP 19 54.14 -0.9
iS 20 15.75
CRP 1.72 11 eP 19 55.72 -0.4
eS 20 17.92
CGLM 1.77 13 eP 19 55.96 -0.8
eS 20 18.14
SEW 1.79 72 eP 19 55.26 -1.5
eS 20 16.89
SVW 2.06 319 eP 19 58.34 -2.1
SUA 2.15 28 eP 20 01.05 -0.6
MTU 2.65 79 iP 20 06.72 -1.6
eS 20 36.70
KNIM 2.68 71 iP 20 06.39 -2.3
KNK 2.84 48 eP 20 08.71 -2.1
eS 20 40.56
GHO 2.92 40 eP 20 10.26 -1.7
GLI 3.14 63 eP 20 12.63 -2.4
eS 20 46.23
FID 3.39 67 eP 20 15.06 -3.2
VZW 3.46 62 eP 20 17.38 -1.9
VLZ 3.58 62 eP 20 18.99 -2.0
KLU 3.92 58 iP 20 23.43 -2.2
28 obs. associated

& APR 24, 1989 20h 08m 04.54s
59.988 N 153.166 W
DEPTH = 121.7km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM 0.14 48 eP 08 20.69 0.7
eS 08 33.97
OPT 0.34 185 iP 08 21.60 1.1
eS 08 34.94
RED 0.48 24 eP 08 22.08 -0.8
eS 08 36.03
PDB 0.56 249 iP 08 22.30 -1.0
eS 08 36.40
AUL 0.62 193 eP 08 23.22 -0.5
RDT 0.70 32 iP 08 23.61 -0.8
iS 08 38.35
XLV 0.91 126 iP 08 25.05 -1.1
eS 08 41.67
NNL 0.94 86 eP 08 26.81 0.4
eS 08 42.51
CNPM 1.08 115 iP 08 27.05 -0.8
iS 08 44.87
CDD 1.09 193 eP 08 26.86 -1.1
eS 08 45.02
NKA 1.22 51 eP 08 30.14 0.9
SPU 1.32 24 eP 08 29.46 -1.0
iS 08 49.37
CRP 1.38 21 iP 08 30.56 -0.6
CGLM 1.44 23 iP 08 30.92 -1.0
SLKM 1.56 69 eP 08 31.89 -1.3
SVW 1.65 314 eP 08 32.28 -2.0
SEW 1.87 85 eP 08 35.57 -1.3
eS 08 58.68
SUA 1.90 38 eP 08 36.35 -1.1
eS 09 00.85
KNK 2.72 56 eP 08 44.80 -3.1
KNIM 2.74 80 iP 08 45.28 -2.8
iS 09 16.77
GHO 2.74 47 eP 08 45.47 -2.7
MTU 2.77 88 eP 08 47.29 -1.2
FID 3.41 74 eP 08 54.60 -2.4
eS 09 31.03
VZW 3.44 69 eP 08 55.17 -2.3
VLZ 3.56 68 eP 08 56.31 -2.7
KLU 3.86 64 eP 08 59.31 -3.9
26 obs. ossociated

APR 24, 1989 20h 32m 55.84± 1.25s
17.484 S ± 7.6km 167.835 E ± 8.3km
DEPTH = 27.7 ± 9.1 km
5.1mb (3 obs.)
VANUATU ISLANDS (186)
CENTROID, MOMENT TENSOR (HRV)
Dotо Used: GDSN
L.P.B.: 10S, 17C
Centroid Location:
Origin Time 20:32:59.7 1.4
Lot 17.49S 0.14 Lon 167.75E 0.14
Dep 37.3 9.4 Half-duration 1.5
Moment Tensor; Scole 10**16 Nm
Mrr= 5.33 0.56 Mtt=-1.07 1.05
Mff=-4.26 0.88 Mrt= 1.78 1.20
Mrf=-2.18 1.44 Mtf= 1.11 0.68
Principol Axes:
T Vol= 6.12 Plg=74 Azm= 40
N -0.86 7 157
P -5.26 14 249
Best Double Couple:Mo=5.7*10**16
NP1:Strike=350 Dip=32 Slip= 104
NP2: 153 60 81

PVC 0.52 119 iPd 33 07.00 0.5
iS 33 15.00
DZM 4.75 196 iPc 34 06.60 -0.9
iS 35 00.30
HNR 11.08 315 ePc 35 35.00 -0.7
0.9s 134.45nm 6.2mb X
eS 37 42.00
VSG 11.37 315 eP 35 39.00 -0.6
eS 37 41.00
SVO 11.38 316 eP 35 40.00 0.3
eS 37 46.00
BRS 17.04 232 eP 36 54.00 0.1
CTA 20.59 259 iPc 37 40.30 4.8X
1.2s 62.50nm 4.9mb
iS 41 34.00
BWA 24.20 222 eP 38 11.30 0.1
CAN 24.42 220 eP 38 12.20 -1.2
WB5 31.76 260 eP 39 22.50 2.3
WRA 31.79 260 P 39 21.00 0.6
0.6s 1.10nm 3.9mb X
ASPA 32.31 253 iPd 39 23.60 -1.3
KNA 37.43 267 eP 40 08.00 -0.8
MAT 60.59 333 eP 43 04.00 -2.4
1.4s 46.51nm 5.4mb
PSI 70.79 279 ePc 44 13.70 1.4
e 46 15.00
MDJ 70.95 332 eP 44 12.50 -0.2
CN2 72.27 329 Pc 44 20.00 -0.6
pP 44 27.60 24kmX
SPA 72.63 180 iPc 44 23.00 0.3
0.7s 11.72nm 5.0mb
BJI 74.74 321 eP 44 35.00 -0.1
TIY 75.65 318 eP 44 41.50 1.0
KMI 76.22 302 eP 44 45.00 0.9
HHC 78.03 320 P 44 55.00 1.3
BTO 78.84 319 eP 44 58.20 0.0
GTA 84.96 314 eP 45 31.40 1.3
WMQ 95.03 314 eP 46 18.20 0.8
APO 133.10 343 (PKP) 51 59.70 -10.4X
0.4s 0.70nm
KHC 142.17 332 ePKP 52 27.40 0.0
KBA 143.77 330 iPKPd 52 27.40 -2.9X
0.5s 3.20nm
i 52 31.20
VBY 143.91 327 ePKP 52 28.70 -1.7
LJU 143.91 328 ePKP 52 28.00 -2.4
RBL 144.12 329 PKPc 52 27.80 -3.0X
VOY 144.24 328 iPKPc 52 28.70 -2.4
FVI 144.39 330 PKP 52 28.90 -2.2
WLF 144.66 339 PKP 52 31.40 0.0
GWF 144.72 337 PKP 52 30.41 -1.3
DOU 144.78 341 PKPc 52 31.10 -0.6
ECP 145.08 354 ePKP 52 31.50 -0.6
0.5s 36.00nm
CDF 145.31 337 PKP 52 32.49 -0.3
FEL 145.47 336 PKP 52 32.71 -0.4
MOF 145.83 337 PKP 52 33.69 0.0
VITF 145.95 338 PKP 52 34.26 0.6
BSF 145.98 337 PKP 52 34.17 0.2
HAU 146.00 338 iPKPc 52 34.50 0.6
0.5s 10.20nm
LOMF 146.36 336 PKP 52 35.69 1.1
VAI 146.77 333 PKPc 52 36.30 1.2
TDS 146.85 318 PKP 52 37.90 2.4X
SGO 146.99 320 PKP 52 37.20 1.6
FIR 147.16 328 ePKP 52 37.00 1.2
SDI 147.17 323 PKP 52 38.10 2.1
BNG 147.25 250 iPKPc 52 37.40 0.5
1.0s 45.00nm
id 52 39.20
id 52 51.10
BOB 147.31 331 PKP 52 38.80 2.7X
FLN 147.38 346 ePKP 52 38.40 2.4X
LDF 147.46 345 ePKP 52 38.40 2.3X
LOR 147.50 340 iPKPc 52 38.40 2.1X
0.7s 8.80nm
LBF 147.70 339 iPKPc 52 39.50 2.8X
0.6s 9.90nm
SSF 147.79 340 iPKPc 52 39.70 3.0X
0.8s 18.80nm
GRR 147.82 346 ePKP 52 39.60 2.9X
SOI 147.89 315 PKPc 52 40.50 3.4X
LPG 147.92 335 iPKPc 52 40.60 3.2X
0.7s 9.90nm
SMF 148.05 339 iPKPc 52 39.90 2.7X
0.8s 13.45nm
AVF 148.08 340 iPKPc 52 40.10 2.9X
0.8s 12.10nm
LPF 148.20 346 ePKP 52 40.70 3.4X
0.6s 12.65nm
BNI 148.31 334 PKP 52 41.80 4.0X
BGF 148.45 340 iPKPc 52 41.50 3.7X
0.7s 7.70nm
TCF 148.90 341 iPKPc 52 42.50 3.9X
0.6s 3.60nm
SBF 148.93 332 ePKP 52 43.10 4.3X
0.9s 24.55nm
LSF 149.14 341 iPKPc 52 42.90 4.0X
0.8s 8.05nm
CVF 149.24 329 ePKP 52 43.10 3.9X
0.7s 11.00nm
MFF 149.30 344 ePKP 52 43.50 4.4X
0.6s 7.20nm
FRF 149.52 332 ePKP 52 43.60 4.0X
0.5s 6.55nm
LRG 149.73 333 ePKP 52 44.60 4.8X
1.0s 28.00nm
LMR 149.76 332 ePKP 52 44.40 4.5X
RJF 149.99 341 ePKP 52 45.50 5.3X
1.0s 12.00nm
LFF 150.57 341 ePKP 52 47.10 6.0X
0.8s 8.05nm
LPO 150.65 340 ePKP 52 47.20 6.0X
EPF 152.41 340 ePKP 52 52.10 8.1X
0.8s 6.05nm

S.D. = 1.2 on 45 of 76 obs.

APR 24, 1989 20h 41m 11.54± 0.20s
17.398 S ± 5.7km 167.826 E ± 4.2km
DEPTH = 34.3km (14 depth phases)
5.3mb (16 obs.) 5.5Msz (19 obs.)
VANUATU ISLANDS (186)
Ms 5.7 (BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 37C
Centroid Locotion:
Origin Time 20:41:15.7 0.4
Lot 17.44S 0.03 Lon 167.60E 0.03
Dep 27.7 1.8 Half-durotion 3.1
Moment Tensor; Scale 10**17 Nm
Mrr= 4.38 0.11 Mtt= 1.16 0.15
Mff=-5.54 0.15 Mrt= 1.23 0.25
Mrf=-2.51 0.39 Mtf=-0.69 0.13
Principol Axes:
T Vol= 5.41 Plg=68 Azm= 37
N 0.75 18 179
P -6.16 13 273
Best Double Couple:Mo=5.8*10**17
NP1:Strike= 26 Dip=36 Slip= 122
NP2: 168 60 69

PVC	0.58	126	iPd	41	21.20	-2.0
			iS	41	32.20	
DZM	4.83	195	iPc	42	20.10	-3.8X
			iS	43	07.60	
VUN	10.16	95	eP	43	40.20	2.0
HNR	11.02	315	eP	43	50.00	0.1
			eS	46	23.00	
VSG	11.30	315	iP	43	53.50	-0.4
			iS	45	53.00	
SVO	11.31	315	eP	43	55.00	1.1
			eS	45	55.00	
BRS	17.09	232	iP	45	10.00	0.4
			iS	48	36.00	
COO	19.57	225	eP	45	41.00	1.3
AFI	19.94	83	eP	45	43.00	-0.7
			eS	50	00.00	
RAB	20.19	309	e(P)	45	52.00	5.7X
			e(S)	49	24.00	
CTA	20.60	259	iPd	45	50.50	0.0
	1.2s	203.13nm				5.4mb
	Z 18s	8.42um				5.2Msz
			i	46	01.10	43km
			i	46	10.20	
			iS	49	42.00	
LMG	20.92	291	e(P)	45	55.00	1.1
PMG	21.60	289	eP	46	01.50	0.8
LAT	22.97	295	eP	46	18.50	4.3X
WEL	24.55	167	eP	46	37.00	7.7X
			S	50	49.00	
OIS	26.86	259	eP	46	50.00	-1.1
STK	27.77	234	eP	46	59.00	-0.3
TOO	28.09	220	eP	47	01.90	-0.3
	1.1s	28.00nm				4.9mb
ADE	31.28	230	iPd	47	30.20	-0.5
	0.9s	23.53nm				5.0mb
WB5	31.77	260	iPd	47	33.70	-1.4
			e	54	09.70	
WRA	31.79	260	Pd	47	33.40	-1.9
	1.3s	33.10nm				5.0mb
ASPA	32.32	253	iPd	47	38.20	-1.7
	Z 21s	19.59um				5.8Msz
			LR	59	42.90	
MTN	35.68	272	eP	48	08.10	-0.7
KNA	37.43	267	eP	48	22.60	-1.0
GUA	38.17	322	e(P)	48	27.50	-2.2
	0.8s	71.64nm				5.6mb
GUMO	38.23	322	e(P)	48	30.00	-0.3
FORR	38.44	242	eP	48	32.00	0.0
WARB	39.09	250	eP	48	28.50	-9.0X
RUV	42.98	94	eP	49	19.00	9.5X
	1.0s	25.00nm				4.9mb
MBL	45.33	257	eP	49	28.20	-0.2
MNI	46.30	289	eP	49	38.00	1.8
MEKA	46.38	250	eP	49	36.10	-0.5
	0.5s	17.00nm				5.3mb
NWAO	47.89	241	iPd	49	47.80	-0.7
	Z 22s	4.40um				5.4Msz
	N 22s	1.90um				
	E 22s	3.60um				
RKG	48.20	240	eP	49	51.00	0.1
DAV	48.32	297	eP	50	04.20	12.2X
MUN	48.67	243	eP	49	50.00	-4.5X
	Z 20s	5.90um				5.6Msz
	N 20s	1.50um				
	E 20s	3.70um				
MKS	48.80	278	ePd	49	56.00	0.3
NANU	49.22	255	eP	49	58.90	0.0
HON	51.01	42	P	49	50.00	-22.4X
	Z 20s	6.91um				5.7Msz
KKM	56.04	290	ePd	50	49.50	-0.4
BAG	57.41	303	eP	51	02.50	2.8X
			eS	58	54.00	
KAKJ	59.38	334	eP	51	20.60	7.7X
CHJJ	59.75	333	P	51	14.10	-1.3
IIDJ	59.75	332	P	51	14.50	-1.0
SBA	60.49	180	Pc	51	20.00	0.0
MAT	60.51	333	eP	51	19.00	-1.6
	1.0s	55.00nm				5.6mb
			eS	59	38.00	
TSRJ	60.69	330	P	51	17.50	-4.3X
MTMJ	60.72	333	P	51	21.00	-1.2
NIIJ	60.76	334	P	51	21.70	-0.6
SHK	61.52	327	eP	51	26.30	-1.2
SSE	65.82	317	Pc	51	54.50	-1.2
	Z 20s	0.90um				5.0Msz
	E 17s	0.60um				
			pP	52	05.00	34km
			S	00	39.00	
KGM	66.40	280	eP	52	00.50	0.6
GZH	66.74	305	eP	52	00.00	-1.8
			eS	00	48.00	
OIZ	67.51	300	eP	52	09.00	2.2
	N 13s	0.50um				
			eS	00	55.00	
			eSS	05	14.00	
NJ2	67.96	316	Pd	52	09.00	-0.3
IPM	69.43	282	ePd	52	18.80	0.0
SMY	70.04	4	P	52	10.00	-11.7X
	Z 20s	5.00um				5.8Msz
WHN	70.12	313	P	52	22.00	-0.7
	Z 24s	1.40um				5.1MszX
	E 20s	1.05um				
			pP	52	33.50	38km
SNG	70.72	284	eP	52	27.40	0.7
			eS	01	43.30	
DL2	70.74	323	eP	52	26.60	0.3
PSI	70.76	279	ePc	52	26.90	-0.1
	1.3s	33.30nm				5.2mb
MDJ	70.87	332	Pc	52	26.80	-0.2
	Z 20s	1.30um				5.2Msz
			pP	52	38.00	37km
			S	01	40.00	
			sS	01	58.00	
TIA	71.68	319	eP	52	30.60	-1.5
	Z 18s	1.50um				5.3Msz
	N 16s	1.00um				
	E 16s	0.80um				
			eS	01	50.50	
SNY	71.71	327	eP	52	31.50	-0.6
	Z 19s	1.80um				5.4Msz
	N 18s	0.80um				
	E 19s	1.00um				
			S	01	52.00	
CN2	72.20	329	Pc	52	34.50	-0.4
	6.0s	0.80nm				2.9mb X
	Z 22s	1.10um				5.1Msz
	E 15s	0.60um				
			ipP	52	41.00	21kmX
			sP	52	45.00	
			PP	55	15.00	
			eS	01	56.00	
			ScS	02	40.00	
			SS	06	36.00	
SPA	72.71	180	iPc	52	37.30	-0.7
	1.0s	97.00nm				5.7mb
			i	52	47.60	33km
NNT	73.53	289	eP	52	45.00	1.7
GYA	73.67	305	P	52	47.00	2.9X
	E 20s	1.60um				
			S	02	13.00	
BJI	74.67	321	eP	52	48.50	-0.9
	8.0s	0.80nm				2.8mb X
	Z 21s	1.11um				5.1Msz
			eS	02	24.00	
			eSKS	02	54.00	
TIY	75.58	318	Pc	52	55.00	0.2
	E 15s	0.70um				
			pP	53	03.00	26km
			S	02	38.00	
XAN	75.88	313	eP	52	56.80	0.2
			eS	02	35.50	
KMI	76.16	302	eP	52	59.00	0.9
	Z 26s	1.50um				5.2MszX
			pP	53	10.00	34km
			sP	53	16.00	
			eS	02	40.00	
			S	02	45.00	
CHG	76.67	295	eP	53	02.10	0.8
	1.1s	21.84nm				5.1mb
			eS	02	50.80	
HHC	77.96	320	P	53	09.20	1.1
	6.0s	1.00nm				3.0mb X
	N 17s	1.40um				
CD2	78.05	308	eP	53	09.20	0.5
BTO	78.77	319	P	53	14.00	1.4
	N 15s	0.40um				
	E 15s	0.70um				
			PP	56	13.00	
			S	03	12.00	
			SKS	03	26.00	
LZH	80.50	312	eP	53	23.00	0.9
	7.0s	841.00nm				5.8mb X
	Z 24s	1.30um				5.2MszX
			pP	53	33.50	33km
			eS	03	30.00	
GTA	84.89	314	P	53	45.00	0.5
	E 12s	1.00um				
TTA	84.93	15	P	53	42.70	-1.4
	1.0s	19.50nm				5.3mb
PRS	85.51	50	ePd	53	47.80	0.3
			e	53	58.50	34km
BRK	85.54	48	eP	53	47.70	0.2
			e	53	58.10	33km
BKS	85.56	48	eP	53	44.80	-2.9X
	Z 20s	3.00um				5.7Msz
	N 20s	1.90um				
	E 20s	2.10um				
			e	04	28.00	
			eS	05	32.40	
MHC	85.75	49	eP	53	49.20	0.4
PMR	85.83	19	eP	53	51.00	2.5X
	Z 22s	2.69um				5.6Msz
ARN	85.83	49	P	53	47.40	-1.7
LLA	85.95	50	eP	53	49.80	0.1
PRI	85.95	50	e(P)	53	50.50	0.7
WDC	86.53	46	ePd	53	52.40	0.0
			e	54	03.20	34km
			ePP	57	16.80	
ORV	86.80	47	ePd	53	53.40	-0.4
			e	54	04.40	35km
CMB	86.94	49	ePd	53	54.50	-0.1
			e	54	05.20	34km
			ePP	57	21.20	
FRI	87.00	50	ePd	53	54.70	-0.1
MIN	87.07	46	eP	53	54.90	-0.3
			e	54	05.50	33km
ISA	87.38	51	eP	54	07.00	10.3X
SBB	87.48	53	eP	53	57.00	-0.3
RVR	87.56	53	eP	54	06.00	8.5X
PLM	87.71	54	eP	54	03.00	4.5X
CLC	88.09	52	eP	54	01.00	0.8
TPC	88.62	54	eP	54	01.00	-1.7
FBA	88.72	17	P	54	03.80	1.3
	0.9s	19.38nm				5.4mb
BMW	88.72	40	P	54	02.40	-0.5
KVN	88.99	48	P	54	03.80	-0.8
GLA	89.18	55	eP	54	13.00	7.6X
TNP	89.25	50	iP	54	05.50	-0.3
	1.0s	19.00nm				5.4mb
LON	89.72	40	P	54	07.20	-0.4
GUN	91.15	299	PKP	54	17.00	2.0
PNT	92.14	39	eP	54	23.00	4.3X
	0.9s	14.00nm				5.4mb
KOD	93.34	280	eP	54	34.20	8.9X
GBA	94.35	283	Pd	54	37.70	8.3X
	1.1s	17.70nm				5.4mb
HYB	94.41	287	eP	54	32.00	2.3X
WMO	94.97	314	P	54	33.00	1.1
	Z 22s	1.30um				5.4Msz
			PP	58	24.00	
			SS	12	06.00	
INK	95.23	19	eP	54	33.00	0.6
ALQ	96.36	56	e(P)	54	41.00	2.4X
	Z 22s	1.48um				5.4Msz

24d 20h

GOL	98.51	51	eP	54	53.00	4.7X
	Z 20s	2.75um			5.7Msz	
GLD	98.63	51	eP	54	58.00	9.3X
	Z 20s	3.50um			5.9Msz	
YKA	99.66	27	P	54	56.40	3.8X
FRB	120.09	25	ePKP	00	00.50	0.7
SLR	121.80	224	ePKP	00	21.50	17.0X
SOD	124.19	343	ePKP	00	13.00	5.4X
BUL	125.28	229	iPKPc	00	10.20	-1.1
	1.0s	9.50nm				
PTZ	126.78	236	iPKP	00	14.00	-0.3
			i	00	27.00	
SUF	127.51	339	iPKP	00	13.50	-0.6
	0.6s	4.40nm				
LSZ	128.63	233	iPKP	00	18.50	0.7
NUR	129.53	337	iPKP	00	17.50	-0.5
KMZ	131.55	233	iPKP	00	23.30	-0.1
			i	00	26.00	
APO	133.02	343	ePKP	00	14.10	-10.6X
	0.4s	0.70nm				
NAO	133.61	345	PKP	00	25.60	-0.2
	0.8s	4.90nm				
JVI	134.80	298	ePKP	00	30.00	1.0
LWI	135.14	248	ePKP	00	39.00	8.6X
PRNI	135.28	296	e(PKP)	00	30.00	0.0
MBH	135.43	295	ePKPc	00	30.00	-0.2
MLR	137.70	320	ePKP	00	20.00	-14.3X
KRA	138.46	329	ePKP	00	27.80	-7.5X
			e	00	38.30	
SPC	138.86	328	ePKP	00	37.80	1.5
KSP	139.64	332	ePKP	00	36.00	-1.4
			e	04	12.20	
CLL	140.69	335	ePKP	00	36.00	-3.3X
SRO	140.73	327	ePKP	00	36.30	-3.1X
			e	04	16.40	
ZST	141.09	329	ePKP	00	38.90	-1.2
	Z 18s	1.20um			5.7Msz	
		LR		22	07.00	
SOB1	141.21	131	ePKP	00	27.70	-13.7X
			e	00	41.10	
			e	00	51.20	
MOX	141.76	335	e(PKP)	00	41.00	-0.3
			e	02	50.00	
			e	03	45.00	
KHC	142.09	332	PKP	00	38.40	-3.5X
			i	00	46.10	
WTS	142.36	341	e(PKP)	00	40.50	-1.7
LIT	142.47	314	ePKP	00	37.00	-5.9X
PTJ	143.20	327	ePKP	00	40.60	-3.4X
ITR	143.28	133	ePKP	00	38.90	-6.0X
KBA	143.69	330	iPKPc	00	41.30	-3.6X
	0.9s	18.80nm				
			i	00	47.40	
			i	01	08.20	
			e	04	03.00	
ENN	143.70	341	e(PKP)	00	44.00	-0.5
	0.8s	11.00nm				
VBY	143.83	327	ePKP	00	42.60	-2.3
LJU	143.84	328	ePKPc	00	42.50	-2.5X
DLE	143.92	354	ePKP	00	47.00	2.2X
DCN	143.93	355	ePKP	00	42.50	-2.3
RBL	144.04	329	PKPc	00	42.20	-3.2X
CEY	144.10	328	ePKPc	00	43.00	-2.4X
VOY	144.17	328	iPKPc	00	43.20	-2.4X
FVI	144.31	330	PKPc	00	42.80	-2.9X
TRI	144.46	328	iPKPc	00	44.00	-2.0
			i	00	56.50	
			i	02	41.00	
ETA	144.47	354	ePKP	00	44.00	-1.8
	0.9s	57.00nm				
WLF	144.57	339	iPKPc	00	45.00	-1.0
GWF	144.63	337	PKP	00	44.74	-1.5
HVAR	144.66	323	iPKPc	00	44.20	-2.2
DOU	144.70	341	PKP	00	44.90	-1.4
STR	144.91	337	PKP	00	46.10	-0.5
ECP	144.99	354	iPKPd	00	45.80	-0.8
	0.7s	89.00nm				
CDF	145.23	337	PKP	00	46.86	-0.5
LCI	145.37	318	PKP	00	47.00	-0.7
FEL	145.39	336	PKP	00	47.22	-0.5
VAL	145.50	358	iPKP	00	47.10	-0.4
MOF	145.75	337	PKP	00	48.25	0.0
VITF	145.87	338	PKP	00	47.35	-0.9
BSF	145.89	337	PKP	00	47.10	-1.4
HAU	145.91	338	iPKPc	00	48.90	0.4
	1.2s	101.15nm				
BBS	145.93	336	PKP	00	48.71	0.2
AOI	146.01	326	ePKP	00	49.25	0.5
LOMF	146.28	336	PKP	00	49.98	0.8
RSM	146.37	327	PKPc	00	51.10	1.9
ARV	146.40	326	PKP	00	49.90	0.5
CIO	146.50	325	ePKP	00	51.17	1.5
ALP	146.54	325	e(PKP)	00	50.10	0.3
SFI	146.68	328	PKPc	00	52.30	2.6X
VAI	146.69	333	PKPc	00	50.70	1.0
DUI	146.76	322	PKPc	00	51.40	1.3
PGD	146.78	328	PKPc	00	52.30	2.1
TDS	146.78	318	PKPc	00	51.90	1.8
SGO	146.92	320	PKP	00	51.60	1.4
MGR	147.01	319	PKPc	00	51.20	0.8
MME	147.06	329	PKP	00	52.80	2.1
BSS	147.08	321	PKP	00	51.70	1.2
FIR	147.08	328	ePKP	00	52.00	1.6
ORX	147.21	333	PKP	00	51.92	1.2
BOB	147.23	331	PKPc	00	52.80	2.1
BNG	147.27	250	iPKPc	00	50.50	-1.1
	1.0s	160.00nm				
			ic	00	53.30	
			ic	01	06.80	
			ic	02	16.00	
FLN	147.30	346	iPKPc	00	52.80	2.2X
	1.2s	113.05nm				
LDF	147.37	345	iPKPc	00	52.60	1.9
	1.0s	52.00nm				
LOR	147.41	340	iPKPc	00	53.20	2.3X
	0.6s	22.10nm				
PII	147.49	329	PKPc	00	52.20	1.2
LBF	147.62	339	iPKPc	00	53.90	2.7X
	0.7s	38.60nm				
RMP	147.67	324	PKPc	00	53.70	2.3X
RDP	147.69	324	PKP	00	53.80	2.3X
LSD	147.70	334	PKP	00	54.59	2.9X
SSF	147.71	340	iPKPc	00	54.20	2.9X
	0.9s	58.95nm				
GRR	147.74	346	iPKPc	00	54.00	2.7X
	1.0s	60.00nm				
SOI	147.83	315	PKPc	00	54.80	3.1X
LPG	147.83	335	iPKPc	00	55.10	3.1X
	0.9s	45.85nm				
RSP	147.90	334	PKP	00	53.97	2.1
SMF	147.96	339	iPKPc	00	54.20	2.4X
	1.1s	80.60nm				
AVF	148.00	340	iPKPc	00	54.30	2.5X
	1.1s	58.60nm				
MAO	148.10	326	PKPc	00	54.80	2.7X
LPF	148.11	346	iPKPc	00	54.90	3.0X
	0.7s	41.90nm				
ATN	148.17	316	PKP	00	54.20	1.8
BNI	148.23	334	PKPc	00	55.90	3.5X
FIN	148.23	332	PKP	00	54.38	2.1
RRL	148.29	334	PKP	00	55.92	3.3X
ROB	148.31	332	PKP	00	54.89	2.4X
8GF	148.37	340	iPKPc	00	55.80	3.4X
	0.8s	34.90nm				
PZZ	148.49	333	PKP	00	55.10	2.3X
STV	148.60	333	PKP	00	55.00	2.0
IMI	148.61	332	PKP	00	55.71	2.7X
SAOF	148.70	332	PKP	00	55.25	2.2
AUTN	148.75	332	PKP	00	56.10	2.7X
MAF	148.76	340	iPKPc	00	56.80	3.7X
	1.0s	46.00nm				
TOUF	148.81	332	PKP	00	55.86	2.4X
TCF	148.81	341	iPKPc	00	57.10	3.9X
	1.0s	38.00nm				
SBF	148.85	332	iPKPc	00	56.80	3.5X
	0.8s	75.20nm				
AURF	148.88	332	PKP	00	56.10	2.7X
MVIF	148.95	332	PKP	00	56.49	2.9X
LSF	149.06	341	iPKPc	00	57.50	4.0X
	1.0s	40.00nm				
CVF	149.16	329	PKP	00	57.68	3.9X
CALN	149.18	332	PKP	00	57.70	3.7X
MFF	149.22	344	iPKPc	00	57.70	4.0X
	0.7s	35.30nm				
FRF	149.44	333	iPKPc	00	58.10	3.9X
	1.2s	83.30nm				
LRG	149.65	333	iPKPc	00	59.10	4.7X
	1.2s	95.20nm				
LMR	149.68	332	iPKPc	00	59.00	4.5X
	1.0s	64.00nm				
RJF	149.91	341	iPKPc	01	00.00	5.2X
	1.0s	44.00nm				
CAF	150.07	340	iPKPc	01	00.40	5.3X
	1.0s	24.00nm				
LFF	150.48	341	iPKPc	01	01.20	5.5X
	1.1s	73.25nm				
LPO	150.57	340	iPKPc	01	01.50	5.7X
	0.9s	34.40nm				
EPF	152.32	340	iPKPc	01	05.10	6.5X
	1.0s	20.00nm				
EBR	154.23	337	ePKP	01	04.00	2.9X
			e	05	04.00	
MAL	159.56	342	ePKP	01	00.00	-7.9X
			iPP	05	04.00	

S.D. = 1.2 on 148 of 238 obs.

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* APR 24, 1989 22h 04m 23.79± 1.03s
66.828 N ± 8.2km 156.191 W ±13.3km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.3 (PMR).

IMA	1.27	126	ePc	04	48.40	0.6
TTA	3.92	179	eP	05	25.90	-0.1
FBA	3.95	115	eP	05	25.80	-0.6
BRW	4.50	358	eP	05	34.20	0.1
SVW	5.75	177	ePc	05	51.90	0.0

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

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* APR 24, 1989 22h 06m 09.22± 1.62s
66.858 N ±10.1km 156.251 W ±16.3km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.4 (PMR).

IMA	1.30	126	eP	06	33.80	-0.1
TTA	3.95	178	eP	07	12.60	0.8
FBA	3.99	116	eP	07	11.50	-0.8
SVW	5.78	177	ePc	07	37.10	-0.6
INK	8.79	70	eP	08	08.00	-11.7X
MBC	14.64	35	eP	09	38.00	-0.5
YKA	18.07	84	P	10	23.40	1.3

S.D. = 1.1 on 6 of 7 obs.

% APR 24, 1989 22h 20m 59.30± 1.04s
40.360 N ± 6.9km 20.550 E ±11.1km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

LSK	0.21	170	ePn	21	04.00	0.0
KBN	0.33	37	ePn	21	12.50	6.4X
TPE	0.42	261	ePn	21	08.00	0.2
BERA	0.57	307	ePn	21	11.00	0.1
VLO	0.81	278	ePn	21	19.10	4.1X
PHP	1.33	356	iPnd	21	25.00	1.2
LACI	1.42	334	ePn	21	25.00	-0.2
PUK	1.75	344	ePn	21	28.50	-1.4

S.D. = 1.1 on 6 of 8 obs.

% APR 24, 1989 22h 23m 00.82± 0.88s
37.707 N ± 7.3km 14.691 E ± 7.6km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.22	1	Pd	23	06.30	0.5
			eSg	23	10.60	
GIB	0.60	298	P	23	12.60	-0.3
MEU	0.63	162	Pd	23	13.80	0.2
			eSg	23	24.50	
ATN	0.76	53	P	23	15.30	-0.4
SOI	1.14	71	P	23	22.00	-0.1

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

% APR 24, 1989 22h 32m 14.58± 0.80s
42.540 N ± 5.9km 18.648 E ± 6.7km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.3 (TTG).

HCY	0.14	230	iPgc	32	18.00	0.1
			iSg	32	20.40	
BDV	0.29	152	iPgc	32	20.50	-0.1
			iSg	32	25.50	
BRY	0.37	348	ePg	32	22.20	0.0
			eSg	32	28.50	
NKY	0.38	43	ePg	32	22.00	-0.3
			eSg	32	28.30	
TTG	0.47	103	ePg	32	23.60	-0.5
			eSg	32	30.60	
PVY	0.98	86	ePg	32	34.20	0.9
			eSg	32	48.80	

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

? APR 24, 1989 22h 50m 33.88±17.19s
32.115 S ±95.1km 72.502 W ±101.km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)

LCCH	1.57	150	iPd	50	59.60	-0.1
			iS	51	14.00	
JACH	1.71	110	iP	51	02.00	0.1
			iS	51	14.50	
PEL	1.84	124	iPd	51	03.20	-0.6
TACH	2.02	140	iPc	51	00.70	-5.6X
			iS	51	21.50	
SAN	2.04	131	iPd	51	06.00	-0.7
LNV	2.05	154	iPd	51	06.60	-0.1
			iS	51	23.00	
FCH	2.22	124	iP	51	09.50	0.1
			iS	51	28.50	
PCH	2.25	132	iP	51	09.50	-0.1
			iS	51	30.50	
CHCH	2.39	140	iPc	51	12.10	0.5
			iS	51	33.70	
ZON	3.30	81	eP	51	34.00	9.4X
RFA	4.29	129	e(P)	51	39.50	0.9

S.D. = 0.6 on 9 of 11 obs.

% APR 24, 1989 22h 51m 37.62± 0.90s
37.732 N ± 7.4km 29.229 E ± 9.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.63	21	iPg	51	49.80	-0.6
			iSg	52	00.80	
YER	0.96	232	iPn	51	55.70	-0.2
BCK	1.11	104	iPn	51	58.00	-0.6
ELL	1.12	151	iPn	51	59.20	0.5
ALT	1.49	27	ePn	52	05.50	1.0
IZM	1.69	294	ePn	52	11.00	3.7X

S.D. = 1.0 on 5 of 6 obs.

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* APR 24, 1989 23h 45m 59.86± 0.87s
17.519 S ± 8.8km 167.942 E ± 8.9km
DEPTH = 42.2 ± 7.8 km
4.3mb (3 obs.)
VANUATU ISLANDS (186)

PVC	0.42	122	iPd	46	10.30	0.7
			iS	46	18.30	
DZM	4.74	197	iPc	47	09.90	-1.0
			iS	48	00.20	
HNR	11.18	315	P	48	36.00	-4.2X
VSG	11.47	315	eP	48	43.00	-1.1
			eS	50	45.00	
SVO	11.47	315	eP	48	44.00	-0.1
			eS	50	46.00	
CTA	20.69	259	eP	50	39.00	0.0
BWA	24.25	222	eP	51	15.00	0.9
CAN	24.46	220	eP	51	22.00	5.8X
WRA	31.88	260	P	52	25.00	1.4
	0.7s		1.90nm			4.1mb
ASPA	32.39	253	iPc	52	27.30	-0.7
	0.7s		6.00nm			4.6mb
			epP	52	37.80	38kmX
CN2	72.36	329	Pc	57	23.60	0.3
BJI	74.83	321	eP	57	38.50	0.7
TIY	75.74	318	Pc	57	45.30	2.2
CHTO	76.82	295	eP	57	50.00	0.5
	1.5s		5.63nm			4.4mb
GTA	85.05	314	eP	58	35.50	2.8X
KBA	143.85	330	iPKPd	05	30.20	-2.3X
	1.1s		4.40nm			
VBY	143.99	327	ePKP	05	32.40	-0.1
LJU	144.00	328	ePKP	05	31.40	-1.1
CEY	144.26	328	ePKP	05	32.50	-0.5
YRH	144.28	352	ePKP	05	30.00	-2.8X
VOY	144.33	328	ePKPc	05	32.00	-1.2
WLF	144.72	339	PKPc	05	34.10	0.5
GWF	144.79	337	PKP	05	32.99	-0.8
DOU	144.85	341	PKPc	05	33.80	0.0
ECP	145.12	354	ePKP	05	34.00	-0.2
CDF	145.39	337	PKP	05	33.75	-1.2
FEL	145.55	336	PKP	05	34.72	-0.6
VITF	146.02	338	PKP	05	35.99	0.2
BSF	146.05	337	PKP	05	35.71	-0.4
HAU	146.07	338	iPKPc	05	37.80	1.8
	0.9s		11.10nm			
FIR	147.25	328	ePKP	05	41.00	3.0X
BNG	147.33	250	iPKPc	05	42.20	3.1X
	0.8s		17.00nm			
LOR	147.56	340	iPKPc	05	41.90	3.5X
	0.8s		6.70nm			
LBF	147.77	339	iPKPc	05	42.90	4.1X
	0.8s		12.00nm			
SSF	147.86	340	iPKPc	05	43.00	4.1X
	0.8s		8.00nm			
LPG	147.99	335	iPKPc	05	44.00	4.5X
	0.9s		11.40nm			
LPF	148.26	346	ePKP	05	43.80	4.3X
	1.0s		12.00nm			
BGF	148.52	340	iPKPc	05	44.60	4.6X
	0.9s		10.40nm			
TCF	148.96	341	iPKPc	05	46.00	5.3X
LSF	149.21	341	iPKPc	05	46.20	5.1X
CVF	149.32	329	ePKP	05	46.30	4.9X
	0.8s		8.00nm			
MFF	149.37	344	ePKP	05	46.50	5.2X
	0.8s		5.30nm			

S.D. = 1.0 on 25 of 42 obs.

APR 25, 1989 00h 02m 59.04± 0.54s
66.926 N ± 5.3km 156.208 W ± 7.7km
DEPTH = 5.0km (geophysicist)
4.5mb (9 obs.)
ALASKA (676)
ML 4.9 (PMR).

IMA	1.33	129	iPc	03	24.70	0.5
FBA	4.00	117	iPd	04	02.30	0.0
TTA	4.01	179	iPd	04	02.00	-0.6
BRW	4.40	358	ePc	04	07.70	-0.3
SVW	5.85	177	ePd	04	27.40	-1.1
PMR	6.17	147	eP	04	32.20	-0.8
TOA	6.49	134	ePc	04	38.10	0.5
DWY	7.54	105	P	04	53.00	0.8
INK	8.75	71	eP	05	07.00	-2.0
HYT	10.23	118	P	05	30.00	0.3
MBC	14.57	35	eP	06	25.00	-2.5
YKA	18.04	84	P	07	12.30	0.6
YKC	18.10	84	eP	07	13.00	0.6
EDM	24.76	102	eP	08	23.50	1.1
ALE	24.83	18	eP	08	25.00	2.3
	0.5s		7.00nm			4.6mb
SES	27.87	104	eP	08	57.00	5.8X
FFC	28.08	89	eP	08	56.00	2.9X
	1.2s		21.00nm			4.8mb
FRB	33.87	53	eP	09	43.00	-1.0
RSON	34.29	86	eP	09	48.00	0.2
	0.8s		9.68nm			4.8mb
KVN	35.10	123	eP	09	54.80	-0.3
TNP	36.27	123	eP	10	03.50	-1.5
	0.8s		1.72nm			3.9mb
GOL	39.04	108	eP	10	29.50	1.2
	0.9s		7.58nm			4.3mb
ALQ	42.84	113	eP	11	00.80	1.2
	1.0s		8.75nm			4.4mb
FVM	46.29	94	eP	11	26.80	-0.1
UYO	48.05	101	eP	11	40.50	-0.4
SUF	50.64	359	eP	11	59.00	-1.4
NAO	52.20	8	P	12	12.40	0.2
	0.8s		3.70nm			4.4mb
PRM	52.87	89	eP	12	17.30	-0.3
NUR	52.87	359	iP	12	17.10	-0.1
HFS	53.03	6	eP	12	18.10	-0.3
	0.6s		1.00nm			3.9mb
PRU	63.20	7	eP	13	31.00	1.1
KHC	64.01	7	eP	13	38.10	2.8X
KBA	66.05	8	e(P)	13	50.00	1.4
	0.7s		4.10nm			4.7mb
GUN	74.65	306	P	14	42.00	0.7

S.D. = 1.1 on 31 of 34 obs.

& APR 25, 1989 00h 24m 24.10s
36.753 N 121.590 W
DEPTH = 2.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.8 (BRK).

SAO	0.12	84	iPc	24	26.30	-0.2
			iS	24	29.30	
GCC	0.43	310	ePc	24	32.40	-0.2
			iS	24	38.80	
PRS	0.46	157	iPc	24	33.15	-0.1
			iS	24	40.10	
LLA	0.54	104	iPc	24	34.80	0.0
MHC	0.59	356	ePc	24	36.30	0.4
			iS	24	45.45	
ARN	0.60	4	eP	24	36.20	0.2
PRI	0.96	129	ePd	24	42.70	-0.6
PCC	0.98	320	iPd	24	42.30	-1.1
BKS	1.23	336	eP	24	46.70	-1.1
FRI	1.53	80	e(P)	24	50.40	-2.1
			eS	25	12.20	
CMB	1.60	37	ePc	24	52.90	-0.6
KVN	3.59	49	eP	25	26.00	3.9

12 obs. associated

APR 25, 1989 00h 27m 47.60± 0.66s
26.280 N ±10.5km 67.678 E ± 7.1km
DEPTH = 33.0km (normal)
4.3mb (5 obs.)
PAKISTAN (710)

QUE	3.95	351	iPd	28	47.40	-0.1
			eS	29	39.50	
BOM	8.75	146	P	29	50.30	-4.5X
			eS	32	20.80	
NDI	8.80	72	iPd	29	55.50	-0.1
	0.4s		42.37nm			5.9mb X
MAIO	12.19	327	eP	30	36.00	-5.9X
			eS	34	23.00	
HYB	13.40	129	eP	30	58.00	0.0
GKN	15.20	B0	P	31	23.50	1.9
	0.5s		14.00nm			4.5mb
GBA	15.58	142	Pc	31	26.50	0.0
	1.4s		33.10nm			4.3mb
DMN	15.60	B1	P	31	27.40	0.4
KKN	15.76	81	P	31	27.80	-1.2
	0.5s		14.00nm			4.4mb
PKI	15.87	81	P	31	30.00	-0.5
GUN	16.29	B0	P	31	35.30	-0.6
KER	19.47	299	eP	32	14.00	-0.8
CHG	29.76	98	eP	33	57.20	3.7X
MLR	38.35	311	ePc	35	09.00	1.7
SUF	45.53	335	eP	36	07.00	1.4
SOD	48.08	340	iP	36	26.00	0.4
HFS	49.80	328	eP	36	37.70	-1.2
	0.5s		1.40nm			4.2mb
	Z 16s		0.06um			3.7MszX
			LR	54	03.00	
NAO	51.36	328	P	36	49.70	-1.1
	0.6s		0.70nm			3.8mb
MTN	72.90	114	eP	39	27.10	11.4X
			e	40	49.30	
			e	43	57.00	
			e	45	21.70	
INK	84.40	8	eP	40	21.00	3.5X
YKA	91.52	1	eP	40	51.50	-0.3

S.D. = 1.0 on 16 of 21 obs.

APR 25, 1989 00h 31m 38.67± 0.54s
25.499 S ± 7.0km 179.653 E ± 4.1km
DEPTH = 496.5 ± 6.1 km
5.0mb (27 obs.)
SOUTH OF FIJI ISLANDS (171)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 27C
Centroid Locotion:
Origin Time 00:31:49.0 1.0
Lat 25.38S 0.08 Lon 179.27E 0.09
Dep 520.3 3.5 Half-durotion 1.8
Moment Tensor; Scale 10**16 Nm
Mrr= 2.78 0.43 Mtt=-0.92 0.72
Mff=-1.85 0.68 Mrt=-0.69 0.69
Mrf=-8.97 0.67 Mtf=-6.94 0.62
Principal Axes:

T	Val= 11.07	Plg=42	Azm= 62
N	1.04	35	192
P	-12.11	28	303

Best Double Couple:Mo=1.2**10**17
NP1:Strike= 84 Dip=36 Slip= 166
NP2: 186 82 55

SVA	7.43	351	eP	33	31.00	0.8
DZM	12.57	283	iPd	34	27.50	3.1X
			iS	36	46.80	
WEL	16.26	193	P	35	03.70	1.9
	0.8s		179.10nm			5.7mb X
			eS	37	47.00	
HNR	24.61	307	eP	36	19.00	-1.4

25d 00h

CAN	28.10	242	eP	36	52.80	1.7	TNP	86.60	45	iP	43	30.00	0.2	PRU	152.97	339	ePKP	50	39.50	7.5X
AFR	29.47	81	iP	37	02.40	-0.7		1.0s	22.00nm			4.8mb					e	50	53.50	
	1.2s	115.00nm			5.3mb		KVN	86.62	44	iP	43	30.00	0.1	WTS	152.99	350	ePKP	50	39.50	7.6X
PPN	29.78	81	iP	37	05.40	-0.4	BJI	87.97	317	eP	43	35.00	-0.9		0.8s	23.00nm				
	1.2s	60.00nm			5.0mb		EUR	88.21	44	iP	43	36.70	-0.7				e	50	51.00	
TVO	29.85	81	iP	37	05.90	-0.6		1.0s	8.65nm			4.5mb		MOX	153.26	343	ePKP	50	32.00	-0.4
	1.2s	125.00nm			5.3mb		TIY	89.04	313	Pd	43	42.00	0.9				e	50	40.00	
CTA	31.21	273	iPd	37	18.80	0.7		1.2s	0.10nm			2.5mb	X				e	50	54.00	
	1.0s	115.00nm			5.4mb		Z	22s	0.50um			4.9Msz		SRO	153.30	331	ePKP	50	40.30	7.8X
		iS		41	49.00		XAN	89.48	308	Pd	43	44.00	0.8	KDZ	153.31	314	ePKP	50	38.00	5.2X
		i		44	39.00		KMI	89.73	298	Pd	43	45.50	0.8	ZST	153.51	333	ePKP	50	32.20	-0.6
PMO	32.10	77	iP	37	25.20	-0.4	CHG	89.94	291	ePd	43	46.70	1.2				e	50	40.70	
	1.2s	50.00nm			4.9mb			1.2s	46.88nm			5.3mb		RZN	153.74	314	ePKP	50	42.00	8.4X
VAH	32.24	78	iP	37	26.00	-0.8	ALQ	92.18	52	eP	43	55.80	0.0	KHC	154.03	339	PKPc	50	33.50	0.0
	1.2s	75.00nm			5.1mb		FBA	93.57	13	eP	44	01.00	-0.3				e	50	42.30	
TPT	32.36	77	iP	37	27.40	-0.3		0.8s	4.14nm			4.6mb		KKB	154.69	316	ePKP	50	43.00	8.4X
	1.2s	130.00nm			5.3mb		LZH	94.11	308	eP	44	05.00	0.4	OHR	156.54	317	ePKP	50	45.50	8.3X
RUV	32.48	78	iP	37	28.30	-0.5		1.5s	44.00nm			5.4mb			S.D. = 0.9		on	85	of 135	obs.
	1.2s	100.00nm			5.2mb		GOL	95.26	48	iP	44	11.00	1.2							
STK	33.86	250	iPc	37	41.90	1.6		0.9s	9.47nm			4.9mb								
ADE	36.40	245	iPc	38	02.80	1.3	INK	99.65	16	eP	44	28.00	-0.6	*	APR 25, 1989 00h 37m 28.19± 2.05s					
	0.5s	19.72nm			4.9mb		GUN	104.60	294	Pdiff	44	44.30	-7.8X		30.087 N ±13.3km			130.041 E ±10.6km		
QIS	37.09	269	iPd	38	07.60	0.4	PKI	104.86	294	Pdiff	44	47.90	-5.3X		DEPTH = 70.5 ± 19.1 km					
ASPA	41.49	262	iPd	38	43.30	0.3		0.5s	17.00nm			6.2mb	X		4.4mb (4 obs.)					
	1.3s	107.00nm			5.2mb		KKN	105.05	294	Pdiff	44	48.50	-5.4X		KYUSHU, JAPAN					(235)
		iS		44	20.50		DMN	105.13	294	Pdiff	44	50.00	-4.3X							
WB5	42.00	268	iPd	38	47.00	-0.1		0.5s	22.00nm			6.3mb	X	SHK	4.96	26	eP	38	43.00	1.1
		ePcP		40	29.50		GKN	105.65	294	Pdiff	44	52.60	-3.9X	SSE	7.70	280	eP	39	26.00	6.2X
		eS		44	26.20			0.5s	16.00nm			6.2mb	X				i	39	43.00	
WRA	42.01	268	Pd	38	46.70	-0.4	RSON	107.32	42	ePdiff	45	16.20	13.1X	MAT	9.39	45	iPc	39	41.80	-1.2
	0.8s	40.10nm			5.0mb		SLR	122.04	211	ePKP	49	39.00	0.9	XAN	18.32	288	P	41	38.50	-0.6
FORR	45.43	251	iPd	39	13.60	-0.2	FRB	122.19	29	ePKP	49	25.00	-11.9X	CD2	22.65	279	P	42	24.00	-0.2
	0.4s	42.00nm			5.3mb		BUL	126.61	215	iPKPd	49	45.30	-1.8	LZH	22.71	292	eP	42	24.50	-0.5
WARB	47.43	257	eP	39	19.30	-9.9X	SOB1	127.58	126	ePKP	49	45.70	-3.2X	GTA	26.42	299	eP	43	01.80	1.7
	0.3s	15.00nm			5.0mb		MAIO	128.25	297	ePKP	49	50.00	0.3	WB5	49.85	175	eP	46	14.50	-1.7
KNA	48.36	271	iPd	39	36.00	-0.3	ITR	129.67	128	ePKP	49	52.30	-0.6	WRA	49.91	175	Pc	46	18.80	2.1
COOL	51.35	250	eP	39	57.40	-1.0				e	52	25.70			1.0s	5.70nm			4.6mb	
	0.4s	9.00nm			4.5mb		KEV	132.90	347	ePKP	49	54.00	-3.3X	GBA	51.07	263	Pd	46	21.20	-4.4X
KLB	54.09	248	iPd	40	17.10	-1.0	SOD	134.95	346	ePKP	49	58.00	-3.3X		0.5s	2.60nm			4.5mb	
	0.5s	23.00nm			4.8mb		SUF	138.82	342	iPKP	49	58.70	-9.9X	INK	64.73	24	eP	48	01.00	0.3
NWAO	54.30	247	iPc	40	18.70	-0.9		0.4s	4.20nm					MBC	65.71	14	eP	48	07.00	0.1
MEKA	54.44	254	eP	40	19.40	-1.2	NUR	141.02	341	iPKP	50	05.50	-7.1X	SUF	69.71	332	eP	48	33.00	1.0
MBL	54.71	261	eP	40	21.20	-1.4				e	50	13.00		YKA	74.37	26	eP	49	00.00	0.3
	0.4s	14.00nm			4.6mb		UPP	143.46	345	iPKP	50	12.50	-4.3X	SLL	76.10	333	eP	49	08.60	-1.0
BAL	55.16	249	iPd	40	24.40	-1.2	NAO	143.87	351	PKP	50	12.00	-5.6X		0.4s	1.70nm			4.3mb	
	0.4s	17.00nm			4.7mb			1.0s	88.40nm					NAO	76.85	334	P	49	12.50	-1.2
MUN	55.32	248	iPc	40	26.20	-0.5	HFS	144.04	348	ePKP	50	15.50	-2.3		0.6s	0.90nm			3.9mb	
MRWA	56.05	251	eP	40	31.00	-0.8		0.4s	42.30nm						S.D. = 1.3		on	14	of 16	obs.
	0.3s	6.00nm			4.4mb		KVT	146.12	306	ePKP	50	24.00	2.0							
NANU	58.14	258	iPd	40	45.90	-0.3	HRI	147.74	292	ePKP	50	29.00	4.1X		APR 25, 1989 00h 51m 46.00± 0.90s					
SPA	64.65	180	e(P)	41	28.60	0.2	BURJ	147.78	290	PKP	50	29.70	4.8X		40.587 N ± 9.8km			17.525 E ± 7.5km		
	1.0s	26.00nm			4.8mb		JVI	148.14	290	iPKPd	50	29.50	4.1X		DEPTH = 10.0km (geophysicist)					
		e		41	54.20		PRNI	148.48	287	iPKPd	50	30.50	4.4X		SOUTHERN ITALY					(390)
MAT	73.04	326	eP	42	18.00	-0.8	MBH	148.58	286	iPKPd	50	30.50	4.4X							
	1.7s	180.77nm			5.3mb		BBTK	148.88	306	iPKPd	50	26.50	0.0	BRT	0.38	320	P	51	55.50	1.7
SSE	79.31	312	eP	42	52.20	-1.0	EDU	148.92	3	ePKPc	50	29.70	3.9X				eSg	52	02.50	
NJ2	81.47	311	Pc	43	05.00	0.6	EBH	149.19	3	iPKPc	50	30.70	4.4X	LCI	0.41	127	Pd	51	56.00	1.6
SYP	82.68	46	eP	43	12.00	1.3	EAB	149.20	4	iPKP	50	30.40	4.1X				eSg	52	03.90	
PSI	82.79	276	iPc	43	11.50	0.1	EDI	149.54	3	ePKP	50	31.20	4.4X	TDS	1.30	225	P	52	10.60	0.6
PRS	82.90	44	ePc	43	12.30	0.8	ESY	149.57	3	ePKP	50	31.20	4.4X	VLO	1.51	94	ePn	52	11.50	-1.5
PCC	83.01	43	e(P)	43	12.30	0.3	EAU	149.60	3	ePKP	50	31.60	4.7X	MGR	1.57	254	P	52	14.30	0.3
PRI	83.23	45	ePc	43	14.20	0.9	EBL	149.69	3	iPKPc	50	31.60	4.6X	SGO	1.69	270	P	52	15.20	-0.4
BRK	83.32	43	e(P)	43	14.20	0.7	EKA	150.13	3	PKPd	50	33.00	5.3X	TPE	1.92	98	ePn	52	23.00	4.0X
BKS	83.34	43	eP	43	15.60	1.9		0.6s	12.00nm					TIR	1.93	66	ePn	52	21.50	2.3X
	0.9s	69.00nm			5.2mb		VRI	150.29	320	ePKPc	50	33.50	5.2X	SRN	2.02	110	ePn	52	24.60	4.1X
LLA	83.35	44	e(P)	43	14.30	0.5	KRA	150.89	333	ePKP	50	34.90	5.9X	LSK	2.39	100	ePn	52	32.30	6.4X
MHC	83.36	43	ePc	43	14.70	0.7		0.6s	58.00nm					OHR	2.54	77	ePn	52	23.20	-4.8X
MDJ	83.42	327	eP	43	14.00	0.1	MLR	150.96	320	iPKPc	50	35.00	5.5X	SOI	2.76	205	P	52	30.40	-0.6
WHN	83.73	308	P	43	16.00	0.3	DMU	151.21	8	ePKP	50	35.30	5.9X	SDI	3.02	293	P	52	33.20	-1.5
BAR	83.81	49	eP	43	16.00	-0.2	SPC	151.42	331	ePKP	50	36.60	6.5X		S.D. = 1.5		on	8	of 13	obs.
PLM	84.07	49	eP	43	18.00	0.4	CMP	151.61	320	ePKPc	50	38.00	7.7X							
RVR	84.09	48	eP	43	18.00	0.5	KSP	151.65	338	ePKP	50	21.00	-9.1X	%	APR 25, 1989 01h 08m 39.67± 0.40s					
FHC	84.18	39	eP	43	17.70	-0.2		0.7s	59.00nm						38.028 N ± 4.6km			14.126 E ± 3.6km		
SBB	84.20	47	eP	43	17.00	-1.1				id	50	36.50			DEPTH = 10.0km (geophysicist)					
ISA	84.35	46	eP	43	19.00	0.1	DCN	151.71	9	ePKP	50	36.40	6.3X		SICILY					(398)
FRI	84.36	45	ePc	43	18.60	-0.1	DLE	151.86	8	ePKP	50	36.60	6.3X							
CMB	84.58	43	ePc	43	20.00	0.1	ELL	151.89	301	iPKP	50	37.70	6.6X	GIB	0.09	244	Pd	08	42.00	-0.3
		e		45	15.50		WIT	152.21	351	ePKP	50	39.00	8.2X	MNO	0.46	102	Pd	08	49.20	0.1
ORV	84.84	42	ePc	43	21.00	-0.1	CLL	152.28	342	iPKPc	50	38.10	7.1X				eSg	08	57.70	
WDC	84.88	40	ePc	43	21.80	0.6		1.2s	51.00nm					MCT	0.56	225	P	08	50.80	-0.3
CN2	84.98	324	Pd	43	21.20	-0.4				i	50	49.80		FAI	0.83	206	P	08	57.00	1.3
CLC	85.02	46	eP	43	22.00	-0.1	BNG	152.30	224	iPKPc	50	31.70	-0.5	USI	1.01	313	Pd	08	58.30	-0.4
TPC	85.05	49	eP	43	23.00	0.7		0.4s	16.00nm					ATN	1.06	82	P	09	00.30	0.6
TIA	85.10	314	Pd	43	22.60	0.2				id	50	39.00		CVT	1.11	252	P	09	01.00	0.5
GSC	85.24	47	eP	43	23.00	-0.2				ic	50	51.70		MEU	1.12	145	P	08	59.00	-1.8
MIN	85.28	41	eP	43	23.20	-0.2	BRG	152.39	340	iPKP	50	39.00	7.8X				eSn	09	17.00	
GLA	85.29	50	eP	43	22.00	-1.5	PVL	152.57	317	iPKPc	50	39.00	7.4X	ERC	1.21	271	P	09	02.40	0.1
														LVI	1.41	269	P	09	05.20	-0.2

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SOI     1.52  88 P     09 08.00   1.1
                eSn   09 26.90
TDS     2.37  46 P     09 18.90  -0.3
MGR     2.38  27 P     09 18.50  -0.9
SGO     2.69  20 P     09 24.30   0.6
SDI     3.68 356 P     09 37.90   0.0
     S.D. = 0.8  on  15 of  15 obs.
-------------------------------------
*  APR 25, 1989  01h 35m 25.40± 1.55s
   31.154 S ±10.6km   72.045 W ±21.8km
   DEPTH =  25.8 ± 10.0 km
 OFF COAST OF CENTRAL CHILE        (134)

JACH    1.96 141 iPc   35 57.40  -0.2
                iS    36 16.50
PEL     2.29 150 eP    36 01.60  -0.7
                iS    36 41.20
LCCH    2.35 170 eP    36 02.00  -1.1
                iS    36 09.00
FCH     2.63 146 eP    36 09.00   1.6
                iS    36 52.10
TACH    2.66 160 ePc   36 07.60   0.0
                iS    36 47.50
PCH     2.78 153 eP    36 13.00   3.7X
                iS    36 57.90
LNV     2.84 169 eP    36 08.50  -1.5
                iS    36 16.50
                iS    37 01.00
ZON     2.91  99 iPd   36 09.50  -1.5
                eS    36 46.00
CHCH    3.01 157 eP    36 13.50   1.0
                iS    36 52.50
ANT     7.56  11 eP    37 16.50  -0.2
     S.D. = 1.4  on   9 of  10 obs.
-------------------------------------
?  APR 25, 1989  01h 43m 18.41± 2.97s
   30.866 S ±22.1km   71.007 W ±31.8km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE       (135)

JACH    1.84 169 eP    43 49.00  -1.5
                iS    44 19.50
ZON     2.11 109 eP    43 59.00   4.8X
PEL     2.29 173 ePc   43 53.50  -3.3X
                iS    44 26.00
FCH     2.53 166 eP    44 03.60   3.1X
                iS    44 41.50
LCCH    2.64 190 eP    44 02.00   0.2
PCH     2.78 171 eP    44 08.00   4.1X
TACH    2.78 179 eP    44 01.00  -2.8X
                iS    44 50.50
LNV     3.10 186 eP    44 08.70   0.5
                iS    44 35.40
RFA     4.44 152 ePc   44 28.30   0.9
CYA     5.14  63 e(P)  44 37.20  -0.1
     S.D. = 1.3  on   5 of  10 obs.
-------------------------------------
?  APR 25, 1989  01h 47m 54.58± 5.13s
   33.416 S ±17.1km   71.829 W ±42.3km
   DEPTH =  22.5 ± 12.2 km
 NEAR COAST OF CENTRAL CHILE       (135)

LCCH    0.22 105 iP    48 00.00  -0.3
                iS    48 06.60
LNV     0.64 147 iPc   48 07.00   0.0
                iS    48 18.00
TACH    0.78 108 iPc   48 08.90  -0.5
                iS    48 21.00
PEL     1.00  74 iPd   48 15.00   1.9
                iS    48 26.60
CHCH    1.11 118 iPd   48 15.50   0.7
                iS    48 31.40
PCH     1.12 101 iPc   48 15.00   0.0
                iS    48 32.10
JACH    1.27  55 iPc   48 16.50  -0.6
                iS    48 34.60
FCH     1.29  87 iPc   48 16.50  -1.1
                iS    48 34.60
     S.D. = 1.2  on   8 of   8 obs.
-------------------------------------
*  APR 25, 1989  01h 48m 40.02± 0.98s
   66.850 N ± 7.7km   156.318 W ±12.7km
   DEPTH =   5.0km  (geophysicist)
 ALASKA                            (676)
      ML 3.6 (PMR).

IMA     1.32 125 iPd   49 05.50   0.5
TTA     3.94 178 ePd   49 42.50   0.0
FBA     4.01 115 ePd   49 42.70  -0.7
BRW     4.48 358 eP    49 50.10   0.1
SVW     5.77 177 eP    50 08.30  -0.1
PMR     6.14 146 eP    50 13.60   0.2
INK     8.81  70 eP    50 45.00  -5.9X
YKA    18.09  84 P     52 58.70   5.4X
     S.D. = 0.5  on   6 of   8 obs.
-------------------------------------
&  APR 25, 1989  02h 12m 47.55s
   60.095 N          152.595 W
   DEPTH =  89.3km
 SOUTHERN ALASKA                   (  2)
      <AGS-P>.

ILIM    0.18 265 iP    12 59.98   0.9
                iS    13 10.75
RED     0.34 345 iP    13 00.75  -0.7
                eS    13 11.56
RDT     0.49  11 iP    13 01.78  -0.7
OPT     0.55 216 iP    13 02.27  -0.6
                eS    13 14.39
NNL     0.65  94 iP    13 04.10   0.3
XLV     0.78 145 eP    13 04.17  -0.9
                eS    13 17.70
AUL     0.83 211 iP    13 04.90  -0.7
PDB     0.86 250 iP    13 05.02  -0.9
                iS    13 18.48
CNPM    0.89 129 eP    13 05.80  -0.5
BRLK    0.92 110 eP    13 06.31  -0.3
                eS    13 20.30
NKA     0.94  45 iP    13 07.91   1.2
SPU     1.12  13 iP    13 08.25  -0.7
CRP     1.20  10 iP    13 09.43  -0.6
                iS    13 26.84
CGLM    1.25  13 iP    13 09.96  -0.6
SLKM    1.25  70 iP    13 09.64  -0.9
                iS    13 27.19
CDD     1.29 205 iP    13 09.69  -1.3
SEW     1.58  88 iP    13 13.26  -1.3
SUA     1.65  33 eP    13 15.11  -0.6
                iS    13 36.58
SVW     1.81 306 eP    13 15.96  -1.8
SKT     1.96  15 iP    13 18.73  -1.0
PLRM    2.27  47 eP    13 21.98  -1.8
PME     2.33  47 eP    13 22.92  -1.7
KNK     2.42  55 iP    13 24.12  -1.9
KNIM    2.44  82 iP    13 23.33  -2.9
GHO     2.46  45 iP    13 24.88  -1.7
                iS    13 53.13
MTU     2.48  90 iP    13 25.18  -1.6
GLI     2.83  71 eP    13 27.77  -3.8
                eS    13 59.61
FID     3.10  75 eP    13 31.35  -4.0
VZW     3.13  69 eP    13 32.26  -3.5
VLZ     3.26  69 eP    13 34.34  -3.1
KLU     3.56  64 iP    13 38.95  -2.7
KTH     3.56  12 eP    13 41.38  -0.3
TOA     3.71  54 iP    13 42.09  -1.7
GLB     4.51  69 eP    13 51.24  -3.7
     34 obs. associated
-------------------------------------
   APR 25, 1989  02h 13m 20.83± 0.09s
   30.048 N ± 2.4km   99.419 E ± 1.9km
   DEPTH =   7.7km  (geophysicist)
   6.2mb ( 84 obs.)  6.0Msz ( 16 obs.)
 SICHUAN PROVINCE, CHINA           (307)
      Consideroble damage in Batong
      County. Depth from broadband
      displacement seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike= 75 Dip=45 Slip= -90
       NP2:       255      45      -90
       Principol Axes:
        T                 Plg= 0  Azm=165
        P                      90       0
      Comment: The focal mechanism is
        poorly controlled ond
        corresponds to normol
        faulting. The preferred foult
        plone is not determined.
      RADIATED ENERGY
       No. of sta:   7  Focal mech.  F
       Energy        5.1±0.7*10**13 Nm
      MOMENT TENSOR SOLUTION
      Dep  7            No. of sta: 15
      Moment Tensor;   Scale 10**18 Nm
        Mrr=-1.33       Mtt= 1.39
        Mff=-0.06       Mrt= 0.82
        Mrf=-0.19       Mtf= 0.84
       Principal axes:
        T  Val= 1.92  Plg=12  Azm=338
        N      -0.24      21       73
        P      -1.68      65      221
      Best Double Couple:Mo=1.8*10**18
       NP1:Strike= 43 Dip=38 Slip=-126
       NP2:       266     60      -65
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 13S, 34C  M.W.: 15S, 24C
      Centroid Location:
      Origin Time       02:13:31.2 0.1
      Lat 29.90N 0.02 Lon  99.41E 0.03
      Dep  15.0 BDY Half-durotion  4.6
      Moment Tensor;   Scole 10**18 Nm
        Mrr=-1.58 0.04  Mtt= 1.75 0.03
        Mff=-0.17 0.04  Mrt=-0.47 0.13
        Mrf= 0.36 0.10  Mtf= 0.33 0.03
       Principol Axes:
        T  Vol=  1.85  Plg= 7  Azm=172
        N       -0.11      16      264
        P       -1.75      73       59
      Best Double Couple:Mo=1.8*10**18
       NP1:Strike=245 Dip=40 Slip=-114
       NP2:       96      54      -71

CD2     3.84  76 iPg   14 34.00  12.4X
                iSg   15 31.00
KMI     5.72 148 eP    14 50.27   1.9
LZH     7.07  30 eP    15 10.05   2.7X
     5.0s  4460.00nm          6.9mb X
                Lg    16 58.00
LSA     7.19 269 iPd   15 10.80   1.5
     4.0s      1.77nm          3.6mb X
                S     16 37.00
GYA     7.32 117 iPd   15 11.00   0.2
     3.0s      6.20nm          4.3mb X
   N 10s     449.00um
   E 10s     272.00um
                S     16 35.00
XAN     8.99  61 Pd    15 33.20  -0.8
GTA     9.35   2 iPd   15 40.60   1.6
     8.0s      7.50nm          4.1mb X
                S     17 15.50
CHG    11.19 182 ePn   16 06.00   1.8
                eSn   18 08.00
GUN    12.05 263 P     16 14.00  -2.1X
PKI    12.53 262 P     16 20.00  -2.7X
KKN    12.59 263 P     16 21.30  -2.0X
LOE    12.76 170 eP    16 28.00   2.6X
DMN    12.78 263 P     16 23.60  -2.3X
WHN    12.91  84 iPd   16 24.50  -2.9X
     7.0s      7.23nm          4.0mb X
   E 12s     341.00um
                sP    16 36.00
                S     18 48.00
GKN    13.10 265 P     16 26.40  -3.6X
TIY    13.23  51 Pd    16 30.40  -1.3
     8.0s      3.30nm          3.5mb X
   Z 10s      62.20um          4.8Msz
   E 10s      45.10um
                sP    16 43.00
                S     19 05.00
BTO    13.61  37 iPd   16 37.00   0.3
                sP    16 43.50
                S     19 11.50
GZH    14.25 116 iPd   16 42.00  -3.0X
   N 11s     185.00um
   E 11s     182.00um
                S     19 23.50
NST    14.32 177 iPc   16 48.00   2.0
QIZ    14.49 137 Pc    16 49.00   0.8
   N 11s     346.00um
   E 13s     317.00um
HHC    14.62  39 iPd   16 50.00   0.1
     8.0s      5.90nm          3.2mb X
   Z 14s     97.60um
                PP    17 07.00
                S     19 33.00
MCO    14.95 119 eP    16 53.60  -0.6
HKC    15.32 117 P     16 58.00  -1.0
                S     19 48.00
TIA    16.05  63 Pd    17 08.70   0.3
     5.0s     11.80nm          3.3mb X
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25d 02h

	E	10s	52.40um					NIIJ	33.54	67	eP	20	08.40	5.2X	BIR		56.86	308	eP	23	10.00	1.8
WMQ		16.61	329 eP	17	15.19	-0.5		CHJJ	33.54	69	eP	20	04.50	1.3	PPE		56.87	308	eP	23	08.00	-0.3
	N	12s	148.00um					DAV	33.54	128	ePd-	20	04.00	0.6	ISK		56.88	302	iP	23	07.80	-0.6
			eS	20	33.26				1.7s	1538.46nm			6.7mb		NUR		56.93	325	iP	23	08.90	0.3
			e	20	40.00						eS	25	31.00				1.1s	345.50nm			6.3mb	
NJ2		16.78	78 Pd	17	16.00	-1.7		MAIO	33.82	291	iPd-	20	06.60	0.9		Z	16s	9.70um			6.0MszX	
		6.5s	17.10nm			3.3mb X					eS	25	18.00						ePP	25	16.00	
	E	10s	141.00um					KAKJ	34.49	69	eP	20	13.50	2.1					eS	31	04.00	
			S	20	27.00			OFUJ	35.67	64	eP	20	21.30	-0.2					eSS	34	56.00	
BJI		16.93	49 ePd	17	21.40	1.8		TRT	39.62	159	iPd	20	56.40	1.6					LR	48	50.00	
NNT		17.38	179 iPc	17	26.80	1.5			0.9s	358.40nm			6.0mb		PSN		56.96	305	iPd	23	10.00	1.0
QZH		17.75	102 iPd	17	29.00	-0.9		MKS	39.99	148	ePd	20	57.70	-0.1	CLI		57.04	308	ePd	23	10.00	0.4
		4.0s	7.40nm			3.2mb X		TEH	40.41	291	eP	20	56.00	-5.4X	KHL		57.18	298	iP	23	09.80	-0.9
			pP	17	36.00			BJA	43.03	277	(P)	21	17.80	-4.9X	ELL		57.28	297	iP	23	11.00	-0.5
			sP	17	44.00			BEE	43.09	277	iP	21	18.90	-4.3X	CTT		57.33	302	eP	23	11.00	-0.6
SSE		18.77	81 iP-	17	42.00	-0.5			0.5s	274.00nm			6.2mb		BRD		57.39	307	eP	23	14.50	2.5X
		6.0s	24.10nm			3.6mb X		DHR	43.34	278	iPd	21	25.30	0.1	DST		57.54	300	iP	23	12.60	-0.6
	Z	12s	36.30um					KER	44.08	290	ePd	21	31.00	-0.3	VRI		57.55	308	ePd	23	13.50	0.4
			S	21	14.00			TAB	44.20	295	iP-	21	34.00	1.7	PTT		57.57	309	eP	23	13.50	0.2
			sS	21	21.00			GUMO	44.94	101	eP	21	37.30	-1.0	DMK		57.67	303	iP	23	12.70	-1.3
			Lg	23	48.00			GUA	45.01	101	eP	21	37.00	-1.9	SMY		57.67	44	ePd	23	13.30	-0.6
NDI		19.40	272 iPd	17	47.00	-3.3X		SLY	45.18	292	iPd	21	41.00	1.0		Z	20s	11.00um			6.0Msz	
		1.0s	620.00nm			5.8mb					i	21	53.00		KSL		57.70	296	eP	23	12.90	-1.3
ANP		20.16	99 iP-	18	00.00	1.4					iPcPc	23	14.00		KOT		57.71	288	eP	23	13.00	-1.4
			iS	21	50.00						iPP	23	37.00		ISR		57.82	307	ePd	23	16.50	1.5
DL2		20.29	58 P	18	00.00	0.3					iPPP	24	22.00		EDC		57.93	301	eP	23	14.00	-1.8
		5.0s	17.70nm			3.7mb X					iPcS	27	12.00		MLR		58.16	307	ePd	23	17.50	0.0
	Z	18s	30.20um			5.7Msz					eS	28	16.00		BUC1		58.34	306	ePd	23	20.00	1.4
	N	10s	29.10um								iPS	28	24.00		JMB		58.37	304	iPd	23	19.00	0.1
	E	10s	14.60um								eSS	31	37.00		YER		58.43	297	iP	23	18.10	-1.4
			S	21	45.00						eSSS	32	48.00		CMP		58.83	307	ePc	23	23.00	0.9
KSH		21.37	302 Pd	18	12.00	1.0					e	36	34.00		IZM		58.87	299	eP	23	22.00	-0.5
	Z	28s	52.50um			5.8MszX					eLR	39	43.00		PVL		59.09	305	iPd	23	24.00	0.2
	N	15s	117.00um					BHD	46.50	289	iPc	21	50.50	0.0	EZN		59.20	301	eP	23	23.90	-0.8
SNY		22.74	52 iPd	18	25.00	0.5					iPP	23	40.00		DIM		59.22	304	iP	23	26.00	1.2
		6.0s	20.30nm			3.8mb X					iS	28	40.00		MEKA		59.24	160	iPd	23	24.70	-0.4
	Z	11s	52.90um			6.2MszX					iPSP	29	37.00				0.7s	124.00nm			6.1mb	
	N	13s	45.60um								iScS	31	12.00		COZ		59.30	308	ePd	23	22.00	-3.5X
	E	14s	34.10um								iSSS	33	44.00		BMR		59.35	310	iPd	23	26.00	0.3
			iS	22	30.50			RYD	46.86	277	iPd	21	52.70	-0.8	PRK		59.40	300	eP	23	25.30	-0.7
SNG		22.78	177 eP	18	16.00	-9.1X		MSL	46.94	293	iPKPc	21	54.50	0.6	KDZ		59.41	303	iPd	23	27.00	0.9
		1.3s	315.38nm			5.7mb					e	22	50.00		RDO		59.45	303	iPd	23	26.00	-0.3
			eS	22	24.80						iPcP	23	26.50		DRA		59.50	307	ePd	23	27.00	0.3
HYB		22.82	241 iPd	18	25.00	-0.5					eS	28	41.00		KAP		59.74	296	iPd	23	28.00	-0.4
		1.2s	1014.30nm			6.2mb					eScS	31	44.00		PLD		59.81	304	iPd	23	27.00	-1.8
			iS	22	35.00						eSS	32	15.00		RZN		59.91	303	iPd	23	30.00	0.2
BAG		23.66	120 ePd-	18	33.00	-0.8		QASM	49.06	280	iPd	22	10.20	-0.5	WB5		59.97	141	iPd	23	29.20	-1.0
		2.0s	1858.82nm			6.3mb		JAY	51.01	122	ePc	22	25.50	-0.1					i	26	02.30	
			eS	22	52.00			KVT	51.69	301	eP	22	31.00	0.5					eS	31	41.20	
BSI		24.73	190 ePc	18	44.50	0.5		MTN	52.46	140	eP	22	34.90	-1.6	WRA		60.01	142	Pd	23	29.60	-0.9
CN2		24.80	49 iPd	18	45.00	0.5					i	23	46.20				0.8s	214.30nm			6.3mb	
		6.0s	19.90nm			4.0mb X		KAS	53.34	301	iPd	22	43.00	0.1	PGB		60.08	304	iPd	23	31.00	0.2
	E	12s	111.00um					HRI	53.55	291	iPd	22	45.00	0.4	DEV		60.15	308	ePc	23	31.00	-0.1
			pP	18	50.00	18kmX		KNA	53.60	144	eP	22	43.60	-1.3	KBS		60.26	347	eP	23	30.00	-1.6
			S	22	54.00				0.6s	48.00nm			5.7mb		PMG		60.36	123	iPd-	23	32.50	-0.5
QCP		25.16	123 eP	18	50.00	1.9		BURJ	53.81	290	P	22	46.00	-0.4			0.6s	186.67nm			6.4mb	
IPM		25.38	176 ePc	18	51.41	1.2		SALJ	53.93	290	P	22	47.60	0.3	UPP		60.49	325	iPd	23	32.50	-0.8
		1.0s	155.80nm			5.7mb		KFNJ	53.98	289	P	22	47.90	0.4					i	23	37.30	
POO		25.91	250 iPc	18	54.60	-0.6		MASJ	53.98	289	P	22	48.00	0.3					i	26	07.80	
		1.0s	90.00nm			5.4mb		JVI	54.23	290	iPd	22	50.00	0.7					iS	31	47.00	
GBA		26.08	236 Pc	19	00.70	4.0X		BBTK	54.38	300	iP	22	52.00	1.4	MMB		60.65	303	eP	23	34.00	-0.6
		0.7s	64.70nm			5.4mb		BBTK	54.38	300	iPd	22	50.00	-0.6	VTS		60.76	305	iPd	23	36.00	0.5
BOM		26.57	251 iPc	19	00.00	-1.3		NANU	54.55	162	eP	22	51.70	-0.1	OUR		60.80	302	iPd	23	35.10	-0.5
			iS	23	35.00			MBL	54.57	156	eP	22	51.20	-0.7	RAB		60.84	115	iPd-	23	36.50	0.2
KUMJ		26.91	77 eP	19	03.00	-1.3					i	23	54.30				1.0s	1000.00nm			6.9mb	
KAGJ		27.06	80 eP	19	05.20	-0.5		LFK	54.81	294	eP	22	52.00	-1.7					iS	32	04.00	
SHNJ		27.10	73 eP	19	05.80	-0.2		WAJH	54.97	282	iPd	22	54.70	-0.2	SRS		60.87	303	iPd	23	35.40	-0.7
PSI		27.21	181 ePc	19	07.50	0.4		CSS	55.05	294	eP	22	54.50	-0.9	MRWA		61.02	163	eP	23	36.70	-0.5
MDJ		27.86	50 ePd	19	12.83	0.0		MBH	55.24	287	iPd	22	56.00	-0.8			0.4s	12.00nm			5.4mb	
	N	12s	77.70um					HOL	55.25	287	iPd	22	55.00	-1.9	KKB		61.04	304	iPd	23	37.00	-0.3
	E	10s	46.60um					ARO	55.45	263	iPd	22	58.00	-0.7	NPS		61.04	296	iPd	23	36.50	-0.9
			eS	24	22.86			PPCY	55.85	294	eP	23	01.00	-0.1	BZS		61.09	308	eP	23	37.50	0.0
QUE		28.04	279 iPd	19	14.30	-0.5		SOD	56.04	334	iP	23	01.60	-0.5	KRA		61.12	314	iPd	23	37.70	0.0
			eS	24	01.20			KEV	56.07	336	ePd	23	02.38	0.1			1.8s	615.00nm			6.4mb	
KGM		28.12	172 ePc	19	16.50	1.1			1.1s	256.70nm			6.2mb			Z	16s	11.40um			6.1MszX	
SHK		28.39	72 eP	19	16.60	-1.2					epPc	23	05.36	10kmX		N	22s	20.60um				
KKM		28.64	143 ePd	19	20.00	-0.2					esP	23	06.68						i	23	44.20	
		1.0s	200.80nm			5.9mb					ePcP	23	45.09						e	25	56.00	
			e	20	10.00						eS	30	47.48						eS	31	56.00	
PPI		30.35	178 eP	19	36.50	1.1					eSS	34	28.00		SOH		61.13	303	iPd	23	36.80	-1.1
TSRJ		31.10	70 P	19	40.80	-1.1		GPA	56.12	301	iP	23	01.90	-1.2	SPC		61.13	313	iPd	23	38.70	0.7
TSM		31.16	142 eP	19	40.00	-2.5		SUF	56.14	328	iP	23	02.60	-0.3					i	24	21.60	
MTMJ		32.58	68 P	19	54.10	-0.8		HRT	56.48	301	eP	23	05.00	-0.7					e(S)	32	08.00	
IIDJ		32.67	70 eP	19	58.70	3.0X		BCK	56.57	297	iP	23	04.00	-2.4	PLG		61.18	302	iPd	23	37.70	-0.6
MAT		32.90	68 eP	19	56.00	-1.7		GBZT	56.66	301	iPd	23	05.50	-1.4	TIM		61.33	309	iP	23	39.50	0.4
		1.6s	216.67nm			5.8mb		CFR	56.69	307	ePd	23	07.00	0.0	KNT		61.36	303	iPd	23	38.70	-0.8
			eS	25	15.00			IAS	56.74	309	eP	23	08.00	0.7	THE		61.46	303	iPd	23	39.30	-0.8

25d 02h

VAY	61.56	303	iPd	23	39.50	-1.3
PSZ	61.66	311	iP	23	42.30	0.8
ATH	61.68	300	iPd	23	41.20	-0.4
			ePP	26	00.00	
			eS	31	03.60	
WARB	61.70	152	eP	23	32.50	-9.4X
	0.7s	60.00nm			5.9mb	
GRG	61.78	303	iPd	23	41.40	-1.0
LIT	61.96	302	iPd	23	42.00	-1.6
BEO	62.09	308	iPd	23	43.80	-0.5
N	21s	31.00um				
			iS	32	09.50	
SKO	62.19	304	iPd	23	44.50	-0.6
	1.7s	440.00nm			6.4mb	
Z	20s	4.52um			5.6Msz	
N	22s	11.69um				
E	21s	9.26um				
			ipP	23	48.50	13kmX
			iPP	26	00.10	
			iPPP	27	31.00	
			iS	32	06.00	
			iScS	33	32.00	
			iSS	36	12.00	
			iSSS	38	50.00	
			LR	53	01.00	
BUD	62.34	311	iP	23	46.00	0.0
HFS	62.38	326	eP	23	45.80	-0.3
	1.0s	246.10nm			6.4mb	
Z	17s	7.82um			5.9MszX	
			LR	46	15.00	
KZN	62.43	303	iPd	23	45.10	-1.7
BAL	62.52	163	iPd	23	46.50	-0.8
	0.7s	64.00nm			5.9mb	
SRO	62.72	311	iPd	23	49.50	1.0
			e	32	06.50	
			e	32	24.00	
ASPA	62.84	144	iPd	23	48.00	-1.6
	0.9s	104.00nm			6.0mb	
			eS	32	18.90	
OHR	62.90	304	iPd	23	47.90	-1.9
	1.7s	0.21nm			3.1mb X	
			i	23	50.10	
			eS	32	10.00	
PHP	62.98	304	iPc	23	49.50	-0.8
IVA	63.02	306	iPd	23	51.50	0.8
KBN	63.03	303	iPd	23	49.00	-1.6
PVY	63.05	305	eP	23	52.00	1.1
BCI	63.05	305	eP	23	50.10	-0.6
KSP	63.19	315	iPd	23	52.00	0.4
	1.6s	496.00nm			6.5mb	
			eS	32	26.00	
PLE	63.24	306	iPd	23	52.90	0.8
PUK	63.27	305	iPd	23	51.80	-0.3
ITM	63.27	299	iPd	23	50.10	-2.2
NRA0	63.28	327	P	23	49.70	-2.3
LSK	63.33	303	iPd	23	51.90	-0.8
ADK	63.38	44	P	23	49.50	-3.3X
	1.0s	30.00nm			5.4mb	
ZST	63.40	312	iPd	23	53.30	0.3
Z	16s	19.00um			6.4MszX	
			e	26	09.50	
			e	27	51.90	
			eS	32	30.00	
QIS	63.46	137	iPd	23	52.50	-1.2
			e	23	56.00	
TIR	63.50	304	iPc	23	54.40	0.7
SDA	63.56	305	iPd	23	54.00	-0.1
NAO	63.59	327	P	23	53.00	-1.1
TTG	63.60	305	eP	23	53.80	-0.5
			eS	32	10.00	
NKY	63.67	306	eP	23	55.00	0.0
MUN	63.71	164	iPd	23	54.60	-0.5
	0.8s	238.00nm			6.4mb	
TPE	63.72	303	iPc	23	56.60	1.4
KLB	63.73	163	iPd	23	54.60	-0.7
	0.6s	50.00nm			5.9mb	
ULC	63.75	305	iPd	23	54.70	-0.7
SRN	63.85	303	iP	23	55.00	-1.0
VKA	63.88	312	iPd	23	56.80	0.6
	2.3s	910.00nm			6.6mb	
Z	15s	7.80um			6.0MszX	
			i	24	33.10	
			(pPP)	26	33.00	
			ePPP	27	53.00	
			e	29	56.00	
			eS	32	33.00	
			LR	54	26.00	

VLS	63.96	301	eP	23	54.50	-2.3
BRY	63.96	306	iPd	23	56.80	-0.2
COOL	64.02	159	eP	23	56.20	-1.1
VLO	64.04	303	eP	23	49.30	-7.9X
HCY	64.13	306	eP	23	57.50	-0.4
BRG	64.61	316	iP	24	01.50	0.6
N	20s	13.50um				
E	20s	8.00um				
			e	28	04.00	
			eS	32	40.00	
			eScS	33	56.00	
PTJ	64.81	310	iPd	24	02.70	0.3
ZAG	64.82	310	iPd	24	02.80	0.5
			iS	32	46.50	
NWAO	64.87	163	ePd	24	02.37	-0.3
	0.7s	213.00nm			6.5mb	
			epP	24	04.36	6kmX
			esPc	24	05.02	
			eS	32	52.00	
CLL	65.05	316	iPd	24	04.30	0.6
	1.8s	490.00nm			6.4mb	
			eS	32	46.00	
			P'P'	52	47.00	
LCI	65.19	304	Pd	24	03.20	-1.6
KMR	65.34	313	iP-	24	06.30	0.6
			iPP	26	26.80	
			eS	32	56.80	
KHC	65.36	314	iPd	24	06.40	0.6
	1.5s	142.50nm			5.9mb	
			S	32	52.00	
VBY	65.40	310	iPd	24	06.80	0.7
BRT	65.55	304	Pd	24	07.10	0.0
HYA	65.67	328	eP	24	08.80	1.3
LJU	65.71	310	ePd	24	08.30	0.2
			eS	32	54.50	
ODD1	65.85	327	iP	24	09.20	0.4
CEY	65.88	310	iPd	24	09.50	0.3
RKG	65.90	164	iPc	24	12.50	3.2X
	0.6s	67.00nm			6.0mb	
MOX	66.09	316	iPd-	24	11.00	0.6
	1.9s	616.00nm			6.5mb	
N	24s	20.20um				
			ePP	26	40.00	
			iS	33	00.00	
			e	34	05.00	
			eSS	37	00.00	
			e	38	00.00	
			eSSS	40	25.00	
			eLQ	43	30.00	
			eLR	45	00.00	
			eP'P'	52	48.00	
BRW	66.13	20	P	24	10.00	-0.3
VOY	66.14	311	iPd	24	10.60	-0.3
KBA	66.16	312	iPd	24	10.70	-0.4
	2.0s	272.00nm			6.1mb	
			i	24	16.30	
			iPP	26	32.20	
			i	26	40.30	
			e(sS)	33	06.00	
			e	33	30.00	
RBL	66.22	311	Pd	24	10.90	-0.5
BER	66.32	327	iP	24	12.20	0.5
TRI	66.33	310	iPd	24	11.50	-0.5
			iPP	26	42.00	
			ePPP	28	18.00	
			iS	33	02.50	
			iSS	38	04.00	
			iSSS	40	52.00	
FORR	66.42	153	eP	24	12.10	-0.6
	0.5s	60.00nm			6.0mb	
TDS	66.59	303	P	24	14.10	0.3
GRF	66.64	315	iPd	24	15.00	1.0
	2.0s	1.00nm			3.7mb X	
Z	16s	13.00um			6.2MszX	
			e	24	44.00	
			eS	33	08.40	
GRFO	66.64	315	ePd	24	15.15	1.2
			epPc	24	17.63	8kmX
			ePcP	24	45.11	
			ePP	26	43.88	
FVI	66.68	311	Pd	24	13.70	-0.5
KMY	66.75	326	eP	24	15.00	0.5
GRI	66.82	302	P	24	15.00	-0.3
MGR	66.99	304	Pd	24	15.10	-1.2
SGO	67.02	305	Pd	24	16.00	-0.5
VVI	67.12	311	Pd	24	17.10	0.0
AOI	67.17	308	eP	24	17.69	0.2

NAI	67.19	254	iPd	24	18.00	-0.2
			S	24	23.50	
CTA	67.21	132	iPd-	24	17.20	-0.7
	1.7s	769.23nm			6.6mb	
			iPP	26	45.00	
			iS	33	13.70	
CTAO	67.21	132	iPd	24	17.12	-0.8
			ePPc	24	20.10	10kmX
DUI	67.23	306	Pd	24	17.80	-0.2
BSS	67.29	305	Pd	24	18.10	-0.1
ALE	67.31	357	eP	24	18.00	0.2
	0.8s	9.00nm			5.0mb X	
SOI	67.36	302	Pd	24	18.30	-0.3
ALP	67.45	307	eP	24	19.22	-0.2
GMB	67.46	302	P	24	19.39	-0.2
CIO	67.61	308	eP	24	20.00	-0.3
SDI	67.67	306	Pd	24	20.10	-0.6
RFI	67.69	306	P	24	20.02	-0.7
AQU	67.72	307	Pd	24	21.60	0.6
ATN	67.76	302	Pd	24	20.20	-1.1
RSM	67.82	309	Pd	24	22.20	0.7
ASS	67.98	308	Pd	24	22.60	0.0
MNS	68.21	307	Pd	24	23.60	-0.5
SFI	68.22	309	Pd	24	25.20	1.2
WIT	68.24	319	iPd	24	25.80	1.8
PGD	68.33	309	Pd	24	26.10	1.2
MNO	68.41	302	Pd	24	25.20	-0.4
RDP	68.42	307	Pd	24	24.90	-0.5
WTS	68.46	318	iPd	24	26.10	0.8
	1.5s	455.00nm			6.5mb	
			i	24	31.00	
			i	24	39.60	
			ePP	26	51.50	
SAL	68.50	311	Pd	24	25.90	0.2
MEU	68.54	301	Pd	24	25.90	-0.4
FIR	68.68	309	iPd	24	27.00	0.2
			iS	33	32.00	
GIB	68.88	302	Pd	24	26.10	-2.2
MME	68.90	310	Pd	24	29.80	1.2
MDI	68.96	311	Pd	24	27.70	-0.9
GWF	69.09	315	P	24	29.68	0.3
STR	69.15	315	P	24	30.29	0.6
PII	69.19	309	Pd	24	29.60	-0.4
USI	69.22	303	P	24	29.70	-0.6
FEL	69.26	314	P	24	30.49	-0.1
MCT	69.30	302	P	24	30.70	-0.3
DBN	69.36	319	iP-	24	31.00	0.2
Z	18s	7.50um			6.0Msz	
			e	24	54.00	
			iPP	27	04.00	
			iS	33	42.00	
			e	34	36.00	
			eSS	38	40.00	
			eSSS	41	24.00	
IMA	69.39	25	ePd	24	30.90	-0.2
	0.9s	100.00nm			6.0mb	
ENN	69.43	317	iPd	24	32.00	0.6
	1.5s	351.00nm			6.3mb	
			ePP	26	56.00	
			e	27	07.50	
			eP'P'	52	37.00	
MEM	69.45	317	iPc	24	31.65	0.2
			P'P'	52	35.30	
BOB	69.52	310	Pd	24	32.80	0.7
CDF	69.52	315	P	24	32.06	0.0
VAI	69.54	312	Pd	24	31.50	-0.6
AVY	69.62	232	iPd	24	32.20	-1.0
WLF	69.72	316	iPd	24	34.40	1.3
			e	27	09.40	
BBS	69.74	314	P	24	33.33	0.0
MOF	69.82	314	P	24	33.97	0.0
TTA	69.93	28	ePd	24	34.10	-0.2
BSF	70.04	314	P	24	35.18	-0.1
ORX	70.14	312	P	24	34.49	-1.5
LOMF	70.21	314	P	24	35.96	-0.3
HAU	70.25	315	iPd	24	36.50	0.0
	1.8s	345.20nm			6.2mb	
UCC	70.34	318	Pd-	24	37.40	0.5
			S	33	51.00	
			i	34	45.00	
VITF	70.39	315	P	24	37.44	0.2
DOU	70.48	317	iPc-	24	38.70	0.9
			e	27	13.80	
			e	29	02.00	
			S	33	42.00	
SNF	70.50	318	Pc	24	38.30	0.4
FIN	70.55	310	P	24	36.23	-2.1

25d 02h

ROB	70.74	310	P	24	38.49	-1.1			1.8s	569.60nm		6.3mb		IFR	84.73	306	iPd	25	59.50	2.3
LSD	70.74	312	P	24	40.33	0.5	DMU	75.09	324	iPd	25	05.70	0.8	FRB	86.04	355	eP	26	02.00	-0.8
CVF	70.75	309	P	24	39.26	-0.4		0.8s	130.00nm			6.0mb		AVE	86.45	307	iPd	26	07.50	2.0
RSP	70.80	312	P	24	37.97	-2.0	DLE	75.21	323	iPd	25	06.10	0.5				i	26	24.00	
IMI	70.88	310	P	24	39.82	-0.6		1.2s	238.00nm			6.1mb		SLR	87.84	239	ePd	26	11.31	-1.1
LPG	70.99	312	iPd	24	42.10	0.7	ETA	75.34	323	iPd	25	07.20	0.9		1.0s	90.00nm				6.0mb
	0.8s	9.40nm				5.0mb X		0.7s	1014.00nm			7.0mb			Z 20s	14.89um				6.4Msz
DOI	71.07	311	Pd	24	39.80	-1.8	CMS	75.41	140	eP	24	58.00	-9.0X				epPc	26	13.30	6kmX
SAOF	71.07	310	P	24	41.32	-0.2	REY	75.52	337	e(P)	25	07.00	-0.1				S	36	36.40	
STV	71.12	311	P	24	39.62	-2.3	DCN	75.56	324	iPd	25	08.50	0.9	BPI	88.28	238	iPd	26	13.20	-1.3
AUTN	71.15	310	P	24	42.08	-0.2		1.4s	618.00nm			6.5mb			0.9s	75.63nm				6.0mb
PZZ	71.16	311	P	24	40.64	-1.6	ECP	75.68	322	iPd	25	09.20	0.9	KSR	88.94	239	iPc	26	17.00	-0.7
SBF	71.20	310	iPd	24	42.50	0.1		1.6s	737.00nm			6.5mb			1.0s	25.00nm				5.4mb
RRL	71.20	311	P	24	40.74	-1.8	EPF	76.21	312	iPd	25	11.70	0.2	HON	89.76	66	P	26	30.00	8.5X
BNI	71.22	312	Pd	24	42.60	0.0		1.8s	227.80nm			6.0mb			Z 20s	2.66um				5.7Msz
MBC	71.22	9	ePd	24	41.10	-0.8	BRS	76.58	133	iP	25	16.00	2.3	EDM	92.31	19	iPd	26	33.40	0.5
	2.0s	467.00nm				6.3mb	EBR	77.16	310	eP	25	17.00	0.3		1.8s	467.00nm				6.6mb
AURF	71.26	310	P	24	42.75	0.0				ePP	28	12.00		FFC	93.58	12	iPd	26	38.30	-0.3
TOUF	71.26	310	P	24	42.68	-0.2				eS	35	05.00			1.2s	87.00nm				6.0mb
MVIF	71.37	310	P	24	43.35	-0.2	EROQ	77.21	310	eP	25	18.00	0.9	PNT	93.67	24	ePd	26	40.00	0.8
CALN	71.60	310	P	24	44.50	-0.4	VAL	77.84	323	iP	25	01.20	-19.1X	HTW	94.12	26	P	26	43.00	1.7
FRF	71.84	310	iPd	24	46.20	0.0	BFD	78.13	146	eP	25	22.00	0.0	SCH	94.65	352	eP	26	43.00	-0.6
	1.8s	473.00nm				6.3mb	ECRI	78.25	312	iPd	25	24.80	2.0	KOGH	95.29	280	eP	26	47.00	-0.2
EDU	71.86	325	ePd	24	46.20	0.2	COO	78.27	136	eP	25	25.00	2.0	KUK	95.35	280	eP	26	49.00	1.6
	1.3s	444.00nm				6.4mb	ECHE	78.73	309	eP	25	27.30	1.8	RSON	98.62	8	P	27	00.00	-1.6
ESY	71.94	325	ePd	24	46.50	0.0	ETOR	78.84	311	iPd	25	26.80	0.6		1.8s	74.04nm				6.1mb
	1.6s	473.00nm				6.3mb	PTZ	78.93	246	iPc	25	26.00	-1.0		Z 20s	8.47um				6.2Msz
LMR	72.03	310	iPd	24	47.50	0.3				i	25	35.50		TIC	99.06	283	P	27	04.40	0.3
LRG	72.08	310	iPd	24	48.10	0.6	GDH	79.03	350	iPc	25	25.90	-0.6		1.2s	32.50nm				5.9mb
LOR	72.09	315	iPd	24	47.60	0.0		1.6s	186.67nm			5.9mb		LRM	99.14	22	eP	27	04.60	0.2
	1.6s	291.50nm				6.1mb				i	28	31.00		LIC	99.29	283	P	27	05.40	0.2
COL	72.10	24	iPd	24	47.45	0.1				i	35	23.00			1.4s	30.50nm				5.7mb
			epPc	24	49.60	7kmX				e	40	36.00		SNZO	99.31	132	P	27	20.00	15.5X
			esP	24	50.93		TOO	79.89	144	iPd	25	32.20	0.5				PP	31	12.00	
			ePP	27	29.27			0.8s	40.00nm			5.4mb					SKS	38	48.00	
			ePPP	29	16.86		BNG	79.90	269	iPd	25	31.50	-0.8				PS	40	12.00	
			eS	34	11.25			1.5s	200.00nm			5.9mb		WDC	99.69	31	ePc	27	06.80	0.1
			eSKS	34	45.18					id	28	32.60					ePP	31	09.50	
FBA	72.10	24	P	24	47.00	-0.3	BCAO	79.91	269	iPd	25	31.69	-0.6	MIN	100.29	31	ePdiff	27	09.20	-0.3
	1.0s	260.00nm				6.3mb				epPc	25	34.34	8kmX				ePP	31	13.00	
LBF	72.13	314	iPd	24	47.90	0.0				esP	25	35.50		BKS	102.01	33	ePdiff	27	21.60	4.7X
EBL	72.22	325	ePd	24	48.30	0.1				ePP	28	17.89			Z 20s	2.70um				5.8Msz
	1.6s	575.00nm				6.4mb	CAN	80.04	141	eP	25	32.20	-0.3		N 20s	2.20um				
EDI	72.23	325	ePd	24	48.50	0.3	EVIA	80.24	309	iPd	25	35.00	1.2		E 20s	3.00um				
ELO	72.23	325	ePd	24	48.40	0.1	GUD	80.31	311	iPd	25	35.30	1.2				ePP	31	26.80	
EBH	72.24	325	ePd	24	48.30	0.0	TOL	80.63	311	ePd	25	37.33	1.6				e	38	06.40	
SSF	72.39	314	iPd	24	49.40	0.1		1.6s	********nm			8.5mb X					e	39	10.80	
EAU	72.40	325	ePd	24	49.50	0.3				epPc	25	39.81	8kmX				e	47	32.40	
EKA	72.48	324	P	24	50.00	0.3				esP	25	40.64					eLQ	55	38.00	
	1.3s	300.20nm				6.2mb				ipP	26	35.00					eLR	03	14.00	
AVF	72.60	314	iPd	24	50.90	0.3				iPP	28	34.00		CMB	102.73	31	ePdiff	27	20.80	0.6
EAB	72.68	325	ePd	24	51.20	0.4				ePP	28	41.39					ePP	31	24.00	
	1.7s	685.00nm				6.5mb				e	30	09.46		KVN	102.88	29	Pdiff	27	21.50	0.4
BGF	73.02	314	iPd	24	53.40	0.4				eS	35	48.96		EUR	103.39	27	iPdiff	27	25.50	2.1
NPA	73.27	241	iP	24	56.40	1.5				isS	36	35.00			1.2s	10.23nm				5.5mb
			e	32	30.50					eSS	40	30.00		TNP	104.07	29	Pdiff	27	26.00	-0.4
AKU	73.29	337	iP	24	55.90	1.7	ENIJ	80.89	307	iPd	25	37.90	0.7		1.5s	15.15nm				5.6mb
	2.0s	564.71nm				6.3mb	EBAN	81.35	309	iPd	25	40.20	0.7	RSNY	105.56	356	Pdiff	27	30.00	-2.6
			e	27	40.20		AFC	81.66	308	iPd	25	41.40	0.1		Z 20s	9.04um				6.3Msz
MAF	73.34	314	iPd	24	55.80	0.9	CRT	81.73	308	eP	25	42.50	0.9	CLC	105.81	31	ePKP	31	48.00	1.1
PMR	73.39	28	ePd	24	54.00	-0.9	SIT	81.73	27	ePd	25	42.10	1.1	SBB	106.65	31	ePKP	31	55.00	6.5X
	1.7s	740.70nm				6.5mb		Z 20s	12.00um			6.3Msz		GLD	106.88	20	PKP	31	55.00	6.1X
	Z 20s	7.00um				5.9Msz	ASMO	81.74	308	eP	25	42.00	0.3		Z 20s	7.00um				6.2Msz
STK	73.45	143	eP	24	55.00	-0.6	EPLA	81.86	312	iPd	25	43.60	1.4	GOL	106.88	20	PKP	31	55.00	6.0X
	0.6s	18.00nm				5.3mb	APHE	81.91	308	eP	25	43.00	0.4		Z 18s	7.37um				6.3Msz
TCF	73.53	314	iPd	24	56.70	0.6	ACHM	81.93	308	eP	25	44.00	1.4	RVR	107.44	31	ePKP	31	50.00	0.1
LDF	73.91	317	iPd	24	58.50	0.3	LSZ	82.02	247	iPc	25	43.20	-0.2	TPC	107.93	30	ePKP	31	44.00	-6.9X
LSF	73.97	314	iPd	24	58.60	0.0				i	25	48.10		BAR	108.86	32	ePKP	31	55.00	2.3X
FLN	74.05	317	iPd	24	59.70	0.8	AAPN	82.02	308	eP	25	43.00	-0.2	GLA	109.36	30	ePKP	31	55.00	1.4
	1.8s	448.80nm				6.2mb	ALOJ	82.11	308	eP	25	44.00	0.3	ALQ	110.91	23	e(Pdif	27	55.80	-1.1
CAF	74.23	313	iPd	25	01.30	1.2	TAF	82.14	306	iPd	25	48.00	4.2X	ALQ	110.91	23	ePKP	31	55.00	-1.7
RJF	74.41	313	iPd	25	02.10	1.0	ATEJ	82.15	308	eP	25	43.00	-0.9		Z 22s	7.22um				6.2Msz
YRH	74.44	322	iPd	25	01.60	0.5	EHOR	82.51	309	iPd	25	47.00	1.5	SBA	114.59	168	(PKP)	32	03.60	1.4
	1.7s	819.00nm				6.5mb	DZM	82.66	121	iPc	25	48.00	1.4	UYO	114.80	13	ePKP	32	02.80	-1.1
GRR	74.44	317	iPd	25	01.80	0.6	PTO	82.88	314	iPd	25	49.30	1.9	JSC	116.02	1	PKP	32	05.50	-0.7
INK	74.44	18	iPd	25	00.80	-0.1				eS	25	51.00		SPA	119.88	180	ePKPd	32	11.30	-1.4
	0.7s	88.00nm				5.9mb	KMZ	82.92	250	iPc	25	48.50	0.4		0.8s	28.33nm				
LWI	74.44	258	iPd	25	01.40	-0.7				i	25	55.70			Z 19s	1.56um				5.7Msz
ADE	74.52	147	iPd	25	02.00	0.2				i	29	08.00		ITR	135.30	289	ePKP	32	38.00	-5.6X
	0.8s	208.96nm				6.2mb	EPRU	82.95	309	iPd	25	48.00	0.1				e	32	43.20	
LPF	74.71	317	iPd	25	03.30	0.5	EJIF	83.39	308	iPd	25	50.00	-0.1	TRN	135.53	333	ePKP	32	44.50	0.5
	1.8s	542.00nm				6.3mb	EVAL	83.64	310	iPd	25	52.80	1.4	TPP	135.85	332	ePKP	32	46.50	1.9
MFF	74.84	315	iPd	25	04.00	0.4	YKA	83.82	15	P	25	52.80	1.0	SOB1	137.56	291	ePKP	32	37.10	-10.9X
	1.8s	535.10nm				6.3mb	YKC	83.87	15	ePd	25	52.00	0.0				e	32	42.90	
LPO	74.90	313	iPd	25	05.00	1.0		0.9s	65.00nm			5.9mb					e	32	47.20	
	1.8s	455.70nm				6.2mb	BUL	84.42	243	iPc	25	54.60	-1.0	UPA	141.18	358	iPKPc	-32	53.60	-0.9
LFF	75.06	313	iPd	25	05.50	0.6		1.2s	218.75nm			6.3mb			Z 21s	2.37um				5.9Msz

```
                  i      35 54.00                |
                  i      48 22.00                |
 ATB    142.20 309 PKPc   32 50.60   -5.7X      |
 BMG    142.40 348 iPKPd  32 40.00  -16.8X      |
 CHN    144.86 351 iPKPc  33 01.00   -0.1       |
 BOG    144.97 349 iPKP   33 00.50   -1.0       |
 BMA    146.66 274 ePKP   33 05.60    2.0       |
 BAO    146.85 288 ePKP   33 04.40    0.2       |
 ITA    147.02 275 ePKP   33 04.80    0.2       |
 PSO    148.78 354 iPKPc  33 08.50    0.7       |
 VAO    149.20 275 ePKP   33 08.50    0.8       |
                  e      33 13.50                |
 PPD    152.57 280 ePKP   33 13.70    1.0       |
                  e      33 20.50                |
                  e      33 30.90                |
                  e      33 42.20                |
 CCH    161.76 310 PKP    33 27.50    3.2X      |
 ZOBO   162.15 317 iPKPd  33 25.90    0.8       |
 LPB    162.35 317 iPKPd  33 27.00    2.0       |
     1.8s    545.45nm                           |
 CNCB   162.49 316 iPKPd  33 27.00    1.6       |
 SLA    165.59 288 ePKPd  33 27.90    0.3       |
 RFA    168.73 242 ePKPd  33 30.00    0.6       |
 ANT    168.95 302 ePKP   33 31.00    1.3       |
                  e      34 43.00                |
 PEL    171.01 247 iPKPd  33 31.10    0.4       |
     1.8s    372.73nm                           |
 TACH   171.05 244 ePKP   33 30.50   -0.2       |
 LNV    171.29 241 ePKP   33 15.00  -15.7X      |
 LCCH   171.60 244 ePKP   33 31.50    0.6       |
      S.D. = 1.0  on 441 of 482 obs.             |
---------------------------------------------   |
?  APR  25, 1989  03h 00m 26.97± 1.11s          |
   29.564 N ±21.6km   99.829 E ±10.3km          |
   DEPTH =  10.0km  (geophysicist)              |
   4.2mb (  1 obs.)                             |
 SICHUAN PROVINCE, CHINA            (307)       |
                                                |
 LZH     7.33  26 eP     02 17.50    0.7        |
 PKI    12.83 265 P      03 32.70    0.2        |
     0.6s      6.00nm            5.0mb X        |
 KKN    12.90 266 P      03 33.20   -0.1        |
     0.5s      5.00nm            5.0mb X        |
 DMN    13.08 265 P      03 36.90    1.1        |
 GKN    13.42 267 P      03 39.50   -0.6        |
     0.4s      4.00nm            4.8mb X        |
 SSE    18.50  80 eP     04 45.00    0.0        |
 NAO    64.19 327 P      11 02.40   -1.4        |
     0.8s      1.50nm            4.2mb          |
      S.D. = 1.0  on   7 of   7 obs.            |
---------------------------------------------   |
   APR  25, 1989  03h 11m 17.46± 1.65s          |
   17.420 S ± 7.0km  167.776 E ± 6.5km          |
   DEPTH =  15.2 ± 11.4 km                      |
   5.0mb (  7 obs.)  4.8Msz (  1 obs.)          |
 VANUATU ISLANDS                    (186)       |
      CENTROID, MOMENT TENSOR       (HRV)       |
      Data Used: GDSN                           |
      L.P.B.: 11S, 22C                          |
      Centroid Location:                        |
      Origin Time        03:11:21.8 1.0         |
      Lat 17.23S 0.08 Lon 167.69E 0.10          |
      Dep  20.4 4.4 Half-duration  2.4          |
      Moment Tensor;   Scale 10**17 Nm          |
        Mrr= 2.20 0.14  Mtt= 0.13 0.23          |
        Mff=-2.33 0.20  Mrt= 1.48 0.46          |
        Mrf=-0.41 0.49  Mtf=-0.04 0.15          |
       Principal Axes:                          |
        T  Val=  3.00  Plg=62  Azm=  9          |
        N       -0.62     27      174           |
        P       -2.37      6      267           |
      Best Double Couple:Mo=2.7*10**17          |
       NP1:Strike= 24 Dip=46 Slip= 129          |
       NP2:       155     56       57           |
                                                |
PVC     0.60 122 iPd    11 29.50    0.4         |
                 iS     11 37.90                |
DZM     4.79 195 iPc    12 28.90   -2.0         |
                 iS     13 23.50                |
HNR    11.00 315 eP     13 58.00    0.7         |
                 eS     15 58.00                |
VSG    11.29 315 eP     14 01.00   -0.3         |
                 eS     16 05.00                |
SVO    11.29 316 eP     14 02.00    0.7         |
                 eS     16 05.00                |
BRS    17.04 232 eP     15 18.00    1.2         |
                 eS     18 32.00                |
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 CTA    20.55 259 iPc    15 59.90    1.7        |
     1.1s     42.41nm          4.7mb             |
      Z  20s      3.78um          4.8Msz         |
                  i     16 13.30                 |
                  iS    19 57.00                 |
 CMS    24.33 231 eP     16 27.00   -8.7X       |
 CAN    24.44 220 eP     16 38.80    2.1        |
 SNZO   24.54 167 eP     16 39.00    1.4        |
 QIS    26.81 259 eP     16 58.00   -1.0        |
 STK    27.72 234 eP     17 07.00   -0.2        |
 WB5    31.72 260 eP     17 40.70   -2.3        |
 MTN    35.63 272 eP     18 18.50    1.6        |
 KNA    37.38 267 eP     18 30.00   -1.6        |
 FORR   38.39 242 eP     18 40.00    0.0        |
 WARB   39.04 250 eP     18 37.00   -8.5X       |
 COOL   44.31 243 eP     19 28.30   -0.3        |
 MEKA   46.32 250 iPc    19 44.00   -0.7        |
 KLB    47.26 243 eP     19 51.00   -1.1        |
 NWAO   47.84 241 eP     19 55.00   -1.6        |
 NANU   49.17 255 eP     20 08.00    1.0        |
 SBA    60.46 180 Pd     21 29.00    0.6        |
 MAT    60.50 333 (P)    21 27.00   -2.2        |
     1.2s     34.38nm          5.4mb             |
 SSE    65.80 317 eP     22 03.00   -1.2        |
 NJ2    67.94 316 Pc     22 17.00   -0.9        |
 WHN    70.10 313 P      22 31.00   -0.2        |
                  PcP    22 53.50                |
 PSI    70.72 279 eP     22 26.00   -9.3X       |
 TIA    71.67 319 eP     22 39.70   -0.9        |
 CN2    72.19 329 Pd     22 43.00   -0.5        |
                  pP     22 47.80   15kmX       |
 SPA    72.69 180 e(P)   22 45.10   -1.4        |
     1.0s     44.50nm          5.5mb             |
                  e      22 53.50                |
 BJI    74.66 321 eP     22 57.50   -0.5        |
 TIY    75.56 318 eP     23 03.90    0.5        |
 XAN    75.86 313 Pd     23 05.40    0.3        |
 CHG    76.63 295 ePc    23 10.30    0.6        |
     1.5s     27.78nm          5.1mb             |
 HHC    77.94 320 P      23 16.80    0.1        |
 BTO    78.76 319 eP     23 21.70    0.6        |
 GTA    84.87 314 P      23 53.80    0.7        |
 WDC    86.58  46 e(P)c   24 00.10   -1.3        |
 CMB    87.00  49 P      24 02.30   -1.2        |
     0.8s      8.00nm          5.0mb             |
 MIN    87.12  46 e(P)   24 02.40   -1.8        |
 PLM    87.76  54 P      24 10.00    2.5X       |
 FBA    88.76  17 P      24 05.30   -6.0X       |
 KVN    89.04  49 P      24 12.20   -1.3        |
 GLA    89.23  55 P      24 15.30    1.0        |
 TNP    89.30  50 P      24 12.80   -2.0        |
     1.0s      3.75nm          4.6mb             |
 EUR    90.74  49 iP     24 21.20   -0.2        |
     1.2s      4.85nm          4.7mb             |
 PNT    92.19  39 eP     24 31.00    3.4X       |
 WMQ    94.95 314 P      24 40.80    0.3        |
 INK    95.27  19 eP     24 42.00    0.7        |
 YKA    99.70  27 P      25 04.00    2.5        |
 FRB   120.13  25 ePKP   30 07.00   -1.7        |
 KEV   122.44 345 ePKP   30 22.00    9.1X       |
 SOD   124.20 343 ePKP   30 19.00    2.6X       |
 BUL   125.23 229 iPKPd  30 18.60   -1.4        |
 SUF   127.51 339 ePKP   30 21.00   -2.0        |
     0.5s      3.30nm                            |
 NUR   129.53 337 iPKP   30 26.20   -0.6        |
     0.5s     12.60nm                           |
                  i     30 31.60                 |
 HFS   133.42 342 ePKP   30 21.50  -12.8X       |
     0.4s      0.50nm                           |
 NRA0  133.51 344 PKP    30 37.60    3.2X       |
 NAO   133.62 345 PKP    30 39.00    4.4X       |
     0.6s      3.00nm                           |
 PRNI  135.24 296 ePKP   30 38.00   -0.7        |
 MBH   135.40 295 ePKP   30 38.00   -1.0        |
 MLR   137.69 320 ePKP   30 40.00   -3.1X       |
 SPC   138.85 328 ePKP   30 46.70    1.6        |
 CLL   140.69 335 ePKP   30 44.00   -4.1X       |
 SRO   140.72 327 iPKP   30 47.90   -0.3        |
 ZST   141.08 329 ePKP   30 47.80   -1.1        |
 SOB1  141.23 131 ePKP   30 45.50   -4.7X       |
 KHC   142.09 332 iPKPd  30 46.40   -4.3X       |
 GRF   142.66 335 ePKP   30 48.10   -3.6X       |
                  e      30 51.50                 |
 ITR   143.30 133 ePKP   30 49.70   -4.1X       |
 DMU   143.36 355 ePKP   30 50.30   -2.4        |
 KBA   143.69 330 iPKPc  30 49.70   -4.0X       |
     1.3s     18.80nm                           |
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                  i      30 55.10                 |
                  i      31 35.40                 |
 MEM    143.81 340 PKPc   30 50.80   -2.7X       |
                  e      30 56.00                 |
 VBY    143.82 327 ePKPd  30 51.20   -2.5X       |
 LJU    143.83 328 ePKPd  30 50.20   -3.6X       |
 DLE    143.93 354 ePKP   30 55.20    1.6        |
 DCN    143.94 355 ePKP   30 53.70    0.0        |
      0.6s     40.00nm                           |
 RBL    144.03 329 PKP    30 50.50   -3.7X       |
 CEY    144.09 328 ePKP   30 52.00   -2.3        |
 VOY    144.16 328 ePKPd  30 50.60   -3.8X       |
 YRH    144.16 352 ePKP   30 54.00   -0.1        |
 SNF    144.43 342 PKP    30 53.00   -1.6        |
 TRI    144.45 328 ePKP   30 51.30   -3.5X       |
                  i      30 56.90                 |
 ETA    144.48 354 ePKP   30 55.50    0.9        |
      0.7s     90.00nm                           |
 WLF    144.58 339 PKP    30 53.60   -1.2        |
 GWF    144.64 337 PKP    30 52.68   -2.4        |
 DOU    144.71 341 PKPc   30 53.40   -1.7        |
 ECP    145.01 354 ePKP   30 57.20    1.7        |
      0.5s     186.00nm                          |
 CDF    145.23 337 PKP    30 54.25   -1.9        |
 FEL    145.39 336 PKP    30 54.74   -1.8        |
 MOF    145.75 337 PKP    30 55.74   -1.4        |
 VITF   145.87 338 PKP    30 56.21   -0.9        |
 BSF    145.90 337 PKP    30 56.45   -0.9        |
 HAU    145.92 338 ePKP   30 56.20   -1.1        |
      0.6s     23.45nm                           |
 SAL    146.09 331 PKP    30 57.00   -0.6        |
 LOMF   146.28 336 PKP    30 57.57   -0.4        |
 MDI    146.34 332 PKP    30 57.10   -0.8        |
 SFI    146.67 328 PKP    31 00.20    1.7        |
 VAI    146.68 333 PKP    30 57.70   -0.8        |
 DUI    146.74 322 PKP    31 00.00    1.1        |
 TDS    146.77 318 PKPc   30 59.80    0.9        |
 PGD    146.77 328 PKP    31 00.30    1.3        |
 BSS    147.07 321 PKP    31 00.00    0.7        |
 FIR    147.08 328 ePKP   31 00.00    0.8        |
 SDI    147.09 323 PKPc   30 59.80    0.4        |
 ORX    147.21 333 PKP    31 00.43    0.9        |
 BNG    147.22 250 iPKPd  30 59.20   -1.2        |
      0.9s    131.00nm                          |
                  id     31 02.20                 |
 BOB    147.23 331 PKP    31 01.20    1.6        |
 FLN    147.31 346 ePKP   31 00.30    0.9        |
      0.6s     18.05nm                           |
 LDF    147.38 345 ePKP   31 00.00    0.4        |
      0.6s     14.45nm                           |
 LOR    147.42 339 ePKP   31 00.80    1.1        |
      0.5s     10.95nm                           |
 PII    147.49 329 PKP    31 00.60    0.8        |
 LBF    147.62 339 ePKP   31 01.60    1.5        |
      0.9s     34.40nm                           |
 LSD    147.70 334 PKP    31 02.38    1.9        |
 SSF    147.72 340 ePKP   31 01.80    1.6        |
      0.5s     18.95nm                           |
 GRR    147.75 346 ePKP   31 01.30    1.2        |
      0.6s     27.05nm                           |
 SOI    147.81 315 PKP    31 02.30    1.8        |
 LPG    147.83 335 ePKP   31 02.40    1.6        |
      1.2s     59.50nm                           |
 RSP    147.90 334 PKP    31 01.66    1.0        |
 SMF    147.96 339 ePKP   31 02.20    1.6        |
      1.2s     44.65nm                           |
 AVF    148.00 340 ePKP   31 02.00    1.4        |
      1.1s     26.85nm                           |
 LPF    148.12 346 ePKP   31 02.40    1.7        |
      0.6s     64.95nm                           |
 BNI    148.23 334 PKP    31 03.90    2.7X       |
 FIN    148.23 332 PKP    31 02.58    1.5        |
 RRL    148.29 334 PKP    31 03.71    2.3X       |
 ROB    148.31 332 PKP    31 02.99    1.7        |
 BGF    148.37 340 ePKP   31 03.60    2.4X       |
      0.6s     31.55nm                           |
 PZZ    148.48 333 PKP    31 02.58    0.9        |
 STV    148.59 333 PKP    31 03.71    1.9        |
 IMI    148.60 332 PKP    31 04.02    2.2X       |
 MAF    148.76 340 ePKP   31 04.50    2.6X       |
 TCF    148.82 340 ePKP   31 04.80    2.8X       |
      0.6s     16.25nm                           |
 SBF    148.84 332 ePKP   31 04.20    2.0X       |
      1.2s     83.30nm                           |
 LSF    149.07 341 ePKP   31 04.60    2.3X       |
      0.5s     18.20nm                           |
 CVF    149.16 329 ePKP   31 04.70    2.1X       |
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25d 03h

	1.2s	80.35nm			
MFF	149.23	344 ePKP	31	05.60	3.1X
	0.6s	37.90nm			
FRF	149.43	332 ePKP	31	05.40	2.4X
	1.2s	83.30nm			
LRG	149.64	333 ePKP	31	06.20	3.0X
	1.1s	65.95nm			
LMR	149.68	332 ePKP	31	06.30	3.0X
	1.2s	101.15nm			
RJF	149.92	340 ePKP	31	07.00	3.4X
	1.2s	47.60nm			
CAF	150.07	339 ePKP	31	07.60	3.7X
	1.2s	23.80nm			
LFF	150.49	341 ePKP	31	08.40	3.9X
	1.2s	41.65nm			
LPO	150.58	340 ePKP	31	08.70	4.1X
	1.2s	38.70nm			
EPF	152.33	340 ePKP	31	13.00	5.6X
	1.2s	26.80nm			
	S.D. = 1.3	on 103 of 145 obs.			

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* APR 25, 1989 03h 13m 53.03± 0.65s
29.934 N ±13.1km 99.238 E ± 6.7km
DEPTH = 10.0km (geophysicist)
4.4mb (4 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	4.02	75 Pn	14	56.20	0.2
		Pg	15	07.50	
		Sg	15	57.40	
LZH	7.25	31 eP	15	40.00	-1.8
GYA	7.41	116 P	15	42.40	-1.5
XAN	9.18	61 P	16	05.00	-3.6X
CHG	11.07	181 ePd	17	25.00	50.5X
	1.1s	12.66nm			
PKI	12.36	262 P	16	53.40	1.1
	0.4s	10.00nm		5.4mb	X
KKN	12.42	264 P	16	53.20	0.3
	0.5s	11.00nm		5.4mb	X
DMN	12.61	263 P	16	55.60	0.0
GKN	12.93	265 P	16	59.60	-0.1
TIA	16.24	63 Pc	17	45.00	2.2
WMQ	16.63	330 eP	17	53.00	5.3X
BJI	17.13	49 eP	17	55.50	1.6
HYB	22.63	241 eP	18	59.50	4.1X
GBA	25.88	236 Pc	19	29.90	3.1X
	0.9s	3.50nm		4.0mb	
SUF	56.15	328 eP	23	34.00	-0.8
	0.8s	4.00nm		4.5mb	
NUR	56.93	325 eP	23	43.00	2.6X
WB5	59.98	141 eP	24	02.20	0.1
HFS	62.38	326 eP	24	11.50	-6.4X
	0.4s	0.80nm		4.3mb	
NAO	63.60	327 P	24	24.70	-1.3
	1.1s	3.90nm		4.5mb	
	S.D. = 1.4	on 12 of 19 obs.			

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* APR 25, 1989 03h 23m 31.63± 1.38s
30.500 N ±19.7km 98.861 E ±17.5km
DEPTH = 33.0km (normal)
4.2mb (3 obs.)
TIBET (306)

PKI	12.13	259 P	26	24.70	-0.6
	0.6s	18.00nm		5.4mb	X
KKN	12.17	261 P	26	26.20	0.3
	0.4s	17.00nm		5.5mb	X
DMN	12.37	260 P	26	28.70	0.1
GKN	12.67	262 P	26	31.40	-1.0
HYB	22.62	239 eP	28	32.00	1.1
GBA	25.94	234 Pc	29	02.60	-0.1
	0.8s	2.70nm		3.9mb	
SUF	55.50	328 iP	33	06.40	1.0
HFS	61.73	326 eP	33	49.30	0.5
	0.5s	1.20nm		4.3mb	
NAO	62.95	327 P	33	56.80	-0.1
	0.7s	1.50nm		4.2mb	
INK	74.16	18 eP	35	05.00	-1.2
SES	95.21	19 eP	36	42.00	-11.1X
	S.D. = 0.9	on 10 of 11 obs.			

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* APR 25, 1989 03h 26m 25.09± 0.85s
9.025 S ±13.8km 109.692 W ±16.6km
DEPTH = 10.0km (geophysicist)
5.0mb (11 obs.)
NORTHERN EASTER I. CORDILLERA (694)

ZOBO	41.13	104 P	34	12.20	0.2
	0.9s	6.49nm		4.4mb	
LPB	41.18	105 P	34	13.00	0.8
	1.1s	50.63nm		5.2mb	
CNCB	41.32	105 P	34	14.80	1.3
BAR	42.00	351 eP	34	19.00	0.8
GLA	42.13	354 eP	34	21.00	1.7
PLM	42.69	351 eP	34	24.00	-0.1
CCH	43.12	106 P	34	30.50	2.5
TPC	43.31	352 eP	34	30.00	1.0
RVR	43.40	351 eP	34	31.00	1.4
ALQ	43.83	4 eP	34	34.50	1.1
	1.0s	4.00nm		4.2mb	
SBB	44.15	350 eP	34	30.00	-5.8X
ISA	45.21	350 eP	34	47.00	2.7
CLC	45.22	351 eP	34	37.00	-7.4X
TNP	47.38	352 P	35	03.00	1.4
	0.9s	10.74nm		4.9mb	
CMB	47.87	349 e(P)	35	03.70	-1.6
KVN	48.46	351 P	35	10.00	0.0
EUR	48.61	354 iP	35	12.50	1.3
	1.0s	3.85nm		4.4mb	
GOL	48.64	4 P	35	11.50	0.0
ELC	49.90	21 P	35	20.30	-0.6
WDC	50.76	347 e(P)	35	27.90	0.5
JSC	50.81	31 P	35	27.50	-0.3
BLA	53.55	29 P	35	47.80	-0.6
LON	56.57	350 P	36	09.50	-0.8
PPD	57.41	110 eP	36	14.80	-1.8
PNT	58.74	352 eP	36	25.00	-0.5
DHN	59.06	27 P	36	27.00	-0.8
SES	59.18	359 eP	36	15.00	-13.5X
TBR	59.64	31 P	36	30.50	-1.3
RSON	61.23	11 P	36	40.80	-1.7
	1.0s	23.75nm		5.3mb	
RSNY	62.07	28 P	36	47.50	-0.8
	1.0s	18.33nm		5.2mb	
EDM	62.08	358 iPc	36	47.60	-0.6
FFC	63.84	5 eP	36	58.00	-1.8
	1.3s	17.00nm		5.1mb	
SOB1	67.82	96 eP	37	22.80	-3.3X
		e	37	40.80	
ITR	70.30	96 eP	37	40.90	-0.5
YKA	71.40	358 eP	37	46.80	-0.3
PMR	76.82	342 P	38	17.80	-0.7
	0.8s	11.21nm		5.0mb	
INK	78.97	351 eP	38	30.00	-0.2
FRB	78.97	17 eP	38	30.00	-0.3
FBA	79.01	344 P	38	29.00	-1.5
SPA	81.03	180 e(P)	38	41.30	-0.3
	1.0s	10.50nm		4.8mb	
		e	38	52.60	
MBC	85.31	358 eP	39	03.00	0.1
	0.8s	12.00nm		5.2mb	
LOE	148.34	289 ePKP	46	13.00	2.3X
NST	150.15	286 ePKP	46	20.00	6.6X
PSI	150.86	259 ePKP	46	20.20	5.6X
MAIO	151.12	18 ePKP	46	21.00	6.5X
GBA	171.66	304 PKPc	46	18.40	-17.2X
	0.7s	2.00nm			
	S.D. = 1.2	on 37 of 46 obs.			

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* APR 25, 1989 03h 31m 23.11± 1.17s
30.363 N ±13.8km 98.993 E ± 7.3km
DEPTH = 34.2 ± 14.6 km
4.3mb (3 obs.)
TIBET (306)

CD2	4.14	81 Pn	32	25.00	-0.7
	N 16s	5.50um			
		Pg	32	34.80	
		Sg	33	30.60	
LZH	7.01	34 eP	33	05.00	-1.2
	2.0s	44.00nm		5.0mb	X
GYA	7.79	118 P	33	11.20	-6.0X
PKI	12.22	260 P	34	18.20	0.3
	0.6s	8.00nm		5.0mb	X
KKN	12.27	261 P	34	18.90	0.4
	0.6s	10.00nm		5.1mb	X
DMN	12.46	261 P	34	21.00	-0.2
HHC	14.61	41 eP	34	50.80	1.5
WMQ	16.15	329 P	35	16.50	7.3X
TIA	16.24	64 Pc	35	10.70	0.5
HYB	22.65	240 eP	36	27.50	4.9X
CN2	24.88	50 eP	36	45.00	1.0
WB5	60.44	141 eP	41	27.80	-4.1X
WRA	60.48	141 P	41	32.00	-0.1
	0.7s	2.40nm		4.4mb	
HFS	61.91	326 eP	41	35.90	-5.4X
	0.4s	0.60nm		4.1mb	
NAO	63.13	327 P	41	49.00	-0.4
	0.8s	2.10nm		4.3mb	
INK	74.26	18 eP	42	57.00	-1.1
	S.D. = 1.0	on 11 of 16 obs.			

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* APR 25, 1989 03h 44m 41.94± 0.96s
38.296 N ± 8.4km 22.261 E ± 9.5km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (ATH).

ITM	1.15	193 iPnc	45	03.00	-0.4
ATH	1.19	105 ePn	45	05.80	1.6
NEO	1.26	36 ePn	45	05.00	-0.3
VLS	1.32	265 ePn	45	04.00	-2.3
LIT	1.81	6 ePn	45	12.30	-1.1
		eSn	45	39.50	
KZN	2.04	349 ePn	45	15.50	-1.3
LSK	2.26	326 ePn	45	22.90	3.0
PLG	2.27	24 ePn	45	18.50	-1.6
SRN	2.37	313 ePn	45	27.50	6.1X
KBN	2.58	335 ePn	45	28.00	3.6X
TPE	2.65	320 ePn	45	28.00	2.5
KNT	2.90	10 ePn	45	28.20	-0.8
		eSn	46	02.70	
OHR	3.03	339 ePn	45	31.80	1.0
VAY	3.03	4 ePn	45	30.70	-0.1
VAM	3.28	151 ePn	45	36.60	2.3X
TIR	3.56	330 e(Pn)	45	32.50	-5.8X
SKO	3.73	351 ePn	45	40.50	-0.2
SUF	24.57	4 eP	50	25.00	22.2X
	S.D. = 1.8	on 13 of 18 obs.			

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* APR 25, 1989 03h 57m 51.85± 1.52s
2.303 S ±10.2km 100.859 E ±11.0km
DEPTH = 74.2 ± 13.6 km
4.7mb (8 obs.)
SOUTHERN SUMATERA (274)

PPI	1.89	346 iPc	58	22.50	-0.1
		iS	58	31.50	
KGM	4.94	30 ePc	59	06.20	0.9
		e	00	33.00	
PSI	5.33	339 eP	59	09.90	-0.7
IPM	6.84	1 ePc	59	31.20	-0.4
	0.5s	207.10nm		6.0mb	X
		e	00	05.00	
SNG	9.42	359 eP	00	06.80	-0.3
	1.1s	220.25nm		6.0mb	X
		e	02	29.60	
NNT	14.84	356 eP	01	21.00	2.0
MKS	18.79	99 ePd	02	12.50	4.3X
LOE	19.60	2 eP	02	16.00	-1.0
CHTO	21.07	355 eP	02	30.00	-2.1
	1.0s	5.00nm		3.8mb	
MBL	26.32	137 eP	03	22.00	-0.7
GBA	28.10	305 Pd	03	38.20	-0.6
	0.8s	5.60nm		4.2mb	
PKI	33.22	334 P	04	24.50	0.2
	0.6s	11.00nm		4.9mb	
DMN	33.38	334 P	04	25.80	0.1
KKN	33.47	334 P	04	26.30	0.0
GKN	33.93	334 P	04	30.20	-0.1
WB5	37.10	121 eP	04	56.30	-0.8
NDI	38.26	325 iPd	05	09.30	2.6
FORR	38.34	141 eP	05	08.30	1.1
ASPA	38.38	126 iPd	05	07.90	0.1
	0.6s	20.00nm		5.2mb	
		eS	10	56.50	
CTA	47.69	115 eP	06	22.00	-1.2
ADE	47.87	137 e(P)	06	25.60	1.1
STK	48.31	132 eP	06	28.00	0.2
		i	06	42.40	
AVY	54.52	248 iPd	07	15.50	0.5
CAN	55.37	132 eP	07	35.30	14.5X
MBH	70.49	303 iP	09	01.00	0.2
PRNI	70.54	303 eP	09	00.00	-1.2
NOH	70.66	304 eP	09	00.00	-1.9
BUL	72.55	250 iPc	09	13.10	-0.4
	1.0s	20.00nm		5.0mb	
VRI	80.66	317 ePd	10	00.00	1.8
MLR	81.11	317 eP	09	50.00	-10.7X
BNG	82.52	275 ePd	10	09.00	0.5
	0.8s	11.00nm		4.8mb	

SUF 85.07 334 iP 10 22.50 2.1
NUR 85.23 331 eP 10 21.00 -0.2
SOD 86.08 338 eP 10 12.00 -13.4X
RBL 89.78 316 Pd 10 44.10 0.5
APO 90.47 330 eP 10 45.20 -1.2
0.4s 1.20nm 4.5mb
NAO 92.01 331 P 10 53.00 -0.4
1.1s 3.70nm 4.7mb
PPD 143.61 227 ePKP 17 18.90 -1.8
BAO 144.41 239 ePKP 17 21.50 -0.8
UYO 145.22 23 ePKP 17 23.00 -0.1
i 17 37.20
SLA 150.04 205 ePKPd 17 37.10 5.9X
ZOBO 158.58 210 PKP 17 45.40 1.9
S.D. = 1.2 on 37 of 42 obs.

? APR 25, 1989 05h 00m 13.09± 1.29s
34.145 N ±14.1km 135.202 E ± 7.3km
DEPTH = 5.0km (geophysicist)
NEAR S. COAST OF SOUTHERN HONSHU(233)
Felt (I JMA) at Wakayama.

WKY 0.09 340 P 00 15.50 0.4
WKYJ 0.33 77 eP 00 19.80 0.0
eS 00 24.70
TKSJ 0.97 261 eP 00 32.30 0.3
eS 00 44.90
YONJ 1.77 306 eP 00 43.90 -0.7
S.D. = 0.9 on 4 of 4 obs.

APR 25, 1989 05h 13m 34.07± 0.10s
5.108 S ± 2.6km 143.501 E ± 2.8km
DEPTH = 109.5km (3 depth phases)
5.5mb (43 obs.)
PAPUA NEW GUINEA (202)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 38C
Centroid Locotion:
Origin Time 05:13:39.6 0.3
Lat 5.15S 0.03 Lon 143.26E 0.03
Dep 105.9 2.3 Half-durotion 3.0
Moment Tensor; Scale 10**17 Nm
Mrr=-0.82 0.12 Mtt=-3.61 0.18
Mff= 4.43 0.20 Mrt=-3.01 0.13
Mrf= 0.18 0.13 Mtf=-2.94 0.19
Principal Axes:
T Val= 5.60 Plg=11 Azm=249
N 0.49 59 140
P -6.09 28 345
Best Double Couple:Mo=5.9*10**17
NP1:Strike= 23 Dip=62 Slip= -13
NP2: 120 78 -151

MNDI 1.05 171 iP 13 57.00 0.7
LAT 3.80 114 iPd 14 32.50 0.8
PMG 5.60 140 iPd- 14 55.00 -1.4
BGA 11.67 96 eP 16 22.00 3.5X
PAA 11.99 96 eP 16 21.00 -1.7
MTN 14.43 237 eP 16 52.70 -1.7
CTA 15.13 170 iPd- 17 03.70 0.4
1.2s 137.50nm 5.1mb
i 17 10.00
iS 19 56.00
QIS 15.82 194 eP 17 10.00 -1.9
e 17 15.00
e 20 05.00
e 21 42.00
VSG 16.60 105 iP 17 20.00 -1.7
SVO 16.68 105 iP 17 21.00 -1.6
eS 20 35.00
HNR 16.87 106 iPc+ 17 23.50 -1.4
1.0s 680.00nm 5.9mb
iS 20 28.00
WB5 17.17 210 iPc 17 27.60 -1.0
eS 20 31.20
WRA 17.23 210 Pc 17 28.20 -1.2
1.3s 374.00nm 5.5mb
KNA 17.92 233 iPd 17 36.60 -1.3
0.3s 326.00nm 6.1mb
eSn 20 48.00
GUA 18.58 4 ePd 17 44.20 -1.3
0.6s 880.00nm 6.2mb
GUMO 18.62 4 eP 17 44.50 -1.5
0.6s 561.17nm 6.0mb
PJG 18.62 4 eP 17 44.50 -1.5
MNI 19.75 289 ePd 17 57.20 -0.6
1.0s 1031.40nm 6.1mb
ASPA 20.64 206 iPc 18 05.60 -1.3
1.1s 1103.00nm 6.1mb
Z 20s 6.72um 5.0Msz
eS 21 54.80
LR 26 32.40
DAV 21.61 304 eP 18 21.50 4.9X
BRS 23.86 159 eP 18 41.00 2.5X
i 19 05.00 113km
iS 23 00.00
MKS 23.93 269 ePc 18 48.50 9.2X
CMS 26.33 176 eP 18 53.00 -8.5X
e 18 55.00 7kmX
e 19 23.00
COO 26.54 164 eP 19 07.00 3.5X
STK 26.70 184 eP 19 05.00 0.2
i 19 38.40 162kmX
TSM 27.04 290 ePc 19 10.20 2.1
DZM 27.88 129 iPc 19 16.40 0.6
MBL 27.96 233 eP 19 15.00 -1.4
0.4s 16.00nm 5.0mb
e 19 46.00 148kmX
eS 24 43.00
KKM 29.41 292 eP 19 28.50 -1.1
1.0s 71.80nm 5.3mb
FORR 29.42 208 iPd 19 27.70 -1.7
0.5s 46.00nm 5.4mb
OCP 29.65 312 eP 19 31.50 0.0
ADE 30.04 188 iPd 19 34.20 -0.7
0.8s 64.18nm 5.4mb
CAN 30.49 171 eP 19 38.80 0.0
TRT 30.78 264 ePc 19 41.00 -0.5
BAG 31.16 314 eP 19 42.00 -3.1X
eS 24 40.00
BFD 31.93 181 eP 19 52.00 0.7
MEKA 32.03 225 eP 19 51.40 -0.9
NANU 32.12 235 iPc 19 52.50 -0.7
TOO 32.36 177 eP 19 56.00 0.9
COOL 33.16 217 eP 20 00.40 -1.7
MRWA 35.39 224 eP 20 20.60 -0.6
0.3s 7.00nm 5.0mb
KLB 35.73 219 eP 20 22.70 -1.4
BAL 35.77 222 iPd 20 23.90 -0.5
0.4s 15.00nm 5.2mb
ANP 36.92 326 eP 20 35.40 1.2
NWAO 36.96 218 eP 20 33.60 -0.8
0.5s 11.00nm 5.0mb
Z 20s 1.80um 4.9Msz
MUN 36.98 220 eP 20 33.50 -1.0
e 21 35.00 301kmX
RKG 37.88 217 eP 20 45.60 3.5X
KAGJ 38.05 342 P 20 43.20 -0.3
OZH 38.46 322 iPd 20 48.00 1.0
4.0s 1.92nm 3.3mb X
Z 24s 1.08um 4.6MszX
E 13s 0.52um
iS 26 36.00
SS 29 15.00
KUMJ 39.33 343 P 20 53.70 -0.4
HKC 39.57 315 iP 20 57.40 1.2
WKYJ 39.82 350 P 20 57.30 -0.9
TKSJ 39.89 348 P 20 58.10 -0.6
GZH 40.66 315 eP 21 05.70 0.6
4.0s 1.10nm 3.0mb X
S 27 05.00
SS 30 14.00
IIDJ 40.71 353 P 21 03.70 -1.8
SHK 40.73 346 iPd 21 04.80 -0.8
0.8s 191.04nm 5.9mb
SHNJ 40.74 344 eP 21 04.50 -1.2
KGM 40.76 279 eP 21 07.00 0.8
OIZ 40.91 307 Pd 21 08.00 0.7
N 15s 1.20um
S 27 11.00
TSRJ 41.04 351 P 21 07.20 -0.9
CHJJ 41.16 354 P 21 07.30 -1.8
YONJ 41.18 347 P 21 08.80 -0.5
KAKJ 41.21 356 P 21 08.30 -1.2
MAT 41.73 354 iPd 21 11.50 -2.3
1.5s 625.00nm 6.2mb
Z 20s 1.06um 4.7Msz
eS 27 10.00
MTMJ 41.82 353 P 21 12.90 -1.7
SSE 41.84 331 iP- 21 15.00 0.3
4.0s 1.40nm 3.1mb X
Z 20s 0.60um 4.5Msz
N 12s 0.30um
E 12s 0.60um
S 27 08.00
sS 27 24.00
eSS 30 36.00
NIIJ 42.34 355 P 21 17.70 -1.0
YAMJ 43.18 356 eP 21 18.30 -7.3X
PPI 43.29 275 ePd 21 27.50 0.7
IPM 43.50 282 ePc 21 29.90 1.3
1.2s 62.30nm 5.3mb
NJ2 43.77 329 iPd 21 31.00 0.6
4.0s 2.00nm 3.3mb X
iS 27 55.00
sS 28 41.50
OFUJ 44.00 358 P 21 31.40 -0.8
SNG 44.50 286 eP 21 36.30 -0.3
1.2s 140.63nm 5.6mb
eS 28 08.10
WHN 45.11 324 iPd 21 42.50 1.4
4.0s 1.26nm 3.1mb X
iS 28 16.00
PSI 45.20 279 iPd 21 42.50 0.3
1.0s 67.30nm 5.4mb
AOMJ 45.53 357 eP 21 44.70 0.4
SNZO 45.57 147 P 22 02.00 17.3X
NNT 46.91 292 eP 21 56.00 0.3
LOE 46.92 299 eP 21 56.00 0.3
HOOJ 47.26 360 eP 21 57.50 -0.5
MRRJ 47.36 358 eP 21 57.20 -1.5
GYA 47.51 313 iPd 22 01.60 1.2
4.0s 1.70nm 3.2mb X
sP 22 41.00
eS 28 51.00
ScS 31 44.00
NST 47.64 296 iPc 22 03.00 1.7
TIA 47.96 331 Pd 22 02.70 -0.8
Z 40s 2.00um 4.8MszX
N 12s 0.60um
E 12s 0.50um
S 28 50.50
KUSJ 47.99 1 eP 22 02.30 -1.3
ASAJ 49.00 359 eP 22 11.00 -0.4
BSI 49.28 282 ePd 22 13.00 -1.0
KMI 49.72 309 Pd- 22 19.00 1.5
2.0s 1.30nm 3.5mb X
pP 22 44.00 105km
sP 22 59.00
S 29 23.00
CHG 49.91 300 iPd 22 19.80 1.0
1.0s 105.00nm 5.8mb
eS 29 26.00
SNY 50.12 341 iPd 22 19.00 -1.0
4.0s 2.30nm 3.5mb X
Z 24s 1.20um 4.8MszX
S 29 21.00
XAN 50.82 323 iPd 22 25.00 -0.5
S 29 32.00
CN2 51.34 343 iPd 22 28.00 -1.2
5.0s 1.20nm 3.1mb X
PP 24 26.00
S 29 38.00
TIY 51.48 328 eP 22 29.80 -0.7
Z 24s 1.10um 4.8MszX
E 16s 1.30um
S 29 42.00
BJI 51.49 333 Pd- 22 29.50 -0.9
Z 20s 1.21um 4.9Msz
eS 29 40.00
CD2 52.19 316 iPd 22 36.20 0.3
pP 22 58.40 90kmX
iS 29 53.80
ScS 32 16.00
HHC 54.29 330 iPd 22 51.00 -0.3
Z 32s 1.70um 4.9MszX
N 14s 0.43um
E 15s 1.20um
S 30 21.00
BTO 54.88 329 iPd 22 56.00 0.4
N 14s 0.80um
E 14s 0.60um
S 30 31.00
SS 34 08.00
LZH 55.30 321 iPd 22 59.00 0.3
6.0s 822.00nm 5.9mb X
Z 30s 1.20um 4.8MszX
S 30 36.00
GTA 59.86 322 iPd 23 30.80 0.2
5.0s 1.20nm 3.2mb X

25d 05h

	E 13s	0.40um				KVN	99.72	51 P	27 07.00	-0.3		DOU	123.44	330 PKPc	32 21.10	1.2							
		S	31 34.00			YKA	100.00	27 eP	27 07.70	-0.1		VAI	123.58	323 PKPd	32 19.70	-0.6							
LSA	60.94	308 Pd	23 39.60	1.0		TNP	100.43	52 Pdiff	27 10.50	-0.2		PII	123.59	320 PKPd	32 19.60	-0.8							
		sP	24 13.00			EUR	101.35	51 iPdiff	27 14.80	0.0		BSF	123.63	326 PKP	32 20.48	0.0							
		iS	31 52.50				0.3s	4.23nm		5.6mb		BOB	123.74	322 PKPd	32 21.20	0.4							
SMY	63.18	20 eP	23 52.10	-0.3		ALE	101.85	3 ePdiff	27 15.00	-0.7		HAU	123.78	327 ePKP	32 20.90	0.2							
GUN	64.48	304 Pd	24 02.60	0.7			1.0s	14.00nm		5.6mb			0.8s	40.20nm									
PKI	64.74	304 Pd	24 04.10	0.5		EDM	101.94	37 ePdiff	27 17.00	0.2		VITF	123.85	327 PKP	32 20.90	0.2							
KKN	64.93	304 Pd	24 05.30	0.7		LRM	103.43	44 ePdiff	27 24.80	0.9		LOMF	123.89	326 PKP	32 20.90	-0.1							
DMN	65.01	304 Pd	24 05.90	0.7		KEV	103.74	341 ePdiff	27 23.00	-1.3		ORX	124.17	324 PKP	32 21.19	-0.5							
GKN	65.54	304 Pd	24 09.20	0.8		SES	103.76	39 ePdiff	27 09.00	-15.9X		SCH	124.75	21 ePKP	32 22.00	-0.3							
ADK	66.12	26 P	24 10.40	-1.1		SOD	104.82	339 iPdiff	27 29.20	0.0		LSD	124.75	324 PKP	32 23.55	0.6							
	1.5s	388.90nm		6.1mb		SUF	106.82	335 iPKP	31 47.40	-0.4		FIN	124.79	322 PKP	32 22.73	0.0							
PAE	66.48	107 iP	24 15.90	1.5		NUR	108.34	333 iPdiff	27 44.40	-0.6		RSP	124.86	323 PKP	32 23.04	0.1							
	1.0s	40.00nm		5.3mb		PRNI	108.53	300 e(PKP)	31 53.00	0.9		ROB	124.95	322 PKP	32 23.04	-0.1							
PPN	66.62	107 iP	24 17.00	1.7		MBH	108.68	300 iPKPc	31 53.50	1.2		LPG	124.97	324 ePKP	32 23.90	0.5							
	1.0s	50.00nm		5.4mb		ALQ	109.32	55 Pdiff	27 50.00	-0.3			0.8s	16.10nm									
TVO	66.80	107 iP	24 18.40	1.9		ALQ	109.32	55 ePKP	31 53.60	-0.1		IMI	125.14	322 PKP	32 23.76	0.3							
	1.0s	55.00nm		5.4mb		GOL	109.47	50 PKP	31 53.50	-0.4		BNG	125.15	272 iPKPd	32 25.00	0.7							
HYB	67.89	291 eP	24 23.50	0.2		BUL	111.32	246 iPKPd	31 58.00	0.2			0.6s	36.00nm									
	1.0s	125.00nm		5.8mb			1.2s	15.63nm						id	34 00.40								
PMO	68.04	104 iP	24 26.10	1.9		VRI	112.14	318 ePKPc	32 01.00	2.6X		CVF	125.21	320 ePKP	32 23.80	0.2							
	1.0s	50.00nm		5.4mb		HFS	113.31	335 ePKP	31 59.50	-0.7			1.2s	59.50nm									
GBA	68.15	287 Pc	24 24.70	-0.2			0.8s	8.80nm				RRL	125.27	323 PKP	32 24.68	0.7							
	0.6s	29.80nm		5.4mb		NAO	114.07	337 PKP	32 01.00	-0.7		PZZ	125.30	323 PKP	32 23.14	-0.8							
VAH	68.30	104 iP	24 27.10	1.3			0.7s	3.40nm				STV	125.31	322 PKP	32 22.73	-1.1							
	1.0s	30.00nm		5.1mb		RSON	114.23	36 PKP	32 00.60	-1.7		SBF	125.44	322 ePKP	32 24.20	0.1							
TPT	68.31	104 iP	24 27.70	1.8		KRA	115.00	324 ePKP	32 11.60	7.8X			1.2s	95.20nm									
	1.0s	50.00nm		5.4mb				e	32 35.60			LOR	125.57	327 ePKP	32 24.40	0.2							
RUV	68.54	104 iP	24 28.60	1.3		SPC	115.16	323 ePKP	32 05.40	1.0			1.3s	39.70nm									
	1.0s	40.00nm		5.2mb				e	33 01.00			LBF	125.68	327 ePKP	32 24.80	0.4							
WMQ	69.87	320 Pd	24 35.50	0.4		BZS	115.61	319 ePKPd	32 05.50	0.4			0.8s	18.80nm									
	4.0s	1.30nm		3.1mb X		KSP	116.76	326 iPKP	32 07.60	0.5		DMU	125.73	339 ePKP	32 24.30	0.1							
	Z 18s	0.61um		4.9Msz				e	32 39.20				0.7s	32.00nm									
		sP	25 16.50					e	33 19.20			SSF	125.89	327 ePKP	32 25.20	0.4							
		S	33 37.50			SRO	116.89	322 iPKP	32 08.90	1.5			1.0s	34.00nm									
		ScS	34 29.00					e	33 15.60			SMF	125.96	327 ePKP	32 25.30	0.3							
NDI	71.95	302 iPd	24 47.20	-0.6		SKO	116.95	315 iPKPc	32 08.30	0.5			1.0s	42.00nm									
	0.8s	134.33nm		5.8mb				i	32 49.00			DLE	126.08	338 ePKP	32 24.90	0.0							
		eS	34 00.00			FRB	117.05	15 ePKP	32 06.00	-1.2			0.8s	47.00nm									
POO	72.50	291 iPc	24 52.30	1.0		ZST	117.46	323 ePKP	32 09.10	0.6		FRF	126.09	322 ePKP	32 25.70	0.4							
	1.2s	87.50nm		5.4mb				e	32 27.80				1.3s	115.50nm									
BOM	73.53	291 eP	24 36.50	-20.7X				e	33 22.70			AVF	126.14	327 ePKP	32 25.40	0.1							
		eS	33 26.50			OHR	117.68	314 ePKP	32 09.20	-0.1			0.8s	12.00nm									
KSH	76.18	313 Pd	25 13.00	0.8		PRU	118.15	325 ePKP	32 10.00	0.2		LMR	126.30	322 ePKP	32 26.10	0.4							
SVW	80.90	25 ePd	25 38.00	0.7				e	33 28.20				1.1s	41.00nm									
QUE	81.01	302 iPd	25 39.60	0.9		CLL	118.35	327 iPKPd	32 10.50	0.4		DCN	126.30	339 ePKP	32 25.40	0.1							
		eS	35 41.70				1.0s	26.00nm					0.8s	87.00nm									
TTA	81.61	24 P	25 40.40	-0.6		KHC	119.12	325 PKPc	32 12.50	0.8		LRG	126.32	322 ePKP	32 26.20	0.5							
	1.0s	90.00nm		5.5mb			1.0s	14.00nm					1.0s	68.00nm									
PMR	83.94	26 ePd	25 52.00	-0.8				e	33 04.80			BGF	126.55	327 ePKP	32 26.60	0.5							
	1.3s	240.60nm		5.9mb		PTJ	119.15	321 e(PKP)	32 10.50	-1.5			0.8s	34.90nm									
IMA	83.98	21 ePd	25 53.20	0.1		UYO	119.18	54 ePKPc	32 11.30	-1.0		FLN	126.83	331 ePKP	32 26.60	0.1							
	1.3s	127.40nm		5.7mb				e	32 43.60				1.2s	41.60nm									
SPA	84.93	180 ePd	25 59.00	1.1				e	32 51.10			MAF	126.91	327 ePKP	32 27.40	0.6							
	1.0s	63.50nm		5.5mb		MOX	119.45	327 ePKP	32 13.00	0.7		TKL	126.99	49 PKP	32 26.80	-0.5							
	Z 20s	1.22um		5.3Msz			Z 20s	0.60um		5.2Msz		TCF	127.07	327 ePKP	32 27.80	0.7							
		i	26 27.80	110km				e	33 35.00				0.8s	33.50nm									
TOA	85.43	26 eP	26 00.60	0.2				eLR	11 30.00			GRR	127.27	331 ePKP	32 28.00	0.7							
BRW	85.52	16 eP	26 01.00	0.5		VBY	119.77	320 ePKP	32 13.80	0.8			0.8s	26.80nm									
FBA	85.74	23 eP	26 00.40	-1.3		LJU	119.99	321 ePKP	32 14.00	0.6		GAC	127.28	34 ePKP	32 28.00	0.6							
MAIO	88.17	307 eP	26 15.00	0.8		GRF	120.16	326 ePKP	32 14.20	0.5		LSF	127.46	327 ePKP	32 28.30	0.5							
	0.9s	25.58nm		5.3mb		CEY	120.19	321 ePKP	32 14.00	0.1			0.8s	18.80nm									
INK	92.11	22 eP	26 31.00	-0.7		KBA	120.24	323 ePKP	32 13.00	-1.1		LPF	127.60	331 ePKP	32 28.80	0.8							
	1.0s	51.00nm		5.8mb			1.0s	18.30nm					0.8s	40.20nm									
		pP	27 11.00	157kmX		VOY	120.39	322 ePKP	32 14.20	-0.1		CAF	127.99	326 ePKP	32 30.20	1.3							
AVY	93.80	251 eP	26 35.56	-5.2X		WIT	120.75	331 ePKP	32 17.00	2.4			1.3s	57.70nm									
GMW	96.24	43 P	26 51.90	0.7		FVM	121.17	48 PKP	32 15.00	-0.9		RJF	128.06	326 ePKP	32 30.00	1.0							
WDC	96.30	50 eP	26 51.90	0.3		WTS	121.18	330 ePKP	32 16.50	1.1			1.3s	36.10nm									
		e	27 03.20	36kmX			0.5s	12.00nm				MFF	128.11	329 ePKP	32 29.40	0.4							
		e	27 24.30			TDS	121.38	314 PKPd	32 17.00	0.7			1.2s	53.50nm									
BRK	96.45	53 e(P)	26 52.30	0.0		SGO	121.77	315 PKPd	32 16.80	-0.1		RSNY	128.52	34 PKP	32 28.50	-1.4							
BKS	96.47	53 eP	26 52.90	0.5		SDI	122.34	317 PKP	32 17.70	-0.4		LPO	128.63	326 ePKP	32 31.30	1.2							
	0.8s	34.00nm		5.9mb		ENN	122.36	330 ePKP	32 18.50	0.8			1.3s	86.60nm									
MBC	96.63	14 eP	26 51.00	-1.4			1.0s	50.00nm				LFF	128.72	327 ePKP	32 31.10	0.9							
	0.9s	17.00nm		5.6mb				e	32 51.50				1.3s	43.30nm									
LON	96.90	44 P	26 55.00	0.8				e	33 58.00			BLA	128.76	45 PKP	32 32.00	1.4							
MHC	96.93	53 e(P)	26 55.00	0.4		MEM	122.41	329 iPKPd	32 18.70	0.9		PEL	130.03	142 iPKPd	32 33.50	0.3							
MIN	97.01	50 ePc	26 54.60	-0.4		GWF	122.52	327 PKP	32 18.05	-0.1			1.0s	25.00nm									
ARN	97.02	53 P	26 55.00	0.1		WLF	122.91	328 PKP	32 20.60	1.8		EPF	130.14	325 ePKP	32 33.80	0.7							
ORV	97.08	51 ePc	26 55.10	0.0		FEL	122.93	326 PKP	32 18.98	-0.1			1.3s	39.70nm									
PRS	97.13	54 ePc	26 55.90	0.5		CDF	123.03	327 PKP	32 19.05	-0.2		CBN	130.38	43 ePKP	32 35.00	1.4							
LLA	97.48	54 eP	26 57.70	0.7		FIR	123.10	320 ePKP	32 19.50	0.1		UPA	137.14	82 ePKPc	32 43.00	-4.1X							
PRI	97.69	54 e(P)	26 58.70	0.6		EKA	123.23	338 PKPc	32 17.60	-1.7		PSO	139.06	94 ePKP	32 46.50	-4.7X							
CMB	97.93	52 e(P)	26 58.50	-0.5			0.7s	17.00nm				SLA	139.07	138 ePKPc	32 47.20	-3.4X							
PNT	98.34	41 eP	27 01.00	0.4		SNF	123.34	330 PKPd	32 20.60	1.0		ARE	139.30	122 ePKP	32 52.00	0.6							
FRI	98.47	53 eP	27 01.50	0.1		MOF	123.43	326 PKP	32 19.97	-0.1		IFR	139.39	318 iPKP	32 40.50	-10.5X							

			i	32	49.50	
CNCB	142.02	126	PKP	32	52.50	-4.1X
LPB	142.07	125	PKP	32	53.00	-3.5X
	1.0s		24.00nm			
ZOBO	142.19	125	PKP	32	52.70	-4.2X
BOG	142.57	89	ePKP	32	54.00	-3.4X
FUO	142.92	88	ePKP	33	03.50	5.6X
CCH	143.17	128	ePKP	32	58.00	-0.2
BMG	143.58	85	ePKP	32	45.00	-13.8X
SHGH	143.71	273	ePKP	32	57.00	-1.8
LEGH	143.84	273	ePKP	32	57.00	-2.1
KOGH	143.91	273	ePKP	32	57.00	-2.2
KUK	144.03	273	ePKP	32	58.00	-1.4
ITB7	145.38	151	ePKP	33	00.50	-0.9
ITB	145.64	151	ePKP	33	01.70	-0.2
ITB1	145.68	150	ePKP	33	02.00	0.1
MGP	147.47	64	PKP	33	05.00	0.1
CSB	148.21	63	PKP	33	09.50	3.3X
SJG	148.28	63	e(PKP)	33	06.00	-0.3
TIC	148.65	274	PKP	33	07.80	0.8
LIC	148.67	274	PKP	33	07.60	0.6
PPD	149.38	152	ePKP	33	11.80	3.9X
			e	33	23.40	
VAO	150.25	160	ePKP	33	15.10	5.8X
BMA	151.37	165	e(PKP)	33	26.00	15.1X
ITA	151.53	164	ePKP	33	19.10	7.6X
MGH	152.28	63	ePKP	33	19.00	6.7X
PAG	153.01	64	ePKP	33	14.00	0.6
BBL	153.37	65	ePKP	33	13.00	-0.9
DEG	153.46	63	ePKP	33	14.00	0.0
TRN	154.73	76	ePKP	33	14.00	-1.7
TPP	154.75	77	ePKP	33	17.18	1.5
BAO	156.46	151	ePKP	33	20.00	1.8
ATB	162.21	118	PKPd	33	25.70	1.3
SOB1	165.12	163	ePKP	33	26.90	-0.3
ITR	166.09	172	ePKP	33	29.60	1.6
			e	34	08.00	

S.D. = 0.9 on 267 of 298 obs.

APR 25, 1989 06h 11m 32.28± 0.76s
11.073 N ± 7.1km 86.761 W ± 7.9km
DEPTH = 46.2 ± 8.1 km
4.8mb (8 obs.) 4.5Msz (4 obs.)
NEAR COAST OF NICARAGUA (74)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 10S, 15C
Centroid Locotion:
Origin Time 06:11:25.7 1.3
Lot 11.32N 0.18 Lon 86.00W 0.29
Dep 15.0 FIX Holf-durotion 1.5
Moment Tensor; Scole 10**16 Nm
Mrr=-4.57 1.20 Mtt=-1.15 1.46
Mff= 5.72 2.14 Mrt= 5.20 2.60
Mrf=-8.87 3.67 Mtf=-0.63 1.04
Principol Axes:

T	Vol= 11.65	Plg=32	Azm= 73
N	-0.20	12	335
P	-11.46	55	226

Best Double Couple:Mo=1.2*10**17
NP1:Strike=199 Dip=17 Slip= -45
NP2: 332 78 -103

RIN3	1.39	102	ePc	11	55.90	0.3
			S	12	17.80	
JUD	1.50	127	ePc	11	55.60	-1.6
			S	12	17.20	
JTS	1.94	113	ePc	12	20.36	16.9X
			S	12	31.80	
CAO	2.13	130	ePc	12	05.40	-0.6
			S	12	32.60	
VACR	2.13	106	eP	12	07.50	1.4
EPA	2.39	117	ePc	12	10.50	0.8
			S	12	42.40	
POA2	2.62	110	eP	12	14.40	0.9
HDC2	2.79	112	ePd	12	16.50	0.8
			S	12	54.20	
IRZ2	3.02	111	ePd	12	19.80	0.6
QPS	3.07	122	ePd	12	19.50	-0.1
CDM	3.31	117	eP	12	23.20	-0.1
			S	13	06.50	
IDC	3.69	129	eP	12	27.70	-0.6
TIG	3.97	120	ePd	12	31.90	-0.4
PBC	4.52	125	ePd	12	38.60	-1.4
UPA	7.41	106	iPc+	13	25.70	5.0X
	1.0s		50.00nm		5.3mb	X
Z	19s		6.35um			

OXX	11.36	303	eP	14	14.50	-0.6
FUO	14.03	112	eP	14	51.00	0.3
BOG	14.11	116	eP	14	55.00	3.3X
			eS	17	54.00	
III	14.27	302	iPd	14	58.00	4.3X
JSC	23.64	11	eP	16	41.00	0.8
UYO	24.04	344	eP	16	43.00	-1.1
			e	17	00.00	
RSCP	24.44	2	eP	16	48.00	0.0
	1.0s		20.00nm		4.6mb	
CBN	28.30	16	eP	17	23.00	-0.5
ALQ	29.77	326	eP	17	35.70	-1.4
	0.8s		7.28nm		4.5mb	
ALQ	29.77	326	eP	17	37.00	-0.1
ARE	31.25	151	e(P)	17	51.00	0.6
ZOBO	32.83	146	P	18	04.00	-0.5
Z	20s		0.85um		4.4Msz	
			LR	29	26.00	
GLD	32.93	333	eP	18	12.00	7.3X
	1.0s		24.00nm		5.0mb	
GOL	32.95	333	eP	18	05.10	0.1
	1.0s		20.00nm		4.9mb	
Z	20s		0.90um		4.5Msz	
LPB	33.06	146	P	18	07.00	0.7
Z	22s		1.11um		4.5Msz	
			LR	27	03.00	
CNCB	33.35	146	P	18	12.00	3.0X
GLA	33.79	315	eP	18	13.00	0.8
PV09	33.84	328	eP	18	13.00	0.2
CCH	34.85	144	P	18	27.30	5.7X
RSNY	34.98	15	eP	18	21.00	-1.2
	1.0s		12.00nm		4.8mb	
Z	20s		2.26um		4.9Msz	
TPC	35.23	315	eP	18	08.00	-16.4X
PLM	35.39	314	eP	18	28.00	2.0
GAC	35.83	14	eP	18	29.00	-0.3
RVR	36.09	314	eP	18	42.00	10.3X
MWC	36.69	314	eP	18	38.00	1.0
SBB	36.77	315	eP	18	51.00	13.5X
CLC	37.23	316	eP	18	33.00	-8.3X
KVN	39.42	320	eP	19	01.50	1.7
RSON	40.08	353	eP	19	01.00	-3.8X
	1.1s		12.21nm		4.6mb	
CMB	40.31	317	e(P)	19	14.20	7.2X
LRM	40.97	332	eP	19	11.60	-0.9
ORV	41.87	319	e(P)	19	28.80	9.1X
MIN	42.37	320	e(P)	19	31.10	7.1X
FFC	45.18	348	eP	19	43.00	-3.3X
	0.6s		8.00nm		4.8mb	
SCH	46.40	16	eP	19	52.00	-4.0X
BAO	46.66	124	eP	19	59.30	0.7
PNT	46.85	331	eP	20	06.00	6.4X
	0.8s		11.00nm		4.9mb	
EDM	47.13	338	eP	20	01.00	-0.8
PPD	47.87	133	eP	20	07.40	-0.5
SOB1	49.87	112	e(P)	20	23.00	-0.5
FRB	54.15	10	eP	20	50.00	-4.8X
YKA	55.11	345	eP	20	47.20	-14.7X
WB5	139.50	252	ePKP	30	57.00	-0.4
HYB	148.19	27	ePKP	31	17.00	4.7X
CHG	149.78	349	ePKPd	31	20.60	5.9X
	1.1s		14.56nm			
LOE	150.49	343	ePKP	31	23.00	7.2X
KOD	153.66	37	ePKP	31	30.00	9.1X

S.D. = 0.9 on 38 of 62 obs.

APR 25, 1989 06h 16m 31.22± 0.91s
66.961 N ± 5.6km 156.404 W ±11.3km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 4.1 (PMR).

IMA	1.41	128	iPc	16	57.80	0.1
TTA	4.05	177	eP	17	35.10	-0.2
FBA	4.09	116	iPd	17	35.30	-0.4
BRW	4.37	359	eP	17	40.30	0.7
SVW	5.89	176	iPc	18	00.80	-0.4
PMR	6.25	146	ePd	18	06.20	0.0
TOA	6.57	133	eP	18	12.00	1.1
INK	8.81	71	eP	18	42.00	0.0
MBC	14.59	35	eP	19	59.00	-0.8

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

% APR 25, 1989 06h 28m 06.06± 3.77s
40.182 N ±20.6km 23.962 E ±21.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)

OUR	0.15	6	iPgc	28	09.50	-0.1
SOH	0.79	324	ePg	28	21.00	-0.4
			iSg	28	31.70	
THE	0.88	301	ePg	28	22.90	-0.1
			eSg	28	34.90	
SRS	0.98	343	iPgc	28	24.70	0.1
			eSg	28	37.20	
LIT	1.13	266	ePgd	28	27.00	-0.3
			eSg	28	43.40	
KNT	1.27	321	ePb	28	29.80	0.2
			eSb	28	46.70	
GRG	1.42	304	ePb	28	32.60	0.7
			eSb	28	51.90	

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

APR 25, 1989 06h 55m 08.64± 0.54s
39.305 N ± 5.2km 23.619 E ± 5.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.31	270	ePg	55	13.50	-1.5
OUR	1.07	15	iPgc	55	29.30	0.6
PLG	1.08	353	ePb	55	29.30	0.4
LIT	1.18	313	iPgc	55	29.60	-1.1
			iSg	55	44.10	
ATH	1.33	177	ePb	55	31.70	-1.5
THE	1.42	339	iPbc	55	33.80	-0.6
			iSb	55	51.50	
SOH	1.53	352	ePb	55	35.80	-0.2
KZN	1.74	306	ePb	55	38.00	-1.2
SRS	1.81	359	ePn	55	39.50	-0.6
GRG	1.90	331	ePn	55	40.40	-0.9
			e	56	03.70	
KNT	1.94	344	ePnc	55	41.80	-0.1
			eSn	56	05.10	
PRK	2.06	91	ePb	55	47.50	3.8X
EZN	2.16	75	ePn	55	44.00	-1.1
VAY	2.17	339	iPn	55	45.00	-0.2
RDO	2.35	38	ePn	55	47.20	-0.7
LSK	2.48	291	ePn	55	50.00	0.3
ITM	2.51	213	ePn	55	49.50	-0.6
KBN	2.53	302	ePn	55	51.30	1.0
OHR	2.81	311	iPn	55	55.90	1.3
SRN	2.85	283	ePn	55	57.50	2.5X
TPE	2.95	291	ePn	56	00.50	4.1X
IZM	2.99	107	ePn	55	58.00	1.1
SKO	3.14	329	ePn	55	54.00	-5.0X
PHP	3.40	316	ePn	56	13.00	10.3X
TIR	3.52	307	ePn	56	08.20	3.7
DST	3.89	84	ePn	56	10.00	0.2
VAM	3.92	173	ePn	56	12.00	1.9
BCI	4.08	320	e(Pn)	56	30.40	18.1X
MLR	6.42	15	iPd	56	54.50	8.9X

S.D. = 1.3 on 22 of 29 obs.

• APR 25, 1989 07h 21m 03.41± 1.20s
66.944 N ± 8.7km 156.260 W ±16.2km
DEPTH = 5.0km (geophysicist)
3.9mb (1 obs.)
ALASKA (676)
ML 4.5 (PMR).

FBA	4.03	117	iPd	22	06.40	-0.7
BRW	4.38	358	eP	22	12.20	0.1
SVW	5.87	177	ePc	22	32.00	-1.1
PMR	6.20	147	ePc	22	37.00	-0.8
TOA	6.52	133	ePc	22	43.30	1.0
DWY	7.57	105	P	22	56.00	-0.9
INK	8.76	71	eP	23	07.00	-6.5X
HYT	10.26	118	P	23	36.00	1.6
MBC	14.57	35	eP	24	30.00	-1.8
YKA	18.06	84	P	25	17.90	1.6X
PNT	25.60	115	eP	26	36.00	1.2
HFS	53.01	6	(P)	30	24.00	1.3
	0.3s		0.50nm		3.9mb	

S.D. = 1.4 on 10 of 12 obs.

APR 25, 1989 07h 34m 15.35± 0.48s
29.996 N ± 7.0km 99.338 E ± 5.7km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	3.92	75	Pn	35	15.40	0.6
KMI	5.72	147	Pn	35	41.00	0.6
LSA	7.12	270	P	36	04.00	3.7X

25d 07h

LZH	7.15	31	eP	36 00.00	-0.5
			Lg	38 00.00	
GYA	7.36	117	P	36 01.20	-2.1
			S	37 25.00	
XAN	9.08	61	P	36 23.30	-3.9X
GTA	9.40	2	eP	36 33.40	1.7
CHG	11.14	182	eP	36 57.00	1.6
GUN	11.97	263	P	37 06.40	-0.6
PKI	12.45	262	P	37 12.70	-0.7
	1.0s	72.00nm		5.7mb	X
KKN	12.51	263	P	37 13.20	-0.9
	0.7s	18.00nm		5.3mb	X
WHN	12.99	84	eP	37 16.50	-3.7X
N	10s	0.83um			
E	12s	0.96um			
			sP	37 29.50	
GKN	13.02	265	P	37 18.60	-2.2X
TIY	13.32	51	eP	37 20.00	-4.6X
TIA	16.13	63	eP	38 03.90	2.7X
WMQ	16.62	329	P	38 06.40	-1.0
Z	12s	0.70um			
N	10s	0.70um			
E	10s	0.75um			
BJI	17.02	49	eP	38 15.00	2.6X
			eS	43 01.00	
SSE	18.85	81	e(P)	38 33.50	-1.6
Z	12s	0.50um			
			S	39 56.00	
NDI	19.33	272	iPd	38 40.20	-0.6
KSH	21.34	302	eP	39 05.00	3.1X
HYB	22.73	241	eP	39 17.00	1.3
CN2	24.89	49	eP	39 37.00	0.6
Z	10s	0.80um		4.5MszX	
N	10s	0.50um			
WB5	59.97	141	iPc	44 29.40	8.4X
HFS	62.38	326	eP	44 36.60	-0.2
	0.6s	1.20nm		4.2mb	
NAO	63.60	327	P	44 45.70	0.8
	0.7s	1.80nm		4.3mb	
INK	74.51	18	eP	45 53.00	1.0
S.D. = 1.2		on	17 of	26 obs.	

? APR 25, 1989 07h 54m 07.47± 3.27s
66.914 N ±20.3km 156.398 W ±27.3km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.8 (PMR).

IMA	1.38	127	iPc	54 33.50	0.0
TTA	4.00	177	ePd	55 10.80	-0.1
FBA	4.07	116	ePd	55 11.00	-0.6
SVW	5.84	176	ePc	55 36.70	-0.1
PMR	6.21	146	eP	55 42.10	0.2
INK	8.82	70	eP	56 17.00	-1.4
YKA	18.12	84	P	58 23.10	2.1
S.D. = 1.3		on	7 of	7 obs.	

% APR 25, 1989 07h 55m 02.78± 0.67s
43.963 N ± 6.4km 10.445 E ± 5.6km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.8 (FIR).

BDI	0.15	48	Pc	55 05.90	-0.4
			eSg	55 07.80	
PII	0.25	167	Pc	55 07.60	-0.4
			eSg	55 10.90	
MME	0.29	39	Pc	55 08.90	-0.1
			eSg	55 13.90	
FIR	0.62	107	ePg	55 16.00	0.8
			iSg	55 24.00	
PGD	0.93	95	P	55 20.20	-0.4
SFI	1.02	92	Pd	55 22.50	0.5
BOB	1.08	319	P	55 24.40	1.3
CKI	1.62	287	P	55 31.30	-0.2
MDI	1.89	344	P	55 34.20	-1.1
RBL	3.32	41	P	56 37.00	41.1X
S.D. = 0.9		on	9 of	10 obs.	

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* APR 25, 1989 08h 03m 52.42± 0.74s
17.453 S ±13.8km 167.665 E ±11.5km
DEPTH = 10.0km (geophysicist)
4.5mb (2 obs.)
VANUATU ISLANDS (186)

PVC	0.68	115	iPd	04 05.70	-0.2
			iS	04 14.00	
DZM	4.74	194	iPc	05 05.80	0.1
			iS	06 00.40	
CTA	20.44	259	iPc	08 38.40	5.6X
	1.1s	25.32nm		4.5mb	
ASPA	32.16	253	eP	10 22.30	-0.4
SPA	72.66	180	e(P)	15 22.30	0.2
	1.0s	5.00nm		4.6mb	
CDF	145.22	337	ePKP	23 30.70	-1.3
	0.6s	7.20nm			
BSF	145.89	337	ePKP	23 33.50	0.3
	0.6s	3.60nm			
HAU	145.90	337	ePKP	23 32.60	-0.5
	0.6s	3.60nm			
SSF	147.71	340	ePKP	23 37.90	1.9
	0.5s	2.10nm			
GRR	147.75	346	ePKP	23 42.40	6.4X
	0.5s	4.30nm			
LPG	147.82	334	ePKP	23 38.80	2.2X
	0.5s	2.90nm			
LPF	148.13	346	ePKP	23 43.60	7.0X
	0.5s	5.80nm			
MFF	149.23	343	ePKP	23 46.40	8.0X
	0.5s	3.40nm			
S.D. = 1.1		on	8 of	13 obs.	

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* APR 25, 1989 08h 07m 57.58± 1.14s
10.669 N ± 9.5km 62.767 W ± 8.6km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF VENEZUELA (97)

TCE	1.00	88	eP	08 14.66	-1.8
			eS	08 28.21	
TPP	1.34	105	eP	08 22.72	0.4
			eS	08 42.36	
TRN	1.34	91	eP	08 20.54	-1.7
			eS	08 38.07	
CUM	1.39	262	eP	08 23.00	0.0
			iS	08 48.50	
TBH	1.68	96	eP	08 28.98	1.8
BOT	2.07	76	eP	08 33.58	0.8
FCV	2.89	31	eP	08 45.47	1.0
			eS	09 22.66	
SVB	2.98	30	eP	08 47.32	1.5
			eS	09 23.04	
SVV	3.04	30	eP	08 48.34	1.7
			eS	09 24.25	
BIM	4.17	23	eP	09 02.62	-0.1
MVM	4.27	25	eP	09 04.08	-0.1
FDF	4.34	21	eP	09 05.03	-0.1
			S	09 53.50	
BBL	4.99	14	eP	09 19.00	4.7X
PAG	5.43	11	eP	09 21.00	0.3
SEG	5.83	12	eP	09 24.00	-2.2
DEG	5.85	16	eP	09 25.00	-1.5
MGH	6.04	5	eP	09 20.00	-9.1X
YKA	63.58	336	eP	18 32.90	2.4X
S.D. = 1.4		on	15 of	18 obs.	

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* APR 25, 1989 08h 14m 57.34± 0.67s
29.706 N ±11.8km 99.291 E ± 6.6km
DEPTH = 10.0km (geophysicist)
SICHUAN PROVINCE, CHINA (307)

CD2	4.04	72	Pn	16 00.80	0.1
			Pg	16 11.60	
			Sg	17 01.60	
KMI	5.50	145	Pn	16 20.00	-1.5
GYA	7.27	115	P	16 47.00	0.7
			eS	18 08.80	
LZH	7.42	30	eP	16 47.00	-1.5
Z	10s	0.80um			
			Lg	18 50.00	
XAN	9.26	60	P	17 09.10	-4.8X
GUN	11.90	265	P	17 52.00	1.6
PKI	12.38	263	P	17 57.90	1.1
	0.8s	17.00nm		5.3mb	
DMN	12.63	264	P	17 58.60	-1.5
	0.6s	10.00nm		5.2mb	
GKN	12.96	266	P	18 03.50	-0.9
BTO	13.95	36	eP	18 13.00	-4.4X
N	10s	0.50um			
E	10s	0.90um			
TIA	16.30	62	Pc	18 49.20	1.3
HYB	22.56	242	eP	20 06.00	6.9X
WB5	59.77	141	eP	25 05.50	0.5
S.D. = 1.4		on	10 of	13 obs.	

% APR 25, 1989 08h 54m 10.20± 0.86s
39.274 N ± 7.1km 27.898 E ± 8.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.66	59	iPg	54 22.90	-0.4
			iSg	54 33.90	
IZM	1.01	210	ePg	54 29.50	0.2
			eSg	54 44.00	
KCT	1.04	20	iPn	54 30.00	0.2
EDC	1.07	359	iPn	54 30.20	-0.2
BNT	1.08	1	iPn	54 31.00	0.5
EZN	1.33	295	ePn	54 34.40	-0.4
KHL	1.59	126	ePn	54 43.00	4.5X
S.D. = 0.5		on	6 of	7 obs.	

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* APR 25, 1989 08h 56m 07.02± 0.92s
43.071 N ± 7.6km 12.990 E ± 6.5km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

CIO	0.17	42	iPg	56 11.31	0.4
			iSg	56 14.70	
ASS	0.24	270	Pc	56 12.20	0.0
			eSg	56 16.40	
ARV	0.43	355	Pd	56 15.80	0.0
			eSg	56 23.10	
ALP	0.52	124	e(Pg)	56 17.60	0.0
			iSg	56 27.00	
AOI	0.65	43	e(Pg)	56 19.61	-0.5
			iSg	56 31.07	
S.D. = 0.5		on	5 of	5 obs.	

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* APR 25, 1989 09h 09m 33.79± 0.99s
5.530 S ±18.1km 150.954 E ±12.7km
DEPTH = 92.6 ± 17.8 km
4.3mb (2 obs.)
NEW BRITAIN REGION (192)

RAB	1.80	42	iPd	10 04.00	0.0
	0.5s	1802.82nm			
			iS	10 28.00	
LAT	4.09	254	eP	10 40.50	5.3X
BGA	4.25	99	eP	10 45.00	7.4X
LMG	4.36	219	eP	10 38.50	-0.6
PAA	4.58	100	eP	10 42.00	-0.1
PMG	5.39	224	eP	10 54.00	0.7
CTA	15.18	197	iPc	13 09.10	4.7X
	1.0s	20.00nm		4.3mb	
WB5	21.54	227	eP	14 10.70	-6.4X
			eS	18 07.80	
BRS	21.81	176	iP	14 20.00	0.2
ASPA	24.39	221	iPc	14 44.60	-0.3
	0.8s	12.00nm		4.4mb	
WARB	31.00	226	eP	15 34.50	-10.3X
S.D. = 0.7		on	6 of	11 obs.	

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* APR 25, 1989 09h 10m 51.60± 1.80s
36.501 N ±13.4km 140.472 E ±15.0km
DEPTH = 49.5 ± 21.6 km
NEAR EAST COAST OF HONSHU, JAPAN(228)
MG 3.6 (JMA). Felt (II JMA) ot Mito.

MIT	0.12	180	iP+	10 59.80	0.4
			iS	11 06.40	
KAKJ	0.38	219	iP+	11 01.10	-0.4
			S	11 08.40	
CHJJ	1.28	250	iPd	11 12.50	-0.9
			S	11 28.10	
NIIJ	1.39	302	iPd	11 14.70	-0.3
			S	11 35.60	
YAMJ	1.70	348	eP	11 19.80	0.4
MAT	1.82	272	eP	11 21.00	-0.1
			eS	11 48.00	
MTMJ	2.15	273	iPd	11 26.00	0.2
IIDJ	2.31	245	iP+	11 28.90	0.9
			S	11 58.90	
OFUJ	2.74	20	eP	11 33.70	-0.4
S.D. = 0.7		on	9 of	9 obs.	

APR 25, 1989 10h 27m 44.48± 0.54s
29.890 N ± 7.4km 99.296 E ± 5.7km
DEPTH = 10.0km (geophysicist)
SICHUAN PROVINCE, CHINA (307)

CD2	3.99	74	Pn	28 47.80	0.8

KMI	5.65	146	Pn	29	12.00	1.3
LSA	7.08	270	P	29	35.60	4.5X
LZH	7.26	31	eP	29	34.00	0.6
			Lg	31	36.00	
GYA	7.35	116	P	29	34.00	-0.5
XAN	9.16	61	P	29	56.10	-3.6X
GTA	9.51	2	eP	30	05.80	1.2
GUN	11.92	264	P	30	38.60	0.8
PKI	12.41	263	P	30	44.40	0.1
KKN	12.47	264	P	30	44.80	-0.2
GKN	12.98	265	P	30	51.40	-0.4
BTO	13.80	36	eP	31	01.00	-1.6
	N 10s		0.60um			
	E 11s		0.90um			
WMQ	16.69	330	eP	31	39.40	-0.6
HYB	22.65	241	eP	32	50.00	2.9X
WB5	59.91	141	eP	37	51.50	-1.6
	S.D. = 1.1		on 12 of 15 obs.			

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* APR 25, 1989 10h 33m 02.55± 1.02s
66.900 N ± 8.0km 156.337 W ±14.4km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.5 (PMR).

IMA	1.35	127	eP	33	28.50	0.4
TTA	3.99	178	eP	34	05.70	0.0
FBA	4.04	116	eP	34	05.90	-0.4
BRW	4.43	358	ePd	34	11.80	0.0
SVW	5.82	177	eP	34	31.60	-0.1
YKA	18.10	84	P	37	21.50	5.7X
	S.D. = 0.4		on 5 of 6 obs.			

% APR 25, 1989 11h 16m 17.42± 2.82s
33.626 S ± 8.1km 71.741 W ±22.1km
DEPTH = 17.7 ± 10.9 km
NEAR COAST OF CENTRAL CHILE (135)

LCCH	0.21	44	iPd	16	22.70	0.2
			iS	16	28.40	
LNV	0.43	140	iPd	16	25.90	-0.3
			iS	16	33.50	
TACH	0.67	93	iP	16	30.10	-0.2
			iS	16	40.90	
CHCH	0.96	109	iPd	16	35.80	0.6
PEL	1.01	62	iP	16	36.00	0.0
			iS	16	51.60	
PCH	1.02	90	iPd	16	36.10	-0.3
			iS	16	52.50	
FCH	1.25	77	iPd	16	40.60	0.3
			iS	16	59.50	
JACH	1.35	46	iPd	16	41.20	-0.3
			iS	17	00.00	
	S.D. = 0.4		on 8 of 8 obs.			

APR 25, 1989 11h 31m 57.47± 0.40s
42.332 N ± 3.9km 19.958 E ± 3.4km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.4 (TTG).

BCI	0.09	67	iPg	32	00.00	0.0
PVY	0.26	3	iPgd	32	02.70	-0.4
			iSg	32	08.10	
PUK	0.29	189	iPgd	32	03.10	-0.5
KKS	0.42	127	ePg	32	05.50	-0.6
TTG	0.53	281	ePg	32	07.60	-0.5
			eSg	32	16.50	
IVA	0.54	355	ePg	32	08.50	0.1
			eSg	32	16.50	
ULC	0.64	235	ePg	32	10.50	0.1
			eSg	32	20.50	
PHP	0.74	151	iPgc	32	23.10	11.2X
BDV	0.84	267	ePg	32	14.00	0.3
			eSg	32	26.00	
TIR	0.99	184	ePg	32	27.50	11.3X
HCY	1.09	277	ePg	32	18.30	0.4
			eSg	32	36.50	
SKO	1.16	108	ePg	32	19.00	-0.1
			iSg	32	35.00	
OHR	1.37	152	ePn	32	22.70	0.0
VAY	2.20	116	ePn	32	35.70	1.2
	S.D. = 0.5		on 12 of 14 obs.			

APR 25, 1989 11h 44m 17.58± 1.12s
42.986 N ± 5.4km 13.701 E ±10.5km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

ALP	0.22	204	iPgd	44	22.33	-0.2
			iSg	44	26.26	
CIO	0.46	297	iPg	44	26.30	-0.6
			iSg	44	34.57	
AOI	0.57	353	e(Pg)	44	29.40	0.3
			iSg	44	40.75	
ARV	0.76	313	P	44	32.60	0.2
			eSn	44	42.70	
ASS	0.77	277	P	44	32.30	-0.3
			eSg	44	43.50	
MNS	0.96	232	P	44	36.90	1.0
SDI	1.28	176	P	44	41.00	-0.4
	S.D. = 0.7		on 7 of 7 obs.			

APR 25, 1989 13h 42m 59.97± 1.01s
66.902 N ± 7.9km 156.331 W ±14.2km
DEPTH = 10.0km (geophysicist)
ALASKA (676)
MD 2.4 (TTG).

IMA	1.35	127	ePc	43	25.20	0.2
TTA	3.99	178	eP	44	02.60	0.0
FBA	4.04	116	ePd	44	02.90	-0.2
BRW	4.43	358	eP	44	08.60	0.0
SVW	5.83	177	eP	44	28.40	-0.1
	S.D. = 0.2		on 5 of 5 obs.			

? APR 25, 1989 13h 43m 12.35± 3.07s
51.381 N ±54.1km 179.513 W ± 9.7km
DEPTH = 33.0km (normol)
4.4mb (1 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK	1.83	73	eP	43	42.50	0.5
SMY	4.17	291	e(P)	44	15.50	0.4
IMA	19.68	32	e(P)	47	41.80	0.4
FBA	21.22	38	e(P)	47	51.50	-5.6X
YKA	35.55	46	P	50	07.20	-0.7
NAO	67.84	355	P	54	08.20	-0.6
	0.9s		2.80nm		4.4mb	
	S.D. = 0.8		on 5 of 6 obs.			

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* APR 25, 1989 13h 52m 36.57± 1.10s
38.916 N ±12.1km 21.090 E ±15.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 2.9 (ATH).

VLS	0.84	208	ePg	52	52.50	-0.2
LIT	1.60	42	ePn	53	04.60	-0.4
NEO	1.70	76	ePb	53	08.00	1.5
ITM	1.86	159	ePg	53	12.80	4.1X
OHR	2.20	354	ePn	53	14.50	0.7
PLG	2.33	51	ePn	53	14.00	-1.6
SKO	3.06	5	ePn	53	29.50	3.6X
	S.D. = 1.6		on 5 of 7 obs.			

? APR 25, 1989 13h 55m 02.90± 1.02s
39.080 N ± 8.9km 27.537 E ±17.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.71	198	ePg	55	17.00	0.0
			eSg	55	30.00	
DST	1.00	58	iPn	55	21.80	0.0
EDC	1.29	11	ePn	55	26.60	-0.2
BNT	1.31	13	iPn	55	27.30	0.2
	S.D. = 0.3		on 4 of 4 obs.			

? APR 25, 1989 14h 16m 04.15± 2.39s
42.394 N ± 8.3km 0.381 W ±39.2km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.0 (LDG).

EPF	0.83	40	Pg	16	20.00	-0.2
			Sg	16	33.80	
EBR	1.70	157	ePn	16	34.00	0.0
			eSg	16	58.00	
LPO	2.56	26	Pg	16	41.70	-4.6X
			Sg	17	10.60	
LFF	2.67	17	Pg	16	47.30	-0.7
			Sg	17	20.20	
CAF	3.09	34	Pn	16	41.60	-12.3X
			Pg	16	47.80	
			Sn	17	10.60	
			Sg	17	20.20	
TCF	4.31	25	Pg	17	12.20	0.9
			Sn	17	43.10	
			Sg	18	04.30	
MAF	4.37	28	Pg	17	11.40	-0.7
			Sg	18	01.00	
BGF	4.76	28	Pg	17	18.30	0.7
			Sg	18	13.50	
	S.D. = 0.9		on 6 of 8 obs.			

% APR 25, 1989 14h 18m 12.33± 0.52s
60.589 N ± 4.6km 5.885 E ± 5.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

BER	0.34	233	iP	18	19.24	-0.1
			iS	18	23.95	
ASK	0.36	253	iP	18	19.85	0.2
			iS	18	24.67	
HYA	0.60	14	iP	18	23.99	-0.4
			iS	18	32.03	
SUE	0.72	311	iP	18	26.08	-0.5
			iS	18	35.08	
ODD1	0.77	151	eP	18	27.30	-0.1
			iS	18	37.33	
BLS1	1.29	158	eP	18	36.67	0.3
			iS	18	52.65	
KMY	1.42	193	eP	18	38.21	0.1
			eS	18	55.47	
MOL	2.14	21	iP	18	49.79	1.2
			eS	19	12.04	
			iSg	19	18.58	
NRA0	2.79	85	iPd	18	57.10	-0.7
			iPg	19	05.40	
			iSg	19	36.50	
	S.D. = 0.7		on 9 of 9 obs.			

APR 25, 1989 14h 29m 00.51± 0.15s
16.773 N ± 3.1km 99.328 W ± 2.7km
DEPTH = 19.2km (geophysicist)
6.2mb (56 obs.) 6.8Msz (29 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)
Ms 7.1 (BRK), 6.5 (PAS).
Mo=1.4*10**19 Nm (PPT). Three people killed, a few injured ond some damoge ot Mexico City. Minor domoge reported in the Acapulco oreo. Felt strongly in much of southern Mexico ond os for oway os Guadolojaro. Depth from broodbond displocement seismogroms.
FAULT PLANE SOLUTION: P-Woves
NP1:Strike=121 Dip=77 Slip= 90
NP2: 301 13 90
Principol Axes:
T Plg=58 Azm= 31
P 32 211
Comment: The focol mechonism is poorly controlled ond corresponds to reverse foulting. The preferred foult plone is NP2.
RADIATED ENERGY
No. of sto: 9 Focal mech. C
Energy 2.5±0.8*10**14 Nm
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 20S, 54C M.W.: 16S, 32C
Centroid Locotion:
Origin Time 14:29: 5.9 0.1
Lot 16.83N 0.01 Lon 99.12W 0.01
Dep 15.0 BDY Holf-durotion 9.0
Moment Tensor; Scole 10**19 Nm
Mrr= 0.73 0.01 Mtt=-0.66 0.01
Mff=-0.06 0.01 Mrt= 1.94 0.04
Mrf=-1.19 0.04 Mtf= 0.22 0.01
Principol Axes:
T Vol= 2.40 Plg=54 Azm= 36
N -0.03 4 300
P -2.38 36 207
Best Double Couple:Mo=2.4*10**19
NP1:Strike=276 Dip=10 Slip= 66
NP2: 121 81 94
GEOSCOPE MOMENT TENSOR (PAR)

25d 14h

Dep 15.0 Half-duration 20.0
Best Double Couple:Mo=2.6*10**19
NP1:Strike=164 Dip=83 Slip= 101
NP2: -73 13 33

ACX	0.52	281	iP	29	08.50	-2.3
III	1.60	355	iP	29	29.50	1.4
IIT	2.44	23	iP	29	42.00	1.8
OXX	2.51	83	iP	29	41.50	0.2
UNM	2.55	3	iP	29	44.50	2.6
TAC	2.62	3	iP	29	45.00	2.1
CRX	2.64	353	iP	29	46.00	2.8X
IISM	2.88	40	iP	29	46.50	0.2
IIC	2.98	1	iP	29	48.00	0.0
COLM	4.79	301	iP	30	13.00	-0.6
SCX	6.41	89	iP	30	38.00	1.6
TPX	7.05	104	iP	30	45.25	-0.1
MZX	9.24	315	iP	31	17.50	1.7
SSS	10.25	106	eP	31	29.00	-0.8
SRA	15.92	113	iPc	32	47.70	2.3
SJS	16.33	113	iPc	32	53.00	2.4
LCR2	16.47	113	eP	32	53.80	1.4
BUS	16.76	113	eP	32	58.00	1.6
GCM	17.25	79	eP	33	01.50	-0.5
			eS	36	17.25	
UYO	17.86	13	iP	33	07.20	-2.4
ALQ	19.19	342	iPc+	33	25.10	-0.9
	2.0s	4411.77nm			6.4mb	
LNO	19.32	9	P	33	21.60	-5.8X
OLY	19.93	19	P	33	31.60	-2.5
PWLA	20.74	27	P	33	40.20	-2.4
UPA	20.78	109	iPc+	33	43.10	0.0
	1.2s	259.38nm			5.5mb	
			i	33	50.50	
			i	33	59.00	
			iS	37	40.00	
GLA	21.41	322	P	33	49.00	-0.5
GLA	21.41	322	eP	33	54.60	5.1X
IKP	21.91	319	eP	34	00.20	5.6X
BAR	22.29	318	eP	33	59.00	0.8
ELC	22.30	22	P	33	56.30	-1.9
HAY	22.35	322	eP	34	04.40	5.5X
RSCP	22.40	31	P	33	57.40	-1.9
FVM	22.54	19	P	33	58.40	-2.2
CPE	22.69	318	eP	34	09.00	6.8X
PLM	22.85	320	eP	34	05.00	1.0
TPC	22.87	322	eP	34	05.00	0.9
PRM	23.00	38	P	34	04.20	-1.1
GBTN	23.14	33	P	34	05.40	-1.2
GOL	23.44	348	P	34	09.80	0.0
GLD	23.46	349	P	34	09.60	-0.3
RVR	23.60	320	eP	34	12.00	1.0
SCI	23.69	316	eP	34	18.50	6.5X
CIS	23.86	317	eP	34	19.80	6.1X
GSC	24.16	323	iP+	34	18.50	1.9
MWC	24.17	319	eP	34	19.00	2.2
PAS	24.19	319	ePc	34	19.25	2.4
			ePg	35	05.00	
			ePcP	37	55.00	
			eS	38	50.34	
			Lg	39	50.00	
			eLR	40	51.00	
LHS	24.21	40	P	34	06.80	-10.2X
SBB	24.34	321	eP	34	25.70	7.4X
CLC	24.98	323	iP+	34	25.50	1.0
ISA	25.39	321	iP+	34	30.00	1.6
SYP	25.58	318	eP	34	32.00	1.7
CHN	26.03	114	iPc	34	37.00	2.3
BCH	26.07	319	P	34	35.00	0.3
DUG	26.11	336	P	34	35.10	0.0
BLA	26.33	36	P	34	37.00	0.0
COTA	26.35	126	eP	34	39.50	1.5
PSO	26.63	123	eP	34	41.00	0.6
CAYA	26.79	126	eP	34	42.50	0.5
EUR	26.88	331	iP	34	42.50	0.2
CHI	26.98	19	iP	34	43.00	0.1
FRI	27.02	322	ePc	34	42.90	-0.4
PRI	27.04	320	ePc	34	44.30	0.6
MNA	27.17	326	ePc	34	46.40	1.5
BMG	27.40	107	eP	34	45.50	-1.6
FUQ	27.46	111	iP	34	55.50	7.5X
LLA	27.52	320	ePc	34	47.90	0.0
BOG	27.56	113	iPc	34	51.00	2.2
KVN	27.60	327	P	34	47.50	-1.3
PRS	27.60	319	ePc	34	49.20	0.6
SAO	27.92	320	eP	34	51.10	-0.4
Z	21s	47.00um			6.1Msz	
N	21s	212.00um				
E	21s	403.00um				
			iS	39	44.00	
			eLQ	42	02.00	
			eLR	42	59.00	
CMB	28.12	323	ePc	34	53.54	0.1
			eS	39	33.00	
PTI	28.29	340	P	34	55.00	0.0
MHC	28.41	321	ePc	34	56.70	0.6
Z	20s	55.00um			6.2Msz	
N	20s	311.00um				
E	20s	486.00um				
			iS	39	54.00	
			eLQ	42	14.00	
			eLR	43	16.00	
			e	45	36.00	
GCC	28.43	320	eP	34	56.40	0.3
PCC	28.96	320	eP	35	01.40	0.5
BKS	29.11	321	iPc	35	01.20	-1.1
	3.0s	7000.00nm			6.9mb	
Z	20s	24.00um			5.8MszX	
N	21s	252.00um				
E	21s	350.00um				
			iS	40	05.00	
			eLQ	42	08.00	
			eLR	43	21.00	
			eLR	45	52.00	
BRK	29.13	321	eP	35	03.20	0.8
ORV	29.80	324	ePc	35	09.30	0.9
BGMT	30.31	342	eP	35	13.30	0.1
MIN	30.40	325	ePc	35	14.10	0.2
MGP	30.77	83	P	35	17.00	-0.2
SXM	30.92	344	eP	35	18.10	-0.4
LRM	30.97	342	eP	35	18.50	-0.5
WDC	31.08	324	ePc	35	18.00	-1.7
BUT	31.18	342	eP	35	21.30	0.6
LBFM	31.26	326	P	35	21.20	-0.3
DHN	31.61	30	P	35	23.00	-1.4
FHC	32.05	323	ePc	35	29.30	1.1
GMTN	32.38	37	iP	35	30.30	-0.7
PNJ	32.41	37	iP	35	32.30	1.0
			pP	35	38.80	23kmX
			PP	36	38.40	
TBR	32.52	37	P	35	31.40	-0.9
RSON	34.30	6	P	35	44.80	-2.8X
DPW	34.68	337	P	35	51.00	0.0
RSNY	34.68	32	P	35	49.70	-1.3
CUM	34.70	96	eP	35	51.00	-0.5
			iPP	36	45.60	
			iPPP	37	15.80	
HRV	34.93	37	ePc	35	52.76	-0.3
			epPd	36	00.21	25kmX
			eS	41	20.14	
			ePcS	41	35.53	
GAC	35.05	30	eP	35	53.00	-1.1
LON	35.22	333	ePc	35	55.61	-0.1
			epPd	36	02.07	22kmX
			ePP	37	21.53	
MGH	35.50	85	eP	35	57.00	-1.4
ANG	35.83	84	eP	36	04.00	2.9X
PAG	36.09	86	eP	36	01.00	-2.4
SEG	36.21	85	eP	36	02.00	-2.3
GMW	36.26	333	P	36	03.40	-1.0
BBL	36.34	86	eP	36	03.00	-2.4
PNT	36.40	338	eP	36	05.00	-0.6
BNH	36.43	34	P	36	06.40	0.6
DEG	36.65	85	eP	36	03.00	-5.1X
FDF	36.76	88	iPd	36	06.50	-2.5
			S	42	05.00	
SVV	36.93	90	eP	36	10.00	-0.4
FCV	36.93	90	eP	36	09.65	-0.7
TCE	36.95	94	eP	36	09.00	-1.6
MCW	37.15	334	P	36	11.60	-0.3
TRN	37.30	94	eP	36	12.90	-0.5
TPP	37.33	95	eP	36	12.57	-1.2
PGC	37.39	333	eP	36	14.00	0.2
	1.4s	578.00nm			6.2mb	
TBH	37.66	95	eP	36	12.82	-3.7X
TPR	37.77	93	eP	36	12.68	-4.8X
FFC	37.93	357	iPc	36	17.10	-1.2
	1.2s	1571.00nm			6.7mb	
EDM	38.00	346	iPc	36	18.20	-0.7
	1.8s	4600.00nm			7.0mb	
ARE	42.94	139	eP	37	01.00	0.6
ZOBO	45.00	135	eP	37	17.44	0.0
	1.0s	27.50nm			5.1mb X	
LPB	45.20	136	Pc	37	19.90	1.0
	1.4s	279.07nm			6.0mb	
Z	20s	37.23um			6.3Msz	
			S	44	55.00	
			LR	52	56.00	
SCH	45.47	26	ePc	37	18.50	-1.6
	1.0s	451.00nm			6.4mb	
CNCB	45.48	136	P	37	13.90	-7.3X
YKC	46.88	350	ePc	37	29.20	-1.9
	1.0s	450.00nm			6.5mb	
YKA	46.91	350	P	37	30.20	-1.1
SIT	48.42	335	eP	37	43.00	-0.2
Z	19s	335.00um			7.3Msz	
ANT	49.15	144	eP	37	50.00	0.7
ATB	50.60	109	Pd	37	58.70	-1.8
FRB	51.47	17	eP	38	05.00	-1.4
	1.5s	1718.00nm			6.8mb	
RKT	52.79	222	iP	38	16.50	-0.4
	1.6s	610.00nm			6.3mb	
SLA	52.82	141	e(P)	38	17.00	-0.3
HON	55.39	285	P	38	36.60	0.5
Z	20s	32.45um			6.4Msz	
CYA	55.44	144	e(P)	38	34.00	-2.3
TOA	55.86	336	eP	38	39.50	0.5
INK	55.89	345	eP	38	37.00	-2.0
	1.0s	750.00nm			6.7mb	
			pP	39	17.00	174kmX
ZON	56.33	148	e(P)	38	33.00	-9.7X
PEL	56.68	151	eP	38	46.50	1.3
	1.2s	104.69nm			5.7mb	
PMR	56.80	334	eP	38	44.10	-1.5
	1.2s	390.60nm			6.3mb	
Z	18s	210.00um			7.3Msz	
TACH	56.99	152	eP	38	47.00	-0.3
FCH	57.02	151	eP	38	47.00	-0.9
LNV	57.03	152	eP	38	47.50	-0.1
RUV	57.07	239	iP	38	48.60	0.4
	1.4s	220.00nm			6.0mb	
TPT	57.16	239	iP	38	49.20	0.4
	1.4s	145.00nm			5.8mb	
VAH	57.30	239	iP	38	50.10	0.3
	1.4s	145.00nm			5.8mb	
PMO	57.40	239	iP	38	50.90	0.5
	1.4s	185.00nm			5.9mb	
COL	57.97	338	ePc	38	53.40	-0.5
			epPd	39	00.02	22kmX
			ePP	41	04.18	
			ePPP	42	31.91	
			eS	46	56.24	
			esS	47	07.28	
FBA	57.97	338	eP	38	52.70	-1.2
RFA	59.06	151	ePd	38	59.40	-2.5
SVW	59.41	332	eP	39	07.70	3.7X
GDH	59.60	17	iPd	39	25.30	20.2X
	0.8s	134.33nm				
			i	41	18.00	
			i	42	36.00	
			i	47	15.00	
TVO	59.96	237	iP	39	08.40	0.1
	1.4s	250.00nm			6.2mb	
PPN	59.97	238	iP	39	08.40	0.1
	1.4s	120.00nm			5.8mb	
BAO	60.01	120	eP	39	06.10	-2.7X
PPT	60.11	238	iP	39	09.70	0.4
	1.4s	102.00nm			5.8mb	
Z	18s	9.00um			6.0Msz	
ITB1	60.12	132	e(P)	39	07.50	-1.7
PAE	60.16	238	iP	39	09.90	0.3
	1.4s	170.00nm			6.0mb	
AFR	60.26	238	iP	39	10.60	0.3
	1.4s	100.00nm			5.8mb	
TTA	60.28	334	P	39	07.60	-2.4
MBC	60.40	355	eP	39	09.00	-1.5
	1.6s	1287.00nm			6.8mb	
IMA	60.68	338	ePc	39	11.10	-1.7
	2.9s	2604.20nm			6.9mb	
PPD	60.81	128	eP	39	12.10	-2.0
SOB1	63.29	110	eP	39	28.60	-2.2
			e	39	54.80	
BRW	64.03	342	eP	39	32.80	-2.0
VAO	64.68	126	eP	39	37.10	-2.7X
ITR	65.35	108	eP	39	42.70	-1.5
			e	40	00.80	
ITA	66.12	124	eP	39	48.90	-0.5
BMA	66.72	124	eP	39	57.90	5.0X
ALE	67.37	5	eP	39	54.00	-2.1
	1.5s	543.00nm			6.5mb	
ADK	69.20	320	eP	40	05.70	-2.2

		1.1s	600.00nm			6.7mb					iPS	52	52.00			MOF	88.33	40	P	41	52.50	0.1
REY		69.56	27	iPd	40	13.20	3.4X	ALOJ	84.11	53	iPc	41	32.50	0.6		LOMF	88.34	41	P	41	52.52	0.1
RAR		70.26	240	P	40	20.00	5.1X	MFF	84.13	43	eP	41	31.10	-0.5		UPP	88.37	27	iP	41	49.90	-2.3
				S	49	28.00		ATEJ	84.24	53	iPd	41	32.50	-0.1			1.4s	300.00nm			6.4mb	
AKU		71.24	26	iP	40	22.40	2.3	IFR	84.32	57	iPc	41	34.50	1.4					iPP	45	18.50	
		1.7s	846.15nm			6.6mb		ASMO	84.32	53	iPd	41	33.00	0.1					iS	52	21.00	
	Z	18s	109.97um			7.2Msz		ACHM	84.32	53	iPc	41	35.00	2.1		STR	88.43	39	P	41	53.70	1.0
TBT		74.78	64	iP	40	43.20	1.7	APHE	84.48	53	iPd	41	35.00	1.2		BBS	88.72	41	P	41	54.57	0.4
SMY		74.78	321	eP	40	42.70	1.6	CRT	84.48	53	iP	41	36.00	2.3		FEL	88.86	40	P	41	56.65	1.7
	Z	18s	36.00um			6.7Msz		AFC	84.50	53	P	41	34.00	0.1		EMS	88.90	42	eP	41	56.60	1.3
CVVD		74.92	65	eP	40	57.40	15.0X	AFC	84.50	53	eP	41	36.00	2.1		LPG	89.01	43	eP	41	55.70	-0.3
CTFE		76.24	64	iPd	40	52.60	2.7X	ETOR	84.57	49	iP	41	35.20	1.1			1.4s	119.30nm			6.0mb	
				i	42	19.50		EVIA	84.88	51	eP	41	35.50	-0.2		BNI	89.14	43	Pc	41	58.50	2.1
VAL		76.42	40	iP	40	51.20	0.8	NAO	84.94	28	P	41	35.50	0.1		SLE	89.20	40	ePc	41	57.20	0.7
				S	50	36.00		LFF	85.24	45	eP	41	37.20	0.0		DIX	89.21	42	eP	41	58.10	1.3
KBS		77.63	11	iP	40	57.00	0.3	NRA0	85.29	27	P	41	34.40	-2.8X		ZLA	89.26	40	ePc	41	57.20	0.4
AFI		77.76	251	eP	41	00.00	1.5	LSF	85.34	43	eP	41	37.30	-0.4		RRL	89.26	43	P	41	57.98	0.9
				eS	50	52.00		UCC	85.54	38	Pc+	41	39.00	0.4		LSD	89.29	42	P	41	58.50	1.3
				e	56	00.00					SKS	52	05.00			RSP	89.48	43	P	41	59.01	1.1
				e	59	00.00					S	52	13.00			PZZ	89.63	43	P	41	59.83	1.1
DCN		77.94	38	eP	40	59.20	0.4	DBN	85.54	37	iP+	41	40.00	1.5		LMR	89.69	45	eP	41	58.00	-0.8
		1.0s	246.00nm			6.2mb			Z 18s		29.90um			6.7Msz		FRF	89.70	44	eP	41	57.60	-1.2
DMU		78.04	37	eP	40	59.40	0.1				iPP	44	57.00				1.8s	258.90nm			6.2mb	
		1.0s	239.00nm			6.2mb					ePPP	46	53.00			DOI	89.72	43	P	41	59.60	0.5
CFTV		78.13	64	iP	41	00.00	-0.4				iS	52	14.00			ORX	89.75	42	P	41	59.63	0.4
ETA		78.71	38	eP	41	02.70	-0.3				eSS	57	52.00			MOX	89.82	36	eP+	41	58.50	-0.8
		1.2s	345.00nm			6.3mb		EPF	85.58	46	eP	41	39.10	0.0			2.0s	304.00nm			6.2mb	
ECP		78.72	39	eP	41	02.50	-0.6		2.0s	1093.60nm				6.7mb			Z 18s	44.30um			6.9Msz	
		1.0s	234.00nm			6.2mb		SNF	85.60	38	Pc	41	40.30	1.4			N 19s	21.40um				
EAB		78.98	35	eP	41	03.70	-0.7				i	41	42.30				E 18s	33.20um				
		1.3s	407.00nm			6.3mb		LPO	85.63	45	eP	41	39.00	-0.2					iPP	45	30.00	
STS		79.34	48	eP	41	07.80	1.1	RJF	85.64	44	eP	41	39.10	-0.1					ePPP	47	28.00	
EZAM		79.40	49	eP	41	07.90	0.8	ECHE	85.73	50	eP	41	40.00	0.1					e	51	30.00	
EBH		79.41	34	eP	41	06.50	-0.3	TCF	85.77	43	eP	41	39.40	-0.5					eSKS	52	35.00	
		1.3s	46.00nm			5.3mb		KEV	85.91	16	ePc	41	40.17	0.1					ePS	54	00.00	
EAU		79.54	35	ePc	41	06.90	-0.6				epPd	41	45.31	16kmX					eSS	58	55.00	
		1.3s	333.00nm			6.2mb					esPd	41	47.95						eLQ	07	00.00	
EDU		79.60	34	eP	41	07.30	-0.5				ePP	44	59.31						eLR	11	00.00	
		1.9s	1193.00nm			6.6mb					eSKS	52	11.41			STV	89.88	44	P	42	00.45	0.7
YRH		79.61	38	eP	41	09.00	1.1				eS	52	17.54			GRFO	90.01	37	ePc	42	00.22	0.0
PTO		79.70	50	iPc	41	05.00	-3.7X				esS	52	26.09						epPd	42	07.17	22kmX
				iS	51	06.00		DOU	85.93	39	Pc+	41	41.40	0.8					esPd	42	09.16	
EKA		79.83	35	P	41	08.00	-1.1		Z 20s		39.40um			6.8Msz					ePP	45	31.86	
		1.0s	60.40nm			5.6mb					e	44	48.00			GRF	90.02	37	iPc	42	00.30	0.1
LIS		79.85	53	iPc	41	09.60	0.1				SKS	52	06.00				Z 18s	32.00um			6.8Msz	
ESY		79.98	35	eP	41	09.40	-0.5				S	52	18.00						e	42	10.10	
		0.4s	56.00nm			5.9mb		EALH	85.93	52	eP	41	42.00	1.2					ePP	45	34.40	
EMON		80.09	48	eP	41	12.00	1.2	MAF	86.03	43	eP	41	40.50	-0.6					eS	52	40.00	
ERUA		80.47	49	eP	41	13.80	1.0	BGF	86.09	43	eP	41	40.90	-0.6		SUF	90.10	22	eP	41	59.00	-1.3
EPLA		81.82	51	iP	41	20.80	0.8	TAF	86.09	55	iPd	41	45.00	3.2X			0.9s	43.40nm			5.7mb	
EVAL		81.96	53	eP	41	21.90	1.2	WIT	86.12	36	eP	41	45.00	3.6X		SBF	90.10	44	eP	42	00.00	-0.8
ASK		82.52	29	eP	41	27.00	4.0X				e	42	00.00			VAI	90.16	42	Pc	42	01.30	0.4
AVE		82.54	58	iP	41	27.00	3.2X				e	42	21.00			ROB	90.22	43	P	42	01.99	0.7
				i	41	45.50		CAF	86.13	44	eP	41	41.60	-0.1		CLL	90.30	35	iPc	42	02.10	0.7
BER		82.62	29	iPc	41	26.00	2.4X	AVF	86.34	42	eP	41	41.80	-0.8			1.7s	170.00nm			6.0mb	
HYA		82.73	28	eP	41	26.80	2.7X	SSF	86.34	42	eP	41	42.00	-0.7			Z 18s	37.00um			6.9Msz	
CNIL		82.81	54	eP	41	28.50	3.4X	EROQ	86.34	49	eP	41	43.00	0.2					ePP	45	32.00	
KMY		83.00	30	eP	41	27.50	2.0	EBR	86.40	49	iPc	41	42.00	-1.1					(SKS)	52	37.00	
EHOR		83.04	53	iP	41	27.20	0.9				ePP	45	04.00						eS	53	00.00	
ALJ		83.08	54	iP	41	28.00	1.4				eS	52	16.00						P'P'	07	41.00	
MOMI		83.08	54	iP	41	27.00	0.5	ENN	86.47	38	iPc	41	43.00	-0.2		IMI	90.39	44	P	41	59.93	-2.2
GUD		83.09	50	eP	41	26.50	-0.2		0.9s	112.00nm				6.1mb		FIN	90.48	43	P	42	02.19	-0.3
LPF		83.11	42	eP	41	26.10	-0.3				e	42	24.00			NUR	90.90	24	iP	42	04.10	0.1
GRR		83.12	42	eP	41	26.50	0.0				ePP	45	13.00				1.0s	36.00nm			5.6mb	
LIJA		83.17	54	iP	41	28.00	0.9	ACU	86.48	51	eP	41	45.00	1.4		BRG	91.03	36	iP	42	04.00	-0.8
EJIF		83.24	54	eP	41	29.20	1.8	LOR	86.49	42	eP	41	42.80	-0.6			2.5s	560.00nm			6.5mb	
FLN		83.25	41	eP	41	27.20	0.1		1.8s	809.20nm				6.6mb					e	42	05.50	
		2.0s	1093.60nm			6.7mb		HFS	86.52	27	eP	41	42.20	-1.0					e	43	40.00	
TIO		83.28	60	iPc	41	29.00	1.1		1.3s	82.30nm				5.8mb					iS	52	56.00	
				i	42	11.00			Z 17s	22.32um				6.6MszX					eP'P'	07	53.50	
EPRU		83.29	54	iP	41	29.00	1.4				LR	22	53.00			CVF	91.59	45	eP	42	06.30	-1.3
TOL		83.38	50	ePc	41	28.20	0.2	WTS	86.52	37	iPc	41	44.20	0.8		KHC	91.64	37	iPc	42	07.50	-0.3
				epPd	41	34.49	20kmX		1.0s	113.00nm				6.0mb					i	42	19.00	
				ePP	44	22.67					e	42	43.50						S	52	46.00	
				ePPP	47	43.00					ePP	45	14.00			PRU	91.79	36	ePc	42	07.50	-0.8
				eSKS	51	52.28		MEM	86.58	38	Pc	41	44.80	1.1			Z 17s	44.40um			7.0MszX	
				eS	51	53.94		LBF	86.67	42	eP	41	43.30	-1.0			N 18s	13.40um				
				iPS	52	41.00		SMF	86.70	42	eP	41	43.60	-0.9			E 18s	29.70um				
				iSS	56	45.00		WLF	87.03	39	Pc	41	45.50	-0.4					i	45	47.10	
ODD1		83.39	29	eP	41	30.60	2.9X				i	41	48.50						S	52	30.00	
LDF		83.53	41	eP	41	28.40	-0.1	SOD	87.32	18	iP	41	45.30	-1.7		TIC	92.21	82	P	42	11.00	0.1
BLS1		83.68	30	eP	41	32.00	2.8X	VITF	87.48	40	PKP	41	49.16	1.1		LIC	92.32	83	P	42	11.80	0.4
TRO		83.69	18	iP	41	32.20	3.2X	HAU	87.78	40	eP	41	48.70	-1.0		KSP	92.34	35	iPc	42	12.00	1.1
ECRI		83.71	48	eP	41	30.00	0.3		2.8s	1251.80nm				6.7mb					iPPc	45	52.00	
RGS		83.83	26	eP	41	31.00	1.2	BSF	88.13	40	P	41	52.25	0.8		KBA	92.47	39	eP	42	11.00	-0.8
MAL		83.98	54	iP+	41	32.00	0.9	GWF	88.18	39	P	41	52.00	0.4			1.8s	190.00nm			6.2mb	
				iS	51	56.00		CDF	88.20	40	P	41	52.69	1.0					i	42	13.80	

25d 14h

			iPP	45	52.80		VAY	101.11	41	iPdiff	42	52.00	1.1				ePPP	51	28.00				
			eS	53	07.50		KZN	101.16	42	Pdiff	43	03.00	11.7X				eSKS	54	41.00				
KMR	92.48	38	iP+	42	11.20	-0.4	BUC	101.42	37	ePdiff	42	52.00	-0.1				ePS	58	45.50				
			iPP	45	53.00		BUC1	101.42	37	ePdiff	42	52.00	-0.1				ePPS	00	16.00				
			i	52	33.10		THE	101.74	41	iPdiff	42	55.60	1.9				e	02	23.00				
SFI	92.97	42	Pc	42	15.10	1.2	CFR	102.09	35	ePdiff	42	55.00	-0.1	TAU	118.26	230	ePdiff	44	20.00	12.8X			
VOY	93.29	40	iP	42	15.90	0.4	HNR	102.86	264	Pdiff	43	03.00	3.7X				e	49	02.00				
TRI	93.36	40	iPc	42	15.20	-0.5				S	53	30.00					e	54	46.00				
			i	43	07.60		ATH	103.72	43	Pdiff	43	04.00	1.5				e	57	12.00				
			iPP	45	59.10		MAT	104.13	316	iPdiff	43	06.00	1.5				e	58	54.00				
			iPP	48	54.00			1.0s		13.00nm			5.7mb				e	00	16.00				
			iSKS	52	53.00			Z 20s		14.18um			6.5Msz				e	05	28.00				
			iSP	54	40.00		MDJ	104.41	326	Pdiffc	43	06.00	0.5	SSE	118.51	321	Pdiff	44	10.00	1.5			
			iSS	59	24.00			E 20s		42.00um				SSE	118.51	321	PKP	47	49.00	-0.1			
VKA	93.65	37	ePc	42	15.50	-1.5				PP	47	25.00			8.0s		3.70nm						
	6.0s	4478	.00nm			7.1mb X				SKS	53	46.00			Z 20s		13.50um			6.6Msz			
			iPP	46	02.00					S	54	56.00			N 14s		19.50um						
			iSKKS	52	52.50		ISK	105.20	38	ePdiff	43	08.50	-0.6		E 14s		8.80um						
			i	52	58.00		GBZT	105.60	38	ePKP	47	14.50	-9.7X				PP	48	52.00				
LJU	93.68	40	eP	42	17.50	0.4	SPA	106.67	180	e(Pdif	43	35.10	19.9X				SKS	54	52.00				
			e	46	03.00			1.0s		4.00nm							SKKS	56	02.00				
			eS	52	54.00			Z 20s		14.68um			6.5Msz				S	56	52.00				
CEY	93.76	40	eP	42	17.00	-0.6	CN2	107.13	328	Pdiff	43	19.00	1.4				PS	58	52.00				
ARV	93.87	42	P	42	18.20	0.1		7.0s		4.30nm			4.6mb X				iSS	05	20.00				
ASS	93.88	43	P	42	18.10	-0.1		Z 15s		20.20um			6.8MszX	NJ2	119.21	323	Pdiff	44	10.00	-1.6			
ZST	94.14	37	iP	42	18.70	-0.5		E 16s		23.20um				NJ2	119.21	323	PKP	47	51.00	0.6			
	Z 18s		56.00um			7.1Msz				PP	47	44.00			7.0s		3.00nm						
			e	43	41.80		KAS	107.68	35	ePKP	47	43.00	14.7X		Z 14s		34.60um			7.1MszX			
			iPP	46	03.40		BBTK	108.14	37	iPdiff	43	25.00	2.6X		N 14s		19.30um						
			LR	15	28.00		SNY	109.51	327	Pdiff	43	29.00	0.8		E 15s		28.10um						
CIO	94.14	43	e(P)	42	13.32	-6.1X		9.0s		4.68nm				GTA	121.32	343	Pdiff	44	20.00	-1.0			
AOI	94.27	42	e(P)	42	20.55	0.6		N 15s		17.70um				GTA	121.32	343	PKP	47	54.00	-0.4			
VBY	94.38	40	eP	42	21.50	1.1		E 15s		42.40um					6.0s		3.44nm						
PTJ	94.62	39	eP	42	21.10	-0.5				PP	48	00.00			N 15s		28.80um						
ZAG	94.67	39	eP	42	23.20	1.5				SS	03	24.00					PP	49	20.00				
KRA	94.74	34	eP	42	21.00	-0.9	GUA	109.77	291	e(Pdif	43	34.50	4.5X	XAN	122.75	332	PKP	47	55.20	-2.0			
	1.7s	297	.00nm			6.4mb	GUMO	109.79	292	e(Pdif	43	34.00	3.9X		N 16s		35.30um						
	Z 18s		31.60um			6.8Msz	DL2	112.65	326	Pdiff	43	46.00	3.7X		E 14s		18.80um						
	N 18s		22.50um					N 16s		32.20um							PP	49	31.00				
			e	42	22.20			E 15s		35.00um				WHN	122.87	325	Pdiff	44	26.00	-1.9			
			e	42	30.30					PP	48	25.00		WHN	122.87	325	PKP	47	58.00	0.6			
			i	46	11.70					S	55	54.00			Z 20s		38.80um			7.1Msz			
			iS	53	00.00		BJI	114.52	331	Pdiff	43	50.00	-0.5		N 14s		15.60um						
			i	54	56.00			Z 18s		36.80um			7.0Msz		E 16s		25.00um						
SRO	95.03	37	iP	42	25.10	1.8		N 16s		13.20um							SKS	55	04.00				
			i(PP)	46	12.60			E 17s		36.20um				LZH	123.04	338	Pdiff	44	30.00	1.2			
			e	55	11.80					PP	48	40.00		LZH	123.04	338	ePKP	47	56.83	-1.0			
SDI	95.27	44	P	42	24.30	-0.3	BNG	115.12	77	iPKPc	47	36.80	-6.4X				eSKS	55	11.45				
SPC	95.38	35	eP	42	25.10	-0.1		1.6s		260.00nm							eSKKS	56	38.36				
			ePP	46	16.60					ic	47	45.40					eS	57	36.71				
BUD	95.61	37	eP	42	26.00	0.0				id	48	42.00					e	59	34.22				
PSZ	95.88	36	iP	42	29.00	1.7				id	49	12.70		MAIO	123.54	20	ePKP	47	49.00	-9.7X			
BSS	96.36	44	P	42	29.00	-0.5	PRNI	115.75	43	e(PKP)	47	44.00	0.0				i	49	21.00				
KUK	96.75	81	eP	42	31.00	-0.7	HHC	115.90	334	Pdiff	43	56.00	-0.9	QIS	124.29	256	ePKP	47	58.00	-2.5			
BEO	97.88	39	eP	42	36.50	0.2		N 20s		54.60um				ADE	125.46	239	ePKP	48	05.40	3.0X			
			i	46	35.50			E 21s		98.20um					0.5s		16.90nm						
SNZO	97.92	229	P-	42	45.00	8.6X	MBH	116.05	44	ePKP	47	43.00	-1.4	LWI	127.02	80	ePdiff	44	50.00	2.8X			
			PP	46	38.00		MSL	116.34	33	ePKPc	47	38.00	-6.8X	LWI	127.02	80	iPKP+	48	07.00	0.7			
			e	52	36.00					ePP	48	50.00					iPP	50	01.00				
			SKS	53	20.00					eSKS	54	35.00		KMZ	127.09	94	iPKP	48	04.60	-1.6			
			PS	55	30.00					ePS	58	19.00					i	48	12.30				
TDS	97.93	45	Pc	42	37.00	0.4				ePPS	59	25.50					i	50	15.00				
TTG	98.43	41	iPc	42	40.00	1.2	TAB	116.63	30	iPdiff	44	02.00	1.8	CD2	127.65	335	Pdiff	44	49.20	-0.2X			
			e	53	16.00					e	48	27.00			9.0s		4.82nm						
BCI	98.97	41	eP	42	43.00	1.8				i	48	51.00			Z 20s		25.00um			6.9Msz			
PUK	99.03	41	eP	42	46.70	5.2X	BTO	116.74	335	Pdiff	44	00.00	-0.6		N 20s		45.60um						
KKS	99.34	41	eP	42	47.00	4.1X		Z 20s		38.20um			7.0Msz		E 20s		51.50um						
[illegible]IR	99.39	42	eP	42	45.20	2.0		N 20s		28.40um							PP	50	06.50				
S[illegible]O	100.04	41	iPdiff	42	46.70	0.6		E 20s		62.20um							SS	07	19.00				
	Z 20s		25.89um			6.7Msz				PP	48	55.00		DHR	127.90	35	ePKP	48	07.00	-0.3			
	[illegible] 20s		14.23um							SKKS	58	48.00		BAG	128.67	308	ePKP	48	05.00	-4.2X			
	E [illegible]20s		23.67um				TIA	117.03	327	Pdiff	44	02.00	0.1	GZH	129.11	320	PKP	48	09.00	-0.6			
			iPcP	42	57.00			Z 17s		37.30um			7.1MszX		N 16s		28.90um						
			iPP	46	48.00			N 16s		13.70um					E 16s		30.30um						
			iPPP	48	58.00			E 16s		28.50um							PP	50	14.00				
			iSKS	53	26.00					PP	48	54.00		WB5	129.11	258	ePKP	48	07.80	-2.0			
			iPS	55	51.00					SKKS	56	47.00					i	48	18.10				
			[illegible]SS	01	25.00		TIY	118.12	332	ePdiff	44	10.30	3.5X				e	51	34.30				
			e[illegible]SS	05	30.00			9.0s		4.99nm							eS	01	23.70				
			LR	29	08.00			Z 17s		63.20um			7.3MszX	HKC	129.17	319	(PKP)	48	12.00	2.2			
OHR	100.11	42	iPdiff	42	45.30	-1.2		N 16s		36.90um				QCP	129.35	306	ePKP	48	10.00	-0.3			
			i	43	26.50			E 18s		51.20um				KSR	129.38	110	ePKP	48	08.50	-1.9			
			i	46	51.00					PP	49	04.00			1.0s		10.00nm						
SRN	100.25	43	ePdiff	42	51.00	4.0X				SKS	54	56.00		LSZ	129.65	96	iPKP	48	04.60	-6.4X			
CMP	100.30	36	iPdiff	42	50.00	2.8X				SS	05	13.00					i	48	17.50				
LSK	100.50	43	ePdiff	42	49.90	1.6	SLY	118.16	32	ePKPc	47	50.00	1.7				i	48	30.60				
MLR	100.68	36	ePdiff	42	48.00	-1.0				iPP	49	02.00		DAV	129.66	294	ePKP	48	12.00	1.0			

ASPA	129.81	253	ePKP	48 08.80	-2.3
	Z 19s		29.35um		7.0Msz
			ePP	51 35.20	
			LR	36 12.10	
GYA	130.15	329	iPKPd	48 12.00	0.3
	8.0s		3.80nm		
	N 20s		31.40um		
	E 20s		32.00um		
			PP	50 23.20	
BPI	130.41	110	ePKP	48 11.00	-1.3
	1.0s		30.00nm		
SLR	130.63	110	ePKP	48 13.29	0.6
	1.9s		136.84nm		
	Z 18s		35.19um		7.1Msz
			ePP	50 27.45	
			eSKP	51 37.81	
BUL	130.66	102	iPKPc	48 12.60	-0.3
	1.0s		8.50nm		
	Z 21s		21.51um		6.8Msz
	N 21s		17.92um		
	E 21s		10.04um		
			i	51 39.00	
MTN	131.16	267	ePKP	48 12.60	-1.1
AAE	131.26	61	PKP	48 16.50	2.1
QUE	131.48	16	ePKP	48 13.50	-0.8
PTZ	132.49	94	iPKP	48 10.90	-5.5X
			i	48 17.80	
			i	50 42.40	
			i	51 46.10	
LSA	132.71	348	ePKP	48 17.50	0.5
	7.0s		2.88nm		
	N 19s		21.30um		
	E 19s		28.10um		
			sPKP	48 33.00	
			PP	50 39.00	
			SKS	55 17.00	
			SS	08 20.50	
KMI	133.13	332	ePKP	48 17.44	-0.1
	Z 20s		58.30um		7.3Msz
	E 22s		69.20um		
			ePP	50 45.26	
			eSKP	51 50.65	
			SKS	55 24.00	
			iSKKS	57 36.50	
ARO	133.21	56	ePKP+	48 18.20	0.4
QIZ	134.30	320	PKP	48 20.00	0.4
	N 19s		159.00um		
	E 19s		22.10um		
NDI	134.69	4	ePKPc	48 20.50	0.4
			ePP	50 52.00	
			ePKS	51 54.00	
			ePPP	53 48.00	
			eSSP	08 48.00	
			eSSS	13 46.00	
PKI	135.68	354	PKP	48 09.00	-13.5X
CLK	136.18	95	ePKP	48 10.50	-12.9X
NPA	140.19	94	ePKP	48 27.30	-3.4X
			eSKP	51 30.20	
LOE	140.20	328	ePKP	48 23.00	-7.7X
MKS	140.31	282	ePKPd	48 33.00	2.0
CHG	140.33	332	ePKP	48 23.90	-7.0X
CHTO	140.33	332	ePKP	48 20.20	-10.7X
			ePP	51 28.91	
NST	142.48	328	ePKP	48 32.50	-2.2
MBL	142.77	257	ePKP	48 29.00	-6.1X
KLB	143.29	239	ePKP	48 38.00	2.3
NWAO	143.35	237	ePKP	48 35.00	-0.8
MEKA	143.60	248	ePKP	48 33.20	-3.2X
BOM	143.72	13	ePKP	48 35.00	-1.7
			ePP	51 48.00	
POO	144.28	11	iPKP	48 35.50	-2.3
			iPKS	51 52.00	
			i	55 02.00	
BAL	144.41	241	ePKP	48 36.00	-1.7
MUN	144.46	238	ePKP	48 36.00	-1.7
	Z 20s		20.60um		6.9Msz
	N 20s		7.40um		
	E 20s		10.70um		
NNT	145.27	326	iPKPc	48 38.00	-1.5
MRWA	145.34	243	ePKP	48 37.50	-1.8
HYB	145.96	4	iPKPc	48 38.40	-2.3
	1.0s		655.00nm		
NANU	146.73	254	ePKP	48 41.50	-0.2
TRT	147.53	282	iPKPd	48 44.00	0.8
	1.5s		317.40nm		
AVY	148.60	99	ePKP	48 46.60	1.5
SNG	149.09	319	ePKP	48 46.20	0.5

	2.0s		1682.35nm		
			eS	11 04.80	
GBA	149.65	6	PKP	48 53.00	6.5X
	1.1s		194.20nm		
IPM	150.76	315	ePKPd	48 49.40	1.1
			e	49 22.00	
KGM	150.88	308	ePKP	48 50.50	2.1
KOD	152.98	7	iPKP	48 52.00	0.2
			ePP	52 39.00	
PSI	153.56	315	ePKP	48 51.00	-1.3
	S.D. = 1.2		on 380 of 454 obs.		

APR 25, 1989 14h 56m 25.08± 0.66s
40.715 N ± 5.4km 23.387 E ± 6.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.4 (SKO).

SOH	0.11	347	ePg	56 28.30	0.3
THE	0.33	256	ePg	56 31.20	-0.7
			iSg	56 35.30	
SRS	0.43	21	ePg	56 33.70	-0.2
KNT	0.58	320	ePg	56 36.10	-0.7
			iSg	56 43.60	
OUR	0.59	130	ePg	56 37.40	0.4
			eSg	56 45.70	
GRG	0.79	288	ePg	56 39.90	-0.5
			eSg	56 50.80	
PAIG	0.82	164	ePg	56 40.30	-0.6
			eSg	56 52.10	
VAY	0.86	315	iPg	56 41.30	-0.4
			iSg	56 53.00	
LIT	0.92	228	ePg	56 42.80	0.1
			eSg	56 55.00	
OHR	2.00	282	ePn	57 01.70	2.3
	S.D. = 1.0		on 10 of 10 obs.		

APR 25, 1989 15h 12m 48.43± 0.60s
29.803 N ±10.4km 99.171 E ± 6.4km
DEPTH = 10.0km (geophysicist)
4.5mb (3 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	4.12	73	Pn	13 53.00	0.2
			Pg	14 02.00	
			Sg	14 54.00	
LSA	6.97	271	P	14 38.30	4.7X
LZH	7.39	31	eP	14 38.50	-0.7
GYA	7.41	115	iPd	14 39.00	-0.3
XAN	9.30	60	P	15 01.00	-4.6X
GUN	11.80	264	P	15 39.80	-0.4
PKI	12.29	263	P	15 46.20	-0.4
KKN	12.35	264	P	15 47.60	0.2
	0.4s		10.00nm		5.4mb X
HHC	14.94	39	eP	16 21.20	-0.2
TIA	16.35	62	Pc	16 41.80	2.2
WMQ	16.71	330	eP	16 46.00	1.8
HYB	22.51	241	eP	17 52.00	2.3
CN2	25.13	49	P	18 14.60	-0.3
GBA	25.76	236	P	18 25.00	4.0X
	0.2s		1.10nm		4.2mb
SUF	56.23	328	eP	22 30.00	-0.8
WB5	59.91	141	eP	22 56.00	-1.1
HFS	62.46	326	eP	23 12.80	-1.0
	0.5s		1.80nm		4.5mb
NAO	63.68	327	P	23 20.30	-1.6
	0.8s		3.20nm		4.6mb
	S.D. = 1.3		on 15 of 18 obs.		

* APR 25, 1989 15h 59m 16.93± 1.80s
66.908 N ± 8.8km 156.180 W ±18.1km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.8 (PMR).

IMA	1.31	129	iPc	59 41.70	0.0
FBA	3.99	116	eP	00 19.50	-0.5
SVW	5.83	177	P	00 45.60	-0.5
PMR	6.15	147	eP	00 50.50	-0.1
TOA	6.47	133	eP	00 56.60	1.4
INK	8.74	70	eP	01 26.00	-0.8
MBC	14.58	35	eP	02 46.00	0.5
YKA	18.03	84	P	03 31.40	1.9X
	S.D. = 0.9		on 7 of 8 obs.		

APR 25, 1989 16h 26m 43.95± 0.71s
16.411 N ± 9.9km 99.302 W ± 7.3km
DEPTH = 22.4km (5 depth phases)
4.8mb (16 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)
Felt in the Acapulco-Mexico City area.

ACX	0.70	311	iP	26 56.00	-1.4
III	1.96	355	iP	27 16.20	-0.4
			iS	27 35.00	
OXX	2.56	75	iPd	27 27.00	1.8
			iS	28 38.50	
IIT	2.76	20	(P)	27 27.50	-0.5
UNM	2.91	2	iP	27 32.30	2.2X
			iS	28 04.00	
CRX	3.00	353	iPd	27 37.50	6.1X
			iS	28 02.50	
IISM	3.15	35	iPc	27 33.50	0.2
IIC	3.34	1	iP	27 38.00	1.7
MRX	3.74	332	iP	27 42.50	0.9
			iS	28 37.00	
COLM	5.01	304	iP	28 15.50	15.8X
ALQ	19.54	342	eP	31 11.20	-2.1
	0.8s		7.84nm		4.0mb
UPA	20.64	109	e(P)	31 34.60	9.9X
GLA	21.71	323	eP	31 36.00	0.4
			e	31 44.00	29km
BAR	22.57	319	eP	31 45.00	0.9
FVM	22.87	18	eP	31 47.20	0.3
	1.0s		30.00nm		4.8mb
			e	31 54.00	24km
PLM	23.14	320	eP	31 52.00	2.1
			e	31 57.00	18km
TPC	23.17	323	eP	31 51.00	1.0
PEC	23.69	321	P	31 56.80	1.8
GOL	23.80	348	P	31 56.00	-0.3
	0.8s		32.74nm		4.9mb
RVR	23.89	320	eP	31 59.00	2.1
GSC	24.46	324	eP	32 05.00	2.4X
SBB	24.63	321	eP	32 07.00	2.8X
ISA	25.69	322	eP	32 18.00	3.8X
DAU	26.07	339	P	32 18.20	0.2
TNP	26.73	327	eP	32 24.40	0.4
	0.8s		4.41nm		4.2mb
			e	32 30.00	20km
EUR	27.20	331	iP	32 28.20	-0.1
	0.8s		5.90nm		4.3mb
KVN	27.91	328	eP	32 34.00	-0.7
			e	32 40.00	21km
CMB	28.43	323	P	32 40.00	0.8
	1.0s		11.67nm		4.6mb
LRM	31.32	342	ePc	33 05.40	0.3
SES	35.20	347	eP	33 36.00	-2.4
GAC	35.35	29	eP	33 39.50	-0.2
LON	35.55	333	P	33 41.00	-0.5
BMW	35.98	332	P	33 45.00	-0.1
PNT	36.74	338	iPd	33 52.80	1.4
	0.8s		27.00nm		5.1mb
FFC	38.29	357	iPc	34 03.80	-0.5
	0.9s		40.00nm		5.2mb
EDM	38.35	346	ePc	34 04.40	-0.5
ZOBO	44.72	135	P	35 04.70	6.4X
LPB	44.93	135	P	35 03.00	3.3X
CNCB	45.20	135	P	35 00.00	-2.1
SCH	45.78	26	eP	35 05.00	-0.6
YKC	47.24	350	ePc	35 16.00	-0.9
	0.7s		15.00nm		5.1mb
YKA	47.27	350	P	35 16.70	-0.5
FRB	51.81	17	eP	35 51.00	-1.0
INK	56.24	345	ePc	36 23.70	-0.8
PMR	57.13	334	P	36 30.80	-0.2
	0.7s		8.72nm		4.9mb
FBA	58.31	338	P	36 38.50	-0.7
	0.8s		5.17nm		4.6mb
BAO	59.81	120	e(P)	36 45.00	-5.5X
TTA	60.61	334	P	36 53.80	-1.4
	0.8s		5.17nm		4.7mb
MBC	60.76	355	eP	36 55.00	-0.9
	0.9s		11.00nm		5.0mb
SOB1	63.14	110	eP	37 14.50	1.7
ALE	67.72	5	eP	37 41.00	-0.3
	0.8s		6.00nm		4.8mb
DAG	71.97	14	iPd	38 06.00	-1.3
	0.7s		6.16nm		4.8mb
NAO	85.25	27	P	39 21.60	1.7
	0.8s		1.50nm		4.3mb
LAT	114.55	270	ePKP	45 16.50	-8.5X
WRA	129.08	257	PKP	45 56.00	3.3X

25d 16h

0.6s 1.20nm
GUN 135.66 353 PKP 45 52.00 -13.4X
KKN 135.84 354 PKP 45 58.80 -6.8X
PKI 136.04 354 PKP 45 58.60 -7.5X
HYB 146.32 4 ePKP 46 25.00 0.8
AVY 148.51 100 ePKP 46 33.90 6.0X
GBA 150.00 6 PKPd 46 34.20 4.2X
0.8s 7.80nm
S.D. = 1.2 on 44 of 61 obs.

? APR 25, 1989 16h 42m 19.61± 7.37s
39.291 N ±56.6km 23.605 E ±28.1km
DEPTH = 29.6 ± 10.0 km
AEGEAN SEA (365)

PAIG 0.64 5 iPgc 42 31.90 -0.3
eSg 42 43.50
OUR 1.08 15 ePbd 42 38.70 0.0
LIT 1.18 314 ePb 42 39.60 -0.6
eSb 42 57.50
THE 1.43 340 ePb 42 44.00 0.3
SOH 1.54 353 ePb 42 45.70 0.3
SRS 1.82 360 ePn 42 49.40 -0.1
eSn 43 14.50
GRG 1.90 331 ePn 42 49.90 -0.7
eSn 43 15.10
KNT 1.95 344 ePn 42 51.70 0.5
eSn 43 17.10
OHR 2.82 311 ePn 43 04.20 0.6
S.D. = 0.6 on 9 of 9 obs.

APR 25, 1989 16h 42m 58.66± 0.40s
30.053 N ± 6.3km 99.461 E ± 5.4km
DEPTH = 10.0km (geophysicist)
4.7mb (6 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2 3.81 76 Pn 44 01.60 2.9
Pg 44 10.20
Sg 45 02.80
KMI 5.71 149 Pn 44 26.00 0.3
LZH 7.05 30 eP 44 45.50 0.9
2.0s 44.00nm 5.3mb X
Z 14s 3.60um
N 10s 4.20um
Lg 46 43.50
LSA 7.23 269 P 44 48.80 1.5
GYA 7.29 118 P 44 48.00 0.1
S 46 10.20
XAN 8.96 61 P 45 09.50 -1.6
CHG 11.20 183 eP 45 42.70 0.8
LOE 12.76 170 eP 46 04.00 1.1
TIY 13.20 51 P 46 07.50 -1.3
BTO 13.59 36 eP 46 15.00 1.1
HHC 14.59 39 eP 46 27.00 -0.1
TIA 16.01 63 eP 46 45.80 0.3
WMQ 16.63 329 P 46 57.20 3.9X
NJ2 16.74 78 Pd 46 53.60 -1.1
BJI 16.90 49 Pc 47 01.50 4.8X
SSE 18.74 81 eP 47 20.00 0.4
1.1s 14.00nm 4.1mb
NDI 19.43 272 iPc 47 28.00 -0.2
SNY 22.71 52 Pc 48 02.70 1.1
HYB 22.85 241 eP 48 04.50 1.2
CN2 24.77 49 Pd 48 23.60 1.9
MAIO 33.85 291 eP 49 45.00 1.5
SOD 56.05 334 eP 52 40.00 0.4
SUF 56.15 328 iP 52 39.80 -0.6
NUR 56.95 325 eP 52 46.00 -0.1
WB5 59.95 142 eP 53 05.70 -1.9
WRA 59.99 142 Pd 53 05.20 -2.6
0.8s 3.80nm 4.6mb
NAO 63.61 327 P 53 30.40 -1.3
0.9s 4.90nm 4.7mb
CLL 65.07 316 e(P) 53 33.00 -8.3X
eSg 00 07.00
LPG 71.01 312 eP 54 18.50 -0.4
0.9s 8.10nm 4.9mb
SMF 72.38 314 eP 54 26.20 -0.6
0.9s 7.20nm 4.8mb
AVF 72.62 314 eP 54 27.40 -0.7
INK 74.43 18 eP 54 37.00 -1.2
BUL 84.45 243 eP 55 31.90 -1.3
FFC 93.57 12 eP 56 15.50 -0.5
1.0s 8.00nm 5.1mb
S.D. = 1.3 on 31 of 34 obs.

APR 25, 1989 16h 44m 33.17± 0.82s
66.929 N ± 5.2km 156.273 W ± 9.6km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.9 (PMR).

IMA 1.35 129 iPc 44 59.20 0.5
TTA 4.02 178 ePd 45 36.60 -0.2
FBA 4.03 116 iPd 45 36.70 -0.1
BRW 4.40 358 eP 45 42.20 0.1
SVW 5.85 177 ePc 46 02.20 -0.5
PMR 6.19 147 eP 46 07.60 0.2
TOA 6.51 133 eP 46 12.80 0.8
DWY 7.57 105 P 46 26.00 -0.7
INK 8.77 71 eP 46 43.00 -0.4
MBC 14.59 35 eP 48 02.00 0.3
YKA 18.07 84 P 48 48.40 2.3X
S.D. = 0.5 on 10 of 11 obs.

% APR 25, 1989 16h 49m 56.30± 0.88s
44.619 N ± 7.4km 7.045 E ±13.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

PZZ 0.12 161 P 49 59.65 0.2
S 50 02.12
RRL 0.35 328 P 50 03.55 -0.1
S 50 08.91
STV 0.43 152 P 50 04.91 -0.1
S 50 10.94
RSP 0.55 16 P 50 07.74 0.1
S 50 15.15
ROB 0.67 118 P 50 09.62 -0.1
S 50 18.85
S.D. = 0.2 on 5 of 5 obs.

APR 25, 1989 17h 18m 38.04± 0.29s
35.842 N ± 2.6km 140.361 E ± 2.7km
DEPTH = 71.2 ± 2.2 km
5.5mb (73 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (III JMA) at Chiba, (II JMA) at Tokyo and (I JMA) at Shizuoka.

KAKJ 0.39 337 iPd 18 48.20 -1.9
CHO 0.41 106 iP+ 18 48.50 -1.8
iS 18 55.00
TOK 0.51 253 iPd 18 52.00 0.8
iS 19 01.60
MIT 0.54 9 iPd 18 49.60 -1.9
iS 18 58.80
YOK 0.70 235 iPd 18 55.60 2.4
iS 19 07.50
UTS 0.80 331 iPd 18 53.10 -1.3
S 19 05.70
KMG 0.85 291 iPd 18 55.30 0.4
iS 19 10.60
TAT 0.95 205 iP+ 18 58.20 2.1
iS 19 08.00
CHJJ 1.13 281 P 18 58.70 0.2
ONA 1.19 22 iPd 18 57.90 -1.3
iS 19 13.00
MAE 1.19 298 iPd 19 00.00 0.7
S 19 14.90
SHR 1.28 355 eP 19 00.00 -0.5
NIIJ 1.77 322 iPd 19 07.60 0.5
MAT 1.88 292 iPd 19 08.70 0.1
eS 19 36.00
IIDJ 2.03 260 iPd 19 12.50 1.8
eS 19 39.60
MTMJ 2.20 290 iPd 19 14.70 1.6
YAMJ 2.34 354 iPd 19 14.90 -0.1
OFUJ 3.40 17 P 19 27.60 -2.1
S 20 05.40
TSRJ 3.58 266 P 19 33.90 1.6
WKYJ 4.23 249 P 19 42.40 0.8
AOMJ 4.71 0 P 19 47.50 -0.7
TKSJ 5.51 252 P 20 00.10 0.8
YONJ 5.66 265 P 20 01.90 0.4
SHK 6.43 260 iPc 20 12.80 0.7
0.8s 579.10nm 6.1mb
MRRJ 6.60 5 eP 20 10.70 -3.7X
HOOJ 6.92 18 P 20 13.90 -4.9X
S 21 29.10
SHNJ 7.78 260 eP 20 31.70 0.8
KUSJ 7.99 24 P 20 27.20 -6.4X
eS 21 51.10
ASAJ 8.45 11 eP 20 34.30 -5.7X
KUMJ 8.56 250 P 20 43.70 2.2
KAGJ 9.17 242 P 20 51.40 1.5
MDJ 12.01 320 eP 21 27.90 -0.3
E 12s 0.70um
S 23 40.00
CN2 13.93 309 Pc 21 52.00 -1.4
SNY 14.37 300 iPc 21 59.60 0.4
DL2 15.20 287 Pd 22 12.00 2.1
4.0s 1.10nm 2.4mb X
SSE 16.68 259 P 22 28.00 -0.5
1.0s 0.11nm 2.0mb X
Z 20s 1.40um 4.5Msz
sP 22 46.00
eS 25 48.00
NJ2 18.23 264 Pc 22 46.00 -1.7
sP 23 08.50
TIA 18.79 278 Pc 22 51.20 -3.2X
ANP 19.37 242 eP 22 59.00 -1.8
BJI 19.51 290 eP 22 58.50 -3.7X
QZH 21.65 246 iPc 23 21.30 -2.7X
WHN 22.37 264 Pd 23 30.70 -0.5
sP 23 57.50
eS 27 32.00
TIY 22.42 283 iPd 23 29.00 -2.7X
E 14s 1.10um
PJG 22.53 168 eP 23 36.50 3.7X
HHC 23.08 291 Pd 23 35.20 -3.0X
BTO 24.24 290 P 23 46.60 -2.9X
XAN 25.78 275 P 24 02.40 -1.5
GZH 26.64 249 iPd 24 11.10 -0.7
LZH 29.45 281 eP 24 35.50 -1.8
1.5s 132.00nm 5.4mb
CD2 30.84 271 P 24 47.40 -2.1
QIZ 31.67 246 eP 24 56.60 -0.2
GTA 32.12 289 iPc 24 59.00 -1.7
0.8s 0.10nm 2.7mb X
KMI 33.95 262 Pc 25 15.00 -1.9
pP 25 22.50 26kmX
MNI 37.14 206 ePd 25 41.50 -2.1
TSM 37.59 218 ePd 25 46.50 -0.9
LOE 38.80 252 eP 25 56.00 -1.6
CHG 40.18 256 iPc 26 08.30 -0.7
0.9s 46.22nm 5.4mb
WMQ 40.63 298 Pc 26 13.00 0.5
NST 41.06 251 eP 26 17.00 0.9
LSA 41.48 276 P 26 21.00 0.9
NNT 43.26 248 eP 26 34.50 0.3
e 27 24.00
MKS 45.31 210 iPd 26 50.30 -0.2
PMG 45.46 171 eP 26 52.00 0.3
SNG 46.19 242 eP 26 55.60 -2.0
0.9s 75.63nm 5.6mb
GUN 46.43 276 P 27 00.10 0.2
TTA 46.88 34 P 27 03.00 0.3
PKI 46.95 276 P 27 03.80 -0.2
KKN 46.97 276 P 27 04.00 0.0
DMN 47.18 276 P 27 05.60 -0.1
GKN 47.40 277 P 27 07.20 -0.1
IPM 47.73 239 ePd 27 09.10 -0.7
0.6s 25.10nm 5.3mb
BRW 47.84 23 P 27 10.40 0.5
KGM 48.05 234 eP 27 12.00 -0.2
IMA 48.14 30 P 27 12.50 0.0
1.0s 8.75nm 4.7mb
HNR 48.67 154 P 27 20.00 3.1X
MTN 49.20 192 iPc 27 20.30 -0.7
0.7s 124.00nm 6.0mb
PMR 50.09 36 P 27 26.20 -1.1
0.8s 13.79nm 5.0mb
PSI 50.53 239 ePd 27 30.00 -1.2
FBA 50.56 32 P 27 30.80 -0.1
0.6s 22.17nm 5.4mb
KNA 52.47 194 eP 27 45.40 -0.4
NDI 53.07 281 iPc 27 49.00 -1.2
WB5 55.71 187 iPc 28 08.30 -1.1
eS 35 48.70
INK 55.83 27 iPc 28 09.50 -0.3
0.5s 17.00nm 5.3mb
pP 28 25.00 58kmX
CTA 55.90 173 iPd 28 10.40 -0.4
0.8s 22.39nm 5.2mb
QIS 56.09 181 iPc 28 11.00 -1.2
HYB 57.32 269 iPc 28 20.20 -1.0
0.6s 50.00nm 5.8mb

MBC	57.91	16	ePc	28	23.60	-0.8	KRA	79.60	326	iPc	30	38.70	0.0	GWF	85.69	331	P	31	10.33	0.3
	0.7s	25.00nm			5.5mb			0.9s	64.00nm			5.6mb			1.0s	13.75nm			5.0mb	
ASPA	59.50	187	iPc	28	35.20	-0.8	ISR	79.65	319	ePc	30	40.00	0.8	WLF	85.70	332	Pc	31	10.60	0.6
	0.9s	42.00nm			5.6mb		MLR	79.74	319	ePc	30	40.00	0.3	DOU	85.93	333	Pc	31	11.00	-0.2
		eS		36	40.40		SPC	80.07	325	iP	30	41.80	0.3	ALQ	86.01	49	eP	31	12.30	0.1
MBL	59.93	202	iPc	28	38.30	-0.7	QASM	80.32	295	eP	30	43.00	0.0		1.0s	13.75nm			5.0mb	
	0.4s	29.00nm			5.8mb		CMP	80.37	320	ePc	30	50.00	7.1X	DMU	86.25	341	iPc	31	13.30	0.6
GBA	60.28	266	Pc	28	40.50	-1.0	TPC	80.39	55	eP	30	45.00	1.7	CDF	86.28	331	P	31	13.24	0.1
	0.6s	41.10nm			5.7mb		KSP	80.66	328	iPc	30	44.70	0.4	FEL	86.41	330	P	31	13.24	-0.6
POO	60.57	272	iPc	28	43.40	-0.2		0.9s	47.00nm			5.4mb		DLE	86.70	341	eP	31	15.40	0.5
ALE	61.35	3	ePc	28	48.00	0.0				e	33	43.70			0.6s	32.00nm			5.6mb	
	1.0s	61.00nm			5.7mb		BAR	80.82	56	eP	30	46.00	0.4	SCH	86.74	15	eP	31	16.00	0.8
KBS	61.69	350	iP	28	50.00	-0.4	ALT	81.56	312	iP	30	49.70	0.3	NPS	86.75	312	P	31	16.00	0.5
KOD	62.14	262	eP	28	54.00	-0.6	HRI	81.58	305	eP	30	50.00	0.4	MOF	86.78	331	P	31	15.25	-0.3
NANU	62.66	206	iPc	28	57.10	-0.2	BRG	81.64	329	iPc	30	49.60	0.2	DCN	86.85	341	eP	31	16.30	0.7
DZM	62.67	153	iPc	28	57.10	-0.4		0.9s	38.00nm			5.3mb		BSF	86.94	331	P	31	15.72	-0.6
WARB	63.04	194	iPc	28	51.00	-8.8X	CLL	81.70	330	iPc	30	49.80	0.1	VITF	86.94	331	P	31	16.18	0.0
	0.5s	30.00nm			5.6mb			1.0s	80.00nm			5.6mb		HAU	86.97	331	eP	31	15.50	-0.9
MAIO	63.40	297	eP	29	02.00	-0.3	KCT	81.83	314	iP	30	51.70	1.1		0.6s	16.90nm			5.4mb	
KEV	64.25	339	iP	29	06.80	-0.5	GLA	81.84	55	eP	30	52.00	1.1	LOMF	87.31	330	P	31	17.11	-1.0
	0.9s	43.90nm			5.4mb		BZS	81.89	322	eP	30	51.00	0.2	VAM	87.50	313	P	31	20.00	0.9
YKA	65.26	30	P	29	13.60	-0.3	SRO	81.95	325	iP	30	52.70	1.6	ITM	87.60	315	P	31	19.00	-0.6
YKC	65.32	30	eP	29	13.50	-0.8	BNT	82.01	315	iP	30	52.70	1.1	VAI	87.70	328	Pc	31	19.20	-0.6
MEKA	65.45	201	iPc	29	15.00	-0.5	EDC	82.05	315	eP	30	52.30	0.5	PGD	87.95	326	Pc	31	22.50	1.1
SOD	65.73	337	iP	29	16.20	-0.7	PRU	82.05	328	P	30	52.10	0.5	ASS	88.13	325	Pc	31	22.30	0.2
TRO	66.56	341	eP	29	22.00	-0.1		1.1s	30.60nm			5.2mb		LOR	88.54	332	eP	31	23.60	-0.3
FORR	67.33	191	iPc	29	26.90	-0.4				e	30	58.80			1.1s	15.60nm			5.1mb	
	0.3s	80.00nm			6.1mb		DST	82.08	314	iP	30	52.30	0.3	SDI	88.62	323	Pc	31	24.10	-0.4
STK	67.38	179	eP	29	27.80	0.2	ZST	82.23	326	eP	30	53.90	1.3	LBF	88.73	332	eP	31	24.50	-0.4
	0.4s	9.00nm			5.1mb		MOX	82.77	330	iP	30	55.50	0.2		0.7s	7.00nm			5.0mb	
MRWA	68.66	203	eP	29	35.40	-0.3		1.2s	39.00nm			5.2mb		LPG	88.84	329	eP	31	25.00	-0.8
SUF	68.66	333	iP	29	34.60	-0.8	RDO	82.85	316	P	30	57.00	1.1		0.7s	13.20nm			5.3mb	
	0.7s	64.40nm			5.7mb		DSI	82.85	304	eP	30	57.00	1.0	FLN	88.84	335	eP	31	24.80	-0.5
GMW	68.71	46	P	29	36.70	0.8	KMSA	82.89	290	eP	30	56.70	0.2		0.6s	5.40nm			5.0mb	
COOL	68.79	198	eP	29	35.30	-1.2	BEO	83.04	322	eP	30	56.00	-0.8	SSF	88.85	332	eP	31	25.20	-0.2
PNT	69.62	43	eP	29	41.00	-0.5	KHC	83.11	328	iPc	30	58.00	0.9		0.7s	9.20nm			5.1mb	
	0.5s	7.00nm			4.8mb			1.0s	21.00nm			5.0mb		LDF	88.86	335	eP	31	25.10	-0.3
BAL	69.74	202	iPc	29	41.70	-0.6				e	31	04.50			0.5s	7.80nm			5.2mb	
KLB	70.35	200	eP	29	45.00	-1.0	ELL	83.15	311	iP	30	57.80	0.1	SMF	89.06	332	eP	31	26.10	-0.3
ADE	70.46	181	iPc	29	47.20	0.6	EZN	83.28	315	eP	30	58.30	0.2		1.0s	22.00nm			5.4mb	
	0.4s	22.03nm			5.4mb		GOL	83.50	45	P	31	00.00	0.4	AVF	89.13	332	eP	31	26.50	-0.2
NUR	70.60	332	iP	29	46.80	-0.4	WTS	83.57	333	eP	30	59.50	0.2		0.8s	37.60nm			5.7mb	
	0.8s	77.70nm			5.7mb			0.9s	43.00nm			5.4mb		BNI	89.23	329	P	31	26.10	-1.3
EDM	70.81	38	iPd	29	48.50	-0.2	GRF	83.67	330	iPc	31	01.10	1.1	GRR	89.29	335	eP	31	27.10	-0.4
MUN	71.17	202	eP	29	50.00	-0.9		1.0s	99.00nm			5.8mb			0.8s	25.20nm			5.5mb	
CAN	71.25	173	eP	29	52.30	0.9	IZM	83.68	313	iP	31	00.80	0.6	BGF	89.52	332	eP	31	28.40	-0.2
NWAO	71.76	200	eP	29	54.30	-0.1	PRK	83.70	315	P	31	01.00	0.8		0.8s	13.40nm			5.2mb	
	0.6s	46.00nm			5.6mb		KSL	83.76	310	P	31	01.00	0.4	LPF	89.66	335	eP	31	29.00	-0.2
WDC	72.47	52	ePc	30	00.50	1.8	YER	83.89	312	iP	31	01.90	0.5		0.7s	39.60nm			5.8mb	
MIN	73.19	52	ePc	30	05.20	2.0	SRS	83.95	317	iPc	31	01.50	0.0	SBF	89.87	328	eP	31	29.10	-1.2
TOO	73.20	176	eP	30	04.00	1.2	EKA	83.97	340	Pc	31	01.40	0.1		0.9s	32.70nm			5.6mb	
	1.0s	21.00nm			5.0mb			0.7s	11.30nm			5.0mb		MAF	89.90	332	eP	31	30.60	0.2
SES	73.62	39	eP	30	00.00	-5.3X	AYN	84.07	301	iPc	31	03.30	1.0		1.3s	50.50nm			5.6mb	
UPP	73.65	334	iP	30	03.70	-1.5	OUR	84.27	317	iPc	31	03.80	0.7	TCF	89.98	332	eP	31	30.70	-0.1
ORV	73.69	53	ePc	30	07.00	1.1	MBH	84.29	303	iPc	31	04.00	0.6		1.0s	24.00nm			5.4mb	
GDH	74.72	5	iPc	30	12.00	0.8	KNT	84.30	318	iPc	31	03.90	0.6	LSF	90.27	333	eP	31	31.80	-0.3
	1.0s	40.00nm			5.3mb		VAY	84.37	318	iPc	31	04.00	0.4	CVF	90.27	326	eP	31	30.60	-1.6
HFS	74.82	335	eP	30	11.30	-0.7		0.9s	0.14nm			3.0mb	X		0.9s	27.50nm			5.5mb	
	0.8s	37.60nm			5.4mb		PTJ	84.45	325	eP	31	04.00	0.0	FRF	90.45	328	eP	31	31.70	-1.2
NRA0	75.08	337	P	30	12.40	-1.1	SKO	84.53	319	iPc	31	05.60	1.2		0.9s	32.70nm			5.6mb	
FFC	75.16	32	iPc	30	14.10	0.0		0.9s	106.00nm			5.9mb		MFF	90.58	334	eP	31	33.30	-0.2
	0.7s	14.00nm			5.0mb					i	31	21.00			0.8s	40.20nm			5.8mb	
NAO	75.24	337	P	30	14.00	-0.4	PLG	84.54	317	P	31	05.00	0.5	LRG	90.66	328	eP	31	33.10	-0.8
	0.7s	57.20nm			5.6mb		GRG	84.71	318	iPc	31	05.70	0.3		0.8s	48.30nm			5.9mb	
CMB	75.26	54	iPc	30	16.80	1.8	PAIG	84.71	316	iPc	31	05.70	0.4	LMR	90.69	328	eP	31	33.10	-0.9
DHR	75.28	292	eP	30	15.00	-0.2	KBA	84.77	327	iPc	31	05.50	-0.2		0.9s	40.60nm			5.7mb	
PRS	75.55	56	ePc	30	18.40	1.7		0.7s	13.00nm			5.1mb		RJF	91.07	332	eP	31	35.90	0.1
LRM	75.59	44	iPc	30	17.70	0.7				i	31	06.70			0.8s	37.60nm			5.8mb	
KVN	76.16	52	P	30	21.00	0.7				e	33	46.50		CAF	91.18	332	eP	31	36.90	0.6
FRI	76.29	54	ePc	30	22.20	1.5				i	34	03.30			0.9s	35.00nm			5.7mb	
HPI	76.49	46	P	30	23.00	0.8	ENN	84.89	333	iPc	31	06.40	0.4	LFF	91.67	333	eP	31	38.90	0.4
KVT	76.72	311	eP	30	24.00	0.8		0.8s	36.00nm			5.5mb			0.7s	38.30nm			5.9mb	
EUR	77.26	50	iP	30	27.40	1.0				e	31	22.00		LPO	91.72	332	eP	31	38.90	0.1
	0.6s	5.77nm			4.7mb		MEM	84.99	333	P	31	12.70	6.2X		0.9s	26.20nm			5.6mb	
TNP	77.28	52	P	30	27.00	0.4	VBY	85.07	325	ePc	31	07.40	0.4	GAC	92.62	24	eP	31	44.00	1.2
	0.8s	6.86nm			4.6mb		RBL	85.15	326	Pc	31	06.80	-0.7	EPF	93.45	332	eP	31	46.20	-0.6
IAS	77.78	320	eP	30	30.00	1.2	LIT	85.26	317	iPc	31	07.90	-0.2		0.9s	11.40nm			5.3mb	
KAS	77.92	312	iPc	30	31.50	1.7	CEY	85.29	325	e(P)	31	08.00	-0.1	BUL	118.84	265	iPKPc	37	19.90	-0.4
FRB	78.12	13	eP	30	30.00	-0.4	VOY	85.31	326	e(P)	31	07.70	-0.6	SPA	125.66	180	e(PKP)	37	32.50	0.5
CLI	78.34	320	ePc	30	32.00	0.0	FVI	85.39	327	Pc	31	07.80	-0.7		1.0s	13.50nm				
CFR	78.76	318	ePc	30	34.00	-0.2	OHR	85.47	319	iP	31	09.40	0.2	ARE	145.73	64	ePKP	38	12.00	1.3
DUG	78.78	48	P	30	32.50	-2.2		1.0s	0.11nm			2.9mb	X	ZOBO	148.02	60	PKP	38	16.00	1.3
RYD	78.81	292	iPc	30	34.50	-0.4				i	31	23.20			0.8s	26.34nm				
SBB	78.86	55	eP	30	37.00	1.9	KZN	85.51	318	P	31	09.00	-0.4	LPB	148.21	60	PKP	38	13.00	-1.9
VRI	79.08	319	eP	30	36.50	0.5	KAP	85.61	311	P	31	10.00	0.1		1.0s	80.00nm				
BBTK	79.46	312	iPc	30	39.00	0.7	TRI	85.61	326	iPd	31	09.30	-0.4				i	38	20.00	
DAU	79.58	47	P	30	39.50	0.3				i	31	18.00		CNCB	148.48	60	PKP	38	11.00	-4.5X
														CCH	150.16	59	ePKP	38	25.40	7.7X

25d 17h

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ITR    153.02 357 ePKP   38 22.70    1.1
                  e      38 29.10
                  e      38 38.20
                  e      38 46.20
SOB1   153.46   3 ePKP   38 22.00   -0.2
                  e      38 30.50
PEL    154.32  93 ePKP   38 31.50    8.6X
     1.0s     18.00nm
     S.D. = 0.9  on 253 of 272 obs.
-----------------------------------------
?  APR 25, 1989  17h 53m 17.12±12.96s
   66.936 N ±96.9km  156.278 W ±57.5km
   DEPTH =   5.0km  (geophysicist)
 ALASKA                              (676)
     ML 3.1 (PMR).

IMA      1.36 129 eP     53 43.10    0.3
TTA      4.02 178 eP     54 21.10    0.3
FBA      4.03 117 eP     54 20.60   -0.2
SVW      5.86 177 ePc    54 46.80    0.1
PMR      6.20 147 eP     54 50.60   -0.8
INK      8.77  71 eP     55 12.00  -15.4X
YKA     18.07  84 P      57 33.90    3.8X
     S.D. = 0.7  on   5 of   7 obs.
-----------------------------------------
   APR 25, 1989  18h 26m 52.06± 0.51s
   30.049 N ±10.1km   99.306 E ± 5.2km
   DEPTH =  10.0km  (geophysicist)
   4.5mb (  1 obs.)
 SICHUAN PROVINCE, CHINA             (307)

CD2      3.94  76 Pn     27 54.50    0.6
                Pg     28 03.20
KMI      5.78 147 Pn     28 21.00    0.9
LSA      7.09 269 Pc     28 43.50    4.7X
LZH      7.12  31 eP     28 29.00  -10.0X
     2.0s     27.00nm
   Z 10s      1.10um
               Lg     30 40.00
GYA      7.41 117 iPd    28 41.60   -1.4
XAN      9.08  62 eP     29 03.00   -3.1X
GTA      9.35   2 eP     29 15.40    5.5X
   N 10s      0.50um
CHG     11.19 182 eP     29 40.40    5.3X
GUN     11.95 263 P      29 46.40    0.7
PKI     12.43 262 P      29 52.20   -0.1
KKN     12.49 263 P      29 53.00    0.1
     0.4s     10.00nm          5.4mb X
DMN     12.69 262 P      29 56.20    0.6
GKN     13.00 265 P      29 59.00   -0.6
WHN     13.01  84 P      29 57.80   -1.8
BTO     13.67  37 eP     30 08.00   -0.4
   N 10s      1.20um
   E 10s      1.00um
TIA     16.13  63 eP     30 43.20    2.8
WMQ     16.56 329 P      30 50.50    4.6X
BJI     17.01  50 eP     30 54.50    3.0X
HYB     22.74 241 eP     31 58.00    2.5X
CN2     24.88  49 Pd     32 16.60    0.5
SUF     56.09 328 iP     36 33.10   -0.2
WB5     60.03 141 eP     36 56.00   -5.5X
NAO     63.54 327 P      37 23.80   -0.8
     0.8s      2.50nm          4.5mb
INK     74.47  18 eP     38 31.00   -0.9
     S.D. = 1.2  on  15 of  24 obs.
-----------------------------------------
?  APR 25, 1989  19h 02m 39.35± 3.27s
   66.929 N ±18.6km  156.336 W ±26.6km
   DEPTH =   5.0km  (geophysicist)
 ALASKA                              (676)
     ML 3.6 (PMR).

IMA      1.37 128 ePc    03 05.40    0.2
FBA      4.05 116 eP     03 43.00   -0.3
SVW      5.85 177 ePc    04 08.80   -0.1
PMR      6.21 146 eP     04 13.90    0.2
INK      8.79  71 eP     04 50.00    0.1
     S.D. = 0.3  on   5 of   5 obs.
-----------------------------------------
&  APR 25, 1989  19h 19m 23.28s
   58.010 N        151.319 W
   DEPTH =  57.0km
 KODIAK ISLAND REGION                ( 13)
     <AGS-P>.

XLV      1.46 352 iP     19 46.70   -1.1
CNPM     1.52   2 iP     19 47.56   -1.0
CDD      1.53 308 eP     19 47.46   -1.2
                 eS     20 06.12
AUL      1.76 322 eP     19 52.41    0.5
OPT      1.92 330 eP     19 53.02   -1.2
NNL      2.04   0 eP     19 55.10   -0.7
ILIM     2.24 338 iP     19 56.93   -1.8
SEW      2.31  24 eP     19 57.80   -1.8
PDB      2.32 321 eP     19 57.75   -2.0
                 eS     20 23.23
PDB      2.32 321 eP     19 57.97   -1.8
RED      2.53 343 eP     20 00.40   -2.4
SLKM     2.57  12 eP     20 01.67   -1.6
                 eS     20 27.92
RDT      2.63 348 eP     20 01.77   -2.4
KNIM     2.98  37 eP     20 08.02   -1.2
SPU      3.20 354 eP     20 09.87   -2.5
CRP      3.30 353 eP     20 11.51   -2.2
CGLM     3.33 354 eP     20 11.75   -2.4
SUA      3.48   5 eP     20 16.60    0.4
GLI      3.60  35 eP     20 15.62   -2.2
FID      3.70  40 eP     20 17.36   -1.9
SVW      3.80 327 eP     20 17.95   -2.8
VZW      3.90  36 eP     20 20.92   -1.2
GHO      3.96  17 eP     20 21.14   -1.9
SKT      3.99 359 eP     20 20.95   -2.3
KLU      4.43  36 eP     20 28.51   -1.1
TOA      4.85  30 eP     20 34.62   -0.9
GLB      5.13  45 eP     20 38.70   -0.7
BALM     5.48  53 iP     20 43.94   -0.5
       28 obs. associated
-----------------------------------------
   APR 25, 1989  19h 37m 07.65± 0.60s
   45.957 N ± 7.6km   14.700 E ± 4.8km
   DEPTH =  10.0km  (geophysicist)
 YUGOSLAVIA                          (383)
     MD 3.4 (LJU), 2.8 (TRI).

LJU      0.14 307 iPgc   37 10.50   -0.5
                 iSg    37 12.90
CEY      0.29 221 iPgd   37 14.60    0.9
                 iSg    37 20.00
VOY      0.57 278 iPgc   37 18.30   -0.9
                 eSg    37 28.10
VBY      0.60 139 iPg    37 19.40   -0.3
TRI      0.70 250 ePg    37 21.10   -0.4
                 iSg    37 33.00
PTJ      0.88  93 ePn    37 25.60    1.0
                 eSg    37 34.40
                 eSn    37 39.70
ZAG      0.91  98 iPg    37 24.00   -1.0
                 iSg    37 37.20
KBA      1.46 321 iPn    37 34.90    0.7
                 iPg    37 35.40
                 i      37 52.20
                 iSg    37 55.90
FVI      1.48 296 Pd     37 34.80    0.6
ZST      2.78  35 eP     37 44.30   -8.7X
                 i      38 35.80
KHC      3.27 347 eP     38 06.40    6.5X
     S.D. = 0.9  on   9 of  11 obs.
-----------------------------------------
   APR 25, 1989  20h 45m 16.86± 0.43s
   36.884 N ± 5.0km  140.811 E ± 5.1km
   DEPTH = 101.5 ±  3.3 km
   4.6mb (  8 obs.)
 NEAR EAST COAST OF HONSHU, JAPAN(228)
     Felt (III JMA) at Onahama and
     Mito, (II JMA) at Utsunomiya and
     (I JMA) at Shirokawa.

ONA      0.10  51 iPd    45 30.20   -0.8
                 iS     45 39.80
SHR      0.52 297 P      45 00.00  -33.2X
MIT      0.57 209 iPd    45 33.30   -0.2
                 iS     45 45.00
UTS      0.83 246 iPd    45 35.70   -0.1
                 iS     45 49.10
KAKJ     0.85 217 iPd    45 35.30   -0.7
                 S      45 48.50
YAMJ     1.43 335 iPd    45 43.00    0.3
                 S      46 02.40
NIIJ     1.49 284 P      45 44.40    1.0
                 S      46 04.50
CHJJ     1.68 241 iPd    45 46.20    0.3
                 S      46 07.40
MAT      2.12 262 iPc    45 52.80    1.2
                 iS     46 19.30
OFUJ     2.29  17 iP+    45 52.80   -1.1
                 S      46 19.00
MTMJ     2.43 264 iP+    45 57.30    1.4
IIDJ     2.73 240 P      46 01.60    1.8
                 S      46 36.60
AOMJ     3.69 355 P      46 12.80    0.0
TSRJ     4.13 252 P      46 20.40    1.5
WKYJ     5.02 240 P      46 30.70   -0.5
MRRJ     5.54   2 P      46 36.30   -2.0
HOOJ     5.82  18 P      46 39.00   -3.1X
                 eS     47 41.10
YONJ     6.19 256 P      46 47.80    0.5
TKSJ     6.23 244 eP     46 47.70   -0.2
KUSJ     6.89  25 P      46 53.20   -3.6X
                 S      48 05.10
SHK      7.02 253 eP     46 58.80    0.1
ASAJ     7.36  10 P      46 59.90   -3.4X
MDJ     11.48 316 eP     48 01.70    2.8X
CN2     13.59 305 Pc     48 25.20   -1.3
SNY     14.21 296 Pc     48 34.00   -0.5
TIA     19.04 275 eP     49 30.80   -2.8X
BJI     19.53 287 eP     49 36.00   -2.7X
TIY     22.56 281 eP     50 07.80   -1.4
WHN     22.86 262 P      50 12.00    0.0
BTO     24.24 288 eP     50 24.60   -0.9
LZH     29.62 280 eP     51 14.00   -0.7
GYA     30.72 260 iPd    51 23.40   -1.0
CD2     31.19 270 eP     51 26.80   -1.6
GTA     32.15 287 eP     51 35.60   -1.2
WMQ     40.48 297 P      52 48.50    1.5
CHG     40.79 255 eP     52 50.40    0.7
GUN     46.69 275 P      53 38.20    0.6
PKI     47.21 275 P      53 42.00    0.3
KKN     47.22 276 P      53 42.00    0.4
     0.6s     29.00nm          5.3mb
DMN     47.44 276 P      53 43.80    0.4
GKN     47.64 276 P      53 45.00    0.2
FBA     49 49  32 eP     54 04.00    5.7X
MTN     50.30 192 eP     54 04.00   -0.9
NDI     53.23 281 ePd    54 26.50   -0.4
WB5     56.78 187 iPd    54 51.00   -1.6
MBC     56.81  16 eP     54 52.00   -0.2
HYB     57.72 268 ePd    54 58.50   -0.9
ASPA    60.58 187 iPd    55 17.70   -1.1
GBA     60.72 265 Pc     55 19.10   -1.0
     0.5s      2.20nm          4.5mb
MBL     61.03 202 eP     55 21.00   -0.9
WARB    64.13 194 eP     55 33.40   -9.0X
SOD     64.92 337 eP     55 57.00    9.9X
SUF     67.90 333 iP     56 05.50   -0.5
     0.4s      6.20nm          4.9mb
FORR    68.42 192 iPc    56 09.20   -0.3
     0.5s     33.00nm          5.5mb
NUR     69.85 332 iP     56 18.00    0.0
WDC     71.55  53 ePc    56 29.80    1.2
HFS     74.03 335 eP     56 41.70   -1.1
     0.3s      1.90nm          4.4mb
FFC     74.09  32 eP     56 43.00   -0.2
     1.0s     14.00nm          4.7mb
CMB     74.35  54 iPc    56 46.40    1.3
NAO     74.42 337 P      56 44.90   -0.2
     0.6s      4.40nm          4.5mb
LRM     74.59  44 ePd    56 47.60    1.0
KVN     75.23  52 iP     56 51.00    0.6
FRB     77.03  13 eP     57 01.00    1.4
KSP     79.97 328 eP     57 17.00    1.1
                 e      57 39.50
CLL     80.98 330 e(P)   57 25.00    3.8X
PRU     81.36 328 eP     57 24.00    0.8
                 e      57 46.00
KHC     82.42 328 Pd     57 30.40    1.6
                 e      57 52.60
OHR     84.93 319 e(P)   57 41.30   -0.4
ALQ     85.06  50 eP     57 44.00    1.4
     1.0s      3.75nm          4.3mb
ZOBO   147.18  59 ePKP   04 50.00    1.6
                 i      04 51.70
LPB    147.38  59 (PKP)  04 53.00    4.5X
CNCB   147.65  60 PKP    04 53.70    4.6X
CCH    149.31  58 (PKP)  04 57.50    6.1X
     S.D. = 1.0  on  59 of  73 obs.
-----------------------------------------
   APR 25, 1989  22h 12m 37.04± 0.75s
   66.941 N ± 5.2km  156.323 W ±10.7km
   DEPTH =   5.0km  (geophysicist)
   4.2mb (  2 obs.)
 ALASKA                              (676)
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ML 4.2 (PMR).

IMA	1.38	128	eP	13 03.00	0.0
TTA	4.03	178	iPc	13 40.50	-0.3
FBA	4.05	116	iPd	13 41.00	0.0
BRW	4.39	358	eP	13 46.50	0.7
SVW	5.86	177	eP	14 06.50	-0.2
PMR	6.21	146	eP	14 11.90	0.4
TOA	6.53	133	eP	14 16.80	0.6
INK	8.79	71	eP	14 47.00	-0.5
MBC	14.59	35	eP	16 05.00	-0.6
YKA	18.09	84	P	16 51.60	1.4X
ALE	24.82	18	eP	18 02.00	1.3
	0.5s		4.00nm		4.4mb
SLL	52.66	6	eP	21 52.40	-1.3
	0.4s		0.90nm		4.1mb

S.D. = 0.8 on 11 of 12 abs.

APR 25, 1989 22h 22m 32.18± 1.27s
42.258 N ± 8.5km 18.721 E ± 8.6km
DEPTH = 13.5 ± 7.1 km
YUGOSLAVIA (383)
MD 2.5 (TTG).

BDV	0.08	73	iPgc	22 34.90	-0.3
			iSg	22 36.20	
HCY	0.25	319	iPgd	22 38.40	0.6
			iSg	22 42.50	
TTG	0.44	67	iPgd	22 40.00	-1.1
			iSg	22 46.00	
ULC	0.49	127	ePg	22 42.30	0.1
			eSg	22 50.00	
NKY	0.59	20	ePg	22 42.60	-1.3
			eSg	22 51.00	
BRY	0.66	349	ePg	22 44.90	-0.1
			eSg	22 54.80	
PUK	0.90	103	ePg	22 52.80	3.8X
PVY	0.99	70	ePg	22 51.00	0.3
			eSg	23 05.80	
BCI	1.00	83	ePg	22 52.90	2.0
IVA	1.06	54	ePg	22 52.70	0.7
			eSg	23 08.00	
PLE	1.18	25	ePg	22 54.30	0.3
			eSg	23 11.80	
OHR	1.93	126	ePn	23 04.00	-1.0
SKO	2.04	97	ePn	23 22.50	15.9X

S.D. = 1.2 on 11 of 13 abs.

? APR 25, 1989 23h 10m 12.54± 3.68s
15.817 N ±31.9km 99.883 W ±20.1km
DEPTH = 33.0km (normal)
4.5mb (1 obs.)
OFF COAST OF GUERRERO, MEXICO (65)

ACX	1.05	1	iP	10 31.50	0.6
			iS	10 39.50	
III	2.58	9	iP	10 52.50	-0.5
			iS	11 23.50	
OXX	3.28	67	iP	11 04.00	0.9
IIT	3.52	25	iP	11 09.50	2.9X
			iS	11 52.50	
UNM	3.56	11	iP	11 08.50	1.4
			iS	11 39.50	
CRX	3.57	3	(P)	11 15.00	7.7X
IISM	3.96	37	iP	11 10.50	-2.0
			iS	12 05.50	
IIC	3.97	9	iP	11 19.00	6.0X
MRX	4.06	342	(P)	11 22.50	8.6X
			iS	12 16.00	
LRM	31.72	343	eP	16 41.70	5.9X
PNT	37.08	339	eP	17 21.00	-0.5
FFC	38.86	358	eP	17 39.00	2.7X
	0.9s		9.00nm		4.5mb

S.D. = 1.6 on 6 of 12 abs.

% APR 25, 1989 23h 17m 50.16± 4.59s
33.472 S ±10.0km 70.470 W ±20.8km
DEPTH = 82.8 ± 39.9 km
CHILE-ARGENTINA BORDER REGION (127)

PCH	0.15	194	iP	18 02.50	0.0
			iS	18 12.00	
FCH	0.21	46	iPc	18 03.00	0.0
			iS	18 13.10	
PEL	0.37	331	iPc	18 03.40	-0.1
			iS	18 13.20	
TACH	0.43	245	iP	18 03.90	0.1
			iS	18 14.50	
CHCH	0.49	198	iPd	18 04.50	0.2
			iS	18 16.40	
ROCH	0.67	318	iP	18 06.00	-0.3
			iS	18 18.20	
JACH	0.79	352	iP	18 07.50	0.1
			iS	18 20.50	
LCCH	0.92	269	iP	18 09.10	0.4
			iS	18 22.60	
LNV	0.92	238	iPd	18 08.20	-0.5
			iS	18 22.60	

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

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* APR 26, 1989 01h 22m 57.72± 1.00s
66.898 N ± 7.9km 156.363 W ±17.9km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.2 (PMR).

IMA	1.36	127	ePd	23 23.30	-0.1
TTA	3.99	178	eP	24 00.80	-0.1
BRW	4.43	358	eP	24 07.00	0.0
SVW	5.82	176	eP	24 26.80	0.0
PMR	6.19	146	eP	24 32.00	0.2
YKA	18.11	84	P	27 14.40	3.3X

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

? APR 26, 1989 03h 30m 27.17±15.04s
9.481 S ±119.km 123.811 E ±74.0km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
TIMOR (289)

KNA	7.89	143	eP	32 26.80	4.3X
	0.3s		11.00nm		5.5mb X
			iS	33 50.50	
MTN	7.92	116	iPc	32 23.00	0.0
	0.2s		201.00nm		6.9mb X
			eS	33 44.00	
WB5	14.52	137	eP	33 51.80	-0.5
			eS	36 26.00	
WRA	14.55	137	Pd	33 53.20	0.5
	0.3s		1.40nm		3.9mb
WARB	16.83	171	eP	34 22.00	0.0
			eS	37 23.00	
ASPA	17.09	147	eP	34 28.00	2.7X
			eS	37 28.40	
QIS	18.79	128	iPd	34 46.40	0.0
	0.3s		10.00nm		4.5mb
			eS	38 05.00	

S.D. = 0.5 on 5 of 7 obs.

% APR 26, 1989 03h 31m 21.61± 1.61s
45.998 N ±12.1km 27.737 E ±15.8km
DEPTH = 33.0km (normal)
ROMANIA (358)

CLI	0.64	330	iPc	31 34.50	0.3
VRI	0.72	260	iPc	31 33.50	-1.8
CFR	0.86	160	iPd	31 37.00	-0.3
ISR	1.20	225	eP	31 43.00	0.8
MLR	1.35	249	eP-	31 45.50	1.0

S.D. = 1.6 an 5 of 5 obs.

& APR 26, 1989 05h 22m 18.90s
37.263 N 121.682 W
DEPTH = 4.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.6 (BRK).

MHC	0.08	22	iPd	22 20.80	-0.1
ARN	0.15	54	iPd	22 21.40	-0.5
GCC	0.34	227	iPc	22 26.20	0.4
			iS	22 32.10	
SAO	0.53	159	iPd	22 29.50	0.0
PCC	0.61	293	iPc	22 30.60	-0.4
			i	22 31.80	
			iS	22 41.70	
BKS	0.75	325	eP	22 34.40	0.4
BRK	0.76	323	eP	22 33.60	-0.6
			eS	22 46.60	
LLA	0.88	137	iPc	22 36.60	0.3
			iS	22 49.40	
CMB	1.29	53	eP	22 41.80	-1.5
			iS	22 58.80	
FRI	1.60	99	eP	22 46.10	-1.9
			eS	23 04.80	
KVN	3.34	57	eP	23 18.00	4.8

11 obs. associated

APR 26, 1989 06h 12m 07.92± 0.53s
39.290 N ± 4.6km 23.311 E ± 5.3km
DEPTH = 8.9 ± 2.9 km
AEGEAN SEA (365)
ML 3.5 (ATH).

NEO	0.07	284	iPgc	12 09.70	-0.5
PAIG	0.70	24	iPgc	12 22.90	1.1
			iSg	12 34.20	
LIT	1.03	322	ePg	12 26.40	-1.1
			iSg	12 40.50	
PLG	1.09	5	ePb	12 28.50	0.0
OUR	1.16	26	ePb	12 30.10	0.4
ATH	1.35	166	ePb	12 31.50	-1.4
			eSb	12 48.00	
THE	1.37	349	ePb	12 32.20	-0.9
			eSb	12 51.50	
SOH	1.53	1	ePb	12 35.50	0.0
KZN	1.56	311	ePb	12 35.00	-1.0
GRG	1.80	338	ePn	12 38.40	-1.0
			eSn	13 01.70	
SRS	1.84	7	ePnc	12 39.40	-0.5
KNT	1.90	351	ePnc	12 40.50	-0.2
			eSn	13 04.90	
VAY	2.11	345	iPn	12 43.00	-0.8
LSK	2.26	293	ePn	12 45.80	-0.3
PRK	2.30	90	ePg	12 50.50	3.9X
MMB	2.32	8	iPc	12 45.00	-1.9
ITM	2.37	208	ePn	12 46.50	-1.1
EZN	2.39	76	ePn	12 49.00	1.1
VLS	2.40	243	ePn	12 45.50	-2.5
RDO	2.52	42	ePn	12 48.20	-1.4
KKB	2.58	356	iPd	12 50.00	-0.6
RZN	2.62	24	iPc	12 51.00	-0.4
SRN	2.63	284	ePn	12 53.30	2.1
OHR	2.65	314	iPn	12 52.40	0.8
TPE	2.73	293	ePn	13 00.20	7.4X
KDZ	2.85	34	iP	12 53.00	-1.4
BERA	2.94	300	ePn	12 59.00	3.3X
SKO	3.03	333	iPn	12 56.00	-1.0
DIM	3.23	31	eP	13 02.00	2.2X
PHP	3.24	318	iPnc	13 00.80	0.8
VTS	3.30	359	iPc	13 01.00	0.1
PGB	3.32	11	eP	13 00.00	-1.1
TIR	3.34	309	ePn	13 05.20	3.8X
LACI	3.61	312	ePn	13 09.00	3.8X
EDC	3.66	72	ePn	13 16.00	10.1X
BCI	3.94	322	iPn	13 11.80	2.0
VAM	3.94	169	ePn	13 11.70	1.8
MLR	6.50	17	eP	13 45.00	-1.1

S.D. = 1.2 on 31 of 38 obs.

? APR 26, 1989 06h 47m 19.51± 7.60s
12.378 S ±65.3km 117.743 E ±40.2km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
SOUTH OF SUMBAWA ISLAND (291)

MBL	8.96	167	iPd	49 30.00	0.3
	0.3s		16.00nm		5.7mb X
			eS	51 09.00	
NANU	10.35	191	eP	49 48.50	-0.2
			eS	51 42.00	
MEKA	14.18	177	eP	50 39.50	-0.7
			eS	53 12.00	
WARB	16.09	150	eP	50 57.50	-7.4X
	0.2s		3.00nm		4.1mb
			eS	53 55.00	
MRWA	16.84	185	eP	51 15.00	0.6
			eS	54 13.00	
WB5	17.62	117	eP	51 24.20	0.0
			eS	54 37.30	

S.D. = 0.7 on 5 of 6 obs.

APR 26, 1989 08h 23m 18.39± 0.67s
42.288 N ± 4.9km 12.821 E ± 6.6km
DEPTH = 9.8 ± 7.6 km
CENTRAL ITALY (381)

MNS	0.14	313	Pc	23 22.70	1.0
			eSg	23 26.60	
AQU	0.44	81	Pc	23 28.70	1.4
RMP	0.48	191	P	23 28.30	0.1
RDP	0.54	188	Pc	23 28.60	-0.6

26d 08h

			eSg	23 36.00		
ALP	0.74	48	iPgc	23 32.11	-1.0	
			iSg	23 44.38		
ASS	0.79	351	P	23 33.30	-0.5	
			eSg	23 46.30		
CIO	0.94	15	iPg	23 35.33	-1.0	
			iSg	23 50.84		
SDI	0.94	128	P	23 36.30	-0.1	
			eSg	23 49.50		
AOI	1.39	24	ePg	23 43.97	0.2	
			iSg	24 06.94		
PGD	1.78	333	P	23 50.00	0.4	

S.D. = 1.0 on 10 of 10 obs.

% APR 26, 1989 08h 46m 58.14± 0.81s
39.093 N ± 6.7km 27.578 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.74	200	ePg	47 12.50	-0.1	
			eSg	47 23.50		
DST	0.96	58	iPn	47 16.90	0.4	
EZN	1.21	307	ePn	47 21.00	0.3	
EDC	1.27	10	ePn	47 21.60	-0.1	
BNT	1.29	12	iPn	47 21.90	-0.1	
KCT	1.30	27	iPn	47 21.90	-0.3	

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

% APR 26, 1989 09h 06m 49.44± 0.88s
39.124 N ± 7.6km 27.630 E ± 9.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.78	202	ePg	07 04.50	-0.2	
			eSg	07 16.50		
DST	0.91	58	ePn	07 07.40	0.5	
EZN	1.23	305	ePn	07 12.60	0.3	
EDC	1.23	8	ePn	07 12.10	-0.3	
KCT	1.26	26	iPn	07 12.40	-0.4	

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

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* APR 26, 1989 09h 16m 44.76± 0.82s
23.102 N ±10.2km 98.959 E ± 8.4km
DEPTH = 33.0km (normal)
BURMA-CHINA BORDER REGION (297)

KMI	4.00	59	Pgd	17 45.50	0.0	
			Sg	18 29.00		
CHG	4.27	180	ePn	17 49.10	0.0	
			ePg	18 06.00		
			iSg	19 05.30		
BDT	5.83	180	ePg	18 35.00	23.8X	
			eSg	19 10.00		
GYA	7.76	63	Pn	18 27.60	-10.8X	
			Sn	19 41.00		
PKI	13.03	293	P	19 50.60	0.0	
KKN	13.21	294	P	19 53.00	0.2	
GKN	13.82	294	P	20 00.60	-0.1	
TIY	18.60	35	eP	20 54.80	-6.7X	

S.D. = 0.2 on 5 of 8 obs.

? APR 26, 1989 10h 08m 35.70± 8.51s
39.170 N ±59.9km 23.571 E ±23.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

NEO	0.30	297	iPbd	08 42.10	0.1	
			eSb	08 47.00		
PAIG	0.76	6	iPgc	08 51.10	0.6	
			iSg	09 02.40		
OUR	1.21	15	iPbc	08 57.90	-0.2	
PLG	1.21	355	ePn	08 58.00	-0.2	
			eSn	09 13.70		
LIT	1.25	318	ePb	08 58.80	-0.1	
			eSb	09 15.50		
SOH	1.66	354	ePb	09 04.70	-0.3	
KNT	2.06	346	ePn	09 10.80	0.1	
			eSn	09 37.50		

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

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* APR 26, 1989 10h 29m 58.24± 2.79s
37.675 N ±18.2km 20.647 E ±23.4km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
MD 3.3 (ATH).

VLS	0.50	355	ePg	30 07.70	-0.8	
			eSg	30 15.20		
ITM	1.13	115	ePg	30 19.20	-0.3	
SRN	2.26	347	ePn	30 47.80	11.6X	
NEO	2.60	50	ePn	30 41.20	0.2	
TPE	2.66	349	ePn	30 42.50	0.6	
LIT	2.82	30	ePn	30 44.40	0.3	

S.D. = 0.7 on 5 of 6 obs.

% APR 26, 1989 11h 09m 04.81± 0.83s
39.249 N ± 7.0km 27.680 E ± 8.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.82	64	ePg	09 21.00	0.3	
IZM	0.91	201	ePn	09 22.00	-0.3	
EDC	1.11	7	ePn	09 25.10	-0.5	
BNT	1.12	9	iPn	09 25.20	-0.6	
KCT	1.13	27	iPn	09 26.40	0.5	
EZN	1.20	299	ePn	09 27.60	0.5	
YER	2.16	167	iPg	09 56.10	14.7X	

S.D. = 0.7 on 6 of 7 obs.

? APR 26, 1989 11h 09m 13.20± 2.12s
14.674 N ±31.8km 93.322 W ±10.0km
DEPTH = 49.3 ± 12.6 km
4.5mb (5 obs.)
NEAR COAST OF CHIAPAS, MEXICO (69)

TPX	1.05	77	iPc	09 32.00	0.2	
			iS	09 51.00		
SCX	2.15	18	iP	09 38.00	-9.3X	
			iS	10 27.00		
OXX	4.05	307	iP	09 32.00	-42.5X	
			iS	10 13.00		
IISM	5.79	318	(P)	10 49.00	10.3X	
III	6.95	303	(P)	10 53.50	-1.7	
CRX	7.69	309	(P)	11 01.00	-4.6X	
MRX	9.03	305	iPc	11 25.00	1.2	
UYO	19.44	357	eP	13 38.10	-0.4	
			i	13 43.00		
OLY	20.81	4	P	13 53.20	0.4	
ELC	22.81	8	P	14 13.20	0.4	
ALQ	23.39	332	eP	14 20.00	1.3	
	1.0s		2.50nm		3.6mb	
GLD	27.07	340	P	14 55.00	1.7	
	1.2s		17.68nm		4.6mb	
GOL	27.08	339	P	14 54.30	0.8	
TNP	31.47	322	P	15 32.70	0.0	
KVN	32.63	323	P	15 43.00	0.2	
LRM	34.98	336	eP	16 02.80	-0.2	
RSON	36.09	360	P	16 10.00	-2.0	
	0.6s		5.01nm		4.6mb	
EDM	41.59	342	eP	16 58.00	0.2	
YKC	50.04	347	ePd	18 04.50	-0.2	
	0.8s		8.00nm		4.8mb	
YKA	50.08	347	P	18 05.20	0.2	
FRB	51.96	14	eP	18 18.00	-1.1	
INK	59.43	344	eP	19 12.00	-0.9	
MBC	63.09	353	eP	19 36.00	-1.4	
NAO	84.06	29	P	21 41.20	1.5	
	0.9s		3.20nm		4.4mb	
GBA	150.45	18	PKPd	29 00.00	3.8X	
	0.8s		2.80nm			

S.D. = 1.1 on 20 of 25 obs.

APR 26, 1989 12h 19m 41.05± 0.24s
44.622 N ± 1.9km 7.047 E ± 3.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.8 (LDG), 2.3 (GEN).

PZZ	0.12	161	Pc	19 44.51	0.3	
			S	19 46.50		
DOI	0.18	130	Pc	19 45.70	0.5	
			eSg	19 49.00		
RRL	0.35	328	Pd	19 48.36	0.0	
			S	19 53.40		
BNI	0.51	329	Pc	19 51.00	-0.3	
			eSg	19 58.10		
RSP	0.55	16	P	19 52.49	0.2	
			S	19 59.81		
TOUF	0.62	167	Pg	19 53.46	-0.3	
ROB	0.67	119	Pd	19 54.35	-0.1	
			S	20 03.07		
AUTN	0.68	156	Pg	19 54.72	0.0	
MVIF	0.73	174	Pg	19 55.23	-0.3	
			Sg	20 05.61		
SAOF	0.73	150	Pg	19 55.30	-0.2	
AURF	0.76	165	Pg	19 55.98	0.0	
			Sg	20 06.33		
SBF	0.81	160	Pg	19 56.80	0.0	
			Sg	20 07.60		
LSD	0.84	5	P	19 57.66	0.2	
			S	20 08.43		
CALN	0.88	187	Pg	19 57.63	-0.4	
LPG	0.90	347	Pg	19 58.50	0.0	
			Sg	20 10.30		
LPL	0.92	346	Pg	19 58.80	0.0	
			Sg	20 10.90		
FIN	0.93	116	P	19 58.61	-0.2	
			S	20 10.21		
IMI	0.93	139	P	19 58.84	-0.1	
			S	20 10.55		
FRF	1.10	195	Pg	20 01.50	-0.2	
			Sg	20 15.40		
LRG	1.27	203	Pg	20 05.00	0.4	
			Sg	20 21.10		
LMR	1.34	197	Pn	20 06.30	0.5	
			Sg	20 22.60		

S.D. = 0.3 on 21 of 21 obs.

APR 26, 1989 12h 28m 14.11± 0.24s
41.236 N ± 2.9km 20.892 E ± 2.3km
DEPTH = 11.0 ± 2.0 km
3.9mb (3 obs.)
ALBANIA (391)
ML 3.7 (TTG), 3.7 (ATH). Felt (V) at Kicevo and Resen, Yugoslavia.

OHR	0.14	209	iPgc	28 17.20	-0.4	
			iSg	28 19.80		
PHP	0.57	323	iPgc	28 24.40	-1.1	
KBN	0.61	186	iPgd	28 25.60	-0.8	
TIR	0.78	279	ePg	28 29.50	0.3	
SKO	0.84	29	iPgc	28 29.80	-0.5	
	0.4s		5530.00nm			
			i	28 34.00		
			iSg	28 41.40		
			Lg	28 43.00		
BERA	0.89	234	iPgc	28 32.10	1.0	
KKS	0.91	337	iPg	28 31.50	0.0	
LACI	0.97	295	iPgd	28 33.00	0.5	
PUK	1.10	317	ePg	28 34.20	-0.4	
LSK	1.11	192	iPgd	28 35.50	0.6	
KZN	1.14	144	ePn	28 34.50	-1.0	
TPE	1.15	216	iPnc	28 39.00	3.4X	
GRG	1.17	103	iPbd	28 35.60	-0.4	
			iSb	28 51.80		
VAY	1.27	86	iPg	28 37.00	-0.6	
			i	28 50.30		
			iSg	28 54.00		
BCI	1.29	332	iPgc	28 38.00	0.2	
ULC	1.43	301	ePg	28 40.50	0.5	
			eSg	29 04.00		
SRN	1.51	207	iPn	28 44.80	3.7X	
KNT	1.52	92	ePb	28 41.60	0.4	
			iSb	29 00.90		
PVY	1.52	334	ePg	28 42.50	1.1	
			eSg	29 06.00		
LIT	1.66	132	ePb	28 43.90	0.6	
			eSb	29 06.10		
THE	1.68	110	ePn	28 43.70	0.1	
			eSn	29 04.80		
TTG	1.71	315	ePn	28 45.50	1.6	
			eSn	29 12.00		
KKB	1.76	68	iPd	28 46.00	1.2	
IVA	1.79	336	ePn	28 47.40	2.1	
			eSn	29 13.00		
BDV	1.87	305	ePn	28 49.00	2.7X	
			eSn	29 15.50		
SOH	1.91	102	ePn	28 47.10	0.2	
SRS	2.04	92	ePn	28 48.90	0.1	
			eSn	29 13.80		
NKY	2.12	319	ePn	28 53.20	3.2X	
			eSn	29 21.40		
PLG	2.12	113	ePn	28 50.50	0.5	
HCY	2.16	305	ePn	28 53.20	2.7X	
			eSn	29 23.00		
MMB	2.16	80	iPd	28 51.00	0.4	
VTS	2.20	51	eP	28 53.00	1.8	
PLE	2.37	333	ePn	28 55.60	2.0	
			eSn	29 25.00		
BRY	2.41	314	ePn	28 57.00	2.7X	

			eSn	29 27.50		
PAIG	2.49	121	ePn	28 55.30	0.1	
			eSn	29 22.90		
OUR	2.51	110	ePn	28 55.60	0.1	
NEO	2.63	136	ePn	28 57.00	-0.2	
PGB	2.78	61	eP	29 00.00	0.6	
RZN	2.91	80	eP	29 03.00	1.6	
PLD	2.98	72	eP	29 03.00	0.8	
VLS	3.06	184	ePn	29 03.70	0.4	
RDO	3.51	90	ePn	29 10.50	0.9	
BEO	3.60	355	ePn	29 19.00	8.1X	
			eSg	30 17.50		
TDS	3.81	247	P	29 56.30	42.2X	
ITM	4.13	168	ePn	29 20.00	1.5	
MGR	4.20	257	P	29 20.40	0.9	
SGO	4.29	263	P	29 21.70	1.0	
BZS	4.41	7	ePc	29 21.00	-1.4	
MLR	5.63	39	eP	29 40.00	0.2	
KCT	5.76	97	iPn	30 28.20	46.7X	
PTJ	5.88	324	eP	29 43.30	0.0	
VBY	5.92	318	e(P)	29 45.20	1.4	
VRI	6.28	41	eP	29 49.00	0.1	
ASS	6.39	289	Pd	29 50.70	0.2	
CEY	6.51	316	eP	29 52.80	0.6	
			eS	31 08.00		
LJU	6.66	318	e(P)	29 54.80	0.5	
			e	31 35.00		
TRI	6.84	313	i(Pn)	29 56.20	-0.6	
			i(Sn)	31 12.10		
			i	31 49.20		
			i	31 55.00		
VOY	6.98	316	eP	29 58.00	-0.8	
KBA	7.97	320	i(P)	30 12.20	-0.5	
	0.6s		7.70nm		5.1mb X	
			i	30 17.20		
KHC	9.43	329	eP	30 33.00	0.2	
LPG	11.14	297	eP	30 54.80	-1.8	
	0.7s		4.40nm		4.9mb X	
HAU	12.37	308	eP	31 09.40	-3.5X	
SMF	13.42	299	eP	31 23.30	-3.6X	
	0.5s		2.10nm		4.4mb X	
LBF	13.43	301	eP	31 24.10	-3.0X	
	0.6s		4.50nm		4.7mb X	
LOR	13.61	302	eP	31 28.10	-1.3	
	0.8s		5.30nm		4.5mb X	
HFS	19.44	349	eP	32 39.20	-4.1X	
	0.4s		2.40nm		3.8mb	
NAO	20.56	346	P	32 53.00	-2.1	
	0.5s		2.70nm		3.9mb	
EKA	21.18	320	P	33 00.00	-1.5	
	0.8s		4.40nm		3.9mb	
	S.D. = 1.0		on 55 of 68 obs.			

• APR 26, 1989 13h 40m 35.15± 0.94s
27.850 N ±14.0km 85.229 E ±10.0km
DEPTH = 33.2 ± 12.3 km
NEPAL (310)

KKN	0.08	143	P	40 40.40	-0.7	
DMN	0.26	204	P	40 44.10	1.3	
PKI	0.32	150	P	40 44.60	1.1	
GKN	0.55	286	P	40 46.20	-0.4	
GUN	0.58	84	P	40 46.00	-1.2	
NDI	7.11	279	eP	42 25.50	5.9X	
	0.6s		13.33nm		5.1mb X	
			eS	43 32.80		
HYB	12.07	212	eP	43 26.50	-1.3	
POO	13.97	231	iPc	43 52.60	-0.4	
			iSd	46 37.70		
CHG	15.47	123	eP	44 18.40	5.9X	
YKA	88.58	9	P	53 27.20	1.6	
	S.D. = 1.5		on 8 of 10 obs.			

APR 26, 1989 13h 44m 29.09± 0.66s
0.200 N ± 4.0km 122.119 E ± 5.0km
DEPTH = 211.3 ± 6.8 km
5.0mb (23 obs.)
MINAHASSA PENINSULA (265)

TSM	5.69	315	ePd	45 53.00	-0.1	
MKS	6.00	206	iPd	45 57.80	0.6	
AAI	7.19	123	ePc	46 13.80	1.1	
KKM	8.27	315	eP	46 25.80	-1.1	
	1.0s		59.50nm		4.8mb	
MTN	15.74	146	iPd	48 01.50	0.3	
			e	50 42.00		
			e	51 12.00		

BAG	16.18	355	eP	48 04.90	-1.8	
KNA	17.15	158	iPc	48 17.30	-0.5	
	0.4s		36.00nm		5.2mb	
KGM	18.88	276	eP	48 36.00	0.1	
MBL	21.35	186	iPc	49 00.30	-0.3	
	0.6s		36.00nm		5.1mb	
IPM	21.51	282	ePc	49 02.80	0.6	
	1.1s		76.80nm		5.1mb	
PPI	21.73	268	eP	49 06.00	1.7	
QIZ	22.25	328	eP	49 12.80	3.4X	
			eS	52 52.00		
			sS	53 08.50		
SNG	22.54	288	eP	49 14.00	1.9	
	1.3s		161.54nm		5.4mb	
WB5	23.29	150	iPc	49 19.20	-0.2	
			eS	53 21.80		
WRA	23.33	150	Pc	49 19.20	-0.6	
	0.6s		51.40nm		5.3mb	
NANU	23.52	195	iPc	49 21.50	0.0	
LOE	26.36	311	eP	49 47.40	-0.4	
WARB	26.59	171	iPc	49 40.60	-9.2X	
	0.4s		13.00nm		5.0mb	
PMG	26.69	112	eP	49 50.50	-0.3	
QIS	26.80	141	eP	49 51.00	-0.7	
MEKA	26.88	187	iPc	49 51.90	-0.5	
	0.5s		45.00nm		5.4mb	
BDT	28.37	308	eP	50 07.10	1.3	
CHG	29.32	310	ePc	50 14.60	0.3	
	1.2s		44.92nm		5.1mb	
MRWA	29.83	191	iPc	50 18.10	-0.5	
	0.5s		45.00nm		5.4mb	
GYA	30.05	332	iPd	50 21.40	0.6	
			PcP	53 16.80		
COOL	30.93	182	eP	50 25.70	-2.5	
	0.5s		5.00nm		4.5mb	
KMI	31.06	324	Pd	50 31.00	1.2	
BAL	31.07	189	iPc	50 28.50	-0.9	
	0.5s		31.00nm		5.3mb	
CTA	31.07	132	iPc	50 29.90	0.3	
	0.9s		16.81nm		4.7mb	
			i	53 20.60		
FORR	31.40	170	iPd	50 31.60	-0.7	
	0.4s		32.00nm		5.3mb	
NJ2	31.83	355	Pc	50 36.60	0.6	
KLB	31.89	187	iPc	50 35.80	-0.8	
MUN	32.49	189	iPd	50 41.10	-0.7	
NWAO	33.27	188	eP	50 48.10	-0.4	
	0.6s		26.00nm		5.0mb	
RKG	34.43	188	eP	51 03.00	4.7X	
CD2	35.16	332	eP	51 04.60	-0.1	
XAN	35.87	341	Pd	51 10.10	-0.4	
STK	36.85	152	iPc	51 19.60	0.9	
ADE	38.27	158	iPd	51 32.00	1.4	
	0.9s		43.70nm		5.1mb	
TIY	38.38	348	Pd	51 32.00	0.4	
VSG	38.59	105	eP	51 33.00	-0.5	
SVO	38.67	105	eP	51 33.00	-1.1	
HNR	38.85	105	eP	51 36.00	0.3	
BJI	40.02	353	eP	51 44.00	-0.9	
			e	53 45.50		
BRS	40.24	135	eP	51 50.00	3.0X	
LSA	41.61	318	iPc	52 00.20	1.6	
BTO	41.69	346	eP	52 00.00	1.3	
CAN	43.33	147	iPc	52 13.70	1.7	
TOO	43.34	153	eP	52 14.00	1.9	
GUN	44.32	312	Pc	52 20.70	0.2	
PKI	44.50	311	Pc	52 21.80	0.0	
KKN	44.71	311	Pc	52 23.50	0.1	
DMN	44.75	311	Pc	52 23.90	0.2	
GKN	45.31	311	Pc	52 28.10	0.1	
HYB	46.15	294	iPc	52 34.00	-0.6	
	1.0s		170.00nm		5.4mb	
GBA	46.20	289	Pd	52 34.40	-0.6	
	0.8s		22.70nm		4.6mb	
DZM	48.53	120	iPc	52 53.90	0.8	
WMQ	53.17	329	Pc	53 27.00	-0.5	
MAIO	68.07	309	eP	55 06.00	-2.2	
AVY	75.31	250	eP	55 50.00	-1.4	
TTA	86.11	27	P	56 47.00	-0.2	
	1.0s		10.00nm		4.6mb	
IMA	87.46	24	P	56 53.40	-0.2	
	1.1s		7.34nm		4.4mb	
PMR	89.23	29	P	57 00.30	-1.6	
FBA	89.86	25	P	57 03.80	-1.0	
	0.8s		4.31nm		4.4mb	
SPA	90.20	180	ePd	57 07.10	0.6	
	1.0s		15.00nm		4.9mb	

BUL	93.36	250	iPc	57 20.20	-1.8	
	1.0s		10.00nm		4.9mb	
INK	95.11	21	eP	57 28.00	-0.9	
NRA0	99.77	332	eP	57 33.40	-16.7X	
			iPg	57 36.00		
			iSg	58 09.40		
YKA	104.58	24	ePdiff	58 14.20	2.8X	
KVN	112.62	47	PKP	02 42.30	-0.2	
MSU	117.11	46	PKP	02 51.70	0.5	
GOL	121.27	42	PKP	02 58.70	-0.4	
ALQ	122.79	47	PKP	03 02.40	0.4	
LIC	126.87	278	PKP	03 09.00	-1.3	
FVM	131.60	35	PKP	03 18.50	-0.1	
TKL	136.94	31	PKP	03 30.00	1.2	
LNV	144.10	161	ePKPc	03 40.70	-0.8	
CHCH	144.37	162	ePKP	03 41.50	-0.6	
TACH	144.53	161	ePKPd	03 42.00	-0.4	
PCH	144.70	162	iPKPc	03 43.50	0.7	
SAN	144.81	161	ePKP	03 43.00	0.1	
FCH	145.04	162	ePKP	03 45.00	1.3	
PEL	145.09	161	iPKPc	03 43.50	0.1	
	1.1s		126.58nm			
JACH	145.54	161	ePKP	03 45.00	0.8	
CNCB	160.73	149	PKP	04 08.20	2.1	
LPB	160.90	149	PKP	04 09.00	2.9X	
ZOBO	161.10	148	PKP	04 08.00	1.5	
	S.D. = 1.0		on 80 of 87 obs.			

% APR 26, 1989 13h 56m 49.75± 0.88s
60.635 N ± 6.0km 6.244 E ± 9.3km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

HYA	0.53	357	iP	57 00.41	-0.1	
			eS	57 08.64		
ASK	0.54	254	eP	56 59.97	-0.7	
			eS	57 08.47		
ODD1	0.75	165	eP	57 04.13	-0.3	
			eS	57 11.98		
SUE	0.84	301	eP	57 06.32	0.4	
			eS	57 15.51		
BLS1	1.28	167	eP	57 13.30	-0.3	
			eS	57 29.01		
KMY	1.51	200	eP	57 17.93	1.1	
			eS	57 37.89		
	S.D. = 0.8		on 6 of 6 obs.			

• APR 26, 1989 14h 27m 12.45± 2.78s
66.969 N ±17.3km 156.510 W ±20.7km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.4 (PMR).

IMA	1.45	127	iPd	27 39.10	-0.4	
TTA	4.06	177	eP	28 16.50	-0.1	
FBA	4.13	116	eP	28 16.90	-0.6	
BRW	4.36	359	iP	28 13.40	-7.3X	
SVW	5.90	176	eP	28 42.50	-0.1	
PMR	6.28	146	eP	28 47.80	-0.1	
TOA	6.60	133	eP	28 54.00	1.4	
DWY	7.67	104	P	29 07.00	-0.4	
INK	8.85	71	eP	29 24.00	0.2	
YKA	18.16	84	P	31 29.60	3.1X	
	S.D. = 0.7		on 8 of 10 obs.			

% APR 26, 1989 14h 44m 10.47± 1.02s
59.870 N ± 6.2km 5.089 E ±11.3km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

ASK	0.62	5	eP	44 22.09	-0.8	
			eS	44 28.60		
KMY	0.67	173	eP	44 23.57	-0.1	
			eS	44 33.29		
			eSg	44 36.87		
ODD1	0.78	86	eP	44 25.57	-0.1	
BLS1	1.01	118	iP	44 29.73	0.1	
			eS	44 43.95		
			iSg	44 46.40		
SUE	1.20	352	eP	44 33.36	0.5	
			eS	44 47.18		
HYA	1.41	22	iP	44 36.40	0.3	
			eS	44 55.45		
	S.D. = 0.6		on 6 of 6 obs.			

26d 14h

APR 26, 1989 14h 45m 59.84± 0.37s
44.593 N ± 2.8km 7.067 E ± 4.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (GEN), 2.3 (LDG).

PZZ	0.09	164	Pc	46 02.65	0.1
			S	46 04.43	
DOI	0.16	125	P	46 03.90	0.4
			eSg	46 07.20	
RRL	0.38	329	Pc	46 07.41	-0.4
			S	46 12.95	
BNI	0.54	329	Pc	46 09.90	-0.9
			eSg	46 17.60	
RSP	0.57	14	P	46 11.96	0.4
			S	46 20.52	
TOUF	0.59	167	Pg	46 11.10	-0.9
			Sg	46 19.95	
ROB	0.65	117	P	46 12.99	0.1
			S	46 21.76	
AUTN	0.65	156	Pg	46 12.46	-0.5
			Sg	46 21.66	
MVIF	0.70	175	Pg	46 13.23	-0.5
SAOF	0.70	150	Pg	46 13.10	-0.6
AURF	0.73	165	Pg	46 13.61	-0.6
			Sg	46 23.86	
SBF	0.78	160	Pg	46 15.60	0.6
			Sg	46 25.60	
LSD	0.87	4	P	46 17.38	0.7
			S	46 29.14	
IMI	0.90	139	P	46 17.06	-0.1
			S	46 28.44	
FIN	0.90	115	P	46 17.29	0.1
			S	46 28.92	
FRF	1.08	197	Pg	46 20.40	0.3
			Sg	46 33.50	
LRG	1.25	204	Pg	46 23.60	0.6
			Sg	46 39.20	
LMR	1.32	198	Pg	46 25.40	1.2
			Sg	46 41.10	

S.D. = 0.6 on 18 of 18 obs.

& APR 26, 1989 14h 47m 12.40s
34.510 N 120.690 W
DEPTH = 1.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.1 (PAS).

BLP	0.24	78	iPd	47 17.30	0.0
SYP	0.59	88	iPd	47 23.70	-0.4
BCH	0.84	36	eP	47 28.20	-0.9
ABL	1.26	74	eP	47 34.70	-2.0
PKEM	1.62	17	e(P)	47 40.50	-1.7
SAO	2.33	345	ePd	47 48.40	-4.1
ARN	2.91	347	eP	47 56.50	-4.3
PEC	2.99	101	eP	47 57.80	-4.1
PLM	3.39	109	eP	48 03.20	-4.5
CMB	3.53	4	eP	48 06.50	-3.0
KVN	4.99	24	eP	48 26.80	-3.6

11 obs. associated

APR 26, 1989 15h 37m 17.09± 0.30s
44.588 N ± 2.4km 7.065 E ± 4.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.4 (LDG), 2.3 (GEN).

PZZ	0.09	163	Pc	37 19.79	0.0
			S	37 21.57	
DOI	0.15	123	P	37 21.00	0.3
			eSg	37 24.10	
RRL	0.39	329	Pc	37 24.56	-0.5
			S	37 30.08	
BNI	0.54	329	Pd	37 27.20	-0.9
			eSg	37 34.80	
RSP	0.58	14	P	37 29.25	0.3
			S	37 37.88	
TOUF	0.59	167	Pg	37 28.13	-1.0
AUTN	0.65	156	Pg	37 29.59	-0.6
ROB	0.65	117	P	37 30.14	0.0
			S	37 39.10	
MVIF	0.69	175	Pg	37 30.41	-0.5
			Sg	37 39.46	
SAOF	0.70	149	Pg	37 30.34	-0.6
			Sg	37 40.08	
AURF	0.73	165	Pg	37 30.71	-0.7
SBF	0.77	160	Pg	37 32.20	0.0
			Sg	37 42.30	
LSD	0.87	4	P	37 34.35	0.3
			S	37 45.97	
IMI	0.90	139	P	37 34.15	-0.2
			S	37 45.86	
FIN	0.90	114	P	37 34.45	0.0
			S	37 46.36	
LPG	0.94	346	Pg	37 35.10	-0.1
			Sg	37 48.20	
LPL	0.96	346	Pg	37 35.40	-0.1
			Sg	37 48.90	
FRF	1.07	197	Pg	37 37.30	0.1
			Sg	37 51.00	
LRG	1.24	204	Pg	37 40.80	0.7
			Sg	37 57.00	
LMR	1.32	198	Pg	37 42.50	1.1
			Sg	37 59.00	

S.D. = 0.6 on 20 of 20 obs.

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* APR 26, 1989 16h 12m 06.96± 0.99s
52.373 N ±11.4km 176.306 W ±13.2km
DEPTH = 33.0km (normal)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
Felt on Adak.

AD2	0.50	159	eP	12 18.00	0.4
ADK	0.54	206	iP	12 18.70	0.5
AK3	1.09	239	eP	12 25.50	-0.5
KDC	14.63	59	eP	15 39.60	6.5X
TTA	15.08	38	P	15 48.50	9.4X
IMA	17.80	31	eP	16 14.40	0.9
FBA	19.21	38	P	16 36.00	5.5X
KVN	41.65	85	P	19 52.50	-1.3

S.D. = 1.2 on 5 of 8 obs.

APR 26, 1989 16h 29m 28.75± 0.35s
44.583 N ± 2.8km 7.022 E ± 4.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN), 2.0 (LDG).

PZZ	0.10	144	P	29 31.73	0.2
			S	29 33.53	
DOI	0.18	116	P	29 33.20	0.4
			eSg	29 36.20	
RRL	0.38	333	P	29 36.45	-0.1
			S	29 42.04	
BNI	0.53	332	P	29 39.30	-0.2
			eSg	29 46.70	
RSP	0.59	16	P	29 40.60	-0.2
			S	29 48.49	
ROB	0.67	115	P	29 42.03	-0.1
			S	29 50.97	
SBF	0.78	157	Pg	29 44.40	0.4
			Sg	29 54.40	
LSD	0.88	6	P	29 45.59	-0.2
			S	29 57.35	
IMI	0.92	137	P	29 46.04	-0.3
			S	29 57.63	
FIN	0.93	113	P	29 46.21	-0.3
			S	29 58.18	
LPG	0.93	348	Pg	29 47.30	0.5
			Sg	30 00.70	
LPL	0.96	348	Pg	29 47.50	0.4
			Sg	30 01.00	
FRF	1.06	195	Pg	29 48.40	-0.3
			Sg	30 01.80	
LRG	1.22	203	Pg	29 51.50	0.0

S.D. = 0.3 on 14 of 14 obs.

APR 26, 1989 16h 33m 09.38± 0.21s
44.586 N ± 1.8km 7.070 E ± 2.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 3.1 (LDG), 3.0 (GEN).

PZZ	0.08	164	Pc	33 12.22	0.2
DOI	0.15	123	Pc	33 13.50	0.5
			eSg	33 16.00	
RRL	0.39	329	Pc	33 16.97	-0.5
			S	33 22.50	
BNI	0.54	329	Pd	33 19.60	-0.8
			eSg	33 27.10	
RSP	0.58	13	P	33 21.50	0.3
			S	33 30.20	
TOUF	0.59	167	Pg	33 20.62	-0.8
			Sg	33 28.92	
ROB	0.64	117	P	33 22.40	0.1
			S	33 31.43	
AUTN	0.64	156	Pg	33 22.09	-0.4
			Sg	33 30.57	
MVIF	0.69	175	Pg	33 22.46	-0.7
SAOF	0.69	150	Pg	33 22.85	-0.3
			Sg	33 32.43	
AURF	0.72	165	Pg	33 23.03	-0.6
SBF	0.77	160	Pg	33 24.30	-0.1
			Sg	33 32.50	
CALN	0.84	189	Pg	33 25.06	-0.7
LSD	0.87	4	P	33 26.40	0.0
			S	33 38.00	
CKI	0.88	100	P	33 26.60	0.3
IMI	0.90	139	P	33 26.36	-0.2
			S	33 38.10	
FIN	0.90	114	P	33 26.71	0.1
			S	33 38.78	
LPG	0.94	346	Pg	33 27.50	0.0
			Sg	33 40.60	
LPL	0.96	346	Pg	33 27.90	0.1
GANF	1.02	235	Pg	33 27.84	-0.9
FRF	1.07	197	Pg	33 28.80	-0.7
			Sg	33 42.20	
TAVF	1.21	217	Pg	33 32.14	0.2
			Sg	33 48.71	
VILF	1.22	233	Pg	33 32.30	0.2
			Sg	33 49.47	
ORO	1.22	31	P	33 31.30	-0.9
			eSg	33 47.80	
ORX	1.23	31	P	33 31.13	-1.2
LRG	1.24	205	Pg	33 31.90	-0.5
			Sg	33 47.50	
LMR	1.32	198	Pg	33 33.80	0.1
			Sg	33 50.20	
PUYF	1.44	224	Pg	33 36.07	0.5
TREF	1.55	232	Pg	33 38.67	1.6
PRAF	1.57	241	Pg	33 38.61	1.2
			Sg	33 59.34	
BERF	1.62	219	Pg	33 39.83	1.7
BOB	1.71	83	Pc	33 41.60	2.2
			eSg	34 01.00	
VAI	1.76	43	Pc	33 39.80	-0.2
			eSg	34 02.00	
CVF	2.40	146	Pn	33 47.84	-1.6
SMF	3.06	313	Pn	33 59.20	0.5
			Sg	34 48.70	
LBF	3.23	319	Pn	34 01.60	0.4
			Sn	34 38.90	
			Sg	34 53.90	
AVF	3.41	312	Pn	34 03.50	-0.2
			Pg	34 14.70	
			Sg	35 00.10	
HAU	3.46	352	Pn	34 04.60	0.3
			Sn	34 44.60	
LOR	3.50	321	Pn	34 05.10	0.2
			Sn	34 45.00	
			Sg	35 01.60	
BGF	3.56	305	Pn	34 05.70	-0.1
			Pg	34 16.80	
			Sn	34 46.30	
			Sg	35 04.00	
MAF	3.57	299	Pn	34 05.60	-0.3
			Pg	34 17.00	
			Sg	35 03.50	
CAF	3.58	277	Pn	34 05.20	-0.9
TCF	3.82	298	Pn	34 09.40	-0.2
LSF	4.24	295	Pn	34 14.90	-0.6

S.D. = 0.8 on 44 of 44 obs.

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* APR 26, 1989 16h 47m 30.81± 1.29s
36.273 N ± 8.6km 141.350 E ±10.0km
DEPTH = 15.5 ± 8.2 km
4.3mb (1 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) at Mito and (I JMA) at Onohomo.

MIT	0.72	279	iPd	47 45.90	1.5
			iS	47 53.60	
ONA	0.76	332	P	47 46.30	1.1
			iS	47 54.50	
KAKJ	0.95	266	iPd	47 48.60	0.1
			S	47 57.70	
CHJJ	1.92	264	iPd	48 02.40	-0.8
			S	48 22.30	
NIIJ	2.12	298	P	48 05.10	-1.0

		eS	48	28.50	
YAMJ	2.17	331 iPd	48	06.30	-0.5
		S	48	30.10	
MAT	2.55	277 iPc	48	11.70	-0.5
		iS	48	40.30	
OFUJ	2.81	5 P	48	15.90	0.0
		eS	48	46.70	
MTMJ	2.88	277 P	48	16.80	-0.1
IIDJ	2.90	255 P	48	19.00	1.7
		eS	48	53.50	
AOMJ	4.35	350 eP	48	39.40	1.7
TSRJ	4.42	262 eP	48	41.70	3.0X
KKN	47.72	276 P	56	13.00	3.9X
WB5	56.24	188 eP	57	11.70	-0.9
WRA	56.30	188 P	57	14.00	0.9
	0.7s	2.40nm		4.3mb	
	S.D. = 1.2	on 13 of 15 obs.			

? APR 26, 1989 16h 50m 39.57± 3.34s
31.014 N ±27.7km 131.637 E ±21.8km
DEPTH = 55.2 ± 15.0 km
4.1mb (2 obs.)
KYUSHU, JAPAN (235)

KAGJ	0.67	285 iPd	50	52.70	-0.5
		S	51	00.90	
KUMJ	1.67	336 iP+	51	06.50	-0.3
		eS	51	25.90	
SHNJ	3.13	352 eP	51	28.30	0.7
TKSJ	3.59	34 eP	51	39.20	5.1X
SHK	3.62	14 eP	51	44.00	9.6X
YONJ	4.44	20 eP	51	46.10	0.2
BJI	15.46	310 (P)	54	09.00	-6.5X
XAN	19.38	285 eP	55	03.00	-0.8
BTO	19.93	305 eP	55	09.70	0.1
GYA	22.35	265 P	55	36.00	1.8X
CD2	23.89	277 eP	55	50.00	1.0
GUN	39.75	277 P	58	10.20	1.2
CTA	52.71	163 iPc	00	09.00	18.1X
APO	75.62	333 eP	02	19.00	-1.0
	0.4s	0.80nm		4.0mb	
NAO	76.62	334 P	02	25.10	-0.5
	1.0s	3.40nm		4.3mb	
	S.D. = 0.9	on 10 of 15 obs.			

APR 26, 1989 18h 46m 03.32± 0.68s
39.318 N ± 5.7km 23.457 E ± 6.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.18	266 iPgd	46	07.80	0.4
PAIG	0.63	16 iPgc	46	16.60	0.6
		iSg	46	27.50	
PLG	1.05	360 iPbc	46	23.50	0.3
LIT	1.08	317 ePb	46	24.40	0.7
		iSb	46	40.40	
ATH	1.36	171 ePb	46	27.50	-0.8
THE	1.37	344 ePb	46	28.80	0.5
		eSb	46	47.90	
SOH	1.50	357 ePbc	46	30.40	0.0
KZN	1.63	308 ePn	46	35.00	2.8X
SRS	1.80	3 ePnc	46	34.00	-0.6
		eSn	46	57.60	
GRG	1.83	334 ePn	46	34.90	-0.1
		eSn	46	58.80	
KNT	1.89	347 ePn	46	36.10	0.2
		eSn	47	00.40	
EZN	2.27	76 ePn	46	43.00	1.5
MMB	2.28	5 iPd	46	40.00	-1.6
RDO	2.42	40 ePb	46	50.00	6.4X
RZN	2.55	22 eP	46	45.00	-0.6
KKB	2.56	354 iPc	46	45.00	-0.6
OHR	2.71	312 ePn	46	55.00	7.2X
KDZ	2.77	32 eP	47	26.00	37.5X
	S.D. = 0.8	on 14 of 18 obs.			

APR 26, 1989 18h 51m 22.18± 0.47s
39.278 N ± 4.1km 23.564 E ± 4.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO	0.27	276 iPgc	51	27.50	-0.3
PAIG	0.65	8 iPgc	51	36.40	1.2
		iS	51	48.00	
PLG	1.10	355 iPbc	51	43.20	0.4
		eSb	51	59.70	
LIT	1.17	315 iPbc	51	44.00	0.0
		iSb	52	00.80	
ATH	1.31	175 ePb	51	45.00	-1.4
		eSb	52	05.00	
THE	1.43	341 iPbc	51	48.10	0.0
		iSb	52	07.90	
SOH	1.55	354 ePbc	51	50.10	0.2
KZN	1.72	307 ePb	51	52.00	-0.4
SRS	1.84	1 ePnc	51	53.60	-0.4
		eSn	52	18.00	
GRG	1.90	332 ePnc	51	54.50	-0.4
		eSn	52	19.10	
KNT	1.95	345 ePn	51	56.00	0.3
		eSn	52	21.50	
PRK	2.10	90 ePb	52	00.30	2.5
VAY	2.18	340 ePn	51	59.00	0.1
EZN	2.20	75 ePn	51	59.00	-0.3
MMB	2.31	3 iP	52	00.00	-0.9
RDO	2.40	38 ePn	52	01.50	-0.6
LSK	2.45	292 ePn	52	09.20	6.3X
ITM	2.46	212 ePn	52	02.50	-0.5
KBN	2.50	303 ePn	52	03.70	0.1
RZN	2.56	20 eP	52	04.00	-0.6
VLS	2.57	246 ePb	52	06.50	1.9
KKB	2.61	352 iPc	52	05.00	-0.1
KDZ	2.76	30 iP	52	06.00	-1.3
OHR	2.80	312 ePn	52	08.00	0.1
TPE	2.92	291 ePn	52	06.00	-3.5X
VTS	3.32	355 eP	52	16.00	0.6
	S.D. = 0.9	on 24 of 26 obs.			

% APR 26, 1989 19h 00m 40.61± 0.78s
39.305 N ± 8.0km 28.996 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.41	317 iP	00	48.20	-0.9
ALT	0.90	106 ePg	00	58.20	0.2
		eSg	01	10.20	
KHL	1.06	157 iPn	00	59.50	-1.2
BNT	1.34	322 iPn	01	05.50	0.3
EDC	1.36	320 ePn	01	04.60	-0.9
HRT	1.60	19 ePn	01	10.00	1.0
IZM	1.63	237 ePn	01	11.00	1.5
	S.D. = 1.3	on 7 of 7 obs.			

APR 26, 1989 19h 35m 19.89± 0.40s
27.942 S ± 4.8km 66.846 W ± 7.6km
DEPTH = 191.8 ± 8.7 km
4.6mb (2 obs.)
CATAMARCA PROVINCE, ARGENTINA (130)

CYA	1.05	119 iPd	35	49.00	-0.5
		S	36	08.60	
SLA	3.42	21 ePd	36	15.20	0.3
		S	36	56.10	
CFA	3.85	198 iPd	36	20.50	0.4
ZON	3.93	203 iPc	36	21.60	0.5
		eS	37	08.00	
ANT	5.31	322 iPd	36	39.40	0.7
JACH	5.73	214 iP	36	45.10	0.8
		iS	37	50.00	
FCH	6.13	208 iPd	36	51.10	1.3
		iS	38	00.00	
PEL	6.15	212 iPc	36	49.30	-0.5
		iS	37	56.40	
SAN	6.40	210 ePc	36	52.50	-0.5
TACH	6.69	211 iPd	36	56.00	-0.8
		iS	38	12.00	
CHCH	6.81	208 iP	36	58.60	0.2
		iS	38	14.00	
LCCH	6.85	215 iPd	36	57.50	-1.4
		iS	38	12.90	
LNV	7.16	212 eP	37	00.50	-2.5X
		iS	38	16.60	
CNCB	11.13	354 P	37	56.00	0.6
ZOBO	11.68	354 P	38	02.00	-0.4
	Z 16s	0.13um			
		eLR	41	04.00	
ARE	12.21	338 eP	38	08.00	-0.9
		eS	40	16.00	
VAO	18.60	79 eP	39	25.60	0.3
ITA	20.78	79 e(P)	39	46.00	-1.6
BMA	21.16	81 eP	39	52.50	1.5
BAO	21.33	59 eP	39	52.00	-0.8
SPA	62.22	180 iPd	45	27.60	4.5X
	0.9s	17.27nm		4.9mb	
KIC	68.89	70 P	46	06.80	0.7
BNG	87.99	84 ePd	47	55.10	5.3X
	0.7s	4.00nm		4.4mb	
	S.D. = 0.9	on 20 of 23 obs.			

% APR 26, 1989 19h 45m 37.41± 1.31s
44.555 N ± 9.0km 6.977 E ±14.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.0 (GEN).

PZZ	0.10	119 P	45	40.61	0.3
		S	45	42.56	
RRL	0.39	339 P	45	45.40	-0.1
		S	45	50.93	
STV	0.40	141 P	45	45.64	0.1
		S	45	50.87	
RSP	0.63	18 P	45	50.25	0.1
ROB	0.69	112 P	45	51.00	-0.1
IMI	0.92	134 P	45	54.97	-0.1
FIN	0.95	111 P	45	55.28	-0.2
		S	46	07.90	
	S.D. = 0.2	on 7 of 7 obs.			

APR 26, 1989 20h 43m 16.37± 0.62s
38.424 N ± 8.3km 119.161 W ± 5.8km
DEPTH = 5.0km (geophysicist)
CALIFORNIA-NEVADA BORDER REGION (40)
ML 2.7 (BRK).

MNA	0.79	89 ePc	43	32.40	0.1
		eS	43	44.60	
CMB	1.04	248 iPd	43	34.50	-2.0
		iS	43	47.50	
KVN	1.04	53 iPd	43	35.60	-1.0
FRI	1.49	197 ePd	43	44.50	0.6
		iS	44	04.80	
TNP	1.57	102 eP	43	45.20	0.1
ORV	2.14	303 ePc	43	52.50	-0.8
		iS	44	18.70	
ARN	2.16	241 eP	43	53.50	-0.1
MHC	2.24	242 e(P)	43	54.60	-0.2
LLA	2.29	219 eP	43	56.10	0.6
		eS	44	28.20	
SAO	2.46	228 eP	43	58.20	0.4
MIN	2.70	316 eP*c	44	03.50	2.2
	S.D. = 1.2	on 11 of 11 obs.			

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* APR 26, 1989 21h 08m 17.55± 1.78s
36.608 N ±12.5km 30.150 E ±17.2km
DEPTH = 59.4 ± 17.9 km
TURKEY (366,

ELL	0.24	306 iPg	08	27.50	0.1
		iSg	08	35.30	
KSL	0.67	223 ePg	08	31.20	-0.3
BCK	0.92	22 iPg	08	35.00	0.3
		iSg	08	49.00	
YER	1.59	290 iPn	08	44.00	0.2
KHL	1.78	344 iPn	08	46.00	-0.6
KAP	2.63	247 ePn	08	58.00	-0.4
VAM	4.97	258 ePn	09	32.00	0.6
	S.D. = 0.6	on 7 of 7 obs.			

? APR 26, 1989 21h 28m 58.29± 4.86s
31.560 N ±16.7km 35.569 E ±40.8km
DEPTH = 10.0km (geophysicist)
DEAD SEA REGION (373)

MKRJ	0.06	97 P	29	00.00	-0.6
MASJ	0.21	37 Pd	29	02.70	-0.2
KFNJ	0.31	17 P	29	04.70	-0.1
QUTJ	0.46	125 P	29	08.00	0.4
BURJ	0.67	14 P	29	11.70	0.0
	S.D. = 0.5	on 5 of 5 obs.			

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* APR 26, 1989 22h 10m 08.32± 1.51
46.443 N ± 9.4km 9.526 E ±16.0km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
ML 2.5 (LDG).

MDI	0.68	169 P	10	21.70	-0.1
		eSg	10	29.30	
VAI	0.78	223 P	10	19.70	-3.8
		eSg	10	26.90	

26d 22h

LPG	2.15	245	Pg	10	45.00	0.0
LPL	2.16	246	Pg	10	45.20	0.2
BSF	2.33	308	Pg	10	53.00	5.7X
			Sn	11	14.50	
			Sg	11	24.40	
CDF	2.49	323	Pn	10	50.00	0.4
			Pg	10	56.70	
			Sn	11	19.60	
			Sg	11	30.60	
HAU	2.67	307	Pn	10	51.70	-0.5
			Pg	10	59.20	
			Sn	11	23.00	
			Sg	11	34.60	
SBF	2.97	211	Pn	10	50.00	-6.5X
			Sg	11	33.40	

S.D. = 0.4 on 5 of 8 obs.

& APR 26, 1989 22h 10m 31.80s
33.930 N 118.580 W
DEPTH = 11.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.4 (PAS). Felt in the Santa Monica-Torrance area.

PAS	0.40	57	eP	10	39.60	-0.5
MWC	0.52	56	eP	10	41.60	-0.9
CIS	0.54	164	iPd	10	42.10	-0.7
SCI	0.95	178	eP	10	48.90	-0.9
SBB	0.98	39	iPd	10	49.40	-1.0
RVR	1.00	86	eP	10	49.50	-1.2
ABL	1.06	330	eP	10	50.70	-1.1
PEC	1.18	91	eP	10	52.20	-1.6
SYP	1.30	298	ePc	10	54.80	-1.1
PLM	1.54	111	eP	10	57.30	-2.1
BLP	1.63	293	eP	10	59.00	-1.5
BCH	1.76	316	eP	11	02.00	-0.5
GLA	3.26	105	eP	11	22.00	-1.8
TNP	4.29	15	eP	11	38.40	-0.2
CMB	4.35	341	eP	11	38.70	-0.7
KVN	5.13	4	eP	11	50.10	-0.4

16 obs. associated

? APR 26, 1989 22h 30m 13.97± 6.25s
31.403 S ±23.7km 177.763 W ±24.8km
DEPTH = 125.8 ± 53.1 km
4.7mb (1 obs.)
KERMADEC ISLANDS REGION (177)

DZM	16.88	300	iPc	34	03.80	-0.2
CTA	34.17	281	iPd	36	49.50	0.4
	1.1s		35.44nm			5.1mb X
WB5	44.35	273	eP	38	13.50	0.1
SPA	58.77	180	e(P)	40	01.00	0.1
	1.0s		7.50nm			4.7mb
PRI	85.90	43	eP	42	40.80	-0.1
CMB	87.37	42	ePc	42	47.90	0.0
SOD	141.21	345	ePKP	49	07.00	-23.3X
SUF	145.12	341	iPKP	49	36.30	-0.8
	0.6s		6.30nm			
NUR	147.32	340	ePKP	49	43.00	2.2
BNG	149.10	213	ePKPc	49	50.10	5.0X
	0.8s		14.00nm			
			id	49	54.60	
SLL	150.00	349	ePKP	49	49.50	4.5X
	0.5s		0.90nm			
NAO	150.03	352	PKP	49	48.70	3.7X
	1.2s		8.30nm			
MML	151.88	281	iPKPd	49	47.00	-1.8
MBH	151.90	275	iPKPd	49	57.00	8.2X

S.D. = 1.3 on 9 of 14 obs.

& APR 26, 1989 23h 08m 22.20s
38.827 N 122.793 W
DEPTH = 1.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 3.4 (BRK). Felt (IV) at Cobb.

NWRM	0.38	191	eP	08	29.80	0.1
ZSP	0.98	154	ePd	08	41.10	-0.5
			iS	08	57.60	
BRK	1.04	156	ePd	08	42.40	-0.3
BKS	1.05	155	ePbd	08	41.93	-0.8
BKS	1.05	155	iPnd	08	42.55	-0.2
			iPgc	08	42.80	
			eS	08	55.80	
			e	08	56.70	
ORV	1.24	54	iPc	08	45.10	-1.0
PCC	1.36	166	ePc	08	46.50	-1.7
LTCM	1.47	20	eP	08	49.00	-0.9
MHC	1.74	148	ePc	08	52.50	-1.3
WDC	1.76	6	ePc	08	54.20	0.2
MIN	1.77	31	eP	08	52.60	-1.7
ARN	1.78	146	eP	08	53.00	-1.4
GCC	1.90	160	eP	08	54.00	-2.1
CMB	2.05	112	ePc	08	56.60	-1.7
			eS	09	23.30	
SAO	2.32	152	iPc	08	59.73	-2.4
LBFM	2.61	15	eP	09	07.50	1.0
LLA	2.65	146	ePc	09	04.80	-2.0
PRS	2.74	155	eP	09	05.50	-2.6
KVN	3.67	85	eP	09	18.50	-3.0

19 obs. associated

APR 26, 1989 23h 40m 46.24± 0.76s
5.165 S ± 8.7km 143.491 E ± 7.3km
DEPTH = 111.2 ± 10.0 km
5.0mb (3 obs.)
PAPUA NEW GUINEA (202)

MNDI	1.00	170	iP	41	08.00	0.0
			eS	41	26.00	
LAT	3.79	113	iPc	41	43.50	-0.2
JAY	3.83	313	iPc	41	44.50	0.2
PMG	5.57	139	iPc	42	06.50	-1.6
	0.5s		91.55nm			5.3mb X
LMG	5.93	129	eP	42	15.50	2.2
MTN	14.39	237	eP	44	06.00	0.0
			e	46	34.00	
CTA	15.08	170	iPd	44	20.70	6.0X
QIS	15.76	194	eP	44	25.00	1.7
			e	47	18.00	
HNR	16.86	106	eP	44	36.00	-0.9
WB5	17.11	210	eP	44	39.00	-1.0
			eS	47	45.20	
KNA	17.88	233	eP	44	48.50	-0.9
SSE	41.88	331	P	48	26.50	-0.6
	1.0s		25.00nm			5.0mb
GUN	64.50	304	P	51	14.20	0.2
PKI	64.77	304	P	51	15.80	0.1
KKN	64.95	304	P	51	17.00	0.2
	0.9s		21.00nm			5.1mb
DMN	65.03	304	P	51	17.80	0.5
GKN	65.56	304	P	51	20.70	0.1
	0.9s		21.00nm			5.1mb

S.D. = 1.1 on 16 of 17 obs.

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* APR 27, 1989 00h 08m 57.15± 0.58s
29.954 N ±13.6km 99.288 E ± 6.6km
DEPTH = 33.0km (normal)
4.1mb (2 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	3.98	75	ePn	09	58.20	0.8
			ePg	10	04.40	
			eSg	10	58.40	
LZH		21	31 e(P)	1	07	3.9X
GYA		38	116 P	10	4	-0.4
			S	12	6	
GUN	..	92	263 P	11	49.60	0.9
PKI	12.41	262	P	11	54.40	-0.2
HHC	14.76	39	eP	12	31.00	5.7X
SUF	56.16	328	iP	18	36.00	0.4
WB5	59.97	141	eP	19	02.70	-0.1
HFS	62.39	326	eP	19	17.90	-0.8
	0.5s		0.80nm			4.1mb
NAO	63.61	327	P	19	26.20	-0.5
	0.8s		1.50nm			4.2mb

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

& APR 27, 1989 01h 08m 37.38s
60.138 N 153.136 W
DEPTH = 121.4km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.11	123	iP	08	53.50	0.8
			eS	09	06.80	
RED	0.34	33	iP	08	54.21	0.8
OPT	0.49	186	iP	08	55.08	-0.6
			eS	09	09.48	
RDT	0.57	39	iP	08	55.50	-0.8
			eS	09	10.35	
PDB	0.64	237	iP	08	55.79	-0.9
			eS	09	10.63	
AUL	0.77	191	iP	08	57.06	-0.7
XLV	0.99	133	eP	08	58.84	-0.9
			eS	09	15.63	
CNPM	1.14	122	eP	09	00.24	-1.0
			eS	09	17.81	
SPU	1.17	26	eP	09	01.02	-0.7
BRLK	1.19	107	eP	09	00.60	-1.3
			eS	09	19.04	
CDD	1.24	192	iP	09	01.07	-1.3
			eS	09	22.13	
CGLM	1.30	25	eP	09	02.56	-0.5
SLKM	1.50	74	eP	09	04.05	-1.2
SVW	1.57	310	eP	09	04.73	-1.4
SEW	1.85	89	eP	09	07.60	-1.8
SKT	2.01	22	eP	09	10.35	-1.1

16 obs. associated

& APR 27, 1989 02h 02m 22.99s
60.032 N 153.199 W
DEPTH = 126.9km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.13	68	iP	02	39.71	0.7
			eS	02	53.50	
OPT	0.38	182	iP	02	40.75	-0.6
			eS	02	54.20	
RED	0.44	29	iP	02	40.94	-0.8
PDB	0.56	244	iP	02	41.33	-1.0
			S	02	55.73	
AUL	0.66	190	iP	02	42.54	-0.5
			eS	02	58.05	
XLV	0.95	127	eP	02	43.58	-1.8
			eS	03	01.42	
CNPM	1.12	116	iP	02	46.11	-1.0
			eS	03	04.11	
CDD	1.13	192	iP	02	46.00	-1.2
			eS	03	05.01	
BRLK	1.20	102	eP	02	47.08	-0.8
SPU	1.28	26	iP	02	47.88	-1.0
CRP	1.34	22	iP	02	48.85	-0.8
			eS	03	09.87	
CGLM	1.41	24	iP	02	49.38	-0.9
			eS	03	10.35	
SVW	1.61	313	iP	02	51.54	-1.0
SUA	1.88	39	iP	02	54.68	-1.2
			eS	03	19.64	
SEW	1.88	86	eP	02	54.21	-1.5
			eS	03	18.14	
SKT	2.12	22	iP	02	57.33	-1.4
KNIM	2.75	81	eP	03	04.46	-2.4
KTH	3.70	16	eP	03	17.37	-2.1

18 obs. associated

APR 27, 1989 02h 20m 04.74± 0.09s
30.601 N ± 2.0km 140.589 E ± 2.2km
DEPTH = 84.6km (geophysicist)
6.1mb (86 obs.)
SOUTH OF HONSHU, JAPAN (211)
mb 6.6 (BRK). Mo=6.0*10**17 Nm (PPT). Felt (II JMA) at Tokyo, Toteyama and an Chichi-shima; (I JMA) at Choshi, Hiroo, Onahama and an Hachijo-jima. Depth from broadband displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=178 Dip=87 Slip= 106
NP2: 278 16 11
Principal Axes:
T Plg=46 Azm=104
P 40 253
Comment: The focal mechanism is poorly controlled and corresponds to reverse faulting with a moderate left-lateral strike-slip component. The preferred fault plane is NP2.
RADIATED ENERGY
No. of sta: 7 Focal mech. C
Energy 5.1±1.7*10**13 Nm
MOMENT TENSOR SOLUTION
Dep 91 No. of sta: 14
Moment Tensor; Scale 10**18 Nm
Mrr= 0.38 Mtt=-0.18

Mff=-0.19 Mrt= 0.47
Mrf=-1.45 Mtf= 0.55
Principal axes:
T Val= 1.57 Plg=51 Azm= 89
N 0.16 15 340
P -1.73 35 239
Best Double Couple:Mo=1.7*10**18
NP1:Strike=279 Dip=17 Slip= 28
NP2: 162 82 105
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 45C M.W.: 11S, 16C
Centroid Location:
Origin Time 02:20: 7.4 0.1
Lat 30.48N 0.01 Lon 140.41E 0.01
Dep 78.0 1.3 Half-duration 5.3
Moment Tensor; Scale 10**18 Nm
Mrr= 1.32 0.03 Mtt=-0.49 0.04
Mff=-0.83 0.04 Mrt=-1.06 0.03
Mrf=-2.68 0.03 Mtf=-0.38 0.04
Principal Axes:
T Val= 3.25 Plg=56 Azm=109
N -0.27 3 203
P -2.98 34 295
Best Double Couple:Mo=3.1*10**18
NP1:Strike= 37 Dip=12 Slip= 104
NP2: 203 79 87

HJJ	2.58	345	iPd	20	46.50	1.2
			iS	21	16.50	
CBI	3.77	158	iP+	20	58.70	-2.9
			iS	21	41.40	
TAT	4.41	352	iPd	21	11.00	0.4
			iS	22	02.50	
CHO	5.11	2	iPd	21	19.50	-0.9
			S	22	17.20	
FUN	5.12	343	eP	21	25.00	4.4X
TOK	5.12	352	P	21	20.10	-0.4
			iS	22	17.50	
IIDJ	5.36	336	P	21	25.20	1.3
WKYJ	5.55	312	P	21	29.00	2.4
CHJJ	5.59	347	P	21	26.00	-1.1
			eS	22	27.90	
KAKJ	5.60	357	iP+	21	25.30	-1.9
MAJO	6.25	342	eP	21	36.39	0.2
MAT	6.25	342	iPd-	21	36.40	0.2
			eS	22	52.00	
TSRJ	6.26	323	iPd	21	39.00	2.7X
ONA	6.33	2	P	21	34.80	-2.5X
			S	22	43.70	
MTMJ	6.40	339	iPd	21	39.10	0.7
TKSJ	6.48	303	eP	21	41.80	2.4
NTIJ	6.75	349	P	21	40.40	-2.7X
			eS	22	55.40	
YONJ	7.54	309	P	21	57.30	3.4X
YAMJ	7.57	357	P	21	51.60	-2.7X
SHK	7.74	302	ePd	21	59.70	3.0X
KAGJ	8.36	276	P	22	10.00	4.8X
OFUJ	8.51	6	P	22	03.00	-4.2X
			S	23	31.90	
KUMJ	8.55	286	P	22	11.70	3.9X
SHNJ	8.75	296	iPd	22	14.10	3.5X
AOMJ	9.94	359	eP	22	24.50	-2.2
SAP	12.45	3	eP	22	58.00	-2.1
			eS	25	06.00	
MDJ	16.46	331	eP	23	50.53	-1.1
Z	28s	49.00um				
E	12s	15.80um				
			eS	26	55.76	
SSE	16.67	277	iP-	23	56.50	2.1
	8.0s	19.80nm				3.4mb X
Z	20s	19.10um				
			e	24	23.00	
			sP	24	28.00	
			S	27	03.00	
			iScP	32	07.50	
			ScS	35	44.00	
GUMO	17.39	166	eP-	24	03.50	0.2
PJG	17.39	166	eP	24	04.00	0.7
GUA	17.44	166	eP-	24	04.00	0.0
DL2	17.62	303	Pd	24	07.00	0.9
N	12s	19.40um				
E	13s	21.80um				
			sP	24	30.00	
			eS	27	25.00	
SNY	17.68	314	iPd	24	05.00	-1.8
Z	13s	15.70um				
N	10s	5.20um				
E	10s	10.20um				
ANP	17.70	257	iP-	24	11.50	4.3X
			iS	27	32.00	
CN2	17.82	322	iPd	24	06.50	-2.0
	3.0s	7.50nm				3.4mb X
Z	15s	23.00um				4.9Msz
E	13s	16.00um				
			S	27	25.00	
			ScP	32	06.50	
			ScS	35	47.00	
NJ2	18.62	280	Pd	24	19.00	0.8
	4.0s	9.70nm				3.4mb X
Z	26s	57.10um				4.5Msz
			S	27	48.00	
			ScP	32	11.40	
QZH	20.25	259	iPd	24	36.00	0.5
	5.0s	8.30nm				3.3mb X
E	10s	13.40um				
			pP	24	54.00	90kmX
			S	28	18.50	
TIA	20.35	292	Pd	24	35.40	-1.1
	6.0s	3.90nm				2.9mb X
Z	40s	60.60um				5.7MszX
N	13s	7.80um				
E	16s	19.60um				
			pP	24	55.00	99kmX
			S	28	21.00	
			ScS	35	56.40	
BJI	21.98	302	ePd	24	51.58	-1.2
E	18s	34.90um				
			eS	28	46.00	
WHN	22.58	277	iPd	24	59.00	0.3
	6.0s	7.88nm				3.3mb X
Z	42s	68.60um				5.8MszX
N	10s	10.50um				
E	12s	12.70um				
			PcP	28	55.00	
BAG	23.10	237	ePd-	25	04.00	-0.1
	1.5s	2277.78nm				6.3mb
			eS	29	04.00	
QCP	23.95	233	eP	25	04.00	-8.2X
TIY	24.30	295	iPd	25	14.50	-1.0
	6.0s	3.80nm				3.0mb X
E	13s	13.40um				
			pP	25	34.50	90kmX
			S	29	25.00	
			sS	30	07.00	
HKC	25.01	257	P	25	23.00	0.8
			S	29	35.00	
GZH	25.39	259	Pd	25	26.00	0.2
N	15s	6.20um				
E	15s	16.20um				
			S	29	40.00	
			ScP	32	30.00	
			iScS	36	19.00	
HHC	25.58	302	iPc	25	26.50	-1.1
			pP	25	49.50	106kmX
			S	29	54.00	
BTO	26.67	300	iPd	25	36.00	-1.5
	7.0s	3.10nm				2.9mb X
Z	17s	53.50um				6.2MszX
N	13s	11.00um				
E	17s	41.70um				
			PP	26	19.00	
			S	29	59.00	
			sS	30	31.00	
XAN	26.92	286	Pd	25	38.00	-1.9
	8.0s	3.20nm				2.9mb X
N	10s	2.40um				
E	16s	19.40um				
			pP	26	00.00	99kmX
			S	30	08.00	
DAV	27.30	214	eP	25	43.60	0.3
	1.3s	2338.46nm				6.6mb
			eS	30	11.00	
GYA	30.02	271	iPd	26	06.40	-1.5
	4.0s	2.20nm				3.2mb X
Z	28s	19.40um				5.6MszX
N	14s	8.20um				
E	14s	10.40um				
			pP	26	25.00	80kmX
			PP	27	05.00	
			ScP	32	43.00	
			ScS	36	38.00	
QIZ	30.09	255	Pd	26	09.00	0.6
N	16s	14.40um				
			pP	26	27.00	77kmX
			S	31	00.00	
			sS	31	35.00	
LZH	31.05	290	iPc	26	16.50	-0.4
	7.0s	2103.00nm				6.0mb X
N	10s	8.70um				
			pP	26	38.00	94kmX
			PP	27	26.00	
			S	31	16.00	
			(SS)	32	31.00	
CD2	31.56	280	P	26	19.70	-1.6
Z	30s	24.10um				5.7MszX
N	12s	15.00um				
			pP	26	38.80	82kmX
			sP	26	53.00	
JAY	32.93	180	ePc	26	32.00	-1.2
	1.0s	97.00nm				5.6mb
SMY	32.94	38	ePc	26	34.70	1.8
KKM	33.48	228	iPd	26	39.00	0.9
	1.2s	820.10nm				6.5mb
TSM	33.76	223	ePc	26	41.10	0.8
	1.0s	572.10nm				6.4mb
KMI	33.79	270	ePd	26	40.25	-0.7
Z	40s	50.00um				5.9MszX
N	12s	6.10um				
			ePPd	26	59.29	81kmX
			sP	27	15.00	
			PP	27	52.50	
			ePP	28	01.78	
			iS	31	54.00	
			ScP	32	54.00	
			PcS	33	01.50	
GTA	34.30	296	iPd	26	43.00	-2 0
Z	12s	26.50um				6.2MszX
E	18s	17.00um				
			pP	27	06.00	100kmX
			PP	28	04.00	
			S	32	00.00	
			ScS	36	56.20	
AAI	36.09	201	ePd	27	00.50	0.3
RAB	36.32	160	eP	27	00.00	-2.2
	1.3s	4000.00nm				7.2mb X
			iS	32	36.00	
PCI	37.04	216	iPc	27	09.00	0.9
			i(S)	28	06.30	
LAT	37.55	170	eP	27	13.00	0.6
ADK	37.81	43	ePc	27	13.90	-0.4
	0.9s	763.90nm				6.6mb
BKB2	38.89	220	ePd	27	28.50	4.8X
PAA	39.37	156	eP	27	27.00	-0.8
CHG	39.40	263	iPd	27	27.60	-0.4
	1.0s	260.00nm				6.1mb
Z	20s	6.03um				5.4Msz
N	22s	9.74um				
E	22s	6.67um				
			eS	33	18.00	
CHTO	39.40	263	iPd	27	27.81	-0.2
			epPd	27	46.68	78kmX
			ePP	29	05.40	
NST	39.83	257	iPd	27	33.00	1.5
LMG	39.95	168	eP	27	32.50	-0.1
BDT	40.05	260	eP	27	33.10	-0.1
	1.0s	216.60nm				6.0mb
PMG	40.28	170	iPc+	27	34.00	-1.1
	1.5s	638.89nm				6.3mb
MKS	40.95	213	iPd	27	43.00	2.4
NNT	41.72	254	eP	27	48.50	1.5
LSA	42.48	282	iPd	27	50.00	-3.7X
	8.0s	2.00nm				3.0mb X
Z	11s	1.51um				5.1MszX
N	10s	0.88um				
E	13s	2.10um				
WMQ	43.45	303	iPd	28	00.71	-0.2
Z	32s	22.60um				5.9MszX
E	13s	6.00um				
			sP	28	27.50	
			ePP	29	48.40	
			eScP	33	30.98	
			eS	34	20.16	
			ScS	37	50.00	
			e	37	50.39	
			eSS	37	52.04	
SVO	43.62	152	eP	28	02.00	-0.4
VSG	43.67	152	eP	28	02.00	-0.9
HNR	43.93	152	eP	28	04.00	-0.9
			eS	34	24.00	
SNG	44.07	246	eP	28	06.80	P 7

27d 02h

			e	33	35.80		CMS	61.95	175	eP	30	17.60	-0.2	KRP	75.59	152	Pc	31	43.20	1.4
			eS	33	58.00					e	30	44.00	107kmX		0.3s	129.00nm				6.3mb
KGM	45.30	238	ePc	28	17.10	1.2				e	30	55.00		LBFM	75.62	50	P	31	42.30	-0.1
IPM	45.35	243	ePd	28	17.00	0.6	STK	62.15	179	eP	30	18.00	-1.1	LTCM	76.00	52	P	31	43.60	-0.7
	0.7s	181.20nm				6.0mb				i	30	45.20	110kmX	KER	76.04	302	ePd	31	44.50	-0.4
			e	28	39.00	92kmX	FORR	62.25	192	eP	30	16.70	-3.1X	MIN	76.28	51	eP	31	45.30	-0.8
GUN	47.41	281	P	28	32.30	-0.7		0.4s	220.00nm				6.6mb				i	31	46.80	5kmX
KNA	47.47	196	iPd	28	32.70	-0.2	QUE	62.37	290	iPd-	30	19.50	-1.5	JNW	76.30	350	iP	31	48.60	3.2X
PKI	47.91	281	P	28	35.60	-1.3				eS	38	37.20					i	32	11.50	87kmX
SDN	47.93	41	eP	28	34.50	-1.6	MBC	62.89	15	ePc	30	22.20	-1.3	NWRM	76.30	53	P	31	45.80	-0.2
KKN	47.96	281	P	28	36.20	-0.9		0.8s	170.00nm				6.1mb	SLY	76.63	303	iPc	31	47.50	-0.4
DMN	48.16	281	P	28	37.60	-1.1				pP	30	48.00	104kmX				iPP	32	11.00	
PSI	48.16	243	ePd	28	38.00	-0.4	AFI	63.69	127	ePc	30	29.76	0.1				iSP	32	22.00	
	0.7s	81.70nm				5.7mb				eSKS	40	18.64					iS	41	24.00	
GKN	48.44	282	P	28	39.80	-0.9				eScS	41	24.44					iScS	41	49.00	
PPI	49.11	239	ePc	28	45.60	-0.1	COOL	63.88	199	eP	30	29.70	-0.9	ORV	76.73	52	ePc	31	47.90	-0.5
	0.8s	79.30nm				5.8mb		0.3s	19.00nm				5.4mb				i	31	49.40	5kmX
BSI	49.31	249	ePc	28	47.00	-0.3	MRWA	63.94	204	iPc	30	29.70	-1.3				e	02	08.60	
WB5	50.54	188	eP	28	53.20	-3.4X		0.4s	24.00nm				5.5mb	BRK	77.01	54	eP	31	49.90	-0.1
			iScP	34	01.10		BAL	64.97	203	iPd	30	37.30	-0.3				i	31	51.40	5kmX
			iS	35	56.20		ADE	65.24	182	iPd	30	39.80	0.5	BKS	77.03	54	eP	31	50.00	-0.1
			iPKKP	51	21.80			0.9s	129.41nm				5.9mb		0.8s	853.00nm				6.7mb
CTA	50.69	173	iPc+	28	56.20	-1.4	KLB	65.54	201	eP	30	40.00	-1.2		Z 20s	3.00um				5.6Msz
	1.4s	581.40nm				6.4mb	MAIO	66.02	299	iPd-	30	44.20	-0.3		N 20s	3.20um				
			iS	36	02.00			1.8s	133.80nm				5.6mb		E 20s	4.50um				
			iScS	38	39.50					eS	39	24.00					epP	32	13.60	90kmX
			i	42	14.00		MUN	66.39	203	iPd	30	46.40	-0.3				iS	41	35.20	
CTAO	50.69	173	iPc	28	56.62	-1.0	ALE	66.56	3	eP	30	47.00	-0.2				esS	42	04.40	
			epPd	29	17.15	83kmX		0.8s	139.00nm				5.9mb				ePS	42	40.40	
QIS	50.87	181	eP	28	57.00	-2.0				pP	31	11.00	94kmX				eLQ	51	32.00	
			e	29	27.00	129kmX	KBS	66.88	351	iP	30	50.50	1.2				eLR	54	46.00	
			e	36	02.00					i	31	13.40	89kmX	NSS	77.06	340	iP	31	49.68	0.0
SVW	51.12	34	eP	29	00.50	-0.1	NWAO	66.94	201	eP	30	49.10	-1.1	PCC	77.11	54	ePc	31	49.80	-0.7
TTA	51.17	32	eP	29	00.40	-0.6		0.7s	104.00nm				5.9mb				e	31	51.30	5kmX
KDC	52.50	38	P	29	09.60	-1.3		Z 20s	2.70um				5.5Msz	BBU	77.25	293	iP	31	45.80	-5.6X
BRW	52.62	21	P	29	11.40	-0.2		N 20s	1.70um						0.4s	82.00nm				6.0mb
IMA	52.63	28	eP	29	11.20	-0.8		E 20s	1.20um					BEE	77.29	293	iP	31	46.70	-5.0X
KSH	52.64	298	iPd	29	12.00	-0.4				eS	39	38.00		DHR	77.46	293	eP	31	52.00	-0.6
	6.0s	2.50nm				3.4mb X	BFD	67.45	178	eP	30	52.00	-1.2	SES	77.57	38	eP	31	50.00	-2.9
	Z 28s	10.90um				5.7MszX				e	31	19.00	108kmX		1.4s	1197.00nm				6.6mb
	E 17s	12.90um					TOO	67.97	176	eP	30	56.00	-0.6				pP	32	40.00	208kmX
			sP	29	39.00					e	31	36.00	167kmX	GCC	77.60	54	eP	31	53.00	-0.2
PMR	54.27	34	eP	29	22.00	-1.9	RKG	68.07	201	iPc	31	00.90	3.7X				i	31	54.50	5kmX
	1.0s	600.00nm				6.6mb	KEV	69.22	340	ePd	31	04.40	0.5	MHC	77.70	54	iPc	31	56.00	2.0
	Z 20s	3.00um				5.4Msz		0.9s	219.70nm				6.0mb		Z 20s	2.00um				5.4Msz
NDI	54.45	285	iPd	29	25.00	-0.7				epP	31	25.59	81kmX		N 20s	0.90um				
			iS	36	54.50					ePP	33	35.60			E 20s	1.60um				
COL	54.96	30	iPc	29	28.97	0.1	YKA	69.74	29	P	31	06.40	-0.8				ipP	32	21.00	96kmX
			eS	37	04.31		YKC	69.80	29	iPd	31	06.50	-1.0				iS	41	41.00	
			esS	37	36.59			0.8s	125.00nm				5.9mb				i	42	04.00	
			eScS	39	08.05					pP	31	32.00	100kmX				isS	42	21.00	
			esScS	39	41.57		SOD	70.64	338	iP	31	12.70	0.1				iSS	46	51.00	
FBA	54.96	30	eP	29	27.60	-1.3	PGC	71.35	44	eP	31	17.00	-0.2				isSS	47	20.00	
MBL	55.19	204	eP	29	19.50	-11.5X		1.1s	421.00nm				6.2mb				eSSS	50	12.00	
	0.4s	85.00nm					TRO	71.58	342	iP	31	18.30	0.1				isSSS	50	39.00	
OPA	55.25	84	P	29	32.00	0.4	DAG	72.12	355	iPd	31	20.40	-0.9				e	53	31.00	
			pP	29	58.00	107kmX		0.9s	583.19nm				6.5mb				e	54	36.00	
HON	55.40	84	ePc	29	33.17	0.6		Z 21s	0.72um				4.9Msz				eLR	55	11.00	
	Z 20s	17.55um				6.1Msz	GMW	72.23	45	P	31	22.40	-0 1	ARN	77.77	54	P	31	54.00	-0.3
			ePP	32	11.09		TEH	72.28	301	eP	31	24.00	0.8	MSL	77.93	305	iPc	31	55.00	-0.1
			e	33	25.72		BMW	72.43	46	P	31	24.00	0.3				ePcP	32	03.50	
TOA	55.67	33	eP	29	33.70	-0.4	HTW	72.73	44	eP	31	25.50	0.0				eS	41	36.50	
RMQ	57.30	171	eP	29	44.00	-2.0				epP	31	50.70	97kmX				eScS	41	57.00	
	0.5s	158.00nm				6.4mb	LON	73.18	45	ePc	31	28.61	0.5				ePS	42	13.00	
			e	30	22.00	164kmX	PNT	73.32	42	iP	31	29.00	0.2	SAO	78.12	54	eP	31	55.60	-0.5
HYB	57.54	272	iPd	29	46.10	-1.9		1.2s	424.00nm				6.2mb				i	31	57.00	5kmX
	1.0s	70.00nm				5.7mb	TAU	73.41	175	iPc	31	29.50	0.4	WEL	78.19	154	P	31	56.00	-0.2
			e	30	09.50	94kmX				eS	40	50.00					pP	32	34.80	157kmX
			e	30	39.50		SUF	73.43	334	iP	31	28.10	-1.0				ScS	41	40.00	
			eS	37	36.00			0.8s	192.50nm				6.0mb				S	42	17.00	
DZM	57.96	151	iPc	29	50.10	-0.7	LOF	74.04	342	iP	31	32.63	0.1	CMB	78.23	53	ePc	31	56.90	0.1
			iS	34	34.90		VGB	74.39	46	P	31	35.40	0.3				i	31	58.30	
WARB	58.02	195	eP	29	40.00	-11.0X				pP	32	00.20	95kmX				ipP	32	21.60	94kmX
	0.4s	22.00nm					FHC	74.47	52	ePc	31	36.30	0.7				isP	32	31.50	
NANU	58.08	207	eP	29	50.60	-0.8				i	31	37.80	5kmX				i	32	52.30	
BRS	58.83	167	iPd	29	55.60	-1.1	EDM	74.85	37	iPd	31	37.10	-0.5				e	02	13.10	
			iS	37	50.00			1.0s	329.00nm				6.2mb	PRS	78.38	55	ePc	31	57.60	0.0
GBA	60.20	269	P	30	06.00	-0.3				pP	32	00.00	87kmX				i	31	59.00	
	0.9s	60.30nm				5.7mb	TAB	74.90	305	iP-	31	38.00	-0.4				ipP	32	22.10	93kmX
INK	60.45	25	eP	30	06.00	-1.3	NUR	75.31	333	iP	31	39.10	-0.9	UPP	78.43	334	iP	31	56.20	-1.1
	0.5s	50.00nm				5.9mb		1.0s	330.00nm				6.2mb		1.2s	800.00nm				6.5mb
			pP	30	30.00	96kmX	WDC	75.54	51	ePc	31	41.50	-0.3				i	31	56.80	2kmX
VUN	60.52	138	iPc	30	10.00	1.6				i	31	43.20					i	34	52.30	
MEKA	60.68	203	iPd	30	08.90	-0.4				i	31	50.30					iS	41	36.00	
POO	61.11	275	iPc	30	11.00	-1.6				e(pP)	32	07.80	102kmX	LLA	78.54	54	eP	31	58.70	0.2
COO	61.78	169	iPd	30	16.80	0.0				e(sP)	32	19.20					i	32	00.10	4kmX
SIT	61.79	38	eP	30	17.20	0.7				e	02	08.10		BHD	78.55	302	iPd	31	58.00	-0.5

				iSP	32 35.00			BAR	83.58	56	eP	32 25.00	0.0					iS	43 14.00				
				iS	41 44.00			PSN	83.68	318	iPd	32 26.00	0.8					LR	03 15.00				
				iScS	42 05.00			BMR	83.80	323	ePd	32 30.00	4.2X		PGB	86.69	318	iPd	32 41.00	0.6			
				iPS	42 45.00			MLR	83.85	320	ePd	32 27.50	1.2		ELL	86.72	311	iP	32 40.30	-0.4			
PRI	78.97	55	ePc	32 01.40	0.4			KRA	84.03	326	iPd	32 27.50	0.6		RDO	86.77	317	eP	32 40.70	0.0			
			i	32 02.70	4kmX				1.2s	232.00nm			6.0mb		RZN	86.92	318	iPd	32 42.00	0 3			
FRI	79.22	53	ePc	32 01.90	-0.2				Z 20s	7.00um			6.0Msz		AYN	86.97	302	eP	32 42.50	0.6			
			i	32 03.40					N 20s	6.20um					VKA	86.99	326	iPd	32 42.90	1 2			
			ipP	32 26.70	94kmX						i	32 29.70	7kmX			5.0s	1828.00nm			6.4mb X			
			e	02 19.50							i	32 35.70				Z 20s	3.20um			5.7Msz			
LRM	79.27	43	eP	32 02.20	-0.4						i	32 51.20					ipP	33 05.00	81kmX				
			e	32 28.20	100kmX						i	32 54.20					i	33 16.50					
KVN	79.27	51	P	32 02.20	-0.4						eS	42 42.00					iPP	36 06.70					
FFC	79.51	32	eP	32 03.00	-0.3			GPA	84.40	314	iP	32 29.00	0.0				iSKS	42 59.00					
	1.0s	231.00nm			6.0mb			BUC	84.43	319	iPd	32 30.00	1.0				e(S)	43 11.00					
HFS	79.66	336	eP	32 04.30	0.3			SPC	84.46	325	iP	32 30.20	0.8				LR	16 00.00					
	1.0s	175.80nm			5.9mb			HRT	84.48	315	iP	32 29.80	0.4		GOL	87.06	45	P	32 42.30	-0.2			
MOL	79.84	340	iP	32 05.73	0.8			CMP	84.49	320	iPd	32 25.00	-4.4X			Z 20s	2.50um			5.6Msz			
GDH	79.91	5	ePc	32 05.00	-0.1			BUC1	84.51	319	iPd	32 30.00	0.6		EZN	87.12	315	iP	32 42.20	-0.2			
	0.8s	34.33nm			5.3mb			REY	84.57	352	eP	32 32.10	2.8X		VTS	87.21	319	iPd	32 43.00	0.0			
			i	32 30.00	95kmX						i	32 55.30	86kmX		BEO	87.26	322	iPd	32 43.20	0.2			
			i	42 03.00				GBZT	84.64	315	iPd	32 30.80	0.7			Z 17s	5.13um			6.0MszX			
NRA0	79.96	337	P	32 05.20	-0.4			GLA	84.69	55	eP	32 31.00	0.4				i	33 04.50	78kmX				
			pP	32 28.40	88kmX			ISK	84.71	315	eP	32 30.80	0.3				iS	43 00.50					
HPI	80.03	45	P	32 07.00	0.3			HRI	84.75	306	iPd	32 32.20	1.2		MBH	87.29	303	iPd	32 43.10	-0.3			
NAO	80.13	338	P	32 05.70	-0.8			KMSA	84.87	291	eP	32 31.30	-0.4		KSL	87.31	311	eP	32 43.00	-0.4			
SYP	80.26	56	eP	32 09.00	1.1			FAM	85.00	308	eP	32 30.50	-1.6		MOX	87.40	330	iPd-	32 44.00	0.4			
TNP	80.36	51	P	32 07.80	-0.7			CTT	85.04	315	eP	32 33.30	1.1			1.9s	172.00nm			5.8mb			
EUR	80.46	50	iP	32 09.30	0.3			DMK	85.04	316	iP	32 32.60	0.4			Z 15s	3.00um			5 8MszX			
	0.8s	12.98nm			4.9mb X			LFK	85.16	308	iP	32 33.40	0.4			N 16s	4.50um						
ISA	80.75	54	eP	32 10.00	-0.4			KSP	85.20	328	iPd	32 33.50	0.7			E 16s	3.50um						
PTI	80.93	45	P	32 12.40	1.1				1.2s	325.00nm			6.2mb				epP	33 06.00	81kmX				
RYD	81.01	293	iPd	32 11.50	-0.4						i	32 57.20	88kmX				iPP	36 10.00					
CLC	81.28	54	eP	32 13.00	-0.1						iPP	35 52.50					ipPP	36 31.00					
HYA	81.34	339	eP	32 13.50	0.7						eS	42 57.00					iSKS	43 00.00					
KAS	81.62	313	iPc	32 16.00	1.2			ALT	85.24	313	iP	32 33.70	0.4				esS	43 55.00					
SBB	81.71	55	eP	32 16.00	0.6			DEV	85.26	322	ePd	32 35.00	1.8				eSS	49 05.00					
PAS	81.74	55	iPc	32 16.44	0.9			BURJ	85.31	305	P	32 33.90	0.1				eLR	01 25.00					
			e	32 39.00				JMB	85.34	317	iPd	32 35.00	1.4		IZM	87.42	314	iP	32 44.00	0.1			
			epP	32 40.11	89kmX			CSS	85.48	308	eP	32 34.50	0.0		PRK	87.51	315	eP	32 44.20	-0.1			
			ePP	35 58.00				SALJ	85.48	305	P	32 35.30	0.7		YER	87.54	312	iP	32 44.60	0.0			
			ePPP	38 19.00				KFNJ	85.57	304	P	32 35.90	1.0		MMB	87.55	318	iPd	32 45.00	0.5			
			eS	42 20.93				PVL	85.60	318	iPd	32 36.00	1.1		KHC	87.65	328	iPd	32 45.20	0.4			
			esS	42 53.63				MASJ	85.61	304	P	32 35.90	0.6				S	43 04.00					
			eSS	47 46.00				QUTJ	85.64	304	P	32 30.90	-4.5X		WIT	87.74	334	ePd	32 47.00	1.9			
			eSSS	51 06.00				MKRJ	85.76	304	P	32 31.40	-4.7X				epP	33 10.00	85kmX				
			eLQ	54 18.00				ZNT	85.82	305	iPd	32 37.20	1.0				ePP	36 08.50					
			eLR	57 00.00				RSON	85.82	31	P	32 34.20	-1.7				epPP	36 34.00					
MWC	81.78	55	eP	32 17.00	1.0				1.0s	120.00nm			5.9mb		KKB	87.74	318	iPd	32 46 00	0.6			
GSC	82.10	54	eP	32 18.00	0.5						pP	33 00.00	97kmX		EDU	87.86	341	eP	32 46.50	0.8			
DUG	82.13	48	P	32 17.70	0.1			BNT	85.83	315	iP	32 37.40	1.3		SRS	87.93	318	iPd	32 35.90	-10.4X			
ASK	82.18	339	eP	32 18.80	1.6			DST	85.84	314	iP	32 36.00	-0.3		KMR	88.17	327	iP-	32 48.00	0.7			
ODD1	82.19	339	eP	32 17.80	0.4			BCK	85.87	311	eP	32 35.00	-1.5				ipP	33 09.70	79kmX				
BER	82.22	339	iP	32 19.00	1.6			EDC	85.87	315	eP	32 37.00	0.7				i	36 18.10					
AFR	82.26	115	iP	32 20.40	2.1			KHL	86.04	313	iP	32 37.00	-0.3				e	43 06.00					
	0.8s	150.00nm			5.9mb			BZS	86.12	322	eP	32 37.00	-0.4		EBH	88.26	341	eP	32 48.40	0.8			
RVR	82.39	55	eP	32 18.00	-0.9			PPCY	86.19	309	eP	32 38.20	0.2		SOH	88.26	318	iPd	32 47.40	-0.5			
PPT	82.44	115	iP	32 21.30	2.0			DIM	86.21	317	iP	32 40.00	2.0		GRFO	88.28	330	ePd	32 48.75	0.9			
	0.8s	65.00nm			5.6mb			BRG	86.23	329	iPd	32 38.00	0.2				ePP	36 16.87					
	Z 21s	3.00um			5.6Msz				2.5s	640.00nm			6.2mb		KNT	88.30	318	iPd	32 47.90	-0.2			
BIR	82.45	320	eP	32 22.00	3.1X						ipP	33 00.20	82kmX		WTS	88.32	333	iPd	32 48.60	0.7			
CLI	82.47	320	ePd	32 20.00	1.0						isP	33 18.40				0.9s	49.00nm			5.6mb			
PPE	82.48	320	ePc	32 20.00	0.9						eSKS	42 53.50					epP	33 11.50	84kmX				
PAE	82.49	115	iP	32 21.40	1.9						eS	43 20.00					ePP	36 14.00					
	0.8s	45.00nm			5.4mb						esS	43 42.50					epPP	36 39.00					
PPN	82.53	115	iP	32 21.70	2.0			TIM	86.25	322	iPd	32 40.00	2.0				eSP	44 25.00					
	0.8s	55.00nm			5.5mb			CLL	86.32	330	iPd	32 38.40	0.1		VAY	88.39	318	iPd	32 48.30	-0.2			
PEC	82.59	55	P	32 19.20	-0.8				1.7s	230.00nm			6.0mb			1.5s	0.33nm			3.2mb X			
AKU	82.62	351	iP	32 22.80	3.4X						ipP	32 59.40	77kmX		PLG	88.49	317	eP	32 49.00	-0.1			
	1.9s	757.89nm			6.3mb						iPP	36 00.50			EBL	88.53	340	eP	32 49.70	0.8			
PTT	82.72	321	eP	32 22.00	1.7						eSKS	42 52.00				1.4s	167.00nm			6.0mb			
QASM	82.74	296	eP	32 21.00	0.1						iS	43 05.20			EAU	88.59	341	eP	32 49.90	0.7			
CFR	82.80	319	iPd	32 22.00	1.3			SRO	86.34	325	iPd	32 39.80	1.4			0.9s	67.00nm			5.8mb			
TVO	82.81	115	iP	32 23.60	2.3						e(S)	43 02.00			SKO	88.61	319	iPd	32 50.00	0.5			
	0.8s	180.00nm			6.0mb			KDZ	86.53	317	iPd	32 40.00	0.4			1.2s	240.00nm			6.2mb			
DAU	83.00	47	P	32 22.50	0.2			PRU	86.60	328	Pd	32 40.40	0.7			Z 17s	4.64um			6.0MszX			
PLM	83.09	55	eP	32 22.00	-0.7				1.8s	206.30nm			5.9mb			N 17s	5.07um						
BBTK	83.11	312	iPd	32 23.00	0.4				Z 16s	6.10um			6.1MszX			E 18s	2.78um						
CPE	83.17	56	eP	32 24.50	1.6				N 18s	3.20um							iPcP	33 00.00	220kmX				
KMY	83.17	339	eP	32 23.40	1.0				E 16s	4.40um							i	33 44.00					
FRB	83.18	13	eP	32 22.00	-0.3						i	33 02.20	80kmX				iPP	36 14.00					
	1.1s	432.00nm			6.3mb						S	43 09.00					iS	43 10.00					
			pP	32 47.00	94kmX			PLD	86.66	318	ePd	32 39.00	-1.1				iScS	43 28.00					
VRI	83.19	320	iPd	32 24.50	1.8			ZST	86.67	326	iPd	32 41.00	1.0				iPS	44 00.00					
BRD	83.22	320	ePc	32 25.50	2.6				Z 16s	8.00um			6.2MszX				iSS	49 17.00					
TPC	83.26	54	eP	32 23.00	-0.4						e	33 03.00	81kmX				LR	16 28.00					
MSU	83.47	49	P	32 24.70	0.0						e(PP)	36 04.50			THE	88.61	318	iPd	32 48.70	-0			

27d 02h

PAIG	88.64	317	iPd	32	49.30	-0.4	BERA	90.29	319	iPd	32	57.80	0.4	IMI	94.16	328	P	33	13.47	-1.8
GRG	88.72	318	iPd	32	49.70	-0.4	GWF	90.35	331	P	32	57.99	0.4	BGF	94.23	332	eP	33	14.50	-1.0
PLE	88.83	321	eP	32	52.00	1.3	WLF	90.42	332	Pd	32	58.60	0.8	SOI	94.29	319	Pd	33	16.50	0.7
PTJ	88.83	325	iPd	32	50.50	-0.1				PP	36	30.50		PLDF	94.39	331	P	33	17.20	0.9
DBN	88.86	334	eP-	32	51.00	0.5				e	52	28.40		SBF	94.41	328	eP	33	14.40	-2.0
Z 20s	3.70um		5.8Msz				SNF	90.47	334	Pd	32	57.30	-0.7	LPF	94.49	335	eP	33	16.10	-0.5
		epP	33	14.00	85kmX					pP	33	21.70	90kmX		0.9s	109.40nm			6.3mb	
		ePP	36	20.00						PP	36	29.50		AGO	94.53	332	P	33	17.97	1.1
		epPP	36	44.00						pPP	36	55.80		ATN	94.56	320	P	33	17.30	0.2
		iSKS	43	12.00						SP	44	50.20		SSB	94.56	331	P	33	17.34	0.3
		iS	43	29.00		VVI	90.48	327	Pd	32	57.90	-0.4	MAF	94.62	332	eP	33	16.60	-0.7
		isS	44	09.00		STR	90.60	331	P	32	58.67	0.0	TCF	94.71	332	eP	33	17.00	-0.7
		eSS	49	26.00		DOU	90.68	333	P	32	59.10	0.0	CVF	94.73	326	eP	33	15.50	-2.4
IVA	88.86	321	eP	32	51.50	0.7				pP	33	23.00	88kmX		0.7s	13.20nm			5.5mb	
ZAG	88.88	325	iPd	32	51.00	0.3				PP	36	28.80		PYM	94.82	332	P	33	18.71	0.4
EKA	88.95	340	Pd	32	51.60	0.7				i	36	34.00		FRF	95.00	328	eP	33	17.10	-2.0
1.8s	216.60nm		6.0mb							SKS	43	23.00			0.7s	26.40nm			5.8mb	
BCI	89.11	320	eP	32	32.20	-19.7X				iScS	43	46.00		LSF	95.01	333	eP	33	18.30	-0.8
KAP	89.21	312	eP	32	52.30	-0.2				sScS	44	26.00		LBL	95.14	331	P	33	20.79	1.2
LIT	89.23	317	iPd	32	51.70	-0.8				e	52	31.20		MNO	95.15	320	P	33	20.20	0.1
KBA	89.25	327	iPd	32	52.00	-0.7				RScS	56	32.00		LRG	95.21	328	eP	33	18.60	-1.4
0.7s	41.50nm		5.7mb				SRN	90.81	319	iP	33	00.50	0.7		0.7s	44.00nm			6.0mb	
		ipP	33	14.00	80kmX	CDF	90.94	331	P	33	00.49	0.1	LMR	95.24	328	eP	33	18.50	-1.6
		isP	33	23.00		FEL	91.04	330	P	33	00.81	-0.1		1.0s	45.60nm			5.9mb	
		ePP	36	19.00		VAM	91.20	313	eP	33	02.50	0.8	LNO	95.27	43	P	33	18.60	-1.7
		i	36	26.10		DMU	91.26	341	eP	33	02.90	1.2	MFF	95.36	334	eP	33	20.20	-0.5
		(SKS)	43	11.00		MOF	91.43	331	P	33	02.79	0.1		1.3s	132.80nm			6.2mb	
		iS	43	20.00		ITM	91.46	315	eP	33	01.50	-1.4	MEU	95.60	319	P	33	22.50	0.4
		i	43	53.50		BBS	91.58	330	P	33	03.31	0.0	RJF	95.79	332	eP	33	22.30	-0.4
		i	44	28.60		BSF	91.59	331	P	33	03.42	0.0		1.3s	140.00nm			6.3mb	
		e	44	39.00		VLS	91.60	317	eP	33	03.00	-0.5	CAF	95.88	332	eP	33	22.80	-0.3
ANMO	89.28	49	iPc	32	53.81	0.7	VITF	91.63	332	P	33	03.66	0.3		1.3s	106.10nm			6.2mb	
		epP	33	17.48	87kmX	HAU	91.64	331	eP	33	02.40	-1.2	LFF	96.40	333	eP	33	25.30	-0.1
ALQ	89.28	49	ePd	32	53.00	-0.1		0.9s	52.40nm			5.9mb			0.7s	57.30nm			6.2mb	
1.0s	65.00nm		5.8mb				SAL	91.65	327	Pd	33	03.20	-0.4	LPO	96.44	332	eP	33	25.30	-0.3
Z 20s	6.88um		6.1Msz				DLE	91.70	341	eP	33	07.80	4.1X		1.3s	86.60nm			6.1mb	
		epP	33	20.00	101kmX		0.8s	47.00nm			5.9mb		FVM	96.79	38	P	33	27.00	-0.3	
NEO	89.31	316	eP	32	52.50	-0.4	SCH	91.73	15	eP	33	05.00	1.2				pP	33	53.50	99kmX
APE	89.32	314	eP	33	01.00	8.0X				pP	33	28.00	84kmX	UYO	97.26	43	eP	33	29.40	-0.1
PHP	89.36	320	iPd	32	52.50	-0.5	DCN	91.86	341	eP	33	05.60	1.2				e	33	55.60	97kmX
NKY	89.39	321	eP	32	53.50	0.1		0.9s	96.00nm			6.2mb		GAC	97.30	25	eP	33	29.00	-0.4
PUK	89.42	320	eP	32	53.40	0.1	LOMF	91.96	331	P	33	05.17	0.1				pP	33	54.50	94kmX
LJU	89.43	326	ePd	32	52.80	-0.6	RSM	91.98	325	P	33	06.50	1.4	EPF	98.15	332	eP	33	32.60	-0.8
		e	43	13.00		ETA	92.13	341	eP	33	04.50	-1.2		0.8s	10.70nm			5.4mb	
VBY	89.46	325	iPd	32	53.90	0.4		1.6s	302.00nm			6.4mb		CBM	98.59	19	P	33	36.00	0.7
TTG	89.51	321	eP	32	54.00	0.3	CIO	92.17	324	eP	33	06.57	0.4	RSNY	98.64	25	P	33	35.00	-0.5
		eS	43	08.00		VAI	92.26	329	Pd	33	05.80	-0.5		1.0s	16.67nm			5.5mb	
KZN	89.51	318	eP	32	53.00	-0.9	ALP	92.26	324	eP	33	06.93	0.3				pP	33	58.40	86kmX
OHR	89.54	319	iPd	32	53.00	-1.0	SFI	92.28	326	P	33	06.40	-0.1	AVY	101.77	255	ePdiff	33	50.60	0.4
1.5s	0.43nm		3.4mb X				PGD	92.38	326	P	33	08.20	1.0	NAI	102.51	276	ePdiff	33	54.00	0.3
		i	33	10.60	62kmX	ASS	92.51	325	P	33	07.80	0.1	TOL	102.57	333	ePdiff	33	55.00	1.9
		eS	43	09.20		DUI	92.61	323	P	33	08.70	0.5				iPP	38	07.00	
RBL	89.61	326	P	32	52.80	-1.5	MME	92.63	326	Pd	33	08.90	0.4				ePPP	40	11.00	
ENN	89.63	333	iPd	32	55.00	0.8	ECP	92.63	340	eP	33	09.00	1.0				iSKS	44	27.00	
0.9s	71.00nm		5.9mb					1.1s	143.00nm			6.3mb					iS	45	28.00	
		epP	33	19.00	89kmX	FIR	92.67	326	iPd	33	09.00	0.7					iPS	46	58.00	
		ePP	36	25.50						i	36	55.00					iSS	52	20.00	
		epPP	36	49.00						i	37	16.00		MAL	105.42	331	ePKP	38	19.00	-0.3
		eSP	44	41.00						iS	43	33.00					iS	44	36.00	
SDA	89.66	320	iPd	32	54.60	0.2	BOB	92.79	328	P	33	09.00	0.1	LWI	109.84	279	ePdiff	34	25.00	-1.3
CEY	89.70	326	eP	32	54.00	-0.7	ORX	92.79	329	P	33	08.34	-0.7	CLK	111.07	264	iPKPc	38	30.90	0.3
VOY	89.75	326	iPd	32	54.50	-0.5	ORO	92.80	329	P	33	08.10	-0.9	PTZ	113.55	267	iPKP	38	35.50	0.1
LACI	89.80	320	iPd	32	54.50	-0.6	SDI	92.91	323	Pd	33	08.00	-1.5				i	38	57.00	
KBN	89.85	319	iPd	32	55.20	-0.2	TDS	93.02	320	Pd	33	10.40	0.4				i	42	04.00	
ATH	89.87	315	eP	32	55.00	-0.5	BSS	93.05	322	P	33	10.30	0.2				e	49	20.00	
		eS	43	16.00		LOR	93.25	332	eP	33	10.00	-1.0				i	49	28.20	
FVI	89.87	327	Pd	32	54.70	-0.6		0.9s	102.30nm			6.2mb		LSZ	116.73	267	iPKP	38	42.50	1.0
TIR	89.90	320	eP	32	55.50	-0.1	LSD	93.29	329	P	33	11.52	0.0				i	39	09.20	
TRI	90.04	326	iPd	32	55.80	-0.4	LBF	93.43	332	eP	33	10.70	-1.1				i	42	11.00	
		ipP	33	24.00	106kmX	LPG	93.44	329	eP	33	11.20	-1.0				i	53	36.70	
		i	33	57.00			0.6s	84.50nm			6.3mb		KMZ	117.93	270	iPKPc	38	45.00	1.1	
		iPP	36	28.00		RSP	93.48	329	P	33	11.42	-0.8				i	41	32.00	
		ipPP	36	54.00		SSF	93.56	332	eP	33	11.50	-0.9				i	41	57.00	
		iS	43	14.00		FLN	93.67	335	eP	33	12.10	-0.7				i	42	13.00	
		iSP	44	42.00			1.1s	73.20nm			6.0mb		BUL	118.46	262	iPKPc	38	44.80	0.0	
		iSS	49	22.00		LDF	93.68	335	eP	33	11.90	-1.0				iSKP	42	12.90	
		iSSS	53	40.00			0.9s	79.90nm			6.1mb					iSKS	45	32.10	
UCC	90.21	334	Pd-	32	57.10	0.3	SMF	93.76	332	eP	33	12.30	-1.0	SPA	120.43	180	e(PKP)	38	46.60	-0.5
		pP	33	19.00	80kmX	FIN	93.78	328	P	33	12.55	-0.9		1.0s	45.00nm					
		PP	36	28.50		BNI	93.82	329	P	33	13.90	0.1	SLR	120.93	257	iPKPd+	38	48.50	-0.8
		sPP	37	04.00		AVF	93.84	332	eP	33	12.80	-0.8		1.0s	70.00nm					
		SKS	43	18.00		ROB	93.87	328	P	33	12.85	-1.1	Z	20s	3.55um			6.0Msz		
		iScS	43	42.00		RRL	93.87	329	P	33	13.37	-0.8	SEK	122.39	254	iPKPd	38	52.50	0.5	
		sScS	44	19.00		PZZ	94.06	329	P	33	12.85	-2.0		1.1s	139.24nm					
		SP	44	48.00		GRR	94.12	335	eP	33	14.50	-0.4	SHGH	127.67	307	ePKP	39	03.00	0.6	
		PPS	45	25.00			0.9s	117.90nm			6.3mb		KOGH	127.69	307	ePKP	39	03.00	0.4	
LSK	90.29	318	iPd	32	58.20	0.7	STV	94.16	328	P	33	12.14	-3.2X	KUK	127.70	308	ePKP	38	58.00	-4.5X

			S	42	07.00	
LEGH	127.96	307	ePKP	39	04.00	1.0
TIC	130.43	313	PKP	38	59.60	-8.1X
KIC	130.47	312	PKP	38	59.90	-7.9X
BMG	130.56	46	iPKPd	39	09.00	0.9
LIC	130.76	312	PKP	38	59.90	-8.4X
FUQ	131.37	48	ePKP	39	17.00	7.1X
BOG	131.79	49	ePKP	39	11.00	0.3
PSO	132.04	56	ePKP	39	12.50	1.2
ARE	147.53	72	iPKPc	39	40.00	1.2
ZOBO	150.15	68	PKPc	39	44.00	0.8
			LR	30	24.00	
ATB	150.26	27	PKPc	39	42.70	0.0
LPB	150.32	68	PKP	39	45.00	1.8
	1.0s		500.00nm			
			SS	02	32.00	
			eLR	30	22.00	
CNCB	150.56	69	iPKPc	39	46.10	2.3X
ANT	151.63	84	ePKP	39	46.20	1.7
			i	39	52.30	
CCH	152.34	68	ePKP	39	49.00	2.9X
			i	39	55.00	
LCCH	152.65	104	ePKPd	39	53.90	8.2X
LNV	152.80	106	ePKP	39	53.50	7.7X
TACH	153.18	105	ePKP	39	54.40	7.9X
PEL	153.37	104	iPKPc	39	47.50	0.7
	1.0s		120.00nm			
SAN	153.40	104	ePKP	39	48.50	1.7
JACH	153.42	103	ePKPd	39	55.50	8.6X
PCH	153.53	105	ePKP	39	55.50	8.4X
FCH	153.71	104	iPKPd	39	57.60	10.0X
RFA	155.24	107	ePKPd	39	50.00	0.7
SLA	156.20	82	ePKPd	39	51.80	0.8
CYA	156.96	91	e(PKP)	39	52.50	0.8
ITR	158.25	357	ePKP	39	54.50	0.9
			e	40	11.50	
			e	40	25.60	
			e	40	51.00	
BAO	163.15	30	ePKP	39	54.50	-4.2X
PPD	166.34	54	ePKP	40	02.20	0.9
			e	41	04.70	
VAO	169.86	44	e(PKP)	40	11.00	7.3X
ITA	170.54	31	ePKP	40	06.20	1.9

S.D. = 1.0 on 454 of 504 obs.

APR 27, 1989 02h 41m 14.99± 0.32s
30.149 N ± 6.0km 99.092 E ± 4.5km
DEPTH = 10.0km (geophysicist)
5.1mb (17 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	4.10	78	ePn	42	19.00	0.0
			ePg	42	24.40	
			eSg	43	22.00	
KMI	5.96	146	Pgd	43	01.50	15.9X
			Sg	44	17.00	
LZH	7.14	33	P	43	31.00	28.9X
	2.0s		879.00nm			
GYA	7.62	117	P	43	03.80	-5.0X
			S	44	24.60	
GTA	9.26	3	eP	43	35.00	3.4X
CHTO	11.29	181	eP	44	00.00	0.6
	1.1s		13.25nm		5.2mb	
GUN	11.78	262	P	44	06.90	0.5
PKI	12.27	261	P	44	12.30	-0.6
KKN	12.32	262	P	44	13.80	0.2
GKN	12.82	264	P	44	19.20	-1.0
TIY	13.39	52	eP	44	31.70	4.0X
BTO	13.70	38	eP	44	32.60	0.8
HHC	14.72	40	eP	44	44.50	-0.6
WMQ	16.38	330	P	45	11.00	4.4X
BJI	17.09	50	eP	45	15.50	0.1
DL2	20.48	59	eP	45	55.20	-0.3
HYB	22.62	241	eP	46	18.00	0.7
CN2	24.95	50	Pc	46	40.40	0.6
			pP	46	46.40	21kmX
GBA	25.90	235	Pc	46	48.70	-0.2
	0.8s		16.60nm		4.8mb	
SOD	55.82	334	iP	50	55.00	0.7
KEV	55.86	336	iP	50	55.00	0.4
	0.8s		24.90nm		5.3mb	
SUF	55.90	328	iP	50	55.60	0.7
	0.7s		16.40nm		5.2mb	
NUR	56.69	325	eP	51	01.00	0.4
	0.7s		17.40nm		5.2mb	
UPP	60.25	325	iP	51	25.30	-0.1
NAO	63.35	327	P	51	46.10	-0.2
	0.9s		12.20nm		5.1mb	
BRG	64.34	316	eP	51	54.20	1.3
CLL	64.78	316	eP	51	56.00	0.3
TRI	66.05	310	eP	52	04.90	0.9
			e	52	22.50	
DAG	66.86	347	eP	52	07.00	-1.7
NAI	66.94	254	iPc	52	10.50	0.1
	1.0s		20.00nm		5.3mb	
CDF	69.25	315	eP	52	24.10	-0.1
AVY	69.46	232	iPc	52	24.78	-1.2
BSF	69.77	314	eP	52	27.10	-0.3
LPG	70.71	312	eP	52	33.80	0.4
	0.8s		18.80nm		5.3mb	
MBC	71.17	9	eP	52	34.00	-1.3
LOR	71.81	314	eP	52	39.10	-0.6
	0.9s		4.90nm		4.6mb	
LBF	71.86	314	eP	52	39.70	-0.3
	1.1s		13.10nm		4.9mb	
SMF	72.09	314	eP	52	41.30	0.0
	1.1s		26.80nm		5.2mb	
SSF	72.12	314	eP	52	41.20	-0.3
	1.0s		14.00nm		5.0mb	
EKA	72.24	324	Pc	52	43.00	1.0
	1.0s		11.30nm		4.9mb	
AVF	72.33	314	eP	52	42.60	-0.1
	0.8s		14.70nm		5.1mb	
TCF	73.26	314	eP	52	48.60	0.4
	0.9s		15.30nm		5.1mb	
CAF	73.95	313	eP	52	54.90	2.6X
	1.2s		17.80nm		5.0mb	
INK	74.43	18	eP	52	53.00	-1.6
ADE	74.76	147	eP	52	53.20	-3.8X
YKA	83.80	15	P	53	48.10	2.6X
BUL	84.21	243	iPd	53	47.30	-1.1
FFC	93.54	12	eP	54	32.00	-0.2
	0.8s		12.00nm		5.3mb	
BAO	146.55	288	ePKP	00	59.00	1.5

S.D. = 0.8 on 40 of 49 obs.

APR 27, 1989 04h 05m 37.64± 0.24s
30.553 N ± 5.5km 140.613 E ± 3.8km
DEPTH = 92.7km (7 depth phases)
4.9mb (18 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT	6.30	342	eP	07	12.00	2.3
			eS	08	23.00	
SHK	7.79	303	eP	07	32.70	2.6
MDJ	16.51	331	eP	09	24.50	-0.2
SSE	16.70	277	P	09	29.50	2.3
			i	09	54.50	
GUMO	17.33	166	eP	09	34.20	-0.9
	0.8s		380.67nm		5.7mb X	
			e	09	37.50	
PJG	17.33	166	eP	09	34.60	-0.5
			e	09	37.30	
GUA	17.39	166	e(P)	09	37.80	2.0
	0.8s		280.60nm		5.5mb X	
CN2	17.87	322	Pd	09	41.00	-0.5
NJ2	18.65	280	Pc	09	51.00	0.1
QZH	20.26	259	eP	10	09.00	1.2
TIA	20.39	292	eP	10	08.90	-0.2
BJI	22.02	302	eP	10	26.00	0.6
WHN	22.61	277	eP	10	33.00	1.8
TIY	24.33	295	eP	10	48.00	0.0
HHC	25.63	302	eP	11	00.80	0.7
BTO	26.71	300	eP	11	05.80	-4.2X
XAN	26.96	286	Pc	11	11.00	-1.3
GYA	30.04	271	P	11	40.60	0.4
LZH	31.09	290	eP	11	36.00	-13.3X
	1.6s		36.00nm			
			i	13	25.00	
GTA	34.34	296	eP	12	16.20	-1.2
CHG	39.42	263	eP	13	00.00	-0.2
WMQ	43.49	303	eP	13	29.80	-3.6X
GUN	47.44	281	P	14	04.70	-0.6
	0.5s		13.00nm		5.0mb	
PKI	47.94	281	P	14	08.20	-0.9
KKN	47.99	281	P	14	08.60	-0.7
DMN	48.19	281	P	14	09.90	-1.0
GKN	48.47	282	P	14	12.10	-0.9
TTA	51.20	32	P	14	32.80	-0.4
IMA	52.66	28	P	14	42.00	-2.2
PMR	54.30	34	P	14	54.80	-1.3
	1.0s		18.75nm		5.1mb	
FBA	54.99	30	P	15	01.00	-0.2
	0.8s		11.21nm		4.9mb	
GBA	60.22	269	Pd	15	35.70	-2.8
	0.2s		0.60nm		4.4mb	
INK	60.49	25	eP	15	38.00	-1.5
			pP	16	03.00	100km
MBC	62.93	15	eP	15	55.00	-0.8
ALE	66.60	3	eP	16	20.00	0.5
	0.4s		3.00nm		4.6mb	
YKA	69.77	29	eP	16	39.20	-0.1
SOD	70.69	338	iP	16	44.00	-0.9
PNT	73.34	42	eP	17	01.00	0.1
SUF	73.48	334	eP	17	01.00	-0.4
	0.6s		7.50nm		4.7mb	
EDM	74.88	37	ePd	17	09.80	0.0
NUR	75.36	333	iP	17	12.00	-0.3
	0.7s		12.00nm		4.9mb	
WDC	75.56	51	ePc	17	14.50	0.7
LBFM	75.63	50	P	17	15.00	0.5
MIN	76.30	51	eP	17	17.90	-0.3
ORV	76.74	52	ePc	17	20.70	0.2
BRK	77.03	54	ePc	17	21.00	-1.0
BKS	77.04	54	eP	17	23.10	1.0
	0.8s		38.00nm		5.3mb	
SES	77.59	38	eP	17	24.00	-1.0
			pP	17	49.00	96km
MHC	77.71	54	ePc	17	26.70	0.7
ARN	77.78	54	P	17	26.80	0.5
CMB	78.24	53	ePc	17	29.60	0.8
			epP	17	53.60	91km
PRS	78.39	55	ePc	17	30.40	0.8
			e	17	54.40	91km
LLA	78.55	54	ePc	17	31.30	0.8
PRI	78.98	55	eP	17	34.10	1.1
FRI	79.23	53	ePc	17	34.80	0.7
KVN	79.29	51	P	17	35.00	0.3
			pP	17	59.50	93km
LRM	79.29	43	eP	17	35.20	0.6
FFC	79.54	32	eP	17	35.00	-0.4
	0.8s		9.00nm		4.7mb	
HFS	79.72	336	eP	17	37.00	0.7
	0.5s		3.90nm		4.5mb	
NAO	80.19	338	P	17	38.20	-0.6
	0.9s		6.00nm		4.5mb	
TNP	80.38	51	P	17	41.00	0.5
	0.9s		7.32nm		4.5mb	
			pP	18	05.00	91km
KVT	80.38	312	eP	17	41.00	0.7
EUR	80.48	50	iP	17	42.00	0.9
	0.2s		16.19nm		5.5mb	
CLC	81.29	54	eP	18	03.00	17.8X
SBB	81.72	55	eP	17	48.00	0.6
RVR	82.40	55	eP	17	50.00	-0.9
PEC	82.60	55	P	17	52.00	0.0
PLM	83.10	55	eP	17	55.00	0.3
FRB	83.22	13	eP	17	55.00	0.5
TPC	83.27	54	eP	17	55.00	-0.4
MLR	83.90	320	eP	17	59.00	0.5
GLA	84.70	55	eP	18	04.00	1.4
KSP	85.25	328	eP	18	05.20	0.2
			e	18	28.50	87km
ALT	85.29	313	iP	18	05.70	0.2
PV09	85.46	48	P	18	07.70	1.0
MML	85.49	305	iPd	18	07.00	0.5
RSON	85.85	31	P	18	07.30	-0.7
PRNI	86.93	304	iPc	18	13.00	-0.7
MBH	87.34	303	iP	18	15.00	-0.5
ALQ	89.30	49	eP	18	25.00	-0.1
HAU	91.70	331	eP	18	34.20	-1.5
LOR	93.30	332	eP	18	42.50	-0.6
	1.0s		8.00nm		5.1mb	
LPG	93.49	329	eP	18	43.60	-0.8
	0.6s		3.00nm		4.9mb	
SSF	93.61	332	eP	18	44.10	-0.4
	0.9s		11.40nm		5.3mb	
SMF	93.81	332	eP	18	44.80	-0.7
	0.8s		5.30nm		5.0mb	
AVF	93.89	332	eP	18	45.20	-0.6
	0.8s		7.20nm		5.1mb	
ZOBO	150.15	68	PKPc	25	21.00	5.9X
LPB	150.31	68	PKPc	25	22.10	7.0X
	1.0s		36.00nm			
CNCB	150.56	69	PKPc	25	22.70	7.0X
CCH	152.34	68	(PKP)	25	21.00	3.0X

S.D. = 1.0 on 82 of 90 obs.

% APR 27, 1989 04h 07m 01.74± 0.92s
37.768 N ± 7.4km 29.172 E ± 9.4km
DEPTH = 10.0km (geophysicist)

27d 04h

TURKEY (366)

KHL	0.62	26	iPg	07	13.50	-0.8
			iSg	07	24.50	
YER	0.95	228	iPn	07	20.00	0.1
BCK	1.17	105	ePn	07	24.00	0.4
ELL	1.18	150	ePn	07	23.30	-0.5
ALT	1.48	30	ePn	07	29.20	0.7

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

APR 27, 1989 04h 18m 58.90± 0.23s
30.657 N ± 4.6km 140.596 E ± 4.0km
DEPTH = 90.4km (4 depth phases)
4.8mb (15 obs.)

SOUTH OF HONSHU, JAPAN (211)

MAT	6.20	342	eP	20	31.00	1.4
	0.8s	171.64nm			5.4mb	
			eS	21	44.00	
SHK	7.72	302	eP	20	54.40	4.0X
MDJ	16.41	331	eP	22	44.50	-0.4
SSE	16.67	276	P	22	48.60	0.4
	1.0s	12.00nm			4.1mb	
			i	23	12.50	
PJG	17.44	166	eP	22	58.50	0.7
GUMO	17.44	166	eP	22	58.10	0.3
	0.8s	462.66nm			5.8mb	X
GUA	17.50	166	eP	22	58.50	0.0
	0.7s	350.68nm			5.7mb	X
CN2	17.78	322	eP	23	02.60	0.8
NJ2	18.62	280	Pc	23	11.80	-0.2
OZH	20.27	259	eP	23	30.00	0.6
TIA	20.34	292	eP	23	29.80	-0.2
BJI	21.95	302	eP	23	45.50	-0.7
WHN	22.58	276	eP	23	54.00	1.6
TIY	24.28	294	eP	24	08.50	-0.4
XAN	26.91	286	Pd	24	33.90	0.5
CHTO	39.42	263	iP	26	20.00	-1.7
	0.9s	33.03nm			5.2mb	
MTN	44.20	193	iPc	26	58.30	-2.3
WB5	50.60	188	eP	27	46.70	-3.8X
			i	28	03.80	67kmX
KDC	52.45	38	P	28	03.00	-1.1
IMA	52.57	28	P	28	04.90	-0.2
PMR	54.22	34	P	28	15.00	-2.0
	0.7s	5.09nm			4.7mb	
FBA	54.91	30	P	28	20.80	-1.3
	0.6s	6.16nm			4.8mb	
INK	60.40	25	eP	29	00.00	-0.5
FORR	62.31	192	eP	29	10.20	-3.5X
	0.4s	15.00nm			5.4mb	
MBC	62.83	15	eP	29	16.00	-0.7
	0.7s	10.00nm			4.9mb	
ALE	66.50	3	eP	29	41.00	0.6
	0.9s	11.00nm			4.8mb	
KEV	69.17	340	eP	30	05.00	7.9X
YKA	69.69	29	P	30	00.10	-0.2
SOD	70.59	338	iP	30	05.00	-0.8
DAG	72.06	355	iPd	30	13.70	-0.7
	0.9s	12.60nm			4.8mb	
SUF	73.38	334	iP	30	21.80	-0.6
	0.6s	6.30nm			4.7mb	
EDM	74.81	37	eP	30	30.50	-0.4
NUR	75.26	333	eP	30	32.00	-1.2
WDC	75.50	51	ePc	30	35.50	0.5
LBFM	75.58	50	P	30	36.00	0.3
MIN	76.24	51	ePc	30	38.90	-0.5
ORV	76.69	52	ePc	30	41.60	-0.1
BRK	76.98	54	ePc	30	43.60	0.3
BKS	76.99	54	eP	30	44.10	0.7
	0.6s	23.00nm			5.2mb	
SES	77.52	38	eP	30	45.00	-1.1
			pP	31	10.00	96km
MHC	77.66	54	ePc	30	47.60	0.3
ARN	77.73	54	P	30	48.00	0.5
CMB	78.19	53	ePc	30	50.60	0.5
			epP	31	14.70	92km
PRS	78.35	55	ePc	30	51.50	0.6
LLA	78.50	54	ePc	30	52.40	0.6
PRI	78.93	55	eP	30	55.20	1.0
FRI	79.18	53	eP	30	55.90	0.5
LRM	79.22	43	eP	30	56.20	0.4
KVN	79.23	51	P	30	56.30	0.4
			pP	31	20.00	90km
FFC	79.45	32	eP	30	56.00	-0.5
	0.7s	8.00nm			4.7mb	
HFS	79.61	336	eP	30	50.90	-6.3X
	0.4s	1.40nm			4.2mb	
NAO	80.08	338	P	30	59.00	-0.8
	0.9s	5.70nm			4.4mb	
KVT	80.30	312	eP	31	02.00	0.6
TNP	80.32	51	P	31	02.00	0.2
	0.8s	3.43nm			4.3mb	
KAS	81.59	313	eP	31	09.50	1.4
DAU	82.95	47	P	31	16.00	0.4
PLM	83.05	55	P	31	16.50	0.5
FRB	83.13	13	eP	31	16.00	0.5
MLR	83.81	320	ePc	31	20.00	0.4
GLA	84.65	55	P	31	25.00	1.1
KSP	85.16	328	eP	31	26.00	0.0
			e	31	48.80	85km
ALT	85.21	313	iP	31	26.70	0.1
PV09	85.40	48	P	31	28.50	0.6
RSON	85.77	31	P	31	28.30	-0.8
ALQ	89.24	49	eP	31	46.00	-0.4
ZOBO	150.12	68	PKPc	38	42.00	5.4X
LPB	150.29	68	PKP	38	43.00	6.4X
	1.0s	24.00nm				
CNCB	150.53	69	PKPc	38	44.00	6.8X
CCH	152.32	68	ePKP	38	47.00	7.5X

S.D. = 0.8 on 60 of 69 obs.

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* APR 27, 1989 04h 19m 15.80± 1.79s
10.416 N ±13.9km 93.429 E ±11.8km
DEPTH = 103.2 ± 26.0 km
4.7mb (4 obs.)

ANDAMAN ISLANDS REGION (703)

NNT	6.55	70	iPc	20	50.00	-1.2
IPM	9.50	127	ePd	21	31.90	0.4
CHG	9.91	32	eP	21	38.50	1.6
	0.8s	9.89nm			4.8mb	
			e	26	22.80	
GBA	15.96	283	Pc	22	54.50	-1.2
	0.4s	3.90nm			4.0mb	
HYB	16.02	297	eP	23	12.00	15.4X
PKI	18.66	337	P	23	29.30	0.3
GUN	18.80	339	P	23	30.00	-0.4
	0.7s	31.00nm			4.7mb	
DMN	18.81	337	P	23	30.50	0.1
KKN	18.91	337	P	23	30.90	-0.5
GKN	19.35	336	P	23	35.10	-0.9
	0.4s	13.00nm			4.6mb	
POO	20.59	295	eP	23	51.00	2.3
INK	94.76	16	eP	32	26.00	-0.5

S.D. = 1.3 on 11 of 12 obs.

? APR 27, 1989 04h 35m 15.61± 8.68s
17.831 N ±27.9km 65.650 W ±56.6km
DEPTH = 10.0km (geophysicist)

PUERTO RICO REGION (90)

LPR	0.52	336	iP	35	26.20	0.1
SJG	0.55	300	iP	35	26.90	0.1
CSB	0.66	314	iP	35	28.70	-0.2
PNP	1.01	283	iP	35	40.00	5.3X
APR	1.20	301	iP	35	38.00	0.0
MGP	1.38	278	iP	35	40.90	0.0

S.D. = 0.1 on 5 of 6 obs.

? APR 27, 1989 05h 11m 56.06± 4.94s
32.561 S ±32.6km 71.542 W ±23.0km
DEPTH = 21.2 ± 7.6 km

NEAR COAST OF CENTRAL CHILE (135)

ROCH	0.61	133	iPc	12	08.00	-0.1
			iS	12	16.00	
JACH	0.81	99	iPc	12	11.50	0.1
			iS	12	22.10	
LCCH	0.91	181	iP	12	13.10	0.0
			iS	12	23.00	
PEL	0.93	129	iPd	12	13.20	-0.2
			iS	12	24.80	
SAN	1.16	141	eP	12	16.50	-0.6
TACH	1.20	155	iP	12	17.10	-0.6
			iS	12	32.00	
FCH	1.30	126	iPc	12	18.90	-0.5
			iS	12	35.00	
PCH	1.36	141	eP	12	21.00	1.0
			iS	12	36.00	
LNV	1.40	176	iPd	12	20.20	-0.1
			iS	12	36.70	
CHCH	1.56	152	iP	12	23.50	0.7
			iS	12	41.70	

S.D. = 0.6 on 10 of 10 obs.

APR 27, 1989 06h 32m 50.93± 0.51s
17.787 N ± 5.7km 65.643 W ± 4.7km
DEPTH = 22.5 ± 4.7 km
4.4mb (6 obs.)

PUERTO RICO REGION (90)

Felt in eastern Puerto Rico, os far west os Cayey and San Juan.

LPR	0.56	337	iP	33	01.20	-0.9
SJG	0.58	304	iP	33	01.90	-0.5
CSB	0.70	316	iP	33	03.80	-0.6
PNP	1.03	285	iP	33	10.50	0.6
APR	1.23	303	iP	33	12.70	-0.1
MGP	1.39	279	iP	33	15.80	0.7
SKDB	2.73	98	eP	33	35.44	1.1
SKI	2.81	99	eP	33	36.03	0.6
MGH	3.44	107	eP	33	45.40	0.9
			S	34	25.00	
ANG	3.69	99	eP	33	48.63	0.6
PAG	4.18	114	eP	33	54.98	0.0
			S	34	41.20	
SEG	4.19	109	eP	33	55.47	0.4
SFG	4.52	109	eP	34	00.10	0.4
BBL	4.58	119	eP	34	00.19	-0.5
DEG	4.62	108	eP	34	00.90	-0.4
DPMT	4.80	121	eP	34	03.50	-0.1
DSVT	4.82	121	eP	34	03.99	0.0
DTMT	4.84	121	eP	34	03.57	-0.7
FDF	5.28	124	eP	34	09.25	-1.2
			S	35	25.00	
BIM	5.47	126	eP	34	11.97	-1.2
MVM	5.58	124	eP	34	14.39	-0.4
SLB	5.93	131	eP	34	22.19	2.5
SVB	6.17	136	eP	34	21.03	-2.0
SVB	6.17	136	eP	34	21.11	-1.9
TCE	7.99	151	eP	34	47.90	-0.8
TRN	8.20	149	eP	34	51.12	-0.4
TPP	8.47	151	eP	34	57.89	2.7
TBH	8.51	148	eP	35	01.48	5.7X
SGS	20.35	322	P	37	28.70	0.2
JSC	21.55	323	P	37	41.80	0.9
PRM	22.07	321	P	37	47.10	1.0
BLA	23.31	329	P	38	00.00	1.7
TKL	23.99	321	P	38	06.00	1.1
ELC	28.41	318	P	38	45.50	-0.4
ZOBO	33.93	184	P	39	34.00	-1.4
LPB	34.19	184	P	39	38.00	0.6
	1.0s	24.00nm			5.1mb	
CNCB	34.45	184	P	39	40.00	0.1
ITR	37.67	132	eP	40	07.90	1.4
RSON	39.85	332	P	40	22.50	-1.8
	0.5s	3.10nm			4.3mb	
ALQ	40.05	303	eP	40	30.00	3.5X
PPD	41.99	160	eP	40	42.60	0.4
BW06	44.70	313	P	41	05.00	0.6
	1.0s	3.75nm			4.2mb	
FRB	45.96	358	eP	41	14.00	0.3
LRM	47.70	316	eP	41	28.50	0.4
TNP	49.17	305	P	41	43.30	3.7X
	0.6s	1.31nm			4.1mb	
KVN	50.02	306	P	41	45.50	-0.5
YKA	55.99	335	eP	42	28.90	-0.9
KIC	60.40	93	Pd	43	00.80	-0.6
DAG	63.55	11	eP	43	10.00	-11.5X
MBC	64.55	348	eP	43	27.00	-1.1
INK	65.46	338	eP	43	32.00	-2.0
NAO	68.05	31	P	43	50.70	0.1
	0.9s	2.20nm			4.3mb	
BNG	83.14	88	iPc	45	18.00	0.8
	0.5s	7.00nm			5.1mb	

S.D. = 1.1 on 49 of 53 obs.

? APR 27, 1989 07h 25m 48.81± 1.00s
37.194 N ± 9.7km 22.988 E ±10.1km
DEPTH = 10.0km (geophysicist)

SOUTHERN GREECE (368)

ML 3.0 (ATH).

ITM	0.85	269	ePn	26	05.50	0.3
ATH	0.97	36	ePn	26	08.00	0.8
VAM	2.03	151	ePn	26	23.30	-0.2
NEO	2.12	5	ePn	26	23.80	-0.9

S.D. = 1.3 on 4 of 4 obs.

APR 27, 1989 07h 31m 17.88± 0.46s

26.028 N ± 7.8km 128.530 E ± 6.8km
DEPTH = 33.0km (normal)
4.8mb (10 obs.)
RYUKYU ISLANDS (238)

SSE	8.20	310	P	33 18.00	0.6
Z	12s	1.80um			
N	10s	1.10um			
E	10s	1.30um			
		i	36 27.00		
OZH	9.05	265	eP	33 27.80	-1.4
WHN	13.28	293	eP	34 27.00	0.4
N	11s	0.66um			
E	12s	0.98um			
		sS	37 06.00		
BJI	17.37	327	eP	35 20.00	0.8
Z	16s	0.88um			
N	14s	1.34um			
E	14s	0.74um			
TIY	17.93	314	Pd	35 28.40	2.0
N	15s	0.90um			
E	15s	0.80um			
		S	38 49.00		
XAN	18.74	300	Pd	35 36.00	-0.3
GYA	19.62	276	P	35 45.00	-1.7
HHC	20.41	321	eP	35 53.20	-1.7
BTO	21.16	318	eP	36 02.00	-0.6
Z	12s	0.90um		4.4MszX	
N	12s	0.70um			
E	12s	0.70um			
CD2	22.30	288	eP	36 13.80	-0.2
E	10s	0.73um			
LZH	23.35	301	eP	36 24.50	0.1
	1.5s	48.00nm		4.8mb	
Z	12s	0.40um		4.1MszX	
GTA	27.47	306	Pc	37 01.30	-1.8
Z	14s	0.90um		4.5MszX	
CHTO	28.23	261	eP	37 10.00	0.0
	1.0s	3.75nm		4.0mb	
GUN	37.92	283	P	38 35.70	1.2
	0.8s	33.00nm		5.2mb	
PKI	38.38	282	P	38 39.20	0.9
KKN	38.46	283	P	38 39.70	0.8
DMN	38.64	282	P	38 41.60	1.2
	0.8s	32.00nm		5.2mb	
GKN	39.00	283	P	38 44.10	0.8
	0.8s	42.00nm		5.3mb	
WB5	45.98	172	eP	39 39.20	-0.7
CTA	48.96	158	iPc	40 03.80	0.6
ASPA	49.67	174	eP	40 09.00	0.3
	0.7s	4.00nm		4.6mb	
FBA	64.09	28	eP	41 51.00	0.4
INK	68.97	23	eP	42 21.00	-0.5
MBC	69.96	14	eP	42 26.00	-1.5
SOD	70.69	336	eP	42 32.00	-0.1
ALE	71.54	1	eP	42 37.00	0.0
	0.8s	6.00nm		4.7mb	
SUF	72.64	332	iP	42 42.60	-1.1
YKA	78.59	25	P	43 18.30	0.8
HFS	79.12	332	eP	43 20.00	-0.4
	1.0s	7.50nm		4.6mb	
NAO	79.89	334	P	43 23.70	-0.9
	0.8s	4.70nm		4.5mb	
CLL	84.47	325	iPd	43 49.70	1.3
FFC	88.65	27	eP	44 09.50	0.6
	1.2s	16.00nm		5.2mb	
FRB	89.52	8	eP	44 19.00	6.2X

S.D. = 1.0 on 32 of 33 obs.

APR 27, 1989 07h 45m 46.46± 0.63s
17.799 N ±12.2km 65.581 W ± 7.1km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.58	332	iP	45 58.20	0.0
SJG	0.62	300	iP	45 58.90	-0.1
CSB	0.73	312	iP	46 00.90	0.0
PNP	1.08	284	iP	46 06.80	0.0
APR	1.27	301	iP	46 10.00	-0.1
MGP	1.45	278	iP	46 12.90	0.2
MGH	3.39	108	eP	46 41.00	0.5
PAG	4.13	115	eP	46 50.50	-0.5
			S	47 36.00	

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

APR 27, 1989 07h 51m 52.97± 0.63s
17.827 N ±10.5km 65.628 W ± 6.7km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.53	334	iP	52 04.00	0.3
SJG	0.57	300	iP	52 04.10	-0.5
CSB	0.68	313	iP	52 06.20	-0.3
PNP	1.03	283	iP	52 12.70	0.3
APR	1.22	301	iP	52 15.90	0.2
MGP	1.40	278	iP	52 18.70	0.2
MGH	3.44	108	eP	52 48.00	0.3
			S	53 26.00	
PAG	4.18	115	eP	52 58.00	-0.3
			S	53 42.00	
SVV	6.18	136	eP	53 33.97	7.5X

S.D. = 0.4 on 8 of 9 obs.

? APR 27, 1989 08h 31m 19.91± 7.07s
17.837 N ±28.3km 65.720 W ±39.1km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.49	343	iP	31 30.00	0.1
SJG	0.49	304	iP	31 30.00	0.1
CSB	0.61	317	iP	31 32.00	-0.3
PNP	0.94	284	iP	31 38.00	0.1
APR	1.14	303	iP	31 41.20	-0.1
MGP	1.31	278	iP	31 44.20	0.0

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

APR 27, 1989 08h 38m 44.74± 0.60s
24.008 S ± 5.1km 67.182 W ± 5.5km
DEPTH = 178.4 ± 5.5 km
4.8mb (8 obs.)
CHILE-ARGENTINA BORDER REGION (127)

SLA	1.70	115	iPd	39 18.50	-0.5
			S	39 46.50	
ANT	2.98	275	iPc	39 28.00	-5.5X
			iS	40 01.30	
CYA	4.59	165	e(P)	39 49.50	-4.6X
CCH	6.66	9	P	40 22.00	0.4
CNCB	7.20	354	Pc	40 30.00	1.0
			S	41 51.50	
LPB	7.49	353	Pc	40 35.00	2.3X
	0.9s	100.84nm		5.2mb	
			S	41 57.80	
ZOBO	7.75	353	P	40 37.00	0.7
Z	16s	0.22um			
			LR	42 12.00	
ARE	8.53	331	eP	40 44.00	-2.2
			eS	42 15.00	
PEL	9.61	198	eP	41 00.50	0.4
			iS	42 28.50	
RFA	10.78	186	ePd	41 07.50	-8.0X
ITB1	11.68	96	e(P)	41 35.00	7.9X
ITB7	11.89	98	e(P)	41 36.60	6.7X
PPD	14.75	85	eP	42 06.20	0.3
			e	42 09.70	
VAO	18.57	91	iPc	42 50.10	-0.7
			e	42 54.50	
BAO	19.87	69	eP	43 04.70	0.5
ITA	20.73	90	eP	43 13.50	0.5
BMA	21.18	91	eP	43 17.40	0.2
ATB	25.16	37	Pd	43 56.30	1.1
ITR	31.38	66	eP	44 50.40	-0.5
AIA	41.28	178	eP	46 15.70	2.1
SGS	58.28	347	P	48 22.60	-0.2
JSC	59.49	346	P	48 31.00	-0.1
PRM	59.55	345	P	48 30.90	-0.6
LHS	59.59	347	P	48 31.60	-0.1
TKL	61.38	345	P	48 42.50	-1.4
GBTN	61.50	344	P	48 43.00	-1.7
BLA	62.15	348	P	48 48.80	-0.2
	0.5s	8.49nm		4.9mb	
OLY	63.50	338	P	48 56.20	-1.7
ELC	64.40	341	P	49 01.80	-1.9
FVM	65.42	340	P	49 08.50	-1.7
SPA	66.14	180	ePd	49 13.00	-1.7
	1.0s	30.00nm		5.1mb	
KIC	67.91	72	P	49 26.10	-0.3
ALQ	69.46	326	iPd	49 35.90	0.2
	0.9s	20.80nm		4.9mb	
GAC	69.78	354	eP	49 38.00	0.8
GOL	72.71	330	P	49 55.00	-0.1
PLM	74.10	318	P	50 03.50	0.2
PEC	74.65	319	P	50 06.40	0.2
MSU	75.14	325	P	50 09.90	0.8
DAU	76.09	327	P	50 15.00	0.5
BLP	77.09	317	P	50 20.00	0.2
BCH	77.31	318	P	50 21.50	0.4
TNP	77.58	322	P	50 23.30	0.6
	0.9s	10.09nm		4.5mb	
EUR	77.87	323	iP	50 25.20	0.9
	0.5s	7.31nm		4.7mb	
PHAM	77.93	318	P	50 25.00	0.6
RSON	78.13	343	P	50 24.60	-0.6
PRI	78.29	318	ePd	50 27.20	0.7
SCH	78.50	0	eP	50 28.00	1.0
KVN	78.75	322	P	50 29.30	0.2
LLA	78.77	319	ePd	50 29.70	0.7
PRS	78.85	318	ePd	50 30.00	0.6
CMB	79.38	320	ePd	50 32.50	0.2
HPI	79.47	328	P	50 33.80	0.9
ARN	79.61	319	P	50 34.20	0.7
MHC	79.67	319	eP	50 34.60	0.7
GCC	79.68	318	eP	50 34.40	0.6
BRK	80.39	319	eP	50 37.80	0.3
LRM	80.74	330	eP	50 40.60	1.0
ORV	81.04	321	eP	50 41.80	0.9
MIN	81.62	321	eP	50 43.40	-0.7
WDC	82.31	321	ePd	50 46.50	-1.0
LBFM	82.44	322	P	50 48.00	-0.4
FHC	83.29	320	eP	50 53.70	1.1
FFC	83.91	341	eP	50 55.00	-0.3
	0.8s	9.00nm		4.6mb	
DPW	84.94	328	P	51 01.00	0.3
LON	85.97	326	P	51 05.80	0.0
BMW	86.53	325	P	51 08.70	0.2
PNT	86.62	329	eP	51 09.00	0.2
	0.9s	8.00nm		4.6mb	
EDM	86.70	334	iPd	51 08.30	-0.9
BUL	87.03	111	iPc	51 11.80	0.1
YKA	94.07	340	eP	51 43.90	0.7
CTA	125.39	219	iPKPc	57 25.70	-0.8
ASPA	128.38	205	iPKPd	57 30.80	-1.4
WB5	131.59	208	ePKP	57 37.40	-1.0
GBA	145.04	101	PKP	58 02.00	-0.9
	0.8s	18.20nm			
HYB	147.34	95	ePKP	58 07.00	0.3
	1.0s	35.00nm			
MAT	154.85	306	(PKP)	58 27.00	9.8X

S.D. = 0.9 on 69 of 76 obs.

& APR 27, 1989 08h 41m 32.74s
61.929 N 152.408 W
DEPTH = 144.6km
SOUTHERN ALASKA (2)
<AGS-P>.

SKT	0.42	83	iP	41 52.31	-1.0
			eS	42 08.16	
CGLM	0.65	163	iP	41 54.04	-0.7
			eS	42 10.70	
SPU	0.77	167	eP	41 54.76	-0.7
SUA	0.92	120	eP	41 56.36	-0.4
			eS	42 14.31	
PWA	1.23	102	eP	41 58.77	-0.7
KTH	1.77	22	eP	42 03.20	-2.1
			eS	42 27.08	
SLKM	1.78	142	eP	42 04.91	-0.4
			eS	42 28.07	
TTA	1.95	303	eP	42 05.03	-2.4

8 obs. associated

? APR 27, 1989 09h 12m 10.24± 8.65s
39.063 N ±65.4km 23.577 E ±24.2km
DEPTH = 23.0 ± 6.8 km
AEGEAN SEA (365)

NEO	0.37	312	ePb	12 17.50	-0.7
PAIG	0.87	5	iPgc	12 26.30	-0.2
			iSg	12 37.50	
OUR	1.31	14	ePbc	12 33.20	0.1
PLG	1.31	356	ePb	12 32.80	-0.5
			eSb	12 49.00	
LIT	1.33	321	ePb	12 34.00	0.4
			eSb	12 51.10	
THE	1.64	343	ePb	12 37.90	0.0
SOH	1.77	354	ePb	12 39.90	0.1
SRS	2.05	0	ePn	12 43.60	-0.3
GRG	2.10	335	ePn	12 45.10	0.5
			eSn	13 08.70	
KNT	2.16	346	ePnd	12 46.10	0.6
			eSn	13 11.90	

27d 09h

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

% APR 27, 1989 09h 18m 42.31± 0.89s
39.004 N ± 7.3km 27.488 E ±12.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.63	196	ePn	18	55.00	0.0
EZN	1.22	313	ePn	19	05.00	0.0
EDC	1.37	12	ePn	19	07.30	-0.1
BNT	1.39	14	iPn	19	07.70	0.0
KCT	1.41	28	iPn	19	08.20	0.1

S.D. = 0.1 on 5 of 5 obs.

APR 27, 1989 09h 31m 51.18± 1.48s
30.556 N ± 8.6km 139.957 E ± 8.3km
DEPTH = 99.7 ± 14.0 km
4.3mb (6 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT	6.15	347	(P)	33	21.00	0.0
	0.8s		10.45nm			4.2mb
GUMO	17.48	164	eP	35	50.00	-0.1
BJI	21.54	303	(P)	36	33.00	-0.5
BTO	26.22	301	eP	37	19.00	0.5
XAN	26.41	286	eP	37	22.00	1.8
GUN	46.89	281	P	40	12.00	-1.7
TTA	51.49	32	P	40	48.00	-0.3
PMR	54.61	34	P	41	10.70	-0.5
	0.8s		6.03nm			4.7mb
FBA	55.27	30	P	41	16.00	0.1
	1.0s		6.00nm			4.6mb
MBC	63.07	15	eP	42	09.00	-0.5
YKA	70.04	28	eP	42	54.20	0.5
WDC	76.00	51	eP	43	29.30	0.3
MIN	76.74	51	eP	43	33.10	-0.2
CMB	78.69	53	ePc	43	44.50	0.5
LRM	79.67	43	eP	43	50.20	0.8
KVN	79.72	51	P	43	49.30	-0.4
FFC	79.83	31	eP	43	50.00	0.3
	0.7s		7.00nm			4.6mb
NBO	79.83	337	P	43	49.20	-0.4
	0.8s		1.40nm			3.8mb
TNP	80.82	51	P	43	55.50	-0.1
	1.0s		2.50nm			4.0mb

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

APR 27, 1989 09h 34m 58.64± 0.42s
23.950 S ± 7.4km 179.764 W ± 5.1km
DEPTH = 523.8 ± 5.0 km
5.1mb (28 obs.)
SOUTH OF FIJI ISLANDS (171)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 19C
Centroid Location:
Origin Time 09:35: 9.6 1.4
Lat 23.79S 0.15 Lon 179.75E 0.14
Dep 543.8 6.4 Half-duration 1.6
Moment Tensor; Scale 10**16 Nm
Mrr=-4.36 0.63 Mtt= 8.52 1.11
Mff=-4.15 0.91 Mrt=-0.18 0.90
Mrf=-3.08 0.94 Mtf=-1.76 0.87
Principal Axes:

T	Val= 8.77	Plg= 1	Azm= 8
N	-1.31	44	99
P	-7.46	46	277

Best Double Couple:Mo=8.1*10**16
NP1:Strike= 63 Dip=59 Slip=-145
NP2: 313 60 -37

SVA	6.04	344	eP	36	37.90	0.7
			eS	38	05.80	
DZM	12.84	276	iPc	37	48.90	2.2
			iS	40	12.90	
KRP	14.50	195	P	38	04.80	1.5
			S	40	45.00	
WEL	17.88	194	P	38	35.00	-1.5
			S	41	34.00	
BRS	24.97	256	iPd	39	43.00	0.9
RMQ	28.56	258	iPd	40	14.40	0.8
	0.7s		76.00nm			5.4mb
PPT	28.90	83	iP	40	15.20	-1.4
	0.6s		45.00nm			5.2mb
PPN	29.04	83	iP	40	15.70	-2.1
	0.6s		25.00nm			5.0mb
TVO	29.13	84	iP	40	17.00	-1.6
	0.6s		40.00nm			5.2mb
CAN	29.30	240	iPd	40	20.90	0.9
CMS	31.28	248	iPd	40	37.90	1.0
	1.0s		104.00nm			5.4mb
TPT	31.53	80	iP	40	38.10	-1.0
	0.6s		40.00nm			5.2mb
RUV	31.67	80	iP	40	39.10	-1.1
	0.6s		25.00nm			5.0mb
CTA	31.69	270	iPd	40	40.90	0.4
	0.7s		125.34nm			5.6mb
			iPcP	43	17.70	
			i	44	15.00	
			iS	45	13.00	
TOO	32.60	237	iPc	40	49.20	1.2
	0.7s		80.00nm			5.4mb
TAU	33.06	227	iPd	40	53.00	1.3
PMG	34.72	289	eP	41	05.50	-0.4
	0.6s		80.00nm			5.5mb
BFD	34.80	239	eP	41	07.00	0.6
STK	34.91	248	iPc	41	08.20	0.8
	0.2s		17.00nm			5.3mb
			e	41	13.00	
ADE	37.55	243	iPd	41	24.50	-4.6X
	0.7s		61.64nm			5.3mb
QIS	37.67	267	iPd	41	29.80	-0.4
ASPA	42.24	261	iPd	42	06.90	-0.2
	0.6s		132.00nm			5.6mb
			PcS	47	40.30	
			eS	47	47.30	
			iScS	51	10.20	
WB5	42.61	266	iPd	42	09.20	-0.8
			eS	47	52.00	
FORR	46.46	250	iPd	42	39.00	-0.7
MTN	47.68	274	iPc	42	48.10	-1.1
WARB	48.31	256	iPd	42	43.60	-10.4X
	0.3s		18.00nm			
KNA	48.88	270	iPd	42	57.70	-0.6
	0.3s		35.00nm			5.3mb
GUA	50.80	313	eP	43	11.30	-1.0
GUMO	50.86	313	eP	43	11.30	-1.5
PJG	50.86	313	eP	43	11.80	-1.0
COOL	52.40	249	eP	43	22.40	-1.5
	0.4s		15.00nm			4.7mb
SBA	54.34	183	iPd	43	39.70	2.6
KLB	55.16	247	eP	43	42.40	-1.1
	0.5s		38.00nm			5.0mb
MEKA	55.38	253	eP	43	43.80	-1.3
	0.3s		13.00nm			4.7mb
NWAO	55.41	246	iPd	43	44.40	-0.8
	0.5s		18.00nm			4.7mb
RKG	55.44	244	iPd	43	44.50	-0.9
	0.4s		27.00nm			4.9mb
MBL	55.48	260	iPd	43	44.80	-1.1
	0.4s		44.00nm			5.1mb
BAL	56.21	248	eP	43	49.60	-1.2
	0.4s		30.00nm			5.0mb
MUN	56.41	247	iPd	43	51.30	-0.9
	0.7s		78.00nm			5.1mb
MRWA	57.07	250	iPc	43	55.90	-0.8
	0.4s		29.00nm			5.0mb
NANU	58.98	257	iPd	44	09.30	-0.4
SPA	66.19	180	iPd	44	51.30	-4.4X
	1.0s		125.00nm			5.4mb
MAT	72.06	325	(P)	45	29.00	-1.8
	0.9s		22.69nm			4.7mb
AIA	78.44	157	eP	46	06.70	1.0
PRS	81.43	44	eP	46	22.40	0.7
PRI	81.76	45	eP	46	24.50	1.0
MHC	81.88	43	ePd	46	24.90	0.8
MDJ	82.43	326	eP	46	27.00	0.5
PLM	82.65	49	eP	46	29.00	0.9
RVR	82.67	48	eP	46	27.00	-0.9
SBB	82.76	47	eP	46	30.00	1.5
FRI	82.89	44	eP	46	29.40	0.5
ISA	82.90	46	eP	46	31.00	1.8
CMB	83.09	43	ePd	46	30.40	0.4
WHN	83.20	308	eP	46	31.00	0.4
ORV	83.34	41	eP	46	31.70	0.5
WDC	83.36	40	ePd	46	31.80	0.6
CLC	83.57	46	eP	46	33.00	0.5
TPC	83.63	48	eP	46	34.00	1.2
MIN	83.76	41	ePd	46	35.50	2.0
GLA	83.89	50	eP	46	36.00	1.9
CN2	84.06	324	Pd	46	34.20	-0.4
TIA	84.42	314	eP	46	37.00	0.4
TNP	85.13	45	P	46	40.20	-0.1
	0.8s		3.19nm			4.0mb X
KVN	85.13	43	P	46	40.00	-0.3
GYA	86.96	301	P	46	49.80	0.6
LON	87.67	36	P	46	50.00	-2.0
TIY	88.38	313	eP	46	56.60	1.1
TTA	88.61	11	P	46	55.40	-0.7
MSU	88.66	47	P	46	57.70	0.6
PMR	88.74	14	P	46	55.50	-1.0
	0.7s		6.18nm			4.6mb
XAN	88.94	308	Pd	46	59.00	0.8
CHG	89.90	291	ePd	47	04.10	1.3
	1.0s		25.00nm			5.1mb
PNT	90.41	35	eP	47	06.00	1.5
PV09	90.70	48	P	47	07.00	0.5
ALQ	90.82	52	eP	47	07.00	0.0
	1.0s		2.00nm			4.0mb X
			e	49	06.00	
CD2	91.29	303	eP	47	10.40	1.4
FBA	91.95	13	P	47	09.00	-2.3
	0.6s		3.94nm			4.6mb
GOL	93.84	48	P	47	20.50	-0.4
YKA	100.31	25	ePdiff	47	51.10	1.9
KKN	104.91	294	Pdiff	48	11.00	0.3
GKN	105.51	294	PKP	52	22.00	-1.8
MBC	106.49	13	ePKP	52	22.00	-2.0
FRB	120.58	29	ePKP	52	50.00	-1.1
MAIO	128.00	298	ePKP	53	06.00	-0.5
BUL	128.18	215	iPKPd	53	06.20	-1.1
			iSKP	55	38.40	
ITR	130.17	126	iPKPd	53	10.20	-0.9
			e	55	44.50	
SUF	137.51	343	iPKP	53	14.60	-8.9X
NUR	139.73	342	ePKP	53	25.00	-2.6X
UPP	142.10	346	iPKP	53	25.30	-6.5X
NBO	142.23	352	PKP	53	27.00	-5.0X
	0.5s		1.90nm			
HFS	142.64	349	ePKP	53	28.10	-4.6X
	0.4s		14.70nm			
KVT	145.60	308	ePKP	53	40.00	1.6
HRI	147.61	295	ePKP	53	45.00	3.0X
DSI	148.09	292	iPKPd	53	46.00	3.4X
BBTK	148.38	308	ePKP	53	47.00	4.0X
EKA	148.55	4	PKPd	53	47.00	4.4X
	0.7s		7.20nm			
MBH	148.63	288	iPKPd	53	48.00	4.5X
KRA	149.75	334	ePKP	53	49.50	5.0X
			i	53	50.00	
MLR	150.09	322	iPKPc	53	50.00	4.6X
KSP	150.41	339	iPKPd	53	51.40	5.9X
	0.7s		57.00nm			
			e	55	55.00	
CLL	150.96	343	iPKPd	53	52.20	5.9X
	0.9s		54.00nm			
			e	55	59.00	
BRG	151.10	342	iPKPd	53	52.80	6.3X
	0.8s		40.00nm			
			i	54	18.80	
			i	56	00.40	
ELL	151.52	304	iPKP	53	53.80	6.0X
PRU	151.71	340	ePKP	53	54.00	6.5X
MOX	151.92	345	ePKP	53	55.00	7.2X
	1.2s		21.00nm			
			e	56	02.00	
ZST	152.35	335	ePKP	53	56.30	7.9X
			e	56	13.40	
KHC	152.76	341	ePKP	53	56.80	7.8X
GRF	152.90	344	ePKP	53	57.50	8.3X
	0.6s		7.00nm			
BNG	153.77	225	iPKPc	53	51.10	-0.3
	0.7s		57.00nm			
			id	53	59.70	
			ic	54	15.40	
KIC	161.87	164	PKP	54	00.60	-0.2
	1.1s		21.00nm			
TIC	162.07	163	PKP	54	01.00	0.0

S.D. = 1.2 on 88 of 112 obs.

? APR 27, 1989 10h 10m 41.77± 1.03s
41.764 N ±10.4km 12.738 E ± 8.4km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

RDP	0.02	250	Pd	10	43.70	-0.1
			eSg	10	46.60	
RMP	0.05	330	Pc	10	44.10	0.1
			eSg	10	46.00	
MNS	0.62	356	P	10	54.20	-0.1
			eSg	11	04.50	

SDI	0.81	94	Pd	10 57.50	0.0
			eSg	11 10.60	

S.D. = 0.2 on 4 of 4 obs.

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* APR 27, 1989 10h 15m 12.32± 2.81s
37.636 N ±16.9km 20.510 E ±19.9km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
MD 3.9 (ATH).

ITM	1.22	112	ePn	15 35.00	0.0
LSK	2.51	2	ePn	16 01.30	7.4X
TPE	2.68	352	ePn	16 00.00	3.7X
NEO	2.70	51	ePn	15 54.00	-2.7
NEO	2.70	51	ePn	15 58.00	1.3
KZN	2.84	20	ePn	16 02.00	3.4X
LIT	2.91	32	ePnc	15 59.90	0.4
			eSn	16 33.80	
BERA	3.09	352	ePn	16 03.00	1.0
PAIG	3.37	46	ePn	16 06.80	0.8
			eSn	16 46.50	
OHR	3.48	4	ePn	16 06.00	-1.6
THE	3.55	32	ePn	16 09.00	0.5
GRG	3.63	23	ePn	16 10.10	0.4
			eSn	16 51.00	
TIR	3.74	353	ePn	16 18.00	6.7X
SOH	3.87	34	ePn	16 14.20	1.0
KNT	3.98	27	ePnd	16 14.90	0.3
			eSn	17 00.40	
VAY	4.01	23	ePn	16 21.00	5.9X
			i	16 36.00	
			iSn	17 09.00	
SRS	4.22	34	ePnc	16 18.00	-0.1
			eSn	17 06.70	
MMB	4.66	31	iPd	16 24.00	-0.5
KKB	4.67	24	eP	16 24.00	-0.5
BCI	4.74	356	ePn	16 35.60	10.2X
RZN	5.19	37	eP	16 32.00	0.0
VTS	5.36	22	iP	16 34.00	-0.5
PVL	6.68	32	iPc	16 48.00	-4.8X

S.D. = 1.1 on 16 of 23 obs.

% APR 27, 1989 10h 23m 02.10± 1.28s
46.262 N ± 8.2km 0.469 W ±14.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.9 (LDG).

MFF	0.41	33	Pg	23 10.30	-0.1
			Sg	23 18.20	
LSF	1.39	90	Pg	23 28.60	1.1
			Sg	23 49.00	
LFF	1.57	147	Pg	23 28.80	-1.3
			Sg	23 51.00	
RJF	1.69	124	Pg	23 33.10	1.3
			Sg	23 56.30	
LPF	1.81	348	Pg	23 33.30	-0.3
			Sg	23 56.40	
TCF	1.86	88	Pg	23 38.00	3.7X
			Sg	24 04.20	
LPO	1.96	143	Pg	23 36.20	0.4
			Sg	24 02.90	
MAF	2.11	90	Pn	23 36.10	-1.8
			Pg	23 42.00	
			Sg	24 12.00	
GRR	2.14	353	Pg	23 38.80	0.4
			Sg	24 07.40	
CAF	2.22	126	Pg	23 42.90	3.3X
			Sg	24 13.60	
BGF	2.31	81	Pg	23 45.80	5.0X
			Sg	24 18.80	
AVF	2.69	77	Pg	23 53.10	6.9X
			Sg	24 30.40	
SSF	2.85	72	Pg	23 56.00	7.5X
			Sg	24 36.00	
SMF	3.00	81	Pg	23 58.50	7.9X
			Sg	24 40.60	
LOR	3.14	70	Pg	24 01.40	8.9X
			Sg	24 44.60	
LBF	3.15	75	Pg	24 01.50	8.8X
			Sg	24 44.30	
EPF	3.28	170	Pg	23 59.30	4.7X
			Sg	24 40.90	

S.D. = 1.3 on 8 of 17 obs.

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* APR 27, 1989 10h 39m 36.98± 0.40s
56.419 N ±12.8km 164.122 E ± 7.9km
DEPTH = 33.0km (normal)
4.9mb (12 obs.) 4.8Msz (3 obs.)
KOMANDORSKY ISLANDS REGION (4)
CENTROID, MOMENT TENSOR (HRV)
Dato Used: GDSN
L.P.B.: 16S, 32C
Centroid Locotion:
Origin Time 10:39:40.6 0.4
Lot 56.53N 0.05 Lon 164.14E 0.09
Dep 34.8 5.4 Holf-durotion 1.7
Moment Tensor; Scole 10**16 Nm
Mrr= 1.01 0.31 Mtt=-5.36 0.45
Mff= 4.34 0.42 Mrt=-1.44 0.95
Mrf= 6.32 1.14 Mtf=-8.73 0.53
Principol Axes:

T	Vol= 12.77	Plg=28	Azm=242
N	-1.90	59	37
P	-10.87	11	146

Best Double Couple:Mo=1.2*10**17
NP1:Strike=281 Dip=62 Slip= 167
NP2: 17 79 29

TTA	20.87	55	P	44 20.00	1.7
	1.0s	37.50nm		4.7mb	
IMA	22.03	47	P	44 32.00	2.0
	0.9s	15.63nm		4.4mb	
BRW	22.18	33	P	44 26.00	-5.2X
FBA	24.45	50	P	44 53.00	-0.5
	1.0s	18.75nm		4.6mb	
NIIJ	25.51	232	P	45 03.00	-0.7
MAT	26.44	232	(P)	45 08.00	-4.4X
	0.8s	93.28nm		5.4mb	
Z	20s	1.42um		4.5Msz	
		eS	49 50.00		
CHJJ	26.52	230	eP	45 13.00	0.0
MTMJ	26.58	233	P	45 15.00	1.2
IIDJ	27.46	231	P	45 21.00	-0.8
INK	29.81	41	eP	45 41.00	-1.5
BJI	35.07	263	(P)	46 23.50	-5.0X
N	14s	3.14um			
E	14s	2.98um			
HHC	37.06	268	eP	46 45.20	-0.4
BTO	38.09	269	eP	46 55.00	0.8
Z	15s	2.70um		5.2MszX	
N	15s	1.70um			
E	14s	2.80um			
		epP	47 05.00	34kmX	
YKA	39.15	47	eP	47 02.20	-0.4
PNT	44.36	65	eP	47 59.00	13.6X
GTA	44.57	276	eP	47 47.00	-0.5
N	20s	3.70um			
LZH	44.71	269	eP	47 49.50	0.9
Z	18s	2.00um		5.1Msz	
N	16s	2.60um			
E	16s	2.30um			
		(S)	54 22.00		
EDM	44.95	58	eP	47 52.00	1.8
CD2	48.61	265	eP	48 18.80	-0.4
GYA	50.48	258	P	48 33.60	0.0
KVN	52.18	74	P	48 45.00	-1.5
EUR	53.00	73	iP	48 51.80	-0.9
	0.2s	1.40nm		4.6mb	
TNP	53.35	75	P	48 53.70	-1.6
	0.8s	2.21nm		4.2mb	
FRB	53.50	26	eP	49 10.00	14.3X
RSON	55.33	49	P	49 07.20	-2.2
SUF	56.79	338	eP	49 31.00	11.3X
	0.8s	8.50nm			
PV09	57.31	69	P	49 25.30	1.3
NUR	59.10	338	eP	49 24.00	-11.9X
Z	21s	0.90um		4.9Msz	
		LR	17 50.00		
CHG	60.83	260	eP	49 47.20	-1.0
	1.1s	15.82nm		5.1mb	
GUN	60.83	277	P	49 48.60	0.0
NBO	61.03	346	P	49 47.40	-1.7
	1.0s	7.20nm		4.8mb	
KKN	61.26	278	P	49 51.20	-0.1
	1.0s	35.00nm		5.4mb	
PKI	61.36	277	P	49 51.80	-0.3
	1.0s	39.00nm		5.5mb	
GKN	61.45	278	P	49 52.60	0.1
	1.0s	47.00nm		5.6mb	
DMN	61.50	278	P	49 53.00	0.0
CLL	70.01	341	e(P)	50 47.00	0.2
		e	51 16.00		
BRG	70.26	340	e(P)	51 04.20	15.9X
PRU	70.99	340	eP	51 05.50	12.7X
MEM	71.81	346	P	51 07.70	10.1X
KHC	72.00	340	eP	51 02.20	3.3X
		e	51 12.50		
HYB	73.24	276	eP	51 06.50	-0.1
KBA	74.01	340	eP	51 13.00	2.2
	1.1s	15.40nm		4.9mb	
		e	51 23.00		
CTA	77.69	197	eP	51 35.00	3.4X
WB5	80.04	208	eP	51 43.50	-0.9
ASPA	83.78	208	eP	52 05.10	1.3
SPA	146.24	180	e(PKP)	59 15.20	2.2
	0.6s	4.07nm			

S.D. = 1.2 on 34 of 46 obs.

% APR 27, 1989 11h 36m 59.29± 0.73s
61.461 N ± 6.6km 6.313 E ± 7.8km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

HYA	0.30	192	iPc	37 05.17	-0.4
			iSg	37 09.25	
SUE	0.85	242	eP	37 16.04	0.3
			eS	37 29.40	
ASK	1.12	210	eP	37 20.09	-0.2
			eS	37 33.59	
MOL	1.26	27	eP	37 22.34	-0.3
			eS	37 39.65	
ODD1	1.56	174	eP	37 26.67	-0.5
			eS	37 46.55	
BLS1	2.09	173	eP	37 35.44	0.5
			eS	37 57.64	
KMY	2.32	194	eP	37 38.30	0 2
			eS	38 03.81	
NRA0	2.64	104	eP	37 43.00	0.3
			iSg	38 17.40	

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

& APR 27, 1989 11h 41m 45.24s
60.008 N 153.050 W
DEPTH = 108.9km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.09	32	iP	41 59.95	1.0
			iS	42 12.00	
PDB	0.62	250	eP	42 02.33	-0.7
			eS	42 15.83	
CNPM	1.04	117	iP	42 06.21	-0.8
			eS	42 23.20	
CDD	1.12	196	iP	42 07.01	-1.0
			eS	42 24.61	
SPU	1.28	22	iP	42 08.68	-1.1
			eS	42 27.76	
CRP	1.34	19	iP	42 09.86	-0.7
CGLM	1.40	21	iP	42 10.39	-0.9
SLKM	1.50	69	eP	42 11.36	-1.0
			eS	42 31.17	
SEW	1.81	85	eP	42 14.75	-1.4
			eS	42 37.03	
SUA	1.85	37	eP	42 15.94	-0.9
SKT	2.11	20	iP	42 19.11	-1.0
PWA	2.26	42	eP	42 20.41	-1.7
KNIM	2.68	80	eP	42 24.99	-2.6
			eS	42 55.24	
MTU	2.71	88	eP	42 26.55	-1.5
			eS	42 58.25	

14 obs. ossociated

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* APR 27, 1989 12h 37m 32.88± 1.93s
30.288 S ±18.4km 178.139 W ± 9.7km
DEPTH = 71.7 ± 14.5 km
5.0mb (4 obs.)
KERMADEC ISLANDS (178)
Felt (III) on Rooul Islond.

RAO	1.05	11	iP	37 51.90	-0.4
DZM	16.07	297	iPc	41 17.80	2.0
BRS	25.61	269	iPd	42 58.20	0.9
RMQ	29.31	269	eP	43 32.00	1.2
CTA	33.66	279	iPd	44 09.10	0.1
	0.9s	67.23nm		5.5mb	
		i	44 29.00		
		i	45 16.20		
STK	34.39	257	eP	44 16.00	0.9
QIS	39.19	274	eP	44 54.00	-1.6

27d 12h

ASPA	43.00	267	iPd	45	25.00	-1.9
	0.7s		12.00nm			4.8mb
	Z 18s		0.33um			4.3Msz
			e	45	47.10	
			LR	02	07.00	
WB5	43.97	272	eP	45	33.20	-1.7
			eS	51	03.70	
FORR	45.91	255	eP	45	48.00	-2.1
SPA	59.88	180	ePc	47	34.30	1.0
	0.9s		13.64nm			5.1mb
SSE	83.94	311	eP	49	37.50	-18.8X
PRS	85.02	43	ePc	50	01.70	0.1
MHC	85.56	42	ePc	50	04.70	0.3
BRK	85.57	41	e(P)	50	04.40	0.1
ARN	85.63	42	P	50	05.00	0.3
PLM	85.80	47	P	50	06.00	0.2
FRI	86.45	43	ePc	50	08.50	-0.1
FHC	86.68	38	eP	50	09.90	0.1
CMB	86.76	42	ePc	50	09.80	-0.4
GLA	86.91	49	P	50	12.00	0.9
ORV	87.17	40	eP	50	11.70	-0.4
WDC	87.30	39	ePc	50	12.70	0.0
TNP	88.65	44	P	50	19.00	-0.5
	0.8s		7.11nm			4.9mb
KVN	88.77	42	P	50	19.00	-1.0
BMW	91.09	34	P	50	30.20	-0.3
LON	91.98	35	P	50	33.80	-0.8
CHG	93.43	290	eP	50	42.40	0.6
SUF	143.97	341	iPKP	56	56.50	-4.4X
	0.4s		2.30nm			
NUR	146.17	340	ePKP	57	04.00	-0.7
	0.5s		16.80nm			
NAO	148.88	351	PKP	57	10.40	1.4
	0.8s		5.00nm			
HFS	149.11	348	ePKP	57	11.20	1.8
	0.7s		11.60nm			
BNG	149.84	215	ePKPd	57	16.20	4.3X
	0.3s		13.00nm			
			id	57	18.30	
			ic	57	37.10	
PRNI	151.45	279	iPKPc	57	21.00	7.1X
	S.D. = 1.1		on 30 of 34 obs.			

? APR 27, 1989 13h 14m 15.41± 6.21s
58.158 N ±47.8km 6.381 E ±17.4km
DEPTH = 0.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.3 (BER). Probable explosion.

KMY	1.21	331	iP	14	38.73	-0.1
			eS	14	53.57	
BLS1	1.26	10	iP	14	39.62	-0.1
			eS	14	54.12	
			iSg	14	57.15	
ODD1	1.76	4	eP	14	47.91	0.5
			eS	15	06.62	
			eSg	15	09.71	
ASK	2.41	346	eP	14	54.36	-2.4X
			eS	15	22.37	
HYA	3.02	358	iP	15	05.30	0.0
			eS	15	39.15	
			eSg	15	46.89	
SUE	3.02	345	eP	15	03.65	-1.7X
			eS	15	38.53	
			eSg	15	47.09	
NRA0	3.69	43	iPc	15	14.80	-0.1
			iS	15	54.40	
			iSg	16	09.70	
	S.D. = 0.4		on 5 of 7 obs.			

APR 27, 1989 13h 15m 35.16± 0.50s
63.022 N ± 6.6km 149.446 W ± 6.3km
DEPTH = 101.1 ± 12.2 km
CENTRAL ALASKA (1)

PWA	1.39	189	iPd	16	01.10	0.6
PMR	1.44	174	iPc	16	01.50	0.4
TOA	1.77	120	iPc	16	06.40	1.0
FBA	2.02	20	iP	16	08.80	0.3
TTA	3.00	271	iPd	16	22.20	0.4
SVW	3.48	239	ePd	16	28.50	0.2
IMA	3.56	331	ePc	16	29.80	0.3
DWY	4.60	73	P	16	42.80	-0.8
KDC	5.50	197	eP	16	54.20	-1.9
HYT	6.05	106	P	17	03.40	-0.4
INK	8.43	44	eP	17	35.00	-1.1
BRW	8.78	344	P	17	39.00	-1.9
SIT	9.24	124	P	17	45.00	-2.1X
YKA	15.85	76	eP	19	13.50	0.2
MBC	16.56	25	eP	19	24.00	2.0
KVN	30.49	127	P	22	03.00	22.6X
GUN	79.35	312	P	27	32.00	0.7
	S.D. = 1.2		an 15 of 17 obs.			

& APR 27, 1989 15h 09m 44.24s
60.084 N 152.979 W
DEPTH = 119.1km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.01	111	iP	10	00.01	0.8
			iS	10	12.90	
RED	0.35	17	eP	10	00.84	-0.8
			eS	10	14.40	
OPT	0.45	196	iP	10	01.44	-0.6
RDT	0.57	30	eP	10	02.05	-0.8
			eS	10	16.63	
PDB	0.68	245	iP	10	02.90	-0.7
			iS	10	17.22	
AUL	0.74	198	eP	10	03.41	-0.7
AUE	0.75	195	eP	10	03.18	-1.0
AUH	0.76	198	eP	10	03.30	-1.0
AUI	0.79	197	eP	10	03.58	-0.9
NNL	0.85	92	eP	10	04.84	-0.2
CNPM	1.04	122	iP	10	06.19	-0.8
			iS	10	22.76	
SPU	1.19	22	iP	10	07.58	-1.0
			iS	10	25.84	
CDD	1.21	197	iP	10	07.30	-1.4
CRP	1.25	18	iP	10	08.75	-0.6
			iS	10	27.80	
CGLM	1.32	21	iP	10	09.16	-0.8
SLKM	1.44	72	iP	10	09.86	-1.4
SVW	1.66	309	iP	10	12.52	-1.4
			eS	10	35.01	
SUA	1.77	37	eP	10	14.47	-0.9
			eS	10	38.13	
SEW	1.77	88	eP	10	13.39	-1.8
SKT	2.03	20	eP	10	17.16	-1.4
PWA	2.18	43	eP	10	19.50	-0.9
			eS	10	46.25	
KDC	2.36	174	iP	10	20.03	-2.6
			eS	10	47.39	
PLRM	2.42	50	eP	10	21.59	-1.8
KNK	2.59	57	eP	10	23.15	-2.6
GHO	2.61	48	eP	10	23.57	-2.5
KNIM	2.63	82	iP	10	23.05	-3.2
MTU	2.68	90	eP	10	25.37	-1.5
			eS	10	56.19	
GLI	3.02	72	eP	10	29.34	-2.1
			eS	11	00.97	
FID	3.29	75	eP	10	32.67	-2.4
			eS	11	07.90	
KLU	3.74	65	eP	10	38.02	-3.1
TOA	3.88	56	eP	10	40.86	-2.2
			eS	11	24.64	
	31 obs. associated					

• APR 27, 1989 15h 14m 38.29± 0.74s
29.787 N ±25.7km 99.318 E ± 5.9km
DEPTH = 10.0km (geophysicist)
SICHUAN PROVINCE, CHINA (307)

CD2	4.00	73	ePn	15	41.00	0.0
			ePg	15	48.40	
			eSg	16	42.00	
KMI	5.55	146	eP	16	23.00	19.8X
LSA	7.10	271	P	16	29.20	4.0X
GYA	7.28	115	P	16	27.40	0.0
			eS	17	46.00	
XAN	9.20	60	eP	16	48.60	-5.4X
GUN	11.93	264	P	17	32.40	0.7
PKI	12.41	263	P	17	38.00	-0.2
	0.6s		10.00nm			5.2mb X
KKN	12.47	264	P	17	39.40	0.5
	0.5s		15.00nm			5.5mb X
DMN	12.66	264	P	17	41.80	0.3
	0.5s		6.00nm			5.1mb X
GKN	12.99	266	P	17	44.40	-1.3
PCI	36.26	144	ePd	21	54.00	10.3X
	S.D. = 0.8		on 7 of 11 obs.			

• APR 27, 1989 15h 20m 18.91± 1.92s
38.659 N ±17.9km 70.107 E ±14.7km
DEPTH = 33.0km (normal)
4.1mb (4 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	8.84	198	eP	22	27.60	0.0
			eS	23	41.80	
GKN	16.12	127	P	24	04.10	-0.6
	0.6s		9.00nm			4.1mb
KKN	16.67	126	P	24	12.00	0.2
	0.5s		7.00nm			4.0mb
DMN	16.69	127	P	24	11.60	-0.4
	0.4s		5.00nm			4.0mb
PKI	16.90	126	P	24	15.00	0.1
	0.6s		9.00nm			4.1mb
GUN	16.97	124	P	24	16.40	0.7
SHNJ	48.53	76	eP	29	00.60	0.0
	S.D. = 0.5		on 7 of 7 obs.			

APR 27, 1989 15h 26m 47.01± 0.46s
37.542 N ± 3.7km 141.354 E ± 4.6km
DEPTH = 65.2 ± 3.3 km
5.1mb (34 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (III JMA) at Fukushima and Sendoi; (II JMA) at Ishinomaki, Mito, Morioka, Onahama and Utsunomiya.

ONA	0.70	211	P	27	01.00	-0.7
			S	27	10.30	
FKS	0.73	287	iPd	27	02.20	0.1
			iS	27	13.60	
SEN	0.80	334	iPd	27	02.80	-0.2
			iS	27	14.00	
ISN	0.88	357	iPd	27	03.20	-0.8
			iS	27	14.60	
YAMJ	1.22	302	iPd	27	08.50	0.1
			S	27	25.40	
MIT	1.36	212	eP	27	10.30	0.0
			iS	27	25.90	
UTS	1.55	230	eP	27	12.00	-0.9
			iS	27	31.70	
OFUJ	1.55	9	iPd	27	12.00	-1.0
			S	27	31.00	
KAKJ	1.64	216	P	27	12.60	-1.5
			eS	27	31.30	
NIIJ	1.90	262	P	27	18.10	0.4
			S	27	41.80	
MRK	2.16	356	eP	27	21.00	-0.3
			S	27	45.70	
CHJJ	2.41	232	P	27	24.50	-0.4
			eS	27	52.50	
MAT	2.71	249	iPd	27	30.00	0.9
			eS	28	05.00	
MTMJ	3.00	252	P	27	34.00	0.8
AOMJ	3.11	346	P	27	35.40	0.7
IIDJ	3.45	234	P	27	40.60	1.0
			eS	28	20.10	
TSRJ	4.76	247	P	27	59.50	1.5
			eS	28	56.30	
WKYJ	5.73	236	P	28	11.30	-0.3
YONJ	6.79	252	P	28	27.80	1.6
TKSJ	6.92	241	P	28	28.50	0.5
SHK	7.64	249	eP	28	39.40	1.4
SHNJ	8.99	251	eP	28	58.70	2.1
KUMJ	9.97	243	eP	29	12.00	2.1
KAGJ	10.72	237	eP	29	20.80	0.7
MDJ	11.34	312	eP	29	31.70	3.3X
CN2	13.59	302	eP	29	57.60	-0.5
	Z 22s		0.60um			
			epP	30	03.00	
SNY	14.34	293	eP	30	07.50	-0.5
DL2	15.57	281	eP	30	24.20	0.4
NJ2	19.26	260	Pd	31	06.40	-2.5
TIA	19.42	273	eP	31	08.30	-2.4
BJI	19.77	285	eP	31	11.50	-2.8
TIY	22.87	279	eP	31	43.40	-2.3
	Z 16s		0.48um			4.0MszX
	E 10s		0.20um			
HHC	23.27	287	eP	31	48.00	-1.5
WHN	23.39	261	eP	31	50.20	-0.4
BTO	24.45	287	eP	32	01.00	0.0
XAN	26.47	272	Pc	32	18.20	-1.6
LZH	29.94	279	eP	32	50.00	-1.2
	1.5s		88.00nm			5.3mb
	Z 18s		0.20um			3.8Msz

GYA	31.26	259	iPc	33 01.40	-1.5
CD2	31.63	269	eP	33 04.80	-1.2
GTA	32.37	286	iPd	33 11.40	-1.1
QIZ	33.10	245	eP	33 19.70	0.9
KMI	34.99	261	Pc	33 34.00	-1.4
LOE	40.10	251	iPc	34 17.30	-0.6
WMQ	40.57	296	iPd	34 22.90	1.3
CHG	41.37	255	ePc	34 28.40	0.1
			e	41 02.00	
PCI	43.12	212	ePd	34 43.30	0.7
NNT	44.64	247	eP	34 55.00	0.1
GUN	47.06	275	P	35 14.70	0.3
PKI	47.58	275	P	35 18.50	0.0
	0.7s		26.00nm	5.3mb	
KKN	47.59	275	P	35 18.80	0.4
SNG	47.71	241	eP	35 20.40	1.3
DMN	47.81	275	P	35 20.40	0.2
GKN	48.00	276	P	35 21.80	0.2
FBA	48.70	32	eP	35 26.10	-0.1
	1.0s		5.50nm	4.5mb	
IPM	49.29	238	ePc	35 31.70	0.3
	0.8s		30.70nm	5.4mb	
KSH	50.17	294	eP	35 40.40	2.4
PSI	52.09	239	ePd	35 52.50	-0.1
INK	53.96	27	ePc	36 06.00	0.2
MBC	56.05	17	ePc	36 20.50	-0.4
	0.8s		14.00nm	5.0mb	
WB5	57.49	188	iPd	36 30.20	-1.5
HYB	58.17	268	eP	36 35.00	-1.7
	1.0s		40.00nm	5.5mb	
ALE	59.61	4	ePc	36 45.70	-0.1
	0.7s		12.00nm	5.1mb	
QUE	60.75	287	eP	36 54.00	-0.5
ASPA	61.28	188	iPc	36 56.80	-1.0
	0.8s		6.00nm	4.8mb	
POO	61.30	272	eP	36 57.50	-0.7
MBL	61.81	203	iPd	37 00.60	-0.7
KEV	62.95	339	iP	37 08.00	-0.4
	0.7s		21.40nm	5.3mb	
KOD	63.16	262	eP	37 11.00	0.1
MAIO	63.35	297	iPc	37 12.00	0.4
YKA	63.39	30	P	37 11.20	-0.2
DZM	63.83	154	iPd	37 30.20	15.4X
SOD	64.48	337	iP	37 17.60	-0.9
NANU	64.54	206	eP	37 18.00	-1.2
WARB	64.88	195	eP	37 12.30	-9.1X
DAG	65.27	355	iPc	37 22.70	-0.7
	0.5s		16.90nm	5.3mb	
SUF	67.51	333	eP	37 37.00	-0.8
	0.5s		18.80nm	5.3mb	
PNT	67.84	44	eP	37 40.00	-0.2
FORR	69.16	192	eP	37 48.00	-0.3
NUR	69.48	332	iP	37 49.50	-0.5
	0.5s		26.70nm	5.4mb	
FFC	73.30	33	iPc	38 12.70	-0.3
	0.8s		14.00nm	4.9mb	
HFS	73.61	336	eP	38 14.40	-0.2
	0.5s		13.80nm	5.1mb	
LRM	73.82	44	eP	38 16.90	0.4
NAO	73.99	337	P	38 16.60	-0.3
	0.7s		17.20nm	5.1mb	
KVN	74.49	53	iP	38 21.00	0.6
TNP	75.62	53	eP	38 27.00	0.1
	1.0s		5.00nm	4.4mb	
KVT	76.20	311	eP	38 31.00	1.1
FRB	76.29	13	eP	38 29.00	-0.9
KRA	78.65	326	iPc	38 43.60	0.4
	0.7s		30.00nm	5.3mb	
MLR	78.97	320	ePd	38 45.00	-0.2
KSP	79.65	328	iPc	38 49.50	0.9
BRG	80.59	329	iP	38 54.20	0.6
	0.8s		16.00nm	5.0mb	
CLL	80.63	330	iPc	38 54.10	0.3
	1.0s		19.00nm	5.0mb	
			i	39 13.50	
PRU	81.03	328	P	38 56.50	0.6
	1.0s		14.50nm	4.9mb	
MOX	81.70	330	eP	39 00.00	0.6
KHC	82.09	328	iPc	39 02.50	1.0
			e	39 22.20	
GRF	82.61	330	iPc	39 05.40	1.2
	1.1s		26.00nm	5.1mb	
EKA	82.64	340	P	39 05.00	0.8
	0.8s		4.10nm	4.4mb	
PRNI	83.60	303	iPc	39 10.50	0.9
VAY	83.64	318	eP	39 10.00	0.4
KBA	83.78	327	ePd	39 11.00	0.6
	0.7s		8.90nm	4.9mb	
MBH	84.04	303	iPc	39 12.00	0.2
LIT	84.55	318	iPc	39 14.60	0.4
OHR	84.72	319	eP	39 15.30	0.2
CDF	85.18	331	eP	39 17.70	0.4
	0.7s		9.70nm	5.0mb	
BSF	85.84	331	eP	39 20.80	0.2
	0.7s		8.80nm	5.0mb	
HAU	85.87	332	eP	39 20.80	0.2
	0.7s		8.80nm	5.0mb	
LOR	87.41	333	eP	39 28.30	0.1
	0.9s		9.80nm	5.0mb	
FLN	87.63	336	eP	39 29.10	-0.1
LDF	87.66	336	eP	39 29.60	0.3
	0.6s		7.20nm	5.0mb	
SSF	87.71	333	eP	39 30.30	0.7
	0.9s		9.80nm	5.0mb	
LPG	87.78	330	eP	39 30.50	0.2
	0.7s		6.60nm	4.9mb	
SMF	87.94	332	eP	39 32.00	1.3
	0.8s		11.20nm	5.1mb	
AVF	88.00	333	eP	39 31.40	0.4
	0.8s		9.40nm	5.0mb	
GRR	88.08	336	eP	39 32.10	0.8
	0.8s		14.50nm	5.2mb	
LPF	88.45	336	eP	39 33.90	0.8
	0.8s		10.70nm	5.1mb	
MFF	89.40	335	eP	39 37.70	0.1
ZOBO	146.47	59	PKP	46 23.20	1.3
LPB	146.67	59	ePKP	46 22.00	0.0
CNCB	146.94	59	PKP	46 25.00	2.3X
ITR	151.35	360	ePKP	46 35.40	6.5X

S.D. = 1.0 on 115 of 120 obs.

APR 27, 1989 16h 47m 49.85± 0.46s
36.006 N ± 6.1km 89.768 W ± 4.0km
DEPTH = 10.0km (geophysicist)
4.6mb (1 obs.)

NEW MADRID, MISSOURI REGION (486)

mbLg 4.3 (NEIS), 4.7 (BLA).
Slight damage (VI) at Steele, Missouri. Felt (V) at Gobler, Hoyti, Kennett and Senoth, Missouri and at Blytheville AFB, Arkansas. Felt (IV) in parts of Arkansas, Illinois, Kentucky, Missouri and Tennessee.

GRT	0.38	47	iPc	47 58.00	0.4
ELC	1.35	19	iPc	48 14.20	-0.4
OLY	1.47	251	iPd	48 17.50	1.1
PWLA	1.73	126	iPc	48 21.20	1.1
SIUC	1.76	14	P	48 21.00	0.4
FVM	2.04	345	iPc	48 24.70	0.0
RLO	4.26	274	iPn	48 55.90	-0.3
UYO	4.26	246	iPc	48 56.20	0.0
GBTN	4.53	93	eP	49 00.40	0.4
TKL	4.88	92	eP	49 04.70	-0.4
LNO	4.88	271	Pn	49 03.90	-1.1
TUL	4.89	271	iPnd	49 04.00	-1.1
VVO	4.91	264	iPnc	49 03.70	-1.7X
SIO	5.32	269	iPnc	49 09.70	-1.5X
PRM	6.37	105	eP	49 24.80	-1.3
JSC	7.18	101	eP	49 35.00	-2.4X
LHS	7.49	99	eP	49 38.80	-2.9X
BLA	7.61	78	eP	49 41.50	-2.0X
GLD	12.77	292	eP	50 55.00	0.7
GOL	12.87	291	eP	50 52.00	-3.8X
PNJ	13.18	64	Pn	51 04.30	4.8X
			i	51 24.30	
			i(Sn)	53 11.50	
			Sg	54 35.70	
ALQ	13.65	270	eP	51 03.50	-2.5X
GAC	14.50	44	eP	51 11.00	-5.9X
LRM	19.69	307	eP	52 23.70	1.3
FFC	20.53	340	eP	52 29.00	-1.8X
EDM	23.87	324	eP	53 06.50	2.5X
YKA	30.68	338	eP	54 04.20	-2.3X
MBC	42.52	350	eP	55 45.00	-1.5
TTA	47.94	326	eP	56 31.00	0.8
	1.1s		6.25nm	4.6mb	

S.D. = 1.0 on 17 of 29 obs.

APR 27, 1989 16h 57m 25.78± 0.54s
35.847 N ± 5.2km 27.959 E ± 6.3km
DEPTH = 100.0 ± 11.8 km

DODECANESE ISLANDS (369)

KAP	0.70	245	ePn	57 44.40	0.9
YER	1.31	11	iPg	57 50.20	0.0
KSL	1.35	78	ePn	57 51.00	0.5
ELL	1.81	60	iPn	57 58.10	1.5
IZM	2.61	348	ePn	58 06.50	-0.5
KHL	2.77	26	iPn	58 08.50	-0.8
ALT	3.63	27	ePn	58 20.70	-0.3
PRK	3.65	339	ePb	57 21.80	-59.3X
DST	3.79	8	ePn	58 23.80	0.7
EZN	4.18	342	ePn	58 28.90	0.5
BNT	4.50	360	iPn	58 32.00	-0.9
KOT	6.74	150	ePn	59 03.50	-0.2
			S	00 14.00	
HRI	6.91	110	eP	59 06.00	-0.3
DSI	7.51	122	iP	59 14.00	-0.3
MBH	8.40	134	iPc	59 26.00	-0.5
MGR	10.68	297	Pc	59 56.90	-0.4
			eSg	59 59.90	

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

APR 27, 1989 17h 00m 56.71± 0.85s
39.343 N ± 7.4km 23.500 E ± 5.0km
DEPTH = 10.0km (geophysicist)

AEGEAN SEA (365)

NEO	0.22	261	ePg	01 01.00	-0.4
PAIG	0.60	13	iPgc	01 10.20	1.4
			iSg	01 21.40	
PLG	1.03	358	ePb	01 16.80	0.6
OUR	1.06	20	iPb	01 17.00	0.4
LIT	1.09	315	ePb	01 17.70	0.6
			iSb	01 33.90	
THE	1.35	342	ePbc	01 21.60	0.1
			eSb	01 40.80	
SOH	1.48	356	ePbc	01 23.80	0.4
KZN	1.64	306	ePb	01 26.00	0.2
SRS	1.77	2	ePn	01 27.50	-0.1
			eSn	01 50.50	
GRG	1.82	333	ePn	01 28.20	-0.1
			eSn	01 52.00	
KNT	1.87	346	ePn	01 29.70	0.6
			eSn	01 54.20	
VAY	2.10	341	ePn	01 32.70	0.4
PRK	2.15	92	ePn	01 33.60	0.5
EZN	2.24	77	ePn	01 35.00	0.7
MMB	2.25	4	iPc	01 33.00	-1.6
RZN	2.52	21	eP	01 37.00	-1.5
KKB	2.54	353	eP	01 38.00	-0.6
OHR	2.72	311	ePn	01 46.50	5.2X
KDZ	2.73	32	iP	01 40.00	-1.4
PVL	4.11	19	eP	02 07.00	6.2X

S.D. = 0.9 on 18 of 20 obs.

& APR 27, 1989 18h 21m 37.22s
59.761 N 152.952 W
DEPTH = 93.4km

SOUTHERN ALASKA (2)

<AGS-P>.

OPT	0.18	232	iP	21 50.25	1.0
ILIM	0.32	359	iP	21 50.78	-0.6
			iS	22 01.77	
AUL	0.45	213	iP	21 51.61	-0.6
			eS	22 03.46	
AUE	0.46	208	iP	21 51.49	-0.7
AUH	0.47	212	iP	21 51.77	-0.6
AUI	0.49	210	iP	21 51.64	-0.8
PDB	0.63	273	iP	21 52.86	-0.7
			iS	22 04.86	
RED	0.67	8	iP	21 53.34	-0.7
			eS	22 05.94	
HOM	0.67	98	iP	21 53.69	-0.3
XLV	0.70	116	iP	21 53.52	-0.7
			eS	22 07.05	
RDT	0.86	18	iP	21 55.12	-0.9
			iS	22 09.11	
NNL	0.88	71	iP	21 56.31	0.2
			eS	22 10.86	
CNPM	0.90	104	iP	21 55.59	-0.8
			iS	22 10.41	
CDD	0.91	203	iP	21 55.25	-1.2
BRLK	1.05	89	iP	21 56.97	-1.0
NKA	1.30	40	iP	22 01.90	0.9
SPU	1.49	17	iP	22 02.69	-0.8
SLKM	1.56	60	eP	22 02.79	-1.5
			iS	22 24.73	
CRP	1.56	14	iP	22 04.00	-0.5

27d 18h

			iS	22 25.33		
CGLM	1.62	16	iP	22 04.49	-0.7	
SEW	1.80	77	eP	22 05.53	-1.8	
			eS	22 28.18		
SVW	1.89	317	iP	22 07.42	-1.3	
			iS	22 30.57		
KDC	2.03	173	iP	22 08.36	-2.1	
PWA	2.42	37	iP	22 14.97	-0.8	
PLRM	2.63	44	eP	22 16.47	-2.0	
KNIM	2.68	75	iP	22 16.57	-2.7	
			iS	22 47.22		
MTU	2.68	83	eP	22 17.03	-2.3	
PME	2.69	44	eP	22 17.25	-2.1	
KNK	2.77	51	iP	22 18.26	-2.2	
GHO	2.82	43	eP	22 19.30	-2.0	
GLI	3.12	66	eP	22 21.55	-3.8	
FID	3.38	70	iP	22 25.18	-3.6	
			iS	23 01.41		
MID	3.38	93	iP	22 26.73	-2.0	
VZW	3.43	65	eP	22 26.52	-3.1	
TTA	3.50	336	eP	22 28.56	-2.1	
KLU	3.88	60	iP	22 32.96	-2.8	
KTH	3.93	13	eP	22 35.58	-0.9	
TOA	4.06	52	eP	22 36.14	-2.1	
			eS	23 22.93		
GLB	4.81	66	iP	22 45.39	-3.3	
BALM	5.41	72	eP	22 53.78	-3.3	
FBA	5.69	23	eP	22 58.42	-2.4	
CTGM	5.89	73	eP	23 01.47	-2.3	
HYT	7.75	75	P	23 27.00	-2.2	
YKA	18.53	65	P	25 46.20	-2.5	

44 obs. associated

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* APR 27, 1989 18h 34m 24.54± 0.79s
17.793 N ±13.6km 65.655 W ± 8.5km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)
Felt ot Humacoo.

LPR	0.55	338	iP	34 35.80	0.0	
SJG	0.57	304	iP	34 36.00	-0.1	
CSB	0.69	316	iP	34 38.00	-0.2	
PNP	1.01	285	iP	34 44.40	0.7	
APR	1.22	303	iP	34 46.80	-0.4	
MGP	1.38	279	iP	34 49.80	0.0	
MGH	3.45	107	eP	35 21.00	1.5	
PAG	4.19	114	eP	35 28.50	-1.5	

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

APR 27, 1989 18h 39m 52.71± 0.20s
66.981 N ± 3.5km 156.303 W ± 3.8km
DEPTH = 5.0km (geophysicist)
5.0mb (25 obs.) 4.8Msz (1 obs.)
ALASKA (676)
ML 4.8 (PMR). Felt (III) ot Kobuk.

IMA	1.40	130	iPc	40 19.00	0.0	
FBA	4.06	117	eP	40 56.00	-0.8	
TTA	4.07	178	eP	40 56.20	-0.8	
BRW	4.35	358	eP	41 01.00	0.2	
SVW	5.91	177	eP	41 21.60	-1.4	
PMR	6.24	147	eP	41 26.30	-1.3	
TOA	6.55	134	eP	41 32.30	0.1	
DWY	7.59	105	P	41 43.00	-3.6X	
INK	8.76	71	eP	42 02.00	-0.9	
KDC	9.43	167	eP	42 11.10	-1.0	
HYT	10.29	118	P	42 22.50	-1.6	
MBC	14.55	35	eP	43 18.00	-2.8	
YKA	18.08	85	P	44 05.70	0.0	
YKC	18.14	84	eP	44 05.00	-1.5	
	0.9s	45.00nm			4.6mb	
ALE	24.78	18	eP	45 17.00	1.0	
	0.6s	15.00nm			4.9mb	
EDM	24.81	102	eP	45 17.60	1.1	
PNT	25.63	115	eP	45 25.00	0.6	
	0.9s	35.00nm			5.1mb	
LON	27.07	121	eP	45 37.50	-0.2	
FFC	28.12	89	iPd	45 47.10	0.0	
	0.9s	20.00nm			4.9mb	
LRM	31.18	111	eP	46 15.20	0.5	
LBFM	31.86	126	eP	46 21.00	0.3	
WDC	32.35	128	eP	46 25.70	1.0	
MIN	32.86	127	eP	46 29.70	0.4	
ORV	33.61	127	eP	46 35.20	-0.5	
			ePcP	49 16.00		
FRB	33.87	53	eP	46 36.50	-1.1	
DAG	34.12	16	iPc	46 39.60	-0.1	
	0.4s	14.41nm			5.2mb	
BKS	34.92	129	e(P)	46 48.40	1.4	
	1.0s	48.00nm			5.3mb	
KVN	35.16	123	ePd	46 50.00	0.7	
CMB	35.35	127	eP	46 50.90	0.2	
			ePcP	49 21.20		
EUR	35.48	120	iP	46 53.00	0.9	
	0.2s	15.35nm			5.5mb	
MHC	35.60	129	eP	46 53.70	0.8	
ARN	35.62	129	eP	46 53.40	0.4	
TNP	36.33	123	eP	46 59.00	-0.2	
	0.8s	7.35nm			4.6mb	
LLA	36.48	128	eP	47 01.30	1.1	
FRI	36.52	127	eP	46 59.40	-1.1	
			ePcP	49 24.30		
PRS	36.61	129	eP	47 02.20	0.9	
PRI	37.00	128	eP	47 06.30	1.5	
MSU	37.66	117	eP	47 11.00	0.6	
ISA	38.13	126	eP	47 15.00	0.8	
CLC	38.27	125	eP	47 16.00	0.7	
SYP	38.71	129	eP	47 20.00	0.9	
GSC	39.00	124	eP	47 23.00	1.5	
GOL	39.09	108	eP	47 23.30	0.9	
	1.0s	43.75nm			5.1mb	
SBB	39.23	126	eP	47 24.00	0.6	
MWC	39.59	126	eP	47 24.00	-2.5	
PAS	39.62	127	eP	47 25.00	-1.5	
RVR	40.02	126	eP	47 30.00	0.2	
PEC	40.18	126	eP	47 31.30	0.1	
TPC	40.34	124	eP	47 34.00	1.4	
PLM	40.77	125	eP	47 37.00	0.8	
SCH	41.26	61	eP	47 40.00	0.2	
BAR	41.45	126	eP	47 42.00	0.4	
GLA	41.71	123	eP	47 44.00	0.3	
ALQ	42.90	113	eP	47 54.00	0.3	
	0.9s	19.96nm			4.8mb	
KEV	43.51	358	eP	47 59.00	1.0	
GAC	45.59	76	eP	48 15.00	0.1	
SOD	45.91	358	iP	48 17.20	0.0	
CN2	46.20	281	eP	48 19.20	-0.6	
FVM	46.33	94	eP	48 20.30	-0.6	
RSNY	46.92	76	eP	48 24.50	-1.0	
	0.8s	15.26nm			5.2mb	
CBM	47.30	69	eP	48 27.50	-1.0	
MAT	47.43	264	eP	48 29.00	-0.7	
	0.8s	13.43nm			5.1mb	
MIM	48.40	71	eP	48 36.30	-0.8	
SNY	48.60	281	eP	48 37.70	-1.0	
SUF	50.58	359	iP	48 53.80	0.2	
	0.4s	2.30nm			4.5mb	
GBTN	50.79	90	eP	48 55.30	-0.2	
TKL	50.97	90	eP	48 56.50	-0.4	
NAO	52.15	8	P	49 04.60	-0.9	
	0.8s	6.50nm			4.6mb	
NUR	52.81	359	iP	49 09.80	-0.7	
PRM	52.90	89	eP	49 11.20	-0.3	
BJI	52.97	286	eP	49 10.00	-1.9	
HFS	52.98	6	eP	49 10.70	-1.0	
	0.7s	10.40nm			4.9mb	
JSC	53.17	88	eP	49 12.80	-0.6	
HHC	53.99	290	eP	49 18.90	-0.6	
EKA	56.35	18	P	49 36.00	-0.4	
	0.9s	7.80nm			4.7mb	
TIY	56.42	288	eP	49 37.00	-0.2	
Z	20s	0.75um			4.8Msz	
N	15s	0.50um				
NJ2	58.96	279	Pc	49 53.40	-1.7	
WMQ	59.36	311	P	49 57.60	-0.3	
GTA	59.45	299	eP	49 57.80	-0.8	
XAN	60.98	289	eP	50 07.30	-1.7	
LZH	61.01	294	eP	50 09.50	0.2	
	2.0s	82.00nm			5.5mb	
Z	14s	0.70um			5.0MszX	
CLL	61.76	8	iPd	50 16.40	2.4	
MEM	61.97	13	P	50 18.50	3.1X	
BRG	62.24	7	iP	50 19.80	2.6	
	0.8s	16.00nm			5.3mb	
MOX	62.34	9	eP	50 17.00	-0.9	
DOU	62.35	14	P	50 17.60	-0.4	
PRU	63.15	7	eP	50 23.50	0.3	
			e	50 26.50		
KRA	63.26	3	eP	50 25.20	1.3	
GRF	63.27	9	eP	50 24.70	0.7	
			e	50 28.00		
KHC	63.96	7	iPd	50 32.20	3.6X	
CDF	64.26	12	eP	50 30.40	-0.2	
	0.8s	8.00nm			5.0mb	
HAU	64.58	13	eP	50 32.60	-0.1	
	0.9s	6.50nm			4.8mb	
BSF	64.80	13	eP	50 33.80	-0.4	
	0.9s	6.50nm			4.8mb	
ZST	65.04	5	eP	50 39.10	3.5X	
LOR	65.08	15	eP	50 35.60	-0.3	
	0.7s	5.50nm			4.9mb	
SSF	65.25	15	eP	50 36.90	0.0	
	0.9s	11.40nm			5.1mb	
LBF	65.38	15	eP	50 36.70	-1.1	
AVF	65.50	15	eP	50 37.50	-1.0	
	0.9s	7.20nm			4.9mb	
CD2	65.69	292	P	50 40.60	0.6	
SMF	65.70	15	eP	50 38.80	-1.0	
KBA	66.00	8	iPc	50 42.40	0.5	
	1.0s	22.50nm			5.3mb	
		i		50 45.00		
LPG	67.11	13	eP	50 50.20	1.0	
GUN	74.59	306	P	51 35.80	1.2	
KKN	74.89	306	P	51 37.40	1.2	
GKN	74.90	307	P	51 36.00	-0.2	
PKI	75.06	306	P	51 39.00	1.7	
DMN	75.12	306	P	51 38.80	1.3	
NDI	76.49	313	eP	51 46.00	1.0	
			eS	00 51.00		
PRNI	82.60	350	eP	52 19.00	1.2	
MBH	83.18	350	e(P)	52 22.00	1.3	
HYB	86.71	309	eP	52 47.00	8.3X	

S.D. = 1.0 on 106 of 111 obs.

APR 27, 1989 18h 52m 26.64± 0.49s
16.306 S ±10.7km 67.035 E ± 6.7km
DEPTH = 10.0km (geophysicist)
5.1mb (7 obs.)
MID-INDIAN RISE (429)

AVY	18.58	259	iPc	56 46.18	0.1	
HYB	35.38	19	eP	59 24.00	-0.7	
BUL	36.64	258	iPKPc	59 35.70	0.1	
LSZ	37.36	266	iP	59 41.60	0.0	
IPM	39.51	61	ePd	00 00.00	0.5	
QUE	46.22	360	eP	00 54.00	0.0	
CHTO	46.94	43	eP	01 02.00	2.3	
	1.0s	7.50nm			4.7mb	
DMN	47.04	22	P	01 01.00	0.4	
PKI	47.11	22	P	01 01.20	-0.1	
GKN	47.23	21	P	01 02.20	0.2	
	1.0s	58.00nm			5.6mb	
KKN	47.27	22	P	01 02.50	0.1	
	0.9s	32.00nm			5.4mb	
GUN	47.60	23	P	01 04.70	-0.4	
	0.8s	26.00nm			5.4mb	
LSA	51.31	27	P	01 35.20	1.4	
BNG	52.18	289	iPd	01 39.90	-0.2	
	0.7s	10.00nm			4.9mb	
		id		01 46.50		
		id		02 23.30		
MAIO	52.80	352	eP	01 44.00	-0.5	
		eS		09 20.00		
MBH	55.32	326	eP	02 03.00	0.1	
PRNI	55.71	326	eP	02 05.00	-0.7	
GYA	57.36	43	P	02 16.00	-1.8	
LZH	62.67	33	e(P)	02 54.00	-0.1	
WMQ	62.75	17	P	02 53.70	-0.7	
GTA	63.32	28	eP	02 56.60	-1.6	
WB5	63.73	104	eP	03 00.20	-1.0	
WHN	65.13	44	eP	03 13.20	3.2X	
EZN	67.51	327	eP	03 30.00	5.0X	
TIY	68.61	37	eP	03 31.40	-0.7	
NJ2	69.10	46	eP	03 38.00	2.9X	
BTO	69.26	34	eP	03 36.00	-0.1	
Z	16s	1.80um			5.4MszX	
N	16s	0.90um				
E	16s	1.10um				
HHC	70.27	34	eP	03 42.10	-0.2	
TIA	70.48	41	eP	03 45.30	1.8	
CFR	70.65	332	ePd	03 45.00	0.7	
VRI	71.82	332	ePc	03 51.50	0.1	
MLR	71.90	331	eP	03 51.00	-1.0	
BJI	72.33	38	eP	03 53.50	-1.0	
SPA	73.80	180	e(P)	03 53.20	-9.8X	
	1.0s	5.00nm			4.5mb	
KIC	74.47	282	P	04 07.22	-0.3	
CTA	74.69	107	eP	04 08.00	-0.8	
SRO	77.24	329	e(P)	04 27.70	5.2X	
SPC	77.24	331	eP	04 23.60	0.8	

ZST	78.10	328	e(P)	04 27.30	0.0
CN2	80.11	39	eP	04 39.20	0.9
KSP	80.24	330	eP	04 36.80	-2.1
			e	04 45.80	
KHC	80.49	328	P	04 40.00	-0.3
PRU	80.54	329	eP	04 41.00	0.5
BRG	81.40	329	eP	04 51.50	6.6X
	0.8s	10.00nm		4.9mb	
GRF	82.05	327	e(P)	04 49.50	1.1
			e	04 55.00	
CLL	82.14	329	e(P)	04 55.00	6.2X
MOX	82.42	328	e(P)	04 55.00	4.7X
MDJ	83.06	40	eP	04 54.40	0.7
NUR	83.77	340	iP	05 03.80	6.8X
SUF	85.01	342	iP	05 04.30	1.1
SOD	88.53	345	eP	05 26.00	5.7X
ZOBO	125.19	236	(PKP)	11 32.00	1.3
SVW	125.94	24	ePKP	11 16.20	-14.0X
TOA	128.62	19	ePKP	11 26.70	-8.6X
DWY	128.96	15	PKP	11 40.00	4.2X
YKA	133.85	1	PKP	11 52.70	7.6X
UPA	146.61	262	ePKP	12 18.60	9.2X
	1.0s	40.00nm			
PNT	146.63	8	ePKP	12 17.00	8.5X
HTW	147.76	11	PKP	12 14.00	3.6X
LON	148.77	12	PKP	12 17.00	4.9X
LRM	150.57	359	ePKP	12 22.20	7.1X
FVM	150.68	322	PKP	12 25.00	9.9X
HPI	152.68	0	PKP	12 30.00	11.7X
BW06	153.46	354	PKP	12 25.00	5.7X
S.D. = 0.9 on 42 of 64 obs.					

APR 27, 1989 19h 09m 47.94± 0.44s
66.899 N ± 5.5km 156.284 W ± 7.0km
DEPTH = 5.0km (geophysicist)
4.4mb (9 obs.)
ALASKA (676)
ML 4.6 (PMR).

IMA	1.34	127	eP	10 13.20	0.0
TTA	3.99	178	iPd	10 50.90	-0.2
FBA	4.02	116	iPd	10 51.00	-0.4
BRW	4.43	358	eP	10 55.70	-1.5
PMR	6.17	146	eP	11 21.50	-0.3
INK	8.79	70	eP	11 58.00	-0.4
KDC	9.35	167	eP	12 06.90	0.7
HYT	10.25	118	P	12 19.00	0.3
MBC	14.61	35	eP	13 13.00	-3.9X
YKA	18.08	84	P	14 02.00	1.0
YKC	18.14	84	eP	14 02.00	0.3
	0.8s	10.00nm		4.0mb	
EDM	24.78	102	eP	15 12.00	0.5
ALE	24.86	18	eP	15 14.00	2.0
	0.5s	5.00nm		4.5mb	
PNT	25.59	115	eP	15 20.00	0.8
LON	27.02	121	eP	15 33.80	1.3
FFC	28.11	89	eP	15 41.00	-1.2
DAG	34.20	16	iPd	16 36.30	0.7
	0.4s	6.78nm		4.9mb	
KVN	35.11	123	eP	16 44.00	-0.1
TNP	36.28	123	eP	16 54.00	0.0
	0.8s	1.96nm		4.0mb	
MSU	37.62	117	eP	17 06.00	0.7
GOL	39.06	108	eP	17 18.00	0.6
SBB	39.18	126	eP	17 18.00	-0.2
RVR	39.96	126	eP	17 24.00	-0.6
TPC	40.29	124	eP	17 25.00	-2.3
PLM	40.72	125	eP	17 31.00	0.0
BAR	41.40	126	eP	17 40.00	3.6X
GLA	41.66	123	eP	17 39.00	0.5
ALQ	42.86	113	eP	17 49.00	0.4
	0.8s	4.58nm		4.3mb	
KEV	43.59	358	eP	17 50.00	-3.9X
SOD	45.99	358	iP	18 14.30	1.2
SUF	50.67	359	iP	18 50.50	1.1
NAO	52.23	8	P	18 58.70	-2.7
	0.8s	2.70nm		4.2mb	
NUR	52.90	359	iP	19 02.50	-3.8X
PRM	52.90	89	eP	19 05.60	-1.1
HFS	53.06	6	eP	19 07.60	0.0
	0.9s	7.70nm		4.6mb	
JSC	53.16	88	eP	19 07.00	-1.6
EKA	56.43	18	P	19 31.00	-1.2
	0.9s	4.20nm		4.5mb	
GTA	59.50	299	eP	19 54.00	-0.1
LZH	61.05	294	eP	20 03.50	-1.3
PRU	63.23	7	eP	20 19.60	0.6
KBA	66.08	8	iPd	20 39.50	1.8
	0.7s	4.50nm		4.8mb	
GYA	68.67	287	P	20 55.20	1.0
S.D. = 1.1 on 38 of 42 obs.					

APR 27, 1989 19h 37m 37.91± 0.38s
33.585 N ± 6.6km 80.645 E ± 6.8km
DEPTH = 33.0km (normal)
4.7mb (5 obs.)
TIBET (306)

NDI	5.70	212	iPc	39 03.20	0.7
GKN	6.54	147	P	39 14.40	0.0
	0.5s	17.00nm		5.1mb X	
KSH	6.96	329	ePn	39 22.00	1.7
KKN	7.02	144	P	39 27.00	5.8X
DMN	7.09	146	P	39 21.80	-0.4
	0.7s	45.00nm		5.5mb X	
GUN	7.23	140	P	39 23.80	-0.5
PKI	7.26	144	P	39 24.40	-0.4
	0.5s	16.00nm		5.3mb X	
LSA	9.75	111	P	40 01.00	1.6
WMQ	11.60	26	Pc	40 23.70	-0.6
	Z 12s	0.50um			
			S	42 39.00	
QUE	12.12	257	eP	40 26.60	-4.8X
			eS	42 36.30	
POO	16.18	204	eP	41 26.50	2.1
HYB	16.21	187	eP	41 19.50	-5.4X
GTA	16.46	64	eP	41 30.60	2.5
MAIO	17.55	285	iPc	41 43.00	1.3
CD2	19.72	91	P	42 08.00	0.3
KMI	20.99	108	eP	42 20.00	-1.1
CHG	21.99	127	eP	42 30.00	-0.9
GYA	23.58	101	P	42 51.00	4.4X
			S	47 02.60	
MLR	43.06	303	ePc	45 37.00	0.6
SUF	44.60	328	iP	45 47.90	-0.5
SOD	45.77	334	eP	45 57.00	-0.7
KEV	46.49	337	eP	46 06.00	2.7
HFS	50.19	323	eP	46 30.80	-1.3
	1.0s	6.80nm		4.6mb	
PRU	50.30	310	P	46 33.10	0.0
BRG	50.57	311	eP	46 35.00	-0.1
	0.8s	10.00nm		4.9mb	
KHC	51.04	309	P	46 39.00	0.2
NAO	51.60	324	P	46 41.10	-1.8
	0.9s	4.00nm		4.4mb	
MOX	52.06	311	e(P)	46 45.00	-1.5
GRF	52.47	310	eP	46 50.00	0.4
EKA	59.78	319	Pd	47 40.10	-1.7
	1.5s	15.80nm		4.9mb	
BNG	64.42	258	ePc	48 10.80	-2.7
	0.7s	5.00nm		4.7mb	
MBC	69.71	5	eP	48 45.00	-0.8
WB5	73.81	128	eP	49 09.70	-1.4
YKA	83.47	7	eP	50 02.70	-0.4
CCH	146.14	290	ePKP	57 20.00	3.8X
ZOBO	147.02	294	ePKP	57 18.00	0.0
LPB	147.16	293	ePKP	57 20.00	2.0
CNCB	147.23	293	ePKP	57 19.00	0.7
S.D. = 1.4 on 33 of 38 obs.					

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* APR 27, 1989 19h 43m 11.69± 2.15s
17.072 N ±17.2km 66.394 W ±20.1km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)
Felt in eastern Puerto Rico and as far west as San Juon.

SJG	1.06	13	iP	43 32.00	0.3
MGH	4.01	94	eP	44 14.00	-0.6
PAG	4.64	102	eP	44 23.50	0.0
			S	45 10.00	
SEG	4.73	97	eP	44 25.00	0.2
BBL	4.97	107	eP	44 29.50	1.4
DEG	5.17	98	eP	44 30.00	-1.0
MBC	65.09	348	eP	53 54.00	-0.3
S.D. = 0.9 on 7 of 7 obs.					

APR 27, 1989 20h 08m 39.87± 0.70s
39.030 N ± 6.3km 29.767 E ± 7.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ALT	0.27	85	iPg	08 45.00	-0.6
KHL	0.73	195	iPg	08 52.00	-2.3
			iSg	09 02.00	
DST	1.05	303	iPn	08 58.70	-1.1
GPA	1.32	18	iPn	09 03.90	-0.4
BCK	1.70	157	ePn	09 10.50	0.8
GBZT	1.77	352	ePn	09 13.00	2.2
			iSg	09 39.50	
HRT	1.79	358	ePn	09 10.80	-0.3
BNT	1.95	313	iPn	09 13.40	0.1
EDC	1.97	312	ePn	09 13.00	-0.6
IZM	2.06	253	ePn	09 16.00	1.0
YER	2.23	212	ePn	09 19.40	2.0
BBTK	2.46	70	eP	09 28.00	7.3X
EZN	2.78	288	ePn	09 24.40	-0.8
S.D. = 1.4 on 12 of 13 obs.					

? APR 27, 1989 20h 39m 28.20± 8.54s
17.831 N ±28.1km 65.514 W ±56.8km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.58	325	iP	39 40.00	0.0
SJG	0.67	295	iP	39 41.10	-0.4
			S	39 49.10	
CSB	0.76	307	iP	39 43.00	-0.1
			S	39 52.10	
APR	1.31	298	iP	39 53.00	0.5
MGP	1.51	277	iP	39 55.30	0.0
S.D. = 0.5 on 5 of 5 obs.					

APR 27, 1989 20h 52m 23.04± 0.91s
42.103 N ± 7.1km 14.036 E ±11.8km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

SDI	0.43	203	Pd	52 32.00	0.2
			eSg	52 38.50	
AQU	0.53	298	P	52 33.70	-0.1
DUI	0.54	144	Pc	52 33.90	-0.1
			eSg	52 41.20	
ALP	0.76	333	e(Pg)	52 36.70	-1.2
			iSg	52 47.38	
CIO	1.27	329	iPg	52 47.83	1.1
			eSg	53 09.08	
ASS	1.40	314	P	52 47.90	-0.8
ARV	1.61	330	P	52 52.60	1.0
			eSn	53 13.30	
S.D. = 1.1 on 7 of 7 obs.					

? APR 27, 1989 20h 58m 33.20± 3.58s
20.265 S ±34.4km 178.482 W ±22.1km
DEPTH = 589.8 ± 45.9 km
4.1mb (3 obs.)
FIJI ISLANDS REGION (181)

DZM	14.18	260	iPc	01 34.80	1.3
			iS	04 06.40	
KRP	18.35	195	P	02 13.50	0.1
CTA	33.06	264	iPd	04 22.80	-0.1
	0.8s	16.42nm		4.7mb	
JAY	43.54	289	ePc	05 41.20	-6.6X
WB5	44.17	262	eP	05 51.30	-1.3
MBL	57.37	257	eP	07 27.00	-1.6
NANU	61.02	255	eP	07 52.00	-0.8
KVN	81.65	43	iP	09 52.00	0.1
TNP	81.68	44	iP	09 51.50	-0.6
	1.0s	5.00nm		4.0mb	
EUR	83.26	44	iP	09 59.50	-0.5
	0.8s	4.13nm		4.0mb	
CHG	89.74	290	eP	10 31.90	1.1
NAO	138.95	353	PKP	16 46.80	-7.5X
	0.8s	1.40nm			
HFS	139.24	351	ePKP	16 44.80	-10.1X
	0.3s	0.90nm			
EKA	144.81	5	PKPd	17 03.30	-1.4
	0.9s	2.90nm			
KSP	147.33	343	iPKPd	17 11.80	2.9X
CLL	147.73	346	iPKPd	17 12.60	3.1X
	0.9s	14.00nm			
			i	17 16.90	
MLR	147.78	327	ePKPc	17 12.80	2.8X
BRG	147.92	345	iPKP	17 12.80	2.9X
			i	17 17.80	
PRNI	148.22	295	iPKPd	17 14.00	3.0X
MBH	148.42	294	iPKPd	17 15.00	3.7
PRU	148.58	344	PKP	17 14.70	3.8X
			e	17 20.50	
KHC	149.62	344	iPKPc	17 18.00	5.4X

27d 21h

e 17 25.80
S.D. = 1.7 on 12 of 22 obs.

? APR 27, 1989 21h 14m 21.67± 1.24s
47.871 N ±24.8km 152.315 E ±16.3km
DEPTH = 100.0km (geophysicist)
4.9mb (8 obs.)
KURIL ISLANDS (221)

FBA	35.63	39	iP	21	12.00	0.9
	0.8s	10.34nm			4.8mb	
YKA	50.35	37	P	23	09.80	0.1
CHG	51.87	255	eP	23	21.60	-0.2
GUN	54.37	274	P	23	40.40	-0.3
KKN	54.86	274	P	23	44.00	0.0
PKI	54.91	274	P	23	44.40	-0.1
DMN	55.09	274	P	23	46.00	0.3
GKN	55.15	275	P	23	46.00	0.0
	0.6s	14.00nm			5.2mb	
FFC	60.23	40	iPc	24	19.70	-1.4
	0.6s	7.00nm			4.9mb	
SUF	61.76	335	eP	24	30.00	-1.3
HFS	67.22	339	eP	25	05.80	-0.8
	0.5s	6.90nm			4.8mb	
NAO	67.27	341	P	25	06.20	-0.8
	0.6s	3.30nm			4.4mb	
CLL	75.22	335	iPc	25	54.30	-0.2
	0.7s	14.00nm			4.9mb	
BRG	75.33	334	eP	25	55.40	0.2
MLR	75.84	324	iPd	25	58.00	-0.3
PRU	75.94	333	eP	25	59.00	0.4
KHC	76.99	334	P	26	05.60	1.0
GRF	77.17	335	eP	26	07.20	1.7
	0.7s	87.00nm			5.7mb	
KBA	78.89	333	iPd	26	16.00	0.8
	0.7s	5.90nm			4.5mb	
S.D. = 0.8 on 19 of 19 obs.						

* APR 27, 1989 21h 17m 28.16± 1.18s
6.418 S ±11.6km 131.200 E ±19.4km
DEPTH = 33.0km (normal)
4.5mb (2 obs.)
TANIMBAR ISLANDS REGION (281)

AAI	4.04	312	eP	18	28.60	-0.7
MTN	6.39	181	iPc	19	07.10	4.6X
			eS	20	17.00	
KNA	9.58	194	eP	19	48.10	1.3
	0.3s	23.00nm			5.9mb X	
			eS	21	32.00	
WB5	13.73	167	eP	20	41.70	-1.2
			iS	23	10.10	
QIS	16.25	151	eP	21	16.00	0.3
			eS	24	08.00	
MBL	18.33	216	eP	21	41.00	-0.6
CTA	19.96	134	eP	22	08.00	7.4X
WARB	20.13	192	eP	21	56.00	-6.4X
NANU	22.05	222	eP	22	24.40	2.6X
	0.5s	14.00nm			4.7mb	
CHG	40.49	309	iP	25	06.50	0.6
CHTO	40.49	309	eP	25	06.20	0.3
	0.9s	6.18nm			4.4mb	
S.D. = 1.1 on 7 of 11 obs.						

? APR 27, 1989 21h 34m 10.48± 7.91s
12.747 S ±69.7km 118.789 E ±41.7km
DEPTH = 33.0km (normal)
SOUTH OF SUMBAWA ISLAND (291)

MBL	8.43	173	eP	36	13.30	0.0
	0.3s	4.00nm			5.1mb X	
			eS	37	51.00	
NANU	10.24	197	eP	36	34.30	-4.0X
	0.2s	3.00nm			5.2mb X	
			eS	38	28.00	
MEKA	13.80	181	eP	37	26.00	-0.1
			eS	39	57.00	
WARB	15.27	152	eP	37	39.00	-6.4X
			eS	40	32.00	
WB5	16.54	117	eP	38	01.70	0.0
			eS	41	06.20	
MRWA	16.59	189	eP	38	02.00	-0.3
			eS	40	51.00	
BAL	17.88	186	eP	38	18.70	0.4
			eS	41	32.00	
COOL	18.18	173	eP	38	24.00	1.9X
			iS	41	39.70	

S.D. = 0.3 on 5 of 8 obs.

? APR 27, 1989 21h 44m 32.73± 6.87s
36.009 N ±34.1km 31.454 E ±49.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ELL	1.45	301	iPn	44	59.90	0.8
KSL	1.52	275	ePb	45	00.50	0.6
			eSb	45	21.70	
BCK	1.61	335	ePn	45	02.00	0.7
KHL	2.78	327	iPn	45	19.00	0.9
YER	2.79	295	ePn	45	17.40	-0.9
ALT	3.22	341	ePn	45	23.20	-1.2
KAP	3.51	264	ePn	45	28.20	-0.2
BBTK	3.96	15	eP	45	41.00	6.0X
			eS	46	14.50	
IZM	4.11	307	iPn	45	35.70	-1.2
S.D. = 1.1 on 8 of 9 obs.						

* APR 27, 1989 22h 04m 33.73± 2.05s
41.351 N ±16.1km 23.262 E ± 7.7km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 1.0 (SKO).

KNT	0.33	236	iPgc	04	40.40	-0.2
			iSg	04	44.80	
SRS	0.34	133	iPgc	04	40.60	-0.2
			iSg	04	45.70	
VAY	0.52	267	iPg	04	44.40	0.1
			iSg	04	48.60	
SOH	0.53	173	iPgc	04	44.50	0.0
			iSg	04	51.60	
THE	0.75	197	ePg	04	48.60	0.2
			eSg	04	58.60	
GRG	0.76	239	ePg	04	44.84	-3.8X
			iSg	04	59.00	
OUR	1.15	152	ePb	04	55.50	0.2
S.D. = 0.2 on 6 of 7 obs.						

% APR 27, 1989 22h 42m 32.60± 0.98s
44.354 N ±11.0km 7.294 E ± 9.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

STV	0.11	169	P	42	36.21	0.6
			S	42	38.47	
PZZ	0.20	317	P	42	37.03	-0.1
			S	42	40.31	
ROB	0.42	98	P	42	41.03	-0.1
			S	42	48.11	
IMI	0.62	136	P	42	44.01	-1.1
			S	42	53.34	
FIN	0.67	102	P	42	46.67	0.7
S.D. = 1.0 on 5 of 5 obs.						

& APR 27, 1989 22h 50m 45.77s
59.770 N 152.987 W
DEPTH = 108.3km
SOUTHERN ALASKA (2)
<AGS-P>.

OPT	0.17	226	iP	51	00.56	1.0
			eS	51	11.78	
ILIM	0.31	3	iP	51	01.00	-0.7
			eS	51	13.45	
AUL	0.45	211	iP	51	01.99	-0.4
			eS	51	14.80	
PDB	0.61	272	iP	51	02.58	-0.9
			S	51	15.76	
RED	0.66	9	iP	51	03.23	-0.8
			eS	51	16.59	
NNL	0.89	72	iP	51	06.25	0.2
CDD	0.91	202	eP	51	05.23	-1.0
			eS	51	21.19	
CNPM	0.92	105	iP	51	05.55	-0.8
			eS	51	21.01	
SPU	1.49	18	eP	51	11.86	-0.9
SLKM	1.57	61	eP	51	12.56	-1.2
			eS	51	32.47	
CGLM	1.62	17	eP	51	13.57	-0.8
SEW	1.81	78	iP	51	15.45	-1.3
12 obs. associated						

APR 27, 1989 23h 06m 52.24± 0.45s
37.027 N ± 2.7km 28.180 E ± 2.2km
DEPTH = 13.9 ± 2.9 km
5.3mb (44 obs.) 5.0Msz (7 obs.)
TURKEY (366)
ML 5.1 (CSS), 4.9 (ATH). Felt in the Muglo oreo ond ot Izmir.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 21C
Centroid Locotion:
Origin Time 23:06:55.3 0.6
Lat 36.71N 0.05 Lon 27.75E 0.08
Dep 15.0 FIX Half-duration 2.2
Moment Tensor; Scale 10**17 Nm
Mrr=-1.63 0.08 Mtt= 2.15 0.11
Mff=-0.52 0.08 Mrt= 0.60 0.31
Mrf=-0.10 0.20 Mtf=-0.20 0.08
Principal Axes:

	Val=	Plg=	Azm=
T	2.26	9	4
N	-0.53	2	95
P	-1.73	81	200

Best Double Couple:Mo=2.0*10**17
NP1:Strike= 92 Dip=36 Slip= -94
NP2: 276 54 -87

YER	0.13	37	iP	06	56.70	0.7
ELL	1.41	101	iPn	07	21.10	3.5X
KSL	1.45	128	ePb	07	21.20	3.3X
IZM	1.55	332	iPn	07	19.00	-0.5
KHL	1.68	39	iPn	07	23.00	1.7
KAP	1.68	209	ePb	07	20.60	-0.8
BCK	1.97	77	iPn	07	29.50	3.9X
ALT	2.53	36	iPn	07	35.20	1.5
DST	2.60	8	iPn	07	36.60	2.0
PRK	2.68	326	ePn	07	34.40	-1.2
EZN	3.15	333	iPn	07	40.90	-1.4
EDC	3.32	356	iPn	07	44.00	-0.8
BNT	3.33	357	iPn	07	44.30	-0.6
GPA	3.66	26	ePn	07	50.90	1.3
ATH	3.67	286	ePn	07	48.50	-1.3
GBZT	3.88	14	iPnc	07	52.50	-0.2
			iPg	08	07.00	
			iSg	09	02.00	
HRT	3.96	17	iPn	07	54.80	0.9
PPCY	4.00	121	eP	07	56.00	1.7
ISK	4.09	9	ePn	07	55.10	-0.5
CTT	4.12	3	ePn	07	54.80	-1.3
NEO	4.52	302	ePn	08	01.00	-0.8
BBTK	4.56	51	iPd	08	05.00	2.5
			iS	09	18.00	
PAIG	4.57	311	ePn	08	01.60	-0.8
RDO	4.60	334	ePn	08	01.30	-1.6
CSS	4.66	115	eP	08	05.00	1.2
			eS	08	54.00	
OUR	4.66	316	ePn	08	02.40	-1.3
LFK	4.67	110	iPn	08	05.70	1.7
DMK	4.80	356	iPn	08	03.20	-2.6X
PLG	4.99	314	ePn	08	07.00	-1.4
ITM	5.00	274	ePb	08	10.00	1.4
KDZ	5.09	336	iPc	08	09.00	-0.8
FAM	5.14	112	eP	08	15.00	4.5X
SOH	5.34	317	ePn	08	12.40	-1.1
RZN	5.37	331	eP	08	13.00	-1.0
LIT	5.41	306	ePn	08	13.60	-0.9
			eSn	09	13.10	
DIM	5.42	339	iP	08	14.00	-0.5
SRS	5.42	320	ePn	08	13.10	-1.5
THE	5.43	313	ePn	08	13.90	-0.8
JMB	5.57	348	iPd	08	15.00	-1.6
MMB	5.72	324	iPc	08	17.00	-1.7
			Sg	09	54.00	
KNT	5.82	317	ePn	08	19.60	-0.6
GRG	5.97	313	ePn	08	22.10	-0.2
			eSn	09	31.80	
KZN	5.99	305	ePn	08	20.00	-2.6
VAY	6.11	316	iPn	08	24.40	0.2
VLS	6.14	283	ePb	08	28.50	3.9X
KKB	6.24	322	iPc	08	24.00	-2.0
PGB	6.32	332	eP	08	25.00	-2.3
			Sg	10	01.00	
PSN	6.65	0	iPc	08	30.00	-1.8
LSK	6.71	300	iPc	08	36.00	3.2X
VTS	6.75	327	iPd	08	32.00	-1.4
KBN	6.78	304	iPc	08	35.20	1.5
OHR	7.04	308	iPn	08	37.50	0.1
TPE	7.18	300	eP	08	43.50	4.2X
SKO	7.18	316	iPn	08	38.00	-1.3

	N 11s		22.41um		
	E 10s		31.00um		
			iSn	10 12.00	
			LR	11 48.00	
HRI	7.24	119	iPc	08 39.00	-1.2
KVT	7.34	54	ePn	08 43.00	1.5
BERA	7.40	302	eP	08 43.70	1.4
BUC1	7.49	348	iPc	08 44.00	0.4
BUC	7.55	349	ePd	08 45.00	0.6
HLW	7.62	159	iPn	08 44.50	-1.0
			eSn	10 06.50	
KOT	7.71	156	ePn	08 44.50	-2.1
TIR	7.76	306	eP	08 49.00	1.5
JVI	7.80	129	eP	08 47.00	-1.0
BURJ	7.88	125	P	08 48.30	-0.8
SALJ	7.96	127	P	08 48.90	-1.4
LACI	8.02	308	iPd	08 54.00	3.0X
KFNJ	8.05	128	P	08 51.00	-0.5
CFR	8.15	360	ePc	08 50.00	-2.8X
ISR	8.20	352	iPc	08 51.00	-2.5X
BCI	8.22	313	iPd	08 54.50	0.7
MKRJ	8.24	129	P	08 54.20	0.0
SDA	8.35	309	eP	08 58.30	2.6X
PVY	8.41	314	eP	08 58.20	1.5
BRD	8.52	355	ePc	08 58.50	0.4
MLR	8.62	349	iPc	08 58.00	-1.6
IVA	8.63	315	eP	09 00.20	0.6
LCI	8.65	296	Pd	08 58.50	-1.3
TTG	8.73	311	eP	09 02.10	1.1
VRI	8.90	353	iPc	09 01.00	-2.3
NKY	9.12	312	eP	09 07.50	1.2
MBH	9.15	140	eP	09 04.00	-2.7
PPE	9.19	358	ePc	09 06.00	-1.2
BRT	9.37	298	P	09 08.70	-1.1
BRY	9.44	311	eP	09 11.20	0.4
CLI	9.54	356	ePc	09 10.00	-2.1
BAC	9.58	355	eP	09 06.00	-6.6X
HQL	9.64	141	eP	09 13.00	-0.5
TDS	9.67	289	Pd	09 14.40	0.5
SOI	9.69	280	P	09 13.90	-0.2
DEV	9.69	338	ePc	09 29.00	14.9X
BEO	9.73	326	ePn	09 15.50	0.8
			e(Sg)	11 47.50	
PTT	9.99	353	eP	09 18.00	-0.3
ATN	10.16	280	Pd	09 20.50	-0.1
MGR	10.36	291	Pd	09 22.10	-1.3
AYN	10.45	139	eP	09 23.00	-1.6
MEU	10.59	274	P	09 29.10	2.4
SGO	10.65	293	P	09 26.50	-0.8
MNO	10.76	279	P	09 32.30	3.3X
BSS	11.08	294	P	09 33.70	0.5
BMR	11.19	343	ePd	09 50.00	15.4X
MSL	12.03	89	eP	09 52.00	5.8X
			eS	12 16.00	
			esS	12 43.00	
SDI	12.06	297	Pd	09 48.90	2.4
PSZ	12.48	333	eP	09 51.30	-0.8
AQU	12.56	300	P	09 58.80	5.5X
ZAG	12.67	318	eP	09 57.50	2.8X
PTJ	12.74	318	eP	09 55.20	-0.5
VBY	12.88	315	eP	09 58.70	1.2
SRO	13.00	329	eP	09 59.20	0.2
ASS	13.33	302	Pd	10 06.70	3.2X
SPC	13.46	337	eP	10 05.00	-0.2
CEY	13.49	314	eP	10 04.50	-1.1
LJU	13.61	316	eP	10 07.60	0.5
			eS	13 08.00	
BHD	13.78	101	ePd	10 13.00	3.6X
			eS	12 44.00	
			eLQ	15 12.00	
ZST	13.81	327	eP	10 10.00	0.3
	Z 11s		21.00um		
			i	10 20.20	
			e	11 07.30	
			eS	12 46.00	
TRI	13.85	313	i(Pn)	10 11.00	0.7
			i	10 26.50	
			i	12 12.10	
			e(Sn)	13 03.00	
			e	14 28.00	
			i	15 00.00	
VOY	13.96	315	eP	10 11.90	0.1
SLY	14.04	91	ePc	10 16.50	3.7X
			iPP	10 25.00	
			iPPP	10 56.50	
			eS	13 05.50	
			e	14 21.50	
			eLQ	15 21.00	
			eLR	16 41.00	
SFI	14.20	304	P	10 16.40	1.6
VKA	14.20	326	eP	10 13.00	-1.9
	1.5s		146.00nm		5.5mb X
			ePP	10 24.50	
			LR	16 40.00	
			i	24 30.30	
PGD	14.27	304	P	10 20.90	5.0X
KRA	14.32	338	eP	10 17.30	1.0
	Z 12s		7.50um		
	N 14s		6.40um		
			eS	13 17.00	
RBL	14.38	315	P	10 17.50	0.2
TAB	14.44	80	eP-	10 21.00	2.8X
FIR	14.54	303	ePn	10 22.00	2.7X
			i	12 25.00	
			i	13 10.00	
KBA	14.89	317	eP	10 26.00	2.0
	1.3s		98.80nm		5.1mb X
			i	10 32.80	
			iPP	10 35.80	
			eS	12 48.00	
FVI	14.92	315	Pd	10 23.50	-0.7
MME	15.07	304	Pd	10 28.90	2.4
KMR	15.10	321	eP	10 28.00	1.4
			e	13 40.00	
			i	15 09.00	
KER	15.61	94	eP	10 35.00	1.5
KHC	16.09	323	P	10 41.00	1.5
			i	10 43.80	
BOB	16.11	304	P	10 43.60	3.7X
KSP	16.22	332	ePc	10 41.50	0.5
	1.4s		106.00nm		4.8mb
			ic	10 45.90	
			e	16 19.50	
PRU	16.27	327	P	10 40.70	-0.9
	Z 13s		6.30um		
	N 12s		5.80um		
	E 12s		7.30um		
			e	10 47.20	
			S	13 49.00	
FIN	16.75	302	P	10 48.64	0.7
IMI	16.88	300	P	10 49.69	0.1
VAI	16.99	307	P	10 52.60	1.8
QASM	17.01	126	eP	10 56.00	4.8X
ROB	17.01	302	P	10 53.36	2.2
BRG	17.18	328	P	10 55.10	1.9X
SBF	17.18	300	eP	10 55.20	1.9
TOUF	17.35	300	P	10 58.00	2.4
STV	17.37	301	P	10 57.77	2.1
ORO	17.40	306	P	10 57.50	1.4
ORX	17.40	306	P	10 57.26	1.1
CALN	17.53	299	P	11 01.00	3.2X
PZZ	17.60	302	P	10 56.26	-2.4
GRF	17.62	321	ePn	10 58.70	0.0
	Z 16s		4.00um		
			e	11 01.30	
			e	11 03.50	
FRF	17.65	298	eP	11 00.60	1.4
RSP	17.70	304	P	11 00.65	0.7
LRG	17.83	298	eP	11 02.90	1.6
LSD	17.88	305	P	11 01.67	-0.5
CLL	17.90	328	iPd	11 03.00	0.8
	1.5s		240.00nm		5.1mb
			eS	14 28.00	
RRL	17.94	303	P	11 03.03	0.0
MOX	18.06	324	eP	11 06.00	1.9
	1.3s		252.00nm		5.2mb
	Z 10s		5.60um		
	N 14s		8.30um		
	E 14s		6.70um		
			i	11 09.00	
			eS	14 30.00	
			e	14 35.00	
			eSS	14 47.00	
			LQ	17 30.00	
			LR	19 00.00	
BNI	18.06	303	P	11 07.70	3.3X
LPG	18.16	304	eP	11 06.80	1.1
	0.9s		5.50nm		3.7mb X
FEL	18.36	313	P	11 08.00	0.0
TEH	18.72	87	eP	11 14.00	1.4
LOMF	18.83	310	P	11 15.00	1.3
MOF	18.87	312	P	11 15.00	0.8
CDF	19.05	313	eP	11 16.40	0.0
	1.0s		117.60nm		5.1mb
BSF	19.06	311	eP	11 17.20	0.6
	1.0s		53.60nm		4.7mb
GWF	19.13	315	P	11 17.00	-0.3
HAU	19.41	311	eP	11 21.00	0.3
	1.0s		69.60nm		4.9mb
VITF	19.72	312	P	11 23.00	-1.1
RYD	19.98	123	eP	11 28.00	1.0
WLF	20.31	315	P	11 32.00	1.8
SMF	20.45	306	eP	11 29.40	-2.4X
LBF	20.48	307	eP	11 32.00	-0.2
LOR	20.66	307	eP	11 32.60	-1.3
	1.0s		125.00nm		5.2mb
SSF	20.81	307	eP	11 34.60	-0.9
AVF	20.82	306	eP	11 33.10	-2.5X
MEM	20.88	318	Pc	11 36.80	0.7
			i	11 39.60	
ENN	21.01	318	ePc	11 37.50	0.1
	1.5s		381.00nm		5.6mb
BGF	21.08	305	eP	11 37.50	-0.7
MAF	21.16	304	eP	11 39.70	0.6
CAF	21.17	300	eP	11 39.70	0.4
	1.0s		72.00nm		5.0mb
WTS	21.24	322	eP	11 39.00	-0.8
	1.1s		138.00nm		5.3mb
DOU	21.40	315	Pc	11 41.30	-0.2
	0.8s		60.00nm		5.0mb
			e	11 46.00	
			S	15 38.00	
TCF	21.42	304	eP	11 42.40	0.7
DHR	21.48	114	eP	11 44.00	1.6
RJF	21.64	301	eP	11 44.50	0.6
	1.4s		130.60nm		5.2mb
LPO	21.73	299	eP	11 45.50	0.6
	1.4s		200.40nm		5.3mb
BBU	21.77	113	iP	11 38.60	-6.7X
	0.5s		209.00nm		5.8mb
SNF	21.77	316	P	11 42.40	-2.8X
WIT	21.81	323	eP	11 46.00	0.5
EBR	21.83	289	eP	11 46.00	0.1
LSF	21.86	303	eP	11 47.80	1.6
UCC	21.87	317	P	11 45.00	-1.2
			i	11 49.00	
			S	15 51.00	
EROQ	21.90	289	e(P)	11 47.00	0.4
BEE	21.93	114	iP	11 42.10	-4.8X
LFF	22.10	300	eP	11 48.00	-0.5
	2.0s		443.10nm		5.6mb
DBN	22.13	320	eP	11 52.00	3.3X
	Z 20s		0.90um		4.2Msz
			eS	15 56.00	
ECHE	22.97	285	e(P)	12 00.20	2.9X
MFF	23.07	303	eP	11 58.90	0.8
	1.5s		376.00nm		5.7mb
NUR	23.61	356	iP	12 05.60	2.4
	1.0s		94.00nm		5.3mb
	Z 20s		3.00um		4.8Msz
			eS	16 20.00	
			LR	21 30.00	
LDF	23.62	308	eP	12 02.90	-0.5
UPP	23.84	347	iPc	12 05.30	0.0
	1.4s		200.00nm		5.5mb
FLN	23.90	308	eP	12 05.70	-0.4
	1.1s		190.70nm		5.6mb
GRR	24.03	307	eP	12 06.10	-1.2
LPF	24.04	306	eP	12 07.10	-0.3
EVIA	24.24	283	e(P)	12 11.00	1.4
HFS	24.92	343	eP	12 14.90	-1.0
	1.2s		159.70nm		5.6mb
MAIO	25.08	82	eP	12 20.00	2.3
	1.0s		17.50nm		4.7mb
CRT	25.29	280	eP	12 24.00	4.3X
EBAN	25.29	282	e(P)	12 20.50	0.8
TOL	25.33	286	iPd	12 22.00	2.0
	1.6s		400.00nm		5.8mb
GUD	25.37	288	e(P)	12 20.50	0.0
ASMO	25.37	280	eP	12 20.00	-0.6
APHE	25.40	280	eP	12 25.00	4.2X
ACHM	25.48	280	eP	12 24.00	2.5
ATEJ	25.66	280	eP	12 27.00	3.7X
AAPN	25.68	280	eP	12 24.20	0.8
ALOJ	25.70	280	eP	12 25.00	1.4
SUF	25.75	358	eP	12 23.00	-0.7
NRA0	25.97	341	P	12 25.40	-0.4
NAO	26.23	341	P	12 26.00	-2.2
	1.2s		45.30nm		5.0mb
LIJA	26.77	280	iP	12 32.00	-1.4
SRQ	26.86	279	iP	12 33.00	-1.[illegible]

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EJIF	26.90	279	e(P)	12 35.50	1.0
ALJ	26.96	280	iP	12 33.50	-1.7
EKA	28.04	321	P	12 42.00	-2.7
	1.2s	61.10nm		5.3mb	
EBL	28.19	322	eP	12 43.50	-2.5
EDI	28.33	322	eP	12 45.20	-2.1
	1.0s	94.00nm		5.5mb	
EDU	28.55	323	ePd	12 46.50	-2.8X
	0.9s	93.00nm		5.6mb	
ELO	28.85	323	ePc	12 50.30	-1.7
	1.0s	94.00nm		5.5mb	
DLE	29.02	315	eP	12 53.80	0.3
DMU	29.44	316	eP	12 57.20	-0.1
DCN	29.46	315	eP	12 58.50	1.0
SOD	30.40	359	iP	13 07.80	2.1
KEV	32.79	359	iP	13 28.60	2.0
	1.0s	52.00nm		5.4mb	
		eS	18 52.00		
QUE	32.83	90	eP	13 27.00	-0.7
BNG	33.62	198	iPd	13 32.90	-1.5
	0.6s	67.00nm		5.7mb	
		id	13 36.80		
		id	15 04.60		
KSH	37.28	71	eP	14 01.50	-4.0X
N	10s	0.80um			
LWI	39.07	179	iPc	14 24.90	4.1X
KUK	40.26	227	eP	14 27.00	-3.4X
KOGH	40.27	227	eP	14 31.00	0.5
SHGH	40.27	227	eP	14 30.50	0.0
LEGH	40.58	227	eP	14 30.00	-3.0X
NDI	41.64	87	iPc	14 42.50	0.8
	0.6s	100.00nm		5.7mb	
KBS	42.53	355	eP	14 50.80	2.5
KIC	42.80	233	P	14 49.74	-1.5
LIC	43.09	233	P	14 52.10	-1.5
DAG	44.82	346	eP	15 07.00	0.1
WMO	44.96	62	P	15 09.50	0.9
Z	16s	1.70um		5.1MszX	
E	12s	0.80um			
		ScS	25 07.50		
GKN	47.85	84	P	15 31.20	-0.5
HYB	48.26	100	eP	15 34.50	-0.4
	1.0s	35.00nm		5.4mb	
DMN	48.40	84	P	15 35.60	-0.5
KKN	48.45	84	P	15 36.20	-0.3
PKI	48.65	84	P	15 37.40	-0.8
GUN	48.88	83	P	15 39.20	-0.7
KMZ	50.26	183	iP	15 51.60	1.4
		i		15 58.80	
PTZ	51.09	176	iP	15 56.40	0.0
		i		15 59.20	
		i		16 11.00	
KOD	51.71	108	eP	16 06.00	4.5X
LSZ	52.02	180	eP	16 05.00	1.5
		e		16 12.00	
LSA	52.26	79	P	16 05.70	-0.1
NPA	52.87	167	eP	16 15.40	5.6X
GDH	53.03	334	ePc	16 11.00	0.6
	0.9s	31.93nm		5.3mb	
		e	28 05.00		
ALE	53.60	351	eP	16 14.00	-0.5
	0.8s	9.00nm		4.8mb	
GTA	54.94	64	eP	16 25.00	0.0
BUL	56.86	180	eP	16 38.30	-0.6
AVY	58.62	158	iPc	16 53.06	1.7
LZH	59.19	66	eP	16 55.00	-0.3
	1.0s	38.00nm		5.5mb	
Z	18s	1.20um		5.1Msz	
		(S)	28 38.00		
FRB	60.31	329	eP	16 59.00	-3.3X
	1.0s	68.00nm		5.7mb	
CD2	61.46	71	eP	17 10.00	-0.7
BTO	61.63	59	P	17 14.00	2.2
N	15s	0.50um			
E	15s	0.50um			
		eS	25 36.00		
SLR	62.43	180	iPd	17 17.50	0.4
	0.4s	29.66nm		5.8mb	
Z	20s	3.19um		5.5Msz	
HHC	62.57	58	eP	17 18.00	-0.1
KMI	63.49	78	Pc	17 25.00	0.5
CHTO	63.77	86	eP	17 24.50	-1.7
	1.2s	13.89nm		5.0mb	
XAN	63.83	66	eP	17 22.50	-3.9X
TIY	64.61	61	eP	17 31.20	-0.3
Z	20s	0.88um		4.9Msz	
E	13s	0.30um			
		S	26 15.50		
MBC	65.13	352	eP	17 33.00	-1.2
	1.0s	20.00nm		5.2mb	
GYA	65.86	74	P	17 39.00	-0.7
BJI	66.06	57	eP	17 40.50	-0.2
Z	18s	0.95um		5.0Msz	
		eS	26 32.00		
NST	66.43	88	eP	17 46.50	3.1X
LOE	66.76	85	eP	17 45.00	-0.4
NNT	67.85	91	eP	17 52.00	-0.4
TIA	68.62	60	eP	17 57.40	0.5
WHN	69.55	67	eP	18 02.50	-0.2
SNY	69.99	52	eP	18 04.90	-0.3
CN2	70.11	50	eP	18 05.00	-0.9
Z	20s	1.30um		5.2Msz	
		eS	27 16.00		
NJ2	72.02	63	Pc	18 18.20	0.6
PSI	73.04	100	ePc	18 25.00	1.2
INK	74.09	353	eP	18 28.00	-1.1
SSE	74.21	63	P	18 32.00	1.6
	1.5s	64.00nm		5.4mb	
N	24s	0.10um			
		esS	28 04.00		
YKC	76.38	343	eP	18 42.00	-0.3
	1.0s	15.00nm		5.0mb	
YKA	76.40	343	P	18 41.70	-0.7
FBA	78.36	358	P	18 53.50	0.4
	1.0s	20.00nm		5.1mb	
FFC	79.10	333	eP	18 55.00	-2.4
	1.1s	35.00nm		5.3mb	
MAT	82.26	50	(P)	19 16.00	1.5
EDM	84.13	338	eP	19 22.00	-1.8
SES	85.82	335	eP	19 25.00	-7.4X
	1.4s	88.00nm		5.8mb	
BAO	88.64	249	eP	19 44.00	-2.5X
PNT	89.41	340	eP	19 50.00	0.3
LRM	90.23	334	eP	19 53.80	-0.1
UYO	91.30	316	ePc	19 59.10	0.4
BW06	91.74	330	P	20 00.00	-0.9
	1.2s	6.85nm		4.9mb	
WDC	98.23	338	eP	20 21.20	-9.0X
ORV	98.85	337	e(P)	20 27.40	-5.6X
CMB	99.86	335	eP	20 36.30	-1.5
FRI	100.57	334	e(Pdif	20 40.00	-0.7
CTA	123.97	91	ePKP	25 51.00	-0.9
S.D. = 1.2		on 249 of 303 obs.			

APR 27, 1989 23h 23m 20.32± 0.73s
37.106 N ± 6.5km 27.881 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	1.38	339	iPn	23 46.50	0.9
KAP	1.65	200	eP	23 48.80	-0.7
		eS	24 10.00		
ELL	1.66	102	iPn	23 50.30	0.5
KSL	1.69	125	eP	23 50.50	0.5
KHL	1.78	46	iPn	23 51.00	-0.4
ALT	2.62	41	ePn	24 03.00	-0.5
EZN	2.98	336	ePn	24 09.00	0.6
EDC	3.24	360	ePn	24 11.20	-0.9
S.D. = 0.8		on 8 of 8 obs.			

? APR 27, 1989 23h 29m 48.71± 1.22s
30.149 N ±23.0km 140.067 E ±15.1km
DEPTH = 33.0km (normal)
4.7mb (3 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT	6.56	347	(P)	31 26.00	0.6
	1.3s	63.46nm		5.3mb X	
BJI	21.84	303	eP	34 42.00	2.0
KKN	47.60	281	PKP	38 24.00	0.2
MBC	63.44	15	eP	40 16.00	-1.0
YKA	70.35	28	eP	41 00.80	0.0
SUF	73.64	334	iP	41 18.80	-1.5
WDC	76.18	51	eP	41 36.10	0.8
SES	78.20	38	eP	41 39.00	-7.4X
CMB	78.86	53	eP	41 51.20	0.9
HFS	79.89	336	eP	41 54.00	-1.3
	1.4s	12.50nm		4.7mb	
LRM	79.91	43	eP	41 56.90	0.9
FFC	80.13	31	eP	41 57.00	0.3
	0.8s	9.00nm		4.8mb	
NAO	80.38	337	P	41 56.20	-1.7
	0.9s	3.70nm		4.4mb	
ZOBO	150.74	68	PKP	49 41.40	6.8X
Z	22s	0.30um		5.1Msz	
		LR	56 24.00		
LPB	150.90	69	PKP	49 42.00	7.3X
CNCB	151.14	69	ePKP	49 41.00	5.8X
S.D. = 1.3		on 12 of 16 obs.			

APR 27, 1989 23h 45m 19.15± 0.81s
37.041 N ± 6.8km 28.043 E ± 9.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.21	64	ePg	45 23.70	-0.1
IZM	1.49	336	iPn	45 46.10	0.1
ELL	1.52	101	iPn	45 51.00	4.4X
KAP	1.64	206	ePg	45 49.00	0.8
		eSb	46 10.00		
KHL	1.74	42	iPn	45 51.00	1.4
ALT	2.59	38	ePn	46 02.00	0.1
DST	2.60	10	ePn	46 02.60	0.6
EZN	3.09	335	ePn	46 08.40	-0.4
EDC	3.30	358	iPn	46 11.30	-0.6
BNT	3.31	358	iPn	46 11.30	-0.8
PRNI	8.84	137	eP	47 27.00	-2.9
		eS	49 02.00		
MBH	9.23	140	eP	47 37.00	1.8
		eS	49 03.00		
S.D. = 1.4		on 11 of 12 obs.			

? APR 28, 1989 00h 07m 53.57±15.91s
13.311 N ±77.1km 60.365 W ±106.km
DEPTH = 10.0km (geophysicist)
WINDWARD ISLANDS (95)
ML 2.9 (FDF).

SVV	0.83	271	iP	08 09.86	0.3
		eS	08 21.44		
SVB	0.86	268	eP	08 09.96	-0.3
		eS	08 21.58		
MVM	1.34	337	iPd	08 18.55	0.3
		S	08 36.20		
BIM	1.38	330	eP	08 18.76	-0.1
FDF	1.61	332	eP	08 21.93	-0.2
		S	08 41.90		
S.D. = 0.4		on 5 of 5 obs.			

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* APR 28, 1989 00h 09m 55.43± 1.13s
37.094 N ± 8.2km 27.826 E ±13.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	1.38	341	iPn	10 25.20	4.5X
KAP	1.63	199	ePn	10 24.00	-0.2
		eSn	10 46.00		
ELL	1.70	101	iPn	10 26.10	0.6
KSL	1.72	124	ePn	10 25.50	0.0
KHL	1.82	47	iPn	10 27.00	-0.1
DST	2.59	14	ePn	10 39.00	0.9
ALT	2.66	42	ePn	10 38.00	-1.2
S.D. = 1.0		on 6 of 7 obs.			

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* APR 28, 1989 00h 11m 48.76± 1.02s
37.098 N ± 9.1km 27.791 E ±11.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	1.36	342	ePn	12 14.50	0.7
KAP	1.62	198	ePn	12 17.00	-0.5
		eSn	12 38.50		
ELL	1.73	101	ePn	12 20.00	0.8
KSL	1.74	124	ePn	12 19.40	0.2
KHL	1.84	48	ePn	12 19.50	-1.2
S.D. = 1.2		on 5 of 5 obs.			

? APR 28, 1989 00h 14m 43.06± 0.96s
36.984 N ± 9.9km 27.878 E ±10.9km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)

IZM	1.49	341	ePn	15 10.00	0.0
KAP	1.54	202	ePb	15 10.50	-0.1
		eSb	15 31.50		
KSL	1.62	122	ePn	15 12.00	0.3
ELL	1.65	98	ePn	15 12.00	-0.2
KHL	1.87	44	ePn	15 11.00	-4.4X
S.D. = 0.3		on 4 of 5 obs.			

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* APR 28, 1989 00h 26m 34.56± 1.03s

37.127 N ± 9.2km 28.009 E ±10.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.22	88	iPg	26 38.20	-1.1
IZM	1.40	335	ePn	27 01.00	0.8
ELL	1.57	103	ePn	27 04.00	1.4
KSL	1.62	128	ePn	27 04.00	0.8
KHL	1.69	45	iPn	27 05.00	0.6
KAP	1.71	203	ePn	27 03.60	-1.0
			eSn	27 25.60	
ALT	2.54	40	ePn	27 15.00	-1.6

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

% APR 28, 1989 00h 46m 31.16± 2.30s
37.138 N ±21.6km 27.988 E ±14.6km
DEPTH = 5.0km (geophysicist)
TURKEY (366)

YER	0.24	91	iPg	46 34.70	-1.3
IZM	1.38	336	ePn	46 56.50	-0.6
ELL	1.59	104	ePn	47 01.00	0.9
KHL	1.70	45	iPn	47 01.50	-0.2
ALT	2.54	41	ePn	47 15.00	1.2
EZN	2.98	335	ePn	47 20.00	0.0

S.D. = 1.2 on 6 of 6 obs.

• APR 28, 1989 00h 56m 51.43± 0.74s
36.424 N ±23.4km 71.359 E ±14.4km
DEPTH = 33.0km (normal)
4.2mb (4 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

MAIO	9.57	273	eP	59 11.00	0.9
			eS	00 51.00	
GKN	14.02	123	P	00 10.40	0.4
	0.5s		20.00nm	5.1mb	
KKN	14.59	122	P	00 17.30	-0.3
	0.4s		5.00nm	4.3mb	
PKI	14.82	123	P	00 20.70	0.0
	0.5s		5.00nm	4.1mb	
GUN	14.93	121	P	00 21.70	-0.4
ZST	41.01	304	eP	04 30.50	-2.3
NAO	44.78	323	P	05 03.60	0.2
	0.9s		1.60nm	3.9mb	
YKA	81.31	3	P	09 06.80	1.4

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

• APR 28, 1989 01h 10m 49.45± 0.95s
37.091 N ± 8.2km 27.909 E ± 9.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.30	81	iPg	10 54.10	-1.7
IZM	1.40	339	ePn	11 15.50	0.4
ELL	1.64	101	iPn	11 20.30	1.8
KAP	1.65	201	eP	11 18.00	-0.5
			eS	11 39.00	
KHL	1.78	46	iPn	11 20.50	0.0
DST	2.57	12	ePn	11 32.10	0.2
ALT	2.62	41	ePn	11 33.20	0.6
EZN	3.00	336	ePn	11 35.00	-2.9X
EDC	3.25	359	ePn	11 40.70	-0.8

S.D. = 1.2 on 8 of 9 obs.

APR 28, 1989 01h 18m 48.86± 0.48s
37.021 N ± 4.0km 28.013 E ± 4.5km
DEPTH = 19.3 ± 4.5 km
4.3mb (6 obs.)
TURKEY (366)
ML 4.0 (ATH). Felt at Mugla and Izmir.

YER	0.24	62	iPg	18 54.10	-0.6
IZM	1.50	337	iPn	19 15.50	0.7
ELL	1.54	100	iPn	19 18.00	2.4
KAP	1.62	205	ePb	19 17.80	1.3
			e	19 19.50	
KHL	1.77	42	iPn	19 20.00	1.2
PRK	2.61	329	ePn	19 31.50	0.7
ALT	2.62	39	iPn	19 32.70	1.6
DST	2.63	10	iPn	19 31.30	0.2
EZN	3.10	335	ePn	19 37.40	-0.3
EDC	3.32	358	iPn	19 40.60	-0.3
ATH	3.55	287	ePn	19 45.50	1.4
HRT	4.01	18	ePn	19 50.00	-0.6
ISK	4.12	11	ePn	19 52.00	-0.2
RDO	4.55	336	ePn	19 58.80	0.5
BBTK	4.67	51	iPc	20 02.50	2.3
DMK	4.80	358	iPn	20 00.20	-1.7
KDZ	5.04	337	iPc	20 05.00	-0.3
RZN	5.31	332	eP	20 09.00	-0.3
MMB	5.64	325	iPd	20 14.00	0.2
KKB	6.16	323	eP	20 22.00	0.9
PVL	6.52	342	eP	20 25.00	-1.1
HRI	7.35	118	eP	20 37.00	-0.9
KOT	7.76	155	ePn	20 43.00	-0.5
			S	22 03.50	
JVI	7.90	128	eP	20 44.00	-1.5
			eS	22 10.00	
BURJ	7.99	125	P	20 46.20	-0.5
SALJ	8.06	126	P	20 48.90	1.0
MLR	8.61	350	ePc	20 54.50	-0.9
VRI	8.89	354	eP	20 58.00	-1.3
MBH	9.23	140	iPd	21 03.00	-0.9
KHC	16.02	324	P	22 42.00	7.4X
MDX	17.98	324	e(P)	23 05.00	5.8X
LPG	18.05	305	eP	23 07.10	6.7X
	0.9s		7.20nm	3.8mb	
CDF	18.95	313	eP	23 12.00	0.7
	0.9s		6.50nm	3.9mb	
SMF	20.35	306	eP	23 25.90	-0.8
	1.2s		38.60nm	4.6mb	
LBF	20.38	307	eP	23 26.30	-0.7
LOR	20.55	307	eP	23 29.60	0.8
SSF	20.71	307	eP	23 31.40	1.0
AVF	20.71	306	eP	23 29.70	-0.7
	1.2s		20.80nm	4.4mb	
BGF	20.97	305	eP	23 32.90	-0.2
	0.9s		10.40nm	4.2mb	
BNG	33.57	197	ePd	25 30.10	0.2
	0.4s		4.00nm	4.7mb	

S.D. = 1.1 on 37 of 40 obs.

? APR 28, 1989 01h 23m 40.80± 1.79s
37.177 N ±14.1km 27.794 E ±16.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	1.29	341	ePn	24 11.00	6.3X
KAP	1.70	197	ePn	24 10.60	0.0
			eSn	24 32.00	
ELL	1.75	104	ePn	24 11.30	-0.2
KHL	1.79	50	ePn	24 12.00	0.0
KSL	1.79	126	ePn	24 12.00	0.1

S.D. = 0.2 on 4 of 5 obs.

• APR 28, 1989 01h 59m 53.65± 1.05s
37.074 N ± 9.7km 27.934 E ± 9.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.29	78	iPg	59 58.10	-1.6
IZM	1.42	338	ePn	00 20.00	0.4
ELL	1.62	101	ePn	00 24.00	1.6
KSL	1.63	125	ePn	00 23.00	0.5
KAP	1.64	202	ePb	00 21.80	-0.8
			eSb	00 43.00	
KHL	1.77	45	ePn	00 24.50	-0.1

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

APR 28, 1989 02h 34m 25.31± 0.56s
17.830 N ± 7.9km 105.174 W ± 4.6km
DEPTH = 10.0km (geophysicist)
5.3mb (20 obs.) 5.2Msz (6 obs.)
OFF COAST OF JALISCO, MEXICO (54)
Ms 5.6 (BRK), 5.1 (PAS).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 37C
Centroid Location:
Origin Time 02:34:27.1 0.3
Lat 17.96N 0.04 Lon 105.22W 0.04
Dep 15.0 FIX Half-duration 2.5
Moment Tensor; Scale 10**17 Nm
Mrr=-0.30 0.09 Mtt=-1.79 0.11
Mff= 2.10 0.13 Mrt= 0.61 0.29
Mrf= 0.75 0.36 Mtf=-2.38 0.09
Principal Axes:
T Val= 3.28 Plg= 7 Azm=246
N -0.08 72 357
P -3.19 17 153
Best Double Couple:Mo=3.2*10**17
NP1:Strike=291 Dip=73 Slip=-173
NP2: 198 83 -17

COLM	1.95	46	iP	34 57.00	-1.8
MRX	4.21	63	iP	35 32.00	1.1
AGX	4.85	33	iP	35 42.00	1.9
ACX	5.17	100	iP	35 43.50	-1.1
CRX	5.44	72	iP	35 49.00	0.2
III	5.45	83	iP	35 48.00	-0.9
MZX	5.47	348	iP	35 47.50	-1.3
UNM	5.87	74	eP	35 55.50	0.7
IIC	5.93	70	iP	35 54.70	-0.9
IIT	6.62	79	eP	36 05.00	-0.4
OXX	8.10	94	eP	36 25.50	-0.5
ALQ	17.08	356	iPd-	38 27.90	1.9
	1.5s		163.19nm	4.9mb	
			eS	41 44.00	
GLA	17.47	332	eP	38 32.00	1.3
BAR	18.05	327	eP	38 39.00	1.0
PLM	18.69	328	eP	38 46.00	0.1
UYO	18.88	28	eP	38 46.90	-1.2
TPC	18.91	331	eP	38 50.00	1.6
PEC	19.26	328	P	38 53.00	0.1
VVO	19.35	24	ePc	38 52.80	-1.1
RVR	19.45	328	eP	38 55.00	-0.1
SIO	19.50	22	eP	38 54.10	-1.5
MWC	19.98	327	eP	39 01.00	0.0
PAS	19.98	327	eP	39 02.00	1.2
			ePg	39 26.00	
			eLg	42 50.00	
			ePcP	43 16.00	
			eLR	44 16.00	
SBB	20.23	329	eP	39 03.00	-0.5
GSC	20.24	332	eP	39 04.00	0.4
RLO	20.35	24	iP	39 05.30	0.6
CLC	21.03	331	eP	39 12.00	0.3
SYP	21.24	324	eP	39 07.00	-7.0X
ISA	21.33	329	eP	39 15.00	0.3
OLY	21.40	32	P	39 15.30	-0.1
MSU	21.50	345	P	39 17.20	0.6
BCH	21.79	325	P	39 19.40	0.0
GOL	21.79	360	P	39 19.00	-0.7
	1.4s		97.91nm	5.0mb	
GLD	21.84	360	P	39 20.90	0.8
GCM	22.60	83	eP	39 28.85	1.4
TNP	22.77	335	P	39 29.90	0.6
	1.6s		163.58nm	5.3mb	
PRI	22.82	326	eP	39 29.90	0.2
PWLA	22.89	38	P	39 31.20	1.0
FRI	22.99	329	eP	39 30.80	-0.3
DUG	23.25	345	P	39 35.40	1.5
LLA	23.32	326	eP	39 34.40	-0.1
PRS	23.34	325	eP	39 34.60	0.0
MNA	23.45	334	e(P)	39 37.30	1.4
EUR	23.53	339	iP	39 38.00	1.3
	1.1s		28.05nm	4.7mb	
FVM	23.88	30	P	39 40.50	0.7
ELC	23.92	33	P	39 41.20	1.0
KVN	23.95	335	P	39 42.00	1.2
CMB	24.14	330	ePd	39 42.30	-0.1
MHC	24.24	327	eP	39 43.60	0.1
			ePP	40 23.00	
			e	42 34.00	
			eS	44 04.00	
			e	44 15.00	
			eLR	46 25.00	
RSCP	24.81	41	P	39 49.60	0.7
	0.8s		62.32nm	5.3mb	
	Z 20s		3.95um	4.9Msz	
BKS	24.95	327	eP	39 50.20	0.0
	1.6s		138.00nm	5.4mb	
	Z 20s		16.00um	5.5Msz	
	N 20s		12.00um		
	E 20s		11.00um		
			eS	44 28.80	
			eLQ	45 40.40	
			eLR	46 34.00	
BW06	25.15	352	P	39 52.00	-0.3
ORV	25.87	330	eP	39 58.30	-0.6
PRM	26.03	47	P	40 01.40	0.9
UPA	26.42	106	eP+	40 04.30	0.2
	1.2s		46.88nm	5.1mb	
	Z 20s		3.01um	4.8Msz	
			i	45 04.80	
HPI	26.66	347	P	40 06.40	0.0
WDC	27.17	330	e(P)	40 08.20	-2.6
LRM	28.56	349	ePd	40 23.70	0.0
BLA	29.09	43	P	40 28.00	-0 ?

28d 02h

	1.3s	135.14nm			5.6mb	
CBN	31.65	44	eP	40	55.25	4.4X
LON	31.95	338	P	40	52.50	-1.0
PSO	31.97	118	eP	40	55.50	1.1
SES	32.83	353	eP	41	06.00	4.9X
BOG	33.14	110	eP	41	10.00	5.5X
			iS	46	34.00	
PNT	33.51	343	ePd	41	06.00	-1.0
RSON	34.20	13	P	41	10.00	-3.0X
	1.0s	45.00nm			5.3mb	
Z	20s	5.65um			5.3Msz	
INY	34.60	39	P	41	30.00	13.5X
EDM	35.89	352	ePd	41	26.00	-1.4
FFC	36.91	3	iPd	41	34.50	-1.4
	1.3s	116.00nm			5.5mb	
RSNY	36.99	37	P	41	35.00	-1.7
	1.4s	91.82nm			5.4mb	
GAC	37.16	35	eP	41	38.50	0.4
BNH	38.95	39	P	41	54.70	1.5
CBM	42.05	38	P	42	19.90	1.3
YKC	45.07	354	ePd	42	41.50	-1.5
	1.0s	35.00nm			5.2mb	
YKA	45.10	354	eP	42	42.60	-0.6
SCH	47.13	29	eP	43	00.00	0.6
ARE	47.56	134	e(P)	43	16.00	12.5X
HON	49.72	283	P	43	30.00	10.1X
Z	20s	3.19um			5.3Msz	
FRB	52.22	20	eP	43	36.00	-2.4
PMR	53.47	336	P	43	45.80	-1.9
	1.8s	81.02nm			5.4mb	
Z	20s	1.50um			5.0Msz	
INK	53.54	347	ePd	43	46.30	-1.8
	0.8s	31.00nm			5.3mb	
TTA	56.92	335	P	44	11.00	-1.8
	1.2s	32.20nm			5.2mb	
MBC	58.90	356	ePd	44	24.70	-1.7
	1.3s	72.00nm			5.6mb	
BAO	65.42	117	eP	45	10.00	-1.0
PPD	65.94	125	eP	45	11.60	-2.5X
ALE	66.83	6	eP	45	17.00	-1.9
	1.3s	34.00nm			5.4mb	
ITR	71.00	106	eP	46	00.10	14.4X
ITA	71.38	122	eP	45	53.10	4.8X
DAG	71.95	14	eP	45	49.00	-1.4
Z	17s	2.93um			5.6MszX	
DMU	80.54	36	eP	46	38.00	-1.2
EKA	82.16	34	Pc	46	48.40	0.8
	2.7s	174.50nm			5.7mb	
NAO	86.52	26	P	47	09.60	0.0
	1.3s	8.80nm			4.8mb	
TOL	86.97	49	eP	47	30.00	17.8X
			eS	57	55.00	
APO	87.97	26	eP	47	17.40	0.9
	1.5s	27.70nm			5.4mb	
GRF	92.50	36	e(P)	47	39.60	1.7
KHC	94.10	35	eP	47	47.70	2.3
ZST	96.56	35	eP	47	58.00	1.4
SRO	97.44	35	eP	48	02.60	2.1
WB5	123.87	258	ePKP	53	23.20	-2.8X
SNG	144.42	312	ePKP	54	05.00	0.6
HYB	144.78	354	ePKP	54	04.00	-1.0
S.D. = 1.2		on	88	of	101	obs.

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* APR 28, 1989 02h 43m 44.32± 0.98s
37.102 N ± 8.5km 27.944 E ± 9.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.27	83	ePg	43	48.50	-1.6
IZM	1.40	338	ePn	44	10.50	0.6
ELL	1.61	102	ePn	44	13.30	0.3
KSL	1.64	126	ePn	44	15.00	1.7
KAP	1.67	202	ePb	44	12.70	-1.0
			eSb	44	33.80	
KHL	1.75	45	iPn	44	15.50	0.6
DST	2.56	12	ePn	44	26.00	-0.5
S.D. = 1.4		on	7	of	7	obs.

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* APR 28, 1989 02h 46m 14.03± 1.03s
37.075 N ± 8.6km 27.933 E ±10.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.29	78	iPg	46	18.00	-2.0
IZM	1.42	338	iPn	46	39.70	-0.3
ELL	1.62	101	ePn	46	44.30	1.5
KSL	1.64	125	ePn	46	44.00	1.1
KAP	1.64	202	ePn	46	42.00	-1.0
KHL	1.77	45	iPn	46	44.50	-0.5
DST	2.58	12	ePn	46	58.00	1.4
ALT	2.62	40	ePn	46	57.00	-0.2
S.D. = 1.5		on	8	of	8	obs.

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* APR 28, 1989 02h 52m 34.59± 1.53s
39.334 N ±12.9km 23.490 E ± 8.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

NEO	0.21	262	ePg	52	37.30	-1.9
PAIG	0.61	14	iPgc	52	46.70	-0.2
			iSg	52	57.30	
PLG	1.04	358	ePb	52	53.30	-0.9
OUR	1.07	21	ePbd	52	54.20	-0.5
LIT	1.09	315	ePb	52	55.30	0.3
			eSb	53	12.10	
SOH	1.49	356	ePbd	53	00.70	-0.7
KZN	1.64	307	ePg	53	04.50	0.8
GRG	1.82	333	ePbc	53	06.10	-0.1
			eSb	53	29.70	
KNT	1.88	346	ePnd	53	06.70	-0.4
			eSn	53	34.30	
EZN	2.25	76	ePn	53	13.00	0.7
OHR	2.72	312	eP	53	22.00	2.8
S.D. = 1.3		on	11	of	11	obs.

? APR 28, 1989 03h 05m 53.16± 2.53s
37.150 N ±24.2km 28.029 E ±18.0km
DEPTH = 5.0km (geophysicist)
TURKEY (366)

YER	0.20	94	iPg	05	56.90	-0.4
IZM	1.39	334	ePn	06	19.00	-0.2
ELL	1.56	104	ePn	06	22.00	0.3
KHL	1.67	45	iPn	06	23.50	0.3
S.D. = 0.6		on	4	of	4	obs.

APR 28, 1989 03h 12m 10.00± 0.98s
37.100 N ± 8.7km 27.953 E ± 9.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.27	82	iPg	12	13.40	-2.2
IZM	1.41	337	ePn	12	35.50	-0.2
ELL	1.61	102	ePn	12	40.30	1.7
KSL	1.64	126	eP	12	40.00	1.1
KAP	1.67	202	eP	12	38.50	-0.9
			eS	13	00.00	
KHL	1.74	45	ePn	12	39.50	-1.1
PRK	2.52	329	eP	13	01.00	9.4X
DST	2.56	12	ePn	12	54.00	1.8
ALT	2.59	40	ePn	12	53.00	0.3
EZN	3.01	335	ePn	12	58.00	-0.5
S.D. = 1.6		on	9	of	10	obs.

? APR 28, 1989 03h 33m 08.59± 0.77s
56.244 S ±23.8km 142.035 W ±13.6km
DEPTH = 10.0km (geophysicist)
4.7mb (2 obs.) 5.3Msz (1 obs.)
SOUTH PACIFIC CORDILLERA (691)

SPA	33.93	180	e(P)	39	53.70	0.0
	1.0s	14.00nm			4.8mb	
Z	18s	5.10um			5.3Msz	
			i	40	20.50	
CTA	63.39	273	iPc	43	45.10	4.8X
			iS	52	23.00	
CNCB	67.33	86	eP	44	10.00	3.5X
ASPA	67.41	261	eP	44	06.10	-0.1
Z	22s	3.21um			5.5MszX	
			LR	08	42.70	
LPB	67.49	86	eP	44	08.00	0.7
ZOBO	67.69	86	eP	44	08.00	-0.7
			LR	53	28.00	
CCH	67.90	88	P	44	13.20	3.5X
WRA	70.14	264	Pc	44	22.90	-0.2
	0.6s	2.40nm			4.5mb	
WB5	70.18	264	eP	44	23.70	0.4
PPD	72.37	103	eP	44	39.80	3.3X
ITR	90.25	106	eP	46	06.50	-4.2X
PKI	135.82	250	PKP	52	37.00	5.8X
ALE	144.03	13	ePKP	52	50.00	6.0X
QUE	146.92	230	ePKP	52	59.60	9.0X
MAIO	155.30	225	ePKP	53	19.00	16.4X
S.D. = 0.6		on	6	of	15	obs.

APR 28, 1989 03h 54m 31.82± 0.62s
23.523 S ± 5.3km 68.008 W ± 6.5km
DEPTH = 121.8 ± 6.5 km
4.8mb (7 obs.)
NORTHERN CHILE (123)

ANT	2.22	265	iPc	55	08.00	-0.6
			iS	55	29.90	
SLA	2.59	118	ePc	55	18.30	4.7X
			S	55	40.50	
CYA	5.29	158	ePd	55	51.90	2.1
CCH	6.35	16	P	56	04.70	0.0
			S	56	46.00	
CNCB	6.68	0	iPd	56	10.20	0.8
LPB	6.95	359	Pd	56	14.00	1.0
	0.9s	75.63nm			5.2mb	
			eS	57	10.00	
ZOBO	7.22	359	Pd	56	16.10	-0.6
ARE	7.75	334	eP	56	19.00	-4.7X
			iS	57	44.90	
ZON	8.01	184	e(P)	56	25.00	-2.0
JACH	9.40	193	eP	56	45.70	0.0
PEL	9.87	193	eP	56	47.70	-4.2X
			eS	58	36.50	
RFA	11.22	182	ePd	57	07.20	-2.5X
ITB1	12.49	98	eP	57	35.60	9.2X
ITB	12.66	99	e(P)	57	37.00	8.3X
ITB7	12.71	100	e(P)	57	36.70	7.3X
PPD	15.47	88	eP	58	08.70	4.0X
BAO	20.41	71	eP	59	00.00	-1.4
ITA	21.49	92	eP	59	12.80	0.5
BMA	21.95	93	iPd	59	17.50	0.9
ATB	25.25	40	Pd	59	47.20	-1.0
ITR	31.89	67	eP	00	45.80	-1.9
			e	00	48.00	
JSC	58.85	347	iP	04	19.00	-0.8
UYO	62.64	335	iPc	04	45.30	-0.1
FVM	64.71	341	iP	04	57.20	-1.7
	1.0s	65.00nm			5.5mb	
RSNY	68.00	355	iP	05	19.80	0.2
	1.0s	14.10nm			4.8mb	
LIC	68.17	73	P	05	21.60	0.3
KIC	68.49	73	P	05	23.38	0.1
ALO	68.64	327	iPd	05	24.00	0.0
	0.9s	15.13nm			4.8mb	
GLA	71.81	320	eP	05	44.00	0.9
GOL	71.92	330	iP	05	44.00	0.1
	1.0s	15.50nm			4.8mb	
KUK	72.26	75	eP	05	47.00	0.9
BAR	72.66	318	eP	05	49.00	0.9
TPC	73.28	320	eP	05	50.00	-1.7
RVR	73.99	319	eP	05	56.00	0.3
SBB	74.74	319	eP	06	01.00	0.9
CLC	75.38	320	eP	06	03.00	-0.8
ISA	75.79	320	eP	06	07.00	0.9
BW06	76.28	330	iP	06	08.50	-0.4
TNP	76.74	322	eP	06	12.10	0.6
	0.9s	6.84nm			4.4mb	
RSON	77.45	344	iP	06	14.10	-0.8
	1.0s	16.81nm			4.8mb	
KVN	77.91	322	iP	06	19.00	1.1
FRB	86.98	360	eP	07	04.00	0.3
YKA	93.36	340	P	07	34.70	1.1
S.D. = 1.0		on	35	of	43	obs.

APR 28, 1989 04h 02m 37.95± 0.32s
39.277 N ± 2.7km 23.606 E ± 1.9km
DEPTH = 25.1 ± 2.5 km
4.4mb (30 obs.) 4.7Msz (2 obs.)
AEGEAN SEA (365)
ML 4.7 (ATH). Felt at Volos, Greece.

NEO	0.30	276	ePb	02	42.60	-2.4
PAIG	0.65	5	iPgc	02	51.70	1.1
OUR	1.09	15	iPgc	02	58.70	1.0
PLG	1.10	354	ePb	02	58.20	0.4
LIT	1.19	314	iPgc	02	58.90	-0.2
ATH	1.31	176	ePn	03	00.60	0.0
THE	1.44	340	iPbd	03	02.90	0.3
			iSb	03	19.90	
SOH	1.55	353	iPbc	03	05.30	1.0
KZN	1.75	307	ePn	03	06.70	-0.4
SRS	1.84	360	iPnc	03	09.00	0.6
			iSn	03	31.50	
GRG	1.92	332	iPnc	03	09.60	0.1

				iSn	03	32.70		MGR	6.27	280	Pd	04	10.90	-0.3	CLL	14.14	332	e(P)	06	08.00	9.5X
KNT	1.96	344	iPnc	03	11.10	1.0					eSn	05	21.00					e	06	26.00		
EZN	2.17	75	iPn	03	13.00	-0.2		MLR	6.45	15	iPc	04	13.00	-0.8	MOX	14.16	327	e(P)	05	58.00	-0.9	
VAY	2.19	339	iPnc	03	13.20	-0.2		ATN	6.47	263	Pd	04	12.80	-1.2		Z 19s		2.00um				
MMB	2.31	2	iPc	03	15.00	-0.2		SGO	6.51	284	Pd	04	13.50	-1.0		N 16s		2.70um				
RDO	2.38	38	ePn	03	16.00	-0.1		CFR	6.80	28	iPd	04	16.50	-2.1		E 16s		4.40um				
LSK	2.48	292	iPnd	03	18.20	0.6		LPI	6.81	266	P	04	19.50	0.6				LQ	11	40.00		
KBN	2.53	303	iPnc	03	18.70	0.4		BSS	6.92	285	Pd	04	19.90	-0.5				LR	12	00.00		
RZN	2.55	19	iPc	03	19.00	0.2					eSn	05	35.80		HAU	15.21	311	eP	06	12.60	-0.1	
VLS	2.60	246	ePn	03	20.00	0.7		VRI	6.98	18	iPd	04	21.50	0.4		0.6s		9.70nm			4.3mb	
KKB	2.62	351	iPc	03	20.00	0.5		BBTK	7.10	83	ePn	04	26.00	3.1X	MSL	15.71	94	ePd	06	26.00	6.8X	
KDZ	2.74	30	iPc	03	21.00	-0.3					iPg	04	52.00					eS	11	36.00		
OHR	2.82	311	iPnc	03	22.30	-0.2		MNO	7.11	262	P	04	22.00	-1.2				e	12	13.50		
SRN	2.85	283	iPnc	03	25.90	3.2X		MEU	7.17	255	P	04	20.50	-3.5X	PLDF	16.14	301	P	06	26.92	2.2	
PLD	2.95	16	iPd	03	25.00	0.9					eSn	05	37.00		WLF	16.18	316	Pc	06	32.80	7.8X	
TPE	2.95	291	iPnd	03	29.50	5.3X		PZI	7.21	255	P	04	20.00	-4.4X	LBL	16.19	298	P	06	28.78	3.6X	
IZM	2.99	106	iPn	03	25.20	0.4		DUI	7.37	292	Pd	04	25.90	-0.8	SMF	16.21	303	eP	06	27.10	1.6	
DIM	3.13	27	iP	03	28.00	1.2					eSn	05	45.50			0.8s		21.40nm			4.3mb	
BERA	3.15	298	iPnd	03	28.60	1.6		PPE	7.54	22	iPc	04	31.00	2.1	LBF	16.24	305	eP	06	28.70	2.7X	
SKO	3.16	329	iPnc	03	26.80	-0.4		RFI	7.63	288	P	04	29.90	-0.3		0.9s		24.50nm			4.3mb	
	1.5s	1530.00nm						BAC	7.68	17	eP	04	25.00	-5.8X	LOR	16.42	306	eP	06	31.10	2.9X	
N	13s	12.42um						CLI	7.75	19	iPd	04	32.00	0.0		0.8s		12.00nm			4.1mb	
E	12s	25.34um						SDI	7.85	291	P	04	32.60	-0.8	PYM	16.49	300	P	06	32.01	2.9X	
			iPb	03	35.00						eSn	05	55.30		AGO	16.49	301	P	06	31.48	2.4	
			iPg	03	42.00			FAI	8.06	259	P	04	35.80	-0.5	SSF	16.57	305	eP	06	33.40	3.3X	
			iSn	04	15.00			USI	8.14	269	Pd	04	34.50	-2.9X		0.7s		18.00nm			4.3mb	
			iSb	04	27.00			AOU	8.33	295	P	04	43.10	3.0X	AVF	16.58	304	eP	06	32.10	2.0	
			iSg	04	33.00			BMR	8.39	359	ePd	04	40.00	-0.9		0.9s		40.90nm			4.6mb	
			Lg	04	38.00			ZAG	8.62	322	iPn	04	46.50	2.5X	MEM	16.79	318	P	06	38.90	6.1X	
			LR	05	15.00						iSg	07	12.00		BGF	16.83	302	eP	06	35.60	2.2	
PGB	3.30	7	iPc	03	29.00	-0.2		PTJ	8.69	322	ePn	04	42.10	-3.0X		1.0s		68.80nm			4.7mb	
VTS	3.33	355	iPc	03	30.00	0.3		VBY	8.77	318	ePn	04	44.40	-1.6	MAF	16.91	301	eP	06	37.30	2.9X	
VLO	3.38	292	iPnc	03	32.40	2.1					iSn	06	17.40			0.8s		29.50nm			4.5mb	
PHP	3.41	316	iPnc	03	30.40	-0.3		BUD	8.85	339	e(P)	04	46.00	-1.2	ENN	16.93	319	eP	06	37.50	3.0X	
EDC	3.45	71	iPn	03	31.30	0.0		PSZ	9.05	344	ePn	04	20.50	-29.5X		1.5s		64.00nm			4.5mb	
BNT	3.49	71	iPn	03	31.70	-0.3		ARV	9.06	301	P	04	46.60	-3.5X	CAF	16.94	296	eP	06	36.90	2.2	
TIR	3.53	307	ePn	03	33.00	0.6		ASS	9.08	298	P	04	50.80	0.3		1.0s		18.80nm			4.2mb	
LACI	3.79	310	iPn	03	39.50	3.4X		SRO	9.36	338	eP	04	53.80	-0.3	TCF	17.17	301	eP	06	40.30	2.6X	
VAM	3.89	173	ePn	03	37.50	0.0					e	05	47.70			1.0s		30.00nm			4.4mb	
DST	3.90	84	iPn	03	38.00	0.3					e	06	34.80		WTS	17.26	323	eP	06	44.00	5.4X	
JMB	3.90	34	eP	03	36.00	-1.7		CEY	9.36	317	ePn	04	53.40	-0.9	DOU	17.26	315	P	06	43.20	4.5X	
DMK	4.06	50	iPn	03	38.20	-1.7					eSn	06	33.50					S	10	05.00		
BCI	4.09	320	iPn	03	40.50	0.1		LJU	9.50	318	eP	04	55.00	-1.2	RJF	17.39	297	eP	06	43.40	3.0X	
CTT	4.14	62	ePn	03	40.60	-0.5					eS	06	46.80			1.0s		24.00nm			4.3mb	
PVL	4.15	18	iPc	03	39.00	-2.2		KVT	9.69	75	eP	04	58.00	-0.9	LPO	17.50	295	eP	06	44.10	2.3	
SDA	4.15	313	ePn	03	43.50	2.2		TRI	9.70	315	iPnd	04	57.00	-1.9	LSF	17.61	300	eP	06	45.20	2.0	
YER	4.26	119	iPn	03	43.40	0.5					iSn	06	34.40			1.0s		18.80nm			4.2mb	
ULC	4.27	310	ePn	03	43.20	0.3					i	07	35.50		SLY	17.76	95	eP	06	46.50	1.5	
			eSn	04	28.20			VOY	9.83	316	ePc	04	58.00	-2.8X				eS	12	50.00		
PVY	4.31	321	ePn	03	43.50	-0.1					eS	06	45.00		BHD	17.78	103	ePd	06	39.00	-6.2X	
			eSn	04	29.00			ZST	10.08	334	iP	05	03.50	-0.6				e	10	11.50		
LCI	4.48	285	Pc	03	43.60	-2.3		Z	13s		7.50um							eS	13	12.50		
			eSn	04	30.00						e(S)	07	07.20		LFF	17.86	296	eP	06	48.10	1.9	
ISK	4.54	65	ePn	03	46.10	-0.8		FIR	10.29	300	e(Pn)	05	13.50	6.4X		1.0s		32.00nm			4.4mb	
IVA	4.56	323	ePn	03	48.40	1.3					e	06	45.00		MFF	18.82	301	eP	06	59.00	0.9	
			eSn	04	35.00						i	07	12.00			0.9s		16.30nm			4.2mb	
TTG	4.56	315	ePn	03	47.00	0.0		VKA	10.41	332	eP	05	10.00	1.3	LDF	19.39	306	eP	07	03.50	-1.4	
			eSn	04	35.00						LR	11	14.00			0.7s		9.70nm			4.2mb	
KAP	4.68	142	ePn	03	48.50	-0.3		FVI	10.78	316	P	05	10.80	-2.9X	FLN	19.68	307	eP	07	08.80	0.8	
BDV	4.71	311	ePn	03	48.50	-0.7		KBA	10.81	320	iPd	05	11.30	-3.0X		1.0s		36.00nm			4.6mb	
			eSn	04	39.00				0.8s		8.60nm			5.1mb X	GRR	19.79	305	eP	07	08.10	-1.0	
KHL	4.72	100	iPn	03	50.00	0.6					i	05	13.70			1.0s		36.00nm			4.6mb	
GBZT	4.73	70	ePn	03	55.00	5.5X					i(PP)	05	22.90		LPF	19.80	304	eP	07	07.80	-1.4	
			iSg	05	11.00						e	07	04.00			0.6s		11.50nm			4.4mb	
HRT	4.90	70	ePn	03	52.10	0.2					i	07	54.40		EVIA	20.30	276	eP	07	14.00	-0.7	
NKY	4.96	317	ePn	03	53.20	0.4		KRA	11.09	348	eP	05	18.00	0.1	UPP	20.95	352	iP	07	18.70	-2.3	
			eSn	04	46.00				1.3s		77.00nm			5.8mb X	NUR	21.27	1	eP	07	23.00	-1.3	
HCY	5.00	311	ePn	03	52.00	-1.3		KMR	11.13	325	eP	05	19.00	0.5		0.6s		17.00nm			4.7mb	
			eSn	04	45.60						i	05	39.80		Z	21s		1.90um			4.5Msz	
ALT	5.06	90	iPn	03	54.40	0.1					e	08	32.00					LR	16	30.00		
PLE	5.14	323	ePn	03	55.50	0.1		HRI	11.48	118	e(P)	05	24.00	0.6	GUD	21.29	283	e(P)	07	24.50	-0.4	
			eSn	04	50.00			KHC	12.19	327	iPd	05	31.50	-1.3	TOL	21.30	280	eP	07	26.00	1.2	
GPA	5.26	77	iPn	03	56.50	-0.6					i	05	35.50		EBAN	21.38	276	e(P)	07	24.00	-1.7	
BRY	5.27	315	ePn	03	56.50	-0.7		PRU	12.49	332	eP	05	36.00	-0.8	HFS	21.79	347	eP	07	28.50	-1.1	
			eSn	04	53.50			Z	11s		3.90um					1.1s		23.50nm			4.5mb	
BUC	5.46	19	eP	04	00.00	0.3		N	10s		2.00um				NRA0	22.76	345	P	07	38.00	-1.2	
ELL	5.58	115	iP	04	04.30	2.7X		E	15s		5.00um				NAO	22.99	344	P	07	41.00	-0.5	
PSN	5.58	37	iPd	04	00.00	-1.5					e	09	57.50			0.7s		12.60nm			4.6mb	
GRI	5.61	268	P	04	01.40	-0.6		KSP	12.66	338	ePc	05	40.50	1.4	SUF	23.52	3	iP	07	46.70	0.1	
TDS	5.64	276	P	04	01.90	-0.4		PRNI	12.91	130	eP	05	40.00	-2.6X		0.7s		8.00nm			4.4mb	
KSL	5.69	122	ePn	04	05.00	1.9		MBH	13.27	132	eP	05	45.00	-2.2	EKA	24.02	321	Pd	07	51.40	0.0	
BEO	6.02	338	ePn	04	06.50	-1.1		BRG	13.44	333	eP	05	46.80	-2.6X		0.6s		8.50nm			4.5mb	
Z	14s	8.86um						GRF	13.64	324	e(P)	05	50.60	-1.5	DLE	24.88	314	eP	08	01.20	1.4	
			i(Sg)	05	57.00				0.9s		12.00nm			4.8mb	DCN	25.31	314	eP	08	06.90	3.1X	
SOI	6.03	261	P	04	06.00	-1.8		BNI	13.81	300	P	05	55.00	0.5	DMU	25.32	315	eP	08	07.00	3.1X	
GMB	6.16	262	P	04	09.60	-0.1		LPG	13.91	302	eP	05	56.50	0.5	SOD	28.20	2	iP	08	30.40	0.2	
ISR	6.25	19	iPd	04	10.50	-0.4			0.7s		30.80nm			5.2mb X	MAIO	28.40	85	eP	08	38.00	5 5X	

28d 04h

KEV	30.60	2	eP	08 49.00	-2.6X
BNG	34.98	189	iPc	09 29.20	-1.1
	0.2s	32.00nm		5.9mb	X
			ic	10 04.10	
			ic	10 20.70	
KUK	39.41	220	eP	10 13.00	5.5X
KIC	41.55	225	P	10 25.02	-0.1
	0.7s	7.50nm		4.5mb	
LIC	41.82	226	P	10 26.86	-0.5
	0.7s	15.00nm		4.8mb	
GKN	51.18	83	P	11 42.20	0.8
	0.8s	13.00nm		4.9mb	
KKN	51.78	83	P	11 46.60	0.6
GUN	52.18	83	P	11 50.80	1.6
	0.8s	13.00nm		4.9mb	
FRB	56.51	328	eP	12 20.00	0.1
GTA	57.18	64	eP	12 26.20	1.0
SCH	59.26	318	eP	12 40.00	0.6
LZH	61.55	65	(P)	12 49.00	-6.5X
Z	18s	0.70um		4.9Msz	
CD2	64.13	70	eP	13 13.70	1.2
HHC	64.42	57	eP	13 17.80	3.5X
XAN	66.17	65	eP	13 25.50	-0.1
CHG	67.16	84	eP	13 31.70	-0.3
INK	71.37	351	eP	13 57.00	-0.1
YKA	73.16	341	eP	14 08.30	0.5
FBA	75.94	356	P	14 27.00	3.2X
	1.0s	4.00nm		4.4mb	
EDM	80.64	335	eP	14 51.50	1.7
SES	82.22	333	eP	14 45.00	-13.1X
LRM	86.57	331	eP	15 20.90	0.5

S.D. = 1.1 on 151 of 197 obs.

APR 28, 1989 04h 09m 48.46± 0.68s
39.260 N ± 5.8km 23.513 E ± 6.1km
DEPTH = 16.2 ± 5.4 km
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.23	282	ePg	09 54.00	0.2
PAIG	0.68	11	iPgc	10 02.70	1.3
			iSg	10 12.30	
PLG	1.11	357	ePb	10 09.00	0.1
OUR	1.13	18	iPgc	10 09.70	0.5
			iSg	10 24.30	
LIT	1.15	317	iPgc	10 09.90	0.3
			iSg	10 25.10	
ATH	1.30	173	ePb	10 11.50	-0.3
THE	1.43	343	ePb	10 14.10	0.4
			iSb	10 31.50	
SOH	1.56	356	ePb	10 16.20	0.5
KZN	1.70	308	ePb	10 18.00	0.3
SRS	1.86	2	ePn	10 19.80	-0.1
			eSn	10 42.50	
GRG	1.90	334	ePnd	10 20.80	0.3
			eSn	10 43.50	
KNT	1.96	346	ePnc	10 22.00	0.7
			eSn	10 44.50	
PRK	2.14	89	ePn	10 30.00	6.0X
VAY	2.18	341	ePn	10 16.50	-8.1X
EZN	2.25	75	ePn	10 27.00	1.5
MMB	2.33	4	iPc	10 26.00	-0.7
RZN	2.59	20	eP	10 30.00	-0.6
KKB	2.62	353	P	10 30.00	-0.9
KDZ	2.79	31	iP	10 32.00	-1.3
VTS	3.34	356	eP	10 42.00	0.9
EDC	3.52	71	ePn	10 48.00	4.4X

S.D. = 0.8 on 18 of 21 obs.

APR 28, 1989 04h 11m 23.14± 0.66s
39.288 N ± 4.8km 23.489 E ± 7.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.9 (ATH).

NEO	0.21	275	ePg	11 28.00	0.3
PAIG	0.66	13	iPgc	11 37.20	1.0
			iSg	11 47.40	
PLG	1.09	358	ePb	11 43.00	-0.6
OUR	1.11	20	iPgc	11 44.10	0.1
LIT	1.12	317	ePg	11 44.30	0.2
			eSg	12 00.30	
ATH	1.33	172	ePb	11 47.50	-0.1
THE	1.40	343	ePb	11 48.40	-0.3
SOH	1.54	356	ePb	11 50.70	0.1
GRG	1.86	334	ePn	11 55.10	-0.3
			eSn	12 18.30	
KNT	1.93	347	ePn	11 56.60	0.3
			eSn	12 19.20	
VAY	2.15	341	ePn	11 59.50	0.0
KKB	2.59	353	eP	12 05.00	-0.9

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

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* APR 28, 1989 04h 11m 45.62± 1.73s
39.257 N ±14.8km 23.629 E ± 7.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

NEO	0.32	279	ePg	11 51.50	-0.7
PAIG	0.67	3	iPg	12 00.40	1.5
			iSg	12 10.60	
PLG	1.12	353	ePb	12 05.50	-1.2
LIT	1.22	314	ePg	12 09.60	1.3
			eSg	12 23.20	
THE	1.47	340	ePb	12 12.40	0.4
SOH	1.58	352	ePb	12 14.00	0.3
PRK	2.05	89	ePn	12 25.70	5.1X
EZN	2.16	74	ePn	12 23.00	0.9
MMB	2.33	2	eP	12 24.00	-0.6
RZN	2.57	19	eP	12 28.00	-0.1
KDZ	2.75	29	eP	12 29.00	-1.6

S.D. = 1.2 on 10 of 11 obs.

APR 28, 1989 04h 20m 08.22± 1.44s
39.203 N ±12.0km 23.617 E ± 5.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

NEO	0.32	289	ePb	20 14.80	-0.1
PAIG	0.73	4	iPgc	20 23.90	1.4
			iSg	20 34.10	
OUR	1.16	14	iPgc	20 30.90	1.0
PLG	1.18	354	ePn	20 30.00	-0.2
			eSb	20 45.00	
LIT	1.25	316	ePg	20 31.10	-0.3
			iSg	20 47.00	
THE	1.51	341	ePb	20 35.10	-0.2
			eSb	20 53.40	
SOH	1.63	353	ePb	20 37.40	0.3
SRS	1.91	359	ePbc	20 41.10	0.0
			eSb	21 03.30	
GRG	1.98	332	ePb	20 41.90	-0.3
			eSb	21 04.20	
KNT	2.03	345	ePnc	20 43.20	0.3
			eSn	21 05.70	
EZN	2.19	73	ePn	20 46.00	0.9
VAY	2.26	340	ePn	20 45.60	-0.6
MMB	2.39	2	iPc	20 47.00	-1.0
RDO	2.44	37	ePn	20 47.50	-1.1
RZN	2.62	18	eP	20 51.00	-0.5
KDZ	2.80	29	iP	20 53.00	-0.9
OHR	2.88	312	ePn	20 56.00	0.9
IZM	2.96	105	ePn	21 06.00	9.8X
VTS	3.40	355	iP	21 03.00	0.5

S.D. = 0.8 on 18 of 19 obs.

APR 28, 1989 04h 31m 25.24± 0.67s
39.269 N ± 5.5km 23.532 E ± 5.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.24	279	ePb	31 31.20	0.8
PAIG	0.67	10	iPgc	31 39.60	1.1
			iSg	31 49.30	
PLG	1.11	357	iPnc	31 45.60	-0.4
			eSn	32 00.50	
OUR	1.12	18	iPgc	31 46.50	0.3
LIT	1.16	316	ePb	31 47.10	0.2
			eSb	32 03.20	
ATH	1.30	174	ePn	31 48.50	-0.8
THE	1.43	342	ePbc	31 51.70	0.5
SOH	1.56	355	ePbc	31 53.20	0.2
KZN	1.71	308	ePn	31 55.00	-0.3
SRS	1.85	1	ePb	31 56.60	-0.6
			eSb	32 20.10	
GRG	1.90	333	ePn	31 57.90	0.0
			eSn	32 20.80	
KNT	1.95	346	ePn	31 59.10	0.4
PRK	2.13	90	ePn	32 05.50	4.2X
VAY	2.18	341	ePn	32 02.00	0.0
EZN	2.23	75	ePn	32 05.00	2.2
MMB	2.32	4	iPc	32 03.00	-1.1
RZN	2.58	20	iPc	32 07.00	-0.9
KKB	2.62	353	iPc	32 08.00	-0.3
KDZ	2.78	31	eP	32 09.00	-1.6
VTS	3.33	356	eP	32 19.00	0.5

S.D. = 0.9 on 19 of 20 obs.

APR 28, 1989 04h 39m 49.31± 0.66s
39.283 N ± 5.4km 23.718 E ± 6.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	0.38	274	iPgd	39 05.50	-51.7X
PAIG	0.64	357	iPgc	40 04.20	2.0
			iSg	40 13.40	
OUR	1.07	11	iPgc	40 11.20	1.8
PLG	1.11	349	iPbc	40 10.50	0.3
LIT	1.25	311	iPgc	40 11.60	-1.0
			iSg	50 26.60	
ATH	1.31	180	ePb	40 12.60	-0.9
THE	1.47	337	ePb	40 15.50	-0.3
			eSb	40 33.60	
SOH	1.56	350	ePb	40 17.60	0.4
KZN	1.82	305	ePb	40 19.50	-1.4
SRS	1.83	357	ePb	40 21.40	0.3
			eSb	40 43.10	
GRG	1.95	329	ePb	40 22.20	-0.7
			eSb	40 44.10	
KNT	1.98	342	ePn	40 23.60	0.4
			eSn	40 45.80	
PRK	1.98	90	ePb	40 27.80	4.6X
EZN	2.09	74	ePn	40 26.00	1.3
VAY	2.22	337	ePn	40 26.60	0.0
MMB	2.30	0	iPc	40 27.00	-0.9
RDO	2.32	36	ePn	40 27.80	-0.4
ITM	2.53	214	ePb	40 32.00	0.9
LSK	2.56	291	ePn	40 33.60	2.0
KKB	2.63	350	iPc	40 32.00	-0.5
KDZ	2.70	28	iP	40 33.00	-0.5
OHR	2.89	310	ePn	40 36.30	0.1
SRN	2.93	283	ePn	40 40.40	3.6X
TPE	3.03	291	ePn	40 43.00	4.8X
PGB	3.28	6	eP	40 41.00	-0.8
VTS	3.33	354	eP	40 43.00	0.4
EDC	3.36	70	ePn	40 48.00	5.0X
TIR	3.59	306	ePn	40 54.00	7.8X
PVL	4.11	17	eP	40 51.00	-2.5

S.D. = 1.2 on 23 of 29 obs.

APR 28, 1989 04h 54m 57.62± 0.49s
39.244 N ± 4.0km 23.609 E ± 4.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO	0.31	282	iPbc	55 03.50	-0.5
PAIG	0.68	5	iPc	55 12.60	1.4
			iSg	55 22.60	
OUR	1.13	15	iPgc	55 19.80	1.1
PLG	1.14	354	ePb	55 19.00	0.1
LIT	1.22	315	ePg	55 19.90	-0.4
			eSg	55 34.20	
ATH	1.27	176	ePn	55 21.30	0.1
THE	1.47	341	ePb	55 24.10	0.0
SOH	1.59	353	ePb	55 26.30	0.4
KZN	1.77	307	ePn	55 28.00	-0.6
SRS	1.87	360	ePbc	55 29.90	0.0
			eSb	55 51.20	
GRG	1.94	332	ePb	55 30.70	-0.3
			eSb	55 52.60	
KNT	1.99	344	ePn	55 32.00	0.3
			eSn	55 53.90	
EZN	2.18	74	ePn	55 35.00	0.6
VAY	2.22	339	ePn	55 35.00	0.0
MMB	2.34	2	iPc	55 36.00	-0.8
RDO	2.41	37	ePn	55 36.50	-1.1
ITM	2.45	213	ePn	55 38.50	0.2
KKB	2.65	351	eP	55 41.00	-0.1
KDZ	2.77	29	iP	55 42.00	-0.9
OHR	2.85	312	iPn	55 45.60	1.6
PGB	3.33	7	eP	55 50.00	-0.8
VTS	3.36	355	iPd	55 51.00	-0.3
EDC	3.46	70	ePn	55 58.00	5.4X

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

? APR 28, 1989 05h 05m 48.69± 1.72s
37.259 N ±13.1km 27.970 E ±14.0km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

YER	0.28	116	iPg	05 53.80	-0.8
IZM	1.27	334	ePn	06 17.00	4.8X
KHL	1.63	49	ePn	06 17.50	0.0
KSL	1.73	131	ePb	06 20.00	1.1
KAP	1.82	201	ePb	06 20.00	-0.3
			eSb	06 40.50	

S.D. = 1.4 on 4 of 5 obs.

• APR 28, 1989 05h 15m 07.73± 1.47s
39.054 N ±12.4km 23.623 E ± 7.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.5 (ATH).

NEO	0.40	309	ePb	15 16.50	0.6
PAIG	0.87	3	iPgc	15 25.30	0.8
			iSg	15 34.60	
OUR	1.31	12	iPg	15 32.20	0.3
PLG	1.32	354	ePb	15 31.50	-0.7
LIT	1.36	320	ePb	15 32.50	-0.3
			eSb	15 46.70	
THE	1.66	342	ePb	15 36.90	0.0
SOH	1.78	353	ePb	15 38.80	0.1
SRS	2.06	359	ePb	15 42.20	-0.6
			eSb	16 04.50	
PRK	2.07	84	ePn	15 43.00	0.1
GRG	2.12	334	ePb	15 43.30	-0.4
			eSb	16 04.60	
KNT	2.18	345	ePn	15 44.60	0.1
			eSn	16 06.10	
EZN	2.23	69	ePn	15 50.00	4.8X

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

• APR 28, 1989 05h 29m 55.27± 0.90s
37.059 N ± 7.7km 27.992 E ± 9.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.24	72	iPg	29 59.30	-1.2
IZM	1.46	337	ePn	30 20.90	-0.8
ELL	1.57	101	iPn	30 25.80	2.5X
KSL	1.59	126	ePb	30 25.00	1.5
KAP	1.64	204	ePn	30 23.50	-0.8
			eSb	30 41.20	
KHL	1.75	43	iPn	30 25.50	-0.4
DST	2.59	11	ePn	30 39.00	1.0
ALT	2.60	39	ePn	30 37.70	-0.5
EDC	3.28	358	ePn	30 50.00	2.2X
BNT	3.29	359	ePn	30 49.00	1.1

S.D. = 1.2 on 8 of 10 obs.

APR 28, 1989 05h 30m 03.09± 0.72s
39.252 N ± 5.6km 23.648 E ± 6.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.33	280	iPbd	30 09.40	-0.6
PAIG	0.67	2	iPg	30 18.20	1.7
			iSg	30 26.90	
OUR	1.11	13	iPgc	30 25.20	1.3
			iSg	30 38.10	
PLG	1.13	352	ePn	30 24.60	0.3
LIT	1.23	314	iPg	30 25.60	-0.4
			iSg	30 40.20	
ATH	1.28	178	ePn	30 27.40	0.6
THE	1.48	339	ePb	30 30.00	0.3
SOH	1.58	352	ePb	30 31.80	0.5
KZN	1.79	307	ePn	30 33.60	-0.7
SRS	1.86	359	ePb	30 35.50	0.2
			eSb	30 56.20	
GRG	1.95	331	ePb	30 36.60	0.0
			eSb	30 58.00	
KNT	1.99	343	ePn	30 37.60	0.4
			eSn	30 59.40	
MMB	2.34	1	iPc	30 42.00	-0.2
RZN	2.57	18	iPc	30 46.00	0.4
KKB	2.65	351	iPc	30 46.00	-0.6
KDZ	2.75	29	iPc	30 47.00	-1.0
OHR	2.87	311	ePn	30 50.70	1.0
PGB	3.32	7	eP	30 55.00	-1.1
VTS	3.35	354	eP	30 57.00	0.3
PVL	4.16	17	iPc	31 06.00	-2.0
MLR	6.46	14	iPc	31 40.20	-0.5

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

? APR 28, 1989 05h 40m 22.95± 7.55s
38.852 N ±57.1km 23.651 E ±18.9km
DEPTH = 12.3 ± 5.0 km
GREECE (364)

NEO	0.56	324	ePb	40 34.40	0.2
PAIG	1.07	1	iPgc	40 43.10	0.2
			iSg	40 52.10	
OUR	1.50	10	iPg	40 50.10	0.5
			iSg	41 02.80	
PLG	1.53	354	ePb	40 49.30	-0.7
			eSb	41 04.60	
LIT	1.54	325	ePg	40 50.50	0.3
SRS	2.26	359	ePb	41 00.50	-0.2
GRG	2.31	336	ePb	41 00.90	-0.5
			eSb	41 22.50	
KNT	2.38	346	ePn	41 02.50	0.2
			eSn	41 24.60	

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

? APR 28, 1989 06h 37m 32.58± 2.01s
37.181 N ±19.9km 28.112 E ±18.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.14	109	iPg	37 35.70	-0.3
IZM	1.39	331	ePn	37 58.00	0.0
ELL	1.50	106	ePn	38 00.00	0.3
KHL	1.60	44	ePn	38 01.00	0.0

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

• APR 28, 1989 06h 48m 47.50± 1.09s
37.092 N ±10.8km 27.912 E ± 9.7km
DEPTH = 5.0km (geophysicist)
TURKEY (366)

YER	0.30	82	iPg	48 52.20	-1.4
IZM	1.40	339	ePn	49 14.00	0.2
ELL	1.64	102	ePn	49 18.30	1.1
KAP	1.65	201	ePn	49 16.50	-0.7
			eSn	49 38.50	
KSL	1.66	125	ePn	49 18.00	0.7

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

APR 28, 1989 07h 02m 45.68± 0.64s
39.265 N ± 5.2km 23.497 E ± 5.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.22	281	ePg	02 50.60	0.2
PAIG	0.68	12	iPgc	03 00.00	0.9
			iSg	03 09.00	
PLG	1.11	358	ePb	03 06.00	-0.5
OUR	1.13	19	iPgc	03 07.10	0.3
LIT	1.14	317	ePb	03 08.20	1.2
			eSb	03 22.60	
ATH	1.30	172	ePb	03 09.20	-0.6
THE	1.43	344	ePb	03 11.60	0.0
SOH	1.56	356	ePbc	03 13.50	0.0
KZN	1.69	309	ePb	03 15.50	0.1
SRS	1.85	2	ePb	03 17.30	-0.4
			eSb	03 39.20	
GRG	1.89	334	ePb	03 18.30	0.0
KNT	1.95	347	ePn	03 19.40	0.3
EZN	2.26	75	ePn	03 25.00	1.4
MMB	2.33	4	iPd	03 23.00	-1.7
RZN	2.59	21	iPc	03 28.00	-0.5
KKB	2.62	353	iPc	03 28.00	-0.7
OHR	2.77	313	e(Pn)	03 41.20	10.2X

S.D. = 0.8 on 16 of 17 obs.

% APR 28, 1989 07h 24m 27.53± 2.26s
37.207 N ±20.8km 27.997 E ±15.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.24	107	iPg	24 29.20	-3.5X
IZM	1.32	334	ePn	24 51.00	-1.0
ELL	1.60	106	iPn	24 55.30	-0.7
KHL	1.64	47	iPn	24 56.00	-0.7
BCK	2.08	82	ePn	25 04.00	1.0
ALT	2.49	41	ePn	25 09.00	0.2
EZN	2.92	334	ePn	25 16.00	1.1

S.D. = 1.2 on 6 of 7 obs.

APR 28, 1989 07h 48m 19.63± 0.66s
13.245 N ± 5.2km 89.675 W ± 4.0km
DEPTH = 59.0 ± 5.0 km
5.2mb (44 obs.)
EL SALVADOR (73)
Felt (III) at San Salvador.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 28C
Centroid Location:
Origin Time 07:48:17.8 0.6
Lat 12.81N 0.09 Lon 90.10W 0.10
Dep 29.5 4.6 Half-duration 1.7
Moment Tensor; Scale 10**16 Nm
Mrr=-7.47 0.57 Mtt= 4.53 0.68
Mff= 2.94 0.90 Mrt=-3.47 1.86
Mrf=-0.50 1.47 Mtf=-3.83 0.62
Principal Axes:

	Val=	Plg=	Azm=
T	8.03	9	216
N	0.58	17	123
P	-8.61	71	334

Best Double Couple:Mo=8.3*10**16
NP1:Strike=326 Dip=39 Slip= -62
NP2: 112 56 -110

SSS	0.64	47	iPc	48 35.70	2.5
			eS	48 48.40	
IXG	1.19	321	iPc	48 38.00	-2.6
CMG2	1.41	356	iPc	48 45.80	2.2
QZG	1.41	12	iPd	48 45.90	2.3
TER	1.44	317	eP	48 42.00	-1.8
			S	48 57.00	
REC	1.44	325	iPd	48 42.00	-2.0
GCG	1.57	328	iPd	48 45.20	-0.6
			S	49 02.20	
SLP	1.60	338	iPd	48 46.90	0.7
MMG	1.61	323	iP	48 45.00	-1.5
FUG	1.65	317	iPd	48 43.20	-3.6X
BVA	1.69	327	iPd	48 47.20	-0.4
ITG	1.76	320	ePd	48 46.10	-2.4
MRL	1.81	360	iPc	48 46.80	-2.3
JAT	2.18	299	ePd	48 49.20	-5.0X
SOG2	2.35	309	ePd	48 53.00	-3.7X
SOG	2.40	310	ePd	48 53.90	-3.7X
TPX	3.00	304	iP	49 02.00	-3.8X
			iS	49 20.00	
SCX	4.50	321	eP	49 28.00	1.2
OXX	7.80	300	iP	50 10.50	-2.7X
GCM	9.98	52	eP	50 46.25	3.4X
IIT	10.09	306	eP	50 44.50	-0.2
ACX	10.47	291	eP	50 46.50	-3.2X
III	10.71	300	eP	50 51.50	-1.7
UPA	10.82	112	iPd	50 55.50	1.2
	1.0s		46.00nm		5.5mb
Z	19s		3.82um		
UNM	10.95	305	(P)	51 07.50	11.1X
IIC	11.24	306	eP	51 01.50	1.1
CRX	11.39	304	(P)	51 03.00	0.6
MRX	12.77	302	eP	51 20.00	-0.5
UYO	21.28	349	iPc	53 02.70	-0.4
HBF	21.36	22	P	53 07.00	3.1X
SGS	21.55	21	P	53 08.00	2.2
PWLA	21.69	4	P	53 08.60	1.4
PRM	21.78	17	P	53 09.20	1.0
OLY	22.22	356	P	53 12.40	-0.1
JSC	22.29	19	P	53 14.00	0.8
RSCP	22.56	9	P	53 17.00	1.1
	1.0s		77.50nm		5.1mb
LHS	22.62	19	P	53 18.70	2.3
VVO	22.67	347	ePd	53 16.70	-0.2
GBTN	22.86	12	P	53 19.70	0.9
TKL	22.94	12	P	53 21.60	2.0
SIO	23.19	346	eP	53 21.30	-0.7
LNO	23.23	347	eP	53 21.90	-0.4
RLO	23.32	349	eP	53 28.50	5.2X
ELC	23.94	1	P	53 30.40	1.2
FVM	24.65	359	P	53 35.60	-0.5
BLA	25.26	18	P	53 43.00	1.1
	1.1s		70.90nm		5.1mb
ALQ	26.40	328	iPc	53 53.00	0.3
	0.8s		14.37nm		4.6mb
Z	18s		1.07um		4.4Msz
CVL	26.58	20	P	53 54.40	0.3
CBN	27.16	22	eP	54 00.70	1.4
GLD	29.75	335	P	54 22.60	-0.3
	1.3s		54.60nm		5.1mb
GOL	29.76	335	P	54 22.30	-0.8

28d 07h

GLA	30.25	315	eP	54	27.00	-0.2
			e	57	27.00	
TBR	30.90	23	P	54	31.70	-1.1
DHN	31.10	16	P	54	34.30	-0.3
BAR	31.34	313	eP	54	37.00	0.2
TPC	31.69	315	eP	54	40.00	0.1
PLM	31.84	314	eP	54	42.00	0.7
			e	57	32.00	
MSU	32.12	326	P	54	44.20	0.4
PEC	32.34	314	P	54	45.60	0.1
RVR	32.54	314	eP	54	47.00	-0.2
			e	57	33.00	
GSC	32.88	317	eP	54	51.00	0.7
DAU	33.03	329	P	54	52.00	0.2
MWC	33.14	314	eP	54	54.00	1.3
PAS	33.18	314	eP	54	54.00	1.2
SBB	33.23	315	eP	54	54.00	0.7
			e	57	34.00	
CLC	33.70	317	eP	54	58.00	0.6
			e	57	36.00	
RSNY	33.78	20	P	54	57.20	-0.6
	1.2s	71.26nm			5.5mb	
ISA	34.21	316	eP	55	03.00	1.2
GAC	34.52	18	eP	55	04.00	-0.2
SYP	34.66	313	eP	55	06.00	0.3
TNP	34.80	320	P	55	07.50	0.5
	1.1s	80.09nm			5.6mb	
EUR	34.94	323	iP	55	08.60	0.5
	0.6s	25.38nm			5.3mb	
BLP	34.98	313	P	55	09.80	1.6
BCH	35.07	314	P	55	10.50	1.3
MNA	35.60	320	ePd	55	15.10	1.4
PHAM	35.62	315	P	55	14.50	0.7
FRI	35.77	317	ePd	55	14.50	-0.4
KVN	35.94	321	P	55	17.40	0.8
PRI	35.97	315	ePd	55	17.30	0.5
			ePcP	57	44.20	
ZOBO	36.25	143	Pd	55	19.70	-0.1
Z	19s	1.58um			4.8Msz	
			LR	09	36.00	
MIM	36.40	25	P	55	19.90	-0.2
LLA	36.41	315	eP	55	20.30	0.0
LPB	36.47	144	P	55	22.20	0.7
Z	20s	1.13um			4.6Msz	
			PP	57	46.20	
			PS	02	28.00	
			LR	09	45.00	
PRS	36.55	315	ePd	55	21.80	0.3
EMM	36.65	27	P	55	21.80	-0.4
CNCB	36.76	144	eP	55	24.00	-0.1
CMB	36.80	318	iPd	55	24.20	0.6
			ePcP	57	45.60	
SAO	36.83	315	eP	55	23.80	0.0
ARN	37.19	316	P	55	27.60	0.7
MHC	37.26	316	ePd	55	28.60	1.0
GCC	37.34	315	ePd	55	29.20	1.1
LRM	37.76	334	ePd	55	31.80	-0.1
PCC	37.85	316	eP	55	33.50	1.1
BKS	37.94	316	eP	55	35.00	1.8
	1.0s	109.00nm			5.7mb	
Z	20s	1.90um			4.9Msz	
N	20s	1.10um				
E	20s	1.40um				
			eLQ	09	00.00	
			eLR	09	36.00	
BRK	37.96	316	ePd	55	34.30	1.0
CBM	38.15	24	P	55	33.80	-1.0
CCH	38.29	142	P	55	35.50	-1.1
ORV	38.37	319	ePd	55	37.90	1.1
			ePcP	57	50.30	
NWRM	38.68	317	P	55	40.50	1.1
MIN	38.88	320	ePd	55	41.40	0.2
LTCM	39.13	319	P	55	43.00	-0.1
WDC	39.60	320	iPd	55	45.30	-1.7
			ePcP	57	53.50	
LBFM	39.64	321	P	55	47.80	0.3
ATB	40.64	111	Pd	55	55.80	0.0
FHC	40.64	319	ePd	55	56.90	1.3
SES	40.95	339	eP	56	00.00	2.0
DPW	41.90	331	P	56	05.10	-0.7
FFC	42.50	349	iPd	56	10.40	-0.2
	0.8s	41.00nm			5.2mb	
LON	42.92	328	P	56	13.70	-0.5
PNT	43.59	332	ePd	56	19.00	-0.5
	0.8s	30.00nm			5.1mb	
GMW	43.95	328	P	56	20.60	-1.8
EDM	44.10	340	iPd	56	22.50	-1.2
	1.0s	78.00nm			5.4mb	
SLA	44.51	148	ePc	56	28.10	0.7
MCW	44.70	329	P	56	27.00	-1.6
PGC	45.00	329	eP	56	30.00	-0.8
SCH	45.18	19	ePd	56	31.50	-0.8
	0.5s	59.00nm			5.7mb	
BAO	50.23	124	eP	57	11.80	-0.4
PPD	51.43	133	eP	57	19.70	-1.4
			e	57	25.40	
			e	57	34.90	
YKC	52.25	346	iPd	57	25.40	-1.3
	1.0s	62.00nm			5.6mb	
YKA	52.29	346	eP	57	26.20	-0.9
FRB	52.57	12	eP	57	27.00	-2.1
	0.8s	53.00nm			5.6mb	
ITR	55.39	110	ePd	57	50.60	0.1
			e	58	04.40	
			e	58	10.80	
ITA	56.53	128	eP	58	02.60	3.6X
INK	61.81	343	ePd	58	32.80	-1.6
	0.8s	25.00nm			5.4mb	
PMR	64.11	333	P	58	48.10	-1.5
	1.1s	28.75nm			5.2mb	
FBA	64.83	336	P	58	52.50	-1.8
	1.1s	34.38nm			5.3mb	
MBC	64.94	352	ePd	58	53.30	-1.5
	1.1s	72.00nm			5.6mb	
TTA	67.59	333	P	59	09.80	-2.2
	1.1s	25.00nm			5.1mb	
ALE	70.17	4	ePd	59	26.20	-1.2
	0.5s	4.00nm			4.6mb	
DAG	72.85	13	iPd	59	42.20	-1.4
	1.0s	27.00nm			5.1mb	
EKA	77.25	36	Pc	00	07.40	-1.6
	1.1s	35.80nm			5.3mb	
LPF	79.38	43	eP	00	19.30	-1.5
GRR	79.45	43	eP	00	20.00	-1.2
	1.4s	55.70nm			5.3mb	
FLN	79.64	42	eP	00	21.30	-0.9
	1.5s	73.10nm			5.4mb	
LDF	79.90	42	eP	00	22.50	-1.1
	1.3s	38.90nm			5.2mb	
AVF	82.53	44	eP	00	35.80	-1.6
	1.2s	14.80nm			4.9mb	
SSF	82.58	44	eP	00	36.10	-1.6
	1.3s	25.20nm			5.1mb	
LOR	82.77	43	eP	00	37.30	-1.4
	1.3s	32.40nm			5.2mb	
SMF	82.89	44	eP	00	37.80	-1.5
	1.4s	26.10nm			5.0mb	
WIT	83.36	37	eP	00	43.00	1.5
ENN	83.37	40	eP	00	42.00	0.4
	1.1s	25.00nm			5.1mb	
LIC	83.41	85	Pc	00	43.48	0.9
MEM	83.45	40	P	00	42.50	0.5
NBO	83.52	29	P	00	42.10	-0.1
	1.2s	28.10nm			5.2mb	
WTS	83.63	38	eP	00	43.00	0.1
	1.1s	50.00nm			5.4mb	
KIC	83.66	85	Pc	00	44.86	1.0
WLF	83.75	41	P	00	44.40	0.8
NRA0	83.96	29	P	00	42.50	-1.9
HAU	84.26	42	eP	00	45.10	-1.1
	1.2s	29.70nm			5.2mb	
BSF	84.59	42	eP	00	46.80	-1.2
	1.2s	17.80nm			5.0mb	
CDF	84.76	42	eP	00	47.90	-1.0
	1.2s	17.80nm			5.0mb	
LPG	85.11	45	eP	00	48.40	-2.5
	1.2s	14.80nm			5.0mb	
HFS	85.16	29	eP	00	49.70	-0.7
	1.2s	38.10nm			5.4mb	
KEV	86.49	18	eP	00	56.00	-0.9
MOX	86.89	39	eP	00	59.00	-0.2
	1.5s	34.00nm			5.3mb	
			LR	41	00.00	
GRF	86.93	40	iPc	00	50.70	-8.7X
	1.3s	36.00nm			5.4mb	
Z	18s	0.40um			4.9Msz	
UPP	87.11	29	iP	00	58.70	-1.3
CLL	87.53	38	eP	01	01.00	-1.3
	1.3s	34.00nm			5.4mb	
SOD	87.54	20	eP	01	04.00	2.0
BRG	88.23	38	iPc	01	05.60	0.0
	1.4s	32.00nm			5.3mb	
KHC	88.57	40	iP	01	08.00	0.6
	1.2s	15.00nm			5.1mb	
PRU	88.88	39	eP	01	08.50	-0.3
KBA	89.07	42	eP	01	09.50	-0.5
	1.3s	25.00nm			5.3mb	
SUF	89.62	25	eP	01	12.00	0.0
NUR	90.04	27	eP	01	14.00	0.1
Z	18s	0.20um			4.6Msz	
			LR	41	20.00	
ZST	91.08	40	iP	01	18.70	-0.3
SPC	92.63	38	eP	01	27.20	0.8
BUL	120.77	106	iPKPd	07	07.20	-0.4
	1.1s	12.66nm				
BJI	121.80	337	ePKP	07	09.00	0.2
HHC	122.70	341	ePKP	07	12.20	1.5
TIY	125.23	339	ePKP	07	15.00	-0.6
Z	24s	0.70um			5.2MszX	
			SKKS	16	04.00	
KSH	125.89	14	ePKP	07	19.00	2.0
CTA	126.19	255	iPKP	07	18.10	0.1
	1.3s	19.23nm				
GTA	126.88	351	PKPd	07	19.60	0.7
NJ2	127.32	329	PKPd	07	21.00	1.3
LZH	129.30	346	ePKP	07	25.50	1.9
	1.5s	110.00nm				
WHN	130.71	332	PKP	07	26.50	0.3
NDI	136.43	17	iPKPc	07	38.00	0.8
WB5	137.37	255	ePKP	07	39.00	-0.2
WRA	137.39	255	PKP	07	37.00	-2.2
GYA	137.46	338	PKP	07	39.80	0.5
ASPA	137.53	249	ePKP	07	34.40	-5.1X
AVY	138.76	104	iPKP	07	44.54	2.5X
KKN	138.92	7	PKP	07	36.00	-6.1X
CHG	147.03	345	ePKPc	07	57.00	0.9
	1.0s	34.50nm				
HYB	147.39	21	ePKP	07	56.00	-0.7
	1.0s	40.00nm				
TSM	147.44	300	ePKP	08	01.00	4.2X
LOE	147.53	339	ePKP	07	58.00	1.1
KKM	147.93	305	ePKPc	08	01.50	3.7X
BDT	148.52	344	iPKPc	08	01.20	2.8X
	0.9s	78.40nm				
NST	149.67	341	ePKP	08	07.60	7.4X
GBA	150.43	26	PKPc	08	03.00	1.6
	1.3s	28.70nm				
MBL	150.77	250	ePKP	08	07.20	5.4X
NNT	152.69	340	ePKP	08	12.50	7.8X
SNG	157.28	333	ePKP	08	12.70	1.8
S.D. = 1.2 on 173 of 195 obs.						

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* APR 28, 1989 08h 09m 54.68± 1.02s
37.077 N ± 9.4km 27.925 E ± 9.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.29	78	iPg	09	59.10	-1.7
IZM	1.42	338	ePn	10	20.50	0.0
ELL	1.62	101	ePn	10	24.30	0.8
KAP	1.64	202	ePn	10	23.00	-0.6
			eSn	10	44.80	
KSL	1.64	125	ePn	10	24.50	0.8
KHL	1.78	45	ePn	10	26.50	0.8
BCK	2.16	79	ePn	10	33.50	2.2X
S.D. = 1.3 on 6 of 7 obs.						

? APR 28, 1989 08h 12m 13.97± 8.71s
17.835 N ±27.7km 65.648 W ±56.9km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)
Felt ot Humocao.

LPR	0.52	336	iP	12	24.50	0.1
SJG	0.55	300	iP	12	25.30	0.1
			S	12	32.80	
CSB	0.66	313	iP	12	27.10	-0.1
			S	12	35.80	
APR	1.20	301	iP	12	36.20	-0.1
MGP	1.38	277	iP	12	39.30	0.0
S.D. = 0.1 on 5 of 5 obs.						

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* APR 28, 1989 08h 16m 05.14± 0.93s
37.076 N ± 8.7km 27.999 E ± 8.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.23	75	iPg	16	08.60	-1.6
IZM	1.44	336	ePn	16	31.50	0.2
ELL	1.56	101	ePn	16	34.00	0.9
KSL	1.59	126	ePn	16	33.40	0.0

KAP	1.66	204	ePb	16 34.00	-0.4
			eSb	16 56.00	
KHL	1.74	44	ePn	16 35.50	-0.1
BCK	2.10	79	ePn	16 42.00	1.1
S.D. = 1.1 on 7 of 7 obs.					

& APR 28, 1989 08h 22m 43.32s
60.126 N 153.249 W
DEPTH = 134.4km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.15	107	iP	23 00.80	0.5
			eS	23 14.80	
RED	0.38	39	eP	23 02.05	1.0
			eS	23 17.24	
OPT	0.47	179	iP	23 02.49	-0.5
			eS	23 17.82	
PDB	0.58	235	iP	23 02.45	-1.2
			eS	23 17.65	
RDT	0.61	43	iP	23 02.96	-1.0
AUL	0.75	187	iP	23 04.19	-0.6
			eS	23 20.73	
HOM	0.94	119	eP	23 05.79	-0.5
			eS	23 23.49	
NNL	0.98	94	eP	23 06.82	0.1
NKA	1.17	57	iP	23 08.85	0.3
CNPM	1.18	120	iP	23 07.49	-1.2
SPU	1.21	29	iP	23 08.09	-0.9
CDD	1.22	190	iP	23 07.81	-1.2
			eS	23 26.77	
BRLK	1.24	106	eP	23 08.71	-0.6
			eS	23 28.05	
CRP	1.27	25	iP	23 09.10	-0.6
CGLM	1.33	27	iP	23 09.64	-0.7
SVW	1.53	311	iP	23 11.15	-1.3
SLKM	1.55	74	iP	23 11.23	-1.5
SEW	1.90	89	eP	23 14.95	-1.8
			eS	23 39.11	
PWA	2.25	46	eP	23 20.64	-0.4
KDC	2.42	170	iP	23 19.69	-3.4
GHO	2.68	50	iP	23 24.06	-2.5
			eS	23 55.99	
KNK	2.68	59	eP	23 24.13	-2.5
KNIM	2.76	83	eP	23 24.30	-3.2
MTU	2.81	90	iP	23 26.80	-1.4
			eS	23 59.72	
TTA	3.11	336	iP	23 30.28	-1.9
GLI	3.14	73	eP	23 30.60	-1.9
FID	3.41	77	iP	23 33.79	-2.3
VZW	3.43	71	eP	23 33.53	-2.9
VLZ	3.55	71	iP	23 36.44	-1.5
KLU	3.84	66	eP	23 38.94	-3.0
GLB	4.81	70	eP	23 52.95	-1.9
31 obs. associated					

% APR 28, 1989 08h 58m 12.92± 0.90s
39.032 N ± 7.3km 27.650 E ± 9.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.70	206	ePg	58 28.00	1.2
			eSg	58 39.50	
DST	0.95	53	ePn	58 32.50	1.4
EZN	1.30	308	ePn	58 36.00	-0.9
EDC	1.32	7	ePn	58 37.30	0.0
KCT	1.33	24	iPn	58 37.60	0.1
BNT	1.34	9	iPn	58 37.60	0.0
KHL	1.63	115	ePn	58 40.00	-1.8
S.D. = 1.4 on 7 of 7 obs.					

APR 28, 1989 09h 13m 46.23± 0.37s
20.163 S ± 8.5km 67.478 E ± 6.5km
DEPTH = 10.0km (geophysicist)
5.2mb (11 obs.) 4.9Msz (1 obs.)
MID-INDIAN RISE (429)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 25C
Centroid Location:
Origin Time 09:13:54.8 0.7
Lat 20.30S 0.10 Lon 67.12E 0.10
Dep 15.0 FIX Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 2.14 0.37 Mtt= 4.74 0.47
Mff=-6.88 0.52 Mrt= 1.12 1.47
Mrf= 3.40 1.49 Mtf=-2.55 0.42
Principal Axes:

T	Val= 5.35	Plg=10	Azm= 9
N	3.25	69	251
P	-8.60	18	102

Best Double Couple:Mo=7.0*10**16
NP1:Strike=145 Dip=70 Slip= -6
NP2: 237 85 -160

AVY	18.65	270	iPd	18 07.36	0.9
GBA	34.95	17	Pd	20 41.30	0.7
	0.9s	6.30nm		4.5mb	
NAI	35.37	298	iPc	20 45.00	0.4
BUL	36.43	263	iPd	20 52.00	-1.4
HYB	38.90	17	eP	21 14.00	0.1
QUE	50.06	359	eP	22 42.80	-0.6
DMN	50.46	20	P	22 46.80	0.1
PKI	50.53	21	P	22 47.10	-0.1
GKN	50.68	20	P	22 48.20	0.0
	1.0s	30.00nm		5.2mb	
KKN	50.69	20	P	22 48.20	-0.1
	1.0s	26.00nm		5.1mb	
GUN	51.00	21	P	22 50.90	0.1
BNG	53.91	292	iPd	23 10.40	-2.0
	0.7s	33.00nm		5.5mb	
		id		23 16.80	
LSA	54.57	25	eP	23 21.00	3.4X
MAIO	56.66	352	eP	23 31.00	-1.1
			eS	31 32.00	
MBH	58.74	327	iPd	23 47.00	0.3
PRNI	59.14	327	eP	23 50.00	0.4
KSH	59.83	8	eP	23 51.40	-2.9
GYA	59.94	41	P	23 55.60	0.4
GLH	60.74	329	eP	24 01.00	0.6
ASPA	61.23	107	eP	24 03.60	-0.5
TAB	61.24	341	eP	24 04.00	0.1
WRA	62.39	103	Pc	24 11.60	-0.4
	1.9s	44.40nm		5.3mb	
WB5	62.43	102	eP	24 12.50	0.3
LZH	65.68	32	eP	24 23.50	-9.7X
	1.5s	141.00nm		5.9mb	
Z	10s	0.50um		5.0MszX	
		eLg		26 03.00	
WMQ	66.32	16	eP	24 37.90	0.8
Z	20s	0.80um		4.9Msz	
		eS		33 28.00	
GTA	66.53	27	eP	24 36.50	-2.1
WHN	67.62	43	eP	24 47.00	1.5
		pP		24 51.00	13kmX
SPA	69.96	180	e(P)	24 59.00	-0.7
	1.0s	18.50nm		5.2mb	
TIY	71.43	36	eP	25 07.20	-1.6
E	16s	0.80um			
		S		34 32.00	
BTO	72.24	33	eP	25 14.00	0.3
N	11s	0.50um			
E	11s	0.50um			
TIA	73.12	40	eP	25 19.80	1.0
CTA	73.21	106	eP	25 20.00	0.2
	1.3s	24.04nm		5.1mb	
HHC	73.22	33	eP	25 20.00	0.6
BJI	75.14	37	eP	25 35.00	4.6X
		eS		31 24.00	
VRI	75.40	332	iPc	25 31.50	-0.3
MLR	75.46	331	eP	25 33.00	0.7
KIC	75.67	282	P	25 33.60	-0.4
LIC	75.88	282	P	25 35.00	-0.2
BZS	77.58	329	eP	25 43.00	-1.0
		e		42 41.00	
SPC	80.80	331	eP	26 03.00	1.4
KRA	81.56	331	eP	26 01.10	-4.2X
		e		26 11.10	
ZST	81.59	329	eP	26 11.70	6.2X
CN2	82.85	38	eP	26 11.60	-0.6
		pP		26 17.00	17kmX
KHC	83.96	328	P	26 18.00	0.2
PRU	84.04	329	eP	26 18.00	-0.1
		e		26 25.00	
BRG	B4.91	329	eP	26 29.60	7.2X
	1.3s	20.00nm		5.2mb	
GRF	85.51	327	e(P)	26 33.10	7.6X
CLL	85.65	329	eP	26 28.00	1.9
		e		26 33.00	
MOX	85.90	328	e(P)	26 29.00	1.6
BSF	86.75	324	eP	26 31.20	-0.6
MAT	87.33	50	iPc	26 40.80	6.0X
	1.4s	53.49nm		5.6mb	
LBF	87.87	322	eP	26 36.70	-0.4
SSF	88.18	322	eP	26 38.50	0.0
	1.4s	21.70nm		5.3mb	
PVC	93.70	110	iPc	27 10.00	5.2X
ZOBO	123.32	234	PKP	32 47.00	0.4
Z	24s	0.14um		4.5MszX	
		LR		10 08.00	
INK	130.10	10	ePKP	32 57.00	-0.3
YKA	137.68	1	ePKP	33 12.80	0.9
FFC	144.58	349	ePKP	33 23.00	-1.4
	1.0s	18.00nm			
UPA	146.26	256	iPKPc	33 29.80	1.4
EDM	147.00	1	ePKP	33 30.00	1.5
	1.0s	35.00nm			
SES	149.81	358	ePKP	33 40.00	7.0X
PNT	150.36	9	ePKP	33 40.00	6.2X
	0.9s	18.00nm			
LRM	154.41	360	ePKP	33 48.90	8.8X
S.D. = 1.0 on 51 of 63 obs.					

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* APR 28, 1989 09h 22m 06.99± 0.80s
29.901 N ±11.0km 99.359 E ±10.1km
DEPTH = 10.0km (geophysicist)
4.8mb (4 obs.)
SICHUAN PROVINCE, CHINA (307)

KMI	5.63	147	ePg	23 32.50	-0.4
			Sg	24 35.00	
CHTO	11.04	182	eP	25 02.00	14.0X
GUN	11.98	264	P	25 01.20	0.1
PKI	12.46	263	P	25 07.60	0.0
	0.7s	23.00nm		5.5mb X	
KKN	12.52	264	P	25 08.20	0.0
	0.4s	10.00nm		5.4mb X	
GKN	13.03	265	P	25 13.40	-1.6
HYB	22.70	241	eP	27 12.00	1.9
GBA	25.95	236	P	27 45.00	3.6X
	0.8s	5.20nm		4.3mb	
SOD	56.15	334	iP	31 49.70	1.0
KEV	56.1B	336	eP	31 49.00	0.1
SUF	56.24	328	eP	31 50.00	0.7
NUR	57.02	325	eP	31 56.00	1.0
	0.6s	9.10nm		5.0mb	
Z	23s	0.30um		4.3MszX	
		LR		08 40.00	
HFS	62.47	326	eP	32 31.20	-1.3
	1.1s	8.50nm		4.8mb	
NAO	63.69	327	P	32 39.00	-1.5
	0.9s	4.50nm		4.7mb	
S.D. = 1.2 on 12 of 14 obs.					

APR 28, 1989 09h 23m 07.34± 0.21s
16.606 S ± 7.2km 173.645 W ± 4.8km
DEPTH = 93.0km (9 depth phases)
5.4mb (24 obs.)
TONGA ISLANDS (173)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 26C
Centroid Location:
Origin Time 09:23:14.2 0.7
Lat 16.52S 0.12 Lon 173.69W 0.08
Dep 91.1 3.4 Half-duration 1.6
Moment Tensor; Scale 10**16 Nm
Mrr=-5.28 0.50 Mtt= 1.93 1.05
Mff= 3.35 0.80 Mrt=-3.80 0.49
Mrf=-1.08 0.50 Mtf=-6.31 0.71
Principal Axes:

T	Val= 9.21	Plg= 7	Azm=226
N	-0.97	38	130
P	-8.23	51	325

Best Double Couple:Mo=8.7*10**16
NP1:Strike=351 Dip=50 Slip= -37
NP2: 107 63 -134

AFI	3.23	34	P	23 50.00	-7.0X
			S	24 22.40	
VUN	7.67	258	iPd	25 04.50	6.3X
SVA	7.69	258	iPd	25 04.90	6.4X
RAR	13.90	111	P	26 21.00	-0.5
			S	28 46.00	
DZM	19.55	251	iPc	27 30.10	-0.3
KRP	23.28	202	Pd	28 10.80	3.4X
	0.4s	113.00nm		5.6mb	
TPT	25.09	90	iP	28 26.00	1.1
	0.8s	30.00nm		4.8mb	
WEL	26.55	200	P	28 38.00	-0.2
BRS	32.84	245	iPc	29 34.20	-0.1

28d 09h

COO	34.36	240	iPd	29	46.90	-0.5	LRM	83.10	38	eP	35	24.20	-0.1	LPF	148.08	9	ePKP	42	42.50	2.3X
	0.7s	53.00nm			5.5mb		WHN	83.57	304	P	35	26.50	-0.2		1.1s	156.30nm				
RMQ	36.21	248	eP	30	02.00	-1.1	FBA	83.62	11	P	35	25.60	-0.6	CDF	148.27	359	ePKP	42	43.20	2.5X
CAN	38.12	233	eP	30	18.20	-0.9		1.0s	93.75nm			5.7mb			1.0s	92.00nm				
CTA	38.16	259	iPc	30	18.70	-0.8	IMA	83.78	8	P	35	26.80	-0.4	VITF	148.47	0	PKP	42	44.57	3.7X
	0.9s	12.60nm			4.8mb			1.2s	37.88nm			5.2mb		GPA	148.56	323	iPKP	42	44.60	3.3X
		i		32	33.60		TIA	83.81	310	eP	35	28.00	0.2	HAU	148.69	0	ePKP	42	44.40	3.1X
PMG	38.81	276	eP	30	25.50	0.6	GOL	84.66	46	P	35	32.30	0.0		1.1s	107.45nm				
CMS	39.62	241	iPd	30	31.10	-0.5				pP	35	56.00	89km	HRI	148.76	308	ePKP	42	46.00	4.0X
	0.7s	63.00nm			5.6mb		GLD	84.78	46	P	35	33.00	0.2	FEL	148.79	358	PKP	42	45.37	3.8X
TOO	41.53	232	eP	30	46.60	-0.6		1.2s	23.23nm			5.0mb		MOF	148.84	359	PKP	42	45.37	3.8X
STK	43.24	241	iPd	31	01.10	-0.1	BJI	86.12	314	eP	35	40.00	0.8	BSF	148.86	359	ePKP	42	44.80	3.1X
JAY	47.00	282	ePc	31	30.50	-0.9	Z	22s	0.38um			4.7Msz			1.2s	89.25nm				
WB5	49.33	258	eP	31	47.20	-2.1	SES	86.32	35	eP	35	41.00	1.0	KBA	149.07	351	ePKP	42	44.00	1.9
		i		33	11.00	420kmX				pP	36	05.00	89km		1.2s	33.30nm				
WRA	49.35	258	Pc	31	51.00	1.5	EDM	86.63	32	eP	35	41.00	-0.5			i		42	53.60	
	0.8s	11.50nm			4.9mb		TIY	87.85	310	iPd	35	48.00	0.3	BBS	149.21	358	PKP	42	46.59	4.5X
ASPA	49.53	253	iPc	31	49.20	-1.6	SNG	87.97	278	eP	35	50.80	2.2	LOMF	149.34	359	PKP	42	47.01	4.6X
	0.9s	82.00nm			5.7mb			1.1s	139.24nm			5.9mb		LOR	149.36	3	ePKP	42	46.30	4.0X
Z	21s	2.31um			5.1Msz		GYA	88.40	298	iPd	35	51.80	1.1		1.2s	116.20nm				
		epP		32	15.00	109kmX	XAN	89.14	306	iPc	35	54.80	0.9	BEO	149.47	340	i(PKP)	42	46.00	3.5X
		eS		38	46.20		INK	89.49	14	eP	35	54.00	-0.7	ALT	149.49	322	ePKP	42	46.70	3.8X
		LR		46	19.20		HHC	89.67	313	Pd	35	57.40	1.1	SSF	149.54	4	ePKP	42	47.00	4.4X
GUA	50.73	304	eP	31	59.70	-0.3	LOE	89.93	288	eP	35	59.00	1.2	JVI	149.61	305	ePKP	42	49.00	5.9X
	1.0s	128.00nm			5.9mb		BTO	90.67	312	P	36	02.00	1.1	MFF	149.61	9	ePKP	42	46.40	3.7X
GUMO	50.80	304	eP	32	00.00	-0.5	YKA	91.29	23	eP	36	03.30	0.1		1.0s	52.00nm				
	1.0s	172.00nm			6.0mb		CHG	92.87	289	iPd	36	12.80	1.5	LBF	149.65	3	ePKP	42	47.10	4.3X
PJG	50.80	304	eP	32	00.00	-0.5		0.9s	25.21nm			5.6mb			1.3s	108.30nm				
MTN	53.41	266	eP	32	19.00	-1.0	LZH	93.75	306	eP	36	16.50	1.2	PTJ	149.71	347	ePKP	42	42.60	-0.4
FORR	54.64	244	eP	32	26.50	-2.4		1.5s	88.00nm			6.0mb		AVF	149.80	4	ePKP	42	47.10	4.2X
	0.5s	43.00nm			5.7mb		Z	22s	0.30um			4.7Msz			1.3s	90.25nm				
WARB	56.00	249	eP	32	21.00	-17.8X	GTA	97.75	309	eP	36	34.20	0.8	BNT	149.84	326	iPKP	42	48.60	5.4X
		i		32	27.60	22kmX	MBC	98.15	11	eP	36	34.00	-0.2	LJU	149.87	349	ePKP	42	47.80	4.7X
MBL	62.71	254	eP	33	23.00	-2.0	MAIO	129.20	303	ePKP	42	07.00	0.2	EDC	149.88	326	ePKP	42	48.00	4.7X
	0.3s	7.00nm			5.1mb					e	44	14.00		DST	149.98	324	iPKP	42	48.50	5.0X
NANU	66.46	252	iPd	33	48.90	-0.3	BUL	137.44	212	ePKP	42	22.20	-0.7	SMF	149.98	3	ePKP	42	47.70	4.4X
	0.4s	29.00nm			5.6mb			0.9s	4.62nm					BGF	149.99	5	ePKP	42	47.90	4.6X
PRS	72.17	42	eP	34	24.40	0.4	WIT	143.87	360	ePKP	42	33.00	-0.1		1.2s	87.75nm				
		e		34	50.20	100km	OASM	144.22	292	ePKP	42	33.50	-1.2	VOY	149.99	349	ePKP	42	48.00	4.6X
BCH	72.33	44	P	34	25.50	0.4	KVT	144.65	320	ePKP	42	35.00	0.1	LSF	150.17	7	ePKP	42	48.00	4.4X
BRK	72.55	40	eP	34	26.30	0.2	WTS	144.69	360	ePKP	42	33.00	-1.5	CEY	150.18	349	ePKP	42	49.00	5.4X
BKS	72.57	40	eP	34	26.50	0.2		1.3s	86.00nm					BCK	150.20	319	ePKP	42	48.00	4.0X
	0.8s	22.00nm			5.1mb					e	43	00.50		TCF	150.20	6	ePKP	42	48.40	4.8X
ARN	72.68	41	P	34	26.50	-0.5	KRA	144.87	345	iPKPd	42	33.50	-1.4		1.4s	113.25nm				
PAS	73.02	46	eP	34	29.00	0.0		0.8s	71.00nm					VBY	150.24	347	iPKP	42	49.40	5.7X
MWC	73.14	46	eP	34	29.00	-1.0				e	42	37.70		MAF	150.30	5	ePKP	42	48.50	4.7X
BAR	73.26	48	eP	34	29.00	-1.5	CLL	144.97	353	iPKP	42	34.10	-1.0	TRI	150.33	349	iPKPc	42	48.50	4.7X
PLM	73.49	47	eP	34	31.00	-1.0		1.4s	88.00nm					MBH	150.78	302	ePKPc	42	56.00	11.1X
SPA	73.50	180	ePc	34	33.70	2.2				e	43	03.00		ORX	151.03	358	PKP	42	50.49	5.5X
SBB	73.56	45	eP	34	32.00	-0.2	NAI	145.10	242	iPKPd	42	38.00	1.3	ELL	151.06	318	ePKP	42	51.30	5.9X
PEC	73.58	46	P	34	31.10	-1.2		1.0s	30.00nm					EZN	151.07	327	ePKP	42	50.50	5.5X
FRI	73.63	42	eP	34	32.20	-0.3	BRG	145.28	352	iPKP	42	34.70	-0.9	RJF	151.10	7	ePKP	42	50.40	5.4X
		e		34	58.50	102km		1.4s	90.00nm						0.9s	31.10nm				
ISA	73.68	44	eP	34	33.00	0.1				i	43	05.00		LPG	151.19	359	ePKP	42	51.60	6.1X
CMB	73.82	41	eP	34	33.60	-0.1	SPC	145.59	344	iPKPd	42	36.70	0.2		1.2s	61.00nm				
		e		34	57.50	92km	MOX	145.78	354	iPKP	42	37.00	0.5	LSD	151.23	359	PKP	42	51.92	6.4X
ORV	74.05	39	P	34	35.00	0.1		1.4s	218.00nm					LFF	151.36	8	ePKP	42	50.90	5.6X
WDC	74.07	38	eP	34	35.10	0.1				e	43	05.00			0.9s	47.50nm				
CLC	74.35	44	eP	34	36.00	-0.8	UCC	145.85	2	iPKPc-	42	37.60	1.0	RSP	151.53	359	PKP	42	52.44	6.7X
		e		35	12.00	146kmX	ENN	145.92	0	iPKPd	42	37.20	0.5	CAF	151.54	6	ePKP	42	51.60	5.9X
TPC	74.47	47	eP	34	37.00	-0.5		1.3s	287.00nm						1.3s	54.15nm				
MIN	74.48	39	eP	34	37.00	-0.5				e	43	06.50		IZM	151.58	324	ePKP	42	51.00	5.0X
GSC	74.60	45	eP	34	37.00	-1.3	PRU	146.05	351	iPKPd	42	38.00	1.1	SKO	151.59	336	iPKP	42	52.40	6.6X
GLA	74.77	48	eP	34	39.00	-0.2		1.0s	122.80nm								i	43	22.50	
KVN	75.87	41	P	34	44.60	-1.0				e	43	03.50		LPO	151.67	8	ePKP	42	51.60	5.8X
		pP		35	08.10	89km	MEM	146.08	0	PKPd	42	37.93	1.0	VAY	151.68	334	ePKP	42	52.30	6.4X
TNP	75.88	43	P	34	45.00	-0.7	SNF	146.14	2	PKPd	42	38.01	1.0	RRL	151.77	359	PKP	42	53.56	7.3X
	0.9s	12.70nm			4.8mb		VRI	146.23	334	iPKPd	42	38.00	0.6	PZZ	152.18	359	PKP	42	53.98	7.2X
		pP		35	08.70	90km	DOU	146.56	2	PKP-	42	39.20	1.5	ROB	152.37	358	PKP	42	53.46	6.5X
QZH	77.86	301	Pd	34	56.50	-0.1	GRF	146.76	354	iPKPd	42	40.30	2.2	FIN	152.44	357	PKP	42	53.15	6.1X
LON	78.39	33	P	34	58.80	-0.4	MLR	146.86	334	ePKPc	42	40.30	1.7	OHR	152.58	336	ePKP	42	42.20	-5.1X
GMW	78.40	32	P	34	58.60	-0.5	WLF	147.03	0	PKP	42	41.50	3.0X	IMI	152.75	358	PKP	42	55.51	8.0X
HTW	79.09	33	P	35	02.60	-0.4	KHC	147.03	351	PKP	42	39.60	1.0	BNG	162.99	226	iPKPd	43	01.00	0.6
MSU	79.45	45	P	35	05.60	0.2				i	42	41.10			0.5s	25.00nm				
		pP		35	29.30	90km	ZST	147.28	347	ePKP	42	41.80	2.8X			ic		43	51.50	
PMR	80.34	12	P	35	07.80	-1.5	SRO	147.36	345	iPKP	42	42.80	3.7X		S.D. = 1.0 on 112 of 177 obs.					
	1.2s	53.03nm			5.3mb		VKA	147.39	348	ePKPd	42	41.00	1.8	---						
TTA	80.47	8	P	35	09.80	-0.3	BBTK	147.40	321	ePKP	42	43.00	3.4X	? APR 28, 1989 10h 04m 00.82± 6.16s						
	1.2s	64.39nm			5.4mb		CMP	147.41	335	ePKPd	42	46.00	6.7X	38.845 N ±46.6km 23.634 E ±15.9km						
DPW	81.01	34	P	35	12.60	-0.6	FLN	147.45	8	ePKP	42	40.70	1.5	DEPTH = 10.0km (geophysicist)						
DAU	81.03	43	P	35	13.60	-0.2		1.1s	136.75nm					GREECE						(364)
PNT	81.15	32	eP	35	12.00	-1.8	BUD	147.48	344	ePKP	42	41.80	2.5X							
	0.9s	21.00nm			5.0mb		LDF	147.66	8	ePKP	42	41.00	1.4	NEO	0.56	325	ePb	04	12.30	0.1
ALQ	81.75	50	eP	35	16.70	-0.8		1.4s	152.50nm					PAIG	1.08	2	iPgc	04	21.30	0.2
	1.0s	13.00nm			4.7mb		GWF	147.70	358	PKP	42	42.51	2.8X				iSg	04	30.40	
		e		35	42.00	96km	GRR	147.76	9	ePKP	42	41.70	2.0	OUR	1.51	10	iPc	04	28.30	0.4
SNY	B2.00	318	Pc	35	18.90	0.5		1.0s	80.00nm					PLG	1.53	355	ePb	04	27.80	-0.5

		eSb	04 43.50		
LIT	1.53 325	iPgc	04 28.60	0.3	
		iSg	04 42.80		
THE	1.86 344	ePb	04 32.80	-0.1	
SOH	1.99 354	ePb	04 35.00	0.2	
SRS	2.27 359	ePb	04 38.50	-0.4	
GRG	2.31 336	ePn	04 39.20	-0.4	
		eSn	05 01.60		
KNT	2.38 347	ePn	04 40.80	0.3	

S.D. = 0.4 on 10 of 10 obs.

? APR 28, 1989 10h 10m 02.81± 2.98s
37.196 N ±25.7km 27.901 E ±22.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.31 101	iPg	10 06.00	-3.3X	
IZM	1.30 337	ePn	10 27.00	0.1	
ELL	1.67 105	ePn	10 32.00	-0.3	
KHL	1.71 48	ePn	10 32.50	-0.4	
BCK	2.16 82	ePn	10 40.00	0.6	

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

APR 28, 1989 11h 12m 53.73± 1.41s
30.588 N ± 7.0km 140.556 E ± 9.3km
DEPTH = 117.0 ± 13.7 km
4.6mb (12 obs.)
SOUTH OF HONSHU, JAPAN (211)

MAT	6.25 342	eP	14 23.00	-2.0	
	0.8s	41.04nm		4.8mb	
		eS	15 31.00		
SHK	7.72 303	eP	14 46.50	1.5	
SSE	16.65 277	eP	16 40.00	-1.3	
	Z 24s	0.50um			
GUMO	17.38 166	eP	16 51.50	1.1	
	0.7s	111.82nm		5.2mb	
PJG	17.38 166	eP	16 51.60	1.2	
GUA	17.44 166	eP	16 52.30	1.2	
	0.6s	90.67nm		5.2mb	
CN2	17.82 322	eP	16 54.50	-1.1	
BJI	21.96 302	(P)	17 56.00	17.3X	
	Z 24s	0.32um		3.7MszX	
		eS	21 28.00		
TIY	24.28 295	eP	18 01.50	0.2	
	Z 24s	0.70um		4.1MszX	
BTO	26.65 300	eP	18 25.00	1.7	
XAN	26.90 286	Pd	18 25.00	-0.6	
CHG	39.37 263	eP	20 16.00	2.5	
GUN	47.39 281	P	21 18.40	-0.1	
	0.4s	10.00nm		4.9mb	
PKI	47.89 281	P	21 21.80	-0.5	
KKN	47.93 281	P	21 22.60	0.1	
	0.4s	2.00nm		4.3mb	
GKN	48.41 282	P	21 27.50	1.4	
	0.4s	5.00nm		4.7mb	
WB5	50.53 188	eP	21 39.50	-2.5	
WRA	50.59 188	Pc	21 40.30	-2.2	
	0.4s	1.00nm		4.1mb	
MBL	55.17 204	eP	22 15.30	-1.1	
FORR	62.24 192	eP	23 03.00	-2.1	
MBC	62.90 15	eP	23 08.00	-1.1	
ALE	66.57 3	eP	23 33.00	0.3	
	0.8s	9.00nm		4.7mb	
YKA	69.76 29	eP	23 52.30	-0.3	
DAG	72.13 355	iPc	24 06.90	0.3	
	0.7s	4.79nm		4.4mb	
PNT	73.35 42	eP	24 14.00	-0.3	
EDM	74.88 37	eP	24 22.50	-0.6	
SES	77.60 38	eP	24 40.00	1.7	
		pP	25 03.00	87kmX	
LRM	79.30 43	eP	24 48.50	0.6	
FFC	79.53 32	eP	24 48.00	-0.6	
	0.9s	12.00nm		4.7mb	
HFS	79.66 336	eP	24 49.50	0.2	
	0.4s	1.20nm		4.0mb	
NAO	80.14 338	P	24 51.70	-0.1	
	1.2s	6.60nm		4.3mb	
FRB	83.20 13	eP	25 09.00	1.4	
ZOBO	150.18 68	(PKP)	32 29.00	0.8	
		eLR	25 04.00		
LPB	150.35 68	ePKP	32 37.00	8.8X	
CNCB	150.59 69	ePKP	32 35.00	6.2X	

S.D. = 1.3 on 32 of 35 obs.

? APR 28, 1989 11h 21m 22.35± 3.67s
36.953 N ±27.9km 27.813 E ±24.1km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)

YER	0.42 64	iPg	21 27.40	-3.5X	
IZM	1.51 343	iPn	21 48.60	-0.8	
ELL	1.69 96	iPn	21 52.30	0.1	
KHL	1.93 44	iPn	21 54.00	-1.6	
BCK	2.27 76	ePn	22 01.00	0.4	
ALT	2.77 40	ePn	22 08.00	0.3	
EZN	3.10 338	ePn	22 15.00	2.9X	
KCT	3.32 7	ePn	22 17.00	1.6	
EDC	3.39 1	ePn	22 08.00	-8.3X	

S.D. = 1.4 on 6 of 9 obs.

APR 28, 1989 11h 39m 46.48± 0.43s
39.256 N ± 3.6km 23.570 E ± 4.4km
DEPTH = 9.9 ± 2.5 km
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	0.27 281	ePg	39 52.00	-0.2	
PAIG	0.68 7	iPgc	40 01.20	1.3	
		iSg	40 10.10		
PLG	1.12 355	ePb	40 07.80	0.3	
OUR	1.12 16	iPgc	40 08.20	0.7	
		iSg	40 21.40		
LIT	1.19 316	iPgc	40 08.50	-0.1	
		iSg	40 22.00		
ATH	1.29 175	ePb	40 10.00	-0.3	
THE	1.45 342	ePb	40 13.00	0.3	
SOH	1.57 354	ePbc	40 14.90	0.4	
KZN	1.74 308	ePb	40 16.00	-1.0	
SRS	1.86 1	ePnc	40 18.50	-0.2	
		eSn	40 40.50		
GRG	1.92 333	ePn	40 19.50	-0.1	
		eSn	40 41.70		
KNT	1.97 345	ePnc	40 20.70	0.4	
		eSn	40 43.10		
PRK	2.10 89	ePb	40 26.70	4.6X	
VAY	2.20 340	ePn	40 23.60	0.0	
EZN	2.21 74	ePn	40 24.00	0.3	
MMB	2.33 3	iPc	40 25.00	-0.5	
RDO	2.42 38	ePn	40 26.50	-0.1	
ITM	2.44 212	ePb	40 28.00	0.9	
VLS	2.57 246	ePn	40 28.80	0.0	
RZN	2.58 19	eP	40 29.00	-0.2	
KKB	2.63 352	iPc	40 30.00	0.2	
KDZ	2.78 30	iPd	40 30.00	-1.8	
OHR	2.82 312	ePn	40 40.50	8.0X	
PGB	3.32 8	eP	40 39.00	-0.6	
VTS	3.34 355	iP	40 40.00	0.0	
KCT	3.82 73	ePn	40 49.00	2.3X	

S.D. = 0.7 on 23 of 26 obs.

% APR 28, 1989 11h 51m 16.33± 0.75s
31.715 S ± 6.6km 117.064 E ± 8.3km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

KLB	0.61 79	iPd	51 17.40	-11.2X	
		iS	51 24.70		
MUN	0.77 250	iPd	51 31.20	-0.2	
		iS	51 41.00		
BAL	1.15 344	eP	51 37.90	0.1	
		eS	51 51.90		
NWAO	1.22 173	iPc	51 39.20	0.2	
		iS	51 55.40		
RKG	2.35 181	eP	52 05.00	9.4X	
		iS	52 42.70		
MRWA	2.65 339	eP	52 00.00	0.1	
		iS	52 35.20		
COOL	3.59 78	eP	52 13.00	-0.2	
		eS	52 51.00		

S.D. = 0.3 on 5 of 7 obs.

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* APR 28, 1989 12h 31m 19.07± 1.58s
24.840 N ±13.7km 122.263 E ±16.9km
DEPTH = 100.0 ± 14.1 km
3.9mb (1 obs.)
TAIWAN REGION (243)

ANP	0.76 297	iPc	31 37.00	-0.4	
	0.9s 2151.26nm				
		eS	31 51.50		
QZH	3.34 273	iPnd	32 06.30	-3.9X	
		iSn	32 40.00		
SSE	6.30 352	eP	33 07.50	16.4X	
		Lg	34 55.00		
DL2	14.03 358	eP	34 41.00	6.5X	
GYA	14.16 280	P	34 37.00	0.6	
XAN	14.79 311	eP	34 44.10	-0.2	
TIY	15.32 329	eP	34 53.00	1.9	
CHG	22.45 259	eP	36 09.00	-1.6	
GTA	23.84 313	eP	36 24.10	0.0	
WB5	45.98 164	eP	39 34.00	0.0	
WRA	46.04 164	P	39 36.00	1.5	
	0.5s	1.10nm		3.9mb	
INK	72.25 22	eP	42 33.00	-1.8	
YKA	81.99 23	eP	43 28.80	0.0	

S.D. = 1.4 on 10 of 13 obs.

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* APR 28, 1989 12h 40m 10.80± 1.02s
37.103 N ± 9.3km 27.998 E ± 9.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.23 82	iPg	40 13.80	-2.0	
IZM	1.42 336	ePn	40 36.50	-0.1	
ELL	1.57 102	ePn	40 41.90	3.0X	
KSL	1.61 127	ePb	40 40.00	0.7	
KAP	1.69 203	ePb	40 40.00	-0.4	
		eSb	41 01.20		
KHL	1.72 44	ePn	40 40.50	-0.5	
BCK	2.10 79	ePn	40 48.00	1.5	
ALT	2.56 40	ePn	40 54.00	0.8	

S.D. = 1.4 on 7 of 8 obs.

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* APR 28, 1989 13h 14m 58.51± 0.72s
29.888 N ±16.7km 99.083 E ± 7.7km
DEPTH = 10.0km (geophysicist)
4.6mb (3 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	4.16 75	ePn	16 04.40	0.8	
		ePg	16 10.40		
KMI	5.75 145	Pgd	16 35.00	8.8X	
		Sg	17 44.00		
LSA	6.90 270	eP	17 08.00	25.4X	
LZH	7.36 32	e(P)	16 25.00	-23.8X	
		i	17 23.00		
		eLg	19 04.00		
GYA	7.51 115	P	16 50.40	-0.4	
		pP	16 58.00		
		S	18 07.00		
XAN	9.32 61	eP	17 12.40	-3.6X	
CHG	11.03 181	eP	17 51.80	12.5X	
		e	40 53.00		
CHTO	11.03 181	eP	17 51.80	12.5X	
	1.1s	9.13nm			
PKI	12.22 262	P	17 56.20	0.3	
KKN	12.28 264	P	17 57.00	0.4	
DMN	12.47 263	P	18 01.40	2.2	
BTO	13.92 37	eP	18 24.50	6.4X	
QIZ	14.58 135	eP	18 18.00	-8.7X	
	N 11s	0.70um			
TIA	16.38 63	eP	18 52.30	2.3	
WMO	16.60 330	Pd	19 04.80	11.9X	
BJI	17.26 50	eP	19 13.00	11.9X	
		eS	24 28.00		
HYB	22.49 241	eP	20 07.50	8.0X	
GBA	25.75 236	P	20 44.00	13.0X	
	0.9s	5.50nm			
SUF	56.12 328	iP	24 39.50	-0.5	
NUR	56.90 325	eP	24 45.00	-0.6	
WB5	60.03 141	eP	25 06.30	-1.6	
WRA	60.06 141	Pc	25 14.90	6.7X	
	0.7s	4.40nm		4.7mb	
UPP	60.45 325	iP	25 18.50	8.2X	
HFS	62.34 326	eP	25 21.70	-1.5	
	0.5s	1.20nm		4.3mb	
	Z 14s	1.93um		5.4MszX	
		LR	45 21.00		
NAO	63.57 327	P	25 29.80	-1.4	
	0.9s	4.30nm		4.6mb	

S.D. = 1.5 on 11 of 25 obs.

? APR 28, 1989 13h 19m 59.62±17.00s
41.977 N ±116.km 23.076 E ±17.1km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

KNT	0.83 189	ePgc	20 15.70	0.1	
		eSg	20 25.40		
SRS	0.94 156	ePgc	20 17.10	-0 5	

28d 13h

		eSg	20 29.40			
GRG	1.14	207 ePg	20 20.50	-0.5		
		eSg	20 35.80			
SOH	1.17	170 ePg	20 21.70	0.1		
		eSg	20 36.00			
THE	1.35	184 ePb	20 25.10	0.7		
		eSb	20 41.90			

S.D. = 0.7 on 5 of 5 obs.

APR 28, 1989 13h 30m 19.24± 0.37s
37.004 N ± 2.3km 28.139 E ± 1.9km
DEPTH = 16.9 ± 2.9 km
5.1mb (39 obs.) 5.1Msz (4 obs.)
TURKEY (366)
ML 5.4 (CSS), 5.0 (ATH). Slight damoge in the Milas orea. Felt in the Mugla area and at Izmir.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 28C
Centroid Location:
Origin Time 13:30:22.8 0.5
Lat 36.95N 0.04 Lon 27.79E 0.06
Dep 15.0 FIX Half-duration 2.2
Moment Tensor; Scale 10**17 Nm
Mrr=-2.10 0.09 Mtt= 2.47 0.13
Mff=-0.37 0.08 Mrt= 0.31 0.34
Mrf=-0.27 0.23 Mtf=-0.40 0.10
Principal Axes:

	Val=	Plg=	Azm=
T	2.55	4	8
N	-0.39	7	99
P	-2.16	81	249

Best Double Couple:Mo=2.4**10**17
NP1:Strike= 90 Dip=41 Slip=-101
NP2: 285 50 -80

YER	0.17	41 iPg	30 24.30	0.4	
ELL	1.44	100 iPn	30 48.40	3.7X	
KSL	1.46	127 iPnc	30 48.80	4.0X	
IZM	1.56	334 iPn	30 46.00	-0.3	
KAP	1.65	209 iPnc	30 47.80	0.3	
KHL	1.71	39 iPn	30 50.00	1.4	
BCK	2.01	76 ePn	30 57.00	4.1X	
ALT	2.57	37 iPn	31 02.20	1.2	
DST	2.63	8 iPn	31 02.20	0.5	
PRK	2.68	327 ePn	31 01.60	-0.8	
EZN	3.16	334 ePn	31 07.50	-1.6	
EDC	3.34	356 iPn	31 11.00	-0.8	
BNT	3.35	357 iPn	31 10.40	-1.5	
VAM	3.56	245 ePn	31 16.00	1.1	
ATH	3.65	287 ePn	31 16.00	-0.1	
GPA	3.69	27 iPn	31 17.70	0.9	
GBZT	3.91	15 ePn	31 20.70	0.9	
HRT	3.99	17 ePn	31 20.90	-0.1	
PPCY	4.01	121 eP	31 23.00	1.7	
ISK	4.12	10 ePn	31 22.70	0.0	
CTT	4.14	3 ePn	31 20.40	-2.7X	
NEO	4.50	302 ePn	31 29.00	0.7	
PAIG	4.56	311 ePnd	31 28.70	-0.3	
		eSn	32 22.30		
BBTK	4.60	51 iPc	31 32.00	2.2	
		iS	32 46.00		
RDO	4.60	335 ePn	31 28.20	-1.5	
OUR	4.65	317 ePn	31 29.70	-0.7	
CSS	4.68	114 eP	31 33.00	2.2	
		eS	32 24.00		
LFK	4.69	110 iPn	31 32.40	1.4	
DMK	4.82	357 iPn	31 30.80	-1.9	
ITM	4.97	274 ePn	31 36.00	1.1	
PLG	4.98	314 ePn	31 33.00	-2.0	
KDZ	5.10	336 iPc	31 36.00	-0.6	
FAM	5.16	111 eP	31 40.00	2.5X	
SOH	5.33	317 ePn	31 39.50	-0.6	
RZN	5.38	331 iPc	31 40.00	-0.8	
LIT	5.40	307 ePn	31 40.60	-0.4	
		eSn	32 42.90		
SRS	5.42	321 ePn	31 40.40	-0.9	
THE	5.43	313 ePn	31 41.10	-0.2	
DIM	5.43	339 iP	31 40.00	-1.3	
JMB	5.59	348 eP	31 42.00	-1.6	
MMB	5.72	325 iPc	31 44.00	-1.4	
PLD	5.74	334 iPc	31 46.00	0.2	
KNT	5.82	317 ePn	31 46.60	-0.2	
GRG	5.96	313 ePn	31 49.10	0.2	
		eSn	32 56.90		
KZN	5.98	305 ePn	31 49.00	-0.1	
VAY	6.11	317 iPn	31 50.60	-0.3	
VLS	6.11	283 ePn	31 52.00	1.1	
KAS	6.17	43 iPd	31 53.10	1.2	
KKB	6.24	323 iPc	31 51.00	-1.7	
PGB	6.33	332 iPc	31 52.00	-2.1	
PVL	6.57	342 iPc	31 54.00	-3.4X	
PSN	6.67	0 iPd	31 57.00	-1.8	
LSK	6.69	300 iPd	32 01.50	2.3	
VTS	6.75	327 iPc	31 59.00	-1.1	
SRN	7.00	297 iP	32 05.20	1.7	
ADI	7.01	122 eP	32 01.20	-2.4X	
OHR	7.03	308 ePn	32 04.80	0.8	
TPE	7.16	300 iPc	32 10.00	4.3X	
SKO	7.17	316 iPn	32 05.60	-0.3	
	N 11s	31.89um			
	E 11s	40.00um			
		eSn	33 27.00		
		i	33 48.00		
		LQ	34 20.00		
ATZ	7.19	123 iPd	32 04.40	-1.8	
		eS	33 24.00		
KVT	7.38	54 ePn	32 11.00	2.2X	
BERA	7.38	303 eP	32 10.70	1.9	
ZNT	7.41	128 eP	32 06.90	-2.3	
		eS	33 29.50		
BUC1	7.51	348 ePc	32 12.00	1.5	
BUC	7.56	349 ePd	32 11.00	-0.3	
PHP	7.58	310 iPc	32 10.00	-1.5	
HLW	7.61	159 iPn	32 13.00	1.0	
		eSn	33 33.00		
TIR	7.75	307 eP	32 17.00	3.0X	
BURJ	7.89	125 P	32 15.60	-0.4	
SALJ	7.97	126 P	32 16.10	-1.1	
LACI	8.00	308 eP	32 21.00	3.5X	
KFNJ	8.07	127 P	32 17.60	-0.8	
CFR	8.17	0 iPd	32 17.00	-2.8X	
MASJ	8.18	128 P	32 17.20	-2.9X	
BCI	8.21	313 eP	32 21.40	1.1	
ISR	8.21	352 iPd	32 19.00	-1.5	
MKRJ	8.25	129 P	32 19.00	-2.1	
BRD	8.54	355 ePd	32 24.00	-1.0	
CMP	8.58	345 ePc	32 25.00	-0.6	
LCI	8.63	296 P	32 22.50	-3.8X	
MLR	8.64	350 ePc	32 24.70	-1.8	
QUTJ	8.65	129 P	32 25.20	-1.5	
VRI	8.92	354 iPc	32 30.00	-0.2	
MBH	9.15	140 iP	32 31.50	-1.9	
PPE	9.21	358 eP	32 48.50	14.3X	
GRI	9.44	285 P	32 37.90	0.5	
CLI	9.56	356 iPd	32 37.50	-1.6	
BAC	9.60	355 eP	32 33.00	-6.6X	
HOL	9.64	141 eP	32 38.50	-1.7	
TDS	9.64	290 P	32 40.30	0.1	
SOI	9.66	280 P	32 39.60	-0.8	
DEV	9.70	338 ePc	32 42.00	1.0	
BEO	9.73	326 ePn	32 43.00	1 6	
	Z 10s	38.70um			
		e(Sg)	35 13.00		
BZS	9.90	332 ePc	32 31.00	-12.7X	
PTT	10.01	353 eP	32 45.00	-0.2	
ATN	10.13	280 Pc	32 45.20	-1.7	
MGR	10.34	291 Pc	32 48.90	-0.9	
AYN	10.46	139 eP	32 50.50	-0.9	
PZI	10.58	274 P	32 51.50	-1.6	
SGO	10.63	293 P	32 52.90	-0.8	
MNO	10.73	279 Pc	32 54.10	-1.2	
BSS	11.06	294 P	32 59.40	-0.2	
BMR	11.20	344 ePd	33 19.00	17.5X	
MCT	11.57	277 P	33 07.00	0.2	
SDI	12.04	297 Pc	33 14.80	1.8	
MSL	12.07	88 ePc	33 20.50	7.2X	
		eS	35 45.00		
		eSSS	36 30.50		
		eLQ	37 31.00		
BUD	12.45	330 e(P)	33 19.00	0.6	
ZAG	12.67	318 iP	33 22.50	1.2	
PTJ	12.73	318 eP	33 22.40	0.1	
VBY	12.87	315 eP	33 24.20	0.2	
SRO	13.00	329 iP	33 26.80	1.1	
ARV	13.29	304 P	33 28.50	-1.1	
ASS	13.31	302 Pc	33 31.40	1.5	
SPC	13.46	337 eP	33 31.10	-0.9	
		LR	13 38.00		
CEY	13.48	315 ePd	33 31.50	-0.6	
LJU	13.60	316 eP	33 33.90	0.2	
		eS	36 23.00		
BHD	13.81	101 ePd	33 38.00	1.6	
		eS	36 10.00		
		e	39 12.00		
ZST	13.81	328 iP	33 36.30	0.0	
	Z 10s	23.50um			
		e(S)	36 16.00		
TRI	13.85	313 iPnc	33 45.30	8.4X	
		iSn	36 34.50		
		e	37 55.00		
		i	38 30.00		
VOY	13.96	315 ePd	33 37.60	-0.8	
SFI	14.18	304 P	33 43.20	1.9	
VKA	14.20	326 ePd	33 41.00	-0.6	
	3.0s	425.00nm		5.6mb X	
		i	33 58.00		
		LR	40 08.00		
PGD	14.25	304 P	33 43.70	1.3	
KRA	14.32	338 eP	33 44.30	1.2	
	Z 12s	7.80um			
	N 16s	7.60um			
		e	33 54.00		
		e	34 01.30		
		e	36 27.00		
RBL	14.38	316 P	33 43.00	-0.9	
TAB	14.47	80 eP	33 49.00	3.7X	
FIR	14.52	303 ePn	33 45.00	-0.8	
		i	34 45.00		
		i	36 46.00		
VVI	14.78	312 P	33 49.10	-0.1	
KBA	14.88	317 iPc	33 50.70	0.1	
	1.3s	162.50nm		5.3mb X	
		i	33 57.60		
		i(PP)	34 00.70		
		i	34 06.60		
		eSS	37 02.00		
FVI	14.91	315 Pc	33 50.30	-0.5	
MME	15.05	304 P	33 53.80	0.8	
KMR	15.09	321 iP-	33 54.00	0.8	
		i	38 39.60		
SAL	15.76	309 Pc	34 03.90	2.1	
KHC	16.09	323 iPc	34 07.00	0.9	
		i	34 11.80		
BOB	16.10	305 P	34 09.20	2.9X	
PRU	16.27	327 eP	34 06.70	-1.6	
	Z 13s	8.30um			
	N 13s	8.00um			
	E 12s	9.00um			
		e	34 13.60		
		S	37 28.00		
MDI	16.34	308 Pc	34 12.10	2.8X	
FIN	16.74	302 P	34 13.56	-0.8	
IMI	16.86	300 P	34 16.30	0.3	
VAI	16.98	307 P	34 18.60	1.3	
ROB	16.99	302 P	34 17.32	-0.3	
QASM	17.02	125 eP	34 21.30	3.2X	
SBF	17.16	300 eP	34 21.00	1.2	
BRG	17.18	328 iP	34 21.50	1.7	
	2.1s	180.00nm		4.8mb	
		i	34 27.50		
		i	34 35.30		
		eS	37 40.00		
STV	17.35	301 P	34 22.47	0.3	
ORO	17.39	306 P	34 23.30	0.7	
ORX	17.39	306 P	34 22.71	0.1	
GRF	17.62	321 ePn	34 24.10	-1.2	
	Z 16s	5.00um			
		e	34 26.80		
		e	34 30.00		
FRF	17.63	298 eP	34 27.80	2.2	
	1.2s	142.80nm		5.0mb	
LMR	17.68	298 eP	34 26.00	-0.1	
RSP	17.69	304 P	34 26.56	0.2	
LRG	17.81	298 eP	34 30.30	2.6X	
	1.2s	166.60nm		5.0mb	
LSD	17.86	305 P	34 28.09	-0.6	
CLL	17.90	328 ePd	34 29.00	0.2	
	2.2s	190.00nm		4.8mb	
		eS	37 54.00		
RRL	17.93	303 P	34 28.76	-0.7	
BNI	18.04	303 P	34 33.30	2.5	
MOX	18.06	324 eP+	34 32.00	1.3	
	1.2s	207.00nm		5.1mb	
	Z 48s	3.60um			
	N 14s	11.00um			
	E 14s	9.60um			
		i	34 34.00		
		eS	37 56.00		
		eSS	38 16.00		
		eLR	39 10.00		

LPG	18.14	305	eP	34	34.30	2.1	SOD	30.43	359	iP	36	33.30	0.8	SNG	71.73	95	eP	41	25.30	-17.3X
	0.9s	102.30nm			5.0mb		KEV	32.82	359	eP	36	54.00	0.6	NJ2	72.06	63	Pc	41	45.00	0.6
BBS	18.46	311	P	34	36.08	0.3				eS	42	20.00		INK	74.11	353	eP	41	54.00	-1.7
TEH	18.76	87	eP	34	48.00	8.3X	QUE	32.87	90	eP	36	53.40	-1.2	YKC	76.40	343	ePc	42	08.50	-0.4
LOMF	18.82	310	P	34	39.73	-0.5	BNG	33.59	197	iPd	37	00.20	-0.5		0.9s	15.00nm			5.1mb	
MOF	18.86	312	P	34	40.14	-0.6		1.0s	40.00nm			5.3mb		YKA	76.41	343	P	42	08.30	-0.7
CDF	19.04	313	P	34	43.18	0.3				ic	37	55.80		ITR	77.05	249	eP	42	12.30	-1.0
BSF	19.05	311	P	34	43.26	0.1				id	38	34.90		IMA	77.25	1	P	42	14.80	1.1
GWF	19.12	315	P	34	44.86	1.0				id	42	22.10			1.2s	34.09nm			5.3mb	
HAU	19.40	311	eP	34	48.50	1.3				id	47	18.40		FBA	78.38	358	P	42	20.70	0.9
	1.4s	156.80nm			5.1mb					ic	50	46.80			1.2s	37.88nm			5.3mb	
VITF	19.71	312	P	34	49.89	-0.7	KSH	37.32	71	eP	37	33.00	0.6	RSON	78.70	327	P	42	20.80	-1.1
RYD	19.99	123	eP	34	55.50	1.7	N	12s		1.30um					1.5s	49.00nm			5.3mb	
WLF	20.30	315	P	34	58.10	1.3	LWI	39.05	179	iP+	37	50.00	2.9X	FFC	79.11	333	eP	42	23.00	-1.0
PLDF	20.37	304	P	34	56.85	-0.8	AKU	39.22	332	iP	37	49.30	1.5		1.3s	33.00nm			5.2mb	
LBL	20.42	302	P	34	57.73	-0.3		1.9s	147.37nm			5.4mb		TTA	80.35	2	P	42	31.40	0.8
SMF	20.44	306	eP	34	58.10	-0.2	NDI	41.68	87	eP	38	09.80	1.3		1.2s	34.09nm			5.2mb	
LBF	20.47	307	eP	34	58.30	-0.3	KIC	42.76	233	Pc	38	16.00	-1.5	PMR	81.73	359	P	42	37.90	0.2
LOR	20.64	307	eP	35	00.00	-0.4		1.0s	39.00nm			5.1mb			1.2s	49.24nm			5.4mb	
	0.9s	87.00nm			5.1mb		LIC	43.05	233	P	38	18.50	-1.3	MAT	82.30	50	(P)	42	42.00	0.8
PYM	20.72	303	P	35	00.95	-0.3	DAG	44.84	346	eP	38	33.00	-0.6		1.4s	34.88nm			5.3mb	
AGO	20.72	304	P	35	00.89	-0.3	WMQ	45.00	62	Pd	38	36.50	1.0	EDM	84.14	338	iPc	42	50.10	-0.3
SSF	20.80	307	eP	35	02.10	0.1	Z	16s		2.30um			5.2MszX	RSCP	85.13	312	P	42	54.70	-1.0
AVF	20.80	306	eP	35	01.90	-0.1	E	12s		1.40um					1.3s	29.03nm			5.3mb	
MEM	20.87	318	Pc	35	02.90	0.2	GKN	47.89	84	P	38	58.60	0.0	SES	85.83	335	ePc	42	58.00	-0.9
ENN	21.00	318	iPc	35	04.70	0.7	HYB	48.29	100	eP	39	02.50	0.9	ELC	86.10	315	P	42	59.20	-1.2
	1.0s	104.00nm			5.2mb		DMN	48.43	84	P	39	03.20	0.3	FVM	86.28	316	P	43	00.40	-0.9
BGF	21.06	305	eP	35	05.00	0.3	KKN	48.49	84	P	39	03.20	-0.1	BAO	88.60	249	e(P)	43	13.00	0.1
MAF	21.15	304	eP	35	05.60	0.0	PKI	48.69	84	P	39	05.00	0.0	PNT	89.42	340	eP	43	16.00	-0.3
CAF	21.16	300	eP	35	06.00	0.3	GUN	48.91	83	P	39	06.60	-0.1	LRM	90.24	334	eP	43	20.10	-0.4
	1.4s	156.80nm			5.2mb		GBA	49.63	105	Pd	39	12.20	0.3	DPW	90.32	338	P	43	19.50	-1.1
WTS	21.24	322	iPc	35	06.60	0.2		0.6s	2.90nm			4.5mb		UYO	91.29	316	eP	43	24.90	-0.3
	1.0s	77.00nm			5.1mb		KMZ	50.23	183	iP	39	17.00	0.4	CTA	124.00	91	ePKP	49	18.00	-0.5
DOU	21.39	315	P+	35	08.10	0.1				i	39	23.80					i	51	15.20	
	0.9s	100.00nm			5.2mb					i	39	32.40		SPA	126.82	180	ePKP	49	24.00	1.3
		S		39	06.00		PTZ	51.06	176	iP	39	22.60	-0.2		1.0s	10.00nm				
TCF	21.40	304	eP	35	08.40	0.2				i	39	27.70			S.D. = 1.0	on 249 of 286 obs.				
RJF	21.62	301	eP	35	10.90	0.5				i	39	35.80		----------						
	1.2s	83.30nm			5.0mb		LSZ	52.00	180	iP	39	30.70	0.8	*	APR 28, 1989 13h 39m 12.53± 1.08s					
LPO	21.72	299	eP	35	12.10	0.8				i	39	44.50			37.086 N ± 9.9km 27.881 E ±11.4km					
	1.4s	87.10nm			5.0mb		NPA	52.86	166	eP	39	40.40	4.1X		DEPTH = 10.0km (geophysicist)					
SNF	21.77	316	P	35	11.90	0.2	ALE	53.62	351	eP	39	41.00	-0.2		TURKEY					(366)
BBU	21.79	113	eP	35	06.50	-5.6X		0.4s	2.00nm			4.5mb								
	0.5s	71.00nm			5.3mb		GTA	54.98	64	eP	39	52.00	0.1	IZM	1.40	340	ePn	39	39.00	0.9
WIT	21.80	323	iPc	35	12.70	0.6	N	16s		0.90um				KAP	1.63	201	ePn	39	41.00	-0.4
EBR	21.81	289	eP	35	08.00	-4.2X	BUL	56.84	179	iPd	40	05.00	-0.3				eSn	40	02.50	
UCC	21.87	317	P+	35	15.00	2.3		0.7s	7.19nm			4.8mb		ELL	1.66	101	ePn	39	42.00	0.1
		S		39	16.00		AVY	58.61	158	iPc	40	19.36	1.5	KSL	1.68	125	ePn	39	42.00	0.0
BEE	21.95	114	iP	35	09.00	-4.7X	LZH	59.23	66	P	40	23.00	0.9	BCK	2.19	79	ePn	39	51.00	1.4
BJA	22.03	113	(P)	35	09.80	-4.7X		6.0s	411.00nm			5.7mb X		ALT	2.64	41	ePn	39	54.00	-2.0
DBN	22.13	320	iP+	35	17.00	1.7				e(S)	52	36.00			S.D. = 1.5	on 6 of 6 obs.				
Z	10s	7.20um			5.4MszX		FRB	60.31	329	eP	40	27.00	-1.9	----------						
		eS		39	18.00		CD2	61.50	71	eP	40	37.00	-0.5	?	APR 28, 1989 13h 43m 34.45± 3.60s					
MFF	23.06	303	eP	35	25.50	1.0	BTO	61.67	59	P	40	39.50	0.9		16.567 S ±116.km 174.508 W ±69.2km					
LDF	23.61	308	eP	35	30.20	0.3	N	11s		0.30um					DEPTH = 173.2 ± 14.9 km					
	1.1s	126.90nm			5.4mb		E	11s		0.30um					4.6mb (5 obs.)					
NUR	23.63	356	iP	35	30.50	0.5				PP	42	53.50			TONGA ISLANDS					(173)
	0.8s	41.10nm			5.0mb					S	48	50.50								
Z	20s	3.20um			4.8Msz		SCH	63.32	320	eP	40	46.00	-3.3X	AFI	3.73	45	P	44	32.60	0.0
		eS		39	44.00		CHTO	63.81	86	eP	40	51.00	-2.0				eS	45	11.00	
		LR		45	00.00			1.0s	6.25nm			4.7mb		DZM	18.79	250	iPc	47	50.90	7.7X
UPP	23.85	347	iP	35	32.20	0.1	XAN	63.87	66	Pc	40	53.40	0.2	WB5	48.53	258	eP	52	02.20	0.1
		iS		39	46.00		TIY	64.65	61	eP	40	58.20	-0.1	ASPA	48.75	253	iPc	52	03.40	-0.3
FLN	23.89	309	eP	35	33.20	0.6	Z	18s		0.97um			5.0Msz		1.1s	20.00nm			4.6mb	
	1.3s	202.10nm			5.5mb		E	15s		0.90um				WARB	55.24	249	eP	52	42.00	-10.0X
GRR	24.01	307	eP	35	34.30	0.5				S	49	42.00		MBL	61.92	255	eP	53	37.80	-0.4
LPF	24.03	307	eP	35	34.40	0.5	SEK	64.98	181	eP	40	56.00	-4.4X		0.3s	4.00nm			4.8mb	
HFS	24.93	343	eP	35	41.70	-0.9		1.1s	25.32nm			5.3mb		NANU	65.68	252	iPd	54	03.30	0.7
	0.8s	54.50nm			5.3mb		MBC	65.15	352	eP	41	00.00	-0.9		0.3s	7.00nm			5.0mb	
MAIO	25.11	82	eP	35	46.00	1.3	GYA	65.90	74	iPd	41	07.00	0.5	CMB	74.34	42	eP	54	54.70	-0.1
		eS		40	20.00		BJI	66.10	57	eP	41	07.00	-0.5	WDC	74.55	38	eP	54	56.00	0.2
TOL	25.30	286	iP-	35	46.00	-0.3		5.0s	0.41nm			2.8mb X		ORV	74.55	40	eP	54	55.90	0.0
	1.0s	40.00nm			5.0mb		Z	20s	1.21um			5.1Msz		KVN	76.39	42	iP	55	06.00	-0.5
SUF	25.77	358	eP	35	51.00	0.5	N	14s	0.45um					TNP	76.41	43	iP	55	07.00	0.3
MAL	25.98	279	iPc	35	52.50	-0.1				eS	49	56.00			1.0s	8.00nm			4.4mb	
		iS		40	16.00		TIA	68.66	60	eP	41	23.50	-0.2	PNT	81.57	33	eP	55	34.00	0.1
NRA0	25.98	341	P	35	52.40	-0.1	WHN	69.59	67	eP	41	30.00	0.5		0.6s	4.00nm			4.3mb	
NAO	26.24	341	P	35	53.90	-1.0	SNY	70.03	52	Pc	41	32.00	0.0	BW06	83.85	42	iP	55	46.00	0.0
	1.2s	27.40nm			4.8mb		Z	34s	1.00um			4.8MszX		SES	86.76	35	ePd	56	00.00	0.0
IFR	27.31	273	iPc	36	06.00	0.9	N	34s	1.90um					YKA	91.59	24	P	56	27.90	5.6X
EKA	28.03	321	P	36	10.00	-1.2	E	34s	1.10um					CLL	144.82	352	iPKP	02	51.90	-0.1
	1.1s	34.70nm			5.0mb					eS	50	46.00			1.5s	12.00nm				
ECP	28.55	313	eP	36	14.20	-1.7	CN2	70.15	50	Pc	41	33.50	0.8	KHC	146.86	350	PKP	03	01.00	5.4X
ARO	28.61	149	ePd	36	20.00	3.1X		4.5s	0.70nm			3.1mb X					e	03	50.50	
ETA	28.63	314	eP	36	15.60	-1.0	Z	19s	1.40um			5.2Msz			S.D. = 0.3	on 14 of 18 obs.				
AVE	29.20	273	eP	36	21.00	-0.9				epP	41	44.00	34kmX	----------						
TIO	29.86	269	iP	36	28.90	0.8	TUH	70.44	188	eP	41	21.00	-13.4X		APR 28, 1989 13h 44m 05.18± 0					

28d 13h

36.982 N ± 5.5km 28.006 E ± 6.8km
DEPTH = 20.2 ± 5.2 km
4.0mb (1 obs.)
DODECANESE ISLANDS (369)

YER	0.27	55	ePg	44 11.30	-0.2
IZM	1.53	338	iPn	44 32.60	1.0
KSL	1.53	124	eP	44 36.00	4.4X
ELL	1.54	98	iPn	44 36.90	5.1X
KAP	1.58	205	iPd	44 34.80	2.6
			eS	44 56.20	
KHL	1.80	42	iPn	44 37.00	1.5
BCK	2.12	76	ePn	44 44.50	4.4X
PRK	2.64	329	eP	44 48.00	0.5
ALT	2.65	38	iPn	44 50.00	2.2
DST	2.66	10	iPn	44 47.90	0.0
EZN	3.13	336	iPn	44 54.40	0.0
KCT	3.27	5	iPn	44 54.90	-1.6
EDC	3.36	358	iPn	44 57.30	-0.4
BNT	3.37	359	iPn	44 57.40	-0.4
GPA	3.76	28	ePn	45 04.70	1.3
HRT	4.05	18	ePn	45 08.00	0.6
ISK	4.16	11	ePn	45 11.00	2.0
LFK	4.79	109	eP	45 23.00	5.0X
DMK	4.84	358	iPn	45 17.80	-0.8
KDZ	5.08	337	iP	45 22.00	0.0
RZN	5.35	333	iPc	45 26.00	0.0
DIM	5.41	340	eP	45 27.00	0.3
MMB	5.67	326	iPd	45 30.00	-0.5
KKB	6.19	324	eP	45 37.00	-0.7
KAS	6.26	44	ePg	45 49.00	10.2X
			iSg	46 06.00	
ADI	7.09	121	eP	45 50.40	0.0
JVI	7.88	128	e(P)	45 59.80	-1.7
			e(S)	47 27.00	
MLR	8.64	350	ePc	46 12.50	0.3
MBH	9.20	139	ePc	46 19.00	-0.8
KHC	16.05	324	eP	47 57.80	6.6X
BRG	17.14	329	e(P)	48 13.50	8.5X
	1.0s		12.00nm		4.0mb
CLL	17.87	328	eP	48 21.00	7.0X
MOX	18.01	324	e(P)	48 20.00	4.2X

S.D. = 1.2 on 24 of 33 obs.

? APR 28, 1989 14h 04m 00.03± 1.66s
37.117 N ±15.1km 28.048 E ±17.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	1.42	334	ePn	04 26.00	0.1
ELL	1.54	103	ePn	04 27.90	0.3
KSL	1.59	128	ePb	04 28.00	-0.2
KHL	1.68	44	ePn	04 29.50	-0.2
KAP	1.71	205	ePg	04 37.00	6.9X
			eSb	04 49.00	

S.D. = 0.4 on 4 of 5 obs.

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* APR 28, 1989 14h 05m 35.22± 1.01s
37.122 N ± 9.3km 27.867 E ±11.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	1.36	340	ePn	06 01.00	0.8
KAP	1.66	200	ePb	06 04.00	-0.6
			eSb	06 25.00	
ELL	1.68	102	ePn	06 05.60	0.7
KSL	1.71	125	ePn	06 05.50	0.4
KHL	1.78	47	ePn	06 05.00	-1.3

S.D. = 1.3 on 5 of 5 obs.

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* APR 28, 1989 14h 18m 33.41± 0.88s
37.123 N ± 7.8km 27.847 E ±10.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	1.35	340	ePn	18 59.00	0.7
KAP	1.66	199	eP	19 02.00	-0.7
			eS	19 23.00	
ELL	1.69	102	iPn	19 05.40	2.1
KSL	1.72	125	eP	19 03.00	-0.5
KHL	1.79	47	iPn	19 03.50	-1.1
PRK	2.46	330	eP	19 20.00	5.9X
ALT	2.63	42	ePn	19 16.00	-0.7
EZN	2.95	337	ePn	19 22.00	0.9
EDC	3.22	0	ePn	19 24.30	-0.7

S.D. = 1.3 on 8 of 9 obs.

APR 28, 1989 14h 33m 59.79± 1.20s
36.537 N ±11.8km 70.890 E ± 7.3km
DEPTH = 173.5 ± 15.1 km
3.9mb (5 obs.)
HINDU KUSH REGION (718)

QUE	7.14	209	iPc	35 43.20	0.4
			eS	37 00.20	
MAIO	9.19	272	eP	36 09.00	-0.8
			eS	37 50.00	
NDI	9.47	144	iP	36 13.50	0.1
	0.5s		158.45nm		5.8mb X
			iS	37 51.80	
GKN	14.40	122	P	37 17.20	0.3
DMN	14.97	122	P	37 24.30	0.2
KKN	14.97	122	P	37 23.70	-0.4
PKI	15.20	122	P	37 27.00	-0.1
GUN	15.31	120	P	37 28.60	0.1
POO	18.12	171	eP	38 18.50	17.1X
HYB	20.22	158	eP	38 23.00	0.0
	0.8s		30.80nm		4.8mb
GBA	23.58	164	Pc	38 56.20	0.4
	0.6s		5.20nm		4.3mb
HFS	42.98	322	eP	41 42.50	-0.4
	0.4s		1.50nm		3.9mb
NAO	44.46	323	P	41 56.30	1.5
	0.5s		0.90nm		3.6mb
FRB	75.00	343	eP	45 38.00	14.9X
WRA	82.09	122	P	46 01.00	-1.1
	0.5s		0.60nm		3.6mb

S.D. = 0.7 on 13 of 15 obs.

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* APR 28, 1989 14h 50m 15.58± 1.03s
37.089 N ± 8.8km 27.860 E ± 9.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.34	82	ePg	50 20.70	-2.0
IZM	1.39	340	ePn	50 41.50	0.5
KAP	1.63	200	ePb	50 43.50	-0.9
ELL	1.68	101	iPn	50 46.44	1.2
KSL	1.69	124	ePb	50 46.00	0.7
KHL	1.81	46	ePn	50 46.50	-0.5
BCK	2.21	79	ePn	50 54.00	1.1
PRK	2.49	330	ePn	51 04.50	7.7X
ALT	2.65	41	ePn	50 59.00	-0.1

S.D. = 1.3 on 8 of 9 obs.

APR 28, 1989 14h 52m 56.42± 0.97s
37.063 N ± 6.2km 27.962 E ± 6.7km
DEPTH = 6.8 ± 5.8 km
4.2mb (12 obs.)
TURKEY (366)

YER	0.27	74	iPg	53 01.70	-0.2
IZM	1.44	338	iPn	53 22.20	-0.9
ELL	1.59	101	iPn	53 26.90	1.7
KSL	1.61	125	iPd	53 27.40	2.1X
KAP	1.64	203	iPc	53 25.00	-0.8
KHL	1.77	44	iPn	53 27.50	-0.2
BCK	2.13	78	ePn	53 36.50	3.5X
PRK	2.55	329	eP	53 38.00	-0.9
DST	2.59	11	ePn	53 37.90	-1.6
ALT	2.61	40	iPn	53 39.70	-0.2
EZN	3.04	336	ePn	53 44.00	-1.8
KCT	3.20	5	ePn	53 49.40	1.3
EDC	3.28	359	iPn	53 47.60	-1.7
BNT	3.29	359	iPn	53 47.40	-2.0
GPA	3.71	29	ePn	53 56.70	1.3
GBZT	3.90	17	eP	54 11.80	13.8X
HRT	3.98	19	ePn	53 59.00	-0.3
ISK	4.09	12	ePn	54 01.00	0.3
CTT	4.09	5	ePn	54 03.00	2.2
PAIG	4.41	312	ePn	54 01.80	-3.5X
RDO	4.49	336	eP	54 05.50	-0.9
DMK	4.76	358	iPn	54 07.80	-2.4
LFK	4.84	110	eP	54 12.40	0.8
KDZ	4.99	337	iP	54 12.00	-1.5
LIT	5.25	307	ePn	54 11.00	-6.3X
RZN	5.26	332	eP	54 16.00	-1.5
DIM	5.32	340	eP	54 20.00	1.8
JMB	5.50	349	eP	54 20.00	-0.8
MMB	5.59	325	iPd	54 21.00	-1.0
PLD	5.63	334	eP	54 24.00	1.4
VAY	5.97	317	ePn	54 31.50	4.2X
VTS	6.62	328	iP	54 39.00	2.3
HRI	7.41	118	eP	54 44.00	-3.7X
KVT	7.46	55	eP	54 48.00	-0.3
JVI	7.96	128	eP	54 52.00	-3.3X
CMP	8.49	346	ePd	56 01.00	58.3X
MLR	8.56	350	ePc	55 03.50	-0.3
VRI	8.85	354	eP	55 10.00	2.4
MBH	9.29	140	eP	55 11.00	-2.7
KHC	15.96	324	iPd	56 49.30	6.3X
	1.1s		12.50nm		4.0mb
PRU	16.14	327	P	56 51.10	5.9X
CLL	17.78	328	e(P)	57 11.00	5.2X
MOX	17.93	324	e(P)	57 13.00	5.3X
	1.3s		24.00nm		4.2mb
LPG	17.99	305	eP	57 12.60	3.7X
	1.2s		26.70nm		4.2mb
SMF	20.29	306	eP	57 35.40	0.0
	1.0s		20.00nm		4.4mb
LOR	20.50	307	eP	57 37.60	0.0
	0.8s		5.90nm		4.0mb
AVF	20.66	306	eP	57 39.40	0.2
	1.0s		18.00nm		4.4mb
BGF	20.91	305	eP	57 42.60	0.8
	1.0s		24.00nm		4.5mb
NUR	23.56	356	eP	58 11.00	3.0X
GRR	23.87	307	eP	58 12.10	1.0
LPF	23.88	306	eP	58 13.10	1.9
	1.2s		26.10nm		4.7mb
HFS	24.83	343	eP	58 21.90	1.6
	0.5s		0.90nm		3.7mb
SUF	25.71	358	eP	58 29.00	0.4
	0.6s		2.50nm		4.1mb
NAO	26.14	341	P	58 31.00	-1.7
	0.6s		1.20nm		3.8mb
BNG	33.60	197	iPc	59 39.40	-0.2
	0.8s		9.00nm		4.8mb
YKA	76.32	343	P	04 49.40	2.1

S.D. = 1.5 on 41 of 56 obs.

APR 28, 1989 15h 13m 54.78± 0.57s
39.226 N ± 4.7km 23.632 E ± 5.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.33	284	ePb	14 01.60	0.0
PAIG	0.70	3	ePgc	14 10.10	1.5
			eSg	14 19.10	
OUR	1.14	14	ePgc	14 17.00	0.9
PLG	1.16	353	ePn	14 16.50	0.1
LIT	1.24	315	ePg	14 17.50	-0.4
			eSg	14 32.10	
ATH	1.25	177	ePn	14 18.60	0.5
THE	1.50	340	ePbc	14 21.50	-0.1
			eSb	14 39.40	
SOH	1.61	352	ePbc	14 23.70	0.4
KZN	1.80	308	ePn	14 25.50	-0.6
SRS	1.89	359	ePnc	14 23.70	-3.7X
			eSn	14 48.90	
GRG	1.97	332	ePn	14 28.30	-0.3
			eSn	14 50.20	
KNT	2.01	344	ePnc	14 29.70	0.5
			eSn	14 51.10	
EZN	2.17	73	ePn	14 31.00	-0.4
VAY	2.25	339	ePn	14 32.60	0.1
MMB	2.36	2	iPc	14 34.00	-0.2
RZN	2.59	18	iPc	14 37.00	-0.7
KKB	2.67	351	iPc	14 38.00	-0.6
KDZ	2.78	29	eP	14 39.00	-1.1
VTS	3.38	355	iP	14 49.00	0.3

S.D. = 0.7 on 18 of 19 obs.

APR 28, 1989 15h 29m 37.14± 0.41s
39.241 N ± 4.1km 23.601 E ± 3.1km
DEPTH = 22.0 ± 2.8 km
3.6mb (2 obs.)
AEGEAN SEA (365)
ML 3.6 (ATH).

NEO	0.30	283	ePg	29 42.20	-1.8
PAIG	0.69	5	ePgc	29 51.00	0.6
			eSg	30 00.70	
OUR	1.13	15	iPgc	29 58.10	0.5
LIT	1.21	315	ePbc	29 58.40	-0.5
			eSb	30 13.10	
ATH	1.27	176	ePb	30 00.00	0.4
THE	1.47	341	ePb	30 02.50	0.0
			eSn	30 21.00	
SOH	1.59	353	ePb	30 04.80	0.5

KZN	1.77	308	ePb	30 06.50	-0.4
SRS	1.87	360	ePn	30 08.40	0.1
			eSn	30 30.20	
GRG	1.95	332	ePn	30 09.30	-0.1
			eSn	30 33.10	
KNT	1.99	345	ePn	30 10.60	0.5
			eSn	30 33.50	
EZN	2.19	74	ePn	30 13.00	0.2
VAY	2.22	340	iPn	30 13.70	0.4
MMB	2.35	2	iPc	30 15.00	-0.1
RDO	2.41	37	ePn	30 07.50	-8.5X
VLS	2.58	247	ePn	30 19.50	1.0
RZN	2.59	19	iPc	30 19.00	0.3
KKB	2.65	352	iPc	30 19.00	-0.5
KDZ	2.78	29	iPd	30 20.00	-1.2
OHR	2.85	312	iPn	30 23.20	1.0
SRN	2.86	284	ePn	30 25.50	3.2X
TPE	2.96	292	ePn	30 29.90	6.1X
IZM	2.98	105	ePn	30 23.00	-1.1
PLD	2.98	16	iPg	30 25.00	0.9
BERA	3.16	299	ePn	30 28.40	1.7
DIM	3.17	27	eP	30 27.00	0.2
SKO	3.19	330	iPn	30 26.50	-0.5
PGB	3.33	7	iPc	30 29.00	-0.1
VTS	3.36	355	iPd	30 30.00	0.4
PHP	3.43	316	ePn	30 30.60	0.1
BNT	3.51	70	iPn	30 31.90	0.3
TIR	3.55	308	ePn	30 33.20	1.0
LACI	3.81	310	ePn	30 40.40	4.5X
DST	3.91	83	ePn	30 37.00	-0.3
JMB	3.94	34	eP	30 50.00	12.4X
DMK	4.08	50	ePn	30 40.30	0.5
PVL	4.18	18	eP	30 37.00	-4.1X
ALT	5.06	90	iP	30 54.20	0.4
MGR	6.27	281	Pd	31 10.60	-0.1
MLR	6.48	15	ePd	31 12.50	-1.3
SGO	6.51	284	P	31 12.80	-1.3
BZS	6.54	348	ePc	31 12.00	-2.4
VRI	7.01	18	ePd	31 21.50	0.4
NAO	23.03	344	P	34 41.40	0.0
	0.5s		0.40nm		3.2mb
EKA	24.04	321	P	34 51.00	-0.2
	1.2s		5.70nm		4.0mb

S.D. = 0.9 on 39 of 45 obs.

APR 28, 1989 15h 49m 20.57± 0.68s
43.268 N ± 7.8km 0.407 W ± 9.7km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
MG 3.4 (MDD). Felt (IV) at Arudy, Bielle and in the Ossau Valley, France.

EPF	0.60	113	Pg	49 31.20	-1.5
			Sg	49 38.80	
ECRI	1.68	248	ePn	49 51.20	1.0
			eSn	50 10.30	
LPO	1.82	39	Pn	49 52.80	0.6
			Pg	49 58.00	
			Sg	50 23.20	
LFF	1.86	26	Pn	49 53.40	0.6
			Pg	49 58.80	
			Sg	50 25.00	
CAF	2.43	46	Pn	50 00.40	-0.6
			Pg	50 08.60	
			Sg	50 41.70	
RJF	2.46	33	Pn	50 02.00	0.6
			Pg	50 09.00	
			Sg	50 43.20	
EROQ	2.52	166	ePn	50 05.00	2.8
			eSn	50 32.50	
EBR	2.54	164	ePn	50 06.00	3.6X
			eSg	50 35.00	
ETER	2.59	111	ePn	50 07.30	4.1X
			eSn	50 40.20	
ETOR	2.74	207	ePn	50 04.00	-1.4
LSF	3.29	24	Pn	50 12.00	-1.1
			Pg	50 24.80	
			Sn	50 50.80	
			Sg	51 09.00	
MFF	3.34	3	Pg	50 25.40	11.6X
			Sg	51 09.60	
TCF	3.55	31	Pg	50 30.00	13.2X
			Sg	51 17.00	
MAF	3.63	35	Pg	50 31.20	13.1X
			Sg	51 19.20	
GUD	3.83	228	ePn	50 19.70	-1.3
			eSn	51 01.50	
BGF	4.02	34	Pg	50 38.60	15.1X
			Sg	51 31.40	
AVF	4.42	36	Pn	50 29.40	0.3
			Pg	50 45.00	
			Sg	51 44.60	
SMF	4.53	40	Pn	50 30.60	-0.1
			Pg	50 48.80	
			Sg	51 47.20	
SSF	4.70	35	Pg	50 50.80	17.7X
LPF	4.79	355	Pg	50 53.00	18.6X
			Sn	51 27.60	

S.D. = 1.4 on 12 of 20 obs.

APR 28, 1989 15h 54m 42.02± 1.10s
39.310 N ± 9.1km 23.502 E ± 5.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.1 (ATH).

NEO	0.22	269	ePg	54 46.40	-0.3
PAIG	0.63	13	ePgc	54 55.10	0.4
			eSg	55 05.00	
PLG	1.06	358	ePb	55 02.00	-0.1
			eSb	55 17.00	
OUR	1.09	20	ePgc	55 02.30	-0.1
LIT	1.11	316	ePg	55 04.20	1.3
			eSg	55 18.40	
THE	1.38	343	ePb	55 06.70	-0.6
			eSb	55 25.00	
SOH	1.51	356	ePb	55 08.90	-0.3
KZN	1.66	307	ePn	55 11.50	0.1
GRG	1.85	333	ePn	55 13.80	-0.2
KNT	1.91	346	ePb	55 14.80	-0.1
VAY	2.13	341	ePn	55 17.70	-0.4
EZN	2.24	76	ePn	55 20.00	0.3

S.D. = 0.6 on 12 of 12 obs.

• APR 28, 1989 16h 01m 50.55± 1.07s
37.093 N ±10.0km 27.952 E ±10.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.27	81	iP	01 55.60	-0.6
IZM	1.41	337	ePn	02 17.00	0.7
ELL	1.61	102	ePn	02 21.90	2.8X
KSL	1.63	126	ePn	02 21.40	2.0
KAP	1.66	202	ePn	02 18.80	-1.0
			eSn	02 41.00	
KHL	1.75	45	ePn	02 21.00	-0.2
BCK	2.14	79	ePn	02 26.00	-0.8

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

• APR 28, 1989 16h 11m 21.68± 0.85s
37.089 N ± 8.1km 28.005 E ± 9.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	1.43	336	ePn	11 48.00	0.3
ELL	1.56	102	ePn	11 50.00	0.3
KSL	1.60	127	ePb	11 50.00	0.0
KAP	1.68	204	ePb	11 51.00	-0.2
			eSb	12 11.00	
KHL	1.72	44	ePn	11 51.50	-0.4

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

• APR 28, 1989 16h 48m 16.77± 1.02s
37.111 N ± 9.0km 27.967 E ±10.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.25	85	iPg	48 20.60	-1.6
IZM	1.40	337	ePn	48 43.50	1.1
ELL	1.60	103	ePn	48 46.40	1.2
KSL	1.63	127	ePb	48 47.00	1.4
KAP	1.68	203	ePb	48 45.20	-1.2
KHL	1.73	45	iPn	48 47.00	-0.1
PRK	2.52	328	ePn	49 05.00	6.7X
DST	2.54	12	ePn	48 58.00	-0.8

S.D. = 1.5 on 7 of 8 obs.

• APR 28, 1989 17h 13m 22.98± 1.02s
37.095 N ± 9.1km 27.909 E ± 9.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.30	82	ePg	13 28.50	-0.8
IZM	1.40	339	ePn	13 49.50	1.0
ELL	1.64	102	ePn	13 55.40	3.3X
KAP	1.65	201	eP	13 51.00	-1.1
			eS	14 12.00	
KSL	1.66	125	eP	13 54.00	1.7
KHL	1.77	46	ePn	13 54.00	0.0
BCK	2.17	80	ePn	14 00.00	0.3
PRK	2.51	330	eP	14 13.00	8.6X
ALT	2.62	41	ePn	14 05.00	-1.1

S.D. = 1.3 on 7 of 9 obs.

APR 28, 1989 17h 24m 33.69± 0.83s
37.115 N ± 7.3km 27.940 E ± 7.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.27	86	iP	24 37.50	-2.0
IZM	1.39	337	iPn	24 59.00	-0.1
ELL	1.62	102	iPn	25 03.90	1.4
KSL	1.65	126	eP	25 04.00	1.1
KAP	1.68	202	eP	25 02.00	-1.2
			eS	25 23.00	
KHL	1.74	46	iPn	25 03.50	-0.7
BCK	2.14	80	ePn	25 11.00	1.0
PRK	2.50	329	eP	25 21.00	6.0X
DST	2.54	12	ePn	25 16.00	0.3
ALT	2.58	41	ePn	25 16.00	-0.4
EZN	2.99	335	ePn	25 23.00	1.1
BNT	3.24	360	iPn	25 25.00	-0.5

S.D. = 1.2 on 11 of 12 obs.

APR 28, 1989 17h 38m 26.42± 0.17s
4.354 S ± 3.6km 101.413 E ± 3.8km
DEPTH = 27.4km (18 depth phases)
5.4mb (25 obs.) 5.8Msz (30 obs.)
SOUTHERN SUMATERA (274)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 18S, 42C
Centroid Location:
Origin Time 17:38:29.0 0.4
Lat 4.75S 0.04 Lon 101.12E 0.05
Dep 15.0 BDY Half-durotion 3.9
Moment Tensor; Scole 10**18 Nm
Mrr= 0.18 0.02 Mtt=-0.21 0.02
Mff= 0.03 0.03 Mrt= 1.01 0.05
Mrf=-0.75 0.04 Mtf= 0.16 0.02
Principal Axes:

	Val=	Plg=	Azm=
T	1.23	50	40
N	0.10	3	306
P	-1.33	40	214

Best Double Couple:Mo=1.3*10**18
NP1:Strike=277 Dip= 6 Slip= 61
NP2: 127 85 93

KGM	6.61	17	ePd	40 06.50	2.2
			e	40 50.50	
KLM	7.41	2	eP	40 16.50	1.0
IPM	8.88	358	ePd	40 35.50	-0.6
	0.8s		173.00nm		6.3mb X
			e	40 56.20	
SNG	11.48	356	eP	41 09.00	-2.7
	1.0s		232.00nm		6.4mb X
			eS	43 14.80	
TRT	11.64	107	ePd	41 13.50	-0.4
	1.0s		97.00nm		6.0mb X
NNT	16.92	354	eP	42 20.00	-2.9X
MKS	18.01	93	iPd	42 37.00	0.4
KKM	18.03	55	ePd	42 39.00	2.0
	1.0s		126.00nm		5.0mb
TSM	18.70	63	ePc	42 45.30	0.3
	1.0s		1144.20nm		6.0mb
PCI	18.72	80	ePd	42 48.00	2.7X
	1.0s		72.50nm		4.8mb
NST	19.94	356	eP	43 01.00	1.7
BDT	21.59	354	iPd	43 15.10	-1.2
	0.8s		223.10nm		5.6mb
LOE	21.62	1	iPc	43 14.10	-2.5
NANU	22.68	144	eP	43 27.00	0.0
			eS	47 29.00	
CHG	23.15	354	ePc	43 31.10	-0.6
			eS	47 42.00	
MNI	24.11	77	eP	43 44.20	3.2X
MBL	24.48	135	eP	43 45.00	0.4
QIZ	24.67	19	Pc	43 48.00	1.5
	8.0s		4.40nm		3.1mb X
	N 15s		9.70um		

28d 17h

	E	14s		10.50um							eS	02	12.00				RMQ		50.28	121	eP	47	23.00	0.1
DAV		26.66	65	eP+	44	04.00	-1.1	LZH		40.29	3	Pc	46	03.50	0.3					e	47	32.00	30km
AAI		26.72	90	eP	44	05.00	-0.7			6.5s	2355.00nm				6.1mb X		CN2		52.60	22	iPc	47	39.00	-1.1
BAG		28.02	42	eP+	44	17.00	-0.6		Z	18s	32.60um				6.2Msz				5.0s		1.10nm			3.1mb X
				e(S)	48	48.00			N	15s	13.90um							Z	20s		12.40um			5.9Msz
KNA		29.17	115	eP	44	26.00	-1.8		E	15s	11.60um							E	15s		5.90um			
HKC		29.29	25	P	44	30.00	1.2					pP	46	11.00	25km					ipP	47	47.30	27km
				S	49	40.00						PP	47	42.00						PP	49	40.00	
KMI		29.33	2	Pc+	44	30.00	0.6					eS	52	10.00						S	55	08.00	
		7.0s		1.50nm			2.9mb X					SS	55	08.00						ScS	57	29.00	
	Z	20s		44.50um			6.1Msz	QIS		40.47	117	iPc	46	04.40	-0.3		MAT		53.25	37	iPd	47	42.90	-2.1
	E	12s		14.10um								e	46	12.00	26km				1.0s		70.00nm			5.6mb
				PP	45	33.00						e	47	45.00				Z	20s		3.19um			5.4Msz
				S	49	23.00		TIA		42.95	19	eP	46	24.20	-0.6					eS	55	09.00	
GBA		29.74	307	Pd	44	33.90	0.9		Z	15s	13.60um				6.0MszX		CAN		53.60	131	eP	47	54.80	7.1X
		0.8s		10.40nm			4.7mb		N	13s	10.50um						BRS		53.98	121	iPd	47	51.00	0.5
MTN		30.54	108	eP	44	39.00	-1.1		E	13s	4.60um										i	48	01.00	33km
				e	49	41.00						PcP	48	16.70						i	48	14.40	
MUN		30.79	155	eP	44	41.00	-1.1					S	52	49.00						iS	55	32.00	
	Z	20s		8.80um			5.4Msz	TIY		43.09	13	iPc	46	26.00	0.0		COO		54.17	125	eP	47	51.00	-0.9
	N	20s		7.40um						7.0s	1.50nm				2.8mb X		AVY		54.31	250	iPc	47	53.24	-0.1
	E	20s		5.90um					Z	17s	13.80um				5.9MszX		MDJ		54.90	24	eP	47	56.50	-0.5
GYA		31.05	9	iPc	44	44.00	-0.5		E	14s	8.30um								5.0s		1.40nm			3.2mb X
		4.0s		2.10nm			3.3mb X					sP	46	40.00				Z	20s		7.10um			5.7Msz
	Z	16s		10.30um			5.6MszX					S	52	53.00				E	14s		6.40um			
	N	13s		11.70um				GTA		43.57	358	iPc	46	30.00	0.1					S	55	42.00	
	E	13s		7.30um						8.0s	5.60nm				3.4mb X		TAU		55.88	140	eP	48	15.00	10.9X
KLB		31.15	152	eP	44	46.00	0.8		Z	20s	17.40um				6.0Msz		MAIO		56.29	320	eP	48	05.00	-2.3
HYB		31.26	314	eP	44	45.00	-1.4		E	15s	12.30um										eS	55	52.00	
NWAO		32.04	154	eP	44	52.00	-1.1					S	52	51.00			VSG		58.04	98	eP	48	19.00	-0.9
				eS	50	36.00		BTO		45.42	9	iPc	46	45.00	0.2		SVO		58.14	98	P	48	20.00	-0.6
WARB		32.48	134	eP	44	47.00	-10.0X			6.0s	1.80nm				3.2mb X		HNR		58.28	98	eP	48	20.00	-1.5
RKG		32.93	156	eP	45	04.00	3.2X		Z	13s	14.00um				6.1MszX						eS	56	18.00	
QZH		33.57	29	iPc	45	06.00	-0.4		N	13s	17.20um						RYD		60.57	301	eP	48	36.00	-1.3
		7.0s		1.70nm			3.1mb X		E	13s	14.20um						NAI		64.59	271	iPd	49	13.00	8.5X
	Z	14s		6.90um			5.5MszX					PP	48	33.00			DZM		65.25	112	iPc	49	10.20	1.8
	N	14s		9.10um								S	53	27.50			BHD		65.58	309	ePd	49	07.00	-3.2X
				PP	46	25.00						SS	56	42.00							eS	57	50.00	
CD2		35.14	4	iPc	45	18.70	-1.2	PMG		45.66	99	iPc+	46	46.50	-0.4						ePS	58	07.00	
	Z	20s		19.50um			5.9Msz			1.2s	109.38nm				5.7mb		SLY		65.69	312	eP	49	09.00	-1.8
	N	12s		17.50um				ADE		46.01	136	eP	46	50.20	0.7						iS	57	52.00	
				iS	50	51.50				1.0s	70.00nm				5.5mb		TAB		66.16	315	eP	49	13.00	-1.0
LSA		35.26	344	iPc	45	22.00	0.5	BJI		46.22	16	Pc+	46	51.00	0.1		MSL		67.74	312	ePc	49	23.00	-0.9
				pP	45	28.00	20km			6.0s	1.07nm				3.0mb X						eS	58	16.00	
				S	50	51.00			Z	16s	14.06um				6.0MszX						eScS	59	19.00	
ANP		35.26	33	eP	45	22.00	0.9		N	16s	10.80um						IKZ		68.36	261	iP	49	45.90	17.5X
PKI		35.30	335	Pc	45	21.50	-0.2		E	14s	4.57um										i	49	52.60	22km
GUN		35.40	336	Pc	45	22.80	0.2					ePP	48	42.00							i	50	02.30	
POO		35.42	311	eP	45	23.50	1.0					eS	53	52.00							i	50	12.00	
				iS	50	57.50						eSS	57	16.00			PTZ		69.64	256	iP	49	27.00	-9.1X
DMN		35.46	335	Pc	45	22.80	-0.2	CTA		46.35	114	iPc+	46	52.00	-0.3						i	49	35.00	26km
KKN		35.54	335	Pc	45	23.60	0.0			1.0s	310.00nm				6.2mb						i	49	42.60	
WB5		35.62	118	iPc	45	23.00	-1.1					i	47	00.00	27km		MBH		72.06	303	iPd	49	49.50	-0.9
				i	45	25.20	7kmX					i	47	09.00			PRNI		72.12	304	eP	49	50.00	-0.8
				eS	51	00.70						i	47	28.90			DSI		72.15	305	eP	49	50.00	-0.9
WRA		35.61	119	Pc	45	23.20	-0.9					iPP	48	42.00			BUL		72.37	250	iPd	49	52.00	-0.6
		0.8s		44.90nm			5.4mb					iS	53	38.00					0.9s		20.17nm			5.1mb
GKN		36.00	334	Pc	45	27.60	0.1					i	54	07.00			LWI		72.50	269	eP+	49	56.00	2.3
FORR		36.42	139	eP	45	30.00	-0.7					i	57	35.00			LSZ		72.69	255	iP	49	53.00	-1.5
ASPA		36.75	125	iPc	45	33.30	-0.3	STK		46.55	131	eP	46	54.00	0.3						i	50	01.80	28km
		1.0s		40.00nm			5.2mb					e	47	03.00	30km						i	50	13.70	
				eS	51	15.80		DL2		46.93	22	Pc	46	56.00	-0.6		SEK		73.68	242	eP	50	06.00	5.8X
WHN		36.84	19	Pc	45	34.50	0.3		Z	19s	7.60um				5.7Msz				1.0s		15.00nm			5.0mb
		7.0s		1.51nm			3.0mb X		E	15s	7.20um						KVT		74.64	315	eP	50	06.00	0.6
	Z	20s		17.20um			5.8Msz					eS	53	50.00			BBTK		76.62	313	eP	50	15.00	-1.7
	N	12s		6.34um				QUE		47.61	318	eP	47	02.30	-0.1		IZM		80.37	310	eP	50	37.00	-0.1
	E	14s		13.60um				SHK		48.61	35	eP	47	08.70	-1.2		SBA		80.69	169	Pd	50	48.30	10.3X
				sP	45	50.50		KSH		49.50	334	iPc	47	16.00	-0.7		VRI		82.53	317	ePd	50	47.50	-0.7
				PP	47	02.00			Z	20s	10.00um				5.8Msz		PVL		82.88	314	eP	50	50.00	0.0
JAY		39.26	89	ePc	45	51.00	-3.9X		N	15s	5.70um						MLR		82.97	317	iPd	50	50.00	-0.7
NJ2		39.83	23	Pc	46	00.00	0.8					iS	54	24.00			RZN		83.00	313	eP	50	50.00	-1.0
		6.0s		1.40nm			2.9mb X	WMQ		49.52	347	iPc	47	16.70	-0.1		BNG		83.24	275	ePc	50	52.40	-0.2
	Z	20s		14.70um			5.8Msz		Z	22s	8.70um				5.7Msz				0.5s		28.00nm			5.7mb
	N	17s		11.90um					E	16s	5.70um										ic	51	00.60	26km
	E	15s		12.40um								PP	49	12.00							ic	51	19.20	
SSE		39.99	27	iP+	46	01.00	0.5					S	54	23.30							id	52	28.30	
		6.0s		1.40nm			2.9mb X					ScS	57	02.00			PGB		83.58	314	eP	50	53.00	-0.7
	Z	20s		0.50um			4.4MszX	CMS		49.63	128	eP	47	19.00	1.2		KKB		84.23	313	eP	50	57.00	0.0
	N	14s		7.40um								e	47	27.00	27km		VTS		84.28	313	iP	50	57.00	-0.4
	E	14s		4.90um				BFD		49.81	137	eP	47	20.00	0.9		LIT		84.34	311	eP	50	57.10	-0.5
				PP	47	36.00						e	47	30.00	34km		SPA		85.68	180	ePd	51	13.10	9.2X
				PcP	48	04.00		SNY		50.20	22	iPc	47	20.50	-1.4			Z	19s		5.91um			6.0Msz
				eScP	51	54.00				7.0s	1.50nm				3.1mb X						e	51	29.60	58kmX
				S	52	10.00			Z	16s	17.20um				6.2MszX		BZS		85.97	316	eP	51	05.00	-0.5
				sS	52	22.00			N	15s	7.80um						SUF		87.14	334	iP	51	10.80	-0.1
NDI		40.26	326	iPc	46	03.00	0.2		E	15s	7.40um								0.7s		14.80nm			5.3mb
		1.0s		70.00nm			5.4mb					PP	49	18.50			NUR		87.28	331	iP	51	11.40	-0.2

	0.9s	40.60nm		5.7mb			
	Z 21s	3.80um		5.8Msz			
		eS	01 50.00				
		LR	36 30.00				
KRA	87.84	320 eP	51 15.60	1.1			
	Z 20s	2.30um		5.6Msz			
	N 20s	2.80um					
		e	51 24.00	26km			
SOD	88.18	338 iP	51 16.70	0.9			
SRO	88.56	318 eP	51 19.70	1.7			
KEV	88.70	340 iP	51 19.00	0.7			
	1.0s	66.00nm		5.9mb			
	Z 20s	3.60um		5.8Msz			
		eS	02 00.00				
		LR	34 40.00				
ZST	89.42	318 i(P)	51 22.80	0.7			
	Z 18s	2.00um		5.6Msz			
		LR	18 43.00				
PTJ	89.93	316 eP	51 25.00	0.3			
VKA	89.95	318 eP	51 25.00	0.4			
	Z 18s	1.70um		5.5Msz			
		LR	43 30.00				
VBY	90.38	315 eP	51 27.70	1.1			
UPP	90.61	330 iP	51 26.70	-0.6			
		iS	02 18.00				
LJU	90.93	316 eP	51 30.50	1.3			
PRU	91.29	320 P	51 32.20	1.5			
	Z 18s	2.60um		5.7Msz			
	N 20s	0.90um					
	E 18s	1.90um					
		S	02 26.00				
VOY	91.38	316 eP	51 32.40	1.0			
TRI	91.44	316 eP	51 31.00	-0.5			
		e	55 14.00				
		e	59 32.00				
		e	02 32.00				
		e	04 34.00				
		e	06 24.00				
BRG	91.74	321 eP	51 34.00	1.2			
	1.3s	27.00nm		5.5mb			
	Z 19s	2.00um		5.6Msz			
	N 19s	1.00um					
	E 19s	3.00um					
		e	51 44.40	32km			
		e	55 29.00				
		e	02 22.00				
		e	02 32.00				
KBA	91.84	317 eP	51 33.50	-0.1			
	1.1s	7.90nm		5.0mb			
KHC	91.84	319 iPd	51 34.80	1.4			
		e	51 43.50	27km			
CLL	92.37	321 iPd	51 37.00	1.3			
	Z 18s	1.00um		5.3Msz			
		eS	02 35.00				
HFS	92.60	330 eP	51 36.60	0.1			
	1.0s	22.80nm		5.6mb			
	Z 19s	1.73um		5.5Msz			
		LR	31 31.00				
MOX	93.20	320 eP	51 40.00	0.4			
	Z 18s	1.70um		5.5Msz			
	N 20s	1.00um					
	E 22s	2.20um					
		e	51 49.00	28km			
		ePP	55 25.00				
		ePPP	57 30.00				
		eS	02 40.00				
		eSSS	08 30.00				
		LQ	38 30.00				
		LR	44 30.00				
GRF	93.41	319 iPc	51 40.50	0.0			
	1.3s	22.00nm		5.4mb			
	Z 19s	3.00um		5.8Msz			
NRA0	93.70	331 P	51 42.00	0.4			
NAO	94.05	331 P	51 42.30	-0.9			
	1.2s	14.30nm		5.3mb			
BRW	97.90	19 P	52 02.00	1.5			
IMA	99.99	24 P	52 10.70	0.3X			
	1.1s	10.94nm		5.3mb			
DAG	100.89	348 iPdiff	52 13.10	-0.8			
	1.0s	13.00nm		5.4mb			
HON	101.42	69 Pdiff	52 25.00	7.5X			
	Z 20s	1.60um		5.5Msz			
INK	106.44	18 ePdiff	52 39.00	0.3			
INK	106.44	18 ePKP	57 01.00	11.2X			
YKA	116.18	18 ePKP	57 08.70	0.2			
FRB	120.28	355 ePKP	57 16.00	-0.2			
BMW	123.01	35 PKP	57 23.00	0.9			
PNT	123.32	31 ePKP	57 24.00	1.4			
	0.9s	21.00nm					
EDM	123.56	24 ePKP	57 23.00	0.0			
LON	123.67	34 PKP	57 24.00	0.6			
FFC	126.32	17 ePKP	57 28.00	-0.2			
	1.0s	20.00nm					
WDC	126.56	41 ePKP	57 30.40	1.3			
		epPKP	57 38.30				
SES	126.62	25 ePKP	57 32.00	3.0X			
		pP	59 30.00				
ORV	127.77	42 ePKP	57 32.70	1.2			
		epPKP	57 41.40				
MHC	128.77	44 ePKP	57 35.70	2.1			
		epPKP	57 44.50				
SCH	128.79	351 ePKP	57 34.00	1.1			
LRM	129.27	30 ePKP	57 35.60	1.1			
CMB	129.29	43 ePKP	57 36.40	1.9			
		epPKP	57 44.90				
PRS	129.45	45 ePKP	57 37.20	2.4X			
		epPKP	57 46.70				
PRI	130.04	45 e(PKP)	57 39.70	3.6X			
		epPKP	57 47.60				
KVN	130.27	40 PKP	57 33.00	-3.5X			
FRI	130.29	44 e(PKP)	57 36.90	0.6			
		epPKP	57 47.90				
RSON	131.95	13 PKP	58 00.00	21.0X			
	Z 20s	3.62um		6.1Msz			
DAU	133.60	35 PKP	57 44.30	1.3			
MSU	134.30	37 PKP	57 45.00	0.8			
GOL	137.29	31 PKP	57 43.00	-6.9X			
ITR	137.89	252 ePKP	57 56.30	4.9X			
		e	01 22.40				
GAC	138.73	357 ePKP	57 55.00	3.0X			
RSNY	139.81	356 PKP	58 00.00	6.0X			
	Z 22s	4.23um		6.1Msz			
ALQ	140.10	37 PKP	57 49.00	-6.1X			
PPD	142.58	224 ePKP	58 15.20	15.6X			
BAO	143.78	236 ePKP	57 58.00	-3.9X			
SIO	144.74	25 iPKPc	58 01.30	-1.6			
FVM	144.83	16 PKP	58 00.80	-2.2			
RLO	144.91	23 iPKP	58 01.80	-1.4			
VVO	145.33	25 ePKP	58 03.10	-0.8			
ELC	145.81	15 PKP	58 04.70	0.1			
CBN	146.29	358 ePKP	58 06.00	0.6			
NA2	146.38	359 PKP	58 06.30	0.8			
CVL	146.53	360 PKP	58 06.50	0.7			
OLY	146.80	19 PKP	58 07.50	1.2			
UYO	146.87	25 iPKP	58 08.00	1.5			
RSCP	148.24	11 PKP	58 11.00	2.3X			
SLA	148.41	203 ePKPc	58 12.00	2.6X			
JSC	150.12	4 PKP	58 16.00	4.5X			
PRM	150.21	6 PKP	58 15.00	3.3X			
ATB	152.59	254 e(PKP)	58 21.90	6.2X			
CNCB	156.50	206 ePKP	58 30.00	8.3X			
LPB	156.80	206 (PKP)	58 37.00	15.1X			
	Z 19s	3.47um		6.2Msz			
		e	58 58.00				
		eLR	54 08.00				
ZOBO	157.04	207 ePKP	58 30.00	7.6X			
	1.0s	17.00nm					
	Z 20s	1.99um		5.9Msz			
		LR	54 16.00				
UPA	175.31	12 ePKPd	58 36.00	0.5			
	Z 21s	2.19um					
		i	04 04.00				
		i	11 32.00				
	S.D. = 1.0	on 154 of 192 obs.					

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* APR 28, 1989 17h 40m 13.45± 1.07s
37.107 N ± 9.4km 27.930 E ±10.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.28	84 ePg	40 17.00	-2.4			
IZM	1.39	338 ePn	40 39.00	0.1			
ELL	1.63	102 ePn	40 43.50	1.2			
KSL	1.66	126 ePn	40 43.50	0.9			
KAP	1.67	202 ePn	40 42.00	-0.8			
		eSn	41 04.00				
KHL	1.75	46 ePn	40 43.50	-0.6			
BCK	2.15	80 ePn	40 51.00	1.1			
ALT	2.60	41 ePn	40 57.00	0.7			
	S.D. = 1.5	on 8 of 8 obs.					

APR 28, 1989 18h 33m 12.87± 0.79s
37.100 N ± 6.5km 27.950 E ± 7.5km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

YER	0.27	83 iPg	33 17.10	-1.5			
IZM	1.40	337 ePn	33 38.90	0.4			
ELL	1.61	102 iPn	33 42.40	0.9			
KSL	1.64	126 ePn	33 42.80	1.0			
KAP	1.67	202 ePn	33 41.50	-0.8			
KHL	1.75	45 iPn	33 42.50	-1.0			
BCK	2.14	80 ePn	33 49.00	-0.1			
DST	2.56	12 ePn	33 56.00	0.9			
ALT	2.59	40 ePn	33 56.20	0.6			
BNT	3.25	360 ePn	34 04.00	-0.9			
BBTK	4.66	53 eP	34 25.50	0.4			
HRI	7.43	119 eP	35 00.00	-4.1X			
DSI	8.26	130 eP	35 11.00	-4.5X			
		eS	36 43.00				
MBH	9.32	140 e(P)	35 48.00	17.8X			
	S.D. = 1.0	on 11 of 14 obs.					

? APR 28, 1989 19h 26m 15.24± 3.16s
41.932 N ±17.5km 128.242 W ±29.2km
DEPTH = 10.0km (geophysicist)
4.5mb (2 obs.)
OFF COAST OF NORTHERN CALIFORNIA(34)

WDC	4.51	106 eP	27 28.00	2.9X			
LBFM	4.80	95 eP	27 30.50	1.1			
ORV	5.64	113 e(P)	27 49.00	7.8X			
BMW	5.80	37 e(P)	27 45.50	2.1			
SHW	6.07	43 eP	27 47.00	-0.3			
LON	6.67	42 eP	27 55.50	-0.2			
CMB	7.18	120 eP	28 03.00	0.2			
KVN	8.25	107 eP	28 13.80	-4.1X			
LRM	12.04	66 eP	29 07.60	-2.4			
FFC	21.49	44 iPc	31 09.20	3.2X			
	1.1s	17.00nm		4.4mb			
YKA	22.13	17 P	31 19.10	6.8X			
ALE	45.57	10 eP	34 36.00	-0.5			
	0.5s	4.00nm		4.6mb			
	S.D. = 1.7	on 7 of 12 obs.					

APR 28, 1989 19h 32m 55.51± 0.88s
37.084 N ± 7.9km 27.814 E ± 9.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.38	82 iPg	32 59.90	-3.4X			
IZM	1.38	342 ePn	33 21.00	0.2			
KAP	1.61	199 ePn	33 24.00	-0.1			
		eSn	33 46.00				
ELL	1.71	101 ePn	33 25.00	-0.7			
KSL	1.72	124 ePn	33 26.00	0.4			
KHL	1.84	47 iPn	33 27.00	-0.4			
BCK	2.25	80 ePn	33 34.00	0.6			
	S.D. = 0.6	on 6 of 7 obs.					

APR 28, 1989 20h 08m 51.59± 0.21s
4.294 S ± 4.0km 101.363 E ± 4.1km
DEPTH = 30.3km (6 depth phases)
5.2mb (21 obs.) 5.6Msz (17 obs.)
SOUTHERN SUMATERA (274)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 20S, 38C
Centroid Location:
Origin Time 20:08:55.6 0.7
Lat 4.86S 0.06 Lon 101.18E 0.07
Dep 15.0 FIX Half-duration 2.7
Moment Tensor; Scale 10**17 Nm
Mrr= 1.92 0.10 Mtt=-1.69 0.13
Mff=-0.24 0.16 Mrt= 2.88 0.37
Mrf=-1.42 0.33 Mtf= 1.65 0.10
Principal Axes:

T	Val= 3.58	Plg=62	Azm= 18
N	0.80	5	118
P	-4.38	27	211

Best Double Couple:Mo=4.0**17
NP1:Strike=315 Dip=19 Slip= 107
NP2: 116 72 84

KGM	6.57	17 ePc	10 29.80	1.2			
		e	12 13.00				
KLM	7.35	2 eP	10 40.00	0.4			
IPM	8.82	358 ePc	10 59.00	-1.1			
	0.7s	72.90nm		6.0mb			
NNT	16.85	355 eP	12 45.00	-2.0			
KKM	18.04	55 ePc	13 03.40	1 5			

28d 20h

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        1.2s    131.10nm             4.9mb
MKS    18.07  94 iPc    13 02.40   0.2
TSM    18.72  63 ePc    13 10.50   0.4
        1.0s    823.80nm             5.9mb
                  e     19 31.50
PCI    18.76  80 ePc    13 13.50   2.8
        1.0s     58.50nm             4.7mb
NST    19.88 357 eP     13 24.20   0.8
BDT    21.53 354 iPc    13 38.90  -1.5
        0.6s     84.20nm             5.3mb
LOE    21.56   1 eP     13 38.50  -2.3
NANU   22.76 144 eP     13 54.00   1.4
CHG    23.09 354 iPc    13 56.60   0.7
        1.0s     87.25nm             5.2mb
                 eS     18 20.00
MNI    24.14  77 ePc    14 08.80   2.6X
MBL    24.56 135 eP     14 11.00   0.9
OIZ    24.63  20 Pc     14 12.00   1.1
        7.0s      2.50nm             2.9mb X
    N  14s        4.70um
    E  13s        7.10um
DAV    26.68  65 eP+    14 28.00  -2.1
AAI    26.77  90 eP     14 32.00   1.0
QCP    27.12  46 eP     14 48.00  13.9X
BAG    28.01  42 eP+    14 41.00  -1.3
                 eS     19 40.00
KNA    29.24 115 eP     14 51.50  -1.8
HKC    29.25  25 P      14 55.00   1.7
                 S      20 13.00
KMI    29.27   3 Pc+    14 55.00   1.3
        4.0s      0.90nm             2.9mb X
    Z  20s       43.30um             6.1Msz
    E  12s       14.10um
                 PP     15 58.00
                 S      19 47.00
GBA    29.67 307 Pc     14 57.00  -0.1
        1.0s     11.80nm             4.6mb
MTN    30.61 108 eP     15 03.00  -2.4
                 e      20 42.00
GYA    31.00   9 Pc     15 08.60  -0.3
    Z  16s        6.10um             5.4MszX
    N  14s        1.00um
    E  14s        6.10um
HYB    31.18 314 ePc    15 09.50  -1.0
WARB   32.55 135 eP     15 12.50  -9.9X
OZH    33.54  29 P      15 30.00  -0.9
        5.0s      0.90nm             2.9mb X
    Z  16s        3.80um             5.2MszX
    N  12s        3.20um
CD2    35.08   4 iPc    15 43.20  -1.0
    Z  22s        9.60um             5.5Msz
    E  11s        8.90um
                 S      21 15.00
PKI    35.22 335 P      15 46.60   0.8
ANP    35.24  33 eP     15 46.00   0.3
GUN    35.33 336 P      15 47.20   0.5
POO    35.35 311 eP     15 43.00  -3.6X
                 iS     21 20.50
DMN    35.38 335 P      15 47.80   0.7
KKN    35.47 335 P      15 48.00   0.2
WB5    35.69 119 iPc    15 48.50  -1.0
                 i      15 51.30   9kmX
                 eS     21 21.70
WRA    35.69 119 Pc     15 48.60  -0.9
        1.0s     20.70nm             5.0mb
GKN    35.93 334 P      15 52.60   1.0
WHN    36.80  19 Pc     15 59.00   0.3
        7.0s      0.90nm             2.7mb X
    Z  20s       16.50um             5.8Msz
    N  12s        4.15um
    E  14s        7.79um
                 PP     17 26.00
ASPA   36.82 125 iPc    15 59.20   0.1
        1.3s     31.00nm             5.0mb
                 eS     21 40.00
XAN    38.79  10 iPc    16 15.00  -0.4
    N  13s        7.10um
    E  14s        6.60um
                 PP     17 46.00
                 S      22 15.00
NJ2    39.79  24 Pd     16 24.60   0.9
    Z  23s        6.70um             5.4MszX
    N  17s        6.80um
    E  17s        3.80um
SSE    39.96  27 P      16 22.00  -3.0X
        1.0s     61.00nm             5.3mb
    Z  20s        1.90um             4.9Msz
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    N  14s        3.30um
    E  14s        4.60um
                 pP     16 32.00  34km
                 sP     16 38.00
                 PcP    18 26.00
                 eS     22 20.00
                 sS     22 46.00
NDI    40.18 326 iPc    16 26.50  -0.5
                 eS     22 35.00
LZH    40.24   3 Pc     16 28.50   1.0
        6.0s    822.00nm             5.7mb X
    Z  18s       16.20um             5.9Msz
    N  15s        6.50um
    E  16s        6.90um
                 PP     18 04.00
                 eS     22 26.00
QIS    40.54 117 eP     16 29.00  -1.1
                 e      22 40.00
TIA    42.91  19 P      16 49.30   0.0
    Z  15s        5.80um             5.6MszX
    N  18s        4.30um
    E  18s        8.50um
                 eS     23 07.00
TIY    43.04  13 Pc     16 50.00  -0.4
    Z  23s        7.19um             5.5MszX
    E  15s        5.30um
                 sP     17 04.00
GTA    43.51 358 iPc    16 54.40   0.2
        8.0s      3.40nm             3.2mb X
    Z  22s        8.90um             5.6Msz
    E  14s        5.60um
                 S      23 16.50
BTO    45.37   9 iPc    17 10.00   0.8
        6.0s      1.10nm             2.9mb X
    Z  13s        7.70um             5.8MszX
    N  12s        8.10um
    E  13s        7.60um
                 PP     18 55.50
                 S      23 51.00
                 SS     27 06.00
PMG    45.72  99 iPc+   17 12.00  -0.2
        1.5s    222.22nm             5.9mb
HHC    45.89  11 Pc     17 14.20   1.0
        7.0s      0.70nm             2.7mb X
    Z  14s        8.80um             5.9MszX
    N  12s        7.90um
                 eS     24 00.00
ADE    46.09 136 eP     17 15.30   0.4
        0.7s     27.40nm             5.3mb
BJI    46.17  16 Pc+    17 15.50   0.2
        6.0s      0.49nm             2.6mb X
    Z  18s        5.93um             5.6Msz
    N  16s        5.03um
    E  14s        2.98um
                 eS     24 15.00
                 eSS    27 40.00
CTA    46.42 114 iPc    17 17.30  -0.3
        1.4s    267.44nm             6.0mb
                 i      17 33.00  61kmX
                 i      23 38.00
                 iS     24 03.80
                 i      24 34.20
                 iSS    27 13.00
STK    46.62 131 eP     17 20.00   0.9
                 e      17 35.00  58kmX
DL2    46.89  22 Pc     17 20.00  -1.0
    Z  19s        3.60um             5.4Msz
    N  13s        2.70um
                 eS     24 18.00
OUE    47.54 318 eP     17 25.20  -1.4
SHK    48.59  35 eP     17 32.90  -1.6
KSH    49.42 334 P      17 42.00   1.1
    Z  20s        5.60um             5.6Msz
    N  17s        4.70um
                 S      24 48.00
WMQ    49.45 347 iPc    17 41.50   0.5
    Z  21s        4.40um             5.4Msz
    N  16s        2.80um
                 PP     19 39.00
                 S      24 47.00
                 ScS    27 25.00
CMS    49.71 128 eP     17 44.00   0.9
                 e      17 52.00  27km
BFD    49.89 137 eP     17 45.00   0.6
                 e      18 13.50 122kmX
SNY    50.17  22 Pc     17 45.00  -1.4
        8.0s      1.10nm             2.9mb X
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    Z  22s        3.70um             5.3Msz
    N  20s        4.80um
    E  18s        2.70um
                 PP     19 44.00
                 eS     24 48.00
RMO    50.36 121 eP     17 48.00  -0.2
CN2    52.56  22 iPc    18 03.50  -1.0
        5.0s      0.80nm             2.9mb X
    Z  20s        9.30um             5.8Msz
    E  16s        2.50um
                 ipP    18 11.40  26km
                 iPP    20 06.00
                 eS     25 32.00
                 ScS    27 53.00
MAT    53.23  37 iPc    18 07.90  -1.7
        1.3s    123.08nm             5.7mb
    Z  20s        1.77um             5.1Msz
                 eS     25 51.00
CAN    53.68 131 eP     18 25.00  12.0X
BRS    54.05 121 iPc    18 16.20   0.3
                 i      18 25.00  29km
AVY    54.29 250 iPc    18 17.32  -0.6
MDJ    54.87  24 eP     18 20.60  -0.9
    Z  20s        3.50um             5.4Msz
TAU    55.96 140 eP     18 30.00   0.6
MAIO   56.22 320 iPc    18 30.00  -1.5
                 eS     26 20.00
VSG    58.10  98 eP     18 44.00  -1.1
SVO    58.20  98 eP     18 44.00  -1.8
HNR    58.33  98 eP     18 45.00  -1.7
DZM    65.32 112 iPc    19 34.30   0.7
BHD    65.50 309 ePd    19 33.00  -1.4
                 eS     28 16.00
                 ePS    28 32.00
TAB    66.08 315 eP     19 38.00  -0.3
MSL    67.67 312 eP     19 44.00  -4.2X
                 eS     28 43.00
IKZ    68.32 261 eP     20 10.00  17.1X
PTZ    69.60 256 iP     19 59.80  -0.9
MBH    71.99 303 ePc    20 14.00  -0.7
PRNI   72.05 304 iP     20 15.00  -0.2
BUL    72.34 250 eP     20 16.80  -0.4
        1.0s      9.00nm             4.7mb
LSZ    72.66 255 eP     20 18.00  -1.1
KVT    74.57 315 eP     20 31.00   1.4
KMZ    74.95 257 eP     20 32.00  -0.4
BBTK   76.55 313 eP     20 39.00  -2.0
VRI    82.45 317 ePd    21 13.00   0.5
MLR    82.89 317 iPd    21 15.00   0.0
                 e      45 55.00
BNG    83.19 275 ePc    21 16.90  -0.1
        1.0s     30.00nm             5.4mb
                 ic     21 27.90  35km
LIT    84.27 311 eP     21 21.70  -0.3
VAY    84.43 312 eP     21 31.40   8.7X
OHR    85.71 312 eP     21 23.00  -6.2X
BZS    85.89 316 eP     21 29.00  -0.9
                 e      48 47.00
SUF    87.06 334 eP     21 36.00   0.7
        0.7s      8.00nm             5.1mb
NUR    87.20 331 iP     21 36.20   0.2
KRA    87.76 320 eP     21 39.60   0.7
                 e      21 54.60  52kmX
                 e      32 18.00
SOD    88.11 338 iP     21 41.20   1.0
SRO    88.49 318 eP     21 43.80   1.4
KEV    88.63 340 eP     21 44.00   1.3
        0.7s     17.40nm             5.5mb
ZST    89.34 318 e(PKP)21 46.40  -0.1
                 e      46 07.50
VKA    89.87 318 e(P)   21 51.00   2.0
    Z  15s        0.70um             5.2MszX
                 LR     01 58.00
VBY    90.30 315 eP     21 52.10   1.1
UPP    90.53 330 iP     21 51.20  -0.5
                 iS     32 44.00
LJU    90.86 316 eP     21 54.00   0.4
PRU    91.21 320 eP     21 56.20   1.1
    Z  22s        3.90um             5.8Msz
    N  22s        2.40um
    E  20s        1.70um
VOY    91.30 316 e(P)   21 56.00   0.3
BRG    91.67 321 ePKP   21 57.50   0.3
                 e      22 07.50  31km
                 e      33 12.00
KBA    91.76 317 eP     22 13.50  15.6X
KHC    91.76 319 P      22 06.80   9.1X
```

```
 CLL     92.29 321 e(P)   22 00.00    0.0
 HFS     92.53 330 eP     22 01.20    0.3
         0.9s     14.70nm          5.4mb
       Z 17s      0.73um           5.2MszX
                  LR     58 09.00
 MOX     93.13 320 eP     22 05.00    1.1
       Z 25s      1.30um           5.3MszX
       N 20s      0.60um
       E 22s      1.50um
                  e(S)   33 00.00
                  e(PS)  34 30.00
                  e(SSS)44 25.00
                  eLR    55 40.00
 NRA0    93.63 331 P      22 20.00   14.0X
 NAO     93.98 331 P      22 06.90   -0.7
         1.3s     8.20nm          5.0mb
 BRW     97.85  19 P      22 26.00    0.9
 IMA     99.96  24 P      22 35.00    0.1
         1.0s     7.50nm          5.2mb
 HON    101.44  69 Pdiff  23 00.00   17.7X
       Z 20s      3.19um           5.8Msz
 INK    106.40  18 ePKP   27 10.00   -4.4X
 YKA    116.14  18 ePKP   27 33.50    0.4
 PNT    123.29  31 ePKPd  27 48.00    0.8
         0.9s    14.00nm
 LON    123.65  34 PKP    27 48.00   -0.1
 FFC    126.28  17 ePKP   27 52.00   -0.9
         1.0s    17.00nm
 WDC    126.55  41 ePKP   27 54.50    0.7
 SES    126.59  25 ePKP   27 59.00    5.3X
                  pP     29 59.00
 ORV    127.76  42 ePKP   27 56.40    0.2
 LRM    129.24  30 ePKP   27 59.60    0.5
 CMB    129.28  43 ePKP   28 00.10    0.9
 PRS    129.45  45 ePKP   28 00.90    1.4
 KVN    130.25  40 PKP    28 00.00   -1.2
 TNP    131.37  41 PKP    28 04.00    0.6
 MSU    134.28  37 PKP    28 09.50    0.6
 ALQ    140.08  37 ePKP   28 13.00   -6.8X
       Z 20s      1.77um           5.8Msz
 BAO    143.77 236 ePKP   28 23.00   -3.6X
 SIO    144.71  25 ePKPc  28 26.00   -1.6
 FVM    144.78  16 PKP    28 25.40   -2.2
 LNO    144.78  25 PKPd   28 22.60   -4.9X
 RLO    144.87  23 iPKPc  28 26.60   -1.2
 VVO    145.30  25 e(PKP)28 27.90   -0.7
 ELC    145.76  15 PKP    28 28.30   -1.0
 CBN    146.23 358 ePKP   28 31.00    1.0
 NA2    146.32 359 PKP    28 30.00   -0.1
 CVL    146.47 360 PKP    28 31.00    0.6
 BLA    147.20   3 PKP    28 33.00    1.3
 RSCP   148.19  11 PKP    28 35.20    1.9
 TKL    148.43   8 PKP    28 36.00    2.4
 SLA    148.45 203 e(PKP)28 38.00    3.8X
 LHS    149.90   4 PKP    28 40.00    4.1X
 JSC    150.07   4 PKP    28 40.00    3.8X
 PRM    150.16   6 PKP    28 41.00    4.7X
 CNCB   156.53 206 ePKP   28 56.00    9.5X
 LPB    156.83 206 (PKP)  28 55.00    8.3X
 ZOBO   157.07 207 ePKP   28 52.00    4.8X
       S.D. = 1.1  on 130 of 156 obs.
-------------------------------------
*  APR  28, 1989  20h 26m 17.94± 0.34s
   59.515 S ± 9.4km   29.397 W ± 8.8km
   DEPTH =  22.3km  (  5 depth phases)
   5.5mb ( 10 obs.)  5.7Msz (  2 obs.)
 SOUTH SANDWICH ISLANDS REGION     (153)
      CENTROID, MOMENT TENSOR      (HRV)
      Dato Used: GDSN
      L.P.B.: 17S, 38C
      Centroid Locotion:
      Origin Time        20:26:25.7 0.2
      Lat 59.47S 0.03 Lon  29.54W 0.06
      Dep  15.0 FIX Half-duration  3.8
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 0.35 0.29  Mtt=-8.90 0.33
        Mff= 8.56 0.40  Mrt=-0.16 0.85
        Mrf= 1.32 1.13  Mtf= 7.58 0.32
        Principal Axes:
         T  Val= 11.52  Plg= 6  Azm=290
         N        0.25       83       136
         P      -11.77        3        21
      Best Double Couple:Mo=1.2*10**18
       NP1:Strike= 66 Dip=84 Slip=   2
       NP2:       335     88       174

AIA     16.98 236 eP     30 15.10   -0.1
```

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 SPA     30.65 180 e(P)   32 31.90   -0.7
         1.0s     54.50nm          5.3mb
       Z 20s      39.64um          6.1MszX
                  i      33 17.20 224kmX
 PEL     37.86 296 iPc    33 33.10   -1.5
         1.3s    217.31nm          5.8mb
 VAO     38.55 333 eP     33 43.60    3.1X
 CYA     39.73 305 e(P)   33 48.60   -1.7
 PPD     40.56 328 eP     34 01.90    4.8X
 TUH     41.17  72 iPc    33 57.60   -4.4X
         0.6s     36.00nm          5.3mb
                  i      34 10.00   46kmX
 SBA     42.52 185 Pc     34 13.80    1.3
 SLA     42.90 308 e(P)   34 16.60    0.2
 BAO     45.89 335 eP     34 36.00   -4.5X
 SEK     49.41  77 iPc    35 08.50    0.6
         0.4s     42.37nm          5.8mb
 CNCB    51.02 310 P      35 21.30    0.5
 ITR     51.10 349 eP     35 19.50   -1.2
 LPB     51.32 310 Pc     35 25.80    2.9X
         1.0s    124.00nm          5.8mb
                  S      42 45.00
                  LR     52 02.00
 ZOBO    51.57 310 P      35 24.00   -0.9
                  S      42 50.00
                  eLR    51 14.00
 ARE     52.75 306 eP     35 35.00    1.5
 BUL     56.75  72 iPd    36 00.90   -1.6
 ATB     58.79 333 e(P)   36 15.60   -1.0
 LSZ     60.72  69 iPc    36 29.60   -0.5
                  i      36 34.60   16km
                  i      36 58.00
 KMZ     61.20  66 iP     36 33.70    0.4
                  i      36 42.40   28km
                  i      37 04.80
 PTZ     63.12  71 iPd    36 45.00   -1.1
                  i      36 51.10   20km
                  i      36 58.30
                  i      37 11.30
 IKZ     67.28  71 iP     37 30.40   17.4X
                  i      37 36.10   18km
                  i      37 46.90
 AVY     67.37  89 iPd    37 14.96    1.4
 LIC     68.34  26 P      37 19.36    0.0
         1.1s     36.50nm          5.4mb
 KIC     68.54  26 P      37 20.50   -0.1
         1.2s     38.00nm          5.4mb
 TIC     68.75  26 P      37 21.72   -0.2
         1.0s     28.00nm          5.3mb
 PSO     71.11 308 eP     37 38.50    1.7
 LWI     72.43  63 eP+    37 46.90    2.4
 BOG     72.99 313 eP     37 52.00    4.1X
 BNG     74.07  50 iPc    37 53.80    0.0
         0.7s     53.00nm          5.7mb
                  id     38 02.90   29km
                  id     39 20.60
 CUM     75.13 325 eP     38 05.00    5.2X
 NAI     77.02  70 iPc    38 17.30    6.5X
 TAU     77.90 178 eP     38 16.00    1.0
 UPA     79.08 309 e(P)+  38 22.00    0.2
       Z 22s      3.89um           5.7Msz
 ADE     85.35 170 eP     38 55.70    1.4
 ASPA    95.99 165 iPc    39 42.00   -2.4
 WRA     99.72 164 Pc     39 59.00   -2.3
         1.0s     3.80nm           4.9mb
 WB5     99.78 165 eP     40 01.30   -0.3
 KHC    113.80  29 ePKP   45 10.90   15.5X
 QUE    118.63  79 ePKP   45 08.10    2.8X
 MSU    118.89 297 PKP    45 08.00    2.4
 KVN    122.06 293 PKP    45 16.00    4.4X
 HFS    123.95  24 ePKP   45 10.50   -3.8X
         0.4s     0.50nm
 NAO    124.00  22 PKP    45 18.90    4.5X
         0.9s     4.20nm
 LRM    124.88 302 ePKP   45 18.90    2.0
 GKN    125.83  95 PKP    45 19.00   -0.2
 FRB    126.49 340 ePKP   45 21.00    1.9
 NUR    126.83  30 ePKP   45 16.00   -3.8X
       Z 22s      2.00um           5.7Msz
                  e      45 29.00
                  LR     08 20.00
 SUF    129.09  29 ePKP   45 24.00   -0.1
 LON    129.74 297 PKP    45 30.00    4.0X
 BMW    130.19 295 PKP    45 31.50    4.7X
 PNT    130.67 300 ePKP   45 34.00    6.4X
 EDM    130.92 308 ePKP   45 32.50    4.5X
 SOD    133.08  26 ePKP   45 37.00    5.5X
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 YKA    137.91 316 ePKP   45 39.90   -1.0
 LZH    141.94 107 e(PKP)45 47.00   -2.2
 GTA    142.53  99 ePKP   45 48.60   -1.5
 XAN    142.70 114 ePKP   45 46.80   -3.6X
 ALE    142.81 353 ePKP   45 45.50   -3.7X
         0.6s     9.00nm
 NJ2    145.33 128 PKPc   45 53.40   -1.4
 SSE    145.39 132 PKP    45 53.50   -1.5
         1.0s    20.00nm
       Z 12s      0.50um           5.5MszX
                  i      46 03.50
                  e      58 14.00
 MBC    146.63 334 ePKP   45 56.00    0.3
         1.3s   124.00nm
 TIY    147.34 115 ePKP   46 01.60    3.5X
 INK    147.66 318 ePKP   45 58.00    0.5
         0.8s    43.00nm
 BTO    148.48 109 ePKP   46 01.40    1.5
 HHC    149.42 110 ePKP   46 05.00    3.7X
 BJI    150.94 117 ePKP   46 08.00    4.6X
 PMR    151.22 300 PKP    46 06.90    3.8X
 FBA    151.82 307 PKP    46 09.00    5.0X
 IMA    154.50 308 PKP    46 18.00   10.1X
 TTA    154.70 301 PKP    46 08.00   -0.1
 CN2    158.05 125 ePKP   46 15.30    2.3
       S.D. = 1.4  on  44 of  72 obs.
-------------------------------------
?  APR  28, 1989  20h 43m 24.78± 2.87s
   37.169 N ±27.0km   27.993 E ±21.3km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)

 YER      0.23  98 iPg    43 27.80   -2.0
 IZM      1.36 335 ePn    43 49.00   -0.7
 ELL      1.59 105 iPn    43 53.40    0.2
 KHL      1.67  46 iPn    43 54.00   -0.3
 BCK      2.09  81 ePn    44 01.00    0.6
       S.D. = 1.5  on   5 of   5 obs.
-------------------------------------
*  APR  28, 1989  20h 53m 50.20± 2.51s
   43.344 N ±12.5km   5.679 E ±17.2km
   DEPTH =  10.0km  (geophysicist)
 NEAR SOUTH COAST OF FRANCE        (379)
      MD 2.6 (STR).

 CALN     0.97  65 Pg     54 09.23    0.5
                  Sg     54 25.77
 MVIF     1.20  62 Pn     54 12.75    0.0
                  Sg     54 32.58
 REVF     1.29  72 Pn     54 14.80    0.7
 AURF     1.31  65 Pn     54 14.22   -0.3
                  Sg     54 36.50
 TOUF     1.32  59 Pn     54 14.32   -0.4
 AUTN     1.43  62 Pn     54 16.22   -0.1
                  Sg     54 39.05
 SAOF     1.51  64 Pn     54 16.77   -0.5
 DOI      1.62  44 P      54 18.70   -0.3
                  eSn    54 43.70
 BNI      1.85  22 P      54 22.80    0.4
                  eSn    54 47.80
 CKI      2.17  59 P      54 26.80   -0.1
                  eSn    54 57.10
 CVF      2.47 107 Pn     54 31.16    0.0
       S.D. = 0.4  on  11 of  11 obs.
-------------------------------------
*  APR  28, 1989  21h 08m 56.12± 0.85s
   37.083 N ± 7.9km   27.916 E ± 9.6km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                            (366)

 IZM      1.41 339 ePn    09 22.00    0.1
 ELL      1.63 101 ePn    09 25.00   -0.1
 KAP      1.64 202 ePb    09 25.00   -0.1
                  eSb    09 46.00
 KSL      1.65 125 ePb    09 25.50    0.3
 KHL      1.78  45 ePn    09 27.00   -0.2
       S.D. = 0.3  on   5 of   5 obs.
-------------------------------------
    APR  28, 1989  21h 09m 57.66± 0.18s
     4.210 S ± 4.0km  101.370 E ± 3.9km
    DEPTH =  32.4km  (  6 depth phases)
    5.4mb ( 27 obs.)  5.7Msz ( 21 obs.)
 SOUTHERN SUMATERA                 (274)
      CENTROID, MOMENT TENSOR      (HRV)
      Dato Used: GDSN
      L.P.B.: 16S, 31C
      Centroid Locotion:
```

28d 21h

Origin Time 21:10: 4.4 1.0
Lat 4.21S FIX;Lon 101.39E FIX
Dep 15.0 FIX Half-duration 2.7
Moment Tensor; Scale 10**18 Nm
Mrr= 0.21 0.05 Mtt=-0.13 0.04
Mff=-0.07 0.05 Mrt= 1.17 0.10
Mrf=-0.83 0.12 Mtf= 0.22 0.04
Principal Axes:
T Val= 1.40 Plg=50 Azm= 34
N 0.12 2 126
P -1.52 40 217
Best Double Couple:Mo=1.5*10**18
NP1:Strike=324 Dip= 5 Slip= 108
NP2: 126 85 88

KGM 6.48 18 ePc 11 35.10 1.7
e 12 56.80
IPM 8.74 358 ePc 12 04.00 -0.9
0.9s 151.90nm 6.2mb X
e 12 26.10
e 14 53.10
SNG 11.34 356 eP 12 38.80 -1.7
1.2s 412.50nm 6.5mb X
eS 14 41.30
TRT 11.73 108 ePd 12 45.00 -0.8
1.2s 148.00nm 6.0mb X
NNT 16.77 354 eP 13 46.20 -5.6X
KKM 17.99 56 ePc 14 08.80 1.7
1.3s 219.00nm 5.1mb
MKS 18.07 94 iPc 14 08.40 0.4
TSM 18.67 64 ePc 14 16.00 0.6
1.1s 1632.00nm 6.1mb
PCI 18.74 80 ePc 14 18.50 2.3
NST 19.79 356 eP 14 29.00 0.6
LOE 21.48 1 eP 14 40.00 -5.8X
NANU 22.82 144 eP 15 01.00 2.0
eS 19 07.00
CHG 23.00 354 ePd 15 00.20 -0.7
0.9s 130.46nm 5.4mb
eS 19 14.00
MNI 24.12 77 eP 15 13.20 1.5
QIZ 24.55 20 Pd 15 12.50 -3.4X
7.0s 3.40nm 3.0mb X
E 13s 12.90um
eS 19 39.00
sS 19 50.00
MBL 24.61 135 eP 15 13.70 -2.8X
DAV 26.64 65 eP 15 36.00 0.5
eS 20 19.00
AAI 26.77 90 eP 15 43.00 6.3X
QCP 27.06 46 eP 15 52.00 12.7X
BAG 27.94 42 eP+ 15 46.00 -1.5
eS 20 30.00
KMI 29.19 3 Pc+ 15 59.50 0.8
Z 18s 14.60um 5.6Msz
E 12s 9.80um
pP 16 12.00 49kmX
PP 17 03.00
S 20 52.00
KNA 29.27 115 eP 15 56.90 -2.4
GBA 29.62 307 Pc 16 02.40 -0.1
0.9s 13.00nm 4.7mb
MTN 30.62 108 eP 16 09.00 -2.4
GYA 30.91 9 iPc 16 13.80 -0.1
4.0s 1.20nm 3.0mb X
Z 16s 13.40um 5.7MszX
N 13s 14.00um
E 13s 7.50um
MUN 30.93 155 eP 16 13.00 -0.9
HYB 31.13 314 eP 16 15.00 -0.9
1.0s 30.00nm 5.1mb
NWAO 32.19 154 iPc 16 14.80 -10.1X
1.0s 70.00nm
WARB 32.61 135 eP 16 18.00 -10.7X
RKG 33.08 156 eP 16 36.00 3.3X
QZH 33.47 29 P 16 35.00 -1.1
6.0s 1.20nm 3.0mb X
Z 16s 5.90um 5.4MszX
N 13s 5.70um
CD2 35.00 4 iPc 16 48.50 -0.8
Z 20s 12.50um 5.7Msz
N 14s 20.20um
S 22 16.00
LSA 35.11 344 iPc 16 51.00 0.2
Z 12s 0.93um 4.8MszX
N 15s 2.00um
S 22 21.00

sS 22 41.00
PKI 35.15 335 Pc 16 50.40 -0.6
GUN 35.25 336 Pc 16 51.40 -0.5
DMN 35.31 335 Pc 16 51.80 -0.5
KKN 35.40 335 Pc 16 52.40 -0.6
WB5 35.72 119 iPc 16 54.20 -1.4
ePcP 21 16.80
eS 22 30.30
WRA 35.72 119 Pc 16 54.40 -1.2
0.9s 39.70nm 5.3mb
GKN 35.86 334 Pc 16 56.40 -0.4
FORR 36.55 139 eP 16 59.00 -3.4X
WHN 36.72 19 Pc 17 03.50 -0.3
7.0s 1.21nm 2.9mb X
Z 20s 12.30um 5.7Msz
N 12s 6.83um
E 14s 12.30um
sP 17 18.50
PP 18 32.00
PcP 19 27.00
ASPA 36.86 125 iPc 17 04.60 -0.6
1.3s 66.00nm 5.3mb
eS 22 45.60
XAN 38.71 10 iPc 17 20.00 -0.5
5.0s 1.20nm 2.9mb X
N 12s 10.50um
E 14s 10.50um
PP 18 50.00
S 23 22.00
NJ2 39.71 24 Pd 17 30.00 1.2
Z 23s 13.90um 5.7MszX
N 17s 10.70um
E 17s 5.80um
SSE 39.88 27 P+ 17 30.00 -0.2
1.5s 1.50nm 3.5mb X
Z 18s 7.20um 5.6Msz
N 12s 5.80um
E 11s 1.40um
PPP 19 24.00
S 23 23.00
sS 23 52.00
NDI 40.11 326 iPc 17 32.80 0.6
eS 23 37.00
LZH 40.15 3 Pc 17 34.00 1.4
6.0s 1479.00nm 5.9mb X
Z 18s 22.80um 6.1Msz
N 15s 10.00um
E 16s 11.00um
pP 17 44.00 34km
i 18 06.50
PP 19 10.00
eS 23 46.00
SS 26 44.00
QIS 40.57 117 iPc 17 35.30 -0.8
1.3s 196.00nm 5.7mb
TIA 42.83 19 Pc 17 54.00 -0.4
Z 15s 8.20um 5.7MszX
N 12s 5.10um
E 12s 6.90um
PcP 19 46.00
TIY 42.96 13 Pc 17 55.50 0.0
1.0s 0.10nm 2.5mb X
Z 21s 11.50um 5.7Msz
E 16s 7.60um
sP 18 08.00
S 24 22.00
GTA 43.43 358 iPc 17 59.90 0.6
1.5s 0.20nm 2.7mb X
Z 20s 18.30um 6.0Msz
N 14s 6.90um
PP 19 41.00
S 24 22.00
BTO 45.29 9 iPc 18 15.00 0.7
6.0s 1.40nm 3.0mb X
N 12s 12.40um
E 13s 9.30um
S 24 55.00
SS 28 11.00
PMG 45.72 99 iPc 18 17.50 -0.5
1.2s 218.75nm 6.0mb
HHC 45.80 11 P 18 19.40 1.0
7.0s 1.20nm 2.9mb X
Z 14s 28.10um 6.4MszX
N 14s 12.50um
E 14s 3.40um
eS 25 06.00
BJI 46.09 16 Pc 18 21.00 0.5

6.0s 0.82nm 2.8mb X
Z 18s 8.78um 5.7Msz
N 14s 7.18um
eScP 23 47.00
eS 25 22.00
ADE 46.14 136 eP 18 21.90 0.8
0.9s 53.78nm 5.5mb
CTA 46.44 114 iPc 18 23.00 -0.6
1.4s 441.86nm 6.2mb
i 18 34.30 40km
iS 25 09.60
STK 46.67 131 eP 18 25.50 0.2
i 18 38.70 49kmX
DL2 46.81 22 Pc 18 25.00 -1.2
Z 19s 5.70um 5.5Msz
E 15s 5.80um
PP 20 21.00
QUE 47.48 318 eP 18 31.60 -0.3
SHK 48.52 35 eP 18 38.40 -1.3
KSH 49.35 334 iPd 18 46.00 -0.2
Z 20s 8.70um 5.7Msz
N 18s 7.20um
PP 20 48.00
iS 25 54.00
WMQ 49.37 347 iPc 18 46.60 0.4
Z 20s 5.60um 5.6Msz
PP 20 42.00
S 25 52.00
ScS 28 32.00
CMS 49.75 128 eP 18 50.00 0.7
BFD 49.95 137 eP 18 51.30 0.6
SNY 50.09 22 iPc 18 50.00 -1.6
9.0s 1.30nm 3.0mb X
Z 16s 7.30um 5.8MszX
N 16s 7.10um
PP 20 49.00
RMQ 50.39 121 iPd 18 55.10 0.9
CN2 52.48 22 iPc 19 09.00 -0.7
5.0s 0.80nm 2.9mb X
Z 20s 9.10um 5.8Msz
E 16s 4.70um
ipP 19 17.00 27km
S 26 37.00
ScS 28 59.00
MAT 53.16 37 iPc 19 13.30 -1.6
1.3s 217.31nm 6.0mb
Z 20s 3.90um 5.5Msz
eS 26 03.00
CAN 53.73 131 eP 19 19.70 0.5
BRS 54.09 121 iPd 19 21.70 -0.2
i 19 36.50 55kmX
COO 54.28 125 eP 19 24.00 0.7
e 19 40.00 61kmX
AVY 54.32 250 iPc 19 23.70 -0.2
MDJ 54.79 24 eP 19 26.50 -0.2
Z 25s 6.60um 5.6MszX
E 13s 4.40um
TAU 56.02 140 eP 19 36.00 0.4
MAIO 56.16 320 iPc 19 35.00 -1.9
VSG 58.10 98 eP 19 49.00 -1.9
SVO 58.20 98 eP 19 44.00 -7.6X
HNR 58.34 98 eP 19 50.00 -2.5
BHD 65.45 309 ePd 20 36.00 -3.9X
eS 29 22.00
ePS 29 39.00
SLY 65.56 312 eP 20 39.00 -1.5
eS 29 20.00
TAB 66.03 315 eP 20 43.00 -0.7
IKZ 68.34 261 eP 21 17.00 18.2X
i 21 26.30 30km
PTZ 69.63 256 eP 21 06.90 0.3
JVI 72.17 305 eP 21 21.00 -0.5
HRI 72.24 307 eP 21 22.00 -0.1
BUL 72.38 250 iPc 21 23.30 0.1
1.0s 10.00nm 4.8mb
SEK 73.71 242 eP 21 35.00 4.1X
0.6s 6.67nm 4.8mb
KVT 74.51 315 eP 21 35.00 -0.1
BBTK 76.50 312 iP 21 45.00 -1.5
VRI 82.39 317 ePd 22 18.50 0.5
MLR 82.84 317 iPd 22 20.50 0.0
BNG 83.19 275 iPd 22 22.80 0.0
0.9s 23.00nm 5.3mb
ic 22 29.30 21kmX
KNT 84.11 312 eP 22 26.60 -0.3
LIT 84.22 311 eP 22 27.50 0.0
VAY 84.38 312 eP 22 28.00 -0.2

OHR	85.66	312	eP	22	32.50	-2.2
SPA	85.82	180	e(P)	22	36.20	1.1
	1.1s	14.88nm			5.1mb	
BZS	85.84	316	eP	22	35.50	0.1
SUF	86.99	334	iP	22	41.40	0.7
	0.8s	12.50nm			5.2mb	
NUR	87.13	331	iP	22	41.50	0.1
	0.6s	27.40nm			5.7mb	
Z	22s	2.70um			5.6Msz	
		LR	09	10.00		
PSZ	87.39	318	eP	22	43.00	-0.1
KRA	87.71	320	eP	22	45.10	0.7
	1.4s	78.00nm			5.8mb	
Z	18s	1.60um			5.5Msz	
N	20s	2.60um				
		e	22	55.20	32km	
SOD	88.03	338	iP	22	46.20	0.6
SRO	88.43	318	eP	22	49.00	1.1
KEV	88.56	340	eP	22	50.00	1.9
ZST	89.29	318	eP	22	52.00	0.0
VKA	89.82	318	eP	22	54.00	-0.5
	4.0s	299.00nm			5.9mb	X
VBY	90.25	315	eP	22	57.80	1.3
UPP	90.46	330	iP	22	56.80	-0.4
LJU	90.80	316	eP	22	59.90	0.8
PRU	91.15	320	eP	23	01.00	0.4
VOY	91.24	316	eP	23	02.30	1.0
TRI	91.31	316	eP	23	03.00	1.6
BRG	91.61	321	iP	23	03.50	0.8
	1.6s	42.00nm			5.6mb	
Z	20s	2.00um			5.6Msz	
N	20s	1.50um				
E	20s	2.50um				
		e	26	58.00		
		e	27	22.00		
KBA	91.70	317	eP	23	02.00	-1.5
	1.0s	10.60nm			5.2mb	
		e	23	12.50	33km	
		i	23	47.70		
KHC	91.70	319	P	23	03.70	0.5
CLL	92.23	321	iPd	23	06.20	0.7
Z	19s	1.50um			5.5Msz	
HFS	92.46	330	eP	23	06.90	0.5
	1.0s	22.70nm			5.6mb	
MOX	93.07	320	eP	23	10.00	0.6
	1.8s	31.00nm			5.4mb	
GRF	93.28	319	iPc	23	11.30	0.9
	1.0s	12.00nm			5.3mb	
NRA0	93.56	331	P	23	12.00	0.6
NAO	93.91	331	P	23	12.90	-0.2
	1.3s	17.80nm			5.3mb	
BRW	97.77	19	P	23	31.40	0.9
TTA	99.47	27	P	23	40.00	1.6
IMA	99.88	24	P	23	39.40	-0.9
	1.4s	24.15nm			5.5mb	
DAG	100.74	348	iPdiff	23	43.20	-0.5
	0.5s	5.63nm			5.4mb	
INK	106.32	18	ePKP	28	14.00	-6.0X
YKA	116.06	18	ePKP	28	39.40	0.7
YKC	116.11	18	ePKP	28	38.50	-0.3
	0.8s	8.00nm				
BMW	122.92	35	PKP	28	53.00	0.6
PNT	123.22	31	ePKP	28	54.00	1.2
EDM	123.45	24	iPKPd	28	53.70	0.5
LON	123.58	34	PKP	28	53.50	-0.2
FFC	126.20	17	ePKP	28	58.40	-0.1
	1.0s	24.00nm				
WDC	126.48	41	ePKP	28	59.00	-0.5
SES	126.51	25	ePKP	29	06.00	6.7X
		pP	31	00.00		
ORV	127.69	42	ePKP	29	02.50	0.7
LRM	129.16	30	ePKP	29	03.90	-0.9
CMB	129.22	43	ePKP	29	04.60	-0.2
PRS	129.38	45	ePKP	29	05.60	0.5
PRI	129.97	45	ePKP	29	07.40	1.0
KVN	130.18	40	PKP	29	07.40	0.6
FRI	130.21	44	ePKP	29	07.10	0.5
EUR	131.29	39	iPKP	29	10.20	1.2
	0.3s	12.88nm				
TNP	131.30	41	PKP	29	10.00	1.0
RSON	131.82	13	PKP	29	20.00	10.7X
Z	20s	3.39um			6.0Msz	
CLC	132.28	44	ePKP	29	12.00	1.3
SBB	132.71	45	ePKP	29	14.00	2.4X
MWC	132.78	46	ePKP	29	12.00	0.1
GSC	133.10	44	ePKP	29	15.00	2.7X
RVR	133.38	46	ePKP	29	15.00	2.2

PLM	134.08	46	PKP	29	13.30	-1.1
MSU	134.21	37	PKP	29	16.00	1.4
TPC	134.26	45	ePKP	29	17.00	2.5X
BAR	134.56	47	ePKP	29	20.00	4.9X
GLA	135.69	45	PKP	29	09.00	-8.3X
GLA	135.69	45	ePKP	29	19.00	1.7
GOL	137.19	31	PKP	29	25.00	4.8X
Z	20s	1.50um			5.7Msz	
ITR	137.89	252	ePKP	29	12.80	-9.1X
			e	32	52.30	
RSNY	139.67	355	PKP	29	30.00	5.8X
Z	20s	4.52um			6.2Msz	
ALQ	140.01	37	ePKP	29	20.00	-5.4X
Z	20s	1.60um			5.8Msz	
PPD	142.65	225	e(PKP)	29	42.00	11.8X
BAO	143.83	236	ePKP	29	30.30	-2.2
SIO	144.63	25	ePKPc	29	47.40	14.2X
FVM	144.70	16	PKP	29	31.00	-2.2
LNO	144.70	24	PKPc	29	31.80	-1.3
RLO	144.79	23	iPKP	29	32.10	-1.3
VVO	145.22	25	ePKPc	29	33.40	-0.8
ELC	145.68	15	PKP	29	34.40	-0.5
CBN	146.15	358	ePKP	29	37.00	1.4
CVL	146.39	360	PKP	29	36.50	0.5
OLY	146.68	19	PKP	29	36.00	-0.6
BLA	147.12	3	PKP	29	38.00	0.7
RSCP	148.11	11	PKP	29	41.00	2.1
TKL	148.35	8	PKP	29	42.00	2.7X
SLA	148.53	203	e(PKP)	29	42.50	2.4X
LHS	149.82	4	PKP	29	46.00	4.5X
JSC	149.98	4	PKP	29	46.00	4.2X
PRM	150.08	6	PKP	29	46.00	4.0X
ATB	152.58	255	e(PKP)	30	03.10	16.9X
CNCB	156.61	206	ePKP	30	07.00	14.7X
			e	30	21.00	
ZOBO	157.15	207	ePKP	29	51.00	-2.0
UPA	175.18	11	(PKP)	30	06.00	0.0

S.D. = 1.0 on 150 of 185 obs.

APR 28, 1989 21h 11m 42.69± 0.61s
37.081 N ± 5.7km 27.915 E ± 5.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.9 (ATH).

YER	0.30	80	iPg	11	47.70	-1.3
IZM	1.41	339	iPn	12	08.50	0.0
ELL	1.63	101	iPn	12	12.40	0.7
KAP	1.64	202	ePn	12	11.00	-0.7
KSL	1.65	125	ePn	12	13.20	1.4
KHL	1.78	45	iPn	12	13.50	-0.3
BCK	2.17	79	iPn	12	20.80	1.4
PRK	2.52	330	ePn	12	24.00	-0.3
DST	2.58	12	ePn	12	24.70	-0.6
ALT	2.62	41	ePn	12	25.20	-0.7
EZN	3.01	336	ePn	12	32.10	0.9
EDC	3.26	359	ePn	12	33.80	-1.1
BNT	3.27	0	iPn	12	33.70	-1.3
GPA	3.71	30	ePn	12	43.00	1.7
HRT	3.98	20	ePn	12	45.00	0.0
ISK	4.08	12	ePn	12	45.00	-1.4
RDO	4.46	336	ePn	12	51.70	-0.1
BBTK	4.70	53	iPc	12	56.00	0.6
KDZ	4.96	338	iP	12	59.00	0.1
RZN	5.22	333	eP	13	02.00	-0.9
DIM	5.29	340	eP	13	30.00	26.3X
MMB	5.55	325	eP	13	08.00	0.7
KKB	6.07	323	eP	13	15.00	0.4
PVL	6.44	343	eP	13	22.00	2.2
HRI	7.45	118	eP	13	30.00	-4.1X
			eS	14	49.00	
JVI	8.00	128	eP	13	40.00	-1.7
MBH	9.33	139	eP	13	56.00	-4.1X
KHC	15.92	324	P	15	34.30	6.0X

S.D. = 1.1 on 24 of 28 obs.

% APR 28, 1989 22h 00m 41.76± 2.04s
37.162 N ±17.1km 27.938 E ±13.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.28	95	iP	00	46.70	-0.9
IZM	1.34	337	iPn	01	07.00	0.5
ELL	1.63	104	ePn	01	10.90	0.2
KHL	1.71	47	ePn	01	11.00	-0.8
BCK	2.13	81	ePn	01	19.00	1.0
DST	2.50	12	ePn	01	23.00	-0.1

ALT	2.55	42	ePn	01	25.00	1.1
EZN	2.95	335	ePn	01	29.00	-0.4
EDC	3.18	359	iPn	01	32.30	-0.5

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

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* APR 28, 1989 22h 13m 03.53± 0.96s
4.187 S ±14.1km 101.503 E ±19.0km
DEPTH = 33.0km (normal)
5.0mb (5 obs.)
SOUTHERN SUMATERA (274)

IPM	8.72	357	ePc	15	10.50	0.1
			e	17	43.60	
SNG	11.32	356	eP	15	44.80	-1.3
PCI	18.60	80	ePd	17	34.40	14.0X
	1.0s	4.00nm				
CHG	22.99	354	eP	18	07.10	0.5
			e	20	38.00	
PKI	35.19	335	P	19	56.80	-0.3
GUN	35.29	336	P	19	58.20	0.2
	0.8s	33.00nm			5.3mb	
DMN	35.35	334	P	19	58.20	-0.2
	1.0s	14.00nm			4.8mb	
KKN	35.43	335	P	19	59.00	0.0
	1.0s	22.00nm			5.0mb	
WRA	35.62	119	Pd	19	59.60	-0.9
	0.7s	1.90nm			4.1mb	
GKN	35.89	334	P	20	02.80	-0.1
	1.0s	30.00nm			5.2mb	
LZH	40.12	3	eP	20	39.50	1.3
BJI	46.03	16	eP	21	26.00	0.2
CTA	46.33	114	eP	21	29.00	0.5

S.D. = 0.7 on 12 of 13 obs.

APR 28, 1989 22h 18m 23.18± 0.67s
39.942 N ± 5.6km 23.893 E ± 4.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG	0.16	265	iPgc	18	26.90	0.0
			iSg	18	29.50	
OUR	0.40	10	iPgc	18	31.90	0.6
PLG	0.55	322	ePn	18	33.00	-1.4
NEO	0.82	219	ePn	18	38.50	-0.6
SOH	0.97	335	ePg	18	41.80	0.2
THE	0.99	314	ePg	18	42.60	0.7
			eSg	18	55.40	
LIT	1.09	279	ePg	18	43.60	-0.1
			eSg	18	58.10	
SRS	1.20	349	ePg	18	45.70	0.2
			eSg	19	01.90	
KNT	1.43	328	ePb	18	50.00	0.8
			eSb	19	08.50	
GRG	1.52	312	ePb	18	51.90	1.4
			eSb	19	12.10	
KZN	1.67	283	ePn	18	52.00	-0.6
VAY	1.71	324	ePn	18	55.50	2.4X
RDO	1.74	46	ePn	18	52.50	-1.0
RZN	1.85	19	iPc	18	55.00	-0.4
EZN	1.88	93	ePn	18	57.00	1.5
KKB	2.02	343	iPc	18	58.00	0.4
KDZ	2.06	34	iP	18	57.00	-1.3
PLD	2.25	16	eP	19	06.00	5.1X
OHR	2.63	297	ePn	19	02.50	-4.0X
VTS	2.70	349	eP	19	07.00	-0.5

S.D. = 0.9 on 17 of 20 obs.

APR 28, 1989 23h 50m 11.13± 0.62s
37.049 N ± 5.9km 27.948 E ± 6.3km
DEPTH = 10.0km (geophysicist)
3.7mb (1 obs.)
TURKEY (366)

YER	0.28	72	iPg	50	17.10	0.0
IZM	1.45	338	iPn	50	37.50	0.1
ELL	1.60	100	iPn	50	41.60	2.0
KSL	1.61	125	eP	50	42.00	2.3
KAP	1.62	203	iPc	50	40.50	0.7
			eS	51	01.00	
KHL	1.78	44	iPn	50	42.50	0.2
BCK	2.15	78	iPn	50	49.60	2.1
PRK	2.56	329	eP	50	54.00	0.7
DST	2.61	12	iPn	50	54.20	0.1
ALT	2.63	40	iPn	50	54.70	0.2
EZN	3.05	336	ePn	50	59.00	-1.2
KCT	3.21	6	iPn	51	01.20	-1.4
EDC	3.29	359	iPn	51	03.10	-0.7

28d 23h

BNT 3.30 360 iPn 51 02.70 -1.2
GPA 3.73 29 ePn 51 13.00 3.0X
HRT 4.00 19 ePn 51 13.00 -0.8
ISK 4.10 12 ePn 51 15.00 -0.2
BBTK 4.70 52 iPc 51 25.00 1.2
DMK 4.77 358 iPn 51 23.40 -1.3
KDZ 5.00 338 iP 51 28.00 0.1
RZN 5.27 333 eP 51 31.00 -0.9
DIM 5.33 340 eP 51 34.00 1.3
MMB 5.59 325 eP 51 36.00 -0.4
VAY 5.97 317 ePn 51 43.00 1.4
KKB 6.11 323 eP 51 45.00 1.4
PVL 6.48 343 eP 51 46.00 -2.8X
VTS 6.63 328 iP 51 54.00 2.9X
HRI 7.41 118 eP 51 49.00 -13.0X
eS 53 20.00
JVI 7.96 128 iPc 52 07.00 -2.6
eS 53 34.00
BURJ 8.04 125 P 52 08.90 -1.9
MLR 8.57 350 eP 52 17.50 -0.7
MBH 9.28 139 iPc 52 26.00 -2.0
KHC 15.97 324 P 54 02.80 5.5X
MOX 17.93 324 e(P) 54 25.00 3.0X
NAO 26.15 341 P 55 48.60 1.6
1.0s 1.80nm 3.7mb
S.D. = 1.4 on 29 of 35 obs.

APR 29, 1989 00h 10m 40.57± 0.60s
39.800 N ± 4.3km 30.503 E ± 6.7km
DEPTH = 10.0km (geophysicist)
3.5mb (1 obs.)
TURKEY (366)

GPA 0.51 343 iPg 10 49.90 -1.0
ALT 0.80 202 iPg 10 55.00 -1.2
HRT 1.20 328 ePn 11 02.90 -0.1
GBZT 1.28 321 ePn 11 05.70 1.5
iSg 11 24.10
DST 1.46 263 iPn 11 06.80 -0.2
KHL 1.66 208 iPn 11 10.50 0.6
ISK 1.68 319 ePn 11 10.20 0.1
KCT 1.71 286 iPn 11 12.10 1.5
BBTK 1.74 88 ePn 11 10.00 -1.1
iPg 11 14.00
iSg 11 38.00
BNT 2.06 286 iPn 11 15.20 -0.4
CTT 2.08 311 ePn 11 20.00 4.1X
EDC 2.10 286 ePn 11 16.00 -0.2
BCK 2.34 178 ePn 11 20.00 0.3
IZM 2.88 242 iPn 11 33.50 6.0X
DMK 2.90 315 ePn 11 26.40 -1.2
ELL 3.08 189 iPn 11 31.40 1.1
EZN 3.22 272 ePn 11 31.60 -0.5
PRK 3.32 262 ePn 11 32.50 -1.1
KSL 3.75 191 ePn 11 40.00 0.3
RDO 4.02 291 ePn 11 42.80 -0.7
KVT 4.42 71 ePn 12 03.00 13.8X
VRI 6.67 337 ePc 12 21.20 0.2
HFS 22.92 338 eP 15 47.60 2.2
0.4s 0.60nm 3.5mb
S.D. = 1.0 on 20 of 23 obs.

APR 29, 1989 01h 03m 06.85± 0.17s
5.494 S ± 3.9km 102.976 E ± 3.9km
DEPTH = 37.9km (11 depth phases)
5.4mb (26 obs.) 5.1Msz (13 obs.)
SOUTHERN SUMATERA (274)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 24C
Centroid Locotion:
Origin Time 01:03:10.3 0.7
Lat 5.47S FIX;Lon 102.99E FIX
Dep 33.2 6.5 Half-durotion 1.6
Moment Tensor; Scale 10**16 Nm
Mrr= 6.02 0.47 Mtt=-1.72 0.53
Mff=-4.30 0.75 Mrt=-1.35 1.29
Mrf=-2.81 1.55 Mtf= 5.42 0.57
Principal Axes:
T Val= 7.67 Plg=61 Azm=133
N 1.04 29 326
P -8.71 6 233
Best Double Couple:Mo=8.2*10**16
NP1:Strike=295 Dip=47 Slip= 49
NP2: 167 57 125

KGM 7.47 3 ePc 04 58.60 2.4
TRT 9.84 103 iPd 05 29.60 0.6
IPM 10.19 349 ePd 05 37.10 3.2X
1.1s 342.40nm 6.5mb X
SNG 12.81 349 eP 06 07.20 -1.9
1.2s 318.75nm 6.2mb X
eS 08 29.50
BSI 13.34 325 iP 06 14.00 -2.2
0.7s 224.50nm 6.2mb X
MKS 16.42 90 ePd 06 59.00 2.7
e 09 45.00
PCI 17.44 75 ePd 07 11.80 2.8
eS 07 25.90
KKM 17.49 49 ePc 07 11.50 1.7
1.1s 120.30nm 4.9mb
TSM 17.90 58 ePd 07 15.90 1.1
NNT 18.25 350 eP 07 17.00 -2.1
NANU 20.86 146 eP 07 47.10 -1.0
eS 11 35.00
MBL 22.58 135 iPc 08 04.90 -0.4
LOE 22.79 357 eP 08 05.80 -1.6
BDT 22.93 350 iPd 08 07.90 -0.9
0.7s 125.30nm 5.5mb
CHG 24.48 351 iPd 08 23.00 -0.9
1.0s 108.00nm 5.4mb
eS 12 44.00
QIZ 25.29 15 eP 08 31.00 -0.6
N 16s 2.60um
eS 12 52.00
DAV 25.78 61 eP 08 38.00 1.8
eS 13 06.00
QCP 26.87 42 eP 08 46.00 -0.2
KNA 27.28 114 eP 08 48.00 -2.0
BAG 27.87 38 eP 08 55.00 -0.5
eS 13 36.00
NWAO 30.36 156 eP 09 16.00 -1.5
Z 20s 2.60um 4.9Msz
N 20s 2.40um
E 20s 2.00um
KMI 30.43 360 Pd 09 19.00 0.6
Z 15s 13.40um 5.7MszX
N 16s 8.30um
S 14 20.00
pP 19 30.00
WARB 30.57 135 iPc 09 08.00 -11.5X
0.5s 10.00nm
GBA 31.67 307 Pc 09 30.00 0.8
0.9s 12.10nm 4.7mb
GYA 31.96 6 P 09 30.60 -1.2
Z 20s 1.40um 4.6Msz
N 14s 2.70um
E 14s 1.50um
pP 09 42.40 45km
S 14 42.00
HYB 33.17 314 eP 09 42.00 -0.3
WRA 33.71 118 Pc 09 45.50 -1.4
0.7s 25.00nm 5.2mb
WB5 33.71 118 iPc 09 45.90 -1.0
ePcP 12 25.90
eS 15 12.00
FORR 34.55 140 eP 09 52.00 -2.0
ASPA 34.82 124 iPc 09 56.00 -0.5
0.6s 112.00nm 6.0mb
Z 21s 2.81um 5.0Msz
eS 15 22.80
LR 24 31.80
CD2 36.21 1 iPd 10 07.00 -1.1
Z 18s 3.50um 5.2Msz
N 15s 4.00um
S 15 41.80
LSA 36.79 343 P 10 13.50 0.0
PKI 36.99 334 P 10 15.20 0.0
GUN 37.08 334 P 10 16.20 0.3
DMN 37.16 333 P 10 17.00 0.5
KKN 37.24 334 P 10 17.40 0.3
POO 37.34 310 iPc 10 19.10 1.2
1.0s 32.00nm 5.2mb
WHN 37.45 16 eP 10 18.50 0.0
Z 22s 3.32um 5.1Msz
N 16s 1.82um
E 16s 1.82um
sP 10 30.30
eS 16 00.00
sS 16 12.00
GKN 37.71 333 P 10 21.20 0.2
JAY 37.75 87 ePd 10 18.20 -3.1X
QIS 38.57 116 iPc 10 27.60 -0.6
0.5s 39.00nm 5.5mb
XAN 39.72 8 iPd 10 36.50 -1.0
N 14s 3.20um
S 16 37.00
SSE 40.33 24 Pc 10 44.00 1.5
1.0s 0.04nm 2.1mb X
Z 18s 1.40um 4.9Msz
N 14s 0.70um
E 14s 0.70um
pP 10 55.20 40km
S 16 44.00
LZH 41.37 1 eP 10 51.00 -0.2
2.0s 110.00nm 5.2mb
Z 16s 2.70um 5.2MszX
N 16s 2.10um
E 14s 1.60um
i 11 03.00 44km
i 11 12.00
eS 17 03.00
NDI 42.07 325 iPc 10 57.00 0.2
0.8s 126.87nm 5.7mb
eS 17 12.00
TIA 43.56 17 eP 11 07.60 -1.3
Z 15s 2.50um 5.2MszX
N 14s 2.10um
E 14s 1.30um
TIY 43.88 11 Pc 11 11.60 0.1
Z 18s 6.70um 5.6Msz
pP 11 22.00 36km
S 17 40.00
PMG 43.95 98 iPd 11 12.50 0.1
1.0s 110.00nm 5.6mb
ADE 44.12 136 iPc 11 13.70 0.2
0.6s 60.00nm 5.6mb
CTA 44.47 113 iPc 11 16.20 -0.3
1.4s 155.81nm 5.6mb
i 11 25.00 29km
i 11 37.00
i 11 58.50
iS 17 48.00
i 21 15.00
STK 44.63 131 iPc 11 17.80 0.2
0.4s 42.00nm 5.6mb
i 13 59.20
GTA 44.77 357 P 11 18.90 0.1
Z 15s 5.80um 5.6MszX
N 15s 3.20um
S 17 49.50
KUMJ 46.17 33 eP 11 29.30 -0.5
BTO 46.32 7 P 11 32.00 1.0
Z 14s 1.80um 5.2MszX
N 14s 1.40um
E 14s 1.50um
pP 11 42.00 33km
S 18 15.00
eSS 21 31.00
HHC 46.79 9 eP 11 35.00 0.3
Z 20s 4.30um 5.4Msz
N 17s 3.30um
E 14s 0.70um
S 18 25.00
BJI 46.91 14 eP 11 35.00 -0.5
Z 14s 4.70um 5.6MszX
N 14s 2.69um
eScP 16 59.00
eS 18 24.00
SHNJ 47.54 32 eP 11 40.60 0.0
CMS 47.71 128 eP 11 42.00 -0.1
BFD 47.92 137 eP 11 43.00 -0.6
RMQ 48.36 121 eP 11 47.00 -0.2
QUE 49.50 318 eP 11 55.00 -1.1
SNY 50.71 20 Pc 12 03.40 -1.5
WMQ 50.99 346 P 12 07.00 -0.1
Z 20s 1.60um 5.0Msz
E 14s 0.70um
S 19 20.00
KSH 51.21 333 Pc 12 09.00 0.1
iS 19 26.00
CAN 51.68 131 eP 12 12.90 0.4
BRS 52.06 121 iPc 12 15.80 0.3
COO 52.24 125 iPd 12 18.50 1.7
MTMJ 53.04 35 eP 12 20.90 -1.8
CN2 53.10 20 Pd 12 21.00 -1.8
3.0s 0.40nm 2.9mb X
Z 16s 2.50um 5.4MszX
E 13s 0.70um
sP 12 32.00
S 19 46.50

			ScS	22 09.00		
MAT	53.24	35	eP	12 22.00	-2.0	
	1.2s	32.81nm		5.2mb		
CHJJ	53.36	36	eP	12 22.50	-2.4	
TAU	54.02	141	iPc	12 30.00	0.4	
MDJ	55.32	23	eP	12 36.00	-3.1X	
AVY	55.40	251	iPc	12 39.90	-0.5	
SVO	56.45	97	eP	12 45.00	-2.7	
HNR	56.58	98	eP	12 46.00	-2.7	
MAIO	58.17	319	iPc	12 59.00	-0.6	
			eS	21 06.00		
RYD	62.49	301	eP	13 28.50	-0.8	
DZM	63.38	112	iPc	13 42.70	7.4X	
NAI	66.16	271	iPd	13 54.40	0.7	
TAB	68.06	315	eP	14 05.00	-0.2	
PTZ	70.89	257	iP	14 14.30	-8.5X	
BUL	73.46	251	iPd	14 36.70	-1.3	
	1.0s	20.00nm		5.0mb		
			ipP	14 47.70	36km	
SLR	73.85	245	eP	14 29.00	-11.2X	
LSZ	73.92	256	iPc	14 40.00	-0.7	
			i	14 46.40	21kmX	
			i	14 51.50		
MBH	73.98	303	iPc	14 41.00	0.3	
DSI	74.08	305	ePc	14 42.00	0.8	
HRI	74.29	307	eP	14 54.00	11.4X	
KMZ	76.26	258	iPd	14 53.60	-0.6	
KVT	76.55	314	eP	14 55.00	-0.2	
LFK	76.63	308	eP	14 56.00	0.2	
BBTK	78.54	312	iPc	15 06.00	-0.3	
SBA	79.27	169	Pc	15 10.20	0.7	
BCK	79.51	310	eP	15 11.00	-0.6	
ELL	79.85	309	eP	15 12.90	-0.6	
ALT	80.29	311	iP	15 15.70	-0.1	
GPA	80.47	312	eP	15 17.00	0.4	
DST	81.54	311	eP	15 22.10	-0.2	
IZM	82.29	310	iP	15 27.00	0.8	
EZN	83.32	311	eP	15 31.00	-0.4	
JMB	83.72	314	iPc	15 34.00	0.6	
ISR	84.37	316	eP	15 41.00	4.3X	
KDZ	84.39	313	eP	15 37.00	0.2	
DIM	84.39	313	eP	15 38.00	1.3	
VRI	84.42	317	iPc	15 38.00	1.2	
SPA	84.54	180	ePc	15 37.00	-0.3	
	1.3s	45.83nm		5.5mb		
PVL	84.79	314	eP	15 36.00	-2.7	
MLR	84.86	317	iPc	15 40.20	1.0	
BNG	84.89	275	iPc	15 39.60	-0.3	
	0.6s	19.00nm		5.4mb		
			id	15 51.00	37km	
RZN	84.91	313	iPc	15 40.00	0.4	
PGB	85.49	313	iPc	15 42.00	-0.3	
MMB	85.62	312	iPc	15 54.00	11.0X	
KKB	86.14	313	iPc	15 45.00	-0.5	
KNT	86.15	312	eP	15 46.10	0.5	
LIT	86.26	311	ePc	15 46.30	0.1	
VAY	86.42	312	eP	15 45.00	-1.9	
SKO	87.37	312	eP	15 51.30	-0.2	
OHR	87.70	311	eP	15 51.20	-2.0	
BEO	88.54	315	eP	15 57.00	0.0	
SUF	88.85	333	eP	15 59.00	0.9	
	0.6s	3.80nm		4.9mb		
NUR	89.02	331	iP	15 59.50	0.6	
	0.7s	18.70nm		5.5mb		
Z	21s	0.70um		5.1Msz		
			i	16 12.00	41km	
			LR	01 10.00		
SPC	89.38	319	eP	16 02.50	1.3	
PSZ	89.41	318	iP	16 02.90	1.7	
KRA	89.71	320	eP	16 03.90	1.5	
			e	16 11.10	22kmX	
SOD	89.82	338	iP	16 03.00	0.4	
			i	16 15.30	40km	
KEV	90.30	340	eP	16 07.00	2.2	
SRO	90.45	318	iP	16 08.00	2.1	
ZST	91.30	318	iP	16 10.40	0.6	
			LR	02 07.00		
VKA	91.83	318	ePc	16 13.00	0.7	
UPP	92.37	330	iP	16 13.00	-1.4	
PRU	93.16	320	eP	16 19.40	1.1	
Z	19s	0.60um		5.1Msz		
BRG	93.61	321	iP	16 21.50	1.1	
	1.6s	34.00nm		5.5mb		
			e	16 33.00	37km	
			e	20 08.00		
KHC	93.72	319	P	16 22.00	1.0	
CLL	94.23	321	e(P)	16 23.00	-0.2	
HFS	94.36	330	eP	16 23.50	-0.1	
	1.3s	14.70nm		5.3mb		
MOX	95.07	320	eP	16 27.50	0.4	
			e	20 24.00		
GRF	95.29	319	iPc	16 29.40	1.2	
	1.5s	37.00nm		5.6mb		
NAO	95.81	331	P	16 30.20	-0.1	
	1.1s	7.30nm		5.1mb		
DOU	99.57	320	P	17 02.60	15.1X	
TTA	99.88	27	P	16 49.00	0.2	
	1.2s	17.05nm		5.5mb		
IMA	100.40	24	Pdiff	16 51.50	0.4	
	1.0s	6.25nm		5.1mb		
YKA	116.78	18	PKP	21 48.40	-0.2	
PNT	123.47	32	ePKP	22 03.00	1.2	
LON	123.70	36	PKP	21 59.00	-3.4X	
EDM	123.93	25	ePKP	22 02.50	-0.1	
WDC	126.36	42	ePKP	22 08.10	0.4	
			epPKP	22 10.30		
FFC	126.94	18	ePKP	22 08.00	-0.3	
	0.9s	10.00nm				
SES	126.95	27	ePKP	22 19.00	10.4X	
MIN	127.10	42	ePKP	22 09.90	0.6	
ORV	127.55	43	ePKP	22 10.00	0.0	
			epPKP	22 22.50		
MHC	128.48	46	ePKP	22 13.30	1.3	
			epPKP	22 25.20		
CMB	129.04	44	ePKP	22 13.70	0.8	
			epPKP	22 25.60		
			eSKP	25 31.30		
PRS	129.12	47	ePKP	22 14.50	1.4	
			epPKP	22 26.60		
PRI	129.72	47	ePKP	22 16.40	2.0	
			epPKP	22 28.50		
			eSKP	25 35.00		
FRI	130.01	45	ePKP	22 15.80	1.1	
			epPKP	22 27.70		
			eSKP	25 35.10		
KVN	130.09	42	PKP	22 15.00	-0.1	
TNP	131.18	43	PKP	22 17.00	-0.2	
EUR	131.25	40	iPKP	22 19.50	2.1	
	0.2s	8.09nm				
CLC	132.06	45	ePKP	22 19.00	0.2	
			e	22 32.00		
SBB	132.44	47	ePKP	22 16.00	-3.5X	
			e	22 33.00		
RVR	133.10	47	ePKP	22 21.00	0.3	
			e	22 34.00		
TPC	134.01	47	ePKP	22 37.00	14.5X	
MSU	134.23	39	PKP	22 24.00	1.0	
BAR	134.23	49	ePKP	22 35.00	12.1X	
GLA	135.41	47	ePKP	22 34.00	8.8X	
GOL	137.43	33	PKP	22 29.00	-0.1	
ITA	137.96	228	ePKP	22 32.10	1.4	
ITR	138.99	250	ePKP	22 12.00	-20.4X	
VAO	139.20	225	ePKP	22 32.90	0.3	
ALQ	140.04	39	ePKP	22 34.00	0.1	
PPD	142.82	222	ePKP	22 33.80	-5.2X	
BAO	144.40	233	ePKP	22 40.00	-1.9	
TBR	144.42	356	PKP	22 50.00	8.9X	
SIO	145.05	28	ePKP	22 41.20	-1.2	
			e	22 53.80		
LNO	145.15	27	PKPd	22 41.80	-0.6	
			e	22 53.60		
RLO	145.29	26	ePKP	22 42.00	-0.7	
FVM	145.43	19	PKP	22 42.00	-0.9	
VVO	145.65	28	ePKP	22 43.50	0.1	
ELC	146.45	18	PKP	22 44.50	-0.1	
OLY	147.30	22	PKP	22 47.70	1.7	
SLA	147.93	200	ePKPd	22 47.60	0.0	
JSC	151.09	7	PKP	22 57.50	5.6X	
CNCB	156.10	202	PKP	23 01.80	1.7	
LPB	156.40	202	(PKP)	23 01.00	0.7	
Z	20s	1.06um		5.7Msz		
			LR	19 54.00		
ZOBO	156.65	202	PKP	23 00.40	-0.4	
Z	20s	0.53um		5.4Msz		
			LR	18 50.00		

S.D. = 1.1 on 164 of 185 obs.

? APR 29, 1989 01h 06m 55.10±10.10s
37.735 N ±83.0km 23.615 E ±33.8km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)

NEO	1.60	349	ePb	07 21.50	-2.0	
PAIG	2.19	1	iPgc	07 30.90	-1.1	
			iSg	07 39.80		
PRK	2.57	53	ePn	07 37.00	-0.5	
OUR	2.61	6	iPgc	07 38.80	0.8	
			eSg	07 52.40		
THE	2.94	350	ePb	07 42.80	0.2	
KZN	2.94	331	ePg	07 50.00	7.2X	
SOH	3.09	356	ePb	07 44.60	-0.2	
GRG	3.35	344	ePb	07 49.00	0.4	
			eSb	08 10.80		
SRS	3.38	360	ePbd	07 48.30	-0.6	
KNT	3.47	351	ePb	07 50.40	0.2	
			eSb	08 11.20		
OHR	4.02	328	ePn	08 10.20	12.2X	

S.D. = 1.0 on 9 of 11 obs.

? APR 29, 1989 01h 38m 33.65± 4.66s
34.033 S ±18.5km 71.920 W ±35.6km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

LNV	0.43	80	iPd	38 43.20	0.0	
			iS	39 06.70		
LCCH	0.63	28	iPd	38 46.00	-0.1	
			iS	38 55.50		
CHCH	1.06	85	iPd	38 52.00	-0.2	
SAN	1.20	61	iPd	38 54.00	-0.2	
			iS	39 09.80		
PCH	1.24	71	iP	38 55.00	0.1	
			iS	39 11.20		
ROCH	1.30	36	iPd	38 56.10	0.2	
			iS	39 13.50		
PEL	1.36	50	iPd	38 56.60	0.1	
			iS	39 14.60		
FCH	1.53	63	iP	38 59.50	0.2	
			iS	39 19.50		
JACH	1.75	40	iP	39 02.00	-0.2	
			iS	39 24.50		
RFA	2.95	105	ePc	39 19.40	0.1	

S.D. = 0.2 on 10 of 10 obs.

? APR 29, 1989 01h 51m 57.28± 8.64s
39.216 N ±65.4km 23.283 E ±13.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

NEO	0.10	333	ePg	51 59.60	-0.4	
PAIG	0.77	23	iPgc	52 13.20	0.9	
			iSg	52 22.50		
LIT	1.08	326	ePg	52 17.80	0.3	
			eSg	52 30.80		
PLG	1.16	6	ePb	52 18.50	-0.5	
			eSb	52 34.00		
OUR	1.24	26	ePg	52 20.40	0.1	
SOH	1.60	2	ePb	52 25.70	-0.1	
GRG	1.87	339	ePb	52 29.90	0.3	
			eSb	52 51.10		
SRS	1.91	7	ePn	52 29.50	-0.7	
			eSn	52 50.50		
KNT	1.97	351	ePn	52 31.10	0.1	
			eSn	52 52.60		

S.D. = 0.6 on 9 of 9 obs.

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* APR 29, 1989 02h 14m 20.31± 0.95s
39.371 N ± 7.4km 16.905 E ± 8.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

TDS	0.52	303	Pc	14 30.60	-0.3	
			eSg	14 39.20		
LCI	1.26	40	P	14 43.60	0.0	
			eSg	15 04.70		
MGR	1.29	307	P	14 44.60	0.3	
			eSg	15 02.10		
SOI	1.46	207	P	14 46.50	-0.1	
			eSn	15 05.40		
ATN	1.65	223	P	14 49.60	0.1	
OHR	3.45	59	e(Pn)	15 24.00	8.8X	

S.D. = 0.4 on 5 of 6 obs.

% APR 29, 1989 02h 22m 56.61± 2.63s
37.156 N ±24.7km 27.968 E ±18.4km
DEPTH = 5.0km (geophysicist)
TURKEY (366)

YER	0.25	95	iPg	23 00.90	-0.9	
IZM	1.36	336	ePn	23 22.00	-0.2	
ELL	1.61	104	ePn	23 26.00	0.2	

29d 02h

KHL 1.70 46 ePn 23 27.00 -0.1
BCK 2.11 81 ePn 23 34.00 0.9
S.D. = 0.9 on 5 of 5 obs.

APR 29, 1989 02h 23m 57.40± 0.93s
39.327 N ± 6.7km 16.774 E ± 9.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

TDS 0.47 315 Pc 24 06.70 -0.3
eSg 24 13.70
MGR 1.24 311 P 24 21.30 0.9
eSg 24 37.30
LCI 1.35 42 P 24 22.30 0.0
eSg 24 41.90
SOI 1.37 204 Pd 24 22.70 0.2
ATN 1.55 222 Pd 24 24.90 -0.2
SGO 1.67 318 P 24 26.20 -0.5
OHR 3.56 59 ePn 25 02.20 8.3X
S.D. = 0.6 on 6 of 7 obs.

% APR 29, 1989 02h 25m 20.25± 0.91s
39.370 N ± 6.9km 16.799 E ± 8.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

TDS 0.46 309 Pc 25 29.80 0.2
eSg 25 36.60
MGR 1.23 309 P 25 43.70 0.6
eSg 26 00.10
LCI 1.31 42 P 25 44.60 0.1
eSg 26 04.70
SOI 1.42 204 Pd 25 46.10 0.0
ATN 1.60 221 Pd 25 48.60 0.0
SGO 1.65 316 P 25 48.30 -1.0
S.D. = 0.7 on 6 of 6 obs.

% APR 29, 1989 02h 26m 37.29± 0.92s
39.329 N ± 6.7km 16.797 E ± 8.8km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

TDS 0.48 313 Pc 26 46.70 -0.4
eSg 26 55.60
MGR 1.25 311 Pd 27 01.50 0.9
eSg 27 18.40
LCI 1.34 41 P 27 02.00 0.0
eSg 27 21.60
SOI 1.38 205 P 27 02.70 0.1
ATN 1.57 222 P 27 05.00 -0.2
SGO 1.68 317 P 27 06.30 -0.5
S.D. = 0.7 on 6 of 6 obs.

APR 29, 1989 02h 55m 51.03± 1.12s
37.787 N ± 7.2km 142.446 E ± 8.2km
DEPTH = 32.5 ± 6.2 km
4.6mb (9 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)
Felt (I JMA) ot Fukushimo.

OFUJ 1.43 335 P 56 14.00 -0.9
S 56 33.80
FKS 1.56 270 iPd 56 16.50 -0.3
S 56 34.80
YAMJ 1.94 282 P 56 21.70 -0.7
eS 56 45.40
KAKJ 2.41 230 P 56 27.90 -1.1
eS 56 56.00
NIIJ 2.79 260 P 56 33.90 -0.5
eS 57 09.10
AOMJ 3.20 330 eP 56 41.90 1.7
CHJJ 3.26 239 P 56 40.50 -0.6
MAT 3.61 251 eP 56 48.00 2.0
iS 57 35.00
MTMJ 3.90 253 P 56 50.30 0.1
IIDJ 4.31 239 P 56 57.30 1.2
eS 57 47.70
HOOJ 4.64 8 eP 56 59.90 -0.6
S 57 50.60
MRRJ 4.75 348 eP 57 03.50 1.4
eS 57 57.30
KUSJ 5.58 17 P 57 11.40 -2.5
S 58 11.50
TSRJ 5.66 249 P 57 16.90 1.9
ASAJ 6.33 1 P 57 23.50 -0.9
MDJ 11.84 309 eP 58 41.00 0.5
SSE 18.74 255 e(P) 00 10.00 0.6
Z 18s 0.40um
E 12s 0.30um
TIA 20.27 273 P 00 23.60 -2.9
BJI 20.54 284 eP 00 25.00 -4.3X
WHN 24.28 261 eP 01 07.00 0.6
XAN 27.32 272 Pd 01 34.00 -0.8
GYA 32.16 260 P 02 16.60 -1.5
CD2 32.50 270 eP 02 20.00 -0.9
GTA 33.13 286 eP 02 25.50 -0.9
CHG 42.27 256 eP 03 43.90 0.7
GUN 47.90 276 PKP 04 28.60 0.0
0.6s 21.00nm 5.3mb
PKI 48.43 275 PKP 04 32.60 0.0
KKN 48.43 276 PKP 04 26.00 -6.5X
0.8s 40.00nm 5.5mb
GKN 48.84 276 PKP 04 34.80 -0.7
INK 53.34 27 eP 05 10.00 1.1
MBC 55.57 17 eP 05 26.00 0.9
WB5 57.86 189 eP 05 41.00 -0.9
WRA 57.93 189 Pc 05 41.40 -1.0
0.6s 1.80nm 4.3mb
ALE 59.31 4 eP 05 52.00 0.5
0.8s 7.00nm 4.8mb
GBA 62.09 266 Pd 06 11.70 0.5
0.7s 4.30nm 4.7mb
YKA 62.74 31 eP 06 15.50 0.6
SOD 64.59 337 eP 06 27.00 0.1
e 06 39.00
SUF 67.68 333 iP 06 46.50 -0.2
0.6s 1.60nm 4.3mb
NUR 69.67 332 iP 06 58.70 -0.3
FFC 72.63 33 iPc 07 17.50 0.6
0.8s 14.00nm 5.0mb
HFS 73.74 336 eP 07 22.80 -0.5
0.4s 0.70nm 4.0mb
Z 17s 0.09um 4.1MszX
LR 39 54.00
NAO 74.09 338 P 07 25.20 -0.1
0.7s 1.50nm 4.1mb
FR8 75.85 14 eP 07 36.00 0.7
CLL 80.85 331 e(P) 08 14.00 11.2X
KHC 82.33 329 eP 08 12.40 1.7
e 08 23.50
ZOBO 145.60 60 PKPc 15 30.00 1.3
LPB 145.80 60 PKP 15 28.00 -0.8
0.9s 25.21nm
CNCB 146.07 60 PKPc 15 32.70 3.2X
S.D. = 1.1 on 44 of 48 obs.

* APR 29, 1989 03h 10m 40.81± 1.09s
66.938 N ± 8.3km 156.412 W ±16.3km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.0 (PMR).

IMA 1.40 127 iP 11 07.30 0.2
FBA 4.08 116 iP 11 44.80 -0.4
BRW 4.39 359 eP 11 49.60 0.0
SVW 5.86 176 ePc 12 10.20 -0.3
PWA 6.02 149 eP 12 13.10 0.5
PMR 6.23 146 eP 12 15.50 0.0
S.D. = 0.4 on 6 of 6 obs.

APR 29, 1989 03h 16m 32.46± 0.78s
66.940 N ± 4.8km 156.339 W ±10.1km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.8 (PMR).

IMA 1.38 128 iPc 16 58.70 0.2
TTA 4.03 178 ePd 17 36.20 0.0
FBA 4.06 116 iPd 17 36.20 -0.3
BRW 4.39 358 eP 17 41.30 0.1
SVW 5.86 177 ePc 18 01.90 -0.2
PWA 6.00 149 eP 18 04.30 0.3
PMR 6.22 146 eP 18 07.00 0.0
TOA 6.54 133 eP 18 13.20 1.6X
INK 8.79 71 eP 18 43.00 0.0
MBC 14.59 35 eP 20 01.00 -0.1
YKA 18.09 84 P 20 47.90 2.2X
S.D. = 0.2 on 9 of 11 obs.

* APR 29, 1989 04h 04m 03.35± 1.07s
37.022 N ±11.3km 27.966 E ±10.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
YER 0.28 66 iPg 04 07.80 -1.4
IZM 1.48 338 ePn 04 30.00 -0.1
ELL 1.58 99 ePn 04 35.00 3.4X
KSL 1.58 124 ePn 04 34.50 3.0X
KAP 1.60 204 ePn 04 31.50 -0.3
eSn 04 53.50
KHL 1.79 43 ePn 04 35.00 0.4
BCK 2.14 77 ePn 04 41.00 1.4
S.D. = 1.4 on 5 of 7 obs.

* APR 29, 1989 04h 11m 12.16± 0.35s
17.356 S ±12.1km 174.288 W ± 6.9km
DEPTH = 149.4km (9 depth phases)
4.6mb (10 obs.)
TONGA ISLANDS (173)

RAR 14.23 108 P 14 29.00 0.9
S 17 11.00
PVC 16.60 266 iPc 15 08.00 10.4X
DZM 18.73 252 iPc 15 23.90 1.7
VAH 25.67 89 iP 16 28.90 -1.0
0.8s 25.00nm 4.9mb
TPT 25.71 89 iP 16 29.60 -0.8
0.8s 15.00nm 4.6mb
RUV 25.91 89 iP 16 31.00 -1.1
0.8s 20.00nm 4.8mb
RMQ 35.36 249 eP 17 55.00 -0.3
CTA 37.41 259 iPd 18 12.00 -0.5
0.6s 7.33nm 4.6mb
eS 23 50.00
CMS 38.72 241 eP 18 23.00 -0.3
WB5 48.57 259 eP 19 41.20 -1.3
WRA 48.59 258 Pc 19 41.20 -1.4
0.9s 8.60nm 4.5mb
ASPA 48.72 254 iPc 19 43.00 -0.6
0.7s 27.00nm 5.1mb
epP 20 09.90 115kmX
GUA 50.64 305 eP 19 52.50 -5.8X
GUMO 50.71 305 eP 19 52.40 -6.4X
WARB 55.16 250 eP 20 21.00 -10.6X
SPA 72.75 180 e(P) 22 27.00 1.4
1.0s 10.00nm 4.5mb
RVR 74.44 46 eP 22 48.00 12.3X
e 23 13.00 96kmX
PLM 74.45 47 P 22 36.00 0.0
SBB 74.52 45 eP 22 36.00 -0.3
e 23 13.00 150km
FRI 74.60 43 e(P) 22 36.90 0.4
e 23 13.60 149km
ISA 74.64 44 eP 22 37.00 0.1
e 23 10.00 132kmX
CMB 74.79 41 eP 22 37.70 0.0
e 23 14.10 147km
e 23 32.40
WDC 75.03 38 eP 22 39.10 0.1
e 23 15.40 147km
CLC 75.31 45 eP 22 42.00 1.3
e 23 19.00 150km
TPC 75.43 47 eP 22 34.00 -7.4X
e 23 19.00 186kmX
MIN 75.44 39 eP 22 39.40 -2.1
KVN 76.83 42 P 22 48.70 -0.6
pP 23 25.00 146km
TNP 76.84 43 P 22 48.50 -0.9
0.6s 1.23nm 3.8mb
pP 23 26.00 151km
PNT 82.11 33 eP 23 18.00 0.9
0.6s 3.00nm 4.2mb
ALQ 82.70 50 eP 23 21.00 0.3
1.5s 22.92nm 4.8mb
epP 24 00.00 156km
LRM 84.07 38 eP 23 27.90 0.4
BW06 84.29 42 P 23 28.00 -0.6
pP 24 05.50 149km
FBA 84.47 11 eP 23 28.70 0.0
GOL 85.62 46 P 23 35.00 -0.4
SES 87.29 35 eP 23 58.00 15.1X
EDM 87.59 32 eP 23 46.00 1.7
INK 90.36 14 eP 23 58.00 1.1
KRA 145.43 344 ePKP 30 45.40 11.7X
e 31 31.40
CLL 145.63 352 ePKP 30 36.00 2.0
i 31 09.80
BRG 145.92 351 ePKP 30 38.50 4.0X
1.0s 10.00nm
e 31 21.00
e 31 34.00

			eSg	46	27.10	
SPC	146.13	343	ePKP	30	44.80	9.6X
			e	31	15.10	
MOX	146.45	353	ePKP	30	40.00	4.6X
			e	31	10.00	
			e	31	36.00	
			eLR	20	15.00	
PRU	146.68	350	ePKP	30	39.50	3.7X
			e	31	16.00	
MLR	147.25	333	ePKP	30	40.00	3.0X
GRF	147.44	353	ePKP	30	41.30	4.3X
	0.9s	11.00nm				
			e	31	17.20	
			e	31	41.10	
KHC	147.67	350	ePKP	30	43.00	5.6X
			e	31	17.70	
ZST	147.86	346	e(PKP)	30	45.30	7.6X
			e	31	41.80	
SRO	147.91	344	e(PKP)	30	46.60	8.8X
			e	31	20.20	
FLN	148.27	8	ePKP	30	44.00	5.7X
	0.7s	5.20nm				
LDF	148.48	7	ePKP	30	44.50	5.8X
GRR	148.59	8	ePKP	30	43.20	4.3X
	0.8s	10.70nm				
BZS	148.85	338	ePKP	30	45.50	6.1X
LPF	148.91	9	ePKP	30	45.00	5.6X
CDF	149.00	358	ePKP	30	48.30	8.6X
HAU	149.43	359	ePKP	30	48.00	7.8X
KBA	149.70	350	ePKP	30	48.00	7.1X
	1.5s	26.80nm				
			i	31	30.50	
			e	31	41.00	
			e	31	49.50	
LOR	150.13	3	ePKP	30	49.40	8.1X
SSF	150.32	3	ePKP	30	50.00	8.5X
PRNI	150.36	301	ePKP	30	49.00	6.8X
AVF	150.58	3	ePKP	30	50.40	8.5X
MBH	150.64	300	ePKP	30	50.00	7.5X
SMF	150.75	3	ePKP	30	48.90	6.7X
BGF	150.78	4	ePKP	30	50.80	8.5X
	0.6s	4.50nm				
LSF	150.98	6	ePKP	30	50.80	8.2X
	0.7s	6.60nm				
MAF	151.10	5	ePKP	30	51.60	8.8X
OHR	153.00	334	ePKP	30	56.00	10.3X
S.D. = 1.0 on 31 of 66 obs.						

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* APR 29, 1989 04h 11m 12.80± 1.09s
37.080 N ±10.1km 27.973 E ±10.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.25	77	iPg	11	17.30	-0.9
IZM	1.43	337	ePn	11	39.50	0.7
ELL	1.59	101	ePn	11	44.00	2.9X
KSL	1.61	126	ePn	11	43.00	1.7
KAP	1.66	203	ePn	11	41.00	-1.0
			eSn	12	03.00	
KHL	1.75	44	iPn	11	43.00	-0.4
BCK	2.12	79	ePn	11	51.00	2.2X
S.D. = 1.6 on 5 of 7 obs.						

APR 29, 1989 04h 23m 39.84± 0.88s
37.119 N ± 7.7km 27.939 E ± 8.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.28	87	iPg	23	44.30	-1.4
IZM	1.39	337	ePn	24	05.00	-0.2
ELL	1.62	103	ePn	24	09.00	0.4
KSL	1.66	127	ePn	24	10.00	1.0
KAP	1.68	202	ePn	24	09.00	-0.4
			eSn	24	31.00	
KHL	1.74	46	iPn	24	10.50	0.2
BCK	2.14	80	ePn	24	19.00	2.8X
DST	2.54	12	ePn	24	25.00	3.2X
ALT	2.58	41	ePn	24	23.00	0.5
S.D. = 0.9 on 7 of 9 obs.						

% APR 29, 1989 04h 44m 47.09± 2.39s
37.204 N ±19.9km 27.921 E ±17.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.30	103	iPg	44	50.80	-2.5
IZM	1.30	337	ePn	45	11.00	-0.2
ELL	1.66	105	iPn	45	17.90	1.5
KHL	1.69	48	iPn	45	17.00	0.1
BCK	2.14	82	ePn	45	25.00	1.6
DST	2.46	13	ePn	45	28.00	0.1
ALT	2.53	42	ePn	45	29.00	0.0
EZN	2.90	335	ePn	45	34.00	-0.1
EDC	3.14	359	ePn	45	37.00	-0.5
S.D. = 1.4 on 9 of 9 obs.						

APR 29, 1989 05h 41m 33.34± 0.93s
37.105 N ± 8.2km 27.886 E ± 8.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.32	85	iPg	41	38.20	-1.8
IZM	1.38	339	iPn	41	58.50	-0.2
KAP	1.65	201	eP	42	01.00	-1.5
			eS	42	22.50	
ELL	1.66	102	iPn	42	03.90	1.2
KSL	1.68	125	eP	42	04.60	1.7
KHL	1.78	46	iPn	42	04.00	-0.4
BCK	2.19	80	ePn	42	11.00	0.7
PRK	2.49	330	eP	42	21.30	6.8X
DST	2.56	13	ePn	42	15.00	-0.6
ALT	2.62	41	ePn	42	16.00	-0.5
EZN	2.98	336	ePn	42	23.00	1.5
S.D. = 1.4 on 10 of 11 obs.						

% APR 29, 1989 06h 15m 15.76± 1.06s
39.429 N ±10.3km 28.094 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.45	67	iPg	15	23.70	-1.2
			eSg	15	31.00	
EDC	0.93	349	iPg	15	33.50	-0.1
			eSg	15	47.80	
EZN	1.42	287	ePn	15	40.60	-1.0
KHL	1.57	134	iPn	15	44.50	0.7
ALT	1.61	103	ePn	15	44.70	0.3
CTT	1.74	8	ePn	15	48.00	1.9
GPA	1.91	63	ePn	15	48.10	-0.6
S.D. = 1.3 on 7 of 7 obs.						

APR 29, 1989 06h 25m 39.12± 0.11s
57.190 N ± 2.2km 122.069 E ± 2.6km
DEPTH = 29.7km (16 depth phases)
5.3mb (47 obs.) 5.1Msz (10 obs.)
EASTERN USSR (656)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 28C
Centroid Locotion:
Origin Time 06:25:43.9 0.4
Lot 57.13N 0.04 Lon 121.80E 0.10
Dep 45.9 4.7 Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr=-0.21 0.05 Mtt= 0.17 0.09
Mff= 0.04 0.12 Mrt=-0.43 0.10
Mrf= 0.00 0.10 Mtf= 1.46 0.06
Principal Axes:

T	Val= 1.62	Plg=10	Azm=137
N	-0.19	73	261
P	-1.43	14	45

Best Double Couple:Mo=1.5*10**17
NP1:Strike=182 Dip=73 Slip=-177
NP2: 91 87 -17

MDJ	13.44	156	Pd	28	47.00	-3.1X
Z	16s	9.20um				
			S	31	10.00	
CN2	13.57	170	iPd	28	48.00	-3.8X
	2.0s	0.50nm			3.1mb X	
Z	12s	17.20um			6.1MszX	
			isP	29	00.40	
			S	31	18.50	
SNY	15.41	176	Pc	29	15.00	-0.8
Z	17s	8.10um				
N	16s	6.20um				
YSS	16.20	120	P	29	36.00	10.1X
BJI	17.59	195	eP	29	44.00	0.7
Z	12s	7.22um				
E	12s	27.98um				
			epP	29	52.00	
			esP	29	58.00	
			eS	33	08.00	
			esS	33	20.00	
			Lg	34	47.00	
HHC	17.71	207	eP	29	47.00	2.0
Z	15s	10.70um				
			pP	29	53.00	
DL2	18.30	181	P	29	52.00	-0.1
Z	12s	4.80um				
			sP	30	05.00	
			eS	33	14.00	
BTO	18.35	210	eP	29	53.00	0.1
			sP	30	03.50	
			eS	33	17.00	
ASAJ	18.38	127	eP	29	53.00	-0.1
MRRJ	19.10	133	eP	30	03.10	1.2
KUSJ	20.10	125	eP	30	13.90	1.0
TIY	20.51	202	Pc	30	18.00	0.8
Z	14s	10.60um			5.4MszX	
E	10s	26.80um				
			sP	30	31.00	
			S	34	07.50	
TIA	21.25	191	P	30	24.20	-0.5
Z	18s	6.10um			5.0Msz	
			S	34	13.00	
OFUJ	22.20	136	eP	30	30.90	-3.4X
NIIJ	22.91	143	P	30	41.20	-0.1
GTA	22.96	229	eP	30	43.20	1.3
E	10s	6.70um				
			S	34	53.00	
MTMJ	23.14	146	P	30	43.50	-0.1
MAT	23.30	146	iPc	30	44.40	-0.7
	1.2s	117.19nm			5.3mb	
Z	20s	3.19um			4.8Msz	
			eS	34	54.00	
SHK	23.78	158	eP	30	48.00	-1.7
SHNJ	23.88	161	eP	30	50.10	-0.5
CHJJ	24.00	145	P	30	51.40	-0.4
IIDJ	24.20	147	eP	30	53.00	-0.8
KAKJ	24.24	142	eP	30	51.70	-2.4
LZH	24.39	218	P	30	59.00	3.2X
	2.0s	110.00nm			5.1mb	
Z	18s	6.60um			5.2Msz	
E	10s	7.90um				
			pP	31	07.00	28km
			eS	35	20.00	
XAN	24.82	207	P	31	00.00	0.1
N	16s	6.80um				
E	10s	12.00um				
			S	35	22.00	
NJ2	25.23	186	Pc	31	04.00	0.3
Z	18s	3.60um			4.9Msz	
			pP	31	13.20	33km
			S	35	28.00	
WMQ	25.31	253	P	31	06.00	1.5
Z	10s	7.60um			5.5MszX	
			S	35	23.00	
KUMJ	25.38	163	eP	31	04.80	-0.3
SSE	26.10	182	Pc	31	11.00	-0.7
	1.0s	41.00nm			5.0mb	
Z	16s	3.60um			5.0MszX	
N	10s	1.30um				
E	10s	4.90um				
			pP	31	41.50	147kmX
			ePP	32	24.00	
			S	35	57.50	
			sS	36	58.00	
			PcS	37	53.00	
WHN	27.18	195	eP	31	21.00	-0.6
Z	14s	7.14um			5.4MszX	
E	15s	14.60um				
			pP	31	32.00	41kmX
CD2	29.19	214	P	31	40.40	0.5
QZH	32.32	186	eP	32	05.00	-2.4
Z	14s	2.50um			5.1MszX	
GYA	32.62	206	P	32	10.20	-0.1
E	14s	1.30um				
			S	37	23.00	
KSH	34.59	259	eP	32	28.50	1.3
BRW	34.83	34	eP	32	29.20	0.5
ADK	34.86	72	P	32	33.60	4.4X
KMI	34.93	212	Pd	32	39.00	8.6X
Z	15s	0.60um			4.5MszX	
N	14s	5.20um				
			eS	38	10.50	
			S	38	12.00	
LSA	34.93	231	eP	32	28.50	-2.1
Z	11s	2.18um			5.2MszX	
N	12s	2.85um				
E	10s	2.19um				

29d 06h

IMA		37.99	41	iPd	32	56.20	0.5					i	36	06.00		FLN		64.21	322	eP	36	12.20	-0.7
		1.4s	116.30nm			5.5mb		BBTK		57.29	294	eP	35	27.00	0.7	LDF		64.23	321	eP	36	12.00	-1.1
KBS		38.12	343	eP	32	58.50	2.0	PRU		57.67	313	iPd	35	29.00	0.4			1.0s	32.00nm			5.4mb	
SHL		38.27	227	iP	32	58.50	0.0			1.0s	21.70nm			5.1mb		LSD		64.25	315	P	36	13.69	0.1
				eS	41	02.00			Z	15s	1.50um			5.2MszX		SSF		64.27	318	eP	36	12.60	-0.7
TTA		38.66	46	eP	33	01.10	-0.1					e	35	37.50	28km			1.0s	16.00nm			5.1mb	
GUN		38.79	237	P	33	04.20	1.2	BUD		57.79	309	e(P)	35	30.00	0.5	LPG		64.37	315	eP	36	14.30	-0.1
KKN		39.17	237	P	33	07.40	1.4	SRO		57.83	309	eP	35	31.20	1.4	RSP		64.47	315	P	36	13.23	-1.6
		0.8s	34.00nm			5.1mb						i	35	39.80	28km	SMF		64.50	318	eP	36	14.00	-0.8
GKN		39.28	238	P	33	08.20	1.3	ZST		58.04	310	iP	35	31.80	0.6			1.1s	19.50nm			5.1mb	
		0.8s	34.00nm			5.1mb			Z	18s	2.20um			5.3Msz		GRR		64.66	322	eP	36	15.00	-0.8
PKI		39.30	237	P	33	08.40	1.2					LR	07	02.00				1.1s	31.20nm			5.3mb	
DMN		39.40	237	P	33	09.40	1.4	MOX		58.28	315	iPc	35	32.50	-0.4	BNI		64.78	315	Pd	36	21.10	4.3X
KEV		39.68	327	iP	33	10.20	0.7			1.1s	53.00nm			5.5mb		RRL		64.84	315	P	36	17.39	0.0
				i	33	18.70	29km		Z	16s	1.10um			5.1MszX		FIN		64.88	313	P	36	15.69	-1.7
ALE		40.51	1	eP	33	17.00	0.7		N	14s	1.00um					ROB		64.94	314	P	36	17.23	-0.6
		0.5s	6.00nm			4.6mb			E	13s	0.70um					PZZ		65.07	314	P	36	18.33	-0.4
FBA		40.70	41	iPd	33	18.90	0.9					i	35	42.00	31km	STV		65.20	314	P	36	18.00	-1.5
SOD		41.11	324	eP	33	21.00	-0.2					eS	43	44.00		TDS		65.21	305	Pd	36	10.80	-8.7X
				e	33	30.00	30km					e	43	50.00		IMI		65.26	313	P	36	19.25	-0.6
MBC		41.23	19	ePd	33	22.40	0.3					eSP	48	20.00		MAF		65.32	318	eP	36	19.80	-0.3
		1.0s	38.00nm			5.1mb						eLR	52	40.00				1.2s	23.80nm			5.2mb	
CHG		42.00	214	eP	33	29.00	-0.1	KHC		58.73	313	iPc	35	36.50	0.4	TCF		65.39	319	eP	36	20.50	-0.1
TRO		42.07	329	eP	33	37.50	8.5X			1.0s	21.00nm			5.2mb		LSF		65.67	319	eP	36	21.60	-0.8
PMR		42.09	46	ePd	33	29.10	-0.2					i	35	45.50	30km	MFF		65.96	320	eP	36	23.80	-0.4
		1.1s	50.00nm			5.2mb		WTS		58.96	319	eP	35	37.50	-0.1	LRM		67.75	38	iPd	36	36.10	0.2
NDI		42.30	247	eP	33	32.00	0.5			0.8s	38.00nm			5.6mb		FHC		67.78	49	ePd	36	37.00	1.1
LOE		42.54	209	eP	33	33.20	-0.3					i	35	46.50	30km	SCH		68.12	6	eP	36	37.00	-0.8
TOA		42.91	44	eP	33	36.90	0.7					i	36	05.00		WDC		68.55	48	iPd	36	40.90	0.3
KDC		43.01	52	eP	33	36.00	-0.9	FRB		59.12	5	eP	35	37.00	-1.5	MIN		69.12	47	iPd	36	44.10	-0.2
INK		43.26	32	ePd	33	39.70	0.9	GRF		59.20	315	iPc	35	48.00	8.7X	ORV		69.84	48	ePd	36	48.20	-0.3
BDT		43.46	213	eP	33	42.00	1.0			1.4s	40.00nm			5.4mb		MTN		70.18	171	eP	36	50.00	-0.7
DAG		44.03	348	iPd	33	44.50	-0.5		Z	20s	0.60um			4.7Msz		BRK		70.96	49	ePd	36	56.00	0.6
		0.4s	33.90nm			5.5mb						e	35	48.60	2kmX	BKS		70.97	49	eP	36	56.00	0.6
				i	33	53.00	28km	EKA		59.41	327	Pd	35	40.70	0.1			0.9s	33.00nm			5.4mb	
SUF		44.06	319	iP	33	45.90	0.5			0.9s	18.20nm			5.2mb		BW06		71.41	38	P	36	57.80	-0.5
		0.7s	34.40nm			5.3mb		ENN		60.29	319	eP	35	46.00	-0.7	CMB		71.59	48	iPd	36	59.70	0.5
MAIO		45.81	271	eP	34	02.00	2.1			0.9s	36.00nm			5.5mb		KVN		71.61	45	P	37	00.00	0.5
				eS	41	00.00						e	35	55.00	29km	MHC		71.67	49	ePd	37	00.40	0.6
NUR		46.04	317	iP	34	01.20	0.0					e	36	13.00		ARN		71.71	49	P	37	00.00	0.1
	Z	19s	2.00um			5.1Msz		PTJ		60.34	309	eP	35	57.60	10.3X	EUR		72.05	44	iP	37	03.00	0.8
				LR	54	50.00		MEM		60.39	319	Pc	35	46.80	-0.6			0.8s	14.45nm			5.0mb	
OUE		46.43	259	eP	34	04.20	-0.7					e	35	56.00	30km	SAO		72.25	49	eP	37	03.40	0.3
				eS	38	04.00		EZN		60.45	298	eP	35	48.00	0.0	LLA		72.58	49	eP	37	06.00	0.9
NNT		47.68	210	eP	34	15.50	0.9	KBA		60.47	312	ePc	35	48.00	-0.3	PRS		72.65	49	iPd	37	06.10	0.6
UPP		49.03	320	iP	34	23.30	-1.3			1.2s	36.50nm			5.4mb		FRI		72.76	48	iPd	37	06.40	0.3
RGS		49.09	326	eP	34	25.00	0.1					i	35	57.90	32km	TNP		72.80	45	P	37	06.80	0.2
HFS		50.19	322	eP	34	32.90	-0.5					e	38	18.00				0.9s	23.44nm			5.2mb	
		0.6s	32.20nm			5.5mb		RBL		60.89	311	Pd	35	51.20	0.2	PRI		73.10	49	eP	37	09.50	1.2
	Z	17s	1.31um			5.0MszX		EDM		61.03	34	iPd	35	51.10	-0.7	TOL		73.22	320	eP	36	59.00	-9.7X
				LR	55	24.00				1.2s	123.00nm			5.9mb		BCH		74.17	49	P	37	15.00	0.6
SIT		50.39	44	eP	34	36.20	1.2	VAY		61.05	302	eP	35	52.40	0.4	MSU		74.30	41	P	37	16.00	0.7
NRA0		50.45	323	P	34	34.50	-0.9	SKO		61.05	303	eP	35	52.20	0.1	ISA		74.40	47	eP	37	16.00	0.2
				pP	35	00.00	107kmX		Z	19s	1.86um			5.3Msz		CLC		74.62	47	eP	37	17.00	0.0
NAO		50.61	324	P	34	36.00	-0.7		N	16s	1.67um					SYP		74.78	49	eP	37	18.00	0.0
		0.7s	23.50nm			5.3mb			E	16s	1.36um					GSC		75.38	46	eP	37	23.00	1.6
HYB		51.21	238	eP	34	41.00	-0.7					LR	04	40.00		SBB		75.51	47	eP	37	23.00	0.9
SNG		52.63	207	eP	34	53.10	0.7	SNF		61.08	320	P	35	51.20	-0.9	GOL		75.55	36	P	37	22.50	0.0
YKA		52.84	29	P	34	53.10	-0.4	FVI		61.09	312	Pd	35	52.60	0.4	MWC		75.82	48	eP	37	25.00	0.9
YKC		52.89	29	iPd	34	53.00	-0.8	DOU		61.32	319	P	35	53.10	-0.7	PAS		75.84	48	eP	37	25.00	1.1
		0.9s	32.00nm			5.3mb						e	36	02.30	30km	RVR		76.30	47	eP	37	26.00	-0.5
AKU		53.81	341	iP	35	11.50	11.0X	DMU		61.74	329	eP	35	56.80	0.3	LIJA		76.36	319	eP	37	38.00	11.1X
		1.0s	20.00nm					CDF		61.75	317	eP	35	56.40	-0.4	GAC		76.43	13	eP	37	28.00	1.0
CLI		54.85	303	ePd	35	08.00	-0.6	YRH		62.01	327	eP	36	10.00	11.6X	PEC		76.47	47	P	37	27.00	-0.5
GBA		55.06	236	Pd	35	21.70	11.4X	OHR		62.03	303	eP	35	57.50	-1.3	GIBL		76.61	319	eP	37	36.00	7.8X
		0.5s	2.60nm					DLE		62.17	328	eP	35	59.50	0.1	ALJ		76.63	319	eP	37	31.00	2.6X
KRA		55.42	310	eP	35	12.40	-0.2	PNT		62.27	41	iP	36	00.00	-0.2	TPC		76.73	46	eP	37	29.00	0.0
		0.8s	38.00nm			5.5mb				1.1s	78.00nm			5.8mb		PLM		77.07	47	eP	37	31.00	0.0
	Z	18s	1.90um			5.2Msz		DCN		62.33	328	eP	36	03.30	2.8X	WB5		77.46	168	eP	37	32.00	-1.0
	N	18s	1.60um					BSF		62.41	317	eP	36	00.80	-0.4	WRA		77.52	168	Pd	37	32.70	-0.6
				i	35	21.50	30km	ETA		62.59	327	eP	36	10.90	8.7X			1.0s	21.20nm			5.1mb	
				e	35	26.50				0.7s	50.00nm			5.8mb		RSNY		77.68	12	P	37	34.00	0.0
				eS	43	09.00		GMW		62.59	44	P	36	02.00	-0.4	BAR		77.73	48	eP	37	35.00	0.5
CFR		55.48	301	ePd	35	13.00	0.0	HTW		62.76	43	P	36	03.50	0.0	MBL		78.07	182	eP	37	35.60	-0.6
VRI		55.62	303	ePd	35	14.00	-0.1	FFC		62.86	27	iPd	36	02.30	-1.6	GLA		78.14	46	eP	37	37.00	0.3
KAS		55.64	294	eP	35	12.00	-2.3			1.3s	61.00nm			5.6mb		OIS		78.83	163	eP	37	40.00	-0.5
SPC		55.96	309	iP	35	17.00	0.3	ECP		63.10	327	eP	36	14.40	8.9X	ALQ		79.51	39	eP	37	45.00	0.6
ISR		56.26	302	eP	35	20.00	1.2			0.8s	95.00nm			6.0mb				1.2s	25.78nm			5.1mb	
MLR		56.27	303	iPd	35	19.00	0.1	VAI		63.28	314	P	36	07.20	0.4		Z	20s	0.89um			5.1Msz	
PSZ		57.08	308	iP	35	25.80	1.2	LON		63.63	44	P	36	08.70	-0.5	CTA		79.61	157	iPc	37	44.10	-0.6
BRG		57.20	314	iPc	35	35.00	9.7X	BOB		63.93	313	Pd	36	08.40	-2.8X			1.1s	29.11nm			5.2mb	
		1.2s	34.00nm			5.3mb		LOR		63.96	318	eP	36	10.50	-0.9	TBR		81.08	12	P	37	52.40	0.0
				e	36	06.00	130kmX			1.1s	19.50nm			5.1mb		ASPA		81.15	169	iPc	37	52.40	-0.5
				e	38	44.00		LBF		64.16	318	eP	36	11.90	-0.8			1.6s	26.00nm			5.0mb	
CLL		57.22	315	iPc	35	24.80	-0.7			1.2s	23.80nm			5.2mb		FVM		81.30	25	P	37	53.00	-0.6
		1.3s	53.00nm			5.4mb		SES		64.19	35	ePd	36	30.00	17.1X	LNO		81.90	30	Pd	37	54.80	-1.8
				i	35	34.10	30km			1.2s	292.00nm					SIO		81.91	31	e(P)	37	56.90	0.1

VVO	82.46	30	eP	38	00.10	0.5
POW	82.87	27	P	38	02.20	0.5
OLY	83.41	27	P	38	04.70	0.2
CVL	83.62	16	P	38	06.60	1.0
BLA	84.06	18	P	38	06.40	-1.5
	0.7s	14.03nm				5.3mb
RSCP	84.66	22	P	38	10.80	-0.1
	0.8s	13.03nm				5.2mb
FORR	87.84	175	eP	38	25.50	-0.7
BNG	93.58	284	ePd	38	55.40	1.9
	1.0s	10.00nm				5.2mb
			id	42	27.00	
ITR	129.36	335	e(PKP)	44	53.00	6.8X
ZOBO	138.43	15	ePKP	44	55.00	-9.0X
			LR	33	16.00	
LPB	138.70	15	ePKP	44	58.00	-6.3X
CNCB	138.99	15	ePKP	45	03.00	-2.0
ITA	143.90	339	ePKP	45	31.30	18.1X
PPD	144.55	349	ePKP	45	12.80	-1.2
VAO	144.93	342	ePKP	45	16.50	1.9
ANT	145.34	20	ePKP	45	16.00	0.8
SPA	147.01	180	e(PKP)	45	19.00	2.2
	1.0s	18.00nm				
			e	45	52.00	

S.D. = 0.9 on 194 of 223 obs.

APR 29, 1989 06h 26m 52.83± 0.83s
46.167 N ±10.1km 11.919 E ± 7.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.8 (KBA). MD 2.9 (TRI).

FVI	0.73	54	Pd	27	07.90	0.7
			eSg	27	19.80	
SAL	1.12	241	P	27	14.20	0.4
			eSg	27	31.00	
RBL	1.18	76	P	27	10.50	-4.3X
			eSg	27	26.10	
KBA	1.34	47	iPgc	27	18.10	0.5
			i	27	21.80	
			i	27	29.10	
			iSg	27	31.90	
TRI	1.37	109	eP	27	14.00	-3.9X
			iSg	27	27.00	
LJU	1.82	93	iPnd	27	23.80	-0.7
			iSg	27	42.10	
PTJ	2.83	94	ePn	27	38.80	-0.1
			eSn	28	12.30	
KHC	3.17	20	iPn	27	49.30	5.6X
			ePg	27	57.50	
			Sn	28	30.00	
			Sg	28	37.50	
GRF	3.56	353	e(Pn)	27	48.50	-0.7
			e	27	57.70	
			e	28	00.20	
			e(Sg)	28	39.00	
ZST	4.08	58	eP	28	42.30	45.8X
			e	29	10.30	
PRU	4.21	24	eP	28	18.00	19.6X
			Sg	28	48.50	
MOX	4.49	358	ePn	28	12.00	9.6X
			ePg	28	30.00	
			eSg	29	30.00	
BRG	4.90	15	e(P)	29	08.00	59.8X
			eSg	29	34.00	

S.D. = 0.8 on 6 of 13 obs.

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* APR 29, 1989 06h 40m 49.70± 1.08s
37.074 N ±10.0km 27.909 E ± 9.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.30	78	iPg	40	54.30	-1.8
IZM	1.42	339	ePn	41	16.00	0.5
KAP	1.63	202	ePn	41	17.80	-0.8
			eSb	41	38.00	
ELL	1.63	101	ePn	41	19.90	1.2
KSL	1.65	125	ePb	41	19.00	0.2
KHL	1.79	45	iPn	41	20.00	-0.9
BCK	2.17	79	ePn	41	28.00	1.5

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

APR 29, 1989 06h 47m 18.75± 0.85s
39.262 N ± 6.9km 23.424 E ± 8.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.16	286	ePg	47	23.70	1.2
PAIG	0.69	16	iPgc	47	32.50	0.1
			iSg	47	42.20	
LIT	1.11	320	ePbd	47	40.20	0.7
			eSb	47	55.40	
PLG	1.11	1	ePg	47	38.40	-1.2
OUR	1.15	22	iPgc	47	39.60	-0.7
ATH	1.31	170	ePb	47	41.50	-1.4
THE	1.41	346	ePbd	47	44.40	-0.1
			eSb	48	03.80	
SOH	1.56	358	ePb	47	46.20	-0.4
KZN	1.65	310	ePg	47	51.80	3.9X
SRS	1.86	4	ePnc	47	50.00	-0.9
			eSn	48	12.80	
GRG	1.87	335	ePn	47	50.80	-0.2
			eSn	48	14.40	
KNT	1.94	348	ePn	47	52.30	0.2
			eSn	48	15.10	
EZN	2.31	75	ePn	48	00.00	2.5
OHR	2.73	313	ePn	48	09.00	5.5X

S.D. = 1.2 on 12 of 14 obs.

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* APR 29, 1989 07h 29m 27.22± 1.05s
37.143 N ± 9.3km 27.959 E ±10.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.26	92	iPg	29	32.10	-0.6
IZM	1.37	336	ePn	29	53.10	0.7
ELL	1.61	104	ePn	29	58.40	2.5X
KSL	1.66	128	ePn	29	58.00	1.6
KHL	1.71	46	iPn	29	58.00	0.7
KAP	1.71	202	ePn	29	56.30	-0.9
			eSn	30	18.00	
BCK	2.12	81	ePn	30	05.50	2.3X
ALT	2.55	41	ePn	30	08.00	-1.4

S.D. = 1.5 on 6 of 8 obs.

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* APR 29, 1989 07h 40m 52.43± 2.50s
25.610 S ±13.4km 179.378 W ±14.9km
DEPTH = 456.6 ± 27.2 km
4.6mb (9 obs.)
SOUTH OF FIJI ISLANDS (171)

KRP	13.01	198	Pc	43	42.90	-0.7
	0.5s	132.00nm				5.6mb X
DZM	13.44	282	iPd	43	49.00	0.6
PVC	13.86	302	iPc	43	53.00	0.3
HNR	25.38	306	ePc	45	42.00	-1.5
RMQ	28.61	261	eP	46	13.00	1.1
	0.8s	53.00nm				5.0mb
CTA	32.09	273	iPc	46	42.20	0.3
	0.9s	60.08nm				5.0mb
PMG	35.61	291	iPc	47	12.00	0.5
	0.5s	35.21nm				5.1mb
ASPA	42.34	262	iPd	48	06.20	-0.2
	0.9s	22.00nm				4.6mb
			iS	53	54.30	
WB5	42.87	268	iPc	48	09.90	-0.7
WRA	42.88	268	Pd	48	09.60	-1.0
	0.8s	18.20nm				4.6mb
WARB	48.26	257	eP	48	41.10	-11.2X
	0.3s	4.00nm				
SPA	64.54	180	ePc	50	45.70	0.8
	1.0s	15.00nm				4.6mb
MAT	73.62	326	eP	51	39.00	-0.5
	0.9s	12.60nm				4.5mb
TNP	86.06	44	iP	52	45.50	0.7
	0.9s	6.05nm				4.3mb
KVN	86.09	43	eP	52	45.50	0.6
EUR	87.68	44	iP	52	52.50	0.0
	0.9s	1.82nm				3.9mb
CHG	90.80	290	eP	53	09.40	2.3
UPP	143.79	346	iPKP	59	32.30	-3.0X
NAO	144.11	351	PKP	59	34.60	-1.3
	0.9s	20.00nm				
HFS	144.33	349	ePKP	59	34.80	-1.4
	0.4s	16.40nm				
KRA	151.39	334	ePKP	59	54.60	6.9X
CLL	152.65	343	iPKP	59	57.10	7.7X
	0.9s	15.00nm				
BRG	152.78	341	i(PKP)	59	58.10	8.5X
	1.0s	12.00nm				
BNG	152.82	222	ePKPd	00	12.80	22.0X
	0.7s	3.00nm				

S.D. = 1.1 on 18 of 24 obs.

? APR 29, 1989 08h 08m 08.00± 3.86s
37.021 N ±35.3km 28.047 E ±14.8km
DEPTH = 5.0km (geophysicist)
TURKEY (366)

YER	0.22	59	iPg	08	12.00	-0.5
IZM	1.51	336	ePn	08	35.50	-0.2
ELL	1.52	100	ePn	08	38.90	2.9X
KHL	1.75	42	ePn	08	40.00	0.7
BCK	2.08	77	ePn	08	44.00	0.0

S.D. = 0.9 on 4 of 5 obs.

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* APR 29, 1989 08h 26m 39.51± 1.05s
44.292 N ±19.8km 149.107 E ±14.7km
DEPTH = 33.0km (normal)
4.7mb (3 obs.)
KURIL ISLANDS (221)

KUSJ	3.40	251	P	27	31.30	-0.3
			S	28	07.20	
ASAJ	4.65	270	eP	27	51.10	1.9
HOOJ	4.65	248	eP	27	50.80	1.5
			eS	28	42.40	
MRRJ	6.15	255	eP	28	11.30	0.9
			S	29	18.50	
OFUJ	7.62	229	eP	28	29.80	-1.2
			eS	29	50.10	
INK	45.22	31	eP	34	55.00	0.3
GUN	52.39	274	P	35	50.00	-1.2
	0.4s	10.00nm				5.1mb
KKN	52.89	274	P	35	53.60	-1.1
PKI	52.92	274	P	35	53.40	-1.7
DMN	53.12	274	P	35	55.20	-1.3
	0.6s	7.00nm				4.8mb
YKA	54.56	35	eP	36	07.40	1.1
WRA	65.33	195	Pd	37	21.50	1.0
	0.7s	1.10nm				4.1mb

S.D. = 1.4 on 12 of 12 obs.

APR 29, 1989 08h 43m 58.55± 0.85s
40.565 N ± 5.9km 24.180 E ± 9.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

OUR	0.28	213	iPgc	44	04.50	0.2
			iSg	44	08.60	
SRS	0.71	321	ePg	44	12.40	-0.1
			iSg	44	23.00	
PAIG	0.74	211	iPgd	44	12.90	-0.2
			eSg	44	21.20	
MMB	1.08	342	ePg	44	18.00	-0.9
KNT	1.14	302	ePg	44	20.40	0.5
			eSg	44	35.60	
RZN	1.19	20	ePg	44	22.00	1.1
KDZ	1.43	40	ePg	44	24.00	-0.6

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

APR 29, 1989 08h 58m 04.70± 0.33s
44.291 N ± 2.7km 7.487 E ± 3.1km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.2 (GEN).

STV	0.13	248	P	58	07.61	-0.3
			S	58	09.33	
DOI	0.27	321	Pd	58	10.90	0.4
			eSg	58	14.90	
ROB	0.28	89	P	58	11.10	0.6
			S	58	15.49	
AUTN	0.30	188	Pg	58	11.01	0.0
SAOF	0.31	171	Pg	58	10.98	-0.2
TOUF	0.33	212	Pg	58	11.42	-0.1
			Sg	58	16.68	
PZZ	0.35	308	P	58	12.05	0.1
			S	58	16.52	
MVIF	0.46	212	Pg	58	14.36	0.2
IMI	0.48	143	P	58	14.18	-0.3
			S	58	20.57	
FIN	0.52	99	P	58	15.21	-0.1
			S	58	23.21	
CKI	0.58	77	P	58	17.10	0.6
RRL	0.80	322	P	58	20.64	0.2
RSP	0.88	349	P	58	20.75	-0.9
BNI	0.96	323	P	58	24.10	1.1
			eSg	58	37.10	
LSD	1.19	349	P	58	26.47	-0.6
ORX	1.39	14	P	58	29.44	-0.7

29d 08h

S.D. = 0.5 on 16 of 16 obs.

% APR 29, 1989 09h 09m 42.04± 0.90s
39.111 N ± 7.3km 27.556 E ± 9.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.75	198	iPg	09 56.50	-0.2
DST	0.97	59	ePn	10 01.00	0.5
EZN	1.19	307	ePn	10 04.70	0.5
EDC	1.26	11	ePn	10 04.80	-0.6
BNT	1.28	13	iPn	10 05.50	-0.2

S.D. = 0.7 on 5 of 5 obs.

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* APR 29, 1989 09h 35m 39.09± 1.10s
66.876 N ± 7.5km 156.230 W ±12.8km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 2.8 (PMR).

IMA	1.31	127	iP	36 04.60	0.8
TTA	3.96	179	eP	36 41.70	-0.2
FBA	3.99	116	iPc	36 41.80	-0.4
BRW	4.45	358	eP	36 49.00	0.3
PMR	6.14	146	eP	37 12.50	0.0
TOA	6.46	133	eP	37 07.80	-9.4X
INK	8.77	70	eP	37 49.00	-0.4

S.D. = 0.6 on 6 of 7 obs.

APR 29, 1989 10h 14m 33.08± 0.51s
7.320 S ± 5.2km 120.692 E ± 6.4km
DEPTH = 490.1 ± 6.2 km
4.6mb (10 obs.)
FLORES SEA (279)

MKS	2.42	330	iPd	15 41.00	0.9
TRT	8.00	267	iPc	16 29.50	-0.9
	0.4s	328.80nm		5.9mb X	
AAI	8.29	65	iPd	16 34.40	0.8
MBL	13.78	183	eP	17 31.20	-0.4
			e	18 06.00	
NANU	15.95	198	eP	17 53.00	-0.5
WB5	18.22	135	iPc	18 16.20	0.4
			eS	21 16.70	
WRA	18.24	135	Pd	18 16.80	0.7
	0.9s	23.50nm		4.8mb	
WARB	19.60	164	iPd	18 19.70	-9.5X
	0.3s	4.00nm		4.5mb	
ASPA	20.62	143	iPc	18 38.80	0.0
	1.0s	20.00nm		4.7mb	
			eS	21 53.70	
QIS	22.55	128	eP	18 56.00	-0.6
			eS	22 24.00	
FORR	24.42	164	eP	19 12.00	-1.4
CTA	27.83	120	iPd	19 44.80	1.0
	1.2s	22.66nm		4.6mb	
QZH	32.13	356	P	20 20.40	-0.2
CHTO	33.68	321	eP	20 34.20	0.4
	1.0s	2.75nm		3.7mb	
GYA	36.23	338	iPd	20 56.00	0.9
WHN	38.13	351	P	21 12.00	1.5
SVO	38.75	95	eP	21 15.00	-0.8
			eS	22 57.00	
HNR	38.88	96	eP	21 17.00	0.1
NJ2	39.19	358	Pd	21 20.20	1.1
CD2	41.33	338	iPd	21 36.80	0.2
XAN	42.62	346	iPd	21 46.50	-0.2
IIDJ	45.56	20	P	22 08.90	-0.8
LZH	45.99	341	eP	22 14.00	0.8
	1.5s	53.00nm		4.8mb	
CHJJ	46.44	21	iPd	22 15.00	-1.5
			eS	22 22.70	
MTMJ	46.53	19	iPd	22 16.40	-0.8
MAT	46.62	19	iPd	22 16.50	-1.3
	0.8s	19.40nm		4.7mb	
GBA	47.71	296	Pd	22 25.70	-0.7
	0.5s	1.50nm		3.7mb	
GUN	48.56	318	P	22 32.60	-0.5
PKI	48.66	317	P	22 33.00	-0.8
BTO	48.68	349	eP	22 32.40	-1.1
KKN	48.89	317	P	22 35.60	0.2
DMN	48.89	317	P	22 35.80	0.3
SNY	48.98	3	eP	22 32.40	-3.2X
GKN	49.46	317	P	22 38.80	-0.8
GTA	50.36	339	iPd	22 46.60	0.6
CN2	51.06	4	P	22 49.20	-1.7
MAIO	71.85	312	eP	25 10.00	2.7
SPA	82.73	180	e(P)	26 05.90	0.3
	1.0s	11.00nm		4.4mb	
TTA	93.41	27	P	26 55.50	-0.5
IMA	94.86	24	eP	27 02.70	0.1
	1.0s	7.50nm		4.8mb	
PMR	96.47	29	P	27 09.00	-0.7
FBA	97.22	25	P	27 09.00	-4.1X
YKA	111.98	24	PKP	32 13.10	0.2X
KVN	118.66	49	PKP	32 27.00	0.3
TNP	119.58	50	PKP	32 28.00	-0.5
LRM	120.43	40	ePKP	32 30.60	0.6
FFC	121.75	28	ePKP	32 32.00	0.2
	0.7s	6.00nm			
MSU	123.25	48	PKP	32 36.60	1.0
BW06	123.55	43	PKP	32 36.30	0.3
KIC	125.84	273	PKP	32 40.80	-0.2
	0.9s	7.50nm			
LIC	126.11	272	PKP	32 41.50	0.0
GOL	127.70	45	PKP	32 44.70	0.5
ALQ	128.78	51	ePKP	32 46.50	0.2
FVM	138.47	38	PKP	33 05.50	1.3
RSNY	140.61	17	PKP	33 01.50	-6.4X
GBTN	143.72	35	PKP	33 12.00	-1.5
TBR	143.80	19	PKP	33 12.50	-0.9
TKL	143.97	35	PKP	33 13.30	-0.6
NAV	144.32	30	PKP	33 13.80	-0.7
BLA	144.59	30	PKP	33 14.50	-0.5
CVL	144.89	27	PKP	33 15.50	0.1
PRM	145.91	35	PKP	33 19.20	2.0
ITA	147.20	206	ePKP	33 24.10	4.1X
VAO	147.54	202	ePKP	33 24.40	4.2X
SGS	147.61	34	PKP	33 24.30	4.4X
ITR	153.76	233	e(PKP)	33 37.00	7.5X
CNCB	154.54	160	PKP	33 34.00	2.8X
LPB	154.76	160	PKP	33 34.00	2.7X
ZOBO	154.99	160	PKP	33 33.80	2.0

S.D. = 1.0 on 58 of 69 obs.

? APR 29, 1989 10h 37m 26.13± 5.51s
37.123 N ±51.5km 27.906 E ±29.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.30	88	iPg	37 31.40	-1.0
IZM	1.37	338	ePn	37 51.00	-0.3
ELL	1.65	103	ePn	37 58.00	2.7X
KHL	1.75	46	ePn	37 57.00	0.1
BCK	2.17	80	ePn	38 04.00	1.2

S.D. = 1.6 on 4 of 5 obs.

? APR 29, 1989 11h 37m 54.09± 3.06s
37.017 N ±27.7km 27.971 E ±21.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.28	65	iPg	37 53.80	-6.1X
IZM	1.49	338	ePn	38 21.00	0.1
ELL	1.58	99	ePn	38 21.90	-0.4
KHL	1.79	43	iPn	38 25.00	-0.4
BCK	2.14	77	ePn	38 31.00	0.7

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

? APR 29, 1989 12h 10m 33.24± 2.84s
37.120 N ±26.8km 28.020 E ±19.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.21	86	iPg	10 36.70	-1.2
IZM	1.41	335	ePn	10 58.50	-0.5
ELL	1.56	103	ePn	11 02.00	0.9
KHL	1.69	44	iPn	11 04.00	0.9
BCK	2.08	80	ePn	11 08.00	-0.6

S.D. = 1.3 on 5 of 5 obs.

& APR 29, 1989 12h 28m 37.59s
60.088 N 152.554 W
DEPTH = 92.7km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.20	268	iP	28 50.55	1.0
			eS	29 00.97	
RED	0.35	342	eP	28 51.02	-0.9
			eS	29 02.26	
RDT	0.49	9	iP	28 51.94	-0.9
OPT	0.55	218	iP	28 52.70	-0.6
NNL	0.63	94	iP	28 54.25	0.3
			eS	29 05.59	
AUL	0.84	213	eP	28 55.66	-0.3
AUE	0.84	210	eP	28 55.34	-0.6
CNPM	0.87	130	iP	28 55.98	-0.4
			eS	29 10.23	
PDB	0.88	251	iP	28 55.53	-0.9
			eS	29 09.37	
SPU	1.12	12	iP	28 58.27	-1.0
			eS	29 13.82	
CRP	1.20	9	iP	28 59.56	-0.7
			eS	29 16.66	
CGLM	1.25	12	iP	29 00.24	-0.6
CDD	1.29	206	iP	29 00.06	-1.2
SEW	1.56	88	iP	29 02.98	-1.6
SUA	1.64	32	iP	29 05.76	-0.1
			eS	29 26.76	
SVW	1.83	305	eP	29 06.51	-1.7
SKT	1.96	14	iP	29 08.65	-1.3
PWA	2.04	39	iP	29 10.44	-0.5
PLRM	2.26	47	eP	29 12.20	-1.6
KDC	2.35	179	eP	29 12.59	-2.4
KNK	2.41	55	eP	29 14.22	-1.8
KNIM	2.42	82	iP	29 13.23	-2.8
GHO	2.45	45	eP	29 15.01	-1.5
MTU	2.46	90	iP	29 15.16	-1.5
			eS	29 44.45	
GLI	2.82	71	eP	29 19.63	-1.8
FID	3.09	75	iP	29 22.78	-2.4
KLU	3.54	64	iP	29 28.87	-2.7
KTH	3.56	12	eP	29 30.66	-1.1
TOA	3.70	54	iP	29 31.98	-1.7

29 obs. associated

? APR 29, 1989 12h 35m 53.13± 1.31s
34.285 N ±13.7km 139.870 E ±25.7km
DEPTH = 33.0km (normal)
4.8mb (1 obs.)
NEAR S. COAST OF HONSHU, JAPAN (230)

CHJJ	1.90	338	eP	36 24.50	0.7
IIDJ	2.00	307	eP	36 25.40	0.1
MAT	2.63	329	(P)	36 35.00	0.8
MTMJ	2.85	324	eP	36 36.30	-1.0
NIIJ	3.03	347	eP	36 39.30	-0.6
CTA	54.41	173	iP	45 19.30	0.0
	1.0s	10.00nm		4.8mb	

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

? APR 29, 1989 12h 55m 14.56± 3.30s
25.246 N ±45.3km 91.604 E ±10.7km
DEPTH = 33.0km (normal)
4.3mb (1 obs.)
INDIA-BANGLADESH BORDER REGION (315)

SHL	0.41	38	iP	55 24.00	0.0
			iS	55 28.00	
GUN	5.77	299	P	56 40.60	0.1
PKI	6.02	294	P	56 44.20	0.2
KKN	6.21	295	P	56 46.20	-0.3
DMN	6.28	293	P	56 48.20	0.6
	0.4s	8.00nm		4.8mb X	
GKN	6.81	295	P	56 54.40	-0.6
SLL	62.64	327	eP	05 42.20	4.3X
	0.4s	0.90nm		4.3mb	
INK	81.01	15	eP	07 27.00	-0.1

S.D. = 0.4 on 7 of 8 obs.

APR 29, 1989 13h 50m 12.05± 0.86s
36.599 N ± 7.1km 141.038 E ± 8.8km
DEPTH = 58.1 ± 5.3 km
4.3mb (4 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) at Mito and
Onahama; (I JMA) at Utsunomiya.

ONA	0.36	343	iP+	50 22.10	-0.4
			iS	50 28.50	
MIT	0.51	244	iPd	50 23.90	-0.1
			iS	50 31.90	
KAKJ	0.80	241	iPd	50 26.90	-0.6
			S	50 36.70	
UTS	0.94	267	eP	50 29.00	-0.4
			iS	50 39.90	
CHJJ	1.74	252	iPd	50 39.90	-0.5
			S	50 59.20	
NIIJ	1.75	292	iPd	50 40.20	-0.3
YAMJ	1.76	333	iPd	50 40.60	-0.1

		eS	51 00.20			
MAT	2.28	269 iPd	50 48.30	0.4		
		iS	51 17.00			
OFUJ	2.53	11 P	50 50.80	-0.6		
		eS	51 18.40			
MTMJ	2.60	271 P	50 53.00	0.4		
IIDJ	2.77	247 iPd	50 56.20	1.3		
		S	51 29.60			
AOMJ	3.99	353 eP	51 12.90	0.9		
TSRJ	4.23	257 P	51 16.60	1.1		
GUN	46.90	276 P	58 39.40	0.5		
KKN	47.43	276 P	58 42.40	-0.6		
GKN	47.85	277 P	58 46.00	-0.2		
INK	54.91	27 eP	59 39.50	0.9		
WB5	56.52	188 eP	59 50.00	-0.7		
GBA	60.88	266 Pd	00 20.90	-0.2		
	0.3s	0.80nm		4.3mb		
KEV	63.74	339 eP	00 40.00	0.6		
YKA	64.34	30 eP	00 45.20	1.8		
SOD	65.25	337 eP	00 49.00	-0.2		
SUF	68.24	333 iP	01 07.40	-0.8		
	0.5s	2.00nm		4.4mb		
NUR	70.19	332 iP	01 19.10	-1.1		
HFS	74.36	336 eP	01 44.40	-0.5		
	0.4s	0.60nm		3.9mb		
NAO	74.76	337 P	01 46.70	-0.5		
	0.6s	2.20nm		4.3mb		
	S.D. = 0.8	on 26 of 26 obs.				

? APR 29, 1989 15h 04m 25.09± 1.16s
21.722 S ±25.2km 177.224 W ±16.4km
DEPTH = 400.0km (geophysicist)
4.6mb (3 obs.)
FIJI ISLANDS REGION (181)

DZM	15.16	266 iPc	07 40.10	-1.5		
BRS	27.82	252 iP	09 42.80	1.1		
RMQ	31.36	254 iPc	10 13.40	1.0		
CTA	34.11	266 iPd	10 36.00	0.2		
	0.7s	20.21nm		4.6mb		
PMG	36.33	284 eP	10 54.50	0.0		
WB5	45.15	263 iPd	12 05.20	-0.5		
FORR	49.45	247 iPc	12 38.40	-0.1		
MTN	49.91	271 eP	12 42.00	-0.2		
WARB	51.16	253 eP	12 41.30	-10.1X		
MBL	58.21	258 eP	13 41.10	-0.3		
NANU	61.78	255 eP	14 06.10	0.8		
	0.4s	11.00nm		4.7mb		
SPA	68.41	180 e(P)	14 46.10	-0.6		
	0.9s	9.09nm		4.5mb		
DMU	147.04	11 ePKP	23 20.00	0.2		
CLL	149.41	347 ePKP	23 27.00	3.4X		
	1.0s	11.00nm				
		e	23 52.00			
PRU	150.30	345 ePKP	23 30.50	5.5X		
		e	24 15.00			
KHC	151.33	345 ePKP	23 33.00	6.4X		
		e	24 05.80			
	S.D. = 0.8	on 12 of 16 obs.				

APR 29, 1989 15h 12m 02.42± 0.19s
51.786 N ± 5.2km 175.226 W ± 2.5km
DEPTH = 33.0km (normal)
5.1mb (42 obs.) 4.3Msz (6 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
ML 4.7 (PMR). Felt (IV) on Adak.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 18S, 30C
Centroid Location:
Origin Time 15:12: 9.7 1.1
Lat 52.17N 0.11 Lon 175.19W 0.13
Dep 45.7 6.9 Half-durotion 1.4
Moment Tensor; Scale 10**16 Nm
Mrr= 2.74 0.21 Mtt=-2.08 0.27
Mff=-0.65 0.23 Mrt= 1.18 0.47
Mrf= 2.13 0.46 Mtf=-1.41 0.38
Principal Axes:
T Val= 3.80 Plg=65 Azm=282
N -0.11 15 47
P -3.69 19 142
Best Double Couple:Mo=3.8*10**16
NP1:Strike=255 Dip=29 Slip= 122
NP2: 40 66 74

ADK	0.91	277 iPd	12 22.00	3.2		
SMY	6.62	282 eP	13 41.90	2.0		
SDN	9.46	62 eP	14 15.00	-4.3X		
KDC	14.38	57 eP	15 25.50	0.2		
		id	15 31.50			
TTA	15.16	35 eP	15 39.30	3.8X		
		ic	15 44.70			
PMR	17.25	45 eP	16 02.50	0.5		
IMA	17.98	29 ePc	16 15.00	3.9X		
	0.9s	62.50nm		4.7mb		
TOA	18.74	45 eP	16 21.20	0.7		
FBA	19.27	37 eP	16 25.80	-0.9		
BRW	21.28	16 ePc	16 49.60	1.9		
SIT	23.55	61 eP	17 10.40	0.2		
INK	25.85	35 eP	17 32.00	-0.1		
	0.5s	19.00nm		4.9mb		
MBC	32.40	22 ePc	18 31.70	1.0		
	0.6s	16.00nm		5.1mb		
YKA	33.32	47 eP	18 38.40	-0.4		
GMW	33.59	76 eP	18 42.80	1.4		
HTW	34.09	75 eP	18 46.80	1.1		
LON	34.56	77 eP	18 50.80	1.1		
PNT	34.70	72 iPc	18 52.30	1.4		
	0.8s	72.00nm		5.7mb		
KAKJ	35.06	261 eP	18 54.30	0.3		
NIIJ	35.11	264 eP	18 54.80	0.3		
CHJJ	35.88	262 eP	19 01.70	0.7		
MAT	36.05	264 eP	19 02.00	-0.5		
	0.8s	33.58nm		5.3mb		
EDM	36.66	63 iPc	19 08.00	0.6		
	0.4s	32.00nm		5.6mb		
IIDJ	36.92	263 eP	19 10.80	1.0		
TSRJ	38.07	264 eP	19 19.70	0.3		
CN2	39.65	283 Pd	19 31.80	-0.7		
	Z 20s	0.90um		4.6Msz		
		PcP	21 38.00			
ARN	39.96	90 eP	19 34.70	-0.5		
CMB	40.24	88 eP	19 38.50	0.9		
	0.9s	8.85nm		4.5mb		
LRM	40.63	73 eP	19 41.60	0.7		
KVN	41.04	85 eP	19 44.80	0.6		
ALE	41.83	10 eP	19 51.00	1.0		
	0.5s	4.00nm		4.4mb		
SNY	41.90	281 eP	19 51.40	0.5		
FFC	42.08	56 eP	19 53.00	0.7		
	0.6s	10.00nm		4.7mb		
EUR	42.09	83 iP	19 54.00	1.1		
TNP	42.18	85 eP	19 54.00	0.4		
	1.0s	15.83nm		4.7mb		
BW06	44.05	75 eP	20 09.50	0.7		
DAU	44.42	79 eP	20 12.20	0.2		
MSU	45.02	81 eP	20 17.40	0.7		
PLM	45.45	90 eP	20 20.50	0.4		
GLA	46.91	89 eP	20 32.00	0.5		
BJI	47.45	284 eP	20 36.00	0.4		
GOL	48.42	76 eP	20 44.00	0.5		
	0.8s	96.73nm		5.9mb		
GLD	48.48	75 eP	20 44.80	1.0		
TIA	49.31	279 P	20 50.00	0.0		
HHC	49.71	288 eP	20 53.00	-0.1		
SSE	50.22	272 Pc	20 57.80	0.8		
	0.5s	33.00nm		5.6mb		
		i	21 09.00			
BTO	50.78	288 eP	21 02.30	1.0		
ALQ	50.83	81 eP	21 01.20	-0.7		
	1.0s	9.00nm		4.7mb		
NJ2	51.02	274 Pc	21 02.70	-0.3		
TIY	51.19	284 eP	21 05.20	0.8		
	Z 22s	0.50um		4.5Msz		
FRB	51.49	33 eP	21 05.00	-1.2		
	0.5s	21.00nm		5.4mb		
XAN	55.76	283 Pd	21 37.50	-0.7		
QZH	56.19	268 P	21 40.50	-0.8		
LNO	56.63	73 eP	21 43.00	-1.2		
TUL	56.63	73 eP	21 43.20	-1.2		
	0.6s	23.10nm		5.4mb		
	Z 20s	0.20um		4.2Msz		
VVO	57.05	73 iPc	21 46.90	-0.5		
LZH	57.39	288 e(P)	21 48.00	-2.0		
	Z 20s	0.20um		4.2Msz		
		i	22 42.00			
KEV	57.69	351 eP	21 51.00	-0.4		
	0.5s	12.60nm		5.2mb		
SCH	58.31	40 eP	21 55.00	-1.0		
FVM	58.35	68 eP	21 54.90	-1.5		
OLY	59.46	70 eP	22 02.00	-2.2		
SOD	60.03	350 eP	22 06.00	-1.7		
		i	22 20.00			
GAC	60.96	52 ePd	22 13.50	-0.8		
WMO	60.97	305 P	22 13.00	-1.5		
CD2	61.06	284 eP	22 14.80	-0.4		
GYA	62.48	278 iPc	22 24.00	-0.9		
TKL	63.77	65 eP	22 32.30	-0.9		
BLA	64.51	62 eP	22 37.50	-0.5		
	0.8s	67.89nm		5.8mb		
SUF	64.60	349 eP	22 37.00	-1.1		
CVL	65.01	60 eP	22 41.40	0.2		
CBN	65.43	59 eP	22 44.00	0.2		
KMI	65.86	280 Pc	22 47.00	-0.1		
OIZ	66.00	271 eP	22 48.00	0.3		
JSC	66.19	65 eP	22 48.00	-0.7		
NUR	66.92	349 iP	22 52.10	-0.9		
	Z 19s	0.20um		4.4Msz		
		LR	56 20.00			
SGS	67.41	65 eP	22 56.00	-0.5		
NAO	67.64	357 P	22 56.10	-1.5		
	0.9s	10.70nm		4.9mb		
HFS	68.20	355 eP	22 59.80	-1.3		
	0.9s	12.60nm		5.0mb		
	Z 20s	0.08um		4.0Msz		
		LR	47 30.00			
UPP	68.23	353 iP	22 59.80	-1.4		
LOE	72.25	276 eP	23 25.50	-0.8		
CHG	72.90	279 ePc	23 29.80	-0.3		
	1.0s	24.50nm		5.2mb		
EKA	73.05	5 Pd	23 29.80	-0.6		
	0.6s	11.40nm		5.0mb		
GUN	73.75	294 P	23 35.00	-0.3		
BDT	74.06	278 eP	23 36.90	0.1		
	0.7s	43.70nm		5.6mb		
KKN	74.18	295 P	23 37.50	-0.2		
DMU	74.23	7 iPd	23 37.30	0.0		
	0.7s	25.00nm		5.3mb		
PKI	74.27	295 P	23 38.00	-0.4		
GKN	74.37	295 P	23 38.40	-0.3		
DMN	74.41	295 P	23 38.80	-0.3		
DCN	74.76	7 iPd	23 40.30	0.0		
	0.6s	44.00nm		5.6mb		
DLE	74.87	7 eP	23 40.80	-0.2		
PCI	75.47	249 ePd	23 45.50	0.5		
	1.0s	4.50nm		4.4mb		
NNT	77.16	274 eP	23 44.60	-9.9X		
BRG	77.42	354 iP	23 54.90	-0.5		
	0.9s	12.00nm		4.9mb		
MOX	77.78	356 eP	23 57.00	-0.4		
	1.0s	17.00nm		5.0mb		
		LR	53 00.00			
MEM	77.98	359 P	23 59.00	0.7		
DOU	78.50	0 P	24 01.50	0.2		
GRF	78.75	356 eP	24 04.00	1.3		
	1.0s	12.00nm		4.9mb		
CTA	79.09	217 iPc	24 04.20	-0.7		
	1.0s	19.50nm		5.1mb		
MTN	79.28	233 iPc	24 06.00	0.0		
	0.6s	96.00nm		6.0mb		
FLN	79.73	4 eP	24 08.00	0.0		
	1.0s	25.60nm		5.2mb		
LDF	79.91	3 eP	24 08.40	-0.6		
GRR	80.09	4 eP	24 09.20	-0.7		
	0.9s	19.60nm		5.1mb		
LPF	80.44	4 eP	24 12.20	0.4		
HAU	80.58	359 eP	24 12.50	-0.1		
SNG	80.79	270 eP	24 13.80	-0.4		
KBA	81.24	354 iP	24 16.80	0.5		
	0.7s	11.00nm		5.0mb		
LOR	81.32	1 eP	24 16.60	0.1		
MLR	81.40	345 iPc	24 18.00	0.9		
SSF	81.53	1 eP	24 17.80	0.3		
	1.0s	10.00nm		4.8mb		
LBF	81.61	1 eP	24 17.00	-1.0		
AVF	81.80	1 eP	24 18.80	-0.1		
	1.0s	14.80nm		5.0mb		
QUE	81.89	309 eP	24 21.10	1.1		
MFF	81.90	3 eP	24 19.70	0.2		
SMF	81.95	1 eP	24 19.70	0.0		
	1.0s	14.80nm		5.0mb		
BGF	82.02	1 eP	24 21.30	1.2		
TCF	82.28	2 eP	24 21.80	0.3		
	1.0s	10.80nm		4.9mb		
LSF	82.31	2 eP	24 21.80	0.2		
	0.9s	15.30nm		5.1mb		
IPM	82.55	268 ePd	24 24.10	0.7		
LFF	83.59	3 eP	24 29.20	1.0		
CAF	83.64	2 eP	24 29.40	0.9		
WB5	83.82	227 iPc	24 28.70	-0.9		
LPO	83.86	3 eP	24 30.00	0.4		

29d 15h

WRA	83.89	227	Pc	24	29.20	-0.8
	1.0s		11.00nm			5.0mb
RMQ	84.11	212	eP	24	31.00	0.1
SKO	85.50	348	eP	24	38.50	0.6
VAY	85.99	347	eP	24	40.60	0.3
HYB	86.13	293	eP	24	41.00	-0.4
	0.8s		23.10nm			5.5mb
GBA	89.82	292	Pc	24	58.40	-0.7
	0.7s		5.50nm			4.9mb
WARB	92.82	230	eP	25	03.20	-9.4X
	0.4s		3.00nm			5.1mb
TIC	121.20	11	PKP	30	52.90	-0.6
	0.3s		3.00nm			
KIC	121.51	11	PKP	30	53.40	-0.7
LIC	121.61	11	PKP	30	53.70	-0.6
	0.4s		5.00nm			
BNG	122.77	344	iPKPd	30	56.40	-0.1
	0.7s		39.00nm			
PPD	127.87	77	ePKP	31	05.70	-0.5
AVY	133.07	298	ePKP	31	17.00	0.7
SPA	141.60	180	e(PKP)	31	25.00	-5.7X
	1.0s		5.00nm			
BUL	143.33	321	iPKPc	31	31.20	-3.9X
	1.0s		18.50nm			
SLR	148.45	317	ePKP	31	43.00	-0.4
	0.9s		138.66nm			
			i	31	46.70	
BFS	150.10	318	ePKP	32	02.50	16.6X
SEK	150.99	315	iPKPc	31	53.00	5.8X
	1.1s		405.06nm			
	S.D. = 0.8		on 132 of 141 obs.			

APR 29, 1989 15h 52m 53.24± 0.65s
66.922 N ± 4.9km 156.321 W ± 7.8km
DEPTH = 5.0km (geophysicist)
4.1mb (3 obs.)
ALASKA (676)
ML 4.2 (PMR). Felt ot Kobuk.

IMA	1.36	128	iPc	53	19.00	0.0
TTA	4.01	178	iPd	53	56.40	-0.3
FBA	4.04	116	ePc	53	56.30	-0.8
BRW	4.41	358	eP	54	01.70	-0.5
SVW	5.85	177	ePd	54	21.80	-0.9
PMR	6.20	146	eP	54	27.00	-0.5
TOA	6.52	133	eP	54	33.10	0.9
DWY	7.58	104	P	54	46.40	-0.6
INK	8.79	71	eP	55	03.00	-0.8
KDC	9.38	167	eP	55	12.40	0.5
HYT	10.27	118	P	55	23.00	-1.4
MBC	14.60	35	eP	56	18.00	-4.0X
YKA	18.09	84	P	57	07.20	0.8
YKC	18.15	84	eP	57	07.50	0.3
PNT	25.61	115	eP	58	26.00	1.3
	0.6s		3.00nm			4.2mb
BW06	34.84	110	eP	59	47.80	0.7
KVN	35.14	123	eP	59	49.50	-0.1
ARN	35.59	129	eP	59	53.50	0.2
GOL	39.08	108	eP	00	23.70	0.9
PLM	40.74	125	eP	00	37.00	0.5
ALQ	42.88	113	eP	00	54.50	0.4
	1.0s		4.38nm			4.1mb
SLL	52.68	6	eP	02	10.20	0.1
	0.5s		0.70nm			3.8mb
PRM	52.91	89	eP	02	11.30	-0.8
	S.D. = 0.7		on 22 of 23 obs.			

% APR 29, 1989 16h 40m 07.75± 2.44s
41.681 N ±11.6km 27.563 E ±22.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DMK	0.20	46	iPg	40	12.00	-0.2
			iSg	40	15.50	
CTT	0.84	129	ePg	40	23.10	-0.9
BNT	1.35	168	iPn	40	32.80	0.2
EDC	1.35	170	ePn	40	32.40	-0.2
HRT	1.80	118	ePn	40	40.30	1.1
	S.D. = 1.1		on 5 of 5 obs.			

? APR 29, 1989 18h 10m 00.09± 2.76s
2.028 N ±17.4km 126.527 E ±29.5km
DEPTH = 113.3 ± 25.7 km
4.0mb (2 obs.)
MOLUCCA PASSAGE (266)

MNI	1.78	251	ePc	10	31.00	0.0
			eS	11	00.00	
PCI	7.30	247	ePc	11	53.20	7.6X
	1.0s		3.40nm			3.8mb
WB5	23.09	161	iPc	14	56.20	-0.5
			eS	19	07.00	
WRA	23.14	161	Pc	14	57.20	0.0
	0.6s		5.80nm			4.1mb
QIS	25.85	151	eP	15	23.00	0.2
WARB	28.05	180	eP	15	35.30	-7.4X
CHG	31.75	304	eP	16	15.50	-0.2
FORR	32.73	177	eP	16	24.40	0.5
BJI	38.99	347	eP	17	17.00	0.1
	S.D. = 0.4		on 7 of 9 obs.			

APR 29, 1989 18h 18m 00.54± 0.52s
39.231 N ± 4.2km 23.549 E ± 4.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.26	287	ePg	18	06.30	0.2
PAIG	0.70	8	iPgc	18	15.00	0.6
			iSg	18	23.70	
PLG	1.14	356	ePb	18	21.60	-0.4
OUR	1.15	17	iPgc	18	22.20	0.2
LIT	1.19	317	ePg	18	22.60	-0.2
			eSg	18	36.60	
ATH	1.26	174	ePb	18	24.00	0.0
THE	1.47	342	ePb	18	27.10	0.1
SOH	1.60	355	ePb	18	28.80	-0.1
KZN	1.74	309	ePb	18	31.00	-0.1
SRS	1.88	1	ePb	18	32.50	-0.6
			eSb	18	53.30	
GRG	1.94	333	ePn	18	34.20	0.4
			eSb	18	54.80	
KNT	1.99	346	ePn	18	34.80	0.2
			eSn	18	55.70	
VAY	2.22	341	ePn	18	37.70	-0.2
EZN	2.23	74	ePn	18	38.00	0.0
	S.D. = 0.3		on 14 of 14 obs.			

APR 29, 1989 18h 42m 35.69± 2.56s
38.947 N ±21.2km 23.407 E ±10.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.2 (ATH).

NEO	0.39	338	ePg	42	45.20	1.6
PAIG	1.00	12	iPgc	42	54.10	-0.5
			iSg	43	02.50	
LIT	1.35	329	ePg	43	01.50	0.9
			eSg	43	16.20	
PLG	1.43	1	ePb	43	00.70	-0.9
OUR	1.46	18	iPgc	43	01.20	-0.8
THE	1.72	349	ePb	43	06.00	0.3
			eSb	43	23.30	
KZN	1.85	318	ePb	43	06.00	-1.9
SOH	1.87	359	ePbc	43	07.80	-0.3
GRG	2.15	339	ePn	43	13.20	1.1
SRS	2.17	4	ePb	43	11.60	-0.8
			eSb	43	32.70	
KNT	2.25	350	ePn	43	13.60	0.1
			eSn	43	36.40	
EZN	2.43	68	ePn	43	17.00	1.0
VAY	2.46	345	ePn	43	16.50	0.1
	S.D. = 1.1		on 13 of 13 obs.			

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* APR 29, 1989 18h 51m 22.22± 1.13s
66.900 N ± 8.8km 156.327 W ±16.2km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.6 (PMR).

IMA	1.35	127	iPc	51	47.80	0.0
TTA	3.99	178	eP	52	25.20	-0.2
FBA	4.03	116	ePd	52	25.60	-0.3
BRW	4.43	358	eP	52	31.40	-0.1
SVW	5.82	177	eP	52	25.20	-26.1X
PMR	6.18	146	eP	52	56.20	0.0
TOA	6.50	133	eP	53	04.00	3.0X
	S.D. = 0.2		on 5 of 7 obs.			

APR 29, 1989 19h 26m 48.06± 0.79s
37.139 N ± 7.4km 27.932 E ± 7.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.28	91	iPg	26	53.30	-0.7
IZM	1.36	337	ePn	27	13.00	-0.1
ELL	1.63	103	ePn	27	17.00	0.0
KSL	1.67	127	ePb	27	17.70	0.2
KAP	1.70	201	ePb	27	17.80	-0.1
			eSb	27	36.80	
KHL	1.73	46	ePn	27	18.50	0.1
BCK	2.14	81	ePn	27	25.00	0.6
	S.D. = 0.5		on 7 of 7 obs.			

APR 29, 1989 19h 34m 13.71± 0.77s
37.099 N ± 6.9km 27.908 E ± 7.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.30	83	iPg	34	18.50	-1.5
IZM	1.39	339	iPn	34	40.00	0.8
ELL	1.64	102	iPn	34	43.40	0.6
KAP	1.65	201	eP	34	42.00	-0.9
KSL	1.67	125	eP	34	43.60	0.6
KHL	1.77	46	iPn	34	44.50	-0.2
BCK	2.17	80	iPn	34	52.00	1.6
PRK	2.50	329	eP	34	59.00	4.0X
DST	2.57	13	ePn	34	56.70	0.7
EZN	2.99	336	ePn	35	02.70	0.7
KCT	3.16	6	ePn	35	03.00	-1.5
EDC	3.24	359	ePn	35	04.40	-1.2
RDO	4.44	336	eP	35	23.00	0.4
	S.D. = 1.1		on 12 of 13 obs.			

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* APR 29, 1989 20h 18m 39.42± 1.60s
34.166 S ±12.2km 71.130 W ±12.3km
DEPTH = 87.6 ± 8.8 km
NEAR COAST OF CENTRAL CHILE (135)

CHCH	0.46	60	iPd	18	54.00	0.1
TACH	0.54	17	iP	18	54.70	0.2
PCH	0.75	44	iPd	18	56.60	0.1
LCCH	0.78	332	iPd	18	56.50	-0.3
			iS	19	09.50	
SAN	0.81	29	iPd	18	57.00	-0.1
			iS	19	10.60	
PEL	1.08	20	iPd	19	00.50	0.2
FCH	1.09	40	iP	19	00.80	0.1
ROCH	1.19	5	iPd	19	01.80	0.0
			iS	19	20.00	
JACH	1.55	17	iP	19	06.00	-0.2
			iS	19	26.00	
RFA	2.28	106	iPc	19	15.90	-0.1
ZON	3.33	39	eP	19	30.00	-0.3
CYA	7.30	40	eP	20	20.00	-5.4X
CCH	17.30	16	P	22	40.20	3.1X
ZOBO	18.02	9	P	22	46.50	0.3
	S.D. = 0.2		on 12 of 14 obs.			

? APR 29, 1989 20h 32m 25.47± 1.31s
16.041 S ±45.4km 173.626 W ±33.7km
DEPTH = 92.0km (2 depth phases)
4.6mb (4 obs.)
TONGA ISLANDS (173)

AFI	2.77	40	iPc	33	04.50	-4.3X
			eS	33	30.50	
DZM	19.76	249	iPc	36	51.30	0.5
WB5	49.47	257	eP	41	07.50	-1.1
			eS	46	55.20	
WRA	49.49	257	Pc	41	08.50	-0.3
	0.4s		1.60nm			4.4mb
FORR	54.90	243	eP	41	48.00	-1.0
WARB	56.22	249	eP	41	48.20	-10.4X
MBL	62.88	254	eP	42	44.50	0.1
	0.4s		8.00nm			5.0mb
NANU	66.65	252	iPc	43	10.00	1.3
PCI	67.23	276	ePd	43	16.70	4.2X
KVN	75.43	42	P	44	00.00	-1.4
PMR	79.79	12	P	44	28.00	3.4X
TTA	79.91	8	P	44	25.00	-0.4
	1.0s		5.00nm			4.3mb
			pP	44	49.50	93km
BW06	82.89	42	P	44	42.00	0.4
FBA	83.06	11	P	44	41.80	0.2
	0.7s		10.17nm			4.9mb
			pP	45	06.00	91km
IMA	83.22	8	P	44	43.00	0.4
INK	88.94	14	eP	45	13.00	2.6X
YKA	90.77	23	eP	45	22.00	3.0X
PRU	145.50	351	PKP	51	55.50	1.2

KHC 146.48 351 PKP 51 59.20 3.2X
e 52 22.70
S.D. = 0.9 on 12 of 19 obs.

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* APR 29, 1989 20h 58m 08.23± 1.02s
37.068 N ± 9.3km 27.876 E ± 9.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER 0.33 78 iPg 58 13.20 -1.9
IZM 1.41 340 ePn 58 34.10 0.1
KAP 1.62 201 ePn 58 36.20 -0.7
eSb 58 57.00
ELL 1.66 100 ePn 58 38.90 1.3
KSL 1.67 124 ePn 58 38.00 0.4
KHL 1.81 46 iPn 58 40.00 0.2
BCK 2.20 79 ePn 58 46.00 0.6
S.D. = 1.3 on 7 of 7 obs.

? APR 29, 1989 21h 42m 52.20± 3.50s
45.014 N ±22.8km 3.574 E ±24.6km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.9 (LDG).

CAF 1.08 266 Pg 43 10.80 -1.7
Sg 43 24.00
MAF 1.40 330 Pg 43 17.80 0.0
Sg 43 34.00
RJF 1.48 282 Pg 43 19.00 0.1
Sg 43 36.10
TCF 1.59 324 Pg 43 21.00 0.5
Sg 43 39.40
BGF 1.63 342 Pn 43 20.10 -0.9
Pg 43 22.50
Sg 43 41.40
SMF 1.64 6 Pn 43 21.50 0.3
Pg 43 23.40
Sg 43 43.60
LPO 1.73 260 Pg 43 23.60 1.1
Sg 43 44.20
AVF 1.78 355 Pn 43 22.60 -0.6
Pg 43 26.10
Sg 43 47.00
LSF 1.89 311 Pg 43 26.00 1.1
Sg 43 47.80
LBF 1.99 8 Pg 43 29.80 3.5X
Sg 43 54.80
SSF 2.05 359 Pg 43 31.00 3.9X
Sg 43 55.60
LOR 2.26 5 Pg 43 35.20 5.0X
Sg 44 02.20
S.D. = 1.1 on 9 of 12 obs.

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* APR 29, 1989 21h 57m 48.07± 2.30s
0.867 S ±13.4km 98.064 E ±10.9km
DEPTH = 41.7 ± 17.4 km
4.4mb (5 obs.)
SOUTHERN SUMATERA (274)

KGM 5.98 61 eP 59 17.50 1.0
IPM 6.17 29 ePd 59 19.10 0.0
0.9s 108.80nm 5.4mb X
BSI 6.90 336 eP 59 30.00 0.7
SNG 8.39 18 eP 59 48.80 -1.2
eS 02 25.50
LOE 18.51 11 eP 02 02.20 -1.1
KKM 19.38 69 eP 02 13.00 -0.6
CHG 19.58 2 ePd 02 14.00 -1.7
1.0s 10.00nm 4.1mb
PCI 21.77 90 ePc 02 32.40 -5.8X
GBA 24.99 306 Pc 03 11.90 2.2
0.9s 3.70nm 3.9mb
KMI 26.23 10 eP 03 22.50 1.1
GYA 28.40 16 P 03 41.00 0.0
GUN 30.91 339 PKP 04 02.80 -0.9
KKN 31.03 338 PKP 04 03.40 -1.1
CD2 32.06 9 eP 04 13.00 -0.3
XAN 36.19 15 Pc 04 48.50 -0.3
LZH 37.16 8 eP 05 04.00 7.0X
1.5s 22.00nm 4.8mb
WB5 40.23 120 iPc 05 11.80 -11.0X
WRA 40.23 120 Pd 05 22.60 -0.2
0.7s 4.50nm 4.4mb
TIY 40.62 18 eP 05 27.00 1.2
Z 12s 0.48um 4.6MszX
N 12s 0.40um

BTO 42.68 13 eP 05 44.00 1.3
N 12s 0.20um
E 12s 0.70um
HHC 43.30 15 eP 05 49.50 1.8
BJI 43.95 20 eP 05 54.00 1.2
WMQ 45.45 349 P 06 04.50 -0.4
CN2 50.77 25 Pc 06 45.20 -0.9
pP 07 01.00 61kmX
CTA 50.83 115 iPd 06 46.90 -0.1
BNG 79.62 275 ePc 09 51.80 -1.6
0.6s 5.00nm 4.7mb
ic 09 59.30
YKA 113.84 16 ePdiff12 43.80 12.3X
S.D. = 1.2 on 23 of 27 obs.

& APR 29, 1989 21h 59m 28.16s
60.391 N 152.220 W
DEPTH = 99.4km
SOUTHERN ALASKA (2)
<AGS-P>.

RDT 0.21 333 iP 59 42.05 1.1
eS 59 53.37
RED 0.28 276 iP 59 42.35 -0.5
ILIM 0.48 230 iP 59 43.43 -0.6
eS 59 56.07
NNL 0.58 127 iP 59 45.20 0.5
NKA 0.60 54 iP 59 46.29 1.4
eS 59 58.62
SPU 0.80 6 iP 59 46.05 -0.7
eS 59 59.95
CRP 0.88 2 iP 59 47.18 -0.5
eS 00 02.04
OPT 0.90 215 eP 59 47.08 -0.7
eS 00 02.02
BRLK 0.92 133 eP 59 47.08 -0.9
CGLM 0.93 6 iP 59 47.48 -0.6
eS 00 01.94
XLV 0.97 165 eP 59 47.63 -0.9
SLKM 1.00 82 iP 59 47.95 -0.9
eS 00 03.49
CNPM 1.00 150 iP 59 48.26 -0.6
eS 00 03.57
PDB 1.16 239 iP 59 49.68 -0.9
eS 00 06.09
AUL 1.18 212 eP 59 49.97 -0.9
AUE 1.19 210 eP 59 49.86 -1.1
AUH 1.20 211 eP 59 50.46 -0.7
AUI 1.22 210 eP 59 50.20 -1.2
SUA 1.30 33 iP 59 51.70 -0.7
eS 00 10.34
SEW 1.41 101 iP 59 52.39 -1.2
SKT 1.63 12 eP 59 56.12 -0.3
CDD 1.63 207 iP 59 54.80 -1.7
PWA 1.70 41 eP 59 56.61 -0.7
eS 00 18.07
SVW 1.82 295 eP 59 56.98 -1.9
e 00 19.56
SVW 1.82 295 iP 59 57.15 -1.7
PLRM 1.93 50 eP 59 58.82 -1.4
PME 1.99 50 eP 59 59.14 -1.9
KNK 2.11 59 iP 00 00.60 -2.0
GHO 2.12 48 iP 00 01.00 -1.9
eS 00 26.33
KNIM 2.23 89 iP 00 01.02 -3.2
MTU 2.32 98 eP 00 03.74 -1.7
KDC 2.66 183 iP 00 06.83 -3.1
VZW 2.86 74 eP 00 10.00 -2.9
TTA 3.12 326 iP 00 14.48 -2.0
KTH 3.23 10 eP 00 16.55 -1.4
KLU 3.27 67 iP 00 15.73 -2.7
TOA 3.39 57 iP 00 18.33 -1.7
eS 00 58.71
GLB 4.24 72 eP 00 28.89 -2.8
BALM 4.89 78 iP 00 38.68 -2.1
39 obs. associated

? APR 29, 1989 22h 01m 45.72± 0.89s
0.903 S ±19.9km 80.406 W ±23.3km
DEPTH = 33.0km (normal)
4.6mb (7 obs.)
NEAR COAST OF ECUADOR (105)

UPA 9.86 5 iPc 04 15.60 7.3X
1.3s 130.77nm 6.0mb X
ZOBO 19.49 142 Pc 06 13.70 0.0
0.8s 15.05nm 4.3mb
Z 24s 0.20um 6.1MszX
LR 14 40.00
LPB 19.70 143 eP 06 10.00 -6.0X
1.0s 36.00nm 4.6mb
i 06 17.00
CNCB 19.99 143 Pc 06 19.00 -0.1
JSC 35.01 359 eP 08 38.50 1.3
FVM 39.79 348 eP 09 22.50 5.1X
1.0s 9.00nm 4.5mb
ITR 42.52 102 eP 09 42.40 2.2
e 09 45.30
ALQ 43.19 328 eP 09 49.30 3.7X
1.0s 8.45nm 4.4mb
TNP 51.53 323 eP 10 53.00 2.1
KVN 52.68 323 eP 11 03.50 3.9X
CMB 53.46 321 eP 11 05.40 0.3
PNT 60.32 332 eP 11 53.00 -0.6
0.6s 5.00nm 4.8mb
LIC 75.57 83 P 13 29.10 -0.5
TIC 75.59 83 P 13 29.00 -0.8
0.7s 5.50nm 4.7mb
KIC 75.86 83 P 13 30.80 -0.5
0.6s 9.50nm 5.0mb
INK 77.96 342 eP 13 41.00 -0.9
MBC 80.16 351 eP 13 52.00 -1.7
DAG 84.60 12 iPc 14 15.80 -0.8
0.3s 57.14nm 6.2mb X
i 14 52.00
GKN 149.48 27 PKP 21 33.30 3.8X
KKN 149.95 26 PKP 21 34.50 4.3X
0.6s 14.00nm
DMN 150.03 26 PKP 21 34.60 4.2X
GUN 150.10 25 PKP 21 35.00 4.4X
PKI 150.20 26 PKP 21 35.00 4.2X
S.D. = 1.3 on 13 of 23 obs.

APR 29, 1989 22h 19m 54.74± 0.73s
37.099 N ± 6.7km 27.882 E ± 7.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER 0.32 83 iPg 20 00.10 -1.4
KAP 1.65 200 ePn 20 23.20 -0.6
KSL 1.68 125 ePn 20 24.60 0.3
KHL 1.79 46 iPn 20 25.50 -0.4
BCK 2.19 80 ePn 20 34.00 2.2
PRK 2.49 330 ePn 20 37.50 1.6
DST 2.57 13 ePn 20 37.20 0.1
EZN 2.98 336 ePn 20 42.00 -0.9
KCT 3.17 7 ePn 20 46.00 0.4
EDC 3.24 360 iPn 20 46.10 -0.6
BNT 3.25 1 iPn 20 45.70 -1.1
HRT 3.97 20 ePn 21 00.00 3.0X
RDO 4.43 336 ePn 21 04.00 0.5
KDZ 4.93 338 iPc 21 10.00 -0.6
RZN 5.20 333 eP 21 15.00 0.5
DIM 5.27 341 eP 21 05.00 -10.3X
KKB 6.04 324 eP 21 18.00 -8.2X
PRNI 8.97 137 eP 22 01.00 -6.3X
KHC 15.89 324 P 23 46.00 6.0X
S.D. = 1.1 on 14 of 19 obs.

% APR 29, 1989 22h 26m 25.16± 0.64s
18.256 N ±10.6km 66.310 W ± 4.5km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

CSB 0.15 77 P 26 28.90 0.3
S 26 31.20
SJG 0.21 133 iP 26 29.80 0.1
S 26 32.60
LPR 0.42 83 P 26 33.50 -0.3
S 26 39.50
APR 0.45 297 P 26 34.50 0.2
MCP 0.78 282 P 26 40.00 -0.3
MGP 0.78 252 P 26 40.40 0.0
S.D. = 0.3 on 6 of 6 obs.

APR 29, 1989 22h 28m 34.19± 0.40s
39.282 N ± 3.5km 23.591 E ± 3.7km
DEPTH = 11.1 ± 2.6 km
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO 0.29 275 ePg 28 40.30 0.0
PAIG 0.65 6 iPgc 28 49.00 2.0
iSg 28 56.60

29d 22h

OUR	1.09	16	iPgc	28	55.90	1.3
PLG	1.10	354	ePg	28	55.60	0.9
LIT	1.18	314	iPc	28	56.20	0.1
			eSg	29	11.30	
ATH	1.31	176	ePb	28	57.50	-0.8
THE	1.43	341	ePbc	29	00.30	0.3
			iSb	29	14.30	
SOH	1.55	353	ePbc	29	02.50	0.8
KZN	1.74	307	ePb	29	04.20	-0.3
SRS	1.83	0	ePbc	29	06.10	0.3
			eSb	29	28.40	
GRG	1.90	332	ePn	29	06.90	0.0
			eSn	29	29.10	
KNT	1.95	344	ePn	29	08.30	0.8
			eSn	29	31.10	
PRK	2.08	90	ePn	29	10.50	1.1
VAY	2.18	339	iPn	29	11.00	0.1
EZN	2.18	75	ePn	29	10.20	-0.7
MMB	2.31	3	iPc	29	12.00	-0.7
RDO	2.38	38	ePn	29	13.20	-0.6
ITM	2.47	212	ePn	29	15.00	-0.1
RZN	2.55	19	iP	29	16.00	-0.3
VLS	2.59	246	ePb	29	19.00	2.2
KKB	2.61	352	iP	29	17.00	0.0
KDZ	2.74	30	iPc	29	18.00	-0.9
OHR	2.81	311	iPn	29	20.00	0.1
PLD	2.94	16	eP	29	23.00	1.3
IZM	3.00	106	ePn	29	26.00	3.5X
DIM	3.13	27	ePg	29	38.00	13.6X
SKO	3.15	329	iPn	29	24.60	0.0
PGB	3.29	7	iP	29	26.00	-0.7
VTS	3.32	355	iPc	29	28.00	0.8
EDC	3.46	71	ePn	29	28.00	-1.0
BNT	3.50	71	iPn	29	29.70	0.1
KCT	3.80	74	ePn	29	39.00	5.1X
VAM	3.90	173	ePn	29	35.50	0.2
JMB	3.91	35	eP	29	54.00	18.6X
DST	3.91	84	ePn	29	37.00	1.5
DMK	4.06	50	ePn	29	38.00	0.4
PVL	4.14	18	iPc	29	37.00	-1.7
HRT	4.91	70	eP	29	58.00	8.3X
ISR	6.25	20	eP	30	13.00	4.5X
MGR	6.26	280	Pc	30	08.40	-0.2
			eSn	31	14.60	
MLR	6.44	15	iPd	30	11.50	0.1
SGO	6.49	284	P	30	11.20	-0.8
			eSn	31	19.90	
BZS	6.50	348	eP	30	10.00	-2.0
VRI	6.98	18	ePd	30	19.50	0.8

S.D. = 1.0 on 38 of 44 obs.

APR 29, 1989 22h 31m 06.01± 0.94s
37.098 N ± 8.1km 27.904 E ± 9.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.30	83	iPg	31	10.10	-2.3
IZM	1.39	339	iPn	31	31.50	0.0
ELL	1.64	102	iPn	31	36.10	0.9
KAP	1.65	201	ePb	31	34.50	-0.7
KSL	1.67	125	ePb	31	36.00	0.6
KHL	1.77	46	iPn	31	37.00	0.0
BCK	2.17	80	ePn	31	44.00	1.2
PRK	2.50	330	ePn	31	54.50	7.2X
KCT	3.17	6	ePn	31	58.00	1.2
EDC	3.24	359	ePn	31	56.90	-1.0

S.D. = 1.3 on 9 of 10 obs.

% APR 29, 1989 23h 52m 26.75± 2.48s
10.942 N ±10.2km 62.120 W ±24.6km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)
MD 3.7 (TRN).

TCE	0.44	124	eP	52	37.52	1.1
			eS	52	46.02	
TRN	0.76	112	eP	52	41.17	0.1
			eS	52	53.35	
TPP	0.90	133	eP	52	42.53	-0.6
			eS	52	57.87	
TBH	1.13	114	eP	52	45.60	-0.7
			eS	53	05.30	
PIG	1.27	80	eP	52	48.74	0.4
			eS	53	08.51	
BOT	1.39	81	eP	52	49.66	-0.4
			eS	53	10.35	
SVB	2.47	20	eP	53	05.78	0.2
			eS	53	39.75	
SVV	2.52	20	eP	53	06.09	-0.2
			eS	53	39.78	

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

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* APR 30, 1989 00h 07m 57.70± 0.71s
0.868 S ± 9.1km 98.062 E ±12.7km
DEPTH = 33.0km (normal)
4.3mb (5 obs.)
SOUTHERN SUMATERA (274)

IPM	6.17	29	ePd	09	29.90	1.0
	0.8s		89.60nm			5.5mb X
SNG	8.39	18	eP	09	59.00	-1.0
			e	12	49.50	
NST	16.56	7	eP	11	52.80	3.6X
CHG	19.58	2	eP	12	25.00	-1.1
	1.0s		10.75nm			4.1mb
GBA	24.99	306	P	13	24.00	3.9X
	0.9s		2.90nm			3.9mb
KMI	26.23	10	eP	13	32.50	0.6
			pP	13	36.50	14kmX
SHL	26.95	348	P	13	37.30	-1.1
GYA	28.41	16	P	13	52.00	0.5
GUN	30.91	339	P	14	13.20	-1.0
	0.7s		11.00nm			4.8mb
KKN	31.03	338	P	14	14.00	-1.0
GKN	31.47	337	P	14	17.90	-0.9
XAN	36.19	15	Pc	14	59.00	-0.4
WB5	40.23	120	iPd	15	32.80	-0.5
WRA	40.23	120	Pc	15	32.40	-0.9
	0.6s		2.60nm			4.2mb
ASPA	41.48	126	iPd	15	43.60	0.1
HHC	43.30	15	eP	16	00.00	1.7
BJI	43.95	20	eP	16	05.00	1.7
CN2	50.77	25	Pd	16	56.40	-0.3
CTA	50.83	115	iPd	16	57.40	-0.2
BNG	79.62	275	ePc	20	04.50	0.4
	0.5s		3.00nm			4.5mb
SRO	83.75	318	eP	20	27.40	2.5
ZST	84.61	318	iP	20	46.30	17.1X

S.D. = 1.2 on 19 of 22 obs.

? APR 30, 1989 00h 10m 58.07± 0.90s
41.789 N ± 8.7km 12.742 E ± 8.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

RDP	0.04	212	Pd	11	00.10	-0.1
			eSg	11	04.30	
RMP	0.04	307	Pc	11	00.20	0.1
			iSg	11	05.00	
MNS	0.60	356	P	11	10.10	-0.1
			eSg	11	20.00	
SDI	0.81	96	Pd	11	13.80	0.0
			eSg	11	27.10	

S.D. = 0.1 on 4 of 4 obs.

APR 30, 1989 00h 29m 44.99± 0.52s
11.297 N ±10.0km 68.071 W ± 5.5km
DEPTH = 10.0km (geophysicist)
4.9mb (18 obs.) 4.2Msz (2 obs.)
NEAR COAST OF VENEZUELA (97)

TCE	6.23	95	eP	31	20.13	0.9
			eS	32	35.83	
TPP	6.58	98	eP	31	31.37	7.2X
TRN	6.58	95	eP	31	25.94	1.8
			eS	32	41.56	
FCV	6.92	74	eP	31	28.29	-0.7
SVB	6.95	73	eP	31	28.37	-1.0
SVV	6.99	73	eP	31	28.77	-1.2
SLB	7.31	69	eP	31	32.87	-1.6
BIM	7.54	64	eP	31	36.07	-1.6
FDF	7.56	62	eP	31	36.49	-1.5
			S	33	03.70	
BBL	7.67	56	eP	31	38.00	-1.5
MVM	7.71	64	eP	31	39.20	-0.8
DEG	8.44	53	eP	31	48.00	-2.3
UPA	11.52	260	iPd	32	25.20	-7.4X
	0.7s		38.36nm			5.8mb X
Z	18s		1.55um			4.4MszX
ATB	21.41	132	e(P)	34	40.20	4.9X
ZOBO	27.39	180	P	35	30.00	-3.3X
Z	18s		0.76um			4.3Msz
			S	40	28.00	
			LR	46	43.00	
LPB	27.65	180	P	35	33.20	-2.3
			SS	44	07.20	
			LR	46	48.00	
CNCB	27.93	180	P	35	37.00	-1.2
			i	44	07.00	
UYO	33.14	318	eP	36	24.20	0.6
FVM	33.27	327	eP	36	26.00	1.3
	1.0s		20.00nm			5.0mb
LNO	35.06	319	e(P)	36	38.90	-1.2
TUL	35.06	319	eP	36	38.90	-1.3
	0.8s		11.40nm			4.8mb
Z	21s		0.36um			4.1Msz
ALQ	42.05	310	eP	37	39.00	0.2
	0.9s		6.39nm			4.4mb
GOL	43.46	317	eP	37	54.10	3.7X
	1.0s		3.50nm			4.1mb
RSON	44.68	337	eP	37	58.00	-1.7
	0.9s		8.82nm			4.7mb
BW06	47.72	319	eP	38	23.90	-0.4
	0.9s		4.45nm			4.6mb
GLA	47.93	304	eP	38	28.50	2.7X
EUR	50.79	312	iP	38	51.00	3.1X
	0.5s		5.05nm			4.7mb
FFC	50.89	335	eP	38	46.00	-2.1
	0.7s		7.00nm			4.7mb
LRM	51.00	321	eP	38	54.70	5.3X
TNP	51.25	310	eP	38	51.00	-0.4
KVN	52.21	311	eP	38	57.90	-0.7
FR8	52.37	360	eP	39	04.00	4.9X
SES	52.49	327	eP	38	48.00	-12.4X
EDM	55.21	329	ePc	39	18.40	-1.9
YKA	60.94	337	eP	39	58.90	-1.4
LIC	62.42	89	P	40	10.20	-0.8
KIC	62.68	89	P	40	11.80	-1.0
LPF	66.35	42	eP	40	37.00	1.0
GRR	66.53	42	eP	40	38.20	1.0
MFF	66.73	44	eP	40	39.80	1.3
	0.6s		7.90nm			5.1mb
FLN	66.84	42	eP	40	39.80	0.6
LSF	67.83	45	eP	40	47.40	1.9
	1.1s		19.50nm			5.2mb
BGF	68.77	44	eP	40	52.20	0.8
AVF	69.14	44	eP	40	55.20	1.6
SSF	69.27	44	eP	40	55.00	0.6
SMF	69.46	44	eP	40	56.60	1.0
	0.9s		10.40nm			5.0mb
LOR	69.53	44	eP	40	56.60	0.6
LBF	69.58	44	eP	40	58.00	1.6
DOU	70.30	41	P	41	06.10	5.5X
ENN	71.21	40	eP	41	07.50	1.4
	0.8s		9.00nm			4.9mb
			e	41	12.00	
WLF	71.26	41	P	41	11.80	5.4X
LPG	71.40	46	eP	41	09.20	1.4
	0.7s		8.80nm			5.0mb
WTS	71.87	39	eP	41	11.50	1.5
	0.5s		7.00nm			5.0mb
			e	41	16.00	
CDF	71.91	43	eP	41	11.10	0.6
NAO	74.80	30	P	41	28.10	1.1
	0.8s		1.60nm			4.1mb
CLL	75.70	40	eP	41	39.00	6.7X
KBA	75.99	44	eP	41	34.00	-0.3
	0.9s		11.80nm			5.0mb
			i	41	40.50	
			i	41	43.20	
			e	59	13.00	
KHC	76.09	42	eP	41	36.10	1.4
			i	41	41.30	
BRG	76.30	40	eP	41	41.60	5.9X
	1.0s		12.00nm			4.9mb
PRU	76.70	41	eP	41	39.00	1.0
			e	41	43.80	
SOD	81.47	23	eP	42	05.00	1.5
NUR	81.60	30	eP	42	06.00	1.7
SUF	81.98	28	eP	42	12.00	5.8X
BNG	85.83	86	ePc	42	27.80	1.0
	0.4s		5.00nm			5.0mb
			ic	42	32.20	
GKN	132.83	34	PKP	49	03.00	0.1
GBA	137.78	55	PKPc	49	16.30	3.9X
	0.7s		1.70nm			
CHG	147.46	23	ePKP	49	35.80	6.7X

S.D. = 1.3 on 50 of 67 obs.

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* APR 30, 1989 00h 37m 20.18± 0.96s
66.920 N ± 6.8km 156.230 W ±11.1km

DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.1 (PMR).

IMA	1.33	129	iPd	37 45.90	0.5
TTA	4.01	179	eP	38 23.60	0.0
FBA	4.01	116	eP	38 23.30	-0.2
BRW	4.41	358	eP	38 29.40	0.2
SVW	5.84	177	iPc	38 49.40	-0.1
PMR	6.17	147	eP	39 02.20	8.1X
INK	8.76	71	eP	39 30.00	-0.3
	0.3s	2.00nm		4.9mb X	
S.D. = 0.4 on 6 of 7 obs.					

APR 30, 1989 00h 48m 21.25± 0.53s
66.978 N ± 4.8km 156.159 W ± 7.8km
DEPTH = 5.0km (geophysicist)
4.5mb (10 obs.)
ALASKA (676)
ML 4.8 (PMR).

IMA	1.35	131	iPc	48 47.00	0.3
FBA	4.01	117	iPd	49 24.50	-0.1
TTA	4.07	179	iPd	49 24.40	-1.1
BRW	4.35	357	iP	49 29.30	-0.2
SVW	5.90	177	ePd	49 50.50	-0.9
PWA	6.00	150	eP	49 51.80	-1.0
PMR	6.21	147	ePd	49 54.80	-0.9
TOA	6.51	134	ePc	50 00.40	0.3
DWY	7.54	105	P	50 13.00	-1.3
INK	8.71	71	eP	50 31.00	0.3
KDC	9.42	168	eP	50 40.60	0.1
HYT	10.24	118	P	50 51.50	-0.5
MBC	14.52	35	eP	51 46.00	-3.0
YKA	18.02	85	P	52 34.30	0.7
EDM	24.75	103	ePc	53 46.00	1.5
ALE	24.77	18	eP	53 44.00	-0.4
	0.6s	5.00nm		4.4mb	
PNT	25.58	116	eP	53 54.00	1.6
LON	27.02	121	eP	54 10.00	4.2X
SES	27.86	104	eP	54 02.00	-11.4X
FFC	28.06	89	eP	54 15.00	-0.1
	0.9s	9.00nm		4.6mb	
BW06	34.80	110	eP	55 15.00	0.2
	1.0s	18.75nm		4.9mb	
KVN	35.11	123	eP	55 18.00	0.6
TNP	36.28	123	eP	55 28.00	0.7
	0.7s	2.89nm		4.2mb	
GOL	39.03	108	eP	55 51.00	0.5
	0.8s	16.82nm		4.7mb	
PLM	40.72	126	eP	56 05.00	0.6
ALQ	42.85	113	eP	56 23.00	1.2
	1.0s	3.75nm		4.1mb	
LNO	45.99	101	e(P)	56 46.50	-0.2
TUL	45.99	101	eP	56 46.80	0.0
	0.8s	7.10nm		4.7mb	
SUF	50.59	359	eP	57 23.00	0.8
NAO	52.14	8	P	57 32.20	-1.8
	0.9s	2.80nm		4.2mb	
NUR	52.82	359	eP	57 40.00	1.0
PRM	52.85	90	eP	57 39.50	-0.1
HFS	52.97	6	eP	57 39.00	-1.2
	0.5s	0.80nm		3.9mb	
Z	17s	0.09um		3.9MszX	
		LR		09 58.00	
JSC	53.11	88	eP	57 40.80	-0.8
EKA	56.34	18	P	58 07.00	2.1
	1.2s	8.10nm		4.6mb	
GKN	74.95	307	P	00 06.00	1.0
S.D. = 1.1 on 34 of 36 obs.					

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* APR 30, 1989 01h 00m 08.48± 2.43s
32.144 S ±12.0km 71.747 W ±21.7km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

ROCH	1.03	143	iP	00 26.70	-0.2
			iS	00 36.50	
JACH	1.11	119	iP	00 27.10	-0.8
LCCH	1.34	174	iP	00 30.00	-1.0
			iS	00 48.10	
PEL	1.34	138	iPd	00 31.00	-0.1
TACH	1.65	156	iP	00 36.00	0.4
			iS	00 53.30	
FCH	1.70	134	iPc	00 36.00	-0.6
			iS	00 53.60	
LNV	1.83	171	iP	00 39.20	1.1
			iS	01 02.00	
CHCH	2.01	153	iPd	00 41.00	0.2
			iS	01 03.50	
ZON	2.68	78	eP	00 52.00	1.7
RFA	3.79	135	ePc	01 06.20	0.1
CYA	6.33	56	e(P)	01 41.00	-1.0
S.D. = 1.0 on 11 of 11 obs.					

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* APR 30, 1989 01h 14m 27.32± 1.04s
66.945 N ± 7.4km 156.171 W ±12.1km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.8 (PMR).

IMA	1.33	130	iPc	14 53.20	0.7
FBA	4.00	117	eP	15 30.90	0.3
TTA	4.03	179	eP	15 30.90	-0.2
BRW	4.38	358	eP	15 36.50	0.5
SVW	5.87	177	eP	15 56.70	-0.3
PMR	6.18	147	eP	16 09.70	8.3X
TOA	6.49	134	eP	16 12.20	6.3X
INK	8.73	71	eP	16 36.00	-1.0
S.D. = 0.8 on 6 of 8 obs.					

APR 30, 1989 01h 58m 45.94± 0.63s
40.024 N ± 5.2km 23.173 E ± 4.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.0 (ATH).

PAIG	0.40	104	iPgc	58 53.00	-1.2
			iSg	58 58.40	
PLG	0.41	31	ePg	58 54.00	-0.3
LIT	0.53	279	ePg	58 55.90	-0.8
			eSg	59 03.20	
THE	0.63	345	ePgc	58 58.80	0.3
			eSg	59 08.40	
OUR	0.69	63	ePg	58 59.30	-0.3
NEO	0.72	177	ePg	59 01.50	1.4
SOH	0.81	10	ePg	59 01.80	0.1
GRG	1.10	328	ePg	59 06.70	0.1
			eSg	59 23.20	
KZN	1.11	285	ePg	59 06.00	-0.8
SRS	1.14	16	ePbd	59 07.90	0.7
			eSb	59 24.20	
KNT	1.16	350	ePb	59 08.40	0.9
			eSb	59 24.70	
VAY	1.37	341	ePn	59 07.40	-3.7X
RDO	2.12	57	ePg	59 28.00	6.1X
S.D. = 0.9 on 11 of 13 obs.					

? APR 30, 1989 02h 18m 27.23± 5.67s
41.585 N ±26.9km 12.451 E ±29.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

RDP	0.26	49	Pd	18 33.00	0.2
			eSg	18 37.10	
RMP	0.29	40	Pc	18 33.20	-0.2
			eSg	18 36.20	
MNS	0.82	12	P	18 43.10	0.0
			eSg	18 52.80	
SDI	1.03	83	Pd	18 46.70	0.0
			eSg	18 59.70	
S.D. = 0.2 on 4 of 4 obs.					

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* APR 30, 1989 02h 38m 29.21± 0.89s
37.082 N ± 8.1km 27.834 E ± 9.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YER	0.36	81	iPg	38 33.30	-3.4X
IZM	1.39	341	ePn	38 55.00	0.3
KAP	1.62	199	ePb	38 57.50	-0.4
			eSb	39 18.50	
ELL	1.70	101	iPn	38 58.50	-0.6
KSL	1.70	124	ePn	39 00.00	0.9
KHL	1.82	47	iPn	39 00.50	-0.5
BCK	2.23	79	ePn	39 07.00	0.2
S.D. = 0.7 on 6 of 7 obs.					

& APR 30, 1989 02h 38m 38.87s
58.048 N 154.134 W
DEPTH = 73.1km
ALASKA PENINSULA (12)
<AGS-P>.

KDC	0.93	108	eP	38 55.97	-0.9
			eS	39 09.73	
AUL	1.39	15	eP	39 02.61	-0.2
OPT	1.68	16	eP	39 06.11	-0.7
PDB	1.75	359	eP	39 06.29	-1.4
			S	39 26.97	
CNPM	2.12	44	eP	39 11.29	-1.5
			eS	39 36.04	
RED	2.48	16	eP	39 16.44	-1.4
NNL	2.48	35	iP	39 17.00	-0.8
SVW	3.16	347	eP	39 25.33	-2.0
SLKM	3.18	37	eP	39 25.05	-2.5
SPU	3.32	18	eP	39 27.63	-1.9
10 obs. associated					

? APR 30, 1989 03h 04m 04.66± 9.55s
17.884 N ±39.4km 65.753 W ±57.1km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.44	345	P	04 13.50	-0.1
CSB	0.56	316	P	04 16.00	0.0
			S	04 23.50	
APR	1.09	302	P	04 25.10	0.0
MGP	1.28	276	P	04 28.20	-0.2
MCP	1.40	293	P	04 30.40	0.2
S.D. = 0.2 on 5 of 5 obs.					

? APR 30, 1989 03h 07m 54.39± 3.77s
18.459 N ±25.5km 65.909 W ±20.9km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.15	166	P	07 58.00	0.0
CSB	0.29	235	P	08 00.50	0.0
			S	08 09.50	
APR	0.78	270	P	08 10.30	0.7
MCP	1.14	268	P	08 15.00	-0.8
S.D. = 1.1 on 4 of 4 obs.					

? APR 30, 1989 03h 15m 21.49± 2.08s
20.287 S ±21.1km 176.413 W ±18.5km
DEPTH = 277.5 ± 16.1 km
4.4mb (5 obs.)
FIJI ISLANDS REGION (181)

SVA	5.31	293	iPd	16 42.80	0.4
VUN	5.35	294	ePc	16 42.50	-0.4
DZM	16.09	261	iPc	18 58.80	4.3X
ASPA	46.02	256	iPc	23 20.20	0.5
	0.5s	10.00nm		4.4mb	
WB5	46.09	262	eP	23 20.10	-0.1
WRA	46.10	261	Pd	23 19.90	-0.4
	0.3s	2.20nm		4.0mb	
FORR	50.71	246	eP	23 54.80	-0.6
KNA	52.14	265	eP	24 07.00	0.8
	0.5s	23.00nm		4.9mb	
WARB	52.31	252	eP	23 57.00	-10.4X
MBL	59.26	257	eP	24 56.00	-0.6
NANU	62.89	254	eP	25 21.20	0.4
	0.4s	4.00nm		4.4mb	
SPA	69.84	180	e(P)	26 04.10	0.1
	0.9s	8.18nm		4.5mb	
INK	93.68	15	eP	28 07.00	-0.1
HFS	139.55	352	ePKP	34 08.60	-8.6X
	0.4s	0.80nm			
EKA	144.64	7	PKP	34 23.00	-3.2X
	1.5s	17.80nm			
CLL	148.17	349	iPKPd	34 37.10	5.1X
			i	34 40.00	
BRG	148.40	347	i(PKP)	34 37.50	5.1X
PRU	149.11	346	ePKP	34 39.70	6.1X
PRNI	149.98	296	iPKPc	34 42.00	6.5X
KHC	150.13	347	PKPc	34 42.70	7.5X
MBH	150.19	295	ePKP	34 42.00	6.2X
DOU	150.24	359	PKPc	34 42.00	6.7X
WLF	150.62	357	PKP	34 44.00	8.2X
LDF	151.60	5	ePKP	34 44.80	7.4X
GRR	151.74	6	ePKP	34 45.70	8.2X
LPF	152.07	7	ePKP	34 46.40	8.4X
	0.6s	9.70nm			
S.D. = 0.6 on 11 of 26 obs.					

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* APR 30, 1989 03h 36m 20.08± 1.00s
34.925 N ±11.6km 137.072 E ± 8.9km
DEPTH = 33.0km (normal)
NEAR S. COAST OF HONSHU, JAPAN (230)

30d 03h

MG 3.6 (JMA). Felt (I JMA) at Nagoya and Gifu.

NAG	0.25	340	iPd	36 27.50	0.2
			iS	36 32.70	
IIDJ	0.88	51	iP+	36 35.80	-0.4
			S	36 47.80	
TSRJ	1.08	305	P	36 38.80	-0.1
			S	36 52.70	
WKYJ	1.41	240	P	36 43.80	0.1
			S	37 05.10	
MAT	1.86	30	iPd	36 50.50	0.3
			iS	37 13.10	
TKSJ	2.67	250	P	37 01.90	0.2
YONJ	2.97	276	P	37 05.60	-0.4

S.D. = 0.4 an 7 of 7 obs.

APR 30, 1989 03h 38m 00.68± 0.21s
47.298 N ± 2.2km 6.605 E ± 2.4km
DEPTH = 20.6 ± 2.6 km
FRANCE (538)
ML 3.8 (LDG).

LOMF	0.16	71	Pg	38 05.50	0.0
BSF	0.55	13	Pg	38 12.67	1.1
BBS	0.64	75	Pg	38 12.88	-0.2
MOF	0.66	33	Pg	38 14.04	0.6
			Sg	38 22.80	
HAU	0.73	346	Pg	38 16.30	1.7
			Sg	38 26.00	
VITF	1.01	336	Pn	38 20.53	1.2
			Pg	38 21.25	
FEL	1.11	58	Pn	38 19.79	-1.4
			Pg	38 21.41	
CDF	1.20	22	Pn	38 21.88	-0.6
			Sg	38 39.65	
STR	1.51	31	Pn	38 26.12	-0.5
			Sg	38 50.28	
LPL	1.78	177	Pn	38 31.40	0.5
			Pg	38 34.80	
			Sg	38 57.00	
LPG	1.80	177	Pn	38 31.60	0.3
			Pg	38 35.00	
			Sg	38 58.00	
GWF	1.81	22	Pn	38 29.92	-1.2
			Pg	38 35.68	
			Sg	39 00.37	
LBF	1.82	261	Pn	38 32.50	1.2
			Pg	38 37.40	
			Sg	38 59.90	
LOR	1.87	270	Pn	38 32.00	0.1
			Pg	38 36.60	
			Sg	39 01.20	
LSD	1.88	168	Pn	38 32.57	0.3
			Pg	38 35.65	
			Sn	38 54.27	
			Sg	38 58.44	
ORX	1.92	150	Pn	38 33.49	0.7
			Pg	38 36.67	
			Sn	38 55.63	
			Sg	38 59.88	
ORO	1.92	150	P	38 33.70	0.9
			eSn	39 05.50	
SMF	2.00	252	Pn	38 33.80	0.0
			Pg	38 39.80	
			Sg	39 06.40	
VAI	2.07	133	P	38 35.00	0.2
			eSn	39 08.20	
SSF	2.13	265	Pn	38 37.00	1.3
			Pg	38 42.80	
			Sg	39 08.80	
RSP	2.19	168	Pn	38 37.29	0.5
			Pg	38 41.90	
BNI	2.25	179	P	38 37.80	0.3
			eSn	39 13.00	
AVF	2.28	258	Pn	38 38.20	0.4
			Pg	38 45.40	
			Sg	39 14.50	
RRL	2.38	177	Pn	38 39.75	0.3
			Pg	38 45.80	
			Sn	39 07.60	
WLF	2.39	353	iP	38 46.90	7.6X
PLDF	2.45	238	Pn	38 39.65	-0.6
			Pg	38 47.85	
MDI	2.63	124	Pc	38 42.80	0.0
			eSn	39 20.70	
BGF	2.68	255	Pn	38 43.60	0.1
			Pg	38 53.10	
			Sg	39 28.60	
AGO	2.70	244	Pn	38 42.85	-0.9
			Pg	38 53.29	
			Sg	39 25.98	
PZZ	2.82	173	Pn	38 45.97	0.4
			Pg	38 51.86	
DOI	2.83	171	P	38 47.40	1.7
			eSn	39 26.10	
PYM	2.93	239	Pg	38 57.27	10.2X
MAF	2.98	250	Pn	38 47.20	-0.5
			Pg	38 58.80	
			Sg	39 35.40	
STV	3.10	170	P	38 48.78	-0.7
DOU	3.10	335	iP	38 50.40	1.0
LBL	3.11	230	Pn	38 48.38	-1.2
ROB	3.13	163	P	38 49.99	0.0
TCF	3.18	253	Pn	38 50.20	-0.5
			Pg	39 02.50	
BOB	3.21	141	P	38 52.50	1.3
FIN	3.29	159	P	38 51.86	-0.3
MEM	3.34	353	iPd	38 53.02	0.3
SBF	3.48	170	Pn	38 55.80	0.8
			Sn	39 34.50	
ENN	3.50	353	ePn	39 08.00	12.9X
	0.9s		12.00nm		
			eSn	39 52.50	
IMI	3.51	165	P	38 55.27	0.0
SNF	3.56	335	iPd	38 56.47	0.5
LSF	3.64	255	Pn	38 56.40	-0.8
			Sg	39 57.60	
FRF	3.74	180	Pn	38 57.30	-1.2
			Pg	39 11.20	
			Sn	39 38.00	
LRG	3.85	183	Pg	39 13.80	13.8X
			Sn	39 41.60	
GRF	3.89	50	e(Pn)	38 55.90	-4.8X
			ePg	39 09.40	
			eSg	39 57.40	
CAF	3 95	235	Pn	39 01.20	-0.3
			Pg	39 16.80	
			Sg	40 07.20	
LPO	4.59	237	Pg	39 28.60	17.9X
			Sg	40 29.10	
KBA	4.60	90	iPnc	39 10.10	-0.9
			iPg	39 27.10	
			iSn	39 58.40	
			i	40 03.60	
			iSg	40 23.70	
MFF	4.68	264	Pn	39 11.30	-0.5
LDF	4.70	288	Pg	39 30.20	18.0X
			Sg	40 30.40	
MOX	4.70	43	ePg	39 29.00	16.8X
			eSg	40 29.00	
LFF	4.71	242	Pg	39 31.80	19.5X
			Sg	40 32.60	
FLN	4.98	290	Pn	39 14.70	-1.3
			Pg	39 35.80	
			Sg	40 37.80	
KHC	5.01	66	iPn	39 15.00	-1.6
			e	39 36.00	
			Sg	40 41.10	
GRR	5.14	285	Pn	39 18.20	-0.2
			Sg	40 44.40	
LPF	5.22	281	Pn	39 19.70	0.3
			Sg	40 46.50	
PRU	5.91	60	ePn	39 48.50	19.3X
			e	39 52.00	
			eSg	41 06.50	
BRG	6.00	51	e(Pg)	39 56.00	25.5X
			eSg	41 12.00	
EPF	6.15	228	Pg	39 58.30	25.7X
			Sg	41 18.00	

S.D. = 0.8 on 51 of 63 obs.

APR 30, 1989 03h 50m 15.55± 0.84s
34.926 N ±11.4km 137.028 E ± 7.6km
DEPTH = 33.0km (normal)
NEAR S. COAST OF HONSHU, JAPAN (230)
MG 3.4 (JMA). Felt (I JMA) at Nagoya.

NAG	0.24	348	iP	50 22.60	0.0
			iS	50 28.00	
IIDJ	0.91	52	iP+	50 31.00	-1.0
			S	50 44.10	
TSRJ	1.05	306	iPd	50 33.90	-0.1
			S	50 47.90	
WKYJ	1.38	240	P	50 38.80	0.1
			S	51 00.70	
MTMJ	1.77	21	P	50 44.90	0.4
MAT	1.88	30	iPd	50 45.70	-0.2
			iS	51 08.30	
CHJJ	1.96	55	P	50 47.90	0.8
			S	51 12.80	
TKSJ	2.64	250	P	50 56.70	0.0
			eS	51 27.40	
YONJ	2.94	276	P	51 00.80	-0.2

S.D. = 0.6 an 9 of 9 obs.

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* APR 30, 1989 05h 04m 42.59± 1.15s
32.638 S ±16.1km 69.904 W ±15.7km
DEPTH = 33.0km (normal)
MENDOZA PROVINCE, ARGENTINA (139)

JACH	0.58	265	iPd	04 55.60	1.1
			iS	05 08.00	
FCH	0.76	205	iPd	05 01.60	4.4X
			iS	05 19.50	
PEL	0.83	232	eP	04 59.00	1.1
			iS	05 15.00	
ROCH	0.99	250	iPc	04 59.10	-1.3
			iS	05 14.80	
TACH	1.33	220	iPd	05 05.00	-0.1
			iS	05 26.00	
CHCH	1.44	206	iPd	05 07.70	1.1
			iS	05 30.60	
ZON	1.51	44	iPd	05 07.50	-0.1
LNV	1.82	223	iP	05 10.20	-1.9
			iS	05 34.30	

S.D. = 1.5 an 7 of 8 obs.

APR 30, 1989 05h 11m 00.59± 0.34s
39.277 N ± 3.1km 23.580 E ± 2.4km
DEPTH = 20.3 ± 2.9 km
4.0mb (6 abs.)
AEGEAN SEA (365)
ML 4.1 (ATH).

NEO	0.28	276	ePg	11 05.60	-1.4
PAIG	0.65	7	iPgc	11 14.40	1.2
			iSg	11 23.10	
PLG	1.10	355	iPgc	11 20.70	-0.1
OUR	1.10	16	iPgc	11 21.50	0.7
LIT	1.18	315	iPgc	11 21.60	-0.3
			iSg	11 37.10	
ATH	1.31	175	iPbc	11 23.60	-0.1
THE	1.43	341	ePb	11 25.80	0.3
			eSb	11 42.80	
SOH	1.55	354	ePb	11 28.00	0.7
KZN	1.73	307	iPbc	11 30.00	0.1
SRS	1.84	0	ePn	11 31.70	0.3
			eSn	11 52.80	
GRG	1.91	332	ePnc	11 32.30	-0.1
			eSn	11 55.20	
KNT	1.95	345	ePn	11 33.90	0.8
			eSn	11 55.10	
PRK	2.09	90	ePn	11 35.30	0.3
VAY	2.18	340	iPn	11 36.20	-0.2
EZN	2.19	75	ePn	11 35.00	-1.5
MMB	2.31	3	iPc	11 38.00	-0.2
RDO	2.39	38	iPnc	11 39.00	-0.3
ITM	2.47	212	ePn	11 40.60	0.2
KBN	2.52	303	iPnd	11 42.20	1.1
RZN	2.56	19	iP	11 42.00	0.1
KKB	2.61	352	iP	11 43.00	0.5
KDZ	2.75	30	iPc	11 44.00	-0.5
OHR	2.81	312	iPn	11 46.70	1.4
PLD	2.95	16	iPc	11 48.00	0.8
IZM	3.01	106	iPn	11 48.70	0.6
DIM	3.14	28	iPc	11 50.00	0.0
SKO	3.15	330	iPn	11 49.50	-0.6
	1.1s		610.00nm		
			Lg	13 10.00	
PGB	3.30	8	iP	11 52.00	-0.3
VTS	3.32	355	iPc	11 54.00	1.3
VLO	3.36	292	iPn	11 55.40	2.3
PHP	3.40	316	iPnc	11 52.00	-1.5
EDC	3.47	71	ePn	11 56.00	1.4
BNT	3.51	71	iPn	11 54.90	-0.4
LACI	3.78	310	ePn	12 02.00	3.0X
KCT	3.81	74	ePn	11 59.40	-0.1
VAM	3.89	173	ePn	12 01.20	0.6
JMB	3.92	35	eP	12 00.00	-0.9

DST	3.92	84	iPn	12	02.00	0.9
DMK	4.07	50	iPn	12	02.60	-0.6
BCI	4.08	320	iPnd	12	03.40	0.2
PVL	4.15	18	eP	12	03.00	-1.3
CTT	4.16	62	ePn	12	13.00	8.6X
ISK	4.56	65	ePn	12	14.00	3.8X
KAP	4.69	141	ePn	12	12.00	0.0
KHL	4.74	100	ePn	12	14.00	1.2
GBZT	4.75	70	ePn	12	59.70	46.9X
HRT	4.92	70	ePn	12	15.00	-0.3
GPA	5.28	77	ePn	12	20.00	-0.4
BUC1	5.39	19	eP	12	44.00	22.2X
BUC	5.47	19	ePc	12	32.00	9.1X
PSN	5.60	37	eP	12	23.00	-1.7
ELL	5.60	115	eP	12	28.50	3.6X
TDS	5.62	276	Pd	12	26.60	1.5
SSR	5.75	347	iPc	13	25.00	58.1X
BCK	5.80	106	ePn	12	28.00	0.3
BEO	6.01	338	ePn	12	43.00	12.5X
			e(Sg)	14	34.00	
SOI	6.01	261	Pd	12	28.80	-1.7
MGR	6.25	280	Pd	12	33.90	0.0
ISR	6.26	20	ePd	12	33.50	-0.6
ATN	6.44	263	P	12	35.20	-1.6
MLR	6.45	15	iPc	12	36.00	-0.9
SGO	6.49	284	Pd	12	36.50	-0.8
BZS	6.50	348	ePc	12	25.50	-12.0X
HVAR	6.64	308	e(Pn)	12	36.80	-2.7X
CFR	6.81	28	ePc	12	39.00	-2.8X
BSS	6.90	285	P	12	43.00	-0.1
VRI	6.99	18	iPc	12	52.00	7.7X
BBTK	7.12	83	eP	13	01.00	14.7X
MEU	7.15	255	Pd	12	43.50	-3.2X
DUI	7.35	292	Pd	12	49.80	0.3
SDI	7.83	291	Pd	12	55.40	-0.8
PTJ	8.68	322	eP	13	04.60	-3.4X
VBY	8.75	318	e(Pn)	13	07.00	-1.9
PSZ	9.04	344	eP	13	13.50	0.5
SRO	9.35	338	eP	13	23.90	6.8X
LJU	9.49	318	eP	13	26.00	6.9X
VOY	9.82	317	ePn	13	21.00	-2.7X
			e(Sn)	15	10.10	
ZST	10.07	334	eP	13	33.40	6.4X
			LR	05	18.00	
SPC	10.19	348	eP	13	27.20	-1.7
KBA	10.79	320	eP	13	35.00	-2.2
			e	13	39.00	
			i	14	10.20	
KHC	12.18	327	P	13	55.10	-0.7
	1.0s		6.00nm			4.8mb X
PRNI	12.93	130	eP	14	01.00	-4.9X
MBH	13.28	132	eP	14	08.00	-2.5X
LPG	13.89	302	eP	14	27.60	8.7X
SMF	16.19	303	eP	14	52.50	4.1X
LBF	16.22	305	eP	14	51.00	2.1
LOR	16.40	306	eP	14	52.90	1.8
SSF	16.55	305	eP	14	53.90	0.9
AVF	16.56	304	eP	14	55.80	2.8X
	0.8s		8.00nm			3.9mb
BGF	16.81	302	eP	14	58.70	2.4X
	0.7s		8.80nm			4.0mb
MAF	16.90	301	eP	14	59.90	2.6X
	0.8s		6.70nm			3.8mb
TCF	17.15	301	eP	15	01.50	0.9
GRR	19.77	305	eP	15	28.20	-4.0X
UPP	20.94	352	iP	15	41.70	-2.5X
NUR	21.27	1	eP	15	48.00	0.5
HFS	21.79	347	ePKP	15	29.30	-23.5X
	0.4s		0.50nm			
NAO	22.99	344	P	16	05.20	0.5
	0.6s		2.20nm			3.9mb
SUF	23.53	3	iP	16	10.20	0.4
	0.8s		4.50nm			4.1mb
EKA	24.00	321	Pd	16	14.30	-0.2
	0.8s		7.40nm			4.3mb
BNG	34.98	189	iPc	17	52.40	-1.2
	0.6s		20.00nm			5.2mb X
			ic	17	55.50	
GUN	52.20	83	P	20	06.00	-6.6X
YKA	73.15	341	eP	22	34.00	2.9X

S.D. = 1.0 on 70 of 102 obs.

APR 30, 1989 05h 15m 13.31± 0.54s
39.261 N ± 4.4km 23.526 E ± 5.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	0.24	281	ePb	15	18.70	0.3
PAIG	0.68	10	iPgc	15	27.60	0.9
			iSg	15	36.20	
PLG	1.11	357	ePn	15	33.80	-0.4
OUR	1.13	18	iPgc	15	34.50	0.1
LIT	1.16	317	ePg	15	35.00	0.0
			eSg	15	50.20	
ATH	1.30	173	ePn	15	37.20	-0.1
THE	1.44	343	ePbd	15	39.10	-0.2
SOH	1.56	355	ePb	15	41.20	0.0
KZN	1.71	308	ePb	15	43.50	0.1
SRS	1.85	2	ePn	15	44.80	-0.6
			eSn	16	06.60	
GRG	1.90	333	ePn	15	45.70	-0.4
			eSn	16	08.30	
KNT	1.96	346	ePn	15	47.10	0.2
			eSn	16	09.70	
PRK	2.13	90	ePb	15	54.00	4.6X
EZN	2.24	75	ePn	15	51.00	0.1

S.D. = 0.4 on 13 of 14 obs.

APR 30, 1989 06h 49m 48.30± 0.74s
42.019 N ± 6.2km 19.206 E ± 7.5km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.9 (TTG).

ULC	0.06	150	iPgd	49	51.00	0.4
			iSg	49	53.00	
BDV	0.39	313	ePg	49	56.80	0.6
			eSg	50	04.00	
TTG	0.41	6	ePg	49	55.70	-1.0
			eSg	50	05.60	
LACI	0.54	135	ePg	49	59.00	-0.1
HCY	0.68	309	ePg	50	00.50	-1.2
			eSg	50	11.80	
NKY	0.81	349	ePg	50	04.00	0.0
			eSg	50	17.00	
PVY	0.81	44	ePg	50	02.70	-1.4
			eSg	50	15.00	
IVA	0.99	31	ePg	50	07.70	0.5
			eSg	50	23.50	
BRY	1.01	331	ePg	50	08.00	0.5
			eSg	50	25.00	
OHR	1.50	127	ePn	50	15.00	-0.3
SKO	1.67	91	iPn	50	21.00	3.3X
BEO	2.95	18	eP	50	47.50	11.6X
BZS	4.00	25	ePd	50	53.00	2.2

S.D. = 1.1 on 11 of 13 obs.

% APR 30, 1989 07h 44m 05.07± 2.04s
45.640 N ±11.1km 3.569 E ±15.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.5 (LDG).

MAF	0.91	310	Pn	44	21.90	-0.6
			Pg	44	22.60	
			Sg	44	35.30	
SMF	1.02	11	Pg	44	24.10	-0.3
			Sg	44	37.40	
BGF	1.05	332	Pg	44	25.10	0.3
TCF	1.15	305	Pn	44	25.90	-0.7
			Pg	44	27.50	
			Sg	44	42.40	
AVF	1.16	353	Pg	44	27.00	0.3
			Sg	44	42.20	
CAF	1.28	237	Pg	44	28.60	-0.2
			Sg	44	45.30	
LSF	1.55	294	Pg	44	34.00	1.3
			Sg	44	54.30	

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

& APR 30, 1989 07h 44m 58.55s
60.321 N 150.862 W
DEPTH = 57.0km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

NNL	0.35	218	iP	45	09.78	0.9
SLKM	0.37	59	iP	45	08.98	-0.1
NKA	0.46	336	iP	45	11.53	1.6
			eS	45	19.59	
BRLK	0.56	181	iP	45	10.54	-0.5
			eS	45	20.19	
SEW	0.74	107	iP	45	12.29	-0.9
HOM	0.77	211	eP	45	13.42	-0.2
			eS	45	24.27	
RDT	0.81	289	iP	45	13.35	-0.8
			eS	45	25.53	
CNPM	0.82	193	iP	45	13.57	-0.7
			eS	45	25.15	
RED	0.95	277	iP	45	15.15	-1.0
			eS	45	28.77	
XLV	0.97	207	eP	45	15.33	-0.9
			eS	45	28.72	
SPU	1.04	326	iP	45	16.56	-0.7
			eS	45	30.84	
ILIM	1.08	258	iP	45	16.75	-1.0
			eS	45	31.18	
CGLM	1.14	331	iP	45	18.25	-0.3
			eS	45	34.01	
CRP	1.14	327	iP	45	18.45	-0.3
			eS	45	34.69	
SUA	1.15	3	iP	45	18.29	-0.5
			eS	45	33.86	
PWA	1.42	19	iP	45	21.85	-0.5
PLRM	1.53	33	iP	45	22.84	-1.1
PME	1.59	33	iP	45	23.86	-0.8
AUL	1.60	235	eP	45	24.14	-0.8
KNK	1.61	46	iP	45	23.77	-1.3
SKT	1.70	349	iP	45	25.79	-0.5
GHO	1.73	32	iP	45	25.74	-1.1
PDB	1.75	254	iP	45	26.04	-1.0
CDD	1.99	227	eP	45	29.16	-1.2
VZW	2.24	69	iP	45	31.48	-2.5
VLZ	2.37	68	iP	45	33.36	-2.3
			eS	46	00.46	
KLU	2.69	62	iP	45	38.28	-2.0
KDC	2.72	199	iP	45	37.69	-2.9
TOA	2.89	50	iP	45	41.90	-1.3
TTA	3.59	319	eP	45	51.23	-1.8
GLB	3.63	69	iP	45	50.45	-3.1
BALM	4.25	77	eP	45	58.76	-3.6
FBA	4.81	16	iP	46	08.13	-2.0
YKA	17.34	67	P	48	54.80	-3.0

34 obs. associated

APR 30, 1989 08h 22m 54.01± 0.11s
10.960 N ± 2.4km 68.325 W ± 2.1km
DEPTH = 20.3km (geophysicist)
5.9mb (62 obs.) 6.0Msz (31 obs.)
NEAR COAST OF VENEZUELA (97)
Ms 6.4 (BRK), 6.0 (PAS). Slight damage in the Valencia area. Felt at Caracas and in Aroguo, Carabobo, Falcon and Yarocuy States. Depth from broadband displacement seismograms.
RADIATED ENERGY
No. of sta: 5 Focal mech. M
Energy 4.3±1.5*10**13 Nm
MOMENT TENSOR SOLUTION
Dep 15 No. of sta: 10
Moment Tensor; Scale 10**17 Nm
Mrr= 4.21 Mtt=-0.06
Mff=-4.14 Mrt=-1.72
Mrf= 5.50 Mtf=-3.89
Principal axes:
T Val= 8.30 Plg=53 Azm=231
N -0.38 30 10
P -7.91 20 112
Best Double Couple:Mo=8.1*10**17
NP1:Strike=242 Dip=36 Slip= 147
NP2: 359 71 58
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 19S, 46C
Centroid Location:
Origin Time 08:22:59.9 0.3
Lat 10.88N 0.04 Lon 68.08W 0.03
Dep 15.0 FIX Half-duration 3.7
Moment Tensor; Scale 10**17 Nm
Mrr=-0.83 0.20 Mtt=-4.39 0.21
Mff= 5.22 0.27 Mrt=-5.28 0.67
Mrf= 0.75 0.66 Mtf= 6.79 0.20
Principal Axes:
T Val= 9.10 Plg=12 Azm=121
N 1.45 59 232
P -10.56 28 25
Best Double Couple:Mo=9.8*10**17
NP1:Strike=166 Dip=62 Slip=-168
NP2: 70 79 -29

30d 08h

MORO	0.09	174	iP	22	59.30	1.2	HRV	31.55	355	ePc	29	17.26	0.1	TNP	51.28	310	P	31	59.40	0.3
FISA	1.03	287	iP	23	14.40	1.3				epPd	29	22.39	18kmX		1.0s	80.00nm				5.6mb
GUAC	1.29	126	iP	23	17.80	0.8				esPd	29	26.36		ISA	51.53	307	eP	32	02.00	1.1
CAR	1.45	108	iP	23	18.30	-0.9				eS	34	25.11		KVN	52.24	311	P	32	06.50	0.2
			eS	23	36.30		OLY	32.22	323	P	29	22.60	-0.6	SYP	52.44	305	eP	32	10.00	2.2
LLAV	1.57	108	iP	23	19.90	-1.1	ELC	32.26	328	P	29	23.00	-0.4	SES	52.63	327	ePd	32	25.00	16.1X
GUAN	2.82	110	iP	23	38.80	-0.1	POW	32.51	324	P	29	25.60	0.0		1.3s	305.00nm				
			iS	25	12.50		DHN	32.89	347	P	29	28.40	-0.5	BCH	52.68	306	P	32	09.40	-0.2
SDV	3.07	228	eP	23	45.40	2.8X	FVM	33.41	327	P	29	33.00	-0.5	FRB	52.71	360	eP	32	08.00	-1.1
UAV	3.63	230	eP	23	54.50	3.9X	BNH	33.60	356	P	29	36.60	1.5		1.0s	237.00nm				6.1mb
			eS	25	37.00		DLA	33.81	342	P	29	36.45	-0.4	BLP	52.79	305	P	32	08.80	-1.4
CUM	4.11	96	iPd	23	54.50	-2.7X	RSNY	33.89	352	P	29	37.30	-0.3	FRI	52.85	308	eP	32	11.20	0.6
			iS	24	44.30			1.3s	188.17nm			5.9mb		PRI	53.38	307	eP	32	14.70	0.0
BMG	6.08	231	iPc	24	27.00	1.9		Z 20s	23.73um			5.9Msz		CMB	53.65	309	eP	32	16.70	0.1
TCE	6.46	92	eP	24	28.14	-2.3	ELF	34.04	343	P	29	36.85	-2.0	LLA	53.71	308	eP	32	17.40	0.4
			eS	25	40.00		ELF	34.04	343	P	29	38.50	-0.4	PRS	53.97	307	eP	32	18.40	-0.5
TRN	6.81	92	eP	24	33.48	-1.8	MIM	34.17	359	P	29	39.00	-0.9	SAO	54.14	308	eP	32	20.80	0.7
			eS	25	49.00		ANT	34.51	183	iPd	29	42.80	-0.2	ARN	54.35	308	P	32	21.00	-0.7
MGP	7.11	10	P	24	35.50	-4.0X				i	29	45.40		MHC	54.43	308	eP	32	23.10	0.6
TBH	7.15	93	eP	24	38.09	-2.0				i	29	50.50					e	38	09.00	
			eS	25	56.00		LNO	35.15	319	P	29	43.80	-4.6X				eS	40	09.00	
SJG	7.41	16	iP	24	39.00	-4.9X	TUL	35.15	319	iPd+	29	49.00	0.5				e	44	26.00	
CSB	7.58	16	P	24	41.90	-4.3X		1.1s	156.30nm			5.8mb					eLQ	46	13.00	
APR	7.61	12	P	24	42.90	-3.7X		Z 19s	6.51um			5.4Msz					eLR	49	33.00	
FUQ	7.64	225	iP	24	45.50	-1.9				eS	35	29.00		GCC	54.63	308	eP	32	24.20	0.5
SLB	7.66	67	eP	24	41.61	-5.8X	GAC	35.16	351	ePd	29	48.60	0.2	ORV	54.91	311	P	32	26.50	0.7
			eS	26	04.00		SLA	35.58	176	ePc	29	51.90	-0.5	BKS	55.02	309	eP	32	28.00	1.4
			eTT	32	28.00		ITR	35.62	122	ePc	29	52.60	-0.1		Z 20s	11.00um				5.9Msz
LPR	7.68	18	P	24	43.20	-4.4X	CBM	35.85	0	P	29	54.40	0.1		N 20s	26.00um				
BIM	7.91	63	eP	24	45.18	-5.6X	PPD	36.79	153	eP	30	03.70	1.2		E 20s	15.00um				
FDF	7.94	61	eP	24	44.95	-6.3X	ITB1	37.91	159	e(P)	30	11.80	0.0				eS	40	20.00	
			S	26	15.30		ITB	38.11	159	eP	30	14.80	1.3				eLQ	49	40.00	
DSVT	7.99	57	eP	24	45.62	-6.3X	ITB7	38.42	159	e(P)	30	16.00	-0.2				eLR	53	36.00	
DPMT	8.00	57	eP	24	46.36	-5.6X	CYA	39.25	176	eP	30	22.00	-1.0	BRK	55.04	309	e(P)	32	27.80	1.1
DTMT	8.01	57	eP	24	46.24	-6.0X	VAO	39.71	148	eP	30	27.80	0.8	MIN	55.21	312	eP	32	27.60	-0.5
BBL	8.06	55	eP	24	47.00	-5.9X	ITA	40.42	145	eP	30	33.50	0.4	EDM	55.37	329	iPd	32	27.20	-1.7
MVM	8.08	63	eP	24	47.00	-6.2X	BMA	40.98	145	eP	30	38.30	0.9		1.1s	263.00nm				6.2mb
PAG	8.19	51	eP	24	48.00	-6.8X				e	30	41.20		LBFM	55.71	313	P	32	31.60	-0.2
			S	25	12.00		ALQ	42.07	311	ePc	30	46.80	0.3	WDC	55.96	312	eP	32	31.70	-1.6
MGH	8.24	45	eP	24	49.00	-6.5X		1.0s	90.00nm			5.5mb		PNT	57.00	322	eP	32	40.00	-0.7
NEV	8.30	42	eP	24	58.35	2.2		Z 18s	11.17um			5.8Msz		FHC	57.08	312	P	32	42.70	1.3
SKI	8.33	40	eP	24	59.58	2.9X	ANMO	42.08	311	ePc	30	48.30	1.8		0.8s	84.71nm				5.8mb
			eS	25	30.00					ePPc	30	54.09	19kmX	LON	57.39	319	ePc	32	47.09	3.6X
BOG	8.48	223	iP	25	00.00	0.9	ZON	42.26	180	eP	30	47.00	-0.8				epPd	32	53.71	22kmX
SEG	8.55	50	eP	24	54.30	-5.4X	GLD	43.47	318	P	30	59.00	1.2	GDH	59.01	6	iPd	32	53.00	-1.4
ANG	8.81	45	eP	24	59.58	-3.7X		Z 18s	17.48um			6.0Msz			1.2s	53.13nm				5.5mb
DEG	8.84	52	eP	24	57.40	-6.4X	GOL	43.54	318	P	30	59.00	0.5				i	41	05.00	
HOBC	10.15	230	eP	25	20.20	-1.6		Z 18s	13.00um			5.9Msz		PGC	59.09	321	eP	32	54.00	-1.2
CLMC	10.78	230	ePc	25	29.50	-1.0	SCH	43.76	1	ePd	30	59.50	-0.2	TIO	59.68	61	iP	33	01.00	1.2
DIAC	10.91	226	ePc	25	30.00	-2.3		1.0s	202.00nm			5.9mb		AVE	59.80	58	iP	33	00.50	0.1
HOQC	11.10	229	ePc	25	33.50	-1.6	PEL	43.91	183	iPd	31	00.80	-0.4				i	33	14.50	
UPA	11.21	261	iPd+	25	33.60	-2.7X		0.7s	116.44nm			5.8mb		PTO	60.15	49	eP	33	03.50	0.8
	1.3s	1276.92nm				7.0mb X	SAN	44.22	183	eP	31	03.00	-0.7				eS	41	15.00	
			i	27	36.50		LNV	44.76	184	eP	31	08.90	0.9	EZAM	60.30	48	e(P)	33	04.90	1.2
ANCC	11.24	229	ePc	25	35.10	-1.7	RSON	44.89	337	P	31	20.00	11.1X	STS	60.57	47	eP	33	06.00	0.5
SALC	11.48	227	eP	25	38.20	-2.0		Z 18s	18.06um			6.0Msz		EVAL	60.92	53	eP	33	09.70	1.7
PSO	13.19	223	eP	26	03.00	-0.3	RFA	45.48	180	ePd	31	13.50	-0.3	YKC	61.10	338	ePd	33	06.50	-2.3
GCM	15.07	305	eP	26	26.20	-1.4	MSU	47.72	313	P	31	32.60	0.8		0.9s	30.00nm				5.4mb
BUS	15.25	266	iPd	26	29.50	-0.9	BW06	47.81	319	P	31	31.80	-0.6	YKA	61.16	337	P	33	07.50	-1.7
SJS	15.50	268	iPc	26	33.80	0.4	GLA	47.92	305	eP	31	33.00	-0.1	ERUA	61.48	48	eP	33	13.00	1.3
SRA	15.88	268	iPc	26	39.90	1.7	HAY	48.75	305	eP	31	47.20	7.7X	EMON	61.56	46	eP	33	13.20	0.9
SSS	20.57	280	eP	27	34.00	-0.4	IKP	48.85	304	eP	31	48.20	7.8X	IFR	61.72	58	iPd	33	14.00	0.2
ATB	21.38	131	Pc	27	41.90	-0.7	TPC	49.19	306	eP	31	43.00	0.0	EJIF	61.77	55	eP	33	16.00	2.2
HBF	24.52	335	P	28	14.00	0.7	BAR	49.31	304	eP	31	43.00	-0.9	EPLA	61.83	50	eP	33	15.00	0.8
SGS	24.80	335	P	28	16.00	0.0	PLM	49.64	305	eP	31	46.00	-0.6	VAL	61.98	37	iP	33	14.00	-0.9
LHS	26.04	336	P	28	26.50	-1.2	CPE	49.71	304	eP	31	54.60	7.7X	EPRU	62.03	54	e(P)	33	27.00	11.4X
JSC	26.05	335	P	28	25.60	-2.2	PEC	50.02	305	P	31	49.00	-0.3	EHOR	62.13	53	e(P)	33	17.10	0.9
PRM	26.36	333	P	28	30.60	0.0	GSC	50.12	307	eP	31	52.00	1.8	REY	62.18	21	e(P)	33	11.90	-4.2X
ZOBO	27.05	180	P	28	38.10	0.3	RVR	50.22	305	eP	31	52.00	1.2	TIC	62.62	88	Pc	33	18.12	-1.7
Z 22s		6.07um				5.1Msz	SBB	50.76	306	eP	31	55.00	0.0		1.0s	67.00nm				5.7mb
			S	33	28.00		MWC	50.83	305	eP	31	56.00	0.4	MAL	62.65	54	iP	33	28.00	8.4X
			eLR	36	28.00		EUR	50.83	312	iP	31	56.20	0.5				iS	41	52.00	
LPB	27.32	180	P	28	41.50	1.5		0.6s	13.85nm			5.1mb		LIC	62.67	89	Pd	33	18.68	-1.5
	1.2s	568.75nm				6.1mb	CLC	50.89	307	eP	31	57.00	1.1		1.0s	119.50nm				6.0mb
			S	33	36.00		PAS	50.90	305	eP	31	56.00	0.0	KIC	62.93	88	Pc	33	20.64	-1.3
			LR	39	52.00					epP	32	10.00	52kmX		0.9s	183.00nm				6.2mb
ARE	27.42	187	eP	28	40.00	-0.9				ePcP	32	40.00		EBAN	63.32	53	eP	33	23.50	-0.6
CNCB	27.59	179	P	28	44.00	1.3				ePP	34	05.00		TOL	63.35	51	eP	33	24.50	0.3
TKL	28.31	333	P	28	47.00	-1.4				ePPP	35	48.00					ePP	35	05.00	
BLA	28.32	339	P	28	48.00	-0.5				eS	39	10.00					iS	41	58.00	
	1.0s	80.00nm				5.4mb				eScS	41	34.00		GUD	63.38	50	e(P)	33	13.30	-11.3X
NA2	28.34	344	P	28	48.00	-0.6				eSS	44	04.00		AFC	63.40	54	eP	33	25.00	0.2
CVL	28.40	343	P	28	48.00	-1.2				eLg	45	40.00		DCN	64.14	36	eP	33	28.50	-0.6
GBTN	28.51	332	P	28	50.00	-0.2				eLR	47	03.00			0.8s	142.00nm				6.2mb
PWLA	29.91	326	P	29	03.00	0.2	FFC	51.09	336	iPd	31	50.10	-7.0X	ECB	64.14	37	eP	33	28.30	-0.9
PNJ	30.27	351	iP	29	05.70	-0.2		0.8s	24.00nm			5.2mb			1.1s	157.00nm				6.1mb
TBR	30.51	351	P	29	07.40	-0.6	LRM	51.10	321	eP	31	57.70	0.1	ECP	64.33	37	eP	33	29.80	-0.6

1.8s 501.00nm 6.4mb
AKU 64.40 21 iPc 33 33.00 2.4
1.6s 133.33nm 5.8mb
DMU 64.51 35 eP 33 30.80 -0.8
0.7s 80.00nm 6.0mb
DLE 64.54 36 eP 33 31.00 -0.8
ETA 64.57 37 eP 33 31.20 -0.7
ECRI 64.89 48 e(P) 33 35.60 1.3
ETOR 64.98 50 eP 33 36.70 1.7
LPF 66.76 42 iPc 33 45.30 -0.8
1.0s 136.00nm 6.1mb
EBR 66.90 50 eP 33 55.00 7.9X
GRR 66.94 42 iPc 33 46.70 -0.6
EAU 66.97 34 eP 33 46.10 -1.2
1.1s 66.00nm 5.7mb
ELO 67.00 33 eP 33 46.20 -1.3
EKA 67.00 34 Pc 33 46.70 -0.8
1.3s 81.10nm 5.7mb
EPF 67.02 48 eP 33 47.70 -0.3
MFF 67.14 44 iPc 33 48.00 -0.6
EBL 67.18 34 eP 33 47.40 -1.2
1.0s 47.00nm 5.6mb
FLN 67.25 42 iPc 33 48.80 -0.4
0.9s 153.50nm 6.2mb
KUK 67.25 88 eP 33 48.00 -1.9
S 42 41.00
WEGH 67.39 88 eP 33 49.50 -1.2
EDU 67.39 33 eP 33 49.20 -0.7
KOGH 67.39 88 eP 33 49.50 -1.3
S 42 46.00
LDF 67.46 42 iPc 33 49.70 -0.8
1.2s 202.30nm 6.1mb
LEGH 67.52 88 eP 33 50.00 -1.6
S 42 45.00
LFF 67.53 46 eP 33 50.40 -0.7
1.1s 92.70nm 5.8mb
SHGH 67.62 88 eP 33 52.00 -0.1
S 42 49.00
TEGH 67.70 88 eP 33 52.00 -0.7
S 42 50.00
LPO 67.82 46 eP 33 52.20 -0.7
1.1s 97.60nm 5.9mb
RJF 68.12 46 eP 33 53.80 -1.0
1.1s 114.20nm 5.9mb
LSF 68.24 45 eP 33 54.80 -0.7
CAF 68.46 46 iPc 33 56.20 -0.8
TCF 68.71 45 iPc 33 57.90 -0.6
MAF 68.95 45 eP 33 59.10 -0.8
1.2s 110.00nm 5.9mb
BGF 69.18 44 eP 34 00.70 -0.6
PYM 69.21 45 P 34 00.87 -0.7
AGO 69.33 45 P 34 01.72 -0.5
LBL 69.33 46 P 34 02.52 0.4
AVF 69.55 44 iPc 34 02.60 -0.9
PLDF 69.66 45 P 34 03.50 -0.8
SSF 69.68 44 eP 34 03.40 -0.9
SMF 69.87 44 eP 34 04.70 -0.8
LOR 69.94 44 iPc 34 05.00 -1.0
0.9s 112.60nm 6.0mb
LBF 70.00 44 iPc 34 05.30 -1.0
1.2s 104.10nm 5.8mb
SNF 70.56 40 iPd 34 09.10 -0.5
UCC 70.64 40 Pd 34 10.60 0.5
S 43 23.00
MBC 70.66 349 ePd 34 08.60 -1.2
0.9s 95.00nm 5.9mb
DAG 70.70 11 iPd 34 08.40 -1.6
0.6s 31.33nm 5.6mb
Z 23s 9.62um 6.0MszX
DOU 70.72 41 iPd 34 10.20 -0.4
1.0s 147.20nm 6.1mb
Z 18s 3.80um 5.7Msz
e 34 19.00
S 43 24.00
INK 70.82 339 iPd 34 08.80 -2.1
1.1s 47.00nm 5.5mb
DBN 71.30 39 eP 34 16.00 2.0
Z 20s 6.20um 5.9Msz
eS 43 33.00
VITF 71.45 43 P 34 14.20 -0.8
ALE 71.61 1 ePd 34 14.70 -0.7
0.7s 63.00nm 5.8mb
ENN 71.63 40 iPc 34 15.80 -0.2
1.0s 150.00nm 6.0mb
i 34 17.40
MEM 71.67 40 Pd 34 16.10 -0.1
WLF 71.68 41 P 34 16.20 -0.1
HAU 71.68 43 eP 34 15.50 -1.0
BNI 71.74 46 Pd 34 18.10 1.1
RRL 71.81 46 P 34 17.71 0.1
LPG 71.81 46 iPc 34 17.80 0.1
LOMF 71.96 44 P 34 17.56 -0.7
BSF 71.97 43 P 34 17.04 -1.3
PZZ 72.02 47 P 34 18.53 -0.2
MVIF 72.03 47 P 34 19.06 0.3
LSD 72.09 46 P 34 19.35 0.1
TOUF 72.10 47 P 34 19.09 -0.2
RSP 72.15 46 P 34 19.55 0.1
AURF 72.16 47 P 34 19.06 -0.4
STV 72.17 47 P 34 19.25 -0.3
MOF 72.20 43 P 34 18.70 -1.0
AUTN 72.23 47 P 34 19.68 -0.4
SBF 72.23 47 eP 34 19.50 -0.4
1.0s 64.00nm 5.6mb
WIT 72.27 38 eP 34 21.00 1.2
WTS 72.29 39 iP 34 20.00 0.1
1.0s 234.00nm 6.2mb
i 34 21.70
SAOF 72.32 47 P 34 19.84 -0.6
CDF 72.33 43 P 34 19.54 -0.9
BBS 72.43 44 P 34 20.06 -0.9
BER 72.47 30 eP 34 23.50 2.7X
ROB 72.56 47 P 34 21.19 -0.6
IMI 72.56 47 P 34 20.68 -1.2
GWF 72.59 42 P 34 21.58 -0.3
STR 72.66 42 P 34 22.57 0.3
ORX 72.68 46 P 34 21.81 -0.8
FEL 72.79 43 P 34 22.13 -1.1
FIN 72.80 47 P 34 22.22 -1.0
VAI 73.24 45 Pd 34 25.40 -0.2
CVF 73.26 49 P 34 25.06 -0.8
RKT 73.46 242 iP 34 29.90 2.6X
1.1s 45.00nm 5.4mb
BOB 73.70 46 P 34 28.40 -0.1
PII 74.47 48 Pd 34 32.00 -0.8
TOA 74.70 332 eP 34 34.30 0.4
GRFO 74.96 41 ePd 34 36.87 1.3
epP 34 43.99 23kmX
esP 34 47.96
GRF 74.97 41 iPc 34 35.70 0.0
Z 20s 5.00um 5.8Msz
e 34 37.80
FIR 75.00 48 eP 34 36.00 0.1
eS 44 54.00
NAO 75.22 30 P 34 37.10 0.3
1.1s 89.90nm 5.7mb
MOX 75.24 40 eP 34 37.00 -0.2
1.8s 119.00nm 5.6mb
Z 19s 7.50um 6.0Msz
N 20s 1.70um
E 19s 4.60um
eS 44 20.00
eSS 49 10.00
eLR 58 10.00
SFI 75.43 47 P 34 39.80 1.5
FBA 75.68 334 eP 34 38.50 -0.9
VVI 75.79 45 P 34 41.20 0.8
FVI 76.03 45 Pd 34 41.70 0.0
ASS 76.04 48 P 34 41.70 -0.2
PMR 76.06 331 eP 34 41.50 0.0
1.3s 84.90nm 5.6mb
Z 20s 22.00um 6.5Msz
MNS 76.08 49 Pd 34 42.00 -0.1
CLL 76.12 40 iP 34 42.20 0.1
1.7s 195.00nm 5.9mb
Z 17s 3.00um 5.7MszX
eS 44 24.00
RDP 76.13 50 Pd 34 43.30 0.8
KBA 76.40 44 iPc 34 43.30 -0.8
1.0s 234.00nm 6.2mb
i 34 50.70
ePP 37 37.00
i 38 07.80
esS 44 39.00
KHC 76.51 42 iPd 34 45.20 0.8
1.3s 132.50nm 5.8mb
e 35 16.00
RBL 76.57 45 Pd 34 45.00 0.1
HFS 76.60 31 eP 34 43.80 -0.8
1.2s 47.20nm 5.4mb
Z 19s 6.07um 5.9Msz
LR 59 49.00
BRG 76.71 40 iPd 34 45.60 0.1
1.2s 120.00nm 5.8mb
Z 22s 4.50um 5.7Msz
N 22s 2.50um
E 22s 5.50um
i 34 47.20
i 35 00.00
e 44 32.00
TRI 76.73 45 iPd 34 44.20 -1.5
e 36 26.00
e 40 48.00
e 44 28.00
e 55 21.00
VOY 76.81 45 eP 34 46.10 -0.2
KMR 76.91 43 iP- 34 48.10 1.5
e 44 41.00
SDI 76.95 50 Pd 34 47.20 0.1
MCT 77.06 54 Pd 34 49.80 1.9
PRU 77.12 41 ePc 34 46.50 -1.2
Z 19s 4.90um 5.8Msz
N 20s 2.60um
E 19s 4.10um
e 34 48.00
eS 44 36.00
CEY 77.20 45 eP 34 49.90 1.6
LJU 77.26 45 iP 34 49.00 0.4
KBS 77.44 11 eP 34 53.00 4.0X
KDC 77.70 327 eP 34 51.40 0.7
e 34 58.00
VBY 77.79 46 eP 34 52.60 1.1
SGO 78.15 51 Pd 34 55.20 1.6
IMA 78.18 335 eP 34 53.20 -0.2
PTJ 78.26 45 eP 34 54.50 0.3
ZAG 78.28 45 eP 35 01.50 7.3X
VKA 78.36 43 iPd 34 56.00 1.4
2.4s 519.00nm 6.1mb
Z 17s 1.90um 5.5MszX
i 35 03.40
e 45 44.00
e 46 08.00
LR 11 45.00
MGR 78.37 51 Pd 34 55.00 0.1
UPP 78.58 31 iP 34 55.80 0.3
iS 44 50.00
HVAR 78.80 48 iP 34 56.90 -0.2
TRO 78.85 21 eP 34 59.40 2.5X
ZST 78.89 43 iP 34 58.00 0.5
Z 22s 3.70um 5.7Msz
LR 09 04.00
TDS 79.01 52 P 34 59.50 1.1
BRW 79.19 341 eP 34 58.20 -0.5
TTA 79.27 332 eP 34 59.00 -0.4
SRO 79.73 43 iP 35 04.00 2.0
BUD 80.24 43 iP 35 05.50 0.7
KRA 80.59 41 eP 35 07.60 1.0
0.8s 66.00nm 5.7mb
Z 20s 5.50um 5.9Msz
N 20s 3.10um
e 35 09.10
e 35 21.60
e 35 27.30
eS 45 15.00
PSZ 80.78 43 iP 35 09.70 1.9
SPC 80.87 42 eP 35 09.60 1.2
TTG 80.93 49 eP 35 14.00 5.5X
eS 45 04.00
BEO 81.51 46 iP 35 13.60 2.1
KEV 81.64 21 iP 35 11.80 0.0
SOD 81.87 23 iP 35 13.70 0.7
TIM 81.94 45 eP 35 27.50 13.8X
NUR 82.02 30 iP 35 13.50 -0.3
Z 19s 6.60um 6.0Msz
LR 09 10.00
BZS 82.23 45 eP 35 16.50 1.3
OHR 82.24 50 iP 35 18.60 3.1X
1.6s 0.18nm 2.9mb X
SDN 82.31 325 P 35 20.00 4.6X
Z 20s 10.00um 6.2Msz
SUF 82.40 28 iP 35 16.50 0.7
0.9s 50.00nm 5.6mb
RUV 82.49 253 iP 35 22.40 5.4X
1.2s 115.00nm 5.8mb
SKO 82.60 49 iP 35 19.50 2.2
TPT 82.66 253 iP 35 23.40 5.4X
1.2s 95.00nm 5.8mb
VAH 82.73 253 iP 35 23.60 5.3X
1.2s 115.00nm 5.9mb
PMO 82.93 253 iP 35 24.80 5.5X
1.2s 125.00nm 5.9mb

30d 08h

DEV	83.08	45	ePd	35	23.00	3.3X
BMR	83.22	43	ePd	35	25.00	4.7X
VAY	83.53	49	iP	35	22.40	0.3
LIT	83.66	51	eP	35	25.00	2.2
KNT	83.80	49	eP	35	25.90	2.4
SRS	84.32	49	eP	35	29.00	2.9X
CMP	84.66	45	iPc	35	33.00	5.3X
TVO	84.82	251	iP	35	34.50	5.5X
	1.2s	160.00nm			6.1mb	
PAE	85.10	251	iP	35	35.70	5.4X
	1.2s	125.00nm			6.0mb	
MLR	85.25	45	iPd	35	31.50	0.7
PTT	85.28	43	eP	35	35.00	4.2X
BUC1	85.52	46	ePc	35	30.00	-2.0
VRI	85.71	44	ePc	35	34.00	1.0
ISR	85.73	45	ePd	35	32.50	-0.6
HON	85.79	291	P	35	40.00	6.3X
Z	22s	4.44um			5.8Msz	
BCAO	86.09	86	ePc	35	36.02	0.5
			ePPd	35	42.97	22kmX
			esPc	35	45.29	
BNG	86.10	86	iPc	35	35.90	0.4
	0.7s	78.00nm			6.0mb	
			ic	37	26.10	
EZN	86.61	50	eP	35	37.00	-0.4
CFR	86.84	45	eP	35	38.00	-0.4
IZM	87.61	52	eP	35	43.00	0.6
EDC	87.66	50	eP	35	44.00	1.5
BNT	87.70	49	iP	35	44.90	2.2
ISK	88.39	49	eP	35	47.00	1.0
DST	88.39	50	iP	35	48.00	1.8
KHL	89.36	51	eP	35	51.00	0.1
ALT	89.64	50	eP	35	53.20	1.1
ELL	90.02	53	iP	35	55.00	1.0
BCK	90.38	52	eP	35	57.00	1.4
BBTK	91.42	49	eP	36	01.00	0.6
PRNI	95.78	58	eP	36	21.00	0.5
MBH	95.84	58	eP	36	21.00	0.3
KMZ	96.49	102	iP	36	23.00	-1.0
LWI	97.41	91	iPd	36	29.70	1.3
LSZ	99.03	104	eP	36	36.00	0.6
TAB	101.97	47	ePdiff	37	04.00	15.6X
			e	41	02.00	
AVY	117.98	106	iPKPc	41	50.36	8.2X
KSH	119.86	31	ePKP	41	45.00	0.0
Z	22s	7.10um			6.3Msz	
N	19s	6.10um				
		eSKS	48	48.00		
SNY	126.35	349	ePKP	41	57.60	0.3
Z	21s	9.30um			6.4Msz	
N	20s	4.80um				
E	20s	3.10um				
		PP	43	53.00		
MAT	126.55	333	(PKP)	41	58.00	0.1
Z	20s	3.90um			6.1Msz	
DZM	126.59	251	iPKPc	41	59.40	1.0
NDI	128.41	39	ePKP	42	02.00	0.4
			eS	46	10.50	
HHC	128.45	0	PKP	42	03.00	1.5
Z	26s	6.40um			6.2MszX	
N	19s	2.20um				
E	18s	3.00um				
		PP	44	10.00		
		SKKS	49	57.00		
		SS	01	23.00		
BTO	128.68	2	ePKP	42	03.50	1.6
Z	19s	7.20um			6.4Msz	
N	19s	4.30um				
E	19s	3.80um				
GTA	128.69	12	PKP	42	02.00	0.0
Z	21s	16.00um			6.7Msz	
N	20s	5.50um				
		PP	44	07.00		
BJI	129.09	356	ePKP	42	03.00	0.5
Z	20s	3.94um			6.1Msz	
N	16s	1.89um				
		ePP	44	10.00		
		eS	01	24.00		
TIY	131.58	359	ePKP	42	07.30	-0.2
Z	23s	6.40um			6.3MszX	
N	23s	3.20um				
E	25s	7.60um				
		PP	44	36.00		
		SKKS	51	32.50		
POO	132.55	52	iPKPc	42	16.00	6.2X
LZH	132.63	9	ePKP	42	10.50	0.9
	3.0s	245.00nm				
Z	20s	5.40um			6.3Msz	
N	16s	3.10um				
E	19s	2.20um				
		PP	45	36.00		
		i	02	58.00		
TIA	132.80	354	PKP	42	10.60	0.8
Z	21s	4.70um			6.2Msz	
N	18s	3.40um				
E	18s	1.20um				
		ePP	44	39.00		
GKN	133.25	33	PKP	42	11.40	0.3
	0.8s	48.00nm				
KKN	133.77	33	PKP	42	11.00	-1.1
	0.8s	21.00nm				
GUN	133.99	32	PKP	42	12.40	-0.3
PKI	134.01	33	PKP	42	12.20	-0.5
	0.8s	21.00nm				
XAN	135.18	3	PKP	42	12.80	-1.6
SSE	137.20	348	ePKP	42	16.00	-2.2
			sS	46	00.00	
CD2	137.68	10	ePKP	42	18.70	-0.6
GBA	138.18	55	PKP	42	22.00	1.5
	0.9s	9.30nm				
WHN	138.66	357	ePKP	42	20.00	-0.9
Z	20s	8.64um			6.5Msz	
N	20s	3.79um				
E	20s	3.73um				
		ePP	45	08.00		
		eSS	03	24.00		
SHL	138.89	28	ePKP	42	21.00	-0.8
		eS	45	21.20		
GUMO	139.02	306	ePKP	42	23.80	1.8
KOD	140.00	59	ePKP	42	25.00	0.8
RMQ	141.81	241	ePKP	42	25.00	-1.8
		e		42	28.00	
GYA	142.49	7	PKP	42	25.00	-3.1X
N	20s	2.50um				
E	20s	4.80um				
KMI	143.09	14	PKPd	42	32.00	2.7X
Z	23s	7.00um			6.4MszX	
E	20s	2.90um				
		PP	45	28.00		
QZH	143.68	349	ePKP	42	30.00	0.0
Z	20s	3.50um			6.1Msz	
LAT	144.85	274	ePKP	42	34.00	1.7
PMG	145.06	269	ePKP	42	34.00	1.4
STK	145.42	228	ePKP	42	33.00	0.2
CTA	145.53	250	iPKPc	42	34.10	0.8
	1.6s	238.33nm				
		i	43	51.50		
		i	46	25.00		
		i	05	04.00		
ADE	145.70	221	iPKPd	42	36.60	3.4X
	1.0s	86.00nm				
CHG	147.86	23	ePKP	42	38.00	0.9
	1.3s	100.96nm				
BDT	149.31	24	iPKPc	42	43.90	4.6X
	1.0s	111.80nm				
JAY	150.00	284	ePKPd	42	49.20	8.6X
NST	151.18	24	ePKP	42	50.00	7.8X
BAG	151.41	342	ePKP	42	45.00	2.2
QIS	151.52	247	ePKP	42	44.00	1.3
		e		42	52.00	
NNT	153.77	27	ePKP	42	47.50	1.5
ASPA	155.35	236	ePKP	42	48.60	0.7
WB5	156.42	245	ePKP	42	46.00	0.8
WRA	156.42	245	PKPd	42	50.40	1.0
	0.8s	4.30nm				
DAV	157.35	322	ePKP	43	05.00	14.2X
SNG	158.89	32	ePKP	42	46.00	-6.5X
		e		46	46.50	
MTN	160.87	262	ePKP	42	58.00	3.5X
		i		43	39.80	

S.D. = 1.0 on 345 of 414 obs.

& APR 30, 1989 09h 10m 56.67s
61.351 N 149.695 W
DEPTH = 28.5km
4.4mb (8 obs.)
SOUTHERN ALASKA (2)
<AGS-P>. ML 4.4 (PMR). Felt (V) at Chugiok and Eagle River; (IV) at Anchorage and Palmer.

PWA	0.31	344	iPd	11	04.30	0.1
PLRM	0.36	48	iP	11	04.46	-0.4
PMR	0.36	48	Pd	11	04.50	-0.4
PME	0.42	49	iP	11	05.40	-0.4
SUA	0.52	283	iP	11	06.76	-0.6
GHO	0.56	41	iP	11	07.18	-0.9
KNK	0.60	84	iP	11	07.73	-0.9
			eS	11	17.00	
SLKM	0.88	197	iP	11	12.09	-1.0
			eS	11	24.74	
NKA	0.97	232	iP	11	14.90	0.6
			eS	11	28.24	
SKT	1.08	307	iP	11	14.46	-1.5
			eS	11	29.24	
CGLM	1.12	269	iP	11	15.56	-1.0
SPU	1.15	263	iP	11	15.80	-1.2
			eS	11	31.27	
CRP	1.19	267	iP	11	16.82	-0.8
SEW	1.26	174	iP	11	16.94	-1.4
			eS	11	34.13	
NNL	1.53	212	eP	11	22.28	-0.1
RDT	1.54	241	iP	11	21.57	-0.9
VZW	1.55	100	iP	11	21.16	-1.5
VLZ	1.64	96	iP	11	22.17	-1.7
RED	1.77	239	iP	11	24.61	-1.3
KLU	1.82	84	iP	11	24.78	-1.9
			eS	11	50.71	
HIN	1.83	120	iP	11	24.47	-2.3
			eS	11	48.73	
TOA	1.84	64	iPc	11	25.90	-1.0
CNPM	1.98	203	iP	11	27.48	-1.5
			eS	11	52.29	
ILIM	2.05	233	iP	11	28.65	-1.3
			eS	11	53.75	
CVA	2.09	111	iP	11	27.88	-2.5
XLV	2.15	209	eP	11	30.78	-0.5
KTH	2.28	346	iP	11	31.66	-1.6
			eS	11	59.99	
SGAM	2.35	109	iP	11	31.29	-2.9
OPT	2.44	227	eP	11	34.05	-1.4
MID	2.55	138	eP	11	37.20	0.3
RAGM	2.64	109	eP	11	35.17	-3.1
PDB	2.72	237	iP	11	37.19	-2.1
GLB	2.83	86	iP	11	38.29	-2.7
SVW	2.88	268	iP	11	39.60	-2.0
CDD	3.13	221	eP	11	41.03	-4.2
TTA	3.36	301	ePd	11	45.70	-2.9
BALM	3.57	92	iP	11	48.17	-3.4
FBA	3.67	13	iPd	11	49.90	-2.9
KDC	3.88	203	eP	11	53.90	-1.9
CTGM	4.07	92	eP	11	55.76	-2.9
PCA	4.80	101	eP	12	05.66	-3.3
IMA	5.06	341	iPc	12	09.20	-3.4
YKU	5.25	106	eP	12	12.80	-2.4
DWY	5.45	56	P	12	14.60	-3.4
HYT	5.94	90	P	12	21.00	-4.1
SIT	8.53	114	iP	12	55.10	-6.1
INK	9.77	38	eP	13	14.00	-4.3
BRW	10.38	347	eP	13	25.00	-1.6
YKA	16.44	71	P	14	44.60	-1.9
MBC	18.14	23	eP	15	03.00	-4.6
	0.7s	9.00nm			4.0mb	
PNT	20.70	112	eP	15	40.00	3.2
EDM	21.01	96	iPd	15	36.40	-3.5
SES	23.92	100	eP	16	25.00	16.3
ALE	29.36	16	ePd	16	53.40	-5.2
	0.6s	12.00nm			4.8mb	
KVN	29.61	124	eP	16	58.00	-3.5
BW06	30.21	109	eP	17	03.00	-3.8
TNP	30.79	124	eP	17	08.00	-4.0
	0.8s	3.62nm			4.2mb	
ALQ	38.00	114	eP	18	11.00	-2.8
	0.9s	1.47nm			3.8mb	
DAG	38.75	16	iPd	18	14.00	-5.3
	0.5s	11.97nm			4.9mb	
PRM	49.99	91	eP	19	45.00	-5.0
JSC	50.36	90	eP	19	47.70	-5.1
SUF	56.21	2	iP	20	30.00	-5.7
	0.5s	2.50nm			4.5mb	
NAO	57.24	11	P	20	36.00	-7.1
	0.6s	1.80nm			4.3mb	
HFS	58.17	10	eP	20	42.60	-7.0
	0.9s	6.50nm			4.7mb	
NUR	58.39	3	eP	20	45.00	-6.1

65 obs. associated

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* APR 30, 1989 09h 30m 06.49± 0.65s
11.758 N ±12.6km 68.416 W ± 6.8km
DEPTH = 10.0km (geophysicist)
4.6mb (3 obs.)

NEAR COAST OF VENEZUELA (97)

CUM	4.36	107	eP	31	12.00	-2.3
			iS	32	00.00	
TCE	6.62	99	eP	31	49.85	3.5X
			eS	32	57.00	
TRN	6.97	98	eP	31	50.97	-0.2
			eS	33	03.00	
TPP	6.99	101	eP	31	48.65	-2.7X
FCV	7.14	78	eP	31	53.65	0.1
SVB	7.16	77	eP	31	54.15	0.4
SVV	7.20	77	eP	31	54.81	0.4
			eS	33	09.00	
SLB	7.48	73	eP	31	58.87	0.5
			eS	33	12.00	
UPA	11.28	257	iPc	32	50.70	-0.1
LPB	28.11	179	P	36	03.00	1.8
			Lg	44	09.00	
CNCB	28.39	179	eP	36	03.00	-0.9
TUL	34.49	319	eP	37	04.80	7.9X
	0.6s		4.50nm			4.5mb
ALO	41.49	310	eP	37	56.00	0.3
RSON	44.13	337	eP	38	13.00	-3.7X
BW06	47.16	319	eP	38	40.00	-1.3
	1.0s		2.75nm			4.3mb
TNP	50.70	310	eP	39	18.00	9.3X
EDM	54.65	329	ePc	39	45.00	7.3X
YKA	60.39	337	eP	40	25.10	7.1X
KIC	63.00	89	P	40	37.80	1.4
MBC	69.86	349	eP	41	26.00	7.0X
KBA	75.89	44	e(P)	42	06.00	10.7X
	0.8s		6.00nm			
BNG	86.14	86	iPd	42	58.60	8.8X
	0.7s		7.00nm			4.9mb

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

? APR 30, 1989 10h 15m 29.77± 1.04s
21.838 S ±10.0km 67.102 W ±19.1km
DEPTH = 213.3 ± 27.2 km
CHILE-BOLIVIA BORDER REGION (124)

SLA	3.23	153	iPd	16	24.00	0.6
			S	17	03.90	
ANT	3.58	238	iPd	16	26.80	-0.6
			iS	17	07.20	
CCH	4.52	12	P	16	37.80	-1.6
CNCB	5.07	350	iPc	16	48.00	1.4
LPB	5.36	350	P	16	52.30	2.1X
ZOBO	5.62	350	P	16	54.00	0.3
VAO	18.65	97	e(P)	19	34.00	-0.1

S.D. = 1.6 on 6 of 7 obs.

? APR 30, 1989 10h 42m 06.42± 5.02s
39.245 N ±36.2km 23.540 E ±18.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

NEO	0.25	284	ePg	42	12.00	0.2
PAIG	0.69	9	iPgc	42	20.90	0.8
			iSg	42	30.70	
PLG	1.13	356	ePb	42	27.40	-0.2
			eSb	42	42.50	
OUR	1.14	17	ePg	42	27.80	0.1
LIT	1.18	317	ePg	42	28.40	0.0
			e	42	43.80	
THE	1.45	342	ePb	42	32.50	-0.2
SOH	1.58	355	ePb	42	34.30	-0.3
SRS	1.87	1	ePn	42	38.20	-0.5
			e	42	59.80	
KNT	1.98	346	ePn	42	40.40	0.1

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

% APR 30, 1989 11h 03m 36.44± 0.68s
39.218 N ± 7.0km 28.846 E ± 8.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.42	336	iPg	03	44.90	-0.2
			eSg	03	52.90	
ALT	1.00	99	iPg	03	55.20	-0.2
KHL	1.04	149	iPg	03	56.40	0.3
			iSg	04	10.40	
BNT	1.34	328	iPn	04	01.80	0.6
EDC	1.36	326	ePn	04	01.00	-0.4
IZM	1.48	237	ePn	04	03.00	-0.2
GPA	1.55	46	iPn	03	58.70	-5.5X

S.D. = 0.5 on 6 of 7 obs.

APR 30, 1989 11h 04m 26.39± 0.85s
30.110 N ± 5.3km 99.502 E ± 5.0km
DEPTH = 44.2 ± 9.0 km
4.8mb (21 obs.)
SICHUAN PROVINCE, CHINA (307)

KMI	5.74	149	Pgc	05	51.00	-0.5
			Sg	07	00.00	
LZH	6.98	30	eP	06	10.00	1.1
	2.0s		0.08nm			2.2mb X
Z	10s		2.70um			6.1MszX
LSA	7.26	269	eP	06	12.80	-0.3
GYA	7.29	118	P	06	12.60	-0.5
			S	07	33.00	
SHL	8.12	238	iP	06	21.00	-3.8X
			iS	07	49.50	
XAN	8.90	61	Pc	06	33.50	-1.9
GTA	9.28	1	eP	06	45.60	4.9X
Z	10s		3.20um			
			S	08	25.00	
CHG	11.26	183	eP	07	09.00	1.4
			e	07	55.40	
CHTO	11.26	183	eP	07	09.00	1.4
GUN	12.12	263	P	07	15.20	-4.4X
PKI	12.61	262	P	07	21.20	-4.9X
	0.6s		30.00nm			5.5mb
KKN	12.67	263	P	07	22.60	-4.1X
	0.5s		24.00nm			5.5mb
WHN	12.84	84	eP	07	28.00	-0.7
DMN	12.86	262	P	07	24.20	-5.1X
TIY	13.14	51	eP	07	38.50	5.8X
GKN	13.17	264	P	07	27.00	-6.3X
	0.6s		22.00nm			5.3mb
BTO	13.52	36	eP	07	36.00	-1.8
Z	10s		1.30um			
N	10s		1.70um			
E	10s		1.00um			
HHC	14.52	39	eP	07	54.20	3.3X
E	10s		1.00um			
TIA	15.95	63	P	08	14.50	5.2X
WMO	16.60	329	P	08	20.10	2.6X
NJ2	16.69	78	Pc	08	22.00	3.3X
BJI	16.84	49	eP	08	22.50	2.1
			eS	13	20.00	
NDI	19.47	271	iPc	08	40.50	-12.0X
DL2	20.20	58	eP	09	01.60	1.6
KSH	21.40	302	eP	09	11.00	-1.5
SNY	22.64	52	eP	09	25.80	1.2
GBA	26.17	236	Pc	09	58.20	-0.4
	0.7s		3.60nm			4.0mb
SOD	56.01	334	iP	14	02.60	0.1
KEV	56.04	336	eP	13	57.00	-5.7X
SUF	56.13	328	iP	14	02.90	-0.5
	0.6s		6.60nm			4.8mb
NUR	56.92	325	iP	14	09.20	0.1
	0.7s		10.70nm			5.0mb
VRI	57.56	308	ePc	14	14.00	0.2
MLR	58.18	307	iPc	14	19.00	0.8
WB5	59.97	142	iPd	14	29.90	-0.9
WRA	60.01	142	Pd	14	29.70	-1.4
	0.7s		4.00nm			4.7mb
UPP	60.48	325	iP	14	32.60	-1.1
HFS	62.37	326	eP	14	45.90	-0.6
	0.8s		13.60nm			5.1mb
NAO	63.58	327	P	14	53.30	-1.2
	0.9s		8.60nm			4.8mb
PRU	64.51	315	eP	15	01.40	0.7
			e	15	06.50	
BRG	64.61	316	iP	15	01.50	0.1
	1.2s		13.00nm			4.9mb
CLL	65.05	316	iP	15	04.50	0.3
	1.0s		11.00nm			4.9mb
KHC	65.37	314	P	15	07.50	1.2
BRW	66.04	20	P	15	10.80	0.5
MOX	66.09	316	eP	15	11.00	0.1
GRF	66.64	315	iPc	15	14.70	0.2
	1.2s		23.00nm			5.1mb
IMA	69.30	25	P	15	31.00	0.0
CDF	69.53	315	eP	15	32.50	-0.1
WLF	69.73	316	P	15	34.80	1.2
TTA	69.84	28	P	15	34.00	-0.2
	1.0s		5.63nm			4.5mb
DOU	70.48	317	P	15	39.40	1.2
FIN	70.56	310	P	15	41.20	2.3
LSD	70.76	312	P	15	40.69	0.4
IMI	70.89	310	P	15	40.18	-0.8
LPG	71.00	312	eP	15	42.40	0.5
	0.7s		11.40nm			5.0mb
MBC	71.15	9	eP	15	42.00	0.2
PZZ	71.17	311	P	15	40.48	-2.2
RRL	71.21	311	P	15	42.33	-0.7
FBA	72.01	24	P	15	47.00	-0.2
	1.0s		12.50nm			4.8mb
LOR	72.09	315	eP	15	47.40	-0.6
LBF	72.14	314	eP	15	48.00	-0.3
SMF	72.37	314	eP	15	49.40	-0.2
	1.0s		12.00nm			4.8mb
SSF	72.40	314	eP	15	49.60	-0.2
	0.8s		4.50nm			4.5mb
EKA	72.48	324	Pd	15	50.00	-0.1
	0.8s		5.50nm			4.6mb
AVF	72.61	314	eP	15	51.10	0.1
	0.8s		6.70nm			4.6mb
PMR	73.30	28	P	15	54.50	-0.2
	0.9s		10.94nm			4.8mb
TCF	73.54	314	eP	15	56.90	0.4
KDC	73.88	32	P	15	58.00	-0.1
INK	74.36	18	eP	16	01.00	0.2
YKA	83.75	15	P	16	52.50	0.8
BUL	84.51	243	iPd	16	55.60	-0.8
	0.9s		5.04nm			4.6mb
BAO	146.90	289	ePKP	24	06.70	2.3X

S.D. = 1.0 on 56 of 71 obs.

% APR 30, 1989 11h 12m 18.39± 0.58s
60.600 N ± 5.0km 5.893 E ± 5.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

BER	0.35	232	eP	12	25.58	-0.1
			eSg	12	30.09	
ASK	0.36	252	eP	12	25.95	0.1
			eSg	12	30.77	
HYA	0.59	14	iPc	12	30.10	-0.1
			eS	12	38.21	
SUE	0.72	310	eP	12	31.93	-0.6
			eS	12	41.64	
ODD1	0.78	152	iP	12	33.36	-0.3
ODD1	0.78	152	ePg	12	35.07	1.4
			eS	12	42.97	
BLS1	1.30	158	eP	12	41.99	-0.5
			eS	12	58.07	
KMY	1.43	193	eP	12	44.38	0.0
			eS	13	01.83	
MOL	2.13	21	eP	12	55.89	1.5
			eS	13	16.98	
			eSg	13	24.40	
NRA0	2.78	85	iPc	13	02.40	-1.4
			iSg	13	42.50	

S.D. = 1.0 on 10 of 10 obs.

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* APR 30, 1989 11h 49m 25.92± 1.41s
30.743 S ± 7.9km 72.066 W ±18.4km
DEPTH = 62.0 ± 16.3 km
4.8mb (1 obs.)
OFF COAST OF CENTRAL CHILE (134)

JACH	2.31	147	iP	50	02.10	-0.2
			iS	50	28.20	
ROCH	2.40	158	iPd	50	03.70	0.0
SAN	2.95	157	iPc	50	11.20	-0.2
			i	50	55.00	
FCH	2.99	150	iPd	50	12.50	0.3
			iS	50	47.00	
ZON	3.01	106	iPd	50	13.50	1.2
TACH	3.06	162	iP	50	13.00	0.2
			iS	50	47.90	
LNV	3.25	170	iP	50	14.50	-1.0
			iS	50	50.00	
CHCH	3.40	160	iP	50	17.50	-0.2
			iS	50	54.50	
CNCB	14.36	16	P	52	49.00	1.0
LPB	14.60	15	P	52	52.20	1.2
ZOBO	14.85	15	P	52	52.00	-2.3
PPD	20.49	70	eP	54	03.30	2.2
VAO	23.64	77	eP	54	32.30	-0.2
ITA	25.81	78	eP	54	51.80	-1.5
BMA	26.14	79	e(P)	54	54.00	-2.1
SPA	59.43	180	e(P)	59	25.90	1.6
	1.0s		8.50nm			4.8mb

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

30d 11h

• APR 30, 1989 11h 54m 32.91± 0.95s
66.888 N ± 7.4km 156.340 W ±12.4km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.4 (PMR).

IMA	1.35	126	iP	54 58.70	0.4
TTA	3.98	178	eP	55 36.10	0.2
FBA	4.03	116	eP	55 36.40	-0.2
BRW	4.44	358	eP	55 42.40	0.0
SVW	5.81	177	eP	56 01.80	-0.1
PMR	6.17	146	eP	56 06.60	-0.2

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

• APR 30, 1989 11h 58m 57.70± 2.52s
32.677 S ±18.2km 69.761 W ±18.4km
DEPTH = 134.2 ± 29.8 km
MENDOZA PROVINCE, ARGENTINA (139)

JACH	0.70	269	iPd	59 18.90	0.0
			iS	59 33.50	
FCH	0.79	214	iP	59 19.90	0.1
			iS	59 36.00	
PEL	0.91	239	iPd	59 20.20	-0.3
			iS	59 36.50	
SAN	1.08	224	iPd	59 22.00	-0.1
			iS	59 38.00	
ROCH	1.09	254	iPd	59 22.50	0.1
			iS	59 39.50	
TACH	1.39	225	iP	59 25.60	0.4
			iS	59 45.80	
ZON	1.45	39	iPd	59 26.00	0.0
			eS	59 46.00	
LCCH	1.71	242	iPd	59 29.00	0.1
			iS	59 51.70	
LNV	1.88	227	iP	59 30.50	-0.3
			iS	59 54.50	

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

• APR 30, 1989 12h 52m 42.22± 0.63s
29.913 N ±15.8km 99.268 E ± 6.1km
DEPTH = 33.0km (normol)
4.2mb (2 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2	4.00	74	ePn	53 43.20	0.4
			ePg	53 52.60	
			eSg	54 43.00	
LZH	7.26	31	eP	54 56.50	27.7X
	1.5s		44.00nm		
GYA	7.38	116	P	54 30.00	-0.5
SHL	7.84	238	eP	54 43.00	5.9X
			eS	56 08.50	
XAN	9.17	61	P	54 51.50	-3.8X
GUN	11.90	264	P	55 34.20	1.3
	0.4s		10.00nm	5.3mb	X
PKI	12.38	263	P	55 39.40	0.0
KKN	12.44	264	P	55 40.60	0.5
	0.4s		6.00nm	5.1mb	X
GKN	12.95	265	P	55 45.60	-1.2
CN2	24.99	49	eP	58 05.00	0.7
SUF	56.18	328	iP	02 20.70	-0.2
	0.4s		1.10nm	4.2mb	
HFS	62.41	326	eP	03 02.80	-1.1
	0.4s		0.90nm	4.3mb	

S.D. = 1.0 on 9 of 12 obs.

APR 30, 1989 13h 12m 13.41± 0.52s
45.673 N ± 4.7km 3.435 E ± 4.3km
DEPTH = 10.5 ± 3.1 km
FRANCE (538)
ML 3.5 (LDG).

MAF	0.82	312	Pn	12 30.30	1.1
			Pg	12 31.00	
			Sg	12 43.20	
BGF	0.98	335	Pn	12 32.40	0.5
			Pg	12 33.60	
			Sg	12 48.00	
SMF	1.01	16	Pn	12 31.60	-0.9
			Pg	12 32.40	
			Sg	12 45.30	
TCF	1.05	306	Pn	12 33.80	0.6
			Pg	12 35.20	
			Sg	12 50.20	
AVF	1.12	357	Pn	12 33.60	-0.7
			Pg	12 35.00	
			Sg	12 50.30	
CAF	1.22	233	Pn	12 36.00	-0.1
			Pg	12 37.20	
			Sg	12 54.00	
LBF	1.37	16	Pg	12 38.20	-0.2
			Sg	12 55.70	
SSF	1.39	2	Pg	12 39.20	0.4
			Sg	12 57.60	
RJF	1.40	255	Pn	12 39.70	0.8
			Pg	12 40.70	
			Sg	12 59.90	
LSF	1.45	294	Pn	12 39.40	-0.2
			Pg	12 42.70	
			Sg	13 02.60	
LOR	1.62	10	Pg	12 43.00	0.9
			Sg	13 05.00	
LPO	1.87	239	Pn	12 45.00	-0.7
			Pg	12 49.20	
			Sg	13 13.20	
LFF	2.04	250	Pg	12 52.40	4.3X
			Sg	13 20.40	
LPL	2.32	93	Pg	12 52.90	0.5
			Sg	13 19.40	
LPG	2.34	93	Pg	12 52.60	-0.1
			Sg	13 19.60	
MFF	2.66	292	Pn	12 56.60	-0.4
			Pg	13 04.50	
			Sg	13 40.60	
LRG	3.05	136	Pg	13 06.20	3.8X
BSF	3.16	46	Pg	13 11.20	7.0X
			Sg	13 49.50	
EPF	3.45	221	Pn	13 04.80	-3.4X
			Pg	13 16.80	
			Sg	14 02.50	
CDF	3.80	42	Pg	13 22.60	9.4X
			Sg	14 10.00	
LPF	3.87	309	Pn	13 13.60	-0.6
			Sg	14 20.00	
GRR	4.00	314	Pn	13 15.40	-0.5
FLN	4.08	321	Pn	13 16.80	-0.3
			Sg	14 25.60	
WLF	4.40	24	eP	14 18.40	56.8X
DOU	4.49	10	P	13 20.20	-2.8X

S.D. = 0.7 on 18 of 25 obs.

% APR 30, 1989 13h 22m 08.46± 0.65s
45.708 N ± 5.9km 3.492 E ± 5.5km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.0 (LDG).

MAF	0.83	309	Pn	22 24.20	-0.2
			Pg	22 24.80	
			Sg	22 37.20	
BGF	0.96	332	Pn	22 26.60	-0.2
			Pg	22 27.50	
			Sg	22 41.50	
SMF	0.97	14	Pg	22 26.10	-0.8
			Sg	22 39.40	
TCF	1.07	303	Pn	22 28.00	-0.6
			Pg	22 29.00	
			Sg	22 43.80	
AVF	1.09	355	Pn	22 28.20	-0.7
			Pg	22 29.40	
			Sg	22 44.40	
CAF	1.28	233	Pn	22 29.90	-2.3
			Pg	22 30.50	
			Sg	22 47.20	
LBF	1.32	15	Pg	22 32.50	-0.4
			Sg	22 50.00	
SSF	1.35	0	Pg	22 33.80	0.5
			Sg	22 52.00	
RJF	1.45	255	Pg	22 35.00	0.3
			Sg	22 53.80	
LSF	1.47	292	Pg	22 36.60	1.6
			Sg	22 56.60	
LOR	1.58	9	Pg	22 37.60	1.0
			Sg	22 58.60	
LPO	1.93	239	Pg	22 43.10	1.5
			Sg	23 07.30	
LPL	2.28	94	Pg	22 47.20	0.2
LPG	2.30	94	Pg	22 47.20	-0.1
			Sg	23 15.40	
MFF	2.68	291	Pg	22 58.40	6.0X
			Sg	23 34.90	

S.D. = 1.1 on 14 of 15 obs.

• APR 30, 1989 14h 41m 36.87± 1.01s
66.879 N ± 7.9km 156.300 W ±13.1km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.4 (PMR).

IMA	1.33	127	iPd	42 02.30	0.3
TTA	3.97	178	eP	42 39.70	-0.1
FBA	4.02	116	eP	42 40.00	-0.3
BRW	4.45	358	eP	42 46.50	0.0
SVW	5.80	177	eP	43 05.70	0.0
PMR	6.16	146	eP	43 15.80	5.2X

S.D. = 0.3 on 5 of 6 obs.

? APR 30, 1989 15h 32m 57.96± 2.96s
17.449 N ±30.0km 62.118 W ±11.9km
DEPTH = 33.0km (normol)
LEEWARD ISLANDS (92)
ML 2.8 (FDF).

ANG	0.40	137	eP	33 09.25	2.2
			eS	33 17.91	
NEV	0.53	234	eP	33 09.92	0.9
			eS	33 19.96	
SKI	0.60	259	eP	33 09.39	-0.7
			eS	33 17.93	
MGH	0.73	187	eP	33 12.60	0.8
			S	33 23.10	
SEG	1.19	150	eP	33 18.18	-0.2
			S	33 33.20	
PAG	1.47	163	eP	33 21.78	-0.7
			S	33 39.20	
DEG	1.52	138	eP	33 22.27	-0.9
			S	33 41.10	
BBL	2.01	162	eP	33 29.00	-1.3

S.D. = 1.4 on 8 of 8 obs.

APR 30, 1989 15h 33m 52.73± 0.11s
17.912 S ± 4.4km 178.665 W ± 3.0km
DEPTH = 570.3km (15 depth phases)
5.4mb (46 obs.)
FIJI ISLANDS REGION (181)
mb 5.6 (BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 17S, 41C
Centroid Location:
Origin Time 15:34: 4.9 0.4
Lat 17.67S 0.03 Lon 179.15W 0.03
Dep 591.2 1.3 Half-duration 4.0
Moment Tensor; Scale 10**17 Nm
Mrr=-4.81 0.17 Mtt= 6.92 0.28
Mff=-2.11 0.26 Mrt= 8.67 0.26
Mrf=-3.29 0.26 Mtf= 6.82 0.25
Principal Axes:

	Vol=	Plg=	Azm=
T	13.01	22	340
N	0.06	37	88
P	-13.08	45	227

Best Double Couple:Mo=1.3*10**18
NP1:Strike= 25 Dip=40 Slip=-158
NP2: 278 76 -52

KRO	1.95	287	ePc	35 05.00	-0.5
NDE	2.34	304	eP	35 07.00	0.6
MBU	2.66	290	ePd	35 09.10	1.0
VUN	2.73	268	ePc	35 09.00	0.6
			eS	35 39.00	
SVA	2.75	265	eP	35 08.50	0.1
			eS	35 39.50	
NDF	3.70	272	eP	35 16.00	1.5
			eS	36 39.00	
AFI	7.73	60	iPd	35 45.50	-3.7X
			S	37 16.00	
PVC	12.40	269	iPc	36 37.50	1.9
			iS	39 02.50	
DZM	14.59	251	iPd	36 57.10	-0.4
			iS	39 34.00	
			ScP	44 13.00	
KRP	20.58	193	iPc	37 56.10	1.9
	0.6s		152.00nm	5.8mb	
HNR	22.41	289	eP	38 12.00	1.0
			eS	41 32.00	
SVO	22.64	290	eP	38 13.00	-0.1
WEL	23.97	192	eP	38 22.00	-2.9
			eS	42 03.00	
AFR	27.51	94	iP	38 55.60	-0.5
	0.8s		45.00nm	5.2mb	

PAE	27.69	94	iP	38	57.00	-0.7	FORR	49.75	245	iPd	41	54.10	-1.3		3.0s	0.50nm		2.4mb X
	0.8s	50.00nm			5.2mb		KNA	50.23	264	iPd	41	57.50	-1.6			iS	54	02.00		
PPT	27.70	94	iP	38	57.30	-0.5	WARB	51.05	251	iPd	41	53.70	-11.4X	FRI	77.88	45	ePc	44	53.20	-0.1
	0.8s	35.00nm			5.0mb			0.3s	50.00nm								epP	46	54.10	570km
	Z 20s	1.00um			4.4Msz		DRV	55.58	199	iPd	42	36.00	-0.6	RVR	77.88	48	eP	44	53.00	-0.5
TBI	27.83	106	iP	38	59.80	0.9	COOL	55.73	245	iPd	42	36.00	-2.3	GZH	77.91	299	P	44	55.60	1.8
	0.6s	30.00nm			5.1mb			0.4s	98.00nm			5.5mb					S	54	05.50	
PPN	27.84	94	iP	38	58.10	-0.9	MBL	57.74	256	iPd	42	50.20	-1.9	PLM	77.92	49	eP	44	54.00	0.1
	0.8s	20.00nm			4.8mb		KLB	58.60	244	iPd	42	56.00	-1.8	SBB	77.93	47	eP	44	53.00	-0.8
BRS	27.94	245	iPd	38	58.80	-1.1		0.5s	156.00nm			5.6mb		PEC	77.98	48	P	44	53.30	-0.7
			i	39	15.70	72kmX	NWAO	58.99	242	iPc	42	59.00	-1.4	ISA	78.00	46	eP	44	54.00	-0.1
			i	39	28.50			0.5s	57.00nm			5.1mb		CMB	78.01	43	iPc	44	54.00	-0.1
			iPcP	41	57.00			Z 20s	0.60um			4.7Msz					epP	46	55.00	570km
			iS	43	06.00		RKG	59.14	241	iPc	43	00.30	-1.0	MDJ	78.05	325	eP	44	53.50	-0.6
			iScP	44	48.80		BAL	59.56	245	iPd	43	02.20	-1.9				epP	47	00.00	603kmX
			iSS	46	05.00			0.4s	49.00nm			5.1mb					S	54	06.00	
			iScS	48	45.00		MUN	59.90	243	iPc	43	05.20	-1.2				SKS	54	10.00	
TVO	27.99	94	iP	39	00.50	0.1		0.8s	257.00nm			5.6mb		WDC	78.10	40	ePc	44	54.60	0.1
	0.8s	40.00nm			5.1mb		MRWA	60.28	246	eP	43	07.00	-1.9				epP	46	55.00	566km
COO	29.56	239	iPd	39	14.10	0.2		0.5s	26.00nm			4.8mb		ORV	78.16	42	eP	44	54.50	-0.3
			i	42	03.10		DAV	60.38	289	eP	43	09.90	0.2	KDC	78.45	14	iPc	44	54.90	-1.0
			e	44	53.00		NANU	61.49	254	iPd	43	16.00	-0.8	MIN	78.55	41	eP	44	56.40	-0.6
PMO	29.63	89	iP	39	14.20	-0.3	MKS	61.66	274	iPc	43	18.00	0.0	CLC	78.68	47	eP	44	57.00	-0.7
	0.8s	30.00nm			5.0mb		TSM	66.12	283	ePd	43	48.50	2.3	TPC	78.89	49	eP	44	59.00	0.2
			eScP	44	53.00		KAKJ	66.42	324	P	43	46.60	-1.0	LBFM	78.95	40	P	44	59.00	-0.2
VAH	29.85	90	iP	39	15.60	-0.7	CHJJ	66.97	324	P	43	50.10	-0.9	GSC	78.96	47	eP	45	01.00	1.8
	0.8s	30.00nm			5.0mb		IIDJ	67.18	323	P	43	51.10	-1.3	KGM	79.23	276	ePc	45	02.00	1.1
TPT	29.90	89	iP	39	16.60	-0.2	MAT	67.76	324	iPc	43	54.20	-1.7	QIZ	79.23	294	Pc	45	02.40	1.6
	0.8s	25.00nm			4.9mb			1.0s	99.00nm			5.3mb					S	54	18.00	
			eScP	44	54.00					eS	52	07.00		GLA	79.24	50	eP	45	01.00	0.3
RUV	30.09	90	iP	39	18.00	-0.4	NIIJ	67.82	325	P	43	55.10	-1.0	DL2	79.42	317	eP	45	03.00	1.6
	0.8s	45.00nm			5.2mb		MTMJ	68.02	323	P	43	56.20	-1.3				S	54	16.00	
RMQ	31.28	248	iPd	39	28.10	-0.3	TSRJ	68.35	321	P	43	58.60	-0.8	SNY	79.83	320	eP	45	03.30	-0.1
	0.7s	311.00nm			6.0mb		KKM	68.51	284	ePc	44	00.00	-0.9				S	54	24.50	
			e	39	44.00	66kmX		0.8s	156.40nm			5.6mb		CN2	79.87	322	iPd	45	05.00	1.4
			i	42	06.70		BAG	68.86	296	eP	44	03.00	0.0		3.0s	0.70nm		2.6mb X
			e	44	57.00					eS	52	24.00					ipP	47	10.00	590kmX
RIV	31.29	234	eP	39	30.50	2.1	KUSJ	69.41	332	eP	44	04.30	-1.3				iS	54	25.00	
CTA	33.20	261	iPd	39	43.60	-1.1	HOOJ	69.50	331	eP	44	07.30	1.2				iSS	59	50.00	
	1.4s	831.40nm			6.2mb		ADK	69.52	1	eP	44	04.00	-2.0	KVN	80.06	44	P	45	04.40	-0.6
			i	40	08.20	109kmX	MRRJ	70.58	330	eP	44	11.20	-1.2				pP	47	06.40	572km
			iPcP	42	11.00		SMY	70.62	355	eP	44	10.20	-2.2	TNP	80.13	45	P	45	04.80	-0.6
			iS	44	24.00		ASAJ	71.14	332	eP	44	15.90	0.2				pP	47	07.00	573km
			iScP	45	05.00		SPA	72.20	180	iPd	44	22.00	0.2	WHN	80.41	306	Pd	45	08.40	1.7
			iSS	47	26.00			0.8s	70.00nm			5.2mb			1.5s	0.15nm		2.2mb X
			iScS	49	08.00			Z 19s	6.37um			5.9MszX					iS	54	29.00	
CNB	33.23	232	iPc	39	45.40	0.6				i	44	37.50	56kmX	TIA	81.07	313	P	45	11.30	1.3
			e	42	12.60		QZH	74.47	303	P	44	35.30	0.3				epP	47	07.00	532kmX
			e	45	05.00					iS	53	25.00					S	54	37.50	
LMG	33.45	281	eP	39	49.00	2.1	SDN	74.58	11	eP	44	32.70	-2.2				esS	58	09.50	
CAN	33.51	232	iPd	39	46.50	-0.6	SSE	75.55	310	Pd	44	41.50	0.7	BMW	81.24	35	P	45	10.70	0.0
PMG	34.22	280	iPd	39	53.50	0.3		1.0s	27.00nm			4.7mb		SHW	81.61	36	P	45	13.00	0.3
	0.7s	609.59nm			6.3mb X			Z 20s	0.50um			4.8Msz		EUR	81.70	44	iP	45	13.20	-0.2
CMS	34.81	240	iPd	39	57.90	-0.1				S	53	36.00			0.6s	45.13nm		5.2mb
	0.9s	647.00nm			6.3mb					sS	54	00.00		VGB	82.04	37	P	45	14.60	-0.1
			e	40	16.00	76kmX				ePS	54	16.00		GMW	82.13	34	P	45	14.40	-0.7
			e	42	17.00					ScS	54	32.00		LON	82.18	36	P	45	13.40	-2.0
LAT	35.29	284	iPc	40	03.00	0.9	BLP	76.07	46	P	44	44.70	1.1	IPM	82.21	277	ePd	45	16.20	0.0
TOO	36.98	231	iPd	40	16.20	0.5	SYP	76.34	47	eP	44	46.00	0.7		0.9s	297.10nm		5.8mb		
TAU	38.07	222	iPd	40	24.70	0.1	GCC	76.39	43	e(P)	44	45.50	0.2	TTA	82.52	10	iPc	45	16.20	-0.6
			i	42	26.50		PRS	76.40	44	ePc	44	45.80	0.4	PMR	82.66	14	iPc	45	16.10	-1.3
			e	45	24.00					epP	46	45.90	569km		0.5s	82.00nm		5.5mb		
STK	38.42	241	iPd	40	28.30	0.8	PCC	76.41	43	eP	44	45.90	0.5	MCW	82.79	34	P	45	19.60	1.2
QIS	39.41	259	iPd	40	34.20	-1.5	SAO	76.60	44	eP	44	46.45	0.0	HTW	82.83	35	P	45	17.40	-1.2
			e	42	30.00					epP	46	50.20	590kmX	SIT	82.97	22	eP	45	18.90	-0.1
			e	45	27.00					e	50	36.20		SNG	83.43	280	eP	45	23.70	1.5
RKT	41.14	105	iP	40	49.90	0.5				eS	53	49.30			0.8s	262.69nm		5.9mb		
	0.8s	35.00nm			4.9mb					e	54	16.00					eS	54	59.50	
ADE	41.43	237	iPd	40	51.40	-0.3	BCH	76.63	46	P	44	46.80	-0.1	AIA	83.59	157	eP	45	24.00	1.9
	0.4s	745.76nm			6.6mb X		BRK	76.70	43	e(P)	44	47.60	0.6	BJI	83.62	315	eP	45	22.00	-0.6
HON	43.93	28	P	41	12.00	0.6	BKS	76.72	43	eP	44	48.70	1.6		3.0s	0.41nm		2.5mb X		
OPA	44.25	28	P	41	13.00	-0.8		1.2s	281.00nm			5.6mb					pP	47	20.00	541kmX
WB5	44.37	260	iPd	41	13.30	-1.6				epP	46	48.00	563km				eSKS	54	52.00	
WRA	44.39	260	Pd	41	13.00	-2.1				e	47	40.00					eS	55	02.00	
	0.7s	125.20nm			5.6mb					eS	53	48.00					esS	58	32.00	
ASPA	44.56	254	iPc	41	14.90	-1.5				e	58	00.00					eSS	00	40.00	
	0.8s	2689.00nm			6.8mb X					eLQ	06	38.00		MSU	83.78	46	P	45	24.60	0.8
			ipP	42	46.00	481kmX	PRI	76.77	45	eP	44	48.10	0.5				pP	47	29.10	579km
			iScP	45	48.90					epP	46	48.30	568km	TOA	83.80	15	ePc	45	22.60	-0.6
			iS	47	09.70		MHC	76.80	43	eP	44	48.00	0.3	DUG	84.15	45	P	45	25.50	0.0
			iScS	50	12.30					epP	46	48.40	569km		1.0s	16.25nm		4.6mb		
GUMO	47.69	309	eP	41	39.10	-1.1	LLA	76.85	44	e(P)	44	48.10	0.2	GYA	84.83	300	P	45	29.00	0.0
	0.8s	266.47nm			5.8mb		ARN	76.87	43	P	44	48.00	0.0				S	55	01.00	
			pP	42	39.00	284kmX	FHC	77.35	39	e(P)	44	51.30	0.8	DPW	84.83	36	P	45	28.00	-0.5
PJG	47.69	309	eP	41	39.20	-1.0	MWC	77.52	48	eP	44	52.00	0.2	PNT	84.88	34	iPc	45	28.40	-0.2
MTN	48.56	269	eP	41	45.00	-1.9	BAR	77.71	50	eP	44	52.00	-0.6		0.9s	154.00nm		5.6mb		
			e	48	04.00		NJ2	77.75	310	Pc	44	53.20	0.4	TIY	85.09	312	eP	45	30.60	0

30d 15h

	1.0s	0.13nm			2.5mb X	SOD	127.95	348	iPKP	51	54.30	-0.6				pPKP	54	43.00					
		S	55	02.00		BFS	129.07	210	ePKP	52	00.70	2.2				iSKP	55	15.80					
IMA	85.82	10 P	45	31.90	-1.1	SLR	129.31	212	iPKPd	51	58.00	-1.0	HRI	145.59	303	e(PKP)	52	28.00	-0.3				
	1.5s	111.10nm			5.4mb		1.0s	40.00nm					BRG	145.61	346	iPKPd	52	28.00	0.4				
FBA	85.86	13 iPc	45	31.30	-1.7	NPA	130.28	231	ePKP	52	04.90	4.0X		1.2s	280.00nm								
NNT	86.01	285 eP	45	35.00	0.3				iPP	54	37.60					e	52	48.00					
XAN	86.07	307 Pd	45	35.50	0.8				iSKP	55	32.60					e	52	58.00					
ALQ	86.29	52 eP	45	36.00	0.0	AKU	130.54	10	iPKP	52	01.30	1.5				e	54	44.00					
	1.0s	43.25nm			5.1mb		1.3s	146.15nm								e	55	16.00					
		epP	47	39.90	571km				i	54	31.00		ISR	145.66	328	iPKPd	52	30.20	2.2				
NST	86.66	288 eP	45	40.50	2.7X				i	54	34.70		MLR	145.71	329	iPKPc	52	27.00	-1.2				
HHC	87.10	315 eP	45	40.60	1.0	SUF	132.03	345	ePKP	51	46.00	-16.8X	WTS	145.72	354	iPKPd	52	28.40	0.7				
LRM	87.13	40 eP	45	39.50	-0.3	ITR	132.63	121	ePKP	51	51.40	-14.0X	DBN	145.75	356	ePKP	52	29.00	1.2				
BW06	87.53	44 P	45	41.20	-0.5				e	52	05.30					e	54	42.00					
	0.7s	39.47nm			5.3mb				e	54	39.20					ePP	55	36.00					
		pP	47	45.50	570km	BUL	133.67	217	ePKP	52	06.40	-1.0	PRU	146.28	345	PKPd	52	29.00	0.3				
KMI	87.62	297 Pc	45	45.00	2.5X				iPP	54	42.00					i	52	32.00					
		S	55	40.00					iSKP	55	39.90		CMP	146.31	329	iPKPc	52	44.00	15.0X				
		sS	56	58.00		NUR	134.29	344	ePKP	51	51.00	-16.1X	MOX	146.32	348	iPKPc	52	29.00	0.2				
BTO	88.05	314 P	45	46.00	2.0		0.7s	71.90nm								i	52	32.00					
BDT	88.20	289 eP	45	46.00	1.0	Z	22s	0.30um			5.0Msz					iPP	54	40.00					
CHG	88.77	290 eP	45	48.30	0.7				i	52	07.00					e	55	35.00					
	0.9s	84.03nm			5.6mb				LR	44	40.00					ePS	05	20.00					
		eS	55	52.00		PTZ	136.45	225	ePKP	52	00.00	-12.7X				e	07	40.00					
CD2	88.86	303 P	45	49.80	1.9				i	52	13.00					e	14	55.00					
		pP	47	54.00	568km				i	54	53.50					eLR	22	30.00					
		iS	55	52.00		UPP	136.48	348	iPKP	51	58.20	-13.1X	LWI	146.34	236	iPKPd	52	32.90	2.7X				
GOL	89.04	48 P	45	48.80	0.0				i	54	49.70		FAM	146.36	307	ePKP	52	32.00	2.7X				
GLD	89.17	48 P	45	50.20	0.9	NAO	136.60	353	PKP	51	59.80	-11.7X	DSI	146.37	300	ePKP	52	29.00	-0.4				
	1.4s	375.00nm			6.1mb		0.8s	12.90nm					GPA	146.52	318	iPKP	52	29.30	-0.2				
		pP	47	54.70	569km	HFS	136.90	351	ePKP	51	58.40	-13.7X	LFK	146.61	308	ePKP	52	28.00	-1.8				
BRW	90.26	7 eP	45	52.10	-1.2		0.5s	7.50nm					CSS	146.89	307	ePKP	52	30.50	0.3				
EDM	90.29	33 iPc	45	53.00	-1.0	LSZ	137.71	220	ePKP	52	05.00	-10.1X	ENN	147.02	355	iPKPd	52	30.40	0.5				
	0.5s	49.00nm			5.7mb				i	52	18.00			0.7s	19.00nm								
LZH	90.70	308 P	45	58.50	2.1				i	54	59.00		SRO	147.10	339	ePKP	52	30.20	0.1				
	2.0s	220.00nm			5.8mb				i	55	09.70					i	52	34.40					
Z	35s	0.70um			4.9MszX	BHD	138.57	300	ePKPc	52	16.50	0.5				e(PP)	53	55.30					
		i	48	05.00	579km				e	55	52.00					e	03	05.50					
		eS	55	34.00		MSL	138.87	305	ePKPd	52	07.00	-9.4X	UCC	147.10	356	iPKP-	52	34.00	4.0X				
		sS	56	11.00					e	52	26.50					e	54	46.00					
INK	91.95	15 eP	46	00.00	-1.2	NAI	140.22	245	iPKPd	52	16.00	-3.8X	MEM	147.17	355	PKPc	52	30.60	0.5				
	1.1s	88.00nm			5.7mb		1.0s	20.00nm								e	52	34.00					
YKA	94.44	25 P	46	12.10	-0.6	KMZ	140.56	219	iPKP	52	15.40	-4.8X				e	54	44.80					
YKC	94.48	25 eP	46	11.00	-1.9				i	52	24.00					e	56	04.50					
	0.6s	10.00nm			5.2mb				i	55	06.00		ZST	147.17	340	ePKP	52	30.90	0.7				
PEL	94.60	127 iPd	46	15.60	1.2	EDU	141.29	4	ePKP	52	14.50	-5.6X				i	52	34.50					
	0.8s	16.42nm			5.3mb		0.6s	34.00nm								e(PP)	54	52.00					
GTA	94.85	310 Pd	46	16.40	1.1	EBH	141.55	4	ePKP	52	15.60	-5.0X				e	03	04.10					
		SKS	55	55.00			0.6s	25.00nm					DMK	147.18	322	ePKP	52	29.60	-0.9				
		SKKS	56	23.50		ESY	141.94	4	ePKP	52	17.10	-4.2X	MBH	147.24	297	iPKPd	52	31.00	0.1				
		S	56	44.00			0.6s	28.00nm					GRF	147.31	348	iPKPd	52	30.50	0.1				
UYO	95.23	56 eP	46	17.40	0.5	EAU	141.96	4	ePKP	52	17.00	-4.3X				e	52	34.80					
FFC	97.00	35 eP	46	22.00	-2.4		0.5s	33.00nm					ALT	147.31	316	ePKP	52	30.70	-0.2				
	1.5s	26.00nm			5.3mb	KVT	142.35	315	ePKP	52	20.00	-2.5	KHC	147.32	345	PKPd	52	30.80	0.3				
MBC	100.40	12 ePdiff	46	38.00	-1.3	EKA	142.49	4	PKPc	52	18.50	-3.7X				i	52	35.00					
	0.6s	8.00nm			5.4mb		0.6s	14.30nm					VKA	147.35	341	ePKPd	52	30.00	-0.5				
KKN	103.34	295 Pdiff	46	54.40	0.6	DMU	143.52	8	iPKPc	52	21.20	-2.8X		1.1s	345.00nm								
DMN	103.45	295 Pdiff	46	55.50	1.2		0.5s	113.00nm								i	52	34.00					
ZOBO	103.64	112 Pdiff	47	00.50	4.8X	IAS	143.71	329	ePKP	52	21.00	-3.5X				e	54	34.00					
Z	16s	0.13um			4.6MszX	KAS	143.72	317	iPKPd	52	24.30	-0.6	SNF	147.39	357	PKP	52	31.30	0.8				
		LR	54	20.00		DCN	144.01	9	iPKPc	52	22.80	-2.0				e	52	34.40					
GKN	103.94	295 Pdiff	46	56.60	0.2		0.7s	229.00nm								e	54	46.70					
GBA	107.09	279 PKPc	51	16.60	0.1	DLE	144.17	8	iPKPc	52	23.50	-1.6	BZS	147.63	333	ePKP	52	32.00	1.0				
	0.7s	5.40nm					1.0s	336.00nm					PPCY	147.66	308	ePKP	52	28.50	-2.9X				
NDI	110.49	295 iPKPc	51	22.00	-0.6	BAC	144.48	329	ePKP	52	20.00	-5.9X	KCT	147.77	319	iPKP	52	35.70	4.2X				
	0.4s	127.12nm				KRA	144.62	339	ePKP	52	24.80	-1.2	DOU	147.79	356	PKP	52	31.70	0.6				
ALE	111.01	7 ePKP	51	22.00	-0.1		0.5s	122.00nm								i	52	34.30					
	0.6s	3.00nm							e	52	26.70					i	52	35.60					
		pP	52	11.00					i	52	27.30					e	54	42.00					
TBR	112.32	52 PKP	51	24.00	-1.7	ETA	144.79	8	ePKP	52	25.80	-0.4				e	54	49.00					
RSNY	112.33	49 PKP	51	23.00	-2.7X		0.7s	292.00nm								e	14	22.00					
FRB	114.80	27 ePKP	51	28.00	-1.8	CFR	144.79	326	ePKPd	52	26.30	-0.1	BCK	147.80	313	ePKP	52	31.00	-0.7				
SCH	117.04	37 ePKP	51	33.00	-1.4	VAL	144.84	12	iPKP	52	27.00	0.7	DST	147.97	318	iPKP	52	36.30	4.4X				
VAO	117.70	129 e(PKP)	51	36.00	-0.7	WIT	144.92	354	ePKP	52	27.50	1.1	BNT	147.98	320	iPKP	52	35.20	3.4X				
BMA	119.95	131 ePKP	51	41.00	0.1	ECB	145.03	9	ePKP	52	26.20	-0.4	EDC	148.02	320	ePKP	52	35.00	3.2X				
DAG	120.22	5 iPKPd	51	38.10	-1.7		0.6s	220.00nm					KHL	148.09	315	iPKP	52	31.90	-0.2				
	0.4s	16.10nm				VRI	145.05	328	ePKPd	52	27.00	0.1	WLF	148.09	354	PKPd	52	32.40	0.8				
		i	53	12.60		BBTK	145.15	315	iPKPd	52	27.00	-0.4				i	52	36.50					
BAO	121.07	121 ePKP	51	42.00	-1.3	BMR	145.21	333	ePKPc	52	28.00	0.9				e	54	49.00					
AVY	121.54	234 ePKP	51	44.60	0.4	SPC	145.25	338	ePKP	52	28.00	0.6	KMR	148.17	344	iPKP-	52	31.80	0.0				
KEV	125.82	349 iPKP	51	50.90	0.1				e	55	16.20					i	52	36.70					
MAIO	125.87	302 iPKPd	51	52.00	0.0				e	03	12.70					i	54	49.00					
	1.0s	23.50nm				ECP	145.27	8	ePKP	52	26.80	-0.2	GWF	148.60	352	PKP	52	33.19	0.7				
		i	53	54.00			0.8s	272.00nm					ELL	148.62	312	ePKP	52	33.50	0.5				
		eS	01	12.00		CLL	145.41	347	iPKP	52	27.30	0.0	BEO	148.76	333	i(PKP)	52	32.60	-0.2				
TUH	126.31	199 iPKPc	51	52.50	-0.3		1.3s	380.00nm								i	52	38.00					
	0.6s	21.33nm							i	52	28.90		STR	148.96	352	PKP	52	33.83	0.9				

FLN	149.19	2	ePKP	52 33.70	0.4
	1.1s	80.60nm			
CDF	149.20	352	ePKP	52 33.40	-0.1
	1.1s	14.65nm			
EZN	149.27	320	ePKP	52 33.00	-0.7
KBA	149.28	344	ePKP	52 32.50	-1.3
	0.8s	129.00nm			
			i	52 38.50	
			i	52 42.60	
			e(PP)	56 11.00	
			i	56 20.60	
LDF	149.37	2	ePKP	52 33.50	-0.1
	1.1s	53.70nm			
IZM	149.53	317	iPKP	52 39.00	4.7X
VITF	149.54	354	PKP	52 34.22	0.4
GRR	149.55	3	ePKP	52 33.90	0.0
	1.1s	48.85nm			
PTJ	149.56	340	ePKP	52 34.40	0.3
FEL	149.62	351	PKP	52 34.12	-0.1
ZAG	149.63	340	iPKPd	52 40.20	6.1X
HAU	149.71	353	ePKP	52 34.60	0.4
	1.1s	29.30nm			
MOF	149.76	352	PKP	52 34.50	0.1
RBL	149.80	343	PKP	52 33.90	-0.5
			e	52 39.60	
BSF	149.83	353	ePKP	52 34.50	0.0
	1.1s	29.30nm			
FVI	149.87	344	PKP	52 34.40	0.0
			e	52 39.70	
LJU	149.88	342	ePKP	52 35.00	0.5
			i	52 40.50	
LPF	149.90	3	ePKP	52 34.60	0.2
	1.1s	63.50nm			
SRS	150.00	325	ePKP	52 39.70	4.9X
VOY	150.08	342	iPKP	52 34.60	-0.3
			i	52 40.60	
BBS	150.09	352	PKP	52 35.06	0.2
VBY	150.14	340	ePKP	52 35.70	0.8
			i	52 42.20	
CEY	150.19	341	ePKP	52 35.50	0.5
			i	52 41.40	
LOMF	150.30	352	PKP	52 35.44	0.3
OUR	150.32	324	ePKP	52 41.10	5.8X
SOH	150.34	325	ePKP	52 40.60	5.2X
KNT	150.34	326	ePKP	52 40.90	5.6X
VAY	150.41	326	iPKPd	52 41.00	5.6X
	1.2s	0.24nm			
TRI	150.41	342	iPKPc	52 35.80	0.5
			i	52 41.70	
SKO	150.51	329	iPKPd	52 42.00	6.4X
VVI	150.53	344	PKPd	52 36.60	1.1
			e	52 41.90	
LOR	150.65	356	iPKPd	52 36.00	0.4
	1.1s	35.40nm			
THE	150.68	325	ePKP	52 41.70	5.9X
GRG	150.75	326	ePKP	52 42.00	6.0X
PAIG	150.76	323	ePKP	52 40.10	4.1X
BCI	150.87	331	iPKP	52 36.40	0.4
SSF	150.87	357	iPKPd	52 36.40	0.5
	1.1s	41.50nm			
LBF	150.93	356	iPKPd	52 36.40	0.3
	1.1s	26.85nm			
AVF	151.15	357	ePKP	52 36.60	0.3
	1.0s	12.00nm			
PHP	151.21	329	iPKPd	52 42.60	6.0X
SMF	151.27	356	ePKP	52 36.70	0.1
	1.1s	24.40nm			
LIT	151.31	325	ePKP	52 43.20	6.4X
SAL	151.34	346	PKPd	52 36.20	-0.4
			e	52 41.50	
MDI	151.35	348	PKP	52 36.10	-0.5
			e	52 42.80	
MFF	151.36	2	ePKP	52 37.00	0.3
	1.0s	66.00nm			
SDA	151.40	331	ePKP	52 36.00	-0.8
BGF	151.41	358	ePKP	52 37.20	0.5
	1.0s	28.00nm			
VAI	151.45	349	PKP	52 37.00	0.2
OHR	151.47	328	iPKP	52 43.50	6.4X
TCF	151.69	359	iPKPd	52 37.70	0.5
	1.0s	50.00nm			
LSF	151.74	360	iPKPd	52 37.50	0.3
	1.0s	59.00nm			
HVAR	151.74	336	ePKP	52 42.80	5.5X
TIR	151.75	330	ePKP	52 43.50	6.1X
MAF	151.75	358	ePKP	52 37.60	0.3
	1.2s	29.75nm			

ORX	151.81	350	PKP	52 37.11	-0.4
ORO	151.82	350	PKP	52 37.30	-0.2
AGO	151.90	357	PKP	52 38.14	0.6
PLDF	151.96	357	PKP	52 38.26	0.6
LSD	152.11	351	PKP	52 39.37	1.2
LPG	152.13	352	ePKP	52 39.00	0.8
	0.9s	19.65nm			
PYM	152.21	357	PKP	52 38.53	0.5
RSP	152.39	351	PKP	52 37.83	-0.5
TPE	152.48	328	ePKP	52 40.50	2.1
BNI	152.57	352	PKP	52 40.40	1.8
MME	152.64	345	PKP	52 39.00	0.1
PGD	152.67	343	PKP	52 39.00	0.2
RJF	152.69	360	iPKPd	52 39.20	0.6
	1.0s	56.00nm			
RRL	152.69	352	PKP	52 40.08	1.2
LBL	152.71	357	PKP	52 39.79	1.2
BDI	152.79	345	PKP	52 38.10	-0.8
FIR	152.89	344	ePKP	52 38.00	-0.9
			e	02 30.00	
CKI	152.93	349	PKP	52 39.00	0.0
DOI	153.03	351	PKP	52 46.30	7.1X
LFF	153.05	1	iPKPd	52 39.80	0.7
	1.0s	32.00nm			
PZZ	153.05	351	PKP	52 39.47	0.2
CAF	153.06	359	ePKP	52 40.20	1.0
	1.0s	20.00nm			
PII	153.13	345	PKP	52 34.60	-4.6X
ROB	153.13	350	PKP	52 39.16	-0.2
FIN	153.15	349	PKP	52 38.65	-0.7
STV	153.27	350	PKP	52 39.57	0.0
LPO	153.31	0	ePKP	52 40.20	0.7
	1.0s	28.00nm			
SAOF	153.48	350	PKP	52 40.48	0.7
AUTN	153.49	350	PKP	52 39.57	-0.5
IMI	153.50	349	PKP	52 39.88	0.0
AURF	153.62	350	PKP	52 39.08	-0.9
SBF	153.62	350	ePKP	52 40.20	0.2
	1.2s	41.65nm			
STS	153.73	17	e(PKP)	52 41.40	1.3
CALN	153.82	351	PKP	52 41.00	0.6
LMR	154.28	351	ePKP	52 41.20	0.4
	1.2s	21.42nm			
CVF	154.60	347	ePKP	52 41.10	-0.2
	1.1s	39.05nm			
TDS	154.72	332	PKP	52 57.10	15.6X
			e	53 02.70	
EPF	154.95	2	ePKP	52 42.60	0.8
	1.0s	18.00nm			
GUD	156.86	11	iPKPc	52 39.50	-5.0X
EPLA	157.01	15	iPKPc	52 39.00	-5.6X
TOL	157.62	11	iPKP	52 47.00	1.8
			ePS	05 48.00	
BNG	158.48	234	iPKPd	52 47.00	0.0
	0.5s	82.00nm			
			ic	53 27.00	
EVAL	159.16	18	e(PKP)	52 49.00	2.0
EBAN	159.33	11	iPKPc	52 48.60	1.4
EHOR	159.34	15	iPKPc	52 48.80	1.7
EPRU	160.16	16	e(PKP)	52 50.00	1.9
AFC	160.26	12	e(PKP)	52 48.60	0.3
AVE	162.78	25	iPKP	52 52.50	1.7
IFR	163.41	19	iPKPc	52 55.00	3.4X
TIO	164.87	29	iPKP	52 54.90	1.9
LIC	166.83	151	PKP	52 54.68	-0.1
	0.9s	60.00nm			
KIC	167.08	152	PKP	52 54.88	-0.1
	0.9s	58.50nm			
TIC	167.20	150	PKP	52 54.98	-0.1
	0.9s	48.00nm			
KOGH	168.15	172	ePKP	52 56.00	0.3
KUK	168.23	172	ePKP	52 55.00	-0.7

S.D. = 1.0 on 331 of 388 obs.

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* APR 30, 1989 16h 11m 23.98± 1.05s
35.596 N ±12.7km 30.951 E ±10.6km
DEPTH = 33.0km (normal)
EASTERN MEDITERRANEAN SEA (371)

PPCY	1.34	121	eP	11 51.50	4.9X
ELL	1.43	324	iPn	11 48.50	0.6
BCK	1.88	351	eP	11 55.50	1.0
FAM	2.57	103	eP	12 04.00	-0.1
YER	2.64	306	iPn	12 06.40	1.1
KHL	2.95	338	iPn	12 08.90	-0.8
ALT	3.52	349	iPn	12 17.20	-0.5
IZM	4.07	315	iPn	12 24.00	-1.5
DST	4.41	336	ePn	12 34.00	3.7X
BBTK	4.47	18	eP	12 31.50	0.1
			eS	13 20.50	
HRI	4.59	119	eP	12 33.00	0.1
JVI	5.18	134	eP	12 47.00	5.8X

S.D. = 1.0 on 9 of 12 obs.

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* APR 30, 1989 16h 18m 29.86± 1.32s
35.640 N ±24.3km 30.742 E ±19.9km
DEPTH = 33.0km (normal)
EASTERN MEDITERRANEAN SEA (371)

ELL	1.30	329	iPn	18 51.50	-0.4
PPCY	1.51	119	eP	18 55.00	0.1
CSS	2.22	107	eP	19 05.00	-0.1
YER	2.48	308	ePn	19 09.00	0.1
KHL	2.85	340	ePn	19 14.40	0.3

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

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* APR 30, 1989 16h 26m 43.90± 1.00s
43.163 N ± 7.9km 136.072 E ± 9.4km
DEPTH = 356.2 ± 11.1 km
4.2mb (13 obs.)
EASTERN SEA OF JAPAN (223)

MAT	6.81	165	eP	28 24.00	-0.9
	0.5s	17.61nm			4.3mb
			eS	29 46.00	
CN2	7.75	278	Pc	28 35.60	-0.3
DL2	11.71	254	eP	29 25.00	1.9
NJ2	17.55	236	Pc	30 27.20	0.1
CHG	39.55	244	eP	33 43.20	0.2
FBA	46.27	35	iP	34 37.40	1.3
	0.9s	6.25nm			3.9mb
MBC	51.85	17	eP	35 18.00	-0.1
KEV	56.23	337	eP	35 49.00	-0.7
SOD	57.71	334	iP	35 58.90	-1.1
YKA	60.58	30	eP	36 19.70	0.3
SUF	60.66	330	iP	36 19.00	-1.0
	0.4s	3.50nm			4.2mb
NUR	62.61	329	iP	36 32.00	-0.8
WB5	62.75	182	iPc	36 33.40	-0.7
WRA	62.81	182	Pd	36 34.20	-0.3
	0.3s	0.70nm			3.7mb
ASPA	66.53	182	iPc	36 58.30	0.2
HFS	66.80	333	eP	36 58.30	-1.2
	0.4s	5.90nm			4.7mb
NAO	67.21	334	P	37 00.80	-1.3
	0.6s	2.30nm			4.1mb
WARB	69.55	189	iPc	37 07.80	-8.8X
	0.3s	5.00nm			4.7mb
KVN	74.20	51	eP	37 45.50	1.4
LOR	80.54	329	eP	38 18.20	0.1
	0.8s	2.60nm			4.1mb
LPG	80.88	327	eP	38 21.00	0.7
	0.6s	5.40nm			4.5mb
SMF	81.07	329	eP	38 21.10	0.3
	0.8s	2.60nm			4.1mb
AVF	81.13	329	eP	38 21.60	0.5
	0.8s	2.60nm			4.1mb
MAF	81.91	329	eP	38 25.90	0.7
	0.6s	3.60nm			4.4mb
LSF	82.26	330	eP	38 27.60	0.6
	0.8s	4.00nm			4.3mb

S.D. = 0.9 on 24 of 25 obs.

? APR 30, 1989 17h 03m 03.24± 7.40s
9.396 N ±58.2km 61.349 W ±36.7km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)
MD 3.8 (TRN).

TPP	0.92	354	iP	03 20.94	1.1
			eS	03 27.05	
TBH	1.12	14	eP	03 22.58	0.0
			eS	03 34.92	
TRN	1.25	358	iP	03 23.59	-0.8
			eS	03 34.86	
TCE	1.35	343	iP	03 25.62	-0.4
			eS	03 35.55	
BOT	1.87	19	eP	03 27.43	-6.0X
CUM	2.97	291	iP	03 49.20	0.0
			iS	04 41.00	

S.D. = 1.0 on 5 of 6 obs.

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* APR 30, 1989 17h 50m 10.77± 3.54s
5.539 S ±35.6km 147.235 E ±29.7km

30d 17h

DEPTH = 209.3 ± 8.8 km
4.9mb (4 obs.)
EAST PAPUA NEW GUINEA REGION (207)

LAT	1.13	192	iPd	50 43.00	0.4
LMG	3.47	165	eP	51 06.50	-0.6
			eS	51 48.00	
MNDI	3.61	260	eP	51 09.00	0.1
PMG	3.85	181	iPd	51 11.50	0.0
	0.7s	273.97nm			
QIS	16.67	206	eP	53 54.00	-0.1
			e	54 05.00	
			e	57 56.00	
MTN	17.47	244	iPd	54 02.40	-0.5
	0.3s	45.00nm		5.4mb	
WB5	18.97	220	iPc	54 18.60	-0.1
WRA	19.03	220	Pc	54 18.30	-1.0
	0.7s	19.10nm		4.7mb	
KNA	20.77	239	eP	54 37.00	0.2
ASPA	22.13	214	iPc	54 52.20	2.2
	0.5s	32.00nm		5.1mb	
			eS	58 43.70	
			e	58 54.10	
WARB	28.44	222	eP	55 39.10	-9.2X
MBL	30.77	237	eP	56 08.00	-0.8
FORR	30.94	213	eP	56 10.30	0.1
NANU	34.98	238	iPd	56 45.10	0.1
	0.4s	5.00nm		4.5mb	

S.D. = 0.9 on 13 of 14 obs.

& APR 30, 1989 18h 35m 12.17s
61.852 N 152.119 W
DEPTH = 120.7km
SOUTHERN ALASKA (2)
<AGS-P>.

SKT	0.31	65	iP	35 28.57	0.8
			eS	35 41.47	
CGLM	0.55	174	iP	35 29.95	-0.9
			eS	35 44.27	
CRP	0.59	182	iP	35 30.48	-0.7
			eS	35 44.25	
SPU	0.67	177	iP	35 31.02	-0.7
			eS	35 45.51	
SUA	0.76	120	iP	35 32.24	-0.3
PWA	1.08	100	iPc	35 34.80	-0.6
NKA	1.19	159	iP	35 37.44	0.9
RDT	1.29	186	iP	35 37.00	-0.7
PLRM	1.45	99	iP	35 37.80	-1.5
PMR	1.45	99	iPc	35 37.80	-1.5
			eS	35 57.50	
RED	1.47	193	iP	35 38.91	-0.9
			eS	36 01.21	
PME	1.49	97	eP	35 38.69	-1.1
			eS	35 58.49	
GHO	1.52	92	iP	35 39.16	-1.2
			eS	36 02.09	
SLKM	1.63	145	eP	35 40.80	-0.8
KTH	1.79	17	iP	35 41.92	-1.7
			eS	36 05.39	
KNK	1.80	103	iP	35 42.27	-1.4
ILIM	1.82	193	iP	35 43.11	-0.9
SVW	1.84	248	iP	35 42.20	-2.0
NNL	1.86	167	iP	35 44.06	-0.3
TTA	2.11	303	iPd	35 45.10	-2.5
SEW	2.18	142	eP	35 47.44	-1.0
OPT	2.27	194	eP	35 48.68	-1.0
PDB	2.31	207	iP	35 48.99	-1.0
CNPM	2.37	169	eP	35 48.60	-2.3
			eS	36 18.68	
XLV	2.41	175	eP	35 49.63	-1.8
GLI	2.61	110	iP	35 51.43	-2.5
KNIM	2.61	123	iP	35 51.27	-2.7
VZW	2.79	104	iP	35 54.38	-2.0
TOA	2.82	82	iPc	35 55.80	-1.0
VLZ	2.87	102	eP	35 55.38	-2.0
MTU	2.87	129	eP	35 55.81	-1.7
			eS	36 29.63	
FID	2.94	110	eP	35 55.65	-2.7
			eS	36 31.42	
KLU	2.98	94	iP	35 57.19	-1.7
CDD	3.03	195	eP	35 57.55	-2.0
FBA	3.63	31	eP	36 05.20	-2.3
GLB	3.98	92	iP	36 10.84	-1.6
KDC	4.12	183	eP	36 11.20	-3.0
IMA	4.29	351	iPd	36 14.00	-2.6
BALM	4.76	96	iP	36 21.17	-1.9
CTGM	5.26	95	eP	36 29.12	-0.7
PCA	6.04	102	iP	36 38.96	-1.5
INK	10.13	42	eP	37 34.00	-1.6
YKA	17.37	71	P	39 08.20	0.2
MBC	18.15	25	eP	39 14.00	-3.2

44 obs. associated

APR 30, 1989 18h 54m 06.77± 0.56s
39.073 N ± 4.9km 29.746 E ± 6.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ALT	0.28	93	iPg	54 12.70	-0.1
KHL	0.77	193	iPg	54 19.80	-2.0
			iSg	54 29.30	
DST	1.02	302	iPn	54 25.60	-0.5
GPA	1.29	20	iPn	54 31.30	0.6
KCT	1.59	318	iPn	54 36.10	1.1
GBZT	1.73	352	ePn	54 38.50	1.5
BCK	1.74	157	iPn	54 37.50	0.2
HRT	1.75	358	ePn	54 36.70	-0.6
BNT	1.90	313	iPn	54 39.60	0.0
EDC	1.93	312	ePn	54 39.00	-1.0
IZM	2.06	252	ePn	54 43.00	1.2
ISK	2.06	345	ePn	54 42.00	0.2
YER	2.25	211	iPn	54 46.30	1.6
CTT	2.30	334	ePn	54 46.00	0.6
ELL	2.32	177	iPn	54 48.00	2.2X
BBTK	2.46	71	eP	54 54.00	6.4X
			eS	55 31.00	
EZN	2.75	287	iPn	54 51.40	-0.3
DMK	3.14	332	ePn	54 56.20	-0.9
VRI	7.15	343	iPd	55 52.00	-1.9

S.D. = 1.1 on 17 of 19 obs.

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* APR 30, 1989 19h 07m 27.62± 1.39s
43.687 N ± 8.8km 133.874 E ± 9.9km
DEPTH = 438.7 ± 18.0 km
4.2mb (14 obs.)
NEAR E. COAST OF EASTERN USSR (661)

MAT	7.87	154	eP	09 23.00	0.3
GUN	41.40	264	P	14 35.60	0.1
KKN	41.90	264	P	14 39.60	0.2
	0.4s	12.00nm		4.7mb	
PKI	41.94	264	P	14 39.80	0.0
DMN	42.13	264	P	14 41.60	0.3
	0.4s	7.00nm		4.4mb	
GKN	42.24	265	P	14 42.20	0.1
	0.4s	16.00nm		4.8mb	
FBA	46.76	35	eP	15 17.00	0.3
INK	51.20	28	eP	15 50.00	0.1
KEV	55.11	336	eP	16 17.00	-1.2
SOD	56.54	334	iP	16 27.80	-0.3
SUF	59.40	329	iP	16 46.80	-0.9
	0.3s	1.90nm		4.0mb	
YKA	60.92	30	eP	16 57.90	0.1
NUR	61.32	328	iP	16 59.30	-1.2
WB5	63.25	179	eP	17 12.50	-0.8
WRA	63.32	180	Pd	17 13.10	-0.7
	0.4s	1.70nm		4.0mb	
HFS	65.59	332	eP	17 26.60	-1.2
	0.9s	4.30nm		4.1mb	
NAO	66.04	333	P	17 29.40	-1.3
	0.7s	2.50nm		4.0mb	
ASPA	67.02	180	iPc	17 37.10	0.0
	0.5s	6.00nm		4.5mb	
GRF	74.38	325	eP	18 21.50	1.2
	0.8s	5.00nm		4.2mb	
LOR	79.26	328	eP	18 46.80	-0.1
	0.6s	2.70nm		4.1mb	
LPG	79.55	325	eP	18 49.50	0.7
	0.6s	4.80nm		4.3mb	
SMF	79.78	328	eP	18 50.00	0.4
AVF	79.85	328	eP	18 50.50	0.6
	0.8s	4.00nm		4.1mb	
MAF	80.63	328	eP	18 55.80	1.8
	0.8s	4.00nm		4.1mb	
LSF	81.00	329	eP	18 57.40	1.5
	0.8s	3.20nm		4.0mb	

S.D. = 0.9 on 25 of 25 obs.

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* APR 30, 1989 19h 50m 33.50± 1.20s
66.944 N ± 9.5km 156.325 W ±19.4km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.5 (PMR).

IMA	1.38	128	iPc	50 58.50	-1.0
TTA	4.03	178	eP	51 37.20	-0.1
BRW	4.38	358	eP	51 42.00	-0.2
SVW	5.87	177	eP	52 03.30	0.1
PMR	6.22	146	eP	52 06.80	-1.2
TOA	6.53	133	eP	52 14.30	1.6

S.D. = 1.3 on 6 of 6 obs.

APR 30, 1989 20h 22m 41.30± 0.58s
28.817 N ± 7.8km 140.694 E ± 8.7km
DEPTH = 33.0km (normal)
4.3mb (5 obs.)
BONIN ISLANDS REGION (212)

IIDJ	7.05	341	P	24 25.50	0.6
CHJJ	7.35	349	P	24 28.00	-1.1
KAKJ	7.38	357	eP	24 28.60	-0.8
TSRJ	7.80	330	eP	24 37.60	2.3
MAT	7.98	345	eP	24 38.00	0.1
MTMJ	8.12	343	P	24 40.80	0.9
NIIJ	8.52	351	P	24 44.40	-0.9
NJ2	19.10	285	Pc	27 05.00	1.0
WHN	22.94	281	eP	27 46.00	2.4
BJI	23.04	306	(P)	27 46.50	2.0
TIY	25.17	298	eP	28 04.20	-1.0
XAN	27.54	289	Pc	28 25.50	-1.6
CD2	32.01	283	eP	29 06.00	-0.9
GTA	35.19	298	eP	29 32.40	-2.1
CHTO	39.30	265	eP	30 09.50	0.4
	1.1s	2.94nm		4.0mb	
GUN	47.87	283	P	31 18.00	-0.7
WB5	48.80	188	eP	31 25.20	-0.1
WRA	48.86	188	Pc	31 25.70	-0.1
	1.1s	9.90nm		4.8mb	
GKN	48.91	283	P	31 26.10	-0.3
FBA	56.47	29	eP	32 23.00	1.0
INK	62.02	25	eP	32 58.00	-2.3
MBC	64.58	15	eP	33 16.00	-1.0
YKA	71.26	28	P	34 00.00	1.1
DAG	73.90	355	iPc	34 13.50	-0.7
	0.9s	5.88nm		4.6mb	
KVN	80.32	51	eP	34 51.50	0.6
LRM	80.51	43	eP	34 52.20	0.3
TNP	81.40	51	eP	34 57.20	0.6
EUR	81.54	50	eP	34 58.90	1.5
	1.0s	1.92nm		4.1mb	
NAO	81.81	338	P	34 56.00	-2.1
	0.8s	2.30nm		4.3mb	
PV09	86.57	48	eP	35 24.00	1.0
LPB	150.84	71	ePKP	42 35.00	7.8X
CNCB	151.07	72	PKP	42 36.00	8.3X

S.D. = 1.3 on 30 of 32 obs.

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* APR 30, 1989 20h 32m 25.69± 1.02s
66.915 N ± 8.1km 156.209 W ±13.7km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.6 (PMR).

IMA	1.32	129	eP	32 51.50	0.8
FBA	4.00	116	eP	33 28.20	-0.7
TTA	4.00	179	eP	33 29.60	0.5
BRW	4.41	358	eP	33 34.90	0.1
SVW	5.84	177	iPc	33 54.40	-0.6
PMR	6.17	147	eP	33 59.40	-0.1

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

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* APR 30, 1989 21h 24m 52.68± 0.78s
11.238 N ±15.1km 68.053 W ± 9.7km
DEPTH = 10.0km (geophysicist)
4.6mb (3 obs.)
NEAR COAST OF VENEZUELA (97)

CUM	3.89	101	eP	25 54.00	0.2
			iS	26 49.20	
TCE	6.21	94	eP	26 30.75	4.1X
TRN	6.56	94	eP	26 28.67	-2.9X
SVB	6.95	72	iP	26 35.63	-1.5
SLB	7.31	69	eP	26 42.51	0.3
UPA	11.52	260	iPc	27 33.10	-7.2X
	0.5s	21.13nm		5.7mb X	
PSO	13.58	223	eP	28 15.00	6.7X
LPB	27.59	180	(P)	30 45.00	2.3X
CNCB	27.87	180	P	30 45.20	-0.2
ALQ	42.10	310	eP	32 46.50	-0.4
	0.9s	1.07nm		3.6mb X	
BW06	47.78	319	eP	33 35.00	2.6X

KVN 52.26 311 eP 34 08.00 1.3
YKA 61.00 337 P 35 06.50 -1.9
KIC 62.66 89 P 35 19.20 -1.2
MBC 70.44 349 eP 36 07.00 -1.7
ENN 71.24 40 eP 36 15.00 1.0
1.0s 10.00nm 4.9mb
WTS 71.91 39 eP 36 19.00 1.1
0.9s 5.00nm 4.6mb
KBA 76.02 44 i(P) 36 42.60 0.4
0.8s 2.40nm 4.3mb
KHC 76.13 42 P 36 44.50 1.9
PRU 76.73 41 eP 36 46.50 0.6
S.D. = 1.3 on 14 of 20 obs.

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* APR 30, 1989 22h 03m 27.60± 2.69s
66.944 N ±17.3km 156.307 W ±21.2km
DEPTH = 5.0km (geophysicist)
ALASKA (676)
ML 3.8 (PMR).

IMA 1.37 129 eP 03 53.50 0.0
TTA 4.03 178 eP 04 31.40 0.0
FBA 4.05 117 eP 04 31.40 -0.1
SVW 5.87 177 eP 04 57.30 0.0
PMR 6.21 146 eP 05 02.20 0.1
INK 8.78 71 eP 05 38.00 0.0
YKA 18.08 84 P 07 46.70 6.0X
S.D. = 0.1 on 6 of 7 obs.

APR 30, 1989 23h 05m 26.74± 0.15s
30.071 N ± 3.2km 99.507 E ± 2.7km
DEPTH = 14.9km (4 depth phases)
5.1mb (47 obs.) 4.8Msz (1 obs.)
SICHUAN PROVINCE, CHINA (307)

CD2 3.76 76 iPnd 06 29.60 4.1X
ePg 06 39.80
KMI 5.70 149 ePg 06 55.00 1.9
Sg 08 07.00
LZH 7.02 30 P 07 14.50 2.9X
2.0s 220.00nm 5.9mb X
Z 16s 14.60um
Lg 09 14.00
GYA 7.26 118 iPc 07 16.20 1.2
S 08 35.00
LSA 7.27 269 iPd 07 18.50 3.2X
SHL 8.10 238 iP 07 23.50 -3.3X
iS 08 50.00
XAN 8.91 61 P 07 37.50 -0.4
N 10s 10.70um
E 10s 3.60um
GTA 9.32 1 iPd 07 48.10 4.5X
S 09 26.50
CHTO 11.22 183 iP 08 10.00 0.4
1.0s 137.50nm 6.2mb X
e 08 57.00
eS 10 22.00
GUN 12.12 263 P 08 19.00 -3.1X
PKI 12.61 262 P 08 25.00 -3.7X
KKN 12.67 263 P 08 26.50 -2.8X
BDT 12.78 182 ePn 08 29.00 -1.5
ePg 09 26.20
eS 12 23.00
WHN 12.84 84 eP 08 30.00 -1.3
Z 12s 9.30um
N 10s 10.30um
sP 08 44.00
DMN 12.86 263 P 08 29.30 -2.6X
TIY 13.16 51 eP 08 34.50 -1.2
sP 08 46.00
GKN 13.17 265 P 08 31.70 -4.3X
BTO 13.55 36 iPc 08 41.30 0.5
GZH 14.19 116 eP 08 47.00 -2.2
N 10s 17.10um
E 10s 7.30um
NST 14.34 178 eP 08 53.30 2.1
HHC 14.55 39 P 08 54.50 0.5
Z 12s 11.10um
N 12s 7.70um
E 10s 10.90um
pP 08 59.00
sP 09 03.00
TIA 15.97 63 P 09 13.20 0.9
Z 19s 1.50um
NJ2 16.70 78 Pc 09 22.00 0.4
4.0s 0.70nm 2.1mb X
Z 12s 5.60um 6.1Msz
E 10s 3.50um
BJI 16.86 49 eP 09 25.00 1.4
9.0s 0.33nm 1.5mb X
Z 12s 4.21um 5.2Msz
E 10s 2.83um
eS 12 44.00
NNT 17.40 179 eP 09 30.00 -0.5
e 14 33.60
QZH 17.68 102 eP 09 32.50 -1.4
Z 10s 3.40um
N 10s 7.00um
SSE 18.69 81 P 09 47.50 1.0
1.0s 36.00nm 4.5mb
Z 10s 3.80um 5.1Msz
N 10s 5.80um
eS 13 26.00
NDI 19.47 271 eP 09 54.00 -2.0
eS 13 20.00
DL2 20.21 58 P 10 04.00 0.3
N 12s 2.00um
E 12s 1.00um
KSH 21.43 302 P 10 16.00 -0.4
Z 28s 3.70um 4.6MszX
SNY 22.67 52 P 10 28.00 -0.5
Z 13s 2.60um 4.9MszX
N 15s 2.40um
E 13s 1.60um
SNG 22.80 177 eP 10 30.00 0.0
eS 14 43.10
e 17 45.20
BAG 23.60 120 eP 10 42.00 3.9X
eS 15 04.00
CN2 24.73 49 Pc 10 49.50 0.9
3.0s 0.80nm 2.8mb X
Z 10s 3.10um 5.1MszX
sP 10 59.00
S 15 15.00
sS 15 26.00
IPM 25.40 176 ePd 10 54.90 -0.3
POO 25.99 250 iPc 11 04.00 3.3X
iSn 19 13.00
GBA 26.15 236 Pc 11 01.30 -0.9
1.0s 25.40nm 4.8mb
QUE 28.11 279 eP 11 21.00 0.8
eS 16 05.00
KOD 28.49 231 eP 11 25.50 1.6
MAT 32.82 68 (P) 12 00.00 -1.7
eS 18 20.00
MAIO 33.88 291 eP 12 12.00 1.0
eS 17 44.00
TAB 44.26 295 eP 13 39.00 1.5
BHD 46.57 289 eP 13 56.00 0.3
MSL 47.00 293 ePd 13 59.50 0.3
KVT 51.75 301 eP 14 36.00 0.3
KAS 53.39 301 iPd 14 50.80 2.8X
PRNI 55.03 288 e(P) 14 59.00 -1.1
MBH 55.30 287 eP 15 01.00 -1.0
SOD 56.05 334 iP 15 06.60 -0.3
i 15 13.10 21km
KEV 56.08 336 iP 15 07.10 0.1
0.8s 22.00nm 5.2mb
SUF 56.16 328 iP 15 07.20 -0.5
0.7s 26.00nm 5.4mb
CFR 56.74 307 ePc 15 11.50 -0.6
PPE 56.92 308 eP 15 12.50 -0.9
NUR 56.95 325 iP 15 13.60 0.1
0.8s 29.30nm 5.4mb
Z 20s 0.80um 4.8Msz
LR 41 10.00
CLI 57.08 308 ePc 15 15.00 0.4
VRI 57.59 308 iPc 15 18.50 0.4
ISR 57.86 307 iPc 15 21.50 1.4
MLR 58.20 307 iPc 15 22.50 -0.1
CMP 58.88 307 ePc 15 15.00 -12.1X
WB5 59.94 142 iPd 15 33.60 -1.1
WRA 59.98 142 Pc 15 34.20 -0.8
1.0s 19.80nm 5.2mb
UPP 60.52 325 iP 15 37.30 -0.9
i 15 40.50 10km
KRA 61.16 314 eP 15 42.30 -0.4
SPC 61.17 313 iP 15 43.50 0.5
SKO 62.24 304 iP 15 50.00 -0.1
HFS 62.40 326 eP 15 50.30 -0.6
0.8s 29.90nm 5.5mb
Z 17s 0.30um 4.5MszX
LR 41 10.00
SRO 62.76 311 eP 15 54.30 0.9
ASPA 62.82 144 eP 15 55.40 1.3
ZST 63.44 312 eP 15 58.10 0.2
LR 23 46.00
NAO 63.61 327 P 15 57.90 -1.1
0.8s 23.10nm 5.4mb
VKA 63.92 312 eP 16 00.00 -1.1
PRU 64.54 315 Pd 16 05.90 0.8
1.3s 18.10nm 5.1mb
BRG 64.65 316 iP 16 06.00 0.2
1.3s 27.00nm 5.3mb
e 16 43.00 155kmX
PTJ 64.86 310 eP 16 07.50 0.1
NWAO 64.87 164 eP 16 06.50 -0.9
CLL 65.08 316 iPd 16 08.80 0.2
1.3s 21.00nm 5.1mb
KHC 65.40 314 iPc 16 11.80 1.1
BRW 66.08 20 P 16 15.00 0.3
MOX 66.12 316 eP 16 16.00 0.7
LR 48 30.00
KBA 66.20 312 iPc 16 15.90 -0.2
1.3s 18.80nm 5.1mb
i 16 21.80 19km
RBL 66.26 311 Pc 16 04.40 -12.0X
TRI 66.37 310 iPc 16 16.60 -0.4
TDS 66.64 303 Pc 16 04.10 -14.7X
GRF 66.67 315 iPd 16 19.60 0.7
1.1s 31.00nm 5.4mb
DAG 67.01 347 eP 16 18.00 -2.6
CTA 67.17 132 iPd 16 22.20 -0.2
NAI 67.27 254 iPc 16 23.50 0.1
ALE 67.29 357 eP 16 23.00 0.7
0.8s 6.00nm 4.8mb
WIT 68.28 319 eP 16 30.50 1.6
PGD 68.37 309 Pc 16 26.10 -3.8X
WTS 68.49 318 iP 16 31.40 1.2
0.9s 17.00nm 5.2mb
MME 68.94 310 Pc 16 29.80 -3.7X
IMA 69.34 25 eP 16 35.00 -0.4
1.5s 38.20nm 5.3mb
ENN 69.47 317 eP 16 37.00 0.7
1.0s 14.00nm 5.1mb
MEM 69.48 317 P 16 36.80 0.5
CDF 69.56 315 eP 16 36.90 -0.1
0.8s 6.40nm 4.8mb
VAI 69.58 312 Pc 16 26.90 -10.1X
AVY 69.69 232 eP 16 36.86 -1.5
WLF 69.76 316 P 16 39.20 1.2
TTA 69.87 28 P 16 38.00 -0.6
1.0s 16.88nm 5.1mb
BSF 70.08 314 eP 16 40.00 -0.2
0.8s 8.00nm 4.9mb
ORX 70.18 312 P 16 40.99 0.1
HAU 70.29 315 eP 16 41.00 -0.4
0.8s 3.70nm 4.6mb
UCC 70.37 318 P 16 42.50 0.7
DOU 70.51 317 Pc 16 43.10 0.4
SNF 70.53 318 iPc 16 43.29 0.5
FIN 70.59 310 P 16 42.63 -0.7
ROB 70.78 311 P 16 44.58 0.1
LSD 70.78 312 P 16 45.19 0.4
CVF 70.80 309 eP 16 44.00 -0.6
1.0s 36.00nm 5.5mb
RSP 70.84 312 P 16 43.96 -1.0
SVW 70.87 30 eP 16 45.20 0.5
IMI 70.92 310 P 16 44.68 -0.7
LPG 71.03 312 eP 16 46.60 0.3
0.8s 35.40nm 5.5mb
SAOF 71.11 310 P 16 46.65 0.2
STV 71.16 311 P 16 44.78 -2.1
MBC 71.18 9 eP 16 46.00 -0.3
0.7s 7.00nm 4.9mb
AUTN 71.19 310 P 16 47.17 -0.1
PZZ 71.20 311 P 16 44.99 -2.2
RRL 71.24 311 P 16 46.83 -0.7
SBF 71.24 310 eP 16 47.00 -0.3
0.9s 22.90nm 5.3mb
BNI 71.26 312 P 16 44.70 -2.8
AURF 71.30 310 P 16 47.17 -0.5
TOUF 71.30 310 P 16 47.50 -0.4
FBA 72.05 24 eP 16 51.50 -0.2
LOR 72.12 315 eP 16 52.00 -0.5
0.7s 6.60nm 4.8mb
LBF 72.17 314 eP 16 52.40 -0.4
0.9s 12.10nm 5.0mb
SMF 72.40 314 eP 16 53.80 -0.3
1.0s 30.00nm 5.3mb
SSF 72.43 315 eP 16 54.20 -0.1

30d 23h

	0.8s	18.80nm		5.2mb	
EKA	72.51	324 Pc	16 54.90	0.4	
	0.9s	18.20nm		5.1mb	
AVF	72.64	314 eP	16 55.50	0.0	
	1.0s	32.00nm		5.3mb	
BGF	73.06	314 eP	16 58.00	0.1	
	1.1s	15.60nm		5.0mb	
PMR	73.33	28 eP	16 58.50	-0.7	
	0.9s	47.00nm		5.5mb	
MAF	73.38	314 eP	17 00.20	0.4	
	1.1s	17.00nm		5.0mb	
TCF	73.57	314 eP	17 01.40	0.4	
	1.0s	26.00nm		5.2mb	
KDC	73.91	32 eP	17 02.10	-0.5	
LDF	73.95	317 eP	17 03.00	0.0	
	1.0s	24.00nm		5.2mb	
LSF	74.01	314 eP	17 03.00	-0.5	
	1.0s	8.00nm		4.7mb	
FLN	74.08	317 eP	17 04.40	0.6	
	1.0s	12.00nm		4.9mb	
TOA	74.21	26 eP	17 05.00	0.5	
CAF	74.27	313 eP	17 05.20	0.1	
	1.0s	14.00nm		4.9mb	
INK	74.40	18 iPd	17 04.90	-0.4	
RJF	74.44	313 eP	17 06.40	0.4	
	1.0s	16.00nm		5.0mb	
GRR	74.47	317 eP	17 06.20	0.1	
	1.0s	29.60nm		5.3mb	
ADE	74.50	147 eP	17 06.40	0.0	
LPF	74.75	317 eP	17 08.00	0.3	
	1.0s	17.60nm		5.0mb	
MFF	74.88	315 eP	17 08.60	0.1	
	1.1s	14.60nm		4.9mb	
LPO	74.94	313 eP	17 09.20	0.3	
	1.0s	12.00nm		4.9mb	
BNG	79.97	269 ePc	17 37.00	-0.4	
	0.6s	8.00nm		4.9mb	
		ic	17 39.80	9km	
		id	17 46.10		
TOL	80.67	311 eP	17 42.50	1.9	
DZM	82.60	121 iPc	17 52.00	1.0	
YKA	83.78	15 P	17 56.70	0.4	
YKC	83.82	15 ePc	17 56.50	0.0	
BUL	84.50	243 iPc	18 00.20	-0.5	
	0.9s	12.60nm		5.1mb	
IFR	84.78	306 iP	18 04.00	1.9	
SLR	87.92	239 iPc	18 16.50	-0.9	
EDM	92.26	19 ePc	18 38.20	0.9	
FFC	93.54	12 iPc	18 43.00	-0.1	
	0.9s	12.00nm		5.3mb	
BMA	146.73	274 ePKP	25 10.00	1.6	
BAO	146.92	288 ePKP	25 10.50	1.6	
ITA	147.09	275 ePKP	25 15.30	6.0X	
VAO	149.27	275 e(PKP)	25 17.00	4.5X	
LPB	162.38	317 PKP	25 32.00	2.3X	
CNCB	162.53	316 PKP	25 32.00	2.0	
	S.D. = 0.9	on 142 of 164 obs.			

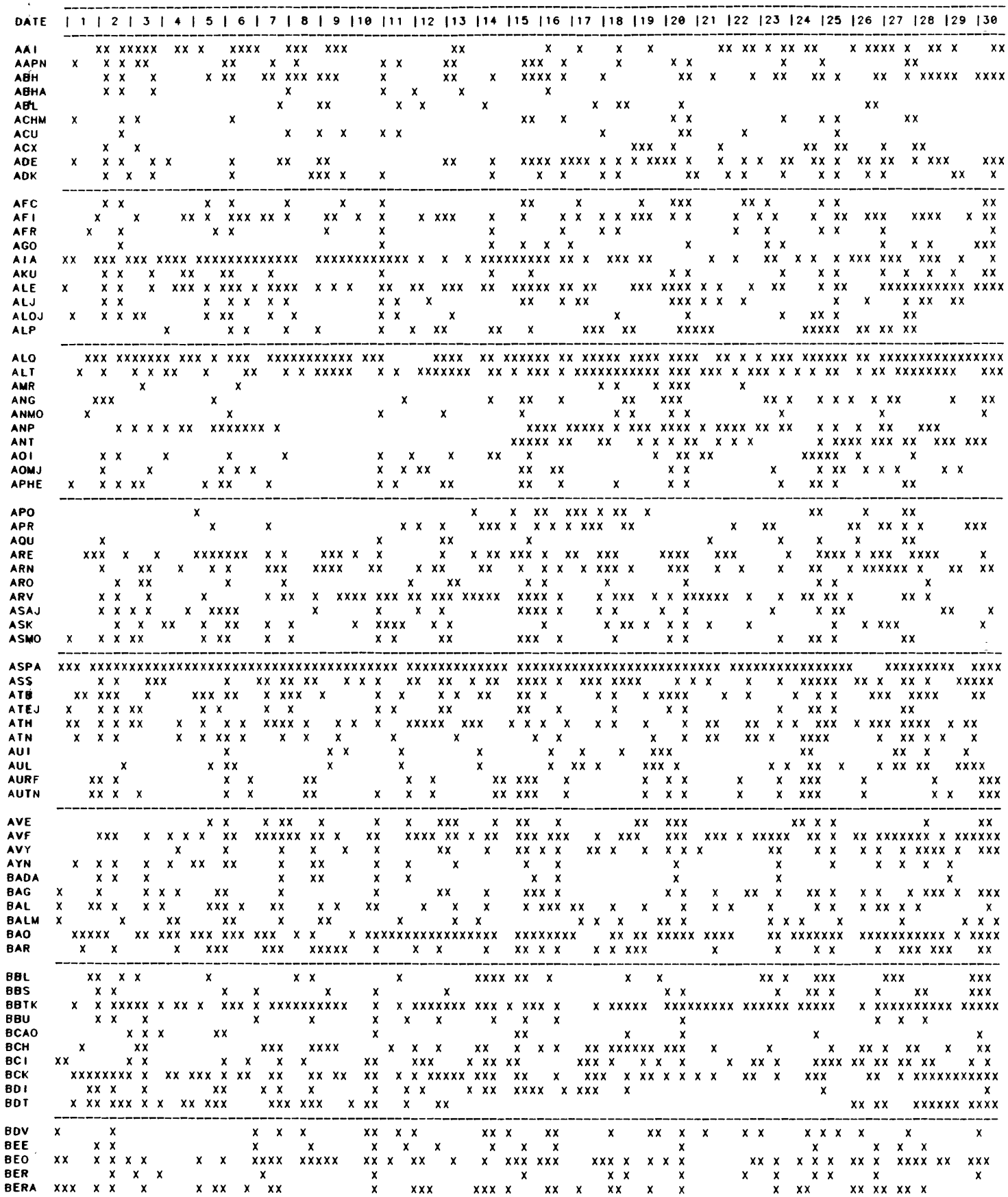
? APR 30, 1989 23h 44m 35.73± 0.83s
32.153 N ± 8.5km 96.891 E ±12.6km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)
QINGHAI PROVINCE, CHINA (325)

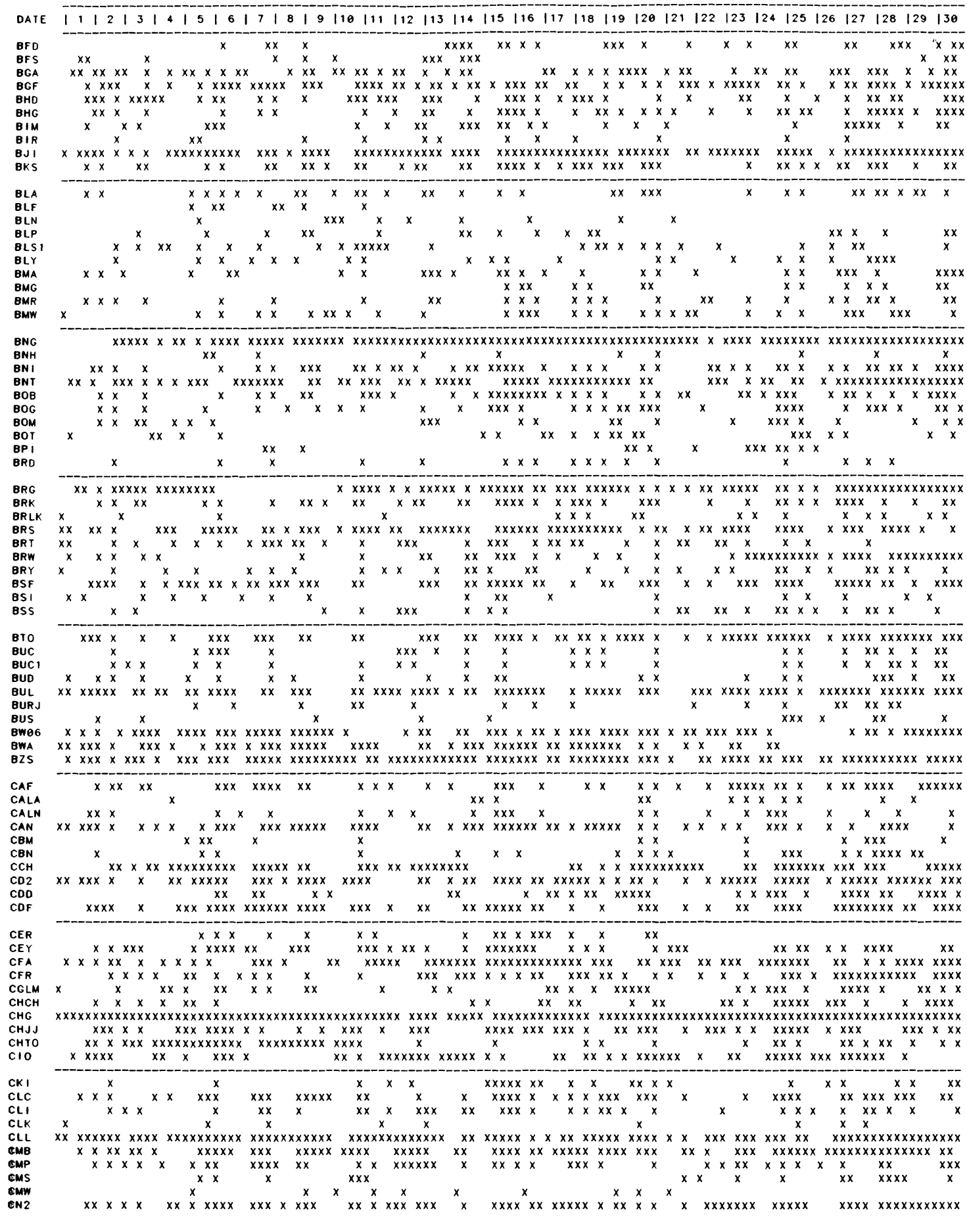
LZH	6.97	54 eP	46 28.50	10.1X	
	1.8s	74.00nm			
SHL	7.89	215 iP	46 13.00	-18.3X	
		eS	47 41.00		
GUN	10.44	249 P	47 07.70	1.2	
	0.5s	13.00nm		5.4mb X	
PKI	10.96	248 P	47 12.70	-0.9	
KKN	10.97	250 P	47 13.30	-0.3	
	0.5s	9.00nm		5.2mb X	
CHG	13.41	172 eP	47 46.40	0.2	
CHTO	13.41	172 eP	47 46.10	-0.1	
	1.0s	5.00nm		4.4mb	
SUF	53.20	327 eP	53 54.00	1.4	
KEV	53.27	336 eP	53 53.00	0.0	
NUR	53.97	324 eP	54 00.00	1.8	
UPP	57.52	324 iP	54 23.10	-0.8	
HFS	59.42	325 eP	54 35.80	-1.3	
	0.5s	0.80nm		4.1mb	
NAO	60.64	326 P	54 44.40	-1.1	
	1.2s	4.30nm		4.5mb	
YKA	82.34	14 P	57 01.30	6.2X	
	S.D. = 1.2	on 11 of 14 obs.			

STATION DATA REPORT FOR APRIL, 1989

1384 stations reported 61314 reoding orrivol groups

X = doto received for this 6-hour time period

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CDF
CER
CEY
CFA
CFR
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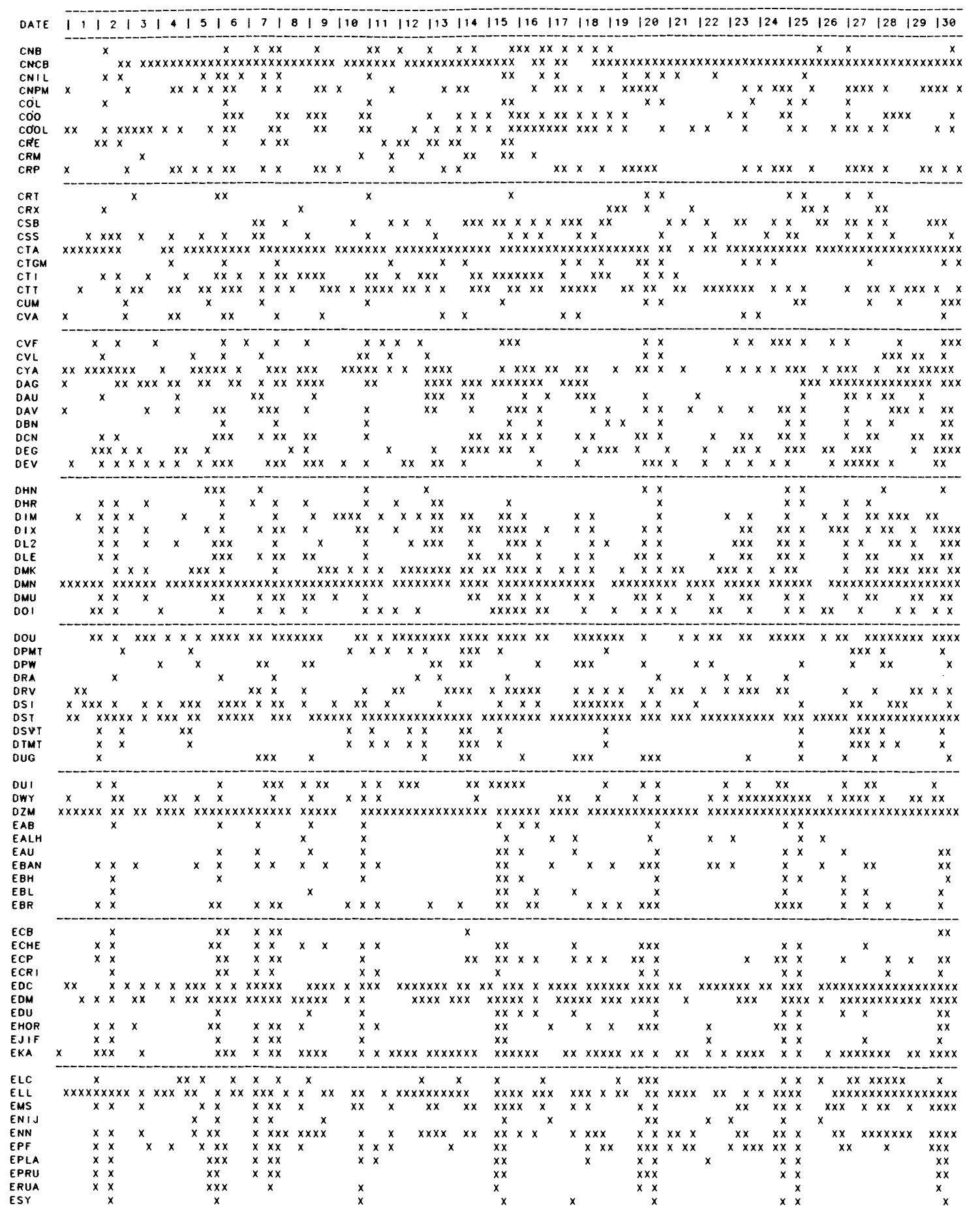
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CNIL
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CRE
CRM
CRP
CRT
CRX
CSB
CSS
CTA
CTGM
CTI
CTT
CUM
CVA
CVF
CVL
CYA
DAG
DAU
DAV
DBN
DCN
DEG
DEV
DHN
DHR
DIM
DIX
DL2
DLE
DMK
DMN
DMU
DOI
DOU
DPMT
DPW
DRA
DRV
DSI
DST
DSVT
DTMT
DUG
DUI
DWY
DZM
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EALH
EAU
EBAN
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EBL
EBR
ECB
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ECP
ECRI
EDC
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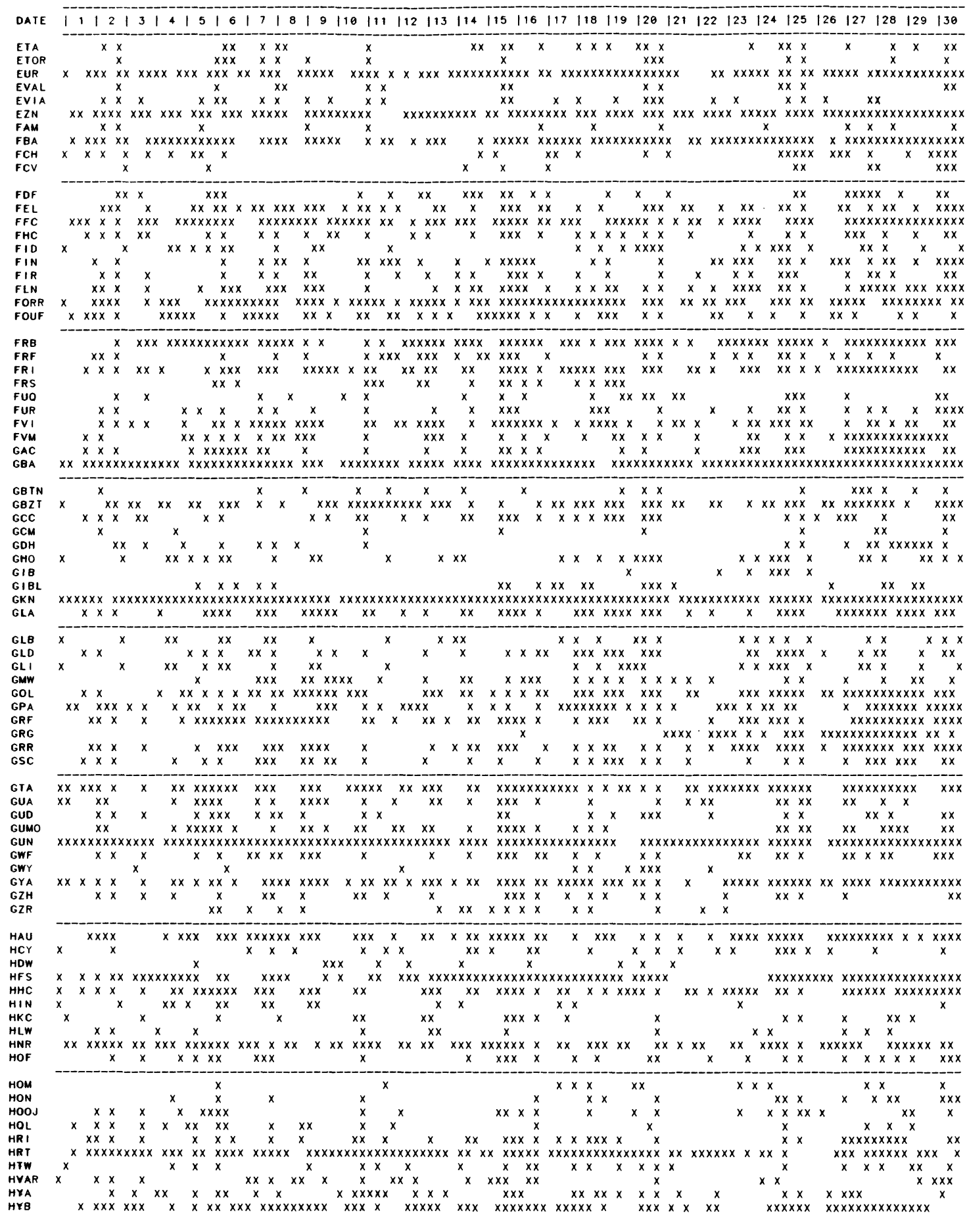
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FIN
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FOUF
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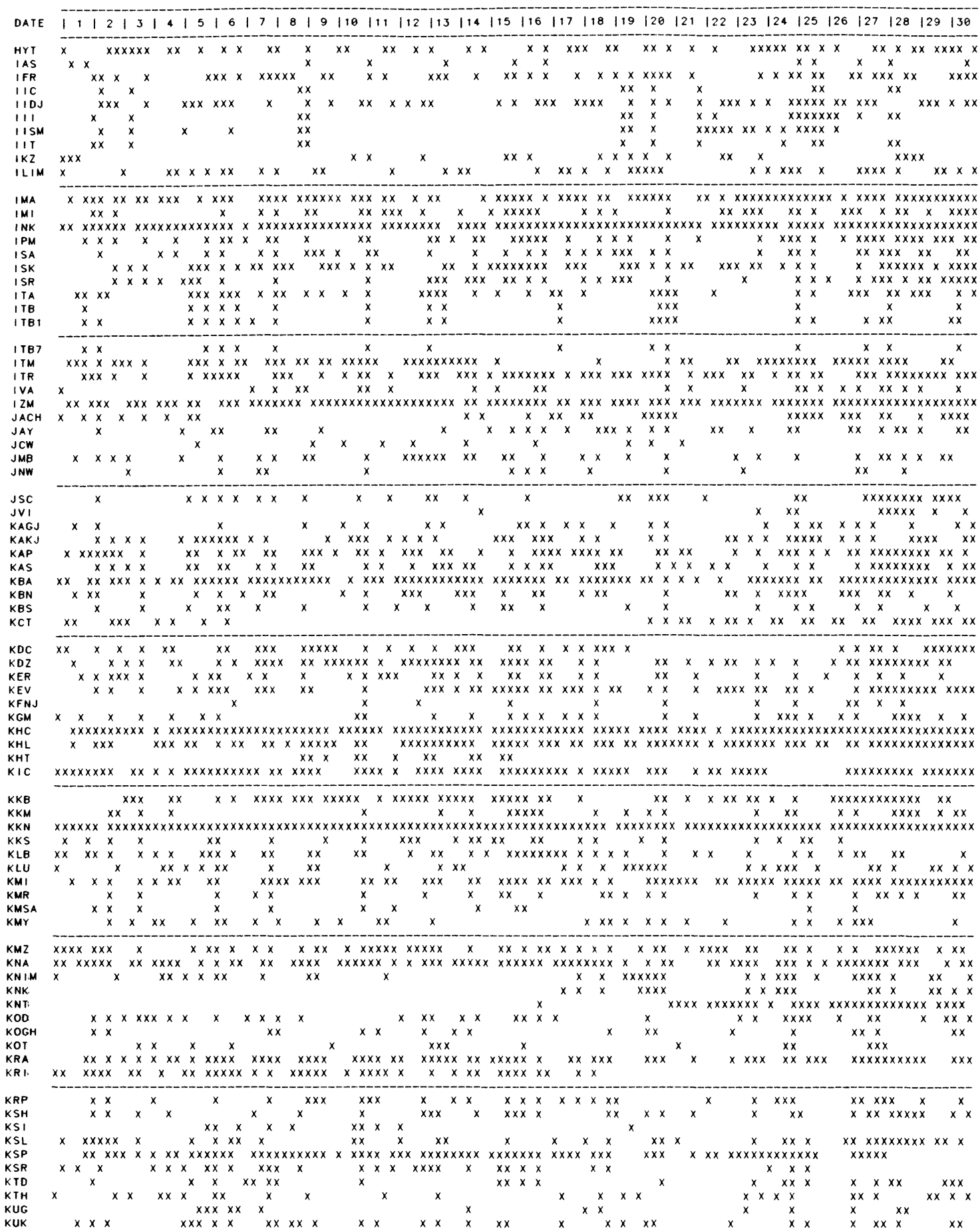
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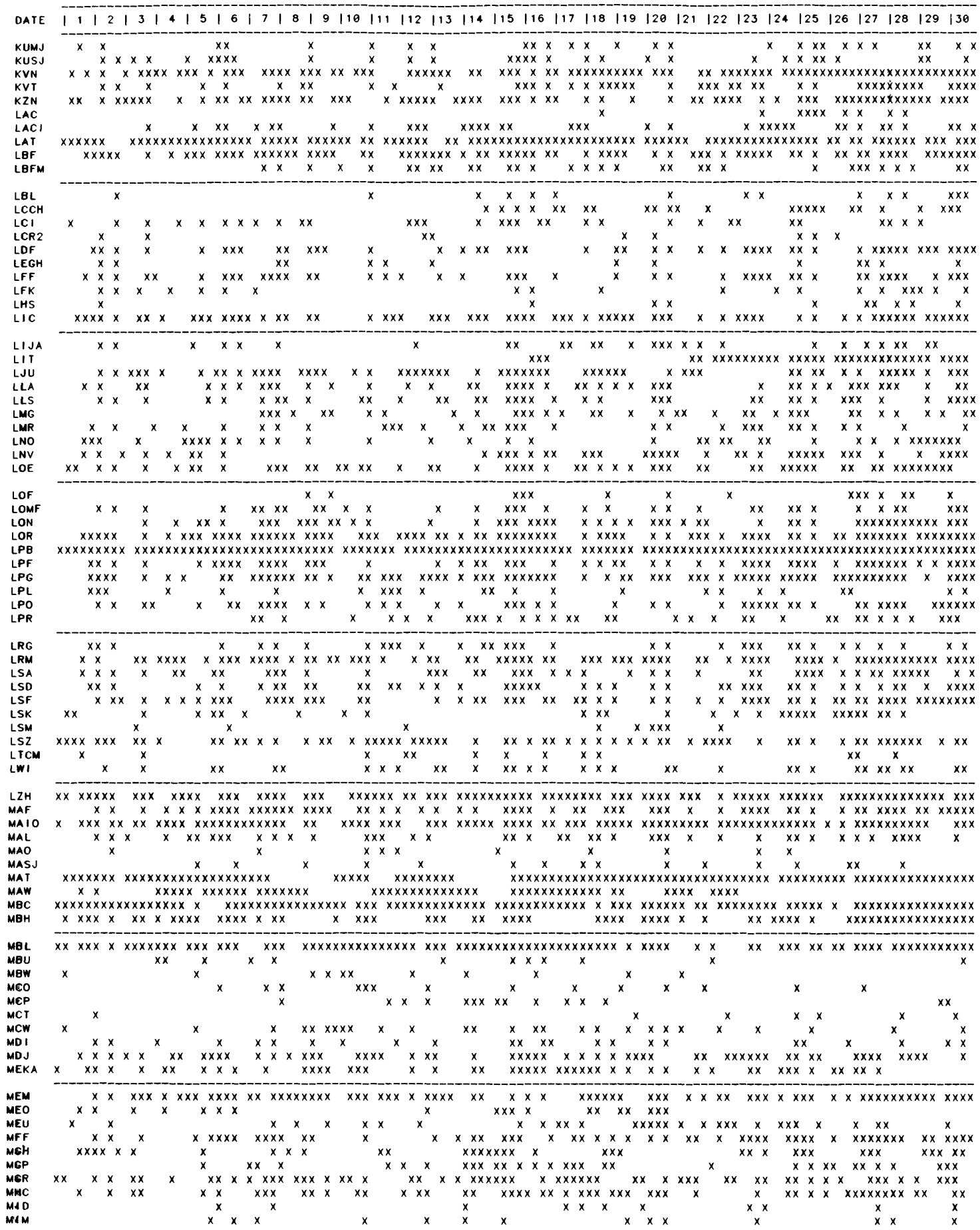
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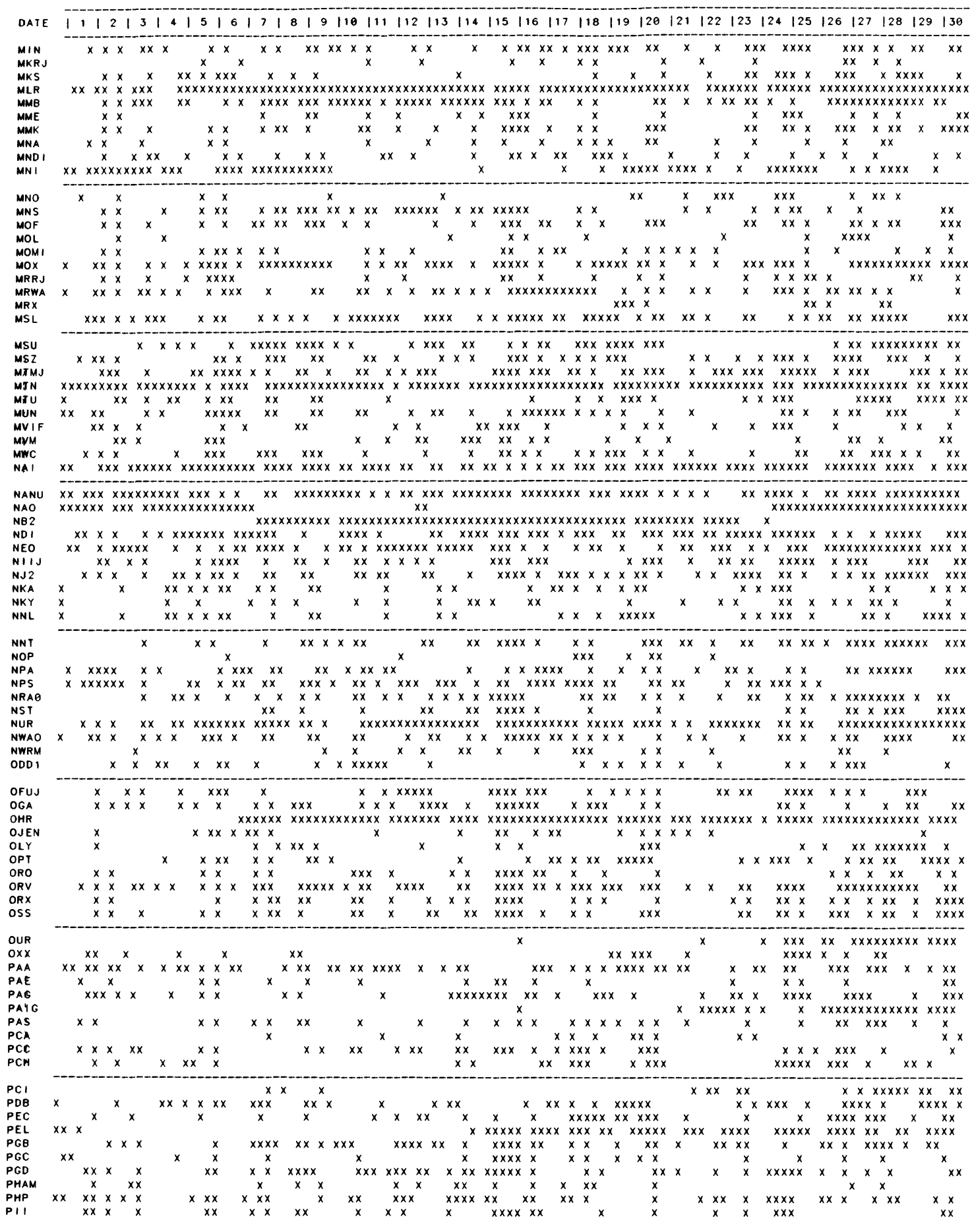
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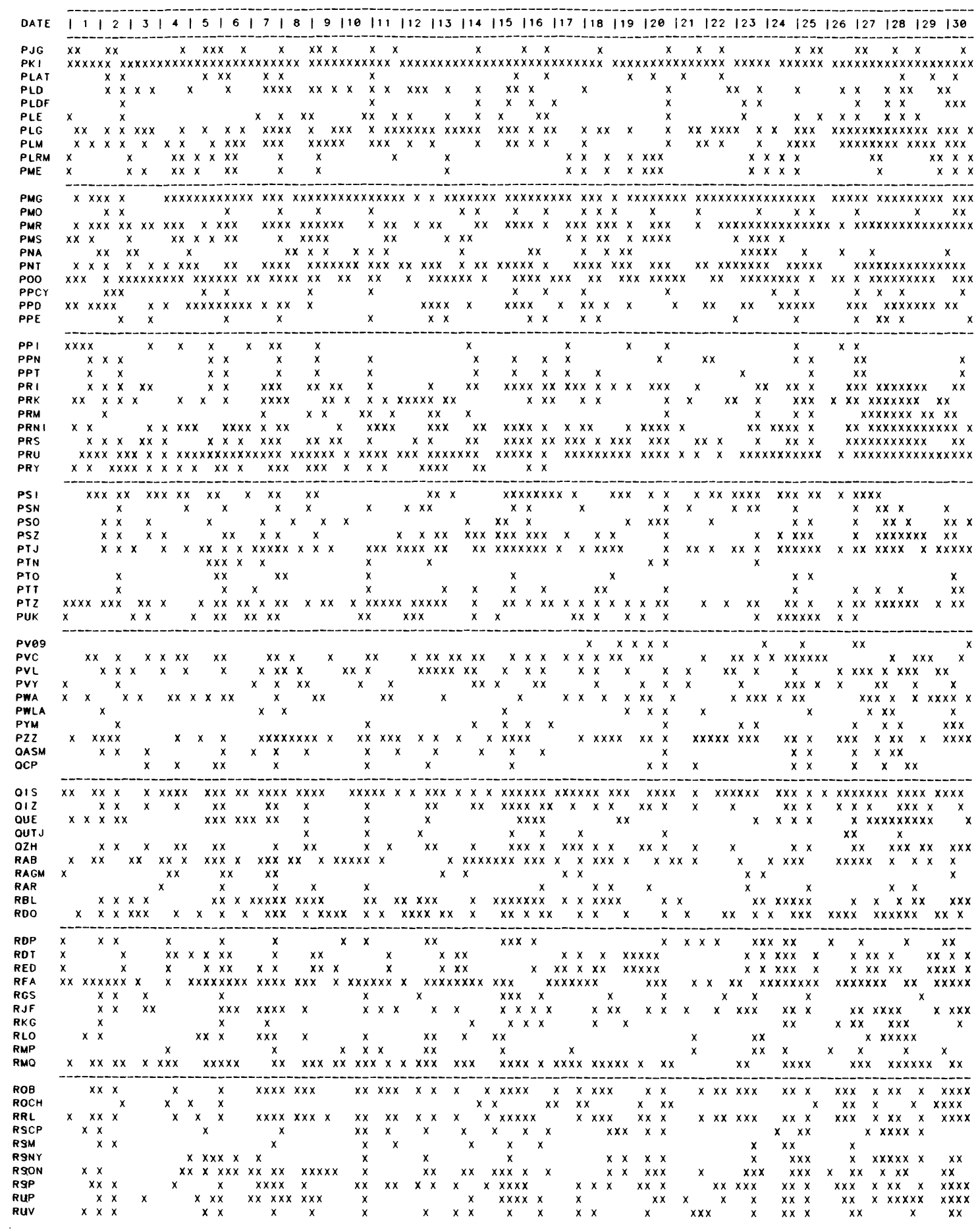
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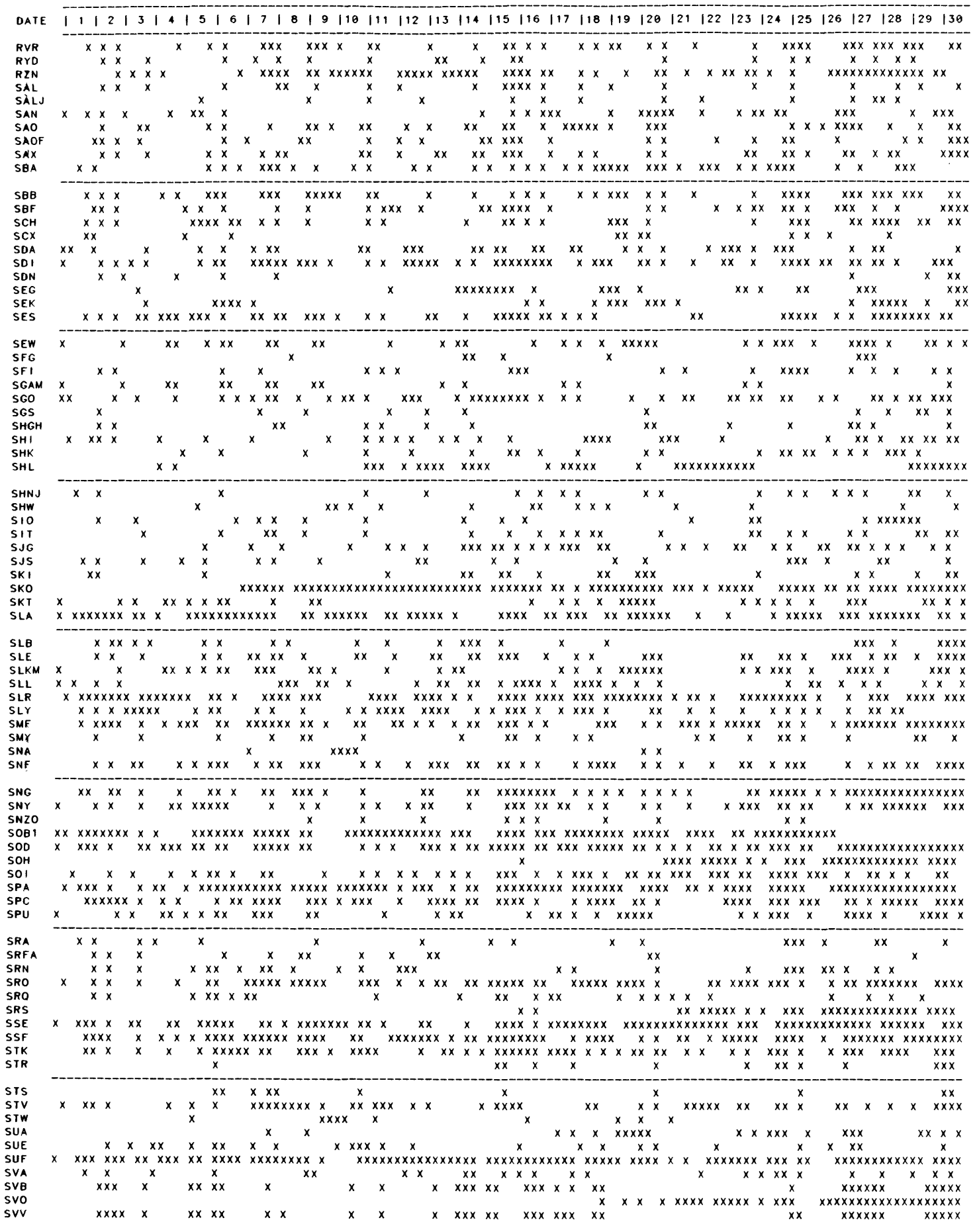
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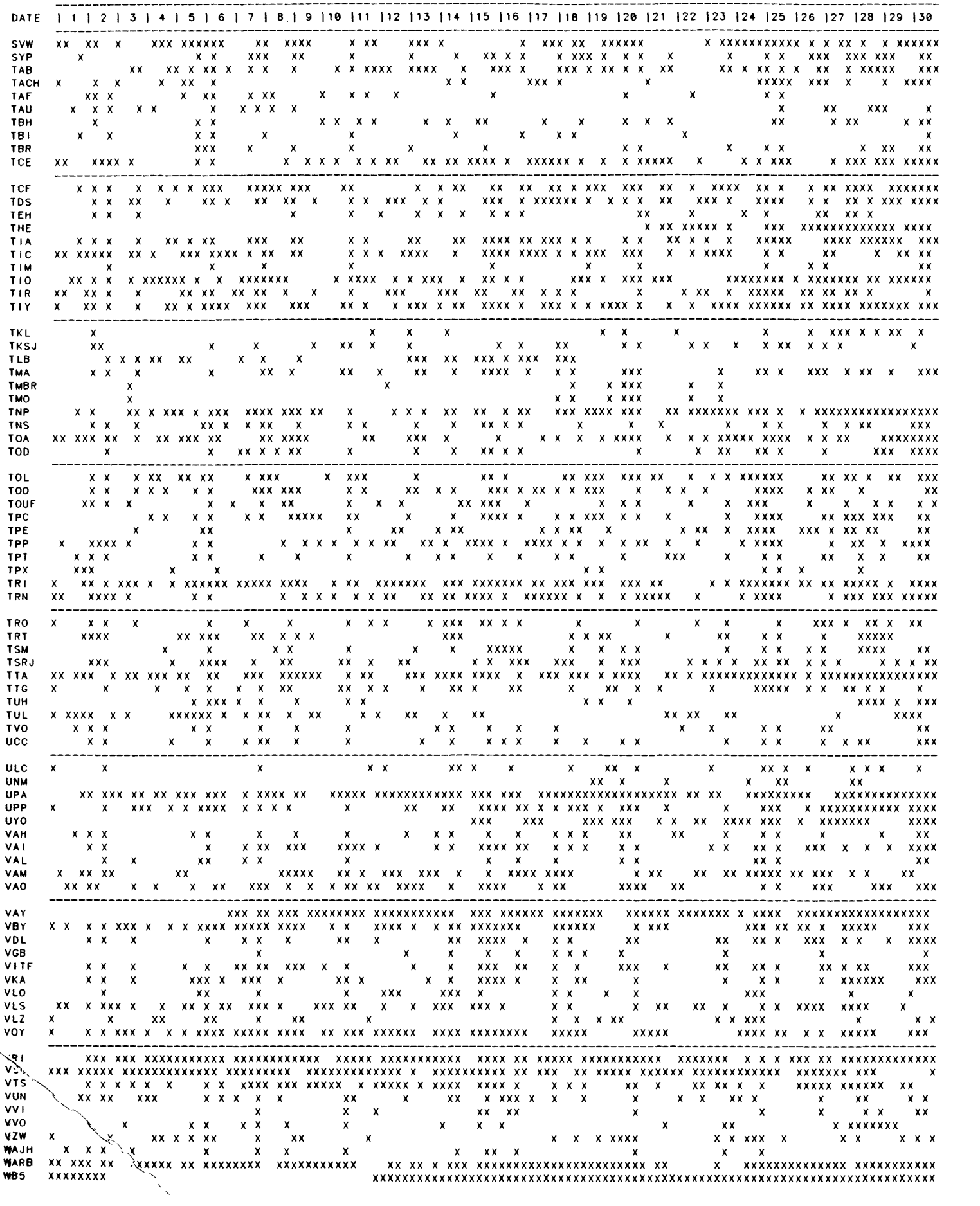
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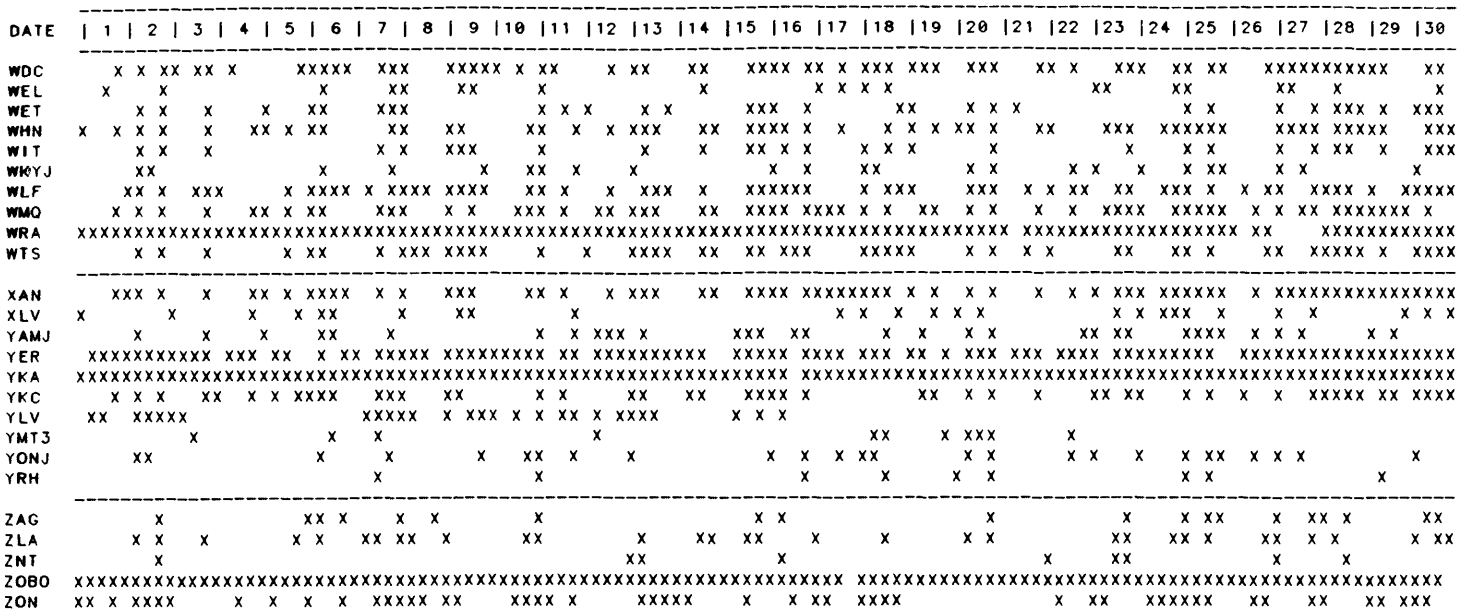

The following stations each reported less than 10 readings:

AAA	AAE	ACR	AD2	ADH	ADI	AGX	AHA	AIN	AJI	AK3	ANCC	ANR	ANTO	APA	APE	APW	ASH
ASR	ATA	ATZ	AUE	AUH	AZI	BAA	BAC	BAK	BCPM	BERF	BGB	BGMT	BIB	BJA	BKB2	BLH	BLS
BLS3	BLT	BLVT	BMTN	BRF	BSK	BTB	BTG	BUT	BVA	CAO	CAR	CAYA	CBB	CBI	CBZ	CCB	CCMT
CDFW	CDH1	CDM	CEI	CFTV	CGL	CHI	CHN	CHO	CIS	CJR1	CLE	CLMC	CLV	CMG2	CMZ	CNBA	CNZ
COB	COI	COLM	COP	COTA	COZ	CPB	CPE	CPH	CPK	CPW	CPX	CRF	CTAO	CTCR	CTFE	CTS	CVD
CVT	CVVD	CZM	DAF	DAH	DCU	DDM	DES	DHW2	DIAC	DLA	DLB	DLM	DOG	DOR	DSC	DSH	DVT
EBG	EDI	ELF	ELO	ELT	EMEL	EMM	EMN	EMON	EPA	EPH	EPR	ERC	ERE	ERK	EROQ	ESD	ESEL
ESR	ETER	ETT	EZAM	FAI	FAR	FIG	FISA	FKO	FKS	FL2	FLAG	FMT	FMW	FRU	FUG	FUN	FYU
GANF	GBR	GBZ	GCAZ	GCG	GDR	GELF	GEN	GGC	GHW	GLH	GLK	GLM	GLR	GMB	GMN	GMR	GMTN
GNZ	GRA2	GRB2	GRB3	GRB4	GRB5	GRC1	GRC3	GRC4	GRFO	GRI	GRM	GRO	GRS	GRT	GRW	GSH	GSM
GUAC	GUAN	GULW	GVN	HAC	HAY	HBF	HBH	HBZ	HCR	HDA	HDC2	HIA	HIL	HJJ	HKM	HLK	HLP
HMH	HMT	HNB	HNH	HOBC	HOO	HOQC	HOR	HPI	HPU	HQN	HRV	HRY	HSR	HTC	HTU	HUH	HUL
HVD	HYF	ICR	IDC	IKP	ILT	IMW	INY	IRK	IRZ2	ISN	ITG	IVF	IVT	IXG	JAT	JCK	JIZN
JLK	JLU	JMI	JON	JTS	JUD	KAE	KAI	KAIM	KAN	KFH	KHE	KHU	KIH	KIM	KIR	KIS	KKG
KKU	KKZ	KLI	KLM	KMG	KMJ	KMOR	KNH	KOC	KOH	KOSW	KPO	KRNA	KRO	KUH	KUM	KUPT	KUR
KUS	KYO	LCCM	LCH	LDN	LIB	LIS	LLAV	LMW	LOM	LOP	LPI	LVI	LVP	LVV	LVY	MAE	MAJO
MCA	MCK	MCQ	MDZ	MEMT	MEW	MGD	MGG	MGM	MIT	MIY	MKA	MKL	MKT	MLH	MLX	MMG	MML
MNB	MNK	MOE	MOO	MORO	MOS	MRK	MRL	MSI	MTD	MTE	MTH	MTI	MTMW	MVH	MWH	MXC	MYK
MYT	MZP	MZX	NA2	NAB	NAC	NAG	NAH	NAV	NBO	NC2	NDE	NDF	NEA	NEM	NEV	NEZ	NGH
NGI	NGO	NLO	NLW	NNA	NOH	NPH	NPN	NRI	NRN	NSS	NVS	NZJ	OBH	OBI	OBO	OCO	ODS
OHW	OLQ	ONA	ONR	OOW	OPA	OSD	OSG	OSH	OTR	OUT	OVA	PANV	PAX	PBC	PCO	PDA	PET
PFB	PFH	PGW	PHC	PIG	PKEM	PLH	PLL	PNJ	PNL	PNP	POA2	POH	POW	PPK	PPL	PRAF	PRJ
PRN	PRZ	PS4	PTI	PTS	PUH	PUL	PURC	PUYF	PV10	PVV	PWH	PYA	PZI	QCR	QCS	QPS	QSM
QZG	RAO	RBA	RDJ	RDS	REC	REVF	REY	RFI	RIM	RIN3	RIV	RKT	RPW	RRI2	RRO	RTY	RVC
RVW	RW1	RW4	SALC	SAM	SAP	SASA	SAV	SAW	SBG	SCE	SCI	SDH	SDV	SEN	SFF	SGH	SGV
SHE	SHR	SHRG	SIM	SIUC	SKDB	SKR	SLP	SLW	SMW	SNB	SOC	SOG	SOG2	SONG	SPRG	SPT	SPW
SQF	SRG	SSB	SSO	SSP	SSR	SSS	SSV	STD	STU	SUM	SVE	SVP	SWH	SWZ	SXM	TAC	TAIF
TAS	TAT	TAVF	TAZ	TBM	TBT	TDD	TDH	TDL	TEGH	TER	THI	TIG	TIK	TMP	TMR	TOK	TPR
TREF	TRH	TRM	TRR	TSI	TWW	UAV	URA	USI	UTS	UWA	UWE	UZH	VACR	VAN	VBEM	VC1	VCR
VDB	VGZ	VILF	VIPM	VLMM	VPS2	VTG	WA4	WAX	WEGH	WES	WHA	WHB	WHC	WIH	WKA	WKH	WKY
WMZ	WOB	WOH	WPB	WPW	WRD	WRH	WRN	WTV	WTZ	YAKW	YEL	YKU	YMT1	YMT2	YMT4	YMT5	YMT6
YOK	YSS	YUP	ZAK	ZSP													