UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

EARTHQUAKE DATA REPORT

FEBRUARY 1989

by

U.S. Geological Survey

NATIONAL EARTHQUAKE INFORMATION CENTER[1]

Open-File Report 89-602-A

1989

[1]USGS, Denver, Colorado

89-602-A &B

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

to agree w/ format of title on routing sheet

Earthquake Data Report ~~for~~ February 19 89

The Earthquake Data Report (EDR) is ~~a bulletin~~ produced by the National Earthquake Information Center (NEIC) and 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.

listing

The EDR data ~~are written~~ on three 1.2 megabyte, high-density, 5 1/4 inch diskettes ~~and~~ that 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.).

OF 89-602-B consists of

OF 89-602-A is 270-page paper copy of the EDR, also available as microfiche.

EDR No. 2-89
Part 1 of 2
P. 1-134

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.

FEB 01, 1989 01h 14m 18.56± 0.41s
45.986 N ± 3.7km 2.867 E ± 3.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.9 (LDG). MD 2.1 (STR).

AGO	0.20	70	Pg	14 22.96	0.1
PYM	0.25	157	Pg	14 23.55	-0.5
			Sg	14 27.31	
MAF	0.32	319	Pg	14 24.90	-0.2
			Sg	14 29.10	
PLDF	0.53	91	Pg	14 29.02	-0.2
TCF	0.55	304	Pg	14 28.90	-0.8
			Sg	14 35.00	
BGF	0.57	359	Pg	14 29.60	-0.6
			Sg	14 37.10	
LBL	0.80	160	Pg	14 33.51	-0.5
			Sg	14 44.16	
AVF	0.87	22	Pg	14 35.30	0.0
			Sg	14 46.80	
SMF	0.94	45	Pg	14 36.50	-0.1
			Sg	14 49.20	
LSF	0.97	286	Pg	14 36.40	-0.6
			Sg	14 48.00	
SSF	1.16	22	Pg	14 40.30	0.0
			Sg	14 55.30	
RJF	1.17	235	Pg	14 39.90	-0.5
			Sg	14 54.30	
CAF	1.20	208	Pn	14 39.50	-1.5
			Pg	14 40.60	
			Sg	14 55.90	
LBF	1.26	37	Pg	14 42.50	0.5
			Sg	14 58.40	
LOR	1.45	28	Pg	14 45.70	0.8
			Sg	15 04.10	
LPO	1.76	223	Pg	14 51.20	1.9
			Sg	15 13.00	
LFF	1.83	236	Pg	14 52.20	2.0
			Sg	15 15.00	
EPF	3.46	212	Pg	15 23.10	9.5X
			Sg	16 07.00	

S.D. = 1.0 on 17 of 18 obs.

% FEB 01, 1989 01h 22m 44.30± 0.72s
39.776 N ± 6.8km 27.837 E ± 6.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.57	2	iPg	22 55.40	-0.5
			iSg	23 04.40	
BNT	0.58	6	iPg	22 55.70	-0.4
KCT	0.62	40	iPg	22 56.20	-0.6
			iSg	23 04.70	
DST	0.63	105	iPg	22 56.90	-0.2
EZN	1.17	273	iPn	23 06.60	0.5
YLV	1.42	56	iPn	23 09.20	-1.0
IZM	1.45	198	ePn	23 10.00	-0.6
ISK	1.59	36	ePn	23 14.00	1.5
GBZT	1.59	50	ePg	23 35.00	22.4X
KHL	1.96	137	ePn	23 21.00	3.1X
GPA	1.97	74	ePn	23 19.20	1.2
DMK	2.04	358	ePn	23 22.00	2.9X

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

FEB 01, 1989 01h 45m 49.16± 0.66s
44.507 N ± 6.5km 9.536 E ± 5.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

BOB	0.27	346	Pc	45 53.60	-1.2
			iSg	45 57.80	
GEN	0.44	259	P	45 58.10	-0.1
			S	46 05.45	
BDI	0.88	120	P	46 06.70	0.5
			eSg	46 16.50	
CKI	0.90	265	P	46 06.30	-0.2
			eSg	46 20.00	
FIN	1.00	253	P	46 07.93	-0.2
			S	46 21.35	
PII	1.06	137	P	46 08.80	-0.3
			eSg	46 22.70	
ROB	1.21	260	P	46 11.17	-0.6
			S	46 26.77	
IMI	1.33	244	P	46 12.81	-0.9
ORO	1.57	316	P	46 16.70	-0.5
			eSn	46 36.20	
ORX	1.57	316	P	46 17.76	0.5
			S	46 37.61	
STV	1.61	261	P	46 17.14	-0.6
PZZ	1.74	271	P	46 21.11	1.4
RSP	1.74	292	P	46 21.87	2.1

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

FEB 01, 1989 01h 54m 13.21± 0.44s
44.952 N ± 4.3km 20.707 E ± 5.5km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 3.4 (TTG), 3.3 (VKA). Felt at Poncevo and Beograd.

BEO	0.22	234	iPg	54 16.70	-1.3
			eSg	54 20.00	
SSR	0.74	96	iPc	54 38.00	10.2X
TIM	0.86	25	eP	54 46.70	16.9X
BZS	0.92	44	iPc	54 32.00	1.2
DEV	1.81	58	iPd	54 47.00	2.4
PLE	1.88	211	ePn	54 48.00	2.3
			eSn	55 14.00	
IVA	2.16	196	ePn	54 51.20	1.4
			eSn	55 21.00	
UZD	2.21	319	ePn	54 50.60	0.1
PVY	2.42	193	ePn	54 55.00	1.5
			eSn	55 27.30	
DRA	2.54	95	ePd	55 06.00	10.9X
BRY	2.58	218	ePn	54 57.40	1.6
			eSn	55 32.40	
CJR1	2.69	47	eP	55 04.50	7.2X
TTG	2.73	203	ePn	54 59.50	1.6
			eSn	55 34.70	
TIH	2.77	316	ePn	54 58.00	-0.4
BUD	2.79	336	ePn	54 57.00	-1.7
VTS	2.97	142	eP	55 00.00	-1.4
PSZ	3.02	350	ePn	55 01.80	-0.2
SKO	3.03	170	iPn	55 08.00	6.0X
			iPb	55 12.50	
			iSn	55 42.50	
			iSb	56 49.50	
SRO	3.31	331	ePn	55 05.80	-0.2
			e	55 51.60	
			i	56 08.10	
ZAG	3.44	286	e(Pn)	55 08.20	0.3
PGB	3.47	133	iPc	55 07.00	-1.4
PTJ	3.48	288	ePn	55 07.50	-1.0
			ePb	55 18.30	
			ePg	55 25.60	
			eSn	56 04.00	
KKB	3.54	150	eP	55 09.00	-0.3
MLR	3.74	80	ePc	55 24.00	11.7X
PVL	3.76	116	eP	55 12.00	-0.4
OHR	3.84	179	ePn	55 12.70	-1.0
VAY	3.88	159	ePn	55 12.00	-2.1
VBY	3.89	280	e(Pn)	55 30.80	16.5X
			e(Sn)	56 16 30	
MMB	4.02	146	iPc	55 16.00	-0.2
PLD	4.07	133	eP	55 27.00	10.2X
ZST	4.09	324	ePn	55 15.60	-1.5
			i	55 22.40	
			i	55 30.40	
			i	56 14.50	
			e	56 45.40	
ISR	4.14	85	eP	55 32.50	14.6X
SPC	4.25	356	e(Pn)	55 22.00	2.4
			i	55 49.80	
			e	56 56.00	
VRI	4.34	76	ePc	55 34.00	13.3X
LJU	4.48	286	eP	55 45.00	22.4X
			e(Sn)	56 18.50	
			e	56 47.10	
VKA	4.49	319	e(Pn)	55 22.50	-0.3
	0.5s		14.10nm		
			i	55 34.20	
			i	56 24.80	
			iSg	56 37.50	
CEY	4.50	282	e(Pn)	55 44.40	21.5X
			e(Sn)	56 38.30	
DIM	4.55	128	eP	55 33.00	9.3X
			S	56 43.00	
KDZ	4.76	132	eP	55 26.00	-0.8
VOY	4.91	285	e(Pn)	55 47.00	18.1X
			eSn	56 51.80	
JMB	4.93	118	eP	55 38.00	8.9X
			iS	56 56.00	
KRA	5.13	354	eP	56 03.90	32.0X
CFR	5.28	85	eP	56 00.50	26.5X
KBA	5.55	295	eP	55 58.00	19.9X
	0.7s		4.10nm		
			e	56 11.00	
			i	56 43.00	
			i	56 54.90	
			i	57 19.20	
KHC	6.42	313	P	55 49.40	-0.7
			e	57 42.50	
PRU	6.54	323	P	56 03.50	11.7X
KSP	6.60	335	eP	55 43.00	-9.6X

S.D. = 1.4 on 27 of 47 obs.

* FEB 01, 1989 01h 56m 18.15± 0.92s
39.624 N ± 9.8km 142.259 E ±17.5km
DEPTH = 67.0 ± 6.3 km
4.5mb (5 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) at Miyoko and Ofunato.

MIY	0.23	276	iP+	56 27.60	-1.0
			iS	56 32.40	
OFUJ	0.71	220	iP+	56 32.00	-1.2
			iS	56 40.90	
YAMJ	2.26	231	P	56 53.60	-0.3
HOOJ	2.86	15	P	57 03.70	1.3
			eS	57 37.40	
MRRJ	2.94	343	eP	57 03.70	0.3
			eS	57 36.90	
NIIJ	3.49	228	eP	57 11.60	0.4
KAKJ	3.79	206	eP	57 15.00	-0.4
			eS	57 58.20	
KUSJ	3.93	27	P	57 16.60	-0.7
			S	58 01.00	
CHJJ	4.41	217	eP	57 24.30	0.2
			eS	58 17.30	
MAT	4.44	227	iPc	57 25.70	1.2
	0.7s		47.95nm		
MTMJ	4.64	231	eP	57 29.10	1.6
IIDJ	5.39	221	eP	57 38.20	0.3
			eS	58 44.10	
GUN	47.61	274	P	04 50.00	0.3
	0.6s		8.00nm		4.8mb
KKN	48.13	274	P	04 54.00	0.5
PKI	48.14	274	P	04 52.40	-1.3
DMN	48.35	274	P	04 53.20	-2.1
GKN	48.52	275	P	04 56.80	0.4
	0.6s		6.00nm		4.8mb
INK	51.79	28	eP	05 30.00	9.4X
GBA	62.10	265	Pd	06 33.70	-0.7
	0.4s		1.10nm		4.3mb
HFS	72.01	336	eP	07 36.80	0.6
	0.4s		1.80nm		4.4mb
NAO	72.34	337	P	07 38.60	0.4
	0.6s		1.50nm		4.1mb

S.D. = 1.0 on 20 of 21 obs.

% FEB 01, 1989 02h 17m 41.50± 1.06s
44.814 N ± 5.6km 6.849 E ±12.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.1 (GEN).

RRL	0.12	337	Pd	17 44.46	-0.2
			S	17 46.37	
PZZ	0.36	150	P	17 48.81	-0.1
			S	17 54.12	
RSP	0.44	41	P	17 50.16	-0.4
			S	17 57.13	
STV	0.66	149	P	17 54.77	0.0
			S	18 03.69	
LSD	0.68	19	P	17 55.69	0.5
ROB	0.90	125	P	17 58.91	0.2

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

* FEB 01, 1989 02h 35m 59.11± 1.26s
19.673 S ±12.5km 68.740 W ±16.4km
DEPTH = 165.3 ± 15.5 km
CHILE-BOLIVIA BORDER REGION (124)

CNCB	2.94	14	P	36 48.00	0.6
LPB	3.18	11	P	36 51.30	0.9
	1.0s		80.00nm		
CCH	3.36	48	eP	36 51.00	-1.4
ZOBO	3.44	10	P	36 54.00	0.3
ARE	4.13	320	iPc	37 01.70	-0.7

01d 02h

		iS	37 47.50		
HJA	4.70	139 ePc	37 09.80	0.3	
KIC	68.05	74 P	46 43.20	0.1	
YKA	89.52	341 P	48 42.40	4.1X	
GBA	147.08	95 PKPc	55 27.10	4.8X	
	0.7s	2.70nm			
	S.D. = 1.2	on 7 of 9 obs.			

FEB 01, 1989 03h 34m 15.89± 0.86s
24.382 S ± 7.7km 67.588 W ± 9.1km
DEPTH = 180.9 ± 8.0 km
4.7mb (3 obs.)
CHILE-ARGENTINA BORDER REGION (127)

HJA	2.31	60 iPc	34 55.00	-1.8	
		(S)	35 20.50		
CCH	7.09	11 eP	35 59.60	1.2	
CNCB	7.54	357 iPd	36 05.00	0.3	
LPB	7.82	356 P	36 09.00	0.7	
	1.0s	120.00nm		5.2mb X	
ZOBO	8.09	356 P	36 11.20	-0.7	
Z	20s	0.15um			
		LR	38 24.00		
ARE	8.69	334 eP	36 18.00	-1.4	
		eS	37 47.00		
PEL	9.14	197 eP	36 25.50	0.4	
ITB1	12.02	94 e(P)	37 03.60	1.0	
ITB	12.18	95 e(P)	37 04.70	0.0	
ITB7	12.21	96 e(P)	37 06.70	1.6	
VBA	14.45	162 ePd	37 28.50	-4.7X	
		S	37 33.50		
VAO	18.94	90 iPc	38 18.70	-6.8X	
		e	38 36.00		
BRAS	20.27	89 iPc	38 25.80	-13.5X	
ATB	25.68	38 e(P)	39 20.20	-10.7X	
RLO	65.56	336 eP	44 42.50	0.5	
LNO	65.63	335 e(P)	44 42.00	-0.3	
SIO	65.68	335 e(P)	44 43.30	0.5	
LIC	68.07	72 P	44 53.58	-4.6X	
TIC	68.28	72 P	44 55.58	-3.9X	
KIC	68.38	72 Pc	44 55.70	-4.5X	
	0.6s	35.00nm		5.3mb	
ALQ	69.56	327 eP	45 08.70	1.5	
	0.9s	10.50nm		4.6mb	
KUK	72.12	74 eP	45 18.50	-4.2X	
LRM	80.88	330 eP	46 13.50	2.4X	
MAW	81.23	163 eP	46 13.00	0.6	
BUL	87.25	111 iPd	46 42.20	-1.4	
BNG	88.30	84 ePd	46 47.10	-1.4	
	0.6s	3.00nm		4.4mb	
YKA	94.30	340 P	47 16.50	1.4	
ASPA	127.89	205 ePKP	53 02.10	0.0	
	0.6s	8.00nm			
WRA	131.04	208 PKPd	53 08.10	-0.1	
	0.5s	2.60nm			
WB5	131.08	208 ePKP	53 08.70	0.5	
GBA	145.33	102 PKPd	53 32.50	-1.7	
	0.5s	8.20nm			
GKN	154.84	76 PKP	53 48.80	0.3	
DMN	155.27	77 PKP	53 49.00	-0.2	
KKN	155.42	76 PKP	53 49.40	0.1	
GUN	155.94	76 PKP	53 48.90	-1.4	
	S.D. = 1.1	on 26 of 35 obs.			

% FEB 01, 1989 03h 46m 09.36± 0.82s
38.296 N ±10.2km 28.854 E ± 7.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.53	87 iPg	46 18.70	-1.4	
		iSg	46 26.20		
IZM	1.26	275 ePn	46 32.00	-0.7	
DST	1.32	352 iPn	46 35.00	1.2	
BCK	1.61	121 ePn	46 38.40	0.5	
ELL	1.76	151 ePn	46 41.00	0.8	
KCT	1.99	349 iPn	46 47.10	3.7X	
EDC	2.19	340 ePn	46 50.00	3.7X	
EZN	2.49	309 ePn	46 50.10	-0.5	
	S.D. = 1.3	on 6 of 8 obs.			

* FEB 01, 1989 05h 10m 48.88± 1.05s
51.468 N ±23.1km 179.997 E ± 9.2km
DEPTH = 33.0km (normal)
4.7mb (5 obs.)
RAT ISLANDS, ALEUTIAN ISLANDS (6)

ADK	2.11	77 eP	11 23.40	0.9	
SMY	3.85	291 eP	11 53.00	5.9X	
IMA	19.77	32 eP	15 19.50	0.7	
INK	27.82	35 eP	16 41.00	4.5X	
MBC	33.81	22 eP	17 31.00	1.7	
YKA	35.72	46 P	17 45.40	-0.4	
KVN	44.03	81 e(P)	18 57.00	1.9X	
BW06	46.99	72 eP	19 17.60	-1.1	
FRB	53.34	31 eP	20 05.00	-1.5	
SUF	64.30	347 iP	21 22.20	-0.5	
NUR	66.63	347 eP	21 37.00	-0.6	
NAO	67.72	354 P	21 43.40	-1.2	
	0.9s	5.50nm		4.7mb	
GUN	71.12	291 PKP	22 07.10	0.8	
	0.7s	14.00nm		5.1mb	
KKN	71.56	291 PKP	22 09.30	0.5	
	0.6s	7.00nm		4.9mb	
PKI	71.65	291 PKP	22 10.00	0.5	
	0.6s	4.00nm		4.6mb	
GKN	71.78	292 PKP	22 10.30	0.3	
DMN	71.80	291 PKP	22 09.60	-0.7	
KBA	81.17	351 eP	23 03.00	0.6	
	0.7s	4.90nm		4.6mb	
	S.D. = 1.0	on 15 of 18 obs.			

? FEB 01, 1989 05h 51m 13.23± 3.15s
19.649 N ±35.8km 108.535 W ±23.3km
DEPTH = 10.0km (geophysicist)
3.7mb (2 obs.)
REVILLA GIGEDO ISLANDS REGION (53)

GLA	14.48	338 eP	54 41.10	0.8	
ALQ	15.34	6 eP	54 50.00	-1.7	
	1.3s	5.77nm		3.8mb	
PRI	19.59	330 ePc	55 45.80	1.2	
FRI	19.85	333 ePc	55 46.40	-0.9	
TNP	19.86	339 eP	55 47.60	0.0	
PRS	20.08	329 ePc	55 49.40	-0.3	
GCC	20.94	329 ePc	55 57.90	-0.7	
MHC	21.02	330 e(P)	55 59.10	-0.5	
CMB	21.02	333 ePc	55 58.70	-0.8	
KVN	21.03	339 eP	56 00.30	0.5	
BW06	23.07	358 eP	56 22.10	1.9	
	0.6s	1.16nm		3.6mb	
YKA	43.01	356 P	59 15.60	1.4	
INK	51.10	348 eP	00 17.00	-0.7	
MBC	56.90	357 eP	01 00.00	-0.3	
	S.D. = 1.1	on 14 of 14 obs.			

* FEB 01, 1989 06h 31m 43.30± 0.92s
7.425 S ± 8.4km 147.038 E ±13.4km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
EAST PAPUA NEW GUINEA REGION (207)
ML 4.1 (PMG).

LAT	0.77	357 e(P)	31 57.50	-0.2	
LMG	1.84	143 eP	32 14.00	0.8	
PMG	1.97	177 iPc	32 15.00	-0.1	
CTA	12.61	183 eP	34 42.00	-1.3	
WB5	17.44	224 eP	35 45.70	-0.2	
WRA	17.51	223 P	35 48.00	1.4	
	1.1s	13.30nm		4.0mb	
ASPA	20.49	217 eP	36 20.80	-0.5	
	1.0s	29.00nm		4.6mb	
Z	15s	0.32um		3.8MszX	
		LR	45 02.90		
	S.D. = 1.0	on 7 of 7 obs.			

FEB 01, 1989 10h 22m 41.59± 0.47s
31.561 N ± 2.5km 140.155 E ± 2.2km
DEPTH = 118.6 ± 4.1 km
5.5mb (85 obs.)
SOUTH OF HONSHU, JAPAN (211)
Felt (I JMA) at Tateyama.
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 9S, 21C
Centroid Location:
Origin Time 10:22:42.2 0.4
Lot 31.62N 0.04 Lon 140.11E 0.07
Dep 88.4 6.0 Half-duration 1.8
Moment Tensor; Scole 10**17 Nm
Mrr= 0.38 0.06 Mtt= 0.17 0.08
Mff=-0.55 0.09 Mrt= 0.13 0.05
Mrf=-1.25 0.05 Mtf=-0.19 0.10
Principal Axes:
T Vol= 1.29 Plg=53 Azm= 72

N	0.13		11	176	
P	-1.42		34	274	

Best Double Couple:Mo=1.4*10**17
NP1:Strike= 43 Dip=14 Slip= 138
NP2: 175 80 79

TAT	3.42	356 eP	23 35.00	0.9	
		S	24 08.90		
IIDJ	4.33	335 iPd	23 46.10	-0.5	
		eS	24 33.30		
CHJJ	4.58	348 iP+	23 48.20	-1.7	
		eS	24 40.70		
KAKJ	4.63	0 P	23 46.60	-4.0X	
		S	24 37.30		
WKYJ	4.66	306 iPd	23 52.30	1.2	
		S	24 45.90		
MAT	5.22	343 iPc	23 56.90	-1.8	
	0.6s	106.67nm		5.2mb	
		eS	24 46.00		
TSRJ	5.28	320 iPd	24 00.00	0.6	
		eS	25 00.70		
MTMJ	5.38	339 P	23 59.80	-1.0	
TKSJ	5.68	297 iPd	24 06.50	1.6	
NIIJ	5.74	351 P	24 01.70	-4.1X	
		eS	25 06.50		
YAMJ	6.60	359 P	24 12.80	-4.7X	
		eS	25 24.30		
YONJ	6.66	305 iPd	24 20.00	1.6	
		S	25 34.80		
SHK	6.94	297 ePd	24 23.50	1.3	
	0.8s	955.22nm		6.3mb	
OFUJ	7.60	9 P	24 24.70	-6.4X	
		eS	25 42.10		
KAGJ	7.93	270 P	24 39.20	3.6X	
KUMJ	7.98	279 P	24 39.20	3.0X	
SHNJ	8.03	291 P	24 38.90	2.0	
AOMJ	8.98	1 eP	24 46.10	-3.7X	
MRRJ	10.87	4 eP	25 08.30	-6.6X	
		eS	26 59.90		
HOOJ	11.09	12 P	25 11.50	-6.3X	
		eS	27 06.00		
KUSJ	12.07	16 P	25 23.00	-7.7X	
		eS	27 26.20		
ASAJ	12.69	8 P	25 33.00	-5.8X	
		eS	27 42.70		
MDJ	15.44	331 eP	26 12.20	-1.8	
Z	20s	1.80um			
E	10s	0.80um			
		epP	26 23.00		
		S	28 53.00		
SSE	16.22	273 P-	26 25.00	1.2	
	1.2s	139.00nm		5.1mb	
Z	16s	0.50um			
N	10s	0.90um			
		pP	26 35.00		
		sP	26 52.00		
		eS	29 34.00		
		esS	29 54.00		
		SS	30 04.00		
SNY	16.76	312 eP	26 30.30	0.0	
Z	20s	1.50um			
N	11s	0.70um			
		PP	26 44.00		
		S	29 36.00		
DL2	16.80	301 P	26 33.00	2.1	
E	10s	1.20um			
		eS	29 40.00		
CN2	16.84	321 Pd	26 29.00	-2.4	
	4.0s	0.40nm		2.0mb X	
Z	15s	2.00um			
E	14s	1.20um			
ANP	17.58	253 e(P)	26 34.00	-6.6X	
NJ2	18.11	277 Pc	26 48.00	1.1	
	8.0s	1.20nm		2.2mb X	
		S	30 11.50		
GUMO	18.41	165 eP	26 50.60	0.3	
	1.1s	678.45nm		5.9mb	
PJG	18.41	165 eP	26 51.20	0.9	
GUA	18.46	165 eP	26 51.50	0.6	
	0.8s	214.93nm		5.5mb	
TIA	19.66	290 eP	27 01.90	-1.5	
E	10s	0.80um			
QZH	20.09	256 Pc	27 14.00	6.1X	
Z	24s	2.00um		4.4MszX	
N	24s	3.40um			
BJI	21.16	300 eP	27 17.00	-1.6	
Z	18s	1.10um		4.3Msz	

	E	11s	0.61um					WB5	51.45	187	iPc	31	34.60	-2.1		TAU	74.40	175	eP	34	09.00	1.2
			epP	27	28.00	44kmX					i	32	35.10			WDC	75.24	51	iPc	34	12.90	0.0
			eS	31	07.00						eScP	36	36.00			LBFM	75.30	50	P	34	13.60	0.0
			PcP	31	12.00			WRA	51.51	187	Pc	31	35.10	-2.1		LTCM	75.69	52	P	34	15.40	-0.1
			esS	31	44.00				0.6s		12.20nm			5.0mb		MIN	75.97	51	iPc	34	16.70	-0.6
			ScP	34	45.00			CTA	51.69	173	eP	31	38.00	-0.5		NWRM	76.03	53	P	34	17.30	-0.1
			eScS	38	29.50						eS	39	25.00			ORV	76.43	52	iPc	34	19.30	-0.4
PIP	22.03	238	iPd	27	28.00	0.7		QIS	51.82	181	eP	31	42.00	2.5		BRK	76.75	54	ePc	34	21.30	-0.1
WHN	22.12	274	eP	27	29.50	1.4		BRW	51.86	21	ePc	31	39.20	0.0		BKS	76.76	54	ePc	34	21.50	0.0
	1.0s		0.11nm			2.2mb X		KSH	51.86	298	P	31	40.00	0.1			1.0s		278.00nm			6.0mb
	N	10s	0.83um					IMA	51.96	28	ePc	31	39.40	-0.8		PCC	76.85	54	ePc	34	21.70	-0.3
			pP	27	52.00	108kmX			1.1s		40.30nm			5.3mb		SES	77.05	38	iPc	34	22.00	-1.0
			sP	28	03.00			KDC	51.98	39	P	31	38.90	-1.4			0.8s		135.00nm			5.8mb
			eS	31	20.00			PMR	53.68	34	ePc	31	50.80	-1.9		MSL	77.08	305	ePc	34	23.00	-0.3
			sS	32	04.00				0.9s		125.00nm			5.9mb		GCC	77.35	54	ePc	34	24.60	-0.1
			ScP	34	52.00			NDI	53.85	284	iPd	31	53.00	-1.5		MHC	77.44	54	iPc	34	25.50	0.1
BAG	23.34	234	eP	27	40.00	-0.2		FBA	54.32	30	ePc	31	56.10	-1.3		ARN	77.51	54	P	34	25.80	0.1
	1.3s		192.31nm			5.3mb		TOA	55.07	33	ePc	32	02.50	-0.5		RGS	77.60	339	eP	34	26.50	0.9
			e	31	41.00			ASPA	55.24	187	eP	32	02.70	-1.8		SAO	77.86	54	eP	34	27.20	-0.4
			eS	32	22.00				0.6s		25.00nm			5.4mb		CMB	77.95	53	iPc	34	28.20	0.1
TIY	23.57	293	eP	27	41.80	-0.4					eS	39	33.80						e	34	54.80	
	5.0s		0.50nm			2.2mb X					eScS	41	45.30			PRS	78.13	55	iPc	34	29.20	0.1
	E	14s	0.90um					OPA	55.52	84	P	32	06.70	0.0					e	34	36.80	
			epP	28	10.50	141kmX		HON	55.67	84	P	32	07.70	-0.1		LLA	78.29	54	ePc	34	30.20	0.2
			S	31	48.50			MBL	55.92	203	eP	32	08.00	-1.5		HFS	78.64	336	eP	34	31.20	-0.2
			sS	32	32.00			HYB	57.14	271	iPc	32	17.20	-1.2			0.7s		56.60nm			5.5mb
QCP	24.26	230	eP	27	50.00	1.1			1.0s		450.00nm			6.4mb			Z	17s	0.30um			4.7MszX
HHC	24.77	300	eP	27	53.00	-0.7					e	32	36.00						LR	07	17.00	
	Z	16s	1.70um			4.6MszX		RMQ	58.31	171	iPc	32	25.70	-0.4		PRI	78.72	55	ePc	34	32.90	0.4
	N	10s	0.50um					NANU	58.76	207	eP	32	28.00	-1.3					e	34	40.00	
GZH	25.22	257	eP	27	59.00	1.1			0.5s		5.00nm			4.8mb		LRM	78.82	43	iPc	34	33.30	0.3
BTO	25.87	299	P	28	03.00	-0.9		WARB	58.85	194	eP	32	24.00	-6.0X					e	34	59.40	
	N	15s	0.90um						0.4s		4.00nm			4.8mb		FFC	78.88	32	iPc	34	32.30	-0.5
	E	15s	1.50um					DZM	58.98	151	iPc	32	31.20	0.2			0.8s		70.00nm			5.5mb
			eS	32	20.00			INK	59.74	25	iPc	32	35.00	-0.6		NRA0	78.94	337	P	34	32.20	-0.8
XAN	26.32	284	Pc	28	06.20	-1.8			0.6s		19.00nm			5.3mb		FRI	78.94	53	iPc	34	33.40	-0.1
	N	12s	0.60um					BRS	59.85	167	iP	32	36.00	-0.8		KVN	78.96	51	P	34	34.00	0.2
	E	11s	0.80um					GBA	59.86	268	Pc	32	35.80	-1.3					pP	34	57.00	87kmX
			pP	28	32.00	121kmX			1.0s		57.60nm			5.6mb		GDH	78.99	5	iPc	34	33.20	0.1
DAV	27.90	212	eP	28	24.40	2.1		POO	60.66	275	iPc	32	40.20	-2.4			1.0s		24.00nm			4.9mb
GYA	29.66	269	P	28	36.20	-2.0		MEKA	61.42	202	eP	32	46.90	-0.6		NAO	79.11	337	P	34	33.90	0.0
	N	16s	0.80um					KOD	61.48	264	eP	32	48.00	-0.6			0.6s		39.50nm			5.4mb
LZH	30.39	289	eP	28	47.00	2.4		QUE	61.70	290	iPd	32	48.50	-1.1		MNA	79.25	52	eP	34	35.60	0.3
	2.0s		82.00nm			5.1mb					e	37	21.00			KVT	79.42	312	iP	34	37.10	1.0
	Z	38s	1.80um			4.4MszX		MBC	62.06	15	ePc	32	50.20	-1.0		BCH	79.62	55	P	34	37.60	0.3
	E	13s	0.60um						0.9s		106.00nm			5.8mb		BLP	79.72	56	P	34	37.80	0.1
SMY	32.42	39	P	29	01.70	-0.2		STK	63.11	179	eP	32	58.00	-0.5		SVP	79.86	52	P	34	38.90	0.1
	0.8s		206.90nm			6.0mb		FORR	63.11	192	eP	32	57.00	-1.5		PPK	79.94	52	P	34	39.30	0.2
KMI	33.43	268	eP	29	11.00	-0.3			0.4s		41.00nm			5.7mb		SYP	80.03	56	eP	34	40.00	0.4
	Z	30s	1.10um			4.4MszX		COOL	64.67	198	eP	33	08.50	-0.3		TNP	80.06	51	P	34	40.00	0.2
			eS	34	20.00			MHI	65.23	299	iPd	33	12.80	0.3			1.1s		75.76nm			5.4mb
GTA	33.55	295	P	29	10.20	-1.9					e	41	44.00			MZP	80.15	52	P	34	40.30	0.0
	Z	19s	0.70um			4.4Msz		ALE	65.62	3	eP	33	14.00	-0.3		LCH	80.22	52	P	34	40.60	0.0
	N	23s	2.20um						0.9s		19.00nm			5.0mb		GMN	80.45	52	P	34	42.00	0.1
			S	34	21.80						pP	33	39.50	101kmX		ISA	80.49	54	eP	34	41.00	-0.9
			ScP	35	24.70			BAL	65.71	202	eP	33	14.00	-1.4		GVN	80.55	52	P	34	42.50	0.3
			ScS	39	23.90			KBS	65.87	350	iPd	33	17.10	1.2		TMO	80.61	53	P	34	42.50	-0.3
KKM	33.86	226	ePd	29	15.00	0.1		BWA	66.09	173	eP	33	18.30	0.5		MCA	80.78	53	P	34	43.40	0.1
ADK	37.37	44	ePc	29	42.90	-1.2		ADE	66.19	181	eP	33	29.80	11.4X		KRNA	80.80	51	P	34	43.90	0.2
	0.9s		106.30nm			5.7mb		KLB	66.30	201	eP	33	18.00	-1.1		CLC	81.01	54	eP	34	44.00	-0.6
LOE	37.50	257	eP	29	44.00	-1.5		CAN	67.05	172	eP	33	27.80	3.9X		PANV	81.04	53	P	34	45.00	0.1
			e	35	25.00			NWAO	67.70	201	eP	33	27.00	-1.0		BLT	81.11	51	P	34	45.40	0.1
CHG	39.17	261	iPd	29	59.10	-0.4		KEV	68.19	340	iP	33	31.20	0.6		FMT	81.13	52	P	34	45.40	0.2
	0.9s		51.68nm			5.3mb			0.7s		21.40nm			5.1mb		TMBR	81.18	52	P	34	45.80	0.2
NST	39.69	256	eP	30	00.50	-3.2X		YKA	69.08	29	P	33	35.30	-0.8		YMT1	81.18	52	P	34	46.00	0.5
BDT	39.85	259	iPd	30	05.20	0.2		YKC	69.14	29	iPc	33	35.00	-1.5		WRN	81.20	51	P	34	45.80	0.1
	0.6s		30.30nm			5.3mb			1.0s		115.00nm			5.7mb		YMT5	81.21	52	P	34	45.80	0.1
PMG	41.28	170	e(P)	30	17.00	0.3		SOD	69.61	338	iP	33	39.30	0.0		YMT4	81.24	52	P	34	46.10	0.3
NNT	41.65	252	eP	30	19.60	-0.2		PGC	70.93	44	eP	33	48.00	0.4		YMT2	81.25	52	P	34	46.10	0.2
			i	35	58.30				0.9s		89.00nm			5.6mb		YMT6	81.26	52	P	34	46.20	0.2
LSA	41.93	281	P	30	23.10	0.5		KJF	70.99	335	iP	33	47.80	0.1		BGB	81.28	52	P	34	46.30	0.1
WMQ	42.62	302	iPd	30	27.00	-0.6			0.6s		75.60nm			5.7mb		YMT3	81.29	52	P	34	46.30	0.2
	Z	28s	0.60um			4.3MszX		GMW	71.82	45	P	33	53.50	0.5		CDH1	81.32	52	P	34	46.40	0.1
			S	36	40.50			BMW	72.03	46	P	33	54.50	0.1		GLR	81.34	52	P	34	46.40	0.0
SNG	44.12	245	eP	30	40.90	1.0		SUF	72.41	334	iP	33	56.00	-0.2		TPU	81.36	51	P	34	46.70	0.1
MTN	44.99	192	eP	30	45.00	-1.7			0.6s		71.80nm			5.6mb		LSM	81.41	52	P	34	47.10	0.4
IPM	45.46	242	ePd	30	50.80	0.2		RMW	72.45	45	P	33	57.00	0.2		LOP	81.42	52	P	34	46.90	0.0
	0.9s		54.70nm			5.3mb		SHW	72.77	46	P	33	59.40	0.6		GMR	81.43	51	P	34	47.00	0.1
GUN	46.87	280	P	31	01.50	-0.6		LON	72.78	45	P	33	58.60	-0.1		QSM	81.43	53	P	34	46.90	0.2
PKI	47.37	280	P	31	04.50	-1.5		PNT	72.86	42	iPc	33	59.00	-0.1		GWY	81.45	53	P	34	47.10	0.1
KKN	47.41	280	P	31	05.20	-1.0			0.9s		116.00nm			5.7mb		SBB	81.46	55	eP	34	46.00	-1.0
DMN	47.62	280	P	31	06.70	-1.1		VGB	73.99	46	P	34	06.00	0.2		CPX	81.46	52	P	34	46.80	-0.2
GKN	47.89	281	P	31	08.60	-1.1		TAB	74.05	305	eP	33	48.00	-18.4X		AMR	81.46	53	P	34	47.10	0.2
PSI	48.27	242	iPc	31	12.20	-0.4		FHC	74.17	52	iPc	34	07.70	0.9		PAS	81.50	55	eP	34	46.00	-1.1
	0.6s		17.80nm			5.1mb		NUR	74.29	332	iP	34	07.20	0.1		MWC	81.54	55	eP	34	47.00	-0.6
SVW	50.54	35	ePc	31	29.40	0.0		EDM	74.31	37	iPc	34	06.10	-1.4		MTI	81.57	51	P	34	47.90	0.3
TTA	50.55	32	ePc	31	28.70	-0.9		DPW	74.39	43	P	34	07.90	-0.1		SRG	81.59	51	P	34	48.40	0.7

01d 10h

JON	81.69	52	P	34	48.60	0.4	SKO	87.64	319	iP	35	18.00	0.3	MFF	94.34	334	eP	35	49.40	0.7
SPRG	81.75	52	P	34	48.60	0.1	PTJ	87.84	325	e(P)	35	17.90	-0.8		1.0s	37.60nm			5.7mb	
DUG	81.76	48	P	34	49.00	0.5	EKA	87.92	340	P	35	20.00	1.2	SIO	94.63	43	ePc	35	50.10	-0.2
NPN	81.81	51	P	34	49.20	0.3		0.8s	11.70nm			5.0mb		RJF	94.77	332	eP	35	51.60	0.8
NOP	81.83	53	P	34	48.90	0.0	BHG	87.99	327	eP	35	11.80	-7.5X		0.9s	32.70nm			5.7mb	
GSC	81.83	54	eP	34	49.00	0.1	KBA	88.24	327	iPd	35	20.00	-0.7	TUL	94.81	42	eP	35	51.40	0.3
CFR	81.83	319	eP	34	51.00	2.4		0.7s	9.30nm			4.9mb			0.9s	17.90nm			5.5mb	
PRN	81.87	51	P	34	49.70	0.5				i	35	27.40			Z 19s	0.23um			4.7Msz	
DLM	81.96	51	P	34	50.00	0.3	OHR	88.57	319	eP	35	12.00	-10.3X			LR		07	00.00	
RVR	82.14	55	eP	34	50.00	-0.4				i	35	21.70		LNO	94.81	42	ePc	35	51.00	0.0
BBTK	82.19	312	iPd	34	51.50	0.8	ENN	88.61	333	eP	35	21.50	-0.7	CAF	94.86	332	eP	35	52.20	1.0
VRI	82.22	320	ePd	34	51.50	0.9		1.0s	27.00nm			5.3mb			1.0s	32.00nm			5.7mb	
BW06	82.27	44	P	34	51.10	-0.2	CEY	88.70	325	eP	35	22.50	-0.3	RLO	95.07	42	eP	35	52.10	-0.2
	0.9s	44.49nm			5.3mb		MEM	88.71	333	P	35	22.90	0.3	VVO	95.25	43	ePc	35	52.80	-0.3
		pP		35	18.00	103kmX	VOY	88.75	326	eP	35	21.90	-1.2	LFF	95.38	332	eP	35	54.50	0.9
PEC	82.35	55	P	34	51.50	-0.1	FVI	88.86	327	P	35	22.50	-0.9		1.0s	37.60nm			5.8mb	
DAU	82.61	47	P	34	53.80	0.6	ALQ	88.93	49	ePc	35	24.00	-0.3	LPO	95.42	332	eP	35	54.50	0.7
PLM	82.85	55	eP	34	54.00	-0.4		1.1s	15.82nm			5.0mb			0.8s	13.40nm			5.4mb	
MLR	82.88	320	ePd	34	54.50	0.3	OGA	89.47	328	eP	35	26.50	-0.1	FVM	96.26	38	P	35	56.80	-0.9
TPC	83.00	54	eP	34	54.00	-1.0	CDF	89.92	331	P	35	28.35	-0.2	BUL	118.22	263	ePKP	41	17.80	0.9
AFR	83.01	115	iP	34	55.50	0.5	FEL	90.03	330	P	35	28.75	-0.3				iSKP	44	43.80	
	1.0s	75.00nm			5.5mb		DMU	90.24	341	eP	35	35.00	5.2X	SLR	120.78	257	iPKPc	41	23.00	1.4
KRA	83.03	326	iPd	34	55.40	0.7	MOF	90.42	330	P	35	30.84	0.0		1.0s	18.00nm				
	1.0s	136.00nm			5.8mb		BBS	90.56	330	P	35	31.36	0.0	PRY	121.90	256	iPKPd	41	24.20	0.5
		e		35	02.00		BSF	90.58	331	P	35	31.58	0.0		1.0s	20.00nm				
TPT	83.22	112	iP	34	57.80	1.7	VITF	90.61	331	P	35	31.39	-0.1	ARE	147.56	70	iPKPc	42	15.50	4.1X
	1.0s	55.00nm			5.4mb		HAU	90.62	331	eP	35	31.70	0.0	ZOBO	150.12	66	PKP	42	16.20	0.5
BAR	83.35	56	eP	34	57.00	0.3		1.1s	16.60nm			5.1mb					i	42	22.00	
VAH	83.36	112	iP	34	58.20	1.4	DLE	90.68	341	eP	35	33.00	1.2				eLR	33	52.00	
	1.0s	40.00nm			5.3mb		DCN	90.83	341	eP	35	35.00	2.5	LPB	150.29	66	PKP	42	17.00	1.2
SPC	83.47	325	iP	34	58.10	0.9	SCH	90.90	15	eP	35	33.00	0.2		1.0s	160.00nm				
RUV	83.52	112	iP	34	59.30	1.7	VAI	91.25	328	P	35	33.90	-0.6				i	42	23.00	
	1.0s	65.00nm			5.5mb		SFI	91.28	325	P	35	36.00	1.3	CNCB	150.54	67	ePKP	42	19.00	2.7X
TVO	83.56	115	iP	35	00.10	2.2	ASS	91.51	324	P	35	35.80	-0.1				i	42	24.00	
	1.0s	85.00nm			5.6mb		MME	91.63	326	P	35	37.50	0.9	CCH	152.30	66	PKP	42	29.50	10.9X
IKL	83.63	309	iP	34	57.70	-0.3	ORX	91.78	329	P	35	33.20	-3.9X		S.D. = 0.9		on 320 of 345 obs.			
DMK	84.09	316	eP	35	00.00	-0.3	BOB	91.78	327	P	35	37.10	0.0	---						
KSP	84.19	328	iPd	35	01.40	0.8	LOR	92.23	332	iPd	35	39.20	0.1	&	FEB 01, 1989		11h 00m 17.37s			
	1.0s	148.00nm			5.8mb			1.0s	34.80nm			5.6mb			60.208 N			152.722 W		
LFK	84.28	308	eP	35	01.80	0.4	LSD	92.28	329	P	35	39.36	-0.3		DEPTH = 115.4km					
JMB	84.39	317	iP	35	03.00	1.3	LBF	92.41	332	iPd	35	39.80	-0.1		4.1mb (1 obs.)					
GLA	84.44	55	eP	35	02.00	-0.2		1.0s	26.00nm			5.5mb			SOUTHERN ALASKA					(2)
PSZ	84.49	324	eP	35	03.00	0.8	LPG	92.42	329	iPd	35	40.60	0.2		<AGS-P>.					
CSS	84.60	308	eP	35	03.50	0.6		0.6s	23.80nm			5.6mb								
PVL	84.64	318	iPc	35	04.00	1.1	RSP	92.47	329	P	35	39.80	-0.6	ILIM	0.17	223	iP	00	32.90	0.8
DSI	85.09	304	iPd	35	06.00	0.6	SSF	92.54	332	iPd	35	40.80	0.3				eS	00	45.07	
BRG	85.21	329	iPd	35	06.70	1.0		1.0s	50.80nm			5.8mb		RDT	0.40	23	Pn	00	33.88	-0.7
	1.1s	50.00nm			5.3mb		FLN	92.65	335	eP	35	41.40	0.5				eS	00	46.61	
		i		35	30.80			0.8s	18.80nm			5.4mb		OPT	0.61	205	iP	00	35.14	-0.7
		e		38	26.00		LDF	92.66	335	eP	35	41.30	0.3				eS	00	48.15	
PPCY	85.30	308	eP	35	05.50	-0.9		1.0s	32.00nm			5.6mb		NNL	0.73	103	iP	00	36.87	0.1
CLL	85.30	330	iPd	35	05.40	-0.7	SMF	92.74	332	iPd	35	41.50	0.1	HOM	0.77	135	eP	00	36.81	-0.3
	1.3s	115.00nm			5.6mb			0.8s	26.80nm			5.6mb					eS	00	52.49	
		i		35	31.90		FIN	92.78	328	P	35	40.25	-1.4	PDB	0.85	241	Pn	00	36.91	-0.9
SRO	85.34	325	eP	35	07.30	0.9	AVF	92.82	332	iPd	35	42.10	0.4				eS	00	52.18	
KDZ	85.58	317	eP	35	09.00	1.3		0.8s	44.30nm			5.8mb		AUL	0.90	204	iP	00	37.48	-0.9
PRU	85.59	328	Pd	35	08.00	0.5	RRL	92.86	329	P	35	42.12	-0.2	NKA	0.91	53	iP	00	39.54	1.2
	1.0s	21.70nm			5.0mb		ROB	92.86	328	P	35	40.91	-1.2				eS	00	54.53	
		e		38	29.00		PZZ	93.05	328	P	35	41.90	-1.1	AUH	0.92	204	iP	00	37.76	-0.9
ZST	85.67	326	eP	35	08.30	0.3	GRR	93.10	335	eP	35	43.50	0.5				eS	00	54.69	
ELL	85.81	311	eP	35	09.00	-0.1		1.0s	57.60nm			5.8mb		CNPM	1.02	132	iP	00	38.76	-0.7
RZN	85.96	317	iP	35	09.00	-0.8	STV	93.15	328	P	35	42.52	-0.9				eS	00	55.34	
PRNI	86.05	303	eP	35	10.00	-0.3	IMI	93.15	328	P	35	42.44	-1.0	BRLK	1.03	115	eP	00	38.65	-1.0
VTS	86.24	319	iP	35	11.00	-0.1	BGF	93.21	332	eP	35	43.90	0.3				eS	00	55.57	
MOX	86.39	330	iP	35	11.50	0.0		1.0s	38.00nm			5.7mb		SPU	1.03	18	iP	00	39.13	-0.6
	1.5s	56.00nm			5.3mb		PLDF	93.37	331	P	35	44.80	0.4				eS	00	55.82	
		e		35	38.00		SBF	93.40	328	eP	35	43.90	-0.7	CRP	1.10	14	eP	00	40.16	-0.4
		iPP		38	35.00			1.0s	28.00nm			5.5mb					eS	00	58.30	
MBH	86.46	303	iPd	35	12.50	0.3	LPF	93.46	335	eP	35	45.30	0.6	SLKM	1.28	75	iP	00	41.15	-1.2
HOF	86.52	330	eP	35	12.50	0.3		1.0s	56.00nm			5.8mb					eS	01	01.55	
	1.0s	30.00nm			5.2mb		AGO	93.51	332	P	35	45.92	0.9	CDD	1.37	200	eP	00	41.80	-1.5
KHC	86.64	328	iPd	35	13.30	0.5	MAF	93.60	332	iPd	35	46.10	0.7	SEW	1.64	92	iP	00	44.90	-1.6
	1.0s	15.50nm			4.9mb			1.2s	65.40nm			5.8mb					eS	01	07.12	
GOL	86.64	45	P	35	13.70	0.4	TCF	93.69	332	iPd	35	46.30	0.5	SVW	1.69	304	iPd	00	45.90	-1.3
GLD	86.70	45	P	35	14.30	0.8		1.0s	40.00nm			5.7mb		PMS	1.87	55	iPc	00	48.30	-1.2
	1.3s	114.94nm			5.7mb		CVF	93.73	326	eP	35	45.40	-0.7	PTE	1.94	69	iP	00	48.56	-1.7
WIT	86.71	334	eP	35	14.00	1.0		0.8s	8.00nm			5.1mb					eS	01	12.41	
ELO	87.10	341	eP	35	14.20	-0.7	PYM	93.80	331	P	35	46.96	0.5	PWA	2.01	43	iPc	00	50.00	-1.1
	0.8s	61.00nm			5.6mb		MEO	93.95	45	iPc	35	47.00	-0.2	PLRM	2.24	50	Pn	00	52.06	-2.0
EBH	87.23	341	eP	35	17.10	1.6				e	36	15.30		PMR	2.24	50	ePc	00	52.00	-2.1
GRF	87.27	330	eP	35	16.40	0.6	FRF	93.99	328	eP	35	46.70	-0.5	PWL	2.26	71	iP	00	52.22	-2.3
	1.4s	34.00nm			5.2mb			0.8s	10.70nm			5.3mb					eS	01	19.72	
WTS	87.30	333	eP	35	16.50	0.7	LBL	94.13	331	P	35	48.88	1.1	PME	2.30	50	eP	00	53.16	-1.7
	1.0s	17.00nm			5.0mb		LRG	94.20	328	eP	35	47.90	-0.2	KNK	2.41	58	iP	00	54.42	-2.1
VAY	87.43	318	eP	35	16.70	0.0		1.0s	29.60nm			5.6mb		GHO	2.43	48	Pn	00	54.81	-1.9
EBL	87.51	340	eP	35	18.40	1.6	LMR	94.23	328	eP	35	48.00	-0.3	KDC	2.47	177	iPd	00	54.10	-3.0
EAB	87.52	341	eP	35	16.10	-0.7		0.8s	10.70nm			5.3mb		SML	2.67	51	iP	00	57.81	-2.1

HIN	3.10	84	eP	01	02.83	-2.8
FID	3.14	77	eP	01	07.04	1.0
TTA	3.15	331	iPd	01	04.70	-1.6
VZW	3.16	72	iP	01	03.41	-3.0
VLZ	3.28	71	eP	01	05.14	-2.8
MID	3.32	101	eP	01	06.40	-2.0
CVA	3.48	81	iP	01	09.05	-1.6
KLU	3.57	66	iP	01	09.45	-2.5
TOA	3.70	56	ePc	01	12.00	-1.7
SGAM	3.75	82	iP	01	12.46	-1.8
MCK	3.96	25	eP	01	15.73	-1.5
RAGM	4.01	84	eP	01	16.04	-1.8
LVY	4.34	20	eP	01	20.63	-1.7
PAX	4.44	48	eP	01	21.73	-2.0
NEA	4.70	20	eP	01	25.06	-2.2
HDA	5.00	30	eP	01	29.08	-2.2
CCB	5.01	25	eP	01	28.87	-2.5
FBA	5.23	24	eP	01	32.10	-2.4
GLM	5.39	25	eP	01	34.23	-2.5
CTGM	5.67	77	eP	01	39.10	-1.5
IMA	5.90	356	ePc	01	41.70	-2.1
FYU	7.21	25	eP	01	58.31	-3.2
DWY	7.32	53	P	02	01.00	-2.1
HYT	7.54	79	P	02	03.70	-2.5
INK	11.59	37	eP	02	53.00	-7.1
YKA	18.24	66	P	04	20.90	-3.1
MBC	19.77	23	eP	04	38.00	-2.1

0.5s 5.00nm 4.1mb
55 obs. associated

% FEB 01, 1989 11h 01m 23.22± 7.14s
44.540 N ±26.5km 8.428 E ±41.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

FIN	0.37	206	P	01	30.85	0.1
			S	01	37.00	
ROB	0.47	239	P	01	32.72	0.0
			S	01	39.53	
IMI	0.74	212	P	01	37.66	-0.1
			S	01	47.99	
STV	0.84	250	P	01	39.64	0.1
PZZ	0.95	268	P	01	41.40	0.0
			S	01	54.69	

S.D. = 0.1 on 5 of 5 obs.

& FEB 01, 1989 11h 22m 00.00s
36.040 N 117.790 W
DEPTH = 0.0km
CALIFORNIA-NEVADA BORDER REGION (40)
<PAS-P>. ML 3.0 (PAS).

CLC	0.27	145	iPc	22	05.40	0.0
ISA	0.67	236	iPd	22	12.80	-0.6
			eS	22	22.00	
GSC	1.09	132	eP	22	20.60	-0.9
ABL	1.67	225	eP	22	30.80	0.0
PKEM	1.88	271	eP	22	34.50	0.8
BCH	2.05	246	eP	22	36.40	0.1
TNP	2.09	12	eP	22	36.00	-0.9
PHAM	2.13	265	eP	22	37.50	0.2
PEC	2.20	166	eP	22	37.50	-0.9
PLM	2.79	164	eP	22	46.00	-0.9
CMB	2.88	315	eP	22	46.00	-2.1
KVN	3.02	355	eP	22	49.50	-0.6
GLA	3.86	140	eP	23	00.00	-2.0

13 obs. associated

& FEB 01, 1989 12h 32m 37.76s
60.267 N 152.614 W
DEPTH = 108.1km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.25	223	iP	32	52.74	0.9
			eS	33	04.68	
RDT	0.32	18	iP	32	53.11	-0.6
			eS	33	04.81	
NNL	0.70	108	iP	32	56.26	0.1
HOM	0.78	141	eP	32	56.73	-0.2
			eS	33	12.14	
NKA	0.83	54	iP	32	58.66	1.3
PDB	0.93	239	iP	32	57.34	-1.0
SPU	0.96	16	iP	32	58.15	-0.6
			eS	33	13.84	
AUL	0.98	205	iP	32	58.08	-0.8
AUE	0.99	203	iP	32	57.93	-1.0
AUH	1.00	205	iP	32	58.35	-0.8
BRLK	1.00	119	eP	32	58.17	-1.0
			eS	33	14.84	
CNPM	1.02	136	iP	32	58.62	-0.7
			eS	33	14.88	
CRP	1.03	12	iP	32	59.18	-0.4
			eS	33	15.92	
SLKM	1.21	77	eP	33	00.47	-1.0
			eS	33	18.03	
CDD	1.44	202	iP	33	02.65	-1.5
SEW	1.59	95	iP	33	04.27	-1.6
SVW	1.70	301	iPc	33	05.70	-1.7
PMS	1.79	55	eP	33	07.60	-0.9
PTE	1.87	70	iP	33	07.94	-1.5
PWA	1.93	43	eP	33	09.20	-1.0
PLRM	2.16	50	eP	33	11.59	-1.6
PMR	2.16	50	eP	33	11.20	-2.0
PME	2.22	50	eP	33	12.61	-1.4
KNK	2.34	59	Pn	33	13.81	-1.8
			eS	33	41.80	
GHO	2.35	48	Pn	33	14.15	-1.6
KDC	2.53	179	iP	33	15.25	-2.8
SML	2.59	52	iP	33	17.27	-1.8
HIN	3.04	85	eP	33	23.92	-1.1
VZW	3.09	72	eP	33	22.90	-2.8
TTA	3.13	330	ePd	33	24.30	-1.9
CVA	3.42	82	iP	33	28.62	-1.4
KLU	3.50	67	iP	33	28.84	-2.4
TOA	3.62	57	eP	33	31.60	-1.4
SGAM	3.68	83	eP	33	31.86	-1.9
MCK	3.89	25	eP	33	35.00	-1.5
RAGM	3.95	85	eP	33	35.62	-1.8
PAX	4.36	48	eP	33	41.21	-1.8
			eS	34	30.82	
NEA	4.63	19	eP	33	44.47	-2.1
HDA	4.92	30	eP	33	48.48	-2.1
CCB	4.93	25	eP	33	48.06	-2.7
FBA	5.16	24	eP	33	51.70	-2.2
CTGM	5.60	78	eP	33	58.80	-1.4
IMA	5.84	356	eP	34	01.20	-2.3
FYU	7.13	24	eP	34	17.88	-3.0
DWY	7.24	53	P	34	21.10	-1.4
HYT	7.47	79	P	34	23.70	-2.1
INK	11.51	38	eP	35	16.00	-3.7
YKA	18.17	66	P	36	42.30	-1.7
MBC	19.70	23	eP	36	57.00	-3.3

49 obs. associated

% FEB 01, 1989 13h 15m 53.82± 0.93s
39.095 N ± 8.0km 27.621 E ± 9.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.75	202	ePg	16	08.30	-0.2
			eSg	16	19.80	
DST	0.93	57	iPn	16	12.20	0.5
EZN	1.24	306	ePn	16	17.40	0.5
EDC	1.26	8	ePn	16	16.40	-0.9
KCT	1.28	26	iPn	16	17.70	0.0

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

FEB 01, 1989 15h 05m 53.83± 1.54s
43.372 N ± 9.6km 5.423 E ± 8.8km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.0 (STR).

GELF	0.01	17	Pg	05	56.02	0.3
TREF	0.25	354	Pg	05	58.58	-0.6
PUYF	0.26	52	Pg	05	58.62	-0.7
PRAF	0.47	337	Pg	06	03.70	0.3
TAVF	0.52	62	Pg	06	04.14	-0.3
VILF	0.52	24	Pg	06	03.74	-0.7
GANF	0.72	29	Pg	06	08.54	0.6
CALN	1.13	70	Pg	06	15.53	0.4
			Sg	06	31.70	
MVIF	1.36	67	Pn	06	19.46	0.5
			Sg	06	38.15	
TOUF	1.47	64	Pn	06	20.97	0.4
			Sg	06	40.89	
AURF	1.48	69	Pn	06	20.80	0.3
			Sg	06	40.71	
AUTN	1.58	66	Pn	06	23.18	1.0
			Sg	06	43.96	
SAOF	1.66	68	Pn	06	23.01	-0.2
			Sg	06	46.35	
CVF	2.65	106	Pn	06	36.29	-1.2

S.D. = 0.7 on 14 of 14 obs.

& FEB 01, 1989 15h 25m 58.86s
60.338 N 152.854 W
DEPTH = 119.0km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.26	192	iP	26	15.31	1.1
			eS	26	28.29	
RDT	0.32	43	iP	26	15.51	1.0
NNL	0.83	110	eP	26	19.66	0.2
PDB	0.87	231	iP	26	18.97	-0.9
			eS	26	34.25	
NKA	0.90	62	iP	26	21.16	1.1
SPU	0.93	25	eP	26	19.92	-0.6
			eS	26	36.15	
CRP	0.99	20	eP	26	20.90	-0.3
AUL	1.00	197	eP	26	20.45	-0.7
AUE	1.02	195	eP	26	20.30	-0.9
CNPM	1.15	134	eP	26	21.70	-1.0
			eS	26	39.86	
SLKM	1.32	81	iP	26	23.41	-1.1
CDD	1.47	196	eP	26	24.88	-1.4
SVW	1.56	301	iP	26	26.05	-1.4
SEW	1.72	96	eP	26	27.84	-1.3
			eS	26	50.09	
PMS	1.85	59	eP	26	29.91	-1.0
			eS	26	53.76	
PWA	1.96	46	eP	26	32.07	-0.1
PTE	1.96	73	eP	26	30.37	-1.8
PLRM	2.21	54	eP	26	34.87	-0.5
PWL	2.29	75	eP	26	34.12	-2.3
			eS	27	01.64	
GHO	2.39	51	eP	26	36.04	-1.8
KNK	2.41	61	eP	26	35.95	-2.0
			eS	27	05.05	
KDC	2.61	176	eP	26	37.65	-2.9
SML	2.65	54	eP	26	38.92	-2.2
VZW	3.18	74	eP	26	45.56	-2.7
VLZ	3.30	73	eP	26	47.37	-2.4
KLU	3.58	68	eP	26	51.08	-2.6

26 obs. associated

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* FEB 01, 1989 15h 36m 35.46± 1.85s
43.975 N ±10.9km 126.334 W ±13.9km
DEPTH = 10.0km (geophysicist)
OFF COAST OF OREGON (30)

GROR	2.35	53	eP	37	14.86	0.1
KMOR	2.62	50	eP	37	17.95	-0.6
NLO	2.94	43	eP	37	23.35	0.2
GT2	3.13	66	eP	37	25.97	0.1
PGO	3.14	60	eP	37	26.29	0.4
BMW	3.33	40	eP	37	27.95	-0.7
RVW	3.35	48	eP	37	29.14	0.3
ONR	3.42	31	eP	37	29.18	-0.6
VLMM	3.44	61	eP	37	30.42	0.2
TDH	3.50	66	eP	37	31.06	-0.1
VBEM	3.56	71	eP	37	31.69	-0.4
MTMW	3.57	54	eP	37	32.28	0.2
FL2	3.59	50	eP	37	32.90	0.5
VLL	3.64	64	eP	37	33.45	0.4
SHW	3.65	51	eP	37	33.89	0.5
CZM	3.66	46	eP	37	33.31	0.0
ERK	3.66	49	eP	37	33.61	0.1
JLK	3.67	52	eP	37	33.91	0.3
YEL	3.69	51	eP	37	34.36	0.4
OBH	3.77	26	eP	37	34.23	-0.7
PNT	7.06	38	iPd	38	20.00	-1.4
	0.4s		12.00nm			5.4mb X
YKA	19.77	16	P	41	09.70	1.4
MEO	23.24	104	e(P)	41	43.00	-0.7

S.D. = 0.6 on 23 of 23 obs.

? FEB 01, 1989 17h 33m 26.16± 4.15s
5.474 S ±24.9km 154.553 E ±42.0km
DEPTH = 33.0km (normal)
4.3mb (1 obs.)
SOLOMON ISLANDS (193)

PAA	1.24	131	eP	33	11.00	-36.4X
RAB	2.69	298	eP	34	08.00	-0.1
	0.4s	284.75nm				
			eS	34	57.00	
HNR	6.64	127	eP	35	01.00	-3.0X

01d 17h

		eS	36 42.00		
LAT	7.60	261 e(P)	35 17.50	0.0	
DZM	20.11	146 iPd	38 04.50	4.2X	
QIS	20.87	223 eP	38 07.00	-1.0	
WB5	24.30	232 eP	38 42.10	0.2	
WRA	24.36	232 Pc	38 43.30	0.8	
	0.8s	7.20nm		4.3mb	
ASPA	26.88	226 eP	39 06.30	0.2	
	S.D. = 0.8	on	6 of 9 obs.		

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* FEB 01, 1989 19h 10m 46.88± 1.04s
17.185 N ±11.6km 61.935 W ± 7.6km
DEPTH = 28.0 ± 6.6 km
LEEWARD ISLANDS (92)
ML 2.8 (FDF).

ANG	0.10	107 eP	10 51.82	-0.1	
		eS	10 54.09		
MGH	0.54	210 eP	10 57.47	-0.3	
		eS	11 04.01		
NEV	0.61	266 eP	10 58.86	-0.1	
		eS	11 07.08		
SKI	0.78	281 eP	11 02.16	0.3	
		eS	11 12.31		
SEG	0.88	152 eP	11 03.11	-0.1	
		S	11 13.90		
PAG	1.17	168 eP	11 07.72	0.2	
		S	11 22.90		
DEG	1.21	136 eP	11 07.60	-0.4	
		S	11 22.50		
MGG	1.39	155 eP	11 11.30	0.7	
	S.D. = 0.5	on	8 of 8 obs.		

FEB 01, 1989 19h 34m 55.38± 0.69s
33.039 N ± 9.5km 132.578 E ± 6.7km
DEPTH = 53.1 ± 9.5 km
4.3mb (3 obs.)
SHIKOKU, JAPAN (236)

SHK	1.49	3 ePd	35 20.60	0.4	
	0.8s	477.61nm			
TKSJ	1.55	52 P	35 20.50	-0.5	
KUMJ	1.56	252 iP+	35 21.20	0.1	
		S	35 42.00		
SHNJ	1.64	312 P	35 22.40	0.2	
		eS	35 42.80		
YONJ	2.27	19 P	35 31.00	-0.1	
KAGJ	2.34	218 P	35 32.10	0.0	
WKYJ	2.78	64 P	35 38.10	-0.3	
TSRJ	3.76	48 eP	35 52.50	0.2	
		eS	36 52.70		
IIDJ	5.04	60 eP	36 09.50	-0.9	
MTMJ	5.57	49 eP	36 19.30	1.5	
MAT	5.80	51 iPc	36 20.10	-0.9	
	0.5s	10.56nm		4.5mb	
CHJJ	6.09	59 eP	36 25.20	0.2	
HFS	74.53	333 eP	46 28.70	-1.1	
	0.5s	1.30nm		4.1mb	
NAO	75.14	334 P	46 32.40	-0.9	
	0.7s	2.50nm		4.3mb	
KVN	82.87	48 eP	47 17.90	2.0	
	S.D. = 1.0	on	15 of 15 obs.		

FEB 01, 1989 19h 50m 45.94± 0.83s
22.894 N ± 7.2km 120.606 E ± 7.1km
DEPTH = 12.0 ± 5.4 km
4.2mb (4 obs.)
TAIWAN (244)

TWM1	0.18	248 iPc	50 51.00	0.8	
		eS	50 54.20		
TWK	0.39	344 iPd	50 51.80	-2.2	
		eS	50 56.00		
TWG	0.44	100 iPd	50 56.60	1.7	
		eS	51 04.00		
TWF1	0.78	54 iPd	51 01.60	0.6	
ANP	2.43	20 eP	51 26.00	-0.1	
QZH	2.75	318 ePn	51 29.00	-1.6	
Z	12s	1.80um			
N	12s	2.70um			
		Sn	52 16.00		
MCO	6.56	265 eP	52 28.90	4.3X	
GZH	6.69	273 P	52 30.50	4.0X	
		S	53 48.40		
SSE	8.19	3 eP	52 49.30	2.0	
E	10s	1.11um			
		iS	53 05.20		
		Lg	55 23.50		
NJ2	9.25	351 eP	53 00.00	-2.1	
N	12s	1.40um			
E	12s	1.40um			
		S	54 46.20		
WHN	9.45	325 eP	53 00.50	-4.3X	
GYA	13.16	288 P	53 52.60	-2.8X	
XAN	15.11	320 P	54 26.40	5.5X	
TIY	16.36	336 eP	54 37.60	0.6	
		S	57 45.00		
KMI	16.48	281 eP	54 44.00	5.2X	
CD2	17.00	302 eP	54 47.00	1.8	
BJI	17.50	349 eP	54 53.00	1.7	
HHC	19.46	339 eP	55 14.60	-0.9	
LZH	19.60	316 eP	55 16.50	-0.7	
	1.5s	44.00nm		4.5mb	
Z	10s	0.60um			
		pP	55 29.00	60kmX	
CHG	20.64	263 eP	55 31.20	3.1X	
CHTO	20.64	263 eP	55 28.90	0.8	
	1.3s	8.58nm		4.0mb	
		pP	55 38.40	37kmX	
CN2	21.23	10 eP	55 32.00	-1.9	
GTA	24.15	318 eP	56 02.30	-0.6	
SHL	26.31	282 eP	56 24.00	0.5	
GUN	31.70	286 P	57 13.90	1.8	
KKN	32.23	286 P	57 18.30	1.7	
DMN	32.38	286 P	57 18.60	0.6	
GKN	32.80	287 P	57 20.30	-1.2	
WB5	44.58	161 eP	58 58.00	-1.8	
WRA	44.64	161 Pd	58 58.90	-1.3	
	0.6s	5.40nm		4.6mb	
ASPA	48.05	164 eP	59 25.10	-2.2	
MHI	53.99	299 eP	00 12.00	-0.3	
FBA	70.19	27 eP	02 01.70	1.5	
	0.7s	0.50nm		3.8mb	
YKA	84.36	23 P	03 19.50	0.5	
	S.D. = 1.5	on	27 of 34 obs.		

? FEB 01, 1989 21h 45m 31.07±10.02s
42.719 N ±12.9km 18.070 E ±70.4km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.3 (TTG).

BRY	0.39	62 ePg	45 38.50	-0.7	
		iSg	45 47.00		
HCY	0.42	130 ePg	45 39.00	-0.6	
		eSg	45 48.00		
NKY	0.69	82 ePg	45 45.00	0.2	
		eSg	45 58.00		
BDV	0.71	128 ePg	45 45.00	-0.1	
		eSg	45 59.00		
TTG	0.93	108 ePg	45 49.00	0.3	
		eSg	46 07.50		
HVAR	1.28	292 i(Pg)	44 50.90	-63.8X	
		iSg	45 06.20		
IVA	1.35	83 ePn	45 56.50	0.5	
		eSn	46 20.80		
	S.D. = 0.6	on	6 of 7 obs.		

FEB 01, 1989 22h 22m 06.41± 0.63s
22.941 N ± 7.0km 120.587 E ± 6.5km
DEPTH = 10.0km (geophysicist)
4.2mb (3 obs.)
TAIWAN (244)

TWM1	0.19	232 iPc	22 11.60	1.0	
		eS	22 15.00		
TWK	0.34	344 iPd	22 12.10	-1.3	
TWG	0.46	105 iPd	22 16.90	1.1	
		eS	22 25.30		
TWF1	0.77	58 iPd	22 21.90	0.4	
		eS	22 34.00		
TWD	1.46	39 ePc	22 33.90	1.1	
ANP	2.39	21 eP	22 50.60	4.3X	
QZH	2.70	318 ePn	22 50.00	-0.7	
Z	12s	1.80um			
N	12s	2.70um			
		Sn	23 32.60		
GZH	6.67	273 eP	23 51.00	4.1X	
		S	25 09.00		
SSE	8.14	4 eP	24 08.50	1.1	
E	13s	1.44um			
		Lg	26 36.50		
NJ2	9.20	351 eP	24 23.20	1.1	
Z	10s	1.30um			
WHN	9.40	325 eP	24 21.00	-3.8X	
		eS	26 13.50		
GYA	13.13	288 eP	25 14.00	-1.8	
XAN	15.07	320 P	25 45.90	4.8X	
N	10s	1.23um			
TIY	16.31	336 eP	25 57.20	0.1	
CD2	16.96	301 eP	26 07.00	1.5	
HHC	19.41	339 eP	26 36.00	0.3	
LZH	19.55	316 eP	26 36.00	-1.5	
	2.0s	55.00nm		4.5mb	
BTO	19.74	336 eP	26 38.50	-0.9	
N	12s	0.50um			
CHG	20.63	263 eP	26 51.40	2.7	
CHTO	20.63	263 eP	26 50.80	2.1	
	1.2s	5.56nm		3.8mb	
		pP	27 01.10	41kmX	
GTA	24.10	318 eP	27 22.50	-0.7	
SHL	26.28	282 eP	27 43.80	-0.3	
WB5	44.63	161 eP	30 19.00	-2.0	
WRA	44.69	161 Pc	30 19.00	-2.4	
	0.7s	2.80nm		4.3mb	
INK	74.58	22 eP	33 46.00	-0.9	
	S.D. = 1.5	on	21 of 25 obs.		

% FEB 01, 1989 22h 28m 00.01± 0.62s
40.150 N ± 5.0km 29.278 E ± 5.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YLV	0.42	10 iPg	28 08.80	0.2	
GBZT	0.65	11 ePg	28 13.00	0.0	
		iSg	28 27.20		
KCT	0.71	278 iPg	28 13.80	-0.3	
		iSg	28 25.80		
DST	0.74	223 iPg	28 13.30	-1.2	
		eSg	28 23.30		
GPA	0.80	80 iPn	28 14.60	-1.0	
ISK	0.93	350 ePn	28 18.10	0.4	
BNT	1.06	282 iPn	28 20.80	0.8	
EDC	1.10	281 iPn	28 20.40	-0.3	
CTT	1.19	327 ePn	28 21.80	-0.3	
KHL	1.83	174 iPn	28 33.60	1.7	
DMK	2.03	326 ePn	28 35.00	0.4	
EZN	2.29	263 ePn	28 38.00	-0.4	
BBTK	2.69	95 eP	28 50.00	5.7X	
		eS	29 30.00		
	S.D. = 0.9	on	12 of 13 obs.		

% FEB 01, 1989 22h 48m 20.19± 1.16s
11.047 N ± 8.6km 61.738 W ±19.8km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)

TCE	0.35	182 eP	48 28.44	-0.2	
		eS	48 39.08		
TRN	0.52	140 eP	48 31.56	0.5	
		eS	48 45.33		
TPP	0.78	159 eP	48 34.67	0.0	
		eS	48 49.07		
TBH	0.87	130 eP	48 35.42	-0.5	
		eS	48 52.79		
GRW	1.11	4 eP	48 39.45	-0.1	
		eS	48 57.31		
	S.D. = 0.6	on	5 of 5 obs.		

? FEB 01, 1989 23h 18m 48.93± 2.91s
45.721 N ±22.9km 14.200 E ±13.2km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 1.7 (LJU).

CEY	0.16	83 iPgc	18 51.90	-0.7	
	0.2s	120.00nm			
		iSg	18 54.30		
VOY	0.38	326 iPgc	18 56.70	0.0	
		eSg	19 03.60		
LJU	0.40	36 ePg	18 57.00	-0.1	
	0.2s	80.00nm			
		iSg	19 03.10		
PTJ	1.24	81 ePg	19 12.90	0.8	
		eSg	19 29.70		
	S.D. = 1.1	on	4 of 4 obs.		

? FEB 01, 1989 23h 42m 02.86± 1.24s
37.646 N ± 8.1km 3.309 W ±12.1km
DEPTH = 5.0km (geophysicist)
SPAIN (377)

MG 2.4 (MDD).

AFC	0.43	206	ePg	42 11.20	-0.4
			eSg	42 17.50	
EBAN	0.64	324	ePg	42 15.00	-0.7
			iSg	42 23.20	
EVIA	1.18	32	ePg	42 25.50	0.2
			eSg	42 40.50	
EHOR	1.55	277	ePg	42 32.00	0.9
			eSg	42 52.00	

S.D. = 1.2 on 4 of 4 obs.

? FEB 02, 1989 00h 19m 22.96± 1.17s
19.454 S ±29.9km 174.360 W ±24.9km
DEPTH = 33.0km (normal)
4.7mb (3 obs.)
TONGA ISLANDS (173)

AFI	6.04	25	eP	20 52.00	-0.5
DZM	18.14	258	iPc	23 39.00	4.8X
WB5	48.13	260	eP	28 02.00	-0.1
WRA	48.14	260	Pd	28 01.70	-0.5
	1.2s		3.60nm		4.3mb
TNP	78.42	43	P	31 22.00	-0.4
	0.9s		9.11nm		4.8mb
KVN	78.44	41	P	31 22.30	-0.1
ALQ	84.10	50	P	31 52.00	-0.3
FBA	86.53	11	P	32 05.30	1.9
	0.7s		6.40nm		5.0mb
KSP	147.56	347	ePKP	39 07.50	5.0X
BRG	147.96	350	e(PKP)	39 11.80	8.7X
SPC	148.10	342	ePKP	39 20.70	17.0X
MLR	149.07	332	ePKP	39 11.00	5.7X
KHC	149.71	350	PKP	39 13.50	7.5X
BNG	160.47	222	ePKPc	39 13.30	-7.8X
	0.9s		9.00nm		

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

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* FEB 02, 1989 00h 54m 27.05± 1.38s
26.375 S ± 7.7km 27.228 E ±13.4km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
MG 3.6 (BUL).

PRY	0.59	158	iPc	54 39.00	0.1
			S	54 45.00	
BPI	0.75	75	eP	54 42.00	0.0
			S	54 48.50	
SLR	1.14	56	iPc	54 49.30	0.3
			S	55 01.70	
FRS	3.76	206	eP	55 41.00	14.0X
			S	56 23.00	
BUL	6.33	12	ePn	56 04.80	1.3
			iSn	57 10.60	
			iSg	57 45.00	
LSZ	11.08	5	iP	57 09.40	0.0
			iS	59 09.00	
			iSg	00 19.00	
PTZ	12.66	18	iP	57 29.30	-1.5
			iS	59 44.50	
			iSg	02 03.80	

S.D. = 1.2 on 6 of 7 obs.

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* FEB 02, 1989 02h 15m 32.67± 0.80s
19.231 S ±15.2km 169.110 E ±12.6km
DEPTH = 267.4 ± 6.9 km
4.0mb (3 obs.)
VANUATU ISLANDS (186)

PVC	1.66	333	iPc	16 14.30	0.2
			iS	16 46.50	
DZM	3.77	221	iPc	16 34.90	-0.3
			iS	17 26.00	
BRS	17.05	239	Pd	19 16.90	0.4
BWA	23.80	226	eP	20 23.00	-0.2
CAN	23.93	224	eP	20 28.00	3.6X
WB5	32.71	263	iPd	21 43.00	0.5
WRA	32.73	263	Pd	21 41.10	-1.6
	0.6s		6.70nm		4.4mb
ASPA	33.01	256	iPd	21 46.30	1.2
	0.6s		148.00nm		5.8mb X
WARB	39.65	252	iPc	22 37.10	-3.4X
	0.3s		2.00nm		4.0mb
GCC	85.64	48	ePc	27 42.10	-0.4
PRS	85.77	49	ePc	27 43.40	0.3
BRK	85.85	48	e(P)	27 43.90	0.4
MHC	86.04	48	ePc	27 45.70	1.1
PRI	86.19	50	ePc	27 45.80	0.5
WDC	86.94	45	ePc	27 48.80	0.1
ORV	87.16	46	e(P)	27 49.70	-0.1
CMB	87.24	48	ePc	27 50.10	-0.1
FRI	87.25	49	eP	27 50.20	0.0
MIN	87.46	46	e(P)	27 49.60	-1.8
KVN	89.30	48	eP	27 59.90	-0.2
FBA	90.10	17	eP	28 01.70	-1.3
	0.9s		0.90nm		3.7mb
YKA	100.72	27	Pdiff	28 52.70	1.3
MOX	143.92	336	e(PKP)	34 36.00	-1.5
	1.2s		18.00nm		
KHC	144.27	332	iPKPc	34 37.60	-0.6
	1.0s		8.50nm		
SKO	144.44	317	iPKPc	34 38.80	0.1
	1.2s		46.00nm		
DMU	145.26	356	iPKPc	34 39.60	-0.1
	0.4s		20.00nm		
OHR	145.28	316	ePKP	34 40.20	0.0
DCN	145.84	356	ePKP	34 41.30	0.7
KBA	145.88	330	ePKP	34 41.00	-0.2
	0.5s		3.50nm		
MEM	145.93	341	PKP	34 42.20	1.4
SNF	146.54	342	PKP	34 44.00	2.2X
WLF	146.71	340	iPKPc	34 45.00	2.9X
DOU	146.82	342	iPKPc	34 44.90	2.6X
	0.6s		31.80nm		
			e	35 49.20	
CDF	147.39	337	ePKP	34 46.40	3.0X
BNG	147.74	247	iPKPd	34 48.60	3.7X
	0.8s		11.00nm		
BSF	148.05	337	ePKP	34 48.00	3.5X
HAU	148.06	338	ePKP	34 48.30	3.9X
FLN	149.36	346	ePKP	34 50.90	4.5X
LDF	149.44	346	ePKP	34 51.00	4.5X
LOR	149.55	340	iPKPc	34 51.80	5.1X
LBF	149.76	340	ePKP	34 52.30	5.2X
GRR	149.80	347	ePKP	34 52.10	5.1X
SSF	149.84	340	iPKPc	34 52.60	5.4X
LPG	150.00	335	ePKP	34 53.80	5.9X
SMF	150.10	339	ePKP	34 53.60	6.0X
AVF	150.13	340	ePKP	34 53.10	5.5X
LPF	150.18	347	iPKPc	34 53.10	5.5X
BGF	150.50	341	ePKP	34 54.10	5.9X
TCF	150.94	341	iPKPc	34 55.00	6.1X
LSF	151.17	342	iPKPc	34 55.30	6.1X
MFF	151.31	344	ePKP	34 55.70	6.3X
CVF	151.35	329	ePKP	34 56.20	6.6X
FRF	151.62	333	ePKP	34 56.60	6.7X
LRG	151.83	333	ePKP	34 57.40	7.2X
LMR	151.86	332	ePKP	34 57.20	6.9X
RJF	152.03	341	ePKP	34 57.80	7.3X
LFF	152.60	342	ePKP	34 59.00	7.7X
LPO	152.69	341	ePKP	34 59.30	7.9X

S.D. = 0.9 on 28 of 58 obs.

? FEB 02, 1989 02h 18m 57.15± 0.80s
11.585 N ±11.8km 124.850 E ±37.6km
DEPTH = 33.0km (normal)
4.8mb (2 obs.)
LEYTE, PHILIPPINE ISLANDS (256)

DAV	4.53	171	eP	20 05.00	-0.2
WARB	37.58	177	eP	26 05.60	-4.9X
	0.6s		9.00nm		4.8mb
FORR	42.30	176	iPc	26 49.40	-0.1
	0.4s		9.00nm		4.9mb
STK	46.10	160	eP	27 20.00	0.0
			e	27 37.00	
BRS	47.27	145	eP	27 29.00	-0.5
			e	27 45.50	
BWA	50.94	155	eP	27 58.40	0.8
			i	28 16.10	
INK	83.58	21	eP	31 23.00	-0.1
SUF	83.75	333	eP	31 24.00	0.0
YKA	93.13	24	eP	31 45.50	-23.4X

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

FEB 02, 1989 03h 43m 16.25± 0.68s
31.144 S ± 5.3km 117.254 E ± 9.1km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

WA4	0.54	357	iPd	43 27.40	0.2
			eS	43 34.00	
KLB	0.62	136	eP	43 28.60	-0.2
			iS	43 36.30	
BAL	0.71	319	iPc	43 30.30	0.0
			iS	43 39.60	
MUN	1.22	227	iPd	43 38.90	-0.1
			iS	43 54.50	
NWAO	1.78	181	ePn	43 47.50	0.3
			eSn	44 11.00	
MRWA	2.21	330	eP	43 53.20	-0.3
			iS	44 23.20	

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

& FEB 02, 1989 04h 51m 54.40s
33.940 N 118.860 W
DEPTH = 8.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.8 (PAS). Felt (III) at Agoura, Burbank, Conogo Park, Culver City, Duarte, Hawthorne, Lokewood, Lomita, Reseda, Santo Monica, Simi Volley and Whittier.

PAS	0.61	70	iPd	52 05.40	-1.2
CIS	0.65	144	iPd	52 06.50	-1.1
MWC	0.72	67	iPd	52 07.60	-1.4
ABL	0.96	342	eP	52 11.70	-1.2
SCI	0.99	165	iPc	52 12.20	-1.2
SYP	1.10	303	iPd	52 14.40	-0.9
SBB	1.14	49	iPd	52 14.50	-1.4
RVR	1.24	87	iPc	52 15.40	-2.1
PEC	1.41	91	iPc	52 18.00	-2.5
BLP	1.42	296	eP	52 19.00	-1.5
BCH	1.60	321	eP	52 22.30	-0.9
ISA	1.75	10	ePd	52 24.60	-0.7
PLM	1.77	109	eP	52 22.80	-2.8
CPE	1.81	125	eP	52 22.50	-3.6
GSC	2.17	51	iPd	52 30.70	-0.7
BAR	2.22	124	ePc	52 28.60	-3.5
PHAM	2.28	327	eP	52 31.50	-1.4
PKEM	2.35	335	eP	52 33.00	-0.9
AMR	3.14	38	eP	52 44.00	-1.1
YMT3	3.47	34	eP	52 48.80	-1.1
SAO	3.52	324	eP	52 48.10	-2.4
ARN	4.04	328	eP	52 55.80	-2.1
CMB	4.27	344	eP	53 00.20	-1.0
TNP	4.34	17	eP	53 01.00	-1.4
PRN	4.65	41	eP	53 05.40	-1.2
KVN	5.14	7	eP	53 12.50	-1.1
ORV	5.99	340	eP	53 24.60	-0.9

27 obs. associated

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* FEB 02, 1989 05h 17m 49.28± 1.23s
33.940 N ±18.8km 118.820 W ±12.2km
DEPTH = 5.0km (geophysicist)
SOUTHERN CALIFORNIA (43)
ML 3.0 (NEIS).

ABL	0.97	340	eP	18 08.40	0.1
PEC	1.38	92	eP	18 14.50	-0.7
BLP	1.45	296	eP	18 15.80	-0.4
BCH	1.62	320	eP	18 19.00	0.3
PLM	1.74	109	eP	18 21.10	0.7

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

FEB 02, 1989 06h 52m 33.27± 0.87s
4.971 S ± 7.8km 143.281 E ± 6.3km
DEPTH = 118.1 ± 10.6 km
5.0mb (12 obs.)
PAPUA NEW GUINEA (202)

MNDI	1.23	162	iP	52 58.60	0.4
TZZ	2.07	262	eP	52 19.50	-48.6X
LAT	4.06	114	eP	53 35.00	0.5
PMG	5.85	139	eP	53 58.00	-1.0
MTN	14.32	236	iPd	55 50.90	-0.9
			e	58 23.00	
QIS	15.90	193	eP	56 13.00	1.3
			eS	59 04.00	
WB5	17.17	210	eP	56 27.50	0.1
			i	56 29.50	
			eS	59 30.80	
WRA	17.24	210	Pd	56 27.60	-0.7
	0.6s		18.60nm		4.5mb
KNA	17.83	232	eP	56 35.00	-0.5
ASPA	20.67	205	eP	57 05.80	0.1
	0.6s		49.00nm		5.0mb
			eS	00 53.90	
WARB	26.43	215	eP	57 57.00	-3.8X

02d 06h

	0.4s	3.00nm		4.2mb	
SSE	41.61	331	P	00 10.50	-0.7
	0.7s	155.00nm		5.9mb	
PSI	44.96	279	ePd	00 39.50	0.9
CHG	49.65	300	eP	01 14.90	-0.3
CHTO	49.65	300	eP	01 15.00	-0.2
	0.7s	3.65nm		4.4mb	
CD2	51.94	316	eP	01 32.40	0.1
GTA	59.62	322	Pd	02 27.10	-0.2
GUN	64.22	304	Pd	02 59.10	0.6
	0.8s	38.00nm		5.4mb	
PKI	64.49	304	Pd	03 00.30	0.1
	0.9s	14.00nm		4.9mb	
KKN	64.67	304	Pd	03 01.70	0.5
	0.8s	37.00nm		5.4mb	
DMN	64.75	304	Pd	03 02.40	0.6
	0.9s	41.00nm		5.4mb	
GKN	65.28	304	Pd	03 05.50	0.5
	0.8s	36.00nm		5.4mb	
G8A	67.90	287	Pc	03 21.40	-0.2
	0.6s	3.20nm		4.4mb	
WMQ	69.62	320	P	03 31.70	-0.1
SVW	80.87	26	eP	04 36.20	0.9
PMR	83.91	26	eP	04 50.10	-0.7
	0.5s	6.10nm		4.8mb	
TOA	85.41	26	eP	04 59.20	0.8
FBA	85.70	24	eP	04 58.60	-1.2
INK	92.06	22	eP	05 29.00	-0.7
KIC	148.15	274	PKP	12 09.00	4.7X
TIC	148.42	275	PKP	12 09.70	5.0X
LIC	148.44	274	PKP	12 09.80	5.0X
	S.D. = 0.7	on	27 of	32 obs.	

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* FEB 02, 1989 06h 57m 31.42± 1.32s
17.602 N ± 8.2km 60.748 W ±11.8km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 3.7 (FDF).

ANG	1.12	247	eP	57 50.30	-0.6
SEG	1.40	211	eP	57 54.20	-0.6
MGG	1.76	198	eP	58 00.90	0.8
PAG	1.80	210	eP	58 00.60	-0.1
			S	58 24.00	
NEV	1.80	255	eP	58 00.82	0.1
			eS	58 27.15	
SKI	1.92	262	eP	58 02.60	0.2
			eS	58 39.38	
SKDB	1.98	264	eP	58 03.45	0.2
BSK	2.01	263	eP	58 03.91	0.2
			eS	58 33.48	
BBL	2.18	199	eP	58 06.00	-0.1
YKA	58.17	334	P	07 24.10	-0.1
	S.D. = 0.5	on	10 of	10 obs.	

FEB 02, 1989 07h 05m 21.25± 8.60s
17.646 N ±46.2km 60.666 W ±58.5km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 3.4 (FDF).

ANG	1.21	246	eP	05 41.20	-0.8
			eS	06 04.76	
SEG	1.47	213	ePd	05 45.28	-0.5
MGH	1.74	238	eP	05 50.15	0.4
			eS	06 16.31	
MGG	1.83	200	eP	05 50.77	-0.1
PAG	1.88	211	eP	05 51.62	-0.1
			S	06 15.00	
NEV	1.89	255	eP	05 52.97	1.2
SKI	2.00	261	eP	05 52.45	-1.0
			eS	06 20.28	
SKDB	2.06	263	eP	05 54.51	0.3
BSK	2.10	262	eP	05 54.70	0.0
BBL	2.25	200	eP	05 57.30	0.4
	S.D. = 0.7	on	10 of	10 obs.	

FEB 02, 1989 07h 14m 32.86± 0.56s
31.144 S ± 4.9km 117.270 E ± 6.5km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

WA4	0.54	356	eP	14 44.00	0.2
			eS	14 50.00	
KLB	0.61	137	iPc	14 45.20	0.0
			eS	14 53.00	
BAL	0.72	318	iPc	14 47.00	-0.1
			eS	14 56.00	
MUN	1.23	227	iPd	14 55.60	-0.1
			iS	15 11.00	
NWAO	1.78	181	iPn	15 04.10	0.3
			eSn	15 28.10	
MRWA	2.21	330	eP	15 10.10	-0.1
			eS	15 40.00	
COOL	3.34	87	eP	15 26.00	-0.2
			eS	16 03.00	
WARB	9.60	61	eP	16 45.00	-9.1X
			eS	18 25.00	
	S.D. = 0.2	on	7 of	8 obs.	

% FEB 02, 1989 09h 05m 56.20± 1.18s
44.104 N ± 8.3km 8.096 E ± 9.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.0 (GEN).

FIN	0.13	37	P	05 59.35	-0.1
			S	06 01.28	
IMI	0.24	218	P	06 01.55	0.1
			S	06 05.15	
ROB	0.25	320	P	06 01.63	0.1
			S	06 05.18	
STV	0.57	284	P	06 07.38	-0.5
			S	06 15.84	
PZZ	0.82	300	P	06 12.56	0.4
	S.D. = 0.5	on	5 of	5 obs.	

% FEB 02, 1989 09h 40m 23.73± 0.91s
44.034 N ± 7.1km 7.921 E ± 7.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.1 (GEN).

IMI	0.13	191	P	40 26.93	0.1
			S	40 28.92	
ROB	0.26	352	P	40 29.51	0.2
			S	40 32.89	
FIN	0.27	50	P	40 29.36	-0.1
			S	40 32.62	
STV	0.48	296	P	40 33.42	-0.1
PZZ	0.75	309	P	40 38.49	-0.1
			S	40 48.45	
	S.D. = 0.2	on	5 of	5 obs.	

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* FEB 02, 1989 09h 52m 32.35± 1.10s
21.051 S ± 8.7km 68.210 W ±16.2km
DEPTH = 154.7 ± 8.4 km
4.8mb (2 obs.)
CHILE-BOLIVIA BORDER REGION (124)

HJA	3.38	130	ePd	53 25.20	0.0
CCH	4.14	29	iPc	53 35.70	0.1
CNCB	4.22	3	P	53 37.30	0.4
LPB	4.50	1	iPc	53 41.00	0.6
ZOBO	4.76	1	iPc	53 43.00	-1.0
ARE	5.52	325	eP	53 47.00	-6.9X
			iS	54 45.00	
ITB1	13.23	108	eP	55 41.00	5.6X
ATB	23.53	44	Pd	57 28.90	-0.8
KIC	67.95	74	P	03 16.90	0.0
	0.8s	34.00nm		5.2mb	
SPA	69.08	180	e(P)	03 22.90	-0.3
	1.0s	7.50nm		4.5mb	
KUK	71.82	76	eP	03 41.00	0.6
YKA	90.98	340	P	05 19.50	0.1
GBA	146.43	97	PKP	11 56.00	0.2
	S.D. = 0.6	on	11 of	13 obs.	

% FEB 02, 1989 10h 55m 10.19± 2.64s
33.380 S ± 8.7km 71.796 W ±23.3km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

LCCH	0.21	117	iPc	55 17.10	0.2
LNV	0.66	151	iPd	55 22.80	-0.2
TACH	0.77	111	iP	55 24.20	-0.4
ROCH	0.77	58	iPd	55 24.60	-0.3
			iS	55 35.20	
SAN	0.95	95	iPd	55 27.50	0.2
			iS	55 35.30	
PEL	0.96	76	iPd	55 27.10	-0.3
PCH	1.10	103	iPd	55 29.30	-0.1
CHCH	1.10	120	iP	55 29.80	0.4
			iS	55 44.00	
JACH	1.23	56	iPc	55 31.50	0.3
FCH	1.26	88	iPd	55 32.00	0.1
			iS	55 48.00	
	S.D. = 0.3	on	10 of	10 obs.	

? FEB 02, 1989 15h 30m 14.60± 8.51s
9.420 S ±85.0km 127.142 E ±22.2km
DEPTH = 209.8 ± 39.2 km
3.7mb (2 obs.)
TIMOR SEA (290)

MTN	5.19	131	eP	31 32.00	-0.3
			eS	32 33.00	
KNA	6.49	166	eP	31 49.00	0.0
			eS	33 06.00	
WB5	12.53	147	eP	33 05.80	-1.1
			eS	35 25.20	
WRA	12.56	147	Pc	33 09.10	1.7
	0.5s	2.10nm		3.8mb	
MBL	13.63	210	eP	33 21.00	0.2
			eS	35 43.00	
WARB	16.68	182	eP	33 57.50	-0.6
	0.4s	1.00nm		3.6mb	
			eS	36 59.00	
	S.D. = 1.5	on	6 of	6 obs.	

& FEB 02, 1989 15h 40m 46.41s
45.930 N 57.540 W
DEPTH = 18.0km (geophysicist)
NORTH ATLANTIC OCEAN (402)
<OTT-P>. mbLg 3.9 (NEIS).

GBN	2.83	261	P	41 33.00	1.4
STJ	3.69	62	eP	41 49.00	5.2
	0.6s	19.00nm			
PQ0	7.05	266	eP	42 29.00	-2.2
			eS	43 42.10	
EMM	7.11	264	eP	42 30.30	-1.8
			eS	43 42.80	
GSQ	7.14	298	P	42 30.51	-2.0
			S	43 45.41	
HNME	7.27	276	eP	42 31.70	-2.7
			eS	43 46.80	
EBN	7.52	286	ePd	42 34.71	-3.0
			S	43 53.61	
AGM	8.01	282	eP	42 40.90	-3.7
			eS	44 05.90	
MNQ	8.80	306	P	42 51.53	-4.1
			S	44 26.33	
BNH	9.77	267	P	43 04.60	-4.4
SBQ	10.09	272	P	43 09.51	-3.9
			S	44 55.62	
SCH	10.67	330	eP	43 17.30	-4.0
TRQ	11.83	278	ePd	43 32.23	-4.9
			S	45 35.87	
RSNY	12.06	270	P	43 35.40	-4.8
PTN	12.37	270	P	43 39.90	-4.5
GAC	12.52	275	eP	43 42.00	-4.4
JAQ	14.10	311	P	44 03.70	-3.5
			S	46 29.41	
FRB	18.89	345	eP	45 06.00	-1.9
YKA	35.86	318	P	47 48.40	1.8
	19 obs. associated				

? FEB 02, 1989 17h 27m 01.34± 1.08s
44.601 N ±20.4km 148.505 E ±14.9km
DEPTH = 33.0km (normal)
4.6mb (4 obs.)
KURIL ISLANDS (221)

KUSJ	3.13	243	P	27 48.30	-1.1X
			S	28 20.50	
ASAJ	4.23	266	eP	28 07.90	2.8
HOOJ	4.40	242	P	28 08.40	0.9
			eS	28 55.80	
MRRJ	5.83	251	eP	28 28.40	0.8
			eS	29 33.20	
OFUJ	7.51	225	P	28 49.10	-2.2X
			S	30 03.90	
LZH	34.72	272	eP	33 50.00	-0.4
CHG	48.45	254	eP	35 42.60	0.0
CHTO	48.45	254	eP	35 42.00	-0.6
	0.7s	2.06nm		4.3mb	
GUN	51.94	273	P	36 08.20	-1.4
KKN	52.44	274	P	36 12.40	-0.8
	0.6s	9.00nm		4.9mb	
PKI	52.47	273	P	36 12.00	-1.6

DMN 52.67 274 P 36 14.00 -1.0
0.6s 15.00nm 5.1mb
GKN 52.77 274 P 36 14.50 -1.1
YKA 54.55 34 P 36 30.40 2.4
HYB 63.77 269 eP 37 30.00 -2.5X
WB5 65.45 195 eP 37 42.60 -0.5
WRA 65.52 195 P 37 44.00 0.5
0.4s 0.30nm 3.7mb
S.D. = 1.4 on 14 of 17 obs.

? FEB 02, 1989 18h 12m 11.79± 4.89s
33.695 S ±15.7km 69.308 W ±34.8km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

FCH 0.90 294 iP 12 29.50 0.2
iS 12 47.00
PCH 1.01 274 iPd 12 31.00 0.0
iS 12 52.70
CHCH 1.14 258 iP 12 32.50 -0.7
iS 12 55.70
SAN 1.16 282 eP 12 33.50 0.1
PEL 1.28 295 iPc 12 35.30 -0.2
iS 13 00.00
TACH 1.36 271 eP 12 36.00 -0.8
iS 13 02.50
JACH 1.48 313 iPc 12 38.10 -0.4
iS 13 05.00
LNV 1.77 261 eP 12 43.00 0.4
iS 13 14.00
LCCH 1.90 276 iP 12 46.00 1.5
iS 13 13.10
S.D. = 0.8 on 9 of 9 obs.

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* FEB 02, 1989 18h 24m 06.83± 2.16s
36.380 N ±19.2km 21.109 E ± 9.0km
DEPTH = 73.4 ± 20.5 km
3.8mb (1 obs.)
SOUTHERN GREECE (368)

VLS 1.84 347 ePb 24 38.00 1.1
NEO 3.37 29 ePn 24 59.00 0.9
LIT 3.87 16 eP 25 06.60 1.4
KZN 3.95 7 ePn 25 07.80 1.4
PAIG 4.08 29 eP 25 07.50 -0.6
PLG 4.39 24 ePn 25 12.20 -0.3
GRG 4.68 12 eP 25 16.80 0.2
OHR 4.73 357 ePn 25 14.50 -2.8
SOH 4.77 21 eP 25 18.20 0.4
ATN 4.84 293 P 25 19.60 0.8
KNT 4.97 16 eP 25 21.10 0.4
MEU 5.01 280 P 25 22.50 1.2
eSn 26 16.10
VAY 5.06 13 ePn 25 21.50 -0.4
SRS 5.11 22 eP 25 22.00 -0.6
BRT 5.43 327 P 25 26.40 -0.6
eSn 26 27.10
SKO 5.59 3 ePn 25 28.00 -1.2
MGR 5.76 312 P 25 30.80 -0.8
USI 6.72 293 P 25 43.30 -1.5
NAO 25.33 348 P 29 30.30 2.3
0.8s 3.10nm 3.8mb
GKN 53.57 80 P 33 22.00 -0.6
DMN 54.11 80 P 33 26.40 -0.4
PKI 54.37 80 P 33 28.60 -0.2
S.D. = 1.2 on 22 of 22 obs.

& FEB 02, 1989 19h 00m 23.85s
59.852 N 153.382 W
DEPTH = 119.2km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM 0.31 43 iP 00 40.43 1.0
PDB 0.41 261 iP 00 40.57 -0.9
AUH 0.49 184 eP 00 41.78 -0.2
eS 00 55.06
AUE 0.49 179 eP 00 41.51 -0.4
eS 00 54.94
RED 0.65 28 iP 00 42.23 -0.8
eS 00 57.46
RDT 0.87 34 iP 00 44.21 -0.8
iS 00 59.74
HOM 0.90 102 eP 00 44.73 -0.4
CDD 0.93 188 iP 00 44.62 -0.9
eS 01 00.88
NNL 1.07 79 iP 00 47.05 0.3
iS 01 04.38
CNPM 1.14 106 iP 00 46.74 -0.8
BRLK 1.26 93 eP 00 47.86 -1.1
eS 01 06.57
NKA 1.39 49 eP 00 51.12 0.8
iS 01 10.75
SPU 1.49 26 iP 00 50.52 -1.0
CRP 1.54 23 eP 00 51.48 -0.8
eS 01 14.17
SVW 1.68 320 iPd 00 51.70 -2.1
SLKM 1.71 66 eP 00 52.94 -1.2
iS 01 15.36
SEW 1.99 81 eP 00 56.27 -1.3
KDC 2.16 167 iPd 00 57.10 -2.6
PMS 2.35 52 iP 01 00.68 -1.6
PTE 2.39 63 eP 01 00.89 -1.8
PWA 2.49 42 iPd 01 00.60 -3.5
PWL 2.70 66 iP 01 05.42 -1.5
iS 01 35.66
PLRM 2.72 48 eP 01 04.66 -2.4
PMR 2.72 48 eP 01 05.20 -1.9
PME 2.78 48 eP 01 05.63 -2.2
KNK 2.89 55 eP 01 06.48 -2.8
iS 01 40.47
GHO 2.91 47 eP 01 06.91 -2.8
SML 3.16 49 iP 01 09.94 -3.0
TTA 3.34 339 eP 01 12.50 -2.9
HIN 3.49 78 eP 01 15.54 -1.8
VZW 3.59 67 eP 01 17.00 -1.8
VLZ 3.72 67 eP 01 18.80 -1.6
KLU 4.02 63 iP 01 21.62 -3.0
SGAM 4.14 77 eP 01 23.87 -2.2
TOA 4.18 54 eP 01 24.30 -2.4
RAGM 4.39 79 eP 01 28.00 -1.6
PAX 4.92 47 eP 01 43.39 6.5
CCB 5.47 26 eP 01 44.05 -0.2
FBA 5.69 25 eP 01 43.90 -3.4
IMA 6.24 359 eP 01 52.30 -2.7
MBC 20.23 23 eP 04 50.00 -0.9
41 obs. associated

% FEB 02, 1989 19h 17m 13.98± 0.82s
46.867 N ± 8.9km 1.505 E ± 6.2km
DEPTH = 13.7 ± 5.3 km
FRANCE (538)
ML 2.2 (LDG).

LSF 0.62 178 Pg 17 26.00 -0.1
Sg 17 34.20
TCF 0.76 140 Pg 17 28.30 -0.2
Sg 17 37.70
BGF 0.97 108 Pg 17 32.70 0.6
Sg 17 44.60
MAF 0.98 131 Pg 17 33.20 1.0
Sg 17 45.90
MFF 1.17 257 Pg 17 35.80 0.4
Sg 17 51.90
AVF 1.27 93 Pg 17 37.50 0.3
Sg 17 53.50
SSF 1.38 81 Pg 17 38.50 -0.3
Sg 17 56.20
SMF 1.62 97 Pg 17 43.30 1.1
Sg 18 03.60
LOR 1.66 75 Pg 17 42.90 0.1
Sg 18 04.20
LBF 1.70 85 Pg 17 43.80 0.4
Sg 18 05.80
S.D. = 0.6 on 10 of 10 obs.

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* FEB 02, 1989 22h 24m 41.35± 1.52s
17.641 N ±12.9km 60.768 W ±12.8km
DEPTH = 26.4 ± 8.1 km
LEEWARD ISLANDS (92)
ML 3.7 (FDF).

CPB 1.01 270 eP 24 59.05 -0.7
eS 25 12.17
ANG 1.12 245 eP 25 00.72 -0.7
SEG 1.42 210 eP 25 05.08 -0.5
S 25 24.70
MGH 1.66 237 eP 25 09.53 0.4
eS 25 32.68
MGG 1.79 197 eP 25 11.02 0.0
S 25 34.90
NEV 1.79 254 eP 25 12.06 1.0
eS 25 34.21
DOG 1.80 207 eP 25 10.89 -0.2
PAG 1.82 209 eP 25 11.18 -0.4
S 25 36.00
SKI 1.91 261 eP 25 12.85 0.2
BSK 2.00 262 eP 25 14.06 0.1
BBL 2.21 198 eP 25 17.78 0.7
YKA 58.13 334 P 34 34.80 0.0
S.D. = 0.6 on 12 of 12 obs.

% FEB 02, 1989 23h 08m 06.57± 1.00s
40.253 N ± 9.8km 20.381 E ± 8.1km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

LSK 0.20 122 iPnd 08 11.40 0.4
TPE 0.29 278 iPnc 08 13.00 0.4
BERA 0.56 324 ePn 08 19.70 1.9
VLO 0.71 288 ePn 08 19.40 -1.1
TIR 1.16 340 ePn 08 28.70 0.5
KKS 1.82 1 ePn 08 38.00 -0.1
SDA 1.88 340 e(Pn) 08 38.00 -1.0
BCI 2.12 354 ePn 08 41.60 -0.9
S.D. = 1.2 on 8 of 8 obs.

FEB 03, 1989 00h 45m 54.50± 0.16s
17.787 S ± 7.3km 178.549 W ± 3.9km
DEPTH = 545.8km (4 depth phoses)
5.2mb (27 obs.)
FIJI ISLANDS REGION (181)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 19C
Centroid Location:
Origin Time 00:46: 1.3 1.1
Lat 18.27S 0.12 Lon 178.76W 0.09
Dep 572.0 5.3 Half-duration 1.8
Moment Tensor; Scale 10**17 Nm
Mrr=-0.25 0.07 Mtt=-0.24 0.13
Mff= 0.49 0.10 Mrt=-0.16 0.10
Mrf=-1.07 0.09 Mtf=-0.29 0.09
Principal Axes:
T Val= 1.26 Plg=35 Azm= 83
N -0.15 18 186
P -1.11 50 299
Best Double Couple:Mo=1.2*10**17
NP1:Strike=121 Dip=20 Slip=-156
NP2: 9 82 -71

AFI 7.57 60 eP 47 46.00 -2.8
(S) 49 09.00
DZM 14.74 251 iPd 49 01.30 0.0
iS 51 40.00
AFR 27.41 94 iP 50 57.60 -0.7
0.5s 60.00nm 5.5mb
PAE 27.58 94 iP 50 59.20 -0.6
0.5s 45.00nm 5.3mb
PPT 27.60 94 iP 50 59.50 -0.4
0.5s 50.00nm 5.4mb
PPN 27.74 94 iP 51 00.60 -0.5
0.5s 15.00nm 4.9mb
TBI 27.76 106 iP 51 01.70 0.4
0.6s 20.00nm 4.9mb
TVO 27.89 95 iP 51 02.20 -0.3
0.5s 40.00nm 5.3mb
BRS 28.09 245 P 51 04.50 0.3
PMO 29.52 89 iP 51 16.50 -0.1
0.5s 30.00nm 5.2mb
COO 29.72 239 iPd 51 18.90 0.6
VAH 29.73 90 iP 51 18.00 -0.5
0.5s 15.00nm 4.9mb
TPT 29.79 89 iP 51 18.60 -0.3
0.5s 30.00nm 5.2mb
RUV 29.98 90 iP 51 19.90 -0.6
0.5s 45.00nm 5.3mb
RMQ 31.43 248 iPd 51 32.90 0.1
0.6s 43.00nm 5.2mb
CNB 33.39 232 eP 51 49.00 -0.3
CAN 33.67 232 eP 51 52.00 0.4
BWA 33.78 234 eP 51 51.20 -1.4
PMG 34.31 279 iPd 51 57.50 0.4
TOO 37.14 231 iPc 52 21.70 1.4
TAU 38.24 222 eP 52 30.00 0.9
STK 38.57 241 iPd 52 32.90 0.9
0.3s 31.00nm 5.4mb
BFD 39.20 233 eP 52 25.00 -12.1X
QIS 39.55 259 iPc 52 38.90 -1.1
RKT 41.06 105 iP 52 52.80 0.6
1.4s 135.00nm 5.3mb

03d 00h

WB5	44.50	260	iPd	53	17.80	-1.5	MLR	145.66	329	ePKPc	04	33.50	1.2				e	04	44.50				
WRA	44.52	259	Pd	53	16.90	-2.6	IKL	146.13	309	iPKP	04	34.00	0.9	ORX	151.71	350	PKP	04	47.78	6.2X			
	0.4s	10.20nm			4.7mb		PRU	146.19	345	ePKP	04	33.00	0.2	LSD	152.00	351	PKP	04	49.42	7.3X			
ASPA	44.70	254	iPd	53	20.10	-0.7				e	04	34.60		LPG	152.02	352	ePKP	04	49.50	7.3X			
	0.7s	278.00nm			5.9mb		MOX	146.22	348	ePKP	04	33.00	0.2	RSP	152.29	351	PKP	04	50.03	7.6X			
			eScP	57	54.20			1.4s	39.00nm					BNI	152.47	352	PKP	04	50.00	7.3X			
			eS	59	14.80		PSZ	146.37	337	ePKP	04	35.00	1.7	RJF	152.56	360	ePKP	04	49.80	7.2X			
			iS	02	19.20		ENN	146.90	355	ePKP	04	36.50	2.6X	RRL	152.58	352	PKP	04	50.85	7.9X			
GUA	47.63	308	eP	53	41.70	-1.5		0.8s	12.00nm					ARV	152.59	342	PKP	04	43.50	0.8			
	0.9s	410.08nm			6.0mb		UCC	146.98	357	PKPd	04	37.50	3.5X	LFF	152.92	1	ePKP	04	50.60	7.5X			
MTN	48.67	268	eP	53	49.00	-2.1	SRO	147.02	339	ePKP	04	36.20	2.1X	CAF	152.94	359	ePKP	04	51.00	7.8X			
FORR	49.91	244	iPd	53	58.90	-1.1	MEM	147.05	355	PKPc	04	36.80	2.7X	PZZ	152.94	351	PKP	04	50.13	6.8X			
	0.4s	80.00nm			5.6mb		ZST	147.09	341	iPKP	04	37.60	3.3X	ROB	153.03	350	PKP	04	50.65	7.3X			
WARB	51.20	250	iPd	54	03.10	-6.6X				e	06	47.80		FIN	153.05	349	PKP	04	50.44	7.1X			
	0.3s	12.00nm			4.8mb		CTT	147.17	321	ePKP	04	36.00	1.4	ASS	153.06	342	PKP	04	50.00	6.5X			
MBL	57.88	256	iPd	54	55.20	-1.4	GRF	147.21	348	ePKP	04	37.30	2.8X	STV	153.16	351	PKP	04	49.93	6.3X			
	0.4s	29.00nm			5.0mb		KHC	147.23	345	ePKP	04	34.30	-0.2	LPO	153.18	0	ePKP	04	51.50	8.0X			
NANU	61.63	254	iPd	55	20.90	-0.5				i	04	38.00		IMI	153.40	350	PKP	04	51.57	7.7X			
	0.4s	30.00nm			5.1mb		SNF	147.27	357	PKP	04	37.50	3.0X	SBF	153.52	350	ePKP	04	52.10	8.1X			
SYP	76.18	47	eP	56	51.00	2.8	BZS	147.57	333	ePKP	04	35.00	-0.1	BNG	158.64	234	iPKPc	04	51.10	-0.2			
GCC	76.22	43	eP	56	48.10	-0.1	PVL	147.57	326	iPKPd	04	42.00	6.8X		0.9s	9.00nm							
PRS	76.24	44	eP	56	48.60	0.2	DOU	147.67	356	PKPc	04	38.50	3.4X				ic	05	30.50				
BCH	76.47	46	P	56	50.00	0.2	KCT	147.75	320	iPKP	04	39.50	3.9X	LIC	166.88	150	PKP	04	59.30	0.3			
PRI	76.60	45	eP	56	50.60	0.1	BCK	147.79	313	iPKP	04	37.70	1.8	KIC	167.13	151	PKP	04	59.40	0.2			
MHC	76.63	43	eP	56	50.70	0.0	DST	147.95	318	iPKP	04	39.90	3.9X	TIC	167.25	150	PKP	04	59.50	0.2			
PAS	77.24	48	eP	56	53.00	-0.8	WLF	147.98	354	PKPc	04	36.20	0.6		S.D. = 0.9		on 105 of 176 obs.						
MWC	77.36	48	eP	56	54.00	-0.7				ed	04	39.80		----------									
BAR	77.55	50	eP	56	56.00	0.4	EDC	147.99	320	iPKP	04	38.40	2.4X	? FEB 03, 1989 01h 00m 55.46± 4.58s									
FRI	77.71	45	eP	56	56.00	-0.3	GWF	148.49	352	PKP	04	36.44	-0.1	17.729 N ±28.5km 60.596 W ±29.8km									
RVR	77.72	48	eP	56	56.00	-0.4	KDZ	148.60	324	iPKPd	04	41.00	4.1X	DEPTH = 33.0km (normal)									
PLM	77.76	49	eP	56	56.00	-0.9	PGB	148.65	327	iPKPd	04	41.00	4.0X	LEEWARD ISLANDS (92)									
SBB	77.76	47	eP	56	57.00	0.3	FUR	148.66	347	ePKP	04	41.30	4.5X	ML 3.6 (FDF).									
CMB	77.84	43	eP	56	56.60	-0.5	BEO	148.70	334	i(PKP)	04	41.50	4.6X										
			ePP	58	56.40		BHG	148.71	345	iPKPc	04	41.50	4.6X	CPB	1.18	266	eP	01	14.88	-0.8			
WDC	77.94	40	eP	56	57.20	-0.2	RZN	148.96	325	iPKPd	04	42.00	4.3X				eS	01	26.54				
			ePP	58	57.20		FLN	149.06	2	ePKP	04	41.30	4.0X	ANG	1.31	244	eP	01	16.63	-0.9			
ORV	77.99	42	eP	56	57.30	-0.5	CDF	149.09	352	PKP	04	37.83	0.3				eS	01	31.95				
CLC	78.52	46	eP	57	01.00	0.3	VTS	149.12	328	iPKP	04	42.00	4.2X	SFG	1.58	201	eP	01	21.40	0.0			
TPC	78.72	49	eP	57	03.00	1.2	KBA	149.19	344	ePKP	04	40.50	2.7X	SEG	1.58	214	eP	01	20.90	-0.6			
GSC	78.80	47	eP	57	02.00	-0.2		0.5s	13.80nm								S	01	39.00				
GLA	79.08	50	eP	57	04.00	0.3				ic	04	41.80		MGH	1.85	237	eP	01	25.11	-0.3			
KVN	79.90	43	P	57	07.70	-0.3				i	04	50.10		MGG	1.93	201	eP	01	27.21	0.7			
			pP	59	05.20	545km	LDF	149.25	2	ePKP	04	41.80	4.2X				S	01	51.50				
TNP	79.97	45	P	57	08.60	0.2	GRR	149.42	3	ePKP	04	42.40	4.5X	NEV	1.98	253	eP	01	29.48	2.2			
	1.0s	22.00nm			4.5mb		VITF	149.43	354	PKP	04	38.61	0.8	PAG	1.98	212	eP	01	27.28	-0.1			
			pP	59	05.80	543km	PTJ	149.48	340	ePKP	04	42.60	4.4X				S	01	52.00				
BJI	83.60	315	eP	57	26.50	0.0	FEL	149.51	351	PKP	04	38.69	0.5	SKI	2.08	259	eP	01	28.68	-0.1			
PNT	84.71	34	eP	57	32.00	0.2	MMB	149.56	326	iPKPd	04	43.00	4.6X				eS	01	54.47				
	0.8s	13.00nm			4.6mb		HAU	149.60	353	ePKP	04	42.60	4.4X	SKDB	2.14	261	eP	01	29.57	0.1			
FBA	85.72	13	P	57	34.70	-1.6	MOF	149.66	352	PKP	04	39.01	0.6	BSK	2.17	260	eP	01	29.86	-0.2			
	0.5s	9.71nm			4.8mb		RBL	149.71	343	PKP	04	43.00	4.5X	BBL	2.35	201	eP	01	32.90	0.3			
			pP	59	35.00	551km	BSF	149.72	353	PKP	04	39.12	0.6	FDF	3.03	190	eP	01	41.82	-0.4			
ALQ	86.12	52	ePc	57	39.00	-0.1	LPF	149.77	3	ePKP	04	43.20	4.8X				S	02	15.10				
	1.0s	11.50nm			4.6mb		FVI	149.78	344	PKP	04	42.50	4.1X	MVM	3.17	185	eP	01	44.23	0.0			
LRM	86.97	40	eP	57	43.00	0.0	LJU	149.80	342	e(PKP)	04	38.50	-0.1				S	02	19.20				
BW06	87.36	43	P	57	44.70	-0.2				i	04	43.50		BIM	3.23	188	eP	01	45.14	0.1			
			pP	59	44.50	545km	AKSR	149.94	287	iPKPd	04	45.50	6.1X	S.D. = 0.8			on 15 of 15 obs.						
KMI	87.66	297	Pd	57	47.50	0.9	BBS	149.99	352	PKP	04	39.98	1.1	----------									
CHG	88.83	290	iPd	57	52.70	0.8	VOY	150.00	343	e(PKP)	04	43.80	4.8X	FEB 03, 1989 01h 16m 41.28± 0.82s									
	1.0s	25.00nm			5.1mb		VBY	150.06	340	ePKP	04	39.20	0.3	17.649 N ± 6.0km 60.729 W ± 7.0km									
CHTO	88.83	290	iPd	57	53.00	1.1				i	04	44.40		DEPTH = 30.2 ± 4.0 km									
	1.2s	41.32nm			5.2mb		CEY	150.11	342	e(PKP)	04	43.50	4.4X	LEEWARD ISLANDS (92)									
GLD	89.00	48	P	57	52.50	0.0	AKUR	150.14	287	ePKP	04	44.70	5.0X	ML 3.8 (FDF).									
	1.5s	115.63nm			5.6mb		LOMF	150.19	353	PKP	04	40.41	1.2										
YKA	94.28	25	P	58	15.80	-0.1	TRI	150.33	342	PKP	04	44.50	5.2X	CPB	1.05	270	eP	16	59.46	-0.4			
MHI	125.90	302	ePKP	03	56.00	-0.3	VAY	150.36	327	ePKP	04	44.00	4.5X				eS	17	11.30				
NAO	136.49	353	PKP	04	16.20	0.7	AGMR	150.39	286	ePKP	04	46.50	6.4X	ANG	1.16	245	iP	17	01.08	-0.4			
	0.6s	2.00nm					SKO	150.46	329	iPKPd	04	45.00	5.3X				eS	17	20.11				
HFS	136.79	351	ePKP	04	04.10	-12.0X		1.2s	60.00nm					SEG	1.44	211	eP	17	05.24	-0.3			
	0.4s	1.80nm								i	04	55.00		SFG	1.46	198	eP	17	05.91	0.1			
DMU	143.38	8	ePKP	04	25.20	-2.7X	LOR	150.53	357	ePKP	04	45.20	5.5X	MGH	1.70	237	eP	17	09.62	0.4			
DCN	143.87	9	ePKP	04	27.20	-1.6	CTI	150.57	345	PKP	04	45.50	5.6X				eS	17	33.51				
DLE	144.03	8	ePKP	04	27.50	-1.5	SSF	150.76	357	ePKP	04	45.80	5.8X	MGG	1.81	198	eP	17	11.42	0.5			
KRA	144.55	339	ePKP	04	29.40	-0.7	LBF	150.81	356	ePKP	04	45.70	5.6X	NEV	1.83	254	eP	17	03.53	-7.7X			
WIT	144.81	355	ePKP	04	31.00	0.6	AVF	151.03	357	ePKP	04	46.20	5.8X	PAG	1.85	210	eP	17	11.55	0.0			
KSP	144.96	344	iPKPd	04	31.00	0.2	SMF	151.15	357	ePKP	04	46.60	6.0X				S	17	36.00				
	1.0s	47.00nm					MFF	151.24	2	ePKP	04	46.60	5.9X	SKI	1.94	261	eP	17	13.10	0.2			
			e	06	53.00		BGF	151.29	358	ePKP	04	46.80	6.0X				eS	17	38.63				
VRI	145.01	329	ePKPc	04	32.00	1.0	VAI	151.35	349	PKP	04	41.50	0.7	SKDB	2.00	263	eP	17	13.71	0.1			
BBTK	145.14	316	iPKPc	04	31.30	-0.3	OHR	151.42	328	ePKP	04	40.20	-1.0				eS	17	39.06				
SPC	145.18	338	ePKP	04	31.50	0.1		1.2s	0.10nm					BSK	2.04	262	eP	17	14.30	0.1			
CLL	145.31	347	iPKPd	04	31.80	0.5				i	04	46.90					eS	17	45.13				
	1.5s	86.00nm								i	04	58.20		BBL	2.23	199	eP	17	17.16	0.2			
BHL	145.48	304	PKP	04	32.00	-0.3	TCF	151.57	359	ePKP	04	47.50	6.3X	FDF	2.93	188	eP	17	26.40	-0.4			
WTS	145.61	354	ePKP	04	32.00	0.3	LSF	151.62	360	ePKP	04	47.30	6.0X				S	17	59.30				
	1.1s	35.00nm					MAF	151.63	358	ePKP	04	48.00	6.7X	MVM	3.08	183	eP	17	28.80	-0.2			
ISR	145.61	328	ePKPd	04	34.50	2.4X	TIR	151.70	330	ePKP	04	33.70	-7.8X				S	18	05.00				

```
BIM      3.13 186 eP     17 29.84    0.1
YKA     58.14 334 P      26 34.10   -0.1
MBC     65.71 347 eP     27 25.00    0.2
      S.D. = 0.3  on  16 of  17 obs.
-------------------------------------------
    FEB  03, 1989  03h 39m 34.42± 1.85s
    3.425 S ± 8.7km  130.882 E ± 9.7km
    DEPTH =  47.8 ± 17.9 km
    5.0mb ( 13 obs.)
 CERAM                                (272)

AAI      2.69 264 eP     40 18.50    2.2
                  eS     41 15.00
MTN      9.36 179 iPd    41 47.50   -2.2
                  eS     43 32.00
KNA     12.42 190 eP     42 26.50   -4.7X
        0.3s     22.00nm          5.6mb
                  eS     44 41.00
WB5     16.70 169 eP     43 22.10   -4.7X
                  eS     46 18.70
WRA     16.76 169 P      43 28.00    0.5
        0.7s     12.30nm          4.1mb
PMG     17.22 111 eP     43 32.50   -0.8
QIS     19.03 154 eP     43 54.00   -1.5
                  e      43 56.00
                  eS     47 15.00
ASPA    20.33 172 iPd    44 09.60    0.1
        0.6s     90.00nm          5.3mb
                  e      44 17.20
                  eS     47 44.60
                  e      48 04.30
MBL     20.65 210 iPc    44 10.80   -1.9
CTA     22.34 139 eP     44 31.00    1.3
WARB    22.99 190 eP     44 31.00   -5.0X
        0.4s     8.00nm           4.5mb
NANU    24.15 217 iPc    44 46.60   -0.7
        0.7s     30.00nm          4.9mb
FORR    27.40 185 eP     45 17.00   -0.5
        0.4s     9.00nm           4.8mb
STK     30.04 162 eP     45 42.00    0.7
IPM     30.87 285 ePd    45 49.80    1.0
PSI     32.52 280 ePc    46 03.00   -0.2
BWA     34.89 154 eP     46 26.10    2.6
CAN     35.90 154 eP     46 34.30    2.2
GYA     37.83 323 P      46 49.00    0.5
CHG     38.43 306 eP     46 54.60    1.1
CHTO    38.43 306 iP     46 54.10    0.6
        0.8s     5.67nm           4.5mb
                  pP     47 09.90   63kmX
XAN     42.63 333 Pd     47 27.40   -0.6
TIY     44.37 339 P      47 41.30   -0.8
BJI     45.31 344 eP     47 49.00   -0.4
GTA     51.33 329 Pd     48 35.30   -1.0
GUN     53.34 309 Pc     48 51.50   -0.4
        0.7s     30.00nm          5.4mb
PKI     53.55 308 Pc     48 52.60   -0.8
        0.7s     8.00nm           4.9mb
KKN     53.76 308 Pc     48 54.10   -0.6
        0.8s     17.00nm          5.1mb
DMN     53.81 308 Pc     48 54.80   -0.3
        0.8s     27.00nm          5.3mb
GKN     54.36 308 Pc     48 58.60   -0.5
        0.7s     28.00nm          5.4mb
GBA     55.65 289 Pc     49 06.80   -1.6
        0.6s     2.00nm           4.3mb
WMQ     60.93 325 iPd    49 45.00    0.0
MHI     77.15 308 eP     51 27.00    1.8
INK     95.24  22 eP     52 54.00    0.1
CNCB   152.59 138 PKP    59 32.00   10.4X
CCH    153.36 141 (PKP)  59 02.00  -20.3X
      S.D. = 1.3  on  31 of  36 obs.
-------------------------------------------
&  FEB  03, 1989  04h 15m 17.50s
   38.167 N          112.496 W
   DEPTH =   1.0km
 UTAH                                 (478)
      <SLC-P>. MD 3.1 (SLC). Felt
      (III) ot Beover.

MSU      0.43  36 eP     15 25.50   -0.6
DLM      1.86 253 eP     15 49.70   -1.3
DUG      2.04 353 eP     15 51.80   -1.7
SRG      2.05 263 eP     15 52.40   -1.3
PRN      2.16 250 eP     15 53.90   -1.4
DAU      2.44  23 eP     16 01.00    1.5
WRN      2.45 267 eP     15 57.50   -2.0
OCS      2.73 263 eP     16 01.90   -1.6
WMZ      3.01 177 P      16 11.50    4.1
SPRG     3.02 242 eP     16 05.80   -1.7
KRNA     3.10 263 eP     16 06.60   -2.1
NOP      3.56 236 eP     16 13.90   -1.2
TNP      3.72 270 eP     16 15.40   -2.2
KVN      4.48 283 eP     16 26.00   -2.3
GOL      5.76  72 e(P)   16 46.00   -0.5
ALQ      5.83 122 eP     16 45.70   -1.7
PLM      5.97 218 e(P)   16 51.00    1.6
        17 obs. ossociated
-------------------------------------------
?  FEB  03, 1989  05h 19m 10.14± 7.12s
   32.427 S ±47.0km   71.768 W ±33.9km
   DEPTH =  21.1 ±  7.9 km
 NEAR COAST OF CENTRAL CHILE          (135)

ROCH     0.84 131 iPc    19 26.00   -0.1
                  iS     19 36.40
JACH     1.02 105 iPc    19 29.10    0.0
                  iS     19 42.60
LCCH     1.06 171 iPd    19 29.50   -0.1
                  iS     19 42.50
PEL      1.16 128 iPd    19 31.10   -0.1
                  iS     19 47.50
SAN      1.38 138 eP     19 34.00   -0.3
                  iS     19 51.50
TACH     1.41 151 iP     19 34.50   -0.2
                  iS     19 51.90
FCH      1.53 126 iP     19 37.00    0.2
                  iS     19 56.00
CHCH     1.77 148 eP     19 40.50    0.6
                  iS     20 03.00
      S.D. = 0.4  on   8 of   8 obs.
-------------------------------------------
*  FEB  03, 1989  05h 54m 37.41± 1.28s
   18.538 N ± 7.6km  145.968 E ±10.8km
   DEPTH = 120.2 ± 11.9 km
   5.0mb (  9 obs.)
 MARIANA ISLANDS                      (216)

PJG      5.03 192 eP     55 52.50    0.6
GUMO     5.03 192 eP     55 52.50    0.6
        1.2s     477.78nm         5.6mb
GUA      5.07 192 eP     55 51.70   -0.8
        0.5s     112.68nm         5.4mb
                  eS     56 50.30
PMG     27.79 177 e(P)   00 17.00   -0.1
WB5     39.84 197 eP     02 01.00    0.3
WRA     39.91 197 Pd     02 00.90   -0.3
        0.5s     8.00nm           4.8mb
ASPA    43.57 196 iPc    02 30.50   -0.6
        0.6s     7.00nm           4.6mb
CHTO    44.44 278 eP     02 40.00    1.7
RMQ     44.84 176 eP     02 40.00   -1.2
DZM     45.06 153 iPc    02 42.80   -0.3
MBL     47.03 214 eP     02 58.90    0.3
WARB    48.26 203 eP     03 03.00   -5.1X
        0.3s     10.00nm          5.1mb
FORR    52.02 200 eP     03 37.00    0.4
        0.4s     15.00nm          5.3mb
BWA     52.72 177 eP     03 41.50   -0.3
PKI     55.98 291 P      04 05.00   -1.2
INK     69.42  23 eP     05 33.00   -0.9
MBC     73.24  14 eP     05 55.00   -1.6
YKA     78.01  28 P      06 23.40   -0.3
YKC     78.07  28 eP     06 23.20   -0.8
ARN     80.91  54 P      06 40.60    0.7
CMB     81.59  53 eP     06 43.80    0.4
FRI     82.41  54 eP     06 48.00    0.4
KVN     83.00  51 P      06 51.30    0.4
TNP     83.96  52 P      06 56.00    0.2
        0.6s     2.16nm           4.2mb
LRM     84.68  43 eP     06 59.50    0.2
PEC     85.36  56 P      07 03.00    0.4
FFC     87.09  33 iPd    07 09.70   -0.9
        1.1s     23.00nm          5.1mb
GOL     91.90  47 P      07 34.80    1.0
ALQ     93.16  52 eP     07 40.00    0.4
        1.1s     3.80nm           4.6mb
ZOBO   147.42  91 PKP    14 11.00    3.5X
LPB    147.48  92 PKP    14 09.00    1.6
CNCB   147.63  92 PKP    14 10.00    2.2X
      S.D. = 0.8  on  29 of  32 obs.
-------------------------------------------
?  FEB  03, 1989  06h 14m 40.64± 1.05s
   24.921 N ±10.4km  121.748 E ±46.3km
   DEPTH =  33.0km  (normol)
   4.4mb (  1 obs.)
 TAIWAN                               (244)

TWC      0.32 164 iPd    14 47.20   -1.5
                  eS     14 54.20
ANP      0.34 321 iPd    14 56.00    7.1X
TWD      0.85 189 ePc    14 56.00   -0.1
SSE      6.17 356 eP     16 11.50   -0.3
                  i      16 48.00
                  eLg    18 12.50
WB5     46.19 163 eP     23 04.90    0.6
WRA     46.25 164 Pd     23 06.00    1.3
        0.6s     3.00nm           4.4mb
      S.D. = 1.5  on   5 of   6 obs.
-------------------------------------------
%  FEB  03, 1989  06h 38m 09.02± 2.22s
   40.205 N ±18.9km   28.984 E ±10.1km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                               (366)

YLV      0.47  39 iPg    38 18.80    0.2
KCT      0.48 275 iPg    38 18.80    0.0
                  iSg    38 25.30
GBZT     0.68  31 ePg    38 22.20   -0.3
                  iSg    38 35.50
BNT      0.83 281 iPg    38 25.40    0.4
ISK      0.86   4 ePg    38 25.60    0.0
                  eSg    38 37.30
EDC      0.87 280 iPg    38 25.40   -0.3
CTT      1.03 336 ePg    38 28.50    0.0
                  eSg    38 42.30
      S.D. = 0.3  on   7 of   7 obs.
-------------------------------------------
*  FEB  03, 1989  06h 42m 32.15± 1.31s
   14.166 N ± 8.8km  120.934 E ±17.4km
   DEPTH = 151.2 ± 13.2 km
   4.9mb (  9 obs.)
 LUZON, PHILIPPINE ISLANDS            (249)

CVP      3.62  14 eP     43 48.00   19.9X
                  eS     44 09.00
PIP      4.15 356 iPd    43 34.30   -0.8
                  iS     43 50.00
PPR      4.87 207 iPd    43 45.50    0.9
                  iS     44 40.00
CHTO    21.58 285 eP     47 10.00   -0.8
        0.9s     4.90nm           3.9mb
BJI     26.11 352 eP     47 55.00    1.4
MBL     35.12 182 eP     49 14.40    1.5
GUN     35.32 298 Pc     49 15.40    0.3
PKI     35.63 298 Pc     49 17.50   -0.2
        0.5s     19.00nm          5.1mb
KKN     35.80 298 Pc     49 18.90   -0.1
        0.6s     23.00nm          5.1mb
DMN     35.90 298 Pc     49 19.90    0.0
        0.5s     14.00nm          4.9mb
WB5     36.32 158 eP     49 15.20   -7.9X
GKN     36.41 298 Pc     49 23.80   -0.2
        0.6s     14.00nm          4.9mb
ASPA    39.68 161 eP     49 53.50    2.4X
        0.4s     20.00nm          5.2mb
WARB    40.49 172 iPc    49 55.20   -2.5
        0.3s     9.00nm           4.9mb
GBA     42.19 275 Pc     50 11.50   -0.2
        0.8s     4.60nm           4.2mb
NAO     87.21 333 P      55 03.00    0.7
        0.8s     4.20nm           4.4mb
      S.D. = 1.2  on  13 of  16 obs.
-------------------------------------------
&  FEB  03, 1989  06h 52m 08.30s
   34.920 N          119.240 W
   DEPTH =  14.0km
 SOUTHERN CALIFORNIA                  ( 43)
      <PAS-P>. ML 3.0 (PAS).

ABL      0.07 167 iPd    52 11.20   -0.3
SYP      0.72 237 iPc    52 22.40    0.1
BCH      0.74 291 iPd    52 21.50   -1.0
ISA      0.97  40 iPc    52 25.30   -1.1
                  eS     52 37.90
BLP      1.02 250 eP     52 27.00   -0.2
PAS      1.17 131 iPd    52 29.40   -0.4
PHAM     1.32 314 eP     52 30.00   -2.2
PKEM     1.34 328 eP     52 31.60   -1.0
PEC      2.00 120 eP     52 41.00   -1.1
PLM      2.52 128 eP     52 48.30   -1.3
ARN      3.05 323 eP     52 55.80   -1.2
```

03d 06h

CMB	3.24	344	e(P)	53 00.00	0.2
TNP	3.55	27	eP	53 11.00	6.7
KVN	4.22	12	eP	53 20.00	6.2

14 obs. ossocioted

& FEB 03, 1989 07h 43m 09.20s
37.837 N 122.590 W
DEPTH = 7.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.0 (BRK). Felt ot Muir Beoch.

BRK	0.26	82	eP	43 14.60	0.0
			eS	43 18.30	
BKS	0.28	82	eP	43 15.00	0.0
			eS	43 19.55	
ZSP	0.28	68	eP	43 15.90	0.9
PCC	0.37	154	eP	43 16.30	-0.5
			eS	43 22.20	
NWRM	0.66	339	eP	43 21.20	-1.3
MHC	0.90	123	eP	43 26.30	-0.5
			eS	43 39.20	
GCC	0.93	149	eP	43 26.60	-0.7
ARN	0.97	120	eP	43 27.70	-0.3
CMB	1.75	83	eP	43 39.80	-0.5
			eS	44 02.00	

9 obs. ossocioted

? FEB 03, 1989 07h 54m 42.18± 7.33s
51.586 N ±44.8km 16.224 E ±46.7km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.3 (VKA), 3.1 (KBA).

KSP	0.75	177	iPd	54 57.00	0.2
	0.4s		64.00nm		
			iS	55 06.70	
PRU	1.92	214	ePn	55 15.00	-0.3
			Pg	55 17.10	
			Sn	55 34.20	
CLL	2.03	263	iPn	55 16.40	-0.4
			iPg	55 20.10	
			iSg	55 45.20	
KHC	2.99	216	Pn	55 30.70	0.3
			Pg	55 36.50	
			Sn	56 06.30	
			Sg	56 16.30	
MOX	3.05	254	ePn	55 32.00	0.7
			ePg	55 39.00	
			iSg	56 19.00	
VKA	3.33	179	iPgc	55 45.20	9.9X
			iSg	56 28.60	
ZST	3.44	170	eP	56 34.30	57.4X
KBA	4.89	204	iPnc	55 57.20	-0.4
			i	57 19.80	

S.D. = 0.6 on 6 of 8 obs.

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* FEB 03, 1989 08h 33m 49.20± 1.66s
36.296 N ±12.1km 70.766 E ± 9.8km
DEPTH = 206.8 ± 18.2 km
4.4mb (10 obs.)
HINDU KUSH REGION (718)

NDI	9.34	143	eP	36 01.20	0.5
	0.6s		23.33nm	4.7mb	
			eS	37 39.20	
GKN	14.36	121	P	37 04.10	-0.4
	0.6s		11.00nm	4.5mb	
DMN	14.93	121	P	37 11.90	0.2
	0.4s		8.00nm	4.5mb	
KKN	14.93	121	P	37 11.30	-0.4
	0.5s		14.00nm	4.6mb	
PKI	15.16	121	P	37 14.40	-0.2
	0.6s		9.00nm	4.4mb	
GUN	15.28	119	P	37 16.40	0.3
HFS	43.11	322	eP	41 29.70	-0.5
	0.4s		1.80nm	3.9mb	
NAO	44.59	323	P	41 41.80	-0.2
	0.8s		5.80nm	4.1mb	
BNG	57.40	249	ePd	43 19.10	0.6
	0.3s		5.00nm	4.7mb	
BCAO	57.41	249	eP	43 18.00	-0.5
	0.8s		2.01nm	3.9mb	
INK	74.14	9	eP	45 04.00	0.1
YKA	81.46	3	P	45 44.80	1.0
WB5	82.02	122	eP	45 47.00	-0.5
WRA	82.05	122	Pd	45 47.70	0.1
	1.1s		5.30nm	4.2mb	

S.D. = 0.5 on 14 of 14 obs.

FEB 03, 1989 08h 46m 28.61± 0.80s
40.716 N ± 5.3km 19.755 E ± 8.3km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
MG 2.6 (TIR).

BERA	0.15	95	iPgc	46 32.30	0.3
VLO	0.32	219	iPg	46 35.10	-0.1
TPE	0.46	155	ePg	46 37.10	-0.9
TIR	0.64	8	ePg	46 41.10	-0.2
LSK	0.86	131	ePg	46 46.60	1.4
OHR	0.88	63	ePg	46 43.10	-2.5
			iSg	47 00.40	
PHP	1.10	28	ePg	46 50.00	0.8
SDA	1.31	352	ePg	46 52.10	-0.7
KKS	1.45	20	ePn	46 56.00	1.2
SKO	1.78	45	iPn	47 00.10	0.4
VAY	2.21	73	ePn	47 06.30	0.4

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

? FEB 03, 1989 09h 27m 51.65± 9.58s
51.744 N ±54.2km 16.388 E ±61.4km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.8 (VKA), 3.6 (KBA).

KSP	0.90	184	iPd	28 09.10	0.1
	0.5s		155.00nm		
			iS	28 18.70	
PRU	2.11	214	Pn	28 27.50	0.1
			Pg	28 30.00	
			Sn	28 45.60	
			Sg	28 51.00	
CLL	2.16	260	iPn	28 28.50	0.4
			iPg	28 31.40	
			iSg	28 57.20	
KHC	3.17	216	iPn	28 42.90	0.3
			Pg	28 48.40	
			Sn	29 18.30	
			Sg	29 28.60	
MOX	3.20	252	ePn	28 43.00	0.1
			iPg	28 51.00	
			iSg	29 30.00	
VKA	3.48	181	iPgd	28 56.60	9.6X
			iSg	29 40.50	
SPC	3.55	135	ePn	29 05.80	17.7X
			i(Sn)	29 51.90	
GRF	3.87	240	ePn	28 52.40	-0.1
			eSg	29 51.30	
KBA	5.07	204	iPnc	29 09.20	-0.5
			i	30 10.30	
			i	30 31.80	
TNS	5.24	256	ePd	29 11.50	-0.4
			eS	30 37.30	

S.D. = 0.4 on 8 of 10 obs.

FEB 03, 1989 13h 05m 12.54± 0.34s
11.753 N ± 3.4km 61.186 W ± 5.6km
DEPTH = 77.6 ± 3.3 km
4.7mb (25 obs.)
WINDWARD ISLANDS (95)
Felt at Kingstown, St. Vincent.

GRW	0.62	311	iP	05 27.61	0.2
			eS	05 43.49	
PIG	0.68	150	iP	05 26.29	-1.7
			eS	05 42.83	
BOT	0.74	142	iP	05 26.71	-1.9
TRN	1.12	191	iP	05 33.40	0.2
			eS	05 45.27	
TCE	1.19	208	iP	05 34.26	0.2
TBH	1.27	175	iP	05 34.94	-0.2
			eS	05 50.69	
TPP	1.45	190	eP	05 38.81	1.3
SVB	1.51	358	iP	05 38.30	0.0
SVV	1.56	359	iP	05 38.96	0.0
BIM	2.75	2	iP	05 55.23	-0.1
MVM	2.80	6	iPc	05 55.29	-0.7
			S	06 27.20	
FDF	2.96	1	iPc	05 57.86	-0.4
			S	06 31.50	
DTMT	3.46	357	eP	06 05.18	-0.1
			eS	06 52.79	
DOG	4.27	354	ePc	06 16.57	-0.1
PAG	4.28	354	ePc	06 16.69	0.0
			S	07 05.50	
MGH	5.04	349	eP	06 27.52	0.2
			eS	07 25.40	
ANG	5.41	353	eP	06 32.50	0.1
			eS	07 30.65	
NEV	5.52	346	eP	06 36.85	2.9
			eS	07 40.31	
SKI	5.75	345	eP	06 38.05	0.9
			eS	07 42.50	
BSK	5.79	344	eP	06 38.42	0.7
			eS	07 41.08	
SKDB	5.83	345	eP	06 40.44	2.2
			eS	07 48.22	
CPB	5.88	354	eP	06 38.72	-0.3
ATB	17.40	149	Pc	09 03.60	-8.2X
ZOBO	28.68	194	P	11 06.00	1.0
	Z 20s		0.25um		3.8Msz
			LR	19 56.00	
LPB	28.92	194	eP	11 09.00	2.0
			eLR	20 30.00	
CNCB	29.16	193	Pd	11 10.70	1.3
CCN	29.36	190	eP	11 14.30	3.5X
TKL	31.37	323	P	11 27.00	-1.1
GBTN	31.64	323	P	11 30.00	-0.4
PWLA	33.61	318	P	11 47.60	0.0
RSNY	34.63	343	P	11 54.80	-1.5
	1.0s		8.33nm	4.6mb	
ELC	35.76	320	P	12 05.00	-0.9
GAC	35.96	343	eP	12 09.50	2.0
FVM	36.94	320	P	12 15.00	-0.8
LNO	39.42	313	eP	12 34.90	-1.6
TUL	39.42	313	eP	12 38.50	1.9
	0.7s		11.00nm	4.9mb	
SCH	43.18	355	eP	13 08.00	0.8
ALQ	47.03	307	eP	13 37.20	-1.2
	1.0s		5.75nm	4.4mb	
			e	13 55.00	
BW06	51.98	316	P	14 14.00	-2.3
FRB	52.18	356	eP	14 17.00	-0.1
FFC	53.49	332	iPd	14 25.10	-1.8
	0.7s		19.00nm	5.2mb	
TIC	55.60	90	P	14 41.54	-1.5
	0.6s		13.00nm	5.2mb	
LIC	55.67	90	P	14 42.06	-1.4
KIC	55.92	90	P	14 44.02	-1.3
KVN	57.09	309	P	14 51.00	-2.6
TOL	57.44	50	iPc	14 56.50	0.8
EDM	58.47	326	iPc	15 01.50	-1.2
KUK	60.24	90	eP	15 14.00	-1.5
EPF	61.32	47	eP	15 23.40	1.0
	0.6s		11.70nm	5.2mb	
LFF	61.98	45	eP	15 27.10	0.4
	0.8s		10.70nm	5.0mb	
LPO	62.24	46	eP	15 28.90	0.4
	0.6s		9.00nm	5.0mb	
RJF	62.59	45	eP	15 30.90	0.1
CAF	62.90	45	eP	15 33.10	0.2
	0.5s		7.50nm	5.0mb	
YKC	63.18	335	eP	15 33.50	-0.9
YKA	63.24	335	P	15 33.40	-1.4
TCF	63.26	44	eP	15 35.30	0.1
	1.0s		8.80nm	4.7mb	
MAF	63.49	44	eP	15 37.10	0.4
	1.0s		6.00nm	4.5mb	
SSF	64.28	43	eP	15 41.60	-0.3
	0.6s		2.10nm	4.2mb	
SMF	64.43	44	eP	15 42.90	0.0
	1.0s		14.00nm	4.8mb	
LOR	64.56	43	eP	15 43.50	-0.2
	0.8s		6.70nm	4.6mb	
LBF	64.59	43	eP	15 43.40	-0.5
	0.6s		2.70nm	4.4mb	
LMR	65.82	48	eP	15 52.10	0.3
	0.8s		6.40nm	4.6mb	
FRF	65.95	47	eP	15 52.90	0.3
	0.8s		5.30nm	4.5mb	
LPG	66.26	45	eP	15 55.30	0.3
	0.8s		6.70nm	4.6mb	
BSF	66.61	43	eP	15 56.50	-0.5
	0.8s		6.40nm	4.6mb	
CDF	67.02	42	eP	15 59.50	0.0
	1.0s		8.00nm	4.6mb	
CVF	67.47	49	eP	16 02.40	0.0
	0.6s		5.40nm	4.7mb	
KBA	70.96	44	eP	16 23.50	-0.4
	0.8s		7.60nm	4.7mb	

```
CLL     71.03   40 eP      16 23.00   -1.0
NAO     71.06   30 P       16 24.60    0.6
        0.9s      7.10nm              4.6mb
MBC     71.33  348 eP      16 25.00   -0.4
        0.6s     12.00nm              5.0mb
                   pP      16 45.00   75kmX
HFS     72.36   30 eP      16 31.60   -0.1
        0.5s      3.40nm              4.5mb
INK     72.64  338 eP      16 32.00   -1.2
                   pP      16 50.50   68kmX
OHR     76.36   50 e(P)    16 56.50    1.2
BZS     76.69   46 eP      16 58.50    1.7
SKO     76.79   49 e(P)    16 58.00    0.5
KJF     79.04   26 eP      17 10.00    0.6
BNG     79.07   88 iPd     17 11.00    0.4
        0.2s     36.00nm              5.9mb X
MLR     79.73   46 ePc     17 15.00    1.3
GKN    128.45   39 PKP     24 14.00    1.1
KKN    129.00   39 PKP     24 14.40    0.4
PKI    129.24   39 PKP     24 15.30    0.7
GUN    129.28   38 PKP     24 16.10    1.4
BWA    144.86  225 ePKP    24 41.70   -1.0
TOO    144.90  218 iPKPc   24 42.90    0.2
WRA    163.00  239 PKPc    25 08.60    1.2
        1.2s      5.40nm
WB5    163.00  240 ePKP    25 08.60    1.1
     S.D. = 1.1   on  85 of  87 obs.
-------------------------------------
&  FEB  03, 1989   13h 14m 33.16s
   57.637 N          155.420 W
   DEPTH =  75.3km
 ALASKA PENINSULA                 ( 12)
      <AGS-P>.

KDC     1.58   85 iP      14 58.49   -1.2
                   eS      15 17.84
AUH     2.02   30 eP      15 05.00   -0.8
                   eS      15 29.87
AUL     2.04   30 eP      15 05.30   -0.7
PDB     2.25   16 iP      15 07.33   -1.6
                   iS      15 33.87
ILIM    2.76   27 eP      15 15.07   -1.0
                   eS      15 47.39
CNPM    2.90   47 eP      15 16.53   -1.4
                   eS      15 50.20
RED     3.11   25 eP      15 19.75   -1.2
                   eS      15 57.92
NNL     3.23   40 eP      15 22.10   -0.4
RDT     3.33   27 eP      15 22.88   -1.1
                   eS      16 03.14
SVW     3.48  358 eP      15 23.69   -2.4
SDN     3.64  233 eP      15 26.56   -1.6
NKA     3.79   33 eP      15 30.19   -0.1
SLKM    3.94   41 eP      15 30.62   -1.8
                   eS      16 13.22
SPU     3.95   24 eP      15 31.30   -1.3
                   eS      16 16.96
SEW     3.97   49 eP      15 29.65   -3.1
CRP     4.00   23 eP      15 32.59   -0.9
PTE     4.61   43 eP      15 39.02   -2.8
PMS     4.69   37 eP      15 40.38   -2.7
PWL     4.86   45 eP      15 42.30   -3.1
PLRM    5.09   36 eP      15 45.85   -2.7
PME     5.15   36 eP      15 46.65   -2.7
KNK     5.19   40 eP      15 46.62   -3.3
GHO     5.29   36 eP      15 48.59   -2.9
TTA     5.32  357 eP      15 48.90   -2.9
HIN     5.37   55 eP      15 49.28   -3.3
SML     5.51   38 eP      15 53.62   -0.8
VZW     5.69   49 eP      15 53.16   -3.8
CVA     5.77   56 eP      15 54.43   -3.6
VLZ     5.82   49 eP      15 55.41   -3.2
SGAM    6.00   57 eP      15 57.78   -3.4
KLU     6.18   47 eP      16 00.38   -3.5
RAGM    6.20   59 eP      16 00.59   -3.4
HMT     6.37   60 eP      16 03.08   -3.3
       33 obs. ossociated
-------------------------------------
   FEB  03, 1989   13h 32m 03.43± 0.67s
   42.473 N ± 6.3km   24.259 E ±10.7km
   DEPTH =  10.0km  (geophysicist)
 BULGARIA                         (359)

SRS     1.44  200 eP      32 30.10    0.5
                   eS      32 51.10
KNT     1.66  218 eP      32 32.70    0.0
                   eS      32 55.60
VAY     1.71  228 ePn     32 32.70   -0.7
SOH     1.78  203 eP      32 40.30    5.8X
GRG     2.06  223 eP      32 37.70   -0.8
                   eS      33 09.70
SKO     2.15  258 ePn     32 41.00    1.1
PAIG    2.58  190 eP      32 46.00    0.1
MLR     3.25   21 ePc     32 56.00    0.4
BZS     3.67  330 ePc     33 01.00   -0.5
VRI     3.83   27 ePd     33 03.50   -0.2
     S.D. = 0.7   on   9 of  10 obs.
-------------------------------------
   FEB  03, 1989   13h 43m 16.48± 0.77s
   24.024 S ± 6.7km   66.882 W ± 9.6km
   DEPTH = 190.5 ±  6.8 km
   4.8mb (  8 obs.)
 SALTA PROVINCE, ARGENTINA        (129)

HJA     1.58   60 iPd     43 52.20    1.9
CCH     6.64    6 P       44 51.50   -1.6
CNCB    7.25  352 iPc     45 02.20    0.8
                   S       46 24.00
LPB     7.54  351 P       45 06.00    0.9
        0.7s     47.95nm              4.9mb
                   S       46 30.00
ZOBO    7.80  351 Pc      45 08.30   -0.5
     Z  16s       0.20um
                   LR      47 26.00
PEL     9.68  199 eP      45 30.00   -2.6
BRAS   19.62   90 iPc     47 20.80  -11.8X
BMA    20.91   91 ePd     47 45.60    0.4
SGS    58.36  347 P       52 53.60   -0.2
JSC    59.57  346 P       53 01.40   -0.7
PRM    59.63  345 P       53 01.80   -0.8
LHS    59.66  347 P       53 02.00   -0.8
TKL    61.47  344 P       53 13.00   -2.0
GBTN   61.59  344 P       53 13.80   -2.0
PWLA   62.02  340 P       53 16.60   -2.0
BLA    62.23  348 P       53 19.30   -0.7
        0.8s     16.97nm              4.9mb
ELC    64.51  340 P       53 32.80   -2.0
FVM    65.53  340 P       53 40.00   -1.3
SPA    66.12  180 ePd     53 46.10    1.0
        0.8s     11.67nm              4.7mb
LIC    67.34   72 PKP     53 53.70    0.4
KIC    67.66   72 PKP     53 54.70   -0.6
        0.6s     20.00nm              5.0mb
ALQ    69.62  326 ePd     54 07.00   -0.2
        0.9s     18.07nm              4.8mb
GLA    72.86  319 eP      54 27.00    0.7
GOL    72.87  330 P       54 26.00   -0.4
BAR    73.72  318 eP      54 32.00    0.7
TPC    74.33  319 eP      54 36.00    1.2
PEC    74.85  318 P       54 38.80    1.0
RVR    75.05  318 eP      54 39.00    0.2
SBB    75.79  319 eP      54 43.00   -0.1
DAU    76.25  327 P       54 46.70    0.8
CLC    76.43  320 eP      54 46.00   -0.6
ISA    76.84  319 eP      54 50.00    1.1
DUG    76.88  326 P       54 50.00    0.9
SYP    77.00  317 eP      54 51.00    1.1
BW06   77.23  329 P       54 51.00   -0.1
BLP    77.29  317 P       54 52.10    0.8
BCH    77.50  318 P       54 53.70    1.1
TNP    77.76  322 P       54 55.00    0.9
        0.8s      6.37nm              4.4mb
PHAM   78.12  318 P       54 56.90    1.0
KVN    78.93  322 P       55 00.70    0.2
ARN    79.80  319 P       55 06.20    1.3
LRM    80.89  330 eP      55 11.70    1.0
MAW    81.38  163 eP      55 13.00    0.3
LBFM   82.62  322 P       55 20.20    0.4
FFC    84.02  340 eP      55 26.00   -0.2
        1.1s     20.00nm              4.8mb
PNT    86.78  329 eP      55 40.00    0.0
        0.8s      8.00nm              4.6mb
YKC    94.13  340 eP      56 14.00    0.1
YKA    94.18  340 P       56 14.50    0.4
BZS   105.76   47 ePdiff  57 05.50   -1.0
                   e       21 33.00
ASPA  128.48  205 iPKPd   02 02.30   -0.4
        0.9s     10.00nm
WRA   131.65  207 PKPc    02 08.90    0.1
        0.6s      3.30nm
WB5   131.70  207 ePKP    02 09.00    0.1
GBA   144.76  101 PKPc    02 32.00   -0.7
        0.7s      9.00nm
HYB   147.07   95 ePKP    02 37.50    0.9
     S.D. = 1.0   on  53 of  54 obs.
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%  FEB  03, 1989   13h 57m 36.90± 0.89s
   39.257 N ± 7.9km   27.760 E ± 8.7km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)

DST     0.76   62 iPn     57 51.20   -0.5
IZM     0.94  205 ePn     57 55.10    0.2
EDC     1.09    4 ePn     57 57.40    0.0
KCT     1.09   25 iPn     57 58.10    0.7
EZN     1.25  298 ePn     57 59.70   -0.3
     S.D. = 0.7   on   5 of   5 obs.
-------------------------------------
&  FEB  03, 1989   14h 04m 45.80s
   39.015 N          111.499 W
   DEPTH =   1.0km
 UTAH                             (478)
      <SLC-P>. ML 3.0 (SLC).

MSU     0.73  227 eP      04 59.50   -0.8
DAU     1.41    8 eP      05 12.00   -0.8
DUG     1.56  320 eP      05 13.70   -1.1
BW06    4.04   21 eP      05 49.00   -1.3
GOL     4.80   80 eP      06 01.00   -0.3
KVN     5.14  272 eP      06 06.50    0.5
ALQ     5.73  134 eP      06 13.00   -1.3
       7 obs. ossociated
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*  FEB  03, 1989   14h 10m 04.28± 0.62s
   14.743 S ±13.3km   66.587 E ± 8.9km
   DEPTH =  10.0km  (geophysicist)
   4.7mb (  4 obs.)
 MID-INDIAN RISE                  (429)

AVY    18.52  254 eP      14 39.80   16.9X
HYB    34.07   21 eP      16 51.00   -0.1
PTZ    34.11  266 ePd     16 52.00    0.3
BUL    36.57  256 iP      17 11.90   -0.7
LSZ    37.06  264 iPc     17 17.60    0.8
KMZ    39.51  267 iP      17 36.00   -1.3
DMN    45.77   23 P       18 28.00   -0.2
PKI    45.85   24 P       18 17.50  -11.5X
CHTO   46.12   45 eP      18 30.30   -0.5
MHI    51.20  353 eP      19 11.00    0.9
BNG    51.28  288 iPc     19 11.00    0.1
        0.8s     11.00nm              4.8mb
WB5    64.54  105 eP      20 45.20    1.0
OHR    69.87  325 eP      21 15.80   -1.6
SKO    70.10  326 eP      21 18.20   -0.5
                   i       21 24.70
VRI    70.25  332 ePc     21 21.00    1.5
BJI    71.37   38 eP      21 25.00   -1.4
CVF    77.80  320 eP      22 02.80   -0.7
KHC    78.95  328 iPd     22 10.00    0.3
                   e       22 20.60
PRU    78.99  329 P       22 10.50    0.7
                   e       22 16.20
LMR    79.68  320 eP      22 14.00    0.3
        1.0s      8.00nm              4.7mb
FRF    79.71  320 eP      22 14.50    0.7
        1.0s      8.00nm              4.7mb
BSF    81.89  324 eP      22 25.10   -0.3
CDF    81.93  325 eP      22 25.30   -0.2
HAU    82.23  324 eP      22 27.30    0.2
LBF    83.08  322 eP      22 32.00    0.5
LOR    83.30  322 eP      22 32.80    0.2
SSF    83.40  322 eP      22 33.30    0.2
        1.2s      7.10nm              4.7mb
YKA   132.31    1 PKP     29 19.80   -0.1
     S.D. = 0.8   on  26 of  28 obs.
-------------------------------------
   FEB  03, 1989   14h 37m 20.08± 0.66s
   37.910 N ± 6.9km  112.428 E ± 7.6km
   DEPTH =  10.0km  (geophysicist)
   4.2mb (  4 obs.)
 NORTHEASTERN CHINA               (658)
      ML 4.1 (BJI).

TIY     0.20  179 iPgd    37 26.30    1.8
                   Sg      37 29.70
HHC     3.01  347 Pnc     38 08.80    0.0
        0.6s      0.20nm
                   Pgd     38 14.50
                   Sn      38 51.80
                   Sg      38 56.00
BTO     3.27  326 ePn     38 13.60    1.1
```

03d 14h

Pg 38 19.80
Sg 39 02.40
BJI 3.61 53 ePn 38 16.50 -0.7
ePg 38 25.00
eSg 39 10.00
TIA 4.12 113 ePn 38 23.80 -0.6
Pg 38 34.00
Sg 39 23.70
XAN 4.80 217 Pn 38 33.90 -0.2
Pg 38 49.40
Sn 39 28.90
Sg 39 51.40
LZH 7.11 258 Pn 39 05.50 -1.3
GTA 9.98 283 P 39 45.10 -1.6
S 41 37.50
CD2 10.00 228 eP 39 44.40 -2.4
GYA 12.41 205 P 40 18.60 -1.2
LSA 19.46 251 P 41 51.00 0.7
CHTO 22.37 215 eP 42 20.10 0.2
0.6s 0.56nm 3.2mb
KKN 24.86 254 P 42 45.40 1.1
0.6s 5.00nm 4.4mb
PKI 24.88 253 P 42 45.40 0.8
0.5s 2.00nm 4.0mb
DMN 25.09 254 P 42 48.00 1.5
GKN 25.24 255 P 42 48.80 0.9
0.7s 8.00nm 4.5mb
S.D. = 1.3 on 16 of 16 obs.

FEB 03, 1989 14h 39m 59.03± 0.50s
64.647 N ± 7.6km 17.514 W ± 8.0km
DEPTH = 10.0km (geophysicist)
4.1mb (19 obs.)
ICELAND (638)

AKU 1.07 347 iP 40 19.00 -0.2
0.9s 631.93nm
REY 1.98 257 iP 40 33.10 0.3
EKA 11.75 136 P 42 48.00 -1.5
1.1s 17.20nm 5.3mb X
GRR 18.60 143 eP 44 18.10 0.2
1.0s 16.00nm 4.2mb
MEM 18.71 128 Pc 44 21.30 2.1
LPF 18.88 144 eP 44 21.60 0.2
0.6s 3.60nm 3.8mb
MFF 20.44 144 eP 44 38.60 -0.2
1.0s 5.60nm 3.9mb
MOX 20.70 119 eP 44 42.00 0.5
1.0s 17.00nm 4.4mb
LOR 20.94 136 eP 44 43.50 -0.5
1.0s 10.00nm 4.1mb
CDF 21.02 129 eP 44 45.20 0.4
0.8s 5.30nm 4.0mb
SSF 21.02 137 eP 44 44.30 -0.5
0.8s 4.00nm 3.8mb
HAU 21.06 131 eP 44 45.70 0.4
0.8s 9.10nm 4.2mb
LSF 21.20 141 eP 44 46.50 -0.2
1.0s 12.00nm 4.2mb
AVF 21.22 137 eP 44 46.40 -0.4
0.8s 4.50nm 3.9mb
LBF 21.23 136 eP 44 46.60 -0.4
0.8s 6.70nm 4.1mb
BGF 21.29 139 eP 44 47.30 -0.2
0.8s 14.70nm 4.4mb
TCF 21.35 140 eP 44 48.20 0.0
0.8s 12.60nm 4.4mb
BSF 21.36 130 eP 44 48.90 0.5
0.8s 5.30nm 4.0mb
SMF 21.50 137 eP 44 49.40 -0.2
0.8s 9.40nm 4.2mb
MAF 21.51 139 eP 44 49.90 0.1
0.8s 6.70nm 4.1mb
RJF 22.07 142 eP 44 55.90 0.5
0.8s 6.40nm 4.1mb
LFF 22.21 144 eP 44 57.20 0.4
0.8s 10.70nm 4.3mb
LPG 23.41 133 eP 45 07.60 -1.3
1.0s 6.00nm 4.1mb
S.D. = 0.7 on 23 of 23 obs.

FEB 03, 1989 15h 18m 25.47± 0.15s
64.583 N ± 3.1km 17.381 W ± 2.7km
DEPTH = 10.0km (geophysicist)
5.3mb (58 obs.) 4.9Msz (3 obs.)
ICELAND (638)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 9S, 21C
Centroid Location:
Origin Time 15:18:29.0 1.5
Lat 64.56N 0.16 Lon 17.26W 0.30
Dep 15.0 FIX Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 5.15 0.45 Mtt=-4.26 0.63
Mff=-0.89 0.41 Mrt=-1.26 1.64
Mrf= 0.11 1.55 Mtf= 0.38 0.48
Principal Axes:
T Val= 5.32 Plg=82 Azm=180
N -0.85 1 276
P -4.47 7 6
Best Double Couple:Mo=4.9*10**16
NP1:Strike= 97 Dip=38 Slip= 91
NP2: 276 52 89

AKU 1.15 345 iP 18 42.70 -4.2X
REY 2.02 259 iP 18 57.50 -2.4
ELO 10.54 134 eP 20 56.50 -3.0X
1.1s 125.00nm 6.2mb
EAB 10.58 137 eP 20 57.00 -3.1X
1.2s 325.00nm 6.6mb X
EDI 11.16 134 eP 21 05.50 -2.3
1.0s 78.00nm 6.0mb
EKA 11.66 136 P 21 12.00 -2.8X
0.7s 35.70nm 5.8mb
ESK 11.66 136 iPd 21 13.00 -1.8
1.0s 160.00nm 6.3mb
DMU 11.96 149 eP 21 18.20 -0.5
eS 23 27.80
RGS 12.34 85 ePd 21 23.50 -0.4
DCN 12.40 151 eP 21 24.30 -0.3
DLE 12.61 149 eP 21 28.80 1.4
VAL 13.21 160 eP 21 35.00 -0.4
ETA 13.23 149 eP 21 37.80 2.1
NAO 13.42 93 P 21 33.60 -4.6X
1.8s 103.90nm 5.6mb
ECB 13.42 151 eP 21 39.70 1.5
YRH 13.48 145 eP 21 32.80 -6.2X
ECP 13.68 150 eP 21 41.10 -0.5
NRA0 13.76 93 P 21 42.00 -0.7
GDH 14.75 304 iPd 21 48.00 -7.6X
1.2s 93.75nm 5.2mb
e 24 42.00
i 26 00.00
TRO 14.82 54 eP 22 03.50 7.1X
HFS 14.99 93 eP 22 04.90 6.1X
1.0s 120.50nm 5.3mb
Z 17s 1.62um
LR 25 32.00
KBS 16.70 19 eP 22 22.50 2.0
WIT 17.04 122 ePc 22 25.00 0.0
KEV 17.63 53 eP 22 32.00 -0.3
1.0s 56.00nm 4.6mb
i 22 37.00
WTS 17.75 124 iPc 22 32.00 -1.9
1.1s 104.00nm 4.9mb
SOD 17.84 61 iP 22 34.00 -0.9
UCC 17.91 130 P 22 34.00 -1.8
SNF 18.13 131 P 22 37.00 -1.6
FLN 18.27 142 eP 22 38.50 -1.8
1.1s 83.00nm 4.8mb
ENN 18.46 127 iPc 22 41.00 -1.6
1.0s 35.00nm 4.5mb
e 22 47.50
GRR 18.52 143 eP 22 41.50 -1.8
1.2s 166.60nm 5.1mb
LDF 18.52 142 eP 22 41.70 -1.7
1.2s 95.20nm 4.9mb
DOU 18.59 131 P 22 43.70 -0.5
MEM 18.62 128 P 22 42.90 -1.7
BNS 18.73 125 iPc 22 45.00 -1.0
1.5s 298.00nm 5.3mb
LPF 18.80 144 eP 22 45.90 -0.9
1.2s 121.30nm 5.0mb
SUF 19.13 76 iP 22 49.80 -0.9
0.6s 7.50nm 4.1mb X
KJF 19.19 71 eP 22 47.00 -4.4X
1.0s 66.00nm 4.8mb
i 22 51.00
WLF 19.47 129 Pc 22 56.40 1.4
NUR 19.52 83 eP 22 56.00 0.6
1.0s 54.00nm 4.8mb
Z 20s 1.70um
i 23 07.00

LR 30 00.00
TNS 19.80 124 eP 22 58.40 -0.2
MFF 20.35 144 eP 23 02.70 -1.6
1.2s 190.40nm 5.3mb
MOX 20.62 119 iPc 23 05.50 -1.6
1.5s 267.00nm 5.4mb
Z 18s 3.70um 4.8Msz
N 18s 2.90um
E 17s 3.40um
eS 27 14.00
LQ 31 44.00
LR 32 15.00
CLL 20.62 116 iPc 23 05.20 -1.9
1.6s 330.00nm 5.4mb
i 23 16.20
LOR 20.85 136 eP 23 07.80 -1.7
1.3s 225.60nm 5.4mb
ALE 20.87 345 eP 23 10.00 0.5
1.4s 166.00nm 5.2mb
CDF 20.93 129 eP 23 09.80 -0.6
1.3s 137.10nm 5.2mb
SSF 20.93 137 eP 23 08.70 -1.7
HAU 20.98 131 eP 23 10.20 -0.6
1.1s 117.20nm 5.2mb
LSF 21.12 141 eP 23 11.00 -1.2
AVF 21.13 138 eP 23 10.60 -1.8
LBF 21.14 136 eP 23 11.00 -1.5
BGF 21.20 139 eP 23 11.50 -1.6
GRF 21.25 121 eP 23 13.10 -0.5
1.5s 160.00nm 5.2mb
Z 20s 3.20um 4.7Msz
e 23 14.70
eS 27 19.00
TCF 21.27 140 eP 23 12.40 -1.4
BSF 21.27 130 eP 23 13.40 -0.5
1.4s 217.80nm 5.3mb
SMF 21.41 137 eP 23 13.80 -1.4
MAF 21.43 140 eP 23 14.20 -1.2
AGO 21.74 139 P 23 17.91 -0.7
FRB 21.83 291 eP 23 19.00 -0.2
SLE 21.90 128 ePc 23 19.60 -0.6
EMON 21.94 160 eP 23 21.50 0.9
PLDF 21.96 138 P 23 19.95 -0.8
PYM 21.98 139 P 23 20.03 -1.0
RJF 21.99 142 eP 23 20.40 -0.6
ZLA 22.11 128 ePc 23 21.50 -0.8
LFF 22.13 144 eP 23 22.40 0.0
PRU 22.27 116 eP 23 23.00 -0.7
e 23 24.50
KSP 22.28 112 eP 23 23.40 -0.5
1.6s 293.00nm 5.5mb
id 23 25.70
STS 22.31 163 e(P) 23 26.00 1.8
LPO 22.48 144 eP 23 26.40 0.5
CAF 22.48 142 eP 23 25.20 -0.8
LBL 22.53 139 P 23 26.92 0.6
FUR 22.54 123 iPc 23 28.50 2.0
i 23 33.00
KHC 22.59 118 iPc 23 27.00 0.0
1.0s 50.00nm 5.0mb
e 24 44.50
SAX 22.64 127 ePc 23 27.20 -0.6
LLS 22.85 128 ePc 23 30.50 0.7
EMS 22.87 132 ePc 23 30.30 0.3
ERUA 22.99 160 e(P) 23 31.80 0.9
DIX 23.02 132 ePc 23 32.10 0.6
MMK 23.22 131 ePc 23 35.30 1.8
LPG 23.33 133 eP 23 34.90 0.4
1.4s 82.70nm 5.1mb
VDL 23.34 128 ePc 23 35.60 1.0
OSS 23.40 127 ePc 23 36.00 0.9
TMA 23.47 129 ePc 23 36.80 1.0
LSD 23.49 133 P 23 37.50 1.4
BHG 23.50 121 eP 23 36.70 0.9
1.8s 378.00nm 5.7mb
OGA 23.55 125 eP 23 38.50 1.9
ECRI 23.59 152 e(P) 23 38.50 1.7
ORX 23.60 131 P 23 38.84 1.9
ORO 23.61 131 P 23 38.10 1.1
VAI 23.65 130 P 23 37.90 0.6
KMR 23.68 119 iP- 23 39.20 1.6
i 24 05.40
BNI 23.70 134 Pd 23 40.00 2.0
RSP 23.80 133 P 23 39.96 1.1
EPF 23.82 146 eP 23 38.80 -0.3
RRL 23.86 134 P 23 40.89 1.3
PTO 24.03 164 eP 23 42.10 1.1

MDI	24.04	129	Pc	23 43.20	2.1
KBA	24.21	122	eP	23 43.00	0.1
	1.8s	193.00nm			5.4mb
			i	23 54.70	
PZZ	24.33	134	P	23 44.37	0.3
KRA	24.37	109	eP	23 42.80	-1.4
	1.6s	179.00nm			5.4mb
			e	23 52.70	
DOI	24.37	134	P	23 45.30	0.8
FVI	24.41	123	P	23 46.70	2.0
SAL	24.47	128	P	23 48.00	2.8X
CTI	24.48	125	P	23 47.30	1.8
STV	24.63	134	P	23 47.04	0.1
ZST	24.71	115	eP	23 48.30	0.7
ROB	24.76	133	P	23 48.06	-0.1
CKI	24.77	132	Pc	23 51.00	2.8X
TOUF	24.82	134	P	23 51.01	2.1
RBL	24.83	122	P	23 49.60	0.8
BOB	24.85	130	P	23 51.80	2.8X
AUTN	24.89	134	P	23 50.68	1.1
MVIF	24.89	135	P	23 51.40	1.9
SAOF	24.94	134	P	23 51.40	1.6
FIN	24.94	133	P	23 49.70	-0.2
CALN	24.94	135	P	23 51.51	1.5
AURF	24.96	134	P	23 52.03	2.0
GEN	24.99	131	P	23 50.42	0.2
SBF	25.01	134	eP	23 51.90	1.3
	1.0s	32.00nm			5.0mb
FRF	25.04	136	eP	23 52.30	1.5
	1.0s	24.00nm			4.8mb
IMI	25.11	133	P	23 51.14	-0.4
ETER	25.14	143	eP	23 54.50	2.8X
SPC	25.17	110	eP	23 52.60	0.4
			i	23 54.20	
GUD	25.18	156	eP	23 52.50	0.2
LMR	25.21	136	eP	23 53.90	1.5
	1.0s	16.00nm			4.7mb
VOY	25.30	122	eP	23 54.00	0.7
ETOR	25.41	152	eP	23 55.10	0.7
EPLA	25.43	159	eP	23 55.80	1.3
SRO	25.50	114	eP	23 56.50	1.5
LJU	25.52	121	eP	23 54.50	-0.8
STJ	25.56	245	eP	23 56.00	0.4
CEY	25.74	122	eP	23 56.50	-0.9
MME	25.77	129	P	23 59.40	1.5
BDI	25.85	129	P	24 00.00	1.5
EROQ	25.93	148	e(P)	23 58.30	-0.9
TOL	25.94	156	iPc	24 00.50	1.2
	1.8s	545.45nm			5.9mb
PSZ	26.04	112	eP	24 00.50	0.3
BUD	26.04	114	e(P)	24 01.00	0.9
PII	26.13	130	P	24 01.80	0.9
PTJ	26.17	120	eP	24 00.50	-1.0
VBY	26.25	121	eP	24 01.70	-0.3
ZAG	26.25	120	eP	24 01.00	-1.1
FIR	26.33	128	eP	24 06.00	3.3X
PGD	26.40	128	P	24 10.00	6.4X
SFI	26.40	127	P	24 05.70	2.3
UZD	26.60	115	eP	24 06.00	0.7
CVF	26.63	133	P	24 04.85	-0.8
ECHE	26.81	151	e(P)	24 08.00	0.7
ARV	27.15	126	P	24 11.00	0.6
EVIA	27.43	154	e(P)	24 14.00	1.0
MAO	27.50	130	Pd	24 14.20	0.7
ESEL	27.53	145	e(P)	24 15.00	1.2
EBAN	27.66	156	e(P)	24 16.50	1.5
EHOR	27.76	159	e(P)	24 16.70	0.8
EVAL	27.77	162	e(P)	24 15.40	-0.6
AAPN	28.44	157	eP	24 24.00	1.8
ASMO	28.45	157	eP	24 24.00	1.7
EPRU	28.59	159	e(P)	24 23.50	0.0
BZS	28.60	113	eP	24 24.00	0.6
CRT	28.64	157	eP	24 23.00	-0.9
BEO	28.80	115	eP	24 25.00	-0.2
SDI	29.03	127	P	24 26.90	-0.5
DUI	29.30	126	P	24 30.50	0.7
MLR	30.46	108	ePd	24 40.00	-0.2
VRI	30.47	106	ePc	24 31.00	-9.2X
BCI	30.73	118	eP	24 41.60	-0.8
SDA	30.82	119	eP	24 42.40	-0.8
ISR	30.99	108	ePd	24 46.00	1.2
KKS	31.11	118	eP	24 45.00	-0.8
TAF	31.16	156	eP	24 45.00	-1.4
MBC	31.30	333	eP	24 48.00	0.8
	1.5s	67.00nm			5.3mb
TIR	31.53	119	eP	24 47.70	-1.8
SKO	31.60	117	iP	24 48.00	-2.1
	1.7s	120.00nm			5.5mb
	Z 14s	1.30um			4.8MszX
	E 16s	2.04um			
			i	27 40.50	
			LR	39 24.00	
CFR	31.62	106	ePc	24 59.00	8.8X
AVE	31.91	164	eP	24 44.00	-8.9X
			i	24 54.00	
OHR	32.09	118	iP	24 52.60	-1.9
	1.8s	0.17nm			2.7mb X
BERA	32.12	120	eP	24 53.90	-0.8
VLO	32.16	121	iP	24 56.50	1.5
TPE	32.50	120	eP	24 56.50	-1.5
GRG	32.84	117	eP	25 00.00	-1.0
LSK	32.85	120	eP	25 00.70	-0.4
KNT	32.85	116	eP	25 00.70	-0.4
SRS	33.16	115	eP	25 02.90	-0.9
SOH	33.32	116	eP	25 05.10	-0.1
LIT	33.61	117	eP	25 07.30	-0.4
PAIG	34.22	116	eP	25 13.10	0.2
TIO	34.27	164	eP	25 13.00	-0.6
GAC	36.55	267	eP	25 34.00	1.4
IZM	36.94	113	eP	25 36.00	-0.1
RSNY	37.06	265	P	25 37.00	0.0
	1.4s	47.17nm			5.1mb
BBTK	37.95	106	eP	25 46.00	1.4
YKC	39.28	313	eP	25 55.00	-0.3
ELL	39.42	112	eP	25 57.60	0.6
INK	39.94	329	ePd	26 00.40	-0.3
FFC	40.68	298	ePd	26 07.60	0.6
	1.4s	76.00nm			5.2mb
BRW	41.56	342	P	26 15.00	1.0
CVL	44.13	263	P	26 35.50	0.2
TAB	45.19	94	eP	26 45.00	0.9
MSL	45.24	98	eP	26 55.00	10.7X
BLA	45.62	265	P	26 48.00	0.6
	1.2s	64.93nm			5.5mb
FBA	45.85	333	eP	26 49.90	1.2
IMA	45.87	337	eP	26 50.20	1.1
	1.0s	32.50nm			5.3mb
EDM	46.07	304	iPd	26 50.30	-0.4
TOA	48.02	330	eP	27 07.70	1.7
LHS	48.10	263	P	27 07.50	0.6
TKL	48.37	267	P	27 09.20	0.2
BHD	48.42	99	eP	27 09.00	-0.3
JSC	48.46	263	P	27 10.00	0.3
GBTN	48.56	267	P	27 10.20	-0.2
PMR	49.10	332	eP	27 14.60	0.5
	1.2s	35.20nm			5.3mb
PRM	49.11	264	P	27 15.10	0.5
TTA	49.16	336	eP	27 15.30	0.5
RSCP	49.20	268	P	27 14.70	-0.7
	1.0s	26.00nm			5.2mb
FVM	49.28	274	P	27 15.40	-0.6
PWLA	50.80	270	P	27 26.20	-1.4
PNT	51.52	305	eP	27 33.00	0.1
	0.8s	27.00nm			5.2mb
LRM	51.82	298	eP	27 35.10	-0.4
OLY	51.82	273	P	27 34.40	-1.0
MHI	52.35	84	iPd	27 40.00	0.6
BW06	53.25	293	P	27 44.70	-1.5
GOL	54.15	288	P	27 52.80	-0.1
DAU	55.93	293	P	28 05.50	-0.4
DUG	56.73	294	P	28 11.60	0.1
	1.4s	33.94nm			5.2mb
WMQ	57.24	56	Pd	28 14.80	-0.2
MSU	57.92	293	P	28 19.20	-0.8
TIC	58.50	166	P	28 22.14	-1.8
	1.0s	91.00nm			5.8mb
ALQ	58.66	286	eP	28 24.80	-0.4
	1.3s	26.44nm			5.2mb
KIC	58.81	165	P	28 24.34	-1.7
	1.1s	115.00nm			5.9mb
LIC	58.92	166	P	28 25.18	-1.6
KUK	59.54	160	eP	28 30.00	-1.1
KOGH	59.66	160	eP	28 29.40	-2.6
KVN	59.77	298	P	28 32.10	-0.7
SHGH	59.85	160	eP	28 33.00	-0.2
MIN	59.96	301	eP	28 33.40	-0.6
WDC	60.09	302	eP	28 43.60	8.8X
LEGH	60.10	160	eP	28 31.80	-3.2X
ORV	60.61	301	eP	28 38.30	0.0
CMB	61.52	299	eP	28 44.20	-0.4
FRI	62.18	298	eP	28 48.90	0.0
CLC	62.40	295	eP	28 50.00	-0.5
LLA	62.98	299	eP	28 54.80	0.6
TPC	63.29	293	eP	28 57.00	0.7
PRI	63.29	298	eP	28 57.00	0.6
SBB	63.48	295	eP	28 57.00	-0.6
GLA	63.72	292	eP	28 59.00	-0.2
MWC	63.98	295	eP	29 01.00	0.0
BNG	65.31	140	iPd	29 08.50	-1.1
	0.7s	15.00nm			5.3mb
GTA	65.32	49	Pd	29 09.00	-0.6
	Z 17s	1.00um			5.1MszX
	E 11s	0.60um			
NDI	66.40	73	eP	29 17.00	0.5
BTO	67.35	41	P	29 22.90	0.4
HHC	67.55	40	eP	29 23.40	-0.3
CN2	68.09	28	eP	29 24.00	-2.9
BJI	69.53	36	eP	29 35.50	-0.3
	Z 18s	1.80um			5.4Msz
LZH	69.65	48	eP	29 35.50	-1.4
	2.0s	82.00nm			5.5mb
GKN	70.01	67	P	29 38.40	-0.7
	1.2s	62.00nm			5.6mb
KKN	70.45	67	P	29 41.40	-0.5
	1.1s	45.00nm			5.5mb
DMN	70.55	67	P	29 42.10	-0.5
	1.4s	126.00nm			5.9mb
GUN	70.58	66	P	29 34.30	-8.6X
	1.3s	81.00nm			5.7mb
PKI	70.70	67	P	29 42.80	-0.8
	1.3s	55.00nm			5.5mb
TIY	70.71	40	eP	29 42.40	-0.8
	N 15s	1.00um			
LSA	71.01	61	P	29 46.70	1.1
XAN	73.12	44	P	29 56.80	-0.7
CD2	74.38	50	eP	30 04.20	-0.7
HYB	76.95	77	eP	30 19.00	-0.6
GYA	79.45	49	P	30 34.00	0.7
CHG	83.81	59	iPd	30 57.00	0.9
	1.0s	18.75nm			5.3mb
CHTO	83.81	59	eP	30 56.30	0.2
	1.2s	13.54nm			5.0mb
KMZ	84.41	138	iP	31 01.50	2.4
PTZ	86.82	133	eP	31 08.00	-3.1X
LSZ	86.82	136	eP	31 14.00	2.9X
ZOBO	89.36	228	eP	31 23.00	-0.8
			LR	04 16.00	
COO	145.32	16	ePKP	38 05.00	0.6
BWA	148.59	23	ePKP	38 14.60	5.0X
CAN	149.56	22	ePKP	38 16.00	5.0X
SPA	154.43	180	e(PKP)	38 17.40	0.2
	1.4s	24.51nm			

S.D. = 1.1 on 250 of 277 obs.

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* FEB 03, 1989 16h 03m 01.67± 1.63s
7.722 S ±14.1km 147.540 E ±23.4km
DEPTH = 67.3 ± 22.5 km
4.0mb (2 obs.)
EAST PAPUA NEW GUINEA REGION (207)

LAT	1.19	333	eP	03 22.00	-0.8
LMG	1.32	153	eP	03 25.00	0.3
PMG	1.72	193	iPc+	03 30.00	0.0
MNDI	4.16	292	eP	04 05.50	1.2
WB5	17.58	225	eP	07 03.00	-0.8
WRA	17.64	225	Pd	07 03.60	-1.0
	0.5s	2.60nm			3.7mb
ASPA	20.55	218	eP	07 38.30	1.0
	1.0s	17.00nm			4.3mb
LZH	59.86	320	eP	13 09.00	6.0X

S.D. = 1.2 on 7 of 8 obs.

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* FEB 03, 1989 16h 33m 39.27± 1.95s
36.829 N ± 6.5km 12.979 W ±18.3km
DEPTH = 10.0km (geophysicist)
NORTH ATLANTIC OCEAN (402)

EVAL	5.03	80	eP	34 57.40	0.8
			eS	35 51.00	
AVE	5.76	126	iPn	35 08.00	1.1
			iSn	36 07.50	
EHOR	6.24	79	eP	35 14.30	0.7
			eS	36 20.00	
EZAM	6.26	31	eP	35 13.70	-0.2
EPLA	6.31	57	eP	35 15.00	0.4
			eS	36 21.30	
STS	6.94	28	eP	35 23.70	0.2
ERUA	7.15	37	eP	35 27.00	0.6
IFR	7.23	115	iPn	35 27.00	-0.7
			iSn	36 41.00	
			i	36 43.00	

03d 16h

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EBAN     7.43   77 eP     35 30.00   -0.4
TIO      7.56  139 iPn    35 31.90   -0.5
                   iSn    36 49.00
GUD      7.88   58 eP     35 36.50   -0.3
                   eS     36 59.00
EMON     7.89   31 eP     35 36.50   -0.3
EVIA     8.49   75 eP     35 44.40   -0.9
                   eS     37 15.00
ETOR     9.41   62 eP     35 57.30   -0.6
      S.D. = 0.7   on  14 of  14 obs.
-----------------------------------------
?  FEB  03, 1989   16h 44m 02.06± 1.29s
    9.475 S ±16.2km  118.646 E ±10.7km
   DEPTH =  33.0km  (normal)
   3.5mb (  2 obs.)
 SUMBAWA ISLAND REGION              (285)

TRT      6.20  286 ePd    45 33.60   -0.1
MBL     11.67  175 eP     46 48.00   -1.4
                   eS     48 47.00
KNA     11.68  123 eP     46 50.00    0.5
                   eS     48 51.00
MTN     12.70  106 eP     47 03.00   -0.2
                   i      49 14.90
                   e      50 17.00
NANU    13.35  193 eP     47 13.00    1.2
        0.2s      3.00nm            4.9mb X
                   eS     49 25.00
MEKA    17.05  180 eP     48 05.00    5.4X
                   eS     50 53.00
WARB    18.27  156 eP     48 11.00   -3.8X
        0.3s      2.00nm            3.8mb
WB5     18.38  126 eP     48 18.70    2.5X
                   eS     51 27.60
WRA     18.39  126 Pd     48 20.10    3.8X
        0.4s      0.70nm            3.2mb
MRWA    19.80  187 eP     48 37.80    5.1X
                   eS     51 52.00
      S.D. = 1.4   on   5 of  10 obs.
-----------------------------------------
   FEB  03, 1989   17h 49m 58.63± 0.17s
   30.231 N ± 3.8km    89.958 E ± 3.0km
   DEPTH =  10.0km  (geophysicist)
   5.5mb ( 75 obs.)  5.2Msz (  3 obs.)
 TIBET                              (306)
      CENTROID, MOMENT TENSOR       (HRV)
      Data Used: GDSN
      L.P.B.: 10S, 24C
      Centroid Location:
      Origin Time        17:50:10.0 0.6
      Lat 29.74N 0.08 Lon  90.13E 0.06
      Dep  15.0 FIX Half-duration  2.1
      Moment Tensor;   Scale 10**17 Nm
        Mrr=-0.84 0.09   Mtt=-1.10 0.11
        Mff= 1.94 0.09   Mrt= 0.09 0.26
        Mrf=-0.16 0.35   Mtf=-0.17 0.10
       Principal Axes:
        T  Val=  1.96  Plg= 3  Azm= 87
        N       -0.82       74       345
        P       -1.13       16       178
      Best Double Couple:Mo=1.5*10**17
       NP1:Strike=221 Dip=77 Slip=  -9
       NP2:        313     82      -166

LSA      1.16  117 Pgc    50 12.90   -7.8X
                   Sg     50 26.10
GUN      4.25  238 P      51 07.70    2.5
KKN      4.76  240 P      51 13.70    1.3
PKI      4.79  238 P      51 14.40    1.6
DMN      4.99  240 P      51 16.70    1.1
GKN      5.16  246 P      51 18.30    0.4
NDI     11.21  265 iP     52 41.50   -0.5
        0.5s     83.80nm            6.3mb
                   iS     54 41.50
CD2     11.91   83 P      52 51.00   -0.5
     Z  10s     17.40um
                   S      55 05.00
GTA     12.22   39 Pc     52 54.80   -0.9
     Z  10s     14.80um
     E  10s     17.60um
KMI     12.41  111 Pc     52 56.00   -2.5
     Z  10s      7.60um
     N  10s     12.00um
                   sP     53 08.00
                   eS     55 12.00
                   S      55 18.00
LZH     13.01   60 eP     53 05.00   -1.4
        2.0s    302.00nm            6.1mb
     Z  10s     13.40um
                   Lg     56 28.00
                   Lg     56 53.00
WMQ     13.68  353 P      53 16.30    1.2
     Z  15s      7.30um
CHG     13.99  142 iPc    53 17.00   -2.2
        1.1s     43.04nm            5.2mb
CHTO    13.99  142 eP     53 17.20   -2.0
        1.5s     79.96nm            5.3mb
KSH     14.70  313 P      53 32.00    3.5X
     N  12s     17.10um
                   eS     56 22.00
GYA     15.18  100 iPc    53 34.00   -0.8
     N  11s     12.20um
                   S      56 22.00
BDT     15.34  145 iPd    53 36.00   -0.8
        1.1s    147.40nm            5.2mb
HYB     16.46  222 iPd    53 47.00   -4.3X
        1.0s    190.00nm            5.2mb
                   eS     56 36.00
XAN     16.50   72 P      53 49.90   -1.9
        6.0s      0.80nm            2.0mb X
     N  10s      7.50um
     E  10s     12.20um
                   pP     53 55.90
LOE     16.68  137 eP     53 52.00   -2.1
NST     17.24  145 iPd    54 02.00    0.9
POO     18.71  235 iPc    54 17.00   -2.3
        1.0s     50.00nm            4.7mb
BTO     19.31   52 eP     54 25.50   -1.1
     N  12s     14.60um
     E  13s      8.40um
                   S      58 02.00
                   eSS    58 31.00
NNT     19.75  151 eP     54 31.90    0.2
TIY     20.05   62 iPc    54 34.50   -0.3
        1.2s      0.20nm            2.3mb X
     N  13s     16.70um
                   S      58 09.00
                   sS     58 19.00
GBA     20.19  218 P      54 35.00   -1.3
                   S      58 23.00
HHC     20.48   53 P      54 38.80   -0.4
     Z  14s     11.90um            5.4MszX
     N  11s     13.20um
                   sP     54 52.50
                   S      58 28.50
WHN     21.04   83 iPc    54 46.00    1.0
        2.0s      1.96nm            3.1mb X
     Z  14s     15.50um            5.5MszX
     E  12s     10.20um
                   sP     54 58.00
                   iS     58 40.00
QIZ     21.20  117 Pd     54 47.60    0.9
     N  11s      3.00um
     E  12s      2.00um
GZH     22.05  103 iPc    54 55.00   -0.2
                   S      58 56.00
MCO     22.64  105 eP     55 03.00    1.9
KOD     23.05  213 eP     55 07.00    1.4
HKC     23.07  104 iPd    55 07.00    1.7
                   S      59 20.00
TIA     23.45   68 Pc     55 10.70    1.7
     Z  20s      4.40um            4.9Msz
     N  15s     12.00um
     E  15s      3.20um
                   S      59 26.50
BJI     23.49   58 eP     55 11.50    2.2
     Z  10s      6.10um            5.4MszX
     N  11s     13.60um
     E  11s      7.40um
                   eS     59 24.00
NJ2     24.77   78 iPc    55 24.00    2.3
        3.0s      0.70nm            2.8mb X
                   pP     55 32.00   28kmX
SNG     25.02  154 eP     55 16.20   -8.1X
        1.2s    671.88nm            6.2mb
                   e      59 58.90
QZH     25.88   95 eP     55 34.00    1.7
     Z  12s      5.40um            5.3MszX
     N  12s      9.10um
MHI     26.12  291 iPd    55 35.20    0.7
                   e      00 04.00
SSE     26.83   80 Pd     55 42.00    1.0
        1.2s    121.00nm            5.5mb
     Z  12s      4.20um            5.2MszX
                   eS     00 16.00
                   sS     00 34.00
DL2     27.37   63 eP     55 47.50    1.7
     Z  14s      4.10um            5.2MszX
     N  16s     10.30um
IPM     27.57  156 ePd    55 50.10    2.2
        0.9s     27.30nm            5.0mb
PSI     28.67  161 ePc    55 57.00   -0.8
SNY     29.37   58 iPc    56 05.00    1.1
     Z  15s      4.80um            5.2MszX
     N  12s      3.30um
                   S      01 00.00
CN2     31.16   54 Pc     56 20.50    0.8
     Z  13s      5.40um            5.4MszX
     N  13s      9.00um
                   pP     56 25.00   16kmX
                   eS     01 26.00
BAG     31.19  109 eP     56 21.00    0.6
                   eS     00 48.00
TEH     32.67  290 eP     56 35.00    1.7
MDJ     34.24   54 eP     56 42.50   -4.1X
     Z  16s      3.10um            5.1MszX
     N  12s      7.30um
                   S      02 15.00
KKM     34.48  129 ePd    56 50.50    1.5
TAB     36.68  294 eP     57 10.00    2.4
                   e      57 12.00
BHD     38.64  287 iPd    57 25.00    1.1
                   e      59 01.00
MSL     39.30  292 ePd    57 30.00    0.6
DAV     40.56  117 eP     57 43.20    3.2X
TRT     43.55  146 iPc    58 05.60    1.2
        1.0s     62.30nm            5.3mb
KVT     44.49  299 eP     58 12.90    0.9
BHL     45.72  289 P      58 24.00    2.1
IKL     46.89  293 eP     58 32.00    1.0
BBTK    47.10  298 iPc+   58 34.50    1.7
                   e      00 40.00
HRT     49.33  300 eP     58 49.00   -1.0
YLV     49.58  299 iP     58 52.40    0.4
ELL     49.80  294 eP     58 52.10   -1.6
KHL     49.82  296 iP     58 52.70   -1.1
CFR     49.96  305 eP     58 56.00    1.4
CTT     50.21  300 eP     58 56.00   -0.7
KCT     50.40  299 iP     59 01.40    3.3X
VRI     50.90  306 ePc    59 03.50    1.7
                   e      29 13.00
KJF     51.18  330 iP     59 05.20    1.5
        0.9s     84.50nm            5.7mb
JMB     51.39  302 iP     59 07.00    1.4
MLR     51.48  306 ePc    59 07.00    0.6
                   e      29 17.00
IZM     51.55  297 eP     59 07.00    0.1
SUF     51.64  328 iP     59 07.10   -0.1
        0.4s     11.40nm            5.2mb
NUR     52.10  325 iP     59 12.20    1.5
        1.3s    135.70nm            5.7mb
     Z  18s      2.50um            5.3Msz
                   i      59 15.00
                   LR     23 20.00
PVL     52.20  303 iPc    59 14.00    2.4
SOD     52.25  334 iP     59 11.30   -0.4
KDZ     52.38  301 eP     59 15.00    1.9
KEV     52.65  337 iP     59 16.50    1.8
        0.9s     47.30nm            5.4mb
RZN     52.89  301 iP     59 18.00    0.9
PGB     53.15  303 iP     59 19.00    0.2
BZS     54.48  307 eP     59 30.00    1.6
                   e      29 38.00
VAY     54.54  301 eP     59 29.00    0.1
SPC     54.90  311 iP     59 33.30    1.5
KRA     55.00  312 eP     59 32.30    0.1
     Z  15s      1.80um            5.3MszX
     N  15s      4.70um
                   e      59 34.80
SKO     55.24  302 iPd    59 33.50   -0.6
        1.5s     80.00nm            5.5mb
                   i      59 37.00
UPP     55.59  324 iP     59 35.50   -0.9
                   i      59 37.50
OHR     55.89  301 eP     59 36.20   -2.6
SRO     56.37  310 eP     59 43.70    1.5
                   e      01 52.30
TIH     56.81  309 eP     59 49.00    3.7X
ZST     57.11  310 eP     59 47.30   -0.1
KSP     57.20  314 iPc    59 49.20    1.2
        1.6s     86.00nm            5.5mb
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HFS     57.55 325 eP     59 48.70  -1.7
        0.9s     32.20nm          5.4mb
      Z  18s      1.64um          5.2Msz
                 LR     21 55.00
NANU    57.96 152 iPc    59 53.50  -0.1
        1.0s     63.00nm          5.6mb
PTJ     58.32 308 eP     59 56.10   0.1
PRU     58.45 313 P      59 57.50   0.7
                  e      02 01.50
NRA0    58.55 326 P      59 55.60  -1.8
HVAR    58.58 305 iP     59 55.60  -2.2
MBL     58.62 147 eP     59 58.00  -0.3
VBY     58.89 308 eP     00 00.80   0.9
NAO     58.89 326 P      59 58.00  -1.7
        1.0s     48.70nm          5.6mb
CLL     59.16 315 eP     00 03.00   1.3
        1.9s     71.00nm          5.5mb
KHC     59.23 312 iPc    00 03.50   1.2
                  e      00 14.40
LJU     59.26 308 eP     00 03.00   0.5
CEY     59.40 308 eP     00 04.00   0.5
NAI     59.48 248 iPd    59 28.50 -36.2X
VOY     59.70 308 eP     00 05.50  -0.1
RBL     59.82 309 P      00 04.00  -2.4
KBA     59.83 310 e(P)   00 06.00  -0.6
        1.0s     8.80nm          4.8mb
                  i      00 10.00
                  i      00 26.30
                  e      00 44.00
                  e      02 24.50
TRI     59.86 308 Pc     00 06.70   0.2
BHG     59.99 311 iPc    00 08.30   0.8
MOX     60.16 314 eP     00 09.00   0.4
        2.0s    118.00nm          5.7mb
      N  34s      2.00um
                  e      00 12.50
                 LQ     22 30.00
                 LR     27 30.00
FVI     60.31 309 Pc     00 11.20   1.6
DUI     60.39 303 Pc     00 10.40   0.1
GRF     60.61 313 eP     00 13.00   1.3
        1.7s    193.00nm          6.0mb
      Z  17s      2.30um          5.4MszX
ATN     60.62 299 P      00 11.20  -0.6
SDI     60.84 304 P      00 12.60  -0.8
FUR     60.93 311 iPc    00 15.30   1.4
ARV     60.98 306 P      00 15.00   0.7
AZI     61.04 304 Pc     00 15.00   0.4
CTI     61.21 309 P      00 16.00   0.1
RSM     61.21 306 Pc     00 16.80   1.1
ASS     61.29 305 P      00 16.50   0.0
OGA     61.42 310 iPc    00 17.30  -0.2
CRE     61.64 306 P      00 19.50   0.6
PGD     61.73 306 P      00 20.80   1.2
OSS     62.05 310 ePc    00 19.70  -2.0
FIR     62.08 306 eP     00 21.00  -0.7
TNS     62.22 314 ePd    00 23.60   0.9
MME     62.35 307 Pc     00 25.50   1.7
BDI     62.46 307 Pc     00 24.10  -0.2
VDL     62.55 310 ePc    00 23.20  -1.9
PII     62.61 307 Pc     00 24.70  -0.5
LLS     62.76 310 ePc    00 24.10  -2.3
WTS     62.77 316 eP     00 27.50   1.4
        1.0s     27.00nm          5.4mb
MEKA    62.79 151 eP     00 26.00  -0.6
SLE     62.84 311 ePc    00 25.70  -1.1
ZLA     62.99 311 ePc    00 26.10  -1.7
BOB     63.05 308 P      00 29.00   0.8
TMA     63.05 310 ePc    00 25.90  -2.5
VAI     63.19 309 Pc     00 28.50  -0.5
CDF     63.45 312 eP     00 29.80  -1.0
        1.4s     78.40nm          5.7mb
AVY     63.56 225 iPc    00 30.80  -1.3
MEM     63.63 315 Pc     00 33.10   1.3
ENN     63.63 315 eP     00 31.00  -0.9
MMK     63.68 310 ePc    00 30.70  -1.9
ORX     63.79 309 P      00 32.35  -0.8
WLF     63.80 314 Pc     00 34.50   1.5
BSF     63.92 312 eP     00 33.40  -0.6
        1.4s     95.80nm          5.8mb
CKI     63.95 308 P      00 29.50  -4.6X
DIX     64.04 310 ePc    00 33.60  -1.4
FIN     64.06 308 P      00 33.27  -1.6
CVF     64.11 306 eP     00 33.40  -1.8
        1.2s     44.00nm          5.5mb
HAU     64.16 312 eP     00 34.70  -0.7
        1.2s     35.70nm          5.4mb

ROB     64.27 308 P      00 34.19  -2.0
EMS     64.36 310 ePc    00 36.00  -1.0
IMI     64.37 307 P      00 34.91  -2.0
LSD     64.39 309 P      00 35.94  -1.4
RSP     64.42 309 P      00 35.01  -2.3
DOI     64.63 308 P      00 37.50  -1.1
DOU     64.64 315 P      00 39.70   1.2
LPG     64.65 309 eP     00 38.10  -0.9
        1.2s     65.40nm          5.7mb
STV     64.66 308 P      00 35.94  -2.9
SBF     64.70 308 eP     00 37.70  -1.4
        1.0s     37.60nm          5.5mb
SNF     64.71 315 Pc     00 39.80   0.9
PZZ     64.73 308 P      00 36.55  -2.8
RRL     64.81 309 P      00 37.68  -2.3
BNI     64.84 309 P      00 39.50  -0.6
FRF     65.34 307 eP     00 41.50  -1.6
        1.2s     29.70nm          5.4mb
LMR     65.51 307 eP     00 42.90  -1.3
        1.2s     32.10nm          5.4mb
LRG     65.57 307 eP     00 43.30  -1.3
        1.0s     28.00nm          5.4mb
BAL     65.63 155 eP     00 44.00  -1.1
WB5     65.64 134 iPc    00 44.90  -0.4
WRA     65.67 134 Pd     00 43.40  -2.1
        0.5s      7.40nm          5.1mb
LOR     65.99 312 eP     00 46.00  -1.3
        1.4s     62.70nm          5.6mb
LBF     66.00 312 eP     00 45.90  -1.5
        1.4s     74.00nm          5.7mb
WARB    66.18 144 eP     00 43.00  -5.7X
        1.0s     27.00nm          5.4mb
SMF     66.20 311 eP     00 47.20  -1.4
        1.4s    100.10nm          5.8mb
SSF     66.28 312 eP     00 47.80  -1.3
        1.4s     97.50nm          5.8mb
NPA     66.43 235 eP     00 53.00   2.5
AVF     66.47 312 eP     00 49.10  -1.2
        1.3s     79.40nm          5.7mb
ALE     66.67 356 eP     00 53.00   1.9
        0.4s      2.00nm          4.7mb
MUN     66.69 156 iP     00 50.90  -0.9
BGF     66.88 311 eP     00 51.80  -1.2
        1.4s     34.80nm          5.4mb
KLB     66.91 154 eP     00 52.00  -1.2
MAF     67.18 311 eP     00 54.10  -0.8
        1.4s    143.70nm          6.0mb
TCF     67.39 311 eP     00 55.30  -0.9
        1.5s    161.90nm          6.0mb
EKA     67.40 322 P      00 57.00   0.9
        1.5s     45.90nm          5.4mb
PMG     67.59 116 eP     00 58.00   0.2
        1.0s     28.00nm          5.4mb
COOL    67.62 151 eP     00 57.00  -0.8
LSF     67.84 311 eP     00 57.60  -1.5
        1.2s     42.80nm          5.5mb
NWAO    67.92 155 iPc    00 52.30  -7.3X
CAF     67.97 310 eP     00 59.20  -0.7
        1.2s     45.80nm          5.5mb
LDF     68.05 314 eP     00 59.00  -1.3
        1.2s     47.60nm          5.6mb
RJF     68.19 311 eP     01 00.80  -0.4
        1.3s    101.00nm          5.9mb
ASPA    68.20 137 iPc    01 01.40  -0.1
        0.7s     19.00nm          5.4mb
FLN     68.21 315 eP     00 59.90  -1.4
        1.2s     29.70nm          5.4mb
GRR     68.58 314 eP     01 02.20  -1.4
        1.0s     24.00nm          5.3mb
LPO     68.64 310 eP     01 03.50  -0.5
        1.3s     57.70nm          5.6mb
MFF     68.79 312 eP     01 03.70  -1.2
        1.3s     57.70nm          5.6mb
LPF     68.83 314 eP     01 04.10  -1.0
        1.3s     43.30nm          5.5mb
LFF     68.84 310 eP     01 04.40  -0.8
        1.2s     59.50nm          5.7mb
RKG     68.87 156 eP     01 07.00   1.5
ESEL    69.31 305 e(P)   01 09.50   1.3
OIS     69.50 130 eP     01 09.00  -0.6
FORR    70.74 146 eP     01 16.50  -0.4
        0.5s     12.00nm          5.3mb
PTZ     71.67 241 iPd    01 22.50  -0.5
                  i      01 26.00
                  i      02 37.00
BNG     71.73 264 iPd    01 22.30  -1.0
        0.9s     59.00nm          5.7mb

                  ic     01 25.20
MBC     72.19     7 eP   01 25.00  -0.1
        0.8s     14.00nm          5.1mb
ETOR    72.35 307 e(P)   01 27.00   0.2
IMA     72.51    23 eP   01 29.20   1.9
        1.7s    101.90nm          5.6mb
TTA     73.49    26 P    01 38.00   5.0X
        1.4s     42.61nm          5.3mb
CTA     73.72 125 iPc    01 39.50   4.7X
        1.4s    116.28nm          5.7mb
GUD     73.87 308 e(P)   01 35.00  -0.7
TOL     74.13 307 iPc    01 38.50   1.4
        1.2s     96.56nm          5.7mb
SVW     74.68    27 eP   01 43.20   3.3X
LSZ     74.70 242 iP     01 41.20   0.5
                  i      01 48.30
                  i      02 03.20
FBA     75.16    22 P    01 44.50   2.0
KMZ     75.43 245 iPc    01 45.00   0.1
                  i      01 55.80
EPLA    75.44 308 e(P)   01 46.00   1.4
EHOR    75.89 306 e(P)   01 47.50   0.3
INK     76.61    15 eP   01 51.00   0.4
        0.9s     55.00nm          5.6mb
PMR     76.86    25 eP   01 52.50   0.4
        1.0s     80.00nm          5.8mb
BUL     77.38 238 iPc    01 54.90  -1.0
TOA     77.57    24 eP   01 59.50   3.3X
IFR     77.81 302 iPc    01 59.50   1.4
KDC     77.98    29 P    02 03.80   5.5X
AVE     79.59 302 eP     02 08.00   0.3
BPI     81.59 233 eP     02 19.00   0.5
        0.5s     28.17nm          5.6mb
PRY     82.45 233 eP     02 21.00  -1.9
        0.8s     15.63nm          5.2mb
BFS     82.91 233 eP     02 28.00   2.7
FRB     84.80 351 eP     02 35.00   0.9
SIT     85.02    23 P    02 32.20  -3.1X
        1.0s     15.00nm          5.2mb
YKC     85.55    11 eP   02 37.50  -0.4
        1.0s     30.00nm          5.4mb
FRS     85.69 232 iPc    02 39.50   0.5
        1.0s     30.00nm          5.4mb
SHGH    87.05 275 eP     02 47.20   1.1
KOGH    87.15 275 eP     02 47.00   0.4
KUK     87.21 275 eP     02 48.50   1.6
LEGH    87.31 275 eP     02 52.00   4.6X
KIC     90.88 278 Pc     03 05.26   1.1
        1.3s     99.00nm          6.0mb
TIC     90.98 278 Pc     03 05.58   1.0
LIC     91.19 278 Pc     03 06.60   1.0
        1.3s     78.00nm          5.9mb
EDM     94.45    14 eP   03 21.50   1.4
FFC     94.77     7 eP   03 22.50   1.0
        1.4s     28.00nm          5.5mb
ZOBO   155.59 300 PKPc   09 56.00   1.0
                 eLR     02 48.00
LPB    155.74 299 PKP    09 54.10  -0.9
      Z  24s      0.39um          5.1MszX
                 LR     06 10.00
CNCB   155.82 299 ePKP   09 57.00   1.7
      S.D. = 1.3  on 225 of 244 obs.
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&  FEB  03, 1989  18h 08m 21.24s
   39.744 N           110.897 W
   DEPTH =   0.4km
 UTAH                              (478)
      <SLC-P>. ML 3.0 (SLC). Felt (IV)
      at Kenilworth.

DAU      0.72 338 eP     08 35.70   0.0
DUG      1.54 288 eP     08 49.50  -0.6
MSU      1.58 219 eP     08 50.50  -0.3
BW06     3.20  18 eP     09 14.70   0.8
GOL      4.26  89 eP     09 29.50   0.4
ALQ      5.96 142 eP     09 57.00   4.0
      6 obs. associated
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%  FEB  03, 1989  18h 19m 46.71± 1.76s
   61.993 N ±15.3km    6.367 E ±15.3km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                   (535)
      MD 2.4 (BER).

HYA      0.83 186 iPg+   20 03.06   0.3
                 iSg     20 14.82
SUE      1.21 220 iP     20 09.99   0.7
```

03d 18h

		eS	20 27.53		
ODD1	2.09	176 eP	20 21.48	-0.8	
		eS	20 45.07		
RGS	2.15	60 eP	20 22.50	-0.6	
		eS	20 48.80		
BLS1	2.62	175 eP	20 28.79	-1.1	
		eS	21 02.65		
NRA0	2.79	115 iPd	20 33.60	1.4	
		iS	21 02.50		
		iSg	21 08.30		

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

FEB 03, 1989 18h 21m 50.87± 0.42s
20.475 N ± 9.1km 61.386 E ± 4.9km
DEPTH = 10.0km (geophysicist)
4.5mb (21 obs.)
ARABIAN SEA (417)

POO	11.91	97 eP	24 38.00	-5.9X	
RYD	14.28	290 eP	25 13.00	-2.4	
		eS	27 44.50		
KMSA	15.84	273 eP	25 34.00	-1.6	
		eS	28 19.30		
MHI	15.85	354 eP	25 34.00	-1.8	
HYB	16.52	98 eP	25 39.00	-5.4X	
	0.8s	6.15nm		3.8mb	
		e	25 45.00		
NDI	16.54	57 eP	25 40.50	-4.1X	
	0.6s	26.67nm		4.5mb	
		iS	28 28.00		
GBA	16.79	111 P	25 46.00	-1.8	
		S	28 36.00		
KOD	18.53	121 eP	26 11.00	1.2	
GKN	22.46	66 P	26 51.10	-0.8	
KSH	22.70	30 eP	26 56.00	2.0	
DMN	22.77	67 P	26 54.60	-0.4	
	0.8s	49.00nm		5.1mb	
KKN	22.97	67 P	26 56.30	-0.6	
PKI	23.03	67 P	26 57.10	-0.5	
GUN	23.51	67 P	27 03.40	1.1	
MBH	25.67	296 iPc	27 04.00	-18.6X	
HRI	26.11	305 eP	27 42.00	15.2X	
WMQ	31.97	37 eP	28 19.20	-0.1	
CHTO	35.36	86 eP	28 49.00	0.2	
	1.0s	2.75nm		4.1mb	
SKO	39.85	312 eP	29 27.20	0.9	
OHR	40.02	310 eP	29 28.20	0.4	
PSI	40.63	111 ePc	29 33.80	0.8	
XAN	44.00	62 P	29 59.30	-1.0	
BNG	44.59	255 ePd	30 08.50	3.2X	
	0.6s	4.00nm		4.5mb	
BCAO	44.60	255 eP	30 07.00	1.6	
	0.6s	2.38nm		4.3mb	
PTJ	44.89	315 eP	30 08.50	1.0	
LJU	45.88	315 eP	30 16.50	1.3	
VOY	46.31	315 eP	30 18.60	-0.1	
KBA	46.98	316 eP	30 25.50	1.4	
TIY	47.21	57 eP	30 26.50	0.6	
KHC	47.48	319 iPc	30 28.20	0.3	
CLL	48.58	321 iP	30 37.10	0.8	
	1.2s	12.00nm		4.8mb	
SUF	48.59	339 iP	30 36.00	-0.2	
	0.7s	6.00nm		4.8mb	
KJF	49.15	341 eP	30 40.00	-0.5	
SBF	50.27	310 eP	30 49.70	0.2	
	0.8s	13.40nm		5.0mb	
LPG	51.03	312 eP	30 55.40	-0.2	
	0.6s	1.80nm		4.2mb	
SOD	51.78	344 iP	31 02.60	2.1	
HFS	51.91	332 eP	31 00.10	-1.5	
	0.5s	1.30nm		4.1mb	
LBF	53.19	314 eP	31 11.00	-0.4	
	1.0s	8.80nm		4.7mb	
SMF	53.22	313 eP	31 11.70	0.0	
	1.0s	8.00nm		4.6mb	
LOR	53.31	314 eP	31 12.10	-0.2	
KEV	53.46	346 eP	31 13.00	0.0	
NAO	53.49	332 P	31 11.40	-1.9	
	0.9s	4.20nm		4.4mb	
SSF	53.52	314 eP	31 12.80	-1.0	
	1.0s	4.80nm		4.4mb	
AVF	53.58	314 eP	31 14.00	-0.2	
	0.8s	2.60nm		4.3mb	
CAF	54.23	311 eP	31 19.80	0.7	
	1.0s	10.00nm		4.8mb	
RJF	54.65	312 eP	31 21.90	-0.3	
	1.1s	9.70nm		4.7mb	
LPO	54.82	311 eP	31 24.20	0.7	
	1.0s	12.00nm		4.9mb	
LFF	55.16	311 eP	31 26.60	0.7	
	1.0s	9.60nm		4.8mb	
WB5	81.91	115 eP	34 11.70	-0.8	
WRA	81.91	115 Pc	34 11.70	-0.8	
	0.9s	2.30nm		4.3mb	
MBC	83.50	0 eP	34 20.00	0.3	
FRB	87.49	340 eP	34 40.50	0.8	

S.D. = 1.1 on 46 of 52 obs.

% FEB 03, 1989 18h 22m 08.99± 0.80s
48.008 N ±12.5km 6.374 E ± 6.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.4 (LDG).

HAU	0.02	262 Pg	22 09.80	-1.2	
		Sg	22 12.00		
BSF	0.33	122 Pg	22 15.70	-0.2	
		Sg	22 21.50		
CDF	0.73	56 Pg	22 23.50	0.2	
		Sg	22 33.20		
LOR	1.85	247 Pg	22 40.60	-0.5	
		Sg	23 02.60		
LBF	1.92	239 Pg	22 41.90	-0.2	
		Sg	23 05.20		
SSF	2.16	245 Pg	22 46.10	0.6	
		Sg	23 11.40		
SMF	2.20	233 Pg	22 47.10	1.0	
		Sg	23 13.80		
BGF	2.81	240 Pg	22 58.10	3.4X	
		Sg	23 31.40		

S.D. = 0.9 on 7 of 8 obs.

FEB 03, 1989 18h 44m 32.64± 0.74s
20.215 S ± 8.9km 178.617 W ± 4.8km
DEPTH = 574.6 ± 9.6 km
5.2mb (24 obs.)
FIJI ISLANDS REGION (181)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 23C
Centroid Location:
Origin Time 18:44:44.0 0.8
Lat 20.00S 0.07 Lon 179.18W 0.06
Dep 614.7 3.9 Half-duration 2.1
Moment Tensor; Scale 10**17 Nm
Mrr=-0.75 0.08 Mtt=-0.08 0.15
Mff= 0.83 0.12 Mrt=-1.86 0.12
Mrf=-0.73 0.13 Mtf= 0.48 0.11
Principal Axes:

T	Val= 2.05	Plg=34	Azm=137
N	0.27	18	239
P	-2.32	51	352

Best Double Couple:Mo=2.2*10**17
NP1:Strike=178 Dip=20 Slip=-152
NP2: 62 81 -72

AFI	9.06	47 eP	46 42.00	-0.3	
		S	48 25.00		
PVC	12.61	279 iPc	47 21.00	3.5X	
DZM	14.06	260 iPc	47 34.00	1.9	
MSZ	26.83	202 eP	49 30.00	0.3	
		e	49 49.80		
BRS	27.09	249 Pc	49 32.40	0.2	
		i(pPP)	49 41.00		
TBI	27.23	102 iP	49 33.70	0.3	
	0.8s	60.00nm		5.3mb	
AFR	27.40	89 iP	49 33.80	-1.1	
	1.1s	140.00nm		5.5mb	
COO	28.49	243 iPc	49 45.40	1.0	
PMO	29.71	85 iP	49 52.80	-2.0	
	1.1s	60.00nm		5.1mb	
VAH	29.90	86 iP	49 55.00	-1.5	
	1.1s	70.00nm		5.2mb	
TPT	29.97	85 iP	49 56.00	-1.1	
	1.1s	120.00nm		5.4mb	
RUV	30.14	86 iP	49 57.70	-0.8	
	1.1s	110.00nm		5.4mb	
CAN	32.19	235 eP	50 17.00	1.2	
BWA	32.37	237 eP	50 12.90	-4.3X	
CTA	32.94	264 iPd	50 23.00	0.9	
CMS	33.77	243 eP	50 29.00	0.0	
PMG	34.72	283 iP	50 38.00	1.0	
	0.8s	89.55nm		5.4mb	
TOO	35.60	233 iPd	50 44.80	0.7	
STK	37.40	244 eP	51 00.00	1.2	
QIS	39.08	262 iPd	51 12.50	-0.2	
ASPA	44.02	257 iPd	51 51.90	0.0	
	1.1s	105.00nm		5.3mb	
		iPcP	53 23.80		
		eS	57 39.90		
		eScS	00 45.00		
WB5	44.05	262 iPc	51 51.20	-0.9	
		e	57 40.80		
WRA	44.06	262 Pd	51 50.90	-1.3	
	0.6s	26.70nm		4.9mb	
MTN	48.58	271 iPd	52 26.20	-0.5	
	0.7s	195.00nm		5.7mb	
GUA	49.11	310 eP	52 29.50	-1.0	
	0.6s	90.67nm		5.5mb	
PJG	49.18	310 eP	52 29.20	-1.8	
KNA	50.08	266 iPc	52 37.10	-0.5	
WARB	50.36	252 eP	52 32.00	-7.7X	
	0.4s	13.00nm		4.8mb	
MBL	57.26	257 eP	53 26.60	-1.7	
	0.4s	34.00nm		5.0mb	
MEKA	57.54	251 eP	53 28.70	-1.5	
	0.4s	11.00nm		4.5mb	
NANU	60.91	255 iPc	53 51.80	-0.9	
	0.4s	26.00nm		5.0mb	
ADK	71.81	1 P	54 57.50	-1.3	
	0.6s	44.33nm		5.2mb	
BLP	77.63	46 P	55 32.00	0.4	
SYP	77.89	46 eP	55 34.00	0.8	
PRS	78.01	44 eP	55 34.30	0.7	
GCC	78.02	43 eP	55 33.90	0.3	
PCC	78.06	43 eP	55 34.20	0.4	
BCH	78.20	46 P	55 36.00	1.2	
SAO	78.22	44 e(P)	55 35.30	0.6	
BRK	78.36	42 eP	55 36.30	0.9	
PRI	78.36	44 eP	55 36.80	1.2	
MHC	78.44	43 eP	55 36.70	0.7	
LLA	78.46	44 eP	55 36.80	0.8	
ARN	78.51	43 P	55 36.60	0.3	
PAS	78.92	47 eP	55 39.00	0.6	
MWC	79.04	47 eP	55 40.00	0.7	
BAR	79.17	49 eP	55 41.00	1.2	
RVR	79.38	48 eP	55 41.00	0.2	
PLM	79.40	49 eP	55 41.00	-0.1	
SBB	79.45	47 eP	55 41.00	-0.3	
PEC	79.48	48 P	55 41.00	-0.4	
FRI	79.48	44 eP	55 41.60	0.4	
CMB	79.65	43 eP	55 42.40	0.2	
WDC	79.83	40 eP	55 43.50	0.5	
ORV	79.84	41 eP	55 43.30	0.2	
MDJ	79.95	325 eP	55 40.00	-3.5X	
CLC	80.23	46 eP	55 46.00	0.7	
MIN	80.25	41 eP	55 46.00	0.6	
TPC	80.37	48 eP	55 47.00	1.0	
GLA	80.68	50 eP	55 50.00	2.3	
LBFM	80.68	40 P	55 48.40	0.7	
MNA	81.31	44 eP	55 51.20	0.3	
AIA	81.46	157 eP	55 51.40	0.4	
KVN	81.70	43 P	55 52.80	-0.1	
CN2	81.72	323 P	55 52.00	-0.6	
TNP	81.73	44 P	55 53.00	-0.1	
BJI	85.28	316 eP	56 10.00	-0.2	
MSU	85.33	46 P	56 11.20	0.3	
PNT	86.74	34 eP	56 17.00	-0.1	
	1.0s	65.00nm		5.3mb	
DAU	86.89	45 P	56 18.70	0.3	
ALQ	87.68	52 eP	56 21.20	-0.9	
	1.0s	16.75nm		4.8mb	
IMA	88.06	10 P	56 22.40	-0.7	
	0.8s	15.52nm		4.9mb	
FBA	88.09	13 P	56 21.30	-1.7	
	0.8s	51.72nm		5.4mb	
LRM	88.86	40 eP	56 28.10	0.8	
BW06	89.16	43 P	56 28.00	-0.8	
	0.8s	31.25nm		5.3mb	
CHG	89.60	290 iPd	56 32.00	1.0	
	0.7s	13.70nm		5.0mb	
CHTO	89.60	290 eP	56 32.10	1.2	
GOL	90.55	48 P	56 35.00	-0.3	
SES	91.98	36 ePd	56 40.80	-0.5	
	0.9s	40.00nm		5.4mb	
LZH	92.14	308 eP	56 43.00	0.5	
	2.5s	79.00nm		5.3mb	
EDM	92.19	33 iP	56 42.00	-0.2	
INK	94.15	15 eP	56 50.00	-0.8	
MHI	127.10	301 ePKP	02 33.00	-0.9	
KJF	132.63	345 ePKP	02 43.00	-0.3	

		eSKP	05	40.00	
NAO	138.88	353 PKP	02	45.60	-9.5X
	0.5s	3.40nm			
HFS	139.17	351 ePKP	02	45.10	-10.6X
	0.4s	5.50nm			
EKA	144.77	4 PKPc	03	05.00	-0.5
	0.8s	16.60nm			
DMU	145.78	9 ePKP	03	07.60	0.4
DCN	146.26	9 ePKP	03	09.10	1.1
DLE	146.43	9 ePKP	03	09.40	1.1
KRA	146.77	338 ePKPc	03	10.90	1.9
		e	03	14.40	
BBTK	146.78	313 ePKP	03	08.00	-1.5
VRI	147.01	327 ePKPc	03	12.00	2.5X
WIT	147.21	354 ePKP	03	13.00	3.5X
KSP	147.25	342 ePKPd	03	12.30	2.6X
		i	03	13.50	
		id	03	17.50	
SPC	147.38	337 ePKP	03	09.80	-0.4
IKL	147.56	306 iPKP	03	12.70	2.0
CLL	147.65	346 iPKPc	03	13.80	3.5X
	1.7s	125.00nm			
		i	03	18.40	
		e	05	31.00	
MLR	147.67	327 ePKPc	03	14.00	3.2X
WTS	148.00	354 iPKPc	03	14.00	3.2X
	0.9s	57.00nm			
		i	03	19.00	
HRT	148.36	317 ePKP	03	14.00	2.1
PRU	148.50	344 PKP	03	15.50	3.8X
		e	03	21.80	
PSZ	148.56	336 ePKP	03	16.30	4.3X
MOX	148.57	347 ePKP	03	11.00	-0.8
CTT	148.96	318 ePKP	03	15.00	2.3X
BNS	148.98	353 iPKP	03	16.80	4.4X
SRO	149.24	337 ePKP	03	17.30	4.4X
ENN	149.30	354 iPKPc	03	17.20	4.3X
	1.0s	45.00nm			
		e	03	24.00	
ZST	149.33	339 ePKP	03	12.30	-0.7
		e	03	17.20	
		e	03	25.70	
MEM	149.45	354 PKPc	03	17.80	4.7X
PVL	149.52	324 iPKPc	03	16.00	2.6X
TNS	149.53	351 ePKPc	03	17.80	4.5X
KHC	149.54	344 PKP	03	13.00	-0.4
		i	03	18.50	
		i	03	26.40	
GRF	149.56	347 ePKP	03	18.50	5.2X
		e	03	26.50	
BZS	149.67	331 ePKP	03	12.50	-1.1
SNF	149.68	356 PKPc	03	18.70	5.3X
DOU	150.07	356 PKPd	03	20.30	6.2X
WLF	150.37	354 PKPc	03	20.50	6.0X
		e	03	30.00	
KDZ	150.49	322 ePKP	03	20.00	5.0X
PGB	150.61	324 iPKPc	03	21.00	5.8X
RZN	150.87	322 iPKP	03	21.00	5.2X
BHG	151.02	344 iPKPd	03	22.20	6.6X
VTS	151.10	325 iPKP	03	22.00	5.9X
CDF	151.47	352 ePKP	03	22.70	6.4X
FLN	151.48	3 ePKP	03	22.60	6.4X
KBA	151.48	343 iPKPd	03	21.20	4.7X
	0.5s	5.30nm			
		i	03	23.50	
LDF	151.66	2 ePKP	03	23.10	6.6X
GRR	151.83	3 ePKP	03	23.60	6.9X
HAU	151.99	353 ePKP	03	23.70	6.7X
LJU	152.06	340 e(PKP)	03	16.00	-1.1
FVI	152.08	343 PKP	03	23.20	6.1X
		eSn	03	36.80	
BSF	152.10	352 ePKP	03	24.20	6.9X
LPF	152.18	3 ePKP	03	24.30	7.1X
VOY	152.27	341 ePKP	03	16.50	-1.1
VBY	152.30	339 e(PKP)	03	17.10	-0.4
VAY	152.31	324 ePKP	03	22.00	4.4X
		i	03	37.70	
CEY	152.37	340 e(PKP)	03	24.50	6.9X
SKO	152.46	326 ePKP	03	16.00	-1.8
LOR	152.94	356 ePKP	03	26.10	7.8X
SSF	153.16	357 ePKP	03	26.80	8.2X
LBF	153.21	356 ePKP	03	26.60	7.8X
OHR	153.42	326 ePKP	03	17.50	-1.7
TIR	153.73	327 ePKP	03	24.60	5.1X
		e	03	37.90	
BNG	157.08	229 ePKPc	03	23.50	-1.3
	0.3s	23.00nm			

		ic	03	58.60	
	S.D. = 1.0	on	99	of 144	obs.

* FEB 03, 1989 18h 46m 49.75± 1.10s
25.098 N ±13.2km 124.568 E ±11.2km
DEPTH = 33.0km (normal)
4.3mb (5 obs.)
NORTHEAST OF TAIWAN (245)

ANP	2.77	272 eP	48	06.00	33.2X
SSE	6.68	334 eP	48	22.50	-5.6X
		Lg	50	27.50	
NJ2	8.56	325 eP	48	54.50	0.2
	E 10s	2.40um			
WHN	10.54	303 eP	49	17.50	-4.2X
	Z 10s	1.30um			
	N 10s	1.40um			
		eS	51	30.50	
GYA	16.19	279 P	50	38.20	1.7
TIY	16.27	323 eP	50	39.00	1.5
	E 12s	0.70um			
BJI	16.48	337 eP	50	46.00	6.0X
	Z 12s	1.20um			
SNY	16.71	357 eP	50	44.00	1.2
	Z 14s	1.90um			
	N 12s	1.40um			
CN2	18.67	2 P	51	08.00	0.8
HHC	19.09	329 eP	51	12.00	-0.4
CD2	19.26	292 eP	51	14.40	0.0
BTO	19.66	325 eP	51	18.00	-1.0
	N 10s	0.60um			
	E 10s	0.60um			
MDJ	19.90	11 eP	51	20.50	-0.7
LZH	20.89	307 eP	51	30.50	-1.3
	2.0s	82.00nm		4.8mb	
CHTO	24.55	260 eP	52	09.20	1.3
	1.0s	2.50nm		3.7mb	
GTA	25.23	310 P	52	13.20	-1.1
	E 11s	0.60um			
KKN	35.18	283 P	53	42.10	-1.0
WMQ	35.31	311 eP	53	43.00	-0.8
GKN	35.73	284 P	53	46.70	-1.0
GBA	45.71	265 Pd	55	04.60	-5.1X
	0.7s	2.00nm		4.1mb	
MHI	56.13	298 eP	56	30.00	1.4
HFS	78.26	331 eP	58	45.40	-2.2
	0.6s	1.00nm		4.0mb	
EDM	87.28	31 ePd	59	35.30	1.0
SES	90.21	32 eP	59	49.00	0.7
FFC	91.04	25 eP	59	51.50	-0.4
	1.0s	9.00nm		5.1mb	
SPA	114.95	180 iPKPc	05	47.20	18.8X
	1.0s	73.00nm			
	S.D. = 1.2	on	20	of 26	obs.

* FEB 03, 1989 20h 34m 08.70± 1.37s
28.705 N ±16.3km 130.463 E ±14.8km
DEPTH = 33.0km (normal)
4.7mb (7 obs.)
RYUKYU ISLANDS (238)

SHK	6.11	17 eP	35	39.20	0.2
SSE	8.40	289 eP	36	11.70	0.7
	Z 16s	0.70um			
	E 10s	0.40um			
BJI	16.32	318 eP	37	55.50	-1.3
	Z 16s	0.59um			
LZH	23.60	295 eP	39	19.00	1.4
	2.0s	55.00nm		4.7mb	
CHTO	30.40	258 eP	40	20.80	0.6
GUN	39.09	280 P	41	35.40	0.4
	0.6s	18.00nm		5.0mb	
PKI	39.57	279 P	41	38.50	-0.5
	0.6s	9.00nm		4.7mb	
KKN	39.63	280 P	41	39.10	-0.3
	0.8s	14.00nm		4.8mb	
DMN	39.82	280 P	41	41.50	0.5
	0.7s	8.00nm		4.6mb	
GKN	40.14	280 P	41	43.20	-0.3
	0.7s	9.00nm		4.6mb	
GBA	51.29	265 Pd	43	10.40	-1.5
	0.8s	2.50nm		4.2mb	
MBC	66.96	14 eP	45	00.00	0.3
	S.D. = 0.9	on	12	of 12	obs.

* FEB 03, 1989 20h 34m 21.91± 0.85s
43.099 N ± 7.3km 13.018 E ± 6.4km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.5 (SSO).

CIO	0.13	44 iPg	34	25.34	0.2
		iSg	34	27.91	
ASS	0.26	264 P	34	27.60	0.1
		(Sg)	34	31.90	
ARV	0.40	352 Pd	34	29.90	-0.3
		eSg	34	36.70	
ALP	0.52	128 iPg	34	32.31	-0.1
		iSg	34	40.59	
AOI	0.62	43 e(Pg)	34	34.59	0.2
		eSg	34	45.31	
	S.D. = 0.3	on	5	of 5	obs.

FEB 03, 1989 22h 10m 01.65± 0.59s
30.263 N ± 9.0km 90.003 E ± 6.4km
DEPTH = 10.0km (geophysicist)
4.2mb (2 obs.)
TIBET (306)

GUN	4.30	238 P	11	10.40	1.4
KKN	4.81	240 P	11	16.50	0.4
PKI	4.84	237 P	11	17.20	0.6
DMN	5.04	240 P	11	19.60	0.3
GKN	5.21	246 P	11	20.80	-0.8
NDI	11.25	265 eP	12	43.00	-2.5
		eS	14	43.00	
KMI	12.39	111 eP	13	01.50	0.3
	Z 14s	1.90um			
		eS	16	38.00	
LZH	12.96	60 eP	13	10.50	1.8
CHG	13.99	142 eP	13	21.00	-1.3
CHTO	13.99	142 eP	13	21.10	-1.1
HYB	16.51	222 eP	13	49.00	-6.0X
POO	18.76	235 eP	14	23.50	0.6
TIY	20.00	62 eP	14	32.60	-4.7X
	N 13s	1.90um			
GBA	20.24	218 Pd	14	36.30	-3.5X
	0.8s	5.80nm		4.0mb	
GBA	20.24	218 P	14	41.00	1.2
		S	18	42.00	
MHI	26.14	291 eP	15	38.00	0.2
MLR	51.49	306 ePc	19	11.00	1.5
SUF	51.63	328 iP	19	09.80	-0.3
NAO	58.88	326 P	20	00.80	-1.9
	1.0s	3.80nm		4.5mb	
INK	76.57	15 eP	21	53.00	-0.4
	S.D. = 1.3	on	17	of 20	obs.

* FEB 03, 1989 22h 10m 50.54± 0.90s
24.061 N ± 7.4km 121.660 E ±10.8km
DEPTH = 29.3 ± 6.3 km
4.8mb (4 obs.)
TAIWAN (244)

TWD	0.06	288 iPc	10	54.90	-0.7
		eS	10	56.90	
TWC	0.57	17 iPc	11	03.10	1.0
TWF1	0.78	205 ePc	11	05.60	0.2
		eS	11	16.60	
TWQ	0.78	286 iPd	11	05.30	-0.2
		eS	11	14.90	
TWZ	1.03	356 eP	11	10.60	1.5
ANP	1.13	353 iPd	11	11.90	1.5
	0.7s	3561.64nm			
		eS	11	30.50	
TWG	1.35	204 ePc	11	15.30	1.8
QZH	2.93	288 ePn	11	35.00	-1.1
		Sn	12	07.50	
SSE	7.02	357 eP	12	32.00	-2.0
		Lg	14	33.00	
GZH	7.69	264 eP	12	42.50	-0.9
		S	14	02.50	
NJ2	8.34	343 Pc	12	50.50	-1.9
		S	14	18.50	
WHN	9.16	316 P	13	01.50	-2.2X
	Z 12s	3.70um			
		eS	14	42.00	
TIA	12.73	343 eP	13	50.10	-2.2X
BJI	16.59	345 eP	14	50.00	7.5X
	Z 14s	0.94um			
CD2	17.28	297 eP	14	55.00	3.7X
LZH	19.49	312 eP	15	14.00	-4.4X
	2.0s	110.00nm		4.8mb	
	Z 14s	1.50um			

03d 22h

	N	10s	0.70um			
	E	10s	0.90um			
CN2		19.94	8 eP	15	25.40	2.5X
MDJ		21.50	16 eP	15	40.30	1.3
CHTO		21.77	261 eP	15	43.00	1.1
		1.1s	17.08nm		4.4mb	
			pP	15	52.30	34kmX
GTA		23.98	315 iPd	16	05.00	1.4
	Z	14s	1.50um		4.6MszX	
	E	11s	0.90um			
WMQ		34.05	314 P	17	42.00	7.6X
WB5		45.40	163 eP	19	06.90	-1.5
			e	20	48.00	
ASPA		48.91	165 eP	19	34.70	-1.3
WARB		50.18	174 eP	19	38.00	-7.7X
		0.3s	4.00nm		4.9mb	
MHI		54.28	298 eP	20	18.00	1.5
VRI		76.40	314 ePc	22	48.00	9.0X
FFC		93.07	24 eP	24	02.00	-0.6
		0.9s	11.00nm		5.3mb	

S.D. = 1.5 on 18 of 27 obs.

FEB 03, 1989 23h 07m 29.77± 0.91s
37.725 N ± 8.5km 20.964 E ± 4.9km
DEPTH = 10.0km (geophysicist)
3.9mb (2 obs.)
IONIAN SEA (399)
ML 3.5 (ATH).

VLS		0.54	327 ePg	07	41.50	0.8
ATH		2.19	83 ePn	08	08.80	2.0
NEO		2.37	48 ePn	08	10.50	1.1
LSK		2.44	353 iPnd	08	11.40	1.1
KZN		2.65	13 ePb	08	16.00	2.6X
LIT		2.65	26 eP	08	14.10	0.7
TPE		2.67	344 iPnc	08	13.00	-0.6
VLO		2.97	338 ePn	08	19.40	1.7
PAIG		3.06	43 eP	08	18.70	-0.3
BERA		3.08	345 ePn	08	19.70	0.5
PLG		3.28	35 ePn	08	22.00	-0.2
THE		3.29	28 eP	08	23.10	0.7
OHR		3.38	358 iPn	08	23.90	0.2
GRG		3.41	19 eP	08	23.90	-0.2
LCI		3.50	319 P	08	25.40	0.1
SOH		3.61	30 eP	08	26.90	0.0
TIR		3.71	347 ePn	08	28.70	0.3
KNT		3.74	23 eP	08	29.00	0.2
VAY		3.80	19 ePn	08	29.30	-0.3
SRS		3.95	30 eP	08	31.60	-0.1
SKO		4.26	5 iPn	08	35.30	-0.8
			iSn	09	26.00	
KKS		4.37	355 ePn	08	38.00	0.4
ATN		4.37	277 P	08	38.80	1.1
SDA		4.43	346 e(Pn)	08	38.00	-0.5
BCI		4.69	352 ePn	08	41.60	-0.6
MEU		4.84	264 P	08	43.70	-0.8
			eSn	09	37.70	
MGR		4.86	301 P	08	47.80	3.2X
RDO		4.92	45 ePn	08	43.00	-2.5
MNO		4.97	274 P	08	46.20	-0.2
MLR		8.61	24 eP	09	40.00	2.6X
HFS		22.90	351 eP	12	31.10	-3.4X
		0.4s	2.00nm		4.0mb	
NAO		23.99	348 P	12	43.40	-1.6
		0.8s	2.80nm		3.9mb	
SUF		25.23	6 iP	12	54.60	-2.3
INK		72.57	350 eP	18	49.00	-9.4X
WB5		120.16	93 iPdiff	22	35.10	-11.4X
STK		131.60	102 ePdiff	23	16.00	-21.1X

S.D. = 1.1 on 29 of 36 obs.

FEB 03, 1989 23h 17m 28.95± 0.59s
5.527 S ± 5.2km 154.321 E ± 5.5km
DEPTH = 115.3 ± 6.3 km
5.2mb (9 obs.)
SOLOMON ISLANDS (193)

PAA		1.40	124 iPd	17	55.50	0.2
			eS	18	08.00	
RAB		2.52	302 iPd	18	09.80	0.4
		0.4s	542.37nm			
			iS	18	45.00	
VSG		6.50	125 eP	19	04.00	0.3
			eS	20	10.00	
HNR		6.79	125 eP	19	06.00	-1.6
			eS	20	20.00	
LMG		6.98	241 iPd	19	09.50	-0.8
LAT		7.37	261 e(P)	19	15.00	-0.4
PMG		8.09	241 iPc	19	26.00	0.8
CTA		16.46	208 iPd	21	16.20	1.7
		1.1s	101.27nm		5.0mb	
DZM		20.20	146 iPd	21	56.00	-0.9
QIS		20.68	222 iPc	22	01.50	-0.1
			e	22	04.00	
GUA		21.12	334 eP	22	06.20	0.1
		0.8s	131.34nm		5.3mb	
GUMO		21.18	334 eP	22	07.00	0.3
		1.0s	180.00nm		5.4mb	
PJG		21.18	334 eP	22	07.10	0.4
RMQ		21.51	194 iPc	22	10.40	0.4
		1.0s	275.00nm		5.6mb	
BRS		21.79	184 Pc	22	12.50	-0.3
MTN		24.01	251 eP	22	35.00	0.7
COO		25.02	185 iPd	22	44.30	0.4
ASPA		26.68	225 eP	22	57.80	-1.4
		0.4s	18.00nm		5.0mb	
			epP	23	22.90	116kmX
			esP	23	39.70	
CMS		27.03	196 eP	23	04.00	1.8
		1.0s	82.00nm		5.2mb	
WARB		33.48	229 iPc	23	52.70	-6.6X
		0.3s	5.00nm		4.8mb	
FORR		35.23	221 iPc	24	12.90	-1.3
		0.5s	43.00nm		5.6mb	
MBL		36.86	242 eP	24	26.60	-1.4
MSZ		40.77	165 eP	25	01.00	0.9
CN2		55.59	335 Pc	26	54.00	-0.7
CHTO		59.66	295 e(P)	27	22.00	-1.7
CD2		60.36	310 eP	27	28.20	-0.1
GTA		67.22	317 P	28	13.60	0.5
GUN		73.79	301 P	28	53.60	0.3
		0.7s	11.00nm		4.8mb	
PKI		74.10	301 P	28	55.40	0.3
KKN		74.27	301 P	28	55.60	-0.3
DMN		74.37	301 P	28	56.90	0.4
GKN		74.88	301 P	28	59.50	0.2
GBA		78.62	285 Pd	29	19.50	-0.6
		0.8s	2.40nm		4.0mb	X
INK		88.59	21 eP	30	11.00	1.4

S.D. = 0.9 on 33 of 34 obs.

? FEB 03, 1989 23h 21m 43.77± 5.24s
51.400 N ±36.4km 16.095 E ±34.0km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.2 (VKA), 2.9 (KBA).

KSP		0.57	167 iPd	21	55.30	-0.1
		0.4s	47.00nm			
			iS	22	04.60	
CLL		1.94	269 iPg	22	17.10	0.0
			iSg	22	43.50	
KHC		2.79	216 Pn	22	29.00	-0.3
			Pg	22	35.30	
			eSn	23	00.00	
			Sg	23	15.20	
MOX		2.93	257 ePg	22	37.00	5.8X
			iSg	23	17.00	
VKA		3.14	177 iPgd	22	43.30	9.1X
			iSg	23	27.60	
KBA		4.69	204 iPn	22	56.70	0.3
			i	24	17.00	

S.D. = 0.4 on 4 of 6 obs.

? FEB 03, 1989 23h 36m 27.59± 1.48s
28.469 N ±34.3km 140.343 E ±15.4km
DEPTH = 33.0km (normal)
5.1mb (10 obs.)
BONIN ISLANDS REGION (212)

CHTO		38.96	265 eP	43	52.90	0.4
		0.6s	0.84nm		3.7mb	X
GUN		47.65	283 P	45	04.10	0.9
		0.6s	24.00nm		5.4mb	
PKI		48.14	283 P	45	07.10	0.1
		0.5s	6.00nm		4.9mb	
KKN		48.19	283 P	45	07.60	0.3
		0.6s	13.00nm		5.1mb	
DMN		48.39	283 P	45	09.10	0.3
		0.4s	10.00nm		5.2mb	
GKN		48.69	283 P	45	11.40	0.4
GBA		59.95	270 Pc	46	29.60	-3.7X
		0.8s	3.00nm		4.5mb	
INK		62.47	25 eP	46	52.00	2.4
MBC		64.99	15 eP	47	08.00	2.0
		0.5s	6.00nm		4.9mb	
KEV		71.15	340 eP	47	45.00	0.6
SOD		72.53	338 eP	47	53.00	0.3
KJF		73.85	335 eP	48	00.00	-0.4
SUF		75.25	334 iP	48	08.20	-0.3
		0.5s	13.20nm		5.2mb	
NUR		77.10	333 iP	48	18.40	-0.6
		0.5s	11.20nm		5.2mb	
UPP		80.26	334 iP	48	34.70	-1.4
KVN		80.78	51 eP	48	39.80	0.1
			pP	50	47.00	601kmX
HFS		81.52	336 eP	48	40.80	-2.0
		0.4s	13.30nm		5.3mb	
TNP		81.86	51 eP	48	45.50	0.2
NAO		82.02	338 P	48	44.00	-1.4
		0.7s	10.80nm		5.0mb	
BW06		84.37	44 eP	48	56.50	-1.7

S.D. = 1.2 on 19 of 20 obs.

& FEB 03, 1989 23h 48m 46.70s
33.180 N 115.600 W
DEPTH = 1.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.4 (PAS). Felt (III) at Calipatria.

HAY		0.53	357 ePc	48	57.60	0.4
GLA		0.66	101 eP	48	59.20	-0.7
IKP		0.68	219 ePd	48	59.60	-0.7
PLM		1.07	280 P	49	05.70	-2.1
PEC		1.48	299 P	49	11.50	-3.1
QSM		2.97	340 eP	49	43.00	7.1
GWY		3.12	344 eP	49	46.20	8.0
YMT2		3.67	349 eP	49	56.30	10.4
PRN		4.24	6 eP	50	05.50	11.5
KVN		6.20	342 e(P)	50	23.00	1.2
		10 obs. associated				

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* FEB 04, 1989 01h 23m 20.94± 2.56s
7.252 N ±25.6km 82.147 W ± 8.7km
DEPTH = 10.0km (geophysicist)
SOUTH OF PANAMA (83)

DVD		1.21	346 iPc	23	42.60	-0.9
			i	23	56.60	
ACR		1.72	324 iPd	23	50.50	-0.6
			S	24	10.50	
CDM		2.79	325 iPd	24	07.40	0.5
QCR		2.95	318 eP	24	08.10	-0.6
LCR2		3.08	324 iPd	24	11.00	0.3
			S	24	47.00	
UPA		3.11	56 ePc	24	10.80	-0.1
		0.8s	25.37nm			
			iS	24	47.50	
ICR		3.18	329 eP	24	12.60	0.2
			S	24	58.60	
IRZ2		3.21	327 ePc	24	14.10	1.4
			S	24	29.80	
SJS		3.27	325 iPd	24	14.00	0.6
			S	24	52.80	
HDC2		3.38	325 iPd	24	15.20	0.2
			S	24	31.30	
PTCR		3.38	318 ePc	24	14.40	-0.6
			S	24	30.20	
POA2		3.57	325 iPd	24	18.20	0.3
			S	24	36.60	
CAO		3.80	310 ePd	24	20.10	-0.8

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

% FEB 04, 1989 02h 33m 19.14± 1.12s
31.642 S ±13.3km 68.546 W ±14.0km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCV		0.22	178 iPc	33	25.70	-0.3
CFA		0.26	83 iPd	33	26.50	0.0
RTCB		0.27	306 iPc	33	28.00	1.4
			S	33	41.00	
RTLL		0.32	12 iPc	33	28.00	0.8
			S	33	41.80	
RTRS		1.66	332 iPc	33	44.50	-1.9

S.D. = 1.8 on 5 of 5 obs.

? FEB 04, 1989 04h 51m 37.67± 3.10s
6.417 S ±26.9km 147.798 E ±23.3km
DEPTH = 77.8 ± 12.0 km

EAST PAPUA NEW GUINEA REGION (207)

LAT	0.83	253	iPc	51 54.80	0.0
LMG	2.50	172	eP	52 16.00	-1.1
PMG	3.04	192	iPc	52 25.50	1.1
	1.0s	100.00nm			
MNDI	4.12	273	eP	52 40.00	0.2
QIS	16.15	209	iPc	55 21.80	0.5
WB5	18.69	223	eP	55 51.00	-1.6
RMQ	19.98	177	eP	56 07.00	0.6
BRS	21.39	168	iPc	56 20.80	0.0
ASPA	21.74	216	iPd	56 24.60	0.3
	0.4s	20.00nm		4.9mb	

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

FEB 04, 1989 06h 52m 55.70± 0.16s
45.646 N ± 3.7km 143.083 E ± 3.7km
DEPTH = 330.8km (3 depth phases)
4.9mb (23 obs.)

HOKKAIDO, JAPAN REGION (224)

Felt (I JMA) at Kushiro. Also felt (I JMA) at Hachinohe, Honshu.

KUS	2.83	160	eP	53 51.00	-1.4
			S	54 33.60	
SAP	2.88	207	iP	53 53.20	0.4
			eS	54 37.00	
HAC	5.24	193	eP	54 16.00	-1.7
			eS	55 16.00	
AOMJ	5.46	202	P	54 19.60	-0.5
			S	55 22.60	
OFUJ	6.64	190	iP+	54 32.80	-1.2
			S	55 47.40	
YAMJ	7.80	198	P	54 47.40	-0.5
			S	56 14.10	
NIIJ	8.94	201	iPd	55 01.20	-0.4
MDJ	9.59	269	Pd	55 09.50	0.0
			eS	56 55.00	
			PcP	00 47.00	
KAKJ	9.68	194	P	55 08.40	-2.2
			S	56 51.70	
MTMJ	9.89	206	P	55 13.50	0.3
CHJJ	10.07	199	iPd	55 15.00	-0.4
IIDJ	10.89	203	P	55 24.80	-0.6
TSRJ	11.44	211	P	55 32.10	0.1
CN2	12.68	268	iPd	55 45.00	-1.9
	3.0s	0.30nm		2.1mb X	
			esP	56 58.00	
			S	58 00.00	
YONJ	12.75	218	eP	55 47.80	0.0
WKYJ	12.77	209	P	55 47.70	-0.4
TKSJ	13.55	214	P	55 57.20	-0.1
SHK	13.65	219	iP	56 00.00	1.5
	0.8s	328.36nm		5.8mb	
SNY	14.60	262	iPd	56 08.00	-1.4
			iS	58 46.00	
SHNJ	14.71	223	P	56 11.90	1.3
KUMJ	16.16	220	eP	56 26.60	0.6
DL2	17.22	255	Pc	56 37.00	0.0
			S	59 40.00	
KAGJ	17.28	218	eP	56 37.80	0.1
BJI	20.46	264	P	57 09.00	-0.2
			eS	00 24.00	
TIA	21.68	253	eP	57 22.20	1.1
			S	01 04.00	
HHC	23.37	269	eP	57 38.60	1.5
TIY	24.11	262	eP	57 45.00	1.1
BTO	24.55	270	eP	57 48.00	0.1
XAN	28.47	258	P	58 22.90	-0.1
LZH	30.91	266	eP	58 45.00	0.6
	1.5s	154.00nm		5.2mb	
GTA	32.18	274	Pd	58 56.60	1.2
	2.5s	0.40nm		2.4mb X	
			S	03 44.50	
			ScP	04 49.30	
			ScS	08 48.20	
CD2	33.83	258	eP	59 10.20	0.9
GYA	34.73	249	P	59 17.20	0.2
WMQ	38.73	288	iPd	59 50.00	0.0
CHG	45.15	249	iPd	00 43.70	1.8
	1.1s	27.22nm		4.4mb	
CHTO	45.15	249	iPd	00 43.10	1.2
	0.8s	15.92nm		4.3mb	
			pP	01 48.90	322km
INK	46.25	31	ePc	00 48.00	-1.9
	0.4s	18.00nm		4.7mb	
MBC	47.94	19	eP	01 01.00	-1.9
	0.7s	13.00nm		4.3mb	
GUN	48.08	269	P	01 05.50	0.5
KKN	48.57	269	P	01 09.20	0.6
PKI	48.62	269	P	01 09.40	0.4
DMN	48.81	269	P	01 11.10	0.7
GKN	48.89	270	P	01 11.20	0.3
YKC	55.88	33	iPd	02 00.20	-1.2
	0.6s	40.00nm		5.0mb	
KJF	59.38	333	eP	02 23.00	-2.6
PGC	59.65	50	eP	02 28.00	0.4
HYB	60.00	264	eP	02 30.00	-0.4
	0.8s	38.50nm		5.0mb	
SUF	60.92	332	iP	02 33.60	-2.3
	0.4s	8.40nm		4.6mb	
MHI	61.10	294	eP	02 38.00	0.4
RMW	61.24	50	P	02 38.30	-0.1
PNT	61.28	48	eP	02 38.00	-0.5
	0.6s	23.00nm		4.9mb	
LON	61.67	51	P	02 41.00	-0.2
EDM	61.93	41	eP	02 42.00	-0.8
	1.0s	79.00nm		5.2mb	
NUR	63.00	331	iP	02 47.20	-2.3
GBA	63.40	262	Pd	02 51.90	-0.8
	0.4s	9.70nm		4.8mb	
SES	64.86	43	ePc	03 01.20	-0.6
LBFM	64.99	56	P	03 03.50	0.5
WDC	65.10	57	eP	03 04.00	0.6
MIN	65.80	57	eP	03 08.10	0.1
FFC	65.86	35	iPc	03 07.70	-0.3
	0.8s	84.00nm		5.5mb	
ORV	66.37	57	eP	03 11.40	0.0
HFS	66.78	335	eP	03 10.90	-2.8
	0.5s	3.70nm		4.4mb	
BKS	67.02	59	eP	03 16.00	0.5
	0.9s	47.00nm		5.2mb	
NAO	67.04	337	P	03 13.00	-2.2
	1.0s	6.60nm		4.3mb	
PCC	67.18	59	eP	03 16.50	0.1
LRM	67.24	47	eP	03 17.10	0.1
ARN	67.79	59	P	03 20.50	0.2
CMB	68.02	58	eP	03 22.40	0.7
FRB	68.12	15	eP	03 20.00	-1.8
	0.8s	44.00nm		5.2mb	
PRS	68.55	60	eP	03 25.40	0.5
LLA	68.62	59	eP	03 26.00	0.7
KVN	68.69	56	P	03 26.40	0.5
			pP	04 42.00	336km
FRI	69.12	58	eP	03 28.60	0.3
TNP	69.85	56	P	03 33.30	0.3
			pP	04 49.00	335km
ISA	70.74	59	eP	03 38.00	-0.2
BW06	70.84	48	P	03 38.30	-0.6
DUG	70.90	52	P	03 40.00	0.8
CLC	71.16	58	eP	03 41.00	0.3
SBB	71.80	59	eP	03 45.00	0.6
MWC	71.97	59	eP	03 46.00	0.4
MSU	72.43	53	P	03 49.30	1.1
KRA	72.68	326	eP	03 49.10	0.0
TPC	73.26	58	eP	03 53.00	0.1
MLR	73.65	319	ePc	03 56.00	1.0
BAR	73.87	60	eP	03 57.00	0.6
CLL	74.26	330	iPc	03 58.00	-0.2
	0.9s	10.00nm		4.5mb	
GLA	74.72	58	eP	04 02.00	0.8
GOL	75.25	48	P	04 05.30	1.0
ZST	75.29	326	eP	04 04.70	0.6
KHC	75.86	328	iPc	04 08.30	1.0
SCH	76.76	17	eP	04 12.00	-0.1
KBA	77.66	327	iPc	04 17.70	0.3
	0.5s	8.00nm		4.8mb	
ALQ	78.18	52	eP	04 21.50	1.1
	1.0s	17.00nm		4.8mb	
VAY	78.43	319	eP	04 22.30	0.9
SKO	78.44	320	iP	04 22.50	1.0
OHR	79.42	319	eP	04 26.50	-0.2
GAC	82.88	26	ePc	04 44.50	0.1
SIO	82.88	45	eP	04 45.30	0.6
LNO	83.00	44	ePc	04 46.10	0.9
TUL	83.00	44	eP	04 46.60	1.3
	0.7s	36.80nm		5.3mb	
RLO	83.18	44	ePc	04 47.00	0.8
CBM	83.81	21	P	04 49.00	-0.1
FVM	83.85	40	P	04 49.50	0.0
RSNY	84.21	26	P	04 50.00	-1.2
	0.7s	5.83nm		4.5mb	
ELC	84.96	39	P	04 55.80	0.8
BNH	85.14	24	P	04 56.00	0.2
MIM	85.14	22	P	04 55.50	-0.3
RSCP	87.97	38	P	05 09.70	0.0
BLA	88.69	33	P	05 14.00	1.0
	1.0s	40.00nm		5.3mb	
JSC	90.91	35	P	05 23.00	-0.2

S.D. = 1.0 on 110 of 110 obs.

% FEB 04, 1989 07h 00m 45.53± 0.83s
37.698 N ± 6.7km 3.574 W ± 8.2km
DEPTH = 5.0km (geophysicist)

SPAIN (377)

MG 2.6 (MDD).

AFC	0.44	177	iPgc	00 53.70	-0.8
EBAN	0.49	340	iPgd	00 55.70	0.2
			iSg	01 02.80	
EVIA	1.26	42	iPgc	01 08.70	-0.8
			iSg	01 25.20	
ENIJ	1.30	123	ePg	01 11.20	1.1
			eSg	01 27.60	
EHOR	1.33	276	ePn	01 10.80	0.2
			eSn	01 29.00	

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

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* FEB 04, 1989 07h 15m 55.95± 0.77s
30.178 N ±11.1km 90.122 E ± 8.3km
DEPTH = 10.0km (geophysicist)
4.2mb (1 obs.)

TIBET (306)

GUN	4.35	240	P	17 06.20	2.3
KKN	4.86	242	P	17 12.40	1.3
PKI	4.88	239	P	17 11.70	0.2
DMN	5.09	241	P	17 14.10	-0.2
GKN	5.27	247	P	17 16.20	-0.6
LZH	12.92	59	eP	19 04.50	2.1
	2.0s	55.00nm		5.4mb X	
CHG	13.86	143	eP	19 13.60	-1.2
CHTO	13.86	143	e(P)	19 14.00	-0.8
HYB	16.52	222	eP	19 50.90	1.5
			eS	24 38.50	
POO	18.79	236	eP	20 15.00	-2.7
QUE	20.03	276	eP	20 30.50	-1.6
GBA	20.23	218	P	20 35.00	1.0
SNG	24.91	155	eP	21 25.00	4.4X
MHI	26.27	292	eP	21 33.00	-0.3
SUF	51.76	328	iP	25 04.30	-1.1
HFS	57.68	325	eP	25 43.60	-5.0X
	0.4s	0.90nm		4.2mb	
INK	76.63	15	eP	27 48.00	0.0

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

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* FEB 04, 1989 08h 17m 08.08± 1.10s
56.167 N ±14.9km 154.502 W ±12.2km
DEPTH = 33.0km (normal)
4.4mb (1 obs.)

KODIAK ISLAND REGION (13)

ML 4.6 (PMR).

KDC	1.93	34	iPd	17 39.70	0.5
			eS	18 18.00	
SDN	3.49	259	eP	18 01.00	-0.3
SVW	4.99	354	eP	18 29.00	6.3X
PMR	6.11	25	eP	18 36.90	-1.5
TTA	6.83	354	eP	18 56.00	7.5X
FBA	9.36	18	eP	19 23.60	0.0
INK	15.49	30	eP	20 45.00	-0.3
YKC	21.09	56	eP	21 51.00	-0.5
PNT	22.02	93	eP	22 01.00	0.0
	1.0s	17.00nm		4.4mb	
MBC	23.89	20	eP	22 21.00	2.0

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

& FEB 04, 1989 09h 05m 16.61s
61.476 N 150.245 W
DEPTH = 43.8km

SOUTHERN ALASKA (2)

<AGS-P>. ML 3.0 (PMR).

PWA	0.25	45	iP	05 24.29	-0.4
PMS	0.40	125	iP	05 26.06	-0.4
PLRM	0.55	77	iP	05 27.33	-0.8
			iS	05 36.65	
PMR	0.55	77	iPd	05 27.40	-0.7
PME	0.60	75	iP	05 28.21	-0.7
GHO	0.70	64	iP	05 29.55	-0.7

04d 09h

		iS	05	40.87	
PTE	0.85	135 iP	05	31.73	-0.6
		iS	05	44.02	
KNK	0.86	93 iP	05	32.00	-0.5
		iS	05	44.76	
NKA	0.88	214 eP	05	33.54	0.9
SPU	0.92	252 iP	05	32.72	-0.6
CRP	0.94	258 iP	05	33.18	-0.6
		iS	05	46.61	
SLKM	0.97	179 iP	05	33.12	-0.9
SML	0.97	69 iP	05	33.12	-0.9
RDT	1.39	230 iP	05	39.04	-0.9
		iS	05	56.51	
SEW	1.43	164 eP	05	38.91	-1.5
NNL	1.53	200 eP	05	42.11	0.2
RED	1.63	230 eP	05	42.52	-0.8
VZW	1.83	102 iP	05	44.74	-1.5
VLZ	1.92	99 iP	05	45.73	-1.6
		iS	06	09.54	
ILIM	1.93	225 eP	05	46.82	-0.8
CNPM	2.02	195 eP	05	47.50	-1.3
TOA	2.04	70 iP	05	48.79	-0.3
		iS	06	15.46	
KLU	2.08	88 iP	05	47.97	-1.7
HIN	2.12	119 eP	05	48.21	-2.1
MCK	2.34	14 eP	05	52.89	-0.6
CVA	2.38	111 eP	05	54.29	0.3
PDB	2.58	231 eP	05	55.37	-1.5
		eS	06	26.82	
SVW	2.62	264 iP	05	55.71	-1.8
SGAM	2.64	110 eP	05	55.03	-2.7
PAX	2.69	54 eP	05	58.08	-0.5
RAGM	2.93	109 eP	06	02.69	0.8
CDD	3.07	215 eP	06	02.76	-1.0
TTA	3.07	301 iPc	06	01.50	-2.4
HMT	3.14	109 eP	06	01.53	-3.3
FBA	3.61	17 eP	06	09.80	-1.7
WAX	3.75	103 eP	06	10.24	-3.2
KDC	3.91	198 eP	06	15.20	-0.4
CTGM	4.34	93 eP	06	19.96	-2.0
IMA	4.86	343 eP	06	27.30	-1.8
HYT	6.20	90 P	06	45.40	-2.7
INK	9.84	39 eP	07	34.00	-4.3

41 obs. assacioted

? FEB 04, 1989 09h 33m 39.28± 8.70s
51.220 N ±65.5km 19.810 E ±41.5km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 2.7 (KRA).

KRA	1.17	176 ePg	34	00.00	-1.1
		iSg	34	09.60	
SPC	2.05	172 iPn	34	14.40	0.0
		i(Sg)	34	32.00	
KSP	2.25	262 iPg	34	18.70	1.6X
		iS	34	42.00	
PSZ	3.30	179 eP	34	33.00	0.8
ZST	3.50	211 eP	34	35.70	0.9
		e	34	58.60	
VKA	3.73	219 iP	35	12.20	34.1X
0.6s	20.00nm				
		i	35	30.20	
KHC	4.52	245 ePn	34	48.70	-0.6
		ePg	34	55.40	
		Sg	35	40.50	

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

FEB 04, 1989 09h 44m 53.22± 0.49s
24.155 N ± 3.3km 123.305 E ± 3.7km
DEPTH = 53.7 ± 3.9 km
5.1mb (41 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)
Felt (I JMA) on Ishigaki-shima.

ISI	0.81	77 iPd	45	09.50	0.9
		S	45	22.00	
TWC	1.40	289 iPc	45	16.60	-0.2
		eS	45	33.90	
TWD	1.56	268 iPc	45	18.10	-0.9
		eS	45	37.20	
TWZ	1.83	301 ePc	45	23.60	0.8
ANP	1.92	303 iPc	45	24.90	0.7
0.7s	2739.73nm				
		eS	45	42.40	
QZH	4.36	281 Pc	45	57.10	-1.5
		S	46	43.00	
PIP	6.32	204 iPc	46	26.00	0.0
SSE	7.16	345 P	46	37.00	-0.8
		Lg	48	41.50	
NJ2	8.79	334 eP	47	00.00	-0.3
Z	20s	0.70um			
		S	48	32.50	
GZH	9.20	265 P	47	04.50	-1.4
WHN	10.19	311 eP	47	19.50	0.0
Z	14s	1.19um			
		eS	49	10.00	
TIA	13.15	337 eP	48	02.90	3.8X
QIZ	13.52	250 eP	48	13.00	8.9X
PPR	14.95	198 iPc	48	29.00	6.2X
GYA	15.23	282 P	48	32.40	5.9X
		S	51	21.20	
TIY	16.40	328 iPd	48	45.50	4.2X
N	11s	0.40um			
BJI	16.94	341 eP	48	50.00	2.0
SNY	17.63	1 eP	48	57.90	1.4
CD2	18.58	296 eP	49	08.20	-0.2
KMI	18.72	277 Pc	49	11.00	0.7
Z	18s	0.90um			
		eS	51	16.00	
HHC	19.34	332 eP	49	17.00	-0.1
CN2	19.68	5 eP	49	19.40	-1.2
BTO	19.83	329 P	49	22.00	-0.3
LZH	20.57	310 eP	49	30.00	-0.1
1.5s	44.00nm	4.6mb			
MDJ	21.05	13 eP	49	34.00	-0.7
LOE	21.25	256 eP	49	15.80	-21.1X
CHG	23.27	262 iPc	49	58.80	1.9
0.8s	10.45nm	4.3mb			
CHTO	23.27	262 eP	49	58.30	1.4
0.7s	5.24nm	4.1mb X			
		pP	50	12.80	62kmX
GTA	25.00	313 Pc	50	12.80	-0.8
NNT	25.11	247 eP	50	16.00	1.3
PPI	33.05	226 ePd	51	27.00	1.1
GUN	33.75	285 P	51	32.60	0.3
0.8s	42.00nm	5.4mb			
PKI	34.18	284 P	51	35.80	-0.2
0.8s	18.00nm	5.1mb			
KKN	34.29	284 P	51	36.60	-0.2
0.8s	36.00nm	5.4mb			
DMN	34.45	284 P	51	38.00	-0.2
1.0s	52.00nm	5.4mb			
GKN	34.85	285 P	51	41.20	-0.3
WMQ	35.08	313 eP	51	42.90	-0.4
GBA	44.48	265 Pc	53	01.00	-0.2
1.1s	8.80nm	4.5mb			
WB5	45.08	165 eP	53	05.30	-0.6
		i	54	45.80	
WRA	45.13	165 Pd	53	06.00	-0.3
0.9s	14.00nm	4.8mb			
KOD	45.72	261 eP	53	12.00	0.6
POO	46.22	273 iPc	53	15.80	0.8
QIS	47.19	159 eP	53	22.00	-0.6
ASPA	48.64	167 iPc	53	33.70	-0.1
1.1s	15.00nm	4.9mb			
WARB	50.15	176 iPc	53	39.40	-5.9X
0.6s	21.00nm	5.3mb			
MEKA	50.68	186 eP	53	48.40	-1.0
FORR	54.88	175 iPc	54	20.20	-0.3
0.5s	20.00nm	5.4mb			
MHI	55.56	298 iPc	54	26.20	0.5
STK	58.40	162 eP	54	45.00	-0.5
KEV	69.72	338 eP	55	58.00	-1.0
SOD	70.48	336 iP	56	03.50	-0.2
KJF	70.92	333 iP	56	04.80	-1.6
0.6s	15.60nm	5.1mb			
SUF	72.02	331 iP	56	11.90	-1.1
0.6s	13.20nm	5.0mb			
INK	72.52	22 ePc	56	16.10	0.2
0.5s	12.00nm	5.1mb			
MBC	72.86	13 eP	56	17.00	-0.8
NUR	73.41	329 iP	56	20.30	-0.8
IKL	75.85	304 iP	56	34.70	-1.0
UPP	76.90	330 iP	56	40.10	-0.9
VRI	77.41	315 ePd	56	44.50	0.3
MLR	78.06	315 ePd	56	48.00	0.0
ELL	78.53	305 iP	56	50.10	-0.6
HFS	78.53	331 eP	56	49.10	-1.0
0.8s	18.60nm	5.1mb			
NAO	79.42	333 P	56	53.80	-1.1
0.7s	11.00nm	4.9mb			
KRA	79.92	320 eP	56	58.10	0.3
0.8s	33.00nm	5.3mb			
PSZ	80.88	318 eP	57	03.40	0.4
VTS	81.02	313 iP	57	05.00	1.0
KSP	81.65	322 iP	57	07.40	0.5
1.0s	25.00nm	5.2mb			
VAY	81.98	312 iP	57	08.50	-0.3
YKA	82.24	23 P	57	10.50	0.8
YKC	82.29	23 iPc	57	10.00	0.0
0.8s	30.00nm	5.4mb			
SKO	82.47	313 iPc	57	11.50	0.1
0.8s	58.00nm	5.6mb			
CLL	83.23	324 eP	57	15.00	-0.1
1.3s	21.00nm	5.0mb			
OHR	83.28	312 eP	57	14.00	-1.6
KHC	84.01	322 iPc	57	20.00	0.8
1.0s	7.50nm	4.7mb			
VBY	84.82	318 ePd	57	24.40	1.2
GRB3	84.90	322 eP	57	24.40	0.8
1.2s	25.00nm	5.2mb			
GRF	85.04	323 eP	57	24.40	0.1
1.2s	15.00nm	5.0mb			
BHG	85.13	321 iPd	57	25.60	0.9
AVY	85.17	247 eP	57	26.70	1.2
KBA	85.19	320 iPd	57	25.00	-0.3
0.8s	10.00nm	5.0mb			
HVAR	85.20	315 iPd	57	24.70	-0.5
CEY	85.21	318 eP	57	25.30	0.1
VOY	85.39	319 iP	57	25.40	-0.8
MEM	87.32	325 P	57	36.40	1.0
WLF	87.80	325 P	57	38.00	0.3
CDF	87.92	323 eP	57	38.50	0.0
1.0s	12.00nm	5.1mb			
DOU	88.36	326 P	57	41.10	0.7
BSF	88.51	323 eP	57	41.00	-0.4
0.8s	6.40nm	4.9mb			
HAU	88.66	323 eP	57	41.80	-0.2
EDM	88.67	30 ePc	57	43.10	1.2
LSD	89.67	321 P	57	47.46	0.4
FIN	89.76	319 P	57	46.23	-1.0
LPG	89.88	321 eP	57	48.50	0.4
0.8s	25.50nm	5.6mb			
ROB	89.92	320 P	57	47.05	-1.0
RRL	90.20	321 P	57	49.61	0.1
SBF	90.42	319 eP	57	49.90	-0.4
0.9s	11.10nm	5.2mb			
LBF	90.56	323 eP	57	50.60	-0.3
1.0s	10.00nm	5.1mb			
SSF	90.77	324 eP	57	52.60	0.8
1.0s	4.00nm	4.8mb			
SMF	90.84	323 eP	57	52.10	0.0
0.8s	8.50nm	5.2mb			
AVF	91.02	323 eP	57	52.70	-0.2
0.8s	6.70nm	5.1mb			
FRF	91.06	319 eP	57	53.00	-0.2
0.8s	5.30nm	5.0mb			
LMR	91.27	319 eP	57	54.30	0.1
1.0s	8.00nm	5.1mb			
LRG	91.29	320 eP	57	54.40	0.2
0.8s	9.10nm	5.2mb			
BGF	91.43	323 eP	57	54.80	-0.1
1.2s	20.80nm	5.4mb			
SES	91.61	31 eP	57	56.00	0.3
MAF	91.79	323 eP	57	57.10	0.6
0.8s	6.70nm	5.1mb			
FRB	91.90	5 eP	57	56.50	-0.1
FFC	92.37	24 iPc	57	59.80	0.8
0.6s	17.00nm	5.7mb			
CAF	92.88	323 eP	58	02.40	0.8
1.0s	12.00nm	5.3mb			
RJF	92.94	323 eP	58	02.80	1.0
0.8s	8.00nm	5.2mb			
KIC	120.98	294 PKP	03	41.70	-0.4
TIC	121.06	295 PKP	03	41.70	-0.5
LIC	121.29	294 PKP	03	42.50	-0.2

S.D. = 0.8 on 106 of 113 obs.

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* FEB 04, 1989 09h 45m 01.82± 0.78s
43.429 N ± 6.5km 13.011 E ± 7.3km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

ARV	0.09	324 Pc	45	03.50	-0.9
		eSg	45	05.10	
CIO	0.25	157 iPg	45	07.05	-0.2
		iSg	45	12.00	
ASS	0.44	216 P	45	11.00	0.2
		eSg	45	18.00	
AOI	0.45	74 ePg	45	11.11	0.2

		iSg	45 19.12		
RSM	0.64	321 P	45 15.30	0.6	
S.D. = 0.8		on 5 of 5 obs.			

% FEB 04, 1989 10h 44m 59.95± 0.88s
39.119 N ± 7.6km 27.632 E ± 8.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.78	202 ePg	45 15.00	-0.1	
		eSg	45 27.70		
DST	0.91	58 iPn	45 17.60	0.2	
EZN	1.23	305 ePn	45 23.10	0.2	
EDC	1.24	8 ePn	45 22.40	-0.6	
KCT	1.26	26 iPn	45 23.60	0.2	
S.D. = 0.5		on 5 of 5 obs.			

FEB 04, 1989 10h 56m 51.27± 0.30s
37.297 N ± 2.6km 141.154 E ± 3.0km
DEPTH = 68.1 ± 2.5 km
5.2mb (48 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (III JMA) at Mito, Onahama, Fukushima, Shirakawa and Utsunomiya; (II JMA) at Sendai, Ishinomaki, Ofunato, Kumagaya and Yokohama; (I JMA) at Yamagata, Maebashi, Miyako, Morioka and Tokyo.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 9S, 16C
Centroid Location:
Origin Time 10:56:51.9 0.9
Lat 37.51N 0.11 Lon 140.99E 0.10
Dep 39.1 7.8 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 4.50 0.42 Mtt= 0.52 0.44
Mff=-5.03 0.60 Mrt=-1.87 0.67
Mrf=-3.25 0.81 Mtf=-0.93 0.55
Principal Axes:

T	Val= 5.94	Plg=68	Azm=136
N	0.40	11	17
P	-6.34	18	283

Best Double Couple:Mo=6.1*10**16

NP1:Strike=356	Dip=28	Slip= 66
NP2: 202	64	102

ONA	0.40	209 iP+	57 02.40	-0.7	
		S	57 10.70		
FKS	0.71	311 iP+	57 06.10	-0.2	
		S	57 16.70		
SHR	0.76	257 eP	57 00.00	-7.0X	
SEN	0.98	348 iP+	57 08.60	-1.1	
		S	57 20.80		
MIT	1.07	211 iP+	57 10.90	0.1	
		iS	57 25.60		
ISN	1.13	6 iP+	57 10.00	-1.6	
		iS	57 23.50		
YAM	1.15	327 iPd	57 12.00	0.2	
		iS	57 24.30		
YAMJ	1.25	315 iPd	57 12.70	-0.4	
		S	57 28.90		
UTS	1.27	234 iPd	57 13.90	0.4	
		iS	57 30.60		
KAKJ	1.34	216 iP+	57 13.80	-0.6	
NIIJ	1.72	269 iPd	57 20.00	0.4	
OFU	1.82	14 P	57 20.10	-0.8	
		S	57 40.20		
OFUJ	1.83	13 iP+	57 19.00	-2.0	
		eS	57 40.60		
KMG	1.83	232 P	57 21.70	0.7	
		iS	57 44.50		
MAE	1.90	243 eP	57 23.00	1.0	
		S	57 49.00		
TOK	1.96	215 P	57 23.20	0.3	
		S	57 47.00		
CHJJ	2.14	235 P	57 25.50	0.1	
YOK	2.22	214 eP	57 28.00	1.6	
		iS	57 54.80		
MRK	2.40	0 eP	57 00.00	-28.9X	
		S	57 56.70		
MIY	2.43	15 eP	57 30.00	0.6	
		S	57 54.80		
MTMJ	2.78	256 P	57 35.60	1.2	
IIDJ	3.18	236 P	57 41.90	1.9	
		S	58 21.90		

AOMJ	3.31	350 eP	57 41.90	0.1	
TSRJ	4.52	249 P	58 00.70	1.9	
WKYJ	5.46	237 P	58 12.10	0.0	
YONJ	6.56	254 P	58 28.80	1.5	
TKSJ	6.66	242 P	58 29.40	0.7	
SHK	7.41	251 eP	58 34.00	-5.0X	
SHNJ	8.76	252 P	59 01.20	3.6X	
KUMJ	9.72	244 eP	59 10.70	0.0	
KAGJ	10.45	237 eP	59 22.00	1.3	
MDJ	11.39	314 eP	59 34.00	0.8	
		eS	01 35.00		
CN2	13.59	303 eP	00 01.60	-0.7	
Z	20s	1.80um			
N	12s	0.50um			
		pP	00 08.60		
		eS	02 29.00		
SNY	14.29	294 Pc	00 11.80	0.4	
Z	20s	2.90um			
N	17s	1.40um			
E	20s	2.10um			
DL2	15.46	282 Pd	00 27.00	0.5	
SSE	17.63	255 eP	00 53.00	-0.7	
Z	20s	1.40um			
N	15s	0.80um			
		epP	01 05.00		
		e	01 18.00		
		eS	04 12.00		
		esS	04 31.00		
NJ2	19.06	261 eP	01 07.50	-3.4X	
TIA	19.28	274 eP	01 10.60	-2.6	
Z	28s	1.30um			
		S	04 40.00		
BJI	19.68	286 eP	01 15.00	-2.4	
		sP	01 32.00		
		eS	05 12.00		
TIY	22.75	280 eP	01 46.10	-2.4	
E	17s	1.50um			
		S	05 53.00		
HHC	23.19	288 eP	01 52.20	-0.6	
WHN	23.19	261 eP	01 52.50	-0.2	
Z	20s	1.27um	4.4Msz		
		eS	05 58.00		
PJG	23.84	171 e(P)	02 06.50	7.4X	
GUMO	23.84	171 e(P)	02 06.00	6.9X	
	1.1s	244.99nm	5.6mb		
GUA	23.90	171 e(P)	02 08.70	9.1X	
BTO	24.37	287 P	02 04.50	0.3	
XAN	26.32	273 P	02 21.60	-0.8	
GZH	27.77	247 iPd	02 35.50	-0.1	
LZH	29.82	279 eP	02 53.00	-1.1	
	2.0s	110.00nm	5.2mb		
Z	18s	1.00um	4.5Msz		
GYA	31.06	260 P	03 03.60	-1.5	
		S	08 02.00		
CD2	31.47	270 eP	03 07.50	-1.0	
GTA	32.29	287 Pc	03 14.60	-1.1	
Z	24s	1.10um	4.5MszX		
		PcP	06 02.70		
		ScS	13 38.40		
KMI	34.80	261 Pd	03 37.00	-0.6	
Z	22s	0.90um	4.5Msz		
		eS	08 14.00		
LOE	39.87	251 eP	04 18.80	-1.1	
WMQ	40.54	297 iPd	04 26.20	0.9	
		S	10 33.00		
CHTO	41.16	255 eP	04 30.90	0.4	
	0.9s	2.98nm	4.1mb X		
LSA	41.98	275 P	04 34.10	-3.6X	
NNT	44.40	247 iPd	04 57.70	0.8	
SVW	45.42	37 eP	05 05.70	1.1	
IMA	46.57	31 eP	05 14.00	0.3	
	1.0s	8.80nm	4.6mb		
GUN	46.92	275 P	05 17.50	0.2	
KDC	47.09	42 eP	05 17.20	-0.6	
PKI	47.45	275 P	05 21.30	-0.1	
SNG	47.45	241 eP	05 22.30	1.2	
KKN	47.45	275 P	05 21.50	0.2	
DMN	47.67	275 P	05 23.00	-0.1	
GKN	47.87	276 P	05 24.50	0.0	
PMR	48.54	37 eP	05 28.50	-0.5	
	0.8s	22.30nm	5.2mb		
FBA	48.99	32 ePd	05 32.80	0.4	
KGM	49.42	234 ePd	05 37.00	0.7	
KSH	50.13	294 eP	05 41.00	-0.6	
MTN	50.76	193 iPd	05 45.70	-0.7	
PSI	51.83	239 eP	05 54.00	-0.6	
INK	54.25	27 ePd	06 11.40	-0.5	

		pP	06 21.00	31kmX	
MBC	56.33	16 eP	06 26.00	-0.9	
	0.6s	5.00nm	4.7mb		
WB5	57.23	188 iPc	06 32.00	-1.8	
CTA	57.28	174 eP	06 33.00	-1.1	
WRA	57.29	188 Pd	06 32.10	-2.1	
	1.4s	75.00nm	5.6mb		
QIS	57.56	182 eP	06 34.00	-2.1	
HYB	58.00	268 ePc	06 38.50	-1.0	
	0.8s	30.80nm	5.5mb		
QUE	60.67	287 eP	06 57.80	-0.1	
ASPA	61.02	188 iPc	06 58.80	-1.1	
	1.3s	45.00nm	5.4mb		
GBA	61.03	265 Pc	06 58.60	-1.6	
	0.8s	34.30nm	5.5mb		
MBL	61.52	203 eP	07 02.00	-1.3	
KOD	62.97	262 eP	07 13.00	-0.6	
KEV	63.12	339 eP	07 18.00	4.5X	
MHI	63.32	297 eP	07 15.00	-0.4	
DZM	63.68	154 iPd	07 18.20	0.5	
YKA	63.69	30 P	07 16.80	-0.5	
RMQ	63.85	172 eP	07 18.00	-0.7	
		e	07 33.00		
NANU	64.25	206 iPd	07 21.00	-0.3	
	0.6s	13.00nm	5.1mb		
WARB	64.60	194 iPd	07 17.90	-5.7X	
	0.7s	45.00nm	5.5mb		
SOD	64.64	337 iP	07 21.40	-2.0	
BRS	65.27	169 iPd	07 27.60	-0.2	
		i	07 42.50		
KJF	66.19	334 iP	07 33.00	-0.4	
	0.7s	36.00nm	5.4mb		
MEKA	67.03	202 eP	07 38.00	-1.2	
SUF	67.66	333 iP	07 41.80	-0.9	
	0.5s	16.20nm	5.2mb		
CMS	68.57	176 eP	07 49.00	0.4	
STK	68.82	180 eP	07 50.00	-0.1	
EDM	69.27	38 iPd	07 52.50	-0.4	
NUR	69.62	332 iP	07 54.00	-0.8	
	0.5s	22.50nm	5.4mb		
LBFM	71.07	52 P	08 04.50	0.2	
		pP	08 20.50	58kmX	
WDC	71.08	53 e(P)	08 04.50	0.4	
		epP	08 29.30	96kmX	
SES	72.09	40 ePd	08 10.00	0.0	
		pP	08 25.00	53kmX	
ORV	72.31	54 eP	08 11.10	-0.3	
		epP	08 26.10	53kmX	
FFC	73.60	33 iPd	08 18.60	0.0	
	0.7s	13.00nm	5.0mb		
HFS	73.76	336 eP	08 18.80	-0.7	
	0.9s	23.40nm	5.1mb		
CMB	73.89	54 eP	08 21.10	0.4	
		epP	08 36.20	54kmX	
LRM	74.10	44 eP	08 22.40	0.3	
		e	08 37.20		
NAO	74.15	337 P	08 21.20	-0.5	
	0.9s	26.70nm	5.2mb		
PRS	74.21	56 eP	08 23.90	1.4	
		epP	08 37.80	49kmX	
KVN	74.76	52 P	08 26.00	0.1	
		pP	08 41.50	55kmX	
PRI	74.79	56 eP	08 27.00	1.0	
FRI	74.93	55 eP	08 26.90	0.3	
		epP	08 41.90	53kmX	
TNP	75.89	53 P	08 32.70	0.3	
		pP	08 46.00	46kmX	
FRB	76.57	13 eP	08 35.00	-0.4	
BW06	77.62	45 P	08 41.30	-0.7	
	0.7s	7.31nm	4.7mb		
VRI	78.39	320 ePd	08 46.00	0.2	
KRA	78.76	326 iPd	08 48.10	0.4	
	0.8s	47.00nm	5.5mb		
		e	08 58.60		
MSU	78.77	50 P	08 49.30	1.0	
		pP	09 04.50	54kmX	
BBTK	78.97	312 iPd	08 50.00	0.8	
MLR	79.05	320 ePc	08 50.00	0.4	
SPC	79.25	325 eP	08 51.90	1.3	
KSP	79.77	328 iPd	08 53.80	0.6	
PSZ	80.32	324 iP	08 57.00	0.7	
CLL	80.76	330 iPd	08 58.00	-0.4	
	1.2s	41.00nm	5.2mb		
		ipP	09 13.30	54kmX	
SRO	81.13	325 eP	09 01.60	1.2	
BZS	81.15	322 eP	09 01.00	0.5	
ZST	81.39	326 eP	09 02.10	0.4	

04d 11h

MOX	81.83	330	ePd	09	03.50	-0.5
	1.7s	55.00nm			5.2mb	
GOL	82.02	46	P	09	06.00	0.4
KHC	82.21	328	iPd	09	07.00	0.9
			e	09	22.00	
BHG	83.60	328	iPd	09	14.20	1.0
	1.1s	57.00nm			5.5mb	
VAY	83.71	318	eP	09	14.50	0.6
SKO	83.84	319	iPc	09	15.20	0.7
	1.5s	96.00nm			5.6mb	
			i	09	30.00	
KBA	83.90	327	eP	09	14.50	-0.4
	0.8s	13.80nm			5.0mb	
			ic	09	15.90	
			i	09	30.80	
FUR	83.92	329	iPd	09	15.90	1.1
	1.0s	69.00nm			5.6mb	
MEM	83.98	333	P	09	15.60	0.6
VBY	84.25	325	eP	09	17.20	0.7
RBL	84.29	327	Pd	09	16.00	-0.8
CEY	84.45	326	eP	09	17.00	-0.5
ALQ	84.58	50	eP	09	18.90	0.3
	1.1s	14.87nm			4.9mb	
			e	09	35.00	
SNF	84.68	334	P	09	19.40	0.9
WLF	84.71	333	Pc	09	20.20	1.5
			e	09	34.40	
GWF	84.72	331	P	09	19.16	0.3
OHR	84.80	319	iP	09	19.10	-0.3
DOU	84.91	334	P	09	20.00	0.3
CDF	85.32	331	P	09	21.98	0.1
FEL	85.47	330	P	09	22.50	-0.2
MOF	85.83	331	P	09	24.18	-0.3
VITF	85.97	332	P	09	25.02	0.0
BSF	85.98	331	P	09	24.70	-0.5
HAU	86.01	331	iPd	09	25.60	0.3
	0.7s	14.10nm			5.2mb	
VAI	86.79	329	P	09	28.00	-1.0
PGD	87.11	326	Pc	09	31.70	0.8
LOR	87.55	332	iPd	09	32.90	0.1
	1.2s	41.60nm			5.5mb	
LBF	87.75	332	iPd	09	33.80	0.1
	0.9s	8.10nm			4.9mb	
FLN	87.79	336	eP	09	34.20	0.4
	0.6s	10.80nm			5.2mb	
LDF	87.81	335	eP	09	34.30	0.3
	0.8s	13.40nm			5.2mb	
SSF	87.86	333	iPd	09	34.40	0.2
	0.9s	13.10nm			5.1mb	
LPG	87.91	330	iPd	09	35.10	0.2
	0.8s	14.70nm			5.2mb	
SMF	88.08	332	iPd	09	35.70	0.4
	1.0s	16.80nm			5.2mb	
AVF	88.14	332	iPd	09	36.00	0.4
	1.0s	32.00nm			5.4mb	
GRR	88.23	336	eP	09	36.60	0.6
	1.0s	44.00nm			5.6mb	
BGF	88.52	333	eP	09	37.90	0.5
	1.0s	12.00nm			5.1mb	
LPF	88.61	336	eP	09	38.40	0.6
	0.8s	24.10nm			5.5mb	
MAF	88.91	333	eP	09	40.30	1.0
	1.0s	18.00nm			5.3mb	
TCF	88.99	333	eP	09	40.10	0.4
LSF	89.26	333	iPd	09	41.30	0.3
	0.6s	6.30nm			5.0mb	
MEO	89.32	45	eP	09	41.50	0.0
MFF	89.55	334	eP	09	42.80	0.5
	0.8s	8.00nm			5.0mb	
LRG	89.75	329	eP	09	43.10	-0.1
	1.0s	9.60nm			5.0mb	
LMR	89.79	329	eP	09	43.20	-0.2
	1.0s	12.00nm			5.1mb	
LNO	90.05	43	eP	09	45.00	0.4
TUL	90.04	43	eP	09	45.50	0.7
	1.2s	8.20nm			4.9mb	
RJF	90.08	333	iPd	09	45.60	0.8
	0.8s	6.40nm			4.9mb	
CAF	90.20	332	iPd	09	46.50	1.1
	1.0s	10.80nm			5.1mb	
RLO	90.27	42	eP	09	46.30	0.5
LFF	90.67	333	iPd	09	48.50	1.0
	0.8s	14.50nm			5.4mb	
LPO	90.73	333	iPd	09	48.80	1.0
	1.0s	8.00nm			5.0mb	
GAC	91.03	25	eP	10	05.00	15.9X
BUL	119.59	266	PKP	15	28.50	-6.8X
TIC	126.07	317	PKPc	15	47.40	-0.4
KIC	126.15	316	PKPc	15	47.50	-0.5
LIC	126.42	317	PKP	15	46.20	-2.3X
ZOBO	146.73	59	iPKPd	16	28.50	2.3X
	Z 22s		0.16um		4.8Msz	
			LR	07	20.00	
LPB	146.93	59	PKPd	16	25.90	-0.5
	1.1s	45.57nm				
			i	16	46.00	
			LR	23	15.00	
CNCB	147.20	59	iPKPd	16	29.00	2.0
			i	16	47.30	
LCCH	153.13	92	ePKP	16	40.00	5.2X
LNV	153.39	93	ePKP	16	43.50	8.4X
JACH	153.66	89	ePKP	16	44.50	8.8X
PEL	153.73	91	iPKPd	16	44.50	8.8X
	S.D. = 0.9	on 173 of 192 obs.				

FEB 04, 1989 12h 12m 58.91± 1.06s
12.730 N ± 5.7km 124.477 E ±11.8km
DEPTH = 104.5 ± 10.6 km
4.9mb (12 obs.)
SAMAR, PHILIPPINE ISLANDS (251)

BAG	5.26	315	eP	14	15.00	-1.7
			eS	15	10.30	
CVP	5.57	333	eP	14	20.50	-0.3
DAV	5.71	169	eP	14	25.50	2.7
PIP	6.69	327	iPd	14	36.00	-0.2
SSE	18.53	351	eP	17	09.30	-0.8
WHN	20.05	334	eP	17	25.50	-0.5
GYA	21.60	312	P	17	44.00	2.2
TRT	23.46	211	ePd	18	02.10	2.2
	0.6s	54.50nm			5.1mb	
CHTO	25.29	287	eP	18	15.80	-1.6
	0.7s	1.27nm			3.5mb X	
XAN	25.50	329	P	18	18.60	-0.6
MTN	26.25	165	eP	18	25.00	-1.2
			e	18	32.00	
			e	18	41.00	
CD2	26.32	317	eP	18	26.80	0.0
TIY	27.11	339	eP	18	34.30	0.4
BJI	28.17	346	eP	18	43.50	0.2
SNY	29.00	359	eP	18	50.50	-0.3
HHC	30.22	340	eP	19	02.20	0.5
CN2	30.97	1	eP	19	07.80	-0.4
MDJ	32.08	7	eP	19	19.00	1.2
WB5	33.84	163	iPd	19	31.70	-1.6
			eS	24	41.90	
WRA	33.89	163	Pc	19	32.50	-1.3
	0.6s	6.40nm			4.6mb	
GTA	34.37	325	P	19	38.20	0.3
QIS	36.27	156	eP	19	52.00	-2.0
ASPA	37.33	166	iPc	20	02.10	-0.8
	0.6s	37.00nm			5.5mb	
			eS	25	37.70	
WARB	38.74	177	iPc	20	08.10	-6.5X
	0.5s	24.00nm			5.3mb	
PKI	39.35	298	P	20	04.00	-16.2X
MEKA	39.53	188	eP	20	21.00	-0.2
FORR	43.47	175	iPc	20	51.70	-1.6
	0.4s	9.00nm			4.9mb	
RMQ	45.57	149	eP	21	10.00	-0.2
GBA	45.76	277	P	21	13.00	1.1
	0.8s	1.70nm			3.9mb	
STK	47.29	160	eP	21	23.00	-0.7
BRS	48.42	146	iPc	21	32.20	-0.3
			i(pP)	21	45.00	47kmX
			i	23	25.00	
CMS	48.50	155	iPc	21	33.70	0.6
ADE	49.32	165	iPc	21	40.00	0.6
	0.6s	46.67nm			5.6mb	
COO	50.49	149	iPd	21	49.50	1.1
BWA	52.12	155	eP	22	01.70	1.0
CAN	53.13	155	eP	22	08.00	-0.1
SOD	81.35	337	iP	25	05.80	0.9
KJF	81.57	334	iP	25	06.40	0.4
	0.5s	11.20nm			4.9mb	
SUF	82.58	333	iP	25	11.60	0.3
	0.4s	5.50nm			4.8mb	
INK	82.66	22	eP	25	13.00	1.4
MBC	83.71	12	eP	25	18.00	1.1
	0.7s	9.00nm			4.8mb	
NUR	83.81	331	iP	25	17.80	0.2
HFS	89.07	332	eP	25	42.30	-1.0
	0.5s	2.80nm			4.6mb	
NAO	90.05	333	P	25	47.00	-0.9
	0.8s	2.70nm			4.4mb	
	S.D. = 1.1	on 42 of 44 obs.				

% FEB 04, 1989 12h 18m 50.25± 0.89s
39.258 N ± 7.9km 27.766 E ± 8.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.75	62	ePn	19	04.60	-0.4
IZM	0.94	205	ePn	19	08.40	0.1
EDC	1.09	4	iPn	19	10.40	-0.3
KCT	1.09	25	iPn	19	11.50	0.8
EZN	1.25	297	ePn	19	13.30	-0.1
	S.D. = 0.7	on 5 of 5 obs.				

FEB 04, 1989 12h 26m 58.19± 0.40s
36.835 N ± 4.9km 113.000 W ± 4.4km
DEPTH = 5.0km (geophysicist)
WESTERN ARIZONA (42)
ML 3.2 (NEIS).

CCU	0.84	356	P	27	14.84	-0.2
			S	27	25.87	
DLM	1.59	300	eP	27	27.50	0.3
PRN	1.73	290	eP	27	29.90	0.6
NPN	1.75	298	eP	27	29.60	0.1
WMZ	1.76	162	P	27	29.50	-0.3
			S	27	51.50	
MSU	1.80	21	eP	27	30.90	0.6
SCN	1.88	141	P	27	31.00	-0.5
			S	27	55.00	
FLAG	2.00	146	P	27	33.50	0.3
			S	27	58.20	
SPRG	2.26	267	eP	27	37.30	0.4
NOP	2.64	255	eP	27	42.80	0.6
KRNA	2.84	290	eP	27	44.90	-0.4
DUG	3.36	2	e(P)	27	56.00	3.5X
TNP	3.58	292	e(P)	27	55.30	-0.4
KVN	4.60	300	eP	28	09.00	-1.2
ALQ	5.64	108	e(Pn)	28	25.00	0.1
	S.D. = 0.6	on 14 of 15 obs.				

FEB 04, 1989 13h 42m 58.53± 1.02s
30.707 S ± 6.0km 71.962 W ± 9.8km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

RTRS	2.23	77	iPd	43	33.50	-0.3
JACH	2.29	150	iP	43	35.00	0.2
			iS	44	03.50	
ROCH	2.40	161	iP	43	03.68	-32.9X
PEL	2.66	156	iPc	43	40.10	0.0
			iS	44	17.50	
LCCH	2.78	173	iPc	43	41.50	-0.2
			iS	44	13.00	
RTCB	2.82	107	ePd	43	42.00	-0.4
			S	44	17.00	
SAN	2.95	158	eP	43	44.00	-0.2
			iS	44	19.50	
RTLL	3.06	103	ePd	43	45.00	-0.8
			S	44	23.00	
TACH	3.06	164	iP	43	45.50	-0.3
			iS	44	22.50	
RTCV	3.15	112	iPc	43	47.90	0.9
LNV	3.27	172	eP	43	48.50	-0.2
CFA	3.32	107	ePc	43	49.00	-0.4
MDZ	3.42	130	eP	43	52.30	1.3
			iS	44	41.00	
ZOBO	14.79	15	P	46	28.00	0.3
	S.D. = 0.6	on 13 of 14 obs.				

FEB 04, 1989 13h 46m 08.06± 0.36s
30.144 N ± 5.5km 90.115 E ± 3.9km
DEPTH = 10.0km (geophysicist)
3.8mb (1 obs.)
TIBET (306)

LSA	1.00	116	iPgc	46	26.70	-0.6
			Sg	46	41.00	
GUN	4.33	240	P	47	17.20	1.5
KKN	4.84	242	P	47	23.20	0.3
PKI	4.86	239	P	47	23.60	0.3
DMN	5.07	241	P	47	26.20	0.1
GKN	5.25	247	P	47	27.60	-1.0
NDI	11.34	266	eP	48	37.00	-16.2X
			eS	50	49.80	
GTA	12.20	38	eP	49	05.20	0.3

E 10s 0.90um
WMO 13.79 353 eP 49 25.30 -0.6
CHG 13.84 143 eP 49 26.40 -0.3
CHTO 13.84 143 eP 49 26.80 0.2
1.0s 1.50nm 3.8mb
e 49 35.40
GYA 15.03 100 P 49 42.80 0.5
XAN 16.40 71 P 50 00.60 0.7
BTO 19.25 52 eP 50 35.30 -0.1
TIY 19.97 62 eP 50 42.30 -1.1
N 10s 0.70um
GBA 20.20 218 P 50 45.00 -0.8
HHC 20.42 53 eP 50 49.40 1.3
WHN 20.91 83 eP 50 53.00 -0.1
BJI 23.43 58 (P) 51 22.50 4.5X
MHI 26.27 292 eP 51 45.00 -0.4
S.D. = 0.8 on 18 of 20 obs.

FEB 04, 1989 14h 19m 08.06± 0.95s
47.070 N ± 5.2km 0.912 W ± 9.1km
DEPTH = 21.1 ± 4.4 km
FRANCE (538)
ML 3.9 (LDG). MD 3.7 (DDU).

MFF 0.70 131 Pg 19 22.20 0.7
Sg 19 31.60
LPF 0.97 355 Pg 19 25.20 -0.8
Sg 19 37.20
GRR 1.32 2 P 19 31.80 0.5
Sg 19 48.40
LDF 1.61 19 Pg 19 37.30 1.7
Sg 19 56.80
LSF 1.87 115 Pn 19 40.30 1.0
Pg 19 43.20
Sg 20 07.30
TCF 2.29 109 Pn 19 46.20 0.9
Pg 19 50.20
Sg 20 19.00
LFF 2.42 151 Pg 19 53.30 6.2X
Sg 20 27.00
HYF 2.43 84 Pn 19 48.90 1.6
Pg 19 54.00
Sg 20 24.70
RJF 2.44 135 Pn 19 48.20 0.7
Pg 19 52.70
Sg 20 23.80
MAF 2.54 108 Pn 19 49.60 0.7
Pg 19 55.50
Sg 20 26.80
BGF 2.63 100 Pn 19 50.80 0.6
Pg 19 57.20
Sg 20 29.00
LPO 2.80 148 Pn 19 53.30 0.8
Pg 20 00.00
Sg 20 37.00
AVF 2.94 94 Pn 19 54.50 0.1
Pg 20 02.10
Sg 20 37.40
CAF 2.98 135 Pn 19 56.00 0.9
Pg 20 04.30
Sn 20 29.60
Sg 20 43.40
SSF 3.02 89 Pn 19 55.60 0.0
Pg 20 03.70
Sg 20 40.20
LOR 3.26 85 Pn 19 58.70 -0.4
Pg 20 08.60
Sg 20 48.20
SMF 3.29 96 Pn 19 59.30 -0.2
Pg 20 09.60
Sg 20 48.60
LBF 3.35 90 Pn 19 59.90 -0.4
Pg 20 10.10
Sg 20 50.80
EPF 4.14 167 Pn 20 10.80 -0.8
Pg 20 25.80
Sn 20 57.30
Sg 21 18.60
DOU 4.75 48 iPd 20 19.10 -1.0
i 20 21.00
iS 21 10.10
SNF 4.86 43 iP 20 40.00 18.2X
HAU 5.01 77 Pn 20 23.20 -0.6
Pg 20 41.80
Sg 21 44.00
BSF 5.28 79 Pg 20 47.30 19.5X
Sg 21 52.30
WLF 5.38 59 iP 20 30.50 1.5
LPL 5.52 104 Pn 20 30.20 -1.1
LPG 5.54 104 Pn 20 30.20 -1.5
CDF 5.68 73 Pg 20 53.60 20.1X
S.D. = 1.0 on 23 of 27 obs.

FEB 04, 1989 14h 23m 39.46± 0.81s
19.416 S ± 5.7km 179.587 W ± 3.5km
DEPTH = 450.6 ± 9.3 km
5.3mb (26 obs.)
FIJI ISLANDS REGION (181)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 27C
Centroid Location:
Origin Time 14:23:51.5 0.4
Lat 19.64S 0.04 Lon 179.88W 0.03
Dep 508.7 2.0 Half-durotion 3.1
Moment Tensor; Scale 10**17 Nm
Mrr= 0.37 0.11 Mtt=-2.20 0.21
Mff= 1.83 0.19 Mrt= 1.65 0.19
Mrf=-1.29 0.20 Mtf=-5.50 0.16
Principal Axes:
T Val= 6.35 Plg=19 Azm= 54
N -0.25 70 252
P -6.11 6 146
Best Double Couple:Mo=6.2*10**17
NP1:Strike=192 Dip=73 Slip= 9
NP2: 99 81 163

AFI 9.27 55 eP 25 49.00 -1.4
S 27 20.00
PVC 11.60 276 iP 26 22.70 6.9X
DZM 13.33 256 iPd 26 36.10 1.6
iS 29 00.90
KRP 18.93 192 P 27 33.00 2.2
HNR 22.14 294 eP 28 04.00 2.5
WEL 22.33 191 eP 28 02.00 -1.0
eS 31 40.00
MSZ 27.25 200 eP 28 39.30 -7.9X
e 30 13.20
e 30 18.90
COO 28.06 241 iPd 28 55.30 0.7
AFR 28.32 91 iP 28 56.60 -0.2
1.0s 150.00nm 5.4mb
PAE 28.49 91 iP 28 58.20 -0.1
1.0s 60.00nm 5.0mb
PPT 28.51 91 iP 28 58.30 -0.2
1.0s 115.00nm 5.3mb
TVO 28.78 92 iP 29 02.00 1.0
1.0s 105.00nm 5.2mb
RMO 29.93 250 iPc 29 11.40 0.5
e 29 13.00
e 30 36.00
PMO 30.56 87 iP 29 16.10 -0.2
1.0s 130.00nm 5.3mb
VAH 30.76 87 iP 29 17.90 -0.2
1.0s 105.00nm 5.2mb
TPT 30.83 87 iP 29 18.40 -0.2
1.0s 150.00nm 5.4mb
RUV 31.01 87 iP 29 19.90 -0.3
1.0s 165.00nm 5.4mb
CNB 31.63 234 iPd 29 27.40 1.9
e 29 29.70
CAN 31.91 234 eP 29 28.30 0.5
i 29 30.20
BWA 32.04 236 eP 29 28.00 -1.0
CTA 32.12 263 iPc 29 30.00 0.3
0.9s 152.10nm 5.4mb
iS 34 08.00
i 36 48.00
CMS 33.32 242 iPd 29 40.00 0.3
e 29 42.00
PMG 33.65 282 iPd 29 43.50 0.9
0.8s 128.36nm 5.4mb
TOO 35.36 232 eP 29 57.00 0.2
TAU 36.38 223 eP 30 05.00 -0.1
STK 36.94 243 eP 30 10.00 0.1
e 30 14.00
QIS 38.30 261 iPc 30 21.20 0.1
RKT 41.62 103 iP 30 49.00 0.9
1.0s 40.00nm 4.8mb
WB5 43.26 261 eP 30 59.80 -1.4
eS 36 51.90
WRA 43.28 261 Pd 31 00.10 -1.2
0.8s 20.90nm 4.6mb
ASPA 43.33 256 iPc 31 01.00 -0.7
0.7s 259.00nm 5.8mb
epP 32 57.60 715kmX
iS 36 50.30
eScS 40 10.90
MTN 47.66 270 eP 31 34.00 -1.4
GUA 47.90 310 eP 31 37.00 -0.1
0.8s 292.54nm 5.8mb
GUMO 47.96 310 eP 31 37.80 0.2
0.8s 175.70nm 5.5mb
PJG 47.96 310 eP 31 37.30 -0.3
FORR 48.33 246 iPc 31 38.80 -1.4
0.5s 63.00nm 5.3mb
KNA 49.23 266 eP 31 45.00 -2.2
WARB 49.74 252 iPc 31 43.60 -7.4X
0.4s 28.00nm 5.0mb
MBL 56.54 257 eP 32 38.40 -1.6
MEKA 56.94 250 eP 32 40.70 -2.0
NANU 60.24 255 iPc 33 03.90 -1.1
0.6s 71.00nm 5.3mb
CHJJ 67.67 325 P 33 51.00 -1.0
IIDJ 67.85 323 P 33 53.40 0.2
SPA 70.70 180 iPd 34 09.10 -1.0
0.9s 72.73nm 5.3mb
e 34 28.50
SSE 75.85 311 eP 34 39.00 -0.7
1.0s 12.00nm 4.5mb
eS 43 44.00
esS 44 24.00
BLP 77.74 46 P 34 50.60 0.6
SYP 78.01 47 eP 34 52.00 0.4
GCC 78.07 44 eP 34 51.80 0.1
PRS 78.08 45 eP 34 52.20 0.4
PCC 78.10 43 eP 34 52.00 0.2
SAO 78.28 44 e(P) 34 52.80 -0.1
BCH 78.30 46 P 34 53.40 0.3
BRK 78.39 43 e(P) 34 53.30 -0.1
BKS 78.41 43 eP 34 53.70 0.2
1.0s 109.00nm 5.4mb
i 34 55.70
PRI 78.44 45 eP 34 54.50 0.6
MHC 78.48 44 eP 34 54.40 0.3
LLA 78.53 45 e(P) 34 54.50 0.3
ARN 78.56 44 P 34 54.70 0.3
ABL 78.71 47 P 34 59.30 3.9X
MDJ 78.78 326 eP 34 56.50 1.2
PAS 79.05 48 eP 34 57.00 0.0
MWC 79.17 48 eP 34 58.00 0.1
BAR 79.35 50 eP 35 00.00 1.4
RVR 79.53 48 eP 35 01.00 1.5
FRI 79.56 45 eP 34 59.50 0.0
PLM 79.56 49 P 35 11.00 11.1X
SBB 79.58 48 eP 35 00.00 0.1
PEC 79.63 49 P 34 59.50 -0.6
CMB 79.70 44 ePc 35 00.40 0.0
WDC 79.81 40 ePc 35 01.10 0.3
ORV 79.85 42 ePc 35 01.10 0.0
KDC 80.12 14 ePc 35 01.50 -0.5
MIN 80.25 41 eP 35 03.30 0.0
CLC 80.34 47 eP 35 05.00 1.2
SNY 80.42 321 eP 35 04.10 0.2
TPC 80.53 49 eP 35 05.00 0.2
CN2 80.54 323 eP 35 04.50 0.0
LBFM 80.66 40 P 35 06.00 0.5
GLA 80.87 50 eP 35 07.00 0.4
KVN 81.75 44 P 35 11.00 -0.1
pP 36 30.00 341kmX
TNP 81.81 45 P 35 11.30 -0.2
pP 36 32.00 349kmX
SVW 82.53 11 eP 35 13.50 -0.9
AIA 82.54 157 eP 35 13.10 -1.3
LON 83.91 36 P 35 21.00 -0.6
BJI 84.08 316 eP 35 23.00 0.5
i 37 16.50
PGC 84.18 34 eP 35 23.00 0.2
PMR 84.32 14 iPc 35 22.30 -0.9
0.8s 41.10nm 5.2mb
RMW 84.33 35 P 35 23.50 -0.2
MSU 85.44 47 P 35 29.50 -0.1
TIY 85.45 312 eP 35 30.60 1.2
Z 20s 0.60um 5.0Msz
S 45 12.00
XAN 86.29 308 P 35 34.50 1.0
PNT 86.60 35 ePc 35 34.00 -0.6
0.9s 64.00nm 5.4mb
IMA 87.44 10 eP 35 37.40 -1.0
1.2s 23.40nm 4.8mb
FBA 87.52 13 iPc 35 37.00 -1.6

04d 14h

HHC	87.53	315	eP	35	41.00	1.6
ALQ	87.90	52	eP	35	41.00	-0.4
	1.0s	25.00nm			5.0mb	
CHG	88.47	290	eP	35	45.80	1.7
CHTO	88.47	290	eP	35	44.30	0.3
LRM	88.84	40	eP	35	45.50	0.0
BW06	89.21	44	P	35	46.20	-1.1
	1.0s	35.00nm			5.2mb	
GOL	90.70	48	P	35	54.00	-0.2
LZH	90.93	308	eP	35	54.50	-0.7
SES	91.89	37	eP	35	59.00	-0.2
EDM	92.02	33	ePc	35	57.60	-2.1
INK	93.63	16	eP	36	06.00	-0.7
GTA	95.13	310	eP	36	14.00	-0.4
YKA	96.16	25	P	36	18.00	-0.3
KJF	131.62	344	ePKP	42	01.00	0.3
BUL	131.95	217	ePKP	42	01.90	-1.0
			iSKP	44	44.00	
SUF	133.24	344	iPKP	42	03.60	-0.3
	0.7s	3.70nm				
NAO	137.98	352	PKP	41	58.40	-14.5X
	1.2s	10.70nm				
HFS	138.23	350	ePKP	42	03.10	-10.3X
	0.5s	2.00nm				
EKA	144.04	3	PKP	42	21.00	-2.7X
	1.5s	121.30nm				
LWI	144.78	235	iPKPc	42	28.30	1.8
DMU	145.12	8	ePKP	42	24.00	-1.6
	0.8s	79.00nm				
DCN	145.62	8	ePKP	42	23.50	-2.9X
KRA	145.69	338	ePKP	42	26.00	-0.7
DLE	145.77	7	ePKP	42	26.40	-0.3
	0.7s	68.00nm				
VRI	145.85	327	ePKPd	42	27.50	0.4
KSP	146.21	342	ePKP	42	28.00	0.5
	1.1s	58.00nm				
			e	43	47.40	
			e	44	26.70	
SPC	146.29	336	ePKP	42	30.20	2.3X
IKL	146.35	307	ePKP	42	28.00	-0.2
ETA	146.39	7	PKP	42	30.00	2.3X
	0.8s	55.00nm				
MLR	146.51	327	ePKPd	42	31.00	2.7X
CLL	146.66	346	iPKP	42	29.00	0.8
	0.8s	37.00nm				
WTS	147.10	353	ePKP	42	30.50	1.7
	1.2s	78.00nm				
PSZ	147.46	335	ePKP	42	32.00	2.3X
MOX	147.59	347	ePKP	42	32.00	2.3X
	1.4s	39.00nm				
CTT	147.76	318	ePKP	42	28.00	-2.3X
JMB	148.11	322	iPKPc	42	36.00	5.2X
SRO	148.15	337	ePKP	42	33.70	3.0X
ZST	148.26	339	ePKP	42	34.30	3.5X
ENN	148.41	353	ePKP	42	35.00	4.0X
	1.1s	53.00nm				
KHC	148.52	343	PKP	42	32.80	1.5
			i	42	35.90	
BZS	148.54	331	ePKP	42	30.00	-1.3
MEM	148.56	353	PKP	42	32.60	1.4
GRF	148.58	346	ePKP	42	35.80	4.5X
TNS	148.60	350	ePKPd	42	34.80	3.4X
SNF	148.82	355	PKP	42	31.40	-0.2
DOU	149.21	355	PKPc	42	35.00	2.8X
KDZ	149.30	322	iPKPc	42	37.00	4.3X
WLF	149.47	353	PKP	42	32.50	-0.1
			ic	42	37.30	
RZN	149.68	322	iPKP	42	38.00	4.5X
VTS	149.92	325	iPKP	42	49.00	15.2X
MMB	150.31	323	ePKP	42	38.00	3.8X
KBA	150.45	342	e(PKP)	42	37.00	2.6X
	0.9s	14.70nm				
			i	42	39.50	
			i	42	49.20	
			i	44	43.40	
CDF	150.55	351	ePKP	42	39.10	4.7X
FLN	150.72	1	ePKP	42	39.50	5.0X
LDF	150.89	1	ePKP	42	39.90	5.1X
RBL	150.96	341	PKP	42	38.70	3.6X
			eSn	42	48.50	
LJU	151.00	339	ePKP	42	40.00	4.9X
FVI	151.05	342	PKP	42	40.20	5.1X
			(Sn)	42	49.80	
HAU	151.08	352	ePKP	42	40.40	5.2X
GRR	151.08	2	ePKP	42	40.30	5.2X
VAY	151.14	324	ePKP	42	40.00	4.6X
			i	42	51.40	
BSF	151.18	351	ePKP	42	40.60	5.2X
VOY	151.22	340	ePKP	42	40.40	4.9X
VBY	151.23	338	ePKPd	42	41.80	6.4X
SKO	151.30	326	ePKP	42	40.00	4.4X
			i	44	39.00	
CEY	151.31	339	ePKP	42	40.50	4.9X
LPF	151.43	2	ePKP	42	41.10	5.5X
LOR	152.08	355	ePKP	42	42.70	6.1X
OHR	152.24	326	ePKP	42	42.70	5.6X
SSF	152.31	355	ePKP	42	43.50	6.6X
LBF	152.35	355	ePKP	42	43.20	6.2X
AVF	152.59	356	ePKP	42	43.60	6.3X
VAI	152.73	347	PKP	42	40.00	2.5X
BGF	152.86	356	ePKP	42	45.20	7.5X
MFF	152.88	1	ePKP	42	44.30	6.6X
TCF	153.16	357	ePKP	42	44.90	6.7X
MAF	153.21	357	ePKP	42	45.80	7.6X
LSF	153.22	358	ePKP	42	44.80	6.6X
BNG	156.88	232	ePKPc	42	44.00	-0.1
	0.9s	8.00nm				
			ic	45	13.00	
LIC	165.86	157	PKP	42	53.70	0.7
KIC	166.09	158	PKP	42	53.60	0.4
TIC	166.25	157	PKP	42	53.90	0.6
	S.D. = 0.9	on 123 of 176 obs.				

% FEB 04, 1989 15h 28m 06.23± 1.16s
42.619 N ±11.1km 23.546 E ± 7.6km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

VTS	0.25	264	iPg	28	12.00	0.4
KKB	0.83	205	iPg	28	21.00	-1.2
MMB	1.04	172	eP	28	27.00	1.1
			iS	28	45.00	
RZN	1.27	137	eP	28	29.00	-1.0
PVL	1.44	65	eP	28	32.00	-0.4
KDZ	1.69	124	iPc	28	37.00	1.0
			S	29	00.00	
	S.D. = 1.3	on 6 of 6 obs.				

FEB 04, 1989 15h 51m 52.33± 0.19s
0.082 N ± 3.6km 16.658 W ± 4.1km
DEPTH = 10.0km (geophysicist)
5.6mb (51 obs.) 5.4Msz (5 obs.)
NORTH OF ASCENSION ISLAND (407)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 30C
Centroid Location:
Origin Time 15:51:59.3 0.4
Lat 0.15N 0.05 Lon 16.68W 0.04
Dep 15.0 FIX Half-duration 2.9
Moment Tensor; Scale 10**17 Nm
Mrr=-3.09 0.09 Mtt=-1.62 0.15
Mff= 4.70 0.17 Mrt= 2.59 0.27
Mrf=-2.59 0.41 Mtf=-0.13 0.09
Principal Axes:

	Val=	Plg=	Azm=
T	5.60	19	82
N	-0.15	29	341
P	-5.45	55	200

Best Double Couple:Mo=5.5*10**17
NP1:Strike=209 Dip=37 Slip= -36
NP2: 329 69 -121

LIC	13.11	62	Pc	54	56.26	-5.1X
TIC	13.32	60	Pc	54	58.90	-5.2X
			S	57	18.16	
KIC	13.43	62	Pc	55	00.82	-4.7X
			S	57	20.50	
			TT	04	48.00	
KUK	17.35	69	eP	55	53.00	-3.3X
	0.2s	76.00nm			5.5mb	
LEGH	17.35	71	eP	55	54.50	-1.8
KOGH	17.43	70	eP	55	55.00	-2.4
SHGH	17.57	70	eP	55	57.50	-1.6
TIO	31.95	15	iPc	58	20.90	0.1
AVE	34.17	14	iP	58	40.50	0.6
			i	59	18.00	
IFR	34.98	17	iPc	58	48.00	0.9
BMA	35.05	228	ePd	58	48.60	0.9
			i	58	52.90	
BCAO	35.42	83	eP	58	50.70	-0.3
	0.7s	27.48nm			5.2mb	
BNG	35.43	83	iPd	58	51.50	0.4
	0.9s	68.00nm			5.5mb	
			id	58	54.90	
			ic	00	02.50	
ATB	35.70	264	Pd	58	51.10	-2.2
BRAS	36.03	229	iPd	58	45.40	-10.8X
TAF	37.03	20	iP	59	02.00	-2.3
EPRU	38.19	15	e(P)	59	14.80	0.8
EVAL	38.42	13	e(P)	59	16.70	0.8
ATEJ	38.47	16	eP	59	19.20	2.7
APHE	38.60	17	eP	59	20.00	2.4
ALOJ	38.63	16	eP	59	18.80	1.0
ACHM	38.70	16	eP	59	20.20	1.9
AAPN	38.81	16	eP	59	19.80	0.5
CRT	38.85	17	eP	59	22.00	2.5
AFC	38.93	17	eP	59	21.00	0.7
ASMO	38.97	16	eP	59	20.70	0.1
EHOR	39.00	14	eP	59	21.50	0.8
LIS	39.06	9	iPc	59	24.10	2.9X
ENIJ	39.07	18	e(P)	59	23.50	2.2
EBAN	39.71	16	eP	59	26.40	-0.2
EPLA	40.95	12	eP	59	37.80	1.0
TOL	41.25	15	iPd	59	40.50	1.2
	1.8s	454.55nm			5.9mb	
			eS	16	08.30	
PTO	41.51	9	eP	59	32.80	-8.5X
ECHE	41.85	18	e(P)	59	45.00	0.8
GUD	41.94	14	eP	59	46.00	0.9
ETOR	42.66	16	e(P)	59	51.00	0.1
ITB1	44.02	233	e(P)	00	03.20	1.1
KMZ	44.19	109	iPc	00	04.50	0.8
			i	00	22.00	
PTS	45.16	33	P	00	12.80	1.7
EPF	45.40	18	eP	00	13.60	0.6
	1.8s	181.20nm			5.7mb	
LWI	45.50	93	eP+	00	15.00	0.5
CGL	45.74	28	P	00	17.00	1.3
LVI	46.21	32	Pc	00	20.90	1.6
CVT	46.23	33	Pc	00	22.80	3.3X
FAI	46.42	34	P	00	24.00	3.0X
LSZ	46.85	111	iPd	00	26.10	1.2
			i	00	44.00	
			i	01	08.00	
			i	02	11.80	
GIB	47.13	33	P	00	28.40	1.7
LPO	47.15	17	eP	00	27.00	0.3
	1.4s	87.10nm			5.7mb	
USI	47.19	32	P	00	28.36	1.3
LFF	47.25	17	eP	00	28.10	0.6
	1.4s	60.90nm			5.5mb	
TUH	47.28	138	iPc	00	08.50	-19.4X
	1.3s	76.92nm				
CER	47.41	138	iPc	00	27.00	-2.0
	1.0s	60.00nm			5.6mb	
MNO	47.46	34	P	00	32.50	3.0X
CAF	47.64	18	eP	00	30.50	-0.1
	1.5s	101.30nm			5.7mb	
LMR	47.79	23	eP	00	32.20	0.4
	1.4s	87.10nm			5.7mb	
RJF	47.81	17	eP	00	32.00	0.0
	1.4s	60.90nm			5.5mb	
LRG	47.84	23	eP	00	32.70	0.6
	1.4s	87.10nm			5.7mb	
FRF	48.04	23	eP	00	34.10	0.4
	1.4s	64.40nm			5.5mb	
CVF	48.12	25	P	00	35.04	0.6
CALN	48.29	23	P	00	36.19	0.3
MVIF	48.52	23	P	00	38.46	0.8
MFF	48.54	15	eP	00	37.40	-0.2
	1.3s	43.30nm			5.4mb	
AURF	48.58	23	P	00	38.85	0.8
SBF	48.60	23	eP	00	38.20	0.0
	1.4s	121.90nm			5.8mb	
BUL	48.64	117	iPc	00	38.40	-0.6
TOUF	48.65	23	P	00	39.11	0.4
LSF	48.68	17	eP	00	38.90	0.3
	1.6s	126.80nm			5.7mb	
AUTN	48.71	23	P	00	39.87	0.7
SAOF	48.75	23	P	00	39.74	0.5
IMI	48.82	24	P	00	39.58	-0.3
STV	48.88	23	P	00	40.81	0.5
TCF	48.91	17	eP	00	41.00	0.5
	1.8s	150.10nm			5.7mb	
MAF	48.96	18	eP	00	41.60	0.8
	1.6s	161.60nm			5.8mb	
MAO	49.01	27	P	00	41.50	0.3
PZZ	49.01	22	P	00	42.15	0.7
DOI	49.07	23	P	00	43.00	1.2
ROB	49.13	23	P	00	42.76	0.5
FIN	49.20	24	P	00	42.97	0.3

04d 16h

RRL	49.24	22 P	00 43.89	0.6	
BNI	49.32	22 P	00 44.50	0.8	
BGF	49.35	18 eP	00 44.50	0.7	
	2.0s	233.20nm	5.8mb		
CKI	49.40	23 P	00 44.00	-0.3	
MGR	49.49	33 P	00 44.70	-0.3	
RFI	49.52	30 P	00 47.02	1.9	
PTZ	49.57	109 iPc	00 46.00	-0.1	
RSP	49.62	22 P	00 46.14	0.1	
BFS	49.63	126 iPd	00 47.50	1.1	
	0.4s	25.42nm	5.6mb		
GEN	49.66	24 P	00 45.02	-1.2	
MNS	49.70	28 P	00 46.61	0.0	
AVF	49.71	18 eP	00 46.90	0.4	
	1.4s	43.50nm	5.2mb		
LPG	49.72	21 eP	00 47.90	0.8	
	1.4s	108.90nm	5.6mb		
SMF	49.73	18 eP	00 47.10	0.3	
	1.5s	47.00nm	5.3mb		
SDI	49.74	30 P	00 47.50	0.6	
FRS	49.78	130 iPd	00 48.30	1.0	
	0.6s	16.67nm	5.2mb		
LSD	49.84	22 P	00 47.99	0.1	
SSF	50.00	18 eP	00 49.10	0.3	
	1.6s	118.10nm	5.6mb		
GRR	50.02	14 eP	00 48.80	-0.1	
	1.4s	78.40nm	5.5mb		
DUI	50.03	30 Pc	00 50.80	1.6	
BDI	50.07	26 P	00 49.00	-0.4	
LBF	50.08	18 eP	00 49.50	0.1	
	1.6s	95.70nm	5.5mb		
FIR	50.13	26 eP	00 47.50	-2.3	
BOB	50.16	24 P	00 51.10	1.0	
PRY	50.20	126 iPc	00 50.00	-0.8	
	0.7s	12.50nm	5.0mb		
ASS	50.22	28 P	00 50.50	-0.1	
EMS	50.28	21 ePc	00 51.20	0.0	
LOR	50.29	18 eP	00 51.10	0.1	
	1.8s	138.10nm	5.6mb		
ORX	50.30	22 P	00 50.04	-1.2	
CRE	50.32	27 P	00 50.50	-0.9	
BPI	50.34	125 iPc	00 51.00	-1.0	
	0.8s	59.70nm	5.6mb		
PGD	50.41	26 Pc	00 51.20	-1.0	
DIX	50.46	22 ePc	00 52.80	0.1	
SFI	50.51	27 P	00 52.50	-0.1	
MMK	50.64	22 ePc	00 54.10	0.1	
ARV	50.68	28 P	00 54.50	0.5	
RSM	50.78	27 Pc	00 57.50	2.8	
VAI	50.80	23 P	00 54.30	-0.5	
BRT	50.91	33 P	00 50.00	-5.8X	
LCI	50.95	34 P	00 56.00	0.0	
TMA	51.04	23 ePc	00 55.60	-1.3	
LOMF	51.34	20 P	00 58.52	-0.6	
VDL	51.58	23 ePc	00 59.50	-1.6	
BBS	51.68	21 P	01 01.13	-0.5	
LLS	51.72	22 ePc	01 01.00	-1.1	
BSF	51.74	20 P	01 01.26	-0.9	
HAU	51.74	20 eP	01 01.90	-0.2	
	1.2s	71.40nm	5.5mb		
VAM	51.78	43 eP	01 01.50	-1.0	
VITF	51.81	19 P	01 02.10	-0.3	
ZLA	52.01	21 ePc	01 03.20	-0.9	
OSS	52.01	23 ePc	01 02.80	-1.5	
CTI	52.11	25 P	01 04.00	-0.9	
SAX	52.17	22 ePc	01 04.50	-1.1	
FEL	52.21	21 P	01 04.32	-1.4	
SLE	52.29	21 ePc	01 05.30	-0.9	
BERA	52.32	35 eP	01 07.50	1.0	
LSK	52.34	36 eP	01 08.10	1.3	
CDF	52.41	20 P	01 05.86	-1.3	
OGA	52.51	24 eP	01 07.10	-1.0	
HCY	52.69	32 eP	01 10.00	0.8	
HJA	52.69	240 iPd	01 11.00	1.4	
TIR	52.70	34 ePc	01 09.20	-0.1	
TRI	52.75	26 P	01 09.20	-0.4	
BDV	52.76	33 eP	01 11.00	1.2	
ULC	52.77	33 eP	01 10.70	0.8	
ATH	52.92	40 eP	00 54.00	-17.0X	
SDA	52.94	33 eP	01 11.30	0.2	
GWF	53.01	20 P	01 10.93	-0.6	
FVI	53.02	25 P	01 11.50	0.0	
BRY	53.03	32 eP	01 12.00	0.1	
DOU	53.03	17 P	01 11.70	0.0	
VOY	53.06	26 ePd	01 11.40	-0.7	
CEY	53.07	27 eP	01 11.70	-0.4	
OHR	53.08	35 eP	01 11.20	-1.0	
TTG	53.09	33 eP	01 13.00	0.8	
WLF	53.13	18 Pc	01 12.80	0.5	
		e	03 11.60		
RBL	53.23	26 Pc	01 13.10	-0.2	
PHP	53.25	34 eP	01 14.60	1.3	
CNCB	53.26	249 iPd	01 14.60	0.1	
		i	02 22.00		
VBY	53.28	28 ePc	01 14.20	0.7	
ZOBO	53.28	250 (P)	01 15.00	0.3	
		S	08 52.00		
		LR	16 48.00		
LPB	53.31	249 P	01 14.80	0.1	
	1.0s	80.00nm	5.6mb		
Z	24s	7.75um	5.7MszX		
		S	08 48.00		
		LR	16 40.00		
SNF	53.32	17 P	01 10.60	-3.1X	
LJU	53.35	27 eP	01 14.10	0.0	
NEO	53.40	38 eP	01 09.00	-5.5X	
BCI	53.49	33 eP	01 17.50	2.4	
KBA	53.64	25 eP	01 15.00	-1.4	
	1.7s	100.00nm	5.5mb		
		ic	01 17.30		
DCN	53.65	7 eP	01 16.80	0.7	
FUR	53.66	23 iPc	01 15.50	-0.8	
DLE	53.69	8 eP	01 14.00	-2.3	
ZAG	53.85	28 eP	01 18.50	0.9	
PTJ	53.90	28 eP	01 18.00	-0.2	
MEM	53.91	18 Pc	01 17.80	-0.2	
BHG	53.95	24 eP	01 17.30	-1.1	
SKO	54.00	35 iPc	01 18.80	-0.1	
	1.5s	144.00nm	5.8mb		
Z	16s	2.06um	5.3MszX		
N	16s	2.88um			
E	16s	2.24um			
		eS	08 55.00		
		LR	25 24.00		
ENN	54.02	18 ePc	01 19.00	0.1	
	1.4s	184.00nm	5.9mb		
PLG	54.18	37 eP	01 20.00	-0.2	
DMU	54.24	7 eP	01 21.50	1.1	
VAY	54.24	36 eP	01 20.70	0.1	
TNS	54.36	20 iPc	01 23.00	1.5	
GRF	54.89	22 eP	01 25.50	0.1	
	1.5s	68.00nm	5.5mb		
Z	14s	2.20um	5.4MszX		
MMB	55.09	36 iPc	01 27.00	0.0	
KHC	55.35	24 iPc	01 28.00	-0.7	
	1.2s	25.00nm	5.1mb		
		e	03 38.90		
BEO	55.35	31 iP	01 29.50	0.8	
WTS	55.37	17 iPc	01 29.00	0.3	
	1.0s	61.00nm	5.6mb		
IZM	55.47	41 eP	01 26.00	-3.8X	
RZN	55.74	37 iPc	01 32.00	0.2	
MOX	55.82	21 eP	01 30.00	-2.0	
	2.3s	242.00nm	5.8mb		
VKA	55.83	26 ePc	01 31.00	-1.2	
	4.0s	746.00nm	6.1mb X		
ZST	56.13	27 iP	01 33.00	-1.3	
		e	03 09.30		
		e	03 38.80		
KDZ	56.14	37 iPc	01 34.00	-0.5	
SRO	56.40	28 iP	01 36.60	0.4	
		e	02 47.00		
ELL	56.42	44 iP	01 36.60	-0.2	
BZS	56.50	31 eP	01 37.50	0.6	
BUD	56.50	28 eP	01 35.70	-1.2	
CLL	56.87	22 iPd	01 39.40	-0.2	
	2.6s	270.00nm	5.8mb		
KHL	56.94	43 iP	01 38.30	-2.1	
PVL	57.02	36 eP	01 39.00	-1.7	
MBH	57.21	54 ePc	01 43.00	0.7	
PSZ	57.22	28 eP	01 41.50	-0.7	
JMB	57.32	37 iPd	01 43.00	0.1	
DMK	57.67	38 eP	01 43.00	-2.3	
CTT	57.72	39 eP	01 40.00	-5.7X	
KSP	57.78	24 eP	01 44.50	-1.5	
YLV	58.01	40 iP	01 46.30	-1.5	
SPC	58.28	28 iP	01 49.50	-0.3	
HRT	58.33	40 eP	01 48.80	-1.3	
JVI	58.39	52 iPc	01 51.00	0.5	
MLR	58.75	34 ePc	01 52.00	-1.0	
KRA	58.76	27 eP	01 52.60	-0.2	
	0.6s	21.00nm	5.4mb		
ISR	58.87	34 ePc	01 53.00	-0.8	
IKL	58.88	47 eP	01 52.00	-1.9	
PSN	58.98	37 eP	01 53.00	-1.4	
HRI	59.20	51 eP	01 58.00	1.6	
BHL	59.38	50 Pc	01 57.00	-0.6	
VRI	59.41	34 ePc	01 56.00	-1.5	
CFR	59.82	35 eP	01 58.00	-2.2	
8BTK	59.88	43 iP	02 01.00	0.1	
JACH	60.28	232 iPc	02 04.00	0.2	
FCH	60.29	231 iPc	02 05.20	1.1	
PEL	60.52	231 iPd	02 05.50	0.1	
SAN	60.62	231 iPd	02 10.60	4.6X	
LNV	61.39	231 ePd	02 10.70	-0.4	
NAO	64.16	15 P	02 27.10	-2.0	
	1.6s	82.70nm	5.7mb		
HFS	64.33	16 eP	02 28.60	-1.6	
	2.1s	527.10nm	6.4mb		
Z	18s	2.00um	5.3Msz		
		LR	26 55.00		
BNH	65.49	320 P	02 37.00	-1.0	
AVY	65.87	111 eP	02 43.50	2.4	
MSL	66.00	50 ePd	02 41.50	0.1	
		eS	11 29.50		
BHD	66.02	53 ePd	02 43.00	1.4	
		eS	11 33.00		
PRIN	66.10	315 P	02 41.00	-0.9	
RSNY	67.59	319 P	02 50.00	-1.4	
	1.0s	16.67nm	5.2mb		
NUR	68.10	21 eP	02 55.00	0.7	
Z	22s	2.00um	5.3Msz		
		LR	31 20.00		
GAC	68.66	320 eP	02 57.00	-1.0	
TAB	68.94	49 e(P)	03 03.00	2.9X	
SUF	70.16	19 iP	03 06.20	-0.7	
	0.7s	23.70nm	5.4mb		
KJF	71.69	19 eP	03 15.00	-1.1	
	0.9s	49.00nm	5.6mb		
SOD	73.56	16 iP	03 26.20	-0.9	
AIA	73.59	199 eP	03 28.50	1.3	
FRB	73.99	339 eP	03 29.00	-0.6	
KEV	75.34	14 eP	03 38.00	0.7	
MHI	78.80	53 iPd	03 57.20	-0.2	
		e	14 00.00		
RLO	80.56	307 eP	04 06.10	-0.7	
LNO	81.15	306 eP	04 09.00	-0.7	
TUL	81.15	306 ePc	04 09.50	-0.4	
	1.1s	37.80nm	5.3mb		
Z	22s	1.80um	5.4Msz		
SIO	81.55	306 e(P)	04 11.50	-0.4	
MEO	83.32	305 iPd	04 20.80	-0.4	
QUE	84.43	60 eP	04 29.00	1.9	
ALE	84.66	355 eP	04 28.00	1.0	
	1.1s	15.00nm	5.1mb		
FFC	87.22	325 eP	04 39.00	-1.1	
	1.5s	59.00nm	5.6mb		
GLD	88.84	310 P	04 49.00	0.5	
GOL	88.96	310 P	04 49.00	-0.1	
	1.0s	55.00nm	5.8mb		
BOM	89.48	71 eP	04 55.60	4.1X	
		eS	15 22.60		
ALQ	89.79	305 eP	04 52.00	-1.1	
Z	20s	1.60um	5.4Msz		
SPA	90.08	180 iPd	04 36.00	-17.7X	
	1.0s	97.50nm			
Z	20s	1.40um	5.4Msz		
POO	90.46	72 eP	04 58.00	1.8	
KSH	91.99	51 eP	05 04.30	1.3	
BW06	92.08	313 P	05 00.00	-3.5X	
SES	92.74	320 eP	05 06.00	-0.1	
MBC	92.94	346 eP	05 08.00	1.5	
	1.4s	47.00nm	5.7mb		
NDI	93.36	61 eP	05 09.20	-0.2	
YKA	93.61	333 P	05 10.20	0.4	
EDM	93.95	323 ePd	05 11.20	-0.4	
GBA	93.96	76 P	05 12.50	0.2	
LRM	93.99	316 eP	05 11.90	-0.4	
HYB	94.95	73 eP	05 15.00	-1.9	
KVN	98.83	309 P	05 33.00	-1.3	
GYA	119.46	59 PKP	10 44.60	-0.1	
TIY	119.95	45 ePKP	10 45.50	0.2	
E	16s	1.00um			
BJI	121.40	41 (PKP)	10 47.50	-0.3	
WHN	124.43	52 PKP	10 53.60	-0.4	
CN2	124.78	33 ePKP	10 53.00	-1.2	
Z	24s	1.20um	5.5MszX		
		ePP	12 35.00		
SNY	125.00	36 ePKP	10 54.50	-0.2	
ADE	138.36	149 ePKP	11 21.30	0.8	
CAN	142.48	161 ePKP	11 28.80	1.0	

04d 16h

BWA	143.09	159	ePKP	11	27.00	-1.9
CMS	144.63	154	iPKPc	11	30.80	-0.7
WRA	145.41	127	PKPc	11	33.30	0.1
	1.1s	114.90nm				
WB5	145.47	126	ePKP	11	32.20	-1.1
MTN	145.64	113	ePKP	11	34.00	0.4
COO	147.78	161	ePKP	11	38.00	1.2
			e	11	41.00	
QIS	149.13	133	iPKPd	11	43.60	4.4X
	0.9s	129.00nm				
RMQ	150.22	153	iPKPc	11	42.50	1.9
			e	11	47.00	
BRS	151.01	160	PKPd	11	48.50	6.7X
			i	12	02.00	
CTA	154.01	141	iPKPd	11	55.20	8.9X
	1.1s	98.73nm				

S.D. = 1.1 on 257 of 282 obs.

? FEB 04, 1989 16h 30m 16.22± 3.68s
23.221 N ±18.4km 122.093 E ±27.7km
DEPTH = 10.0km (geophysicist)
TAIWAN REGION (243)

TWF1	0.74	280	iPd	30	30.90	0.1
			eS	30	41.00	
TWD	0.97	332	iPc	30	34.30	-0.3
			eS	30	47.40	
TWG	1.02	247	iPc	30	35.20	-0.3
TWC	1.40	351	iPc	30	41.90	0.2
TWK	1.48	272	ePc	30	43.30	0.4

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

FEB 04, 1989 17h 00m 02.50± 0.37s
1.087 S ± 5.2km 13.610 W ± 6.8km
DEPTH = 10.0km (geophysicist)
5.2mb (46 obs.)
NORTH OF ASCENSION ISLAND (407)

LIC	11.23	50	P	02	41.14	-5.0X
			S	04	37.50	
TIC	11.51	48	P	02	45.08	-4.9X
			S	04	46.18	
KIC	11.54	50	Pc	02	46.20	-4.2X
			S	04	47.02	
LEGH	14.99	63	eP	03	40.50	4.3X
			e	06	07.50	
KUK	15.07	61	eP	03	33.50	-3.7X
			e	06	05.50	
KOGH	15.13	62	eP	03	44.50	6.4X
			e	06	11.00	
SHGH	15.23	63	eP	03	39.00	-0.4
			e	06	16.00	
TIO	32.40	10	eP	06	35.00	0.1
			i	07	28.40	
BCAO	32.58	80	iPc	06	36.70	0.1
	1.0s	12.25nm			4.8mb	
BNG	32.59	80	iPc	06	36.80	0.1
	0.6s	11.00nm			5.0mb	
IFR	35.33	12	iPd	07	02.00	1.7
TOL	41.70	11	eP	07	53.50	0.4
TUH	44.40	140	eP	07	56.00	-19.2X
	0.7s	13.70nm				
CER	44.53	140	iPd	08	14.80	-1.5
	1.0s	40.00nm			5.3mb	
BUL	45.40	118	eP	08	25.30	1.7
EPF	45.68	14	eP	08	26.20	0.9
	1.2s	24.90nm			5.1mb	
BFS	46.49	127	eP	08	32.50	0.4
GIB	46.50	30	P	08	33.50	1.5
FRS	46.71	131	eP	0B	25.00	-8.6X
	0.6s	9.33nm			5.0mb	
			i	08	40.00	
PRY	47.05	127	eP	0B	35.00	-1.6
	0.8s	9.38nm			4.9mb	
BPI	47.18	126	eP	08	37.00	-0.6
	0.7s	21.92nm			5.4mb	
LPO	47.44	14	eP	08	39.50	0.3
	1.2s	23.80nm			5.2mb	
LFF	47.57	14	eP	08	40.80	0.6
	1.0s	16.00nm			5.1mb	
LMR	47.77	20	iPc	08	42.30	0.5
	0.8s	18.80nm			5.2mb	
LRG	47.82	20	iPc	08	42.90	0.7
	1.0s	28.00nm			5.3mb	
CAF	47.89	15	eP	0B	42.90	0.2
	1.2s	32.70nm			5.3mb	
CVF	47.95	22	P	08	43.53	0.3
FRF	48.01	20	iPc	08	44.10	0.4
	1.0s	24.00nm			5.2mb	
RJF	48.10	14	eP	08	44.60	0.2
	1.0s	9.60nm			4.8mb	
CALN	48.27	20	P	08	46.37	0.5
MVIF	48.48	20	P	08	48.03	0.5
AURF	48.53	20	P	08	48.10	0.3
SBF	48.55	20	iPc	08	48.30	0.4
	1.0s	44.00nm			5.5mb	
TOUF	48.62	20	P	08	49.29	0.7
AUTN	48.66	20	P	08	49.57	0.6
SAOF	48.70	20	P	08	48.97	-0.1
IMI	48.75	21	P	08	49.64	0.2
STV	48.85	20	P	08	51.18	0.9
MGR	48.91	30	P	08	51.00	0.4
LSF	48.99	14	iPc	08	51.70	0.5
	1.0s	36.80nm			5.4mb	
PZZ	49.00	20	P	08	52.72	1.2
DOI	49.05	20	P	08	53.20	1.4
ROB	49.08	20	P	08	52.62	0.6
FIN	49.12	21	P	08	52.72	0.4
TCF	49.19	14	iPc	08	53.40	0.6
	1.0s	22.00nm			5.1mb	
MAF	49.22	15	iPc	08	53.70	0.7
	1.3s	54.10nm			5.4mb	
RRL	49.26	19	P	08	54.46	0.8
SDI	49.30	27	P	08	54.50	0.8
MNS	49.35	26	P	08	54.00	0.0
BNI	49.35	19	Pc	08	55.00	0.9
DUI	49.56	28	P	08	57.30	1.5
BGF	49.61	15	iPc	08	56.60	0.7
	1.0s	14.80nm			4.9mb	
RSP	49.63	19	P	08	56.41	0.2
LPG	49.77	19	iPc	08	58.80	1.2
	1.1s	46.30nm			5.4mb	
LSD	49.86	19	P	08	58.87	0.6
FIR	49.90	23	eP	08	56.50	-1.7
SMF	49.95	16	eP	08	58.80	0.2
	1.2s	17.80nm			4.9mb	
AVF	49.95	15	eP	08	59.10	0.5
	1.0s	10.00nm			4.7mb	
BOB	50.05	21	Pc	09	00.90	1.4
PGD	50.17	24	P	08	58.00	-2.5
SSF	50.24	15	iPc	09	01.00	0.2
	0.8s	17.40nm			5.1mb	
ORX	50.29	20	P	08	59.90	-1.4
LBF	50.30	16	iPc	09	01.40	0.1
	1.2s	32.70nm			5.2mb	
EMS	50.33	19	ePc	09	02.00	0.2
ARV	50.36	25	P	09	00.00	-1.8
DIX	50.50	19	ePc	09	03.50	0.4
GRR	50.51	11	eP	09	02.70	-0.1
	0.9s	26.20nm			5.2mb	
LOR	50.53	15	iPc	09	03.00	0.0
	0.8s	10.70nm			4.8mb	
MMK	50.65	19	ePc	09	04.30	0.0
LDF	50.85	12	eP	09	05.30	-0.1
	1.0s	36.00nm			5.3mb	
FLN	50.94	11	eP	09	05.80	-0.2
	0.8s	10.70nm			4.8mb	
TMA	51.01	20	ePc	09	05.90	-0.9
SAL	51.17	22	P	09	07.50	-0.3
LOMF	51.45	18	P	09	09.29	-0.8
VDL	51.54	20	ePc	09	09.80	-1.2
LLS	51.71	20	ePc	09	10.90	-1.3
BSF	51.87	17	P	09	12.01	-1.3
HAU	51.89	17	iPc	09	13.30	-0.1
	0.8s	18.80nm			5.1mb	
OSS	51.95	21	ePc	09	13.00	-1.0
VITF	51.98	17	P	09	13.69	-0.2
MOF	51.99	18	P	09	13.08	-1.1
TIR	52.01	32	eP	09	17.60	3.3X
ZLA	52.05	19	ePc	09	13.80	-0.8
SAX	52.16	20	ePc	09	14.60	-1.1
FEL	52.28	18	P	09	15.62	-0.8
SLE	52.33	19	ePc	09	15.60	-1.1
OHR	52.34	33	eP	09	17.70	0.8
OGA	52.42	21	eP	09	17.00	-0.6
TRI	52.50	24	P	09	17.60	-0.3
CDF	52.53	17	P	09	17.38	-0.9
CEY	52.80	24	eP	09	20.00	-0.2
VOY	52.82	24	eP	09	20.40	0.0
FVI	52.84	23	P	09	20.60	0.2
VBY	52.96	25	ePc	09	22.10	0.7
RBL	53.03	23	Pc	09	22.00	0.1
LJU	53.09	24	eP	09	22.60	0.3
GWF	53.14	17	P	09	22.06	-0.6
SKO	53.29	32	iPc	09	24.40	0.6
	1.5s	105.00nm			5.6mb	
DOU	53.32	15	P	09	23.50	-0.4
WLF	53.34	16	Pc	09	23.40	-0.6
VAY	53.45	34	eP	09	25.00	0.0
KBA	53.46	23	iPc	09	24.70	-0.6
	0.8s	7.10nm			4.7mb	
			i	09	29.10	
FUR	53.61	20	iPc	09	25.50	-0.7
SNF	53.63	14	P	09	26.00	-0.2
BHG	53.82	22	iPc	09	26.70	-0.9
KKB	54.11	33	eP	09	41.00	11.2X
MEM	54.16	15	P	09	29.70	-0.3
ENN	54.28	15	eP	09	30.50	-0.4
	0.9s	29.00nm			5.3mb	
GRB2	54.69	20	eP	09	33.30	-0.8
	1.0s	39.00nm			5.4mb	
BEO	54.81	29	eP	09	35.30	0.3
GRF	54.90	19	eP	09	33.30	-2.3
	1.0s	39.00nm			5.4mb	
PGB	55.16	33	eP	09	38.00	0.3
TIH	55.19	26	eP	09	39.00	1.3
SOP	55.24	24	eP	09	37.80	-0.2
KHC	55.25	21	P	09	37.50	-0.7
	1.2s	16.00nm			4.9mb	
KDZ	55.28	35	iPc	09	39.00	0.6
MBH	55.47	52	iPc	09	41.50	1.5
WTS	55.63	15	eP	09	41.00	0.2
	1.0s	35.00nm			5.3mb	
CNCB	55.72	250	eP	09	51.00	8.3X
ZOBO	55.76	251	P	09	42.00	-1.0
LPB	55.78	251	eP	09	39.00	-3.9X
MOX	55.85	19	iPc	09	41.50	-0.9
	1.5s	62.00nm			5.4mb	
ZST	55.87	24	iP	09	42.10	-0.4
BZS	55.96	29	eP	09	44.50	1.3
SRO	56.08	25	eP	09	44.30	0.3
JMB	56.47	35	ePd	09	47.00	0.0
JVI	56.75	50	eP	09	50.00	0.8
PSZ	56.85	26	eP	09	48.50	-1.2
CLL	56.88	20	iP	09	48.60	-1.2
	2.5s	100.00nm			5.4mb	
EKA	56.88	7	P	09	49.00	-0.7
	0.6s	8.40nm			4.9mb	
HRT	57.31	38	eP	09	50.00	-3.0X
KSP	57.66	22	eP	09	54.00	-1.3
SPC	57.96	26	eP	09	58.00	0.4
MLR	58.07	32	ePc	09	58.00	-0.4
KRA	58.49	25	eP	10	03.50	2.4
VRI	58.73	32	ePc	10	01.50	-1.4
NAO	64.56	13	P	10	41.00	-0.9
	1.3s	25.60nm			5.3mb	
HFS	64.64	15	eP	10	40.60	-1.8
	0.6s	16.00nm			5.4mb	
SUF	70.28	18	iP	11	17.10	-0.7
	0.4s	6.60nm			5.1mb	
GAC	71.52	319	eP	11	26.00	0.4
KJF	71.84	18	iP	11	26.10	-1.1
	0.5s	18.30nm			5.4mb	
SOD	73.86	15	iP	11	38.80	-0.2
FRB	76.20	338	eP	11	53.00	0.6
MHI	77.08	52	eP	11	59.00	0.9
MEO	86.48	305	iP	12	46.90	-0.3
ACO	87.06	307	eP	12	51.50	1.6
SPA	88.92	180	e(P)	13	00.60	2.2
	1.0s	9.00nm			5.0mb	
FFC	89.93	325	eP	13	03.50	0.3
	1.2s	34.00nm			5.5mb	
GBA	91.27	77	Pd	13	09.20	-0.9
	0.8s	2.50nm			4.6mb	
HYB	92.39	73	eP	13	16.00	0.8
ALO	92.95	305	eP	13	18.00	0.2
YKA	96.04	333	P	13	35.30	4.2X

S.D. = 0.9 on 138 of 152 obs.

& FEB 04, 1989 17h 02m 02.16s
60.052 N 152.732 W
DEPTH = 98.7km
SOUTHERN ALASKA (2)
<AGS-P>.

HOM	0.68	125	eP	02	19.24	-0.2
NNL	0.72	90	eP	02	20.07	0.2
			eS	02	32.83	
AUL	0.76	208	eP	02	19.88	-0.4
CNPM	0.92	124	iP	02	21.32	-0.6
NKA	1.02	46	eP	02	24.03	1.1

SPU	1.18	16	iP	02	24.19	-0.7
CDD	1.22	203	eP	02	23.88	-1.4
CRP	1.25	13	eP	02	25.20	-0.7
			eS	02	43.49	
SEW	1.65	87	iP	02	28.78	-1.8
			iS	02	49.68	
SVW	1.78	308	eP	02	30.92	-1.4
PTE	2.01	64	eP	02	33.49	-1.8
PWA	2.13	40	eP	02	35.38	-1.5
PLRM	2.35	47	eP	02	37.65	-2.1
PME	2.40	47	eP	02	38.25	-2.3
GHO	2.54	45	eP	02	40.18	-2.3
			eS	03	09.79	
SML	2.78	49	eP	02	43.37	-2.3

16 obs. associated

% FEB 04, 1989 17h 14m 44.10± 1.01s
34.907 N ± 8.3km 139.353 E ± 9.4km
DEPTH = 10.0km (geophysicist)
NEAR S. COAST OF HONSHU, JAPAN (230)
Felt (II JMA) on Oshima and (I JMA) at Ajiro.

OSH	0.15	172	iPd	14	47.20	-0.3
			iS	14	49.70	
AJI	0.25	303	iPd	14	48.80	-0.6
			S	14	51.70	
CHJJ	1.18	346	iP+	15	05.20	-0.8
			S	15	20.80	
IIDJ	1.31	296	iPd	15	07.10	-1.3
			S	15	24.70	
KAKJ	1.46	27	iPd	15	09.70	-0.7
			eS	15	29.80	
MTMJ	2.10	324	iPd	15	20.60	0.8
			S	15	48.50	
NIIJ	2.35	353	P	15	22.80	-0.5
			eS	15	56.20	
TSRJ	2.83	284	eP	15	31.90	1.7
YAMJ	3.31	9	eP	15	38.60	1.7

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

FEB 04, 1989 18h 29m 54.06± 0.57s
17.420 N ± 7.7km 120.315 E ± 8.1km
DEPTH = 33.0km (normal)
3.7mb (2 obs.)
LUZON, PHILIPPINE ISLANDS (249)

PIP	0.95	18	iPc	30	10.30	-0.7
			iS	30	23.00	
BAG	1.03	166	iPc	30	11.00	-1.5
CVP	1.47	79	ePd	30	18.60	0.2
			iS	30	38.00	
OCP	2.86	165	eP	30	40.00	1.6
SSE	13.64	3	eP	33	14.50	7.0X
CHG	20.36	277	eP	34	31.80	1.2
CHTO	20.36	277	eP	34	31.40	0.8
	0.9s		2.77nm			3.6mb
BJI	22.82	352	eP	34	55.50	0.3
LZH	23.64	325	eP	35	05.50	2.1
GUN	33.34	294	P	36	31.50	-0.3
PKI	33.69	294	P	36	34.20	-0.6
KKN	33.84	294	P	36	35.40	-0.6
DMN	33.96	294	P	36	36.40	-0.7
GKN	34.44	294	P	36	40.20	-0.9
GBA	41.43	271	Pc	37	38.60	-0.8
	0.6s		1.00nm			3.7mb

S.D. = 1.1 on 14 of 15 obs.

FEB 04, 1989 18h 32m 13.08± 0.85s
7.957 N ± 4.3km 72.054 W ± 5.5km
DEPTH = 46.4 ± 6.7 km
4.7mb (30 obs.)
NORTHERN COLOMBIA (99)

SDV	1.68	57	iPnd	32	42.50	1.8
	0.3s		855.00nm			
			iSn	33	06.80	
TOV	2.88	51	iPn	32	29.50	-28.2X
			iSn	33	39.00	
CEOS	3.83	74	iPc	33	10.50	-0.7
			iS	33	57.00	
FISA	4.24	39	eP	33	16.50	-0.5
MORO	4.69	52	eP	33	23.00	-0.3
GUAC	5.22	64	eP	33	31.00	0.2
OLLA	5.58	68	iPd	33	35.00	-0.8
			iS	34	41.00	
CAR	5.66	63	eP	33	37.00	0.0
			eS	34	43.00	
LLAV	5.75	64	iPd	33	58.00	19.7X
			iS	34	45.00	
ATB	22.72	119	e(P)	37	13.40	1.2
ARE	24.27	179	eP	37	26.00	-1.6
ZOBO	24.38	171	Pc	37	29.00	0.0
LPB	24.64	171	Pc	37	33.20	1.8
	0.9s		33.61nm			4.9mb
			Lg	45	09.00	
CNCB	24.93	171	eP	37	34.00	-0.3
CCH	25.85	167	eP	37	42.40	-0.1
GAC	37.72	356	eP	39	28.00	2.0
GLD	43.38	322	eP	40	13.00	0.0
	1.1s		17.36nm			4.7mb
GOL	43.44	322	iP	40	14.00	0.4
SCH	46.92	4	eP	40	41.00	0.2
BW06	47.81	323	iP	40	48.00	-0.3
KVN	51.57	314	eP	41	16.80	-0.3
FFC	52.41	339	eP	41	22.00	-0.9
	1.0s		13.00nm			4.9mb
EDM	56.13	331	eP	41	48.50	-1.7
PNT	57.22	325	eP	41	59.00	1.0
YKC	62.52	339	eP	42	33.00	-1.1
YKA	62.58	339	P	42	33.90	-0.5
TIC	66.44	86	P	42	59.04	-1.3
LIC	66.47	87	P	42	59.38	-1.2
KIC	66.74	86	P	43	01.32	-1.0
EPF	71.75	47	eP	43	33.10	0.4
	0.8s		8.00nm			4.7mb
MFF	71.84	44	eP	43	33.20	0.1
	0.8s		10.70nm			4.8mb
FLN	71.92	41	eP	43	33.50	0.0
	1.0s		21.60nm			5.1mb
LFF	72.25	45	eP	43	35.70	0.2
	0.8s		10.70nm			4.8mb
INK	72.33	340	eP	43	35.50	-0.1
LPO	72.54	46	eP	43	37.10	-0.2
	0.8s		10.70nm			4.8mb
RJF	72.83	45	eP	43	38.80	-0.2
	1.0s		8.00nm			4.6mb
MBC	72.89	349	eP	43	38.00	-0.7
	0.8s		8.00nm			4.7mb
LSF	72.95	44	eP	43	39.50	-0.1
	1.0s		10.00nm			4.7mb
CAF	73.18	46	eP	43	41.00	-0.1
	0.8s		9.90nm			4.8mb
TCF	73.42	44	eP	43	42.30	-0.1
	1.0s		8.00nm			4.6mb
MAF	73.66	44	eP	43	43.90	0.1
	0.8s		5.30nm			4.5mb
BGF	73.88	44	eP	43	45.00	-0.1
	0.8s		10.70nm			4.8mb
AVF	74.25	44	eP	43	46.80	-0.4
	0.8s		4.00nm			4.4mb
SSF	74.38	43	eP	43	47.50	-0.5
	1.0s		6.00nm			4.5mb
SMF	74.57	44	eP	43	48.70	-0.4
	1.0s		10.00nm			4.7mb
LOR	74.64	43	eP	43	49.20	-0.3
	0.8s		9.90nm			4.8mb
LBF	74.70	44	eP	43	49.30	-0.5
	1.0s		8.80nm			4.7mb
LRG	76.17	47	eP	43	58.20	0.0
LMR	76.27	47	eP	43	58.70	-0.1
	0.8s		5.30nm			4.6mb
WLF	76.34	41	Pd	43	59.80	0.8
FRF	76.38	47	eP	43	59.30	-0.1
	1.0s		8.00nm			4.6mb
LPG	76.53	45	eP	44	01.30	0.7
	1.0s		10.00nm			4.8mb
BSF	76.66	43	eP	44	00.70	-0.3
	0.8s		5.30nm			4.6mb
SBF	76.96	47	eP	44	02.50	-0.2
	1.0s		12.00nm			4.9mb
CVF	77.99	48	eP	44	08.10	-0.3
	0.8s		5.30nm			4.6mb
IMA	79.37	336	eP	44	16.70	1.1
	1.1s		10.90nm			4.7mb
NAO	79.63	30	P	44	18.20	1.3
	1.0s		21.90nm			5.1mb
SVW	79.97	331	eP	44	18.50	-0.3
KBA	81.10	44	eP	44	25.00	-0.2
	0.8s		4.30nm			4.5mb
			e	06	16.00	
KHC	81.18	42	iPd	44	26.50	1.1
ZST	83.57	42	eP	44	37.80	0.1
			e	06	32.20	
BNG	89.99	86	ePd	45	10.10	0.4
	0.3s		3.00nm			5.1mb
GKN	137.74	31	PKP	51	35.20	0.1
KKN	138.24	31	PKP	51	37.80	1.7
DMN	138.30	31	PKP	51	36.20	0.0
GUN	138.45	30	PKP	51	36.80	0.2
PKI	138.49	31	PKP	51	38.10	1.4
GBA	142.90	55	PKPd	51	39.60	-4.7X
	0.9s		2.10nm			
QIS	146.94	244	ePKP	51	51.00	0.0
ASPA	150.63	235	iPKPd	51	56.60	-0.1
	1.2s		25.00nm			
WB5	151.80	242	ePKP	51	58.00	-0.5
			i	52	04.00	
WRA	151.80	242	PKPd	51	58.60	0.1
	1.0s		5.90nm			
CHG	151.96	18	ePKP	52	05.90	7.1X

S.D. = 0.8 on 69 of 73 obs.

? FEB 04, 1989 18h 32m 42.26± 1.24s
34.155 N ±16.6km 135.216 E ± 7.1km
DEPTH = 10.0km (geophysicist)
NEAR S. COAST OF SOUTHERN HONSHU(233)
Felt (I JMA) at Wakayamo.

WKY	0.08	330	iP	32	44.60	-0.1
			iS	32	45.50	
WKYJ	0.32	78	iPd	32	48.90	0.0
			S	32	53.60	
TKSJ	0.98	260	P	33	00.90	0.0
			S	33	15.20	
YONJ	1.77	306	eP	33	13.30	0.1

S.D. = 0.2 on 4 of 4 obs.

& FEB 04, 1989 18h 33m 39.88s
61.806 N 149.606 W
DEPTH = 39.7km
SOUTHERN ALASKA (2)
<AGS-P>. ML 3.1 (PMR).

PWA	0.20	220	iP	33	47.11	0.0
			iS	33	53.04	
PLRM	0.31	133	Pn	33	47.46	-0.8
			iS	33	55.01	
PMR	0.31	133	iPd	33	47.70	-0.5
GHO	0.33	96	Pn	33	48.18	-0.3
			iS	33	55.79	
PME	0.33	123	Pn	33	47.82	-0.6
PMS	0.56	178	Pn	33	50.74	-0.8
SML	0.60	89	iP	33	50.20	-1.9
KNK	0.68	125	iP	33	52.36	-0.7
			iS	34	03.03	
PTE	0.99	163	iP	33	56.37	-1.0
			iS	34	11.03	
PWL	1.13	147	eP	33	58.55	-0.9
			eS	34	14.96	
NKA	1.33	217	eP	34	03.42	1.2
SPU	1.33	243	iP	34	01.48	-0.9
			eS	34	19.25	
CRP	1.34	247	iP	34	01.90	-0.6
			iS	34	20.10	
SLKM	1.34	193	iP	34	01.38	-1.0
			iS	34	18.80	
VZW	1.65	116	eP	34	06.12	-0.7
			eS	34	28.85	
TOA	1.65	78	iP	34	07.32	0.4
SEW	1.71	177	eP	34	06.67	-1.0
VLZ	1.71	112	eP	34	06.83	-0.8
KLU	1.79	99	iP	34	08.24	-0.6
			iS	34	30.66	
RDT	1.84	229	eP	34	08.42	-1.1
NNL	1.95	206	eP	34	11.24	0.0
MCK	1.96	9	eP	34	11.38	0.0
RED	2.07	229	eP	34	11.98	-1.1
PAX	2.25	57	eP	34	15.86	0.2
ILIM	2.38	225	eP	34	16.24	-1.2
CNPM	2.42	200	eP	34	18.02	0.0
SGAM	2.50	120	eP	34	17.50	-1.6
WRH	2.76	14	eP	34	21.69	-1.0
RAGM	2.79	119	eP	34	23.41	0.3
NEA	2.79	5	eP	34	21.53	-1.6
			eS	34	54.31	
HDA	2.87	24	eP	34	24.11	-0.2
CCB	2.97	15	eP	34	23.96	-1.6
SVW	2.97	259	eP	34	23.20	-2.5
HMT	2.99	117	eP	34	24.36	-1.5
PDB	3.03	230	eP	34	24.65	-1.8

04d 18h

RDS	3.10	12	eP	34 26.21	-1.3
TTA	3.19	294	eP	34 26.57	-2.3
FBA	3.21	14	eP	34 27.60	-1.5
IMA	4.64	339	eP	34 47.60	-1.9

39 obs. assaciated

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* FEB 04, 1989 18h 43m 09.38± 1.00s
4.942 N ±10.8km 82.641 W ±23.2km
DEPTH = 10.0km (geophysicist)
4.4mb (2 abs.)
SOUTH OF PANAMA (83)

DVD	3.48	3	ePd	44 05.00	0.4
PBC	3.48	354	ePd	44 04.60	0.0
			S	44 50.50	
CTCR	3.93	358	iPc	44 12.10	0.8
			S	45 01.20	
TIG	4.12	351	iPd	44 14.30	0.5
			S	45 05.00	
OPS	4.67	342	ePd	44 20.70	-1.0
			S	45 17.50	
CDM	4.72	346	iPd	44 22.70	0.0
			S	45 20.40	
PTCR	5.13	340	eP	44 27.10	-1.2
			S	45 29.40	
IRZ2	5.15	346	eP	44 28.40	-0.3
			S	45 31.10	
HDC2	5.26	344	iPd	44 30.20	0.1
			S	45 33.00	
CAO	5.32	333	iPc	44 29.30	-1.6
ALQ	37.10	327	iP	50 24.10	2.0
	1.2s		6.64nm		4.3mb
GOL	40.23	333	eP	50 50.20	1.9
	0.8s		9.23nm		4.5mb
KVN	46.72	322	eP	51 41.00	0.3
YKA	62.08	344	P	53 32.60	0.2
GKN	145.02	20	PKP	02 48.80	-0.8
	0.9s		13.00nm		
KKN	145.43	19	PKP	02 49.80	-0.5
	0.6s		6.00nm		
DMN	145.54	19	PKP	02 49.70	-0.9

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

FEB 04, 1989 18h 55m 18.28± 0.57s
18.902 N ± 5.4km 64.405 W ± 3.4km
DEPTH = 33.5 ± 6.7 km
4.9mb (21 obs.)
VIRGIN ISLANDS (91)
ML 5.0 (FDF).

LPR	1.51	247	iP	55 43.90	0.5
CSB	1.77	250	iP	55 47.00	-0.1
SJG	1.83	245	iP	55 48.20	0.2
SKDB	2.13	134	eP	55 53.19	1.0
BSK	2.15	136	eP	55 52.49	0.0
			eS	56 21.34	
SKI	2.22	134	eP	55 54.00	0.4
MCP	2.61	260	iP	55 59.00	0.0
MGP	2.70	251	iP	56 01.00	0.7
CPB	2.75	117	eP	55 55.10	-5.9X
			eS	56 34.97	
ANG	3.00	125	eP	56 04.28	-0.4
			eS	56 42.28	
MGH	3.01	136	eP	56 05.27	0.5
			eS	56 39.75	
SEG	3.72	132	iPd	56 14.28	-0.5
			S	57 01.00	
PAG	3.86	137	eP	56 16.40	-0.5
			S	57 04.00	
DOG	3.90	137	ePd	56 17.20	-0.2
DEG	4.10	128	eP	56 19.30	-1.0
MGG	4.18	135	eP	56 21.05	-0.3
BBL	4.37	140	ePd	56 23.39	-0.8
DSVT	4.66	141	eP	56 28.94	0.7
			eS	57 28.55	
DTMT	4.67	141	eP	56 27.19	-1.2
FDF	5.19	143	eP	56 34.50	-1.2
CRM	5.31	140	eP	56 37.10	-0.2
BIM	5.40	143	eP	56 37.37	-1.4
MVM	5.48	142	eP	56 40.90	1.2
SVB	6.36	151	eP	56 47.19	-5.1X
			eS	57 43.36	
TRN	8.70	160	eP	57 24.74	-0.1
			eS	58 13.52	
TBH	8.97	158	eP	57 31.33	2.8
			eS	58 18.07	
TPP	9.00	161	eP	57 29.61	0.6
			eS	58 19.67	
PNJ	23.47	341	iP	00 47.10	21.4X
GAC	28.26	343	eP	01 55.00	44.6X
ZOBO	35.14	186	eP	02 10.00	-1.7
LPB	35.40	186	eP	02 13.00	-0.7
CNCB	35.66	186	P	02 16.00	-0.1
SCH	35.90	358	eP	02 17.00	-0.1
FRB	44.90	357	eP	03 31.00	-0.2
SES	48.44	322	eP	04 00.00	0.6
YKA	55.49	334	P	04 50.80	-1.2
TOL	55.53	54	eP	04 54.00	1.3
LPF	58.43	45	eP	05 13.10	0.0
	0.9s		11.10nm		5.0mb
GRR	58.59	44	eP	05 14.30	0.1
	0.8s		16.10nm		5.2mb
FLN	58.88	44	eP	05 16.40	0.2
	0.6s		9.00nm		5.1mb
MFF	58.89	47	eP	05 16.60	0.3
	1.0s		9.60nm		4.9mb
TIC	58.94	94	P	05 06.30	-10.8X
EPF	58.99	51	eP	05 17.90	0.7
	0.8s		7.20nm		4.9mb
LDF	59.10	44	eP	05 17.90	0.1
	0.8s		13.40nm		5.1mb
KIC	59.29	94	Pd	05 08.60	-11.0X
LPO	59.69	49	eP	05 22.20	0.3
	0.8s		6.40nm		4.8mb
RJF	59.95	48	eP	05 23.80	0.1
	0.6s		5.40nm		4.9mb
LSF	60.02	47	eP	05 24.10	0.0
	0.6s		3.60nm		4.7mb
CAF	60.32	49	eP	05 26.60	0.3
	0.8s		4.50nm		4.7mb
TCF	60.49	47	eP	05 27.40	0.0
	0.6s		5.40nm		4.9mb
AVF	61.30	46	eP	05 32.60	-0.2
	0.8s		8.00nm		4.9mb
SSF	61.42	46	eP	05 33.30	-0.4
	0.8s		4.50nm		4.7mb
SMF	61.63	47	eP	05 34.90	-0.2
	1.0s		8.00nm		4.8mb
LOR	61.67	46	eP	05 34.80	-0.6
	0.6s		5.40nm		4.9mb
DOU	62.30	43	Pc	05 39.30	-0.2
MEM	63.23	42	P	05 45.40	-0.2
HAU	63.37	45	eP	05 46.30	-0.4
LPG	63.64	48	eP	05 49.40	0.6
	1.0s		6.00nm		4.7mb
ALE	63.67	0	eP	05 46.00	-2.1
	0.5s		6.00nm		5.0mb
MBC	63.72	347	eP	05 47.00	-1.5
	0.7s		3.00nm		4.5mb
CDF	64.00	45	eP	05 50.50	-0.4
INK	64.89	337	eP	05 55.00	-1.1
GRF	66.58	43	e(P)	06 09.70	2.4
	0.9s		20.00nm		5.2mb
			eSg	25 02.00	
GRB2	66.89	44	e(P)	06 09.70	0.4
	0.9s		20.00nm		5.2mb
MLR	77.01	46	ePc	07 11.00	1.3
BNG	81.92	88	ePd	07 37.00	0.4
	0.6s		3.00nm		4.5mb
			id	07 46.40	
GKN	124.58	34	PKP	14 17.00	0.4
KKN	125.08	33	PKP	14 18.00	0.3
GBA	130.43	52	PKPd	14 28.10	0.2
	0.6s		1.00nm		
NNT	145.02	28	ePKP	14 54.60	0.0
COO	145.19	243	ePKP	14 55.00	0.4
ASPA	162.30	251	iPKPc	16 05.60	47.7X
	0.6s		6.00nm		

S.D. = 0.8 on 65 of 72 obs.

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* FEB 04, 1989 19h 21m 32.25± 0.84s
44.925 N ± 7.3km 20.553 E ±10.0km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MG 3.2 (BEO). Felt at Beograd.

BEO	0.13	214	iPg	21 36.20	0.9
			eSg	21 39.70	
SSR	0.85	94	iPc	22 45.00	56.4X
BZS	1.02	47	iPc	21 51.50	0.0
			e	37 36.00	
DEV	1.91	59	ePd	22 06.00	0.8
CJR1	2.79	48	eP	22 23.70	6.0X
SKO	3.02	167	ePn	22 28.00	7.0X
VTS	3.02	140	iP	22 26.00	4.8X
PSZ	3.03	352	ePn	23 20.90	59.7X
SRO	3.28	333	ePn	22 24.10	-0.5
			eSn	23 26.90	
PGB	3.53	131	eP	22 27.00	-1.3
KKB	3.57	148	eP	22 30.00	1.2
VBY	3.79	281	e(Pn)	22 52.60	20.7X
			eSn	23 37.40	
OHR	3.82	177	ePn	22 31.40	-1.0
PVL	3.84	115	eP	22 27.00	-5.7X
MLR	3.85	80	ePc	22 50.00	17.1X
VAY	3.89	157	ePn	22 37.30	3.9X
MMB	4.06	144	eP	22 48.00	12.2X
			eS	23 48.00	
PLD	4.13	132	eP	22 49.00	12.3X
LJU	4.38	287	eP	22 59.00	18.7X
			e(Sn)	23 59.10	
RZN	4.44	135	eP	22 47.00	5.7X
			iS	23 54.00	
KDZ	4.83	131	eP	23 17.00	30.3X
KBA	5.46	296	eP	23 13.50	17.6X
			e	23 19.00	
			i	24 11.80	

S.D. = 1.2 on 7 of 22 obs.

FEB 04, 1989 19h 24m 07.40± 0.19s
5.862 N ± 3.4km 82.697 W ± 3.0km
DEPTH = 10.0km (geophysicist)
5.8mb (65 abs.) 5.9Msz (19 obs.)
SOUTH OF PANAMA (83)
Ms 5.9 (BRK), 5.8 (PAS).
Mo=5*10**18 Nm (PPT).
FAULT PLANE SOLUTION: P-Waves
NP1:Strike= 10 Dip=87 Slip=-176
NP2: 280 86 -3
Principal Axes:
T Plg= 1 Azm=145
P 5 235
Comment: The focal mechanism is poorly controlled and corresponds to strike-slip faulting. The preferred fault plane is not determined.
MOMENT TENSOR SOLUTION
Dep 17 No. of sta: 6
Moment Tensor; Scale 10**18 Nm
Mrr= 0.03 Mtt= 0.46
Mff=-0.49 Mrt= 0.07
Mrf= 0.61 Mtf= 2.33
Principal axes:
T Val= 2.45 Plg=10 Azm=320
N 0.02 76 184
P -2.47 10 52
Best Double Couple:Mo=2.5*10**18
NP1:Strike= 96 Dip=76 Slip= 0
NP2: 6 90 166
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 32C M.W.: 12S, 28C
Centroid Location:
Origin Time 19:24:16.3 0.2
Lat 5.69N 0.02 Lon 82.66W 0.02
Dep 15.0 FIX Half-duration 5.5
Moment Tensor; Scale 10**18 Nm
Mrr= 0.28 0.04 Mtt= 0.00 0.03
Mff=-0.28 0.05 Mrt= 0.54 0.12
Mrf= 0.76 0.15 Mtf= 3.12 0.03
Principal Axes:
T Val= 3.26 Plg=17 Azm=316
N 0.00 73 146
P -3.27 3 47
Best Double Couple:Mo=3.3*10**18
NP1:Strike= 93 Dip=76 Slip= 10
NP2: 0 80 166

PBC	2.56	352	iPc	24 48.00	-1.7
DVD	2.57	5	iPc	24 48.60	-1.1
			i	24 50.50	
ACR	2.81	350	iPd	24 52.60	-0.6
CTCR	3.02	359	iPc	24 54.30	-2.0
IDC	3.06	338	iPc	24 54.80	-1.9
			S	25 33.90	
TIG	3.21	349	ePc	24 57.80	-1.1
OPS	3.80	338	ePc	25 05.20	-2.0
			S	26 51.90	
CDM	3.82	344	iPc	25 06.40	-1.6
			S	26 53.70	

OCR	3.84	338	iPd	25	06.10	-1.8	SIO	32.27	339	ePc	30	36.70	-1.8		E	20s	8.00um												
LCR2	4.07	342	iPc	25	09.60	-1.6	OCO	32.50	337	ePc	30	38.50	-2.0					ePP	34	51.00									
			S	25	48.50		CBN	32.56	8	eP	30	41.50	0.6					ePPP	35	37.00									
ICR	4.24	345	iPc	25	13.00	-1.0	FVM	32.74	349	P	30	41.00	-1.5					i	39	54.00									
IRZ2	4.25	344	iPc	25	12.40	-1.6		1.0s	340.00nm			6.2mb						iS	40	07.00									
SJS	4.27	342	iPd	25	13.20	-0.9	RRO	32.79	336	ePc	30	44.00	0.9					e	40	35.00									
			S	25	58.30		PCO	33.36	339	ePd	30	46.80	-1.1					iSS	43	39.00									
HDC2	4.37	341	iPc	25	14.00	-1.5	HJA	33.48	150	iPd	30	46.50	-2.5					i	45	36.00									
			S	27	07.00		ACO	34.19	336	ePd	30	55.50	0.4					i	46	24.00									
CAO	4.50	328	iPc	25	14.90	-2.3	PRIN	35.09	11	P	31	03.40	0.6					eLR	47	42.00									
EPA	4.51	335	iPc	25	15.70	-1.7	CLE	35.49	2	iP	31	07.20	1.0	BRK	48.01	317	eP	32	49.50	0.8								
SRA	4.54	338	iPd	25	16.90	-1.0	GMTN	35.69	11	iP	31	08.60	0.7		Z	20s	13.00um			5.9Msz								
SDV	12.33	75	eP	27	05.00	-1.2	PNJ	35.72	11	iP	31	09.20	1.1					ePP	34	48.00									
TPX	13.00	314	iP	27	16.00	1.0	ALQ	36.31	326	iPc+	31	14.50	1.1					eLR	48	02.00									
TOV	13.36	72	iP	27	17.60	-2.2		1.8s	545.45nm			6.1mb		ORV	48.42	320	iPc	32	52.70	0.9									
GCM	13.41	5	eP	27	22.80	2.5		Z 22s	8.33um			5.5Msz		STJ	48.83	27	eP	32	55.50	0.7									
SCX	14.54	319	(P)	27	43.00	7.8X	ANMO	36.31	326	iPc	31	14.43	1.0	MIN	48.92	320	ePc	32	55.30	-0.6									
CEOS	14.58	77	eP	27	33.00	-2.9				ePP	32	31.68		WDC	49.64	320	ePc	32	59.20	-2.0									
MORO	15.07	70	eP	27	40.00	-2.3	INY	36.84	8	iPc	31	17.00	-0.6	SES	50.33	337	eP	33	06.00	-0.4									
GUAC	15.87	73	eP	27	51.00	-1.7				PP	32	50.00			1.6s	953.00nm			6.5mb										
OLLA	16.27	74	eP	27	54.00	-3.8X				ePPP	33	05.00					pP	33	17.00	38kmX									
CAR	16.27	73	iPc	27	52.00	-5.9X				eS	37	08.00		SCH	50.47	12	ePd	33	06.30	-1.1									
			iS	30	52.00					SS	39	50.00			1.0s	151.00nm			5.9mb										
LLAV	16.38	73	eP	27	56.00	-3.2X				LQ	44	00.00		FHC	50.69	320	ePc	33	09.70	0.4									
OXX	17.68	310	iPc	28	20.00	4.3X				LR	47	00.00		FFC	51.14	346	eP	33	11.00	-1.4									
IISM	19.36	314	iPc	28	38.50	2.3	DLA	36.86	1	P	31	16.60	-1.1		1.6s	238.00nm			5.9mb										
MGP	19.44	50	iPd	28	36.80	-0.3	LDN	37.05	2	P	31	18.25	-1.0	PNT	53.33	331	ePc	33	29.00	0.0									
MCP	19.67	49	iPd	28	39.80	0.0	ELF	37.20	2	P	31	19.55	-1.0		1.3s	327.00nm			6.1mb										
ACX	20.05	304	iPd	28	46.00	2.3	PTN	39.14	9	P	31	36.80	-0.1	EDM	53.44	338	iPd	33	28.00	-1.7									
IIT	20.06	312	iPd	28	47.50	3.4X	RSNY	39.19	9	P	31	37.00	-0.3		1.0s	577.00nm			6.5mb										
SJG	20.23	52	iPd	28	45.00	-0.6		1.0s	75.00nm			5.3mb		GMW	53.83	327	P	33	31.40	-1.2									
III	20.55	309	iPc	28	56.00	6.8X		Z 20s	16.95um			5.9Msz		PGC	54.85	328	eP	33	40.00	-0.1									
SMMM	20.83	313	iP	28	55.25	3.5X	GOL	39.40	332	P	31	40.00	0.6	RKT	58.62	239	iP	34	06.80	-0.5									
UNM	20.90	311	iPd	28	56.00	3.1X		Z 18s	8.67um			5.6Msz			1.2s	115.00nm			5.8mb										
IIC	21.22	312	iPc	28	58.50	2.3	BNH	39.85	13	P	31	43.80	1.0	FRB	58.68	7	eP	34	04.00	-3.1X									
CRX	21.32	311	iPd	29	01.00	3.8X	JACH	40.02	164	eP	31	44.90	0.5		1.1s	159.00nm			6.0mb										
TPP	21.49	77	eP	28	58.42	-0.1	GAC	40.18	8	eP	31	46.00	0.6	YKC	61.14	344	iPd	34	22.00	-2.0									
TRN	21.60	76	eP	28	56.87	-2.8	GLA	40.30	316	P	31	48.00	1.3		1.1s	345.00nm			6.4mb										
TBH	21.89	76	eP	29	02.27	-0.3	PEL	40.43	164	iPc	31	44.10	-3.6X	YKA	61.19	344	P	34	22.70	-1.7									
SVB	22.38	69	eP	29	06.07	-1.4	LCCH	40.52	166	eP	31	47.50	-0.9	SIT	65.49	331	eP	34	52.60	-0.1									
SVV	22.42	69	eP	29	10.09	2.2	MDZ	40.72	162	e(P)	31	47.70	-2.4	GDH	66.15	11	iPc	34	55.00	-1.8									
BSK	22.52	58	eP	29	11.00	2.1	SAN	40.73	165	eP	31	47.50	-2.6		1.1s	48.10nm			5.6mb										
SKI	22.60	58	eP	29	09.45	-0.2	PCH	40.93	164	eP	31	50.50	-1.3				i	51	25.00										
MGH	22.77	60	eP	29	13.02	1.7	EMM	40.94	17	P	31	53.00	1.3	RUV	67.40	251	iP	35	06.40	0.7									
DSVT	22.92	64	eP	29	13.63	0.9	ITB1	40.98	139	e(P)	31	49.30	-2.9		1.2s	90.00nm			5.8mb										
BBL	22.93	64	eP	29	13.00	0.1	MIM	40.99	15	P	31	53.00	0.9	PMO	67.84	251	iP	35	09.70	1.3									
DTMT	22.93	64	eP	29	14.34	1.3	LNV	41.02	166	eP	31	48.50	-3.9X		1.2s	100.00nm			5.9mb										
FDF	22.94	66	eP	29	13.80	0.8	BAR	41.39	315	eP	31	56.00	0.4	PAE	70.01	249	eP	35	23.00	1.2									
			S	33	34.00		TPC	41.74	317	eP	32	00.00	1.5		1.2s	115.00nm			5.9mb										
PAG	22.95	62	eP	29	14.00	0.8	PLM	41.88	315	P	32	01.00	1.1	INK	70.86	342	eP	35	26.00	-0.1									
MGG	23.23	63	eP	29	16.00	0.2	RVR	42.59	316	eP	32	07.00	1.6		1.2s	369.00nm			6.4mb										
SEG	23.25	61	eP	29	17.00	1.0	CBM	42.80	15	P	32	08.00	1.1	MBC	73.17	351	eP	35	38.00	-1.7									
SFG	23.46	62	eP	29	16.00	-2.1	GSC	42.94	318	eP	32	10.00	1.7		1.4s	437.00nm			6.3mb										
CPB	23.51	58	eP	29	17.91	-0.6	MWC	43.19	316	eP	32	11.00	0.4	LIS	73.52	51	iPc	35	43.20	0.7									
DEG	23.61	62	eP	29	19.00	-0.6	PAS	43.23	315	eP	32	11.00	0.4	PTO	74.19	49	eP	35	44.90	-1.4									
ARE	24.80	154	eP	29	29.00	-2.4				ePP	33	56.00		HON	74.22	290	P	35	50.00	3.2X									
ZOBO	26.30	147	P	29	41.80	-4.0X				ePPP	34	53.00			Z 22s	12.22um			6.1Msz										
			LR	37	41.00					eS	38	37.00		OPA	74.23	291	P	35	50.00	3.2X									
LPB	26.53	147	Pc	29	44.80	-2.9				eSS	42	19.00		FBA	74.31	336	eP	35	45.80	-0.8									
	2.0s	2352.94nm			6.5mb					eLR	45	14.00		KDC	74.34	328	eP	35	46.80	0.0									
	Z 18s	79.04um			6.3Msz		SBB	43.28	316	eP	32	12.00	0.9	STS	74.42	47	e(P)	35	48.30	0.7									
			S	34	24.00		CLC	43.76	318	eP	32	16.00	1.0	AVE	74.51	57	eP	35	48.00	-0.3									
			LR	37	20.00		BW06	43.77	331	P	32	15.00	-0.2				i	36	06.50										
CNCB	26.82	147	Pc	29	46.30	-4.2X	TNP	44.83	321	P	32	24.30	0.5	TIO	74.52	60	iP	35	48.50	-0.1									
PRM	28.08	1	P	30	01.30	0.0	MNA	45.64	320	ePc	32	31.20	1.1	EVAL	75.32	53	e(P)	35	52.50	-0.4									
JSC	28.31	3	P	30	03.40	0.1	FRI	45.83	318	ePc	32	30.80	-0.6	EMON	75.37	47	e(P)	35	53.50	0.4									
LHS	28.53	3	P	30	04.50	-0.8	KVN	45.97	321	P	32	32.70	-0.1	ERUA	75.40	48	e(P)	35	54.00	0.7									
MZX	28.63	309	iPc	30	07.50	1.2	PRI	46.02	316	iPc	32	33.70	0.6	EPLA	76.01	50	e(P)	35	56.00	-0.9									
PWLA	29.40	351	P	30	11.70	-1.4	LLA	46.46	317	ePc	32	36.40	-0.1	IFR	76.43	57	iPd	35	59.00	-0.5									
TKL	29.67	358	P	30	14.80	-0.7	PRS	46.61	316	iPc	32	38.20	0.6	EPRU	76.49	54	e(P)	36	00.70	1.1									
RSCP	29.71	355	P	30	15.00	-1.0	CMB	46.85	319	iPc	32	39.36	-0.2	EHOR	76.52	53	e(P)	35	59.40	-0.3									
	1.0s	215.00nm			5.9mb					ePP	34	29.72		DCN	76.62	37	eP	36	01.70	1.8									
OLY	30.58	346	P	30	22.00	-1.7				iS	39	35.42			0.9s	106.00nm			5.9mb										
BLA	31.27	4	P	30	29.40	-0.3	SAO	46.88	316	ePc	32	41.30	1.5	SVW	76.67	332	eP	35	59.00	-1.1									
	1.0s	450.00nm			6.3mb		BMA	47.18	128	e(P)	32	42.00	-0.4	DMU	76.92	36	eP	36	01.90	0.3									
NAV	31.36	3	P	30	30.00	-0.5	ARN	47.25	317	P	32	43.30	0.6		1.0s	123.00nm			5.9mb										
ATB	31.76	106	e(P)	30	28.70	-5.5X	MHC	47.32	317	ePc	32	44.60	1.2	IMA	77.00	337	ePc	36	01.40	-0.6									
CVL	32.20	6	P	30	37.40	-0.4				eS	39	46.00			1.5s	131.90nm			5.8mb										
RLO	32.21	341	iP	30	37.50	-0.5				eSS	43	32.00		DLE	77.05	37	eP	36	03.40	1.1									
TUL	32.24	340	ePc+	30	36.70	-1.5				eLQ	45	39.00		ALE	77.11	3	eP	36	00.00	-2.2									
	1.3s	186.50nm			5.9mb					eLR	47	25.00			0.9s	27.00nm			5.3mb										
	Z 19s	11.57um			5.6Msz		GCC	47.40	316	ePc	32	44.50	0.7	TIC	77.14	85	P	36	00.44	-3.1X									
			e	31	40.00		LRM	47.43	332	ePc	32	44.70	0.4		0.9s	39.00nm			5.5mb										
			e	36	49.00		BKS	48.00	317	ePc	32	53.00	4.4X	LIC	77.16	85	P	36	00.70	-3.0X									
			LR	40	00.00			1.4s	269.00nm			6.1mb		AAPN	77.39	53	eP	36	04.60	-0.1									
LNO	32.24	340	ePc	30	36.70	-1.3		Z 20s	6.00um			5.6Msz		ALOJ	77.39	53	eP	36	05.00	0.2									
FKO	32.24	337	eP	30	37.00	-1.2		N 20s	7.00um					KIC	77.44	85	P	36	02.26	-3.0									

04d 19h

	0.8s	50.00nm			5.6mb		CDF	85.64	42	P	36	47.86	0.1		LCI	94.31	49	P	37	30.00	1.5	
ATEJ	77.46	54	eP	36	05.50	0.4	CALN	85.69	47	P	36	48.82	0.7		SPA	95.82	180	e(P)	37	32.80	-2.4	
GUD	77.51	50	e(P)	36	04.70	-0.7	LSD	85.76	45	P	36	49.73	1.1			1.0s		7.00nm			5.1mb	
TOL	77.56	51	iPd	36	06.50	1.1	PZZ	85.79	46	P	36	50.04	1.4			Z 20s		3.24um			5.8Msz	
	1.8s	636.36nm			6.4mb		GWF	85.83	41	P	36	48.24	-0.3					e	37	53.10		
		eS		45	50.00		RSP	85.86	45	P	36	50.55	1.7		SKO	96.52	47	iP	37	39.70	1.0	
		eSS		50	35.00		BBS	85.87	43	P	36	48.62	-0.2			Z 19s		1.43um			5.5Msz	
ACHM	77.61	53	eP	36	06.50	0.6	MVIF	85.87	46	P	36	49.43	0.4			E 20s		1.80um				
ASMO	77.69	53	eP	36	06.50	0.1	DOI	85.89	46	Pc	36	50.70	1.6					iPP	38	34.00		
APHE	77.72	54	eP	36	07.00	0.4	DIX	85.90	44	ePc	36	49.00	-0.3					iPS	50	26.00		
CRT	77.80	53	eP	36	08.00	1.1	TOUF	85.93	46	P	36	49.88	0.5					iSS	55	35.00		
TAF	78.71	56	iPd	36	10.00	-1.9	STV	85.97	46	P	36	50.14	0.7					iSSS	59	26.00		
ETOR	79.11	50	e(P)	36	15.00	0.9	AURF	86.00	46	P	36	49.82	0.2					LR	15	54.00		
EKA	79.25	35	P	36	14.00	-0.4	AUTN	86.06	46	P	36	48.43	-1.7		VAY	97.50	47	eP	37	46.00	2.9X	
	1.2s	73.70nm			5.6mb		SBF	86.08	46	eP	36	50.40	0.5		BNG	100.70	84	ePdiff	38	10.10	11.9X	
BRW	79.39	342	eP	36	14.70	-0.1		1.8s	155.30nm			5.9mb				0.9s		9.00nm				
EALH	79.55	53	e(P)	36	17.30	0.9	SAOF	86.16	46	P	36	50.58	0.3					ic	41	07.30		
LPF	80.09	42	eP	36	19.60	0.6	FEL	86.17	42	P	36	50.49	0.1		MDJ	121.98	333	ePKP	43	03.00	-0.8	
	1.5s	114.90nm			5.6mb		TNS	86.27	40	ePc	36	52.10	1.3			Z 28s		2.50um			5.7MszX	
GRR	80.23	42	eP	36	20.20	0.5	MMK	86.28	44	ePc	36	51.60	0.4					ePP	44	40.00		
	1.6s	228.80nm			5.9mb		ORO	86.33	45	P	36	52.00	0.8		CN2	124.42	336	ePKP	43	07.00	-1.6	
FLN	80.49	42	eP	36	21.90	0.8	ORX	86.33	45	P	36	51.48	0.3			Z 20s		3.00um			6.0Msz	
	1.6s	223.80nm			5.9mb		ROB	86.36	46	P	36	51.48	0.2			N 18s		1.20um				
MFF	80.65	44	eP	36	22.60	0.5	IMI	86.40	46	P	36	51.78	0.2					ePP	44	49.00		
	1.6s	92.00nm			5.5mb		ZLA	86.46	43	ePc	36	51.10	-0.6		MHI	125.11	37	ePKP	43	10.00	-0.3	
LDF	80.72	42	eP	36	23.00	0.6	SLE	86.51	43	ePc	36	51.40	-0.5		SNY	126.82	336	ePKP	43	12.00	-1.3	
	1.6s	211.40nm			5.9mb		FIN	86.61	46	P	36	51.78	-0.7			Z 20s		3.20um			6.0Msz	
EPF	80.94	47	eP	36	24.80	1.0	CKI	86.64	46	P	36	53.00	0.4			N 22s		3.20um				
	1.8s	215.70nm			5.9mb		NAO	86.65	29	P	36	52.40	0.1			E 21s		2.00um				
EROQ	80.98	50	e(P)	36	25.00	1.1		1.1s	54.90nm			5.7mb						PP	45	11.00		
LFF	81.25	46	eP	36	26.00	0.8	VAI	86.86	44	Pc	36	54.80	1.2		WMQ	129.79	9	ePKP	43	18.50	-0.5	
	1.8s	258.90nm			6.0mb		TMA	86.91	44	ePc	36	53.60	-0.5			Z 28s		5.00um			6.1MszX	
LPO	81.56	46	eP	36	27.50	0.6	LLS	86.93	43	ePc	36	54.50	0.3					PP	45	26.00		
	1.7s	152.90nm			5.8mb		SAX	87.13	43	ePc	36	55.20	-0.1		KSH	130.79	22	PKP	43	21.30	0.2	
KUK	81.78	85	eP	36	26.50	-2.1	CVF	87.23	48	P	36	55.95	0.4		BJI	131.12	341	PKP	43	20.00	-1.5	
RJF	81.80	45	eP	36	29.00	0.9	VDL	87.29	44	ePc	36	56.10	0.1			Z 20s		2.70um			5.9Msz	
	1.6s	111.90nm			5.7mb		BOB	87.44	45	P	36	57.00	0.4			N 20s		3.60um				
LSF	81.81	44	eP	36	28.70	0.6	MDI	87.52	44	P	36	57.00	0.2					PP	45	35.00		
	1.6s	99.50nm			5.6mb		OSS	87.73	43	ePc	36	58.00	0.0					PKS	46	46.00		
KOGH	81.92	85	eP	36	26.00	-3.4X	GRF	88.11	40	eP	37	00.80	1.2					SS	03	09.00		
LEGH	82.02	85	eP	36	28.50	-1.3		1.2s	75.00nm			5.9mb			HHC	131.71	346	ePKP	43	22.90	0.1	
SHGH	82.13	85	eP	36	30.00	-0.4	Z	22s	7.40um			6.1Msz				Z 22s		3.80um			6.1Msz	
CAF	82.19	46	eP	36	30.70	0.5	SAL	88.11	45	P	37	07.20	7.6X		BTO	132.31	347	ePKP	43	23.50	-0.5	
	1.7s	127.90nm			5.8mb		MOX	88.25	39	eP	37	01.00	0.8		QUE	133.83	37	ePKP	43	26.00	-1.3	
TCF	82.28	44	eP	36	30.90	0.3		2.0s	118.00nm			5.9mb			TIA	134.20	338	ePKP	43	26.50	-1.1	
	1.6s	58.40nm			5.5mb				eS	47	50.00					Z 45s		3.60um			5.7MszX	
MAF	82.53	44	eP	36	32.20	0.3			ePS	48	45.00					N 16s		1.50um				
	1.6s	111.90nm			5.8mb				eSS	53	40.00							ePP	45	57.00		
BGF	82.72	44	eP	36	33.20	0.3			eLQ	00	00.00				TIY	134.41	343	ePKP	43	24.60	-3.4X	
	1.8s	172.60nm			5.9mb				eLR	05	25.00					N 23s		6.90um				
ESEL	82.90	51	e(P)	36	35.50	1.6	OGA	88.31	43	eP	37	02.80	1.9					PP	45	57.50		
AVF	83.06	44	eP	36	34.70	0.1	FUR	88.33	42	eP	37	02.50	1.8					PKS	47	03.00		
	1.6s	52.20nm			5.5mb		BDI	88.33	46	P	37	02.20	1.3		GTA	134.90	357	PKP	43	27.50	-1.5	
SSF	83.16	43	eP	36	35.00	-0.1	FIR	88.84	46	eP	37	06.00	2.8X			Z 21s		2.60um			5.9Msz	
	1.6s	74.60nm			5.6mb		MAO	88.93	48	P	37	07.70	4.0X			E 22s		3.40um				
LOR	83.40	43	eP	36	36.80	0.4	CLL	89.03	39	iP	37	05.20	1.3					PP	45	57.00		
	2.0s	116.60nm			5.7mb			1.7s	81.00nm			5.7mb			SSE	136.74	330	ePKP	43	32.20	-0.3	
SMF	83.40	44	eP	36	36.60	0.2	PGD	89.16	46	P	37	05.00	0.0			1.2s		34.00nm				
	1.6s	64.60nm			5.6mb		BHG	89.45	42	eP	37	07.50	1.5			Z 26s		9.40um			6.4MszX	
LBF	83.48	43	eP	36	36.70	-0.2		1.5s	71.00nm			5.7mb				E 16s		3.40um				
	1.8s	89.70nm			5.7mb		FVI	89.54	43	Pc	37	07.70	1.3					sPKP	43	48.00		
SNF	83.60	40	Pc	36	38.40	1.2	KHC	89.71	41	iPd	37	08.70	1.4					ePP	46	11.00		
DOU	83.81	40	Pc	36	39.40	1.1		1.3s	20.00nm			5.2mb						PKS	47	06.00		
ENN	84.63	40	eP	36	43.00	0.6			e	38	03.90							i	58	35.00		
	1.2s	80.00nm			5.8mb		KBA	89.86	43	eP	37	09.00	0.8					SS	04	23.00		
MEM	84.69	40	Pc	36	44.20	1.5		1.5s	44.60nm			5.5mb			LZH	137.82	352	ePKP	43	34.00	-0.7	
VITF	84.79	42	P	36	42.76	-0.5	MNS	90.05	48	P	37	11.50	2.5			1.0s		37.00nm				
WLF	84.83	41	P	36	43.20	-0.2	RBL	90.10	43	P	37	09.90	0.7		XAN	138.82	345	PKP	43	36.00	-0.4	
WIT	84.99	38	eP	36	46.00	1.8	VOY	90.39	44	eP	37	11.60	1.1			N 18s		2.70um				
HAU	85.05	42	eP	36	45.10	0.4	CEY	90.80	44	eP	37	14.40	2.0					PP	46	26.00		
	1.7s	132.30nm			5.9mb		LJU	90.83	44	eP	37	14.50	2.1		WHN	140.29	337	ePKP	43	31.50	-7.5X	
WTS	85.12	38	eP	36	46.00	1.2	SDI	90.99	48	P	37	14.40	1.1			Z 20s		2.80um			6.0Msz	
	1.0s	106.00nm			6.0mb		KSP	91.15	39	eP	37	14.80	1.0			N 20s		2.07um				
KBS	85.18	11	iP	36	45.50	0.8	FAI	91.54	52	P	37	18.70	2.8X			E 18s		1.52um				
LRG	85.33	47	eP	36	47.00	0.9	VKA	91.64	41	e(P)	37	17.00	0.9					ePP	46	32.00		
	1.6s	124.30nm			5.9mb				e	37	29.50				ASPA	140.61	239	ePKP	43	32.80	-7.1X	
BSF	85.36	43	P	36	44.86	-1.5	ZST	92.17	41	eP	37	19.70	1.1		WB5	141.39	245	ePKP	43	35.90	-5.4X	
LOMF	85.41	43	P	36	44.49	-2.1	MGR	92.54	49	P	37	20.80	0.4		WRA	141.40	245	PKPc	43	35.80	-5.5X	
BNS	85.41	39	iPc	36	47.20	0.8	SRO	93.04	41	eP	37	24.50	1.9			1.2s		10.00nm				
LMR	85.44	47	eP	36	47.50	0.8			e	41	05.10				CD2	142.92	351	ePKP	43	38.80	-5.0X	
	1.8s	138.10nm			5.9mb		SUF	93.33	26	eP	37	24.00	0.4		GKN	144.18	19	PKP	43	42.40	-3.7X	
BNI	85.45	45	P	36	48.00	1.1	KJF	93.48	24	eP	37	24.00	-0.2		KKN	144.59	19	PKP	43	44.00	-2.9X	
LPG	85.48	45	eP	36	48.50	1.3	KRA	93.60	39	eP	37	26.20	1.1		GUN	144.66	18	PKP	43	45.00	-2.2X	
	1.7s	113.20nm			5.8mb			1.1s	43.00nm			5.8mb			DMN	144.70	19	PKP	43	44.70	-2.5X	
RRL	85.54	45	P	36	48.30	0.8	Z	20s	5 60um			6.0Msz			PKI	144.83	19	PKP	43	44.80	-2.7X	
EMS	85.56	44	ePc	36	47.30	-0.2			e	37	34.80				BOM	145.54	44	ePKP	43	46.50	-1.9	
MOF	85.58	42	P	36	45.48	-2.0	SPC	93.99	40	eP	37	31.20	4.0X					ePP	46	17.50		

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MTN    145.94 256 ePKP   43 47.00   -2.2X
POO    146.50  43 iPKPd  43 54.80    4.7X
COOL   146.53 219 ePKP   43 48.50   -1.3
GYA    146.61 345 PKP    43 49.80   -0.4
GZH    147.23 332 PKP    43 52.00    0.9
NWAO   147.30 212 ePKP   43 54.00    3.1X
KNA    147.62 250 ePKP   43 53.00    1.2
BAG    148.06 314 ePKP   43 40.00  -12.8X
MUN    148.58 212 ePKP   43 54.00    1.0
KMI    148.75 350 ePKP   43 52.00   -1.8
     Z  20s      2.80um          6.1Msz
                sPKP   44 06.00
                PP     46 20.00
                SKKS   53 02.00
QCP    148.85 311 ePKP   43 56.00    2.2X
DAV    149.00 294 ePKP   43 58.30    4.1X
HYB    150.37  38 ePKP   43 56.00   -0.2
QIZ    152.35 334 ePKP   44 05.80    6.8X
     E  23s      3.90um
                PP     47 44.00
                SKS    51 07.00
GBA    152.38  45 PKP    44 00.20    1.1
KOD    154.58  51 ePKP   44 04.00    1.4
CHG    155.43 356 ePKP   44 03.00   -0.2
LOE    156.47 349 ePKP   44 05.00    0.3
BDT    156.98 356 ePKP   44 05.00   -0.3
SNG    166.63 346 ePKP   44 14.80   -0.3
                e      44 57.20
                eS     09 56.80
     S.D. = 1.2  on 318 of 365 obs.
-------------------------------------
*  FEB  04, 1989  20h 00m 55.60± 3.72s
   45.115 N ±10.1km    6.512 E ±27.9km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                              (538)
      ML 2.4 (GEN).

BNI      0.13 118 P      00 58.00   -0.9
                eSg    01 01.50
RRL      0.27 135 P      01 01.69    0.2
                S      01 05.95
RSP      0.53  86 P      01 06.52    0.2
                S      01 13.58
LSD      0.57  53 P      01 07.48    0.1
                S      01 15.17
PZZ      0.74 145 P      01 10.03   -0.2
                S      01 20.17
STV      1.05 146 P      01 15.92    0.5
                S      01 29.22
     S.D. = 0.6  on   6 of   6 obs.
-------------------------------------
   FEB  04, 1989  20h 26m 46.36± 0.60s
   5.548 S ± 5.6km  147.238 E ± 5.5km
   DEPTH = 182.3 ±  6.3 km
   5.1mb ( 10 obs.)
 EAST PAPUA NEW GUINEA REGION     (207)

LAT      1.12 192 eP     27 15.00   -0.5
MNDI     3.61 260 eP     27 44.00    0.6
PMG      3.84 181 iPc    27 45.50   -0.5
     0.7s   105.48nm
TZZ      6.00 272 eP     27 26.00  -48.2X
                eS     28 32.00
VSG     12.91 107 eP     29 45.00    0.6
HNR     13.18 108 eP     29 48.00    0.2
QIS     16.66 206 iPc    30 31.00    0.1
                eS     33 30.00
MTN     17.47 244 iPd    30 39.60   -0.8
WB5     18.97 220 iPd    30 56.20    0.0
WRA     19.03 220 Pc     30 57.30    0.4
     0.5s    72.20nm          5.4mb
KNA     20.77 239 eP     31 14.00   -0.5
ASPA    22.12 214 iPd    31 29.00    1.3
     0.6s   192.00nm          5.8mb
                eS     35 22.20
BRS     22.35 167 eP     31 29.00   -0.9
DZM     24.80 133 iPc    31 53.00   -0.3
WARB    28.43 222 iPd    32 21.40   -4.8X
     0.5s    30.00nm          5.3mb
FORR    30.94 213 iPd    32 48.70    0.6
     0.4s    24.00nm          5.3mb
MEKA    34.47 229 eP     33 19.30    0.5
     0.4s    27.00nm          5.3mb
NANU    34.98 238 iPd    33 23.30    0.2
     0.4s    10.00nm          4.8mb
COOL    35.16 221 iPd    33 25.00    0.4
MRWA    37.76 228 eP     33 47.00    0.6

QZH     41.17 319 eP     34 15.00    0.5
SSE     44.13 327 eP     34 39.30    0.9
WHN     47.73 321 eP     35 07.50    0.7
TIY     53.86 326 eP     35 52.80   -0.1
HHC     56.58 328 eP     36 12.80    0.4
LZH     58.02 319 eP     36 23.00    0.3
     1.0s    37.00nm          5.1mb
     Z  24s     2.90um          5.3MszX
GTA     62.55 320 iPc    36 54.00    0.8
GUN     67.82 303 P      37 26.90   -0.6
     0.6s    13.00nm          4.9mb
PKI     68.10 302 P      37 26.80   -2.4
KKN     68.28 303 P      37 29.20   -1.0
DMN     68.37 302 P      37 30.20   -0.5
     0.6s     7.00nm          4.6mb
GKN     68.89 303 P      37 33.00   -0.8
     0.6s     8.00nm          4.7mb
     S.D. = 0.8  on  30 of  32 obs.
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?  FEB  04, 1989  21h 35m 57.96±10.25s
   44.437 N ±62.5km    7.316 E ±20.3km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN ITALY                      (545)
      MD 1.8 (STR).

TOUF     0.43 187 Pg     36 06.52   -0.2
AUTN     0.45 170 Pg     36 07.28    0.1
                Sg     36 12.22
SAOF     0.48 159 Pg     36 07.89    0.1
AURF     0.55 179 Pg     36 08.58   -0.5
MVIF     0.55 192 Pg     36 10.04    0.7
CALN     0.75 204 Pg     36 12.65   -0.1
     S.D. = 0.5  on   6 of   6 obs.
-------------------------------------
   FEB  04, 1989  21h 37m 59.38± 0.27s
   44.392 N ± 2.8km    7.326 E ± 2.9km
   DEPTH =  17.5 ±  4.0 km
 NORTHERN ITALY                      (545)
      ML 3.3 (GEN), 3.2 (LDG).

DOI      0.13 333 Pd     38 03.20   -0.2
                eSg    38 06.50
STV      0.15 180 Pd     38 03.02   -0.7
PZZ      0.20 305 Pd     38 03.79   -0.7
ROB      0.40 104 Pc     38 08.33    0.6
FOUF     0.41 290 P      38 06.85   -1.0
SBF      0.53 171 Pg     38 10.20    0.2
IMI      0.63 140 Pc     38 11.66    0.1
                S      38 20.10
RRL      0.65 324 P      38 11.77   -0.4
                S      38 20.10
FIN      0.66 106 Pc     38 12.61    0.5
                S      38 21.54
CKI      0.68  87 P      38 13.10    0.6
                eSg    38 23.10
RSP      0.76 356 Pc     38 12.79   -1.1
                S      38 21.76
BNI      0.81 325 P      38 14.40   -0.3
                eSg    38 23.30
FRF      0.96 211 Pg     38 16.90   -0.4
                Sg     38 28.20
LSD      1.07 354 P      38 18.30   -1.0
                S      38 30.96
LRG      1.17 217 Pg     38 20.50   -0.2
                Sg     38 34.20
                Sn     38 36.30
LPG      1.18 340 Pn     38 21.30    0.2
                Pg     38 21.60
LPL      1.20 340 Pn     38 21.60    0.2
                Sg     38 37.40
LMR      1.21 209 Pn     38 21.20   -0.2
                Pg     38 21.50
                Sg     38 35.50
ORO      1.32  20 P      38 21.60   -1.4
                iSg    38 38.20
ORX      1.32  20 P      38 21.33   -1.8
                S      38 36.28
BOB      1.56  75 P      38 28.40    1.9
                eSn    38 46.70
VAI      1.79  34 P      38 29.50   -0.2
CVF      2.14 148 Pn     38 33.30   -1.6
                Sn     38 58.30
PII      2.40 105 P      38 39.20    0.7
SMF      3.33 314 Pn     38 52.50    0.8
                Sn     39 31.50
BSF      3.46 354 Pn     38 54.00    0.4
                Sn     39 32.30

LBF      3.50 319 Pn     38 55.00    0.9
                Sn     39 33.20
                Sg     39 50.30
HAU      3.68 350 Pn     38 56.70    0.0
                Sn     39 38.40
AVF      3.68 312 Pn     38 57.80    1.1
                Sn     39 39.80
LOR      3.76 321 Pn     38 58.60    0.8
                Sn     39 40.90
SSF      3.78 316 Pn     38 58.80    0.7
                Sn     39 41.70
CAF      3.79 280 Pn     38 58.10   -0.2
                Sn     39 40.60
BGF      3.82 306 Pn     38 59.10    0.4
                Sn     39 41.70
                Sg     40 01.00
MAF      3.82 300 Pn     38 59.60    0.9
CDF      4.02 360 Pn     39 02.50    1.0
                Sn     39 47.00
TCF      4.07 300 Pn     39 02.60    0.3
                Sn     39 47.80
LPO      4.40 276 Pn     39 06.60   -0.2
                Sn     39 53.00
FVI      4.42  58 P      39 05.60   -1.5
LSF      4.49 296 Pn     39 08.70    0.5
     S.D. = 0.9  on  39 of  39 obs.
-------------------------------------
   FEB  04, 1989  22h 10m 38.90± 0.10s
   4.625 S ± 2.5km  153.066 E ± 2.8km
   DEPTH =  52.2km  (geophysicist)
   6.1mb ( 48 obs.)
 NEW IRELAND REGION                  (190)
      Felt (V) at Rabaul, New Britain.
      Depth from broadbond
      displacement seismograms.
      FAULT PLANE SOLUTION: P-Waves
       NP1:Strike=114 Dip=54 Slip=  90
       NP2:       294     36        90
       Principal Axes:
        T              Plg=81  Azm= 24
        P                   9      204
      Comment: The focal mechanism is
        poorly controlled and
        correspands to reverse
        foulting. The preferred foult
        plane is NP2.
      RADIATED ENERGY
       No. of sta:   6  Focal mech.  M
       Energy        3.3±1.2*10**13 Nm
      MOMENT TENSOR SOLUTION
      Dep  45            No. of sta:  9
      Moment Tensor;  Scale 10**18 Nm
        Mrr= 1.54        Mtt=-2.03
        Mff= 0.49        Mrt= 0.94
        Mrf= 0.97        Mtf= 0.60
       Principal axes:
        T  Val=  2.40  Plg=56  Azm=296
        N       -0.09      31       91
        P       -2.32      12      188
      Best Double Couple:Mo=2.4*10**18
       NP1:Strike=311 Dip=43 Slip= 139
       NP2:       73     64        55
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 13S, 34C  M.W.: 13S, 22C
      Centroid Location:
      Origin Time       22:10:44.2 0.3
      Lat  4.96S 0.02 Lon 152.90E 0.02
      Dep  55.1 1.5 Half-duration  4.6
      Moment Tensor;  Scale 10**18 Nm
        Mrr= 1.90 0.04  Mtt=-1.99 0.06
        Mff= 0.09 0.06  Mrt= 1.32 0.06
        Mrf= 0.31 0.05  Mtf= 0.02 0.04
       Principal Axes:
        T  Val=  2.35  Plg=71  Azm=335
        N        0.05       7       86
        P       -2.40      17      178
      Best Double Couple:Mo=2.4*10**18
       NP1:Strike=279 Dip=28 Slip= 104
       NP2:       82     63        82

RAB      0.99 296 iPc    11 00.60    3.9
     0.5s   236.62nm
LAT      6.36 251 eP     12 14.00    1.6
LMG      6.48 229 iPd    12 12.50   -1.6
PMG      7.55 231 eP     12 29.00    0.0
     1.0s   490.00nm          6.2mb
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04d 22h

VSG 8.04 125 eP 12 38.00 2.2
eS 13 00.00
HNR 8.33 125 eP 12 42.00 2.2
e(S) 13 16.00
MNDI 9.49 260 e(P) 13 05.00 9.0X
CTA 16.74 203 iPd- 14 32.00 0.5
1.1s 324.05nm 5.4mb
i 14 56.00
iS 17 42.00
iScS 26 31.00
CTAO 16.74 203 iPd 14 31.68 0.2
GUA 19.78 336 ePc+ 15 09.50 1.8
1.3s *******nm 7.0mb
PVC 19.81 132 iP 15 13.00 4.9X
GUMO 19.84 336 iP 15 10.30 1.9
PJG 19.84 336 ePc 15 10.50 2.1
QIS 20.55 218 eP 15 15.00 -0.7
e 19 01.00
DZM 21.65 144 iPc 15 26.00 -1.0
iS 19 28.00
RMQ 22.13 190 iPd 15 31.20 -0.4
1.0s 343.00nm 5.7mb
e 15 44.00
e 23 03.00
BRS 22.64 181 P 15 37.00 0.3
e 16 06.00
eS 19 12.00
i 23 05.50
e 23 42.00
iScS 26 51.00
MTN 23.15 248 eP 15 41.00 -0.7
e 19 50.00
WB5 23.70 229 iPd 15 47.10 0.1
WRA 23.76 229 Pd 15 47.40 -0.2
0.4s 66.30nm 5.5mb
COO 25.84 182 iPd 16 09.10 1.8
e 16 16.00
e 16 43.00
e 23 13.00
KNA 26.31 243 iPc 16 10.90 -0.8
0.5s 663.00nm 6.5mb
eS 20 39.00
ASPA 26.46 222 iPd 16 12.70 -0.4
iS 20 46.70
eScS 27 06.40
CMS 27.57 193 iPc 16 22.40 -0.7
e 16 26.00
e 16 54.00
e 17 02.00
e 23 18.00
STK 29.17 200 iPd 16 37.30 -0.2
e 16 50.00
e 23 50.00
KUPT 29.71 258 ePd 16 45.00 2.4
DAV 29.80 293 eP+ 16 43.90 0.5
0.9s 396.64nm 6.1mb
BWA 29.96 188 eP 16 44.10 -0.5
e 17 18.60
eScP 23 26.10
CNB 30.73 186 iPc 16 52.10 0.7
e 17 04.00
e 23 29.00
CAN 30.78 187 eP 16 52.10 0.3
i 17 26.80
eScP 23 29.70
ADE 32.99 202 iPc 17 11.20 0.1
1.0s 84.00nm 5.5mb
WARB 33.15 227 eP 17 06.00 -6.6X
0.4s 74.00nm 5.9mb
eS 22 23.00
TOO 33.52 191 eP 17 16.00 0.3
e 17 45.00
e 23 40.00
BFD 33.80 195 eP 17 05.00 -13.1X
FORR 35.11 219 eP 17 29.00 -0.4
0.5s 166.00nm 6.2mb
AFI 35.86 107 eP 17 43.00 7.0X
(S) 23 00.00
MBL 36.20 240 eP 17 37.00 -1.7
QCP 37.04 302 eP 17 40.00 -5.8X
PPR 37.08 293 iPc 17 49.00 2.8
1.1s 699.00nm 6.5mb
KKM 38.29 286 ePc 17 56.00 -0.5
1.1s 534.50nm 6.4mb
BAG 38.33 304 ePc+ 17 56.80 -0.1
1.7s 1684.61nm 6.7mb
eS 23 10.00

TAU 38.46 187 Pc 17 59.20 1.7
e 19 32.00
i 20 11.50
eS 23 50.00
e 23 58.00
KRP 38.97 151 P 18 04.00 2.2
PP 20 11.40
S 23 56.00
PIP 39.28 306 iPc 18 03.00 -1.6
MEKA 39.57 233 eP 18 06.00 -1.0
e 40 40.00
COOL 39.80 225 eP 18 07.50 -1.3
TRT 40.30 264 iPc 18 11.90 -1.2
0.4s 30.60nm 5.5mb
NANU 40.43 240 eP 18 13.00 -1.0
0.5s 106.00nm 5.9mb
WEL 41.36 155 eP 18 18.00 -3.4X
PP 20 22.00
S 24 30.00
ScS 27 53.00
KAGJ 41.43 331 iP+ 18 23.30 1.2
MSZ 41.96 164 P 18 29.60 3.3X
WKYJ 42.01 338 iP+ 18 26.00 -0.9
IIDJ 42.36 342 iP+ 18 28.30 -1.4
KAKJ 42.37 344 P 18 28.50 -1.2
TKSJ 42.40 336 P 18 29.80 -0.2
CHJJ 42.55 343 iP+ 18 30.00 -1.3
KUMJ 42.57 332 iP+ 18 32.40 1.0
ANP 42.63 316 iPc 18 33.00 0.9
MRWA 42.76 231 eP 18 33.00 -0.1
0.4s 56.00nm 5.7mb
BAL 42.89 229 eP 18 34.00 -0.1
TSRJ 43.05 339 P 18 35.00 -0.3
MAJO 43.24 342 iPc 18 35.21 -1.7
isPd 18 54.25
MTMJ 43.41 342 iP+ 18 37.30 -1.0
SHK 43.43 335 iPc 18 38.10 -0.3
0.9s 588.24nm 6.3mb
NIIJ 43.66 344 iP+ 18 39.80 -0.4
YONJ 43.68 337 P 18 40.10 -0.3
NWAO 43.70 225 eP 18 40.00 -0.6
SHNJ 43.76 333 iP+ 18 41.00 -0.1
MUN 43.94 227 iPd 18 44.10 1.4
YAMJ 44.27 345 iP+ 18 45.20 0.1
RKG 44.47 224 iPd 18 49.70 2.8X
0.7s 88.00nm 5.7mb
QZH 44.57 313 Pc 18 48.00 0.2
5.0s 3.85nm 3.4mb X
Z 32s 11.70um 5.6MszX
N 20s 5.56um
E 20s 8.00um
S 25 19.00
OFUJ 44.74 347 iP+ 18 49.00 0.1
AOMJ 46.45 347 P 19 03.00 0.6
HKC 46.51 307 iPc 19 05.10 1.9
S 26 00.00
SSE 46.77 322 iPd 19 05.70 0.6
1.0s 795.00nm 6.6mb
Z 26s 9.60um 5.6MszX
E 16s 3.40um
pP 19 21.00 59kmX
PP 19 27.00
S 25 41.00
sS 26 10.00
MCO 46.91 306 iP 19 07.50 1.1
GZH 47.56 307 iPd 19 12.50 1.0
5.0s 3.00nm 3.5mb X
E 18s 11.10um
S 26 05.00
QIZ 48.61 300 Pc 19 20.50 0.8
N 20s 7.00um
E 21s 8.90um
PP 21 12.00
S 26 19.00
SS 29 40.00
NJ2 48.88 321 iPc 19 22.50 1.0
5.5s 4.80nm 3.7mb X
Z 23s 11.20um 5.8MszX
N 14s 2.00um
E 16s 5.00um
PcP 20 46.50
ScP 24 39.00
S 26 19.00
KGM 50.14 276 ePc 19 32.30 0.8
1.0s 454.60nm 6.5mb
WHN 50.91 316 iPc 19 37.50 0.4
Z 34s 16.80um 5.8MszX

N 18s 3.80um
E 16s 3.64um
pP 19 54.00 64kmX
S 26 50.00
DL2 52.16 329 iPc 19 46.50 0.1
Z 30s 7.40um 5.5MszX
N 20s 4.90um
E 16s 2.50um
eS 27 07.00
TIA 52.73 323 Pc 19 50.60 -0.2
Z 28s 8.70um 5.7MszX
E 15s 2.80um
PcP 20 59.70
S 27 11.00
PPI 52.76 273 eP 19 50.00 -1.4
1.0s 141.30nm 6.0mb
IPM 52.78 279 ePc 19 50.00 -1.5
0.9s 191.40nm 6.1mb
e 21 03.00
MDJ 53.35 339 iPc 19 54.50 -0.6
Z 28s 8.50um 5.6MszX
N 14s 1.80um
epP 20 13.00 73kmX
ePcP 21 02.50
S 27 20.00
SNY 53.47 333 iPc 19 55.00 -1.0
5.0s 2.90nm 3.6mb X
Z 26s 10.60um 5.8MszX
N 13s 2.60um
E 14s 1.60um
pP 20 14.00 75kmX
S 27 14.00
SNG 53.64 282 eP 19 57.00 -0.7
1.2s 546.88nm 6.5mb
e 27 04.00
CN2 54.25 336 iPc 20 01.00 -0.8
5.0s 2.50nm 3.5mb X
Z 38s 18.80um 5.9MszX
E 15s 2.40um
pP 20 18.00 65kmX
PcP 21 04.50
ScP 24 59.00
S 27 27.00
ScS 29 40.00
GYA 54.50 307 iPc 20 04.80 0.7
E 22s 8.50um
S 27 37.00
PSI 54.58 277 ePd 20 03.70 -1.0
0.9s 141.90nm 6.0mb
LOE 55.20 295 iPc 20 07.50 -1.6
NNT 55.68 289 iPc 20 12.00 -0.6
BJI 55.89 326 Pc+ 20 13.00 -0.7
5.0s 3.14nm 3.6mb X
Z 25s 11.90um 5.9MszX
E 18s 5.80um
sP 20 30.00
ScP 25 08.50
eS 27 46.00
esS 31 28.00
NST 56.13 292 iPc 20 17.50 1.7
TIY 56.55 322 iPc 20 18.50 -0.2
1.2s 0.50nm 3.4mb X
E 15s 2.80um
pP 20 35.00 63kmX
sP 20 40.50
S 28 04.50
sS 28 39.00
XAN 56.68 316 iPc 20 19.60 0.0
N 11s 1.90um
E 12s 2.60um
KMI 57.11 304 iPc 20 23.77 0.7
5.0s 2.50nm 3.5mb X
Z 26s 15.80um 6.0MszX
E 20s 4.90um
isPd 20 44.79
ePcP 21 17.24
PP 22 31.00
S 28 14.00
sS 29 39.00
AFR 57.33 108 iP 20 24.80 0.4
0.8s 60.00nm 5.7mb
BDT 57.63 294 iPc 20 27.00 0.6
0.9s 140.10nm 6.1mb
PPN 57.66 108 iP 20 27.20 0.5
0.8s 70.00nm 5.8mb
CHG 58.15 295 iPc+ 20 31.00 0.9
1.2s 412.50nm 6.4mb

				eS	29	06.00		YKU		82.66	28	eP	22	59.80	1.9	KFNJ	115.61	303	PKP	29	18.00	0.5
CHTO	58.15	295	iPc		20	30.04	-0.1	KSH		83.00	311	iPc	23	03.00	2.7	JVI	115.87	303	ePKP	29	18.00	0.0
			epPd		20	44.61	54kmX			4.0s		6.30nm			4.0mb X	B8TK	116.00	312	iPKPd	29	18.40	0.2
			esPd		20	50.24			E	16s		5.90um				NAI	116.05	266	iPKPd	29	21.00	1.8X
CD2	58.83	310	iPc		20	35.00	0.3					pP	23	20.00	61kmX		1.0s		18.00nm			
	Z	27s		9.60um			5.8MszX	SIT		B3.99	31	ePc	23	04.90	0.2	IKL	116.26	308	ePKP	29	18.00	-0.6
	N	14s		2.80um				SPA		85.41	180	e(P)	23	12.20	0.3	HFS	116.61	339	ePdiff	25	31.10	-2.4X
			S		28	35.00				1.0s		104.50nm			5.9mb		0.5s		1.80nm			
PMO	58.92	105	iP		20	35.60	0.1		Z	20s		2.88um			5.7Msz	HFS	116.61	339	ePKP	29	18.50	-0.1
	0.8s		50.00nm				5.7mb					e	23	23.90			0.7s		24.30nm			
HHC	59.06	324	iPc		20	36.60	0.4	MAW		85.83	203	eP	23	13.50	-0.3		Z	20s		3.20um		5.9Msz
	5.5s		2.30nm				3.5mb X	INK		88.20	21	iP	23	24.80	-0.4					LR	11	15.00	
	Z	30s		15.80um			6.0MszX			1.1s		305.00nm			6.5mb	LFK	116.62	307	ePKP	29	19.50	0.0
	N	14s		1.90um								pP	23	46.00	77kmX	MBH	116.67	301	iPKPc	29	20.00	0.4
			S		28	38.00		WDC		88.72	49	eP	23	27.80	-0.5	CSS	116.86	307	ePKP	29	20.50	0.6
TPT	59.19	105	iP		20	37.60	0.2					e	27	00.10		NAO	117.12	340	Pdiff	25	34.60	-1.2
	0.8s		45.00nm				5.7mb	QUE		88.95	300	iPc+	23	30.30	0.4		0.9s		9.90nm			
VAH	59.20	105	iP		20	37.20	-0.2					eS	34	26.00		NAO	117.12	340	PKP	29	19.20	-0.3
	0.8s		45.00nm				5.7mb	LBFM		89.30	49	P	23	36.60	5.3X		0.7s		33.90nm			
RUV	59.43	105	iP		20	39.00	0.0	GMW		89.43	42	P	23	29.30	-2.2	BIR	117.30	321	ePKP	29	19.00	-1.3
	0.8s		35.00nm				5.5mb	LON		89.99	43	P	23	34.90	0.7	CFR	117.39	319	ePKPc	29	21.00	0.5
BTO	59.82	323	iPc		20	42.00	0.6	RMW		90.08	43	P	23	34.20	-0.4	GPA	117.65	313	ePKP	29	20.30	-0.9
	Z	18s		3.30um			5.5Msz	CMB		90.10	52	eP	23	35.40	0.5	PPCY	117.66	307	ePKP	29	20.50	-0.8
	N	18s		1.80um								e	27	10.20		HRT	117.94	314	ePKP	29	19.20	-2.6X
	E	18s		2.00um				FRI		90.54	53	e(P)	23	35.10	-1.7	PSN	117.95	318	ePKP	29	25.00	3.4X
			sP		21	04.50		VGB		90.57	45	P	23	36.80	-0.1	YLV	118.24	314	iPKP	29	21.70	-0.7
			S		28	53.00		PNT		91.72	41	eP	23	42.00	-0.1	ISK	118.29	315	ePKP	29	20.00	-2.3X
			sS		29	19.00				1.0s		24.00nm			5.6mb	BCK	118.32	310	ePKP	29	20.80	-1.8
			eSS		32	50.50		KVN		91.97	51	P	23	43.40	-0.3	ISR	118.45	320	ePKP	29	22.50	-0.1
HIA	60.98	336	iPc		20	48.65	-0.5	TNP		92.60	52	P	23	46.20	-0.4	SLR	118.58	238	iPKPc	29	23.00	-0.6
			esPd		21	07.85				1.2s		17.47nm			5.4mb		0.3s		55.84nm			
			iPcP		21	31.19		MBC		93.88	14	ePc	23	50.90	-0.6					i	32	56.10	
			ePP		22	56.72				1.2s		144.00nm			6.3mb	BPI	118.63	237	ePKP	29	19.50	-4.2X
			eS		29	05.12		YKA		95.15	28	P	23	57.50	0.0		0.6s		46.67nm			
			ePS		29	29.12		YKC		95.21	28	ePc	23	57.50	-0.3	MLR	118.69	320	ePdiff	25	44.00	0.7
LZH	61.29	316	iPc		20	52.56	0.9			1.3s		125.00nm			6.2mb	MLR	118.69	320	ePKPc	29	23.00	-0.2
	5.0s		7.65nm				4.1mb X	MHI		95.59	306	iPc	24	00.20	-0.1					e	50	13.50	
	Z	22s		8.40um			5.8Msz			0.6s		293.33nm			6.9mb	CTT	118.71	315	ePKP	29	21.00	-2.2
	N	20s		3.40um								eS	35	19.00		AKU	118.73	356	iPKP	29	24.50	2.1X
	E	22s		5.80um				EDM		95.82	37	iPc	24	00.50	-0.4		1.1s		131.65nm			
			epPd		21	07.13	53kmX	KHI		96.23	304	iPc	24	01.20	-2.1	PRY	118.81	236	iPKPc	29	23.00	-1.0
			esPd		21	13.59		LRM		96.42	45	eP	24	02.80	-1.2		0.9s		19.23nm			
			(S)		29	07.43		MSU		96.58	52	P	24	06.50	1.6	KHL	118.86	312	iPKP	29	21.90	-1.8
			ePS		29	33.91		SES		97.30	40	ePc	24	06.50	-1.1	DMK	118.94	316	ePKP	29	23.00	-0.6
ADK	61.91	21	eP		20	56.10	0.8			1.3s		95.00nm			6.2mb	ELL	119.05	310	iPKP	29	22.60	-1.5
GTA	65.71	317	iPc		21	21.40	0.8	BW06		98.54	48	P	24	12.40	-1.2	KCT	119.08	314	iPKP	29	27.00	3.1X
	5.0s		3.30nm				3.6mb X			1.0s		10.00nm			5.3mb	DST	119.10	313	ePKP	29	23.80	-0.2
	Z	28s		7.50um			5.7MszX	ALE		100.72	4	ePdiff	24	22.00	-0.4	CLE	119.12	45	iPKP	29	25.00	1.1
	E	17s		3.50um						1.1s		155.00nm			6.5mb	KOT	119.24	302	ePKP	29	23.50	-1.0
			pP		21	37.00	57kmX					pP	24	52.00		PTZ	119.25	251	iPKPd	29	24.30	-0.7
			sP		21	42.00		ALQ		101.22	55	ePdiff	24	26.00	0.1				i	29	29.00	
			S		30	04.00			Z	22s		3.52um			5.8Msz				i	30	45.50	
			sS		30	28.00		GOL		101.84	51	Pdiff	24	26.50	-2.1X				i	31	32.70	
			SS		34	15.00			Z	19s		1.42um			5.5Msz	AKSR	119.32	294	iPKPd	29	25.00	0.2
LSA	68.36	304	iPc		21	38.60	0.7	GLD		101.95	50	Pdiff	24	27.00	-2.0X	BFS	119.39	236	iPKPd	29	26.50	1.4
	E	25s		6.20um					Z	19s		1.91um			5.6Msz		1.0s		60.00nm			
			sP		22	02.00		FFC		102.38	35	ePdiff	24	29.50	-0.8	FRS	119.41	232	iPKPd	29	27.00	2.2X
			S		30	35.00				1.3s		27.00nm			5.8mb		0.5s		31.69nm			
SDN	70.93	26	eP		21	53.30	0.8	AVY		102.93	250	iPdiff	24	34.20	0.4				i	33	01.00	
GUN	72.26	301	P		22	01.60	0.1	TAB		106.01	308	ePdiff	24	47.00	-0.1	KSL	119.49	309	ePKP	29	24.50	-0.3
PKI	72.57	301	P		22	03.20	-0.2	SOD		107.63	341	iPdiff	24	49.70	-3.7X	JMB	119.50	317	iPKPc	29	26.00	1.4
KKN	72.74	301	P		22	04.20	0.0	KJF		108.93	338	iPdiff	24	58.80	-0.4	AKUR	119.50	295	iPKPd	29	25.50	0.4
DMN	72.84	301	P		22	05.00	0.2			0.8s		76.30nm			7.0mb	CJR1	119.61	322	ePKP	29	24.80	0.1
GKN	73.34	301	P		22	07.70	0.1	KJF		108.93	338	iPKP	29	04.20	0.4	AGMR	119.77	294	iPKPd	29	36.00	10.4X
WMO	75.79	317	iPc		22	22.50	1.2			0.6s		23.60nm				KRA	120.03	327	iPKPc	29	27.70	2.3X
	5.0s		3.80nm				3.6mb X	SUF		110.30	337	iPdiff	25	04.40	-0.9		0.8s		66.00nm			
	Z	28s		6.60um			5.8MszX			0.7s		17.10nm				PVL	120.04	318	ePKP	29	21.00	-4.6X
			S		32	00.00		SUF		110.30	337	iPKP	29	07.20	0.8	BUL	120.16	244	iPKPd	29	25.50	-1.2
KDC	75.92	27	eP		22	21.20	-0.4			0.6s		11.80nm							ipP	32	59.50	
SVW	76.55	23	iPc		22	25.80	0.6	NPA		111.59	252	iPKP	29	09.50	-0.8	SPC	120.33	326	ePKP	29	27.30	1.1
KOD	76.71	282	iPc		22	28.00	0.7	NUR		112.09	335	iPdiff	25	12.40	-0.9	DIM	120.38	317	ePKP	29	26.00	-0.3
	1.0s		468.00nm				6.4mb	NUR		112.09	335	iPKP	29	10.50	0.7	DEV	120.42	322	ePKPd	29	26.00	-0.3
GBA	77.18	285	P		22	29.50	0.1	GDH		113.11	10	ePKP	29	11.00	-0.5	REY	120.49	357	iPKP	29	26.90	1.1
PMR	79.42	24	iPc		22	40.20	-0.6					e	39	52.00		IZM	120.51	312	ePKP	29	25.60	-1.1
	1.3s		693.40nm				6.4mb	KVT		113.25	313	ePKP	29	13.40	0.6	SCH	120.55	26	ePKP	29	26.00	-0.2
	Z	20s		3.50um			5.7Msz	FRB		113.78	19	ePdiff	25	26.00	5.2X	ARG	120.58	310	ePKP	29	27.00	0.1
MID	79.55	27	e(P)		22	42.50	0.9	FRB		113.78	19	ePKP	29	12.00	-1.0	KDZ	120.62	316	iPKPd	29	27.00	0.2
NDI	79.87	300	iPc		22	43.50	-0.5			0.7s		37.00nm				EZN	120.68	314	iPKP	29	25.80	-1.1
	1.0s		450.00nm				6.4mb	SHBJ		113.95	303	PKP	29	14.60	0.1	PRK	120.93	314	ePKP	29	26.50	-0.9
IMA	80.20	19	iPc		22	45.30	0.1	BHL		115.22	305	PKP	29	16.00	-0.9	RZN	121.08	317	iPKPc	29	27.00	-0.9
POO	81.28	289	iPd		22	50.00	-1.6					pP	30	19.00		PGB	121.10	318	iPKPc	29	27.00	-0.7
	1.0s		122.00nm				5.8mb	HRI		115.28	305	e(PKP)	29	18.00	1.0	PSZ	121.20	325	ePKP	29	27.80	0.0
COL	81.63	22	iPc		22	51.25	-1.2	UPP		115.31	337	iPKP	29	16.20	0.1	GAC	121.30	38	ePKP	29	28.00	0.1
FBA	81.63	22	iPc		22	51.30	-1.2	JARJ		115.31	303	PKP	29	16.60	-0.5	BZS	121.34	322	ePKPc	29	28.50	0.5
BOM	82.30	290	eP		22	57.00	0.2	OUTJ		115.44	302	PKP	29	18.00	0.6	KSP	121.49	329	ePdiff	25	55.50	0.0
			eS		33	03.50		BURJ		115.47	303	PKP	29	17.60	0.3	KSP	121.49	329	iPKPc	29	28.10	0.0
BRW	82.53	14	eP		22	57.90	0.9	SALJ		115.58	303	PKP	29	17.50	-0.1		0.8s		58.00nm			

04d 22h

KAP	121.53	309	ePKP	29	28.00	-0.7		0.9s	182.00nm						i	33	00.00						
SSR	121.63	321	iPKPd	29	29.00	0.4	ELO	125.10	344	ePKPc	29	34.50	-0.4	MNS	128.51	323	PKP	29	40.40	-1.6			
MMB	121.80	317	iPKPc	29	29.00	-0.1		1.2s	425.00nm					VAI	128.53	329	PKP	29	27.50	-14.3X			
BUD	121.93	325	ePKP	29	29.00	-0.1	WTS	125.13	335	ePKP	29	35.00	-0.1	YRH	128.55	343	iPKPc	29	42.50	0.8			
LSZ	121.95	249	iPKPc	29	30.20	0.0		1.2s	387.00nm						1.0s	195.00nm							
			i	29	42.50		VLO	125.16	317	iPKP	29	36.10	0.6	MME	128.57	326	PKP	29	29.20	-13.1X			
			i	30	09.00		BHG	125.17	328	iPKPd	29	35.60	0.2	DLE	128.68	344	ePKP	29	40.40	-1.5			
			i	33	04.00		VBY	125.19	325	e(PKP)	29	30.80	-4.6X		1.1s	248.00nm							
KKB	122.12	317	iPKP	29	30.00	0.4				i	29	36.00		BDI	128.71	326	PKP	29	40.30	-2.1			
SRO	122.15	326	iPKP	29	29.70	0.2	EBH	125.24	344	ePKPc	29	35.00	-0.2	GMB	128.74	317	PKP	29	42.79	0.1			
			i	29	31.70			0.9s	209.00nm					MMK	128.82	329	ePKPc	29	30.20	-12.5X			
CER	122.23	226	iPKPd	29	28.00	-2.1	ESY	125.28	344	ePKPc	29	35.00	-0.3	DCN	128.82	345	ePKP	29	39.90	-2.2			
	1.0s	100.00nm					LJU	125.29	326	ePKPc	29	35.10	-0.5		1.3s	998.00nm							
TUH	122.36	226	iPKPc	29	10.00	-20.3X	KBA	125.32	327	ePKP	29	34.00	-1.9	RDP	128.86	322	PKP	29	44.30	1.6			
	0.4s	50.85nm						1.1s	132.00nm					BOB	128.89	327	PKP	29	29.00	-13.7X			
BEO	122.45	322	iPKP	29	30.30	0.2				ic	29	37.60		PII	128.96	325	PKP	29	35.10	-7.6X			
RSNY	122.45	39	PKP	29	30.80	0.6				i	32	30.60		ATN	129.02	317	PKPc	29	43.30	0.2			
	1.0s	35.00nm								e	32	42.50		DIX	129.08	330	ePKPc	29	30.40	-12.9X			
Z	22s	3.17um				5.9Msz				e	39	33.00		ORX	129.09	329	PKP	29	43.90	0.8			
PLG	122.50	316	ePKP	29	29.00	-1.4				i	39	54.10		ORO	129.10	329	PKP	29	29.70	-13.4X			
ZST	122.61	326	iPKP	29	30.80	0.5	EDI	125.43	344	ePKPc	29	35.40	-0.2	ETA	129.12	344	ePKP	29	43.40	0.7			
			i	29	32.80		EAB	125.51	345	ePKPc	29	35.20	-0.5		1.4s	368.00nm							
			e	43	16.70			1.2s	400.00nm					EMS	129.33	330	ePKPc	29	30.40	-13.2X			
VAY	122.70	317	iPKP	29	29.40	-1.3	CEY	125.53	325	ePKPc	29	35.80	-0.4	GEN	129.40	327	PKP	29	43.18	-0.3			
			i	29	32.30		RBL	125.59	326	PKP	29	35.40	-0.9	MAO	129.41	324	PKP	29	30.80	-12.8X			
CLL	122.82	331	iPKPc	29	30.60	0.0	VOY	125.66	326	iPKPc	29	35.90	-0.6	MAO	129.41	324	PKP	29	43.20	-0.4			
	0.7s	100.00nm					TNS	125.69	333	ePKP	29	37.00	0.6	ECB	129.57	344	ePKP	29	44.80	1.2			
NPS	122.83	309	ePKP	29	31.00	-0.2	FUR	125.72	329	ePKP	29	36.20	-0.3		1.3s	315.00nm							
TIH	122.89	325	ePKP	29	31.40	0.5		1.3s	273.00nm					ECP	129.63	344	ePKP	29	43.40	-0.3			
VKA	123.00	327	ePKP	29	31.00	-0.1	HVAR	125.77	322	iPKP	29	36.40	-0.3		1.2s	792.00nm							
	1.2s	233.00nm					TRI	125.92	326	PKP	29	36.90	0.0	LSD	129.64	329	PKP	29	45.54	1.2			
			i	29	34.20		FVI	125.93	327	PKP	29	35.70	-1.1	MNO	129.66	317	PKP	29	46.70	2.2X			
NEO	123.09	315	ePKP	29	30.00	-1.6	EKA	125.94	343	PKPd	29	36.80	0.2	CKI	129.75	327	PKP	29	31.50	-12.7X			
LNV	123.14	136	ePKP	29	32.00	0.2		1.4s	321.40nm					RSP	129.79	329	PKP	29	44.93	0.5			
SKO	123.17	318	iPKPc	29	31.00	-0.6	ESK	125.97	343	iPKPc	29	37.60	0.9	LPG	129.81	329	ePKP	29	31.20	-13.5X			
	1.0s	57.00nm						1.0s	100.00nm						0.8s	5.90nm							
Z	20s	1.60um				5.7Msz	LCI	126.26	318	PKP	29	37.50	-0.2	MEU	129.91	316	PKP	29	48.60	3.7X			
N	20s	1.92um					ENN	126.41	335	iPKPc	29	38.10	0.4	LOR	129.93	333	ePKP	29	30.80	-13.7X			
E	20s	2.15um						1.0s	240.00nm						0.8s	7.20nm							
			i	29	34.20		BRT	126.49	319	PKP	29	38.00	-0.2	FIN	129.93	327	PKP	29	43.59	-1.0			
			i	30	55.00		MEM	126.49	334	PKPc	29	37.60	-0.2	ROB	130.05	328	PKP	29	45.23	0.3			
			iS	41	02.70		VVI	126.50	327	PKP	29	38.59	0.5	GIB	130.08	317	PKP	29	28.00	-17.2X			
			LR	20	20.00		OGA	126.69	328	ePKP	29	26.50	-12.1X	LBF	130.08	333	ePKP	29	31.00	-13.9X			
SOP	123.21	326	ePKP	29	32.00	0.5				i	29	38.60			1.2s	27.90nm							
LCCH	123.29	135	ePKP	29	30.00	-2.1	FG3	126.87	320	PKP	29	39.02	0.1	BNI	130.16	329	PKP	29	30.80	-14.4X			
CBN	123.33	47	ePKP	29	33.00	1.0	GWF	126.95	332	PKP	29	39.01	0.2	RRL	130.20	329	PKP	29	47.08	1.7			
TACH	123.63	136	ePKP	29	35.00	2.1X	UCC	127.04	336	PKPd	29	39.70	0.9	SSF	130.24	333	ePKP	29	30.90	-14.2X			
KZN	123.69	316	ePKP	29	31.50	-1.3	WLF	127.13	334	PKPc	29	39.70	0.7	DOI	130.24	328	PKP	29	44.86	-0.4			
IVA	123.75	320	ePKP	29	32.30	-0.6	STR	127.16	332	PKP	29	39.72	0.6	USI	130.27	319	PKP	29	46.10	0.7			
KKS	123.80	319	iPKP	29	33.00	0.2	OSS	127.27	329	ePKPc	29	26.20	-13.5X	IMI	130.30	327	PKP	29	45.03	-0.4			
PLE	123.85	321	ePKP	29	33.00	-0.1	AOI	127.29	324	ePKP	29	35.91	-3.7X	PZZ	130.32	328	PKP	29	46.88	1.4			
VAM	123.86	310	ePKP	29	35.50	2.3X	SNF	127.29	335	PKPc	29	39.60	0.3	STV	130.38	328	PKP	29	44.82	-0.7			
BCI	123.89	319	iPKP	29	32.70	-0.3	SAX	127.30	330	ePKPc	29	26.80	-13.1X	SMF	130.40	332	ePKP	29	31.50	-13.9X			
MOX	123.92	331	iPKPc	29	33.00	0.1	FG2	127.31	321	PKP	29	39.27	-0.4		0.7s	7.70nm							
	1.8s	185.00nm					SLE	127.38	331	ePKPc	29	26.90	-12.8X	SAOF	130.43	328	PKP	29	33.12	-12.5X			
			iPP	31	19.50		DOU	127.48	335	PKP	29	35.00	-4.7X	AUTN	130.49	328	PKP	29	34.19	-11.8X			
			ePS	41	20.00					e	29	40.80		AVF	130.51	333	ePKP	29	32.00	-13.6X			
			eSS	49	15.00					e	35	15.90			1.0s	16.00nm							
			eLR	10	00.00		ZLA	127.63	330	ePKPc	29	27.40	-12.8X	MCT	130.53	317	PKP	29	47.90	1.7			
KHC	123.93	329	Pdiffd	26	06.80	0.4X	ARV	127.71	324	PKP	29	40.00	-0.4	LDF	130.58	337	ePKP	29	34.50	-11.2X			
PCH	123.95	136	ePKP	29	30.00	-3.6X	RSM	127.74	325	PKP	29	41.30	0.9		1.0s	20.00nm							
PHP	123.96	318	iPKPc	29	32.70	-0.5	LLS	127.74	329	ePKPc	29	27.30	-13.3X	AURF	130.62	328	PKP	29	34.01	-12.0X			
OHR	123.99	318	ePKP	29	21.50	-11.9X	VDL	127.75	329	ePKPc	29	28.00	-12.7X	CVF	130.63	325	ePKP	29	33.60	-12.4X			
	1.0s	0.28nm					CIO	127.76	323	ePKP	29	36.21	-4.4X		0.8s	6.40nm							
			i	29	32.40		SAL	127.77	327	PKP	29	40.50	0.1	FAI	130.69	317	PKP	29	48.00	1.8			
PEL	124.09	136	iPKPd	29	34.60	0.8	DUI	127.83	321	PKP	29	41.20	0.4	MVIF	130.70	328	PKP	29	35.53	-10.7X			
TTG	124.38	320	ePKP	29	33.60	-0.4	MGR	127.95	319	PKP	29	38.70	-2.2X	BGF	130.92	333	ePKP	29	32.30	-14.1X			
JACH	124.41	135	ePKP	29	36.00	1.5	MOF	127.98	331	PKP	29	40.62	-0.3		1.0s	12.00nm							
SDA	124.43	319	iPKP	29	34.00	-0.1	BBS	128.07	331	PKP	29	40.51	-0.5	CALN	130.94	328	PKP	29	34.03	-12.7X			
TIR	124.50	318	ePKP	29	34.00	-0.2	SFI	128.09	325	PKPc	29	43.00	2.0X	PLDF	131.00	332	PKP	29	37.39	-9.3X			
LSK	124.56	317	ePKP	29	34.90	0.4	MDI	128.09	328	PKP	29	41.30	0.3	ERC	131.02	318	PKP	29	47.60	0.7			
PTJ	124.56	325	ePKP	29	23.60	-10.7X	AQU	128.09	322	PKP	29	43.30	2.1X	GRR	131.03	337	ePKP	29	35.10	-11.4X			
WIT	124.58	336	ePKP	29	35.50	1.5	ASS	128.12	324	PKP	29	41.43	0.2		1.0s	24.00nm							
ZAG	124.60	325	iPKPc	29	34.50	0.2	BSF	128.15	332	PKP	29	41.03	-0.2	CVT	131.07	318	PKP	29	47.90	1.0			
BRY	124.60	320	ePKP	29	34.00	-0.6	PGD	128.19	325	PKP	29	29.50	-12.0X	AGO	131.17	332	PKP	29	36.78	-10.1X			
KMZ	124.63	250	iPKPd	29	35.90	0.5	CRE	128.21	325	PKP	29	40.60	-0.9	FRF	131.20	328	ePKP	29	33.50	-13.5X			
			i	29	52.60		SDI	128.21	322	PKP	29	32.40	-9.1X		0.8s	10.70nm							
			i	30	05.00		DMU	128.23	345	ePKP	29	39.30	-1.7	LVI	131.21	318	PKP	29	47.80	0.6			
			i	31	23.90			1.4s	470.00nm					ARE	131.22	116	ePKP	29	49.00	0.8			
GRB3	124.69	330	e(Pdif	26	10.50	0.7X	HAU	128.24	332	ePKP	29	27.30	-14.0X	LPF	131.40	337	ePKP	29	35.70	-11.5X			
	1.0s	18.00nm					VITF	128.26	332	PKP	29	41.36	0.1		1.2s	53.50nm							
GRF	124.75	331	ePKP	29	34.80	0.3	AZI	128.28	322	PKP	29	41.50	0.0	LRG	131.42	328	ePKP	29	33.90	-13.5X			
Z	18s	2.50um				5.9Msz	TMA	128.31	329	ePKPc	29	26.10	-15.6X		1.0s	16.00nm							
GRF	124.75	331	e(Pdif	26	10.50	0.5	RFI	128.33	321	PKP	29	43.06	1.5	LMR	131.43	328	ePKP	29	33.90	-13.5X			
	1.0s	18.00nm					LOMF	128.48	331	PKP	29	41.32	-0.5		1.0s	13.60nm							
BERA	124.75	318	ePKP	29	34.40	-0.3	FIR	128.51	325	ePKP	29	26.00	-15.9X	PYM	131.45	332	PKP	29	36.89	-10.6X			
EDU	124.84	344	ePKPc	29	34.00	-0.4				i	29	45.00		LBL	131.72	332	PKP	29	34.44	-13.5X			

STJ	131.81	23	ePKP	29	48.00	0.0
PTS	132.08	317	PKP	29	46.40	-2.5X
RJF	132.47	333	ePKP	29	36.40	-13.0X
	1.1s		14.60nm			
CAF	132.51	332	ePKP	29	36.00	-13.5X
	1.0s		8.00nm			
LPO	133.10	333	ePKP	29	37.30	-13.3X
	0.8s		10.70nm			
LFF	133.11	333	ePKP	29	37.10	-13.5X
	1.0s		9.60nm			
HJA	133.36	128	ePKP	29	54.00	2.3X
			e	29	55.60	
CNCB	134.19	119	ePKP	29	42.00	-12.2X
LPB	134.20	118	ePKP	29	46.00	-8.0X
	0.9s		58.82nm			
	Z 25s		1.61um			5.6MszX
			LR	14	35.00	
ZOBO	134.28	118	PKP	29	42.00	-12.4X
			LR	15	00.00	
BNG	134.67	272	iPKPd	29	39.20	-15.3X
	1.6s		104.00nm			
			id	29	54.20	
			id	32	27.40	
			id	33	20.60	
			ic	33	55.10	
EPF	134.76	332	ePKP	29	41.00	-12.9X
	0.8s		7.20nm			
CCH	135.54	120	PKP	29	50.70	-5.7X
ESEL	135.85	327	ePKP	29	46.70	-9.3X
ETOR	137.60	332	ePKP	29	48.20	-11.2X
EMON	137.64	339	e(PKP)	29	48.00	-11.3X
ECHE	138.02	330	ePKP	29	50.00	-10.2X
ERUA	138.47	338	e(PKP)	29	51.00	-9.9X
STS	138.55	340	e(PKP)	29	50.30	-10.6X
GUD	138.70	333	ePKP	29	51.30	-10.2X
TOL	139.27	333	ePKP	29	55.50	-6.9X
			ePKS	33	02.00	
			iPP	33	35.00	
			ePS	45	20.00	
EVIA	139.51	330	ePKP	29	54.00	-9.0X
EALH	139.55	328	ePKP	29	54.50	-8.4X
CAR	139.95	79	ePKP	30	02.00	-2.4X
EPLA	140.01	335	ePKP	29	56.00	-7.7X
ITB7	140.31	139	e(PKP)	29	53.20	-11.5X
ITB1	140.50	139	e(PKP)	30	02.40	-2.6X
EBAN	140.51	331	ePKP	29	57.30	-7.4X
ENIJ	140.64	328	e(PKP)	29	56.50	-8.4X
AFC	141.10	330	e(PKP)	29	58.00	-7.9X
ASMO	141.12	330	iPKPc	29	58.70	-7.2X
CRT	141.18	330	iPKP	29	59.70	-6.3X
AAPN	141.35	330	iPKPd	29	59.20	-7.1X
ACHM	141.36	330	iPKPc	29	59.50	-6.8X
APHE	141.41	330	iPKPc	30	00.00	-6.5X
EHOR	141.48	332	ePKP	30	00.20	-6.2X
ALOJ	141.50	330	iPKPc	29	59.50	-7.1X
ATEJ	141.60	330	iPKPc	30	00.00	-6.9X
EPRU	142.16	331	ePKP	30	02.70	-5.0X
TAF	142.35	326	iPKP	30	02.00	-6.1X
EVAL	142.36	333	ePKP	30	03.00	-4.9X
LIS	142.41	337	ePKP	30	03.00	-5.0X
IFR	144.80	327	iPKPc	30	12.50	0.0
FDF	144.86	71	ePKP	30	10.00	-2.8X
SVB	145.07	73	ePKP	30	10.06	-3.1X
RBA	145.31	330	iPKPc	30	13.70	0.7
			i	30	15.00	
			i	30	19.00	
TPP	145.33	79	ePKP	30	15.26	1.7
TRN	145.34	78	ePKP	30	13.98	0.4
TBH	145.69	78	ePKP	30	15.73	1.5
AVE	146.16	330	iPKPc	30	16.00	1.5
			i	30	25.00	
BRAS	147.42	147	ePKP	30	05.80	-11.3X
TIO	147.95	327	iPKPc	30	18.20	0.6
BMA	148.05	149	ePKP	30	18.30	0.4
			i	30	21.10	
			e	30	28.20	
			e	30	53.50	
SHGH	153.19	274	ePKP	30	25.00	-0.7
LEGH	153.34	273	ePKP	30	26.50	0.6
KOGH	153.39	274	ePKP	30	26.50	0.4
KUK	153.51	275	ePKP	30	26.00	-0.2
	0.6s		750.00nm			
ATB	153.54	107	PKPd	30	26.80	0.6
GGC	154.28	337	ePKP	30	35.00	8.1X
TBT	154.59	341	iPKPc	30	29.30	2.1X
KIC	157.84	275	PKP	30	31.76	-0.1
	0.3s		222.00nm			

TIC	158.10	276	PKP	30	31.90	-0.3
	1.4s		173.00nm			
LIC	158.13	275	PKP	30	32.08	-0.1
	1.3s		211.00nm			

S.D. = 0.9 on 368 of 504 obs.

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* FEB 05, 1989 00h 16m 18.30± 1.11s
34.903 N ±10.6km 25.889 E ± 8.4km
DEPTH = 10.0km (geophysicist)
CRETE (370)
MD 3.9 (ATH).

NPS	0.42	328	ePg	16	26.50	-0.5
KAP	1.24	58	ePb	16	42.00	0.7
VAM	1.47	290	ePb	16	46.00	1.1
ARG	2.25	54	ePn	16	58.00	1.9
KSL	3.25	67	ePn	17	11.00	0.7
IZM	3.66	17	eP	17	16.00	-0.2
ELL	3.75	59	iP	17	20.20	2.6X
BCK	4.58	55	eP	17	28.00	-1.3
EZN	4.93	4	eP	17	32.70	-1.4
PRNI	8.92	118	ePc	18	28.50	-1.7
MBH	9.17	121	eP	18	34.00	0.5

S.D. = 1.4 on 10 of 11 obs.

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* FEB 05, 1989 01h 00m 49.83± 0.91s
40.743 N ± 8.8km 19.951 E ±14.2km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)

BERA	0.04	182	iPgc	00	52.20	0.3
VLO	0.44	232	ePg	00	58.70	-0.1
TIR	0.61	354	ePg	01	01.70	-0.4
LSK	0.77	140	ePg	01	13.80	8.9X
PHP	1.01	21	ePg	01	10.30	1.3
SKO	1.66	42	ePn	01	18.00	-1.1
			iSn	01	42.50	

S.D. = 1.3 on 5 of 6 obs.

? FEB 05, 1989 01h 05m 25.75± 4.67s
7.310 S ±30.0km 129.666 E ±20.7km
DEPTH = 143.2 ± 55.0 km
4.1mb (3 obs.)
BANDA SEA (280)

MTN	5.69	165	eP	06	50.00	0.8
			eS	07	52.00	
KNA	8.43	186	eP	07	26.00	-0.2
			eS	08	53.00	
WB5	13.30	160	eP	08	28.30	-1.9
			eS	10	49.00	
WRA	13.35	161	Pd	08	29.50	-1.3
	0.4s		2.60nm		4.0mb	
OIS	16.31	145	eP	09	10.00	2.0
			eS	12	00.00	
MBL	16.73	214	eP	09	14.00	0.9
			eS	12	10.00	
ASPA	16.76	166	eP	09	16.30	2.7X
			eS	12	14.90	
CHTO	39.89	311	eP	12	45.90	-1.4
	0.8s		1.10nm		3.7mb	
GUN	54.91	312	P	14	44.80	0.4
	0.4s		20.00nm		5.3mb X	
PKI	55.07	311	P	14	45.70	0.1
	0.5s		8.00nm		4.8mb	
DMN	55.32	311	P	14	47.60	0.3
GKN	55.88	311	P	14	51.50	0.3
	0.4s		18.00nm		5.4mb X	
QUE	70.70	305	eP	16	21.00	-7.5X
FFC	117.39	31	ePKP	23	58.00	2.3X
	0.7s		8.00nm			

S.D. = 1.4 on 11 of 14 obs.

? FEB 05, 1989 01h 24m 14.77± 8.78s
44.392 N ±51.9km 6.764 E ±31.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
MD 2.1 (STR).

TOUF	0.51	137	Pg	24	25.35	0.1
MVIF	0.57	150	Pg	24	26.11	-0.3
			Sg	24	33.48	
AUTN	0.62	129	Pg	24	27.47	0.0
CALN	0.65	172	Pg	24	27.73	-0.1
AURF	0.65	141	Pg	24	27.97	0.2
SAOF	0.70	125	Pg	24	28.32	-0.3
			Sg	24	37.79	

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

FEB 05, 1989 01h 25m 16.33± 0.32s
44.280 N ± 2.1km 6.769 E ± 3.0km
DEPTH = 7.4 ± 3.3 km
FRANCE (538)
ML 3.0 (GEN), 2.9 (LDG).

FOUF	0.25	2	P	25	21.80	0.3
			e	25	21.85	
PZZ	0.33	47	P	25	23.45	0.4
			S	25	27.92	
STV	0.40	95	Pc	25	24.71	0.2
			S	25	29.77	
DOI	0.41	57	P	25	24.80	0.2
			eSg	25	29.70	
SBF	0.64	131	Pg	25	29.20	0.1
			Sg	25	37.70	
RRL	0.64	1	Pc	25	29.09	-0.1
			S	25	38.38	
FRF	0.72	187	Pg	25	31.00	0.2
			Sg	25	41.20	
BNI	0.78	355	P	25	31.60	-0.2
			eSg	25	42.00	
ROB	0.79	89	P	25	32.15	0.2
			S	25	42.28	
LRG	0.88	200	Pg	25	33.50	0.1
			Sg	25	48.20	
IMI	0.89	114	P	25	33.64	0.0
			S	25	45.66	
RSP	0.94	22	P	25	34.50	0.0
			S	25	46.58	
LMR	0.96	191	Pg	25	35.10	0.2
			Sg	25	50.20	
FIN	1.04	93	Pc	25	36.17	0.0
			S	25	49.60	
CKI	1.09	82	P	25	37.40	0.3
			eSg	25	51.50	
LSD	1.21	13	P	25	39.39	0.1
			S	25	53.90	
LPG	1.22	359	Pg	25	39.40	0.0
			Sg	25	55.80	
ORO	1.60	32	P	25	44.30	-0.8
			eSn	26	04.60	
CVF	2.30	137	Pn	25	54.40	-0.8
			Sn	26	20.70	
CAF	3.42	283	Pn	26	11.40	0.3

S.D. = 0.3 on 20 of 20 obs.

FEB 05, 1989 01h 59m 10.02± 1.64s
34.851 N ±15.3km 84.912 E ±14.4km
DEPTH = 33.0km (normal)
TIBET (306)

GKN	6.83	182	P	00	51.50	0.9
	0.6s		12.00nm		5.0mb X	
GUN	6.97	173	P	00	51.80	-0.9
KKN	7.05	177	P	00	55.80	2.1X
	0.6s		16.00nm		5.1mb X	
DMN	7.22	179	P	00	56.80	0.6
	0.6s		11.00nm		5.0mb X	
PKI	7.27	177	P	00	56.20	-0.8
	0.5s		17.00nm		5.3mb X	
NDI	8.98	229	ePc	01	20.50	0.1
	1.0s		220.00nm		6.3mb X	
HYB	18.27	200	eP	03	18.30	-4.4X
CHTO	20.26	138	eP	03	45.70	0.3
MHI	20.71	281	eP	03	50.00	-0.1

S.D. = 0.8 on 7 of 9 obs.

FEB 05, 1989 01h 59m 48.65± 0.13s
33.385 N ± 2.7km 140.811 E ± 2.8km
DEPTH = 59.8km (24 depth phases)
5.6mb (74 obs.)
SOUTH OF HONSHU, JAPAN (211)
Felt (III JMA) on Hachijo-jima; (II JMA) on Miyake-jimo and (I JMA) at Tokyo, Yokohama and Toteyama.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 9S, 18C
Centroid Location:
Origin Time 01:59:50.0 0.6
Lat 33.12N 0.09 Lon 140.93E 0.06
Dep 32.6 4.5 Half-duration 2.1
Moment Tensor; Scale 10**17 Nm

05d 01h

Mrr= 1.62 0.08 Mtt= 0.53 0.10
Mff=-2.15 0.12 Mrt=-1.11 0.20
Mrf= 0.13 0.21 Mtf= 0.39 0.10
Principal Axes:
T Val= 2.31 Plg=58 Azm=178
N -0.08 32 347
P -2.23 5 80
Best Double Couple:Mo=2.3*10**17
NP1:Strike=200 Dip=49 Slip= 134
NP2: 324 57 51

HJJ 0.90 252 iPd 00 07.50 2.0
S 00 22.60
TAT 1.78 334 iPd 00 17.30 -0.2
iS 00 38.40
YOK 2.26 335 iPd 00 24.50 0.3
iS 00 50.90
TOK 2.46 340 iP+ 00 26.50 -0.5
S 00 54.30
KAKJ 2.86 350 P 00 30.80 -2.0
KMG 2.99 337 eP 00 34.00 -0.7
S 01 09.00
CHJJ 3.05 331 iPd 00 34.80 -0.7
S 01 11.30
IIDJ 3.18 312 iPd 00 39.10 1.7
S 01 15.30
MAT 3.81 327 iPd 00 46.30 0.2
eS 01 31.00
MTMJ 4.04 323 iPd 00 50.10 0.7
S 01 37.60
NIIJ 4.12 339 iPd 00 48.90 -1.6
S 01 36.70
WKYJ 4.42 282 iPd 00 56.40 1.6
TSRJ 4.53 300 iPd 00 57.50 1.3
YAMJ 4.82 353 P 00 58.00 -2.4
TKSJ 5.67 278 P 01 13.90 1.6
OFUJ 5.73 7 P 01 08.30 -4.7X
S 02 08.60
YONJ 6.34 289 P 01 22.90 1.2
SHK 6.85 282 iPd 01 30.00 1.2
0.9s 806.72nm 6.4mb
AOMJ 7.17 357 eP 01 29.70 -3.5X
SHNJ 8.11 278 P 01 47.60 1.4
KUMJ 8.43 267 P 01 52.50 1.9
KAGJ 8.68 258 P 01 58.00 3.9X
MRRJ 9.03 1 P 01 53.30 -5.5X
eS 03 30.00
HOOJ 9.19 12 P 01 55.30 -5.7X
eS 03 31.30
KUSJ 10.17 16 P 02 07.10 -7.3X
S 03 51.50
ASAJ 10.81 7 P 02 16.80 -6.3X
S 04 09.10
MDJ 14.19 325 eP 03 05.50 -2.4
Z 30s 4.70um
N 12s 2.50um
S 05 49.50
CN2 15.86 315 eP 03 26.00 -3.4X
Z 24s 8.60um
N 13s 2.00um
eS 06 18.00
SNY 16.03 307 eP 03 29.00 -2.5
Z 23s 3.70um
N 12s 1.70um
S 06 32.50
DL2 16.44 295 P 03 39.80 3.1X
Z 15s 3.60um
N 15s 3.30um
E 15s 4.30um
S 06 38.00
SSE 16.76 268 P+ 03 44.00 3.2X
1.0s 78.00nm 4.8mb
Z 18s 2.30um
E 12s 1.80um
sP 03 55.00
sS 06 55.00
NJ2 18.52 272 Pc 04 03.30 0.8
Z 21s 3.10um
E 14s 2.00um
pP 04 15.00
S 07 32.50
ANP 18.69 249 eP 04 20.00 15.3X
TIA 19.65 285 eP 04 12.10 -3.1X
Z 17s 5.20um
N 13s 2.80um
E 12s 3.50um
sP 04 29.00
S 07 53.00
GUMO 20.05 168 iP 04 19.80 0.3
1.5s 3333.33nm 6.4mb
PJG 20.05 168 eP 04 19.80 0.3
GUA 20.11 168 eP 04 20.80 0.7
1.4s 2567.44nm 6.4mb
BJI 20.80 296 eP 04 22.00 -5.1X
Z 22s 3.50um 4.7Msz
N 11s 1.80um
eLg 08 17.00
QZH 21.12 252 eP 04 37.00 6.6X
Z 20s 1.90um 4.5Msz
N 20s 2.50um
S 09 02.00
WHN 22.61 270 iPc 04 45.00 -0.2
Z 16s 3.00um 4.8MszX
N 14s 1.62um
E 15s 2.30um
pP 04 55.00 37kmX
TIY 23.45 289 P 04 51.20 -2.2
Z 14s 4.76um 5.1MszX
E 13s 2.80um
S 09 19.00
PIP 23.50 235 iPc 04 52.20 -1.6
HHC 24.41 296 eP 05 01.60 -1.1
Z 15s 3.50um 5.0MszX
N 10s 0.50um
E 10s 0.50um
S 09 19.00
BAG 24.87 232 eP 05 07.00 -0.3
BTO 25.54 295 P 05 12.40 -1.0
Z 20s 5.50um 5.1Msz
E 22s 5.10um
sP 05 35.50
PP 05 56.00
S 09 36.50
sS 10 01.00
XAN 26.48 280 P 05 20.30 -1.8
N 18s 3.40um
sP 05 39.80
DAV 29.74 212 eP 06 11.00 19.5X
GYA 30.29 266 P 05 54.00 -2.6
E 15s 2.50um
S 10 46.60
LZH 30.38 286 eP 05 54.00 -3.3X
2.0s 55.00nm 4.9mb
Z 16s 3.30um 5.1MszX
N 14s 1.10um
E 15s 2.70um
pP 06 07.00 51km
CD2 31.37 276 eP 06 03.40 -2.5
Z 16s 2.50um 5.0MszX
N 13s 1.80um
GTA 33.33 292 P 06 21.00 -2.0
Z 23s 2.00um 4.8MszX
E 13s 1.90um
eS 11 30.00
ScP 12 42.20
ScS 16 41.00
KMI 34.07 266 Pc 06 28.00 -1.7
E 16s 0.90um
S 11 23.00
LOE 38.47 255 eP 07 04.00 -2.6
CHG 40.03 259 iPc 07 18.80 -0.7
1.1s 41.77nm 5.2mb
eS 13 36.00
CHTO 40.03 259 iPc 07 18.90 -0.6
1.3s 57.19nm 5.3mb
NST 40.69 254 eP 07 27.00 2.1
BDT 40.77 257 eP 07 25.60 0.0
WMQ 42.15 300 iPd 07 37.20 0.4
Z 12s 2.40um 5.3MszX
S 13 53.00
NNT 42.75 251 eP 07 47.00 5.2X
e 09 33.80 617kmX
PMG 42.98 171 eP 07 43.00 -0.6
1.0s 80.00nm 5.4mb
SHL 42.98 273 eP 07 31.00 -12.9X
SNG 45.40 244 eP 08 01.30 -1.9
IPM 46.81 241 ePc 08 13.40 -1.0
1.0s 46.40nm 5.4mb
e 09 48.00 499kmX
MTN 46.89 193 eP 08 14.00 -0.8
GUN 47.12 279 P 08 16.10 -1.1
PKI 47.63 278 P 08 19.60 -1.6
KKN 47.66 279 P 08 19.90 -1.3
DMN 47.87 279 P 08 22.20 -0.7
0.9s 62.00nm 5.6mb
GKN 48.12 279 P 08 23.50 -1.2
SVW 48.73 35 eP 08 28.80 0.0
e 08 45.00 63km
PSI 49.63 241 ePc 08 34.50 -1.7
IMA 50.09 29 eP 08 38.70 -0.6
0.2s 40.30nm 6.2mb
i 08 53.80 58km
KNA 50.19 195 iPd 08 40.00 -0.4
KDC 50.23 40 eP 08 38.80 -1.4
PMR 51.87 35 eP 08 51.00 -1.7
1.2s 35.20nm 5.3mb
e 09 07.20 62km
FBA 52.47 31 eP 08 56.40 -0.7
TOA 53.25 34 eP 09 02.70 -0.4
WB5 53.32 188 iPc 09 03.00 -0.8
WRA 53.39 188 Pc 09 03.40 -0.9
1.0s 298.10nm 6.3mb
CTA 53.43 174 iPc 09 04.00 -0.6
1.5s 255.56nm 6.0mb
eS 17 07.00
QIS 53.65 181 iPc 09 05.20 -1.0
0.9s 143.00nm 6.0mb
NDI 53.95 283 iPc 09 07.00 -1.5
1.0s 220.00nm 6.1mb
ASPA 57.11 188 ePc 09 29.90 -1.4
0.5s 324.00nm 6.7mb X
eS 16 39.10
HYB 57.67 270 ePd 09 34.00 -1.5
1.0s 80.00nm 5.8mb
MBL 57.81 203 eP 09 35.30 -0.9
0.4s 44.00nm 5.9mb
INK 57.87 26 ePd 09 35.10 -1.0
1.0s 109.00nm 5.9mb
pP 09 51.00 60km
RMQ 60.02 172 iPc 09 51.20 -0.2
MBC 60.16 16 ePc 09 50.90 -1.0
1.1s 123.00nm 5.9mb
pP 10 07.00 60km
DZM 60.32 152 iPc 09 53.90 0.3
GBA 60.49 267 P 09 53.80 -1.1
NANU 60.63 207 iPc 09 55.70 0.1
0.4s 11.00nm 5.3mb
WARB 60.75 195 iPc 09 50.90 -5.5X
0.4s 59.00nm 6.1mb
POO 61.07 274 iPd 09 57.00 -1.9
BRS 61.50 168 Pc 10 01.00 -0.5
ipPP 10 20.50 119kmX
i 10 30.00
e(PP) 10 59.50
QUE 61.62 289 eP 10 02.50 -0.1
BOM 61.76 275 eP 10 02.00 -1.5
eS 18 20.00
MEKA 63.31 202 eP 10 13.00 -0.5
ALE 63.77 3 ePc 10 15.50 -0.5
1.0s 57.00nm 5.5mb
pP 10 32.50 63km
KBS 64.17 350 iP 10 18.00 -0.6
COO 64.47 169 eP 10 20.00 -1.1
CMS 64.70 175 iPc 10 22.60 0.2
MHI 64.86 298 eP 10 24.00 0.2
STK 64.92 179 iPc 10 23.60 -0.2
FORR 65.01 192 iPc 10 24.10 -0.3
0.4s 259.00nm 6.6mb X
MRWA 66.55 204 iPd 10 34.60 0.2
COOL 66.57 198 eP 10 34.00 -0.5
0.7s 77.00nm 5.8mb
KEV 66.68 340 eP 10 34.00 -0.8
YKA 67.22 29 P 10 37.30 -1.0
YKC 67.28 29 eP 10 37.00 -1.7
1.0s 80.00nm 5.7mb
pP 10 53.50 61km
BAL 67.60 202 eP 10 41.00 0.0
0.4s 38.00nm 5.7mb
BWA 67.83 173 eP 10 42.90 0.5
ADE 68.02 182 iPc 10 44.00 0.4
1.0s 82.00nm 5.7mb
SOD 68.14 338 iP 10 43.70 -0.3
KLB 68.19 201 iPc 10 44.70 0.0
CAN 68.78 173 eP 10 48.80 0.5
MUN 69.03 202 eP 10 49.00 -0.9
KJF 69.59 335 eP 10 53.00 0.1
1.0s 82.00nm 5.6mb
NWAO 69.59 201 eP 10 53.00 -0.3
GMW 70.14 46 P 10 57.40 0.8
pP 11 13.60 59km
8FD 70.22 179 eP 10 43.00 -13.9X
RKG 70.73 201 eP 11 03.00 2.8

TOO	70.73	176	iPc	11	01.00	0.9	TPC	81.50	55	eP	12	01.00	-0.1	SKO	86.62	319	iP	12	28.80	2.0
RMW	70.77	45	P	11	00.70	0.1	MSU	81.51	49	P	12	02.10	0.8	PTJ	86.67	325	eP	12	26.60	-0.4
SUF	71.02	334	iP	11	01.20	-0.5	ISR	81.75	319	ePd	12	04.00	1.8	TNS	86.70	332	ePc	12	29.50	2.4
	0.7s	29.10nm			5.3mb		KRA	81.84	326	eP	12	02.70	0.3	K8A	87.02	327	eP	12	29.00	0.1
PNT	71.15	43	eP	11	02.00	-0.7				e	12	06.70	13kmX		2.0s	60.00nm			5.4mb	
	1.1s	64.00nm			5.5mb					e	12	14.60					i	12	38.20	29kmX
EDM	72.53	37	ePc	11	09.80	-1.0	MLR	81.85	320	ePd	12	04.00	1.2				e	15	49.00	
	1.0s	108.00nm			5.7mb		BAR	81.87	56	eP	12	03.00	0.0				i	16	10.60	
DPW	72.69	44	P	11	11.80	-0.1	CJR1	82.28	322	eP	12	05.80	1.0	LJU	87.24	326	e(P)	12	29.00	-0.7
NUR	72.94	332	iP	11	12.30	-0.7	SPC	82.29	325	eP	12	06.40	1.3	ENN	87.24	333	eP	12	29.00	-0.6
TAB	73.46	305	eP	11	18.00	1.3	SHBJ	82.59	304	P	12	08.40	1.6		1.0s	50.00nm			5.7mb	
WDC	73.67	52	ePc	11	18.00	0.3	HRT	82.67	314	eP	12	04.10	-2.9	ALQ	87.33	49	eP	12	30.00	-0.6
			epP	11	35.20	63km	ISK	82.88	315	eP	12	05.10	-2.9		1.0s	11.25nm			5.0mb	
LBFM	73.72	51	P	11	18.90	0.7	IKL	82.93	309	eP	12	08.00	-0.3	Z	20s	0.71um			5.1Msz	
LTCM	74.14	52	P	11	20.20	-0.2	KSP	82.94	328	eP	12	08.70	0.6	MEM	87.34	333	P	12	32.00	2.0
MIN	74.41	52	eP	11	21.20	-1.0		1.5s	88.00nm			5.5mb		RBL	87.40	327	P	12	30.50	0.0
			epP	11	38.20	62km				e	15	29.00		CEY	87.52	326	eP	12	30.90	-0.2
ORV	74.88	53	eP	11	24.40	-0.3	BHL	82.99	306	P	12	09.50	0.7	VOY	87.55	326	e(P)	12	30.00	-1.3
			epP	11	40.80	59km	YLV	83.00	314	iP	12	09.10	0.3	OHR	87.56	319	eP	12	30.60	-0.8
BRK	75.23	54	eP	11	26.70	0.0	DMK	83.17	316	eP	12	10.00	0.5	FVI	87.64	327	P	12	30.20	-1.3
BKS	75.25	54	eP	11	27.10	0.3	CTT	83.20	315	eP	12	09.00	-0.7	TIR	87.91	320	ePc	12	32.70	-0.3
	0.9s	58.00nm			5.5mb		DEV	83.20	322	ePd	12	12.00	2.4	WLF	88.04	332	Pc	12	34.20	0.8
			e	11	41.70	51km	HRI	83.29	305	eP	12	12.00	1.5	SNF	88.06	334	Pd	12	34.00	0.5
			e	12	19.30		PSZ	83.33	324	eP	12	11.20	0.9	DOU	88.29	334	Pc	12	34.60	0.0
SLY	75.27	303	eP	11	27.00	0.0	RSON	83.35	31	P	12	09.80	-0.4	CDF	88.60	331	eP	12	34.90	-1.4
			iPcP	11	42.50			1.1s	55.23nm			5.5mb			1.0s	16.00nm			5.2mb	
			eS	21	03.00					pP	12	26.00	57km	SLE	88.61	330	ePc	12	35.10	-1.2
SES	75.28	39	ePc	11	26.60	-0.3	JMB	83.43	317	iPd	12	13.00	2.2	OSS	88.75	329	ePc	12	36.90	-0.2
	1.3s	144.00nm			5.7mb		LFK	83.59	308	eP	12	12.40	0.5	SCH	89.00	16	eP	12	38.00	0.0
			pP	11	43.00	59km	PVL	83.65	318	eP	12	13.00	1.1	VDL	89.20	329	ePc	12	39.10	-0.2
MHC	75.92	55	eP	11	30.90	0.0	JARJ	83.75	305	P	12	13.80	1.0	SAL	89.41	328	P	12	40.00	0.0
ARN	75.99	54	P	11	31.60	0.5	KCT	83.81	315	iP	12	13.60	0.8	TMA	89.75	329	ePc	12	41.20	-0.7
UPP	76.01	334	iP	11	30.50	-0.2	BURJ	83.89	305	P	12	13.00	-0.4	ARV	89.89	325	P	12	42.50	0.1
TAU	76.16	175	eP	11	34.00	2.4	CSS	83.92	308	eP	12	15.00	1.5	VAI	89.98	329	Pc	12	42.10	-0.6
CMB	76.41	53	iPc	11	34.70	1.2	CLL	84.01	330	iPc	12	13.30	-0.2	SFI	90.09	326	P	12	46.00	2.8
			epP	11	50.40	56km		1.4s	80.00nm			5.6mb		MMK	90.19	329	ePc	12	44.80	0.8
MSL	76.50	305	eP	11	33.00	-0.9				i	12	32.00	68km	PGD	90.19	326	Pc	12	45.00	1.1
			ePcP	11	49.00					eSg	21	30.00		CRE	90.27	326	P	12	44.00	-0.2
			eS	21	15.00		EDC	84.04	315	eP	12	07.40	-6.5X	ASS	90.35	325	P	12	45.00	0.4
			eScS	21	41.00		BZS	84.05	322	eP	12	14.50	0.6	DIX	90.40	330	ePc	12	45.40	0.4
PRS	76.64	55	eP	11	35.00	0.3	DST	84.05	314	eP	12	14.90	0.8	MME	90.42	327	Pc	12	45.60	0.5
			epP	11	51.60	60km	BUD	84.06	325	eP	12	14.00	0.1	FIR	90.48	326	eP	12	46.00	1.0
LLA	76.78	55	eP	11	35.60	0.1	SALJ	84.06	304	P	12	16.00	1.7	ORX	90.51	329	P	12	45.41	0.1
			epP	11	52.50	61km	KMSA	84.08	290	eP	12	14.70	0.2	DUI	90.51	323	Pc	12	46.20	0.8
FFC	77.05	32	iPc	11	35.60	-1.0	KFNJ	84.16	304	P	12	16.10	1.5	ORO	90.52	329	P	12	46.00	0.7
	0.9s	37.00nm			5.4mb		SRO	84.17	325	iP	12	15.60	1.2	BOB	90.54	328	P	12	45.50	0.1
LRM	77.12	43	iPc	11	37.90	0.4	BCK	84.17	311	eP	12	14.00	-0.8	BDI	90.57	327	P	12	48.20	2.6
			e	11	54.10	58km	QUTJ	84.25	304	P	12	16.40	1.1	EMS	90.61	330	ePc	12	46.30	0.4
HFS	77.21	336	eP	11	36.80	-0.6	DIM	84.30	317	eP	12	17.00	1.8	ACO	90.62	44	eP	12	46.80	0.9
	0.8s	33.10nm			5.4mb		KHL	84.30	313	eP	12	14.50	-0.9	SDI	90.80	323	Pc	12	45.80	-0.9
PRI	77.22	55	eP	11	38.50	0.4	JVI	84.34	305	iPc	12	16.00	0.4	MNS	90.86	324	P	12	48.50	1.6
BHD	77.25	301	eP	11	40.00	1.9	MKRJ	84.36	304	P	12	17.00	1.2	PII	90.86	326	Pc	12	49.90	3.1X
			e	11	55.00	53km	ZST	84.47	326	eP	12	16.00	0.1	LOR	90.88	332	eP	12	46.40	-0.5
			e	21	21.00		SSR	84.49	321	iPc	12	28.00	11.8X		1.2s	19.00nm			5.3mb	
			e	21	48.00		PPCY	84.61	308	eP	12	18.00	1.1	LSD	91.00	329	P	12	48.48	0.7
KVN	77.39	52	P	11	39.40	0.3	KDZ	84.62	317	iPd	12	19.00	2.1	LBF	91.07	332	eP	12	47.30	-0.5
FRI	77.42	54	ePc	11	39.00	0.0	PGB	84.74	318	iPd	12	19.00	1.5		1.0s	10.00nm			5.2mb	
PHAM	77.57	55	P	11	40.70	0.8	VKA	84.79	326	ePc	12	18.00	0.5	LPG	91.14	330	eP	12	48.40	-0.1
NAO	77.64	337	P	11	39.20	-0.6		1.0s	52.60nm			5.6mb			1.0s	28.80nm			5.6mb	
	1.0s	66.20nm			5.6mb					i	12	31.50	46kmX	SSF	91.19	332	eP	12	47.80	-0.5
KRP	77.96	153	P	11	43.40	1.7	GOL	84.96	45	P	12	19.20	0.2		0.8s	5.30nm			5.0mb	
	1.0s	400.00nm			6.4mb		RZN	85.00	318	iPd	12	20.00	1.0	RSP	91.20	329	P	12	50.22	1.7
TNP	78.50	52	P	11	45.90	0.7	TIH	85.02	325	eP	12	19.50	0.8	CKI	91.33	328	P	12	47.50	-1.5
	1.2s	56.45nm			5.4mb		GLD	85.02	45	P	12	20.60	1.5	SMF	91.40	332	eP	12	49.00	-0.3
KVT	78.62	312	iP	11	46.60	1.0				pP	12	39.40	68km		1.0s	14.00nm			5.3mb	
ISA	78.98	55	eP	11	47.00	-0.7	ELL	85.04	311	iP	12	19.70	0.5	AVF	91.47	332	eP	12	49.20	-0.4
CLC	79.49	54	eP	11	50.00	-0.4	MOX	85.08	330	ePd	12	19.00	0.0		1.0s	14.80nm			5.3mb	
AKU	79.90	351	iP	11	57.70	5.8X		1.9s	129.00nm			5.7mb		BNI	91.53	329	P	12	48.00	-2.1
	0.9s	23.53nm			5.1mb					ePP	15	37.00		FIN	91.53	328	P	12	48.28	-1.7
SBB	79.96	55	eP	11	53.00	0.0	BEO	85.19	322	eP	12	20.20	0.6	RRL	91.59	329	P	12	50.02	-0.4
PAS	80.01	56	eP	11	53.00	-0.2	VTS	85.24	319	iPd	12	21.00	0.9	ROB	91.61	328	P	12	49.10	-1.3
MWC	80.05	56	eP	11	54.00	0.4	EZN	85.28	315	eP	12	21.00	0.9	GRR	91.68	336	eP	12	50.40	-0.1
RYD	80.10	293	eP	11	54.00	0.2	WIT	85.32	334	e(P)	12	26.00	5.9X		1.2s	47.60nm			5.8mb	
DUG	80.13	48	P	11	54.20	0.3	KHC	85.39	328	iPd	12	21.90	1.3	DOI	91.72	329	P	12	50.00	-0.9
GSC	80.31	54	eP	11	55.00	0.1				e	12	29.70	25kmX	BGF	91.86	332	eP	12	51.40	0.0
FRB	80.43	13	ePc	11	54.40	-0.4	MMB	85.62	318	ePd	12	22.00	0.1		1.0s	12.00nm			5.3mb	
	1.1s	105.00nm			5.7mb		IZM	85.64	314	eP	12	22.00	0.0	IMI	91.91	328	P	12	49.92	-1.8
			pP	12	11.00	59km	KKB	85.79	318	iP	12	24.00	1.3	LPF	92.04	335	eP	12	52.30	0.1
BIR	80.45	320	eP	11	57.00	1.8	WTS	85.92	334	e(P)	12	25.50	2.4		1.2s	47.60nm			5.8mb	
BW06	80.58	45	P	11	56.20	-0.2		0.9s	24.00nm			5.3mb		SBF	92.15	328	eP	12	51.90	-0.9
	1.2s	27.40nm			5.1mb		MBH	85.94	303	eP	12	24.00	0.4		1.0s	28.00nm			5.6mb	
RVR	80.65	56	eP	11	56.00	-0.6	GRF	85.98	330	eP	12	24.20	0.7	MAF	92.25	332	eP	12	53.60	0.4
CFR	80.84	319	ePd	11	58.00	0.7		1.8s	153.00nm			5.8mb			1.2s	32.70nm			5.6mb	
PEC	80.85	55	P	11	57.70	0.0	EKA	86.40	340	P	12	29.00	3.6X	MEO	92.27	45	ePc	12	53.40	-0.1
VRI	81.19	320	ePd	12	00.00	0.9		2.5s	463.20nm			6.2mb		TCF	92.33	333	eP	12	53.20	-0.4
PLM	81.36	56	eP	12	05.00	4.5X	ESK	86.43	340	eP	12	37.00	11.4X		1.2s	20.80nm			5.4mb	
BBTK	81.38	312	iPd	12	02.00	1.6	VAY	86.44	318	eP	12	25.60	-0.3	LSF	92.62	333	eP	12	54.80	-0.1

05d 02h

	0.8s	14.70nm			5.5mb	
FRF	92.73	329	eP	12	54.60	-0.8
	1.0s	16.00nm			5.4mb	
SIO	92.92	43	eP	12	56.30	-0.2
LRG	92.94	329	eP	12	55.90	-0.5
	0.8s	18.80nm			5.6mb	
MFF	92.95	334	eP	12	56.60	0.2
	1.0s	12.00nm			5.3mb	
LMR	92.98	328	eP	12	56.00	-0.5
	1.0s	24.00nm			5.6mb	
TUL	93.10	43	ePc	12	57.50	0.2
	1.2s	21.40nm			5.5mb	
Z	21s	0.74um			5.1Msz	
LNO	93.10	43	ePc	12	56.90	-0.2
		e		13	15.30	65km
RLO	93.35	42	eP	12	58.50	0.1
RJF	93.42	333	eP	12	58.80	0.2
	1.2s	23.80nm			5.5mb	
CAF	93.52	332	eP	12	59.80	0.7
	1.2s	23.80nm			5.5mb	
LFF	94.02	333	eP	13	01.90	0.6
	1.2s	29.70nm			5.6mb	
GAC	94.70	25	eP	13	04.00	-0.4
BNG	113.78	293	ePKPd	18	26.10	3.3X
	1.0s	10.00nm				
		ic		19	15.90	
BUL	118.98	264	iPKPc	18	31.90	-0.8
SLR	121.71	258	iPKPc	18	37.50	-0.2
	0.9s	16.81nm				
BPI	122.10	258	ePKP	18	38.00	-0.5
	0.6s	20.00nm				
FRS	125.70	255	ePKP	18	46.50	1.4
TIC	128.66	314	PKP	18	50.20	-1.1
KIC	128.72	314	PKP	18	51.52	0.1
LIC	129.00	314	PKP	18	50.78	-1.1
AIA	144.67	162	ePKP	19	18.50	-0.6
ARE	146.39	68	iPKPc	19	21.00	-2.9X
ATB	147.67	25	e(PKP)	19	25.00	-0.7
ZOBO	148.85	64	PKPc	19	29.00	0.8
Z	24s	0.23um			4.9MszX	
		LR		11	24.00	
LPB	149.03	64	PKP	19	30.20	1.9
	0.9s	134.45nm				
		i		19	34.30	
		eLR		11	10.00	
CNCB	149.29	65	PKPd	19	28.00	-0.8
		i		19	35.00	
PEL	153.71	98	iPKPc	19	42.10	7.9X
SAN	153.78	99	ePKP	19	42.80	8.5X
S.D. = 1.1		on 308 of 340 obs.				

? FEB 05, 1989 02h 06m 05.55± 8.57s
44.100 N ±29.1km 6.616 E ±48.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
MD 1.0 (STR).

CALN	0.40	150	Pg	06	14.02	0.2
			Sg	06	23.38	
MVIF	0.44	118	Pg	06	14.37	-0.1
TOUF	0.46	101	Pg	06	14.84	-0.2
			Sg	06	24.44	
AURF	0.56	112	Pg	06	17.09	0.2
AUTN	0.59	100	Pg	06	17.83	0.1
SAOF	0.69	99	Pg	06	18.96	-0.2
			Sg	06	32.19	
S.D. = 0.3		on 6 of 6 obs.				

FEB 05, 1989 02h 08m 02.96± 0.67s
44.178 N ± 3.2km 6.414 E ± 6.4km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.8 (LDG), 2.8 (GEN).

FOUF	0.44	37	P	08	11.55	-0.3
			e	08	11.60	
			Sg	08	16.85	
PZZ	0.59	56	P	08	14.41	-0.6
			S	08	23.28	
FRF	0.64	165	Pg	08	15.60	-0.2
			Sg	08	24.00	
STV	0.66	84	P	08	15.64	-0.5
			S	08	24.51	
DOI	0.68	61	P	08	16.50	0.0
LRG	0.72	183	Pg	08	17.00	-0.2
			Sg	08	27.60	
RRL	0.79	19	P	08	17.54	-0.9
			S	08	28.00	
SBF	0.80	113	Pg	08	18.40	-0.2
			Sg	08	29.70	
LMR	0.85	175	Pg	08	19.40	0.1
			Sg	08	31.50	
			Sn	08	32.80	
BNI	0.89	12	P	08	20.10	-0.1
ROB	1.05	83	P	08	23.12	0.3
			S	23	37.23	
IMI	1.10	104	P	08	24.89	1.3
			S	08	39.17	
RSP	1.14	31	P	08	24.20	-0.2
			S	08	38.76	
FIN	1.29	88	P	08	27.07	0.2
			S	08	42.25	
LPG	1.34	10	Pg	08	29.00	1.1
CKI	1.36	79	P	08	15.60	-12.4X
CVF	2.41	131	Pn	08	42.00	-1.0
			Sn	09	10.20	
S.D. = 0.7		on 16 of 17 obs.				

? FEB 05, 1989 02h 10m 04.31± 3.90s
12.160 S ±40.3km 122.034 E ±19.8km
DEPTH = 33.0km (normal)
SOUTH OF TIMOR (293)

KNA	7.45	119	eP	11	54.00	0.6
			eS	13	15.00	
MTN	8.91	95	eP	12	14.00	0.2
			eS	13	50.00	
MBL	9.19	193	eP	12	17.50	-0.2
			eS	13	54.00	
NANU	12.06	210	eP	12	56.00	-0.9
	0.3s	13.00nm			5.6mb	X
			eS	15	02.00	
WB5	14.12	124	eP	13	23.10	-1.1
WARB	14.61	163	eP	13	23.00	-7.6X
	0.3s	4.00nm			4.4mb	X
			eS	15	58.00	
MEKA	14.75	192	eP	13	33.00	0.6
			eS	16	05.00	
MRWA	17.88	197	eP	14	13.00	0.8
			eS	17	16.00	
S.D. = 0.9		on 7 of 8 obs.				

? FEB 05, 1989 02h 21m 59.45± 0.98s
44.371 N ±11.8km 7.341 E ±10.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.8 (GEN).

STV	0.13	185	P	22	02.85	0.2
			S	22	04.90	
PZZ	0.22	308	P	22	04.18	-0.1
			S	22	07.16	
IMI	0.61	139	P	22	11.36	-0.4
			S	22	19.15	
FIN	0.64	104	P	22	12.59	0.2
			S	22	21.00	
S.D. = 0.5		on 4 of 4 obs.				

FEB 05, 1989 03h 10m 00.86± 0.43s
44.807 N ± 3.4km 7.211 E ± 4.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.6 (GEN), 2.5 (LDG).

DOI	0.30	175	P	10	07.00	-0.2
			eSg	10	11.10	
PZZ	0.31	195	P	10	07.20	-0.2
			S	10	11.71	
RRL	0.32	291	P	10	07.40	-0.3
			S	10	12.12	
RSP	0.35	5	P	10	08.33	0.3
			S	10	13.25	
FOUF	0.41	228	P	10	08.90	-0.4
			Sg	10	12.75	
BNI	0.45	303	P	10	09.60	-0.5
			eSg	10	15.30	
STV	0.57	172	P	10	11.09	-1.4
			S	10	19.40	
LSD	0.65	357	P	10	13.76	-0.3
			S	10	22.17	
ROB	0.70	137	P	10	13.97	-0.7
			S	10	23.91	
LPG	0.76	335	Pg	10	15.80	-0.2
			Sg	10	24.50	
CKI	0.85	116	P	10	19.20	1.9
FIN	0.93	130	P	10	18.07	-0.6
			S	10	29.65	
SBF	0.96	170	Pg	10	19.00	-0.1
			Sg	10	30.60	
IMI	1.02	151	P	10	19.20	-1.0
			S	10	31.81	
FRF	1.31	198	Pg	10	25.80	0.7
			Sg	10	42.50	
LRG	1.48	205	Pg	10	29.00	1.4
			Sg	10	48.60	
LMR	1.56	199	Pg	10	29.90	1.3
			Sg	10	50.50	
BGF	3.52	301	Pn	10	57.10	0.3
S.D. = 0.9		on 18 of 18 obs.				

FEB 05, 1989 04h 42m 57.46± 0.76s
8.563 N ± 8.0km 82.852 W ± 7.0km
DEPTH = 5.0km (geophysicist)
PANAMA-COSTA RICA BORDER REGION (80)

PBC	0.23	232	iPc	43	02.60	0.4
DVD	0.42	108	iPd	43	05.70	-0.1
TIG	0.64	317	ePd	43	13.30	3.0X
			S	43	29.30	
CDM	1.34	318	iPc	43	23.10	0.2
			S	43	40.50	
OPS	1.52	304	ePd	43	23.70	-1.6
			S	43	48.00	
LCR2	1.63	316	iPd	43	27.60	0.5
			S	43	51.90	
IRZ2	1.74	324	iPc	43	29.40	0.6
			S	43	58.40	
SJS	1.81	319	iPc	43	30.00	0.3
			S	43	58.20	
HDC2	1.92	319	iPc	43	31.80	0.5
			S	44	01.90	
PTCR	1.98	308	iP	43	30.70	-1.4
SRA	2.18	314	iPc	43	35.60	0.5
			S	44	03.50	
UPA	3.31	83	eP	43	55.20	4.3X
S.D. = 0.9		on 10 of 12 obs.				

FEB 05, 1989 05h 18m 47.88± 0.27s
49.429 N ± 6.3km 155.802 E ± 4.9km
DEPTH = 33.0km (normal)
4.9mb (29 obs.)
KURIL ISLANDS (221)

KUSJ	9.95	235	eP	21	09.30	-2.2X
			eS	22	55.90	
ASAJ	10.47	244	P	21	22.50	3.9X
HOOJ	11.20	236	P	21	26.90	-1.7X
			eS	23	28.90	
MRRJ	12.41	241	eP	21	45.30	0.4
OFUJ	14.45	230	eP	22	08.60	-3.2X
MAT	18.15	231	eP	22	56.00	-2.9X
INK	38.42	34	ePd	26	08.20	0.7
ALE	46.89	6	eP	27	15.00	-1.1
	0.8s	10.00nm			4.9mb	
YKA	47.70	39	P	27	13.50	-9.2X
EDM	53.17	49	ePc	28	04.30	-0.3
CHG	54.48	257	iPc	28	14.90	0.4
	1.1s	28.48nm			5.2mb	
CHTO	54.48	257	iPc	28	14.80	0.3
	1.0s	22.00nm			5.1mb	
		e		28	19.00	
SES	56.02	50	eP	28	25.00	-0.4
GUN	56.56	275	P	28	29.90	0.0
KKN	57.03	275	P	28	33.90	0.8
PKI	57.10	275	P	28	31.80	-1.9
DMN	57.27	275	P	28	34.80	0.0
GKN	57.31	276	P	28	34.40	-0.6
FFC	57.53	42	eP	28	36.00	0.0
	0.9s	16.00nm			5.1mb	
LRM	58.16	55	eP	28	41.60	0.7
KVN	59.35	65	eP	28	49.90	0.8
FRB	61.92	21	ePc	29	03.80	-2.2
HYB	68.72	272	eP	29	50.00	-0.5
ALQ	68.92	61	eP	29	52.00	0.3
	0.9s	4.20nm			4.5mb	
WB5	71.58	201	eP	30	07.00	-0.6
WRA	71.65	201	Pc	30	07.30	-0.7
	1.0s	7.70nm			4.7mb	
SIO	73.90	54	eP	30	20.80	-0.4
TUL	74.04	53	eP	30	22.40	0.4
	0.8s	8.00nm			4.8mb	

LNO	74.04	53	eP	30	21.90	0.0
RLO	74.25	53	eP	30	23.00	-0.2
GAC	75.28	34	eP	30	28.00	-0.9
ASPA	75.34	201	iPc	30	30.10	0.6
KHC	76.58	336	P	30	36.50	0.2
KBA	78.52	335	eP	30	47.00	-0.2
	0.8s	16.20nm			5.1mb	
		id		30	47.70	
CDF	78.82	339	eP	30	48.40	-0.4
	1.0s	8.00nm			4.7mb	
RBL	79.04	334	Pd	30	49.00	-0.9
FLN	80.08	344	eP	30	55.20	-0.2
	1.0s	16.00nm			5.0mb	
GRR	80.50	344	eP	30	57.80	0.2
	1.0s	40.00nm			5.4mb	
SKO	80.55	327	eP	30	58.00	0.0
LOR	80.66	341	eP	30	58.30	-0.3
	1.0s	10.00nm			4.8mb	
VAY	80.71	326	eP	30	58.50	-0.4
LPF	80.88	344	eP	30	59.90	0.3
	1.0s	17.60nm			5.0mb	
SSF	80.93	341	eP	30	59.70	-0.3
AVF	81.23	341	eP	31	01.60	0.1
	1.0s	8.00nm			4.7mb	
SMF	81.26	341	eP	31	01.70	0.0
	1.0s	12.80nm			4.9mb	
LPG	81.69	339	eP	31	05.00	0.7
	1.0s	14.00nm			4.9mb	
PGD	81.91	335	P	31	06.00	0.7
MAF	81.93	342	eP	31	05.90	0.7
	1.0s	14.00nm			4.9mb	
TCF	81.94	342	eP	31	05.40	0.1
	1.0s	6.00nm			4.6mb	
MFF	82.10	344	eP	31	06.50	0.5
	1.0s	8.00nm			4.7mb	
LSF	82.11	342	eP	31	06.40	0.3
	1.0s	10.00nm			4.8mb	
RJF	83.02	342	eP	31	11.40	0.5
	1.0s	8.00nm			4.8mb	
SBF	83.06	338	eP	31	10.80	-0.3
	0.8s	8.00nm			4.9mb	
CAF	83.27	342	eP	31	12.90	0.7
	0.8s	6.70nm			4.8mb	
LFF	83.53	342	eP	31	13.50	0.1
	0.8s	13.40nm			5.1mb	
LPO	83.69	342	eP	31	14.90	0.6
	0.8s	10.70nm			5.0mb	
LRG	83.70	338	eP	31	14.70	0.4
	0.8s	13.40nm			5.1mb	
LMR	83.78	338	eP	31	15.00	0.3
	1.0s	17.60nm			5.2mb	
CVF	83.90	336	eP	31	15.10	-0.3
	0.8s	8.00nm			4.9mb	
PRNI	84.74	312	eP	31	20.00	0.2
MBH	85.27	312	iPc	31	23.00	0.6
EPF	85.44	342	eP	31	23.30	0.1
	1.0s	6.80nm			4.8mb	
	S.D. = 0.6	on	56 of	62	obs.	

& FEB 05, 1989 06h 12m 23.90s
40.287 N 121.485 W
DEPTH = 14.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 3.1 (BRK). Felt ot
Lassen Volcanic National Pork.

MIN	0.11	302	iPc	12	26.50	-0.9
LTCM	0.50	261	iPd	12	34.00	0.1
ORV	0.73	181	iPd	12	36.90	-1.0
			iS	12	46.40	
WDC	0.86	290	iPc	12	38.70	-1.3
			iS	12	50.40	
LBFM	1.10	344	eP	12	44.50	0.1
CMB	2.41	159	e(P)	13	03.70	0.2
			eS	13	35.80	
BKS	2.48	194	e(P)	13	05.60	1.2
BRK	2.48	194	e(P)	13	05.20	0.7
KVN	2.89	114	eP	13	10.60	0.1
ARN	2.93	181	eP	13	11.70	0.7
FRI	3.57	157	e(P)	13	20.50	0.5
	11 obs. associated					

& FEB 05, 1989 08h 37m 44.42s
33.201 N 92.778 W
DEPTH = 5.0km (geophysicist)
ARKANSAS (502)
<TEIC>. MD 2.4 (TEIC). Felt in parts of southeastern El Dorado.

HOGG	2.06	12	P	38	17.64	-2.5
			S	38	42.36	
LGAR	2.28	50	P	38	20.84	-2.5
OLY	2.54	25	e(P)	38	26.00	-0.9
RLO	3.49	329	ePn	38	38.50	-1.9
LNO	3.67	318	ePn	38	54.90	11.9
			(Sn)	39	30.10	
			iSg	39	44.30	
TUL	3.67	318	ePn	38	54.80	11.7
			eSn	39	24.80	
PWLA	4.30	64	e(P)	38	46.50	-5.4
RSCP	6.41	66	eP	39	17.30	-4.6
	8 obs. associated					

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* FEB 05, 1989 09h 25m 29.14± 2.63s
19.247 N ±32.9km 64.231 W ± 7.5km
DEPTH = 33.0km (normal)
VIRGIN ISLANDS (91)
ML 4.4 (FDF). Felt at San Juan,
Puerto Rico.

LPR	1.81	239	iP	25	58.00	-0.6
CSB	2.06	243	iP	26	01.60	-0.5
			S	26	22.00	
SJG	2.14	238	iP	26	02.70	-0.6
			S	26	23.00	
SKDB	2.28	143	eP	26	05.38	0.1
			eS	26	33.99	
BSK	2.31	145	eP	26	06.33	0.7
			eS	26	35.87	
SKI	2.37	143	eP	26	05.65	-1.0
			eS	26	34.81	
CPB	2.79	125	eP	26	11.18	-1.2
MCP	2.85	254	iP	26	14.00	0.7
			S	26	30.00	
MGP	2.98	246	iP	26	15.70	0.6
			S	26	32.00	
ANG	3.09	132	eP	26	17.61	0.9
			eS	26	55.07	
MGH	3.16	142	eP	26	18.34	0.6
			eS	26	55.83	
SEG	3.84	137	ePd	26	27.51	0.2
PAG	4.02	142	eP	26	30.40	0.4
			S	27	13.00	
DEG	4.20	134	eP	26	32.00	-0.6
MGG	4.32	140	eP	26	34.50	0.2
BBL	4.54	144	eP	26	36.50	-0.9
	S.D. = 0.7	on	16 of	16	obs.	

FEB 05, 1989 10h 43m 35.75± 0.60s
30.049 N ± 9.0km 90.113 E ± 5.8km
DEPTH = 10.0km (geophysicist)
3.9mb (2 obs.)
TIBET (306)

LSA	0.97	111	iPgc	43	53.60	-0.8
			Sg	44	07.60	
GUN	4.28	241	P	44	43.80	1.1
SHL	4.73	160	iP	44	50.50	1.5
			eS	46	04.50	
KKN	4.80	243	P	44	49.90	-0.1
PKI	4.81	240	P	44	50.50	0.2
DMN	5.02	242	P	44	53.00	-0.1
GKN	5.21	248	P	44	54.20	-1.5
NDI	11.33	266	eP	46	15.50	-5.2X
	0.6s	8.67nm			5.3mb X	
			eS	48	15.50	
GTA	12.28	38	eP	46	34.50	0.9
CHTO	13.77	142	e(P)	46	52.90	-0.5
GYA	15.02	100	P	47	09.60	-0.2
HYB	16.42	223	eP	47	30.00	2.1
GBA	20.13	218	Pd	48	10.20	-2.5
	0.8s	3.50nm			3.7mb	
BJI	23.48	58	(P)	48	46.50	0.3
MHI	26.31	292	eP	49	14.00	0.6
HFS	57.78	325	eP	53	28.20	-0.9
	0.5s	1.00nm			4.1mb	
	S.D. = 1.3	on	15 of	16	obs.	

% FEB 05, 1989 12h 09m 53.49± 0.89s
39.141 N ± 7.7km 27.628 E ± 9.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.80	201	ePg	10	08.80	-0.2
			iSg	10	20.30	
DST	0.90	59	iPn	10	11.10	0.3
EDC	1.22	8	ePn	10	15.40	-0.7
EZN	1.22	305	ePn	10	16.50	0.4
KCT	1.24	27	iPn	10	16.80	0.2
	S.D. = 0.7	on	5 of	5	obs.	

FEB 05, 1989 13h 55m 20.40± 0.54s
17.230 S ± 4.2km 70.181 W ± 5.8km
DEPTH = 131.8 ± 4.9 km
5.1mb (37 obs.)
NEAR COAST OF PERU (115)

ARE	1.47	301	iP	55	48.20	-0.8
			i(S)	56	10.00	
LPB	2.11	71	iPc	55	57.70	1.0
			iS	56	27.00	
			LR	57	00.00	
CNCB	2.15	79	iPc	55	58.40	1.1
ZOBO	2.19	64	iPc	55	58.80	0.9
Z	24s	3.02um				
			LR	56	28.00	
CCH	3.86	93	iPc	56	21.20	1.7
	0.5s	24.00nm				
HJA	7.45	144	ePd	57	05.80	-2.0
			(S)	58	29.00	
CFA	14.42	173	ePd	58	33.90	-5.6X
MDZ	15.63	176	iPc	58	54.90	0.1
PEL	15.85	182	iPc	58	55.40	-2.1
FCH	16.03	180	ePc	58	59.00	-1.0
SAN	16.16	181	ePc	58	59.00	-2.3
LCCH	16.22	184	iP	59	03.00	1.0
PCH	16.32	181	eP	59	05.00	1.6
TACH	16.37	182	eP	59	04.50	0.7
CHCH	16.64	181	eP	59	08.50	1.3
ATB	22.42	54	Pd	00	07.30	-1.6
BMA	25.04	107	eP	00	32.40	-1.6
			e	00	34.30	
			e	00	44.00	
SVB	31.56	17	iP	01	30.42	-2.1
SVV	31.62	17	eP	01	31.30	-1.6
BIM	32.80	16	eP	01	41.45	-1.8
MVM	32.88	17	eP	01	41.33	-2.6
FDF	32.99	16	eP	01	41.34	-3.5X
RLO	58.07	336	ePc	05	01.50	-0.5
LNO	58.15	336	eP	05	02.20	-0.2
TUL	58.15	336	eP	05	02.00	-0.5
	0.7s	36.80nm			5.5mb	
			e	05	32.50	
SIO	58.21	335	e(P)	05	04.10	1.1
MEO	58.35	333	iPc	05	03.00	-1.0
	0.4s	9.00nm			5.1mb	
ALQ	62.28	327	eP	05	31.00	0.1
	0.8s	5.78nm			4.6mb	
			e	06	00.50	
GAC	62.82	356	ePc	05	32.60	-1.3
LIC	68.44	76	Pc	06	08.98	-1.5
TIC	68.60	76	Pc	06	10.08	-1.4
KIC	68.75	76	Pc	06	10.70	-1.7
	0.4s	138.00nm			6.1mb	
SCH	71.81	2	eP	06	29.00	-1.2
LEGH	72.75	78	eP	06	35.50	-1.0
KUK	72.76	78	eP	06	35.50	-1.0
KOGH	72.84	78	eP	06	36.00	-1.1
SPA	72.88	180	iPd	06	37.20	0.6
	1.0s	25.00nm			4.9mb	
			i	07	05.60	
SHGH	72.98	78	eP	06	37.00	-0.8
LRM	73.50	331	eP	06	41.90	1.4
SES	76.33	334	ePc	06	57.00	0.7
			pP	07	28.00	123kmX
FFC	76.62	342	iPc	06	57.90	0.1
	0.7s	14.00nm			4.8mb	
EDM	79.40	335	iPc	07	13.20	0.1
FRB	80.72	1	eP	07	20.00	0.3
EVAL	80.75	46	iPc	07	21.30	0.8
EHOR	81.90	46	eP	07	27.10	0.6
STS	82.29	41	eP	07	28.70	0.3
ATEJ	82.33	48	iP	07	30.00	1.0
ALOJ	82.36	48	iPc	07	30.40	1.3
EPLA	82.44	44	iPc	07	30.20	0.9
AAPN	82.44	47	iPc	07	30.20	0.7
ACHM	82.55	48	iP	07	31.00	1.0
APHE	82.58	48	iPc	07	31.00	0.8
ASMO	82.73	47	iP	07	30.70	-0.3
ERUA	82.92	42	eP	07	32.50	0.8
EMON	83.34	41	iPc	07	34.80	1.0

05d 14h

TOL	83.71	45 iPc	07	37.00	1.2
	1.0s	160.00nm			5.8mb
GUD	84.00	44 iPc	07	38.30	0.9
EVIA	84.19	47 eP	07	39.30	1.0
ETOR	85.50	45 eP	07	46.00	1.2
ECHE	85.68	46 eP	07	47.00	1.3
YKC	86.73	341 eP	07	51.00	0.8
	1.0s	34.00nm			5.3mb
YKA	86.78	341 P	07	51.60	1.2
EPF	88.08	44 eP	07	57.80	0.6
	0.8s	14.70nm			5.1mb
LFF	89.16	42 eP	08	02.10	-0.1
	0.7s	24.20nm			5.4mb
MFF	89.33	40 eP	08	02.50	-0.4
	1.0s	17.60nm			5.1mb
LPO	89.34	43 eP	08	03.10	0.1
	0.8s	13.40nm			5.1mb
LPF	89.42	39 eP	08	02.60	-0.7
	1.2s	49.90nm			5.5mb
GRR	89.69	39 eP	08	04.00	-0.5
	0.8s	34.90nm			5.5mb
RJF	89.81	42 eP	08	05.00	-0.2
	0.8s	8.00nm			4.8mb
CAF	90.01	43 eP	08	06.10	-0.1
	0.8s	12.00nm			5.0mb
FLN	90.08	38 eP	08	06.00	-0.3
	1.0s	36.00nm			5.4mb
BNG	90.08	85 iPd	08	07.10	-0.1
	0.7s	6.00nm			4.8mb
		ic	08	12.50	
LDF	90.22	39 eP	08	06.60	-0.4
	0.9s	39.30nm			5.5mb
LSF	90.22	41 eP	08	06.70	-0.4
	0.8s	11.20nm			5.0mb
TCF	90.67	41 eP	08	08.70	-0.5
	1.0s	8.80nm			4.8mb
MAF	90.86	42 eP	08	09.90	-0.2
	0.9s	8.80nm			4.9mb
BGF	91.18	41 eP	08	11.20	-0.3
	0.8s	16.10nm			5.2mb
AVF	91.59	41 eP	08	13.00	-0.3
	0.8s	6.70nm			4.9mb
EKA	91.63	32 P	08	13.00	-0.3
	1.1s	18.80nm			5.2mb
SSF	91.80	41 eP	08	13.40	-0.9
SMF	91.84	42 eP	08	14.50	0.0
	0.8s	12.00nm			5.1mb
LBF	92.06	41 eP	08	15.10	-0.5
BUL	92.09	112 iPd	08	16.90	0.4
LOR	92.10	41 eP	08	14.90	-0.8
	0.8s	5.30nm			4.8mb
LRG	92.28	45 eP	08	17.20	0.6
	0.8s	10.70nm			5.1mb
LMR	92.34	45 eP	08	17.30	0.4
	0.8s	8.00nm			5.0mb
FRF	92.51	45 eP	08	18.10	0.4
	1.0s	12.00nm			5.1mb
SBF	93.15	45 eP	08	20.90	0.2
	0.8s	9.10nm			5.1mb
LPG	93.28	43 eP	08	22.40	0.8
	1.0s	20.80nm			5.4mb
DOU	93.64	39 Pc	08	23.00	0.3
CVF	93.69	47 eP	08	23.10	0.0
	0.8s	5.30nm			4.9mb
BSF	94.15	41 eP	08	24.90	-0.4
	0.8s	5.30nm			4.9mb
CDF	94.66	41 eP	08	27.30	-0.3
	0.6s	5.40nm			5.1mb
INK	96.54	340 eP	08	36.50	0.9
GRF	97.53	40 e(P)	08	42.60	2.1
	0.8s	15.00nm			5.5mb
GRB3	97.79	41 e(P)	08	42.60	1.0
	0.8s	15.00nm			5.6mb
MBC	97.83	349 eP	08	31.00	-10.3X
NDI	147.99	63 ePKP	14	50.50	1.6
MAT	148.39	313 ePKP	14	54.00	4.6X
	1.0s	16.00nm			
GBA	148.60	92 PKPd	14	50.90	0.7
	0.7s	15.60nm			
HYB	150.17	85 iPKPc	14	58.20	5.6X
	0.8s	30.80nm			
GKN	154.45	61 PKP	15	08.20	9.5X
DMN	154.97	61 PKP	15	09.80	10.3X
KKN	155.06	61 PKP	15	09.40	9.9X
GUN	155.52	60 PKP	15	10.90	10.5X
S.D. = 1.0 on 96 of 105 obs.					

% FEB 05, 1989 15h 35m 12.34± 0.66s
10.905 N ± 6.2km 61.455 W ±10.0km
DEPTH = 33.0km (normal)
TRINIDAD (98)

TRN	0.26	169 iP	35	19.50	-0.1
		eS	35	24.66	
TCE	0.36	235 iP	35	21.14	0.2
TPP	0.58	180 eP	35	23.92	-0.2
		eS	35	34.11	
BOT	0.77	70 iP	35	27.05	0.3
		eS	35	35.77	
GRW	1.26	351 eP	35	34.18	0.3
SVV	2.41	6 eP	35	49.70	-0.6
		eS	36	20.40	
S.D. = 0.5 on 6 of 6 obs.					

? FEB 05, 1989 15h 46m 15.63± 9.39s
11.755 S ±82.6km 118.194 E ±47.3km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
SOUTH OF SUMBAWA ISLAND (291)

MBL	9.48	171 eP	48	32.70	-0.3
		eS	50	15.00	
NANU	11.04	193 eP	48	53.00	-1.4
	0.3s	13.00nm			5.7mb X
		eS	50	48.00	
MEKA	14.78	179 eP	49	44.90	0.7
		eS	52	22.00	
WARB	16.42	152 eP	50	01.00	-4.2X
	0.2s	6.00nm			4.4mb
		eS	52	59.00	
MRWA	17.50	186 eP	50	20.00	1.2
	0.2s	6.00nm			4.4mb
		eS	53	20.00	
WB5	17.52	119 eP	50	19.00	-0.2
S.D. = 1.4 on 5 of 6 obs.					

FEB 05, 1989 16h 59m 44.49± 1.28s
44.955 N ± 5.6km 6.690 E ±12.7km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 1.9 (GEN).

RRL	0.08	118 P	59	47.13	0.0
		S	59	48.64	
BNI	0.10	354 Pc	59	47.20	-0.1
		eSg	59	49.00	
RSP	0.45	64 P	59	53.53	-0.1
		S	59	59.71	
PZZ	0.54	147 P	59	55.28	-0.1
		S	00	02.69	
LSD	0.60	33 P	59	57.01	0.2
		S	00	04.02	
STV	0.84	147 P	00	00.99	0.2
		S	00	11.95	
S.D. = 0.2 on 6 of 6 obs.					

% FEB 05, 1989 17h 22m 09.75± 0.70s
40.377 N ± 6.7km 29.192 E ± 5.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YLV	0.23	36 iPg	22	14.60	-0.2
HRT	0.57	39 ePg	22	20.10	-1.3
KCT	0.65	259 iPg	22	22.60	-0.2
ISK	0.70	352 iPg	22	23.10	-0.4
		iSg	22	32.60	
GPA	0.86	96 ePg	22	27.40	1.1
DST	0.88	210 iPg	22	26.20	-0.6
CTT	0.96	323 ePg	22	27.90	-0.2
		eSg	22	42.60	
BNT	0.97	269 iPn	22	28.60	0.4
EDC	1.02	269 iPn	22	28.40	-0.6
DMK	1.81	324 ePn	22	43.00	1.9
S.D. = 1.0 on 10 of 10 obs.					

? FEB 05, 1989 18h 11m 21.01± 0.77s
10.368 S ±10.5km 118.877 E ±10.9km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
SOUTH OF SUMBAWA ISLAND (291)

MBL	10.77	175 eP	13	55.00	-1.1
		eS	15	45.00	
MTN	12.25	103 eP	14	16.00	-0.2
		eS	16	18.00	
NANU	12.54	194 eP	14	20.00	0.0
	0.3s	8.00nm			5.4mb X
		eS	16	28.00	
MEKA	16.16	181 eP	15	08.00	0.6
		eS	17	55.00	
WARB	17.36	156 eP	15	17.00	-5.5X
WB5	17.68	124 eP	15	26.00	-0.5
		eS	18	29.80	
MRWA	18.95	188 eP	15	45.50	3.5X
		eS	18	57.00	
ASPA	19.50	135 eP	15	50.00	1.4
PSI	23.73	302 eP	16	33.00	1.8
GBA	47.52	299 Pd	19	54.10	-1.3
	0.7s	1.30nm			4.1mb
GUN	49.68	321 P	20	11.60	-0.8
PKI	49.74	320 P	20	17.30	4.5X
	0.6s	3.00nm			4.5mb
S.D. = 1.3 on 9 of 12 obs.					

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* FEB 05, 1989 18h 32m 54.82± 1.68s
4.560 N ±14.4km 118.089 E ±15.5km
DEPTH = 24.4 ± 12.1 km
3.7mb (3 obs.)
KALIMANTAN (261)

TSM	0.33	183 iPd	33	02.40	0.1
	0.6s	5508.30nm			
		e	34	21.50	
KKM	2.38	308 iPd	33	33.00	-0.1
		iS	34	04.00	
PSI	19.22	265 ePc	37	19.90	-0.1
CHTO	23.46	309 eP	38	03.20	-0.3
	1.0s	0.75nm			3.2mb
WB5	29.09	147 eP	38	55.70	-0.1
		e	39	01.10	
WRA	29.12	147 Pc	38	56.10	-0.1
	0.7s	1.60nm			3.9mb
LZH	34.01	339 eP	39	39.00	-0.1
HYB	40.76	291 eP	40	32.50	-3.4X
GBA	41.08	285 Pd	40	47.90	9.4X
	0.9s	1.70nm			3.8mb
MHI	62.21	309 eP	43	18.00	0.8
S.D. = 0.5 on 8 of 10 obs.					

? FEB 05, 1989 18h 53m 33.63± 3.90s
6.507 S ±30.3km 149.545 E ±28.3km
DEPTH = 33.0km (normal)
3.8mb (1 obs.)
NEW BRITAIN REGION (192)

LAT	2.53	267 eP	54	14.00	0.7
LMG	2.76	210 iPd	54	16.50	-0.1
PMG	3.73	219 iPd	54	31.00	0.7
	0.7s	57.53nm			
WB5	19.85	227 eP	58	03.90	-1.0
RMQ	19.89	182 eP	58	06.00	0.8
WRA	19.91	226 Pd	58	04.50	-1.0
	1.1s	5.50nm			3.8mb
ASPA	22.74	220 eP	58	49.40	15.2X
S.D. = 1.1 on 6 of 7 obs.					

FEB 05, 1989 20h 21m 53.25± 0.99s
7.329 S ± 7.0km 121.626 E ± 8.6km
DEPTH = 506.5 ± 14.7 km
5.0mb (12 obs.)
FLORES SEA (279)

MTN	10.84	121 eP	24	20.00	-0.7
		eS	26	39.00	
KNA	10.91	141 iPc	24	20.90	-0.4
	0.4s	55.00nm			5.3mb
		eS	26	57.00	
MBL	13.86	187 iPc	24	52.40	0.3
NANU	16.24	201 iPc	25	17.40	1.4
	0.4s	21.00nm			5.1mb
		eS	29	13.00	
WB5	17.56	137 iPc	25	29.40	0.4
		eS	29	37.00	
WRA	17.59	137 Pc	25	29.90	0.7
	0.4s	11.80nm			4.9mb
WARB	19.35	166 iPc	25	41.30	-5.0X
	0.3s	21.00nm			5.2mb
MEKA	19.40	188 eP	25	47.40	0.6
ASPA	20.07	145 iPc	25	53.30	0.2
	0.7s	33.00nm			5.1mb
		iPcP	26	49.90	

QIS	21.82	129	iPc	26 08.90	-0.3
			eS	29 36.00	
MRWA	22.41	193	iPd	26 14.80	0.2
COOL	23.44	181	eP	26 23.00	-0.9
BAL	23.61	191	eP	26 25.00	-0.4
FORR	24.17	166	iPc	26 29.70	-0.7
	0.4s	39.00nm		5.3mb	
KLB	24.41	188	eP	26 32.00	-0.6
STK	30.71	145	iPc	27 28.10	0.4
	0.4s	26.00nm		5.1mb	
CHG	34.28	320	eP	27 59.00	1.0
CHTO	34.28	320	eP	27 59.00	1.1
	0.5s	2.93nm		4.1mb	
GBA	48.55	295	Pd	29 49.60	-2.1
	1.1s	4.80nm		3.9mb X	
GUN	49.20	317	Pd	29 57.00	0.1
PKI	49.30	316	Pd	29 57.30	-0.4
	0.5s	25.00nm		4.9mb	
KKN	49.53	316	Pd	29 58.90	-0.3
	0.6s	21.00nm		4.8mb	
DMN	49.53	316	Pd	29 59.10	-0.2
	0.6s	17.00nm		4.7mb	
GKN	50.10	316	Pd	30 03.20	-0.1
	0.5s	26.00nm		4.9mb	
YKA	111.61	25	PKP	39 31.20	0.6
KIC	126.77	272	PKP	40 01.00	-0.3
LIC	127.04	272	PKP	40 02.00	0.2
TIC	127.06	273	PKP	40 02.00	0.2
S.D. = 0.8		on	27 of	28 obs.	

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* FEB 05, 1989 21h 10m 35.01± 0.89s
35.405 N ± 7.6km 30.962 E ±13.0km
DEPTH = 10.0km (geophysicist)
EASTERN MEDITERRANEAN SEA (371)

PPCY	1.25	114	eP	10 59.00	0.9
ELL	1.59	328	ePn	11 07.20	3.8X
CSS	1.99	102	eP	11 08.50	-0.6
BCK	2.07	352	iPn	11 09.00	-1.3
FAM	2.52	98	eP	11 23.50	6.8X
KHL	3.13	339	ePn	11 26.00	0.6
HRI	4.49	117	e(P)	11 51.00	6.3X
BBTK	4.65	17	eP	11 48.00	0.9
KOT	5.51	172	iP	12 00.00	1.0
			S	13 01.00	
PRNI	6.08	145	eP	12 06.50	-0.6
MBH	6.52	148	iPc	12 12.50	-0.8
			eS	13 26.00	
S.D. = 1.1		on	8 of	11 obs.	

? FEB 05, 1989 21h 11m 09.98± 7.48s
44.975 N ± 7.7km 6.746 E ±98.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.2 (GEN).

RRL	0.06	153	P	11 12.34	-0.1
			S	11 13.64	
PZZ	0.53	152	P	11 20.47	-0.4
			S	11 27.76	
LSD	0.56	31	P	11 21.62	0.0
			S	11 26.39	
STV	0.84	150	P	11 26.72	0.5
			S	11 37.99	
S.D. = 0.6		on	4 of	4 obs.	

& FEB 05, 1989 21h 51m 12.60s
32.490 N 114.630 W
DEPTH = 0.0km (geophysicist)
W. ARIZ. - MEXICO BORDER REGION (46)
<PAS-P>. ML 3.2 (PAS).

GLA	0.58	344	iPc	51 24.00	-0.3
PLM	2.07	295	eP	51 47.00	-2.2
2 obs. associated					

& FEB 05, 1989 22h 05m 15.90s
32.400 N 114.600 W
DEPTH = 6.0km (geophysicist)
W. ARIZ. - MEXICO BORDER REGION (46)
<PAS-P>. ML 3.2 (PAS).

GLA	0.68	344	iPd	05 28.40	-1.1
PLM	2.13	297	eP	05 58.90	6.3
2 obs. associated					

FEB 05, 1989 22h 24m 33.05± 0.41s
35.412 N ± 4.7km 136.762 E ± 4.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN HONSHU, JAPAN (232)
MG 3.8 (JMA). Felt (III JMA) at Gifu; (I JMA) at Nagoya and Tsu.

GIF	0.01	169	iP+	24 34.20	-0.7
			iS	24 35.50	
NAG	0.30	146	P	24 39.00	-0.3
			S	24 43.50	
TSRJ	0.65	281	iPd	24 45.40	-0.6
			S	24 54.20	
TSU	0.74	196	eP	24 48.00	0.5
			iS	24 56.90	
IIDJ	0.94	86	iP+	24 50.30	-0.7
			S	25 02.80	
MTMJ	1.44	36	P	24 59.50	0.2
WKYJ	1.53	219	P	25 00.40	-0.1
			eS	25 21.50	
MAT	1.63	46	iPc	25 01.90	0.0
			iS	25 23.90	
CHJJ	1.92	70	P	25 07.00	0.8
			S	25 31.60	
NIIJ	2.57	44	P	25 14.70	-0.7
TKSJ	2.65	238	P	25 17.20	0.6
			eS	25 48.50	
YONJ	2.71	266	P	25 17.40	0.0
			S	25 56.70	
KAKJ	2.88	73	P	25 20.50	0.7
			S	25 58.90	
S.D. = 0.6		on	13 of	13 obs.	

% FEB 05, 1989 22h 38m 58.60± 1.09s
16.191 N ±12.0km 61.151 W ±12.2km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.2 (FDF).

SFG	0.08	325	eP	39 05.10	0.9
DEG	0.15	36	iPc	39 04.15	-0.6
			S	39 10.50	
MGG	0.31	210	ePc	39 06.73	0.2
			S	39 15.40	
SEG	0.40	302	eP	39 07.65	-0.1
			S	39 16.00	
DOG	0.48	251	eP	39 08.78	-0.1
PAG	0.53	253	eP	39 09.30	-0.5
			S	39 19.80	
S.D. = 0.7		on	6 of	6 obs.	

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* FEB 05, 1989 22h 53m 04.12± 0.85s
39.320 N ±15.7km 72.032 E ±12.2km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
KIRGHIZ SSR (716)

MHI	10.37	257	eP	55 34.00	0.3
			eS	57 36.00	
GKN	15.39	133	P	56 41.00	0.3
KKN	15.92	132	P	56 47.00	-0.5
HFS	41.40	320	ePKP	00 47.50	-1.0
	0.4s	1.60nm		4.1mb	
MBC	64.49	3	eP	03 40.00	0.9
YKA	78.39	3	P	05 05.40	3.0X
S.D. = 1.1		on	5 of	6 obs.	

? FEB 05, 1989 22h 58m 30.41± 1.50s
44.957 N ± 7.9km 6.702 E ±13.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.2 (GEN).

BNI	0.10	349	P	58 33.30	0.1
			eSg	58 35.00	
RSP	0.44	63	P	58 39.50	0.1
			S	58 45.03	
PZZ	0.53	148	P	58 41.24	0.0
			S	58 48.83	
LSD	0.59	32	P	58 42.47	-0.1
			S	58 50.06	
S.D. = 0.2		on	4 of	4 obs.	

? FEB 05, 1989 23h 25m 17.62± 4.97s
5.283 N ±42.5km 82.738 W ± 9.8km
DEPTH = 10.0km (geophysicist)
SOUTH OF PANAMA (83)

IDC	3.59	342	ePd	26 14.30	-0.1
			S	26 55.20	
CTCR	3.59	360	eP	26 14.50	-0.2
TIG	3.77	352	ePd	26 17.40	0.3
			S	26 59.80	
QPS	4.32	341	iPd	26 24.40	-0.5
			S	27 12.80	
BUS	4.36	347	iPd	26 25.90	0.0
CDM	4.36	347	eP	26 25.80	-0.1
			S	27 14.50	
QCR	4.37	341	iPc	26 24.90	-0.6
LCR2	4.60	344	iPd	26 29.10	0.0
PTCR	4.78	340	eP	26 31.90	0.3
			S	27 24.80	
ICR	4.79	347	iPc	26 32.80	0.8
IRZ2	4.79	346	eP	26 32.20	0.2
			S	27 25.20	
SJS	4.81	344	eP	26 31.50	-0.4
UPA	4.86	41	eP	26 32.50	0.0
HDC2	4.91	344	eP	26 33.40	0.0
CAO	4.98	332	iPd	26 34.10	-0.1
			S	27 30.30	
EPA	5.02	339	ePc	26 34.90	0.0
			S	27 31.00	
SRA	5.06	341	iPc	26 35.60	0.1
JUD	5.59	330	ePc	26 43.20	0.2
			S	27 44.80	
S.D. = 0.3		on	18 of	18 obs.	

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* FEB 05, 1989 23h 34m 53.22± 1.05s
14.572 N ±20.2km 92.085 W ± 9.9km
DEPTH = 70.6 ± 7.5 km
3.8mb (1 obs.)
NEAR COAST OF CHIAPAS, MEXICO (69)

OC2	0.10	263	iP+	35 02.80	-1.9
TPX	0.37	333	iPc	35 06.50	1.4
KKG	0.40	7	iP+	35 04.90	-0.6
JAT	0.50	120	iPd	35 05.80	-0.5
SOG2	0.52	74	eP+	35 05.80	-0.8
SOG	0.52	67	ePd	35 06.50	-0.4
ITG	1.20	89	iP+	35 15.75	0.9
FUG	1.21	96	iP+	35 14.50	-0.4
MMG	1.36	91	iP+	35 18.25	1.3
TER	1.38	101	ePd	35 16.50	-0.6
			S	35 27.50	
PCG	1.40	98	iP+	35 18.10	0.5
BVA	1.40	86	iP+	35 18.70	1.1
GCG	1.50	89	iPd	35 18.20	-0.6
			S	35 40.50	
REC	1.52	95	iPd	35 20.00	1.0
IXG	1.63	104	iPd	35 20.25	-0.3
SLP	1.75	84	iPd	35 22.40	0.2
			S	35 36.75	
SCX	2.22	346	eP	35 35.00	6.6X
OXX	5.11	300	iP	36 11.00	1.7
IISM	6.71	312	eP	36 35.00	3.8X
MEO	20.96	345	eP	39 31.00	-1.5
	0.7s	3.60nm		3.8mb	
TUL	21.51	352	e(P)	39 53.00	15.0X
	1.1s	5.00nm			
KVN	33.45	322	e(P)	41 30.20	2.5
YKA	50.45	347	P	43 45.10	-0.4
INK	59.87	343	eP	44 51.00	-2.5
S.D. = 1.3		on	21 of	24 obs.	

FEB 06, 1989 00h 15m 11.79± 0.52s
44.312 N ± 3.6km 6.835 E ± 5.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.7 (GEN).

FOUF	0.22	350	P	15 16.30	-0.2
			Sg	15 19.70	
PZZ	0.27	45	P	15 17.91	0.3
			S	15 22.54	
STV	0.36	101	P	15 19.19	0.0
			S	15 24.39	
RRL	0.61	357	P	15 23.55	-0.7
			S	15 32.59	
SBF	0.62	136	Pg	15 23.80	-0.6
			Sg	15 31.90	
ROB	0.74	91	P	15 26.60	0.2
			S	15 36.64	
FRF	0.76	190	Pg	15 25.60	-1.1
IMI	0.86	118	P	15 28.19	-0.2
			S	15 39.77	

06d 00h

RSP	0.89	20	P	15 29.52	0.6
			S	15 41.10	
LRG	0.92	202	Pg	15 30.50	1.1
			Sg	15 42.50	
FIN	0.99	95	P	15 30.78	0.2
			S	15 43.05	
LMR	1.01	194	Pg	15 31.30	0.5
			Sg	15 44.30	

S.D. = 0.7 on 12 of 12 obs.

FEB 06, 1989 00h 40m 40.19± 1.50s
2.833 S ± 6.8km 129.995 E ± 8.7km
DEPTH = 39.9 ± 15.4 km
5.1mb (8 obs.) 4.0Msz (1 obs.)
CERAM (272)

AAI	1.99	245	ePd	41 12.60	0.6
			eS	42 24.50	
MTN	10.01	174	eP	43 08.00	3.4X
			eS	44 56.00	
DAV	10.80	336	eP	43 15.60	0.2
KNA	12.89	185	eP	43 42.00	-1.5
WB5	17.47	166	eP	44 42.90	0.2
			eS	48 04.80	
WRA	17.53	166	Pd	44 42.50	-0.9
	0.7s		8.70nm		4.0mb
QIS	19.95	153	eP	45 13.70	1.7
			eS	48 46.00	
ASPA	21.05	170	iPc	45 24.40	1.1
Z	20s		0.61um		4.0Msz
			iS	49 18.70	
			LR	55 12.40	
GUA	21.99	42	eP	45 41.50	8.8X
GUMO	22.00	42	eP	45 31.80	-1.0
PJG	22.00	42	eP	45 32.30	-0.5
WARB	23.44	188	eP	45 42.00	-4.9X
	0.4s		4.00nm		4.3mb
PPI	29.68	274	eP	46 45.50	0.7
IPM	29.87	284	ePd	46 47.00	0.5
PSI	31.54	280	ePc	46 59.80	-1.4
WHN	36.39	337	eP	47 44.50	1.7
GYA	36.83	324	P	47 47.80	1.1
CHG	37.36	306	iPd	47 52.60	1.5
	1.0s		20.50nm		5.0mb
CHTO	37.36	306	iPc	47 51.60	0.5
KMI	38.36	318	Pc	48 01.50	1.8
			sP	48 17.00	
TIY	43.51	340	eP	48 41.70	0.0
BJI	44.51	345	eP	48 48.50	-1.1
LZH	45.78	330	eP	49 00.00	0.0
	1.5s		0.03nm		2.0mb X
GUN	52.28	309	P	49 50.10	-0.6
	0.8s		42.00nm		5.5mb
PKI	52.49	308	P	49 51.70	-0.5
KKN	52.70	308	P	49 52.90	-0.7
	0.9s		36.00nm		5.4mb
DMN	52.75	308	P	49 53.60	-0.4
	0.9s		48.00nm		5.5mb
GKN	53.30	308	P	49 57.30	-0.6
	0.9s		50.00nm		5.5mb
KOD	53.88	285	eP	50 02.00	-0.5
HYB	54.57	294	eP	50 05.50	-1.7
GBA	54.63	289	Pc	50 05.00	-2.6
	0.9s		5.90nm		4.6mb
WMQ	59.94	326	iPd	50 45.00	0.1
MHI	76.09	308	eP	52 27.00	1.1
AVY	81.77	251	eP	52 58.40	1.3
INK	95.02	22	eP	54 03.00	3.4X
MBC	97.58	13	eP	54 14.00	2.8X
CNCB	153.62	138	PKP	00 43.00	13.2X
LPB	153.74	138	(PKP)	00 49.00	19.2X
ZOBO	153.90	137	PKP	00 35.70	5.5X

S.D. = 1.2 on 31 of 39 obs.

? FEB 06, 1989 00h 49m 10.95± 7.46s
20.995 N ±78.9km 108.186 W ±19.9km
DEPTH = 10.0km (geophysicist)
4.2mb (4 obs.)
REVILLA GIGEDO ISLANDS REGION (53)

MZX	2.74	36	iPc	49 53.00	-2.7
ALQ	13.98	6	eP	52 32.00	0.5
	1.7s		32.69nm		4.9mb
MEO	16.13	30	e(P)	53 01.30	1.9
	0.8s		2.10nm		3.3mb
SIO	18.01	33	e(P)	53 23.40	0.4
TUL	18.40	34	eP	53 27.90	0.1
	1.6s		51.10nm		4.4mb
LNO	18.40	34	eP	53 27.90	0.2
PCO	18.44	30	eP	53 28.40	0.1
	0.8s		8.30nm		4.0mb
RLO	19.00	34	eP	53 35.00	-0.1
KVN	19.91	337	e(P)	53 44.20	-1.7
LRM	25.01	353	eP	54 37.90	1.3

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

& FEB 06, 1989 01h 25m 52.70s
48.418 N 122.214 W
DEPTH = 0.0km
WASHINGTON (29)
<SEA>. ML 3.8 (SEA). Felt (V) at Clearlake and (IV) at Arlington, Mount Vernon and Sedro Woolley.

CMW	0.06	85	iPc	25 54.29	0.3
OHW	0.23	246	iPc	25 57.12	-0.2
			eS	26 01.26	
JCW	0.29	140	iPd	25 58.28	-0.3
RPW	0.47	86	iPd	26 01.66	-0.4
BLH	0.59	168	iPd	26 04.29	-0.3
			eS	26 13.16	
VDB	0.61	7	iPd	26 04.45	-0.5
PGW	0.65	204	iP	26 05.80	0.1
BLN	0.65	231	iP	26 04.76	-1.0
HTW	0.68	154	iPd	26 05.43	-0.9
SNB	0.73	300	eP	26 06.17	-1.1
			eS	26 17.00	
VGZ	0.74	270	eP	26 05.68	-1.8
			eS	26 15.88	
PGC	0.85	286	eP	26 08.00	-1.8
SPW	0.87	181	eP	26 09.80	-0.2
HNB	0.89	344	ePd	26 08.58	-1.9
GMW	0.95	204	iPc	26 09.73	-2.0
HDW	0.95	217	iPc	26 09.58	-2.2
RMW	1.00	164	eP	26 11.22	-1.4
STW	1.01	255	iP	26 10.49	-2.2
OSD	1.16	240	iP	26 13.68	-1.8
BIB	1.22	324	eP	26 14.07	-2.3
GSM	1.25	167	eP	26 15.29	-1.6
MEW	1.25	194	eP	26 15.55	-1.3
NLW	1.30	104	eP	26 16.52	-1.3
OBC	1.30	254	eP	26 15.58	-2.2
SMW	1.34	215	eP	26 16.15	-2.2
GHW	1.38	182	eP	26 17.01	-2.0
WPB	1.40	333	ePd	26 16.97	-2.5
			eS	26 35.58	
LON	1.69	171	eP	26 22.50	-1.2
PNT	1.94	61	eP	26 26.70	-0.5
BMW	2.06	200	eP	26 27.70	-1.4
SHW	2.23	180	eP	26 31.00	-0.6
DPW	2.74	100	eP	26 37.40	-1.4
VGB	3.07	161	eP	26 43.30	-0.1
YKA	14.74	14	P	29 27.40	3.4

34 obs. associated

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* FEB 06, 1989 02h 50m 47.54± 1.83s
37.286 N ±17.8km 20.438 E ± 8.6km
DEPTH = 29.9 ± 5.7 km
IONIAN SEA (399)

VLS	0.90	8	ePg	51 03.60	-0.4
KZN	3.19	19	ePn	51 38.10	1.2
LIT	3.24	29	eP	51 37.80	0.3
OHR	3.83	4	iPn	51 46.90	1.0
PLG	3.88	36	ePn	51 46.50	0.0
THE	3.88	30	eP	51 46.80	0.3
GRG	3.97	22	eP	51 47.70	-0.2
ATN	4.04	284	P	51 49.70	0.8
			eSn	52 33.50	
SOH	4.20	32	eP	51 51.50	0.4
KNT	4.32	26	eP	51 53.00	0.2
VAY	4.36	22	ePn	51 53.20	-0.1
MEU	4.40	269	P	51 53.70	-0.4
			eSn	52 42.20	
SRS	4.54	32	eP	51 55.70	-0.3
MNO	4.61	280	P	52 46.70	49.6X
SKO	4.74	9	iPn	51 57.80	-1.0
MGR	4.76	308	P	51 59.80	0.7
			eSn	52 52.50	
SDI	6.76	313	P	52 26.70	-0.6

S.D. = 0.7 on 16 of 17 obs.

FEB 06, 1989 03h 10m 52.10± 0.88s
39.341 N ± 6.7km 26.010 E ± 6.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.4 (ATH).

PRK	0.22	115	iPgc	10 57.70	0.8
			eSg	11 01.00	
EZN	0.54	27	iPg	11 03.20	0.1
IZM	1.36	134	iPn	11 16.80	-0.3
EDC	1.74	54	iPn	11 22.40	-0.2
BNT	1.79	55	iPn	11 24.30	1.1
KCT	2.02	63	iPn	11 26.30	-0.3
DST	2.04	82	iPn	11 26.40	-0.6
PLG	2.23	298	ePb	11 35.90	6.3X
KDZ	2.35	349	iP	11 31.00	-0.4
RZN	2.54	338	eP	11 34.00	-0.2
CTT	2.59	45	iPn	11 34.80	0.1
DMK	2.81	28	ePn	11 37.40	-0.5
MMB	2.84	323	eP	11 38.00	-0.4
YLV	2.86	64	ePn	11 39.00	0.3
ISK	2.90	53	ePn	11 38.00	-1.2
PLD	2.93	341	eP	12 27.00	47.4X
HRT	3.17	61	ePn	11 43.00	0.0
VAY	3.29	308	ePn	11 55.50	10.8X
PVL	3.91	353	eP	11 55.00	1.6

S.D. = 0.7 on 16 of 19 obs.

? FEB 06, 1989 03h 18m 32.70±10.30s
17.985 N ±17.9km 65.526 W ±75.6km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.46	315	P	18 42.10	0.0
SJG	0.61	282	iP	18 45.00	0.0
			S	18 54.80	
CSB	0.67	297	P	18 46.00	-0.1
MGP	1.49	271	P	18 59.50	0.0
MCP	1.57	286	P	19 00.60	0.0

S.D. = 0.1 on 5 of 5 obs.

? FEB 06, 1989 03h 27m 43.34± 9.99s
29.436 S ±70.4km 71.697 W ±48.3km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

RTRS	2.08	111	ePd	28 16.50	0.0
RTCB	3.23	130	ePc	28 33.10	0.1
			S	29 08.00	
RTLL	3.37	125	ePc	28 34.80	-0.1
JACH	3.37	164	eP	28 35.50	0.4
			iS	29 12.50	
RTCV	3.64	132	ePc	28 39.30	0.5
CFA	3.69	127	ePc	28 39.10	-0.3
PEL	3.80	167	eP	28 40.00	-1.0
			iS	29 30.10	
LNV	4.51	177	eP	28 51.50	0.4

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

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* FEB 06, 1989 04h 46m 30.78± 1.08s
34.884 N ±10.9km 26.801 E ± 9.8km
DEPTH = 10.0km (geophysicist)
CRETE (370)

KAP	0.73	25	iPnd	46 44.10	-1.1
ARG	1.71	39	ePb	47 02.90	2.1X
VAM	2.19	284	ePn	47 08.00	0.2
KSL	2.58	61	ePn	47 14.40	1.1
ELL	3.14	53	eP	47 21.70	0.4
BCK	4.00	49	eP	47 31.00	-2.5X
PRNI	8.26	121	eP	48 32.00	-1.5
MBH	8.53	124	eP	48 38.00	0.9
			eS	50 12.00	

S.D. = 1.4 on 6 of 8 obs.

? FEB 06, 1989 05h 00m 48.32± 4.97s
43.465 N ±30.2km 6.142 E ±25.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)

STV	1.16	47	P	01 10.07	0.1
			S	01 30.99	
FOUF	1.16	23	P	01 09.40	-0.6
			Sg	01 27.75	
PZZ	1.25	33	P	01 11.50	-0.1
			S	01 32.83	
DOI	1.31	37	P	01 12.80	0.2
			eSn	01 35.00	
IMI	1.34	70	P	01 14.17	1.1

			S	01 36.93		
ROB	1.50	56	P	01 15.81	0.5	
			S	01 39.86		
RRL	1.53	17	P	01 15.61	-0.3	
			S	01 38.93		
BNI	1.63	13	P	01 17.00	-0.3	
			eSn	01 42.00		
FIN	1.67	63	P	01 18.27	0.5	
			S	01 43.71		
CKI	1.82	57	P	01 17.00	-2.9	
			(Sn)	01 50.00		
RSP	1.87	25	P	01 21.55	0.9	
			S	01 49.71		
LSD	2.12	20	P	01 25.39	0.9	

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

FEB 06, 1989 05h 10m 48.33± 0.42s
42.280 N ± 7.0km 142.367 E ± 7.6km
DEPTH = 10.0km (geophysicist)
4.8mb (15 obs.)
HOKKAIDO, JAPAN REGION (224)
Felt (II JMA) at Hiroo.

HOO	0.70	89	P	11 00.00	-2.2	
MRRJ	0.97	279	iPd	11 13.80	7.0X	
			eS	11 28.20		
ASAJ	1.85	6	P	11 30.60	10.3X	
			eS	11 56.80		
YAMJ	4.47	204	eP	11 58.00	0.3	
MAT	6.57	211	eP	12 27.00	-0.4	
			eS	13 47.00		
CHJJ	6.75	204	P	12 31.10	1.2	
TSRJ	8.37	219	eP	12 54.50	2.0	
MDJ	9.58	288	eP	13 15.50	6.2X	
BJI	19.82	272	eP	15 19.00	-2.9X	
TIY	23.32	269	eP	15 55.40	-1.9	
GTA	32.08	279	eP	17 17.10	-0.5	
WMQ	39.37	291	eP	18 20.00	0.4	
CHG	43.50	251	eP	18 54.00	0.4	
CHTO	43.50	251	eP	18 53.10	-0.5	
	0.7s		2.38nm		4.1mb	
GUN	47.57	271	P	19 25.90	-0.5	
KKN	48.08	272	P	19 29.60	-0.7	
	0.7s		20.00nm		5.3mb	
PKI	48.10	271	P	19 29.60	-1.0	
DMN	48.31	272	P	19 31.40	-0.7	
GKN	48.44	272	P	19 32.10	-0.9	
	0.5s		10.00nm		5.1mb	
INK	49.42	29	eP	19 41.00	1.3	
MBC	51.30	18	eP	19 55.00	1.0	
YKA	58.94	32	P	20 50.70	1.1	
GBA	62.46	263	P	21 12.00	-2.2	
SUF	63.65	333	iP	21 21.30	-0.1	
	0.4s		2.40nm		4.7mb	
NUR	65.69	331	iP	21 34.50	-0.1	
FFC	68.93	34	eP	21 56.00	0.8	
	0.8s		11.00nm		5.1mb	
HFS	69.62	335	eP	21 58.50	-0.8	
	0.4s		3.20nm		4.8mb	
NAO	69.93	337	P	22 01.20	0.0	
	0.5s		1.90nm		4.5mb	
FRB	71.51	14	eP	22 08.00	-2.7	
KHC	78.46	328	P	22 52.00	1.2	
BSF	82.06	332	eP	23 10.10	0.1	
LOR	83.56	333	eP	23 17.90	0.2	
	0.8s		5.30nm		4.8mb	
LBF	83.76	333	eP	23 19.10	0.3	
	0.6s		1.80nm		4.5mb	
SSF	83.86	333	eP	23 19.60	0.4	
	0.6s		1.80nm		4.5mb	
LPG	84.06	330	eP	23 21.40	0.8	
	0.8s		3.20nm		4.6mb	
AVF	84.14	333	eP	23 21.00	0.4	
	0.6s		4.80nm		4.9mb	
MAF	84.90	333	eP	23 25.10	0.6	
	1.0s		8.00nm		4.9mb	
CAF	86.21	333	eP	23 32.40	1.3	
	0.6s		4.50nm		4.8mb	
LPO	86.72	333	eP	23 34.80	1.3	
	0.8s		5.30nm		4.8mb	

S.D. = 1.1 on 35 of 39 obs.

% FEB 06, 1989 05h 30m 56.71± 0.76s
41.622 N ±10.9km 142.797 E ±21.3km
DEPTH = 33.0km (normal)
HOKKAIDO, JAPAN REGION (224)
MG 4.5 (JMA). Felt (II JMA) at Urakawa.

URA	0.54	359	iP+	31 07.90	0.1	
			iS	31 17.70		
HOOJ	0.84	25	iP+	31 12.60	0.5	
			S	31 25.70		
KUSJ	2.05	43	P	31 28.90	-0.5	
OFUJ	2.68	199	P	31 39.90	1.4	
			S	32 15.00		
KAKJ	5.78	202	eP	32 21.50	-0.9	
MTMJ	6.35	219	P	32 30.10	-0.5	

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

FEB 06, 1989 06h 32m 07.92± 0.66s
42.535 N ± 6.6km 144.430 E ±10.7km
DEPTH = 75.1 ± 5.6 km
4.5mb (3 obs.)
HOKKAIDO, JAPAN REGION (224)
FElt (I JMA) at Nemuro.

KUS	0.44	357	iPd	32 20.00	-0.8	
KUSJ	0.60	20	Pd	32 22.20	-0.1	
			S	32 31.40		
HOOJ	0.86	260	iPd	32 25.80	0.6	
			S	36 38.50		
ASAJ	2.05	321	P	32 41.00	0.1	
			eS	33 04.50		
MRRJ	2.49	269	eP	32 47.90	1.0	
			S	33 16.60		
OFUJ	4.04	212	P	33 08.50	-0.1	
			eS	33 55.50		
KAKJ	7.13	209	P	33 50.50	-1.1	
			S	35 06.30		
MAT	7.67	221	eP	33 59.00	-0.2	
CHJJ	7.73	215	P	34 00.20	0.3	
			S	35 21.40		
MTMJ	7.84	223	P	34 02.00	0.5	
INK	48.45	29	ePc	40 44.80	0.8	
MBC	50.59	18	eP	41 01.00	0.6	
YKA	57.91	33	P	41 55.50	1.5	
SUF	64.12	333	iP	42 35.40	-0.5	
	0.4s		2.50nm		4.5mb	
NUR	66.19	332	iP	42 48.50	-0.7	
LRM	68.64	47	eP	43 21.10	15.9X	
HFS	70.02	336	eP	43 11.70	-1.3	
	0.4s		2.60nm		4.5mb	
NAO	70.28	338	P	43 14.10	-0.5	
	0.8s		3.20nm		4.3mb	

S.D. = 0.9 on 17 of 18 obs.

FEB 06, 1989 08h 05m 53.26± 0.30s
30.736 N ± 6.3km 50.058 E ± 4.3km
DEPTH = 33.0km (normal)
4.6mb (8 obs.)
IRAN (348)

TEH	5.11	12	eP	07 14.00	4.3X	
BHD	5.44	299	ePn	07 30.00	15.8X	
			iP*	07 48.00		
			iPg	08 08.00		
			iSn	08 57.00		
			iS*	09 26.00		
			iSg	09 50.00		
SLY	6.17	323	iPn	07 12.00	-12.5X	
			iSn	08 34.50		
			iS*	08 55.50		
			iSg	09 20.00		
			i	09 34.50		
RYD	6.73	208	eP	07 32.00	-0.3	
			iS	08 42.00		
QASM	7.38	233	eP	07 40.70	-0.7	
			eS	09 01.30		
MSL	8.06	316	ePd	07 49.50	-1.4	
			eS	09 20.00		
			e	10 36.50		
MHI	9.63	52	eP	08 07.00	-5.8X	
PRNI	12.99	272	e(P)	08 49.00	-9.2X	
MBH	13.16	270	eP	08 59.00	-1.3	
KSH	22.86	61	eP	10 52.50	-2.4	
VRI	23.62	316	ePc	11 07.00	5.0X	
MLR	23.90	315	ePd	11 09.00	4.1X	
OHR	25.75	302	eP	11 24.30	1.8	
GKN	30.19	86	P	12 02.50	-0.5	
	0.4s		11.00nm		5.0mb	
GBA	30.43	118	P	12 07.00	2.0	
	0.6s		1.30nm		3.9mb	
DMN	30.69	87	P	12 07.10	-0.4	
KKN	30.79	86	P	12 07.90	-0.5	
	0.6s		17.00nm		5.0mb	
PKI	30.96	87	P	12 09.80	-0.2	
GUN	31.28	86	P	12 12.50	-0.3	
WMQ	32.39	56	eP	12 22.20	0.1	
KHC	33.05	314	eP	12 29.10	1.4	
SUF	35.51	341	eP	12 48.00	-0.6	
KJF	36.31	344	eP	12 55.00	-0.4	
HFS	38.07	331	eP	13 09.90	-0.2	
	0.8s		15.00nm		4.9mb	
BNG	39.56	235	ePc	13 26.80	3.6X	
	0.8s		7.00nm		4.5mb	
			ic	13 29.20		
BCAO	39.57	235	eP	13 23.20	-0.1	
NAO	39.63	331	P	13 22.80	-0.4	
	0.7s		3.00nm		4.2mb	
GTA	41.19	64	iPc	13 37.50	1.0	
LZH	44.74	68	P	14 05.00	-0.5	
CHG	45.63	93	eP	14 13.10	0.5	
CHTO	45.63	93	eP	14 12.00	-0.5	
	0.7s		4.29nm		4.5mb	
KMI	46.54	83	Pd	14 20.00	0.1	
NNT	49.15	100	eP	14 40.00	-0.1	
XAN	49.23	70	P	14 40.30	-0.3	
GYA	49.44	80	P	14 41.60	-0.8	
TIY	51.22	64	eP	14 56.30	0.6	
BJI	53.59	61	eP	15 13.50	0.2	
WHN	54.59	73	P	15 20.50	-0.3	
MBC	73.07	357	eP	17 22.00	0.6	
FRB	74.21	336	eP	17 29.00	0.9	
INK	81.22	1	eP	18 07.00	0.3	
IMA	81.79	10	eP	18 10.00	0.0	
	0.6s		3.00nm		4.5mb	
FBA	83.66	8	eP	18 20.30	0.8	
YKA	86.28	353	P	18 26.40	-6.2X	
PMR	86.69	9	eP	18 35.60	1.0	
SPA	120.57	180	e(PKP)	24 43.40	1.0	
	0.5s		4.63nm			

S.D. = 0.9 on 37 of 46 obs.

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* FEB 06, 1989 09h 15m 23.25± 1.93s
40.592 N ±18.5km 27.451 E ± 7.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.40	128	iPg	15 31.40	0.0	
			eSg	15 37.40		
BNT	0.43	123	iPg	15 32.20	0.2	
			eSg	15 38.00		
KCT	0.77	116	iPg	15 37.20	-1.1	
EZN	1.15	229	ePn	15 44.70	-0.1	
DST	1.34	137	ePn	15 48.50	0.6	
YLV	1.46	90	iPn	15 50.20	0.4	
GBZT	1.53	82	ePg	16 24.00	33.4X	
			iSg	16 26.50		

S.D. = 0.8 on 6 of 7 obs.

& FEB 06, 1989 09h 19m 00.96s
48.412 N 122.218 W
DEPTH = 0.0km
WASHINGTON (29)
<SEA>. CL 1.8 (SEA).

CMW	0.07	80	iP	19 02.58	0.3	
			eS	19 04.17		
OHW	0.23	247	eP	19 05.27	-0.2	
			eS	19 09.37		
JCW	0.29	139	iPd	19 06.56	-0.2	
			eS	19 11.73		
RPW	0.47	85	eP	19 09.93	-0.4	
BLH	0.59	168	eP	19 12.54	-0.2	
PGW	0.64	204	eP	19 13.54	-0.3	
BLN	0.65	232	eP	19 13.13	-0.7	
HTW	0.68	154	iP	19 13.68	-0.8	
GMW	0.95	204	eP	19 17.87	-1.9	
HDW	0.95	217	eP	19 17.71	-2.1	
RMW	0.99	164	eP	19 19.49	-1.3	
STW	1.00	255	eP	19 18.77	-2.1	
OSD	1.16	240	eP	19 21.86	-1.8	
GSM	1.24	167	eP	19 23.70	-1.4	
NLW	1.30	104	eP	19 25.30	-0.8	

15 obs. associated

FEB 06, 1989 09h 29m 47.16± 0.89s
29.464 S ± 5.5km 71.303 W ±12.1km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

06d 09h

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RTRS     1.75 114 iPd    30 15.50   -0.1
RTCB     2.96 134 ePd    30 32.90    0.0
                  S      31 26.00
ZON      3.07 133 eP     30 35.00    0.4
RTLL     3.07 128 ePc    30 34.00   -0.6
JACH     3.26 169 iPd    30 38.00    0.7
                  iS     31 21.00
RTCV     3.37 136 ePd    30 38.80   -0.1
CFA      3.40 130 ePd    30 38.20   -1.0
ROCH     3.51 176 eP     30 43.00    2.1
PEL      3.71 172 iP     30 43.00   -0.5
                  iS     31 33.10
FCH      3.95 168 eP     30 52.00    4.8X
MDZ      4.00 149 eP     30 50.10    2.3
                  i      31 08.60
                  i(S)   31 40.10
LCCH     4.01 183 eP     30 46.00   -1.8
                  iS     31 45.80
SAN      4.01 172 eP     30 48.00    0.1
LNV      4.48 181 eP     30 53.00   -1.5
FSA      5.77  56 e(P)   31 12.00   -0.7
CNCB    12.96  14 P      32 53.00    0.8
LPB     13.20  14 P      32 57.00    1.7
ZOBO    13.45  13 P      32 57.00   -1.8
     S.D. = 1.3  on  17 of  18 obs.
-----------------------------------------
   FEB  06, 1989  09h 34m 42.33± 0.44s
   11.805 N ± 3.7km   61.027 W ± 9.3km
   DEPTH =  30.4 ±  5.4 km
 WINDWARD ISLANDS                ( 95)
     MG 3.8 (FDF).

PIG      0.67 164 eP     34 56.11    0.7
                  eS     35 09.07
BOT      0.70 154 eP     34 55.87   -0.1
GRW      0.71 300 eP     34 56.74    0.5
TRN      1.21 198 eP     35 02.52   -0.7
                  eS     35 17.40
TBH      1.31 182 eP     35 04.32   -0.4
                  eS     35 22.34
SVB      1.47 351 eP     35 07.32    0.3
                  eS     35 26.63
SVV      1.51 353 eP     35 08.06    0.4
TPP      1.54 196 eP     35 07.86   -0.1
                  eS     35 27.19
BIM      2.70 359 eP     35 24.30   -0.3
MVM      2.74   3 iPd    35 24.64   -0.5
FDF      2.91 358 eP     35 27.09   -0.6
                  S      36 00.20
FRS     92.64 120 iPc    47 53.50    0.7
      0.9s    26.89nm          5.7mb X
     S.D. = 0.6  on  12 of  12 obs.
-----------------------------------------
   FEB  06, 1989  09h 57m 43.28± 0.90s
   17.065 N ±10.7km   62.210 W ± 8.1km
   DEPTH =  10.0km  (geophysicist)
 LEEWARD ISLANDS                 ( 92)
     ML 2.7 (FDF).

MGH      0.34 181 eP     57 50.30   -0.1
NEV      0.35 282 eP     57 50.64    0.1
SKI      0.57 298 eP     57 54.77   -0.1
                  eS     58 02.12
SEG      0.94 134 eP     58 01.65    0.4
PAG      1.15 154 eP     58 04.60   -0.2
                  S      58 20.50
DEG      1.33 124 eP     58 07.50   -0.4
                  S      58 25.10
MGG      1.43 143 eP     58 09.50    0.3
                  S      58 28.20
     S.D. = 0.3  on   7 of   7 obs.
-----------------------------------------
&  FEB  06, 1989  10h 49m 00.00s
   37.512 N          121.687 W
   DEPTH =   6.0km
 CENTRAL CALIFORNIA              ( 39)
     <BRK>. ML 2.5 (BRK).

MHC      0.17 168 iPc    49 03.70    0.0
                  iS     49 06.60
ARN      0.20 143 iPc    49 04.10   -0.1
GCC      0.54 207 eP     49 10.40   -0.4
PCC      0.55 269 iPc    49 10.40   -0.7
BKS      0.57 310 iPc    49 11.10   -0.3
                  iS     49 20.15
                  i      49 23.70
BRK      0.58 309 iPc    49 11.10   -0.5
SAO      0.77 165 iPd    49 14.90   -0.5
LLA      1.07 146 ePc    49 19.20   -1.4
CMB      1.16  63 ePc    49 20.70   -1.3
                  iS     49 37.00
PRS      1.21 168 ePd    49 20.40   -2.4
PRI      1.59 149 e(P)   49 30.20    1.3
FRI      1.66 108 e(P)   49 28.00   -1.8
KVN      3.21  60 e(P)   49 50.00   -2.2
TNP      3.59  80 e(P)   49 53.50   -4.0
        14 obs. associated
-----------------------------------------
    FEB  06, 1989  11h 37m 35.93± 0.30s
    39.171 N ± 3.1km   24.521 E ± 2.8km
    DEPTH =   7.3 ±  2.1 km
    4.2mb (  3 obs.)
 AEGEAN SEA                      (365)
      ML 3.9 (ATH).

NEO      1.02 278 ePn    37 55.00   -0.4
ATH      1.35 208 ePn    38 00.50   -0.6
                  eSn    38 19.10
PRK      1.36  86 ePb    38 01.60    0.4
PLG      1.46 326 ePn    38 02.50   -0.2
EZN      1.54  64 iPn    38 03.80    0.0
RDO      2.12  21 ePn    38 12.10   -0.1
IZM      2.28 109 iPn    38 14.90    0.4
KZN      2.40 299 ePn    38 16.50    0.1
MMB      2.49 346 iPc    38 17.00   -0.5
                  iS     38 49.00
RZN      2.52   3 iPc    38 18.00   -0.1
KDZ      2.57  15 iPc    38 18.00   -0.6
VAY      2.62 326 iPn    38 19.70    0.4
EDC      2.83  64 iPn    38 22.40    0.0
DIM      2.98  15 iP     38 25.00    0.6
KCT      3.15  69 iPn    38 27.10    0.3
LSK      3.18 289 ePn    38 28.60    1.2
DST      3.21  81 ePn    38 27.60   -0.2
VLS      3.23 253 ePn    38 29.00    0.9
PGB      3.39 356 iPc    38 30.00   -0.3
OHR      3.45 305 ePn    38 31.50    0.3
VTS      3.56 344 iPc    38 26.00   -6.8X
DMK      3.62  42 ePn    38 33.80    0.3
SKO      3.65 321 iPnd   38 34.40    0.4
     N  10s      1.09um
                  i      38 56.50
                  iSn    39 20.00
                  i      39 24.00
                  LR     39 45.00
TPE      3.65 289 ePn    38 34.00   -0.1
VAM      3.77 184 ePn    38 34.60   -1.1
BERA     3.83 295 ePn    38 39.00    2.4
ISK      3.96  60 ePn    38 45.00    6.6X
YLV      3.99  68 iPn    38 39.10    0.3
NPS      4.00 167 ePn    38 38.30   -0.6
KHL      4.00 101 ePn    38 38.70   -0.3
PVL      4.09   8 iPc    38 39.00   -1.1
ARG      4.11 135 ePn    38 40.50    0.1
GBZT     4.11  65 ePn    38 56.80   16.3X
TIR      4.17 303 ePn    38 46.50    5.2X
LACI     4.42 305 ePn    38 50.00    5.1X
GPA      4.60  74 ePn    38 45.90   -1.6
SDA      4.76 308 ePn    38 53.20    3.4X
ELL      4.90 118 eP     38 53.80    2.0
KSL      5.04 126 ePn    38 56.00    2.3
DRA      5.51 358 eP     39 00.00   -0.3
ISR      6.15  13 ePc    39 10.50    1.2
MLR      6.40   9 iPc    39 12.50   -0.6
BEO      6.41 333 eP     39 38.50   25.6X
BBTK     6.41  81 eP     39 38.50   25.4X
                  eS     41 13.00
CFR      6.59  23 eP     39 43.00   27.5X
BZS      6.79 342 ePc    39 17.50   -0.8
VRI      6.89  13 ePc    39 20.00    0.2
MGR      6.99 281 P      39 20.40   -0.7
CLI      7.65  14 ePd    39 30.00   -0.4
KBA     11.36 318 e(P)   40 20.00   -1.7
      1.3s    12.50nm          5.1mb X
KHC     12.67 325 eP     40 40.70    1.5
NAO     23.30 343 P      42 45.40    0.5
      1.0s      8.10nm          4.2mb
BNG     35.00 190 ePd    44 30.00   -1.0
      0.6s      3.00nm          4.3mb
BCAO    35.00 190 eP     44 30.00   -1.0
      1.0s      2.50nm          4.0mb
     S.D. = 0.9  on  45 of  54 obs.
-----------------------------------------
*  FEB  06, 1989  12h 05m 52.65± 1.07s
    1.369 S ± 8.7km  123.678 E ±10.7km
   DEPTH =  97.7 ± 14.5 km
   4.3mb (  3 obs.)
 SULAWESI                        (268)

MNI      3.03  23 iPc    06 38.60   -0.9
                  eS     07 23.00
AAI      5.07 117 eP     07 08.90    1.3
MKS      5.68 228 ePc    07 15.50   -0.6
                  eS     08 08.00
KUPT     8.72 180 eP     07 58.70    0.8
WB5     21.16 151 eP     10 30.90   -0.9
WRA     21.20 151 Pd     10 30.20   -2.0
      0.7s      9.90nm          4.3mb
ASPA    24.28 157 iPc    11 02.50    0.3
      0.5s     24.00nm          4.9mb
      Z  21s      0.19um          3.5Msz
                  LR     20 39.00
QIS     24.61 142 eP     11 06.00    0.6
CHG     31.52 311 eP     12 08.70    1.0
CHTO    31.52 311 eP     12 08.00    0.3
      1.2s      3.82nm          4.0mb
                  i      12 16.90
GUN     46.53 312 P      14 19.00    6.3X
     S.D. = 1.3  on  10 of  11 obs.
-----------------------------------------
%  FEB  06, 1989  12h 27m 12.61± 0.89s
   45.281 N ±11.4km   23.984 E ± 8.3km
   DEPTH =  10.0km  (geophysicist)
 ROMANIA                         (358)

DRA      0.63 162 ePd    27 25.00   -0.3
DEV      0.97 309 iPc    27 30.00   -1.0
MLR      1.40  81 iPd    27 37.50   -0.7
BZS      1.70 282 ePd    27 43.50    1.1
VRI      2.01  72 ePc    27 48.00    1.0
     S.D. = 1.4  on   5 of   5 obs.
-----------------------------------------
   FEB  06, 1989  13h 09m 05.11± 0.75s
   30.052 N ±10.2km   90.124 E ± 6.4km
   DEPTH =  10.0km  (geophysicist)
   3.8mb (  1 obs.)
 TIBET                           (306)

LSA      0.96 111 Pgc    09 23.60   -0.1
                  Sg     09 37.60
GUN      4.29 241 P      10 13.60    1.4
SHL      4.73 160 iP     10 20.60    2.2
KKN      4.81 243 P      10 20.00    0.5
PKI      4.82 240 P      10 20.70    0.9
DMN      5.03 242 P      10 23.10    0.5
GKN      5.22 248 P      10 24.40   -0.8
NDI     11.34 266 eP     11 38.00  -12.2X
                  eS     13 46.00
CHTO    13.76 142 e(P)   12 22.00   -0.7
WMQ     13.88 353 eP     12 25.00    0.8
GYA     15.01 100 P      12 39.60    0.5
HYB     16.43 223 eP     12 55.00   -2.4
TIY     20.01  62 eP     13 39.60   -1.2
GBA     20.14 218 Pc     13 40.50   -1.7
      0.9s      4.00nm          3.8mb
BJI     23.47  58 eP     14 19.00    3.5X
     S.D. = 1.4  on  13 of  15 obs.
-----------------------------------------
%  FEB  06, 1989  13h 28m 20.57± 0.96s
   39.134 N ± 8.3km   27.647 E ± 9.8km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

IZM      0.79 202 ePg    28 35.80   -0.2
                  eSg    28 48.30
DST      0.89  58 iPn    28 38.60    0.9
EDC      1.22   8 iPn    28 43.40    0.1
EZN      1.23 304 ePn    28 43.90    0.4
KCT      1.24  26 iPn    28 42.50   -1.1
     S.D. = 1.1  on   5 of   5 obs.
-----------------------------------------
%  FEB  06, 1989  13h 33m 18.70± 0.91s
   38.312 N ± 7.7km   30.829 E ± 9.3km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                          (366)

BCK      0.87 193 iPn    33 35.60    0.1
KHL      1.03 271 iPn    33 37.80   -0.4
GPA      2.01 349 ePn    33 53.00   -0.1
BBTK     2.14  44 eP     33 55.00   -0.1
                  eS     34 27.00
```

DST 2.15 308 iPn 33 55.60 0.5
S.D. = 0.5 on 5 of 5 obs.

% FEB 06, 1989 14h 01m 08.67± 0.82s
41.075 N ± 7.3km 28.561 E ± 6.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ISK	0.38	91	iPg	01 15.80	-0.6
			iSg	01 21.30	
GBZT	0.73	113	ePg	01 31.00	8.0X
			iSg	01 33.00	
YLV	0.80	129	iPg	01 24.50	0.3
			iSg	01 35.00	
KCT	0.84	191	iPg	01 23.50	-1.4
BNT	0.87	214	iPg	01 26.50	1.1
EDC	0.90	216	iPg	01 25.40	-0.5
			iSg	01 39.40	
DMK	0.96	321	iPg	01 26.90	0.0
DST	1.47	178	ePn	01 35.70	0.5
GPA	1.54	120	ePn	01 37.00	0.7

S.D. = 1.0 on 8 of 9 obs.

* FEB 06, 1989 14h 35m 29.46± 1.62s
30.336 N ±18.1km 90.190 E ± 9.9km
DEPTH = 10.0km (geophysicist)
TIBET (306)

GUN	4.48	238	P	36 40.40	1.2
SHL	4.98	162	eP	36 46.10	-0.1
			eS	37 37.50	
PKI	5.01	238	P	36 45.80	-1.0
GKN	5.38	246	P	36 50.70	-1.2
CHG	13.96	143	eP	38 49.90	0.3
CHTO	13.96	143	eP	38 49.00	-0.5
HYB	16.68	222	eP	39 26.00	1.1
MHI	26.26	291	eP	41 07.00	0.3

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

FEB 06, 1989 15h 25m 24.66± 0.31s
42.043 N ± 4.7km 137.403 E ± 3.3km
DEPTH = 290.0 ± 4.2 km
4.5mb (12 obs.)
EASTERN SEA OF JAPAN (223)

AOMJ	2.68	123	Pd	26 17.60	0.6
MRRJ	2.75	81	iPd	26 17.40	-0.2
			eS	26 58.20	
YAMJ	4.36	152	P	26 35.10	0.2
ASAJ	4.36	60	iPd	26 34.30	-0.6
			S	27 26.60	
HOOJ	4.38	84	iPd	26 34.40	-0.7
			S	27 27.30	
OFUJ	4.39	131	P	26 33.40	-1.9
			eS	27 27.00	
NIIJ	4.95	165	P	26 42.40	0.7
MTMJ	5.46	177	P	26 49.30	1.4
KUSJ	5.50	76	iPd	26 46.10	-2.1
			S	27 47.30	
MAT	5.53	173	iPc	26 52.00	3.4X
			eS	27 56.00	
CHJJ	6.11	168	P	26 55.10	-0.5
			S	27 06.00	
KAKJ	6.21	159	P	26 53.80	-3.0X
			S	28 03.30	
MDJ	6.25	297	Pd	26 59.00	1.7
			S	28 08.00	
IIDJ	6.57	176	P	27 01.60	0.4
			S	27 18.60	
CN2	8.95	285	Pd	27 30.40	-0.2
SNY	10.31	273	iPd	27 49.50	2.0
DL2	12.41	261	P	28 15.00	1.6
BJI	16.14	270	Pd	28 56.50	-0.7
TIA	16.76	256	Pd	29 03.30	-0.6
SSE	16.97	235	eP	29 05.00	-1.0
			i	29 11.50	
HHC	19.39	275	eP	29 30.40	-0.4
TIY	19.62	266	eP	29 32.80	-0.2
BTO	20.59	275	P	29 43.00	0.4
XAN	23.73	260	P	30 11.50	-1.1
LZH	26.61	268	eP	30 38.50	-0.4
	1.5s		0.07nm		1.9mb X
GTA	28.46	277	Pd	30 54.30	-1.0
			ScS	41 05.40	
GYA	29.59	248	P	31 05.40	0.1
CHTO	39.97	247	eP	32 33.60	0.7
	1.0s		11.50nm		4.2mb
			pP	33 35.20	305kmX
BRW	43.13	25	eP	32 58.90	1.0
SVW	43.55	40	ePc	33 03.10	1.6
GUN	43.88	268	P	33 05.00	0.1
IMA	44.07	33	iPc	33 05.90	0.2
	1.3s		28.30nm		4.4mb
KKN	44.39	269	P	33 08.70	0.0
PKI	44.41	268	P	33 08.70	-0.4
DMN	44.62	268	P	33 10.50	-0.1
	0.7s		42.00nm		4.9mb
GKN	44.75	269	P	33 11.40	-0.2
KDC	45.65	45	ePc	33 17.70	-0.3
PMR	46.58	39	eP	33 25.20	0.0
	0.8s		24.00nm		4.6mb
FBA	46.63	34	iPc	33 26.30	0.7
INK	51.40	28	iPc	34 02.10	0.3
			pP	35 11.50	330kmX
MBC	52.63	17	eP	34 11.00	0.3
HYB	55.50	262	eP	34 31.50	-0.8
OUE	56.66	282	iPd	34 40.50	0.0
KEV	57.65	337	eP	34 44.00	-2.6
MHI	58.71	292	eP	34 55.00	0.5
GBA	58.77	260	Pc	34 54.30	-0.7
	0.3s		4.20nm		4.5mb
SOD	59.14	335	iP	34 56.20	-0.6
KJF	60.65	332	iP	35 06.20	-0.9
	0.5s		15.40nm		4.8mb
YKA	61.05	30	P	35 09.90	0.1
WB5	61.67	183	iPc	35 13.20	-1.0
WRA	61.74	183	Pc	35 13.90	-0.8
	0.4s		2.20nm		4.1mb
SUF	62.11	331	iP	35 16.20	-0.6
	0.4s		3.80nm		4.4mb
NUR	64.07	330	iP	35 28.60	-0.9
ASPA	65.46	184	eP	35 38.50	-0.2
PNT	66.73	44	eP	35 46.00	-0.7
	0.7s		9.00nm		4.6mb
HFS	68.24	333	eP	35 54.80	-0.9
	0.4s		1.90nm		4.2mb
NAO	68.65	335	P	35 57.30	-0.9
	0.8s		5.20nm		4.3mb
FHC	69.54	53	eP	36 04.70	0.7
SES	70.28	39	eP	36 09.00	0.7
WDC	70.53	53	ePc	36 10.50	0.5
FFC	71.13	32	iPc	36 13.30	0.1
	0.9s		25.00nm		4.9mb
ORV	71.80	53	ePc	36 17.40	-0.1
FRB	72.56	12	eP	36 21.00	-0.4
LRM	72.69	43	eP	36 23.20	0.4
MHC	73.13	55	e(P)	36 28.50	3.1X
CMB	73.44	54	ePc	36 27.70	0.6
PRS	73.95	56	ePc	36 30.60	0.6
LLA	74.03	55	eP	36 31.10	0.7
PRI	74.51	55	e(P)	36 34.50	1.2
FRI	74.53	54	ePc	36 33.80	0.6
KHC	76.66	326	eP	36 46.60	1.7
BWA	76.76	171	eP	36 47.30	1.8
ZOBO	146.24	48	PKP	44 33.90	2.1X
LPB	146.47	48	PKP	44 36.00	4.0X
CNCB	146.76	48	PKP	44 35.00	2.4X

S.D. = 0.9 on 69 of 75 obs.

% FEB 06, 1989 16h 55m 32.73± 0.83s
42.897 N ± 7.0km 18.769 E ± 6.1km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.4 (TTG).

BRY	0.17	271	iPgc	55 36.40	-0.2
			iSg	55 39.50	
NKY	0.19	116	iPgc	55 37.50	0.5
			eSg	55 41.40	
HCY	0.49	204	ePg	55 43.00	0.3
			eSg	55 51.80	
TTG	0.59	142	ePg	55 43.90	-0.8
			eSg	55 53.90	
BDV	0.61	176	ePg	55 45.20	0.1
			eSg	55 55.80	
PLE	0.63	46	iPgd	55 45.50	0.0
			eSg	55 56.40	

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

? FEB 06, 1989 18h 07m 28.26±10.99s
32.983 S ±33.2km 72.403 W ±84.9km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)

LCCH	0.85	125	iPd	07 43.10	-0.8
			iS	07 51.60	
LNV	1.28	140	iP	07 50.20	0.3
			iS	08 05.00	
TACH	1.40	119	iPd	07 51.40	-0.3
			iS	08 06.50	
PEL	1.45	97	iPd	07 52.70	0.2
			iS	08 09.00	
SAN	1.53	108	iPc	07 54.00	0.3
			iS	08 11.90	
JACH	1.55	79	iPd	07 54.30	0.3
			iS	08 12.00	
CHCH	1.74	123	eP	07 58.50	1.8
			iS	08 17.50	
FCH	1.81	102	iPc	07 58.50	0.6

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

? FEB 06, 1989 19h 25m 14.66± 2.81s
41.744 N ±17.2km 24.789 E ±18.9km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)

RZN	0.08	224	iPc	25 09.00	-8.3X
			Sg	25 19.00	
PLD	0.37	350	iPgc	25 22.00	-0.2
KDZ	0.48	101	iP	25 41.00	16.6X
MMB	0.81	259	iPgc	25 30.00	-0.4
PGB	0.93	330	eP	25 32.00	-0.4
VTS	1.45	306	eP	25 42.00	0.9
PVL	1.53	15	iPd	25 42.00	0.1

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

FEB 06, 1989 19h 55m 04.84± 1.05s
5.201 N ± 4.0km 125.968 E ± 6.0km
DEPTH = 48.1 ± 10.3 km
4.9mb (12 obs.) 4.3Msz (1 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV	1.91	348	eP	55 36.00	0.4
			eS	56 07.00	
MNI	3.90	197	ePc	56 03.80	0.0
			eS	56 49.00	
TSM	7.93	263	eP	57 00.40	0.1
BAG	12.33	335	eP	58 05.00	4.5X
TRT	18.47	226	ePd	59 20.20	1.1
MTN	18.65	164	eP	59 19.00	-2.3
			e	59 27.00	
QIZ	20.88	313	eP	59 46.00	0.5
KNA	21.00	172	eP	59 45.50	-1.2
KGM	22.82	263	eP	00 09.00	4.2X
IPM	24.86	270	ePd	00 26.10	1.5
	0.9s		43.10nm		5.0mb
SNG	25.28	276	eP	00 15.80	-12.7X
SSE	26.15	351	P	00 40.00	3.6X
PPI	26.15	258	eP	00 38.00	1.4
WB5	26.26	162	eP	00 37.80	0.2
			i	00 44.10	
			eS	05 40.30	
WRA	26.31	162	Pd	00 38.60	0.6
	0.5s		4.00nm		4.2mb
NNT	26.92	288	eP	00 24.20	-19.5X
PSI	27.09	266	ePc	00 46.40	1.1
NST	27.42	294	eP	00 19.70	-28.5X
WHN	27.48	338	eP	00 49.00	0.4
OIS	28.89	153	eP	01 01.00	-0.5
CHG	29.63	299	iPd	01 08.70	0.5
	1.0s		19.00nm		4.7mb
CHTO	29.63	299	iPd	01 08.20	0.0
	0.7s		11.12nm		4.7mb
ASPA	29.72	165	iPc	01 10.70	1.8
WARB	31.20	179	iPc	01 15.80	-6.1X
	0.6s		8.00nm		4.7mb
TIA	31.91	346	Pd	01 31.50	3.4X
IIDJ	32.08	19	P	01 49.10	19.5X
CTA	32.08	142	iPc	01 34.10	4.4X
MEKA	32.44	192	eP	01 32.00	-0.7
	0.4s		5.00nm		4.7mb
XAN	32.77	333	Pd	01 34.20	-1.4
CHJJ	32.95	20	P	01 36.20	-0.9
CD2	33.02	323	eP	01 37.30	-0.5
MTMJ	33.07	18	P	01 38.40	0.2
MAT	33.15	18	eP	01 38.00	-0.9
	0.8s		16.42nm		4.9mb
TIY	34.64	341	eP	01 56.60	4.9X
Z	22s		0.60um		4.3Msz
BJI	35.79	347	eP	02 00.50	-0.9
FORR	35.90	177	eP	02 01.00	-1.4

06d 20h

	0.4s	15.00nm		5.3mb		
SNY	36.53	357	eP	02 07.90	0.3	
LZH	36.86	329	eP	02 11.00	0.3	
	1.5s	0.04nm		2.2mb X		
HHC	37.77	342	eP	02 18.00	-0.2	
SHL	38.40	305	iP	02 23.20	-0.6	
CN2	38.44	359	eP	02 25.40	1.7	
MDJ	39.39	4	eP	02 32.50	1.0	
STK	39.77	159	eP	02 35.00	0.2	
GTA	41.45	329	P	02 48.30	-0.4	
BRS	41.48	143	iPc	02 49.00	0.0	
			i	02 53.40		
ADE	41.72	164	eP	02 51.50	0.7	
GUN	44.26	305	P	03 12.10	0.0	
PKI	44.51	305	P	03 13.60	-0.5	
KKN	44.70	305	P	03 15.10	-0.4	
	0.9s	49.00nm		5.3mb		
BWA	44.75	153	eP	03 18.90	3.4X	
DMN	44.77	304	P	03 15.90	-0.2	
	0.9s	55.00nm		5.4mb		
GKN	45.30	305	P	03 19.90	-0.3	
	0.6s	15.00nm		5.0mb		
CAN	45.76	153	eP	03 29.00	5.5X	
HYB	47.92	289	eP	03 39.50	-1.3	
DZM	48.00	126	iPc	03 42.70	1.2	
GBA	48.52	283	Pd	03 44.70	-0.7	
	0.8s	9.00nm		4.9mb		
WMQ	51.09	325	eP	04 03.50	-1.3	
NDI	51.69	303	iPd	04 08.00	-1.5	
MHI	68.02	307	eP	06 02.00	0.3	
INK	89.08	21	ePc	07 56.80	0.9	
YKA	98.48	24	P	08 40.80	1.7	
ZOBO	162.33	130	PKP	15 06.00	2.3X	
	S.D. = 1.0	on	48 of	62 obs.		

? FEB 06, 1989 20h 33m 07.67± 2.28s
38.043 N ±18.8km 23.520 E ±22.5km
DEPTH = 33.0km (normal)
GREECE (364)
ML 3.0 (ATH).

ATH	0.17	114	ePb	33 14.00	0.0	
			eSb	33 19.50		
NEO	1.28	350	ePn	33 29.30	-0.1	
PLG	2.33	359	ePn	33 44.60	0.1	
PRK	2.47	60	ePn	33 46.40	0.0	
	S.D. = 0.2	on	4 of	4 obs.		

& FEB 06, 1989 22h 23m 19.59s
57.557 N 154.203 W
DEPTH = 3.7km
4.9mb (17 obs.)
KODIAK ISLAND REGION (13)
<AGS-P>. ML 4.4 (PMR). Felt (IV) at Karluk.

KDC	0.94	78	iPc	23 37.10	-1.0	
CDD	1.41	12	eP	23 43.10	-3.0	
AUI	1.83	13	eP	23 50.68	-1.4	
			eS	24 14.57		
PDB	2.24	0	eP	23 56.18	-1.8	
CNPM	2.51	37	eP	24 01.36	-0.6	
ILIM	2.61	14	eP	24 02.11	-1.3	
NNL	2.92	30	iP	24 07.48	-0.2	
RED	2.96	14	eP	24 07.05	-1.4	
			eS	24 44.30		
RDT	3.17	16	eP	24 09.84	-1.4	
NKA	3.54	24	eP	24 17.17	0.7	
SEW	3.55	42	eP	24 14.17	-2.5	
SLKM	3.60	33	eP	24 15.40	-2.0	
SVW	3.64	349	ePc	24 15.60	-2.3	
SPU	3.80	16	eP	24 19.19	-1.1	
CRP	3.87	15	eP	24 20.57	-0.7	
SDN	4.14	240	eP	24 26.00	1.1	
MTU	4.19	52	eP	24 23.64	-2.1	
PTE	4.25	37	eP	24 24.02	-2.6	
KNIM	4.36	47	eP	24 25.39	-2.8	
PMS	4.39	31	ePc	24 26.40	-2.3	
PWL	4.48	40	iP	24 27.14	-2.7	
PLRM	4.80	30	eP	24 31.40	-3.0	
PMR	4.80	30	ePc	24 31.30	-3.1	
KNK	4.85	35	eP	24 32.17	-3.0	
PME	4.86	31	eP	24 32.44	-2.7	
HIN	4.90	51	eP	24 33.20	-2.6	
GHO	5.00	30	eP	24 34.67	-2.7	
FID	5.10	48	eP	24 34.67	-4.0	
SML	5.20	32	eP	24 37.13	-2.9	
VZW	5.26	45	eP	24 37.84	-3.1	
CVA	5.29	52	eP	24 38.64	-2.7	
VLZ	5.39	45	eP	24 40.12	-2.6	
TTA	5.47	351	eP	24 41.40	-2.5	
SGAM	5.50	54	eP	24 41.64	-2.7	
RAGM	5.69	56	eP	24 44.74	-2.2	
KLU	5.77	43	iP	24 45.07	-3.1	
TOA	6.10	38	ePd	24 50.20	-2.5	
MCK	6.71	20	eP	24 59.86	-1.6	
			eS	26 13.77		
PAX	6.95	35	eP	25 01.22	-3.6	
CTGM	7.43	57	eP	25 08.20	-3.3	
DDM	7.47	30	eP	25 09.35	-2.6	
NEA	7.47	17	eP	25 09.35	-2.6	
HDA	7.72	24	eP	25 11.39	-4.1	
BCPM	7.95	66	eP	25 14.58	-4.1	
IMA	8.55	1	ePc	25 24.60	-2.6	
INK	14.21	32	eP	26 40.00	-3.5	
YKA	20.14	59	P	27 54.00	-3.2	
MBC	22.53	21	eP	28 17.00	-4.3	
	0.6s	6.00nm		4.3mb		
KVN	29.82	113	eP	29 29.00	-0.9	
BW06	31.54	98	e(P)	29 46.00	0.9	
FRB	39.42	44	eP	30 53.00	1.3	
SUF	60.06	360	iP	33 25.40	-4.0	
EKA	65.06	18	P	34 00.00	-2.8	
	0.9s	12.90nm		5.1mb		
DOU	71.30	14	Pc	34 38.90	-2.8	
KHC	73.20	8	Pc	34 51.00	-2.0	
HAU	73.57	13	eP	34 52.20	-3.0	
	0.6s	5.40nm		4.8mb		
LOR	73.96	15	eP	34 54.50	-3.0	
SSF	74.12	16	eP	34 55.40	-2.9	
	1.0s	12.00nm		4.9mb		
LBF	74.26	15	eP	34 56.10	-3.1	
	1.0s	6.00nm		4.6mb		
AVF	74.36	16	eP	34 56.60	-3.1	
	0.6s	6.60nm		4.8mb		
BGF	74.51	16	eP	34 58.10	-2.5	
	0.8s	9.90nm		4.9mb		
SMF	74.57	15	eP	34 57.90	-3.1	
	0.8s	5.90nm		4.7mb		
LSF	74.61	17	eP	34 58.30	-2.9	
	1.0s	12.00nm		4.9mb		
KBA	75.22	9	ePd	35 02.00	-2.9	
	0.5s	5.30nm		4.8mb		
LFF	75.75	18	eP	35 04.90	-2.9	
	0.7s	13.20nm		5.1mb		
LPO	76.08	18	eP	35 06.70	-2.9	
	0.7s	8.80nm		5.0mb		
LPG	76.09	14	eP	35 08.20	-1.9	
	1.0s	4.80nm		4.6mb		
SBF	77.79	13	eP	35 16.20	-3.0	
	0.8s	13.40nm		5.1mb		
GUN	81.13	309	P	35 35.30	-2.6	
KKN	81.48	309	P	35 37.00	-2.5	
GKN	81.56	310	P	35 37.30	-2.6	
PKI	81.62	309	P	35 37.60	-2.8	
	0.6s	12.00nm		5.2mb		
DMN	81.71	310	P	35 38.20	-2.6	
	0.5s	14.00nm		5.3mb		
CHG	82.99	294	eP	35 44.70	-2.6	
GBA	97.38	310	Pc	36 51.20	-4.2	
	0.7s	2.60nm		5.0mb		
	75 obs. associated					

FEB 06, 1989 23h 01m 54.45± 0.42s
36.827 N ± 6.0km 31.211 E ± 6.1km
DEPTH = 102.7 ± 8.0 km
TURKEY (366)

BCK	0.80	322	iPn	02 13.60	0.2	
KSL	1.49	242	ePg	02 21.70	0.6	
KHL	2.01	319	iPn	02 27.20	-0.6	
PPCY	2.15	154	eP	02 32.50	3.0X	
CSS	2.53	137	eP	02 35.00	0.3	
ARG	2.56	257	ePb	02 35.00	0.0	
KAP	3.50	250	ePn	02 48.00	0.1	
BURJ	5.94	139	P	03 21.50	0.0	
JARJ	6.02	138	P	03 22.60	0.0	
SALJ	6.06	141	P	03 23.00	-0.2	
KFNJ	6.18	142	P	03 24.60	-0.1	
DSI	6.28	145	eP	03 25.50	-0.6	
			eS	04 31.00		
MASJ	6.31	142	P	03 26.20	-0.3	
KOT	6.90	176	eP	03 33.50	-1.1	
PRNI	7.19	153	e(P)	03 40.00	1.3	
			eS	04 55.00		
GKN	45.45	85	P	10 05.20	0.2	
DMN	46.00	85	P	10 09.50	0.1	
KKN	46.06	85	P	10 10.00	0.1	
	S.D. = 0.6	on	17 of	18 obs.		

• FEB 06, 1989 23h 36m 22.63± 0.64s
52.991 S ±12.2km 10.040 E ±15.5km
DEPTH = 10.0km (geophysicist)
4.3mb (2 obs.)
SOUTHWEST OF AFRICA (413)

SYO	21.13	151	eP	41 08.80	-0.6	
BUL	35.79	31	eP	43 25.40	1.4	
BCAO	57.66	10	eP	46 15.00	-0.3	
	1.0s	2.25nm		4.2mb		
BNG	57.66	10	ePc	46 15.00	-0.3	
	0.7s	3.00nm		4.4mb		
LIC	60.36	343	Pd	46 33.10	-0.9	
TIC	60.77	343	Pd	46 35.90	-0.9	
CNCB	69.57	269	P	47 35.00	0.6	
LPB	69.85	269	P	47 36.80	0.8	
ZOBO	70.07	269	iPd	47 36.80	-0.7	
EDM	146.78	294	ePKP	56 04.50	1.0	
YKC	149.83	310	iPKPd	56 12.30	4.3X	
MBC	149.91	338	ePKP	56 13.00	5.2X	
	S.D. = 1.0	on	10 of	12 obs.		

• FEB 07, 1989 00h 37m 44.76± 2.15s
36.297 N ±19.8km 1.775 E ± 7.9km
DEPTH = 10.0km (geophysicist)
ALGERIA (396)

ACU	2.81	322	iPc	38 30.20	-0.4	
			eS	38 59.00		
ENIJ	3.28	283	eP	38 37.50	0.3	
			eS	39 13.30		
ESEL	3.58	14	eP	38 41.20	-0.2	
			eS	39 18.50		
ECHE	3.94	327	eP	38 46.20	-0.4	
			eS	39 27.50		
EROO	4.64	347	eP	38 56.00	-0.6	
			eS	39 43.40		
EPF	6.82	351	Pn	39 28.60	1.3	
			Sn	40 38.50		
LMR	7.91	26	Pn	39 42.10	-0.5	
			Sn	41 03.30		
LRG	7.97	25	Pn	39 44.20	0.9	
			Sn	41 06.00		
FRF	8.16	26	Pn	39 46.10	0.1	
			Sn	41 10.20		
CVF	8.32	39	Pn	39 48.00	-0.4	
			Sn	41 13.40		
CAF	8.62	1	Pn	39 52.50	0.0	
SBF	8.71	28	Pn	39 53.60	-0.1	
			Sn	41 23.80		
	S.D. = 0.6	on	12 of	12 obs.		

? FEB 07, 1989 02h 03m 04.46± 7.04s
21.335 N ±71.2km 108.155 W ±15.6km
DEPTH = 10.0km (geophysicist)
4.1mb (2 obs.)
REVILLA GIGEDO ISLANDS REGION (53)

MZX	2.45	40	iP	03 43.00	-2.1	
ALQ	13.64	6	eP	06 21.50	1.0	
MEO	15.82	30	eP	06 48.20	-0.7	
	1.5s	11.70nm		3.8mb		
VVO	17.70	35	eP	07 13.20	0.6	
SIO	17.71	33	e(P)	07 13.30	0.5	
TUL	18.10	34	ePd	07 18.40	0.8	
	1.4s	32.30nm		4.3mb		
LNO	18.11	34	eP	07 17.50	-0.1	
RLO	18.70	35	eP	07 25.80	0.8	
KVN	19.61	336	eP	07 35.10	-1.1	
LRM	24.68	353	eP	08 27.40	0.4	
	S.D. = 1.1	on	10 of	10 obs.		

FEB 07, 1989 02h 04m 25.82± 0.29s
5.007 S ± 4.6km 134.171 E ± 5.6km
DEPTH = 33.0km (normal)
5.1mb (11 obs.)
AROE ISLANDS REGION (204)

AAI	6.10	282	ePd	05 54.90	-1.2	
			eS	06 00.00		
JAY	6.97	69	ePd	06 07.20	-1.2	

	0.6s	43.00nm		5.6mb		MBC	98.73	13	eP	18	02.00	-0.8				pP	13	30.00	181km			
TZZ	7.03	92	eP	05	21.50	-47.7X	BSF	118.14	323	ePKP	23	10.80	-0.6	PWLA	60.10	340	P	12	48.60	-2.1			
MTN	8.35	201	iPd	06	28.10	0.6	LPG	119.17	320	ePKP	23	13.30	-0.4	CVL	60.67	350	P	12	54.00	-0.5			
			eS	07	58.00			0.8s		2.60nm				NA2	60.70	350	P	12	52.70	-2.0			
MNDI	9.51	97	e(P)	06	45.00	1.2	LBF	120.22	323	ePKP	23	15.00	-0.3	CBN	60.72	351	eP	12	54.00	-0.8			
KUPT	11.65	243	ePc	07	12.50	-0.4		0.8s		2.60nm				OLY	61.71	338	P	12	59.30	-2.2			
KNA	11.92	206	iPd	07	14.70	-1.8	SSF	120.47	323	ePKP	23	15.50	-0.2				pP	13	39.70	172km			
	0.5s	308.00nm			6.7mb	X		0.8s		2.60nm				RKT	62.01	255	iP	13	02.20	-1.6			
			eS	09	22.00		TCF	121.63	323	ePKP	23	18.60	0.6		1.0s		40.00nm			5.2mb			
PMG	13.60	109	iPd	07	38.50	-0.4		0.8s		5.30nm				FVM	63.61	340	P	13	12.80	-1.1			
	0.9s	57.14nm			5.4mb		ARE	146.85	131	iPKP	24	10.30	4.5X		1.0s		220.00nm			6.0mb			
WB5	14.78	179	eP	07	51.50	-2.9	CNCB	149.19	135	PKP	24	17.00	7.1X				pP	13	56.00	184km			
			i	07	56.00		LPB	149.29	135	PKP	24	17.00	7.2X	LNO	63.71	334	ePd	13	13.20	-1.3			
			eS	10	31.00		ZOBO	149.45	134	PKP	24	17.00	6.7X	FKO	63.81	333	eP	13	13.80	-1.5			
WRA	14.85	179	P	07	53.00	-2.2		S.D. = 1.3 on 59 of 68 obs.							0.6s		30.70nm			5.4mb			
	0.6s	3.70nm			3.9mb	X	----------							MEO	63.92	332	iPd	13	14.20	-1.9			
QIS	16.33	162	eP	08	12.00	-2.4		FEB 07, 1989 04h 03m 00.22± 0.16s							0.9s		51.40nm			5.4mb			
			e	08	33.00			22.087 S ± 4.1km 67.223 W ± 3.8km						OCO	64.07	333	eP	13	15.00	-2.0			
			e	11	09.00			DEPTH = 179.5km (14 depth phases)							0.8s		19.40nm			5.0mb			
			e	13	16.00			5.4mb (41 obs.)						PCO	64.86	334	iPc	13	21.40	-0.7			
ASPA	18.55	181	iPc	08	41.50	-0.6		CHILE-BOLIVIA BORDER REGION (124)							0.7s		32.10nm			5.3mb			
Z	22s	0.53um						CENTROID, MOMENT TENSOR (HRV)						ACO	65.78	332	ePc	13	26.70	-1.3			
			eS	12	03.20			Data Used: GDSN							1.0s		35.80nm			5.1mb			
			LR	15	56.40			L.P.B.: 10S, 21C						RSNY	66.64	354	P	13	33.10	-0.2			
CTA	19.05	143	iPc	08	50.00	1.8		Centroid Location:							0.6s		11.29nm			4.8mb			
	0.8s	46.27nm			4.8mb			Origin Time 04:03: 5.1 0.5						LIC	67.05	73	Pc	13	35.78	-0.7			
KKM	21.02	301	ePc	09	10.00	0.6		Lat 22.02S 0.06 Lan 67.51W 0.07						TIC	67.25	72	Pc	13	37.14	-0.5			
PPR	21.27	314	ePd	09	14.00	2.3		Dep 181.6 1.7 Half-duration 2.0							0.9s		114.00nm			5.7mb			
GUA	21.29	30	eP	09	12.20	0.3		Moment Tensor; Scale 10**17 Nm						KIC	67.37	73	Pc	13	38.00	-0.4			
	0.8s	89.55nm			5.2mb			Mrr=-0.38 0.09 Mtt=-0.24 0.13							0.8s		184.00nm			5.9mb			
TRT	21.57	262	iPc	09	17.60	2.8		Mff= 0.62 0.12 Mrt= 0.15 0.10						ALQ	67.85	326	iPd	13	41.00	-0.3			
	0.8s	46.90nm			5.0mb			Mrf=-1.89 0.08 Mtf= 0.51 0.12							1.0s		72.50nm			5.4mb			
WARB	22.25	198	iPd	09	17.60	-4.0X		Principal Axes:									e	14	23.50	179km			
	0.5s	23.00nm			4.9mb			T Val= 2.12 Plg=36 Azm=100						GAC	67.88	354	ePd	13	41.00	0.1			
NANU	25.09	224	eP	09	51.00	1.9		N -0.17 16 357									pP	14	28.00	199kmX			
	0.5s	11.00nm			4.7mb			P -1.95 49 248						GLD	71.01	330	P	14	00.60	0.2			
RMQ	25.51	148	eP	09	54.00	1.0		Best Double Couple:Mo=2.0*10**17							1.5s		318.75nm			5.9mb			
			e	17	11.00			NP1:Strike=244 Dip=17 Slip= -23									pP	14	44.60	184km			
FORR	26.33	192	eP	10	01.00	0.4		NP2: 355 83 -106						GOL	71.04	330	P	14	00.40	-0.3			
STK	27.63	166	e(P)	10	13.00	0.6											pP	14	44.00	182km			
BRS	28.46	143	eP	10	21.50	1.5	HJA	2.02	124	iPc	03	37.10	-0.7	RW1	71.09	327	P	14	00.90	-0.1			
ADE	30.11	173	eP	10	37.20	2.4	FSA	4.13	165	e(P)	04	00.00	-3.5X				pP	14	43.80	179km			
	0.8s	32.84nm			5.2mb		CCH	4.79	12	iPd	04	13.00	0.5	LEGH	71.13	76	eP	14	01.00	-0.4			
BWA	32.11	157	eP	11	03.30	10.9X		0.2s	20.00nm					KUK	71.19	75	eP	14	02.00	0.2			
BFD	32.92	168	eP	10	40.00	-19.3X	CNCB	5.30	352	iPc	04	21.80	2.5		0.4s		450.00nm			6.6mb	X		
QIZ	33.83	316	eP	11	06.20	-1.2	LPB	5.59	351	iPc	04	25.20	2.2	GLA	71.20	319	eP	14	01.00	-0.5			
PPI	34.03	277	eP	11	10.00	0.8				S	05	32.00		KOGH	71.26	75	eP	14	02.00	-0.2			
DZM	35.54	122	iPc	11	31.10	8.9X				LR	06	32.00		BAR	72.08	318	eP	14	06.00	-0.7			
PSI	36.03	281	eP	11	26.50	0.2	ZOBO	5.85	351	iPc	04	27.40	0.8	PLM	72.65	318	eP	14	10.00	-0.2			
SSE	37.98	342	P	11	42.00	-0.4				S	05	18.00		TPC	72.66	319	eP	14	10.00	-0.1			
	0.8s	0.02nm			1.9mb	X				LR	06	18.00		PEC	73.20	318	P	14	13.10	-0.1			
			e	15	20.00		RTRS	8.30	194	ePc	04	51.00	-7.3X	RVR	73.40	318	eP	14	14.00	-0.3			
WHN	40.12	333	P	12	01.00	0.8	RTLL	9.27	187	iPd	05	02.70	-8.5X	MSU	73.55	325	P	14	16.10	0.7			
			sP	12	14.00		RTCB	9.47	188	ePc	05	05.30	-8.5X				pP	15	00.20	183km			
GYA	41.09	321	P	12	08.40	-0.1	ZON	9.51	188	eP	05	06.00	-8.3X	GSC	73.93	320	eP	14	18.00	0.5			
CHG	42.01	305	eP	12	16.10	0.1	CFA	9.53	185	ePc	05	06.50	-8.0X	MWC	73.97	318	eP	14	18.00	0.1			
CHTO	42.01	305	iP	12	15.90	-0.1	RTCV	9.81	187	ePd	05	10.00	-8.2X	PAS	73.99	318	eP	14	18.00	0.2			
			pP	12	21.00	17kmX	MDZ	10.85	187	eP	05	25.60	-6.2X	NOP	74.10	321	P	14	18.50	0.0			
			sP	12	29.90		JACH	10.97	195	eP	05	26.00	-7.4X	SBB	74.14	319	eP	14	18.00	-0.7			
KMI	42.78	316	Pd	12	22.00	-0.5	PEL	11.43	195	iPd	05	32.60	-6.8X	JON	74.29	321	P	14	20.00	0.5			
			sP	12	35.00		FCH	11.52	193	eP	05	36.00	-4.8X	SPRG	74.29	321	P	14	20.10	0.5			
TIA	44.00	340	P	12	30.60	-1.4	LCCH	11.98	198	iPd	05	39.10	-7.2X	DLM	74.31	323	P	14	20.10	0.3			
XAN	45.58	330	Pd	12	43.90	-0.8	TACH	11.98	195	eP	05	39.50	-6.9X	LSM	74.59	321	P	14	21.90	0.6			
CD2	46.04	323	eP	12	47.80	-0.6	ITB1	12.06	105	eP	05	47.50	0.0	CPX	74.60	321	P	14	22.00	0.6			
TIY	47.07	336	iPc	12	56.40	-0.1	ITB	12.25	105	eP	05	49.20	-0.7	LOP	74.61	321	P	14	22.30	0.8			
SNY	47.60	349	Pc	13	00.00	-0.5	ITB7	12.34	107	eP	05	47.20	-3.9X	CDH1	74.70	321	P	14	22.60	0.6			
BJI	47.79	341	eP	13	01.50	-0.5	LNV	12.39	196	eP	05	44.00	-7.5X	YMT3	74.71	321	P	14	22.60	0.7			
CN2	49.22	352	Pd	13	12.00	-0.9	VBA	16.54	165	ePd	06	36.10	-7.3X	GMR	74.71	322	P	14	22.80	0.7			
MDJ	49.57	356	eP	13	15.40	-0.2	BRAS	20.03	95	iPd	07	08.40	-12.9X	YMT6	74.75	321	P	14	22.90	0.7			
LZH	49.78	328	eP	13	18.00	0.4	BMA	21.34	96	iPc	07	34.40	0.3	CLC	74.75	320	eP	14	22.00	-0.2			
	1.5s	0.04nm			2.3mb	X				i	07	39.60	19kmX	GLR	74.76	321	P	14	23.10	0.8			
HHC	50.12	338	Pd	13	19.00	-1.1				i	07	46.80		BGB	74.77	321	P	14	23.20	0.8			
BTO	50.51	336	eP	13	20.70	-2.3	ATB	23.69	40	Pc	07	56.20	-0.7	YMT4	74.77	321	P	14	23.00	0.7			
GTA	54.39	327	iPd	13	52.20	0.1	BIM	36.87	10	eP	09	53.47	0.4				pP	15	06.50	180km			
HYB	59.25	294	eP	14	25.00	-1.9	MVM	36.94	10	eP	09	54.30	0.7	TBI	74.78	251	iP	14	22.80	0.2			
GBA	59.27	289	Pc	14	29.60	2.6	AIA	43.19	178	eP	10	48.80	4.3X		0.8s		45.00nm			5.3mb			
	1.5s	13.60nm			4.9mb		OXX	48.47	321	iPc	11	27.50	0.6	YMT5	74.81	321	P	14	23.20	0.6			
WMQ	64.10	324	P	15	00.00	0.8	HBF	56.13	347	P	12	22.90	-0.3	TMBR	74.86	321	P	14	23.50	0.6			
SDN	80.42	32	eP	16	36.00	0.5	SGS	56.41	347	P	12	24.70	-0.4	BLT	75.02	322	P	14	24.40	0.6			
MHI	80.70	308	iPd	16	38.40	0.8	JSC	57.62	346	P	12	33.30	-0.3	QCS	75.10	322	P	14	25.10	0.8			
TTA	85.40	26	eP	17	02.20	1.1				pP	13	14.30	178km	ABL	75.11	318	P	14	24.50	0.1			
KDC	85.41	31	eP	17	01.90	0.9	PRM	57.69	345	P	12	33.20	-0.9	DUG	75.12	326	P	14	24.80	0.5			
IMA	87.40	23	eP	17	12.30	1.4	LHS	57.72	347	P	12	33.70	-0.5		1.2s		46.64nm			5.1mb			
	0.8s	7.70nm			5.0mb		TKL	59.53	344	P	12	45.40	-1.4	ISA	75.18	319	eP	14	25.00	0.4			
PMR	88.08	28	eP	17	14.30	0.3	GBTN	59.65	344	P	12	45.90	-1.7	SYP	75.37	317	eP	14	26.00	0.2			
	0.9s	31.20nm			5.6mb		RSCP	59.95	343	P	12	48.00	-1.7	SYO	75.37	159	iPc	14	23.90	-1.2			
INK	95.48	22	eP	17	47.00	-1.2		1.5s	222.72nm				5.8mb	BW06	75.41	329	P	14	26.00	0.0			

07d 04h

	1.1s 89.29nm 5.4mb				
	pP 15 08.20 173km				
CER	75.42 120 iPc 14 22.00 -4.1X				
	0.6s 50.00nm 5.4mb				
RUV	75.50 259 iP 14 26.80 0.1				
	0.9s 30.00nm 5.0mb				
BLP	75.66 317 P 14 27.20 0.0				
VAH	75.71 259 iP 14 27.80 -0.1				
	0.9s 40.00nm 5.1mb				
TPT	75.78 259 iP 14 28.50 0.2				
	0.9s 35.00nm 5.1mb				
BCH	75.86 318 P 14 28.80 0.3				
MZP	75.90 321 P 14 29.10 0.2				
PMO	76.03 259 iP 14 29.90 0.2				
	0.9s 40.00nm 5.1mb				
TNP	76.06 321 P 14 30.10 0.4				
	0.7s 20.74nm 5.0mb				
RSON	76.29 343 P 14 29.40 -1.0				
	0.5s 42.97nm 5.4mb				
TVO	76.35 256 iP 14 32.00 0.5				
	0.9s 25.00nm 4.9mb				
PHAM	76.48 318 P 14 32.40 0.6				
SCH	76.59 0 eP 14 32.00 0.1				
PAE	76.68 256 iP 14 33.20 -0.1				
	0.9s 55.00nm 5.3mb				
PPT	76.71 256 iP 14 34.00 0.5				
	0.9s 50.00nm 5.2mb				
FRI	76.81 319 ePd 14 32.50 -1.0				
MNA	76.84 321 e(P) 14 34.20 0.3				
PRI	76.84 318 ePd 14 34.10 0.2				
AFR	76.90 256 iP 14 36.20 1.7X				
	0.9s 45.00nm 5.2mb				
SUR	76.93 120 iPc 14 35.00 0.2				
	0.7s 95.89nm 5.6mb				
POF	77.15 117 iPd 14 36.50 0.8				
	0.8s 78.36nm 5.5mb				
KVN	77.22 322 P 14 36.20 0.1				
LLA	77.32 318 ePd 14 36.70 0.3				
PRS	77.40 318 iPd 14 37.20 0.3				
SAO	77.72 318 e(P) 14 38.60 0.0				
CMB	77.89 320 ePd 14 39.40 -0.2				
ARN	78.15 319 P 14 41.40 0.4				
MHC	78.21 319 ePd 14 41.90 0.4				
GCC	78.23 318 ePd 14 41.50 0.1				
PCC	78.77 318 ePd 14 44.40 0.1				
BKS	78.91 319 iPd 14 45.50 0.4				
	0.7s 56.00nm 5.4mb				
BRK	78.93 319 ePd 14 45.50 0.4				
LRM	79.07 330 ePd 14 46.60 0.5				
ORV	79.54 320 ePd 14 48.70 0.3				
	e 15 33.10 181km				
NWRM	79.68 319 P 14 49.30 0.2				
LTCM	80.33 321 P 14 52.30 -0.3				
WDC	80.81 321 iPd 14 53.80 -1.3				
	e 15 38.00 180km				
LBFM	80.92 322 P 14 56.00 0.1				
FRS	81.45 119 iPd 15 00.00 1.3				
	1.0s 125.00nm 5.6mb				
FHC	81.80 320 ePd 15 01.00 0.7				
SES	81.89 333 iPd 15 01.20 0.6				
	0.8s 81.00nm 5.5mb				
	pP 15 45.00 178km				
FFC	82.09 340 iPc 15 01.20 -0.3				
	0.7s 22.00nm 5.0mb				
BLF	82.38 118 iPc 15 03.40 -0.4				
	1.0s 180.00nm 5.8mb				
VGB	83.02 325 P 15 07.10 0.6				
MAW	83.32 163 eP 15 07.00 -0.6				
BFS	83.67 116 iPd 15 11.00 0.6				
	0.6s 153.33nm 5.9mb				
SHW	84.23 325 P 15 12.60 -0.1				
LON	84.37 326 P 15 12.80 -0.4				
RMW	84.83 326 P 15 14.80 -0.7				
BMW	84.94 325 P 15 16.00 -0.1				
EDM	84.96 334 iPd 15 15.00 -1.0				
BPI	84.97 116 iPc 15 16.50 -0.5				
	0.8s 186.57nm 5.9mb				
SLR	85.34 116 iPc 15 18.50 -0.3				
	0.6s 66.67nm 5.6mb				
	i 17 04.00 470kmX				
GMW	85.39 326 P 15 17.80 -0.5				
FRB	85.55 359 eP 15 18.00 -0.6				
MCW	86.14 327 P 15 24.00 2.0				
PGC	86.44 326 eP 15 24.00 0.7				
BNG	87.74 84 ePd 15 30.30 -0.1				
	0.3s 15.00nm 5.4mb				
	ic 15 34.50 13kmX				

BUL	87.74 111 iPd 15 30.40 -0.1				
	0.9s 71.43nm 5.6mb				
KMZ	87.80 104 iPd 15 32.00 1.2				
LSZ	89.23 106 iPd 15 40.00 2.4				
	i 15 43.00 9kmX				
YKC	92.21 340 iPd 15 50.20 0.1				
	0.7s 30.00nm 5.5mb				
YKA	92.26 340 P 15 50.90 0.6				
PTZ	92.43 106 iPc 15 54.00 1.7				
	i 15 58.80 15kmX				
KBA	99.73 43 iPd 16 29.00 4.1X				
	0.7s 2.00nm 4.7mb				
INK	102.03 340 ePdiff16 34.00 -0.5				
MBC	103.10 349 ePdiff16 40.00 0.9				
QIS	130.17 214 iPKPd 21 49.90 -1.2				
WB5	133.26 208 iPKP 21 55.80 -1.1				
	iSKP 25 07.80				
GBA	145.39 98 PKP 22 19.00 0.1				
HYB	147.50 92 ePKP 22 25.00 2.6X				
	0.7s 71.40nm				
GUA	148.30 260 ePKP 22 26.00 2.3X				
	0.7s 136.99nm				
PJG	148.36 260 ePKP 22 26.10 2.4X				
WMQ	150.00 38 PKP 22 31.50 5.9X				
TRT	150.39 180 iPKPc 22 31.90 5.0X				
	0.7s 98.40nm				
MDJ	153.60 332 ePKP 22 31.00 0.3				
GKN	153.87 71 PKP 22 39.90 8.1X				
KKN	154.46 72 PKP 22 42.10 9.5X				
PKI	154.60 72 PKP 22 43.60 10.7X				
CN2	155.93 337 ePKP 22 33.20 -0.6				
GTA	159.49 30 ePKP 22 37.80 -0.6				
HHC	161.27 3 ePKP 22 40.00 -0.1				
BJI	161.87 352 ePKP 22 41.00 0.5				
	e 23 26.50				
	PP 27 09.50				
TIY	164.42 1 ePKP 22 44.20 0.9				
TIA	165.43 346 PKP 22 44.80 0.7				
	e 23 42.60				
CD2	168.07 41 ePKP 22 48.00 1.7				
SSE	168.30 322 ePKP 22 47.50 1.2				
	S.D. = 0.8 on 158 of 187 obs.				

? FEB 07, 1989 04h 10m 01.35± 8.26s					
44.492 N ±52.7km 7.027 E ±20.6km					
DEPTH = 10.0km (geophysicist)					
NORTHERN ITALY (545)					
MD 2.1 (STR).					
TOUF	0.50 162 Pg 10 11.65 0.0				
AUTN	0.57 150 Pg 10 13.05 -0.1				
MVIF	0.60 171 Pg 10 13.59 0.0				
	Sg 10 22.16				
SAOF	0.63 143 Pg 10 14.12 0.0				
	Sg 10 22.46				
AURF	0.64 160 Pg 10 14.25 0.0				
	Sg 10 22.99				
CALN	0.75 188 Pg 10 16.09 0.0				
S.D. = 0.1 on 6 of 6 obs.					

FEB 07, 1989 05h 09m 49.15± 0.59s					
42.379 N ± 5.6km 18.906 E ± 5.1km					
DEPTH = 10.0km (geophysicist)					
YUGOSLAVIA (383)					
MD 2.4 (TTG).					
BDV	0.11 211 iPgc 09 51.50 -0.5				
	eSg 09 54.00				
TTG	0.27 79 ePg 09 54.20 -0.6				
	iSg 09 59.00				
HCY	0.31 283 iPgd 09 55.70 0.1				
	eSg 10 01.00				
NKY	0.44 9 ePg 09 58.00 -0.1				
	eSg 10 05.50				
ULC	0.49 148 ePg 09 58.10 -1.0				
	eSg 10 05.70				
SDA	0.57 129 ePg 10 00.90 0.2				
BRY	0.59 333 ePg 10 01.20 0.1				
	eSg 10 11.20				
PUK	0.81 114 iPg 10 04.00 -0.8				
BCI	0.86 90 ePg 10 05.70 0.0				
KKS	1.16 105 ePg 10 11.00 0.2				
OHR	1.90 131 ePn 10 24.30 2.3				
S.D. = 1.0 on 11 of 11 obs.					
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* FEB 07, 1989 06h 32m 32.31± 1.57s					
36.668 N ±15.1km 12.799 E ± 5.6km					

DEPTH = 67.2 ± 14.4 km					
MEDITERRANEAN SEA (400)					
PTS	0.66 282 Pc 32 46.80 0.0				
FAI	0.93 49 Pc 32 49.90 -0.1				
	eSn 33 00.40				
CVT	1.01 360 iPd 32 50.60 -0.4				
MCT	1.17 34 eP 32 53.50 0.2				
LVI	1.37 344 iP 32 55.50 -0.2				
	eS 33 12.80				
ERC	1.38 353 iPc 32 55.70 -0.3				
GIB	1.64 36 P 32 59.80 0.2				
	eSn 33 18.50				
MEU	1.76 75 iP 33 00.00 -1.3				
	(S) 33 21.00				
MNO	1.97 50 iPc 33 05.70 1.5				
	eS 33 31.00				
USI	2.06 8 P 33 04.50 -0.7				
	eSn 33 28.20				
ATN	2.59 54 P 33 13.30 0.6				
	eSn 33 42.60				
CGL	3.86 315 iP 33 31.50 0.9				
	eS 34 13.80				
MGR	4.08 31 P 33 33.60 -0.1				
CVF	6.63 334 Pn 34 11.00 1.8				
	Sn 35 20.50				
MME	7.69 349 P 34 23.20 -0.9				
LMR	8.22 326 Pn 34 31.30 0.1				
	Sn 35 57.00				
SBF	8.27 332 Pn 34 32.30 0.3				
	Sn 35 57.80				
FRF	8.34 328 Pn 34 32.60 -0.3				
	Sn 36 01.30				
LRG	8.38 326 Pn 34 31.80 -1.6				
	Sn 36 01.00				
S.D. = 0.9 on 19 of 19 obs.					

FEB 07, 1989 06h 39m 59.71± 0.78s					
44.908 N ± 5.5km 15.144 E ± 6.8km					
DEPTH = 10.0km (geophysicist)					
YUGOSLAVIA (383)					
ML 3.1 (ZAG), 2.8 (KBA). MD 3.3 (LJU).					
VBY	0.60 8 iPgd 40 11.00 -0.9				
	iSg 40 20.70				
CEY	0.97 329 ePg 40 16.80 -1.4				
	0.6s 270.00nm				
	eSg 40 30.00				
ZAG	1.08 33 iPg 40 20.50 0.4				
	iSg 40 36.20				
PTJ	1.15 30 iPgc 40 21.20 0.0				
	eSg 40 39.00				
LJU	1.21 339 ePg 40 23.00 0.7				
	1.0s 200.00nm				
	iSg 40 39.00				
TRI	1.26 310 P 40 23.20 0.1				
	eSn 40 42.80				
VOY	1.43 322 iPnd 40 26.30 0.5				
	eSn 40 46.20				
AOI	1.75 220 ePg 40 30.16 -0.2				
	iSg 40 54.75				
RBL	1.89 325 P 40 33.20 0.8				
	eSn 40 58.00				
CIO	2.24 221 e(Pn) 40 37.40 -0.1				
	eSn 41 06.58				
FVI	2.36 316 P 40 38.70 -0.4				
	eSn 41 09.30				
KBA	2.51 331 eP 40 41.50 0.2				
	iPgd 40 43.00				
	i 41 04.70				
	i 41 10.00				
	iSg 41 13.80				
	i 41 14.30				
CTI	2.71 296 P 40 44.40 0.2				
	eSn 41 17.60				
S.D. = 0.7 on 13 of 13 obs.					

? FEB 07, 1989 07h 14m 39.45± 4.41s					
17.464 N ±30.8km 99.373 W ±31.6km					
DEPTH = 33.0km (normal)					
GUERRERO, MEXICO (59)					
III	0.91 354 iP 14 55.00 -1.1				
IIT	1.85 33 eP 15 09.00 -0.7				
UNM	1.87 6 eP 15 11.50 1.6				
CRX	1.95 351 (P) 15 19.00 7.8X				

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IIC      2.29    3 eP      15 15.00   -1.0
SMMM     2.34   15 eP      15 18.00    1.6
IISM     2.43   51 eP      15 17.00   -0.7
OXX      2.56   98 iP      15 20.00    0.3
      S.D. = 1.4  on   7 of   8 obs.
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*  FEB  07, 1989  07h 51m 52.59± 0.83s
   51.318 N ±16.5km  177.986 E ± 6.4km
   DEPTH =  33.0km  (normal)
   4.6mb (  7 obs.)
 RAT ISLANDS, ALEUTIAN ISLANDS    (  6)
      ML 4.5 (PMR).

SMY      2.78 302 ePc   52 38.10    2.4
ADK      3.37  78 ePc   52 45.10    0.9
SVW     17.52  46 eP     55 59.70    4.0X
KDC     18.20  58 eP     56 04.40    0.5
PMS     20.35  48 eP     56 28.80    0.2
IMA     20.58  33 ePc    56 31.10    0.1
FBA     22.25  39 ePc    56 48.80    1.1
INK     28.67  35 eP     57 47.00   -0.9
MBC     34.42  22 eP     58 38.00   -0.3
        0.8s     10.00nm          4.8mb
YKA     36.73  46 P      58 58.80    0.8
KVN     45.30  80 eP     00 09.50    0.5
TNP     46.44  80 eP     00 18.50    0.4
BW06    48.23  70 eP     00 31.50   -0.6
FRB     54.11  30 eP     01 14.00   -1.9
KJF     62.51 346 eP     02 13.00   -1.6
        0.5s     8.40nm          5.1mb
SUF     64.15 346 iP     02 24.80   -0.6
        0.6s     3.40nm          4.6mb
NAO     67.74 353 P      02 47.80   -0.6
        1.0s     5.60nm          4.6mb
HFS     68.18 352 eP     02 50.40   -0.7
        0.4s     1.40nm          4.4mb
GUN     69.99 290 P      03 03.40    0.2
KKN     70.44 290 P      03 05.90    0.2
GKN     70.66 291 P      03 07.00    0.0
KHC     79.05 350 eP     03 54.60    0.0
KBA     81.10 349 iPd    04 06.70    1.0
        1.0s     5.60nm          4.5mb
GBA     85.97 287 Pd     04 29.70   -1.0
        0.4s     0.80nm          4.3mb
      S.D. = 1.0  on  23 of  24 obs.
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   FEB  07, 1989  09h 13m 09.69± 0.58s
   51.297 N ±12.3km  177.895 E ± 5.0km
   DEPTH =  33.0km  (normal)
   4.7mb (  5 obs.)
 RAT ISLANDS, ALEUTIAN ISLANDS    (  6)
      ML 4.6 (PMR).

SMY      2.75 303 eP     13 53.60    1.3
ADK      3.43  78 ePc    14 03.10    1.0
SVW     17.58  46 eP     17 14.80    1.3
TTA     18.18  40 eP     17 22.50    1.6
KDC     18.26  58 eP     17 21.10   -0.6
PMS     20.41  48 eP     17 46.10   -0.2
IMA     20.63  33 ePc    17 48.20   -0.4
TOA     22.18  47 eP     18 04.70    0.5
FBA     22.30  39 ePc    18 05.90    0.6
INK     28.72  35 eP     19 05.00   -0.5
MBC     34.46  22 eP     19 55.00   -0.8
        0.8s     9.00nm          4.8mb
YKA     36.78  46 P      20 15.50   -0.1
BJI     43.36 280 eP     21 11.00    0.8
KVN     45.36  80 eP     21 27.00    0.4
HHC     45.71 284 eP     21 30.00    0.8
SSE     45.92 267 eP     21 31.80    1.0
TNP     46.50  80 eP     21 36.00    0.4
BW06    48.29  70 eP     21 48.50   -1.2
PLM     49.76  85 eP     22 05.00    4.0X
RSON    52.18  53 eP     22 16.00   -3.0X
GTA     53.66 290 P      22 29.70   -0.5
FRB     54.16  30 eP     22 32.00   -1.3
KJF     62.52 346 eP     23 31.00   -0.8
SUF     64.16 346 iP     23 41.90   -0.7
        0.5s     3.50nm          4.7mb
NUR     66.49 346 iP     23 56.80   -0.7
NAO     67.75 353 P      24 04.80   -0.7
        1.0s     7.90nm          4.8mb
GUN     69.95 290 P      24 20.40    0.4
KKN     70.39 290 P      24 22.80    0.2
PKI     70.48 290 P      24 23.30    0.1
GKN     70.61 291 P      24 23.80    0.0
ZST     79.53 347 eP     25 14.60    0.4
KBA     81.11 349 eP     25 22.50   -0.4
        0.9s     8.80nm          4.8mb
GBA     85.92 287 Pc     25 45.50   -2.1
        0.9s     2.90nm          4.5mb
      S.D. = 0.9  on  31 of  33 obs.
-------------------------------------------
   FEB  07, 1989  09h 52m 48.71± 0.92s
   41.938 N ± 9.2km   20.107 E ± 6.5km
   DEPTH =  10.0km  (geophysicist)
 ALBANIA                          (391)

PUK      0.19 303 ePg    52 53.00    0.1
KKS      0.26  59 ePg    52 55.00    0.7
PHP      0.35 135 iPgd   52 55.00   -1.0
LACI     0.42 225 iPgd   52 58.60    1.2
BCI      0.43 356 iPg    53 05.60    8.1X
SDA      0.46 280 ePg    52 57.00   -1.1
SKO      0.99  88 iPg    53 21.50   13.9X
      S.D. = 1.4  on   5 of   7 obs.
-------------------------------------------
&  FEB  07, 1989  11h 49m 09.46s
   39.002 N          111.492 W
   DEPTH =   4.4km
 UTAH                             (478)
      <SLC-P>. MD 3.2 (SLC).

MSU      0.72 228 eP     49 23.00   -0.9
DUG      1.57 320 eP     49 36.40   -1.8
RW1      2.99 103 eP     50 00.30    1.5
RW4      3.15 104 eP     50 01.60    0.5
8W06     4.05  21 eP     50 12.80   -0.9
GOL      4.80  80 eP     50 26.00    1.6
KVN      5.15 273 eP     50 29.00   -0.3
ALQ      5.71 134 eP     50 36.20   -1.1
        8 obs. associated
-------------------------------------------
*  FEB  07, 1989  12h 41m 44.23± 1.29s
   27.313 S ±13.5km  177.146 W ± 7.3km
   DEPTH = 166.9 ± 12.8 km
   4.9mb (  9 obs.)
 KERMADEC ISLANDS REGION          (177)
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 11S, 21C
      Centroid Location:
      Origin Time        12:41:45.4 0.9
      Lat 26.52S 0.11 Lon 177.22W 0.05
      Dep 110.3 2.9 Half-duration  1.7
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 0.26 0.06  Mtt= 0.19 0.11
        Mff=-0.45 0.09  Mrt=-0.59 0.06
        Mrf= 1.13 0.06  Mtf=-0.88 0.09
       Principal Axes:
        T  Val=  1.74  Plg=39  Azm=225
        N       -0.35      38       355
        P       -1.39      28       109
      Best Double Couple:Mo=1.6*10**17
       NP1:Strike=251 Dip=39 Slip= 169
       NP2:        349     83       52

RAO      2.05 199 iP     42 20.90   -0.4
                  iS     42 54.10
WEL     15.45 203 eP     45 14.00   -0.4
                  S      47 57.00
DZM     15.80 286 iPd    45 19.50    0.5
RAR     16.96  73 P      45 27.00   -6.1X
                  S      48 14.00
BRS     26.69 263 iPc    47 10.70    1.0
                  i      47 25.80
                  ipP    47 36.00  117kmX
COO     27.25 256 eP     47 17.00    2.3
CNB     29.60 246 iPc    47 38.20    2.5
RMQ     30.37 264 iPd    47 43.90    1.4
TOO     32.96 242 eP     48 07.00    2.0
ADE     38.30 247 iPc    48 51.30    1.1
QIS     39.95 270 eP     49 02.00   -1.8
ASPA    44.12 263 iPc    49 37.30   -0.5
     Z  20s      0.45um          4.4Msz
                  eS     55 55.40
                  LR     06 18.50
WB5     44.82 269 iPc    49 41.90   -1.5
WRA     44.82 269 Pd     49 42.50   -0.9
        0.5s     7.00nm          4.5mb
FORR    47.59 252 eP     50 04.00   -0.9
        0.4s    71.00nm          5.6mb
MTN     50.33 276 eP     50 24.00   -2.1
KNA     51.27 271 eP     50 31.90   -1.3
COOL    53.44 250 eP     50 48.00   -1.2
KLB     56.10 249 eP     51 08.00   -0.4
RKG     56.17 246 eP     51 08.00   -0.8
NWAO    56.23 247 eP     51 09.00   -0.3
MEKA    56.73 255 eP     51 12.00   -0.9
        0.4s     7.00nm          4.9mb
BAL     57.22 250 eP     51 16.00   -0.2
MUN     57.30 248 eP     51 17.00    0.3
NANU    60.58 258 eP     51 39.00   -0.5
        0.5s    29.00nm          5.4mb
SPA     62.84 180 e(P)   51 58.90    4.7X
        1.0s    46.50nm          5.3mb
MAW     75.45 200 eP     53 15.50    4.6X
SYP     81.91  44 eP     53 47.00    0.6
PRS     82.25  42 ePc    53 48.10    0.1
                  e      54 14.60
SBB     83.36  46 eP     53 54.00    0.2
                  e      54 23.00
ISA     83.58  44 eP     53 56.00    1.1
                  e      54 23.00
FRI     83.68  43 ePc    53 55.80    0.5
                  e      54 23.30
CMB     83.97  42 ePc    53 56.20   -0.6
                  e      54 23.20
TPC     84.14  47 eP     53 58.00    0.3
                  e      54 26.00
CLC     84.23  45 eP     53 59.00    0.9
                  e      54 26.00
ORV     84.34  40 e(P)   53 58.40   -0.1
                  e      54 25.40
WDC     84.45  39 ePc    53 59.10    0.1
                  e      54 25.80
NOP     85.33  45 P      54 03.30   -0.4
                  pP     54 32.50  112kmX
TNP     85.90  43 P      54 05.90   -0.7
        0.8s     6.37nm          4.5mb
                  pP     54 35.00  111kmX
KVN     85.99  42 P      54 06.20   -0.8
                  pP     54 35.00  110kmX
WHN     87.10 307 eP     54 13.00    0.7
CN2     88.15 322 eP     54 15.60   -1.4
TIA     88.43 312 eP     54 17.50   -1.0
MSU     89.30  45 P      54 24.00    1.1
                  pP     54 52.60  108kmX
ALQ     91.06  51 eP     54 31.00    0.0
        0.9s     7.77nm          4.8mb
                  epP    55 00.00  110kmX
BJI     91.26 315 eP     54 31.00   -0.5
TIY     92.38 312 eP     54 37.20    0.3
XAN     92.85 307 eP     54 41.70    2.6
CHG     93.26 289 eP     54 43.00    1.8
CHTO    93.26 289 eP     54 42.20    1.0
BW06    93.39  43 P      54 41.00   -0.6
        0.9s     4.77nm          4.7mb
                  pP     55 10.00  110kmX
MEO     96.54  54 eP     54 55.70   -0.2
        0.8s     4.50nm          4.9mb
KJF    139.79 343 ePKP   00 52.00   -1.2
SUF    141.41 343 iPKP   00 50.80   -5.3X
MSL    144.81 295 ePKP   01 03.00    0.2
NBO    145.86 353 PKP    01 03.20   -0.6
        0.8s    17.40nm
HFS    146.36 350 ePKP   01 04.30   -0.3
        0.4s    10.40nm
MBH    151.81 283 ePKP   01 22.00    8.0X
BNG    152.76 216 ePKPd  01 18.00    2.2X
        0.2s    20.00nm
                  id     01 25.60
                  id     01 37.20
VRI    153.51 321 ePKP   01 23.00    7.1X
MLR    154.18 321 ePKP   01 25.50    8.5X
                  e      17 36.50
CLL    154.83 345 i(PKP) 01 27.10    9.6X
                  e      02 08.00
      S.D. = 1.1  on  53 of  62 obs.
-------------------------------------------
   FEB  07, 1989  13h 35m 27.58± 0.17s
   23.728 S ± 6.0km  179.885 E ± 4.1km
   DEPTH = 562.9km (  3 depth phases)
   5.2mb ( 23 obs.)
 SOUTH OF FIJI ISLANDS            (171)
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.:  8S, 15C
      Centroid Location:
      Origin Time        13:35:37.5 0.7
      Lat 23.05S 0.09 Lon 179.61E 0.05
```

07d 13h

Dep 548.9 3.1 Half-duration 1.8
Moment Tensor; Scale 10**17 Nm
Mrr= 1.45 0.08 Mtt= 0.33 0.17
Mff=-1.79 0.13 Mrt= 0.63 0.11
Mrf= 0.27 0.11 Mtf= 0.13 0.08
Principal Axes:
T Val= 1.76 Plg=65 Azm=348
N 0.05 24 180
P -1.81 4 88
Best Double Cauple:Mo=1.8*10**17
NP1:Strike=154 Dip=46 Slip= 55
NP2: 19 54 120

PVC	12.35	297	iP	38	12.50	2.4
DZM	12.50	275	iPd	38	12.40	0.8
AFI	12.55	40	eP	38	05.00	-7.1X
KRP	14.63	194	P	38	35.10	2.5
			e	39	42.90	
WEL	18.03	193	eP	39	03.00	-2.5
			eS	42	03.00	
HNR	23.77	303	eP	39	57.00	-1.4
BRS	24.71	256	Pc	40	06.80	0.0
			i	40	12.80	
COO	25.78	249	iPd	40	17.20	1.0
	0.6s	50.00nm			5.3mb	
			e	43	29.00	
RMQ	28.29	258	iPd	40	38.90	0.8
	1.0s	304.00nm			5.9mb	
			e	40	53.00	
CNB	28.85	239	eP	40	43.70	0.8
	0.9s	94.00nm			5.4mb	
CAN	29.14	240	iPd	40	45.60	0.2
BWA	29.39	242	iPd	40	45.60	-2.0
CTA	31.37	270	iPd	41	04.90	0.4
	0.9s	299.58nm			5.9mb	
			iPP	42	37.50	
			iS	45	34.80	
			iScP	46	37.00	
			iSS	48	38.00	
TOO	32.45	237	iPd	41	14.10	0.6
	0.6s	45.00nm			5.3mb	
TAU	32.97	227	Pd	41	19.40	1.7
PMG	34.34	289	iPd	41	29.50	0.1
	0.9s	159.66nm			5.6mb	
STK	34.69	248	iPd	41	32.70	0.5
QIS	37.36	267	iPd	41	53.80	-0.4
			e	46	57.00	
ASPA	41.96	260	iPd	42	31.10	-0.2
	0.7s	155.00nm			5.6mb	
			iScP	47	15.60	
			iS	48	10.40	
			iScS	51	34.10	
WB5	42.30	266	iPd	42	33.50	-0.5
			iScP	47	17.50	
			eS	48	14.20	
WRA	42.31	266	Pd	42	32.30	-1.8
	0.4s	43.80nm			5.3mb	
FORR	46.23	249	iPd	43	03.70	-0.6
	0.5s	268.00nm			6.0mb	
MTN	47.34	274	iPc	43	11.90	-1.0
WARB	48.06	255	iPd	43	10.80	-7.5X
	0.3s	16.00nm			5.0mb	
KNA	48.56	270	iPd	43	21.20	-0.9
HON	49.68	27	P	43	28.50	-1.7
OPA	50.01	27	P	43	30.60	-2.0
GUA	50.41	314	eP	43	34.80	-0.9
	0.7s	49.32nm			5.1mb	
GUMO	50.48	314	eP	43	35.20	-1.0
PJG	50.48	314	eP	43	35.40	-0.8
COOL	52.18	248	eP	43	47.00	-1.5
KLB	54.95	247	eP	44	07.00	-1.1
MEKA	55.14	253	iPc	44	08.30	-1.2
	0.5s	6.00nm			4.2mb X	
NWAO	55.21	245	eP	44	09.00	-0.9
RKG	55.25	244	eP	44	09.00	-1.2
	0.3s	6.00nm			4.4mb	
BAL	56.00	248	eP	44	14.00	-1.4
MUN	56.20	246	eP	44	16.00	-0.8
MRWA	56.85	250	eP	44	20.00	-1.2
NANU	58.72	257	iPd	44	33.70	-0.2
	0.4s	58.00nm			5.2mb	
SPA	66.41	180	e(P)	45	24.00	1.1
	0.9s	41.82nm			5.0mb	
ADK	75.34	2	iPc	46	13.40	-1.1
	0.7s	174.30nm			5.6mb	
SDN	80.52	11	eP	46	41.10	-0.9
BLP	81.05	46	P	46	45.50	0.2
SYP	81.31	46	eP	46	47.00	0.2
PRS	81.49	44	iPc	46	47.90	0.4
GCC	81.52	43	ePc	46	47.90	0.3
PCC	81.57	43	ePc	46	48.00	0.2
SAO	81.71	44	ePc	46	48.70	0.1
PHAM	81.82	45	P	46	49.60	0.4
PRI	81.83	45	ePc	46	49.90	0.5
NWRM	81.86	42	P	46	49.60	0.4
BRK	81.88	43	ePc	46	49.70	0.3
BKS	81.90	43	ePc	46	49.80	0.3
	0.7s	61.00nm			5.2mb	
MHC	81.94	43	ePc	46	50.40	0.5
LLA	81.94	44	ePc	46	50.00	0.2
ABL	82.01	47	P	46	50.20	-0.2
ARN	82.01	43	P	46	50.60	0.5
MDJ	82.06	326	eP	46	51.00	0.8
PAS	82.30	48	eP	46	52.00	0.4
MWC	82.42	48	eP	46	52.00	-0.5
BAR	82.50	50	eP	46	54.00	1.3
FHC	82.69	39	ePc	46	54.30	0.9
PLM	82.75	49	eP	46	54.00	-0.1
RVR	82.76	48	eP	46	53.00	-0.9
WHN	82.81	308	P	46	55.50	1.3
			iS	56	33.00	
PEC	82.85	48	P	46	54.40	0.0
SBB	82.85	47	eP	46	54.00	-0.4
FRI	82.95	45	iPc	46	54.90	0.1
ISA	82.98	46	eP	46	55.00	-0.1
CMB	83.15	43	iPc	46	55.90	0.1
ORV	83.38	42	ePc	46	56.90	0.0
WDC	83.40	40	iPc	46	57.30	0.4
LTCM	83.41	41	P	46	57.20	0.2
SNY	83.45	321	iPc	46	57.50	0.4
CLC	83.65	47	eP	46	58.00	-0.4
CN2	83.69	324	Pc	46	58.80	0.5
TPC	83.73	49	eP	46	59.00	0.2
GSC	83.89	47	eP	47	00.00	0.4
TIA	84.04	314	P	47	01.20	1.0
KDC	84.39	14	ePc	47	01.20	-0.2
NOP	84.79	47	P	47	03.90	-0.1
MZP	84.87	45	P	47	04.00	-0.6
YMT3	84.99	46	P	47	05.00	0.0
YMT4	85.00	46	P	47	05.00	0.0
YMT5	85.02	46	P	47	04.90	-0.3
YMT6	85.03	46	P	47	05.10	-0.1
LSM	85.05	46	P	47	05.40	0.1
CDH1	85.09	46	P	47	05.50	0.0
TMBR	85.14	46	P	47	05.30	-0.5
KVN	85.19	44	P	47	05.80	-0.2
			pP	49	08.30	564km
TNP	85.20	45	P	47	05.80	-0.3
	0.8s	20.59nm			4.8mb	
BGB	85.25	46	P	47	06.10	-0.2
CPX	85.30	46	P	47	06.30	-0.2
SPRG	85.34	47	P	47	07.00	0.3
GLR	85.48	46	P	47	07.20	-0.2
GMR	85.72	46	P	47	08.30	-0.2
QCS	85.87	46	P	47	08.80	-0.5
PRN	86.24	46	P	47	11.40	0.4
DLM	86.55	46	P	47	12.70	0.1
SVW	86.83	12	ePc	47	12.30	-0.9
BJI	86.83	316	eP	47	14.50	0.9
			eS	57	08.00	
SHW	87.09	36	P	47	16.00	1.1
VGB	87.47	37	P	47	16.80	0.3
GMW	87.66	35	P	47	17.50	0.2
LON	87.67	36	P	47	17.30	-0.2
TIY	87.99	313	Pc	47	20.60	1.4
PGC	88.02	34	eP	47	20.00	1.1
RMW	88.12	35	P	47	19.70	0.1
TTA	88.46	11	ePc	47	20.40	-0.4
XAN	88.55	308	Pc	47	23.30	1.5
PMR	88.61	14	ePc	47	20.50	-0.8
	0.7s	20.00nm			5.1mb	
MSU	88.75	47	P	47	23.40	0.6
KMI	89.09	298	Pc	47	26.00	1.3
CHG	89.52	291	iPc	47	28.90	2.4
	1.0s	15.00nm			4.9mb	
CHTO	89.52	291	iP	47	28.00	1.5
	1.0s	11.50nm			4.8mb	
			pP	49	31.20	561km
CD2	90.90	303	eP	47	34.80	2.1
ALQ	90.93	52	eP	47	32.60	-0.3
	0.9s	10.29nm			4.9mb	
IMA	91.75	10	eP	47	35.30	-0.6
	1.6s	32.30nm			5.1mb	
FBA	91.81	13	ePc	47	34.30	-1.7
LRM	92.43	40	eP	47	39.40	-0.3
BW06	92.65	44	P	47	41.00	0.3
			pP	49	45.00	563km
LZH	93.18	308	P	47	44.50	1.3
GOL	93.93	48	P	47	46.00	-0.7
GLD	94.05	48	P	47	47.20	0.0
	0.8s	23.53nm			5.4mb	
SES	95.62	37	eP	47	54.00	0.2
INK	97.89	16	eP	48	02.50	-1.1
YKA	100.25	25	Pdiff	48	15.00	0.7
GKN	105.13	294	PKP	52	47.30	-0.9
MBC	106.34	13	ePKP	52	47.00	-1.8
FRB	120.54	29	ePKP	53	13.00	-3.1X
FRS	121.48	206	iPKPc	53	19.80	0.8
	0.4s	12.71nm				
DAG	126.11	5	ePKP	53	24.80	-1.8
MHI	127.62	298	ePKP	53	32.00	1.2
BUL	128.18	215	ePKP	53	32.00	-0.4
	0.8s	7.84nm				
KEV	131.23	348	ePKP	53	29.00	-7.5X
	0.7s	18.70nm				
			i	53	37.00	
SOD	133.29	346	ePKP	53	35.00	-5.5X
			e	53	39.00	
KJF	135.60	343	ePKP	53	36.00	-8.9X
			e	53	46.00	
SUF	137.21	343	ePKP	53	39.00	-9.0X
	0.3s	2.20nm				
NUR	139.42	341	ePKP	53	46.00	-6.1X
	0.6s	15.60nm				
			e	53	52.00	
NBO	141.97	351	PKP	53	52.20	-4.4X
	0.8s	15.10nm				
NRA0	142.14	351	PKP	53	51.80	-5.1X
HFS	142.36	349	ePKP	53	52.20	-5.1X
	0.3s	35.10nm				
EDU	147.15	3	ePKPc	54	11.20	5.8X
	0.5s	42.00nm				
ELO	147.19	4	ePKPc	54	11.20	5.7X
GLH	147.36	294	ePKP	54	11.00	4.6X
EBH	147.42	4	ePKPc	54	11.90	6.1X
	0.6s	57.00nm				
EAB	147.43	4	ePKPc	54	12.00	6.2X
EDI	147.76	3	ePKPc	54	13.40	7.1X
ESY	147.79	3	ePKPc	54	12.90	6.5X
	0.7s	67.00nm				
EAU	147.83	4	ePKPc	54	13.20	6.7X
	0.6s	84.00nm				
EBL	147.92	3	ePKPc	54	13.30	6.7X
ZNT	147.94	293	ePKP	54	12.00	4.6X
DOR	148.31	292	ePKP	54	13.00	4.9X
EKA	148.35	3	PKPd	54	11.10	3.8X
	0.5s	13.10nm				
VRI	149.05	322	ePKPd	54	14.00	5.3X
KRA	149.41	334	iPKP	54	14.60	5.5X
	1.0s	74.00nm				
			e	54	20.10	
DMU	149.44	8	iPKPc	54	13.60	4.6X
	0.8s	120.00nm				
AKSR	149.69	277	ePKP	54	16.90	6.6X
MLR	149.71	322	ePKPc	54	15.00	5.1X
DCN	149.93	9	ePKP	54	14.80	5.1X
	0.8s	79.00nm				
AKUR	149.94	277	iPKPd	54	17.50	6.9X
SPC	149.96	333	iPKP	54	17.00	6.8X
			e	56	24.70	
DLE	150.08	8	ePKP	54	14.90	4.9X
KSP	150.09	339	ePKP	54	11.50	1.4
	0.7s	80.00nm				
			ic	54	16.10	
			e	56	22.50	
			id	56	26.70	
AGMR	150.12	276	iPKPd	54	17.00	6.1X
WIT	150.50	352	ePKP	54	17.50	6.9X
CLL	150.66	343	ePKP	54	11.00	0.1
	1.0s	95.00nm				
			i	54	17.10	
			pPKP	56	27.00	
PSZ	151.08	332	ePKP	54	18.00	6.2X
WTS	151.28	351	ePKP	54	18.00	6.2X
	0.7s	58.00nm				
MOX	151.62	344	ePKP	54	19.00	6.6X
	1.4s	41.00nm				
			e	54	30.00	
			epPKP	56	29.00	
MOX	151.62	344	ePKP	54	13.00	0.6
SRO	151.84	333	ePKP	54	19.60	6.9X

		e	54	32.10		
		e	56	26.70		
BZS	151.95	326	ePKPc	54	21.00	8.0X
ZST	152.02	335	ePKP	54	14.10	1.1
		e	54	20.30		
		i	54	32.70		
		e	56	29.70		
KHC	152.45	340	PKP	54	13.40	-0.2
		i	54	21.50		
ENN	152.60	352	ePKP	54	21.50	7.8X
	0.7s	32.00nm				
		i	54	34.50		
TNS	152.72	348	ePKPc	54	22.10	8.1X
MEM	152.75	351	PKP	54	21.30	7.4X
GRB5	153.01	343	ePKP	54	22.30	7.9X
	0.7s	26.00nm				
	Z 21s	0.90um				5.6Msz
		e	54	37.20		
DOU	153.42	353	PKP	54	23.90	9.0X
		e	54	34.80		
BNG	153.69	226	ePKPd	54	16.50	0.1
	0.8s	11.00nm				
		id	54	25.80		
		ic	54	41.10		
KBA	154.32	338	ePKP	54	19.00	2.6X
	0.7s	5.70nm				
		e	54	25.00		
		i	54	29.00		
		i	54	42.30		
PTJ	154.34	333	ePKP	54	02.30	-14.1X
LIC	161.97	164	PKP	54	26.00	0.1
KIC	162.17	165	PKP	54	26.10	0.0
TIC	162.37	164	PKP	54	26.20	-0.1
	S.D. = 0.9	on 140 of 186 obs.				

FEB 07, 1989 14h 07m 35.12± 0.82s
39.662 N ± 7.9km 19.666 E ± 7.5km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 3.4 (ATH).

SRN	0.34	50	iPg	07	43.80	1.7
TPE	0.69	23	iPgd	07	47.50	-1.2
LSK	0.87	56	iPgc	07	50.70	-1.2
BERA	1.06	12	ePg	07	55.90	0.8
VLS	1.65	154	ePb	08	05.50	1.3
			eSb	08	27.70	
OHR	1.69	31	iPn	08	04.60	-0.2
TIR	1.69	5	ePn	08	05.80	1.0
KZN	1.74	68	ePb	08	05.50	-0.1
LACI	1.97	1	ePn	08	09.00	0.1
PHP	2.11	16	ePn	08	13.60	2.8X
BRT	2.24	304	P	08	21.10	8.3X
			eSn	08	46.30	
SDA	2.36	357	ePn	08	23.10	8.7X
PUK	2.38	4	ePn	08	13.00	-1.8
KKS	2.48	13	ePn	08	16.50	0.4
SKO	2.67	30	ePn	08	22.50	3.5X
BCI	2.72	6	ePn	08	26.30	6.7X
VAY	2.77	52	ePn	08	21.70	1.4
NEO	2.78	96	ePg	08	26.30	5.8X
PLG	2.99	75	ePn	08	21.50	-1.9
MGR	3.20	280	P	08	27.90	1.5
			eSn	08	58.80	
ATN	3.60	247	P	08	30.40	-1.8
			eSn	09	01.80	
	S.D. = 1.4	on 15 of 21 obs.				

FEB 07, 1989 15h 08m 59.04± 1.09s
3.381 S ± 5.9km 148.809 E ± 8.9km
DEPTH = 38.0 ± 11.1 km
4.9mb (5 obs.) 5.2Msz (6 obs.)
BISMARCK SEA (203)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 27C
Centroid Locotion:
Origin Time 15:09:11.5 1.0
Lat 2.49S 0.07 Lon 148.59E 0.06
Dep 15.0 FIX Half-duration 2.5
Moment Tensor; Scale 10**17 Nm
Mrr=-0.24 0.10 Mtt= 1.83 0.11
Mff=-1.59 0.13 Mrt=-0.49 0.44
Mrf= 0.88 0.30 Mtf= 2.41 0.10
Principal Axes:

T	Val= 3.08	Plg= 0	Azm=153
N	0.11	71	244
P	-3.18	19	63

Best Double Couple:Mo=3.1*10**17
NP1:Strike=199 Dip=76 Slip=-167
NP2: 106 77 -14

RAB	3.45	104	eP	09	51.00	-0.7
	0.6s	117.33nm				
LAT	3.72	209	eP	09	55.00	-0.5
LMG	5.53	187	e(P)	10	22.00	0.8
MNDI	5.83	242	eP	10	28.00	2.5
PMG	6.21	195	eP	10	32.00	1.2
	0.8s	62.69nm			5.3mb	
TZZ	7.80	256	eP	10	03.00	-50.0X
JAY	8.14	276	ePd	11	04.50	6.7X
	1.0s	55.40nm			5.5mb	
GUA	17.25	347	e(P)	12	59.20	0.4
	Z 22s	11.11um				
GUMO	17.31	347	e(P)	12	57.20	-2.4
PJG	17.31	347	e(P)	12	58.00	-1.6
QIS	19.28	207	eP	13	23.00	-0.7
			e	13	27.00	
MTN	19.85	241	eP	13	27.00	-2.9
AAI	20.58	269	eP	13	40.00	2.5
WB5	21.62	220	eP	13	46.50	-1.6
			e	13	49.90	
WRA	21.69	219	Pd	13	46.80	-1.9
	1.4s	47.10nm			4.7mb	
RMQ	22.98	180	eP	14	02.00	0.6
BRS	24.18	171	iPc	14	13.40	0.3
			i	14	18.00	
			i	14	26.30	
			i	14	35.00	
			eS	18	24.00	
			e(SS)	18	46.00	
ASPA	24.79	214	iPd	14	18.90	-0.1
	Z 22s	6.34um			5.1MszX	
			eS	18	47.30	
			LR	23	52.70	
DZM	25.26	139	iPc	14	24.00	0.4
DAV	25.41	294	eP	14	28.00	3.0X
BWA	30.89	181	eP	15	14.20	-0.1
CAN	31.78	180	eP	15	12.50	-9.7X
FORR	33.60	213	eP	15	37.00	-0.9
BAG	34.13	306	eP	15	38.00	-5.0X
			eS	21	06.00	
SSE	43.23	324	eP	17	00.00	1.6
	Z 22s	3.43um			5.2Msz	
	N 22s	0.41um				
	E 22s	2.98um				
			eS	23	24.00	
QIZ	44.33	302	P	17	07.40	-0.2
	E 17s	1.40um				
			eS	23	42.00	
			SS	26	57.00	
NJ2	45.29	323	eP	17	10.00	-5.0X
	N 16s	1.00um				
	E 17s	1.60um				
			S	24	00.00	
WHN	47.12	318	eP	17	26.00	-3.5X
	Z 20s	3.43um			5.3Msz	
	E 20s	2.98um				
			S	24	24.00	
TIA	49.27	326	eP	17	46.30	0.2
	Z 35s	2.50um			5.0MszX	
	N 16s	1.10um				
	E 16s	1.10um				
			eS	24	53.00	
GYA	50.39	309	P	17	57.80	2.7
SNY	50.51	336	eP	17	56.40	0.9
	Z 30s	2.50um			5.0MszX	
	N 28s	1.70um				
	E 26s	1.40um				
			S	25	10.00	
MDJ	50.78	342	eP	17	58.00	0.4
	Z 30s	2.60um			5.1MszX	
			S	25	08.00	
CN2	51.45	338	eP	17	56.50	-6.2X
	Z 28s	2.40um			5.1MszX	
	N 15s	0.80um				
NST	51.74	293	iPc	18	05.00	-0.3
BJI	52.56	329	eP	18	11.00	-0.1
	Z 28s	2.50um			5.1MszX	
	N 20s	2.40um				
XAN	52.88	318	Pd	18	13.80	0.1
KMI	52.91	305	eP	18	16.00	1.8
	Z 20s	2.10um			5.2Msz	
TIY	53.00	324	eP	18	14.30	-0.2
	N 18s	2.40um				
CHG	53.79	296	eP	18	20.00	-0.5
CHTO	53.79	296	eP	18	19.80	-0.7
	1.2s	8.68nm			4.6mb	
CD2	54.81	312	eP	18	27.40	-0.5
	Z 20s	1.80um			5.1Msz	
HHC	55.62	326	eP	18	31.00	-2.7
	Z 28s	3.10um			5.2MszX	
			S	26	22.00	
BTO	56.32	325	eP	18	39.50	0.8
	Z 20s	3.30um			5.4Msz	
	E 20s	1.70um				
LZH	57.47	317	eP	18	48.00	1.0
	2.5s	0.08nm			2.3mb X	
	Z 42s	2.60um			5.0MszX	
GTA	61.94	319	eP	19	18.00	0.3
	Z 24s	2.70um			5.3MszX	
	E 12s	0.50um				
GUN	67.99	302	P	19	56.20	-1.1
PKI	68.29	301	P	19	58.00	-1.2
KKN	68.47	302	P	19	59.00	-1.1
DMN	68.56	301	P	20	00.20	-0.6
GKN	69.07	302	P	19	55.80	-8.0X
WMQ	72.02	318	eP	20	22.30	1.0
HYB	72.27	289	eP	20	21.50	-1.6
GBA	72.76	285	P	20	26.00	0.0
	0.9s	6.30nm			4.6mb	
KSH	78.98	311	eP	21	03.50	2.5
INK	88.57	21	eP	21	49.00	0.1
YKA	96.03	28	P	22	25.90	2.5
CNCB	138.49	120	ePKP	28	24.00	-0.3
LPB	138.51	120	(PKP)	28	35.00	10.9X
ZOBO	138.60	119	ePKP	28	28.00	3.5X
	Z 22s	0.32um			5.0Msz	
			LR	15	52.00	
KIC	153.48	277	PKP	28	58.80	10.7X
	S.D. = 1.4	on 48 of 60 obs.				

? FEB 07, 1989 16h 21m 03.52± 2.36s
11.242 N ±10.2km 61.924 W ±38.6km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)

TCE	0.57	163	eP	21	14.77	-0.3
			eS	21	23.65	
TRN	0.78	139	eP	21	16.84	-1.2
			eS	21	27.10	
GRW	0.95	16	eP	21	20.56	0.0
			eS	21	32.27	
TPP	1.03	153	eP	21	22.54	0.9
			eS	21	37.24	
TBH	1.13	132	eP	21	23.75	0.7
			eS	21	37.80	
	S.D. = 1.2	on 5 of 5 obs.				

FEB 07, 1989 17h 34m 38.94± 1.03s
34.106 N ± 7.8km 26.313 E ± 9.8km
DEPTH = 10.0km (geophysicist)
CRETE (370)
MD 3.9 (ATH).

NPS	1.29	334	ePn	35	03.50	0.7
KAP	1.61	26	ePb	35	08.00	0.6
VAM	2.17	307	ePn	35	21.50	5.9X
ARG	2.58	35	ePn	35	21.80	0.4
KSL	3.35	52	ePn	35	32.00	-0.4
ELL	3.95	47	iP	35	40.30	-0.6
KOT	6.27	130	iP	36	13.50	-0.2
			S	37	23.50	
BBTK	7.71	40	eP	36	34.00	0.0
DSI	8.04	106	eP	36	38.00	-0.5
			eS	38	03.00	
PRNI	8.26	115	eP	36	41.00	-0.6
MBH	8.47	118	e(P)	36	46.00	1.5
KHC	17.74	332	eP	38	46.50	-1.0
	S.D. = 0.8	on 11 of 12 obs.				

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* FEB 07, 1989 18h 38m 06.05± 1.25s
39.356 N ± 8.2km 20.181 E ±14.4km
DEPTH = 5.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)
MD 2.9 (ATH).

LSK	0.86	22	ePg	38	22.10	-1.0
TPE	0.95	352	iPgd	38	23.00	-1.5
VLS	1.22	165	ePb	38	29.00	-0.2
BERA	1.36	353	ePn	38	32.50	1.0

07d 18h

KZN	1.55	52	ePb	38 35.50		1.1
OHR	1.82	15	iPn	38 37.30		-0.9
TIR	2.00	353	e(Pn)	38 42.20		1.3
VAY	2.68	42	ePn	38 52.00		1.4
PLG	2.71	67	ePn	38 50.00		-1.1
SKO	2.78	20	ePn	38 57.00		4.9X
S.D. = 1.4 on 9 of 10 obs.						

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* FEB 07, 1989 19h 51m 16.31± 0.79s
45.898 N ±16.2km 154.489 E ±11.4km
DEPTH = 33.0km (normal)
4.8mb (17 obs.)
KURIL ISLANDS REGION (222)

MDJ	17.56	275	eP	55 18.00		-2.0
CN2	20.65	275	Pc	55 54.00		-1.5
SNY	22.58	271	eP	56 14.40		-0.5
HHC	31.32	276	P	57 36.00		0.3
TIY	32.09	270	eP	57 43.30		0.9
FBA	36.25	38	eP	58 18.00		0.2
	1.0s	0.50nm			3.4mb	X
XAN	36.41	267	P	58 20.60		1.1
GTA	40.06	281	eP	58 49.50		-0.6
CD2	41.77	267	eP	59 06.40		2.3
INK	41.87	32	eP	59 05.00		0.7
MBC	45.08	20	eP	59 30.00		-0.3
WMQ	46.13	293	eP	59 37.20		-2.0
YKA	51.04	37	P	00 18.60		1.8
CHG	52.87	258	eP	00 22.10		-9.0X
CHTO	52.87	258	e(P)	00 34.10		3.0
GUN	56.04	277	P	00 55.40		0.8
KKN	56.53	277	P	00 59.40		1.4
PKI	56.57	277	P	00 59.30		0.8
DMN	56.76	277	P	01 01.00		1.3
GKN	56.84	277	P	01 01.20		1.0
LRM	60.95	53	eP	01 31.00		2.4
NDI	61.51	283	iPd	01 33.00		0.7
	0.6s	13.33nm			5.2mb	
SUF	64.18	336	eP	01 46.00		-3.4X
FRB	65.54	19	eP	01 56.00		-2.1
WB5	67.96	200	eP	02 11.50		-2.5
HYB	67.98	273	eP	02 15.00		0.6
WRA	68.03	200	Pd	02 12.10		-2.3
	0.6s	1.40nm			4.2mb	
NC2	69.20	342	P	02 18.80		-2.5
	0.7s	6.40nm			4.8mb	
HFS	69.59	340	eP	02 20.30		-3.3X
	0.4s	6.10nm			5.0mb	
ASPA	71.72	200	iPd	02 13.50		-23.4X
	0.7s	7.00nm				
CLL	77.63	336	iP	03 09.20		-1.3
	0.8s	11.00nm			4.9mb	
PRU	78.37	335	eP	03 14.00		-0.6
MOX	78.61	337	eP	03 15.00		-0.9
KHC	79.42	335	P	03 20.00		-0.4
	1.0s	6.00nm			4.5mb	
GRF	79.58	337	e(P)	03 21.00		-0.3
	0.9s	13.00nm			4.9mb	
MEM	80.08	340	Pc	03 25.10		1.3
KBA	81.33	334	eP	03 29.50		-1.2
	0.8s	11.40nm			4.9mb	
		id		03 32.00		
CDF	81.80	339	eP	03 33.10		0.0
	0.8s	5.30nm			4.6mb	
BSF	82.46	339	eP	03 35.90		-0.7
	1.0s	8.00nm			4.7mb	
LOR	83.71	340	eP	03 42.30		-0.5
	0.6s	2.70nm			4.6mb	
AVF	84.27	341	eP	03 45.20		-0.5
	0.8s	4.50nm			4.7mb	
SMF	84.30	340	eP	03 45.40		-0.4
	1.0s	8.00nm			4.8mb	
BGF	84.61	341	eP	03 47.30		-0.1
	0.7s	5.50nm			4.9mb	
LPG	84.64	338	eP	03 48.30		0.4
	0.8s	5.30nm			4.8mb	
MAF	84.99	341	eP	03 49.60		0.3
	0.6s	5.40nm			4.9mb	
SBF	85.97	337	eP	03 56.10		1.8
	0.6s	5.40nm			5.0mb	
S.D. = 1.4 on 42 of 46 obs.						

% FEB 07, 1989 19h 52m 59.89± 1.27s
40.671 N ± 5.8km 29.691 E ±11.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT	0.15	353	ePg	53 03.00		-0.5
GBZT	0.22	302	ePg	53 04.50		-0.2
			iSg	53 10.00		
YLV	0.26	247	iPg	53 06.20		0.7
GPA	0.61	129	iPg	53 06.30		-5.9X
			eSg	53 11.80		
ISK	0.62	310	iPg	53 12.40		0.0
			eSg	53 22.70		
DST	1.34	218	iPn	53 23.30		-1.3
EDC	1.43	258	iPn	53 25.50		-0.4
DMK	1.86	309	iPn	53 32.80		0.8
KHL	2.35	183	iPn	53 40.00		0.8
BBTK	2.49	108	eP	53 44.00		2.8X
			eS	54 14.00		
S.D. = 0.9 on 8 of 10 obs.						

& FEB 07, 1989 22h 22m 46.70s
34.386 N 96.831 W
DEPTH = 5.0km (geophysicist)
OKLAHOMA (499)
<TUL>. mbLg 2.0 (TUL).

FKO	0.99	333	(Pg)	23 04.00		-1.9
VVO	1.31	43	ePg	23 06.90		-4.4
			(Sg)	23 29.20		
SIO	1.42	17	ePgd	23 07.90		-5.4
			(Sg)	23 31.40		
MEO	1.50	286	ePgd	23 13.80		-0.5
			(Sg)	23 34.00		
RRO	1.65	311	ePn	23 18.50		2.1
			eSg	23 39.90		
TUL	1.74	29	ePnd	23 17.40		-0.4
			eSg	23 40.00		
LNO	1.75	29	ePnd	23 11.60		-6.1
			iSn	23 39.80		
PCO	2.31	357	ePn	23 26.00		0.1
			eSn	23 55.20		
RLO	2.31	39	ePn	23 26.60		0.6
			eSn	23 56.80		
9 obs. associated						

FEB 07, 1989 23h 15m 44.37± 0.46s
41.989 N ± 3.9km 20.462 E ± 4.2km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 3.0 (SKO), 2.8 (TTG).

KKS	0.09	336	iPg	15 46.60		-0.4
PHP	0.30	183	iPgc	15 50.30		-0.3
PUK	0.43	277	iPgc	15 51.50		-1.6
BCI	0.48	322	iPgc	15 53.30		-0.8
LACI	0.66	238	ePg	15 57.50		-0.1
PVY	0.71	329	iPgd	15 57.60		-0.8
			eSg	16 09.60		
SDA	0.72	272	ePg	16 00.00		1.5
SKO	0.73	91	iPgc	15 58.10		-0.6
			iSg	16 08.80		
TIR	0.78	215	ePg	15 59.50		-0.1
ULC	0.90	269	ePg	16 01.50		-0.2
			eSg	16 16.00		
OHR	0.91	164	iPg	16 01.20		-0.7
			iSg	16 14.70		
IVA	0.98	335	ePg	16 02.20		-0.8
			eSg	16 18.00		
TTG	1.00	297	ePg	16 02.50		-0.7
			eSg	16 18.40		
BDV	1.25	284	ePg	16 08.00		0.4
			eSg	16 27.40		
BERA	1.34	197	ePn	16 14.10		5.0X
NKY	1.36	308	ePg	16 10.00		0.5
			eSg	16 30.00		
HCY	1.53	288	ePn	16 12.70		1.0
			eSn	16 37.20		
PLE	1.55	330	ePn	16 12.00		-0.2
			eSn	16 36.00		
BRY	1.69	303	ePn	16 16.00		1.8
			eSn	16 42.00		
VAY	1.71	112	ePn	16 15.40		1.0
LSK	1.84	177	ePn	16 22.10		5.8X
BZS	3.72	13	ePc	16 44.00		0.9
S.D. = 0.9 on 20 of 22 obs.						

? FEB 07, 1989 23h 52m 20.78± 1.71s
20.909 S ±21.0km 68.503 W ±26.6km
DEPTH = 106.4 ± 15.1 km
CHILE-BOLIVIA BORDER REGION (124)

HJA	3.68	129	ePc	53 16.80		0.2
CNCB	4.11	7	P	53 31.00		7.9X
LPB	4.37	5	eP	53 27.00		0.4
	1.1s	177.22nm				
ZOBO	4.63	5	P	53 36.80		6.5X
ARE	5.25	327	eP	53 38.00		-0.6
			iS	54 40.50		
ITB1	13.54	109	eP	55 34.50		4.9X
ITB	13.73	109	e(P)	55 34.60		2.4X
KIC	68.17	74	P	03 11.10		-0.9
YKA	90.76	340	P	05 13.40		0.9
S.D. = 1.5 on 5 of 9 obs.						

? FEB 08, 1989 02h 21m 13.78± 3.19s
31.410 S ±12.0km 68.569 W ±26.2km
DEPTH = 95.1 ± 28.2 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL	0.12	47	iPd	21 27.00		-0.7
			S	21 39.50		
ZON	0.17	215	iPd	21 27.60		-0.2
			eS	21 39.00		
RTCB	0.21	249	iPd	21 28.20		0.2
CFA	0.34	125	ePd	21 27.80		-0.5
RTCV	0.45	177	iPc	21 29.00		0.0
RTRS	1.45	328	iPd	21 40.20		0.6
			S	22 01.00		
MDZ	1.49	189	eP	21 41.60		1.5
			iS	21 59.50		
JACH	2.14	233	iPc	21 49.60		1.0
			iS	23 18.00		
FCH	2.40	217	eP	21 54.00		1.6
PEL	2.49	225	iPd	21 53.00		-0.3
			iS	22 23.50		
ROCH	2.59	232	eP	21 54.50		-0.4
			iS	22 26.10		
CHCH	3.07	214	iPc	22 01.00		-0.2
			e	22 38.00		
LNV	3.49	223	iPd	22 04.20		-2.7
S.D. = 1.3 on 13 of 13 obs.						

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* FEB 08, 1989 03h 01m 43.30± 1.16s
6.266 S ±18.3km 149.090 E ±14.8km
DEPTH = 57.6 ± 19.3 km
4.3mb (1 obs.)
NEW BRITAIN REGION (192)

LAT	2.11	259	e(P)	02 17.00		0.2
LMG	2.79	199	iPd	02 26.50		0.0
PMG	3.66	211	iPc	02 41.00		2.2X
	0.8s	223.88nm				
RAB	3.70	56	iPd	02 39.20		0.0
MNDI	5.40	271	e(P)	03 10.00		6.5X
WB5	19.69	225	iPc	06 10.30		-0.5
WB2	19.74	225	iPc	06 10.30		-1.0
ASPA	22.64	219	iPc	06 42.00		1.4
	0.7s	8.00nm			4.3mb	
			eS	10 45.50		
S.D. = 1.3 on 6 of 8 obs.						

? FEB 08, 1989 04h 03m 38.04± 1.75s
17.466 S ±76.5km 177.723 W ±36.5km
DEPTH = 431.6 ± 16.9 km
4.7mb (4 obs.)
FIJI ISLANDS REGION (181)

AFI	6.73	59	eP	05 20.00		-0.5
			S	05 27.00		
CTA	34.16	260	iPc	09 49.20		2.4
	1.4s	69.77nm			4.9mb	
			iS	15 28.00		
			iSS	17 53.00		
WB5	45.33	259	eP	11 17.90		0.3
WB2	45.34	259	eP	11 17.90		0.3
ASPA	45.54	254	iPc	11 17.50		-1.7
	1.2s	28.00nm			4.5mb	
PRS	75.46	44	eP	14 38.20		0.3
FRI	76.93	44	ePc	14 47.10		1.2
CMB	77.07	43	eP	14 46.90		0.1
WDC	77.19	40	ePc	14 48.20		0.9
KVN	79.13	43	P	14 58.60		0.6
TNP	79.19	44	P	14 59.00		0.7
	1.0s	4.50nm			4.1mb	
FBA	85.24	12	P	15 27.20		-1.0
	0.7s	12.21nm			4.8mb	
ALQ	85.31	51	eP	15 29.00		-0.4
LRM	86.22	40	eP	15 33.30		-0.3

```
CHG    89.46 290 eP     16 00.20   11.1X
CHTO   89.46 290 e(P)   15 48.00   -1.1
KSP   144.87 345 ePKP   22 33.70    7.8X
SPC   145.16 339 ePKP   22 35.80    9.0X
CLL   145.17 348 iPKP   22 33.40    7.0X
       1.4s     13.00nm
MLR   145.79 330 ePKPc 22 38.00   10.2X
MOX   146.06 349 ePKP   22 36.00    8.1X
       1.3s     29.00nm
PRU   146.09 346 PKP    22 26.30   -1.7
       1.5s     17.90nm
                e       22 41.90
SRO   147.00 340 ePKP   22 37.60    8.1X
ZST   147.04 342 ePKP   22 41.00   11.5X
KHC   147.11 346 PKP    22 41.20   11.5X
       1.2s     10.00nm
KBA   149.09 345 e(PKP)22 50.00   16.9X
       1.2s      6.30nm
      S.D. = 1.2  on  16 of  26 obs.
-------------------------------------
   FEB  08, 1989  04h 54m 53.90± 0.53s
   19.832 S ± 8.1km  133.625 E ± 4.8km
   DEPTH =  10.0km  (geophysicist)
   4.4mb (  1 obs.)
 NORTHERN TERRITORY, AUSTRALIA    (591)
      ML 4.1 (QIS).

WB2     0.69  99 iP     55 07.70    0.1
WB5     0.70  94 iP     55 07.70    0.0
ASPA    3.82 176 iPd    55 59.60    5.5X
       0.5s   878.00nm
                eS      56 46.50
QIS     5.66  98 eP     56 20.00   -0.2
                eS      57 20.00
                e       57 48.00
KNA     6.16 310 eP     56 27.50    0.4
       0.3s     21.00nm          5.5mb X
                eS      57 36.00
MTN     7.35 341 eP     56 43.00   -0.9
                eS      57 05.00
                e       57 49.00
WARB    9.02 224 eP     57 02.60   -4.5X
       0.4s     33.00nm          6.0mb X
                eS      58 42.00
CTA    11.88  93 eP     57 47.00    0.6
FORR   12.05 203 iPd    57 48.50   -0.1
       0.4s     45.00nm          6.1mb X
STK    13.97 151 eP     58 11.00   -3.1X
MEKA   15.42 241 eP     58 32.00   -1.2
       0.3s      6.00nm          4.4mb
                eS      01 18.00
NANU   17.09 258 eP     58 56.00    1.4
                eS      01 55.00
KLB    18.45 227 eP     59 08.00   -3.5X
MRWA   18.54 236 eP     59 14.00    1.4
                eS      02 31.00
NWAO   19.61 225 eP     59 24.00   -1.4
                eS      02 53.00
MUN    19.76 229 eP     59 27.00    0.0
                eS      02 55.00
RKG    20.46 223 eP     59 40.00    5.6X
      S.D. = 1.0  on  12 of  17 obs.
-------------------------------------
%  FEB  08, 1989  06h 00m 11.49± 0.84s
   43.429 N ± 5.0km    5.426 E ± 5.9km
   DEPTH =   9.6 ±  4.6 km
 NEAR SOUTH COAST OF FRANCE       (379)
      MD 2.5 (STR).

GELF    0.05 179 Pg     00 13.31   -0.3
TREF    0.20 351 Pg     00 15.38   -0.4
PUYF    0.22  63 Pg     00 15.31   -1.0
BERF    0.23 121 Pg     00 16.18   -0.2
PRAF    0.42 334 Pg     00 20.32    0.3
VILF    0.47  26 Pg     00 20.46   -0.6
TAVF    0.50  68 Pg     00 20.73   -0.8
                Sg      00 28.82
GANF    0.67  31 Pg     00 25.45    0.6
CALN    1.11  73 Pg     00 33.17    0.7
                Sg      00 49.49
MVIF    1.34  69 Pn     00 36.44    0.2
                Sg      00 55.62
TOUF    1.44  66 Pn     00 38.19    0.3
                Sg      00 58.79
AURF    1.45  71 Pn     00 38.50    0.6
                Sg      00 58.79
AUTN    1.56  68 Pn     00 40.26    0.7
                Sg      01 02.12
SAOF    1.64  69 Pn     00 40.30   -0.3
      S.D. = 0.7  on  14 of  14 obs.
-------------------------------------
%  FEB  08, 1989  07h 28m 40.77± 1.15s
   41.130 N ±10.1km   29.233 E ± 7.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                           (366)

ISK     0.15 244 ePg    28 43.40   -0.8
GBZT    0.38 155 ePg    28 47.50   -1.0
                iSg     28 54.20
HRT     0.45 133 ePg    28 49.90   -0.1
YLV     0.57 169 iPg    28 52.80    0.4
KCT     1.10 217 iPn    29 02.70    1.2
GPA     1.17 135 ePn    29 03.00    0.3
EDC     1.30 234 ePn    29 04.50   -0.4
DMK     1.31 302 iPn    29 05.00    0.1
      S.D. = 0.8  on   8 of   8 obs.
-------------------------------------
%  FEB  08, 1989  09h 18m 40.45± 0.71s
   47.192 N ±11.5km    4.435 E ± 7.1km
   DEPTH =  10.0km  (geophysicist)
 FRANCE                           (538)
      ML 2.8 (LDG).

LBF     0.38 237 Pg     18 49.00    0.8
                Sg      18 54.80
LOR     0.40 281 Pg     18 49.00    0.3
                Sg      18 54.80
SSF     0.65 259 Pg     18 53.70    0.3
                Sg      19 02.80
SMF     0.68 217 Pg     18 54.70    0.7
                Sg      19 04.60
AVF     0.84 242 Pg     18 57.00    0.3
                Sg      19 09.00
BGF     1.26 240 Pn     19 02.90   -1.0
                Pg      19 04.40
                Sg      19 21.20
HAU     1.53  57 Pg     19 07.90    0.1
                Sg      19 25.60
MAF     1.61 234 Pg     19 11.90    2.9X
                Sg      19 31.90
BSF     1.72  67 Pg     19 10.80    0.1
                Sg      19 31.50
TCF     1.78 240 Pn     19 09.80   -1.7
                Pg      19 13.70
                Sg      19 36.80
LSF     2.21 246 Pn     19 14.30   -3.4X
                Sg      19 50.80
      S.D. = 0.9  on   9 of  11 obs.
-------------------------------------
*  FEB  08, 1989  09h 28m 14.52± 1.39s
   14.043 N ±10.5km  120.038 E ±17.0km
   DEPTH =  60.0 ± 14.7 km
   4.4mb (  8 obs.)
 LUZON, PHILIPPINE ISLANDS        (249)

QCP     1.17  59 eP     28 48.00   13.1X
BAG     2.41  12 ePc    28 51.00   -1.5
       0.9s    189.92nm
                eS      29 20.40
PIP     4.30   7 ePd    29 21.50    2.7X
PPR     4.43 197 iPc    29 21.00    0.3
                eS      30 11.00
WHN    17.24 343 eP     32 15.50    2.8
CHG    20.78 286 eP     32 53.90    0.9
CHTO   20.78 286 eP     32 53.50    0.5
       0.9s     2.56nm          3.6mb
XAN    22.31 335 eP     33 07.70   -0.6
CD2    22.49 321 eP     33 10.80    0.7
TIY    24.53 345 eP     33 30.00    0.2
GUN    34.62 299 P      34 59.80   -0.7
       0.4s     6.00nm          4.9mb
PKI    34.92 298 P      35 01.40   -1.7
       0.5s     4.00nm          4.6mb
KKN    35.09 299 P      35 03.40   -1.0
DMN    35.19 298 P      35 04.40   -0.9
       0.5s     7.00nm          4.8mb
GKN    35.70 299 P      35 08.00   -1.4
       0.5s     3.00nm          4.5mb
GBA    41.33 275 Pd     35 57.20    1.0
       0.7s     2.80nm          4.1mb
KJF    78.49 333 eP     40 11.00    0.6
SUF    79.42 332 iP     40 16.20    0.7
       0.5s     2.50nm          4.4mb
MBC    83.35  12 eP     40 36.00    0.1
HFS    85.87 331 eP     40 48.60   -0.1
       0.5s     1.10nm          4.3mb
KHC    89.93 321 eP     41 00.00   -8.6X
      S.D. = 1.2  on  18 of  21 obs.
-------------------------------------
?  FEB  08, 1989  09h 41m 42.11± 2.45s
   22.344 S ±27.9km  169.436 E ±19.0km
   DEPTH = 156.0 ± 17.5 km
   4.1mb (  3 obs.)
 LOYALTY ISLANDS REGION           (189)

DZM     2.79 275 iPd    42 28.20    0.6
                iS      43 10.00
BRS    15.93 248 Pc     45 17.20   -1.8
                i       45 28.50
                e       45 39.00
CTA    21.72 272 eP     46 26.00    4.3X
PMG    24.95 297 eP     46 51.50   -1.1
ASPA   32.69 261 ePd    48 04.30    2.6X
       0.6s     20.00nm          5.0mb
     Z 19s      0.80um          4.4Msz
                LR      12 26.70
WB5    32.76 268 eP     48 03.10    0.7
WB2    32.77 268 eP     48 03.10    0.7
WRA    32.78 268 P      48 04.00    1.5
       0.5s     1.40nm          4.0mb
CHG    80.11 295 eP     53 36.20   -0.2
CHTO   80.11 295 eP     53 36.00   -0.4
       0.8s     2.20nm          3.9mb
KSP   144.68 330 iPKPd 00 55.70   -5.8X
CLL   145.78 333 iPKPc 00 58.50   -4.8X
       0.9s     26.00nm
ZST   146.05 326 iPKP   01 00.40   -3.4X
EKA   146.59 352 PKP    00 59.00   -5.5X
       2.5s    155.90nm
BNG   146.67 242 ePKPd 01 06.50    0.6
       0.6s     3.00nm
MOX   146.85 334 ePKP   01 02.00   -3.1X
SKO   146.86 314 iPKPc 01 03.00   -2.4X
KHC   147.13 330 iPKPc 01 03.00   -2.6X
       1.2s     15.00nm
GRF   147.75 333 ePKP   01 06.00   -0.6
       0.9s     21.00nm
GRB5  148.00 332 ePKP   01 06.00   -1.0
       0.9s     21.00nm
KBA   148.69 328 ePKP   01 06.00   -2.4X
       1.0s      5.30nm
MEM   148.95 339 PKP    01 06.90   -1.4
WLF   149.71 338 PKPc   01 10.20    0.7
DOU   149.84 340 PKPc   01 09.70    0.0
       0.7s     16.70nm
CDF   150.35 336 ePKP   01 10.60   -0.1
       0.8s      9.10nm
BSF   151.01 335 ePKP   01 12.10    0.4
       0.8s     10.70nm
HAU   151.03 336 ePKP   01 12.30    0.6
       0.8s     10.70nm
FLN   152.44 346 ePKP   01 14.50    0.9
       0.8s     10.70nm
LPG   152.92 333 ePKP   01 17.20    2.4X
      S.D. = 1.0  on  18 of  29 obs.
-------------------------------------
?  FEB  08, 1989  10h 46m 19.11± 0.95s
   34.227 N ±22.3km  135.250 E ± 6.6km
   DEPTH =  10.0km  (geophysicist)
 NEAR S. COAST OF SOUTHERN HONSHU(233)
      MG 2.3 (JMA). Felt (I JMA) at
      Wakayama.

WKY     0.07 269 P      46 21.70    0.3
WKYJ    0.28  91 P      46 25.10    0.0
                S       46 29.60
TKSJ    1.03 257 P      46 38.30   -0.2
                S       46 51.80
YONJ    1.76 304 eP     46 49.70   -0.1
                S       47 12.20
      S.D. = 0.3  on   4 of   4 obs.
-------------------------------------
*  FEB  08, 1989  11h 34m 25.20± 1.03s
   1.561 S ± 7.6km   77.422 W ±16.5km
   DEPTH = 193.6 ±  9.3 km
   4.5mb (  4 obs.)
 ECUADOR                          (107)

SALC    4.56   9 ePd    35 34.80    0.1
DIAC    4.97  14 ePd    35 41.50    1.5
HOOC    5.06   9 eP     35 40.40   -0.7
```

08d 11h

ANCC	5.07	6	eP	35 40.50	-0.6
HOBC	6.01	12	eP	35 53.00	-0.5
ARE	15.92	159	eP	38 02.00	1.4
ZOBO	17.25	148	P	38 16.20	-0.6
LPB	17.48	149	eP	38 18.00	-1.1
CNCB	17.78	149	P	38 22.00	-0.4
MEO	41.24	333	eP	41 52.50	-0.3
	0.9s	14.70nm		4.5mb	
ALQ	45.36	326	iPc	42 26.30	0.1
	0.8s	8.77nm		4.3mb	
			e	43 07.00	
YKA	69.77	343	P	45 15.10	-0.8
LIC	72.68	83	P	45 34.30	0.1
TIC	72.72	83	P	45 34.50	0.1
KIC	72.97	83	P	45 36.10	0.2
	0.4s	13.00nm		5.0mb	
INK	79.50	342	ePc	46 11.90	0.6
MBC	81.27	351	eP	46 21.00	0.6
	0.6s	5.00nm		4.4mb	
KKN	149.11	31	PKP	53 53.50	5.1X
	0.5s	16.00nm			
DMN	149.16	31	PKP	53 53.70	5.1X
	0.4s	13.00nm			
GUN	149.31	30	PKP	53 54.20	5.3X
	0.4s	10.00nm			
PKI	149.35	31	PKP	53 53.80	4.8X
	0.5s	5.00nm			
GBA	152.40	63	PKPc	54 01.00	7.7X
	0.5s	1.10nm			

S.D. = 0.8 on 17 of 22 obs.

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* FEB 08, 1989 12h 44m 18.82± 1.27s
41.598 N ±11.0km 22.299 E ± 9.8km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 1.9 (SKO).

VAY	0.34	144	iPg	44 26.40	0.5
			iSg	44 32.00	
KKB	0.65	65	ePg	44 30.00	-1.8
			iSg	44 40.00	
SKO	0.74	300	ePn	44 33.00	-0.4
MMB	1.07	90	iPgc	44 39.00	0.0
VTS	1.20	34	iP	44 43.00	1.7

S.D. = 1.8 on 5 of 5 obs.

---

* FEB 08, 1989 12h 45m 55.94± 1.03s
13.288 N ±18.6km 50.751 E ±12.1km
DEPTH = 10.0km (geophysicist)
4.4mb (4 obs.)
EASTERN GULF OF ADEN (415)

BHD	20.73	345	ePc	50 37.00	-2.1
			eS	57 07.50	
			e	57 29.00	
KER	21.23	352	eP	50 46.00	1.5
SLY	22.71	349	ePd	51 03.50	4.4X
MHI	24.22	17	eP	51 16.00	2.0
			eS	55 04.00	
BNG	32.98	257	ePc	52 33.90	0.5
	0.6s	3.00nm		4.4mb	
BCAO	32.99	257	eP	52 33.70	0.2
	1.1s	1.18nm		3.7mb	
GKN	34.78	60	P	52 48.80	-0.3
KKN	35.26	60	P	52 53.20	-0.1
	0.8s	12.00nm		4.8mb	
PKI	35.31	61	P	52 53.40	-0.4
GUN	35.81	61	P	52 57.70	-0.3
KBA	45.95	325	eP	54 20.00	-1.0
	0.9s	3.50nm		4.3mb	
			e	54 26.00	

S.D. = 1.4 on 10 of 11 obs.

& FEB 08, 1989 13h 38m 44.74s
61.458 N 142.890 W
DEPTH = 65.5km
SOUTHERN ALASKA (2)
<AGS-P>.

GLB	0.44	268	iP	38 56.71	-0.1
			iS	39 06.35	
CTGM	0.90	123	iP	39 02.30	0.1
			iS	39 16.07	
RAGM	1.38	220	iP	39 08.97	0.5
KLU	1.45	273	iP	39 09.72	0.3
			eS	39 29.57	
SGAM	1.48	231	iP	39 09.93	0.2
CVA	1.67	238	eP	39 12.39	0.2
TOA	1.69	294	iP	39 13.06	0.4
			iS	39 37.08	
VLZ	1.69	260	eP	39 12.23	-0.4
VZW	1.82	259	eP	39 13.91	-0.5
HIN	2.06	240	iP	39 17.37	-0.4
BCPM	2.20	132	iP	39 18.91	-0.8
SML	2.62	280	eP	39 24.62	-1.0
MID	2.66	222	eP	39 26.03	0.0
KNK	2.67	271	eP	39 25.98	-0.4
HYT	2.69	101	P	39 25.60	-1.0
PWL	2.71	260	eP	39 26.54	-0.2
DWY	3.05	30	P	39 29.50	-2.1
PMS	3.22	269	eP	39 35.86	1.8
SEW	3.49	250	eP	39 36.22	-1.5
SLKM	3.70	258	eP	39 39.73	-1.0
FBA	4.11	329	eP	39 43.83	-2.6
INK	7.94	26	eP	40 35.00	-4.7
YKA	13.29	73	P	41 50.70	-1.1

23 obs. associated

& FEB 08, 1989 14h 10m 00.88s
58.181 N 153.425 W
DEPTH = 64.7km
KODIAK ISLAND REGION (13)
<AGS-P>.

KDC	0.66	131	iP	10 14.39	-0.7
			iS	10 24.82	
CDD	0.76	351	iP	10 15.60	-0.8
AUH	1.19	360	iP	10 21.88	0.0
AUL	1.20	360	eP	10 21.85	-0.2
PDB	1.66	346	iP	10 27.21	-1.1
			iS	10 47.83	
CNPM	1.76	39	eP	10 28.59	-1.2
			eS	10 52.80	
ILIM	1.92	7	eP	10 30.97	-1.0
			eS	10 53.83	
NNL	2.17	30	iP	10 34.70	-0.6
RED	2.27	8	eP	10 35.83	-1.0
RDT	2.46	12	iP	10 38.53	-0.9
			eS	11 08.78	
NKA	2.80	23	eP	10 44.20	0.0
SEW	2.81	45	eP	10 41.45	-2.9
SLKM	2.85	34	eP	10 42.64	-2.4
SPU	3.09	12	eP	10 46.90	-1.4
SVW	3.14	340	eP	10 47.83	-1.2
CRP	3.16	11	eP	10 48.42	-1.0
PTE	3.50	38	eP	10 51.28	-2.8
PMS	3.64	31	eP	10 53.77	-2.3
PWL	3.73	42	eP	10 54.42	-2.9
PWA	3.91	26	eP	10 57.99	-1.8
KNK	4.10	36	eP	10 59.31	-3.2
PME	4.10	31	eP	10 59.44	-3.1
GHO	4.25	30	eP	11 01.80	-2.9
SML	4.45	33	eP	11 04.06	-3.3
VZW	4.53	47	eP	11 04.93	-3.6
KLU	5.03	46	eP	11 12.24	-3.5
YKA	19.47	61	P	14 22.90	-1.9

27 obs. associated

? FEB 08, 1989 14h 20m 07.48± 6.29s
49.068 N ±45.7km 6.886 E ±14.0km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
MD 2.2 (STR).

CDF	0.71	158	Pn	20 20.53	-0.9
			Sg	20 33.69	
VITF	1.04	215	Pg	20 26.88	-0.2
			Sg	20 41.74	
MOF	1.23	172	Pg	20 30.94	0.5
			Sg	20 48.52	
BSF	1.24	183	Pg	20 30.88	0.3
			Sg	20 46.01	
FEL	1.41	147	Pg	20 33.65	0.4
			Sg	20 53.30	

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

? FEB 08, 1989 15h 19m 49.15± 1.16s
52.082 N ±29.6km 170.838 W ±11.2km
DEPTH = 33.0km (normal)
4.5mb (1 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

ADK	3.62	269	eP	20 45.00	0.8
			e(S)	21 25.00	
INK	24.09	34	ePc	25 02.60	0.6
YKA	31.11	48	P	26 06.70	0.5
KVN	38.31	88	eP	27 08.50	0.1
FFC	39.64	58	eP	27 19.00	0.0
	0.9s	9.00nm		4.5mb	
BW06	41.34	78	eP	27 39.00	5.6X
FRB	49.73	35	eP	28 39.00	-0.6
GUN	76.06	297	P	31 34.00	-1.4
BUL	144.70	327	iPKPc	39 21.90	-2.2X
	0.7s	3.42nm			

S.D. = 0.9 on 7 of 9 obs.

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* FEB 08, 1989 15h 23m 25.55± 0.81s
6.798 S ± 9.7km 129.049 E ±19.1km
DEPTH = 213.1 ± 11.5 km
4.6mb (9 obs.)
BANDA SEA (280)

AAI	3.21	345	ePc	24 19.00	0.3
KUPT	6.33	238	eP	25 59.50	61.5X
MTN	6.35	161	iP	24 59.20	1.0
			eS	25 59.00	
KNA	8.90	182	iPc	25 31.10	-0.3
	0.3s	31.00nm		5.0mb	
			eS	27 04.00	
WB5	13.99	159	eP	26 35.10	-1.0
			i	26 40.70	
			eS	27 02.00	
WRA	14.04	159	Pc	26 36.10	-0.6
	0.3s	2.70nm		4.1mb	
WB2	14.05	159	eP	26 35.10	-1.7
			i	26 40.70	
			eS	27 02.00	
QIS	17.08	144	iPc	27 14.40	1.1
	0.9s	15.00nm		4.4mb	
			eS	30 20.00	
ASPA	17.41	165	iPc	27 18.40	1.6
	0.4s	59.00nm		5.4mb	
			eS	30 24.90	
WARB	19.41	187	iPc	27 33.20	-4.5X
	0.4s	4.00nm		4.3mb	
NANU	20.38	218	eP	27 48.00	0.6
CTA	21.29	130	eP	28 01.00	4.7X
GUN	54.11	312	P	32 31.30	0.0
	0.5s	16.00nm		4.9mb	
PKI	54.28	311	P	32 32.20	-0.3
	0.5s	5.00nm		4.4mb	
KKN	54.49	311	P	32 33.70	-0.2
	0.5s	5.00nm		4.4mb	
DMN	54.53	311	P	32 34.00	-0.2
GKN	55.09	311	P	32 38.00	-0.1
	0.4s	9.00nm		4.8mb	

S.D. = 1.0 on 14 of 17 obs.

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* FEB 08, 1989 15h 53m 24.35± 0.54s
8.484 S ±11.1km 68.014 E ± 8.6km
DEPTH = 10.0km (geophysicist)
4.5mb (4 obs.)
CHAGOS ARCHIPELAGO REGION (426)

AVY	22.24	240	eP	58 31.00	7.7X
QUE	38.46	359	eP	00 49.00	0.5
DMN	39.51	24	P	00 58.00	0.6
PKI	39.60	25	P	00 58.40	0.2
GKN	39.68	23	P	00 57.80	-0.8
KKN	39.74	24	P	00 58.20	-1.1
GUN	40.10	25	P	01 01.60	-0.7
CHG	40.82	48	eP	01 08.80	0.8
CHTO	40.82	48	eP	01 07.90	-0.1
	1.0s	5.50nm		4.2mb	
MHI	45.26	350	eP	01 44.00	0.0
BNG	50.97	283	ePd	02 28.87	0.2
	0.4s	5.00nm		4.8mb	
BCAO	50.98	283	eP	02 28.20	-0.6
	1.1s	2.94nm		4.1mb	
ASPA	64.59	112	iPc	04 05.20	0.6
	1.6s	14.00nm		4.9mb	
WB2	64.96	108	eP	04 06.50	-0.5
WB5	64.98	108	eP	04 06.50	-0.6
KIC	74.02	279	PKP	05 03.30	0.6
LIC	74.27	279	PKP	05 02.80	-1.4
KHC	74.49	326	eP	05 13.30	8.5X
CLL	76.00	328	eP	05 14.00	0.7
YKA	126.06	2	PKP	12 30.00	1.9

S.D. = 0.9 on 18 of 20 obs.

FEB 08, 1989 16h 04m 28.67± 0.98s

6.947 S ± 7.7km 154.602 E ± 9.0km
DEPTH = 46.9 ± 9.3 km
5.0mb (7 obs.)
SOLOMON ISLANDS (193)

PAA	1.09	54	iPc	04 48.00	0.1
			eS	05 01.00	
RAB	3.65	318	eP	05 23.00	-1.2
	0.6s	176.00nm			
			eS	06 15.00	
HNR	5.84	115	eP	06 19.00	24.0X
			eS	07 25.00	
PMG	7.77	251	eP	06 23.50	1.6
	0.9s	36.97nm		5.2mb	X
CTA	15.37	211	iPc	08 09.90	5.8X
	0.9s	19.75nm		4.3mb	
QIS	19.85	226	eP	08 58.00	-0.8
BRS	20.41	185	iPd	09 04.50	0.0
WB5	23.47	235	eP	09 35.00	-0.1
WB2	23.51	235	eP	09 35.00	-0.5
WRA	23.52	235	Pc	09 35.80	0.2
	0.9s	7.00nm		4.1mb	
MTN	23.84	254	eP	09 40.00	1.3
ASPA	25.92	228	eP	09 57.00	-1.4
XAN	59.40	316	Pd	14 28.20	-0.8
CHG	60.53	296	eP	14 37.80	0.9
CHTO	60.53	296	eP	14 37.30	0.4
	0.6s	0.42nm		3.7mb	X
CD2	61.49	311	eP	14 43.80	0.5
GTA	68.44	317	Pc	15 28.40	0.2
GUN	74.76	301	P	16 06.30	-0.2
	0.7s	28.00nm		5.3mb	
PKI	75.06	301	P	16 08.20	0.0
	0.6s	9.00nm		4.9mb	
KKN	75.23	301	P	16 08.90	-0.1
	0.7s	19.00nm		5.1mb	
DMN	75.33	301	P	16 10.10	0.4
	0.7s	31.00nm		5.4mb	
GKN	75.84	301	P	16 12.60	0.2
	0.8s	26.00nm		5.2mb	
WMQ	78.52	317	eP	16 27.40	0.5
HYB	78.89	289	eP	16 27.00	-2.2
YKA	96.48	28	P	17 54.80	0.8

S.D. = 0.9 on 23 of 25 obs.

& FEB 08, 1989 16h 29m 52.00s
37.418 N 121.747 W
DEPTH = 6.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.5 (BRK). Felt at San Jose.

MHC	0.11	132	iPc	29 54.60	0.0
			iS	29 56.50	
ARN	0.18	112	iPc	29 55.60	-0.3
GCC	0.44	207	ePc	30 00.30	-0.5
			iS	30 06.80	
PCC	0.51	279	iPc	30 01.80	-0.5
BKS	0.60	320	ePc	30 04.35	0.3
			eS	30 13.95	
			iSg	30 16.30	
BRK	0.61	318	ePc	30 03.80	-0.4
			eS	30 14.00	
ZSP	0.66	323	eP	30 05.80	0.5
			eS	30 16.50	
SAO	0.70	160	iPd	30 05.20	-0.7
			iS	30 14.80	
LLA	1.03	141	ePd	30 10.70	-1.1
PRS	1.13	164	iPc	30 12.00	-1.5
CMB	1.24	60	eP	30 14.80	-0.7
			eS	30 30.60	
KVN	3.30	59	e(P)	30 42.50	-3.0

12 obs. associated

& FEB 08, 1989 17h 06m 47.80s
40.392 N 127.280 W
DEPTH = 5.0km (geophysicist)
4.1mb (1 obs.)
OFF COAST OF NORTHERN CALIFORNIA(34)
<BRK>. ML 4.1 (BRK).

FHC	2.54	80	eP	07 27.80	-2.6
			eS	07 56.50	
WDC	3.62	85	iPc	07 43.20	-2.5
			iS	08 23.80	
LTCM	3.95	91	eP	07 48.00	-2.4
LBFM	4.20	75	eP	07 52.50	-1.6
ORV	4.52	99	ePc	07 54.70	-3.8
ZSP	4.61	120	ePc	07 56.00	-3.7
			eS	08 49.00	
BRK	4.64	121	ePc	07 56.30	-3.9
BKS	4.66	121	eP	07 55.90	-4.6
			eS	08 49.85	
PCC	4.79	126	iPc	07 58.20	-4.1
GCC	5.32	127	ePc	08 05.60	-4.3
MHC	5.35	123	iPc	08 06.50	-3.9
ARN	5.42	122	eP	08 07.00	-4.3
SAO	5.83	127	ePc	08 12.40	-4.6
CMB	5.85	112	e(P)	08 15.70	-1.6
PRS	6.16	129	eP	08 17.20	-4.5
LLA	6.24	125	eP	08 17.80	-5.0
PRI	6.71	127	ePc	08 25.50	-4.1
FRI	6.83	117	e(P)	08 26.20	-4.8
KVN	7.20	98	eP	08 35.50	-1.0
TNP	8.14	103	eP	08 50.00	0.3
PNT	10.44	29	eP	09 20.00	-1.2
	0.6s	5.00nm		5.1mb	X
FFC	22.13	41	eP	11 45.00	-0.7
	0.7s	6.00nm		4.1mb	
YKA	23.41	15	P	12 06.90	8.7

23 obs. associated

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* FEB 08, 1989 18h 10m 07.52± 1.00s
11.601 S ±13.1km 120.436 E ± 8.7km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
SOUTH OF SUMBA ISLAND (292)

TRT	8.61	296	ePc	12 12.90	0.0
			eS	13 45.30	
KNA	9.09	118	eP	12 20.20	0.8
			eS	13 57.00	
MTN	10.53	98	eP	12 45.00	5.7X
			eS	14 31.00	
NANU	11.86	203	eP	12 57.00	-0.4
	0.2s	4.00nm		5.2mb	X
			eS	14 59.00	
MEKA	15.04	187	eP	13 40.00	0.6
	0.3s	9.00nm		4.5mb	
			eS	16 14.00	
WARB	15.64	159	iPc	13 42.60	-4.7X
	0.3s	2.00nm		3.8mb	
			eS	16 25.00	
WB5	15.73	123	eP	13 48.00	-0.4
			eS	16 32.20	
WB2	15.74	124	eP	13 48.00	-0.6
			eS	16 32.20	
ASPA	17.55	135	eP	14 16.00	4.6X
			eS	17 16.00	
MRWA	18.01	193	eP	14 21.00	4.0X
			eS	17 24.00	
COOL	19.20	178	eP	14 35.00	3.5X
			eS	17 51.00	
KLB	20.05	187	eP	14 46.00	5.2X
			eS	18 09.00	
MUN	20.65	190	eP	14 55.00	8.0X
NWAO	21.43	187	eP	15 05.00	10.1X
			eS	18 42.00	

S.D. = 0.7 on 6 of 14 obs.

FEB 08, 1989 19h 58m 45.67± 0.73s
6.958 S ± 5.0km 154.505 E ± 5.4km
DEPTH = 34.1 ± 6.7 km
4.9mb (9 obs.)
SOLOMON ISLANDS (193)

PAA	1.18	56	iPc	59 06.00	0.0
			iS	59 20.00	
RAB	3.60	320	iPd	59 40.70	0.2
	0.6s	240.00nm			
HNR	5.92	115	eP	00 24.00	10.6X
			eS	01 51.00	
PMG	7.67	251	eP	00 38.00	0.0
CTA	15.31	211	iPd	02 27.00	5.9X
	0.9s	19.75nm		4.4mb	
DZM	18.93	144	iPc	03 06.90	0.3
QIS	19.78	225	eP	03 15.00	-1.1
BRS	20.39	184	iPc	03 22.50	0.0
WB5	23.39	235	eP	03 52.50	0.1
WB2	23.43	235	eP	03 52.50	-0.4
WRA	23.44	235	Pc	03 53.30	0.3
	0.7s	5.80nm		4.2mb	
MTN	23.75	254	eP	03 56.00	0.0
ASPA	25.84	228	iPc	04 15.90	0.0
	1.0s	8.00nm		4.3mb	
	Z 17s	0.64um		4.2MszX	
		LR	14 33.70		
WHN	53.58	316	P	08 05.60	-0.2
PPI	54.34	274	e(P)	08 08.00	-3.7X
TIY	59.26	322	eP	08 45.70	-0.7
XAN	59.34	316	Pc	08 45.80	-1.2
CHG	60.45	296	eP	09 06.70	11.9X
CHTO	60.45	296	eP	08 55.70	0.9
			e	09 06.50	
CD2	61.42	311	eP	09 01.50	0.2
LZH	63.95	316	eP	09 18.00	-0.1
	1.0s	0.04nm		2.4mb	X
GTA	68.38	317	Pc	09 46.00	-0.3
GUN	74.68	301	P	10 24.60	0.1
	0.8s	37.00nm		5.4mb	
PKI	74.99	301	P	10 26.20	-0.1
	0.7s	12.00nm		5.0mb	
KKN	75.16	301	P	10 27.00	-0.1
	0.7s	20.00nm		5.2mb	
DMN	75.26	301	P	10 27.90	0.2
	0.7s	32.00nm		5.4mb	
GKN	75.76	301	P	10 29.60	-0.9
	0.8s	30.00nm		5.3mb	
WMQ	78.47	317	P	10 45.50	0.4
GBA	79.17	285	Pd	10 50.00	0.7
	0.8s	3.80nm		4.4mb	
KSH	85.60	310	eP	11 24.50	2.2
INK	89.86	21	eP	11 41.00	-1.0
YKA	96.53	28	P	12 12.60	-0.2
NAO	119.79	340	PKP	17 33.00	-0.7
	0.7s	1.70nm			
CLL	125.55	331	iPKP	17 45.40	0.4
KHC	126.65	329	PKP	17 48.00	0.7
ITA	145.30	148	e(PKP)	18 23.00	0.2
			e	18 28.20	
ITA	145.30	148	ePKP	18 28.20	5.4X
BMA	145.33	149	ePKP	18 13.40	-9.1X

S.D. = 0.7 on 32 of 38 obs.

FEB 08, 1989 20h 55m 14.17± 0.70s
62.990 N ± 8.8km 149.415 W ± 8.4km
DEPTH = 72.6 ± 26.4 km
CENTRAL ALASKA (1)

PWA	1.36	189	ePc	55 38.10	0.4
PMR	1.41	174	ePc	55 38.50	0.1
TOA	1.75	119	eP	55 43.70	0.7
PMS	1.75	182	ePd	55 43.00	-0.1
FBA	2.05	20	iPd	55 47.70	0.6
TTA	3.01	272	iPc	56 01.20	0.6
SVW	3.48	240	eP	56 07.10	0.0
DWY	4.60	72	P	56 21.50	-1.2
KDC	5.48	198	eP	56 33.50	-1.4
INK	8.44	44	eP	57 14.00	-1.9
YKA	15.84	76	P	58 55.80	2.1

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

FEB 08, 1989 21h 35m 39.44± 1.35s
43.381 N ±10.0km 5.431 E ± 7.2km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.8 (STR).

GELF	0.00	321	Pg	35 41.05	-0.3
TREF	0.25	352	Pg	35 43.60	-1.1
PUYF	0.25	52	Pg	35 43.64	-1.1
PRAF	0.46	336	Pg	35 48.75	-0.1
TAVF	0.51	62	Pg	35 49.30	-0.6
VILF	0.51	24	Pg	35 48.81	-1.1
GANF	0.71	29	Pg	35 53.34	-0.1
CALN	1.12	70	Pg	36 00.95	0.3
MVIF	1.35	67	Pn	36 04.55	0.1
			Sg	36 23.33	
TOUF	1.46	64	Pn	36 06.30	0.2
AURF	1.47	69	Pn	36 06.06	0.0
			Sg	36 26.37	
FOUF	1.51	40	P	36 07.35	0.9
			Sg	36 28.05	
AUTN	1.57	66	Pn	36 07.86	0.2
			Sg	36 30.22	
SAOF	1.66	68	Pn	36 08.68	0.0
DOI	1.73	49	P	36 10.20	0.5
			eSn	36 33.10	
BNI	1.90	28	P	36 14.70	2.4
			eSn	36 39.60	
CKI	2.31	62	P	36 18.50	0.4

08d 21h

			eSn	36	50.10	
CVF	2.65	107	Pn	36	21.79	-1.2
S.D. = 0.9			on	18 of	18 obs.	

& FEB 08, 1989 23h 34m 03.19s
59.802 N 153.268 W
DEPTH = 120.5km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.32	29	iP	34	20.00	1.0
			iS	34	33.82	
RDT	0.89	29	iP	34	23.77	-0.8
			iS	34	39.21	
NNL	1.02	76	iP	34	26.13	0.4
			iS	34	43.36	
CNPM	1.07	104	iP	34	25.52	-0.8
			iS	34	42.22	
NKA	1.38	46	iP	34	30.48	0.8
SPU	1.51	23	iP	34	30.12	-1.1
			iS	34	52.06	
CRP	1.57	20	iP	34	31.29	-0.7
SLKM	1.68	64	eP	34	31.72	-1.5
SVW	1.75	319	iPd	34	31.90	-2.2
SEW	1.95	79	iP	34	35.06	-1.3
			iS	34	59.59	
KDC	2.10	169	iPc	34	35.90	-2.4
PMS	2.34	50	iP	34	39.99	-1.5
PTE	2.36	61	eP	34	39.71	-2.0
PWA	2.49	40	eP	34	41.40	-2.0
PWL	2.67	64	iP	34	43.48	-2.4
			eS	35	14.84	
PLRM	2.71	47	eP	34	43.52	-2.8
PMR	2.71	47	eP	34	43.50	-2.8
PME	2.77	47	eP	34	44.51	-2.6
			eS	35	17.19	
KNK	2.87	54	iP	34	45.89	-2.6
GHO	2.91	45	iP	34	46.31	-2.7
SML	3.15	48	iP	34	49.33	-2.8
TTA	3.41	338	eP	34	53.19	-2.5
HIN	3.44	77	eP	34	54.29	-1.8
MID	3.54	93	eP	34	55.75	-1.6
VZW	3.56	66	eP	34	54.62	-3.1
VLZ	3.68	66	eP	34	57.22	-2.1
CVA	3.83	76	eP	34	59.07	-2.2
KLU	4.00	62	iP	35	00.83	-2.8
SGAM	4.09	77	eP	35	02.35	-2.5
			eS	35	45.86	
TOA	4.16	53	eP	35	03.70	-2.1
RAGM	4.34	79	eP	35	06.38	-1.9
GLB	4.94	66	eP	35	13.61	-2.8
FBA	5.71	24	eP	35	23.50	-3.4
CTGM	6.03	74	eP	35	30.32	-1.2
IMA	6.29	358	eP	35	32.90	-2.1
HYT	7.89	76	P	35	55.00	-1.8
INK	12.08	37	eP	36	50.00	-2.2
YKA	18.66	65	P	38	13.20	-0.8

38 obs. associated

FEB 08, 1989 23h 46m 41.44± 0.19s
55.623 S ± 5.8km 26.795 W ± 5.2km
DEPTH = 23.7km (3 depth phases)
5.5mb (15 obs.) 5.6Msz (9 obs.)
SOUTH SANDWICH ISLANDS REGION (153)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 26C
Centroid Location:
Origin Time 23:46:47.2 0.4
Lat 55.41S 0.03 Lon 26.46W 0.10
Dep 15.0 FIX Half-duration 2.8
Moment Tensor; Scale 10**17 Nm
Mrr= 3.93 0.10 Mtt=-2.48 0.13
Mff=-1.45 0.12 Mrt=-1.18 0.37
Mrf= 0.58 0.37 Mtf= 2.93 0.13
Principal Axes:

T	Val= 4.14	Plg=80	Azm=185
N	0.98	6	309
P	-5.12	8	40

Best Double Couple:Mo=4.6*10**17
NP1:Strike=136 Dip=37 Slip= 99
NP2: 305 53 83

AIA	20.52	227	eP	51	21.20	1.1
SYO	31.75	141	iP	53	05.10	-0.1
SPA	34.56	180	iPc	53	30.50	0.5
	1.1s	136.90nm				5.8mb
BMA	35.32	332	iPd	53	38.40	1.7
			e	53	51.30	48kmX
ITA	35.78	331	iPd	53	42.40	1.6
TACH	37.46	287	eP	53	54.00	-0.5
SAN	37.46	288	eP	53	54.50	-0.1
LNV	37.49	286	eP	53	53.50	-1.2
PEL	37.71	288	iPc	53	56.10	-0.6
CER	38.74	74	iPd	54	20.00	14.7X
	1.0s	30.00nm				
SUR	40.31	75	iPc	54	20.50	1.9
	0.7s	27.40nm			5.1mb	
Z	18s	4.81um			5.4Msz	
MAW	40.36	144	eP	54	19.00	0.7
	0.9s	86.00nm			5.5mb	
HJA	43.07	303	ePc	54	41.10	0.2
FRS	44.81	77	iPd	54	56.50	1.6
	0.6s	20.00nm			5.2mb	
BLF	45.78	77	iPd	55	04.00	1.1
			i	56	41.00	520kmX
SBA	46.52	184	Pd	55	09.40	1.4
CGY	48.04	75	eP	55	15.50	-5.0X
	0.7s	51.37nm			5.7mb	
PRY	48.19	77	eP	55	20.00	-1.9
	0.9s	23.08nm			5.2mb	X
			i	55	33.70	51kmX
CCH	48.44	306	P	55	24.70	0.6
BPI	49.08	76	iPd	55	28.00	-0.8
	1.0s	50.00nm			5.5mb	
SLR	49.57	76	iPc	55	32.20	-0.3
	1.1s	31.65nm			5.3mb	
Z	20s	12.77um			5.9Msz	
CNCB	49.79	304	iPc	55	35.30	0.5
LPB	50.09	304	Pc	55	38.00	1.1
	1.1s	227.85nm			6.1mb	
Z	20s	2.13um			5.1Msz	
			LR	11	44.00	
ZOBO	50.33	305	iPc	55	38.30	-0.6
			S	00	12.00	
			LR	11	52.00	
ARE	51.77	301	iP	55	49.70	0.2
BUL	54.23	72	iPd	56	06.80	-0.8
	1.0s	37.50nm			5.4mb	
ATB	56.06	329	Pc	56	20.50	-0.1
KMZ	58.31	65	iPc	56	36.00	-0.8
			i	56	43.10	23km
			i	57	49.20	
PTZ	60.54	71	iPd	56	52.00	-0.2
			i	56	58.80	22km
			i	57	44.00	
			i	58	14.20	
LIC	64.21	24	P	57	15.86	-0.6
KIC	64.41	24	P	57	17.10	-0.6
	1.0s	51.00nm			5.6mb	
TIC	64.62	24	P	57	18.54	-0.5
	0.9s	47.00nm			5.6mb	
LEGH	64.90	29	eP	57	21.50	0.6
SHGH	65.21	30	eP	57	23.50	0.7
KOGH	65.30	29	eP	57	24.00	0.5
AVY	65.88	88	iPd	57	30.00	2.5
BCAO	70.47	49	iP	57	55.20	-0.6
	0.6s	10.80nm			5.2mb	
			pP	58	03.20	26km
BNG	70.47	49	iPc	57	55.60	-0.3
	0.7s	35.00nm			5.6mb	X
			ic	58	10.10	51kmX
			id	58	24.00	
CEOS	73.08	317	eP	58	11.50	0.0
UAV	73.82	314	eP	58	16.40	0.5
SDV	73.86	315	eP	58	16.60	0.5
CAR	73.90	319	eP	58	13.00	-3.2X
NAI	74.32	68	eP	58	23.00	4.1X
TOV	74.35	316	eP	58	18.80	0.0
MORO	74.76	318	eP	58	21.50	0.3
PAG	77.21	326	eP	58	32.00	-2.9
SEG	77.50	326	eP	58	37.00	0.6
TAU	81.71	176	Pd	58	58.00	-0.8
KRP	84.89	198	P	59	14.10	-1.0
NWAO	86.59	150	eP	59	23.00	-0.7
TIO	87.81	17	iP	59	33.40	3.9X
KLB	88.00	150	eP	59	31.00	0.5
BAL	88.62	149	eP	59	33.00	-0.6
ADE	88.92	168	eP	59	33.00	-2.0
	0.9s	45.38nm			5.8mb	
CAN	89.35	177	eP	59	37.70	0.7
COOL	89.58	153	eP	59	38.00	-0.1
BWA	90.22	176	eP	59	38.20	-2.9
IFR	90.70	18	iPd	59	47.50	4.4X
ASPA	99.33	162	iPd	00	25.40	2.5
	0.9s	20.00nm				5.7mb
			ePP	04	26.00	
WRA	103.05	162	Pdiff	00	40.00	0.6
	0.8s	2.00nm				4.9mb
WB2	103.05	162	ePdiff	00	39.30	-0.1
WB5	103.11	162	ePdiff	00	39.30	-0.4
RSNY	107.64	326	PKP	05	00.00	-7.1X
Z	20s	2.26um				5.7Msz
G8A	109.15	94	PKP	05	10.00	-0.7
KHC	109.70	27	ePKP	05	24.40	13.5X
MLR	110.11	37	ePKP	05	10.00	-1.9
VRI	110.70	37	ePKP	05	13.00	0.2
ALQ	112.70	299	e(PKP)	05	15.00	-2.2
HYB	112.85	92	ePKP	05	17.50	-0.3
QUE	116.37	75	ePKP	05	25.50	1.1
MHI	117.11	65	ePKP	05	26.00	0.4
DAU	119.34	299	PKP	05	31.00	1.0
HFS	119.81	22	ePKP	05	27.90	-1.8
	0.4s	0.80nm				
Z	20s	0.00um				2.4MszX
			LR	49	37.00	
NAO	119.85	20	PKP	05	29.80	0.0
	1.0s	11.60nm				
TNP	120.61	294	PKP	05	33.00	0.7
FRI	121.10	291	e(PKP)	05	33.60	0.7
KVN	121.79	294	PKP	05	34.80	0.3
CMB	122.23	291	ePKPc	05	35.90	0.7
FRB	123.33	339	ePKP	05	36.00	-0.3
BGMT	123.33	303	ePKP	05	37.50	0.2
CCMT	123.50	302	ePKP	05	38.60	1.0
ORV	123.94	292	e(PKP)	05	39.50	1.1
BDT	124.04	111	ePKP	05	37.30	-1.8
SUF	124.99	27	iPKP	05	39.40	-0.2
WDC	125.23	292	ePKPc	05	40.80	0.0
			e	05	54.20	
LBFM	125.44	293	PKP	05	42.20	0.7
FFC	125.92	316	ePKP	05	41.00	-0.7
	1.2s	21.00nm				
GDH	126.08	349	iPKPc	05	40.10	-1.5
	0.8s	26.87nm				
SES	126.61	308	ePKP	05	32.00	-11.3X
KJF	126.61	26	iPKP	05	43.00	0.3
	0.9s	22.00nm				
KSH	128.20	74	PKP	05	49.00	2.3X
LON	129.20	298	PKP	05	49.00	0.7
EDM	129.61	309	ePKP	05	47.50	-1.4
PNT	129.87	302	ePKP	05	50.00	0.5
DAG	132.23	2	iPKPd	05	52.40	-0.7
	0.9s	22.69nm				
KMI	132.46	109	PKPc	05	57.00	1.6
			sPKP	06	14.50	
GYA	135.62	112	PKP	06	01.00	-0.2
YKA	136.00	318	PKP	05	46.30	-14.3X
WMQ	137.60	78	ePKP	05	56.50	-7.9X
LZH	141.46	99	ePKP	06	06.00	-5.8X
GTA	141.52	92	ePKP	06	06.20	-5.5X
Z	20s	0.80um				5.5Msz
E	19s	0.90um				
			PP	09	15.00	
XAN	142.76	107	PKPc	06	11.10	-2.8X
WHN	142.89	116	ePKP	06	11.00	-3.1X
MBC	143.68	336	ePKP	06	11.00	-3.1X
	1.0s	59.00nm				
INK	145.61	321	ePKP	06	16.00	-1.6
	1.1s	32.00nm				
NJ2	146.37	120	PKPc	06	22.00	2.0X
SSE	146.70	124	PKP	06	22.00	1.5
Z	18s	1.40um				5.8Msz
N	18s	1.40um				
			ePP	09	57.00	
TIY	147.39	106	PKP	06	22.20	0.6
N	20s	2.00um				
BTO	148.08	100	iPKPc	06	25.00	2.4X
TIA	148.78	113	ePKP	06	24.10	0.4
TOA	149.05	307	ePKP	06	29.20	5.7X
HHC	149.11	101	ePKP	06	23.70	-0.6
PMR	150.27	305	PKP	06	22.50	-2.6X
Z	18s	1.43um				5.8Msz
FBA	150.40	312	PKP	06	22.20	-3.1X
KDC	150.76	297	PKP	06	21.90	-4.1X
BJI	151.09	107	ePKP	06	27.50	0.4
Z	20s	0.60um				5.4Msz
IMA	152.97	314	PKP	06	26.70	-2.5X
TTA	153.69	307	ePKP	06	38.80	8.6X
CN2	158.67	112	PKP	06	36.50	-0.6
Z	20s	0.60um				5.4Msz

```
                  e      07 11.00
MDJ   161.38 116 PKPd  06 40.00   0.1
     S.D. = 1.1  on  95 of 120 obs.
-----------------------------------------
   FEB  09, 1989  01h 14m 17.07± 0.79s
   39.385 N ± 7.4km     0.363 E ± 7.6km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                                (377)
      MG 3.2 (MDD).

ECHE     1.05 282 eP     14 37.70   0.8
ACU      1.06 215 iP     14 37.30   0.2
                 eS     14 50.30
EROQ     1.44   1 iPc    14 44.00   0.9
                 eS     15 03.50
ESEL     1.99  78 iP     14 51.60   0.4
EVIA     2.35 252 eP     14 55.70  -0.8
EBAN     3.46 251 eP     15 22.00   9.9X
                 eS     16 01.00
EPF      3.64 360 Pn     15 16.40   1.7
                 Pg     15 28.00
                 Sn     15 56.60
                 Sg     16 14.20
GUD      3.69 291 eP     15 15.20  -0.3
                 eS     15 56.00
ECRI     3.89 327 iP     15 37.00  18.8X
                 eS     16 22.00
LPO      5.33   6 Pn     15 38.70   0.1
LFF      5.56   3 Pn     15 41.70  -0.1
CAF      5.68  12 Pn     15 43.40  -0.1
LMR      6.08  48 Pn     15 55.00   5.9X
                 Sn     17 02.00
LSF      6.91   7 Pn     15 59.70  -1.2
TCF      7.03  11 Pn     16 01.00  -1.5
LPF      8.70 354 Pn     16 21.40  -4.4X
     S.D. = 1.0  on  12 of  16 obs.
-----------------------------------------
*  FEB  09, 1989  02h 06m 39.43± 0.45s
   55.748 S ±12.1km    26.818 W ± 8.4km
   DEPTH =  25.7km  (  6 depth phases)
   5.3mb ( 12 obs.) 5.0Msz (  2 obs.)
 SOUTH SANDWICH ISLANDS REGION    (153)
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 12S, 23C
      Centroid Location:
      Origin Time        02:06:45.4 0.5
      Lat 55.63S 0.04 Lon  26.14W 0.13
      Dep  20.1 2.9 Half-duration  2.3
      Moment Tensor;   Scale 10**17 Nm
        Mrr= 2.27 0.09  Mtt=-1.29 0.12
        Mff=-0.98 0.09  Mrt=-0.48 0.24
        Mrf= 0.15 0.27  Mtf= 1.42 0.12
       Principal Axes:
        T  Val=  2.33  Plg=82  Azm=175
        N        0.27       6      311
        P       -2.60       5       42
       Best Double Couple:Mo=2.5*10**17
        NP1:Strike=138 Dip=40 Slip=  99
        NP2:       306      51       83

SPA      34.43 180 e(P)  13 22.50  -4.1X
         1.1s    47.62nm          5.3mb
BMA      35.43 332 eP    13 36.50   1.2
                 e      13 44.80  28km
ITA      35.88 331 eP    13 40.50   1.1
                 e      13 50.10  32km
PEL      37.74 288 iPc   13 53.40  -1.2
MAW      40.27 144 eP    14 14.00  -1.2
SUR      40.36  75 eP    14 25.00   8.4X
         0.6s    26.67nm          5.1mb
GRM      42.84  81 eP    14 40.50   3.7X
         0.6s    17.33nm          5.0mb
FRS      44.85  77 iPc   14 57.50   4.5X
         0.9s    21.01nm          5.1mb
BLF      45.82  77 eP    15 02.30   1.4
CGY      48.08  75 eP    15 13.50  -5.1X
         0.7s    23.97nm          5.3mb
PRY      48.23  76 eP    15 09.00 -10.9X
         1.1s    27.03nm
                 i      15 36.20 116kmX
CCH      48.50 306 P     15 22.30   0.0
BPI      49.13  76 eP    15 25.50  -1.4
         0.8s    37.31nm          5.5mb
SLR      49.61  76 eP    15 33.00   2.5
         1.0s    20.00nm          5.1mb
CNCB     49.85 304 iPc   15 33.00   0.1
                 S      24 47.00
LPB      50.15 304 P     15 35.80   0.8
         1.2s   218.75nm          6.0mb
       Z  20s     0.71um          4.7Msz
                 S      22 48.00
                 PS     24 50.00
                 LR     31 42.00
ZOBO     50.39 305 iPc   15 36.00  -1.0
                 S      22 53.00
                 LR     31 52.00
ARE      51.82 301 iPc   15 47.40  -0.2
         0.5s    33.10nm          5.5mb
BUL      54.28  72 iPd   16 04.10  -1.5
ATB      56.16 329 e(P)  16 17.40  -1.7
KMZ      58.37  65 iPd   16 34.00  -0.9
                 i      16 42.00  26km
                 i      16 49.80
                 i      17 29.30
PTZ      60.59  71 iP    16 49.30  -0.9
                 i      16 55.30  20km
                 i      17 05.80
                 i      17 34.50
LIC      64.33  24 P     17 13.98  -0.9
KIC      64.53  24 Pc    17 15.10  -1.1
TIC      64.74  24 P     17 16.46  -1.1
LEGH     65.02  29 eP    17 21.00   1.7
SHGH     65.32  30 eP    17 23.00   1.7
KOGH     65.42  29 eP    17 23.50   1.5
BCAO     70.56  49 eP    17 53.00  -1.1
         0.7s    5.24nm          4.8mb
                 pP     18 00.10  23km
BNG      70.57  49 ePd   17 53.00  -1.1
         0.4s   13.00nm          5.4mb
                 id     18 01.00  26km
                 ic     18 23.30
                 ic     18 38.80
PAG      77.30 326 eP    18 30.00  -3.1X
TAU      81.59 176 eP    18 57.00   1.1
TIO      87.93  17 iP    19 34.50   6.7X
IFR      90.82  18 iPd   19 46.50   5.1X
ASPA     99.21 162 iPc   20 22.70   2.6X
         0.8s   10.00nm          5.4mb
WRA     102.93 162 Pdiff 20 17.00 -19.5X
FRB     123.44 339 ePKP  25 33.00  -1.2
DMN     124.58  91 PKP   25 37.90  -0.1
GKN     124.62  90 PKP   25 37.60  -0.3
         0.8s   16.00nm
PKI     124.72  91 PKP   25 37.90  -0.4
         0.9s   16.00nm
KKN     124.82  91 PKP   25 38.10  -0.3
         0.8s   12.00nm
SUF     125.11  27 ePKP  25 37.00  -0.5
GUN     125.25  91 PKP   25 39.50   0.1
         0.7s   14.00nm
KJF     126.73  26 ePKP  25 42.00   1.4
SOD     129.07  24 iPKP  25 45.00   0.0
EDM     129.68 309 ePKP  25 44.00  -2.7X
PNT     129.92 302 ePKP  25 48.00   0.8
YKA     136.08 318 PKP   25 46.20 -12.3X
WMQ     137.64  78 ePKP  26 03.50   1.3
GTA     141.53  92 ePKP  26 06.20  -3.2X
       Z  20s     0.60um          5.3Msz
XAN     142.73 107 ePKP  26 08.10  -3.4X
MBC     143.79 336 ePKP  26 09.00  -3.0X
         0.7s   10.00nm
SSE     146.64 124 ePKP  26 19.80   1.7
TIY     147.37 106 iPKPd 26 21.80   2.6X
       N  21s     1.70um
                 sPKP   26 35.00
BTO     148.07 100 PKP   26 23.50   3.2X
TIA     148.74 113 ePKP  26 24.70   3.3X
HHC     149.10 101 ePKP  26 26.70   4.8X
TOA     149.12 307 ePKP  26 25.80   4.6X
PMR     150.33 305 PKP   26 27.50   4.6X
         0.8s   12.07nm
PMS     150.44 304 ePKP  26 28.50   5.3X
FBA     150.47 312 ePKP  26 27.70   4.6X
         1.0s   28.80nm
KDC     150.81 297 ePKP  26 29.50   5.8X
BJI     151.06 107 ePKP  26 30.50   5.8X
IMA     153.05 314 ePKP  26 34.30   7.3X
TTA     153.75 307 ePKP  26 36.30   8.3X
     S.D. = 1.2  on  37 of  65 obs.
-----------------------------------------
*  FEB  09, 1989  02h 15m 53.12± 0.59s
   55.795 S ±14.1km    26.527 W ±10.2km
   DEPTH =  19.8km  (  3 depth phases)
   5.3mb (  9 obs.) 5.7Msz (  1 obs.)
 SOUTH SANDWICH ISLANDS REGION    (153)

BMA      35.55 331 e(P)  22 53.00   2.2
ITA      36.00 331 eP    22 54.30  -0.6
FRS      44.70  76 iPc   24 07.50   1.2
         0.3s    15.58nm          5.4mb
CGY      47.94  75 eP    24 28.00  -3.9X
         0.5s    17.61nm          5.4mb
PRY      48.08  76 eP    24 32.20  -1.1
BPI      48.98  76 eP    24 40.50   0.3
         0.6s    20.00nm          5.3mb
SLR      49.46  76 iPc   24 50.00   6.1X
         1.0s    15.00nm          5.0mb
       Z  18s     7.56um          5.7Msz
BUL      54.14  72 iPd   25 19.10   0.0
         1.1s    25.32nm          5.2mb
KMZ      58.24  65 iPc   25 48.50   0.0
PTZ      60.45  71 iPc   26 04.50   0.7
                 i      26 10.50  20km
                 i      26 39.30
LIC      64.31  24 Pc    26 28.80  -0.5
KIC      64.51  24 Pc    26 29.90  -0.7
         1.2s    45.00nm          5.5mb
TIC      64.72  24 Pc    26 31.20  -0.7
         1.2s    45.00nm          5.5mb
SHGH     65.28  29 eP    26 36.00   0.4
KOGH     65.38  29 eP    26 36.00  -0.2
BCAO     70.47  48 eP    27 07.90  -0.2
         0.9s    4.05nm           4.6mb
                 pP     27 14.20  20km
BNG      70.47  49 iPc   27 08.00  -0.1
         0.7s    9.00nm           5.0mb
                 id     27 14.10  20km
MEM     109.43  21 ePKP  34 24.70   2.2X
FRB     123.54 339 ePKP  34 48.00  -1.0
DMN     124.42  91 PKP   34 52.70   0.4
GKN     124.45  90 PKP   34 52.30   0.1
PKI     124.56  91 PKP   34 52.70   0.1
KKN     124.65  91 PKP   34 52.80   0.1
GUN     125.08  91 PKP   34 54.20   0.5
         0.8s   12.00nm
YKA     136.23 318 PKP   35 12.60  -0.7
MBC     143.90 336 ePKP  35 24.00  -2.8X
INK     145.84 321 ePKP  35 30.00  -0.3
     S.D. = 0.8  on  23 of  27 obs.
-----------------------------------------
*  FEB  09, 1989  02h 26m 31.28± 1.69s
   41.782 N ± 9.7km   22.645 E ±14.5km
   DEPTH =  10.0km  (geophysicist)
 YUGOSLAVIA                           (383)
      ML 1.8 (SKO).

KKB      0.34  75 iPg   26 37.00  -1.3
VAY      0.46 187 iPg   26 40.40  -0.3
                 iSg    26 47.30
MMB      0.83 103 iPg   26 48.00   0.6
VTS      0.91  27 iP    26 49.00   0.2
                 iSg    26 59.00
RZN      1.55  93 iP    27 00.00   0.8
     S.D. = 1.2  on   5 of   5 obs.
-----------------------------------------
*  FEB  09, 1989  02h 30m 58.79± 1.54s
   51.237 N ±15.5km   15.726 E ± 8.8km
   DEPTH =  10.0km  (geophysicist)
 POLAND                               (548)
      ML 3.9 (VKA), 3.6 (KBA).

KSP      0.53 138 iPd   31 07.20  -2.4
         0.6s   211.00nm
                 iS     31 16.70
                 i      31 24.00
PRU      1.46 212 Pn     31 25.70   0.5
                 Pg     31 27.50
                 Sn     31 44.00
                 Sg     31 53.50
CLL      1.71 274 ePn    31 27.00  -1.8
                 iPg    31 31.00
                 iSg    31 56.50
KHC      2.52 214 iPn    31 41.50   1.0
                 Pg     31 47.50
                 Sn     32 17.30
                 Sg     32 26.40
MOX      2.67 259 ePn    31 44.00   1.4
                 ePg    31 50.00
                 iSg    32 29.00
KRA      2.93 112 eP     31 48.40   2.2
```

09d 02h

		iS	32 24.40		
VKA	3.00	172	ePn	31 46.50	-0.7
			iPgd	31 54.80	
			iSg	32 37.70	
			i	32 39.90	
ZST	3.17	163	ePn	31 56.80	7.1X
			e	32 29.70	
			e	32 41.90	
GRF	3.27	244	ePn	31 51.00	-0.1
			eSg	32 50.00	
SPC	3.55	123	ePn	32 01.80	6.5X
			e(Sn)	32 47.50	
SOP	3.60	171	eP	32 08.20	12.5X
SRO	3.82	153	eP	32 44.60	45.7X
			e	32 51.60	
			e	33 11.30	
			e	33 33.30	
KBA	4.45	201	ePn	32 07.50	-0.4
			iSg	33 24.00	
			i	33 29.00	
TNS	4.73	260	eP	32 11.30	-0.6
			eS	33 34.90	
RBL	5.01	197	P	32 17.00	1.2
			eSn	33 22.00	
WLF	6.31	259	P	32 29.80	-4.3X
DOU	7.17	265	P	32 45.80	-0.3

S.D. = 1.5 on 12 of 17 obs.

FEB 09, 1989 04h 21m 22.88± 0.30s
52.035 N ± 7.1km 169.899 W ± 3.6km
DEPTH = 33.0km (normal)
5.1mb (43 obs.) 4.8Msz (11 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)
ML 5.1 (PMR).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 21C
Centroid Locotion:
Origin Time 04:21:26.8 0.8
Lat 52.38N 0.10 Lon 170.09W 0.12
Dep 18.9 4.5 Half-duration 1.9
Moment Tensor; Scale 10**16 Nm
Mrr= 6.80 0.46 Mtt=-4.30 0.53
Mff=-2.50 0.48 Mrt= 8.02 2.47
Mrf= 6.78 2.16 Mtf=-5.05 0.68
Principal Axes:

	Vol= 12.14	Plg	Azm
T		63	319
N	1.73	0	50
P	-13.87	27	140

Best Double Couple:Mo=1.3*10**17
NP1:Strike=231 Dip=18 Slip= 91
NP2: 50 72 90

ADK	4.20	271	eP	22 25.70	-0.5
SDN	6.49	56	eP	23 00.00	1.5
KDC	11.52	53	eP	24 04.00	-3.9X
TTA	13.19	29	eP	24 35.70	5.4X
PMS	14.44	42	ePd	24 44.60	-2.0
PWA	14.52	41	eP	24 47.40	-0.2
PMR	14.79	42	eP	24 51.00	-0.2
TOA	16.27	42	eP	25 07.80	-2.5
IMA	16.27	24	eP	25 13.70	3.4X
FBA	17.18	33	eP	25 20.20	-1.4
INK	23.81	33	eP	26 31.00	-2.0
YKA	30.71	48	P	27 36.70	0.3
YKC	30.77	48	eP	27 37.00	0.0
	1.0s	30.00nm		5.0mb	
MBC	30.96	21	eP	27 38.00	-0.5
	0.4s	7.00nm		4.8mb	
LON	31.27	80	eP	27 57.00	15.3X
PNT	31.47	75	eP	27 47.00	3.7X
DPW	32.94	76	eP	27 56.50	0.3
EDM	33.58	65	iPc	28 01.90	0.2
WDC	34.08	91	ePd	28 08.90	2.8X
SES	36.03	69	eP	28 22.00	-0.7
LRM	37.39	76	eP	28 34.40	0.1
KVN	37.73	89	eP	28 38.50	1.2
TNP	38.87	90	eP	28 48.00	1.1
FFC	39.17	58	eP	28 48.50	-0.4
	0.8s	14.00nm		4.8mb	
MAT	39.36	268	eP	28 50.00	-0.7
	1.2s	39.06nm		5.0mb	
Z	20s	1.06um		4.7Msz	
		eS	34 52.00		
BW06	40.78	78	eP	29 02.20	-0.4
	0.9s	17.74nm		4.8mb	
ALE	40.97	11	eP	29 03.00	-0.4

	0.9s	14.00nm		4.7mb	
CN2	42.79	286	Pc	29 18.60	-0.1
Z	19s	1.50um		4.9Msz	
E	16s	1.00um			
		epP	29 30.60	44kmX	
RW1	44.57	83	eP	29 34.10	0.5
SNY	45.06	284	Pd	29 37.00	-0.1
GOL	45.15	79	eP	29 38.00	-0.2
	0.9s	3.79nm		4.3mb	
Z	20s	0.90um		4.7Msz	
RSON	45.44	60	eP	29 39.00	-1.0
	0.8s	18.66nm		5.0mb	
ALQ	47.52	85	eP	29 56.00	-0.9
	1.0s	10.50nm		4.8mb	
FRB	49.44	35	eP	30 10.00	-1.0
DAG	50.16	8	iPd	30 15.10	-1.3
	0.9s	39.50nm		5.4mb	
BJI	50.56	287	eP	30 20.00	0.0
Z	16s	1.20um		5.0MszX	
		eS	37 32.00		
TIA	52.50	283	eP	30 33.70	-1.0
HHC	52.74	291	P	30 36.60	0.0
Z	18s	1.20um		5.0Msz	
SSE	53.50	275	eP	30 41.20	-0.9
Z	20s	0.50um		4.6Msz	
		eS	38 20.00		
BTO	53.79	292	P	30 43.50	-0.8
Z	17s	1.90um		5.2MszX	
N	17s	1.00um			
E	17s	1.20um			
		epP	30 51.50	26kmX	
TIY	54.29	287	eP	30 48.10	0.1
Z	18s	1.50um		5.1Msz	
E	17s	1.40um			
FVM	55.17	71	eP	30 55.00	0.7
	1.0s	11.00nm		4.8mb	
SCH	55.93	43	eP	30 59.00	-0.6
WHN	58.07	280	eP	31 13.60	-1.4
Z	20s	0.64um		4.7Msz	
GAC	58.16	55	eP	31 14.50	-0.9
XAN	58.88	287	Pc	31 19.60	-1.1
GTA	60.34	297	P	31 29.30	-1.5
Z	19s	1.90um		5.3Msz	
E	17s	1.60um			
LZH	60.41	292	eP	31 31.50	0.1
	1.5s	0.07nm		2.5mb X	
Z	16s	0.80um		5.0MszX	
BLA	61.44	65	eP	31 37.10	-1.1
	0.8s	25.46nm		5.4mb	
CVL	61.99	63	eP	31 41.00	-0.8
JSC	63.06	68	eP	31 47.50	-1.4
KJF	63.29	351	iP	31 49.00	-1.1
	1.0s	32.00nm		5.4mb	
WMQ	63.48	308	P	31 51.30	-0.4
CD2	64.16	288	eP	31 55.10	-1.2
Z	20s	0.60um		4.8Msz	
SUF	64.89	352	iP	31 59.40	-1.1
GYA	65.68	282	P	32 05.60	-0.6
STJ	67.19	41	eP	32 15.50	0.1
NRA0	67.58	359	P	32 16.40	-1.2
HFS	68.15	358	eP	32 19.50	-1.7
	0.5s	11.50nm		5.2mb	
Z	21s	0.89um		5.0Msz	
		LR	01 26.00		
UPP	68.30	356	iP	32 21.10	-1.0
KMI	69.03	284	Pd	32 27.50	0.0
Z	20s	0.60um		4.8Msz	
LSA	72.30	296	P	32 48.20	0.7
WTS	76.31	2	eP	33 10.00	0.4
	1.0s	11.00nm		4.8mb	
GUN	76.59	298	P	33 12.20	0.1
CLL	77.00	358	eP	33 14.00	0.5
KKN	77.01	298	P	33 14.20	-0.1
	0.6s	14.00nm		5.2mb	
PKI	77.12	298	P	33 14.70	-0.3
GKN	77.20	299	P	33 15.10	-0.1
	0.8s	30.00nm		5.4mb	
DMN	77.25	298	P	33 15.50	-0.1
KSP	77.36	356	eP	33 16.50	1.0
		e	33 28.70		
ENN	77.51	3	eP	33 17.50	1.2
	1.0s	24.00nm		5.2mb	
MEM	77.67	3	P	33 17.80	0.7
MOX	77.69	359	ePc	33 18.00	0.7
	1.8s	35.00nm		5.1mb	
KRA	77.94	354	eP	33 19.00	0.3
DOU	78.14	4	P	33 23.50	3.8X

PRU	78.28	357	eP	33 21.40	0.8
			e	33 34.00	
GRF	78.65	359	eP	33 24.60	2.0
	1.5s	37.00nm		5.2mb	
SPC	78.78	353	eP	33 25.10	1.5
KHC	79.17	358	iPc	33 27.10	1.6
	1.3s	18.00nm		4.9mb	
		e	33 39.00		
LDF	79.37	7	eP	33 26.00	-0.5
CDF	79.90	2	eP	33 29.90	0.4
ZST	79.97	355	iP	33 43.10	13.4X
SRO	80.28	354	eP	33 33.30	1.9
HAU	80.29	3	eP	33 31.90	0.4
BSF	80.47	2	eP	33 32.60	0.0
	1.0s	16.00nm		5.0mb	
LOR	80.93	4	eP	33 35.10	0.2
	1.2s	27.90nm		5.1mb	
SSF	81.12	5	eP	33 36.10	0.2
LBF	81.22	4	eP	33 36.40	-0.1
	1.0s	12.80nm		4.9mb	
KBA	81.23	358	eP	33 37.00	0.3
	1.0s	37.30nm		5.3mb	
		ic	33 38.20		
		i	33 50.20		
MFF	81.35	7	eP	33 37.40	0.3
	1.1s	29.30nm		5.2mb	
AVF	81.38	5	eP	33 37.30	0.1
	1.1s	22.90nm		5.1mb	
SMF	81.55	4	eP	33 38.30	0.2
	1.1s	29.30nm		5.2mb	
BGF	81.59	5	eP	33 38.70	0.4
	1.1s	21.90nm		5.1mb	
LSF	81.82	6	eP	33 39.80	0.3
	1.0s	32.00nm		5.3mb	
TCF	81.82	6	eP	33 39.60	0.0
	1.0s	12.00nm		4.9mb	
RBL	81.86	358	P	33 40.40	0.6
MAF	81.91	5	eP	33 40.40	0.4
	0.9s	10.40nm		4.9mb	
MHI	82.03	322	eP	33 40.00	-0.9
PTJ	82.32	356	eP	33 42.80	0.6
LPG	82.80	2	eP	33 46.60	1.6
LFF	83.07	7	eP	33 46.70	0.7
	1.0s	16.00nm		5.1mb	
LPO	83.36	6	eP	33 48.10	0.6
BOB	83.58	0	Pc	33 50.00	1.3
QUE	84.21	313	iPc	33 54.20	1.9
BDI	84.28	360	Pc	33 54.00	1.7
SFI	84.41	359	P	33 55.20	2.4
SBF	84.45	2	eP	33 53.60	0.4
	0.9s	29.40nm		5.5mb	
FIR	84.56	359	eP	33 55.00	1.4
FRF	84.74	3	eP	33 55.10	0.6
	0.9s	19.60nm		5.3mb	
LRG	84.84	3	eP	33 56.00	1.1
	1.0s	20.00nm		5.3mb	
EPF	84.94	7	eP	33 55.70	0.1
	0.9s	16.30nm		5.2mb	
LMR	84.96	3	eP	33 56.50	0.9
	1.0s	20.00nm		5.3mb	
CVF	85.77	1	eP	34 00.20	0.5
	0.9s	36.00nm		5.6mb	
SKO	85.86	352	iP	34 01.00	0.9
YLV	86.26	345	iP	34 07.10	4.8X
VAY	86.39	351	eP	34 04.00	1.2
WB5	86.47	231	eP	34 03.70	0.4
WB2	86.53	231	eP	34 03.70	0.1
WRA	86.54	231	P	34 11.00	7.4X
	1.4s	6.00nm		4.6mb	
PSI	88.62	273	ePd	34 13.50	-0.4
	0.8s	20.70nm		5.5mb	
HYB	89.01	297	iPd	34 14.50	-1.3
	1.0s	40.00nm		5.7mb	
ASPA	89.93	230	eP	34 19.80	0.0
GBA	92.73	296	Pc	34 32.60	-0.3
	1.0s	9.50nm		5.2mb	
BUL	145.04	329	iPKPd	40 57.20	-1.2
	0.8s	29.85nm			
SLR	150.34	325	iPKPd	41 06.80	0.1
	0.7s	17.12nm			
BPI	150.83	325	ePKP	41 11.50	4.0X
	0.5s	23.94nm			
CGY	151.55	328	ePKP	41 10.50	2.2X
	0.6s	11.33nm			
PRY	151.71	326	ePKP	41 07.70	-1.1
	0.9s	11.54nm			
BFS	151.92	327	e(PKP)	41 16.00	6.9X

S.D. = 0.9 on 116 of 129 obs.

FEB 09, 1989 05h 15m 45.80± 0.70s
42.685 N ± 9.0km 101.898 W ± 3.7km
DEPTH = 5.0km (geophysicist)
NEBRASKA (463)
mbLg 3.8 (NEIS). Felt (V) at Merriman; (IV) at Cody and Rushville; (III) at Ashby, Bingham, Crookston, Gordon, Hoy Springs, Kilgore, Mullen, Nenzel, Valentine and White Cloy; (II) at Sparks and Thedford. Also felt (IV) at Manderson and (III) at Allen, Botesland and Martin, South Dakota.

LCNE	2.60	121	eP	16 31.10	1.8
			S	17 05.70	
GLD	3.86	222	ePn	16 48.50	1.2
GOL	3.97	222	ePn	16 48.50	-0.4
WHNE	4.17	109	e(P)	16 51.70	0.2
			S	17 36.00	
CNK	4.48	134	i(P)	16 51.00	-4.9X
			S	17 42.70	
BENE	4.68	120	eP	16 58.20	-0.6
			S	17 50.90	
JHN	4.95	115	eP	17 03.00	0.5
			S	17 57.50	
SNK	4.95	137	eP	17 01.75	-0.9
			S	17 56.70	
TCK	5.12	128	eP	17 03.90	-1.1
			S	18 02.40	
MLK	5.21	132	eP	17 06.90	0.6
			eS	18 02.40	
HWK	5.62	119	eP	17 12.65	0.6
			S	18 12.80	
BW06	5.64	274	ePnc	17 12.30	-0.3
EMK	6.00	133	iP	17 16.75	-0.6
			S	18 22.10	
RW4	6.28	226	eP	17 22.90	1.2
RW1	6.30	227	eP	17 22.30	0.4
ACO	6.34	160	ePnd	17 22.40	0.1
PCO	7.08	146	ePn	17 31.80	-0.8
BGMT	7.75	293	eP	17 41.60	-0.6
HRY	8.14	303	eP	17 45.20	-2.4X
SIO	8.17	146	ePn	17 45.80	-2.1X
LRM	8.20	296	eP	17 46.10	-2.4X
FKO	8.20	153	(Pn)	17 48.00	-0.3
LNO	8.25	143	ePn	17 46.10	-2.8X
TUL	8.25	143	iPn	17 46.30	-2.7X
	0.5s		14.60nm		5.5mb
MEO	8.30	161	ePn	17 47.90	-1.9X
RLO	8.41	138	ePn	17 48.50	-2.7X
ALQ	8.51	206	eP	17 52.00	-0.8
ULM	8.63	27	P	17 48.70	-5.5X
			S	19 19.00	
VVO	8.76	145	ePn	17 53.10	-3.0X
MSU	8.86	245	eP	17 56.60	-1.0
RSON	9.92	32	eP	18 05.50	-6.4X
FVM	9.94	114	eP	18 08.00	-4.3X
SES	9.95	324	eP	18 09.00	-3.5X
OLY	10.82	128	eP	18 20.00	-4.3X
ELC	11.11	115	eP	18 24.00	-4.4X
FFC	12.05	360	eP	18 34.50	-6.5X
GTO	12.51	51	P	18 41.60	-5.7X
			(S)	20 54.00	
KVN	12.79	259	eP	18 52.00	0.8
EDM	13.02	328	eP	18 51.00	-3.1X
PWLA	13.24	121	eP	18 52.00	-5.0X

S.D. = 0.9 on 21 of 40 obs.

% FEB 09, 1989 07h 02m 54.53± 1.25s
46.347 N ± 7.6km 3.778 E ± 9.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.7 (LDG).

SMF	0.30	8	Pg	03 01.50	0.7
			Sg	03 04.90	
AVF	0.53	327	Pg	03 05.20	-0.1
			Sg	03 11.20	
LBF	0.65	12	Pg	03 07.40	-0.2
			Sg	03 15.40	
BGF	0.68	288	Pg	03 08.20	0.2
			Sg	03 16.10	
SSF	0.74	345	Pg	03 08.70	-0.3
			Sg	03 17.30	
MAF	0.85	262	Pg	03 11.90	1.0
			Sg	03 22.40	
LOR	0.92	3	Pg	03 12.10	-0.1
			Sg	03 23.20	
TCF	1.09	267	Pn	03 15.10	0.1
			Pg	03 16.10	
			Sg	03 29.20	
LSF	1.56	267	Pn	03 21.10	-1.3
			Pg	03 23.70	
			Sg	03 44.80	
CAF	1.86	221	Pn	03 26.80	0.0
			Pg	03 31.00	
			Sg	03 54.80	
LPG	2.24	111	Pg	03 40.80	8.3X

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

% FEB 09, 1989 08h 58m 32.83± 2.93s
40.355 N ±11.9km 30.678 E ±23.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

GPA	0.29	257	ePn	58 38.50	-0.4
HRT	0.90	302	ePn	58 49.10	-1.0
YLV	1.02	282	iPn	58 54.90	2.8X
GBZT	1.03	295	ePn	58 52.60	0.2
ISK	1.42	300	ePn	58 59.00	0.3
DST	1.74	245	ePn	59 09.00	5.6X
KCT	1.78	267	ePn	59 05.00	1.2
KHL	2.22	204	ePn	59 10.00	-0.3

S.D. = 1.0 on 6 of 8 obs.

% FEB 09, 1989 10h 19m 19.70± 0.89s
42.382 N ± 6.6km 8.513 W ± 8.5km
DEPTH = 5.0km (geophysicist)
SPAIN (377)
MG 3.0 (MDD). Felt (III) in the Pontevedro area.

EZAM	0.27	210	iPgd	19 25.40	0.2
STS	0.50	357	ePg	19 29.70	-0.1
			eSg	19 36.70	
ERUA	1.02	89	iPg	19 39.90	0.5
			eSg	19 55.50	
EPLA	2.95	141	ePn	20 07.70	-0.5
			eSn	20 42.40	
GUD	3.71	117	ePn	20 18.80	-0.2
			eSn	21 02.30	

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

FEB 09, 1989 10h 43m 50.04± 1.31s
45.551 N ± 7.4km 26.428 E ± 8.4km
DEPTH = 149.5 ± 16.9 km
ROMANIA (358)

MLR	0.35	260	iPc	44 10.20	-0.2
VRI	0.38	33	iPc	44 10.00	-0.4
ISR	0.42	169	iPc	44 11.00	0.4
PPE	1.06	51	iPc	44 16.00	0.4
BIR	1.10	49	iPc	44 15.50	-0.4
CLI	1.16	30	iPc	44 15.50	-1.0
BUC1	1.24	193	iPc	44 36.00	18.8X
CFR	1.27	106	iPc	44 17.00	-0.5
PTT	1.38	359	eP	44 20.00	1.3
TLB	1.49	130	iPc	44 20.00	0.3
CVD	1.67	136	iPc	44 48.00	26.3X
PSN	2.25	146	eP	44 29.00	0.5
SZH	2.31	189	iP	44 29.00	-0.3
PVL	2.46	199	iPd	44 32.00	0.9
JMB	3.09	178	iP	44 38.00	-1.0
BZS	3.38	273	ePc	44 43.00	0.2
PGB	3.41	209	iPd	44 43.00	-0.3
VTS	3.76	219	iP	44 48.00	0.1
DMK	3.85	165	ePn	45 19.00	30.0X
KDZ	3.97	191	iP	44 51.00	0.4
MMB	4.42	207	iPd	44 57.00	0.4
VAY	5.08	215	ePn	45 06.70	1.5
SKO	5.08	227	ePn	45 03.00	-2.4

S.D. = 0.9 on 20 of 23 obs.

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* FEB 09, 1989 10h 54m 31.66± 3.61s
45.010 N ± 6.5km 6.481 E ±28.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.2 (GEN).

BNI	0.14	73	Pc	54 35.20	0.0
			eSg	54 37.00	
RRL	0.23	113	P	54 36.96	0.2
			S	54 40.25	
RSP	0.57	75	P	54 43.02	-0.3
			S	54 51.22	
LSD	0.65	47	P	54 44.86	0.0
			S	54 53.37	
PZZ	0.67	139	P	54 45.16	0.1
			S	54 53.77	
STV	0.97	142	P	54 49.52	-0.7
			S	55 02.65	
ROB	1.22	125	P	54 54.23	-0.2
			S	55 09.56	
ORX	1.23	59	P	54 54.50	-0.1
FIN	1.47	122	Pd	54 59.31	1.1

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

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* FEB 09, 1989 12h 26m 32.15± 1.31s
38.929 N ±11.1km 143.006 E ±11.8km
DEPTH = 10.0km (geophysicist)
4.4mb (1 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)
Felt (I JMA) at Yomagoto.

OFUJ	1.05	279	iPd	26 50.50	-1.5
			S	27 00.00	
YAMJ	2.45	253	P	27 11.50	-1.3
			S	27 37.50	
AOMJ	2.60	310	eP	27 16.00	1.1
			S	27 44.20	
KAKJ	3.53	220	eP	27 26.50	-1.6
			eS	28 04.50	
NIIJ	3.58	243	eP	27 29.10	0.2
CHJJ	4.29	229	P	27 40.00	1.0
MAT	4.49	239	eP	27 42.00	0.3
	0.8s		22.39nm		4.4mb
			(S)	28 50.00	
MTMJ	4.74	242	P	27 46.50	1.0
IIDJ	5.33	231	P	27 55.20	1.5
WB5	59.06	189	eP	36 34.60	-0.1
WB2	59.12	189	eP	36 34.60	-0.5
WRA	59.12	190	Pd	36 35.10	-0.1
	0.4s		1.20nm		4.4mb
GBA	62.62	266	P	36 59.00	-0.1

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

FEB 09, 1989 13h 11m 23.29± 0.87s
43.400 N ± 5.4km 5.428 E ± 6.7km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.9 (STR).

GELF	0.02	180	Pg	11 25.21	0.0
BERF	0.21	114	P	11 28.25	0.3
TREF	0.23	352	Pg	11 27.19	-1.0
PUYF	0.24	56	Pg	11 27.14	-1.3
PRAF	0.45	335	Pg	11 32.15	-0.2
VILF	0.50	25	Pg	11 32.28	-1.1
TAVF	0.51	64	Pg	11 32.78	-0.8
GANF	0.69	30	Pg	11 37.11	0.1
CALN	1.12	71	Pg	11 44.85	0.5
			Sg	12 01.49	
MVIF	1.35	68	Pn	11 48.30	0.1
			Sg	12 07.52	
TOUF	1.46	64	Pn	11 49.92	0.1
AURF	1.46	70	Pn	11 49.84	0.0
FOUF	1.49	40	P	11 51.10	1.0
			(Sg)	12 10.15	
AUTN	1.57	67	Pn	11 51.94	0.5
SAOF	1.65	68	Pn	11 52.33	-0.1
DOI	1.71	49	P	11 53.60	0.2
			eSn	12 16.60	
BNI	1.88	28	P	11 58.50	2.6
			eSn	12 20.50	
CKI	2.30	63	P	12 02.40	0.5
			eSn	12 31.10	
CVF	2.66	107	Pn	12 05.52	-1.5

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

% FEB 09, 1989 13h 28m 06.40± 1.47s
60.114 N ± 7.4km 4.829 E ±15.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.1 (BER).

ODD1	0.93	102	iPg	28 24.67	0.6

09d 13h

			iSg	28 37.07		
KMY	0.93	167	iPg	28 23.69	-0.4	
			iSg	28 35.22		
SUE	0.95	358	eP	28 25.20	0.8	
			iSg	28 37.99		
BLS1	1.24	125	eP	28 29.81	0.2	
			eSg	28 41.38		
HYA	1.25	32	eP	28 28.48	-1.1	
			iSg	28 47.21		

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

FEB 09, 1989 13h 38m 19.88± 0.67s
23.215 N ± 4.2km 123.384 E ± 5.2km
DEPTH = 7.5 ± 3.5 km
4.8mb (12 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

TWD	1.85	298	iPc	38 51.40	-0.8	
TWF1	1.92	274	iPc	38 52.20	-1.1	
			eS	39 15.20		
TWC	1.97	315	eP	38 54.50	0.5	
			eS	39 19.50		
TWG	2.17	260	ePc	38 55.80	-1.0	
TWZ	2.50	319	eP	39 02.10	0.6	
ANP	2.60	319	eP	39 04.00	1.0	
QZH	4.71	292	ePn	39 31.70	-1.2	
			Sn	40 21.20		
PIP	5.51	209	iPc	39 46.50	2.2	
BAG	7.26	202	eP	40 08.90	-0.3	
SSE	8.09	346	P	40 19.00	-1.5	
	0.7s		0.05nm		2.8mb X	
GZH	9.24	271	eP	40 36.50	0.0	
N	10s		2.70um			
NJ2	9.67	336	Pc	40 40.60	-1.8	
Z	12s		2.10um			
N	10s		1.90um			
E	11s		1.30um			
WHN	10.87	314	eP	40 58.50	-0.4	
Z	12s		24.20um			
GYA	15.52	285	P	42 07.80	6.9X	
Z	12s		18.90um			
E	12s		1.90um			
XAN	16.64	314	Pc	42 18.90	3.7X	
TIY	17.24	329	eP	42 25.00	2.3	
Z	12s		1.46um			
N	11s		1.46um			
			pP	42 29.50		
IIDJ	17.57	43	P	42 31.80	4.9X	
BJI	17.85	342	eP	42 30.00	-0.2	
Z	12s		1.00um			
N	10s		0.80um			
MTMJ	18.24	40	P	42 36.90	1.7	
MAT	18.45	41	iPd	42 38.60	0.9	
	0.9s		33.61nm		4.5mb	
			eS	45 23.00		
SNY	18.56	0	iPc	42 38.90	-0.1	
N	12s		0.70um			
CHJJ	18.61	43	P	42 40.90	1.2	
KMI	18.93	280	Pd	42 46.00	2.1	
Z	12s		2.20um			
E	13s		1.30um			
CD2	19.07	298	iPd	42 46.00	0.6	
HHC	20.20	333	eP	42 57.50	-0.6	
Z	12s		1.20um		4.5MszX	
N	10s		1.00um			
E	10s		0.40um			
CN2	20.60	4	iPc	43 01.20	-0.9	
Z	12s		1.20um		4.5MszX	
N	12s		0.80um			
BTO	20.67	330	eP	43 02.00	-1.0	
Z	11s		0.90um		4.4MszX	
E	11s		0.90um			
LZH	21.23	312	eP	43 09.50	0.7	
	2.0s		0.14nm		2.0mb X	
Z	15s		0.80um		4.2MszX	
E	10s		0.40um			
MDJ	21.95	12	eP	43 14.40	-1.3	
Z	10s		1.90um		4.8MszX	
CHTO	23.22	264	eP	43 29.10	0.6	
	1.0s		7.00nm		4.2mb	
			pP	43 39.80	41kmX	
GTA	25.70	314	Pc	43 52.00	-0.4	
Z	14s		0.90um		4.4MszX	
N	10s		0.60um			
WMQ	35.78	314	iPd	45 22.00	0.4	
WB5	44.15	165	eP	46 30.00	-1.0	
WRA	44.21	165	Pd	46 30.80	-0.6	
	0.8s		5.20nm		4.4mb	
WB2	44.21	165	eP	46 30.00	-1.4	
GBA	44.47	266	Pd	46 34.70	1.0	
	0.7s		2.00nm		4.1mb	
KOD	45.64	261	eP	46 44.50	1.1	
ASPA	47.71	167	iPc	46 59.30	0.1	
	0.8s		10.00nm		5.0mb	
WARB	49.21	176	eP	47 04.00	-6.8X	
	0.7s		9.00nm		4.9mb	
MEKA	49.76	186	iPc	47 13.70	-1.3	
MHI	56.08	299	iPc	48 02.60	0.5	
SOD	71.37	336	eP	49 41.00	-1.0	
KJF	71.78	333	iP	49 44.20	-0.3	
	0.8s		14.70nm		5.1mb	
SUF	72.87	331	iP	49 50.50	-0.5	
	0.7s		9.20nm		5.0mb	
INK	73.36	22	eP	49 54.00	0.2	
MBC	73.76	13	eP	49 55.00	-1.0	
NUR	74.25	329	iP	49 59.00	0.0	
DAG	77.64	352	iPd	50 17.20	-0.8	
	0.6s		6.00nm		4.9mb	
UPP	77.74	330	iP	50 18.50	-0.2	
MLR	78.77	315	ePc	50 24.50	-0.4	
HFS	79.39	331	eP	50 27.20	-0.6	
	0.8s		10.80nm		4.9mb	
Z	15s		0.17um		4.5MszX	
			LR	27 12.00		
NB2	80.01	333	P	50 30.60	-0.6	
	0.8s		8.70nm		4.8mb	
KSP	82.43	322	eP	50 44.20	0.1	
YKA	83.07	23	P	50 48.20	1.1	
YKC	83.12	23	eP	50 48.00	0.6	
CLL	84.03	324	iP	50 53.00	0.8	
	1.1s		13.00nm		5.1mb	
			i	51 17.60		
KHC	84.79	322	P	50 57.00	0.8	
EDM	89.44	30	eP	51 20.00	1.3	

S.D. = 1.0 on 54 of 58 obs.

FEB 09, 1989 15h 25m 24.11± 0.63s
39.025 N ± 6.4km 27.674 E ± 5.4km
DEPTH = 9.6 ± 4.6 km
TURKEY (366)
MD 3.8 (ATH).

IZM	0.70	207	iPg	25 38.10	0.0	
			eSg	25 49.10		
DST	0.94	52	iPg	25 41.10	-1.0	
			eSg	25 55.10		
PRK	1.11	282	ePb	25 45.60	0.6	
			eSb	26 02.90		
EZN	1.32	308	iPn	25 47.90	-0.5	
EDC	1.33	6	iPn	25 47.50	-1.1	
KCT	1.33	23	iPn	25 48.30	-0.4	
KHL	1.61	115	iPn	25 52.40	-0.4	
CTT	2.20	15	ePn	26 00.50	-0.7	
GBZT	2.23	37	ePn	26 04.00	2.4	
ISK	2.30	27	ePn	26 03.50	0.8	
HRT	2.36	40	ePn	26 06.00	2.4	
GPA	2.39	57	iPn	26 03.40	-0.7	
RDO	2.68	323	ePn	26 08.00	-0.1	
BCK	2.78	123	ePn	26 08.00	-1.6	
DMK	2.79	1	iPn	26 07.90	-1.8	
ELL	2.88	141	ePn	26 11.00	-0.1	
KDZ	3.14	327	iPd	26 14.00	-0.6	
RZN	3.49	321	iP	26 19.00	-0.7	
MMB	3.96	312	eP	26 26.00	-0.2	
BBTK	4.02	77	eP	26 40.50	13.3X	
			eS	27 34.00		
			i	31 48.00		
PGB	4.41	324	iP	26 31.00	-1.7	
VAY	4.53	302	ePn	26 35.30	0.9	
VTS	4.92	318	eP	26 42.00	2.0	
MLR	6.59	349	ePc	26 54.50	-9.0X	

S.D. = 1.3 on 22 of 24 obs.

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* FEB 09, 1989 15h 29m 44.42± 2.07s
41.372 N ±12.0km 141.990 E ±12.2km
DEPTH = 112.6 ± 20.6 km
4.4mb (10 obs.)
HOKKAIDO, JAPAN REGION (224)

MAT	5.65	213	(P)	31 07.00	-0.4	
	0.6s		14.67nm		4.4mb	
			(S)	32 39.00		
CHTO	42.94	252	eP	37 34.70	1.1	
	0.7s		2.22nm		4.1mb	
FBA	45.24	34	eP	37 53.00	1.5	
	0.9s		1.90nm		3.9mb	
GUN	47.31	272	P	38 09.50	0.6	
KKN	47.83	272	P	38 13.30	0.6	
	0.7s		21.00nm		5.0mb	
PKI	47.85	272	P	38 13.30	0.3	
	0.6s		6.00nm		4.6mb	
DMN	48.05	272	P	38 15.20	0.7	
	0.6s		10.00nm		4.8mb	
GKN	48.20	273	P	38 15.80	0.3	
	0.6s		14.00nm		5.0mb	
INK	50.35	29	ePc	38 31.10	0.0	
YKA	59.86	31	P	39 41.10	1.2	
WB5	61.35	188	eP	39 50.00	-0.4	
WB2	61.41	188	eP	39 50.00	-0.8	
KJF	62.83	333	eP	39 58.00	-1.8	
SUF	64.33	333	iP	40 08.70	-0.9	
	0.3s		1.40nm		4.4mb	
NUR	66.35	331	iP	40 21.50	-1.0	
HFS	70.33	335	eP	40 46.70	-0.5	
	0.4s		2.10nm		4.3mb	
NB2	70.37	337	P	40 47.00	-0.5	
	0.5s		1.50nm		4.1mb	
KHC	79.09	328	eP	41 29.30	-8.2X	

S.D. = 1.0 on 17 of 18 obs.

& FEB 09, 1989 17h 55m 06.83s
61.795 N 149.584 W
DEPTH = 40.7km
SOUTHERN ALASKA (2)
<AGS-P>.

PWA	0.20	224	iP	55 14.06	-0.1	
PLRM	0.30	133	iP	55 14.30	-0.8	
			iS	55 21.51		
PME	0.31	122	iP	55 14.72	-0.6	
			iS	55 21.70		
GHO	0.31	94	iP	55 15.06	-0.4	
			iS	55 22.48		
PMS	0.55	179	eP	55 17.52	-0.8	
SML	0.59	88	iP	55 18.00	-0.9	
			iS	55 27.42		
KNK	0.66	125	iP	55 19.13	-0.7	
			iS	55 29.68		
PTE	0.97	164	iP	55 23.07	-1.1	
			eS	55 36.61		
PWL	1.12	147	iP	55 25.15	-1.1	
			eS	55 40.15		
NKA	1.32	218	eP	55 30.30	1.2	
SLKM	1.33	194	eP	55 28.12	-1.1	
SPU	1.34	244	iP	55 28.67	-0.7	
CRP	1.34	248	eP	55 29.10	-0.5	
			eS	55 47.46		
VZW	1.63	116	eP	55 32.76	-0.9	
TOA	1.64	78	iP	55 33.99	0.2	
			iS	55 54.64		
VLZ	1.70	112	eP	55 33.30	-1.1	
SEW	1.70	178	eP	55 33.70	-0.7	
KLU	1.78	98	iP	55 34.82	-0.8	
			iS	55 57.12		
RDT	1.84	229	eP	55 35.32	-1.2	
			eS	55 58.58		
HIN	2.05	132	iP	55 38.25	-1.4	
			eS	56 03.83		
CVA	2.24	122	eP	55 42.48	0.2	
ILIM	2.38	225	eP	55 43.04	-1.3	
SGAM	2.49	120	eP	55 46.09	0.3	
RAGM	2.77	118	eP	55 51.58	1.8	
GLB	2.78	95	eP	55 48.20	-1.7	
SVW	2.98	259	eP	55 51.00	-1.8	
TTA	3.20	294	eP	55 53.84	-2.2	
FBA	3.22	14	eP	55 54.85	-1.3	

28 obs. associated

? FEB 09, 1989 18h 43m 44.10±14.84s
40.240 N ±24.6km 125.584 W ±117.km
DEPTH = 10.0km (geophysicist)
OFF COAST OF NORTHERN CALIFORNIA(34)
ML 3.2 (BRK).

FHC	1.34	65	iPc	44 08.60	-0.2	
			eS	44 22.50		
WDC	2.35	81	iPc	44 23.50	0.2	
			eS	44 50.30		
LTCM	2.65	90	eP	44 28.50	0.9	
LBFM	3.01	67	eP	44 33.00	0.0	
MIN	3.05	87	eP	44 33.40	0.1	

KVN 5.90 99 eP 45 13.00 -0.8
S.D. = 0.7 on 6 of 6 abs.

FEB 09, 1989 18h 58m 26.73± 0.30s
41.997 S ± 7.3km 88.081 E ± 5.5km
DEPTH = 21.7km (5 depth phases)
5.2mb (16 obs.) 5.3Msz (8 obs.)
SOUTHEAST INDIAN RISE (435)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 19C
Centroid Location:
Origin Time 18:58:31.0 0.8
Lat 42.12S 0.07 Lon 87.67E 0.08
Dep 15.0 FIX Half-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr=-0.64 0.05 Mtt= 1.79 0.06
Mff=-1.15 0.06 Mrt=-0.12 0.22
Mrf= 0.19 0.15 Mtf= 0.36 0.07
Principal Axes:
T Val= 1.84 Plg= 2 Azm=173
N -0.58 72 270
P -1.26 18 83
Best Double Couple:Mo=1.6*10**17
NP1:Strike=219 Dip=76 Slip=-169
NP2: 127 79 -14

MUN 24.50 75 eP 03 47.00 1.5
NWAO 24.75 78 eP 03 50.00 2.0
MAW 29.06 200 eP 04 27.50 0.4
MEKA 29.27 68 eP 04 29.00 -0.5
SYO 36.91 207 eP 05 35.00 -0.2
ADE 39.77 97 eP 06 00.00 0.4
1.1s 48.10nm 5.1mb
AVY 41.18 291 iPd 06 19.40 7.9X
ASPA 42.06 79 eP 06 17.50 -1.1
1.3s 30.00nm 4.9mb
Z 23s 3.45um 5.2MszX
LR 21 02.00
WRA 44.69 75 Pc 06 38.60 -1.3
1.1s 26.30nm 5.0mb
WB2 44.70 75 eP 06 39.70 -0.3
WB5 44.75 75 eP 06 39.70 -0.7
QIS 48.14 80 eP 07 06.00 -1.2
SPA 48.20 180 e(P) 07 07.50 0.2
1.3s 60.00nm 5.5mb
SNG 50.26 16 eP 07 11.80 -11.6X
eS 14 38.00
SEK 50.31 265 eP 07 25.00 1.0
BPI 51.18 268 eP 07 28.50 -2.2
0.5s 30.99nm 5.5mb
SLR 51.24 269 eP 07 32.50 1.4
1.2s 23.44nm 5.0mb
Z 20s 3.19um 5.3Msz
FRS 51.26 262 e(P) 07 14.00 -16.9X
RMQ 51.47 93 eP 07 32.00 -0.6
CGY 52.32 267 eP 07 33.50 -5.5X
0.7s 17.12nm 5.1mb
KOD 52.88 347 eP 07 44.00 0.5
CTA 53.34 85 iPc 07 46.00 -0.7
1.2s 39.06nm 5.2mb
iS 15 30.00
BRS 53.96 96 Pc 07 50.50 -0.7
ipPP 07 56.50 54kmX
i 08 05.00
BUL 54.27 274 iPc 07 52.60 -1.0
1.0s 55.00nm 5.5mb
NNT 55.36 14 eP 08 02.00 0.6
PTZ 55.98 282 ePd 08 05.00 -1.1
e 08 12.00 23km
e 08 19.00
i 08 26.30
GBA 56.19 348 P 08 06.00 -1.2
TZZ 59.60 67 eP 08 21.50 -10.0X
HYB 59.76 349 eP 08 31.00 -1.4
KMZ 60.54 279 iPc 08 38.50 0.5
i 08 44.90 21km
i 08 49.30
CHTO 61.33 12 eP 08 42.00 -1.0
1.2s 4.17nm 4.4mb
pP 08 49.60 25km
KMI 68.14 14 Pc 09 28.50 1.1
Z 23s 2.70um 5.4MszX
N 17s 1.70um
eS 18 33.00
PKI 69.26 357 P 09 33.80 -0.6
1.1s 34.00nm 5.4mb

DMN 69.31 357 P 09 34.60 0.0
1.1s 69.00nm 5.7mb
KKN 69.48 357 P 09 35.40 -0.2
1.1s 56.00nm 5.6mb
GUN 69.59 358 P 09 36.40 0.0
GKN 69.72 357 P 09 36.60 -0.4
1.2s 68.00nm 5.7mb
CD2 73.97 14 eP 10 02.00 -0.1
QUE 74.42 341 eP 10 04.30 -0.7
WHN 76.14 23 eP 10 15.60 1.1
Z 22s 1.46um 5.2Msz
S 20 04.00
BNG 77.96 287 ePc 10 25.90 0.9
0.7s 12.00nm 5.0mb
id 10 32.00 19km
BCAO 77.96 287 eP 10 25.20 0.2
1.2s 5.56nm 4.5mb
e 10 31.60 20km
XAN 78.05 18 P 10 25.00 -0.1
SSE 78.87 29 eP 10 32.00 2.5
Z 20s 0.90um 5.1Msz
eS 20 32.00
LZH 79.04 13 eP 10 30.50 -0.1
1.5s 0.04nm 2.3mb X
Z 28s 0.90um 5.0MszX
GTA 81.73 9 Pc 10 45.20 0.4
5.0s 0.40nm 2.7mb X
Z 20s 0.90um 5.1Msz
E 20s 1.10um
KSH 81.81 351 eP 10 50.00 4.8X
TIY 82.38 19 eP 10 47.40 -0.8
N 16s 1.00um
S 21 02.50
BTO 84.58 17 eP 11 00.60 1.3
Z 20s 1.80um 5.5Msz
E 20s 1.60um
eSKS 21 24.00
S 21 30.00
HHC 85.16 18 eP 11 01.60 -0.6
Z 22s 1.60um 5.4Msz
N 19s 1.40um
WMQ 85.43 360 eP 11 04.00 0.6
Z 18s 1.20um 5.3Msz
BJI 85.54 21 eP 11 05.00 1.0
Z 20s 1.30um 5.3Msz
eS 21 36.00
INK 145.70 26 ePKPd 18 03.60 -0.2
1.0s 84.00nm
GDH 146.21 337 ePKP 18 06.00 1.4
FRB 154.34 336 ePKP 18 23.00 6.0X
YKA 155.47 26 PKP 18 33.40 14.9X
S.D. = 1.0 on 48 of 56 obs.

FEB 09, 1989 19h 16m 41.97± 0.97s
0.501 N ± 5.2km 122.264 E ± 7.6km
DEPTH = 107.9 ± 11.3 km
4.7mb (11 obs.)
MINAHASSA PENINSULA (265)

MNI 2.74 70 ePc 17 24.60 -0.6
eS 17 55.00
TSM 5.59 312 ePd 18 04.10 0.0
e 19 07.40
MTN 15.91 147 eP 20 22.00 0.9
KNA 17.38 159 eP 20 40.00 0.8
PPI 21.89 268 eP 21 27.00 -0.4
PSI 23.43 276 ePd 21 42.50 0.1
WB5 23.47 150 eP 21 43.80 1.0
WRA 23.51 150 Pd 21 44.00 0.8
0.9s 14.00nm 4.4mb
WB2 23.52 150 eP 21 43.80 0.5
NANU 23.84 196 eP 21 46.50 0.1
0.5s 33.00nm 5.0mb
ANP 24.55 358 eP 21 51.50 -1.7
ASPA 26.55 156 iPc 22 12.40 0.7
0.6s 6.00nm 4.3mb
WARB 26.86 171 iPc 22 07.80 -6.7X
0.4s 7.00nm 4.6mb
MEKA 27.20 187 iPc 22 16.60 -0.9
0.4s 14.00nm 4.9mb
CHTO 29.24 310 eP 22 35.80 -0.2
WHN 30.81 347 P 22 51.00 1.4
BAL 31.38 189 eP 22 53.00 -1.7
FORR 31.67 170 iPd 22 56.20 -0.9
0.4s 9.00nm 4.9mb
KLB 32.20 187 eP 23 01.00 -0.8
NWAO 33.59 188 eP 23 13.00 -0.8

CD2 34.97 332 eP 23 26.00 0.3
MAT 38.79 21 eP 23 56.00 -1.7
1.5s 50.00nm 5.1mb
GTA 43.82 335 iPd 24 40.00 0.9
GUN 44.24 311 Pc 24 43.40 0.6
0.7s 17.00nm 5.0mb
PKI 44.42 310 Pc 24 44.40 0.1
0.6s 5.00nm 4.5mb
KKN 44.63 311 Pc 24 46.20 0.4
DMN 44.67 310 Pc 24 46.60 0.4
GKN 45.22 310 Pc 24 50.80 0.3
0.6s 11.00nm 4.8mb
HYB 46.16 294 eP 24 59.00 1.2
e 25 33.00
GBA 46.24 288 Pc 24 57.30 -1.1
0.4s 1.80nm 4.2mb
WMQ 52.99 329 iPc 25 50.00 0.3
S.D. = 0.9 on 30 of 31 obs.

& FEB 09, 1989 20h 57m 12.21s
61.020 N 152.386 W
DEPTH = 111.4km
SOUTHERN ALASKA (2)
<AGS-P>.

SPU 0.23 45 iP 57 27.31 0.8
CRP 0.27 24 iP 57 27.90 1.1
eS 57 40.10
RDT 0.45 181 eP 57 28.39 -0.8
eS 57 41.17
NKA 0.63 116 eP 57 31.09 0.8
RED 0.63 198 eP 57 29.77 -0.7
ILIM 0.98 197 iP 57 32.95 -0.8
NNL 1.12 151 eP 57 35.67 0.6
eS 57 53.22
SLKM 1.18 115 iP 57 35.02 -0.8
iS 57 52.78
PWA 1.36 61 eP 57 36.94 -0.9
PMS 1.39 79 iP 57 37.27 -0.9
iS 57 57.43
PDB 1.53 217 iP 57 39.24 -0.6
SVW 1.58 275 iP 57 38.97 -1.5
CNPM 1.61 159 eP 57 40.01 -0.8
PTE 1.65 94 iP 57 39.58 -1.7
PLRM 1.67 69 eP 57 39.77 -1.8
SEW 1.72 121 eP 57 40.74 -1.4
PME 1.73 68 eP 57 40.52 -1.8
GHO 1.83 64 eP 57 41.79 -1.8
KNK 1.94 77 eP 57 42.98 -2.0
PWL 1.98 93 iP 57 43.36 -2.2
iS 58 08.38
SML 2.10 66 eP 57 44.95 -2.2
TTA 2.57 320 eP 57 49.56 -3.7
VZW 2.84 87 eP 57 53.96 -2.9
VLZ 2.94 85 eP 57 55.43 -2.7
KLU 3.16 79 iP 57 58.51 -2.7
TOA 3.17 67 eP 57 59.73 -1.5
SGAM 3.56 95 eP 58 04.64 -1.9
GLB 4.17 80 eP 58 12.01 -2.8
28 obs. associated

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* FEB 09, 1989 21h 13m 19.51± 2.48s
33.746 S ±15.6km 179.349 W ±12.9km
DEPTH = 82.1 ± 21.7 km
4.7mb (4 obs.)
SOUTH OF KERMADEC ISLANDS (179)

KRP 5.88 223 P 14 45.90 0.0
e 16 06.00
DZM 17.09 309 iPc 17 14.10 -0.6
BRS 24.78 277 Pd 18 40.20 5.1X
CTA 33.38 285 iPc 19 54.40 2.3
0.8s 14.18nm 4.9mb
ASPA 41.91 271 iPc 21 03.70 0.1
0.9s 8.00nm 4.5mb
Z 22s 0.41um 4.3Msz
eS 27 15.60
LR 36 56.10
WB2 43.19 276 eP 21 13.80 -0.2
WRA 43.20 276 Pc 21 13.40 -0.7
0.3s 2.10nm 4.4mb
WB5 43.21 277 eP 21 13.80 -0.4
CMB 90.00 43 eP 26 11.30 0.3
WDC 90.62 40 e(P) 26 14.20 0.5
TNP 91.85 44 eP 26 20.20 0.5
1.0s 15.50nm 5.3mb
KVN 92.00 43 eP 26 20.20 -0.1

09d 21h

FBA	101.38	13	ePdiff	27	18.90	16.7X
	0.9s	0.50nm				
FBA	101.38	13	ePdiff	27	04.90	2.7X
MBC	115.92	13	ePKP	31	52.00	-1.1
SOD	143.10	344	ePKP	32	42.00	-2.5X
KJF	145.27	340	iPKP	32	46.80	-1.5
BNG	146.41	214	iPKPd	32	52.10	0.3
	0.8s	11.00nm				
			id	33	04.50	
SUF	146.85	339	iPKP	32	51.40	0.5
NUR	149.00	337	iPKP	32	57.30	2.9X
	0.5s	16.80nm				
			i	33	11.70	
NB2	151.85	349	PKP	33	04.00	5.3X
	1.1s	10.00nm				
LIC	152.11	168	PKP	33	08.14	7.7X
HFS	152.25	346	ePKP	33	04.70	5.4X
	0.9s	9.40nm				
KIC	152.29	168	PKP	33	08.32	7.6X
	1.1s	29.00nm				
TIC	152.52	168	PKP	33	08.92	7.9X
KUK	152.56	178	ePKP	33	09.50	8.4X
	S.D. = 1.0	on	15 of	26 obs.		

FEB 09, 1989 21h 55m 52.11± 0.86s
7.536 N ± 4.3km 126.703 E ± 6.4km
DEPTH = 98.4 ± 7.9 km
4.7mb (13 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV	1.20	248	ePd-	56	15.10	0.1
MNI	6.33	197	eP	57	23.70	-0.9
PPR	8.19	286	eP	57	50.00	0.0
	1.0s	83.00nm			5.4mb	
QCP	8.96	322	eP	57	46.00	-14.5X
BAG	10.66	326	eP	58	25.00	1.4
			eS	00	28.00	
JAY	17.17	125	ePd	59	39.00	-8.4X
GUMO	18.83	70	eP	00	08.50	1.4
QIZ	19.97	307	P	00	19.00	-0.1
KLI	25.04	241	eP	01	24.00	15.2X
SNG	25.87	271	eP	01	17.80	1.3
NNT	27.01	283	eP	01	16.50	-10.5X
NST	27.23	290	eP	01	33.00	4.1X
WB5	28.27	165	eP	01	38.40	0.2
WRA	28.32	165	P	01	41.00	2.3
	0.5s	1.90nm			4.0mb	
WB2	28.33	165	eP	01	38.40	-0.4
KMI	28.80	310	Pc	01	44.00	0.7
			pP	02	02.50	80kmX
CHTO	29.21	295	eP	01	46.50	-0.3
	0.8s	4.21nm			4.1mb	
			pP	02	02.90	69kmX
QIS	30.66	156	iPd	01	57.70	-1.8
MAT	30.72	18	(P)	01	58.00	-1.9
CD2	31.64	320	eP	02	07.80	-0.3
ASPA	31.80	167	eP	02	09.50	0.0
			eS	07	34.00	
WARB	33.52	180	eP	02	08.00	-16.4X
	0.4s	4.00nm				
CTA	33.52	145	eP	02	23.00	-1.5
BJI	33.71	345	eP	02	24.50	-1.4
SNY	34.26	356	Pd	02	30.50	-0.1
MEKA	34.86	193	eP	02	35.00	-0.9
MDJ	37.02	3	eP	02	54.20	0.3
FORR	38.19	178	eP	03	03.00	-0.8
COOL	38.57	188	eP	03	07.00	0.0
BAL	39.12	194	eP	03	12.00	0.4
KLB	39.83	192	eP	03	18.00	0.5
GTA	39.87	327	eP	03	17.60	-0.3
MUN	40.55	194	iPd	03	23.80	0.5
NWAO	41.23	192	eP	03	30.00	1.1
STK	41.70	161	eP	03	32.00	-0.7
BRS	42.93	145	iPc	03	41.80	-1.1
			i	03	58.00	
GUN	43.56	303	P	03	48.60	0.1
	0.6s	22.00nm			5.2mb	
PKI	43.84	302	P	03	50.20	-0.5
	0.6s	8.00nm			4.7mb	
KKN	44.02	302	P	03	51.70	-0.4
	0.6s	5.00nm			4.5mb	
DMN	44.11	302	P	03	52.40	-0.4
	0.6s	5.00nm			4.5mb	
GKN	44.63	303	P	03	56.40	-0.5
	0.6s	8.00nm			4.7mb	
BWA	46.52	155	eP	04	13.10	1.6
CAN	47.53	155	eP	04	19.70	0.2
HYB	47.91	287	eP	04	22.00	-0.7
GBA	48.74	281	P	04	30.00	1.0
	0.4s	3.30nm			4.6mb	
WMQ	49.64	323	P	04	36.00	0.3
NDI	51.09	301	eP	04	46.00	-0.8
QUE	60.16	300	eP	05	51.20	-1.0
MHI	67.23	306	iPc	06	38.40	0.1
TAB	77.83	307	eP	07	42.00	1.3
INK	86.66	22	eP	08	26.00	0.4
			pP	08	42.00	56kmX
KJF	87.17	334	eP	08	27.00	-1.1
	0.6s	9.10nm			5.0mb	
SUF	88.17	333	iP	08	32.30	-0.6
	0.6s	2.50nm			4.4mb	
MBC	88.27	13	eP	08	34.00	0.8
	0.7s	9.00nm			4.9mb	
NUR	89.38	331	iP	08	38.50	-0.2
SLL	94.69	333	eP	09	02.40	-0.8
	0.8s	11.50nm			5.4mb	
YKA	96.06	24	P	09	11.10	1.6
KIC	129.64	285	PKP	14	53.10	0.8
TIC	129.83	285	PKP	14	53.20	0.5
LIC	129.95	285	PKP	14	53.40	0.5
CNCB	162.95	124	ePKP	15	53.00	7.8X
LPB	163.00	123	ePKP	15	52.00	7.0X
ZOBO	163.11	122	ePKP	16	00.00	14.7X
	S.D. = 0.9	on	54 of	63 obs.		

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* FEB 09, 1989 22h 31m 24.40± 0.75s
38.053 N ± 9.6km 106.309 E ± 7.8km
DEPTH = 10.0km (geophysicist)
3.2mb (1 obs.)
NORTHERN CHINA (323)
ML 4.0 (BJI).

LZH	2.78	226	Pn	32	15.00	5.0X
			Pg	32	18.00	
BTO	3.84	47	Pn	32	25.00	0.1
			Pg	32	37.40	
			Sg	33	23.40	
XAN	4.53	151	Pnc	32	35.50	0.9
			Pg	32	48.70	
			Sg	33	44.00	
TIY	4.86	92	ePn	32	38.50	-0.8
			Pg	32	53.30	
			Sn	33	35.20	
			Sg	33	52.30	
HHC	4.93	54	Pn	32	40.30	-0.1
			Pg	32	54.60	
			Sn	33	36.80	
			Sg	33	52.80	
GTA	5.26	287	Pn	32	46.50	1.5
CD2	7.43	197	ePg	33	48.20	32.7X
WHN	10.01	136	eP	33	52.00	0.7
GUN	19.86	245	P	35	57.00	-1.9
CHTO	20.22	201	e(P)	36	02.00	-0.3
	0.7s	0.95nm			3.2mb	
INK	65.02	21	eP	42	11.50	5.1X
	S.D. = 1.2	on	8 of	11 obs.		

FEB 09, 1989 22h 49m 02.11± 0.41s
22.611 S ± 3.5km 66.086 W ± 5.9km
DEPTH = 247.3 ± 4.5 km
5.2mb (38 obs.)
JUJUY PROVINCE, ARGENTINA (128)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 22C
Centroid Locotion:
Origin Time 22:49: 9.7 0.5
Lat 22.23S 0.06 Lon 66.00W 0.07
Dep 269.4 2.7 Holf-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr= 0.51 0.06 Mtt= 0.07 0.09
Mff=-0.58 0.09 Mrt= 0.07 0.09
Mrf=-1.39 0.07 Mtf= 0.38 0.09
Principal Axes:

	Vol=	1.47	Plg=54	Azm=101
N		0.13	12	354
P		-1.60	33	256

Best Double Couple:Mo=1.5*10**17
NP1:Strike=307 Dip=16 Slip= 42
NP2: 176 79 102

HJA	0.87	134	iPc	49	39.50	3.1
CCH	5.20	359	iPc	50	21.00	-0.2
CNCB	6.04	342	iPc	50	33.10	1.2
LPB	6.34	342	Pc	50	37.00	1.5
	1.0s	740.00nm			5.6mb	
			S	51	49.00	
ZOBO	6.59	343	iPc	50	38.80	-0.1
Z	20s	1.43um				
			S	51	42.00	
			LR	52	00.00	
ARE	7.96	319	iPc	50	53.60	-2.3
CFA	9.16	192	ePd	51	09.50	-1.6
ZON	9.19	194	eP	51	10.00	-1.5
			eS	52	47.00	
JACH	10.80	201	ePc	51	32.40	0.6
PEL	11.25	200	iPc	51	37.00	-0.4
FCH	11.30	198	eP	51	39.50	1.1
TACH	11.80	200	ePc	51	44.00	-0.3
LCCH	11.85	203	iP	51	44.00	-0.9
CHCH	11.97	199	ePc	51	47.00	0.5
VBA	15.79	168	ePd	52	30.50	-2.9
BRAS	18.94	94	iPd	52	55.80	-11.2X
ITA	19.76	93	eP	53	15.20	-0.2
			e	53	23.40	
			e	53	49.90	
BMA	20.24	94	ePd	53	20.70	0.8
ATB	23.44	37	e(P)	53	48.00	-2.9
VVO	64.12	333	eP	59	10.90	-1.2
RLO	64.54	334	eP	59	12.80	-2.0
LNO	64.64	334	eP	59	13.90	-1.4
TUL	64.64	334	e(P)	59	14.80	-0.6
	1.2s	14.50nm			4.6mb	
SIO	64.71	333	e(P)	59	14.70	-1.2
LIC	66.21	72	P	59	23.68	-2.2
TIC	66.41	72	P	59	25.08	-2.1
KIC	66.52	72	P	59	25.24	-2.6
	0.4s	24.00nm			5.3mb	
SPA	67.53	180	e(P)	59	35.00	1.4
	0.8s	41.67nm			5.2mb	
GAC	68.52	353	eP	59	39.00	-0.5
ALQ	68.87	325	eP	59	41.70	-0.5
	0.9s	8.40nm			4.5mb	
			epP	00	44.00	270kmX
LEGH	70.24	75	eP	59	49.50	-1.2
KUK	70.31	74	eP	59	49.00	-2.1
KOGH	70.38	74	eP	59	50.00	-1.6
SHGH	70.49	75	eP	59	52.00	-0.2
CER	74.24	120	iPd	00	22.00	8.0X
SYO	74.51	159	ePc	00	14.80	0.0
POF	75.98	116	iPc	00	24.00	0.3
BW06	76.40	329	eP	00	26.10	0.1
			pP	01	29.50	271kmX
SCH	77.11	360	eP	00	28.00	-1.3
	0.7s	29.00nm			5.1mb	
TNP	77.13	321	eP	00	31.00	0.9
			pP	01	34.00	268kmX
TIO	77.55	49	iP	00	32.60	0.1
			i	01	34.00	
KVN	78.29	321	iP	00	36.10	-0.3
			pP	01	39.80	270kmX
AVE	78.84	47	iP	00	40.00	0.7
GRM	80.03	122	iPc	00	46.00	0.2
	1.0s	50.00nm			5.2mb	
LRM	80.06	329	eP	00	46.70	0.9
			e	01	50.40	
FRS	80.27	118	iPc	00	47.00	0.0
	1.3s	57.69nm			5.1mb	
IFR	80.52	48	iPd	00	49.00	0.6
EVAL	81.83	44	e(P)	00	55.00	0.2
CGY	82.35	115	iPc	00	57.00	-0.9
	0.5s	19.01nm			5.1mb	
MAW	82.50	163	eP	00	59.00	1.1
SEK	82.66	117	iPd	01	00.40	0.7
	0.5s	14.08nm			4.9mb	
SES	82.83	333	eP	01	00.00	0.2
FFC	82.94	340	eP	01	00.50	0.3
	1.0s	20.00nm			4.8mb	
PRY	83.05	116	iPc	01	01.00	-0.7
	1.1s	29.73nm			4.9mb	
TAF	83.11	48	iP	01	02.00	0.4
ATEJ	83.21	45	eP	01	02.70	0.6
ALOJ	83.26	45	eP	01	02.70	0.3
AAPN	83.36	45	eP	01	03.50	0.7
ACHM	83.44	45	eP	01	03.40	0.2
APHE	83.44	46	eP	01	03.70	0.4
ASMO	83.64	45	eP	01	05.00	0.8
EPLA	83.72	42	e(P)	01	05.00	0.5
BPI	83.79	116	iPd	01	04.00	-1.4
	1.2s	84.38nm			5.4mb	
EBAN	84.07	45	e(P)	01	06.40	0.2

SLR	84.17	115	iPc	01	07.30	0.0
	1.2s	70.31nm			5.4mb	
TOL	84.88	43	iPd	01	14.00	3.8X
	1.5s	555.56nm			6.2mb	
EVIA	85.16	45	e(P)	01	12.00	0.2
GUD	85.25	42	e(P)	01	12.00	-0.2
FRB	86.09	359	eP	01	15.00	-0.5
BUL	86.58	110	iPd	01	18.80	-0.4
	1.0s	41.00nm			5.2mb	
KMZ	86.66	103	iPd	01	20.40	0.8
ETOR	86.66	43	e(P)	01	20.00	1.0
BCAO	86.73	84	eP	01	19.90	0.0
	1.3s	24.92nm			4.9mb	
		pP		02	26.90	280kmX
BNG	86.74	84	iPd	01	20.20	0.3
	1.5s	50.00nm			5.1mb	
		id		04	42.70	
EPF	89.37	42	eP	01	32.20	0.5
	1.2s	32.70nm			5.1mb	
LFF	90.62	41	eP	01	37.50	0.1
	1.2s	49.90nm			5.3mb	
LPO	90.76	41	eP	01	38.30	0.3
	1.3s	36.10nm			5.1mb	
MFF	90.98	39	eP	01	38.80	-0.2
	1.2s	73.70nm			5.5mb	
LPF	91.24	37	eP	01	39.70	-0.4
	1.1s	36.10nm			5.2mb	
PTZ	91.28	106	iP	01	43.00	1.8
RJF	91.28	41	eP	01	40.30	-0.1
	1.2s	23.80nm			5.0mb	
CAF	91.42	41	eP	01	41.30	0.2
	1.2s	17.80nm			4.9mb	
GRR	91.54	37	eP	01	41.10	-0.4
LSF	91.78	40	eP	01	42.50	-0.2
FLN	91.95	37	eP	01	42.90	-0.5
	1.1s	36.10nm			5.3mb	
LDF	92.06	37	eP	01	43.50	-0.4
	1.2s	49.90nm			5.4mb	
TCF	92.20	40	eP	01	44.30	-0.4
MAF	92.38	40	eP	01	45.50	0.0
	1.3s	30.30nm			5.2mb	
BGF	92.72	40	eP	01	46.90	-0.1
	1.1s	19.50nm			5.1mb	
YKC	93.06	340	eP	01	48.50	0.3
	0.7s	13.00nm			5.1mb	
YKA	93.12	340	P	01	48.90	0.4
AVF	93.14	40	eP	01	48.70	-0.2
	1.5s	38.60nm			5.2mb	
SMF	93.36	40	eP	01	50.00	0.0
SSF	93.36	40	eP	01	49.40	-0.6
LRG	93.38	44	eP	01	50.60	0.5
	1.2s	35.70nm			5.3mb	
LMR	93.42	44	eP	01	50.60	0.3
	1.5s	45.90nm			5.3mb	
LBF	93.61	40	eP	01	50.50	-0.7
FRF	93.62	44	eP	01	51.40	0.2
	1.5s	56.40nm			5.4mb	
LOR	93.68	40	eP	01	50.90	-0.5
	1.2s	23.80nm			5.2mb	
CALN	93.86	44	P	01	53.41	0.9
MVIF	94.10	44	P	01	54.45	0.8
AURF	94.21	44	P	01	54.49	0.4
TOUF	94.21	44	P	01	55.01	0.8
SBF	94.26	44	eP	01	54.60	0.3
	1.3s	50.50nm			5.5mb	
AUTN	94.32	44	P	01	55.25	0.5
SAOF	94.40	44	P	01	55.38	0.5
LPG	94.59	42	eP	01	56.80	0.8
	1.3s	32.40nm			5.4mb	
CVF	94.61	46	P	01	55.88	0.0
HAU	95.51	40	eP	01	59.70	-0.1
BSF	95.69	40	eP	02	00.30	-0.5
CDF	96.24	40	eP	02	02.80	-0.4
GRF	99.14	40	eP	02	17.00	0.8
	1.3s	19.00nm			5.4mb	
MHI	131.27	61	iPKPd	07	47.20	0.6
		i		10	50.00	
WB2	133.23	207	iPdiff	04	58.90	10.4X
WB5	133.28	207	iPdiff	04	58.90	10.2X
QUE	137.50	70	ePKP	07	49.00	-9.8X
KOD	143.05	103	ePKP	08	07.00	-2.2X
GBA	144.27	98	PKP	08	08.00	-2.8X
HYB	146.43	92	ePKPd	08	15.00	0.6
	1.0s	120.00nm				
NDI	146.46	72	iPKPd	08	15.50	1.3
	1.0s	70.00nm				
WMQ	149.75	39	iPKPc	08	25.00	6.0X

KLI	151.29	161	ePKP	08	29.00	7.0X
GKN	153.03	72	PKP	08	25.20	0.9
DMN	153.48	73	PKP	08	25.90	0.8
KKN	153.61	73	PKP	08	25.90	0.7
PKI	153.75	73	PKP	08	26.20	0.6
GUN	154.13	72	PKP	08	26.70	0.6
GTA	159.39	32	PKP	08	33.20	1.2
HHC	161.71	6	ePKP	08	36.50	2.2X
BJI	162.52	354	ePKP	08	36.50	1.6
CD2	167.73	46	ePKP	08	41.60	1.8
	S.D. = 1.0	on 120 of 131 obs.				

FEB 09, 1989 23h 22m 07.69± 0.70s
39.826 N ± 6.6km 120.772 W ± 6.8km
DEPTH = 5.0km (geophysicist)
NORTHERN CALIFORNIA (36)
ML 2.4 (BRK).

ORV	0.62	245	iPc	22	20.60	0.4
			iS	22	28.30	
MIN	0.82	309	e(P)	22	23.70	-0.5
			eS	22	33.60	
LTCM	1.11	291	eP	22	28.80	-0.1
WDC	1.55	300	eP	22	35.40	-0.6
			eS	22	56.90	
LBFM	1.74	331	eP	22	40.00	1.0
CMB	1.81	170	eP	22	40.20	0.3
			eS	23	04.50	
KVN	2.21	110	eP	22	45.50	-0.2
ARN	2.54	194	eP	22	50.00	-0.3
	S.D. = 0.7	on 8 of 8 obs.				

FEB 09, 1989 23h 49m 16.16± 0.20s
8.548 S ± 3.2km 29.836 E ± 4.8km
DEPTH = 35.4km (13 depth phases)
5.2mb (42 obs.)
LAKE TANGANYIKA REGION (572)

PTZ	5.85	166	iPnd	50	42.90	-0.1
			iSn	51	44.90	
KMZ	6.26	219	iPnc	50	48.70	-0.1
			iSn	53	28.30	
LWI	6.35	351	iP	50	47.20	-2.9X
			iS	51	46.70	
SONG	7.58	158	iPnd	51	04.00	-3.2X
			iSn	52	27.50	
			iSg	53	13.00	
CLK	8.69	145	iPn	51	20.20	-2.4
			iSn	52	52.00	
			iSg	53	45.40	
NAI	10.02	44	iPc	51	37.00	-4.0X
	0.8s	23.88nm			5.5mb	
			S	54	28.50	
NPA	11.28	126	iPc	51	53.00	-5.1X
			iSn	53	53.00	
			iSg	55	06.00	
BUL	11.59	186	iPnc	51	58.10	-4.3X
			iSn	54	00.00	
			iSg	55	17.00	
BNG	17.12	318	iPc	53	09.30	-5.2X
	0.2s	14.00nm			4.7mb	
			iS	56	07.20	
			Lg	58	11.50	
BCAO	17.13	318	ePn	53	08.30	-6.3X
SLR	17.16	185	eP	53	10.00	-5.1X
			S	56	14.00	
BPI	17.61	185	eP	53	13.00	-7.8X
			S	56	18.50	
CGY	18.01	190	eP	53	25.50	0.0
			S	56	31.00	
PRY	18.42	187	eP	53	27.30	-3.4X
			S	56	00.50	
BFS	18.48	189	eP	53	30.50	-1.0
			S	56	40.00	
SEK	19.78	186	iPd	53	43.60	-3.0X
			S	57	11.50	
AVY	20.19	123	iPc	53	51.12	0.1
FRS	21.51	191	iPc	54	05.50	1.3
			(S)	58	12.50	
POF	22.71	203	iPc	54	17.00	0.9
			S	58	41.00	
GRM	24.83	187	eP	54	53.50	16.8X
			S	59	25.00	
SUR	25.15	198	eP	54	56.50	16.6X
			S	59	41.00	
SHGH	33.08	295	eP	55	50.00	-1.1
LEGH	33.09	294	eP	55	51.00	-0.1

KOGH	33.33	295	eP	55	53.50	0.2
KUK	33.49	295	eP	55	54.50	-0.1
KIC	37.52	292	Pd	56	28.60	-0.3
	0.9s	132.00nm			5.8mb	
LIC	37.73	292	Pd	56	30.28	-0.4
TIC	37.89	292	Pd	56	31.66	-0.3
	0.6s	116.00nm			5.9mb	
PRNI	38.98	7	iP	56	42.30	1.3
JVI	40.59	7	iP	56	55.70	1.5
ADI	41.71	7	eP	57	05.10	1.7
BCK	45.77	1	eP	57	36.90	0.7
BBTK	48.22	3	iPd	57	56.00	0.5
GIB	48.59	343	P	58	05.80	7.4X
TDS	49.57	346	P	58	06.20	0.4
VAY	50.07	353	iP	58	10.00	0.4
			i	58	21.00	38km
OHR	50.11	351	eP	58	07.50	-2.5
SKO	50.86	352	iP	58	15.50	-0.1
			i	58	25.20	32km
KOD	50.95	69	eP	58	24.10	7.0X
SDI	52.12	345	P	58	25.00	-0.3
GBA	52.13	65	P	58	31.00	5.4X
			e	59	36.00	305kmX
RDP	52.47	344	P	58	28.00	0.1
QUE	52.48	41	iP	58	29.50	1.2
AZI	52.49	345	P	58	28.20	0.3
MHI	52.61	30	eP	58	29.00	0.0
TAF	52.82	327	iPd	58	32.00	1.4
			i	59	43.00	337kmX
TIO	52.96	320	iPd	58	32.40	0.6
MNS	53.06	344	P	58	31.60	-0.6
IFR	53.42	323	iP	58	36.50	1.4
BEO	53.79	352	eP	58	37.50	0.1
MLR	53.90	357	ePc	58	38.50	0.1
VRI	54.24	357	ePc	58	41.00	0.3
CVF	54.36	341	eP	58	40.80	-0.9
	1.0s	17.60nm			5.0mb	
HYB	54.61	62	eP	58	43.00	-1.0
AVE	54.64	322	iP	58	44.50	0.6
PII	54.90	343	P	58	45.20	-0.4
APHE	55.10	327	iPc	58	48.50	1.1
CRT	55.23	328	eP	58	50.50	2.3
ATEJ	55.25	327	iP	58	49.50	1.0
AFC	55.25	328	e(P)	58	48.40	-0.1
ACHM	55.29	327	iP	58	50.00	1.3
VBY	55.38	348	eP	58	49.30	0.2
ASMO	55.43	328	iPc	58	50.70	0.9
ALOJ	55.44	327	iP	58	50.50	0.6
AAPN	55.60	327	iPd	58	51.20	0.3
PTJ	55.61	348	eP	58	50.60	-0.3
EJIF	55.71	326	e(P)	58	51.40	-0.2
EVIA	55.76	330	e(P)	58	52.70	0.6
CEY	55.78	347	ePd	58	52.00	0.0
LMR	55.83	340	eP	58	51.80	-0.5
	1.1s	21.40nm			5.1mb	
EPRU	55.95	326	e(P)	58	53.20	-0.2
FRF	55.98	340	eP	58	52.90	-0.5
	1.2s	20.20nm			5.0mb	
SBF	55.98	341	eP	58	52.70	-0.9
	1.0s	40.00nm			5.4mb	
LRG	55.98	340	eP	58	53.10	-0.3
	1.1s	24.40nm			5.1mb	
LJU	56.05	347	eP	58	53.70	-0.2
EBAN	56.06	328	e(P)	58	53.50	-0.6
VOY	56.18	347	ePd	58	54.50	-0.5
CKI	56.21	342	P	58	54.00	-1.1
EHOR	56.58	327	e(P)	58	57.00	-0.8
RBL	56.64	347	Pd	58	57.50	-0.8
CTI	56.74	345	P	58	59.00	0.0
FVI	56.97	346	P	59	08.00	7.6X
MDI	57.01	343	P	58	59.00	-1.8
SRO	57.03	351	eP	59	01.20	0.3
ETOR	57.24	332	e(P)	59	03.00	0.4
BNI	57.29	341	P	59	03.50	0.5
KBA	57.29	347	iPd	59	02.70	-0.3
	1.0s	16.90nm			5.0mb	
		i		59	12.90	33km
TOL	57.49	329	eP	59	05.00	0.7
ZST	57.61	350	eP	59	04.50	-0.4
		e		01	23.50	33km
		e		59	14.60	
LPG	57.66	341	eP	59	04.80	-0.9
	1.1s	22.90nm			5.1mb	
VKA	57.81	349	iPd	59	05.80	-0.6
	0.8s	36.40nm			5.5mb	
		e		59	17.00	38km
EPF	57.94	335	eP	59	07.80	0.4

09d 23h

1.1s 29.30nm 5.3mb
SPC 58.10 353 iP 59 09.10 0.5
GUD 58.12 330 e(P) 59 08.50 -0.3
EPLA 58.66 328 e(P) 59 12.70 0.2
CAF 58.82 337 eP 59 13.70 0.2
1.2s 22.00nm 5.2mb
LPO 58.96 336 eP 59 14.50 0.1
1.2s 44.00nm 5.5mb
KRA 58.99 353 eP 59 13.30 -1.3
0.9s 27.00nm 5.4mb
e 59 24.20 37km
KHC 59.18 348 iPd 59 15.70 -0.3
0.9s 32.00nm 5.5mb
e 59 26.20 35km
LFF 59.35 336 eP 59 17.20 0.1
0.8s 21.40nm 5.3mb
RJF 59.35 337 eP 59 17.10 0.0
SMF 59.64 340 eP 59 18.90 -0.2
1.1s 25.30nm 5.3mb
BSF 59.73 342 eP 59 19.30 -0.6
1.0s 25.60nm 5.3mb
MAF 59.73 338 eP 59 20.00 0.2
1.2s 38.60nm 5.4mb
PRU 59.80 349 ePd 59 18.50 -1.7
LBF 59.89 340 eP 59 20.10 -0.8
1.1s 26.80nm 5.3mb
BGF 59.91 339 eP 59 20.90 -0.1
1.1s 14.60nm 5.0mb
TCF 59.92 338 eP 59 21.40 0.3
1.5s 64.70nm 5.5mb
AVF 59.93 339 eP 59 20.90 -0.2
1.1s 25.30nm 5.3mb
HAU 60.02 342 eP 59 21.50 -0.2
1.1s 31.20nm 5.4mb
CDF 60.10 343 eP 59 21.50 -0.9
0.8s 18.80nm 5.3mb
SSF 60.11 340 eP 59 21.80 -0.6
LSF 60.14 338 eP 59 22.50 0.0
LOR 60.17 340 eP 59 22.10 -0.7
1.1s 24.40nm 5.2mb
GRF 60.24 346 eP 59 23.10 -0.1
1.1s 51.00nm 5.6mb
KSP 60.30 350 eP 59 22.00 -1.6
BRG 60.76 349 eP 59 25.20 -1.5
1.0s 12.00nm 5.0mb
e 59 39.00 50kmX
MOX 61.04 347 eP 59 28.50 -0.1
1.1s 29.00nm 5.3mb
e 59 39.00 35km
CLL 61.36 348 eP 59 30.00 -0.8
1.3s 20.00nm 5.1mb
e 59 41.00 37km
WLF 61.56 343 Pc 59 32.60 0.5
e 59 43.30 36km
DOU 62.41 342 Pc 59 37.80 0.0
1.0s 27.80nm 5.3mb
ENN 62.61 343 eP 59 39.00 -0.1
1.0s 24.00nm 5.3mb
e 59 50.00 37km
SNF 62.87 342 Pd 59 41.10 0.3
WTS 63.46 344 eP 59 45.00 0.3
1.0s 16.00nm 5.1mb
e 59 56.00 36km
NUR 68.96 357 iP 00 18.60 -0.9
EKA 69.34 341 Pc 00 22.50 0.4
1.1s 22.00nm 5.1mb
HFS 69.66 351 eP 00 22.50 -1.4
1.0s 13.40nm 4.9mb
NB2 70.90 351 P 00 31.40 -0.1
1.2s 29.80nm 5.2mb
SUF 71.11 358 iP 00 32.30 -0.3
0.7s 7.50nm 4.8mb
BMA 72.03 249 ePc 00 40.40 1.3
epP 00 50.90 34km
ITA 72.55 249 eP 00 43.20 0.7
KJF 72.56 359 iP 00 41.00 -0.2
0.8s 19.10nm 5.1mb
CHTO 73.34 67 iP 00 46.90 0.2
0.9s 7.89nm 4.7mb
pP 00 54.20 23kmX
WMQ 73.80 40 P 00 50.10 1.0
VAO 74.61 249 eP 00 53.00 -1.2
SOD 75.76 359 eP 01 00.00 0.3
KEV 78.15 359 iP 01 14.00 1.1
0.6s 14.30nm 5.2mb
GYA 82.15 62 P 01 36.20 0.8
LZH 82.29 52 eP 01 38.00 2.0

1.5s 0.05nm 2.3mb X
HHC 89.33 49 eP 02 12.60 2.0
BJI 92.64 50 P 02 24.00 -1.7
YKA 120.29 342 PKP 08 06.00 1.2
MEO 126.14 307 ePKP 08 18.00 0.9
1.0s 14.80nm
SES 127.20 330 ePKP 08 19.00 0.4
S.D. = 0.9 on 127 of 144 obs.

FEB 10, 1989 00h 36m 49.35± 0.41s
26.019 N ± 5.8km 99.523 E ± 5.6km
DEPTH = 10.0km (geophysicist)
4.4mb (5 obs.)
YUNNAN PROVINCE, CHINA (318)
ML 4.3 (BJI).

KMI 3.04 106 Pnc 37 40.00 1.4
Pg 37 45.00
Sn 38 15.00
Sg 38 22.00
CD2 6.13 36 ePn 38 24.60 2.3
GYA 6.43 85 Pn 38 25.80 -0.7
Pg 38 45.20
Sn 39 31.40
CHG 7.19 184 iPn 38 37.90 0.8
iPg 39 04.60
CHTO 7.19 184 iPn 38 37.20 0.1
iPg 39 03.60
LSA 8.27 298 Pc 38 55.00 2.4
LOE 8.81 166 eP 39 01.00 1.3
NST 10.31 177 eP 39 20.50 0.1
LZH 10.70 19 eP 39 28.00 2.2
2.0s 0.07nm 2.7mb X
XAN 11.41 43 P 39 33.00 -2.4
N 12s 2.60um
E 13s 1.90um
S 41 40.00
QIZ 11.80 124 eP 39 38.20 -2.5
GUN 12.32 282 P 39 47.00 -1.0
PKI 12.70 280 P 39 51.20 -2.0
KKN 12.83 281 P 39 53.40 -1.4
DMN 12.97 280 P 39 55.00 -1.7
0.6s 22.00nm 5.5mb X
GKN 13.42 282 P 40 00.40 -2.1
WHN 13.82 68 eP 40 04.00 -3.6X
TIY 15.99 40 iPc 40 40.00 4.1X
Z 10s 1.27um
E 10s 1.10um
BTO 16.96 28 eP 40 47.00 -1.3
HHC 17.85 31 eP 40 58.10 -1.4
BJI 19.71 41 eP 41 22.00 0.1
N 12s 0.90um
E 12s 0.70um
NDI 19.99 283 eP 41 26.00 1.1
WMQ 20.20 335 iPc 41 28.10 1.1
PSI 23.20 182 ePd 41 59.60 2.3
GBA 24.13 243 Pc 42 07.10 0.8
0.8s 3.10nm 4.0mb
MHI 35.54 297 iPc 43 50.00 1.3
WB5 56.80 140 eP 46 35.10 -1.2
WRA 56.84 140 Pc 46 35.30 -1.3
0.7s 6.30nm 4.8mb
WB2 56.84 140 eP 46 35.10 -1.5
KJF 58.99 331 eP 46 57.00 5.9X
ASPA 59.55 143 iPc 46 56.30 0.8
SUF 59.61 329 eP 46 56.00 0.5
NUR 60.31 327 eP 47 12.00 11.7X
SLL 65.89 327 eP 47 36.80 -0.4
0.5s 0.70nm 4.1mb
NB2 66.79 328 P 47 42.60 -0.4
0.8s 2.10nm 4.4mb
LPG 73.77 313 eP 48 37.20 11.2X
0.8s 6.70nm
LRG 74.76 311 eP 48 32.20 0.8
TCF 76.41 315 eP 48 42.00 1.2
1.1s 14.60nm 5.0mb
INK 78.24 18 eP 48 51.00 0.6
S.D. = 1.5 on 34 of 39 obs.

& FEB 10, 1989 01h 04m 24.00s
50.065 N 64.655 W
DEPTH = 18.0km (geophysicist)
EASTERN QUEBEC (449)
<OTT-P>. mbLg 4.4 (OTT). Felt (IV) at Riviere-St.-Jean and Mingon; (III) at Port-Cartier, Sept-Iles and Port-Menier.

GSQ 1.97 235 P 04 56.93 0.0
eLg 05 24.49
HTQ 2.58 252 Pc 05 04.75 -0.9
eLg 05 43.57
MNQ 2.68 282 Pd 05 06.28 -0.9
eLg 05 49.43
KLN 3.42 200 Pc 05 16.37 -1.2
EBN 3.52 224 P 05 18.24 -0.7
CBM 3.89 218 eP 05 22.50 -1.7
LMN 4.22 181 P 05 26.32 -2.6
LPQ 4.47 234 P 05 31.14 -1.3
SCH 4.93 346 eP 05 36.30 -2.7
MIM 5.66 213 eP 05 46.30 -2.9
EMM 5.66 201 eP 05 47.00 -2.3
BNH 7.08 222 eP 06 06.00 -3.2
STJ 8.26 103 eP 06 26.00 0.4
GAC 8.48 243 ePc 06 23.70 -5.0
RSNY 8.68 234 eP 06 26.80 -4.8
PTN 8.91 236 eP 06 30.00 -4.6
PNJ 11.32 220 eP 07 00.00 -7.7
FRB 13.88 353 eP 07 34.00 -7.8
BLA 17.14 227 eP 08 20.00 -4.0
RSON 18.46 284 eP 08 35.70 -4.6
FFC 23.06 296 eP 09 27.00 -2.0
YKA 29.57 314 P 10 33.70 4.2
INK 37.23 325 eP 11 40.00 4.4
23 obs. associated

& FEB 10, 1989 01h 17m 25.39s
59.282 N 152.005 W
DEPTH = 54.2km
SOUTHERN ALASKA (2)
<AGS-P>.

HOM 0.42 26 eP 17 35.91 -0.2
eS 17 45.07
CNPM 0.46 58 iP 17 36.00 -0.6
iS 17 44.60
AUI 0.73 275 eP 17 39.31 -0.5
eS 17 49.71
AUL 0.74 278 eP 17 39.51 -0.4
eS 17 51.10
BRLK 0.75 49 eP 17 39.45 -0.6
eS 17 51.07
NNL 0.84 25 iP 17 41.68 0.4
iS 17 53.59
ILIM 0.94 329 iP 17 41.81 -0.8
iS 17 54.79
RED 1.20 342 eP 17 45.43 -0.9
eS 18 01.80
RDT 1.31 351 eP 17 46.90 -0.9
iS 18 04.36
NKA 1.52 14 eP 17 52.05 1.5
SLKM 1.52 35 iP 17 50.15 -0.5
SEW 1.54 56 eP 17 49.75 -1.0
eS 18 10.07
KDC 1.56 190 eP 17 49.77 -1.3
eS 18 09.06
SPU 1.91 359 eP 17 55.73 -0.3
CRP 1.99 358 eP 17 57.46 0.1
eS 18 24.75
PTE 2.18 42 eP 17 58.92 -0.9
PMS 2.32 31 iP 18 01.53 -0.3
eS 18 28.96
PWL 2.43 48 eP 18 01.93 -1.4
eS 18 29.53
SVW 2.57 317 eP 18 03.91 -1.5
KNK 2.77 38 eP 18 06.80 -1.5
eS 18 38.05
PME 2.78 31 eP 18 07.10 -1.2
GHO 2.93 30 eP 18 09.31 -1.3
SML 3.12 34 eP 18 11.76 -1.5
VZW 3.26 54 eP 18 12.68 -2.5
SGAM 3.64 67 eP 18 18.05 -2.5
KLU 3.75 51 eP 18 20.27 -1.9
TOA 4.03 43 eP 18 25.31 -0.8
27 obs. associated

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* FEB 10, 1989 01h 28m 57.84± 1.40s
51.190 N ±15.6km 15.678 E ± 7.0km
DEPTH = 5.0km (geophysicist)
POLAND (548)
ML 3.5 (VKA), 3.4 (KBA).

KSP 0.52 132 iPd 29 06.50 -1.8
iS 29 15.00
BRG 1.14 255 ePn 29 19.60 0.0

			iPg	30 21.10		
			iSg	30 40.90		
PRU	1.40	211	Pn	29 24.50	0.4	
			Pg	29 26.00		
			Sn	29 43.00		
			Sg	29 48.50		
CLL	1.69	275	iPn	29 26.80	-1.3	
			iPg	29 30.00		
			iSg	29 55.10		
KHC	2.46	214	iPn	29 40.10	0.7	
			Pg	29 46.50		
			Sn	30 15.60		
			Sg	30 24.50		
MOX	2.63	260	ePn	29 42.00	0.4	
			iPg	29 49.00		
			iSg	30 28.00		
KRA	2.94	111	eP	29 47.70	1.6	
			eS	30 26.70		
VKA	2.96	172	iPgd	29 54.30	8.0X	
			iSg	30 37.50		
			i	30 38.30		
ZST	3.14	162	e(Pn)	29 53.80	5.0X	
GRF	3.22	244	e(Pn)	29 50.00	0.0	
			eSg	30 47.50		
SOP	3.56	170	eP	30 18.80	24.0X	
KBA	4.39	201	iPnc	30 06.80	-0.1	
			iSg	31 25.50		
			i	31 29.60		

S.D. = 1.2 on 9 of 12 obs.

& FEB 10, 1989 03h 56m 19.90s
33.000 N 117.860 W
DEPTH = 6.0km (geophysicist)
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.4 (PAS).

SCI	0.58	268	iPd	56 31.00	-0.5	
CIS	0.61	312	ePc	56 30.80	-1.3	
CPE	0.65	100	ePc	56 31.90	-1.0	
PLM	0.91	67	iPc	56 36.10	-1.7	
BAR	1.05	107	ePc	56 38.50	-1.6	
PEC	1.06	33	iPd	56 38.80	-1.5	
RVR	1.07	22	eP	56 38.80	-1.6	
IKP	1.52	103	iPc	56 46.30	-1.4	
ABL	2.17	329	eP	56 55.50	-1.7	
GLA	2.55	88	eP	56 59.80	-2.7	
BLP	2.63	307	eP	57 01.00	-2.6	
BCH	2.86	320	eP	57 04.50	-2.5	
PHAM	3.52	324	eP	57 13.70	-2.6	
TNP	5.10	6	e(P)	57 37.50	-1.3	
CMB	5.43	338	e(P)	57 38.50	-4.9	
KVN	6.04	358	eP	57 48.50	-3.6	

16 obs. ossocioted

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* FEB 10, 1989 04h 25m 25.74± 1.40s
35.259 N ±18.7km 27.027 E ± 9.4km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
MD 3.8 (ATH).

KAP	0.31	22	ePg	25 32.50	0.2	
NPS	1.16	271	ePb	25 47.40	0.0	
KSL	2.25	67	ePn	26 04.00	0.4	
VAM	2.32	274	ePb	26 08.00	3.5X	
ELL	2.77	57	eP	26 11.50	0.4	
BCK	3.62	52	eP	26 22.00	-1.1	

S.D. = 0.9 on 5 of 6 obs.

FEB 10, 1989 04h 31m 04.29± 0.39s
44.439 N ± 3.0km 7.274 E ± 4.5km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.9 (LDG), 2.8 (GEN).

PZZ	0.14	298	Pc	31 08.61	0.9	
			S	31 11.09		
FOUF	0.36	285	P	31 12.05	0.3	
			Sg	31 17.10		
TOUF	0.43	183	Pg	31 12.78	-0.3	
ROB	0.45	108	P	31 13.48	0.0	
			S	31 19.69		
AUTN	0.46	166	Pg	31 13.27	-0.4	
MVIF	0.55	189	Pg	31 15.07	-0.4	
			Sg	31 22.61		
AURF	0.55	176	Pg	31 15.07	-0.5	
RRL	0.59	324	P	31 16.40	-0.1	
			S	31 24.65		
IMI	0.69	140	P	31 17.37	-0.6	
			S	31 26.53		
FIN	0.71	109	P	31 17.88	-0.4	
			S	31 27.05		
RSP	0.71	359	P	31 17.27	-1.1	
			S	31 26.85		
CALN	0.74	202	Pg	31 18.87	0.0	
			Sg	31 28.42		
FRF	0.99	207	Pg	31 22.90	-0.1	
			Sg	31 35.50		
LSD	1.02	355	P	31 23.70	-0.1	
LPG	1.12	341	Pg	31 26.30	0.8	
			Sg	31 40.60		
LPL	1.14	341	Pg	31 26.50	0.6	
			Sg	31 40.90		
LRG	1.18	214	Pg	31 26.60	0.2	
			Sg	31 40.90		
LMR	1.24	207	Pg	31 27.30	0.1	
			Sg	31 42.60		
CVF	2.20	148	Pn	31 44.20	2.8	
BGF	3.77	306	Pn	32 02.00	-1.7	

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

FEB 10, 1989 04h 53m 28.70± 0.46s
40.278 N ± 5.1km 25.650 E ± 4.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 3.7 (ATH).

EZN	0.69	131	iPg	53 41.90	-0.4	
RDO	0.87	354	ePn	53 45.60	0.2	
PRK	1.14	155	ePn	53 50.50	0.5	
			eSn	54 07.00		
KDZ	1.38	353	iPc	53 54.00	0.0	
RZN	1.58	334	iPd	53 56.00	-0.9	
PLG	1.69	274	ePn	53 58.00	-0.4	
EDC	1.69	87	iPn	53 58.50	0.0	
BNT	1.74	87	iPn	53 59.90	0.8	
MMB	1.96	313	iPc	54 02.00	-0.3	
PLD	1.96	339	eP	54 07.00	4.7X	
KCT	2.07	90	iPn	54 08.50	4.5X	
DMK	2.22	45	ePn	54 04.00	-2.1	
IZM	2.26	146	iPn	54 06.50	-0.2	
CTT	2.28	67	iPn	54 05.40	-1.6	
JMB	2.30	18	iPd	54 12.00	4.8X	
DST	2.39	105	iPn	54 09.40	0.9	
KKB	2.51	310	eP	54 10.00	-0.2	
PGB	2.53	334	iPc	54 10.00	-0.5	
VAY	2.56	295	ePn	54 12.40	1.5	
ISK	2.71	72	ePn	54 16.00	2.9X	
GBZT	2.94	79	ePn	54 29.50	13.2X	
VTS	2.95	322	iP	54 21.00	4.4X	
SZH	2.99	4	eP	54 17.00	0.0	
GPA	3.56	88	ePn	54 20.60	-4.6X	
KHL	3.58	122	iPn	54 25.50	0.0	
SKO	3.60	299	ePn	54 27.50	1.8	
OHR	3.78	284	ePn	54 26.50	-1.9	
TLB	4.65	21	ePc	54 54.00	13.4X	
ISR	4.90	7	eP	54 41.00	-3.2X	
MLR	5.22	2	ePc	54 50.00	1.3	
CFR	5.24	20	ePd	54 51.00	2.1	
BBTK	5.47	92	eP	55 03.50	11.1X	
			iS	56 27.50		
VRI	5.64	8	ePc	54 55.00	0.4	
BZS	6.10	332	ePc	55 00.00	-1.0	

S.D. = 1.1 on 24 of 34 obs.

& FEB 10, 1989 06h 30m 06.30s
37.448 N 121.782 W
DEPTH = 7.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.5 (BRK).

MHC	0.15	133	iPc	30 09.60	-0.1	
			iS	30 12.00		
ARN	0.22	116	iPc	30 10.70	-0.2	
GCC	0.45	202	iPd	30 15.00	-0.4	
PCC	0.48	276	iPd	30 15.40	-0.6	
			eS	30 22.00		
BKS	0.56	320	eP	30 17.20	-0.3	
			i	30 17.40		
			e(S)	30 26.10		
BRK	0.57	318	eP	30 17.30	-0.4	
ZSP	0.62	323	eP	30 18.20	-0.6	
SAO	0.73	158	eP	30 20.30	-0.6	
			eS	30 31.15		
LLA	1.07	141	eP	30 25.40	-1.3	
PRS	1.16	163	eP	30 26.90	-1.4	
CMB	1.25	62	eP	30 28.40	-1.5	
			eS	30 44.20		
FRI	1.72	105	eP	30 36.00	-0.7	
			eS	30 56.00		
KVN	3.31	60	e(P)	30 57.50	-2.3	

13 obs. ossocioted

FEB 10, 1989 06h 45m 09.19± 0.80s
16.994 N ± 7.2km 62.239 W ± 6.5km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.1 (FDF).

MGH	0.27	175	eP	45 15.50	0.6	
			eS	45 20.02		
NEV	0.35	294	eP	45 16.09	-0.3	
			eS	45 19.76		
ANG	0.42	68	eP	45 18.53	0.7	
			eS	45 23.09		
SKI	0.59	305	eP	45 27.37	6.3X	
BSK	0.67	302	eP	45 30.11	7.6X	
			eS	45 32.65		
SKDB	0.68	306	eP	45 30.47	7.9X	
			eS	45 33.12		
SEG	0.92	130	ePd	45 26.67	0.0	
			S	45 39.00		
PAG	1.10	151	eP	45 29.70	-0.2	
			S	45 45.40		
DEG	1.32	121	ePd	45 32.30	-1.3	
			S	45 50.30		
MGG	1.39	140	eP	45 34.24	-0.3	
			S	45 53.00		
BBL	1.63	153	eP	45 38.90	0.8	

S.D. = 0.8 on 8 of 11 obs.

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* FEB 10, 1989 07h 43m 58.63± 1.17s
20.334 S ±15.9km 177.743 W ±11.3km
DEPTH = 512.0 ± 14.8 km
4.9mb (11 obs.)
FIJI ISLANDS REGION (181)

AFI	8.56	43	eP	46 02.00	-0.3	
			(S)	47 35.00		
DZM	14.85	261	iPc	47 08.70	1.3	
BRS	27.82	250	iPd	49 08.80	1.0	
COO	29.17	243	eP	49 20.00	0.4	
CAN	32.80	236	eP	49 51.00	0.5	
BWA	32.99	238	eP	49 50.30	-1.8	
CTA	33.75	264	iPd	49 59.00	0.5	
	0.7s		89.04nm		5.4mb	
PMG	35.54	283	iPd	50 13.70	0.2	
	0.5s		28.17nm		5.1mb	
STK	38.08	244	iPd	50 35.20	1.0	
ASPA	44.79	257	iPd	51 27.70	-0.3	
	1.0s		142.00nm		5.5mb	
			iS	57 24.60		
WB5	44.85	262	iP	51 27.80	-0.6	
WB2	44.85	262	iP	51 27.80	-0.6	
WRA	44.86	262	Pd	51 27.50	-1.0	
	0.8s		31.70nm		4.9mb	
KNA	50.89	266	eP	52 13.00	-1.0	
WARB	51.11	252	iPd	52 07.70	-7.9X	
	0.3s		13.00nm		4.8mb	
MBL	58.03	257	iPd	53 03.00	-1.3	
	0.4s		49.00nm		5.2mb	
NANU	61.67	255	iPd	53 28.00	-0.5	
	0.3s		17.00nm		4.9mb	
TRT	68.29	270	ePd	54 10.20	0.0	
SPA	69.79	180	iPd	54 18.90	0.4	
	1.0s		15.50nm		4.5mb	
KVN	81.22	43	eP	55 22.50	0.6	
TNP	81.24	44	eP	55 22.00	-0.1	
	1.0s		5.00nm		4.0mb	
FBA	88.03	12	eP	55 53.90	-0.5	
CHG	90.41	290	iPd	56 07.90	1.6	
	0.8s		9.70nm		4.8mb	
CHTO	90.41	290	iP	56 07.00	0.7	
	0.8s		8.97nm		4.8mb	
SLL	139.14	352	ePKP	02 19.40	-8.4X	
	0.4s		2.20nm			
KSP	147.60	343	iPKP	02 45.80	3.3X	
CLL	147.95	347	iPKPd	02 46.20	3.2X	
	0.9s		18.00nm			
PRU	148.84	345	ePKP	02 48.50	4.1X	
PRNI	148.87	295	iPKPd	02 49.50	4.3X	
DOR	148.89	298	ePKP	02 49.50	4.3X	

10d 08h

MBH 149.08 294 ePKP 02 50.00 4.6X
MEM 149.64 355 PKP 02 50.60 5.0X
KHC 149.87 345 PKP 02 51.90 5.8X
DOU 150.24 357 PKP 02 52.00 5.5X
S.D. = 0.9 on 23 of 34 obs.

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* FEB 10, 1989 08h 26m 07.67± 0.86s
51.148 N ±16.1km 176.168 W ± 7.9km
DEPTH = 33.0km (normal)
4.9mb (3 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK 0.80 337 iPd 26 22.70 0.2
SDN 10.28 60 eP 28 34.70 -1.2
KDC 15.22 55 eP 29 44.20 2.7
TTA 16.02 35 eP 29 56.50 4.6X
PMS 17.79 45 eP 30 14.40 0.3
PMR 18.12 44 eP 30 17.10 -0.9
IMA 18.82 29 eP 30 27.70 0.9
FBA 20.13 36 eP 30 40.80 -0.5
INK 26.71 34 eP 31 43.00 -2.3
MBC 33.21 21 eP 32 42.00 -1.0
YKA 34.19 47 eP 32 53.10 1.5
EDM 37.48 62 eP 33 20.00 0.5
KVN 41.69 83 eP 34 04.00 9.2X
BW06 44.79 74 eP 34 19.40 -0.7
HHC 49.34 288 eP 34 51.20 -4.4X
BTO 50.42 288 eP 35 04.60 0.8
TIY 50.77 284 eP 35 07.40 0.9
XAN 55.33 283 eP 35 39.90 -0.4
GUN 73.47 294 P 37 38.70 -0.3
KKN 73.90 294 P 37 41.00 -0.4
0.5s 5.00nm 4.8mb
PKI 74.00 294 P 37 41.90 -0.1
0.6s 9.00nm 4.9mb
GKN 74.11 295 P 37 41.80 -0.7
0.5s 7.00nm 4.9mb
DMN 74.14 294 P 37 43.30 0.5
S.D. = 1.1 on 20 of 23 obs.

% FEB 10, 1989 09h 23m 24.78± 1.33s
60.474 N ± 6.8km 5.364 E ±13.2km
DEPTH = 0.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.0 (BER). Probable explosion.

BER 0.09 189 iPg 23 26.68 0.0
iSg 23 28.36
HYA 0.80 30 iP 23 40.79 0.0
iSg 23 52.64
ODD1 0.85 131 iP 23 41.31 -0.4
iSn 23 53.96
KMY 1.27 183 eP 23 48.95 -0.2
iS 24 04.41
BLS1 1.31 145 iP 23 50.63 0.6
iSg 24 07.75
S.D. = 0.5 on 5 of 5 obs.

FEB 10, 1989 09h 25m 35.11± 0.78s
41.321 N ± 9.1km 15.692 E ± 7.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

DUI 0.99 291 P 25 53.70 -0.2
eSg 26 08.70
MGR 1.19 185 P 25 58.00 0.8
eSn 26 16.60
BRT 1.23 111 P 25 56.50 -1.4
eSn 26 12.90
SDI 1.46 286 P 26 00.90 -0.7
eSg 26 20.80
HVAR 1.94 17 iPn 26 09.30 0.9
LCI 1.98 119 P 26 09.60 0.6
eSg 26 35.40
S.D. = 1.2 on 6 of 6 obs.

? FEB 10, 1989 10h 12m 07.81± 0.89s
3.676 N ±25.7km 91.212 W ±36.9km
DEPTH = 10.0km (geophysicist)
4.6mb (4 obs.) 3.6Msz (1 obs.)
EAST CENTRAL PACIFIC OCEAN (693)

ZOBO 30.23 132 P 18 21.20 -0.6
Z 20s 0.15um 3.6Msz
LR 29 08.00
CNCB 30.68 132 P 18 25.50 -0.2

MEO 31.70 348 eP 18 34.60 0.7
1.3s 16.70nm 4.8mb
ALQ 34.18 337 eP 18 55.00 -0.7
1.0s 5.75nm 4.4mb
TNP 41.68 329 eP 19 58.90 0.4
0.8s 2.65nm 4.0mb
KVN 42.86 329 eP 20 07.00 -1.2
RSON 47.06 358 eP 20 42.10 0.7
0.9s 11.34nm 5.0mb
PNT 51.49 337 eP 21 16.00 0.4
YKA 61.20 348 P 22 24.30 -0.6
INK 70.52 345 eP 23 24.00 -0.4
MBC 74.19 353 eP 23 45.00 -1.1
GKN 148.25 7 PKP 31 54.00 0.7
GUN 148.47 5 PKP 31 54.90 1.0
KKN 148.54 6 PKP 31 54.60 0.8
S.D. = 0.8 on 14 of 14 obs.

FEB 10, 1989 11h 15m 24.68± 0.13s
2.305 N ± 3.1km 126.760 E ± 3.3km
DEPTH = 44.0km (geophysicist)
6.2mb (68 obs.) 6.8Msz (18 obs.)
MOLUCCA PASSAGE (266)
Ms 6.6 (BRK), 6.4 (PAS).
Mo=4*10**19 Nm (PPT). Felt at Manodo and Bitung, Sulawesi.
Depth from broadband displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=210 Dip=65 Slip= 45
NP2: 97 50 147
Principal Axes:
T Plg=49 Azm= 71
P 9 330
Comment: The focal mechanism is poorly controlled ond corresponds to reverse faulting with a large strike-slip component. The preferred fault plane is not determined.
RADIATED ENERGY
No. of sta: 7 Focal mech. M
Energy 1.9±0.7*10**15 Nm
MOMENT TENSOR SOLUTION
Dep 60 No. of sta: 10
Moment Tensor; Scale 10**19 Nm
Mrr= 4.15 Mtt=-3.10
Mff=-1.05 Mrt=-0.70
Mrf=-1.32 Mtf=-2.59
Principal axes:
T Val= 4.46 Plg=77 Azm= 93
N 0.59 10 233
P -5.05 8 325
Best Double Couple:Mo=4.8*10**19
NP1:Strike= 67 Dip=38 Slip= 107
NP2: 226 54 77
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 37C M.W.: 14S, 32C
Centroid Location:
Origin Time 11:15:31.2 0.2
Lat 2.64N 0.02 Lon 126.72E 0.02
Dep 43.5 0.7 Half-duration 14.0
Moment Tensor; Scale 10**19 Nm
Mrr= 4.97 0.07 Mtt=-1.27 0.04
Mff=-3.69 0.05 Mrt=-1.39 0.12
Mrf=-2.17 0.13 Mtf=-1.79 0.05
Principal Axes:
T Val= 5.62 Plg=76 Azm=126
N -0.33 2 29
P -5.29 14 299
Best Double Couple:Mo=5.4*10**19
NP1:Strike= 26 Dip=31 Slip= 87
NP2: 210 59 92

MNI 2.10 246 ePc 15 59.50 1.4
DAV 4.90 346 ePd- 16 37.00 -0.7
AAI 6.12 166 ePc 16 58.50 3.5X
eS 18 19.00
TSM 8.88 283 ePd 17 35.80 2.4
0.8s 328.80nm 6.4mb
TLE 9.90 143 ePc 17 49.10 1.6
1.0s 81.00nm 5.8mb
MKS 10.43 224 iPd 17 55.50 0.8
1.2s 1819.80nm 7.1mb
iS 19 58.50
PPR 10.90 313 ePd 18 03.00 1.9

eS 18 45.00
KKM 11.15 290 iPd 18 05.50 0.9
i 18 34.00
i 19 07.00
KUPT 12.77 194 ePc 18 33.00 6.8X
1.5s 9975.80nm 7.6mb X
QCP 13.48 336 eP 18 28.00 -7.5X
JAY 14.74 109 ePd 18 52.00 -0.2
BAG 15.28 337 iPd 18 55.00 -4.3X
KHKI 15.36 226 eP 19 00.80 0.6
MTN 15.67 164 iPd 19 01.40 -2.7
PIP 17.02 340 ePc 19 19.40 -1.8
0.9s 466.00nm 5.6mb
TRT 17.25 235 iPc 19 24.20 0.1
eS 20 04.60
KNA 18.05 174 eP 19 31.00 -3.0X
eS 22 56.00
MNDI 18.85 117 eP 19 44.00 -0.1
GUMO 21.12 57 eP 20 05.80 -2.3
1.2s 2638.89nm 6.5mb
PJG 21.12 57 eP 20 06.00 -2.1
GUA 21.14 57 eP 20 06.00 -2.3
1.3s 4153.85nm 6.6mb
LAT 22.08 114 eP 20 17.00 -0.7
WB5 23.28 162 eP 20 26.20 -3.3X
ANP 23.30 348 iPc 20 29.00 -0.7
iS 24 35.00
WRA 23.33 162 Pd 20 29.10 -0.9
WB2 23.33 162 eP 20 26.20 -3.8X
HKC 23.34 329 Pd 20 28.60 -1.4
S 24 34.00
PMG 23.42 120 iPc 20 28.50 -2.3
1.0s 660.00nm 6.1mb
KGM 23.43 270 ePd 20 31.10 0.2
e 21 03.90
QIZ 23.46 316 Pd 20 28.00 -3.2X
E 20s 288.00um
MCO 23.51 328 eP 20 30.50 -1.2
QZH 23.85 341 Pd 20 32.00 -2.9
N 28s 178.00um
LMG 24.06 118 e(P) 20 37.00 -0.2
MBL 24.29 196 eP 20 37.00 -2.2
0.4s 118.00nm 5.8mb
GZH 24.41 329 Pd 20 38.00 -2.4
Z 23s 162.00um 6.5MszX
N 20s 170.00um
E 14s 100.00um
PP 21 05.50
S 24 52.50
IPM 25.78 276 ePd 20 51.00 -2.5
0.9s 67.40nm 5.2mb X
e 20 57.00
e 21 18.90
QIS 25.98 152 iPc 20 53.20 -2.0
RAB 26.20 104 eP 20 55.00 -2.4
0.7s 120.55nm 5.6mb
SNG 26.49 281 eP 20 58.70 -1.3
1.3s 376.92nm 5.8mb
eS 25 41.80
PPI 26.50 264 eP 21 00.80 0.7
1.0s 68.90nm 5.2mb X
ASPA 26.74 165 iPc 20 59.00 -3.2X
eS 25 45.90
eScS 31 46.50
NANU 27.04 203 iPd 21 03.00 -1.9
0.5s 68.00nm 5.5mb
PSI 27.81 271 ePc 21 10.00 -2.1
0.8s 183.90nm 5.8mb
WARB 28.32 180 iPc 21 08.50 -8.0X
NNT 28.64 292 eP 21 17.50 -2.0
LOE 28.80 303 eP 21 18.50 -2.5
KAGJ 28.99 7 eP 21 22.30 -0.2
SSE 29.12 350 iPc 21 23.00 -0.6
8.0s 17.10nm 3.8mb X
Z 20s 67.00um 6.3Msz
N 21s 104.00um
iS 26 10.00
SS 27 42.00
CTA 29.35 140 iPc+ 21 24.00 -1.8
1.2s 671.88nm 6.2mb
iS 26 16.00
CTAO 29.35 140 ePc 21 24.80 -1.0
epPd 21 37.71 51kmX
esPd 21 42.18
NST 29.41 298 iPc 21 25.00 -1.4
MEKA 29.83 195 iPc 21 27.90 -2.2
0.4s 154.00nm 6.1mb

PAA 29.93 107 eP 21 30.00 -1.3
KUMJ 30.31 7 eP 21 33.30 -1.0
WHN 30.45 339 eP 21 34.40 -1.0
8.0s 8.02nm 3.5mb X
E 16s 105.00um
NJ2 30.51 347 Pc 21 34.00 -2.0
N 23s 140.00um
S 26 29.00
GYA 30.81 323 Pn 21 37.00 -1.8
N 16s 45.90um
E 16s 122.00um
PP 22 42.00
S 26 32.00
BDT 31.05 300 eP 21 39.00 -1.9
0.8s 4828.00nm 7.3mb X
CHG 31.80 303 iPd- 21 45.10 -2.4
1.0s 267.50nm 6.0mb
eS 27 06.00
CHTO 31.80 303 iP 21 44.80 -2.7
SHNJ 31.92 7 eP 21 49.20 0.9
TKSJ 32.24 11 eP 21 50.80 -0.4
KMI 32.41 316 ePc 21 51.76 -1.3
4.0s 8.00nm 3.9mb X
N 18s 160.00um
epPd 22 05.33 54kmX
esPd 22 09.31
ePPd 23 02.00
eS 29 24.52
SHK 32.53 9 iPc 21 53.20 -0.5
2.1s 2666.67nm 6.7mb
WKYJ 32.80 14 eP 21 54.70 -1.5
FORR 32.99 178 iPd 21 54.90 -2.8
MRWA 33.00 197 eP 21 56.00 -1.8
0.2s 25.00nm 5.7mb
YONJ 33.31 10 eP 21 59.60 -0.8
COOL 33.43 189 iPc 21 59.20 -2.4
BAL 34.10 196 eP 22 05.00 -2.4
0.9s 442.00nm 6.4mb
TSRJ 34.15 13 P 22 07.30 -0.5
IIDJ 34.59 16 P 22 06.70 -4.9X
KLB 34.78 194 eP 22 11.00 -2.2
VSG 34.78 110 eP 22 13.00 -0.5
TIA 34.90 346 Pd 22 12.00 -2.1
7.5s 5.50nm 3.6mb X
E 17s 122.00um
sP 22 25.00
HNR 35.06 110 eP 22 14.00 -1.8
eS 27 32.00
CHJJ 35.44 17 P 22 16.80 -1.9
MUN 35.54 196 eP 22 18.00 -1.6
MTMJ 35.60 15 P 22 19.30 -1.0
RMQ 35.65 145 iPc 22 18.40 -2.3
e 22 23.00
e 22 57.00
e 23 50.00
MAJO 35.67 16 iPc 22 18.53 -2.2
epPd 22 31.11 47kmX
esPd 22 34.42
MAT 35.67 16 P 22 18.00 -2.8
XAN 35.70 334 eP 22 18.10 -2.9
E 26s 507.00um
PP 23 38.90
S 27 47.90
CD2 35.81 325 eP 22 20.00 -2.0
Z 36s 241.00um 6.7MszX
E 12s 67.40um
iS 27 51.00
SS 30 24.50
KAKJ 35.94 19 P 22 21.90 -1.1
NWAO 36.18 194 eP 22 24.00 -1.1
NIIJ 36.55 17 P 22 26.30 -1.8
DL2 36.73 353 Pd 22 29.00 -0.5
E 15s 103.00um
S 28 09.00
STK 36.80 159 iPc 22 28.50 -1.8
e 22 31.00
e 23 52.00
e 24 53.00
RKG 37.33 193 eP 22 38.50 3.8X
0.3s 78.00nm 6.1mb
TIY 37.61 341 Pd 22 35.20 -1.9
8.0s 7.90nm 3.7mb X
E 28s 258.00um
PP 24 03.00
S 28 18.00
YAMJ 37.71 17 eP 22 37.40 -0.5
CMS 38.18 153 iPc 22 40.10 -1.8

e 22 42.00
e 22 52.00
e 23 10.00
BRS 38.73 141 P 22 41.00 -5.6X
i 23 40.00
iS 28 45.00
ADE 38.73 164 iPd 22 45.20 -1.3
0.8s 761.19nm 6.6mb
BJI 38.77 347 ePc 22 46.17 -0.5
8.0s 11.50nm 3.8mb X
E 24s 229.00um
epPd 22 58.75 47kmX
ePPd 24 29.36
eS 31 20.36
OFUJ 39.05 19 eP 22 49.40 0.4
SNY 39.45 356 iPc 22 52.00 -0.3
8.0s 18.70nm 3.9mb X
Z 34s 73.50um 6.3MszX
N 23s 183.00um
LZH 39.74 330 P 22 53.00 -2.1
7.0s 14.30nm 3.9mb X
E 28s 433.00um
S 28 45.00
AOMJ 40.02 16 eP 22 57.90 0.8
COO 40.54 146 eP 23 00.00 -1.5
e 24 48.00
HHC 40.75 342 Pd 23 02.20 -1.0
Z 26s 139.00um 6.7MszX
PP 24 38.00
S 29 00.00
BTO 41.02 340 iPc 23 04.50 -0.9
7.0s 7.70nm 3.5mb X
E 25s 366.00um
PP 24 32.00
CN2 41.33 359 iPc 23 07.00 -0.8
5.0s 16.00nm 4.0mb X
PcP 25 10.00
BWA 41.83 153 eP 23 11.80 -0.2
MDJ 42.21 3 iPc 23 15.50 0.6
7.0s 7.40nm 3.5mb X
N 23s 224.00um
ePP 24 56.00
iS 29 23.00
SS 32 30.00
HOOJ 42.56 18 eP 23 18.80 0.9
RIV 42.66 150 iPd 23 19.10 0.3
ePP 24 56.00
ePcP 25 48.00
eS 29 28.00
CAN 42.83 153 eP 23 19.00 -1.3
i 24 07.00
e 29 05.20
CNB 43.00 153 iPc 23 21.50 -0.1
e 23 25.00
TOO 43.31 158 eP 23 24.00 -0.1
e 24 13.00
e 25 10.00
LSA 43.41 313 P 23 24.30 -1.2
S 29 46.00
ScS 33 13.00
KUSJ 43.66 19 eP 23 26.30 -0.5
ASAJ 43.95 16 eP 23 29.00 -0.2
GTA 44.33 330 iPc 23 30.50 -2.0
8.0s 5.80nm 3.4mb X
Z 32s 358.00um 7.1MszX
PP 25 16.00
DZM 45.71 124 iPc 23 41.90 -1.7
GUN 46.59 307 P 23 48.10 -2.8
PKI 46.82 306 P 23 49.60 -3.1X
KKN 47.02 307 P 23 50.80 -3.3X
DMN 47.08 306 P 23 51.80 -2.9
GKN 47.62 307 P 23 55.80 -3.0X
TAU 48.68 160 iPc 24 05.79 -0.7
esPd 24 23.01
e 26 05.09
e 26 18.61
S 31 08.00
KOD 49.57 281 eP 24 11.60 -2.6
HYB 49.64 291 iPc 24 11.40 -2.9
1.0s 1080.00nm 6.8mb
iS 31 12.00
GBA 50.02 286 P 24 13.90 -3.3X
WMQ 53.90 326 iPc 24 44.20 -1.9
6.0s 7.10nm 3.9mb X
N 21s 298.00um
S 32 08.00
NDI 53.93 304 iPc 24 42.00 -4.4X

0.8s 41.04nm 5.5mb
iS 32 14.00
POO 54.24 291 iPc 24 46.30 -2.6
1.5s 405.56nm 6.2mb
KSH 59.04 316 iPc 25 23.00 0.1
6.0s 6.40nm 3.9mb X
Z 28s 143.00um 6.9MszX
N 16s 77.70um
ePP 27 40.50
iS 33 28.00
MSZ 59.42 147 P 25 23.20 -2.0
e 26 14.10
eP'P' 55 15.00
P'P' 55 35.00
KRP 60.25 137 Pc 25 30.00 -1.0
WEL 61.48 140 iP+ 25 36.00 -3.3X
1.0s 720.00nm 6.8mb
(sP) 26 01.00
PP 27 58.00
S 33 54.00
PS 34 25.00
QUE 62.93 303 iPc+ 25 46.80 -2.7
eS 34 13.00
AFI 63.00 107 eP 25 50.00 0.0
(S) 34 00.00
SMY 63.67 30 eP 25 54.70 1.0
Z 20s 45.00um 6.6Msz
ADK 68.12 34 ePc 26 21.30 -0.8
0.8s 342.50nm 6.4mb
id 26 24.00
DRV 69.46 174 iP 26 28.50 -1.6
MHI 70.40 308 iPc+ 26 35.10 -1.5
0.7s 715.07nm 6.8mb
eS 35 13.00
KHI 70.66 305 eP 26 34.50 -3.9X
HON 75.41 69 ePc 27 06.65 0.5
DHR 76.99 296 eP 27 14.50 -0.5
HKL 77.01 69 P 27 21.00 5.2X
SDN 78.34 34 eP 27 21.50 -0.3
Z 22s 45.00um 6.8Msz
RYD 80.09 295 eP 27 30.50 -1.6
KER 80.16 304 eP 27 32.00 -0.4
AVY 80.38 250 eP 27 34.40 0.6
TAB 81.05 308 iPc+ 27 37.00 0.0
SLY 81.55 305 iPd 27 38.00 -1.4
iPcP 27 48.00
ipP 31 06.50
iSKS 37 40.50
iPS 38 50.00
KMSA 81.95 290 eP 27 40.00 -1.9
TTA 82.15 27 iPc 27 42.90 0.8
BHD 82.36 303 iPd 27 44.00 0.3
ipP 27 54.00 32kmX
isP 28 06.00
iPP 31 04.00
iPPP 32 56.00
iS 37 57.00
iPS 38 40.00
iPPS 39 29.00
iSS 43 18.00
MAW 82.44 200 eP+ 27 43.00 -0.4
0.7s 145.00nm 6.1mb
OASM 82.91 296 eP 27 46.20 -0.6
SBA 82.93 172 Pc+ 27 47.70 1.9
KDC 83.12 32 eP 27 47.40 0.4
ATA 83.23 281 ePc 27 49.07 0.6
MKL 83.28 281 ePd 27 49.70 0.9
MSL 83.49 306 iPd 27 49.00 -0.5
ipP 27 58.00 28kmX
isP 28 10.50
i 28 34.00
eSKS 38 02.00
eS 38 19.00
eSS 38 46.00
BRW 83.51 18 eP 27 50.00 1.1
TDD 83.52 282 ePc 27 50.83 0.8
ARO 83.58 281 ePc 27 51.60 1.2
ABHA 83.60 288 eP 27 52.00 1.3
IMA 83.67 24 iPc 27 50.90 0.9
1.0s 520.00nm 6.6mb
SGH 83.79 281 ePc 27 52.27 0.8
DAF 83.89 281 ePc 27 53.13 1.2
HLD 83.99 281 ePc 27 52.56 0.2
AFR 84.46 108 iP 27 57.00 2.4
1.2s 225.00nm 6.2mb
PPT 84.65 108 iP 27 57.90 2.3
1.2s 145.00nm 6.0mb

10d 11h

Z 21s 64.00um 7.0Msz
PPN 84.79 108 iP 27 58.00 1.7
1.2s 180.00nm 6.1mb
TVO 84.98 108 iP 27 59.60 2.3
1.2s 360.00nm 6.4mb
PMR 85.17 29 eP 27 56.80 -0.6
0.9s 604.20nm 6.8mb
Z 20s 20.00um 6.5Msz
TBI 85.20 114 iP 28 00.30 2.1
1.2s 270.00nm 6.3mb
COL 85.99 25 iPc 28 01.05 -0.4
1.1s 911.39nm 6.9mb
epPd 28 13.30 40kmX
FBA 85.99 25 eP 28 00.20 -1.2
PMO 86.09 105 iP 28 04.60 1.8
1.2s 185.00nm 6.2mb
TPT 86.36 105 iP 28 06.40 2.3
1.2s 175.00nm 6.2mb
VAH 86.36 105 iP 28 06.10 2.0
1.2s 115.00nm 6.0mb
MID 86.45 31 eP 28 06.20 2.5
RUV 86.60 105 iP 28 07.40 2.1
1.2s 190.00nm 6.2mb
TOA 86.60 28 ePc 28 05.00 0.4
AAE 87.66 279 eP 28 12.30 1.4
NPA 88.19 255 iP 28 14.00 1.0
1.0s 530.00nm 6.8mb
eS 38 38.00
KVT 89.04 311 iP 28 17.30 0.6
AYN 89.57 299 eP 28 20.00 0.7
HRI 89.60 303 iPd 28 23.20 3.6X
BHL 89.65 304 Pc 28 20.00 0.2
S 33 57.00
LQ 38 48.00
DSI 89.98 301 iPd 28 22.90 1.7
NAI 90.01 269 iPd 28 23.00 1.0
1.0s 22.00nm 5.4mb
iS 28 30.50
ZNT 90.25 302 iP 28 24.60 2.1
PRNI 90.37 300 iP 28 25.10 2.0
HOL 90.38 299 eP 28 24.00 0.9
BADA 90.46 298 eP 28 25.00 1.5
MBH 90.50 300 iPd 28 25.40 1.8
FAM 90.95 305 eP 28 28.50 2.9
IKL 91.14 306 iP 28 26.00 -0.4
SYO 91.15 201 iPc 28 26.60 0.8
i 28 50.00
KEV 91.23 340 iPc 28 23.82 -2.4
1.1s 144.00nm 6.3mb
epPd 28 37.39 45kmX
ePP 32 24.00
eS 38 52.00
LFK 91.32 305 eP 28 29.40 2.0
INK 91.47 22 iPc 28 27.00 -0.3
1.1s 314.00nm 6.6mb
pP 28 50.50 86kmX
CSS 91.51 305 eP 28 28.50 0.3
ANTO 91.59 310 iPc 28 26.54 -2.0
epPd 28 38.46 38kmX
BBTK 91.61 310 eP 28 29.00 0.3
i 28 30.00
SOD 91.79 338 iP 28 28.40 -0.4
i 28 35.10
KJF 91.88 334 eP 28 27.00 -2.3
0.7s 54.70nm 6.1mb
i 28 32.20
e 32 08.00
eS 38 52.00
SPA 92.29 180 iPc 28 31.00 -0.3
Z 22s 4.92um 5.9Msz
PPCY 92.32 305 eP 28 32.50 0.6
SIT 92.39 33 eP 28 33.60 1.9
Z 20s 25.00um 6.7Msz
AKSR 92.51 294 iPc 28 34.50 1.5
ASW 92.60 294 eP 28 34.00 0.6
eS 32 23.00
AGAL 92.70 293 iPc 28 35.00 1.2
AGRW 92.70 294 iPc 28 35.50 1.7
AKUR 92.72 294 iPc 28 34.90 1.0
SUF 92.83 333 iP 28 32.40 -1.3
0.8s 71.30nm 6.1mb
AGMR 92.96 294 iPc 28 36.30 1.3
KOT 93.14 300 eP 28 35.50 -0.3
MBC 93.33 13 eP 28 35.00 -0.8
1.0s 141.00nm 6.3mb
GPA 93.45 310 eP 28 38.00 0.9
BCK 93.51 308 eP 28 36.70 -0.8

HLW 93.56 300 iPc 28 38.00 0.2
HRT 93.88 311 eP 28 39.80 0.8
NUR 93.96 331 iP 28 38.50 -0.4
0.8s 68.90nm 6.1mb
ePP 32 40.00
eS 39 04.00
ePS 40 32.00
TRO 94.00 340 iP 28 40.50 1.6
GBZT 94.05 311 iPd 28 40.50 0.8
ELL 94.13 307 iP 28 41.00 0.6
KHL 94.26 309 iP 28 41.20 0.3
ISK 94.31 311 eP 28 41.30 0.4
CFR 94.44 315 eP 28 42.00 0.6
KSL 94.45 306 eP 28 42.10 0.4
TLB 94.61 315 ePd 28 44.00 1.8
BIR 94.66 317 eP 28 43.00 0.6
PPE 94.67 317 ePd 28 44.00 1.5
CTT 94.77 311 eP 28 43.80 0.7
DST 94.81 310 iP 28 44.50 1.1
CLI 94.85 317 ePd 28 45.00 1.6
ALE 95.16 1 eP 28 45.00 0.9
0.8s 17.00nm 5.5mb
DMK 95.18 312 eP 28 45.00 0.0
EDC 95.30 311 iP 28 45.50 0.0
VRI 95.34 316 iPc 28 45.00 -0.6
PTT 95.41 317 eP 28 47.50 1.6
ISR 95.58 316 eP 28 47.50 0.7
PTZ 95.81 256 iPd 28 48.70 0.3
i 28 52.20
iS 39 17.00
i 40 44.00
MLR 95.94 316 iPc 28 48.00 -0.6
JMB 95.96 313 iPd 28 49.00 0.5
IZM 96.02 309 eP 28 49.50 0.6
BUC1 96.06 315 eP 28 44.00 -4.9X
SZH 96.30 314 iPgd 28 47.00 -3.1X
KAP 96.46 306 eP 28 52.50 1.6
EZN 96.54 310 eP 28 51.60 0.5
PRK 96.66 310 eP 28 52.10 0.4
PVL 96.75 314 iPd 28 51.00 -1.0
DIM 96.79 313 eP 28 54.00 1.8
RDO 96.93 312 eP 28 53.80 0.9
KDZ 96.94 312 iP 29 00.00 7.0X
CJR1 97.35 318 eP 28 55.00 0.3
PLD 97.39 313 eP 28 54.00 -0.9
UPP 97.52 331 iP 28 53.80 -1.3
0.9s 100.00nm 6.3mb
i 29 19.60
i 31 59.80
PGB 97.70 313 iP 28 57.00 0.5
NPS 97.77 306 eP 28 58.80 2.0
WAR 97.77 323 eP+ 28 56.00 -0.4
Z 32s 150.00um 7.3MszX
e 33 25.00
e 39 31.00
e 40 04.00
LWI 98.04 268 ePc 28 59.00 0.3
MMB 98.20 312 iPc 28 57.00 -1.7
VTS 98.39 313 ePd 29 00.00 0.3
BUL 98.44 250 eP+ 29 00.10 -0.1
0.8s 68.66nm 6.2mb
Z 20s 8.23um 6.2Msz
N 21s 5.16um
KKB 98.62 313 ePd 29 00.00 -0.5
PLG 98.63 311 eP 29 00.40 -0.2
SLR 98.63 244 ePDIFc29 00.21 -0.8
epPd 29 12.35 39kmX
DAG 98.68 352 iPc 28 58.90 -1.2
1.2s 234.38nm 6.6mb
ATH 98.84 309 eP 29 00.00 -1.6
eSKS 39 34.00
VAM 98.89 306 eP 29 04.90 3.1X
KRA 98.96 321 eP 29 01.90 0.0
0.8s 57.00nm 6.2mb
Z 31s 68.50um 7.0MszX
N 31s 76.40um
e 29 05.40
e 29 10.60
iS 40 27.00
SPC 98.99 320 eP 29 02.60 0.3
e 33 14.00
e(S) 39 49.90
e 40 33.80
VAY 99.10 312 iP 29 01.00 -1.7
HFS 99.28 332 eP 29 02.10 -1.0
0.6s 35.30nm 6.1mb
Z 27s 223.81um 7.5MszX

LR 09 32.00
PRY 99.32 243 eP 29 05.70 1.5
0.8s 21.88nm 5.7mb
PSZ 99.52 319 eP 29 07.00 2.4
RGS 99.59 336 eP 29 04.40 -0.1
SKO 99.80 313 iPc 29 04.00 -1.9
8.0s 3240.00nm 6.9mb X
Z 27s 60.00um 7.0MszX
N 27s 50.00um
E 28s 93.00um
i 29 06.50
iPP 33 04.00
iPSP 33 36.00
iSKS 39 42.00
iPS 41 55.00
LR 17 12.00
BEO 99.88 316 eP 29 05.70 -0.5
KZN 99.90 311 eP 29 06.00 -0.5
NRA0 100.04 333 ePdiff29 08.40 1.8
NB2 100.07 334 Pdiff 29 04.50 -2.2X
0.8s 37.30nm 6.0mb
BUD 100.20 319 ePdiff29 07.50 -0.1
CGY 100.33 244 ePdiff29 09.00 0.4
0.5s 17.61nm 5.9mb
OHR 100.45 312 ePdiff28 52.80 -16.2X
i 29 08.30
iSKS 39 34.00
KKS 100.53 313 ePdiff29 20.20 11.1X
SRO 100.58 319 ePdiff29 09.50 0.3
i 29 15.80
i 33 34.00
e 40 00.00
PHP 100.59 313 ePdiff29 09.50 0.1
BCI 100.71 314 ePdiff29 10.40 0.5
YKA 100.77 25 Pdiff 29 09.90 0.2
LSK 100.81 311 ePdiff29 09.30 -1.3
YKC 100.84 24 ePdiff29 09.50 -0.5
0.8s 20.00nm 5.8mb
PUK 100.91 313 ePdiff29 10.70 -0.1
KSP 100.99 323 ePdiff29 11.30 0.3
1.1s 96.00nm 6.3mb
i 29 14.50
e 31 38.00
eS 39 34.00
FRS 101.07 240 iPdiff29 17.00 5.1X
0.7s 13.70nm 5.7mb
TIR 101.09 313 ePdiff29 12.50 0.8
iS 39 45.00
TIR 101.09 313 ePdiff29 25.00 13.3X
ePP 34 03.00
eSKS 40 06.00
eSKSP 42 51.00
eSS 49 00.00
eSSS 53 58.00
eLR 06 34.00
LACI 101.14 313 ePdiff29 12.00 0.1
KMZ 101.16 257 ePdiff29 14.00 1.3
i 33 25.40
iS 45 29.50
i 45 50.70
i 49 46.00
BERA 101.17 312 ePdiff29 12.90 0.9
SDA 101.20 313 ePdiff29 12.80 0.7
PGC 101.21 40 ePdiff29 16.00 4.0X
TPE 101.22 312 ePdiff29 08.50 -3.8X
VLS 101.23 309 ePdiff29 12.50 0.1
ZST 101.26 320 ePdiff29 12.60 0.3
Z 24s 43.50um 6.9MszX
e 33 20.70
TTG 101.28 314 ePdiff29 12.00 -0.5
eS 39 46.00
COP 101.55 328 iPdiff29 15.00 1.7
i 33 28.00
iS 39 52.00
KIM 101.61 241 iPdiff29 18.50 4.0X
VKA 101.74 320 ePdiff29 14.00 -0.4
6.0s 2239.00nm 7.0mb X
Z 24s 36.40um 6.8MszX
iPP 33 10.50
LR 21 11.00
SOP 101.75 320 ePdiff29 14.90 0.4
GMW 101.96 40 Pdiff 29 16.20 0.8
PRU 102.32 322 Pdiff 29 17.00 0.1
Z 27s 93.50um 7.2MszX
N 27s 35.90um
E 27s 79.30um
e 29 52.00

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                  S     39 51.00                  |                  iSS   48 51.00                  | DOU   108.18 325 Pdiff 29 47.80    4.8X
                  PS    40 54.00                  |                  e     51 28.00                  |                  e     33 13.30
                  SS    48 06.00                  |                  e     52 31.00                  | GDH   108.59   0 ePdiff29 46.00    1.6
PTJ   102.66 318 ePdiff29 21.60    2.9X            |                  e     56 21.00                  |                  e     33 16.00
ZAG   102.67 318 ePdiff29 20.50    1.9             |                  iLQ   58 01.00                  |                  i     34 15.00
CLL   102.80 324 ePdiff29 19.00    0.0             |                  i     59 23.00                  |                  i     41 37.00
       1.7s   100.00nm          6.2mb              |                  e     00 46.00                  |                  i     49 29.00
     Z  25s    81.50um                 7.2MszX     |                  eLR   02 43.00                  | TNP   108.75  48 ePdiff29 50.00    3.9X
                  iSKS  39 54.00                  | ORV   105.12  48 ePdiff29 32.20    2.5X         | LPG   108.85 320 ePdiff29 49.50    3.0X
                  iS    40 57.00                  | SDI   105.38 314 Pdiff 29 30.50   -0.3          | BNI   109.08 320 Pdiff 29 50.50    3.2X
LON   102.83  41 ePdiff29 19.08   -0.3             | CTI   105.46 319 Pdiff 29 35.00    3.8X         | CLC   109.16  51 ePdiff29 51.00    3.2X
MUD   102.92 330 iPdiff29 22.30    2.9X            | EDM   105.52  33 ePdiff29 32.20    1.0          |                  ePP   33 54.00
       1.2s    81.00nm          6.3mb              | AZI   105.56 315 Pdiff 29 36.50    5.0X         |                  e     34 19.00
KHC   103.19 322 Pdiff 29 22.20    1.3             | MHC   105.61  50 ePdiff29 35.10    3.0X         | CLC   109.16  51 ePKP  33 54.00    2.0
                  e     29 23.50                  |     Z  23s    18.00um          6.6MszX          |                  e     34 19.00
                  S     39 55.00                  |     N  23s     2.10um                           | PAS   109.20  53 ePdiff29 50.00    2.1
KMR   103.20 321 iPdiff29 21.00    0.1             |     E  23s    16.00um                           |                  ePP   34 12.00
                  iPP   33 40.20                  |                  e     31 06.00                  |                  ePPP  36 22.00
                  iS    41 07.40                  |                  ePP   33 53.00                  |                  eSKS  40 44.00
                  iSP   42 40.60                  |                  eSKS  40 51.00                  |                  eS    42 00.00
V8Y   103.25 318 ePdiff29 22.20    1.0             |                  e     41 30.00                  |                  ePS   43 40.00
PNT   103.40  38 ePdiff29 24.00    2.2             |                  ePS   43 01.00                  |                  ePPS  44 26.00
       0.8s    14.00nm          5.8mb              |                  e     45 01.00                  |                  ePKKP 45 10.00
LJU   103.57 318 ePdiff29 23.00    0.4             |                  eSS   48 47.00                  |                  eSS   49 10.00
                  e     32 19.00                  |                  e     51 50.00                  |                  SS    53 48.00
CEY   103.73 318 ePdiff29 23.80    0.4             |                  eSKKS 53 44.00                  |                  eLg   00 01.00
MOX   103.86 324 ePdiff29 24.00    0.2             |                  eLQ   58 34.00                  |                  eLR   04 51.00
       3.0s   248.00nm          6.5mb              |                  eLR   03 12.00                  | LRM   109.22  40 ePdiff29 50.70    2.6X
     Z  24s    67.30um                 7.1MszX     | ARN   105.69  50 Pdiff 29 26.40   -5.9X         | LRM   109.22  40 ePKP  33 56.70    4.6X
     N  20s    77.10um                             | ASS   105.77 316 Pdiff 29 38.50    5.9X         | SBB   109.31  52 ePdiff29 51.00    2.4X
     E  20s    46.90um                             | MNO   105.80 310 PKP   34 03.90   18.1X         |                  ePP   33 56.00
                  ePP   34 00.00                  |                  eSg   34 10.00                  |                  e     34 20.00
                  iSKS  40 00.00                  | WIT   105.80 327 ePdiff29 38.00    5.7X         | SBB   109.31  52 ePKP  33 56.00    3.6X
                  iS    41 08.00                  | CER   105.83 236 ePdiff29 44.50   11.5X         |                  e     34 20.00
                  iSP   42 40.00                  |        0.6s    14.29nm                          | RVR   109.87  53 ePdiff29 53.00    2.0
                  ePKKP 45 17.00                  |                  e     34 02.50                  |                  ePP   33 58.00
                  iSS   48 25.00                  | TNS   105.89 324 ePdiff29 39.00    6.1X         |                  e     34 24.00
                  LQ    14 40.00                  | TUH   105.96 236 iPdiff29 38.50    4.9X         | RVR   109.87  53 ePKP  33 58.00    4.6X
                  LR    19 45.00                  |        1.1s    37.97nm          6.3mb            |                  e     34 24.00
VOY   103.99 319 ePdiff29 25.70    1.1             |                  i     33 39.80                  | LOR   109.90 323 ePdiff29 54.00    3.2X
KBA   104.02 320 ePdiff29 25.00    0.2             | MNS   105.97 315 Pdiff 29 33.50    0.0          |        1.1s    17.00nm
       1.2s    41.70nm          6.1mb              | PRS   106.08  51 ePdiff29 35.40    1.4          | LBF   109.96 322 ePdiff29 54.30    3.2X
                  i     29 30.30                  | WTS   106.08 326 ePdiff29 37.50    3.9X         |        1.1s    17.00nm
                  i     29 35.20                  |        1.3s    86.00nm          6.6mb            | SMF   110.19 322 ePdiff29 55.30    3.2X
                  i(PP) 33 46.00                  | PGD   106.15 317 Pdiff 29 36.00    1.6          |        0.8s     6.70nm
                  i     33 55.50                  | SAL   106.36 319 Pdiff 29 38.00    3.0X         | AVF   110.43 322 ePdiff29 56.50    3.4X
                  e     34 07.00                  | CMB   106.38  49 ePdiff29 35.80    0.4X         | PLM   110.47  53 ePdiff29 55.00    1.1
                  iSKKS 40 14.00                  |                  ePP   34 02.00                  |                  ePP   33 58.00
                  iPKKP 45 16.50                  |                  ePKKP 45 24.20                  |                  e     34 30.00
WDC   104.07  47 ePdiff29 28.10    3.1X            | FIR   106.50 317 ePdiff29 36.00    0.3          | PLM   110.47  53 ePKP  33 58.00    3.2X
                  ePP   33 38.00                  |                  e     32 54.00                  |                  e     34 30.00
                  ePKKP 45 39.00                  |                  iS    40 14.00                  | FFC   110.47  28 ePdiff29 55.50    2.4X
RBL   104.08 319 Pdiffc29 26.80    1.8             |                  i     41 34.00                  |        2.2s   153.00nm
TDS   104.11 312 Pdiffc29 27.10    1.9             | MDI   106.83 319 Pdiff 29 38.00    0.9          | FFC   110.47  28 ePKP  33 54.00    0.2
TRI   104.18 318 Pdiff 29 27.00    1.7             | DBN   106.94 327 ePdiff29 44.00    6.6X         |        0.9s    37.00nm
GRF   104.44 323 ePdiff29 27.10    0.7             |     Z  26s    35.20um          6.8MszX          | BAR   110.82  54 ePdiff30 03.00    7.7X
     Z  21s    34.00um                 6.9Msz      |                  ePP   34 12.00                  |                  ePP   34 00.00
                  e     29 42.00                  |                  eSKS  40 16.00                  |                  e     34 31.00
                  eSKS  40 05.20                  |                  eSP   43 08.00                  | BAR   110.82  54 ePKP  34 00.00    4.8X
                  eSd   41 19.00                  |                  eSS   49 07.00                  |                  e     34 31.00
GRFO  104.44 323 ePdiff29 26.86    0.4             | ENN   107.12 325 ePdiff29 44.00    5.7X         | TPC   110.89  52 ePdiff30 01.00    5.4X
                  epPd  29 37.62                  | MEM   107.14 325 Pdiffc29 44.10    5.8X         |                  ePP   34 00.00
FVI   104.54 319 Pdiff 29 33.30    6.4X            |                  e     33 15.60                  |                  e     34 35.00
MGR   104.56 312 Pdiff 29 30.00    2.8X            | FRI   107.19  50 ePdiff29 42.20    3.3X         | TPC   110.89  52 ePKP  34 00.00    4.6X
MIN   104.82  47 ePdiff29 31.50    3.0X            | CDF   107.33 323 ePdiff29 41.20    1.8          |                  e     34 35.00
                  ePP   33 49.40                  |        1.2s    29.70nm          6.3mb            | DMU   112.09 332 ePKP  33 58.10    1.2
DUI   104.93 314 Pdiff 29 40.00   11.1X            | BOB   107.37 318 Pdiff 29 41.00    1.3          | GLA   112.19  53 ePdiff30 04.00    2.7X
BRK   104.99  50 ePdiff29 32.00    2.9X            | VAI   107.40 320 Pdiff 29 49.00    9.4X         |                  ePP   34 01.00
     Z  20s    30.00um                 6.8Msz      | WLF   107.47 324 Pdiff 29 46.20    6.4X         | GLA   112.19  53 ePKP  34 01.00    3.2X
                  ePP   33 52.00                  |                  e     33 13.70                  | FRB   113.13   7 ePdiff30 08.00    3.3X
                  e     42 50.00                  | SYP   107.65  53 ePdiff29 42.00    0.7          | ESEL  113.81 316 e(PKP)34 05.50    4.8X
                  e     44 00.00                  |                  ePP   33 54.00                  | EROQ  115.05 318 e(PKP)34 05.00    1.9
                  eLR   03 00.00                  |                  e     34 11.00                  | ECHE  116.56 317 e(PKP)34 08.50    2.5X
BKS   105.01  50 ePdiff29 30.50    1.3             | SYP   107.65  53 ePKP  33 54.00    4.7X         | GOL   116.60  43 ePKP  34 06.00   -0.4
     Z  20s    21.00um                 6.7Msz      |                  e     34 11.00                  |     Z  20s    25.00um                 6.8Msz
     N  20s    16.00um                             | KVN   107.79  48 Pdiff 29 45.00    3.2X         | GLD   116.68  43 ePKP  34 11.00    4.5X
     E  20s     8.00um                             | BSF   107.86 322 ePdiff29 44.50    2.7X         |     Z  20s    25.00um                 6.8Msz
                  e     30 45.00                  | BNG   107.96 275 iPdiff29 43.30    0.4          | ETOR  116.70 319 e(PKP)34 10.50    4.2X
                  e     33 26.00                  |        1.6s    52.00nm          6.4mb            | RSON  116.80  27 ePKP  34 05.00   -1.1X
                  iPP   33 55.00                  |                  i     29 47.50                  |     Z  20s    50.85um                 7.1Msz
                  ePPP  36 05.00                  |                  i     33 06.00                  | ANMO  117.95  48 ePdiff30 29.44    2.3X
                  iSKS  40 47.00                  |                  i     33 56.00                  | ALQ   117.95  48 e(Pdif30 33.00    5.8X
                  i     41 29.00                  |                  i     40 15.40                  | ALQ   117.95  48 ePKP  34 09.00    0.0
                  ePS   42 58.00                  | HAU   108.06 322 ePdiff29 45.10    2.5X         |     Z  20s    21.28um                 6.8Msz
                  e(PPS)43 38.00                  | SES   108.06  35 ePdiff29 43.00    0.4          | EVIA  118.06 317 e(PKP)34 09.50    0.5
                  i     45 46.00                  | SNF   108.17 325 Pdiff 29 48.20    5.3X         | GUD   118.17 319 e(PKP)34 11.20    2.0
                  e     47 10.00                  |                  e     33 14.80                  | TOL   118.49 318 ePKP  34 14.00    4.3X
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10d 11h

			ePP	35	17.00	
			eSKKS	42	00.00	
			iPS	44	52.00	
			ePPS	46	08.00	
			eSS	50	50.00	
EMON	118.62	323	e(PKP)	34	11.50	1.7
ENIJ	118.65	315	e(PKP)	34	12.00	1.9
ASMO	119.54	316	ePKP	34	14.50	2.6X
STS	119.67	323	e(PKP)	34	15.00	3.2X
ACHM	119.72	316	ePKP	34	13.50	1.3
EPLA	119.72	320	e(PKP)	34	16.50	4.5X
TAF	119.78	313	iPKP	34	14.00	1.7
			i	35	41.00	
AAPN	119.82	316	ePKP	34	13.20	0.8
ALOJ	119.91	316	ePKP	34	13.20	0.6
ATEJ	119.94	316	ePKP	34	14.00	1.3
EHOR	120.34	317	e(PKP)	34	14.50	1.3
EPRU	120.76	316	e(PKP)	34	17.50	3.4X
EJIF	121.19	316	e(PKP)	34	16.00	1.1
SCH	121.98	9	ePKPd	34	14.90	-0.9
	0.7s	42.00nm				
ACO	122.35	43	e(PKP)	34	15.60	-1.5X
	0.7s	64.30nm				
IFR	122.37	313	iPKP	34	19.50	2.1X
MEO	123.74	45	ePKP	34	20.20	0.3
	1.4s	132.10nm				
PCO	123.81	42	e(PKP)	34	20.30	0.4
OCO	124.12	43	e(PKP)	34	20.00	-0.6
AVE	124.15	313	iPKP	34	20.50	-0.2
			i	34	33.50	
FKO	124.32	44	e(PKP)	34	21.10	0.1
SIO	124.79	43	ePKP	34	21.70	-0.1
TUL	125.05	42	ePKP+	34	22.50	0.2
	1.2s	122.30nm				
	Z 22s	52.38um			7.2Msz	
LNO	125.05	42	ePKPc	34	22.70	0.5
TIO	125.19	311	iPKPd	34	24.50	1.6
			i	34	36.80	
VVO	125.40	43	ePKP	34	22.80	-0.2
RLO	125.41	41	ePKP	34	22.10	-0.9
FVM	127.20	37	PKP	34	20.50	-5.9X
OLY	128.12	40	PKP	34	24.00	-4.3X
ELF	128.14	26	PKP	34	28.30	0.3
DLA	128.29	26	PKP	34	28.10	-0.2
GAC	128.29	20	ePKP	34	28.00	-0.2
			pP	36	39.00	
LDN	128.32	26	PKP	34	27.90	-0.5
ELC	128.37	37	PKP	34	12.00	-16.7X
PTN	129.45	20	PKP	34	29.00	-1.5X
CRX	129.55	63	iPKPd	34	36.50	4.7X
RSNY	129.63	20	ePKP	34	32.00	1.2
	Z 20s	33.90um			7.0Msz	
IIC	129.80	62	(PKP)	34	33.00	0.7
III	130.08	64	(PKP)	34	27.00	-5.7X
ACX	130.21	66	(PKP)	34	34.00	1.3
STJ	130.33	360	ePKP	34	34.50	2.5X
PWLA	130.60	38	PKP	34	25.60	-7.4X
BNH	130.62	17	PKP	34	34.50	1.8
INY	130.75	23	iPKP	34	36.00	3.0X
			ipPKP	34	56.00	
			iPP	36	56.00	
			PKS	37	57.00	
			iPPP	39	38.00	
KIC	130.82	280	PKP	34	34.00	0.0
TIC	131.05	281	PKP	34	34.32	-0.1
LIC	131.12	280	PKP	34	34.48	-0.1
CFTV	131.57	312	iPKP	34	40.50	5.4X
			i	38	06.20	
RSCP	131.67	36	ePKP	34	35.00	-0.1
	Z 20s	28.25um			7.0Msz	
IISM	131.73	62	iPKPd	34	41.50	6.0X
GBTN	132.41	35	PKP	34	20.80	-15.6X
TKL	132.66	34	PKP	34	24.00	-12.9X
GMTN	132.96	22	ePKP	34	41.70	4.4X
OXX	132.98	64	iPKP	34	44.00	5.8X
NAV	133.01	30	PKP	34	25.00	-12.6X
CTFE	133.14	313	iPKP	34	41.50	3.5X
			i	38	06.00	
			i	43	41.00	
BLA	133.28	30	PKP	34	30.50	-7.6X
CVL	133.62	28	PKP	34	25.00	-13.6X
CBN	133.93	27	ePKP	34	25.00	-14.2X
			e	37	15.00	
TBT	134.21	315	iPKP	34	42.50	2.5X
			i	38	09.10	
PRM	134.60	35	PKP	34	28.50	-12.1X
JSC	135.08	33	PKP	34	33.30	-8.2X
LHS	135.17	33	PKP	34	31.00	-10.7X
SGS	136.30	34	PKP	34	34.50	-9.3X
HBF	136.57	34	PKP	34	35.00	-9.3X
VBA	143.53	168	e(PKP)	34	53.20	-3.6X
LCCH	144.56	153	ePKP	34	56.00	-2.6X
CHCH	144.58	155	ePKP	34	58.00	-0.7
TACH	144.69	154	ePKP	34	57.50	-1.4X
SAN	144.98	154	ePKPc	34	58.00	-1.4X
PEL	145.24	154	iPKPc	34	59.10	-0.8
FCH	145.25	154	iPKP	35	00.00	-0.3
JACH	145.67	154	iPKP	35	01.00	0.3
SJS	146.99	68	ePKP	35	05.20	1.8
LCR2	147.11	68	iPKP	35	06.20	2.6X
ICR	147.18	68	iPKPd	35	07.00	3.0X
CFA	147.60	156	ePKPd	35	03.30	-0.5
JCR	147.89	67	iPKP	35	03.00	-1.7
DVD	148.98	70	ePKPc	35	11.00	4.6X
HJA	156.10	151	ePKPc	35	18.10	1.8
ARE	157.19	129	ePKP	35	20.00	1.8
BMA	157.90	203	ePKP	35	20.80	2.2
			e	35	43.40	
			e	36	12.50	
BOG	158.08	72	iPKPc	35	21.00	1.5
FUQ	158.12	69	iPKP	35	17.00	-2.5X
ITA	158.39	202	ePKP	35	23.60	4.1X
			e	35	38.90	
VAO	158.55	196	ePKP	35	22.80	3.4X
SDV	159.40	57	ePKP	35	20.90	0.2
CNCB	159.56	136	iPKPc	35	22.90	1.7
TOV	159.60	54	ePKP	35	21.00	0.3
LPB	159.66	135	PKPc	35	23.00	1.8
	1.1s	202.53nm				
ZOBO	159.82	134	iPKPc	35	22.22	0.7
			epPd	35	38.78	
DEG	159.95	22	ePKP	35	22.00	1.0
PAG	159.96	24	ePKP	35	22.00	1.0
MORO	160.09	49	ePKP	35	26.00	4.7X
MGG	160.21	24	ePKP	35	22.00	0.8
CCH	160.38	141	PKP	35	26.00	4.2X
FDF	161.35	25	ePKP	35	24.45	2.0
CAR	161.36	47	iPKP	35	33.00	10.4X
			iPP	39	46.00	
LLAV	161.46	47	ePKP	35	24.00	1.3
OLLA	161.77	48	ePKP	35	34.00	11.0X
CUM	163.29	40	ePKP	35	24.00	-0.3
TRN	164.78	32	ePKP	35	25.50	-0.2
TPP	165.03	33	ePKP	35	27.20	1.2

S.D. = 1.3 on 376 of 520 obs.

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* FEB 10, 1989 11h 26m 07.01± 0.51s
2.247 N ± 6.7km 126.776 E ±13.8km
DEPTH = 33.0km (normal)
5.3mb (3 obs.)
MOLUCCA PASSAGE (266)

AAI	6.06	166	eP	27	46.50	9.8X
KNA	17.99	174	eP	30	16.00	-0.3
MBL	24.23	196	eP	31	22.00	-0.1
	0.4s	10.00nm			4.7mb	
GZH	24.47	329	eP	31	24.50	0.2
NANU	26.99	203	eP	31	48.50	0.6
WARB	28.26	180	eP	31	53.50	-5.9X
MEKA	29.78	195	eP	32	13.20	0.1
CHTO	31.84	303	e(P)	32	30.70	-0.7
	0.8s	36.60nm			5.3mb	
FORR	32.94	178	eP	32	40.00	-0.6
	0.5s	99.00nm			6.0mb	X
MRWA	32.95	197	eP	32	41.00	0.2
COOL	33.38	189	eP	32	45.00	0.4
BAL	34.05	196	eP	33	16.00	25.6X
MUN	35.48	196	eP	33	30.00	27.3X
NWAO	36.13	194	eP	33	09.00	0.9
STK	36.74	159	iPc	33	13.60	0.4
	0.7s	63.00nm			5.6mb	
RKG	37.27	193	eP	33	23.00	5.3X
TIY	37.67	341	Pc	33	21.20	0.1
BRS	38.67	141	Pc	33	28.00	-1.6
BJI	38.83	347	eP	33	29.50	-1.2
SNY	39.51	356	eP	33	38.40	2.1
COO	40.48	146	iPc	33	44.80	0.2
GBA	50.05	286	P	34	59.60	-1.4
AVY	80.37	251	eP	38	18.10	0.6
			e	48	37.42	
			e	49	25.82	
			e	50	15.70	
FFC	110.51	28	ePKP	44	56.50	18.9X
	1.0s	25.00nm				
GLA	112.21	53	ePKP	44	56.00	14.4X

S.D. = 0.9 on 18 of 25 obs.

FEB 10, 1989 11h 33m 55.44± 0.73s
37.732 N ± 7.4km 15.091 E ± 6.3km
DEPTH = 10.0km (geophysicist)
SICILY (398)
ML 2.9 (ROM).

ATN	0.52	34	P	34	06.40	0.4
			eSg	34	14.50	
MSI	0.60	38	P	34	07.90	0.4
			eSg	34	17.20	
MEU	0.64	192	P	34	07.40	-1.0
GMB	0.75	54	P	34	09.64	-0.6
LPI	0.77	351	P	34	10.47	0.0
SOI	0.83	66	P	34	12.00	0.5
			eSn	34	24.00	
GIB	0.88	287	P	34	13.30	0.9
			eSg	34	26.10	
FAI	1.21	248	P	34	19.30	1.3
GRI	1.51	44	P	34	24.39	1.9
USI	1.79	303	P	34	25.30	-1.3
TDS	2.16	27	P	34	30.40	-1.5
MGR	2.43	8	P	34	34.80	-1.0

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

FEB 10, 1989 11h 36m 26.45± 0.23s
2.319 N ± 4.3km 126.571 E ± 6.4km
DEPTH = 33.0km (normal)
5.4mb (12 obs.)
MOLUCCA PASSAGE (266)

JAY	14.92	109	ePd	40	01.50	4.6X
TRT	17.10	234	ePd	40	31.50	6.8X
	0.6s	26.50nm			4.5mb	
KNA	18.08	173	eP	40	37.50	0.6
GUMO	21.27	57	eP	41	13.60	1.2
	0.7s	50.83nm			5.0mb	
GUA	21.29	57	eP	41	13.00	0.4
QIZ	23.32	317	eP	41	33.60	0.9
WB5	23.35	161	eP	41	33.00	0.0
WB2	23.41	161	eP	41	33.00	-0.5
GZH	24.30	329	eP	41	41.60	-0.6
ASPA	26.80	165	iPd	42	05.20	-0.4
NANU	26.98	203	eP	42	08.50	1.3
WARB	28.33	180	eP	42	13.30	-6.2X
CTA	29.48	140	iPd	42	29.80	-0.1
	1.2s	117.19nm			5.5mb	
MEKA	29.79	195	eP	42	33.00	0.4
WHN	30.36	339	P	42	38.00	0.4
			i	43	25.50	
BDT	30.88	300	eP	42	42.60	0.3
CHTO	31.63	303	e(P)	42	48.10	-0.9
FORR	33.02	178	eP	43	00.30	-0.5
TSRJ	34.19	14	P	43	09.30	-1.6
IIDJ	34.63	16	P	43	14.50	-0.4
TIA	34.84	347	eP	43	17.20	0.6
			i	44	04.00	
CHJJ	35.48	17	eP	43	19.10	-2.9
XAN	35.60	334	Pc	43	22.30	-0.9
MTMJ	35.64	16	P	43	19.80	-3.7X
RMQ	35.77	145	eP	43	23.00	-1.6
NIIJ	36.59	17	eP	43	30.00	-1.3
STK	36.88	158	eP	43	33.00	-0.9
TIY	37.54	341	eP	43	38.40	-1.0
YAMJ	37.76	17	eP	43	40.60	-0.6
CMS	38.28	153	eP	43	45.00	-0.6
BJI	38.72	347	eP	43	49.00	-0.2
BRS	38.86	141	iPc	43	48.30	-2.3
OFUJ	39.10	19	eP	43	52.40	0.0
SNY	39.42	356	eP	43	56.00	1.0
LZH	39.64	331	eP	43	57.00	-0.1
	2.0s	0.08nm			2.1mb	X
COO	40.66	146	eP	44	05.60	0.2
HHC	40.68	342	P	44	06.80	1.2
CN2	41.32	359	eP	44	11.00	0.4
BWA	41.92	153	eP	44	17.30	1.5
CAN	42.93	153	eP	44	24.70	0.7
GTA	44.22	330	eP	44	34.20	-0.3
GUN	46.43	307	P	44	52.00	-0.6
PKI	46.66	307	P	44	53.80	-0.6
	0.4s	13.00nm			5.3mb	
KKN	46.86	307	P	44	54.80	-1.0
	0.6s	32.00nm			5.5mb	
DMN	46.92	306	P	44	56.60	0.2
	0.7s	31.00nm			5.4mb	

GKN	47.47	307 P	44 59.60	-0.9	
	0.5s	21.00nm		5.4mb	
HYB	49.45	291 eP	45 14.50	-1.4	
GBA	49.83	286 Pc	45 17.30	-1.4	
	0.6s	16.70nm		5.2mb	
WMQ	53.79	326 eP	45 50.00	1.8	
QUE	62.77	303 eP	46 50.80	-0.6	
MHI	70.24	308 eP	47 41.00	2.3	
TAB	80.89	308 eP	48 41.00	1.7	
TTA	82.22	27 eP	48 46.50	0.9	
KDC	83.21	32 P	48 51.20	0.6	
IMA	83.73	24 iPc	48 54.50	1.1	
	1.1s	40.60nm		5.5mb	
PMR	85.25	29 eP	49 00.70	-0.1	
	1.3s	56.60nm		5.6mb	
FBA	86.06	25 P	49 06.20	1.3	
INK	91.53	21 eP	49 30.00	-0.7	
KJF	91.79	334 eP	49 32.00	0.0	
	0.8s	11.70nm		5.4mb	
SUF	92.73	333 iP	49 37.70	1.4	
	0.5s	2.30nm		4.9mb	
GOL	116.72	43 PKP	55 10.00	0.2	
RSON	116.88	27 PKP	55 08.60	-0.8	
ELC	128.47	37 PKP	55 32.60	0.6	
PWLA	130.71	38 PKP	55 36.60	0.2	
TKL	132.76	34 PKP	55 40.90	0.6	
CVL	133.69	28 PKP	55 43.50	1.6	
S.D. = 1.1		on 62 of 66 obs.			

FEB 10, 1989 11h 37m 15.31± 0.23s
2.443 N ± 4.3km 126.566 E ± 7.0km
DEPTH = 33.0km (normal)
5.4mb (5 obs.)
MOLUCCA PASSAGE (266)

MKS	10.40	223 ePc	39 52.00	6.7X	
PIP	16.83	340 ePc	41 10.00	-0.1	
KNA	18.21	173 eP	41 30.00	2.7	
MNDI	19.09	117 eP	41 49.00	10.7X	
HKC	23.12	330 Pc	42 20.00	0.4	
GZH	24.20	329 eP	42 29.80	-0.2	
ASPA	26.92	165 eP	42 57.20	1.6	
NANU	27.09	203 eP	42 58.00	0.9	
WARB	28.46	180 eP	43 03.00	-6.5X	
SSE	28.95	350 P	43 14.50	0.7	
	1.0s	0.04nm		2.0mb X	
MEKA	29.91	195 eP	43 21.00	-1.6	
NJ2	30.33	347 eP	43 26.50	0.3	
GYA	30.58	323 P	43 29.00	0.4	
CHTO	31.56	303 e(P)	43 37.50	0.3	
	0.6s	19.22nm		5.1mb	
FORR	33.14	178 eP	43 48.50	-2.2	
TSRJ	34.07	14 eP	43 58.90	0.1	
IIDJ	34.52	16 eP	44 02.70	0.0	
CHJJ	35.36	18 P	44 08.30	-1.6	
MTMJ	35.52	16 eP	44 10.10	-1.3	
NIIJ	36.47	17 eP	44 17.60	-1.6	
DL2	36.57	354 P	44 21.00	1.0	
STK	37.00	159 eP	44 23.00	-0.7	
RKG	37.42	193 eP	44 34.00	6.8X	
TIY	37.42	341 Pc	44 27.30	0.0	
CMS	38.39	153 eP	44 35.00	-0.4	
BJI	38.59	347 eP	44 37.00	0.0	
BRS	38.96	141 P	44 41.00	0.7	
SNY	39.30	356 Pc	44 43.00	0.1	
HHC	40.56	342 P	44 52.80	-0.7	
COO	40.76	146 eP	44 54.00	-1.2	
MRRJ	41.87	16 eP	45 07.10	3.1X	
BWA	42.04	153 eP	45 05.70	0.2	
HOOJ	42.49	18 eP	45 10.80	1.7	
CAN	43.04	153 eP	45 13.10	-0.7	
KUSJ	43.59	19 eP	45 18.40	0.4	
ASAJ	43.88	17 eP	45 20.70	0.4	
GTA	44.11	330 eP	45 22.80	0.3	
GUN	46.36	307 P	45 40.40	-0.4	
PKI	46.59	306 P	45 42.70	0.1	
KKN	46.78	307 P	45 43.20	-0.9	
DMN	46.85	306 P	45 45.00	0.4	
GKN	47.39	307 P	45 48.00	-0.8	
HYB	49.41	291 eP	46 04.00	-0.4	
GBA	49.79	286 P	46 06.00	-1.3	
WMQ	53.68	326 iPc	46 38.50	2.2	
MHI	70.16	308 eP	48 28.00	0.9	
SDN	78.33	34 eP	49 13.40	-0.3	
TTA	82.11	27 P	49 34.90	1.0	
	0.7s	27.18nm		5.4mb	
KDC	83.10	32 eP	49 39.40	0.5	
IMA	83.62	24 iPc	49 43.00	1.3	
	0.8s	51.40nm		5.7mb	
PMR	85.15	29 eP	49 49.50	0.3	
	0.9s	41.70nm		5.6mb	
FBA	85.95	25 eP	49 52.10	-1.1	
INK	91.41	21 eP	50 19.00	0.0	
MBC	93.24	13 eP	50 27.00	-0.3	
BUL	98.30	250 eP	50 51.90	0.3	
		ipP	51 41.20	198kmX	
NB2	99.86	333 P	50 55.80	-2.0	
	0.6s	1.50nm		4.7mb	
YKA	100.73	24 Pdiff	51 02.40	0.9	
LRM	109.23	39 ePKP	55 44.00	-0.2	
FRB	113.02	7 ePKP	55 49.00	-1.4	
GOL	116.63	43 PKP	55 58.40	-0.1	
RSON	116.77	27 PKP	55 57.10	-0.9	
ALQ	118.01	48 PKP	56 01.80	0.6	
SCH	121.88	9 ePKP	56 07.00	-0.7	
OLY	128.14	40 PKP	56 20.70	0.4	
ELC	128.38	37 PKP	56 20.70	0.0	
KIC	130.60	280 PKP	56 27.60	2.0	
PWLA	130.61	38 PKP	56 24.40	-0.6	
GBTN	132.41	34 PKP	56 28.70	0.2	
TKL	132.66	34 PKP	56 28.80	-0.1	
S.D. = 1.0		on 64 of 69 obs.			

* FEB 10, 1989 11h 38m 05.03± 0.83s
2.244 N ±14.3km 126.580 E ±16.6km
DEPTH = 33.0km (normal)
5.4mb (3 obs.)
MOLUCCA PASSAGE (266)

AAI	6.11	165 eP	39 45.00	9.6X	
KNA	18.01	173 eP	42 15.00	0.4	
ASPA	26.72	165 eP	43 45.30	1.8	
	0.9s	113.00nm		5.5mb	
NANU	26.91	203 eP	43 44.00	-1.2	
MEKA	29.72	195 eP	44 11.00	0.4	
CHTO	31.68	303 e(P)	44 27.90	-0.1	
	0.7s	43.36nm		5.4mb	
FORR	32.94	178 eP	44 38.00	-0.7	
STK	36.81	158 eP	45 11.00	-0.8	
CMS	38.21	153 eP	45 23.00	-0.6	
BRS	38.79	141 P	45 27.00	-1.6	
COO	40.59	145 eP	45 43.60	0.1	
BWA	41.85	153 eP	45 55.30	1.5	
CAN	42.86	153 eP	46 02.40	0.4	
MSZ	59.46	147 P	48 06.90	-0.2	
MHI	70.29	308 eP	49 18.00	0.4	
BUL	98.25	250 iPd	51 41.20	0.1	
	1.1s	15.19nm		5.4mb	
S.D. = 1.0		on 15 of 16 obs.			

FEB 10, 1989 11h 47m 37.06± 0.32s
2.438 N ± 5.5km 126.529 E ± 9.3km
DEPTH = 33.0km (normal)
5.3mb (10 obs.)
MOLUCCA PASSAGE (266)

MNI	1.96	240 eP	48 20.50	11.9X	
TLE	10.15	142 ePc	50 05.10	1.5	
TRT	17.14	234 ePc	51 40.70	5.0X	
KNA	18.21	173 eP	51 48.00	-1.1	
QIZ	23.21	316 eP	52 44.70	2.5	
GZH	24.18	329 eP	52 51.80	0.2	
ASPA	26.92	165 eP	53 16.60	-0.8	
	0.5s	38.00nm		5.3mb	
NANU	27.07	203 eP	53 18.00	-0.6	
WARB	28.45	180 eP	53 23.00	-8.2X	
MEKA	29.90	194 eP	53 44.00	-0.2	
CHTO	31.53	303 e(P)	53 57.50	-1.2	
	0.8s	16.47nm		4.9mb	
MRWA	33.06	197 eP	54 13.00	1.2	
FORR	33.14	178 eP	54 09.00	-3.4X	
COOL	33.53	188 eP	54 17.00	1.0	
BAL	34.17	195 eP	54 21.00	-0.5	
TIA	34.71	347 eP	54 25.90	-0.2	
KLB	34.85	193 eP	54 29.00	1.7	
XAN	35.48	334 Pc	54 34.20	1.5	
MUN	35.60	195 eP	54 35.00	1.3	
NWAO	36.26	193 eP	54 42.00	2.8	
STK	37.01	158 eP	54 44.00	-1.5	
TIY	37.42	341 eP	54 50.20	1.2	
BJI	38.59	347 P	54 59.00	0.3	
SNY	39.30	357 eP	55 06.00	1.4	
LZH	39.51	331 eP	55 07.50	0.8	
	2.0s	0.11nm		2.3mb X	
COO	40.78	146 eP	55 15.00	-2.0	
CN2	41.20	359 eP	55 16.00	-4.2X	
BWA	42.05	153 eP	55 26.50	-0.9	
CAN	43.06	153 eP	55 34.90	-0.7	
GTA	44.10	330 eP	55 45.10	0.9	
GUN	46.33	307 P	56 01.20	-1.2	
PKI	46.56	306 P	56 04.00	-0.2	
	0.6s	21.00nm		5.3mb	
KKN	46.76	307 P	56 05.00	-0.6	
	0.7s	35.00nm		5.5mb	
DMN	46.82	306 P	56 05.30	-0.9	
	0.8s	47.00nm		5.5mb	
GKN	47.36	307 P	56 09.20	-1.1	
	0.9s	39.00nm		5.4mb	
HYB	49.37	291 eP	56 25.00	-0.9	
GBA	49.76	286 P	56 27.00	-1.8	
		e	59 07.00		
WMQ	53.67	326 P	57 02.00	4.1X	
QUE	62.67	303 eP	57 59.40	-2.0	
MHI	70.13	308 eP	58 48.00	-0.7	
AVY	80.21	250 eP	59 48.10	1.5	
TTA	82.14	27 eP	59 57.70	2.0	
KDC	83.13	32 P	00 00.60	-0.2	
	1.0s	45.00nm		5.5mb	
IMA	83.64	24 eP	00 03.50	0.0	
	0.9s	20.80nm		5.3mb	
PMR	85.17	29 eP	00 09.80	-1.2	
	0.9s	22.90nm		5.4mb	
FBA	85.97	25 P	00 15.30	0.3	
NPA	88.00	255 eP	00 27.00	1.2	
INK	91.43	21 eP	00 39.00	-1.9	
NB2	99.85	333 P	01 18.00	-1.5	
	0.8s	3.50nm		4.9mb	
YKA	100.75	24 Pdiff	01 24.40	1.0	
GOL	116.66	43 PKP	06 19.80	-0.5	
FVM	127.23	37 PKP	06 41.30	1.0	
ELC	128.40	36 PKP	06 42.40	-0.1	
PWLA	130.64	38 PKP	06 46.00	-0.8	
TKL	132.68	34 PKP	06 50.80	0.1	
S.D. = 1.3		on 49 of 55 obs.			

FEB 10, 1989 11h 58m 13.88± 0.37s
2.157 N ± 6.5km 126.564 E ± 9.9km
DEPTH = 33.0km (normal)
5.2mb (8 obs.)
MOLUCCA PASSAGE (266)

KNA	17.93	173 eP	02 23.00	0.6	
ASPA	26.64	165 iPd	03 51.40	-0.2	
	0.7s	20.00nm		4.8mb	
		eS	08 28.10		
NANU	26.83	203 eP	03 55.00	1.8	
WARB	28.17	180 eP	04 00.00	-5.5X	
MEKA	29.64	195 eP	04 19.00	0.3	
CHTO	31.71	303 eP	04 37.00	-0.1	
	1.0s	18.75nm		4.9mb	
FORR	32.86	178 iPd	04 47.10	0.3	
TIY	37.69	342 eP	05 29.40	1.3	
BRS	38.74	141 P	05 35.00	-2.0	
BJI	38.87	347 eP	05 39.50	1.6	
BWA	41.78	152 eP	06 07.70	5.7X	
CAN	42.79	153 eP	06 10.20	-0.1	
GUN	46.53	307 P	06 39.90	-0.9	
PKI	46.75	307 P	06 43.00	0.5	
KKN	46.95	307 P	06 43.20	-0.8	
	0.6s	13.00nm		5.1mb	
DMN	47.01	307 P	06 43.80	-0.7	
	0.8s	34.00nm		5.4mb	
GKN	47.56	307 P	06 47.40	-1.3	
	0.8s	28.00nm		5.3mb	
HYB	49.51	291 eP	07 02.80	-0.9	
GBA	49.87	286 P	07 06.00	-0.5	
		e	07 43.00		
WMQ	53.92	326 eP	07 38.00	1.5	
TTA	82.37	27 eP	10 34.20	0.4	
KDC	83.34	32 P	10 38.60	-0.1	
	0.6s	10.84nm		5.1mb	
IMA	83.88	24 eP	10 42.10	0.5	
	0.9s	20.80nm		5.3mb	
PMR	85.40	29 eP	10 48.50	-0.5	
	0.9s	16.70nm		5.2mb	
INK	91.68	21 eP	11 18.00	-0.8	
YKA	100.99	24 Pdiff	12 01.40	0.1	
S.D. = 1.0		on 24 of 26 obs.			

FEB 10, 1989 12h 07m 43.88± 1.06s
2.398 N ± 3.1km 126.628 E ± 4.4km

10d 12h

DEPTH = 42.0 ± 9.6 km
5.3mb (19 obs.)
MOLUCCA PASSAGE (266)

DAV	4.78	347	eP	08 55.00	-0.3
TSM	8.73	282	ePd	09 55.00	4.4X
TLE	10.05	143	ePc	10 14.30	5.5X
MKS	10.41	223	iPc	10 22.00	8.3X
KKM	11.00	290	ePd	10 23.80	2.0
BAG	15.14	337	eP	11 17.00	0.1
KHKI	15.33	226	ePc	11 25.50	6.4X
PIP	16.89	340	ePc	11 41.30	2.4
TRT	17.19	234	ePc	11 44.20	1.5
	0.6s	43.00nm			4.8mb
KNA	18.15	173	eP	11 50.00	-4.7X
MNDI	19.01	117	eP	12 12.00	6.7X
GUMO	21.18	57	eP	12 28.70	0.6
	1.1s	150.77nm			5.3mb
PJG	21.18	57	eP	12 29.20	1.1
GUA	21.20	58	eP	12 28.70	0.4
HKC	23.19	330	Pd	12 48.40	0.4
KGM	23.29	270	eP	12 51.00	2.0
QIZ	23.31	316	Pd	12 49.60	0.5
WB5	23.41	161	eP	12 54.50	4.4X
WRA	23.46	162	Pc	12 49.70	-0.9
	0.7s	109.60nm			5.5mb
WB2	23.46	161	eP	12 50.30	-0.3
QZH	23.72	342	eP	12 53.50	0.5
Z	28s	14.10um			5.3MszX
N	28s	14.90um			
GZH	24.27	329	eP	12 58.00	-0.4
MBL	24.34	196	eP	13 00.00	0.9
	0.5s	24.00nm			5.0mb
IPM	25.64	276	ePd	13 13.00	1.4
	0.9s	54.70nm			5.1mb
ASPA	26.86	165	eP	13 20.60	-2.1
NANU	27.07	203	eP	13 24.80	0.2
	0.4s	10.00nm			4.8mb
PSI	27.68	271	ePc	13 29.50	-0.7
WARB	28.41	180	eP	13 24.00	-12.7X
NNT	28.49	292	eP	13 38.00	0.5
SSE	29.00	350	P	13 44.00	2.0
	1.0s	0.05nm			2.1mb X
NST	29.25	298	eP	13 44.00	-0.3
CTA	29.50	140	iPd	13 46.00	-0.6
MEKA	29.88	195	eP	13 50.00	0.0
	0.4s	35.00nm			5.5mb
KUMJ	30.24	7	eP	13 52.10	-0.9
WHN	30.31	339	P	13 53.50	-0.2
NJ2	30.39	347	Pd	13 55.00	0.7
GYA	30.65	323	P	13 57.00	0.1
BDT	30.89	300	eP	13 58.80	-0.1
	0.8s	77.80nm			5.5mb
CHTO	31.64	303	e(P)	14 04.10	-1.4
	0.8s	31.30nm			5.2mb
KMI	32.26	317	Pc	14 11.00	-0.1
MRWA	33.05	197	eP	14 17.50	-0.1
FORR	33.09	178	eP	14 15.00	-3.0X
COOL	33.51	189	eP	14 21.00	-0.6
TSRJ	34.10	14	P	14 26.30	-0.4
BAL	34.16	195	eP	14 27.00	-0.3
IIDJ	34.54	16	P	14 31.40	0.8
TIA	34.78	346	Pd	14 31.60	-0.9
KLB	34.84	193	eP	14 33.00	-0.1
CHJJ	35.39	17	P	14 35.70	-2.0
MTMJ	35.55	16	P	14 37.30	-1.9
XAN	35.56	334	Pc	14 38.40	-0.9
MUN	35.59	195	eP	14 39.00	-0.5
CD2	35.66	325	eP	14 40.40	0.2
RMQ	35.80	145	eP	14 40.00	-1.4
			e	16 05.00	
			e	17 10.00	
NWAO	36.24	193	eP	14 45.00	0.0
NIIJ	36.50	17	P	14 46.00	-1.0
DL2	36.62	353	eP	14 48.00	-0.1
STK	36.93	159	P	14 45.00	-5.8X
			e	14 50.00	
RKG	37.39	193	eP	15 00.00	5.4X
TIY	37.48	341	eP	14 54.40	-1.1
YAMJ	37.67	17	eP	14 56.50	-0.4
CMS	38.33	153	eP	15 02.00	-0.5
BJI	38.65	347	eP	15 04.50	-0.6
ADE	38.86	164	eP	15 07.10	0.1
	0.8s	134.33nm			5.8mb
BRS	38.88	141	Pc	15 04.40	-2.9X
SNY	39.35	356	Pc	15 10.20	-0.7
LZH	39.60	331	eP	15 13.00	-0.3
	1.5s	0.31nm			2.9mb X
AOMJ	39.97	16	eP	15 15.70	-0.4
HHC	40.63	342	eP	15 21.80	0.2
COO	40.69	146	eP	15 22.00	-0.2
CN2	41.24	359	eP	15 27.00	0.6
MRRJ	41.90	16	eP	15 32.70	0.9
BWA	41.97	153	eP	15 33.50	0.9
MDJ	42.12	3	Pd	15 34.00	0.3
HOOJ	42.51	18	eP	15 38.30	1.4
CAN	42.98	153	iP	15 40.90	0.1
CNB	43.14	152	eP	15 42.00	-0.2
LSA	43.25	313	P	15 44.00	0.3
TOO	43.45	158	eP	15 44.00	-0.6
KUSJ	43.62	19	eP	15 46.10	0.3
GTA	44.18	330	eP	15 50.00	-0.7
Z	25s	9.20um			5.6MszX
E	14s	3.10um			
			PP	17 35.40	
DZM	45.87	124	iPc	16 03.60	-0.7
GUN	46.43	307	P	16 06.60	-2.4
PKI	46.66	306	P	16 08.90	-2.0
KKN	46.86	307	P	16 10.60	-1.7
DMN	46.92	306	P	16 11.80	-1.0
GKN	47.46	307	P	16 15.20	-1.8
KOD	49.42	281	eP	16 31.30	-1.2
HYB	49.48	291	iPc	16 31.50	-1.0
	1.0s	150.00nm			6.0mb
GBA	49.86	286	P	16 33.60	-1.8
GBA	49.86	286	Pc	16 29.20	-6.2X
	0.6s	5.80nm			4.8mb
WMQ	53.75	326	eP	17 03.50	-0.9
NDI	53.77	304	eP	17 02.00	-2.6
POO	54.09	291	iPc	17 05.80	-1.3
KSH	58.88	316	eP	17 42.00	0.8
MSZ	59.57	147	P	17 45.20	-0.4
MHI	70.24	308	eP	18 55.00	-0.1
	0.7s	71.23nm			5.8mb
AVY	80.28	250	iPc	19 53.30	0.5
TAB	80.89	308	eP	19 57.00	1.4
SLY	81.39	305	ePd	20 08.00	10.0X
TTA	82.13	27	eP	20 02.50	1.1
KDC	83.11	32	eP	20 06.90	0.5
MSL	83.33	306	ePd	20 09.00	0.9
IMA	83.63	24	iPc	20 10.50	1.3
	1.0s	65.00nm			5.7mb
PMR	85.16	29	eP	20 16.80	0.1
	1.2s	136.70nm			6.0mb
FBA	85.96	25	P	20 19.60	-1.1
NPA	88.08	255	iP	20 33.20	1.3
HRI	89.44	303	iPd	20 41.70	3.4X
JVI	89.83	302	iPd	20 44.00	4.1X
NAI	89.88	269	eP	20 43.00	2.2
RMN	90.52	300	iPd	20 45.00	1.7
INK	91.43	21	eP	20 46.00	-0.6
SOD	91.65	338	eP	20 50.00	2.4
			i	20 55.20	
KJF	91.74	334	iP	20 47.60	-0.5
	0.8s	16.10nm			5.5mb
SUF	92.68	333	eP	20 51.00	-1.4
MBC	93.27	13	eP	20 55.00	0.1
NUR	93.81	331	eP	21 14.00	16.4X
VRI	95.18	316	ePc	21 05.00	0.7
MLR	95.78	316	ePd	21 07.50	0.2
BUL	98.34	250	iPc	21 19.00	-0.2
	0.8s	7.46nm			5.3mb
DAG	98.57	352	iPd	21 17.70	-1.3
	0.8s	8.96nm			5.3mb
NB2	99.93	333	P	21 23.80	-1.8
	0.9s	4.00nm			4.9mb
YKA	100.75	24	Pdiff	21 29.90	0.8
GOL	116.63	43	PKP	26 26.10	0.2
RSON	116.78	27	PKP	26 24.00	-1.5
ALQ	117.99	48	ePKP	26 29.00	0.4
SCH	121.91	9	ePKP	26 36.00	0.9
TUL	125.07	42	ePKP	26 42.50	0.7
	1.2s	10.90nm			
RLO	125.43	41	ePKP	26 42.80	0.3
KOGH	126.28	279	ePKP	26 46.00	1.1
KUK	126.39	279	ePKP	26 45.50	0.4
FVM	127.20	37	PKP	26 45.60	-0.3
PWLA	130.61	38	PKP	26 52.10	-0.3
KIC	130.67	280	PKP	26 54.10	0.9
TIC	130.90	281	PKP	26 54.50	0.9
LIC	130.98	280	PKP	26 54.68	0.9
JSC	135.07	33	PKP	27 01.80	0.9
LHS	135.17	33	PKP	27 02.60	1.5
SAN	145.12	154	ePKP	27 19.50	0.4
PEL	145.38	154	iPKPc	27 20.00	0.4
JACH	145.81	154	ePKP	27 21.90	1.5
MDZ	146.38	156	iPKPd	27 24.10	2.8X
CNCB	159.72	136	PKP	27 43.50	2.6X
LPB	159.82	135	PKP	27 44.00	3.2X
			PP	32 04.50	
			Lg	36 50.00	
ZOBO	159.98	134	PKP	27 43.00	1.8
	1.2s	11.82nm			

S.D. = 1.1 on 125 of 145 obs.

FEB 10, 1989 12h 12m 05.20± 0.44s
2.254 N ± 3.1km 126.598 E ± 4.4km
DEPTH = 46.5 ± 4.0 km
5.6mb (29 obs.)
MOLUCCA PASSAGE (266)

DAV	4.91	348	eP	13 21.00	2.6X
AAI	6.11	165	eP	13 40.00	4.6X
TSM	8.73	283	ePc	14 16.10	4.3X
	0.8s	618.50nm			6.7mb X
TLE	9.96	142	ePc	14 31.00	2.3X
	0.2s	9.00nm			5.6mb
KKM	11.02	290	ePd	14 46.00	2.8
	1.0s	224.40nm			6.3mb
KHKI	15.21	226	ePd	15 46.00	7.4X
BAG	15.26	338	eP	15 39.00	-0.5
PIP	17.01	340	ePd	16 01.40	-0.1
TRT	17.08	234	ePd	16 04.00	1.6
	1.0s	55.40nm			4.6mb
KNA	18.02	173	eP	16 12.00	-2.0
			e	19 55.00	
MNDI	18.97	116	eP	16 28.00	2.1
GUMO	21.29	57	eP	16 40.90	-9.2X
	0.4s	56.61nm			5.3mb
GUA	21.30	57	eP	16 49.20	-1.0
	0.5s	61.97nm			5.2mb
KGM	23.26	270	eP	17 14.00	4.4X
WB5	23.28	161	eP	17 00.20	-9.6X
			eS	21 18.20	
HKC	23.30	330	Pd	17 10.40	0.5
WB2	23.34	161	eP	17 00.20	-10.1X
			eS	21 18.20	
QIZ	23.39	317	P	17 11.60	0.8
MCO	23.47	328	eP	17 12.30	0.8
PMG	23.53	120	eP	17 11.00	-1.2
	1.0s	88.00nm			5.2mb
QZH	23.84	342	eP	17 15.00	-0.1
MBL	24.19	196	iPd	17 18.70	0.1
	0.5s	21.00nm			4.9mb
IPM	25.63	276	ePd	17 33.00	0.6
QIS	26.01	151	eP	17 35.00	-0.8
ASPA	26.73	165	eP	17 40.90	-1.5
			eS	22 16.60	
			eScS	27 00.30	
NANU	26.93	203	iPd	17 44.30	0.1
	0.4s	12.00nm			4.9mb
WARB	28.27	180	iPc	17 49.40	-6.9X
	0.6s	162.00nm			5.8mb
NNT	28.51	292	eP	17 59.00	0.4
SSE	29.14	350	P	18 04.50	0.4
	1.7s	0.19nm			2.5mb X
CTA	29.41	140	iPc	18 05.80	-0.9
	1.0s	80.00nm			5.4mb
MEKA	29.74	195	iPc	18 09.00	-0.5
	0.4s	27.00nm			5.3mb
WHN	30.43	339	eP	18 12.50	-3.1X
NJ2	30.52	347	Pd	18 17.50	1.1
GYA	30.75	323	P	18 18.80	0.2
CHTO	31.69	303	e(P)	18 26.50	-0.4
	0.8s	78.88nm			5.6mb
KMI	32.34	317	Pc	18 32.00	-0.7
FORR	32.95	178	iPd	18 36.50	-1.1
	0.8s	1035.00nm			6.7mb X
COOL	33.36	189	iPd	18 40.30	-1.0
BAL	34.01	195	eP	18 47.00	0.1
IIDJ	34.69	16	P	18 51.80	-0.9
KLB	34.69	193	eP	18 52.00	-0.7
TIA	34.91	347	Pd	18 53.70	-0.8
MUN	35.44	195	eP	18 58.00	-1.1
CHJJ	35.53	17	P	18 57.80	-2.0
XAN	35.67	334	Pd	19 00.10	-1.0
MTMJ	35.70	16	P	19 00.30	-1.0
RMQ	35.70	145	eP	18 59.00	-2.4
	0.6s	45.00nm			5.6mb
			e	21 30.00	
KAKJ	36.04	19	P	19 01.70	-2.4

NWAO	36.09	193	eP	19	05.00	0.4	YKA	100.89	24	Pdiff	25	51.50	1.0	COOL	33.56	189	iPc	23	28.60	1.3
NIIJ	36.64	17	P	19	07.50	-1.6	EDM	105.65	33	ePKP	30	25.00	0.0	TSRJ	34.04	14	P	23	31.40	0.1
DL2	36.76	354	iPd	19	10.00	-0.1	LRM	109.36	39	ePKP	30	33.40	0.8	BAL	34.21	195	eP	23	34.00	1.1
STK	36.81	158	eP	19	10.00	-0.6	FFC	110.59	28	ePKP	30	34.00	-0.3	IIDJ	34.49	16	eP	23	34.60	-0.6
	0.7s	146.00nm			6.0mb			1.0s	12.00nm					TIA	34.72	346	eP	23	36.20	-1.0
RKG	37.24	193	eP	19	19.00	4.8X	BW06	112.54	41	PKP	30	39.00	0.3	KLB	34.89	193	eP	23	39.00	0.3
TIY	37.61	341	Pd	19	16.90	-0.5	GOL	116.75	43	PKP	30	47.00	0.1	CHJJ	35.33	17	P	23	40.90	-1.5
Z	28s	15.60um			5.7MszX		RSON	116.92	27	PKP	30	46.00	-0.5	MTMJ	35.49	16	P	23	43.20	-0.7
YAMJ	37.81	17	P	19	19.50	0.5	ALQ	118.11	48	ePKP	30	49.00	-0.5	XAN	35.51	334	P	23	42.10	-1.9
CMS	38.21	153	eP	19	21.00	-1.4	SCH	122.06	9	ePKP	30	56.00	-0.2	CD2	35.62	325	eP	23	43.80	-1.2
ADE	38.73	164	iPc	19	26.40	-0.4	MEO	123.89	45	ePKP	31	00.80	0.4	MUN	35.65	195	eP	23	46.00	0.9
	0.8s	238.81nm			6.1mb			1.0s	9.00nm					KAKJ	35.84	19	P	23	45.50	-1.2
BJI	38.78	347	P	19	17.20	-9.9X	SIO	124.94	42	e(PKP)	31	02.80	0.5	RMQ	35.84	145	eP	23	47.00	0.2
BRS	38.79	141	Pc	19	27.10	-0.3	TUL	125.19	42	ePKP	31	03.20	0.4				e	26	15.00	
			e	19	33.00			1.2s	13.20nm					NWAO	36.30	193	eP	23	53.00	2.4
			i	19	41.00		LNO	125.19	42	ePKP	31	02.90	0.2	NIIJ	36.44	17	eP	23	50.90	-0.8
OFUJ	39.15	19	eP	19	30.20	0.1	RLO	125.56	41	e(PKP)	31	03.20	-0.4	DL2	36.57	353	eP	23	53.00	0.3
SNY	39.49	356	Pc	19	33.00	0.1	KUK	126.39	279	ePKP	31	06.50	0.7	STK	36.98	159	eP	23	55.00	-1.3
LZH	39.71	331	P	19	35.00	0.0	FVM	127.33	37	PKP	31	06.70	-0.2				e	23	57.00	
	1.0s	0.19nm			2.9mb X		ELC	128.51	37	PKP	31	09.50	0.4	TIY	37.43	341	eP	24	00.00	-0.2
AOMJ	40.12	16	eP	19	39.80	1.7	KIC	130.67	280	PKP	31	14.90	1.0	RKG	37.44	193	eP	24	06.00	5.8X
COO	40.59	146	iPd	19	42.20	0.0	PWLA	130.74	38	PKP	31	13.00	-0.5	YAMJ	37.61	17	eP	24	02.00	0.5
HHC	40.75	342	P	19	43.60	0.1	LIC	130.97	280	PKP	31	15.60	1.1	CMS	38.37	153	eP	24	08.00	0.0
CN2	41.38	359	P	19	48.00	-0.4	GBTN	132.54	34	PKP	31	16.60	-0.3	BJI	38.60	347	eP	24	09.50	-0.3
BWA	41.85	153	eP	19	53.30	0.8	TKL	132.80	34	PKP	31	17.20	-0.2	ADE	38.91	164	eP	24	12.10	-0.5
MRRJ	42.04	16	eP	19	54.10	0.2	TACH	144.72	154	iPKPd	31	38.50	-0.6	BRS	38.92	141	Pc	24	10.90	-1.8
HOOJ	42.66	18	eP	20	00.60	1.7	SAN	145.01	154	ePKP	31	39.40	-0.3	OFUJ	38.95	19	eP	24	13.00	0.3
CAN	42.86	153	eP	20	01.00	0.2	PEL	145.26	154	iPKPc	31	40.50	0.4	SNY	39.29	356	eP	24	16.00	0.4
CNB	43.03	152	iPc	20	02.50	0.4	FCH	145.27	155	iPKPd	31	41.30	0.8	LZH	39.55	330	P	24	18.50	0.5
LSA	43.32	313	Pc	20	05.30	0.2	JACH	145.69	154	iPKP	31	42.50	1.5		2.5s	0.35nm				2.7mb X
TOO	43.32	158	iPd	20	05.60	1.1	MDZ	146.26	156	iPKPc	31	44.30	2.5X	AOMJ	39.92	16	eP	24	27.50	6.7X
KUSJ	43.76	19	eP	20	07.70	-0.2		S.D. = 1.1 on 127 of 142 obs.						HHC	40.57	342	P	24	26.50	0.2
ASAJ	44.05	17	eP	20	10.10	-0.1								COO	40.73	146	eP	24	26.00	-1.7
GTA	44.29	330	P	20	12.00	-0.4		FEB 10, 1989 12h 16m 48.07± 0.19s						BTO	40.84	341	eP	24	29.20	0.7
			PP	21	57.00			2.455 N ± 3.4km 126.637 E ± 5.3km						CN2	41.18	359	Pc	24	32.40	1.3
DZM	45.81	124	iP	20	23.90	-0.8		DEPTH = 33.0km (normal)						MRRJ	41.84	16	eP	24	38.70	2.2
GUN	46.49	307	P	20	29.30	-1.1		5.5mb (16 obs.)						BWA	42.01	153	eP	24	38.70	0.6
PKI	46.72	307	P	20	30.80	-1.4		MOLUCCA PASSAGE					(266)	HOOJ	42.46	18	eP	24	43.00	1.4
KKN	46.92	307	P	20	32.70	-0.9								CAN	43.02	153	eP	24	45.70	-0.7
DMN	46.98	306	P	20	32.70	-1.5	DAV	4.72	347	eP	18	07.00	8.2X	LSA	43.22	312	P	24	48.90	0.4
GKN	47.53	307	P	20	36.80	-1.5	AAI	6.30	166	eP	18	26.00	4.9X	TOO	43.49	158	eP	24	52.00	1.8
TAU	48.69	160	iPd	20	46.90	0.1				eS	18	36.50		KUSJ	43.56	19	eP	24	51.40	0.9
HYB	49.50	291	iPc	20	53.00	-0.6	TSM	8.73	282	ePd	19	01.00	5.9X	ASAJ	43.84	17	eP	24	53.40	0.5
	1.0s	60.00nm			5.6mb		MKS	10.46	223	ePc	19	24.50	5.6X	GTA	44.14	330	P	24	55.30	-0.2
GBA	49.88	286	P	20	55.40	-1.0	KKM	10.99	289	ePd	19	31.00	4.8X	Z	29s	9.20um			5.5MszX	
WMQ	53.86	326	iPd	21	25.00	-0.9		1.0s	180.10nm			6.2mb		E	13s	2.40um				
KSH	58.96	316	eP	22	03.00	0.4	BAG	15.09	337	eP	20	17.00	-3.9X	GUN	46.41	307	P	25	12.90	-1.1
MSZ	59.46	147	P	22	04.70	-1.0	PIP	16.84	340	ePd	20	44.50	1.5	PKI	46.64	306	P	25	14.60	-1.2
	1.0s	241.00nm			6.3mb		TRT	17.23	234	ePc	20	51.40	3.4X	KKN	46.83	307	P	25	16.00	-1.2
KRP	60.32	137	eP	22	11.50	-0.2		0.5s	42.50nm			4.8mb		DMN	46.90	306	P	25	16.60	-1.2
WEL	61.54	140	P	22	16.00	-4.0X	KNA	18.21	173	eP	21	01.00	0.9	GKN	47.44	307	P	25	20.60	-1.3
	1.0s	352.00nm			6.4mb			0.7s	184.00nm			5.3mb		HYB	49.47	291	eP	25	36.00	-1.6
QUE	62.82	303	eP	22	28.00	-1.0	MNDI	19.03	117	eP	21	14.00	3.7X		1.2s	157.10nm			5.9mb	
MHI	70.30	308	iPc	23	16.00	-0.3	GUMO	21.15	57	eP	21	31.80	-0.9	GBA	49.86	286	P	25	38.90	-1.7
	0.9s	110.92nm			5.8mb			1.0s	180.00nm			5.4mb		WMQ	53.71	326	P	26	09.30	0.0
AVY	80.21	250	iPc	24	13.90	0.7	GUA	21.16	58	eP	21	32.30	-0.6	MSZ	59.61	147	P	26	52.00	0.9
TAB	80.95	308	P	24	18.00	1.3		0.7s	82.19nm			5.2mb		QUE	62.75	303	eP	27	11.80	-1.1
TTA	82.27	27	P	24	24.30	1.3	HKC	23.15	329	Pc	21	53.30	0.7	MHI	70.21	308	iPc	28	00.10	-0.1
	0.8s	33.62nm			5.4mb		QIZ	23.27	316	eP	21	54.60	0.8		1.0s	140.00nm			6.0mb	
MAW	82.33	200	eP	24	24.50	1.4	MCO	23.32	328	eP	21	54.30	0.1	AVY	80.31	250	eP	28	58.78	0.6
KDC	83.24	32	P	24	29.00	1.1	PMG	23.60	120	eP	21	56.00	-1.0	TAB	80.86	308	eP	29	02.00	1.3
	1.0s	78.00nm			5.7mb		QZH	23.67	342	eP	21	57.90	0.3	SLY	81.37	305	ePd	29	04.50	1.3
MSL	83.39	306	ePd	24	29.50	0.3	Z	28s	17.80um			5.4MszX		TTA	82.07	27	eP	29	07.30	0.9
IMA	83.78	24	P	24	32.20	1.4	N	28s	19.30um					BHD	82.18	303	eP	29	07.00	-0.5
PMR	85.30	29	P	24	38.00	-0.2	E	28s	14.10um					MAW	82.53	200	eP	29	11.00	2.4
	1.0s	67.50nm			5.8mb		MBL	24.40	196	eP	22	04.00	-0.7	KDC	83.06	32	P	29	13.40	2.0
FBA	86.10	25	P	24	40.70	-1.5		0.4s	20.00nm			5.0mb			1.2s	106.06nm			5.8mb	
PMO	86.24	105	iP	24	46.60	2.9	IPM	25.65	275	eP	22	16.20	-0.5	MSL	83.31	306	ePd	29	13.00	-0.3
	1.2s	45.00nm			5.6mb		QIS	26.17	152	eP	22	19.00	-2.4	IMA	83.58	24	eP	29	15.30	1.1
TPT	86.50	105	iP	24	47.70	2.7	NANU	27.13	203	eP	22	30.00	-0.2	PMR	85.10	29	eP	29	21.70	0.0
	1.2s	40.00nm			5.5mb			0.3s	10.00nm			4.9mb			1.1s	84.40nm			5.9mb	
VAH	86.51	105	iP	24	47.60	2.6	WARB	28.47	180	eP	22	35.00	-7.4X	FBA	85.91	25	P	29	25.70	0.0
	1.2s	45.00nm			5.6mb		SSE	28.95	350	Pc	22	46.50	-0.1	TOA	86.53	28	eP	29	30.10	1.2
RUV	86.74	105	iP	24	48.80	2.6		1.5s	0.10nm			2.3mb X		NPA	88.11	255	iP	29	38.00	0.7
	1.2s	45.00nm			5.6mb		CTA	29.54	140	iPd	22	50.80	-1.3	KVT	88.85	311	iP	29	41.40	0.9
NPA	88.02	255	iP	24	53.70	1.3	MEKA	29.94	195	eP	22	54.00	-1.6	KEV	91.05	340	eP	29	49.00	-1.1
INK	91.58	21	iPc	25	08.10	0.1		0.4s	52.00nm			5.7mb		INK	91.38	21	eP	29	51.00	-0.6
SPA	92.24	180	e(P)	25	12.10	0.8	WHN	30.26	339	P	22	58.00	-0.3	SOD	91.60	338	eP	29	52.00	-0.7
	1.0s	30.00nm			5.7mb		NJ2	30.34	347	Pd	22	59.00	0.0	KJF	91.69	334	iP	29	52.20	-1.0
VRI	95.27	316	ePd	25	26.00	0.5	GYA	30.61	323	P	23	02.60	0.9		0.7s	13.30nm			5.5mb	
PTZ	95.65	256	iPc	25	28.50	0.6	BDT	30.87	300	eP	23	04.00	0.2	SUF	92.64	333	eP	30	00.00	2.5
MLR	95.86	316	iPd	25	28.50	0.1		0.8s	93.40nm			5.6mb		MBC	93.21	13	eP	30	00.00	0.0
BUL	98.27	250	iPc	25	39.80	0.1	CHTO	31.61	303	iPc	23	09.80	-0.6	NUR	93.77	331	eP	30	04.00	1.3
	1.4s	20.93nm			5.5mb			0.8s	73.21nm			5.6mb		VRI	95.15	316	ePd	30	10.00	0.5
VAY	99.02	312	eP	25	41.40	-1.1	KMI	32.22	316	Pc	23	16.00	0.1	PTZ	95.73	256	iPd	30	14.50	1.7
NB2	100.04	333	Pdiff	25	45.00	-1.8	MRWA	33.10	197	eP	23	24.50	1.3	MLR	95.75	316	iPd	30	12.50	0.1
	0.7s	3.20nm			5.0mb		FORR	33.15	178	eP	23	21.00	-2.6	BUL	98.37	250	P	30	25.20	0.5

10d 12h

DAG	98.51	352	iPd	30	23.00	-1.1
VAY	98.91	312	eP	30	23.70	-2.9
NB2	99.88	334	P	30	28.80	-1.9
	0.8s		4.60nm			5.1mb
YKA	100.69	24	Pdiff	30	17.10	-17.0X
KMZ	101.07	257	ePdiff	30	29.00	-8.1X
GOL	116.58	43	PKP	35	31.00	-0.2
RSON	116.73	27	PKP	35	29.70	-1.0
ALQ	117.94	48	ePKP	35	35.00	1.2
FVM	127.15	37	PKP	35	52.00	0.9
ELC	128.33	37	PKP	35	53.50	0.1
PWLA	130.56	38	PKP	35	57.40	-0.3
TKL	132.61	34	PKP	36	01.80	0.2
SAN	145.17	154	ePKP	36	26.50	2.0
PEL	145.42	154	iPKPc	36	24.60	-0.4
FCH	145.44	155	ePKPd	36	28.00	2.6X
JACH	145.85	154	ePKP	36	28.90	3.1X
MDZ	146.42	156	iPKPd	36	28.50	1.8
S.D. = 1.1 on 112 of 127 obs.						

FEB 10, 1989 12h 27m 44.34± 0.20s
2.376 N ± 3.7km 126.648 E ± 6.1km
DEPTH = 33.0km (normal)
5.2mb (13 obs.)
MOLUCCA PASSAGE (266)

TLE	10.03	143	ePc	30	13.00	3.8X
KNA	18.13	173	eP	31	55.00	-0.4
QIZ	23.34	316	eP	32	53.20	2.5
WB5	23.38	161	eP	32	51.00	-0.1
WRA	23.43	162	Pc	32	51.20	-0.4
	0.5s		19.70nm			4.9mb
WB2	23.44	162	eP	32	51.00	-0.7
MBL	24.32	196	eP	33	01.00	0.7
	0.5s		13.00nm			4.7mb
ASPA	26.83	165	iPc	33	23.10	-0.7
	0.6s		58.00nm			5.4mb
			eS	38	06.00	
NANU	27.06	203	iPc	33	26.80	1.0
	0.4s		9.00nm			4.8mb
WARB	28.39	180	iPd	33	32.00	-5.9X
CTA	29.47	140	iPd	33	47.20	-0.5
	1.2s		21.88nm			4.8mb
MEKA	29.87	195	iPd	33	51.70	0.5
CHTO	31.67	303	iPd	34	07.10	0.0
	0.7s		16.68nm			5.0mb
MRWA	33.03	197	eP	34	19.00	0.1
FORR	33.07	178	eP	34	19.00	-0.1
COOL	33.49	189	eP	34	23.00	0.1
BAL	34.14	195	eP	34	29.00	0.5
KLB	34.82	193	eP	34	52.00	17.7X
MUN	35.57	195	eP	34	41.00	0.3
CD2	35.69	325	eP	34	41.40	-0.4
NWAO	36.22	193	eP	34	47.00	0.8
STK	36.91	159	eP	34	51.00	-1.0
RKG	37.37	193	eP	35	01.50	5.7X
TIY	37.51	341	Pc	34	56.90	-0.2
CMS	38.30	153	eP	35	03.00	-0.7
BJI	38.68	347	P	35	07.00	0.3
ADE	38.83	164	iPd	35	08.80	0.6
	0.8s		59.70nm			5.4mb
BRS	38.85	141	P	35	06.00	-2.4
SNY	39.37	356	eP	35	12.80	0.3
HHC	40.65	342	P	35	23.20	0.0
COO	40.66	146	iPd	35	23.50	0.1
CN2	41.26	359	eP	35	32.00	4.0X
BWA	41.94	153	eP	35	35.20	1.4
CAN	42.95	153	eP	35	42.40	0.4
GTA	44.21	330	P	35	52.00	-0.3
Z	30s		5.60um			5.3MszX
E	14s		2.00um			
			PP	37	37.50	
GUN	46.46	307	P	36	10.20	-0.5
PKI	46.69	306	P	36	11.60	-0.9
	0.6s		12.00nm			5.0mb
KKN	46.89	307	P	36	13.20	-0.7
	0.6s		19.00nm			5.3mb
DMN	46.95	306	P	36	13.80	-0.7
	0.8s		32.00nm			5.4mb
GKN	47.49	307	P	36	17.80	-0.8
	0.7s		18.00nm			5.2mb
KOD	49.45	281	eP	36	34.00	-0.1
HYB	49.51	291	eP	36	33.50	-0.7
GBA	49.89	286	P	36	36.00	-1.1
WMQ	53.78	326	P	37	06.00	0.0
MSZ	59.54	147	eP	37	47.00	0.1
MHI	70.27	308	eP	38	56.00	-0.8
AVY	80.30	250	eP	39	55.50	1.1
TTA	82.14	27	eP	40	03.70	0.7
KDC	83.12	32	P	40	07.50	-0.5
IMA	83.65	24	ePc	40	11.90	1.0
	1.0s		31.30nm			5.4mb
PMR	85.17	29	eP	40	18.20	-0.1
	1.2s		39.10nm			5.5mb
INK	91.44	21	eP	40	48.00	-0.2
MBC	93.28	13	eP	40	56.00	-0.6
YKA	100.76	24	Pdiff	41	32.50	1.8
GOL	116.63	43	PKP	46	27.50	0.0
RSON	116.79	27	PKP	46	26.50	-0.6
ALQ	117.99	48	ePKP	46	30.00	-0.2
ELC	128.38	37	PKP	46	50.00	0.2
PWLA	130.61	38	PKP	46	54.30	0.2
TKL	132.67	34	PKP	46	58.70	0.7
ZOBO	159.95	134	PKP	47	44.00	1.2
S.D. = 0.8 on 56 of 61 obs.						

* FEB 10, 1989 12h 56m 16.73± 0.73s
2.360 N ±15.3km 126.937 E ±20.8km
DEPTH = 33.0km (normal)
4.7mb (4 obs.)
MOLUCCA PASSAGE (266)

KNA	18.08	174	eP	00	27.00	-0.2
WB5	23.27	162	eP	01	22.60	0.1
WB2	23.33	162	eP	01	22.60	-0.5
QIS	25.94	152	eP	01	49.00	1.0
ASPA	26.74	166	iPc	01	55.40	0.0
	0.4s		15.00nm			5.0mb
WARB	28.38	181	eP	02	03.50	-6.7X
LOE	28.92	303	eP	02	15.40	0.2
CHTO	31.92	303	eP	02	41.70	0.0
	0.8s		5.49nm			4.5mb
BRS	38.66	142	iPd	03	38.80	-0.4
GUN	46.70	307	P	04	45.00	0.0
	0.6s		18.00nm			5.2mb
PKI	46.93	306	P	04	46.40	-0.4
KKN	47.13	307	P	04	48.10	-0.1
DMN	47.19	306	P	04	49.00	0.2
GKN	47.73	306	P	04	52.70	-0.2
GBA	50.17	286	P	05	12.00	0.4
	0.8s		3.10nm			4.4mb
S.D. = 0.4 on 14 of 15 obs.						

FEB 10, 1989 12h 59m 30.57± 0.15s
2.429 N ± 2.8km 126.700 E ± 3.8km
DEPTH = 33.0km (normal)
5.6mb (33 obs.)
MOLUCCA PASSAGE (266)

DAV	4.76	346	eP	00	44.60	2.7
AAI	6.26	166	eP	01	10.00	7.0X
TSM	8.80	282	ePd	01	43.00	4.5X
TLE	10.04	143	ePd	01	59.50	3.9X
	0.5s		9.50nm			5.3mb
MKS	10.48	224	ePd	02	04.10	2.4
PPR	10.77	313	ePc	02	07.00	1.4
	1.0s		69.00nm			5 8mb
KKM	11.05	289	ePd	02	12.50	2.9
	1.0s		207.80nm			6.3mb
KUPT	12.87	194	ePc	02	46.00	12.0X
	1.0s		360.60nm			
JAY	14.84	109	ePd	03	04.00	4.1X
BAG	15.14	337	eP	03	03.00	-1.0
KHKI	15.40	226	ePc	03	13.90	6.7X
			e	09	12.00	
MTN	15.80	164	eP	03	11.00	-1.4
PIP	16.89	340	ePd	03	26.50	0.4
TRT	17.27	234	iPd	03	32.40	1.5
	0.8s		153.20nm			5.2mb
KNA	18.18	174	eP	03	42.00	-0.2
			e	06	26.00	
MNDI	18.96	117	eP	03	53.00	1.0
GUMO	21.11	57	eP	04	13.50	-1.4
	1.0s		136.00nm			5.3mb
PJG	21.11	57	eP	04	14.00	-0.9
GUA	21.12	58	eP	04	14.00	-1.0
	1.1s		243.04nm			5.5mb
HKC	23.20	329	Pd	04	35.50	-0.1
QIZ	23.33	316	eP	04	36.60	-0.3
N	15s		3.90um			
E	18s		5.50um			
KGM	23.37	269	ePc	04	41.00	3.7X
MCO	23.37	328	eP	04	37.00	-0.3
WB5	23.41	162	iPc	04	37.10	-0.6
WRA	23.47	162	Pc	04	38.00	-0.2
	0.8s		214.10nm			5.7mb
WB2	23.47	162	iPc	04	37.10	-1.1
QZH	23.71	341	eP	04	40.60	0.1
Z	28s		26.80um			5.6MszX
N	28s		26.80um			
E	28s		23.80um			
			S	08	48.00	
GZH	24.28	329	iPd	04	45.60	-0.4
MBL	24.39	196	iPd	04	58.20	11.1X
	0.5s		31.00nm			
IPM	25.71	275	ePd	04	59.70	-0.1
	1.0s		112.20nm			5.4mb
QIS	26.11	152	iPc	05	02.60	-0.9
SNG	26.41	281	eP	05	08.70	2.5
PPI	26.45	264	eP	05	06.50	-0.1
ASPA	26.87	165	iPc	05	09.70	-0.7
			eS	09	44.40	
NANU	27.13	203	iPd	05	13.30	0.6
	0.3s		13.00nm			5.0mb
PSI	27.75	271	ePd	05	17.50	-1.0
	0.9s		95.10nm			5.5mb
WARB	28.44	180	eP	05	18.00	-6.6X
	0.5s		62.00nm			5.6mb
NNT	28.54	292	eP	05	25.00	-0.6
SSE	28.98	350	P	05	30.00	0.6
	1.2s		0.10nm			2.4mb X
Z	28s		6.60um			5.1MszX
E	19s		4.17um			
			S	10	16.00	
NST	29.29	298	eP	05	32.20	-0.2
CTA	29.48	140	iPc	05	33.80	-0.2
	1.1s		112.66nm			5.5mb
MEKA	29.93	195	iPc	05	38.00	0.0
	0.4s		39.00nm			5.6mb
WHN	30.31	339	P	05	41.00	-0.2
NJ2	30.38	347	Pc	05	43.60	1.8
GYA	30.67	323	P	05	43.80	-0.9
BDT	30.93	300	eP	05	46.50	-0.4
	0.8s		109.00nm			5.7mb
CHG	31.68	303	ePc	05	53.10	-0.4
	1.0s		95.00nm			5.6mb
CHTO	31.68	303	iPc	05	52.30	-1.2
	1.0s		77.00nm			5.5mb
SHNJ	31.80	7	eP	05	56.10	1.8
TKSJ	32.13	12	eP	05	57.20	0.0
KMI	32.28	316	Pc	05	58.50	-0.5
WKYJ	32.70	14	eP	06	01.80	-0.4
MRWA	33.10	197	eP	06	06.00	0.3
FORR	33.12	178	iPc	06	05.20	-0.6
	0.4s		131.00nm			6.2mb
YONJ	33.19	10	eP	06	04.00	-2.5
COOL	33.55	189	eP	06	09.00	-0.6
TSRJ	34.05	14	eP	06	12.90	-1.0
TSRJ	34.05	14	P	06	13.90	0.0
BAL	34.21	195	eP	06	15.00	-0.3
IIDJ	34.49	16	P	06	19.40	1.6
TIA	34.76	346	Pd	06	18.90	-1.1
			iPcP	08	53.10	
KLB	34.88	193	eP	06	21.00	-0.1
CHJJ	35.34	17	P	06	23.40	-1.5
MTMJ	35.50	15	P	06	25.60	-0.8
XAN	35.56	334	Pd	06	25.40	-1.5
MUN	35.64	195	eP	06	27.00	-0.5
CD2	35.68	325	eP	06	26.50	-1.4
RMQ	35.78	145	eP	06	28.00	-0.8
			e	08	58.00	
KAKJ	35.84	19	P	06	27.20	-2.0
NWAO	36.29	194	eP	06	33.00	0.0
NIIJ	36.45	17	P	06	33.20	-1.1
DL2	36.60	353	Pd	06	36.80	1.3
STK	36.94	159	iPd	06	38.60	0.2
			e	09	22.00	
RKG	37.43	193	iPd	06	48.30	5.7X
TIY	37.48	341	Pd	06	42.40	-0.6
	1.0s		0.10nm			2.6mb X
N	19s		6.40um			
YAMJ	37.61	17	eP	06	44.50	0.4
CMS	38.32	153	eP	06	49.00	-1.1
BJI	38.64	347	eP	06	52.00	-0.6
BRS	38.86	141	Pd	06	48.30	-6.4X
BRS	38.86	141	Pc	06	52.50	-2.2
			e	07	06.00	
			i	07	21.00	
			e(S)	12	48.00	
ADE	38.87	164	iP	06	55.70	1.0
	0.8s		283.58nm			6.1mb

10d 13h

OFUJ		38.95	19	eP	06	55.60	0.3	NUR		93.82	331	eP	12	43.00	-2.5	QIZ		23.44	317	eP	39	10.80	10.0X
SNY		39.32	356	iPc	06	58.50	0.2	VRI		95.21	316	ePc	12	52.00	-0.2	MBL		24.11	196	eP	39	08.00	0.8
LZH		39.61	330	eP	07	00.00	-1.0	MLR		95.81	316	ePc	12	55.00	-0.2			0.4s		8.00nm			4.6mb
		1.0s		0.37nm			3.1mb X	BUL		98.42	250	iPc	13	07.20	-0.2	GZH		24.44	329	eP	39	10.00	-0.4
AOMJ		39.92	16	eP	07	04.50	1.2			1.0s		20.50nm			5.6mb	OIS		25.94	151	iPc	39	24.30	-0.4
HHC		40.62	342	P	07	09.00	-0.2	DAG		98.55	352	iPc	13	05.30	-1.4	ASPA		26.65	165	iPc	39	30.50	-0.7
COO		40.68	146	eP	07	09.00	-0.7			1.1s		35.44nm			5.8mb			0.9s		91.00nm			5.4mb
BTO		40.88	340	eP	07	12.00	0.7	VAY		98.98	312	eP	13	08.00	-1.3					eS	44	02.50	
CN2		41.21	359	Pd	07	14.00	0.2	SKO		99.67	313	eP	13	13.00	0.4	NANU		26.84	203	eP	39	33.50	0.6
MRRJ		41.85	16	eP	07	20.10	1.0	NB2		99.93	334	P	13	11.20	-2.2			0.4s		8.00nm			4.7mb
BWA		41.96	153	iPc	07	21.80	1.6			0.9s		8.30nm			5.3mb	PSI		27.63	272	ePd	39	40.50	0.2
MDJ		42.09	3	Pc	07	22.00	1.0	OHR		100.33	312	ePdiff	13	13.50	-2.1X	WARB		28.18	180	iPd	39	39.10	-6.0X
	Z	30s		6.81um			5.4MszX	YKA		100.69	24	ePdiff	13	17.80	1.2	LOE		28.72	303	eP	39	48.80	-1.3
HOOJ		42.46	18	eP	07	26.10	2.0	YKC		100.75	24	ePdiff	13	17.50	0.6	CTA		29.36	140	iPc	39	55.30	-0.5
CAN		42.97	153	eP	07	28.70	0.3			1.0s		15.00nm			5.5mb			1.0s		43.00nm			5.1mb
CN8		43.13	153	eP	07	29.00	-0.8	KSP		100.85	323	ePdiff	13	18.50	0.9	MEKA		29.65	195	iPc	39	58.60	0.3
LSA		43.28	312	Pc	07	31.80	0.2	PRU		102.19	322	ePdiff	13	23.80	0.2	WHN		30.51	339	P	40	07.50	1.7
				S	13	55.00		CLL		102.67	324	e(Pdif	13	27.00	1.3	GYA		30.81	323	P	40	08.40	-0.3
TOO		43.45	158	eP	07	33.00	0.7	KHC		103.06	322	ePdiff	13	27.70	0.1	CHTO		31.72	303	iP	40	15.20	-1.5
KUSJ		43.56	19	eP	07	34.20	1.2	PNT		103.34	38	ePdiff	13	30.00	1.2			0.8s		13.54nm			4.9mb
ASAJ		43.85	17	eP	07	36.10	0.7	EDM		105.44	33	ePKP	17	52.00	0.3	MRWA		32.81	197	eP	40	27.00	0.9
GTA		44.19	330	Pc	07	37.50	-0.9	SES		108.00	35	ePdiff	13	51.00	1.5	FORR		32.86	178	iPd	40	26.20	-0.3
	Z	30s		13.00um			5.7MszX	SES		108.00	35	ePKP	17	57.00	0.3	COOL		33.27	189	eP	40	30.00	-0.1
	E	25s		12.40um				LRM		109.16	39	ePKP	17	59.90	0.6	BAL		33.92	195	eP	40	36.00	0.3
				PP	09	24.30		FFC		110.39	28	ePKP	18	01.00	0.0	KL8		34.60	193	eP	40	42.00	0.4
				S	14	03.00				0.8s		9.00nm				TIA		34.99	347	eP	40	47.60	2.8
DZM		45.82	124	iPd	07	51.20	-0.4	BW06		112.34	41	PKP	18	06.50	1.1	MUN		35.36	195	eP	40	48.00	0.0
GUN		46.47	307	Pc	07	55.90	-1.1	FRB		113.02	7	ePKP	18	05.00	-0.6	RMO		35.64	145	eP	40	49.00	-1.5
PKI		46.70	306	Pc	07	57.20	-1.6	GOL		116.55	43	PKP	18	14.00	0.4					e	43	20.00	
KKN		46.90	307	Pc	07	58.80	-1.4	RSON		116.72	27	PKP	18	12.70	-0.5	XAN		35.74	334	Pd	40	49.60	-1.7
DMN		46.96	306	Pc	07	59.40	-1.4	ALQ		117.92	48	ePKP	18	17.00	0.7	CD2		35.82	325	eP	40	51.20	-0.8
GKN		47.50	307	Pc	08	03.40	-1.6	SCH		121.87	9	ePKP	18	23.00	0.1	NWAO		36.01	193	eP	40	44.00	-9.5X
TAU		48.82	160	eP	08	15.00	0.4	MEO		123.69	45	ePKP	18	27.40	0.3	STK		36.74	158	eP	40	58.00	-1.6
KOD		49.49	281	eP	08	19.00	-1.7			1.2s		23.30nm				DL2		36.84	354	eP	41	01.50	1.1
HYB		49.54	291	iP	08	19.00	-1.6	SIO		124.74	42	ePKP	18	29.10	0.1	RKG		37.15	193	eP	41	09.00	5.9X
		1.0s		220.00nm			6.1mb	TUL		124.99	42	ePKP	18	30.00	0.5	TIY		37.69	342	eP	41	06.90	-0.7
GBA		49.93	286	P	08	21.40	-2.2			1.0s		16.70nm				CMS		38.14	153	eP	41	11.00	-0.5
WMQ		53.77	326	eP	08	51.50	-0.7	LNO		124.99	42	ePKP	18	29.90	0.5					e	42	38.00	
NDI		53.81	304	eP	08	50.50	-2.1	VVO		125.35	43	ePKP	18	23.90	-6.3X	ADE		38.65	164	iPc	41	16.40	0.6
				eS	16	19.00		RLO		125.36	41	ePKP	18	30.70	0.5			0.8s		126.87nm			5.8mb
POO		54.14	291	iPd	08	53.60	-1.6	KOGH		126.35	279	ePKP	18	34.00	1.1	BRS		38.73	141	Pc	41	11.00	-5.5X
KSH		58.91	316	eP	09	29.50	0.4	KUK		126.46	279	ePKP	18	33.00	0.0	BRS		38.73	141	Pc	41	15.00	-1.5
MSZ		59.55	147	P	09	33.60	0.4	FVM		127.13	37	PKP	18	33.30	-0.3					i	41	22.00	
KRP		60.38	137	P	09	39.10	0.1	OLY		128.07	40	PKP	18	35.30	-0.2					i	41	26.50	
WEL		61.61	140	P	09	45.00	-2.3	ELC		128.31	37	PKP	18	35.40	-0.4	BJI		38.86	347	eP	41	16.50	-0.9
QUE		62.81	303	eP	09	54.00	-1.9	PWLA		130.54	38	PKP	18	40.00	-0.2	SNY		39.58	356	eP	41	23.40	0.1
ADK		68.05	34	eP	10	28.30	-0.6	KIC		130.74	280	PKP	18	41.96	0.8	LZH		39.77	331	eP	41	25.00	-0.2
MHI		70.27	308	iPc	10	42.40	-0.7			1.0s		26.00nm						1.0s		0.07nm			2.4mb X
		1.0s		204.00nm			6.1mb	TIC		130.97	281	PKP	18	42.18	0.6	COO		40.53	145	eP	41	32.00	0.6
KHI		70.54	305	ePc	10	42.00	-2.8	LIC		131.04	280	PKP	18	42.44	0.7	CN2		41.47	359	eP	41	41.00	2.2
SDN		78.27	34	eP	11	29.00	0.4	GBTN		132.34	34	PKP	18	44.20	0.6	BWA		41.79	153	iPc	41	43.20	1.6
RYD		79.99	295	eP	11	38.00	-0.7	TKL		132.60	34	PKP	18	44.30	0.2	CAN		42.79	153	iPc	41	50.10	0.2
KER		80.04	304	eP	11	42.00	3.1X	TACH		144.83	154	iPKPd	19	06.50	0.1	TOO		43.25	158	iPd	41	55.20	1.6
AVY		80.36	250	eP	11	41.24	0.3	SAN		145.12	154	ePKPd	19	07.50	0.6	GTA		44.36	330	eP	42	01.00	-1.6
TAB		80.92	308	eP	11	44.00	0.4	PEL		145.37	154	iPKPc	19	08.00	0.6		Z	30s		4.50um			5.2MszX
SLY		81.43	305	ePd	11	46.00	0.0	FCH		145.39	154	iPKPd	19	09.50	1.7		E	26s		6.40um			
KMSA		81.85	290	eP	11	51.00	2.4	JACH		145.80	154	iPKP	19	10.00	1.8	GUN		46.53	307	P	42	19.20	-1.1
TTA		82.07	27	iPc	11	50.50	1.6	MDZ		146.37	156	iPKPd	19	11.50	2.4X	PKI		46.76	307	P	42	20.50	-1.6
BHD		82.25	303	eP	11	51.00	0.7	CNCB		159.69	136	PKP	19	31.00	2.3X	KKN		46.96	307	P	42	22.00	-1.6
KDC		83.04	32	eP	11	55.00	1.1	LPB		159.79	135	PKP	19	31.00	2.4X			0.6s		27.00nm			5.4mb
MSL		83.37	306	ePd	11	56.00	-0.1			1.0s		40.00nm				DMN		47.02	307	P	42	22.90	-1.2
IMA		83.58	24	iPc	11	58.40	1.7	ZOBO		159.95	134	PKP	19	31.00	2.0X			0.9s		50.00nm			5.5mb
		1.0s		100.00nm			5.9mb			S.D. = 1.1		on 184 of 202 obs.				GKN		47.56	307	P	42	26.60	-1.7
PMR		85.09	29	eP	12	04.60	0.4									KOD		49.42	282	eP	42	43.00	0.0
		1.2s		195.30nm			6.2mb			FEB 10, 1989 13h 33m 53.43± 0.25s						HYB		49.51	291	ePc	42	43.00	-0.3
FBA		85.90	25	eP	12	07.60	-0.6			2.167 N ± 4.6km 126.578 E ± 7.4km						GBA		49.88	286	P	42	45.00	-1.1
TOA		86.52	28	eP	12	11.25	-0.1			DEPTH = 33.0km (normal)						NDI		53.86	304	iPd	43	14.00	-1.8
NPA		88.16	255	iPc	12	21.00	0.9			5.2mb (14 obs.)						WMQ		53.92	326	eP	43	15.50	-0.6
		0.9s		80.00nm			6.0mb			MOLUCCA PASSAGE					(266)	POO		54.12	291	iPc	43	21.50	3.5X
BHL		89.53	304	Pc	12	27.00	0.6									MSZ		59.40	147	eP	43	55.00	0.0
GLH		89.58	303	iPd	12	29.20	2.7	DAV		4.99	348	eP	35	14.00	6.0X	MHI		70.34	308	eP	45	03.00	-3.3X
DSI		89.87	301	iP	12	30.70	2.8	TSM		8.74	284	ePd	36	05.50	5.0X	AVY		80.16	250	eP	46	03.50	0.7
NAI		89.95	269	iPd	12	31.00	2.0	TLE		9.90	142	ePd	36	20.00	3.4X	TAB		80.99	308	eP	46	07.00	0.2
		1.0s		10.00nm			5.0mb	KKM		11.03	291	ePc	36	35.00	2.9	TTA		82.35	27	eP	46	14.00	0.7
BADA		90.35	298	eP	12	31.30	1.1			0.9s		121.50nm			6.1mb	KDC		83.33	32	P	46	18.50	0.3
RMN		90.57	300	iPd	12	33.30	2.0	KHKI		15.14	226	eP	37	35.20	8.6X	IMA		83.86	24	eP	46	21.80	0.8
KEV		91.09	340	eP	12	32.00	-0.8					e	41	39.00				0.9s		13.50nm			5.1mb
INK		91.38	21	eP	12	34.00	-0.1	MTN		15.59	163	iPc	37	32.20	-0.2	PMR		85.38	29	eP	46	28.30	-0.2
		1.2s		63.00nm			5.9mb	TRT		17.02	235	ePc	37	54.40	3.8X			1.2s		27.30nm			5.3mb
KJF		91.74	334	iP	12	35.00	-0.9	KNA		17.93	173	iPc	38	06.30	4.2X	FBA		86.19	25	P	46	30.20	-2.3
		0.9s		30.40nm			5.7mb	WB5		23.21	161	iPc	38	58.00	-0.6	PRNI		90.28	300	iPd	46	54.50	1.7
SPA		92.41	180	e(P)	12	40.00	0.9					eS	43	09.00		NOH		90.30	301	e(P)	46	55.00	2.1
		1.2s		42.96nm			5.8mb	WRA		23.26	161	Pd	38	59.50	0.5	MBH		90.41	300	eP	46	55.00	1.7
SUF		92.69	333	iP	12	39.20	-1.1			0.8s		72.90nm			5.2mb	KEV		91.30	340	eP	47	03.00	6.4X
		0.7s		6.40nm			5.2mb	WB2		23.26	161	iPc	38	58.00	-1.1	INK		91.66	21	eP	46	58.00	-0.3
MBC		93.22	13	eP	12	43.00	0.5					eS	43	09.00		SOD		91.84	338	eP	47	02.00	2.8
		1.2s		32.00nm			5.6mb	HKC		23.37	330	Pc	39	00.00	0.0	KJF		91.93	334	eP	47	01.00	1.4

10d 13h

	0.6s	9.10nm		5.4mb		
SUF	92.87	333	eP	47 05.00	1.1	
NUR	93.99	331	eP	47 18.00	8.9X	
SLL	99.37	333	eP	47 33.70	0.0	
	0.5s	1.80nm		4.9mb		
GOL	116.83	43	PKP	52 36.30	-0.7	
RSON	117.01	27	PKP	52 44.40	7.8X	
FVM	127.41	37	PKP	52 56.90	-0.1	
PWLA	130.82	38	PKP	53 03.50	-0.1	
PEL	145.19	154	iPKPd	53 30.60	0.6	
MDZ	146.19	156	iPKPc	53 33.90	2.2X	
CNCB	159.59	136	PKP	53 56.00	4.6X	
ZOBO	159.85	135	PKP	53 54.00	2.2X	
	S.D. = 1.2	on	73 of	92 obs.		

FEB 10, 1989 13h 41m 52.24± 0.26s
2.206 N ± 4.5km 126.590 E ± 7.1km
DEPTH = 33.0km (normal)
4.9mb (12 obs.)
MOLUCCA PASSAGE (266)

TLE	9.93	142	ePc	45 19.30	63.5X	
MTN	15.62	163	eP	45 30.00	-1.7	
KNA	17.97	173	eP	46 01.00	-0.3	
WB5	23.24	161	iPd	46 57.50	-0.2	
WRA	23.29	161	Pc	46 57.60	-0.6	
	0.5s	12.70nm		4.7mb		
WB2	23.29	161	iPd	46 57.50	-0.7	
QIZ	23.42	317	eP	47 03.60	4.2X	
PMG	23.51	120	e(P)	47 02.00	1.6	
	1.2s	50.00nm		4.9mb		
MBL	24.15	196	eP	47 07.00	0.6	
	0.4s	6.00nm		4.5mb		
QIS	25.97	151	iPd	47 23.20	-0.6	
ASPA	26.68	165	iPc	47 29.00	-1.4	
	0.9s	42.00nm		5.1mb		
		eS	52 02.40			
NANU	26.88	203	eP	47 32.00	-0.1	
WARB	28.22	180	eP	47 38.00	-6.3X	
CTA	29.38	140	iPd	47 54.50	-0.3	
	1.0s	20.50nm		4.8mb		
MEKA	29.69	195	eP	47 57.50	0.0	
CHTO	31.71	303	eP	48 15.00	-0.4	
MRWA	32.85	197	eP	48 27.00	1.8	
FORR	32.90	178	eP	48 25.00	-0.6	
COOL	33.31	189	eP	48 30.00	0.8	
BAL	33.96	195	eP	48 35.00	0.1	
KLB	34.64	193	eP	48 41.00	0.3	
MUN	35.40	195	eP	48 48.00	0.9	
RMQ	35.67	145	iPd	48 48.60	-0.9	
NWAO	36.05	193	eP	48 54.00	1.4	
STK	36.77	158	iPd	48 58.70	0.0	
RKG	37.19	193	eP	49 11.00	8.8X	
TIY	37.65	341	eP	49 06.40	0.2	
Z	25s	5.83um		5.3MszX		
N	27s	9.30um				
CMS	38.17	153	eP	49 10.00	-0.5	
ADE	38.69	164	iPd	49 15.20	0.4	
	0.8s	62.69nm		5.5mb		
BRS	38.76	141	iPc	49 14.30	-1.2	
BJI	38.83	347	eP	49 15.00	-0.9	
SNY	39.54	356	eP	49 23.00	1.2	
LZH	39.75	331	eP	49 24.50	0.7	
COO	40.56	145	iPd	49 30.70	0.3	
BWA	41.82	153	iPc	49 42.00	1.3	
CAN	42.82	153	eP	49 49.10	0.2	
GTA	44.33	330	eP	50 01.60	0.4	
GUN	46.52	307	P	50 18.20	-0.8	
PKI	46.75	307	P	50 20.00	-0.8	
KKN	46.94	307	P	50 21.60	-0.7	
	0.8s	22.00nm		5.2mb		
DMN	47.01	307	P	50 23.20	0.4	
	0.8s	28.00nm		5.3mb		
GKN	47.55	307	P	50 26.20	-0.8	
HYB	49.51	291	eP	50 41.50	-0.6	
GBA	49.88	286	Pd	50 43.40	-1.5	
	0.9s	7.40nm		4.7mb		
WMQ	53.89	326	eP	51 14.80	0.1	
MSZ	59.43	147	P	51 54.00	0.0	
MHI	70.32	308	eP	53 05.00	0.0	
AVY	80.19	250	eP	54 03.80	2.1	
IMA	83.82	24	eP	54 20.80	1.1	
	0.8s	6.80nm		4.9mb		
PMS	85.11	29	eP	54 26.10	0.1	
	0.7s	4.30nm		4.8mb		
INK	91.62	21	eP	54 56.00	-0.9	
PNT	103.59	38	ePdiff	55 49.00	-2.5X	

	0.7s	4.00nm		5.3mb		
PEL	145.22	154	iPKPd	01 29.50	0.7	
CNCB	159.61	136	PKP	01 53.00	2.7X	
ZOBO	159.87	135	PKP	01 53.00	2.4X	
	S.D. = 0.9	on	48 of	55 obs.		

FEB 10, 1989 14h 06m 29.72± 0.97s
2.367 N ± 3.0km 126.563 E ± 4.5km
DEPTH = 40.1 ± 8.8 km
5.3mb (25 obs.)
MOLUCCA PASSAGE (266)

DAV	4.79	348	eP	07 42.80	1.4	
TSM	8.67	282	ePc	08 41.40	5.7X	
	0.8s	352.30nm		6.5mb X		
TLE	10.07	142	ePd	08 57.00	2.1	
	0.8s	7.00nm		4.9mb		
MKS	10.34	223	iPc	09 05.50	6.8X	
PPR	10.71	314	ePc	09 08.00	4.3X	
KKM	10.95	290	ePc	09 11.20	4.2X	
	0.8s	161.50nm		6.2mb		
BAG	15.15	337	eP	10 02.80	0.0	
KHKI	15.26	226	ePc	10 11.50	7.3X	
		e		14 50.00		
MTN	15.78	163	eP	10 09.00	-1.8	
TRT	17.12	234	iPc	10 30.00	2.2	
	0.9s	54.70nm		4.7mb		
KNA	18.13	173	eP	10 39.00	-1.3	
	0.9s	304.00nm		5.4mb		
MNDI	19.05	116	eP	10 54.00	2.2	
GUMO	21.26	57	eP	11 15.70	0.8	
	1.0s	128.00nm		5.3mb		
PJG	21.26	57	eP	11 15.70	0.8	
GUA	21.27	58	eP	11 15.00	0.0	
	0.8s	95.52nm		5.2mb		
HKC	23.19	330	Pd	11 34.00	0.1	
KGM	23.23	270	ePc	11 37.30	2.9X	
QIZ	23.28	316	eP	11 35.20	0.3	
WB5	23.40	161	iP	11 35.00	-1.0	
		eS		15 49.10		
WRA	23.45	161	Pc	11 35.30	-1.2	
	0.8s	82.20nm		5.3mb		
WB2	23.45	161	iP	11 35.00	-1.6	
		eS		15 49.10		
PMG	23.62	120	eP	11 40.00	1.8	
	1.0s	40.00nm		4.9mb		
QZH	23.73	342	eP	11 38.80	-0.3	
Z	28s	10.40um		5.2MszX		
N	28s	8.90um				
GZH	24.26	329	iPc	11 43.20	-1.1	
MBL	24.29	195	eP	11 46.00	1.3	
	0.8s	58.00nm		5.2mb		
IPM	25.58	276	ePd	11 57.90	0.8	
	0.8s	68.80nm		5.3mb		
QIS	26.13	151	eP	12 00.00	-2.0	
ASPA	26.84	165	iPc	12 07.50	-1.1	
		eS		16 41.80		
NANU	27.02	203	eP	12 11.00	0.9	
	0.4s	17.00nm		5.0mb		
PSI	27.61	271	ePd	12 15.50	-0.2	
	0.7s	39.80nm		5.2mb		
WARB	28.38	180	iPd	12 16.30	-6.2X	
NNT	28.44	292	eP	12 28.00	4.9X	
CTA	29.52	140	iPd	12 32.00	-0.8	
	1.1s	54.43nm		5.2mb		
MEKA	29.84	195	eP	12 35.20	-0.4	
	0.4s	21.00nm		5.2mb		
WHN	30.32	339	P	12 40.00	0.3	
NJ2	30.41	347	Pc	12 42.00	1.5	
GYA	30.64	323	P	12 43.00	0.2	
BDT	30.85	300	eP	12 45.00	0.4	
	0.7s	64.40nm		5.5mb		
CHTO	31.60	303	eP	12 50.20	-1.0	
	0.7s	44.63nm		5.4mb		
KMI	32.23	317	Pc	12 57.00	0.0	
MRWA	33.00	197	eP	13 04.00	0.7	
FORR	33.06	178	eP	13 02.00	-1.7	
COOL	33.47	188	eP	13 07.00	-0.3	
BAL	34.11	195	eP	13 13.00	0.1	
TSRJ	34.14	14	P	13 15.00	1.9	
IIDJ	34.59	16	P	13 16.50	-0.5	
TIA	34.79	347	eP	13 18.40	-0.3	
KLB	34.79	193	eP	13 19.00	0.2	
CHJJ	35.44	18	P	13 22.40	-1.8	
MUN	35.54	195	eP	13 25.00	-0.1	
XAN	35.56	334	P	13 23.90	-1.4	
MTMJ	35.60	16	P	13 23.90	-1.8	

CD2	35.65	325	iPd	13 25.40	-0.7	
RMQ	35.81	145	eP	13 25.00	-2.5	
		i		15 56.80		
NWAO	36.19	193	eP	13 31.00	0.4	
DL2	36.64	354	eP	13 34.00	-0.3	
STK	36.93	158	eP	13 36.00	-0.8	
		e		13 41.00		
RKG	37.34	193	eP	13 46.00	5.8X	
TIY	37.49	341	eP	13 41.00	-0.6	
YAMJ	37.71	17	eP	13 42.70	-0.6	
CMS	38.33	153	eP	13 48.00	-0.6	
		e		15 20.00		
BJI	38.67	347	P	13 50.50	-0.8	
ADE	38.85	164	iPc	13 53.10	0.2	
	0.8s	111.94nm		5.7mb		
BRS	38.90	141	Pd	13 51.00	-2.5	
		i		13 59.20		
		i		14 07.00		
		e		15 24.00		
OFUJ	39.05	19	eP	13 54.50	0.0	
SNY	39.38	356	Pc	13 57.00	-0.2	
LZH	39.59	331	eP	13 58.50	-0.8	
	1.5s	0.20nm		2.7mb X		
AOMJ	40.02	16	eP	14 06.90	4.4X	
HHC	40.63	342	P	14 07.50	-0.2	
COO	40.70	146	iPc	14 08.10	-0.2	
CN2	41.27	359	eP	14 13.00	0.3	
MRRJ	41.95	16	eP	14 20.10	1.8	
BWA	41.97	153	eP	14 19.80	1.1	
MDJ	42.16	3	Pc	14 20.20	0.2	
HOOJ	42.56	18	eP	14 25.40	2.1	
CAN	42.98	153	eP	14 26.90	0.0	
CNB	43.14	152	eP	14 29.00	0.7	
LSA	43.22	313	Pc	14 29.80	0.3	
TOO	43.44	158	iPc	14 32.40	1.8	
KUSJ	43.67	19	eP	14 32.40	0.1	
ASAJ	43.95	17	eP	14 34.90	0.3	
GTA	44.18	330	Pc	14 36.00	-0.7	
Z	28s	5.10um		5.3MszX		
E	23s	3.90um				
		PP		16 21.70		
DZM	45.90	124	iPc	14 47.90	-2.7	
GUN	46.40	307	P	14 53.80	-1.0	
PKI	46.63	307	P	14 55.40	-1.2	
KKN	46.83	307	P	14 56.60	-1.4	
DMN	46.89	306	P	14 57.30	-1.3	
GKN	47.43	307	P	15 01.30	-1.5	
KOD	49.37	281	eP	15 17.80	-0.3	
HYB	49.43	291	iPd	15 17.60	-0.6	
	1.0s	120.00nm		5.9mb		
		e		15 34.50		
GBA	49.81	286	P	15 18.00	-3.1X	
NDI	53.73	304	iPd	15 48.60	-1.8	
		eS		23 13.00		
WMQ	53.74	326	iPd	15 49.60	-0.7	
Z	28s	2.90um		5.2MszX		
		eS		23 25.00		
		ScS		25 37.50		
POO	54.04	291	iPc	15 46.00	-6.8X	
KSH	58.86	316	P	16 27.50	0.4	
MSZ	59.58	147	P	16 32.00	0.3	
QUE	62.73	303	eP	16 52.30	-1.4	
MHI	70.20	308	iPc	17 40.60	-0.3	
	1.2s	156.25nm		5.9mb		
KER	79.96	304	eP	18 45.00	8.2X	
AVY	80.21	250	eP	18 39.68	1.2	
TAB	80.85	308	eP	18 42.00	0.5	
SLY	81.36	305	ePd	18 43.50	-0.4	
KMSA	81.75	290	eP	18 46.00	-0.3	
BHD	82.16	303	ePc	18 50.00	1.8	
TTA	82.18	27	eP	18 48.60	0.8	
MAW	82.43	200	eP	18 50.00	1.2	
KDC	83.17	32	P	18 53.40	0.6	
MSL	83.30	306	ePd	18 54.00	0.0	
IMA	83.69	24	eP	18 56.00	0.4	
	1.1s	75.00nm		5.7mb		
PMR	85.21	29	ePc	19 02.90	-0.2	
	1.2s	117.20nm		5.9mb		
FBA	86.02	25	P	19 04.90	-2.2	
JVI	89.79	302	iPd	19 27.40	1.6	
NAI	89.81	269	iPc	19 29.00	2.4	
ADI	89.85	303	iPd	19 26.00	-0.1	
MBH	90.30	300	iPd	19 29.70	1.5	
INK	91.48	21	ePd	19 32.40	-0.5	
SOD	91.65	338	eP	19 26.00	-7.7X	
		i		19 40.80		
KJF	91.74	334	iP	19 33.10	-1.1	

0.7s 13.30nm 5.5mb
SUF 92.68 333 eP 19 38.00 -0.5
MBC 93.31 13 eP 19 41.00 -0.2
NUR 93.81 331 eP 19 45.00 1.3
VRI 95.16 316 ePc 19 50.50 0.2
PTZ 95.64 256 iP 19 53.70 0.6
MLR 95.76 316 ePc 19 53.00 -0.2
BUL 98.27 250 iPc 20 05.40 0.4
0.3s 14.29nm 6.0mb
VAY 98.92 312 eP 20 07.00 -0.4
HFS 99.14 332 eP 20 05.90 -2.1
0.4s 1.10nm 4.7mb
NB2 99.92 333 P 20 09.40 -2.3
1.3s 10.80nm 5.2mb
YKA 100.80 24 Pdiff 20 15.80 0.4
KSP 100.82 323 ePdiff 20 17.00 1.2
KMZ 100.98 257 iPdiff 20 19.00 1.5
KHC 103.02 322 ePdiff 20 26.10 0.4
e 24 53.40
BW06 112.48 41 PKP 25 04.00 0.1
FRB 113.10 7 ePKP 25 04.00 0.0
GOL 116.69 43 PKP 25 11.50 -0.6
RSON 116.84 27 PKP 25 10.70 -1.0
ALQ 118.06 48 ePKP 25 15.00 0.2
SCH 121.95 9 ePKP 25 22.00 0.7
TUL 125.13 42 ePKP 25 28.00 0.0
1.1s 9.20nm
LNO 125.13 42 ePKP 25 28.90 1.0
VVO 125.49 43 e(PKP) 25 29.10 0.4
RLO 125.50 41 e(PKP) 25 27.70 -1.1
KOGH 126.23 279 ePKP 25 32.50 1.6
KUK 126.34 279 ePKP 25 31.50 0.5
OLY 128.20 40 PKP 25 34.20 0.3
ELC 128.44 37 PKP 25 34.60 0.3
KIC 130.62 280 PKP 25 40.00 0.9
PWLA 130.67 38 PKP 25 38.00 -0.7
TIC 130.85 281 PKP 25 40.40 0.8
LIC 130.92 280 PKP 25 40.30 0.6
SAN 145.12 154 ePKPd 26 05.80 0.6
PEL 145.38 154 iPKPd 26 05.60 -0.1
FCH 145.39 155 ePKP 26 07.50 1.5
JACH 145.81 154 ePKP 26 08.00 1.5
MDZ 146.37 156 iPKPd 26 09.60 2.2X
CNCB 159.74 136 PKP 26 30.00 3.0X
LPB 159.85 135 ePKP 26 29.00 2.1X
ZOBO 160.00 135 PKP 26 29.00 1.7
1.1s 11.60nm
S.D. = 1.1 on 141 of 158 obs.

% FEB 10, 1989 14h 11m 26.10± 0.72s
40.266 N ± 7.1km 28.910 E ± 7.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YLV 0.46 49 iPg 11 35.20 -0.3
iSg 11 40.70
GBZT 0.66 38 eP 11 38.30 -1.0
DST 0.69 198 iPg 11 38.60 -1.3
iSg 11 49.60
EDC 0.80 276 iPg 11 41.50 -0.2
eSg 11 55.50
ISK 0.81 8 ePg 11 43.10 1.4
GPA 1.07 88 iPn 11 45.90 -0.4
DMK 1.78 331 ePn 12 00.40 3.3X
KHL 2.00 166 ePn 12 02.30 2.0
IZM 2.26 215 ePn 12 04.00 -0.1
BBTK 2.98 97 eP 12 27.00 12.5X
eS 13 02.00
S.D. = 1.3 on 8 of 10 obs.

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* FEB 10, 1989 14h 16m 54.92± 0.58s
2.439 N ±11.0km 126.617 E ±16.2km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)
MOLUCCA PASSAGE (266)

MTN 15.83 164 eP 20 38.00 0.9
KNA 18.20 173 eP 21 07.00 0.2
WB5 23.45 161 eP 22 02.10 -0.3
WRA 23.50 162 Pc 22 02.20 -0.7
0.3s 3.20nm 4.3mb
WB2 23.50 161 eP 22 02.10 -0.8
QIS 26.16 151 eP 22 27.00 -1.3
ASPA 26.90 165 iPd 22 34.30 -0.7
WARB 28.45 180 eP 22 42.50 -6.6X
CHTO 31.61 303 iP 23 16.60 -0.6
0.8s 3.84nm 4.3mb

BWA 42.01 153 eP 24 46.50 1.6
CAN 43.02 153 eP 24 54.00 0.8
GUN 46.40 307 P 25 20.00 -0.8
HYB 49.45 291 eP 25 44.00 -0.4
GBA 49.84 286 P 25 49.00 1.7
IMA 83.60 24 eP 29 22.10 0.9
1.0s 8.80nm 4.9mb
INK 91.40 21 eP 29 58.00 -0.6
BUL 98.35 250 eP 30 26.10 -5.3X
S.D. = 1.0 on 15 of 17 obs.

FEB 10, 1989 14h 17m 24.24± 0.53s
40.430 N ± 6.0km 21.254 E ± 3.7km
DEPTH = 9.3 ± 3.1 km
GREECE (364)
ML 3.2 (TTG), 3.2 (TIR).

KZN 0.41 107 ePgc 17 32.60 -0.1
LSK 0.57 241 iPg 17 35.00 -0.8
OHR 0.76 333 iPgc 17 36.90 -2.4
iSg 17 49.10
TPE 0.96 262 ePg 17 40.80 -1.8
BERA 1.03 286 ePg 17 43.10 -0.6
VAY 1.34 48 ePn 17 47.70 -1.2
i 18 05.50
iSn 18 07.30
TIR 1.39 312 iPnc 17 50.00 0.2
PHP 1.40 334 iPnc 17 50.10 0.3
SKO 1.55 5 iPnd 17 51.00 -1.0
iSn 18 11.00
PLG 1.67 91 ePn 17 54.60 0.8
LACI 1.68 316 iPnc 17 54.30 0.5
KKS 1.76 339 ePn 17 55.50 0.5
NEO 1.89 126 ePb 17 58.00 1.1
PUK 1.91 328 ePn 17 56.00 -1.2
SDA 2.06 321 ePn 18 01.70 2.3
BCI 2.13 336 ePn 18 01.00 0.6
ULC 2.15 316 ePn 18 01.70 0.9
eSn 18 30.50
MMB 2.20 57 iPc 18 01.00 -0.5
iS 18 28.00
PVY 2.37 336 ePn 18 04.20 0.3
eSn 18 35.00
TTG 2.50 324 ePn 18 05.80 0.2
eSn 18 37.50
BDV 2.60 316 ePn 18 07.50 0.4
eSn 18 40.60
VTS 2.61 34 eP 18 06.00 -1.4
RZN 2.90 63 iPd 18 12.00 0.4
NKY 2.92 325 ePn 18 12.40 0.6
eSn 18 49.50
RDO 3.33 76 ePn 18 16.70 -0.8
KDZ 3.38 67 iP 18 24.00 5.8X
HVAR 4.52 309 iPn 18 33.80 -0.6
BZS 5.19 3 ePc 18 48.50 4.7X
S.D. = 1.1 on 26 of 28 obs.

FEB 10, 1989 14h 21m 38.96± 0.26s
2.405 N ± 4.3km 126.663 E ± 7.1km
DEPTH = 33.0km (normal)
5.2mb (8 obs.)
MOLUCCA PASSAGE (266)

MTN 15.79 164 eP 25 20.00 -0.6
KNA 18.16 173 eP 25 50.00 -0.4
GUMO 21.15 57 eP 26 13.20 -10.5X
0.9s 68.20nm
PJG 21.15 57 eP 26 13.60 -10.1X
WB5 23.40 161 eP 26 45.30 -0.7
WRA 23.45 162 Pd 26 45.50 -1.0
0.9s 27.50nm 4.8mb
WB2 23.46 162 eP 26 45.30 -1.2
QIS 26.11 152 eP 27 11.00 -0.8
ASPA 26.86 165 iPc 27 17.10 -1.6
eS 32 00.20
NANU 27.09 203 eP 27 21.80 1.1
WARB 28.42 180 eP 27 26.50 -6.3X
CTA 29.48 140 eP 27 43.00 0.5
MEKA 29.90 195 eP 27 46.00 -0.1
CHTO 31.66 303 eP 28 01.00 -0.7
MRWA 33.06 197 eP 28 15.00 1.2
FORR 33.10 178 eP 28 13.00 -1.0
COOL 33.52 189 eP 28 18.00 0.2
BAL 34.17 195 eP 28 24.00 0.6
KLB 34.85 193 eP 28 30.00 0.8
YAMJ 37.65 17 eP 28 52.30 -0.5
BRS 38.87 141 eP 29 08.80 5.6X

OFUJ 38.98 19 eP 29 03.60 -0.3
MRRJ 41.88 16 eP 29 27.10 -0.6
BWA 41.96 153 eP 29 29.80 1.3
CAN 42.97 153 eP 29 36.60 -0.2
KUSJ 43.60 19 eP 29 42.80 1.1
ASAJ 43.88 17 eP 29 43.90 -0.2
GUN 46.46 307 P 30 04.60 -0.7
PKI 46.69 306 P 30 05.80 -1.3
0.6s 12.00nm 5.0mb
KKN 46.88 307 P 30 07.40 -1.1
0.7s 18.00nm 5.2mb
DMN 46.95 306 P 30 08.20 -0.9
0.7s 23.00nm 5.3mb
GKN 47.49 307 P 30 12.00 -1.2
0.6s 13.00nm 5.1mb
KOD 49.46 281 eP 30 28.40 -0.4
HYB 49.51 291 eP 30 28.00 -0.8
GBA 49.90 286 P 30 32.00 0.2
0.4s 5.40nm 4.9mb
MHI 70.26 308 eP 32 51.00 -0.4
AVY 80.32 250 eP 33 50.58 1.4
TAB 80.91 308 eP 33 53.00 1.1
TTA 82.10 27 eP 33 58.20 0.7
IMA 83.61 24 ePc 34 06.10 0.8
1.2s 31.30nm 5.3mb
PMR 85.13 29 eP 34 12.50 -0.3
1.2s 27.30nm 5.3mb
PRNI 90.24 300 eP 34 39.00 0.9
NOH 90.25 301 eP 34 40.00 1.8
MBH 90.37 300 eP 34 40.00 1.3
INK 91.41 21 eP 34 42.00 -0.7
MBC 93.25 13 eP 34 51.00 0.0
YKA 100.72 24 Pdiff 35 30.50 5.4X
CNC8 159.70 136 ePKP 41 39.00 1.9
LPB 159.80 135 ePKP 41 42.00 5.0X
ZOBO 159.96 134 PKP 41 38.00 0.6
S.D. = 0.9 on 44 of 50 obs.

FEB 10, 1989 14h 31m 52.56± 0.38s
2.357 N ± 6.6km 126.558 E ± 9.9km
DEPTH = 33.0km (normal)
4.8mb (7 obs.)
MOLUCCA PASSAGE (266)

KNA 18.12 173 eP 36 03.00 -0.5
WB5 23.39 161 eP 36 58.90 -0.6
WRA 23.44 161 Pd 37 00.10 0.1
0.5s 9.70nm 4.6mb
WB2 23.45 161 eP 36 58.90 -1.1
QIS 26.12 151 eP 37 25.00 -0.5
ASPA 26.84 165 iPd 37 31.60 -0.5
eS 42 14.60
NANU 27.01 203 eP 37 35.00 1.4
WARB 28.37 180 eP 37 40.00 -6.0X
MEKA 29.83 195 eP 37 59.00 -0.1
CHTO 31.60 303 eP 38 14.20 -0.6
1.0s 4.25nm 4.3mb
FORR 33.05 178 eP 38 27.00 -0.2
BWA 41.96 153 eP 39 43.90 1.7
CAN 42.97 153 eP 39 51.10 0.7
GUN 46.40 307 P 40 18.40 0.0
0.6s 18.00nm 5.2mb
PKI 46.63 307 P 40 20.20 0.0
DMN 46.89 306 P 40 22.00 -0.2
0.7s 10.00nm 4.9mb
GKN 47.43 307 P 40 26.50 0.1
HYB 49.43 291 eP 40 42.00 0.2
GBA 49.81 286 Pc 40 44.60 -0.1
0.6s 4.20nm 4.6mb
IMA 83.70 24 eP 44 20.30 1.0
0.9s 9.40nm 4.9mb
PMR 85.22 29 eP 44 26.70 -0.1
1.0s 10.00nm 5.0mb
INK 91.49 21 eP 44 56.00 -0.7
S.D. = 0.7 on 21 of 22 obs.

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* FE8 10, 1989 14h 45m 33.53± 1.02s
2.471 N ±18.5km 126.681 E ±27.4km
DEPTH = 33.0km (normal)
4.5mb (5 obs.)
MOLUCCA PASSAGE (266)

MTN 15.85 164 eP 49 17.00 1.1
KNA 18.22 174 eP 49 46.00 0.3
WB5 23.46 162 eP 50 40.80 -0.3
WRA 23.51 162 Pc 50 41.40 -0.2
0.6s 5.90nm 4.3mb

10d 14h

WB2	23.51	162	eP	50	40.80	-0.8
QIS	26.16	152	iPd	51	06.90	0.1
			e	51	36.00	
ASPA	26.91	165	eP	51	13.60	-0.2
			e	51	45.00	
			iS	55	59.40	
WARB	28.49	180	eP	51	22.00	-6.0X
CHTO	31.64	303	iP	51	56.10	0.0
	0.8s	3.48nm			4.3mb	
FORR	33.16	178	eP	52	09.00	-0.1
GUN	46.43	307	P	54	00.00	0.3
	0.6s	16.00nm			5.2mb	
PKI	46.66	306	P	54	01.20	-0.3
KKN	46.86	307	P	54	02.80	-0.1
	0.5s	5.00nm			4.8mb	
DMN	46.92	306	P	54	04.20	0.8
GKN	47.46	307	P	54	07.70	0.1
	0.5s	3.00nm			4.6mb	
HYB	49.50	291	eP	54	24.00	0.6
GBA	49.90	286	P	54	25.00	-1.3
S.D. = 0.6 on 16 of 17 obs.						

& FEB 10, 1989 14h 52m 59.17s
61.615 N 149.556 W
DEPTH = 31.5km
SOUTHERN ALASKA (2)
<AGS-P>. ML 3.0 (PMR).

PWA	0.16	283	iP	53	04.60	-0.6
PLRM	0.20	96	iP	53	05.31	-0.3
			iS	53	10.96	
PMR	0.20	96	iPc	53	05.20	-0.4
PME	0.25	87	iP	53	05.92	-0.3
GHO	0.34	62	iP	53	06.78	-0.6
			iS	53	13.21	
PMS	0.37	180	iP	53	07.10	-0.7
KNK	0.57	111	iP	53	10.03	-0.8
SML	0.61	71	iP	53	10.34	-1.2
			iS	53	19.58	
PTE	0.80	161	iP	53	12.64	-1.4
			iS	53	25.10	
PWL	0.96	142	iP	53	15.17	-1.3
			iS	53	30.08	
SLKM	1.16	197	eP	53	18.16	-1.1
			eS	53	34.56	
NKA	1.20	224	eP	53	20.56	0.8
SPU	1.28	251	eP	53	19.75	-1.3
			eS	53	35.84	
CRP	1.30	256	iP	53	21.02	-0.4
SEW	1.52	178	eP	53	22.91	-1.5
VZW	1.55	110	iP	53	24.53	-0.4
VLZ	1.63	106	eP	53	25.30	-0.7
			iS	53	47.02	
TOA	1.68	71	iPd	53	27.30	0.5
RDT	1.73	234	iP	53	26.58	-1.1
			iS	53	49.03	
KLU	1.74	92	iP	53	27.16	-0.6
			eS	53	49.88	
NNL	1.79	209	eP	53	28.78	0.4
HIN	1.93	128	eP	53	29.34	-1.0
RED	1.97	234	eP	53	29.71	-1.4
CVA	2.14	118	eP	53	32.08	-1.2
			eS	54	01.56	
MCK	2.14	7	eP	53	33.06	-0.4
CNPM	2.25	202	eP	53	34.57	-0.5
PAX	2.34	53	eP	53	36.24	-0.2
SGAM	2.39	116	eP	53	35.32	-1.7
RAGM	2.68	115	eP	53	40.00	-1.1
GLB	2.76	91	eP	53	41.07	-1.1
DDM	2.77	36	eP	53	42.03	-0.3
PDB	2.93	233	eP	53	42.70	-1.8
SVW	2.97	263	eP	53	43.00	-2.2
NEA	2.98	4	eP	53	44.06	-1.3
TTA	3.29	296	iPc	53	47.50	-2.3
FBA	3.39	13	iP	53	49.90	-1.3
CTGM	4.02	96	eP	53	58.91	-1.3
IMA	4.83	340	eP	54	09.20	-2.4
38 obs. associated						

? FEB 10, 1989 15h 04m 25.68± 1.73s
1.364 N ±42.2km 125.187 E ±59.6km
DEPTH = 33.0km (normal)
4.6mb (3 obs.)
MOLUCCA PASSAGE (266)

WB5	22.95	157	eP	09	29.10	0.8
WB2	23.01	157	eP	09	29.10	0.2
ASPA	26.28	162	iPc	10	04.90	4.7X
WARB	27.42	177	eP	10	10.00	-0.5
CHTO	31.03	306	eP	10	44.00	1.2
	0.7s	4.29nm			4.4mb	
BWA	41.75	151	eP	12	13.00	-0.5
GUN	45.93	309	P	12	47.70	-0.1
	0.6s	20.00nm			5.2mb	
PKI	46.14	308	P	12	47.30	-2.2
DMN	46.39	308	P	12	53.00	1.6
GKN	46.94	308	P	12	55.20	-0.4
	0.5s	3.00nm			4.5mb	
S.D. = 1.3 on 9 of 10 obs.						

? FEB 10, 1989 15h 22m 59.36± 4.09s
13.161 S ±23.6km 166.896 E ±19.8km
DEPTH = 191.7 ± 36.3 km
4.7mb (4 obs.)
VANUATU ISLANDS (186)

DZM	8.87	183	iPd	25	04.90	-0.1
			iS	26	40.30	
BRS	19.36	221	Pd	27	12.80	0.3
			i	27	15.00	
CTA	20.93	248	iPd	27	31.00	2.7X
	1.2s	31.25nm			4.7mb	
RMQ	21.57	229	iPc	27	35.90	1.3
CMS	26.60	223	iPc	28	21.20	-0.6
BWA	27.00	215	eP	28	23.40	-2.0
CAN	27.35	213	eP	28	30.80	2.3
ASPA	32.93	247	iPc	29	16.40	-1.4
			eS	34	17.80	
FORR	39.79	237	iPc	30	15.10	-0.2
	0.4s	47.00nm			5.4mb	
CHTO	74.11	294	e(P)	34	17.50	0.9
	1.3s	14.71nm			4.6mb	
SPA	76.92	180	iPc	34	31.80	-0.1
	0.9s	13.18nm			4.7mb	
GUN	88.32	299	P	35	31.00	-0.2
KJF	121.74	340	iPKP	41	31.00	-0.3
	0.7s	10.70nm				
SUF	123.25	340	iPKP	41	34.00	-0.3
	0.5s	3.80nm				
NUR	125.29	338	iPKP	41	38.80	0.5
NB2	129.02	345	PKP	41	45.40	-0.1
	0.6s	1.80nm				
KIC	169.34	231	PKP	43	06.70	21.5X
	1.5s	83.00nm				
TIC	169.74	232	PKP	43	07.08	21.6X
S.D. = 1.1 on 15 of 18 obs.						

FEB 10, 1989 15h 23m 55.99± 0.57s
2.464 N ± 2.5km 126.689 E ± 3.7km
DEPTH = 38.3 ± 5.2 km
5.5mb (31 obs.) 4.6Msz (1 obs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 33C
Centroid Location:
Origin Time 15:24: 8.5 1.0
Lat 2.89N 0.10 Lon 126.70E 0.09
Dep 33.0 FIX Half-duration 3.4
Moment Tensor; Scale 10**17 Nm
Mrr= 7.27 0.57 Mtt=-0.32 0.51
Mff=-6.96 0.86 Mrt= 4.48 1.02
Mrf=-0.17 1.10 Mtf=-2.55 0.56
Principal Axes:

	Val=	Plg=	Azm=
T	9.44	64	10
N	-1.50	25	204
P	-7.95	6	112

Best Double Couple:Mo=8.7*10**17

	Strike	Dip	Slip
NP1:	176	45	53
NP2:	43	56	121

DAV	4.73	346	ePc+	25	08.00	1.2
			eS	26	14.00	
AAI	6.29	166	eP	25	34.40	5.6X
TSM	8.78	282	ePc	26	09.90	6.4X
TLE	10.07	143	ePd	26	24.00	2.7
	0.8s	10.50nm			5.1mb	
MKS	10.50	223	P	26	31.00	3.9X
PPR	10.74	313	ePd	26	37.00	6.6X
KKM	11.03	289	ePd	26	39.00	4.5X
	0.8s	203.20nm			6.3mb	
OCP	13.30	336	eP	26	56.00	-8.8X
BAG	15.11	337	eP	27	29.00	0.3
KHKI	15.42	226	P	27	39.20	6.6X
			e	33	10.00	
MTN	15.84	164	iPd	27	37.60	-0.3
PIP	16.85	340	ePd	27	40.50	-10.2X
TRT	17.28	234	iPc	28	00.30	4.2X
	0.6s	53.80nm			4.9mb	
KNA	18.21	174	eP	28	07.00	-0.7
	0.5s	209.00nm			5.5mb	
MNDI	18.98	117	eP	28	18.00	0.6
GUMO	21.10	57	eP	28	37.90	-1.8
	1.2s	422.22nm			5.7mb	
PJG	21.10	57	eP	28	38.30	-1.4
GUA	21.11	58	eP	28	38.00	-1.8
	1.0s	160.00nm			5.4mb	
ANP	23.13	348	eP	29	02.00	2.1
HKC	23.17	329	P	29	00.50	0.3
			S	33	06.00	
QIZ	23.30	316	Pc	29	01.00	-0.5
N 15s		1.70um				
			eS	33	04.00	
MCO	23.34	328	eP	29	02.00	0.2
KGM	23.36	269	ePc	29	04.60	2.5
WB5	23.45	162	iPc	29	02.10	-0.9
			eS	33	13.70	
WRA	23.50	162	Pc	29	04.20	0.7
	0.7s	118.10nm			5.5mb	
WB2	23.51	162	iPc	29	02.10	-1.4
			eS	33	13.70	
PMG	23.56	120	e(P)	29	04.00	0.0
QZH	23.67	341	eP	29	06.00	0.9
Z 28s		17.10um			5.4MszX	
N 28s		18.60um				
			S	33	14.00	
GZH	24.24	329	iPd	29	10.00	-0.6
Z 32s		6.10um			4.9MszX	
			S	33	24.00	
MBL	24.42	196	eP	29	13.00	0.6
	0.5s	28.00nm			5.1mb	
IPM	25.70	275	ePd	29	24.30	-0.3
	1.2s	99.30nm			5.3mb	
QIS	26.15	152	eP	29	27.00	-1.7
SNG	26.39	281	eP	29	24.00	-6.9X
ASPA	26.91	165	iPc	29	34.50	-1.1
NANU	27.15	203	iPc	29	38.40	0.6
	0.4s	21.00nm			5.1mb	
PSI	27.74	271	ePd	29	43.00	-0.3
	1.2s	76.80nm			5.2mb	
WARB	28.48	180	iPd	29	43.40	-6.4X
	0.3s	20.00nm			5.3mb	
NNT	28.52	292	eP	29	51.00	0.7
LOE	28.66	303	iPc	29	50.60	-0.9
SSE	28.95	350	Pc	29	54.00	0.0
	1.5s	0.38nm			2.9mb X	
Z 20s		1.40um			4.6Msz	
E 13s		0.70um				
			S	34	40.00	
CTA	29.51	140	iPc	29	58.30	-0.9
	1.4s	139.53nm			5.5mb	
			i	30	36.80	
			i	31	31.00	
			iS	34	50.00	
MEKA	29.96	195	iPc	30	03.00	-0.1
	0.4s	27.00nm			5.4mb	
KUMJ	30.16	7	eP	30	04.20	-0.6
NJ2	30.34	347	eP	30	07.00	0.6
GYA	30.64	323	P	30	08.20	-1.0
E 15s		1.50um				
			S	35	12.00	
CHG	31.65	303	iPc	30	18.00	-0.2
	1.0s	92.50nm			5.6mb	
CHTO	31.65	303	iPc	30	17.30	-0.8
	1.2s	103.47nm			5.5mb	
KMI	32.25	316	Pc	30	23.50	0.0
N 14s		1.00um				
			PP	31	31.00	
SHK	32.39	9	eP	30	24.30	-0.1
WKYJ	32.67	14	eP	30	26.70	-0.2
MRWA	33.13	197	eP	30	31.00	0.2
FORR	33.16	178	eP	30	30.00	-1.0
	0.6s	263.00nm			6.3mb	
YONJ	33.16	10	eP	30	31.20	0.1
COOL	33.58	189	eP	30	34.00	-0.8
TSRJ	34.02	14	eP	30	37.70	-0.8
BAL	34.24	195	eP	30	40.00	-0.4
IIDJ	34.46	16	iPd	30	42.00	-0.4
TIA	34.73	346	Pc	30	43.70	-0.9
N 13s		0.70um				
			eS	36	12.00	

			sS	36	32.00	
KLB	34.92	193	eP	30	46.00	-0.3
CHJJ	35.31	17	iPd	30	48.10	-1.4
MTMJ	35.47	16	iP+	30	50.10	-0.9
XAN	35.52	334	Pc	30	50.10	-1.4
			S	36	19.90	
CD2	35.64	325	eP	30	51.40	-1.1
MUN	35.67	195	eP	30	52.00	-0.6
KAKJ	35.82	19	P	30	50.90	-2.9
RMQ	35.82	145	iPd	30	52.70	-1.3
			i	33	22.80	
NWAO	36.32	193	eP	30	58.00	-0.1
NIIJ	36.42	17	P	30	57.60	-1.3
DL2	36.56	353	eP	31	00.00	-0.1
Z	26s	1.30um				4.6MszX
E	15s	1.60um				
			S	36	39.00	
STK	36.97	159	eP	31	03.00	-0.6
			e	31	14.00	
TIY	37.44	341	Pc	31	06.80	-0.8
Z	29s	10.70um				5.5MszX
N	27s	11.20um				
			PP	32	32.00	
RKG	37.46	193	eP	31	13.00	5.3X
	0.5s	25.00nm				5.4mb
YAMJ	37.58	17	eP	31	08.80	0.1
CMS	38.36	153	iPc	31	14.70	-0.6
			e	32	45.00	
BJI	38.60	347	Pc	31	17.00	-0.2
	4.0s	0.70nm				2.8mb X
Z	26s	3.90um				5.1MszX
			PcP	33	30.00	
			eS	37	06.00	
BRS	38.90	141	Pd	31	18.40	-1.5
			e(S)	37	08.00	
			e	40	10.00	
ADE	38.91	164	iPc	31	20.00	0.1
	0.8s	94.03nm				5.6mb
OFUJ	38.92	19	eP	31	20.20	0.3
SNY	39.29	356	iPc	31	23.20	0.3
Z	29s	3.30um				5.0MszX
N	28s	3.20um				
E	26s	1.50um				
			S	37	22.00	
LZH	39.57	330	P	31	25.50	0.0
	2.5s	0.80nm				3.1mb X
Z	28s	10.20um				5.5MszX
N	25s	5.79um				
AOMJ	39.89	16	eP	31	28.60	0.7
HHC	40.58	342	eP	31	33.60	-0.1
Z	30s	1.35um				4.6MszX
COO	40.71	146	iPd	31	35.40	0.6
BTO	40.85	340	eP	31	36.00	0.1
N	30s	13.60um				
CN2	41.18	359	Pc	31	38.00	-0.4
MRRJ	41.82	16	eP	31	44.30	0.6
BWA	42.00	153	iPc	31	50.40	5.1X
MDJ	42.05	3	Pc	31	46.50	0.9
Z	30s	3.25um				5.0MszX
			eS	38	05.00	
HOOJ	42.43	18	eP	31	50.70	2.0
CAN	43.01	153	iPc	31	53.70	0.1
LSA	43.25	312	Pc	31	55.20	-1.0
			S	38	17.50	
TOO	43.48	158	iPc	31	59.20	1.8
			e	33	42.00	
KUSJ	43.53	19	eP	31	58.30	0.6
ASAJ	43.82	17	eP	32	00.80	0.8
GTA	44.16	330	iPc	32	02.50	-0.5
	3.0s	0.50nm				2.8mb X
Z	28s	7.70um				5.5MszX
E	23s	6.20um				
			i	32	53.00	
			PP	33	48.50	
DZM	45.85	124	iPc	32	15.10	-1.6
GUN	46.44	307	Pc	32	21.00	-0.6
PKI	46.67	306	Pc	32	22.30	-1.1
KKN	46.87	307	Pc	32	23.90	-0.9
DMN	46.93	306	Pc	32	24.60	-0.8
GKN	47.47	307	Pc	32	28.40	-1.2
TAU	48.85	160	eP	32	40.00	0.2
KOD	49.47	281	eP	32	44.00	-1.4
HYB	49.51	291	eP	32	44.00	-1.3
GBA	49.91	286	P	32	44.10	-4.2X
GBA	49.91	286	P	32	48.00	-0.3
	1.4s	145.30nm				5.8mb
WMQ	53.73	326	iPd	33	16.00	-0.7
Z	30s	3.00um				5.2MszX
			S	40	54.50	
NDI	53.78	304	iPc	33	15.00	-2.3
			eS	40	44.00	
POO	54.12	291	iPc	33	18.50	-1.4
	1.3s	46.15nm				5.4mb
KSH	58.88	316	P	33	54.20	0.5
			eS	41	50.50	
MSZ	59.59	147	P	33	57.90	-0.4
QUE	62.79	303	eP	34	18.80	-1.7
ADK	68.03	34	eP	34	53.00	-0.5
MHI	70.24	308	iPc	35	07.20	-0.5
	1.1s	379.75nm				6.3mb
SDN	78.25	34	eP	35	53.70	0.4
KER	80.01	304	eP	36	08.00	4.4X
AVY	80.36	250	eP	36	06.54	0.8
TAB	80.89	308	eP	36	09.00	0.8
SLY	81.40	305	iPd	36	10.00	-0.7
KMSA	81.83	290	eP	36	13.00	-0.2
SVW	81.91	29	eP	36	14.60	1.8
TTA	82.04	27	iPc	36	15.20	1.7
BHD	82.22	303	iPd	36	15.00	0.1
			iS	46	35.00	
MAW	82.56	200	eP	36	16.50	0.5
KDC	83.02	32	eP	36	19.70	1.2
MSL	83.34	306	iPd	36	21.00	0.3
			i	36	29.00	
			eS	46	17.00	
IMA	83.55	24	iPc	36	23.00	1.6
	1.2s	171.90nm				6.0mb
PMR	85.07	29	iPc	36	29.30	0.5
	1.3s	292.50nm				6.3mb
FBA	85.88	25	P	36	33.50	0.6
TOA	86.49	28	eP	36	37.30	1.3
NPA	88.16	255	iPc	36	46.00	1.2
			e	37	46.50	
KVT	88.88	311	iP	36	48.50	0.6
HRI	89.46	303	iPd	36	52.50	1.6
JVI	89.85	302	iPd	36	54.00	1.4
MBH	90.36	300	iP	36	56.40	1.4
IKL	90.98	306	iP	36	58.00	0.3
KEV	91.06	340	eP	36	57.00	-0.4
INK	91.35	21	eP	36	58.50	-0.3
	1.2s	66.00nm				5.9mb
KJF	91.71	334	iP	36	59.90	-0.6
SUF	92.65	333	eP	37	04.00	-0.9
MBC	93.19	13	eP	37	07.00	-0.1
	1.2s	40.00nm				5.7mb
NUR	93.78	331	eP	37	10.00	-0.1
VRI	95.18	316	ePc	37	17.50	0.6
MLR	95.78	316	iPc	37	20.00	0.2
PTZ	95.78	256	iPd	37	20.60	0.3
BUL	98.42	250	iPc	37	32.30	0.1
	1.2s	21.88nm				5.6mb
BZS	98.74	317	eP	37	34.50	1.6
KRA	98.80	321	eP	37	33.00	-0.1
VAY	98.94	312	eP	37	32.70	-1.3
HFS	99.11	332	ePKP	37	33.60	-0.7
	1.3s	29.80nm				5.7mb
SKO	99.64	313	eP	37	41.00	3.8X
NB2	99.89	334	P	37	36.20	-1.8
	1.2s	15.40nm				5.4mb
SRO	100.41	319	ePdiff	37	42.30	1.8
YKC	100.72	24	ePdiff	37	42.00	0.5
	1.0s	20.00nm				5.6mb
KSP	100.82	323	ePdiff	37	42.80	0.5
KMZ	101.12	257	iPdiff	37	45.60	1.0
PRU	102.15	322	ePdiff	37	49.00	0.8
CLL	102.63	324	ePdiff	37	51.00	0.7
	1.5s	12.00nm				5.4mb
KHC	103.03	322	Pdiff	37	52.90	0.7
MOX	103.69	324	e(Pdif	37	57.00	2.0
BNG	107.87	275	iPKPc	42	23.20	1.0
	0.2s	40.00nm				
			i	42	26.60	
LPG	108.68	320	ePKP	42	13.60	-9.6X
	0.7s	4.40nm				
FRF	109.53	318	ePKP	42	16.10	-8.3X
LMR	109.71	318	ePKP	42	16.80	-8.0X
MAF	111.00	322	ePKP	42	14.00	-13.2X
TCF	111.19	322	ePKP	42	14.00	-13.5X
	0.7s	4.40nm				
LSF	111.62	322	ePKP	42	14.70	-13.6X
GRR	111.96	325	ePKP	42	11.40	-17.5X
LPF	112.25	325	ePKP	42	12.00	-17.4X
	0.4s	3.40nm				
BW06	112.32	41	PKP	42	30.70	0.6
MFF	112.46	323	ePKP	42	15.10	-14.8X
	0.8s	16.10nm				
FRB	112.98	7	ePKP	42	30.00	-0.3
GOL	116.54	43	PKP	42	38.70	0.4
RSON	116.70	27	PKP	42	37.20	-0.7
ALQ	117.90	48	ePKP	42	41.30	0.3
MEO	123.67	45	ePKP	42	52.20	0.4
	1.2s	11.60nm				
KOGH	126.33	279	ePKP	42	58.00	0.4
KUK	126.44	279	ePKP	42	58.00	0.3
FVM	127.11	37	PKP	42	57.80	-0.5
OLY	128.05	40	PKP	43	00.60	0.4
ELC	128.29	37	PKP	43	00.80	0.3
PWLA	130.52	38	PKP	43	05.00	0.1
LIC	131.02	280	PKP	43	07.32	0.9
TKL	132.57	34	PKP	43	09.00	0.2
LHS	135.08	33	PKP	43	13.70	0.2
TACH	144.86	154	ePKP	43	31.00	-0.2
SAN	145.16	154	ePKP	43	32.00	0.3
PEL	145.41	154	iPKPc	43	33.00	0.8
FCH	145.42	154	ePKP	43	34.00	1.4
MDZ	146.41	156	iPKPd	43	35.10	1.2
CNCB	159.72	136	PKP	43	56.00	2.5X
LPB	159.82	135	PKP	43	56.00	2.6X
ZOBO	159.98	134	iPKPc	43	55.40	1.6
	1.3s	25.63nm				
CCH	160.54	140	ePKP	43	57.00	3.0X

S.D. = 1.0 on 166 of 194 obs.

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* FEB 10, 1989 15h 39m 35.20± 0.67s
2.416 N ±11.9km 126.571 E ±17.5km
DEPTH = 33.0km (normal)
4.9mb (8 obs.)
MOLUCCA PASSAGE (266)

KNA	18.18	173	eP	43	48.90	2.0
WB5	23.44	161	eP	44	42.60	0.0
WRA	23.49	161	Pd	44	42.60	-0.5
	0.6s	13.40nm				4.6mb
WB2	23.50	161	eP	44	42.60	-0.5
QIS	26.16	151	iPc	45	08.40	-0.1
ASPA	26.89	165	iPc	45	14.10	-1.1
	0.5s	8.00nm				4.6mb
			ePcP	48	13.50	
			eS	49	59.20	
NANU	27.06	203	eP	45	17.00	0.3
WARB	28.43	180	eP	45	23.00	-6.1X
MEKA	29.89	195	eP	45	42.50	0.3
CHTO	31.58	303	iP	45	56.90	-0.4
	0.9s	8.31nm				4.6mb
FORR	33.11	178	eP	46	08.00	-2.4
BWA	42.01	153	eP	47	26.30	1.1
CAN	43.02	153	eP	47	32.60	-0.8
GUN	46.38	307	P	48	00.40	-0.5
	0.6s	28.00nm				5.4mb
PKI	46.61	306	P	48	01.80	-0.9
	0.6s	7.00nm				4.8mb
KKN	46.80	307	P	48	03.40	-0.7
	0.6s	15.00nm				5.2mb
DMN	46.87	306	P	48	04.20	-0.5
	0.5s	11.00nm				5.1mb
GKN	47.41	307	P	48	07.80	-1.0
	0.7s	14.00nm				5.1mb
HYB	49.42	291	ePc	48	24.30	-0.1
GBA	49.81	286	P	48	26.00	-1.3
AVY	80.24	250	eP	51	46.14	1.2
PRNI	90.15	300	iPd	52	36.00	2.0
NOH	90.17	301	eP	52	36.00	1.9
MBH	90.28	300	ePd	52	36.50	2.0
INK	91.44	21	eP	52	39.00	0.0

S.D. = 1.2 on 24 of 25 obs.

FEB 10, 1989 15h 49m 51.22± 0.45s
9.627 S ± 8.6km 113.218 E ± 8.5km
DEPTH = 33.0km (normal)
4.8mb (7 obs.)
SOUTH OF JAVA (282)

TRT	2.00	343	iPd	50	25.50	2.2
			iS	51	14.60	
KHKI	2.67	62	iPd	50	31.30	-1.6
			iS	50	56.00	
			e	56	40.00	
NANU	13.05	170	eP	52	53.00	-4.0X
	0.3s	24.00nm				5.7mb
MBL	13.12	152	eP	52	42.00	-15.9X
	0.3s	24.00nm				

10d 15h

			eS	55 05.50		
KNA	16.34	113	eP	53 43.00	3.1X	
MEKA	17.63	164	eP	53 55.50	-0.5	
	0.3s	17.00nm			4.7mb	
MTN	17.86	102	eP	54 00.00	1.1	
MRWA	19.66	173	eP	54 21.00	0.5	
			eS	57 45.00		
WARB	20.81	144	eP	54 26.00	-6.4X	
BAL	21.13	172	eP	54 41.00	5.4X	
KLB	22.26	170	eP	54 55.00	8.0X	
COOL	22.40	162	eP	54 56.00	7.6X	
MUN	22.41	173	eP	54 58.00	9.5X	
WB5	22.82	119	eP	54 52.70	0.1	
WRA	22.83	119	Pc	54 51.70	-1.0	
	0.4s	4.80nm			4.3mb	
WB2	22.84	119	eP	54 52.70	-0.1	
ASPA	24.19	128	iPc	55 06.50	0.6	
	1.5s	35.00nm			4.7mb	
			eS	59 33.20		
CHTO	31.57	334	eP	56 14.80	1.6	
	0.7s	0.48nm			3.5mb X	
CTA	33.52	112	eP	56 31.00	0.8	
KOD	40.68	298	eP	57 32.00	1.2	
GBA	42.35	302	P	57 44.00	-0.2	
HYB	43.54	308	eP	57 53.00	-0.9	
GUN	45.75	325	P	58 11.10	-0.7	
	0.4s	12.00nm			5.2mb	
PKI	45.75	325	P	58 10.60	-1.3	
DMN	45.95	324	P	58 12.20	-1.2	
	0.5s	8.00nm			4.9mb	
KKN	45.99	325	P	58 13.30	-0.3	
GKN	46.52	324	P	58 16.60	-1.1	
	0.4s	6.00nm			4.9mb	
YKA	117.04	23	PKP	08 34.90	0.9	
	S.D. = 1.1	on	20 of	28 obs.		

? FEB 10, 1989 15h 55m 14.83± 1.02s
37.718 N ± 9.7km 1.557 W ±10.2km
DEPTH = 5.0km (geophysicist)
SPAIN (377)
MG 2.4 (MDD).

EALH	0.18	38	iPgd	55 18.70	0.2	
			eSg	55 20.80		
ENIJ	0.91	215	ePg	55 32.80	0.0	
EVIA	1.18	321	ePg	55 37.40	0.0	
			eSg	55 54.00		
ACU	1.20	48	ePg	55 37.50	-0.2	
AFC	1.65	254	ePg	55 50.40	5.7X	
			eSg	56 12.20		
ECHE	1.92	14	ePg	55 52.00	3.4X	
			eSg	56 15.20		
ETOR	3.12	353	ePg	56 20.50	14.8X	
			eSg	56 56.00		
GUD	3.55	326	ePg	56 22.30	10.5X	
			eSg	57 04.00		
	S.D. = 0.3	on	4 of	8 obs.		

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* FEB 10, 1989 15h 56m 32.67± 0.62s
2.390 N ±11.5km 126.547 E ±16.0km
DEPTH = 33.0km (normal)
4.7mb (7 obs.)
MOLUCCA PASSAGE (266)

WB5	23.43	161	eP	01 40.00	0.1	
WRA	23.48	161	Pd	01 40.10	-0.3	
	0.6s	10.90nm			4.5mb	
WB2	23.48	161	eP	01 40.00	-0.5	
QIS	26.15	151	iPc	02 05.30	-0.6	
ASPA	26.87	165	eP	02 11.70	-0.8	
			eS	06 57.80		
NANU	27.03	203	eP	02 15.00	1.1	
WARB	28.41	180	eP	02 20.00	-6.4X	
MEKA	29.86	195	eP	02 39.50	0.1	
CHTO	31.57	303	eP	02 54.80	0.1	
	0.9s	4.69nm			4.3mb	
FORR	33.09	178	eP	03 07.00	-0.6	
BWA	42.00	153	eP	04 23.80	1.2	
CAN	43.01	153	eP	04 31.30	0.5	
GUN	46.37	307	P	04 58.00	-0.3	
	0.5s	16.00nm			5.2mb	
PKI	46.60	307	P	04 59.70	-0.4	
	0.5s	5.00nm			4.7mb	
KKN	46.80	307	P	05 01.00	-0.5	
	0.4s	4.00nm			4.8mb	
DMN	46.86	306	P	05 02.40	0.3	
GKN	47.40	307	P	05 05.60	-0.7	
	0.4s	4.00nm			4.8mb	
HYB	49.41	291	eP	05 22.00	0.2	
GBA	49.79	286	Pd	05 24.50	-0.1	
	0.7s	5.60nm			4.7mb	
RBL	103.88	319	Pdiff	10 34.80	1.4	
			eSn	10 56.50		
TRI	103.98	318	Pdiff	10 29.10	-4.6X	
			eSn	10 44.80		
FVI	104.34	319	Pdiff	10 43.00	7.7X	
			eSn	11 09.00		
	S.D. = 0.7	on	19 of	22 obs.		

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* FEB 10, 1989 16h 05m 40.03± 0.49s
2.440 N ± 8.7km 126.588 E ±12.4km
DEPTH = 33.0km (normal)
4.8mb (10 obs.)
MOLUCCA PASSAGE (266)

KNA	18.20	173	eP	09 52.00	0.0	
WB5	23.46	161	eP	10 46.90	-0.7	
			eS	14 59.00		
WRA	23.51	161	Pd	10 46.20	-1.9	
	0.6s	10.00nm			4.5mb	
WB2	23.51	161	eP	10 46.90	-1.2	
			eS	14 59.00		
QIS	26.18	151	eP	11 13.00	-0.5	
ASPA	26.91	165	iPd	11 19.50	-0.7	
	0.7s	11.00nm			4.6mb	
			eS	16 05.30		
NANU	27.09	203	eP	11 23.40	1.6	
WARB	28.45	180	eP	11 26.00	-8.2X	
MEKA	29.91	195	eP	11 48.00	0.7	
CHTO	31.58	303	iP	12 02.10	0.0	
	0.8s	6.59nm			4.5mb	
BWA	42.02	153	eP	13 31.80	1.6	
CAN	43.03	153	eP	13 39.00	0.6	
GUN	46.37	307	P	14 05.50	-0.2	
	0.6s	30.00nm			5.4mb	
PKI	46.61	306	P	14 06.60	-0.9	
	0.5s	7.00nm			4.9mb	
KKN	46.80	307	P	14 08.20	-0.7	
	0.6s	10.00nm			5.0mb	
DMN	46.87	306	P	14 09.80	0.3	
GKN	47.41	307	P	14 13.00	-0.7	
	0.6s	11.00nm			5.0mb	
HYB	49.43	291	eP	14 29.00	-0.3	
GBA	49.81	286	Pd	14 31.20	-1.0	
	0.6s	6.60nm			4.8mb	
AVY	80.26	250	eP	17 52.30	2.4	
IMA	83.61	24	eP	18 07.60	1.2	
	0.8s	6.00nm			4.8mb	
PMR	85.14	29	eP	18 14.00	0.1	
	0.8s	3.40nm			4.6mb	
INK	91.41	21	eP	18 44.00	0.3	
FRB	113.02	7	ePdiff	20 37.00	16.1X	
	S.D. = 1.1	on	22 of	24 obs.		

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* FEB 10, 1989 16h 10m 05.52± 1.25s
45.624 N ±14.6km 15.582 E ± 7.4km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.3 (KBA). MD 3.1 (LJU).

VBY	0.26	243	iPgd	10 10.50	-0.5	
			iSg	10 14.00		
ZAG	0.34	55	iPgc	10 12.80	0.2	
			iSg	10 18.00		
PTJ	0.38	43	iPgd	10 13.00	-0.4	
			eSg	10 19.30		
CEY	0.82	279	ePgc	10 22.50	1.1	
	0.5s	110.00nm				
			eSg	10 32.50		
LJU	0.85	300	ePg	10 21.40	-0.4	
	0.8s	70.00nm				
			eSg	10 31.10		
VOY	1.25	290	iPgc	10 28.40	-0.4	
			eSg	10 43.50		
KBA	2.13	314	iPnc	10 44.70	3.0X	
			iPg	10 47.30		
			i(Sn)	11 11.00		
			iSg	11 14.40		
	S.D. = 0.8	on	6 of	7 obs.		

? FEB 10, 1989 16h 13m 50.15± 1.38s
1.718 N ±32.1km 125.771 E ±41.9km
DEPTH = 33.0km (normal)
4.5mb (6 obs.)
MOLUCCA PASSAGE (266)

WB5	23.06	159	eP	18 54.20	0.3	
WRA	23.11	159	Pc	18 54.90	0.5	
	0.5s	6.30nm			4.4mb	
WB2	23.12	159	eP	18 54.20	-0.2	
QIS	25.96	149	eP	19 20.00	-1.6	
ASPA	26.44	163	iPc	19 27.20	1.1	
WARB	27.75	178	eP	19 35.50	-2.5	
CHTO	31.30	305	eP	20 09.00	-0.7	
	0.7s	1.27nm			3.9mb	
BWA	41.77	151	eP	21 40.20	2.0	
GUN	46.17	308	P	22 13.40	-0.8	
	0.5s	14.00nm			5.2mb	
PKI	46.38	307	P	22 15.60	-0.3	
	0.4s	2.00nm			4.4mb	
KKN	46.58	308	P	22 17.20	-0.1	
DMN	46.64	307	P	22 17.80	0.0	
GKN	47.19	308	P	22 21.40	-0.6	
	0.5s	3.00nm			4.6mb	
HYB	48.93	292	eP	22 36.50	1.0	
GBA	49.23	286	Pd	22 39.80	2.0	
	0.6s	2.80nm			4.5mb	
	S.D. = 1.3	on	15 of	15 obs.		

FEB 10, 1989 16h 30m 40.56± 0.29s
2.465 N ± 4.7km 126.663 E ± 8.1km
DEPTH = 33.0km (normal)
5.1mb (17 obs.)
MOLUCCA PASSAGE (266)

TSM	8.75	282	ePc	32 54.90	7.0X	
TLE	10.09	143	ePc	33 10.00	3.7X	
PPR	10.72	313	ePd	33 24.00	9.1X	
KKM	11.01	289	ePc	33 23.00	4.0X	
	1.0s	96.90nm			6.0mb	
KHKI	15.40	226	ePc	34 24.00	6.8X	
MTN	15.84	164	eP	34 21.00	-1.9	
TRT	17.26	234	ePc	34 43.40	2.6	
	0.7s	34.50nm			4.6mb	
KNA	18.22	174	eP	34 52.50	-0.2	
QIZ	23.28	316	eP	35 52.80	6.4X	
WB5	23.46	162	eP	35 47.80	-0.3	
			eS	39 59.00		
WRA	23.51	162	Pc	35 48.30	-0.3	
	0.7s	18.90nm			4.7mb	
WB2	23.51	162	eP	35 47.80	-0.9	
			eS	39 59.00		
MBL	24.41	196	eP	35 58.00	0.6	
	0.4s	5.00nm			4.4mb	
QIS	26.16	152	eP	36 14.00	0.1	
ASPA	26.91	165	iPc	36 19.90	-0.9	
			eS	40 56.80		
NANU	27.15	203	iPd	36 23.70	0.9	
	0.3s	5.00nm			4.6mb	
PSI	27.71	271	ePd	36 28.00	-0.1	
WARB	28.48	180	eP	36 28.60	-6.3X	
CTA	29.53	140	eP	36 50.00	5.5X	
	1.3s	30.77nm			4.9mb	
MEKA	29.96	195	eP	36 48.20	0.0	
WHN	30.26	339	eP	36 52.00	1.2	
CHTO	31.63	303	iP	37 02.30	-0.8	
	0.9s	19.82nm			5.0mb	
KMI	32.23	316	Pd	37 09.00	0.5	
FORR	33.16	178	eP	37 15.00	-1.1	
	0.4s	39.00nm			5.7mb	
COOL	33.58	189	eP	37 20.00	0.1	
TIA	34.72	346	eP	37 28.40	-1.2	
KLB	34.91	193	eP	37 32.00	0.7	
XAN	35.51	334	P	37 36.30	-0.2	
CD2	35.63	325	eP	37 37.00	-0.5	
RMQ	35.83	145	eP	37 38.00	-1.3	
STK	36.98	159	eP	37 49.00	0.2	
TIY	37.43	341	Pd	37 53.50	0.9	
BJI	38.59	347	P	38 02.50	0.3	
BRS	38.91	141	iPd	38 05.30	0.2	
			e	39 48.80		
			e(S)	44 18.00		
ADE	38.91	164	iPc	38 04.60	-0.5	
	0.8s	22.39nm			5.0mb	
SNY	39.29	356	Pc	38 09.60	1.6	
LZH	39.56	330	eP	38 11.00	0.4	
	2.0s	0.09nm			2.2mb X	
CN2	41.17	359	eP	38 27.00	3.5X	
BWA	42.01	153	eP	38 32.20	1.6	
MDJ	42.05	3	eP	38 31.60	0.9	
CAN	43.02	153	eP	38 39.90	1.1	

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GTA    44.14 330 eP     38 47.78  -0.2
     Z  27s     1.20um              4.7MszX
                PP       40 34.00
GUN    46.42 307 P      39 05.90  -0.7
PKI    46.65 306 P      39 07.10  -1.3
       0.7s     15.00nm             5.1mb
KKN    46.85 307 P      39 08.80  -1.0
       0.7s     20.00nm             5.2mb
DMN    46.91 306 P      39 09.20  -1.2
       0.9s     53.00nm             5.5mb
GKN    47.45 307 P      39 13.30  -1.2
       1.0s     42.00nm             5.4mb
KOD    49.45 281 eP     39 30.00  -0.3
HYB    49.49 291 iPd    39 29.30  -1.0
GBA    49.88 286 Pc     39 32.80  -0.4
       0.9s     27.40nm             5.3mb
WMQ    53.72 326 eP     40 01.50  -0.3
KSH    58.86 316 eP     40 41.00   2.2
QUE    62.76 303 eP     41 05.70   0.2
MHI    70.22 308 eP     41 52.00  -0.7
       0.6s     48.00nm             5.7mb
AVY    80.34 250 eP     42 51.78   0.9
IMA    83.56  24 eP     43 08.30   1.7
       1.1s     20.30nm             5.2mb
JVI    89.83 302 iPd    43 38.70   1.0
NOH    90.22 301 iPd    43 41.00   1.3
RMN    90.52 300 iPd    43 41.00   0.0
INK    91.36  21 eP     43 44.00   0.0
KJF    91.70 334 eP     43 43.00  -2.7
SUF    92.64 333 eP     43 50.00   0.0
SLL    99.15 333 eP     44 17.90  -1.9
       0.6s     1.60nm              4.7mb
YKA   100.67  24 Pdiff  44 30.20   3.7X
PEL   145.42 154 iPKPc  50 18.10   0.6
MDZ   146.42 156 iPKPd  50 20.80   1.6
ZOBO  160.00 134 PKP    50 25.00 -14.0X
      S.D. = 1.1  on  56 of  67 obs.
-------------------------------------------
   FEB  10, 1989  16h 59m 20.58± 0.15s
    6.317 N ± 3.3km   92.269 E ± 2.9km
   DEPTH =  41.7km  ( 32 depth phases)
   5.3mb ( 54 obs.)  5.3Msz ( 13 obs.)
 NICOBAR ISLANDS REGION            (704)
      CENTROID, MOMENT TENSOR      (HRV)
      Data Used:  GDSN
      L.P.B.:  8S, 21C
      Centroid Location:
      Origin Time          16:59:18.5 0.9
      Lat  6.28N 0.09 Lon  92.04E 0.08
      Dep  15.0 FIX Half-duration  2.9
      Moment Tensor;   Scale 10**17 Nm
        Mrr=-0.53 0.27  Mtt=-3.58 0.27
        Mff= 4.11 0.42  Mrt= 0.87 0.89
        Mrf= 1.84 0.78  Mtf=-4.47 0.27
       Principal Axes:
        T  Val=  6.42  Plg=11  Azm=247
        N       -0.34      70       10
        P       -6.08      16      154
      Best Double Couple:Mo=6.3*10**17
       NP1:Strike=291 Dip=71 Slip=-176
       NP2:       200     87      -19

TSI    6.87 114 e(P)   01 28.00  26.6X
                eS     02 52.00
PSI    7.55 118 iP     01 07.50  -3.4X
SNG    8.33  84 eP     01 19.00  -2.8
       0.8s   126.87nm            6.0mb
                eS     03 23.80
IPM    8.89 101 ePc    01 25.90  -3.6X
       0.4s   109.90nm            6.3mb X
                e      02 03.90
                e      03 04.00
NNT    9.65  49 iPd    01 39.00  -0.9
KLM    9.87 108 eP     01 38.10  -5.0X
                e      03 25.50
PPI   10.54 129 eP     01 47.50  -4.7X
       0.7s    34.30nm             5.6mb
                e(S)   03 41.00
KGM   11.82 111 eP     02 06.00  -3.5X
NST   12.08  39 eP     02 13.20   0.2
BDT   12.70  31 eP     02 20.50  -0.8
       0.8s   202.40nm            6.2mb
CHG   14.02  27 iPc    02 39.00   0.3
       1.2s   199.22nm            5.7mb
                eS     06 16.00
CHTO  14.02  27 iP     02 37.80  -0.9
LOE   14.39  39 eP     02 43.40  -0.1

KOD    15.15 286 eP     02 51.00  -2.9X
GBA    16.30 298 P      03 06.30  -1.9
                S      05 38.00
HYB    17.36 311 eP     03 20.00  -1.6
       0.8s   315.10nm            5.5mb
                eS     06 10.00
KMI    21.22  27 Pc     04 06.00   0.6
     N  15s     9.90um
                sP     04 20.00
                S      08 00.00
QIZ    21.27  52 P      04 05.80   0.1
     N  13s    20.40um
                eS     08 00.00
POO    21.67 306 iPc    04 09.00  -0.8
       0.9s    80.67nm            5.1mb
PKI    22.12 344 P      04 14.80   0.2
DMN    22.24 343 P      04 16.30   0.6
GUN    22.32 345 P      04 17.00   0.5
KKN    22.36 344 P      04 17.00   0.2
GKN    22.75 342 P      04 21.30   0.7
LSA    23.28 358 Pc     04 27.00   0.9
     N  13s     2.30um
     E  13s     2.30um
                PP     05 01.00
                S      08 33.00
KKM    23.81  89 ePc    04 32.00   1.1
       1.0s    83.10nm            5.2mb
GYA    24.28  33 P      04 36.40   1.0
     E  15s    21.80um
                S      08 53.00
TRT    24.63 124 ePc    04 40.00   1.3
MCO    25.88  50 eP     04 51.50   1.1
NDI    26.41 329 iPd    04 55.80   0.5
       0.7s    75.34nm            5.4mb
                eS     10 00.00
PPR    26.42  81 ePd    04 58.00   2.5
HKC    26.45  51 (P)    04 56.90   1.2
                S      09 26.00
CD2    26.74  22 iPc    04 58.80   0.5
     Z  18s     5.20um             5.1Msz
     E  15s    10.40um
                PP     05 39.80
                eS     09 27.00
BAG    29.47  68 eP     05 22.00  -1.3
                eS     10 14.00
OCP    29.48  71 eP     05 15.00  -8.2X
QZH    31.28  51 eP     05 39.60   0.6
     Z  16s     8.30um             5.5MszX
     N  16s    16.70um
                S      10 46.00
LZH    31.47  18 eP     05 40.50  -0.3
       1.2s     0.12nm            2.6mb X
     Z  18s     9.10um             5.5Msz
     N  16s     6.20um
     E  14s     6.20um
                eS     10 40.00
XAN    31.60  27 iPc    05 41.00  -0.8
     N  14s     8.40um
     E  14s     5.60um
                S      10 44.80
WHN    31.80  38 Pc     05 44.00   0.5
     Z  20s     7.63um             5.4Msz
     N  13s     5.56um
     E  14s     6.49um
                S      10 48.00
DAV    33.08  87 eP     05 54.00  -0.9
QUE    33.63 318 iPc    06 02.40   2.7
                eS     11 29.00
GTA    33.64  11 iPd    05 59.80   0.2
       2.0s     0.30nm            2.9mb X
     Z  18s     3.30um             5.1Msz
     E  15s     3.20um
                pP     06 08.00  28kmX
                sP     06 12.50
                S      11 20.00
                sS     11 34.50
NJ2    35.65  41 eP     06 18.00   1.2
     N  15s     5.20um
     E  14s     1.20um
KSH    36.11 338 P      06 21.50   0.8
     Z  22s     7.10um             5.4Msz
     E  16s     8.60um
                S      11 59.00
TIY    36.24  28 Pc     06 21.80   0.1
     N  14s     7.70um
                PP     07 51.00
                S      12 00.00

                sS     12 14.00
SSE    36.63  44 Pc     06 26.30   1.4
       1.0s     0.01nm            1.8mb X
     Z  18s     2.70um             5.1Msz
     N  14s     6.10um
     E  14s     3.50um
                ePP    07 52.00
                S      12 03.00
                sS     12 22.00
                eSS    14 38.00
NANU   36.63 142 eP     06 25.00  -0.1
AAI    37.22 105 eP     06 29.60  -0.6
TIA    37.47  34 Pc     06 32.90   0.9
     N  14s     4.90um
     E  14s     3.50um
                pP     06 44.00  39km
                S      12 17.50
WMQ    37.57 355 iPd    06 32.70  -0.1
     Z  27s     8.20um             5.4MszX
     N  16s     2.90um
     E  15s     3.10um
                S      12 22.00
BTO    37.65  22 eP     06 33.90   0.3
     Z  14s     3.90um             5.4MszX
     N  14s     4.70um
                sP     06 45.00
                S      12 20.00
MBL    38.44 136 iPc    06 39.00  -1.3
       0.6s    22.00nm            5.2mb
HHC    38.47  24 P      06 40.80   0.3
     Z  24s     5.60um             5.3MszX
     N  13s     3.30um
     E  13s     4.40um
                S      12 35.00
BJI    39.85  29 P      06 53.00   1.2
     Z  24s     3.60um             5.1MszX
     N  15s     3.30um
     E  15s     2.30um
                eS     12 56.00
MEKA   41.47 143 iPd    07 05.80   0.5
       0.6s    49.00nm            5.4mb
DL2    41.90  35 Pc     07 10.00   1.4
     Z  20s     1.50um             4.9Msz
     E  18s     4.10um
                S      13 27.00
TLE    42.12 106 ePc    07 09.50  -1.2
KNA    42.27 122 eP     07 10.00  -2.0
MHI    42.30 319 eP     07 14.00   1.8
MTN    43.05 116 eP     07 16.00  -2.4
BAL    43.54 149 eP     07 23.00   0.8
MUN    44.40 150 eP     07 30.00   0.9
KLB    44.87 149 eP     07 33.00   0.1
SNY    44.98  33 iPc    07 34.00   0.4
     Z  36s     2.80um             4.9MszX
     N  26s     6.00um
                S      14 07.00
NWAO   45.67 150 eP     07 40.00   0.8
COOL   46.17 145 eP     07 44.00   0.8
WARB   46.43 136 eP     07 38.00  -7.3X
CN2    47.33  33 Pc     07 52.50   0.3
     N  20s     5.20um
                pP     07 59.00  22kmX
                S      14 42.00
KMSA   48.35 292 eP     08 00.00  -0.6
WB5    48.91 123 iPc    08 04.00  -0.8
                eS     15 17.50
WRA    48.92 123 Pc     08 03.60  -1.3
       0.7s    49.50nm            5.6mb
WB2    48.93 123 iPc    08 04.00  -1.0
                eS     15 17.50
ARO    49.05 280 iP+    08 20.00  14.0X
KER    50.12 310 eP     08 16.00   1.9
MDJ    50.13  34 Pc     08 15.00   1.2
     Z  20s     2.65um             5.2Msz
     E  16s     2.28um
                S      15 28.00
ASPA   50.39 128 iPc    08 15.10  -1.0
       0.5s    57.00nm            5.8mb
     Z  22s     4.22um             5.4MszX
                epP    08 26.70  41km
                eS     15 33.10
                LR     31 01.30
FORR   50.41 139 eP     08 15.00  -1.1
       0.4s    24.00nm            5.6mb
AVY    50.54 239 eP     08 19.78   2.2
SLY    51.82 311 ePd    08 27.00   0.3
TAB    52.22 314 eP     08 31.00   1.0
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10d 17h

QIS	53.62	121	eP	08	39.00	-1.4	GRM	73.57	233	eP	10	54.00	2.4	NB2	80.17	331	P	11	26.50	-1.4
			e	08	51.00	42km		1.5s	250.00nm			6.0mb			0.8s	9.10nm			4.8mb	
MSL	53.88	311	eP	08	47.50	5.5X	SUF	73.59	334	iP	10	50.10	-1.0	MDI	80.32	315	P	11	29.50	0.6
NAI	55.88	264	iPc	09	11.00	13.8X		0.7s	30.40nm			5.4mb		BOB	80.49	314	P	11	31.50	1.5
NPA	56.68	247	eP	09	02.00	-0.7	NUR	73.60	332	eP	10	50.00	-1.2	CVF	80.91	312	eP	11	31.50	-0.7
MBH	58.68	301	ePd	09	17.50	0.9		0.6s	9.10nm			4.9mb			0.7s	11.90nm			5.0mb	
PRNI	58.70	302	iPd	09	17.00	0.3	Z	23s	5.40um			5.8MszX		VAI	80.98	315	P	11	32.70	0.3
NOH	58.80	302	iPd	09	17.20	-0.3			e		10	59.00	29kmX	CKI	81.33	314	P	11	35.50	1.2
BHL	58.96	306	P	09	19.00	0.4			LR		47	00.00		ORO	81.53	315	P	11	34.50	-1.0
			S	17	43.00		KIM	73.63	238	iPd	10	52.00	-0.2	SBF	81.94	313	eP	11	37.00	-0.6
CTA	59.20	118	iPd	09	19.90	-0.4			i		11	04.00	40km		0.7s	22.90nm			5.3mb	
	0.9s	24.37nm			5.3mb		KRA	73.86	320	eP	10	52.50	-0.4	CDF	81.99	318	eP	11	37.00	-0.8
			i	09	31.00	38km	Z	18s	1.50um			5.3Msz		DOI	82.07	314	P	11	30.50	-7.8X
			iS	17	26.00				e		11	05.40	44km	WTS	82.27	322	eP	11	42.00	3.0X
ADE	59.99	137	eP	09	25.20	-0.3	SRO	74.58	318	eP	10	57.20	0.1		0.7s	11.00nm			5.0mb	
	0.8s	79.10nm			5.9mb				e		11	10.60	46km				i	11	52.80	35km
STK	60.41	132	eP	09	27.00	-1.4	SOD	74.96	339	iP	10	57.80	-1.2	BSF	82.32	317	eP	11	38.70	-0.9
BBTK	62.74	312	eP	09	43.00	-1.1			i		11	11.70	48km	LPG	82.40	315	eP	11	39.80	-0.4
CMS	63.41	130	eP	09	48.00	-0.5	TDS	75.17	309	P	11	00.00	-0.7		0.6s	20.20nm			5.3mb	
RMQ	63.68	124	eP	09	51.00	0.6	ZST	75.43	318	iP	11	01.70	-0.3	BNI	82.46	315	P	11	40.50	0.1
			e	10	03.00	41km			i		11	14.50	44km	FRF	82.52	313	eP	11	40.10	-0.4
BCK	63.81	309	eP	09	47.40	-3.8X	KEV	75.69	341	eP	11	05.00	1.9		0.7s	14.10nm			5.1mb	
ELL	64.18	308	iP	09	53.00	-0.7		0.7s	20.00nm			5.2mb		HAU	82.62	318	eP	11	40.40	-0.6
TOO	66.01	136	eP	10	06.00	0.7			i		11	16.00	36km		0.8s	16.10nm			5.1mb	
IZM	66.57	309	eP	10	09.10	0.2	SOP	75.74	317	eP	11	03.20	-0.6	LMR	82.63	313	eP	11	40.70	-0.4
BWA	66.66	132	eP	10	11.10	1.6	MGR	75.80	310	P	11	02.00	-2.3	WLF	82.71	319	iPc	11	44.50	3.2X
BRS	67.35	123	P	10	13.50	-0.5	VKA	75.96	318	eP	11	05.50	0.5				e	11	55.90	37km
			i	10	25.50	41km		0.8s	83.60nm			5.8mb		LRG	82.73	313	eP	11	41.40	-0.2
			i	10	34.00				i		11	17.80	42km	MEM	82.79	320	P	11	45.40	3.7X
			eS	19	12.00		KSP	76.28	321	eP	11	06.70	-0.1	DOU	83.71	320	P	11	47.60	1.1
			e	26	48.00			1.0s	56.00nm			5.5mb		SNF	83.89	320	P	11	48.20	0.8
CAN	67.48	132	eP	10	15.50	0.8			i		11	20.20	47km	LBF	84.26	317	eP	11	48.80	-0.6
COO	67.78	127	eP	10	18.00	1.3	VBY	76.42	315	e(P)	11	08.20	0.5		0.8s	12.00nm			5.1mb	
			e	10	29.00	36km	UPP	76.87	330	iP	11	18.50	8.7X	LOR	84.33	317	eP	11	49.20	-0.5
BUL	67.85	245	iPd	10	17.20	-0.2			i		11	22.00	11kmX	SMF	84.38	316	eP	11	49.30	-0.6
	0.9s	8.40nm			4.8mb		LJU	76.97	316	e(P)	11	13.00	2.3		0.7s	10.30nm			5.1mb	
			ipP	10	29.30	41km	SDI	77.21	311	P	11	14.00	1.8	SSF	84.58	317	eP	11	50.80	-0.1
JMB	67.89	313	iPd	10	18.00	0.9	PRU	77.30	320	P	11	12.50	0.1	AVF	84.70	316	eP	11	51.00	-0.5
VRI	68.55	317	ePd	10	21.00	-0.2	Z	18s	1.50um			5.4Msz			0.8s	5.90nm			4.8mb	
DIM	68.57	313	eP	10	19.00	-2.3	E	18s	1.10um					BGF	85.07	316	eP	11	53.30	-0.1
KDZ	68.58	312	iP	10	21.00	-0.5			e		11	25.80	46km		0.7s	13.60nm			5.2mb	
KMZ	68.82	253	iPc	10	24.80	1.3	VOY	77.41	316	eP	11	13.40	0.1	MAF	85.28	316	eP	11	54.30	-0.2
			i	10	36.20	38km	R8L	77.66	316	P	11	14.60	0.0		0.8s	9.90nm			5.0mb	
			i	10	56.00		BRG	77.76	321	eP	11	16.00	1.1	CAF	85.73	315	eP	11	56.90	0.1
PVL	68.95	314	iPd	10	22.00	-1.6		1.5s	15.00nm			4.8mb			0.9s	8.10nm			4.9mb	
VSG	68.96	102	eP	10	24.00	-0.2	N	20s	2.00um					RJF	86.09	315	eP	11	58.70	0.2
MLR	69.00	316	iPc	10	24.00	-0.1	E	20s	1.50um						0.7s	7.40nm			5.0mb	
RZN	69.10	312	iPc	10	24.00	-0.9	KHC	77.85	319	Pc	11	16.00	0.4	LPO	86.38	314	eP	12	00.30	0.4
HNR	69.22	103	eP	10	30.00	4.2X		0.7s	7.00nm			4.8mb			0.7s	13.20nm			5.3mb	
PGB	69.66	313	eP	10	25.00	-3.1X			e		11	29.00	44km	LFF	86.67	315	eP	12	01.70	0.4
MMB	69.82	312	eP	10	28.00	-1.0	KBA	77.86	317	iP	11	14.50	-1.3	LDF	86.89	318	eP	12	02.00	-0.3
TAU	69.87	140	eP	10	30.00	0.8		0.8s	18.60nm			5.2mb			8.0s	13.40nm			4.2mb	X
BPI	70.11	239	eP	10	31.50	0.2			i		11	18.30	12kmX	FLN	87.11	319	eP	12	03.00	-0.4
	0.5s	112.68nm			6.1mb				i		11	28.10		MFF	87.12	316	eP	12	03.10	-0.4
VTS	70.37	313	iP	10	31.00	-1.5			i		11	48.10		LPF	87.56	318	eP	12	05.60	0.0
VAY	70.63	312	eP	10	32.50	-1.5	MNS	78.08	312	P	11	16.00	-1.0	EKA	87.94	325	Pd	12	04.70	-2.5
PRY	70.81	239	eP	10	26.50	-9.0X	FVI	78.22	316	P	11	17.20	-0.3		0.9s	14.50nm			5.2mb	
	0.8s	28.13nm			5.3mb		CLL	78.39	321	eP	11	18.00	-0.4	DAG	88.62	348	iPd	12	09.20	-0.9
			i	10	39.00	43km		1.5s	28.00nm			5.0mb			0.8s	12.69nm			5.3mb	
SKO	71.57	312	eP	10	38.00	-1.6			e		11	30.00	40km	ETOR	89.18	311	e(P)	12	15.00	1.4
N	20s	2.35um					CRE	78.67	313	P	11	20.00	-0.2	ALE	90.55	357	eP	12	19.00	-0.1
E	20s	2.15um					SFI	78.75	313	P	11	32.70	12.2X		0.7s	23.00nm			5.6mb	
			i	10	51.00	45km	PGD	78.84	313	Pc	11	22.50	1.2	GUD	90.79	311	e(P)	12	21.00	-0.1
CGY	71.58	240	eP	10	27.00	-12.9X	HFS	78.86	330	eP	11	19.80	-1.0	APHE	90.99	307	eP	12	23.00	0.9
	0.7s	116.44nm						0.7s	16.50nm			5.1mb		ATEJ	91.25	307	eP	12	25.00	1.6
			i	10	39.50	43km	CTI	78.97	316	P	11	21.10	-0.8	AAPN	91.28	308	eP	12	15.00	-8.4X
OHR	71.92	311	eP	10	39.80	-2.0			eSn		11	34.70		EHOR	92.08	308	e(P)	12	28.00	1.1
			i	10	52.60	44km	FIR	79.17	313	eP	11	36.00	13.2X	EPRU	92.21	307	e(P)	12	29.00	1.4
LSK	71.95	310	eP	10	35.40	-6.7X	MOX	79.22	320	eP	11	22.00	-1.0	IMA	93.75	22	P	12	34.70	0.4
BZS	72.00	316	eP	10	42.50	0.4		1.9s	73.00nm			5.3mb			0.8s	6.03nm			5.1mb	
PHP	72.27	312	eP	10	41.60	-2.1	N	22s	1.50um					MBC	95.53	7	eP	12	42.00	-0.1
KKS	72.34	312	eP	10	43.50	-0.7			e		11	36.00	48km		0.9s	22.00nm			5.6mb	
TPE	72.42	310	eP	10	45.50	0.8			LQ		46	30.00		KIC	96.23	277	P	12	47.60	1.2
BERA	72.51	311	eP	10	43.50	-1.7			LR		54	00.00		INK	98.99	16	eP	12	58.00	0.2
BCI	72.63	312	eP	10	47.40	1.5	CER	79.41	234	eP	11	36.00	11.6X	FFC	118.03	9	ePKP	18	05.00	0.6
TIR	72.65	311	eP	10	51.70	5.7X		0.4s	22.73nm						0.5s	4.00nm				
SDA	73.01	312	eP	10	47.30	-0.8			i		11	46.00	32km	LON	119.13	26	PKP	18	06.00	-0.9
BNG	73.37	273	iPc	10	51.20	0.4	GRF	79.42	319	ePKP	11	25.30	1.2	SES	120.02	17	ePKP	18	09.00	0.6
	1.1s	55.00nm			5.4mb		Z	20s	1.40um			5.3Msz		RSON	122.82	5	PKP	18	13.00	-0.7
			i	11	04.00	44km			e		11	37.90	42km	Z	22s	3.92um			6.0Msz	
			i	11	59.00		TUH	79.51	235	eP	11	27.00	2.1	LRM	123.59	21	ePKP	18	14.20	-1.5
KJF	73.43	336	iP	10	49.00	-1.1		0.5s	56.34nm			5.8mb		CMB	126.43	32	e(PKP)	18	34.50	13.3X
	0.7s	45.40nm			5.5mb				i		11	40.00	44km	KVN	126.81	29	PKP	18	23.00	0.9
			i	11	02.00	45km	BDI	79.66	314	P	11	25.00	-0.6	PRS	127.14	34	e(PKP)	18	36.40	13.8X
FRS	73.47	237	eP	10	52.00	1.0	PII	79.70	313	P	11	25.00	-0.7	BW06	127.26	20	PKP	18	22.00	-0.9
	0.5s	45.77nm			5.7mb		SAL	79.74	315	P	11	30.00	4.1X		0.9s	13.24nm				
SPC	73.52	319	eP	11	03.30	12.1X	NRA0	79.99	330	P	11	25.40	-1.5	TNP	128.00	30	PKP	18	25.50	1.1

1.0s 5.83nm
MSU 129.95 25 PKP 18 29.00 0.8
ALO 135.32 22 PKP 18 35.00 -3.4X
1.0s 15.00nm
Z 22s 0.39um 5.1Msz
ALO 135.32 22 ePKP 18 39.50 1.1
ATB 144.50 273 e(PKP) 18 52.50 -2.7X
MDZ 148.26 211 ePKP 19 01.40 0.4
CNCB 158.04 240 PKP 19 18.00 2.3X
LPB 158.27 240 PKP 19 20.80 5.0X
eLR 14 34.00
ZOBO 158.40 241 PKP 19 17.00 0.8
Z 24s 0.86um 5.5MszX
LR 14 04.00
S.D. = 1.1 on 210 of 246 obs.

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* FEB 10, 1989 17h 47m 39.00± 0.91s
54.368 N ±14.2km 142.823 E ±16.4km
DEPTH = 33.0km (normal)
4.7mb (6 obs.)
SAKHALIN ISLAND (662)

MDJ 12.99 227 eP 50 44.00 0.3
Z 15s 3.92um 3.6Msz
E 10s 4.10um
CN2 15.49 234 eP 51 15.20 -1.2
N 14s 4.40um
pP 51 20.20
S 54 04.00
SNY 17.89 233 eP 51 45.20 -1.4
N 12s 2.80um
E 11s 3.00um
DL2 21.11 232 eP 52 26.70 3.9X
BJI 22.91 242 eP 52 39.50 -1.2
Z 12s 1.30um 4.6MszX
HHC 24.79 250 eP 52 59.20 0.1
TIA 25.39 235 Pc 53 04.50 -0.2
BTO 25.82 251 eP 53 10.50 1.7
TIY 26.59 244 eP 53 16.20 0.4
N 11s 2.00um
S 57 34.50
GTA 32.41 260 eP 54 06.80 -1.0
Z 12s 1.30um 4.8MszX
E 12s 3.00um
CD2 36.39 246 eP 54 40.50 -1.5
Z 12s 1.10um 4.9MszX
N 13s 1.40um
WMO 36.71 277 eP 54 46.50 1.9
GYA 38.47 238 P 55 02.40 2.8
INK 39.03 36 eP 55 04.00 0.4
GUN 48.70 261 PKP 56 27.80 5.5X
CHTO 48.74 241 eP 56 21.10 -1.2
1.0s 5.25nm 4.5mb
YKA 48.77 37 P 56 25.00 3.0X
KKN 49.13 261 PKP 56 28.80 3.3X
PKI 49.22 261 PKP 56 27.60 1.2
GKN 49.34 262 PKP 56 26.60 -0.5
1.0s 32.00nm 5.3mb
DMN 49.37 261 PKP 56 28.20 0.8
SOD 49.63 333 eP 56 27.00 -1.5
KJF 51.65 330 eP 56 44.00 0.0
SUF 53.23 329 iP 56 55.40 -0.4
0.5s 3.00nm 4.5mb
NUR 55.39 328 eP 57 12.00 0.4
PNT 55.75 52 eP 57 16.00 1.5
NB2 58.72 335 P 57 33.90 -1.4
1.0s 8.70nm 4.8mb
SES 58.74 46 eP 57 35.00 -0.6
HFS 58.85 333 ePKP 57 34.70 -1.5
0.4s 2.20nm 4.6mb
FRB 59.73 16 eP 57 40.00 -2.2
CLL 66.67 328 eP 58 30.00 1.9
e 58 44.00
KHC 68.39 327 iPc 58 42.00 3.0X
KBA 70.26 326 eP 58 53.00 2.3
1.0s 10.60nm 4.9mb
S.D. = 1.4 on 28 of 33 obs.

? FEB 10, 1989 17h 55m 11.36± 7.47s
10.823 N ±32.0km 62.851 W ±65.8km
DEPTH = 33.0km (normal)
NEAR COAST OF VENEZUELA (97)
MG 4.2 (FDF).

TCE 1.09 97 eP 55 31.01 0.7
eS 55 42.51
TRN 1.43 97 eP 55 34.48 -0.8
eS 55 47.03
TPP 1.47 110 eP 55 35.75 0.0
eS 55 51.33
SVB 2.89 33 eP 55 56.22 0.0
eS 56 29.30
SVV 2.95 33 eP 55 57.14 0.1
eS 56 31.28
BIM 4.06 25 iPc 56 12.81 0.0
S 56 57.80
MVM 4.17 27 eP 56 14.05 -0.3
FDF 4.23 23 eP 56 15.24 0.1
CRM 4.34 26 eP 56 16.70 0.0
S.D. = 0.4 on 9 of 9 obs.

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* FEB 10, 1989 1Bh 30m 43.48± 0.46s
2.361 N ± 9.2km 126.632 E ±12.1km
DEPTH = 33.0km (normal)
4.8mb (11 obs.)
MOLUCCA PASSAGE (266)

MTN 15.75 164 eP 34 24.00 -0.7
KNA 18.12 173 eP 34 54.00 -0.4
0.7s 80.00nm 5.0mb
WB5 23.37 161 iPc 35 50.00 -0.2
WRA 23.42 161 Pc 35 50.70 0.0
0.4s 9.90nm 4.7mb
WB2 23.43 161 iPc 35 50.00 -0.7
OIS 26.09 151 eP 36 15.00 -1.1
ASPA 26.82 165 iPc 36 22.40 -0.5
0.8s 14.00nm 4.6mb
NANU 27.04 203 iPd 36 26.50 1.7
WARB 28.38 180 iPd 36 31.30 -5.6X
CTA 29.47 140 eP 36 46.00 -0.9
CHTO 31.66 303 iP 37 06.00 -0.2
0.8s 14.09nm 4.9mb
STK 36.90 159 eP 37 51.00 0.0
e 38 43.00
ADE 38.82 164 iPd 38 08.10 0.9
BRS 38.85 141 iPc 38 06.00 -1.6
e 38 12.00
COO 40.66 146 eP 38 23.00 0.5
BWA 41.93 153 eP 38 34.30 1.4
CAN 42.94 153 eP 38 41.90 0.8
GUN 46.46 307 P 39 09.40 -0.4
0.6s 27.00nm 5.4mb
PKI 46.69 306 P 39 10.60 -1.0
0.5s 4.00nm 4.6mb
KKN 46.88 307 P 39 12.40 -0.6
0.5s 9.00nm 5.0mb
DMN 46.95 306 P 39 12.80 -0.8
0.7s 14.00nm 5.1mb
GKN 47.49 307 P 39 16.80 -1.0
0.6s 7.00nm 4.9mb
HYB 49.50 291 eP 39 34.00 0.7
GBA 49.88 286 Pc 39 35.60 -0.5
0.8s 7.80nm 4.8mb
AVY 80.28 250 eP 42 55.60 2.2
IMA 83.67 24 eP 43 12.00 1.9
0.8s 5.10nm 4.7mb
PMR 85.19 29 eP 43 18.10 0.6
S.D. = 1.0 on 26 of 27 obs.

FEB 10, 1989 18h 51m 12.93± 0.90s
39.715 N ± 8.9km 26.361 E ± 8.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EZN 0.11 346 iPg 51 15.40 -0.4
EDC 1.31 61 iPn 51 37.50 0.3
IZM 1.49 152 ePn 51 39.10 -0.7
DST 1.75 93 iPn 51 44.70 1.1
KDZ 2.06 340 iP 51 48.00 0.0
iS 52 15.00
RZN 2.33 328 iP 51 53.00 0.9
DMK 2.36 26 iPn 51 51.00 -1.3
MMB 2.74 314 eP 51 58.00 0.2
VAY 3.31 300 eP 52 14.40 8.7X
S.D. = 0.9 on 8 of 9 obs.

& FEB 10, 1989 19h 31m 01.45s
62.302 N 151.327 W
DEPTH = 89.2km
CENTRAL ALASKA (1)
<AGS-P>.

PWA 0.95 133 eP 31 20.01 -0.7
eS 31 34.94
CRP 1.11 201 eP 31 21.64 -1.2
eS 31 39.48
SPU 1.18 197 eP 31 23.22 -0.3
eS 31 39.79
GHO 1.25 114 iP 31 23.60 -0.9
eS 31 41.42
PLRM 1.26 123 eP 31 23.23 -1.2
PME 1.28 121 eP 31 23.61 -1.1
PMS 1.35 141 iP 31 24.69 -1.0
eS 31 43.25
SML 1.49 108 iP 31 26.22 -1.3
NKA 1.57 178 eP 31 29.78 1.4
KNK 1.63 122 eP 31 27.76 -1.5
PTE 1.82 142 eP 31 30.09 -1.6
SLKM 1.88 163 eP 31 31.70 -0.9
RED 2.01 201 eP 31 34.49 0.1
TTA 2.26 288 eP 31 36.87 -0.8
KLU 2.69 105 eP 31 40.78 -2.8
CNPM 2.79 179 eP 31 45.88 1.0
CCB 2.83 32 eP 31 43.61 -1.9
17 obs. associated

FEB 10, 1989 19h 56m 54.02± 0.16s
2.445 N ± 3.0km 126.612 E ± 4.4km
DEPTH = 33.0km (normal)
5.5mb (26 obs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 27C
Centroid Location:
Origin Time 19:57: 3.1 0.8
Lat 2.82N 0.08 Lon 126.75E 0.08
Dep 15.0 FIX Half-durotion 2.5
Moment Tensor; Scale 10**17 Nm
Mrr= 2.57 0.18 Mtt=-0.85 0.15
Mff=-1.71 0.25 Mrt=-2.24 0.57
Mrf= 0.02 0.55 Mtf=-1.15 0.16
Principal Axes:
T Val= 3.73 Plg=62 Azm=192
N -0.84 22 52
P -2.89 16 316
Best Double Couple:Mo=3.3*10**17
NP1:Strike= 17 Dip=35 Slip= 49
NP2: 244 65 115

DAV 4.73 347 eP 58 08.00 3.2X
eS 59 10.50
AAI 6.29 165 eP 58 31.50 4.5X
TSM 8.71 282 eP 59 05.90 5.2X
MKS 10.43 223 ePd 59 28.50 4.0X
KKM 10.97 289 ePd 59 36.90 5.0X
0.6s 101.80nm 6.2mb
KUPT 12.87 193 ePd 59 39.50 -17.8X
eS 59 48.00
BAG 15.09 337 eP 00 30.00 3.2X
eS 03 18.00
KHKI 15.35 226 ePd 00 37.00 7.0X
MTN 15.84 164 eP 00 34.00 -2.3
TRT 17.21 234 ePc 00 55.80 2.2
0.8s 102.70nm 5.0mb
KNA 18.20 173 eP 01 05.00 -1.0
MNDI 19.04 117 eP 01 18.00 1.5
GUMO 21.17 57 eP 01 37.70 -1.3
OIZ 23.26 316 eP 02 00.60 0.9
E 18s 1.90um
eS 06 02.00
KGM 23.28 269 ePc 02 05.40 5.5X
WB5 23.46 161 eP 02 00.20 -1.4
eS 06 08.00
WRA 23.51 162 Pc 02 00.90 -1.2
0.6s 99.90nm 5.5mb
WB2 23.51 161 eP 02 00.20 -1.9
eS 06 08.00
PMG 23.61 120 e(P) 02 04.00 0.9
1.0s 36.00nm 4.8mb
OZH 23.67 342 eP 02 03.80 0.3
Z 28s 6.70um 5.0MszX
N 28s 6.70um
S 06 12.00
GZH 24.22 329 iPc 02 08.70 -0.2
S 06 21.20
MBL 24.38 195 eP 02 11.00 0.5
0.5s 16.00nm 4.8mb
IPM 25.63 275 ePd 02 23.20 0.7
1.0s 65.80nm 5.2mb
OIS 26.17 151 eP 02 24.00 -3.4X

10d 20h

		e	02 26.00			
ASPA	26.91	165 iPd	02 32.00	-2.2		
	0.8s	82.00nm		5.4mb		
		ePcP	05 54.80			
		eS	07 08.50			
		eScS	09 35.70			
NANU	27.11	203 eP	02 36.00	0.0		
	0.4s	12.00nm		4.9mb		
PSI	27.66	271 ePc	02 41.00	-0.1		
NNT	28.45	292 eP	02 49.00	0.7		
WARB	28.46	180 eP	02 41.40	-6.8X		
	0.5s	43.00nm		5.4mb		
LOE	28.60	303 eP	02 48.80	-0.8		
SSE	28.95	350 eP	02 54.00	1.4		
	0.9s	0.01nm		1.6mb X		
E	18s	1.10um				
		eS	07 36.00			
NST	29.21	298 eP	02 55.00	-0.1		
CTA	29.55	140 iPd	02 57.30	-0.8		
	1.1s	73.42nm		5.3mb		
		iS	07 49.00			
MEKA	29.92	195 eP	03 01.00	-0.4		
	0.4s	29.00nm		5.4mb		
WHN	30.26	339 Pd	03 04.30	0.0		
Z	28s	4.69um		5.0MszX		
NJ2	30.34	347 Pd	03 06.00	1.0		
GYA	30.61	323 P	03 07.80	0.3		
BDT	30.85	300 eP	03 09.30	-0.3		
	0.7s	68.70nm		5.6mb		
CHG	31.60	303 iPc	03 15.70	-0.6		
	1.0s	77.00nm		5.5mb		
CHTO	31.60	303 iPc	03 15.60	-0.6		
	0.9s	67.56nm		5.5mb		
TKSJ	32.14	12 eP	03 19.50	-1.2		
KMI	32.21	317 eP	03 22.00	0.2		
WKYJ	32.70	14 eP	03 23.60	-2.2		
MRWA	33.09	197 eP	03 31.00	2.0		
FORR	33.14	178 eP	03 28.00	-1.4		
	0.5s	185.00nm		6.2mb		
YONJ	33.19	10 eP	03 30.00	0.1		
COOL	33.55	189 eP	03 33.00	-0.1		
BAL	34.20	195 eP	03 39.00	0.3		
IIDJ	34.50	16 P	03 42.70	1.4		
TIA	34.73	346 Pc	03 42.60	-0.6		
KLB	34.88	193 eP	03 44.00	-0.5		
CHJJ	35.35	17 P	03 46.80	-1.7		
XAN	35.51	334 P	03 48.20	-1.7		
MTMJ	35.51	16 P	03 49.00	-1.0		
CD2	35.61	325 eP	03 50.20	-0.6		
Z	34s	1.30um		4.5MszX		
		eS	09 16.00			
MUN	35.63	195 eP	03 51.00	0.1		
RMO	35.85	145 iPd	03 51.30	-1.5		
		e	06 22.00			
NWAO	36.28	193 eP	03 57.00	0.6		
DL2	36.57	353 P	03 59.00	0.3		
		S	09 36.00			
STK	36.98	159 eP	04 02.00	-0.3		
		e	06 23.00			
		e	08 12.00			
RKG	37.43	193 eP	04 12.00	6.0X		
TIY	37.44	341 Pc	04 05.70	-0.4		
Z	29s	4.90um		5.1MszX		
YAMJ	37.63	17 P	04 07.70	0.1		
CMS	38.37	153 eP	04 13.00	-1.0		
		e	04 40.00			
		e	05 42.00			
BJI	38.60	347 P	04 15.50	-0.3		
Z	26s	1.80um		4.8MszX		
		eS	10 04.00			
ADE	38.91	164 iPd	04 18.50	0.0		
	0.8s	194.03nm		5.9mb		
OFUJ	38.96	19 eP	04 19.00	0.2		
SNY	39.30	356 Pc	04 20.00	-1.6		
Z	28s	1.90um		4.8MszX		
N	28s	1.70um				
E	25s	1.20um				
		S	10 13.00			
LZH	39.55	331 P	04 24.00	0.0		
	1.5s	0.18nm		2.6mb X		
AOMJ	39.93	16 eP	04 28.30	1.5		
HHC	40.58	342 eP	04 32.00	-0.3		
COO	40.74	146 eP	04 33.00	-0.7		
BTO	40.84	341 eP	04 33.50	-0.9		
		eS	10 39.00			
CN2	41.19	359 eP	04 37.00	-0.1		
		pP	04 42.00	17kmX		

MRRJ	41.86	16 eP	04 45.20	2.6		
BWA	42.02	153 iPd	04 45.30	1.2		
		e	06 23.30			
HOOJ	42.47	18 eP	04 48.10	0.4		
CAN	43.02	153 iPd	04 52.60	0.3		
		e	06 31.20			
CNB	43.19	152 eP	04 54.00	0.3		
LSA	43.20	312 Pc	04 54.80	0.4		
TOO	43.49	158 eP	04 57.00	0.9		
KUSJ	43.58	19 eP	04 56.70	0.1		
ASAJ	43.86	17 eP	04 59.30	0.4		
GTA	44.14	330 P	05 01.00	-0.4		
Z	28s	4.00um		5.2MszX		
E	21s	2.40um				
		PP	06 47.00			
DZM	45.90	124 iPc	05 14.00	-1.7		
GUN	46.39	307 P	05 18.90	-0.9		
PKI	46.62	306 P	05 20.30	-1.3		
KKN	46.82	307 P	05 21.80	-1.3		
DMN	46.88	306 P	05 22.40	-1.2		
GKN	47.42	307 P	05 26.40	-1.4		
KOD	49.40	281 eP	05 43.00	-0.4		
HYB	49.45	291 eP	05 42.00	-1.4		
	1.0s	150.00nm		6.0mb		
GBA	49.84	286 P	05 44.90	-1.5		
WMQ	53.71	326 P	06 14.00	-1.2		
NDI	53.73	304 eP	06 13.00	-2.5		
POO	54.06	291 iPc	06 17.00	-1.0		
KSH	58.84	316 P	06 54.00	1.9		
MSZ	59.61	147 P	06 57.10	0.0		
QUE	62.73	303 eP	07 17.20	-1.6		
MHI	70.20	308 iPc	08 05.80	-0.2		
	0.8s	77.61nm		5.8mb		
AVY	80.29	250 iPd	09 05.02	1.0		
TAB	80.85	308 eP	09 07.00	0.4		
TTA	82.09	27 eP	09 13.50	1.0		
BHD	82.16	303 eP	09 15.00	1.7		
		eS	19 36.00			
MAW	82.52	200 eP	09 16.00	1.6		
KDC	83.08	32 eP	09 18.20	0.7		
MSL	83.29	306 eP	09 19.50	0.4		
BRW	83.42	18 eP	09 20.00	0.9		
IMA	83.60	24 iPc	09 21.60	1.3		
	1.0s	61.30nm		5.7mb		
PMR	85.12	29 eP	09 28.00	0.2		
	0.9s	50.00nm		5.7mb		
FBA	85.93	25 eP	09 31.10	-0.7		
TOA	86.55	28 eP	09 36.00	1.0		
NPA	88.08	255 eP	09 45.00	1.9		
	1.0s	70.00nm		5.9mb		
GLH	89.50	303 iPd	09 50.60	1.0		
NAI	89.86	269 iPc	09 55.00	3.0		
ZNT	90.05	302 iPd	09 53.30	1.1		
MBH	90.31	300 iPd	09 54.50	1.1		
KEV	91.05	340 eP	09 56.00	-0.1		
INK	91.39	21 eP	09 57.00	-0.7		
BBTK	91.41	310 eP	09 58.00	-0.5		
		e	14 08.00			
KJF	91.69	334 iP	09 58.20	-0.9		
SUF	92.64	333 iP	10 03.10	-0.4		
	0.7s	5.20nm		5.1mb		
MBC	93.22	13 eP	10 06.00	0.0		
NUR	93.76	331 iP	10 08.40	-0.3		
VRI	95.14	316 ePd	10 16.00	0.6		
MLR	95.74	316 ePd	10 18.00	-0.3		
BUL	98.35	250 iPc	10 30.40	-0.1		
	1.0s	14.00nm		5.4mb		
DAG	98.52	352 iPd	10 28.80	-1.3		
	0.6s	10.00nm		5.5mb		
HFS	99.09	332 eP	10 33.30	0.4		
	0.4s	1.20nm		4.8mb		
NB2	99.88	333 P	10 35.00	-1.6		
	0.9s	4.90nm		5.0mb		
YKA	100.71	24 Pdiff	10 41.00	0.9		
GOL	116.60	43 PKP	15 37.20	0.0		
RSON	116.75	27 PKP	15 35.90	-0.8		
ALQ	117.97	48 PKP	15 40.60	0.8		
FVM	127.17	37 PKP	15 57.00	-0.1		
PWLA	130.58	38 PKP	16 03.30	-0.4		
KIC	130.65	280 PKP	16 06.20	1.8		
TIC	130.88	281 PKP	16 06.80	2.0X		
LIC	130.95	280 PKP	16 06.80	1.8		
TKL	132.63	34 PKP	16 08.00	0.4		
NAV	132.97	30 PKP	16 08.90	0.7		
CVL	133.56	28 PKP	16 10.00	0.7		
PRM	134.57	34 PKP	16 11.90	0.6		
TACH	144.88	154 ePKP	16 30.50	0.5		

SAN	145.17	154 ePKP	16 31.00	0.5
PEL	145.42	154 iPKPc	16 31.50	0.6
FCH	145.44	155 ePKPd	16 33.50	2.2X
MDZ	146.42	156 iPKPd	16 33.90	1.3
ARE	157.39	129 ePKP	17 00.00	10.8X
CNCB	159.76	136 PKP	16 54.00	1.8
LPB	159.87	135 PKP	16 55.00	2.8X
ZOBO	160.02	134 PKP	16 54.30	1.8

S.D. = 1.1 on 136 of 152 obs.

& FEB 10, 1989 20h 06m 00.06s
37.077 N 116.001 W
DEPTH = 0.0km
5.2mb (54 obs.)
SOUTHERN NEVADA (41)
<DOE>. ML 5.2 (BRK). 37° 04' 36.42" N., 116° 00' 02.21" W., Surface Elev. 1293 m., Depth of Burial 500 m., Shot Time 200600.055, "TEXARKANA," Nevada Test Site (Dept. of Energy).

GLR	0.12	354 iPc	06 02.70	0.2
CPX	0.15	196 iPc	06 03.10	0.0
BGB	0.19	258 iPc	06 04.10	0.3
SSP	0.23	229 iPc	06 04.60	-0.1
LOP	0.26	211 iPc	06 05.20	0.0
TMBR	0.31	262 iP	06 06.30	0.0
GMR	0.32	36 iPc	06 06.60	0.2
CDH1	0.33	230 iPc	06 06.50	-0.2
YMT6	0.39	236 iP	06 07.80	0.0
LSM	0.40	213 iP	06 07.50	-0.6
YMT5	0.40	244 iPc	06 08.00	-0.1
SPRG	0.41	158 iPc	06 08.00	-0.3
BLT	0.42	347 iPc	06 07.80	-0.6
YMT4	0.43	238 iP	06 08.40	-0.2
YMT3	0.44	229 iP	06 08.30	-0.5
YMT1	0.48	242 iP	06 09.50	-0.1
YMT2	0.49	233 iP	06 09.30	-0.5
SDH	0.51	212 iPc	06 09.30	-0.9
BMTN	0.55	293 iPc	06 10.90	-0.2
JON	0.64	187 iPc	06 12.20	-0.7
QCS	0.69	6 iPc	06 12.70	-1.2
KRNA	0.73	336 eP	06 14.20	-0.4
FMT	0.76	235 iPc	06 14.00	-1.3
CTS	0.82	315 iPc	06 15.70	-0.7
PRN	0.83	66 iP	06 15.80	-0.8
SGV	0.83	264 iPc	06 15.80	-0.8
MTI	0.83	44 iPc	06 15.50	-1.2
SHRG	0.89	130 iPc	06 16.50	-1.3
NOP	0.95	187 iPc	06 17.70	-1.5
WRN	0.96	20 iPc	06 17.90	-1.5
NPN	1.02	56 iPc	06 19.10	-1.4
GMN	1.03	283 iPc	06 19.40	-1.2
GWY	1.04	211 iPc	06 19.40	-1.4
SRG	1.09	42 iPc	06 20.40	-1.3
MCA	1.11	248 iPc	06 20.60	-1.3
PANV	1.11	233 iP	06 20.70	-1.3
DLM	1.14	62 iPc	06 21.50	-0.9
TMO	1.16	257 iPc	06 21.50	-1.3
HCR	1.21	344 iPc	06 22.40	-1.2
MGM	1.25	287 iPc	06 23.40	-0.9
QSM	1.31	212 iPc	06 24.30	-1.0
LCH	1.32	277 iPc	06 24.50	-1.1
TNP	1.39	316 iP	06 26.40	-0.4
PPK	1.56	283 iPc	06 28.70	-0.6
SVP	1.57	294 iPc	06 29.10	-0.4
CLC	1.80	226 iPc	06 31.60	-1.0
GSC	1.89	200 iPd	06 32.90	-1.0
MNA	2.18	309 iPc	06 37.40	-0.9
		eS	07 11.10	
ISA	2.44	235 iPc	06 41.10	-0.9
KVN	2.57	321 iP	06 42.80	-1.1
SBB	2.81	212 iPc	06 45.80	-1.4
TPC	2.96	181 iPc	06 48.20	-1.2
FRI	2.97	269 iPc	06 48.70	-0.6
RVR	3.27	200 ePc	06 52.90	-0.8
PEC	3.32	197 iPc	06 53.60	-0.7
MSU	3.35	64 iPc	06 54.30	-0.8
HAY	3.37	175 iPc	06 53.90	-1.2
PAS	3.42	212 ePc	06 55.00	-0.7
PKEM	3.46	254 iPc	06 56.80	0.5
CMB	3.61	287 iPc	06 57.60	-0.9
PHAM	3.75	252 iPc	06 59.90	-0.7
PLM	3.78	191 iPc	07 00.20	-0.9
BCH	3.81	241 iPc	07 00.30	-1.1
PRI	3.87	257 iPc	07 01.40	-0.8

DUG	3.99	38	eP	07	02.80	-1.2
LLA	3.99	265	ePc	07	02.60	-1.3
GLA	4.13	166	iPc	07	04.40	-1.4
SAO	4.37	268	eP	07	08.20	-1.1
			eS	08	22.45	
PRS	4.38	262	iPc	07	08.20	-1.2
ARN	4.42	275	eP	07	09.50	-0.6
MHC	4.51	275	ePc	07	10.47	-0.9
			e	07	28.95	
			eSn	08	22.30	
			eSg	08	26.70	
ORV	4.98	301	eP	07	16.40	-1.6
DAU	4.98	47	eP	07	18.60	0.3
BKS	5.02	281	iPnc	07	07.60	-10.9
			e(Pb)	07	18.50	
BKS	5.02	281	ePc	07	18.85	0.3
			i	07	28.00	
			e	07	30.20	
			i(Sn)	07	49.20	
			i	08	27.30	
LBFM	6.25	315	eP	07	35.70	-0.4
RW1	6.62	77	eP	07	39.20	-2.2
RW4	6.74	78	eP	07	41.70	-1.4
BW06	7.54	39	ePc	07	53.20	-1.0
ALQ	8.02	103	eP	07	58.70	-2.2
GOL	8.75	69	ePc	08	10.70	-0.4
GLD	8.87	69	eP	08	12.50	-0.2
LRM	9.13	16	eP	08	17.00	0.7
VGB	9.16	338	eP	08	17.50	1.0
LON	10.59	338	eP	08	37.40	1.3
DPW	10.91	352	eP	08	41.00	0.5
PNT	12.51	349	eP	09	02.50	0.3
MCW	12.62	339	eP	09	04.40	0.7
PGC	12.78	337	eP	09	17.00	11.2
ACO	13.50	87	ePc	09	15.40	-0.1
	0.8s	16.60nm			5.1mb	
			e	10	11.80	
SES	13.78	13	ePd	09	19.50	0.4
MEO	14.30	94	eP	09	26.70	0.7
	1.2s	112.40nm			5.5mb	
OCO	15.02	90	e(P)	09	41.60	6.2
	1.0s	14.80nm			4.5mb	
			e	10	43.30	
FKO	15.15	91	ePc	09	42.90	5.9
	1.3s	129.20nm			5.2mb	
SIO	15.91	89	e(P)	09	47.30	0.3
EDM	16.25	6	eP	09	50.20	-1.0
TUL	16.30	88	ePc	09	51.50	-0.4
	1.0s	36.30nm			4.5mb	
Z	20s	0.66um				
			e	11	05.70	
			i	11	12.40	
			e	14	34.50	
			LR	15	12.00	
LNO	16.30	88	eP	09	50.80	-1.0
VVO	16.45	90	eP	09	53.20	-0.6
OLY	19.83	87	eP	10	33.30	-2.0
FFC	20.10	24	iPc	10	35.80	-2.2
	1.2s	201.00nm			5.3mb	
FVM	20.29	80	eP	10	38.50	-1.6
	1.0s	100.00nm			5.1mb	
RSON	21.04	42	eP	10	45.50	-2.3
	1.0s	65.00nm			4.9mb	
ELC	21.31	81	eP	10	49.80	-0.9
PWLA	22.66	87	eP	11	04.30	0.1
YKC	25.45	2	eP	11	29.00	-1.8
GBTN	25.58	84	eP	11	31.30	-1.1
TKL	25.93	83	eP	11	34.50	-1.1
PRM	27.44	86	eP	11	48.40	-1.1
NAV	27.95	79	eP	11	53.20	-1.0
BLA	28.26	79	eP	11	56.00	-1.0
	0.8s	35.64nm			5.2mb	
JSC	28.27	85	eP	11	55.50	-1.5
LHS	28.57	85	eP	11	58.30	-1.5
TOA	31.25	333	eP	12	23.70	0.3
KDC	31.63	323	eP	12	26.90	0.3
	1.0s	40.00nm			5.3mb	
PMR	32.06	331	eP	12	30.20	-0.2
	1.3s	61.30nm			5.4mb	
INK	32.77	348	eP	12	34.50	-2.0
FBA	33.60	336	eP	12	43.20	-0.6
	1.3s	44.80nm			5.2mb	
SVW	34.52	327	eP	12	51.00	-0.9
TTA	35.51	330	eP	12	57.40	-2.9
	1.0s	25.00nm			5.0mb	
IMA	36.26	335	eP	13	05.90	-0.8
SCH	37.64	46	ePd	13	16.20	-2.1
	1.1s	62.00nm			5.3mb	
FRB	38.91	31	eP	13	28.00	-0.7
MBC	39.29	359	eP	13	31.00	-0.8
	0.9s	48.00nm			5.1mb	
ADK	44.46	309	eP	14	12.20	-2.2
	0.8s	44.50nm			5.4mb	
STJ	46.74	56	eP	14	31.00	-1.6
ALE	48.90	8	ePc	14	46.20	-2.9
	0.7s	14.00nm			5.1mb	
			pP	16	11.00	427kmX
DAG	55.88	16	iPd	15	38.00	-3.3
	0.9s	17.65nm			5.1mb	
KEV	70.10	13	eP	17	13.00	-2.6
EKA	71.62	34	P	17	23.00	-2.1
	1.1s	11.40nm			4.9mb	
NB2	73.20	24	P	17	32.10	-2.3
	0.9s	13.30nm			5.0mb	
NRA0	73.54	24	P	17	34.00	-2.2
HFS	74.69	24	eP	17	40.90	-2.0
	0.8s	33.40nm			5.4mb	
KJF	75.07	16	iP	17	43.00	-2.0
	0.8s	29.30nm			5.4mb	
SUF	76.01	17	iP	17	48.00	-2.4
	0.7s	5.80nm			4.8mb	
UPP	76.13	22	iP	17	49.20	-1.9
	1.0s	100.00nm			5.9mb	
FLN	77.17	38	eP	17	56.10	-1.0
	1.2s	47.60nm			5.5mb	
GRR	77.23	38	eP	17	56.60	-0.9
	1.1s	34.10nm			5.4mb	
LPF	77.38	39	eP	17	57.50	-0.8
	1.1s	26.30nm			5.3mb	
LDF	77.46	38	iPc	17	57.80	-0.9
	0.9s	13.10nm			5.1mb	
NUR	77.55	19	iP	17	57.10	-1.9
WIT	77.58	32	eP	18	00.50	1.2
UCC	78.03	34	Pc	18	02.00	0.2
SNF	78.20	34	Pc	18	02.60	-0.1
WTS	78.24	32	eP	18	02.50	-0.4
	1.2s	37.00nm			5.4mb	
DOU	78.64	34	Pc	18	04.30	-0.9
	1.0s	33.30nm			5.4mb	
ENN	78.75	33	eP	18	05.00	-0.7
	0.8s	18.00nm			5.2mb	
MFF	78.80	39	eP	18	05.20	-0.9
	1.1s	36.10nm			5.3mb	
MEM	78.90	33	Pc	18	05.70	-0.9
WLF	79.65	34	Pc	18	10.10	-0.5
LSF	79.88	39	eP	18	10.70	-1.3
TCF	80.19	38	eP	18	12.50	-1.2
	0.9s	10.40nm			4.8mb	
SSF	80.28	37	eP	18	13.10	-1.1
LOR	80.31	37	eP	18	13.50	-0.8
	0.9s	24.50nm			5.2mb	
LFF	80.39	40	iPc	18	13.90	-0.8
	1.1s	29.30nm			5.2mb	
AVF	80.40	37	iPc	18	13.40	-1.4
	1.2s	17.80nm			4.9mb	
MAF	80.42	38	iPc	18	13.70	-1.2
	1.2s	20.80nm			5.0mb	
RJF	80.53	39	eP	18	14.30	-1.2
	1.1s	19.50nm			5.0mb	
LBF	80.56	37	eP	18	14.50	-1.2
SMF	80.74	37	iPc	18	15.20	-1.4
	1.3s	25.20nm			5.1mb	
LPO	80.79	40	eP	18	16.20	-0.7
	0.8s	9.10nm			4.8mb	
HAU	80.94	35	eP	18	16.80	-0.9
	1.1s	29.30nm			5.2mb	
CDF	81.07	34	iPc	18	17.50	-0.9
	1.1s	21.40nm			5.1mb	
CAF	81.07	39	iPc	18	17.40	-1.0
	1.1s	24.40nm			5.2mb	
MOX	81.25	31	eP	18	18.00	-1.2
	1.3s	22.00nm			5.1mb	
BSF	81.27	35	eP	18	18.60	-0.9
	0.9s	22.90nm			5.2mb	
CLL	81.29	30	iP	18	18.40	-1.0
	1.3s	22.00nm			5.1mb	
EPF	81.49	42	eP	18	19.70	-1.0
	1.1s	12.20nm			4.9mb	
GRF	81.82	31	eP	18	22.10	-0.1
	1.0s	19.00nm			5.2mb	
BRG	82.01	29	eP	18	21.60	-1.5
KSP	82.93	28	eP	18	27.00	-1.0
PRU	82.94	30	P	18	27.20	-0.8
	1.8s	31.30nm			5.2mb	
LPG	82.97	37	eP	18	28.50	-0.1
	1.2s	22.00nm			5.3mb	
LSD	83.19	36	P	18	29.21	-0.5
KHC	83.23	31	Pc	18	29.00	-0.5
RRL	83.41	37	P	18	30.55	-0.3
ORX	83.45	36	P	18	30.24	-0.6
RSP	83.47	37	P	18	30.85	-0.1
PZZ	83.87	37	P	18	32.29	-0.8
FRF	84.34	38	eP	18	34.30	-1.0
	1.2s	29.70nm			5.4mb	
ROB	84.39	37	P	18	33.93	-1.7
LMR	84.44	38	eP	18	35.00	-0.7
	1.2s	29.70nm			5.4mb	
KBA	84.74	32	eP	18	35.00	-2.4
	1.0s	6.30nm			4.8mb	
KRA	84.92	27	eP	18	37.10	-0.9
	0.9s	38.00nm			5.6mb	
ZST	85.38	29	eP	18	39.40	-1.0
SPC	85.76	27	eP	18	42.20	-0.3
SRO	86.17	29	eP	18	43.70	-0.6
HYB	124.09	343	ePdiff	21	41.00	4.9
GBA	128.03	343	Pdiffc	21	43.70	-9.9
	1.0s	5.40nm				
GBA	128.03	343	PKPc	25	08.30	-1.8
	0.4s	0.80nm				
CER	143.54	98	ePKP	25	35.00	-3.5
BUL	144.90	71	iPKPc	25	38.30	-3.0
	1.1s	33.54nm				
KIM	146.24	87	iPKPc	25	42.50	-0.8
CGY	146.45	82	iPKPc	25	42.50	-1.0
	0.8s	111.94nm				
FRS	147.07	89	iPKPc	25	46.00	1.6
	1.0s	40.00nm				
PRY	147.59	82	iPKPd	25	46.70	1.1
	0.6s	10.71nm				
BPI	147.68	81	iPKPd	25	47.00	1.2
	0.5s	49.30nm				
GRM	149.32	94	iPKPc	25	50.50	2.5
	0.6s	26.67nm				
	198 obs. associated					

FEB 10, 1989 20h 08m 48.08± 0.33s
42.805 N ± 2.5km 13.188 E ± 4.2km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.9 (SSO).

ALP	0.29	95	iPgc	08	53.64	-0.5
			iSg	08	58.65	
CIO	0.39	355	iPgd	08	56.17	0.1
			iSg	09	03.11	
ASS	0.47	305	P	08	57.10	-0.5
			eSg	09	04.40	
AQU	0.48	160	P	08	57.50	-0.3
			eSg	09	04.50	
SSO	0.52	19	ePg	08	59.00	0.5
			iSg	09	09.11	
MNS	0.56	222	Pc	08	58.20	-1.3
			eSg	09	05.70	
ARV	0.72	346	P	09	01.90	-0.3
			eSg	09	13.40	
AOI	0.80	22	iPg	09	03.65	0.0
			iSg	09	18.01	
AZI	0.84	167	P	09	05.20	1.0
			eSg	09	17.20	
RMP	1.06	200	P	09	08.70	0.7
			eSn	09	22.80	
RDP	1.10	199	P	09	09.50	0.7
			eSn	09	24.00	
SDI	1.19	157	P	09	09.80	-0.6
			eSn	09	25.90	
CRE	1.22	313	P	09	10.80	-0.1
			eSn	09	27.80	
SFI	1.48	319	P	09	15.80	1.1
			eSn	09	35.20	
PGD	1.51	315	P	09	15.40	0.0
			eSn	09	36.50	
CTI	3.42	342	P	09	42.50	-0.1
			(Sn)	10	21.20	
FVI	3.80	356	P	09	47.50	-0.4
			eSn	10	29.30	
KBA	4.27	1	e(Pn)	09	55.00	0.2
			i	10	48.00	

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

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* FEB 10, 1989 20h 15m 44.20± 3.05s
45.098 N ± 6.3km 6.482 E ±24.3km

10d 20h

DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.8 (GEN).

BNI	0.14	108	Pc	15	47.60	-0.1
			eSg	15	49.20	
RRL	0.28	130	P	15	50.15	0.0
			S	15	54.25	
RSP	0.55	84	P	15	55.21	-0.3
			S	16	02.25	
LSD	0.60	53	P	15	55.91	-0.5
			S	16	03.69	
PZZ	0.74	143	P	15	58.41	-0.4
			S	16	08.20	
DOI	0.81	137	P	15	59.50	-0.4
			eSg	16	09.60	
STV	1.04	145	P	16	04.55	0.6
			S	16	17.22	
ORO	1.18	63	P	16	06.60	0.3
			eSg	16	21.90	
ORX	1.18	63	P	16	06.94	0.6
			S	16	21.12	
ROB	1.27	129	P	16	08.30	0.4
			S	16	23.68	
FIN	1.52	125	P	16	11.33	-0.1
IMI	1.56	139	P	16	12.04	0.0

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

FEB 10, 1989 20h 29m 43.14± 0.18s
2.396 N ± 3.1km 126.653 E ± 4.7km
DEPTH = 33.0km (normal)
5.3mb (28 obs.) 4.4Msz (1 obs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 33C
Centroid Locotion:
Origin Time 20:29:51.6 0.6
Lat 2.99N 0.06 Lon 126.84E 0.05
Dep 15.0 FIX Half-duration 3.0
Moment Tensor; Scale 10**17 Nm
Mrr= 4.24 0.21 Mtt=-1.67 0.18
Mff=-2.57 0.30 Mrt=-3.18 0.64
Mrf=-2.04 0.59 Mtf=-2.17 0.18
Principal Axes:
T Val= 5.76 Plg=68 Azm=159
N -0.09 9 47
P -5.67 20 313
Best Double Couple:Mo=5.7*10**17
NP1:Strike= 28 Dip=26 Slip= 69
NP2: 231 66 100

DAV	4.78	347	eP	30	56.00	1.2
AAI	6.24	166	eP	31	21.90	6.6X
TSM	8.76	282	eP	31	54.90	4.4X
TLE	10.04	143	ePd	32	11.30	3.1X
	0.3s		6.00nm			5.3mb
MKS	10.43	223	ePc	32	18.00	4.5X
KKM	11.02	290	ePd	32	25.00	3.3X
	0.6s		93.20nm			6.2mb
OCP	13.35	336	eP	32	44.00	-8.9X
BAG	15.15	337	eP	33	17.40	0.7
			eS	36	07.00	
KHKI	15.35	226	ePc	33	25.80	6.7X
			e	38	51.00	
MTN	15.78	164	eP	33	23.00	-1.7
			e	36	33.00	
PIP	16.90	340	ePd	33	41.00	2.2
TRT	17.21	234	ePd	33	44.40	1.6
	0.6s		82.50nm			5.0mb
KNA	18.15	173	eP	33	53.50	-0.9
	0.7s		255.00nm			5.5mb
MNDI	18.99	117	eP	34	07.00	2.1
GUMO	21.16	57	eP	34	27.20	-0.8
	0.5s		44.90nm			5.1mb
PJG	21.16	57	eP	34	27.00	-1.0
GUA	21.18	58	eP	34	26.50	-1.7
	0.7s		82.19nm			5.2mb
Z	24s		4.96um			4.8MszX
ANP	23.19	348	eP	34	51.00	2.9
HKC	23.21	329	(P)	34	51.00	2.8
			S	38	54.00	
KGM	23.32	270	eP	34	51.50	2.1
QIZ	23.32	316	eP	34	49.00	-0.4
E	17s		2.40um			
WB5	23.40	161	iPc	34	49.80	-0.3
WRA	23.45	162	Pc	34	50.20	-0.4
	0.5s		86.20nm			5.5mb
WB2	23.45	162	iPc	34	49.80	-0.9
PMG	23.55	120	e(P)	34	50.00	-1.6
QZH	23.73	342	eP	34	54.00	0.8
Z	28s		11.10um			5.2MszX
			S	39	00.00	
GZH	24.28	329	iPc	34	58.00	-0.6
			S	39	11.00	
MBL	24.34	196	eP	35	01.00	1.7
	0.5s		27.00nm			5.1mb
IPM	25.67	276	eP	35	11.50	-0.5
	0.6s		24.70nm			5.0mb
			e	38	43.20	
QIS	26.11	151	iPc	35	15.20	-0.8
ASPA	26.85	165	iPc	35	21.80	-1.0
	0.7s		52.00nm			5.3mb
			epP	35	28.80	25kmX
			iPcP	38	45.00	
			eS	39	56.60	
			iScP	41	04.60	
NANU	27.08	203	iPc	35	25.30	0.5
	0.4s		13.00nm			4.9mb
PSI	27.70	271	ePd	35	31.00	0.4
	0.8s		35.00nm			5.1mb
WARB	28.41	180	iPd	35	30.40	-6.5X
	0.3s		20.00nm			5.3mb
LOE	28.66	303	eP	35	38.00	-1.3
SSE	29.01	350	eP	35	43.00	0.8
Z	20s		0.90um			4.4Msz
E	18s		1.40um			
			S	40	27.00	
NST	29.27	298	eP	35	46.10	1.4
CTA	29.48	140	iPc	35	45.90	-0.7
	0.9s		63.03nm			5.4mb
			iS	40	39.00	
MEKA	29.89	195	iPd	35	50.20	0.0
	0.4s		27.00nm			5.4mb
WHN	30.32	339	Pd	35	55.00	1.1
Z	30s		7.47um			5.2MszX
NJ2	30.40	347	eP	35	55.50	0.9
GYA	30.67	323	P	35	56.40	-0.8
CHTO	31.66	303	iP	36	03.80	-2.1
	0.6s		14.73nm			5.0mb
KMI	32.27	317	Pc	36	11.50	0.0
			pP	36	21.00	33kmX
MRWA	33.05	197	eP	36	18.00	0.1
FORR	33.09	178	eP	36	17.00	-1.1
COOL	33.51	189	eP	36	21.00	-0.9
TSRJ	34.09	14	P	36	26.30	-0.5
BAL	34.16	195	eP	36	27.00	-0.5
IIDJ	34.54	16	P	36	31.10	0.4
TIA	34.78	346	eP	36	33.20	0.4
KLB	34.84	193	eP	36	33.00	-0.3
CHJJ	35.38	17	P	36	36.10	-1.8
MTMJ	35.55	16	P	36	38.00	-1.4
XAN	35.57	334	P	36	37.80	-1.8
MUN	35.59	195	eP	36	39.00	-0.7
CD2	35.68	325	eP	36	39.90	-0.6
Z	30s		1.80um			4.7MszX
			eS	42	08.60	
RMO	35.78	145	iPc	36	39.80	-1.6
NWAO	36.24	193	eP	36	46.00	0.8
NIIJ	36.49	17	P	36	45.90	-1.3
DL2	36.63	353	eP	36	48.40	0.1
Z	28s		1.90um			4.7MszX
N	15s		1.60um			
			S	42	27.50	
STK	36.92	159	iPc	36	50.40	-0.5
			e	36	56.00	
RKG	37.39	193	eP	37	00.00	5.2X
TIY	37.49	341	P	36	55.00	-0.7
Z	28s		7.77um			5.4MszX
			eS	42	34.00	
YAMJ	37.66	17	eP	36	56.90	-0.1
CMS	38.31	153	eP	37	02.00	-0.6
BJI	38.66	347	P	37	05.00	-0.4
Z	26s		3.00um			5.0MszX
			eS	42	52.00	
ADE	38.85	164	iPc	37	07.70	0.6
	0.8s		164.18nm			5.9mb
OFUJ	39.00	19	eP	37	08.90	0.7
SNY	39.35	356	eP	37	11.40	0.3
Z	30s		3.90um			5.1MszX
N	28s		3.50um			
E	25s		2.40um			
			S	43	10.00	
LZH	39.61	330	eP	37	13.50	-0.1
	2.5s		0.24nm			2.5mb X
Z	30s		8.60um			5.4MszX
N	22s		2.60um			
AOMJ	39.97	16	eP	37	20.50	4.3X
HHC	40.63	342	eP	37	21.60	-0.3
COO	40.68	146	iPc	37	22.40	0.1
	0.4s		37.00nm			5.5mb
BTO	40.90	341	eP	37	25.20	1.2
N	25s		4.90um			
E	28s		5.00um			
CN2	41.24	359	Pd	37	29.80	3.2X
	5.0s		0.30nm			2.3mb X
Z	28s		3.50um			5.1MszX
			pP	37	40.00	35kmX
MRRJ	41.89	16	eP	37	33.70	1.7
BWA	41.95	153	eP	37	34.10	1.4
MDJ	42.12	3	Pc	37	34.00	0.1
Z	30s		4.19um			5.1MszX
CAN	42.96	153	iPc	37	41.20	0.3
CNB	43.13	152	iPc	37	43.20	0.9
LSA	43.27	313	P	37	44.00	0.0
TOO	43.44	158	eP	37	46.00	1.3
			e	39	27.00	
KUSJ	43.61	19	eP	37	45.90	-0.1
ASAJ	43.90	17	eP	37	48.60	0.3
GTA	44.20	330	P	37	50.20	-0.8
Z	28s		6.70um			5.4MszX
E	24s		4.80um			
			eS	44	18.00	
			ScS	47	46.20	
GUN	46.45	307	P	38	08.20	-1.2
PKI	46.68	306	P	38	09.60	-1.6
	0.5s		11.00nm			5.1mb
KKN	46.88	307	P	38	10.90	-1.8
DMN	46.94	306	P	38	11.80	-1.4
	0.6s		26.00nm			5.4mb
GKN	47.49	307	P	38	15.80	-1.6
TAU	48.80	160	eP	38	28.00	0.9
KOD	49.45	281	eP	38	27.40	-5.5X
HYB	49.50	291	eP	38	32.00	-1.0
	1.0s		80.00nm			5.7mb
GBA	49.89	286	P	38	34.20	-1.7
WMO	53.77	326	iPc	39	04.20	-0.5
Z	28s		2.90um			5.2MszX
			S	46	32.60	
NDI	53.79	304	eP	39	02.50	-2.6
			eS	46	30.00	
POO	54.11	291	iPd	39	05.50	-2.1
KSH	58.90	316	P	39	42.00	0.4
MSZ	59.55	147	P	39	45.60	-0.2
QUE	62.79	303	eP	40	06.50	-1.8
MHI	70.26	308	eP	40	55.00	-0.5
KHI	70.52	305	eP	40	54.30	-3.0X
AVY	80.31	250	iPc	41	53.92	0.7
TAB	80.91	308	eP	41	58.00	1.9
TTA	82.12	27	eP	42	02.90	1.2
MAW	82.48	200	eP	42	05.00	1.6
KDC	83.10	32	eP	42	07.50	0.8
MSL	83.35	306	eP	42	10.00	1.4
IMA	83.63	24	iPc	42	10.80	1.2
	1.0s		60.00nm			5.7mb
PMR	85.15	29	eP	42	17.10	0.1
	0.8s		42.80nm			5.7mb
FBA	85.95	25	eP	42	22.10	1.1
TOA	86.57	28	eP	42	25.00	0.8
NPA	88.11	255	iP	42	33.50	1.1
NAI	89.90	269	eP	42	44.00	2.7
PRNI	90.23	300	iPd	42	43.50	1.2
NOH	90.25	301	e(P)	42	42.00	-0.4
MBH	90.36	300	iPd	42	44.00	1.2
INK	91.42	21	eP	42	46.50	-0.4
SOD	91.66	338	eP	42	42.00	-6.0X
			i	42	51.10	
KJF	91.75	334	iP	42	47.40	-1.1
	0.6s		13.00nm			5.5mb
			i	42	51.30	
SUF	92.70	333	eP	42	52.00	-0.9
	0.5s		2.50nm			4.9mb
MBC	93.26	13	eP	42	55.00	-0.3
NUR	93.83	331	iP	42	58.50	0.4
VRI	95.20	316	eP	43	02.00	-2.8
PTZ	95.73	256	iP	43	09.60	1.7
MLR	95.80	316	ePd	43	07.50	-0.2
BUL	98.37	250	eP	43	19.30	-0.4
DAG	98.57	352	iPc	43	17.40	-2.0
	0.6s		6.67nm			5.3mb
HFS	99.15	332	eP	43	22.20	-0.1

0.5s 1.70nm 4.8mb
NB2 99.94 333 PKP 43 24.30 -1.7
0.9s 3.40nm 4.9mb
YKA 100.74 24 Pdiff 43 30.10 0.7
BW06 112.40 41 PKP 48 18.10 0.0
FRB 113.06 7 ePKP 48 18.00 -0.3
GOL 116.61 43 PKP 48 26.50 0.2
RSON 116.77 27 PKP 48 24.80 -1.1
ALQ 117.97 48 ePKP 48 29.00 0.1
SCH 121.91 9 ePKP 48 36.00 0.5
ELC 128.36 37 PKP 48 48.70 0.2
PWLA 130.59 38 PKP 48 52.30 -0.5
KIC 130.70 280 PKP 48 54.50 0.9
TKL 132.65 34 PKP 48 56.50 -0.2
SAN 145.11 154 ePKP 49 19.50 0.0
PEL 145.36 154 iPKPc 49 20.50 0.5
JACH 145.80 154 iPKPc 49 22.40 1.6
MDZ 146.36 156 iPKPc 49 23.00 1.3
CNCB 159.70 136 PKP 49 43.00 1.7
LPB 159.80 135 PKP 49 42.00 0.8
ZOBO 159.96 134 PKP 49 43.50 1.9
1.0s 8.75nm
LR 14 14.00
S.D. = 1.2 on 135 of 149 obs.

FEB 10, 1989 20h 41m 42.88± 0.31s
44.845 N ± 2.6km 7.289 E ± 3.9km
DEPTH = 19.5 ± 5.1 km
NORTHERN ITALY (545)
ML 3.1 (GEN), 3.0 (LDG), MD 2.3 (STR).

RSP 0.31 356 P 41 48.85 -0.9
S 41 53.16
DOI 0.34 185 P 41 49.70 -0.6
eSg 41 54.50
PZZ 0.37 202 P 41 49.77 -1.0
S 41 54.51
RRL 0.37 282 P 41 48.80 -2.0
S 41 52.99
FOUF 0.48 229 P 41 51.35 -1.2
BNI 0.48 296 P 41 50.80 -1.9
eSg 41 56.50
STV 0.60 178 P 41 53.83 -0.8
S 42 01.65
LSD 0.62 351 P 41 54.28 -0.8
S 42 02.29
ROB 0.69 143 P 41 56.39 0.3
S 42 05.31
LPG 0.76 330 Pg 41 56.20 -1.2
Sg 42 06.40
LPL 0.78 330 Pg 41 56.50 -1.3
CKI 0.82 120 P 41 59.20 0.8
eSg 42 13.20
TOUF 0.83 182 Pg 41 57.78 -0.9
AUTN 0.85 173 Pg 41 58.09 -1.0
FIN 0.91 134 P 42 00.59 0.6
S 42 12.95
ORO 0.92 32 P 42 00.20 0.1
eSg 42 13.40
ORX 0.93 32 P 41 59.29 -0.9
S 42 11.12
MVIF 0.95 186 Pg 42 00.21 -0.5
Sg 42 14.27
AURF 0.96 178 Pg 42 00.02 -0.7
SBF 0.99 174 Pg 42 00.60 -0.6
Sg 42 15.00
IMI 1.03 155 P 42 01.82 -0.1
S 42 15.32
CALN 1.13 195 Pg 42 03.91 0.3
Sg 42 20.77
FRF 1.36 200 Pg 42 08.40 1.5
Sg 42 26.00
VAI 1.46 45 P 42 09.00 0.8
eSn 42 27.50
BOB 1.54 92 P 42 09.90 0.4
eSn 42 31.10
LRG 1.54 206 Pg 42 11.50 2.1
Sg 42 32.70
LMR 1.61 201 Pg 42 12.60 2.1
Sg 42 34.60
CVF 2.55 153 Pn 42 23.20 -0.8
Sn 42 54.00
SMF 3.01 308 Pn 42 31.60 1.1
Sn 43 06.30
Sg 43 18.80
LBF 3.15 314 Pn 42 33.40 0.9
Sg 43 23.50
HAU 3.23 349 Pn 42 34.20 0.6
AVF 3.37 307 Pn 42 36.40 0.8
LOR 3.40 317 Pn 42 37.00 1.0
Sn 43 15.80
SSF 3.45 311 Pn 42 37.60 0.9
BGF 3.55 300 Pn 42 39.00 0.8
Sn 43 18.20
CDF 3.57 360 Pn 42 38.50 0.0
CAF 3.71 273 Pn 42 41.50 1.0
TCF 3.85 294 Pn 42 43.80 1.4
DOU 5.56 342 Pc 43 06.40 -0.2
S.D. = 1.1 on 39 of 39 obs.

FEB 10, 1989 21h 39m 45.85± 0.24s
2.317 N ± 4.3km 126.565 E ± 6.9km
DEPTH = 33.0km (normal)
5.1mb (14 obs.)
MOLUCCA PASSAGE (266)

KKM 10.97 290 ePd 42 28.50 4.8X
MTN 15.73 163 iPd 43 06.50 -20.2X
e 44 25.00
KNA 18.08 173 iPc 43 56.20 -0.1
0.7s 82.00nm 5.0mb
QIZ 23.32 317 Pc 44 53.30 1.2
WB5 23.35 161 eP 44 51.50 -0.9
WRA 23.40 161 Pc 44 53.60 0.7
0.7s 22.80nm 4.8mb
WB2 23.41 161 eP 44 51.50 -1.4
MBL 24.25 195 eP 45 02.00 1.0
0.4s 5.00nm 4.4mb
GZH 24.30 329 iPd 45 01.50 0.0
IPM 25.59 276 eP 45 14.60 0.6
QIS 26.08 151 eP 45 18.00 -0.4
ASPA 26.80 165 iPc 45 24.10 -0.9
eS 50 01.60
NANU 26.97 203 eP 45 27.00 0.4
PSI 27.62 271 ePc 45 34.00 1.4
WARB 28.33 180 eP 45 32.00 -6.9X
LOE 28.63 303 iPd 45 41.20 -0.5
SSE 29.07 350 eP 45 46.50 1.0
1.5s 0.03nm 1.8mb X
NST 29.23 299 eP 45 47.80 0.7
CTA 29.48 140 iP 45 50.00 0.7
1.1s 13.92nm 4.6mb
WHN 30.36 339 P 45 57.00 0.0
NJ2 30.45 347 Pc 45 58.50 0.7
GYA 30.68 323 P 46 00.40 0.4
BDT 30.87 300 eP 46 02.00 0.4
0.6s 32.10nm 5.3mb
CHTO 31.63 303 iPc 46 07.90 -0.4
MRWA 32.95 197 eP 46 23.00 3.3X
FORR 33.01 178 eP 46 19.00 -1.2
BAL 34.06 195 eP 46 30.00 0.6
MUN 35.50 195 eP 46 43.00 1.4
CD2 35.69 325 eP 46 42.20 -1.1
NWAO 36.15 193 eP 46 47.00 -0.1
DL2 36.69 354 P 46 52.20 0.6
STK 36.88 158 eP 46 52.00 -1.3
TIY 37.54 341 Pd 46 58.20 -0.6
Z 32s 1.20um 4.5MszX
BJI 38.72 347 P 47 08.00 -0.6
ADE 38.80 164 iPd 47 10.50 1.1
BRS 38.86 141 iPd 47 08.90 -1.1
LZH 39.64 331 P 47 16.50 0.0
1.0s 0.07nm 2.4mb X
COO 40.66 146 eP 47 24.00 -0.9
CN2 41.32 359 eP 47 32.00 2.0
BWA 41.93 153 eP 47 36.10 0.9
MDJ 42.21 3 eP 47 37.00 -0.3
CAN 42.93 153 eP 47 43.30 -0.1
LSA 43.26 313 Pc 47 47.00 0.4
GTA 44.22 330 P 47 53.60 -0.3
GUN 46.43 307 P 48 11.30 -0.7
PKI 46.66 307 P 48 12.60 -1.2
0.5s 13.00nm 5.2mb
KKN 46.86 307 P 48 14.20 -1.0
0.6s 24.00nm 5.4mb
DMN 46.92 306 P 48 14.80 -0.9
0.9s 60.00nm 5.6mb
GKN 47.46 307 P 48 18.80 -1.1
0.7s 30.00nm 5.4mb
HYB 49.45 291 eP 48 34.00 -1.3
0.8s 38.50nm 5.5mb
GBA 49.83 286 Pd 48 36.60 -1.5
0.9s 19.10nm 5.1mb
NDI 53.76 304 eP 49 05.50 -2.1
WMQ 53.79 326 eP 49 06.50 -1.1
MHI 70.24 308 iPc 50 57.30 -0.8
AVY 80.20 250 iPc 51 56.80 1.4
TAB 80.89 308 eP 52 00.00 1.3
IMA 83.73 24 eP 52 14.00 1.2
0.7s 7.90nm 5.0mb
PMR 85.26 29 eP 52 20.20 -0.1
0.8s 5.10nm 4.8mb
PRNI 90.20 300 ePd 52 46.20 1.4
NOH 90.21 301 eP 52 46.00 1.1
MBH 90.33 300 iPd 52 46.50 1.2
INK 91.53 21 eP 52 50.00 -0.1
KJF 91.79 334 eP 52 50.00 -1.4
SUF 92.73 333 eP 52 56.00 0.3
MBC 93.36 13 eP 52 58.00 -0.4
NB2 99.97 333 P 53 28.40 -0.5
0.8s 2.10nm 4.7mb
CNCB 159.70 136 PKP 59 47.00 3.0X
LPB 159.81 135 ePKP 59 46.00 2.1X
ZOBO 159.97 135 PKP 59 46.00 1.7
S.D. = 1.0 on 63 of 69 obs.

• FEB 10, 1989 22h 26m 40.47± 1.22s
34.598 N ±13.1km 22.981 E ±12.0km
DEPTH = 33.0km (normal)
4.6mb (8 obs.)
MEDITERRANEAN SEA (400)
ML 3.5 (ATH).

VAM 1.29 51 iPnc 27 04.50 2.3
NPS 2.26 72 ePn 27 20.10 3.8X
ATH 3.42 10 ePn 27 32.80 0.1
KAP 3.57 73 ePn 27 38.30 3.4X
KSL 5.60 72 ePn 28 04.00 0.3
KZN 5.78 351 ePn 28 05.00 -1.2
ELL 6.03 67 ePn 28 09.50 -0.4
VAY 6.72 357 ePn 28 15.40 -3.9X
OHR 6.73 346 ePn 28 17.70 -1.8
BCK 6.79 63 ePn 28 14.00 -6.5X
DOR 10.29 104 eP 29 09.00 0.0
JVI 10.69 101 eP 29 13.00 -1.3
MKRJ 11.05 102 P 29 17.40 -1.9
MASJ 11.05 101 P 29 18.50 -0.9
JARJ 11.09 99 P 29 19.20 -0.7
MBH 11.17 112 eP 29 22.00 1.2
KHC 16.10 337 iPd 30 30.50 4.6X
KSP 16.95 345 eP 30 39.40 2.9X
WLF 19.49 326 P 31 21.80 14.4X
DOU 20.52 325 Pc 31 19.60 1.3
0.4s 4.40nm 4.2mb
HFS 26.26 349 eP 32 12.70 -1.5
0.4s 2.60nm 4.2mb
NB2 27.52 348 P 32 27.20 1.4
0.4s 0.70nm 3.7mb
GKN 52.39 79 P 35 52.80 0.8
0.4s 7.00nm 5.0mb
DMN 52.93 79 P 35 57.00 0.9
0.4s 8.00nm 5.0mb
KKN 53.00 79 P 35 56.90 0.3
0.5s 4.00nm 4.6mb
PKI 53.19 79 P 35 58.60 0.4
0.4s 3.00nm 4.6mb
GUN 53.43 79 P 36 00.60 0.7
0.4s 6.00nm 4.9mb
S.D. = 1.2 on 20 of 27 obs.

FEB 10, 1989 22h 30m 15.99± 0.31s
2.386 N ± 5.0km 126.664 E ± 7.7km
DEPTH = 33.0km (normol)
4.9mb (7 obs.)
MOLUCCA PASSAGE (266)

KKM 11.04 290 ePc 33 00.50 5.7X
KNA 18.14 173 eP 34 27.00 -0.2
PJG 21.16 57 eP 35 02.30 1.5
WB5 23.38 161 iPc 35 22.70 -0.1
eS 39 35.00
WRA 23.44 162 Pc 35 23.00 -0.3
0.6s 19.20nm 4.8mb
WB2 23.44 162 iPc 35 22.70 -0.7
eS 39 35.00
MBL 24.34 196 eP 35 34.00 1.9
0.5s 7.00nm 4.5mb
QIS 26.09 152 eP 35 47.00 -1.7
ASPA 26.84 165 iPc 35 54.70 -0.8
0.7s 15.00nm 4.7mb

10d 22h

			iS	40 31.60		
			iScS	46 03.80		
NANU	27.07	203	iPc	35 59.00	1.4	
PSI	27.71	271	ePc	36 03.50	-0.1	
WARB	28.40	180	iPd	36 03.60	-6.1X	
NST	29.28	298	eP	36 17.40	-0.3	
CTA	29.47	140	iPd	36 18.90	-0.5	
CHTO	31.67	303	iP	36 37.90	-1.0	
FORR	33.08	178	eP	36 50.00	-0.9	
	0.4s		34.00nm		5.6mb	
COOL	33.50	189	eP	36 54.00	-0.6	
KLB	34.83	193	eP	37 06.00	-0.1	
MUN	35.59	195	eP	37 14.00	1.5	
RMQ	35.77	145	eP	37 13.00	-1.1	
STK	36.91	159	eP	37 23.00	-0.6	
TIY	37.51	341	eP	37 27.90	-0.8	
Z	32s		1.00um		4.4MszX	
ADE	38.84	164	iPd	37 41.60	1.7	
BRS	38.85	141	eP	37 39.00	-1.1	
LZH	39.63	330	eP	37 46.50	-0.1	
COO	40.66	146	eP	37 55.00	0.0	
BWA	41.94	153	eP	38 06.90	1.5	
MDJ	42.13	3	eP	38 07.50	0.7	
CAN	42.95	153	eP	38 13.80	0.1	
GTA	44.21	330	P	38 23.60	-0.4	
GBA	49.90	286	Pd	39 07.70	-1.1	
	0.7s		8.40nm		4.9mb	
AVY	80.31	250	eP	42 27.40	1.3	
TTA	82.12	27	eP	42 35.40	0.8	
IMA	83.63	24	eP	42 43.40	1.0	
	0.9s		11.50nm		5.0mb	
PMR	85.15	29	eP	42 49.80	-0.1	
	1.0s		17.50nm		5.2mb	
INK	91.43	21	eP	43 19.00	-0.8	
MBC	93.27	13	eP	43 28.00	-0.2	
S.D. = 1.0		on	35 of	37 obs.		

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* FEB 10, 1989 22h 33m 32.00± 0.75s
27.831 N ±12.3km 66.483 E ± 9.0km
DEPTH = 33.0km (normal)
4.1mb (6 obs.)
PAKISTAN (710)

NDI	9.50	82	eP	35 50.20	0.6	
MHI	10.31	327	eP	36 00.00	-0.8	
			eS	38 28.00		
GKN	16.05	85	P	37 15.80	-1.2	
	0.6s		11.00nm		4.2mb	
DMN	16.50	86	P	37 22.30	-0.5	
KKN	16.63	86	P	37 23.50	-1.0	
	0.5s		8.00nm		4.1mb	
PKI	16.77	86	P	37 27.40	1.1	
	0.5s		10.00nm		4.2mb	
GUN	17.15	85	P	37 31.40	0.2	
GBA	17.46	142	P	37 36.00	1.4	
KOD	20.33	147	eP	38 07.00	-1.5	
CHTO	31.05	100	e(P)	39 49.30	0.0	
	1.1s		1.77nm		3.8mb	
SUF	43.68	334	iP	41 37.00	1.9	
KJF	43.97	337	eP	41 37.00	-0.4	
HFS	47.92	328	eP	42 07.40	-1.5	
	0.4s		1.80nm		4.5mb	
NB2	49.36	328	P	42 20.10	0.1	
	1.0s		1.90nm		4.1mb	
MBC	76.11	1	eP	45 18.00	0.4	
INK	83.01	7	eP	45 56.00	1.2	
S.D. = 1.1		on	16 of	16 obs.		

? FEB 10, 1989 23h 20m 20.49± 1.67s
45.427 N ±41.9km 147.298 E ±29.5km
DEPTH = 33.0km (normal)
4.9mb (6 obs.)
KURIL ISLANDS (221)

KUSJ	2.98	220	iPd	21 01.20	-5.3X	
			S	21 31.60		
ASAJ	3.56	250	P	21 20.90	6.1X	
HOOJ	4.20	225	P	21 21.20	-2.6X	
			S	22 07.10		
MRRJ	5.41	238	P	21 41.90	1.1	
			eS	22 44.40		
OFUJ	7.59	215	eP	22 01.90	-9.7X	
FBA	39.69	37	eP	27 51.80	1.1	
	1.0s		0.40nm		3.1mb X	
INK	44.91	31	eP	28 33.00	-0.2	
CHTO	47.87	253	eP	28 55.00	-2.2	
	0.8s		2.38nm		4.3mb	
GUN	51.04	272	P	29 22.10	0.2	
	0.6s		11.00nm		5.0mb	
KKN	51.54	272	P	29 26.00	0.5	
	0.6s		9.00nm		4.9mb	
PKI	51.58	272	P	29 25.80	-0.2	
	0.5s		4.00nm		4.6mb	
DMN	51.77	272	P	29 27.70	0.4	
	0.6s		14.00nm		5.1mb	
GKN	51.86	273	P	29 27.90	0.0	
	0.4s		6.00nm		4.9mb	
YKA	54.35	34	P	29 45.20	-0.5	
S.D. = 1.1		on	10 of	14 obs.		

? FEB 10, 1989 23h 39m 49.60± 4.49s
10.434 N ±27.8km 62.065 W ±30.8km
DEPTH = 30.0 ± 8.4 km
NEAR COAST OF VENEZUELA (97)
MG 4.3 (FDF).

TCE	0.40	50	eP	39 58.62	0.1	
			eS	40 07.74		
TPP	0.61	101	eP	40 00.91	-1.0	
			eS	40 14.52		
TRN	0.68	72	eP	40 02.36	-0.7	
			eS	40 15.97		
TBH	0.98	87	eP	40 08.92	1.6	
			eS	40 29.11		
GRW	1.76	13	eP	40 19.36	0.8	
			eS	40 45.10		
SVB	2.93	16	eP	40 35.22	0.0	
			eS	41 15.63		
SVV	2.98	16	eP	40 36.14	0.2	
			eS	41 18.32		
BIM	4.17	13	eP	40 52.49	-0.4	
			S	41 43.00		
FDF	4.37	12	eP	40 54.95	-0.7	
S.D. = 1.0		on	9 of	9 obs.		

FEB 10, 1989 23h 42m 29.53± 0.53s
21.556 N ± 6.4km 108.245 W ± 4.3km
DEPTH = 10.0km (geophysicist)
5.1mb (12 obs.) 4.8Msz (1 obs.)
REVILLA GIGEDO ISLANDS REGION (53)
Ms 4.8 (BRK).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 19C
Centroid Location:
Origin Time 23:42:28.7 3.5
Lat 21.40N 0.30 Lon 108.70W 0.11
Dep 15.0 FIX Half-duration 2.0
Moment Tensor; Scale 10**16 Nm
Mrr=-2.98 0.87 Mtt= 2.90 1.22
Mff= 0.08 1.69 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf=-8.80 0.72
Principal Axes:

T	Val= 10.40	Plg= 0	Azm=220
N	-2.98	90	180
P	-7.42	0	130

Best Double Couple:Mo=8.9*10**16
NP1:Strike=265 Dip=90 Slip= 180
NP2: 355 90 0

MZX	2.35	45	iP	43 06.50	-2.3	
CRX	8.31	103	iPc	44 40.00	6.7X	
ACX	9.19	119	iPc	44 47.00	1.8	
IISM	10.52	102	eP	45 08.50	5.1X	
OXX	11.75	110	iPc	45 22.50	2.0	
GLA	12.85	334	eP	45 36.00	0.9	
BAR	13.37	328	eP	45 41.00	-0.9	
ALQ	13.43	6	P	45 44.80	2.0	
PLM	14.01	329	eP	45 51.00	0.5	
TPC	14.27	333	eP	45 54.00	0.2	
PEC	14.60	329	P	45 58.60	0.6	
RVR	14.78	329	eP	46 01.00	0.6	
MWC	15.30	328	eP	46 06.00	-1.4	
SBB	15.56	329	eP	46 11.00	0.4	
GSC	15.62	333	eP	46 12.00	0.6	
MEO	15.68	31	ePc	46 10.90	-1.2	
	1.3s		81.60nm		4.8mb	
NOP	16.08	336	P	46 18.50	1.2	
CLC	16.39	332	eP	46 22.00	0.7	
FKO	16.65	33	eP	46 26.30	1.8	
PANV	16.68	334	P	46 25.70	0.6	
YMT3	16.76	337	P	46 25.70	-0.3	
FMT	16.76	336	P	46 27.00	0.9	
CDH1	16.79	337	P	46 27.80	1.4	
BLP	16.80	323	P	46 25.40	-1.0	
OCO	16.81	32	e(P)	46 21.00	-5.6X	
TMBR	16.97	337	P	46 29.90	1.2	
ACO	17.04	26	eP	46 30.70	1.2	
BCH	17.09	325	P	46 29.80	-0.4	
MSU	17.24	350	P	46 33.50	1.3	
VVO	17.57	36	ePc	46 35.90	-0.2	
SIO	17.57	34	eP	46 36.30	0.2	
PHAM	17.76	326	P	46 38.50	0.1	
PPK	17.89	334	P	46 41.30	1.0	
TUL	17.97	35	iPc+	46 40.70	-0.3	
	1.4s		403.60nm		5.4mb	
Z	19s		8.63um			
			eS	50 05.00		
			LR	50 56.00		
LNO	17.97	35	ePc	46 41.10	0.1	
PCO	17.99	31	ePd	46 41.20	0.0	
	1.4s		245.40nm		5.1mb	
PRI	18.13	326	eP	46 42.50	-0.6	
TNP	18.20	337	P	46 45.20	1.1	
GOL	18.25	7	P	46 46.00	1.2	
GLD	18.32	7	P	46 47.20	1.6	
	1.8s		256.41nm		5.1mb	
FRI	18.32	330	eP	46 45.00	-0.4	
RLO	18.57	36	ePc	46 48.50	0.0	
LLA	18.64	326	eP	46 49.10	-0.2	
PRS	18.64	325	eP	46 48.30	-1.1	
KVN	19.38	336	P	46 56.90	-1.7	
CMB	19.48	330	eP	46 58.90	-0.7	
ARN	19.50	327	P	46 59.50	-0.3	
GCC	19.50	325	e(P)	46 58.90	-0.9	
OLY	20.21	43	P	47 07.20	-0.2	
BKS	20.26	326	iPd	47 10.20	2.3	
	1.2s		450.00nm		5.7mb	
Z	18s		3.70um		4.8Msz	
N	18s		3.30um			
E	18s		2.90um			
			iS	51 00.00		
			eLQ	51 36.00		
			eLR	52 28.00		
BRK	20.27	326	eP	47 07.60	-0.4	
BW06	21.19	357	P	47 16.50	-1.2	
	1.5s		80.09nm		4.9mb	
ORV	21.22	331	eP	47 18.90	1.1	
MIN	21.91	332	eP	47 24.50	-0.3	
PWLA	22.19	49	P	47 27.00	-0.5	
FVM	22.46	39	P	47 29.80	-0.4	
ELC	22.74	42	P	47 32.80	-0.1	
LBFM	22.85	333	P	47 35.30	1.0	
RSCP	24.25	50	P	47 48.80	1.1	
	1.0s		65.00nm		5.2mb	
LRM	24.45	353	eP	47 50.30	0.5	
TKL	25.58	51	P	48 00.60	0.2	
PRM	25.99	56	P	48 05.00	0.8	
JSC	26.91	56	P	48 12.80	0.1	
LHS	27.33	56	P	48 16.90	0.3	
LON	27.44	340	P	48 17.00	-0.5	
SES	28.87	356	ePc	48 29.30	-1.0	
CBN	31.30	51	eP	48 52.00	0.0	
RSON	31.39	18	P	48 51.00	-1.7	
	1.0s		38.75nm		5.3mb	
EDM	31.85	354	eP	48 55.00	-1.8	
FFC	33.46	7	eP	49 08.50	-2.1	
	0.8s		11.00nm		4.8mb	
PRIN	34.05	49	P	49 16.00	0.1	
TBR	34.70	48	P	49 20.60	-1.0	
GAC	35.99	40	eP	49 32.00	-0.4	
RSNY	36.00	42	P	49 31.80	-0.8	
	1.0s		33.33nm		5.2mb	
BNH	38.11	44	P	49 50.90	0.6	
CBM	41.08	42	P	50 14.20	-0.7	
YKA	41.14	356	P	50 14.20	-1.0	
MVM	45.42	91	eP	50 54.18	3.6X	
SCH	45.44	33	eP	50 49.00	-1.3	
INK	49.30	348	eP	51 19.00	-1.3	
FRB	49.78	22	eP	51 23.00	-1.0	
FBA	50.46	339	eP	51 30.00	0.8	
	0.8s		6.03nm		4.6mb	
ZOBO	54.41	130	P	51 59.00	-1.0	
			LR	10 52.00		
LPB	54.60	131	P	52 02.00	0.8	
CNCB	54.87	131	Pc	52 03.00	-0.4	
MBC	55.02	357	eP	52 01.00	-2.1	
	0.9s		17.00nm		5.1mb	
S.D. = 1.1		on	82 of	86 obs.		

FEB 11, 1989 00h 01m 08.05± 0.52s

10.312 S ± 7.7km 119.262 E ± 9.5km
DEPTH = 33.0km (normal)
4.6mb (1 obs.)
SUMBA ISLAND REGION (287)

KNA	10.72	121	eP	03 43.00	0.6	
MBL	10.80	177	eP	03 42.00	-1.5	
	0.2s		3.00nm		5.2mb	X
			eS	05 33.00		
NANU	12.69	196	eP	04 09.00	-0.1	
	0.3s		4.00nm		5.1mb	X
			eS	06 22.00		
WB5	17.40	125	eP	05 10.00	-0.1	
WB2	17.42	125	eP	05 10.00	-0.3	
MRWA	19.06	189	eP	05 32.00	1.6	
			eS	08 49.00		
ASPA	19.27	135	eP	05 36.20	3.2X	
GUN	49.88	320	P	10 01.10	0.1	
PKI	49.94	320	P	10 01.20	-0.2	
	0.6s		4.00nm		4.6mb	
DMN	50.16	320	P	10 02.90	-0.1	
KKN	50.17	320	P	10 03.20	0.2	
GKN	50.73	320	P	10 07.00	-0.2	
	S.D. = 0.8		on 11 of 12 obs.			

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* FEB 11, 1989 00h 05m 22.23± 0.69s
10.267 S ± 8.5km 119.389 E ±12.7km
DEPTH = 33.0km (normal)
SUMBA ISLAND REGION (287)

MBL	10.84	178	eP	07 58.00	-0.3	
	0.2s		2.00nm		5.0mb	X
			eS	09 49.00		
MTN	11.79	104	eP	08 11.00	-0.1	
			eS	10 17.00		
NANU	12.77	196	eP	08 23.00	-1.3	
			eS	10 37.00		
MRWA	19.12	189	eP	09 47.00	1.7	
			eS	13 04.00		
ASPA	19.22	136	eP	09 57.00	10.5X	
GUN	49.93	320	PKP	14 15.60	0.1	
PKI	49.99	320	PKP	14 19.80	3.9X	
DMN	50.21	319	PKP	14 18.00	0.5	
KKN	50.22	320	PKP	14 17.10	-0.5	
GKN	50.78	319	PKP	14 21.60	-0.1	
	S.D. = 1.0		on 8 of 10 obs.			

? FEB 11, 1989 00h 13m 45.21± 4.11s
22.001 S ±37.2km 172.767 E ±42.6km
DEPTH = 33.0km (normal)
4.9mb (3 obs.)
LOYALTY ISLANDS REGION (189)

DZM	5.87	268	iPc	15 12.00	-0.3	
			iS	16 15.90		
RMQ	22.33	254	eP	18 43.00	1.3	
CNB	24.37	232	iPd	19 02.50	0.9	
CAN	24.64	232	eP	19 04.30	0.1	
BWA	24.70	235	eP	19 03.00	-1.7	
CTA	24.81	270	iPd	19 11.10	5.3X	
	1.8s		113.64nm		5.2mb	
ASPA	35.79	260	iPd	20 43.60	0.1	
	2.1s		40.00nm		5.0mb	
WB5	35.87	266	eP	20 44.00	-0.2	
WB2	35.87	266	eP	20 44.00	-0.2	
WRA	35.88	266	Pd	20 51.30	7.0X	
	0.7s		2.30nm		4.2mb	
	S.D. = 1.1		on 8 of 10 obs.			

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* FEB 11, 1989 00h 27m 20.22± 1.02s
2.366 N ±21.1km 126.461 E ±30.9km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
MOLUCCA PASSAGE (266)

WRA	23.48	161	Pd	32 27.90	-0.1	
	0.6s		4.30nm		4.1mb	
WB2	23.49	161	eP	32 26.80	-1.3	
ASPA	26.87	165	iPd	33 01.50	1.4	
CHG	31.51	303	eP	33 42.00	0.3	
LZH	39.54	331	eP	34 50.00	-0.1	
GUN	46.32	307	P	35 45.40	-0.1	
PKI	46.55	307	P	35 48.20	0.9	
KKN	46.74	307	P	35 48.20	-0.5	
DMN	46.81	306	P	35 49.40	0.2	
GKN	47.35	307	P	35 53.00	-0.4	
HYB	49.34	291	eP	36 08.00	-0.8	
GBA	49.71	286	Pc	36 11.70	0.1	
	0.7s		4.40nm		4.6mb	
MHI	70.12	308	eP	38 32.00	0.2	
	S.D. = 0.8		on 13 of 13 obs.			

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* FEB 11, 1989 00h 52m 23.42± 1.32s
6.837 N ± 8.7km 73.004 W ±11.6km
DEPTH = 163.6 ± 14.2 km
4.4mb (5 obs.)
NORTHERN COLOMBIA (99)

BOG	2.44	206	eP	53 05.00	-0.3	
			eS	53 36.00		
PSO	7.07	218	eP	54 06.00	0.1	
ATB	23.05	115	e(P)	57 16.30	0.9	
ZOBO	23.46	168	P	57 19.00	-1.0	
LPB	23.72	168	P	57 23.00	0.7	
CNCB	24.01	168	P	57 25.70	0.5	
PWLA	31.25	336	P	58 31.00	1.3	
OLY	33.19	332	P	58 46.10	-0.4	
ELC	33.72	336	P	58 50.70	-0.3	
FVM	34.80	336	P	59 00.90	0.6	
ALQ	41.58	317	eP	59 56.00	-0.9	
	1.0s		2.50nm		3.8mb	
GLD	43.70	323	P	00 14.90	0.9	
	0.8s		21.18nm		4.8mb	
GOL	43.75	323	P	00 15.10	0.5	
RSON	47.14	342	P	00 40.00	-0.9	
	0.5s		7.83nm		4.6mb	
MSU	47.37	318	P	00 44.00	0.9	
BW06	48.14	324	P	00 48.70	-0.3	
	1.1s		13.76nm		4.5mb	
TNP	50.63	315	P	01 08.50	0.4	
	0.7s		2.22nm		3.9mb	
LRM	51.63	325	eP	01 15.50	0.0	
KVN	51.68	315	P	01 15.50	-0.5	
SES	53.74	331	eP	01 31.00	0.2	
LBFM	55.29	316	P	01 41.50	-0.9	
DPW	56.04	325	P	01 47.20	-0.3	
VGB	56.41	321	P	01 50.60	0.5	
EDM	56.66	332	iPc	01 50.60	-1.1	
YKA	63.29	340	P	02 36.20	-0.4	
KIC	67.76	86	P	03 04.60	-1.4	
INK	73.05	340	ePc	03 37.00	0.2	
MBC	73.81	350	eP	03 42.00	0.9	
ASPA	149.22	234	iPKPc	11 53.80	3.5X	
	0.7s		6.00nm			
WB2	150.43	241	ePKP	11 57.20	5.0X	
WRA	150.44	241	PKPd	11 57.30	5.1X	
	0.4s		2.20nm			
WB5	150.44	241	ePKP	11 57.20	5.0X	
	S.D. = 0.8		on 28 of 32 obs.			

FEB 11, 1989 01h 07m 43.15± 1.11s
32.872 S ± 7.1km 71.375 W ±10.8km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

ROCH	0.32	108	iPd	07 50.60	-0.8	
			iS	07 59.50		
LCCH	0.62	195	iPc	07 54.40	-1.1	
			iS	08 04.00		
PEL	0.64	115	iPd	07 55.60	-0.2	
JACH	0.69	74	iP	07 54.50	-2.0	
SAN	0.83	134	iPd	07 58.50	0.0	
			iS	08 12.70		
TACH	0.86	155	iP	07 59.00	0.1	
FCH	1.02	117	iP	08 01.50	0.1	
			iS	08 17.80		
PCH	1.04	136	iP	08 02.10	0.6	
			iS	08 19.40		
LNV	1.08	182	iPd	08 02.00	0.0	
CHCH	1.22	150	eP	08 05.00	1.0	
			iS	08 24.70		
MDZ	2.12	91	iPc	08 19.00	1.9	
			iS	08 31.20		
ZON	2.64	61	eP	08 25.00	0.6	
CFA	2.94	65	e(P)	08 27.50	-1.2	
CNCB	16.28	12	P	11 40.00	8.4X	
LPB	16.54	11	(P)	11 43.00	8.4X	
ZOBO	16.79	11	eP	11 39.00	1.0	
	S.D. = 1.1		on 14 of 16 obs.			

FEB 11, 1989 01h 08m 37.75± 0.54s
2.449 N ± 9.2km 126.884 E ±10.2km
DEPTH = 33.0km (normal)
4.8mb (2 obs.)
MOLUCCA PASSAGE (266)

MNI	2.27	244	ePd	09 14.20	0.4	
			eS	09 39.00		
WB5	23.37	162	eP	13 44.60	0.1	
WRA	23.43	162	Pd	13 45.20	0.2	
	0.5s		5.70nm		4.3mb	
WB2	23.43	162	eP	13 44.60	-0.4	
ASPA	26.84	166	eP	14 17.90	0.6	
CTA	29.38	141	eP	14 41.00	0.7	
FORR	33.13	178	iPd	15 11.70	-1.4	
	0.4s		15.00nm		5.2mb	
BRS	38.76	142	Pd	16 01.10	0.0	
BWA	41.90	153	eP	16 30.20	3.4X	
			e	18 04.90		
GUN	46.61	307	P	17 05.40	0.1	
	0.9s		24.00nm		5.2mb	X
PKI	46.84	306	P	17 07.20	0.1	
KKN	47.03	306	P	17 08.20	-0.3	
DMN	47.10	306	P	17 09.00	-0.1	
GKN	47.64	306	P	17 08.10	-5.1X	
	0.9s		18.00nm		5.1mb	X
MHI	70.41	308	eP	19 51.00	-0.1	
	S.D. = 0.6		on 13 of 15 obs.			

FEB 11, 1989 01h 19m 40.40± 0.44s
45.202 N ± 3.3km 7.486 E ± 4.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.7 (GEN), 2.3 (LDG).

RSP	0.17	253	P	19 45.16	0.8	
			S	19 47.49		
LSD	0.35	318	P	19 47.92	0.3	
			S	19 51.90		
ORO	0.55	39	P	19 51.60	0.1	
			eSg	19 58.50		
ORX	0.55	39	P	19 51.98	0.2	
			S	19 58.36		
RRL	0.57	241	P	19 52.23	0.1	
			S	19 58.81		
BNI	0.59	256	Pc	19 52.40	-0.1	
			eSg	19 59.50		
LPG	0.60	300	Pg	19 51.90	-0.8	
			Sg	19 59.20		
LPL	0.62	301	Pg	19 52.40	-0.6	
DOI	0.72	194	P	19 54.10	-0.5	
			eSg	20 03.10		
PZZ	0.75	202	P	19 54.80	-0.4	
			S	20 03.64		
ROB	0.95	163	P	19 59.66	1.2	
			S	20 11.84		
STV	0.96	187	P	19 58.08	-0.7	
			S	20 08.79		
FIN	1.12	152	P	20 01.05	-0.3	
IMI	1.32	167	P	20 03.93	-1.0	
SBF	1.34	182	Pg	20 04.50	-0.6	
			Sg	20 21.00		
FRF	1.75	200	Pg	20 12.40	1.5	
			Sg	20 33.20		
LRG	1.92	205	Pg	20 14.40	0.9	
			Sg	20 38.00		
	S.D. = 0.8		on 17 of 17 obs.			

FEB 11, 1989 01h 35m 30.46± 1.00s
2.372 N ± 3.9km 126.608 E ± 5.6km
DEPTH = 59.9 ± 9.5 km
5.3mb (23 obs.)
MOLUCCA PASSAGE (266)

MNI	1.99	242	iPd	36 04.70	2.3	
			eS	36 33.00		
DAV	4.80	348	eP	36 40.10	-1.8	
			e	37 05.50		
			eS	37 43.00		
TSM	8.72	282	eP	37 39.00	2.6	
PPR	10.74	314	ePc	38 08.00	3.9X	
KKM	10.99	290	ePd	38 10.00	2.5	
	1.0s		127.40nm		5.9mb	
OCP	13.35	336	eP	38 39.00	0.1	
JAY	14.91	109	ePd	39 03.00	3.8X	
	0.8s		109.40nm		5.2mb	
BAG	15.16	337	eP	39 01.50	-1.2	
MTN	15.77	164	eP	39 07.00	-3.3X	
KNA	18.13	173	eP	39 38.00	-1.8	
MNDI	19.02	117	eP	39 50.00	-0.7	
GUMO	21.21	57	eP	40 14.80	1.4	

11d 01h

PJG	21.21	57	eP	40	15.00	1.6	
GUA	21.23	58	eP	40	14.00	0.5	
	0.7s	32.88nm				4.8mb	
QIZ	23.31	316	eP	40	31.00	-3.0X	
			eS	44	30.00		
WB5	23.39	161	iPc	40	33.90	-0.9	
			eS	44	47.80		
WRA	23.44	161	Pc	40	34.40	-0.9	
	0.6s	54.30nm				5.2mb	
WB2	23.44	161	iPc	40	33.90	-1.4	
			eS	44	47.80		
GZH	24.28	329	eP	40	42.50	-0.9	
MBL	24.31	196	eP	40	45.00	1.3	
	1.0s	74.00nm				5.1mb	
IPM	25.63	276	ePd	41	01.50	5.2X	
	1.0s	35.30nm				4.8mb	
QIS	26.11	151	iPd	40	59.70	-0.9	
ASPA	26.84	165	iPc	41	05.80	-1.5	
			iPcP	44	29.20		
			eS	45	49.20		
NANU	27.04	203	eP	41	09.50	0.4	
	0.4s	5.00nm				4.5mb	
WARB	28.39	180	eP	41	14.80	-6.5X	
LOE	28.64	303	eP	41	22.00	-1.7	
SSE	29.02	350	eP	41	27.00	0.1	
	1.0s	22.00nm				4.7mb	
Z	24s	0.50um				4.0MszX	
			ePP	42	27.50		
			eS	46	12.00		
NST	29.24	298	eP	41	29.20	0.1	
CTA	29.49	140	iPd	41	30.90	-0.4	
	1.2s	63.28nm				5.2mb	
MEKA	29.85	195	iPd	41	34.50	0.0	
WHN	30.33	339	eP	41	39.00	0.4	
Z	30s	9.96um				5.3MszX	
N	18s	2.00um					
E	26s	6.96um					
			sP	41	57.00		
NJ2	30.41	347	eP	41	41.00	1.7	
Z	24s	1.00um				4.4MszX	
GYA	30.66	323	P	41	41.40	-0.3	
BDT	30.88	300	eP	41	43.50	-0.1	
	0.6s	32.10nm				5.2mb	
CHG	31.63	303	iPc	41	49.00	-1.3	
	0.9s	33.61nm				5.1mb	
FORR	33.07	178	eP	42	01.00	-1.5	
	0.8s	128.00nm				5.8mb	
BAL	34.13	195	eP	42	12.00	0.3	
TIA	34.80	346	eP	42	16.50	-0.9	
KLB	34.81	193	eP	42	18.00	0.4	
MUN	35.56	195	eP	42	24.00	0.1	
XAN	35.57	334	Pc	42	22.10	-2.0	
MAT	35.65	16	eP	42	22.00	-2.7	
	1.5s	80.56nm				5.4mb	
			eS	47	55.00		
CD2	35.67	325	eP	42	23.40	-1.6	
RMQ	35.79	145	eP	42	24.00	-2.0	
			e	44	54.00		
NWAO	36.21	193	eP	42	29.00	-0.4	
DL2	36.64	353	eP	42	35.40	2.4	
STK	36.92	159	iPd	42	35.20	-0.2	
RKG	37.36	193	eP	42	44.00	5.0X	
TIY	37.50	341	Pc	42	39.40	-0.9	
Z	30s	2.20um				4.8MszX	
BJI	38.67	347	P	42	49.50	-0.5	
Z	28s	0.70um				4.3MszX	
			ePcP	44	53.00		
			ePcS	48	40.00		
ADE	38.84	164	iPc	42	53.10	1.6	
	0.8s	67.16nm				5.6mb	
BRS	38.87	141	Pd	42	51.00	-0.9	
			e	44	20.00		
SNY	39.37	356	eP	42	55.60	-0.2	
N	31s	0.90um					
E	33s	0.60um					
			S	48	55.00		
LZH	39.61	331	eP	42	57.50	-0.6	
	1.5s	66.00nm				5.3mb	
Z	28s	8.20um				5.4MszX	
N	25s	7.70um					
E	18s	1.90um					
HHC	40.64	342	P	43	06.00	-0.4	
COO	40.68	146	eP	43	02.00	-4.8X	
			e	43	06.00		
			e	44	45.00		
CN2	41.27	359	eP	43	13.00	1.7	
BWA	41.95	153	eP	43	18.30	1.1	
MDJ	42.15	3	eP	43	19.00	0.4	
CAN	42.96	153	eP	43	25.90	0.5	
CNB	43.12	152	eP	43	27.00	0.3	
LSA	43.25	313	P	43	28.60	0.3	
TOO	43.43	158	eP	43	30.00	0.9	
GTA	44.20	330	iPc	43	35.00	-0.5	
Z	34s	1.70um				4.7MszX	
E	30s	1.20um					
			PP	45	20.30		
GUN	46.43	307	P	43	52.60	-1.1	
PKI	46.66	306	P	43	54.00	-1.5	
KKN	46.86	307	P	43	55.40	-1.5	
	0.8s	40.00nm				5.4mb	
DMN	46.92	306	P	43	56.80	-0.7	
	1.0s	66.00nm				5.5mb	
GKN	47.46	307	P	44	00.40	-1.2	
KOD	49.41	281	eP	44	16.00	-1.0	
HYB	49.47	291	eP	44	16.00	-1.1	
	1.0s	45.00nm				5.5mb	
GBA	49.85	286	P	44	18.50	-1.5	
WMQ	53.76	326	iPc	44	48.60	-0.4	
NDI	53.77	304	eP	44	43.00	-6.2X	
KSH	58.89	316	P	45	26.50	0.7	
MHI	70.24	308	iPc	46	39.80	0.2	
AVY	80.26	250	iPc	47	38.02	1.0	
TAB	80.89	308	eP	47	42.00	2.0	
TTA	82.16	27	eP	47	47.30	1.3	
KDC	83.14	32	eP	47	51.80	0.8	
BRW	83.49	18	eP	47	54.30	1.7	
IMA	83.67	24	eP	47	55.20	1.4	
	1.0s	31.30nm				5.3mb	
PMR	85.19	29	eP	48	01.50	0.2	
	1.2s	70.30nm				5.6mb	
PRNI	90.21	300	iPd	48	27.50	1.3	
NOH	90.22	301	eP	48	26.00	-0.3	
MBH	90.34	300	eP	48	28.00	1.3	
INK	91.46	21	eP	48	31.00	-0.1	
SOD	91.67	338	iP	48	33.60	1.5	
			i	48	49.20		
KJF	91.76	334	iP	48	32.20	-0.3	
	0.7s	13.30nm				5.5mb	
SUF	92.70	333	iP	48	36.20	-0.7	
	0.8s	3.70nm				4.9mb	
MBC	93.29	13	eP	48	40.00	0.5	
BUL	98.32	250	iPd	49	04.40	0.9	
NB2	99.94	333	P	49	08.30	-1.8	
	0.8s	2.30nm				4.8mb	
YKA	100.78	24	Pdiff	49	14.70	1.1	
ALQ	118.02	48	ePKP	54	13.00	0.1	
MDZ	146.36	156	iPKPc	55	06.60	1.1	
CNCB	159.71	136	PKP	55	28.00	2.9X	
LPB	159.82	135	PKP	55	29.00	3.9X	
ZOBO	159.98	134	PKP	55	28.00	2.6	
	S.D. = 1.2	on	88 of	99	obs.		

FEB 11, 1989 01h 40m 38.27± 0.76s
64.457 N ± 6.0km 153.425 W ±10.0km
DEPTH = 14.0 ± 5.9 km
4.1mb (1 obs.)

CENTRAL ALASKA (1)
ML 4.3 (PMR).

IMA	1.62	356	iPc	41	08.90	2.3	
TTA	1.92	218	iPc	41	10.30	-0.6	
FBA	2.46	77	iPc	41	17.90	-0.6	
PWA	3.25	149	eP	41	30.30	0.6	
PMR	3.48	144	iPd	41	33.00	0.1	
			eS	42	23.80		
SVW	3.51	198	eP	41	32.30	-1.2	
PMS	3.68	149	iPd	41	36.10	0.2	
TOA	4.04	122	eP	41	41.40	0.4	
DWY	6.11	87	P	42	09.00	-1.2	
KDC	6.75	176	eP	42	19.30	0.1	
BRW	6.99	351	e(P)	42	22.20	-0.4	
INK	8.85	55	eP	42	46.50	-2.0	
MBC	16.08	29	eP	44	24.00	-0.9	
YKA	17.26	79	P	44	40.30	0.3	
EDM	23.15	100	eP	45	46.50	1.9	
BW06	32.87	110	eP	47	15.50	1.9	
	0.5s	1.12nm				4.1mb	
GOL	37.17	108	eP	48	06.00	15.6X	
	S.D. = 1.3	on	16 of	17	obs.		

FEB 11, 1989 01h 57m 06.83± 0.68s
2.384 N ± 3.6km 126.603 E ± 4.7km
DEPTH = 65.7 ± 6.3 km
5.2mb (27 obs.)

MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 29C
Centroid Location:
Origin Time 01:57: 4.8 0.3
Lat 2.37N FIX;Lon 126.72E FIX
Dep 42.2 2.7 Half-duration 3.0
Moment Tensor; Scale 10**17 Nm
Mrr= 5.00 0.29 Mtt=-1.41 0.25
Mff=-3.59 0.44 Mrt=-0.73 0.38
Mrf= 0.66 0.39 Mtf=-3.32 0.29
Principal Axes:
T Val= 5.23 Plg=77 Azm=218
N 0.77 13 36
P -6.00 1 126
Best Double Couple:Mo=5.6*10**17
NP1:Strike=229 Dip=46 Slip= 108
NP2: 23 47 72

MNI	1.99	242	iPc	57	40.40	1.5	
DAV	4.78	348	eP	58	19.80	1.7	
			eS	59	26.00		
AAI	6.24	165	eP	58	43.00	4.6X	
TSM	8.71	282	eP	59	14.10	1.5	
PPR	10.73	314	ePc	59	36.00	-4.2X	
KKM	10.98	290	ePc	59	45.00	1.4	
	1.0s	117.70nm				5.8mb	
QCP	13.34	336	eP	00	10.00	-4.9X	
JAY	14.91	109	ePd	00	38.00	2.5	
	1.0s	207.80nm				5.3mb	
BAG	15.15	337	eP	00	38.00	-0.6	
			eS	03	26.00		
MTN	15.78	164	eP	00	43.00	-3.6X	
KNA	18.14	173	iPc	01	15.10	-0.9	
MNDI	19.03	117	eP	01	28.00	1.2	
GUMO	21.21	57	eP	01	48.50	-0.7	
	0.8s	87.85nm				5.2mb	
PJG	21.21	57	eP	01	48.80	-0.4	
GUA	21.23	58	eP	01	49.00	-0.4	
	0.7s	54.79nm				5.0mb	
KLI	22.89	252	eP	02	06.50	0.7	
HKC	23.19	330	P	02	08.00	-0.7	
			S	06	15.00		
QIZ	23.30	316	eP	02	10.20	0.4	
N	17s	3.10um					
E	17s	3.40um					
WB5	23.40	161	iPc	02	09.00	-1.8	
			eS	06	21.50		
WRA	23.45	161	P	02	11.00	-0.3	
	0.7s	54.30nm				5.1mb	
WB2	23.46	161	iPc	02	09.00	-2.3	
			eS	06	21.50		
PMG	23.59	120	e(P)	02	04.00	-8.6X	
	1.0s	48.00nm				4.9mb	
QZH	23.72	342	eP	02	13.00	-0.8	
Z	28s	12.60um				5.2MszX	
N	28s	12.60um					
			S	06	20.00		
GZH	24.26	329	Pd	02	18.50	-0.6	
Z	32s	4.30um				4.7MszX	
N	14s	17.00um					
			S	06	32.20		
MBL	24.32	195	eP	02	19.00	-0.7	
	0.6s	20.00nm				4.8mb	
IPM	25.62	276	ePc	02	32.90	0.8	
	1.0s	42.20nm				4.9mb	
QIS	26.12	151	iPd	02	35.30	-1.3	
	0.4s	60.00nm				5.5mb	
PPI	26.35	264	eP	02	40.00	1.2	
ASPA	26.85	165	iPc	02	41.50	-1.8	
			iPcP	06	05.90		
			eS	07	16.20		
NANU	27.05	203	eP	02	45.50	0.5	
	0.4s	13.00nm				4.9mb	
PSI	27.65	271	ePc	02	48.40	-2.2	
	0.7s	19.40nm				4.8mb	
WARB	28.40	180	eP	02	50.00	-7.2X	
	0.3s	12.00nm				5.0mb	
LOE	28.63	303	eP	02	58.00	-1.4	
SSE	29.01	350	Pd	03	01.50	-1.2	
	0.8s	22.00nm				4.8mb	
Z	22s	1.40um				4.5Msz	
E	18s	2.10um					
			epP	03	25.00	106kmX	
			ePP	03	59.00		
			S	07	48.00		

NST 29.23 298 eP 03 04.00 -0.8
CTA 29.51 140 iPc 03 05.80 -1.5
1.3s 96.15nm 5.3mb
i 06 12.70
iS 07 58.00
MEKA 29.86 195 eP 03 10.00 -0.4
0.3s 18.00nm 5.3mb
WHN 30.32 339 eP 03 13.80 -0.5
NJ2 30.40 347 Pd 03 15.30 0.3
Z 26s 4.80um 5.0MszX
GYA 30.65 323 P 03 19.20 1.8
Z 25s 2.70um 4.8MszX
BDT 30.87 300 eP 03 19.50 0.2
0.6s 25.00nm 5.1mb
CHG 31.62 303 iPc 03 24.90 -1.1
1.1s 43.67nm 5.2mb
MRWA 33.03 197 eP 03 37.50 -0.5
FORR 33.08 178 iPc 03 36.70 -1.7
COOL 33.49 189 eP 03 40.00 -2.1
BAL 34.14 195 eP 03 47.00 -0.6
TIA 34.78 346 eP 03 51.70 -1.4
Z 25s 3.60um 5.0MszX
eS 09 15.00
KLB 34.82 193 eP 03 53.00 -0.5
CHJJ 35.41 17 eP 03 56.00 -2.4
XAN 35.56 334 eP 03 57.40 -2.4
N 26s 6.20um
E 24s 4.80um
S 09 24.60
MUN 35.57 195 eP 04 01.00 1.2
MTMJ 35.57 16 eP 03 57.90 -2.0
MAT 35.64 16 eP 03 58.00 -2.4
1.1s 41.77nm 5.3mb
Z 20s 2.48um 5.0Msz
eS 09 23.00
CD2 35.66 325 eP 03 59.00 -1.7
Z 36s 2.20um 4.7MszX
N 10s 0.40um
epP 04 14.80 62kmX
sP 04 20.60
S 09 28.30
RMQ 35.80 145 eP 04 00.00 -1.9
e 06 31.00
NWAO 36.22 193 eP 04 06.00 0.7
DL2 36.63 353 P 04 09.00 0.3
Z 24s 2.00um 4.8MszX
N 14s 1.40um
E 14s 1.80um
S 09 46.00
STK 36.93 159 eP 04 10.00 -1.3
e 04 16.00
e 04 21.00
e 06 32.00
RKG 37.37 193 eP 04 20.00 5.1X
TIY 37.49 341 P 04 14.40 -1.6
N 30s 13.70um
sP 04 32.00
PP 05 37.00
PcP 06 32.00
S 09 57.00
sS 10 13.00
PcS 10 27.00
YAMJ 37.69 17 eP 04 17.10 -0.5
CMS 38.32 153 eP 04 22.00 -1.0
BJI 38.66 347 P 04 24.50 -1.2
6.0s 0.40nm 2.5mb X
Z 24s 3.20um 5.1MszX
eS 10 08.00
ADE 38.85 164 iPc 04 28.30 0.9
0.8s 104.48nm 5.8mb
BRS 38.89 141 Pc 04 26.00 -1.8
i 04 39.50
e 05 56.00
i 08 34.00
e(S) 10 12.00
e 13 10.00
OFUJ 39.02 19 eP 04 29.00 0.2
SNY 39.36 356 Pd 04 32.50 1.0
Z 30s 4.10um 5.1MszX
N 32s 3.90um
S 10 27.50
LZH 39.60 331 eP 04 33.00 -0.8
1.5s 110.00nm 5.5mb
HHC 40.63 342 eP 04 42.00 -0.1
COO 40.69 146 eP 04 42.00 -0.7
BTO 40.89 341 eP 04 47.00 2.7
Z 25s 8.90um 5.5MszX

N 25s 5.20um
CN2 41.25 359 eP 04 47.00 0.0
5.0s 0.70nm 2.7mb X
Z 28s 2.40um 4.9MszX
E 14s 0.70um
sP 05 05.00
BWA 41.97 153 eP 04 53.70 0.6
e 06 31.50
MDJ 42.14 3 eP 04 54.50 0.2
Z 30s 3.70um 5.1MszX
esP 05 13.00
iS 11 10.00
CAN 42.97 153 eP 05 01.50 0.2
CNB 43.14 152 iPd 05 03.70 1.0
LSA 43.24 313 P 05 04.00 0.0
S 11 26.00
TOO 43.44 158 iPc 05 06.90 1.8
GTA 44.18 330 P 05 10.00 -1.2
Z 28s 7.90um 5.5MszX
E 23s 5.40um
PP 06 55.80
GUN 46.42 307 P 05 28.20 -1.2
PKI 46.65 306 P 05 30.80 -0.4
KKN 46.85 307 P 05 31.60 -1.0
DMN 46.91 306 P 05 32.20 -1.0
GKN 47.45 307 P 05 36.30 -1.0
KOD 49.40 281 eP 05 52.00 -0.7
HYB 49.46 291 eP 05 50.60 -2.2
1.2s 128.60nm 5.8mb
GBA 49.84 286 P 05 54.30 -1.4
WMQ 53.75 326 P 06 25.00 0.3
Z 28s 2.50um 5.1MszX
ScS 16 06.60
NDI 53.76 304 eP 06 23.00 -1.9
POO 54.07 291 eP 06 25.50 -1.9
KSH 58.87 316 P 07 02.70 1.2
KRP 60.41 137 eP 07 12.00 0.2
MHI 70.23 308 eP 08 15.00 -0.2
1.0s 84.00nm 5.6mb
AVY 80.26 250 iPd 09 14.08 1.3
TAB 80.88 308 eP 09 16.00 0.3
TTA 82.15 27 eP 09 23.00 1.3
BHD 82.19 303 eP 09 23.00 0.6
eS 19 34.00
MAW 82.46 200 eP 09 25.00 2.0
KDC 83.13 32 ePd 09 27.40 0.7
MSL 83.32 306 ePd 09 28.50 0.3
BRW 83.48 18 eP 09 30.00 1.7
IMA 83.66 24 iPc 09 30.70 1.2
1.4s 104.70nm 5.7mb
PMR 85.18 29 eP 09 36.80 -0.1
1.0s 62.50nm 5.6mb
FBA 85.98 25 P 09 41.30 0.4
TOA 86.61 28 eP 09 45.10 1.0
MML 89.74 302 iP 10 03.00 3.3X
JVI 89.82 302 iP 09 55.70 -4.3X
RMN 90.51 300 iP 10 05.20 1.9
SOD 91.65 338 eP 10 09.00 1.3
KJF 91.74 334 eP 10 08.00 -0.2
0.8s 13.20nm 5.4mb
SUF 92.69 333 eP 10 12.00 -0.5
MBC 93.28 13 eP 10 15.00 -0.1
NUR 93.81 331 eP 10 21.00 3.3X
PTZ 95.68 256 iP 10 28.40 1.0
MLR 95.78 316 ePd 10 28.00 0.7
BUL 98.32 250 iPc 10 40.40 1.2
1.0s 10.00nm 5.3mb
DAG 98.58 352 eP 10 38.00 -1.2
NB2 99.93 333 P 10 44.70 -1.0
1.0s 5.60nm 5.1mb
YKA 100.77 24 Pdiff 10 50.20 1.0
KSP 100.83 323 ePdiff 10 51.50 1.7
PRU 102.16 322 ePdiff 10 58.00 2.2
KHC 103.03 322 ePdiff 11 02.20 2.5
LRM 109.25 39 ePKP 15 33.30 1.7
BW06 112.44 41 PKP 15 38.80 1.1
GOL 116.65 43 PKP 15 46.70 0.8
ALQ 118.02 48 ePKP 15 49.00 0.4
FVM 127.23 37 PKP 16 06.00 0.1
ELC 128.40 37 PKP 16 09.10 1.0
PWLA 130.63 38 PKP 16 12.60 0.2
GBTN 132.44 34 PKP 16 17.00 1.1
TKL 132.69 34 PKP 16 16.80 0.4
TACH 144.83 154 ePKP 16 40.00 1.5
PCH 145.04 155 ePKP 16 39.00 0.0
SAN 145.12 154 ePKP 16 39.50 0.5
PEL 145.37 154 iPKPc 16 40.00 0.5

FCH 145.39 155 ePKP 16 42.50 2.6
JACH 145.81 154 ePKP 16 42.00 1.7
MDZ 146.37 156 iPKPc 16 32.00 -9.2X
ARE 157.36 129 ePKP 17 14.00 16.2X
CNCB 159.72 136 PKP 17 04.00 3.2X
LPB 159.83 135 PKP 17 04.00 3.3X
Z 22s 0.74um 5.5Msz
LR 13 52.00
ZOBO 159.99 134 PKP 17 04.30 3.2X
Z 24s 0.53um 5.3MszX
LR 14 16.00
CCH 160.54 141 ePKP 17 00.50 -0.8
S.D. = 1.3 on 128 of 143 obs.

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* FEB 11, 1989 02h 01m 06.89± 1.18s
39.449 N ±12.9km 18.959 E ± 8.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)
MG 3.0 (TIR).

VLO 1.10 22 iPgd 01 26.70 -0.8
TPE 1.17 43 iPgc 01 28.00 -0.7
LCI 1.17 319 P 01 22.90 -5.9X
eSg 01 37.40
LSK 1.44 61 iPgc 01 33.80 0.6
BERA 1.46 31 ePn 01 31.80 -1.5
BRT 1.96 317 P 01 38.80 -1.7
eSg 02 03.30
TIR 2.02 20 ePn 01 41.70 0.4
TDS 2.04 277 P 01 41.80 0.2
OHR 2.18 40 iPn 01 43.20 -0.5
LACI 2.26 14 iPnd 01 45.40 0.6
PHP 2.51 26 ePn 01 51.40 3.1X
SDA 2.60 9 ePn 01 52.00 2.4
SOI 2.65 240 P 01 50.40 0.0
eSn 02 19.60
MGR 2.71 286 P 01 51.70 0.4
KKS 2.85 22 ePn 01 50.00 -3.1X
BCI 3.03 16 ePn 01 56.40 0.7
SKO 3.15 36 iPn 02 04.00 6.6X
VAY 3.33 55 ePn 02 08.30 8.2X
S.D. = 1.2 on 13 of 18 obs.

% FEB 11, 1989 02h 15m 22.04± 0.85s
42.338 N ± 7.9km 19.255 E ± 7.3km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.2 (TTG).

TTG 0.09 3 iPgc 15 25.50 0.9
iSg 15 29.50
BDV 0.32 260 iPgc 15 29.00 0.3
iSg 15 35.00
ULC 0.37 181 ePg 15 30.00 0.3
eSg 15 37.00
HCY 0.57 281 ePg 15 32.80 -0.8
eSg 15 42.00
PVY 0.59 64 ePg 15 33.50 -0.6
eSg 15 41.40
S.D. = 1.0 on 5 of 5 obs.

FEB 11, 1989 02h 33m 37.08± 0.91s
5.846 S ± 5.3km 153.282 E ± 7.8km
DEPTH = 35.6 ± 9.3 km
4.8mb (4 obs.)
NEW IRELAND REGION (190)

RAB 1.98 326 iPd 34 09.50 0.6
0.7s 208.22nm
PAA 2.24 102 eP 34 13.00 0.3
LMG 5.93 239 e(P) 35 04.00 -1.0
CTA 15.72 205 iPd 37 21.30 3.6X
1.1s 27.22nm 4.3mb
GUA 20.98 337 eP 38 19.50 -0.3
1.2s 162.50nm 5.3mb
RMQ 20.98 191 eP 38 19.00 -0.8
GUMO 21.04 337 eP 38 20.20 -0.2
1.0s 92.00nm 5.1mb
PJG 21.04 337 eP 38 20.50 0.1
BRS 21.43 181 Pc 38 23.20 -1.2
MTN 22.92 251 eP 38 44.00 4.8X
WB5 23.08 231 eP 38 42.90 2.1
WB2 23.13 231 eP 38 42.90 1.7
ASPA 25.73 225 iPc 39 05.10 -1.0
1.1s 13.00nm 4.4mb
CMS 26.45 194 eP 39 13.00 0.3
MDJ 54.56 339 eP 43 03.80 -0.3

11d 02h

CN2	55.44	336	P	43	10.00	-0.5
TIY	57.64	322	Pd	43	25.70	-0.7
CHG	58.87	296	eP	43	35.10	-0.1
CD2	59.78	311	eP	43	41.10	-0.2
LZH	62.31	316	eP	43	59.00	0.4
GTA	66.75	317	P	44	27.00	-0.3
GUN	73.07	301	P	45	06.50	0.1
DMN	73.65	301	P	45	09.80	0.1
GKN	74.15	301	P	45	12.50	0.0
RTRS	125.60	134	iPdiff	49	07.80	-6.7X
CFA	125.65	136	ePdiff	48	58.80	-16.0X
ZOBO	133.51	119	PKP	52	54.00	0.8

S.D. = 0.9 on 23 of 27 obs.

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* FEB 11, 1989 02h 42m 13.45± 0.88s
2.140 N ±13.0km 126.859 E ±12.5km
DEPTH = 33.0km (normal)
4.5mb (3 obs.)
MOLUCCA PASSAGE (266)

MNI	2.13	251	iPc	42	47.50	0.0
			eS	43	11.50	
MTN	15.48	164	eP	45	48.00	-3.1X
WB5	23.09	162	eP	47	17.00	-0.5
WRA	23.14	162	Pd	47	18.20	0.2
	0.4s		7.40nm		4.5mb	
WB2	23.15	162	eP	47	17.00	-1.0
ASPA	26.55	165	iPd	47	50.20	-0.2
	0.9s		16.00nm		4.6mb	
WARB	28.16	180	eP	47	58.00	-6.9X
BRS	38.54	141	iPc	49	34.00	-0.9
BJI	38.95	347	eP	49	38.00	-0.1
BWA	41.63	153	eP	50	01.90	1.5
CAN	42.64	153	eP	50	09.50	0.9
GBA	50.16	286	Pd	51	03.30	-4.9X
	0.7s		1.60nm		4.1mb	

S.D. = 0.9 on 9 of 12 obs.

FEB 11, 1989 02h 46m 12.10± 0.43s
47.970 N ± 4.3km 16.986 E ± 4.0km
DEPTH = 19.2 ± 5.3 km
AUSTRIA (546)
ML 3.9 (KBA). Felt (VI) at Halbturn. Felt (IV) at Bratislova, Czechoslovakia. Also felt at Rusovce and Somorin, Czechoslovakia.

ZST	0.24	19	iPg	46	16.60	-1.2
			e(Sg)	46	22.00	
SOP	0.41	225	iPn	46	18.70	-1.8
VKA	0.54	304	iPgc	46	23.00	0.3
			i	46	30.20	
			iSg	46	33.60	
SRO	0.91	99	iPg	46	28.60	-0.4
	0.4s		0.76nm			
			iSg	46	41.00	
BUD	1.46	109	iPnd	46	39.00	1.5
UZD	1.76	141	ePn	46	43.00	1.2
KMR	1.92	274	iPg	46	46.80	2.6
			iSg	47	12.30	
PSZ	1.96	90	ePn	46	44.50	-0.3
PTJ	2.19	199	iPnc	46	46.80	-1.3
			eSn	47	12.60	
ZAG	2.26	198	e(Pn)	46	47.20	-1.9
			iSg	47	18.00	
SPC	2.48	59	iPnd	46	51.80	-0.6
			i(Pg)	46	53.90	
			iSn	47	22.50	
			i(Sg)	47	25.00	
KHC	2.54	298	iPn	46	54.40	1.2
			Pg	46	58.30	
			Sn	47	20.50	
			Sg	47	32.40	
LJU	2.56	222	ePnc	46	53.50	0.2
	1.0s		230.00nm			
			ePg	47	00.00	
			e(Sn)	47	22.50	
			e(Sg)	47	35.80	
PRU	2.58	322	Pn	46	53.50	-0.2
			Pg	47	00.00	
			Sn	47	25.50	
			Sg	47	34.00	
KBA	2.62	251	e(Pn)	46	54.00	-0.4
	0.4s		45.50nm			
			iPgc	46	58.00	
			i	47	03.30	
			i(Sn)	47	21.70	
			i	47	29.30	
			iSg	47	31.80	
VBY	2.74	206	iPn	47	02.70	6.8X
			iPb	47	08.20	
			i	47	33.80	
			iSn	47	38.80	
			iSb	47	41.80	
RBL	2.79	238	P	46	58.20	1.6
CEY	2.84	219	ePn	46	58.40	1.1
	1.0s		45.00nm			
KRA	2.85	42	eP	47	05.50	8.0X
	0.7s		30.00nm			
			e	47	09.10	
			eS	47	34.60	
			i	47	37.40	
VOY	2.87	229	ePn	46	59.10	1.3
			ePb	47	04.80	
			e(Sg)	47	45.80	
			e	47	53.80	
KSP	2.91	351	iPd	46	58.70	0.4
	0.8s		82.00nm			
			i	47	06.30	
			iSn	47	32.00	
			i	47	46.90	
TRI	3.16	226	P	47	05.20	3.3X
FVI	3.18	246	P	47	01.20	-0.9
BRG	3.52	327	ePn	47	07.00	0.1
			iPg	47	18.00	
			eSn	47	47.00	
			iSg	48	02.00	
FUR	3.83	275	ePn	47	12.40	1.0
BZS	3.96	125	ePc	47	13.50	0.4
CTI	4.13	244	P	47	15.10	-0.5
GRF	4.18	296	ePn	47	16.20	-0.1
CLL	4.23	324	e(Pn)	47	17.00	0.0
			ePg	47	30.00	
			iSg	48	24.80	
MOX	4.42	309	ePn	47	20.00	0.3
			ePg	47	25.00	
			iSg	48	34.00	
HVAR	4.81	185	iPn	47	24.70	-0.5
			iSn	48	18.70	
TNS	6.04	295	ePnc	47	41.90	-0.8
			eSn	49	25.60	
TIR	6.93	162	eP	47	05.20	-50.0X
			e(Sg)	47	37.60	
WLF	7.35	287	P	47	59.70	-1.3
DOU	8.42	289	Pc	48	14.30	-1.6
			S	49	49.80	

S.D. = 1.2 on 31 of 35 obs.

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* FEB 11, 1989 02h 50m 04.20± 1.00s
39.736 N ± 9.5km 26.311 E ± 9.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EZN	0.09	7	iPg	50	07.20	0.4
EDC	1.34	62	iPn	50	29.50	0.6
IZM	1.53	151	ePn	50	31.20	-0.4
DST	1.79	93	iPn	50	35.80	0.3
KDZ	2.03	341	iP	50	37.00	-1.8
RZN	2.30	329	eP	50	44.00	1.1
DMK	2.35	27	iPn	50	42.60	-0.9
MMB	2.70	314	eP	50	49.00	0.5
JMB	2.74	4	eP	50	55.00	6.1X

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

% FEB 11, 1989 03h 43m 18.45± 0.92s
39.046 N ± 8.3km 28.639 E ± 9.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.56	359	iPg	43	27.90	-1.9
			eSg	43	35.90	
KHL	1.00	136	iPg	43	36.90	-0.6
			iSg	43	48.40	
IZM	1.26	239	ePn	43	42.30	0.5
EDC	1.43	335	iPn	43	43.50	-0.9
GPA	1.79	46	ePn	43	49.00	-0.6
HRT	1.94	24	ePn	43	53.60	1.8
EZN	1.95	294	ePn	43	52.00	0.0
ISK	2.04	9	ePn	43	55.00	1.8

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

FEB 11, 1989 04h 05m 20.78± 0.21s
2.442 N ± 3.8km 126.685 E ± 6.1km
DEPTH = 33.0km (normal)
5.2mb (16 obs.) 4.1Msz (1 obs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 23C
Centroid Location:
Origin Time 04:05:23.4 1.3
Lat 2.05N 0.13 Lon 126.24E 0.13
Dep 15.0 FIX Half-duration 1.7
Moment Tensor; Scale 10**17 Nm
Mrr= 0.22 0.11 Mtt= 0.03 0.08
Mff=-0.25 0.16 Mrt=-0.13 0.18
Mrf=-2.40 0.21 Mtf= 0.70 0.08
Principal Axes:

T	Val= 2.53	Plg=45	Azm=108
N	-0.03	16	1
P	-2.50	40	257

Best Double Couple:Mo=2.5*10**17
NP1:Strike=280 Dip=17 Slip= 9
NP2: 182 88 106

MNI	2.09	242	iPc	06	00.50	6.3X
			eS	06	32.00	
DAV	4.75	347	eP	06	34.00	2.1
AAI	6.27	166	eP	06	59.00	5.5X
TSM	8.78	282	ePc	07	34.00	5.6X
QCP	13.32	336	eP	08	34.00	3.9X
MTN	15.82	164	eP	09	02.60	-0.2
			e	09	08.00	
KNA	18.19	174	eP	09	31.50	-1.1
GUMO	21.11	57	eP	10	20.30	15.2X
	0.8s		76.13nm			
PJG	21.11	57	eP	10	02.50	-2.6
GUA	21.13	58	eP	10	02.80	-2.5
	0.8s		41.79nm		4.9mb	
QIZ	23.31	316	eP	10	26.60	-0.3
WB5	23.43	162	eP	10	27.10	-1.0
			eS	14	40.00	
WRA	23.48	162	Pd	10	27.30	-1.3
	0.5s		31.50nm		5.1mb	
WB2	23.49	162	eP	10	27.10	-1.5
			eS	14	40.00	
QZH	23.69	341	eP	10	30.10	-0.4
Z	28s		3.00um		4.6MszX	
N	28s		3.00um			
GZH	24.26	329	eP	10	35.00	-1.0
MBL	24.40	196	eP	10	39.00	1.6
	0.6s		14.00nm		4.7mb	
IPM	25.70	275	ePd	10	50.70	0.8
	1.1s		35.90nm		4.9mb	
QIS	26.13	152	iPc	10	52.40	-1.4
ASPA	26.89	165	iPd	10	59.50	-1.3
NANU	27.13	203	eP	11	03.00	0.0
PSI	27.73	271	ePd	11	08.50	0.0
WARB	28.46	180	eP	11	08.80	-6.1X
LOE	28.66	303	eP	11	16.50	-0.4
SSE	28.97	350	eP	11	14.50	-5.0X
Z	20s		0.50um		4.1Msz	
E	12s		0.40um			
			e	11	54.00	
			eS	16	16.00	
			esS	16	42.00	
			eSS	17	54.00	
NST	29.28	298	eP	11	12.00	-10.4X
CTA	29.50	140	iPd	11	23.60	-0.8
	1.2s		28.13nm		4.9mb	
MEKA	29.94	195	eP	11	28.70	0.4
WHN	30.29	339	eP	11	32.20	0.9
GYA	30.65	323	P	11	38.00	3.3X
BDT	30.91	300	eP	11	36.20	-0.7
	0.6s		34.30nm		5.3mb	
CHG	31.66	303	iPd	11	42.90	-0.7
	1.0s		28.00nm		5.1mb	
MRWA	33.11	197	eP	11	58.00	2.0
FORR	33.13	178	eP	11	54.00	-2.1
COOL	33.56	189	eP	12	00.00	0.1
BAL	34.21	195	eP	12	06.00	0.4
TIA	34.75	346	eP	12	10.40	0.3
KLB	34.89	193	eP	12	11.00	-0.4
XAN	35.54	334	P	12	14.70	-2.3
MAT	35.56	16	eP	12	16.00	-1.1
	1.1s		67.09nm		5.5mb	
			eS	17	50.00	
MUN	35.65	195	eP	12	18.00	0.2
CD2	35.66	325	eP	12	17.00	-1.0
RMO	35.80	145	iPc	12	18.60	-0.6

NWAO	36.30	193	eP	12 24.00	0.7	
STK	36.95	159	eP	12 28.00	-0.8	
RKG	37.44	193	eP	12 38.50	5.6X	
TIY	37.46	341	eP	12 32.00	-1.1	
N	21s	1.40um				
CMS	38.34	153	eP	12 40.00	-0.5	
BJI	38.62	347	P	12 43.00	0.3	
Z	27s	0.70um			4.3MszX	
BRS	38.88	141	iPc	12 44.00	-1.1	
			i	12 50.50		
ADE	38.89	164	eP	12 46.40	1.3	
SNY	39.31	356	Pc	12 49.00	0.6	
N	31s	0.90um				
			eS	18 48.00		
LZH	39.59	330	eP	12 50.00	-1.0	
	1.5s	66.00nm			5.2mb	
Z	24s	2.00um			4.9MszX	
HHC	40.60	342	eP	12 59.00	-0.3	
COO	40.70	146	eP	13 00.00	-0.1	
CN2	41.20	359	P	13 04.00	0.1	
BWA	41.98	153	eP	13 11.30	0.7	
			e	14 52.70		
MDJ	42.08	3	eP	13 11.20	0.1	
CAN	42.99	153	eP	13 18.70	-0.1	
LSA	43.26	312	P	13 22.00	0.4	
GTA	44.18	330	eP	13 27.50	-1.0	
Z	24s	1.70um			4.9MszX	
E	20s	1.50um				
			PP	15 14.00		
GUN	46.45	307	P	13 46.40	-0.7	
PKI	46.68	306	P	13 48.10	-0.8	
KKN	46.88	307	P	13 49.20	-1.1	
	0.6s	29.00nm			5.4mb	
DMN	46.94	306	P	13 50.70	-0.1	
	1.0s	52.00nm			5.5mb	
GKN	47.48	307	P	13 54.20	-0.8	
HYB	49.52	291	iPc	14 10.00	-0.7	
	1.2s	71.40nm			5.6mb	
GBA	49.91	286	Pd	14 10.70	-3.0X	
	0.6s	14.70nm			5.2mb	
WMQ	53.75	326	P	14 41.50	-0.7	
Z	26s	1.10um			4.8MszX	
NDI	53.79	304	eP	14 40.60	-2.1	
POO	54.12	291	eP	14 43.50	-1.8	
MHI	70.25	308	eP	16 33.00	-0.1	
SDN	78.27	34	eP	17 19.00	0.2	
AVY	80.35	250	iPc	17 32.72	1.6	
TAB	80.91	308	eP	17 35.00	1.3	
TTA	82.06	27	eP	17 40.50	1.4	
KDC	83.04	32	eP	17 45.20	1.1	
BRW	83.40	18	eP	17 47.80	2.1	
IMA	83.57	24	eP	17 48.40	1.5	
	0.9s	27.10nm			5.4mb	
PMR	85.09	29	eP	17 54.70	0.3	
	1.2s	54.70nm			5.6mb	
PRNI	90.24	300	e(P)	18 21.00	1.0	
NOH	90.25	301	eP	18 21.00	1.0	
MBH	90.37	300	iPc	18 21.50	1.0	
INK	91.37	21	eP	18 24.00	-0.3	
KJF	91.73	334	eP	18 25.00	-1.0	
SUF	92.67	333	iP	18 29.80	-0.6	
MBC	93.21	13	eP	18 33.00	0.3	
NB2	99.91	334	P	19 02.10	-1.4	
	0.8s	2.50nm			4.8mb	
YKA	100.68	24	Pdiff	19 08.70	1.9	
GOL	116.55	43	PKP	24 04.70	0.9	
ALQ	117.92	48	ePKP	24 07.00	0.5	
FVM	127.13	37	PKP	24 24.00	0.2	
ELC	128.31	37	PKP	24 26.80	0.8	
PWLA	130.54	38	PKP	24 30.80	0.4	
TKL	132.59	34	PKP	24 35.20	0.9	
NAV	132.93	30	PKP	24 36.20	1.3	
LHS	135.10	33	PKP	24 40.50	1.5	
PEL	145.39	154	iPKPc	24 58.50	0.9	
MDZ	146.39	156	ePKP	25 01.50	2.1	
CNCB	159.71	136	PKP	25 21.00	2.1	
LPB	159.81	135	ePKP	25 21.00	2.1	
ZOBO	159.97	134	PKP	25 21.00	1.8	
S.D. = 1.2		on	91	of 102	obs.	

FEB 11, 1989 04h 48m 12.18± 0.72s
44.223 N ± 3.7km 6.405 E ± 6.7km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.6 (GEN), 2.6 (LDG).

PZZ	0.57	60	P	48 23.72	-0.2	
			S	48 31.28		
STV	0.66	88	P	48 25.20	-0.2	
			S	48 33.56		
FRF	0.68	165	Pg	48 25.80	0.1	
			Sg	48 35.80		
RRL	0.75	21	P	48 26.58	-0.4	
			S	48 35.99		
LRG	0.77	182	Pg	48 26.90	-0.3	
			Sg	48 39.00		
SBF	0.83	115	Pg	48 29.20	1.0	
			Sg	48 42.80		
LMR	0.89	175	Pg	48 29.20	-0.1	
			Sg	48 42.60		
ROB	1.06	86	P	48 32.22	0.1	
			S	48 45.57		
RSP	1.11	33	P	48 33.15	0.1	
			S	48 47.58		
IMI	1.11	106	P	48 33.13	0.0	
			S	48 47.32		
FIN	1.30	90	P	48 35.60	-0.6	
LPG	1.30	11	Pg	48 37.00	0.6	
S.D. = 0.5		on	12	of 12	obs.	

& FEB 11, 1989 08h 06m 36.33s
59.962 N 153.618 W
DEPTH = 149.5km
SOUTHERN ALASKA (2)
<AGS-P>.

PDB	0.34	239	iP	06 56.18	0.6	
ILIM	0.35	70	iP	06 56.46	0.8	
			iS	07 12.76		
AUL	0.59	171	eP	06 57.71	-0.6	
			eS	07 15.87		
RDT	0.86	44	iP	06 59.57	-0.7	
CDD	1.04	181	eP	07 00.51	-1.2	
			eS	07 19.61		
HOM	1.04	106	eP	07 00.61	-1.1	
			eS	07 20.71		
NNL	1.17	85	eP	07 02.82	0.0	
CNPM	1.28	109	iP	07 03.05	-0.9	
BRLK	1.39	97	eP	07 04.19	-0.9	
			eS	07 25.19		
NKA	1.42	55	iP	07 06.06	0.8	
SPU	1.45	32	iP	07 04.88	-0.8	
CRP	1.49	28	eP	07 05.62	-0.7	
SVW	1.52	320	iP	07 05.25	-1.2	
SLKM	1.78	71	eP	07 07.77	-1.5	
			eS	07 32.42		
SEW	2.10	84	eP	07 11.39	-1.5	
KDC	2.30	165	iP	07 12.47	-2.8	
			iS	07 41.08		
PMS	2.38	56	eP	07 14.36	-2.1	
PTE	2.45	66	eP	07 14.93	-2.3	
PWA	2.50	46	eP	07 15.69	-2.1	
PLRM	2.74	51	eP	07 18.14	-2.7	
PWL	2.77	69	eP	07 18.69	-2.6	
PME	2.80	51	eP	07 19.17	-2.5	
GHO	2.93	50	eP	07 20.53	-2.8	
KNK	2.93	58	eP	07 20.51	-2.8	
SML	3.18	52	iP	07 23.60	-2.9	
TTA	3.19	340	iP	07 24.90	-1.9	
HIN	3.58	80	eP	07 29.21	-2.6	
VZW	3.66	69	eP	07 30.04	-2.8	
VLZ	3.79	69	eP	07 32.26	-2.1	
CVA	3.97	78	iP	07 34.72	-2.0	
KLU	4.08	65	eP	07 35.67	-2.7	
TOA	4.21	56	eP	07 37.72	-2.4	
SGAM	4.23	79	iP	07 38.19	-2.1	
RAGM	4.49	81	eP	07 41.45	-2.3	
PAX	4.94	49	eP	07 47.22	-2.6	
GLB	5.04	69	eP	07 48.88	-2.3	
FBA	5.64	26	eP	07 56.31	-2.8	
CTGM	6.16	75	eP	08 04.58	-1.6	
INK	12.06	38	eP	09 21.50	-2.6	
39 obs. associated						

FEB 11, 1989 08h 13m 48.10± 1.00s
45.728 N ±11.3km 7.789 E ± 4.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.9 (GEN).

ORX	0.17	125	P	13 52.05	0.1	
			S	13 54.72		
ORO	0.17	127	P	13 52.10	0.1	
			eSg	13 53.50		
LSD	0.52	239	P	13 58.72	0.0	
			S	14 05.59		
RSP	0.69	213	P	14 01.48	-0.3	
			S	14 11.02		
VAI	0.70	78	P	14 01.80	-0.1	
			eSg	14 11.10		
LPG	0.76	253	Pg	14 03.30	0.1	
			Sg	14 13.20		
BNI	1.04	230	P	14 08.00	0.3	
			eSg	14 21.60		
RRL	1.07	222	P	14 08.40	-0.1	
			S	14 21.94		
S.D. = 0.2		on	8	of 8	obs.	

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* FEB 11, 1989 10h 01m 42.60± 0.53s
6.043 S ±10.7km 103.290 E ±12.0km
DEPTH = 33.0km (normol)
4.9mb (7 obs.)
SOUTHWEST OF SUMATERA (273)

KLI	1.95	53	iPc	02 15.50	1.5	
			eS	02 41.00		
			eSn	21 05.50		
NANU	20.23	145	eP	06 18.00	0.2	
			eS	09 48.00		
MBL	21.97	135	eP	06 36.00	0.5	
	0.4s	4.00nm			4.2mb	
			eS	10 28.00		
KNA	26.78	113	eP	07 19.00	-2.6	
WARB	29.97	135	eP	07 42.50	-7.9X	
GBA	32.25	307	Pc	08 24.00	13.5X	
	0.7s	3.80nm				
WRA	33.18	118	Pd	08 17.50	-1.1	
	0.5s	4.60nm			4.6mb	
WB5	33.18	117	iPd	08 17.80	-0.8	
WB2	33.19	118	iPd	08 17.80	-0.9	
ASPA	34.26	124	iPd	08 27.60	-0.3	
	0.4s	15.00nm			5.3mb	
GUN	37.71	334	P	08 57.40	0.0	
	0.5s	17.00nm			5.2mb	
KKN	37.87	333	P	08 58.40	-0.2	
	0.4s	6.00nm			4.8mb	
GKN	38.34	333	P	09 02.40	-0.1	
	0.4s	6.00nm			4.8mb	
ADE	43.51	136	iPd	09 47.10	2.2	
PMG	43.57	97	eP	09 45.00	-0.6	
CTA	43.97	113	iPc	09 48.90	0.2	
STK	44.03	131	iP	09 50.00	0.9	
BWA	50.29	130	iPd	10 40.10	1.8	
CAN	51.09	131	iPd	10 44.90	0.6	
BRS	51.51	120	iPc	10 47.50	-0.1	
MAT	53.51	35	(P)	10 47.00	-15.3X	
	1.2s	17.19nm				
KJF	89.18	335	iP	14 36.40	0.4	
	0.5s	8.40nm			5.3mb	
SUF	89.47	333	iP	14 37.90	0.5	
NUR	89.65	331	iP	14 38.60	0.4	
SIO	145.38	29	ePKP	21 18.60	-0.7	
LNO	145.49	28	ePKP	21 18.30	-1.0	
TUL	145.49	28	ePKP	21 18.70	-0.8	
	0.6s	10.40nm				
S.D. = 1.1		on	24	of 27	obs.	

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* FEB 11, 1989 10h 28m 21.42± 1.92s
39.901 N ±12.8km 25.700 E ±16.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

EZN	0.49	99	iPg	28 31.00	-0.3	
EDC	1.72	74	iPn	28 52.50	1.0	
IZM	1.93	141	ePn	28 54.90	0.2	
DST	2.28	97	iPn	28 59.00	-0.7	
DMK	2.47	38	iPn	29 06.30	3.9X	
MLR	5.59	2	ePc	29 46.50	-0.2	
S.D. = 0.9		on	5	of 6	obs.	

% FEB 11, 1989 10h 36m 35.92± 2.81s
39.679 N ±10.7km 25.936 E ±25.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

EZN	0.33	64	iPg	36 42.60	-0.2	
EDC	1.62	65	iPn	37 05.50	0.8	
IZM	1.64	141	ePn	37 05.00	0.0	
DST	2.08	91	ePn	37 11.00	-0.3	
DMK	2.55	32	iPn	37 17.70	-0.3	
S.D. = 0.7		on	5	of 5	obs.	

FEB 11, 1989 11h 32m 52.32± 0.30s
44.286 N ± 1.7km 6.786 E ± 3.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.9 (GEN), 2.8 (LDG).

FOUF	0.24	359	P	32 57.41	-0.1
			Sg	33 00.55	
PZZ	0.31	46	Pc	32 59.05	0.1
			S	33 03.61	
STV	0.39	96	Pc	33 00.39	0.1
			S	33 05.45	
DOI	0.39	56	P	33 00.40	0.0
			eSg	33 05.90	
TOUF	0.43	129	Pg	33 01.10	-0.1
MVIF	0.47	146	Pg	33 01.95	0.0
			Sg	33 09.04	
CALN	0.54	172	Pg	33 03.41	0.1
AUTN	0.55	122	Pg	33 03.24	-0.2
			Sg	33 11.18	
AURF	0.56	135	Pg	33 03.71	0.0
SBF	0.63	132	Pg	33 04.80	-0.2
			Sg	33 13.50	
RRL	0.63	360	Pc	33 04.72	-0.5
			S	33 13.65	
REVF	0.69	142	Pg	33 06.46	0.5
FRF	0.73	188	Pg	33 06.50	-0.2
			Sg	33 18.40	
BNI	0.77	354	P	33 07.50	0.1
			eSg	33 17.40	
ROB	0.78	89	P	33 07.80	0.3
			S	33 17.55	
IMI	0.88	115	P	33 09.33	0.1
			S	33 21.34	
LRG	0.89	200	Pn	33 09.40	0.1
			Pg	33 10.20	
			Sg	33 23.60	
RSP	0.93	21	P	33 10.25	0.1
			S	33 22.06	
LMR	0.97	192	Pn	33 11.20	0.4
			Pg	33 12.40	
			Sg	33 25.60	
FIN	1.02	94	P	33 11.92	0.2
			S	33 25.34	
LPG	1.21	359	Pg	33 15.30	0.2
			Sg	33 31.20	
LPL	1.23	358	Pg	33 15.40	0.0
CVF	2.29	138	Pn	33 29.80	-1.0
			Sn	33 56.40	

S.D. = 0.3 on 23 of 23 obs.

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* FEB 11, 1989 11h 56m 20.19± 0.55s
4.835 N ± 8.9km 95.420 E ±10.5km
DEPTH = 33.0km (normal)
4.7mb (3 obs.)
NORTHERN SUMATERA (706)

TSI	3.40	113	eP	57 11.80	-0.5
			eS	58 08.00	
PSI	4.09	121	iP	57 27.00	5.0X
IPM	5.59	92	ePc	57 47.30	4.0X
	0.4s		57.40nm	5.5mb	X
			e	58 50.90	
SNG	5.67	66	ePn	57 49.70	5.4X
			ePg	58 03.10	
PPI	7.24	136	eP	58 08.50	2.1
NNT	8.81	29	eP	58 23.30	-4.9X
NST	11.72	23	eP	59 15.00	6.8X
CHG	14.31	14	iPd	59 50.30	7.7X
	1.1s		28.16nm	4.8mb	X
GBA	19.76	297	Pc	00 51.30	0.8
	0.8s		3.60nm	3.7mb	
HYB	20.71	308	eP	01 01.00	0.5
GYA	24.04	25	P	01 35.20	1.7
PKI	24.54	338	P	01 30.20	-8.4X
GUN	24.68	339	P	01 31.40	-8.5X
DMN	24.69	338	P	01 28.60	-11.3X
KKN	24.79	338	P	01 27.50	-13.3X
	0.4s		4.00nm		
CD2	27.10	16	eP	02 01.50	-0.6
XAN	31.65	22	iPc	02 41.80	-0.9
GTA	34.65	6	P	03 08.00	-0.8
HHC	38.68	20	Pd	03 44.10	1.4
WMQ	39.42	351	P	03 49.00	0.1
BJI	39.73	25	P	03 53.00	1.6
WB5	45.49	124	eP	04 38.00	-0.5
WRA	45.50	124	Pd	04 38.30	-0.3
	1.1s		30.00nm	5.1mb	
WB2	45.51	124	eP	04 38.00	-0.7
CN2	46.97	30	P	04 49.40	-0.4
ASPA	47.01	129	iPd	04 50.30	-0.3
	0.4s		37.00nm	5.7mb	X
FORR	47.26	141	eP	04 53.00	0.7
QIS	50.18	122	eP	05 14.00	-1.1
VRI	71.77	317	ePc	07 41.00	-0.4
ZST	78.63	318	eP	08 35.40	15.0X
			e	09 49.00	
			e	10 03.80	
HFS	81.71	330	eP	08 35.60	-0.9
	0.4s		3.80nm	4.8mb	
MBC	96.58	8	eP	09 46.00	-1.5

S.D. = 1.1 on 21 of 32 obs.

FEB 11, 1989 12h 49m 40.38± 0.63s
7.931 N ± 8.4km 72.214 W ± 8.8km
DEPTH = 33.0km (normal)
4.4mb (1 obs.)
NORTHERN COLOMBIA (99)

SDV	1.83	59	iPnd	50 11.30	1.1
	0.3s		265.00nm		
			iSn	50 35.80	
TOV	3.02	52	iPnc	50 28.20	1.1
	0.8s		160.00nm		
			iSn	51 07.70	
CEOS	3.99	74	eP	50 39.60	-1.3
			eS	51 25.50	
MORO	4.83	52	eP	50 53.50	0.7
GUAC	5.37	65	eP	51 01.10	0.6
			eS	52 03.00	
OLLA	5.73	68	eP	51 04.40	-1.2
			eS	52 07.50	
LLAV	5.91	64	eP	51 07.00	-1.0
			eS	52 14.90	
ZOBO	24.38	170	P	54 57.00	-0.6
LPB	24.65	170	P	55 01.00	1.1
CNCB	24.94	170	P	55 03.00	0.1
YKA	62.54	339	P	00 02.70	-0.4
INK	72.30	340	eP	01 04.00	-0.2
MBC	72.88	349	eP	01 07.00	-0.6
NB2	79.93	29	P	01 48.00	0.6
	0.7s		3.00nm	4.4mb	
WRA	151.65	242	PKPd	09 32.60	5.3X
	0.5s		3.80nm		

S.D. = 0.9 on 14 of 15 obs.

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* FEB 11, 1989 12h 59m 48.59± 0.53s
36.598 N ±11.4km 71.263 E ± 9.6km
DEPTH = 33.0km (normal)
4.1mb (5 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

NDI	9.35	146	eP	02 06.20	2.1
			eS	03 40.50	
MHI	9.49	272	eP	02 06.00	-0.1
GKN	14.18	123	P	03 08.60	-0.7
	0.4s		5.00nm	4.5mb	
DMN	14.75	123	P	03 16.80	0.0
	0.4s		7.00nm	4.4mb	X
KKN	14.75	123	P	03 16.20	-0.6
PKI	14.98	123	P	03 19.60	-0.3
	0.4s		5.00nm	4.2mb	
GUN	15.08	121	P	03 21.10	-0.2
	0.4s		4.00nm	4.1mb	
GBA	23.56	165	P	04 56.00	-0.9
HFS	43.12	322	eP	07 46.50	-0.6
	0.4s		1.50nm	4.1mb	
NB2	44.43	323	P	07 57.70	-0.1
	0.7s		1.80nm	4.0mb	
MBC	67.23	3	eP	10 42.00	0.8
YKA	81.14	3	P	12 02.10	0.5

S.D. = 0.9 on 12 of 12 obs.

% FEB 11, 1989 13h 26m 07.37± 0.85s
36.371 N ± 8.3km 139.959 E ± 8.3km
DEPTH = 33.0km (normal)
HONSHU, JAPAN (227)

KAKJ	0.24	134	iP+	26 14.40	0.0
			S	26 20.50	
CHJJ	0.84	248	P	26 22.10	-0.7
			S	26 34.40	
NIIJ	1.16	319	P	26 27.60	0.3
MAT	1.42	277	iPd	26 31.00	-0.1
			iS	26 45.10	
MTMJ	1.75	278	P	26 36.00	0.0
YAMJ	1.80	2	eP	26 36.40	-0.2
IIDJ	1.88	242	P	26 38.50	0.6
			S	27 01.80	

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

& FEB 11, 1989 14h 53m 17.17s
58.164 N 151.378 W
DEPTH = 78.7km
KODIAK ISLAND REGION (13)
<AGS-P>.

KDC	0.73	235	iP	53 32.48	-0.7
			iS	53 42.00	
CNPM	1.37	3	iP	53 39.96	-1.2
CDD	1.41	304	eP	53 40.55	-1.2
HOM	1.51	355	eP	53 42.22	-0.7
AUL	1.62	320	eP	53 44.08	-0.4
BRLK	1.63	9	eP	53 43.30	-1.2
NNL	1.88	1	iP	53 47.32	-0.7
			eS	54 14.12	
ILIM	2.09	338	iP	53 49.54	-1.3
			iS	54 18.79	
SEW	2.18	26	iP	53 50.59	-1.5
			iS	54 14.00	
PDB	2.19	319	iP	53 50.83	-1.3
RED	2.37	343	eP	53 53.10	-1.7
SLKM	2.42	14	eP	53 53.90	-1.6
RDT	2.47	348	eP	53 54.28	-1.9
NKA	2.59	2	eP	53 57.86	0.2
PTE	2.96	23	eP	54 01.47	-1.3
SPU	3.05	354	eP	54 02.20	-1.9
PWL	3.12	29	iP	54 03.75	-1.3
			iS	54 36.88	
CRP	3.14	353	eP	54 04.15	-1.3
PMS	3.22	16	eP	54 04.96	-1.6
HIN	3.36	46	eP	54 07.61	-0.8
			eS	54 43.51	
KNK	3.58	23	eP	54 09.59	-1.8
PLRM	3.62	17	eP	54 10.06	-1.9
SVW	3.66	326	eP	54 10.60	-1.9
CVA	3.74	48	eP	54 12.55	-1.1
VZW	3.80	38	iP	54 13.12	-1.4
GHO	3.82	18	eP	54 13.32	-1.6
VLZ	3.93	39	eP	54 15.11	-1.1
			eS	54 55.87	
SGAM	3.93	51	eP	54 15.64	-0.7
SML	3.96	21	eP	54 15.07	-1.8
RAGM	4.10	54	eP	54 17.65	-1.1
KLU	4.33	37	iP	54 20.93	-1.1
TOA	4.73	31	eP	54 27.16	-0.5
GLB	5.04	46	eP	54 30.60	-1.3
TTA	5.30	336	eP	54 33.20	-2.3
INK	12.90	31	eP	56 28.00	9.5
YKA	18.53	61	P	57 32.70	3.1

36 obs. associated

FEB 11, 1989 14h 59m 45.43± 0.69s
44.523 N ± 6.0km 8.844 E ± 4.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.9 (LDG), 2.8 (GEN).

GEN	0.12	150	P	59 48.60	0.2
			S	59 52.20	
CKI	0.42	257	Pd	59 53.40	-0.5
			eSg	59 59.70	
FIN	0.55	236	P	59 56.13	-0.6
			S	00 03.79	
ROB	0.73	252	P	59 59.10	-0.8
			S	00 08.80	
IMI	0.92	229	P	00 02.83	-0.2
			S	00 15.68	
STV	1.12	256	P	00 06.28	-0.3
			S	00 20.84	
DOI	1.14	270	P	00 06.30	-0.6
			eSg	00 21.20	
AUTN	1.15	243	Pn	00 07.35	0.3
SBF	1.21	237	Pg	00 08.40	0.4
			Sg	00 26.00	
PZZ	1.25	270	P	00 07.77	-0.9
			S	00 23.34	
TOUF	1.25	247	Pn	00 09.45	0.6
			Sg	00 26.43	
ORX	1.27	331	P	00 08.54	-0.5

		S	00 24.28		
BDI	1.34	109 P	00 10.00	-0.2	
		eSg	00 28.90		
MVIF	1.37	243 Pn	00 10.73	0.1	
		Sg	00 30.97		
LPL	1.80	304 Pg	00 18.40	1.5	
FRF	1.85	240 Pg	00 20.20	2.7	
		Sg	00 45.00		
CVF	1.95	179 Pn	00 18.20	-0.8	
LMR	2.06	236 Pg	00 23.80	3.3X	
		Sg	00 52.00		
LRG	2.09	240 Pg	00 24.00	3.1X	
		Sg	00 52.00		
BGF	4.68	298 Pn	00 57.50	-0.3	

S.D. = 1.0 on 18 of 20 obs.

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* FEB 11, 1989 15h 23m 07.06± 0.63s
7.262 S ± 8.1km 128.490 E ±12.9km
DEPTH = 76.4 ± 6.4 km
4.1mb (2 obs.)
BANDA SEA (280)

MTN	6.13	155 iPc	24 38.10	1.1	
		eS	25 35.00		
KNA	8.44	178 iPd	25 08.40	-0.5	
	0.3s	11.00nm		5.2mb X	
		eS	26 34.00		
WRA	13.83	156 Pd	26 17.60	-3.4X	
	0.2s	1.20nm		3.9mb	
QIS	17.05	142 eP	27 02.00	0.0	
		eS	29 55.00		
ASPA	17.12	163 iPc	27 03.00	0.1	
	0.5s	10.00nm		4.3mb	
		eS	29 59.80		
NANU	19.68	218 eP	27 33.00	0.2	
CTA	21.43	128 eP	27 57.00	6.3X	
FORR	23.47	181 eP	28 10.00	-0.5	
BWA	32.69	149 eP	29 34.20	0.0	
CAN	33.68	149 eP	29 42.20	-0.7	
GUN	54.01	312 P	32 26.20	0.0	
PKI	54.17	312 P	32 27.40	0.0	
KKN	54.38	312 P	32 29.00	0.2	
DMN	54.41	311 P	32 29.80	0.7	
GKN	54.97	312 P	32 32.60	-0.5	
YKA	108.64	26 PKP	41 27.70	-0.7	
CNCB	151.06	146 PKP	42 54.00	5.6X	
LPB	151.22	145 PKP	42 55.00	6.6X	
ZOBO	151.42	145 PKP	42 55.30	6.4X	

S.D. = 0.6 on 14 of 19 obs.

FEB 11, 1989 15h 44m 25.55± 1.01s
15.806 S ± 5.5km 167.657 E ± 6.2km
DEPTH = 148.4 ± 8.6 km
5.6mb (22 obs.)
VANUATU ISLANDS (186)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 9S, 19C
Centroid Location:
Origin Time 15:44:38.1 2.6
Lat 15.39S 0.25 Lon 167.28E 0.16
Dep 154.2 4.6 Half-duration 1.6
Moment Tensor; Scale 10**16 Nm
Mrr=-3.21 0.52 Mtt= 7.24 0.98
Mff=-4.04 0.95 Mrt=-3.32 0.68
Mrf=-2.23 0.66 Mtf= 3.67 0.99
Principal Axes:

T	Val= 9.49	Plg=17	Azm=162
N	-3.54	51	50
P	-5.95	34	264

Best Double Couple:Mo=7.7*10**16
NP1:Strike=298 Dip=53 Slip= -14
NP2: 36 79 -142

PVC	2.02	162 iP	45 00.90	-0.3	
		iS	45 27.50		
DZM	6.34	190 iPc	45 57.00	-0.9	
		iS	47 05.40		
HNR	9.83	309 eP	46 47.00	2.5	
		e(S)	48 39.00		
VSG	10.13	309 eP	46 52.00	3.6X	
		eS	48 47.00		
BRS	17.99	228 iPd	48 28.50	0.9	
		i	48 38.00		
		e	48 52.00		
		eS	51 48.00		
LMG	20.24	287 e(P)	48 52.00	0.7	
RMQ	20.56	236 iPd	48 55.80	1.5	
	1.2s	882.00nm		6.1mb	
COO	20.61	222 iPd	48 56.20	1.5	
CTA	20.80	255 iPd	48 58.10	1.4	
	0.9s	317.65nm		5.7mb	
		iS	53 17.00		
		i	56 24.10		
		i	56 38.50		
KRP	23.11	164 eP	49 19.00	-0.1	
		e	49 41.00		
CMS	25.29	228 iPd	49 40.10	0.2	
	1.1s	212.00nm		5.6mb	
BWA	25.36	219 iPd	49 38.90	-1.6	
CNB	25.41	217 iPd	49 41.70	0.7	
MNDI	25.41	290 eP	49 45.00	3.7X	
CAN	25.62	217 eP	49 42.80	-0.1	
QIS	27.05	256 iPd	49 55.70	-0.3	
	0.4s	69.00nm		5.6mb	
STK	28.60	231 iPd	50 10.20	0.3	
	0.6s	110.00nm		5.8mb	
		i	53 16.40		
TOO	29.22	218 iPc	50 15.60	0.2	
WB5	31.91	258 iPd	50 37.90	-1.3	
WB2	31.93	258 iPd	50 37.90	-1.4	
WRA	31.94	258 Pd	50 38.10	-1.3	
	0.9s	85.40nm		5.6mb	
ADE	32.19	228 iPd	50 42.60	1.1	
	0.7s	68.49nm		5.6mb	
ASPA	32.66	251 iPd	50 44.00	-1.7	
	0.9s	360.00nm		6.1mb	
Z	22s	0.24um		3.8MszX	
		iPcP	53 26.00		
		ePcS	57 09.00		
		eScS	00 53.70		
		LR	01 48.20		
MTN	35.49	270 iPc	51 09.90	0.1	
GUA	36.82	321 eP	51 20.80	-0.2	
GUMO	36.89	321 eP	51 21.50	0.0	
PJG	36.89	321 eP	51 21.70	0.2	
KNA	37.39	265 iPd	51 25.40	-0.4	
	0.3s	128.00nm		6.1mb	
FORR	39.06	240 eP	51 40.00	0.4	
WARB	39.51	248 iPd	51 36.70	-6.7X	
AAI	40.62	283 ePc	51 52.50	-0.1	
COOL	44.94	242 iPd	52 27.20	-0.3	
MBL	45.54	256 iPd	52 32.50	0.3	
	0.5s	85.00nm		5.6mb	
MEKA	46.79	248 iPd	52 42.50	0.3	
	0.4s	55.00nm		5.5mb	
KLB	47.91	242 iPd	52 50.00	-0.7	
NWAO	48.53	240 iPd	52 55.00	-0.5	
BAL	48.70	243 eP	52 56.00	-0.8	
RKG	48.88	238 iPc	52 58.80	0.6	
	0.6s	91.00nm		5.7mb	
MRWA	49.20	245 eP	53 00.00	-0.7	
	0.3s	3.00nm		4.5mb X	
MUN	49.27	241 eP	53 01.00	-0.2	
NANU	49.49	254 iPd	53 03.30	0.3	
	0.4s	51.00nm		5.6mb	
PPR	54.71	294 ePc	53 43.00	1.1	
	1.0s	97.00nm		5.6mb	
CHJJ	58.27	333 P	54 06.10	-0.6	
IIDJ	58.28	332 P	54 06.10	-0.8	
MAT	59.03	332 iPd	54 10.60	-1.4	
	1.0s	65.00nm		5.5mb	
MTMJ	59.24	332 P	54 12.70	-0.9	
NIIJ	59.26	334 P	54 13.10	-0.5	
YAMJ	59.62	335 eP	54 16.60	0.5	
OFUJ	59.76	337 eP	54 17.20	0.2	
KLI	62.53	273 eP	54 33.70	-2.4	
		e	54 59.00		
QZH	62.67	309 eP	54 36.00	-0.7	
SSE	64.55	316 iPd	54 47.80	-1.1	
	1.0s	59.00nm		5.5mb	
		e	55 02.30		
NJ2	66.70	316 Pc	55 02.60	-0.1	
WHN	68.94	312 P	55 16.50	-0.1	
IPM	68.95	281 ePd	55 16.20	-0.8	
	1.1s	58.50nm		5.3mb	
DL2	69.38	323 P	55 19.10	0.0	
MDJ	69.40	332 Pd	55 19.20	0.1	
SNY	70.30	326 iPd	55 24.00	-0.7	
TIA	70.39	318 Pd	55 24.80	-0.5	
CN2	70.76	329 iPd	55 27.00	-0.4	
	3.0s	0.20nm		2.4mb X	
		pP	56 06.00	161kmX	
		eS	04 32.00		
GYA	72.63	305 P	55 38.80	-0.2	
LOE	72.88	294 iPd	55 40.00	-0.4	
BJI	73.33	321 iPd	55 43.00	0.4	
NST	73.63	292 iPd	55 41.00	-3.8X	
TIY	74.30	317 iPd	55 48.90	0.5	
	1.0s	0.10nm		2.5mb X	
XAN	74.69	313 iPd	55 50.60	-0.1	
KMI	75.19	302 Pd-	55 55.00	1.0	
CHG	75.86	294 iPd	55 38.00	-19.6X	
	1.0s	39.75nm			
HHC	76.64	320 Pd	56 02.20	0.6	
CD2	76.96	308 eP	56 04.10	0.6	
BTO	77.47	319 eP	56 06.60	0.4	
TTA	83.45	16 P	56 35.30	-2.0	
GTA	83.68	314 iPd	56 40.30	1.3	
	1.3s	0.10nm		2.5mb X	
PMR	84.39	19 P	56 40.70	-1.2	
FBA	87.26	17 P	56 53.70	-2.3	
	0.8s	5.52nm		4.6mb X	
KVN	88.07	49 P	57 00.80	0.1	
GUN	90.24	299 P	57 11.40	0.1	
PKI	90.54	298 P	57 12.40	-0.2	
	1.0s	60.00nm		5.6mb	
KKN	90.71	299 P	57 13.10	-0.2	
	1.0s	48.00nm		5.6mb	
DMN	90.80	298 P	57 13.60	-0.2	
	1.0s	89.00nm		5.8mb	
GKN	91.32	299 P	57 15.40	-0.6	
	1.0s	36.00nm		5.5mb	
WMQ	93.74	314 iPd	57 26.90	0.2	
HYB	93.79	287 iP	57 27.00	-0.3	
GBA	93.83	283 Pd	57 27.40	-0.1	
	0.8s	5.70nm		4.9mb	
YKA	98.33	27 P	57 47.30	0.4	
KEV	120.86	345 ePKP	03 17.00	16.1X	
KJF	124.46	340 ePKP	03 06.00	-2.0	
SUF	125.97	339 iPKP	03 10.10	-0.9	
	0.6s	3.70nm			
BUL	126.19	230 iPKPd	03 11.00	-1.9	
	1.0s	10.00nm			
PTZ	127.51	238 iPKPc	03 14.60	-0.9	
NUR	128.00	338 iPKP	03 14.70	-0.2	
KMZ	132.35	234 ePKPc	03 20.00	-4.7X	
PRU	139.55	333 ePKP	03 38.00	1.0	
KBA	142.23	331 ePKPc	03 35.50	-6.7X	
	1.1s	11.40nm			
MEM	142.26	341 PKP	03 38.40	-3.4X	
FVI	142.85	331 PKPd	03 38.30	-4.6X	
SNF	142.87	342 PKP	03 40.50	-2.4	
WLF	143.03	340 PKP	03 39.80	-3.3X	
GWF	143.11	338 PKP	03 40.18	-3.2X	
DOU	143.15	342 PKPc	03 41.50	-1.9	
	0.7s	8.90nm			
CDF	143.71	338 PKP	03 41.43	-3.1X	
CTI	143.78	331 PKPc	03 41.60	-3.1X	
FEL	143.88	337 PKP	03 41.67	-3.2X	
MOF	144.23	337 PKP	03 42.68	-2.7	
VITF	144.33	339 PKP	03 43.62	-1.8	
BSF	144.37	338 PKP	03 43.62	-2.1	
HAU	144.39	338 ePKP	03 43.50	-2.1	
BBS	144.41	337 PKP	03 44.02	-1.7	
AOI	144.61	327 ePKP	03 45.13	-1.0	
SAL	144.63	332 PKPc	03 44.70	-1.3	
LOMF	144.76	337 PKP	03 45.19	-1.1	
MDI	144.86	333 PKPc	03 44.40	-2.0	
RSM	144.94	328 PKPd	03 46.70	0.1	
ARV	144.99	327 PKPc	03 46.50	-0.3	
CIO	145.10	327 ePKP	03 45.85	-1.2	
VAI	145.20	334 PKPd	03 45.70	-1.2	
SFI	145.25	329 PKPc	03 48.00	0.9	
PGD	145.35	329 PKPd	03 47.80	0.2	
DUI	145.40	323 PKP	03 47.00	-0.6	
ASS	145.44	327 PKPc	03 47.10	-0.5	
TDS	145.49	319 PKPd	03 47.50	-0.2	
MME	145.62	330 PKP	03 48.30	0.2	
FIR	145.65	329 ePKP	03 48.00	0.2	
MGR	145.69	320 PKPc	03 47.30	-0.7	
ORX	145.72	334 PKP	03 47.20	-0.9	
FLN	145.73	346 ePKP	03 47.30	-0.5	
ORO	145.73	334 PKPd	03 47.50	-0.6	
BDI	145.76	330 PKPc	03 47.30	-0.8	
BOB	145.76	332 PKPc	03 48.60	0.5	
LDF	145.80	346 ePKP	03 47.50	-0.4	
LOR	145.87	340 ePKP	03 48.30	0.2	
MNS	145.90	326 PKPd	03 47.80	-0.6	
PII	146.05	330 PKPc	03 48.00	-0.5	
LBF	146.08	340 ePKP	03 48.80	0.3	

11d 16h

GRR	146.16	346	ePKP	03	48.70	0.2
SSF	146.17	340	ePKP	03	49.10	0.5
LSD	146.20	335	PKP	03	49.85	0.8
RDP	146.31	325	PKP	03	50.00	0.9
LPG	146.33	335	ePKP	03	50.30	1.0
RSP	146.41	335	PKP	03	48.96	-0.2
SMF	146.42	340	ePKP	03	49.70	0.7
AVF	146.46	340	ePKP	03	49.60	0.6
LPF	146.54	346	ePKP	03	49.90	0.8
CKI	146.55	333	PKP	03	49.00	-0.3
SOI	146.57	317	PKPd	03	51.00	1.5
MAO	146.69	327	PKP	03	50.50	0.9
BNI	146.73	335	PKPc	03	51.80	2.1
FIN	146.75	333	PKP	03	49.79	0.1
RRL	146.79	335	PKP	03	51.27	1.3
BGF	146.83	341	ePKP	03	50.90	1.2
ROB	146.84	333	PKP	03	50.28	0.4
ATN	146.91	318	PKP	03	50.70	0.6
PZZ	147.00	334	PKP	03	49.93	-0.3
STV	147.11	334	PKP	03	49.93	-0.4
IMI	147.13	333	PKP	03	51.28	1.0
MAF	147.21	341	ePKP	03	52.20	1.9
TCF	147.27	341	ePKP	03	52.10	1.7
AUTN	147.27	333	PKP	03	52.18	1.4
TOUF	147.33	333	PKP	03	52.94	2.1
SBF	147.37	333	ePKP	03	52.00	1.3
AURF	147.40	333	PKP	03	52.94	2.2
MVIF	147.46	333	PKP	03	52.94	2.0
LSF	147.51	342	ePKP	03	52.50	1.7
MNO	147.54	318	PKPd	03	53.80	2.5
BNG	147.62	253	iPKPc	03	50.40	-1.5
	0.3s	100.00nm				
			i	03	54.00	
			i	04	07.30	
			i	04	30.00	
MFF	147.65	344	ePKP	03	52.90	1.9
CALN	147.69	333	PKP	03	53.54	2.2
CVF	147.72	330	PKP	03	53.54	2.3
FRF	147.95	334	ePKP	03	53.70	2.1
LRG	148.16	334	ePKP	03	54.40	2.5
LMR	148.19	333	ePKP	03	54.50	2.6
RJF	148.36	341	ePKP	03	55.30	3.1X
CAF	148.53	340	ePKP	03	55.90	3.4X
LFF	148.93	342	ePKP	03	56.80	3.8X
LPO	149.02	341	ePKP	03	57.10	3.9X
EPF	150.78	341	ePKP	04	02.50	6.5X

S.D. = 1.1 on 156 of 176 obs.

FEB 11, 1989 16h 20m 47.33± 0.66s
44.224 N ± 2.8km 6.346 E ± 5.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.8 (LDG).

FOUF	0.44	46	P	20	55.87	-0.3
			Sg	21	00.32	
PZZ	0.61	62	P	20	59.02	-0.7
			S	21	07.26	
CALN	0.61	140	Pg	20	59.53	-0.3
MVIF	0.67	119	Pg	21	00.77	0.1
TOUF	0.68	108	Pg	21	00.33	-0.7
FRF	0.70	162	Pg	21	01.10	0.0
			Sg	21	12.80	
STV	0.70	88	P	21	00.61	-0.7
			S	21	09.21	
RRL	0.76	24	P	21	02.03	-0.4
			S	21	12.08	
LRG	0.77	179	Pg	21	02.50	0.2
			Sg	21	13.80	
AURF	0.78	115	Pg	21	02.78	0.1
			Sg	21	14.91	
AUTN	0.81	106	Pg	21	04.20	1.0
SBF	0.86	114	Pn	21	04.20	0.2
			Pg	21	05.20	
			Sg	21	16.20	
REVF	0.88	123	Pg	21	05.48	1.2
			Sg	21	17.82	
LMR	0.90	172	Pn	21	04.50	0.0
			Pg	21	05.50	
			Sg	21	18.20	
ROB	1.10	86	P	21	08.12	0.1
			S	21	21.20	
RSP	1.13	35	P	21	08.46	-0.2
			S	21	21.72	
IMI	1.16	105	P	21	10.07	1.1
			S	21	24.48	
LPG	1.31	13	Pg	21	12.30	0.6
LPL	1.32	12	Pg	21	12.40	0.5
FIN	1.34	90	P	21	12.28	0.3
			S	21	29.07	
LSD	1.36	25	P	21	12.53	0.0
			S	21	29.59	
ORX	1.83	39	P	21	19.10	0.0
			S	21	36.25	
CVF	2.47	131	Pn	21	26.40	-1.9
			Sn	21	54.50	

S.D. = 0.7 on 23 of 23 obs.

& FEB 11, 1989 16h 34m 19.75s
62.358 N 151.170 W
DEPTH = 92.7km
CENTRAL ALASKA (1)
<AGS-P>.

PWA	0.94	139	iP	34	38.32	-0.8
CRP	1.19	204	iP	34	41.64	-0.7
GHO	1.21	118	iP	34	41.74	-0.8
			iS	34	58.84	
PLRM	1.23	128	eP	34	41.27	-1.4
PME	1.25	125	eP	34	41.67	-1.2
			eS	34	59.22	
SPU	1.25	200	eP	34	41.96	-1.0
			eS	34	59.58	
PMS	1.35	145	eP	34	42.90	-1.3
			iS	35	01.05	
SML	1.44	111	iP	34	45.05	-0.3
			iS	35	04.65	
KNK	1.60	125	iP	34	46.12	-1.2
			iS	35	07.74	
NKA	1.62	181	eP	34	49.07	1.5
MCK	1.71	35	eP	34	47.93	-0.9
RDT	1.89	199	eP	34	50.19	-0.9
SLKM	1.91	166	eP	34	49.98	-1.5
PWL	2.02	137	iP	34	50.95	-2.0
			eS	35	14.64	
TTA	2.31	287	eP	34	55.69	-1.1
NNL	2.32	182	eP	34	57.78	0.8
TOA	2.35	94	eP	34	56.40	-1.0
SEW	2.41	159	eP	34	56.83	-1.2
NEA	2.42	22	eP	34	56.52	-1.7
ILIM	2.44	202	eP	34	57.19	-1.4
SVW	2.46	241	iP	34	57.86	-1.0
VZW	2.56	119	eP	34	58.18	-1.9
VLZ	2.61	116	eP	34	58.62	-2.1
KLU	2.63	107	eP	34	58.88	-2.3
PAX	2.70	74	eP	35	01.03	-1.1
CCB	2.75	32	iP	35	00.80	-1.9
HDA	2.80	41	eP	35	01.71	-1.7
DDM	2.81	57	iP	35	03.02	-0.6
RDS	2.82	27	eP	35	02.05	-1.7
CNPM	2.84	181	eP	35	03.25	-0.8
FBA	2.96	29	eP	35	04.13	-1.5
HIN	2.99	129	iP	35	03.79	-2.2
GLM	3.13	31	eP	35	06.46	-1.5
CVA	3.17	123	eP	35	06.02	-2.5
SGAM	3.42	120	eP	35	09.44	-2.4
GLB	3.60	102	eP	35	12.20	-2.3
CDD	3.65	201	eP	35	14.88	-0.2
IMA	3.88	345	eP	35	17.08	-1.3
DWY	5.58	67	P	35	39.00	-2.8
INK	9.46	43	eP	36	32.00	-2.9

40 obs. associated

% FEB 11, 1989 16h 34m 33.08± 0.78s
59.997 N ± 6.2km 6.576 E ±11.4km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.1 (BER).

ODD1	0.09	163	iPgc	34	36.18	0.5
			iSg	34	38.02	
BLS1	0.62	168	iP	34	45.38	-0.3
			iSg	34	53.73	
KMY	1.04	221	eP	34	52.57	-0.1
			iS	35	06.21	
HYA	1.19	351	iPd	34	54.23	-1.0
			eS	35	08.61	
NRA0	2.58	71	eP	35	14.90	-0.6
			iPg	35	17.70	
			eS	35	44.20	
			iSg	35	50.50	
MOL	2.62	10	iP	35	17.64	1.5
			eS	35	43.94	
			iSg	35	52.10	

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

? FEB 11, 1989 17h 48m 50.95± 2.55s
16.850 N ±20.9km 100.520 W ±18.4km
DEPTH = 33.0km (normal)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX	0.63	88	iPc	49	03.50	0.0
III	1.82	33	iP	49	20.00	-0.7
CRX	2.67	17	iP	49	38.00	5.2X
UNM	2.78	27	(P)	49	38.00	3.7X
IIT	3.02	44	eP	49	38.00	0.2
IIC	3.14	22	eP	49	40.00	0.4
OXX	3.64	86	(P)	49	59.00	12.4X
IISM	3.67	54	eP	49	43.00	-3.8X
YKA	46.65	351	P	57	17.80	0.0

S.D. = 0.6 on 5 of 9 obs.

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* FEB 11, 1989 17h 52m 19.10± 0.85s
38.438 N ± 7.6km 30.615 E ± 8.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.87	263	iPn	52	35.40	-0.4
BOK	0.98	181	ePn	52	37.80	0.1
ELL	1.78	199	ePn	52	55.00	4.8X
GPA	1.86	353	ePn	52	51.00	-0.3
DST	1.94	308	iPn	52	53.10	0.7
BBTK	2.18	49	eP	52	56.00	0.0
			eS	53	28.00	
YLV	2.33	336	ePn	53	02.00	3.8X

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

FEB 11, 1989 18h 31m 11.89± 0.48s
2.983 S ± 6.3km 145.386 E ± 8.2km
DEPTH = 33.0km (normal)
5.0mb (4 obs.) 4.4Msz (1 obs.)
ADMIRALTY ISLANDS REGION (199)

MNDI	3.59	209	eP	32	11.00	4.2X
LAT	3.98	156	eP	32	14.00	1.8
JAY	4.70	276	ePd	32	22.00	-0.4
PMG	6.62	165	iPc	32	47.70	-1.8
	0.9s	201.68nm			5.9mb	X
RAB	6.88	100	eP	32	53.00	0.0
CTA	17.02	177	iPc	35	11.50	2.3
	1.1s	53.80nm			4.6mb	
MTN	17.17	234	eP	35	13.00	1.9
	0.7s	89.00nm			5.0mb	X
QIS	18.35	197	eP	35	25.00	-0.7
WRA	20.01	212	Pc	35	42.70	-2.2
	1.3s	81.90nm			4.9mb	
KNA	20.70	231	eP	35	51.00	-1.0
ASPA	23.37	207	iPd	36	19.60	1.0
			eS	40	40.20	
RMQ	23.59	172	iPc	36	21.60	0.9
BRS	25.28	164	iP	36	36.30	-0.7
WARB	29.26	216	eP	37	06.70	-6.6X
BWA	31.41	175	eP	37	31.00	-1.3
FORR	32.17	209	eP	37	38.00	-0.9
WHN	44.59	321	eP	39	27.00	4.1X
PSI	46.78	276	eP	39	21.50	-19.1X
XAN	50.35	320	eP	40	07.40	-0.5
BJI	50.50	331	P	40	13.00	4.1X
TIY	50.72	326	eP	40	15.50	4.8X
Z	22s	0.40um			4.4Msz	
CD2	52.04	314	eP	40	20.80	0.0
HHC	53.44	328	eP	40	31.20	0.1
BTO	54.08	327	eP	40	35.00	-0.9
GTA	59.41	320	eP	41	14.40	0.5
GUN	64.89	303	P	41	51.30	0.3
	1.0s	33.00nm			5.4mb	
PKI	65.18	302	P	41	53.40	0.5
KKN	65.36	302	P	41	54.30	0.5
	1.0s	18.00nm			5.1mb	
DMN	65.45	302	P	41	55.10	0.6
GKN	65.96	302	P	41	58.20	0.6
HYB	68.92	290	eP	42	28.00	11.8X
NDI	72.45	301	eP	42	48.00	10.6X
INK	89.46	22	eP	44	06.00	-0.5

S.D. = 1.2 on 25 of 33 obs.

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* FEB 11, 1989 18h 44m 16.59± 0.89s
2.403 N ±19.1km 126.823 E ±26.2km
DEPTH = 33.0km (normal)
4.4mb (4 obs.)
MOLUCCA PASSAGE (266)

KNA	18.14	174	eP	48 28.00	0.2
WB5	23.35	162	iPd	49 22.80	-0.3
WRA	23.40	162	Pc	49 23.10	-0.5
	0.5s	4.40nm		4.2mb	
WB2	23.41	162	iPd	49 22.80	-0.8
QIS	26.03	152	eP	49 48.00	-0.7
ASPA	26.81	165	eP	49 56.20	0.3
STK	36.87	159	eP	51 24.00	0.1
BWA	41.88	153	eP	52 07.10	1.5
CAN	42.89	153	eP	52 14.10	0.3
GUN	46.58	307	P	52 44.00	0.1
	0.6s	14.00nm		5.1mb	
PKI	46.82	306	P	52 45.40	-0.4
KKN	47.01	307	P	52 47.00	-0.2
	0.6s	4.00nm		4.6mb	
GKN	47.62	306	P	52 51.80	-0.1
GBA	50.05	286	P	53 11.00	0.4
	0.4s	0.90nm		4.1mb	

S.D. = 0.6 on 14 of 14 obs.

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* FEB 11, 1989 19h 40m 07.71± 0.53s
2.367 N ± 9.6km 126.582 E ±16.5km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
MOLUCCA PASSAGE (266)

KNA	18.13	173	eP	44 19.00	0.2
WB5	23.39	161	eP	45 15.00	0.4
WRA	23.44	161	Pd	45 15.10	0.0
	0.5s	7.00nm		4.4mb	
WB2	23.45	161	eP	45 15.00	-0.2
QIS	26.12	151	eP	45 40.00	-0.6
ASPA	26.84	165	eP	45 46.50	-0.8
WARB	28.38	180	eP	45 55.80	-5.4X
FORR	33.06	178	eP	46 42.00	-0.5
MAT	35.66	16	eP	47 04.00	-0.8
BJI	38.67	347	eP	47 31.00	1.0
BRS	38.89	141	eP	47 30.50	-1.6
BWA	41.96	153	eP	47 59.20	1.9
CAN	42.97	153	eP	48 07.00	1.4
GUN	46.41	307	P	48 34.30	0.6
KKN	46.84	307	P	48 37.00	0.1
GBA	49.83	286	Pc	48 58.90	-1.1
	0.7s	2.30nm		4.3mb	

S.D. = 1.0 on 15 of 16 obs.

FEB 11, 1989 20h 51m 21.95± 0.58s
43.146 N ± 4.6km 0.213 E ± 8.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.5 (LDG). Felt (III) at Arreau and Arognouet.

EPF	0.15	141	Pg	51 25.10	-0.3
			Sg	51 27.30	
LPO	1.69	24	Pn	51 52.10	0.5
			Pg	51 56.60	
			Sg	52 20.00	
LFF	1.83	12	Pn	51 54.40	0.7
			Pg	52 00.00	
			Sg	52 25.00	
ECRI	2.07	256	ePn	52 02.40	5.1X
			eSn	52 30.00	
ETER	2.12	113	ePn	51 58.00	0.1
			eSn	52 21.80	
CAF	2.22	36	Pn	51 58.60	-0.8
			Pg	52 05.20	
			Sg	52 33.60	
EROO	2.33	176	ePn	52 02.00	1.1
			eSn	52 27.30	
RJF	2.35	23	Pg	52 08.00	6.8X
			Sg	52 39.00	
ETOR	2.87	217	ePg	52 14.50	5.8X
			eSg	52 47.50	
LSF	3.24	16	Pn	52 13.80	-0.1
			Pg	52 25.30	
			Sg	53 08.40	
TCF	3.45	24	Pn	52 17.20	0.4
			Sg	53 14.00	
MFF	3.47	356	Pn	52 17.50	0.5
			Sg	53 16.40	
BGF	3.89	28	Pn	52 23.00	-0.1
			Pg	52 37.00	
			Sg	53 28.60	
GUD	4.11	234	ePg	52 25.30	-1.0
			eSg	53 11.50	
SMF	4.35	35	Pn	52 28.40	-1.1
			Sg	53 41.80	

S.D. = 0.8 on 12 of 15 obs.

% FEB 11, 1989 20h 57m 19.31± 0.74s
37.033 N ± 6.1km 5.267 W ± 9.2km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 3.0 (MDD).

EPRU	0.07	157	iPgd	57 21.40	-0.3
EJIF	0.60	196	ePg	57 31.70	0.2
EHOR	0.79	1	iPgd	57 34.60	0.0
			iSg	57 45.10	
EVAL	1.30	295	iPnc	57 43.30	-0.1
			eSn	58 00.40	
EBAN	1.63	46	iPnc	57 48.30	0.1
			eSn	58 08.40	
EPLA	3.10	348	ePg	58 18.00	8.9X
			eSg	58 54.70	
GUD	3.71	13	ePg	58 29.70	11.7X
			eSg	59 11.40	

S.D. = 0.3 on 5 of 7 obs.

FEB 12, 1989 00h 48m 32.99± 0.55s
44.232 N ± 2.8km 6.290 E ± 4.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.0 (LDG).

FOUF	0.46	50	P	48 42.00	-0.4
			Sg	48 46.44	
PZZ	0.64	65	P	48 45.13	-0.8
			S	48 52.77	
CALN	0.65	138	Pg	48 45.61	-0.4
MVIF	0.71	118	Pg	48 47.16	0.1
FRF	0.72	159	Pg	48 47.50	0.4
			Sg	48 59.00	
TOUF	0.72	107	Pg	48 46.44	-0.9
DOI	0.74	68	P	48 46.60	-0.9
			eSn	48 54.60	
STV	0.74	89	P	48 46.72	-0.9
			S	48 55.08	
RRL	0.77	27	P	48 48.05	-0.2
			S	48 57.71	
LRG	0.78	176	Pg	48 48.80	0.7
			Sg	49 00.80	
AURF	0.82	114	Pg	48 48.61	-0.4
			Sg	49 01.34	
AUTN	0.85	106	Pg	48 50.66	1.1
BNI	0.87	18	P	48 50.00	0.3
			eSg	49 00.40	
SBF	0.90	114	Pn	48 50.50	0.1
			Pg	48 51.60	
			Sg	49 01.80	
LMR	0.91	170	Pn	48 50.80	0.4
			Pg	48 51.80	
			Sg	49 04.60	
REVF	0.92	122	Pg	48 51.45	0.8
ROB	1.14	86	P	48 54.18	-0.1
			S	49 07.64	
RSP	1.15	37	P	48 54.85	0.3
			S	49 08.66	
IMI	1.20	105	P	48 56.07	0.7
			S	49 10.72	
LPG	1.31	14	Pg	48 58.20	0.8
LPL	1.32	14	Pg	48 58.40	0.8
			Sg	49 16.00	
LSD	1.37	26	P	48 58.53	0.2
			S	49 14.43	
FIN	1.38	90	P	48 58.07	-0.2
			S	49 13.54	
CKI	1.44	82	P	48 59.90	0.8
			eSn	49 16.20	
ORX	1.85	40	P	49 06.04	1.0
CVF	2.51	131	Pn	49 13.00	-1.5
BGF	3.36	315	Pn	49 25.00	-1.6

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

FEB 12, 1989 02h 20m 05.34± 0.43s
42.761 N ± 4.5km 18.624 E ± 4.3km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.7 (TTG).

BRY	0.15	337	iPgd	20 06.80	-2.2
			iSg	20 11.00	
NKY	0.28	79	iPgd	20 10.50	-0.8
			iSg	20 16.50	
HCY	0.33	196	iPgd	20 10.00	-2.1
			iSg	20 16.00	
BDV	0.50	162	ePg	20 14.40	-1.1
			eSg	20 24.20	
TTG	0.58	125	iPgc	20 15.50	-1.5
			eSg	20 26.00	
PLE	0.80	45	ePg	20 20.00	-1.0
			eSg	20 33.40	
ULC	0.92	150	ePg	20 23.00	0.0
			eSg	20 37.30	
IVA	0.94	83	ePg	20 23.50	0.1
			eSg	20 40.00	
SDA	0.99	139	ePg	20 24.70	0.7
PVY	1.01	99	ePg	20 24.50	0.0
			eSg	20 42.00	
HVAR	1.65	285	iPn	20 33.80	-0.7
			iSg	20 56.40	
TIR	1.69	146	ePn	20 37.00	2.0
BRT	2.16	210	P	20 45.80	3.9X
SKO	2.23	110	iPn	20 45.50	2.6
OHR	2.31	135	ePn	20 47.80	3.7X
BEO	2.45	32	ePn	20 45.50	-0.4
			eSg	21 28.00	
LCI	2.48	192	P	20 53.50	7.2X
VAY	3.27	115	ePn	21 04.70	7.0X
MGR	3.49	222	P	21 02.00	1.2
BZS	3.58	36	ePc	21 02.00	0.1
VBY	3.66	320	ePn	21 04.40	1.2
			eSn	21 44.00	
			eSg	21 58.10	
PTJ	3.67	330	eP	21 03.60	0.1
SDI	3.72	255	P	21 03.20	-1.0
CEY	4.24	316	eP	21 13.50	2.1
			e	22 07.50	
			eSn	22 21.00	
ASS	4.39	276	P	21 14.00	0.4
VOY	4.71	316	ePn	21 17.60	-0.6
			eSn	22 15.10	
FVI	5.66	315	P	21 31.70	0.2
KBA	5.72	321	iPd	21 33.00	0.5
	0.5s	1.60nm		4.0mb	

S.D. = 1.3 on 24 of 28 obs.

% FEB 12, 1989 02h 51m 34.23± 1.28s
40.648 N ±10.2km 27.397 E ± 7.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.47	130	iPg	51 43.50	-0.2
			eSg	51 51.50	
BNT	0.49	126	iPg	51 44.20	-0.1
			iSg	51 51.70	
KCT	0.83	118	iPg	51 50.70	0.3
			iSg	52 02.20	
CTT	0.93	57	ePg	51 51.90	-0.1
			eSg	52 04.60	
EZN	1.16	225	iPn	51 55.90	0.0

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

FEB 12, 1989 03h 52m 02.30± 0.23s
44.230 N ± 2.5km 6.346 E ± 1.9km
DEPTH = 11.0 ± 1.6 km
FRANCE (538)
ML 3.8 (LDG). MD 3.6 (STR).

FOUF	0.43	46	P	52 10.89	-0.3
PZZ	0.61	63	Pd	52 14.10	-0.5
DOI	0.70	67	P	52 15.50	-0.6
			eSn	52 29.80	
FRF	0.70	162	Pg	52 16.00	-0.1
			Sg	52 26.00	
STV	0.70	88	Pc	52 15.70	-0.5
			S	52 25.51	
RRL	0.76	24	Pd	52 17.03	-0.2
			S	52 28.13	
LRG	0.77	179	Pg	52 17.60	0.3
			Sg	52 28.80	
BNI	0.86	16	P	52 18.90	0.1
			eSn	52 32.30	
SBF	0.87	115	Pg	52 18.60	-0.3
			Sg	52 28.50	
LMR	0.90	172	Pn	52 19.50	0.0
			Pg	52 20.40	
			Sg	52 34.00	
ROB	1.10	86	Pc	52 23.00	0.1
			S	52 37.02	

12d 03h

RSP	1.13	35	Pc	52	23.64	0.2			Sn	54	03.00		CN2		32.09	83	iPc	21	36.80	-0.7
			S	52	38.59		FVI	5.11	60	P	53	21.50	1.0		Z	20s	2.40um			4.9Msz
IMI	1.16	105	Pc	52	23.87	0.0				eSn	54	16.80			E	10s	0.70um			
			S	52	39.50		MFF	5.15	300	Pn	53	21.00	-0.1				PcP	24	25.00	
LPG	1.30	13	Pg	52	26.80	0.3				Sg	54	48.50		HYB		32.43	180	iP	21	39.60	-1.1
LPL	1.32	12	Pg	52	27.20	0.5	WLF	5.44	359	P	53	35.90	10.7X	WHN		32.95	113	eP	21	45.00	-0.1
			Sg	52	49.20		TRI	5.47	72	P	53	25.50	-0.1		Z	14s	1.19um			4.7MszX
FIN	1.34	90	Pc	52	27.10	0.2	RBL	5.55	64	P	53	26.40	-0.5		N	10s	0.62um			
			S	52	44.08		VOY	5.64	69	ePn	53	27.50	-0.6	IAS		33.45	285	ePd	21	50.00	0.7
LSD	1.36	25	P	52	27.56	0.2				eSn	54	32.30		BBTK		33.62	270	iPc	21	52.00	1.0
			S	52	44.86		KBA	5.67	57	eP	53	29.50	0.8	BIR		33.79	284	eP	21	52.50	0.2
CKI	1.40	81	P	52	28.70	1.0		0.7s		5.70nm			4.4mb X	PPE		33.82	284	ePd	21	51.50	-1.0
			eSn	52	48.30					i	53	32.50		CLI		33.89	284	iPc	21	53.00	-0.1
ORO	1.81	39	P	52	33.90	0.1				e	54	47.00		CFR		33.93	282	ePc	21	53.00	-0.5
			eSn	52	57.00					i	54	55.60		TLB		34.28	281	ePd	21	56.50	0.0
ORX	1.82	39	P	52	33.18	-0.7	DOU	5.99	349	Pc	53	31.80	-1.1	MDJ		34.36	79	iPc	21	56.60	-0.6
GEN	1.86	83	P	52	34.92	0.6				iS	54	39.60			Z	10s	1.90um			5.1MszX
BOB	2.28	75	P	52	43.00	2.4	SDI	6.03	112	P	53	32.00	-1.6				PcP	24	32.30	
			eSn	53	11.00		LDF	6.25	317	Pn	53	36.00	-0.6	VRI		34.53	284	iPc	21	59.00	0.3
VAI	2.37	46	P	52	42.70	1.0	LPF	6.39	309	Pn	53	38.00	-0.6	NJ2		34.64	106	eP	22	00.00	0.3
			eSn	53	12.80		MEM	6.39	358	P	53	39.00	0.5		N	10s	0.40um			
CVF	2.48	131	Pn	52	41.70	-1.5	GRF	6.40	30	e(Pn)	54	04.50	25.7X		E	10s	0.40um			
			Sn	53	10.00		SNF	6.44	348	iPd	53	38.30	-1.0				PcP	24	33.50	
MDI	2.84	56	P	52	49.80	1.4	GRR	6.49	312	Pn	53	39.20	-0.9	GPA		34.96	273	iP	22	02.90	0.4
			eSn	53	22.30		FLN	6.54	316	Pn	53	39.40	-1.3	CHG		35.00	145	iPc	22	03.50	0.5
SMF	2.99	325	Pn	52	51.00	0.5	KHC	6.98	43	eP	53	45.60	-1.4			0.8s	134.33nm				5.8mb
			Pg	53	01.00					e	54	26.60		MLR		35.19	284	iPc	22	05.00	0.5
			Sg	53	39.00		MOX	7.35	27	e(P)	54	22.00	30.0X	UPP		35.28	310	iPc	22	03.90	-1.0
PII	3.06	98	P	52	51.90	0.5				e	56	04.00				0.9s	1000.00nm				6.6mb
			eSn	53	27.30		PRU	8.02	41	eP	54	04.50	3.0X	ISK		35.36	275	eP	22	06.00	0.2
BDI	3.06	92	P	52	52.00	0.4				e	56	12.30		RYD		35.40	237	iPc	22	06.30	-0.1
			eSn	53	28.40		CLL	8.38	30	e(Pg)	54	44.00	37.5X	YLV		35.42	274	iP	22	06.50	0.1
MME	3.13	89	P	52	53.70	1.0				eSg	56	50.00		HRI		35.64	259	iPc	22	10.60	2.2
			eSn	53	30.80		BRG	8.40	35	e(P)	54	44.00	37.3X	CTT		35.72	275	eP	22	09.00	0.1
CAF	3.14	284	Pn	52	53.50	0.9				e	56	40.00		DMK		35.80	277	eP	22	10.00	0.4
			Sn	53	30.00					e	56	50.00		LOF		36.00	325	iP	22	09.83	-1.1
LOMF	3.14	6	Pn	53	52.00	59.3X	S.D. = 0.8 on 65 of 74 obs.							QASM		36.04	242	iPc	22	11.90	0.1
			Pg	54	02.19		----------							CJR1		36.12	287	eP	22	13.20	1.0
LBF	3.22	330	Pn	52	53.50	-0.3	FEB 12, 1989 04h 15m 06.82± 0.08s							GBA		36.23	182	Pc	22	12.00	-1.4
			Pg	53	04.00		49.925 N ± 2.3km 78.740 E ± 1.5km									0.9s	138.00nm				5.8mb
			Sg	53	48.00		DEPTH = 0.0km (geophysicist)							KCT		36.24	274	iP	22	15.00	1.7
SAL	3.27	64	P	52	55.60	1.1	5.9mb (122 obs.) 4.6Msz (3 obs.)							BCK		36.36	269	eP	22	13.80	-0.7
AVF	3.31	322	Pn	52	55.50	0.4	EASTERN KAZAKH SSR (329)							DST		36.42	273	iP	22	15.40	0.5
			Pg	53	07.00									BDT		36.46	146	iPc	22	15.60	0.3
			Sg	53	50.40		WMQ	8.65	131	iPc	17	15.20	-1.1			0.1s	165.60nm				6.8mb
MAF	3.33	308	Pn	52	56.00	0.6	GTA	18.25	117	iPd	19	22.50	-0.6	EDC		36.51	275	iP	22	16.50	1.0
			Pg	53	08.00			2.0s		0.70nm			2.5mb X	SALJ		36.51	257	Pc	22	16.50	0.8
			Sg	53	52.50		MHI	19.49	233	eP	19	36.00	-2.3	KFNJ		36.62	257	P	22	17.60	1.1
BGF	3.39	315	Pn	52	56.60	0.4		0.9s		746.22nm			6.0mb	PVL		36.65	280	iPc	22	19.00	2.4
			Pg	53	08.60					eS	23	22.00		SSE		36.75	105	Pd	22	17.80	0.2
			Sg	53	54.00		QUE	21.63	209	iPc	19	59.10	-1.7			1.0s	91.00nm				5.5mb
SSF	3.46	326	Pn	52	57.50	0.3	LSA	22.28	150	Pc	20	08.90	1.3		Z	14s	0.50um				4.5MszX
			Pg	53	09.00		HHC	24.61	99	Pd	20	30.90	1.1		N	10s	0.40um				
			Sg	53	54.40			Z 11s		9.30um			5.5MszX		E	11s	0.40um				
LOR	3.50	331	Pn	52	58.00	0.2		N 10s		2.20um				JVI		36.78	257	iPc	22	20.00	2.2
			Pg	53	10.00			E 10s		3.50um				MKRJ		36.85	257	Pd	22	18.20	-0.4
			Sg	53	56.00					eS	24	57.00		KRA		36.95	293	iP	22	19.00	-0.1
FIR	3.57	96	ePn	53	03.00	4.3X	SHL	26.37	152	iP	20	45.80	-0.8			0.9s	490.00nm				6.2mb
TCF	3.57	307	Pn	52	59.50	0.7				eS	25	32.00					i	22	23.50		
			Sg	53	59.60		CD2	26.69	126	iPc	20	50.30	0.9	SPC		37.11	292	iPc	22	21.70	1.0
RJF	3.60	289	Pn	53	00.00	0.8	TIY	26.97	104	iPc	20	52.40	0.5			0.6s	331.00nm				6.2mb
			Sn	53	40.20			0.7s		0.10nm			2.7mb X				i(PP)	23	33.30		
BSF	3.62	5	Pn	52	58.60	-0.9		N 10s		1.30um				HFS		37.15	311	iPc	22	20.10	-0.6
			Pg	53	10.60					S	25	24.00				0.4s	1167.50nm				7.0mb X
			Sg	53	58.00		XAN	27.24	114	iPc	20	54.50	0.1		Z	18s	0.51um				4.4Msz
LPO	3.72	279	Pn	53	01.30	0.4		1.0s		0.20nm			2.8mb X				LR	37	33.00		
			Sn	53	43.40		BJI	28.00	96	Pc+	21	01.50	0.4	ELL		37.22	268	iP	22	22.50	0.8
PGD	3.89	93	P	53	03.50	0.0		Z 13s		2.40um			5.0MszX	LOE		37.35	142	eP	22	22.00	-0.8
LSF	3.96	302	Pn	53	05.20	1.0		N 11s		1.10um				KDZ		37.39	278	iPc	22	19.00	-3.9X
			Pg	53	18.20			E 10s		1.50um				PGB		37.72	280	iPc	22	27.00	1.2
			Sg	54	11.00					eLg	30	15.00		EZN		37.78	275	iP	22	27.10	0.9
SFI	3.98	93	P	53	04.90	0.4	KJF	30.23	317	iP	21	19.80	-1.2	RZN		37.82	279	iPc	22	29.00	2.3
			eSn	53	51.10			0.6s		412.00nm			6.5mb	BZS		37.83	286	eP	22	28.00	1.4
HYF	4.00	321	Pn	53	05.20	0.5	TIA	30.85	102	P	21	27.10	0.4	PSZ		37.86	290	iP	22	27.90	1.0
			Pg	53	20.00			E 12s		0.80um				IZM		37.97	272	iP	22	28.20	0.3
			Sg	54	11.70					PcP	24	22.80		NRA0		38.03	313	P	22	25.90	-2.2
VITF	4.00	357	Pn	54	04.00	59.3X	SUF	30.89	315	iPc	21	26.00	-0.8	GZH		38.06	122	iPc	22	28.00	-0.6
LFF	4.07	282	Pn	53	06.20	0.5	SOD	30.99	324	iP	21	26.60	-1.0	NB2		38.11	313	P	22	28.00	-0.8
			Sn	53	53.00		KEV	31.28	328	iP	21	29.20	-0.9	VTS		38.31	281	iPc	22	32.00	1.2
			Sg	54	15.80			0.7s		92.10nm			5.8mb	NST		38.32	145	iPc	22	32.10	1.2
CRE	4.09	96	P	53	06.20	0.0	NUR	31.71	310	iPc	21	33.40	-0.6	MMB		38.50	279	iPc	22	33.00	0.7
			eSn	53	52.90			Z 18s		1.10um			4.6Msz	MBH		38.54	255	iPc	22	35.00	2.3
CTI	4.17	62	P	53	07.80	0.5				i	22	28.80		BUD		38.58	290	ePc	22	33.50	0.7
CDF	4.23	8	Pn	53	06.40	-1.8				LR	34	50.00		KSP		38.77	296	iPc	22	34.40	0.0
			Pg	53	22.00		GYA	31.78	127	iPc	21	35.00	-0.1			0.8s	225.00nm				5.9mb
			Sg	54	17.40					PcP	24	25.40					e	34	44.00		
EPF	4.52	257	Pn	53	11.70	-0.6	SNY	31.84	87	iPc	21	34.60	-0.7	SRO		38.86	291	iPc	22	36.50	1.3

			i	24 07.60						e	24 58.50			FIN	46.75	291	P	23 38.07	-1.3
BEO	38.93	286	e(P)	22 36.00	0.2		WTS	43.64	302	iPc	23 15.00	0.6		RSP	46.81	293	P	23 37.38	-2.6
COP	39.11	305	iPc	22 37.40	0.3			0.7s	68.00nm		5.6mb			USI	46.81	282	Pc	23 39.60	-0.2
	0.8s	185.07nm		5.8mb						ePP	24 55.50			ROB	46.91	292	P	23 39.38	-1.3
HKC	39.14	122	P	22 38.80	1.1		CTI	43.71	292	Pd	23 15.00	-0.2		LPG	46.92	294	iPc	23 41.50	0.5
BADA	39.34	254	iPc	22 40.70	1.3		AOI	43.83	288	eP	23 15.96	-0.1			0.6s	51.70nm		5.8mb	
VAY	39.38	280	iPc	22 40.00	0.4		BNS	43.92	300	iPc	23 17.00	0.4		ELO	47.01	311	ePc	23 40.50	-0.7
	0.7s	0.23nm		2.9mb	X			1.0s	91.00nm		5.6mb				0.8s	184.00nm		6.3mb	
MOL	39.39	316	iPc	22 38.99	-0.4		MTMJ	43.92	84	P	23 15.70	-1.3		EDI	47.02	310	ePc	23 40.60	-0.6
ZST	39.42	292	iPc	22 41.00	1.2		WKYJ	43.95	89	eP	23 16.50	-0.7		EBH	47.02	311	ePc	23 40.40	-0.9
	0.6s	100.00nm		5.6mb			AKUR	44.07	251	iPc	23 18.50	0.4			0.7s	148.00nm		6.2mb	
OIZ	39.57	130	Pc	22 42.00	0.6		HOOJ	44.09	74	P	23 17.90	-0.2		EBL	47.02	310	iPc	23 40.70	-0.6
OZH	39.60	114	eP	22 40.80	-0.8		AKSR	44.11	251	iPc	23 19.30	0.9		IMI	47.11	291	P	23 41.66	-0.6
SKO	39.76	281	iPc	22 43.00	0.3			0.1s	125.00nm		6.7mb			DOI	47.17	292	P	23 40.40	-2.4
VKA	39.86	292	iPc	22 44.80	1.3		MAT	44.21	84	eP	23 17.00	-2.2		EAU	47.19	310	ePc	23 42.10	-0.5
	0.8s	155.00nm		5.7mb				0.6s	23.33nm		5.2mb			BNI	47.21	293	Pc	23 43.10	0.0
SOP	39.98	292	iPc	22 45.20	0.8		AGRW	44.23	251	iPc	23 20.50	1.1		RRL	47.22	293	P	23 43.41	0.1
KMSA	40.06	235	iPc	22 45.50	0.0		ALP	44.25	287	eP	23 19.98	0.3		PZZ	47.26	292	P	23 41.23	-2.3
WAJH	40.08	250	iPc	22 46.90	1.4		TDS	44.26	281	Pc	23 20.40	0.8		CVF	47.27	289	P	23 43.25	-0.2
BRG	40.12	297	iPc	22 45.90	0.3		CIO	44.30	288	eP	23 19.90	0.0		STV	47.27	292	P	23 41.53	-2.0
	1.0s	110.00nm		5.5mb			NIIJ	44.30	83	P	23 18.00	-1.9		EKA	47.29	310	Pc	23 42.80	-0.7
			i	22 53.00			DUI	44.32	285	P	23 20.60	0.5			0.6s	112.50nm		6.2mb	
			i	22 58.70			RSM	44.33	289	Pc	23 20.60	0.6		ESK	47.32	310	ePc	23 43.00	-0.7
			i	24 13.70			YAMJ	44.41	81	P	23 21.00	0.2			0.8s	166.00nm		6.2mb	
			i	24 29.60			AGMR	44.47	251	iPc	23 22.50	1.1		AUTN	47.34	292	P	23 44.46	0.2
PRU	40.15	296	iPc	22 46.40	0.6		MGR	44.48	282	P	23 21.70	0.3		SBF	47.41	291	iPc	23 44.10	-0.5
	1.0s	86.70nm		5.4mb			KUSJ	44.58	72	eP	23 20.90	-1.2			1.0s	781.20nm		6.8mb	
			e	24 14.50			SAL	44.62	292	Pd	23 22.20	-0.1		FOUF	47.43	293	P	23 44.35	-0.3
HYA	40.42	314	iPc	22 47.70	-0.2		GWF	44.62	297	P	23 22.32	-0.1		TOUF	47.44	292	P	23 44.92	-0.1
CLL	40.47	298	iPc	22 48.50	0.0		IIDJ	44.66	86	P	23 22.70	-0.3		EAB	47.45	311	ePc	23 44.00	-0.7
	0.7s	220.00nm		5.9mb			GRI	44.69	280	P	23 23.84	0.7		AURF	47.46	292	P	23 44.92	-0.2
MUD	40.54	307	iPc	22 48.50	-0.4		SDI	44.69	285	Pc	23 22.90	-0.2		MVIF	47.56	292	P	23 45.68	-0.3
	0.7s	180.00nm		5.9mb			SFI	44.70	289	Pc	23 24.10	1.1		LOR	47.66	297	iPc	23 45.60	-0.9
			i	24 19.00			ENN	44.71	300	iPc	23 23.50	0.5			0.7s	40.40nm		5.7mb	
ODD1	40.61	313	iPc	22 49.73	0.2			0.9s	77.00nm		5.6mb			OBO	47.73	230	ePc	23 48.36	1.1
OHR	40.62	280	iPd	22 50.60	0.7					ePcP	25 08.00			LBF	47.74	297	iPc	23 46.20	-1.0
	1.1s	0.14nm		2.6mb	X		MEM	44.74	300	iPc	23 23.44	0.2			0.6s	22.50nm		5.5mb	
BLS1	40.69	312	iPc	22 50.50	0.2		AZI	44.77	286	P	23 24.40	0.7		CALN	47.80	292	P	23 47.41	-0.4
SDA	40.96	282	iPc	22 53.30	0.7		PGD	44.81	289	iPc	23 25.20	1.0		SMF	48.00	296	iPc	23 48.20	-1.0
NNT	41.03	148	iPc	22 54.00	0.6					ePP	25 07.30				0.7s	24.20nm		5.4mb	
BER	41.07	314	iP	22 52.74	-0.5		OFUJ	44.93	79	P	23 23.60	-1.3		FRF	48.05	292	iPc	23 49.30	-0.3
TIR	41.09	281	eP	22 54.70	1.1		FEL	44.94	296	P	23 24.52	-0.6			0.7s	105.00nm		6.1mb	
KHC	41.09	295	iPc	22 54.70	1.1		CHJJ	45.01	84	P	23 24.80	-0.9		TDD	48.08	230	ePc	23 51.29	1.2
	0.9s	89.50nm		5.5mb			MDI	45.01	292	P	23 24.00	-1.5		AVF	48.21	297	iPc	23 49.30	-1.5
			e	23 11.60			MNS	45.03	287	Pc	23 25.50	-0.3			0.8s	47.20nm		5.7mb	
SHNJ	41.11	92	P	22 54.30	0.4		CDF	45.10	297	P	23 25.76	-0.6		ATA	48.22	230	ePc	23 52.38	1.2
SUE	41.11	315	eP	22 53.22	-0.3		WLF	45.12	299	iPc	23 26.50	0.2		LMR	48.26	291	iPc	23 51.00	-0.2
PTJ	41.18	289	iPc	22 54.50	0.0		FIR	45.14	289	iPc	23 27.50	0.9			0.8s	59.10nm		5.7mb	
BERA	41.38	280	eP	22 55.00	-1.0		MME	45.26	290	Pd	23 28.80	1.0		LRG	48.29	292	iPc	23 51.10	-0.3
KMY	41.51	312	iP	22 56.52	-0.3		RMP	45.33	286	Pc	23 28.10	0.0			0.8s	69.80nm		5.8mb	
MOX	41.55	298	iPc	22 58.00	0.7		RDP	45.35	286	Pc	23 28.60	0.2		ARO	48.34	230	iP+	23 53.18	1.0
	1.1s	221.00nm		5.8mb			SOI	45.36	280	Pc	23 28.70	0.3		DAF	48.43	231	ePc	23 53.60	0.8
			iPP	24 36.00			BDI	45.39	290	Pc	23 28.70	0.0		AKU	48.50	327	iP	23 54.20	1.5
VLO	41.80	280	iP	23 00.00	0.5		BBS	45.44	296	P	23 29.04	0.0			0.9s	127.73nm		6.0mb	
VBY	41.81	289	iPc	23 00.20	0.7		MOF	45.46	296	P	23 28.81	-0.4		SGH	48.52	230	ePc	23 54.67	1.1
SHK	41.87	91	iP	23 00.20	0.1		VAI	45.53	293	Pc	23 28.50	-1.1		BGF	48.63	297	iPc	23 53.50	-0.5
	0.9s	87.39nm		5.5mb			UCC	45.56	301	P	23 30.20	0.4			1.0s	65.60nm		5.7mb	
KUMJ	41.94	94	eP	23 00.60	-0.1		MSI	45.60	280	Pd	23 30.10	-0.2		CGL	48.86	285	P	23 55.65	-0.3
YONJ	41.97	89	eP	22 59.60	-1.4		PII	45.62	290	Pc	23 30.10	-0.3		IPM	48.95	150	ePc	23 57.00	0.2
LJU	41.98	290	iPc	23 01.30	0.4		BSF	45.67	296	P	23 30.52	-0.4			0.6s	337.40nm		6.6mb	
	1.0s	340.00nm		6.0mb			KAKJ	45.68	83	P	23 29.30	-1.6					e	25 21.20	
			ePP	24 34.50			ATN	45.68	280	Pc	23 30.60	-0.4		MAF	48.97	297	iPc	23 56.50	-0.2
KBA	42.19	292	iPc	23 03.50	0.7		BOB	45.71	291	Pc	23 31.30	0.1			0.9s	76.70nm		5.7mb	
	0.8s	99.50nm		5.6mb			SNF	45.74	301	iPc	23 31.20	-0.1		TCF	49.14	297	iPc	23 57.00	-1.0
			i	23 05.70			DOU	45.78	300	iPc	23 31.40	-0.1			0.8s	47.20nm		5.6mb	
CEY	42.19	290	iPc	23 02.80	0.1					PcP	25 09.60			LDF	49.19	301	iPc	23 57.80	-0.5
			ePP	24 40.00			HAU	45.84	297	iPc	23 32.20	0.1			0.6s	85.90nm		5.9mb	
GRF	42.20	297	iPc	23 04.00	1.3			0.8s	87.00nm		5.8mb			FLN	49.30	301	iPc	23 58.40	-0.7
	0.9s	177.00nm		5.8mb			LOMF	45.90	296	P	23 32.56	-0.1			0.6s	146.50nm		6.2mb	
HVAR	42.26	286	iPc	23 01.80	-1.4		PIP	45.93	118	ePd	23 35.00	2.0		YRH	49.32	307	iPc	23 58.60	-0.6
RBL	42.36	291	Pc	23 04.00	-0.2		VITF	45.94	297	P	23 32.72	-0.1			0.8s	130.00nm		6.0mb	
VOY	42.37	291	ePc	23 03.40	-0.8		MAO	45.95	288	Pc	23 32.80	-0.2		LSF	49.56	297	iPc	24 00.20	-1.0
			ePP	24 40.40			ORX	46.12	293	P	23 32.64	-1.8			0.9s	35.00nm		5.3mb	
TRI	42.61	290	Pc	23 05.70	-0.4		ORO	46.13	293	P	23 32.70	-1.8		GRR	49.71	301	iPc	24 01.50	-0.8
MRRJ	42.68	75	eP	23 06.40	-0.3		GEN	46.21	291	P	23 33.61	-1.4			0.6s	38.70nm		5.5mb	
ABHA	42.74	235	eP	23 0B.00	0.3		MNO	46.31	280	P	23 36.50	0.3		DMU	49.90	310	iPc	24 03.20	-0.5
FVI	42.76	292	Pc	23 07.20	-0.1		ALE	46.34	353	iPc	23 36.00	0.4			0.7s	264.00nm		6.3mb	
ASAJ	42.77	72	eP	23 06.70	-0.7			0.6s	30.00nm		5.5mb			CAF	49.99	296	iPc	24 04.90	0.3
LCI	42.85	281	P	23 07.30	-0.8		SNG	46.38	149	eP	23 37.10	0.5			0.8s	52.40nm		5.5mb	
KAGJ	42.85	96	eP	23 07.70	-0.6			0.8s	161.19nm		6.1mb			LPF	50.01	300	iPc	24 03.90	-0.7
FUR	42.89	295	iPc	23 09.50	1.1		CKI	46.59	292	P	23 32.00	-6.1X			0.6s	78.90nm		5.8mb	
	0.8s	310.00nm		6.1mb			EDU	46.63	311	iPc	23 37.80	-0.4		DLE	50.05	309	iPc	24 04.10	-0.7
TKSJ	43.10	90	P	23 10.00	-0.2		MEU	46.66	279	P	23 39.30	0.5			0.8s	229.00nm		6.2mb	
WIT	43.35	303	eP	23 13.00	1.0		LSD	46.70	293	P	23 39.28	0.0		PSI	50.09	153	eP	24 03.80	-1.7
			ePP	24 52.50			PZI	46.71	279	P	23 39.00	-0.1		RJF	50.10	296	iPc	24 05.50	0.2
TSRJ	43.39	87	P	23 12.00	-0.5		ESY	46.74	310	iPc	23 38.30	-0.8			0.8s	46.70nm		5.5mb	
TNS	43.55	299	iPd	23 14.20	0.5			0.7s	173.00nm		6.3mb			ETA	50.20	308	iPc	24 05.30	-0.7

12d 04h

	1.1s	247.00nm		6.1mb		FFC	75.72	0 iPc	26	55.20	-0.2		BRK	90.63	16 eP	28	13.50	1.2					
MFF	50.31	298 iPc	24	06.30	-0.6		0.6s	155.00nm		6.3mb			BKS	90.63	16 iPd	28	13.90	1.6					
	0.6s	81.00nm		5.8mb		EDM	76.72	7 iPc	27	01.20	0.0			0.8s	50.00nm			5.9mb					
DCN	50.39	309 iPc	24	07.10	-0.3		0.5s	352.00nm		6.7mb			GLD	90.64	3 P	28	13.80	1.3					
	0.8s	395.00nm		6.4mb		MTN	77.52	128 iPd	27	05.20	-0.7			1.2s	76.77nm			5.9mb					
ECP	50.57	307 iPc	24	07.90	-0.9		0.5s	30.00nm		5.7mb			GOL	90.68	3 P	28	13.20	0.4					
	0.9s	278.00nm		6.2mb		KNA	78.81	131 iPc	27	12.60	-0.4			1.0s	125.00nm			6.2mb					
LPO	50.65	296 iPc	24	09.70	0.2		0.7s	97.00nm		6.0mb			MNA	90.76	13 eP	28	14.40	1.3					
	0.8s	152.10nm		6.0mb		NANU	79.20	146 iPc	27	15.40	0.4		CMB	90.80	15 ePc	28	14.00	0.8					
ECB	50.68	308 iPc	24	09.10	-0.5		0.6s	68.00nm		5.8mb			PCC	90.97	17 eP	28	14.70	0.9					
	0.9s	326.00nm		6.3mb		CBM	79.35	338 iPc	27	15.90	0.3		TNP	91.24	13 iP	28	16.40	1.0					
ETER	51.05	292 eP	24	11.70	-0.9	RSON	79.39	355 P	27	15.00	-0.8		MMC	91.26	16 eP	28	16.60	1.2					
PPR	51.92	126 ePd	24	21.00	1.6		0.9s	210.08nm		6.1mb			NAV	91.27	344 eP	28	15.10	-0.2					
	1.0s	110.00nm		5.7mb		MBL	79.58	141 iPc	27	16.80	-0.3		ARN	91.27	16 iP	28	16.50	1.2					
EPF	52.11	294 iPc	24	19.20	-1.5		0.5s	99.00nm		6.0mb			BLA	91.30	343 P	28	16.00	0.5					
	0.8s	99.60nm		5.8mb		SES	79.71	6 iPc	27	17.60	0.0			1.2s	59.70nm			5.8mb					
KGM	52.12	148 ePc	24	21.60	0.7		0.7s	219.00nm		6.2mb			GCC	91.50	16 eP	28	17.20	0.9					
ESEL	52.56	290 eP	24	24.20	0.2	PNT	79.89	12 iPc	27	18.70	0.1		FORR	91.57	139 iPd	28	16.00	-0.3					
BRW	52.83	19 iPc	24	25.50	-0.1		0.8s	98.00nm		5.8mb				0.4s	54.00nm			6.2mb					
PPI	53.51	153 ePd	24	29.40	-1.9	PGC	79.96	15 eP	27	20.00	1.1		CTA	91.62	120 iPc	28	16.30	-0.6					
	1.0s	526.90nm		6.5mb		MCW	80.04	14 iP	27	19.90	0.5			0.9s	43.28nm			5.8mb					
MBC	53.57	5 iPc	24	30.60	-0.4	TIC	80.94	270 Pc	27	24.50	-0.1		KIM	91.79	225 iPc	28	16.00	-1.6					
	0.6s	251.00nm		6.4mb		KIC	80.97	269 Pc	27	24.84	0.0		SAO	91.86	16 eP	28	19.00	1.0					
ECRI	54.04	296 eP	24	35.00	0.0		0.6s	117.00nm		6.1mb			FRI	91.93	15 ePc	28	19.20	0.9					
ETOR	54.88	294 iPc	24	40.40	-0.9	GMW	81.14	15 iPc	27	26.40	1.2		FVM	91.95	351 P	28	18.00	-0.3					
ECHE	55.00	292 eP	24	41.90	-0.2	MIM	81.16	338 iP	27	25.80	0.5			1.1s	25.61nm			5.5mb					
GDH	56.08	341 iPd	24	48.20	-1.2	EMM	81.24	336 eP	27	26.30	0.6		LLA	92.09	16 eP	28	20.60	1.5					
	0.7s	98.63nm		5.9mb		LIC	81.26	269 Pc	27	26.20	-0.1		PRN	92.19	11 P	28	21.00	1.3					
		i	25	01.00		RMW	81.38	14 iP	27	27.50	0.9		PRS	92.29	16 eP	28	21.30	1.3					
GUD	56.23	295 iPc	24	50.50	-0.6	DPW	81.49	11 P	27	27.80	0.7		FRS	92.39	224 eP	28	20.00	-0.2					
EMON	56.29	299 iPc	24	51.00	-0.3	LON	82.07	14 iPc	27	30.90	0.7			0.4s	8.47nm			5.5mb					
TSM	56.33	131 ePd	24	51.10	-0.7	BMW	82.11	15 iP	27	31.60	1.2		ELC	92.52	350 eP	28	21.20	0.2					
	1.0s	457.70nm		6.5mb		GAC	82.15	342 ePc	27	30.80	0.3		PRI	92.60	16 eP	28	23.20	1.6					
EALH	56.38	291 eP	24	51.50	-0.5	BNH	82.30	339 iPc	27	32.20	0.9		YMT3	92.63	12 P	28	22.10	0.5					
TOL	56.65	294 iPc	24	53.50	-0.5	SHW	82.55	15 eP	27	34.00	1.3		AMR	93.00	12 P	28	24.80	1.5					
	1.1s	139.24nm		5.9mb		BUL	82.64	227 iPd	27	33.10	-0.3		TKL	93.39	346 iPc	28	25.10	0.0					
ERUA	56.84	298 iPc	24	55.20	-0.1		0.9s	50.84nm		5.7mb			CLC	93.41	13 eP	28	27.00	1.8					
STS	57.33	299 eP	24	58.20	-0.5	RSNY	83.07	341 P	27	36.00	0.7		GBTN	93.45	346 eP	28	25.10	-0.2					
IMA	57.60	23 iPc	24	59.90	-0.6		0.8s	126.76nm		6.2mb			PCO	93.67	357 eP	28	27.00	0.7					
	1.0s	400.00nm		6.4mb		PTN	83.14	341 iPc	27	36.40	0.8			0.7s	8.90nm			5.2mb					
EBAN	57.60	292 iPc	25	00.40	-0.3	VGB	83.44	14 iP	27	38.40	1.2		RSCP	93.72	347 P	28	26.10	-0.5					
EPLA	57.72	295 iPc	25	01.30	-0.3	PMG	83.64	113 eP	27	39.00	0.5			1.0s	12.00nm			5.2mb					
AFC	58.05	291 eP	25	02.20	-1.8	MEKA	84.00	145 iPc	27	39.60	-0.5		ACO	93.73	358 ePc	28	27.90	1.3					
ASMO	58.10	291 iPc	25	03.00	-1.3		0.6s	47.00nm		5.9mb				1.0s	14.80nm			5.3mb					
CRT	58.12	291 iPd	25	03.80	-0.6	LRM	84.14	8 eP	27	40.60	-0.5		LHS	94.03	343 eP	28	28.30	0.3					
ACHM	58.32	291 iPd	25	04.50	-1.3	WB5	85.10	129 iPc	27	46.00	0.3		GSC	94.03	13 eP	28	29.00	0.9					
APHE	58.33	291 iPc	25	04.90	-1.1	WRA	85.14	129 Pc	27	44.50	-1.4		RLO	94.11	355 iPc	28	28.40	0.1					
AAPN	58.36	292 iPc	25	04.50	-1.7		0.5s	51.50nm		6.0mb			JSC	94.31	343 iP	28	29.50	0.2					
ALOJ	58.48	291 iPd	25	05.50	-1.5	WB2	85.14	129 iPc	27	46.00	0.1		LNO	94.40	356 ePc	28	30.50	1.0					
ATEJ	58.56	291 iPd	25	06.00	-1.6	MRWA	85.46	148 iPd	27	47.20	-0.1				e	28	34.10						
EHOR	58.70	293 iPc	25	08.00	-0.4	ELF	85.64	346 P	27	48.50	0.2				e	28	37.80						
TAF	58.97	288 i(P)	25	10.00	-0.4	LDN	85.77	345 P	27	49.20	0.3				e	28	48.10						
KLI	59.07	149 eP	25	08.50	-2.5	DLA	86.01	346 P	27	50.30	0.2		TUL	94.40	356 iP	28	30.20	0.5					
		e	25	27.00		TBR	86.26	340 iP	27	51.50	0.1			1.2s	47.30nm			5.7mb					
EPRU	59.25	292 iPc	25	11.50	-0.8	WARB	86.88	138 iPc	27	47.00	-7.4X				e	28	35.00						
TTA	59.48	26 iPc	25	13.20	-0.4		0.3s	4.00nm		5.1mb			OLY	94.50	352 eP	28	29.90	-0.3					
INK	59.66	13 iPc	25	14.40	-0.2	BAL	86.98	148 eP	27	56.00	1.2		SIO	94.59	356 ePc	28	30.60	0.1					
	0.6s	165.00nm		6.3mb			0.7s	31.00nm		5.6mb			PWLA	94.66	349 eP	28	30.50	-0.4					
EJIF	59.74	292 iPc	25	14.00	-1.6	PRIN	87.11	340 iP	27	55.50	0.0		PRM	94.70	344 eP	28	31.00	-0.1					
EVAL	59.74	294 iPc	25	15.20	-0.4	BW06	87.39	6 P	27	57.00	-0.2		OCO	94.86	357 eP	28	33.00	1.2					
FBA	59.97	21 iPc	25	16.60	-0.2		1.0s	20.00nm		5.3mb			MWC	94.91	14 eP	28	33.00	0.7					
ADK	60.13	44 iPc	25	17.90	-0.2	FHC	87.47	17 eP	27	59.00	1.7		VVO	94.97	355 ePc	28	32.50	0.2					
IFR	61.51	289 iPc	25	27.00	-0.9	WDC	87.95	16 iPc	28	00.20	0.6		FKO	95.12	357 iPc	28	33.80	0.8					
NAI	62.37	229 iPd	25	33.60	-0.2	ASPA	88.05	131 iPc	28	00.20	0.1			0.7s	20.00nm			5.7mb					
	0.8s	18.66nm		5.4mb			0.8s	136.00nm		6.3mb			SGS	95.22	343 eP	28	34.00	0.5					
PMR	62.43	24 iPc	25	32.30	-1.2	MUN	88.06	149 iPc	27	59.40	-0.5		RVR	95.24	13 eP	28	33.00	-0.6					
	0.7s	157.10nm		6.4mb			0.8s	63.00nm		6.0mb			TPC	95.32	12 eP	28	35.00	1.0					
TOA	62.73	22 iPc	25	35.30	-0.3	KLB	88.24	147 iPc	28	00.30	-0.5		PEC	95.37	13 eP	28	34.70	0.5					
AVE	63.05	290 iP	25	37.50	-0.4		0.6s	17.00nm		5.5mb			ALQ	95.38	4 eP	28	35.80	1.3					
FRB	63.79	344 ePc	25	41.80	-0.6	MIN	88.34	15 e(P)	28	02.10	0.4			1.0s	12.25nm			5.3mb					
	0.8s	138.00nm		6.2mb		OIS	88.37	125 iPc	28	01.00	-0.7		HBF	95.45	342 eP	28	34.90	0.4					
SDN	64.06	33 eP	25	42.10	-2.2		0.5s	29.00nm		5.8mb			MEO	95.63	358 iPc	28	35.80	0.4					
TRT	64.53	142 iPc	25	46.60	-1.1	LTCM	88.39	16 eP	28	02.00	0.3			0.7s	12.00nm			5.5mb					
	0.7s	146.70nm		6.3mb		COOL	88.82	145 iPc	28	03.40	-0.3		PLM	95.94	13 eP	28	38.00	0.9					
TIO	64.60	288 iP	25	48.00	-0.3		0.5s	53.00nm		6.0mb			GLA	96.51	11 eP	28	41.00	1.5					
KDC	64.72	28 iPc	25	47.90	-0.6	CGY	89.01	225 iPd	28	02.50	-2.1		BAR	96.63	13 eP	28	41.00	1.0					
MID	65.00	24 ePc	25	50.60	0.3		0.6s	50.00nm		5.9mb			RMO	98.08	122 eP	28	46.00	-0.3					
YKA	67.43	7 P	26	05.30	-0.5	ORV	89.13	16 eP	28	05.20	-0.1		STK	98.64	130 iPd	28	47.90	-0.7					
YKC	67.45	7 iPc	26	05.00	-0.9	NWAO	89.28	148 iPc	28	05.60	-0.1		BRS	101.02	119 iPdiff	28	59.40	-0.3					
	0.6s	252.00nm		6.6mb			0.6s	27.00nm		5.7mb			BMA	128.09	280 iPKPd	34	17.40	0.9					
BNG	67.73	249 iPc	26	07.10	-1.3	CBN	89.75	341 iP	28	08.50	0.3		ITA	128.21	281 ePKP	34	17.80	0.7					
	0.2s	212.00nm		7.0mb	X	NA2	89.90	342 eP	28	09.10	0.2		CCH	137.00	306 ePKP	34	34.50	0.6					
		i	26	23.80		SEK	90.14	223 iPd	28	10.50	0.4		ZOBO	137.08	310 PKP	34	23.00	-11.4X					
		i	27	18.80			0.5s	17.61nm		5.6mb			LPB	137.29	309 PKP	34	36.00	1.4					
SIT	69.72	19 ePc	26	20.40	0.4	KVN	90.17	13 P	28	11.10	0.7		CNCB	137.46	309 ePKP	34	24.00	-11.1X					
SCH	71.71	340 eP	26	31.00	-1.1	CVL	90.18	342 iP	28	10.60	0.4				i	34	36.40						
STJ	74.24	328 ePc	26	47.00	0.0	RKG	90.24	149 eP	28	12.60	2.4		ARE	138.87	314 ePKP	34	31.00	-6.3X					

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SPA   139.73 180 e(PKP)34 27.00 -10.2X
       1.0s     14.50nm
FCH   151.79 294 ePKP  35 06.00   7.6X
PEL   151.90 295 iPKPd 35 05.60   7.4X
TACH  152.41 295 ePKP  35 06.00   7.1X
      S.D. = 0.9  on 452 of 462 obs.
-------------------------------------
? FEB 12, 1989  04h 22m 26.85± 7.68s
  33.548 S ±25.6km   72.461 W ±57.7km
  DEPTH =  18.1 ±  7.4 km
 OFF COAST OF CENTRAL CHILE        (134)

LCCH    0.75  85 iPc   22 41.00   0.0
                iS    22 46.60
TACH    1.28  95 iPd   22 49.50  -0.3
                iS    23 02.00
ROCH    1.34  65 ePd   22 50.50  -0.4
SAN     1.51  87 eP    22 52.90  -0.1
PEL     1.54  75 iPd   22 53.50  -0.1
                iS    23 10.50
PCH     1.63  93 iPd   22 55.00   0.1
                iS    23 13.50
JACH    1.79  62 iPc   22 57.50   0.3
                iS    23 15.00
FCH     1.83  84 iP    22 58.50   0.5
                iS    23 17.00
      S.D. = 0.4  on   8 of   8 obs.
-------------------------------------
   FEB 12, 1989  05h 57m 05.24± 0.26s
    2.357 N ± 5.3km  126.634 E ± 8.0km
   DEPTH =  33.0km  (normal)
   4.6mb (  9 obs.)
 MOLUCCA PASSAGE                   (266)

MNI     2.01 243 iPd   57 43.70   6.2X
                iS    58 14.40
TSM     8.75 282 ePd   59 50.00  37.5X
KNA    18.11 173 eP    01 06.00 -10.1X
QIZ    23.34 316 eP    02 12.00   0.4
WB5    23.37 161 iPc   02 11.70  -0.2
WRA    23.42 161 Pc    02 11.90  -0.5
       0.6s     17.20nm          4.7mb
WB2    23.42 161 iPc   02 11.70  -0.8
MBL    24.30 196 eP    02 22.00   1.0
       0.5s     4.00nm           4.2mb
QIS    26.08 151 eP    02 37.00  -0.8
ASPA   26.82 165 iPc   02 43.70  -0.9
       0.8s     14.00nm          4.6mb
NANU   27.04 203 eP    02 47.50   1.0
WAR8   28.37 180 eP    02 52.40  -6.2X
LOE    28.67 303 eP    03 01.00  -0.4
CTA    29.47 140 iPc   03 08.50  -0.1
       1.0s     9.00nm           4.5mb
MEKA   29.85 195 eP    03 12.30   0.4
WHN    30.35 339 eP    03 17.50   1.2
BDT    30.91 300 eP    03 20.80  -0.6
CHG    31.66 303 iPd   03 28.00  -0.1
       1.1s     3.16nm           4.1mb
FORR   33.05 178 eP    03 39.00  -0.9
XAN    35.60 334 eP    04 00.40  -1.5
CD2    35.70 325 eP    04 01.70  -1.1
STK    36.89 159 eP    04 12.70  -0.1
TIY    37.53 341 eP    04 17.40  -0.7
     Z 30s     0.90um           4.4MszX
BJI    38.69 347 eP    04 28.00   0.3
ADE    38.82 164 eP    04 30.10   1.1
BRS    38.85 141 iPc   04 28.20  -1.1
SNY    39.39 356 Pc    04 35.60   2.1
LZH    39.64 331 eP    04 37.00   1.1
       1.5s    41.00nm           5.0mb
SHL    40.62 308 iP    04 44.40   0.2
COO    40.65 146 iPc   04 44.70   0.5
BWA    41.93 153 eP    04 55.90   1.3
CAN    42.94 153 eP    05 03.50   0.7
LSA    43.28 313 P     05 07.30   1.1
GTA    44.22 330 eP    05 12.50  -0.8
GUN    46.46 307 P     05 30.70  -0.9
PKI    46.69 306 P     05 35.10   1.7
KKN    46.89 307 P     05 34.40  -0.4
DMN    46.95 306 P     05 35.20  -0.2
GKN    47.49 307 P     05 39.00  -0.5
HYB    49.50 291 eP    05 54.00  -1.0
GBA    49.88 286 Pc    05 56.90  -1.0
       0.8s     7.30nm           4.8mb
MSZ    59.53 147 eP    07 07.00  -0.7
AVY    80.28 250 eP    09 16.45   1.3
BRW    83.50  18 eP    09 31.50   0.8

IMA    83.67  24 eP    09 32.50   0.6
       0.7s     3.60nm           4.6mb
PMR    85.19  29 eP    09 38.60  -0.7
       1.3s    14.20nm           5.0mb
INK    91.47  21 eP    10 08.00  -1.2
PEL   145.34 154 iPKPd 16 42.70   0.7
      S.D. = 0.9  on  44 of  48 obs.
-------------------------------------
   FEB 12, 1989  06h 00m 10.69± 0.40s
    2.245 N ± 6.4km  126.752 E ±10.9km
   DEPTH =  33.0km  (normal)
   4.6mb (  6 obs.)
 MOLUCCA PASSAGE                   (266)

MNI     2.07 247 iPd   00 46.50   2.7
                iS    01 14.50
KNA    17.99 174 eP    04 20.00   0.0
WB5    23.22 162 iPc   05 15.50  -0.5
                eS    09 26.00
WRA    23.27 162 Pc    05 16.20  -0.3
       0.3s     7.40nm           4.7mb
W82    23.28 162 iPc   05 15.50  -1.0
                eS    09 26.00
MBL    24.23 196 iPd   05 25.80   0.1
       0.5s     7.00nm           4.5mb
QIS    25.93 152 eP    05 41.00  -0.9
ASPA   26.68 165 iPc   05 48.60  -0.2
       0.4s    26.00nm           5.2mb
                eS    10 23.60
NANU   26.98 203 eP    05 51.00  -0.5
       0.4s     6.00nm           4.6mb
WARB   28.26 180 eP    05 56.90  -6.2X
LOE    28.83 303 eP    06 07.00  -1.3
MEKA   29.77 195 eP    06 16.00  -0.7
FORR   32.93 178 eP    06 43.00  -1.3
       0.4s    47.00nm           5.7mb X
MAT    35.73  16 eP    07 06.00  -2.4
XAN    35.75 334 eP    07 06.70  -1.9
CD2    35.86 325 eP    07 08.00  -1.6
TIY    37.67 341 eP    07 27.10   2.3
BRS    38.68 141 iPc   07 33.20  -0.2
BJI    38.83 347 eP    07 35.00   0.7
SNY    39.51 356 eP    07 41.50   1.5
LZH    39.79 330 eP    07 40.00  -2.6
COO    40.50 146 eP    07 49.00   0.7
BWA    41.78 153 eP    08 00.00   1.2
MDJ    42.27   3 eP    08 03.50   0.9
CAN    42.78 153 eP    08 07.30   0.3
HYB    49.65 291 eP    09 00.00  -1.6
G8A    50.03 286 Pc    09 02.70  -1.8
       0.9s     3.40nm           4.4mb
AVY    80.35 251 iPc   12 23.80   2.8
IMA    83.72  24 eP    12 38.90   1.3
       1.2s     9.80nm           4.8mb
PMR    85.23  29 eP    12 45.50   0.5
INK    91.53  22 eP    13 16.00   1.1
KJF    91.93 334 eP    13 18.00   1.1
SUF    92.88 333 iP    13 21.60   0.4
MBC    93.39  13 eP    13 24.00   0.6
NUR    94.00 331 eP    13 27.00   0.6
      S.D. = 1.4  on  34 of  35 obs.
-------------------------------------
& FEB 12, 1989  06h 47m 13.20s
   38.822 N          122.775 W
   DEPTH =   5.0km
 NORTHERN CALIFORNIA               ( 36)
      <BRK>. ML 3.8 (BRK).
      Mo=2.0*10**14 Nm (BRK). Felt (V)
      ot Loch Lomond ond (III) ot St.
      Heleno. Also felt ot
      Geyserville.

NWRM    0.37 194 iPd   47 20.90   0.2
BRK     1.03 157 eP    47 32.30  -0.8
                eS    47 47.10
BKS     1.03 156 eP    47 32.33  -0.9
                eS    47 47.50
ORV     1.23  53 eP    47 35.50  -1.1
PCC     1.36 167 eP    47 36.80  -1.9
LTCM    1.47  20 eP    47 38.20  -2.2
MHC     1.73 148 eP    47 41.85  -2.3
ARN     1.77 146 eP    47 43.00  -1.7
MIN     1.77  30 eP    47 43.40  -1.4
GCC     1.89 161 eP    47 43.90  -2.5
CMB     2.03 112 iPc   47 47.40  -1.2
SAO     2.31 152 eP    47 50.02  -2.5
LBFM    2.61  15 eP    47 57.00   0.0

KVN     3.65  85 eP    48 09.80  -2.0
      14 obs. ossociated
-------------------------------------
   FEB 12, 1989  07h 55m 47.52± 0.20s
   26.216 N ± 3.9km   96.866 E ± 3.2km
   DEPTH =  33.0km  (normol)
   5.0mb ( 29 obs.)  4.4Msz (  1 obs.)
 BURMA                             (296)
      CENTROID, MOMENT TENSOR      (HRV)
      Dato Used: GDSN
      L.P.B.:  9S, 17C
      Centroid Locotion:
      Origin Time        07:55:56.2 1.0
      Lot 26.18N  FIX;Lon  96.83E  FIX
      Dep  33.0 FIX Half-durotion  1.5
      Moment Tensor;    Scole 10**16 Nm
        Mrr= 3.42 0.94  Mtt= 3.05 0.78
        Mff=-6.47 1.42  Mrt=-3.67 1.09
        Mrf=-3.11 1.52  Mtf= 6.03 0.82
       Principol Axes:
        T  Vol=  9.55  Plg=37  Azm=151
        N       -0.04      52       344
        P       -9.51       6       246
      Best Double Couple:Mo=9.5*10**16
       NP1:Strike=295 Dip=60 Slip=  24
       NP2:       193     69       148

KMI     5.41 100 Pn    57 10.50   2.3
     Z 10s     17.80um
               Pg    57 28.00
               Sn    58 19.00
               Sg    58 44.00
LSA     6.13 306 P     57 21.40   2.8
     N 11s     11.90um
               S     58 29.00
CHG     7.61 165 iPn   57 37.00  -2.0
               iPg   58 09.40
               iSn   58 58.00
               iSg   59 40.10
CD2     7.65  51 eP    57 40.90   1.3
     Z 10s     5.70um
GYA     8.79  86 P     57 55.00  -0.5
8DT     9.15 167 ePg   57 58.00  -2.2
               eSg   00 38.60
LOE     9.86 152 ePg   58 09.00  -1.1
               eSg   00 59.00
GUN     9.94 282 Pd    58 10.40  -1.1
PKI    10.32 280 Pd    58 14.60  -2.1
KKN    10.45 281 Pd    58 16.70  -1.7
DMN    10.59 280 Pd    58 18.10  -2.2
NST    10.92 163 eP    58 22.60  -2.0
GKN    11.04 282 Pd    58 23.80  -2.6
LZH    11.51  30 eP    58 31.50  -1.2
       1.5s    110.00nm          5.8mb
     Z 10s     4.20um
               Lg    01 50.00
XAN    13.02  50 eP    58 49.80  -3.0X
     N 10s     7.90um
GTA    13.39  10 eP    58 55.50  -2.3
     Z 12s     10.40um
NNT    13.82 168 eP    59 04.00   0.6
               e     02 32.50
QIZ    13.95 118 eP    59 05.30   0.2
     N 12s     2.90um
     E 14s     3.50um
GZH    15.30  98 eP    59 23.30   0.6
     Z 10s     6.10um
WHN    15.98  70 P     59 30.50  -0.9
     Z 12s     9.06um          4.9Msz
     E 11s     5.92um
TIY    17.46  45 eP    59 48.80  -1.4
     Z 12s     2.20um          4.4Msz
NDI    17.61 282 eP    59 48.00  -4.1X
               eS    02 53.00
BTO    18.03  34 P     59 56.00  -1.3
     N 10s     3.80um
     E 10s     2.40um
               S     03 22.50
HHC    19.02  36 eP    00 07.80  -1.5
     N 10s     2.30um
               S     03 43.00
WMQ    19.08 339 P     00 10.30   0.3
     Z 13s     1.80um          4.1Msz
     E 12s     2.00um
HYB    19.11 246 eP    00 09.70  -0.7
       0.8s    53.90nm          4.8mb
SNG    19.27 169 eP    00 04.30  -8.0X
```

12d 08h

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                    eS    03 46.00
                    e     06 17.60
QZH     19.64   89 eP     00 16.50    0.1
      Z  10s      3.20um
      N  16s     15.50um
TIA     19.95   55 P      00 18.20   -1.5
                    S     04 05.00
NJ2     20.05   68 eP     00 20.50   -0.2
      N  10s     11.30um
      E  10s      4.10um
BJI     21.19   45 eP     00 32.50    0.2
      Z  20s      1.50um          4.4Msz
                    eS    04 28.00
SSE     21.87   72 Pc     00 40.00    0.7
      1.0s     24.00nm          4.6mb
      Z  10s      3.30um          5.0MszX
      E  10s      0.40um
                    pP    00 47.50   27kmX
                    i     01 27.00
                    S     04 40.00
IPM     21.88  169 ePd    00 42.10    2.6
      1.0s     27.70nm          4.6mb
KSH     21.89  312 P      00 43.00    3.4X
      Z  14s      7.10um          5.2MszX
GBA     22.12  239 P      00 41.60   -0.3
POO     22.59  255 eP     00 47.50    0.9
                    iS    04 52.00
BAG     24.11  109 eP     01 07.00    5.5X
      1.8s    445.45nm          5.7mb
                    eS    05 37.50
KOD     24.28  233 eP     01 07.00    3.7X
QCP     25.40  112 eP     01 08.00   -5.6X
QUE     26.62  285 eP     01 26.20    1.0
                    eS    06 14.00
SNY     26.92   48 Pd     01 27.40   -0.1
      Z  12s      1.60um          4.8MszX
      N  10s      0.70um
      E  10s      0.90um
CN2     29.05   46 P      01 49.80    3.0X
      Z  16s      1.50um          4.7MszX
                    eS    06 33.00
MDJ     32.09   47 eP     02 11.00   -2.6
      Z  15s      1.30um          4.7MszX
                    S     07 24.00
MHI     33.31  297 iPc    02 26.00    1.5
      0.9s     90.76nm          5.7mb
                    eS    07 34.00
MAT     36.52   63 eP     02 52.00    0.1
      0.9s      8.40nm          4.6mb
                    eS    08 35.00
BBTK    54.38  302 eP     05 14.00    0.4
KJF     57.66  331 iP     05 37.10    0.5
      1.0s     40.00nm          5.4mb
VRI     58.16  309 ePc    05 41.00    0.6
SUF     58.22  329 iP     05 40.90    0.3
      0.5s      6.60nm          5.0mb
SOD     58.49  335 iP     05 43.30    0.9
WB5     58.52  138 eP     05 42.00   -1.2
                    i     05 44.90
WB2     58.56  138 eP     05 42.00   -1.5
                    i     05 44.90
KEV     58.70  338 eP     05 45.00    1.1
MLR     58.75  309 ePc    05 45.00    0.3
NUR     58.83  327 iP     05 45.60    0.7
      Z  17s      1.10um          5.0MszX
                    LR    33 00.00
ASPA    61.18  141 eP     06 00.50   -0.9
      1.6s     50.00nm          5.4mb
BZS     61.74  310 eP     06 04.50   -0.5
SPC     62.10  314 iP     06 07.70    0.1
KRA     62.17  315 eP     06 07.20   -0.6
      N  22s      1.80um
QIS     62.30  134 eP     06 10.00    1.0
UPP     62.36  326 iP     06 08.70   -0.2
SKO     62.53  306 eP     06 13.00    2.7
OHR     63.18  305 eP     06 13.50   -1.2
SRO     63.59  312 iP     06 17.70    0.5
HFS     64.29  327 eP     06 21.70    0.1
      0.6s      9.10nm          5.0mb
ZST     64.32  313 eP     06 24.30    2.3
KSP     64.34  316 ePc    06 21.80   -0.3
NB2     65.36  328 P      06 28.10   -0.5
      0.9s     12.00nm          5.0mb
AVY     65.49  232 eP     06 32.40    2.2
PRU     65.61  315 Pc     06 30.50    0.2
                    e     06 56.50
BRG     65.79  316 iP     06 31.40    0.0
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      1.2s     22.00nm          5.1mb
                    i     06 35.50
CLL     66.28  317 iP     06 34.30   -0.2
      1.3s     17.00nm          5.0mb
KHC     66.41  315 iPc    06 36.00    0.5
CTA     66.45  129 eP     06 37.00    1.0
      1.0s     27.50nm          5.3mb
LJU     66.50  311 eP     06 36.30    0.2
CEY     66.65  311 ePc    06 36.90   -0.2
VOY     66.94  311 eP     06 38.20   -0.8
MOX     67.28  317 eP     06 41.00    0.0
      1.6s     22.00nm          5.0mb
GRF     67.76  316 eP     06 44.70    0.6
      1.4s     46.00nm          5.4mb
PGD     69.00  309 P      06 52.50    0.5
FIR     69.35  309 eP     06 55.00    1.1
VAI     70.42  312 P      06 58.50   -1.9
CDF     70.61  315 eP     07 01.50   -0.2
WLF     70.93  317 iPc    07 04.50    1.1
ALE     71.02  357 eP     07 04.00    0.5
      0.5s      2.00nm          4.4mb
BSF     71.10  315 eP     07 04.40   -0.3
FIN     71.31  311 P      07 05.03   -0.9
HAU     71.33  315 eP     07 06.10    0.1
ROB     71.51  311 P      07 07.59    0.4
LSD     71.62  312 P      07 07.80   -0.2
IMI     71.62  310 P      07 07.49   -0.4
LPG     71.88  312 iPc    07 09.90    0.3
      0.8s     13.40nm          5.0mb
STV     71.90  311 P      07 07.49   -2.0
RRL     72.04  312 P      07 11.18    0.6
RMQ     72.42  132 eP     07 14.00    1.3
FRF     72.59  310 eP     07 13.20   -0.3
ADE     72.60  145 e(P)   07 16.00    2.4
LMR     72.76  310 eP     07 14.20   -0.3
LRG     72.82  310 iPc    07 14.80    0.0
      0.8s     11.80nm          4.9mb
LOR     73.16  315 iPc    07 16.70   -0.1
LBF     73.19  314 eP     07 16.60   -0.4
SMF     73.39  314 iPc    07 18.10    0.0
      0.8s     10.70nm          4.9mb
SSF     73.46  315 iPc    07 18.50    0.0
AVF     73.66  314 eP     07 19.60    0.0
      1.0s     14.00nm          4.9mb
MAF     74.37  314 iPc    07 24.40    0.6
LSF     75.03  314 eP     07 27.60    0.0
LDF     75.17  317 eP     07 28.30    0.0
      0.8s     18.80nm          5.1mb
CAF     75.18  313 iPc    07 29.30    0.8
      0.7s      4.40nm          4.6mb
MBC     75.34    8 eP     07 29.00    0.2
RJF     75.39  313 eP     07 30.50    0.8
GRR     75.70  317 eP     07 31.50    0.2
      0.8s     14.50nm          5.0mb
LPO     75.85  313 eP     07 32.90    0.6
LPF     75.95  317 eP     07 33.10    0.3
LFF     76.04  313 eP     07 34.10    0.7
      0.6s      5.40nm          4.7mb
COO     77.19  134 eP     07 43.00    3.0X
BNG     77.58  269 iPd    07 41.40   -1.1
      0.9s      9.00nm          4.8mb
BWA     77.61  138 eP     07 43.70    1.5
CAN     78.58  139 eP     07 51.20    3.7X
INK     78.76   17 ePd    07 48.10    0.2
BUL     80.66  242 iPd    07 58.20   -0.9
      0.8s     12.31nm          5.0mb
BPI     84.34  237 eP     08 09.00   -9.0X
      0.7s     23.29nm          5.5mb
PRY     85.16  237 iPc    08 21.40   -0.7
YKA     88.09   14 P      08 36.20    0.5
YKC     88.13   14 eP     08 35.00   -0.9
FRB     89.61  354 eP     08 34.00   -8.8X
ZOBO   162.88  302 PKP    15 49.00    0.5
LPB    163.02  302 PKP    15 51.00    2.6
CNCB   163.09  301 PKP    15 50.00    1.3
        S.D. = 1.2  on 116 of 128 obs.
-------------------------------------------
   FEB  12, 1989  08h 15m 18.06± 0.30s
    2.198 S ± 4.4km  138.377 E ± 5.9km
    DEPTH =  33.0km  (normal)
    5.1mb (  5 obs.)  4.3Msz (  1 obs.)
 WEST IRIAN                          (201)

JAY      2.35   98 ePd    15 55.00   -0.1
MNDI     6.57  127 eP     17 01.50    6.3X
PMG     11.29  130 eP     18 00.00   -0.2
MTN     12.78  214 eP     18 20.00   -0.3
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                    eS    20 36.00
KNA     16.46  215 eP     19 08.00   -0.3
WB5     18.01  192 eP     19 27.80    0.2
                    e     19 30.10
                    eS    22 48.50
WB2     18.07  192 eP     19 27.80   -0.6
                    e     19 30.10
                    eS    22 48.50
WRA     18.07  192 Pd     19 32.40    4.0X
      0.5s      4.50nm          3.9mb X
QIS     18.29  176 eP     19 28.00   -3.1X
                    e     22 48.00
CTA     19.37  157 iPd    19 48.00    3.8X
      0.9s     16.39nm          4.3mb
ASPA    21.78  191 iPc    20 08.30   -0.8
      Z  19s      1.29um          4.3Msz
                    iS    24 07.70
                    LR    29 11.50
RMQ     26.13  158 eP     20 55.00    4.0X
WARB    26.38  204 eP     20 48.70   -4.7X
BRS     28.59  152 iPc    21 15.00    1.5
BWA     33.40  165 eP     21 59.00    3.1X
CAN     34.40  165 eP     22 08.10    3.6X
SSE     36.93  335 eP     22 25.50   -0.4
PSI     39.74  277 eP     22 50.40    0.7
      0.9s     24.20nm          5.0mb
LOE     41.05  300 eP     23 01.00    0.6
NST     41.77  296 eP     23 07.00    0.7
GYA     41.83  315 P      23 07.20    0.4
XAN     45.47  325 Pc     23 35.20   -0.9
CD2     46.58  318 eP     23 45.30    0.4
BJI     46.70  337 eP     23 44.50   -1.1
CN2     47.24  347 Pd     23 49.70   -0.2
MDJ     47.26  351 eP     23 49.00   -1.0
LZH     49.87  323 eP     24 10.50   -0.1
      1.0s     37.00nm          5.4mb
GTA     54.46  324 P      24 44.70   -0.2
GUN     58.62  305 P      25 15.20    0.1
PKI     58.89  304 P      25 17.00    0.1
KKN     59.07  304 P      25 18.00   -0.1
DMN     59.15  304 P      25 18.70    0.0
GKN     59.68  304 P      25 22.20    0.0
      1.0s     56.00nm          5.6mb
GBA     62.42  286 Pd     25 39.30   -1.3
      1.0s     15.80nm          5.1mb
WMQ     64.40  322 iPc    25 53.50    0.1
MHI     82.35  307 iPc    27 40.30    1.9
INK     91.32   22 eP     28 22.00    0.7
CNCB   147.85  127 PKP    35 06.00    6.0X
LPB    147.91  126 PKP    35 06.00    6.1X
ZOBO   148.03  126 PKP    35 06.00    5.7X
                    LR    24 04.00
CCH    148.96  130 ePKP   35 10.00    8.6X
        S.D. = 0.7  on  29 of  41 obs.
-------------------------------------------
   FEB  12, 1989  08h 42m 53.13± 0.25s
   57.379 N ± 9.0km   33.452 W ± 3.9km
   DEPTH =  10.0km  (geophysicist)
   4.7mb ( 19 obs.)
 NORTH ATLANTIC OCEAN                (402)

STS     21.39  122 e(P)   47 43.00    0.2
GRR     21.44  101 eP     47 42.10   -1.1
      1.3s     53.40nm          4.8mb
EMON    21.54  119 e(P)   47 45.00    0.7
LPF     21.56  102 eP     47 43.70   -0.7
      1.3s     57.70nm          4.8mb
LDF     21.71  100 eP     47 45.40   -0.5
SNF     23.01   91 Pc     47 57.70   -1.0
                    e     48 03.80
DOU     23.40   92 Pc     48 02.00   -0.5
ENN     23.76   89 eP     48 06.00    0.0
      1.0s     14.00nm          4.5mb
MEM     23.89   89 P      48 02.90   -4.3X
LSF     24.04  102 eP     48 09.10    0.2
TCF     24.38  102 eP     48 12.90    0.7
      1.0s     14.00nm          4.5mb
BGF     24.55  100 eP     48 14.30    0.6
SSF     24.58   99 eP     48 14.90    0.8
MAF     24.61  101 eP     48 15.10    0.7
      1.2s     30.90nm          4.8mb
LOR     24.64   98 eP     48 15.40    0.7
      0.6s      4.50nm          4.3mb
RJF     24.66  104 eP     48 14.80    0.0
AVF     24.67  100 eP     48 15.50    0.6
LBF     24.88   99 eP     48 17.50    0.5
      1.1s     19.50nm          4.7mb
```

LPO 24.91 106 eP 48 17.20 0.0
SMF 25.02 99 eP 48 18.80 0.5
1.1s 15.60nm 4.6mb
GUD 25.20 119 e(P) 48 19.30 -0.9
CAF 25.20 104 eP 48 20.80 0.7
HAU 25.54 94 eP 48 24.80 1.6
CDF 25.80 93 eP 48 27.00 1.3
TOL 25.85 120 eP 48 25.00 -1.1
BSF 25.88 94 eP 48 28.10 1.6
1.1s 16.60nm 4.6mb
MOX 26.90 85 e(P) 48 36.00 0.2
CLL 27.30 83 eP 48 39.00 -0.4
MBC 34.37 335 eP 49 42.00 0.4
RSON 34.86 286 eP 49 45.50 -0.5
1.0s 11.00nm 4.7mb
BZS 35.27 85 eP 49 49.00 -0.6
e 57 14.50
FFC 36.90 296 eP 50 04.00 0.8
0.9s 11.00nm 4.6mb
SKO 37.59 90 eP 50 08.00 -1.2
YKA 38.45 312 P 50 16.60 0.5
INK 41.83 327 eP 50 44.00 0.1
EDM 43.22 300 eP 50 55.00 -0.6
GLD 48.24 281 P 51 37.00 1.1
1.0s 36.00nm 5.4mb
FBA 48.31 329 P 51 36.00 0.1
1.1s 7.50nm 4.7mb
MEO 48.33 271 eP 51 36.00 -0.4
1.5s 29.90nm 5.1mb
BW06 48.35 287 P 51 36.50 -0.3
1.0s 11.25nm 4.9mb
GOL 48.36 281 P 51 36.00 -0.9
1.2s 28.69nm 5.2mb
PNT 48.75 300 eP 51 40.00 0.5
DAU 50.94 286 eP 51 56.80 0.1
ALQ 52.46 278 eP 52 09.00 0.8
1.3s 6.25nm 4.4mb
BMW 52.48 299 eP 52 08.10 0.1
MSU 52.82 285 eP 52 11.20 0.4
PRN 55.15 286 P 52 28.50 0.6
KVN 55.47 290 P 52 30.00 -0.3
YMT3 56.32 287 P 52 35.50 -0.8
CM8 57.41 291 P 52 48.50 4.6X
1.0s 5.50nm 4.5mb
MHI 61.77 66 eP 53 13.00 -1.1
BNG 66.60 121 ePc 53 43.00 -2.7
0.9s 9.00nm 5.0mb
WMQ 67.84 42 eP 53 52.40 -0.8
GTA 75.88 36 P 54 40.00 -1.2
BTO 77.67 28 eP 54 51.00 -0.1
BJI 79.64 23 eP 55 01.00 -0.7
LZH 80.18 34 eP 55 06.00 1.1
DMN 80.93 52 P 55 09.00 -0.1
TIY 81.00 27 eP 55 09.90 0.8
ASPA 145.10 21 iPKPd 02 30.20 -1.8
1.2s 16.00nm
WARB 145.75 33 ePKP 02 25.90 -7.2X
SPA 147.20 180 iPKPc 02 35.60 1.3
1.1s 13.10nm
BRS 149.71 349 e(PKP)02 28.00 -11.3X
S.D. = 0.9 on 59 of 63 obs.

FEB 12, 1989 08h 50m 18.72± 0.26s
57.398 N ± 8.7km 33.239 W ± 4.0km
DEPTH = 10.0km (geophysicist)
4.6mb (16 obs.)
NORTH ATLANTIC OCEAN (402)

GDH 14.86 331 eP 53 48.00 -2.3
i 53 57.00
SCH 18.77 276 eP 54 39.00 -0.8
GRR 21.33 101 eP 55 07.70 0.0
LPF 21.45 102 eP 55 08.50 -0.4
LSF 23.94 103 eP 55 32.90 -0.5
HFS 24.09 64 eP 55 35.30 0.6
0.5s 1.00nm 3.7mb
TCF 24.27 102 eP 55 36.50 -0.2
1.3s 19.40nm 4.6mb
BGF 24.44 101 eP 55 38.00 -0.3
0.8s 12.00nm 4.6mb
SSF 24.47 99 eP 55 38.50 -0.1
MAF 24.50 102 eP 55 38.90 0.0
1.1s 15.60nm 4.6mb
LOR 24.53 98 eP 55 39.00 -0.2
1.0s 10.00nm 4.4mb
LBF 24.77 99 eP 55 41.20 -0.3
1.1s 14.60nm 4.6mb
SMF 24.91 100 eP 55 43.50 0.7
0.9s 6.50nm 4.3mb
HAU 25.42 95 eP 55 47.50 -0.2
CDF 25.68 93 eP 55 50.70 0.5
ALE 26.41 352 eP 55 56.00 -0.6
0.6s 3.00nm 4.2mb
MBC 34.40 335 eP 57 08.00 0.6
RSON 34.97 286 eP 57 11.30 -1.2
0.8s 10.56nm 4.8mb
YKC 38.48 312 eP 57 42.00 0.1
YKA 38.52 313 P 57 42.60 0.3
ELC 41.52 266 eP 58 07.30 -0.1
INK 41.88 327 eP 58 10.00 0.1
EDM 43.31 300 ePc 58 22.20 0.3
LNO 46.09 270 e(P) 58 47.70 3.5X
LRM 47.79 292 eP 58 58.70 0.7
GLD 48.35 281 P 59 03.00 0.7
1.0s 24.00nm 5.2mb
FBA 48.36 329 P 59 03.00 1.2
1.0s 4.00nm 4.4mb
BW06 48.45 287 P 59 02.10 -1.1
1.0s 14.00nm 5.0mb
GOL 48.47 281 P 59 04.10 0.8
1.0s 17.50nm 5.1mb
PNT 48.84 300 eP 59 06.00 0.2
0.6s 4.00nm 4.6mb
IMA 49.02 332 eP 59 07.70 0.6
DAU 51.04 286 eP 59 23.00 -0.1
ALQ 52.57 278 eP 59 34.00 -0.6
0.8s 1.87nm 4.1mb
BMW 52.57 300 eP 59 34.00 -0.3
MSU 52.92 285 eP 59 36.90 -0.3
PRN 55.25 286 P 59 55.00 0.8
KVN 55.58 290 P 59 56.00 -0.6
TNP 55.86 289 eP 59 58.60 0.0
YMT3 56.43 287 P 00 04.50 1.9
MHI 61.66 66 eP 00 39.00 0.1
BNG 66.52 121 ePc 01 09.00 -1.7
0.3s 5.00nm 5.2mb
KKN 80.74 52 P 02 35.00 1.3
ASPA 145.04 21 iPKPd 09 56.50 -1.0
0.9s 15.00nm
WARB 145.67 33 ePKP 09 52.00 -6.5X
SPA 147.22 180 e(PKP)10 01.40 1.5
1.0s 10.00nm
BRS 149.71 349 iPKPc 10 10.70 5.8X
i 14 14.70
S.D. = 0.8 on 43 of 46 obs.

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* FEB 12, 1989 10h 05m 18.11± 0.46s
57.232 N ±17.1km 33.207 W ± 7.4km
DEPTH = 10.0km (geophysicist)
4.4mb (6 obs.)
NORTH ATLANTIC OCEAN (402)

GDH 15.02 331 iPc 08 58.00 6.3X
1.0s 20.00nm 4.5mb
e 12 40.00
FRB 18.39 305 eP 09 36.00 1.6
BGF 24.39 100 eP 10 36.90 -0.3
0.8s 5.30nm 4.2mb
LOR 24.49 98 eP 10 38.70 0.5
LBF 24.73 98 eP 10 40.70 0.2
0.8s 5.30nm 4.3mb
MBC 34.56 335 eP 12 08.00 -0.2
RSON 35.03 286 eP 12 10.90 -1.6
0.9s 6.30nm 4.5mb
BZS 35.15 85 ePc 12 18.00 4.5X
e 18 58.00
YKA 38.65 313 P 12 42.90 0.1
INK 42.03 327 eP 13 10.00 -0.5
EDM 43.40 300 eP 13 22.00 -0.1
LRM 47.87 292 eP 13 57.70 -0.3
GLD 48.40 281 eP 14 03.30 1.2
1.2s 52.53nm 5.5mb X
MEO 48.47 272 eP 14 03.10 0.6
0.9s 6.00nm 4.7mb
GOL 48.51 281 eP 14 03.70 0.6
BW06 48.52 287 eP 14 02.00 -1.1
1.2s 3.42nm 4.3mb
DAU 51.10 286 eP 14 23.10 0.1
BMW 52.67 300 eP 14 34.30 -0.1
MSU 52.98 285 eP 14 37.50 0.4
KVN 55.65 290 eP 14 55.90 -0.6
TNP 55.93 289 eP 14 57.90 -0.6
CTA 142.91 1 iPKPd 24 49.00 -4.3X
0.9s 26.47nm
ASPA 145.19 21 ePKP 24 57.10 -0.1
RMQ 149.25 357 iPKPd 24 47.20 -16.4X
CMS 154.25 2 ePKP 25 30.00 19.3X
BWA 157.16 357 ePKP 25 29.60 15.0X
CNB 158.01 354 iPKPd 25 32.60 17.0X
CAN 158.03 355 ePKP 25 03.80 -11.8X
S.D. = 0.8 on 20 of 28 obs.

FEB 12, 1989 10h 12m 01.75± 0.19s
57.295 N ± 6.4km 33.323 W ± 2.9km
DEPTH = 10.0km (geophysicist)
4.9mb (41 obs.)
NORTH ATLANTIC OCEAN (402)

GDH 14.93 331 eP 15 28.00 -6.3X
i 15 40.00
DMU 15.27 92 eP 15 38.10 -0.6
DCN 15.30 94 eP 15 45.00 5.9X
0.9s 163.00nm 5.4mb
DLE 15.72 93 eP 15 51.70 7.1X
FRB 18.30 305 eP 16 18.00 1.1
STS 21.29 122 e(P) 16 51.00 0.6
FLN 21.33 99 eP 16 49.40 -1.3
1.2s 73.70nm 4.9mb
GRR 21.35 101 eP 16 50.40 -0.5
1.3s 125.60nm 5.1mb
EMON 21.44 119 e(P) 16 51.60 -0.3
LPF 21.47 102 eP 16 51.80 -0.3
1.1s 45.90nm 4.8mb
LDF 21.63 99 eP 16 52.60 -1.1
1.1s 36.10nm 4.7mb
ERUA 22.33 121 e(P) 17 08.70 7.9X
NB2 22.79 62 P 17 05.60 0.4
1.4s 52.80nm 4.9mb
MFF 22.84 104 eP 17 04.80 -1.0
1.1s 21.40nm 4.6mb
SNF 22.93 91 P 17 09.50 2.9
DOU 23.32 92 P 17 11.60 1.2
ENN 23.69 89 eP 17 15.00 1.0
1.1s 44.00nm 4.9mb
MEM 23.82 89 Pc 17 16.00 0.8
LSF 23.96 102 eP 17 16.10 -0.5
0.9s 18.00nm 4.7mb
TCF 24.29 102 eP 17 20.10 0.2
1.1s 27.80nm 4.8mb
WLF 24.41 91 P 17 25.00 4.1X
BGF 24.46 100 eP 17 21.20 -0.3
0.8s 16.10nm 4.7mb
SSF 24.50 99 eP 17 21.80 -0.1
MAF 24.53 101 eP 17 22.00 -0.2
1.1s 43.90nm 5.0mb
LOR 24.56 98 eP 17 22.30 -0.2
1.0s 16.00nm 4.6mb
RJF 24.57 104 eP 17 22.70 0.1
1.3s 36.10nm 4.9mb
AVF 24.59 99 eP 17 22.50 -0.2
1.2s 23.80nm 4.7mb
LBF 24.80 98 eP 17 24.50 -0.4
1.1s 34.10nm 4.9mb
LPO 24.82 106 eP 17 24.40 -0.6
1.2s 35.70nm 4.9mb
SMF 24.94 99 eP 17 25.90 -0.2
1.1s 36.60nm 5.0mb
GUD 25.10 119 e(P) 17 28.00 0.1
CAF 25.11 104 eP 17 27.50 -0.4
1.2s 14.80nm 4.6mb
TNS 25.35 88 eP 17 34.30 4.2X
HAU 25.46 94 eP 17 31.10 0.0
1.1s 36.10nm 5.0mb
CDF 25.72 93 eP 17 33.50 -0.1
1.2s 35.70nm 4.9mb
TOL 25.74 120 eP 17 29.00 -4.8X
BSF 25.80 94 eP 17 34.80 0.4
1.2s 41.60nm 5.0mb
ETOR 25.97 116 e(P) 17 38.50 2.5
ALE 26.51 352 eP 17 41.00 0.5
1.2s 26.00nm 4.8mb
MOX 26.84 85 eP 17 45.00 1.2
1.3s 34.00nm 4.9mb
e 18 23.00
GRF 27.14 87 eP 17 49.00 2.4
1.5s 61.00nm 5.1mb
LPG 27.23 98 eP 17 48.00 0.2
CLL 27.24 83 eP 17 45.00 -2.4
BRG 27.98 83 e(P) 18 02.50 8.4X
KHC 28.73 86 eP 18 00.00 -1.0
KSP 29.26 81 eP 18 04.70 -0.9

12d 10h

KBA	29.81	90 e(P)	18 14.00	3.1X
	1.1s	8.80nm	4.5mb	
KRA	31.64	80 eP	18 24.00	-2.7
		e	18 28.80	
SRO	32.06	85 eP	18 31.70	1.3
SPC	32.29	81 eP	18 35.50	2.8
MBC	34.48	335 eP	18 51.00	-0.1
	1.1s	28.00nm	5.1mb	
RSON	34.95	286 eP	18 54.30	-1.1
	0.9s	13.03nm	4.8mb	
FFC	37.00	296 eP	19 12.50	-0.2
	0.8s	10.00nm	4.6mb	
SKO	37.52	90 iPc	19 17.30	0.1
OHR	37.77	92 eP	19 19.80	0.4
YKC	38.51	313 eP	19 24.50	-0.8
	0.9s	15.00nm	4.7mb	
YKA	38.56	313 P	19 25.70	0.0
FVM	41.61	268 P	19 51.00	-0.2
	1.1s	9.76nm	4.4mb	
INK	41.94	327 eP	19 52.00	-1.5
EDM	43.32	300 eP	20 05.00	0.0
SES	44.01	296 eP	20 11.00	0.3
RLO	45.44	270 e(P)	20 22.00	-0.3
LNO	46.04	270 eP	20 26.60	-0.3
LRM	47.78	292 eP	20 35.00	-6.0X
GLD	48.32	281 P	20 46.00	0.8
	1.1s	77.15nm	5.7mb	
MEO	48.40	271 eP	20 45.50	-0.1
	1.3s	22.30nm	5.1mb	
FBA	48.42	329 eP	20 45.70	0.4
BW06	48.44	287 P	20 44.50	-1.6
	1.0s	12.75nm	4.9mb	
GOL	48.44	281 P	20 46.50	0.3
	1.0s	30.00nm	5.3mb	
PNT	48.85	300 eP	20 50.00	1.1
	0.9s	16.00nm	5.1mb	
IMA	49.09	332 eP	20 50.70	0.1
	0.8s	4.30nm	4.5mb	
DPW	49.19	298 P	20 50.00	-1.6
DAU	51.03	286 eP	21 05.70	-0.3
PMR	51.35	327 P	21 08.00	0.2
	1.2s	16.67nm	4.8mb	
PWA	51.53	327 eP	21 09.60	0.5
ALQ	52.54	278 eP	21 17.70	0.3
	1.3s	9.62nm	4.6mb	
BMW	52.58	300 eP	21 16.50	-0.9
MSU	52.91	285 eP	21 20.00	-0.1
PRN	55.24	286 P	21 36.20	-0.9
KVN	55.57	290 P	21 40.00	0.4
MNA	56.07	289 eP	21 42.20	-0.9
YMT3	56.42	287 P	21 45.00	-0.6
WDC	56.65	294 eP	21 46.50	-0.5
AMR	56.74	287 P	21 48.00	0.1
KUK	57.12	140 eP	21 48.50	-2.1
CMB	57.50	291 e(P)	21 51.40	-1.8
FRI	57.96	289 eP	21 56.30	0.0
TPC	58.28	285 eP	22 01.00	2.3
ISA	58.34	288 eP	22 01.00	1.9
GLA	58.45	283 eP	22 01.00	1.1
RVR	59.06	286 eP	22 04.00	-0.1
PLM	59.29	285 P	22 08.00	2.1
BAR	59.71	284 eP	22 09.00	0.4
MHI	61.74	66 eP	22 22.00	-0.5
BNG	66.50	121 iPc	22 52.10	-1.5
	1.0s	20.00nm	5.3mb	
WMQ	67.86	42 eP	23 01.40	-0.6
GTA	75.91	36 P	23 48.70	-1.3
MDJ	77.46	12 eP	23 58.00	-0.4
BTO	77.72	28 eP	24 00.00	0.0
HHC	77.86	27 eP	24 02.00	1.2
ZOBO	78.79	214 P	24 06.50	-0.2
LPB	79.03	214 (P)	24 08.00	0.2
CNCB	79.26	214 P	24 09.00	-0.2
BJI	79.69	23 eP	24 10.50	-0.1
ITA	79.93	191 eP	24 12.90	0.5
BMA	80.20	190 eP	24 14.50	1.0
LZH	80.21	34 eP	24 13.00	-0.7
	2.0s	55.00nm	5.2mb	
GKN	80.38	52 P	24 14.70	0.0
KKN	80.84	52 P	24 17.50	0.2
DMN	80.92	52 P	24 18.30	0.6
GUN	80.99	51 P	24 18.50	0.3
TIY	81.05	27 eP	24 18.30	0.3
XAN	83.60	31 eP	24 30.20	-1.0
CD2	84.98	36 eP	24 38.20	0.0
WHN	88.35	27 eP	24 49.50	-5.1X
GYA	90.03	35 P	25 03.00	0.1

ASPA	145.15	21 iPKPd	31 39.30	-1.4
	1.1s	27.00nm		
WARB	145.78	33 ePKP	31 34.70	-7.0X
SPA	147.12	180 iPKPd	31 35.90	-6.9X
	0.9s	12.73nm		
		i	31 44.80	
COOL	148.22	45 ePKP	31 48.00	2.5
	0.9s	20.00nm		
RMO	149.18	356 ePKP	31 52.00	4.8X
	S.D. = 1.0	on 107 of 121 obs.		

FEB 12, 1989 10h 15m 36.99± 0.92s
63.975 N ± 8.5km 148.943 W ± 8.0km
DEPTH = 136.2 ± 20.4 km
CENTRAL ALASKA (1)

FBA	1.05	28 iPd	16 01.30	0.1
TOA	2.26	145 iPc	16 14.60	-0.4
PWA	2.37	191 eP	16 16.70	0.4
PMR	2.39	182 eP	16 17.10	0.5
TTA	3.34	255 iPd	16 28.60	-0.4
DWY	4.19	85 P	16 39.50	-0.6
SVW	4.22	230 eP	16 40.50	-0.2
KDC	6.48	197 eP	17 09.50	-1.6X
INK	7.60	48 ePd	17 26.80	0.6
	S.D. = 0.6	on 8 of 9 obs.		

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* FEB 12, 1989 10h 20m 21.41± 1.06s
15.793 S ±10.7km 167.673 E ±10.1km
DEPTH = 218.4 ± 9.3 km
4.7mb (9 obs.)
VANUATU ISLANDS (186)

PVC	2.03	163 iP	21 00.80	-1.1
		iS	21 32.50	
DZM	6.35	190 iPc	21 54.20	0.0
		iS	23 13.00	
VSG	10.13	309 eP	22 45.00	1.9
BRS	18.01	228 iPd	24 20.20	1.5
		e	29 31.00	
		i	31 52.20	
COO	20.63	222 iPd	24 47.90	2.7
	0.6s	31.00nm	5.0mb	
QIS	27.07	256 eP	25 45.00	-0.8
STK	28.62	231 iPc	26 01.20	1.5
TOO	29.24	218 eP	26 06.00	0.9
WB5	31.93	258 eP	26 27.50	-1.3
WB2	31.95	258 eP	26 27.50	-1.4
WRA	31.96	258 Pc	26 27.80	-1.2
	0.8s	7.60nm	4.4mb	
ASPA	32.68	251 iPd	26 34.70	-0.6
KNA	37.41	265 eP	27 14.40	-0.8
FORR	39.08	240 iPc	27 29.80	0.8
	0.3s	12.00nm	5.0mb	
WARB	39.53	248 eP	27 26.00	-6.8X
COOL	44.96	242 eP	28 16.00	-0.7
	0.3s	6.00nm	4.5mb	
MBL	45.56	256 eP	28 21.00	-0.4
	0.4s	42.00nm	5.2mb	
MEKA	46.81	248 iPd	28 31.60	0.3
KLB	47.93	242 eP	28 39.00	-0.8
	0.4s	10.00nm	4.6mb	
NWAO	48.55	240 iPc	28 44.40	-0.2
	0.6s	20.00nm	4.7mb	
BAL	48.72	243 eP	28 45.00	-0.9
MRWA	49.22	245 eP	28 49.00	-0.7
MUN	49.29	241 eP	28 50.00	-0.2
NANU	49.51	254 iPd	28 52.20	0.2
	0.3s	9.00nm	4.7mb	
GBA	93.85	283 Pc	33 15.40	0.0
	0.6s	2.70nm	4.5mb	
CDF	143.70	338 ePKP	39 28.20	-3.7X
FLN	145.72	346 ePKP	39 33.70	-1.5
LOR	145.86	340 ePKP	39 34.80	-0.7
	0.7s	3.30nm		
LBF	146.07	340 ePKP	39 35.30	-0.6
SSF	146.16	340 ePKP	39 35.70	-0.3
	0.8s	4.50nm		
LPG	146.32	336 ePKP	39 36.80	0.1
	0.7s	3.70nm		
LPF	146.53	346 ePKP	39 36.50	0.0
SBF	147.36	333 ePKP	39 38.60	0.5
	0.8s	10.70nm		
LSF	147.50	342 ePKP	39 39.10	0.9
BNG	147.63	253 iPKPd	39 41.10	1.7
	0.3s	30.00nm		
		i	39 44.90	

MFF	147.65	344 ePKP	39 39.50	1.1
	S.D. = 1.1	on 34 of 36 obs.		

FEB 12, 1989 11h 05m 53.78± 0.25s
57.292 N ± 7.9km 33.535 W ± 3.5km
DEPTH = 10.0km (geophysicist)
5.2mb (46 obs.) 5.2Msz (2 obs.)
NORTH ATLANTIC OCEAN (402)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 7S, 17C
Centroid Location:
Origin Time 11:05:54.3 2.3
Lat 56.41N 0.32 Lon 32.71W 0.27
Dep 15.0 FIX Half-duration 1.6
Moment Tensor; Scale 10**16 Nm
Mrr=-5.20 0.42 Mtt= 0.61 0.46
Mff= 4.59 0.46 Mrt= 2.87 1.07
Mrf= 4.25 1.51 Mtf= 2.88 0.51
Principal Axes:
T Val= 8.07 Plg=21 Azm=299
N -0.86 4 31
P -7.20 69 131
Best Double Couple:Mo=7.6*10**16
NP1:Strike= 22 Dip=24 Slip=-100
NP2: 212 66 -86

AKU	11.16	35 iP	08 41.90	5.8X
	1.9s	905.26nm	6.8mb	X
STJ	15.17	238 eP	09 29.00	-0.5
DMU	15.38	91 eP	09 26.70	-5.6X
DCN	15.42	94 eP	09 36.20	3.6X
DLE	15.84	93 eP	09 39.20	1.1
EKA	16.90	84 P	09 51.00	-0.6
	2.0s	249.40nm	5.0mb	
SCH	18.63	277 eP	10 13.00	-0.1
STS	21.39	122 e(P)	10 43.00	-0.4
FLN	21.45	99 eP	10 41.30	-2.6
	1.7s	285.20nm	5.4mb	
GRR	21.47	100 eP	10 42.50	-1.6
	1.4s	273.50nm	5.5mb	
EMON	21.54	119 e(P)	10 44.50	-0.4
LPF	21.59	101 eP	10 43.90	-1.4
	1.4s	212.50nm	5.4mb	
LDF	21.74	99 eP	10 44.50	-2.3
	1.3s	118.40nm	5.1mb	
ERUA	22.42	120 e(P)	10 55.00	1.2
NB2	22.89	62 P	10 58.80	0.6
	1.2s	38.80nm	4.8mb	
UCC	22.94	90 P	11 01.50	2.8
MFF	22.96	103 eP	10 56.70	-2.2
SNF	23.05	91 P	10 53.70	-6.1X
		ed	10 59.60	
MUD	23.08	74 eP	11 03.70	3.7X
	1.0s	16.00nm	4.5mb	
NRA0	23.10	62 P	11 02.40	2.1
WIT	23.21	84 eP	11 04.00	2.7
DOU	23.44	91 Pc	11 04.30	0.7
WTS	23.67	86 eP	11 07.50	1.7
	1.3s	135.00nm	5.4mb	
		e	11 47.00	
ENN	23.81	89 eP	11 06.50	-0.6
	1.4s	200.00nm	5.5mb	
MEM	23.93	89 Pc	11 02.20	-6.1X
		ed	11 08.90	
LSF	24.07	102 eP	11 08.90	-0.9
TCF	24.41	101 eP	11 11.90	-1.2
	1.2s	72.50nm	5.2mb	
LFF	24.52	105 eP	11 13.70	-0.4
	1.4s	113.20nm	5.3mb	
WLF	24.52	91 P	11 17.00	3.0X
BGF	24.57	100 eP	11 13.40	-1.3
	1.3s	88.00nm	5.2mb	
SSF	24.61	99 eP	11 13.70	-1.3
	1.3s	66.40nm	5.1mb	
MAF	24.64	101 eP	11 14.10	-1.2
LOR	24.67	98 eP	11 14.40	-1.2
	1.3s	50.50nm	5.0mb	
RJF	24.68	104 eP	11 14.80	-0.9
	1.3s	64.90nm	5.1mb	
AVF	24.70	99 eP	11 14.50	-1.3
	1.5s	90.80nm	5.2mb	
LBF	24.91	98 eP	11 16.50	-1.5
	1.1s	69.30nm	5.3mb	
LPO	24.93	105 eP	11 16.30	-1.8
	1.2s	71.40nm	5.2mb	
AGO	25.05	101 P	11 22.55	3.3X

SMF	25.05	99	eP	11 17.80	-1.5
	1.3s	113.30nm		5.4mb	
PYM	25.18	101	P	11 22.17	1.6
GUD	25.20	119	e(P)	11 20.00	-0.8
CAF	25.22	104	eP	11 19.70	-1.2
	1.2s	35.70nm		4.9mb	
VITF	25.25	94	P	11 22.72	1.7
PLDF	25.36	100	P	11 23.89	1.6
TNS	25.46	88	ePc	11 25.10	1.9
HAU	25.57	94	eP	11 23.70	-0.5
	1.4s	139.40nm		5.5mb	
EPF	25.64	109	eP	11 22.30	-2.6
	1.3s	46.90nm		5.0mb	
GWF	25.70	91	P	11 27.25	1.9
CDF	25.84	92	P	11 26.16	-0.6
TOL	25.84	120	iPd	11 27.00	0.2
	1.2s	156.25nm		5.6mb	
		ePP		11 51.00	
BSF	25.92	94	P	11 29.21	1.7
MOF	26.09	94	P	11 28.73	-0.3
LOMF	26.23	95	P	11 32.96	2.6
UPP	26.26	63	iP	11 32.40	2.1
FEL	26.55	93	P	11 35.21	1.8
MOX	26.95	85	ePd	11 37.00	0.1
	1.5s	98.00nm		5.3mb	
		i		11 40.00	
		e		12 17.00	
GRF	27.26	87	eP	11 39.60	-0.1
	1.5s	133.00nm		5.4mb	
LPG	27.35	98	eP	11 39.10	-1.7
CLL	27.36	82	eP	11 40.00	-0.5
	1.4s	50.00nm		5.0mb	
		e		12 07.00	
LSD	27.59	98	P	11 43.72	0.7
BNI	27.59	99	P	11 45.20	2.3
RRL	27.74	99	P	11 44.23	-0.1
RSP	27.84	98	P	11 45.87	0.7
ORX	27.92	97	P	11 46.59	0.7
ORO	27.93	97	P	11 49.00	3.1X
BRG	28.09	83	iPc	11 48.80	1.6
	1.8s	52.00nm		5.0mb	
		e		13 55.50	
DOI	28.26	99	P	11 51.00	2.1
SOD	28.49	45	iP	11 51.00	0.4
FRF	28.57	101	eP	11 49.00	-2.6
	1.3s	36.10nm		5.0mb	
LMR	28.66	102	eP	11 49.70	-2.6
	1.3s	36.10nm		5.0mb	
MDI	28.76	95	P	11 54.50	1.3
KHC	28.85	86	Pc	11 56.60	2.5
	1.5s	18.00nm		4.6mb	
		e		12 46.50	
CKI	28.87	98	P	11 57.50	3.3X
SUF	29.36	54	iP	12 00.40	2.0
KSP	29.37	81	iP	11 59.60	0.9
KJF	29.61	51	eP	11 58.00	-2.7
CTI	29.64	93	P	12 08.50	7.2X
FVI	29.92	91	P	12 04.00	0.4
KBA	29.93	90	e(P)	12 03.50	-0.4
	1.5s	35.70nm		5.0mb	
RBL	30.44	90	Pd	12 10.90	2.6
CVF	30.44	100	eP	12 05.70	-2.6
PII	30.54	97	P	12 08.50	-0.7
VOY	30.87	91	eP	12 11.60	-0.6
PGD	31.09	96	P	12 13.00	-1.2
SFI	31.13	96	P	12 14.70	0.4
LJU	31.21	90	eP	12 07.50	-7.5X
ZST	31.29	85	eP	12 17.10	1.4
CEY	31.34	91	e(P)	12 18.50	2.2
CRE	31.38	96	P	12 18.00	1.4
KRA	31.75	80	eP	12 19.20	-0.5
	1.1s	50.00nm		5.3mb	
Z	12s	2.50um		5.1MszX	
		e		12 21.20	
VBY	31.94	90	e(P)	12 19.30	-2.2
ARV	32.00	95	P	12 19.50	-2.5
PTJ	32.07	89	eP	12 23.00	0.3
ASS	32.13	96	P	12 21.50	-1.7
SRO	32.18	84	eP	12 23.20	-0.3
PSZ	32.97	83	eP	12 29.80	-0.7
UZD	33.06	86	eP	12 32.50	1.3
AZI	33.29	97	P	12 36.00	2.8
SDI	33.69	97	P	12 37.00	0.2
MBC	34.43	335	eP	12 42.00	-0.7
	0.8s	13.00nm		4.9mb	
RSON	34.84	286	eP	12 45.90	-0.6
	1.3s	30.65nm		5.0mb	

BEO	35.20	87	eP	12 51.50	1.8
BZS	35.32	85	eP	12 51.00	0.3
MGR	35.73	97	P	12 56.00	1.8
GIB	36.47	101	P	13 03.00	2.4
FAI	36.81	102	P	13 07.00	3.7X
FFC	36.89	296	eP	13 04.00	0.2
	1.6s	54.00nm		5.1mb	
SKO	37.64	90	iP	13 08.50	-1.7
	1.3s	150.00nm		5.6mb	
		i		13 13.00	
MLR	37.73	82	ePc	13 14.00	2.8
OHR	37.88	91	eP	13 12.20	-0.2
VRI	37.91	81	eP	13 13.00	0.5
VAY	38.70	90	eP	13 19.60	0.5
FVM	41.50	267	P	13 42.00	-0.3
	1.1s	13.41nm		4.6mb	
INK	41.88	327	eP	13 44.00	-1.0
EDM	43.22	300	ePd	13 56.70	0.4
SES	43.91	296	eP	14 03.00	1.1
RLO	45.32	270	e(P)	14 13.90	0.5
LNO	45.93	270	eP	14 18.10	0.1
TUL	45.93	270	eP	14 17.90	-0.3
	1.2s	15.00nm		4.9mb	
Z	18s	1.65um		5.0Msz	
		e		14 23.60	
		eLR		27 28.00	
SIO	46.33	270	eP	14 21.80	0.5
LRM	47.68	292	eP	14 27.30	-4.9X
GLD	48.21	281	P	14 37.80	1.5
	1.1s	57.86nm		5.6mb	
MEO	48.29	271	ePc	14 36.30	-0.5
	1.3s	37.10nm		5.3mb	
GOL	48.33	281	P	14 37.00	-0.3
	1.1s	26.92nm		5.2mb	
BW06	48.33	287	P	14 36.10	-1.2
	1.2s	13.01nm		4.9mb	
FBA	48.36	329	eP	14 37.70	0.8
PNT	48.76	300	eP	14 42.00	1.8
IMA	49.04	332	eP	14 42.70	0.4
	0.7s	3.60nm		4.5mb	
DPW	49.09	297	P	14 42.50	-0.3
DAU	50.92	286	eP	14 57.70	0.5
PWA	51.47	327	eP	15 01.80	1.1
MML	52.18	87	ePc	15 10.50	4.0X
ALQ	52.43	278	eP	15 08.50	-0.1
	1.6s	16.67nm		4.7mb	
Z	18s	2.58um		5.3Msz	
MSU	52.80	285	eP	15 12.20	0.9
DSI	52.83	88	iPc	15 15.30	4.0X
MSL	53.35	78	eP	15 13.50	-1.7
MBH	53.95	90	ePc	15 19.50	0.0
PRN	55.13	286	P	15 29.00	0.6
SLY	55.19	77	ePd	15 15.00	-13.6X
TIC	55.22	145	P	15 29.78	0.8
KVN	55.46	290	P	15 30.00	-0.8
BHD	56.38	80	eP	15 36.50	-0.7
WDC	56.54	294	e(P)	15 47.00	8.7X
KUK	57.19	140	eP	15 44.00	0.8
CMB	57.40	291	e(P)	15 44.80	0.3
FRI	57.85	289	eP	15 47.80	0.2
MHI	61.85	66	iPd	16 13.70	-1.6
			eS	24 08.00	
BNG	66.60	121	iPd	16 43.00	-3.3X
	0.8s	25.00nm		5.5mb	
		i		16 47.90	
WMQ	67.93	42	eP	16 53.00	-1.5
GTA	75.98	35	eP	17 39.50	-2.9
MDJ	77.48	12	eP	17 47.00	-3.5X
BTO	77.77	28	eP	17 51.60	-0.7
HHC	77.92	26	eP	17 52.20	-0.9
ZOBO	78.73	214	eP	17 55.00	-3.3X
Z	24s	0.13um		4.2MszX	
		eLR		45 40.00	
LPB	78.97	214	eP	18 01.00	1.5
CNCB	79.19	213	P	18 02.00	1.1
CCH	79.20	212	eP	17 56.70	-3.9X
BJI	79.74	23	eP	18 02.50	-0.4
ITA	79.91	190	eP	18 03.70	-0.6
BMA	80.17	190	e(P)	18 05.00	-0.4
LZH	80.28	34	eP	18 04.50	-1.6
	2.5s	79.00nm		5.3mb	
GKN	80.47	52	P	18 07.00	-0.3
TIY	81.10	27	eP	18 09.70	-0.6
XAN	83.66	31	eP	18 22.00	-1.6
CD2	85.05	36	eP	18 28.60	-2.0
KMZ	85.70	123	eP	18 36.00	2.0
WHN	88.40	27	eP	18 42.00	-4.9X

PTZ	88.96	119	iP	18 55.00	5.2X
KMI	90.06	39	eP	18 54.00	-1.2
GYA	90.10	35	P	18 54.40	-0.8
ASPA	145.19	20	iPKPd	25 30.10	-2.7
	1.4s	33.00nm			
WARB	145.84	33	ePKP	25 26.10	-7.8X
COOL	148.30	44	ePKP	25 39.00	1.3
	S.D. = 1.4	on 148 of 173 obs.			

& FEB 12, 1989 11h 11m 37.92s
59.922 N 153.107 W
DEPTH = 114.4km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.18	25	iP	11 53.40	0.9
			eS	12 06.08	
PDB	0.56	257	eP	11 55.21	-0.7
AUL	0.57	197	eP	11 55.58	-0.4
			eS	12 09.35	
RDT	0.74	28	iP	11 56.60	-0.8
			eS	12 11.07	
HOM	0.79	109	eP	11 57.31	-0.4
NNL	0.92	82	iP	11 59.15	0.2
CNPM	1.03	112	iP	11 59.30	-0.8
			eS	12 15.84	
CDD	1.03	196	eP	11 59.12	-1.0
			eS	12 15.56	
NKA	1.24	48	eP	12 03.36	1.0
SPU	1.37	22	eP	12 03.12	-0.7
			eS	12 22.81	
CRP	1.43	19	eP	12 04.06	-0.7
SLKM	1.56	67	eP	12 05.11	-1.0
SEW	1.85	83	eP	12 08.29	-1.3
			eS	12 31.08	
PMS	2.20	51	iP	12 12.69	-1.5
PWL	2.55	66	eP	12 17.99	-0.8
			eS	12 46.04	
KNK	2.73	55	eP	12 18.70	-2.5
			eS	12 50.43	
SML	3.01	49	iP	12 22.05	-2.8
	17 obs. associated				

FEB 12, 1989 11h 18m 39.91± 0.76s
21.462 S ± 7.3km 178.840 W ± 4.0km
DEPTH = 539.2 ± 9.6 km
5.1mb (32 obs.)
FIJI ISLANDS REGION (181)

AFI	10.08	43	eP	21 00.00	0.4
DZM	13.69	265	iPc	21 38.10	1.8
KRP	17.11	195	P	22 12.50	2.7
BRS	26.48	251	iPd	23 36.20	0.3
TBI	27.21	100	iP	23 42.20	0.0
	0.8s	45.00nm		5.1mb	
AFR	27.65	87	iP	23 45.80	-0.3
	0.8s	60.00nm		5.3mb	
COO	27.76	245	iPc	23 48.10	1.0
	0.4s	21.00nm		5.1mb	
PAE	27.81	87	iP	23 47.00	-0.5
	0.8s	25.00nm		4.9mb	
PPT	27.83	87	iP	23 47.40	-0.4
	0.8s	40.00nm		5.1mb	
Z	19s	0.70um		4.3Msz	
PPN	27.98	87	iP	23 48.60	-0.4
	0.8s	30.00nm		5.0mb	
TVO	28.09	88	iP	23 49.60	-0.4
	0.8s	75.00nm		5.4mb	
RMQ	29.98	254	iPc	24 07.20	0.9
		e		25 40.00	
PMO	30.05	83	iP	24 06.50	-0.4
	0.8s	45.00nm		5.1mb	
VAH	30.23	83	iP	24 08.10	-0.3
	0.8s	40.00nm		5.1mb	
TPT	30.31	83	iP	24 08.70	-0.4
	0.8s	65.00nm		5.3mb	
RUV	30.47	84	iP	24 10.10	-0.4
	0.8s	85.00nm		5.4mb	
CNB	31.04	237	iPd	24 16.60	1.3
	0.7s	77.00nm		5.4mb	
CAN	31.33	237	eP	24 17.80	0.1
BWA	31.53	239	eP	24 17.70	-1.7
CTA	32.63	266	iPd	24 29.30	0.6
			i	26 58.00	
CMS	33.04	245	iPc	24 32.60	0.5
TOO	34.70	234	eP	24 46.70	0.7
PMG	34.81	285	eP	24 47.00	-0.1

12d 11h

STK	36.67	245	eP	25	03.00	0.8
ASPA	43.54	258	iPd	25	57.30	-0.4
	0.8s		18.00nm			4.7mb
			iPcP	27	31.90	
			iPcS	31	24.60	
			iS	31	43.40	
			iScS	34	54.00	
WB5	43.68	263	iPd	25	57.90	-0.9
			eS	31	44.00	
WB2	43.69	263	iPd	25	57.90	-0.9
			eS	31	44.00	
WRA	43.70	263	Pd	25	57.70	-1.2
	0.4s		2.70nm			4.1mb
MTN	48.40	272	iPc	26	33.70	-1.2
	0.6s		59.00nm			5.3mb
GUA	49.76	311	eP	26	30.50	-14.4X
KNA	49.80	267	iPd	26	44.30	-1.0
	0.5s		29.00nm			5.0mb
WARB	49.80	253	eP	26	36.50	-8.7X
PJG	49.83	311	eP	26	30.50	-14.9X
COOL	54.12	247	iPc	27	14.90	-1.6
MBL	56.79	258	iPd	27	33.60	-1.4
	0.5s		31.00nm			4.9mb
KLB	56.94	246	iPd	27	34.50	-1.4
MEKA	56.94	252	eP	27	34.40	-1.6
BAL	57.95	247	eP	27	41.00	-1.9
MUN	58.21	245	eP	27	43.00	-1.6
NANU	60.39	256	iPd	27	58.30	-0.9
	0.4s		25.00nm			4.9mb
SPA	68.67	180	iPd	28	51.00	0.2
	0.6s		12.20nm			4.6mb
CHJJ	69.73	325	P	28	56.60	-0.7
IIDJ	69.91	323	P	28	57.80	-0.6
MAT	70.52	324	iPd	29	01.00	-0.9
	1.0s		67.00nm			5.1mb
OFUJ	70.66	328	eP	29	02.30	-0.3
MTMJ	70.77	324	P	29	03.00	-0.5
YAMJ	70.78	327	eP	29	03.50	0.1
SHK	72.27	320	iP	29	11.80	-0.3
	0.9s		107.56nm			5.4mb
KUSJ	72.47	333	eP	29	12.90	-0.1
HOOJ	72.51	332	eP	29	14.30	1.0
ADK	73.05	1	iP	29	14.90	-1.2
MRRJ	73.55	330	eP	29	19.20	0.0
ASAJ	74.18	332	eP	29	23.90	1.2
QZH	76.29	304	eP	29	34.80	0.0
SSE	77.71	311	Pd	29	42.00	-0.3
	1.0s		0.17nm			2.4mb X
Z	16s		0.40um			4.8MszX
			e	36	10.00	
NWRM	79.39	41	eP	29	51.10	0.1
BKS	79.44	42	iPc	29	52.20	0.9
	0.7s		28.00nm			4.8mb
GZH	79.51	300	iPd	29	52.30	0.3
RVR	80.37	48	eP	29	56.00	-0.2
PLM	80.37	49	eP	29	56.00	-0.5
FRI	80.52	44	eP	29	56.90	0.0
ISA	80.57	46	eP	29	58.00	0.7
CMB	80.70	43	eP	29	58.00	0.1
MDJ	80.86	325	eP	29	59.00	0.5
WDC	80.91	40	ePd	29	59.50	0.6
ORV	80.91	41	eP	29	58.90	0.0
CLC	81.24	46	eP	30	01.00	0.2
TPC	81.35	48	eP	30	01.00	-0.4
GLA	81.64	50	eP	30	04.00	1.2
LBFM	81.77	40	eP	30	04.00	0.5
KDC	81.92	14	eP	30	03.00	-0.6
WHN	82.38	307	P	30	07.00	0.5
YMT3	82.57	46	P	30	07.50	0.0
CN2	82.58	323	iPd	30	07.00	-0.2
KVN	82.75	43	P	30	08.00	-0.4
TNP	82.76	44	iP	30	08.50	-0.1
TIA	83.35	313	eP	30	13.40	2.2
PRN	83.82	46	P	30	14.00	0.2
BMW	84.22	35	eP	30	16.00	0.6
GMW	85.13	34	eP	30	20.20	0.4
LON	85.15	35	iP	30	20.00	0.1
PGC	85.49	33	eP	30	22.00	0.6
RMW	85.60	35	iP	30	22.30	0.2
MCW	85.83	33	eP	30	23.50	0.4
TTA	86.02	10	eP	30	23.00	-0.8
BJI	86.03	316	Pd-	30	24.00	-0.2
PMR	86.13	14	P	30	23.80	-0.4
	1.0s		40.00nm			5.1mb
MSU	86.34	46	eP	30	26.80	0.7
GYA	86.44	300	P	30	27.00	0.3
TIY	87.34	312	P	30	31.00	0.4
DPW	87.79	36	P	30	32.00	-0.5
PNT	87.89	34	ePd	30	33.00	0.2
	0.9s		37.00nm			5.2mb
DAU	87.92	45	eP	30	33.80	0.2
ALQ	88.61	52	eP	30	36.20	-0.6
	1.0s		8.00nm			4.6mb
BDT	89.18	289	eP	30	40.50	1.1
	0.8s		46.70nm			5.4mb
HMA	89.32	10	iP	30	38.40	-0.9
FBA	89.35	13	P	30	38.00	-1.2
	1.0s		41.00nm			5.3mb
HHC	89.46	315	P	30	40.00	-0.4
CHG	89.83	290	iPd	30	44.00	1.6
	1.1s		47.47nm			5.3mb
LRM	89.95	40	eP	30	42.80	0.1
BW06	90.20	44	P	30	43.10	-0.8
	1.0s		20.00nm			5.0mb
BTO	90.37	314	eP	30	45.00	0.4
CD2	90.65	303	eP	30	47.00	1.0
GOL	91.54	48	P	30	50.00	-0.2
	1.0s		13.00nm			4.9mb
GLD	91.67	48	P	30	51.00	0.3
	1.0s		18.00nm			5.0mb
LZH	92.73	308	eP	30	56.00	0.4
	1.0s		37.00nm			5.4mb
SES	93.11	36	eP	30	57.00	0.1
INK	95.40	15	eP	31	06.00	-0.8
GTA	96.97	310	eP	31	14.50	-0.2
YKA	97.71	25	P	31	17.00	-0.4
MHI	127.55	300	iPKPc	36	44.40	-1.0
KEV	129.26	349	ePKP	36	49.00	1.6
BUL	130.70	215	iPKPc	36	50.00	-1.9
			iSKP	39	21.70	
SOD	131.36	347	iPKP	36	50.20	-1.3
KJF	133.77	344	ePKP	36	49.00	-7.2X
	0.8s		23.50nm			
			i	36	54.10	
SUF	135.39	344	ePKP	36	50.00	-9.3X
NUR	137.63	343	iPKP	36	53.90	-9.7X
NB2	139.83	352	PKP	36	57.90	-9.7X
	0.6s		5.30nm			
EDU	144.83	4	ePKPd	37	15.10	-1.2
	0.5s		49.00nm			
ELO	144.85	5	ePKPd	37	15.10	-1.3
EAB	145.08	5	ePKPd	37	15.80	-1.0
EBH	145.09	5	ePKPd	37	15.90	-0.9
	0.6s		34.00nm			
ESY	145.48	4	ePKPd	37	17.00	-0.4
	0.6s		32.00nm			
EBL	145.59	4	ePKPd	37	17.50	-0.1
	0.6s		29.00nm			
EKA	146.02	4	PKPd	37	18.40	0.1
	0.8s		29.90nm			
DMU	147.04	9	iPKPd	37	21.60	1.6
	0.6s		55.00nm			
CLI	147.19	326	ePKPd	37	22.50	2.0
HRI	147.26	298	iPKPd	37	25.00	3.8X
BBTK	147.45	311	iPKPd	37	23.50	2.2
DCN	147.52	9	iPKPd	37	22.70	1.9
	0.5s		37.00nm			
DLE	147.68	9	ePKP	37	22.60	1.6
KRA	147.84	337	iPKPd	37	23.80	2.4
	0.9s		43.00nm			
			e	37	24.20	
			e	37	28.90	
JVI	147.84	296	iPKPd	37	26.30	4.3X
VRI	147.92	325	ePKPd	37	24.00	2.3
			e	06	59.00	
KSP	148.36	342	ePKP	37	20.80	-1.4
	1.0s		62.00nm			
			id	37	25.50	
			ic	37	31.30	
WIT	148.42	354	ePKP	37	27.00	4.8X
SPC	148.44	336	ePKP	37	25.40	2.8
ISR	148.50	325	ePKP	37	26.00	3.3X
			e	06	56.00	
MBH	148.58	292	iPKPd	37	25.00	1.8
MLR	148.59	326	iPKPc	37	25.50	2.6
CLL	148.80	346	iPKP	37	21.40	-1.4
	1.0s		75.00nm			
			i	37	26.40	
			i	37	32.70	
BRG	148.98	344	ePKP	37	21.70	-1.4
			i	37	27.00	
			i	37	33.60	
WTS	149.21	353	iPKPd	37	27.50	4.1X
	0.9s		80.00nm			
PSZ	149.60	335	iPKP	37	28.40	4.1X
MOX	149.74	347	iPKP	37	29.00	4.7X
	1.3s		53.00nm			
			e	37	36.00	
SRO	150.30	336	iPKP	37	30.10	4.9X
			i	37	39.80	
ZST	150.41	338	iPKP	37	30.50	5.1X
			i	37	39.80	
ENN	150.51	354	iPKPd	37	30.40	5.0X
	1.0s		62.00nm			
			i	37	39.70	
MEM	150.66	354	PKP	37	25.20	-0.4
			ed	37	30.60	
			ec	37	40.30	
KHC	150.67	343	iPKP	37	25.30	-0.5
			i	37	31.60	
GRF	150.72	347	ePKP	37	31.40	5.6X
			e	37	41.10	
TNS	150.73	350	iPKPc	37	31.40	5.5X
SNF	150.90	356	PKPd	37	31.40	5.4X
			ec	37	41.30	
DOU	151.30	355	PKPd	37	32.40	5.8X
			ec	37	42.90	
WLF	151.58	353	PKPd	37	33.40	6.4X
			ec	37	44.50	
KBA	152.60	342	iPKPd	37	34.10	5.3X
	1.0s		13.40nm			
			e	41	25.00	
CDF	152.67	351	ePKP	37	35.00	6.2X
FLN	152.73	2	ePKP	37	34.70	6.0X
PTJ	152.78	337	ePKP	37	39.70	10.7X
LDF	152.91	2	ePKP	37	35.00	6.0X
GRR	153.09	3	ePKP	37	35.60	6.4X
RBL	153.11	341	PKP	37	35.10	5.7X
LJU	153.15	339	ePKP	37	28.00	-1.4
			e	37	36.00	
VAY	153.19	322	ePKP	37	34.00	4.4X
			i	37	51.70	
HAU	153.19	352	ePKP	37	36.10	6.7X
FVI	153.21	342	PKP	37	35.30	5.9X
BSF	153.30	352	ePKP	37	36.30	6.6X
VOY	153.37	340	ePKP	37	28.10	-1.7
			i	37	36.20	
			e	37	51.20	
VBY	153.37	338	e(PKP)	37	37.10	7.4X
LPF	153.43	3	ePKP	37	36.50	6.8X
CEY	153.46	339	ePKP	37	36.80	6.9X
			i	37	52.40	
CTI	154.02	343	PKPc	37	37.80	7.1X
LOR	154.16	356	ePKP	37	38.20	7.5X
OHR	154.31	324	ePKP	37	37.00	5.8X
SSF	154.39	356	ePKP	37	38.70	7.7X
LBF	154.44	356	ePKP	37	38.70	7.6X
MFF	154.90	2	ePKP	37	39.40	7.7X
BGF	154.93	357	ePKP	37	39.70	7.9X
TCF	155.22	358	ePKP	37	40.20	8.0X
LSF	155.27	359	ePKP	37	40.10	7.8X
BNG	156.10	227	ePKPd	37	41.70	7.4X
	0.6s		6.00nm			
			i	38	04.30	
RJF	156.22	359	ePKP	37	42.60	9.1X

S.D. = 1.0 on 135 of 182 obs.

FEB 12, 1989 12h 02m 19.01± 0.35s
36.391 N ± 4.2km 2.648 E ± 3.0km
DEPTH = 10.0km (geophysicist)
4.4mb (9 obs.)

ALGERIA (396)

ACU	3.23	312	iPd	03	10.60	-0.1
			eS	03	50.00	
ESEL	3.38	3	iPc	03	13.10	0.3
EALH	3.57	295	eP	03	15.40	-0.1
ENIJ	3.95	280	eP	03	19.30	-1.7
			eS	04	04.70	
ECHE	4.29	319	eP	03	26.00	0.2
			eS	04	16.00	
TAF	4.41	251	iPd	03	26.50	-1.1
			i	04	14.00	
			i	04	40.00	
			i	04	50.00	
EVIA	4.67	300	eP	03	31.00	-0.3
			eS	04	25.50	
EROO	4.76	339	iPd	03	32.20	-0.3
			eS	04	26.00	
AFC	5.04	282	eP	03	36.30	-0.3
			eS	04	33.50	

EBAN	5.43	291	iPd	03 41.20	-0.8
			eS	04 42.60	
ETOR	5.75	322	eP	03 47.70	1.1
ETER	5.91	1	eP	03 48.80	0.2
			eS	04 52.80	
CGL	6.04	59	iP	03 48.90	-1.7
TOL	6.32	305	iPnc	03 55.00	0.4
	0.8s	149.25nm			5.9mb X
			iSn	05 17.00	
EHOR	6.47	285	eP	03 55.20	-1.4
			eS	05 09.00	
GUD	6.82	311	iPc	04 00.80	-0.8
			eS	05 17.00	
EPF	6.87	346	Pn	04 02.80	0.6
			Sn	05 16.80	
IFR	7.00	248	iPd	04 03.00	-1.2
			i	06 16.00	
LMR	7.54	22	Pn	04 10.00	-1.6
			Sn	05 28.80	
LRG	7.61	21	Pn	04 11.20	-1.3
			Sn	05 31.00	
EVAL	7.61	282	eP	04 11.00	-1.6
			eS	05 35.50	
EPLA	7.79	301	eP	04 14.30	-0.8
FRF	7.79	22	Pn	04 13.40	-1.7
			Sn	05 35.50	
CVF	7.82	36	Pn	04 13.80	-1.8
			Sn	05 36.00	
LVI	7.90	75	P	04 14.30	-2.3
SBF	8.31	25	Pn	04 20.30	-2.2
			Sn	05 47.20	
LPO	8.36	353	Pn	04 22.30	-0.7
IMI	8.51	26	P	04 22.88	-2.4
			S	05 11.66	
CAF	8.54	357	Pn	04 25.20	-0.4
			Sn	05 54.50	
STV	8.62	23	P	04 25.96	-0.8
			S	05 17.94	
LFF	8.66	351	Pn	04 27.80	0.6
			Sn	05 57.50	
PZZ	8.79	21	P	04 28.52	-0.6
			S	05 23.11	
AVE	8.83	252	iP	04 29.00	-0.5
			i	07 15.00	
DOI	8.83	22	Pc	04 28.80	-0.8
ROB	8.84	25	P	04 28.52	-1.3
			S	05 22.37	
FAI	8.89	81	P	04 30.00	-0.4
FIN	8.89	27	P	04 28.42	-2.0
			S	05 21.27	
MAO	8.92	45	P	04 28.90	-1.9
RJF	8.95	355	Pn	04 30.60	-0.6
RRL	9.08	19	P	04 33.65	0.4
CKI	9.10	26	P	04 31.00	-2.3
BNI	9.18	18	P	04 35.20	0.7
RSP	9.42	20	P	04 38.16	0.3
			S	04 39.73	
LPG	9.61	18	Pn	04 42.00	1.4
LPL	9.62	17	Pn	04 42.00	1.3
ERUA	9.66	311	eP	04 39.80	-1.2
LSD	9.68	19	P	04 41.95	0.5
BDI	9.78	36	P	04 41.60	-1.1
MNS	9.80	49	P	04 41.60	-1.4
MAF	9.82	360	Pn	04 43.36	0.1
BOB	9.83	30	P	04 42.70	-0.8
LSF	9.89	355	Pn	04 43.00	-1.1
TIO	9.89	239	iP	04 43.90	-0.5
			i	07 40.00	
TCF	9.89	358	Pn	04 44.30	0.0
MME	9.92	36	P	04 43.80	-1.1
CRE	10.15	42	P	04 48.00	0.1
BGF	10.16	1	Pn	04 48.00	0.1
SDI	10.18	55	P	04 46.00	-2.2
ASS	10.19	46	P	04 47.00	-1.4
PGD	10.20	40	P	04 53.00	4.4X
SMF	10.28	5	Pn	04 49.80	0.2
AVF	10.40	3	Pn	04 51.80	0.6
MFF	10.41	349	Pn	04 50.00	-1.4
			Sn	06 39.20	
ARV	10.62	45	P	04 54.50	0.3
LBF	10.63	5	Pn	04 54.00	-0.4
SSF	10.68	3	Pn	04 55.00	0.0
LOR	10.91	4	Pn	04 58.00	-0.1
BSF	11.84	14	Pn	05 09.80	-1.1
HAU	11.92	12	Pn	05 11.20	-0.8
CDF	12.49	14	Pn	05 18.40	-1.2
VOY	12.81	38	e(P)	05 24.40	0.5
RBL	12.95	36	P	05 25.80	0.1
LJU	13.14	39	eP	05 37.00	8.8X
VBY	13.17	42	eP	05 31.20	2.7
KBA	13.32	33	e(P)	05 34.50	3.7X
	1.0s	8.50nm			4.8mb X
WLF	13.51	10	P	05 36.40	3.4X
DOU	13.77	5	Pc	05 37.70	1.2
	0.6s	236.30nm			6.2mb X
			e	08 07.90	
PTJ	13.80	42	eP	05 41.90	4.9X
SNF	14.17	4	P	05 42.70	1.1
MEM	14.42	9	Pc	05 46.70	1.8
ENN	14.56	8	eP	05 49.00	2.1
	0.6s	19.00nm			4.9mb X
GRF	14.68	22	eP	05 51.00	2.5
	2.0s	106.00nm			5.1mb X
OHR	14.92	66	eP	05 53.20	1.5
KHC	15.03	29	iPd	05 54.10	1.1
	1.0s	9.00nm			4.2mb
SKO	15.59	63	eP	06 04.00	3.6X
MOX	15.65	22	e(P)	06 04.00	3.0X
WTS	15.88	9	eP	06 07.50	3.5X
	0.9s	10.00nm			4.0mb
ZST	15.89	38	eP	06 08.80	4.6X
BEO	15.91	53	eP	06 04.50	0.1
SRO	16.26	41	eP	06 11.50	2.7
VAY	16.27	66	eP	06 09.40	0.3
BRG	16.60	26	e(P)	06 17.00	3.8X
CLL	16.65	23	e(P)	06 16.00	2.2
BZS	16.99	51	eP	06 19.00	0.8
PSZ	17.17	43	eP	06 22.00	1.5
KSP	17.46	30	eP	06 27.00	3.0X
DEV	17.92	52	iPc	06 30.00	0.2
SPC	18.12	40	iP	06 34.60	2.2
KRA	18.52	37	eP	06 37.60	0.5
			e	06 39.10	
EKA	19.36	350	P	06 50.00	2.6
	1.6s	96.90nm			4.8mb
MLR	19.75	55	ePd	06 52.50	0.5
CFR	21.15	58	ePd	07 05.00	-1.3
NB2	25.26	10	P	07 47.10	0.5
	0.9s	6.60nm			4.3mb
BNG	35.00	152	ePc	09 14.00	0.3
	0.9s	5.00nm			4.4mb
SCH	49.78	315	eP	11 13.00	-0.5
GAC	57.47	306	eP	12 11.00	0.7
WMQ	62.74	54	eP	12 47.00	0.4
GKN	67.96	71	P	13 20.40	-0.1
DMN	68.51	71	P	13 24.40	0.3
KKN	68.55	71	P	13 24.40	0.1
FFC	68.72	323	eP	13 24.00	-0.7
	1.2s	25.00nm			5.3mb
PKI	68.76	71	P	13 26.00	0.2
GUN	68.95	70	P	13 27.00	0.1
YKC	69.38	334	eP	13 30.00	1.5
YKA	69.41	334	P	13 29.90	1.1
GBA	69.88	88	Pc	13 31.00	-1.3
	0.9s	2.10nm			4.3mb
INK	70.61	344	eP	13 38.00	2.0
KOD	71.81	91	eP	13 45.00	0.6
GTA	72.81	54	P	13 50.30	0.5
EDM	74.97	326	eP	14 02.00	0.0
SES	75.74	323	eP	14 08.00	1.6
IMA	76.24	350	eP	14 11.00	1.9
	1.0s	7.50nm			4.7mb
FBA	76.42	347	eP	14 12.10	2.2
LZH	77.32	55	eP	14 15.00	-0.7
MEO	78.11	304	eP	14 21.00	1.2
	1.0s	4.80nm			4.5mb
LRM	79.46	320	eP	14 27.10	-0.3
PWA	79.79	347	eP	14 30.80	2.4
CD2	80.31	59	eP	14 33.40	1.5
PNT	80.52	326	eP	14 35.00	2.4
TIY	81.77	49	eP	14 44.20	4.7X
XAN	81.87	54	eP	14 37.20	-2.8
ZOBO	84.79	246	P	14 57.00	1.3
LP8	84.94	245	P	14 56.00	-0.3
CNCB	85.03	245	P	14 58.00	1.1
CTA	144.31	73	iPKPd	22 02.20	4.9X
	1.3s	39.42nm			
	S.D. = 1.3	on 122 of 135 obs.			

% FEB 12, 1989 12h 13m 32.50± 3.19s
39.136 N ±27.8km 27.680 E ± 9.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.87	57	iPg	13 48.60	-0.7
EDC	1.22	7	iPn	13 54.50	-0.7
KCT	1.23	25	iPn	13 56.00	0.7
EZN	1.25	304	ePn	13 55.80	0.0
YLV	1.93	42	iPn	14 06.50	0.7
	S.D. = 1.0	on 5 of 5 obs.			

FEB 12, 1989 13h 25m 47.05± 0.30s
57.335 N ±11.4km 33.301 W ± 4.7km
DEPTH = 10.0km (geophysicist)
4.6mb (11 obs.)
NORTH ATLANTIC OCEAN (402)

GDH	14.90	331	ePd	29 18.00	-1.2
			e	29 26.00	
SCH	18.75	277	eP	30 07.00	-0.8
GRR	21.35	101	eP	30 35.10	-1.1
	1.2s	41.60nm			4.7mb
LPF	21.47	102	eP	30 36.30	-1.1
DOU	23.31	92	Pc	31 02.60	7.0X
MEM	23.81	89	P	31 03.60	3.2X
TCF	24.29	102	eP	31 05.40	0.2
BGF	24.46	101	eP	31 06.70	-0.1
	0.7s	4.80nm			4.2mb
MAF	24.52	101	eP	31 07.70	0.3
	1.2s	19.00nm			4.6mb
LOR	24.55	98	eP	31 07.80	0.1
	0.9s	7.20nm			4.3mb
LBF	24.79	99	eP	31 09.90	-0.2
	1.0s	12.80nm			4.5mb
SMF	24.93	99	eP	31 11.50	0.1
	1.1s	14.60nm			4.6mb
HAU	25.45	94	eP	31 17.20	0.9
8SF	25.79	94	eP	31 20.90	1.3
MBC	34.44	335	eP	32 37.00	0.9
RSON	34.95	286	eP	32 40.00	-0.7
	0.8s	8.10nm			4.6mb
SKO	37.51	90	eP	33 02.00	-0.4
YKC	38.49	312	eP	33 10.00	-0.4
YKA	38.54	313	P	33 11.20	0.4
INK	41.91	327	eP	33 39.00	0.5
LRM	47.78	292	eP	34 32.80	6.5X
GLD	48.33	281	eP	34 31.60	1.1
	1.2s	46.46nm			5.4mb
MEO	48.41	271	eP	34 30.80	-0.2
	1.3s	13.90nm			4.9mb
BW06	48.44	287	eP	34 30.60	-0.8
	0.6s	3.72nm			4.6mb
GOL	48.44	281	eP	34 32.20	0.7
PNT	48.84	300	eP	34 35.00	0.8
	0.6s	3.00nm			4.5mb
BMW	52.58	300	eP	35 12.70	10.0X
MSU	52.91	285	eP	35 05.80	0.4
KVN	55.57	290	eP	35 24.90	0.0
TNP	55.85	289	eP	35 26.80	-0.1
GLA	58.45	283	eP	35 45.40	0.2
MHI	61.72	66	eP	36 13.00	5.4X
ASPA	145.11	21	ePKP	45 25.20	-0.8
	S.D. = 0.7	on 28 of 33 obs.			

FEB 12, 1989 14h 26m 47.69± 0.17s
19.694 N ± 3.1km 74.361 W ± 3.1km
DEPTH = 59.6km (12 depth phases)
5.2mb (58 obs.)
CUBA REGION (85)
Minor damoge in the Santiago de Cubo-Maisi-Guantanamo area.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 18C
Centroid Location:
Origin Time 14:26:50.1 0.6
Lat 19.98N 0.10 Lon 74.52W 0.12
Dep 25.5 6.1 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 4.45 0.43 Mtt=-2.84 0.53
Mff=-1.61 0.57 Mrt= 1.09 1.21
Mrf=-5.46 1.73 Mtf= 3.09 0.52
Principal Axes:

T	Val= 7.70	Plg=58	Azm= 97
N	-0.50	21	329
P	-7.20	23	230

Best Double Couple:Mo=7.4*10**16
NP1:Strike=286 Dip=29 Slip= 43
NP2: 157 71 112

HOJ	2.82	234	P	27 24.00	-7.3X

12d 14h

			S	27	51.00		PLM	40.12	299	eP	34	35.00	15.5X	SNF	67.90	43	Pd	37	41.70	-0.3
MCP	6.97	99	P	28	25.00	-4.6X	GSC	40.41	302	eP	34	39.00	17.2X	SMF	67.94	47	iPc	37	41.60	-0.8
MGP	7.09	103	P	28	27.70	-3.4X	RVR	40.64	300	eP	34	40.00	16.4X		1.2s	42.80nm			5.3mb	
APR	7.32	98	P	28	30.50	-3.9X	LRM	40.71	319	eP	34	25.10	0.8	LBF	68.00	46	iPc	37	41.80	-1.0
CSB	7.89	99	P	28	36.50	-5.8X				e	36	26.00			1.1s	22.90nm			5.1mb	
			S	29	23.00		FFC	40.78	336	iPc	34	24.00	-0.5	DOU	68.13	43	iPc	37	43.10	-0.3
SJG	7.93	100	eP	28	38.00	-4.9X		0.7s	9.00nm		4.7mb				0.7s	23.30nm			5.3mb	
			S	29	25.00		CLC	41.14	302	eP	34	44.00	16.2X	TIC	68.36	91	Pc	37	44.16	-1.3
LPR	8.15	98	P	28	40.00	-5.9X	SES	42.18	325	ePc	34	37.00	0.9		0.9s	52.00nm			5.5mb	
PAG	12.61	105	eP	29	40.00	-6.4X				pP	34	48.00	39kmX	LIC	68.49	91	Pc	37	45.38	-0.9
JCR	12.93	222	iPd	30	08.90	18.2X	KVN	42.25	307	P	34	38.20	1.2	KIC	68.72	91	Pc	37	46.80	-0.9
SJS	13.48	225	iPc	29	56.90	-1.1				pP	34	53.00	57km		0.8s	78.00nm			5.7mb	
LCR2	13.59	225	iPd	29	58.50	-1.0	BCH	43.03	301	P	35	00.00	16.7X	TTA	68.87	331	eP	37	46.90	-1.0
DVD	13.66	216	P	29	59.30	-0.9	CMB	43.77	305	eP	34	51.60	2.4				epP	38	02.40	56km
SVB	14.10	115	eP	30	02.10	-3.8X				e	35	04.90		ENN	68.92	42	iPc	37	48.10	-0.2
FUQ	14.15	177	eP	29	59.50	-7.5X	FRB	44.20	4	ePc	34	52.30	0.1		1.0s	35.00nm			5.2mb	
BOG	14.98	179	eP	30	17.00	-0.8	EDM	44.92	328	iPc	34	58.00	-0.3	MEM	68.98	42	Pc	37	48.50	-0.2
			eS	33	03.00		DPW	45.15	319	P	35	00.00	-0.2	BRW	69.06	340	eP	37	48.40	-0.4
TRN	15.40	124	eP	30	22.09	-0.7				pP	35	15.50	60km	WLF	69.17	43	Pc	37	49.60	-0.2
TPP	15.56	125	eP	30	27.43	2.6	PNT	46.58	320	eP	35	11.00	-0.4	WTS	69.35	41	iPc	37	51.40	0.5
TBH	15.76	124	eP	30	28.56	1.2	LON	47.05	316	eP	35	15.20	0.0		0.8s	60.00nm			5.6mb	
JSC	15.77	339	eP	30	21.90	-5.4X	GMW	47.93	317	eP	35	20.60	-1.5	HAU	69.49	45	iPc	37	51.70	-0.2
LHS	15.80	340	eP	30	21.50	-6.3X	ITB1	48.17	155	eP	35	23.30	-0.7	BSF	69.81	45	P	37	53.40	-0.6
PRM	16.00	335	eP	30	26.40	-3.9X	MCW	48.33	318	eP	35	23.60	-1.5	LOMF	69.89	46	P	37	54.41	0.0
TKL	17.94	334	e(P)	30	52.50	-2.0	ITB	48.38	155	e(P)	35	24.20	-1.4	MOF	70.03	45	P	37	54.64	-0.7
GBTN	18.13	333	e(P)	30	55.00	-1.8	YKC	50.85	337	iPc	35	43.50	-0.6	CDF	70.06	45	P	37	54.96	-0.5
BLA	18.24	344	P	30	56.20	-2.0	ITA	50.87	144	e(P)	35	44.00	-1.1	LPG	70.09	48	iPc	37	56.20	0.2
CVL	18.57	350	iP	31	00.70	-1.5	YKA	50.90	337	P	35	44.40	-0.1		0.8s	13.40nm			4.9mb	
NA2	18.60	352	eP	31	01.10	-1.5	GDH	51.18	9	iPd	35	46.00	-0.5	LRG	70.11	50	iPc	37	55.80	0.1
PSO	18.62	189	eP	31	06.50	3.2X		0.9s	50.42nm		5.5mb				1.0s	21.60nm			5.0mb	
CBN	18.63	353	eP	31	02.00	-0.9				i	36	02.00		RRL	70.20	48	P	37	56.72	0.2
			e	31	29.00		BMA	51.43	144	ePc	35	48.30	-0.8	GWF	70.21	44	P	37	56.05	-0.2
RSCP	18.68	330	P	31	04.20	0.6	AVE	60.53	62	iPc	36	54.50	0.3	LMR	70.24	50	eP	37	56.40	-0.1
	1.0s	36.00nm				4.5mb	INK	60.62	339	ePd	36	53.50	-0.8		0.8s	6.40nm			4.6mb	
			pP	31	19.00		MBC	61.01	349	ePc	36	55.90	-0.9	FRF	70.30	50	iPc	37	56.70	-0.2
TBR	21.38	0	eP	31	32.60	0.5		0.7s	22.00nm		5.4mb				0.8s	9.10nm			4.8mb	
ELC	21.81	327	eP	31	36.30	-0.1				pP	37	11.00	56km	LSD	70.38	48	P	37	58.46	0.8
FVM	22.96	326	P	31	47.00	-0.7	AAPN	62.86	57	iP	37	10.50	0.5	PZZ	70.48	49	P	37	58.36	0.2
	1.0s	40.00nm				4.8mb	ALOJ	62.89	58	iP	37	11.40	1.2	RSP	70.49	48	P	37	58.67	0.5
DLA	23.88	347	P	31	56.40	-0.2	ATEJ	62.98	58	iP	37	11.50	0.7	FEL	70.62	45	P	37	58.48	-0.4
LDN	23.97	348	P	31	58.35	0.8	ALE	63.06	2	ePc	37	09.70	-0.7	SBF	70.82	49	iPc	38	00.00	-0.1
VVO	24.46	314	ePc	32	03.20	0.9		0.8s	18.00nm		5.2mb				0.8s	14.50nm			5.0mb	
RLO	24.46	316	e(P)	32	04.10	1.8	ACHM	63.11	58	iP	37	12.00	0.4	NB2	70.85	31	P	38	00.60	0.7
PTN	24.81	359	eP	32	06.50	1.0	APHE	63.24	58	iP	37	13.00	0.5		1.0s	40.10nm			5.3mb	
LNO	24.82	315	iPc	32	06.70	1.1	EKA	63.36	37	P	37	12.00	-0.8	ORX	70.93	47	P	37	58.77	-2.1
TUL	24.82	315	iPc	32	06.60	0.9		0.6s	16.90nm		5.3mb			NRA0	71.04	31	P	38	01.50	0.5
	0.6s	98.90nm				5.5mb	TOA	64.28	330	eP	37	19.70	0.9	ROB	71.06	49	P	38	01.23	-0.3
Z	18s	2.15um				4.7Msz	LPF	64.54	45	iPc	37	20.10	-0.6	FIN	71.31	49	P	38	01.64	-1.4
		i		32	21.00			0.9s	19.60nm		5.1mb			MDI	72.10	47	Pc	38	06.50	-1.1
MIM	25.86	9	eP	32	16.20	0.9	GRR	64.66	45	iPc	37	20.90	-0.5	GRF	72.43	43	eP	38	12.00	2.4
GAC	25.95	358	eP	32	16.50	0.3		0.9s	32.70nm		5.3mb				1.1s	49.00nm			5.3mb	
MEO	26.17	310	ePc	32	17.90	-0.4	FLN	64.89	45	iPc	37	22.50	-0.4	MOX	72.52	42	iPd	38	10.50	0.4
	0.6s	8.80nm				4.5mb		0.7s	22.00nm		5.3mb				1.6s	52.00nm			5.2mb	
ATB	31.54	134	iPc	33	05.30	-1.3	LDF	65.14	45	iPc	37	24.10	-0.4	GRB3	72.87	43	eP	38	12.00	-0.1
ALQ	32.14	305	eP	33	12.00	0.0		0.7s	22.00nm		5.3mb				1.1s	49.00nm			5.3mb	
	1.0s	12.50nm				4.7mb	MFF	65.21	47	iPc	37	24.50	-0.5	KUK	72.89	89	eP	38	11.50	-1.4
		epP		33	27.00	61km		1.1s	43.90nm		5.4mb			KOGH	73.04	90	eP	38	13.00	-0.8
GLD	33.18	314	P	33	20.50	-0.5	FBA	65.32	333	eP	37	24.80	-0.6	LEGH	73.24	90	eP	38	14.00	-0.9
	1.2s	76.77nm				5.4mb				i	37	41.60		CLL	73.26	41	iPc	38	13.90	-0.4
		pP		33	36.00	63km	PMR	65.63	330	ePc	37	27.70	0.3		1.9s	66.00nm			5.2mb	
GOL	33.26	314	P	33	21.00	-0.8		0.9s	22.90nm		5.2mb			SHGH	73.28	90	eP	38	15.00	-0.1
	1.0s	60.00nm				5.4mb	EPF	65.79	51	iPc	37	29.10	0.2	BRG	73.93	41	iPc	38	18.60	0.4
		pP		33	36.50	63km		1.0s	30.00nm		5.2mb				1.4s	52.00nm			5.3mb	
RSON	34.66	338	P	33	32.00	-1.3	LFF	65.93	49	iPc	37	29.40	-0.2	KHC	74.05	43	iPc	38	20.00	1.0
	0.8s	33.45nm				5.3mb		1.0s	49.60nm		5.5mb				1.0s	17.00nm			4.9mb	
		pP		33	47.00	60km	LPO	66.27	49	iPc	37	31.50	-0.3	KBA	74.32	45	iPc	38	20.70	-0.1
SCH	35.53	8	eP	33	41.00	0.3		0.9s	27.50nm		5.2mb				1.3s	30.00nm			5.1mb	
ZOBO	36.26	170	Pc	33	48.00	0.2	LSF	66.38	47	iPc	37	31.90	-0.7				i	38	42.00	
Z	24s	0.58um				4.3MszX	RJF	66.45	48	eP	37	32.50	-0.5	PRU	74.48	42	Pc	38	22.00	0.5
		S		39	28.00			1.1s	31.20nm		5.2mb				1.0s	26.00nm			5.1mb	
		LR		45	28.00		TCF	66.85	47	iPc	37	34.90	-0.7	RBL	74.60	46	P	38	22.20	-0.1
LPB	36.52	170	P	33	51.00	1.1		1.1s	32.70nm		5.2mb			ASS	74.70	49	Pc	38	22.00	-1.0
	1.4s	279.07nm				6.0mb	CAF	66.87	49	iPc	37	35.30	-0.4	ARV	74.81	49	Pd	38	22.90	-0.6
Z	24s	0.78um				4.4MszX		1.0s	38.80nm		5.4mb			MNS	74.87	50	Pc	38	23.50	-0.4
		LR		45	34.00		MAF	67.10	47	iPc	37	36.60	-0.5	VOY	74.91	46	ePc	38	24.30	0.1
CNCB	36.81	170	iPc	33	53.00	0.5		1.3s	28.80nm		5.1mb			CEY	75.34	46	eP	38	27.30	0.8
BW06	37.48	316	P	33	57.90	0.4	KDC	67.25	325	eP	37	37.90	0.1	LJU	75.34	46	e(P)c	38	26.60	0.1
	1.2s	35.96nm				5.2mb	BGF	67.27	47	iPc	37	37.50	-0.7	KSP	75.39	41	ePc	38	27.00	0.3
		pP		34	13.00	59km		0.7s	12.10nm		5.0mb			KEV	75.56	21	iP	38	27.80	0.5
MSU	37.66	308	eP	34	00.10	1.0	AVF	67.59	47	iPc	37	39.60	-0.6	LVI	75.63	55	Pc	38	28.00	-0.3
		epP		34	15.40	60km		1.2s	27.90nm		5.1mb			SDI	75.85	51	Pc	38	29.20	-0.3
DAU	37.66	311	eP	33	59.60	0.4	SSF	67.67	46	iPc	37	40.00	-0.7	VBY	75.96	46	e(P)	38	31.00	1.0
		epP		34	15.10	61km		1.1s	27.80nm		5.2mb			SOD	76.15	23	iP	38	38.70	8.1X
GLA	38.38	299	eP	34	06.90	1.9	IMA	67.85	334	ePc	37	41.40	-0.2	PTJ	76.34	46	eP	38	32.50	0.2
		ipP		34	22.00	59km		1.2s	31.30nm		5.2mb			ZST	76.53	43	iPc	38	33.50	0.4
PRN	39.51	305	P	34	16.00	1.6	LOR	67.90	46	iPc	37	41.40	-0.7	SUF	77.40	28	iP	38	38.50	0.9
TPC	39.57	300	eP	34	23.00	8.1X		0.9s	32.70nm		5.3mb				0.5s	20.60nm			5.4mb	

NUR	77.40	30	iP	38	38.10	0.5
KJF	77.59	26	iP	38	39.60	1.0
	0.9s	32.10nm			5.3mb	
KRA	77.84	41	iPd	38	41.40	1.1
	0.9s	43.00nm			5.4mb	
			e	38	51.50	
TDS	78.23	52	P	38	43.30	0.6
SPC	78.28	42	iP	38	44.60	1.6
PSZ	78.41	43	eP	38	45.00	1.4
BZS	80.23	45	eP	38	55.00	1.7
OHR	81.06	50	eP	38	59.70	1.8
SKO	81.25	49	iP	38	59.80	1.0
VAY	82.26	49	eP	39	05.40	1.3
MLR	83.13	44	iPc	39	11.00	2.3
VRI	83.51	44	iPc	39	12.50	2.1
BNG	91.26	85	iPc	39	48.90	0.5
	0.5s	30.00nm			5.9mb	
			i	40	04.30	
GKN	128.41	24	PKP	45	49.90	-0.2
	0.9s	34.00nm				
KKN	128.85	23	PKP	45	50.50	-0.5
DMN	128.95	24	PKP	45	50.90	-0.3
GUN	128.96	23	PKP	45	51.10	-0.2
PKI	129.09	23	PKP	45	51.00	-0.6
GBA	136.81	42	PKPd	46	05.60	-0.5
	0.7s	3.20nm				
STK	145.58	242	ePKP	46	21.00	-0.2
ADE	147.10	236	iPKPc	46	26.60	2.9
NNT	147.40	11	iPKPc	46	27.20	2.6
WB5	152.98	265	ePKP	46	32.90	0.0
WB2	153.00	265	ePKP	46	32.90	0.0
WRA	153.01	265	PKPc	46	32.60	-0.4
	1.1s	8.70nm				
ASPA	153.46	256	iPKPc	46	40.30	6.8X
			epP	46	54.40	

S.D. = 0.9 on 179 of 202 obs.

FEB 12, 1989 16h 24m 37.06± 1.10s
7.342 S ± 5.5km 128.529 E ± 7.7km
DEPTH = 139.6 ± 12.4 km
4.8mb (16 obs.)
BANDA SEA (280)

TLE	4.52	68	iPd	25	46.90	2.1
			iS	26	35.00	
MTN	6.04	155	iPd	26	05.90	0.6
	0.6s	217.00nm			5.6mb	
			eS	27	06.00	
KNA	8.36	178	iPc	26	36.20	-0.4
	0.3s	49.00nm			5.6mb	
			eS	28	02.00	
WB5	13.69	156	eP	27	44.10	-2.5
			i	27	49.90	
			eS	30	06.00	
WRA	13.74	156	Pc	27	44.40	-2.8
	0.3s	2.20nm			4.0mb	
WB2	13.74	156	eP	27	44.10	-3.2X
			i	27	49.90	
			eS	30	06.00	
TRT	15.76	268	ePc	28	07.00	-5.7X
MBL	16.11	211	eP	28	17.00	0.1
	0.3s	8.00nm			4.5mb	
			eS	31	06.00	
QIS	16.96	142	eP	28	27.00	-0.4
			eS	31	24.00	
ASPA	17.03	163	iPd	28	29.20	0.9
	0.6s	29.00nm			4.8mb	
			eS	31	27.10	
PMG	18.54	98	eP	28	44.00	-1.7
	0.8s	223.88nm			5.5mb	
WARB	18.82	185	eP	28	42.00	-6.7X
			eS	32	02.00	
NANU	19.64	218	iPd	28	57.80	0.6
	0.3s	17.00nm			4.9mb	
			eS	32	32.00	
CTA	21.35	128	iPc	29	15.90	1.5
	0.8s	6.34nm			4.1mb	
MEKA	21.39	205	eP	29	16.00	1.2
	0.3s	8.00nm			4.6mb	
			eS	33	13.00	
FORR	23.39	181	eP	29	35.00	0.8
COOL	24.42	196	eP	29	44.00	-0.1
	0.6s	17.00nm			4.7mb	
MRWA	24.76	207	eP	29	48.00	0.7
			eS	34	31.00	
BAL	25.66	204	iPd	29	55.70	0.1
	0.4s	7.00nm			4.6mb	
KLB	26.14	201	iPd	30	00.40	0.5
	0.4s	10.00nm			4.8mb	
			eS	34	56.00	
MUN	27.07	203	eP	30	08.00	-0.4
			eS	35	22.00	
STK	27.29	155	eP	30	11.00	0.7
NWAO	27.53	201	iPc	30	12.70	0.1
	0.4s	12.00nm			4.9mb	
RKG	28.65	200	iPd	30	28.10	5.5X
BRS	30.43	134	iPd	30	38.90	0.4
PSI	31.18	288	ePd	30	45.70	0.6
CAN	33.59	149	eP	31	09.30	3.4X
			eScP	37	12.80	
CHG	39.07	312	iPc	31	53.20	1.0
	1.1s	18.67nm			4.8mb	
SHL	48.37	314	iP	33	06.40	-0.5
LZH	49.04	333	eP	33	12.00	0.1
	1.5s	0.02nm			1.7mb X	
GTA	53.58	332	iPc	33	45.50	-0.4
GUN	54.09	312	P	33	49.30	-0.8
	0.4s	7.00nm			4.9mb	
PKI	54.25	312	P	33	50.30	-1.0
KKN	54.46	312	P	33	51.80	-0.9
DMN	54.49	311	P	33	52.20	-0.8
GBA	54.83	292	P	33	56.00	0.8
GKN	55.06	312	P	33	55.90	-1.0
	0.4s	12.00nm			5.1mb	
HYB	55.16	297	eP	33	57.00	-0.7
MHI	77.77	309	iPc	36	21.00	0.5
KIC	133.61	272	PKP	43	40.00	0.3
LIC	133.88	272	PKP	43	40.70	0.5
TIC	133.90	272	PKP	43	40.80	0.6
CNCB	150.97	146	PKP	44	18.00	7.7X
LPB	151.13	145	ePKP	44	15.00	4.6X
ZOBO	151.33	145	PKP	44	18.00	7.1X

S.D. = 1.1 on 37 of 45 obs.

FEB 12, 1989 16h 50m 04.88± 1.68s
42.372 N ± 5.2km 126.748 W ±16.3km
DEPTH = 10.0km (geophysicist)
4.1mb (1 obs.)
OFF COAST OF OREGON (30)

FHC	2.60	126	eP	50	46.90	-0.8
WDC	3.63	118	eP	51	03.60	1.2
LBFM	3.77	104	eP	51	05.00	0.5
GT2	4.27	48	eP	51	11.59	0.1
MIN	4.37	116	eP	51	13.60	0.7
PGO	4.38	44	eP	51	14.03	1.1
NLO	4.41	31	eP	51	12.55	-0.8
VBEM	4.61	53	eP	51	16.93	0.6
TDH	4.62	49	eP	51	16.49	0.0
VLMM	4.64	45	eP	51	16.87	0.1
RVW	4.75	36	eP	51	18.65	0.5
VLL	4.79	48	eP	51	19.22	0.3
BMW	4.81	30	eP	51	17.73	-1.4
VFP	4.82	51	eP	51	18.82	-0.6
ORV	4.87	124	e(P)	51	18.20	-1.7
MTMW	4.90	40	eP	51	19.98	-0.4
FL2	4.96	38	eP	51	21.14	-0.1
APM	4.96	46	eP	51	21.41	0.1
SHW	5.01	39	eP	51	22.29	0.4
YEL	5.04	39	eP	51	23.90	1.4
ERK	5.04	37	eP	51	21.80	-0.7
STD	5.05	38	eP	51	22.74	0.3
ESD	5.05	39	eP	51	22.94	0.4
SOSW	5.09	39	eP	51	23.78	0.7
GULW	5.13	44	eP	51	23.73	0.0
TDL	5.14	38	eP	51	23.50	-0.3
KOSW	5.23	37	eP	51	24.63	-0.4
CPW	5.27	28	eP	51	24.31	-1.3
VTHM	5.29	56	eP	51	24.93	-0.9
ASR	5.29	43	eP	51	25.62	-0.3
CWZ	5.33	38	eP	51	26.97	0.5
LMW	5.35	35	eP	51	27.04	0.3
GL2	5.57	48	eP	51	29.21	-0.7
GLK	5.57	40	eP	51	29.65	-0.3
LON	5.62	37	eP	51	30.50	-0.1
CMB	6.52	130	eP	51	47.90	4.7X
KVN	7.36	114	eP	51	55.30	0.2
FFC	20.40	44	eP	54	44.50	0.1
	0.7s	7.00nm			4.1mb	
YKA	21.40	16	P	54	55.80	1.3

S.D. = 0.7 on 38 of 39 obs.

? FEB 12, 1989 17h 53m 18.94± 1.96s
42.987 N ±31.2km 16.220 E ±31.4km
DEPTH = 10.0km (geophysicist)
ADRIATIC SEA (382)
ML 2.3 (KBA).

AOI	1.99	287	ePg	54	14.65	21.6X
			iSg	54	36.74	
VBY	2.61	345	ePg	54	02.80	0.9
			iSg	54	12.60	
PTJ	2.92	356	e(Pg)	54	12.70	6.4X
			eSg	54	30.70	
CEY	3.04	336	ePg	54	06.40	-1.5
	0.5s	50.00nm				
			eSg	54	20.50	
TIR	3.17	120	ePg	54	09.70	-0.1
			iSg	54	25.40	
TRI	3.24	328	P	54	09.80	-1.0
			eSn	54	25.80	
LJU	3.28	339	ePn	54	11.70	0.2
			eSg	54	31.00	
PGD	3.39	287	P	54	30.00	16.8X
			eSn	54	57.50	
VOY	3.47	332	ePn	54	12.60	-1.5
			eSn	54	33.70	
RBL	3.94	332	P	54	20.50	-0.3
			eSn	54	43.20	
FVI	4.36	327	P	54	25.70	-0.9
			eSn	54	52.50	
CTI	4.48	315	Pc	54	29.80	1.4
			eSn	54	57.70	
KBA	4.57	335	ePn	54	32.50	2.7
			iPgd	54	36.20	
			iSg	55	06.60	
			i	55	09.20	

S.D. = 1.5 on 10 of 13 obs.

& FEB 12, 1989 19h 49m 05.80s
37.833 N 122.602 W
DEPTH = 7.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.1 (BRK).
Mo=5.4*10**13 Nm (BRK). Felt
(III) ot Son Froncisco.

BRK	0.27	81	iPc	49	11.40	0.0
			iS	49	15.30	
BKS	0.29	81	iPc	49	11.90	0.1
			iS	49	16.20	
ZSP	0.30	68	iPd	49	12.20	0.4
PCC	0.38	152	ePc	49	13.00	-0.4
NWRM	0.66	340	eP	49	18.80	-0.3
MHC	0.91	122	iPc	49	22.90	-0.6
			iS	49	35.30	
GCC	0.94	149	eP	49	22.60	-1.3
			eS	49	36.80	
ARN	0.98	119	eP	49	23.50	-1.2
SAO	1.41	139	eP	49	29.10	-2.8
CMB	1.76	83	eP	49	35.80	-1.2
			iS	49	58.70	
PRS	1.79	146	ePc	49	35.00	-2.4
KVN	3.74	70	eP	50	00.00	-5.4

12 obs. associated

& FEB 12, 1989 19h 49m 50.40s
37.847 N 122.602 W
DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.9 (BRK).
Mo=3.7*10**13 Nm (BRK).

BRK	0.27	84	iPc	49	55.90	0.0
			iS	50	00.00	
ZSP	0.29	70	iPd	49	57.10	0.8
BKS	0.29	84	iPc	49	56.40	0.1
			iS	50	00.80	
PCC	0.39	153	iPc	49	57.90	-0.3
			iS	50	03.80	
NWRM	0.65	340	eP	50	03.50	0.1
MHC	0.91	123	iPc	50	07.80	-0.6
			eS	50	20.60	
ARN	0.98	120	eP	50	08.50	-1.1
SAO	1.42	139	i(P)	50	13.70	-3.2
CMB	1.76	83	e(P)	50	21.00	-0.8
			iS	50	43.20	

9 obs. associated

& FEB 12, 1989 19h 50m 35.40s
37.838 N 122.603 W

12d 19h

DEPTH = 6.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.7 (BRK).
Mo=2.5*10**13 Nm (BRK).

BRK	0.27	82	iPc	50	41.10	0.1
			iS	50	44.60	
BKS	0.29	82	iPc	50	41.45	0.1
			iS	50	45.90	
ZSP	0.29	69	iPd	50	41.90	0.5
			iS	50	47.40	
PCC	0.38	152	iPc	50	42.80	-0.3
			iS	50	48.70	
NWRM	0.66	340	eP	50	48.50	-0.1
MHC	0.91	123	iPc	50	52.70	-0.6
			eS	51	05.45	
GCC	0.94	149	e(P)	50	52.70	-1.0
ARN	0.98	120	eP	50	53.80	-0.6
SAO	1.41	139	iP	51	00.70	-1.0
CMB	1.76	83	e(P)	51	05.80	-0.9
			iS	51	28.20	

10 obs. associated

FEB 12, 1989 20h 03m 16.74± 0.36s
2.742 N ± 6.4km 79.727 W ± 5.5km
DEPTH = 33.0km (normal)
5.0mb (37 obs.) 4.1Msz (1 obs.)
SOUTH OF PANAMA (83)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 17C
Centroid Location:
Origin Time 20:03:15.0 0.8
Lat 2.41N 0.07 Lon 79.44W 0.09
Dep 33.0 FIX Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr=-5.09 0.33 Mtt=-0.51 0.39
Mff= 5.60 0.55 Mrt= 1.66 0.76
Mrf= 0.46 1.05 Mtf=-0.27 0.38
Principal Axes:

	Val=	Plg=	Azm=
T	5.63	2	268
N	0.03	18	359
P	-5.65	72	172

Best Double Couple:Mo=5.6*10**16
NP1:Strike=340 Dip=46 Slip=-116
NP2: 195 50 -66

PSO	2.85	123	eP	03	59.50	-1.8
ANCC	2.96	75	iPc	04	00.50	-2.0
SALC	3.04	86	iPc	04	01.25	-2.5
HOQC	3.17	77	iPc	04	05.50	-0.3
CLMC	3.36	70	iPc	04	06.80	-1.5
PURC	3.39	97	iPc	04	08.05	-1.0
DIAC	3.57	81	eP	04	10.00	-1.3
HOBC	3.93	66	eP	04	14.10	-2.3
BOG	5.95	72	eP	04	47.00	1.8
			eS	06	00.00	
DVD	6.27	335	eP	04	44.00	-5.4X
			i	05	44.50	
			i	05	47.80	
FUQ	6.56	65	eP	04	46.00	-7.8X
BMG	7.90	57	eP	05	18.00	5.6X
TPP	19.64	67	eP	07	48.10	2.3
TRN	19.81	66	eP	07	47.59	0.0
TBH	20.06	67	eP	07	52.21	2.0
ARE	20.74	157	eP	07	57.00	-0.7
SVB	21.05	59	eP	08	01.11	0.6
ZOBO	22.10	149	P	08	10.20	-1.4
Z	20s		0.79um			4.1Msz
			LR	16	12.00	
LPB	22.33	149	P	08	14.00	0.2
	1.0s		80.00nm			5.1mb
Z	15s		1.33um			4.5MszX
			LR	17	44.00	
CNCB	22.63	150	Pc	08	17.00	0.2
CCH	24.07	147	eP	08	31.60	1.0
ATB	28.13	102	e(P)	09	06.40	-1.7
VVO	35.67	337	eP	10	12.10	-1.9
TUL	36.20	338	eP	10	17.50	-0.9
	1.0s		16.70nm			4.9mb
			e	10	32.00	
LNO	36.20	338	eP	10	13.90	-4.4X
SIO	36.25	337	e(P)	10	18.00	-0.9
MEO	36.39	333	eP	10	18.00	-2.0
	0.7s		13.40nm			5.0mb
ACO	38.24	334	eP	10	35.50	-0.1
	1.0s		14.80nm			4.8mb
ALQ	40.54	325	eP	10	55.00	0.1
	1.0s		26.75nm			4.9mb
ITA	42.34	128	eP	11	09.10	-0.9
			e	11	11.40	
			e	11	16.40	
BMA	42.94	128	eP	11	16.30	1.7
GAC	42.95	4	eP	11	15.50	1.3
LRM	51.57	331	eP	12	22.10	0.0
SCH	52.97	9	eP	12	31.00	-1.3
SES	54.36	336	ePc	12	42.70	0.1
FFC	54.90	344	eP	12	45.00	-1.4
	1.0s		14.00nm			4.9mb
EDM	57.44	337	eP	13	03.00	-1.7
PNT	57.49	330	eP	13	04.00	-1.0
	1.1s		20.00nm			5.1mb
FRB	61.42	6	eP	13	30.00	-1.8
YKA	65.00	343	P	13	53.70	-1.8
LIC	74.50	84	Pc	14	54.22	-0.3
TIC	74.50	84	Pc	14	54.02	-0.5
INK	74.72	342	eP	14	54.00	-0.7
KIC	74.79	84	Pc	14	55.96	-0.2
	1.0s		51.00nm			5.5mb
MBC	76.69	351	eP	15	04.00	-1.8
	1.0s		28.00nm			5.2mb
KUK	79.14	84	eP	15	20.00	-0.4
ALE	80.08	2	eP	15	23.00	-1.2
	0.8s		6.00nm			4.6mb
EKA	80.12	34	Pc	15	25.10	0.2
	1.1s		20.00nm			5.0mb
LPF	80.40	42	eP	15	26.70	0.2
GRR	80.56	42	eP	15	27.80	0.4
	0.9s		27.50nm			5.3mb
FLN	80.85	41	eP	15	29.50	0.6
	0.9s		20.90nm			5.1mb
MFF	80.85	43	eP	15	29.40	0.4
	0.8s		11.80nm			4.9mb
EPF	80.87	47	eP	15	30.50	1.3
	1.2s		19.00nm			5.0mb
LDF	81.07	41	eP	15	30.60	0.5
	0.9s		27.50nm			5.3mb
LFF	81.32	45	eP	15	32.20	0.8
	0.8s		8.00nm			4.8mb
LPO	81.62	45	eP	15	33.70	0.7
	1.0s		20.00nm			5.1mb
RJF	81.90	45	eP	15	35.10	0.7
	1.0s		9.60nm			4.8mb
LSF	81.98	44	eP	15	35.40	0.5
CAF	82.26	45	eP	15	37.30	0.9
	1.1s		10.70nm			4.8mb
TCF	82.45	44	eP	15	37.60	0.3
	0.8s		5.30nm			4.7mb
MAF	82.69	44	eP	15	39.10	0.5
	0.8s		7.20nm			4.8mb
BGF	82.91	44	eP	15	40.30	0.6
	1.1s		24.40nm			5.2mb
AVF	83.27	43	eP	15	41.80	0.3
	1.1s		10.70nm			4.9mb
SSF	83.39	43	eP	15	42.30	0.2
	0.9s		5.50nm			4.7mb
SMF	83.60	44	eP	15	43.60	0.4
	1.1s		14.60nm			5.0mb
LOR	83.64	43	eP	15	43.50	0.1
	0.7s		3.70nm			4.6mb
DOU	84.26	40	Pc	15	47.70	1.3
ENN	85.13	39	eP	15	52.00	1.2
	0.8s		15.00nm			5.2mb
MEM	85.18	40	P	15	53.50	2.5
WLF	85.25	41	P	15	53.00	1.6
LRG	85.29	47	eP	15	52.70	1.0
	1.0s		21.60nm			5.3mb
HAU	85.35	42	eP	15	52.90	0.9
LMR	85.39	47	eP	15	53.10	0.8
FRF	85.49	47	eP	15	53.60	0.8
	0.9s		14.40nm			5.2mb
LPG	85.59	45	eP	15	55.10	1.5
	1.1s		12.20nm			5.0mb
BSF	85.64	42	eP	15	54.10	0.5
	0.8s		6.40nm			4.9mb
WTS	85.72	38	eP	15	54.00	0.3
	0.8s		44.00nm			5.7mb
CDF	85.97	42	eP	15	55.60	0.4
	0.9s		7.80nm			4.9mb
SBF	86.07	46	eP	15	56.20	0.5
	1.1s		29.30nm			5.4mb
NB2	88.08	29	P	16	04.60	-0.4
	0.9s		11.70nm			5.2mb
CLL	89.59	39	eP	16	14.00	1.6
KHC	90.11	41	eP	16	16.90	2.0
SPA	92.72	180	e(P)	16	34.70	8.0X
	1.0s		10.00nm			5.2mb
SALJ	109.82	55	Pdiffd	17	42.50	-1.8
BURJ	109.83	54	Pdiff	17	45.10	0.9
KFNJ	109.86	55	Pdiff	17	42.90	-1.4
MASJ	109.93	55	Pdiffd	17	44.90	0.1
JARJ	109.97	54	Pdiffd	17	47.00	2.1
GKN	145.93	25	PKP	22	54.20	-0.6
KKN	146.39	24	PKP	22	56.20	0.6
	1.1s		61.00nm			
DMN	146.47	25	PKP	22	56.00	0.2
GUN	146.52	24	PKP	22	56.30	0.3
PKI	146.63	24	PKP	22	56.10	-0.1
HYB	150.67	46	ePKP	23	07.00	4.7X
			e	23	14.50	
SHL	150.71	16	iPKP	23	02.50	0.1
GBA	152.13	54	PKP	23	11.30	6.8X
S.D. = 1.2 on 89 of 96 obs.						

% FEB 12, 1989 21h 11m 31.64± 3.44s
18.606 N ±19.4km 65.952 W ±17.2km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LPR	0.31	165	P	11	38.00	0.0
			S	11	50.00	
CSB	0.37	212	P	11	39.20	-0.1
			S	11	54.00	
SJG	0.53	201	iP	11	42.50	0.2
			S	11	56.80	
APR	0.75	259	P	11	47.20	0.8
MCP	1.11	261	P	11	52.00	-0.6
MGP	1.23	241	P	11	54.20	-0.4
S.D. = 0.6 on 6 of 6 obs.						

? FEB 12, 1989 22h 35m 45.22± 2.43s
24.112 S ±28.2km 64.836 W ±22.5km
DEPTH = 31.2 ± 12.7 km
SALTA PROVINCE, ARGENTINA (129)

HJA	1.03	330	iPd	36	02.60	-1.0
CCH	6.81	349	eP	37	25.00	-0.8
CNCB	7.84	337	P	37	42.00	1.5
LPB	8.14	337	eP	37	50.00	5.4X
			LR	40	46.00	
ZOBO	8.39	338	P	37	51.80	3.6X
Z	16s		0.45um			
			LR	40	56.00	
ITB1	9.54	95	e(P)	38	03.10	-0.4
ITB	9.71	96	e(P)	38	06.10	0.2
VAO	16.42	90	eP	40	05.90	30.8X
ITA	18.58	89	eP	40	26.10	23.8X
BMA	19.04	90	eP	40	28.20	20.7X
HYB	145.20	94	ePKP	55	22.00	-0.1
S.D. = 1.4 on 6 of 11 obs.						

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* FEB 12, 1989 23h 44m 55.49± 1.07s
30.041 N ±13.6km 89.958 E ± 9.9km
DEPTH = 33.0km (normal)
3.5mb (1 obs.)
TIBET (306)

GUN	4.16	240	P	46	00.20	1.7
KKN	4.67	242	P	46	06.30	0.5
PKI	4.69	239	P	46	07.20	1.1
SHL	4.77	159	eP	46	07.00	-0.1
			eSg	48	22.00	
DMN	4.90	242	P	46	09.30	0.3
GKN	5.08	248	P	46	10.70	-0.8
NDI	11.20	266	eP	47	34.00	-2.3
			eS	49	31.00	
HYB	16.32	222	eP	48	42.00	-1.9
GBA	20.04	218	P	49	29.00	0.4
	0.6s		1.60nm			3.5mb
BJI	23.60	58	eP	50	04.00	-0.1
MHI	26.18	292	eP	50	30.00	1.1
NIIJ	41.08	67	P	52	54.80	17.1X
S.D. = 1.4 on 11 of 12 obs.						

FEB 12, 1989 23h 49m 17.00± 0.24s
50.995 N ± 5.0km 84.172 E ± 5.3km
DEPTH = 33.0km (normal)
4.6mb (15 obs.)
CENTRAL USSR (326)

WMQ	7.56	160	eP	51	05.80	-2.0

KSH	12.89	210	P	52	26.50	5.9X
GTA	15.95	131	P	53	03.00	2.4
	N 10s	0.70um				
NDI	22.89	196	iPc	54	18.00	-0.7
GKN	22.97	179	P	54	19.40	-0.2
GUN	23.09	176	P	54	20.20	-0.8
KKN	23.19	178	P	54	21.00	-0.8
	0.6s	22.00nm			4.8mb	
DMN	23.37	178	P	54	25.20	1.6
PKI	23.41	177	P	54	25.10	1.0
	0.5s	9.00nm			4.5mb	
TIY	24.00	113	eP	54	30.60	1.1
	E 10s	0.50um				
QUE	24.44	218	eP	54	34.40	0.5
XAN	24.72	124	eP	54	36.90	0.5
BJI	24.76	104	eP	54	37.50	0.8
CD2	24.79	137	eP	54	37.30	0.2
SHL	26.07	164	iP	54	48.60	-0.7
SUF	32.64	314	iP	55	47.40	-0.1
NUR	33.69	310	iP	55	56.10	-0.4
	0.7s	21.40nm			5.2mb	
		i		56	06.80	
HYB	33.80	190	eP	55	55.00	-3.0X
CHG	34.18	155	eP	56	00.50	-0.8
CFR	37.09	283	eP	56	27.00	1.4
UPP	37.25	310	iP	56	26.40	-0.4
VRI	37.62	285	eP	56	31.50	1.3
GBA	37.69	191	Pc	56	33.90	3.0X
	0.4s	1.70nm			4.3mb	
MLR	38.29	285	eP	56	38.00	2.1
BZS	40.85	288	eP	56	59.00	2.1
KSP	41.39	297	eP	57	02.30	1.0
		e		57	13.20	
VAY	42.59	282	eP	57	12.00	0.7
KHC	43.76	296	eP	57	22.10	1.4
		e		59	04.00	
KBA	44.96	294	e(P)	57	32.00	1.4
	1.0s	5.30nm			4.4mb	
		i		57	34.20	
CDF	47.67	299	eP	57	51.60	-0.3
BSF	48.26	298	eP	57	56.20	-0.3
HAU	48.41	299	eP	57	57.50	-0.1
LPG	49.63	296	eP	58	07.60	0.3
	0.7s	11.00nm			5.0mb	
LOR	50.21	299	eP	58	10.30	-1.1
LBF	50.32	299	eP	58	11.10	-1.1
SSF	50.53	299	eP	58	12.80	-1.0
	0.7s	2.60nm			4.3mb	
SMF	50.59	298	eP	58	14.30	0.0
	0.7s	2.20nm			4.3mb	
AVF	50.78	299	eP	58	15.00	-0.6
	0.8s	3.20nm			4.3mb	
BGF	51.19	299	eP	58	18.30	-0.6
MAF	51.55	299	eP	58	21.30	-0.3
LDF	51.59	303	eP	58	21.10	-0.7
FLN	51.68	303	eP	58	21.70	-0.8
TCF	51.71	299	eP	58	22.10	-0.7
LSF	52.11	299	eP	58	25.40	-0.4
MBC	52.13	7	eP	58	25.00	-0.6
	0.6s	17.00nm			5.2mb	
LPF	52.42	302	eP	58	27.10	-1.0
CAF	52.62	298	eP	58	29.70	0.0
MFF	52.81	301	eP	58	30.20	-0.8
LPO	53.26	298	eP	58	34.30	-0.1
LFF	53.35	298	eP	58	34.90	-0.1
EPF	54.78	297	eP	58	44.50	-1.1
	0.8s	4.00nm			4.5mb	
INK	57.76	16	ePd	59	06.60	0.1
		pP		59	18.00	39kmX
YKA	65.88	9	eP	00	00.60	-0.4
YKC	65.91	9	eP	00	00.30	-0.8
BNG	71.36	253	iPd	00	35.50	-0.1
	0.6s	8.00nm			4.9mb	
		i		00	39.50	
FFC	74.53	4	eP	00	53.00	-0.6
	0.7s	7.00nm			4.8mb	
PNT	78.02	16	eP	01	14.00	0.7
	0.8s	6.00nm			4.7mb	
SES	78.16	10	ePc	01	14.40	0.3
GAC	82.09	346	eP	01	38.00	3.0X
LRM	82.50	12	eP	01	37.80	0.2
WB5	83.18	133	eP	01	40.20	-0.8
WRA	83.22	133	Pd	01	39.50	-1.7
	0.5s	0.90nm			4.1mb	
WB2	83.23	133	eP	01	40.20	-1.0
TIC	84.38	274	P	01	48.00	0.8
KIC	84.42	273	P	01	48.20	0.7

ALO	93.92	9	eP	02	34.00	1.4
	S.D. = 1.0	on	62 of	66	obs.	

? FEB 13, 1989 00h 08m 36.63± 4.55s
6.855 S ±41.5km 129.449 E ±43.8km
DEPTH = 214.6 ± 53.5 km
BANDA SEA (280)

MTN	6.18	165	iPd	10	07.10	0.0
			eS	11	11.00	
KNA	8.86	184	eP	10	42.00	0.0
			eS	12	15.00	
WB5	13.80	160	eP	11	45.10	0.3
			eS	14	12.00	
WB2	13.85	160	eP	11	45.10	-0.3
			eS	14	12.00	
CHG	39.43	311	eP	15	47.60	0.0
	S.D. = 0.5	on	5 of	5	obs.	

FEB 13, 1989 00h 35m 11.35± 0.23s
44.820 N ± 2.4km 14.650 E ± 2.3km
DEPTH = 10.0km (geophysicist)
ADRIATIC SEA (382)
ML 4.2 (LDG), 4.1 (ZAG), 4.0 (KBA). Felt (VI) in the Senj area, Yugoslovio. Also felt on Krk and Rob.

VBY	0.81	32	iPg	35	25.70	-1.3
CEY	0.93	350	ePgc	35	29.40	0.2
			eSg	35	43.90	
TRI	1.09	325	iPgc	35	33.80	2.0
			iSg	35	49.50	
LJU	1.23	356	iPgc	35	35.50	1.3
			eSg	35	53.50	
VOY	1.32	337	iPn	35	36.90	1.1
			eSn	35	57.30	
ZAG	1.37	43	iPgc	35	36.70	0.3
			iSg	35	54.50	
PTJ	1.42	40	iPgd	35	37.20	-0.1
AOI	1.48	211	iPgd	35	39.21	1.2
			iSg	36	00.90	
RBL	1.79	335	P	35	44.40	1.8
			eSn	36	07.50	
ARV	1.80	224	P	35	44.10	1.4
			eSg	36	06.80	
RSM	1.81	241	P	35	44.93	2.2
VVI	1.95	307	Pc	35	47.20	2.3
			eSn	36	12.00	
CIO	1.95	214	iPnd	35	45.04	0.1
			iSn	36	12.97	
HVAR	2.09	141	iPnc	35	47.20	0.3
			iSn	36	15.00	
ALP	2.18	201	ePn	35	48.19	-0.1
			iSn	36	18.00	
SFI	2.20	247	P	35	50.20	1.8
FVI	2.20	324	P	35	50.00	1.5
			eSn	36	17.10	
ASS	2.26	220	P	35	50.60	1.2
			eSn	36	18.40	
CRE	2.28	239	P	35	51.50	1.8
			eSn	36	18.30	
PGD	2.30	247	Pc	35	52.00	1.9
			eSn	36	19.00	
KBA	2.44	338	iPnd	35	53.60	1.6
			iPg	35	59.70	
			eSn	36	25.00	
			iSg	36	33.00	
CTI	2.44	301	Pc	35	53.50	1.5
			eSn	36	23.40	
AQU	2.63	201	Pc	35	55.00	0.4
			eSn	36	25.00	
FIR	2.65	248	iPnd	35	57.50	2.7
			iSn	36	31.00	
MNS	2.82	211	Pd	35	58.10	0.7
			eSn	36	30.00	
MME	2.89	259	P	36	00.40	1.8
			eSn	36	33.20	
AZI	2.97	198	P	36	00.20	0.9
BDI	3.00	257	P	36	01.00	1.1
			eSn	36	37.20	
SAL	3.02	287	Pc	36	01.20	1.2
SOP	3.15	24	eP	36	02.80	0.8
DUI	3.16	183	P	36	01.30	-0.9
PII	3.16	251	Pd	36	02.80	0.8
			eSn	36	39.40	
SDI	3.17	191	P	36	01.70	-0.6

			eSn	36	37.60	
RMP	3.33	206	Pc	36	04.40	-0.1
RDP	3.37	205	P	36	04.80	-0.3
BRY	3.41	123	ePn	36	07.00	1.3
			eSn	36	48.00	
RFI	3.55	188	P	36	07.65	0.0
MDI	3.61	287	P	36	09.00	0.5
			eSn	36	50.40	
VKA	3.63	18	iPnd	36	09.30	0.5
			iPg	36	19.30	
			iSn	36	50.40	
			i	37	02.50	
HCY	3.66	129	ePn	36	09.00	-0.3
			eSn	36	52.40	
BOB	3.70	271	P	36	11.30	1.4
PLE	3.73	112	ePn	36	11.00	0.7
			eSn	36	55.00	
NKY	3.73	121	ePn	36	11.50	1.2
			eSn	36	55.00	
ZST	3.78	26	iPn	36	10.00	-0.9
			e	36	46.90	
			i	36	54.90	
			i	37	13.50	
SRO	3.92	39	iPn	36	12.40	-0.5
			i	36	16.60	
			i	36	32.00	
			i	36	58.50	
BDV	3.96	128	ePn	36	13.20	-0.2
			eSn	37	01.00	
GEN	4.10	266	P	36	16.25	0.8
			S	36	57.08	
TTG	4.11	124	ePn	36	15.00	-0.5
			eSn	37	04.00	
BEO	4.13	88	ePn	36	26.00	10.2X
			eSg	37	25.80	
VAI	4.28	286	Pc	36	18.10	0.2
			eSn	37	05.90	
BRT	4.36	154	P	36	16.50	-2.7
KHC	4.37	351	iPn	36	20.10	0.7
			e	36	25.40	
			Sg	37	24.50	
PVY	4.45	118	ePn	36	20.00	-0.6
			eSn	37	12.00	
SDA	4.51	127	ePn	36	25.40	4.2X
CKI	4.57	267	Pc	36	22.10	0.1
			eSn	37	13.50	
BCI	4.64	120	ePn	36	27.80	4.8X
FIN	4.65	265	P	36	22.50	-0.8
			S	37	06.32	
PUK	4.72	124	ePn	36	25.20	1.0
MGR	4.73	172	P	36	22.60	-1.8
			eSn	37	14.50	
CVF	4.76	244	Pn	36	24.85	0.0
			Sg	37	20.37	
PSZ	4.77	48	ePn	36	25.00	-0.1
ORO	4.78	282	P	36	23.70	-1.5
			eSn	37	18.00	
ORX	4.78	282	P	36	23.83	-1.4
ROB	4.87	266	P	36	25.47	-1.0
			S	37	13.91	
LACI	4.88	129	ePn	36	36.00	9.6X
IMI	4.93	262	P	36	26.60	-0.7
BZS	4.99	78	ePc	36	26.50	-1.5
KKS	5.01	121	ePn	36	29.50	1.2
TIR	5.16	130	ePn	36	40.00	9.5X
PRU	5.17	359	Pg	36	29.80	-0.8
			Sg	37	27.50	
AUTN	5.24	263	Pn	36	31.76	-0.1
			Sg	37	31.83	
RSP	5.26	276	P	36	29.17	-2.8
			S	37	20.88	
PHP	5.26	124	ePn	36	38.10	6.2X
SBF	5.26	262	Pn	36	31.80	-0.2
			Sn	37	30.00	
STV	5.27	266	P	36	31.11	-1.0
DOI	5.29	269	Pd	36	30.80	-1.6
AURF	5.33	262	Pn	36	33.37	0.3
LSD	5.34	279	P	36	30.91	-2.4
TOUF	5.36	264	Pn	36	33.43	-0.1
			Sg	37	34.32	
PZZ	5.39	269	P	36	31.83	-2.1
GRF	5.40	336	e(Pg)	36	55.00	21.1X
MVIF	5.46	263	Pn	36	34.94	0.1
			Sg	37	37.44	
RRL	5.59	274	P	36	34.91	-1.9
LPG	5.63	280	Pn	36	37.00	-0.4
LPL	5.64	280	Pn	36	37.20	-0.3

13d 00h

BNI	5.67	275	P	36	36.40	-1.4				e	05	40.00		SNY	40.48	356	iPd	09	40.60	0.0
SKO	5.71	118	ePn	36	50.00	11.8X				e	05	53.00		BWA	40.67	153	iPc	09	44.70	2.3
OHR	5.84	127	ePn	36	38.80	-1.2				e	08	30.00		LZH	40.90	330	eP	09	46.50	2.1
FRF	5.89	260	Pn	36	40.20	-0.5	KHKI	15.16	230	eP	05	46.40	4.9X		2.0s	275.00nm				5.7mb
			Sn	37	45.00					e	09	47.00		CAN	41.68	153	iPc	09	51.90	1.2
LMR	6.05	259	Pn	36	42.20	-0.8	BAG	16.43	336	eP	05	57.00	-0.5	SHL	41.84	308	iP	09	52.50	0.2
			Sn	37	48.80					eS	09	03.00					iS	15	25.50	
BRG	6.08	356	ePn	36	42.00	-1.3	KNA	17.01	175	eP	06	03.60	-0.9	CNB	41.84	153	iPc	09	53.50	1.4
			e	37	10.00			0.4s	42.00nm			5.1mb		HHC	41.88	342	Pd	09	53.00	0.7
			iSn	37	50.00		TRT	17.21	238	iPc	06	08.60	1.7	BTO	42.15	340	eP	09	54.00	-0.6
			iSg	38	28.00			1.0s	102.80nm			5.1mb		TOO	42.17	158	eP	09	56.00	1.3
			i	38	34.00		WB5	22.15	162	iPc	06	59.10	-0.2	CN2	42.34	358	eP	09	55.00	-0.9
LRG	6.12	260	Pn	36	43.40	-0.5				eS	10	55.20		MDJ	43.17	2	eP	10	02.70	0.1
			Sn	37	50.00					iScP	14	19.30		LSA	44.52	313	Pd	10	15.80	1.5
KSP	6.13	10	ePn	36	43.00	-1.1	WRA	22.20	162	Pc	06	59.60	-0.2	GTA	45.49	330	iPd	10	22.20	0.8
			iPg	36	59.40			0.4s	52.40nm			5.3mb					PcP	11	59.30	
			eS	37	44.50		WB2	22.21	162	iPc	06	59.10	-0.8	GUN	47.67	308	Pd	10	39.40	0.3
MOX	6.18	342	ePn	36	44.00	-0.8				eS	10	55.20		PKI	47.90	307	Pd	10	40.50	-0.3
			eSn	37	53.00					iScP	14	19.30		KKN	48.10	307	Pd	10	42.30	0.1
			eSg	38	30.00		MBL	23.52	198	iPc	07	12.60	0.1	DMN	48.16	307	Pd	10	42.90	0.2
BSF	6.22	302	Pn	36	45.60	0.1		0.4s	13.00nm			4.7mb		GKN	48.70	307	Pd	10	46.80	0.0
			Sn	37	54.00		KGM	24.05	272	eP	07	18.60	0.9	KOD	50.37	282	eP	11	00.00	0.1
CDF	6.22	308	Pn	36	45.20	-0.3	QIZ	24.60	317	eP	07	23.00	0.1	HYB	50.56	292	iPd	11	00.70	-0.2
KRA	6.35	33	eP	37	04.80	17.6X				eS	11	34.00			1.0s	230.00nm				6.0mb
			e	37	21.80		QIS	24.82	152	iPc	07	25.40	0.4	GBA	50.87	286	Pc	11	02.90	-0.4
LSK	6.41	135	ePn	36	48.50	0.3		0.2s	81.00nm			5.9mb			0.8s	63.70nm				5.6mb
HAU	6.56	302	Pn	36	50.30	0.0				i	14	27.20		NDI	54.99	305	iPc	11	31.20	-2.4
			Sn	38	02.80		QZH	24.97	341	Pc	07	27.00	0.7	WMQ	55.06	326	iPd	11	34.00	0.0
CLL	6.59	351	e(Pn)	36	50.00	-0.6	ASPA	25.63	166	iPc	07	32.10	-0.4	QUE	63.98	303	iPd	12	35.10	-0.4
			eSn	38	06.00					eS	11	51.50		MHI	71.48	308	iPd	13	22.50	0.4
			eSg	38	43.00					e	12	03.10			0.9s	134.45nm				5.8mb
VAY	6.77	118	ePn	36	50.00	-3.2X				eScS	18	15.10		AVY	80.62	251	eP	14	14.08	0.2
TNS	6.84	324	eP	36	55.30	1.1	NANU	26.39	205	iPc	07	39.30	-0.1	VZW	86.96	29	iP	15	02.07	17.2X
			eS	38	09.60			0.4s	12.00nm			4.8mb		VLZ	87.07	29	eP	15	02.29	17.0X
WLF	7.54	313	P	37	05.20	1.3	IPM	26.50	278	ePd	07	40.10	-0.4	INK	92.16	22	eP	15	09.00	0.0
LBF	7.75	290	Pn	37	06.00	-1.0		0.9s	48.60nm			5.1mb		SOD	92.93	338	iP	15	11.20	-1.4
			Sn	38	31.00		SNG	27.29	283	eP	07	45.40	-2.3	KJF	93.03	334	eP	15	12.00	-1.1
SMF	7.78	287	Pn	37	06.30	-1.0	WARB	27.34	181	iPd	07	41.00	-7.0X	SUF	93.98	333	iP	15	16.20	-1.3
			Sn	38	32.00		CTA	28.20	140	iPd	07	56.40	0.6	MBC	94.16	13	eP	15	18.00	-0.1
LOR	7.90	292	Pn	37	07.60	-1.4		1.1s	26.58nm			4.8mb		YKA	101.42	25	Pdiff	15	53.50	2.4
			Sn	38	35.00		PSI	28.46	273	ePd	07	57.30	-0.9	KIC	131.59	280	PKP	21	14.00	0.5
SSF	8.09	290	Pn	37	10.60	-1.0		0.8s	86.80nm			5.5mb		TIC	131.82	280	PKP	21	14.50	0.5
			Sn	38	38.80		MEKA	29.04	196	eP	08	03.00	-0.3	LIC	131.89	280	PKP	21	14.70	0.6
AVF	8.14	288	Pn	37	11.60	-0.7		0.4s	11.00nm			4.9mb			S.D. = 1.0		on 82 of 89 obs.			
MEM	8.21	318	P	37	17.20	3.9X	SSE	30.19	349	eP	08	13.50	0.1	---						
BGF	8.45	286	Pn	37	15.60	-1.0		0.8s	16.00nm			4.8mb			FEB 13, 1989 02h 09m 46.77± 0.44s					
			Sn	38	47.00		NST	30.41	299	iPd	08	07.50	-8.0X		17.516 N ± 4.6km 62.020 W ± 4.9km					
MAF	8.60	284	Pn	37	17.60	-1.2	WHN	31.59	338	P	08	26.50	0.9		DEPTH = 41.4 ± 5.5 km					
			Sn	38	51.00			1.0s	0.11nm			2.6mb X			LEEWARD ISLANDS					(92)
DOU	8.62	311	iP	37	19.90	1.0	GYA	31.96	323	P	08	29.20	0.1		MD 4.1 (TRN). Felt (III) on					
			S	38	50.10		FORR	31.99	179	iPc	08	27.80	-1.3		Antiguo. Also felt on St.					
TCF	8.85	284	Pn	37	21.20	-1.1		0.3s	31.00nm			5.6mb			Borthelemy.					
			Sn	38	50.00		BDT	32.07	301	eP	08	29.90	-0.1							
CAF	8.94	275	Pn	37	21.30	-2.2		0.7s	38.20nm			5.3mb		CPB	0.22	56	eP	09	54.67	0.3
SNF	9.02	313	P	37	24.40	0.0	MRWA	32.25	199	eP	08	31.00	-0.4				eS	10	00.13	
	S.D. = 1.2		on 104 of 115 obs.					0.3s	8.00nm			5.0mb		ANG	0.40	153	eP	09	55.79	-0.5
---							COOL	32.56	190	eP	08	33.00	-1.2	SKI	0.71	255	iP	10	00.28	-0.2
* FEB 13, 1989 01h 41m 57.27± 0.89s								0.5s	11.00nm			4.9mb					eS	10	12.94	
38.285 N ±10.5km 20.764 E ± 9.8km							CHG	32.85	304	iPd	08	36.70	-0.1	SKDB	0.76	261	iP	10	01.26	0.1
DEPTH = 10.0km (geophysicist)								1.0s	37.50nm			5.1mb		BSK	0.80	258	iP	10	01.83	0.1
GREECE						(364)	BAL	33.32	197	eP	08	40.00	-0.8	MGH	0.81	193	iP	10	01.31	-0.6
MD 3.0 (ATH).								0.3s	7.00nm			4.9mb		SEG	1.21	156	iPc	10	07.48	0.0
							KMI	33.55	317	Pd-	08	44.00	0.9				S	10	23.80	
VLS	0.17	232	ePb	42	01.20	0.0	KLB	33.97	195	eP	08	46.00	-0.3	SFG	1.48	148	iPc	10	11.33	0.0
KZN	2.16	21	ePn	42	34.50	0.6		0.3s	7.00nm			4.9mb		DEG	1.51	142	iPc	10	11.70	-0.1
NEO	2.18	61	ePn	42	35.10	1.0	RMQ	34.49	145	eP	08	51.00	0.1				S	10	29.80	
ATH	2.35	97	ePn	42	36.40	-0.1				e	10	11.00		PAG	1.51	168	iPc	10	11.95	0.1
OHR	2.82	1	ePn	42	43.30	0.0	MUN	34.76	197	eP	08	53.00	0.0				S	10	30.50	
PLG	2.95	44	ePn	42	43.50	-1.5	NWAO	35.37	195	iPc	08	58.00	-0.2	MGG	1.73	157	iPc	10	14.96	0.1
TIR	3.13	348	e(P)	43	34.90	47.3X		0.4s	10.00nm			5.0mb		BBL	2.05	165	iPc	10	19.61	0.1
			e	43	52.40		STK	35.66	159	iPc	09	00.80	0.1	DSVT	2.36	165	eP	10	28.56	4.7X
S.D. = 1.1		on 6 of 7 obs.						0.8s	83.00nm			5.6mb					eS	11	00.18	
---										e	10	25.00		DTMT	2.36	164	eP	10	24.38	0.4
FEB 13, 1989 02h 02m 12.55± 0.83s							TIA	36.00	346	eP	09	02.30	-1.2				eS	10	58.37	
1.312 N ± 3.4km 127.365 E ± 5.6km							MAT	36.46	15	eP	09	05.00	-2.4	FDF	2.89	163	eP	10	31.18	-0.3
DEPTH = 122.2 ± 8.1 km								0.8s	20.90nm			5.0mb					S	11	04.20	
5.2mb (26 obs.)							RKG	36.52	195	eP	09	13.00	5.2X	BIM	3.12	163	eP	10	34.47	-0.3
HALMAHERA						(267)	XAN	36.85	334	iPd	09	10.70	0.0	MVM	3.14	160	eP	10	34.23	-0.8
							CD2	36.97	325	eP	09	11.70	0.0				S	11	11.10	
MNI	2.53	273	iPc	02	53.00	-0.4	CMS	37.03	153	eP	09	12.00	-0.2	SVB	4.28	170	eP	10	53.00	1.7
			eS	03	23.50		BRS	37.58	141	iPc	09	15.40	-1.5				eS	11	42.40	
AAI	5.03	171	ePd	03	40.00	12.9X				e	09	40.00					eTT	13	23.50	
			eS	04	33.30		ADE	37.62	165	iPc	09	18.10	0.9	TCE	6.78	178	eP	11	27.07	0.6
DAV	6.01	343	eP	03	40.00	-0.4		0.6s	77.33nm			5.7mb		TRN	6.85	175	eP	11	27.27	-0.1
			eS	04	46.00		TIY	38.74	341	iPd	09	27.00	0.4	TPP	7.18	176	eP	11	31.40	-0.5
TSM	9.72	287	ePd	04	33.00	2.4	COO	39.38	146	eP	09	33.00	1.1	ALQ	43.09	303	eP	17	45.00	0.1
MTN	14.55	165	iPc	05	32.80	-1.0	BJI	39.87	347	eP	09	35.50	-0.2	YKA	57.72	334	P	19	35.60	0.1

INK 67.03 337 eP 20 37.00 -0.4
S.D. = 0.5 on 23 of 24 obs.

& FEB 13, 1989 02h 14m 31.65s
62.464 N 149.482 W
DEPTH = 57.8km
CENTRAL ALASKA (1)
<AGS-P>.

GHO	0.74	159	iP	14 45.79	-0.7
			eS	14 57.49	
PWA	0.84	193	eP	14 46.92	-0.7
SML	0.85	140	iP	14 46.88	-1.0
			eS	14 59.45	
PME	0.87	166	iP	14 47.27	-0.7
			eS	15 00.88	
PLRM	0.89	169	iP	14 47.37	-0.9
			eS	15 01.22	
KNK	1.16	155	iP	14 51.48	-0.5
			eS	15 08.79	
PMS	1.22	182	eP	14 52.29	-0.6
			eS	15 09.44	
MCK	1.30	11	eP	14 53.22	-0.6
			eS	15 10.52	
TOA	1.59	102	eP	14 57.96	0.0
			eS	15 20.19	
PTE	1.62	172	eP	14 57.74	-0.5
			eS	15 20.06	
PWL	1.70	161	eP	14 58.52	-0.9
			eS	15 22.07	
CRP	1.75	228	eP	15 00.61	0.4
SPU	1.77	225	eP	15 00.18	-0.3
			eS	15 22.81	
PAX	1.92	73	eP	15 02.11	-0.4
			eS	15 25.38	
NKA	1.92	207	eP	15 05.03	2.6
KLU	1.94	119	iP	15 01.96	-0.9
			eS	15 29.19	
SLKM	2.00	191	eP	15 03.70	0.1
WRH	2.11	17	eP	15 03.54	-1.6
DDM	2.11	49	eP	15 06.78	1.5
NEA	2.13	5	eP	15 03.80	-1.6
HDA	2.26	29	eP	15 05.88	-1.3
CCB	2.32	18	eP	15 06.34	-1.7
RDT	2.36	218	eP	15 08.84	0.1
SEW	2.37	180	eP	15 08.75	0.0
RDS	2.45	14	eP	15 08.37	-1.5
HIN	2.52	144	eP	15 09.48	-1.5
FBA	2.56	16	iP	15 10.06	-1.4
NNL	2.58	201	eP	15 14.71	2.9
RED	2.59	219	eP	15 12.08	0.1
CVA	2.63	135	eP	15 11.30	-1.1
GLM	2.70	19	iP	15 11.87	-1.6
SGAM	2.84	132	iP	15 13.96	-1.6
GLB	2.87	108	iP	15 14.57	-1.4
ILIM	2.92	217	eP	15 16.01	-0.7
TTA	3.05	282	eP	15 16.56	-1.9
CNPM	3.07	197	eP	15 18.32	-0.5
RAGM	3.11	130	eP	15 18.10	-1.3
CTGM	4.16	108	eP	15 32.18	-2.0

38 obs. associated

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* FEB 13, 1989 02h 15m 33.20± 0.69s
38.336 N ±10.2km 76.648 E ±10.7km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)
SOUTHERN XINJIANG, CHINA (321)

NDI	9.64	177	eP	17 56.00	3.3X
			eS	19 39.00	
QUE	11.41	227	eP	18 18.30	1.2
GKN	12.28	145	P	18 28.70	-0.1
KKN	12.76	143	P	18 33.80	-1.4
GUN	12.95	141	P	18 37.60	-0.3
PKI	13.00	143	P	18 37.90	-0.7
MHI	13.81	267	eP	18 47.00	-1.9
			eS	21 24.00	
HYB	20.91	175	eP	20 18.00	2.7
GBA	24.64	178	P	20 56.00	4.0X
SUF	38.86	325	iP	22 57.30	0.7
	0.6s		1.70nm		4.0mb
NB2	45.68	322	P	23 51.80	-0.5
	0.6s		3.00nm		4.4mb
BNG	62.50	253	iPd	25 55.30	-0.7
	0.6s		6.00nm		4.9mb
MBC	65.24	4	eP	26 14.00	0.9
INK	71.30	11	eP	26 51.00	0.2

S.D. = 1.4 on 12 of 14 obs.

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* FEB 13, 1989 02h 55m 49.57± 0.74s
54.296 N ±17.0km 166.287 W ± 8.8km
DEPTH = 33.0km (normal)
4.9mb (4 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)

SDN	3.51	70	eP	56 43.70	0.6
KDC	8.46	60	eP	57 51.90	-0.8
SVW	8.89	36	eP	58 06.80	8.1X
TTA	10.17	28	e(P)	58 21.80	5.5X
PMS	11.30	45	eP	58 31.60	-0.1
TOA	13.13	45	eP	58 56.10	-0.1
IMA	13.33	23	eP	59 06.40	7.6X
INK	20.71	35	eP	00 28.00	-1.1
YKA	27.59	52	P	01 35.70	0.5
MBC	28.06	22	eP	01 41.00	1.7
FRB	46.33	38	eP	04 13.00	-0.4
GUN	77.39	300	P	07 43.10	0.0
	0.8s		17.00nm		5.1mb
KKN	77.79	301	P	07 45.20	0.0
	0.6s		5.00nm		4.7mb
PKI	77.90	300	P	07 45.60	-0.3
	0.8s		9.00nm		4.9mb
GKN	77.94	301	P	07 46.00	0.1
	0.8s		14.00nm		5.0mb
DMN	78.02	301	P	07 46.30	-0.2
BRS	88.68	216	eP	08 40.50	0.1

S.D. = 0.7 on 14 of 17 obs.

FEB 13, 1989 04h 09m 33.31± 0.30s
8.766 S ± 5.4km 106.075 E ± 6.8km
DEPTH = 33.0km (normal)
4.8mb (15 obs.) 3.7Msz (1 obs.)
SOUTH OF JAVA (282)

TRT	6.58	81	iPd	11 11.30	1.0
	0.7s		116.50nm		5.8mb
PSI	13.43	328	ePc	12 39.50	-4.6X
IPM	14.18	339	ePd	12 45.90	-8.1X
NANU	16.45	148	eP	13 18.00	-5.3X
	0.4s		8.00nm		4.2mb
			eS	16 08.00	
TSM	17.59	43	ePc	13 40.00	2.3
MBL	18.10	134	eP	13 39.00	-5.0X
	0.4s		6.00nm		4.1mb
			eS	16 45.00	
MEKA	21.32	148	eP	14 19.00	-0.7
	0.7s		24.00nm		4.7mb
KNA	23.22	110	eP	14 38.40	-0.2
BAL	23.89	157	eP	14 45.00	0.0
MTN	24.94	102	iPc	14 55.90	0.7
			e	15 11.00	
MUN	24.94	159	iPc	14 55.00	-0.1
NST	24.98	346	eP	14 51.00	-4.6X
KLB	25.18	156	iPc	14 56.80	-0.6
	0.5s		14.00nm		4.8mb
WARB	26.10	134	eP	14 57.50	-8.6X
COOL	26.11	149	eP	15 04.00	-2.1
NWAO	26.17	158	iPc	15 05.70	-0.9
	1.0s		30.00nm		4.9mb
RKG	27.12	160	eP	15 19.00	3.7X
CHG	28.29	346	iPd	15 24.90	-1.2
	1.0s		37.25nm		5.0mb
WRA	29.50	115	Pd	15 37.20	0.2
	0.7s		7.00nm		4.5mb
WB5	29.50	115	eP	15 36.30	-0.7
WB2	29.51	115	eP	15 36.30	-0.8
ASPA	30.46	122	iPd	15 44.20	-1.3
	1.0s		9.00nm		4.5mb
	Z 21s		0.17um		3.7Msz
			LR	26 55.30	
QIS	34.41	114	eP	16 19.80	-0.2
GYA	35.02	1	P	16 24.60	-0.5
GBA	36.09	308	Pd	16 34.50	0.3
	1.0s		5.90nm		4.5mb
SHL	36.82	338	iP	16 39.90	-0.5
			eS	22 22.00	
HYB	37.64	314	eP	16 47.50	0.2
CD2	39.51	357	eP	17 01.80	-1.0
WHN	39.88	11	eP	17 05.50	-0.3
			pP	17 16.30	38kmX
STK	40.18	130	iPc	17 08.60	0.3
CTA	40.40	111	iPd	17 11.30	1.0
	1.0s		41.50nm		5.1mb
LSA	40.85	340	P	17 15.30	0.9
PKI	41.30	332	Pc	17 18.20	0.3
	1.0s		60.00nm		5.3mb
GUN	41.37	332	Pc	17 19.20	0.7
DMN	41.47	331	Pc	17 19.80	0.6
KKN	41.54	332	Pc	17 20.30	0.6
GKN	42.02	331	Pc	17 24.20	0.6
SSE	42.20	19	Pc	17 25.50	0.7
	1.0s		29.00nm		5.0mb
			i	17 35.00	
XAN	42.65	3	eP	17 27.10	-1.5
LZH	44.66	357	eP	17 45.00	0.0
	1.5s		88.00nm		5.4mb
TIA	45.93	12	eP	17 53.70	-1.1
BWA	46.44	130	eP	18 01.50	2.5
NDI	46.50	324	eP	17 59.00	-0.4
TIY	46.62	7	iPd	18 00.40	0.1
	Z 16s		0.50um		4.6MszX
CAN	47.23	131	eP	18 05.80	0.5
GTA	48.28	354	iPc	18 13.80	0.3
BTO	49.25	4	eP	18 21.00	0.1
BJI	49.45	10	eP	18 21.50	-0.8
HHC	49.63	5	P	18 23.60	-0.2
SNY	52.85	16	eP	18 46.50	-1.5
WMQ	54.93	344	iPc	19 03.20	-0.2
CN2	55.20	17	eP	19 03.00	-2.2
MDJ	57.22	20	eP	19 18.00	-1.7
			epP	19 28.00	33kmX
AVY	57.32	253	eP	19 21.20	0.1
MHI	62.64	319	eP	19 56.00	-1.1
CER	82.57	237	eP	21 43.50	-11.3X
BNG	88.23	275	iPc	22 24.00	0.7
	0.7s		6.00nm		5.0mb
MLR	89.34	316	eP	22 30.00	2.0
YKA	118.83	20	PKP	28 20.60	1.1
EDM	125.46	28	ePKP	28 32.00	-0.6
MEO	145.63	37	ePKP	29 10.80	0.3
	1.0s		14.30nm		
SIO	146.26	34	e(PKP)	29 13.00	1.5
LNO	146.42	33	ePKP	29 14.30	2.7
VVO	146.88	34	e(PKP)	29 15.70	3.3X
CNCB	153.92	193	ePKP	29 33.00	8.8X
LPB	154.21	193	ePKP	29 36.00	11.6X
ZOBO	154.47	193	PKP	29 31.00	6.0X

S.D. = 1.1 on 55 of 67 obs.

& FEB 13, 1989 06h 00m 28.60s
37.843 N 122.605 W
DEPTH = 6.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.0 (BRK).
Mo=1.2*10**14 NM (BRK). Felt (III) at San Rafael. Also felt at San Francisco and in southern Marin County.

BRK	0.27	84	iPc	00 34.10	-0.1
			iS	00 38.10	
ZSP	0.29	70	iPc	00 34.90	0.3
BKS	0.29	83	iPc	00 34.50	-0.1
			ic	00 35.60	
			iS	00 39.10	
PCC	0.39	153	iPc	00 36.10	-0.3
			iS	00 41.70	
NWRM	0.65	340	eP	00 41.40	-0.3
MHC	0.91	123	iPc	00 45.70	-0.9
			eS	00 58.45	
GCC	0.95	149	eP	00 45.70	-1.3
ARN	0.98	120	eP	00 46.50	-1.2
SAO	1.42	139	eP	00 51.80	-3.2
CMB	1.77	83	ePd	00 58.60	-1.4
			i	00 59.40	
			iS	01 21.50	
PRS	1.80	146	ePc	00 57.90	-2.5
LLA	1.80	132	ePc	00 58.90	-1.6
BCH	3.34	142	eP	01 21.00	-1.5
KVN	3.74	70	eP	01 26.00	-2.3
TNP	4.26	85	e(P)	01 34.00	-1.7

15 obs. associated

& FEB 13, 1989 06h 41m 41.10s
37.743 N 122.130 W
DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.1 (BRK).
Mo=2.2*10**14 Nm (BRK). Felt (IV) at Oakland. Also felt at San Rafael and in southern Marin

13d 06h

County.

BKS	0.16	328	iPc	41 44.50	0.1
			iS	41 47.10	
BRK	0.17	322	iPc	41 44.50	0.0
			iS	41 47.80	
ZSP	0.23	334	iPd	41 46.20	0.5
PCC	0.31	220	iPd	41 47.60	0.2
			iS	41 53.50	
MHC	0.56	136	ePd	41 52.20	-0.1
			e(S)	42 05.95	
ARN	0.62	129	eP	41 53.00	-0.4
GCC	0.72	171	iPd	41 55.00	-0.5
			eS	42 05.10	
NWRM	0.93	320	eP	41 58.10	-1.2
SAO	1.12	151	iPd	42 01.20	-1.3
			eS	42 19.40	
CMB	1.41	78	eP	42 06.30	-1.2
			e	42 07.20	
			eS	42 25.20	
LLA	1.47	140	ePc	42 06.80	-1.5
PRS	1.53	156	iPc	42 07.80	-1.4
ORV	1.88	15	e(P)	42 12.30	-1.8
PRI	1.98	143	ePc	42 14.90	-0.9
FRI	2.07	111	e(P)	42 15.90	-1.0
PHAM	2.36	143	eP	42 20.00	-1.1
BCH	3.04	147	eP	42 28.00	-2.8
KVN	3.42	66	eP	42 36.00	-0.4

18 obs. associated

? FEB 13, 1989 07h 03m 54.12± 1.78s
6.264 S ±24.7km 155.243 E ±25.3km
DEPTH = 88.6 ± 19.1 km
4.3mb (1 obs.)
SOLOMON ISLANDS (193)
Felt (III) at Arawa, Bougainville.

PAA	0.25	98	iPd	04 07.00	-0.4
			eS	04 11.00	
RAB	3.69	304	eP	04 51.00	1.0
	0.6s	277.33nm			
HNR	5.62	124	eP	05 22.00	5.1X
PMG	8.60	248	eP	05 56.50	-1.4
CTA	16.28	212	iPc	07 40.50	1.7
QIS	20.78	225	iPc	08 32.00	1.8
RMQ	21.04	196	eP	08 33.00	0.2
WB5	24.38	234	iPc	09 05.80	0.3
WB2	24.43	234	iPc	09 05.80	-0.1
WRA	24.44	234	Pc	09 05.30	-0.7
	0.6s	7.60nm		4.3mb	
ASPA	26.84	228	iPc	09 26.00	-2.3

S.D. = 1.6 on 10 of 11 obs.

& FEB 13, 1989 08h 01m 41.90s
37.838 N 122.603 W
DEPTH = 8.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.6 (BRK).
Mo=3.1*10**14 Nm (BRK). Felt at El Cerrito, Inverness, Muir Woods, San Francisco and San Rafael.

BKS	0.29	82	iPc	01 48.00	0.1
			id	01 48.85	
			iS	01 52.20	
ZSP	0.29	69	iP	01 48.30	0.4
NWRM	0.66	340	eP	01 54.70	-0.4
MHC	0.91	123	iPd	01 58.85	-0.7
			e	01 59.15	
			iS	02 12.35	
ARN	0.98	120	eP	01 59.80	-0.9
SAO	1.41	139	iP	02 05.30	-2.6
			e(S)	02 25.15	
CMB	1.76	83	iPd	02 12.10	-0.9
			eS	02 35.20	
ORV	1.92	26	eP	02 13.00	-2.2
PHAM	2.67	138	eP	02 24.00	-2.0
BCH	3.34	142	eP	02 33.00	-2.5
KVN	3.74	70	eP	02 39.30	-2.0

11 obs. associated

FEB 13, 1989 08h 06m 55.87± 0.23s
7.957 N ± 5.4km 38.092 W ± 4.0km
DEPTH = 10.0km (geophysicist)
5.4mb (42 obs.) 5.3Msz (6 obs.)

CENTRAL MID-ATLANTIC RIDGE (406)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 28C
Centroid Location:
Origin Time 08:07: 3.1 0.5
Lat 8.32N 0.05 Lan 37.60W 0.06
Dep 15.0 FIX Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr=-1.51 0.05 Mtt=-0.38 0.07
Mff= 1.89 0.08 Mrt= 0.06 0.18
Mrf= 0.41 0.30 Mtf= 0.06 0.04
Principal Axes:

	Val=	Plg=	Azm=
T	1.94	7	272
N	-0.38	2	2
P	-1.56	83	112

Best Double Couple:Mo=1.8*10**17
NP1:Strike=359 Dip=38 Slip= -94
NP2: 184 52 -87

ATB	17.99	232	e(P)	11 06.00	-1.8
CAR	28.57	277	eP	12 50.00	-4.5X
ITA	30.83	192	eP	13 15.60	0.8
			e	13 22.20	
BMA	31.03	191	eP	13 14.30	-1.9
			e	13 18.90	
			e	13 23.40	
			e	13 28.50	
VAO	31.97	196	eP	13 24.00	-0.5
LIC	32.85	91	P	13 31.50	-0.7
FUQ	35.48	268	eP	13 50.00	-5.3X
BOG	35.90	267	eP	14 02.00	3.1X
			eS	19 53.00	
TIO	36.75	47	iP	14 07.50	1.8
CCH	37.45	228	eP	14 13.00	1.2
KUK	37.47	90	eP	14 11.50	-0.2
KOGH	37.60	90	eP	14 13.50	0.6
SHGH	37.82	91	eP	14 14.00	-0.6
AVE	37.95	44	iP	14 17.00	1.5
ZOBO	38.25	231	P	14 19.90	1.1
	1.2s	43.92nm		5.1mb	
			S	20 20.00	
			LR	26 20.00	
LPB	38.39	231	P	14 22.00	2.2
	1.3s	192.31nm		5.7mb	
Z	22s	2.22um		4.9Msz	
			S	20 22.00	
			LR	26 54.00	
CNCB	38.46	230	Pc	14 22.40	1.8
PSO	39.66	262	eP	14 32.00	1.5
ARE	41.00	234	eP	14 41.00	-0.3
EHOR	42.01	40	e(P)	14 49.00	-0.1
AFC	42.79	42	e(P)	14 58.00	2.3
TOL	44.00	38	eP	15 07.50	2.3
EVIA	44.25	41	e(P)	15 08.00	0.6
GUD	44.39	37	e(P)	15 09.00	0.4
ECHE	45.77	41	e(P)	15 21.30	1.8
SGS	46.52	309	P	15 27.40	2.0
CVL	47.11	316	P	15 30.00	0.0
LHS	47.26	310	P	15 32.00	0.7
BLA	48.13	314	P	15 38.80	0.6
	1.1s	101.73nm		5.8mb	
PRM	48.29	309	P	15 39.90	0.5
EPF	48.51	37	eP	15 41.90	0.9
GAC	49.49	326	eP	15 41.00	-7.4X
LFF	49.85	36	eP	15 51.30	0.1
TKL	49.96	310	P	15 51.80	-0.4
LPO	49.96	36	eP	15 52.10	0.0
GBTN	50.29	310	P	15 54.00	-0.7
MFF	50.34	33	eP	15 54.80	-0.2
RJF	50.51	36	eP	15 55.70	-0.5
CAF	50.61	36	eP	15 57.00	-0.1
	1.5s	67.90nm		5.4mb	
LPF	50.76	31	eP	15 58.00	-0.1
	1.0s	32.00nm		5.2mb	
LSF	51.06	35	eP	16 00.20	-0.2
GRR	51.08	31	eP	16 00.30	-0.2
PEL	51.29	215	iPd	16 02.50	0.1
RSCP	51.31	310	P	16 02.60	0.1
	1.4s	28.30nm		5.0mb	
TCF	51.47	35	eP	16 03.30	-0.3
	1.6s	70.80nm		5.3mb	
SAN	51.51	215	eP	16 04.50	0.5
LDF	51.59	31	eP	16 03.90	-0.5
MAF	51.64	35	eP	16 04.80	0.0
	1.7s	88.20nm		5.4mb	
BGF	51.99	35	eP	16 07.30	-0.1
	1.5s	104.40nm		5.5mb	
SCH	52.04	339	eP	16 08.00	0.2
AVF	52.40	35	eP	16 10.30	-0.3
	1.6s	68.40nm		5.3mb	
SMF	52.60	35	eP	16 11.80	-0.3
	1.6s	52.20nm		5.2mb	
SSF	52.64	35	eP	16 11.80	-0.6
	1.6s	74.60nm		5.4mb	
LBF	52.87	35	eP	16 13.50	-0.6
	1.6s	74.60nm		5.4mb	
LOR	52.96	35	eP	16 14.20	-0.6
	1.5s	52.20nm		5.2mb	
PWLA	53.01	308	P	16 14.70	-0.6
SBF	53.35	40	eP	16 17.40	-0.4
	1.2s	71.40nm		5.5mb	
PZZ	53.45	39	P	16 19.39	0.8
RRL	53.46	39	P	16 19.28	0.6
STV	53.46	40	P	16 18.77	0.2
DOI	53.54	39	Pc	16 21.50	2.4
IMI	53.67	40	P	16 20.41	0.4
LPG	53.72	38	eP	16 20.90	0.2
	1.0s	12.80nm		4.9mb	
RSP	53.86	39	P	16 20.92	-0.6
LSD	53.95	38	P	16 23.90	1.6
FIN	54.01	40	P	16 19.69	-2.8
ORX	54.54	38	P	16 23.49	-3.0X
ELC	54.64	310	P	16 25.40	-1.8
HAU	54.77	35	eP	16 27.70	-0.4
	1.3s	60.60nm		5.5mb	
BSF	54.94	36	eP	16 28.80	-0.6
	1.5s	104.40nm		5.6mb	
DOU	54.96	32	P	16 32.70	3.3X
FAI	55.12	50	P	16 33.50	2.8
CDF	55.52	35	eP	16 32.60	-0.9
	1.6s	67.10nm		5.4mb	
WLF	55.56	33	P	16 34.90	1.3
MDI	55.68	39	P	16 33.50	-1.1
OLY	55.83	308	P	16 35.70	-0.2
ENN	56.04	32	eP	16 38.00	0.9
	1.7s	60.00nm		5.3mb	
PGD	56.14	42	P	16 38.50	0.3
BNG	56.38	90	iPc	16 39.20	-1.1
	0.9s	41.00nm		5.5mb	
			i	16 46.10	
ASS	56.44	43	P	16 41.40	1.1
SDI	56.72	45	P	16 41.00	-1.3
ARV	56.80	43	P	16 43.60	0.8
CTI	57.01	39	P	16 44.00	-0.4
DUI	57.16	45	P	16 46.50	1.1
WTS	57.19	31	eP	16 47.00	1.7
FVI	57.95	39	P	16 51.10	0.4
RBL	58.38	40	P	16 53.90	0.0
GRF	58.40	35	eP	16 54.60	0.7
	1.3s	49.00nm		5.4mb	
Z	20s	0.60um		4.7Msz	
			e	16 59.30	
VOY	58.42	40	eP	16 52.20	-2.0
KBA	58.51	39	ePd	16 54.00	-0.9
	1.2s	26.00nm		5.2mb	
			i	17 01.90	
CEY	58.65	41	eP	16 55.60	-0.1
RLO	58.79	308	eP	16 54.90	-2.0
LJU	58.84	40	eP	16 55.50	-1.5
MOX	59.08	34	eP	17 00.00	1.4
	1.6s	68.00nm		5.5mb	
VBY	59.10	41	e(P)	17 00.00	1.2
VVO	59.16	306	e(P)	16 57.60	-1.9
LNO	59.34	307	eP	17 00.00	-0.5
TUL	59.34	307	eP	16 59.20	-1.5
	1.2s	24.10nm		5.2mb	
Z	22s	4.61um		5.6Msz	
KMR	59.40	38	iP-	17 01.30	0.4
KHC	59.52	37	eP	17 00.80	-1.0
			e	17 02.50	
SIO	59.71	307	e(P)	17 03.00	-0.2
FRB	59.81	345	eP	17 02.00	-1.4
CLL	60.17	34	eP	17 05.00	-1.0
	2.2s	78.00nm		5.4mb	
PRU	60.46	36	eP	17 07.50	-0.6
			e	17 12.70	
FKO	60.47	306	eP	17 08.30	-0.1
	0.9s	17.20nm		5.2mb	
BRG	60.50	35	eP	17 07.20	-1.1
	2.4s	100.00nm		5.5mb	
			e	17 14.70	
ZST	61.28	39	eP	17 13.10	-0.6
			e	19 36.50	

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MEO    61.34 305 eP     17 12.30  -2.1
       1.5s    62.30nm          5.5mb
OHR    61.53  47 eP     17 15.50  -0.1
KSP    61.83  36 eP     17 15.30  -2.1
SRO    61.90  40 eP     17 17.60  -0.3
GDH    62.05 354 eP     17 17.00  -1.5
ACO    62.15 307 eP     17 19.50  -0.4
       1.0s    33.70nm          5.5mb
SKO    62.22  47 iP     17 18.00  -2.2
                 i      17 25.60
BUD    62.24  40 eP     17 19.00  -1.2
BEO    62.33  43 eP     17 21.00   0.2
RSON   62.55 324 P      17 20.00  -2.2
       1.5s    64.03nm          5.6mb
VAY    62.87  48 eP     17 23.00  -1.5
PSZ    62.94  40 eP     17 24.30  -0.6
BZS    63.35  43 eP     17 25.00  -2.5
SPC    63.58  39 eP     17 29.70   0.4
KRA    63.69  38 eP     17 28.60  -1.1
                 e      17 35.60
                 e      17 41.10
NRA0   64.22  25 P      17 35.70   2.7
NB2    64.25  24 P      17 33.10  -0.2
       1.5s   101.50nm          5.8mb
HFS    64.80  26 eP     17 35.40  -1.4
       0.6s     1.80nm          4.4mb
MLR    66.25  44 iPd    17 47.00   0.5
ISR    66.58  44 eP     17 48.00  -0.6
VRI    66.87  43 ePd    17 50.50   0.2
CLI    67.40  43 eP     17 55.00   1.3
TLB    67.50  45 eP     17 46.00  -8.3X
ALQ    67.76 304 eP     17 55.00  -1.5
       1.5s    29.17nm          5.2mb
    Z  20s     3.72um          5.6Msz
TUH    68.05 131 iPc    17 45.00 -13.0X
CER    68.19 131 eP     17 57.00  -1.9
       0.4s     8.18nm          5.3mb
                 i      28 41.00
FFC    68.60 326 eP     18 00.00  -1.0
       1.6s   153.00nm          5.9mb
NUR    69.88  28 eP     17 53.00 -15.7X
    Z  22s     1.10um          5.1Msz
                LR      44 20.00
BW06   71.04 312 P      18 15.60  -0.9
       2.3s   160.31nm          5.7mb
CGY    71.19 121 eP     18 15.50  -1.8
SUF    71.31  26 iP     18 19.50   2.1
KSR    71.48 121 eP     18 05.00 -14.3X
FRS    71.48 125 eP     18 20.00   1.0
       1.0s    15.00nm          5.1mb
PRY    72.31 121 eP     18 11.00 -13.3X
KJF    72.46  25 eP     18 26.00   1.7
BPI    72.54 121 eP     18 24.50  -1.2
       1.0s    40.00nm          5.5mb
SLR    72.62 120 iPc    18 25.10  -1.0
    Z  20s     8.51um          6.0Msz
                 e      28 38.00
MSU    72.64 308 P      18 25.70  -0.4
SES    73.05 320 eP     18 28.00   0.0
SOD    73.11  21 eP     18 29.00   1.0
LRM    73.44 315 eP     18 30.80   0.1
KEV    74.09  19 iP     18 34.60   0.9
GLA    74.60 302 eP     18 38.00   0.6
EDM    74.84 323 eP     18 37.00  -1.4
ALE    75.23 357 eP     18 37.00  -3.1X
       0.8s     6.00nm          4.7mb
TPC    75.63 303 eP     18 46.00   2.7
PLM    76.31 302 eP     18 50.00   2.7
TNP    76.59 307 P      18 48.70  -0.1
YKC    76.70 332 eP     18 46.00  -2.6
RVR    76.73 303 eP     18 51.00   1.6
YKA    76.76 332 P      18 47.80  -1.2
CLC    76.89 305 eP     18 53.00   2.6
SBB    77.09 304 eP     18 53.00   1.5
KVN    77.28 308 P      18 52.00  -0.7
ISA    77.61 305 eP     18 57.00   2.7
MSL    78.29  55 eP     19 01.00   3.0X
PNT    78.49 319 eP     18 59.00   0.1
       1.4s    44.00nm          5.3mb
CMB    79.09 307 ePc    19 03.00   0.6
PRI    79.37 305 ePc    19 04.70   0.6
BHD    79.41  58 ePd    19 06.00   1.8
                 iS     29 36.00
LLA    79.58 306 ePc    19 05.50   0.4
ORV    79.91 309 e(P)   19 06.70  -0.1
MIN    79.97 310 ePc    19 06.80  -0.4
SLY    80.22  55 ePd    19 08.50   0.0
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MBC    80.24 346 eP     19 08.00   0.2
       0.9s    17.00nm          5.0mb
WDC    80.67 310 ePc    19 09.50  -1.3
INK    84.67 338 eP     19 30.00  -0.8
AVY    88.63 109 iPc    19 55.80   4.5X
MHI    91.41  53 eP     20 05.00   1.1
                 eS     31 10.00
CN2   126.37  15 ePKP   26 01.00   0.1
BJI   126.65  25 ePKP   26 02.50   1.0
TIY   126.88  29 ePKP   26 03.50   1.4
XAN   127.83  35 ePKP   26 02.10  -1.9
BAG   147.88  41 ePKP   26 42.00   1.0
      S.D. = 1.2  on 167 of 181 obs.
-------------------------------------
   FEB 13, 1989  08h 43m 28.26± 0.35s
   14.107 N ± 5.9km  124.279 E ± 7.9km
   DEPTH =  33.0km  (normal)
   4.8mb (  5 obs.) 4.5Msz (  1 obs.)
 LUZON, PHILIPPINE ISLANDS          (249)

QCP     3.15 280 eP     44 19.00   2.3
BAG     4.24 303 eP     44 31.00  -1.4
                 eS     45 28.00
QIZ    14.68 291 eP     46 54.80  -0.6
WHN    18.74 332 eP     47 44.40  -2.3
TIA    22.93 345 eP     48 30.40  -0.1
XAN    24.24 328 iPd    48 43.20  -0.1
CHG    24.73 284 eP     48 49.10   0.9
CD2    25.21 315 eP     48 52.90   0.2
TIY    25.76 338 iPc    48 58.40   0.6
    Z  24s     0.70um          4.1MszX
BJI    26.80 346 eP     49 07.00  -0.2
MTN    27.63 165 eP     49 15.00   0.1
SNY    27.63 359 Pc     49 14.80   0.1
LZH    28.54 324 eP     49 23.00  -0.3
HHC    28.86 340 P      49 26.40   0.3
GTA    33.14 324 eP     50 04.00   0.1
WB5    35.20 163 eP     50 20.60  -1.0
WRA    35.25 163 Pd     50 21.20  -0.8
       0.4s     0.90nm          4.1mb
WB2    35.26 163 eP     50 20.60  -1.5
QIS    37.60 156 eP     50 42.00   0.2
GUN    38.22 297 P      50 47.40   0.0
       0.6s    26.00nm          5.2mb
PKI    38.55 297 P      50 49.70  -0.5
ASPA   38.70 166 iPc    50 51.50   0.4
KKN    38.71 297 P      50 51.70   0.3
DMN    38.82 297 P      50 52.60   0.2
GKN    39.31 297 P      50 55.80  -0.5
WARB   40.11 177 eP     50 55.20  -7.5X
NWAO   47.25 188 iPd    51 59.80  -0.4
       0.4s     4.00nm          4.8mb
    Z  20s     0.50um          4.5Msz
    N  20s     0.20um
    E  20s     0.30um
STK    48.65 160 iPc    52 12.40   1.3
KEV    79.38 339 eP     55 42.00   9.9X
SOD    80.02 337 eP     55 43.00   7.4X
KJF    80.26 334 eP     55 38.00   1.1
SUF    81.27 333 iP     55 42.30   0.0
       0.7s     4.40nm          4.6mb
INK    81.45  22 eP     55 44.00   0.8
MBC    82.41  12 eP     55 48.00   0.0
NUR    82.52 331 iP     55 56.10   7.3X
SLL    87.79 332 eP     56 14.00  -1.2
       0.4s     3.10nm          4.9mb
YKA    91.05  23 P      56 32.30   1.9
      S.D. = 1.0  on  33 of  37 obs.
-------------------------------------
%  FEB 13, 1989  09h 11m 16.31± 1.88s
   38.865 N ±11.4km   26.691 E ±18.0km
   DEPTH =  10.0km  (geophysicist)
 AEGEAN SEA                         (365)

IZM     0.65 136 iPg    11 29.40   0.1
                 iSg    11 41.50
EZN     1.00 344 iPn    11 35.10  -0.1
DST     1.68  63 ePn    11 45.00  -0.9
EDC     1.74  31 ePn    11 46.50  -0.2
KCT     1.89  42 iPn    11 50.00   1.1
      S.D. = 1.0  on   5 of   5 obs.
-------------------------------------
?  FEB 13, 1989  10h 19m 09.83± 0.79s
   38.970 N ±59.0km   57.308 E ±20.5km
   DEPTH =  33.0km  (normal)
   4.7mb (  2 obs.)
 IRAN-USSR BORDER REGION            (341)
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ELL    21.72 273 ePn    24 00.10   0.0
CFR    22.44 295 ePd    24 15.50   8.5X
TLB    22.47 294 ePc    24 08.00   0.6
MLR    24.02 296 iPc    24 22.00  -0.6
GKN    25.19 107 P      24 39.40   5.4X
       0.4s     7.00nm          4.6mb
DMN    25.75 108 P      24 39.00  -0.4
KKN    25.78 107 P      24 40.10   0.4
       0.4s    10.00nm          4.8mb
      S.D. = 0.8  on   5 of   7 obs.
-------------------------------------
%  FEB 13, 1989  10h 24m 34.07± 0.66s
   60.608 N ± 5.5km    6.271 E ± 9.0km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                    (535)
   MD 2.1 (BER).

HYA     0.56 356 iP     24 44.48  -1.0
                 eS     24 52.57
ODD1    0.72 166 iP     24 48.35   0.1
                 eS     24 57.77
SUE     0.87 302 eP     24 51.75   1.1
                 eS     25 02.50
BLS1    1.25 167 eP     24 57.15  -0.3
                 iS     25 14.57
KMY     1.49 201 eP     25 00.35  -0.5
                 eS     25 20.79
MOL     2.06  17 eP     25 08.77  -0.3
                 eS     25 35.42
NRA0    2.60  85 eP     25 17.80   1.0
                 iPg    25 20.00
                 eS     25 53.30
      S.D. = 0.9  on   7 of   7 obs.
-------------------------------------
%  FEB 13, 1989  10h 59m 29.32± 0.80s
   60.605 N ± 6.7km    6.174 E ±13.4km
   DEPTH =  10.0km  (geophysicist)
 SOUTHERN NORWAY                    (535)
   MD 2.1 (BER).

HYA     0.56   1 iP     59 39.80  -0.9
                 eS     59 47.48
ODD1    0.73 162 iP     59 43.53  -0.2
                 eS     59 52.27
SUE     0.83 304 eP     59 45.49   0.2
                 eS     59 57.29
BLS1    1.26 165 iP     59 52.88   0.1
                 iS     00 09.93
MOL     2.08  18 iP     00 05.49   0.9
                 eS     00 32.44
      S.D. = 0.9  on   5 of   5 obs.
-------------------------------------
   FEB 13, 1989  11h 25m 41.05± 0.19s
   2.352 N ± 3.2km  126.716 E ± 5.3km
   DEPTH =  33.0km  (normal)
   5.2mb ( 22 obs.) 4.6Msz (  1 obs.)
 MOLUCCA PASSAGE                    (266)
      CENTROID, MOMENT TENSOR       (HRV)
      Data Used: GDSN
      L.P.B.: 11S, 22C
      Centroid Locotion:
      Origin Time          11:25:42.3 0.9
      Lat  2.33N  FIX;Lon 126.77E  FIX
      Dep  15.0 FIX Half-duration  1.7
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 5.87 0.82  Mtt= 0.28 0.63
        Mff=-6.15 1.08  Mrt=-7.39 1.86
        Mrf=-8.13 2.09  Mtf=-4.26 0.72
       Principol Axes:
        T  Vol= 12.23  Plg=59  Azm=148
        N        1.81       11       38
        P      -14.04       29      302
      Best Double Couple:Mo=1.3*10**17
       NP1:Strike=  4 Dip=19 Slip=  54
       NP2:       222      74      102

MNI     2.08 244 ePd    26 19.60   5.3X
                 eS     26 53.50
DAV     4.84 346 eP     26 56.90   3.4X
                 eS     27 38.90
AAI     6.18 166 eP     27 23.00  10.6X
                 eS     29 03.50
PCI     7.60 245 iP     27 36.80   4.5X
                 iS     27 43.30
TSM     8.83 282 ePd    27 54.90   5.5X
       0.9s   384.20nm          6.6mb X
OCP    13.42 336 eP     29 14.00  22.3X
```

13d 11h

BAG		15.22	337	eP	29 18.00	2.5
KHKI		15.36	226	ePc	29 25.20	8.0X
				e	31 52.00	
MTN		15.72	164	eP	29 21.00	-0.8
				e	29 27.00	
				e	32 20.00	
TRT		17.24	234	iPd	29 43.00	2.0
KNA		18.10	174	eP	29 52.00	0.3
		0.6s	114.00nm		5.2mb	
WB5		23.34	162	eP	30 46.90	-0.5
				eS	34 57.70	
WRA		23.39	162	Pc	30 47.20	-0.7
		0.4s	30.00nm		5.2mb	
WB2		23.39	162	eP	30 46.90	-1.1
				eS	34 57.70	
QIZ		23.40	316	eP	30 48.00	0.0
				eS	34 47.00	
PMG		23.48	120	eP	30 49.50	0.7
QZH		23.79	341	eP	30 52.00	0.3
	Z	28s	2.20um		4.5MszX	
	N	28s	2.20um			
MBL		24.32	196	eP	30 58.00	1.0
		0.5s	14.00nm		4.8mb	
GZH		24.35	329	P	30 57.00	-0.2
QIS		26.04	152	eP	31 12.00	-1.2
ASPA		26.79	165	iPc	31 19.40	-0.8
		0.6s	30.00nm		5.1mb	
				ePP	32 59.70	
				ePcP	34 42.90	
				eS	35 57.30	
NANU		27.06	203	eP	31 21.00	-1.6
WARB		28.37	180	iPd	31 27.60	-6.8X
SSE		29.06	350	Pd	31 42.00	1.4
		1.2s	28.00nm		4.8mb	
	Z	16s	0.50um		4.2MszX	
	N	10s	0.40um			
			e(S)		36 09.00	
NST		29.34	298	eP	31 44.00	0.7
CTA		29.41	140	iPc	31 43.20	-0.7
		1.3s	55.77nm		5.1mb	
MEKA		29.86	195	iPd	31 47.90	0.0
		0.4s	16.00nm		5.2mb	
WHN		30.39	339	eP	31 53.00	0.6
	Z	20s	1.27um		4.6Msz	
	E	20s	1.75um			
GYA		30.74	323	P	31 55.40	-0.4
BDT		30.99	300	eP	31 57.30	-0.5
		0.8s	31.10nm		5.2mb	
CHG		31.74	303	iPc	32 03.90	-0.6
		1.0s	39.00nm		5.2mb	
KMI		32.35	316	Pc	32 10.00	0.0
FORR		33.04	178	eP	32 15.00	-0.6
		0.4s	101.00nm		6.1mb	
COOL		33.47	189	eP	32 19.00	-0.5
		0.5s	11.00nm		5.0mb	
TSRJ		34.12	14	P	32 24.70	-0.3
BAL		34.14	195	eP	32 25.00	-0.2
		0.3s	3.00nm		4.7mb	
IIDJ		34.56	16	P	32 28.10	-0.7
KLB		34.81	193	eP	32 31.00	0.0
		0.4s	17.00nm		5.3mb	
TIA		34.84	346	eP	32 28.80	-2.4
CHJJ		35.40	17	P	32 34.10	-1.9
MUN		35.57	195	iPc	32 38.30	0.9
MTMJ		35.57	15	P	32 36.60	-0.9
XAN		35.64	334	Pc	32 36.40	-1.6
MAT		35.64	16	iPc	32 36.30	-1.7
		0.8s	35.82nm		5.4mb	
RMQ		35.71	145	eP	32 38.00	-0.7
CD2		35.75	325	eP	32 38.10	-0.9
KAKJ		35.91	19	P	32 36.80	-3.4X
NIIJ		36.51	17	P	32 44.40	-0.9
DL2		36.68	353	Pd	32 48.00	1.4
STK		36.86	159	eP	32 48.00	-0.3
RKG		37.36	193	eP	32 58.00	5.5X
TIY		37.56	341	eP	32 54.00	-0.2
	N	21s	1.20um			
YAMJ		37.68	17	P	32 55.60	0.5
CMS		38.24	153	iPd	33 01.00	1.1
BJI		38.72	347	eP	33 03.50	-0.3
ADE		38.79	164	eP	33 05.10	0.6
		0.7s	54.79nm		5.4mb	
BRS		38.79	141	Pd	33 03.20	-1.4
				i	33 09.20	
OFUJ		39.02	19	eP	33 06.40	0.1
SNY		39.40	356	eP	33 09.40	0.0
	E	18s	0.60um			

LZH		39.68	330	eP	33 12.50	0.4
		2.0s	82.00nm		5.1mb	
COO		40.60	146	iP	33 20.00	0.4
SHL		40.69	308	iP	33 20.00	-0.5
HHC		40.70	342	P	33 20.60	0.3
	Z	26s	2.00um		4.9MszX	
CN2		41.29	359	eP	33 28.00	3.1X
BWA		41.89	153	eP	33 31.00	0.9
MDJ		42.16	3	eP	33 32.50	0.4
	Z	32s	1.50um		4.7MszX	
CAN		42.89	153	eP	33 38.80	0.5
CNB		43.06	153	eP	33 40.00	0.3
TOO		43.37	158	eP	33 43.00	0.9
GTA		44.27	330	P	33 49.70	0.2
	Z	25s	1.00um		4.6MszX	
	E	30s	1.10um			
GUN		46.53	307	P	34 06.90	-1.1
PKI		46.76	306	P	34 08.90	-0.9
KKN		46.96	307	P	34 10.50	-0.7
DMN		47.02	306	P	34 11.10	-0.6
		1.0s	62.00nm		5.6mb	
GKN		47.56	307	P	34 15.00	-0.9
		0.9s	42.00nm		5.5mb	
KOD		49.52	281	eP	34 31.50	0.1
HYB		49.58	291	eP	34 30.80	-0.7
		1.0s	50.00nm		5.5mb	
GBA		49.96	286	P	34 33.00	-1.3
WMO		53.84	326	iPd	35 03.00	-0.2
NDI		53.87	304	eP	35 02.00	-1.5
KSH		58.98	316	eP	35 41.00	0.9
MSZ		59.48	147	P	35 42.00	-1.2
QUE		62.87	303	eP	36 06.00	-0.7
MHI		70.33	308	iPc	36 54.00	0.1
AVY		80.35	250	iPd	37 52.50	1.1
TTA		82.13	27	ePc	38 01.10	1.4
KDC		83.10	32	eP	38 05.70	1.0
BRW		83.48	18	ePc	38 08.30	1.9
IMA		83.64	24	iPc	38 09.00	1.5
		0.9s	28.10nm		5.4mb	
PMR		85.15	29	ePc	38 15.40	0.4
		0.8s	22.30nm		5.4mb	
NPA		88.16	255	eP	38 33.00	2.5
NAI		89.96	269	iPd	38 46.00	6.5X
		1.0s	9.00nm		5.0mb	
INK		91.44	22	eP	38 45.00	0.1
MBC		93.29	13	eP	38 53.00	-0.3
VRI		95.28	316	ePd	39 05.00	2.0
YKA		100.75	24	Pdiff	39 28.30	0.9
ALQ		117.95	48	ePKP	44 42.00	15.2X
SAN		145.04	154	ePKP	45 18.00	0.7
PEL		145.30	154	iPKPd	45 18.50	0.7
CNCB		159.62	136	PKP	45 42.00	2.9X
ZOBO		159.88	134	PKP	45 41.00	1.6

S.D. = 1.0 on 87 of 101 obs.

FEB 13, 1989 11h 27m 54.84± 0.80s
41.685 N ± 6.7km 19.443 E ± 6.4km
DEPTH = 10.0km (geophysicist)

ALBANIA (391)

MD 2.5 (TTG).

LACI		0.21	104	iPgc	27 59.50	0.2
ULC		0.31	333	ePg	28 01.00	-0.4
				iSg	28 08.00	
SDA		0.33	7	iPgc	28 02.50	0.8
TIR		0.46	137	ePg	28 03.50	-0.8
PUK		0.49	43	ePg	28 05.00	0.2
PHP		0.75	89	ePg	28 08.20	-1.2
BDV		0.75	323	iPgc	28 09.20	-0.4
				eSg	28 20.20	
TTG		0.76	350	ePg	28 09.50	-0.1
				eSg	28 21.50	
BCI		0.82	34	iPg	28 09.30	-1.5
HCY		1.04	318	ePg	28 14.50	0.1
				eSg	28 30.00	
OHR		1.17	119	ePn	28 17.50	0.8
NKY		1.17	344	ePg	28 16.50	-0.3
				eSg	28 35.50	
BRY		1.39	332	ePg	28 21.20	0.9
				eSg	28 41.30	
SKO		1.52	78	iPn	28 23.80	1.7
				iSn	28 46.80	

S.D. = 0.9 on 14 of 14 obs.

FEB 13, 1989 12h 15m 20.04± 0.39s
4.987 N ± 2.6km 126.915 E ± 3.5km
DEPTH = 88.4 ± 3.4 km

5.7mb (53 obs.)

TALAUD ISLANDS (263)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 26C
Centroid Locotion:
Origin Time 12:15:18.8 0.4
Lot 5.12N 0.04 Lon 127.10E 0.08
Dep 25.4 3.7 Holf-duration 2.1
Moment Tensar; Scole 10**17 Nm
Mrr= 1.34 0.09 Mtt=-0.19 0.09
Mff=-1.15 0.16 Mrt=-1.69 0.25
Mrf= 1.70 0.30 Mtf= 0.47 0.08
Principol Axes:
T Val= 2.82 Plg=58 Azm=216
N -0.15 9 321
P -2.67 30 56
Best Double Couple:Mo=2.7*10**17
NP1:Strike=172 Dip=17 Slip= 123
NP2: 319 76 81

DAV		2.48	328	ePc	16 00.00	0.8
MNI		4.08	211	iPd	16 21.30	-0.1
				eS	17 05.50	
TSM		8.85	265	ePd	17 30.00	2.9
		1.1s	557.60nm		6.3mb	
PCI		9.18	231	iP	17 32.60	1.0
				iS	17 53.80	
MKS		12.57	216	ePc	18 17.00	0.0
BAG		12.94	332	eP	18 23.90	1.8
				eS	20 53.00	
KHKI		17.41	220	ePd	19 18.50	-0.3
				e	24 37.00	
MTN		18.20	167	iPd	19 25.20	-3.3X
		0.8s	391.00nm		5.7mb	
				e	19 43.00	
GUMO		19.66	63	eP	19 42.70	-1.9
		1.1s	405.18nm		5.7mb	
PJG		19.66	63	eP	19 43.50	-1.1
GUA		19.68	63	eP	19 42.80	-2.0
		1.3s	446.15nm		5.6mb	
KNA		20.68	175	eP	19 53.50	-1.6
ANP		20.74	346	eP	19 59.00	3.3X
HKC		21.18	326	Pc	19 58.20	-1.8
				S	23 54.00	
MCO		21.39	324	eP	20 03.40	1.3
QZH		21.39	339	Pd	20 02.50	0.3
	N	28s	2.20um			
	E	28s	2.20um			
				S	23 52.00	
QIZ		21.73	311	Pd	20 04.60	-1.0
	N	10s	1.20um			
GZH		22.26	325	Pd	20 09.50	-1.3
	Z	34s	3.30um		4.5MszX	
				eS	24 04.00	
KGM		23.73	264	ePd	20 26.20	1.0
		1.1s	1457.40nm		6.3mb	
PMG		24.73	125	e(P)	20 20.00	-14.7X
WB5		25.77	164	iPc	20 43.00	-1.5
				eS	25 09.50	
IPM		25.80	270	ePc	20 44.00	-0.8
		1.0s	388.50nm		5.9mb	
WRA		25.83	164	Pd	20 44.30	-0.6
		0.7s	166.90nm		5.7mb	
WB2		25.83	164	iPc	20 43.00	-2.0
				eS	25 09.50	
SNG		26.24	276	eP	20 46.80	-2.0
		0.8s	268.66nm		5.8mb	
KAGJ		26.33	8	P	20 49.50	0.1
SSE		26.52	349	Pc	20 53.00	1.8
		1.0s	98.00nm		5.3mb	
	Z	20s	0.90um		4.3Msz	
	N	10s	0.40um			
				pP	21 12.00	84kmX
				S	25 20.00	
				PcS	27 50.00	
MBL		26.90	195	iPc	20 54.30	-0.4
		0.7s	136.00nm		5.6mb	
KUMJ		27.65	7	P	21 01.30	-0.1
NJ2		27.96	345	Pc	21 05.00	0.8
	Z	18s	0.90um		4.4Msz	
				S	25 45.00	
WHN		28.04	336	P	21 05.00	0.0
		1.0s	2.10nm		3.7mb X	
	Z	28s	23.00um		5.6MszX	
				S	25 48.00	
QIS		28.28	154	iPc	21 06.40	-0.8

0.6s 76.00nm 5.5mb
NST 28.37 294 ePc 21 08.00 0.0
GYA 28.82 320 P 21 11.60 -0.6
PcP 24 20.00
S 25 55.00
SHNJ 29.25 7 eP 21 15.20 -0.6
ASPA 29.28 167 iPc 21 14.00 -2.3
eS 26 05.20
NANU 29.56 202 eP 21 18.30 -0.3
0.3s 15.00nm 5.2mb
SHK 29.88 10 eP 21 21.50 0.1
BDT 29.92 296 eP 21 21.70 -0.2
0.7s 37.80nm 5.2mb
CHG 30.56 299 ePc 21 26.00 -1.6
1.1s 82.28nm 5.4mb
KMI 30.64 313 iPc+ 21 28.50 0.0
Z 24s 2.70um 4.8MszX
pP 21 39.00 38kmX
sP 21 45.00
eS 26 24.00
WARB 30.99 180 eP 21 23.50 -7.7X
CTA 31.34 143 iPc 21 33.30 -1.1
1.3s 203.85nm 5.7mb
iS 26 37.00
TSRJ 31.53 14 P 21 35.70 -0.2
IIDJ 32.00 17 P 21 39.30 -0.7
TIA 32.35 345 Pc 21 42.70 -0.4
PcP 24 29.30
S 26 52.30
MEKA 32.45 194 iPc 21 43.50 -0.5
0.5s 175.00nm 6.1mb
CHJJ 32.85 18 P 21 44.10 -3.3X
MTMJ 33.00 16 P 21 46.70 -2.1
MAT 33.07 17 iPc 21 46.00 -3.3X
0.9s 36.97nm 5.2mb
Z 20s 1.42um 4.7Msz
eS 27 02.00
KAKJ 33.38 20 P 21 49.40 -2.5
XAN 33.39 332 iPc 21 50.90 -1.3
1.0s 0.30nm 3.1mb X
S 27 07.40
CD2 33.75 323 iPc 21 54.10 -1.3
epP 22 11.00 70kmX
esP 22 22.00
eS 27 10.00
NIIJ 33.95 17 P 21 54.70 -2.2
DL2 34.10 353 eP 21 58.50 0.3
Z 24s 0.70um 4.3MszX
E 12s 0.70um
S 27 18.00
YAMJ 35.13 18 P 22 05.30 -1.7
TIY 35.15 340 iPc 22 07.40 0.1
Z 28s 1.00um 4.4MszX
pP 22 25.50 74kmX
iS 27 37.50
MRWA 35.59 197 eP 22 10.50 -0.5
0.3s 7.00nm 5.1mb
COOL 36.09 188 eP 22 13.00 -2.2
0.7s 27.00nm 5.3mb
BJI 36.22 346 eP 22 16.00 -0.1
Z 20s 0.90um 4.5Msz
ePcP 24 41.00
eS 27 52.00
ScS 32 28.00
OFUJ 36.48 19 P 22 18.20 -0.1
BAL 36.71 195 iPc 22 25.20 4.8X
0.4s 54.00nm 5.8mb
SNY 36.80 356 iPd 22 21.20 0.2
Z 28s 1.20um 4.5MszX
N 24s 1.10um
S 27 52.00
KLB 37.41 193 iPc 22 26.00 -0.2
0.4s 31.00nm 5.6mb
AOMJ 37.43 17 eP 22 28.30 2.1
RMQ 37.77 147 iPc 22 29.10 -0.2
e 24 47.00
MUN 38.15 195 iPc 22 32.30 -0.1
0.5s 128.00nm 6.1mb
HHC 38.27 341 iPc 22 34.60 1.1
Z 26s 1.50um 4.7MszX
S 28 26.00
BTO 38.57 339 P 22 36.50 0.5
S 28 31.00
CN2 38.68 358 eP 22 35.00 -1.7
NWAO 38.81 193 iPc 22 38.00 0.1
0.6s 73.00nm 5.7mb
STK 39.24 160 iPc 22 41.70 0.2
0.8s 142.00nm 5.9mb
e 22 45.00
SHL 39.30 305 iP 22 41.40 -0.9
iS 28 34.90
MRRJ 39.35 17 eP 22 43.10 0.8
MDJ 39.54 3 eP 22 43.00 -0.8
RKG 39.96 193 eP 22 52.00 4.6X
HOOJ 39.99 19 P 22 49.40 1.9
CMS 40.51 155 iPc 22 52.90 0.9
BRS 40.75 144 P 22 53.00 -1.0
KUSJ 41.10 20 P 22 57.60 1.0
ADE 41.26 165 iPc 22 59.10 0.9
0.5s 100.00nm 5.9mb
ASAJ 41.36 17 P 23 00.00 1.2
LSA 41.76 310 iPc 23 03.50 0.6
S 29 11.50
GTA 42.13 328 iPc 23 05.30 0.0
3.0s 0.30nm 2.6mb X
Z 25s 2.80um 5.0MszX
E 19s 1.70um
eS 29 10.00
ScS 33 00.00
COO 42.68 148 iPc 23 10.00 0.2
e 24 55.00
BWA 44.14 154 iPc 23 23.00 1.4
GUN 45.15 305 Pc 23 30.00 -0.2
CAN 45.15 154 iPc 23 30.10 0.4
CNB 45.30 154 iPc 23 32.20 1.3
PKI 45.41 304 Pc 23 31.40 -0.8
KKN 45.59 305 Pc 23 32.90 -0.6
DMN 45.67 304 Pc 23 33.50 -0.7
TOO 45.74 159 eP 23 35.00 0.7
GKN 46.20 304 Pc 23 37.50 -0.8
DZM 47.12 126 iP 23 45.50 0.0
HYB 48.88 289 iPc 23 57.60 -1.5
1.0s 150.00nm 5.9mb
i 25 23.00
KOD 49.25 279 eP 24 01.50 -0.8
GBA 49.49 284 P 24 02.00 -1.8
TAU 51.14 161 Pd 24 17.00 1.1
NDI 52.60 302 iPc 24 24.50 -2.7
0.8s 197.76nm 6.2mb
POO 53.47 289 iPc 24 32.20 -1.5
BOM 54.49 290 eP 24 36.20 -4.9X
eS 32 13.60
KSH 57.27 314 eP 25 01.50 0.5
MSZ 61.58 148 P 25 29.80 -0.5
0.8s 89.00nm 5.9mb
QUE 61.64 302 iPc 25 30.00 -1.3
e 26 13.80
MHI 68.90 307 iPc 26 17.30 -0.5
0.9s 225.21nm 6.0mb
eS 35 44.00
DHR 75.96 296 eP 26 58.50 -0.9
RYD 79.14 294 eP 27 16.50 -0.6
TAB 79.54 308 e(P) 27 19.00 -0.1
TTA 79.70 27 eP 27 20.10 0.7
SLY 80.14 305 ePd 27 21.50 -0.6
KDC 80.78 32 iPc 27 25.50 0.5
BRW 80.93 19 iPc 27 27.20 1.6
BHD 81.04 303 ePd 27 27.50 0.5
iS 37 41.00
IMA 81.17 24 iPc 27 28.20 1.0
0.8s 35.10nm 5.3mb
AVY 81.42 250 iPc 27 29.56 0.2
MSL 82.05 306 ePc 27 31.50 -0.7
PMR 82.76 29 ePc 27 35.30 0.0
1.1s 45.30nm 5.3mb
ARO 83.22 281 iP+ 27 40.00 1.4
FBA 83.51 25 ePc 27 38.90 -0.2
TOA 84.18 28 ePc 27 43.60 1.0
MAW 84.99 200 iPc 27 47.70 1.3
1.0s 63.00nm 5.5mb
SBA 85.55 172 ePd 27 51.90 2.9
KVT 87.41 311 iP 27 59.60 0.7
BHL 88.30 304 P 28 08.00 4.6X
KEV 88.78 340 iP 28 04.80 -0.1
0.8s 30.80nm 5.5mb
INK 88.93 22 eP 28 05.50 -0.1
NPA 89.03 255 iP 28 08.00 1.0
0.9s 170.00nm 6.2mb
e 29 10.00
eS 38 51.50
NOH 89.16 301 eP 28 07.00 -0.6
PRNI 89.16 300 iPc 28 08.50 1.0
MBH 89.32 300 iPc 28 09.50 1.3
SOD 89.38 338 iP 28 07.30 -0.4
KJF 89.55 334 iP 28 08.20 -0.3
0.8s 42.50nm 5.7mb
IKL 89.69 306 iP 28 09.50 -0.3
BBTK 90.03 310 iPc 28 11.50 0.0
NAI 90.22 269 iPc 28 15.00 2.0
1.0s 60.00nm 5.7mb
SUF 90.52 333 iP 28 12.60 -0.5
0.4s 22.60nm 5.8mb
MBC 90.69 13 eP 28 13.00 -0.7
0.7s 7.00nm 5.0mb
NUR 91.70 331 iP 28 18.30 -0.2
0.6s 19.60nm 5.6mb
ALE 92.50 1 eP 28 23.00 1.1
0.8s 7.00nm 5.1mb
YLV 92.50 311 iP 28 21.90 -0.9
ELL 92.65 307 iP 28 23.10 -0.5
CFR 92.65 316 ePd 28 24.00 0.8
ISK 92.66 311 eP 28 23.70 0.3
BIR 92.83 317 eP 28 25.00 1.0
TLB 92.84 315 ePd 28 25.00 0.9
PPE 92.84 317 ePc 28 24.50 0.4
PSN 92.88 314 iPd 28 26.00 1.7
CLI 93.01 317 ePd 28 26.00 1.1
CTT 93.12 312 eP 28 24.70 -0.8
DMK 93.51 312 eP 28 27.10 -0.2
VRI 93.52 316 iPc 28 28.00 0.7
ISR 93.78 316 ePc 28 30.00 1.5
MLR 94.13 316 iPc 28 30.50 0.3
e 52 00.00
JMB 94.25 313 iP 28 31.00 0.3
IZM 94.46 309 eP 28 31.00 -0.8
EZN 94.93 311 eP 28 33.50 -0.3
SPA 94.95 180 ePc 28 34.90 1.3
1.0s 28.00nm 5.6mb
KAP 95.02 306 eP 28 33.90 -0.5
PRK 95.08 310 eP 28 34.20 -0.3
UPP 95.25 331 iP 28 34.10 -0.8
KDZ 95.26 312 iPd 28 35.00 -0.4
RDO 95.27 312 eP 28 34.60 -0.8
RZN 95.77 313 iPc 28 37.00 -0.9
PGB 95.99 314 iP 28 38.00 -0.7
DAG 96.06 352 iPc 28 39.10 0.8
0.9s 58.82nm 6.1mb
NPS 96.32 306 eP 28 41.80 1.5
MMB 96.51 313 iP 28 40.00 -1.1
PTZ 96.60 256 iPd 28 41.60 -0.4
VTS 96.67 314 iPc 28 43.00 1.1
KRA 96.98 322 eP 28 43.10 0.2
e 28 47.30
PLG 96.98 312 eP 28 42.00 -1.2
HFS 97.00 332 eP 28 42.20 -0.6
1.2s 84.30nm 6.1mb
BZS 97.06 317 eP 28 43.50 0.1
ATH 97.29 309 eP 28 43.50 -1.1
NEO 97.38 311 eP 28 43.50 -1.5
VAY 97.42 313 iPc 28 44.30 -0.8
VAM 97.43 307 eP 28 46.00 0.7
PSZ 97.60 320 eP 28 45.80 -0.1
NRA0 97.73 333 P 28 44.20 -1.9
NB2 97.75 334 P 28 45.30 -1.0
0.8s 21.40nm 5.7mb
BEO 98.06 316 iP 28 48.50 0.6
SKO 98.09 313 iPc 28 47.50 -0.6
KZN 98.24 312 eP 28 47.50 -1.5
YKA 98.29 24 P 28 49.10 0.5
SRO 98.65 320 iP 28 50.90 0.4
OHR 98.77 313 iP 28 50.10 -1.2
PHP 98.88 313 eP 28 51.30 -0.4
KSP 98.96 323 iPc 28 52.50 0.6
1.1s 43.00nm 5.9mb
e 32 08.00
BCI 98.98 314 eP 28 52.30 0.2
LSK 99.15 312 eP 28 48.70 -4.4X
PUK 99.19 314 eP 28 42.10 -10.9X
ZST 99.31 320 e(P) 28 54.50 1.0
TIR 99.39 313 eP 28 53.70 -0.3
LACI 99.42 313 eP 28 53.50 -0.7
SDA 99.48 314 eP 28 55.00 0.6
BUL 99.48 250 iPd 28 54.60 -0.4
TPE 99.55 312 eP 28 52.00 -2.8
LSZ 99.70 255 iPd 28 56.90 0.9
PRU 100.30 323 Pdiff 28 58.50 0.5
BRG 100.34 324 iPdiff28 58.60 0.5
1.4s 36.00nm 5.8mb
e 29 15.40
i 33 04.70
CLL 100.73 324 iPdiff28 59.80 0.0

13d 12h

1.9s 69.00nm 6.0mb
PTJ 100.78 318 ePdiff29 00.60 0.3
KHC 101.19 322 Pdiff 29 02.50 0.5
1.3s 18.00nm 5.6mb
e 29 22.00
VBY 101.37 318 e(Pdif29 03.90 1.1
LJU 101.67 319 ePdiff29 05.00 0.8
MOX 101.80 324 ePdiff29 05.00 0.4
1.6s 43.00nm 5.9mb
e 33 05.00
CEY 101.84 319 e(Pdif29 05.00 0.0
KBA 102.08 320 ePdiff29 04.50 -1.7
1.0s 13.40nm 5.6mb
VOY 102.09 319 e(Pdif29 06.10 -0.1
e 29 25.90
RBL 102.16 319 Pdiff 29 06.00 -0.4
GRB1 102.26 323 ePdiff29 08.30 1.6
1.3s 36.00nm 6.0mb
GRF 102.41 323 ePdiff29 08.30 0.9
1.3s 36.00nm 6.0mb
TDS 102.44 312 Pdiffd29 08.80 1.1
FVI 102.61 320 Pdiff 29 08.20 -0.1
EDM 103.19 32 ePdiff29 12.00 1.2
CTI 103.54 320 Pdiff 29 13.00 0.4
ARV 103.61 317 Pdiffc29 14.00 1.1
SDI 103.62 315 Pdiffd29 12.80 -0.2
AZI 103.79 315 Pdiff 29 14.50 0.9
CRE 104.24 317 Pdiff 29 16.50 0.7
PGD 104.30 318 Pdiff 29 17.50 1.3
LRM 107.05 39 ePKP 33 41.00 3.2X
BNG 107.84 276 iPdiff29 32.00 -0.4
0.5s 10.00nm 6.2mb
i 33 42.30
BW06 110.29 41 PKP 33 45.20 1.2
MSU 110.36 46 PKP 33 45.00 0.8
FRB 110.47 7 ePKP 33 44.00 0.8
GOL 114.54 42 PKP 33 52.20 0.0
ALQ 116.05 47 ePKP 33 56.00 0.8
SCH 119.33 9 ePKP 34 01.00 0.5
ACO 120.28 42 ePKP 34 04.00 1.1
0.5s 3.40nm
FKO 122.27 43 ePKP 34 07.80 1.1
0.8s 18.00nm
SIO 122.71 41 ePKP 34 08.30 0.8
TUL 122.95 41 ePKP 34 08.40 0.4
1.2s 20.50nm
Z 22s 0.93um 5.4Msz
eLR 14 00.00
LNO 122.95 41 ePKP 34 08.50 0.7
RLO 123.30 40 ePKP 34 09.10 0.4
GAC 125.73 19 ePKP 34 14.50 1.4
SHGH 125.94 281 ePKP 34 15.00 0.5
OLY 125.96 39 PKP 34 14.20 0.3
KOGH 126.11 281 ePKP 34 15.50 0.6
ELC 126.13 36 PKP 34 14.30 0.1
KUK 126.21 281 ePKP 34 15.50 0.5
CBM 126.62 13 PKP 34 14.10 -0.7
PTN 126.89 19 PKP 34 15.20 -0.2
RSNY 127.06 19 PKP 34 15.60 -0.1
MIM 128.00 14 PKP 34 15.60 -1.8
PWLA 128.39 37 PKP 34 18.70 0.2
GBTN 130.12 33 PKP 34 22.80 1.0
TKL 130.36 33 PKP 34 23.00 0.7
KIC 130.44 283 PKP 34 23.30 0.3
0.8s 50.00nm
NAV 130.62 29 PKP 34 24.00 1.2
TIC 130.65 283 PKP 34 23.44 0.0
0.7s 23.00nm
LIC 130.75 283 PKP 34 23.84 0.2
SAN 147.29 152 ePKP 34 56.50 3.6X
PEL 147.53 152 iPKPc 34 55.10 1.7
ITA 160.90 204 ePKP 35 17.50 5.6X
e 35 56.40
CNCB 161.26 130 PKPc 35 15.00 2.3
LPB 161.33 129 PKP 35 16.00 3.4X
ZOBO 161.47 128 PKP 35 15.20 2.3
1.1s 14.50nm
Z 22s 0.13um
LR 42 48.00
S.D. = 1.0 on 243 of 259 obs.

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* FEB 13, 1989 12h 58m 18.73± 1.30s
26.199 S ±13.3km 179.457 E ± 6.3km
DEPTH = 532.0 ± 18.6 km
4.7mb (17 obs.)
SOUTH OF FIJI ISLANDS (171)

KRP 12.15 195 P 01 02.00 2.6
DZM 12.57 286 iPd 01 04.20 0.3
BRS 23.83 261 Pc 02 52.20 0.6
RMQ 27.49 263 iPc 03 25.20 1.3
0.7s 121.00nm 5.6mb
CAN 27.62 243 eP 03 25.80 0.8
BWA 27.94 245 eP 03 26.10 -1.7
TBI 28.33 91 iP 03 31.00 -0.2
0.8s 40.00nm 5.1mb
AFR 29.76 79 iP 03 42.80 -0.8
0.8s 20.00nm 4.8mb
CMS 29.85 252 iPd 03 45.50 1.2
TOO 30.83 240 eP 03 53.00 0.3
CTA 31.07 274 iPd 03 54.90 0.1
0.7s 109.59nm 5.6mb
iScP 09 32.80
i 11 18.00
PMO 32.43 76 iP 04 05.80 -0.5
0.8s 10.00nm 4.5mb
VAH 32.57 77 iP 04 06.90 -0.5
0.8s 15.00nm 4.6mb
TPT 32.69 77 iP 04 08.00 -0.4
0.8s 20.00nm 4.8mb
RUV 32.81 77 iP 04 09.00 -0.4
0.8s 20.00nm 4.8mb
PMG 34.85 293 iPc 04 26.50 -0.1
QIS 36.91 270 iPd 04 43.20 -0.3
0.3s 22.00nm 5.2mb
ASPA 41.23 263 iPc 05 17.90 -0.7
1.4s 115.00nm 5.2mb
ePP 06 49.50
eS 10 53.90
WB2 41.80 269 iPd 05 22.50 -0.7
eS 11 00.50
WB5 41.81 269 iPd 05 22.50 -0.7
eS 11 00.50
WRA 41.81 269 Pd 05 21.80 -1.4
0.6s 30.30nm 5.0mb
WARB 47.11 258 eP 05 55.50 -8.8X
0.2s 3.00nm 4.5mb
MTN 47.19 277 eP 06 04.00 -1.0
KNA 48.20 272 eP 06 12.00 -0.7
COOL 50.95 250 eP 06 31.50 -1.4
0.3s 3.00nm 4.2mb
KLB 53.67 249 iPd 06 51.30 -1.2
0.6s 9.00nm 4.3mb
MBL 54.43 262 iPd 06 56.70 -1.3
0.4s 5.00nm 4.2mb
BAL 54.75 250 eP 06 58.00 -2.1
MUN 54.89 248 eP 07 00.00 -1.0
SPA 63.95 180 e(P) 08 02.20 1.1
1.0s 10.00nm 4.3mb
MAT 73.52 326 iPc 08 58.40 -0.1
1.1s 35.44nm 4.8mb
MDJ 83.90 327 eP 09 54.20 1.1
WHN 84.02 308 eP 09 54.50 0.5
CN2 85.44 324 Pd 10 01.20 0.5
BJI 88.35 317 eP 10 16.00 1.5
XAN 89.77 308 iPc 10 22.80 1.5
CHG 90.03 291 eP 10 25.10 2.4
CD2 91.93 304 eP 10 33.50 2.2
GKN 105.77 294 PKP 15 59.00 15.5X
SUF 139.43 341 iPKP 16 38.80 -7.4X
0.5s 2.50nm
NUR 141.61 340 iPKP 16 45.50 -4.6X
NB2 144.26 350 PKP 16 54.00 -0.7
0.7s 24.00nm
HFS 144.69 348 ePKP 16 55.10 -0.3
0.9s 27.50nm
MLR 151.37 319 ePKPc 17 14.00 7.5X
BNG 151.67 223 iPKPc 17 15.30 7.6X
0.4s 8.00nm
KSP 152.22 337 iPKP 17 16.10 8.7X
CLL 152.88 341 iPKP 17 17.30 9.0X
0.8s 9.00nm
i 17 30.60
BRG 152.98 340 iPKP 17 17.60 9.2X
e 17 36.60
KHC 154.61 338 ePKP 17 21.50 10.8X
e 17 39.00
BNI 160.31 345 PKPc 17 33.50 15.7X
eSn 17 55.00
CKI 160.46 341 PKP 17 36.00 18.3X
eSn 18 06.00
DOI 160.68 343 PKP 17 28.70 10.6X
eSn 17 51.30
FOUF 160.78 344 PKP 17 26.00 8.0X
(Sg) 17 44.85
S.D. = 1.2 on 39 of 53 obs.

% FEB 13, 1989 13h 16m 57.96± 0.90s
43.412 N ± 7.2km 5.464 E ± 6.4km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.8 (STR).

GELF 0.04 223 Pg 17 00.17 0.1
PUYF 0.21 55 Pg 17 02.07 -0.5
TREF 0.22 345 Pg 17 02.17 -0.6
PRAF 0.45 331 Pg 17 07.10 0.0
VILF 0.48 22 Pg 17 07.89 0.2
TAVF 0.48 64 Pg 17 07.52 -0.2
GANF 0.67 29 Pg 17 12.08 0.8
S.D. = 0.6 on 7 of 7 obs.

FEB 13, 1989 14h 04m 58.95± 0.75s
43.144 N ± 7.0km 26.752 E ± 9.3km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

DMK 1.52 150 ePn 05 26.00 -0.1
TLB 1.72 32 iPd 05 29.00 0.0
ISR 2.00 356 ePd 05 33.00 -0.2
CFR 2.28 26 ePd 05 37.50 0.4
MLR 2.42 346 ePc 05 39.00 -0.3
VTS 2.66 259 eP 05 43.00 0.2
BZS 4.43 306 ePd 06 15.50 7.8X
S.D. = 0.3 on 6 of 7 obs.

FEB 13, 1989 14h 05m 44.46± 0.88s
38.331 N ± 8.5km 21.879 E ± 8.5km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.1 (ATH).

VLS 1.03 262 ePg 06 02.50 -1.4
eSg 06 18.00
NEO 1.43 47 ePg 06 10.00 -0.5
ATH 1.49 103 ePg 06 11.90 0.6
eSb 06 31.50
KZN 1.97 358 ePn 06 18.30 -0.1
LSK 2.07 332 iPnc 06 22.20 2.5
PLG 2.37 30 ePn 06 22.30 -1.8
TPE 2.44 324 ePn 06 24.50 -0.4
BERA 2.80 328 ePn 06 34.70 4.6X
OHR 2.90 344 ePn 06 33.20 1.7
VAY 3.03 10 ePn 06 33.40 0.1
TIR 3.39 333 ePn 06 48.20 9.8X
VAM 3.46 147 ePn 06 40.00 0.5
PHP 3.53 342 ePn 06 48.80 8.4X
SKO 3.65 355 ePn 06 41.00 -1.2
BZS 7.28 359 ePc 08 00.00 26.6X
S.D. = 1.4 on 11 of 15 obs.

FEB 13, 1989 14h 09m 10.91± 0.83s
30.528 S ± 8.0km 116.866 E ± 7.8km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

BAL 0.16 240 iPd 09 14.40 -0.2
iS 09 15.40
WA4 0.32 104 iP 09 18.80 1.3
eS 09 22.00
KLB 1.31 144 iPc 09 36.60 1.5
iS 09 53.50
MRWA 1.51 330 Pd 09 38.60 0.6
eS 09 57.00
MUN 1.55 201 iPc 09 38.80 0.2
iS 09 59.20
NWAO 2.41 173 eP 09 50.00 -1.0
eS 10 25.20
COOL 3.70 97 eP 10 07.00 -2.4
iS 10 50.70
MEKA 4.17 21 eP 10 16.00 0.1
eS 11 02.50
WARB 9.64 66 eP 11 21.00 -11.7X
eS 13 04.00
S.D. = 1.5 on 8 of 9 obs.

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* FEB 13, 1989 14h 17m 15.72± 0.35s
57.914 S ± 9.7km 25.714 W ± 8.4km
DEPTH = 33.0km (normol)
5.2mb (10 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

```
BMA    37.63 331 iPc    24 30.50   1.4
ITA    38.07 331 eP     24 33.70   0.6
VAO    38.10 327 eP     24 34.20   1.1
MAW    38.17 142 eP     24 35.00   1.9
CER    38.86  71 iPd    24 49.00   9.7X
       0.6s    10.71nm          4.8mb
ITB1   39.03 316 e(P)   24 39.30  -1.4
GRM    42.64  78 eP     25 11.00   0.6
       0.9s    25.21nm          4.9mb
FRS    44.82  74 iPc    25 28.70   0.7
       0.8s    18.66nm          5.0mb
CGY    48.12  72 iPc    25 51.50  -2.6
       0.7s    23.97nm          5.3mb
PRY    48.21  73 iPd    25 55.50   0.5
       1.1s    33.78nm          5.3mb
KSR    48.78  72 eP     25 59.00  -0.5
BPI    49.11  73 eP     26 01.50  -0.5
       0.7s    34.25nm          5.5mb
SLR    49.60  73 iPc    26 05.00  -0.7
       1.3s    67.31nm          5.5mb
CNCB   51.58 305 eP     26 21.00  -0.4
LPB    51.88 305 eP     26 12.00 -11.4X
ZOBO   52.12 305 P      26 23.80  -1.7
BUL    54.41  70 iPc    26 40.90  -0.9
LSZ    58.34  66 iPc    27 10.50   0.6
KMZ    58.77  63 iP     27 13.80   0.8
PTZ    60.77  69 iPd    27 26.40  -0.2
AVY    65.38  86 eP     27 58.70   1.5
BNG    71.57  47 iPc    28 35.00  -0.4
       0.2s    16.00nm          5.7mb
                i        28 49.40
MSZ    77.15 190 eP     29 07.00  -0.1
TAU    79.37 175 eP     29 19.00  -0.3
MUN    84.92 148 eP     29 48.00  -0.3
COOL   87.27 152 eP     30 00.00   0.1
       0.3s     2.00nm          4.8mb
FORR   88.88 158 eP     30 08.00   0.4
WRA   100.68 161 Pdiffc31 01.10  -0.6
       0.4s     0.40nm          4.3mb
WB2   100.68 161 ePdiff31 01.00  -0.7
WB5   100.75 161 ePdiff31 01.00  -1.0
DMN   123.93  91 PKP    36 10.80  -1.1
GKN   123.99  91 PKP    36 10.50  -1.3
PKI   124.06  92 PKP    36 10.90  -1.3
       0.5s     3.00nm
KKN   124.17  91 PKP    36 11.10  -1.2
       0.5s     3.00nm
GUN   124.58  92 PKP    36 12.20  -1.0
       0.5s     5.00nm
LRM   125.68 301 ePKP   36 15.10   0.4
SSE   144.90 125 PKPc   36 49.20  -1.1
       1.0s    15.00nm
                i        37 22.00
MBC   146.01 335 ePKP   36 51.00   0.1
       0.4s    10.00nm
TIY   146.14 108 ePKP   36 52.50   0.1
BTO   147.06 102 PKP    36 55.60   1.8
TIA   147.29 115 PKPc   36 55.80   1.7
INK   147.75 318 ePKP   36 56.00   2.2
HHC   148.04 103 ePKP   36 58.00   2.6
BJI   149.80 110 ePKP   37 02.00   4.1X
     S.D. = 1.2  on  41 of  44 obs.
-------------------------------------
* FEB 13, 1989  14h 23m 02.38± 1.11s
  27.536 N ±25.1km   54.351 E ±12.5km
  DEPTH =  33.0km  (normal)
  4.5mb (  6 obs.)
 SOUTHERN IRAN                    (353)

MHI     9.77  25 eP     25 36.00  12.3X
                eS     28 48.00
QUE    11.36  74 eP     25 45.50  -0.1
NDI    20.20  81 eP     27 37.00  -0.2
BBTK   21.69 310 eP     27 53.50   1.0
HYB    24.48 109 eP     28 21.50   1.7
GBA    25.61 118 Pc     28 28.50  -2.0
       0.7s     2.00nm          3.8mb
GKN    26.77  82 P      28 41.80   0.4
       0.8s    12.00nm          4.6mb
DMN    27.23  83 P      28 46.20   0.5
KKN    27.36  82 P      28 45.20  -1.6
       0.8s    16.00nm          4.7mb
PKI    27.50  83 P      28 48.40   0.2
       1.0s    15.00nm          4.6mb
GUN    27.87  82 P      28 52.00   0.4
       1.0s    54.00nm          5.2mb
KHC    37.96 316 P      30 18.60   0.0
CHG    41.72  92 eP     30 50.50   0.4
HFS    42.67 331 eP     30 54.80  -2.5
       0.4s     0.90nm          3.9mb
MBC    76.40 358 eP     34 50.00   0.4
FRB    78.62 338 eP     35 02.00   0.0
YKA    89.85 355 P      36 00.20   1.3
     S.D. = 1.2  on  16 of  17 obs.
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    FEB  13, 1989  14h 51m 24.65± 0.14s
    57.449 N ± 4.0km    33.177 W ± 2.1km
    DEPTH =  10.0km  (geophysicist)
    5.2mb ( 43 obs.)  5.2Msz ( 12 obs.)
 NORTH ATLANTIC OCEAN               (402)
       Ms 5.4 (BRK).
       CENTROID, MOMENT TENSOR      (HRV)
       Data Used: GDSN
       L.P.B.:  8S, 16C
       Centroid Location:
       Origin Time          14:51:25.9 0.6
       Lat 56.85N 0.15 Lon  33.01W 0.07
       Dep  15.0 FIX Half-duration  1.7
       Moment Tensor;   Scale 10**17 Nm
         Mrr=-1.06 0.05  Mtt=-0.21 0.06
         Mff= 1.27 0.05  Mrt= 0.13 0.14
         Mrf=-0.01 0.25  Mtf= 0.32 0.06
        Principal Axes:
         T  Val=  1.33  Plg=  0  Azm=282
         N       -0.25        9       12
         P       -1.08       81      189
       Best Double Couple:Mo=1.2*10**17
        NP1:Strike=  2 Dip=45 Slip=-103
        NP2:        201      46      -77

REY     8.67  35 iP     53 47.40  14.4X
AKU    10.92  35 iP     54 07.60   3.8X
       1.4s   241.86nm          6.4mb X
GDH    14.84 331 eP     54 54.00  -1.9
                i       55 04.00
                e       57 46.00
STJ    15.42 238 eP     55 03.00  -0.6
FRB    18.28 305 eP     55 40.00   0.5
SCH    18.80 276 ePc    55 45.80  -0.3
       1.2s    93.00nm          4.9mb
DAG    20.07  10 eP     56 00.00  -0.4
FLN    21.28 100 iPc    56 11.70  -1.4
STS    21.31 123 eP     56 13.00  -0.4
GRR    21.31 101 iPc    56 11.90  -1.5
       1.5s   344.70nm          5.5mb
LPF    21.43 102 eP     56 13.10  -1.5
EMON   21.44 120 eP     56 14.00  -0.9
LDF    21.57 100 iPc    56 14.80  -1.3
       1.8s   569.60nm          5.7mb
ERUA   22.34 121 eP     56 23.00  -0.8
PTO    22.68 125 eP     56 14.50 -12.6X
MFF    22.81 104 eP     56 27.40  -0.9
       1.5s   135.80nm          5.2mb
MUD    22.85  74 eP     56 31.00   2.4
       0.9s    30.00nm          4.8mb
SNF    22.86  92 P      56 28.70  -0.1
NRA0   22.86  63 P      56 30.80   2.0
WIT    23.00  84 eP     56 32.00   1.9
DOU    23.25  92 P      56 32.30  -0.3
WTS    23.47  86 eP     56 35.50   0.8
       1.3s    83.00nm          5.1mb
CBM    23.60 259 P      56 38.20   2.1
MEM    23.74  90 P      56 37.20  -0.1
LSF    23.91 103 iPc    56 39.40   0.3
TCF    24.25 102 eP     56 42.50   0.1
       1.3s    90.20nm          5.2mb
WLF    24.33  92 P      56 43.40   0.3
LFF    24.38 106 eP     56 44.10   0.5
       1.7s   176.40nm          5.4mb
BGF    24.41 101 eP     56 43.80  -0.2
SSF    24.45  99 iPc    56 44.20  -0.1
       1.6s   120.60nm          5.3mb
MAF    24.48 102 eP     56 44.50  -0.1
LOR    24.51  99 iPc    56 44.90   0.0
RJF    24.53 105 eP     56 45.30   0.2
AVF    24.53 100 iPc    56 44.80  -0.3
       1.5s    96.10nm          5.2mb
EPLA   24.67 123 eP     56 46.80   0.2
LBF    24.75  99 iPc    56 46.70  -0.5
       1.1s    53.70nm          5.1mb
LPO    24.78 106 eP     56 46.70  -0.9
       1.6s   136.80nm          5.4mb
SMF    24.89 100 iPc    56 47.80  -0.7
       1.2s    96.30nm          5.4mb
CAF    25.08 105 eP     56 50.40   0.0
GUD    25.10 120 eP     56 51.00   0.2
HAU    25.39  95 iPc    56 53.20  -0.2
       1.5s   156.60nm          5.5mb
EPF    25.51 110 eP     56 53.10  -1.4
CDF    25.65  93 P      56 55.34  -0.5
BSF    25.74  95 P      56 55.48  -1.2
TOL    25.75 120 eP     56 57.50   0.7
ETOR   25.97 116 eP     56 59.30   0.4
UPP    26.01  63 iP     56 59.50   0.6
       1.3s   300.00nm          5.8mb
ALE    26.37 352 eP     57 02.00  -0.1
       1.6s    72.00nm          5.1mb
EVAL   26.42 127 eP     57 05.70   2.7
MOX    26.75  85 ePc    57 05.00  -0.9
       1.7s    79.00nm          5.1mb
     Z 18s     5.10um           5.1Msz
     N 20s     2.70um
     E 18s     3.40um
               LQ       07 00.00
               LR       07 20.00
EHOR   26.88 125 eP     57 06.70  -0.5
GRF    27.06  87 eP     57 08.60  -0.1
       1.5s    90.00nm          5.2mb
     Z 22s     2.30um           4.7Msz
CLL    27.14  83 iPc    57 08.30  -1.1
       1.8s    43.00nm          4.9mb
     Z 18s     7.00um           5.3Msz
EROO   27.17 113 eP     57 13.00   3.2X
LPG    27.18  99 eP     57 09.50  -0.7
LSD    27.42  98 P      57 13.01   0.7
BNI    27.43 100 P      57 12.50   0.2
ECHE   27.44 117 eP     57 12.80   0.4
RRL    27.57 100 P      57 13.01  -0.7
EPRU   27.60 126 eP     57 14.50   0.8
RSP    27.67  99 P      57 14.14  -0.3
ORX    27.75  97 P      57 15.78   0.6
ORO    27.75  97 P      57 16.10   0.9
AAPN   27.81 124 eP     57 16.50   0.8
BRG    27.88  83 iPd    57 15.80  -0.3
       1.4s    24.00nm          4.8mb
     Z 20s     7.50um           5.3Msz
     N 20s     6.00um
     E 20s     5.00um
               e        57 54.50
ASMO   27.93 123 eP     57 17.50   0.6
AFC    28.11 123 eP     57 19.00   0.5
CRT    28.14 123 eP     57 21.00   2.3
ATEJ   28.18 124 eP     57 20.20   1.0
APHE   28.29 124 eP     57 22.50   2.3
MDI    28.58  95 P      57 22.00  -0.5
KHC    28.64  87 eP     57 19.90  -3.2X
               e        57 23.30
PRU    28.68  84 eP     57 20.00  -3.4X
     Z 18s     5.80um           5.2Msz
     E 18s     5.90um
               e        57 39.00
KSP    29.15  82 ePc    57 26.60  -1.0
KBA    29.73  90 eP     57 31.00  -2.1
       1.5s    42.90nm          5.0mb
               i        57 41.70
               e        58 14.00
RBL    30.25  91 P      57 40.00   2.5
IFR    30.58 129 iP     57 39.50  -1.1
PGD    30.91  96 Pd     57 43.70   0.2
SFI    30.95  96 Pd     57 44.10   0.5
ZST    31.09  85 eP     57 43.40  -1.4
     Z 18s    11.50um           5.6Msz
KRA    31.53  80 eP     57 47.70  -1.0
       1.0s    37.00nm          5.2mb
     Z 16s     3.60um           5.1MszX
     N 14s     2.70um
               e        57 51.70
ASS    31.96  97 P      57 51.00  -1.6
SRO    31.97  85 eP     57 51.90  -0.6
TIO    32.00 135 iP     57 53.00  -0.1
MBC    34.37 335 eP     58 13.00  -0.1
       0.9s    23.00nm          5.1mb
RSON   34.98 286 P      58 17.30  -1.3
       1.3s    44.35nm          5.2mb
BZS    35.11  86 iPd    58 20.00   0.2
               e        21 43.00
FFC    37.00 296 ePd    58 35.40  -0.2
       1.8s    82.00nm          5.2mb
SKO    37.44  90 iPc    58 39.00  -0.5
       1.5s   110.00nm          5.4mb
     Z 16s     2.60um           5.1MszX
```

13d 14h

	N 16s	2.34um				
	E 16s	2.52um				
		iS	04	31.50		
		LR	14	25.00		
MLR	37.52	82 eP	58	39.00	-1.3	
		e	22	05.00		
CLI	37.56	80 ePd	58	40.00	-0.4	
		e	22	04.00		
OHR	37.69	92 iP	58	41.80	0.1	
VRI	37.70	81 ePd	58	42.00	0.4	
ISR	38.07	82 eP	58	37.50	-7.3X	
		e	22	04.00		
VAY	38.51	90 eP	58	48.40	0.0	
YKA	38.51	312 P	58	48.50	0.3	
PVL	38.70	86 iPd	58	49.00	-1.0	
KZN	38.78	92 eP	58	51.10	0.2	
CFR	38.90	81 eP	58	50.00	-1.6	
		e	22	13.00		
MMB	38.95	89 iP	58	52.00	-0.1	
RZN	39.41	88 iP	58	55.00	-1.2	
PLG	39.64	90 eP	58	58.00	0.1	
VLS	39.68	95 eP	58	59.00	0.8	
RDO	40.23	88 eP	59	03.00	0.3	
NEO	40.28	92 eP	59	03.30	0.1	
FVM	41.70	268 P	59	15.30	0.5	
INK	41.85	327 eP	59	14.00	-1.6	
PWLA	42.65	262 P	59	23.10	0.5	
IZM	43.12	89 eP	59	26.00	-0.5	
EDM	43.31	300 ePd	59	27.80	-0.1	
SES	44.02	296 eP	59	35.00	1.4	
OLY	44.09	266 P	59	34.80	0.5	
BBTK	45.05	83 iPc	59	43.00	0.9	
LNO	46.12	270 eP	59	50.30	-0.1	
SIO	46.52	270 eP	59	53.10	-0.6	
LRM	47.80	292 eP	00	04.40	0.4	
FBA	48.33	329 eP	00	08.00	0.5	
GLD	48.37	281 P	00	09.20	0.8	
	1.6s	222.22nm			6.0mb	
BW06	48.47	287 P	00	07.90	-1.3	
	1.8s	82.47nm			5.5mb	
MEO	48.48	271 iP	00	09.00	-0.1	
	1.8s	226.60nm			5.9mb	
GOL	48.49	281 P	00	09.50	0.1	
PNT	48.85	300 eP	00	12.00	0.2	
	0.8s	18.00nm			5.2mb	
IMA	48.99	332 eP	00	12.80	0.0	
	2.4s	180.60nm			5.7mb	
DPW	49.19	298 P	00	14.20	-0.3	
DAU	51.06	286 P	00	29.00	-0.2	
PMR	51.27	327 eP	00	30.40	0.4	
	1.9s	92.10nm			5.4mb	
Z	20s	1.00um			4.8Msz	
TTA	52.13	331 eP	00	35.90	-0.7	
BMW	52.58	300 P	00	39.40	-0.9	
ALQ	52.60	278 eP	00	40.50	-0.2	
	1.8s	69.32nm			5.3mb	
Z	18s	6.27um			5.7Msz	
MSU	52.94	285 P	00	42.50	-0.8	
MSL	53.13	79 eP	00	46.00	1.6	
		eS	08	20.00		
PRNI	53.37	90 eP	00	47.00	0.7	
TAB	53.54	75 eP	00	50.00	2.5	
MBH	53.76	90 eP	00	50.00	1.0	
SLY	54.97	77 ePc	01	00.00	2.1	
		eS	08	44.00		
TIC	55.24	145 P	00	57.82	-2.2	
	1.1s	40.00nm			5.3mb	
KIC	55.59	145 P	01	04.80	2.3	
	1.0s	16.00nm			5.0mb	
KVN	55.59	290 P	01	02.20	-0.4	
LIC	55.63	145 P	01	00.90	-1.9	
TNP	55.87	289 P	01	03.80	-0.9	
BHD	56.16	80 ePd	01	07.50	1.0	
MIN	56.37	293 ePc	01	07.70	-0.5	
		e	01	15.20		
WDC	56.65	294 e(P)	01	01.30	-8.7X	
		e	01	07.90		
KUK	57.19	140 eP	01	12.00	-2.0	
KOGH	57.33	140 eP	01	13.00	-2.0	
CMB	57.52	291 e(P)	01	15.90	-0.3	
SHGH	57.54	140 eP	01	20.50	4.0X	
GSC	57.79	286 eP	01	19.00	0.8	
CLC	57.80	287 eP	01	18.00	-0.2	
FRI	57.98	290 ePc	01	19.70	0.3	
TPC	58.32	285 eP	01	23.00	1.1	
GLA	58.49	283 eP	01	23.00	-0.1	
BKS	58.58	292 i(P)d	01	12.90	-10.6X	
	Z 20s	2.00um			5.2Msz	
	N 20s	2.20um				
	E 20s	1.00um				
		iS	09	38.00		
		eLR	19	12.00		
SBB	58.79	286 eP	01	25.00	-0.2	
LLA	58.90	290 e(P)	01	19.00	-6.8X	
		e	01	26.30		
PEC	59.07	285 P	01	26.90	-0.2	
RVR	59.10	286 eP	01	27.00	-0.2	
PRI	59.13	290 e(P)	01	21.20	-6.3X	
PLM	59.33	285 eP	01	30.00	0.9	
BAR	59.75	284 eP	01	32.00	0.2	
OXX	61.58	257 (P)	01	44.50	-0.1	
MHI	61.61	67 iPc	01	45.00	0.5	
		eS	10	25.00		
BNG	66.51	121 iPc	02	15.00	-1.6	
	0.8s	14.00nm			5.2mb	
KSH	66.73	53 eP	02	17.90	0.0	
WMQ	67.69	42 eP	02	24.00	0.2	
GTA	75.74	36 Pd	03	11.40	-0.5	
Z	16s	1.60um			5.4MszX	
E	15s	1.00um				
NDI	76.34	58 eP	03	16.00	0.7	
MDJ	77.29	13 eP	03	20.00	-0.3	
Z	20s	1.30um			5.2Msz	
BTO	77.54	28 P	03	23.00	1.1	
CN2	77.54	16 Pd	03	21.20	-0.5	
HHC	77.69	27 P	03	23.80	1.1	
ZOBO	78.96	214 P	03	30.20	-0.3	
	1.2s	6.08nm			4.5mb	
Z	22s	0.37um			4.7Msz	
		LR	31	52.00		
SNY	79.18	17 eP	03	30.40	-0.3	
Z	18s	1.40um			5.3Msz	
N	16s	1.10um				
E	16s	0.80um				
LPB	79.21	214 (P)	03	39.00	7.4X	
CNCB	79.43	214 P	03	33.00	0.0	
CCH	79.43	212 eP	03	33.70	1.0	
BJI	79.51	23 eP	03	32.50	-0.1	
LZH	80.04	34 eP	03	34.50	-1.2	
	2.5s	118.00nm			5.4mb	
ITA	80.10	191 eP	03	36.20	0.0	
GKN	80.22	53 P	03	37.30	0.5	
	0.8s	14.00nm			5.0mb	
BMA	80.36	190 ePc	03	37.90	0.6	
KKN	80.68	52 P	03	40.10	0.8	
	0.7s	15.00nm			5.1mb	
DMN	80.77	52 P	03	40.80	1.0	
GUN	80.83	52 P	03	41.20	0.9	
	0.9s	25.00nm			5.2mb	
PKI	80.93	52 P	03	41.30	0.5	
	1.0s	10.00nm			4.8mb	
TIA	83.40	24 Pd	03	53.00	0.0	
XAN	83.43	31 eP	03	52.70	-0.6	
CD2	84.81	36 P	04	00.80	0.5	
MAT	86.09	7 (P)	04	07.00	0.4	
HYB	86.61	63 eP	04	09.00	-0.4	
SSE	89.19	22 eP	04	21.00	-0.5	
GBA	89.34	66 Pd	04	21.70	-0.7	
	0.7s	1.70nm			4.4mb	
KMI	89.82	39 Pc	04	25.00	0.1	
WB5	141.37	19 ePKP	10	58.00	0.8	
WB2	141.43	19 ePKP	10	58.00	0.7	
ASPA	144.98	21 iPKPd	11	01.80	-1.5	
	1.1s	43.00nm				
WARB	145.61	33 ePKP	10	57.00	-7.3X	
MUN	147.01	53 ePKP	11	08.00	1.6	
COOL	148.06	45 iPKPc	11	11.40	3.2X	
	0.7s	16.00nm				
RMQ	149.03	357 iPKPc	11	15.20	5.4X	

S.D. = 1.0 on 184 of 200 obs.

& FEB 13, 1989 14h 58m 19.40s
40.400 N 125.088 W
DEPTH = 7.0km
OFF COAST OF NORTHERN CALIFORNIA(34)
<BRK>. ML 3.4 (BRK).

FHC	0.93	64 iPc	58	36.70	-0.8	
		i	58	44.40		
		iS	58	48.90		
WDC	1.95	84 iPc	58	50.90	-2.4	
		eS	59	14.90		
LTCM	2.27	94 eP	58	55.60	-2.4	
LBFM	2.60	68 eP	59	01.30	-1.5	
MIN	2.66	90 ePc	59	00.90	-2.7	
ORV	2.88	106 eP	59	04.10	-2.5	
		eS	59	37.20		
BRK	3.35	138 eP	59	10.20	-3.0	
BKS	3.36	138 iPc	59	10.40	-2.9	
		eS	59	49.30		
PCC	3.58	143 eP	59	13.10	-3.4	
MHC	4.07	138 ePc	59	20.70	-2.8	
ARN	4.12	137 eP	59	20.50	-3.7	
GCC	4.14	143 eP	59	20.90	-3.5	
CMB	4.35	121 iPc	59	26.50	-1.0	
SAO	4.62	141 eP	59	26.80	-4.4	
FRI	5.41	127 ePc	59	40.80	-1.7	
KVN	5.55	102 eP	59	40.50	-4.2	
FFC	21.04	39 eP	03	04.00	-2.0	
	0.7s	7.00nm			4.1mb X	
	17 obs. associated					

FEB 13, 1989 15h 14m 47.68± 0.16s
57.443 N ± 4.7km 33.251 W ± 2.5km
DEPTH = 10.0km (geophysicist)
5.2mb (50 obs.) 5.2Msz (11 obs.)
NORTH ATLANTIC OCEAN (402)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 22C
Centroid Location:
Origin Time 15:14:54.0 0.5
Lat 57.82N 0.07 Lon 33.28W 0.08
Dep 15.0 FIX Half-durotion 2.3
Moment Tensor; Scale 10**17 Nm
Mrr=-2.44 0.09 Mtt= 0.12 0.10
Mff= 2.31 0.11 Mrt= 0.33 0.28
Mrf= 0.63 0.42 Mtf= 1.06 0.10
Principal Axes:

	Val=	Plg=	Azm=
T	2.84	8	292
N	-0.30	2	22
P	-2.53	82	126

Best Double Couple:Mo=2.7*10**17
NP1:Strike= 20 Dip=37 Slip= -93
NP2: 204 53 -88

REY	8.70	35 iP	17	03.00	6.6X	
AKU	10.94	35 iP	17	31.90	4.7X	
	1.9s	989.47nm			6.8mb X	
		e	21	41.00		
VAL	14.36	103 P	18	15.00	2.2	
GDH	14.82	331 iPc	18	18.00	-0.7	
	1.4s	130.23nm			5.2mb	
		i	18	25.00		
		i	21	25.00		
EKA	16.73	84 P	18	46.00	2.7	
	2.1s	527.80nm			5.3mb	
FRB	18.25	305 eP	19	03.00	0.8	
DAG	20.09	10 iPc	19	22.70	-0.9	
FLN	21.32	100 iPc	19	35.90	-0.6	
	1.4s	291.00nm			5.5mb	
STS	21.34	122 eP	19	36.20	-0.6	
GRR	21.34	101 iPc	19	36.10	-0.7	
	1.5s	286.20nm			5.4mb	
LPF	21.47	102 iPc	19	37.30	-0.7	
EMON	21.48	120 eP	19	37.20	-1.0	
LDF	21.61	100 iPc	19	39.10	-0.4	
	1.8s	473.00nm			5.6mb	
ERUA	22.37	121 eP	19	47.20	0.1	
NB2	22.68	62 P	19	49.20	-0.9	
	1.5s	67.90nm			4.9mb	
PTO	22.71	125 eP	19	46.70	-3.7X	
		e(S)	23	34.00		
MFF	22.84	104 iPc	19	51.60	-0.1	
	1.2s	55.90nm			5.0mb	
MUD	22.89	74 eP	19	53.00	1.0	
	1.0s	34.00nm			4.8mb	
NRA0	22.90	63 P	19	54.90	2.7	
SNF	22.90	91 P	19	57.00	4.8X	
WIT	23.04	84 eP	20	00.00	6.4X	
DOU	23.29	92 Pc	19	57.60	1.6	
		e	45	12.00		
WTS	23.51	86 eP	20	00.00	1.9	
ENN	23.65	89 eP	20	01.00	1.5	
	2.0s	325.00nm			5.5mb	
MEM	23.78	90 P	20	01.30	0.6	
LSF	23.95	103 iPc	20	02.80	0.3	
TCF	24.29	102 iPc	20	05.70	-0.1	
	1.1s	51.20nm			5.1mb	
WLF	24.37	92 P	20	07.40	0.9	
LFF	24.41	106 iPc	20	07.40	0.4	

1.5s 104.40nm 5.2mb
BGF 24.45 101 iPc 20 07.00 -0.4
SSF 24.48 99 iPc 20 07.50 -0.2
1.2s 57.70nm 5.1mb
MAF 24.52 102 iPc 20 07.80 -0.2
1.5s 179.60nm 5.5mb
LOR 24.54 98 iPc 20 08.10 -0.2
1.2s 54.70nm 5.1mb
RJF 24.57 105 eP 20 08.50 0.0
AVF 24.57 100 iPc 20 08.10 -0.4
EPLA 24.70 123 eP 20 10.20 0.3
LBF 24.78 99 iPc 20 10.20 -0.4
1.1s 51.20nm 5.1mb
LPO 24.82 106 iPc 20 11.00 0.1
1.1s 43.90nm 5.0mb
SMF 24.92 100 iPc 20 11.60 -0.3
1.2s 83.30nm 5.3mb
CAF 25.11 105 iPc 20 13.70 -0.1
GUD 25.13 119 eP 20 14.40 0.2
HAU 25.43 95 eP 20 16.70 -0.1
1.4s 104.50nm 5.3mb
EPF 25.55 110 iPc 20 17.20 -0.7
CDF 25.69 93 iPc 20 19.00 -0.3
1.5s 94.00nm 5.3mb
BSF 25.78 95 eP 20 19.70 -0.4
1.2s 59.50nm 5.2mb
ETOR 26.00 116 eP 20 23.30 1.1
ALE 26.37 352 eP 20 24.00 -1.1
1.4s 75.00nm 5.2mb
MOX 26.79 85 eP 20 28.00 -1.3
1.8s 88.00nm 5.1mb
Z 18s 9.80um 5.4Msz
N 16s 5.70um
E 18s 8.00um
LQ 31 00.00
LR 31 00.00
EHOR 26.91 125 eP 20 30.00 -0.5
GRF 27.10 87 eP 20 31.90 -0.2
1.5s 85.00nm 5.2mb
Z 21s 5.70um 5.1Msz
CLL 27.19 83 iPc 20 31.80 -1.0
1.9s 48.00nm 4.9mb
Z 17s 11.00um 5.5MszX
LPG 27.22 99 iPc 20 33.60 0.1
1.6s 70.80nm 5.1mb
EVIA 27.50 120 eP 20 36.00 0.0
ORO 27.79 97 P 20 40.00 1.5
BRG 27.92 83 eP 20 34.30 -5.2X
1.8s 36.00nm 4.9mb
KEV 28.12 40 eP 20 40.00 -1.1
DOI 28.13 100 Pd 20 22.50 -19.1X
AFC 28.14 123 eP 20 42.00 0.2
SOD 28.28 45 iP 20 44.40 1.8
KHC 28.68 86 iPc 20 47.50 1.0
e 21 34.00
PRU 28.72 84 eP 20 45.50 -1.3
Z 17s 8.20um 5.4MszX
E 16s 9.40um
e 21 33.50
CKI 28.74 99 P 20 48.00 1.0
SUF 29.14 55 iP 20 50.40 0.0
0.8s 9.00nm 4.6mb
NUR 29.17 59 eP 20 50.00 -0.6
Z 24s 7.30um 5.2MszX
LR 30 40.00
KSP 29.19 81 ePd 20 49.50 -1.5
KJF 29.40 51 eP 20 52.00 -0.7
i 20 57.20
FVI 29.77 91 P 20 55.00 -1.1
KBA 29.77 90 eP 20 56.00 -0.5
1.5s 44.60nm 5.1mb
RBL 30.29 91 P 20 46.50 -14.4X
ZST 31.13 85 e(P) 21 08.50 0.3
KRA 31.57 80 eP 21 11.10 -1.0
0.9s 27.00nm 5.2mb
Z 14s 6.30um 5.4MszX
N 16s 4.60um
e 21 22.20
PTJ 31.92 90 eP 21 12.60 -2.7
SRO 32.01 85 iP 21 16.50 0.6
TIO 32.02 135 iP 21 15.80 -0.5
SPC 32.23 81 eP 21 17.50 -0.6
MBC 34.36 335 eP 21 35.00 -1.0
1.6s 139.00nm 5.6mb
RSON 34.95 286 P 21 49.40 8.1X
1.3s 104.84nm 5.5mb
DEV 35.68 84 iPd 21 49.00 1.4

FFC 36.97 296 eP 21 58.50 0.2
0.9s 21.00nm 4.9mb
SKO 37.48 90 eP 22 01.10 -1.8
8.0s 2770.00nm 6.1mb X
Z 15s 4.78um 5.4MszX
N 18s 4.59um
E 18s 6.74um
i 22 02.80
iS 27 55.00
iSS 30 42.00
LR 37 54.00
OHR 37.73 92 eP 22 05.00 0.0
VTS 38.02 88 eP 22 07.00 -0.5
YKC 38.44 312 eP 22 09.00 -1.6
1.0s 66.00nm 5.3mb
YKA 38.48 312 P 22 10.50 -0.5
VAY 38.55 90 eP 22 11.40 -0.3
PVL 38.74 86 iPc 22 11.00 -2.3
MMB 38.99 89 iP 22 15.00 -0.5
RZN 39.45 88 eP 22 18.00 -1.6
INK 41.84 327 eP 22 37.00 -1.5
IZM 43.16 89 eP 22 49.00 -0.8
EDM 43.28 300 iPd 22 51.30 0.7
1.2s 66.00nm 5.3mb
SES 43.98 296 eP 22 59.00 2.6
BBTK 45.09 83 eP 23 06.50 1.0
RLO 45.48 270 e(P) 23 07.30 -1.2
LNO 46.08 270 eP 23 13.60 0.5
VVO 46.48 269 e(P) 23 16.80 0.4
SIO 46.48 270 eP 23 17.00 0.6
LRM 47.77 292 eP 23 26.30 -0.5
FBA 48.31 329 eP 23 30.00 -0.4
GLD 48.33 281 P 23 33.30 2.1
1.1s 221.79nm 6.1mb
BW06 48.43 287 P 23 30.10 -1.9
1.0s 36.56nm 5.4mb
MEO 48.44 271 eP 23 30.70 -1.1
1.0s 79.40nm 5.7mb
GOL 48.45 281 P 23 33.30 1.1
PNT 48.81 300 ePd 23 36.00 1.5
1.0s 58.00nm 5.6mb
IMA 48.98 332 eP 23 34.80 -0.9
1.2s 39.10nm 5.3mb
BHL 51.03 86 P 23 50.00 -1.7
S 31 12.00
PMR 51.25 327 eP 23 52.70 -0.2
1.2s 51.00nm 5.3mb
Z 20s 2.10um 5.2Msz
TTA 52.11 331 eP 23 58.30 -1.2
BMW 52.55 299 P 24 02.40 -0.7
ALQ 52.56 278 eP 24 03.70 0.3
1.2s 31.25nm 5.1mb
Z 18s 10.31um 5.9Msz
MSU 52.90 285 P 24 04.60 -1.4
MSL 53.17 78 ePc 24 10.50 2.8
eS 31 46.00
PRNI 53.41 90 iP 24 10.00 0.4
MBH 53.80 90 eP 24 13.00 0.7
SLY 55.01 77 eP 24 22.00 0.8
eS 32 07.00
TIC 55.25 145 P 24 21.00 -2.1
1.0s 25.00nm 5.2mb
KDC 55.36 325 eP 24 23.60 0.2
KVN 55.56 290 P 24 24.30 -1.1
KIC 55.61 145 P 24 23.60 -2.1
1.3s 65.00nm 5.5mb
LIC 55.65 145 P 24 23.80 -2.2
TNP 55.84 288 P 24 26.20 -1.3
BHD 56.20 80 ePc 24 32.50 2.7
i 32 24.00
MIN 56.34 293 ePc 24 30.60 -0.3
WDC 56.62 294 ePc 24 32.30 -0.5
ORV 56.88 293 e(P) 24 33.80 -0.9
FHC 57.16 295 eP 24 36.70 0.0
KUK 57.21 140 eP 24 37.00 -0.2
KOGH 57.35 140 eP 24 38.00 -0.2
CMB 57.49 291 eP 24 38.80 -0.2
SHGH 57.57 140 eP 24 34.50 -5.2X
GSC 57.75 286 eP 24 42.00 1.1
CLC 57.77 287 eP 24 42.00 1.0
FRI 57.95 289 ePc 24 42.60 0.5
TPC 58.28 285 eP 24 46.00 1.4
GLA 58.46 283 eP 24 46.00 0.2
MHC 58.66 291 ePc 24 48.00 0.7
SBB 58.76 286 eP 24 48.00 0.0
LLA 58.86 290 ePc 24 49.50 0.9
SAO 59.00 291 e(P) 24 49.20 -0.4

RVR 59.06 286 eP 24 50.00 0.0
PRI 59.09 290 eP 24 51.20 0.9
PLM 59.29 285 eP 24 52.00 0.2
BAR 59.72 284 eP 24 55.00 0.4
OXX 61.54 257 (P) 25 07.50 0.2
MHI 61.65 66 eP 25 09.00 1.2
BNG 66.55 121 ePd 25 37.80 -2.0
1.0s 30.00nm 5.4mb
i 25 40.20
i 26 09.20
KSH 66.76 53 eP 25 36.00 -5.1X
WMQ 67.72 42 P 25 48.00 1.0
Z 17s 2.00um 5.4MszX
QUE 70.25 65 eP 26 02.00 -0.9
GTA 75.77 36 eP 26 33.40 -1.7
Z 18s 1.30um 5.3Msz
E 13s 0.90um
NDI 76.38 58 eP 26 39.00 0.4
MDJ 77.30 12 eP 26 43.00 -0.4
CN2 77.56 16 Pc 26 45.00 0.1
5.0s 0.50nm 2.9mb X
Z 20s 0.90um 5.1Msz
E 14s 0.90um
pP 26 52.50 24kmX
BTO 77.57 28 iPc 26 44.40 -0.7
HHC 77.71 27 P 26 45.60 -0.3
ZOBO 78.94 214 P 26 53.50 0.1
1.2s 12.84nm 4.8mb
LPB 79.18 214 eP 27 07.00 12.5X
SNY 79.20 17 Pd 26 54.00 0.1
CNCB 79.40 214 P 26 56.20 0.3
CCH 79.41 212 eP 26 51.00 -4.6X
BJI 79.54 23 eP 26 56.00 0.3
Z 18s 0.90um 5.2Msz
LZH 80.07 34 eP 27 00.00 1.1
2.5s 0.16nm 2.6mb X
Z 20s 1.60um 5.4Msz
ITA 80.09 191 eP 26 59.10 -0.1
GKN 80.26 52 P 27 00.20 0.2
BMA 80.35 190 ePd 27 01.10 0.9
KKN 80.72 52 P 27 03.00 0.5
0.8s 20.00nm 5.2mb
DMN 80.80 52 P 27 03.60 0.6
0.9s 26.00nm 5.2mb
GUN 80.87 52 P 27 03.40 -0.1
0.8s 25.00nm 5.3mb
TIY 80.90 27 eP 27 04.20 1.1
N 18s 1.50um
PKI 80.96 52 P 27 04.20 0.2
DL2 81.71 20 eP 27 08.50 1.3
TIA 83.42 24 eP 27 15.40 -0.8
XAN 83.45 31 eP 27 14.70 -1.7
CD2 84.83 36 eP 27 24.00 0.6
Z 25s 1.50um 5.3MszX
E 12s 0.90um
eS 37 51.00
KMZ 85.65 123 eP 27 28.00 0.3
MAT 86.10 7 (P) 27 23.00 -6.6X
Z 20s 1.06um 5.2Msz
eS 39 12.00
HYB 86.65 63 eP 27 32.00 -0.6
WHN 88.20 28 eP 27 38.50 -1.3
Z 16s 1.32um 5.4MszX
E 16s 1.82um
sP 27 51.00
S 38 24.00
PTZ 88.90 119 iP 27 46.00 2.6
SSE 89.21 22 Pc 27 44.20 -0.5
1.0s 12.00nm 5.1mb
Z 20s 0.50um 4.9Msz
N 14s 0.30um
e 37 38.00
GBA 89.38 65 Pc 27 45.90 0.2
0.9s 3.80nm 4.7mb
KMI 89.85 39 Pc 27 48.50 0.4
Z 20s 3.70um 5.8Msz
N 18s 3.60um
eS 38 11.00
GYA 89.89 35 P 27 48.80 0.7
FRS 99.79 131 eP 28 34.00 1.2
WB5 141.39 19 ePKP 34 16.10 -4.2X
e 34 20.00
WRA 141.45 19 PKPc 34 22.40 2.0
1.5s 19.20nm
WB2 141.45 19 ePKP 34 16.10 -4.3X
e 34 20.00
ASPA 145.00 21 iPKPd 34 23.30 -3.1X

13d 15h

	1.3s	65.00nm				
BAL	146.07	51	ePKP	34	28.00	0.0
MUN	147.05	53	ePKP	34	29.00	-0.5
SPA	147.27	180	e(PKP)	34	29.80	0.9
	1.0s	11.50nm				
			e	34	36.40	
KLB	147.37	50	ePKP	34	31.00	1.0
	0.5s	5.00nm				
COOL	148.09	45	ePKP	34	34.00	2.8
	1.0s	42.00nm				
NWAO	148.30	52	ePKP	34	35.00	3.5X
	1.0s	13.00nm				
RMQ	149.03	357	ePKP	34	38.00	5.1X
BRS	149.66	349	iPKPc	34	33.20	-0.6
	S.D. = 1.1	on 177 of 196 obs.				

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* FEB 13, 1989 15h 47m 00.47± 0.65s
23.779 N ±12.5km 44.811 W ±15.4km
DEPTH = 10.0km (geophysicist)
4.8mb (3 obs.)
NORTH ATLANTIC RIDGE (403)

ZOBO	45.86	212	eP	55	25.00	-0.5
Z	24s	1.01um			4.7MszX	
			i	55	29.00	
			LR	10	12.00	
LPB	46.07	212	eP	55	27.00	0.0
CNCB	46.26	211	P	55	29.00	0.4
KBA	51.46	48	e(P)	56	14.50	6.3X
KHC	51.85	45	eP	56	10.20	-0.8
			e	56	21.20	
FFC	52.07	322	eP	56	11.00	-1.5
	0.9s	10.00nm			4.7mb	
NB2	53.17	30	P	56	24.20	3.5X
	1.2s	13.20nm			4.8mb	
ZST	54.09	47	eP	56	36.80	9.3X
			e	57	03.50	
ALQ	54.12	297	eP	56	28.50	0.3
SRO	54.88	47	eP	56	51.20	17.9X
BZS	57.13	50	eP	56	50.00	0.4
EDM	58.54	319	eP	56	59.00	-0.4
ALE	59.19	357	eP	57	03.00	-0.5
	1.0s	14.00nm			5.0mb	
YKA	59.87	330	P	57	11.70	3.3X
MLR	60.17	50	eP	57	11.00	0.1
			e	03	59.00	
BNG	63.87	97	ePd	57	52.10	16.1X
	1.0s	10.00nm				
INK	67.67	336	eP	58	02.00	2.5
	S.D. = 1.1	on 11 of 17 obs.				

FEB 13, 1989 15h 51m 06.35± 1.57s
9.377 N ± 6.4km 123.334 E ±10.5km
DEPTH = 54.7 ± 15.3 km
4.8mb (11 obs.) 4.5Msz (3 obs.)
NEGROS, PHILIPPINE ISLANDS (257)

DAV	3.18	136	eP	51	59.50	4.5X
QCP	5.67	337	eP	52	23.00	-7.2X
TSM	7.31	226	ePd	52	53.00	-0.1
BAG	7.49	339	eP	52	55.10	-0.6
MNI	8.02	169	eP	53	04.80	1.9
PCI	10.79	199	iP	53	40.70	-0.2
QZH	16.13	344	eP	54	56.00	5.1X
E	28s	3.70um				
QIZ	16.21	308	eP	54	53.00	0.9
N	20s	2.90um				
			eS	57	58.00	
SSE	21.70	355	P	55	53.00	-1.5
Z	20s	0.90um			4.2Msz	
N	16s	0.90um				
			pP	56	01.00	29kmX
IPM	22.64	259	ePd	56	05.90	1.9
	0.6s	17.90nm			4.7mb	
WHN	22.67	340	eP	55	59.00	-5.0X
GYA	23.19	319	eP	56	17.00	7.6X
N	13s	1.40um				
E	13s	0.94um				
MTN	23.40	161	eP	56	13.00	1.8
KMI	25.08	311	Pc	56	31.00	3.3X
CHG	25.42	294	eP	56	31.00	0.3
TIA	27.30	349	eP	56	47.20	-0.6
XAN	27.89	334	eP	56	49.80	-3.4X
CD2	28.13	322	eP	56	55.40	0.0
TIY	29.88	342	eP	57	11.80	0.7
WB5	31.04	160	eP	57	20.00	-1.3
WRA	31.09	160	Pd	57	21.30	-0.5
	0.8s	2.80nm			4.1mb	
WB2	31.09	160	eP	57	20.00	-1.8
BJI	31.19	349	eP	57	21.50	-1.0
LZH	31.96	329	eP	57	22.50	-7.0X
SNY	32.32	0	eP	57	32.80	0.5
SHL	33.92	302	eP	57	45.00	-1.7
			eS	03	04.50	
CN2	34.34	3	eP	57	54.00	4.1X
ASPA	34.43	163	iPc	57	51.00	0.2
	0.8s	11.00nm			4.8mb	
WARB	35.49	175	eP	57	51.20	-8.7X
MDJ	35.52	8	eP	58	00.00	0.1
MEKA	36.08	187	eP	58	03.00	-1.8
	0.7s	10.00nm			4.9mb	
LSA	36.25	308	P	58	08.50	1.7
GTA	36.55	329	eP	58	07.00	-1.8
GUN	39.77	303	P	58	34.70	-1.5
PKI	40.05	302	P	58	37.40	-1.0
	0.8s	17.00nm			4.9mb	
KKN	40.23	302	P	58	38.90	-0.9
	0.9s	40.00nm			5.2mb	
DMN	40.31	302	P	58	39.50	-1.0
	1.0s	45.00nm			5.2mb	
GKN	40.83	302	P	58	43.80	-0.9
	0.9s	19.00nm			4.9mb	
NWAO	42.47	188	eP	58	56.00	-1.7
	0.7s	8.00nm			4.6mb	
Z	20s	0.50um			4.4Msz	
N	20s	0.40um				
E	20s	0.50um				
HYB	44.20	285	eP	59	12.50	0.4
GBA	45.12	280	Pd	59	18.20	-1.3
	0.6s	3.50nm			4.4mb	
GBA	45.12	280	P	59	22.00	2.5
KOD	45.18	275	eP	59	21.20	0.9
WMQ	46.20	324	eP	59	31.80	4.1X
SOD	83.99	337	eP	03	34.00	2.2
KJF	84.07	334	eP	03	33.00	0.8
SUF	85.02	333	eP	03	38.00	1.0
NUR	86.16	331	eP	03	48.00	5.3X
Z	21s	0.90um			5.1Msz	
			LR	17	30.00	
INK	86.17	21	eP	03	45.00	2.4
NB2	92.26	333	P	04	12.60	1.1
	0.8s	2.40nm			4.7mb	
YKA	95.73	23	P	04	31.50	4.1X
	S.D. = 1.4	on 38 of 51 obs.				

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* FEB 13, 1989 16h 27m 34.18± 0.51s
57.484 N ±14.8km 33.148 W ± 6.2km
DEPTH = 10.0km (geophysicist)
4.7mb (5 obs.)
NORTH ATLANTIC OCEAN (402)

GDH	14.81	331	eP	30	52.00	-13.1X
			i	31	11.00	
FRB	18.27	305	eP	31	51.00	2.0
SCH	18.81	276	eP	31	55.00	-0.7
TOL	25.76	121	eP	33	07.50	1.1
BZS	35.10	86	eP	34	29.50	0.3
FFC	37.00	296	eP	34	45.00	-0.1
	0.8s	9.00nm			4.6mb	
SKO	37.43	90	eP	34	48.00	-0.9
YKA	38.50	312	P	34	57.70	0.1
INK	41.83	327	eP	35	24.00	-1.0
TUL	46.14	270	e(P)	36	00.00	-0.2
	1.0s	10.00nm			4.8mb	
MEO	48.49	271	eP	36	18.50	-0.2
	1.0s	14.80nm			5.0mb	
PNT	48.84	300	eP	36	22.00	0.7
	0.6s	5.00nm			4.7mb	
BTO	77.50	28	eP	39	31.30	0.1
CN2	77.51	16	eP	39	30.00	-1.1
GKN	80.19	53	P	39	46.40	0.3
KKN	80.65	52	P	39	49.00	0.3
	0.7s	5.00nm			4.6mb	
DMN	80.73	52	P	39	49.60	0.4
GUN	80.80	52	P	39	50.10	0.5
TIY	80.84	27	eP	39	49.00	-0.3
PKI	80.89	52	P	39	50.20	0.1
ASPA	144.94	21	iPKPc	47	11.40	-1.4
	1.1s	11.00nm				
	S.D. = 0.8	on 20 of 21 obs.				

? FEB 13, 1989 16h 57m 10.51± 5.38s
25.854 S ±20.2km 177.599 W ±26.4km
DEPTH = 278.4 ± 44.5 km

4.5mb (6 obs.)
SOUTH OF FIJI ISLANDS (171)

DZM	15.06	281	iPc	00	32.10	0.2
MSZ	22.13	208	eP	01	42.00	-2.0
CAN	30.15	244	eP	02	59.20	2.2
RMQ	30.16	261	eP	02	58.00	0.9
BWA	30.49	246	eP	02	58.20	-1.8
TOO	33.30	240	iPd	03	25.20	1.0
QIS	39.56	269	eP	04	17.00	0.4
ASPA	43.90	262	iPc	04	51.60	-0.2
	0.5s	37.00nm			5.0mb	
			eS	11	13.90	
WB2	44.46	267	iPd	04	57.00	0.8
WB5	44.47	267	iPd	04	57.00	0.7
WRA	44.47	267	Pc	04	55.70	-0.6
	0.5s	8.60nm			4.3mb	
FORR	47.66	251	iPd	05	20.50	-0.6
WARB	49.77	257	eP	05	29.00	-8.3X
COOL	53.56	250	iPd	06	04.40	-0.9
	0.3s	4.00nm			4.3mb	
KLB	56.26	248	eP	06	24.00	-0.6
	0.4s	5.00nm			4.4mb	
BAL	57.35	249	eP	06	31.00	-1.2
	0.4s	5.00nm			4.4mb	
SPA	64.30	180	iPd	07	19.30	0.9
	1.0s	24.50nm			4.9mb	
MAW	76.68	200	eP	08	34.00	2.1
NB2	144.32	353	PKP	16	14.00	-0.3
	0.7s	10.90nm				
UPP	144.41	347	iPKP	16	13.60	-0.8
BBTK	151.09	306	iPKPc	16	34.50	8.7X
BNG	153.67	219	iPKPd	16	40.50	10.4X
	0.3s	13.00nm				
			i	16	54.00	
	S.D. = 1.3	on 19 of 22 obs.				

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* FEB 13, 1989 17h 17m 51.97± 2.53s
51.211 N ±20.5km 15.909 E ±13.6km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.3 (VKA), 3.1 (KBA).

KSP	0.44	146	iPd	18	00.90	-0.1
			iS	18	10.30	
BRG	1.28	256	iPg	18	15.40	-0.4
			iSg	18	35.20	
PRU	1.50	216	ePn	18	19.00	0.0
			Pg	18	21.10	
			Sn	18	37.50	
			Sg	18	45.80	
CLL	1.83	274	i(Pg)	18	23.80	0.1
			iSg	18	48.50	
KHC	2.57	217	Pn	18	34.90	0.6
			Pg	18	40.90	
			Sn	19	05.50	
			Sg	19	24.00	
MOX	2.77	260	ePg	18	43.00	5.7X
			iSg	19	23.00	
VKA	2.96	175	iPgc	18	49.70	9.8X
			iSg	19	32.80	
ZST	3.12	165	eP	19	41.50	59.5X
			e	50	34.00	
KBA	4.47	203	ePn	19	01.00	-0.4
			eSg	20	19.00	
			i	20	23.60	
	S.D. = 0.5	on 6 of 9 obs.				

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* FEB 13, 1989 17h 22m 08.97± 0.86s
20.522 S ±12.6km 135.963 E ± 7.9km
DEPTH = 5.0km (geophysicist)
NORTHERN TERRITORY, AUSTRALIA (591)

WB2	1.62	291	eP	22	38.20	-0.1
WRA	1.63	290	Pc	22	38.70	0.3
	0.4s	5.20nm				
WB5	1.63	293	eP	22	38.20	-0.2
QIS	3.41	91	eP	23	04.00	0.0
ASPA	3.67	211	eP	23	07.60	0.0
	S.D. = 0.3	on 5 of 5 obs.				

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* FEB 13, 1989 17h 30m 26.81± 2.24s
20.279 S ±16.5km 70.440 W ±17.8km
DEPTH = 33.0km (normol)
NEAR COAST OF NORTHERN CHILE (122)

ARE	3.93	345	iP	31	26.70	0.1

		iS	32 09.00		
CNCB	4.17	34 eP	31 30.00	-0.2	
LPB	4.34	31 P	31 33.20	0.6	
ZOBO	4.55	29 iPd	31 35.00	-0.8	
CCH	4.99	55 P	31 42.00	0.3	
ITA	24.06	100 eP	35 40.40	-0.1	

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

FEB 13, 1989 17h 32m 48.12± 1.06s
45.895 N ± 5.2km 1.443 W ± 9.5km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 4.0 (LDG).

MFF	1.15	51 Pn	33 11.20	1.7	
		Pg	33 11.60		
		Sg	33 25.00		
LFF	1.81	121 Pn	33 20.70	1.2	
		Pg	33 22.40		
		Sg	33 47.50		
LSF	2.10	79 Pn	33 24.40	0.6	
		Pg	33 28.40		
		Sg	33 54.00		
LPF	2.16	7 Pn	33 25.40	0.9	
		Pg	33 29.80		
		Sg	33 56.50		
RJF	2.16	105 Pn	33 25.60	1.0	
		Pg	33 28.40		
		Sg	33 55.20		
LPO	2.22	122 Pn	33 26.20	0.7	
		Pg	33 29.20		
		Sg	34 00.60		
GRR	2.53	9 Pn	33 30.20	0.4	
		Pg	33 36.00		
		Sg	34 08.10		
TCF	2.57	80 Pn	33 30.80	0.3	
		Sg	34 10.00		
CAF	2.65	110 Pn	33 31.80	0.1	
		Pg	33 38.40		
		Sg	34 13.00		
MAF	2.81	82 Pn	33 34.00	0.1	
		Pg	33 41.80		
		Sg	34 16.00		
LDF	2.85	18 Pn	33 34.40	0.0	
		Pg	33 41.60		
		Sg	34 18.40		
FLN	2.94	12 Pn	33 35.00	-0.7	
		Sg	34 21.40		
BGF	3.05	76 Pn	33 37.20	-0.1	
		Pg	33 47.00		
		Sg	34 25.40		
HYF	3.13	63 Pg	33 47.60	9.2X	
		Sg	34 26.40		
EPF	3.13	155 Pn	33 38.10	-0.4	
		Pg	33 47.00		
		Sg	34 28.00		
AVF	3.44	73 Pn	33 42.20	-0.6	
		Pg	33 53.60		
		Sg	34 36.00		
SSF	3.61	69 Pn	33 45.00	-0.3	
		Pg	33 55.20		
		Sg	34 41.60		
SMF	3.74	77 Pn	33 46.40	-0.8	
		Pg	33 59.00		
		Sg	34 46.40		
LBF	3.90	72 Pn	33 49.40	0.0	
		Pg	34 01.60		
		Sg	34 51.00		
LOR	3.91	67 Pn	33 48.40	-1.1	
		Pg	34 01.40		
		Sg	34 51.00		
HAU	5.74	66 Pg	34 35.60	20.2X	
		Sg	35 47.40		
DOU	5.84	42 iPc	34 15.30	-1.4	
		iS	35 18.30		
LRG	6.08	111 Pn	34 19.30	-0.8	
FRF	6.22	109 Pn	34 21.20	-0.9	
MEM	6.85	44 P	34 31.40	0.4	

S.D. = 0.8 on 23 of 25 obs.

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* FEB 13, 1989 17h 46m 24.75± 0.82s
33.211 N ± 7.3km 141.179 E ±17.3km
DEPTH = 33.0km (normal)
4.3mb (1 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)

KAKJ	3.10	345 P	47 12.60	0.2	
		S	47 43.80		
CHJJ	3.35	328 P	47 14.20	-1.9	
		S	47 48.30		
IIDJ	3.52	311 P	47 20.10	1.5	
		S	47 57.90		
MAT	4.12	325 iPd	47 26.40	-0.6	
		iS	48 08.00		
MTMJ	4.36	321 P	47 30.30	-0.2	
NIIJ	4.40	337 eP	47 31.20	0.3	
		eS	48 19.10		
YAMJ	5.04	350 eP	47 40.90	0.9	
OFUJ	5.87	4 eP	47 51.60	-0.1	
W85	53.19	188 eP	55 42.10	0.1	
WB2	53.26	188 eP	55 42.10	-0.4	
WRA	53.26	188 Pc	55 42.60	0.1	
	0.5s	1.60nm		4.3mb	

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

% FEB 13, 1989 18h 08m 04.60± 0.65s
16.086 N ± 6.4km 61.335 W ± 8.9km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.8 (FDF).

MGG	0.17	174 eP	08 14.30	3.4X	
SFG	0.21	39 eP	08 12.90	1.6	
DOG	0.28	259 eP	08 12.96	0.8	
PAG	0.34	260 eP	08 13.15	0.2	
		S	08 28.20		
DEG	0.35	49 ePc	08 13.15	0.1	
		S	08 28.90		
SEG	0.36	333 ePc	08 11.17	-1.9	
		S	08 24.40		
BBL	0.58	194 eP	08 17.40	1.1	
FDF	1.36	172 iPd	08 27.07	-0.4	
		S	08 53.10		
CRM	1.38	163 eP	08 27.41	-0.4	
MVM	1.58	164 eP	08 29.96	-0.7	
		S	08 58.50		
BIM	1.58	171 eP	08 30.21	-0.5	

S.D. = 1.1 on 10 of 11 obs.

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* FEB 13, 1989 19h 03m 23.74± 1.25s
51.640 N ± 7.9km 6.788 E ±22.4km
DEPTH = 10.0km (geophysicist)
GERMANY (543)

WTS	0.36	2 iPgc	03 31.00	-0.1	
		i	03 33.00		
		i	03 41.50		
ENN	1.03	212 iPgd	03 42.90	-0.3	
	0.5s	14.00nm			
		iSg	04 02.50		
MEM	1.14	206 P	03 44.80	-0.3	
		S	04 04.30		
SNF	1.94	235 Pc	03 57.40	0.3	
WLF	2.02	192 P	03 58.50	0.3	
DOU	2.08	223 P	03 59.00	-0.1	
		iS	04 30.10		
KHC	5.02	117 eP	05 38.00	57.2X	

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

? FEB 13, 1989 19h 30m 48.94± 2.18s
51.375 N ±25.6km 176.043 W ±14.4km
DEPTH = 33.0km (normal)
4.3mb (1 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK	0.65	322 iPd	31 01.70	0.1	
SDN	10.10	61 eP	33 15.00	0.3	
SVW	14.89	41 eP	34 25.50	6.9X	
KDC	15.03	56 eP	34 23.90	3.6X	
TTA	15.79	35 eP	34 35.00	4.8X	
IMA	18.58	29 eP	35 06.20	1.1	
TOA	19.39	45 eP	35 13.90	-0.9	
FBA	19.90	36 eP	35 19.00	-1.1	
YKA	33.98	47 P	37 34.30	3.3X	
BW06	44.65	74 eP	39 00.50	0.3	
	0.6s	2.67nm		4.3mb	
		e	39 17.50		
GOL	49.02	75 eP	39 34.80	0.2	

S.D. = 0.9 on 7 of 11 obs.

FEB 13, 1989 19h 53m 27.96± 0.70s
43.133 N ± 4.6km 13.442 E ± 7.1km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.7 (SSO).

SSO	0.16	354 iPg	53 32.72	1.0	
		iSg	53 36.94		
CIO	0.23	286 iPgd	53 33.12	0.2	
		iSg	53 37.58		
ALP	0.37	164 iPg	53 34.90	-0.6	
		iSg	53 40.87		
AOI	0.43	16 iPg	53 36.21	-0.6	
		iSg	53 44.27		
ARV	0.52	315 P	53 38.00	-0.4	
		eSg	53 46.60		
ASS	0.58	264 P	53 38.90	-0.8	
		eSg	53 47.80		
MNS	0.94	217 P	53 46.60	0.8	
		eSg	53 59.80		
SDI	1.45	169 P	53 54.70	0.4	
		eSg	54 14.00		

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

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* FEB 13, 1989 20h 24m 01.81± 1.14s
4.265 N ±11.3km 117.843 E ±13.3km
DEPTH = 32.5 ± 8.4 km
4.4mb (4 obs.)
KALIMANTAN (261)

TSM	0.23	100 iPd	24 09.10	0.4	
PCI	5.51	159 iP	25 28.50	4.8X	
		iS	26 21.80		
MNI	7.53	112 eP	25 50.30	-1.8	
CHG	23.45	310 eP	29 15.70	6.3X	
GYA	24.53	335 P	29 25.40	5.5X	
WB5	28.98	146 eP	30 01.50	0.7	
WRA	29.01	147 Pd	30 01.80	0.7	
	0.7s	4.00nm		4.2mb	
WB2	29.02	147 eP	30 01.50	0.3	
TIY	33.66	352 eP	30 42.60	0.8	
LZH	34.19	340 eP	30 48.50	1.8	
BJI	35.65	358 eP	31 04.00	5.3X	
BTO	36.85	350 eP	31 10.50	1.4	
SNY	37.75	7 eP	31 16.00	-0.4	
GUN	38.45	311 P	31 22.50	-0.5	
GTA	38.61	337 eP	31 23.00	-0.9	
PKI	38.63	310 P	31 23.80	-0.7	
	0.6s	6.00nm		4.6mb	
KKN	38.84	311 P	31 25.50	-0.6	
DMN	38.88	310 P	31 25.90	-0.6	
GKN	39.44	310 P	31 30.50	-0.5	
	0.8s	14.00nm		4.8mb	
HYB	40.64	292 eP	31 46.00	5.2X	
GBA	40.92	286 Pc	31 48.60	5.5X	
	0.8s	3.20nm		4.1mb	
MDJ	41.49	13 eP	31 47.00	-0.5	
WMQ	47.53	330 eP	32 36.20	0.1	
MHI	62.21	309 eP	34 27.00	4.1X	

S.D. = 1.0 on 17 of 24 obs.

? FEB 13, 1989 20h 55m 07.48± 4.10s
32.565 N ±12.1km 131.077 E ±31.7km
DEPTH = 167.6 ± 45.0 km
KYUSHU, JAPAN (235)

KUMJ	0.21	262 iP+	55 30.10	-0.2	
		S	55 45.20		
KAGJ	1.38	187 iPd	55 37.70	0.1	
		iS	55 58.00		
SHNJ	1.56	1 iP+	55 39.30	0.0	
		S	56 02.20		
TKSJ	2.86	60 iP+	55 54.50	0.2	
		S	56 26.30		
YONJ	3.28	37 iP+	55 59.90	0.3	
		S	56 37.80		
WKYJ	4.12	65 P	56 10.50	0.0	
		eS	56 57.90		
TSRJ	5.04	53 eP	56 22.00	-0.4	
		eS	57 17.50		
MAT	7.10	54 (P)	56 55.00	5.2X	
		(S)	57 49.00		

S.D. = 0.3 on 7 of 8 obs.

& FEB 13, 1989 20h 56m 07.70s
61.098 N 131.252 W
DEPTH = 18.0km
SOUTHERN YUKON TERRITORY, CANADA(18)
<PGC-P>. ML 4.2 (PGC).

WHC	1.91	261 ePn	56 39.00	-0.8	

13d 20h

		Pg	56	41.80	
		Sg	57	07.70	
DLB	2.75	167 ePn	56	51.00	-0.8
		Pg	56	57.50	
		Sg	57	33.50	
HYT	3.06	268 P	56	55.20	-1.0
DWY	4.81	312 P	57	18.70	-2.2
INK	7.30	353 eP	57	52.00	-4.0
YKA	8.01	73 P	58	01.20	-4.7
MBC	15.75	10 eP	59	42.00	-7.8

7 obs. associated

& FEB 13, 1989 21h 19m 41.68s
58.790 N 154.575 W
DEPTH = 119.4km
ALASKA PENINSULA (12)
<AGS-P>.

AUI	0.81	47 eP	20	01.78	-0.3
		eS	20	17.58	
AUE	0.84	47 iP	20	02.29	-0.1
PDB	1.02	11 iP	20	03.04	-1.1
		eS	20	19.83	
KDC	1.52	133 iPc	20	08.40	-1.2
ILIM	1.54	32 iP	20	09.09	-0.8
		eS	20	30.00	
CNPM	1.87	65 iP	20	12.65	-1.3
RED	1.87	29 iP	20	12.63	-1.4
NNL	2.09	52 eP	20	16.53	-0.2
		eS	20	42.08	
RDT	2.10	31 iP	20	15.40	-1.5
		eS	20	41.13	
SVW	2.38	348 iPd	20	18.60	-2.0
SPU	2.71	27 iP	20	22.78	-2.1
CRP	2.77	25 iP	20	24.01	-1.7
SLKM	2.80	50 eP	20	24.39	-1.6
SEW	2.93	61 eP	20	26.10	-1.6
		eS	20	58.03	
PTE	3.49	51 eP	20	32.87	-2.3
PMS	3.52	43 ePc	20	32.90	-2.7
PWA	3.70	37 eP	20	35.68	-2.4
PWL	3.77	54 eP	20	36.02	-3.0
PLRM	3.91	42 eP	20	37.02	-3.8
PMR	3.91	42 eP	20	36.90	-3.9
PME	3.97	42 eP	20	38.12	-3.5
KNK	4.04	47 eP	20	39.03	-3.6
GHO	4.11	41 eP	20	39.73	-3.9
TTA	4.21	351 ePd	20	42.50	-2.6
SML	4.34	43 iP	20	42.66	-4.0
HIN	4.41	65 eP	20	45.18	-2.5
VZW	4.63	57 eP	20	47.71	-3.0
VLZ	4.76	57 eP	20	50.14	-2.2
CVA	4.81	65 eP	20	50.24	-2.8
SGAM	5.05	66 eP	20	53.59	-2.8
KLU	5.10	54 eP	20	53.72	-3.4
RAGM	5.28	68 eP	20	57.94	-1.6
TOA	5.32	48 eP	20	56.80	-3.3
FBA	6.92	25 eP	21	16.70	-5.2
IMA	7.32	3 eP	21	23.90	-3.6
INK	13.29	36 eP	22	43.00	-3.5
YKA	19.71	62 P	24	02.90	-0.6

37 obs. associated

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* FEB 13, 1989 21h 34m 07.49± 1.43s
38.816 N ± 8.9km 142.432 E ±10.6km
DEPTH = 38.6 ± 10.5 km
5.1mb (6 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) at Miyoko; (I JMA) at Ofunoto and Morioka.

OFU	0.61	294 P	34	19.50	-0.1
		S	34	28.20	
OFUJ	0.65	294 iPd	34	20.00	-0.3
		S	34	29.30	
MIY	0.90	337 iP	34	22.00	-1.8
		S	34	32.10	
MRK	1.32	312 P	34	29.90	0.2
		iS	34	46.10	
YAMJ	1.99	252 P	34	40.70	1.4
		S	35	07.00	
MAT	4.05	237 iPd	35	11.00	2.4
	0.9s	205.88nm			
		eS	36	20.00	
CN2	13.70	297 eP	37	30.00	8.6X
SSE	19.02	253 P	38	28.50	-0.2
	1.0s	29.00nm			4.5mb
	Z 16s	0.40um			5.2MszX
		i	38	35.00	
TIA	20.23	271 eP	38	40.00	-2.0
BJI	20.30	282 eP	38	40.00	-2.6
	Z 14s	0.50um			4.0MszX
WHN	24.45	259 eP	39	23.20	-0.7
		pP	39	31.50	29kmX
XAN	27.29	270 eP	39	49.90	-0.4
GYA	32.34	258 P	40	35.00	-0.4
GTA	32.85	285 eP	40	40.00	0.2
KMI	36.05	260 Pd	41	08.00	0.5
WMQ	40.78	295 eP	41	47.00	0.4
CHG	42.52	255 eP	42	02.30	1.3
GUN	47.80	275 P	42	44.30	0.8
	0.7s	15.00nm			5.1mb
KKN	48.32	275 P	42	48.20	0.8
	0.8s	20.00nm			5.2mb
PKI	48.33	274 P	42	48.00	0.4
DMN	48.54	275 P	42	50.20	1.0
GKN	48.72	275 P	42	51.00	0.6
INK	52.44	28 eP	43	20.00	2.0
MBC	54.59	17 eP	43	33.00	-0.8
WB5	58.87	189 iPc	44	03.90	-0.9
WB2	58.94	189 iPc	44	03.90	-1.3
WRA	58.94	189 Pc	44	04.20	-1.0
	0.7s	13.10nm			5.2mb
HYB	59.06	268 iPd	44	05.80	-0.6
GBA	62.16	265 P	44	27.00	-0.4
ASPA	62.66	189 iPc	44	29.00	-1.5
	0.8s	11.00nm			5.0mb
KJF	65.27	334 eP	44	42.00	-5.1X
WARB	66.33	195 eP	44	47.20	-7.0X
	0.7s	11.00nm			5.0mb
SUF	66.76	333 eP	44	58.00	1.4
ZOBO	145.08	59 PKP	53	43.00	-0.4
LPB	145.28	59 (PKP)	53	44.00	0.4
CNCB	145.56	59 ePKP	53	46.00	1.7

S.D. = 1.2 on 33 of 36 obs.

? FEB 13, 1989 22h 33m 36.30± 4.77s
46.114 N ±17.4km 1.239 W ±39.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.6 (LDG).

MFF	0.90	57 Pg	33	53.20	-0.4
		Sg	34	08.00	
LFF	1.82	129 Pg	34	04.60	-3.3X
		Sg	34	28.40	
LSF	1.93	85 Pg	34	10.00	0.5
		Sg	34	36.00	
RJF	2.09	112 Pg	34	12.00	0.1
		Sg	34	38.00	
LPO	2.23	129 Pg	34	12.40	-1.4
		Sg	34	40.00	
CAF	2.61	116 Pg	34	20.00	0.8
		Sg	34	54.40	
BGF	2.86	80 Pg	34	28.20	5.3X
		Sg	35	07.80	
EPF	3.28	159 Pg	34	29.20	0.4

S.D. = 1.0 on 6 of 8 obs.

FEB 13, 1989 22h 57m 32.42± 1.27s
2.903 S ± 5.1km 140.671 E ± 6.6km
DEPTH = 43.5 ± 12.6 km
5.0mb (8 obs.) 3.8Msz (1 obs.)
NEAR N. COAST OF WEST IRIAN (197)
Felt at Joyopuro.

MNDI	4.39	137 eP	58	41.00	2.4
LAT	7.32	121 e(P)	59	18.00	-1.6
MTN	13.66	223 iPd	00	45.30	-0.5
		e	03	07.00	
KNA	17.33	222 eP	01	34.00	1.1
		eS	04	38.00	
QIS	17.58	183 eP	01	34.00	-2.0
		eS	04	46.00	
CTA	17.93	163 eP	01	41.00	0.7
WB5	17.96	200 eP	01	40.00	-0.7
		eS	04	53.80	
WB2	18.03	200 eP	01	40.00	-1.5
		eS	04	53.80	
WRA	18.03	200 Pc	01	41.60	0.0
	0.4s	13.60nm			4.4mb
ASPA	21.66	197 iPd	02	20.80	-0.5
	Z 22s	0.47um			3.8Msz
		eS	06	17.10	
		LR	11	04.10	
RMQ	24.70	162 eP	02	52.00	1.0
WARB	26.78	209 eP	03	04.00	-6.4X
BRS	26.96	156 iPc	03	13.20	1.2
		i	03	22.90	
		i	03	29.50	
MBL	27.22	227 iPd	03	15.70	1.3
	0.5s	7.00nm			4.6mb
FORR	30.23	202 eP	03	41.00	-0.3
NANU	31.25	229 eP	03	50.00	-0.4
BWA	32.18	168 eP	03	58.80	0.3
CAN	33.17	167 eP	04	07.00	-0.1
COOL	33.39	211 iPd	04	09.10	0.0
	0.5s	19.00nm			5.2mb
NWAO	37.07	214 eP	04	51.00	10.7X
	0.5s	8.00nm			
QIZ	37.34	307 eP	04	42.70	-0.1
SSE	38.57	333 P	04	53.50	0.6
PPI	40.33	273 eP	05	08.00	0.2
WHN	41.68	325 eP	05	20.00	1.4
LOE	43.39	299 eP	05	32.80	0.0
GYA	43.95	314 P	05	38.60	1.2
NST	44.14	296 eP	05	49.00	10.2X
TIA	44.69	333 eP	05	42.60	-0.5
CHG	46.38	299 iPd	05	57.90	1.2
	1.1s	18.67nm			4.9mb
XAN	47.37	324 iPc	06	04.00	-0.4
TIY	48.15	330 eP	06	06.80	-3.6X
BJI	48.28	335 eP	06	10.50	-0.7
MDJ	48.33	349 eP	06	10.50	-1.1
CN2	48.46	345 eP	06	11.00	-1.6
CD2	48.65	317 eP	06	14.80	0.4
HHC	51.01	332 eP	06	32.00	-0.3
BTO	51.57	330 eP	06	36.80	0.3
LZH	51.83	322 eP	06	39.00	0.3
	1.5s	44.00nm			5.2mb
		pP	06	46.00	23kmX
GTA	56.40	323 P	07	12.20	0.1
		pP	07	20.70	28kmX
GUN	60.91	304 P	07	44.30	0.3
	0.6s	12.00nm			5.2mb
PKI	61.18	304 P	07	45.60	-0.2
KKN	61.36	304 P	07	47.20	0.3
	0.9s	18.00nm			5.2mb
DMN	61.45	304 P	07	48.00	0.5
GKN	61.97	304 P	07	51.10	0.2
KOD	64.26	283 eP	08	07.00	0.6
HYB	64.47	291 eP	08	06.00	-1.4
GBA	64.81	286 Pc	08	07.50	-2.0
	0.6s	5.70nm			4.8mb
WMQ	66.38	321 P	08	20.00	0.7
MHI	84.60	307 eP	10	04.00	1.0
INK	91.12	22 eP	10	32.00	-1.5
KIC	145.36	277 PKP	17	08.18	-0.2
	0.9s	46.00nm			
CNCB	145.59	126 PKP	17	10.00	0.6
TIC	145.62	277 PKP	17	08.84	0.1
LPB	145.64	125 ePKP	17	16.00	6.7X
LIC	145.66	277 PKP	17	08.02	-0.8
ZOBO	145.75	125 iPKPd	17	10.00	0.3
CCH	146.74	128 ePKP	17	14.60	3.7X

S.D. = 1.0 on 51 of 57 obs.

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* FEB 13, 1989 23h 13m 03.92± 1.08s
19.258 S ±12.3km 169.079 E ±11.2km
DEPTH = 160.7 ± 9.2 km
4.9mb (6 obs.)
VANUATU ISLANDS (186)

PVC	1.68	334 iPc	13	36.90	0.4
		iS	14	03.00	
DZM	3.73	221 iPc	14	00.60	-1.1
		iS	14	43.90	
BRS	17.01	239 iP	16	48.20	-5.6X
RMQ	20.05	245 iPd	17	28.40	1.9
CTA	21.51	264 iPd	17	43.60	2.6
	0.6s	12.67nm			4.5mb
CNB	23.65	223 iPc	18	03.20	1.3
	0.6s	81.00nm			5.4mb
BWA	23.76	226 iPd	18	01.80	-1.1
CAN	23.89	224 iPd	18	04.70	0.6
CMS	24.22	235 eP	18	08.00	0.8
STK	27.71	238 iPd	18	39.20	0.1
QIS	27.73	262 eP	18	38.00	-1.4
WB5	32.68	263 iPd	19	22.00	-1.0
WB2	32.69	263 iPd	19	22.00	-1.1
WRA	32.70	263 Pd	19	21.70	-1.5

0.7s 5.30nm 4.4mb
ASPA 32.98 256 iPd 19 25.10 -0.5
0.6s 93.00nm 5.7mb
epP 19 57.40 150kmX
FORR 38.68 244 iPd 20 13.80 0.2
WARB 39.61 252 eP 20 14.20 -7.2X
MBL 46.11 259 iPd 21 14.30 0.4
0.4s 24.00nm 5.1mb
NWAO 48.07 243 eP 21 29.00 -0.1
0.5s 5.00nm 4.4mb
RKG 48.33 241 eP 21 30.70 -0.3
PRS 85.81 49 ePc 25 27.10 0.7
MHC 86.08 48 ePc 25 27.80 -0.1
LLA 86.24 49 e(P) 25 29.00 0.4
WDC 86.98 45 e(P) 25 32.10 0.1
ORV 87.20 46 ePc 25 32.80 -0.3
CMB 87.28 48 ePc 25 33.30 -0.3
FRI 87.29 49 eP 25 33.30 -0.3
INK 96.61 18 eP 26 15.00 -1.0
YKA 100.75 27 Pdiff 26 35.70 0.8
BNG 147.70 247 ePKPc 32 32.80 3.9X
0.6s 6.00nm
i 33 10.00
S.D. = 1.0 on 27 of 30 obs.

FEB 13, 1989 23h 43m 46.45± 0.99s
25.616 N ± 3.1km 142.536 E ± 4.0km
DEPTH = 29.6 ± 6.9 km
5.5mb (43 obs.) 5.2Msz (15 obs.)
VOLCANO ISLANDS REGION (213)
Ms 5.8 (BRK). Felt (I JMA) on Chichi-shimo.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 22C
Centroid Location:
Origin Time 23:43:49.2 0.5
Lat 25.64N 0.06 Lon 142.51E 0.04
Dep 15.0 FIX Half-duration 2.0
Moment Tensor; Scale 10**17 Nm
Mrr= 1.73 0.06 Mtt=-0.30 0.08
Mff=-1.43 0.08 Mrt=-0.46 0.26
Mrf= 0.10 0.25 Mtf= 0.53 0.08
Principal Axes:
T Val= 1.83 Plg=78 Azm=179
N -0.17 11 336
P -1.66 5 67
Best Double Couple:Mo=1.7*10**17
NP1:Strike=170 Dip=42 Slip= 107
NP2: 327 51 75

CBI 1.50 348 iP 44 13.30 1.7
eS 44 35.00
KAKJ 10.75 350 eP 46 19.30 -2.1
eS 48 17.60
CHJJ 10.83 345 eP 46 20.10 -2.5
eS 48 19.60
MAT 11.50 342 (P) 46 31.00 -0.7
0.6s 12.67nm 5.3mb
eS 48 42.00
MTMJ 11.66 341 eP 46 34.50 0.6
NIIJ 11.97 346 P 46 39.30 1.3
eS 48 46.80
GUMO 12.16 169 eP 46 41.30 0.6
1.3s 562.09nm 6.6mb X
PJG 12.16 169 eP 46 41.20 0.5
GUA 12.22 169 eP 46 42.20 0.7
0.8s 179.10nm 6.3mb
SHK 12.31 318 eP 46 49.20 6.5X
KUMJ 12.34 307 eP 46 48.30 5.3X
SHNJ 13.04 313 eP 46 59.90 7.6X
OFUJ 13.45 357 eP 46 52.80 -4.8X
ANP 19.00 273 iP+ 48 20.00 11.6X
iS 51 59.50
SSE 19.56 291 eP 48 15.00 0.2
Z 15s 2.20um
N 13s 1.40um
E 13s 1.90um
pP 48 39.00 144kmX
S 52 00.00
i 52 12.00
SS 52 48.00
QZH 21.66 273 eP 48 41.30 4.7X
N 24s 5.40um
E 24s 4.70um
S 52 36.00
MDJ 21.66 334 eP 48 32.50 -3.9X

Z 20s 4.00um 4.8Msz
N 15s 3.40um
NJ2 21.69 293 eP 48 46.00 9.2X
N 14s 2.10um
E 14s 1.70um
sP 48 52.00
S 52 23.00
sS 52 40.00
DL2 22.03 312 eP 48 42.70 2.6
Z 20s 2.10um 4.6Msz
N 12s 2.00um
E 12s 2.00um
S 52 38.00
BAG 22.42 250 eP 48 44.00 -0.4
SNY 22.51 321 eP 48 44.80 0.0
Z 13s 2.70um 4.9MszX
N 14s 2.90um
E 12s 2.30um
S 52 51.00
CN2 22.86 327 Pc 48 50.80 2.4
Z 14s 6.00um 5.2MszX
N 14s 3.00um
pP 48 56.00 19kmX
S 52 56.00
QCP 22.88 246 eP 48 51.00 2.3
TIA 24.16 302 Pd 49 00.20 -0.8
Z 21s 4.50um 4.9Msz
N 13s 1.90um
E 19s 7.40um
DAV 24.53 224 eP 49 04.00 -0.7
WHN 25.32 288 eP 49 13.20 1.1
Z 26s 4.43um 4.9MszX
N 18s 5.06um
E 14s 1.29um
sS 53 52.00
BJI 26.29 310 eP 49 19.50 -1.6
Z 19s 2.60um 4.8Msz
N 13s 1.50um
eS 54 08.00
GZH 26.69 271 eP 49 26.00 1.0
N 12s 2.20um
TIY 28.19 303 Pd 49 37.00 -1.6
N 16s 2.00um
E 15s 2.30um
S 54 22.00
sS 54 39.00
HHC 29.84 308 eP 49 50.00 -3.5X
N 14s 0.80um
E 16s 0.50um
XAN 30.24 294 Pc 49 54.40 -2.6
N 14s 3.10um
E 12s 1.00um
S 54 56.40
8TO 30.86 307 eP 50 01.00 -1.4
Z 15s 2.50um 5.0MszX
N 14s 2.00um
GYA 32.18 279 P 50 14.40 0.2
N 12s 1.30um
S 55 27.00
sS 55 38.00
CD2 34.44 288 eP 50 31.90 -1.8
N 10s 1.40um
LZH 34.62 297 eP 50 33.50 -1.8
2.0s 137.00nm 5.5mb
Z 16s 2.30um 5.0MszX
N 12s 1.30um
E 15s 1.50um
PMG 35.10 172 eP 50 38.00 -1.3
1.4s 232.56nm 5.9mb
KMI 35.87 278 Pd 50 47.00 0.9
Z 20s 3.70um 5.1Msz
pP 50 57.50 36kmX
sP 51 02.00
SS 56 24.00
MKS 37.96 219 ePd 51 06.10 2.7
GTA 38.21 302 eP 51 02.70 -2.8
N 13s 1.50um
PcP 53 20.00
eS 56 52.00
LOE 38.71 266 eP 51 07.20 -2.6
MTN 39.81 198 eP 51 18.00 -0.8
NST 40.74 264 eP 51 31.00 4.4X
KHKI 42.75 221 eP 51 44.00 1.1
e 53 58.00
LSA 45.40 287 P 52 05.60 0.7
SHL 45.45 281 iP 52 04.40 -0.6
eS 57 37.90

CTA 45.57 175 iPc 52 05.00 -0.7
1.6s 401.67nm 6.1mb
iS 58 50.00
WB5 45.91 191 iPc 52 17.90 9.5X
WB2 45.98 191 iPc 52 17.90 9.0X
WRA 45.98 191 Pd 52 09.00 0.1
0.9s 115.00nm 5.8mb
QIS 45.98 184 eP 52 08.00 -0.9
PSI 47.70 249 ePd 52 23.60 1.0
0.8s 37.80nm 5.5mb
WMQ 47.70 307 eP 52 21.00 -1.4
Z 22s 2.70um 5.2Msz
S 59 14.00
ASPA 49.70 190 iPc 52 37.20 -0.7
0.7s 36.00nm 5.5mb
GUN 50.25 286 P 52 42.60 0.0
PKI 50.73 286 P 52 45.40 -0.8
0.9s 42.00nm 5.4mb
KKN 50.80 286 P 52 46.00 -0.6
DMN 50.99 286 P 52 47.60 -0.5
GKN 51.31 286 P 52 50.00 -0.4
MBL 51.46 207 iPd 52 51.50 0.2
1.4s 9.00nm 4.5mb
RMQ 52.15 173 eP 52 55.00 -1.4
BRS 53.62 169 iPc 53 03.70 -3.6X
e 53 12.00
WARB 53.73 198 eP 53 01.10 -7.1X
HON 54.32 81 P 53 00.00 -12.7X
Z 20s 7.07um 5.7Msz
TTA 54.57 30 P 53 13.00 -1.1
1.4s 53.98nm 5.4mb
NANU 54.58 211 eP 53 16.50 2.1
KDC 55.41 36 P 53 19.80 -0.3
IMA 56.27 26 eP 53 26.50 0.1
1.7s 55.60nm 5.3mb
KSH 56.62 302 eP 53 31.50 2.3
MEKA 56.85 206 eP 53 30.00 -0.8
0.7s 14.00nm 5.1mb
CMS 56.87 177 eP 53 31.00 0.2
STK 57.18 181 iPd 53 32.90 -0.1
PMR 57.52 32 eP 53 33.00 -2.1
1.0s 50.00nm 5.5mb
Z 19s 2.50um 5.3Msz
NDI 57.55 289 iPd 53 35.00 -0.8
0.9s 88.24nm 5.8mb
FORR 57.82 195 iPd 53 36.80 -0.7
0.3s 32.00nm 5.8mb
FBA 58.49 28 P 53 40.40 -1.5
0.7s 10.17nm 5.0mb
COOL 59.79 201 eP 53 50.00 -1.3
BWA 59.97 174 eP 53 52.10 -0.3
ADE 60.36 184 iPc 53 55.20 0.1
CAN 60.91 174 iPc 53 58.10 -0.7
CNB 60.94 174 eP 53 57.00 -2.1
BAL 61.13 205 eP 54 00.00 -0.4
0.7s 26.00nm 5.5mb
KLB 61.62 204 eP 54 01.00 -2.7
1.0s 41.00nm 5.5mb
GBA 61.96 272 P 54 07.00 0.7
1.5s 74.60nm 5.6mb
MUN 62.54 205 eP 54 07.00 -2.8
TOO 62.91 177 eP 54 12.00 -0.2
NWAO 63.01 204 eP 54 13.00 0.1
0.7s 17.00nm 5.3mb
Z 20s 0.60um 4.8Msz
N 20s 0.40um
E 20s 0.40um
KOD 63.23 269 eP 54 15.10 0.0
POO 63.44 279 iPd 54 16.00 -0.1
RKG 64.12 203 eP 54 24.00 3.8X
BOM 64.24 280 iPd 54 22.30 1.0
eS 02 57.70
INK 64.24 24 eP 54 19.50 -1.1
0.6s 16.00nm 5.3mb
QUE 65.81 293 eP 54 30.70 -0.9
MBC 67.23 15 eP 54 39.00 -0.7
0.7s 13.00nm 5.2mb
MHI 70.01 301 iPd 54 59.00 1.3
eS 04 19.00
KRP 70.39 153 P 54 59.10 -0.5
ALE 71.42 3 eP 55 05.00 -0.3
1.1s 25.00nm 5.2mb
YKA 73.29 28 P 55 16.40 -0.2
YKC 73.35 28 eP 55 15.50 -1.5
KEV 74.48 341 eP 55 24.00 0.6
GMW 74.55 44 P 55 24.30 0.0
8MW 74.65 46 P 55 25.20 0.3

13d 23h

LON		75.46	45	P	55 28.80	-0.8
PNT		75.85	42	ePd	55 31.00	-0.7
SOD		75.89	339	iP	55 31.60	0.1
FHC		76.21	51	ePd	55 33.90	0.0
KJF		77.25	336	eP	55 39.00	-0.1
DPW		77.29	43	P	55 39.30	-0.5
WDC		77.32	51	ePd	55 40.20	0.2
LBFM		77.47	50	P	55 41.10	0.0
EDM		77.81	37	iPd	55 42.50	0.0
ORV		78.45	52	ePd	55 46.20	-0.1
BRK		78.58	54	e(P)	55 47.00	0.1
BKS		78.59	54	ePc	55 47.80	0.7
	Z	20s		2.40um		5.5Msz
	N	20s		2.90um		
	E	20s		4.00um		
				e(S)	05 52.00	
				eSS	10 26.00	
				e(LQ)	17 00.00	
				iLR	19 15.00	
SUF		78.66	335	iP	55 46.80	-0.1
		0.5s		31.60nm		5.6mb
TAB		79.23	307	e(P)	55 51.00	0.3
MHC		79.24	54	ePd	55 51.00	0.2
ARN		79.32	54	P	55 51.10	0.0
PRS		79.85	55	ePd	55 54.20	0.3
CMB		79.87	53	ePd	55 54.10	0.1
SES		80.39	39	eP	55 56.00	-0.5
		1.6s		146.00nm		5.7mb
PRI		80.45	55	eP	55 57.80	0.5
NUR		80.52	334	eP	55 57.00	0.1
	Z	20s		0.90um		5.1Msz
				LR	37 40.00	
FRI		80.79	53	ePd	55 59.10	0.2
SLY		80.85	305	ePd	55 58.50	-0.7
BCH		81.28	55	P	56 02.40	0.8
LRM		81.73	43	eP	56 04.30	0.3
TNP		82.10	52	P	56 05.50	-0.5
BHD		82.67	303	ePc	56 10.00	1.3
FFC		82.83	32	eP	56 09.50	0.4
		1.2s		66.00nm		5.6mb
UPP		83.66	335	iP	56 14.40	1.1
GDH		84.69	6	ePd	56 19.00	0.7
		1.0s		20.00nm		5.3mb
HFS		84.90	337	eP	56 18.40	-1.1
		0.6s		30.30nm		5.7mb
BW06		85.03	45	P	56 20.80	-0.1
		1.5s		32.61nm		5.3mb
NRA0		85.21	338	P	56 18.30	-2.8
MSU		85.42	49	P	56 23.50	0.6
CLI		87.40	321	eP	56 33.00	0.8
FRB		87.64	13	eP	56 33.00	0.1
CFR		87.68	320	eP	56 34.00	0.5
BBTK		87.75	314	iPd	56 34.00	-0.1
TLB		88.09	319	ePc	56 36.50	1.1
VRI		88.11	321	ePd	56 36.00	0.4
PSN		88.52	319	eP	56 39.00	1.5
ISR		88.64	320	eP	56 40.00	1.8
MLR		88.78	321	ePc	56 40.00	1.1
KRA		89.13	327	ePd	56 39.70	-0.6
		1.5s		91.00nm		5.9mb
				e	56 46.30	
RSON		89.16	32	P	56 40.00	-0.5
		1.2s		53.10nm		5.7mb
	Z	22s		2.96um		5.7Msz
GOL		89.34	46	P	56 41.70	-0.2
	Z	20s		1.10um		5.3Msz
GLD		89.41	46	P	56 42.80	0.7
		1.5s		87.50nm		5.8mb
	Z	20s		2.00um		5.5Msz
SPC		89.54	326	eP	56 43.10	0.6
CTT		89.81	316	eP	56 41.90	-1.8
JMB		90.18	318	iP	56 45.00	-0.4
KSP		90.34	329	eP	56 46.20	0.2
				e	00 05.00	
PVL		90.48	319	iPd	56 47.00	0.3
PSZ		90.54	325	eP	56 46.80	-0.3
BZS		91.11	323	eP	56 49.00	-0.6
ALQ		91.19	50	eP	56 50.00	-0.5
		1.3s		21.63nm		5.4mb
	Z	20s		1.15um		5.3Msz
KDZ		91.36	318	eP	56 52.00	1.1
BRG		91.38	330	eP	56 50.20	-0.6
		1.6s		42.00nm		5.6mb
				e	00 33.10	
SRO		91.41	326	eP	56 51.10	0.2
CLL		91.49	331	eP	56 50.00	-1.2
		1.7s		41.00nm		5.5mb
PRU		91.74	329	eP	56 52.00	-0.4
		1.6s		37.50nm		5.5mb
ZST		91.76	327	eP	56 52.40	-0.1
BEO		92.25	323	eP	56 54.50	-0.3
MMB		92.41	319	iP	56 55.00	-0.7
MOX		92.58	331	eP	56 55.00	-1.3
				e	00 35.00	
KHC		92.79	329	iPd	56 57.30	0.0
		1.0s		7.00nm		5.0mb
				e	00 17.50	
VAY		93.26	319	eP	56 59.00	-0.6
GRF		93.45	331	eP	57 01.40	1.1
		1.4s		39.00nm		5.6mb
SKO		93.51	320	iP	57 00.10	-0.7
		1.8s		124.00nm		6.0mb
KBA		94.36	328	ePc	57 04.50	-0.3
		1.0s		6.30nm		5.0mb
				e	57 15.00	
OHR		94.43	320	eP	56 52.00	-13.1X
CDF		96.12	332	eP	57 13.00	0.2
MEO		96.59	47	eP	57 14.60	-0.4
		1.6s		35.00nm		5.6mb
VAI		97.40	329	P	57 17.50	-0.9
AVF		99.04	333	eP	57 26.90	1.1
		0.8s		8.00nm		5.3mb
SOI		99.19	320	P	57 27.50	0.9
BNG		118.05	290	ePKPc	02 33.40	0.5
		1.0s		10.00nm		
				i	03 52.10	
CER		130.51	247	iPdiff	59 27.00	-19.2X
		0.3s		6.00nm		
KIC		135.04	310	PKP	03 08.10	2.7
ARE		147.04	81	ePKP	03 28.00	1.1
ZOBO		149.96	78	PKP	03 33.50	1.7
				LR	53 40.00	
LPB		150.08	78	ePKP	03 32.00	0.2
		1.4s		232.56nm		
	Z	24s		0.78um		5.4MszX
				i	03 39.00	
				LR	54 10.00	
SAN		150.17	113	ePKP	03 36.50	5.5X
PEL		150.19	112	iPKPd	03 36.50	5.4X
CNCB		150.29	79	PKP	03 24.00	-8.3X
CCH		152.13	79	ePKP	03 37.00	2.3

S.D. = 1.1 on 165 of 186 obs.

FEB 13, 1989 23h 58m 19.37± 1.27s
1.331 S ± 6.4km 127.442 E ±10.2km
DEPTH = 58.8 ± 12.2 km
5.0mb (9 obs.)
HALMAHERA (267)

AAI		2.46	162	eP	59 00.00	2.2
				eS	59 25.00	
MNI		3.79	317	iPd	59 16.40	-0.2
				eS	00 03.80	
PCI		7.62	273	iP	00 08.40	-1.8
				i(S)	01 07.20	
MKS		8.85	244	iPc	00 29.00	1.9
TSM		10.87	301	iPc	01 12.90	18.1X
MTN		12.01	162	eP	01 10.00	-0.1
KNA		14.39	175	eP	01 40.00	-1.4
TRT		16.05	246	ePd	02 06.70	3.8X
WB5		19.64	160	eP	02 44.50	-1.7
				eS	06 27.00	
WRA		19.69	160	Pc	02 44.70	-2.0
		0.5s		7.30nm		4.2mb
WB2		19.70	160	eP	02 44.50	-2.3
				eS	06 27.00	
MBL		21.06	200	eP	03 00.00	-0.8
		0.6s		24.00nm		4.7mb
ASPA		23.07	165	iPc	03 21.80	1.1
		0.7s		34.00nm		4.9mb
				eS	07 27.80	
				e	07 46.00	
NANU		24.07	208	iPd	03 30.80	0.4
		0.7s		95.00nm		5.4mb
WARB		24.72	182	eP	03 31.10	-5.6X
CTA		26.19	137	iPc	03 55.00	4.6X
		1.1s		25.32nm		4.7mb
PPI		27.06	272	eP	03 59.50	1.1
QZH		27.49	342	eP	04 02.40	0.2
FORR		29.36	179	eP	04 18.00	-1.0
STK		33.19	158	iPc	04 54.40	1.7
WHN		34.06	340	P	05 01.50	1.3
GYA		34.14	325	eP	05 01.40	0.4
BWA		38.31	151	eP	05 40.10	3.9X
CD2		39.19	327	eP	05 43.50	0.0
XAN		39.26	335	eP	05 43.20	-0.8
CAN		39.32	152	eP	05 47.00	2.5
TIY		41.26	342	Pc	06 00.60	0.1
BJI		42.44	347	eP	06 09.50	-0.5
SNY		43.10	356	eP	06 14.80	-0.5
LZH		43.23	332	eP	06 17.50	0.7
		1.5s		0.07nm		2.2mb X
SHL		43.56	310	iP	06 19.80	0.2
HHC		44.40	343	eP	06 24.00	-2.1
MDJ		45.79	2	eP	06 37.00	0.1
LSA		46.39	315	Pd	06 44.20	1.7
GTA		47.81	331	Pd	06 53.30	0.2
GUN		49.36	309	Pd	07 05.80	0.2
KKN		49.77	309	Pd	07 08.70	0.2
DMN		49.82	309	Pd	07 09.20	0.2
		0.7s		42.00nm		5.6mb
GKN		50.37	309	Pd	07 13.00	0.0
HYB		51.63	293	iPd	07 21.80	-0.8
		1.0s		60.00nm		5.6mb
				e	07 30.00	
GBA		51.73	288	P	07 22.00	-1.3
				e	08 36.00	
NDI		56.57	306	eP	07 57.00	-1.6
		0.6s		15.00nm		5.2mb
WMQ		57.28	327	iPc	08 03.30	-0.2
KSH		62.12	317	eP	08 38.50	1.6
MHI		73.16	309	iPd	09 46.20	0.1
AVY		79.84	251	iPd	10 24.46	0.6
SPA		88.68	180	ePd	11 09.10	1.6
		1.0s		9.50nm		5.0mb
	Z	18s		5.92um		6.1MszX
				e	11 26.90	

S.D. = 1.3 on 42 of 47 obs.

FEB 14, 1989 00h 46m 59.94± 1.17s
45.922 N ± 5.6km 1.456 W ±10.5km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 4.0 (LDG). Felt (III) at Dolus-d'Oleron.

MFF		1.14	53	Pn	47 23.00	1.8
				Pg	47 23.40	
				Sg	47 37.20	
LFF		1.83	122	Pn	47 32.50	0.8
				Pg	47 34.40	
				Sg	47 59.00	
LSF		2.10	80	Pn	47 37.00	1.4
				Pg	47 40.50	
				Sg	48 06.50	
LPF		2.13	8	Pn	47 37.00	1.0
				Pg	47 40.80	
				Sg	48 08.40	
RJF		2.18	105	Pn	47 37.70	1.0
				Pg	47 42.00	
				Sg	48 08.00	
LPO		2.24	123	Pn	47 37.90	0.3
				Pg	47 41.40	
				Sg	48 11.40	
GRR		2.50	9	Pn	47 41.50	0.2
				Pg	47 48.20	
				Sg	48 20.00	
TCF		2.58	81	Pn	47 43.00	0.6
				Sg	48 22.80	
CAF		2.67	111	Pn	47 44.60	0.8
				Pg	47 51.00	
				Sg	48 24.60	
MAF		2.82	82	Pn	47 46.20	0.4
				Pg	47 54.00	
				Sg	48 28.20	
LDF		2.82	18	Pn	47 46.10	0.2
				Pg	47 54.80	
				Sg	48 30.80	
FLN		2.92	13	Pn	47 47.30	0.1
				Sg	48 33.80	
BGF		3.05	76	Pn	47 49.20	0.1
				Pg	47 59.00	
				Sg	48 37.00	
HYF		3.13	63	Pg	47 59.60	9.4X
				Sg	48 39.00	
EPF		3.16	155	Pn	47 50.30	-0.5
				Pg	47 59.60	
				Sg	48 42.40	
AVF		3.44	74	Pn	47 54.40	-0.2
				Pg	48 05.60	
				Sg	48 48.00	

```
SSF     3.61  70 Pn    47 57.20   0.1
                Pg    48 07.50
                Sg    48 54.00
SMF     3.74  77 Pn    47 58.60  -0.4
                Pg    48 11.20
                Sg    48 58.00
LBF     3.90  72 Pn    48 00.70  -0.6
                Pg    48 13.20
                Sg    49 03.60
LOR     3.90  68 Pn    48 00.40  -0.9
                Pg    48 14.00
                Sg    49 03.20
HAU     5.73  66 Pn    48 26.00  -1.2
                Pg    48 48.00
DOU     5.82  42 iP    48 27.10  -1.2
                iS    49 30.10
SNF     5.98  38 eP    48 56.30  25.7X
LRG     6.09 111 Pn    48 31.40  -0.8
FRF     6.23 109 Pn    48 32.90  -1.3
WLF     6.35  51 eP    48 59.70  24.0X
MEM     6.84  44 P     48 40.80  -1.9
     S.D. = 1.0  on  24 of  27 obs.
-------------------------------------
*  FEB  14, 1989  01h 11m 28.92± 0.83s
   64.877 S ±11.1km  177.146 E ±19.8km
   DEPTH =  10.0km  (geophysicist)
   5.0mb (  5 obs.)  4.7Msz (  2 obs.)
 BALLENY ISLANDS REGION            (702)
      CENTROID, MOMENT TENSOR      (HRV)
      Dotо Used: GDSN
      L.P.B.: 12S, 21C
      Centroid Location:
      Origin Time        01:11:37.6 0.7
      Lat 65.21S 0.12 Lon 176.66E 0.21
      Dep  15.0 FIX Half-duration  1.7
      Moment Tensor;    Scale 10**17 Nm
        Mrr=-0.10 0.08   Mtt= 1.06 0.11
        Mff=-0.96 0.06   Mrt= 0.09 0.21
        Mrf= 0.26 0.27   Mtf=-0.11 0.08
      Principal Axes:
        T  Val=  1.07  Plg= 4  Azm=  3
        N       -0.03      74       259
        P       -1.04      15        94
      Best Double Couple:Mo=1.1*10**17
       NP1:Strike=137 Dip=76 Slip=  -8
       NP2:        229     82      -166

SBA     13.41 189 Pd    14 42.70   1.2
MSZ     20.89 341 P     16 15.00   1.7
SPA     25.27 180 e(P)  16 57.00   0.5
CNB     33.97 317 eP    18 16.00   1.6
CAN     34.08 316 eP    18 17.00   1.8
BWA     35.08 316 eP    18 16.20  -7.7X
STK     39.58 309 eP    19 05.00   3.4X
NWAO    47.99 282 eP    20 09.00  -0.5
        0.8s     7.00nm          4.8mb
     Z  20s      1.20um          4.9Msz
     N  20s      1.00um
     E  20s      1.10um
COOL    48.16 287 eP    20 10.00  -0.8
        0.8s    14.00nm          5.1mb
CTA     49.22 320 iPc   20 20.30   1.2
        1.3s    67.31nm          5.5mb
                  iS    27 30.00
ASPA    49.75 305 iPc   20 23.10  -0.1
        1.4s    24.00nm          5.0mb
     Z  19s      0.49um          4.5Msz
                  LR    39 36.00
QIS     50.74 312 eP    20 30.00  -0.7
WB2     53.03 307 eP    20 47.10  -0.9
WRA     53.04 307 Pc    20 46.90  -1.1
        0.9s    11.10nm          4.8mb
WB5     53.09 307 eP    20 47.10  -1.3
MTN     60.73 306 eP    21 42.00  -0.7
ZOBO    85.40 119 P     24 07.50  -0.7
PNT    123.92  45 ePKP  30 33.00   5.5X
YKA    136.67  39 PKP   30 58.20   6.9X
INK    137.39  25 ePKP  30 47.00  -5.5X
MBC    146.35  23 ePKP  31 07.00  -1.1
        0.7s    37.00nm
BBTK   147.59 237 ePKP  31 02.50  -8.8X
SCH    147.78  77 ePKP  31 15.00   4.0X
VAY    152.28 224 ePKP  31 23.00   4.8X
FRB    152.63  62 ePKP  31 24.00   6.0X
SKO    153.21 223 ePKP  31 22.50   3.0X
CFR    153.91 236 ePKP  31 42.00  21.6X
     S.D. = 1.2  on  16 of  27 obs.
-------------------------------------
?  FEB  14, 1989  02h 24m 24.48± 3.63s
    6.176 S ±29.6km  131.432 E ±39.4km
    DEPTH =  33.0km  (normal)
    4.1mb (  2 obs.)
  TANIMBAR ISLANDS REGION          (281)

TLE     1.42  68 iPc   24 48.10   0.0
                iS    25 11.20
MTN     6.63 183 iPd   26 05.50   3.3X
                eS    27 25.00
KNA     9.87 195 eP    26 47.00  -0.2
WB5    13.92 168 eP    27 41.80   0.1
                eS    30 20.00
WRA    13.97 169 P     27 47.00   4.5X
        0.5s    0.80nm          3.9mb
WB2    13.98 169 eP    27 41.80  -0.7
                eS    30 20.00
ASPA   17.55 172 eP    28 29.20   0.8
        0.5s    13.00nm          4.3mb
SPC   108.45 320 ePdiff38 31.40 -14.2X
                i     38 32.60
                i(Sg) 38 50.10
     S.D. = 0.8  on  5 of  8 obs.
-------------------------------------
    FEB  14, 1989  03h 59m 24.16± 2.29s
    25.588 N ± 5.5km  142.477 E ± 6.3km
    DEPTH =  77.2 ± 20.1 km
    5.0mb ( 16 obs.)
  VOLCANO ISLANDS REGION           (213)

MAT    11.51 343 (P)   02 10.00   2.5
        1.2s    20.31nm          4.9mb
                  (S)   04 16.00
SSE    19.52 291 eP    03 47.00  -0.9
     Z  14s      0.40um
     E  10s      0.30um
                 epP    04 12.00 153kmX
                 eS     07 30.00
MDJ    21.66 334 eP    04 10.50   0.8
SNY    22.49 321 eP    04 18.00   0.1
TIA    24.13 302 Pd    04 32.40  -1.5
WHN    25.27 288 eP    04 44.50  -0.3
TIY    28.16 303 P     05 09.80  -1.4
     E  11s      0.20um
XAN    30.20 294 P     05 27.50  -2.0
GYA    32.13 280 P     05 47.20   0.7
CD2    34.40 288 eP    06 05.00  -1.1
LZH    34.58 297 eP    06 06.50  -1.2
        2.0s    44.00nm          5.0mb
KMI    35.82 278 Pd    06 19.50   1.1
GTA    38.18 302 eP    06 36.00  -2.0
CHG    40.73 270 eP    07 01.30   2.2
CTA    45.55 175 iPd   07 38.10   0.1
        1.2s    67.19nm          5.4mb
WB5    45.88 191 eP    07 40.20  -0.4
WB2    45.94 191 eP    07 40.20  -0.9
WRA    45.94 191 Pc    07 40.80  -0.3
        1.3s    63.40nm          5.4mb
PSI    47.64 249 ePd   07 55.60   0.9
        0.6s    10.10nm          4.9mb
WMQ    47.68 307 eP    07 55.40   0.6
GUN    50.21 286 P     08 15.30   0.5
        0.4s    13.00nm          5.3mb
PKI    50.69 286 P     08 18.10  -0.3
KKN    50.75 286 P     08 18.80   0.1
        0.4s     4.00nm          4.8mb
DMN    50.94 286 P     08 20.40   0.2
        0.6s    14.00nm          5.2mb
GKN    51.27 286 P     08 22.60   0.0
WARB   53.69 198 eP    08 33.30  -7.0X
HON    54.38  81 P     08 30.00 -15.5X
     Z  20s      0.96um          4.9Msz
SVW    54.41  32 eP    08 45.00  -0.3
CMS    56.84 177 eP    09 04.00   1.0
STK    57.15 181 eP    09 05.00  -0.1
PMR    57.57  32 eP    09 06.20  -1.6
        1.2s    25.40nm          5.2mb
FORR   57.78 195 iPc   09 09.10  -0.4
        0.4s    32.00nm          5.8mb
FBA    58.54  28 P     09 11.90  -2.6
BWA    59.95 174 eP    09 24.30  -0.3
CAN    60.89 174 eP    09 30.50  -0.5
INK    64.29  24 eP    09 52.00  -1.1
MBC    67.27  15 eP    10 11.00  -1.1
MHI    69.98 301 eP    10 31.00   1.4
ALE    71.45   3 eP    10 38.00   0.4
        1.2s    21.00nm          4.9mb
YKA    73.34  28 P     10 48.70  -0.2
KEV    74.49 341 eP    11 03.00   7.5X
GMW    74.61  44 P     10 56.50  -0.1
SOD    75.89 339 iP    11 04.20   0.6
PNT    75.91  42 eP    11 04.00   0.0
KJF    77.25 336 eP    11 12.00   0.9
EDM    77.86  37 ePc   11 14.50  -0.3
MIN    78.12  51 ePd   11 16.00  -0.6
ORV    78.51  52 eP    11 18.30  -0.3
SUF    78.66 335 iP    11 19.20   0.3
        0.4s    6.40nm           4.9mb
CMB    79.93  53 ePd   11 26.60   0.3
SES    80.44  38 eP    11 29.00   0.2
NUR    80.52 334 iP    11 29.90   1.0
FRI    80.85  53 ePd   11 31.50   0.4
KVN    81.12  51 P     11 32.70  -0.1
LRM    81.79  43 eP    11 36.60   0.4
FFC    82.88  32 iPc   11 41.80   0.5
        1.1s    28.00nm          5.1mb
BW06   85.09  45 P     11 53.40   0.3
        1.0s    4.53nm           4.4mb
NRA0   85.22 338 P     11 52.60  -0.4
FRB    87.68  13 eP    12 05.00   0.0
VRI    88.10 321 eP    12 08.50   1.1
RSON   89.22  32 P     12 12.80   0.2
        1.1s    13.08nm          5.1mb
SPC    89.53 326 e(P)  12 13.40  -1.0
KSP    90.33 329 eP    12 17.50  -0.3
ALQ    91.25  50 eP    12 23.30   0.7
        1.1s    6.96nm           4.9mb
SRO    91.40 326 eP    12 23.60   0.8
ZST    91.75 327 eP    12 26.20   1.8
KHC    92.79 329 P     12 29.60   0.4
SKO    93.50 320 eP    12 30.30  -2.3
                  i     12 34.00
ARE   147.10  81 ePKP  19 03.00   4.4X
ZOBO  150.01  78 PKPc  19 09.80   6.3X
        1.0s   10.50nm
LPB   150.14  78 PKP   19 05.00   1.5
        1.2s   62.50nm
SAN   150.21 113 ePKP  19 09.50   6.8X
PEL   150.22 112 iPKPd 19 08.80   6.1X
CNCB  150.35  79 PKP   19 06.00   2.0
CCH   152.19  79 ePKP  19 15.00   8.6X
     S.D. = 1.1  on  67 of  75 obs.
-------------------------------------
?  FEB  14, 1989  04h 03m 07.42± 6.09s
    10.574 S ±52.8km  124.390 E ±29.7km
    DEPTH =  33.0km  (normal)
  TIMOR                            (289)

MTN     6.98 110 eP    04 50.00   0.0
WB5    13.35 135 eP    06 17.50   0.4
WRA    13.37 135 Pd    06 17.00  -0.4
        0.5s    18.60nm          5.3mb
WB2    13.38 135 eP    06 17.50  -0.1
WARB   15.67 172 eP    06 58.30  10.8X
ASPA   15.87 146 eP    06 50.20   0.1
        0.4s    43.00nm          5.0mb
     Z  20s      0.24um
                  e     08 11.00
                  LR    27 02.70
QIS    17.69 126 iPc   06 45.60 -27.4X
                  e     07 41.00
FORR   20.47 171 eP    07 45.00   0.0
BFD    31.13 151 eP    09 15.00 -10.3X
     S.D. = 0.3  on  6 of  9 obs.
-------------------------------------
&  FEB  14, 1989  04h 56m 23.80s
    37.833 N          122.598 W
    DEPTH =   7.0km
  CENTRAL CALIFORNIA               ( 39)
       <BRK>. ML 2.8 (BRK).
       Mo=8.7*10**12 Nm (BRK).

BRK     0.27  81 iPc   56 29.20  -0.1
                  iS    56 33.00
BKS     0.29  81 iPc   56 29.80   0.1
                  iS    56 34.30
ZSP     0.29  67 ePc   56 30.30   0.5
                  iS    56 35.80
PCC     0.37 153 iPd   56 31.10  -0.3
                  iS    56 36.50
NWRM    0.66 340 eP    56 36.00  -1.1
MHC     0.90 123 eP    56 40.80  -0.7
                  iS    56 54.30
```

14d 04h

GCC 0.93 149 eP 56 40.50 -1.4
eS 56 55.50
ARN 0.97 119 eP 56 41.50 -1.1
SAO 1.41 139 iPd 56 46.93 -2.9
CMB 1.76 83 iPc 56 54.40 -0.6
iS 57 16.60
PRS 1.79 146 e(P) 56 57.20 1.8
LLA 1.79 132 ePc 56 57.30 1.9
KVN 3.74 70 eP 57 24.00 0.7
13 obs. associated

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* FEB 14, 1989 05h 36m 12.39± 0.74s
16.893 N ±12.4km 62.356 W ±11.2km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 3.3 (FDF).

ANG 0.57 63 eP 36 24.84 0.9
eS 36 35.13
SKI 0.57 320 eP 36 24.10 0.1
eS 36 36.68
BSK 0.65 314 eP 36 25.32 0.3
eS 36 38.68
SKDB 0.66 319 eP 36 24.64 -0.6
eS 36 38.44
SEG 0.95 121 eP 36 29.97 0.6
S 36 47.80
PAG 1.08 143 eP 36 32.58 1.3
S 36 54.60
SFG 1.28 120 eP 36 33.34 -0.7
DEG 1.37 115 eP 36 33.71 -1.7
MGG 1.39 134 eP 36 35.56 -0.1
S 36 57.70
S.D. = 1.1 on 9 of 9 obs.

FEB 14, 1989 06h 20m 21.33± 0.12s
10.447 S ± 3.2km 161.372 E ± 2.9km
DEPTH = 31.9km (geophysicist)
6.0mb (57 obs.) 6.4Msz (38 abs.)
SOLOMON ISLANDS (193)
Ms 6.4 (PAS), 6.2 (BRK).
Mo=5*10**18 Nm (PPT). Felt (IV) at Honioro, Guadalcanal. Two events about 2 seconds apart. Depth from broadband displacement seismograms, based on second event.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=359 Dip=87 Slip= -90
NP2: 179 3 -90
Principal Axes:
T Plg=42 Azm= 89
P 48 269
Comment: The focal mechanism is moderately well controlled and corresponds to normal faulting. The preferred fault plane is NP1.
RADIATED ENERGY
No. of sto: 10 Focal mech. F
Energy 9.6±2.1*10**13 Nm
MOMENT TENSOR SOLUTION
Dep 28 No. of sta: 13
Moment Tensor; Scale 10**18 Nm
Mrr= 0.28 Mtt= 0.09
Mff=-0.38 Mrt=-0.64
Mrf=-5.22 Mtf= 1.04
Principal axes:
T Val= 5.45 Plg=45 Azm=108
N -0.15 11 6
P -5.29 43 265
Best Double Couple:Mo=5.4*10**18
NP1:Strike=282 Dip=12 Slip= 6
NP2: 186 89 101
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 16S, 41C M.W.: 13S, 27C
Centraid Location:
Origin Time 06:20:28.8 0.2
Lat 10.46S 0.02 Lan 161.72E 0.02
Dep 28.0 0.9 Half-duratian 6.3
Moment Tensar; Scale 10**18 Nm
Mrr=-0.77 0.03 Mtt=-0.25 0.03
Mff= 1.02 0.04 Mrt=-0.09 0.08
Mrf=-5.45 0.19 Mtf= 1.58 0.03
Principal Axes:
T Val= 5.92 Plg=38 Azm=105
N -0.33 16 2
P -5.58 47 254
Best Double Couple:Mo=5.8*10**18
NP1:Strike=255 Dip=16 Slip= -17
NP2: 1 85 -106

HNR 1.73 306 eP 20 55.00 5.4X
eS 21 22.00
PAA 7.13 305 eP 22 04.00 -2.2
eS 23 34.00
PVC 9.89 138 iPc 22 42.50 -1.9
iS 24 30.00
RAB 11.04 304 eP 23 02.00 1.8
iS 25 28.00
DZM 12.54 158 iPd 23 19.10 -1.4
iS 25 13.60
PMG 14.04 273 iPd 23 46.50 6.2X
1.4s 469.77nm 6.0mb X
LAT 14.70 284 eP 23 54.00 5.1X
CTA 17.44 235 iPd- 24 27.20 3.3X
iS 27 46.00
CTAO 17.44 235 ePd 24 26.59 2.7
ed 24 28.42
MNDI 18.04 282 eP 24 37.00 5.4X
BRS 18.70 204 P 24 38.50 -1.0
e 26 01.00
eS 27 36.00
e 28 00.00
RMO 19.92 215 iPd 24 54.80 1.4
1.1s 744.00nm 5.9mb
COO 21.89 202 iPd 25 14.80 1.3
e 25 43.00 143kmX
e 25 52.00
e 26 37.00
QIS 23.23 242 iPd 25 28.50 1.6
e 29 58.00
RIV 25.09 200 iPc 25 46.10 1.5
e 25 58.00 47kmX
eS 30 08.00
CMS 25.41 212 iPd 25 49.50 1.8
0.6s 352.00nm 6.1mb
e 26 20.00 148kmX
BWA 26.65 204 iPd 25 58.10 -1.1
CNB 27.06 202 iPc 26 03.50 0.5
e 26 28.00 113kmX
CAN 27.20 203 iPd 26 04.20 -0.1
WB5 27.66 247 iPd 26 08.90 0.3
e 58 37.50
WRA 27.70 247 Pc 26 08.80 -0.1
0.7s 132.60nm 5.7mb
STK 28.10 218 iPd 26 13.20 0.8
0.8s 83.00nm 5.5mb
e 26 37.00 109kmX
e 27 02.00
e 27 13.00
TLE 28.73 277 ePd 26 20.10 1.9
0.9s 8.50nm 4.4mb X
GUA 28.89 325 eP 26 19.70 0.1
1.3s 1323.08nm 6.5mb
Z 22s 65.48um 6.2Msz
GUMO 28.96 325 P 26 20.00 -0.2
PJG 28.96 325 eP 26 20.20 0.0
ASPA 29.30 240 iPd 26 22.10 -1.2
1.1s 222.00nm 5.8mb
Z 20s 285.94um 6.9Msz
LR 37 13.50
MTN 29.71 262 iPd 26 27.20 0.2
KRP 30.18 157 P 26 30.70 -0.2
0.5s 76.00nm 5.8mb
PP 27 54.00
TOO 30.56 205 iPd 26 34.80 0.5
e 26 44.00 32kmX
ADE 31.98 217 iPd 26 47.10 0.2
1.0s 410.00nm 6.3mb
KNA 32.17 257 iPd 26 49.10 0.5
1.0s 2381.00nm 7.0mb X
WEL 32.91 161 P 26 54.00 -0.8
1.0s 416.00nm 6.3mb
Z 20s 19.86um 5.8Msz
N 20s 22.69um
E 20s 15.60um
PP 28 10.00
S 32 08.00
SS 34 22.00
AAI 33.58 279 ePd 27 02.20 1.2
MSZ 34.56 172 P 27 08.20 -0.9
0.8s 173.00nm 6.0mb

TAU 34.59 198 Pd 27 10.00 0.7
WARB 36.35 240 iPd 27 17.00 -7.5X
FORR 36.95 232 iPd 27 30.00 0.6
0.4s 136.00nm 6.2mb
RAR 38.78 111 P 27 41.00 -4.0X
S 33 40.00
DAV 39.67 295 eP- 27 54.00 1.5
MKS 41.81 274 iPc 28 11.60 1.5
1.2s 677.10nm 6.3mb
COOL 42.47 235 iPd 28 15.70 0.4
0.7s 247.00nm 6.0mb
MEKA 43.45 242 eP 28 24.00 0.7
0.7s 248.00nm 6.1mb
BKB2 45.12 279 e(P) 28 42.00 5.1X
NANU 45.40 249 iPd 28 39.90 0.8
0.4s 72.00nm 5.9mb
KLB 45.44 236 iPd 28 39.30 0.0
0.6s 85.00nm 5.8mb
TSM 45.51 287 ePd 28 43.10 3.1X
BAL 46.02 237 eP 28 44.00 0.1
0.7s 337.00nm 6.4mb
MRWA 46.25 239 eP 28 46.00 0.3
0.4s 23.00nm 5.5mb
NWAO 46.28 234 ePd 28 46.06 0.2
0.8s 311.00nm 6.3mb
ed 28 48.21 7kmX
ed 28 56.16
ec 29 00.63
MUN 46.82 236 iPd 28 50.60 0.5
1.0s 480.00nm 6.4mb
Z 20s 92.60um 6.7Msz
RKG 46.83 233 iPd 28 52.70 2.5
0.8s 385.00nm 6.4mb
QCP 47.08 301 eP 28 46.00 -6.4X
AFR 47.82 104 iP 28 56.70 -1.5
1.4s 220.00nm 6.0mb
PAE 48.01 104 iP 28 58.10 -1.6
1.4s 185.00nm 5.9mb
PPT 48.01 104 iP 28 58.40 -1.3
1.4s 185.00nm 5.9mb
Z 20s 57.00um 6.5Msz
PPN 48.15 104 iP 28 59.20 -1.6
1.4s 95.00nm 5.6mb
TRT 48.17 269 ePc 29 00.40 -0.6
1.2s 410.10nm 6.3mb
TVO 48.33 104 iP 29 01.00 -1.2
1.4s 305.00nm 6.1mb
BAG 48.38 303 ePd- 29 02.10 -0.7
2.0s 600.00nm 6.3mb
eS 36 00.00
TBI 48.54 112 iP 29 02.70 -1.0
1.2s 270.00nm 6.2mb
PMO 49.61 101 iP 29 11.10 -0.9
1.4s 320.00nm 6.2mb
VAH 49.86 101 iP 29 12.70 -1.3
1.4s 320.00nm 6.2mb
TPT 49.88 101 iP 29 13.00 -1.1
1.4s 270.00nm 6.1mb
RUV 50.10 101 iP 29 14.60 -1.2
1.4s 185.00nm 5.9mb
KAGJ 50.68 326 eP 29 21.00 1.0
WKYJ 50.72 332 P 29 20.70 0.4
IIDJ 50.78 335 P 29 20.90 0.2
CHJJ 50.83 337 P 29 21.00 -0.1
HON 50.87 51 P 29 21.30 -0.3
Z 20s 40.43um 6.4Msz
OPA 51.08 51 iP 29 22.90 -0.3
ipP 29 35.00 43kmX
TKSJ 51.25 331 P 29 24.80 0.5
MAJO 51.57 336 ePc 29 24.87 -1.8
ec 29 26.36 5kmX
ed 29 37.95
ec 29 42.08
MAT 51.57 336 iPd 29 25.90 -0.8
1.3s 442.31nm 6.3mb
Z 20s 13.83um 6.0Msz
eS 36 46.00
TSRJ 51.65 334 P 29 27.50 0.3
KUMJ 51.74 327 P 29 28.20 0.2
MTMJ 51.77 336 P 29 28.10 -0.2
NIIJ 51.88 337 P 29 29.00 0.1
HKL 51.91 53 P 29 29.00 -1.0
YAMJ 52.32 339 eP 29 33.40 1.1
YONJ 52.51 331 eP 29 33.60 -0.2
ANP 52.56 313 iP- 29 38.00 3.6X
iS 37 06.00
OFUJ 52.58 341 P 29 34.20 0.0

SHNJ 52.83 328 eP 29 35.10 -1.0
TPI 53.84 274 ePc 29 44.00 0.1
e 35 00.00
QZH 54.56 311 Pc 29 49.00 0.0
Z 24s 14.20um 6.0MszX
E 19s 11.60um
pP 30 02.00 47kmX
sP 30 06.00
iS 37 28.00
sS 37 48.00
KUSJ 55.42 345 eP 29 54.50 -0.5
MRRJ 55.81 342 eP 29 57.50 -0.3
KLI 56.23 271 eP 29 59.00 -2.3
e 30 36.00 160kmX
SSE 56.49 318 P 30 02.00 -0.9
1.3s 52.00nm 5.4mb
Z 20s 12.60um 6.0Msz
N 18s 4.50um
E 19s 11.20um
pP 30 14.00 42kmX
i 32 26.00
iS 37 53.00
sS 38 17.00
eScS 39 46.00
SS 41 46.00
HKC 56.57 305 Pd 30 05.80 2.2
S 37 58.00
ASAJ 56.91 344 P 30 06.40 0.7
MCO 56.97 305 eP 30 05.10 -1.4
GZH 57.62 306 eP 30 11.00 0.0
5.0s 1.60nm 3.3mb X
Z 24s 30.40um 6.3MszX
N 22s 12.00um
E 22s 25.30um
pP 30 22.50 40kmX
iS 38 12.50
sS 38 25.50
DRV 57.98 190 iPc 30 12.00 -0.9
QIZ 58.63 300 eP 30 16.00 -2.2
N 25s 16.80um
E 25s 28.30um
pP 30 31.00 55kmX
PP 32 21.00
NJ2 58.63 318 Pd 30 17.00 -0.9
6.0s 1.70nm 3.3mb X
N 18s 12.00um
E 19s 6.30um
sP 30 30.00
sS 38 26.00
KSI 58.66 272 eP 30 16.30 -2.2
e 34 00.00
KGM 59.08 279 ePc 30 21.40 0.0
e 30 33.30 41kmX
WHN 60.83 314 eP 30 31.50 -1.6
Z 20s 27.30um 6.4Msz
N 17s 6.99um
E 20s 14.00um
pP 30 43.50 42kmX
S 38 40.00
PPI 61.40 275 eP 30 36.00 -1.3
DL2 61.48 325 P 30 36.50 -0.9
Z 20s 9.90um 6.0Msz
N 17s 9.90um
E 17s 9.00um
pP 30 50.00 48kmX
S 38 58.00
RKT 61.82 111 iP 30 39.20 -0.8
1.2s 100.00nm 5.8mb
MDJ 61.90 335 eP 30 39.80 -0.3
Z 24s 17.10um 6.1MszX
N 20s 11.40um
epP 30 52.30 44kmX
S 39 06.50
IPM 61.91 281 ePd 30 39.70 -1.1
1.0s 151.70nm 6.1mb
e 30 52.40 45kmX
TIA 62.36 320 P 30 41.50 -1.9
Z 22s 12.20um 6.0Msz
N 20s 5.50um
E 20s 9.60um
esP 30 52.00
S 39 08.00
SNY 62.53 329 Pc 30 44.00 -0.3
5.0s 1.60nm 3.4mb X
Z 22s 11.80um 6.0Msz
N 19s 9.90um
E 20s 10.90um

pP 30 56.50 43kmX
iS 39 09.00
SNG 62.97 284 eP 30 45.70 -2.0
1.2s 171.88nm 6.1mb
eS 39 15.00
e 59 39.50
CN2 63.10 332 iPd 30 47.00 -1.0
6.0s 4.30nm 3.8mb X
Z 24s 23.00um 6.3MszX
N 14s 5.30um
pP 30 58.00 36kmX
PSI 63.51 278 ePd 30 50.00 -1.3
0.9s 114.80nm 6.0mb
SMY 63.87 9 eP 30 53.70 0.8
Z 18s 17.00um 6.3Msz
GYA 64.56 306 P 30 57.60 -0.5
N 20s 5.50um
E 20s 12.20um
PP 33 19.00
S 39 38.00
ADK 64.90 15 eP 31 00.40 0.7
1.2s 703.10nm 6.6mb
NNT 65.34 289 iPd 31 03.00 -0.2
BJI 65.37 323 eP 31 02.00 -0.9
Z 24s 17.50um 6.2MszX
N 18s 9.70um
epP 31 14.00 41kmX
ePP 33 37.00
eS 39 46.00
esS 40 46.00
NST 65.95 292 iPd 31 06.90 -0.1
TIY 66.25 319 Pd 31 08.00 -0.8
N 18s 11.00um
pP 31 21.50 47kmX
S 39 58.00
XAN 66.58 314 Pd 31 09.30 -1.6
N 19s 8.10um
E 20s 15.70um
S 40 00.30
KMI 67.17 303 ePd 31 15.13 0.1
5.0s 1.80nm 3.4mb X
ed 31 17.45 7kmX
ed 31 27.54
ec 31 30.69
PcP 31 41.00
ScP 35 39.00
PcS 35 46.00
S 40 08.00
sS 40 36.00
SS 44 28.00
SBA 67.45 179 Pd 31 17.00 1.4
BDT 67.49 294 eP 31 16.80 0.0
1.0s 62.10nm 5.7mb
CHG 68.07 295 iPd 31 20.20 -0.3
1.1s 51.90nm 5.5mb
eS 40 24.00
CHTO 68.07 295 ePd 31 19.92 -0.6
ed 31 21.75 6kmX
ed 31 32.17
ec 31 36.81
HHC 68.64 322 P 31 23.60 -0.2
Z 24s 26.70um 6.4MszX
N 20s 12.50um
E 20s 10.80um
pP 31 31.50 25kmX
S 40 30.00
CD2 68.85 309 Pd 31 24.80 -0.4
Z 26s 10.80um 6.0MszX
E 17s 6.40um
epP 31 37.00 41kmX
S 40 28.00
BTO 69.45 321 iPd 31 29.00 0.2
Z 18s 10.00um 6.1Msz
N 18s 8.80um
sP 31 42.50
PP 34 06.50
S 40 34.00
SS 45 05.00
HIA 69.79 332 ePd 31 30.25 -0.3
ed 31 32.57 7kmX
ed 31 41.67
ec 31 46.97
LZH 71.21 314 ePd 31 39.81 0.2
5.0s 1622.00nm 6.3mb X
Z 20s 20.00um 6.4Msz
ed 31 41.80 6kmX
ed 31 51.73

ec 31 56.86
SDN 72.89 22 eP 31 48.20 -0.8
Z 20s 30.00um 6.6Msz
GTA 75.58 315 iPd 32 05.20 0.1
5.0s 1.60nm 3.3mb X
Z 20s 13.80um 6.3Msz
E 20s 11.30um
sP 32 17.00
PP 34 50.00
SHL 76.47 300 iP 32 09.90 -0.5
iS 41 54.00
KDC 77.68 23 ePd 32 16.50 0.3
LSA 78.42 303 iPd 32 21.60 0.1
N 20s 4.90um
E 22s 10.10um
sP 32 36.00
S 42 18.00
SKS 42 32.00
SS 47 21.00
SVW 78.94 20 iPd 32 24.30 1.1
TTA 80.15 18 P 32 30.50 0.8
PMR 81.53 22 ePd 32 37.00 0.2
1.3s 377.40nm 6.2mb
Z 22s 30.00um 6.6Msz
GUN 82.29 300 Pd 32 41.60 -0.4
PKI 82.60 300 Pd 32 43.20 -0.4
KKN 82.77 300 Pd 32 44.00 -0.3
DMN 82.87 300 Pd 32 44.90 0.0
IMA 83.14 17 iPd 32 46.00 0.7
1.2s 179.70nm 6.1mb
GKN 83.37 300 Pd 32 46.70 -0.6
MAW 83.65 202 iPd- 32 47.80 0.1
1.0s 368.00nm 6.5mb
Z 22s 1.20um 5.2MszX
FBA 84.14 19 iPd 32 49.70 -0.5
SIT 84.80 29 eP 32 44.50 -9.1X
Z 18s 31.00um 6.7Msz
FHC 85.38 47 e(P) 32 58.50 1.5
NWRM 85.49 50 P 32 58.30 0.8
PCC 85.60 51 e(P) 32 58.90 0.9
WMQ 85.65 316 ePd 32 57.39 -0.9
Z 18s 9.70um 6.2Msz
ed 33 00.04 8kmX
ed 33 09.47
ec 33 14.77
S 43 21.00
GCC 85.76 51 ePd 33 00.00 1.1
BRK 85.79 50 ePd 33 00.00 1.0
Z 20s 18.00um 6.5Msz
epP 33 12.20 40kmX
ePP 36 28.00
e 49 30.00
eLR 59 11.00
BKS 85.81 50 iPd 33 00.30 1.1
0.9s 62.00nm 5.8mb
Z 20s 13.00um 6.3Msz
N 20s 5.00um
E 20s 9.00um
iPP 36 30.00
i 37 51.00
i 43 06.00
iS 43 26.00
i 48 08.00
i 52 38.00
iLQ 55 16.00
iLR 58 53.00
PRS 86.05 52 ePd 33 00.70 0.3
SAO 86.11 52 e(P) 33 01.40 0.7
MHC 86.12 51 ePd 33 02.00 1.2
Z 20s 11.00um 6.3Msz
N 20s 3.90um
E 20s 13.00um
iPcP 33 05.40
ipP 33 14.00 39kmX
esP 33 20.00
ePP 36 36.00
e 37 53.00
ePPP 38 20.00
iS 43 35.00
e(ScS) 43 58.00
eSP 44 37.00
i 47 54.00
i 48 45.00
iSS 49 26.00
e(SSS) 52 32.00
eLQ 55 39.00
eLR 59 08.00

14d 06h

ARN	86.20	51	eP	33	01.20	0.0	ANMO	97.66	56	ePc	34	06.67	12.0X	BHL	125.28	304	PKP	39	21.00	-0.1
			ipP	33	14.40	44kmX	GOL	99.08	51	P	34	04.50	3.5X				PP	41	14.00	
BRW	86.24	12	ePd	33	01.10	0.6		1.0s	25.00nm				5.7mb	HRI	125.34	303	e(PKP)	39	25.00	3.7X
BLP	86.34	54	P	33	01.30	-0.5		Z 20s	27.50um				6.8Msz	CCM	125.51	120	PKP	39	23.50	1.2
HYB	86.34	288	eP	33	01.40	-0.8	GLD	99.20	51	P	34	06.00	4.5X	BBTK	125.98	312	iPKPc	39	21.50	-0.9
	1.4s	125.00nm			6.0mb			Z 20s	35.00um				6.9Msz	PRNI	126.50	300	ePKP	39	23.00	-0.6
WDC	86.37	48	iPd	33	02.80	1.0	FFC	102.29	36	ePdiff	34	14.50	-0.3	MBH	126.70	299	iPKPc	39	23.00	-0.9
			iPcP	33	06.30			1.4s	40.00nm				5.9mb	CFR	127.14	320	ePKP	39	27.00	2.8
			ipP	33	15.10	40kmX	MEO	104.09	57	ePdiff	34	25.10	1.7	TLB	127.47	319	ePKP	39	25.50	0.6
LLA	86.46	52	ePd	33	03.70	1.3		1.5s	36.40nm				6.0mb	VRI	127.72	321	ePKP	39	24.00	-1.4
PRI	86.55	52	ePd	33	04.50	1.5	MHI	105.65	305	ePdiff	34	45.00	14.6X	ISR	128.18	320	ePKP	39	30.00	3.7X
LTCM	86.56	48	P	33	03.50	0.7				e	37	50.00		ISK	128.21	315	ePKP	39	41.50	15.1X
GBA	86.62	284	P	33	03.00	-0.5				e	39	12.00		UAV	128.22	87	ePKP	39	26.40	-1.1
SYP	86.66	54	eP	33	04.00	0.4	ALE	105.78	5	ePdiff	34	30.00	0.2	MLR	128.39	321	ePKP	39	25.00	-1.8
PHAM	86.67	53	P	33	04.00	0.5	RSON	107.45	40	PKP	38	44.00	-2.4	CTT	128.62	315	ePKP	39	25.50	-1.7
BCH	86.75	54	P	33	04.90	0.9		Z 20s	39.55um				7.0Msz	SDV	128.75	87	ePKP	39	25.70	-2.8
ORV	86.84	49	ePd	33	04.90	0.7	RSCP	114.72	56	PKP	38	52.10	-8.7X	KRA	129.31	329	ePKP	39	27.70	-0.5
			ipP	33	17.10	40kmX		Z 20s	11.30um				6.5Msz		Z 20s	7.60um			6.4Msz	
MIN	86.98	48	ePd	33	05.30	0.3	SOD	115.73	342	ePKP	39	19.00	17.3X		N 20s	5.90um				
			epP	33	17.70	41kmX	FRB	116.30	22	ePKP	39	01.00	-1.8				e	39	42.30	
CMB	87.26	51	ePc	33	08.24	1.9	SLY	117.01	305	ePKP	39	10.00	4.9X	SPC	129.67	328	ePKP	39	27.80	-1.4
			ec	33	19.67	37kmX				e	40	07.00					e	39	30.70	
			ed	33	23.47					i	40	34.00					i	39	43.80	
ABL	87.35	54	P	33	07.80	0.8				e	50	03.00					e	52	26.70	
FRI	87.51	52	ePd	33	08.30	0.9	NPA	117.30	247	ePKP	39	08.00	1.8	TOV	129.67	86	ePKP	39	29.00	-1.0
			ipP	33	20.40	39kmX				e	40	09.00		HLW	129.71	300	ePKP	39	40.00	10.4X
BMW	87.64	42	P	33	11.20	3.3X				e(SKS)	49	33.50		KMZ	129.89	243	iPKP	39	17.00	-13.5X
PAS	88.02	55	eP	33	10.00	0.1	KJF	117.33	339	ePKP	39	04.00	-0.8				i	39	48.00	
			ePP	36	37.00					i	39	17.40		DEV	130.04	323	ePKPc	39	45.00	15.3X
			eSKS	43	44.00					e	40	30.00		FISA	130.25	84	iPKP	39	33.10	2.0
			eS	44	14.00					e	56	42.00		IZM	130.50	312	ePKP	39	28.00	-2.9X
			ePS	44	59.00		BHD	118.18	302	ePKPd	39	07.00	-0.4	KSP	130.59	331	ePKP	39	31.50	0.9
			eSS	50	04.00					e	40	18.00					ed	39	44.50	
			eLg	56	34.00					ePP	40	37.00					e	41	40.50	
			eLR	00	00.00					e	41	08.00		BZS	130.94	323	iPKPc	39	30.00	-1.4
MWC	88.13	55	eP	33	11.00	0.3				eSKS	46	03.00		CEOS	131.03	87	ePKP	39	34.00	1.4
PGC	88.16	40	eP	33	11.00	0.8				ePS	50	12.50		TIM	131.11	323	iPKPd	39	23.00	-8.7X
SHW	88.21	42	P	33	12.00	1.2	BLA	118.66	53	PKP	39	07.00	-1.3	LWI	131.14	258	ePKP	39	33.50	0.4
GMW	88.25	41	P	33	16.20	5.4X	SUF	118.79	338	ePKP	39	05.00	-2.6	BUD	131.35	327	ePKP	39	31.50	-0.6
SBB	88.42	54	eP	33	12.00	0.0	CVL	120.07	52	PKP	39	12.00	1.2	SRO	131.53	327	ePKP	39	32.60	0.1
MCW	88.56	40	P	33	13.20	0.9	GAC	120.36	43	ePKP	39	09.50	-1.6				i	39	45.40	
RVR	88.62	55	eP	33	12.00	-0.9	NUR	120.72	337	ePKP	39	13.00	1.7				e	41	49.90	
LON	88.66	42	ePc	33	13.80	1.0				e	39	27.00					e	51	53.70	
			ec	33	25.22	37kmX	CBN	120.87	52	ePKP	39	14.00	1.7	BRG	131.65	333	ePKP	39	32.60	0.0
			ec	33	33.33					e	40	41.00			Z 20s	3.00um			6.0Msz	
PEC	88.77	55	P	33	14.40	0.8	PSO	120.98	95	ePKP	39	14.00	0.2		N 20s	4.00um				
RMW	88.86	41	P	33	14.30	0.5	ARE	121.27	116	ePKP	39	15.00	0.9		E 20s	3.00um				
PLM	88.89	56	eP	33	15.00	0.6	RSNY	121.35	44	PKP	39	20.00	6.9X				e	39	46.50	
BAR	88.90	57	eP	33	14.00	-0.2		Z 20s	12.43um				6.6Msz	CLL	131.75	334	iPKP	39	37.10	4.3X
VGB	89.00	43	P	33	18.00	3.5X	SCH	121.78	30	ePKP	39	12.00	-1.6		Z 19s	7.00um			6.4Msz	
MNA	89.06	51	e(P)	33	16.20	1.1	FRS	121.80	225	iPKPc	39	13.30	-1.0				i	39	46.70	
KVN	89.25	50	eP	33	16.60	0.6				i	49	16.00		ZST	131.92	328	ePKP	39	34.70	1.5
			ipP	33	30.00	45kmX	BPI	121.85	230	ePKP	39	12.70	-2.1		Z 18s	11.00um			6.6Msz	
GSC	89.38	54	eP	33	17.00	0.4		1.2s	78.13nm								e	39	45.70	
TNP	89.70	51	P	33	18.50	0.4	PRY	121.86	229	ePKP	39	03.50	-11.3X				e	42	30.30	
TPC	89.72	55	eP	33	18.00	-0.1		1.0s	20.00nm								e	51	53.00	
GLA	90.49	57	eP	33	23.00	1.3				i	39	16.50		PRU	131.99	332	PKP	39	23.00	-10.3X
PNT	90.77	40	iPd	33	23.10	0.5	SLR	121.89	231	iPKPc	39	16.00	1.1		Z 21s	9.20um			6.5Msz	
	1.2s	224.00nm			6.4mb			1.0s	25.00nm						N 20s	3.10um				
DPW	91.32	42	P	33	25.70	0.5		Z 20s	51.06um				7.2Msz		E 21s	4.50um				
BOM	91.98	289	eP	33	33.00	4.4X				i	49	16.00					e	39	34.50	
			eS	44	00.00		BFS	122.38	229	ePKP	39	17.50	1.7				i	42	09.00	
KSH	93.03	309	eP	33	34.20	0.9	KSR	122.87	230	ePKP	39	17.00	0.2	BEO	132.06	323	ePKP	39	49.50	15.9X
	8.0s	1.80nm			3.6mb X		CGY	122.99	229	ePKP	39	12.00	-4.7X	VKA	132.28	329	ePKP	39	34.50	0.6
	Z 20s	12.50um			6.4Msz			0.7s	15.75nm						5.5s	1847.00nm				
	N 20s	8.20um					SWZ	123.30	228	iPKPd	39	18.60	1.1		Z 25s	4.70um			6.1MszX	
		S	44	42.00				1.3s	163.46nm								e(PP)	41	58.00	
MSU	93.67	52	P	33	38.30	1.9				i	41	14.00					e	42	09.50	
DAU	94.70	50	P	33	45.40	4.2X	HJA	123.31	127	ePKPd	39	17.00	-0.4				LR	37	10.00	
LRM	94.76	44	eP	33	42.00	0.7	CER	123.42	218	iPKPd	39	26.00	8.6X	VAY	132.53	318	ePKP	39	29.70	-4.9X
EDM	95.47	37	iPc	33	44.20	0.1		0.6s	14.29nm					SOP	132.53	328	ePKP	39	33.20	-1.2
	1.2s	117.00nm			6.2mb		TUH	123.55	218	ePKP	39	30.00	12.3X	CAR	132.54	85	ePKP	39	40.00	4.5X
MZX	96.05	68	(P)	33	48.50	1.2	NAI	123.64	261	iPKPd	39	19.00	0.3	OLLA	132.63	86	ePKP	39	39.00	3.3X
BW06	96.33	48	ePd	33	49.00	0.5		1.0s	6.00nm					LLAV	132.66	85	ePKP	39	38.60	2.9X
	1.3s	43.85nm			5.8mb		CNCB	124.19	119	PKP	39	19.00	-1.1	MOX	132.84	334	ePKP	39	47.00	12.1X
		ipP	34	03.00	47kmX	LPB	124.21	118	PKPc	39	20.00	0.1		Z 24s	5.00um			6.1MszX	
SES	96.43	40	eP	33	49.00	0.4		1.0s	76.00nm						N 28s	4.40um				
	1.4s	134.00nm			6.2mb			Z 22s	9.63um				6.4Msz		E 28s	3.00um				
		pP	34	01.00	39kmX				LR	19	20.00					e(PP)	41	58.00	
YKA	96.43	28	P	33	48.10	-0.1	ZOBO	124.29	118	PKPd	39	19.00	-1.3				e	42	00.00	
YKC	96.49	28	ePd	33	48.00	-0.5		1.0s	42.50nm								eSS	59	30.00	
	1.2s	77.00nm			6.1mb			Z 24s	5.09um				6.1MszX				LQ	32	30.00	
MBC	97.53	14	eP	33	53.00	0.0				eLR	18	08.00					LR	37	00.00	
	1.0s	14.00nm			5.4mb		BUL	124.46	237	ePKP	39	17.90	-2.1	SKO	132.95	319	ePKP	39	34.20	-1.2
ALQ	97.66	56	eP	33	55.00	0.3	NB2	124.93	343	PKP	39	21.20	1.7		7.5s	2160.00nm				
	1.0s	37.50nm			5.9mb			0.8s	11.30nm						Z 22s	4.35um			6.1Msz	
	Z 22s	14.44um			6.4Msz		FUQ	125.25	91	ePKP	39	21.50	-0.4		N 22s	2.98um				

	E 24s	7.84um				
		i	39	52.00		
		i	42	13.50		
		i	43	20.00		
		e	59	44.00		
		LR	37	45.00		
KHC	133.04	331 ePKP	39	25.50	-9.9X	
		e	39	38.20		
		i	39	53.50		
KMR	133.52	330 iPKP-	39	37.40	1.1	
		i	39	49.20		
		iPP	42	10.40		
GRF	133.71	333 e(PKP)	39	54.00	17.4X	
		e	42	08.00		
OHR	133.80	318 ePKP	39	35.00	-2.1	
		i	39	54.20		
PTJ	133.98	327 ePKP	39	35.20	-2.2	
KBA	134.57	329 ePKP	39	39.00	0.4	
	1.0s	13.40nm				
		iPP	42	16.70		
		ipPP	42	26.10		
		epPPP	45	21.50		
VBY	134.62	327 ePKP	39	38.80	0.4	
RBL	134.89	329 PKP	39	43.00	4.0X	
CEY	134.91	327 e(PKP)	39	41.00	2.0	
VOY	135.00	328 ePKP	39	35.80	-3.5X	
MEM	135.12	338 ePKP	39	44.00	4.8X	
WLF	135.83	337 ePKP	39	43.60	3.0X	
CTI	136.13	330 PKP	39	42.00	0.5	
PGD	137.59	327 PKP	39	48.50	4.1X	
ASS	137.61	326 PKP	39	54.00	9.7X	
CRE	137.63	327 PKP	39	55.00	10.6X	
VAI	137.65	331 PKP	39	38.00	-6.2X	
PAG	137.78	78 ePKP	39	40.00	-5.4X	
AZI	137.86	324 PKP	39	54.00	9.3X	
FIR	137.90	327 ePKP	39	52.00	7.3X	
MNS	138.04	325 PKP	39	48.00	2.9X	
BDI	138.05	328 PKP	39	42.00	-3.1X	
BOB	138.13	330 PKP	39	51.00	5.7X	
ORO	138.20	332 PKP	39	36.00	-9.4X	
SOI	138.51	317 PKP	39	47.00	1.0	
ITA	138.56	142 ePKP	39	38.80	-8.2X	
BMA	138.64	143 ePKP	39	41.50	-5.3X	
LOR	138.67	337 ePKP	39	40.80	-5.3X	
	1.1s	14.60nm				
SSF	138.97	337 ePKP	39	41.80	-4.8X	
	1.0s	8.00nm				
RDJ	139.03	144 ePKP	39	55.60	8.2X	
AVF	139.26	337 ePKP	39	42.90	-4.2X	
BGF	139.64	337 ePKP	39	42.90	-4.9X	
	1.0s	14.80nm				
MAF	140.03	337 ePKP	39	44.30	-4.2X	
	1.0s	10.00nm				
LMR	140.62	331 ePKP	39	45.50	-4.1X	
MFF	140.69	340 ePKP	39	44.70	-5.0X	
	1.0s	20.00nm				
BNG	142.68	264 iPKPc	39	49.00	-5.2X	
	0.6s	115.00nm				
		i	40	02.10		
		i	42	52.50		
ETER	143.11	333 e(PKP)	39	43.80	-10.3X	
ATB	143.87	110 e(PKP)	39	50.70	-5.5X	
ECRI	145.00	339 ePKP	39	57.00	-0.4	
ESEL	145.09	330 e(PKP)	39	56.00	-1.5	
EROQ	145.38	334 ePKP	39	58.00	0.0	
EMON	145.70	345 ePKP	39	58.00	-0.5	
ETOR	146.39	337 e(PKP)	40	00.80	1.0	
STS	146.51	347 ePKP	40	00.80	1.0	
ERUA	146.63	344 ePKP	40	03.00	3.0X	
ECHE	147.00	335 ePKP	40	04.00	3.3X	
GUD	147.31	339 ePKP	40	03.30	2.0	
ACU	147.64	333 ePKP	40	07.80	6.0X	
PTO	148.18	346 ePKP	40	04.80	2.3	
EVIA	148.44	335 ePKP	40	00.70	-2.4	
EPLA	148.47	341 e(PKP)	40	06.80	3.7X	
EBAN	149.36	337 e(PKP)	40	08.00	3.5X	
ENIJ	149.72	333 e(PKP)	40	11.30	6.2X	
ASMO	150.04	336 ePKP	40	10.20	4.6X	
AFC	150.04	335 e(PKP)	40	12.00	6.3X	
CRT	150.12	335 ePKP	40	10.00	4.3X	
EHOR	150.21	338 ePKP	40	10.20	4.5X	
AAPN	150.23	336 iPKPc	40	10.00	4.1X	
ACHM	150.29	336 ePKP	40	10.00	4.0X	
APHE	150.36	335 iPKPc	40	10.50	4.3X	
ALOJ	150.40	336 ePKP	40	10.20	4.0X	
ATEJ	150.53	336 iPKP	40	10.20	3.7X	
EVAL	150.94	340 ePKP	40	11.30	4.5X	
EPRU	150.96	338 ePKP	40	12.50	5.6X	
EJIF	151.50	337 ePKP	40	15.00	7.3X	
TAF	151.59	331 iPKP	40	13.50	5.5X	
		i	40	26.00		
IFR	153.91	334 iPKP	40	14.00	2.5	
		i	40	23.50		
		i	40	37.50		
AVE	155.03	337 ePKP	40	16.00	3.3X	
		i	40	52.00		
TIO	157.05	334 iPKP	40	29.40	13.7X	
		i	41	01.00		
KOGH	161.30	258 ePKP	40	22.00	1.4	
		e	44	49.00		
KUK	161.45	258 ePKP	40	21.00	0.3	
		e	45	00.50		
KIC	165.68	255 PKP	40	23.52	-1.2	
	1.2s	75.00nm				
LIC	165.91	254 PKP	40	23.82	-1.1	
TIC	166.02	255 PKP	40	23.72	-1.3	
	1.0s	45.00nm				

S.D. = 1.1 on 272 of 368 obs.

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* FEB 14, 1989 07h 11m 26.71± 1.11s
38.849 N ± 8.1km 20.577 E ±14.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.2 (ATH).

VLS	0.67	179 ePn	11	40.10	0.1	
		eSn	11	46.50		
LSK	1.30	1 iPnd	11	54.30	3.5X	
TPE	1.51	343 ePn	11	53.50	-0.3	
KZN	1.72	32 ePn	11	59.00	2.0	
NEO	2.11	77 ePn	12	02.70	0.2	
OHR	2.27	4 ePn	12	09.60	4.8X	
TIR	2.55	348 ePn	12	22.50	13.7X	
PLG	2.69	55 ePn	12	10.00	-0.8	
PHP	2.84	358 ePn	12	23.60	10.8X	
VAY	2.90	31 ePn	12	12.50	-1.3	
SKO	3.19	12 ePn	12	18.00	0.2	

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

? FEB 14, 1989 07h 56m 00.76± 5.93s
15.077 N ±53.2km 98.454 W ±15.8km
DEPTH = 33.0km (normol)
OFF COAST OF GUERRERO, MEXICO (65)

ACX	2.24	323 eP	56	35.50	-0.7	
OXX	2.60	40 iP	56	41.00	-0.5	
III	3.42	344 eP	56	52.50	-0.8	
IIT	3.92	2 eP	57	02.00	1.5	
IISM	4.02	15 iP	57	01.00	-0.6	
ALQ	21.05	341 eP	00	45.60	1.0	

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

? FEB 14, 1989 08h 02m 57.92± 2.83s
16.015 N ±31.6km 98.395 W ±13.6km
DEPTH = 33.0km (normol)
3.6mb (2 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX	1.64	301 eP	03	23.00	-1.9	
OXX	1.92	56 eP	03	28.00	-1.1	
III	2.56	337 eP	03	42.50	4.3X	
IIT	2.99	2 eP	03	45.00	0.6	
IISM	3.11	18 eP	03	45.00	-0.8	
MEO	18.69	360 eP	07	22.90	7.1X	
	0.8s	2.40nm			3.4mb	
ALQ	20.19	340 eP	07	34.00	1.2	
	0.9s	4.62nm			3.8mb	
YKA	47.81	350 P	11	37.00	3.1X	
INK	56.84	345 eP	12	42.00	0.7	
MBC	61.24	354 eP	13	13.00	1.3	

S.D. = 1.5 on 7 of 10 obs.

& FEB 14, 1989 08h 18m 29.76s
60.989 N 152.274 W
DEPTH = 4.1km
SOUTHERN ALASKA (2)
<AGS-P>. ML 3.4 (PMR).

SPU	0.22	29 Pn	18	34.50	0.2	
		iS	18	37.71		
CRP	0.28	12 iP	18	35.60	0.1	
		iS	18	39.71		
CGLM	0.35	22 Pn	18	36.50	-0.2	
		iS	18	41.35		
RDT	0.42	189 iP	18	38.82	0.6	
		iS	18	45.60		
NKA	0.56	116 iP	18	43.08	2.0	
RED	0.62	203 iP	18	41.97	-0.2	
ILIM	0.97	201 iP	18	48.11	-0.7	
		iS	19	01.48		
NNL	1.07	153 iP	18	51.20	0.8	
		iS	19	04.75		
SLKM	1.12	115 iP	18	50.35	-0.9	
		iS	19	05.22		
PWA	1.33	59 eP	18	53.20	-1.7	
PMS	1.34	78 iPc	18	53.50	-1.6	
HOM	1.37	166 eP	18	55.23	-0.4	
BRLK	1.41	150 eP	18	55.21	-1.0	
PDB	1.54	219 iP	18	57.90	-0.1	
CNPM	1.56	160 iP	18	57.51	-0.8	
		iS	19	18.28		
SVW	1.63	276 iPc	18	58.10	-1.3	
PLRM	1.63	67 eP	18	57.58	-1.7	
		eS	19	18.00		
PMR	1.63	67 eP	18	57.00	-2.3	
SEW	1.65	121 eP	18	59.18	-0.4	
PME	1.69	66 eP	18	58.70	-1.5	
GHO	1.79	63 eP	19	00.10	-1.7	
KNK	1.90	75 iP	19	03.32	0.1	
SML	2.07	65 eP	19	05.01	-0.7	
CDD	2.18	199 eP	19	07.41	0.1	
TTA	2.63	319 iPc	19	12.00	-1.8	
VZW	2.79	86 eP	19	15.75	-0.3	
KLU	3.11	78 eP	19	20.30	-0.3	
TOA	3.13	66 eP	19	21.90	1.1	
KDC	3.25	182 iPc	19	22.80	0.3	
IMA	5.14	354 eP	19	47.20	-2.2	

30 obs. associated

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* FEB 14, 1989 10h 37m 36.02± 3.02s
10.581 N ±18.5km 61.919 W ±24.9km
DEPTH = 27.4 ± 7.6 km
TRINIDAD (98)

TCE	0.20	55 eP	37	41.51	-0.5	
		eS	37	54.91		
TRN	0.51	82 eP	37	46.51	0.0	
		eS	38	06.54		
TPP	0.53	120 eP	37	46.74	0.0	
		eS	38	05.03		
TBH	0.84	96 eP	37	52.18	0.2	
GRW	1.59	9 eP	38	03.47	0.7	
		eS	38	23.85		
BIM	4.00	12 eP	38	36.81	-0.2	
MVM	4.07	14 eP	38	38.35	0.2	
FDF	4.19	10 eP	38	39.34	-0.5	

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

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* FEB 14, 1989 11h 30m 40.08± 1.05s
30.975 S ± 8.4km 71.767 W ±10.4km
DEPTH = 97.7 ± 12.5 km
NEAR COAST OF CENTRAL CHILE (135)

JACH	1.97	150 iPc	31	12.10	-0.7	
RTRS	2.14	69 iPc	31	20.00	5.0X	
PEL	2.35	157 iPc	31	17.60	-0.2	
		iS	31	35.00		
LCCH	2.50	176 iP	31	19.50	-0.2	
		iS	31	37.50		
RTCB	2.59	102 iPc	31	21.10	0.0	
		S	31	51.50		
FCH	2.66	152 iP	31	22.50	0.2	
		iS	31	54.50		
ZON	2.70	103 iPc	31	23.00	0.4	
TACH	2.76	165 iPd	31	23.50	0.2	
		iS	31	55.00		
RTLL	2.85	98 iPc	31	24.00	-0.6	
		S	31	56.50		
RTCV	2.90	109 iPc	31	25.60	0.4	
LNV	2.99	174 iP	31	26.00	-0.4	
CFA	3.08	103 ePc	31	17.50	-10.3X	
CHCH	3.10	163 iP	31	29.00	1.1	
		iS	32	04.00		
ZOBO	15.01	14 Pc	34	09.00	0.2	
ITA	25.61	77 e(P)	36	02.00	-0.3	
BMA	25.93	78 eP	36	05.00	0.0	

S.D. = 0.5 on 14 of 16 obs.

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* FEB 14, 1989 13h 05m 39.27± 0.40s
17.422 S ± 8.9km 167.426 E ± 9.9km
DEPTH = 33.0km (normol)

14d 13h

4.8mb (12 obs.) 4.9Msz (4 obs.)
VANUATU ISLANDS (186)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 24C
Centraid Location:
Origin Time 13:05:42.3 0.6
Lat 17.50S 0.07 Lon 167.51E 0.07
Dep 15.0 FIX Holf-duration 1.9
Moment Tensor; Scale 10**17 Nm
Mrr= 1.00 0.05 Mtt=-0.17 0.07
Mff=-0.83 0.07 Mrt= 1.02 0.18
Mrf=-1.42 0.20 Mtf= 0.32 0.05
Principal Axes:
T Val= 2.04 Plg=59 Azm= 48
N -0.08 5 147
P -1.96 30 241
Best Double Couple:Mo=2.0*10**17
NP1:Strike=348 Dip=15 Slip= 111
NP2: 146 76 84

PVC	0.90	111	iPd	05	48.70	-6.9X
			iS	05	56.50	
DZM	4.72	191	iPd	06	45.80	-4.2X
			iS	07	36.00	
VSG	11.05	316	eP	08	18.00	-0.2
BRS	16.78	231	Pc	09	35.20	1.8
COO	19.28	224	eP	10	05.00	0.7
RMQ	19.51	239	iPd	10	08.40	1.5
RAB	19.91	310	eP	10	04.00	-7.2X
CTA	20.22	259	iPc	10	16.00	1.6
	1.0s	52.00nm			4.8mb	
Z	19s	2.20um			4.5Msz	
		iS		14	09.00	
KRP	21.63	162	P	10	26.00	-2.6
BWA	23.99	221	eP	10	50.80	-1.1
CNB	24.00	219	eP	10	53.00	1.0
CMS	24.07	230	eP	10	54.00	1.3
CAN	24.22	219	eP	10	55.10	0.9
QIS	26.48	259	iPc	11	16.20	0.7
STK	27.45	234	eP	11	24.00	-0.3
WB5	31.39	260	eP	11	58.10	-1.5
WRA	31.41	260	Pd	11	57.90	-1.9
	1.0s	10.10nm			4.6mb	
ASPA	31.95	253	iPd	12	02.90	-1.6
	0.9s	29.00nm			5.2mb	
Z	21s	4.69um			5.1Msz	
		eS		17	13.50	
		LR		24	02.70	
KNA	37.05	267	eP	12	47.00	-1.2
GUMO	38.02	323	eP	13	04.30	8.0X
Z	19s	1.30um			4.8Msz	
COOL	44.01	243	eP	13	44.00	-1.6
MBL	44.95	257	iPc	13	53.50	0.2
	0.6s	8.00nm			4.8mb	
MEKA	46.01	250	eP	14	01.00	-0.6
	0.4s	4.00nm			4.7mb	
NWAO	47.54	241	eP	14	12.00	-1.7
	0.6s	4.00nm			4.6mb	
Z	20s	1.50um			5.0Msz	
N	20s	0.60um				
E	20s	1.00um				
NANU	48.85	255	iPc	14	24.10	0.3
	0.6s	18.00nm			5.3mb	
PCI	49.57	284	eP	14	33.00	3.5X
	1.0s	3.00nm			4.3mb	
MAT	60.35	333	eP	15	45.00	-2.5
	1.1s	21.52nm			5.2mb	
		eS		23	58.00	
SSE	65.57	317	eP	16	22.00	-0.1
Z	14s	0.40um			4.8MszX	
		eS		25	06.00	
WHN	69.86	313	eP	16	47.50	-1.5
PSI	70.39	279	ePd	16	53.20	0.6
MDJ	70.72	332	eP	16	52.50	-1.4
CN2	72.02	329	eP	17	00.50	-1.3
SPA	72.69	180	ePd	17	04.10	-1.6
	0.9s	10.00nm			4.8mb	
		e		17	13.90	
BJI	74.45	322	eP	17	15.00	-1.0
		eS		26	52.00	
TIY	75.34	318	P	17	21.00	-0.3
N	19s	0.86um				
		pP		17	31.00	32kmX
XAN	75.62	313	eP	17	22.50	-0.5
KMI	75.85	302	eP	17	24.50	-0.2
		pP		17	35.00	34kmX
CHG	76.33	295	eP	17	28.40	1.1
HHC	77.73	320	eP	17	35.00	0.3
CD2	77.77	308	eP	17	34.60	-0.4
BTO	78.54	319	eP	17	40.80	1.6
LZH	80.24	313	eP	17	50.00	1.5
	2.5s	79.00nm			5.3mb	
GTA	84.63	314	Pd	18	12.30	1.2
Z	23s	0.60um			4.9MszX	
PNT	92.40	39	eP	18	50.00	2.3
GBA	93.98	283	Pd	18	56.90	1.3
	0.6s	1.40nm			4.6mb	
WMQ	94.71	314	eP	18	59.50	0.9
FRB	120.27	25	ePKP	24	25.00	-3.0X
SUF	127.39	339	ePKP	24	39.00	-2.8
	0.4s	1.80nm				
ZST	140.91	328	ePKP	24	53.40	-14.3X
KHC	141.93	332	PKP	25	03.60	-6.0X
TIR	143.37	317	ePKP	25	10.90	-1.3
KBA	143.52	330	ePKP	25	07.50	-5.0X
	1.0s	14.10nm				
		i		25	16.30	
VBY	143.64	326	ePKPd	25	09.30	-3.2X
LJU	143.65	328	ePKP	25	08.50	-4.0X
RBL	143.86	329	PKPc	25	09.30	-3.7X
CEY	143.91	327	e(PKP)	25	09.00	-4.0X
VOY	143.99	328	ePKP	25	08.90	-4.3X
FVI	144.14	330	PKPc	25	09.00	-4.3X
WLF	144.46	339	PKPd	25	11.60	-2.1
DOU	144.60	341	PKP	25	11.70	-2.3
CDF	145.10	337	PKP	25	12.19	-2.9
FEL	145.26	335	PKP	25	12.93	-2.4
VAL	145.51	357	iPKP	25	14.60	-0.8
MOF	145.62	336	PKP	25	13.77	-2.2
VITF	145.74	338	PKP	25	14.29	-1.7
HAU	145.79	337	iPKPc	25	15.20	-0.9
BBS	145.79	336	PKP	25	14.29	-1.9
CIO	146.30	325	ePKP	25	17.44	0.2
VAI	146.53	333	PKPc	25	16.50	-0.8
PGD	146.59	327	PKPc	25	19.00	1.2
CRE	146.65	327	PKP	25	17.50	-0.3
ASS	146.65	325	PKP	25	15.00	-2.7
SDI	146.89	322	PKPd	25	18.50	0.3
BNG	146.90	251	iPKPd	25	19.80	0.9
	0.9s	59.00nm				
		i		25	29.50	
		i		25	43.10	
FIR	146.90	328	ePKP	25	19.00	1.0
AZI	146.93	323	PKP	25	19.00	0.9
BOB	147.07	331	PKP	25	19.50	1.1
ORO	147.07	333	PKP	25	19.00	0.6
MNS	147.10	324	PKPd	25	18.50	0.1
FLN	147.23	345	iPKPc	25	18.80	0.4
LDF	147.29	345	ePKP	25	18.90	0.4
LOR	147.30	339	iPKPc	25	19.50	0.9
RDP	147.49	324	PKP	25	22.20	3.1X
LBF	147.51	339	ePKP	25	19.90	0.9
SOI	147.58	315	PKP	25	21.50	2.3
SSF	147.60	339	iPKPc	25	20.30	1.3
GRR	147.67	345	ePKP	25	19.90	0.8
LPG	147.69	334	iPKPc	25	21.10	1.5
SMF	147.85	339	ePKP	25	20.70	1.2
AVF	147.89	339	ePKP	25	20.70	1.2
LPF	148.04	345	ePKP	25	21.10	1.4
BNI	148.08	334	PKPd	25	22.50	2.4
BGF	148.26	340	ePKP	25	21.80	1.7
MAF	148.65	340	iPKPc	25	23.10	2.3
TCF	148.71	340	ePKP	25	22.90	2.0
MFF	149.13	343	ePKP	25	23.80	2.3
LPO	150.46	340	iPKPc	25	27.50	3.9X

S.D. = 1.5 on 80 of 97 obs.

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* FEB 14, 1989 13h 17m 34.45± 0.48s
17.530 S ±12.9km 167.332 E ±12.7km
DEPTH = 33.0km (normal)
4.9mb (10 obs.)
VANUATU ISLANDS (186)

PVC	0.96	103	iP	17	40.50	-11.1X
			iS	17	53.00	
DZM	4.59	190	iP	18	37.40	-6.1X
			iS	19	32.20	
BRS	16.64	231	Pd	21	27.50	0.6
			i	21	35.20	
COO	19.14	224	eP	21	58.00	0.2
RMQ	19.38	239	iPd	22	02.40	1.8
	0.8s	154.00nm			5.3mb	
CTA	20.11	259	iPc	22	09.30	0.8
	0.9s	42.02nm			4.8mb	
PMG	21.20	290	eP	22	22.00	2.3
BWA	23.85	222	eP	22	45.70	0.0
CNB	23.86	219	eP	22	47.00	1.1
CMS	23.94	231	eP	22	49.00	2.5
CAN	24.08	219	eP	22	48.70	0.7
QIS	26.37	259	eP	23	10.00	0.3
STK	27.31	234	eP	23	18.00	-0.2
WB5	31.28	260	eP	23	52.20	-1.7
WRA	31.31	260	Pd	23	51.70	-2.4
	0.7s	5.50nm			4.5mb	
ASPA	31.83	253	iPd	23	56.70	-2.0
	0.9s	36.00nm			5.3mb	
Z	22s	1.72um			4.7MszX	
		LR		35	45.80	
KNA	36.95	267	eP	24	41.00	-1.6
FORR	37.97	242	eP	24	50.00	-1.0
MEKA	45.89	250	eP	25	55.00	-0.8
	0.6s	7.00nm			4.8mb	
NWAO	47.41	241	eP	26	05.00	-2.8
	0.7s	8.00nm			4.8mb	
NANU	48.73	255	iPc	26	18.00	-0.1
	0.6s	24.00nm			5.4mb	
MAT	60.41	333	eP	27	39.00	-4.0X
	0.9s	20.17nm			5.3mb	
MDJ	70.77	332	eP	28	48.00	-1.4
CN2	72.07	329	P	28	55.20	-2.0
SPA	72.58	180	e(P)	28	57.30	-2.9
	1.0s	5.00nm			4.5mb	
		e		29	08.90	
BJI	74.48	322	eP	29	10.00	-1.4
TIY	75.36	318	eP	29	17.00	0.4
CHG	76.29	295	eP	29	23.00	0.8
LZH	80.24	313	eP	29	45.00	1.3
GTA	84.64	314	P	30	07.50	1.2
PNT	92.54	39	eP	30	39.00	-4.6X
GBA	93.91	283	P	30	52.00	1.5
	0.8s	1.80nm			4.6mb	
WMQ	94.72	314	P	30	54.30	0.5
FRB	120.41	25	ePKP	36	23.00	-0.5
SUF	127.46	339	iPKP	36	34.50	-2.6
NB2	133.32	344	PKP	36	45.20	-3.2X
	0.7s	2.60nm				
KBA	143.57	330	ePKP	37	02.50	-5.3X
	1.1s	7.90nm				
VBY	143.68	326	e(PKP)	37	04.30	-3.5X
CEY	143.96	327	ePKP	37	04.40	-3.9X
VOY	144.03	328	ePKP	37	04.40	-4.1X
WLF	144.53	339	PKPc	37	06.30	-2.7
DOU	144.67	341	PKPc	37	05.80	-3.5X
	0.7s	21.10nm				
CTI	145.12	330	PKPd	37	07.60	-2.8
CDF	145.17	337	ePKP	37	07.40	-2.9
BSF	145.83	336	ePKP	37	09.30	-2.2
HAU	145.85	337	ePKP	37	09.50	-1.9
VAI	146.59	332	PKP	37	11.50	-1.1
PGD	146.64	327	PKPd	37	14.00	1.0
ASS	146.69	325	PKP	37	12.50	-0.5
CRE	146.69	327	PKP	37	15.50	2.5
BNG	146.78	251	iPKPc	37	15.20	1.3
	0.7s	21.00nm				
		i		37	24.90	
		i		37	46.10	
FIR	146.94	327	ePKP	37	14.00	0.8
BOB	147.12	330	PKP	37	14.00	0.4
ORO	147.12	333	PKPc	37	13.00	-0.7
MNS	147.13	324	PKPc	37	14.00	0.3
FLN	147.31	345	ePKP	37	12.90	-0.8
LOR	147.37	339	ePKP	37	13.70	-0.2
LDF	147.37	344	ePKP	37	13.20	-0.6
LBF	147.57	339	ePKP	37	14.10	-0.2
SSF	147.67	339	ePKP	37	14.60	0.3
GRR	147.75	345	ePKP	37	14.30	-0.1
LPG	147.75	334	ePKP	37	15.50	0.6
SMF	147.91	338	ePKP	37	15.20	0.4
AVF	147.96	339	ePKP	37	15.10	0.3
LPF	148.12	345	ePKP	37	15.40	0.4
BNI	148.14	334	PKP	37	17.00	1.7
BGF	148.33	339	ePKP	37	16.20	0.8
MAF	148.72	339	ePKP	37	16.60	0.5
TCF	148.78	340	ePKP	37	17.30	1.1
LSF	149.03	341	ePKP	37	17.80	1.2
MFF	149.21	343	ePKP	37	18.10	1.3
FRF	149.33	332	ePKP	37	19.00	1.9
LMR	149.57	332	ePKP	37	19.50	2.1
RJF	149.87	340	ePKP	37	20.20	2.4
LFF	150.45	340	ePKP	37	21.40	2.7

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Part 2 of 2
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U. S. DEPARTMENT OF THE INTERIOR

Geological Survey

EARTHQUAKE DATA REPORT

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

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

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

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

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

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

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

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.

```
LPO   150.53 340 ePKP  37 21.80   3.0X
     S.D. = 1.5  on  65 of  76 obs.
-------------------------------------
*  FEB  14, 1989  13h 25m 59.91± 3.01s
   56.784 N ±23.7km  153.259 W ±11.6km
   DEPTH =  33.0km  (normal)
 KODIAK ISLAND REGION              ( 13)
     ML 4.5 (PMR).

KDC     1.05  23 iPc    26 20.50   2.2
CDD     2.16 355 eP     26 35.27   0.9
AUI     2.56 358 eP     26 40.82   0.9
CNPM    2.95  20 iP     26 47.04   1.5
PDB     3.05 351 eP     26 46.68  -0.3
ILIM    3.31   3 eP     26 51.50   0.8
NNL     3.43  17 eP     26 53.57   1.3
RED     3.65   4 eP     26 55.95   0.4
RDT     3.83   6 eP     26 58.19   0.2
SEW     3.88  29 eP     26 58.44  -0.3
                eS     27 43.70
SLKM    4.06  22 iP     27 01.21  -0.1
                eS     27 49.00
SPU     4.46   8 eP     27 06.99   0.0
SVW     4.51 345 iPc    27 05.90  -1.8
CRP     4.53   7 eP     27 08.77   0.6
CGLM    4.58   8 eP     27 09.16   0.4
KNIM    4.60  37 eP     27 07.99  -0.9
PMS     4.86  22 eP     27 12.20  -0.5
HIN     5.06  41 iP     27 16.13   0.6
KNK     5.26  26 eP     27 17.59  -0.7
PMR     5.27  22 eP     27 17.20  -1.1
CVA     5.44  43 eP     27 20.29  -0.4
VZW     5.52  36 eP     27 21.01  -0.9
SGAM    5.62  45 eP     27 22.91  -0.4
SML     5.63  25 eP     27 22.92  -0.6
VLZ     5.64  37 eP     27 23.08  -0.5
KLU     6.04  36 iP     27 28.96  -0.4
TTA     6.32 348 eP     27 31.60  -1.6
TOA     6.44  31 ePd    27 35.00   0.0
FBA     8.57  16 eP     28 03.40  -1.1
INK    14.61  30 eP     29 33.00   7.3X
YKA    20.11  58 P      30 33.90   0.6
MBC    23.08  20 eP     31 04.00   1.1
     S.D. = 1.0  on  31 of  32 obs.
-------------------------------------
*  FEB  14, 1989  13h 58m 59.73± 0.55s
   17.588 S ±11.8km  167.678 E ±12.0km
   DEPTH =  33.0km  (normal)
   4.7mb (  3 obs.)  4.8Msz (  3 obs.)
 VANUATU ISLANDS                   (186)

PVC     0.62 104 iP     59 10.50  -1.6
                iS     59 20.50
DZM     4.61 194 iPc    00 06.80  -2.2
                iS     00 55.80
RMO    19.63 240 iPd    03 29.20   0.5
CNB    24.02 219 eP     04 23.00  10.3X
BWA    24.03 222 eP     04 13.00   0.3
CMS    24.16 231 eP     04 15.00   1.0
CAN    24.25 220 eP     04 16.00   1.1
STK    27.55 234 eP     04 46.00   0.4
WB5    31.60 261 eP     05 20.90  -1.0
WRA    31.62 260 Pd     05 29.70   7.6X
       1.0s      4.00nm          4.2mb
ASPA   32.13 253 iPc    05 24.50  -2.1
     Z  18s      1.34um          4.7Msz
                LR     18 10.10
MAT    60.61 333 (P)    09 07.00  -2.7
       1.4s     37.21nm          5.3mb
SPA    72.52 180 e(P)   10 25.70   0.5
       1.0s      7.50nm          4.6mb
     Z  18s      0.71um          5.0Msz
BJI    74.73 321 P      10 36.00  -2.1
TIY    75.62 318 eP     10 42.70  -0.7
     Z  20s      0.50um          4.8Msz
GTA    84.92 314 eP     11 33.50   0.5
MEM   143.94 340 PKPc   18 30.30  -3.0X
WLF   144.70 339 PKP    18 33.60  -1.0
CDF   145.35 337 ePKP   18 34.50  -1.4
       1.1s     48.80nm
BSF   146.01 337 ePKP   18 36.50  -0.6
       1.2s     17.80nm
HAU   146.03 337 ePKP   18 36.60  -0.4
       1.2s     26.10nm
BNG   147.07 250 iPKPd  18 41.00   1.3
       0.8s     11.00nm
                i      18 52.40

FLN   147.45 345 ePKP   18 40.10   0.9
       1.1s     29.30nm
LOR   147.54 339 ePKP   18 40.90   1.5
       1.1s     12.20nm
LBF   147.75 339 ePKP   18 41.60   1.8
       1.1s     21.90nm
SSF   147.84 339 ePKP   18 41.90   2.0
GRR   147.89 346 ePKP   18 41.60   1.7
SMF   148.09 339 ePKP   18 43.40   3.1X
AVF   148.13 339 ePKP   18 43.40   3.1X
       1.2s     23.80nm
LPF   148.26 346 ePKP   18 42.60   2.1
       1.1s     39.00nm
MFF   149.36 343 ePKP   18 45.20   2.9X
       1.0s     17.60nm
LFF   150.61 341 ePKP   18 48.90   4.7X
       1.1s     26.30nm
     S.D. = 1.5  on  25 of  32 obs.
-------------------------------------
%  FEB  14, 1989  14h 17m 54.78± 2.02s
   43.357 N ±21.2km  143.042 E ± 9.9km
   DEPTH =  33.0km  (normal)
 HOKKAIDO, JAPAN  REGION           (224)

ASAJ    0.81 339 P      18 05.20  -4.6X
HOOJ    0.99 169 iP+    18 12.30   0.0
                S      18 28.50
KUSJ    1.25 101 iPd    18 16.00   0.1
                S      18 34.60
MRRJ    1.72 238 P      18 22.30  -0.5
                eS     18 45.10
AOMJ    3.43 216 eP     18 48.10   0.9
OFUJ    4.40 194 eP     19 00.00  -0.9
                S      19 52.40
YAMJ    5.66 205 eP     19 19.40   0.7
MAT     7.75 210 (P)    19 48.00  -0.1
       0.8s      7.46nm          4.8mb X
     S.D. = 0.8  on   7 of   8 obs.
-------------------------------------
*  FEB  14, 1989  14h 53m 06.21± 0.39s
   17.452 S ± 8.2km  167.310 E ± 9.7km
   DEPTH =  33.0km  (normal)
   4.8mb ( 10 obs.)  5.1Msz (  8 obs.)
 VANUATU ISLANDS                   (186)
     CENTROID, MOMENT TENSOR       (HRV)
     Data Used: GDSN
     L.P.B.: 11S, 23C
     Centroid Location:
     Origin Time        14:53: 7.9 0.4
     Lat 17.52S 0.06 Lon 167.56E 0.06
     Dep  15.0 FIX Half-duration  2.3
     Moment Tensor;   Scale 10**17 Nm
       Mrr= 1.68 0.07  Mtt= 0.15 0.12
       Mff=-1.83 0.11  Mrt= 0.37 0.24
       Mrf=-1.57 0.33  Mtf= 0.35 0.07
      Principal Axes:
       T  Val=  2.30  Plg=69  Azm= 73
       N        0.20       2      169
       P       -2.51      21      259
     Best Double Couple:Mo=2.4*10**17
      NP1:Strike=353 Dip=24 Slip=  95
      NP2:        168     66      88

PVC     1.00 107 iPd    53 15.00  -8.9X
                iS     53 27.00
DZM     4.67 190 iPc    54 12.60  -3.7X
                iS     55 03.90
HNR    10.71 317 eP     55 40.00  -0.5
                eS     57 39.00
VSG    11.00 317 eP     55 43.00  -1.5
BRS    16.67 231 P      57 05.50   6.5X
                eS     00 22.00
COO    19.18 224 eP     57 34.00   4.0X
RMO    19.40 239 eP     57 33.00   0.4
CTA    20.11 259 iPc    57 41.20   1.1
       0.9s     17.65nm          4.4mb
     Z  20s      2.45um          4.6Msz
                iS     01 39.00
PMG    21.16 290 eP     57 56.00   5.0X
KRP    21.64 162 P      57 53.00  -2.6
BWA    23.89 221 eP     58 17.80  -0.1
                i      58 27.30
CNB    23.91 218 eP     58 19.00   0.9
CMS    23.97 230 eP     58 20.00   1.4
                e      58 25.00
CAN    24.13 219 eP     58 21.00   0.8
                i      58 30.30

STK    27.34 233 eP     58 50.00  -0.2
TAU    30.54 210 eP     59 28.00   9.2X
WB5    31.28 260 eP     59 24.00  -1.5
WRA    31.30 260 Pc     59 23.40  -2.4
       0.8s      4.00nm          4.3mb
ASPA   31.84 253 iPc    59 28.50  -2.0
       0.8s     19.00nm          5.0mb
     Z  21s      5.18um          5.2Msz
                eS     04 40.10
                LR     11 28.10
GUMO   37.97 323 eP     00 36.00  13.1X
     Z  18s      1.76um          4.9Msz
FORR   37.98 242 eP     00 24.00   1.1
MBL    44.83 257 eP     01 20.00   0.7
       0.6s     10.00nm          4.9mb
MEKA   45.90 250 eP     01 28.00   0.3
       0.5s      5.00nm          4.7mb
NWAO   47.43 241 eP     01 39.00  -0.7
       0.8s     14.00nm          5.0mb
     Z  20s      1.60um          5.0Msz
     N  20s      0.60um
     E  20s      1.30um
NANU   48.73 255 eP     01 49.00  -0.9
PCI    49.47 284 eP     02 02.50   6.8X
       1.0s      4.00nm          4.4mb
IIDJ   59.57 332 eP     03 09.80   0.7
CHJJ   59.58 334 eP     03 09.60   0.5
MAT    60.33 333 iPc    03 12.30  -2.0
       1.2s     28.13nm          5.3mb
                eS     11 26.00
MTMJ   60.54 333 eP     03 12.70  -3.1X
SSE    65.52 317 eP     03 46.00  -2.7
     Z  16s      0.40um          4.7MszX
     E  15s      0.60um
                eS     12 32.00
WHN    69.80 313 eP     04 14.00  -1.5
     Z  18s      0.74um          5.0Msz
                S      13 20.00
PSI    70.29 279 ePc    04 23.00   4.1X
MDJ    70.69 332 eP     04 20.50  -0.2
TIA    71.40 319 eP     04 26.80   1.6
CN2    71.99 329 eP     04 27.50  -1.0
SPA    72.66 180 e(P)   04 29.90  -2.6
       1.0s     14.00nm          4.9mb
     Z  20s      1.35um          5.2Msz
                e      07 10.60
BJI    74.40 322 eP     04 43.50   0.8
                eS     14 20.00
                eSKS   14 54.00
TIY    75.29 318 eP     04 49.00   1.0
     N  19s      0.90um
XAN    75.56 313 eP     04 49.10  -0.5
KMI    75.78 302 eP     04 52.00   0.7
     Z  20s      1.30um          5.2Msz
                S      14 38.00
CD2    77.70 308 eP     05 02.60   1.0
BTO    78.49 319 eP     05 11.20   5.4X
LZH    80.18 313 eP     05 15.00  -0.1
       1.5s     44.00nm          5.2mb
GTA    84.57 314 eP     05 38.20   0.5
     Z  19s      0.70um          5.1Msz
     N  15s      0.40um
                S      16 04.00
WDC    86.92  46 ePc    05 42.40  -6.7X
CMB    87.35  49 ePc    05 48.10  -3.3
GBA    93.88 283 P      06 25.00   2.9X
WMO    94.65 314 eP     06 26.20   0.9
QUE   107.32 297 ePdiff07 18.30  -4.4X
FRB   120.35  25 ePKP   11 51.00  -4.1X
KJF   125.88 340 ePKP   12 04.00  -1.8
SUF   127.38 339 ePKP   12 07.00  -1.7
NB2   133.24 344 PKP    12 13.40  -6.6X
       0.9s      3.10nm
KSP   139.46 332 ePKP   12 20.00 -11.9X
BZS   139.97 322 ePKP   12 35.00   2.0
BRG   140.46 333 ePKP   12 35.30   1.6
       1.5s     26.00nm
KHC   141.91 332 ePKP   12 06.50 -30.0X
TIR   143.31 317 ePKP   12 31.20  -7.8X
KBA   143.49 330 ePKP   12 35.00  -4.4X
       1.1s     14.00nm
VBY   143.60 326 ePKP   12 35.40  -4.0X
LJU   143.62 328 e(PKP) 12 21.00 -18.4X
MEM   143.69 340 PKP    12 31.70  -7.6X
CEY   143.88 327 ePKP   12 36.50  -3.4X
VOY   143.95 328 ePKP   12 35.20  -4.9X
FVI   144.11 330 PKP    12 37.00  -3.2X
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14d 15h

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WLF    144.45 339 PKP    12 38.50   -2.1
DOU    144.59 341 PKPc   12 37.60   -3.3X
         0.7s     14.40nm
CTI    145.05 330 PKPc   12 45.00    3.0X
CDF    145.09 337 ePKP   12 38.90   -3.1X
BSF    145.75 336 ePKP   12 40.90   -2.2
HAU    145.77 337 ePKP   12 40.90   -2.2
ARV    146.17 326 PKP    12 44.90    1.0
CIO    146.26 325 ePKP   12 43.23   -0.9
TDS    146.49 317 PKP    12 45.90    1.4
VAI    146.51 332 PKPc   12 44.60    0.4
PGD    146.56 327 PKP    12 46.20    1.5
BNG    146.79 251 iPKPc  12 47.00    1.3
         1.2s     35.00nm
                   i      12 56.90
                   i      13 19.50
SDI    146.85 322 PKP    12 46.00    1.0
FIR    146.87 327 ePKP   12 45.00    0.1
AZI    146.89 323 PKP    12 46.50    1.5
BDI    147.00 328 PKP    12 44.00   -1.2
BOB    147.04 330 PKP    12 46.20    0.9
ORO    147.04 333 PKPd   12 46.00    0.7
FLN    147.23 345 ePKP   12 44.20   -1.1
PII    147.28 328 PKP    12 46.00    0.5
LOR    147.29 339 ePKP   12 45.10   -0.4
LDF    147.29 344 ePKP   12 44.50   -0.9
RDP    147.44 323 PKP    12 48.00    2.0
LBF    147.49 339 ePKP   12 45.60   -0.3
SOI    147.52 315 PKPc   12 48.20    2.1
SSF    147.59 339 ePKP   12 46.10    0.1
GRR    147.67 345 ePKP   12 45.80   -0.2
SMF    147.83 338 ePKP   12 46.30   -0.1
AVF    147.88 339 ePKP   12 46.50    0.1
LPF    148.04 345 ePKP   12 46.90    0.3
BNI    148.06 334 PKP    12 50.00    3.0X
TCF    148.70 340 ePKP   12 48.90    1.1
LSF    148.95 341 ePKP   12 49.30    1.1
MFF    149.13 343 ePKP   12 49.70    1.3
CAF    149.94 339 ePKP   12 52.20    2.4
LFF    150.37 341 ePKP   12 53.10    2.8
LPO    150.45 340 ePKP   12 53.40    2.9X
     S.D. = 1.4  on  72 of 103 obs.
-------------------------------------
   FEB  14, 1989  14h 57m 41.53± 0.45s
   43.545 N ± 4.1km   13.009 E ± 3.9km
   DEPTH =  10.0km  (geophysicist)
 CENTRAL ITALY                    (381)
     MD 2.8 (SSD).

ARV      0.07 226 P      57 44.50    0.6
                 eSg    57 46.00
CIO      0.36 164 iPgc   57 49.00    0.0
                 iSg    57 56.18
SSO      0.39 130 e(Pg)  57 50.22    0.7
                 e(Sg)  57 58.52
AOI      0.43  89 iPgc   57 50.67    0.3
                 iSg    57 59.06
ASS      0.54 208 P      57 52.00   -0.4
                 eSg    58 00.40
RSM      0.56 314 P      57 52.90    0.1
                 iSg    58 01.70
CRE      0.77 277 P      57 56.50   -0.2
                 eSg    58 07.80
ALP      0.87 151 iPg    57 57.77   -0.6
                 iSg    58 13.33
SFI      0.92 295 P      57 58.90   -0.2
                 eSg    58 12.60
PGD      0.99 290 P      58 01.20    0.8
                 eSg    58 15.20
MNS      1.18 192 P      58 03.50   -0.2
                 eSg    58 19.50
CEY      2.42  24 eP     58 50.00   28.3X
VBY      2.53  39 e(Pn)  58 49.50   26.1X
                 eSn    59 10.30
VOY      2.57  14 e(Pn)  58 23.00   -0.9
                 e      58 29.20
                 eSn    59 08.40
PTJ      3.16  41 eP     59 15.90   43.6X
KBA      3.54   4 iP     58 48.10   10.3X
       0.5s     3.20nm
                 i      59 20.00
                 i(Sg)  59 39.50
TIR      5.53 111 e(Pg)  58 19.90  -46.0X
                 eSg    58 43.10
     S.D. = 0.6  on  12 of  17 obs.
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*  FEB  14, 1989  15h 04m 52.20± 0.58s
   36.314 N ± 7.9km   76.758 E ±13.7km
   DEPTH =  33.0km  (normal)
   4.7mb (  2 obs.)
 KASHMIR-XINJIANG BORDER REGION   (324)

NDI      7.62 177 iPn    06 44.00    0.3
                 eSn    08 06.00
                 eSg    08 51.00
GKN     10.64 139 PKP    07 25.70    0.2
         0.7s     30.00nm          5.6mb X
KKN     11.15 137 PKP    07 32.10   -0.5
         0.7s     27.00nm          5.5mb X
DMN     11.20 138 PKP    07 33.40    0.1
         0.7s     49.00nm          5.8mb X
PKI     11.39 137 PKP    07 32.20   -3.8X
         0.7s     27.00nm          5.5mb X
GUN     11.39 135 PKP    07 35.60   -0.4
         0.5s     17.00nm          5.5mb X
MHI     13.93 275 eP     08 18.00    8.5X
                 eS     10 36.00
HYB     18.89 175 eP     09 12.70    0.2
GBA     22.62 178 P      10 04.00   12.6X
NB2     47.33 323 P      13 23.30   -1.1
         0.9s      3.50nm          4.4mb
MBC     67.25   4 eP     15 45.00    0.1
         0.7s     12.00nm          5.1mb
INK     73.26  11 eP     16 22.00    0.5
YKA     81.11   5 P      17 05.70    0.6
     S.D. = 0.6  on  10 of  13 obs.
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&  FEB  14, 1989  15h 43m 54.60s
   35.040 N          119.160 W
   DEPTH =  14.0km
 CENTRAL CALIFORNIA               ( 39)
      <PAS-P>. ML 3.9 (PAS), 4.2
      (BRK). Felt (III) at Shafter and
      Simi Valley. Felt (II) at
      Mettler.

ABL      0.20 195 iPd    43 59.00   -0.4
BCH      0.77 281 iPc    44 08.90   -0.5
SYP      0.85 233 iPc    44 11.40    0.8
BLP      1.13 245 iPc    44 15.90    0.6
SBB      1.15 107 iPc    44 15.30   -0.5
PKEM     1.28 323 eP     44 17.30   -0.6
PHAM     1.29 308 eP     44 16.50   -1.6
PRI      1.65 312 ePd    44 22.30   -1.0
                 iS     44 48.30
FRI      2.00 347 iPd    44 27.30   -0.9
PEC      2.01 124 eP     44 27.70   -0.8
LLA      2.14 318 eP     44 28.60   -1.7
PRS      2.21 306 ePd    44 29 40   -2.0
SAO      2.53 314 eP     44 34.10   -1.8
                 i      44 35.02
PLM      2.54 131 iPc    44 35.60   -0.6
ARN      3.00 321 eP     44 41.60   -1.0
GCC      3.04 312 eP     44 41.20   -1.8
MHC      3.05 320 e(P)   44 42.35   -1.0
CMB      3.15 342 iPc    44 44 60   -0.1
                 iS     45 24.10
TNP      3.41  27 eP     44 47.50   -1.1
MNA      3.48  13 e(P)   44 53.50    4.0
BKS      3.76 320 ePd    44 52.70   -0.7
                 eS     45 34.50
KVN      4.09  12 eP     44 58.40    0.2
GLA      4.11 118 eP     44 56.20   -2.1
ORV      4.88 338 eP     45 09.20    0.0
MIN      5.64 341 eP     45 21.20    1.1
ALQ     10.42  87 eP     46 32.00    5.2
EDM     18.64  11 eP     48 16.00    2.3
     27 obs. associated
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   FEB  14, 1989  17h 10m 47.36± 1.52s
   17.511 S ± 8.3km  167.579 E ± 8.5km
   DEPTH =  12.5 ±  9.5 km
   4.9mb ( 10 obs.)  4.9Msz (  4 obs.)
 VANUATU ISLANDS                  (186)
      CENTROID, MOMENT TENSOR     (HRV)
      Doto Used: GDSN
      L.P.B.: 11S, 21C
      Centroid Location:
      Origin Time          17:10:53.7 0.7
      Lat 17.46S 0.08 Lon 167.42E 0.08
      Dep  19.6 4.3 Half-duration  1.8
      Moment Tensor;   Scale 10**16 Nm
        Mrr= 6.66 0.52  Mtt= 1.37 0.85
        Mff=-8.03 0.68  Mrt= 6.43 1.91
        Mrf=-7.32 2.52  Mtf= 1.19 0.51
      Principal Axes:
        T  Val= 12.52   Plg=58   Azm= 31
        N       -0.42      18       153
        P      -12.10      26       252
      Best Double Couple:Mo=1.2*10**17
       NP1:Strike= 17 Dip=25 Slip= 137
       NP2:       147     73       71

PVC      0.74 108 iPd    11 01.50    0.0
                 iS     11 11.30
DZM      4.66 193 iPc    11 56.80   -2.4
                 iS     12 50.10
HNR     10.93 316 eP     13 29.00    2.4
                 eS     15 24.00
VSG     11.22 316 eP     13 30.00   -0.6
BRS     16.83 232 iPd    14 45.20    0.7
                 e(S)   18 16.00
COO     19.32 225 eP     15 17.00    1.7
RMO     19.59 240 iPd    15 20.00    1.6
CTA     20.35 259 iPd    15 26.90    0.5
         1.4s   1209.30nm          6.1mb X
       Z  20s      1.60um           4.4Msz
                 iS     19 22.00
BWA     24.02 222 eP     16 02.30   -0.7
CNB     24.02 219 iPd    16 05.10    2.1
CMS     24.13 231 eP     16 06.00    2.0
                 e      16 17.00
CAN     24.25 219 eP     16 06.30    1.2
                 i      16 17.90
OIS     26.60 259 eP     16 27.00   -0.5
STK     27.51 234 iPd    16 36.20    0.5
WB5     31.52 260 eP     17 10.00   -1.6
WRA     31.54 260 Pd     17 09.70   -2.1
         1.0s      7.70nm           4.6mb
ASPA    32.06 253 iPd    17 14.80   -1.6
         0.8s     19.00nm           5.1mb
       Z  21s      3.24um           5.0Msz
                 eS     22 26.80
                 LR     29 13.50
KNA     37.19 267 eP     17 59.00   -1.3
FORR    38.18 242 eP     18 07.00   -1.5
MBL     45.07 257 iPd    19 05.20    0.0
         0.4s      4.00nm           4.7mb
MEKA    46.12 250 eP     19 13.00   -0.4
         0.4s      3.00nm           4.6mb
NWAO    47.63 241 eP     19 24.00   -1.3
         0.6s      4.00nm           4.7mb
       Z  20s      1.10um           4.8Msz
       N  20s      0.90um
       E  20s      0.40um
NANU    48.96 255 eP     19 35.70    0.0
         0.6s     17.00nm           5.3mb
PCI     49.74 284 eP     19 43.30    1.5
         1.5s      3.00nm           4.1mb
MAT     60.50 333 iPc    20 56.70   -2.8
         1.2s     34.38nm           5.4mb
                 (S)    29 09.00
WHN     70.03 313 eP     22 00.00   -1.1
PSI     70.55 279 ePc    22 03.50   -1.1
MDJ     70.86 332 eP     22 05.80   -0.1
CN2     72.17 329 eP     22 12.40   -1.4
SPA     72.60 180 e(P)   22 15.10   -1.2
         1.0s     14.00nm           5.0mb
BJI     74.61 322 eP     22 27.00   -1.1
                 eS     32 04.00
                 eSKS   32 36.00
TIY     75.50 318 eP     22 33.90    0.5
       Z  20s      0.60um           4.9Msz
XAN     75.79 313 Pd     22 34.40   -0.7
CHG     76.50 295 eP     22 39.70    0.4
CD2     77.94 308 eP     22 47.20    0.1
BTO     78.70 319 eP     22 52.60    1.4
LZH     80.40 313 eP     23 00.00   -0.6
         2.0s     55.00nm           5.2mb
GTA     84.80 314 eP     23 23.50    0.4
SHL     85.15 299 eP     23 25.50    0.3
WMQ     94.88 314 eP     24 12.20    1.7
KJF    126.03 340 ePKP   29 50.00   -0.5
SUF    127.53 339 iPKP   29 51.30   -2.1
ZST    141.06 328 ePKP   30 17.60   -1.6
KHC    142.08 332 PKP    30 17.90   -3.2X
KBA    143.67 330 ePKPd  30 20.00   -4.1X
         1.2s     11.50nm
VBY    143.79 326 ePKPd  30 21.30   -2.8
RBL    144.02 329 PKP    30 24.50    0.0
CEY    144.07 327 ePKP   30 21.90   -2.7
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VOY 144.14 328 ePKPd 30 21.50 -3.3X
FVI 144.29 330 PKP 30 21.50 -3.3X
WLF 144.59 339 PKP 30 22.60 -2.6
DOU 144.73 341 PKPc 30 23.80 -1.7
0.7s 20.00nm
CTI 145.23 330 PKPd 30 25.00 -1.6
CDF 145.24 337 ePKP 30 25.30 -1.3
VAL 145.61 358 ePKP 30 26.00 -0.9
BSF 145.91 337 ePKP 30 27.20 -0.5
HAU 145.93 337 ePKP 30 27.40 -0.3
SAL 146.08 331 PKPc 30 29.00 1.1
ARV 146.37 326 PKPc 30 29.50 1.0
SFI 146.65 327 PKPd 30 30.90 2.0
VAI 146.68 333 PKPd 30 29.40 0.6
PGD 146.75 327 PKPc 30 31.00 1.7
CRE 146.80 327 PKP 30 30.50 1.2
ASS 146.81 325 PKPc 30 31.00 1.7
BNG 147.01 250 iPKPc 30 31.60 1.2
0.6s 7.00nm
i 30 42.30
SDI 147.05 323 PKPc 30 30.50 0.8
FIR 147.06 328 ePKP 30 32.00 2.5
BDI 147.18 329 PKP 30 31.50 1.6
ORO 147.21 333 PKPd 30 32.00 2.1
BOB 147.22 331 PKP 30 22.60 -7.3X
MNS 147.25 324 PKP 30 30.00 0.0
FLN 147.35 345 ePKP 30 30.80 0.9
LDF 147.42 345 ePKP 30 31.00 1.0
LOR 147.44 339 ePKP 30 31.60 1.5
PII 147.47 328 PKP 30 31.00 0.8
LBF 147.64 339 ePKP 30 32.10 1.6
SSF 147.73 339 ePKP 30 32.40 1.9X
SOI 147.74 315 PKPd 30 33.50 2.7X
GRR 147.79 345 ePKP 30 32.30 1.7X
LPG 147.83 334 ePKP 30 33.50 2.3X
SMF 147.98 339 ePKP 30 33.10 2.1X
AVF 148.02 339 ePKP 30 32.90 1.9X
LPF 148.17 345 ePKP 30 33.30 2.1X
BNI 148.22 334 PKPc 30 35.50 3.9X
BGF 148.40 340 ePKP 30 34.20 2.6X
MAF 148.78 340 ePKP 30 35.30 3.0X
TCF 148.84 340 ePKP 30 35.30 2.9X
LSF 149.09 341 ePKP 30 35.70 2.9X
MFF 149.26 343 ePKP 30 36.10 3.1X
CAF 150.09 339 ePKP 30 38.90 4.6X
LFF 150.51 341 ePKP 30 39.80 4.9X
LPO 150.60 340 ePKP 30 40.10 5.1X
S.D. = 1.5 on 71 of 92 obs.

FEB 14, 1989 18h 22m 28.55± 0.34s
43.118 N ± 5.6km 102.567 E ± 5.3km
DEPTH = 33.0km (normal)
4.8mb (13 obs.)
MONGOLIA (334)

GTA 4.25 210 iPnd 23 33.80 1.2
Pg 23 45.00
Sg 24 39.00
BTO 6.11 112 Pn 23 53.60 -5.4X
Pg 24 21.00
Sn 25 16.50
Sg 25 42.20
HHC 7.08 106 Pnc 24 11.20 -1.4
Sn 25 33.20
Sg 26 14.60
LZH 7.09 172 Pn 24 14.00 1.2
e 24 25.00
S 26 12.50
TIY 9.26 122 eP 24 46.30 3.5X
E 10s 1.00um
XAN 10.34 149 eP 24 55.30 -2.3
BJI 10.65 102 P 25 02.00 0.2
Z 12s 0.60um
Lg 28 03.00
WMQ 10.84 279 eP 25 02.20 -2.3
CD2 12.22 175 eP 25 32.10 8.9X
CN2 16.62 80 Pc 26 21.80 1.3
pP 26 25.00
GYA 16.95 167 P 26 29.00 4.1X
SHL 19.57 210 iP 26 56.00 -0.9
KSH 20.28 269 eP 27 08.20 4.1X
GUN 20.31 227 P 27 04.60 -0.1
KKN 20.73 228 P 27 09.00 0.1
0.7s 38.00nm 4.9mb
PKI 20.83 227 P 27 10.20 0.1
0.6s 27.00nm 4.8mb
GKN 20.92 230 P 27 10.60 -0.2
0.7s 37.00nm 4.9mb
DMN 20.96 228 P 27 11.90 0.5
0.7s 46.00nm 5.0mb
CHG 24.42 188 ePd 27 50.80 5.6X
0.8s 7.84nm 4.3mb
MHI 33.54 273 eP 29 09.00 1.7
GBA 36.51 224 Pd 29 37.90 5.2X
0.9s 3.90nm 4.3mb
SOD 45.83 328 iP 30 49.30 0.7
KJF 45.88 324 iP 30 49.00 -0.1
SUF 46.87 322 iP 30 56.70 -0.2
0.6s 4.70nm 4.7mb
NUR 48.11 319 iP 31 06.60 -0.1
HFS 53.36 321 eP 31 45.60 -0.9
0.7s 14.30nm 5.1mb
NB2 54.09 323 P 31 50.80 -1.1
0.7s 9.90nm 5.0mb
KBA 59.74 308 eP 32 33.00 0.5
0.8s 5.20nm 4.7mb
i 32 37.30
INK 61.29 21 eP 32 42.00 -0.5
WB5 69.18 148 eP 33 33.20 -0.6
WRA 69.23 148 Pd 33 38.60 4.5X
1.2s 5.60nm 4.5mb
YKA 70.59 17 P 33 42.30 0.3
ASPA 72.45 150 iPc 33 54.60 1.1
FFC 80.31 14 iPc 34 37.30 0.0
0.6s 10.00nm 5.0mb
SES 82.36 21 ePd 34 49.20 1.0
BNG 82.62 269 ePd 34 50.90 0.8
0.6s 8.00nm 5.0mb
i 34 55.60
ZOBO 152.08 341 PKP 42 23.00 6.9X
S.D. = 1.0 on 28 of 37 obs.

& FEB 14, 1989 19h 57m 00.90s
48.392 N 118.746 W
DEPTH = 9.6km
WASHINGTON (29)
<SEA>. CL 2.9 (SEA).

DPW 0.64 145 iPd 57 12.53 -1.2
DHW2 0.80 240 eP 57 15.73 -0.7
SAW 0.82 213 eP 57 16.01 -0.8
WTV 1.07 230 eP 57 20.15 -0.9
ODS 1.09 180 eP 57 20.68 -0.7
eS 57 36.04
NLW 1.11 254 eP 57 20.97 -0.9
EPH 1.19 209 eP 57 22.58 -0.5
eS 57 38.75
WRD 1.45 191 eP 57 25.49 -1.7
CRF 1.63 196 eP 57 27.92 -1.8
VTG 1.66 211 eP 57 28.55 -1.7
OTH 1.68 191 eP 57 29.05 -1.5
BVW 1.76 206 eP 57 33.94 2.2
RPW 1.84 273 eP 57 34.75 1.8
GBL 1.86 195 eP 57 33.91 0.8
MDW 1.91 202 eP 57 33.04 -0.8
ETP 1.94 186 eP 57 31.94 -2.3
16 obs. associated

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* FEB 14, 1989 20h 19m 19.61± 1.08s
14.813 N ±16.1km 93.663 W ± 9.7km
DEPTH = 76.0 ± 10.4 km
3.9mb (1 obs.)
NEAR COAST OF CHIAPAS, MEXICO (69)

TPX 1.36 86 iP 19 43.50 0.2
OC2 1.45 100 ePd 19 45.00 0.5
S 20 00.50
KKG 1.58 84 iP+ 19 45.00 -1.4
SBG 1.59 78 eP+ 19 45.50 -1.2
SOG 2.01 91 eP 19 52.00 -0.4
JAT 2.02 104 eP+ 19 52.00 -0.3
SOG2 2.03 92 ePd 19 54.20 1.7
SCX 2.15 27 iP 19 55.00 1.0
ITG 2.74 94 ePd 20 02.80 0.4
FUG 2.76 97 eP 20 02.10 -0.5
S 20 37.00
MMG 2.90 95 eP+ 20 05.00 0.3
BVA 2.93 92 eP 20 00.50 -4.6X
REC 3.06 97 ePd 20 03.00 -3.9X
IXG 3.17 101 eP+ 20 08.60 0.2
S 20 47.00
YUP 3.79 99 eP+ 20 13.00 -4.0X
MRL 3.85 86 eP 20 13.20 -4.6X
IISM 5.47 320 eP 20 35.50 -4.8X
LVVM 5.57 332 (P) 20 35.50 -6.3X
IIT 6.10 314 eP 20 50.00 0.5
III 6.60 303 eP 20 55.50 -0.7
MEO 20.37 348 eP 23 51.50 -1.0
0.8s 4.90nm 3.9mb
YKA 49.88 347 P 28 08.60 1.7
FRB 51.90 14 eP 28 21.00 -1.3
INK 59.21 344 eP 29 18.00 3.2X
MBC 62.92 353 eP 29 40.00 0.3
S.D. = 1.0 on 18 of 25 obs.

% FEB 14, 1989 20h 44m 15.87± 3.53s
61.163 N ±11.8km 3.553 E ±27.8km
DEPTH = 10.0km (geophysicist)
NORWEGIAN SEA (642)
MD 2.8 (BER).

SUE 0.60 100 iP 44 28.30 0.4
BER 1.17 131 iP 44 38.37 0.6
HYA 1.28 89 iP 44 39.64 0.1
iS 44 54.81
ODD1 1.97 128 iP 44 49.72 0.0
iSn 45 12.10
iSg 45 15.84
BLS3 2.28 138 iP 44 54.09 -0.2
eS 45 17.64
BLS1 2.41 136 iP 44 56.07 0.0
iSn 45 17.99
iSg 45 27.85
RGS 3.73 57 eP 45 15.40 0.7
eSn 45 54.50
NRA0 3.92 93 iPd 45 15.70 -1.7
iPb 45 23.40
iPg 45 26.40
iS 45 58.40
iSg 46 13.80
S.D. = 0.9 on 8 of 8 obs.

& FEB 14, 1989 21h 41m 10.59s
48.429 N 122.228 W
DEPTH = 0.8km
3.6mb (2 obs.)
WASHINGTON (29)
<SEA>. ML 4.2 (SEA). Minor domage at Big Lake Elementary School. Felt (V) at Arlington, Clearlake and Lyman; (IV) at Mount Vernon; (III) at Silvana and (II) at Bow. Also felt at Burlington and Sedro Woolley.

CMW 0.07 94 iPd 41 12.37 0.3
OHW 0.23 243 iP 41 15.05 -0.1
JCW 0.31 140 iPd 41 16.30 -0.5
MBW 0.42 31 iPd 41 19.13 0.2
MCW 0.47 302 iPd 41 19.28 -0.8
RPW 0.48 87 iPd 41 19.68 -0.4
VDB 0.60 8 iPd 41 22.41 -0.2
BLH 0.61 167 iPd 41 22.31 -0.4
eS 41 31.49
BLN 0.65 230 iPc 41 22.70 -0.9
PGW 0.66 202 iP 41 23.31 -0.4
HTW 0.70 154 iPd 41 23.46 -1.1
SNB 0.72 299 P 41 23.70 -1.2
VGZ 0.73 269 iPd 41 23.48 -1.7
PGC 0.84 286 eP 41 25.00 -2.4
SPW 0.88 181 eP 41 27.71 -0.4
eS 41 39.60
HNB 0.88 345 iPd 41 26.51 -1.6
GMW 0.96 203 iPc 41 27.69 -2.0
eS 41 42.08
HDW 0.96 216 iPc 41 27.52 -2.2
STW 1.00 254 iPc 41 28.42 -2.0
eS 41 41.99
RMW 1.01 164 iPd 41 29.26 -1.4
OSD 1.16 239 iP 41 31.64 -1.6
BIB 1.21 324 iPd 41 32.00 -1.9
MEW 1.26 193 eP 41 33.46 -1.3
GSM 1.26 166 eP 41 33.28 -1.7
OBC 1.30 253 eP 41 33.52 -2.0
NLW 1.31 105 eP 41 34.51 -1.3
SMW 1.34 214 eP 41 34.06 -2.2
LON 1.70 170 ePc 41 40.40 -1.3
PNT 1.94 62 eP 41 44.20 -0.9
BMW 2.07 200 eP 41 45.50 -1.5
SHW 2.24 180 eP 41 48.70 -0.8
DPW 2.75 100 eP 41 54.80 -2.0

14d 21h

VGB	3.08	161	eP	42	00.70	-0.7
LNOR	3.71	132	eP	42	09.10	-1.3
LBFM	7.09	178	eP	42	58.00	-0.2
LRM	7.16	108	ePn	42	56.50	-2.8
HRY	7.24	100	ePn	42	55.30	-5.0
SES	7.56	71	eP	43	13.00	8.4
KVN	9.84	161	eP	43	34.00	-2.4
FFC	14.05	56	eP	44	29.00	-4.0
	1.2s	2.00nm			3.8mb	
YKA	14.73	14	P	44	46.90	5.2
RSON	18.58	72	eP	45	32.50	1.8
	0.5s	1.72nm			3.5mb	
INK	20.73	348	eP	45	57.00	2.3
	43 obs. ossociated					

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* FEB 14, 1989 22h 25m 41.48± 1.70s
7.034 N ±13.2km 72.885 W ±19.1km
DEPTH = 142.0 ± 20.3 km
4.6mb (3 obs.)
NORTHERN COLOMBIA (99)

FUQ	1.77	209	eP	26	14.50	0.3
BOG	2.67	206	iPc	26	26.00	0.8
			iS	26	56.50	
UPA	6.86	287	e(P)	27	18.70	-2.2
PSO	7.30	218	eP	27	28.00	0.8
ZOBO	23.63	169	P	30	41.00	-0.5
LPB	23.89	169	eP	30	52.00	8.2X
CNCB	24.18	168	P	30	46.00	-0.8
FRB	56.69	2	eP	35	12.00	0.0
YKA	63.15	340	P	35	56.70	0.7
TIC	67.33	86	P	36	22.88	-0.8
LIC	67.35	86	Pc	36	23.16	-0.7
KIC	67.63	86	Pc	36	24.92	-0.6
	0.6s	17.00nm			5.0mb	
MBC	73.64	350	eP	37	02.00	1.4
	0.6s	9.00nm			4.7mb	
NB2	81.03	29	P	37	43.10	1.5
	0.7s	1.90nm			3.9mb	
ASPA	149.43	234	iPKPc	45	14.40	3.1X
	0.8s	8.00nm				
WB5	150.64	242	iPKPc	45	17.70	4.5X
	S.D. = 1.2 on 13 of 16 obs.					

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* FEB 14, 1989 22h 48m 13.82± 0.41s
17.921 S ±14.3km 167.899 E ±14.7km
DEPTH = 33.0km (normal)
4.8mb (1 obs.)
VANUATU ISLANDS (186)

PVC	0.43	65	iPd	48	22.80	-0.6
			iS	48	32.00	
DZM	4.35	198	iPc	49	19.90	0.5
			iS	50	12.10	
RMQ	19.65	241	iPd	52	42.30	-0.7
BWA	23.92	223	eP	53	24.60	-1.2
CMS	24.11	232	eP	53	28.00	0.4
CAN	24.13	220	eP	53	29.00	1.2
STK	27.52	235	eP	53	58.00	-1.5
WB5	31.76	261	eP	54	32.00	-5.4X
ASPA	32.24	254	iPd	54	36.80	-4.8X
	1.0s	13.00nm			4.8mb	
	Z 22s	0.52um			4.2MszX	
			epP	54	45.90	32kmX
			LR	06	26.10	
CHG	76.95	295	eP	00	06.00	0.7
KBA	144.18	330	e(PKP)	07	41.00	-7.2X
	0.8s	2.90nm				
WLF	145.08	339	PKPd	07	45.30	-4.0X
DOU	145.22	341	PKPc	07	45.00	-4.6X
CDF	145.74	337	ePKP	07	46.60	-4.1X
BSF	146.40	337	ePKP	07	48.50	-3.3X
HAU	146.42	337	ePKP	07	48.70	-3.0X
BNG	147.16	250	ePKPc	07	54.60	0.7
	0.6s	11.00nm				
			i	08	03.00	
FIR	147.56	328	ePKP	07	50.00	-3.6X
FLN	147.82	346	ePKP	07	52.20	-1.7
LOR	147.93	339	ePKP	07	52.90	-1.2
LBF	148.13	339	ePKP	07	53.40	-1.1
SSF	148.22	340	ePKP	07	53.80	-0.8
GRR	148.26	346	ePKP	07	53.50	-1.1
LPG	148.33	334	ePKP	07	54.70	-0.5
SMF	148.47	339	ePKP	07	54.40	-0.6
AVF	148.51	339	ePKP	07	54.30	-0.7
LPF	148.64	346	ePKP	07	54.70	-0.5
BGF	148.88	340	ePKP	07	55.50	-0.2
MAF	149.27	340	ePKP	07	56.60	0.3
TCF	149.33	340	ePKP	07	56.60	0.2
LSF	149.58	341	ePKP	07	56.90	0.2
MFF	149.74	344	ePKP	07	57.40	0.5
RJF	150.42	340	ePKP	07	59.70	1.7
CAF	150.58	339	ePKP	08	00.10	1.8
LFF	151.00	341	ePKP	08	00.90	2.0
LPO	151.08	340	ePKP	08	01.30	2.3
	S.D. = 1.2 on 27 of 36 obs.					

& FEB 14, 1989 23h 46m 05.70s
40.547 N 124.843 W
DEPTH = 5.0km
NEAR COAST OF NORTHERN CALIF. (35)
<BRK>. ML 3.3 (BRK).

FHC	0.70	68	iPc	46	19.50	-0.2
			eS	46	29.10	
WDC	1.76	88	iPc	46	34.80	-2.2
LTCM	2.10	98	eP	46	40.20	-1.8
LBFM	2.37	69	eP	46	44.50	-1.7
MIN	2.48	94	eP	46	44.60	-3.0
ORV	2.75	110	eP	46	48.60	-2.7
	6 obs. ossocioted					

% FEB 15, 1989 00h 04m 04.01± 0.39s
36.999 N ± 3.8km 3.988 W ± 3.9km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)
MG 3.4 (MDD). Felt (III) in the
Alhomo de Gronodo oreo.

AFC	0.44	54	iPgc	04	12.60	-0.4
			eSg	04	18.60	
EBAN	1.17	8	iPgd	04	26.20	0.2
			eSg	04	41.90	
EHOR	1.29	310	ePn	04	27.70	-0.3
			eSn	04	46.10	
EJIF	1.31	246	ePn	04	28.90	0.7
			eSn	04	46.10	
ENIJ	1.42	91	iPnc	04	30.40	0.5
OJEN	1.54	235	eP	04	36.00	4.5X
PLAT	1.67	239	eP	04	39.50	6.0X
CNIL	1.77	250	eP	04	46.00	11.1X
EMEL	1.89	153	ePn	04	36.00	-0.6
EVIA	2.01	35	ePn	04	38.50	0.0
			eSn	05	03.50	
EVAL	2.28	286	ePn	04	42.00	-0.2
			eSn	05	10.10	
TOL	2.88	359	ePn	04	51.00	0.2
			ePb	04	59.00	
			ePg	05	03.00	
			eSg	05	38.00	
EPLA	3.47	332	ePn	04	59.10	-0.1
			eSn	05	39.30	
ECHE	3.51	42	ePn	05	00.30	0.5
			eSn	05	41.00	
IFR	3.60	195	iP	05	01.00	-0.1
GUD	3.64	358	ePn	05	01.30	-0.4
			eSn	05	43.50	
ETOR	4.10	21	ePn	05	08.00	-0.2
	S.D. = 0.4 on 14 of 17 obs.					

FEB 15, 1989 00h 05m 35.85± 0.35s
42.006 N ± 4.2km 142.511 E ± 4.2km
DEPTH = 69.8 ± 3.5 km
4.9mb (32 obs.)
HOKKAIDO, JAPAN REGION (224)
Felt (III JMA) at Urokawa and (I
JMA) at Hiroo and Tomokomai.

URA	0.25	53	iP+	05	46.70	-0.1
			S	05	54.70	
HOO	0.66	65	P	05	00.00	-50.5X
HOOJ	0.69	57	iP+	05	50.70	-0.1
			S	06	01.60	
TMR	0.93	313	eP	05	00.00	-53.7X
MRRJ	1.15	292	iPd	05	56.20	-0.3
			S	06	11.90	
KUSJ	1.96	55	iPd	06	07.10	-0.4
			eS	06	31.40	
ASAJ	2.11	3	iPd	06	10.30	0.7
			eS	06	35.40	
AOMJ	2.16	229	P	06	11.40	1.1
			S	06	37.30	
OFUJ	2.99	193	P	06	21.20	-0.7
			S	06	56.50	
YAMJ	4.27	207	iPd	06	40.10	0.2
NIIJ	5.48	211	P	06	56.70	0.0
KAKJ	6.07	198	P	07	01.50	-3.5X
			S	08	08.60	
MAT	6.40	213	(P)	07	09.00	-0.5
	0.8s	20.90nm			4.7mb	
			(S)	08	23.00	
MTMJ	6.53	216	P	07	12.10	0.7
CHJJ	6.55	206	P	07	10.20	-1.4
			S	08	29.00	
IIDJ	7.44	210	P	07	25.10	1.1
TSRJ	8.23	220	P	07	36.50	1.7
MDJ	9.77	290	eP	07	56.00	0.0
CN2	12.64	284	P	08	35.00	0.6
BJI	19.94	273	eP	10	01.50	-3.1X
TIA	20.50	262	Pd	10	07.00	-3.3X
WHN	25.31	252	eP	10	56.50	-0.9
XAN	27.50	264	eP	11	15.40	-2.1
CD2	32.82	263	eP	12	02.70	-2.0
GYA	33.17	254	P	12	06.00	-1.8
WMQ	39.57	292	P	13	02.00	0.3
IMA	42.02	33	P	13	21.10	-0.5
KDC	42.97	45	P	13	28.90	-0.3
	0.7s	6.98nm			4.6mb	
CHG	43.51	251	iPc	13	34.80	0.7
	0.9s	8.40nm			4.5mb	
FBA	44.49	35	P	13	41.30	-0.2
	0.5s	4.86nm			4.6mb	
SHL	44.51	265	iP	13	41.70	-0.6
GUN	47.68	272	P	14	07.70	0.1
KKN	48.19	272	P	14	11.40	0.0
PKI	48.22	272	P	14	11.60	-0.1
	0.6s	19.00nm			5.2mb	
DMN	48.42	272	P	14	13.40	0.2
	0.6s	20.00nm			5.3mb	
GKN	48.56	273	P	14	14.00	-0.1
	0.5s	22.00nm			5.4mb	
INK	49.61	29	eP	14	19.00	-2.4
MBC	51.53	18	eP	14	35.00	-1.0
NDI	53.70	278	iPc	14	52.20	-0.5
YKA	59.11	32	P	15	30.90	0.0
KEV	59.12	339	eP	15	38.00	7.2X
QUE	60.36	285	eP	15	39.50	-0.6
SOD	60.73	336	iP	15	40.60	-1.3
KJF	62.44	333	iP	15	52.10	-1.3
GBA	62.53	264	Pc	15	53.80	-0.8
	0.9s	14.60nm			5.1mb	
BMW	63.67	50	P	16	02.40	0.6
SUF	63.95	333	iP	16	01.80	-1.5
	0.5s	7.20nm			4.9mb	
DPW	65.67	47	P	16	15.00	0.2
ASPA	65.82	189	iPd	16	15.50	-0.3
	1.2s	7.00nm			4.5mb	
NUR	65.98	331	iP	16	15.00	-1.4
LBFM	67.42	54	P	16	27.50	1.3
SES	67.84	42	eP	16	29.00	0.6
ORV	68.73	56	P	16	34.40	0.3
FFC	69.09	34	iPc	16	35.60	-0.4
	0.9s	19.00nm			5.0mb	
HFS	69.92	335	eP	16	39.90	-1.0
	0.4s	13.50nm			5.2mb	
NB2	69.94	337	P	16	40.20	-0.9
	0.6s	8.60nm			4.9mb	
LRM	70.04	46	eP	16	42.80	0.5
FRB	71.75	14	eP	16	51.00	-0.9
BW06	73.61	47	P	17	04.00	0.5
	0.8s	4.73nm			4.5mb	
RSON	75.34	33	P	17	12.40	-0.7
	0.5s	4.77nm			4.7mb	
KRA	75.46	326	iPd	17	14.30	0.6
VRI	75.50	319	eP	17	16.00	2.0
MLR	76.15	320	eP	17	18.00	0.1
			e	43	34.00	
KSP	76.33	328	eP	17	18.50	-0.1
CLL	77.21	330	iP	17	23.50	0.1
PRU	77.69	329	P	17	26.60	0.5
KHC	78.75	329	Pc	17	32.50	0.5
			e	17	51.50	
GRF	79.19	330	eP	17	35.30	0.9
	0.7s	13.00nm			5.0mb	
MEM	80.25	334	P	17	44.20	4.3X
KBA	80.50	328	iPd	17	42.50	0.8
	0.8s	3.30nm			4.3mb	
SKO	80.95	320	e(P)	17	44.80	1.0
NOH	81.66	304	eP	17	48.50	0.6
CDF	81.69	332	eP	17	47.90	0.2
	0.8s	5.30nm			4.5mb	

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OHR     81.91 320 e(P)  17 49.30   0.3
BSF     82.35 332 eP    17 51.00  -0.2
MBH     82.35 303 iPd   17 52.50   1.2
LOR     83.85 333 eP    17 59.20   0.4
        0.8s     10.70nm          4.9mb
FLN     83.91 336 eP    17 59.00   0.0
        0.8s      8.00nm          4.8mb
LDF     83.95 336 eP    17 59.30   0.1
LBF     84.06 333 eP    17 59.90   0.0
        0.8s      9.40nm          4.9mb
SSF     84.15 333 eP    18 00.60   0.4
        0.8s      4.50nm          4.6mb
LPG     84.35 330 eP    18 02.40   0.7
        0.6s      5.40nm          4.8mb
GRR     84.36 336 eP    18 00.80  -0.5
SMF     84.40 333 eP    18 01.80   0.3
        0.8s     10.70nm          4.9mb
AVF     84.44 333 eP    18 02.20   0.5
        0.6s     14.40nm          5.2mb
LPF     84.73 336 eP    18 03.20   0.1
BGF     84.81 333 eP    18 03.90   0.3
        1.0s      6.80nm          4.6mb
MAF     85.20 333 eP    18 06.50   1.0
        0.8s     16.10nm          5.1mb
LSF     85.51 334 eP    18 07.70   0.6
        0.8s     10.70nm          5.0mb
MFF     85.74 335 eP    18 09.00   0.8
        0.6s      5.40nm          4.8mb
GAC     86.33  26 eP    18 11.00  -0.1
CAF     86.50 333 eP    18 13.60   1.5
        0.8s     16.10nm          5.2mb
LFF     86.93 334 eP    18 15.30   1.2
        0.8s     11.80nm          5.1mb
LPO     87.01 333 eP    18 15.80   1.3
        0.6s      9.00nm          5.1mb
CVL     92.07  31 P     18 37.00  -1.3
     S.D. = 0.9  on  88 of  95 obs.
-----------------------------------------
?  FEB  15, 1989  00h 15m 12.33± 1.86s
   32.668 S ±10.7km   69.020 W ±28.1km
   DEPTH =  33.0km  (normal)
 MENDOZA PROVINCE, ARGENTINA        (139)

MDZ     0.26 146 eP     15 19.70   0.0
                eS      15 41.80
RTCV    0.90  27 iPd    15 29.80   1.1
                S       15 56.50
RTCB    1.19   9 iPc    15 34.00   1.1
                S       16 04.80
CFA     1.25  32 ePc    15 32.50  -1.1
RTLL    1.41  19 iPc    15 35.40  -0.6
                S       16 07.10
RTRS    2.52 351 iPc    15 51.20  -0.6
                S       16 34.00
     S.D. = 1.2  on   6 of   6 obs.
-----------------------------------------
*  FEB  15, 1989  00h 57m 17.53± 0.95s
   42.656 N ± 9.6km  143.598 E ±10.1km
   DEPTH =  24.8 ± 10.3 km
 HOKKAIDO, JAPAN  REGION            (224)
      Felt (I JMA) at Hiroo and
      Obihiro.

HOOJ    0.36 220 iPd    57 26.60   1.2
                S       57 33.10
OBI     0.38 314 eP     57 26.00   0.2
                S       57 33.00
HOO     0.43 209 P      57 00.00 -26.5X
KUSJ    0.93  61 iPd    57 34.10  -0.7
                S       57 46.50
ASAJ    1.62 335 P      57 44.40  -0.4
                eS      58 07.40
MRRJ    1.88 264 P      57 47.50  -1.1
                S       58 10.30
AOMJ    3.20 230 eP     58 07.70   0.4
                eS      58 45.40
OFUJ    3.86 203 P      58 15.50  -1.2
                S       58 58.60
YKA    58.14  32 P      07 12.60   1.6
     S.D. = 1.4  on   8 of   9 obs.
-----------------------------------------
&  FEB  15, 1989  01h 05m 56.40s
   62.017 N          124.311 W
   DEPTH =  10.0km  (geophysicist)
 NORTHWEST TERRITORIES, CANADA      (679)
      <PGC>. mbLg 3.3 (PGC).

DLB     4.60 221 Pn     07 08.00   0.3
YKC     4.62  80 Pn     07 06.50  -1.4
                Sn      07 57.60
HYT     6.44 265 P      07 33.00  -0.7
INK     7.40 332 eP     07 44.00  -3.0
MNB    10.35 159 ePn    08 24.00  -4.1
EDM    10.58 141 eP     08 26.50  -4.5
FFC    13.75 112 eP     09 04.00  -9.5
MBC    14.39   5 eP     09 15.00  -6.8
        8 obs. ossociated
-----------------------------------------
&  FEB  15, 1989  01h 11m 29.76s
   48.417 N          122.218 W
   DEPTH =   0.0km
 WASHINGTON                         ( 29)
      <SEA>. CL 2.4 (SEA). Felt in the
      Mount Vernon and Big Lake areas.

CMW     0.07  84 iPd    11 31.42   0.3
OHW     0.23 246 eP     11 34.07  -0.3
                eS      11 38.20
JCW     0.30 139 iPd    11 35.30  -0.4
                eS      11 40.50
MBW     0.42  30 eP     11 38.34   0.1
RPW     0.47  86 eP     11 38.68  -0.5
MCW     0.49 303 eP     11 38.23  -1.2
BLH     0.59 168 eP     11 41.34  -0.3
BLN     0.65 231 eP     11 41.86  -0.9
HTW     0.68 154 eP     11 42.45  -1.0
SPW     0.86 181 eP     11 46.98   0.0
GMW     0.95 204 eP     11 46.71  -2.0
HDW     0.95 216 eP     11 46.52  -2.3
RMW     1.00 164 eP     11 48.27  -1.4
STW     1.01 255 eP     11 47.46  -2.3
OSD     1.16 240 eP     11 50.68  -1.8
GSM     1.25 167 eP     11 52.47  -1.5
NLW     1.30 104 eP     11 54.18  -0.7
       17 obs. ossociated
-----------------------------------------
   FEB  15, 1989  01h 23m 31.96± 0.42s
   42.542 N ± 5.5km   84.584 E ± 6.0km
   DEPTH =  33.0km  (normal)
   4.3mb (  4 obs.)
 NORTHERN XINJIANG, CHINA           (332)

WMQ     2.61  60 iPnd   24 14.20   1.4
GTA    11.93 100 P      26 22.60  -0.2
GKN    14.51 180 P      26 57.00   0.1
        0.6s      8.00nm          4.4mb
GUN    14.64 175 P      26 58.30  -0.5
KKN    14.73 178 P      27 00.80   0.9
        0.6s      9.00nm          4.4mb
DMN    14.90 178 P      27 01.40  -0.8
PKI    14.95 177 P      27 03.40   0.5
        0.6s      9.00nm          4.3mb
NDI    15.06 206 eP     27 00.00  -4.0X
LZH    16.22 107 eP     27 20.00   0.9
QUE    18.76 235 eP     27 51.30   0.6
HHC    20.19  86 eP     28 06.60   0.0
MHI    20.32 261 iPc    28 08.00   0.0
XAN    20.85 106 eP     28 12.60  -0.8
TIY    21.79  93 eP     28 26.20   3.4X
    N  10s      0.50um
GYA    24.15 125 P      28 55.00   8.9X
HYB    25.57 193 eP     28 59.00  -0.6
CHG    26.60 148 eP     29 14.00   4.9X
KJF    38.51 324 eP     30 53.00   0.6
SUF    39.09 321 iP     30 58.50   1.2
SOD    39.38 329 eP     31 18.00  18.3X
KEV    39.70 333 eP     31 18.00  15.8X
NB2    46.26 320 P      31 55.60   0.0
        0.7s      2.50nm          4.3mb
M8C    60.50   6 eP     33 39.00  -1.5
INK    65.85  15 eP     34 14.00  -1.8
WB5    77.21 133 eP     35 30.00   5.7X
     S.D. = 0.9  on  18 of  25 obs.
-----------------------------------------
%  FEB  15, 1989  01h 54m 06.58± 0.82s
   37.009 N ± 9.2km    3.985 W ± 5.6km
   DEPTH =  10.0km  (geophysicist)
 SPAIN                              (377)
      MG 2.8 (MDD).

AFC     0.43  55 ePg    54 14.50  -0.9
                eSg     54 20.20
EBAN    1.16   8 ePg    54 28.50   0.2
                eSg     54 45.00

EHOR    1.29 309 ePn    54 30.20  -0.3
                eSn     54 49.00
EJIF    1.32 245 ePn    54 30.70  -0.2
                eSn     54 49.20
ENIJ    1.42  91 ePn    54 32.70   0.3
                eSn     54 51.50
EVIA    2.00  35 ePn    54 41.60   0.7
                eSn     55 06.00
EVAL    2.28 285 ePn    54 45.00   0.2
                eSn     55 12.30
GUD     3.63 358 ePg    55 15.00  10.9X
                eSg     55 57.30
     S.D. = 0.6  on   7 of   8 obs.
-----------------------------------------
   FEB  15, 1989  02h 15m 38.49± 0.51s
   40.809 N ± 3.9km   28.038 E ± 5.0km
   DEPTH =  10.0km  (geophysicist)
 TURKEY                             (366)

CTT     0.45  41 iPg    15 47.30  -0.3
                eSg     15 52.80
BNT     0.46 191 iPg    15 47.50  -0.4
EDC     0.48 196 iPg    15 48.50   0.2
                eSg     15 55.50
KCT     0.61 156 iPg    15 51.00   0.2
                iSg     16 01.00
ISK     0.82  71 ePg    15 53.30  -1.0
                eSg     16 05.30
DMK     1.03 348 iPg    15 58.00   0.0
                iSg     16 12.00
YLV     1.04 103 iPn    15 58.00  -0.2
GBZT    1.07  91 ePg    15 58.50  -0.1
                iSg     16 13.50
DST     1.28 159 iPn    16 02.10  -0.2
EZN     1.64 234 iPn    16 06.90  -0.5
GPA     1.81 106 ePn    16 11.60   1.7
TLB     3.78 360 eP     16 53.00  15.0X
VAY     4.17 279 e(P)   16 49.00   5.5X
MLR     4.92 343 eP     16 55.00   0.6
VRI     5.15 350 eP     17 03.00   5.6X
     S.D. = 0.7  on  12 of  15 obs.
-----------------------------------------
   FEB  15, 1989  03h 27m 57.23± 1.27s
    8.073 S ± 8.2km  117.435 E ± 9.2km
   DEPTH = 213.5 ± 14.0 km
   4.8mb ( 14 obs.)
 SUMBAWA ISLAND REGION              (285)

TRT     4.77 274 iPd    29 11.00   1.4
                iS      30 09.40
KUPT    6.43 109 ePc    28 58.50 -32.5X
                eS      30 05.00
MBL    13.22 170 iPd    30 56.60  -1.5
        0.3s     41.00nm          5.3mb
                i       31 07.10
                eS      33 17.00
KNA    13.45 126 eP     31 01.00  -0.1
                eS      33 23.00
NANU   14.52 187 eP     31 13.00  -1.3
                e       31 16.00
                e       31 28.00
                eS      33 43.00
KSI    15.41 286 ePd    31 26.00   0.8
                e       33 00.00
MEKA   18.47 177 iPd    31 59.40  -0.2
        0.4s     43.00nm          5.3mb
                e       32 20.00
                eS      35 20.00
WARB   20.03 155 eP     32 07.60  -7.9X
                e       32 30.00
                eS      36 00.00
WB5    20.17 127 eP     32 16.00  -0.9
                eS      35 49.00
WRA    20.18 128 Pc     32 16.40  -0.7
        0.5s     18.10nm          4.9mb
MRWA   21.08 183 eP     32 25.00  -0.8
                e       32 54.00
                eS      36 28.00
PSI    21.34 299 ePc    32 29.00   0.6
ASPA   22.12 136 iPd    32 36.80   0.7
        0.4s     57.00nm          5.5mb
                eS      36 28.00
BAL    22.43 182 eP     32 39.00   0.1
                e       33 11.00
                eS      36 56.00
COOL   22.96 172 iPd    32 43.80  -0.3
        0.4s     12.00nm          4.8mb
```

15d 03h

		e	33	16.00		
		eS	37	05.00		
KLB	23.40	179 eP	32	48.40	0.1	
		e	33	24.00		
		eS	37	20.00		
MUN	23.81	183 eP	32	52.00	-0.2	
		e	33	27.00		
		eS	37	27.00		
NWAO	24.73	180 eP	33	00.60	-0.1	
		e	33	39.00		
FORR	24.76	158 iPc	33	00.30	-0.6	
	0.4s	24.00nm			5.2mb	
		e	33	38.00		
NNT	27.03	319 eP	33	21.00	-0.8	
NST	29.16	324 eP	33	21.00	-19.7X	
CTA	30.34	116 iPd	33	51.20	0.0	
	0.9s	20.17nm			4.8mb	
CHG	32.35	326 iPd	34	10.00	1.4	
	0.9s	10.50nm			4.5mb	
STK	32.65	140 iPd	34	11.30	0.1	
BWA	38.72	137 eP	35	04.90	2.6	
TOO	38.83	143 iPd	35	05.20	2.1	
CAN	39.62	138 iPd	35	10.70	1.0	
GBA	45.17	298 Pd	35	50.00	-4.7X	
	0.6s	3.10nm			3.9mb	
GUN	47.02	321 P	36	08.80	-0.7	
	0.7s	33.00nm			4.8mb	
PKI	47.08	320 P	36	09.00	-1.0	
	0.6s	17.00nm			4.6mb	
DMN	47.30	320 P	36	11.20	-0.4	
	0.6s	24.00nm			4.8mb	
KKN	47.31	320 P	36	11.20	-0.4	
	0.6s	11.00nm			4.4mb	
GKN	47.87	320 P	36	13.80	-2.1	
	0.5s	24.00nm			4.9mb	
AVY	68.28	253 eP	38	39.76	2.0	
MHI	69.98	313 eP	38	47.00	-0.7	
CNCB	154.70	168 ePKP	47	37.00	10.2X	
LPB	154.95	167 (PKP)	47	38.00	11.1X	
	S.D. = 1.1	an 31 of 37 abs.				

& FEB 15, 1989 03h 32m 46.58s
59.966 N 140.625 W
DEPTH = 0.1km
SOUTHEASTERN ALASKA (19)
<AGS-P>. ML 4.0 (PMR), 3.9 (PGC).

PCA	0.23	55 eP	32	51.01	-0.1	
		iS	32	55.36		
BCPM	0.50	91 iP	32	57.00	0.5	
YKU	0.61	132 iPd	32	59.60	0.8	
YAH	0.69	306 iP	33	01.36	1.1	
PNL	0.69	115 iP	32	59.78	-0.5	
CTGM	1.06	341 iP	33	06.84	-0.8	
HYT	1.77	60 P	33	18.30	-0.5	
RAGM	2.07	284 eP	33	22.87	-0.2	
GLB	2.16	315 iP	33	23.44	-0.9	
SGAM	2.35	285 eP	33	26.65	-0.4	
CVA	2.62	285 eP	33	30.22	-0.6	
WHC	2.85	72 ePn	33	33.00	-1.3	
		Sg	34	16.00		
HIN	2.97	281 eP	33	37.22	1.4	
KLU	3.02	303 eP	33	35.69	-0.9	
VLZ	3.05	295 eP	33	35.85	-1.1	
VZW	3.13	293 eP	33	36.82	-1.3	
TOA	3.45	311 ePc	33	42.30	-0.4	
PAX	3.81	324 eP	33	48.13	0.3	
PWL	3.93	287 eP	33	47.95	-1.5	
SIT	4.03	134 eP	33	47.70	-3.1	
KNK	4.11	294 eP	33	51.42	-0.7	
DWY	4.14	7 P	33	49.90	-2.5	
SML	4.19	299 eP	33	52.00	-1.2	
GHO	4.44	298 eP	33	55.54	-1.3	
PME	4.44	296 eP	33	54.68	-2.1	
		eS	34	58.05		
PMR	4.48	295 eP	33	57.50	0.3	
CNPM	5.39	270 eP	34	08.54	-1.6	
DLB	5.65	101 ePn	34	11.00	-2.9	
WRH	5.71	326 eP	34	13.99	-0.7	
CCB	5.77	328 eP	34	14.73	-0.7	
FBA	5.96	329 eP	34	19.00	0.8	
IMA	8.51	322 eP	34	53.00	-1.1	
INK	8.92	17 eP	35	00.00	0.4	
	33 abs. assaciated					

FEB 15, 1989 04h 01m 15.23± 0.27s
39.058 N ± 3.2km 29.744 E ± 3.1km
DEPTH = 10.0km (geophysicist)
4.4mb (27 obs.)

TURKEY (366)
MD 4.1 (ATH). Felt in the Kutahya area.

KHL	0.75	193 iPg	01	28.90	-1.1	
DST	1.02	303 iPn	01	34.10	-0.5	
GPA	1.30	19 iPn	01	40.40	1.0	
YLV	1.53	349 iPn	01	43.90	1.2	
KCT	1.60	318 iPn	01	44.90	1.3	
GBZT	1.74	353 ePn	01	47.00	1.3	
		ePg	01	50.00		
		iSg	02	10.50		
BNT	1.91	313 iPn	01	48.40	0.2	
EDC	1.94	312 Pn	01	48.50	-0.1	
IZM	2.05	252 iPn	01	49.60	-0.6	
ISK	2.07	346 ePn	01	51.30	0.8	
ELL	2.31	177 iPn	01	55.60	1.6	
CTT	2.32	335 iPn	01	52.80	-1.2	
BBTK	2.46	71 iPn	01	57.50	1.3	
		iPg	02	03.00		
		iSg	02	39.00		
PRK	2.71	275 ePn	02	00.00	0.4	
EZN	2.76	287 iPn	02	00.50	0.3	
KSL	2.94	183 ePn	02	03.80	1.0	
DMK	3.15	332 iPn	02	06.20	0.4	
RDO	3.84	304 iPnd	02	16.00	0.4	
KAP	4.06	211 ePn	02	18.50	-0.2	
JMB	4.17	326 iP	02	21.00	0.8	
		iSg	03	32.00		
KDZ	4.20	309 iPd	02	21.00	0.3	
		iS	03	29.00		
IKL	4.21	131 iPn	02	23.00	2.2	
DIM	4.38	314 iP	02	23.00	-0.3	
RZN	4.65	306 iPd	02	27.00	-0.4	
PSN	4.77	346 iPc	02	30.00	1.2	
PAIG	4.77	282 eP	02	28.60	-0.3	
PLD	4.90	310 iPd	02	30.00	-0.6	
		iS	03	26.00		
NPS	5.02	222 ePn	02	33.50	1.1	
PLG	5.03	287 ePn	02	32.00	-0.6	
SRS	5.15	296 eP	02	33.70	-0.5	
KVT	5.24	65 ePn	02	36.50	1.0	
MMB	5.25	301 iPd	02	35.00	-0.6	
PVL	5.32	323 iPc	02	31.00	-5.6X	
		iS	03	37.00		
PGB	5.48	311 iPd	02	39.00	0.0	
KNT	5.65	294 eP	02	41.30	-0.1	
LIT	5.70	283 eP	02	42.10	0.1	
VAM	5.73	232 ePn	02	45.50	3.1	
VAY	5.94	295 ePn	02	45.20	-0.1	
GRG	5.95	291 iP	02	45.90	0.4	
		iS	03	04.70		
VTS	6.09	308 iP	02	48.00	0.5	
		iSg	04	32.00		
CFR	6.24	350 ePc	02	49.00	-0.4	
KZN	6.28	284 ePn	02	49.70	-0.5	
ISR	6.52	340 eP	02	55.00	1.4	
DRA	6.95	326 eP	03	17.00	17.5X	
SKO	6.96	297 ePn	02	59.50	-0.3	
MLR	7.02	338 iPc	03	01.00	0.4	
LSK	7.15	282 iPc	03	03.10	0.7	
OHR	7.16	289 ePn	03	03.00	0.4	
VRI	7.16	343 iPc	03	03.00	0.5	
PHP	7.57	293 eP	03	10.80	2.5	
TPE	7.61	282 eP	03	09.50	0.7	
BERA	7.71	285 iPd	03	12.40	2.2	
TIR	7.90	290 eP	03	14.50	1.6	
DEV	8.49	326 ePd	03	20.00	-1.0	
BZS	8.89	320 ePc	03	25.50	-1.1	
BEO	9.00	313 e(Pn)	03	26.50	-1.6	
PRNI	9.71	152 e(P)	03	36.00	-1.9	
MBH	10.19	154 eP	03	42.00	-2.5	
KHC	15.34	316 P	04	55.10	1.8	
		i	04	59.50		
BRG	16.22	322 eP	05	09.70	5.1X	
GRF	16.93	315 eP	05	11.00	-2.7	
	1.2s	22.00nm			4.2mb	
CDF	18.68	307 eP	05	36.00	0.6	
	1.0s	12.00nm			4.0mb	
HAU	19.12	305 eP	05	40.40	-0.3	
	0.8s	5.30nm			3.8mb	
WLF	19.84	310 Pc	05	49.40	0.5	
MEM	20.32	312 P	05	54.30	0.4	
LBF	20.37	301 eP	05	53.40	-1.2	
	1.0s	10.00nm			4.1mb	
SMF	20.39	300 eP	05	53.80	-0.9	
	1.0s	16.00nm			4.3mb	
ENN	20.43	313 iPc	05	55.70	0.6	
	1.0s	39.00nm			4.7mb	
LOR	20.52	302 eP	05	54.90	-1.2	
	1.0s	8.80nm			4.1mb	
WTS	20.52	317 iPc	05	56.50	0.5	
SSF	20.70	301 eP	05	56.90	-1.1	
	0.8s	5.30nm			3.9mb	
AVF	20.75	300 eP	05	57.50	-0.9	
	0.8s	14.70nm			4.4mb	
DOU	20.94	310 P	06	00.70	0.3	
	1.0s	36.10nm			4.7mb	
BGF	21.04	300 eP	06	00.50	-1.0	
	1.2s	20.80nm			4.4mb	
MAF	21.17	299 eP	06	02.40	-0.4	
	1.0s	12.00nm			4.2mb	
CAF	21.34	295 eP	06	04.10	-0.4	
	1.0s	29.60nm			4.6mb	
TCF	21.42	299 eP	06	05.10	-0.3	
	1.0s	8.00nm			4.1mb	
RJF	21.76	296 eP	06	08.70	-0.1	
	1.0s	8.00nm			4.1mb	
LPO	21.93	294 eP	06	10.30	-0.2	
	1.0s	9.60nm			4.2mb	
MFF	23.08	299 eP	06	21.40	-0.4	
	0.8s	8.00nm			4.3mb	
MHI	23.66	87 eP	06	30.00	2.4	
SLL	23.79	340 eP	06	26.60	-1.9	
	0.5s	1.70nm			3.9mb	
SUF	23.79	356 iP	06	32.60	4.1X	
GRR	23.87	303 eP	06	28.30	-1.1	
	1.0s	28.00nm			4.8mb	
LPF	23.92	302 eP	06	28.80	-1.1	
	1.0s	32.00nm			4.9mb	
NB2	24.84	338 P	06	22.40	-16.4X	
	0.6s	2.40nm				
KJF	25.21	358 eP	06	42.00	-0.2	
ASMO	26.29	277 eP	06	52.00	-0.7	
ATEJ	26.61	276 eP	06	55.00	-0.7	
ALOJ	26.63	277 eP	06	54.70	-1.1	
BNG	35.93	199 iPd	08	20.30	2.5	
	0.6s	6.00nm			4.6mb	
GKN	46.45	86 P	09	44.00	-0.2	
	0.8s	18.00nm			5.2mb	
DMN	47.00	87 P	09	48.50	-0.2	
	0.7s	15.00nm			5.2mb	
KKN	47.05	86 P	09	48.40	-0.7	
	0.6s	8.00nm			5.0mb	
PKI	47.25	87 P	09	49.00	-1.8	
GUN	47.46	86 P	09	51.80	-0.7	
	0.7s	11.00nm			5.1mb	
GBA	48.99	108 Pc	10	02.50	-1.4	
	0.7s	1.90nm			4.2mb	
LZH	57.26	68 eP	11	04.00	-1.4	
FRB	59.19	329 eP	11	17.00	-1.3	
CHG	62.42	88 eP	11	11.00	-29.9X	
YKA	74.81	344 P	12	57.20	0.2	
FFC	77.84	334 eP	13	14.00	-0.2	
	0.8s	9.00nm			4.9mb	
SES	84.49	336 eP	13	50.00	0.7	
ASPA	115.16	101 ePKP	19	36.60	-22.1X	
	S.D. = 1.1	an 97 of 104 obs.				

& FEB 15, 1989 04h 19m 39.96s
62.079 N 148.810 W
DEPTH = 40.3km
CENTRAL ALASKA (1)
<AGS-P>.

GHO	0.31	190 iP	19	48.07	-0.4	
		eS	19	54.84		
SML	0.35	140 iP	19	48.43	-0.5	
		eS	19	55.92		
PME	0.46	193 iP	19	49.45	-0.8	
		eS	19	57.37		
PLRM	0.51	197 iP	19	49.65	-1.2	
		eS	19	58.06		
PWA	0.66	230 iPd	19	52.30	-0.6	
KNK	0.69	166 iP	19	52.74	-0.6	
		eS	20	03.53		
PMS	0.91	203 iPd	19	55.50	-1.0	
TOA	1.24	88 iPd	20	01.20	0.0	
PWL	1.25	169 eP	20	00.61	-0.6	
		eS	20	16.66		
GLI	1.46	145 eP	20	03.45	-0.8	

		eS	20	23.09	
VZW	1.49	132 iP	20	04.07	-0.6
		eS	20	23.08	
KLU	1.49	112 Pn	20	04.01	-0.8
		eS	20	22.38	
VLZ	1.52	128 eP	20	04.14	-0.9
		eS	20	23.37	
MCK	1.66	358 iP	20	06.50	-0.6
CGLM	1.71	244 iP	20	07.69	-0.2
SLKM	1.72	204 eP	20	07.24	-0.7
		eS	20	29.26	
FID	1.74	139 iP	20	07.43	-0.8
		eS	20	29.81	
NKA	1.78	222 eP	20	10.46	1.8
PAX	1.79	59 eP	20	09.07	0.1
CRP	1.79	244 iP	20	09.04	0.0
		eS	20	32.53	
SPU	1.79	241 eP	20	08.50	-0.5
		eS	20	32.21	
SEW	2.01	189 eP	20	12.35	0.3
HIN	2.02	146 iP	20	11.61	-0.7
CVA	2.13	135 eP	20	13.57	-0.3
MTU	2.17	164 eP	20	14.67	0.2
DDM	2.18	37 eP	20	15.80	1.1
RDT	2.30	231 eP	20	15.31	-1.0
SGAM	2.35	131 eP	20	18.58	1.6
GLB	2.46	103 eP	20	18.10	-0.5
CNPM	2.82	206 iP	20	23.54	-0.1
FBA	2.87	9 eP	20	23.00	-1.3
SVW	3.40	256 eP	20	30.00	-1.9
TTA	3.45	288 eP	20	30.50	-2.1
IMA	4.54	334 eP	20	46.50	-1.6

34 obs. associated

FEB 15, 1989 04h 33m 05.57± 0.68s
38.190 N ± 5.9km 141.694 E ± 8.3km
DEPTH = 65.0 ± 4.7 km
4.8mb (9 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) at Ishinomoki, Ofunato and Sendai; (I JMA) at Fukushima, Morioka and Miyako.

ISN	0.39	307 iPd	33	16.40	-0.6
		iS	33	23.00	
SEN	0.63	277 iPd	33	19.10	-0.4
		iS	33	28.50	
OFUJ	0.89	359 iPd	33	22.20	-0.4
		S	33	33.60	
FKS	1.06	246 iPd	33	24.60	-0.2
		S	33	37.90	
YAMJ	1.31	270 iPd	33	28.10	-0.1
		S	33	43.60	
MIY	1.47	8 eP	33	43.00	12.7X
MRK	1.56	345 eP	33	32.00	0.4
		S	33	46.10	
KAKJ	2.32	212 P	33	41.10	-1.1
		S	34	09.10	
NIIJ	2.34	247 iPd	33	42.60	0.2
AOMJ	2.58	337 P	33	46.80	1.1
CHJJ	3.04	226 iP+	33	52.10	-0.1
		S	34	26.90	
MAT	3.23	240 eP	33	55.00	0.1
		(S)	34	31.00	
MTMJ	3.49	244 iP+	33	59.60	0.9
		S	34	42.20	
IIDJ	4.06	229 iP+	34	08.50	1.8
		S	34	54.10	
MRRJ	4.26	354 P	34	10.30	1.0
HOOJ	4.36	16 P	34	10.90	0.1
		eS	34	57.70	
TSRJ	5.29	242 eP	34	25.70	1.8
KUSJ	5.41	24 P	34	23.70	-1.9
		S	35	21.70	
ASAJ	5.97	7 P	34	32.90	-0.4
YONJ	7.26	248 eP	34	51.60	0.3
TKSJ	7.48	238 eP	34	53.60	-0.7
MDJ	11.12	309 eP	35	40.00	-4.1X
SSE	18.28	253 eP	37	16.50	0.3
	1.0s	15.00nm			4.1mb
TIA	19.66	272 eP	37	29.00	-2.8
HHC	23.34	286 eP	38	08.60	-0.2
GYA	31.65	259 P	39	24.40	-0.4
WMQ	40.53	296 eP	40	40.50	0.7
GUN	47.27	275 P	41	34.40	-0.3
	0.4s	18.00nm			5.4mb
KKN	47.80	275 P	41	38.60	0.0
	0.4s	9.00nm			5.1mb
PKI	47.80	275 P	41	38.60	-0.2
	0.5s	5.00nm			4.7mb
GKN	48.21	276 P	41	41.60	-0.1
	0.7s	18.00nm			5.2mb
INK	53.26	28 eP	42	20.00	0.8
MBC	55.36	17 eP	42	35.00	0.5
WB5	58.17	188 eP	42	53.90	-1.1
WRA	58.23	188 Pc	42	54.40	-1.1
	0.5s	2.30nm			4.6mb
GBA	61.53	265 Pc	43	17.50	-0.8
	0.4s	3.40nm			4.8mb
KJF	65.58	334 eP	43	43.00	-1.1
SUF	67.05	333 eP	43	54.00	0.5
HFS	73.13	336 eP	44	30.10	-0.3
	0.4s	6.30nm			4.9mb
NB2	73.21	337 P	44	30.90	-0.1
	0.4s	2.60nm			4.5mb
ZOBO	145.90	58 PKP	52	41.00	1.4
LPB	146.10	59 (PKP)	52	51.00	11.3X
CNCB	146.38	59 PKP	52	43.00	2.7

S.D. = 1.0 on 40 of 43 obs.

FEB 15, 1989 05h 31m 35.86± 1.82s
39.304 N ±15.4km 117.340 W ± 5.3km
DEPTH = 5.0km (geophysicist)
NEVADA (37)
ML 3.1 (NEIS). MD 3.6 (REN).
Felt (III) at Austin.

KVN	0.64	247 iPd	31	49.50	0.8
MNA	1.08	216 eP	31	56.20	-0.5
TNP	1.22	175 iPd	31	59.10	-0.1
HCR	1.28	146 eP	32	00.00	-0.2
MZP	1.60	181 eP	32	05.10	0.0
SVP	1.63	193 eP	32	05.80	0.3
MGM	1.86	184 eP	32	09.00	0.1
WRN	1.90	133 eP	32	09.60	0.1
GMN	2.00	178 iPc	32	11.20	0.3
BLT	2.05	152 eP	32	11.80	0.1
GVN	2.30	180 eP	32	15.20	0.1
TMBR	2.39	161 iPd	32	16.60	0.1
LSM	2.69	161 eP	32	20.60	-0.2
CMB	2.70	243 eP	32	20.00	-0.8

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

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* FEB 15, 1989 05h 50m 20.19± 0.84s
6.438 S ±12.1km 127.860 E ±12.6km
DEPTH = 33.0km (normal)
4.8mb (6 obs.)
BANDA SEA (280)

KUPT	5.60	228 ePd	51	42.00	-1.3
		eS	52	46.80	
KNA	9.30	175 eP	52	31.50	-3.5X
JAY	13.38	74 ePd	53	44.30	13.9X
WB5	14.78	155 iPc	53	58.50	9.8X
		eS	56	37.50	
WRA	14.83	155 Pd	53	59.70	10.3X
	0.4s	47.70nm			
MBL	16.57	207 iPc	54	21.60	9.8X
	0.4s	22.00nm			4.6mb
QIS	18.08	142 iPc	54	34.40	3.8X
	0.6s	52.00nm			4.8mb
		eS	57	36.00	
ASPA	18.09	162 iPd	54	26.30	-4.5X
WARB	19.67	183 eP	54	45.80	-3.8X
NANU	19.96	215 eP	54	57.50	4.9X
MEKA	21.94	203 iPd	55	16.20	3.3X
	0.4s	38.00nm			5.2mb
CTA	22.43	129 iPd	55	19.20	1.5
	0.9s	12.18nm			4.4mb
FORR	24.29	179 iPd	55	35.90	0.2
	0.4s	34.00nm			5.2mb
COOL	25.12	194 eP	55	44.00	0.2
MRWA	25.28	205 eP	55	47.00	1.8
BAL	26.23	202 eP	55	54.00	0.0
KLB	26.75	199 iPd	55	59.10	0.3
MUN	27.64	202 iPd	56	07.00	0.1
NWAO	28.15	199 iPd	56	12.20	0.7
	0.4s	7.00nm			4.7mb
STK	28.38	155 iPc	56	11.80	-1.8
RKG	29.27	199 eP	56	26.00	4.4X
BWA	33.71	148 iPc	57	00.00	-0.7
CAN	34.70	149 eP	57	07.80	-1.4
BJI	47.49	348 eP	58	53.50	-0.4
ARV	112.40	314 PKP	09	13.50	18.7X
		eSn	09	24.00	
ASS	112.70	314 PKP	09	05.00	9.6X
		eSg	09	08.30	
MNS	112.83	313 PKP	09	09.70	14.1X
		eSg	09	16.80	
CNCB	152.09	146 ePKP	10	08.00	-0.6
LPB	152.25	146 (PKP)	10	10.00	1.4
ZOBO	152.45	145 ePKP	09	55.00	-14.1X

S.D. = 1.2 on 15 of 30 obs.

FEB 15, 1989 06h 09m 00.84± 0.86s
42.875 N ± 5.1km 12.724 E ± 7.9km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.9 (SSO).

CIO	0.44	44 iPgc	09	10.10	0.2
		iSg	09	18.76	
ALP	0.63	98 iPgc	09	12.92	-0.7
		iSg	09	23.61	
SSO	0.66	50 e(Pg)	09	14.01	0.0
		e(Sg)	09	26.69	
AQU	0.72	136 P	09	15.20	0.1
		eSg	09	26.10	
AOI	0.93	43 ePg	09	18.98	0.3
		i(Sg)	09	35.26	
AZI	1.03	149 P	09	21.00	0.7
		eSn	09	33.70	
PGD	1.24	324 P	09	23.80	-0.2
		eSn	09	40.60	
SDI	1.42	145 P	09	26.30	-0.4
		eSn	09	44.50	

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

% FEB 15, 1989 06h 53m 16.11± 0.99s
40.406 N ± 8.2km 23.211 E ± 7.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)

THE	0.29	320 eP	53	21.10	-1.1
SOH	0.43	15 eP	53	25.80	0.9
		iS	53	30.60	
OUR	0.59	97 iP	53	27.70	-0.4
		eS	53	38.90	
LIT	0.63	241 eP	53	29.10	0.3
KNT	0.79	343 eP	53	31.10	-0.4
GRG	0.83	312 eP	53	32.80	0.7
		iS	53	44.30	

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

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* FEB 15, 1989 10h 04m 11.02± 0.84s
39.478 N ±11.2km 25.309 E ± 7.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PRK	0.78	107 eP	04	27.50	1.3
EZN	0.86	66 iPn	04	27.60	0.1
NEO	1.63	265 eP	04	40.00	0.2
RDO	1.67	6 eP	04	40.00	-0.5
PLG	1.69	303 eP	04	41.00	0.2
IZM	1.87	125 ePn	04	42.00	-1.3
BNT	2.19	66 ePn	04	45.00	-3.0X

S.D. = 1.1 on 6 of 7 obs.

FEB 15, 1989 10h 05m 16.34± 0.26s
59.250 S ± 7.5km 25.623 W ± 8.6km
DEPTH = 33.0km (normal)
5.2mb (6 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

SPA	30.92	180 e(P)	11	32.60	0.7
	1.0s	14.00nm			4.7mb
VAO	39.26	328 e(P)	12	44.00	0.6
SAN	39.26	291 eP	12	43.50	0.2
PEL	39.53	291 iPd	12	46.00	0.5
CNCB	52.39	305 P	14	28.00	-0.1
LPB	52.69	305 P	14	30.00	-0.1
ZOBO	52.94	306 P	14	31.40	-0.7
		LR	33	30.00	
ARE	54.20	302 eP	14	41.00	-0.1
LIC	67.31	22 Pc	16	10.34	0.6
	0.7s	32.00nm			5.5mb
KIC	67.50	23 Pc	16	11.40	0.4
	0.7s	18.00nm			5.3mb
TIC	67.72	22 Pc	16	12.70	0.4
BNG	72.45	47 ePc	16	41.80	0.6
	0.5s	5.00nm			4.8mb

15d 10h

		ic	18	09.90	
MSZ	75.84	190 P	17	01.00	0.6
CAN	85.67	176 eP	17	52.60	-0.1
BWA	86.54	175 eP	17	57.20	0.2
FORR	87.62	158 iPd	18	02.90	0.7
	0.4s	13.00nm		5.6mb	
ASPA	95.68	161 iPc	18	39.30	-0.5
	0.8s	8.00nm		5.2mb	
NB2	123.32	20 PKP	24	09.60	-0.3
	0.9s	4.50nm			
DMN	123.84	92 PKP	24	11.90	-0.4
	0.6s	10.00nm			
GKN	123.92	92 PKP	24	11.50	-0.8
	0.5s	9.00nm			
PKI	123.96	93 PKP	24	12.00	-0.6
	0.6s	9.00nm			
KKN	124.08	92 PKP	24	12.20	-0.5
	0.6s	12.00nm			
GUN	124.48	93 PKP	24	13.30	-0.3
LRM	126.40	300 ePKP	24	17.40	0.7
FRB	126.94	338 ePKP	24	16.00	-0.7
YKC	139.02	315 iPKP	24	39.00	-0.6
YKA	139.08	315 PKP	24	39.60	-0.1
ALE	142.78	353 ePKP	24	42.50	-3.4X
	0.6s	11.00nm			
MBC	147.24	334 ePKP	24	55.00	1.6
INK	148.77	317 ePKP	24	54.00	-2.1
BJI	149.29	112 ePKP	25	02.00	4.3X
	S.D. = 0.7	on 29 of 31 obs.			

FEB 15, 1989 10h 10m 08.46± 1.39s
37.290 N ± 9.8km 50.304 E ± 6.5km
DEPTH = 53.1 ± 14.5 km
4.6mb (6 obs.)
CASPIAN SEA (338)

TEH	1.78	150 ePc	10	38.00	0.6
TAB	3.25	285 eP	11	06.00	7.7X
KER	3.92	222 eP	11	08.00	0.3
SLY	4.22	248 iPn	11	24.00	12.2X
		iPg	11	45.50	
		i	11	58.00	
		iSn	12	21.00	
		iS*	12	35.00	
		iSg	12	50.50	
MSL	5.81	263 ePc	11	52.00	17.8X
		eS	13	10.50	
BHD	6.28	232 eP	12	05.00	24.2X
		iS	13	31.00	
		e	13	47.00	
		e	14	41.00	
MHI	7.44	95 iPnd	11	55.20	-1.9
	0.5s	98.59nm		5.8mb X	
		eSn	13	11.00	
ISR	19.47	301 eP	14	39.00	5.3X
VRI	19.56	303 eP	14	36.00	1.4
MLR	19.97	302 ePd	14	40.00	0.9
KSH	20.23	76 eP	14	40.50	-1.3
NDI	24.09	103 eP	15	22.00	2.0
WMQ	28.97	65 eP	16	04.50	-0.5
SUF	29.46	337 iP	16	08.30	-0.7
KJF	30.15	340 eP	16	24.00	8.8X
GKN	30.22	98 P	16	17.60	1.2
	0.5s	5.00nm		4.5mb	
DMN	30.77	98 P	16	22.70	1.4
	0.6s	11.00nm		4.8mb	
GUN	31.24	97 P	16	29.90	4.3X
	0.6s	11.00nm		4.8mb	
GBA	33.79	127 Pd	16	47.60	0.2
	0.9s	6.00nm		4.5mb	
NB2	34.08	327 P	16	49.00	-0.6
	0.7s	2.30nm		4.2mb	
CHG	46.17	100 eP	18	30.50	0.8
XAN	47.08	75 eP	18	36.80	0.0
PTZ	54.28	203 iPd	19	31.20	-0.4
KMZ	55.48	209 iPc	19	40.70	0.4
PSI	56.30	116 ePd	19	44.40	-1.8
KIC	58.63	253 P	20	00.90	-1.7
	1.0s	28.00nm		5.3mb	
LIC	58.94	253 P	20	03.20	-1.6
MBC	66.55	357 eP	20	54.00	-0.4
FRB	68.34	335 eP	21	06.00	0.2
YKA	79.82	353 P	22	13.60	1.5
	S.D. = 1.2	on 23 of 30 obs.			

FEB 15, 1989 10h 28m 44.03± 0.25s
2.481 N ± 4.0km 126.589 E ± 6.5km
DEPTH = 33.0km (normal)
5.0mb (11 obs.)
MOLUCCA PASSAGE (266)

MNI	2.03	239 iPd	29	22.70	6.1X
		eS	29	49.50	
DAV	4.69	348 eP	30	00.90	6.6X
PCI	7.54	244 eP	30	35.50	1.0
		eS	31	21.80	
TSM	8.68	282 eP	30	49.20	-1.1X
JAY	14.96	109 ePd	32	19.50	4.6X
BAG	15.05	337 eP	32	20.50	4.2X
KNA	18.24	173 eP	32	56.00	-0.5
GUMO	21.17	58 e(P)	33	29.50	0.5
GUA	21.19	58 e(P)	33	24.30	-4.8X
WB5	23.50	161 iPc	33	51.20	-0.8
		i	36	23.20	
		eS	38	04.00	
WRA	23.55	161 Pd	33	51.00	-1.5
	0.7s	21.30nm		4.8mb	
MBL	24.41	195 eP	34	02.00	1.2
	0.4s	2.00nm		4.0mb	
QIS	26.21	151 iPc	34	16.90	-0.9
ASPA	26.95	165 iPc	34	23.50	-1.1
	0.8s	13.00nm		4.6mb	
		eS	39	10.30	
NANU	27.13	203 eP	34	27.00	0.8
WARB	28.50	180 eP	34	31.30	-7.2X
MEKA	29.95	195 eP	34	52.00	0.4
FORR	33.18	178 iPc	35	18.90	-0.9
TIA	34.69	346 eP	35	32.00	-0.8
XAN	35.47	334 eP	35	38.30	-1.3
MAT	35.55	16 (P)	35	38.00	-2.2
	1.0s	17.00nm		4.9mb	
CD2	35.57	325 eP	35	39.50	-1.0
STK	37.03	159 iPd	35	52.30	-0.3
TIY	37.39	341 eP	35	55.80	0.0
BJI	38.56	347 eP	36	05.50	0.1
ADE	38.95	164 eP	36	09.10	0.3
SNY	39.26	356 Pc	36	12.30	1.0
LZH	39.51	331 eP	36	14.50	0.9
	1.5s	66.00nm		5.2mb	
	Z 30s	1.30um		4.6MszX	
HHC	40.53	342 eP	36	22.20	0.2
	Z 30s	1.60um		4.7MszX	
MDJ	42.04	3 eP	36	34.50	0.4
BWA	42.06	153 eP	36	35.30	0.9
CAN	43.07	153 eP	36	43.00	0.3
GTA	44.09	330 P	36	51.00	-0.1
GUN	46.35	307 P	37	09.20	-0.3
PKI	46.58	306 P	37	10.50	-0.8
KKN	46.78	307 P	37	12.00	-0.7
	0.6s	10.00nm		5.0mb	
DMN	46.84	306 P	37	13.10	-0.2
	0.6s	14.00nm		5.1mb	
GKN	47.38	307 P	37	17.00	-0.5
	0.7s	16.00nm		5.1mb	
HYB	49.41	291 eP	37	33.00	-0.2
GBA	49.80	286 Pd	37	35.50	-0.6
	0.7s	12.30nm		5.0mb	
WMQ	53.66	326 eP	38	05.00	0.1
MHI	70.16	308 eP	39	56.00	0.2
AVY	80.28	250 iPd	40	55.25	1.3
TTA	82.07	27 eP	41	04.20	1.8
IMA	83.58	24 ePc	41	11.80	1.6
	0.8s	10.30nm		5.0mb	
PWA	84.75	28 eP	41	16.40	0.5
PMR	85.10	29 eP	41	18.00	0.3
	1.0s	17.20nm		5.2mb	
INK	91.37	21 eP	41	47.50	0.0
PEL	145.47	154 iPKPc	48	22.00	1.0
	S.D. = 0.9	on 42 of 49 obs.			

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* FEB 15, 1989 10h 46m 09.22± 0.56s
5.829 N ± 8.8km 77.742 W ±15.9km
DEPTH = 33.0km (normal)
4.9mb (6 obs.) 3.5Msz (1 obs.)
NEAR WEST COAST OF COLOMBIA (102)

HOBC	2.17	132 iPc	46	40.60	-3.3X
CLMC	2.26	149 eP	46	43.95	-1.3
ANCC	2.46	159 eP	46	46.90	-1.0
HOOC	2.59	155 ePc	46	48.00	-2.0
SALC	3.02	160 eP	46	56.10	0.0
UPA	3.60	331 e(P)	47	02.80	-1.3
		i	47	47.90	
BOG	3.85	108 eP	47	10.00	2.0
FUQ	4.00	95 eP	47	13.50	3.4X
PSO	4.63	175 eP	47	21.00	2.0
ARE	23.00	164 iPd	51	17.20	4.6X
ZOBO	23.93	157 P	51	22.00	0.0
	Z 20s	0.18um		3.5Msz	
		LR	59	18.00	
LPB	24.18	157 P	51	26.50	2.2
CNCB	24.48	157 P	51	28.00	0.7
CCH	25.75	154 eP	51	36.50	-2.6
LNO	34.23	333 e(P)	52	56.30	2.4X
TUL	34.23	333 eP	52	47.20	-6.9X
	1.0s	6.70nm		4.5mb	
MEO	34.65	329 eP	52	57.50	-0.3
	0.9s	5.60nm		4.5mb	
LRM	49.91	329 eP	55	04.50	2.5X
FRB	58.19	5 eP	56	01.00	-1.1
YKA	62.68	342 P	56	33.00	0.2
TIC	72.23	85 Pc	57	32.44	-1.3
	0.8s	17.00nm		5.1mb	
LIC	72.26	85 Pc	57	32.72	-1.2
	0.8s	30.00nm		5.3mb	
INK	72.44	341 eP	57	34.00	0.1
KIC	72.53	85 Pc	57	34.52	-1.0
	0.9s	27.00nm		5.3mb	
MBC	73.98	350 eP	57	43.00	0.2
KHC	86.50	41 P	58	52.40	2.2
KBA	86.52	43 eP	58	54.00	3.5X
	1.0s	4.90nm		4.7mb	
ASPA	144.77	237 iPKPc	05	45.20	-0.1
WB5	145.81	243 ePKP	05	48.20	1.1
WRA	145.81	243 PKP	05	50.00	2.9X
	0.8s	2.80nm			
HYB	147.11	45 ePKP	05	51.50	2.3
GBA	148.69	52 PKP	05	55.00	3.2X
	S.D. = 1.5	on 23 of 32 obs.			

FEB 15, 1989 12h 14m 24.32± 1.07s
40.674 N ± 9.0km 29.888 E ± 8.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
Felt at Izmit.

YLV	0.41	255 iPg	14	32.70	0.0
GPA	0.50	140 iPg	14	34.40	-0.1
		eSg	14	41.70	
ISK	0.74	302 ePg	14	38.40	-0.4
		eSg	14	49.10	
CTT	1.20	294 ePn	14	46.10	-0.6
KCT	1.24	251 iPn	14	48.20	0.8
DST	1.44	223 iPn	14	50.60	0.1
BNT	1.53	259 ePn	14	50.70	-1.1
EDC	1.58	259 ePn	14	52.50	0.1
DMK	1.97	306 iPn	14	59.30	1.2
BBTK	2.35	110 eP	15	09.00	5.3X
		eS	15	40.00	
KHL	2.36	187 ePn	15	10.20	6.3X
IZM	3.05	223 ePn	15	20.00	6.5X
	S.D. = 0.8	on 9 of 12 obs.			

& FEB 15, 1989 13h 50m 41.40s
33.020 N 115.830 W
DEPTH = 2.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.6 (PAS).

IKP	0.44	212 ePc	50	50.00	-0.2
HAY	0.70	13 eP	50	54.60	-0.9
BAR	0.79	245 iPc	50	56.00	-1.1
GLA	0.84	88 iPc	50	57.20	-1.0
PLM	0.93	291 iPc	50	58.60	-1.4
PEC	1.41	308 eP	51	05.20	-2.9
QSM	3.06	344 eP	51	28.30	-3.4
NOP	3.11	355 eP	51	29.10	-3.4
ABL	3.36	304 eP	51	35.00	-1.2
LSM	3.73	355 eP	51	38.00	-3.4
YMT2	3.80	352 eP	51	41.50	-0.8
YMT6	3.86	353 eP	51	46.00	2.8
BCH	4.14	303 eP	51	46.00	-1.1
PRN	4.42	8 eP	51	48.60	-2.6
TNP	5.18	348 e(P)	52	00.00	-2.0
CMB	6.23	325 e(P)	52	15.00	-1.7
KVN	6.29	344 eP	52	14.00	-3.7
	17 obs. associated				

FEB 15, 1989 14h 00m 29.87± 0.41s
31.383 S ± 6.2km 69.215 W ± 8.2km
DEPTH = 124.0 ± 6.3 km

SAN JUAN PROVINCE, ARGENTINA (137)
Felt (II) at San Juan.

RTCB	0.37	106	iPd	00 47.50	-0.4
ZON	0.49	110	iPc	00 48.00	-0.5
RTLL	0.64	85	iPc	00 48.80	-0.7
RTCV	0.75	130	iPd	00 50.10	-0.2
CFA	0.86	105	iPc	00 51.00	-0.3
RTRS	1.23	350	iPc	00 55.70	0.9
MDZ	1.53	168	iPc	01 00.40	2.1
			iS	01 19.00	
JACH	1.75	222	iP	01 01.10	0.2
			iS	01 24.50	
FCH	2.14	205	iPd	01 07.20	1.1
			iS	01 36.00	
PEL	2.15	215	iPc	01 06.00	0.0
			iS	01 30.00	
ROCH	2.20	223	iPc	01 06.60	-0.1
SAN	2.40	210	eP	01 09.00	-0.1
			iS	01 39.00	
PCH	2.49	206	iP	01 10.70	0.4
			iS	01 41.40	
TACH	2.69	212	iPd	01 12.50	-0.4
			iS	01 44.50	
CHCH	2.82	205	iPd	01 15.20	0.6
			iS	01 49.50	
LCCH	2.88	223	iPc	01 14.20	-1.2
			iS	01 48.60	
LNV	3.16	215	iP	01 17.70	-1.4
CNCB	14.55	5	P	03 53.00	1.5
LPB	14.82	4	(P)	03 53.00	-1.8
ZOBO	15.08	4	P	03 59.00	0.8
LIC	71.67	71	P	11 40.00	-0.2
KIC	71.98	71	P	11 41.90	-0.2
HYB	147.66	108	ePKP	20 02.80	4.0X

S.D. = 1.0 on 22 of 23 obs.

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* FEB 15, 1989 17h 52m 37.80± 1.28s
27.494 N ± 9.5km 34.492 E ±11.5km
DEPTH = 10.0km (geophysicist)
RED SEA (554)

BADA	1.12	24	ePc	52 59.80	1.0
SRFA	1.56	23	iPc	53 05.70	0.2
			iS	53 23.30	
HOL	1.84	15	iPc	53 09.70	0.1
AYN	1.91	44	iPc	53 11.30	0.6
WAJH	2.27	125	eP	53 15.80	-0.1
MBH	2.29	8	eP	53 17.00	0.8
KOT	3.37	317	eP	53 32.00	0.5
MKT	3.49	9	iP	53 33.20	0.0
			eS	54 13.40	
DSI	4.13	11	eP	53 42.00	-0.3
MASJ	4.35	14	P	53 49.50	3.9X
BURJ	4.83	13	P	53 51.20	-1.1
JARJ	4.89	15	P	53 51.60	-1.6

S.D. = 0.9 on 11 of 12 obs.

& FEB 15, 1989 18h 09m 24.73s
60.580 N 151.704 W
DEPTH = 68.8km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

NKA	0.28	54	iP	09 37.22	1.5
RDT	0.35	269	iP	09 35.82	-0.5
			eS	09 44.98	
RED	0.55	253	iP	09 37.57	-0.7
			eS	09 48.54	
NNL	0.58	159	iP	09 38.97	0.6
			eS	09 49.24	
SPU	0.63	344	iP	09 38.31	-0.7
			eS	09 49.45	
CRP	0.72	342	iP	09 39.88	-0.3
SLKM	0.74	95	iP	09 39.49	-0.7
			eS	09 51.30	
CGLM	0.75	349	iP	09 39.99	-0.4
			eS	09 52.24	
ILIM	0.80	232	iP	09 40.40	-0.6
			eS	09 52.55	
BRLK	0.92	153	eP	09 42.22	-0.2
CNPM	1.08	167	eP	09 43.96	-0.6
			eS	09 59.33	
SEW	1.22	112	eP	09 45.41	-0.8
			eS	10 01.09	
PMS	1.24	57	iP	09 45.93	-0.7
			eS	10 02.26	
PTE	1.35	77	eP	09 46.96	-1.0
PWA	1.39	39	eP	09 47.97	-0.6
PDB	1.48	238	iP	09 48.20	-1.5
PLRM	1.61	50	iP	09 50.24	-1.3
PME	1.67	50	eP	09 51.24	-1.1
PWL	1.68	79	eP	09 50.91	-1.6
KNK	1.79	61	iP	09 52.74	-1.3
			eS	10 14.48	
GHO	1.80	47	iP	09 52.90	-1.4
			eS	10 14.89	
CDD	1.92	212	eP	09 54.92	-1.0
SML	2.05	51	iP	09 56.08	-1.5
			eS	10 18.56	
VZW	2.57	77	eP	10 02.19	-2.7
			eS	10 31.66	
HIN	2.58	92	eP	10 02.07	-3.0
			eS	10 32.02	
VLZ	2.69	76	eP	10 04.04	-2.4
			eS	10 34.57	
KLU	2.96	69	iP	10 07.95	-2.4
TOA	3.07	58	iP	10 10.73	-1.2
SGAM	3.21	89	eP	10 10.09	-3.8
RAGM	3.48	90	eP	10 14.29	-3.4
GLB	3.94	74	eP	10 21.18	-2.9
FBA	4.69	21	eP	10 33.09	-1.5

32 obs. associated

? FEB 15, 1989 19h 35m 38.90± 1.12s
59.748 N ±10.0km 5.773 E ±10.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

ODD1	0.46	69	iPgc	35 49.53	1.2
			iSg	35 55.31	
KMY	0.60	207	iP	35 51.95	0.9
			iSg	35 59.44	
BLS1	0.65	123	iPgd	35 50.28	-1.6
			iSg	35 56.67	
SUE	1.41	340	eP	36 03.67	-0.8
			eS	36 26.88	
HYA	1.44	8	iP	36 08.97	4.0X
			iS	36 28.38	
NRA0	3.04	69	eP	36 28.20	0.3
			eS	37 04.00	
			iSg	37 10.80	

S.D. = 1.7 on 5 of 6 obs.

? FEB 15, 1989 19h 58m 13.10± 7.44s
38.441 N ±14.6km 7.897 W ±67.1km
DEPTH = 10.0km (geophysicist)
PORTUGAL (376)
MG 2.9 (MDD).

EVAL	1.25	133	eP	58 36.00	-0.3
			eS	58 53.00	
EPLA	2.15	40	eP	58 50.00	0.5
			eS	59 17.20	
EHOR	2.18	106	eP	58 50.50	0.6
			eS	59 17.70	
EBAN	3.25	94	eP	59 05.00	-0.1
			eS	59 42.00	
GUD	3.63	52	eP	59 10.00	-0.7
			eS	59 52.00	

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

FEB 15, 1989 20h 55m 44.92± 0.35s
44.356 N ± 2.6km 7.315 E ± 3.3km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.7 (GEN), 2.7 (LDG).

STV	0.11	177	P	55 48.30	0.4
			S	55 50.72	
DOI	0.16	341	Pc	55 49.00	0.4
			eSg	55 51.50	
PZZ	0.21	314	P	55 49.75	0.1
			S	55 52.86	
TOUF	0.35	188	Pg	55 52.50	0.4
AUTN	0.37	167	Pg	55 52.67	0.1
ROB	0.40	99	P	55 53.41	0.2
			S	55 59.40	
AURF	0.47	179	Pg	55 54.58	0.1
			Sg	56 00.95	
MVIF	0.47	194	Pg	55 54.49	-0.1
			Sg	56 00.93	
SBF	0.50	170	Pg	55 55.00	-0.1
			Sg	56 02.00	
IMI	0.61	137	P	55 56.99	-0.2
			S	56 05.01	
FIN	0.66	103	P	55 57.69	-0.4
			S	56 06.60	
CALN	0.68	207	Pg	55 58.24	-0.2
RRL	0.68	326	P	55 58.13	-0.4
			S	56 06.84	
FRF	0.93	211	Pg	56 02.50	-0.2
			Sg	56 14.40	
LRG	1.14	218	Pg	56 06.10	-0.1
			Sg	56 21.20	
LMR	1.18	210	Pg	56 06.80	-0.1
			Sg	56 21.60	

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

? FEB 15, 1989 21h 00m 36.74± 1.10s
6.208 S ±22.2km 150.405 E ±20.4km
DEPTH = 33.0km (normal)
NEW BRITAIN REGION (192)
ML 4.4 (PMG).

RAB	2.67	41	iPd	01 18.50	0.2
	0.6s		800.00nm		
LAT	3.41	262	e(P)	01 29.00	0.0
PMG	4.53	225	iPd	01 46.00	1.2
RMO	20.23	184	eP	05 18.00	6.0X
WB5	20.68	227	eP	05 15.20	-1.4
			i	05 22.30	
ASPA	23.52	221	eP	05 44.90	0.0

S.D. = 1.3 on 5 of 6 obs.

% FEB 15, 1989 21h 30m 57.89± 0.94s
15.424 N ± 6.9km 61.064 W ±19.9km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 2.6 (FDF).

MGG	0.55	334	eP	31 12.30	3.3X
			S	31 26.50	
CRM	0.68	168	eP	31 12.39	1.0
FDF	0.69	187	eP	31 12.57	1.0
			S	31 27.80	
PAG	0.85	316	eP	31 14.10	-0.1
			S	31 30.50	
MVM	0.88	169	iPc	31 13.78	-1.0
			S	31 30.10	
DEG	0.88	0	eP	31 15.00	0.1
			S	31 31.70	
BIM	0.90	180	eP	31 14.27	-0.9
			S	31 30.80	

S.D. = 1.1 on 6 of 7 obs.

FEB 15, 1989 21h 55m 54.33± 0.98s
41.641 N ± 9.4km 21.581 E ± 7.8km
DEPTH = 14.9 ± 7.5 km
YUGOSLAVIA (383)
ML 2.6 (SKO).

SKO	0.35	342	iPgc	56 01.50	-0.2
			iSg	56 06.00	
OHR	0.79	228	ePg	56 09.00	-0.3
			iSg	56 19.80	
VAY	0.81	113	iPg	56 09.70	0.1
			iSg	56 20.50	
PHP	0.86	274	ePg	56 10.10	-0.2
KKS	0.98	297	ePg	56 13.00	0.6
PUK	1.32	288	ePg	56 19.40	1.2
BCI	1.34	303	ePg	56 17.20	-1.2

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

& FEB 15, 1989 23h 39m 19.69s
57.372 N 142.859 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

MID	2.76	320	eP	39 58.23	-6.5
PNL	2.93	37	iP	40 00.70	-6.5
			iS	40 33.00	
PCA	3.05	25	eP	40 02.48	-6.4
YAH	3.06	10	eP	40 02.80	-6.3
BCPM	3.09	32	eP	40 02.93	-6.4
			eS	40 37.63	
SGAM	3.37	340	eP	40 06.73	-6.6
			eS	40 45.73	
HIN	3.57	330	eP	40 09.68	-6.6

15d 23h

KNIM	3.91	322	eP	40 12.50	-8.6
SIT	4.11	91	eP	40 15.53	-8.3
GLB	4.11	354	eP	40 16.80	-7.1
VZW	4.16	334	eP	40 16.73	-7.9
SEW	4.39	311	eP	40 20.48	-7.4
HYT	4.43	36	P	40 22.00	-6.5
PWL	4.49	323	eP	40 21.00	-8.3
PTE	4.73	320	eP	40 24.50	-8.2
CNPM	4.90	300	eP	40 28.07	-7.1
SLKM	4.94	313	eP	40 29.00	-6.7
SML	5.25	330	eP	40 33.53	-6.5
PWA	5.58	323	eP	40 37.02	-7.7
PAX	5.77	348	eP	40 40.99	-6.4
CDD	5.92	290	eP	40 42.73	-6.8
RED	5.98	305	eP	40 42.94	-7.4
SPU	6.06	313	eP	40 43.92	-7.6
CRP	6.15	313	eP	40 46.04	-6.9

24 obs. ossocioted

? FEB 16, 1989 00h 01m 40.50± 1.18s
37.572 N ±17.3km 142.106 E ±18.1km
DEPTH = 33.0km (normal)
4.5mb (2 obs.)
OFF EAST COAST OF HONSHU, JAPAN (229)

MAT	3.28	253	(P)	02 32.00	1.2
			eS	03 05.00	
GUN	47.65	276	P	10 15.40	-0.6
KKN	48.18	276	P	10 19.40	-0.6
GKN	48.59	276	P	10 22.40	-0.7
	0.8s		26.00nm		5.3mb X
WB5	57.61	189	eP	11 29.70	0.1
GBA	61.81	266	P	11 58.00	-0.7
SUF	67.75	333	iP	12 37.30	0.8
	0.5s		2.00nm		4.5mb
NB2	73.90	337	P	13 14.20	0.5
	0.8s		5.80nm		4.6mb

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

FEB 16, 1989 01h 15m 05.93± 0.36s
9.919 N ± 6.3km 126.286 E ±10.0km
DEPTH = 33.0km (normal)
5.1mb (8 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV	2.90	194	eP	15 58.80	8.0X
QCP	6.92	313	eP	16 45.00	-2.7
BAG	8.51	320	eP	17 10.50	0.4
SSE	21.60	348	eP	19 55.00	0.0
			i	20 05.50	
			e(S)	23 48.00	
WHN	23.34	333	eP	20 13.50	1.3
GYA	24.80	314	P	20 27.60	1.0
LOE	24.97	290	eP	20 27.50	-0.7
CHG	27.89	292	eP	20 55.10	0.0
PSI	28.11	257	eP	21 02.20	5.1X
WB5	30.66	165	eP	21 17.20	-2.6
QIS	33.00	157	iPc	21 39.10	-1.2
			e	21 46.00	
LZH	33.07	325	P	21 42.00	1.0
ASPA	34.20	168	eP	21 49.20	-1.5
			e	23 16.10	
CTA	35.71	147	iPc	22 03.50	-0.2
	0.9s		32.77nm		5.3mb
GTA	37.68	326	P	22 19.70	-0.4
MRWA	40.15	194	eP	22 41.50	0.8
FORR	40.57	178	iPc	22 44.00	0.0
	0.4s		20.00nm		5.2mb
BAL	41.33	193	eP	22 51.00	0.7
GUN	41.96	301	P	22 56.00	0.0
KLB	42.07	191	eP	22 57.00	0.6
	0.7s		17.00nm		4.9mb
KKN	42.43	301	P	22 59.20	-0.6
MUN	42.76	193	iPd	23 03.00	1.0
	0.8s		49.00nm		5.3mb
NWAO	43.47	191	eP	23 09.00	1.2
	0.6s		20.00nm		5.1mb
STK	44.07	161	iPd	23 12.90	0.3
HYB	46.88	285	eP	23 35.50	0.2
GBA	47.90	279	Pd	23 42.90	-0.5
	0.9s		21.80nm		5.2mb
BWA	48.84	156	eP	23 51.00	0.6
CAN	49.86	156	eP	23 58.60	0.4
MAIO	65.51	305	eP	25 49.00	0.4
INK	84.60	22	eP	27 36.50	-0.5
KJF	84.86	334	eP	27 39.00	0.7
SUF	85.87	333	iP	27 44.20	0.8
	0.7s		5.60nm		4.9mb
MBC	86.05	13	eP	27 44.00	-0.1
DAG	91.12	352	iPd	28 07.10	-1.1
	0.8s		8.21nm		5.2mb
YKA	94.07	24	P	28 22.70	0.7

S.D. = 1.0 on 33 of 35 obs.

& FEB 16, 1989 02h 44m 56.60s
36.753 N 120.482 W
DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.5 (BRK).

LLA	0.40	250	iPd	45 04.30	-0.2
			eS	45 11.00	
PRI	0.63	194	ePd	45 09.20	0.0
FRI	0.66	69	iPd	45 09.60	-0.3
			iS	45 18.70	
SAO	0.77	271	eP	45 11.50	-0.6
			e	45 11.87	
			iS	45 23.10	
PRS	0.83	240	iPd	45 12.20	-0.9
PHAM	0.92	176	eP	45 13.00	-1.6
ARN	1.03	306	eP	45 15.90	-0.7
MHC	1.10	303	eP	45 16.65	-1.1
			eS	45 31.60	
CMB	1.28	3	eP	45 20.50	-0.4
BCH	1.60	168	eP	45 24.00	-1.7
TNP	2.92	62	eP	45 46.00	1.2
KVN	2.97	39	eP	45 47.70	2.3

12 obs. ossocioted

% FEB 16, 1989 05h 00m 05.79± 1.94s
10.688 N ±10.3km 60.891 W ±16.8km
DEPTH = 10.0km (geophysicist)
TRINIDAD (98)

TBH	0.27	220	eP	00 11.65	0.2
			eS	00 26.95	
PIG	0.47	6	eP	00 16.07	0.7
			eS	00 31.09	
TRN	0.50	265	eP	00 15.89	-0.1
			eS	00 25.81	
TPP	0.66	236	eP	00 18.45	-0.5
			eS	00 29.34	
TCE	0.85	271	eP	00 23.09	1.0
			eS	00 39.23	
GRW	1.65	333	eP	00 33.70	-1.2
			eS	01 00.05	

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

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* FEB 16, 1989 05h 17m 29.13± 0.42s
21.699 S ±15.0km 173.963 W ± 6.6km
DEPTH = 33.0km (normal)
5.0mb (15 obs.)
TONGA ISLANDS (173)

DZM	18.19	265	iPc	21 42.00	1.1
TVO	23.57	85	iP	22 37.90	0.1
	1.2s		55.00nm		4.9mb
PMO	25.60	79	iP	22 56.80	-0.4
	1.2s		25.00nm		4.7mb
VAH	25.77	80	iP	22 59.20	0.5
	1.2s		10.00nm		4.3mb
TPT	25.86	80	iP	23 00.40	0.8
	1.2s		30.00nm		4.8mb
RUV	26.01	80	iP	23 01.60	0.6
	1.2s		10.00nm		4.3mb
ASPA	47.92	257	iPc	26 04.30	-2.3
	1.2s		31.00nm		5.2mb
			eS	32 58.20	
WB5	48.16	262	iPd	26 05.60	-2.9
WRA	48.17	262	P	26 05.00	-3.5X
	0.9s		10.30nm		4.9mb
KLB	60.96	245	eP	27 41.00	-0.7
	0.7s		11.00nm		5.1mb
MUN	62.21	244	eP	27 50.00	-0.1
NANU	64.72	255	eP	28 06.10	-0.5
PRS	76.15	41	eP	29 15.40	-0.3
BCH	76.22	43	P	29 16.10	-0.1
PCC	76.30	40	e(P)	29 16.70	0.2
PRI	76.46	42	eP	29 17.50	-0.1
BKS	76.64	40	ePd	29 18.80	0.4
	0.8s		16.00nm		5.1mb
MHC	76.64	40	eP	29 18.40	-0.2
ARN	76.71	40	P	29 19.00	0.1
FRI	77.60	42	e(P)	29 23.70	0.0
CMB	77.85	41	eP	29 24.50	-0.6
WDC	78.26	37	eP	29 26.90	-0.4
MIN	78.63	38	eP	29 29.40	-0.1
LBFM	79.14	37	P	29 32.20	-0.1
TNP	79.82	42	P	29 36.00	-0.1
KVN	79.88	41	P	29 35.80	-0.6
BMW	81.89	33	P	29 46.90	0.3
LON	82.79	33	P	29 50.60	-0.7
GMW	82.84	32	P	29 51.70	0.2
RMW	83.27	33	P	29 53.50	-0.3
MDJ	83.69	323	eP	29 56.50	0.7
ALQ	85.25	50	P	30 05.00	0.8
	1.0s		10.50nm		5.0mb
PMR	85.37	12	P	30 02.70	-1.1
	0.8s		7.93nm		5.0mb
TTA	85.53	8	P	30 04.50	-0.3
	1.0s		16.25nm		5.2mb
CN2	85.58	321	eP	30 05.00	-0.3
PNT	85.60	32	eP	30 05.00	-0.3
	0.7s		8.00nm		5.0mb
BW06	87.30	42	P	30 13.40	-0.7
	1.1s		5.36nm		4.7mb
PSI	88.30	274	ePd	30 20.50	1.3
SNG	88.39	278	eP	30 21.70	2.1
FBA	88.65	11	P	30 18.70	-1.1
	0.9s		15.21nm		5.3mb
SES	90.66	35	eP	30 30.00	0.5
TIY	90.90	310	eP	30 31.90	0.9
KMI	93.26	296	Pc	30 43.50	1.2
BDT	93.57	287	eP	30 44.60	1.1
CHG	94.20	288	eP	30 48.60	2.2
INK	94.48	14	eP	30 45.00	-1.6
YKA	96.06	24	P	30 54.80	0.8
KSP	149.82	347	ePKP	37 18.00	5.8X
			i	37 22.30	
CLL	149.95	351	iPKPd	37 21.90	9.6X
	1.1s		18.00nm		
BRG	150.23	350	ePKP	37 25.80	13.0X
	1.0s		18.00nm		
			eSg	58 29.50	
BBTK	150.94	315	iPKPc	37 20.50	6.1X
PRU	150.98	349	ePKP	37 20.00	6.1X
MLR	151.21	330	ePKPd	37 21.00	6.4X
GRF	151.77	353	e(PKP)	37 30.50	15.4X
GRA2	151.79	353	ePKP	37 30.50	15.3X
	1.1s		24.00nm		
KHC	151.98	349	iPKPd	37 23.40	7.9X
			i	37 31.80	

S.D. = 1.0 on 46 of 56 obs.

& FEB 16, 1989 05h 48m 58.14s
57.251 N 142.922 W
DEPTH = 10.0km (geophysicist)
4.5mb (10 obs.)
GULF OF ALASKA (15)
<AGS-P>. ML 4.2 (PMR).

MID	2.83	322	eP	49 37.35	-6.8
YKU	2.86	35	eP	49 39.10	-5.4
HMT	3.17	348	iP	49 42.70	-6.4
WAX	3.21	1	eP	49 42.85	-6.8
BCPM	3.21	31	eP	49 42.99	-6.6
			eS	50 18.61	
SGAM	3.47	341	eP	49 46.97	-6.3
			eS	50 24.35	
CVA	3.62	337	eP	49 48.13	-7.2
			eS	50 25.58	
HIN	3.66	331	eP	49 49.71	-6.4
CTGM	3.81	12	eP	49 51.58	-6.8
KNIM	3.99	323	iP	49 50.93	-9.7
SIT	4.14	90	eP	49 56.40	-6.3
GLB	4.23	354	eP	49 57.08	-7.0
VZW	4.25	335	eP	49 57.06	-7.4
VLZ	4.27	337	eP	49 57.33	-7.2
SEW	4.45	313	eP	50 00.64	-6.5
			eS	50 46.98	
KLU	4.52	341	eP	50 01.05	-7.2
HYT	4.55	36	P	50 02.90	-5.8
SLKM	5.00	314	eP	50 08.17	-6.8
KNK	5.04	328	eP	50 09.01	-6.6
TOA	5.14	343	eP	50 10.50	-6.5
KDC	5.19	280	eP	50 12.40	-5.1
PMS	5.26	322	eP	50 11.25	-7.4
SML	5.34	331	eP	50 12.64	-7.1
PMR	5.38	327	eP	50 13.20	-7.2
ILIM	5.96	303	eP	50 21.47	-7.0
DWY	7.04	13	P	50 36.50	-7.1

SVW 7.58 306 eP 50 44.50 -6.8
FBA 8.03 345 eP 50 49.00 -8.5
TTA 8.66 317 eP 50 59.30 -7.1
IMA 10.20 335 eP 51 18.50 -9.1
INK 11.88 17 eP 51 44.00 -6.3
YKA 15.07 58 P 52 30.30 -2.2
PNT 15.98 110 eP 52 44.00 -0.3
1.0s 31.00nm 4.4mb
LON 16.64 120 eP 52 54.00 1.1
EDM 17.27 91 iPd 52 57.00 -3.6
SES 19.89 97 ePc 53 29.70 -2.6
FHC 20.50 135 eP 53 41.30 2.6
LBFM 20.87 131 eP 53 42.50 -0.2
MBC 20.90 16 eP 53 38.00 -4.4
0.6s 8.00nm 4.3mb
WDC 21.26 133 eP 53 46.30 -0.1
MIN 21.83 132 eP 53 52.00 -0.4
LRM 21.93 108 eP 53 51.90 -1.6
FFC 22.80 79 iPc 53 59.50 -2.2
1.2s 44.00nm 4.8mb
CMB 24.29 133 eP 54 16.50 0.1
KVN 24.38 128 eP 54 17.50 0.0
PRS 25.40 136 eP 54 27.00 0.0
FRI 25.47 133 eP 54 27.20 -0.3
BW06 25.55 110 eP 54 26.80 -1.8
TNP 25.57 128 eP 54 28.20 -0.6
PLM 29.77 132 eP 55 06.00 -1.0
GOL 29.95 110 eP 55 07.00 -1.7
ALQ 33.10 117 eP 55 34.00 -2.3
0.9s 2.52nm 4.1mb
SIO 37.64 105 e(P) 56 12.50 -2.1
LNO 37.78 104 ePd 56 13.90 -1.8
TUL 37.78 104 eP 56 14.00 -1.9
0.9s 2.70nm 4.0mb
Z 18s 3.00um 5.1Msz
LR 04 20.00
RLO 38.00 103 eP 56 15.30 -2.4
BRG 70.57 15 e(P) 00 06.50 -8.3
KHC 72.21 16 iPd 00 22.30 -2.4
LOR 72.24 23 eP 00 21.90 -3.0
1.0s 6.00nm 4.6mb
SSF 72.36 23 eP 00 21.90 -3.7
0.8s 4.50nm 4.6mb
AVF 72.59 24 eP 00 28.00 1.1
0.6s 3.00nm 4.6mb
SMF 72.83 23 eP 00 27.70 -0.7
0.6s 1.80nm 4.3mb
KBA 74.18 17 iPc 00 33.00 -3.4
0.9s 8.80nm 4.8mb
SPA 147.07 180 e(PKP)08 40.00 0.9
1.0s 4.00nm
64 obs. associated

FEB 16, 1989 06h 57m 46.41± 0.78s
29.239 S ± 8.9km 178.560 W ± 5.2km
DEPTH = 198.9 ± 7.6 km
4.9mb (22 obs.)
KERMADEC ISLANDS (178)

RAO 0.56 91 iP 58 16.10 1.9
KRP 9.96 208 P 00 04.00 -2.0
WEL 13.19 203 P 00 43.00 -4.3X
S 03 00.00
DZM 15.28 294 iPd 01 16.40 3.0X
iS 04 04.20
AFI 16.50 24 P 01 21.40 -6.8X
PVC 16.60 311 iPc 01 20.10 -9.2X
RAR 18.77 69 P 01 52.00 -0.8
S 05 15.00
MSZ 18.77 211 P 01 50.80 -1.9
0.3s 24.00nm 5.2mb
S 05 06.00
COO 25.62 260 eP 03 02.00 2.7
CAN 28.01 249 eP 03 21.00 0.2
i 04 11.50
BWA 28.45 251 eP 03 25.50 0.7
e 04 16.70
AFR 28.79 73 iP 03 26.80 -1.0
0.8s 25.00nm 5.0mb
PAE 28.90 73 iP 03 27.80 -1.0
0.8s 15.00nm 4.8mb
PPT 28.94 73 iP 03 28.40 -0.8
0.8s 15.00nm 4.8mb
Z 22s 1.00um 4.4Msz
RMQ 28.98 267 eP 03 37.00 7.5X
e 04 20.00
PPN 29.08 73 iP 03 29.60 -0.8
0.8s 15.00nm 4.8mb
TVO 29.11 73 iP 03 29.90 -0.9
0.8s 30.00nm 5.1mb
CMS 30.73 257 eP 03 46.00 1.2
e 04 36.00
PMO 31.62 70 iP 03 51.80 -0.9
0.8s 5.00nm 4.2mb
VAH 31.72 71 iP 03 52.50 -1.0
0.8s 20.00nm 4.8mb
TPT 31.86 70 iP 03 53.80 -1.0
0.8s 10.00nm 4.5mb
RUV 31.95 71 iP 03 54.50 -1.0
0.8s 10.00nm 4.5mb
CTA 33.14 278 iPd 04 07.10 1.2
0.5s 44.37nm 5.4mb
i 04 51.00
iS 09 11.00
PMG 37.68 295 eP 04 44.50 0.3
QIS 38.75 273 eP 04 44.00 -9.1X
e 05 37.00
ASPA 42.70 266 iPc 05 24.50 -0.9
WB5 43.57 271 eP 05 31.10 -1.4
i 06 18.50
WRA 43.57 271 Pc 05 31.00 -1.5
0.3s 4.10nm 4.4mb
FORR 45.83 254 eP 05 48.50 -1.7
WARB 48.24 260 eP 05 59.50 -9.6X
MTN 49.33 278 eP 06 14.00 -3.5X
i 06 38.20
e 07 11.00
e 07 36.00
HON 54.03 24 P 06 51.30 -1.0
MBL 55.78 263 eP 07 02.00 -3.1X
NANU 58.99 260 iPd 07 26.10 -1.4
SPA 60.93 180 e(P) 07 41.40 1.1
0.9s 33.64nm 5.1mb
i 08 28.20
MAT 77.01 326 eP 09 17.00 -1.6
1.5s 152.78nm 5.5mb
eS 18 41.00
BLP 83.91 45 P 09 56.20 1.2
SYP 84.15 45 eP 09 57.00 0.6
PRS 84.50 43 eP 09 58.50 0.6
GCC 84.61 42 eP 09 58.90 0.5
PCC 84.70 42 eP 09 59.60 0.8
PSI 84.78 276 eP 09 58.70 -1.1
PRI 84.80 44 eP 10 00.50 0.9
A8L 84.83 45 P 10 00.50 0.6
MHC 85.03 42 eP 10 01.30 0.6
BRK 85.03 41 eP 10 00.90 0.4
BKS 85.04 41 iPc 10 01.60 1.0
0.8s 50.00nm 5.3mb
e(S) 21 43.00
e(LQ) 32 45.00
BAR 85.06 48 eP 10 01.00 0.2
NWRM 85.07 41 P 10 00.90 0.3
ARN 85.09 42 P 10 01.40 0.5
MWC 85.15 46 eP 10 01.00 -0.5
PLM 85.36 48 eP 10 02.00 -0.5
RVR 85.44 47 eP 10 03.00 0.4
PEC 85.51 47 P 10 03.10 0.1
SNG 85.53 281 eP 10 03.80 0.4
e 10 08.40
SBB 85.60 46 eP 10 04.00 0.5
FRI 85.94 43 eP 10 05.20 0.2
FHC 86.09 38 P 10 07.10 1.4
0.8s 17.65nm 4.9mb
CMB 86.23 42 ePd 10 06.60 0.1
TPC 86.36 48 eP 10 07.00 -0.2
e 11 29.00
CLC 86.46 45 eP 10 08.00 0.3
e 11 25.00
GLA 86.50 49 eP 10 08.00 0.1
GSC 86.63 46 eP 10 09.00 0.5
WDC 86.72 39 ePd 10 08.90 0.2
MIN 87.08 40 eP 10 10.50 -0.2
MDJ 87.39 326 eP 10 05.80 -6.0X
SAN 87.59 127 eP 10 14.50 1.2
LBFM 87.61 39 P 10 13.60 0.4
PEL 87.74 127 iPd 10 15.00 0.9
KVN 88.25 43 P 10 16.00 -0.3
TIA 88.82 313 eP 10 19.80 0.9
CN2 88.92 323 Pd 10 19.00 -0.1
eS 20 47.00
KDC 89.38 14 P 10 21.20 0.3
1.1s 70.00nm 5.5mb
GYA 90.55 300 P 10 26.00 -1.2
BJI 91.75 316 iPc 10 33.00 0.7
esP 11 27.00
eS 21 15.00
esS 22 20.00
TIY 92.73 312 Pc 10 38.00 1.0
XAN 93.02 308 P 10 39.30 0.9
ALQ 93.23 52 eP 10 39.00 -0.5
1.2s 10.94nm 4.9mb
PMR 93.60 14 P 10 39.50 -0.8
TTA 93.60 10 P 10 39.80 -0.6
DPW 93.91 36 P 10 43.20 1.1
PNT 94.15 34 eP 10 43.00 -0.1
0.7s 6.00nm 4.9mb
CD2 95.06 303 eP 10 49.20 1.4
BW06 95.64 44 P 10 50.00 -0.4
1.2s 10.27nm 5.0mb
LRM 95.73 40 eP 10 50.90 0.1
FBA 96.85 13 P 10 54.00 -1.0
1.4s 34.09nm 5.5mb
MEO 98.67 55 e(P) 11 03.70 -0.3
0.6s 1.10nm 4.5mb
CNCB 98.89 115 P 11 09.00 2.8
LPB 98.95 115 (P) 11 16.00 9.7X
ZOBO 99.08 114 P 11 09.00 2.0
LR 24 00.00
INK 102.80 16 ePdiff11 21.00 -0.7
MBC 111.39 13 ePKP 15 55.00 -2.1
ALE 122.17 8 ePKP 16 16.00 -1.6
0.8s 9.00nm
FRB 124.63 31 ePKP 16 21.00 -1.7
DAG 131.44 6 iPKPc 16 33.10 -2.4
0.7s 3.42nm
KEV 136.89 347 ePKP 16 30.00 -16.0X
SOD 138.95 345 ePKP 16 34.00 -15.8X
KJF 141.25 342 ePKP 16 48.00 -6.1X
0.7s 9.30nm
SUF 142.86 341 iPKP 16 51.70 -5.2X
0.3s 3.80nm
NUR 145.06 340 iPKP 16 58.60 -2.1
UPP 147.47 345 iPKP 17 05.50 0.9
NB2 147.53 351 PKP 17 06.40 1.6
0.9s 59.00nm
HFS 148.01 348 ePKP 17 06.80 1.3
0.8s 61.30nm
BNG 150.48 217 iPKPd 17 15.90 5.1X
0.3s 8.00nm
ic 18 11.20
ic 18 27.00
HRI 150.48 287 e(PKP)17 17.00 6.7X
PRNI 150.91 281 iPKPd 17 17.00 6.0X
MBH 150.95 279 ePKP 17 17.00 6.1X
BBTK 152.24 301 iPKPd 17 19.50 6.8X
EKA 153.71 6 PKPd 17 35.40 21.3X
1.1s 31.80nm
VRI 154.13 317 ePKP 17 27.50 12.5X
MLR 154.80 317 ePKP 17 28.00 11.9X
KSP 155.70 337 ePKP 17 26.50 9.5X
ic 17 44.20
LIC 156.31 164 PKP 17 20.00 1.1
KIC 156.51 164 PKP 17 19.30 0.2
TIC 156.71 164 PKP 17 20.00 0.6
S.D. = 1.1 on 91 of 115 obs.

& FEB 16, 1989 07h 06m 03.68s
58.343 N 155.823 W
DEPTH = 99.6km
ALASKA PENINSULA (12)
<AGS-P>.

KDC 1.87 107 eP 06 33.08 -1.9
eS 06 59.22
ILIM 2.28 39 eP 06 39.57 -1.0
CNPM 2.66 62 eP 06 44.21 -1.3
eS 07 16.21
RDT 2.84 36 eP 06 46.81 -1.2
SPU 3.43 32 eP 06 54.06 -2.0
CRP 3.47 31 eP 06 55.11 -1.6
CGLM 3.54 31 eP 06 55.89 -1.8
SLKM 3.59 50 eP 06 56.32 -2.0
eS 07 36.78
PTE 4.28 51 P 07 04.37 -3.3
PMS 4.30 45 eP 07 04.60 -3.4
PWL 4.56 53 eP 07 07.70 -4.0
KNK 4.82 47 eP 07 10.46 -4.8
SML 5.11 44 eP 07 14.12 -5.1
VZW 5.43 56 eP 07 19.54 -4.1
eS 08 18.10

16d 07h

KLU 5.90 53 eP 07 25.18 -5.0
15 obs. ossociated

% FEB 16, 1989 09h 57m 00.28± 0.82s
39.085 N ± 6.8km 27.634 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.74	203	ePg	57 14.90	0.0
			eSg	57 26.40	
DST	0.93	56	ePn	57 18.10	0.0
EZN	1.25	307	iPn	57 23.60	0.0
EDC	1.27	8	ePn	57 23.50	-0.4
BNT	1.29	10	iPn	57 24.60	0.4
KCT	1.29	25	iPn	57 24.10	-0.1

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

FEB 16, 1989 09h 57m 58.74± 0.70s
5.857 N ± 3.4km 125.800 E ± 4.4km
DEPTH = 122.9 ± 7.0 km
5.3mb (36 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

DAV	1.24	350	iPd-	58 24.00	0.2
			iS	58 38.10	
MNI	4.49	192	ePc	59 07.00	1.2
			eS	59 57.50	
TSM	7.87	258	eP	59 57.50	5.6X
AAI	9.78	166	eP	00 15.70	-1.9
OCP	9.88	332	eP	00 14.00	-5.0X
BAG	11.67	334	eP	00 46.00	3.2X
	2.0s	270.59nm			5.6mb
			eS	03 00.00	
MKS	12.69	210	e(P)	01 00.00	4.1X
			e	03 07.00	
TLE	13.36	149	ePd	01 03.90	-0.8
JAY	17.05	119	ePd	01 51.00	-0.2
KHKI	17.40	216	eP	02 03.50	8.1X
			e	05 22.30	
TRT	18.81	224	ePc	02 12.00	0.4
MTN	19.32	164	eP	02 15.00	-1.9
GUMO	20.29	66	eP	02 26.00	-0.9
	1.5s	990.99nm			6.0mb
GUA	20.31	67	eP	02 26.20	-1.0
QIZ	20.32	312	eP	02 27.50	0.3
N	12s	0.90um			
			PP	02 52.00	
			eS	06 07.00	
			SS	06 37.00	
GZH	20.92	326	eP	02 34.00	0.8
KNA	21.67	172	iPd	02 41.60	0.9
	0.7s	265.00nm			5.7mb
KGM	22.75	261	eP	02 54.50	3.3X
IPM	24.70	268	ePc	03 11.10	1.0
	0.9s	53.50nm			5.0mb
KSI	25.02	248	ePc	03 14.50	1.5
			e	04 05.00	
SNG	25.05	274	eP	03 12.20	-1.1
SSE	25.48	351	P	03 21.00	3.9X
	1.0s	24.00nm			4.7mb
			ePP	03 59.00	
			e(S)	07 40.00	
			esS	07 54.00	
PPI	26.13	257	ePd	03 24.20	1.0
	0.8s	83.40nm			5.4mb
PMG	26.13	125	iPd	03 22.50	-0.7
	1.0s	84.00nm			5.3mb
LOE	26.18	298	eP	03 24.90	1.2
NNT	26.57	286	eP	03 20.00	-7.2X
WHN	26.81	338	eP	03 36.50	7.2X
NJ2	26.86	347	Pc	03 35.40	5.7X
WB5	26.93	162	iPc	03 29.80	-0.7
			i	03 35.10	
			eS	07 55.00	
PSI	26.98	264	Pc	03 30.60	-0.4
	1.0s	24.20nm			4.7mb
WRA	26.98	162	Pc	03 29.70	-1.2
	0.8s	13.10nm			4.6mb
NST	27.00	293	eP	03 32.40	1.2
GYA	27.44	320	P	03 36.00	0.8
MBL	27.48	192	eP	03 34.40	-1.0
	0.4s	12.00nm			4.9mb
BDT	28.54	296	eP	03 46.10	1.1
CHG	29.17	299	eP	03 51.30	0.6
KMI	29.24	313	Pd	03 52.50	0.9
QIS	29.55	153	iPc	03 53.40	-0.6
			e	03 59.00	
			e	04 10.00	
NANU	29.98	199	iPc	03 57.10	-0.6
	0.4s	26.00nm			5.3mb
ASPA	30.39	165	iPc	04 00.90	-0.5
	0.6s	20.00nm			5.0mb
			eS	08 50.60	
			eScS	14 21.50	
TIA	31.24	346	eP	04 09.20	0.5
WARB	31.86	179	iPd	04 06.40	-7.8X
PAA	32.00	112	eP	04 16.50	0.8
XAN	32.11	333	P	04 14.30	-2.1
CD2	32.39	323	eP	04 17.90	-1.0
MAT	32.59	19	iPc	04 19.20	-1.3
	0.8s	27.61nm			5.1mb
			(S)	09 12.00	
CTA	32.70	143	iPd	04 22.50	0.9
	1.0s	60.00nm			5.3mb
			i	10 39.00	
MEKA	33.04	192	eP	04 23.70	-0.8
	0.3s	38.00nm			5.7mb
TIY	33.97	341	eP	04 31.20	-1.3
BJI	35.12	347	eP	04 41.00	-1.1
			e	10 12.50	
SNY	35.87	357	iPd	04 49.40	1.0
MRWA	36.12	195	eP	04 50.30	-0.4
	0.4s	18.00nm			5.3mb
LZH	36.21	329	eP	04 51.50	-0.1
	2.0s	82.00nm			5.2mb
			i	05 25.50	
FORR	36.56	177	iPc	04 53.80	-0.5
	0.4s	52.00nm			5.7mb
COOL	36.80	187	iPc	04 55.60	-0.8
	0.4s	8.00nm			4.9mb
HHC	37.10	342	P	04 59.00	0.0
BAL	37.29	193	iPc	05 00.10	-0.4
	0.4s	24.00nm			5.4mb
BTO	37.37	340	eP	05 02.60	1.4
KLB	38.02	191	iPc	05 06.40	-0.2
	0.4s	29.00nm			5.5mb
MUN	38.72	193	iPc	05 12.30	-0.1
	0.7s	38.00nm			5.3mb
MDJ	38.75	4	iPc	05 13.20	0.7
			iS	11 04.00	
RMQ	39.10	146	eP	05 22.00	6.3X
NWAO	39.42	191	iPc	05 18.60	0.4
	0.4s	31.00nm			5.4mb
LSA	40.36	310	P	05 27.60	1.0
RKG	40.57	191	iPd	05 33.20	5.5X
	0.4s	24.00nm			5.3mb
GTA	40.81	329	P	05 29.50	-0.2
CMS	41.77	154	eP	05 38.00	0.5
BRS	42.10	143	iPd	05 40.00	-0.4
			e	05 48.70	
			e	06 11.00	
			iPcP	11 13.40	
ADE	42.39	164	iPc	05 44.10	1.5
	0.7s	136.99nm			5.8mb
GUN	43.74	305	P	05 53.60	-0.5
PKI	44.00	304	P	05 56.20	0.0
COO	44.01	147	eP	05 57.00	1.2
KKN	44.19	304	P	05 57.40	-0.2
DMN	44.27	304	P	05 58.60	0.4
GKN	44.80	304	P	06 02.20	-0.1
BWA	45.41	153	eP	06 09.30	2.5
CAN	46.42	154	eP	06 16.30	1.5
TOO	46.94	159	eP	06 21.00	2.0
HYB	47.55	288	eP	06 24.80	0.8
GBA	48.21	283	Pc	06 28.00	-1.1
	0.8s	27.50nm			5.1mb
DZM	48.52	126	iPc	06 32.00	0.5
WMQ	50.46	325	P	06 45.50	-0.5
NDI	51.20	302	iPd	06 51.00	-0.7
TAU	52.32	160	eP	06 56.10	-3.8X
KSH	55.87	314	eP	07 26.50	0.5
QUE	60.24	301	iPd	07 56.30	-0.5
MSZ	62.90	147	P	08 14.30	0.4
	0.3s	31.00nm			5.7mb
ADK	65.75	35	ePd	08 32.40	0.1
	0.8s	48.90nm			5.5mb
MAIO	67.50	307	iPc	08 43.00	-0.9
	2.0s	46.51nm			5.0mb
SDN	75.95	34	eP	09 34.00	0.5
SVW	79.38	29	eP	09 54.10	1.7
TTA	79.44	27	eP	09 54.00	1.3
KDC	80.65	33	eP	09 59.70	0.7
IMA	80.83	24	ePc	10 01.40	1.3
	0.8s	11.00nm			4.7mb
PMR	82.54	29	ePc	10 09.20	0.4
	1.2s	66.40nm			5.4mb
FBA	83.21	25	ePc	10 12.20	0.0
TOA	83.94	28	eP	10 17.50	1.4
KEV	87.59	340	eP	10 53.00	19.2X
SOD	88.16	338	iP	10 47.60	11.0X
KJF	88.29	334	eP	10 36.00	-1.2
INK	88.54	21	eP	10 38.50	0.2
SUF	89.25	333	iP	10 40.30	-1.5
	0.4s	13.30nm			5.4mb
MBC	90.09	13	eP	10 47.00	1.5
	0.7s	7.00nm			4.9mb
NUR	90.41	331	eP	10 45.00	-2.2
VRI	92.13	316	eP	10 36.50	-19.0X
MLR	92.74	316	eP	10 57.50	-0.9
DAG	95.05	352	iPc	11 06.80	-1.6
	0.8s	26.87nm			5.7mb
HFS	95.72	332	ePKP	11 09.20	-2.5
	0.4s	1.70nm			4.9mb
NB2	96.48	334	P	11 12.70	-2.5
	1.0s	8.50nm			5.2mb
KSP	97.60	323	eP	11 20.00	-0.3
YKA	97.95	24	P	11 22.80	1.1
GOL	114.63	41	PKP	16 27.10	0.3
ALQ	116.26	46	ePKP	16 29.00	-1.0
	1.0s	2.75nm			
KIC	129.17	283	PKP	16 54.20	-0.8
LIC	129.47	283	PKP	16 55.00	-0.6
LNV	147.81	153	ePKP	17 32.00	4.0X
PEL	148.82	153	iPKPd	17 34.60	4.8X
CNCB	162.67	130	PKP	17 49.00	0.5
LPB	162.74	129	ePKP	17 54.00	5.6X
ZOBO	162.87	128	PKP	17 50.00	1.3
BAO	168.53	212	ePKP	17 53.00	0.2

S.D. = 1.1 on 101 of 121 obs.

% FEB 16, 1989 10h 29m 17.81± 0.75s
39.261 N ± 6.6km 27.716 E ± 7.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.79	64	ePg	29 33.20	0.1
IZM	0.93	202	ePn	29 35.40	-0.2
EDC	1.09	6	ePn	29 37.50	-0.8
KCT	1.10	26	iPn	29 38.50	0.0
BNT	1.10	8	iPn	29 38.60	0.1
EZN	1.21	298	ePn	29 40.80	0.4
YLV	1.82	44	ePn	29 50.00	0.5

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

* FEB 16, 1989 11h 10m 19.14± 1.31s
7.288 S ± 9.7km 130.088 E ±12.7km
DEPTH = 69.5 ± 16.6 km
4.7mb (5 obs.)
TANIMBAR ISLANDS REGION (281)

TLE	3.11	58	ePd	11 05.30	-1.6
			iS	11 29.00	
AAI	4.04	332	eP	11 21.00	1.0
MTN	5.62	170	eP	11 54.00	12.0X
KNA	8.51	189	eP	12 33.00	10.9X
	0.2s	23.00nm			
			eS	14 11.00	
WB5	13.19	162	iPd	13 25.10	0.1
WRA	13.24	162	Pd	13 25.20	-0.5
	0.8s	3.60nm			4.1mb
QIS	16.09	146	eP	14 10.00	7.4X
			eS	17 00.00	
ASPA	16.69	168	eP	14 19.00	8.9X
	0.6s	15.00nm			4.4mb
			eS	17 21.20	
MBL	16.98	215	eP	14 24.00	10.3X
PMG	17.02	98	eP	14 16.00	1.9
CTA	20.19	131	eP	15 05.00	14.2X
GUN	55.21	311	P	19 47.60	-0.2
	0.4s	10.00nm			5.2mb
PKI	55.38	311	P	19 48.90	-0.1
	0.6s	7.00nm			4.9mb
KKN	55.59	311	P	19 50.10	-0.3
	0.6s	7.00nm			4.9mb
DMN	55.63	311	P	19 50.80	0.1
GKN	56.19	311	P	19 54.40	-0.2
MEO	127.65	51	ePdiff26	16.30	14.8X
	0.5s	8.10nm			
SIO	129.04	49	e(Pdif26	17.30	9.7X
TUL	129.36	49	ePdiff26	19.80	10.7X
	0.8s	13.90nm			

LNO 129.36 49 iPdiff26 20.10 11.2X
S.D. = 1.1 on 10 of 20 obs.

? FEB 16, 1989 12h 07m 07.35± 2.63s
7.364 S ±18.8km 130.602 E ±36.6km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
TANIMBAR ISLANDS REGION (281)

TLE	2.74	51	iPc	07 49.90	0.0
MTN	5.47	175	iPd	08 34.80	6.1X
			eS	09 43.00	
KNA	8.53	192	eP	09 11.50	0.0
			eS	10 50.00	
WB5	12.97	164	eP	10 11.50	-0.5
			eS	12 41.80	
WRA	13.02	164	Pc	10 13.20	0.4
ASPA	16.52	169	iPd	10 58.40	0.1
	0.4s		7.00nm	4.1mb	
			eS	14 02.80	

S.D. = 0.5 on 5 of 6 obs.

FEB 16, 1989 12h 24m 50.18± 1.56s
43.386 N ± 9.8km 5.405 E ± 9.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.7 (STR).

GELF	0.02	98	Pg	24 51.15	-1.0
TREF	0.24	356	Pg	24 54.95	-0.3
PUYF	0.26	56	Pg	24 54.83	-0.9
PRAF	0.45	338	Pg	24 59.97	0.6
VILF	0.52	26	Pg	24 59.94	-0.7
TAVF	0.53	64	Pg	25 00.17	-0.7
CALN	1.14	71	Pg	25 12.15	0.5
MVIF	1.37	67	Pn	25 15.93	0.5
			Sg	25 33.83	
TOUF	1.48	64	Pn	25 17.53	0.5
			Sg	25 37.87	
AURF	1.48	70	Pn	25 17.40	0.4
			Sg	25 36.66	
AUTN	1.59	67	Pn	25 19.48	0.9
			Sg	25 40.91	
CVF	2.67	107	Pn	25 33.44	-0.6

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

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* FEB 16, 1989 12h 30m 58.25± 1.12s
42.899 N ± 8.8km 24.852 E ±18.3km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)

SRS	2.01	208	eP	31 32.40	-0.2
			eS	31 57.10	
VAY	2.32	228	ePn	31 35.00	-2.0
SOH	2.36	209	eP	31 38.90	1.2
			eS	32 06.30	
OUR	2.64	195	eP	31 41.90	0.2
GRG	2.67	224	eP	31 42.60	0.6
			iS	32 12.40	
SKO	2.69	251	ePn	31 50.00	7.6X
VRI	3.26	24	eP	31 50.00	-0.4
BZS	3.58	321	ePc	31 55.50	0.6

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

% FEB 16, 1989 12h 51m 09.29± 0.78s
40.608 N ± 5.8km 27.575 E ± 7.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.34	140	iPg	51 16.50	0.2
			iSg	51 22.50	
BNT	0.36	134	iPg	51 16.50	-0.3
			iSg	51 22.50	
CTT	0.84	50	ePn	51 25.80	0.2
DMK	1.22	6	ePn	51 31.80	-0.2
EZN	1.24	231	ePn	51 32.30	0.1
YLV	1.37	91	ePn	51 34.50	0.0

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

FEB 16, 1989 13h 23m 35.88± 0.84s
24.346 S ± 7.7km 179.859 E ± 3.7km
DEPTH = 508.8 ± 10.5 km
4.8mb (27 obs.)
SOUTH OF FIJI ISLANDS (171)

DZM	12.54	278	iPd	26 23.20	2.0
KRP	14.03	194	P	26 41.90	5.7X
HNR	24.09	305	eP	28 11.00	-1.3
COO	25.54	250	eP	28 27.00	1.7
RMO	28.14	259	iPd	28 56.30	8.3X
CAN	28.81	241	eP	28 55.20	1.4
BWA	29.08	243	eP	28 55.70	-0.5
AFR	29.11	82	iP	28 55.90	-0.6
	1.0s		45.00nm	5.0mb	
PAE	29.25	83	iP	28 57.30	-0.4
	1.0s		25.00nm	4.7mb	
PPT	29.29	83	iP	28 57.70	-0.3
	1.0s		60.00nm	5.1mb	
PPN	29.43	83	iP	28 58.90	-0.3
	1.0s		25.00nm	4.7mb	
TVO	29.51	83	iP	28 59.60	-0.5
	1.0s		30.00nm	4.8mb	
CMS	30.81	249	eP	29 12.00	0.9
CTA	31.35	271	iPd	29 16.30	0.5
	0.9s		186.55nm	5.6mb	
			i	34 47.80	
			i	36 45.00	
PMO	31.68	79	iP	29 18.10	-0.4
	1.0s		25.00nm	4.7mb	
VAH	31.84	80	iP	29 19.20	-0.6
	1.0s		30.00nm	4.8mb	
TPT	31.94	79	iP	29 20.20	-0.5
	1.0s		40.00nm	4.9mb	
RUV	32.08	80	iP	29 21.40	-0.4
	1.0s		40.00nm	4.9mb	
TAU	32.54	227	eP	29 27.00	1.5
PMG	34.52	290	iPd	29 42.00	-0.4
	0.8s		100.00nm	5.4mb	
QIS	37.30	268	iPd	30 05.60	0.2
ASPA	41.84	261	iPd	30 42.40	0.2
			eScP	35 29.30	
			iS	36 20.60	
			iScS	39 47.00	
WB5	42.24	267	iPd	30 44.80	-0.5
			eScP	35 31.80	
			eS	36 34.00	
WRA	42.25	267	Pc	30 45.20	-0.2
	0.7s		35.10nm	5.0mb	
FORR	46.00	250	iPc	31 14.00	-0.5
	0.4s		70.00nm	5.5mb	
MTN	47.36	275	iPc	31 24.20	-0.9
KNA	48.53	270	iPd	31 33.50	-0.5
COOL	51.93	249	eP	31 57.50	-1.5
	0.4s		8.00nm	4.4mb	
KLB	54.69	248	iPd	32 17.80	-0.8
	0.4s		8.00nm	4.4mb	
NWAO	54.94	246	eP	32 20.00	-0.3
	0.4s		4.00nm	4.1mb	
RKG	54.96	244	eP	32 19.70	-0.7
MBL	55.08	260	iPd	32 20.20	-1.2
	0.3s		8.00nm	4.5mb	
BAL	55.75	249	eP	32 25.00	-1.0
	0.4s		17.00nm	4.7mb	
MUN	55.94	247	eP	32 26.50	-0.8
MRWA	56.61	250	eP	32 30.00	-2.0
NANU	58.56	258	iPd	32 45.10	-0.2
	0.3s		20.00nm	5.0mb	
SPA	65.80	180	ePc	33 33.50	1.7
	0.7s		14.84nm	4.7mb	
SYP	81.76	46	eP	35 03.00	0.9
PRS	81.95	44	iPc	35 03.50	0.6
GCC	81.99	43	eP	35 03.50	0.5
PCC	82.04	43	eP	35 03.70	0.4
PHAM	82.27	45	P	35 05.30	0.8
PRI	82.28	45	eP	35 05.30	0.6
BRK	82.35	43	eP	35 05.30	0.5
BKS	82.37	43	iPc	35 05.50	0.6
	0.8s		38.00nm	5.0mb	
LLA	82.40	44	eP	35 05.50	0.4
MHC	82.40	43	iPc	35 06.00	0.7
ABL	82.45	46	P	35 06.30	0.6
ARN	82.47	43	P	35 06.20	0.7
BAR	82.92	49	eP	35 07.00	-0.8
PLM	83.17	49	eP	35 09.00	-0.3
WHN	83.17	308	P	35 10.00	0.9
RVR	83.18	48	eP	35 08.00	-1.1
PEC	83.27	48	P	35 09.80	0.2
SBB	83.28	47	eP	35 09.00	-0.7
FRI	83.41	45	ePc	35 10.40	0.3
CMB	83.61	43	ePc	35 11.40	0.2
ORV	83.86	42	eP	35 12.60	0.2
WDC	83.88	40	iPc	35 12.80	0.4
LTCM	83.89	41	P	35 12.90	0.4
CLC	84.09	46	eP	35 14.00	0.3
TPC	84.15	49	eP	35 14.00	0.0
CN2	84.17	324	eP	35 14.00	0.2
MIN	84.29	41	eP	35 14.50	-0.2
GSC	84.32	47	eP	35 15.00	0.2
GLA	84.41	50	eP	35 16.00	0.7
LBFM	84.74	40	P	35 17.60	0.7
TNP	85.65	45	P	35 21.50	0.1
	0.9s		12.37nm	4.6mb	
KVN	85.65	44	P	35 21.40	0.0
SHW	87.61	36	P	35 31.50	1.1
VGB	87.98	37	P	35 32.50	0.4
GMW	88.18	35	P	35 33.10	0.2
LON	88.19	36	P	35 33.00	0.0
TIY	88.40	313	Pd	35 35.40	1.2
RMW	88.64	35	P	35 35.40	0.3
TTA	89.07	11	P	35 35.90	-0.8
	1.0s		10.75nm	4.7mb	
MSU	89.19	47	P	35 38.60	0.6
PMR	89.21	14	P	35 36.30	-1.0
	0.8s		12.93nm	4.8mb	
DPW	90.81	36	P	35 44.60	-0.5
PNT	90.93	35	eP	35 45.00	-0.5
ALQ	91.33	52	eP	35 47.90	-0.1
	1.2s		14.45nm	4.8mb	
FBA	92.41	13	P	35 50.30	-1.7
	1.0s		8.75nm	4.7mb	
LRM	92.92	40	eP	35 54.70	-0.4
BW06	93.11	44	P	35 55.00	-1.0
	1.1s		10.42nm	4.8mb	
GOL	94.36	48	P	36 01.70	-0.1
SOD	133.88	346	ePKP	41 40.00	-15.3X
SUF	137.79	342	ePKP	41 56.00	-6.8X
NB2	142.50	351	PKP	42 06.40	-4.9X
	0.8s		4.60nm		
KRA	149.95	334	iPKP	42 28.50	4.9X
MLR	150.18	322	ePKPd	42 30.00	5.7X
CLL	151.24	343	iPKP	42 31.90	6.4X
	0.9s		48.00nm		
			ipP	44 37.10	
BRG	151.36	341	iPKPc	42 32.00	6.3X
	1.0s		30.00nm		
			e	44 37.70	
PRU	151.96	340	ePKP	42 33.10	6.5X
KHC	153.02	340	ePKP	42 28.30	0.2
BNG	153.25	225	ePKPd	42 29.20	-0.3
	0.6s		4.00nm		
LIC	161.38	165	PKP	42 39.40	0.3
KIC	161.58	165	PKP	42 39.20	-0.1
TIC	161.79	164	PKP	42 39.40	-0.1

S.D. = 0.8 on 88 of 98 obs.

& FEB 16, 1989 13h 51m 12.00s
34.010 N 117.740 W
DEPTH = 3.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.2 (PAS). Felt (III) ot La Hobro. Felt in ports of Los Angeles ond Son Bernordino Counties.

RVR	0.30	93	iPc	51 17.80	-0.3
MWC	0.34	309	iPc	51 18.70	-0.1
PAS	0.38	291	iPc	51 19.30	-0.4
PEC	0.50	104	iPc	51 21.40	-0.5
SBB	0.68	354	iPd	51 24.90	-0.7
CIS	0.82	223	eP	51 27.50	-0.8
PLM	0.98	132	iPc	51 29.90	-1.5
TPC	1.41	86	ePc	51 37.80	-0.8
ABL	1.48	305	eP	51 38.70	-1.1
BCH	2.26	302	eP	51 50.70	-0.3
BLP	2.27	285	eP	51 49.00	-2.0
GLA	2.61	111	eP	51 54.00	-1.9
CMB	4.55	333	e(P)	52 24.00	0.6
KVN	5.04	357	eP	52 31.50	1.0

14 obs. ossociated

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* FEB 16, 1989 14h 30m 45.34± 0.88s
40.497 N ±15.7km 142.117 E ±14.2km
DEPTH = 33.0km (normal)
4.8mb (3 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

MAT	5.00	219	iPc	32 00.00	-0.1
			eS	32 56.00	
BJI	19.78	277	(P)	35 14.00	-1.6
GUN	47.45	273	P	39 19.20	0.0
KKN	47.96	273	P	39 23.20	0.1

16d 14h

	0.6s	10.00nm			5.0mb	
PKI	47.98	273	P	39 24.20	0.8	
DMN	48.19	273	P	39 25.40	0.5	
GKN	48.35	274	P	39 25.80	-0.2	
	0.6s	6.00nm			4.8mb	
INK	51.07	28	eP	39 46.00	0.0	
YKA	60.55	31	P	41 06.20	11.8X	
NB2	71.21	337	P	42 02.60	0.0	
	0.8s	3.60nm			4.5mb	
LRM	71.31	45	eP	42 03.40	-0.4	
			e	42 17.40		
FRB	73.28	14	eP	42 14.00	-0.7	
KHC	79.88	329	eP	42 53.60	1.6	
S.D. = 0.9 on 12 of 13 obs.						

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* FEB 16, 1989 15h 02m 09.89± 0.76s
37.464 N ±11.2km 30.707 E ± 7.9km
DEPTH = 21.2 ± 10.3 km
TURKEY (366)

BCK	0.09	268	iPg	02 13.90	-0.2	
ELL	0.96	222	iPn	02 27.70	-0.1	
KHL	1.27	313	iPn	02 33.20	0.7	
IKL	2.68	116	iPn	02 53.00	0.3	
BBTK	2.87	33	eP	02 55.00	-0.4	
			eS	03 32.00		
IZM	2.88	290	ePn	02 55.20	-0.3	
S.D. = 0.6 on 6 of 6 obs.						

FEB 16, 1989 15h 21m 45.01± 1.70s
7.741 S ± 7.5km 127.397 E ±10.1km
DEPTH = 63.2 ± 19.2 km
4.5mb (5 obs.)
BANDA SEA (280)

KUPT	4.45	237	eP	22 25.50	-26.0X	
TLE	5.71	69	ePc	23 10.50	1.2	
MTN	6.26	144	eP	23 16.00	-1.0	
KNA	8.07	171	iPd	23 40.70	-1.4	
	0.3s	100.00nm			6.2mb X	
			eS	25 04.00		
WRA	13.87	152	Pd	24 56.10	-4.1X	
	0.4s	4.90nm			4.4mb	
MBL	15.21	208	eP	25 17.80	0.3	
	0.3s	5.00nm			4.3mb	
			eS	27 54.00		
ASPA	17.02	159	iPd	25 37.10	-3.3X	
	0.7s	29.00nm			4.6mb	
			eS	28 34.80		
QIS	17.37	138	eP	25 44.00	-0.8	
			eS	28 40.00		
WARB	18.36	182	eP	25 48.20	-8.7X	
			eS	29 00.00		
NANU	18.64	216	eP	26 02.00	1.7	
			eS	29 21.00		
PMG	19.61	96	eP	26 12.00	0.9	
MEKA	20.57	203	iPc	26 22.00	0.9	
FORR	23.00	178	eP	26 45.00	-0.2	
MRWA	23.91	205	eP	26 53.00	-1.0	
BAL	24.85	202	eP	27 04.00	0.9	
KLB	25.38	199	eP	27 09.00	1.0	
MUN	26.27	202	eP	27 16.00	-0.3	
NWAO	26.78	199	eP	27 21.00	0.1	
	0.6s	10.00nm			4.6mb	
GUN	53.53	313	P	31 01.60	-0.5	
	0.6s	12.00nm			5.1mb	
PKI	53.68	313	P	31 02.40	-0.8	
KKN	53.90	313	P	31 04.10	-0.5	
DMN	53.92	312	P	31 04.50	-0.4	
YKA	109.54	26	PKP	40 05.20	-4.5X	
PNT	110.76	40	ePKP	40 16.00	3.5X	
S.D. = 1.0 on 18 of 24 obs.						

? FEB 16, 1989 15h 34m 00.02± 1.12s
54.037 N ±25.4km 171.442 W ±16.4km
DEPTH = 33.0km (normal)
4.5mb (1 obs.)
FOX ISLANDS, ALEUTIAN ISLANDS (9)
ML 4.7 (PMR).

ADK	3.83	238	iP	34 58.60	0.5	
SDN	6.48	74	eP	35 35.10	-0.4	
KDC	11.26	63	eP	36 40.50	-1.0	
PMS	13.71	49	eP	37 16.20	2.0	
TOA	15.53	49	eP	37 40.70	2.8X	
FBA	16.09	38	eP	37 50.10	5.1X	
INK	22.69	36	eP	38 59.50	0.2	
MBC	29.45	23	eP	40 03.00	0.7	
FRB	48.34	35	eP	42 36.00	-3.7X	
NB2	65.25	359	P	44 38.00	-2.0	
	0.7s	3.20nm			4.5mb	
S.D. = 1.6 on 7 of 10 obs.						

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* FEB 16, 1989 16h 03m 30.88± 2.04s
36.519 N ±16.3km 21.627 E ±18.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.5 (ATH).

VLS	1.85	334	ePn	04 02.50	-0.4	
ATH	2.21	48	ePn	04 07.00	-1.1	
VAM	2.36	117	ePn	04 10.50	0.2	
NEO	3.06	24	ePn	04 21.20	1.1	
NPS	3.47	110	ePb	04 30.70	4.7X	
KZN	3.78	2	ePn	04 30.70	0.1	
OHR	4.63	352	eP	05 04.00	21.4X	
VAY	4.85	8	e(Pn)	04 39.40	-6.2X	
S.D. = 1.1 on 5 of 8 obs.						

FEB 16, 1989 16h 36m 52.13± 0.20s
56.404 S ± 7.9km 121.964 W ± 6.2km
DEPTH = 10.0km (geophysicist)
5.4mb (20 obs.) 6.0Msz (16 obs.)
EASTER ISLAND CORDILLERA (684)
Ms 6.0 (BRK). Mo=5*10**18 Nm
(PPT).
CENTROID, MOMENT TENSOR (HRV)
Dota Used: GDSN
L.P.B.: 15S, 40C M.W.: 12S, 27C
Centroid Locotion:
Origin Time 16:37: 0.4 0.1
Lot 56.45S 0.02 Lon 122.00W 0.03
Dep 15.0 FIX Holf-durotion 5.0
Moment Tensor; Scole 10**18 Nm
Mrr=-0.18 0.02 Mtt= 0.88 0.03
Mff=-0.70 0.02 Mrt=-0.30 0.09
Mrf=-0.10 0.08 Mtf= 1.93 0.02
Principol Axes:

T	Vol= 2.21	Plg= 7	Azm=146
N	-0.22	82	306
P	-2.00	3	56

Best Double Couple:Mo=2.1*10**18
NP1:Strike=191 Dip=83 Slip= 177
NP2: 281 87 7

SBA	31.77	202	eP	43 25.20	7.2X	
SPA	33.77	180	iPd	43 40.40	4.6X	
	2.0s	597.50nm			6.2mb	
	Z 22s	41.80um			6.1Msz	
TBI	38.67	317	iP	44 08.20	-9.2X	
	1.1s	45.00nm			5.1mb	
LNV	40.91	79	eP	44 36.00	0.2	
SAN	41.70	79	eP	44 42.30	-0.1	
PEL	41.92	78	iPd	44 44.60	0.4	
WEL	42.71	263	eP	44 56.00	5.5X	
			S	51 18.00		
			SS	54 43.00		
TVO	43.69	321	iP	44 59.60	0.8	
	1.2s	70.00nm			5.3mb	
PAE	43.92	320	iP	45 01.40	0.9	
	1.2s	80.00nm			5.4mb	
PPN	43.99	321	iP	45 00.80	-0.3	
	1.2s	35.00nm			5.1mb	
PPT	44.00	320	iP	45 02.20	1.0	
	1.2s	80.00nm			5.4mb	
	Z 18s	16.00um			6.0Msz	
AFR	44.10	320	iP	45 02.80	0.8	
	1.2s	45.00nm			5.2mb	
MSZ	44.17	254	P	45 02.00	-0.3	
KRP	44.62	267	P	45 06.00	-0.1	
RUV	45.48	324	iP	45 11.50	-1.5	
	1.2s	50.00nm			5.3mb	
VAH	45.51	324	iP	45 11.90	-1.4	
	1.2s	75.00nm			5.5mb	
TPT	45.74	324	iP	45 13.70	-1.4	
	1.2s	35.00nm			5.2mb	
PMO	45.82	324	iP	45 14.20	-1.5	
	1.2s	40.00nm			5.3mb	
HJA	52.58	75	ePd	46 08.20	0.3	
ARE	55.00	65	eP	46 24.00	-2.1	
TAU	56.03	242	eP	46 33.00	0.1	
MAW	56.26	182	eP	46 35.00	0.8	
CNCB	56.49	68	P	46 36.00	-1.2	
LPB	56.67	68	P	46 38.00	-0.3	
	2.0s	705.88nm			6.3mb X	
			S	54 36.00		
			LR	03 52.00		
ZOBO	56.87	68	iPd	46 39.10	-0.9	
	1.9s	165.37nm			5.7mb	
			S	54 40.00		
			LR	03 20.00		
CAN	60.92	249	eP	47 07.00	-0.2	
DZM	61.75	272	iPc	47 17.20	4.2X	
BWA	61.91	250	eP	47 09.00	-5.0X	
VAO	62.90	91	eP	47 20.30	-0.4	
COO	63.07	255	eP	47 21.00	-0.7	
ITA	64.66	93	eP	47 31.20	-1.3	
RDJ	65.06	94	eP	47 31.60	-3.1X	
CMS	65.56	250	eP	47 36.00	-1.8	
ADE	66.41	242	eP	47 44.00	0.7	
PSO	67.77	49	eP	47 54.00	1.5	
RMQ	67.98	255	eP	47 58.00	4.8X	
BAO	68.25	86	eP	47 54.00	-1.2	
BOG	72.24	51	eP	48 20.00	0.3	
			eS	57 46.00		
FUQ	73.14	51	eP	48 22.50	-2.5	
UPA	73.95	44	eP	48 32.60	3.4X	
	Z 19s	13.75um			6.3Msz	
CTA	74.48	257	iPd-	48 33.40	1.1	
	1.7s	192.31nm			5.9mb	
			iS	58 08.00		
ATB	76.14	75	Pd	48 39.50	-2.3	
QIS	77.66	252	eP	48 48.00	-2.2	
NWAO	77.86	228	eP	48 51.00	-0.2	
	1.2s	3.00nm			4.3mb X	
COOL	77.97	232	eP	48 51.00	-0.9	
	1.2s	2.00nm			4.1mb X	
ASPA	78.04	245	iPc	48 51.10	-1.2	
	Z 22s	13.66um			6.2MszX	
			eS	58 45.40		
			LR	17 05.90		
CEOS	78.70	54	eP	48 54.70	-1.3	
TOV	78.72	53	eP	49 06.00	9.9X	
KLB	78.81	229	eP	48 57.00	0.6	
	1.5s	8.00nm			4.5mb	
MUN	79.11	227	iPc	48 58.60	0.6	
	1.4s	2.00nm			3.9mb X	
	Z 20s	5.90um			5.9Msz	
	N 20s	4.40um				
	E 20s	2.90um				
BAL	80.10	228	eP	49 04.00	0.6	
	1.3s	2.00nm			3.9mb X	
CAR	80.64	55	iP	49 05.00	-1.5	
			iS	59 11.00		
LLAV	80.66	55	eP	49 11.00	4.4X	
WRA	80.91	248	P	49 07.00	-0.8	
	1.7s	62.00nm			5.4mb	
WB5	80.95	248	eP	49 06.10	-1.9	
PMG	82.73	264	eP	49 18.00	0.7	
	2.3s	436.36nm			6.2mb	
HON	83.19	326	P	49 22.00	2.6	
	Z 20s	18.09um			6.4Msz	
GRM	86.72	154	eP	49 43.00	5.8X	
MBL	86.96	235	eP	49 38.00	-0.5	
BAR	88.84	4	eP	49 48.00	0.9	
GLA	89.31	6	eP	49 49.00	-0.3	
PLM	89.51	4	eP	49 50.00	-0.4	
RVR	90.12	4	eP	49 55.00	2.0	
TPC	90.29	5	eP	49 52.00	-1.9	
MWC	90.33	3	eP	49 59.00	4.8X	
SYP	90.59	2	eP	49 56.00	0.7	
SBB	90.80	3	eP	49 56.00	-0.2	
BCH	91.24	2	P	50 00.00	1.7	
GSC	91.45	4	eP	50 04.00	4.8X	
PHAM	91.89	1	P	50 02.00	0.9	
CLC	91.93	4	eP	50 02.00	0.6	
ALQ	91.94	13	eP	49 59.00	-2.7	
	1.3s	30.29nm			5.5mb	
	Z 20s	3.37um			5.8Msz	
PRI	92.19	1	ePc	50 03.50	0.9	
			e	50 08.10		
PRS	92.37	0	ePc	50 04.00	0.7	
			e	50 08.70		
BFS	92.89	152	e(P)	50 11.00	4.6X	
MEO	92.98	19	eP	50 10.30	4.1X	
	1.4s	35.20nm			5.6mb	
PRY	93.04	153	eP	50 03.00	-4.1X	
FRI	93.05	2	ePc	50 06.30	-0.1	
			e	50 10.90		
MHC	93.38	0	e(P)	50 09.00	0.9	
	Z 20s	5.00um			6.0Msz	

N 20s 6.00um
E 20s 2.10um
e 50 13.20
eS 01 25.00
ePS 02 32.00
eSS 07 38.00
e 14 37.00
eLQ 16 00.00
eLR 20 18.00
BPI 93.90 153 eP 49 53.00 -18.2X
0.8s 29.85nm
BKS 93.91 360 ePd 50 16.20 5.8X
Z 20s 5.00um 6.0Msz
N 20s 5.00um
E 20s 2.00um
iS 01 23.00
iSS 07 52.00
eLQ 16 08.00
eLR 20 26.00
CMB 94.08 1 ePc 50 11.50 0.3
e 50 16.10
ePP 53 53.20
TNP 94.21 4 P 50 11.00 -1.0
1.4s 33.33nm 5.5mb
SIO 94.35 21 eP 50 15.00 2.6
SLR 94.38 153 eP 50 01.00 -12.3X
TUL 94.61 21 eP 50 16.90 3.3X
1.1s 3.80nm 4.7mb
Z 20s 2.50um 5.7Msz
LNO 94.61 21 e(P) 50 18.70 5.2X
KVN 95.14 3 P 50 15.00 -1.3
ORV 95.59 0 e(P) 50 20.40 2.3
e 50 24.70
WDC 96.62 360 eP 50 22.20 -0.5
e 50 26.80
ePP 54 14.20
GOL 96.77 13 P 50 40.00 16.3X
Z 20s 5.00um 6.0Msz
GLD 96.83 13 P 50 40.00 16.1X
Z 20s 5.50um 6.0Msz
KMZ 105.40 147 iPKP 55 24.70 8.0X
PTZ 106.16 153 iPKP 55 28.00 9.9X
SES 106.82 7 ePKP 55 37.00 18.7X
SIT 113.62 352 PKP 55 50.00 19.1X
Z 20s 7.50um 6.3Msz
SNG 120.62 231 ePKP 55 14.30 -31.2X
INK 124.69 355 ePKP 55 56.00 4.3X
LOE 129.12 238 ePKP 56 07.60 5.8X
CHG 131.64 236 ePKP 56 08.50 1.9
IFR 131.80 91 iPKP 55 49.00 -17.7X
GYA 134.25 250 PKP 56 19.00 7.5X
N 20s 1.70um
E 20s 1.50um
TAF 134.27 92 ePKP 56 06.00 -5.2X
i 56 18.00
KMI 135.17 245 ePKP 56 18.50 5.1X
TOL 136.98 85 e(PKP)56 21.00 4.8X
ePPS 12 40.00
eSS 16 10.00
eSSS 21 20.00
HYB 138.11 210 ePKP 56 24.00 5.1X
e 56 40.50
XAN 138.97 259 PKP 56 21.10 1.0
BJI 139.28 272 PKP 56 25.00 4.7X
Z 32s 3.10um 5.8MszX
PP 59 17.00
SS 17 19.00
TIY 139.73 266 ePKP 56 17.30 -4.0X
N 20s 3.50um
E 18s 2.30um
sPKP 56 27.00
HHC 142.40 269 ePKP 56 23.00 -3.1X
Z 16s 1.70um 5.9MszX
N 20s 2.20um
E 19s 2.00um
BTO 143.09 267 PKP 56 24.50 -2.7
LZH 143.26 256 ePKP 56 26.00 -1.8
3.0s 244.00nm
Z 35s 3.60um 5.9MszX
sPKP 56 40.00
PP 59 31.00
SS 18 10.00
CAF 143.71 84 ePKP 56 24.50 -3.6X
LSF 144.23 82 ePKP 56 25.80 -3.1X
LBL 144.55 85 PKP 56 27.63 -1.7
LSA 144.58 235 ePKP 56 29.00 -1.6
FLN 144.62 77 ePKP 56 27.50 -1.9
TCF 144.63 82 ePKP 56 27.40 -2.2
LVI 144.71 102 PKP 56 28.50 -1.4
LDF 144.72 78 ePKP 56 26.50 -3.1X
PYM 144.74 84 PKP 56 28.15 -1.7
MAF 144.79 83 ePKP 56 27.70 -2.1
FAI 144.92 104 PKP 56 30.50 0.2
AGO 145.00 83 PKP 56 28.80 -1.4
BGF 145.14 82 ePKP 56 29.20 -1.2
LRG 145.16 89 ePKP 56 29.60 -0.9
MCT 145.16 104 PKP 56 30.30 -0.6
LMR 145.16 90 ePKP 56 29.70 -0.8
PKI 145.18 226 PKP 56 30.60 -0.9
PLDF 145.22 84 PKP 56 29.36 -1.3
GUN 145.29 227 PKP 56 31.20 -0.5
DMN 145.33 225 PKP 56 31.40 -0.3
FRF 145.38 90 ePKP 56 30.30 -0.6
KKN 145.43 226 PKP 56 31.50 -0.3
AVF 145.56 83 ePKP 56 30.40 -0.7
CALN 145.64 89 PKP 56 31.31 -0.2
USI 145.69 102 PKP 56 31.50 0.0
SMF 145.75 83 ePKP 56 31.10 -0.3
SSF 145.81 82 ePKP 56 31.20 -0.3
GKN 145.87 225 PKP 56 32.20 -0.2
MVIF 145.88 89 PKP 56 31.89 -0.1
MNO 145.95 104 PKP 56 32.60 0.3
AURF 145.97 90 PKP 56 31.13 -0.9
CVF 145.97 93 PKP 56 30.20 -1.8
TOUF 146.01 89 PKP 56 31.98 -0.2
SBF 146.02 90 ePKP 56 32.40 0.3
LBF 146.02 83 ePKP 56 31.60 -0.3
AUTN 146.10 90 PKP 56 32.12 -0.3
LOR 146.13 82 ePKP 56 32.00 -0.1
STV 146.20 89 PKP 56 30.66 -1.7
PZZ 146.24 89 PKP 56 32.81 0.3
IMI 146.30 90 PKP 56 31.48 -1.0
RRL 146.32 88 PKP 56 33.22 0.5
BNI 146.34 87 PKP 56 32.30 -0.4
ATN 146.53 105 PKP 56 35.00 2.0
ROB 146.53 90 PKP 56 31.99 -0.9
ESK 146.61 66 ePKP 56 31.50 -1.0
1.0s 80.00nm
EKA 146.64 66 PKP 56 34.00 1.4
1.3s 42.00nm
LPG 146.66 87 ePKP 56 34.80 1.5
FIN 146.67 90 PKP 56 33.02 0.0
RSP 146.73 88 PKP 56 33.84 0.6
CKI 146.84 90 PKP 56 36.60 3.3X
LSD 146.86 87 PKP 56 34.86 1.2
DAG 146.94 24 iPKPc 56 33.00 0.5
1.7s 373.08nm
MAO 147.14 95 PKP 56 35.70 1.9
RYD 147.27 161 ePKP 56 38.00 3.4X
ORO 147.42 88 PKP 56 42.30 8.0X
ORX 147.43 88 PKP 56 34.15 -0.2
HLW 147.48 133 ePKP 56 38.00 3.3X
GRI 147.52 105 PKP 56 37.70 3.1X
PII 147.64 93 PKP 56 39.10 4.6X
BOB 147.71 90 PKP 56 38.80 4.1X
VITF 147.84 82 PKP 56 36.65 2.0
GTA 147.86 256 PKP 56 37.20 2.0
N 22s 2.70um
BDI 147.90 92 PKP 56 38.60 3.5X
HAU 147.92 83 ePKP 56 37.30 2.4
RFI 147.95 99 PKP 56 40.40 5.3X
MNS 147.96 96 PKP 56 36.00 0.8
MGR 148.00 102 PKP 56 37.50 2.3
MGR 148.00 102 PKP 56 30.40 -4.8X
VAI 148.01 88 PKP 56 31.30 -3.7X
MME 148.04 92 PKP 56 38.00 2.5
BSF 148.07 83 PKP 56 37.30 2.0
TDS 148.08 104 PKP 56 37.60 2.2
FIR 148.09 93 ePKP 56 39.00 3.8X
AZI 148.11 98 PKP 56 40.80 5.5X
AZI 148.11 98 PKP 56 37.00 1.7
DOU 148.12 78 PKPd 56 37.80 2.7
ec 56 41.80
SDI 148.13 98 PKP 56 37.60 2.1
SNF 148.17 78 PKP 56 39.80 4.6X
e 56 45.50
MOF 148.27 84 PKP 56 37.90 2.3
UCC 148.36 77 PKP 56 42.00 6.6X
CRE 148.37 94 PKP 56 35.10 -0.8
ASS 148.41 95 PKP 56 39.90 4.0X
ASS 148.41 95 PKP 56 36.70 0.8
PGD 148.41 93 PKP 56 37.30 1.3
DUI 148.46 99 PKP 56 38.90 2.9
MDI 148.48 89 PKP 56 38.70 2.9
SFI 148.51 93 PKP 56 37.20 1.3
CDF 148.67 83 PKP 56 38.69 2.5
WLF 148.74 80 PKPc 56 41.50 5.4X
MBH 148.76 139 iPKPd 56 42.00 5.2X
ARV 148.84 95 PKP 56 39.00 2.5X
RSM 148.84 94 PKP 56 39.40 3.0X
VAM 148.94 118 ePKP 56 41.80 4.9X
NDI 149.12 214 ePKPd 56 41.00 3.6X
MEM 149.16 78 PKP 56 41.30 4.6X
GWF 149.17 82 PKP 56 40.30 3.4X
ENN 149.19 78 ePKP 56 41.00 4.2X
2.0s 375.00nm
VLS 149.26 110 ePKP 56 46.50 9.2X
PRNI 149.33 138 iPKPd 56 43.30 5.6X
NPS 149.51 120 ePKP 56 43.00 5.2X
CTI 149.72 90 PKP 56 42.00 4.1X
WTS 150.29 77 ePKPc 56 45.00 6.6X
KAP 150.49 122 ePKP 56 44.50 5.3X
FVI 150.67 90 PKP 56 43.90 4.8X
TRI 150.69 92 ePKP 56 44.50 5.3X
ATH 150.71 114 ePKP 56 46.00 6.5X
JVI 150.88 138 iPKPd 56 46.70 6.8X
VOY 150.96 92 e(PKP)56 45.40 5.7X
RBL 151.02 91 PKP 56 44.90 5.1X
CEY 151.07 93 ePKP 56 46.00 6.2X
LJU 151.32 93 e(PKP)56 45.00 4.8X
VBY 151.39 94 ePKP 56 46.20 5.9X
KZN 151.45 109 ePKP 56 46.50 5.9X
NEO 151.47 112 ePKP 56 47.20 6.6X
OHR 151.51 107 ePKP 56 44.50 3.8X
2.1s 0.58nm
i 56 53.10
GRF 151.54 84 ePKP 56 46.70 6.3X
Z 20s 2.60um 6.0Msz
LIT 151.67 110 ePKP 56 56.80 15.9X
ZAG 151.98 94 iPKP 57 01.00 19.9X
PTJ 152.02 94 ePKP 56 57.90 16.6X
GRG 152.25 109 iPKP 56 42.90 1.2X
MOX 152.25 82 ePKP 56 48.00 6.6X
1.4s 36.00nm
KMR 152.27 89 ePKP 56 39.00 -2.5X
i 56 59.30
iPP 00 26.60
PLG 152.37 111 ePKP 56 50.00 8.1X
SKO 152.46 106 ePKP 56 42.50 0.5X
Z 19s 2.15um 6.0Msz
N 20s 2.14um
E 19s 2.47um
i 56 49.50
i 00 28.80
KHC 152.55 86 PKP 56 49.50 7.6X
e 56 56.80
VAY 152.60 108 ePKP 56 48.00 5.9X
BHL 152.75 136 PKP 56 49.00 6.3X
IZM 152.81 118 ePKP 56 49.00 6.4X
QUE 153.05 197 ePKP 56 49.00 5.6X
CLL 153.34 82 iPKP 56 53.60 10.8X
2.2s 180.00nm
SOP 153.41 91 ePKP 56 49.60 6.5X
PRU 153.53 85 ePKP 56 49.50 6.3X
Z 21s 3.00um 6.1Msz
N 21s 2.40um
E 20s 1.80um
e 57 04.20
VKA 153.60 90 e(PKP)57 04.50 21.1X
4.0s 597.00nm
BRG 153.65 83 ePKP 56 51.50 8.2X
1.2s 22.00nm
e 56 56.70
ZST 154.00 91 ePKP 56 51.00 7.1X
RDO 154.02 112 ePKP 56 51.20 7.1X
SRO 154.45 93 ePKP 56 51.00 6.5X
e 57 10.00
BUD 154.66 94 ePKP 56 50.00 5.3X
KSP 154.93 85 ePKP 56 51.00 6.0X
ed 00 46.20
BHD 155.02 152 ePKP 56 38.00 -7.7X
i 57 11.00
iPP 00 33.00
iPS 07 41.00
iSP 08 37.00
PSZ 155.39 94 ePKP 56 51.80 6.0X
CTT 155.49 116 ePKP 56 47.00 0.9X
DMK 155.65 114 ePKP 56 52.00 5.7X
NB2 155.68 60 PKP 56 51.00 5.2X
1.6s 56.30nm
HRT 155.86 118 ePKP 56 54.00 7.3X

16d 16h

SPC	156.28	92	ePKP	56	53.20	6.0X
BBTK	156.56	124	ePKP	56	51.50	3.7X
			e	56	56.00	
KRA	156.56	90	ePKP	56	47.70	0.4X
			e	57	09.70	
KER	156.71	157	ePKP	57	04.00	15.8X
MLR	157.24	105	ePKPd	56	55.00	6.5X
WMQ	157.40	249	PKP	56	51.50	2.9X
	Z 22s		5.00um			6.3Msz
			PP	00	59.50	
SLY	157.51	152	ePKP	56	52.00	3.1X
			e	57	21.50	
			e	00	59.50	
			e	04	37.00	
TLB	157.75	109	ePKP	56	56.00	7.1X
VRI	157.90	105	ePKPc	56	56.00	6.9X
CFR	158.21	108	ePKP	56	56.00	6.6X
CLI	158.63	104	ePKP	56	52.00	2.1X
MAIO	159.87	183	ePKP	56	53.00	1.3X
TAB	160.06	152	e(PKP)	57	05.00	13.1X

S.D. = 1.4 on 141 of 270 abs.

? FEB 16, 1989 18h 41m 29.24± 1.20s
38.122 N ±11.6km 23.054 E ± 9.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.6 (ATH).

ATH	0.54	106	eP	41	40.30	0.1
NEO	1.19	6	eP	41	52.20	0.7
VLS	1.94	272	eP	42	02.70	0.1
PLG	2.27	8	eP	42	06.50	-0.9

S.D. = 1.2 on 4 of 4 obs.

& FEB 16, 1989 19h 17m 07.70s
33.170 N 115.600 W
DEPTH = 1.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.4 (PAS).

GLA	0.66	100	eP	17	20.40	-0.5
IKP	0.67	220	eP	17	20.70	-0.4
TPC	1.01	338	ePc	17	26.20	-1.4
BAR	1.03	242	ePd	17	26.10	-1.8
PLM	1.07	280	eP	17	26.70	-2.2
PEC	1.49	299	eP	17	35.50	-0.2
NOP	2.99	351	eP	17	55.70	-1.5
ABL	3.44	300	e(P)	18	12.50	8.7
BCH	4.23	300	eP	18	17.50	2.7
TNP	5.08	345	eP	18	25.00	-2.0
KVN	6.21	342	eP	18	34.70	-8.2

11 obs. associated

FEB 16, 1989 19h 27m 04.99± 0.63s
37.682 N ± 5.9km 15.180 E ± 5.2km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.46	303	P	27	14.20	-0.2
			eSg	27	22.00	
ATN	0.53	25	P	27	15.70	0.0
			eSg	27	24.80	
MSI	0.60	30	P	27	16.70	-0.4
MEU	0.61	199	Pc	27	17.30	-0.1
SOI	0.79	60	P	27	20.60	0.2
			eSg	27	32.60	
GIB	0.96	289	P	27	23.60	0.2
FAI	1.26	252	P	27	28.50	0.0
TDS	2.17	24	P	27	41.80	0.1

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

FEB 16, 1989 19h 42m 45.97± 1.49s
2.568 N ± 4.7km 126.635 E ± 7.5km
DEPTH = 56.0 ± 13.8 km
5.1mb (17 abs.) 4.5Msz (1 abs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 30C
Centroid Location:
Origin Time 19:42:50.1 0.5
Lat 3.21N 0.07 Lon 126.95E 0.08
Dep 36.9 5.0 Half-duration 2.2
Moment Tensor; Scale 10**17 Nm
Mrr= 1.69 0.14 Mtt=-0.43 0.13
Mff=-1.27 0.23 Mrt=-0.68 0.27
Mrf=-0.13 0.24 Mtf=-0.75 0.13
Principal Axes:

	Val=	Plg=	Azm=
T	1.90	73	185
N	-0.13	15	35
P	-1.77	8	303

Best Double Couple:Mo=1.8*10**17
NP1:Strike= 16 Dip=39 Slip= 66
NP2: 226 55 108

MNI	2.11	238	iPc	43	22.20	2.7
			eS	43	50.00	
DAV	4.61	347	eP	43	51.00	-3.8X
AAI	6.41	166	eP	44	27.00	7.0X
PCI	7.62	243	eP	44	38.80	1.8
	1.0s	17.00nm				4.8mb X
TSM	8.70	281	ePc	44	55.00	3.1X
MKS	10.54	223	ePd	45	23.00	6.0X
			e	49	10.00	
QCP	13.19	336	eP	46	12.00	19.6X
BAG	14.99	337	eP	46	16.00	-0.2
			eS	49	05.00	
KHKI	15.45	225	ePd	46	28.50	6.5X
			e	49	16.10	
MTN	15.95	164	eP	46	26.00	-2.3
			e	49	31.00	
KNA	18.32	173	eP	46	56.70	-1.2
GUMO	21.09	58	e(P)	47	43.00	15.0X
QIZ	23.19	316	eP	47	46.00	-2.7
	E 12s	1.30um				
KGM	23.30	269	eP	47	52.40	2.5
QZH	23.56	341	eP	47	52.00	-0.2
	Z 28s	7.90um				5.0MszX
	N 26s	8.20um				
			eS	51	50.00	
WB5	23.57	162	iPc	47	51.70	-0.7
			eS	52	07.80	
WRA	23.62	162	Pc	47	50.20	-2.7
	0.7s	25.10nm				4.8mb
PMG	23.66	120	eP	47	57.00	3.7X
GZH	24.12	329	eP	47	57.50	-0.2
			eS	52	06.00	
MBL	24.50	195	iPd	48	02.20	0.7
	0.4s	9.00nm				4.6mb
KSI	24.81	256	ePc	48	07.80	3.4X
			e	48	51.00	
IPM	25.64	275	ePd	48	16.20	3.9X
	1.2s	50.70nm				4.9mb
QIS	26.27	152	iPd	48	17.50	-0.5
			e	48	21.00	
SNG	26.32	281	eP	48	13.20	-5.3X
			e	53	15.50	
ASPA	27.02	165	iPc	48	23.90	-1.0
			eS	53	10.00	
NANU	27.23	203	eP	48	27.50	0.8
PSI	27.68	271	ePd	48	29.00	-2.0
NNT	28.43	292	eP	48	38.00	0.3
LOE	28.55	303	eP	48	38.00	-0.8
WARB	28.58	180	eP	48	31.50	-7.5X
CTA	29.63	140	iPc	48	49.90	1.5
	1.1s	24.05nm				4.8mb
			eS	53	48.00	
MEKA	30.05	195	iPc	48	52.10	0.0
	0.3s	13.00nm				5.1mb
WHN	30.16	339	eP	48	53.00	0.0
	Z 30s	5.81um				5.0MszX
			eS	53	40.00	
NJ2	30.23	347	Pd	48	54.00	0.4
	Z 25s	2.90um				4.8MszX
GYA	30.52	323	eP	48	58.00	1.6
	Z 22s	1.20um				4.5Msz
			S	53	50.00	
BDT	30.81	300	eP	48	58.90	0.0
CHG	31.55	303	iPd	49	05.30	-0.1
	1.1s	22.15nm				4.9mb
KMI	32.14	316	eP	49	10.50	-0.2
	Z 25s	3.60um				5.0MszX
			pP	49	25.00	58kmX
			eSS	54	14.00	
MRWA	33.21	197	eP	49	20.00	0.3
FORR	33.26	178	eP	49	19.30	-0.8
	0.3s	36.00nm				5.7mb
COOL	33.67	189	iPd	49	23.30	-0.5
	0.3s	3.00nm				4.7mb
BAL	34.32	195	eP	49	29.00	-0.3
	0.8s	19.00nm				5.1mb
KLB	35.00	193	iPd	49	35.50	0.3
	0.4s	10.00nm				5.1mb
MAT	35.46	16 (P)		49	40.00	1.0
	2.0s	188.24nm				5.7mb
			eS	55	20.00	
MUN	35.75	195	eP	49	42.00	0.5
RMQ	35.94	145	eP	49	49.00	5.9X
NWAO	36.41	193	eP	49	46.00	-1.0
	0.4s	6.00nm				4.9mb
TIY	37.33	341	eP	49	53.80	-1.0
	N 31s	14.80um				
			eS	55	38.00	
RKG	37.55	193	eP	50	02.30	5.7X
CMS	38.47	153	eP	50	04.00	-0.4
BJI	38.49	347	eP	50	02.50	-1.9
	Z 24s	2.30um				4.9MszX
			eS	55	52.00	
ADE	39.02	164	iPc	50	09.40	0.4
	1.0s	40.00nm				5.2mb
SNY	39.18	356	eP	50	11.80	1.7
	Z 29s	2.30um				4.8MszX
	N 29s	2.00um				
			sP	50	30.00	
LZH	39.45	330	P	50	12.50	-0.2
	1.5s	66.00nm				5.3mb
	Z 16s	3.80um				5.3MszX
	E 24s	2.40um				
			i	50	28.00	
			S	55	54.00	
HHC	40.47	342	eP	50	21.00	0.1
BTO	40.73	341	eP	50	23.00	-0.1
	N 30s	6.80um				
	E 30s	5.90um				
			eS	56	26.50	
COO	40.83	146	eP	50	24.00	0.1
CN2	41.07	359	eP	50	30.00	4.4X
	Z 28s	1.70um				4.8MszX
MDJ	41.95	3	Pc	50	33.30	0.4
	Z 30s	2.10um				4.8MszX
			esP	50	56.00	
			S	56	52.00	
			sS	57	17.00	
BWA	42.11	153	eP	50	35.70	1.3
CAN	43.12	153	eP	50	43.10	0.5
LSA	43.14	312	P	50	43.30	-0.1
			eS	57	03.50	
GTA	44.04	330	eP	50	49.30	-0.8
	N 27s	3.20um				
GUN	46.34	307	P	51	08.30	-0.6
PKI	46.57	306	P	51	09.80	-0.9
KKN	46.76	307	P	51	11.40	-0.7
DMN	46.83	306	P	51	11.70	-1.0
GKN	47.37	306	P	51	15.80	-1.0
KOD	49.40	281	eP	51	33.00	0.1
HYB	49.43	291	iPd	51	32.10	-0.6
	1.2s	92.90nm				5.7mb
GBA	49.83	286	P	51	34.40	-1.3
WMQ	53.62	326	eP	52	02.50	-1.4
	Z 26s	1.40um				4.9MszX
NDI	53.68	304	eP	52	02.00	-2.5
POO	54.03	291	eP	52	06.50	-0.8
KSH	58.77	316	eP	52	41.00	0.1
MSZ	59.70	147	P	52	46.20	-0.9
QUE	62.69	303	eP	53	06.60	-1.2
MAIO	70.14	308	eP	53	54.00	-0.9
AVY	80.35	250	eP	54	54.80	1.3
TTA	81.97	27	eP	55	02.60	1.6
IMA	83.48	24	eP	55	10.50	1.7
	1.1s	18.70nm				5.0mb
PMR	85.00	29	eP	55	17.20	0.9
	1.0s	25.00nm				5.3mb
NAI	89.89	269	iPc	55	43.50	2.2
PRNI	90.13	300	e(P)	55	44.00	2.2
MBH	90.26	300	e(P)	55	43.50	1.1
INK	91.27	21	eP	55	47.00	0.8
SOD	91.50	338	eP	55	51.00	3.7X
KJF	91.59	334	eP	55	50.00	2.2
SUF	92.54	333	eP	55	57.00	4.9X
VRI	95.06	316	eP	56	06.00	1.8
MLR	95.67	316	eP	56	07.00	-0.1
			e	59	10.00	
DAG	98.40	352	eP	56	18.00	-0.7
PEL	145.52	154	iPKPc	02	21.60	1.5
MDZ	146.53	156	ePKP	02	25.00	3.2X

S.D. = 1.2 on 76 of 94 abs.

FEB 16, 1989 20h 26m 00.38± 0.52s
2.724 N ± 6.8km 126.796 E ± 9.8km
DEPTH = 33.0km (normal)
4.8mb (5 obs.)

MOLUCCA PASSAGE (266)

MNI	2.33	237	ePd	26	39.60	2.4
			eS	27	11.10	
PCI	7.84	243	eP	27	55.00	0.0
WRA	23.71	162	Pc	31	10.80	0.4
	0.4s	5.50nm			4.4mb	
QIS	26.33	152	eP	31	35.00	-0.2
ASPA	27.13	166	iPd	31	41.50	-1.1
	0.6s	9.00nm			4.6mb	
WARB	28.74	180	eP	31	49.00	-8.1X
MEKA	30.24	195	iPd	32	09.90	-0.6
FORR	33.41	178	iPc	32	37.10	-1.0
	0.5s	23.00nm			5.3mb	
KLB	35.19	193	eP	32	53.00	-0.5
MUN	35.95	195	eP	33	00.00	0.1
	0.9s	23.00nm			5.1mb	
NWAO	36.59	194	eP	33	05.00	-0.4
TIY	37.23	341	Pc	33	11.40	0.6
BJI	38.37	347	(P)	33	21.50	1.3
LZH	39.40	330	(P)	33	29.50	0.4
BWA	42.18	153	eP	33	53.20	1.4
CAN	43.19	153	eP	34	01.00	1.0
GUN	46.37	307	P	34	26.10	0.1
PKI	46.61	306	P	34	27.60	-0.3
KKN	46.80	306	P	34	28.70	-0.6
DMN	46.87	306	P	34	29.40	-0.4
GKN	47.41	306	P	34	33.60	-0.4
GBA	49.94	285	Pd	34	51.40	-2.1
	0.7s	5.10nm			4.7mb	

S.D. = 1.0 on 21 of 22 obs.

& FEB 16, 1989 20h 59m 30.71s
48.427 N 122.221 W
DEPTH = 0.0km
WASHINGTON (29)
<SEA>. CL 2.3 (SEA). Felt in the Mount Vernon area.

CMW	0.07	93	iPd	59	32.55	0.5
OHW	0.23	244	eP	59	35.18	-0.2
			eS	59	39.14	
JCW	0.30	140	iPd	59	36.48	-0.3
			eS	59	41.62	
MBW	0.42	31	eP	59	39.20	0.2
RPW	0.47	87	eP	59	39.78	-0.3
MCW	0.48	302	eP	59	39.32	-0.9
BLH	0.60	168	eP	59	42.47	-0.3
BLN	0.65	230	eP	59	43.08	-0.7
HTW	0.69	154	eP	59	43.64	-0.9
GMW	0.96	204	eP	59	47.81	-2.0
HDW	0.96	216	eP	59	47.64	-2.3
RMW	1.01	164	eP	59	49.63	-1.2
STW	1.01	255	eP	59	48.50	-2.2
GSM	1.26	167	eP	59	53.74	-1.3
LON	1.70	170	eP	00	01.00	-0.9

15 obs. associated

? FEB 16, 1989 21h 01m 38.07± 7.32s
5.799 S ±52.7km 128.965 E ±64.8km
DEPTH = 158.1 ± 31.6 km
4.3mb (2 obs.)
BANDA SEA (280)

TLE	3.77	88	iPd	02	36.20	0.0
			iS	03	09.00	
MTN	7.32	163	eP	03	23.00	-0.5
			eS	04	34.00	
KNA	9.89	181	eP	03	57.80	0.2
			eS	05	37.00	
WB5	14.95	160	eP	04	57.80	-5.0X
			e	05	03.00	
WRA	15.00	160	P	05	04.00	0.6
	0.2s	0.70nm			3.7mb	
ASPA	18.39	166	eP	05	43.40	-0.4
	0.4s	23.00nm			4.9mb	
			eS	08	55.80	

S.D. = 0.9 on 5 of 6 obs.

& FEB 16, 1989 21h 12m 11.69s
48.427 N 122.226 W
DEPTH = 0.0km
WASHINGTON (29)
<SEA>. CL 2.8 (SEA). Felt ot Mount Vernon.

CMW	0.07	93	iPd	12	13.51	0.4
OHW	0.23	243	eP	12	16.11	-0.1
			eS	12	20.09	
JCW	0.31	140	iPd	12	17.48	-0.3
MBW	0.42	31	iP	12	20.23	0.2
			eS	12	28.04	
RPW	0.47	87	iPd	12	20.84	-0.3
MCW	0.48	302	eP	12	20.41	-0.8
BLH	0.60	168	iPd	12	23.46	-0.3
BLN	0.65	230	eP	12	23.75	-1.0
PGW	0.66	203	eP	12	24.38	-0.4
HTW	0.70	154	iPd	12	24.60	-1.0
SPW	0.87	181	eP	12	28.84	-0.3
GMW	0.96	203	eP	12	28.76	-2.0
HDW	0.96	216	eP	12	28.58	-2.3
STW	1.00	255	eP	12	29.39	-2.2
RMW	1.01	164	eP	12	30.44	-1.3
OSD	1.16	239	ePd	12	32.78	-1.7
MEW	1.26	193	eP	12	35.16	-0.8
GSM	1.26	166	eP	12	34.45	-1.6
SMW	1.34	215	eP	12	36.14	-1.3
GHW	1.39	181	eP	12	36.68	-1.5
LON	1.70	170	eP	12	41.30	-1.6
BMW	2.07	200	eP	12	47.50	-0.7
SHW	2.24	180	eP	12	50.30	-0.4
VGB	3.08	161	eP	13	02.80	0.3

24 obs. associated

FEB 16, 1989 21h 50m 37.89± 0.10s
45.313 N ± 2 6km 151.805 E ± 1.7km
DEPTH = 95.5km (60 depth phases)
5.6mb (81 obs.)
KURIL ISLANDS (221)
Felt (III) at Kurilsk.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 29C
Centroid Location:
Origin Time 21:50:31.2 0.7
Lat 45.14N 0.05 Lon 152.34E 0.07
Dep 71.6 2.8 Half-duration 2.1
Moment Tensor; Scale 10**17 Nm
Mrr= 1.51 0.06 Mtt=-0.24 0.09
Mff=-1.27 0.08 Mrt= 0.13 0.07
Mrf=-0.35 0.08 Mtf=-1.20 0.10
Principal Axes:

	Vol=	Plg=	Azm=
T	1.61	74	45
N	0.46	16	212
P	-2.08	4	303

Best Double Couple:Mo=1.9*10**17
NP1:Strike= 49 Dip=44 Slip= 113
NP2: 198 51 69

NEM	4.88	248	P	51	44.00	-6.2X
YSS	6.54	288	P	52	10.00	-3.1X
MAT	13.49	234	iPd	53	41.30	-5.2X
			eS	56	03.00	
MDJ	15.74	275	Pd	54	11.00	-4.1X
	Z 25s	2.80um				
			epP	54	24.00	
			S	57	02.00	
			sS	57	32.00	
SMY	16.36	55	P	54	23.30	0.5
	1.6s	1639.34nm			6.0mb	
SHK	18.15	240	eP	54	43.00	-2.0
CN2	18.82	275	P	54	50.00	-2.6
	N 13s	1.20um				
SNY	20.70	270	iPd	55	10.00	-2.1
	Z 24s	2.90um			4.6MszX	
	E 24s	2.20um				
			PP	55	34.50	
			iS	58	52.00	
ADK	21.73	61	ePc	55	21.20	-1.1
	1.3s	111.00nm			5.0mb	
DL2	23.20	265	eP	55	33.50	-3.2X
	Z 30s	1.10um			4.1MszX	
			S	59	40.00	
BJI	26.57	271	eP	56	07.50	-1.0
	3.0s	0.82nm			2.7mb X	
	Z 26s	2.00um			4.6MszX	
			eS	00	34.00	
TIA	27.62	263	eP	56	17.50	-0.6
			S	00	54.00	
SSE	27.74	250	P	56	18.70	-0.4
	1.5s	96.00nm			5.2mb	
	Z 24s	1.50um			4.5MszX	
			e(S)	00	52.00	
NJ2	28.71	254	Pc	56	31.60	3.7X
	Z 28s	1.60um			4.5MszX	
			S	01	11.00	
HHC	29.51	276	iPd	56	35.00	-0.1
	Z 14s	1.70um			4.8MszX	
	N 14s	1.10um				
	E 15s	1.00um				
			S	01	12.00	
TIY	30.21	269	iPd	56	41.40	0.2
	E 13s	0.60um				
			S	01	35.00	
			sS	02	00.00	
BTO	30.69	276	P	56	46.00	0.5
	N 15s	1.10um				
	E 15s	1.10um				
			pP	57	05.00	82kmX
WHN	32.69	256	eP	57	01.50	-1.4
	Z 28s	1.56um			4.6MszX	
			eS	02	08.00	
QZH	33.58	244	eP	57	10.50	-0.2
TTA	34.10	40	P	57	15.10	0.2
	1.1s	203.13nm			5.9mb	
SVW	34.14	43	ePc	57	16.00	0.8
XAN	34.50	266	P	57	18.20	-0.4
			S	02	41.70	
IMA	35.51	35	ePc	57	26.70	-0.2
	0.7s	108.60nm			5.9mb	
BRW	35.65	26	ePc	57	28.00	0.1
KDC	35.78	49	ePc	57	28.00	-1.0
LZH	37.04	273	iPc	57	40.50	0.4
	1.0s	142.00nm			5.9mb	
	Z 30s	1.60um			4.6MszX	
			pP	57	50.50	34kmX
			eS	03	15.00	
PMR	37.27	43	P	57	40.90	-0.6
	1.0s	90.00nm			5.7mb	
FBA	37.86	37	ePc	57	47.10	0.6
GTA	38.31	280	iPc	57	51.20	0.5
	2.0s	0.60nm			3.2mb X	
	N 13s	0.90um				
			sP	58	20.00	
			PcP	00	03.60	
			S	03	38.70	
			sS	04	15.00	
			ScS	07	53.70	
TOA	38.65	42	ePc	57	54.20	1.0
GYA	40.52	258	P	58	08.40	-0.7
			S	04	10.00	
INK	43.35	31	iPc	58	32.10	0.6
	1.1s	33.00nm			5.1mb	
WMQ	44.61	292	iPc	58	42.70	0.6
	Z 25s	0.80um			4.5MszX	
			S	05	15.00	
SIT	45.01	48	P	58	46.20	1.2
	1.2s	166.67nm			5.7mb	
MBC	46.26	19	eP	58	54.00	-0.6
	0.6s	14.00nm			5.0mb	
			pP	00	28.00	497kmX
LSA	49.45	273	Pc	59	21.30	0.7
			S	06	23.50	
LOE	49.98	253	eP	59	23.50	-0.7
CHG	50.90	257	iPc	59	31.50	0.3
	1.3s	65.87nm			5.5mb	
			eS	07	14.00	
ALE	51.26	5	ePc	59	32.00	-1.2
	0.8s	16.00nm			5.1mb	
			pP	00	46.00	357kmX
BDT	51.94	255	eP	59	37.20	-1.8
NST	52.28	253	eP	59	42.20	0.6
YKA	52.62	36	P	59	44.10	0.5
GUN	54.22	275	Pc	59	55.60	-0.6
KSH	54.39	293	P	59	57.60	0.5
			PcP	00	59.00	
PMG	54.63	186	eP	59	59.00	0.3
KKN	54.71	275	Pc	59	59.20	-0.5
PKI	54.76	275	Pc	59	59.60	-0.6
NNT	54.77	251	eP	00	00.00	0.1
DMN	54.95	275	Pc	00	01.60	0.2
GKN	55.04	276	Pc	00	01.50	-0.5
MCW	55.36	53	P	00	03.80	-0.1
GMW	55.98	55	P	00	09.10	0.8
			pP	00	32.60	95km
BMW	56.30	56	P	00	10.20	-0.5
PNT	56.82	51	iPc	00	14.10	-0.2
	0.9s	105.00nm			5.9mb	
LON	56.97	55	P	00	15.30	-0.1
SHW	57.03	56	P	00	16.20	0.3
EDM	57.97	45	iPc	00	21.50	-0.8

16d 22h

	1.0s	169.00nm			6.0mb		BMTN	65.66	61	ePc	01	14.00	-0.1		GOL	70.73	53	P	01	45.70	0.0	
DAG	58.05	357	iPc	00	20.80	-1.7	MCA	65.67	62	ePc	01	13.70	-0.2		REY	70.78	357	iP	01	46.50	1.4	
	1.0s	106.00nm			5.8mb					epP	01	37.90	95km		GLD	70.78	53	P	01	46.00	0.1	
SNG	58.21	245	eP	00	24.10	-0.2	OCS	65.80	60	iPc	01	15.00	0.0			1.3s	100.57nm				5.5mb	
VGB	58.25	56	P	00	24.80	0.4	OUE	65.84	289	iPc	01	14.20	-1.1					pP	02	11.10	98km	
KEV	58.39	340	eP	00	18.00	-7.0X				eS	09	56.50			RMQ	71.51	183	iPc	01	58.20	8.3X	
DPW	58.40	52	P	00	25.10	-0.3	BLT	65.85	61	eP	01	15.30	-0.1					e	02	24.00	101km	
FHC	58.98	62	ePc	00	30.50	1.0				epP	01	39.80	97km		KOD	71.79	266	eP	01	52.00	-0.3	
			ipP	00	55.30	100km	WRN	65.87	60	iPc	01	15.50	0.1		TEH	72.05	303	ePc	01	54.00	0.6	
NDI	59.79	281	iPc	00	34.50	-0.7	PANV	65.94	62	iP	01	15.90	0.0		MBL	72.28	211	eP	01	54.00	-0.6	
	1.0s	110.00nm			5.9mb		FMT	65.98	62	ePc	01	16.10	0.0		TAB	73.36	307	eP	02	02.00	1.0	
			eS	08	41.00		CLC	65.99	63	eP	01	16.00	-0.1		ALQ	73.38	57	eP	02	01.00	-0.3	
IPM	59.94	243	ePd	00	36.50	0.2				e	01	40.00	94km			1.3s	45.67nm				5.2mb	
LBFM	59.96	60	P	00	37.00	0.5	YMT5	66.02	61	iP	01	16.40	0.1					epP	02	25.00	92km	
WDC	60.01	61	ePc	00	36.70	0.2	TPU	66.07	60	eP	01	17.10	0.4		MUD	73.86	339	iPc	02	03.30	-0.1	
			ipP	01	01.30	99km				epP	01	41.60	97km			0.8s	21.00nm				5.0mb	
SOD	60.26	339	iP	00	36.50	-1.3	BGB	66.07	61	ePc	01	16.90	0.2		WARB	74.76	203	iPc	02	02.20	-6.7X	
TRO	60.29	343	iPd	00	36.80	-1.2				epP	01	41.30	96km			0.7s	65.00nm				5.6mb	
LTCM	60.48	61	P	00	40.00	0.3	YMT6	66.08	61	iP	01	16.60	-0.1		SCH	75.01	22	eP	02	10.00	-0.1	
			pP	01	04.30	97km	GLR	66.10	61	ePc	01	16.60	-0.3		NANU	75.19	214	eP	02	12.00	0.6	
KGM	60.52	239	eP	00	41.10	0.9				epP	01	41.00	96km		COO	75.53	180	iPc	02	16.20	3.0	
MIN	60.72	61	ePc	00	41.10	-0.5	HYB	66.11	271	iPc	01	16.00	-1.0			1.0s	86.00nm				5.6mb	
			ipP	01	05.40	97km		1.0s	70.00nm			5.5mb			KER	75.53	304	ePc	02	13.00	-0.6	
SES	60.78	47	ePc	00	40.80	-0.9	NUR	66.12	334	iP	01	14.90	-1.5		SLY	75.57	306	iPd	02	14.50	0.9	
	1.3s	175.00nm			6.0mb			0.8s	33.70nm			5.3mb						iPcP	02	27.00	85kmX	
			pP	00	55.00	51kmX		Z 21s	1.30um			5.1Msz						i	02	37.00		
ORV	61.26	62	ePc	00	44.60	-0.4				LR	32	50.00						iS	11	50.00		
			epP	01	08.70	96km	YMT3	66.12	61	iP	01	16.40	-0.5		IAS	75.67	324	eP	02	15.00	1.0	
BRK	61.79	64	ePc	00	48.50	-0.1	GMR	66.17	61	eP	01	16.50	-0.8		KRA	76.22	330	iPc	02	17.00	0.0	
			epP	01	12.80	97km				epP	01	41.00	97km			1.0s	248.00nm				6.0mb	
BKS	61.80	64	iPc	00	48.60	-0.1	LOP	66.23	61	eP	01	17.70	0.0					i	02	30.10	45kmX	
	1.1s	87.00nm			5.7mb					epP	01	42.10	96km		CLI	76.30	324	ePc	02	18.00	0.4	
			ipP	01	12.90	97km	LSM	66.23	61	iP	01	17.70	0.0		ACO	76.32	51	ePd	02	17.50	-0.3	
KJF	62.35	336	iP	00	51.00	-0.9	SRG	66.25	60	iPc	01	18.10	0.3			1.4s	109.60nm				5.5mb	
	0.9s	47.30nm			5.5mb		CPX	66.25	61	ePc	01	17.60	-0.2					e	02	42.20	94km	
FFC	62.43	39	iPc	00	52.10	-0.5	SDH	66.25	61	ePc	01	18.00	0.2		EDU	76.33	346	ePc	02	17.10	-0.4	
	1.0s	149.00nm			5.9mb		AMR	66.33	62	ePc	01	18.10	-0.1		PPE	76.43	324	ePd	02	18.50	0.2	
GCC	62.46	64	ePc	00	52.90	-0.1	BW06	66.33	53	P	01	18.00	-0.4		ELO	76.52	346	ePc	02	18.40	-0.2	
			epP	01	17.20	97km				pP	01	42.00	94km			0.9s	120.00nm				5.7mb	
MHC	62.50	64	ePc	00	53.30	-0.2	QSM	66.36	62	iPc	01	18.20	-0.1		KVT	76.58	316	iP	02	19.80	0.5	
			epP	01	17.70	97km	NPN	66.47	60	iPc	01	19.50	0.2		CMS	76.63	185	eP	02	21.00	1.7	
ARN	62.56	64	P	00	53.60	-0.2	QIS	66.49	192	iPc	01	18.20	-0.9					e	02	47.00	100km	
			pP	01	18.00	97km				e	01	44.00	102km		EBH	76.70	346	ePc	02	19.50	-0.1	
PSI	62.71	244	ePc	00	54.70	-0.2	JON	66.53	61	ePc	01	19.70	0.2		KSP	76.77	333	iPc	02	20.10	0.0	
	0.7s	19.40nm			5.2mb		SPRG	66.55	61	eP	01	19.40	-0.3			1.0s	130.00nm				5.7mb	
LRM	62.80	51	ePc	00	55.30	-0.2	PRN	66.56	60	iP	01	20.10	0.3		SPC	76.84	330	iPc	02	21.60	0.9	
CMB	62.87	62	iPc	00	55.90	0.1	SBB	66.57	64	eP	01	19.00	-0.8		ESY	76.86	346	ePc	02	20.40	-0.1	
			ipP	01	20.20	97km				e	01	43.00	94km			1.0s	85.00nm				5.5mb	
SAO	62.97	64	e(P)	00	56.00	-0.5	DLM	66.62	60	ePc	01	20.30	0.1		EAB	76.90	347	ePc	02	20.70	0.1	
PRS	63.29	65	ePc	00	58.50	0.0				epP	01	44.80	96km			1.0s	138.00nm				5.8mb	
			ipP	01	22.90	97km	NOP	66.70	62	ePc	01	20.50	-0.1		CFR	77.03	323	ePc	02	22.00	0.5	
LLA	63.38	64	ePc	00	59.20	0.0	FRB	66.70	18	eP	01	18.00	-2.1		EBL	77.07	346	ePc	02	21.70	0.0	
			epP	01	23.60	97km		1.2s	233.00nm			6.0mb			EAU	77.08	346	ePc	02	21.90	0.2	
KVN	63.66	60	P	01	01.00	-0.2	MWC	66.72	64	eP	01	20.00	-0.9			0.9s	112.00nm				5.7mb	
PRI	63.85	64	ePc	01	02.80	0.4	MAIO	66.75	299	iPc	01	20.80	-0.2		VRI	77.08	324	ePc	02	22.50	0.6	
FRI	63.93	63	ePc	01	02.70	0.0				eS	10	11.00			STK	77.39	189	eP	02	25.00	1.5	
			epP	01	26.80	95km	WB5	66.79	198	iPc	01	20.10	-1.0					e	02	51.00	100km	
SUF	63.94	335	eP	01	01.00	-1.4				e	01	46.70	106kmX		CLL	77.39	335	iPc	02	23.00	-0.4	
	0.5s	28.90nm			5.5mb		GSC	66.82	63	eP	01	21.00	-0.4			1.3s	260.00nm				5.9mb	
MNA	64.01	61	e(P)	01	04.00	0.6				e	01	45.00	94km		BRG	77.48	334	iPc	02	24.00	0.0	
PHAM	64.21	64	P	01	04.70	0.1	WRA	66.86	198	Pc	01	19.70	-1.8			1.2s	5.00nm				4.2mb X	
			pP	01	30.00	101km		1.3s	54.80nm			5.3mb						i	02	34.50	34kmX	
SVP	64.67	61	ePc	01	08.00	0.1	SHRG	67.07	61	eP	01	23.40	0.3		PCO	77.51	50	eP	02	23.50	-0.9	
PPK	64.79	62	ePc	01	08.60	0.1	RVR	67.30	64	eP	01	23.00	-1.3			1.3s	51.70nm				5.2mb	
TNP	64.80	61	P	01	08.30	-0.3	PEC	67.50	64	P	01	25.20	-0.4		EKA	77.51	346	Pd	02	24.50	0.4	
	1.0s	84.25nm			5.6mb					pP	01	49.60	96km			1.0s	63.50nm				5.4mb	
			pP	01	33.00	98km	RGS	67.72	342	eP	01	26.50	0.0		ESK	77.54	346	ePc	02	25.00	0.8	
BCH	64.82	65	P	01	09.00	0.4	PLM	68.04	64	eP	01	19.00	-10.2X		TLB	77.56	323	ePc	02	25.00	0.6	
			pP	01	33.30	96km	TPC	68.07	63	eP	01	28.00	-1.2		CJR1	77.63	326	eP	02	25.40	0.6	
MZP	64.94	61	eP	01	09.40	-0.2				e	01	52.00	94km		MLR	77.71	324	iPc	02	26.00	0.5	
MGM	65.03	61	iPc	01	10.40	0.3	DZM	68.37	165	iPc	01	32.10	1.1					e	12	10.00		
			epP	01	34.70	96km	BAR	68.60	65	eP	01	32.00	-0.4		ISR	77.75	324	ePc	02	26.50	0.9	
LCH	65.07	62	ePc	01	10.20	-0.1	POO	68.68	275	iPd	01	32.60	-0.5		WIT	77.78	339	ePc	02	26.50	1.0	
			epP	01	34.60	96km	UPP	68.68	337	iP	01	31.20	-1.2					e	02	44.00	64kmX	
HCR	65.19	60	iPc	01	10.80	-0.3		1.0s	200.00nm			5.9mb			BHD	77.88	305	iP	02	28.00	1.6	
GMN	65.27	61	iPc	01	11.40	-0.3	AKU	69.06	356	iP	01	36.10	1.4					iS	12	16.00		
CTA	65.28	186	iPc	01	11.00	-0.4		1.0s	72.00nm			5.5mb			MEO	78.03	52	ePc	02	26.60	-0.7	
	1.3s	80.77nm			5.5mb		NB2	69.29	341	P	01	33.90	-2.3			1.4s	83.70nm				5.4mb	
SYP	65.30	65	eP	01	12.00	0.3	HFS	69.48	339	eP	01	36.20	-1.1					e	02	50.70	92km	
			e	01	36.00	95km		0.9s	187.50nm			5.9mb			PSZ	78.04	329	iP	02	28.10	0.9	
CTS	65.37	61	iP	01	12.20	-0.1	NRA0	69.48	340	P	01	36.00	-1.3		PRU	78.07	333	iPc	02	27.70	0.5	
GVN	65.40	62	iPc	01	12.70	0.4	GBA	69.48	269	Pc	01	36.30	-1.7			1.1s	84.10nm				5.5mb	
TMO	65.49	62	ePc	01	13.10	0.0		1.1s	53.40nm			5.3mb						e	02	57.50	117kmX	
KRNA	65.53	61	iPc	01	13.50	0.2	GLA	69.52	64	eP	01	37.00	-1.1		MOX	78.39	335	iPc	02	29.00	0.0	
ABL	65.58	65	P	01	14.00	0.4	ASPA	70.56	197	iPc	01	44.80	0.5			1.2s	131.00nm				5.7mb	
			pP	01	38.20	95km		1.4s	91.00nm			5.4mb						LR	40	12.00		
SGV	65.61	62	ePc	01	14.00	0.3				epP	02	09.60	96km		WTS	78.49	339	iPc	02	30.00	0.6	

	0.9s	191.00nm		5.9mb		KHL	81.89	318	iP	02	48.30	0.4				pP	03	27.60	92km
		e	02	46.50	59kmX	VAL	81.90	349	iP	02	47.80	0.3		PLDF	84.86	338	P	03	03.43	0.6
SRO	78.69	330 iPc	02	31.50	0.9	FEL	81.92	336	P	02	47.89	0.0		BNI	84.87	336	P	03	04.00	1.0
	1.1s	3.50nm		4.1mb	X	BAL	82.02	210	eP	02	49.00	0.7		MAF	84.90	339	iPc	03	03.90	0.9
TUL	78.73	50 eP	02	30.60	-0.5		0.7s	20.00nm			5.1mb			PII	84.90	333	P	03	02.00	-1.0
	1.2s	47.30nm		5.2mb		TRI	82.08	332	iPc	02	47.90	-0.7		AGO	84.91	339	P	03	04.30	1.2
Z	21s	0.51um		4.8Msz					e	03	04.50	59kmX		TCF	84.92	339	iPc	03	03.70	0.6
		LR	29	00.00		EZN	82.15	321	eP	02	48.90	-0.1		RRL	84.96	336	P	03	04.56	1.0
LNO	78.73	50 iPc	02	30.60	-0.4	VITF	82.16	338	P	02	49.37	0.4		CKI	84.97	335	P	03	01.50	-1.8
ZST	78.78	331 iPc	02	31.90	0.8	MOF	82.18	337	P	02	49.35	0.1		STJ	85.02	16	eP	03	04.00	0.5
FORR	78.81	201 eP	02	32.40	1.1	HAU	82.26	337	iPc	02	50.30	0.7		TKL	85.04	42	P	03	04.00	0.1
RLO	78.95	49 eP	02	31.70	-0.6		1.2s	73.70nm			5.4mb						pP	03	28.50	92km
VKA	78.99	331 iPc	02	32.70	0.4	SRS	82.28	323	eP	02	49.30	-0.5		BRT	85.05	327	Pc	03	03.80	0.0
	1.1s	127.00nm		5.7mb		BSF	82.30	337	P	02	49.83	0.0		PRIN	85.06	34	P	03	03.80	0.0
DRA	79.06	325 eP	02	37.00	4.3X	BBS	82.43	336	P	02	50.40	-0.1		NAV	85.07	39	P	03	03.90	-0.1
KHC	79.13	334 iPc	02	33.90	0.8	SKO	82.45	325	iPc	02	51.30	0.7		RKG	85.07	208	eP	03	07.00	3.3X
	1.0s	121.00nm		5.7mb			1.1s	130.00nm			5.7mb			LSF	85.13	340	iPc	03	04.50	0.4
		e	02	46.50	42kmX	CTI	82.47	333	P	02	50.00	-0.8		FIN	85.19	335	P	03	04.05	-0.4
BBTK	79.14	317 iPc	02	34.50	1.1	KNT	82.53	324	eP	02	51.10	0.0		MFF	85.19	341	iPc	03	04.60	0.2
		e	02	44.00	30kmX	VAY	82.54	324	iPc	02	51.40	0.3			0.8s	30.60nm			5.3mb	
VVO	79.19	50 e(P)	02	33.90	0.3		1.3s	0.24nm			2.9mb	X		DOI	85.20	335	P	03	03.50	-1.1
BZS	79.33	327 eP	02	35.00	0.9	KLB	82.56	209	iPc	02	51.40	0.3		ROB	85.21	335	P	03	04.25	-0.4
GRF	79.35	335 iPc	02	35.00	0.8		0.7s	18.00nm			5.1mb			PYM	85.22	339	P	03	05.13	0.4
	1.1s	355.00nm		6.1mb		PRK	82.64	320	eP	02	51.70	0.1		KAP	85.23	318	eP	03	04.00	-0.8
SOP	79.41	331 iPc	02	35.30	0.8	BNH	82.68	29	P	02	52.30	0.5		LCI	85.23	326	P	03	04.50	-0.2
BWA	79.42	183 iPc	02	35.30	0.7	LOMF	82.73	337	P	02	52.43	0.4		PZZ	85.25	335	P	03	04.15	-0.8
		e	03	00.80	97km	RYD	82.73	298	eP	02	53.00	0.6		BLA	85.32	39	P	03	05.60	0.3
PVL	79.82	323 iPc	02	37.00	0.2	MIM	82.86	28	P	02	52.80	0.2			0.9s	139.00nm			5.9mb	
HRT	79.83	319 eP	02	38.00	1.0	IZM	82.88	319	eP	02	52.80	-0.2		MNS	85.38	331	Pc	03	05.20	-0.3
ENN	79.84	339 iPc	02	37.30	0.5	GRG	82.91	324	eP	02	52.80	-0.3		DUI	85.39	329	P	03	05.70	0.1
	1.0s	202.00nm		5.9mb		PLG	82.96	323	eP	02	53.00	-0.3		STV	85.42	335	P	03	04.05	-1.7
		i	02	56.50	71kmX	ELL	82.96	317	iP	02	53.20	-0.3		AZI	85.47	330	P	03	06.10	0.3
JMB	79.89	322 iPc	02	37.00	-0.2	ADI	83.12	311	iPc	02	55.70	1.4		CVL	85.54	38	P	03	07.00	0.7
KMR	79.89	333 iP+	02	38.00	0.9	SAL	83.21	334	P	02	54.80	0.4					pP	03	31.80	93km
DMK	79.90	321 eP	02	37.50	0.2	FLN	83.23	342	iPc	02	55.20	0.7		IMI	85.55	335	P	03	06.41	0.0
ISK	79.92	320 eP	02	37.00	-0.3		1.2s	154.70nm			5.8mb			KRP	85.58	161	P	03	06.50	0.4
FVM	79.95	45 P	02	37.30	-0.3	LDF	83.31	342	iPc	02	55.60	0.7		SDI	85.58	330	P	03	05.00	-1.5
GBZT	79.96	319 iPc	02	37.20	-0.4		1.2s	107.10nm			5.7mb			AUTN	85.61	335	P	03	07.08	0.2
MEM	79.96	339 iPc	02	37.80	0.4	MDI	83.31	334	P	02	53.50	-1.4		LBL	85.64	338	P	03	07.33	0.7
CTT	80.14	320 eP	02	38.00	-0.6	OHR	83.44	325	iPd	02	55.20	-0.6		TOUF	85.65	335	P	03	06.75	-0.3
UCC	80.20	340 Pc	02	39.20	0.5		1.0s	0.15nm			2.9mb	X		SBF	85.73	335	iPc	03	07.70	0.4
GAC	80.21	31 ePc	02	37.90	-0.9	MUN	83.44	210	eP	02	54.00	-1.6		AURF	85.74	335	P	03	07.53	0.2
CAN	80.30	182 iPc	02	40.90	1.6	PWLA	83.48	46	P	02	55.60	-0.4		MVIF	85.79	335	P	03	07.88	0.2
		e	03	06.50	98km				pP	03	20.70	95km		CBN	85.81	37	iPd	03	08.20	0.6
BEO	80.44	327 iP	02	39.70	-0.4	VAI	83.51	335	Pc	02	56.10	0.1			1.0s	55.00nm			5.5mb	
SNF	80.49	340 iPc	02	40.60	0.4	LIT	83.59	323	eP	02	55.40	-1.1		MBH	85.86	309	iPc	03	09.00	1.0
DIM	80.68	323 iPd	02	43.00	1.6	LOR	83.59	339	iPc	02	57.10	0.7		RFI	85.88	330	P	03	09.10	1.2
ADE	80.78	191 iPc	02	43.70	1.9		1.1s	190.70nm			5.9mb			RDP	85.92	331	P	03	08.50	0.3
WLF	80.79	338 Pc	02	42.30	0.5	KSL	83.62	316	eP	02	56.00	-0.7		CALN	85.99	335	P	03	09.09	0.4
DOU	80.79	339 Pc	02	42.10	0.3	GRR	83.66	342	iPc	02	57.50	0.8		VLS	86.00	324	eP	03	08.00	-0.6
	1.2s	255.60nm		5.9mb			1.1s	151.40nm			5.9mb			RJF	86.02	339	eP	03	09.00	0.4
COOL	80.80	206 eP	02	42.00	0.0	KZN	83.72	324	eP	02	56.50	-0.7			0.9s	58.90nm			5.6mb	
	1.0s	42.00nm		5.2mb		EMM	83.81	27	P	02	56.80	-0.7		NPS	86.20	319	eP	03	08.80	-0.8
PGB	80.85	324 iPc	02	43.00	0.6	LBF	83.83	338	iPc	02	58.20	0.6		CAF	86.23	339	iPc	03	10.50	0.8
KCT	80.89	320 iP	02	42.70	0.1	SSF	83.88	339	iPc	02	58.70	0.9		FRF	86.24	335	iPc	03	10.30	0.6
BNT	81.00	320 iP	02	43.20	0.1	JVI	83.94	310	iPc	03	01.00	2.7			1.2s	136.80nm			5.9mb	
KBA	81.01	333 ePc	02	43.00	-0.3	NEO	83.94	322	eP	02	57.70	-0.6		MGR	86.32	328	P	03	09.00	-1.1
	1.2s	187.50nm		5.8mb		NWAO	83.95	209	iPc	02	59.30	1.1		LRG	86.42	336	iPc	03	11.50	1.0
		i	03	05.80	86km		1.2s	3.00nm			4.1mb	X			1.1s	167.90nm			6.0mb	
GWF	81.02	337 P	02	43.39	0.3	ORX	83.96	335	P	02	58.72	0.3		TDS	86.44	327	P	03	10.70	0.0
EDC	81.04	320 iP	02	43.60	0.3	ORO	83.97	335	P	02	58.40	-0.1		CVF	86.47	334	P	03	10.50	-0.3
KDZ	81.06	322 iPc	02	24.00	-19.4X	LPF	84.04	342	iPc	02	59.60	1.0		LMR	86.49	335	iPc	03	11.80	0.9
ELC	81.09	45 P	02	43.60	0.0		1.0s	80.00nm			5.6mb			LFF	86.55	340	iPc	03	11.60	0.5
		pP	03	08.80	96km	RSM	84.09	332	P	03	00.10	1.2			1.0s	64.00nm			5.6mb	
PTJ	81.16	331 iPc	02	43.80	-0.2	AVF	84.17	339	iPc	03	00.20	0.9		LPO	86.68	339	iPc	03	12.40	0.6
VTS	81.22	324 iPc	02	45.00	0.6	SMF	84.18	338	iPc	03	00.30	0.9			1.2s	85.60nm			5.7mb	
		i	03	03.00	65kmX	RSCP	84.22	44	P	02	59.80	0.0		VAM	86.74	320	eP	03	11.70	-0.5
RZN	81.33	323 iPc	02	45.00	0.0		0.8s	42.25nm			5.4mb			PRM	87.00	42	P	03	11.70	-1.8
OLY	81.33	47 P	02	44.40	-0.5				pP	03	24.60	93km		KMSA	87.24	296	eP	03	15.00	0.1
		pP	03	09.40	95km	ARV	84.30	331	P	03	00.50	0.5		JSC	87.36	41	P	03	14.00	-1.2
STR	81.34	337 P	02	45.37	0.7	BOB	84.30	334	P	03	00.80	0.7		LHS	87.40	41	P	03	15.20	-0.2
PTN	81.36	32 P	02	44.00	-0.9	LSD	84.36	336	P	03	01.59	1.0		SOI	87.93	327	P	03	17.50	-0.4
RDO	81.42	322 iPc	02	45.70	0.5	PGD	84.38	332	P	03	02.00	1.4		TAU	87.93	183	eP	03	20.00	2.6
IKL	81.48	314 iP	02	45.50	-0.1	MME	84.42	333	P	03	02.30	1.4		EPF	88.44	339	iPc	03	19.70	-0.7
RBL	81.50	332 P	02	45.00	-0.7	LPG	84.44	336	iPc	03	02.40	1.3			1.0s	14.00nm			5.0mb	
LJU	81.53	331 ePc	02	45.50	-0.2	CIO	84.50	331	eP	03	01.59	0.5		MNO	88.57	327	P	03	20.50	-0.8
RSNY	81.55	32 P	02	45.30	-0.6	BGF	84.51	339	iPc	03	02.10	1.1		SGS	88.60	42	P	03	21.50	0.3
	1.0s	40.00nm		5.2mb			1.2s	98.10nm			5.6mb						pP	03	46.60	93km
		pP	03	09.20	90km	CRE	84.52	332	P	03	01.00	-0.2		HBF	88.88	42	P	03	23.00	0.5
FVI	81.62	333 P	02	45.50	-0.7	BDI	84.57	333	P	03	00.90	-0.6					pP	03	47.60	91km
CDF	81.63	337 P	02	46.65	0.3	TBR	84.58	33	P	03	01.00	-0.5		LVI	89.40	329	P	03	24.30	-0.6
CBM	81.65	26 P	02	46.20	-0.2				pP	03	25.00	90km		AKSR	91.67	306	eP	03	36.00	0.4
		pP	03	10.30	91km	RSP	84.61	336	P	03	02.20	0.5		AGRW	91.78	307	eP	03	36.40	0.3
VBY	81.75	331 iPc	02	47.20	0.3	FIR	84.62	332	eP	03	03.00	1.5		AGMR	92.02	307	eP	03	37.50	0.3
VOY	81.75	332 ePc	02	46.10	-0.9	ALP	84.72	330	eP	03	02.91	0.6		TOL	92.46	342	eP	03	38.50	-0.6
CEY	81.83	331 eP	02	46.50	-0.8	ASS	84.78	331	P	02	59.70	-2.8		BNG	115.32	307	iPKPd	09	09.90	-0.3
MMB	81.83	323 iPc	02	48.00	0.6	GBTN	84.83	43	P	03	03.10	0.3			0.6s	8.00nm				

16d 22h

			id	10	09.50	
PTZ	121.35	282	iPKPd	09	21.50	-0.1
			i	09	46.30	
LSZ	124.23	284	iPKPd	09	27.80	0.6
TIC	124.26	332	PKP	09	26.44	-0.7
	1.1s		62.00nm			
KIC	124.43	331	PKP	09	26.82	-0.7
	1.1s		48.00nm			
KMZ	124.55	287	iPKPc	09	28.30	0.5
LIC	124.66	332	PKP	09	27.28	-0.6
	1.1s		67.00nm			
BUL	127.27	279	iPKPd	09	32.90	-0.1
			ipP	09	57.60	
SLR	131.11	274	iPKPc	09	39.20	-1.0
	3.0s		180.00nm			
			i	10	05.00	
BPI	131.56	273	ePKP	09	39.00	-2.1
PRY	132.41	273	ePKP	09	41.00	-1.6
SPA	135.12	180	e(PKP)	09	45.40	-1.1
	1.0s		9.50nm			
ZOBO	135.81	62	PKPc	09	50.00	0.1
	0.9s		6.49nm			
			LR	56	34.00	
HVD	135.99	270	ePKP	10	07.00	17.7X
LPB	136.02	62	ePKP	09	49.00	-1.1
CNCB	136.30	63	ePKP	09	40.00	-10.8X
			i	09	52.00	
CER	141.90	271	iPKPc	09	47.50	-12.4X
	0.9s		23.08nm			
LNV	145.22	86	ePKPd	10	05.30	-0.2
PEL	145.30	85	iPKPc	10	05.20	-0.5
TACH	145.40	85	iPKPd	10	06.00	0.2
SAN	145.48	85	iPKPc	10	06.00	0.0
PCH	145.68	85	ePKP	10	05.50	-0.9
ZON	145.80	80	ePKP	10	07.00	0.4
BAO	146.04	36	ePKP	10	07.70	0.2
MDZ	146.44	83	i(PKP)	10	09.10	1.4
ITB1	150.46	55	e(PKP)	10	19.80	5.8X
ITB	150.68	54	e(PKP)	10	11.90	-2.5
ITA	153.43	36	ePKP	10	20.60	1.8
			e	10	39.00	

S.D. = 0.8 on 431 of 448 obs.

FEB 16, 1989 23h 16m 15.52± 0.42s
37.675 N ± 3.8km 21.257 E ± 2.6km
DEPTH = 44.3 ± 7.6 km
4.2mb (3 obs.)
SOUTHERN GREECE (368)

VLS	0.73	314	ePg	16	28.20	-1.3
ATH	1.97	81	ePn	16	46.80	-0.2
NEO	2.24	43	eP	16	51.20	0.2
LIT	2.61	21	eP	16	57.00	0.8
KZN	2.66	9	ePn	16	58.50	1.6
TPE	2.79	340	iPn	17	01.50	2.8
PAIG	2.94	39	iP	17	00.90	0.1
			eS	17	36.80	
KBN	2.96	353	ePn	17	03.70	2.5
VLO	3.11	334	ePn	17	04.90	1.7
BERA	3.19	342	ePn	17	05.50	1.1
PLG	3.19	32	ePn	17	04.20	-0.3
THE	3.24	24	eP	17	05.20	0.1
VAM	3.28	133	ePn	17	06.30	0.6
GRG	3.40	15	P	17	07.50	0.1
OHR	3.45	354	iPnd	17	09.20	1.0
SOH	3.54	27	eP	17	09.90	0.5
LCI	3.70	317	P	17	10.70	-0.8
KNT	3.71	20	eP	17	12.00	0.3
			eS	17	57.60	
VAY	3.78	15	iPn	17	12.50	-0.2
TIR	3.82	344	ePn	17	14.40	1.1
SRS	3.88	27	eP	17	14.40	0.2
SOI	4.13	277	P	17	17.90	0.1
PRK	4.24	67	ePn	17	20.00	0.7
NPS	4.26	123	ePn	17	19.70	0.1
SKO	4.29	2	iPn	17	19.20	-0.9
			iSn	18	09.00	
TDS	4.33	299	P	17	21.50	0.9
MMB	4.35	25	iPc	17	20.00	-0.9
BRT	4.49	317	P	17	22.90	0.1
			eSn	18	15.50	
EZN	4.51	60	ePn	17	21.00	-2.0
SDA	4.54	343	ePn	17	26.80	3.3X
ULC	4.55	341	ePn	17	23.50	-0.2
			eSn	18	12.50	
ATN	4.61	278	P	17	24.80	0.3
			eSn	18	17.90	
BCI	4.77	349	iPnd	17	27.10	0.4
IZM	4.80	80	iPn	17	26.70	-0.5
RDO	4.80	42	ePn	17	26.20	-0.9
RZN	4.81	33	iPc	17	27.00	-0.5
BDV	4.97	339	ePn	17	28.20	-1.3
			eSn	18	23.40	
TTG	4.99	343	ePn	17	28.50	-1.3
			eSn	18	24.00	
PVY	5.01	349	ePn	17	30.40	0.2
			eSn	18	26.20	
MEU	5.07	265	Pc	17	30.30	-0.8
MGR	5.08	301	P	17	31.70	0.6
KDZ	5.10	38	iPd	17	30.00	-1.4
VTS	5.13	16	iP	17	33.00	1.0
			eS	18	31.00	
MNO	5.20	275	Pc	17	32.90	-0.1
KAP	5.21	112	ePn	17	33.00	0.0
HCY	5.21	337	ePn	17	31.00	-2.0
			eSn	18	28.00	
PGB	5.36	24	eP	17	31.00	-4.1X
DIM	5.47	36	iPd	17	36.00	-0.6
			eS	18	23.00	
BNT	5.84	61	iPn	17	41.20	-0.6
PVL	6.35	28	eP	17	45.00	-3.9X
USI	6.45	282	P	17	50.00	-0.3
DUI	6.58	309	P	17	52.50	0.2
KSL	6.85	101	ePn	17	56.20	0.2
SDI	7.01	307	P	17	57.70	-0.6
BEO	7.17	355	eP	18	00.00	-0.3
BZS	7.94	2	ePc	18	09.50	-1.6
ASS	8.49	312	P	18	18.50	-0.3
MLR	8.56	23	eP	18	20.00	0.2
ARV	8.59	315	P	18	19.00	-1.2
VBY	9.02	332	e(Pn)	18	26.30	0.3
			eSn	20	01.40	
VRI	9.15	25	ePc	18	29.00	1.2
CRE	9.24	313	P	18	29.00	-0.2
CEY	9.53	330	eP	18	40.50	7.3X
			eSn	20	15.50	
VOY	9.99	329	ePn	18	38.40	-1.1
			eSn	20	24.30	
FVI	10.90	327	P	18	51.50	-0.3
CTI	11.01	322	P	18	52.50	-0.8
KBA	11.06	331	eP	19	18.00	23.8X
NUR	22.96	4	eP	21	16.00	-0.6
HFS	22.99	350	ePKP	21	16.60	-0.4
	0.5s		3.90nm		4.1mb	
NB2	24.23	348	P	21	29.60	0.6
	0.8s		5.20nm		4.1mb	
SUF	25.25	5	iP	21	38.70	0.0
KJF	26.84	6	eP	21	55.00	1.7
BNG	33.18	185	ePd	22	51.10	1.0
	0.5s		5.00nm		4.6mb	
BAO	83.81	245	eP	28	35.50	-6.3X
MBL	109.20	102	ePKP	34	52.00	9.5X
QIS	124.44	90	iPKPd	35	07.10	-4.6X
			e	35	09.00	

S.D. = 1.0 on 68 of 76 obs.

FEB 16, 1989 23h 29m 32.57± 0.24s
2.571 N ± 4.3km 126.525 E ± 7.2km
DEPTH = 33.0km (normol)
4.9mb (11 obs.)
MOLUCCA PASSAGE (266)

MNI	2.02	236	ePd	30	11.50	6.5X
			eS	30	42.50	
DAV	4.59	348	eP	30	49.00	7.6X
KHKI	15.38	225	eP	33	17.10	8.2X
			eS	34	15.50	
			e	35	26.00	
MTN	15.98	163	eP	33	15.00	-1.7
KNA	18.34	173	eP	33	45.60	-0.6
WB5	23.60	161	iPd	34	41.00	-0.5
WRA	23.65	161	Pd	34	41.20	-0.8
	0.6s		22.00nm		4.9mb	
ASPA	27.05	165	iPc	35	13.20	-0.9
	0.8s		23.00nm		4.9mb	
NANU	27.19	203	eP	35	15.50	0.2
PSI	27.57	271	eP	35	18.60	-0.3
LOE	28.46	303	eP	35	26.60	-0.3
WARB	28.58	180	eP	35	19.80	-8.1X
MEKA	30.02	194	eP	35	42.00	1.2
WHN	30.11	339	eP	35	43.00	1.5
BDT	30.71	300	eP	35	46.70	-0.2
FORR	33.27	178	eP	36	08.20	-0.9
COOL	33.66	188	eP	36	12.00	-0.6
	0.5s		4.00nm		4.6mb	
KLB	34.98	193	eP	36	24.00	0.1
	0.6s		9.00nm		4.9mb	
XAN	35.36	334	P	36	23.80	-3.4X
CD2	35.46	325	eP	36	29.20	1.1
MUN	35.73	195	eP	36	33.00	2.7
NWAO	36.38	193	eP	36	37.00	1.2
	0.5s		5.00nm		4.7mb	
STK	37.13	159	eP	36	42.00	-0.1
TIY	37.29	341	eP	36	41.70	-1.7
RKG	37.53	193	eP	36	53.00	7.6X
BJI	38.46	347	eP	36	52.50	-0.6
ADE	39.05	164	e(P)	36	58.50	0.3
BRS	39.08	141	iPc	36	56.70	-1.9
SNY	39.17	357	eP	36	59.40	0.4
LZH	39.40	331	eP	37	00.00	-1.3
	2.0s		55.00nm		5.0mb	
HHC	40.43	342	eP	37	09.00	-0.6
MDJ	41.96	3	eP	37	22.30	0.4
BWA	42.17	153	eP	37	25.00	1.1
LSA	43.06	312	P	37	32.20	0.5
CAN	43.18	153	eP	37	32.20	0.1
GTA	43.98	330	eP	37	38.20	-0.5
GUN	46.25	307	P	37	56.80	-0.4
PKI	46.48	306	P	37	59.20	0.1
KKN	46.67	307	P	37	59.60	-0.9
DMN	46.74	306	P	38	00.60	-0.4
GKN	47.28	307	P	38	04.40	-0.8
KOD	49.29	281	eP	38	21.00	-0.1
HYB	49.32	291	iPd	38	21.00	0.0
	1.0s		25.00nm		5.2mb	
GBA	49.72	286	Pd	38	22.50	-1.5
	0.8s		11.00nm		4.9mb	
WMQ	53.55	326	eP	38	52.00	-0.6
MAIO	70.05	308	eP	40	45.00	1.3
AVY	80.25	250	eP	41	44.70	2.4
TTA	82.02	27	P	41	51.40	0.7
	0.8s		14.66nm		5.1mb	
KDC	83.02	32	P	41	57.60	1.8
BRW	83.33	18	P	41	57.10	-0.1
IMA	83.52	24	P	41	58.70	0.3
	0.8s		13.36nm		5.1mb	
PMR	85.05	29	P	42	06.40	0.4
	1.0s		30.00nm		5.4mb	
INK	91.31	21	eP	42	35.00	-0.8
SOD	91.45	338	eP	42	36.00	-0.5
KJF	91.54	334	eP	42	41.00	4.0X
SUF	92.49	333	eP	42	47.00	5.7X
NUR	93.61	331	eP	42	53.00	6.5X
GOL	116.57	43	PKP	48	16.00	0.4
ALQ	117.95	48	ePKP	48	19.00	0.7
FVM	127.12	37	PKP	48	35.30	-0.3
ELC	128.30	36	PKP	48	38.40	0.6
PWLA	130.54	38	PKP	48	42.20	0.0
GBTN	132.33	34	PKP	48	46.10	0.5

S.D. = 1.0 on 54 of 63 obs.

? FEB 16, 1989 23h 30m 03.43± 4.02s
37.526 N ±33.7km 21.111 E ±18.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.3 (ATH).

VLS	0.77	328	ePg	30	18.20	-0.2
ATH	2.11	77	ePb	30	39.50	0.3
NEO	2.43	42	ePn	30	43.00	-0.8
KZN	2.82	10	ePn	30	50.20	0.7
VAY	3.95	16	ePn	31	05.50	0.1
SKO	4.45	3	ePn	31	19.50	7.1X

S.D. = 0.8 on 5 of 6 obs.

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* FEB 17, 1989 00h 39m 08.29± 0.91s
1.821 N ±13.7km 95.037 W ±19.0km
DEPTH = 10.0km (geophysicist)
4.7mb (4 obs.) 4.8Msz (2 obs.)
GALAPAGOS ISLANDS REGION (696)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 25C
Centroid Location:
Origin Time 00:39:13.3 0.8
Lat 2.23N FIX;Lon 95.11W FIX
Dep 15.0 FIX Half-duration 1.7
Moment Tensor; Scale 10**16 Nm
Mrr=-6.86 0.80 Mtt= 6.62 0.65
Mff= 0.24 1.28 Mrt= 1.85 2.14
Mrf= 0.39 1.88 Mtf= 8.09 0.59

Principal Axes:
T Val= 12.29 Plg= 5 Azm=326
N -5.01 20 58
P -7.27 70 221
Best Double Couple:Mo=9.8*10**16
NP1:Strike= 36 Dip=43 Slip=-119
NP2: 253 53 -65

III		17.02	345	(P)	43 09.00	0.7
IISM		17.21	352	(P)	43 11.50	1.0
IIC		18.31	347	(P)	43 24.00	-0.5
ZOBO		32.09	125	P	45 52.00	13.3X
				LR	56 26.00	
LPB		32.25	125	P	45 40.00	0.1
	Z	18s		3.44um		5.1Msz
				eLR	54 20.00	
CNCB		32.49	126	eP	45 48.00	5.9X
MEO		32.96	355	eP	45 43.70	-1.7
		0.8s		6.60nm		4.6mb
OLY		33.67	5	P	45 51.00	-0.6
TUL		33.93	359	eP	45 54.00	0.3
		0.8s		3.70nm		4.4mb
	Z	21s		1.20um		4.6Msz
				LR	55 21.00	
ALQ		34.63	343	eP	45 59.40	-0.7
		2.0s		29.41nm		4.8mb
	Z	20s		2.84um		5.0MszX
RSCP		34.74	14	P	46 00.80	0.0
		1.0s		17.50nm		4.9mb
ELC		35.69	8	P	46 09.20	0.3
FVM		36.24	6	P	46 13.60	0.2
GOL		38.86	347	P	46 35.90	0.1
KVN		42.62	333	P	47 06.80	0.1
BW06		42.80	344	P	47 07.80	-0.4
CMB		42.89	330	e(P)	47 16.30	7.5X
ORV		44.62	331	e(P)	47 25.90	3.2X
WDC		45.92	331	ePc	47 29.90	-3.1X
LBFM		46.20	332	P	47 35.20	-0.3
SES		50.27	347	eP	48 07.00	0.2
PNT		51.78	340	eP	48 18.00	-0.3
		0.7s		18.00nm		5.1mb X
FFC		53.04	355	eP	48 26.50	-1.1
EDM		53.43	346	eP	48 32.00	1.4
YKA		62.27	350	P	49 32.40	-0.2
FRB		64.78	13	eP	49 49.00	0.0
INK		71.33	346	eP	50 31.00	1.2
CHG		155.31	327	ePKP	59 17.00	13.0X
	S.D. = 0.7		on	22 of	28 obs.	

FEB 17, 1989 01h 14m 00.10± 0.79s
35.926 N ± 7.7km 21.584 E ± 5.0km
DEPTH = 33.0km (normal)
MEDITERRANEAN SEA (400)
ML 4.1 (ATH).

VAM		2.19	103	ePn	14 35.50	0.6
VLS		2.38	341	ePn	14 36.00	-1.7
ATH		2.66	39	ePn	14 44.00	2.4
NPS		3.35	100	ePn	14 52.00	0.6
NEO		3.62	21	ePn	14 56.50	1.3
LIT		4.23	9	eP	15 05.30	1.4
				S	15 53.30	
PAIG		4.32	22	eP	15 05.10	-0.1
KZN		4.38	2	ePn	15 07.00	1.0
KAP		4.56	93	ePn	15 08.50	-0.1
PLG		4.68	18	ePn	15 10.00	-0.2
THE		4.82	13	eP	15 12.00	-0.2
SOI		4.92	297	P	15 13.70	0.1
				eSn	16 05.80	
GRG		5.06	7	P	15 15.80	0.1
SOH		5.08	15	eP	15 16.10	0.1
OHR		5.21	353	ePn	15 17.80	-0.1
KNT		5.33	11	eP	15 19.70	0.3
				eS	16 18.90	
ATN		5.38	296	P	15 21.00	0.8
SRS		5.42	16	eP	15 20.10	-0.6
VAY		5.44	8	ePn	15 21.00	0.0
MEU		5.49	284	P	15 22.10	0.4
TDS		5.58	313	P	15 22.40	-0.6
BRT		6.02	326	P	15 30.00	0.8
SKO		6.04	359	iPn	15 27.00	-2.5
RDO		6.06	30	ePn	15 28.50	-1.3
MGR		6.35	313	P	15 33.30	-0.5
KSL		6.49	86	ePn	15 33.00	-2.7
BBTK		9.66	63	iPd	16 20.50	0.5
	S.D. = 1.2		on	27 of	27 obs.	

FEB 17, 1989 01h 14m 27.81± 0.54s
0.455 N ± 2.9km 126.345 E ± 3.8km
DEPTH = 38.9 ± 5.0 km
5.3mb (31 obs.) 5.1Msz (8 obs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 24C
Centroid Location:
Origin Time 01:14:32.2 0.4
Lat 0.53N 0.07 Lon 126.21E 0.08
Dep 15.0 FIX Half-duration 2.2
Moment Tensor: Scale 10**17 Nm
Mrr= 1.83 0.12 Mtt= 0.82 0.11
Mff=-2.66 0.17 Mrt=-0.51 0.26
Mrf= 0.81 0.33 Mtf=-0.34 0.11
Principal Axes:
T Val= 2.20 Plg=66 Azm=205
N 0.61 22 0
P -2.82 9 94
Best Double Couple:Mo=2.5*10**17
NP1:Strike=209 Dip=41 Slip= 126
NP2: 345 58 63

MNI		1.80	303	iPd	14 57.80	0.9
				eS	15 21.50	
AAI		4.51	156	ePd	15 37.10	1.6
				eS	16 21.00	
DAV		6.63	353	eP	16 12.00	6.6X
PCI		6.65	258	eP	16 07.00	1.4
				eS	17 49.50	
TLE		8.80	134	ePc	16 21.00	-14.6X
MKS		8.88	231	iPc	16 39.20	2.5
				iS	18 18.40	
TSM		9.07	294	eP	16 44.00	4.6X
KHKI		13.83	230	eP	17 48.80	5.2X
				e	21 17.00	
MTN		14.04	160	eP	17 45.00	-1.4
JAY		14.66	102	ePc	17 58.00	3.6X
QCP		15.02	340	eP	17 45.00	-14.2X
TRT		15.89	239	ePc	18 14.50	4.1X
		0.6s		64.50nm		4.9mb
KNA		16.28	172	eP	18 15.00	-0.3
		0.8s		196.00nm		5.3mb
BAG		16.84	341	eP	18 22.00	-0.7
		1.0s		212.00nm		5.2mb
WB5		21.68	159	iPc	19 15.80	-1.6
				eS	23 15.00	
WRA		21.73	159	Pd	19 14.40	-3.5X
		0.5s		87.10nm		5.4mb
MBL		22.41	196	eP	19 23.70	-0.8
		0.5s		21.00nm		4.8mb
GUMO		22.51	54	eP	19 24.80	-0.8
		0.9s		327.37nm		5.8mb
PJG		22.51	54	eP	19 25.00	-0.6
GUA		22.52	54	eP	19 25.80	0.1
		0.9s		315.97nm		5.8mb
PMG		22.92	116	eP	19 31.50	1.9
KGM		23.07	274	eP	19 32.50	1.4
QIZ		24.55	320	eP	19 45.40	0.0
	N	20s		2.40um		
QIS		24.59	149	iPc	19 45.20	-0.6
		0.2s		80.00nm		5.9mb
ASPA		25.08	163	iPc	19 49.90	-0.6
		0.7s		438.00nm		6.1mb
				iS	24 12.00	
				ePcS	27 03.60	
				eScS	30 47.30	
NANU		25.19	204	iPd	19 51.30	-0.1
		0.6s		52.00nm		5.3mb
QZH		25.47	343	eP	19 54.50	0.4
	Z	24s		2.70um		4.7MszX
				S	24 16.00	
IPM		25.62	280	ePd	19 55.00	-0.6
		0.8s		53.10nm		5.2mb
GZH		25.80	332	eP	19 56.30	-0.9
	Z	24s		3.70um		4.8MszX
RAB		26.21	100	eP	20 12.00	10.9X
				e(S)	24 32.00	
WARB		26.48	179	eP	19 55.50	-8.0X
SNG		26.51	285	eP	20 03.80	0.0
				eS	24 33.20	
				e	27 07.80	
PSI		27.50	275	eP	20 13.00	0.1
		1.0s		407.10nm		6.0mb
MEKA		27.94	195	eP	20 16.00	-0.8
CTA		28.24	137	iPc	20 19.00	-0.5
		1.3s		61.54nm		5.1mb
				iScP	27 13.00	
NNT		29.01	296	eP	20 25.50	-1.0
NST		29.97	302	eP	20 35.00	-0.1
MRWA		31.12	198	eP	20 44.00	-1.1
FORR		31.18	177	iPc	20 44.10	-1.4
		0.4s		87.00nm		5.9mb
COOL		31.56	189	eP	20 48.00	-0.9
		0.5s		8.00nm		4.8mb
BDT		31.66	303	eP	20 48.20	-1.8
WHN		32.02	340	eP	20 53.00	0.1
	Z	30s		2.49um		4.7MszX
				S	26 00.00	
GYA		32.05	325	P	20 52.80	-0.7
	N	16s		0.81um		
	E	16s		1.18um		
				S	26 00.00	
KUMJ		32.19	7	eP	20 53.80	-0.6
CHG		32.49	306	iPd	20 57.00	-0.3
		1.0s		22.50nm		5.0mb
				eS	26 08.00	
KLB		32.89	194	eP	20 59.50	-1.1
		0.7s		22.00nm		5.1mb
KMI		33.49	319	Pd	21 07.50	1.4
	N	13s		0.90um		
				eS	26 24.00	
				S	26 26.00	
				sS	26 40.00	
MUN		33.65	196	eP	21 07.00	-0.2
		0.6s		15.00nm		5.1mb
TKSJ		34.13	11	eP	21 10.80	-0.4
NWAO		34.30	194	eP	21 12.00	-0.7
		0.6s		20.00nm		5.2mb
RMQ		34.41	143	eP	21 19.00	5.2X
				e	23 57.00	
VSG		34.60	107	eP	21 14.00	-1.6
WKYJ		34.69	14	eP	21 16.20	0.1
YONJ		35.19	10	P	21 20.30	0.0
STK		35.25	157	iPd	21 20.30	-0.6
				e	21 22.00	
				e	21 34.00	
RKG		35.44	193	eP	21 27.00	4.5X
TIA		36.59	347	P	21 32.10	0.0
	Z	28s		1.80um		4.7MszX
				eS	27 12.00	
CMS		36.75	152	eP	21 33.00	-0.5
ADE		37.09	163	e(P)	21 36.00	-0.4
		0.6s		113.33nm		5.9mb
CD2		37.10	327	eP	21 35.30	-1.2
	Z	25s		2.10um		4.8MszX
				S	27 17.00	
XAN		37.19	336	P	21 37.30	0.1
				S	27 20.00	
CHJJ		37.31	17	P	21 36.80	-1.4
MTMJ		37.49	15	P	21 39.00	-0.8
MAT		37.55	16	eP	21 39.00	-1.2
		1.8s		250.00nm		5.8mb
	Z	20s		1.42um		4.8Msz
				eS	27 12.00	
NIIJ		38.43	16	eP	21 49.00	1.5
DL2		38.51	354	eP	21 43.90	-4.3X
TIY		39.23	342	iPd	21 53.50	-0.9
	Z	26s		3.80um		5.1MszX
				PP	23 32.50	
				S	27 55.00	
				sS	28 08.50	
YAMJ		39.59	17	eP	21 58.40	1.1
BWA		40.40	151	iPc	22 05.40	1.4
				eScP	27 57.30	
BJI		40.47	348	eP	22 04.50	0.0
	Z	24s		1.40um		4.7MszX
				esP	22 23.00	
				eS	28 12.00	
OFUJ		40.92	18	eP	22 08.80	0.6
LZH		41.15	332	eP	22 11.00	0.7
		1.5s		132.00nm		5.4mb
	Z	22s		2.40um		5.0Msz
	N	16s		1.00um		
	E	17s		0.80um		
				(S)	28 29.00	
SNY		41.26	357	eP	22 10.80	0.0
	Z	26s		2.20um		4.9MszX
	N	28s		2.00um		
				S	28 21.00	
CAN		41.40	152	iPc	22 12.20	0.0
				eScP	28 00.20	
HHC		42.39	343	eP	22 20.80	0.5

17d 01h

	N 25s	2.80um					
	E 25s	3.10um					
		eS	28	39.00			
BTO	42.62	342	eP	22	24.00	1.8	
	N 15s	0.80um					
	E 15s	0.90um					
		sP	22	34.50			
CN2	43.16	359	Pc	22	26.00	-0.4	
	Z 22s	1.90um				5.0Msz	
		eS	28	52.00			
MDJ	44.07	3	eP	22	33.60	-0.1	
	Z 20s	1.30um				4.8Msz	
		epP	22	39.00		18kmX	
		S	29	07.00			
LSA	44.37	314	P	22	36.70	-0.3	
DZM	45.04	122	iPc	22	42.00	-0.1	
GTA	45.73	331	eP	22	44.80	-2.5	
	E 16s	1.20um					
		ScS	32	40.50			
TAU	47.11	159	eP	22	59.00	1.1	
KOD	49.56	283	eP	23	17.00	-0.8	
HYB	49.93	292	iPc	23	19.00	-1.3	
	1.0s	80.00nm				5.7mb	
GBA	50.14	287	P	23	20.50	-1.4	
NDI	54.64	305	eP	23	53.00	-2.4	
WMQ	55.20	327	iPc	23	58.70	-0.6	
	Z 24s	2.10um				5.1MszX	
		S	31	39.00			
		ScS	33	43.00			
MSZ	58.11	146	P	24	19.00	-0.8	
KSH	60.08	317	P	24	33.90	0.2	
QUE	63.59	304	eP	24	55.80	-1.8	
MAIO	71.20	308	eP	25	44.00	-1.2	
	0.7s	5.08nm				4.6mb	
		eS	35	00.00			
AVY	79.38	251	eP	26	32.30	0.1	
SDN	80.10	34	eP	26	35.00	-0.1	
RYD	80.48	295	eP	26	38.00	0.1	
MAW	80.57	200	eP	26	38.00	0.6	
KER	80.86	305	ePd	26	45.50	5.7X	
TAB	81.86	308	eP	26	46.00	1.0	
KMSA	82.20	290	eP	26	46.70	-0.2	
BHD	83.02	303	iP	26	41.00	-9.9X	
		iSKS	37	10.00			
		iSKKS	37	41.00			
TTA	83.98	27	eP	26	55.90	0.6	
KDC	84.89	32	eP	27	00.30	0.6	
BRW	85.38	18	eP	27	03.10	1.1	
IMA	85.51	24	eP	27	04.30	1.3	
	0.7s	25.70nm				5.5mb	
PMR	86.99	28	eP	27	09.60	-0.4	
	0.7s	17.10nm				5.4mb	
FBA	87.83	25	eP	27	14.00	-0.1	
TOA	88.42	28	eP	27	17.60	0.5	
NAI	89.55	269	iPd	27	26.00	2.4	
	1.0s	5.00nm				4.8mb	
DSI	90.59	301	iP	27	30.40	2.6	
PRNI	90.94	300	iPc	27	30.00	0.5	
BBTK	92.47	310	eP	27	20.00	-16.4X	
		e	27	30.00			
KEV	92.81	340	eP	27	36.00	-1.2	
SOD	93.33	338	eP	27	40.00	0.3	
INK	93.33	22	eP	27	38.00	-1.6	
KJF	93.36	334	eP	27	40.00	0.2	
SIT	94.16	33	P	27	44.20	0.6	
	0.9s	20.83nm				5.6mb	
SUF	94.28	333	iP	27	44.60	0.5	
	0.4s	2.50nm				5.0mb	
MBC	95.21	13	eP	27	48.00	-0.2	
VRI	96.38	316	eP	27	55.00	0.9	
MLR	96.97	316	eP	27	57.00	0.0	
		e	30	30.00			
DAG	100.44	352	iPdiff	28	10.70	-1.1	
	0.9s	11.76nm				5.4mb	
HFS	100.71	332	ePdiff	28	13.40	0.1	
	0.5s	1.20nm				4.7mb	
YKA	102.62	25	Pdiff	28	23.10	1.4	
EDM	107.28	33	ePKP	32	51.00	-0.7	
FFC	112.29	28	ePKP	33	00.50	-0.5	
	0.8s	12.00nm					
BW06	114.04	42	PKP	33	05.80	0.6	
FRB	115.01	7	ePKP	33	05.00	-1.0	
GOL	118.23	43	PKP	33	12.60	-0.7	
ALQ	119.48	49	ePKP	33	16.00	0.3	
	Z 20s	0.71um				5.3Msz	
MEO	125.33	45	ePKP	33	27.30	0.6	
	0.9s	7.80nm					
KUK	126.41	278	ePKP	33	29.50	0.1	
SIO	126.42	43	ePKP	33	28.90	0.1	
TUL	126.68	43	ePKP	33	24.40	-4.9X	
	1.1s	12.60nm					
	Z 20s	0.90um				5.4Msz	
LNO	126.68	43	ePKP	33	28.70	-0.5	
RLO	127.06	42	ePKP	33	30.40	0.4	
FVM	128.91	37	PKP	33	33.50	0.0	
OLY	129.79	41	PKP	33	35.80	0.6	
ELC	130.09	37	PKP	33	36.70	1.0	
KIC	130.72	279	PKP	33	38.10	0.5	
TIC	130.96	279	PKP	33	39.30	1.3	
LIC	131.01	279	PKP	33	38.80	0.7	
BNH	132.49	17	PKP	33	43.60	3.5X	
GBTN	134.16	35	PKP	33	44.20	0.7	
TRL	134.41	35	PKP	33	45.00	1.0	
BLA	135.08	31	PKP	33	45.40	0.1	
CVL	135.43	28	PKP	33	46.80	0.9	
ZON	145.96	157	ePKP	34	06.00	1.0	
UPA	152.57	69	ePKPc	34	22.90	7.4X	
	1.0s	80.00nm					
ARE	156.29	133	ePKP	34	33.00	12.1X	
CNCB	158.48	140	PKP	34	25.00	1.1	
LPB	158.60	139	PKP	34	27.00	3.2X	
	Z 20s	0.71um				5.5Msz	
		LR	33	50.00			
ZOBO	158.77	138	PKP	34	26.00	1.8	
	Z 22s	0.45um				5.3Msz	
		LR	32	56.00			
CCH	159.17	145	ePKP	34	37.00	12.7X	
BAO	163.91	200	ePKP	34	30.00	1.1	
	S.D. = 1.0	on 131 of 153 obs.					

? FEB 17, 1989 01h 18m 51.20± 2.94s
46.132 N ±11.9km 1.410 E ±25.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.7 (LDG).

LSF	0.14	35	Pg	18	55.00	0.4	
			Sg	19	21.50		
TCF	0.58	74	Pg	19	03.50	0.6	
			Sg	19	34.20		
MAF	0.81	83	Pg	19	07.80	0.9	
			Sg	19	42.20		
BGF	1.08	66	Pg	19	09.80	-1.8	
			Sg	19	46.00		
CAF	1.29	159	Pg	19	15.00	-0.1	
			Sg	19	57.20		
	S.D. = 1.5	on 5 of 5 obs.					

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* FEB 17, 1989 01h 28m 56.30± 1.12s
0.546 N ±18.4km 125.966 E ±14.6km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
MOLUCCA PASSAGE (266)

MNI	1.44	308	iPd	29	20.10	-0.2	
			eS	29	39.50		
AAI	4.76	152	ePc	29	48.40	-19.2X	
			eS	29	50.50		
PCI	6.30	257	iP	30	29.50	0.2	
WB5	21.91	158	eP	33	47.50	-1.1	
WRA	21.95	159	Pd	33	45.90	-3.2X	
	0.6s	6.00nm				4.2mb	
QIS	24.86	148	eP	34	18.00	0.5	
ASPA	25.27	163	iPc	34	21.60	0.2	
	0.5s	7.00nm				4.5mb	
BRS	37.89	139	iPc	36	12.60	0.3	
HYB	49.54	293	eP	37	42.00	-4.5X	
	S.D. = 0.8	on 6 of 9 obs.					

FEB 17, 1989 02h 24m 05.72± 0.41s
38.678 N ± 3.9km 22.634 E ± 2.9km
DEPTH = 41.4 ± 7.6 km
4.3mb (6 obs.)
GREECE (364)
MD 4.1 (ATH).

NEO	0.78	36	iPnc	24	19.20	-1.2	
ATH	1.10	129	ePn	24	25.50	0.6	
LIT	1.43	356	eP	24	29.60	0.1	
VLS	1.68	253	ePn	24	35.00	1.9	
KZN	1.76	338	ePn	24	35.00	0.7	
PLG	1.81	20	ePn	24	34.50	-0.5	
THE	1.97	7	eP	24	36.60	-0.6	
			eS	25	08.10		
KBN	2.40	325	ePn	24	44.00	0.6	
KNT	2.49	5	eP	24	44.70	0.0	
SRS	2.55	17	eP	24	45.30	-0.2	
TPE	2.60	309	iPnd	24	46.50	0.3	
VAY	2.64	359	iPn	24	46.70	-0.1	
OMR	2.81	330	iPnc	24	58.00	8.7X	
	1.5s	0.37nm					
			i	25	09.70		
			eSn	25	48.00		
PRK	2.89	78	ePn	24	51.20	0.8	
BERA	2.90	315	ePn	24	52.90	2.5	
VLO	3.01	307	iPn	24	53.40	1.3	
WMB	3.03	16	iPd	24	52.00	-0.4	
			iS	25	33.00		
EZN	3.09	67	ePn	24	52.90	-0.3	
RDO	3.33	41	ePn	24	55.50	-1.0	
RZN	3.41	27	iPd	24	58.00	0.2	
TIR	3.41	322	ePn	25	01.70	4.0X	
PHP	3.45	332	ePn	24	58.50	0.3	
VAM	3.49	159	ePn	24	58.80	-0.2	
IZM	3.64	93	ePn	25	01.70	0.6	
KDZ	3.66	35	eP	25	00.00	-1.3	
			iS	26	01.00		
LACI	3.71	324	ePn	25	03.00	1.0	
KKS	3.80	334	ePn	25	04.50	1.3	
VTS	3.94	6	iP	25	06.00	0.7	
			iSg	26	13.00		
PUK	3.96	329	ePn	25	08.20	2.7	
LCF	3.98	296	P	25	03.70	-2.1	
PGB	4.04	16	iPc	25	06.00	-0.7	
SDA	4.11	325	ePn	25	09.60	2.0	
NPS	4.16	144	ePn	25	08.80	0.4	
BCI	4.17	333	ePn	25	09.10	0.6	
ULC	4.18	323	ePn	25	09.50	0.8	
			eSn	25	57.50		
EDC	4.38	66	iP	25	11.60	0.1	
PVY	4.41	334	ePn	25	12.60	0.6	
			eSn	26	04.50		
BNT	4.42	66	iP	25	11.50	-0.6	
TTG	4.55	327	ePn	25	14.00	0.2	
			eSn	26	06.00		
BDV	4.63	322	ePn	25	15.00	0.0	
			eSn	26	08.00		
BRT	4.73	299	P	25	15.80	-0.6	
DST	4.75	77	iP	25	17.60	0.8	
KAP	4.78	129	ePn	25	19.00	1.8	
JMB	4.84	37	iPc	25	17.00	-0.9	
HCY	4.91	321	ePn	25	18.00	-1.0	
			eSn	26	14.60		
NKY	4.97	327	ePn	25	18.80	-1.1	
			eSn	26	15.40		
PVL	4.98	23	iPd	25	16.00	-3.8X	
TDS	4.99	283	P	25	20.90	0.8	
BMK	5.02	50	eP	25	20.00	-0.6	
SOI	5.21	265	P	25	21.50	-1.6	
YLV	5.54	68	iP	25	26.60	-1.3	
ATN	5.66	267	P	25	29.50	0.0	
WGR	5.67	287	P	25	29.30	-0.5	
ELL	6.08	106	eP	25	39.20	3.6X	
KSL	6.09	113	ePn	25	39.50	3.9X	
SSR	6.22	354	ePc	25	40.00	2.6	
MNO	6.29	266	P	25	37.90	-0.7	
MEU	6.29	258	P	25	35.90	-2.6	
			eSn	26	41.60		
BEO	6.35	346	e(Pn)	25	40.50	1.3	
HVAR	6.49	316	iPn	25	40.90	-0.3	
DUI	6.93	298	P	25	46.60	-0.9	
BZS	6.98	354	ePc	25	47.50	-0.5	
ISR	7.08	23	ePd	25	54.00	4.5X	
TLB	7.16	33	eP	25	51.00	0.5	
MLR	7.24	19	ePc	25	52.00	0.2	
SDF	7.40	297	P	25	53.20	-0.8	
AZI	7.77	298	P	25	58.00	-1.0	
VRI	7.80	22	ePd	26	00.00	0.5	
BBTK	7.94	78	eP	26	00.00	-1.7	
CLI	8.58	22	eP	26	15.00	4.7X	
PTJ	8.75	328	e(P)	26	10.40	-2.3	
VBY	8.75	324	ePn	26	10.10	-2.5	
			eSn	27	44.20		
ARV	8.76	306	P	26	12.50	-0.3	
CEY	9.32	322	e(Pn)	26	21.50	1.0	
			e(Sn)	28	03.50		
CRE	9.45	305	P	26	21.50	-0.9	
LJU	9.49	323	e(Pn)	26	24.10	1.3	
			e(Sn)	28	03.40		
VOY	9.79	321	ePn	26	25.10	-1.9	
			eSn	28	13.60		

KBA	10.81	324 eP	26 43.50	2.5	
	1.1s	10.50nm		4.9mb	
		e	27 04.50		
		i	27 11.70		
KHC	12.31	331 eP	27 00.00	-1.1	
PRNI	13.14	126 iPd	27 30.00	17.8X	
MBH	13.46	128 iPd	27 30.00	13.6X	
LPG	13.61	305 eP	27 35.00	16.4X	
	0.8s	8.00nm			
LBF	15.98	307 eP	27 54.50	5.4X	
	1.0s	8.00nm		3.8mb	
SSF	16.31	307 eP	27 57.70	4.5X	
TOL	20.67	282 eP	28 45.00	0.5	
NUR	21.89	3 eP	29 01.00	4.4X	
SLL	22.60	348 eP	29 01.80	-1.8	
	0.4s	2.10nm		3.9mb	
NB2	23.50	346 P	29 10.80	-1.6	
	0.7s	3.70nm		4.0mb	
EKA	24.02	322 Pc	29 18.40	1.0	
	0.9s	15.40nm		4.5mb	
SUF	24.17	4 iP	29 19.00	0.2	
KJF	25.74	5 eP	29 36.00	2.3	
BNG	34.28	187 ePc	30 51.10	0.9	
	0.5s	5.00nm		4.7mb	
INK	71.85	351 eP	35 25.50	-0.1	
YKA	73.48	341 P	35 36.40	1.1	

S.D. = 1.2 on 81 of 94 obs.

FEB 17, 1989 02h 33m 19.92± 0.68s
38.741 N ± 5.8km 22.711 E ± 6.7km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (ATH).

NEO	0.69	35 ePn	33 34.00	0.4	
ATH	1.10	134 ePn	33 41.00	0.4	
LIT	1.37	353 eP	33 44.70	-0.3	
PAIG	1.40	32 eP	33 45.20	-0.3	
KZN	1.72	335 ePn	33 50.20	0.0	
PLG	1.73	19 ePn	33 49.70	-0.5	
VLS	1.76	252 ePn	33 50.00	-0.6	
SOH	2.14	13 eP	33 56.20	0.1	
		eS	34 13.90		
GRG	2.23	354 eP	33 57.20	-0.2	
		eS	34 17.90		
KNT	2.42	3 eP	33 59.50	-0.7	
SRS	2.47	16 eP	34 00.00	-0.8	
VAY	2.58	358 ePn	34 03.70	1.3	
OHR	2.79	329 ePn	34 06.70	1.3	
SKO	3.37	344 ePn	34 22.00	8.4X	

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

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* FEB 17, 1989 02h 40m 46.21± 2.53s
35.735 N ±19.9km 22.292 E ±19.6km
DEPTH = 10.0km (geophysicist)
MEDITERRANEAN SEA (400)
MD 3.8 (ATH).

VAM	1.59	101 ePb	41 15.50	1.1	
NPS	2.75	99 ePb	41 37.50	6.3X	
VLS	2.79	331 ePn	41 31.20	-0.6	
NEO	3.64	11 ePn	41 45.50	1.7	
KAP	3.98	91 ePn	41 49.00	0.4	
PAIG	4.33	14 eP	41 53.90	0.4	
KZN	4.58	355 ePn	41 57.00	-0.2	
PLG	4.72	11 ePn	41 59.50	0.3	
OUR	4.78	16 eP	42 17.90	17.9X	
SOH	5.15	9 eP	42 04.90	-0.3	
GRG	5.21	1 eP	42 04.90	-1.2	
KNT	5.44	5 eP	42 08.70	-0.6	
SRS	5.47	10 eP	42 0B.90	-0.8	
KSL	5.93	84 ePn	42 14.30	-1.8	
SKO	6.26	354 ePn	42 22.50	1.6	

S.D. = 1.2 on 13 of 15 obs.

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* FEB 17, 1989 03h 28m 55.65± 2.35s
38.092 N ±22.8km 21.754 E ±13.2km
DEPTH = 33.0km (normol)
GREECE (364)
MD 2.9 (ATH).

VLS	0.92	276 ePn	29 12.20	-0.1	
NEO	1.67	43 ePn	29 23.50	0.5	
KZN	2.21	0 ePn	29 30.10	-0.7	
PLG	2.63	29 ePn	29 36.00	-0.7	
OHR	3.10	347 ePn	29 44.00	0.5	
VAY	3.29	11 ePn	29 46.50	0.5	

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

FEB 17, 1989 04h 01m 06.90± 0.17s
49.868 N ± 4.3km 78.079 E ± 3.0km
DEPTH = 0.0km (geophysicist)
5.0mb (55 obs.)
EASTERN KAZAKH SSR (329)

WMQ	8.94	129 iPd	03 19.20	-1.1	
GTA	18.60	116 Pc	05 27.20	-0.4	
MAIO	19.12	232 eP	05 33.00	-0.9	
		eS	09 26.00		
NDI	21.17	182 iPd	05 55.00	-1.0	
LZH	23.20	117 eP	06 17.50	1.1	
BTO	24.17	100 P	06 28.00	2.4	
HHC	25.02	98 P	06 35.40	1.5	
CD2	27.01	125 P	06 53.10	0.7	
TIY	27.37	103 Pd	06 55.40	-0.2	
KJF	29.98	318 eP	07 17.00	-1.8	
	0.5s	23.90nm		5.3mb	
SUF	30.63	315 iP	07 23.90	-0.6	
	0.4s	15.50nm		5.3mb	
SOD	30.79	324 iP	07 25.40	-0.5	
KEV	31.10	328 eP	07 27.00	-1.6	
NUR	31.43	310 iP	07 30.50	-1.1	
GYA	32.09	126 P	07 37.60	-0.3	
WHN	33.32	112 iPd	07 48.50	0.1	
MLR	34.79	283 ePd	08 02.50	1.4	
CHG	35.20	144 iPc	08 05.20	0.4	
	0.6s	6.67nm		4.6mb	
GBA	36.17	181 Pc	08 11.10	-1.8	
	0.7s	6.40nm		4.5mb	
KRA	36.58	293 eP	08 16.60	0.5	
	0.3s	56.00nm		5.8mb	
HFS	36.86	311 eP	08 17.70	-0.7	
	0.6s	24.80nm		5.1mb	
NRA0	37.76	313 P	08 24.90	-0.9	
NB2	37.84	313 P	08 25.70	-0.9	
	0.5s	13.80nm		4.9mb	
KSP	38.41	296 iPd	08 32.60	1.1	
ZST	39.04	292 eP	08 37.60	0.8	
KOD	39.52	181 eP	08 41.50	0.1	
BRG	39.76	297 iP	08 42.80	0.1	
	0.8s	14.00nm		4.6mb	
PRU	39.79	295 eP	08 43.50	0.6	
CLL	40.12	298 iPc	08 45.90	0.2	
	0.6s	31.00nm		5.1mb	
KHC	40.72	295 iPd	08 52.40	1.7	
	0.9s	8.50nm		4.4mb	
MOX	41.20	298 iPc	08 55.50	1.0	
	1.0s	39.00nm		5.1mb	
KBA	41.81	292 i(P)	09 01.00	1.2	
	0.7s	8.10nm		4.6mb	
		id	09 03.20		
GRF	41.85	296 eP	09 01.30	1.4	
	1.0s	25.00nm		4.9mb	
FVI	42.39	292 P	09 02.00	-2.3	
WTS	43.31	301 iP	09 13.00	1.3	
	0.5s	17.00nm		5.1mb	
CTI	43.34	292 P	09 11.50	-0.7	
DAG	43.60	341 iPc	09 12.90	-1.0	
	0.5s	7.75nm		4.8mb	
TDS	43.85	281 P	09 15.50	-0.8	
ARV	43.87	288 P	09 17.00	0.5	
MGR	44.08	282 P	09 19.00	0.9	
ASS	44.27	287 P	09 20.50	0.7	
SDI	44.30	285 P	09 20.50	0.5	
ENN	44.37	300 iP	09 21.40	1.1	
	0.5s	12.00nm		5.0mb	
CRE	44.41	288 P	09 22.00	1.0	
PGD	44.42	289 P	09 22.50	1.4	
CDF	44.74	297 iPc	09 23.70	0.1	
	0.5s	4.90nm		4.7mb	
WLF	44.77	299 P	09 24.50	0.9	
MME	44.87	290 P	09 26.00	1.1	
BDI	45.01	290 P	09 26.20	0.5	
VAI	45.16	293 P	09 25.60	-1.2	
PII	45.23	289 P	09 27.00	-0.4	
BSF	45.31	296 iPc	09 28.40	0.2	
	0.5s	8.70nm		5.0mb	
SNF	45.41	301 P	09 29.40	0.7	
DOU	45.44	300 iPc	09 29.70	0.8	
HAU	45.48	297 iPc	09 29.50	0.1	
	0.6s	27.00nm		5.4mb	
LSD	46.33	293 P	09 36.68	0.2	
FIN	46.38	291 P	09 35.35	-1.1	
RSP	46.44	293 P	09 34.84	-2.2	
ROB	46.53	291 P	09 36.89	-0.9	
LPG	46.55	293 iPc	09 39.00	0.8	
	0.7s	14.70nm		5.2mb	
BNI	46.84	293 P	09 40.60	0.3	
RRL	46.85	293 P	09 40.88	0.4	
EKA	47.00	309 P	09 41.00	-0.2	
	0.5s	8.00nm		5.1mb	
LOR	47.30	297 iPc	09 43.30	-0.5	
	0.5s	12.30nm		5.3mb	
LBF	47.39	297 iPc	09 43.80	-0.7	
	0.4s	5.30nm		5.0mb	
SSF	47.62	297 iPc	09 45.60	-0.6	
	0.6s	4.50nm		4.8mb	
SMF	47.65	296 iPc	09 46.10	-0.4	
	0.6s	7.20nm		5.0mb	
FRF	47.68	291 iPc	09 46.80	0.1	
	0.5s	13.70nm		5.3mb	
AVF	47.85	297 iPc	09 47.60	-0.5	
	0.6s	4.50nm		4.8mb	
LMR	47.89	291 iPc	09 48.60	0.2	
	0.4s	3.40nm		4.8mb	
BGF	48.27	297 iPc	09 51.10	-0.3	
	0.6s	7.20nm		5.0mb	
MAF	48.62	296 iPc	09 54.40	0.4	
	0.7s	14.70nm		5.2mb	
TCF	48.79	297 eP	09 55.30	-0.1	
	0.6s	5.40nm		4.8mb	
LDF	48.85	300 iPc	09 55.60	-0.2	
	0.5s	23.90nm		5.5mb	
FLN	48.96	301 iPc	09 56.40	-0.2	
	0.4s	27.90nm		5.6mb	
LSF	49.20	297 eP	09 57.90	-0.6	
	0.5s	2.40nm		4.5mb	
GRR	49.38	300 iPc	09 59.40	-0.4	
	0.4s	10.30nm		5.2mb	
CAF	49.63	295 iPc	10 02.30	0.4	
	0.8s	5.90nm		4.6mb	
LPF	49.67	300 iPc	10 01.80	-0.3	
	0.6s	16.20nm		5.2mb	
RJF	49.74	296 iPc	10 03.20	0.5	
	0.6s	6.10nm		4.7mb	
MFF	49.97	298 iPc	10 04.00	-0.4	
	0.4s	10.70nm		5.1mb	
LPO	50.28	295 iPc	10 07.30	0.5	
	0.6s	18.00nm		5.2mb	
LFF	50.40	296 iPc	10 08.20	0.5	
	0.6s	9.00nm		4.9mb	
EPF	51.75	294 iPc	10 17.20	-0.8	
	0.6s	11.70nm		5.0mb	
BRW	53.02	19 eP	10 26.70	-0.5	
MBC	53.67	5 ePc	10 31.20	-0.6	
	0.5s	30.00nm		5.5mb	
IMA	57.81	22 eP	11 01.20	-0.9	
	0.7s	12.10nm		5.0mb	
TTA	59.71	25 P	11 14.60	-0.7	
INK	59.81	13 iPc	11 15.10	-0.6	
	0.5s	12.00nm		5.3mb	
FBA	60.17	21 eP	11 17.80	-0.5	
ADK	60.47	43 eP	11 19.60	-0.8	
SVW	61.29	27 eP	11 26.30	0.3	
PWA	62.41	24 iPc	11 32.20	-1.2	
PMR	62.65	23 P	11 33.60	-1.4	
	0.6s	7.39nm		5.1mb	
TOA	62.95	22 eP	11 36.60	-0.5	
FRB	63.73	344 eP	11 41.00	-1.1	
BNG	67.31	249 iPc	12 04.80	-1.0	
	0.2s	24.00nm		6.1mb X	
YKA	67.53	6 P	12 05.90	-0.6	
FFC	75.78	0 iPc	12 55.50	-0.3	
	0.5s	10.00nm		5.2mb	
EDM	76.83	7 iPc	13 01.90	0.0	
MBL	79.81	141 eP	13 17.80	-0.6	
SES	79.81	6 ePc	13 18.30	0.1	
PNT	80.03	12 eP	13 19.00	-0.4	
	0.6s	9.00nm		4.9mb	
TIC	80.51	269 Pc	13 22.50	0.1	
KIC	80.54	269 Pc	13 22.60	0.0	
	0.6s	19.00nm		5.3mb	
LIC	80.83	269 P	13 24.20	0.1	
GMW	81.30	14 P	13 27.50	1.3	
RMW	81.54	13 P	13 28.70	1.2	
LON	82.23	14 P	13 31.90	0.8	
RSNY	82.98	341 P	13 35.60	0.7	
	0.5s	4.46nm		4.9mb	
LRM	84.25	7 eP	13 41.90	0.2	
WB5	85.40	128 iPc	13 46.90	-0.4	
WRA	85.44	128 Pc	13 46.80	-0.7	

17d 04h

	0.5s	4.20nm		4.9mb		
BW06	87.49	6 P	13 57.80	0.0		
	0.6s	2.21nm		4.6mb		
ASPA	88.34	131 iPc	14 01.30	-0.3		
	0.5s	11.00nm		5.4mb		
DAU	89.73	7 P	14 10.00	1.4		
KVN	90.32	13 P	14 12.30	1.1		
GOL	90.76	3 P	14 14.00	0.7		
TNP	91.39	12 P	14 17.00	0.8		
	0.7s	4.07nm		4.9mb		
ARN	91.44	16 P	14 17.90	1.7		
ELC	92.50	350 P	14 21.50	0.5		
RLO	94.12	354 e(P)	14 29.70	1.2		
TUL	94.42	355 eP	14 30.20	0.3		
	0.9s	2.20nm		4.5mb		
ALQ	95.47	4 e(P)	14 33.50	-1.5		

S.D. = 0.9 on 124 of 124 obs.

FEB 17, 1989 05h 01m 43.41± 0.17s
21.857 S ± 5.9km 176.372 W ± 4.4km
DEPTH = 141.3km (4 depth phases)
5.4mb (39 obs.)
FIJI ISLANDS REGION (181)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 23C
Centroid Location:
Origin Time 05:01:52.0 1.1
Lat 21.96S 0.10 Lon 176.47W 0.10
Dep 149.4 3.0 Half-duration 1.8
Moment Tensor; Scale 10**16 Nm
Mrr=-6.68 0.75 Mtt= 5.27 1.23
Mff= 1.41 1.16 Mrt=-0.51 0.74
Mrf=-8.48 0.68 Mtf= 7.49 1.04
Principal Axes:
T Val= 12.89 Plg=18 Azm=135
N -0.06 33 33
P -12.83 51 249
Best Double Couple:Mo=1.3*10**17
NP1:Strike=265 Dip=40 Slip= -32
NP2: 20 70 -125

RAO	7.49	190 eP	03 32.70	1.4		
		iS	04 53.80			
AFI	9.03	30 eP	03 43.00	-9.0X		
		eS	05 13.20			
PVC	14.98	283 iPc	05 15.50	6.3X		
RAR	15.46	91 P	05 14.00	-1.1		
		S	07 50.00			
DZM	15.94	266 iPc	05 26.70	5.4X		
KRP	17.47	202 P	05 40.00	0.3		
	0.3s	39.00nm		5.2mb		
WEL	20.77	199 eP	06 12.00	-2.6		
		eS	09 50.00			
TBI	24.88	99 iP	06 56.90	2.4		
AFR	25.39	85 iP	06 58.40	-0.9		
	1.2s	90.00nm		5.2mb		
PPT	25.57	85 iP+	07 00.00	-1.0		
	1.2s	80.00nm		5.2mb		
Z	18s	0.40um		4.0Msz		
PPN	25.71	85 iP	07 01.40	-0.9		
	1.2s	50.00nm		5.0mb		
MSZ	26.18	206 P	07 06.00	-0.3		
	0.3s	37.00nm		5.5mb		
TPT	28.09	81 iP	07 22.10	-1.8		
	1.2s	40.00nm		5.0mb		
RUV	28.24	81 iP	07 23.30	-1.9		
	1.2s	70.00nm		5.2mb		
BRS	28.54	253 Pd	07 21.40	-6.5X		
COO	29.69	246 eP	07 39.00	0.9		
RMQ	32.09	255 iPc	08 07.60	8.5X		
	1.1s	159.00nm		5.7mb		
CNB	32.77	238 eP	08 06.00	1.0		
	0.8s	232.00nm		6.0mb		
CAN	33.06	238 iPd	08 08.00	0.5		
BWA	33.31	240 iPd	08 07.80	-1.9		
		e	08 38.90			
CMS	34.97	246 eP	08 24.00	0.2		
	1.0s	265.00nm		6.0mb		
TOO	36.36	236 eP	08 36.00	0.5		
TAU	36.76	227 eP	08 40.00	1.2		
PMG	37.14	284 iPc	08 43.00	0.8		
	0.7s	246.58nm		6.1mb		
STK	38.60	246 iPd	08 55.40	1.1		
	0.6s	59.00nm		5.5mb		
QIS	40.96	263 eP	09 14.00	0.2		
		e	11 12.00			
ADE	41.29	242 eP	09 16.70	0.3		
	0.7s	65.75nm		5.4mb		
ASPA	45.70	258 iPd	09 51.30	-0.8		
	1.0s	321.00nm		5.9mb		
Z	20s	0.30um		4.2Msz		
		ePcP	11 28.10			
		ePcS	15 18.00			
		eS	16 21.70			
		iScS	19 35.70			
		LR	29 06.80			
JAY	45.91	289 ePd	09 52.30	-1.5		
	0.8s	541.80nm		6.3mb		
WB5	45.92	263 eP	09 53.20	-0.6		
		iPcP	11 29.20			
WRA	45.93	263 Pc	09 54.00	0.1		
	1.0s	101.50nm		5.4mb		
FORR	50.13	247 eP	10 25.00	-1.2		
	0.5s	100.00nm		5.9mb		
MTN	50.70	271 eP	10 29.00	-1.8		
	0.7s	148.00nm		5.9mb		
		e	12 42.00			
WARB	51.88	253 eP	10 30.10	-9.6X		
COOL	56.08	247 eP	11 08.00	-2.2		
	0.7s	33.00nm		5.4mb		
KLB	58.86	245 eP	11 28.00	-1.7		
	0.7s	38.00nm		5.5mb		
MBL	58.95	258 iPc	11 28.80	-1.6		
	0.3s	26.00nm		5.7mb		
MEKA	58.99	251 eP	11 28.00	-2.6		
NWAO	59.13	244 eP	11 31.00	-0.5		
	0.9s	29.00nm		5.2mb		
RKG	59.17	243 eP	11 31.00	-0.8		
BAL	59.90	246 eP	11 35.00	-1.8		
	0.7s	27.00nm		5.3mb		
MUN	60.12	245 eP	11 37.50	-0.7		
	0.8s	42.00nm		5.5mb		
NANU	62.52	255 iPd	11 53.90	-0.5		
	0.4s	28.00nm		5.6mb		
SPA	68.28	180 e(P)	12 32.30	1.4		
	1.0s	23.50nm		5.0mb		
		e	12 47.00			
TRT	69.56	270 ePc	12 39.20	-0.2		
	0.4s	27.60nm		5.4mb		
MAT	72.20	323 eP	12 53.00	-1.7		
	1.1s	40.51nm		5.1mb		
ADK	73.42	360 eP	13 00.40	-1.0		
	0.6s	73.20nm		5.6mb		
SMY	74.73	354 P	13 07.30	-1.7		
	0.9s	166.67nm		5.8mb		
PRS	77.77	43 ePd	13 26.90	0.5		
		e	14 01.20			
PRI	78.09	43 e(P)	13 29.10	0.8		
		e	14 04.20			
BKS	78.21	41 e(P)d	13 29.40	0.7		
MHC	78.23	42 ePd	13 29.20	0.1		
		e	14 04.70			
PLM	78.93	47 eP	13 33.00	-0.1		
		e	14 09.00			
RVR	78.96	47 eP	13 38.00	5.1X		
		e	14 08.00			
SBB	79.06	46 eP	13 33.00	-0.6		
		e	14 08.00			
ISA	79.21	45 eP	13 34.00	-0.4		
		e	14 10.00			
FRI	79.22	43 ePd	13 34.50	0.2		
		e	14 09.40			
ORV	79.72	40 eP	13 36.90	0.0		
WDC	79.76	39 ePd	13 37.50	0.4		
		e	14 12.50			
CLC	79.88	45 eP	13 38.00	0.1		
		e	14 13.00			
TPC	79.92	47 eP	13 35.00	-3.2X		
		e	14 14.00			
MIN	80.16	39 e(P)	13 39.20	-0.2		
		e	14 14.30			
GLA	80.16	49 eP	13 41.00	1.5		
LBFM	80.63	38 P	13 42.50	0.5		
MAW	80.80	199 eP	13 44.00	1.8		
		e	13 53.00			
TNP	81.46	43 P	13 46.60	0.3		
	0.9s	4.56nm		4.2mb X		
		pP	14 22.40	142km		
KVN	81.48	42 P	13 45.80	-0.6		
		pP	14 22.30	146km		
KGM	81.76	275 ePc	13 49.20	1.1		
MDJ	82.50	324 eP	13 51.50	0.2		
LON	84.17	34 P	14 00.00	0.2		
CN2	84.30	322 iPc	14 01.00	0.6		
IPM	84.84	277 ePc	14 04.80	1.0		
	0.9s	54.70nm		5.4mb		
MSU	84.97	45 P	14 05.10	0.9		
		pP	14 40.70	140km		
PMR	85.99	13 eP	14 07.70	-0.7		
	0.8s	15.40nm		4.9mb		
TTA	86.02	9 eP	14 08.60	-0.1		
PSI	86.08	274 ePc	14 10.40	0.5		
	1.0s	29.30nm		5.1mb		
SNG	86.20	279 eP	14 12.20	1.7		
PNT	86.94	33 eP	14 14.00	0.7		
	0.9s	19.00nm		5.0mb		
ALQ	87.07	51 eP	14 14.90	0.3		
	1.0s	7.00nm		4.6mb		
		epP	14 50.00	137km		
TOA	87.08	14 eP	14 13.80	0.0		
BJI	87.92	315 eP	14 19.00	0.8		
LRM	88.80	39 eP	14 35.90	13.3X		
BW06	88.92	43 P	14 22.60	-0.7		
	1.0s	4.50nm		4.5mb		
NNT	89.07	284 eP	14 26.00	1.8		
FBA	89.24	12 ePc	14 23.00	-1.0		
TIY	89.31	311 Pc	14 26.20	1.2		
IMA	89.33	9 eP	14 24.10	-0.4		
	1.0s	17.50nm		5.1mb		
GOL	90.12	47 P	14 29.00	0.0		
HHC	91.38	314 P	14 35.60	1.1		
BDT	91.48	288 eP	14 36.20	1.0		
CHG	92.13	289 iPd	14 40.60	2.4		
	0.8s	8.96nm		5.0mb		
EDM	92.43	32 eP	14 38.50	-0.4		
MEO	92.78	54 eP	14 40.20	-0.8		
	0.9s	10.40nm		5.1mb		
		e	14 47.50			
		e	15 17.80			
BRW	93.91	6 eP	14 44.70	-0.6		
YKA	97.11	24 P	15 00.50	0.5		
MAIO	129.74	300 ePKP	20 38.00	0.2		
SOD	132.24	348 iPKP	20 40.80	-0.6		
KJF	134.75	345 ePKP	20 37.00	-9.2X		
		e	20 46.00			
SUF	136.38	345 iPKP	20 41.80	-7.6X		
	0.4s	2.90nm				
NUR	138.65	344 ePKP	20 46.00	-7.7X		
		i	20 54.00			
NB2	140.49	354 PKP	20 49.00	-8.1X		
	0.8s	5.50nm				
HFS	141.10	352 ePKP	20 49.00	-9.1X		
	0.4s	3.10nm				
ELO	145.01	7 ePKPd	21 03.90	-1.1		
	0.8s	114.00nm				
EDU	145.01	6 ePKPd	21 04.00	-0.9		
MUD	145.20	355 iPKPc	21 04.70	-0.5		
	0.8s	60.00nm				
EAB	145.21	8 ePKPd	21 04.80	-0.5		
	0.9s	104.00nm				
EBH	145.25	7 ePKPd	21 05.00	-0.4		
EKA	146.19	7 PKP	21 07.00	0.0		
	1.0s	41.90nm				
KVT	146.63	313 iPKP	21 10.10	1.9		
WIT	149.01	356 iPKPd	21 17.00	5.5X		
KRA	149.06	339 iPKPd	21 16.00	4.3X		
		i	21 20.70			
KSP	149.42	344 ePKP	21 13.00	0.8		
	0.9s	65.00nm				
		id	21 17.80			
		ic	21 23.00			
		e	21 56.20			
HRI	149.46	299 iPKPd	21 19.00	6.0X		
VRI	149.53	327 ePKPd	21 18.00	5.4X		
SPC	149.70	338 ePKP	21 18.60	5.7X		
TLB	149.70	324 ePKPd	21 18.50	5.7X		
CLL	149.71	348 iPKP	21 13.20	0.6		
	1.1s	115.00nm				
		i	21 17.80			
		pPKP	21 56.00			
WTS	149.82	356 iPKPd	21 18.40	5.7X		
	1.0s	136.00nm				
		e	21 24.50			
BRG	149.93	347 iPKP	21 13.40	0.4		
		i	21 18.50			
		i	21 23.60			
		ipPKP	21 57.80			
JVI	150.08	296 iPKPd	21 20.40	6.6X		
ISR	150.12	326 ePKPd	21 19.50	6.0X		
MLR	150.18	328 ePKPd	21 19.50	5.8X		

IKL	150.21	305	iPKP	21	18.50	4.6X
MOX	150.59	350	ePKP	21	14.00	0.0
PRU	150.63	346	ePKP	21	14.00	-0.1
			e	21	20.10	
HQL	150.77	291	ePKP	21	21.30	6.4X
GPA	150.85	315	iPKP	21	20.50	5.7X
MBH	150.85	292	iPKPd	21	22.00	7.0X
PSZ	150.90	337	ePKP	21	20.20	5.6X
ENN	151.09	357	iPKPd	21	21.30	6.6X
	0.9s	60.00nm				
			e	21	28.00	
UCC	151.11	359	PKP	21	21.60	6.9X
GBZT	151.14	317	iPKPd	21	20.20	5.1X
MEM	151.24	357	PKPd	21	21.30	6.4X
YLV	151.31	316	iPKP	21	22.00	6.5X
SNF	151.40	359	PKPd	21	21.90	6.7X
SRO	151.54	339	iPKP	21	23.00	7.5X
			i	21	32.00	
GRF	151.58	350	ePKP	21	16.10	0.6
			e	21	22.40	
			e	21	31.60	
CTT	151.58	318	ePKP	21	22.40	6.6X
ZST	151.59	341	i(PKP)	21	23.00	7.5X
			e	21	32.00	
DMK	151.59	320	ePKP	21	22.20	6.4X
KHC	151.66	346	iPKP	21	17.00	1.3
			i	21	23.00	
			i	21	32.40	
VKA	151.76	342	iPKPc	21	23.30	7.5X
	0.5s	17.60nm				
DOU	151.81	359	PKP	21	23.10	7.3X
			e	22	01.40	
BCK	152.01	310	ePKP	21	21.80	5.2X
BZS	152.10	332	ePKP	21	23.50	7.1X
WLF	152.18	356	PKP	21	24.50	8.2X
KHL	152.36	312	ePKP	21	24.50	7.4X
FLN	152.95	6	ePKP	21	25.10	7.6X
LOF	153.15	6	ePKP	21	25.60	7.8X
GRR	153.28	7	ePKP	21	26.00	8.1X
CDF	153.34	355	ePKP	21	26.20	8.0X
LPF	153.62	7	ePKP	21	26.50	8.1X
KBA	153.64	345	iPKPc	21	18.30	-0.4
	0.8s	25.70nm				
			i	21	26.20	
			i	21	39.80	
			i	22	18.40	
HAU	153.82	356	ePKP	21	27.30	8.5X
BSF	153.96	355	ePKP	21	27.50	8.4X
PTJ	153.99	340	ePKP	21	19.10	0.0
RBL	154.18	344	PKP	21	14.50	-4.9X
LJU	154.28	342	ePKP	21	20.00	0.6
VOY	154.47	343	ePKP	21	19.90	0.1
			e	21	28.30	
			e	21	42.70	
VBY	154.56	341	e(PKP)	21	20.30	0.5
			i	21	29.50	
CEY	154.59	342	ePKP	21	20.60	0.8
			i	21	44.00	
LOR	154.65	360	ePKP	21	29.10	9.2X
TRI	154.80	343	ePKP	21	28.70	8.7X
			i	21	43.10	
SSF	154.86	0	ePKP	21	29.70	9.6X
LBF	154.93	359	ePKP	21	29.60	9.3X
SKO	154.98	327	ePKP	21	20.20	-0.2
CTI	155.00	347	PKP	21	19.50	-1.0
TCF	155.60	2	ePKP	21	31.00	9.8X
LSF	155.61	4	ePKP	21	30.90	9.7X
MAF	155.68	2	ePKP	21	31.40	10.1X
VAI	155.68	351	PKP	21	21.50	0.3
OHR	155.94	327	ePKP	21	21.50	-0.4
ORO	156.03	352	PKP	21	24.50	2.6
LPG	156.28	355	ePKP	21	33.40	10.9X
BNG	157.43	222	iPKPc	21	25.00	0.5
	0.7s	9.00nm				
			ic	21	57.90	
			id	22	03.50	
			id	25	38.00	
LIC	162.35	150	PKP	21	30.40	0.7
KIC	162.60	151	PKP	21	30.40	0.5
TIC	162.72	150	PKP	21	30.60	0.6

S.D. = 1.1 on 117 of 178 obs.

FEB 17, 1989 05h 51m 49.25± 0.72s
46.403 N ± 7.3km 12.672 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.7 (KBA).

FVI	0.20	21	Pc	51	53.70	0.0
			eSg	51	57.50	
RBL	0.62	86	P	52	00.50	-1.3
			iSg	52	09.50	
CTI	0.79	244	P	52	04.20	-0.6
			eSg	52	14.40	
KBA	0.82	34	iPgc	52	05.80	0.6
			iSg	52	17.20	
SCE	0.92	314	iPgc	52	06.80	-0.1
TRI	1.03	132	iPgc	52	09.70	1.0
			iSg	52	25.70	
OGA	1.23	293	iPgc	52	12.60	0.4
KHC	2.80	12	eP	53	20.00	45.1X

S.D. = 0.9 on 7 of 8 obs.

FEB 17, 1989 06h 10m 26.62± 0.42s
35.134 N ± 5.0km 119.116 W ± 4.1km
DEPTH = 5.0km (geophysicist)
CENTRAL CALIFORNIA (39)
ML 3.0 (NEIS).

ABL	0.30	197	iPd	10	32.70	0.1
BCH	0.80	274	iPc	10	42.70	0.1
BLP	1.20	242	eP	10	49.90	0.4
PHAM	1.26	304	eP	10	50.20	-0.3
PEC	2.04	127	eP	11	01.70	-0.3
GWY	2.25	62	eP	11	05.00	-0.2
AMR	2.49	59	eP	11	08.50	0.0
PLM	2.58	133	eP	11	09.30	-0.6
NOP	2.61	67	eP	11	10.00	-0.3
YMT3	2.74	52	eP	11	13.20	1.0
JON	2.77	61	eP	11	12.80	0.2
LSM	2.81	54	eP	11	13.70	0.5
LOP	2.94	53	eP	11	16.10	1.0
TNP	3.31	27	e(P)	11	18.80	-1.6
KVN	3.99	11	eP	11	36.00	6.0X

S.D. = 0.7 on 14 of 15 obs.

FEB 17, 1989 07h 38m 07.86± 0.26s
57.814 N ± 4.7km 138.174 W ± 3.7km
DEPTH = 10.0km (geophysicist)
4.7mb (18 obs.)
OFF COAST OF SOUTHEASTERN ALASKA(20)
ML 4.7 (PMR). Felt (IV) at
Pelican.

SIT	1.72	115	iPc	38	34.10	-3.8X
YKU	1.92	336	ePd	38	43.80	2.9
BCPM	2.28	341	eP	38	46.39	0.3
HYT	3.04	6	P	38	57.50	0.5
CTGM	3.55	334	iP	39	06.25	2.0
			iS	39	49.21	
RAGM	4.23	310	eP	39	13.49	-0.3
			eS	40	05.77	
SGAM	4.51	310	eP	39	19.92	2.2
GLB	4.63	324	eP	39	20.08	0.6
CVA	4.76	308	eP	39	22.35	1.0
HIN	5.01	305	eP	39	23.75	-1.1
FID	5.18	308	eP	39	28.03	0.8
VZW	5.37	311	eP	39	30.25	0.2
KLU	5.39	316	eP	39	29.40	-0.9
GLI	5.50	308	eP	39	31.85	0.0
KNIM	5.55	301	eP	39	30.96	-1.5
TOA	5.89	320	eP	39	39.80	2.6
PWL	6.03	305	eP	39	37.91	-1.3
DWY	6.29	355	P	39	43.10	0.2
PAX	6.31	328	eP	39	44.84	1.6
PTE	6.34	303	eP	39	41.98	-1.5
KNK	6.34	309	eP	39	42.87	-0.8
SML	6.50	312	eP	39	45.66	-0.3
PME	6.69	309	eP	39	48.26	-0.2
PMR	6.71	309	eP	39	49.20	0.4
PMS	6.73	305	eP	39	49.00	-0.2
SLKM	6.76	299	eP	39	49.38	-0.1
NKA	7.31	299	eP	39	58.23	1.1
KDC	7.66	276	eP	40	01.40	-0.6
SPU	7.83	301	eP	40	03.07	-1.4
CRP	7.90	302	eP	40	04.89	-0.7
RED	7.95	295	eP	40	05.38	-0.9
CDD	8.21	284	eP	40	09.14	-0.7
CCB	8.27	330	eP	40	10.67	0.0
FBA	8.47	331	eP	40	13.20	-0.2
TTA	10.19	308	eP	40	36.80	-0.4
INK	10.74	9	eP	40	43.00	-1.5
IMA	11.00	325	eP	40	48.10	-0.2
	0.7s	9.30nm			5.2mb	
YKA	12.60	58	P	41	05.80	-4.0X

PNT	13.89	120	eP	41	30.00	3.2X
EDM	14.75	98	eP	41	38.00	-0.2
LON	14.89	131	eP	41	42.00	2.1
BRW	15.59	338	eP	41	51.70	2.8X
VGB	16.31	132	eP	42	02.00	3.7X
SES	17.47	103	eP	42	12.00	-0.9
MBC	19.71	13	eP	42	39.00	-0.9
	0.9s	44.00nm			4.8mb	
LRM	19.78	116	eP	42	41.60	0.5
WDC	19.96	143	eP	42	46.50	3.8X
			e	42	50.20	
FFC	20.18	83	eP	42	43.00	-1.9
KVN	22.86	137	eP	43	12.80	0.4
ARN	23.23	145	eP	43	16.50	0.7
BW06	23.43	118	eP	43	17.50	-0.5
	2.3s	66.94nm			4.8mb	
TNP	24.04	136	eP	43	25.00	1.2
	0.9s	10.42nm			4.4mb	
NPN	25.29	133	eP	43	36.50	0.7
YMT6	25.42	136	eP	43	37.80	0.8
YMT3	25.48	136	eP	43	37.90	0.3
LSM	25.58	136	eP	43	39.00	0.5
PANV	25.58	138	eP	43	39.50	0.9
MSU	25.68	127	eP	43	40.00	0.4
ALE	31.28	14	eP	44	29.00	-0.4
	0.8s	7.00nm			4.6mb	
FRB	32.92	50	eP	44	44.00	0.2
MEO	34.99	114	eP	45	00.90	-1.2
	0.8s	2.80nm			4.2mb	
SIO	35.36	110	e(P)	45	04.30	-0.9
LNO	35.49	110	e(P)	45	05.30	-0.9
TUL	35.49	110	eP	45	05.00	-1.3
	0.7s	7.60nm			4.7mb	
RLO	35.68	108	e(P)	45	06.80	-1.1
DAG	40.41	18	iPd	45	46.80	-0.1
	0.7s	4.79nm			4.3mb	
NB2	59.09	17	P	48	08.50	-1.6
	0.9s	6.20nm			4.7mb	
MFF	70.28	29	eP	49	23.30	0.5
	0.8s	9.10nm			5.0mb	
LOR	70.66	26	eP	49	25.20	0.1
	1.0s	6.00nm			4.7mb	
SSF	70.77	27	eP	49	26.00	0.2
	0.6s	1.80nm			4.4mb	
AVF	70.99	27	eP	49	27.20	0.1
	0.6s	2.70nm			4.6mb	
BGF	71.08	27	eP	49	27.80	0.1
	0.8s	7.20nm			4.9mb	
TCF	71.18	28	eP	49	28.20	-0.1
	0.6s	2.70nm			4.5mb	
SMF	71.24	27	eP	49	28.50	-0.1
	0.8s	4.00nm			4.6mb	
MAF	71.33	28	eP	49	29.40	0.2
	0.8s	4.00nm			4.6mb	
LPO	72.41	29	eP	49	36.00	0.4
	0.8s	11.80nm			5.0mb	
SPA	147.64	180	e(PKP)	57	53.20	3.5X
	1.0s	4.50nm				

S.D. = 1.0 on 70 of 77 obs.

? FEB 17, 1989 07h 46m 10.09± 1.51s
27.207 N ±13.8km 140.081 E ±38.0km
DEPTH = 420.9 ± 15.1 km
4.5mb (1 obs.)
BONIN ISLANDS REGION (212)

CHJJ	B.86	354	P	48	16.30	0.2
			eS	49	54.10	
KAKJ	8.97	0	P	48	16.80	-0.5
			eS	49	54.80	
MAT	9.44	351	(P)	48	23.00	0.3
NIIJ	10.05	355	P	48	29.60	0.0
WB5	47.13	187	eP	54	04.10	0.0
YKA	72.93	28	P	56	56.30	0.2
SUF	76.28	334	iP	57	14.60	-0.3
	0.3s	3.40nm			4.5mb	
NUR	78.11	333	iP	57	25.10	0.2

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

% FEB 17, 1989 09h 21m 03.24± 0.88s
39.109 N ± 7.6km 27.588 E ± 9.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.75	200	ePg	21	17.90	-0.1
			eSg	21	28.90	
DST	0.95	58	ePg	21	21.80	0.5

17d 09h

EZN 1.21 307 ePn 21 26.00 0.2
BNT 1.27 11 iPn 21 26.90 0.1
KCT 1.28 27 iPn 21 26.40 -0.6
S.D. = 0.6 on 5 of 5 obs.

& FEB 17, 1989 09h 30m 24.90s
38.500 N 122.255 W
DEPTH = 4.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 2.6 (BRK).

NWRM 0.50 265 eP 30 34.60 -0.3
ZSP 0.55 180 ePd 30 36.30 0.3
eS 30 45.80
BKS 0.62 179 iPc 30 37.40 0.1
iS 30 47.20
MHC 1.25 157 e(P)c 30 46.25 -2.6
ARN 1.28 153 eP 30 47.00 -2.3
KVN 3.29 79 eP 31 23.00 4.5
6 obs. associated

FEB 17, 1989 09h 52m 03.00± 0.77s
43.421 N ± 4.7km 5.421 E ± 5.8km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.8 (STR).

GELF 0.04 173 Pg 52 04.88 -0.2
TREF 0.20 352 Pg 52 06.96 -0.5
BERF 0.22 119 Pg 52 08.65 0.8
PUYF 0.23 61 Pg 52 07.20 -0.8
PRAF 0.42 335 Pg 52 12.00 0.3
VILF 0.48 26 Pg 52 12.18 -0.6
TAVF 0.50 67 Pg 52 12.35 -0.9
GANF 0.68 31 Pg 52 16.84 0.4
CALN 1.12 72 Pg 52 24.72 0.7
MVIF 1.34 69 Pn 52 28.10 0.3
Sg 52 46.20
TOUF 1.45 65 Pn 52 29.69 0.2
Sg 52 49.95
AURF 1.46 71 Pn 52 29.53 0.1
AUTN 1.56 68 Pn 52 31.64 0.6
Sg 52 53.69
SAOF 1.65 69 Pn 52 32.11 0.0
DOI 1.70 50 P 52 34.00 1.0
eSn 52 58.50
BNI 1.86 28 P 52 38.50 3.2X
eSn 53 05.00
CKI 2.30 63 P 52 45.00 3.5X
CVF 2.67 107 Pn 52 45.50 -1.3
S.D. = 0.7 on 16 of 18 obs.

% FEB 17, 1989 10h 43m 12.80± 2.51s
60.573 N ±10.9km 4.720 E ±20.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.6 (BER).

BER 0.36 122 eP 43 19.83 -0.3
eSg 43 23.06
HYA 0.93 50 eP 43 30.49 -0.1
eS 43 43.29
ODD1 1.16 124 iP 43 34.19 -0.3
iS 43 48.16
KMY 1.39 169 eP 43 37.59 -0.6
eS 43 54.89
BLS1 1.59 137 eP 43 42.49 1.3
eS 44 01.56
S.D. = 1.1 on 5 of 5 obs.

? FEB 17, 1989 12h 07m 03.38± 5.54s
40.271 N ±13.6km 124.941 W ±48.5km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF NORTHERN CALIF. (35)
ML 3.1 (BRK).

FHC 0.90 54 iPc 07 20.70 0.0
iS 07 34.20
WDC 1.86 80 eP 07 35.80 0.3
LTCM 2.16 91 eP 07 40.00 0.1
LBFM 2.55 64 eP 07 45.50 -0.2
MHC 3.90 138 ePc 08 04.55 -0.2
SAO 4.45 141 ePc 08 12.62 0.2
iS 09 03.68
KVN 5.42 101 eP 08 26.10 -0.3
S.D. = 0.3 on 7 of 7 obs.

% FEB 17, 1989 12h 31m 36.83± 0.61s
41.073 N ± 5.5km 28.461 E ± 5.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

CTT 0.08 342 ePg 31 38.70 -0.6
ISK 0.45 91 ePg 31 46.00 0.0
BNT 0.83 210 iPn 31 52.80 0.0
KCT 0.83 186 iPn 31 52.80 -0.1
YLV 0.86 126 iPn 31 53.30 -0.1
DMK 0.92 325 iPn 31 54.80 0.5
HRT 0.95 105 ePn 31 55.20 0.3
S.D. = 0.4 on 7 of 7 obs.

• FEB 17, 1989 13h 24m 09.99± 1.78s
31.612 S ±10.8km 69.527 W ±18.0km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.63 79 iPd 24 23.80 1.2
S 24 35.20
RTCV 0.88 107 iPc 24 26.00 0.0
S 24 39.50
RTLL 0.95 73 iPd 24 25.80 -1.2
S 24 39.00
MDZ 1.39 156 iP 24 33.30 -0.1
iS 24 54.40
RTRS 1.44 2 iPc 24 34.00 0.1
S 24 53.50
S.D. = 1.2 on 5 of 5 obs.

FEB 17, 1989 13h 43m 26.65± 0.41s
22.175 S ± 8.1km 68.410 W ± 8.2km
DEPTH = 122.2km (9 depth phases)
4.7mb (3 obs.)
NORTHERN CHILE (123)

HJA 2.96 111 iPc 44 15.90 2.8
S 44 31.20
FSA 4.47 151 e(P) 44 34.20 0.8
CCH 5.22 25 P 44 46.50 2.4
CNCB 5.35 4 P 44 47.30 1.3
LPB 5.62 3 eP 44 55.00 5.4X
ZOBO 5.88 3 P 44 47.50 -5.8X
Z 20s 0.15um
LR 46 12.00
PEL 11.11 190 eP 46 02.00 -1.1
VAO 19.82 96 e(P) 47 48.00 -2.0
BAO 20.37 75 eP 47 54.00 -1.8
ITA 21.94 95 eP 48 11.10 -0.5
ATB 24.48 42 Pd 48 33.60 -2.2
ELC 62.31 341 P 53 35.70 -2.3
pP 54 05.80 124km
FVM 63.32 341 P 53 42.80 -1.8
pP 54 12.30 121km
MEO 63.48 332 eP 53 43.50 -2.3
1.2s 14.00nm 4.8mb
ALQ 67.31 327 iPd 54 10.00 -0.6
1.0s 15.50nm 4.8mb
epP 54 40.00 121km
KIC 68.45 73 P 54 17.00 -0.8
GOL 70.57 331 P 54 30.00 -0.6
pP 55 00.50 122km
MSU 73.00 325 P 54 45.20 0.2
pP 55 16.00 123km
NOP 73.48 321 P 54 47.50 -0.1
NPN 73.86 323 P 54 51.00 1.0
DAU 73.94 327 P 54 51.00 0.5
pP 55 21.40 121km
LSM 73.98 322 P 54 51.30 0.8
pP 55 22.10 122km
YMT3 74.09 322 P 54 51.80 0.6
pP 55 22.80 123km
SRG 74.10 323 P 54 52.30 1.0
BGB 74.16 322 P 54 52.00 0.3
YMT5 74.19 322 P 54 52.40 0.6
TPU 74.23 323 P 54 52.30 0.2
BMTN 74.57 322 P 54 54.30 0.2
KRNA 74.74 322 P 54 55.50 0.4
BW06 74.93 330 P 54 55.00 -1.1
1.2s 7.71nm 4.4mb
GMN 74.93 322 P 54 56.30 0.1
LCH 75.11 321 P 54 57.50 0.4
PPK 75.39 321 P 54 59.10 0.3
TNP 75.45 322 P 54 59.40 0.3
KVN 76.62 322 P 55 05.60 0.0
pP 55 36.80 123km

SES 81.48 334 eP 55 31.00 -0.4
YKA 91.97 340 P 56 22.10 0.0
BNI 95.48 43 P 56 45.40 6.6X
eSn 57 10.00
DOI 95.61 44 P 56 41.00 1.7
eSn 57 03.00
CKI 96.25 45 P 56 47.40 5.3X
BOB 97.15 45 P 57 01.70 15.5X
WRA 132.60 210 PKP 02 31.00 1.9
0.6s 1.30nm
GBA 146.46 99 PKPd 02 54.30 0.2
0.5s 2.00nm
AAI 149.60 214 ePKP 02 40.50 -18.7X
S.D. = 1.3 on 38 of 44 obs.

FEB 17, 1989 13h 56m 10.00± 0.72s
43.415 N ± 4.4km 5.422 E ± 5.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.0 (STR).

GELF 0.03 173 Pg 56 11.68 -0.4
TREF 0.21 352 Pg 56 14.20 -0.4
BERF 0.22 117 Pg 56 15.10 0.3
PUYF 0.23 60 Pg 56 14.37 -0.7
PRAF 0.43 335 Pg 56 19.30 0.5
VILF 0.49 26 Pg 56 19.23 -0.7
TAVF 0.50 66 Pg 56 19.72 -0.5
GANF 0.68 31 Pg 56 23.69 0.2
CALN 1.12 72 Pg 56 31.52 0.5
Sg 56 47.38
MVIF 1.34 68 Pn 56 35.42 0.6
Sg 56 53.99
TOUF 1.45 65 Pn 56 37.05 0.6
Sg 56 56.59
AURF 1.46 70 Pn 56 36.72 0.2
AUTN 1.57 68 Pn 56 38.67 0.6
Sg 57 00.82
SAOF 1.65 69 Pn 56 39.22 0.1
CVF 2.67 107 Pn 56 52.87 -0.9
S.D. = 0.6 on 15 of 15 obs.

• FEB 17, 1989 14h 16m 32.57± 2.41s
14.914 S ±24.8km 121.129 E ±16.5km
DEPTH = 33.0km (normal)
NORTHWEST OF AUSTRALIA (588)

MBL 6.33 191 eP 18 07.00 0.9
0.1s 8.00nm 5.4mb X
eS 19 16.00
KNA 7.42 97 eP 18 22.00 0.7
eS 19 41.00
NANU 9.27 214 eP 18 47.00 0.0
0.2s 5.00nm 5.4mb X
eS 20 25.00
MTN 9.93 79 eP 18 56.00 -0.1
eS 20 36.00
MEKA 11.89 191 eP 19 22.00 -0.8
0.3s 3.00nm 4.9mb X
eS 21 29.00
WARB 12.34 156 eP 19 21.00 -7.9X
eS 21 34.00
WB5 13.56 113 eP 19 44.20 -1.0
eS 22 07.70
ASPA 14.86 128 eP 20 02.50 0.3
S.D. = 0.9 on 7 of 8 obs.

% FEB 17, 1989 14h 17m 58.93± 2.96s
36.684 N ±17.5km 141.646 E ±25.4km
DEPTH = 10.0km (geophysicist)
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ 1.28 249 iPd 18 22.00 -0.6
S 18 36.90
YAMJ 1.96 320 iPd 18 32.40 -0.2
eS 18 55.90
NIIJ 2.19 285 iPd 18 35.60 -0.3
CHJJ 2.23 254 iPd 18 35.70 -0.8
S 19 00.10
OFUJ 2.39 0 P 18 38.10 -0.7
eS 19 07.00
MAT 2.77 268 iPd 18 44.30 0.1
eS 19 25.00
MTMJ 3.09 269 P 18 49.10 0.4
IIDJ 3.25 249 P 18 52.30 1.2
AOMJ 4.00 346 eP 19 02.30 0.8
S.D. = 0.8 on 9 of 9 obs.

FEB 17, 1989 15h 12m 52.64± 0.81s
17.492 S ± 6.9km 72.590 W ± 7.0km
DEPTH = 45.7 ± 6.3 km
5.2mb (16 obs.) 5.3Msz (3 obs.)
NEAR COAST OF PERU (115)
Felt (II) at Arequipa.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 23C
Centroid Location:
Origin Time 15:12:55.9 0.5
Lat 17.80S 0.09 Lon 72.68W 0.07
Dep 62.9 6.0 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 3.67 0.36 Mtt= 0.04 0.48
Mff=-3.71 0.50 Mrt= 0.48 0.40
Mrf=-3.62 0.40 Mtf= 3.53 0.56
Principal Axes:
T Val= 5.34 Plg=61 Azm=116
N 1.57 21 340
P -6.91 18 243
Best Double Couple:Mo=6.1*10**16
NP1:Strike=302 Dip=33 Slip= 48
NP2: 170 66 114

ARE	1.47	46	iPc	13	16.60	-0.7
			e(S)	13	34.60	
LPB	4.40	78	iPc	14	01.00	1.9
Z	18s	63.92um				
			LR	15	40.00	
ZOBO	4.44	75	iPc	14	01.00	1.1
CCH	6.16	90	P	14	23.70	0.0
			i	14	30.40	
PEL	15.68	174	iPc	16	30.50	-1.6
MDZ	15.69	168	e(P)	16	32.20	-0.1
ITB1	18.41	116	e(P)	17	01.00	-5.2X
ITB	18.61	116	e(P)	17	07.50	-1.2
PSO	19.14	345	eP	17	14.00	-1.6
BOG	22.02	356	eP	17	47.00	1.7
			iS	21	54.00	
FUQ	22.84	357	eP	17	55.00	1.6
BMG	24.41	359	eP	18	11.50	3.1X
ATB	24.46	57	Pc	18	04.90	-3.8X
VAO	24.64	107	eP	18	08.60	-1.9
ITA	26.64	105	eP	18	27.70	-1.8
UPA	27.18	345	ePc	18	34.10	0.1
Z	20s	8.12um			5.3Msz	
RDJ	28.05	106	eP	18	41.20	-0.7
RSCP	54.22	347	P	22	14.00	-2.1
	0.7s	14.59nm			5.1mb	
RLO	57.43	339	e(P)	22	37.00	-2.1
LNO	57.48	338	eP	22	37.70	-1.6
MEO	57.56	335	eP	22	38.60	-1.5
FVM	57.67	343	P	22	38.10	-2.7
ALQ	61.27	329	eP	23	03.00	-2.9
	0.9s	11.97nm			5.0mb	
Z	18s	0.43um			4.6Msz	
RSNY	61.76	358	P	23	10.00	1.2
	0.9s	12.60nm			5.0mb	
EMM	62.10	4	P	23	16.00	5.0X
MIM	62.52	3	P	23	18.50	4.8X
GAC	62.95	358	eP	23	18.00	1.4
BAR	65.32	320	eP	23	32.00	-0.4
PLM	65.89	320	eP	23	33.00	-3.2X
TPC	65.92	321	eP	23	43.00	6.8X
MSU	66.94	327	P	23	42.50	-0.4
STJ	67.17	14	eP	23	49.00	5.1X
SBB	67.38	321	eP	23	45.00	-0.6
DAU	67.91	329	P	23	48.80	-0.3
CLC	68.02	322	eP	23	48.00	-1.5
KVN	70.53	324	P	24	03.70	-1.4
LIC	70.73	77	Pc	24	06.30	-0.2
	0.8s	62.00nm			5.6mb	
TIC	70.89	76	Pc	24	05.20	-2.3
	1.1s	54.00nm			5.4mb	
LRM	72.62	332	eP	24	24.60	7.1X
LEGH	75.06	79	eP	24	30.50	-1.5
KUK	75.06	78	eP	24	32.00	0.0
KOGH	75.15	79	eP	24	31.00	-1.5
SHGH	75.28	79	eP	24	32.00	-1.2
SES	75.59	336	eP	24	34.00	-0.4
FFC	76.17	343	eP	24	36.50	-1.0
	1.0s	9.00nm			4.7mb	
PNT	78.47	331	eP	24	51.00	0.7
	0.4s	5.00nm			4.9mb	
TIO	79.07	53	iP	24	55.00	0.8
AVE	80.08	51	iPd	25	00.00	0.6
			i	25	13.00	
FRB	81.04	2	eP	25	03.00	-0.6
TUH	82.01	122	e(P)	25	17.00	7.4X
EVAL	82.60	47	e(P)	25	13.00	0.5
EPRU	83.37	48	e(P)	25	17.40	0.9
POF	83.75	119	iPd	25	20.00	1.4
	0.8s	11.19nm			5.0mb	
EHOR	83.76	47	e(P)	25	18.50	0.1
ATEJ	84.22	49	iPd	25	21.60	0.7
EPLA	84.24	45	e(P)	25	21.00	0.2
ALOJ	84.24	48	iPc	25	22.00	1.0
AAPN	84.32	48	iPc	25	22.00	0.6
ACHM	84.44	48	eP	25	22.50	0.6
APHE	84.47	49	iPc	25	22.50	0.3
ASMO	84.61	48	iPd	25	23.40	0.6
ERUA	84.66	43	e(P)	25	23.20	0.4
AFC	84.71	48	e(P)	25	23.00	-0.4
TOL	85.53	46	iPc	25	27.50	0.2
	1.0s	80.00nm			5.9mb	
			eS	35	55.00	
ENIJ	85.54	49	e(P)	25	26.00	-1.3
GUD	85.81	45	e(P)	25	29.00	0.2
EVIA	86.05	48	e(P)	25	31.00	1.0
YKA	86.29	342	P	25	30.10	-0.4
ETOR	87.31	46	e(P)	25	35.40	-0.7
ECHE	87.54	47	e(P)	25	37.00	-0.1
EPF	89.87	45	eP	25	48.80	0.7
	1.0s	16.00nm			5.3mb	
KSR	90.69	117	iPd	25	52.40	-0.1
LFF	90.91	43	eP	25	52.20	-0.5
	1.0s	24.00nm			5.6mb	
LPO	91.10	43	eP	25	53.10	-0.5
	0.8s	13.40nm			5.4mb	
BPI	91.55	118	eP	25	56.00	-0.5
	0.3s	38.96nm			6.3mb X	
SLR	91.91	118	iPd	25	58.00	-0.1
Z	18s	6.19um			6 1Msz	
TCF	92.39	42	eP	25	58.10	-1.5
BNG	92.40	86	iPd	26	00.60	0.3
	0.9s	18.00nm			5.5mb	
			ic	29	37.30	
			ic	29	45.30	
MAF	92.59	42	eP	25	59.70	-0.8
	1.0s	10.00nm			5.2mb	
BGF	92.90	42	eP	26	00.60	-1.3
	0.8s	8.00nm			5.2mb	
LPG	95.06	44	eP	26	12.70	0.5
	1.2s	11.90nm			5.2mb	
INK	96.02	341	eP	26	18.00	2.2
KHC	100.57	42	ePdiff	26	40.20	3.4X
VAY	105.14	51	ePKP	31	14.50	2.8
WRA	134.36	217	PKPd	32	09.60	1.5
	0.4s	0.90nm				
WB5	134.39	217	PKP	32	12.00	3.8X
KSH	145.04	45	ePKP	32	27.00	0.0
MAT	146.85	311	ePKP	32	31.00	1.0
MDJ	147.16	330	ePKP	32	32.50	2.3
POO	148.09	83	ePKP	32	34.30	1.9
WMQ	148.92	28	PKP	32	37.00	3.9X
KOD	150.08	100	ePKP	32	42.00	6.0X
NDI	150.16	63	ePKP	32	36.00	0.7
GBA	150.88	93	PKPd	32	36.20	-0.5
	1.2s	8.00nm				
SNY	152.07	334	ePKP	32	45.60	7.9X
HY8	152.48	86	ePKP	32	39.50	0.4
BJI	156.28	343	ePKP	32	53.00	9.4X
CD2	166.23	13	ePKP	32	57.50	3.3X

S.D. = 1.2 on 81 of 98 obs.

FEB 17, 1989 15h 13m 06.63± 0.53s
44.331 N ± 4.0km 7.295 E ± 5.2km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.5 (GEN).

STV	0.09	166	P	13	09.95	0.6
			S	13	11.70	
PZZ	0.22	322	P	13	12.08	0.6
			S	13	15.10	
TOUF	0.32	186	Pg	13	13.41	0.1
AUTN	0.35	164	Pg	13	13.98	0.1
			Sg	13	18.16	
ROB	0.42	95	P	13	15.53	0.4
			S	13	20.78	
AURF	0.44	177	Pg	13	15.54	-0.2
			Sg	13	21.74	
MVIF	0.45	193	Pg	13	15.59	-0.2
			Sg	13	21.85	
IMI	0.60	134	P	13	18.40	-0.4
			S	13	26.51	
FIN	0.67	100	P	13	19.60	-0.3
			S	13	28.46	
RRL	0.69	328	P	13	19.88	-0.6
			S	13	29.17	

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

% FEB 17, 1989 17h 27m 48.28± 2.70s
43.743 N ± 6.0km 0.206 W ±33.5km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.3 (LDG).

EPF	0.82	151	Pg	28	04.10	0.0
			Sg	28	16.20	
LPO	1.37	46	Pn	28	13.40	0.0
			Pg	28	16.80	
			Sg	28	36.30	
LFF	1.38	29	Pn	28	13.60	0.1
			Pg	28	17.00	
			Sg	28	36.80	
RJF	1.99	38	Pn	28	22.50	0.2
			Pg	28	28.10	
			Sg	28	55.30	
CAF	2.01	53	Pn	28	23.00	0.3
			Pg	28	28.70	
			Sg	28	57.20	
LSF	2.79	26	Pn	28	34.20	0.4
			Pg	28	43.80	
			Sg	29	20.40	
MFF	2.86	1	Pg	28	44.30	9.6X
			Sg	29	21.70	
TCF	3.07	33	Pn	28	37.30	-0.4
			Pg	28	47.90	
			Sg	29	28.80	
MAF	3.16	37	Pn	28	39.10	0.0
			Sg	29	31.20	
BGF	3.55	36	Pn	28	44.60	0.1
			Pg	28	57.40	
			Sg	29	43.80	
SSF	4.22	37	Pn	28	53.40	-0.7

S.D. = 0.4 on 10 of 11 obs.

* FEB 17, 1989 17h 42m 50.40± 0.61s
7.365 S ±13.2km 106.460 E ±10.2km
DEPTH = 33.0km (normal)
4.7mb (1 obs.)
JAVA (277)

KSI	5.34	314	e(P)	43	42.70	-27.3X
TRT	6.13	94	ePd	44	22.50	1.4
			eS	44	51.40	
KHKI	9.12	97	eP	45	03.50	0.8
NANU	17.45	151	eP	46	47.00	-6.0X
			eS	49	46.00	
MBL	18.85	138	eP	47	10.00	-0.3
CHG	27.05	344	eP	48	31.40	-0.5
WB5	29.78	118	eP	48	55.20	-1.4
GBA	35.56	306	P	49	48.00	1.2
HY8	36.97	312	eP	49	59.50	0.7
STK	40.80	131	eP	50	30.00	-0.5
NDI	45.60	323	iPd	51	09.20	-0.3
	0.6s	20.00nm			5.2mb X	
GTA	46.94	353	eP	51	19.50	-0.6
CN2	53.75	17	eP	52	10.60	-1.1
MAIO	61.85	318	eP	53	01.00	-8.0X
BNG	88.50	275	ePd	55	42.10	0.5
	0.7s	3.00nm			4.7mb	

S.D. = 1.0 on 12 of 15 obs.

* FEB 17, 1989 18h 38m 28.88± 2.11s
32.852 S ±10.9km 71.500 W ±14.8km
DEPTH = 11.7 ± 6.4 km
NEAR COAST OF CENTRAL CHILE (135)

ROCH	0.43	106	iPd	38	38.80	1.0
			iS	38	41.00	
LCCH	0.62	185	iPc	38	41.80	0.6
			iS	38	51.00	
PEL	0.74	113	iPd	38	43.70	0.4
JACH	0.78	78	iPc	38	43.00	-1.0
SAN	0.92	131	iPd	38	46.30	-0.1
			iS	39	00.10	
TACH	0.93	150	iPd	38	46.40	0.0

17d 18h

LNV	1.10	176	iPc	38 49.00	-0.4
			iS	39 04.00	
FCH	1.12	115	iP	38 48.80	-1.2
PCH	1.13	133	iPd	38 49.50	-0.4
			iS	39 06.60	
CHCH	1.29	147	iPd	38 52.50	-0.2
			iS	39 11.00	
MDZ	2.23	92	eP	39 08.10	1.8
			i(S)	39 44.30	
ZON	2.72	62	eP	39 13.00	-0.3
CFA	3.03	67	ePd	39 17.50	-0.1
S.D. = 0.9			on	13 of 13 obs.	

FEB 17, 1989 20h 04m 59.72± 0.32s
44.950 N ± 2.5km 6.941 E ± 3.5km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.8 (GEN), 2.7 (LDG).

RRL	0.11	255	P	05 02.01	-0.9
			S	05 03.78	
BNI	0.21	299	Pc	05 03.90	-0.6
			eSg	05 06.50	
RSP	0.30	48	P	05 06.75	0.7
			S	05 11.45	
PZZ	0.46	166	P	05 08.60	-0.5
			S	05 14.90	
DOI	0.50	154	P	05 09.20	-0.6
			eSg	05 15.30	
LSD	0.53	17	P	05 10.44	-0.1
			S	05 18.19	
LPG	0.56	346	Pg	05 11.20	-0.2
			Sg	05 18.50	
LPL	0.59	346	Pg	05 11.70	0.0
			Sg	05 19.10	
STV	0.76	159	P	05 14.35	-0.2
			S	05 24.24	
ROB	0.93	134	P	05 17.42	-0.1
			S	20 29.87	
ORO	1.00	47	Pd	05 18.90	0.2
			eSg	05 32.00	
ORX	1.00	47	P	05 18.98	0.2
			S	05 32.34	
CKI	1.09	118	P	05 18.80	-1.4
			eSg	05 35.20	
SBF	1.14	162	Pg	05 22.20	1.0
			Sg	05 37.00	
FIN	1.17	129	P	05 21.72	0.1
			S	05 36.25	
IMI	1.24	146	P	05 22.75	-0.1
			S	05 37.30	
FRF	1.40	189	Pn	05 26.20	0.9
			Pg	05 27.30	
			Sg	05 44.60	
LRG	1.55	196	Pn	05 28.50	1.1
			Sg	05 50.40	
LMR	1.65	191	Pn	05 28.90	0.1
			Sg	05 52.40	
BGF	3.29	301	Pn	05 52.60	0.3
S.D. = 0.7			on	20 of 20 obs.	

* FEB 17, 1989 21h 26m 03.37± 0.98s
40.949 N ±12.9km 21.344 E ± 7.4km
DEPTH = 22.4 ± 12.0 km
GREECE (364)

OHR	0.44	292	iPgc	26 12.50	-0.1
			iSg	26 20.50	
GRG	0.80	89	eP	26 18.20	-0.3
			eS	26 34.20	
VAY	1.00	68	ePn	26 21.70	-0.2
KNT	1.19	79	eP	26 25.40	0.6
			eS	26 45.30	
LIT	1.22	134	eP	26 25.30	0.2
			eS	26 45.10	
PAIG	2.05	119	eP	26 36.90	-0.2
S.D. = 0.6			on	6 of 6 obs.	

FEB 17, 1989 22h 46m 25.91± 0.65s
36.056 N ± 9.2km 27.294 E ± 7.6km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
MD 3.5 (ATH).

KAP	0.51	191	eP	46 36.10	-0.2
			eS	46 42.40	
NPS	1.58	240	eP	46 53.50	-0.6
KSL	1.86	87	eP	46 58.20	0.2
ELL	2.22	71	iPn	47 03.80	0.4
VAM	2.60	256	eP	47 09.50	0.8
KHL	2.88	38	ePn	47 12.00	-0.7
BCK	2.99	61	iPn	47 14.50	0.1
S.D. = 0.7			on	7 of 7 obs.	

FEB 17, 1989 23h 21m 32.13± 1.04s
43.519 N ± 9.2km 11.144 E ± 5.3km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.7 (ROM).

FIR	0.27	18	iPgc	21 38.50	0.7
			iSg	21 43.00	
PII	0.49	294	P	21 41.90	-0.2
			eSg	21 48.90	
PGD	0.55	49	P	21 43.20	-0.1
			eSg	21 51.60	
CRE	0.60	79	P	21 44.70	0.4
			eSg	21 51.80	
SFI	0.65	52	P	21 43.90	-1.2
			eSg	21 53.40	
BDI	0.67	324	P	21 45.40	-0.1
			eSg	21 54.70	
MME	0.75	335	P	21 47.20	0.3
			eSg	21 57.80	
ASS	1.19	112	P	21 54.60	0.2
S.D. = 0.7			on	8 of 8 obs.	

FEB 17, 1989 23h 24m 31.07± 1.58s
43.470 N ±14.2km 11.124 E ± 4.7km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 3.0 (ROM). Felt at Barberino di Val d'Elsa.

FIR	0.32	17	iPgc	24 38.20	0.4
			iSg	24 43.00	
PII	0.50	300	Pd	24 41.60	0.3
			eSg	24 49.10	
PGD	0.59	47	P	24 42.90	-0.3
			eSg	24 50.90	
CRE	0.62	75	P	24 44.00	0.3
			eSg	24 52.80	
SFI	0.69	49	P	24 44.30	-0.5
			eSg	24 53.40	
BDI	0.70	327	P	24 44.80	-0.2
			eSg	24 55.40	
MME	0.79	337	P	24 46.70	0.2
			eSg	24 57.20	
RSM	1.07	64	P	24 51.30	0.2
BOB	1.77	318	P	25 01.60	-0.4
S.D. = 0.4			on	9 of 9 obs.	

? FEB 17, 1989 23h 48m 07.92± 5.77s
37.628 N ±43.5km 20.847 E ±29.4km
DEPTH = 10.0km (geophysicist)
IONIAN SEA (399)
ML 3.2 (ATH).

VLS	0.58	340	ePg	48 20.00	0.2
			eSg	48 29.50	
ATH	2.30	81	ePb	48 46.80	0.4
			eSn	49 12.60	
NEO	2.51	47	ePn	48 48.80	-0.6
KZN	2.77	15	ePn	48 54.50	1.3
PLG	3.41	36	ePn	49 01.00	-1.2
OHR	3.48	359	ePn	49 01.50	-1.7
VAY	3.92	19	ePn	49 11.00	1.6
S.D. = 1.5			on	7 of 7 obs.	

? FEB 18, 1989 00h 19m 51.67± 7.15s
31.660 N ±16.2km 35.296 E ±44.7km
DEPTH = 10.0km (geophysicist)
DEAD SEA REGION (373)

MKRJ	0.31	110	Pd	19 58.40	0.2
MASJ	0.37	79	Pd	19 58.90	-0.3
KFNJ	0.38	58	Pc	19 59.60	0.1
SALJ	0.48	43	Pd	20 01.90	0.5
JARJ	0.80	44	Pd	20 06.80	-0.4
S.D. = 0.5			on	5 of 5 obs.	

& FEB 18, 1989 00h 32m 32.24s
60.034 N 153.462 W
DEPTH = 154.0km

SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.26	79	iP	32 52.65	0.8
			eS	33 09.49	
AUL	0.65	179	eP	32 54.59	-0.5
AUE	0.68	176	eP	32 54.59	-0.7
AUI	0.70	179	eP	32 54.80	-0.6
RDT	0.75	44	iP	32 55.11	-0.8
NNL	1.09	89	eP	32 58.56	0.2
CNPM	1.24	113	iP	32 58.96	-0.8
NKA	1.31	56	eP	32 59.39	-1.1
BRLK	1.33	101	eP	32 59.85	-0.8
SPU	1.34	30	iP	32 59.97	-0.9
CRP	1.39	27	eP	33 00.81	-0.7
			eS	33 22.70	
CGLM	1.47	29	iP	33 01.21	-1.0
SVW	1.52	316	eP	33 01.63	-1.0
SLKM	1.68	72	iP	33 03.28	-1.2
SEW	2.01	86	eP	33 06.99	-1.1
PMS	2.27	56	eP	33 09.45	-1.8
			eS	33 38.26	
PTE	2.35	67	eP	33 09.89	-2.2
PWA	2.39	46	eP	33 10.39	-2.2
GHO	2.82	50	eP	33 15.28	-2.8
KNK	2.82	58	eP	33 15.30	-2.7
KNIM	2.88	81	iP	33 16.83	-1.9
MTU	2.92	88	eP	33 18.08	-1.2
SML	3.07	52	iP	33 18.31	-2.9
GLI	3.27	72	eP	33 21.27	-2.4
			eS	33 58.20	
FID	3.54	75	eP	33 24.94	-2.3
VZW	3.56	70	eP	33 26.18	-1.4
VLZ	3.69	70	eP	33 27.77	-1.3
KLU	3.98	65	eP	33 30.55	-2.5
TOA	4.11	56	eP	33 32.63	-2.1
SGAM	4.14	80	eP	33 32.92	-2.2
30 obs. associated					

FEB 18, 1989 00h 49m 41.24± 0.21s
2.424 N ± 3.6km 126.814 E ± 6.6km
DEPTH = 33.0km (normal)
5.1mb (19 obs.) 4.9Msz (1 obs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 21C
Centroid Location:
Origin Time 00:49:45.5 0.9
Lat 2.68N 0.09 Lon 126.82E 0.13
Dep 15.0 FIX Half-duration 2.1
Moment Tensor; Scale 10**17 Nm
Mrr= 0.60 0.10 Mtt=-0.08 0.07
Mff=-0.52 0.13 Mrt= 0.64 0.16
Mrf=-1.76 0.18 Mtf=-0.06 0.09
Principal Axes:

	Val=	Plg=	Azm=
T	2.03	52	65
N	-0.16	5	162
P	-1.87	37	256

Best Double Couple:Mo=1.9*10**17
NP1:Strike= 17 Dip=10 Slip= 125
NP2: 161 82 84

MNI	2.20	244	ePd	50 21.00	4.8X
			eS	50 59.20	
DAV	4.79	345	eP	50 55.00	2.0
AAI	6.22	167	eP	51 25.00	11.7X
TSM	8.91	282	eP	51 57.00	6.3X
TLE	9.96	144	ePc	52 10.00	4.8X
QCP	13.39	335	eP	52 52.00	0.5
JAY	14.73	109	ePd	53 15.30	6.2X
BAG	15.19	337	eP	53 15.00	-0.3
MTN	15.76	164	eP	53 21.00	-1.6
			e	53 28.00	
TRT	17.36	234	ePd	53 46.80	4.1X
KNA	18.16	174	eP	53 53.00	0.3
GUMO	21.01	57	eP	54 22.50	-2.1
WB5	23.37	162	eP	54 47.20	-0.8
			eS	58 57.00	
QIZ	23.42	316	eP	54 49.00	0.6
N 13s 0.80um					
			eS	58 53.00	
			sS	59 16.00	
			SS	59 47.00	
WRA	23.42	162	Pc	54 49.70	1.2
0.4s 13.90nm 4.8mb					
GZH	24.34	329	Pc	54 57.80	0.5

MBL	24.41	196	eP	55	00.00	1.9
QIS	26.06	152	eP	55	13.00	-0.6
	0.6s	45.00nm			5.2mb	
ASPA	26.84	165	ePd	55	20.40	-0.4
	0.5s	38.00nm			5.3mb	
			eS	59	45.70	
PSI	27.86	271	ePc	55	29.40	-0.8
WARB	28.44	180	eP	55	28.00	-7.2X
LOE	28.78	303	eP	55	38.00	-0.4
CTA	29.40	140	eP	55	45.00	1.0
MEKA	29.96	195	eP	55	49.00	0.1
	0.3s	10.00nm			5.1mb	
WHN	30.36	338	eP	55	53.00	0.7
Z	26s	2.95um			4.8MszX	
			eS	00	50.00	
GYA	30.75	323	eP	55	56.00	0.0
CHG	31.78	303	iPd	56	05.00	-0.1
	0.8s	15.30nm			4.9mb	
KMI	32.37	316	Pc	56	11.00	0.7
			pP	56	26.50	63kmX
FORR	33.11	178	iPc	56	15.70	-0.7
	0.3s	38.00nm			5.8mb	
COOL	33.56	189	eP	56	19.00	-1.4
	0.4s	8.00nm			5.0mb	
BAL	34.23	196	eP	56	27.00	0.8
	0.4s	3.00nm			4.6mb	
TIA	34.79	346	P	56	30.00	-1.0
KLB	34.91	194	eP	56	32.00	0.0
	0.5s	10.00nm			5.0mb	
MAT	35.54	16	eP	56	35.00	-2.4
	1.8s	468.18nm			6.1mb	
Z	22s	2.22um			4.9Msz	
		(S)	02	08.00		
MUN	35.66	196	eP	56	39.00	0.6
RMQ	35.71	145	eP	56	44.00	5.1X
CD2	35.75	325	P	56	38.40	-0.8
NWAO	36.31	194	eP	56	44.00	0.2
	0.5s	8.00nm			4.9mb	
STK	36.89	159	iPd	56	48.50	-0.2
	0.8s	63.00nm			5.5mb	
RKG	37.45	193	eP	56	59.50	6.1X
TIY	37.52	341	P	56	52.90	-1.2
N	25s	3.90um				
		S	02	41.00		
CMS	38.26	153	eP	57	00.00	-0.3
BJI	38.67	347	eP	57	03.50	0.0
Z	24s	0.65um			4.4MszX	
		eS	02	54.00		
BRS	38.79	142	iPd	57	04.60	-0.2
ADE	38.83	164	eP	57	05.00	-0.1
SNY	39.34	356	eP	57	09.50	0.4
Z	28s	1.30um			4.6MszX	
N	26s	1.20um				
E	28s	1.00um				
		S	03	08.00		
LZH	39.67	330	eP	57	12.00	-0.2
	2.0s	110.00nm			5.3mb	
Z	27s	2.40um			4.9MszX	
		i	57	34.00		
COO	40.61	146	eP	57	20.00	0.2
HHC	40.66	342	eP	57	20.00	-0.2
BTO	40.93	340	eP	57	22.80	0.4
MDJ	42.09	3	Pc	57	32.50	0.8
Z	30s	1.60um			4.7MszX	
		S	03	45.00		
CAN	42.91	153	eP	57	39.70	1.1
LSA	43.37	312	P	57	43.70	0.8
		S	04	08.00		
GTA	44.26	330	P	57	49.40	-0.2
E	22s	2.00um				
		PP	59	34.70		
KOD	49.60	281	eP	58	31.60	-0.6
HYB	49.64	291	iPc	58	31.80	-0.4
GBA	50.04	286	Pd	58	32.90	-2.2
	1.0s	17.70nm			5.0mb	
WMQ	53.84	326	iPd	59	03.00	-0.3
Z	24s	1.00um			4.8MszX	
		ScS	08	48.00		
NDI	53.91	304	eP	59	02.00	-2.0
KSH	58.99	316	eP	59	41.00	0.6
MAIO	70.37	308	eP	00	54.00	-0.3
		eS	10	04.00		
TAB	81.02	308	eP	01	57.00	2.3
TTA	82.02	27	eP	02	00.50	1.2
BRW	83.38	18	eP	02	07.80	1.7
IMA	83.54	24	eP	02	08.60	1.4
	1.2s	43.00nm			5.5mb	

PMR	85.04	29	eP	02	14.90	0.3
	1.0s	35.00nm			5.5mb	
INK	91.34	22	eP	02	44.00	-0.6
BBTK	91.58	310	eP	02	47.00	0.5
SOD	91.70	338	eP	02	46.00	-0.3
KJF	91.80	334	eP	02	47.00	0.2
SUF	92.75	333	eP	02	51.00	-0.2
MBC	93.20	13	eP	02	53.00	-0.1
VRI	95.29	316	eP	03	04.50	1.2
MLR	95.89	316	eP	03	06.00	-0.2
DAG	98.57	352	iPc	03	16.20	-1.3
	1.0s	9.00nm			5.3mb	
SLL	99.25	333	ePKP	03	13.80	-7.1X
	0.4s	1.30nm			4.8mb	
Z	24s	0.58um			5.0MszX	
			LR	45	35.00	
NB2	99.99	334	P	03	23.00	-1.3
	0.9s	2.70nm			4.8mb	
PEL	145.32	154	iPKP	09	18.00	0.0
CNCB	159.60	135	ePKP	09	41.00	1.7
LPB	159.71	135	ePKP	09	39.00	-0.2
ZOBO	159.86	134	PKP	09	22.00	-17.6X

S.D. = 1.0 on 70 of 81 obs.

FEB 18, 1989 00h 58m 24.06± 0.86s
33.122 S ± 9.9km 70.143 W ± 7.8km
DEPTH = 123.5 ± 9.4 km
CHILE-ARGENTINA BORDER REGION (127)

FCH	0.24	211	iPd	58	41.50	-0.5
PEL	0.46	267	iPc	58	42.50	0.0
SAN	0.55	233	iPd	58	43.00	0.0
			iS	58	56.50	
JACH	0.58	319	iPc	58	42.70	-0.6
PCH	0.59	212	iPd	58	43.50	0.2
			iS	58	58.00	
ROCH	0.74	281	iP	58	44.40	-0.3
TACH	0.85	231	iPd	58	45.50	0.2
CHCH	0.91	208	iPd	58	46.50	0.6
			iS	59	03.00	
MDZ	1.11	78	iP	58	47.60	-0.3
			iS	59	05.70	
LCCH	1.25	253	iPc	58	49.50	0.3
			iS	59	05.80	
LNV	1.35	232	iPc	58	50.00	-0.3
			iS	59	09.00	
RTCV	1.85	48	iPc	58	56.40	0.1
			(S)	59	21.00	
RTCB	1.99	35	iPd	58	58.50	0.4
			S	59	24.00	
ZON	2.00	39	iPd	58	58.00	-0.2
			eS	59	23.00	
CFA	2.21	47	iPd	59	00.70	-0.1
RTLL	2.28	39	iPd	59	01.80	0.0
			S	59	29.50	
RTRS	3.00	11	iPd	59	12.20	1.1
CNCB	16.36	7	P	02	10.00	1.6
LPB	16.62	7	(P)	02	11.00	-0.5
ZOBO	16.88	7	(P)	02	13.00	-1.8

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

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* FEB 18, 1989 00h 59m 24.68± 0.68s
2.460 N ±10.7km 127.000 E ±13.2km
DEPTH = 33.0km (normal)
4.6mb (3 obs.)
MOLUCCA PASSAGE (266)

MNI	2.38	245	iPc	00	04.60	2.3
			eS	00	38.00	
MTN	15.75	165	eP	03	09.00	3.2X
WB5	23.35	162	eP	04	31.00	-0.2
WRA	23.40	162	Pd	04	31.60	-0.1
	0.3s	2.90nm			4.3mb	
QIS	26.00	152	iPc	04	56.70	0.2
ASPA	26.82	166	eP	05	04.10	0.0
WARB	28.48	181	eP	05	11.30	-7.7X
FORR	33.14	178	eP	05	59.00	-1.1
STK	36.86	159	eP	06	32.00	0.1
BJI	38.68	347	eP	06	47.50	0.5
HYB	49.80	291	eP	08	15.00	-1.8
GBA	50.21	286	P	08	18.00	-1.8
BRW	83.28	18	eP	11	52.00	3.0X
IMA	83.43	24	eP	11	51.60	1.5
	0.8s	4.30nm			4.6mb	
PMR	84.92	29	eP	11	57.90	0.5
	0.9s	6.20nm			4.8mb	

S.D. = 1.3 on 12 of 15 obs.

FEB 18, 1989 01h 11m 16.45± 0.40s
2.512 N ± 6.3km 126.961 E ±11.4km
DEPTH = 33.0km (normal)
4.9mb (7 obs.)
MOLUCCA PASSAGE (266)

MNI	2.37	243	iPc	11	56.70	2.8
			eS	12	29.00	
MTN	15.81	165	eP	15	03.00	4.6X
KNA	18.23	174	eP	15	29.00	0.2
WB5	23.41	162	eP	16	22.50	-1.1
WRA	23.46	162	Pd	16	23.60	-0.5
	0.7s	12.80nm			4.5mb	
QIS	26.06	152	eP	16	48.00	-0.9
ASPA	26.88	166	eP	16	55.70	-0.7
WARB	28.53	181	eP	17	03.40	-7.9X
FORR	33.19	178	eP	17	51.00	-1.3
	0.4s	23.00nm			5.4mb	
COOL	33.67	189	eP	17	57.00	0.4
KLB	35.03	194	eP	18	08.00	-0.2
	0.5s	4.00nm			4.6mb	
CD2	35.76	325	eP	18	13.30	-1.2
NWAO	36.43	194	eP	18	21.00	1.0
STK	36.92	159	eP	18	24.00	-0.2
TIY	37.48	341	eP	18	29.00	0.0
Z	30s	0.80um			4.3MszX	
BJI	38.62	347	eP	18	38.50	0.2
MDJ	41.99	3	Pc	19	07.20	1.1
CAN	42.93	153	eP	19	14.20	0.2
GTA	44.25	330	eP	19	23.80	-1.0
			PP	21	10.00	
HYB	49.75	291	eP	20	07.00	-1.2
GBA	50.15	286	P	20	10.00	-1.2
WMQ	53.85	325	P	20	37.90	-0.7
MAIO	70.43	308	eP	22	30.00	0.1
BRW	83.25	18	eP	23	42.70	2.1
IMA	83.40	24	ePc	23	43.40	1.7
	0.8s	9.40nm			5.0mb	
PMR	84.90	29	eP	23	49.90	0.8
	0.8s	8.60nm			5.0mb	
KJF	91.78	334	eP	24	21.00	-0.9
SUF	92.73	333	iP	24	25.50	-0.8
	0.6s	3.10nm			4.9mb	
MBC	93.08	13	eP	24	28.00	0.2
NB2	99.97	334	P	24	57.80	-1.7
	0.7s	1.80nm			4.7mb	
CNCB	159.56	135	PKP	31	17.00	2.6
LPB	159.66	134	(PKP)	31	10.00	-4.4X

S.D. = 1.2 on 29 of 32 obs.

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* FEB 18, 1989 02h 42m 40.39± 0.61s
31.872 S ±15.3km 178.470 W ±12.0km
DEPTH = 33.0km (normal)
KERMADEC ISLANDS REGION (177)

RAO	2.65	10	iP	43	20.60	-1.2
			eS	43	50.80	
KRP	7.79	218	P	44	33.00	-1.2
BRS	25.35	273	Pc	48	12.00	5.9X
			i	48	14.70	
			i	48	27.00	
BWA	27.77	256	eP	48	29.00	0.7
CTA	33.67	282	iPc	49	21.90	1.4
	0.9s	58.82nm			5.5mb X	
STK	33.78	259	eP	49	24.00	2.7
QIS	39.05	276	iPd	50	06.70	0.7
ASPA	42.65	269	eP	50	35.80	0.1
	0.6s	28.00nm			5.2mb X	
WRA	43.77	274	Pc	50	42.90	-1.8
	0.9s	28.40nm			5.1mb X	
WB5	43.77	274	iPd	50	44.80	0.0
FORR	45.24	257	eP	50	56.40	-0.1
MTN	49.83	280	eP	51	31.00	-1.5
SPA	58.30	180	e(P)	52	41.80	7.6X
	1.0s	19.00nm			5.1mb X	
PRS	86.37	43	eP	55	21.20	0.7
			e	55	35.60	
PRI	86.65	43	ePc	55	23.30	1.3
			e	55	37.30	
MHC	86.92	42	eP	55	23.80	0.5
			e	55	38.30	
FRI	87.79	43	ePc	55	27.90	0.6
			e	55	42.20	
CMB	88.12	42	ePc	55	29.10	0.2
			e	55	43.60	
ORV	88.55	40	e(P)	55	31.00	0.1

18d 02h

WDC	88.71	39	ePc	55	31.80	0.2
			i	55	46.20	
MIN	89.05	40	ePc	55	34.10	0.7
			e	55	48.30	
MBC	113.93	13	ePKP	01	15.00	-1.5
KJF	143.76	341	ePKP	02	18.00	5.1X
SUF	145.36	340	ePKP	02	13.00	-2.6
	0.4s	11.10nm				
NUR	147.54	339	iPKP	02	20.30	1.1
BNG	148.38	214	iPKPc	02	25.30	3.2X
	0.3s	19.00nm				
			ic	02	29.90	
NB2	150.14	351	PKP	02	22.20	-1.2
	1.4s	35.10nm				
HFS	150.60	348	ePKP	02	27.50	3.5X
	0.4s	2.10nm				
BBTK	153.57	296	ePKP	02	36.50	7.4X

S.D. = 1.3 on 23 of 29 obs.

FEB 18, 1989 03h 51m 54.38± 0.83s
43.142 N ± 6.1km 10.988 E ± 8.8km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

PII	0.67	330	P	52	07.50	-0.2
			eSg	52	17.20	
MAO	0.73	170	P	52	08.80	0.0
			eSg	52	19.60	
CRE	0.85	55	P	52	11.00	0.1
PGD	0.91	36	P	52	11.70	-0.2
BDI	0.96	343	P	52	13.00	0.3
			(Sg)	52	26.50	
MME	1.07	349	P	52	14.70	0.0

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

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* FEB 18, 1989 03h 57m 42.73± 0.71s
2.451 N ±14.7km 126.541 E ±21.7km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
MOLUCCA PASSAGE (266)

WB5	23.48	161	eP	02	50.00	-0.6
WRA	23.54	161	Pd	02	50.80	-0.3
	0.5s	4.10nm			4.2mb	
QIS	26.21	151	eP	03	16.00	-0.5
ASPA	26.93	165	eP	03	24.30	1.2
CHG	31.53	303	eP	04	05.20	0.8
FORR	33.15	178	eP	04	17.70	-0.5
BJI	38.58	347	eP	05	04.00	-0.3
BWA	42.05	153	eP	05	33.30	0.2
CAN	43.06	153	eP	05	41.90	0.6
GBA	49.77	286	Pd	06	33.90	-0.6
	0.5s	2.20nm			4.4mb	

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

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* FEB 18, 1989 04h 15m 27.76± 1.12s
2.501 N ±15.2km 127.090 E ±16.1km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
MOLUCCA PASSAGE (266)

MNI	2.48	245	iPc	16	07.20	0.4
			eS	16	38.00	
MTN	15.77	165	eP	19	11.00	1.9
WB5	23.36	163	eP	20	33.30	-1.1
WRA	23.41	163	Pd	20	33.20	-1.7
	0.5s	4.00nm			4.2mb	
QIS	25.99	152	eP	20	59.00	-0.5
ASPA	26.84	166	eP	21	07.40	0.1
WARB	28.52	181	eP	21	14.20	-8.3X
FORR	33.18	178	iPd	22	01.60	-1.9
STK	36.86	159	eP	22	35.00	0.0
BJI	38.66	347	eP	22	50.00	0.0
			eS	27	43.00	
BWA	41.85	153	eP	23	17.50	1.0
CAN	42.86	153	eP	23	26.50	1.8
GBA	50.28	286	P	24	20.00	-3.5X
	0.7s	2.30nm			4.3mb	

S.D. = 1.4 on 11 of 13 obs.

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* FEB 18, 1989 06h 27m 13.69± 0.58s
2.626 N ± 8.8km 126.822 E ±14.1km
DEPTH = 33.0km (normal)
4.7mb (3 obs.)
MOLUCCA PASSAGE (266)

MNI	2.30	239	ePd	27	53.00	2.9
			eS	28	23.00	
KNA	18.36	174	eP	31	26.00	-1.6
WB5	23.56	162	eP	32	20.80	-1.5
WRA	23.61	162	P	32	23.00	0.2
	0.6s	8.30nm			4.4mb	
QIS	26.23	152	iPc	32	47.10	-0.5
ASPA	27.03	166	ePc	32	56.80	1.8
	0.4s	12.00nm			4.9mb	
LOE	28.68	302	eP	33	08.00	-2.0
CHG	31.68	302	eP	33	36.20	-0.4
CD2	35.59	325	eP	34	09.00	-1.3
STK	37.07	159	eP	34	22.00	-0.7
TIY	37.33	341	eP	34	25.50	0.6
BJI	38.47	347	eP	34	35.50	1.1
SNY	39.14	356	iPd	34	41.20	1.3
MDJ	41.89	3	eP	35	03.00	0.5
BWA	42.08	153	eP	35	05.50	1.2
GBA	49.99	285	Pd	36	05.00	-2.2
	0.6s	4.90nm			4.7mb	
MAIO	70.25	308	eP	38	26.00	0.0
MBC	93.00	13	eP	40	25.00	0.4

S.D. = 1.5 on 18 of 18 obs.

& FEB 18, 1989 07h 17m 04.80s
34.010 N 117.740 W
DEPTH = 3.0km
3.8mb (1 obs.)
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 4.3 (PAS). Felt (IV) at Miro Lomo, Ontario, Riverside and San Bernardino. Felt in parts of Riverside and San Bernardino Counties.

RVR	0.30	93	iPc	17	10.60	-0.3
MWC	0.34	309	eP	17	11.60	0.0
PEC	0.50	104	iPc	17	14.20	-0.5
SBB	0.68	354	eP	17	17.70	-0.7
CIS	0.82	223	eP	17	20.00	-1.1
PLM	0.98	132	iPc	17	22.80	-1.4
TPC	1.41	86	iPc	17	30.60	-0.8
ABL	1.48	305	eP	17	31.50	-1.1
GSC	1.50	31	iPc	17	32.50	-0.3
BAR	1.60	146	iPc	17	32.70	-1.4
HAY	1.77	99	eP	17	35.30	-1.3
CLC	1.81	4	iPd	17	36.30	-0.8
BCH	2.26	302	eP	17	42.50	-1.3
BLP	2.27	285	eP	17	41.60	-2.2
GLA	2.61	111	eP	17	46.80	-1.9
PKEM	2.82	317	eP	17	51.00	-0.7
PHAM	2.84	311	eP	17	50.50	-1.5
TNP	4.09	6	eP	18	09.00	-0.7
SAO	4.09	313	eP	18	07.00	-2.6
ARN	4.54	318	eP	18	14.00	-2.1
CMB	4.55	333	eP	18	16.00	-0.2
KVN	5.04	357	eP	18	22.50	-0.8
MSU	6.36	43	eP	18	42.00	0.1
ALQ	9.36	81	eP	19	22.00	-1.8
BW06	10.85	34	eP	19	44.50	0.2
MEO	15.83	82	eP	20	51.50	1.2
	0.9s	6.90nm			3.8mb	

26 obs. associated

FEB 18, 1989 07h 21m 49.32± 0.44s
44.790 N ± 3.2km 7.295 E ± 5.4km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.7 (GEN), 2.5 (LDG).

DOI	0.29	187	Pc	21	55.00	-0.4
			eSg	21	57.60	
PZZ	0.32	206	P	21	55.19	-0.8
			S	21	59.62	
RSP	0.36	356	P	21	57.00	0.2
			S	22	01.98	
RRL	0.39	290	P	21	56.52	-0.8
			S	22	00.95	
BNI	0.51	301	P	21	58.80	-0.9
STV	0.55	178	P	21	59.37	-1.0
			S	22	07.46	
ROB	0.64	140	P	22	02.06	-0.2
			S	22	10.58	
LSD	0.67	352	P	22	02.70	-0.2
			S	22	11.23	
LPG	0.81	332	Pg	22	05.40	0.2
			Sg	22	15.00	
LPL	0.83	331	Pg	22	05.60	0.1
			Sg	22	15.60	
FIN	0.87	131	P	22	06.26	0.1
			S	22	18.23	
SBF	0.93	174	Pg	22	07.70	0.5
			Sg	22	19.70	
IMI	0.98	154	P	22	07.14	-0.8
			S	22	20.64	
FRF	1.31	201	Pg	22	14.10	0.5
			Sg	22	30.70	
LRG	1.50	207	Pg	22	17.70	1.5
			Sg	22	37.00	
LMR	1.56	202	Pg	22	18.30	1.2
			Sg	22	38.60	
BGF	3.58	301	Pn	22	46.90	0.8

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

FEB 18, 1989 09h 13m 32.05± 0.72s
37.674 N ± 6.7km 15.102 E ± 5.6km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.41	309	P	13	40.70	0.2
			eSg	13	46.50	
ATN	0.56	30	P	13	43.40	-0.1
			eSg	13	52.30	
MEU	0.59	193	P	13	43.80	-0.2
			eSg	13	52.80	
MSI	0.64	34	P	13	45.10	0.3
			eSg	13	54.40	
SOI	0.85	62	P	13	49.10	0.6
			eSg	14	02.20	
GIB	0.91	291	P	13	50.20	0.7
			eSg	14	03.60	
MCT	1.17	268	P	13	53.70	-0.3
MGR	2.49	8	P	14	11.90	-1.3

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

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* FEB 18, 1989 09h 20m 14.26± 2.29s
20.363 S ±13.2km 177.755 W ± 9.5km
DEPTH = 510.4 ± 25.9 km
4.8mb (18 obs.)
FIJI ISLANDS REGION (181)

BRS	27.80	250	iPd	25	24.00	0.6
			i	25	31.00	
COO	29.15	243	eP	25	35.00	-0.1
RMQ	31.27	252	iPd	26	01.60	8.3X
CTA	33.73	264	iPd	26	15.00	0.9
	0.6s	133.33nm			5.7mb	
PMG	35.54	283	eP	26	30.00	0.8
STK	38.06	244	eP	26	51.00	1.2
QIS	39.87	262	iPd	27	04.70	0.1
JAY	44.22	288	ePd	27	39.20	-0.1
	0.6s	294.00nm			6.0mb X	
ASPA	44.78	257	iPd	27	43.70	0.1
			i	29	14.40	
			eS	33	40.50	
WB5	44.83	262	iPd	27	43.60	-0.4
WRA	44.85	262	Pd	27	43.20	-0.9
	0.5s	22.60nm			5.0mb	
MTN	49.39	270	iPc	28	18.10	-0.7
	0.5s	139.00nm			5.7mb	
TLE	50.19	280	ePd	28	24.90	0.3
KNA	50.88	266	iPd	28	29.40	-0.2
	0.4s	30.00nm			5.1mb	
WARB	51.09	252	iPd	28	22.00	-9.2X
MBL	58.01	257	eP	29	19.00	-1.0
	0.6s	36.00nm			4.9mb	
KLB	58.32	245	eP	29	21.00	-0.9
	1.0s	18.00nm			4.4mb	
NWAO	58.64	243	eP	29	24.00	-0.1
RKG	58.72	242	eP	29	24.00	-0.7
MUN	59.59	244	eP	29	30.00	-0.5
MAT	70.24	323	iPd	30	36.50	-0.6
	0.7s	28.08nm			4.9mb	
ADK	71.94	1	P	30	45.40	-1.1
	0.8s	27.59nm			4.8mb	
PRS	77.56	44	ePd	31	19.00	0.7
GCC	77.58	43	ePd	31	18.80	0.4
PCC	77.62	42	eP	31	18.70	0.1
BCH	77.73	45	P	31	20.00	0.6
SAO	77.77	43	eP	31	19.70	0.2
PRI	77.91	44	ePd	31	21.00	0.7
BRK	77.93	42	ePd	31	20.50	0.3
BKS	77.94	42	eP	31	21.20	0.8
	0.7s	22.00nm			4.7mb	
MHC	77.99	43	ePd	31	21.30	0.5

PLM	78.89	48	eP	31	25.00	-0.7
FRI	79.03	44	ePd	31	25.80	-0.3
CMB	79.21	43	ePd	31	27.00	-0.1
ORV	79.42	41	ePd	31	28.30	0.2
WDC	79.42	40	ePd	31	28.40	0.3
TPC	79.87	48	eP	31	31.00	0.4
GLA	80.16	49	eP	31	33.00	0.8
KVN	81.25	43	P	31	37.20	-0.7
PMR	84.83	13	P	31	54.30	-0.6
	0.5s	3.72nm			4.3mb	
PNT	86.41	34	eP	32	03.00	0.2
	0.9s	18.00nm			4.8mb	
ALQ	87.14	51	eP	32	06.50	-0.4
	0.9s	5.88nm			4.3mb	
FBA	88.06	12	P	32	10.00	-0.3
	0.9s	57.50nm			5.4mb	
LRM	88.46	39	eP	32	12.90	0.0
BW06	88.71	43	P	32	14.30	0.2
	0.6s	6.05nm			4.6mb	
		pP		33	23.20	287kmX
GOL	90.06	47	P	32	20.00	-0.4
	0.9s	4.55nm			4.4mb	
GLD	90.18	47	P	32	20.00	-0.9
	1.2s	18.18nm			4.9mb	
CHG	90.41	290	iPd	32	24.00	1.9
	0.8s	14.93nm			5.0mb	
SES	91.63	36	ePd	32	27.00	-0.1
EDM	91.87	33	ePd	32	27.40	-0.7
MEO	92.94	54	eP	32	32.50	-1.0
	0.6s	1.50nm			4.2mb	
INK	94.08	15	eP	32	36.50	-1.4
YKA	96.29	25	P	32	47.80	-0.2
SUF	134.61	345	iPKP	38	34.50	-0.6
HFS	139.44	351	ePKP	38	31.80	-12.3X
	0.4s	4.40nm				
EKA	144.85	5	PKPc	38	53.50	-0.2X
	2.1s	145.30nm				
CLI	146.83	328	ePKPd	38	59.50	2.3
KRA	147.21	339	ePKP	39	00.00	2.3
WIT	147.43	355	ePKP	39	01.50	3.6X
HRI	147.61	300	iPKPd	39	02.70	3.7X
KSP	147.63	343	iPKPd	39	01.40	3.1X
	0.7s	43.00nm				
CLL	147.98	347	iPKPd	39	01.90	3.0X
	1.0s	60.00nm				
BRG	148.18	346	iPKPd	39	02.70	3.5X
	1.3s	36.00nm				
		i		39	07.20	
WTS	148.23	355	iPKPc	39	02.70	3.5X
	0.9s	57.00nm				
MLR	148.23	328	ePKPd	39	04.00	4.4X
DSI	148.30	297	iPKPd	39	04.00	4.0X
PRU	148.86	345	PKPd	39	04.50	4.2X
		e		39	10.60	
MOX	148.89	348	iPKPd	39	04.50	4.2X
	1.4s	34.00nm				
MBH	149.08	294	iPKPd	39	06.00	4.8X
ENN	149.52	355	ePKP	39	06.00	4.8X
	0.9s	36.00nm				
MEM	149.67	355	iPKPd	39	06.30	4.9X
SNF	149.87	357	PKPd	39	06.50	4.8X
GRF	149.87	348	ePKP	39	07.40	5.6X
		e		39	14.80	
KHC	149.90	345	PKP	39	01.50	-0.4
		i		39	07.20	
		i		39	15.40	
BZS	150.19	332	ePKP	39	08.00	5.6X
DOU	150.27	357	PKPd	39	07.60	5.2X
		e		40	46.70	
WLF	150.60	355	iPKPd	39	08.80	6.0X
FLN	151.58	4	ePKP	39	10.40	6.0X
	0.6s	16.20nm				
CDF	151.72	353	ePKP	39	11.00	6.3X
	0.5s	5.80nm				
LDF	151.77	3	ePKP	39	10.80	6.2X
	0.5s	11.60nm				
KBA	151.86	344	i(PKP)	39	10.50	5.4X
	0.7s	4.10nm				
GRR	151.93	4	ePKP	39	11.30	6.4X
	0.4s	9.10nm				
HAU	152.22	354	ePKP	39	12.10	6.7X
	0.4s	3.40nm				
LPF	152.27	5	ePKP	39	12.30	7.0X
	0.5s	18.90nm				
BSF	152.35	353	ePKP	39	12.10	6.4X
	0.7s	6.60nm				
TRI	153.00	342	ePKP	39	13.30	6.9X

		e		39	25.90	
LOR	153.13	358	ePKP	39	14.00	7.4X
	0.6s	3.90nm				
SSF	153.35	358	ePKP	39	14.50	7.6X
	0.8s	4.50nm				
MFF	153.76	4	ePKP	39	15.20	7.8X
	0.6s	5.40nm				
BNG	157.59	227	ePKPd	39	13.10	-0.3
	0.9s	7.00nm				
		ic		39	48.40	
KIC	164.52	153	PKPc	39	19.70	-0.7
	0.8s	14.00nm				

S.D. = 0.8 on 57 of 91 obs.

? FEB 18, 1989 10h 12m 01.78± 5.36s
6.023 S ±54.9km 146.951 E ±45.7km
DEPTH = 178.5 ± 19.6 km
4.3mb (3 obs.)
EAST PAPUA NEW GUINEA REGION (207)

LAT	0.63	176	iPc	12	27.00	-0.2
MNDI	3.28	268	eP	12	54.70	0.2
PMG	3.37	177	iPd	12	55.60	0.2
CTA	14.00	183	eP	15	18.50	4.8X
	0.8s	8.96nm			4.2mb	
WB5	18.42	220	eP	16	05.80	-0.5
WRA	18.49	220	Pc	16	06.40	-0.5
	0.4s	1.70nm			3.8mb	
ASPA	21.57	214	ePd	16	39.00	0.9
	0.3s	13.00nm			4.9mb	

S.D. = 0.8 on 6 of 7 obs.

% FEB 18, 1989 10h 47m 41.47± 0.63s
41.135 N ± 6.0km 28.469 E ± 4.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

CTT	0.03	292	ePg	47	42.80	-0.7
ISK	0.45	99	ePg	47	50.00	-0.7
DMK	0.87	322	iPn	47	58.80	0.6
BNT	0.88	208	iPn	47	58.60	0.2
KCT	0.89	186	iPn	47	58.60	0.0
YLV	0.89	129	ePn	47	59.00	0.4
EDC	0.91	210	ePn	47	58.60	-0.3
HRT	0.96	109	ePn	48	00.10	0.3

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

FEB 18, 1989 10h 50m 17.14± 0.85s
16.102 N ± 5.6km 61.221 W ± 7.9km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 2.3 (FDF).

SFG	0.15	9	iPd	50	21.39	0.7
MGG	0.20	207	iPd	50	22.71	1.1
		S		50	26.50	
DEG	0.26	36	eP	50	22.22	-0.5
		S		50	25.00	
SEG	0.41	318	iPc	50	25.25	-0.2
PAG	0.45	261	eP	50	26.10	-0.2
		S		50	32.70	
BBL	0.63	203	ePc	50	28.81	-0.9
		S		50	37.60	
MGH	1.14	303	eP	50	38.40	0.0

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

FEB 18, 1989 11h 01m 45.75± 0.23s
7.617 N ± 5.0km 94.121 E ± 4.6km
DEPTH = 33.0km (normal)
5.3mb (57 obs.) 5.0Msz (6 obs.)
NICOBAR ISLANDS REGION (704)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 11S, 22C
Centroid Locotion:
Origin Time 11:01:49.7 0.8
Lot 7.75N 0.05 Lon 94.68E 0.08
Dep 33.0 FIX Holf-durotion 1.8
Moment Tensor; Scole 10**17 Nm
Mrr= 0.36 0.05 Mlt=-1.18 0.06
Mff= 0.82 0.08 Mrt=-0.06 0.12
Mrf= 0.45 0.11 Mtf= 0.55 0.05
Principol Axes:

T	Val= 1.18	Plg=27	Azm=282
N	0.16	62	117
P	-1.34	6	16

Best Double Couple:Mo=1.3*10**17
NP1:Strike= 62 Dip=66 Slip= 16
NP2: 326 76 156

TSI	6.02	133	e(P)	03	23.00	8.1X
PSI	6.B4	135	ePc	03	24.50	-1.9
	0.9s	196.30nm			6.0mb	X
NNT	7.41	48	iPc	03	30.00	-4.4X
IPM	7.50	113	ePc	03	30.80	-4.8X
	0.4s	36.40nm			5.7mb	
		e		03	35.70	
		e		04	53.90	
NST	9.94	36	eP	04	11.50	2.1
PPI	10.17	142	e(P)	04	10.00	-2.6
BDT	10.69	26	eP	04	17.00	-2.7
	0.8s	12.50nm			5.2mb	X
KGM	10.72	121	ePd	04	26.50	6.4X
CHG	12.08	22	iPd	04	38.10	-0.5
	1.1s	18.04nm			5.1mb	X
		eS		07	44.00	
LOE	12.24	37	eP	04	39.00	-1.7
KSI	14.01	143	ePc	05	04.70	0.5
		e		05	07.00	
GBA	17.44	291	P	05	49.20	1.0
		S		08	37.20	
HYB	18.04	304	iP	05	54.00	-1.7
	1.0s	110.00nm			4.9mb	
QIZ	19.03	52	eP	06	07.20	-0.6
N	11s	11.60um				
KMI	19.26	24	eP	06	12.00	1.3
N	13s	3.50um				
E	12s	3.20um				
		pP		06	25.00	59kmX
		iS		09	52.00	
LSA	22.14	353	P	06	37.60	-3.3X
E	14s	1.17um				
GYA	22.21	31	P	06	41.20	0.0
N	12s	6.10um				
E	12s	8.00um				
		pP		06	48.00	24kmX
POO	22.50	301	iPd	06	45.40	1.4
	1.2s	84.38nm			5.1mb	
TRT	23.92	129	ePd	07	03.40	5.6X
	0.9s	66.80nm			5.2mb	
GZH	24.04	48	eP	07	01.50	2.6
Z	15s	7.30um			5.3MszX	
N	10s	2.70um				
E	12s	9.10um				
HKC	24.21	51	Pd	07	00.50	0.0
		S		11	36.00	
CD2	24.87	20	eP	07	05.60	-1.3
Z	15s	3.10um			4.9MszX	
E	10s	6.20um				
		eS		11	24.00	
		sS		11	46.00	
NDI	26.33	325	eP	07	21.00	0.4
	0.9s	46.22nm			5.1mb	
		eS		11	50.00	
BAG	27.29	69	eP	07	29.00	-0.6
		eS		12	16.00	
QCP	27.33	73	eP	07	20.00	-9.8X
XAN	29.63	25	P	07	47.70	-2.8
N	13s	3.90um				
E	12s	3.10um				
		S		12	43.50	
WHN	29.65	37	eP	07	48.50	-2.1
N	10s	2.48um				
E	12s	3.66um				
		pP		07	58.00	33kmX
LZH	29.70	16	eP	07	49.00	-2.2
	1.5s	141.00nm			5.5mb	
Z	28s	2.70um			4.7MszX	
N	12s	1.80um				
E	10s	1.40um				
		eS		12	40.00	
DAV	31.20	89	eP	08	10.00	5.5X
GTA	32.07	8	P	08	09.80	-2.2
Z	22s	2.00um			4.8Msz	
E	11s	1.40um				
		eS		13	24.00	
		PcS		14	45.20	
		ScS		18	41.80	
NJ2	33.48	40	Pc	08	26.20	2.0
N	13s	2.60um				
E	13s	2.80um				
		S		13	50.00	
QUE	33.96	315	eP	08	27.20	-1.4
TIY	34.25	26	eP	08	33.40	2.5

18d 11h

	N	14s	6.40um					BWA	66.16	133	eP	12	34.20	1.7		HFS	78.67	330	eP	13	41.70	-4.2X
	E	14s	4.60um					BRS	66.53	124	Pc	12	35.50	0.5			0.4s		5.80nm			4.9mb
SSE		34.42	44 P	08	31.10	-1.2					i	12	38.90				Z 18s		0.64um			5.0Msz
	Z	16s	4.50um			5.3MszX					i	12	51.40						LR	49	09.00	
	N	12s	3.50um								e	28	16.00			RSM	78.77	313	P	13	48.20	1.4
	E	12s	2.60um					CAN	67.01	133	eP	12	37.80	-0.1		CRE	79.13	313	P	13	40.80	-8.2X
			i	08	39.00						e	13	43.00			PTS	79.19	306	P	13	41.90	-7.4X
			sS	14	02.00			COO	67.09	128	eP	12	40.00	1.5		PGD	79.29	313	P	13	48.70	-1.2
TIA		35.37	33 eP	08	39.70	-0.7		IZM	67.20	308	eP	12	38.00	-1.1		CTI	79.34	315	P	13	43.60	-6.5X
	Z	15s	2.90um			5.2MszX		VSG	67.46	103	eP	12	41.00	0.0		MOX	79.40	320	eP	13	50.50	0.3
	N	13s	1.60um					CFR	67.75	316	ePd	12	42.00	-0.3			1.6s		43.00nm			5.2mb
	E	13s	2.60um					CLI	68.63	317	eP	12	48.50	0.7		FIR	79.63	313	eP	13	52.00	0.5
KSH		35.64	336 eP	08	43.50	0.7		VRI	68.87	316	ePd	12	47.00	-2.4		GRF	79.65	319	eP	13	52.70	1.2
			eS	14	23.00			KDZ	69.08	312	iP	12	43.00	-7.7X			1.2s		54.00nm			5.4mb
BTO		35.78	21 eP	08	41.30	-2.6		PVL	69.39	313	eP	12	49.00	-3.5X		NRA0	79.77	330	P	13	52.00	0.1
	Z	14s	1.80um			5.0MszX		RZN	69.61	312	iPc	12	55.00	0.8		NB2	79.94	331	P	13	50.00	-2.9
	N	12s	2.50um					PGB	70.14	312	iPc	12	57.00	-0.2			1.1s		34.30nm			5.3mb
WMQ		36.50	352 P	08	48.40	-1.5		VTS	70.84	312	eP	12	58.00	-3.6X		MME	80.03	313	P	13	54.60	0.6
	Z	28s	1.80um			4.7MszX		KMZ	70.95	253	iPc	13	02.20	-0.5		VAI	81.35	315	P	13	58.50	-2.0
			S	14	27.50						i	13	26.00			CVF	81.41	312	P	13	59.02	-2.0
HHC		36.56	22 P	08	49.70	-0.8		VAY	71.16	311	iP	13	02.20	-1.2		TUH	81.76	235	iPc	14	04.00	1.1
	Z	17s	3.80um			5.2MszX		SLR	72.00	240	iPc	13	08.00	-0.8			0.9s		21.85nm			5.2mb
	N	15s	1.30um						1.2s		78.13nm			5.6mb		FIN	81.82	314	P	14	00.39	-2.7
	E	13s	2.90um					SKO	72.07	312	eP	13	06.50	-2.3		ORX	81.91	315	P	13	59.88	-3.8X
			S	14	34.00			BPI	72.35	240	eP	13	05.50	-5.5X		ROB	82.06	314	P	14	01.72	-2.7
BJI		37.84	28 eP	09	02.50	1.4			0.5s		35.21nm			5.6mb		IMI	82.06	313	P	14	01.93	-2.5
	Z	18s	1.80um			4.9Msz		BZS	72.36	315	eP	13	10.00	-0.4		CDF	82.27	318	eP	14	04.80	-0.6
	N	13s	1.20um					OHR	72.47	311	eP	13	08.80	-2.5			1.0s		12.00nm			4.9mb
	E	13s	1.20um					KJF	73.02	335	eP	13	13.00	-0.9		SAOF	82.30	313	P	14	06.10	0.5
			ePP	10	36.00						i	13	29.20			AUTN	82.39	313	P	14	07.14	0.8
			eS	14	52.00			KSR	73.22	240	iPd	13	18.40	2.3		SBF	82.39	313	eP	14	07.00	0.8
DL2		39.79	34 eP	09	20.00	2.6			1.1s		40.54nm			5.3mb			1.0s		32.00nm			5.3mb
	Z	11s	1.60um			5.1MszX		SUF	73.25	334	iP	13	12.40	-2.9		RSP	82.45	315	P	14	03.46	-3.0X
	N	12s	1.00um					NUR	73.35	331	iP	13	16.00	0.1		STV	82.45	314	P	14	03.87	-2.6
	E	12s	1.30um						0.9s		30.40nm			5.3mb		AURF	82.47	313	P	14	07.34	0.8
			eS	15	18.00			Z	19s		1.00um			5.1Msz		LSD	82.50	315	P	14	04.90	-2.0
MAIO		42.56	317 eP	09	36.00	-4.3X					i	13	32.40			TOUF	82.52	313	P	14	07.95	1.0
			e	11	19.00						LR	51	40.00			MVIF	82.60	313	P	14	08.31	1.0
SNY		42.90	33 Pc	09	45.10	2.3		BFS	73.63	239	iPd	13	20.00	1.6		PZZ	82.60	314	P	14	04.70	-2.6
	Z	16s	3.30um			5.3MszX			1.0s		60.00nm			5.5mb		BSF	82.62	317	eP	14	07.30	0.0
	N	15s	2.10um					SPC	73.74	319	iP	13	18.50	-0.2			1.0s		9.60nm			4.8mb
	E	13s	1.30um					KRA	74.05	320	iPd	13	20.20	0.0		LPG	82.78	315	eP	14	09.30	0.9
			S	16	10.00				0.9s		43.00nm			5.4mb			0.6s		15.60nm			5.3mb
MUN		44.67	153 eP	09	56.00	-1.3					e	13	23.50			CALN	82.79	313	P	14	09.20	0.9
		1.2s	2.00nm			3.9mb X		SOD	74.44	338	iP	13	21.40	-0.7		RRL	82.80	314	P	14	07.06	-1.4
KLB		45.06	151 eP	10	04.00	3.5X					i	13	26.80			BNI	82.87	314	P	14	09.20	0.5
		1.0s	19.00nm			4.9mb		SRO	74.87	317	iP	13	25.60	0.7		HAU	82.91	317	eP	14	09.20	0.5
CN2		45.26	32 eP	10	03.60	1.7		SWZ	74.96	239	iPc	13	24.00	-2.1			0.8s		19.80nm			5.3mb
	Z	15s	2.30um			5.2MszX			0.4s		118.64nm			6.2mb		WLF	82.94	319	Pc	14	10.70	2.0
	N	14s	1.00um					KEV	75.07	341	eP	13	28.00	2.3		MEM	82.98	320	P	14	08.20	-0.7
	E	14s	1.60um					BNG	75.15	273	iPc	13	25.80	-1.5		FRF	82.98	313	eP	14	10.10	1.0
			iS	16	44.00				0.5s		20.00nm			5.4mb			1.2s		44.00nm			5.4mb
NWAO		45.93	153 eP	10	05.00	-2.3					ic	13	28.50			LMR	83.10	313	eP	14	10.70	1.0
		1.0s	50.00nm			5.4mb					id	13	44.80				1.0s		16.00nm			5.1mb
WARB		46.11	138 eP	10	00.00	-8.9X		GRI	75.69	308	P	13	30.70	0.8		LRG	83.20	313	eP	14	11.40	1.2
COOL		46.22	147 eP	10	08.00	-1.7		ZST	75.71	318	iP	13	30.40	0.6			1.0s		24.00nm			5.3mb
		0.6s	12.00nm			5.0mb					e	14	11.00			DOU	83.91	320	Pc	14	08.90	-4.8X
MDJ		48.03	34 eP	10	26.50	2.7		TDS	75.78	309	P	13	31.00	0.6		MSZ	83.97	136	P	14	14.70	0.7
	Z	15s	2.20um			5.3MszX		KIM	75.87	238	iPc	13	33.50	2.2		LBF	84.59	317	eP	14	17.60	0.3
			epP	10	34.00	25kmX		VKA	76.24	318	iP	13	33.00	0.2			1.0s		22.00nm			5.3mb
			S	17	18.00				1.0s		52.60nm			5.5mb		LOR	84.64	317	eP	14	18.00	0.5
			SS	20	45.00			KSP	76.45	320	eP	13	32.40	-1.5			1.0s		28.00nm			5.4mb
WB5		48.12	125 eP	10	21.50	-3.3X			1.2s		51.00nm			5.4mb		SMF	84.72	316	eP	14	18.40	0.6
WRA		48.13	125 Pd	10	24.50	-0.4					i	13	34.80				1.0s		18.80nm			5.2mb
		1.0s	10.40nm			4.8mb		UPP	76.67	330	iP	13	34.30	-0.6		SSF	84.90	317	eP	14	19.50	0.7
RYD		48.42	296 eP	10	26.00	-1.2		VBY	76.81	315	eP	13	36.60	0.6			1.2s		19.00nm			5.2mb
MAT		49.35	48 (P)	10	39.00	4.9X		LJU	77.33	315	eP	13	39.00	0.1		AVF	85.04	316	eP	14	19.80	0.4
		2.2s	384.62nm			6.0mb		CEY	77.40	315	eP	13	39.40	0.1			1.2s		23.80nm			5.3mb
			eS	17	52.00			PRU	77.51	319	Pc	13	40.50	0.7		BGF	85.41	316	eP	14	22.50	1.2
ASPA		49.76	130 eP	10	36.80	-0.7			1.0s		16.00nm			5.0mb			1.0s		12.80nm			5.1mb
		1.1s	29.00nm			5.2mb		KMR	77.69	317	eP	13	41.00	0.2		MAF	85.64	316	eP	14	23.60	1.1
FORR		50.22	141 eP	10	38.50	-2.3		VOY	77.78	315	eP	13	38.80	-2.7			0.8s		5.90nm			4.9mb
SLY		52.39	309 ePd	10	52.50	-4.7X					i	13	41.50			TCF	85.87	316	eP	14	24.50	0.8
QIS		52.75	123 eP	10	59.00	-1.1		TRI	77.86	315	iPd	13	41.60	-0.2			1.2s		19.00nm			5.2mb
AVY		52.78	239 iPd	11	00.58	0.0					i	14	09.10			CAF	86.14	315	eP	14	26.40	1.4
MSL		54.44	310 ePd	11	10.50	-1.9		BRG	77.93	320	eP	13	42.30	0.2			0.8s		5.30nm			4.8mb
AAE		54.75	276 eP	11	16.30	1.0			1.4s		52.00nm			5.4mb		RJF	86.47	315	eP	14	28.10	1.5
PMG		55.47	107 eP	11	20.50	0.4					e	13	57.70				0.8s		10.70nm			5.1mb
NAI		57.84	264 eP	11	39.00	1.7		RBL	78.02	316	P	13	40.10	-2.7		LPO	86.79	314	eP	14	29.60	1.5
CTA		58.20	119 eP	11	42.00	2.5		KHC	78.10	319	iPc	13	43.90	0.8			1.0s		32.00nm			5.5mb
PRNI		59.60	301 iPd	11	47.80	-1.4			1.0s		10.50nm			4.8mb		LDF	87.15	318	eP	14	30.90	1.1
MBH		59.61	300 iPd	11	51.00	1.9					e	13	55.80				1.2s		35.70nm			5.5mb
ADE		59.69	138 eP	11	50.20	0.6		KBA	78.19	316	iPc	13	43.20	-0.6		DAG	87.75	348	iPd	14	32.30	0.1
RMQ		62.88	125 eP	12	18.00	6.7X			1.2s		21.40nm			5.0mb			0.7s		10.27nm			5.2mb
ELL		64.86	307 iP	12	21.30	-3.0X		CLL	78.55	321	iPc	13	45.40	-0.1		EKA	87.92	325	P	14	35.00	1.7
TOO		65.68	137 eP	12	30.00	0.6			1.7s		50.00nm			5.3mb			1.1s		32.30nm			5.5mb
LWI		65.89	264 iPc	12	33.30	2.0		FVI	78.56	316	P	13	46.00	0.4		BRW	88.86	18	eP	14	39.70	2.1

ALE	89.36	357	eP	14 41.00	1.2
	1.0s		33.00nm	5.6mb	
ETOR	89.72	311	e(P)	14 43.50	1.1
GUD	91.33	311	e(P)	14 48.00	-1.8
EBAN	91.52	309	e(P)	14 51.00	0.4
APHE	91.67	307	iP	14 52.80	1.3
IMA	91.87	22	eP	14 53.70	1.9
	1.4s		87.20nm	6.0mb	
ATEJ	91.93	307	eP	14 54.00	1.3
TTA	92.12	26	eP	14 54.30	1.3
EHOR	92.72	309	e(P)	14 56.00	-0.1
MBC	94.02	8	eP	15 02.00	0.6
FBA	94.59	22	eP	15 05.00	0.8
	1.0s		0.30nm	3.7mb X	
PMR	95.61	25	eP	15 08.30	-0.6
	1.3s		42.50nm	5.7mb	
INK	97.24	16	eP	15 16.00	-0.2
YKA	106.68	13	PKP	20 22.70	13.9X
EDM	115.07	18	ePKP	20 25.50	0.3
FFC	116.44	10	ePKP	20 28.00	0.3
	0.9s		9.00nm		
SES	118.23	18	ePKP	20 32.00	0.7
LRM	121.73	22	ePKP	20 42.40	4.0X
KVN	124.78	30	PKP	20 46.00	1.6
BW06	125.40	21	PKP	20 46.00	0.4
GOL	129.58	20	PKP	20 53.00	-0.7
ALQ	133.42	23	ePKP	21 02.00	0.9
	Z 20s		0.35um	5.1Msz	
LNO	135.71	12	e(PKP)	21 07.30	2.3
TUL	135.71	12	ePKP	21 05.70	0.6
	1.0s		4.00nm		
	Z 21s		1.16um	5.6Msz	
			e	21 08.40	
			LR	08 00.00	
ATB	146.23	275	e(PKP)	21 22.00	-2.4
PEL	150.96	207	ePKP	21 50.00	18.6X
	S.D. = 1.5		on 178 of 208 obs.		

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* FEB 18, 1989 11h 12m 13.54± 0.78s
31.276 S ± 8.4km 69.331 W ±10.1km
DEPTH = 33.0km (normol)
SAN JUAN PROVINCE, ARGENTINA (137)

ZON	0.62	116	iPd	12 27.70	1.8
CFA	0.99	110	iPd	12 30.20	-1.0
JACH	1.76	217	iPd	12 44.00	1.7
			iS	13 08.00	
PEL	2.19	211	iPc	12 48.50	0.2
			iS	13 59.30	
FCH	2.20	201	iPd	12 48.50	-0.3
			iS	13 27.00	
ROCH	2.21	220	iP	12 50.50	1.7
PCH	2.54	203	iPc	12 53.20	-0.3
			iS	13 23.00	
TACH	2.73	209	eP	12 54.50	-1.5
			iS	13 27.00	
CHCH	2.87	202	iPc	12 55.70	-2.4
			iS	13 25.00	
LCCH	2.90	220	eP	12 59.00	0.6
LNV	3.20	213	eP	12 59.20	-3.4X
CNCB	14.45	5	P	15 38.00	-0.3
ZOBO	14.98	4	P	15 45.00	-0.2
	S.D. = 1.4		on 12 of 13 obs.		

? FEB 18, 1989 11h 21m 34.42± 2.38s
7.363 S ±16.3km 129.614 E ±22.9km
DEPTH = 85.5 ± 20.3 km
4.3mb (2 obs.)
BANDA SEA (280)

TLE	3.56	61	iPd	22 28.50	0.1
			iS	23 09.50	
MTN	5.65	165	iPc	22 58.80	1.2
			e	23 08.00	
			eS	23 58.00	
KNA	8.38	186	eP	23 35.00	-0.2
			eS	25 03.00	
WB5	13.27	160	iPc	24 37.50	-3.2X
			eS	26 58.20	
WRA	13.32	160	Pc	24 37.90	-3.5X
	0.4s		3.60nm	4.3mb	
QIS	16.30	145	eP	25 18.00	-1.5
			eS	28 08.00	
MBL	16.66	214	eP	25 23.00	-1.0
ASPA	16.73	166	ePc	25 24.60	-0.3
	0.6s		13.00nm	4.3mb	
			eS	28 16.70	
WARB	18.93	188	eP	25 44.00	-7.5X
FORR	23.41	183	eP	26 38.20	1.7
CNCB	150.34	144	PKP	41 15.00	1.5
LPB	150.49	144	ePKP	41 12.00	-1.5
ZOBO	150.68	143	PKP	41 18.00	4.0X
	S.D. = 1.6		on 9 of 13 obs.		

% FEB 18, 1989 11h 56m 54.71± 0.84s
40.656 N ± 6.3km 22.681 E ± 6.8km
DEPTH = 10.0km (geophysicist)
GREECE (364)

THE	0.22	96	eP	56 59.50	0.1
			eS	57 02.90	
GRG	0.37	325	eP	57 02.40	0.1
			eS	57 07.70	
KNT	0.53	18	eP	57 05.30	-0.2
			eS	57 12.60	
SOH	0.54	72	eP	57 05.60	0.0
			eS	57 13.20	
LIT	0.57	195	eP	57 06.30	-0.1
	S.D. = 0.2		on 5 of 5 obs.		

FEB 18, 1989 12h 01m 06.72± 0.28s
42.783 N ± 2.6km 12.487 E ± 2.8km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 3.6 (TRI).

ASS	0.31	24	Pc	01 13.70	0.4
MNS	0.42	160	Pc	01 15.20	-0.2
			eSg	01 21.90	
CIO	0.63	49	iPgc	01 19.26	-0.3
			iSg	01 29.61	
ARV	0.79	25	Pc	01 22.10	0.0
			eSg	01 34.70	
ALP	0.80	90	iPgc	01 21.66	-0.7
			iSg	01 34.17	
AQU	0.80	122	P	01 21.90	-0.4
			eSg	01 32.10	
SSO	0.85	53	e(Pg)	01 23.74	0.6
			eSg	01 38.69	
RMP	0.98	171	P	01 25.00	-0.4
			eSg	01 40.80	
RDP	1.04	170	P	01 27.10	0.7
			eSg	01 42.70	
MAO	1.05	250	P	01 27.50	1.0
AZI	1.06	138	P	01 27.40	0.7
			eSg	01 42.40	
AOI	1.12	46	iPg	01 28.22	0.5
			iSg	01 46.64	
RSM	1.14	359	P	01 29.40	1.3
PGD	1.23	333	P	01 30.20	0.5
SFI	1.23	338	P	01 30.10	0.6
FIR	1.34	318	ePn	01 35.00	3.6X
			e(Sn)	01 54.00	
SDI	1.46	137	P	01 33.50	0.3
PLI	1.71	304	P	01 38.50	1.8
DUI	1.84	127	P	01 38.10	-0.6
BDI	1.88	314	P	01 40.40	1.2
MME	1.92	318	P	01 40.60	0.6
CVF	2.68	267	Pn	01 51.20	0.5
			Sn	02 22.00	
BOB	2.96	313	P	01 54.20	-0.5
TRI	3.07	17	ePn	01 55.50	-0.5
			iPg	02 05.10	
			iSn	02 32.30	
			iSg	02 47.40	
			i	02 52.60	
CEY	3.27	25	eP	02 07.50	8.5X
			eSn	02 40.00	
CTI	3.32	350	P	01 58.80	-1.0
			eSn	02 37.90	
VBY	3.37	35	e(Pg)	02 12.10	11.6X
			e(Sn)	02 44.40	
VOY	3.40	17	ePn	02 01.10	0.1
			eSn	02 41.70	
LJU	3.57	24	iPg	02 15.10	11.8X
			eSn	02 45.00	
RBL	3.74	12	P	02 04.60	-1.2
			eSn	02 47.70	
FVI	3.82	3	P	02 06.90	0.2
SBF	3.84	288	Pn	02 07.00	-0.2
VAI	4.08	320	P	02 08.40	-2.0
KBA	4.34	8	iPnc	02 15.40	1.0
			iPg	02 24.90	
			i	02 49.50	
			iSg	03 06.00	
FRF	4.34	282	Pn	02 13.40	-0.9
LMR	4.42	279	Pn	02 14.60	-0.7
LRG	4.54	281	Pn	02 16.40	-0.5
KHC	6.39	6	eP	03 04.50	21.2X
			e	03 57.00	
CDF	6.71	329	Pn	02 46.70	-1.1
HAU	6.78	323	Pn	02 47.80	-0.8
	S.D. = 0.8		on 35 of 40 obs.		

% FEB 18, 1989 12h 40m 48.76± 0.82s
39.107 N ± 6.8km 27.638 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.77	203	ePg	41 03.60	-0.2
			eSg	41 16.10	
DST	0.92	57	iPg	41 06.60	0.3
			eSg	41 20.60	
EZN	1.24	306	ePn	41 12.20	0.4
EDC	1.25	8	ePn	41 11.60	-0.4
BNT	1.27	10	iPn	41 12.00	-0.3
KCT	1.27	26	iPn	41 12.50	0.2
	S.D. = 0.4		on 6 of 6 obs.		

? FEB 18, 1989 12h 41m 17.86± 7.17s
19.727 N ±56.6km 66.433 W ±16.3km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

APR	1.29	193	P	41 41.90	0.1
MCP	1.45	206	P	41 44.10	0.0
CSB	1.45	170	P	41 44.00	-0.2
			S	41 56.00	
LPR	1.51	159	P	41 45.30	0.3
SJG	1.63	170	iP	41 46.50	-0.2
			S	41 59.00	
MGP	1.82	200	P	41 49.50	0.1
	S.D. = 0.3		on 6 of 6 obs.		

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* FEB 18, 1989 13h 13m 34.08± 0.85s
9.836 N ±16.4km 57.899 E ± 7.6km
DEPTH = 10.0km (geophysicist)
5.2mb (6 obs.)
CARLSBERG RIDGE (421)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 19C
Centroid Location:
Origin Time 13:13:30.6 2.4
Lat 8.98N 0.17 Lon 57.48E 0.13
Dep 15.0 FIX Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr=-3.49 0.36 Mtt= 2.77 0.51
Mff= 0.72 0.51 Mrt= 4.54 2.10
Mrf=-0.68 2.46 Mtf=-2.28 0.37
Principal Axes:

T	Val= 6.15	Plg=24	Azm= 26
N	-0.25	14	289
P	-5.91	61	171

Best Double Couple:Mo=6.0*10**16
NP1:Strike=144 Dip=24 Slip= -53
NP2: 284 71 -105

BOM	17.01	56	eP	17 35.20	1.4
			eS	20 57.70	
POO	17.70	59	eP	17 48.00	5.5X
RYD	18.29	325	eP	17 50.00	0.2
KOD	19.27	87	eP	18 05.80	3.6X
GBA	19.49	77	Pd	18 03.30	-1.1
	0.6s		2.00nm	3.6mb X	
HYB	21.43	67	eP	18 26.50	1.9
QUE	21.94	21	eP	18 32.00	2.1
MAIO	26.38	3	iPc	19 14.60	2.1
SLY	28.02	338	ePd	19 25.00	-2.4
			e	24 32.50	
MSL	29.62	335	eP	19 39.50	-2.3
KSH	33.62	26	eP	20 16.00	-1.0
BBTK	37.33	327	iPc	20 51.00	2.5
BNG	39.39	265	iPc	21 06.50	0.4
	0.9s		22.00nm	4.8mb	
			id	21 13.00	
WMQ	42.60	32	eP	21 37.50	5.4X
VRI	44.72	329	ePc	21 50.50	1.3
MLR	44.86	328	ePc	21 32.50	-18.0X
CD2	47.42	57	eP	22 10.90	0.0
GTA	47.51	45	eP	22 10.00	-1.6

18d 13h

```
GYA     48.89   63 P      22 22.00   -0.4
LZH     49.11   50 e(P)   22 24.50    0.4
TRI     51.92  322 eP     22 43.10   -2.1
XAN     52.46   55 P      22 48.40   -1.1
KHC     53.77  325 eP     22 57.50   -1.3
BTO     55.20   47 eP     23 08.60   -1.0
TIY     56.16   51 eP     23 16.50   -0.1
      E  15s      1.10um
WHN     56.24   60 eP     23 17.00   -0.1
HHC     56.39   47 eP     23 19.00    0.8
TIA     59.49   54 eP     23 45.10    5.1X
BJI     59.56   49 eP     23 40.00   -0.3
APO     60.12  337 eP     23 40.60   -3.3X
        0.6s      1.30nm          4.2mb
KIC     62.04  272 Pc     23 58.20    0.5
        1.2s     59.00nm          5.7mb
TIC     62.28  272 Pc     23 59.76    0.5
        1.0s     42.00nm          5.6mb
LIC     62.34  272 Pc     24 00.16    0.5
        1.3s    131.00nm          6.0mb
CN2     67.07   47 eP     24 29.20   -0.7
DAG     77.44  347 iPd    25 31.50    0.8
        1.1s     11.39nm          4.9mb
     S.D. = 1.4  on  29 of  35 obs.
-------------------------------------------
   FEB  18, 1989  13h 16m 56.90± 0.39s
    9.824 N ± 8.5km   57.904 E ± 6.2km
   DEPTH =  10.0km  (geophysicist)
   4.8mb ( 11 obs.) 4.9Msz (  4 obs.)
 CARLSBERG RIDGE                  (421)
      CENTROID, MOMENT TENSOR     (HRV)
      Data Used: GDSN
      L.P.B.: 14S, 23C
      Centroid Location:
      Origin Time          13:17: 3.6 0.9
      Lat  9.89N  FIX;Lon  57.87E  FIX
      Dep  15.0 FIX Half-duration  1.9
      Moment Tensor;   Scale 10**16 Nm
        Mrr=-7.82 0.51  Mtt= 6.44 0.78
        Mff= 1.39 0.87  Mrt= 2.91 2.38
        Mrf= 4.85 2.20  Mtf=-4.52 0.57
      Principal Axes:
        T  Val=  9.09  Plg= 0  Azm= 30
        N        1.99       30      300
        P      -11.08       60      121
      Best Double Couple:Mo=1.0*10**17
       NP1:Strike=147 Dip=52 Slip= -51
       NP2:       274     53     -129

KOD     19.27   87 eP     21 26.00    1.0
GBA     19.49   77 Pc     21 26.80   -0.4
        0.7s      9.50nm          4.2mb
HYB     21.43   67 eP     21 48.00    0.5
QUE     21.95   21 iPc    21 54.00    1.2
NAI     23.73  243 iPc    22 13.00    2.6
NDI     26.09   41 eP     22 23.00   -9.6X
MAIO    26.40    3 iPc    22 38.20    2.7
AVY     30.27  199 iPc    23 11.06    0.3
BBTK    37.34  327 iPc+   24 13.50    2.1
                  e       24 28.00
KMZ     39.35  235 iP     24 29.80    1.2
BNG     39.40  265 iPd    24 28.90    0.0
        0.7s      9.00nm          4.5mb
                  ic      24 37.10
CHG     40.67   73 eP     24 40.60    1.2
PSI     41.35   97 ePc    24 46.50    1.5
WMQ     42.60   32 eP     24 59.50    4.5X
      Z  20s      1.50um          4.9Msz
                  PP      26 43.00
VRI     44.73  329 ePd    25 14.00    1.9
MLR     44.88  328 ePd    25 15.00    1.5
                  e       50 22.00
SLR     45.61  219 iPd    25 19.50    0.0
KSR     46.57  220 eP     25 11.00  -16.1X
CD2     47.42   57 eP     25 32.90   -0.8
GTA     47.52   45 P      25 35.00    0.5
      Z  22s      0.90um          4.7Msz
      E  17s      1.20um
                  eS      32 30.00
SWZ     48.49  220 iPd    25 40.50   -1.7
        0.2s     27.78nm          6.0mb X
GYA     48.89   63 P      25 36.20   -9.1X
                  S       32 48.00
LZH     49.12   50 eP     25 46.00   -0.9
      Z  28s      1.80um          4.9MszX
                  e(S)    32 56.00
VBY     50.93  322 eP     26 00.90    0.5

TRI     51.94  322 eP     26 07.10   -1.0
VOY     52.02  322 eP     26 08.00   -0.8
XAN     52.46   54 P      26 11.60   -0.7
KHC     53.78  325 P      26 20.50   -1.3
BTO     55.20   47 P      26 33.00    0.5
      N  18s      1.20um
      E  18s      2.00um
                  sP      26 43.00
                  eS      34 20.00
WHN     56.24   60 eP     26 35.50   -4.5X
      Z  24s     14.80um          6.0MszX
                  S       34 32.00
LPG     56.27  319 eP     26 22.70  -17.6X
        0.7s      6.60nm
CDF     57.12  322 eP     26 45.00   -1.1
        1.0s     12.00nm          4.9mb
LBF     58.61  320 eP     26 54.50   -2.0
        1.0s      8.00nm          4.8mb
LOR     58.79  320 eP     26 56.50   -1.2
        0.6s      3.60nm          4.7mb
SSF     58.94  320 eP     26 57.60   -1.1
        0.7s      3.30nm          4.6mb
BJI     59.57   49 eP     27 03.00   -0.2
      Z  26s      1.20um          4.9MszX
      N  16s      0.75um
                  eS      35 12.00
HFS     59.98  336 eP     27 03.80   -1.9
        0.5s      1.00nm          4.2mb
      Z  19s      0.75um          4.8Msz
                  LR      52 01.00
KIC     62.05  272 Pc     27 20.70    0.2
        1.1s     52.00nm          5.6mb
TIC     62.28  272 Pc     27 22.24    0.2
        0.7s     26.00nm          5.5mb
LIC     62.35  272 Pc     27 22.66    0.2
        0.7s     30.00nm          5.6mb
CN2     67.08   47 eP     27 52.00   -0.7
      Z  22s      1.90um          5.3Msz
      E  14s      0.60um
                  eS      36 42.00
MDJ     70.14   46 eP     28 10.00   -1.6
      Z  30s      1.60um          5.1MszX
                  S       37 18.00
                  SS      41 44.00
WRA     80.80  112 P      29 13.00    0.2
        1.6s     18.00nm          4.8mb
WB5     80.81  112 eP     29 11.70   -1.1
ASPA    81.32  116 eP     29 14.20   -1.3
     S.D. = 1.3  on  39 of  45 obs.
-------------------------------------------
*  FEB  18, 1989  13h 42m 23.04± 0.86s
    11.496 N ±13.8km   86.514 W ±17.5km
    DEPTH =  33.0km  (normal)
  NEAR COAST OF NICARAGUA          ( 74)

RIN3    1.32  122 eP     42 45.60    0.3
                  S       43 08.40
JUD     1.63  144 ePd    42 50.10    0.2
                  S       43 16.20
JTS     1.95  128 eP     42 54.10   -0.3
                  S       43 23.70
CAO     2.26  142 ePc    42 58.50   -0.3
                  S       43 31.30
EPA     2.41  128 iPd    43 01.70    0.7
                  S       43 36.10
PTCR    2.66  129 eP     43 05.40    0.7
HDC2    2.76  122 eP     43 06.30    0.2
                  S       44 45.50
SJS     2.87  122 iPd    43 07.20   -0.4
                  S       43 58.60
IRZ2    2.99  120 eP     43 09.40   -0.1
LCR2    3.02  125 ePc    43 09.50   -0.4
OCR     3.08  131 eP     43 10.00   -0.6
QPS     3.13  131 eP     43 11.40    0.2
CDM     3.32  125 ePc    43 14.30    0.0
JCR     3.72  116 eP     42 57.20  -22.4X
MEO    25.65  337 eP     47 33.80  -17.8X
        0.7s      7.00nm
LNO    25.72  342 eP     47 51.70   -0.3
TUL    25.72  342 eP     47 52.40    0.3
        1.0s     10.00nm          4.4mb X
     S.D. = 0.4  on  15 of  17 obs.
-------------------------------------------
*  FEB  18, 1989  13h 59m 28.97± 0.93s
    7.789 N ±13.4km   94.239 E ±10.7km
    DEPTH =  33.0km  (normal)
    3.9mb (  2 obs.)

 NICOBAR ISLANDS REGION           (704)

PSI     6.88  137 ePc    01 10.40    0.2
NNT     7.21   48 iPd    01 13.00   -1.8
IPM     7.46  115 ePd    01 13.00   -5.3X
                  e       02 34.70
CHG    11.87   22 iPd    02 20.80    1.7
        0.6s      9.33nm          5.1mb X
GBA    17.49  291 P      03 32.00    0.0
        0.9s      4.10nm          3.6mb
HYB    18.04  304 eP     03 38.00   -0.9
KJF    72.91  335 eP     10 58.00    1.5
SUF    73.15  333 eP     10 58.00    0.1
SOD    74.32  338 eP     11 04.00   -0.7
SLL    78.79  330 eP     11 26.20   -3.6X
        0.4s      1.10nm          4.2mb
     S.D. = 1.4  on   8 of  10 obs.
-------------------------------------------
&  FEB  18, 1989  14h 02m 45.03s
    39.226 N          117.333 W
    DEPTH =  10.0km  (geophysicist)
 NEVADA                           ( 37)
      <REN>. MD 3.3 (REN).

KVN     0.62  254 eP     02 56.40   -1.3
MNA     1.02  219 eP     03 03.00   -1.4
TNP     1.15  175 iP     03 06.30   -0.3
HCR     1.21  144 eP     03 07.40   -0.4
MZP     1.52  181 eP     03 12.50   -0.1
SVP     1.55  194 eP     03 13.00    0.0
KRNA    1.66  153 eP     03 14.50    0.0
MGM     1.79  184 eP     03 16.30   -0.1
BLT     1.98  151 eP     03 18.90   -0.3
        9 obs. associated
-------------------------------------------
*  FEB  18, 1989  14h 12m 12.72± 1.03s
    16.583 N ±17.6km   95.383 W ± 9.9km
    DEPTH =  74.8 ±  9.4 km
    4.5mb (  6 obs.)
 OAXACA, MEXICO                   ( 60)

OXX     1.38  291 iPd    12 34.00   -2.8
SCX     2.64   86 eP     12 56.50    2.6
IISM    3.05  322 eP     12 59.50   -0.2
TPX     3.44  119 eP     13 03.50   -1.5
IIT     3.69  311 eP     13 10.00    1.1
ACX     4.30  274 eP     13 12.00   -5.2X
UNM     4.53  308 (P)    13 37.00   16.3X
IIC     4.86  311 eP     13 25.50    0.2
CRX     4.96  305 (P)    13 28.50    1.8
MEO    18.35  352 eP     16 22.90   -0.8
        1.0s     51.90nm          4.7mb
                  e       16 25.50
                  (Lg)    19 41.00
OLY    19.16   10 P      16 28.00   -5.1X
TUL    19.25  359 eP     16 33.20   -0.8
        0.8s     11.70nm          4.2mb
      Z  19s      0.45um
                  i       16 51.70
                  LR      19 00.00
LNO    19.26  359 eP     16 32.90   -1.0
ALO    20.80  334 eP     16 49.00   -1.2
        1.0s     14.75nm          4.3mb
PRM    20.99   31 P      16 51.00   -0.9
FVM    21.76   11 P      16 54.00   -5.6X
GLA    24.02  317 eP     17 26.00    4.2X
GOL    24.62  341 P      17 28.50    0.7
TPC    25.47  317 eP     17 49.00   13.4X
PLM    25.57  315 P      17 37.50    0.9
TNP    28.76  322 P      18 06.00    0.4
BW06   28.78  338 P      18 06.00    0.2
KVN    29.92  323 P      18 17.00    1.0
LRM    32.46  338 eP     18 39.20    1.0
PNT    38.12  334 eP     19 27.00    0.9
        0.7s      4.00nm          4.5mb
FFC    38.41  354 eP     19 28.00   -0.4
        0.6s      7.00nm          4.8mb
EDM    39.18  343 eP     19 35.00    0.1
YKA    47.81  348 P      20 44.20   -0.1
FRB    50.61   15 eP     21 04.00   -1.7
BAO    56.67  122 e(P)   21 40.00  -11.1X
INK    57.06  344 eP     21 52.00   -1.1
MBC    60.98  354 eP     22 20.00    0.0
NB2    83.43   28 P      24 34.20    1.2
        0.8s      5.20nm          4.6mb
GBA   149.18   14 PKP    31 56.00    5.4X
        0.3s      0.50nm
```

S.D. = 1.3 on 26 of 34 obs.

? FEB 18, 1989 16h 40m 40.82± 0.66s
55.762 S ±15.9km 29.808 W ±17.7km
DEPTH = 33.0km (normal)
5.1mb (4 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

SPA	34.42	180	e(P)	47	28.00	1.1
	1.8s	79.63nm			5.3mb	
VAO	35.10	332	eP	47	32.80	-0.1
ITA	35.13	336	eP	47	40.90	7.4X
BAO	42.41	334	eP	48	26.50	-7.4X
SWZ	48.50	77	eP	49	21.00	-1.3
	0.7s	10.27nm			5.0mb	
ZOBO	49.03	308	iPc	49	26.20	-0.8
	0.9s	17.30nm			5.1mb	
		LR		04	16.00	
PRY	49.88	79	eP	49	27.00	-6.0X
SLR	51.27	79	eP	49	42.00	-1.5
LIC	65.08	27	P	51	21.20	1.1
TIC	65.49	27	P	51	24.60	1.9
BNG	71.87	52	iPc	52	03.80	1.4
	1.2s	21.00nm			5.0mb	
		ic		52	10.20	
MSZ	78.82	193	P	52	41.80	0.3
YKA	134.98	319	PKP	59	56.90	0.3
GTA	143.21	95	ePKP	00	11.50	-1.1
XAN	144.33	110	PKP	00	13.20	-1.3
INK	144.65	321	ePKP	00	12.00	-1.9
TIY	148.97	110	PKPc	00	25.40	3.4X
BTO	149.72	103	ePKP	00	25.10	2.0
TIA	150.26	117	ePKP	00	28.00	4.1X
BJI	152.66	111	ePKP	00	33.50	6.2X

S.D. = 1.5 on 14 of 20 obs.

FEB 18, 1989 17h 08m 38.59± 0.95s
7.072 S ± 4.6km 146.997 E ± 8.4km
DEPTH = 21.5 ± 7.3 km
4.9mb (5 obs.) 4.5Msz (2 obs.)
EAST PAPUA NEW GUINEA REGION (207)

LAT	0.42	0	iPc	08	47.60	0.4
PMG	2.33	176	iPd	09	17.50	1.2
MNDI	3.44	285	eP	09	36.50	4.2X
RAB	5.89	61	eP	10	06.00	-0.8
CTA	12.96	183	iPc	11	45.00	0.7
	1.2s	390.63nm			6.4mb	X
		iS		14	27.00	
HNR	13.03	101	eP	11	34.00	-11.2X
QIS	15.20	207	iPd	12	13.10	-0.6
MTN	16.64	249	eP	12	31.00	-1.3
		e		15	29.00	
WB5	17.67	223	eP	12	44.30	-0.9
		eS		16	11.80	
WRA	17.73	223	Pd	12	45.70	-0.3
	0.9s	22.10nm			4.3mb	
RMQ	19.38	175	eP	13	12.00	5.9X
KNA	19.83	243	eP	13	09.00	-2.0
	0.6s	100.00nm			5.3mb	
ASPA	20.75	216	eP	13	19.20	-1.4
	0.6s	38.00nm			5.0mb	
		eS		17	07.90	
BRS	20.94	165	iPc	13	21.80	-0.8
		i		13	25.00	
		i		13	31.60	
		eS		17	08.00	
COO	23.83	170	eP	13	52.00	0.8
CMS	24.31	182	eP	13	57.00	1.2
BWA	27.25	177	iPd	14	21.70	-1.6
CAN	28.17	177	eP	14	30.70	-1.0
IIDJ	43.18	349	P	16	38.80	-0.9
KAKJ	43.52	352	P	16	41.70	-0.6
CHJJ	43.54	351	iP+	16	42.10	-0.5
MAT	44.16	350	iPc	16	46.40	-1.2
MTMJ	44.27	349	iP+	16	47.70	-0.9
NIIJ	44.71	351	P	16	51.70	-0.3
QIZ	44.87	306	eP	16	55.00	1.4
SSE	45.28	328	Pc	16	56.50	-0.1
	0.5s	0.08nm			2.9mb	X
Z	20s	0.50um			4.4Msz	
YAMJ	45.48	352	eP	16	58.70	0.6
PPI	46.93	276	e(P)	17	15.00	5.0X
WHN	48.77	322	eP	17	24.00	0.0
PSI	48.95	280	eP	17	30.00	4.3X
LOE	50.91	299	eP	17	42.00	1.4
TIA	51.38	329	P	17	42.30	-1.7
GYA	51.39	312	P	17	45.60	1.3
NST	51.62	296	eP	17	49.00	3.0
KMI	53.65	308	Pc	18	03.00	1.7
MDJ	53.79	345	eP	18	01.00	-0.7
CHG	53.90	299	iPd	18	05.00	2.0
CN2	54.26	341	eP	18	03.40	-1.9
Z	20s	0.40um			4.5Msz	
XAN	54.50	321	P	18	06.30	-1.0
BJI	54.83	331	eP	18	07.50	-2.0
TIY	54.99	327	eP	18	09.70	-1.1
Z	30s	0.60um			4.5MszX	
CD2	56.02	315	eP	18	18.30	0.0
HHC	57.74	329	eP	18	29.80	-0.6
BTO	58.37	327	eP	18	32.50	-2.4
LZH	59.02	320	eP	18	40.00	0.4
GTA	63.56	321	P	19	10.00	-0.1
LSA	64.88	307	P	19	20.20	0.8
GBA	72.04	287	P	20	09.00	5.5X
	1.2s	9.20nm			4.7mb	
WMQ	73.60	320	iPc	20	13.00	0.7
NDI	75.94	302	iPc	20	26.00	0.0
KSH	80.06	312	eP	20	50.80	2.2
SPA	82.97	180	iPd	21	02.90	-0.5
	0.9s	14.09nm			5.1mb	
		i		21	06.90	
QUE	84.99	301	eP	21	15.00	0.7
MAIO	92.13	306	eP	21	49.00	0.9
YKA	100.11	28	Pdiff	22	25.40	1.6
BNG	128.66	270	ePKPd	27	48.10	1.1
	0.5s	3.00nm				
CNCB	138.05	125	ePKP	27	57.00	-8.4X
ZOBO	138.22	124	PKP	28	06.00	0.3
VAO	147.14	156	ePKP	28	21.30	0.9
KUK	147.58	270	ePKP	28	24.50	3.3X
BMA	148.47	160	ePKP	28	24.80	2.4
ITA	148.57	159	ePKP	28	22.59	-0.4
KIC	151.92	270	PKP	28	34.48	6.6X
	0.7s	22.00nm				
LIC	152.20	270	PKP	28	35.06	6.8X
	0.6s	25.00nm				
TIC	152.22	271	PKP	28	35.04	6.8X
	0.6s	23.00nm				
BAO	152.99	147	ePKP	28	16.50	-12.9X

S.D. = 1.3 on 54 of 66 obs.

FEB 18, 1989 18h 29m 57.19± 0.39s
51.055 N ± 8.8km 176.253 W ± 4.2km
DEPTH = 33.0km (normal)
4.6mb (9 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK	0.87	342	iPc	30	14.30	1.3
SMY	6.20	289	e(P)	31	31.00	2.2
SDN	10.38	59	eP	32	35.20	8.6X
SVW	15.22	41	e(P)	33	36.50	5.4X
KDC	15.32	55	eP	33	34.70	2.4X
TTA	16.13	35	eP	33	46.80	4.0X
PMS	17.89	45	eP	34	05.20	0.3
PWA	17.92	44	eP	34	05.70	0.6
PMR	18.22	44	eP	34	08.10	-0.7
IMA	18.93	29	eP	34	17.50	-0.1
TOA	19.71	44	eP	34	25.90	-0.6
FBA	20.24	36	eP	34	29.00	-2.9X
BRW	22.17	17	eP	34	50.80	-0.5
INK	26.82	34	eP	35	35.00	-0.8
MBC	33.32	21	eP	36	33.00	-0.4
	0.7s	7.00nm			4.7mb	
YKA	34.29	46	P	36	42.80	0.8
YKC	34.36	46	eP	36	43.00	0.5
MAT	35.33	264	eP	36	51.00	-0.1
	1.2s	20.31nm			4.9mb	
LON	35.36	75	eP	36	53.50	2.1
EDM	37.57	61	ePc	37	10.50	0.7
CN2	39.18	283	eP	37	22.80	-0.6
SES	40.06	65	eP	37	32.00	1.3
LRM	41.47	71	eP	37	42.20	-0.3
KVN	41.75	83	eP	37	44.50	-0.4
FFC	43.03	55	eP	37	55.00	0.2
	0.6s	6.00nm			4.5mb	
BW06	44.87	73	eP	38	10.80	0.6
	1.0s	20.63nm			5.0mb	
PLM	46.10	89	eP	38	20.00	0.0
BJI	47.01	284	eP	38	27.00	0.2
TIA	48.79	279	P	38	40.30	-0.5
GOL	49.23	74	eP	38	44.00	-0.5
HHC	49.32	288	eP	38	45.10	0.2
BTO	50.40	288	eP	38	53.40	0.2
TIY	50.74	284	eP	38	56.20	0.4
ALO	51.59	80	eP	39	02.50	0.1
	1.0s	2.50nm			4.1mb	
FRB	52.46	32	ePc	39	06.90	-1.4
WHN	54.28	276	eP	39	20.50	-1.7
XAN	55.29	283	P	39	24.60	-5.0X
LZH	57.01	288	eP	39	42.00	-0.1
	2.0s	55.00nm			5.2mb	
GTA	57.17	294	Pc	39	42.30	-0.8
SCH	59.28	39	eP	39	56.00	-1.6
CD2	60.61	284	eP	40	07.00	0.1
WMQ	60.85	304	P	40	07.50	-1.0
GAC	61.92	51	eP	40	15.00	-0.6
GYA	61.95	278	P	40	15.40	-0.8
KJF	63.57	349	eP	40	24.00	-2.2
KMI	65.36	280	eP	40	38.00	-0.6
NB2	68.10	356	P	40	54.80	-0.5
	0.8s	3.10nm			4.5mb	
HFS	68.88	355	eP	40	58.60	-1.4
	0.5s	1.50nm			4.3mb	
CHG	72.37	278	eP	41	22.20	0.4
BDT	73.51	277	eP	41	28.50	0.1
KHC	79.84	353	P	42	05.50	2.1
MAIO	80.20	317	eP	42	07.00	1.4
QUE	81.85	309	eP	42	15.00	0.5
KBA	81.90	353	eP	42	15.00	0.5
	0.7s	3.30nm			4.5mb	
PSI	84.66	268	ePd	42	29.50	0.7
HYB	85.82	293	eP	42	35.00	0.3
SKO	86.08	347	iP	42	36.20	0.6
SLR	148.52	314	iPKPc	49	44.00	5.7X
KSR	149.25	316	ePKP	49	42.50	3.0X
SWZ	151.08	317	iPKPc	49	47.50	5.4X
	0.4s	16.95nm				
KIM	152.68	317	ePKP	50	02.50	18.1X

S.D. = 1.0 on 51 of 61 obs.

FEB 18, 1989 19h 38m 46.42± 0.35s
51.588 N ± 3.3km 16.144 E ± 4.2km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 4.3 (VKA).

KSP	0.75	173	iPd	39	00.40	-0.7
	0.3s	220.00nm				
			iS	39	10.10	
			iLR	39	15.80	
BRG	1.56	243	iPn	39	14.50	0.3
			iPg	39	16.40	
			iSg	39	35.80	
PRU	1.90	213	Pn	39	18.60	-0.5
			Pg	39	20.00	
			Sn	39	37.90	
			Sg	39	45.70	
CLL	1.98	263	iPn	39	21.40	1.0
			iPg	39	24.70	
			iSg	39	50.50	
KRA	2.85	121	eP	39	40.10	7.3X
			iS	40	17.40	
KHC	2.96	215	iPn	39	34.50	0.2
			iPg	39	40.80	
			Sn	40	05.50	
			Sg	40	17.50	
MOX	3.01	253	ePn	39	35.00	0.1
			iPg	39	43.00	
			iSg	40	23.00	
VKA	3.33	178	iPnd	39	40.30	0.7
	0.5s	190.00nm				
			iPg	39	47.80	
			iSg	40	31.80	
ZST	3.45	169	i(Pn)	39	50.20	8.9X
			i	40	01.50	
			e	40	34.00	
SPC	3.56	131	ePn	39	43.60	0.6
			i	39	56.80	
			i	40	39.40	
GRF	3.66	241	ePn	39	44.60	0.3
			eSg	40	43.80	
SOP	3.92	176	eP	39	49.00	1.1
SRO	4.03	159	eP	40	16.00	26.5X
PSZ	4.40	145	ePn	39	55.00	0.1
KBA	4.87	203	iPnc	40	01.10	-0.5
			iPg	40	18.40	
			i	40	20.10	
			iSn	40	54.40	
			i	41	05.20	
			i	41	21.40	

18d 19h

SCE	5.40	214	iPnc	40	08.90	-0.2
RBL	5.42	199	P	40	07.90	-1.4
FVI	5.47	205	P	40	09.30	-0.5
CTI	6.29	210	P	40	21.50	0.0
MEM	6.46	265	iP	40	24.40	0.6
WLF	6.64	257	iP	40	26.10	-0.3
DOU	7.47	263	P	40	34.60	-3.3X
HFS	8.68	352	eP	40	53.80	-1.0
	0.4s		1.20nm			4.6mb
NUR	10.12	25	iP	41	14.40	-0.3
SUF	12.39	22	eP	41	46.00	0.5
KJF	14.03	21	eP	42	07.00	-0.1
	S.D. = 0.7		on 22 of 26 obs.			

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* FEB 18, 1989 21h 10m 30.76± 0.60s
7.381 N ±10.4km 77.823 W ±16.7km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
PANAMA-COLOMBIA BORDER REGION (82)

UPA	2.32	313	iPd	11	06.90	-0.6
	0.8s		129.85nm			
			i	11	08.50	
			iS	11	40.50	
HOBC	3.44	151	eP	11	21.25	-2.3
CLMC	3.70	160	eP	11	27.95	0.8
ANCC	3.96	166	eP	11	30.20	-0.5
HOQC	4.06	163	eP	11	31.50	-1.0
DIAC	4.37	158	ePd	11	37.10	0.3
DVD	4.70	283	eP	11	40.80	-0.4
			S	11	53.20	
ARE	24.50	165	eP	15	51.00	2.2
ZOBO	25.38	158	P	15	58.00	0.5
LPB	25.63	158	P	16	02.00	2.3
CNCB	25.93	158	P	16	04.90	2.3
CCH	27.18	155	eP	16	11.10	-2.7
MEO	33.30	328	eP	17	06.70	-0.9
	0.5s		1.70nm			4.2mb
ALQ	38.01	320	eP	17	48.70	0.8
	0.8s		7.46nm			4.6mb
VAO	42.70	136	e(P)	18	25.00	-1.6
SCH	48.13	9	eP	19	11.00	1.6
FRB	56.66	5	eP	20	12.00	-0.9
YKA	61.19	342	P	20	44.90	0.5
MBC	72.45	350	eP	21	55.00	-0.4
GBA	147.78	50	PKPd	30	15.20	3.4X
WARB	150.13	228	ePKP	30	28.60	13.3X
	S.D. = 1.5		on 19 of 21 obs.			

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* FEB 18, 1989 21h 26m 43.23± 0.87s
11.734 S ± 9.6km 117.480 E ±15.4km
DEPTH = 33.0km (normal)
4.6mb (2 obs.)
SOUTH OF SUMBAWA ISLAND (291)

KHKI	3.82	331	eP	27	40.50	-0.7
			eS	28	15.10	
			e	29	32.10	
TRT	6.23	310	ePc	28	15.80	0.5
MBL	9.64	167	eP	29	01.00	-1.8
			eS	30	40.00	
NANU	10.93	190	iPd	29	20.30	-0.1
	0.3s		5.00nm			5.3mb
			iS	31	13.50	
MEKA	14.84	176	eP	30	12.00	-0.5
			eS	32	43.00	
MRWA	17.45	184	eP	30	47.00	1.2
			eS	33	48.00	
WB5	18.14	119	eP	30	55.00	0.5
COOL	19.36	170	eP	31	10.00	0.9
	0.3s		2.00nm			3.9mb
			eS	34	29.00	
KLB	19.76	179	eP	31	17.00	3.5X
			eS	34	41.00	
MUN	20.18	183	eP	31	23.00	5.1X
			eS	34	53.00	
NWAO	21.09	181	eP	31	34.00	6.7X
	S.D. = 1.2		on 8 of 11 obs.			

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* FEB 18, 1989 21h 58m 05.80± 0.95s
53.196 N ±19.1km 159.198 E ±15.6km
DEPTH = 33.0km (normal)
4.6mb (5 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

MAT	22.20	230	eP	03	01.00	0.4
TTA	25.09	49	eP	03	28.00	-0.6
IMA	26.33	42	eP	03	40.00	-0.1
MBC	37.16	23	eP	05	15.00	0.3
YKA	43.45	42	P	06	07.10	0.3
NB2	63.29	343	P	08	32.60	-0.5
	0.6s		1.90nm			4.4mb
HFS	63.68	342	eP	08	34.50	-1.1
	0.4s		2.20nm			4.6mb
CLL	72.06	338	eP	09	28.00	0.0
	1.0s		12.00nm			4.8mb
KHC	73.97	337	P	09	41.00	1.7
GBA	74.31	272	Pd	09	40.40	-1.2
	0.7s		3.00nm			4.4mb
KBA	75.95	337	iPd	09	52.00	1.2
	0.7s		12.20nm			5.0mb
RBL	76.49	336	P	09	53.80	0.0
FVI	76.54	337	P	09	53.20	-0.7
	S.D. = 0.9		on 13 of 13 obs.			

FEB 18, 1989 22h 05m 45.36± 0.87s
33.171 N ±10.8km 132.308 E ±10.0km
DEPTH = 10.0km (geophysicist)
SHIKOKU, JAPAN (236)
Felt (I JMA) at Uwajima.

UWA	0.22	76	P	05	00.00	-50.0X
SHNJ	1.38	314	P	06	10.10	-0.5
			eS	06	28.40	
SHK	1.39	13	eP	06	11.80	1.0
KUMJ	1.40	243	P	06	09.50	-1.4
			eS	06	27.10	
TKSJ	1.66	60	eP	06	14.50	-0.2
			S	06	37.60	
YONJ	2.23	25	eP	06	23.60	0.7
			S	06	52.40	
KAGJ	2.32	212	eP	06	25.70	1.6
WKYJ	2.93	68	P	06	31.70	-1.2
	S.D. = 1.4		on 7 of 8 obs.			

FEB 18, 1989 22h 16m 37.23± 0.34s
43.765 N ± 3.0km 13.101 E ± 3.7km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 3.2 (SSO), 3.2 (TRI).

ARV	0.29	203	Pd	16	43.40	0.1
			eSg	16	47.80	
AOI	0.42	120	iPgc	16	45.50	-0.4
			iSg	16	53.07	
RSM	0.50	289	Pd	16	47.50	0.2
			eSg	16	55.20	
SSO	0.53	154	e(Pg)	16	47.49	-0.4
			eSg	16	57.34	
CIO	0.57	177	iPg	16	48.14	-0.7
			iSg	16	58.14	
SFI	0.92	280	P	16	54.70	0.0
			eSg	17	09.90	
PGD	1.00	277	P	16	56.00	-0.4
			eSg	17	11.50	
ALP	1.04	160	iPg	16	56.86	-0.2
			iSg	17	14.91	
FIR	1.34	271	ePn	17	01.00	-0.8
			eSn	17	27.00	
MNS	1.41	193	P	17	03.20	0.2
			eSg	17	21.90	
AQU	1.43	171	P	17	04.30	1.1
			eSn	17	24.00	
BDI	1.83	280	P	17	09.60	0.5
PII	1.87	270	P	17	10.30	0.8
TRI	2.00	13	ePn	17	10.30	-1.1
			iSn	17	35.00	
			iSg	17	41.00	
SDI	2.12	165	P	17	13.80	0.5
CEY	2.19	25	e(Pn)	17	18.00	3.8X
			eSn	17	41.50	
V8Y	2.32	41	ePn	17	23.80	7.7X
			eSn	17	51.40	
			iSg	17	56.40	
VOY	2.34	14	ePn	17	16.40	0.0
			eSn	17	45.90	
			eSg	17	54.60	
LJU	2.49	24	ePn	17	20.50	2.0
			e(Sn)	17	48.80	
CTI	2.50	336	P	17	19.80	1.1
			eSn	17	47.80	
RBL	2.70	7	P	17	20.20	-1.3
BOB	2.81	292	P	17	22.30	-0.8
FVI	2.84	356	P	17	23.40	0.1
KBA	3.32	3	ePn	17	30.00	-0.4
			iPg	17	39.20	
			i	18	09.00	
			i	18	29.30	
	S.D. = 0.8		on 22 of 24 obs.			

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* FEB 18, 1989 22h 28m 32.05± 0.77s
6.967 S ±12.0km 155.502 E ± 8.2km
DEPTH = 79.5 ± 9.6 km
4.2mb (4 obs.)
SOLOMON ISLANDS (193)

PAA	0.66	359	iPc	28	47.00	-0.5
			iS	28	52.00	
RAB	4.31	310	eP	29	46.00	9.3X
HNR	5.04	119	eP	29	47.00	0.3
			eS	30	47.00	
LAT	8.45	272	eP	30	35.00	1.1
PMG	8.61	253	eP	30	36.00	-0.1
RMQ	20.45	198	eP	33	13.00	7.5X
QIS	20.49	227	eP	33	05.00	-0.9
			e	33	09.00	
WB5	24.19	236	eP	33	43.20	0.7
WRA	24.25	236	Pc	33	43.80	0.8
	0.5s		4.20nm			4.1mb
WARB	33.48	232	eP	34	57.20	-8.7X
FORR	34.97	224	iPd	35	18.00	-0.6
	0.4s		19.00nm			5.4mb X
KLB	42.89	230	eP	36	24.00	-0.4
	0.4s		2.00nm			4.3mb
MRWA	43.28	234	iPd	36	27.50	-0.1
	0.3s		3.00nm			4.6mb
CHG	61.34	296	eP	38	57.80	15.6X
GBA	80.13	285	Pc	40	34.20	-1.2
	0.6s		1.60nm			4.1mb
YKA	96.08	28	P	41	52.60	1.0
	S.D. = 0.9		on 12 of 16 obs.			

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* FEB 18, 1989 23h 09m 55.26± 1.44s
43.796 N ±10.9km 13.122 E ± 8.0km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

ARV	0.32	204	P	10	02.10	0.1
			eSg	10	06.80	
AOI	0.43	125	iPg	10	04.06	0.1
			iSg	10	12.04	
RSM	0.50	285	P	10	05.40	0.0
			eSg	10	14.90	
CIO	0.60	178	iPg	10	07.12	-0.3
			iSg	10	17.01	
ASS	0.80	205	P	10	11.00	0.2
			eSg	10	23.20	
	S.D. = 0.3		on 5 of 5 obs.			

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* FEB 18, 1989 23h 28m 44.46± 2.04s
33.946 S ±18.3km 71.014 W ±10.5km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

TACH	0.30	12	iPc	28	53.80	1.6
			iS	29	04.50	
CHCH	0.30	88	iPc	28	52.50	0.2
			iS	29	02.70	
PCH	0.53	52	iPd	28	55.40	-0.2
			iS	29	08.00	
SAN	0.57	31	iPc	28	56.30	0.1
			iS	29	09.50	
LCCH	0.66	315	iPc	28	57.00	-0.3
			iS	29	10.50	
PEL	0.85	19	iP	29	00.00	0.0
			iS	29	16.00	
FCH	0.86	45	iPd	28	59.60	-0.9
			iS	29	16.00	
ROCH	0.97	0	iPc	29	01.50	-0.5
			iS	29	17.50	
	S.D. = 0.9		on 8 of 8 obs.			

FEB 18, 1989 23h 46m 57.47± 0.71s
34.838 N ± 6.2km 30.425 E ± 7.9km
DEPTH = 10.0km (geophysicist)
EASTERN MEDITERRANEAN SEA (371)

PPCY	1.58	88	eP	47	26.50	1.0
ELL	1.95	348	iPn	47	30.30	-0.8
CSS	2.39	86	eP	47	37.50	0.2
			eS	48	05.50	

LFK	2.59	79	ePn	47	41.00	0.9
BCK	2.62	3	iPn	47	40.50	-0.1
IKL	3.00	61	iPn	47	44.50	-1.5
KHL	3.55	348	ePn	48	07.50	13.6X
HRI	4.68	108	eP	48	10.00	0.0
			eS	49	00.00	
KOT	5.04	166	ePn	48	14.50	-0.3
			eSn	49	08.50	
BURJ	5.17	119	Pd	48	16.50	-0.3
SALJ	5.22	121	Pc	48	17.40	-0.2
JARJ	5.29	118	Pd	48	18.20	-0.3
KFNJ	5.30	123	Pc	48	20.50	1.9
MASJ	5.41	123	P	48	19.60	-0.6
PRNI	5.91	138	eP	48	26.00	-1.2
MBH	6.30	142	eP	48	33.00	0.3
			eS	49	42.00	
LIT	8.21	312	eP	49	54.40	55.0X
KNT	8.67	319	eP	49	06.80	1.0

S.D. = 0.9 on 16 of 18 obs.

& FEB 19, 1989 00h 22m 02.22s
61.014 N 151.430 W
DEPTH = 64.5km
SOUTHERN ALASKA (2)
<AGS-P>.

NKA	0.29	161	iP	22	14.15	1.3
SPU	0.35	299	iP	22	12.96	-0.4
			iS	22	21.77	
CGLM	0.41	317	iP	22	13.40	-0.5
CRP	0.43	306	iP	22	13.90	-0.4
RDT	0.65	228	iP	22	15.74	-0.7
			iS	22	26.84	
SLKM	0.78	130	iP	22	17.30	-0.7
			iS	22	30.28	
RED	0.89	228	eP	22	18.70	-0.7
PMS	0.94	75	eP	22	19.25	-0.7
NNL	0.98	176	iP	22	20.76	0.3
			eS	22	36.08	
PWA	0.98	49	iP	22	20.40	-0.1
PTE	1.18	96	eP	22	22.31	-0.8
			eS	22	38.86	
ILIM	1.20	220	iP	22	22.80	-0.7
PLRM	1.25	61	eP	22	22.96	-1.1
			eS	22	39.49	
PME	1.31	61	eP	22	24.03	-0.8
SEW	1.34	132	eP	22	23.89	-1.3
GHO	1.43	57	iP	22	25.65	-0.9
KNK	1.49	73	iP	22	26.16	-1.2
CNPM	1.50	176	iP	22	26.87	-0.5
			iS	22	46.45	
PWL	1.52	95	eP	22	26.17	-1.5
			eS	22	45.40	
SML	1.69	60	iP	22	28.74	-1.3
KNIM	1.94	109	iP	22	30.34	-3.1
SVW	2.04	274	iP	22	33.04	-1.9
GLI	2.12	92	iP	22	32.74	-3.3
			eS	22	57.61	
MTU	2.13	117	eP	22	34.12	-2.1
			eS	22	59.22	
VZW	2.37	87	eP	22	37.03	-2.6
FID	2.44	94	eP	22	37.06	-3.4
VLZ	2.48	85	eP	22	38.60	-2.4
KLU	2.71	77	iP	22	41.73	-2.6
TOA	2.74	64	eP	22	43.78	-1.0
			eS	23	14.77	
KDC	3.32	190	eP	22	50.40	-2.4
PAX	3.43	52	eP	22	51.34	-3.1
GLB	3.71	80	eP	22	55.26	-3.1
CCB	4.01	23	eP	23	00.26	-2.2

33 obs. associated

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* FEB 19, 1989 00h 23m 38.30± 2.04s
45.645 N ±18.0km 14.070 E ± 7.6km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.1 (TRI).

TRI	0.22	287	iPgd	23	43.70	0.6
			iSg	23	50.70	
CEY	0.27	69	iPgc	23	43.90	0.0
			eSg	23	44.10	
VOY	0.41	342	ePg	23	47.10	0.5
			eSg	23	54.80	
			e	23	57.10	
RBL	0.87	336	P	23	55.10	0.0
			eSg	24	07.90	
FVI	1.31	317	P	24	01.20	-1.2
			eSg	24	22.50	

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

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* FEB 19, 1989 01h 02m 29.78± 0.71s
2.398 N ±11.9km 126.831 E ±13.0km
DEPTH = 33.0km (normal)
4.7mb (2 obs.)
MOLUCCA PASSAGE (266)

MNI	2.20	245	iPd	03	07.00	2.2
			eS	03	36.20	
TSM	8.93	282	iPc	04	44.20	4.7X
MTN	15.74	164	eP	06	10.00	-0.7
WB5	23.34	162	eP	07	35.90	-0.3
WRA	23.39	162	Pc	07	36.50	-0.2
	0.9s		21.80nm		4.7mb	
QIS	26.03	152	eP	08	02.00	0.2
ASPA	26.81	166	eP	08	08.20	-0.8
LOE	28.81	303	eP	08	25.80	-1.4
CHG	31.81	303	iPd	08	53.60	-0.2
	0.9s		13.03nm		4.8mb	
FORR	33.08	178	eP	09	03.00	-1.7
BJI	38.70	347	eP	09	54.00	1.7
BRS	38.76	142	Pd	09	52.70	-0.4
COO	40.58	146	iPd	10	09.30	1.2
BWA	41.87	153	eP	10	20.30	1.6
CAN	42.88	153	eP	10	27.70	0.8
HYB	49.67	291	ePd	11	20.00	-0.9
GBA	50.06	286	P	11	23.00	-0.8

S.D. = 1.3 on 16 of 17 obs.

& FEB 19, 1989 01h 11m 54.24s
61.826 N 150.124 W
DEPTH = 43.1km
SOUTHERN ALASKA (2)
<AGS-P>.

PWA	0.21	146	iP	12	01.99	0.1
PLRM	0.53	116	iP	12	04.55	-0.9
			eS	12	13.78	
PME	0.56	110	iP	12	05.27	-0.6
			iS	12	14.51	
GHO	0.57	95	iP	12	05.58	-0.6
PMS	0.64	155	Pn	12	06.54	-0.6
SML	0.85	90	iP	12	08.80	-1.2
			iS	12	22.31	
KNK	0.90	117	iP	12	09.88	-0.7
			iS	12	23.36	
CGLM	1.04	241	eP	12	11.79	-0.9
			eS	12	26.46	
PTE	1.10	151	eP	12	12.73	-0.7
CRP	1.12	241	eP	12	13.20	-0.7
			eS	12	28.47	
SPU	1.13	236	iP	12	13.10	-0.8
			iS	12	28.49	
NKA	1.21	207	eP	12	14.97	0.0
SLKM	1.32	182	iP	12	15.63	-1.0
RDT	1.67	222	iP	12	20.95	-0.7
			iS	12	42.61	
GLI	1.74	122	iP	12	20.86	-1.7
			eS	12	43.65	
SEW	1.76	169	eP	12	22.99	0.3
NNL	1.88	198	eP	12	24.72	0.3
VZW	1.88	113	eP	12	23.36	-1.2
KNIM	1.88	141	iP	12	21.98	-2.5
TOA	1.89	80	eP	12	24.73	0.1
			iS	12	50.04	
RED	1.91	223	eP	12	24.30	-0.7
VLZ	1.95	109	eP	12	23.97	-1.4
MCK	1.99	15	eP	12	25.38	-0.7
KLU	2.03	98	iP	12	25.57	-1.2
FID	2.06	120	eP	12	25.17	-1.9
MTU	2.20	146	eP	12	30.63	1.5
ILIM	2.23	220	iP	12	28.81	-0.7
			iS	12	56.59	
HIN	2.27	128	eP	12	28.28	-1.8
CNPM	2.37	194	eP	12	31.54	0.0
PAX	2.45	60	eP	12	32.17	-0.6
			eS	13	02.14	
CVA	2.48	119	eP	12	33.65	0.7
SGAM	2.73	117	eP	12	37.94	1.3
SVW	2.74	257	iP	12	34.66	-2.1
DDM	2.78	43	eP	12	37.39	0.0
NEA	2.80	9	eP	12	35.56	-2.1
TTA	2.96	295	eP	12	37.58	-2.3
RAGM	3.01	116	eP	12	41.63	1.0
CCB	3.02	19	eP	12	38.75	-1.9
GLB	3.04	95	eP	12	39.41	-1.6
RDS	3.14	16	eP	12	40.55	-1.9
FBA	3.26	18	eP	12	42.12	-2.0

41 obs. associated

FEB 19, 1989 01h 45m 56.88± 0.20s
7.604 N ± 4.2km 94.029 E ± 4.1km
DEPTH = 22.4km (4 depth phases)
5.2mb (44 obs.) 4.8Msz (5 obs.)
NICOBAR ISLANDS REGION (704)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 22C
Centroid Location:
Origin Time 01:46: 1.6 0.9
Lat 7.65N 0.09 Lon 94.47E 0.11
Dep 15.0 FIX Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 0.04 0.60 Mtt=-8.20 0.53
Mff= 8.17 0.88 Mrt=-5.62 2.34
Mrf=-2.19 1.61 Mtf=-0.36 0.56
Principal Axes:
T Val= 8.80 Plg=17 Azm= 95
N 2.35 57 212
P -11.15 27 356
Best Double Couple:Mo=1.0*10**17
NP1:Strike=138 Dip=58 Slip=-172
NP2: 43 83 -32

BSI	2.44	149	iPc	46	36.00	-0.2
PSI	6.89	135	eP	47	38.80	-0.4
NNT	7.49	48	iPc	47	48.80	1.3
IPM	7.58	113	ePc	47	45.00	-3.8X
	0.5s		130.70nm		6.3mb	X
			e	49	07.40	
NST	10.00	36	eP	48	21.00	-1.4
PPI	10.22	141	ePc	48	23.60	-1.8
	0.9s		182.50nm		6.4mb	X
BDT	10.74	26	eP	48	31.00	-1.5
	0.8s		25.90nm		5.6mb	
KGM	10.79	120	eP	48	35.00	1.8
CHG	12.12	23	ePd	48	52.00	0.7
	1.1s		59.49nm		5.7mb	
			e	51	10.00	
LOE	12.30	37	eP	48	52.50	-1.2
KSI	14.06	142	e(P)	49	11.00	-6.0X
			e	51	20.00	
KOD	16.57	280	eP	49	54.80	4.9X
GBA	17.36	291	Pd	49	59.90	0.4
	1.4s		98.00nm		4.7mb	
HYB	17.97	304	iP	50	08.50	1.4
	1.0s		60.00nm		4.7mb	
QIZ	19.10	52	eP	50	21.20	0.2
N	12s		12.80um			
			eS	53	59.00	
LSA	22.15	353	Pc	50	51.90	-1.5
E	15s		1.50um			
			S	54	50.00	
GYA	22.27	31	iPc	50	55.60	1.4
N	12s		6.50um			
E	12s		9.50um			
			S	55	01.00	
POO	22.43	301	iPc	50	57.70	1.9
TRT	23.99	129	iPd	51	12.20	1.3
	0.6s		35.90nm		5.1mb	
GZH	24.11	48	eP	51	13.20	1.1
N	10s		37.00um			
E	12s		8.20um			
TSM	24.15	97	eP	51	14.50	2.0
CD2	24.91	20	eP	51	20.10	0.3
Z	14s		1.80um		4.7MszX	
E	10s		6.50um			
NDI	26.29	325	eP	51	33.20	0.5
	0.7s		36.30nm		5.1mb	
KHKI	26.73	126	eP	51	36.00	-0.8
			e	54	25.00	
BAG	27.37	69	eP	51	43.00	0.1
XAN	29.68	26	P	52	09.20	5.8X
N	13s		6.60um			
E	13s		4.80um			
WHN	29.72	37	eP	52	04.50	0.8
Z	16s		5.39um		5.3MszX	
N	10s		2.89um			
E	11s		2.63um			
			S	57	02.00	
LZH	29.74	16	eP	52	03.50	-0.6

19d 01h

		1.5s	114.00nm			5.5mb		TAB	52.61	313	eP	55	11.00	-0.6		PGD	79.24	313	P	58	02.70	0.4
	Z	29s	1.80um			4.5MszX		AVY	52.70	239	iPd	55	15.06	2.5		CTI	79.29	315	P	58	00.40	-2.0
	N	12s	1.80um					QIS	52.82	123	eP	55	10.00	-3.2X		GRB1	79.31	319	eP	58	02.70	0.3
	E	13s	2.50um								e	55	16.00				1.0s	44.00nm				5.4mb
			eS	57	19.00			PMG	55.55	107	e(P)	55	30.00	-3.3X		MOX	79.36	320	eP	58	02.00	-0.6
DAV		31.29	89 eP	52	23.80	6.0X		CTA	58.27	119	iPd	55	55.80	3.2X			1.7s	31.00nm				5.1mb
GTA		32.09	8 P	52	23.60	-1.1			1.1s		25.95nm			5.2mb		FIR	79.57	313	eP	58	04.00	0.1
	Z	22s	1.30um			4.6Msz		HRI	59.45	304	ePd	56	05.20	4.5X		GRF	79.60	319	eP	58	02.70	-1.2
	N	10s	1.20um					PRNI	59.53	301	iPd	56	02.50	1.2			1.0s	44.00nm				5.4mb
			pP	52	31.20	26km		ADE	59.74	138	eP	56	07.10	4.5X		MAO	79.67	312	P	57	58.30	-6.1X
NJ2		33.55	40 eP	52	42.20	4.9X		RMQ	62.95	125	eP	56	31.00	6.6X		NB2	79.91	331	P	58	04.20	-1.2
	N	14s	3.10um					ELL	64.80	307	iP	56	34.30	-2.2			1.0s	14.20nm				4.9mb
	E	14s	2.90um					TOO	65.74	137	eP	56	42.00	-0.3		VAI	81.30	315	P	58	12.50	-0.4
			eS	58	00.00			LWI	65.80	264	eP	56	44.00	0.6		CVF	81.35	312	eP	58	12.10	-1.3
QUE		33.90	315 eP	52	41.50	0.8		PTZ	65.87	251	iPd	56	44.20	0.6			1.0s	9.60nm				4.8mb
TIY		34.30	26 eP	52	47.40	3.5X		BWA	66.22	133	eP	56	46.30	0.8		TUH	81.68	235	eP	58	21.60	6.4X
SSE		34.49	44 P	52	47.50	2.0		CAN	67.07	133	eP	56	49.40	-1.5		FIN	81.76	314	P	58	14.93	-0.6
		1.0s	24.00nm			5.1mb					i	56	55.10			ORX	81.86	315	P	58	14.41	-1.7
	Z	16s	2.70um			5.1MszX		COO	67.15	128	eP	56	51.00	-0.5		ROB	82.00	314	P	58	16.16	-0.6
	N	12s	3.00um					VRI	68.82	316	ePd	57	01.50	-0.2		IMI	82.01	313	P	58	15.85	-1.0
	E	12s	1.80um					LSZ	69.08	251	iP	57	05.50	1.7		SBF	82.34	313	eP	58	18.30	-0.2
			eS	58	12.00						i	57	38.00				1.0s	16.00nm				5.0mb
			eSS	00	42.00			MLR	69.29	316	ePd	57	04.50	-0.2		RSP	82.39	315	P	58	17.90	-1.0
TIA		35.43	33 eP	52	54.40	0.9		RZN	69.55	312	iP	57	06.00	-0.5		STV	82.39	314	P	58	17.59	-1.3
	Z	22s	1.90um			4.8Msz		BUL	69.97	245	iPd	57	10.10	0.8		LSD	82.45	315	P	58	19.03	-0.3
	N	15s	2.10um					BFT	70.39	239	iPd	57	14.20	2.3		PZZ	82.54	314	P	58	17.59	-2.1
	E	15s	2.70um						1.0s		23.00nm			5.3mb		LPG	82.73	315	eP	58	20.60	-0.2
KSH		35.62	336 eP	52	53.50	-1.7		VTS	70.78	312	eP	57	12.00	-1.9			0.8s	10.70nm				5.0mb
	Z	16s	1.20um			4.8MszX					eSg	57	18.00			RRL	82.74	314	P	58	19.85	-1.0
	E	12s	0.80um					KMZ	70.86	253	iPc	57	16.50	1.7		HAU	82.86	317	eP	58	20.30	-0.8
BTO		35.82	21 eP	52	55.50	-1.3		VAY	71.10	311	eP	57	12.00	-3.6X			1.2s	17.80nm				5.1mb
	N	13s	2.30um					BPI	72.26	240	eP	57	19.50	-3.6X		FRF	82.92	313	eP	58	21.60	0.1
	E	13s	1.40um						0.6s		20.00nm			5.3mb			1.2s	35.70nm				5.4mb
			pP	53	04.00	29km		KJF	72.99	335	iP	57	27.00	0.6		LRG	83.14	313	eP	58	22.60	0.0
			eS	58	28.00			SUF	73.22	334	eP	57	27.00	-0.8			1.0s	13.60nm				5.1mb
WMO		36.50	352 P	53	02.00	-0.5			0.7s		10.40nm			5.0mb		DOU	83.87	320	P	58	28.90	2.7
	Z	17s	1.00um			4.7MszX		SEK	73.27	238	eP	57	31.50	2.5		SNF	84.03	320	P	58	30.50	3.5X
			S	58	43.00				1.0s		20.00nm			5.1mb		LBF	84.54	317	eP	58	29.30	-0.4
HHC		36.61	23 eP	53	03.80	0.3		NUR	73.32	331	iP	57	28.50	0.1			1.0s	12.00nm				5.1mb
	Z	14s	3.00um			5.2MszX			0.8s		19.10nm			5.2mb		LOR	84.59	317	eP	58	29.50	-0.4
	N	13s	1.40um						Z 20s		0.80um			5.0Msz			1.0s	8.80nm				4.9mb
	E	13s	2.80um								i	57	36.30			SMF	84.66	316	eP	58	29.90	-0.4
			sP	53	10.00						LR	35	50.00				1.0s	10.80nm				5.0mb
			eS	58	44.00			SPC	73.69	319	eP	57	30.20	-0.8		AVF	84.98	316	eP	58	31.30	-0.5
BJI		37.89	28 eP	53	16.00	1.9		PSZ	73.77	318	eP	57	30.50	-0.9			1.0s	14.80nm				5.2mb
	Z	16s	1.50um			4.9MszX		KRA	74.00	320	eP	57	29.10	-3.4X		RJF	86.42	315	eP	58	41.40	2.4
	N	14s	1.80um						1.0s		37.00nm			5.4mb			0.8s	5.30nm				4.8mb
	E	14s	1.60um								e	57	34.10			LPO	86.73	314	eP	58	42.80	2.2
			eS	59	10.00			SOD	74.42	338	iP	57	36.20	1.5			1.0s	16.00nm				5.2mb
			eSS	01	47.00			SRO	74.81	317	e(P)	57	36.00	-1.3		DAG	87.74	348	eP	58	46.00	1.2
DL2		39.85	34 eP	53	33.00	2.5		SWZ	74.87	239	iPc	57	38.60	0.4		EKA	87.88	325	P	58	48.00	2.2
MTN		42.09	119 eP	53	50.00	0.8			0.9s		50.42nm			5.5mb			1.3s	31.50nm				5.5mb
			e	54	36.00			KEV	75.05	341	eP	57	42.00	3.7X		KRP	87.98	128	P	58	53.00	6.4X
			e	56	29.00			BNG	75.06	273	iPd	57	40.10	0.7		BRW	88.90	18	eP	58	51.00	0.5
MAIO		42.51	317 eP	53	53.00	0.5			0.9s		23.00nm			5.2mb					i	58	54.90	
			e	55	34.00						id	57	45.00			ALE	89.37	357	eP	58	53.00	0.5
			eS	00	12.00			ZST	75.66	318	iP	57	41.50	-0.6			1.0s	35.00nm				5.6mb
SNY		42.96	33 eP	53	57.60	1.7		TDS	75.72	309	P	57	33.00	-9.7X		TOL	91.33	310	eP	59	06.00	3.6X
	Z	16s	1.90um			5.1MszX		HVD	75.75	236	eP	57	34.00	-9.2X		APHE	91.60	307	eP	59	05.00	1.1
	N	13s	0.90um								e	59	03.20			ATEJ	91.87	307	eP	59	10.50	5.4X
	E	14s	0.90um					VKA	76.19	318	eP	57	44.50	-0.7		IMA	91.91	22	eP	59	05.90	1.2
			eS	00	13.00				1.0s		39.50nm			5.4mb			1.0s	17.50nm				5.4mb
MUN		44.70	153 iPc	54	09.80	-0.3		KSP	76.40	320	eP	57	46.00	-0.3					e	59	09.20	
KLB		45.10	151 eP	54	12.00	-1.4		UPP	76.64	330	iP	57	47.60	0.2		MBC	94.04	8	eP	59	15.00	0.8
CN2		45.31	32 eP	54	15.00	0.1		VBY	76.75	315	eP	57	47.50	-0.9		PMR	95.66	25	eP	59	21.50	-0.3
	Z	12s	1.60um			5.2MszX		LJU	77.28	315	iP	57	50.50	-0.8			1.0s	27.50nm				5.6mb
	E	12s	1.10um					CEY	77.34	315	e(P)	57	51.00	-0.7					e	59	25.70	
			pP	54	20.00	17km		PRU	77.46	319	eP	57	52.00	-0.2		INK	97.28	16	eP	59	30.00	0.9
			eS	00	55.00						e	58	46.00			YKA	106.71	13	PKP	04	35.80	14.1X
			eSS	04	18.00			VOY	77.72	315	eP	57	53.30	-0.6		FFC	116.47	10	ePKP	04	44.00	3.5X
NWAO		45.96	153 eP	54	19.00	-1.1		TRI	77.81	315	eP	57	52.40	-1.7			1.0s	12.00nm				
	Z	20s	0.80um			4.7Msz		BRG	77.89	320	eP	57	54.10	-0.4		SES	118.27	18	ePKP	04	48.00	3.9X
	N	20s	0.50um						1.2s		26.00nm			5.1mb		LRM	121.77	22	ePKP	04	55.40	4.2X
	E	20s	0.30um					RBL	77.96	316	P	57	51.30	-3.8X		GOL	129.62	19	ePKP	05	09.60	3.0X
COOL		46.25	147 eP	54	21.60	-0.9		KHC	78.05	319	P	57	56.40	0.9			1.0s	4.00nm				
RKG		46.82	154 eP	54	29.00	2.1					e	58	50.50			ALO	133.47	23	ePKP	05	15.00	1.1
MDJ		48.09	34 eP	54	37.40	0.6		KBA	78.13	316	eP	57	55.00	-1.2		RLO	135.64	10	ePKP	05	23.60	5.9X
			epP	54	42.80	18km			1.1s		15.40nm			5.0mb		LNO	135.74	11	e(PKP)	05	23.00	5.2X
			S	01	35.00						i	58	00.30			TUL	135.74	11	ePKP	05	23.40	5.5X
WB5		48.19	125 eP	54	35.50	-2.4		USI	78.16	308	P	57	55.20	-1.0			1.1s	9.20nm				
			i	54	40.80			CLL	78.50	321	iP	57	58.00	0.1			Z 19s	0.61um				5.3Msz
WRA		48.20	125 Pc	54	35.60	-2.4			1.6s		21.00nm			4.9mb				LR	01	00.00		
		0.7s	3.90nm			4.6mb		FVI	78.51	316	P	57	56.40	-1.6		SIO	135.80	12	e(PKP)	05	22.50	4.5X
ASPA		49.83	130 eP	54	48.10	-2.4		HFS	78.63	330	eP	57	56.90	-1.5		MEO	136.19	15	ePKP	05	22.50	3.7X
		0.9s	27.00nm			5.3mb			1.3s		60.80nm			5.5mb			1.0s	6.90nm				
			e	56	30.70				Z 17s		0.34um			4.7MszX		VVO	136.31	12	e(PKP)	05	23.00	4.0X
FORR		50.27	141 eP	54	52.70	-1.0					LR	32	31.00			BMA	137.11	245	e(PKP)	05	24.00	3.0X

ITA	137.68	245	e(PKP)	05	24.00	1.6
VAO	139.55	243	ePKP	05	30.70	5.2X
BAO	142.00	254	ePKP	05	23.00	-7.1X
ATB	146.14	275	e(PKP)	05	36.00	-1.0
CNCB	160.20	241	PKP	06	02.70	5.6X
LPB	160.42	241	PKP	06	04.00	6.8X
ZOBO	160.55	242	PKP	05	59.00	1.5
Z 20s		0.29um				
			LR	55	24.00	

S.D. = 1.2 on 136 of 178 abs.

FEB 19, 1989 01h 50m 45.24± 0.47s
40.225 N ± 5.4km 21.816 E ± 3.5km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.7 (ATH).

KZN	0.09	337	iPbd	50	49.00	1.1
LIT	0.53	103	eP	50	55.00	-1.0
KBN	0.86	298	iPg	51	02.30	0.5
THE	0.97	65	ePg	51	04.00	0.4
			eSg	51	15.00	
OHR	1.18	319	iPn	51	06.30	-0.9
VAY	1.24	27	iPn	51	07.70	-0.5
			iSn	51	22.60	
KNT	1.25	41	ePb	51	08.00	-0.4
PLG	1.26	83	ePb	51	08.30	-0.3
TPE	1.38	273	iPnd	51	08.50	-2.0
NEO	1.42	130	iPnc	51	11.00	-0.1
SRN	1.44	257	iPnc	51	16.00	4.7X
BERA	1.50	289	ePn	51	13.40	1.2
SRS	1.62	56	ePb	51	13.00	-0.9
SKO	1.77	351	iPn	51	15.60	-0.5
			i	51	19.20	
			i	51	37.30	
			iSg	51	42.90	
PHP	1.79	325	iPnc	51	16.10	-0.3
TIR	1.86	308	ePn	51	19.20	1.9
MMB	1.99	46	eP	51	20.00	0.7
			iS	51	52.00	
LACI	2.13	312	ePn	51	24.50	3.2X
KKS	2.13	331	ePn	51	22.00	0.7
VLS	2.26	205	ePn	51	24.50	1.3
SDA	2.50	316	ePn	51	30.60	4.0X
BCI	2.51	329	ePn	51	26.40	-0.3
VTS	2.59	23	iP	51	28.00	0.0
			iSg	52	10.00	
RZN	2.64	55	iPc	51	28.00	-0.8
ATH	2.69	146	ePn	51	30.00	0.6
PVY	2.74	330	ePn	51	30.40	0.2
			eSn	52	04.00	
PLD	2.88	48	eP	51	35.00	3.1X
PGB	2.92	37	iPc	51	34.00	1.4
TTG	2.92	320	ePn	51	33.10	0.5
			eSn	52	10.00	
LCI	2.96	273	P	51	31.00	-2.1
RDO	2.98	71	ePn	51	31.50	-1.8
KDZ	3.08	61	iP	51	34.00	-0.8
DIM	3.35	56	eP	51	46.00	7.4X
PRK	3.57	104	ePn	51	43.00	1.2
BRT	3.57	282	P	51	41.10	-0.8
			eSn	52	22.30	
PVL	3.98	40	eP	51	45.00	-2.6
TDS	4.25	264	P	51	53.60	2.1
MGR	4.80	271	P	51	59.00	-0.3
			eSn	52	52.50	
DRA	4.80	21	ePd	52	28.00	28.7X
BZS	5.39	359	ePd	52	09.50	1.9
MLR	6.07	29	ePc	52	20.00	2.7
SDI	6.23	286	P	52	19.00	-0.6
VRI	6.69	31	ePc	52	28.00	2.1
VBY	7.14	320	eP	53	02.50	30.2X
CEY	7.72	318	eP	52	39.20	-1.2
			eS	54	03.50	
LJU	7.88	320	e(P)	53	12.00	29.4X
TRI	8.05	316	eP	52	55.10	10.1X
			e	54	08.80	
			e	54	27.00	
			e	55	10.70	
VOY	8.20	318	e(P)	52	44.40	-2.7
			e	54	14.00	
FVI	9.15	317	P	52	56.80	-3.3X
KBA	9.19	321	eP	53	07.50	6.5X

S.D. = 1.4 on 39 of 50 obs.

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* FEB 19, 1989 01h 50m 52.70± 0.89s
2.363 N ±14.0km 127.024 E ±12.7km
DEPTH = 33.0km (normal)
MOLUCCA PASSAGE (266)

MNI	2.37	247	ePd	51	30.80	0.7
			iS	52	09.00	
WB5	23.25	162	iPc	55	58.10	-0.1
QIS	25.90	152	eP	56	24.00	0.4
	0.4s		24.00nm			5.1mb X
WARB	28.38	181	eP	56	38.00	-8.2X
FORR	33.04	178	iPd	57	26.00	-1.3
	0.3s		31.00nm			5.7mb X
BRS	38.61	142	Pc	58	14.30	-0.4
BJI	38.78	347	(P)	58	16.00	0.1
COO	40.44	146	iPd	58	31.40	1.5
GBA	50.26	286	P	59	44.00	-4.2X
AVY	80.65	251	eP	03	03.70	-0.9

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

% FEB 19, 1989 02h 34m 01.06± 0.81s
59.995 N ± 6.4km 6.536 E ± 9.9km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.8 (BER).

ODD1	0.10	151	iPgc	34	04.05	0.3
			iSg	34	05.34	
BLS1	0.62	166	iP	34	13.21	-0.5
			iS	34	21.34	
KMY	1.02	220	eP	34	20.57	0.2
			iSg	34	33.56	
HYA	1.19	352	iP	34	23.04	-0.1
			eS	34	39.75	
NRA0	2.60	71	iPc	34	43.90	0.1
			ePg	34	46.50	
			iS	35	20.20	

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

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* FEB 19, 1989 02h 51m 07.21± 0.67s
30.471 N ±16.5km 69.035 E ±15.5km
DEPTH = 33.0km (normal)
4.3mb (4 obs.)
PAKISTAN (710)

NDI	7.34	102	eP	52	55.50	0.6
	0.5s		7.04nm			4.9mb
			iS	54	32.00	
MAIO	9.87	309	eP	53	31.00	1.1
			eS	56	03.00	
HYB	15.63	144	eP	54	46.00	-0.7
GBA	18.49	153	P	55	23.00	0.4
	0.7s		2.50nm			3.5mb
MLR	36.67	306	eP	58	13.00	0.3
SLL	47.22	326	eP	59	37.40	-1.1
	0.5s		0.90nm			4.0mb
NB2	48.35	327	P	59	46.80	-0.6
	1.1s		6.00nm			4.5mb
INK	80.10	8	eP	03	20.00	5.3X
YKA	87.32	2	P	03	57.10	5.5X
CFA	143.54	257	ePKPd	10	29.30	-11.2X
RTCB	143.99	257	iPKPd	10	28.20	-13.1X
RTRS	144.32	260	iPKPc	10	29.50	-12.2X

S.D. = 1.0 on 7 of 12 obs.

FEB 19, 1989 03h 36m 38.64± 1.43s
34.677 N ± 6.1km 24.198 E ± 4.4km
DEPTH = 17.8 ± 11.5 km
4.2mb (20 obs.)
CRETE (370)
ML 3.9 (ATH).

VAM	0.73	0	ePb	36	54.10	1.6
NPS	1.30	63	iPnc	37	06.10	4.2X
KAP	2.59	69	ePb	37	29.10	8.6X
ATH	3.31	353	ePn	37	32.00	1.4
IZM	4.46	33	eP	37	47.40	0.4
VLS	4.55	321	ePn	37	48.90	0.7
KSL	4.63	70	ePn	37	51.00	1.6
NEO	4.69	351	ePn	37	50.50	0.3
PRK	4.85	19	ePn	37	52.00	-0.5
ELL	5.08	64	iP	37	57.30	1.4
EZN	5.41	18	eP	37	59.00	-1.4
KHL	5.62	48	iP	38	04.60	1.1
PLG	5.72	354	ePn	38	05.00	0.2
BCK	5.87	60	iP	38	07.80	0.8
KZN	5.94	342	ePn	38	09.10	1.2
DST	6.06	34	eP	38	10.00	0.4
KBN	6.51	337	ePn	38	16.00	0.0
TPE	6.52	331	ePn	38	18.50	2.4
RDO	6.54	9	ePn	38	15.10	-1.3
VAY	6.76	350	ePn	38	21.00	1.6
VLO	6.88	329	ePn	38	20.80	-0.3
BERA	6.89	332	ePn	38	20.70	-0.6
MMB	6.91	357	iPd	38	22.00	0.4
OHR	6.96	338	ePn	38	20.20	-2.1
RZN	7.01	3	iPc	38	23.00	-0.1
KDZ	7.03	7	iP	38	23.00	-0.2
SOI	7.39	300	P	38	27.90	-0.3
PLD	7.43	3	eP	38	29.00	0.3
TIR	7.48	334	ePn	38	30.20	0.7
PHP	7.60	338	ePn	38	31.60	0.5
SKO	7.60	344	ePn	38	30.50	-0.7
HLW	7.72	126	eP	38	34.00	1.1
			S	40	09.50	
LACI	7.79	334	ePn	38	31.20	-2.7
PGB	7.86	360	iP	38	34.00	-0.9
IKL	7.90	76	eP	38	34.20	-1.2
MEU	7.90	290	P	38	36.10	0.6
			eSn	39	58.80	
VTS	7.94	355	eP	38	36.00	-0.1
			eSg	39	05.00	
KKS	7.96	339	ePn	38	41.60	5.4X
TDS	8.00	311	P	38	35.80	-1.1
KOT	8.01	124	ePn	38	37.50	0.6
SDA	8.20	335	ePn	38	39.00	-0.6
BRT	8.30	320	P	38	40.60	-0.4
BCI	8.33	338	ePn	38	40.40	-1.0
BBTK	8.55	50	iPc	38	45.00	0.4
PVL	8.57	6	eP	38	40.00	-4.7X
MGR	8.77	311	P	38	46.00	-1.5
			eSn	40	15.40	
ADI	9.31	97	ePd	38	56.00	1.1
JVI	9.73	103	ePd	39	00.00	-0.7
BURJ	9.97	101	Pd	39	16.50	12.4X
SALJ	9.97	102	Pd	39	03.50	-0.6
KFNJ	10.01	103	P	39	03.20	-1.4
MASJ	10.09	104	Pd	39	04.90	-0.9
MKRJ	10.09	105	Pd	39	04.00	-1.8
JARJ	10.11	101	P	39	49.00	42.9X
MBH	10.28	115	eP	39	07.50	-0.8
SDI	10.76	314	P	39	12.90	-2.1
MLR	10.88	7	ePc	39	17.50	0.8
BZS	11.10	351	eP	39	18.00	-1.5
VRI	11.35	9	eP	39	25.00	2.2
VBY	12.79	330	e(P)	39	40.80	-1.4
			e(S)	41	53.40	
CEY	13.32	329	e(P)	39	48.50	-0.8
			eS	42	09.50	
TRI	13.59	327	eP	39	49.00	-3.8X
			e	42	09.30	
VOY	13.78	328	e(P)	39	54.30	-1.1
RBL	14.24	329	P	39	58.20	-3.3X
FVI	14.70	327	P	40	05.20	-2.2
CTI	14.83	324	P	40	07.40	-1.7
KBA	14.84	330	e(P)	40	08.00	-1.4
	0.7s		6.10nm			4.2mb
			i	40	16.00	
			e	40	30.00	
KHC	16.44	335	P	40	32.70	2.8
	1.0s		10.50nm			3.9mb
			e	40	43.00	
PRU	16.86	338	eP	40	36.50	1.4
LPG	17.14	314	eP	40	46.90	7.9X
	0.6s		2.70nm			3.6mb
GRF	17.78	331	eP	40	48.80	2.1
	1.1s		28.00nm			4.3mb
BRG	17.82	338	eP	40	47.40	0.3
BSF	18.49	321	eP	40	56.30	0.8
	0.6s		5.40nm			3.9mb
CLL	18.49	337	iP	40	53.90	-1.5
	1.2s		10.00nm			3.9mb
CDF	18.62	323	eP	40	57.10	0.0
	0.7s		5.20nm			3.8mb
HAU	18.83	320	eP	41	00.20	0.6
	0.6s		5.40nm			3.9mb
LBF	19.56	315	eP	41	08.60	0.2
	0.6s		3.00nm			3.8mb
LOR	19.78	316	eP	41	10.60	-0.1
	0.4s		1.70nm			3.7mb
CAF	19.79	308	eP	41	13.10	2.3
	0.8s		5.90nm			3.9mb
WLF	20.00	324	P	41	39.40	26.5X
LPO	20.27	306	eP	41	17.50	1.6
	0.6s		18.70nm			4.6mb
RJF	20.30	308	eP	41	17.60	1.5

19d 03h

	0.7s	11.90nm		4.4mb	
LFF	20.66	307 eP	41	21.50	1.6
	0.6s	19.80nm		4.7mb	
MEM	20.71	326 iP	41	21.40	1.1
DOU	21.05	323 Pc	41	23.60	-0.2
	0.7s	32.20nm		4.8mb	
SNF	21.47	324 P	41	29.70	1.7
NUR	25.85	1 eP	42	08.00	-2.5
NB2	27.67	346 P	42	24.80	-2.5
	0.6s	2.80nm		4.2mb	
SUF	28.09	2 eP	42	27.00	-4.0X
	0.7s	4.00nm		4.3mb	
KJF	29.63	3 eP	42	41.00	-3.8X
BNG	30.54	191 ePd	43	01.10	7.7X
	0.3s	3.00nm		4.6mb	
SOD	32.77	2 eP	43	10.00	-2.3
TIC	38.77	231 P	44	08.50	4.6X
KIC	38.81	230 P	44	08.90	4.6X
LIC	39.10	230 P	44	11.30	4.6X
FRB	60.68	329 eP	46	51.00	0.3
SCH	63.02	320 eP	47	07.00	0.4
MBC	66.97	351 eP	47	31.00	-0.8
BJI	70.06	55 eP	47	51.00	-0.5
INK	75.98	352 eP	48	25.00	-0.8
YKA	77.66	342 P	48	35.90	0.7
IMA	79.57	359 eP	48	46.60	0.9
	0.8s	6.00nm		4.7mb	
FFC	79.68	332 eP	48	47.50	1.1
	0.6s	9.00nm		5.0mb	
PWA	83.89	357 eP	49	09.40	1.2

S.D. = 1.3 on 88 of 104 obs.

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* FEB 19, 1989 03h 42m 55.69± 1.83s
39.977 N ±14.6km 20.487 E ± 9.2km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

SRN	0.39	256 iPg	43	03.30	-0.3
TPE	0.48	311 iPg	43	03.70	-1.8
KBN	0.69	21 ePg	43	09.50	0.1
BERA	0.83	331 ePg	43	12.90	1.1
VLO	0.90	303 ePg	43	14.50	1.5
OHR	1.16	12 ePn	43	16.70	-0.7
VAY	2.08	49 ePn	43	31.00	0.0

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

FEB 19, 1989 04h 23m 44.66± 0.37s
7.887 S ± 7.3km 73.966 W ± 9.4km
DEPTH = 47.5km (3 depth phases)
5.2mb (44 obs.)
PERU-BRAZIL BORDER REGION (112)

ARE	8.86	164 eP	25	54.00	0.7
ZOBO	10.10	146 P	26	11.20	0.6
Z	20s	0.16um			
		LR	28	12.00	
LPB	10.33	147 P	26	15.10	1.5
	1.0s	80.00nm		5.8mb	X
CNCB	10.62	147 P	26	18.00	0.3
CCH	12.13	142 eP	26	40.00	2.1
HJA	17.32	153 iPd	27	42.20	-2.4
UPA	17.65	342 eP	27	57.70	8.8X
ITB1	25.06	134 e(P)	29	01.50	-4.7X
ITB	25.28	134 e(P)	29	03.20	-5.1X
ITB7	25.51	135 e(P)	29	03.90	-6.6X
BAO	26.55	109 eP	29	14.40	-5.9X
ITA	31.62	120 eP	30	07.90	2.0
BLA	45.27	353 P	32	00.00	0.6
VVO	47.65	336 eP	32	19.30	1.1
RLO	48.08	337 iP	32	22.80	1.2
FVM	48.15	343 P	32	22.50	0.4
TUL	48.17	336 iP	32	23.40	1.2
	0.7s	17.20nm		5.2mb	
LNO	48.17	336 ePd	32	23.10	1.0
SIO	48.23	336 ePd	32	23.70	0.9
FKO	48.27	334 ePc	32	23.70	0.6
	0.7s	49.90nm		5.7mb	
MEO	48.40	333 iPd	32	25.80	1.7
	0.4s	5.00nm		4.9mb	
OCO	48.53	334 eP	32	26.10	1.0
	0.6s	7.90nm		4.9mb	
RRO	48.86	333 eP	32	30.80	3.1X
	0.5s	19.10nm		5.4mb	
ACO	50.25	334 ePc	32	40.00	1.7
	0.7s	27.70nm		5.4mb	
ALQ	52.50	326 iPd	32	55.00	-0.6
	1.0s	12.50nm		4.9mb	
GAC	53.36	359 eP	33	04.00	2.6
GLD	55.52	331 P	33	17.50	-0.1
	1.2s	60.61nm		5.5mb	
GOL	55.55	331 eP	33	17.50	-0.4
	0.7s	4.62nm		4.6mb	
PLM	57.80	318 P	33	33.50	-0.4
STJ	58.33	17 eP	33	38.00	0.9
BW06	59.94	330 P	33	47.50	-1.2
	1.1s	22.32nm		5.2mb	
KVN	62.09	322 P	34	02.00	-1.3
SCH	62.76	5 eP	34	08.00	0.8
		pP	34	44.00	151kmX
LRM	63.59	331 eP	34	12.10	-1.0
SES	66.35	335 ePd	34	30.30	-0.3
	0.6s	29.00nm		5.5mb	
		pP	34	45.00	53km
FFC	66.65	343 eP	34	31.50	-0.9
	0.8s	12.00nm		5.0mb	
EDM	69.42	336 iPd	34	48.50	-1.3
	0.7s	42.00nm		5.5mb	
PNT	69.51	330 ePd	34	50.00	-0.3
	0.9s	23.00nm		5.1mb	
LIC	70.17	80 P	34	52.90	-2.1
	0.9s	48.00nm		5.4mb	
TIC	70.25	80 Pc	34	53.64	-1.9
	0.9s	79.00nm		5.7mb	
KIC	70.47	80 Pc	34	54.90	-2.0
	0.8s	107.00nm		5.9mb	
FRB	71.55	3 eP	35	02.00	-0.3
KUK	74.72	81 eP	35	20.50	-1.4
LEGH	74.81	82 eP	35	20.50	-2.0
KOGH	74.82	82 eP	35	21.00	-1.6
SHGH	75.00	82 eP	35	22.00	-1.5
AVE	75.19	53 iP	35	25.50	1.2
YKC	76.75	342 iPd	35	31.00	-1.5
	0.5s	10.00nm		5.1mb	
YKA	76.80	342 P	35	31.80	-1.0
ALOJ	79.00	50 iPd	35	47.40	1.8
ATEJ	79.01	50 iPd	35	47.00	1.3
AAPN	79.05	50 iPd	35	47.00	1.2
ACHM	79.21	50 iPd	35	48.00	1.4
APHE	79.27	50 iPd	35	48.20	1.2
ASMO	79.35	50 iPd	35	48.70	1.2
TOL	79.94	47 iPd	35	52.00	1.6
	1.1s	63.29nm		5.5mb	
EPF	84.04	45 eP	36	12.50	0.8
	0.8s	12.00nm		5.0mb	
LPF	84.59	40 eP	36	14.20	0.0
	0.8s	18.80nm		5.2mb	
GRR	84.82	40 eP	36	15.40	0.0
	0.8s	16.10nm		5.2mb	
LFF	84.86	43 eP	36	16.00	0.4
	0.6s	16.20nm		5.3mb	
LPO	85.09	44 eP	36	17.20	0.4
	0.6s	7.20nm		5.0mb	
FLN	85.17	40 eP	36	17.30	0.2
	0.9s	26.20nm		5.4mb	
CAF	85.76	44 eP	36	19.80	-0.4
	0.8s	5.30nm		4.8mb	
MAF	86.44	43 eP	36	23.10	-0.4
	0.6s	6.30nm		5.0mb	
INK	86.55	341 ePd	36	22.10	-1.5
		pP	36	35.00	43km
BGF	86.71	42 eP	36	24.40	-0.4
	0.8s	19.30nm		5.4mb	
AVF	87.11	42 eP	36	25.80	-0.9
	0.6s	4.50nm		4.9mb	
SSF	87.28	42 eP	36	26.50	-1.1
	0.8s	3.20nm		4.6mb	
SMF	87.40	42 eP	36	27.50	-0.7
	0.8s	13.40nm		5.2mb	
LOR	87.57	42 eP	36	28.00	-0.9
	0.7s	5.90nm		4.9mb	
MBC	88.04	350 eP	36	30.00	-0.6
	0.7s	14.00nm		5.3mb	
		pP	37	10.00	158kmX
LRG	88.41	46 eP	36	32.50	-0.5
	0.8s	6.40nm		4.9mb	
LMR	88.49	46 eP	36	33.00	-0.4
	0.6s	3.60nm		4.8mb	
FRF	88.63	46 eP	36	33.60	-0.5
	0.7s	6.60nm		5.0mb	
DOU	88.72	39 Pc	36	34.40	0.0
	0.8s	23.30nm		5.5mb	
LPG	89.11	44 eP	36	36.80	0.1
	0.7s	11.40nm		5.3mb	
SBF	89.25	46 eP	36	36.40	-0.8
	0.8s	5.30nm		4.9mb	
WLF	89.61	40 Pc	36	38.20	-0.3
CDF	90.07	41 eP	36	40.00	-0.9
	0.8s	8.00nm		5.1mb	
DAG	90.14	11 eP	36	30.30	-10.2X
FBA	90.32	336 P	36	40.50	-1.1
	0.8s	17.24nm		5.5mb	
		pP	36	54.50	47km
KBA	93.88	43 iPc	36	57.60	-1.0
	0.8s	2.40nm		4.7mb	
NB2	94.51	29 P	37	01.20	0.2
	0.8s	4.90nm		5.0mb	
HFS	95.61	30 eP	37	01.40	-4.6X
	0.4s	0.40nm		4.3mb	
CIN	104.31	53 ePdiff	37	47.00	1.4
WB5	140.77	225 ePKP	43	07.80	-4.2X
BJI	146.72	346 ePKP	43	19.00	-2.5
		e	43	32.50	
		e	44	01.00	
HHC	146.81	352 PKP	43	21.50	-0.3
MTN	147.66	231 ePKP	43	20.00	-3.7X
		e	43	59.00	
GTA	148.12	9 PKP	43	24.80	0.8
TIY	149.75	350 ePKP	43	35.10	8.6X
GBA	151.35	76 PKP	43	32.00	2.7
		e	44	13.30	
KOD	151.70	83 ePKP	43	43.00	12.7X

S.D. = 1.2 on 81 of 93 obs.

FEB 19, 1989 04h 32m 01.68± 4.83s
38.909 N ±11.3km 142.554 E ±45.0km
DEPTH = 33.0km (normal)
NEAR EAST COAST OF HONSHU, JAPAN(228)

OFUJ	0.71	284 iPd	32	13.70	-1.5
		S	32	23.10	
YAMJ	2.11	250 P	32	34.40	-0.9
		S	33	01.20	
AOMJ	2.35	315 eP	32	39.60	0.8
		eS	33	09.20	
NIIJ	3.26	240 P	32	52.30	0.6
		S	33	32.40	
KAKJ	3.30	216 P	32	50.50	-1.7
		S	33	29.80	
CHJJ	4.02	226 P	33	02.40	-0.1
MAT	4.18	237 eP	33	06.00	1.3
MTMJ	4.42	240 P	33	09.00	0.7
IIDJ	5.04	229 P	33	17.80	0.7

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

FEB 19, 1989 04h 58m 23.94± 0.33s
34.595 N ± 4.1km 136.477 E ± 3.0km
DEPTH = 52.7 ± 2.9 km
4.8mb (15 obs.) 4.1Msz (1 obs.)
SOUTHERN HONSHU, JAPAN (232)
Felt (III JMA) at Gifu, Noro, Tsu and Owase; (II JMA) at Hikone, Kyoto, Osoko and Nagoya; (I JMA) at Kobe and Hamamotsu. Also felt (I JMA) at Sumoto, Shikoku.

TSU	0.11	18 iP+	58	31.20	-1.0
		iS	58	36.30	
NAR	0.54	280 eP	58	36.00	0.1
		iS	58	44.40	
OWA	0.58	204 iPd	58	36.40	0.1
		iS	58	44.60	
NAG	0.70	35 iP+	58	38.20	0.4
		iS	58	47.40	
HIK	0.70	344 iP	58	37.50	-0.4
		i	58	44.50	
KYO	0.74	304 iPd	58	38.20	-0.2
		iS	58	47.50	
OSA	0.79	276 iP+	58	39.10	0.0
		iS	58	48.80	
WKYJ	0.82	243 iP+	58	39.40	-0.1
		eS	58	50.60	
GIF	0.84	16 iPd	58	39.60	0.0
		iS	58	50.30	
TSRJ	1.02	337 iPd	58	41.90	-0.3
HMM	1.03	83 P	58	42.50	0.2
		iS	58	56.80	
SUM	1.32	259 P	58	00.00	-46.4X
IIDJ	1.47	53 iP+	58	48.10	-0.4
		S	59	08.40	
TKSJ	2.10	254 iP+	58	57.70	0.4

			S	59	23.00	
MTMJ	2.26	28	iP+	58	59.40	-0.3
			S	59	24.10	
MAT	2.40	36	iPc	59	01.40	-0.2
			iS	59	31.10	
CHJJ	2.52	54	iP+	59	03.30	0.1
YONJ	2.55	284	iP+	59	03.60	0.0
			S	59	32.90	
SHK	3.14	270	iPc	59	11.90	-0.2
	0.7s	2876.71nm				
KAKJ	3.42	61	iPd	59	15.40	-0.6
SHNJ	4.47	265	iP+	59	30.60	-0.1
YAMJ	4.58	38	P	59	32.40	0.0
KUMJ	5.14	248	P	59	40.40	0.1
KAGJ	5.80	236	P	59	49.50	0.0
OFUJ	6.11	41	iP+	59	53.90	0.0
			eS	01	01.80	
AOMJ	6.71	26	eP	00	02.50	0.3
MDJ	11.32	334	eP	01	06.70	1.1
SNY	12.44	309	eP	01	20.30	-0.3
N	27s	1.70um				
			eS	03	34.00	
CN2	12.55	320	eP	01	22.00	0.1
Z	16s	0.70um				
E	10s	0.50um				
			pP	01	27.00	
			eS	03	45.00	
DL2	12.66	294	eP	01	25.80	2.3
SSE	13.32	259	Pd	01	34.00	1.8
	1.0s	24.00nm			5.0mb	X
Z	20s	0.40um			5.6MszX	
			S	05	08.00	
NJ2	14.95	265	Pd	01	55.00	1.5
Z	16s	0.50um				
TIA	15.87	281	eP	02	05.80	0.6
Z	17s	0.70um				
N	14s	1.30um				
			eS	05	07.00	
BJI	17.03	295	eP	02	20.50	0.7
Z	18s	0.59um				
N	14s	0.54um				
			eS	05	28.00	
QZH	18.24	243	eP	02	34.00	-0.9
WHN	19.07	264	iPd	02	45.50	0.6
N	12s	0.49um				
			S	06	17.00	
TIY	19.65	286	eP	02	50.80	-0.4
	1.0s	0.10nm			2.1mb	X
N	13s	0.80um				
			S	06	31.00	
			sS	06	43.00	
HHC	20.64	295	eP	03	00.60	-0.9
BTO	21.76	294	eP	03	11.50	-1.3
N	16s	0.90um				
E	16s	0.50um				
GUA	22.31	158	eP	03	48.50	30.2X
XAN	22.74	276	P	03	24.00	1.5
GZH	23.23	247	eP	03	27.50	0.4
LZH	26.60	283	eP	03	58.00	-1.2
	1.5s	88.00nm			5.1mb	
Z	20s	0.50um			4.1Msz	
GYA	26.86	261	iPc	04	00.80	-0.9
CD2	27.69	272	P	04	08.10	-1.0
GTA	29.54	290	iPc	04	24.30	-1.4
N	17s	0.70um				
CHG	36.79	254	iPc	05	29.50	1.0
	1.0s	34.25nm			5.2mb	
BDT	37.61	252	eP	05	34.60	-0.8
WMQ	38.42	299	eP	05	42.00	-0.1
Z	16s	0.30um			4.2MszX	
LSA	38.44	276	P	05	43.20	0.3
NNT	39.85	246	iPc	05	55.00	1.0
IPM	44.38	236	ePc	06	31.90	0.8
PSI	47.18	236	ePd	06	53.00	-0.3
KSH	47.76	294	eP	06	58.50	0.7
IMA	50.80	30	eP	07	21.70	0.9
	1.2s	7.80nm			4.6mb	
			e	07	34.00	
PMR	52.95	35	eP	07	36.60	-0.2
FBA	53.28	31	eP	07	40.00	0.8
HYB	54.10	267	iPd	07	45.30	-0.6
	1.0s	40.00nm			5.4mb	
WB5	54.21	182	eP	07	45.10	-1.3
			e	07	48.00	
WRA	54.27	182	Pd	07	46.00	-0.9
	0.5s	1.40nm			4.2mb	
GBA	56.99	264	Pc	08	05.30	-1.4
	0.7s	7.80nm			4.9mb	
ASPA	57.99	183	eP	08	14.00	0.5
INK	58.36	26	eP	08	15.00	-0.6
			pP	08	28.00	46kmX
MBC	59.97	16	eP	08	26.00	-0.7
	0.8s	10.00nm			5.0mb	
ALE	62.76	3	eP	08	45.00	-0.4
	1.1s	28.00nm			5.3mb	
SOD	65.62	336	iP	09	15.20	11.0X
KJF	66.92	333	iP	09	11.80	-0.7
	0.8s	20.50nm			5.2mb	
			i	09	27.80	
YKA	67.89	28	P	09	20.60	2.0
SUF	68.31	332	iP	09	20.30	-0.9
	0.5s	2.50nm			4.5mb	
NUR	70.16	331	iP	09	30.80	-1.7
EDM	73.71	36	eP	09	54.50	0.7
HFS	74.59	334	eP	09	57.40	-1.4
	0.6s	1.00nm			3.9mb	
N82	74.82	336	P	09	58.80	-1.3
	0.8s	8.00nm			4.7mb	
SES	76.56	37	eP	10	11.00	0.8
			pP	10	24.00	44kmX
FFC	77.88	30	eP	10	17.50	0.2
	0.7s	8.00nm			4.8mb	
CMB	78.54	52	ePc	10	22.40	1.1
MLR	78.57	318	eP	10	20.00	-1.5
LRM	78.66	42	eP	10	23.40	1.3
			e	10	35.60	
BRG	81.01	327	e(P)	10	54.00	19.7X
CLL	81.12	328	iP	10	53.70	18.9X
KHC	82.42	326	eP	10	37.50	-4.2X
			e	10	59.00	
SKO	83.33	317	eP	10	47.50	1.0
KBA	84.01	325	eP	10	49.00	-1.0
	0.5s	1.60nm			4.3mb	
			e(Sg)	11	09.50	
OHR	84.26	317	eP	10	51.80	0.6
ALQ	89.21	47	eP	11	18.00	2.3
	1.0s	3.00nm			4.6mb	
ARE	149.13	61	ePKP	18	27.00	22.6X
ZOBO	151.38	57	PKP	18	15.80	7.6X
LPB	151.58	57	PKP	18	17.00	8.7X
CNCB	151.85	57	PKP	18	17.00	8.2X

S.D. = 0.9 on 79 of 89 obs.

FEB 19, 1989 08h 21m 04.56± 0.62s
43.059 N ± 3.4km 13.616 E ± 8.4km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 3.4 (TRI), 3.0 (SSO).

SSO	0.27	329	e(Pg)	21	12.14	1.8
			iSg	21	17.41	
ALP	0.28	186	iPg	21	10.99	0.5
			iSg	21	15.08	
CIO	0.37	292	iPg	21	12.58	0.4
			iSg	21	18.12	
AOI	0.49	359	iPg	21	15.90	1.4
			iSg	21	25.08	
ARV	0.66	312	Pd	21	17.40	-0.3
			eSg	21	26.10	
AQU	0.72	193	P	21	17.90	-0.9
			eSg	21	30.50	
MNS	0.96	226	P	21	21.70	-1.2
AZI	1.08	187	P	21	25.90	1.1
			eSg	21	42.00	
RSM	1.21	316	P	21	27.70	0.6
			eSg	21	45.20	
SDI	1.36	174	P	21	30.30	0.7
			eSg	21	49.20	
RMP	1.42	209	P	21	30.70	0.3
			eSg	21	49.10	
RDP	1.46	207	P	21	30.80	-0.2
PGD	1.60	301	P	21	33.00	-0.1
TRI	2.65	2	ePn	21	47.00	-1.1
			iSn	22	17.70	
			iSg	22	28.30	
			i	22	35.00	
CTI	3.30	335	P	21	56.10	-1.3
RBL	3.38	359	P	21	58.10	-0.4
FVI	3.58	351	P	22	00.20	-1.0
KBA	4.02	357	iPg	22	11.30	3.6X
			e	22	27.50	
			e	23	23.00	

S.D. = 1.0 on 17 of 18 obs.

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* FEB 19, 1989 08h 26m 50.67± 0.96s
43.019 N ± 5.8km 13.501 E ±10.4km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.4 (SSO).

ALP	0.24	167	iPg	26	56.25	0.3
			iSg	27	01.09	
CIO	0.32	304	iPg	26	57.80	0.5
			iSg	27	03.86	
AOI	0.54	8	iPg	27	01.37	-0.2
			iSg	27	10.06	
ARV	0.63	320	Pd	27	03.10	-0.2
			eSg	27	12.40	
MNS	0.88	224	P	27	07.10	-0.4
			eSg	27	21.80	

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

% FEB 19, 1989 08h 36m 28.04± 0.87s
39.233 N ± 9.0km 27.801 E ±11.3km
DEPTH = 24.3 ± 15.2 km
TURKEY (366)

DST	0.74	60	ePg	36	42.10	-0.2
IZM	0.93	207	ePn	36	45.50	0.0
KCT	1.10	23	iPn	36	48.40	0.4
EDC	1.11	2	ePn	36	47.70	-0.4
BNT	1.13	5	iPn	36	48.40	0.1
EZN	1.29	298	ePn	36	50.50	0.0

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

FEB 19, 1989 08h 50m 49.18± 0.81s
48.045 N ± 8.7km 148.081 E ± 5.6km
DEPTH = 338.5 ± 11.0 km
4.6mb (16 obs.)
NORTHWEST OF KURIL ISLANDS (220)

ASAJ	5.45	226	P	52	17.70	3.8X
			S	53	24.60	
KUSJ	5.48	207	P	52	12.30	-1.9
			S	53	16.40	
HOOJ	6.60	213	P	52	25.70	-1.4
			S	53	38.40	
MRRJ	7.48	224	eP	52	39.20	1.6
			eS	54	01.00	
OFUJ	10.09	210	P	53	10.40	1.3
			eS	54	54.90	
YAMJ	11.48	214	P	53	27.50	1.7
			eS	55	27.40	
MDJ	13.23	262	eP	53	47.80	1.0
MAT	13.61	216	eP	53	50.00	-1.4
MTMJ	13.73	217	P	53	52.00	-0.9
CHJJ	13.74	213	P	53	52.40	-0.6
IIDJ	14.65	215	P	54	02.80	-0.3
CN2	16.29	263	Pd	54	18.40	-2.0
SNY	18.39	259	eP	54	40.90	-0.9
DL2	21.17	254	eP	55	10.00	0.9
BJI	24.16	263	eP	55	39.50	2.5
HHC	26.85	268	eP	56	02.00	0.5
TIY	27.86	261	eP	56	11.00	0.5
WHN	31.09	248	P	56	37.50	-1.1
XAN	32.31	259	P	56	49.50	0.3
TTA	33.76	43	eP	57	02.50	1.2
BRW	34.37	28	eP	57	06.80	0.7
LZH	34.49	266	eP	57	08.50	0.7
	1.5s	0.10nm			2.0mb	X
IMA	34.81	37	iPc	57	11.30	1.2
	0.7s	31.40nm			4.8mb	
GTA	35.43	274	P	57	16.00	0.4
KDC	36.02	52	e(P)	57	20.00	-0.1
PMR	37.07	45	eP	57	29.70	0.8
	0.7s	10.00nm			4.3mb	
FBA	37.30	39	iPc	57	32.20	1.5
CD2	37.67	259	eP	57	34.80	0.6
TOA	38.38	44	eP	57	41.50	1.8
GYA	38.77	251	iPd	57	43.00	-0.4
INK	42.40	33	iPc	58	12.90	0.6
MBC	44.54	20	eP	58	29.00	-0.2
CHG	49.19	251	eP	59	06.00	0.2
YKA	51.90	36	P	59	25.60	0.1
YKC	51.96	36	iPc	59	25.50	-0.4
	0.7s	15.00nm			4.5mb	
DAG	55.18	356	eP	59	48.00	-1.1
PNT	57.11	51	eP	00	03.00	0.0
KJF	58.79	334	eP	00	14.00	-0.3
SUF	60.36	333	iP	00	24.50	-0.5
	0.3s	2.60nm			4.2mb	

19d 09h

SES	60.75	46	ePc	00 27.60	-0.2
WDC	60.92	61	e(P)	00 29.70	0.7
FFC	61.89	38	iPc	00 35.00	-0.2
	0.8s	25.00nm		4.8mb	
ORV	62.19	61	ePc	00 35.20	-2.2
NUR	62.52	332	iP	00 38.80	-0.4
CMB	63.85	62	ePc	00 48.00	-0.2
FRB	64.88	17	eP	00 52.00	-2.3
FRI	64.95	62	e(P)	00 55.90	0.8
NB2	65.84	339	P	00 59.30	-1.2
	0.7s	11.30nm		4.7mb	
HFS	65.99	337	eP	01 00.30	-1.1
	0.7s	14.70nm		4.8mb	
WRA	68.79	194	Pd	01 20.70	1.7
	0.5s	0.80nm		3.7mb	
GOL	71.08	51	eP	01 32.30	-0.7
	1.0s	5.25nm		4.2mb	
CLL	73.80	333	iPc	01 47.30	-0.9
	0.8s	15.00nm		4.8mb	
ALQ	73.99	55	eP	01 49.00	-0.9
	1.1s	6.01nm		4.2mb	
EKA	74.20	343	P	01 51.00	0.6
	3.0s	299.90nm		5.5mb	
PRU	74.46	331	P	01 58.00	6.0X
KHC	75.52	331	eP	01 58.00	0.0
GRF	75.77	333	eP	01 59.80	0.4
	0.7s	16.00nm		4.9mb	
MEM	76.46	336	P	02 03.60	0.5
KBA	77.38	330	ePc	02 08.50	0.0
	0.7s	7.70nm		4.6mb	
MEO	78.33	51	eP	02 13.00	-0.7
	1.0s	4.80nm		4.3mb	
SIO	78.74	48	e(P)	02 15.70	-0.1
LNO	78.87	48	iPc	02 16.20	-0.1
TUL	78.87	48	eP	02 16.40	-0.1
	1.3s	10.60nm		4.5mb	
RLO	79.05	47	iP	02 17.00	-0.5
GAC	79.16	29	eP	02 17.50	-0.3
VVO	79.35	48	ePc	02 19.30	0.3
BAO	145.07	28	ePKP	09 28.30	-19.8X
ITA	152.42	26	ePKP	10 18.40	18.9X

S.D. = 1.0 on 64 of 68 obs.

FEB 19, 1989 08h 52m 31.56± 0.47s
40.244 N ± 5.3km 21.877 E ± 3.1km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.7 (ATH).

KZN	0.10	308	iPgd	52 34.60	0.2
LIT	0.49	107	ePg	52 40.70	-0.8
GRG	0.82	29	ePg	52 46.30	-1.1
			eSg	53 01.60	
KBN	0.90	295	iPgd	52 48.00	-0.7
THE	0.92	65	ePg	52 49.10	0.0
			eSg	53 02.60	
OHR	1.19	317	iPg	52 52.50	-1.3
VAY	1.20	26	iPg	52 53.50	-0.4
			iSg	53 07.00	
KNT	1.20	40	ePb	52 53.90	0.0
			eSb	53 13.90	
PLG	1.21	83	ePg	52 54.10	0.0
SOH	1.27	62	ePb	52 55.30	0.2
			eSb	53 15.20	
NEO	1.40	132	iPbc	52 56.70	-0.4
PAIG	1.42	102	ePb	52 56.20	-1.2
			eSb	53 18.90	
BERA	1.54	288	iPnc	52 59.70	0.6
SRS	1.57	56	ePb	52 59.40	-0.1
			eSb	53 24.10	
OUR	1.61	86	ePb	53 01.40	1.3
PHP	1.81	323	iPnc	53 02.20	-0.7
VLO	1.83	278	iPnd	53 04.60	1.3
TIR	1.88	306	ePn	53 06.00	2.0
MMB	1.94	46	eP	53 55.00	50.0X
			iS	54 03.00	
KKS	2.14	329	ePn	53 08.00	0.3
VLS	2.29	206	ePb	53 14.40	4.4X
BCI	2.52	328	ePn	53 12.30	-0.9
SDA	2.52	315	ePn	53 17.60	4.4X
VTS	2.55	23	eP	53 15.00	1.2
			iSg	54 00.00	
RZN	2.59	55	eP	53 15.00	0.6
			Sg	53 59.00	
ULC	2.63	312	ePn	53 16.50	1.8
			eSn	53 52.00	
ATH	2.68	147	ePn	53 15.80	0.3
PVY	2.75	329	ePn	53 16.50	-0.1
			eSn	53 52.50	
PLD	2.83	48	eP	53 31.00	13.4X
PGB	2.88	36	eP	53 25.00	6.7X
RDO	2.93	71	ePn	53 18.00	-0.9
TTG	2.94	319	ePn	53 18.00	-1.1
			eSn	53 56.20	
KDZ	3.03	61	iPd	53 24.00	3.6X
BDV	3.07	313	ePn	53 20.00	-1.0
			eSn	54 00.00	
DIM	3.30	56	eP	53 30.00	5.7X
BRY	3.65	318	ePn	53 28.00	-1.3
			eSn	54 13.00	
PVL	3.94	40	eP	53 40.00	6.7X
SSR	4.62	359	ePc	53 55.00	12.0X
MLR	6.04	28	eP	54 05.00	1.9
VRI	6.65	31	eP	54 13.00	1.3
VBY	7.16	319	eP	54 18.90	0.1
			e(S)	55 56.00	
PSZ	7.80	350	eP	54 27.00	-0.9
LJU	7.90	320	eP	54 58.00	28.8X
			e(S)	56 15.00	
VOY	8.21	317	e(P)	54 30.50	-3.2X
			eS	55 59.10	

S.D. = 1.0 on 33 of 44 obs.

% FEB 19, 1989 10h 22m 46.79± 0.63s
46.894 N ± 7.1km 0.441 E ± 6.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 3.0 (LDG).

MFF	0.50	234	Pg	22 58.00	1.1
			Sg	23 06.20	
LSF	0.99	130	Pg	23 04.70	-0.9
			Sg	23 17.20	
TCF	1.36	116	Pg	23 10.90	-0.9
			Sg	23 27.00	
LPF	1.52	319	Pn	23 13.00	-1.0
			Pg	23 14.70	
			Sg	23 33.70	
MAF	1.61	114	Pn	23 13.40	-2.0
			Pg	23 15.40	
			Sg	23 35.10	
BGF	1.69	101	Pg	23 16.20	-0.3
			Sg	23 36.50	
GRR	1.73	330	Pn	23 15.70	-1.4
			Pg	23 17.70	
			Sg	23 40.50	
LDF	1.74	348	Pg	23 17.50	0.3
			Sg	23 38.80	
RJF	1.76	154	Pg	23 19.70	2.2
			Sg	23 42.30	
LFF	1.97	174	Pg	23 24.70	4.2X
			Sg	23 49.80	
FLN	1.97	342	Pg	23 21.40	0.9
			Sg	23 46.00	
AVF	2.00	92	Pg	23 21.00	0.0
			Sg	23 45.10	
SSF	2.11	84	Pg	23 22.60	0.1
			Sg	23 48.60	
CAF	2.27	149	Pn	23 23.00	-2.0
			Pg	23 29.30	
			Sg	23 58.60	
LPO	2.27	166	Pg	23 29.60	4.7X
			Sg	23 58.70	
SMF	2.35	95	Pg	23 27.50	1.4
			Sg	23 55.80	
LOR	2.37	80	Pg	23 27.30	1.0
			Sg	23 56.50	
LBF	2.42	87	Pg	23 28.60	1.5
			Sg	23 57.90	

S.D. = 1.4 on 16 of 18 obs.

FEB 19, 1989 10h 39m 03.49± 0.15s
2.014 S ± 3.0km 138.921 E ± 3.5km
DEPTH = 33.0km (normol)
5.5mb (38 obs.) 4.6Msz (12 obs.)
WEST IRIAN (201)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 11S, 20C
Centroid Location:
Origin Time 10:39: 6.9 0.9
Lot 1.90S 0.08 Lon 138.58E 0.12
Dep 26.1 7.0 Half-duration 1.7
Moment Tensor; Scale 10**16 Nm
Mrr= 5.05 0.54 Mtt=-4.42 0.53
Mff=-0.63 0.75 Mrt=-7.62 2.23
Mrf= 3.76 1.64 Mtf= 2.58 0.55
Principal Axes:

	Val=	Plg=	Azm=
T	9.72	61	206
N	0.68	0	296
P	-10.40	29	27

Best Double Couple:Mo=1.0*10**17
NP1:Strike=117 Dip=16 Slip= 91
NP2: 296 74 90

JAY	1.85	106	iPc	39 31.00	-2.5
MNDI	6.26	131	eP	40 39.00	2.7
TLE	7.13	240	iPd	40 50.70	2.5
LAT	9.28	120	eP	41 18.00	-0.1
AAI	10.84	261	eP	41 40.50	1.0
	0.4s	45.20nm		6.0mb	
PMG	11.00	132	eP	41 41.00	-0.7
	1.0s	300.00nm		6.4mb	
MTN	13.24	215	eP	42 10.00	-1.8
DAV	16.10	304	eP	42 48.10	-1.0
GUA	16.55	21	eP	42 54.50	-0.4
	1.0s	184.00nm		5.2mb	
GUMO	16.58	21	eP	42 54.50	-0.8
	0.9s	272.80nm		5.4mb	
PJG	16.58	21	eP	42 53.90	-1.4
PAA	17.06	105	eP	43 03.00	1.6
WB5	18.31	194	eP	43 14.50	-2.2
			eS	46 29.00	
WRA	18.37	194	Pd	43 14.70	-2.9
	0.6s	120.60nm		5.2mb	
QIS	18.44	178	eP	43 15.00	-3.4X
			e	43 19.00	
			e	43 26.00	
			e	46 37.00	
			e	49 20.00	
CTA	19.34	159	iPd	43 27.80	-1.4
	0.9s	145.38nm		5.2mb	
			i	43 53.20	
			iS	47 10.00	
ASPA	22.07	192	iPc	43 57.50	0.1
	0.9s	406.00nm		5.9mb	
Z	19s	3.47um		4.8Msz	
			eS	47 59.00	
			LR	52 45.40	
HNR	22.17	110	eP	43 56.00	-2.4
KHKI	24.05	254	ePc	44 16.80	0.0
			e	48 10.00	
BAG	25.75	316	eP	44 34.20	0.9
	1.1s	65.82nm		5.1mb	
RMQ	26.10	160	iPc	44 44.10	7.9X
	1.2s	662.00nm		6.1mb	
			e	45 00.00	
MBL	26.61	223	iPc	44 41.20	0.3
	0.6s	61.00nm		5.4mb	
			eS	49 50.00	
WARB	26.77	205	iPc	44 34.30	-8.1X
TRT	26.78	257	ePc	44 46.70	4.1X
STK	29.81	175	iPc	45 09.20	-0.6
	0.8s	63.00nm		5.4mb	
CMS	30.03	168	eP	45 12.00	0.3
FORR	30.45	199	iPc	45 15.20	-0.2
	0.5s	126.00nm		6.0mb	
NANU	30.55	226	iPc	45 16.40	0.0
	0.5s	18.00nm		5.1mb	
COO	30.95	158	eP	45 20.00	0.1
			e	45 22.00	
MEKA	31.33	217	eP	45 23.00	-0.2
ADE	32.79	180	iPc	45 36.30	0.4
	1.0s	400.00nm		6.3mb	
QZH	33.27	325	P	45 38.70	-1.4
COOL	33.28	209	iPc	45 39.70	-0.5
DZM	33.37	129	iPc	45 39.50	-1.7
BWA	33.44	166	eP	45 41.90	0.3
			i	45 44.80	
CAN	34.44	165	iPc	45 50.20	0.0
			i	45 51.80	
CNB	34.53	165	iPd	45 51.30	0.3
BAL	35.37	214	iPc	45 58.20	0.0
	0.6s	45.00nm		5.6mb	
QIZ	35.42	307	eP	45 57.80	-0.9
KLB	35.56	212	iPc	45 59.70	-0.1
	0.6s	46.00nm		5.6mb	
MUN	36.69	213	eP	46 09.00	-0.3
	0.9s	48.00nm		5.4mb	
NWAO	36.88	211	iPc	46 11.40	0.5
	0.7s	44.00nm		5.4mb	

Z 20s 1.30um 4.7Msz
N 20s 0.60um
E 20s 1.00um
SSE 37.00 334 Pd 46 11.20 -0.7
1.0s 27.00nm 5.1mb
Z 20s 0.56um 4.4Msz
N 18s 0.66um
E 18s 0.68um
i 46 45.00
PcP 48 33.00
S 51 58.00
CHJJ 37.87 0 eP 46 18.20 -0.9
RKG 37.89 210 eP 46 24.00 4.6X
0.8s 33.00nm 5.2mb
MAT 38.36 359 (P) 46 23.00 -0.3
eS 52 20.00
MTMJ 38.42 359 eP 46 25.30 1.5
IPM 38.43 280 ePc 46 24.10 -0.1
1.0s 125.30nm 5.7mb
PPI 38.54 272 ePc 46 25.70 0.6
1.0s 110.90nm 5.6mb
NJ2 38.86 332 Pd 46 28.00 0.5
Z 20s 0.60um 4.4Msz
S 52 25.00
NIIJ 39.05 0 eP 46 27.50 -1.5
SNG 39.30 284 eP 46 32.10 0.7
0.8s 180.60nm 5.9mb
e 48 41.00
WHN 39.96 326 P 46 38.00 1.4
sP 46 46.50
S 52 44.00
PSI 40.26 277 iPc 46 40.00 0.6
0.9s 209.90nm 5.9mb
TAU 41.40 171 eP 46 49.00 0.7
LOE 41.43 299 iPc 46 45.50 -3.4X
NNT 41.52 291 iPc 46 49.80 0.1
GYA 42.08 314 iPc 46 55.00 0.7
sP 47 04.00
S 53 17.00
NST 42.18 296 iPc 46 56.80 1.7
TIA 43.12 334 Pc 47 01.80 -0.7
Z 22s 0.80um 4.6Msz
N 15s 0.50um
eS 53 24.00
DL2 43.72 340 P 47 08.00 0.7
S 53 34.00
BDT 43.76 298 eP 47 07.50 -0.5
1.1s 49.90nm 5.2mb
XAN 45.63 324 Pc 47 22.60 -0.2
SNY 45.80 344 eP 47 23.70 -0.2
Z 21s 0.60um 4.5Msz
N 20s 0.60um
E 18s 0.40um
TIY 46.52 331 eP 47 29.20 -0.6
N 20s 2.00um
BJI 46.75 336 eP 47 31.00 -0.4
Z 20s 0.61um 4.6Msz
eS 54 17.00
eSS 57 42.00
CD2 46.81 317 iPc 47 32.70 0.5
MDJ 47.17 351 eP 47 34.20 -0.5
CN2 47.18 347 Pc 47 34.00 -0.9
Z 20s 0.90um 4.7Msz
pP 47 41.70 26kmX
eS 54 20.00
HHC 49.41 333 eP 47 52.00 -0.4
BTO 49.94 331 P 47 56.00 -0.4
E 20s 1.40um
pP 48 05.00 30kmX
eS 55 08.50
LZH 50.06 323 P 47 58.00 0.6
1.0s 96.00nm 5.8mb
Z 22s 4.30um 5.4Msz
i 48 07.00
GTA 54.64 323 iPc 48 31.70 0.1
Z 22s 0.40um 4.4Msz
E 15s 0.40um
LSA 55.44 309 Pc 48 38.50 0.4
KOD 62.36 283 iPc 49 26.00 -0.1
0.8s 108.96nm 6.0mb
HYB 62.52 291 iPc 49 26.20 -0.6
1.0s 86.00nm 5.8mb
GBA 62.89 286 Pc 49 27.90 -1.3
0.8s 83.20nm 5.9mb
WMQ 64.60 321 iPc 49 40.00 -0.1
NDI 66.45 302 iPc 49 50.80 -1.4
POO 67.13 291 iPc 49 56.30 -0.4

KSH 70.74 313 P 50 20.40 1.7
PPN 71.90 108 iP 50 29.30 3.4X
1.0s 25.00nm 5.2mb
PMO 73.24 105 iP 50 35.60 1.8
1.0s 40.00nm 5.4mb
VAH 73.50 105 iP 50 36.90 1.6
1.0s 25.00nm 5.2mb
TPT 73.50 105 iP 50 37.20 1.9
1.0s 35.00nm 5.3mb
RUV 73.74 105 iP 50 38.30 1.6
1.0s 35.00nm 5.3mb
QUE 75.50 302 iPc 50 47.80 0.8
KDC 80.43 30 eP 51 13.70 0.5
TTA 80.69 25 eP 51 15.00 0.3
MAIO 82.67 307 iPc 51 26.80 1.3
1.0s 20.00nm 5.1mb
eS 01 52.00
IMA 82.83 22 eP 51 26.10 0.3
1.0s 5.00nm 4.6mb
PMR 83.26 27 eP 51 27.20 -0.6
0.9s 18.70nm 5.2mb
BRW 83.88 17 eP 51 31.20 0.3
TOA 84.75 27 eP 51 36.00 0.5
FBA 84.78 24 eP 51 34.10 -1.4
SPA 88.00 180 iPc 51 51.90 0.4
1.0s 75.00nm 5.9mb
i 52 04.60
AVY 90.48 251 eP 52 04.18 0.1
INK 90.95 22 eP 52 05.00 0.0
MBC 94.73 14 eP 52 21.00 -1.4
YKA 99.35 27 P 52 44.30 0.8
MLR 107.41 317 ePKP 57 29.00 0.3
FFC 108.08 32 ePKP 57 30.00 0.5
0.8s 6.00nm
GOL 110.90 48 ePKP 57 36.50 0.8
1.1s 5.38nm
ALQ 111.22 53 ePKP 57 37.00 0.6
1.0s 6.25nm
KHC 113.96 324 PKP 57 41.00 0.0
VBY 114.48 320 e(PKP) 57 42.30 0.3
KBA 115.02 322 ePKP 57 42.00 -1.3
VOY 115.13 321 ePKP 57 43.10 -0.3
FRB 115.19 13 ePKP 57 42.00 -0.8
MEO 117.50 52 ePKP 57 48.00 -0.2
1.2s 12.40nm
VAI 118.38 323 PKP 57 48.60 -0.8
BSF 118.52 325 ePKP 57 49.30 -0.5
0.8s 9.10nm
HAU 118.68 326 ePKP 57 49.90 -0.1
0.6s 7.20nm
SIO 118.94 50 ePKP 57 50.70 -0.1
TUL 119.28 49 ePKP 57 51.90 0.4
1.0s 24.70nm
Z 18s 0.41um 5.1Msz
LR 36 00.00
LNO 119.28 49 iPKP 57 51.60 0.3
VVO 119.52 50 ePKP 57 52.70 0.8
RLO 119.77 49 iPKP 57 52.50 0.1
LPG 119.78 323 ePKP 57 52.70 0.2
0.8s 9.40nm
CVF 119.91 319 ePKP 57 52.60 0.1
0.8s 11.80nm
SBF 120.20 321 ePKP 57 52.90 -0.2
0.8s 11.80nm
BNG 120.43 274 iPKPc 57 54.20 -0.1
0.5s 13.00nm
ic 58 02.50
ic 59 28.10
LOR 120.49 326 ePKP 57 53.60 0.2
0.6s 3.60nm
LBF 120.58 326 ePKP 57 53.50 -0.2
0.8s 8.00nm
SSF 120.80 326 ePKP 57 54.30 0.3
1.0s 10.00nm
FRF 120.84 321 ePKP 57 54.30 0.1
0.8s 9.10nm
SMF 120.85 325 ePKP 57 54.10 0.0
0.8s 8.00nm
LMR 121.04 321 ePKP 57 54.70 0.1
0.8s 5.30nm
AVF 121.05 326 ePKP 57 54.30 -0.2
0.6s 2.70nm
LRG 121.08 321 ePKP 57 55.00 0.4
0.8s 13.40nm
BGF 121.46 326 ePKP 57 55.60 0.3
0.6s 7.20nm
MAF 121.82 326 ePKP 57 56.20 0.2

0.8s 7.20nm
TCF 121.98 326 ePKP 57 56.50 0.2
0.8s 16.10nm
LSF 122.38 326 ePKP 57 56.90 -0.2
0.8s 10.70nm
CAF 122.86 325 ePKP 57 58.80 0.8
0.8s 8.00nm
RJF 122.95 325 ePKP 57 58.80 0.6
0.6s 5.40nm
LPO 123.51 325 ePKP 58 00.20 0.9
0.8s 19.80nm
LFF 123.61 325 ePKP 58 00.10 0.6
0.9s 20.90nm
EPF 124.98 324 ePKP 58 02.70 0.4
0.8s 6.70nm
GAC 127.07 30 ePKP 58 06.50 0.4
ASMO 130.86 320 ePKP 58 13.50 -0.3
APHE 131.07 320 ePKP 58 14.00 -0.2
AAPN 131.13 320 ePKP 58 14.00 -0.3
KUK 139.19 277 ePKP 58 21.00 -9.0X
KIC 143.51 278 PKP 58 34.78 -2.8
0.7s 62.00nm
TIC 143.76 278 PKP 58 35.62 -2.4
0.7s 124.00nm
LIC 143.81 278 PKP 58 35.68 -2.4
ARE 144.80 123 ePKP 58 40.00 -0.1
HJA 145.50 138 ePKPc 58 42.60 1.9
CNCB 147.52 126 PKP 58 47.00 2.1
LPB 147.58 126 PKP 58 47.00 2.2
ZOBO 147.69 125 PKP 58 46.50 1.3
1.0s 57.50nm
Z 20s 0.09um 4.5Msz
LR 25 24.00
CCH 148.66 129 ePKP 58 50.00 3.6X
VAO 154.48 167 ePKP 59 03.60 9.2X
e 59 17.80
BMA 155.26 173 ePKP 59 06.20 10.8X
e 59 21.00
S.D. = 1.0 on 144 of 155 obs.

FEB 19, 1989 10h 39m 38.97± 0.71s
42.870 N ± 5.3km 12.882 E ± 6.3km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.5 (SSO).

ASS 0.26 321 P 39 44.80 0.3
eSg 39 49.20
CIO 0.38 31 iPgc 39 46.72 0.0
iSg 39 53.03
MNS 0.51 197 Pc 39 49.20 -0.1
eSg 39 56.80
ALP 0.52 100 iPg 39 49.63 0.1
iSg 39 58.01
ARV 0.63 4 P 39 51.40 -0.2
eSg 40 01.10
PGD 1.31 320 P 40 03.20 -0.2
S.D. = 0.3 on 6 of 6 obs.

FEB 19, 1989 11h 23m 21.26± 0.94s
21.845 S ± 7.5km 68.546 W ± 9.5km
DEPTH = 145.4 ± 8.5 km
4.4mb (6 obs.)
CHILE-BOLIVIA BORDER REGION (124)

HJA 3.21 116 iPc 24 09.10 -2.6
S 24 17.60
CCH 4.98 27 P 24 37.50 1.9
CNCB 5.04 6 P 24 36.70 0.2
LPB 5.30 5 P 24 40.00 0.1
1.0s 180.00nm 5.3mb
ZOBO 5.56 4 P 24 43.30 -0.3
Z 24s 0.06um
LR 49 36.00
PEL 11.41 189 iPd 26 02.10 1.1
ITB1 13.31 105 eP 26 29.40 3.8X
ITB 13.49 105 e(P) 26 28.30 0.2
ITB7 13.58 107 e(P) 26 30.90 1.7
VAO 19.98 97 eP 27 41.30 -3.1X
i 27 42.30
ITA 22.10 96 eP 28 05.10 -0.6
BMA 22.59 97 eP 28 09.10 -1.1
VVO 62.44 335 eP 33 30.30 -0.7
RLO 62.90 336 iP 33 33.50 -0.5
LNO 62.97 335 e(P) 33 34.10 -0.2
TUL 62.97 335 eP 33 33.70 -0.8
1.0s 6.70nm 4.5mb

19d 11h

SIO	63.02	335	eP	33 33.70	-1.2
MEO	63.13	332	eP	33 34.20	-1.4
	1.0s	4.80nm		4.4mb	
ALQ	66.97	327	eP	34 00.00	-0.5
	1.0s	5.00nm		4.3mb	
LIC	68.16	73	P	34 08.40	0.3
KIC	68.47	73	P	34 09.80	-0.2
GOL	70.22	331	eP	34 20.50	0.0
	0.9s	4.20nm		4.3mb	
			e	34 47.00	
LRM	78.25	330	eP	35 07.50	1.0
			e	35 34.70	
SES	81.13	334	eP	35 22.00	0.5
			pP	35 49.00	104kmX
FFC	81.46	341	eP	35 23.00	-0.1
	0.9s	8.00nm		4.5mb	
EDM	84.22	335	eP	35 37.00	-0.2
YKC	91.57	340	eP	36 13.00	0.9
YKA	91.62	340	P	36 13.30	0.9
WRA	132.83	210	PKPd	42 21.10	-0.2
	0.5s	1.20nm			
GBA	146.64	98	PKP	42 48.00	1.8
	0.8s	4.80nm			

S.D. = 1.1 on 28 of 30 obs.

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* FEB 19, 1989 11h 45m 26.51± 0.45s
25.660 N ± 8.1km 142.487 E ±10.0km
DEPTH = 33.0km (normal)
4.8mb (7 obs.)
VOLCANO ISLANDS REGION (213)

CHJJ	10.78	345	P	47 58.00	-3.6X
MAT	11.45	342	(P)	48 10.00	-0.7
SNY	22.44	321	eP	50 24.90	1.0
TIA	24.10	302	eP	50 40.10	0.0
XAN	30.18	294	P	51 36.20	0.1
CD2	34.38	288	P	52 13.00	0.2
GTA	38.15	302	eP	52 42.00	-2.6
WB5	45.95	191	eP	53 48.20	0.0
WRA	46.02	191	Pc	53 49.10	0.3
	0.6s	5.80nm		4.7mb	
WARB	53.76	198	eP	54 40.20	-7.8X
FORR	57.85	195	eP	55 16.50	-0.8
GBA	61.91	272	P	55 47.00	1.4
	0.7s	1.50nm		4.2mb	
INK	64.22	24	eP	55 59.00	-1.0
MBC	67.20	15	eP	56 19.00	-0.1
YKA	73.27	28	P	56 56.00	-0.1
KEV	74.42	341	eP	57 10.00	7.4X
SOD	75.83	339	iP	57 11.70	1.0
KJF	77.19	336	iP	57 18.80	0.4
	0.7s	12.00nm		5.0mb	
SUF	78.60	335	iP	57 26.60	0.5
	0.5s	9.10nm		5.0mb	
NUR	80.46	334	iP	57 37.20	1.0
LRM	81.73	43	eP	57 43.90	0.4
FFC	82.81	32	eP	57 49.00	0.4
	0.8s	6.00nm		4.7mb	
HFS	84.84	337	eP	57 58.00	-0.8
	0.5s	3.70nm		4.8mb	
NB2	85.04	338	P	57 59.60	-0.3
	0.7s	4.50nm		4.8mb	
ALQ	91.19	50	eP	58 31.00	1.0
ZOBO	149.99	78	PKP	05 17.20	5.8X
LPB	150.11	78	ePKP	05 10.00	-1.4
CNCB	150.32	79	PKP	05 18.80	6.9X

S.D. = 1.0 on 23 of 28 obs.

& FEB 19, 1989 12h 00m 41.85s
39.309 N 115.939 W
DEPTH = 10.0km (geophysicist)
NEVADA (37)
<REN>. MD 3.4 (REN).

HCR	1.14	200	eP	01 02.20	-1.2
WRN	1.35	168	eP	01 06.40	-0.5
SRG	1.58	154	iPc	01 10.20	0.1
TNP	1.58	220	eP	01 10.00	-0.2
KRNA	1.60	193	eP	01 10.30	-0.2
KVN	1.70	262	eP	01 11.50	-0.4
MTI	1.71	162	eP	01 11.80	-0.2
BLT	1.83	185	eP	01 13.50	-0.3
NPN	1.83	154	eP	01 13.50	-0.3
DLM	1.94	151	eP	01 15.00	-0.4
BMTN	2.09	196	eP	01 17.20	-0.4
SVP	2.16	223	eP	01 20.00	1.3
LSM	2.58	186	eP	01 23.90	-0.5

13 obs. associated

FEB 19, 1989 12h 27m 09.95± 0.30s
35.964 N ± 2.7km 139.788 E ± 2.5km
DEPTH = 60.4 ± 2.6 km
5.5mb (71 obs.)
NEAR S. COAST OF HONSHU, JAPAN (230)
One person killed ond one injured. Felt (IV JMA) at Tokyo, Utsunomiyo and Mito; (III JMA) at Kumogaya, Choshi, Yokohama ond Toteyoma; (II JMA) at Shirakawa, Maebashi and Kawoguchi-ko; (I JMA) at Ofunato.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 31C
Centroid Locotion:
Origin Time 12:27:13.2 0.4
Lat 35.70N 0.04 Lon 139.82E 0.08
Dep 33.9 4.0 Half-duration 2.3
Moment Tensor; Scale 10**17 Nm
Mrr= 1.51 0.08 Mtt=-1.04 0.10
Mff=-0.46 0.12 Mrt= 1.00 0.19
Mrf= 1.78 0.25 Mtf=-0.86 0.10
Principal Axes:

T	Val=	2.61	Plg=61	Azm=285
N		-0.05	13	39
P		-2.56	26	136

Best Double Couple:Mo=2.6*10**17
NP1:Strike=252 Dip=22 Slip= 125
NP2: 35 72 77

TOK	0.28	185	iP+	27 20.20	0.2
			iS	27 27.30	
KMG	0.37	299	iPd	27 20.60	-0.2
			iS	27 28.70	
KAKJ	0.39	52	iP+	27 18.70	-2.2
YOK	0.54	192	iPd	27 24.50	2.1
			S	27 35.10	
UTS	0.58	7	iPd	27 21.40	-1.5
			iS	27 29.40	
CHJJ	0.65	278	P	27 23.70	0.0
MIT	0.69	53	iP+	27 22.40	-1.8
			iS	27 31.50	
MAE	0.73	307	iPd	27 24.90	0.2
			iS	27 36.70	
CHO	0.89	105	iP+	27 25.20	-1.5
			eS	27 34.00	
FUN	0.95	241	eP	27 29.00	1.4
TAT	0.98	176	iPd	27 29.10	1.2
			iS	27 43.20	
SHR	1.20	17	eP	27 00.00	-30.9X
MAT	1.40	295	iPd	27 34.80	1.2
			(S)	27 56.00	
NIIJ	1.42	334	iPd	27 33.70	-0.2
IIDJ	1.60	253	iP+	27 39.10	2.7
MTMJ	1.72	292	iPd	27 39.40	1.3
YAMJ	2.21	5	iPd	27 44.60	-0.3
TSRJ	3.12	263	eP	28 01.20	3.4X
OFUJ	3.45	25	P	28 00.30	-2.1
			S	28 38.70	
WKYJ	3.85	244	P	28 09.00	0.9
AOMJ	4.61	6	P	28 19.60	1.0
TKSJ	5.11	249	P	28 26.40	0.7
YONJ	5.21	263	P	28 28.90	1.7
SHK	5.99	258	iPc	28 38.90	0.8
	1.1s	227.85nm		5.5mb X	
			S	30 19.30	
MRRJ	6.53	8	eP	28 44.30	-1.2
HOOJ	6.96	22	eP	28 47.00	-4.5X
			eS	30 08.20	
SHNJ	7.35	258	eP	28 58.60	1.6
KUSJ	8.07	27	P	29 01.40	-5.5X
			eS	30 28.10	
KUMJ	8.17	248	eP	29 10.50	2.2
ASAJ	8.43	14	P	29 08.70	-3.2X
KAGJ	8.82	240	eP	29 18.00	0.7
MDJ	11.62	321	iPc	29 55.00	-0.3
	Z 16s	5.70um			
	E 14s	3.20um			
			esP	30 12.00	
			S	32 12.00	
CN2	13.50	310	Pc	30 19.00	-1.1
	5.0s	0.80nm		2.7mb X	
	Z 17s	3.80um		5.8Msz	
	E 13s	2.00um			
			sP	30 36.00	
			eS	32 55.00	
SNY	13.91	300	iPc	30 26.00	0.5
	Z 17s	5.40um			
	N 13s	2.10um			
	E 17s	3.10um			
			sP	30 40.00	
			eS	32 51.00	
DL2	14.72	287	P	30 38.00	1.9
	Z 20s	3.60um			
	N 11s	2.50um			
SSE	16.25	258	iPc	30 56.00	0.4
	6.0s	1.40nm		2.3mb X	
	Z 20s	2.80um			
			pP	31 16.00	
			S	34 00.00	
			sS	34 28.00	
			ePcP	35 36.00	
NJ2	17.78	263	Pd	31 17.00	2.3
	6.0s	1.40nm		2.3mb X	
	N 10s	0.90um			
	E 10s	1.40um			
			pP	31 30.00	
			sP	31 39.00	
TIA	18.32	277	P	31 19.00	-2.3
	Z 33s	3.20um			
	N 14s	1.00um			
	E 14s	2.30um			
BJI	19.03	289	eP	31 27.00	-2.8
	Z 28s	3.00um			
	N 14s	0.81um			
	E 16s	1.39um			
			ePP	31 42.00	
			eS	34 57.00	
			eSS	35 22.00	
QZH	21.27	245	P	31 50.00	-3.1X
	Z 20s	1.90um		4.5Msz	
	E 14s	1.10um			
WHN	21.92	263	eP	31 58.00	-1.6
	Z 18s	3.68um		4.8Msz	
	N 12s	1.70um			
	E 18s	3.16um			
			S	35 56.00	
TIY	21.94	283	eP	31 58.00	-1.8
	E 17s	3.50um			
			ePP	32 26.00	
			S	35 55.00	
			sS	36 09.00	
			SS	36 33.00	
GUMO	22.74	167	eP	32 07.00	-0.8
	1.0s	480.00nm		5.9mb	
PJG	22.74	167	eP	32 06.50	-1.3
GUA	22.80	167	eP	32 06.60	-1.8
	0.6s	160.00nm		5.6mb	
BTO	23.76	290	eP	32 16.00	-1.7
XAN	25.31	275	P	32 31.40	-1.1
	N 14s	1.40um			
			S	36 58.00	
BAG	25.91	226	eP	32 36.00	-2.3
LZH	28.97	281	eP	33 03.50	-2.4
	2.0s	82.00nm		5.0mb	
	E 16s	4.30um			
			i	33 22.00	
			eS	38 17.00	
GYA	29.75	261	P	33 10.80	-2.2
	N 16s	1.00um			
CD2	30.37	271	eP	33 16.30	-2.0
	Z 20s	2.80um		4.9Msz	
QIZ	31.29	245	eP	33 26.30	-0.2
	N 13s	0.80um			
GTA	31.64	288	P	33 28.00	-1.5
	5.0s	0.40nm		2.5mb X	
	Z 28s	1.90um		4.6MszX	
	E 13s	0.80um			
			PP	34 35.00	
			S	38 28.00	
KMI	33.51	262	Pc	33 45.00	-1.0
JAY	38.29	179	ePd	34 28.00	1.7
LOE	38.40	251	eP	34 25.40	-1.8
CHG	39.76	256	eP	34 38.70	0.2
WMQ	40.16	298	P	34 42.00	0.3
	Z 20s	1.40um		4.8Msz	
BDT	40.60	254	eP	34 44.30	-1.1
NST	40.66	251	eP	34 46.20	0.4
AAI	40.91	198	eP	34 51.10	3.2X
LSA	41.01	276	Pc	34 49.50	0.3

NNT	42.87	247	eP	35	03.50	-0.5	RMW	69.58	46	P	38	15.00	0.5	PEC	80.09	55	P	39	15.00	0.2
PMG	45.66	170	eP	35	25.00	-1.3	BAL	69.68	201	eP	38	14.00	-1.0	KSP	80.31	328	iPc	39	15.70	0.1
SNG	45.84	241	eP	35	27.80	-0.1	PNT	69.85	43	eP	38	15.00	-1.0				e	42	12.50	
TTA	47.04	34	P	35	37.20	0.3		0.9s		23.00nm			5.1mb	MSU	80.47	49	P	39	18.40	1.4
	1.2s		37.88nm			5.2mb	LON	69.94	46	P	38	16.70	0.0	PLM	80.61	56	eP	39	18.00	0.2
SVW	47.14	37	eP	35	38.60	0.9	NUR	70.27	332	iP	38	17.40	-0.9	KRP	80.63	152	P	39	24.30	7.0X
			e	35	57.20		Z	19s		0.80um			5.0Msz	IKL	80.66	308	eP	39	17.00	-0.7
IPM	47.39	238	ePd	35	40.10	-0.1				LR	11	30.00		TPC	80.70	55	eP	39	18.00	-0.1
	1.0s		36.70nm			5.3mb	KLB	70.31	200	eP	38	18.00	-0.8	PSZ	80.75	324	eP	39	18.80	0.7
BRW	47.91	23	iPc	35	43.70	0.2	BWA	70.49	172	eP	38	20.30	0.4	BAR	81.14	56	eP	39	20.00	-0.4
IMA	48.27	30	eP	35	46.60	0.1	ADE	70.57	181	e(P)	38	20.30	-0.1	PVL	81.18	318	eP	39	16.00	-4.3X
	1.4s		55.20nm			5.4mb	EDM	70.99	37	ePc	38	22.50	-0.4	BRG	81.29	329	iP	39	20.80	0.0
			e	35	58.80			1.4s		103.00nm			5.6mb		2.0s		110.00nm			5.5mb
KDC	48.82	41	eP	35	50.10	-0.5	TAB	71.32	304	eP	38	26.00	0.7				i	39	33.00	
HNR	48.99	153	eP	35	50.00	-2.4	DPW	71.42	44	P	38	25.40	-0.2	CLL	81.36	329	iPc	39	20.90	-0.2
MTN	49.23	191	iPc	35	53.20	-1.0	CAN	71.44	172	eP	38	25.80	0.2		1.5s		92.00nm			5.5mb
KHKI	49.62	212	ePd	35	57.10	-0.2	NWAO	71.71	200	eP	38	27.00	-0.3	SRO	81.58	324	iP	39	23.00	0.7
			e	39	35.00			0.6s		11.00nm			5.0mb				e	09	22.00	
KSH	49.66	294	P	35	59.00	1.4	FHC	71.71	53	ePc	38	28.50	1.0				e	11	41.00	
	Z 12s		1.90um			5.3MszX	KER	72.72	300	eP	38	34.00	0.3	ADI	81.59	305	eP	39	23.50	0.8
	E 16s		1.40um				LBFM	72.76	51	P	38	34.80	0.9	PRU	81.70	328	ePc	39	23.00	0.1
			eS	43	05.00		WDC	72.76	52	ePc	38	34.00	0.4		2.0s		89.80nm			5.4mb
PSI	50.20	238	eP	36	01.20	-0.5				e	38	47.50			Z 14s		1.20um			5.4MszX
PMR	50.26	36	eP	36	00.70	-1.0				e	39	06.70			E 14s		1.00um			
	1.1s		50.00nm			5.5mb	SLY	73.18	302	ePd	38	36.00	-0.1				e	39	36.40	
FBA	50.70	32	iPc	36	05.00	0.0	LTCM	73.23	52	P	38	37.20	0.9	ZST	81.87	325	iP	39	25.40	1.6
PPI	51.51	234	eP	36	14.00	2.3	UPP	73.33	334	iP	38	35.20	-1.3	GLA	82.15	55	eP	39	27.00	1.4
TOA	51.62	35	eP	36	12.50	0.4	TOO	73.36	175	eP	38	37.00	0.1	ZNT	82.23	304	iPd	39	28.00	2.0
KNA	52.48	193	eP	36	18.00	-0.9	SES	73.82	39	ePc	38	39.80	0.2	PGB	82.26	318	iPc	39	27.00	1.0
NDI	52.59	281	iPd	36	19.00	-0.7	ORV	73.99	53	ePc	38	40.50	-0.2	MOX	82.43	330	iP	39	27.00	0.3
	1.2s		312.50nm			6.2mb				e	38	54.00			1.7s		69.00nm			5.4mb
WB5	55.77	186	eP	36	41.50	-1.4	MSL	74.36	304	ePd	38	42.50	-0.4				ePP	42	30.00	
			e	44	25.20		BRK	74.42	54	ePc	38	43.40	0.2				eSS	55	50.00	
WRA	55.84	186	Pd	36	41.70	-1.7	BKS	74.43	54	ePc	38	43.60	0.3				eLR	06	00.00	
	0.5s		16.70nm			5.3mb		1.3s		83.00nm			5.5mb	SOP	82.49	325	eP	39	28.00	0.9
INK	55.93	27	ePc	36	43.10	-0.5				i	38	56.80		RZN	82.54	317	iPc	39	28.00	0.3
	0.8s		49.00nm			5.6mb	HFS	74.51	335	eP	38	41.80	-1.6	WIT	82.64	333	eP	39	32.00	4.3X
			pP	36	55.50	44kmX		0.6s		6.80nm			4.8mb	ELL	82.72	310	eP	39	27.90	-0.7
CTA	56.08	173	eP	36	45.00	-0.1	NB2	74.66	337	P	38	43.60	-0.7	VTS	82.75	318	iP	39	29.00	0.3
QIS	56.21	180	eP	36	44.00	-2.1		0.6s		22.40nm			5.3mb	KHC	82.76	328	P	39	28.90	0.4
			e	36	58.00		NRA0	74.78	336	P	38	44.40	-0.5	MMB	83.15	317	eP	39	31.00	0.4
HYB	56.86	268	iPc	36	50.00	-1.0	MHC	75.12	55	ePc	38	47.90	0.4	KMR	83.32	327	iP+	39	31.80	0.5
	1.2s		85.70nm			5.7mb	ARN	75.19	55	P	38	47.00	-0.8	GRF	83.33	329	eP	39	31.80	0.4
MBC	57.92	16	eP	36	56.00	-1.6	FFC	75.31	32	iPc	38	47.50	-0.5		1.7s		168.00nm			5.8mb
	0.8s		18.00nm			5.2mb		1.2s		89.00nm			5.6mb		Z 21s		0.40um			4.8Msz
			pP	37	14.00	69kmX	CMB	75.56	53	ePc	38	50.20	0.3	GOL	83.74	45	P	39	34.50	0.5
SIT	58.05	40	eP	36	59.00	0.3				i	39	03.50		GLD	83.79	45	P	39	35.50	1.4
ASPA	59.57	186	eP	37	09.80	0.2				e	39	22.00			1.5s		93.75nm			5.6mb
	0.5s		45.00nm			5.9mb	LRM	75.82	43	ePc	38	51.80	0.3	MBH	83.84	302	ePc	39	35.20	0.9
			eS	45	12.30		PRS	75.87	55	ePc	38	52.00	0.4	VAY	83.97	318	iP	39	34.60	-0.1
GBA	59.82	265	Pc	37	10.00	-1.5				e	39	05.50		PTJ	84.08	324	eP	39	37.70	2.3
	0.8s		64.60nm			5.8mb	LLA	75.99	55	ePc	38	52.80	0.5	SKO	84.13	319	iPc	39	36.00	0.4
MBL	59.87	202	eP	37	11.00	-0.7	KVT	76.29	311	iP	38	55.00	1.1	KBA	84.41	326	e(P)	39	35.50	-1.6
QUE	60.01	287	iPc	37	11.20	-1.7	PRI	76.44	55	ePc	38	55.70	0.7		0.7s		12.20nm			5.1mb
POO	60.10	272	iPc	37	13.60	0.1	KVN	76.45	52	P	38	55.80	0.8				e	42	49.00	
ALE	61.25	3	ePc	37	20.00	-0.5	FRI	76.59	54	ePc	38	55.80	0.2	ENN	84.57	333	eP	39	37.00	-0.5
	0.7s		33.00nm			5.6mb				e	39	09.40			1.5s		101.00nm			5.7mb
			pP	37	36.00	60kmX	HPI	76.73	45	P	38	57.40	0.7	LJU	84.64	325	eP	39	37.50	-0.6
KOD	61.70	262	eP	37	24.00	-0.7	PHAM	76.79	55	P	38	58.00	1.2	MEM	84.66	332	P	39	37.60	-0.4
NANU	62.57	205	eP	37	29.50	-0.3	TNP	77.57	52	P	39	01.70	0.4	VBY	84.71	324	ePc	39	38.60	0.2
	0.4s		12.00nm			5.4mb		1.3s		66.33nm			5.5mb	RBL	84.79	326	P	39	37.90	-1.0
RMQ	62.69	171	eP	37	37.00	6.4X	CLI	77.95	319	ePd	39	04.00	1.1	CEY	84.92	325	eP	39	39.00	-0.5
			e	37	52.00		FRB	78.11	12	ePc	39	03.10	-0.3	VOY	84.95	325	ePc	39	38.60	-1.1
MAIO	62.93	297	iPc	37	32.20	-0.1		1.0s		128.00nm			5.9mb	FVI	85.03	326	P	39	38.50	-1.4
			eS	46	44.00		ISA	78.17	55	eP	39	03.00	-1.4	OHR	85.07	318	iP	39	40.10	-0.3
DZM	62.99	152	iPc	37	34.90	2.2	CFR	78.35	318	eP	39	06.00	0.9	TRI	85.25	325	iPc	39	40.00	-1.0
WARB	63.05	193	iPc	37	24.50	-8.5X	CLC	78.66	54	eP	39	08.00	0.9	GWF	85.35	331	P	39	41.34	-0.2
KEV	63.97	339	iP	37	41.40	2.8	VRI	78.68	319	ePd	39	08.00	1.0	WLF	85.37	332	Pd	39	42.50	0.9
	1.0s		48.00nm			5.4mb				e	08	18.00		SNF	85.38	333	P	39	41.60	0.0
YKA	65.39	29	P	37	47.40	-0.4	TLB	78.80	317	ePc	39	08.00	0.4	DOU	85.61	333	P	39	43.60	0.8
MEKA	65.39	201	eP	37	47.00	-1.2	BBTK	79.04	311	iPc+	39	09.50	0.3	CDF	85.94	331	P	39	43.73	-0.9
SOD	65.44	337	iP	37	46.90	-1.2				i	39	14.00		FEL	86.07	330	P	39	44.67	-0.6
YKC	65.45	29	ePc	37	47.00	-1.2	SBB	79.17	55	eP	39	11.00	1.1	ALQ	86.28	49	eP	39	46.90	0.2
	1.2s		53.00nm			5.4mb	KRA	79.24	325	iPc	39	09.90	0.0		1.0s		20.00nm			5.2mb
DAG	66.73	355	iPc	37	54.80	-1.4		0.7s		47.00nm			5.5mb		Z 20s		0.89um			5.2Msz
	1.1s		83.54nm			5.6mb		Z 15s		1.50um			5.5MszX				e	40	01.00	
KJF	66.90	334	iP	37	56.50	-1.0				e	39	16.10		MOF	86.45	330	P	39	46.45	-0.7
	0.7s		45.40nm			5.6mb	ISR	79.26	319	ePd	39	11.50	1.3	BSF	86.60	330	P	39	47.06	-0.8
COO	67.16	169	eP	38	05.00	5.5X	MWC	79.29	56	eP	39	11.00	0.3	VITF	86.61	331	P	39	47.34	-0.4
FORR	67.36	191	iPd	38	00.20	-0.4	BW06	79.34	45	P	39	11.20	0.3	HAU	86.64	331	eP	39	48.20	0.2
	0.4s		56.00nm			5.9mb		1.1s		26.04nm			5.1mb		0.6s		7.20nm			5.0mb
STK	67.51	178	eP	38	01.00	-0.5	MLR	79.35	319	ePc	39	11.00	0.3	LOMF	86.97	330	P	39	49.07	-0.6
			e	38	15.00					e	08	18.50		RSM	87.21	325	P	39	51.00	0.3
SUF	68.34	333	iP	38	05.60	-0.9	GSC	79.49	54	eP	39	12.00	0.4	VAI	87.35	328	P	39	50.10	-1.2
	0.6s		13.50nm			5.1mb	SPC	79.70	325	eP	39	12.70	0.1	PGD	87.59	325	P	39	53.50	0.7
COOL	68.76	197	eP	38	08.00	-1.4	DAU	79.84	47	P	39	14.80	1.0	MME	87.81	326	P	39	53.90	-0.1
GMW	68.96	46	P	38	11.70	1.1	RVR	79.89	55	eP	39	13.00	-0.7	ORX	87.87	328	P	39	52.85	-1.2

19d 12h

FIR	87.88	325	eP	39	55.00	1.1			1.0s	11.00nm							e	01	31.00	
BOB	87.92	327	P	39	46.20	-8.1X	KIC	126.32	314	PKP	46	08.10	0.1	BWA	25.77	218	eP	54	31.00	-2.0
DUI	87.96	322	P	39	54.90	0.4	ATB	145.64	22	PKPc	46	42.50	-1.0				e	54	53.30	
LOR	88.21	332	eP	39	55.90	0.4	ARE	146.09	63	ePKP	46	46.00	1.4				eScP	01	01.00	
SDI	88.24	323	P	39	54.20	-1.6	AIA	147.38	161	e(PKP)	46	53.00	8.3X	CNB	25.87	215	iPd	54	34.80	0.9
PII	88.26	326	P	39	54.60	-1.1	ZOBO	148.36	59	PKP	46	49.50	1.0	CAN	26.08	215	iPc	54	36.10	0.3
LSD	88.36	329	P	39	56.44	-0.2				LR	38	22.00					eScP	01	02.20	
LBF	88.40	331	eP	39	56.50	0.0	LPB	148.55	59	PKP	46	51.00	2.3	QIS	26.83	254	iPc	54	42.60	-0.2
	1.0s	12.00nm			5.1mb			1.2s	125.00nm								e	55	08.00	
TDS	88.48	320	P	39	54.80	-2.2				i	46	54.00		WEL	27.11	167	P	54	43.50	-1.6
LPG	88.50	329	eP	39	57.80	0.5				LR	43	50.00					PP	55	32.00	
	0.6s	6.30nm			5.0mb		CNCB	148.83	60	PKP	46	51.20	1.9				eS	59	07.00	
SSF	88.52	332	eP	39	57.20	0.2	CCH	150.49	58	ePKP	46	53.00	1.6				SS	00	22.00	
	1.0s	8.80nm			5.0mb			S.D. = 1.1		on 287 of 303 obs.				STK	28.82	230	iPc	55	01.50	0.9
FLN	88.54	335	eP	39	57.40	0.4	----------								0.7s	174.00nm				5.8mb
	1.0s	24.00nm			5.4mb		FEB 19, 1989 12h 49m 09.91± 0.13s										e	01	40.00	
LDF	88.56	335	eP	39	59.00	1.9	14.894 S ± 3.8km 167.171 E ± 3.4km							JAY	28.86	293	ePc	55	05.30	4.1X
	1.2s	53.50nm			5.7mb		DEPTH = 101.2km (15 depth phases)							TOO	29.66	216	iPc	55	08.70	0.6
RSP	88.56	329	P	39	56.74	-0.7	5.6mb (35 obs.)										e	01	43.00	
SMF	88.73	331	eP	39	58.40	0.3	VANUATU ISLANDS						(186)	WB5	31.66	256	iPc	55	24.10	-1.8
	1.2s	30.90nm			5.4mb		CENTROID, MOMENT TENSOR						(HRV)				iPP	56	25.00	
AVF	88.80	332	eP	39	58.70	0.4	Data Used: GDSN										eS	00	30.00	
	1.2s	38.60nm			5.5mb		L.P.B.: 13S, 34C										iScP	01	50.10	
FIN	88.91	327	P	39	57.26	-1.7	Centroid Locotion:							WRA	31.69	256	P	55	25.00	-1.1
RRL	88.95	329	P	39	58.80	-0.6	Origin Time 12:49:15.5 0.4								0.7s	17.90nm				4.9mb
ROB	88.99	328	P	39	57.77	-1.6	Lot 15.11S 0.03 Lon 166.82E 0.03							ADE	32.46	227	iPd	55	33.20	0.5
GRR	88.99	335	eP	39	59.90	0.7	Dep 103.4 1.8 Half-duration 3.8								0.7s	72.60nm				5.6mb
	1.0s	24.00nm			5.4mb		Moment Tensor; Scale 10**17 Nm							ASPA	32.53	249	iPc	55	32.20	-1.2
PZZ	89.15	328	P	39	58.80	-1.4	Mrr= 1.23 0.22 Mtt= 0.50 0.47							Z	17s	10.43um				5.6MszX
BGF	89.19	332	eP	40	01.20	1.0	Mff=-1.73 0.47 Mrt=-9.85 0.26										iS	00	36.00	
	1.2s	23.80nm			5.4mb		Mrf=-0.06 0.24 Mtf= 9.09 0.36										i	01	52.80	
STV	89.26	328	P	39	58.39	-2.3	Principal Axes:										e	05	49.80	
IMI	89.28	327	P	39	59.41	-1.4	T Val= 13.70 Plg=34 Azm=149										LR	07	57.70	
ACO	89.34	44	eP	40	02.00	0.9	N -0.42 43 279							TAU	32.71	207	iPc	55	34.60	-0.1
	1.0s	25.30nm			5.5mb		P -13.28 28 38										i	58	18.60	
LPF	89.36	335	eP	40	01.90	1.0	Best Double Couple:Mo=1.3*10**18										eS	00	44.00	
	1.2s	23.80nm			5.4mb		NP1:Strike=181 Dip=43 Slip= 174										e	01	53.00	
SBF	89.52	328	eP	40	01.50	-0.4	NP2: 275 86 47							MTN	35.03	269	eP	55	55.00	0.1
	1.2s	20.20nm			5.3mb												e	02	03.00	
MAF	89.58	332	eP	40	02.80	0.7	PVC	3.03	159	iPc	49	57.50	0.6	TLE	35.05	282	ePc	55	57.00	1.9
	1.2s	38.60nm			5.6mb					iS	50	34.50		KNA	37.02	264	eP	56	11.00	-0.7
TCF	89.66	332	eP	40	02.90	0.5	DZM	7.17	185	iPd	50	53.20	-0.7		0.8s	54.00nm				5.5mb
	1.2s	17.80nm			5.2mb					iS	52	11.00		FORR	39.12	239	iPc	56	29.60	0.5
CVF	89.91	326	eP	40	03.50	-0.2	HNR	8.91	307	eP	51	18.00	0.5		0.4s	149.00nm				6.2mb
	0.8s	10.70nm			5.2mb					eS	52	50.00		WARB	39.43	247	iPc	56	23.40	-8.4X
LSF	89.95	332	eP	40	04.30	0.5	VSG	9.20	307	eP	51	23.00	1.5	AFR	41.36	100	iP	56	48.40	0.7
	1.2s	27.90nm			5.4mb		PAA	14.30	305	eP	52	34.00	5.0X		0.9s	200.00nm				5.9mb
FRF	90.10	328	eP	40	04.40	-0.1	RAB	18.20	304	eP	53	19.00	1.4	PAE	41.54	100	iP	56	49.70	0.5
	0.8s	10.70nm			5.2mb					eS	56	46.00			9.0s	185.00nm				4.9mb X
MFF	90.26	334	eP	40	06.10	0.9	BRS	18.28	225	iPc	53	20.40	1.9	PPT	41.55	100	iP+	56	50.00	0.7
	1.2s	41.60nm			5.6mb					e	53	27.00			0.9s	235.00nm				6.0mb
LRG	90.31	328	eP	40	05.80	0.4				e	53	35.00			Z 18s	2.00um				5.0Msz
	0.8s	21.40nm			5.5mb					i	53	51.80		PPN	41.69	100	iP	56	51.00	0.6
LMR	90.34	328	eP	40	05.50	-0.1				e	54	11.00			0.9s	105.00nm				5.7mb
	1.2s	35.70nm			5.6mb					e(PPP)	55	30.00		TBI	41.70	108	iP	56	50.20	-0.2
RRO	90.68	44	e(P)	40	09.00	1.6				iS	56	45.00			1.1s	195.00nm				5.8mb
	1.3s	73.50nm			5.9mb					iScP	01	12.00		TVO	41.85	100	iP	56	52.40	0.6
RJF	90.75	332	eP	40	08.80	1.3				iScS	04	56.50			0.9s	1085.00nm				6.7mb X
	1.2s	29.70nm			5.5mb					i	05	45.00		PMO	43.35	96	iP	57	05.10	1.2
CAF	90.86	331	eP	40	09.30	1.3	PMG	20.31	283	iPd	53	42.50	2.5		0.9s	120.00nm				5.7mb
	1.0s	14.00nm			5.3mb			1.0s	280.00nm				5.5mb	VAH	43.58	97	iP	57	06.70	0.9
MEO	91.04	45	ePc	40	09.00	0.0	CTA	20.60	252	iPd-	53	44.70	1.7		0.9s	80.00nm				5.5mb
	1.5s	58.40nm			5.8mb			1.7s	1023.08nm				5.9mb	TPT	43.62	96	iP	57	07.30	1.2
OCO	91.13	43	e(P)	40	11.00	1.6				iS	57	29.00			0.9s	85.00nm				5.6mb
LFF	91.35	332	eP	40	11.40	1.2				iScP	01	17.80		RUV	43.83	97	iP	57	08.70	0.9
	0.8s	21.40nm			5.6mb					iScS	05	04.00			0.9s	110.00nm				5.7mb
FKO	91.37	43	eP	40	10.90	0.4	RMQ	20.70	233	iPc	53	52.60	8.5X	COOL	44.96	241	iPc	57	16.00	-0.8
	1.3s	44.30nm			5.7mb					e	53	57.00			0.3s	16.00nm				5.3mb
LPO	91.40	332	eP	40	11.50	1.1				e	54	53.00		DAV	46.66	295	eP	57	32.00	1.6
	1.2s	35.70nm			5.6mb					e	55	25.00		MEKA	46.70	247	iPc	57	30.60	0.0
SIO	91.61	42	eP	40	11.70	0.1	COO	20.99	219	iPc	53	48.70	1.8		0.5s	59.00nm				5.7mb
TUL	91.77	42	iP	40	12.60	0.3				e	53	52.00		KLB	47.94	241	iPc	57	39.20	-1.0
	1.3s	27.40nm			5.5mb					e	54	10.00			0.3s	14.00nm				5.3mb
	Z 21s	1.84um			5.5Msz					e	01	18.00		NWAO	48.58	239	iPc	57	44.30	-0.8
		LR		37	00.00		LAT	21.42	290	e(P)	53	55.00	3.7X		0.6s	53.00nm				5.6mb
LNO	91.77	42	iP	40	12.50	0.3	RIV	23.78	215	iPc	54	16.40	2.3		N 20s	4.80um				
RLO	91.99	41	iP	40	14.50	1.1		0.8s	********nm				7.5mb X		E 20s	4.90um				
VVO	92.22	42	eP	40	15.10	0.7				i	54	39.50					e	58	09.00	
GAC	92.70	24	eP	40	16.50	0.1				eS	58	36.00		BAL	48.70	242	eP	57	45.00	-1.0
SLR	121.38	259	iPKPc	45	58.00	-0.2	KRP	24.11	164	P	54	17.80	0.5	RKG	48.96	238	eP	57	48.00	0.0
KSR	122.55	260	ePKP	46	02.80	2.3		0.4s	497.00nm				6.3mb	MUN	49.30	241	iPc	57	50.00	-0.6
PRY	122.57	259	ePKP	46	02.00	1.5				pP	54	55.00	191kmX		0.8s	97.00nm				5.8mb
SEK	123.08	257	ePKP	46	02.50	1.1				ScP	01	26.00			Z 20s	7.20um				5.7Msz
SWZ	124.40	259	iPKPd	46	03.00	-1.0	MNDI	24.67	288	eP	54	26.00	2.9	NANU	49.30	253	iPc	57	50.90	0.1
	0.6s	13.33nm					CMS	25.57	226	iPc	54	31.90	0.8		0.6s	61.00nm				5.7mb
FRS	125.51	257	ePKP	46	24.00	18.1X		0.4s	63.00nm				5.5mb	KHKI	50.83	271	ePd	58	02.00	-0.5
SPA	125.78	180	e(PKP)	46	06.10	0.6				e	54	52.00					e	02	36.00	

TRT 53.85 271 iPc 58 24.90 -0.1
0.7s 30.20nm 5.4mb
OCP 54.21 301 eP 58 36.00 8.5X
RKT 55.02 108 iP 58 32.00 -1.4
0.8s 25.00nm 5.3mb
BAG 55.53 302 eP 58 36.00 -1.4
e 59 00.00
eS 06 14.00
CHJJ 57.25 333 P 58 48.40 -0.6
IIDJ 57.26 332 P 58 48.10 -1.1
MAT 58.01 333 iPd 58 52.80 -1.6
eS 06 24.00
MTMJ 58.22 332 P 58 54.90 -1.1
NIIJ 58.24 334 P 58 55.20 -0.8
KUMJ 58.59 324 P 58 58.30 -0.2
YAMJ 58.60 335 eP 58 58.80 0.3
OFUJ 58.75 337 P 58 59.20 -0.2
SHK 59.09 327 eP 59 01.00 -0.9
SHNJ 59.62 326 P 59 04.20 -1.3
AOMJ 60.52 337 eP 59 12.90 1.3
QZH 61.74 309 P 59 19.30 -0.8
pP 59 43.00 94km
sP 59 54.00
sS 08 17.00
ScS 09 03.00
MRRJ 61.89 338 eP 59 20.70 0.0
ASAJ 62.85 340 eP 59 27.80 0.7
SBA 62.97 180 Pc+ 59 28.00 0.5
SSE 63.57 316 P 59 31.20 -0.9
1.5s 96.00nm 5.5mb
Z 20s 0.90um 4.9Msz
N 14s 0.70um
E 14s 1.10um
sP 59 54.60
S 07 54.00
PS 08 26.00
ScS 09 18.50
GZH 64.79 305 Pc 59 39.20 -1.0
pP 00 04.50 101km
S 08 16.00
sS 09 00.00
KGM 65.36 279 eP 59 45.00 1.0
NJ2 65.73 316 Pd 59 45.50 -0.5
Z 22s 0.90um 4.9Msz
pP 00 12.00 106km
sP 00 22.00
S 08 26.00
sS 09 11.00
QIZ 65.73 299 eP 59 47.00 0.7
N 13s 0.80um
pP 00 12.00 99km
sP 00 23.00
PP 02 18.00
S 08 26.00
sS 09 12.50
ADK 67.96 11 eP 59 59.60 -0.2
WHN 67.98 312 P 00 00.50 0.2
Z 24s 0.21um 4.3MszX
N 11s 0.66um
E 12s 0.73um
pP 00 27.00 105km
sP 00 36.00
eS 08 42.00
IPM 68.31 281 ePd 00 02.80 0.1
1.0s 29.80nm 5.1mb
e 00 28.70
DL2 68.37 323 Pd 00 02.00 -0.5
Z 30s 2.40um 5.2MszX
S 08 54.00
MDJ 68.38 332 Pd 00 02.50 0.0
Z 40s 2.40um 5.1MszX
epP 00 27.90 100km
S 08 57.00
SNY 69.29 327 Pd 00 05.00 -3.1X
Z 25s 1.10um 5.0MszX
N 24s 0.70um
E 22s 0.90um
pP 00 30.00 98km
sP 00 42.00
S 08 56.00
TIA 69.40 319 P 00 08.00 -0.9
Z 48s 2.20um 5.0MszX
N 17s 0.90um
S 09 07.00
SNG 69.51 284 eP 00 04.90 -5.1X
eS 09 14.00
CN2 69.74 329 iPd 00 10.00 -0.8
5.0s 0.70nm 2.7mb X
Z 24s 2.30um 5.3MszX
E 15s 0.60um
pP 00 35.50 100km
eS 09 07.00
PSI 69.76 279 ePd 00 12.20 0.7
GYA 71.73 305 iPd 00 23.80 0.4
S 09 36.00
LOE 72.08 294 eP 00 26.00 0.6
BJI 72.33 321 eP 00 26.50 0.0
Z 46s 5.60um 5.5MszX
N 15s 0.64um
esP 00 51.00
eS 09 40.00
esS 10 09.00
NST 72.86 292 eP 00 31.10 1.1
TIY 73.32 317 Pd 00 32.90 0.5
2.0s 0.70nm 3.1mb X
N 18s 1.30um
ePcP 00 50.00
pP 00 59.00 101km
sP 01 10.00
ePP 03 25.00
S 09 54.00
ScS 10 27.00
XAN 73.73 313 Pd 00 35.80 0.9
pP 01 04.90 115kmX
S 09 59.00
KMI 74.31 302 P- 00 40.00 1.4
sP 01 04.00
iS 10 06.00
i 10 37.00
BDT 74.43 293 eP 00 40.00 0.9
CHG 75.06 294 iPd 00 44.50 1.7
1.2s 57.81nm 5.3mb
eS 10 20.00
SPA 75.20 180 iPc 00 41.90 -1.1
i 01 07.40
HHC 75.65 320 Pd 00 46.20 0.4
N 40s 4.10um
pP 01 13.00 104km
SKS 10 46.00
CD2 76.03 308 eP 00 48.70 0.6
pP 01 13.00 93km
sP 01 24.00
S 10 24.00
BTO 76.48 319 P 00 52.00 1.5
pP 01 19.00 105km
S 10 30.00
LZH 78.36 312 eP 01 02.00 1.0
2.0s 247.00nm 5.7mb
Z 30s 1.20um 5.0MszX
sP 01 27.50
eS 10 50.00
KDC 79.65 21 eP 01 06.30 -1.0
MAW 81.70 202 eP 01 17 00 -1.0
TTA 82.70 16 eP 01 23.20 -0.1
GTA 82.71 314 iPd 01 24.70 0.8
4.0s 0.40nm 2.7mb X
Z 22s 0.70um 5.0Msz
E 18s 0.80um
PP 04 40.00
iS 11 34.00
PMR 83.69 19 eP 01 26.00 -2.2
1.1s 53.10nm 5.4mb
Z 20s 2.50um 5.6Msz
BKS 84.37 49 eP 01 33.00 0.8
0.9s 33.00nm 5.3mb
Z 20s 1.40um 5.3Msz
N 20s 0.90um
E 20s 1.70um
eS 11 42.00
iPS 12 40.00
eSS 17 27.00
e 21 43.00
eLQ 23 41.00
eLR 27 14.00
PRS 84.40 50 ePc 01 33.50 1.1
MHC 84.59 49 ePc 01 34.00 0.5
LLA 84.83 50 ePc 01 35.60 1.1
PRI 84.85 51 ePc 01 36.20 1.4
TOA 85.03 20 eP 01 35.30 0.3
WDC 85.25 46 ePc 01 36.90 0.4
e 02 03 30
ORV 85.57 47 ePc 01 38.80 0.7
CMB 85.78 49 ePc 01 40.00 0.7
e 02 05.30
IMA 85.83 15 eP 01 37.80 -1.3
0.8s 17.10nm 5.1mb
FRI 85.89 50 ePc 01 40.60 0.9
MWC 86.13 53 eP 01 41.00 -0.3
e 02 06.00
ISA 86.33 52 eP 01 43.00 0.9
e 02 09.00
SBB 86.48 53 eP 01 43.00 0.2
e 02 08.00
FBA 86.54 18 eP 01 40.00 -2.4
RVR 86.58 54 eP 01 43.00 -0.2
e 02 10.00
BAR 86.68 55 eP 01 44.00 0.2
PLM 86.76 54 eP 01 44.00 -0.4
e 02 12.00
CLC 87.05 52 eP 01 45.00 -0.5
e 02 12.00
GSC 87.47 53 eP 01 48.00 0.4
e 02 15.00
TPC 87.66 54 eP 01 49.00 0.5
e 02 15.00
KVN 87.82 49 P 01 50.00 0.7
GMW 87.95 40 P 01 50.60 1.1
pP 02 18.50 106km
TNP 88.12 50 P 01 51.60 0.8
0.8s 3.92nm 4.5mb X
LON 88.24 41 P 01 51.70 0.7
GLA 88.27 55 eP 01 53.00 1.6
MCW 88.40 39 P 01 53.00 1.3
RMW 88.53 40 P 01 52.80 0.4
pP 02 21.20 108km
BRW 89.41 11 eP 01 55.10 -0.9
PNT 90.60 39 ePc 02 03.00 1.1
1.5s 84.00nm 5.7mb
MSU 92.02 51 P 02 10.60 1.6
pP 02 37.80 102km
WMO 92.78 315 P 02 12.50 0.4
Z 24s 1.10um 5.2MszX
SKS 12 32.00
INK 93.07 19 eP 02 13.00 0.1
HYB 93.08 287 eP 02 14.00 0.0
GBA 93.17 283 Pc 02 14.10 -0.3
0.6s 3.80nm 4.9mb
LRM 93.99 44 eP 02 18.30 0.4
ALQ 95.47 55 eP 02 26.00 1.1
1.0s 2.50nm 4.6mb
EDM 95.62 36 eP 02 24.00 -1.0
SES 96.19 40 eP 02 29.00 1.4
YKA 97.74 27 P 02 33.90 -0.3
YKC 97.79 27 eP 02 33.00 -1.4
MBC 100.49 13 ePdiff02 47.00 0.5
CNCB 117.11 118 PKP 07 47.00 0.7
ZOBO 117.23 117 ePKP 07 51.00 4.5X
DAG 118.04 2 ePKP 07 44.00 -1.6
FRB 118.10 25 ePKP 07 44.00 -2.0
GRM 119.08 217 iPKPc 07 49.50 0.6
0.5s 14.08nm
KEV 119.86 345 iPKP 07 49.40 0.2
0.7s 16.00nm
SOD 121.63 343 iPKP 07 52.40 -0.2
SEK 121.87 222 iPKPd 07 54.50 0.0
0.9s 8.40nm
BFT 121.95 226 iPKPd 07 55.00 0.2
1.0s 15.00nm
FRS 122.35 219 iPKPd 07 55.00 -0.1
0.9s 12.60nm
BPI 123.03 225 ePKP 07 54.50 -2.3
0.5s 28.17nm
SLR 123.14 225 iPKPd 07 46.50 -10.5X
0.9s 21.85nm
e 11 02.00
TUH 123.18 212 ePKP 07 56.00 -0.7
KJF 123.45 340 iPKP 07 56.00 -0.2
0.8s 24.90nm
KSR 124.00 224 iPKPd 07 58.50 -0.3
SWZ 124.14 222 iPKPc 07 57.00 -1.9
0.6s 23.33nm
e 11 10.50
SUF 124.96 339 iPKP 07 58.50 -0.7
POF 125.79 216 iPKPd 08 02.00 0.1
0.5s 14.08nm
BUL 126.41 231 iPKPd 08 02.20 -1.3
NUR 126.98 338 iPKP 08 02.50 -0.7
Z 19s 0.80um 5.4Msz
LR 11 30.00
PTZ 127.59 238 iPKPd 08 04.70 -1.1
i 08 34.30

19d 13h

LSZ	129.58	235	ePKPd	08	10.00		0.4
			i	10	18.50		
			i	11	23.00		
			i	12	14.40		
VAO	129.65	138	ePKP	08	08.80		-0.7
			e	08	40.10		
			e	11	20.70		
NB2	130.76	345	PKP	08	09.40		-1.0
	0.8s	3.20nm					
HFS	130.85	343	ePKP	08	07.60		-3.0
	0.5s	1.30nm					
BMA	131.66	140	ePKP	08	11.80		-1.5
KMZ	132.49	236	iPKPc	08	15.80		0.6
			i	10	37.70		
			i	11	34.80		
			i	12	25.40		
BBTK	133.15	311	ePKP	08	15.00		-0.7
LWI	135.42	251	iPKP	08	22.40		1.5
SPC	136.41	329	e(PKP)	08	23.50		1.8
			e	08	51.10		
			e	11	23.70		
PSZ	137.40	328	ePKP	08	23.50		0.0
CLL	138.16	336	e(PKP)	08	21.00		-3.7X
			e	08	56.00		
ZST	138.63	330	e(PKP)	08	26.00		0.4
			e	11	40.00		
			e	11	43.00		
			e	37	10.00		
SOP	139.25	329	ePKP	08	27.60		0.8
KHC	139.59	333	ePKP	08	21.30		-6.1X
VAY	139.61	318	ePKP	08	23.00		-4.6X
SKO	140.00	319	ePKP	08	24.00		-4.3X
			i	08	59.20		
MEM	141.25	341	PKP	08	26.60		-3.6X
LJU	141.38	329	ePKP	08	25.70		-5.0X
VBY	141.39	328	ePKP	08	26.90		-3.8X
CEY	141.65	329	e(PKP)	08	26.00		-5.2X
VOY	141.71	330	ePKP	08	27.20		-4.2X
TRI	142.00	329	ePKP	08	26.40		-5.4X
			i	08	34.50		
			e	11	59.00		
			e	12	52.10		
WLF	142.02	340	PKP	08	28.30		-3.3X
DOU	142.14	342	PKP	08	29.30		-2.6
			e	10	19.10		
			e	12	00.20		
CDF	142.69	338	ePKP	08	29.50		-3.5X
HAU	143.37	338	ePKP	08	31.40		-2.7
AOI	143.60	327	ePKP	08	32.16		-2.4
SAL	143.61	332	PKP	08	31.40		-3.1X
FG2	143.89	323	PKP	08	33.70		-1.4
RSM	143.93	328	PKP	08	34.80		-0.3
CIO	144.08	327	ePKPd	08	34.01		-1.5
VAI	144.18	334	PKP	08	33.50		-1.9
SFI	144.23	329	PKP	08	35.30		-0.3
PGD	144.33	329	PKP	08	35.30		-0.7
DUI	144.39	324	PKP	08	33.40		-2.7
ASS	144.42	327	PKP	08	34.30		-1.8
AQU	144.52	326	PKP	08	35.20		-1.1
MME	144.60	330	PKP	08	35.70		-0.9
FIR	144.63	329	iPKPc	08	36.00		-0.3
MGR	144.70	321	PKP	08	25.50		-11.0X
ORX	144.70	334	PKP	08	35.03		-1.5
ORO	144.70	334	PKP	08	35.40		-1.1
SDI	144.72	324	PKP	08	35.20		-1.4
FLN	144.73	346	ePKP	08	34.20		-2.1
BDI	144.74	330	PKP	08	34.70		-1.9
BOB	144.74	332	PKP	08	34.00		-2.6
AZI	144.75	325	PKP	08	35.90		-0.6
LDF	144.80	345	ePKP	08	34.80		-1.7
LOR	144.86	340	ePKP	08	36.10		-0.5
MNS	144.89	326	PKP	08	35.40		-1.5
RFI	144.89	324	PKP	08	36.40		-0.4
PII	145.03	330	PKP	08	35.40		-1.6
LBF	145.07	340	ePKP	08	36.20		-0.8
SSF	145.16	340	ePKP	08	36.60		-0.5
GRR	145.17	346	ePKP	08	36.10		-1.0
LSD	145.18	335	PKP	08	37.80		0.2
GEN	145.25	332	PKP	08	36.57		-0.7
RDP	145.30	325	PKP	08	35.90		-1.7
LPG	145.31	336	ePKP	08	38.00		0.2
RSP	145.39	335	PKP	08	37.59		-0.1
SMF	145.41	340	ePKP	08	37.60		0.0
AVF	145.44	340	ePKP	08	37.50		-0.1
LPF	145.55	346	ePKP	08	37.60		-0.1
SOI	145.59	318	PKP	08	38.30		0.2
MAO	145.67	328	PKP	08	38.00		-0.1
BNI	145.71	335	PKP	08	39.10		0.8
FIN	145.73	333	PKP	08	37.70		-0.5
RRL	145.77	335	PKP	08	38.62		0.1
BGF	145.81	341	ePKP	08	38.80		0.5
ROB	145.81	333	PKP	08	37.70		-0.7
DOI	145.92	334	PKP	08	36.50		-2.1
ATN	145.92	318	PKP	08	39.10		0.4
PZZ	145.98	334	PKP	08	38.31		-0.5
LPI	146.07	319	PKP	08	40.80		1.8
PLDF	146.07	339	PKP	08	40.50		1.7
STV	146.09	334	PKP	08	38.11		-0.8
IMI	146.11	333	PKP	08	39.13		0.2
AGO	146.17	340	PKP	08	40.35		1.5
SAOF	146.20	333	PKP	08	39.98		1.0
MAF	146.20	341	ePKP	08	40.10		1.2
AUTN	146.25	333	PKP	08	39.82		0.5
TCF	146.26	341	ePKP	08	39.70		0.7
TOUF	146.31	333	PKP	08	40.21		0.8
SBF	146.35	333	ePKP	08	40.20		0.9
AURF	146.38	333	PKP	08	39.98		0.6
MVIF	146.44	333	PKP	08	40.37		0.8
PYM	146.47	340	PKP	08	41.61		2.1
LSF	146.50	342	ePKP	08	40.60		1.2
MNO	146.55	318	PKP	08	40.90		0.9
MFF	146.65	344	ePKP	08	41.20		1.6
CALN	146.67	334	PKP	08	40.82		0.9
CVF	146.70	330	PKP	08	40.82		1.0
LBL	146.85	339	PKP	08	43.08		3.2X
MEU	146.87	317	PKP	08	48.30		7.9X
MEU	146.87	317	PKP	08	43.90		3.5X
FRF	146.93	334	ePKP	08	42.00		1.9
LRG	147.14	334	ePKP	08	42.90		2.5
LMR	147.17	334	ePKP	08	42.90		2.4
RJF	147.35	341	ePKP	08	43.70		2.9X
BNG	147.42	255	iPKPd	08	41.00		-0.8
	0.5s	78.00nm					
			ic	08	43.70		
			ic	09	11.30		
			ic	10	15.00		
CAF	147.51	340	ePKP	08	44.30		3.2X
ERC	147.81	320	PKP	08	42.70		0.9
LFF	147.92	342	ePKP	08	45.10		3.4X
LVI	147.99	321	PKP	08	42.50		0.5
LPO	148.01	341	ePKP	08	45.50		3.7X
CGL	148.83	326	PKP	08	44.00		0.5
EPF	149.77	341	ePKP	08	49.60		4.9X
TOL	153.95	344	ePKP	09	09.00		18.2X
			ePKKP	09	38.50		
			ePP	13	08.00		
			eSS	31	40.00		
			eSSS	38	10.00		
ASMO	156.21	342	ePKP	08	59.00		4.9X
AAPN	156.37	342	ePKP	09	05.30		11.0X
ALOJ	156.55	342	ePKP	08	55.50		1.0
APHE	156.57	341	ePKP	08	55.00		0.4
ATEJ	156.70	342	ePKP	08	55.00		0.2
KUK	165.01	236	ePKP	09	04.50		0.6

S.D. = 1.1 on 249 of 284 obs.

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* FEB 19, 1989 13h 22m 15.76± 1.28s
2.815 S ±13.9km 138.754 E ± 9.9km
DEPTH = 33.0km (normol)
4.6mb (1 obs.)

WEST IRIAN (201)

MNDI	5.91	124	e(P)	23	44.00		0.5
MTN	12.50	217	eP	25	14.00		-0.2
			eS	27	40.00		
KNA	16.18	217	eP	26	03.00		0.6
			eS	29	07.00		
WB5	17.49	194	eP	26	11.90		-7.0X
			eS	26	15.90		
WRA	17.56	194	P	26	20.00		0.2
QIS	17.65	177	eP	26	20.00		-0.9
			eS	29	27.00		
CTA	18.66	157	eP	26	33.00		-0.4
ASPA	21.25	192	ePc	27	02.20		0.6
	0.8s	20.00nm				4.6mb	
			eS	31	01.70		
WARB	25.98	205	eP	27	38.70		-8.7X
GBA	62.95	287	P	32	36.00		-5.9X
POO	67.26	291	eP	33	09.50		-0.3

S.D. = 0.7 on 8 of 11 obs.

% FEB 19, 1989 13h 27m 38.53± 0.84s
39.119 N ± 6.7km 27.324 E ± 8.8km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

IZM	0.72	184	iPg	27	52.60		-0.2
			eSg	28	03.60		
EZN	1.05	313	iPn	27	58.60		0.4
DST	1.12	64	iPn	28	00.30		0.7
EDC	1.29	19	ePn	28	02.70		0.2
BNT	1.32	20	iPn	28	02.30		-0.6
KCT	1.38	35	iPn	28	03.30		-0.5

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

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* FEB 19, 1989 13h 47m 34.89± 0.69s
56.307 S ±17.2km 26.776 W ±11.4km
DEPTH = 33.0km (normol)
4.9mb (6 obs.)

SOUTH SANDWICH ISLANDS REGION (153)

SPA	33.87	180	e(P)	54	16.10		-0.2
	1.1s	12.50nm				4.8mb	
SWZ	46.98	74	iPd	56	03.50		-1.1
	0.3s	19.48nm				5.6mb	
SEK	47.32	77	iPd	56	08.00		0.7
	0.3s	6.49nm				5.1mb	
CNCB	50.19	305	P	56	30.00		0.0
LPB	50.48	305	eP	56	33.00		1.0
BFT	50.72	77	eP	56	34.50		1.0
	1.0s	10.00nm				4.8mb	
ZOBO	50.73	305	P	56	33.30		-0.8
	0.8s	9.41nm				4.8mb	
BNG	70.92	49	iPc	58	49.90		-0.8
	0.3s	5.00nm				5.1mb	
INK	146.15	320	ePKP	07	09.00		-1.5X
			pP	07	37.00		

S.D. = 1.0 on 8 of 9 obs.

? FEB 19, 1989 14h 12m 32.22± 6.87s
32.623 N ±20.0km 26.454 E ±60.9km
DEPTH = 10.0km (geophysicist)

EASTERN MEDITERRANEAN SEA (371)

ELL	5.00	34	iPn	13	49.40		0.2
KOT	5.33	119	ePn	13	53.50		-0.2
IKL	6.98	57	ePn	14	16.50		-0.4
DOR	7.08	97	eP	14	18.00		-0.4
			eS	15	34.30		
PRNI	7.64	105	eP	14	36.00		9.7X
DSI	7.65	96	eP	14	27.00		0.7
			eS	15	48.00		

S.D. = 0.7 on 5 of 6 obs.

FEB 19, 1989 14h 28m 46.51± 0.24s
37.009 N ± 3.5km 28.226 E ± 3.0km
DEPTH = 10.0km (geophysicist)
4.7mb (30 obs.)

TURKEY (366)

ML 4.9 (CSS). MD 4.5 (ATH), 4.5 (HLW). Felt ot Muglo ond Denizli.

CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 8S, 15C
Centroid Location:
Origin Time 14:28:54.3 2.0
Lot 37.01N FIX;Lon 28.32E FIX
Dep 15.0 FIX Holf-durotion 2.1
Moment Tensor; Scale 10**17 Nm
Mrr=-1.36 0.22 Mtt= 1.60 0.27
Mff=-0.24 0.14 Mrt= 0.71 0.79
Mrf= 0.06 0.36 Mtf= 0.01 0.23
Principal Axes:

T	Val= 1.76	Plg=13	Azm=359
N	-0.23	3	269
P	-1.53	77	168

Best Double Couple:Mo=1.6*10**17
NP1:Strike= 93 Dip=32 Slip= -85
NP2: 267 58 -93

ELL	1.37	100	iPn	29	15.40		3.6X
KSL	1.41	129	ePb	29	16.80		4.6X
IZM	1.58	331	iPn	29	13.70		-1.0
KHL	1.67	38	iPn	29	17.90		1.9
KAP	1.68	211	iPbc	29	15.50		-0.6
BCK	1.94	76	iPn	29	24.10		4.2X
DST	2.61	7	iPn	29	29.30		-0.2
PRK	2.71	326	ePn	29	29.70		-1.2
NPS	2.74	231	ePn	29	29.50		-1.9
EZN	3.18	333	iPn	29	35.80		-1.7

19d 14h

KCT	3.24	2	iPn	29	37.80	-0.5	SHBJ	9.02	119	Pc	31	00.50	0.7	STV	17.41	301	P	32	52.29	1.3
EDC	3.34	355	iPn	29	37.70	-2.2	PPE	9.21	357	eP	31	14.00	11.7X	MVIF	17.43	300	P	32	52.91	1.6
VAM	3.63	245	ePb	29	45.20	1.3	SSR	9.25	330	iPc	32	00.00	57.1X	ORX	17.44	306	P	32	53.11	1.6
GPA	3.66	26	iPn	29	45.20	0.8	CLI	9.56	356	eP	31	06.00	-1.1	CALN	17.57	299	P	32	53.99	0.9
YLV	3.66	14	iPn	29	44.30	-0.2	HQL	9.60	142	eP	31	06.70	-1.0	PZZ	17.64	302	P	32	55.98	2.0
ATH	3.71	286	ePn	29	43.00	-2.1				eS	32	50.00		GRF	17.66	321	eP	32	51.60	-2.4
GBZT	3.89	14	ePn	29	49.50	1.9	TDS	9.71	289	P	31	08.70	-0.5		1.0s	52.00nm			4.6mb	
			ePg	30	00.40		SOI	9.73	280	P	30	59.10	-10.3X	FRF	17.69	298	eP	32	56.50	2.0
			iSg	31	03.40		GMB	9.88	280	P	31	12.10	0.3		1.0s	32.00nm			4.4mb	
PPCY	3.96	121	eP	29	51.50	3.0X	ATN	10.20	280	P	31	13.50	-2.5	RSP	17.74	304	P	32	57.72	2.5
HRT	3.97	16	ePn	29	48.40	-0.4	BADA	10.20	144	eP	31	13.30	-2.7	LRG	17.87	298	eP	32	58.50	1.8
ISK	4.10	9	ePn	29	49.30	-1.3	MGR	10.40	291	P	31	15.70	-3.0X		1.0s	36.00nm			4.5mb	
CTT	4.14	2	iPn	29	49.50	-1.6	AYN	10.41	139	eP	31	17.30	-1.6	LSD	17.92	305	P	32	59.67	2.1
IKL	4.46	98	iPn	29	59.00	3.3X	MEU	10.63	274	P	31	20.20	-1.8	CLL	17.94	328	eP	32	59.00	1.6
BBTK	4.55	50	iP	29	59.50	2.5	PZI	10.65	274	P	31	20.10	-2.0		2.1s	145.00nm			4.7mb	
			iS	31	17.50		DUI	11.63	298	P	31	38.60	3.1X	RRL	17.98	303	P	33	01.62	3.3X
NEO	4.56	302	ePn	29	54.00	-3.2X	RFI	11.86	296	P	31	40.00	1.5	MOX	18.09	324	eP	33	02.00	2.6
PAIG	4.61	311	ePn	29	55.50	-2.3	MSL	12.00	89	ePc	31	46.50	6.0X		1.7s	151.00nm			4.9mb	
CSS	4.62	115	ePn	30	00.00	2.1				eS	34	41.50			Z 10s	3.10um				
			eSn	30	52.00		USI	12.02	283	P	31	40.30	-0.4		N 14s	4.00um				
LFK	4.63	110	iPn	30	00.50	2.3	SDI	12.10	297	P	31	41.90	0.0		E 15s	2.90um				
RDO	4.63	334	ePn	29	56.20	-1.9	PSZ	12.51	333	eP	31	48.00	0.6			e(S)		39	20.00	
DMK	4.82	356	iPn	29	58.70	-2.1	ZAG	12.71	318	e(P)	31	46.50	-3.5X			LR		40	52.00	
PLG	5.03	313	ePn	29	59.50	-4.3X				i(S)	36	02.50		BNI	18.10	303	P	32	59.60	-0.1
FAM	5.09	112	eP	30	08.50	3.8X	VBY	12.92	315	eP	31	53.90	1.1	LPG	18.20	304	eP	33	04.10	3.1X
KDZ	5.12	336	iPd	30	08.00	2.9X	SRO	13.03	329	e(P)	31	55.00	0.8		0.8s	32.20nm			4.5mb	
			iS	30	48.00					e	32	11.00		LOMF	18.87	310	P	33	10.81	1.8
SOH	5.38	317	ePn	30	06.80	-2.0	SPC	13.49	337	eP	32	06.00	5.6X	MOF	18.91	312	P	33	11.22	1.7
RZN	5.41	331	iPc	30	07.00	-2.3	CEY	13.53	314	e(P)	32	04.00	3.1X	CDF	19.09	313	P	33	11.70	0.0
DIM	5.45	338	iP	30	08.00	-1.7	LJU	13.65	316	eP	32	03.50	1.1	BSF	19.10	311	P	33	11.42	-0.5
			Sg	31	39.00		ZST	13.84	327	e(P)	32	15.00	10.1X	GWF	19.17	315	P	33	10.58	-2.1
LIT	5.45	306	ePn	30	07.60	-2.2	RSM	13.84	305	P	32	02.40	-2.6	HAU	19.45	311	eP	33	17.80	1.8
SRS	5.46	320	ePn	30	07.70	-2.2	TRI	13.89	313	eP	32	05.70	0.1		0.8s	24.10nm			4.5mb	
THE	5.47	313	ePn	30	08.20	-1.8				i	32	17.60		VITF	19.76	312	P	33	17.41	-1.9
			e	31	08.10					e	35	11.00		WLF	20.35	315	P	33	28.00	2.5
MMB	5.75	324	iPd	30	12.00	-2.0				e	36	21.00		SMF	20.49	306	eP	33	24.80	-2.3
KNT	5.86	317	ePn	30	13.70	-1.8	VOY	14.00	315	eP	32	06.30	-0.9	LBF	20.52	307	eP	33	26.80	-0.6
GRG	6.01	313	ePn	30	16.30	-1.3				i	32	09.00			1.0s	28.00nm			4.6mb	
KZN	6.03	305	ePn	30	18.90	1.0	SLY	14.00	91	ePd	32	12.00	4.9X	LOR	20.70	307	eP	33	29.70	0.5
VAY	6.15	316	iPn	30	18.30	-1.3				eS	36	16.00			1.2s	77.30nm			4.9mb	
VLS	6.18	283	ePb	30	24.20	4.3X				iSS	37	20.50		SSF	20.85	307	eP	33	30.60	-0.2
PGB	6.36	332	iPc	30	20.00	-2.5	MAO	14.20	298	P	32	09.80	0.1	AVF	20.86	306	eP	33	28.70	-2.2
PVL	6.58	341	iPd	30	23.00	-2.7	VKA	14.24	326	e(P)	32	15.00	4.8X	MEM	20.92	318	P	33	33.60	2.2
PSN	6.67	360	iPd	30	25.00	-1.8		5.5s	821.00nm				5.7mb X	ENN	21.05	318	iP	33	36.20	3.5X
VTS	6.78	327	iP	30	27.00	-1.6				LR	38	36.00			1.0s	41.00nm			4.8mb	
BHL	6.81	115	Pn	30	28.50	-0.4	PGD	14.31	304	P	32	14.10	2.8X			i		33	40.00	
			Sn	31	45.00		KRA	14.35	338	eP	32	21.80	10.3X	BGF	21.12	305	eP	33	31.50	-2.0
KBN	6.82	304	ePn	30	31.00	2.0		Z 12s		2.80um				MAF	21.20	304	eP	33	34.30	-0.1
OHR	7.08	308	iPn	30	32.40	-0.4		N 12s		2.60um					1.2s	66.60nm			4.9mb	
	1.3s	0.10nm				2.8mb X				e	32	26.60		WTS	21.28	322	eP	33	37.00	1.9
ATZ	7.13	124	eP	30	33.70	0.2				e	36	29.00			1.0s	36.00nm			4.7mb	
			eS	31	54.10		TAB	14.40	80	eP	32	20.00	7.4X	DOU	21.44	315	P	33	39.70	3.0X
SKO	7.22	315	iPn	30	33.70	-0.9	FIR	14.58	303	eP	32	30.00	15.4X		0.8s	21.60nm			4.6mb	
N	18s	8.22um					KBA	14.92	317	eP	32	23.00	3.7X	TCF	21.46	304	eP	33	37.00	0.0
			iSn	32	04.00			2.0s	92.00nm				4.9mb		0.9s	31.10nm			4.7mb	
			LR	33	42.00					i	32	28.00		SNF	21.81	316	Pd	33	41.40	0.9
TPE	7.22	300	ePn	30	36.00	1.4				i	32	35.00		WIT	21.84	323	eP	33	43.00	2.3
KVT	7.32	54	iP	30	38.10	2.0				i	33	13.10		UCC	21.91	317	P	33	44.30	2.8X
BERA	7.44	302	ePn	30	39.50	1.9	FVI	14.96	315	P	32	23.00	3.5X	MFF	23.11	303	eP	33	52.40	-1.0
MML	7.47	126	iPc	30	38.20	0.0	MME	15.11	304	P	32	19.70	-2.1		1.1s	92.70nm			5.2mb	
BUC1	7.52	348	eP	31	36.50	57.8X	CTI	15.33	311	P	32	23.90	-0.6	LDF	23.66	308	eP	33	57.40	-1.3
8UC	7.57	348	ePd	30	41.00	1.5	KER	15.57	94	eP	32	35.00	7.2X		1.1s	75.20nm			5.2mb	
TLB	7.57	359	ePd	30	38.00	-1.5	CVF	15.87	296	eP	32	36.50	5.0X	FLN	23.94	308	eP	34	00.40	-1.0
HLW	7.59	159	ePc	30	40.00	0.2		1.0s	24.00nm				4.3mb		1.0s	41.60nm			5.0mb	
			S	32	00.00		KHC	16.13	323	eP	32	38.60	3.8X	LPF	24.08	306	eP	34	00.50	-2.2
PHP	7.63	310	ePn	30	42.30	2.0	BOB	16.15	304	P	32	36.60	1.4	HFS	24.95	343	eP	34	09.80	-1.2
VLO	7.65	300	ePn	30	43.20	2.6	KSP	16.25	332	eP	32	40.50	4.2X		0.4s	2.70nm			4.3mb	
KOT	7.67	156	eP	30	38.50	-2.5		1.6s	52.00nm				4.4mb	MAIO	25.04	82	eP	34	14.00	1.7
TIR	7.80	306	ePn	30	49.70	6.9X	PRU	16.30	327	eP	32	38.00	1.1		0.9s	9.80nm			4.5mb	
BURJ	7.84	125	Pc	30	43.00	-0.4		N 12s		2.60um				TOL	25.37	286	eP	34	15.00	-0.3
KKS	7.88	312	ePn	30	45.00	1.2		E 12s		3.40um				ASMO	25.41	281	eP	34	18.40	2.6
SALJ	7.92	127	P	30	44.00	-0.5				e	32	43.00		APHE	25.44	280	eP	34	16.70	0.6
JARJ	7.94	125	Pc	30	45.50	0.6	FIN	16.79	302	P	32	43.57	0.3	ATEJ	25.70	280	eP	34	20.00	1.4
KFNJ	8.01	128	P	30	45.20	-0.5	IMI	16.92	300	P	32	46.24	1.3	AAPN	25.72	281	eP	34	19.50	0.8
DSI	8.03	130	eP	30	45.70	-0.2	VAI	17.03	307	P	32	48.80	2.7	ALOJ	25.74	280	eP	34	22.50	3.6X
LACI	8.06	308	ePn	30	49.70	3.4X	ROB	17.05	302	P	32	47.26	0.7	SUF	25.77	358	eP	34	21.00	2.3
MASJ	8.13	128	P	30	47.00	-0.4	SAOF	17.17	300	P	32	50.22	2.2	NB2	26.35	341	P	34	21.10	-3.1X
PUK	8.17	311	ePn	30	48.00	0.1	BRG	17.21	328	eP	32	50.80	2.4		0.9s	7.70nm			4.4mb	
CFR	8.17	360	ePd	30	46.50	-1.3		2.0s	90.00nm				4.6mb	KJF	27.23	360	iP	34	31.40	-0.7
MKRJ	8.20	129	P	30	48.20	-0.2				e	33	31.40			1.0s	40.00nm			5.1mb	
ISR	8.22	352	eP	30	51.00	2.4	SBF	17.22	300	eP	32	50.20	1.5			eS		39	20.00	
DRA	8.23	340	ePd	30	49.00	0.3		0.8s	30.60nm				4.5mb	IFR	27.38	273	iP	34	34.00	0.0
BCI	8.26	313	ePn	30	48.80	-0.3	GRB1	17.25	321	eP	32	51.60	2.7	EKA	28.07	321	P	34	41.00	1.1
SDA	8.39	309	ePn	30	51.20	0.2		1.0s	52.00nm				4.6mb		0.8s	15.10nm			4.8mb	
RMN	8.40	139	iPc	30	49.80	-1.4	AUTN	17.27	300	P	32	50.78	1.4	QUE	32.80	90	eP	35	21.50	-0.8
MLR	8.65	349	ePc	30	53.50	-1.2	AURF	17.30	300	P	32	50.78	1.1	BNG	33.61	198	iPd	35	28.10	-1.1
VRI	8.92	353	ePd	30	57.00	-1.4	TOUF	17.39	300	P	32	51.48	0.5		0.5s	13.00nm			5.1mb	

19d 14h

		id	35	39.00		
		id	40	52.00		
		ic	45	51.90		
KSH	37.25	71 eP	36	01.50	1.4	
NDI	41.61	87 eP	36	34.00	-2.3	
KIC	42.82	233 P	36	43.20	-3.1X	
LIC	43.11	233 P	36	46.80	-1.9	
DAG	44.85	346 eP	37	03.00	0.9	
WMO	44.94	62 iPd	37	04.00	0.7	
Z	16s	0.70um			4.7MszX	
GBA	49.57	105 P	37	40.00	0.3	
KOD	51.67	108 eP	37	52.00	-4.1X	
GTA	54.91	64 Pd	38	19.20	-0.6	
AVY	58.59	158 eP	38	46.60	0.5	
LZH	59.17	66 e(P)	38	50.00	0.0	
FRB	60.34	329 eP	38	54.00	-3.5X	
BTO	61.61	59 eP	39	07.00	0.4	
SLR	62.41	180 eP	39	13.00	1.0	
KSR	62.55	181 eP	39	15.00	2.1	
HHC	62.55	58 Pd	39	12.90	0.0	
CHG	63.74	86 eP	39	25.10	4.2X	
XAN	63.81	66 P	39	21.60	0.4	
TIY	64.59	61 P	39	26.00	-0.3	
SEK	64.99	181 iPc	39	32.50	3.6X	
MBC	65.15	352 eP	39	27.00	-2.3	
GYA	65.83	74 P	39	36.00	1.5	
BJI	66.04	57 eP	39	35.00	-0.5	
SNY	69.98	52 eP	40	01.20	1.2	
CN2	70.09	50 P	40	03.00	2.3	
PSI	73.00	100 eP	40	23.00	4.4X	
INK	74.11	353 eP	40	21.50	-2.6	
SSE	74.18	63 P	40	29.50	4.3X	
YKC	76.41	343 eP	40	38.00	0.6	
FFC	79.14	333 eP	40	50.00	-2.6	
	1.0s	14.00nm			4.9mb	
MAT	82.24	50 (P)	41	09.00	-0.4	
EDM	84.16	338 ePc	41	19.60	0.7	
SES	85.86	335 eP	41	29.00	1.5	
S.D. = 1.5		on 182 of 231 obs.				

FEB 19, 1989 15h 33m 19.98± 1.16s
36.872 N ± 8.6km 27.662 E ±11.7km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)

IZM	1.56	348 iPn	33	49.90	2.1	
ELL	1.81	93 iPn	33	52.40	0.9	
KHL	2.07	45 iPn	33	54.90	-0.4	
BCK	2.41	75 iPn	34	01.10	0.9	
DST	2.83	15 iPn	34	05.40	-0.7	
EZN	3.13	341 ePn	34	10.00	-0.2	
KCT	3.42	9 iPn	34	12.70	-1.7	
EDC	3.47	3 iPn	34	14.70	-0.4	
BNT	3.49	3 iPn	34	14.70	-0.6	
IKL	4.89	96 iPn	34	36.00	0.7	
BBTK	4.98	52 iPc	34	36.50	-0.2	
ADI	7.27	119 eP	35	08.50	-0.3	
		eS	36	23.50		
DSI	8.29	127 ePc	35	22.50	-0.6	
		eS	36	48.00		
MLR	8.71	352 eP	35	30.00	1.0	
PRNI	8.93	135 ePd	35	31.50	-0.5	
S.D. = 1.0		on 15 of 15 obs.				

FEB 19, 1989 17h 10m 41.47± 0.38s
42.743 N ± 3.4km 13.027 E ± 4.9km
DEPTH = 10.8 ± 3.9 km
CENTRAL ITALY (381)
MD 3.4 (TRI), 3.0 (SSO).

ALP	0.41	85 iPgc	10	49.79	-0.1	
		iSg	10	56.21		
ASS	0.42	321 P	10	50.20	0.0	
		eSg	10	55.50		
MNS	0.44	216 Pc	10	50.80	0.3	
		eSg	10	56.40		
CIO	0.46	11 iPgc	10	50.56	-0.3	
		iSg	10	58.02		
SSO	0.62	28 e(Pg)	10	54.09	0.2	
		e(Sg)	11	04.25		
ARV	0.76	355 P	10	56.00	-0.2	
		eSg	11	07.70		
AZI	0.81	158 P	10	58.00	0.9	
		eSg	11	11.00		
AOI	0.91	27 iPg	10	58.72	-0.1	
		iSg	11	14.27		
RMP	0.96	195 P	10	59.50	-0.2	
		eSg	11	14.60		
RDP	1.01	193 P	11	00.60	0.0	
		eSg	11	15.60		
RSM	1.26	341 P	11	05.60	0.9	
MAO	1.42	257 P	11	06.30	-0.9	
SFI	1.46	324 P	11	08.40	0.7	
PGD	1.48	320 P	11	08.80	0.6	
FIR	1.66	309 eP	11	38.00	27.5X	
TRI	3.01	10 e(Pn)	11	29.70	-0.2	
		i(Sn)	12	06.70		
		i(Sg)	12	20.80		
		i	12	24.50		
VBY	3.19	29 eP	11	42.00	9.5X	
VOY	3.35	10 e(Pn)	11	35.70	0.9	
		eSn	12	17.10		
LJU	3.47	18 eP	11	37.00	0.5	
		e(Sn)	12	19.00		
RBL	3.72	6 P	11	39.00	-1.1	
FVI	3.85	357 P	11	40.20	-1.7	
		eSn	12	24.70		
KBA	4.34	3 iP	11	50.00	1.0	
	0.6s	2.90nm				
		i	12	41.00		
		e	13	05.00		
		i	13	11.70		
S.D. = 0.8		on 20 of 22 obs.				

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* FEB 19, 1989 17h 42m 49.14± 1.97s
40.111 N ±16.3km 21.764 E ±11.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.3 (THE).

LIT	0.56	91 ePg	43	00.20	-0.3	
		eSg	43	08.70		
GRG	0.97	30 ePg	43	06.90	-0.8	
		eSg	43	20.60		
OHR	1.24	324 iPn	43	12.20	0.0	
KNT	1.36	39 ePb	43	14.60	0.5	
SOH	1.41	59 ePb	43	15.60	0.8	
PAIG	1.48	97 eP	43	15.60	-0.2	
SKO	1.88	353 ePn	43	27.00	5.5X	
		eSn	43	48.00		
S.D. = 0.7		on 6 of 7 obs.				

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* FEB 19, 1989 17h 48m 27.43± 0.57s
8.850 S ±10.6km 105.959 E ± 9.2km
DEPTH = 33.0km (normal)
4.9mb (8 obs.)
SOUTH OF JAVA (282)

KSI	6.17	327 ePc	49	57.80	-0.8	
		e	50	53.00		
TRT	6.70	81 iPc	50	06.80	0.6	
KHKI	9.55	88 eP	50	43.00	-2.8	
		eS	52	23.30		
		e	53	53.50		
PPI	10.01	326 e(P)	51	50.50	58.4X	
NANU	16.44	147 eP	52	12.00	-5.3X	
		eS	55	01.00		
CHG	28.34	346 eP	54	20.50	-0.1	
WRA	29.57	115 P	54	33.00	1.3	
	0.9s	4.50nm			4.2mb	
WB5	29.57	115 eP	54	31.70	0.0	
GBA	36.05	308 Pd	55	36.60	8.6X	
	0.8s	6.30nm			4.6mb	
HYB	37.61	314 eP	55	48.00	6.8X	
CTA	40.48	111 iPc	56	06.90	1.9	
	1.0s	17.50nm			4.8mb	
SSE	42.31	20 Pc	56	20.50	0.6	
XAN	42.74	4 P	56	23.00	-0.4	
TIY	46.71	7 eP	56	55.50	0.3	
GTA	48.35	354 eP	57	09.00	0.9	
BTO	49.34	4 eP	57	16.00	0.3	
BJI	49.55	10 eP	57	27.00	9.8X	
WMO	54.98	344 P	57	59.00	1.1	
CN2	55.31	17 Pc	57	59.00	-1.1	
		pP	58	07.50	28kmX	
BFT	73.57	246 iPc	00	14.00	14.2X	
	0.4s	76.27nm				
SEK	75.62	243 iPc	00	11.50	-0.1	
	1.0s	50.00nm			5.5mb	
PRY	75.82	244 iPd	00	21.50	8.8X	
	0.6s	5.36nm			4.7mb	
KSR	76.39	246 iPc	00	33.00	17.0X	
	0.9s	103.85nm				
BFS	76.44	244 iPc	00	27.00	10.8X	
	1.0s	120.00nm				
FRS	77.57	241 iPd	00	20.00	-2.2	
	0.9s	47.06nm			5.5mb	
		i	03	53.00		
SWZ	77.72	244 iPc	00	34.50	11.2X	
	1.0s	150.00nm				
TUH	82.56	237 iPc	00	49.00	0.2	
	0.6s	40.00nm			5.7mb	
BNG	88.12	275 ePc	01	19.00	2.1	
	0.6s	3.00nm			4.8mb	
MLR	89.32	316 eP	01	11.00	-11.0X	
BMA	137.11	223 ePKP	07	43.50	-6.4X	
ITA	137.69	222 ePKP	07	51.60	0.2	
VAO	138.72	219 e(PKP)	07	51.00	-1.9	
S.D. = 1.4		on 20 of 32 obs.				

FEB 19, 1989 17h 55m 48.57± 0.41s
39.219 S ±10.7km 46.076 E ± 6.7km
DEPTH = 10.0km (geophysicist)
5.2mb (11 obs.) 5.2Msz (1 obs.)
ATLANTIC-INDIAN RISE (428)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 21C
Centroid Location:
Origin Time 17:55:54.8 1.0
Lat 38.77S 0.10 Lon 46.52E 0.11
Dep 15.0 FIX Half-duration 1.4
Moment Tensor; Scale 10**16 Nm
Mrr=-0.61 0.39 Mtt= 2.34 0.59
Mff=-1.73 0.39 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf= 4.80 0.38
Principal Axes:

T	Val= 5.52	Plg= 0	Azm=146
N	-0.61	90	180
P	-4.91	0	56

Best Double Couple:Mo=5.2*10**16
NP1:Strike=191 Dip=90 Slip= 180
NP2: 281 90 0

GRM	16.79	285 iPd	59	45.00	-0.3	
	0.5s	56.34nm			5.0mb	
HVD	18.91	291 iPc	00	30.00	18.2X	
		S	04	40.00		
BPI	19.95	305 iPd	00	22.50	-1.3	
		S	03	51.50		
SLR	20.10	307 iPc+	00	24.00	-1.4	
	1.0s	92.00nm			5.1mb	
		S	04	00.00		
AVY	20.28	5 iPc	00	26.56	-0.8	
BUL	24.24	317 iPc	01	05.90	-0.9	
PTZ	28.06	328 iPd	01	40.90	-1.4	
		i	02	12.60		
LSZ	28.56	322 iPc	01	46.30	-0.5	
		i	02	23.80		
KMZ	31.27	320 iPd	02	11.20	0.2	
		i	02	56.20		
NAI	38.70	345 eP	03	20.00	5.3X	
LWI	40.04	333 iPc	03	26.60	0.9	
BNG	50.32	323 iPc	04	47.50	-0.1	
	0.3s	40.00nm			5.9mb	
		ic	04	54.10		
KOD	57.21	38 eP	05	38.50	-0.2	
GBA	60.15	36 Pc	05	57.30	-1.4	
	0.6s	8.50nm			5.1mb	
MEKA	60.65	102 eP	06	01.00	-1.2	
HYB	64.00	35 eP	06	24.00	-0.5	
KIC	65.26	302 Pc	06	33.00	0.2	
LIC	65.35	302 Pc	06	33.60	0.3	
	0.6s	11.00nm			5.2mb	
TIC	65.65	302 Pc	06	35.64	0.3	
	0.9s	34.00nm			5.6mb	
IPM	66.75	63 ePc	06	42.10	-0.2	
	1.0s	34.60nm			5.5mb	
TRT	67.04	81 iPc	06	44.50	0.3	
	0.8s	41.70nm			5.7mb	
QUE	71.74	19 iPc	07	13.50	0.6	
ASPA	73.84	107 iPd	07	24.60	-0.8	
	0.9s	16.00nm			5.1mb	
STK	74.49	119 iPc	07	28.80	-0.2	
WRA	76.37	105 Pd	07	39.30	-0.6	
	0.9s	9.00nm			4.9mb	
WB5	76.43	105 eP	07	39.80	-0.4	
QIS	79.92	108 eP	07	59.00	-0.4	
LSA	80.39	39 P	08	03.10	0.9	
VAY	82.97	342 eP	08	15.30	0.5	
OHR	83.21	341 eP	08	16.70	0.6	

SKO	83.86	342	eP	08	17.50	-1.8
CTA	85.07	112	eP	08	26.00	0.0
	1.0s	10.50nm			5.0mb	
CFR	85.56	347	ePd	08	29.00	1.3
TIO	85.61	316	iP	08	31.00	2.5
MLR	86.25	346	ePc	08	32.00	0.7
GYA	86.39	51	P	08	33.00	0.6
VRI	86.47	347	ePc	08	33.00	0.8
CD2	87.99	47	eP	08	40.40	0.4
PSZ	89.83	343	eP	08	48.30	-0.1
ZST	90.76	341	eP	08	53.30	0.8
WMO	90.81	29	eP	08	54.30	1.3
SPC	90.95	343	iP	08	54.90	1.3
GTA	92.42	39	P	09	00.00	-0.6
ZOBO	97.50	242	(P)	09	30.00	5.0X
			LR	44	24.00	
DAG	122.46	346	ePKP	14	43.50	-0.8
MBC	142.31	354	ePKP	15	14.00	-7.7X
BRW	145.79	13	ePKP	15	28.40	0.7
RLO	149.22	277	ePKP	15	39.00	4.6X
VVO	149.52	275	ePKP	15	39.70	4.9X
LNO	149.74	276	ePKP	15	40.00	5.0X
TUL	149.74	276	ePKP	15	40.30	5.2X
	1.2s	12.30nm				
	Z 19s	0.39um			5.2Msz	
SIO	150.09	275	e(PKP)	15	40.90	5.3X
IMA	150.83	16	ePKP	15	42.40	6.4X
	0.9s	18.70nm				
INK	150.86	360	ePKP	15	41.00	5.3X
MEO	151.55	272	ePKP	15	44.80	6.9X
	0.5s	3.30nm				
FFC	153.55	316	ePKP	15	47.00	6.9X
	0.9s	12.00nm				
YKA	153.91	340	PKP	15	48.90	8.6X
KDC	157.88	27	ePKP	15	46.00	0.4
PNT	165.64	319	ePKP	15	58.00	4.3X

S.D. = 0.9 on 44 of 59 obs.

FEB 19, 1989 21h 40m 35.51± 0.55s
40.999 N ± 5.8km 27.900 E ± 5.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.2 (ATH).

CTT	0.43	70	iPg	40	44.00	-0.2
			eSg	40	51.50	
BNT	0.64	179	iPg	40	47.00	-1.4
EDC	0.65	182	iPg	40	47.70	-0.8
			eSg	40	56.70	
KCT	0.83	155	iPg	40	50.50	-1.0
			iSg	41	02.50	
DMK	0.83	353	iPg	40	49.70	-1.8
			iSg	41	01.60	
ISK	0.88	85	iPg	40	52.30	-0.1
			eSg	41	06.50	
GBZT	1.19	100	ePn	41	02.60	4.9X
			iSg	41	20.70	
YLV	1.20	111	iPn	40	58.00	0.1
HRT	1.35	97	ePn	41	01.70	1.3
DST	1.50	158	iPn	41	02.40	-0.1
EZN	1.68	226	ePn	41	12.20	7.2X
RDO	1.79	275	iPbd	41	04.30	-2.4
GPA	1.97	110	ePn	41	11.00	1.8
KDZ	1.98	290	iPd	41	16.00	6.6X
			iS	41	39.00	
DIM	2.06	301	eP	41	15.00	4.4X
PRK	2.15	216	ePb	41	12.00	0.1
RZN	2.49	287	iPc	41	19.00	2.0
PLD	2.64	296	eP	41	25.00	6.1X
IZM	2.64	191	ePn	41	23.00	4.0X
PSN	2.69	4	eP	41	27.00	7.4X
PVL	2.93	320	iPd	41	42.00	19.1X
MMB	3.20	282	eP	41	32.00	5.2X
			iS	42	08.00	
PLG	3.44	261	ePb	41	33.00	2.7
VTS	3.85	296	eP	41	37.00	0.8
			iSg	42	39.00	
VAY	4.04	276	ePn	41	47.00	8.3X
MLR	4.71	343	ePc	41	48.00	-0.4
VRI	4.94	350	eP	41	51.00	-0.5
SKO	4.95	283	ePn	42	07.00	15.3X

S.D. = 1.5 on 17 of 28 obs.

FEB 19, 1989 21h 43m 28.03± 0.73s
8.308 S ± 9.0km 116.116 E ± 8.1km
DEPTH = 172.1 ± 7.6 km
4.4mb (5 obs.)

SUMBAWA ISLAND REGION (285)

KHKI	0.51	264	iPc	43	51.90	-0.2
			iS	44	04.80	
			e	49	15.00	
TRT	3.50	280	iPd	44	24.80	1.7
			iS	44	55.00	
MBL	13.27	165	eP	46	29.00	-2.0
			eS	48	42.00	
NANU	14.18	182	eP	46	42.20	-0.3
	0.3s	7.00nm			4.5mb	
			eS	49	08.00	
MTN	15.43	108	iPd	46	56.90	-1.1
			e	47	00.00	
			e	49	35.00	
MEKA	18.35	173	eP	47	31.80	-0.4
	0.3s	14.00nm			4.8mb	
			eS	50	46.00	
PSI	20.33	302	eP	47	52.10	-0.5
WARB	20.40	152	eP	47	45.00	-8.3X
			eS	51	28.00	
WB5	21.08	125	eP	48	00.70	0.6
			eS	51	43.00	
			eScP	55	21.20	
WRA	21.09	125	Pc	48	00.20	0.0
	0.2s	1.10nm			4.0mb	
BAL	22.19	179	eP	48	11.50	0.7
			eS	52	16.00	
ASPA	22.88	134	eP	48	19.30	1.7
	0.5s	9.00nm			4.5mb	
COOL	22.95	169	eP	48	18.40	0.2
			eS	52	29.00	
KLB	23.22	176	eP	48	21.00	0.2
			eS	52	39.00	
NWAO	24.52	178	eP	48	33.00	-0.1
FORR	25.07	155	eP	48	38.00	-0.1
QIS	25.76	121	eP	48	45.00	0.3
CTA	31.41	115	eP	49	36.00	0.9
BRS	39.50	123	eP	50	24.00	-19.6X
GBA	44.14	299	P	51	21.00	-0.4
	0.4s	0.90nm			3.7mb	
HYB	45.07	305	eP	51	27.00	-1.8
AVY	66.96	253	eP	54	05.40	0.6
YKA	114.71	23	PKP	01	49.20	0.1

S.D. = 1.0 on 21 of 23 obs.

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* FEB 19, 1989 22h 26m 24.34± 1.48s
32.143 S ± 5.6km 72.090 W ±14.3km
DEPTH = 46.3 ± 11.6 km
4.8mb (2 obs.)
OFF COAST OF CENTRAL CHILE (134)

ROCH	1.23	133	iPd	26	44.90	-0.7
			iS	27	00.30	
JACH	1.38	113	iPc	26	45.80	-1.8
LCCH	1.40	162	iPc	26	52.80	5.0X
			iS	27	17.00	
PEL	1.55	130	iPc	26	50.00	0.0
SAN	1.78	138	iPc	26	52.80	-0.3
			iS	27	17.00	
TACH	1.79	148	iPd	26	53.80	0.4
LNV	1.90	163	eP	26	54.50	-0.3
			iS	27	24.40	
FCH	1.92	128	iPc	26	55.00	-0.5
PCH	1.98	138	iPd	26	55.90	-0.2
			iS	27	21.50	
CHCH	2.16	146	iP	27	00.00	1.5
			iS	27	28.50	
RTCB	2.88	78	iPc	27	09.50	0.6
			S	27	49.00	
ZON	2.96	79	eP	27	10.00	-0.1
RTRS	2.99	50	ePc	27	11.00	0.6
RTCV	3.03	86	ePc	27	12.00	0.9
RTLL	3.19	76	ePc	27	13.50	0.2
			S	27	57.00	
CFA	3.32	82	ePc	27	15.00	-0.1
CNCB	15.71	15	P	30	05.00	0.3
LPB	15.96	14	P	30	13.00	5.3X
ZOBO	16.21	14	P	30	09.70	-1.3
	Z 20s	0.09um				
			LR	36	32.00	
LIC	74.24	72	Pc	37	57.90	-0.7
	0.5s	5.00nm			4.7mb	
TIC	74.49	72	P	37	59.40	-0.6
KIC	74.55	72	Pc	37	59.90	-0.5
	0.7s	12.00nm			4.9mb	
GBA	146.58	116	PKPd	46	03.00	1.7
	0.8s	1.50nm				

S.D. = 0.9 on 21 of 23 obs.

% FEB 19, 1989 22h 55m 38.82± 1.84s
37.677 N ±10.1km 141.775 E ±19.1km
DEPTH = 33.0km (normal)
NEAR EAST COAST OF HONSHU, JAPAN (228)

OFUJ	1.40	357	iPd	56	02.30	0.0
			S	56	19.00	
YAMJ	1.46	290	iP+	56	03.10	0.0
			S	56	21.40	
KAKJ	1.95	222	iPd	56	09.80	-0.4
			S	56	32.10	
NIIJ	2.25	260	iP+	56	14.10	-0.3
CHJJ	2.76	235	P	56	21.20	-0.5
			S	56	51.30	
MAT	3.07	249	iPc	56	26.20	0.1
			eS	57	05.00	
MTMJ	3.35	252	P	56	30.30	0.0
IIDJ	3.80	236	eP	56	37.70	1.1
			eS	57	20.10	

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

& FEB 19, 1989 23h 47m 05.89s
59.774 N 153.410 W
DEPTH = 131.7km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.38	36	iP	47	24.23	-0.6
			eS	47	39.57	
AUL	0.39	182	eP	47	24.72	-0.1
			eS	47	38.43	
RED	0.72	26	iP	47	26.16	-0.8
			eS	47	41.40	
CDD	0.86	188	eP	47	27.03	-0.9
			eS	47	43.18	
RDT	0.95	32	iP	47	28.06	-0.8
			eS	47	44.86	
NNL	1.10	75	iP	47	30.61	0.4
			eS	47	48.94	
CNPM	1.13	102	eP	47	29.76	-0.8
			eS	47	48.11	
NKA	1.46	47	eP	47	34.84	0.9
SPU	1.56	25	eP	47	34.42	-0.8
			eS	47	56.84	
CGLM	1.69	24	eP	47	35.97	-0.8
SLKM	1.76	64	eP	47	36.31	-1.2
			eS	47	59.01	
KDC	2.09	166	eP	47	38.73	-2.7
PMS	2.41	51	eP	47	45.10	-0.5
			eS	48	12.94	
KNIM	2.90	76	eP	47	49.72	-2.2
			eS	48	23.23	
KNK	2.95	54	eP	47	51.14	-1.3
VZW	3.64	66	eP	48	00.04	-1.6
KLU	4.07	62	eP	48	06.06	-1.5

17 obs. associated

FEB 20, 1989 00h 54m 05.29± 0.90s
38.799 N ± 7.2km 22.761 E ±10.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.9 (ATH), 2.3 (THE).

ATH	1.12	137	ePb	54	26.10	-0.1
LIT	1.32	351	ePg	54	29.00	-0.6
PAIG	1.33	32	ePg	54	29.70	-0.1
KZN	1.69	333	ePb	54	35.20	0.2
SOH	2.07	13	ePb	54	40.90	0.3
GRG	2.17	353	ePb	54	41.90	-0.1
			eS	55	00.00	
KNT	2.36	3	ePb	54	44.30	-0.4
SRS	2.40	15	ePb	54	45.90	0.6
VAY	2.52	357	ePn	54	47.00	0.1
OHR	2.76	327	ePn	54	50.60	0.2
SKO	3.33	343	ePn	55	10.00	11.6X

S.D. = 0.4 on 10 of 11 obs.

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* FEB 20, 1989 02h 05m 42.05± 1.60s
36.205 N ±12.4km 70.759 E ± 9.7km
DEPTH = 60.9 ± 19.4 km
4.7mb (6 obs.)
HINDU KUSH REGION (718)

MAIO	9.10	274	iPnc	07	53.20	-0.1

20d 02h

	0.5s	10.20nm			5.0mb
		eSn	09	27.00	
NDI	9.27	142 iPc	07	56.00	0.5
GKN	14.31	121 P	09	03.00	-0.1
	0.4s	20.00nm			4.9mb
DMN	14.88	121 P	09	10.60	0.0
	0.4s	23.00nm			4.8mb
KKN	14.89	120 P	09	10.20	-0.5
	0.4s	18.00nm			4.7mb
HYB	19.95	158 eP	10	11.00	-0.8
GBA	23.29	163 P	10	46.00	0.9
NUR	37.95	325 iP	12	55.30	0.3
KJF	38.05	331 eP	12	57.00	1.2
SUF	38.07	328 iP	12	56.50	0.5
HFS	43.18	322 eP	13	37.30	-0.8
	0.4s	1.30nm			4.1mb
NB2	44.50	323 P	13	47.60	-1.2
	0.4s	0.70nm			3.8mb
MBC	67.64	3 eP	16	34.00	0.0
	S.D. = 0.8	on 13 of 13 obs.			

FEB 20, 1989 03h 25m 35.09± 0.49s
38.932 N ± 5.0km 3.079 W ± 5.0km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
MG 3.8 (MDD). Felt (IV) in the Alhambro area.

EVIA	0.54	123 iPgd	25	46.30	0.3
EBAN	0.95	216 iPgc	25	53.60	0.5
		eSg	26	06.00	
TOL	1.21	322 iPn	25	58.00	0.4
		ePg	25	59.70	
		eSg	26	16.00	
AFC	1.71	192 ePn	26	05.00	-0.3
		eSn	26	26.00	
ECHE	1.76	67 ePn	26	07.00	1.1
		eSn	26	29.50	
GUD	1.90	334 ePn	26	08.70	0.7
		eSn	26	33.00	
EHOR	2.03	238 ePg	26	13.70	3.9X
		eSg	26	37.80	
ETOR	2.04	22 iPnc	26	11.00	1.0
		eSg	26	35.40	
ENIJ	2.07	161 ePg	26	17.50	7.1X
		eSg	26	42.40	
ACU	2.13	101 iPnd	26	11.00	-0.2
		eSg	26	37.00	
EPLA	2.58	297 iPnd	26	18.00	0.3
		eSg	26	48.00	
EPRU	2.60	222 ePg	26	25.00	7.1X
		eSg	26	55.00	
EJIF	3.12	218 ePn	26	35.00	9.8X
		eSg	27	09.20	
EVAL	3.18	246 ePn	26	25.20	-1.0
		eSg	27	02.40	
EROQ	3.28	54 ePn	26	28.00	0.4
		eSg	27	06.40	
LPO	6.57	28 Pn	27	12.70	-1.4
LFF	6.64	24 Pn	27	15.30	0.2
CAF	7.11	31 Pn	27	19.60	-2.1
FRF	8.66	55 Pn	26	49.70	-53.7X
		Pg	27	08.10	
		Sg	28	09.40	
	S.D. = 1.0	on 14 of 19 obs.			

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* FEB 20, 1989 04h 44m 15.83± 1.56s
56.478 N ±18.6km 156.379 W ±16.7km
DEPTH = 33.0km (normal)
ALASKA PENINSULA (12)
ML 3.5 (PMR).

KDC	2.47	57 eP	44	55.80	1.2
SDN	2.58	246 ePc	44	56.10	-0.1
SVW	4.66	5 eP	45	27.00	1.3
TTA	6.48	1 eP	45	51.80	0.4
FBA	9.43	23 eP	46	30.60	-1.7
INK	15.76	32 eP	47	55.50	-1.1
	S.D. = 1.6	on 6 of 6 obs.			

FEB 20, 1989 05h 03m 55.23± 0.56s
39.062 N ± 4.8km 28.688 E ± 6.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.54	355 iPg	04	04.80	-1.5
KHL	0.99	138 iPg	04	13.40	-0.6
KCT	1.21	348 iPn	04	18.40	0.6
IZM	1.30	240 iPn	04	19.50	0.2
BNT	1.42	336 iPn	04	21.40	0.3
EDC	1.43	334 iPn	04	20.70	-0.5
YLV	1.59	19 iPn	04	22.40	-1.2
GPA	1.75	45 ePn	04	27.00	1.1
GBZT	1.82	18 ePn	04	32.20	5.4X
		eSg	04	58.00	
PRK	1.89	276 ePn	04	27.70	-0.1
		eSn	04	58.00	
HRT	1.91	23 ePn	04	27.30	-0.9
EZN	1.98	293 iPn	04	29.00	-0.1
ISK	2.02	8 ePn	04	32.00	2.3
CTT	2.09	355 ePn	04	30.80	0.0
ELL	2.50	157 ePn	04	36.90	0.1
DMK	2.85	346 ePn	04	48.00	6.5X
RDO	3.19	312 ePn	04	46.50	0.2
BBTK	3.25	75 eP	04	54.50	7.2X
		eS	05	41.00	
	S.D. = 1.0	on 15 of 18 obs.			

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* FEB 20, 1989 05h 13m 56.71± 1.30s
2.569 N ±18.1km 127.163 E ±14.0km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)
MOLUCCA PASSAGE (266)

MNI	2.58	244 ePc	14	37.10	0.1
		eS	15	17.70	
WB5	23.40	163 eP	19	03.70	0.0
WRA	23.46	163 Pc	19	04.70	0.4
	0.4s	2.70nm			4.1mb
QIS	26.02	153 eP	19	29.00	0.3
ASPA	26.89	166 eP	19	36.00	-0.7
CHG	32.00	302 eP	20	22.40	0.0
	S.D. = 0.5	on 6 of 6 obs.			

FEB 20, 1989 06h 11m 31.67± 0.95s
4.667 S ± 8.1km 102.788 E ± 9.7km
DEPTH = 91.8 ± 7.2 km
4.8mb (10 obs.)
SOUTHERN SUMATERA (274)

KSI	1.05	349 iPd	11	50.60	-1.7
		iS	12	57.00	
		e	17	00.00	
KLI	2.07	95 iP	12	04.80	-0.6
		eS	12	37.00	
		e	13	19.00	
PPI	4.82	330 ePd	12	44.50	1.3
		e(S)	13	40.00	
KGM	6.66	5 eP	13	09.00	0.3
PSI	8.27	332 iPc	13	27.10	-3.7X
IPM	9.35	349 ePc	13	46.30	0.7
	0.9s	35.90nm			5.2mb
		e	16	38.40	
SNG	11.96	350 eP	14	14.30	-6.2X
TSM	17.64	60 eP	15	35.00	2.0
NANU	21.64	146 iPc	16	17.40	1.4
BDT	22.09	350 eP	16	19.00	-1.5
MBL	23.30	136 eP	16	32.00	-0.2
CHG	23.64	351 iPd	16	56.60	21.0X
	1.0s	14.50nm			
GBA	31.03	306 Pc	17	42.50	-0.5
	0.4s	2.10nm			4.2mb
WARB	31.29	136 eP	17	36.30	-8.9X
WB5	34.26	119 eP	18	11.10	0.0
WRA	34.26	119 Pd	18	11.10	0.0
	0.3s	2.90nm			4.6mb
FORR	35.30	140 eP	18	20.00	0.3
ASPA	35.44	125 eP	18	21.20	0.0
	0.4s	37.00nm			5.7mb
		eS	23	48.70	
DMN	36.35	333 P	18	29.00	0.1
KKN	36.42	333 P	18	29.60	0.1
GKN	36.90	333 P	18	33.80	0.4
XAN	38.93	8 P	18	50.20	-0.1
QIS	39.11	117 eP	18	51.80	-0.1
LZH	40.55	1 eP	19	04.50	0.8
	1.5s	53.00nm			5.2mb
TIY	43.11	11 P	19	24.60	0.1
GTA	43.94	357 iPc	19	31.20	-0.1
CTA	44.97	114 iPd	19	40.00	0.3
	0.9s	15.13nm			4.8mb
HHC	46.00	9 P	19	48.50	0.8
BJI	46.16	14 eP	19	49.00	0.3
WMQ	50.15	346 P	20	20.20	0.4
CN2	52.39	21 Pc	20	35.20	-1.4
BRS	52.64	121 iPc	20	29.20	-9.6X
		e	20	37.20	
MAT	52.68	36 eP	20	37.00	-1.9
	0.7s	8.90nm			4.9mb
KJF	87.73	335 iP	24	12.30	1.2
	0.8s	10.30nm			4.9mb
SUF	88.03	333 iP	24	13.80	1.3
	0.3s	1.60nm			4.6mb
SOD	88.98	338 eP	24	09.00	-8.0X
KEV	89.46	340 eP	24	07.00	-12.2X
HFS	93.56	330 eP	24	35.00	-3.3X
	0.4s	0.90nm			4.5mb
YKA	116.06	18 PKP	30	06.00	0.8
EDM	123.27	25 ePKP	30	20.00	0.7
LRM	128.83	31 ePKP	30	32.20	1.6
MEO	144.09	31 ePKP	30	56.90	-1.9
	1.0s	10.10nm			
FKO	144.30	29 ePKPc	30	57.90	-1.2
	1.0s	52.70nm			
SIO	144.41	27 ePKP	30	57.90	-1.4
LNO	144.51	26 iPKPc	30	58.20	-1.1
TUL	144.51	26 ePKP	30	58.50	-0.9
	0.6s	31.80nm			
RLO	144.63	25 iPKP	30	59.00	-0.6
BAO	144.73	235 ePKP	30	42.00	-18.5X
VVO	145.01	27 ePKP	31	00.50	0.2
	S.D. = 1.0	on 40 of 49 obs.			

? FEB 20, 1989 06h 36m 19.13± 3.77s
55.065 N ±45.2km 157.018 W ±21.3km
DEPTH = 33.0km (normal)
ALASKA PENINSULA (12)
ML 3.4 (PMR).

SDN	2.01	279 eP	36	50.80	-0.6
KDC	3.68	41 iPc	37	14.40	-0.6
PMS	7.34	29 eP	38	05.40	-1.3
TTA	7.91	3 eP	38	15.10	0.4
TOA	9.04	34 eP	38	30.20	-0.1
MBC	25.42	20 eP	41	47.00	2.3
	S.D. = 1.6	on 6 of 6 obs.			

FEB 20, 1989 07h 48m 02.18± 0.65s
38.797 N ± 6.2km 142.779 E ± 7.9km
DEPTH = 10.0km (geophysicist)
4.7mb (3 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) at Ofunato.

OFU	0.87	288 P	48	17.80	-1.1
		S	48	26.70	
OFUJ	0.91	288 iPd	48	18.30	-1.3
		S	48	28.00	
YAMJ	2.24	255 P	48	38.90	-1.0
		S	49	05.90	
AOMJ	2.56	314 eP	48	43.30	-1.0
KAKJ	3.32	219 P	48	54.20	-0.9
NIIJ	3.36	244 P	48	55.50	-0.3
HOOJ	3.60	6 P	48	59.20	0.0
		S	49	38.40	
MRRJ	3.85	341 P	49	03.70	1.0
		eS	49	47.40	
CHJJ	4.07	229 eP	49	06.90	1.0
MAT	4.27	240 eP	49	09.00	0.3
		eS	50	01.00	
MTMJ	4.52	242 eP	49	13.70	1.4
KUSJ	4.54	18 P	49	10.70	-1.7
		eS	49	59.60	
IIDJ	5.11	231 P	49	22.10	1.5
ASAJ	5.32	359 eP	49	25.50	2.0
TSRJ	6.33	241 eP	49	39.40	1.6
WKYJ	7.37	234 eP	49	52.70	0.2
YONJ	8.28	247 eP	50	04.90	-0.2
TKSJ	8.52	238 P	50	07.60	-0.9
SSE	19.27	253 P	52	26.00	-3.6X
	1.0s	16.00nm			4.2mb
		i	52	32.20	
CHG	42.78	255 eP	56	00.80	-0.9
KKN	48.59	275 P	56	46.40	-1.7
INK	52.33	28 eP	57	16.00	0.3
WB5	58.90	189 eP	58	01.90	-1.7
WRA	58.96	189 Pc	58	02.10	-2.0
	0.7s	4.70nm			4.7mb
YKA	61.74	31 P	58	33.30	10.6X
POO	62.37	272 iPc	58	31.50	3.9X
GBA	62.43	265 Pc	58	24.60	-3.3X

FFC	71.64	34	eP	59	34.00	8.4X
	0.9s	9.00nm			4.9mb	
LRM	72.14	45	eP	59	39.10	10.1X
FRB	74.81	14	eP	59	53.00	9.1X
ZOBO	144.86	59	ePKP	07	42.00	-0.1
LPB	145.06	59	ePKP	07	50.00	7.7X
CNCB	145.34	59	PKP	07	44.00	1.1

S.D. = 1.2 on 25 of 33 obs.

FEB 20, 1989 08h 06m 41.66± 0.70s
26.816 S ± 6.3km 26.714 E ± 6.8km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)
MG 3.6 (BUL).

BFS	0.10	142	iPd	06	44.00	0.0
			S	06	44.50	
PRY	0.69	100	iPc	06	54.50	-0.9
			S	07	01.50	
KSR	0.96	10	iPd	07	02.20	1.7
			S	07	13.00	
SWZ	1.29	253	iPd	07	06.50	0.4
			S	07	22.00	
BPI	1.34	62	iPc	07	07.00	0.0
			S	07	22.00	
SEK	1.71	152	iPd	07	13.00	0.6
			S	07	34.50	
SLR	1.77	53	iPd	07	15.00	1.7
			S	07	38.00	
KIM	2.58	221	iPc	07	24.50	-0.4
			S	07	59.90	
POF	6.50	245	eP	08	55.00	34.7X
			S	09	37.00	
BUL	6.87	15	iPn	08	24.30	-1.4
			iSn	09	38.70	
			iSg	10	14.90	
LSZ	11.56	7	ePn	09	29.00	-1.6
			eS	11	35.00	
			iSg	12	50.30	

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

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* FEB 20, 1989 09h 20m 11.15± 0.66s
4.788 N ±10.4km 98.593 E ±13.7km
DEPTH = 33.0km (normal)
4.4mb (2 obs.)
NORTHERN SUMATERA (706)

PSI	2.10	171	e(P)	20	45.00	0.3
IPM	2.43	95	ePd	20	49.20	-0.3
	0.4s	22.10nm				
			e	22	11.70	
			e	23	44.50	
SNG	3.11	40	eP	20	34.80	-24.2X
			e	21	43.50	
CHG	13.94	1	iPc	23	29.00	0.2
	0.8s	7.46nm			4.5mb	X
VRI	73.98	316	ePd	31	44.00	-1.3
KJF	77.44	335	eP	32	04.00	-0.5
SUF	77.75	333	iP	32	06.50	0.2
SOD	78.71	338	eP	32	13.00	1.6
HFS	83.33	330	eP	32	34.80	-1.1
	0.5s	1.20nm			4.3mb	
NB2	84.57	331	P	32	43.20	0.9
	0.9s	3.50nm			4.5mb	

S.D. = 1.1 on 9 of 10 obs.

% FEB 20, 1989 10h 02m 16.22± 0.83s
41.168 N ± 7.9km 28.859 E ± 5.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ISK	0.18	124	ePg	02	20.80	0.5
			eSg	02	24.20	
CTT	0.32	267	iPg	02	22.70	-0.3
HRT	0.70	119	ePg	02	29.20	-0.9
YLV	0.72	147	iPg	02	30.80	0.4
KCT	0.99	203	iPn	02	35.30	0.2
DMK	1.05	309	iPn	02	36.40	0.3
BNT	1.08	222	iPn	02	36.70	0.2
EDC	1.12	223	iPn	02	36.70	-0.4

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

FEB 20, 1989 11h 16m 40.09± 0.45s
31.228 N ± 7.4km 97.959 E ± 5.5km
DEPTH = 33.0km (normal)
4.5mb (6 obs.) 4.2Msz (1 obs.)
TIBET (306)

CD2	4.99	92	ePn	17	56.50	1.8
			Pg	18	07.00	
			Sg	19	14.00	
LSA	6.07	257	P	18	13.00	2.6
LZH	6.90	44	eP	18	22.50	0.9
	1.5s	44.00nm			5.1mb	X
	Z 15s	1.00um				
			Lg	20	14.00	
KMI	7.40	144	eP	18	33.00	4.3X
			eS	19	49.00	
GTA	8.30	10	eP	18	46.20	4.9X
	Z 12s	1.60um				
GYA	8.99	120	P	18	50.00	-0.7
	N 10s	6.10um				
	E 10s	4.80um				
			S	20	33.00	
XAN	9.66	70	eP	18	59.90	0.0
	N 11s	1.42um				
KKN	11.56	256	P	19	23.90	-2.2
	0.8s	24.00nm			5.4mb	
DMN	11.77	255	P	19	28.20	-0.7
	0.8s	56.00nm			5.8mb	X
GKN	12.03	258	P	19	30.00	-2.3
CHG	12.39	176	eP	19	39.00	1.9
BTO	13.51	43	eP	19	52.00	0.1
	N 12s	1.60um				
	E 12s	1.80um				
TIY	13.57	58	eP	19	50.00	-2.7
	E 11s	0.80um				
HHC	14.59	45	eP	20	04.80	-1.2
	Z 14s	0.80um				
	N 11s	0.40um				
WMQ	14.96	330	eP	20	10.50	-0.3
	Z 16s	0.90um				
QIZ	16.21	136	eP	20	26.00	-1.0
	N 15s	1.10um				
TIA	16.70	68	eP	20	38.30	5.2X
BJI	17.20	54	eP	20	39.50	0.2
	Z 16s	0.59um				
	E 10s	0.63um				
KSH	19.69	301	eP	21	14.00	4.5X
HYB	22.35	237	eP	21	38.00	1.3
CN2	25.03	52	Pd	22	03.40	0.9
	Z 14s	0.60um			4.3MszX	
	N 10s	0.50um				
			pP	22	09.40	21kmX
GBA	25.76	232	P	22	13.00	3.5X
	0.2s	1.50nm			4.2mb	
KJF	53.80	329	eP	26	02.00	0.7
SOD	54.42	333	eP	26	07.00	1.1
SUF	54.47	327	iP	26	06.70	0.4
	0.5s	2.50nm			4.5mb	
NUR	55.25	325	eP	26	12.00	0.0
	Z 18s	0.20um			4.2Msz	
			LR	51	40.00	
MLR	56.45	307	eP	26	12.00	-9.0X
			e	54	15.00	
TBY	61.13	325	eP	26	52.30	-0.8
	0.5s	2.40nm			4.6mb	
WB5	61.67	141	eP	26	56.50	-0.8
NB2	61.68	326	P	26	56.20	-0.8
	0.7s	2.20nm			4.4mb	
WRA	61.71	141	Pc	26	56.30	-1.3
	0.7s	3.10nm			4.5mb	
PTJ	63.10	309	eP	27	07.10	0.5
INK	73.71	18	eP	28	12.00	0.0
YKA	83.01	15	P	29	05.40	2.4
MEO	112.52	15	ePdiff	31	32.80	13.7X
	1.1s	5.80nm				

S.D. = 1.4 on 28 of 35 obs.

FEB 20, 1989 11h 55m 50.24± 0.82s
43.416 N ± 5.4km 5.421 E ± 6.3km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.7 (STR).

GELF	0.03	172	Pg	55	52.20	-0.1
TREF	0.21	353	Pg	55	54.45	-0.4
PRAF	0.43	335	Pg	55	59.21	0.2
VILF	0.49	26	Pg	55	59.32	-0.8
TAVF	0.50	66	Pg	55	59.61	-0.9
GANF	0.68	31	Pg	56	04.39	0.6
CALN	1.12	72	Pg	56	11.55	0.2
MVIF	1.35	68	Pn	56	15.12	0.0
			Sg	56	34.32	
TOUF	1.45	65	Pn	56	17.05	0.3
			Sg	56	36.25	
AURF	1.46	71	Pn	56	18.05	1.3
AUTN	1.57	68	Pn	56	18.98	0.6
			Sg	56	39.65	
SAOF	1.65	69	Pn	56	19.05	-0.3
CVF	2.67	107	Pn	56	33.24	-0.8

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

& FEB 20, 1989 11h 59m 18.00s
35.324 N 96.464 W
DEPTH = 5.0km (geophysicist)
OKLAHOMA (499)
<TUL>. MD 2.1 (TUL).

SIO	0.44	17	iPgc	59	26.50	-0.3
			eSg	59	32.20	
FKO	0.76	266	iPgc	59	31.90	-1.3
			eSg	59	42.10	
TUL	0.80	43	iPgc	59	33.00	-1.0
			iSg	59	43.80	
LNO	0.80	43	iPgc	59	21.70	-12.3
			iSg	59	43.20	
PCO	1.43	343	iPgd	59	43.00	-1.6
			eSg	00	02.40	
RLO	1.44	54	iPg	59	43.60	-1.2
MEO	1.82	253	ePn	59	49.50	-0.8
			Pg-	59	52.80	
			eSn	00	14.00	

7 obs. ossociated

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* FEB 20, 1989 13h 34m 40.42± 1.20s
17.674 S ±22.3km 177.478 W ±18.3km
DEPTH = 408.5 ± 8.3 km
4.7mb (9 obs.)
FIJI ISLANDS REGION (181)

VUN	3.88	264	iPd	35	53.00	0.6
SVA	3.89	263	iPd	35	51.70	-0.8
DZM	15.74	251	iPc	38	04.00	1.5
BRS	29.06	245	iPd	40	07.50	0.2
CTA	34.36	260	iPc	40	52.70	0.1
	1.0s	30.00nm			4.6mb	
CAN	34.55	233	eP	40	54.10	0.0
BWA	34.68	235	eP	40	50.90	-4.3X
TAU	39.01	222	eP	41	31.00	0.2
WB5	45.53	259	eP	42	22.70	-0.6
WRA	45.54	259	Pc	42	22.50	-1.0
	0.7s	6.80nm			4.1mb	
ASPA	45.71	254	iPc	42	24.80	0.1
	0.7s	101.00nm			5.3mb	
			eS	48	38.40	
FORR	50.87	244	iPc	43	03.80	0.1
	0.4s	50.00nm			5.2mb	
WARB	52.20	250	iPc	43	04.90	-8.7X
COOL	56.85	244	iPc	43	45.90	-0.8
	0.4s	9.00nm			4.5mb	
MBL	58.90	256	iPc	44	00.80	0.1
	0.3s	14.00nm			4.9mb	
MEKA	59.42	249	eP	44	04.00	-0.2
KLB	59.72	243	iPc	44	05.70	-0.5
	0.7s	15.00nm			4.5mb	
NWAO	60.10	242	eP	44	09.00	0.3
BAL	60.68	244	eP	44	12.00	-0.6
NANU	62.64	253	iPd	44	26.70	1.2
	0.4s	17.00nm			5.0mb	
PNT	84.05	34	eP	46	27.00	-0.3
	0.8s	6.00nm			4.4mb	
LRM	86.23	39	eP	46	38.40	0.0
YKA	93.75	24	P	47	13.10	0.5
CLL	145.42	348	ePKP	53	32.00	0.3
KHC	147.37	346	ePKP	53	40.50	5.5X

S.D. = 0.7 on 22 of 25 obs.

& FEB 20, 1989 13h 44m 53.37s
62.131 N 152.220 W
DEPTH = 115.3km
CENTRAL ALASKA (1)
<AGS-P>.

CGLM	0.83	173	iP	45	12.92	-0.9
			eS	45	28.29	
CRP	0.87	178	iP	45	13.59	-0.6
			eS	45	29.11	
SPU	0.96	175	iP	45	13.95	-1.0
			eS	45	30.56	
PWA	1.21	112	eP	45	17.06	-0.4
			eS	45	35.25	

20d 13h

PMS	1.55	124	eP	45 20.62	-0.9
PLRM	1.56	109	eP	45 19.89	-1.7
RDT	1.57	183	eP	45 21.74	0.0
PME	1.59	107	eP	45 20.64	-1.3
GHO	1.60	102	eP	45 21.00	-1.2
			eS	45 42.47	
SML	1.86	98	iP	45 23.94	-1.5
SLKM	1.89	148	eP	45 25.69	-0.1
			eS	45 49.58	
SVW	1.92	239	eP	45 25.15	-1.0
KNK	1.93	110	iP	45 24.48	-1.7
			eS	45 49.13	
PTE	1.99	128	eP	45 25.40	-1.5
ILIM	2.09	190	eP	45 27.97	-0.3
SEW	2.44	145	eP	45 31.76	-0.9
GLI	2.76	115	eP	45 33.92	-3.1
			eS	46 06.50	
KNIM	2.81	128	iP	45 34.31	-3.4
VZW	2.91	109	eP	45 36.84	-2.3
WRH	3.00	37	eP	45 38.25	-1.9
KLU	3.06	99	eP	45 38.94	-2.1
FID	3.09	114	eP	45 38.26	-3.1
			eS	46 15.09	

22 obs. associated

FEB 20, 1989 13h 45m 12.45± 0.57s
41.070 N ± 6.1km 28.529 E ± 4.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

CTT	0.11	316	ePg	45 14.70	-0.6
ISK	0.40	91	ePg	45 20.60	0.0
YLV	0.81	128	iPg	45 28.20	-0.1
KCT	0.83	189	iPg	45 28.10	-0.4
BNT	0.85	213	iPg	45 28.70	-0.2
			iSg	45 42.50	
HRT	0.90	106	ePn	45 30.10	0.4
DMK	0.95	323	iPn	45 30.30	-0.2
OHR	5.84	273	iPg	46 42.30	1.1
			iSg	46 46.80	

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

? FEB 20, 1989 14h 14m 38.27± 6.24s
58.197 N ±48.3km 6.408 E ±17.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.5 (BER).

KMY	1.18	330	eP	15 00.14	-0.2
			eS	15 15.17	
			iSg	15 17.68	
BLS1	1.22	10	iP	15 00.74	-0.3
			iS	15 15.45	
ODD1	1.72	4	iP	15 09.35	0.8
			iS	15 30.72	
HYA	2.98	358	iP	15 26.18	-0.2
			eS	15 59.74	
			iSg	16 08.47	
NRA0	3.65	44	iPd	15 35.80	-0.2
			iS	16 18.30	
			eSg	16 32.20	

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

& FEB 20, 1989 15h 29m 19.73s
60.148 N 152.821 W
DEPTH = 108.3km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.10	226	eP	29 34.62	1.2
			eS	29 46.36	
RDT	0.47	26	eP	29 35.78	-0.8
			eS	29 48.46	
NNL	0.77	97	eP	29 39.03	0.2
			eS	29 52.75	
PDB	0.78	243	eP	29 38.24	-0.6
			eS	29 52.56	
NKA	0.99	52	eP	29 42.09	1.2
CNPM	1.02	127	eP	29 41.04	-0.2
			eS	29 57.23	
SPU	1.10	20	eP	29 41.52	-0.7
CRP	1.17	16	eP	29 42.73	-0.4
CGLM	1.23	19	iP	29 43.13	-0.6
SLKM	1.34	73	eP	29 43.96	-1.0
			eS	30 02.85	
SVW	1.68	306	iP	29 47.60	-1.5
SEW	1.69	90	iP	29 47.63	-1.5
			eS	30 10.12	
PMS	1.94	54	eP	29 51.29	-1.2
			eS	30 15.54	
GHO	2.50	48	eP	29 57.96	-1.9
KNIM	2.54	83	iP	29 57.21	-3.1
			eS	30 27.20	
MTU	2.60	91	eP	29 59.33	-1.7
			eS	30 30.72	
FID	3.20	76	eP	30 07.02	-2.1

17 obs. associated

FEB 20, 1989 15h 57m 31.12± 1.42s
3.215 S ± 7.2km 130.169 E ± 8.4km
DEPTH = 55.0 ± 14.9 km
4.7mb (8 obs.)
CERAM (272)

AAI	2.03	257	iPd	58 04.50	1.1
			iS	58 51.00	
MTN	9.62	174	eP	59 49.00	-0.6
			eS	01 37.00	
JAY	10.55	86	ePd	00 03.00	0.7
KNA	12.53	186	eP	00 27.30	-1.7
			eS	02 45.00	
WB5	17.06	166	eP	01 26.60	-0.9
			eS	04 29.00	
WRA	17.12	167	Pd	01 28.40	0.2
	0.4s		5.80nm	4.1mb	
QIS	19.54	153	iPc	01 58.00	0.8
	0.4s		12.00nm	4.5mb	
			e	02 03.00	
			eS	06 23.00	
MBL	20.48	209	eP	02 06.00	-1.0
ASPA	20.65	170	iPc	02 09.90	1.1
	0.5s		150.00nm	5.6mb	
			eS	05 56.40	
CTA	22.97	138	iPd	02 35.30	3.5X
	1.0s		17.00nm	4.4mb	
WARB	23.09	188	eP	02 26.40	-6.6X
NANU	23.90	215	eP	02 42.00	1.1
MEKA	25.80	205	eP	02 59.00	0.1
FORR	27.56	184	iPd	03 15.20	0.3
	0.5s		17.00nm	4.9mb	
PPI	29.88	275	eP	03 36.50	0.5
PSI	31.78	280	ePd	03 51.60	-1.1
BRS	32.32	140	iPc	04 04.70	7.4X
			e	05 12.70	
CHG	37.73	307	eP	04 45.70	2.1
TIY	43.92	340	eP	05 34.50	0.1
BJI	44.92	345	eP	05 41.00	-1.2
GTA	50.78	330	P	06 27.00	-1.1
KKN	53.07	309	P	06 45.50	-0.1
	0.8s		7.00nm	4.7mb	
DMN	53.12	308	P	06 45.80	-0.2
GKN	53.67	308	P	06 49.80	-0.1
	0.8s		11.00nm	4.9mb	
GBA	54.91	289	Pc	06 57.30	-1.7
	0.8s		3.30nm	4.4mb	
AVY	81.82	251	iPd	09 48.08	1.6
CNCB	153.22	139	PKP	17 30.00	11.8X
LPB	153.34	138	ePKP	17 32.00	13.8X
ZOBO	153.51	137	PKP	17 30.00	11.3X

S.D. = 1.1 on 23 of 29 obs.

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* FEB 20, 1989 16h 37m 31.18± 1.23s
29.220 N ±16.7km 67.659 E ±12.9km
DEPTH = 33.0km (normal)
4.4mb (4 obs.)
PAKISTAN (710)

QUE	1.15	328	iP+	37 49.00	-2.1
			eS	38 00.00	
NDI	8.39	91	ePc	39 34.50	1.1
	0.6s		33.33nm	5.6mb X	
KHI	9.12	305	e(P)	39 52.00	8.4X
MAIO	9.85	318	eP	39 57.00	3.3X
			eS	41 48.00	
KSH	12.30	32	eP	40 27.00	0.0
			eS	42 42.00	
GKN	14.96	91	P	41 00.20	-2.0
	0.6s		27.00nm	4.7mb	
HYB	15.42	137	eP	41 08.50	0.5
DMN	15.44	92	P	41 08.10	-0.3
	0.4s		12.00nm	4.5mb	
KKN	15.56	91	P	41 08.50	-1.5
	0.6s		13.00nm	4.3mb	
GBA	17.99	148	P	41 46.00	5.6X
LSA	20.46	83	P	42 12.70	3.6X
WMQ	21.64	42	P	42 22.60	2.0
	Z 12s		0.40um	4.0MszX	
GTA	28.31	60	eP	43 26.80	2.9X
CHG	30.31	103	eP	43 58.00	16.1X
SUF	42.89	333	iP	45 28.30	0.5
KJF	43.12	336	eP	45 21.00	-8.7X
SOD	45.33	339	eP	45 49.00	1.5
HFS	47.33	327	eP	46 02.30	-1.0
	0.4s		0.90nm	4.1mb	
MBC	74.70	2	eP	49 10.00	1.3

S.D. = 1.5 on 12 of 19 obs.

& FEB 20, 1989 16h 49m 19.85s
59.288 N 153.506 W
DEPTH = 91.0km
SOUTHERN ALASKA (2)
<AGS-P>.

CDD	0.37	191	eP	49 33.84	-0.2
ILIM	0.84	19	iP	49 37.59	-0.6
			eS	49 51.82	
CNPM	1.19	77	eP	49 42.04	-0.1
			eS	49 58.70	
RED	1.19	18	iP	49 41.33	-1.0
NNL	1.35	55	eP	49 44.45	0.3
RDT	1.40	23	eP	49 43.96	-0.9
			eS	50 03.01	
KDC	1.63	161	eP	49 46.49	-1.2
			eS	50 08.08	
SPU	2.03	20	eP	49 51.76	-1.4
SLKM	2.06	52	eP	49 52.55	-0.9
			eS	50 18.09	
SVW	2.11	331	eP	49 52.25	-1.9
CGLM	2.16	20	eP	49 53.61	-1.2
SEW	2.21	67	eP	49 54.36	-1.1
			eS	50 19.21	
PTE	2.75	53	eP	50 00.76	-1.9
			eS	50 33.08	
PMS	2.78	43	eP	50 01.85	-1.4
PWL	3.03	56	eP	50 04.16	-2.5
MTU	3.05	74	eP	50 05.44	-1.5
			eS	50 39.56	
KNIM	3.10	67	eP	50 04.78	-2.8
KNK	3.29	47	eP	50 07.99	-2.3
GHO	3.37	40	eP	50 09.32	-2.0
			eS	50 46.54	
SML	3.59	43	eP	50 12.01	-2.4
FID	3.82	64	eP	50 14.96	-2.6

21 obs. associated

% FEB 20, 1989 17h 28m 27.68± 3.10s
47.407 N ±13.6km 1.107 W ±40.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.8 (LDG).

LPF	0.63	4	Pg	28 39.90	-0.4
			Sg	28 51.30	
GRR	1.00	10	Pg	28 46.20	-0.3
			Sg	29 02.80	
MFF	1.04	140	Pg	28 40.50	-6.8X
			Sg	28 53.10	
LDF	1.36	29	Pg	28 52.60	0.0
			Sg	29 14.60	
FLN	1.42	17	Pg	28 54.20	0.7
			Sg	29 16.30	
LSF	2.15	122	Pg	29 02.50	-1.5
			Sg	29 29.10	
TCF	2.54	115	Pg	29 10.60	1.0
			Sg	29 42.10	
RJF	2.78	138	Pg	29 12.10	-0.9
			Sg	29 47.00	
CAF	3.32	137	Pg	29 22.00	1.3
			Sg	30 03.80	

S.D. = 1.2 on 8 of 9 obs.

& FEB 20, 1989 19h 33m 58.40s
32.120 N 114.990 W
DEPTH = 6.0km (geophysicist)
W. ARIZ. - MEXICO BORDER REGION (46)
<PAS-P>. ML 3.2 (PAS).

GLA	0.94	8	eP	34 14.80	-1.9
PLM	2.00	308	eP	34 31.30	-2.0

2 obs. associated

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* FEB 20, 1989 20h 00m 47.38± 0.85s
27.867 N ±11.6km 130.912 E ±15.1km
DEPTH = 33.0km (normal)
4.2mb (3 obs.)
RYUKYU ISLANDS (238)

BJI	17.20	319	eP	04 47.00	0.4
TIY	18.35	307	eP	05 01.90	0.9
	E 13s	0.60um			
XAN	19.82	294	Pc	05 16.40	-1.8
HHC	20.51	314	eP	05 25.00	-0.4
BTO	21.38	312	eP	05 34.00	-0.2
GYA	21.62	272	P	05 34.60	-2.2
CD2	23.83	284	eP	05 59.40	1.0
GTA	28.20	302	eP	06 40.00	0.8
CHG	30.63	260	eP	07 02.20	1.3
KKN	40.17	281	P	08 22.90	0.4
DMN	40.36	281	P	08 24.40	0.3
GKN	40.69	281	P	08 26.40	-0.3
	0.6s	9.00nm		4.7mb	
WB5	47.58	176	eP	09 22.80	0.8
WRA	47.64	176	Pd	09 21.50	-1.0
	0.9s	1.80nm		4.1mb	
ASPA	51.31	176	eP	09 50.90	0.3
MBC	67.67	14	eP	11 47.00	4.1X
YKA	76.03	26	P	12 38.80	6.0X
HFS	78.47	333	eP	12 47.30	1.0
	0.4s	0.50nm		3.9mb	
FRB	87.41	9	eP	13 31.00	-1.2

S.D. = 1.1 on 17 of 19 obs.

FEB 20, 1989 20h 01m 52.18± 0.60s
37.077 N ± 6.0km 27.938 E ± 6.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	1.42	338	iPn	02 17.80	-0.3
ELL	1.61	101	iPn	02 20.90	0.0
KSL	1.63	125	ePn	02 21.20	0.2
KAP	1.64	202	ePn	02 20.20	-1.0
			eSn	02 42.20	
KHL	1.77	45	iPn	02 22.80	-0.3
BCK	2.15	79	ePn	02 29.30	0.7
PRK	2.53	329	ePn	02 35.50	1.5
DST	2.58	12	ePn	02 35.00	0.2
NPS	2.61	227	ePn	02 35.70	0.5
BNT	3.27	360	iPn	02 42.90	-1.7

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

FEB 20, 1989 20h 14m 14.06± 0.68s
31.429 S ± 6.6km 68.653 W ± 5.9km
DEPTH = 10.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)
Felt (III) at San Juan.

ZON	0.12	191	iPc	14 16.50	-0.6
RTCB	0.14	245	iPc	14 17.00	-0.4
RTLL	0.19	58	iPc	14 19.00	0.8
CFA	0.40	117	iPd	14 22.10	-0.1
RTCV	0.44	167	iPc	14 22.00	-1.1
RTRS	1.43	331	ePd	14 39.10	-1.0
			S	14 58.50	
JACH	2.07	232	iPc	14 49.00	-0.3
			iS	15 15.50	
FCH	2.35	216	iP	14 55.50	1.9
			iS	15 24.00	
PEL	2.43	225	iP	14 55.00	0.6
			iS	15 26.60	
TACH	2.94	220	eP	15 02.50	0.8
			iS	15 40.00	
LNV	3.43	222	eP	15 08.00	-0.6

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

FEB 20, 1989 20h 52m 25.32± 0.33s
43.230 N ± 5.0km 5.005 W ± 4.3km
DEPTH = 10.0km (geophysicist)
SPAIN (377)
ML 3.9 (LDG). MG 3.9 (MDD). Felt (IV) in the Picos de Europa oreo.

EMON	1.71	278	ePn	52 56.50	1.2
			eSn	53 19.00	
ERUA	1.78	243	iPnc	52 57.00	0.6
			eSn	53 20.00	
ECRI	1.93	108	ePg	53 07.30	8.7X
			eSg	53 31.50	
STS	2.62	264	iPn	53 08.60	0.2
			eSn	53 40.70	
GUD	2.66	166	iPnd	53 09.00	-0.2
			eSn	53 40.40	
EZAM	2.93	250	ePn	53 12.30	-0.5
ETOR	3.26	137	ePg	53 28.70	11.1X
			eSg	54 07.60	
EPLA	3.26	195	ePn	53 17.00	-0.6
			eSn	53 55.30	
PTO	3.39	233	iPnd	53 19.30	0.0
			iP*	53 31.00	
			iSn	54 04.00	
			iS*	54 11.50	
TOL	3.42	168	ePn	53 19.00	-0.8
			e(Pg)	53 31.00	
			iSg	54 14.00	
EPF	3.92	91	Pn	53 31.40	4.5X
			Sn	54 12.30	
LFF	4.48	66	Pn	53 37.30	2.6
			Sn	54 24.00	
LPO	4.70	70	Pn	53 39.30	1.3
			Sg	54 30.80	
MFF	4.82	44	Pn	53 39.80	0.1
			Sg	54 31.80	
RJF	5.12	64	Pn	53 44.50	0.6
			Sg	54 39.20	
CAF	5.37	69	Pn	53 47.70	0.3
			Sg	54 44.90	
LPF	5.55	29	Pn	53 49.70	-0.2
			Sg	54 47.80	
LSF	5.55	55	Pn	53 49.60	-0.3
			Sg	54 48.20	
GRR	5.92	28	Pn	53 54.60	-0.4
			Sn	54 56.20	
TCF	5.98	57	Pn	53 55.80	-0.2
			Sn	54 58.40	
MAF	6.17	58	Pn	53 58.20	-0.4
			Sn	55 03.20	
LDF	6.35	31	Pn	54 00.50	-0.7
			Sn	55 06.90	
FLN	6.37	28	Pn	54 00.70	-0.7
			Sn	55 07.20	
BGF	6.49	56	Pn	54 03.10	-0.2
			Sn	55 09.80	
AVF	6.91	56	Pn	54 08.60	-0.5
			Sn	55 20.60	
SSF	7.13	55	Pn	54 11.90	-0.3
			Sn	55 25.80	
SMF	7.14	58	Pn	54 12.20	-0.2
			Sn	55 25.60	
LBF	7.38	56	Pn	54 15.40	-0.3
			Sn	55 31.40	
LOR	7.44	54	Pn	54 17.70	1.1
			Sn	55 32.40	
DOU	9.52	41	P	54 43.90	-1.4
			i	54 49.30	
			S	56 22.40	
WLF	10.03	46	iP	54 55.50	3.1X

S.D. = 0.8 on 27 of 31 obs.

? FEB 20, 1989 23h 34m 58.29± 1.16s
39.181 N ±20.1km 28.766 E ±36.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.44	346	ePg	35 06.70	-0.5
KHL	1.04	145	ePn	35 18.00	0.0
KCT	1.11	344	iPn	35 19.80	0.6
BNT	1.34	331	iPn	35 23.30	0.3
EDC	1.36	329	ePn	35 22.80	-0.4
IZM	1.41	237	iPn	35 31.40	7.3X
YLV	1.46	18	iPn	35 25.80	1.0X

S.D. = 0.7 on 5 of 7 obs.

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* FEB 21, 1989 00h 03m 41.66± 1.35s
34.660 N ±14.3km 26.036 E ± 9.4km
DEPTH = 10.0km (geophysicist)
CRETE (370)
MD 4.0 (ATH).

NPS	0.69	330	iPgd	03 54.20	-1.2
			eSg	04 02.50	
KAP	1.29	46	ePb	04 06.50	1.0
VAM	1.68	297	ePb	04 12.20	1.0
KSL	3.24	62	ePn	04 37.70	4.1X
ELL	3.78	55	eP	04 44.00	2.7X
PRK	4.58	2	ePn	04 56.80	4.3X
BCK	4.63	52	eP	04 53.00	-0.3
VAY	7.19	339	eP	05 33.50	4.2X
OHR	7.66	329	eP	05 41.00	5.1X
DSI	8.42	109	eP	05 58.00	11.4X
PRNI	8.70	117	eP	05 50.00	-0.5

S.D. = 1.4 on 5 of 11 obs.

FEB 21, 1989 00h 54m 44.46± 0.74s
39.316 N ± 7.0km 27.687 E ± 6.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
MD 3.0 (ATH).

DST	0.78	68	iPg	54 59.30	-0.5
			eSg	55 10.30	
IZM	0.97	200	iPg	55 01.00	-2.0
			iSg	55 14.50	
EDC	1.04	7	iPn	55 03.80	-0.3
BNT	1.05	10	iPn	55 02.80	-1.5
KCT	1.07	29	iPn	55 04.80	0.3
PRK	1.10	267	ePb	55 05.80	0.7
			eSb	55 23.20	
EZN	1.17	296	ePn	55 06.50	0.2
KHL	1.74	124	ePn	55 17.00	2.0
YLV	1.80	46	iPn	55 15.80	0.0
RDO	2.46	319	ePn	55 26.30	1.1

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

% FEB 21, 1989 00h 57m 44.02± 1.45s
47.495 N ± 7.2km 7.579 E ±17.7km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
ML 2.2 (LDG).

BSF	0.63	303	Pg	57 56.70	0.0
			Sg	58 06.83	
			Sn	58 08.00	
CDF	0.94	348	Pg	58 02.00	0.0
			Sg	58 16.20	
HAU	0.97	302	Pg	58 02.60	0.0
			Sg	58 16.80	
LPL	2.06	197	Pg	58 19.40	0.0
LPG	2.08	196	Pg	58 19.60	0.0

S.D. = 0.1 on 5 of 5 obs.

% FEB 21, 1989 01h 31m 03.21± 0.90s
36.963 N ± 8.3km 4.306 W ± 7.7km
DEPTH = 10.0km (geophysicist)
STRAIT OF GIBRALTAR (385)

MAL	0.25	200	iPg	31 08.00	-0.5
			iSg	31 11.50	
AFC	0.68	64	eP	31 17.00	0.3
EPRU	0.74	271	eP	31 18.40	0.6
			eS	31 30.00	
EJIF	1.06	242	eP	31 23.50	0.2
EHOR	1.14	319	eP	31 23.80	-0.7
			eS	31 38.70	

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

FEB 21, 1989 01h 38m 45.48± 0.43s
33.849 N ± 6.9km 132.373 E ± 5.1km
DEPTH = 62.7 ± 6.1 km
4.0mb (1 obs.)
SHIKOKU, JAPAN (236)
Felt (I JMA) at Kochi and Motsuyomo.

MTY	0.34	91	eP	38 55.00	-1.3
			iS	39 02.50	
HIR	0.52	6	P	38 58.20	0.3
KOC	1.01	107	eP	39 04.00	0.0
			S	39 17.70	
SHNJ	1.09	285	iP+	39 04.70	-0.3
			S	39 18.90	
TKSJ	1.40	84	iP+	39 08.90	-0.4
YONJ	1.61	34	iP+	39 12.50	0.3
			S	39 33.00	
KUMJ	1.84	225	P	39 15.40	0.0
			S	39 38.70	
WKYJ	2.70	81	P	39 26.60	-0.9
KAGJ	2.94	206	eP	39 31.80	1.1
TSRJ	3.42	59	eP	39 37.50	0.0
IIDJ	4.85	69	P	39 57.40	-0.3
MTMJ	5.22	57	P	40 04.10	1.2
MAT	5.48	59	iPc	40 07.00	0.5
	0.6s	25.33nm		4.7mb X	

21d 01h

		eS	41	31.00		
CHJJ	5.86 66	P	40	12.50	0.6	
INK	60.49 25	eP	48	51.00	0.3	
MBC	61.58 15	eP	48	58.00	-0.1	
HFS	73.73 333	eP	50	13.10	-1.1	
	0.5s	0.90nm			4.0mb	
	Z 15s	0.17um			4.4MszX	
		LR	16	06.00		
	S.D. = 0.7	on 17 of 17 obs.				

FEB 21, 1989 02h 48m 36.10± 0.58s
42.075 N ± 5.3km 24.954 E ± 4.8km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
ML 2.8 (THE).

RZN	0.43 205	iPgc	48	44.00	-0.8
		Sg	48	49.00	
DIM	0.43 93	iPd	48	46.00	1.1
KDZ	0.55 141	iPgd	48	46.00	-1.2
PGB	0.75 309	iP	48	50.00	-0.9
RDO	1.03 155	ePb	48	54.80	-0.7
		eSb	49	07.70	
MMB	1.04 243	iPgc	48	55.00	-0.7
PVL	1.17 14	iPd	48	58.00	0.0
VTS	1.39 292	iPg	49	01.00	-0.7
KKB	1.41 262	Pg	49	02.00	0.2
SOH	1.74 224	ePb	49	06.90	0.4
		eSb	49	30.90	
KNT	1.79 240	ePb	49	08.90	1.6
		eSb	49	32.60	
OUR	1.89 203	ePn	49	09.80	1.2
VAY	1.94 248	ePn	49	10.00	0.6
PLG	2.05 214	ePn	49	13.80	2.8X
	S.D. = 1.0	on 13 of 14 obs.			

* FEB 21, 1989 02h 54m 04.49± 1.35s
65.448 N ± 6.4km 28.257 E ±19.2km
DEPTH = 10.0km (geophysicist)
FINLAND (721)
MD 3.5 (BER).

KJF	1.28 191	iP	54	27.90	-0.2
		iS	54	45.30	
		iSg	54	46.50	
SOD	2.04 342	iP	54	40.80	1.6
		iS	55	08.10	
SUF	2.89 200	eP	54	52.00	0.6
KEV	4.35 354	iP	55	10.90	-1.2
NUR	5.22 200	iPg	55	39.50	15.1X
		iS	56	18.20	
		iSg	56	52.80	
TRO	5.51 324	iP	55	28.05	-0.5
		iS	56	30.94	
LOF	6.40 301	eP	55	41.39	0.3
		eS	56	46.13	
NRA0	8.92 246	iPc	56	15.60	-0.6
		iS	57	54.70	
		iSg	58	47.50	
	S.D. = 1.1	on 7 of 8 obs.			

FEB 21, 1989 03h 03m 47.18± 0.67s
33.406 N ± 9.5km 132.359 E ± 7.7km
DEPTH = 33.0km (normal)
SHIKOKU, JAPAN (236)
MG 3.4 (JMA). Felt (I JMA) at Uwojimo.

UWA	0.25 137	P	03	00.00	-54.3X
SHNJ	1.26 305	P	04	08.60	0.0
		eS	04	24.90	
TKSJ	1.52 67	eP	04	12.50	0.1
		eS	04	33.60	
KUMJ	1.55 236	eP	04	12.30	-0.5
		S	04	31.20	
YONJ	2.00 27	eP	04	19.60	0.3
		eS	04	47.20	
KAGJ	2.54 210	eP	04	27.50	0.5
		eS	04	56.50	
WKYJ	2.81 72	eP	04	30.40	-0.4
	S.D. = 0.5	on 6 of 7 obs.			

? FEB 21, 1989 04h 05m 42.41± 7.15s
32.345 S ±47.3km 71.698 W ±34.7km
DEPTH = 28.1 ± 9.2 km
NEAR COAST OF CENTRAL CHILE (135)

ROCH	0.85 137	iP	05	58.40	-0.2
		iS	06	09.50	
JACH	0.99 110	iPc	06	00.20	-0.3
		iS	06	12.60	
LCCH	1.13 175	iPc	06	02.40	0.0
		iS	06	15.90	
PEL	1.17 133	iPc	06	02.50	-0.5
		iS	06	16.80	
SAN	1.41 142	iPc	06	05.80	-0.6
		iS	06	22.00	
TACH	1.45 154	iP	06	07.00	0.0
		iS	06	24.00	
FCH	1.54 130	iPd	06	08.00	-0.5
		iS	06	26.00	
PCH	1.62 142	iPd	06	08.80	-0.6
		iS	06	27.50	
LNV	1.62 172	iPc	06	08.40	-1.0
		iS	06	26.00	
CHCH	1.81 151	eP	06	12.00	-0.2
	S.D. = 0.4	on 10 of 10 obs.			

% FEB 21, 1989 04h 22m 47.82± 1.84s
44.642 N ± 9.2km 6.835 E ±19.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.3 (GEN).

PZZ	0.23 126	P	22	53.30	0.4
		S	22	57.10	
RRL	0.28 353	P	22	53.84	0.0
		S	22	58.44	
STV	0.53 138	P	22	58.19	-0.4
		S	23	05.58	
RSP	0.59 30	P	22	59.77	-0.1
		S	23	08.76	
ROB	0.82 115	P	23	03.54	-0.2
		S	23	15.01	
IMI	1.05 134	P	23	07.90	0.2
		S	23	20.89	
FIN	1.08 113	P	23	08.13	0.1
		S	23	21.84	
	S.D. = 0.3	on 7 of 7 obs.			

% FEB 21, 1989 04h 30m 02.04± 0.84s
40.793 N ± 5.5km 27.506 E ± 7.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.52 148	ePg	30	12.80	0.2
		eSg	30	20.80	
BNT	0.54 144	iPg	30	12.60	-0.3
CTT	0.78 63	ePg	30	17.20	-0.1
		eSg	30	28.70	
KCT	0.85 130	iPg	30	18.60	0.2
		iSg	30	34.60	
DMK	1.05 10	ePg	30	21.80	0.0
		eSg	30	35.30	
EZN	1.32 223	ePn	30	26.40	0.0
	S.D. = 0.3	on 6 of 6 obs.			

? FEB 21, 1989 04h 36m 03.96± 1.03s
43.048 N ± 8.6km 12.972 E ± 7.3km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.0 (SSO).

CIO	0.19 41	iPgc	36	08.52	0.2
		iSg	36	11.93	
ASS	0.23 276	P	36	09.00	0.1
		eSg	36	12.90	
ARV	0.45 357	P	36	12.90	-0.2
		eSg	36	19.90	
ALP	0.52 121	e(Pg)	36	14.41	-0.1
		iSg	36	23.49	
	S.D. = 0.4	on 4 of 4 obs.			

% FEB 21, 1989 05h 06m 42.85± 0.74s
42.199 N ± 9.1km 142.760 E ± 9.0km
DEPTH = 33.0km (normal)
HOKKAIDO, JAPAN REGION (224)
MG 2.9 (JMA). Felt (I JMA) at Urakawa.

URA	0.04 160	eP	06	48.00	-0.4
		S	06	54.10	
HOOJ	0.43 65	iPd	06	52.40	0.0
		S	07	00.10	

MRRJ	1.27 281	P	07	03.60	-0.8
		eS	07	19.70	
KUSJ	1.70 57	P	07	10.00	-0.5
		eS	07	31.50	
ASAJ	1.92 357	eP	07	14.80	1.0
OFUJ	3.22 195	eP	07	33.00	0.7
		eS	08	11.80	
	S.D. = 0.9	on 6 of 6 obs.			

% FEB 21, 1989 05h 50m 45.65± 0.83s
43.654 N ± 9.4km 2.118 E ± 7.0km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.3 (LDG).

LPO	1.23 327	Pg	51	09.40	0.9
		Sg	51	28.30	
CAF	1.27 358	Pg	51	08.40	-0.9
		Sg	51	27.20	
EPF	1.44 245	Pg	51	11.50	-0.3
		Sg	51	31.80	
LRG	3.09 92	Pg	51	35.80	0.5
LMR	3.21 94	Pg	51	36.90	-0.2
FRF	3.29 90	Pg	51	38.30	0.0
	S.D. = 0.8	on 6 of 6 obs.			

& FEB 21, 1989 06h 48m 21.66s
47.324 N 122.460 W
DEPTH = 16.0km
WASHINGTON (29)
<SEA>. CL 3.0 (SEA). Felt (IV) at Dockton and (III) at Keyport and Puyallup. Also felt at Burien, Enumclaw, Fife, Federal Way, Port Orchard, Renton, Skyway, Tacoma and on Vashan Island.

MEW	0.18 226	iPd	48	26.74	0.6
		eS	48	29.61	
SPW	0.27 32	iP	48	27.84	0.1
		eS	48	32.40	
GHW	0.31 156	iPd	48	27.85	-0.5
		eS	48	32.67	
GMW	0.32 315	iP	48	27.82	-0.7
		eS	48	32.30	
RMW	0.47 73	iP	48	30.53	-0.6
GSM	0.47 105	iPc	48	30.70	-0.5
PGW	0.51 349	iPd	48	31.46	-0.3
RVC	0.51 139	iPd	48	31.13	-0.7
HDW	0.52 309	iPd	48	31.04	-0.9
CPW	0.58 233	iPd	48	32.22	-0.8
BLH	0.59 29	eP	48	32.33	-0.8
SMW	0.60 270	iP	48	32.84	-0.5
FMW	0.67 126	iPd	48	33.61	-1.0
LMW	0.67 170	iPd	48	33.68	-0.9
HTW	0.67 44	iPd	48	33.56	-1.0
APW	0.68 191	iPd	48	33.76	-1.0
LON	0.73 142	iPd	48	34.50	-1.0
BLN	0.77 333	iPd	48	34.90	-1.3
KOSW	0.88 168	eP	48	37.19	-1.0
WPW	0.88 135	iP	48	37.32	-0.9
CWZ	0.89 160	iPd	48	37.27	-1.0
CZM	0.89 182	iPd	48	37.22	-1.1
JCW	0.94 22	iPd	48	38.12	-1.0
OBH	0.96 271	iP	48	38.45	-1.0
GLK	0.96 142	iP	48	38.48	-1.0
OSD	0.98 301	iP	48	39.07	-0.8
TDL	0.99 170	iPd	48	38.81	-1.2
BMW	1.00 212	iPd	48	38.93	-1.3
OHW	1.00 357	eP	48	38.70	-1.4
ONR	1.00 244	eP	48	39.58	-0.6
ERK	1.02 175	iPd	48	39.09	-1.5
STD	1.10 171	iPd	48	40.67	-1.3
TWW	1.10 99	eP	48	41.60	-0.3
SOSW	1.11 168	iP	48	40.50	-1.6
CMW	1.12 12	iPd	48	41.22	-1.1
YEL	1.13 170	iP	48	41.25	-1.3
FL2	1.13 176	iPd	48	40.97	-1.5
SHW	1.14 172	iPd	48	41.54	-1.1
ESD	1.15 169	eP	48	41.56	-1.2
STW	1.16 316	eP	48	41.97	-1.0
HSR	1.17 171	eP	48	42.06	-1.1
RVW	1.19 190	eP	48	41.98	-1.4
JLK	1.20 170	eP	48	42.25	-1.3
CDFW	1.24 167	eP	48	42.93	-1.3
NAC	1.26 117	eP	48	44.24	-0.4

TBM 1.28 96 eP 48 44.45 -0.4
RPW 1.29 29 eP 48 44.02 -1.0
MTMW 1.31 172 eP 48 44.16 -1.2
EBG 1.36 107 eP 48 45.83 -0.1
MCW 1.38 350 eP 48 44.94 -1.3
NLO 1.41 209 eP 48 45.83 -0.9
MBW 1.51 14 eP 48 47.68 -0.5
VGB 2.15 147 eP 48 57.90 0.5
53 obs. associated

FEB 21, 1989 08h 32m 46.99± 0.59s
43.952 N ± 6.2km 12.569 E ± 5.0km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

RSM 0.09 254 P 32 50.30 0.8
eSg 32 53.80
SFI 0.52 267 P 32 56.90 -0.6
eSg 33 06.60
ARV 0.53 149 P 32 57.20 -0.5
eSg 33 07.60
PGD 0.62 263 P 32 59.30 -0.2
eSg 33 09.40
AOI 0.85 118 ePg 33 02.88 -0.5
i(Sg) 33 17.98
CIO 0.86 151 ePg 33 04.54 0.9
iSg 33 20.30
TRI 1.95 25 eP 33 20.00 -0.5
i 33 42.70
i 33 45.40
VOY 2.28 24 e(Pn) 33 26.00 0.6
eSn 33 55.60
KBA 3.17 10 eP 33 44.50 6.4X
BZS 6.65 72 ePd 34 36.50 9.4X
S.D. = 0.8 on 8 of 10 obs.

FEB 21, 1989 08h 55m 26.92± 1.48s
41.372 N ±10.0km 29.289 E ± 8.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ISK 0.35 210 ePg 55 34.30 0.1
GBZT 0.59 169 ePg 55 38.70 -0.2
HRT 0.62 152 ePg 55 39.90 0.5
eSg 55 49.50
CTT 0.69 251 ePn 55 40.30 -0.2
YLV 0.81 175 iPn 55 42.00 -0.6
DMK 1.23 292 iPn 55 49.90 0.0
KCT 1.33 213 iPn 55 52.00 0.6
BNT 1.45 226 iPn 55 53.00 -0.2
EDC 1.49 227 ePn 55 53.80 0.1
DST 1.84 196 ePn 56 00.50 1.7X
S.D. = 0.4 on 9 of 10 obs.

% FEB 21, 1989 08h 56m 49.08± 3.62s
41.390 N ±25.1km 29.309 E ±12.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ISK 0.37 210 ePg 56 56.80 0.0
HRT 0.63 154 ePg 57 01.80 0.0
CTT 0.71 250 ePn 57 03.00 0.0
YLV 0.82 177 iPn 57 05.00 -0.1
KCT 1.35 213 ePn 57 14.00 0.1
S.D. = 0.1 on 5 of 5 obs.

% FEB 21, 1989 09h 00m 02.46± 1.85s
41.370 N ±12.5km 29.240 E ±11.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ISK 0.33 204 ePg 00 10.00 0.7
HRT 0.64 149 ePg 00 15.00 -0.3
CTT 0.65 250 ePg 00 14.00 -1.4
YLV 0.81 173 iPg 00 18.00 -0.2
DMK 1.20 293 ePn 00 25.60 0.8
KCT 1.31 211 iPn 00 27.50 0.9
BNT 1.42 225 iPn 00 28.00 -0.4
S.D. = 1.0 on 7 of 7 obs.

FEB 21, 1989 09h 19m 22.63± 0.84s
24.084 N ± 7.4km 123.631 E ± 6.3km
DEPTH = 54.1 ± 6.9 km
4.5mb (7 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)
Felt (I JMA) on Ishigoki-shimo.

ISI 0.55 63 iPd 19 35.00 0.2
iS 19 44.20
TWC 1.71 288 ePc 19 49.80 -0.7
eS 20 06.70
TWD 1.86 270 ePc 19 51.50 -1.1
TWZ 2.12 299 eP 19 57.00 0.7
ANP 2.21 300 iPc 19 59.00 1.3
TWK 2.99 255 eP 20 08.70 -0.1
QZH 4.67 282 Pc 20 30.20 -2.1
S 21 20.50
SSE 7.31 343 Pd 21 08.50 -0.8
0.7s 116.00nm 5.7mb X
eLg 23 20.00
NJ2 8.99 333 eP 21 32.00 -0.4
Z 18s 0.30um
QIZ 13.78 251 eP 22 44.40 7.5X
GYA 15.53 282 eP 23 01.00 1.2
XAN 16.22 311 P 23 11.10 2.6
TIY 16.62 327 Pc 23 16.60 3.1X
E 10s 0.04um
BJI 17.11 340 eP 23 20.50 1.1
CD2 18.88 295 eP 23 40.80 -0.6
HHC 19.54 332 Pc 23 48.20 -0.5
CN2 19.72 4 eP 23 47.00 -3.5X
pP 24 03.00 82kmX
BTO 20.04 328 P 23 54.50 0.5
eS 27 36.00
LZH 20.84 310 eP 24 02.00 -0.3
1.0s 0.02nm 1.4mb X
LOE 21.52 256 eP 24 08.00 -1.0
CHG 23.55 262 eP 24 30.50 1.4
GTA 25.26 313 Pc 24 45.00 -0.5
GBA 44.77 265 P 27 35.00 2.1
0.7s 1.20nm 3.8mb
WB5 44.93 166 eP 27 34.20 0.1
WRA 44.99 166 Pd 27 34.50 0.0
0.8s 2.70nm 4.1mb
WARB 50.06 176 eP 28 05.80 -8.2X
FBA 67.87 27 eP 30 18.00 0.9
0.9s 5.00nm 4.5mb
SOD 70.67 336 iP 30 33.80 -0.4
KJF 71.12 333 iP 30 35.00 -2.0
SUF 72.22 331 eP 30 43.00 -0.6
0.7s 5.60nm 4.6mb
INK 72.47 22 ePd 30 44.60 -0.4
MBC 72.86 13 eP 30 46.00 -1.2
NUR 73.62 329 eP 30 51.00 -0.7
HFS 78.74 331 eP 31 19.50 -1.0
0.5s 2.60nm 4.4mb
NB2 79.35 333 P 31 23.40 -0.5
0.6s 6.50nm 4.7mb
KSP 81.89 322 eP 31 38.30 0.8
YKA 82.18 23 P 31 39.80 1.0
FRB 91.94 5 eP 32 26.00 -0.2
FFC 92.31 25 eP 32 29.00 0.9
0.7s 5.00nm 5.1mb
S.D. = 1.1 on 35 of 39 obs.

% FEB 21, 1989 09h 36m 35.44± 0.87s
39.252 N ± 7.8km 27.716 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST 0.79 63 ePg 36 50.50 -0.3
IZM 0.92 203 ePn 36 53.20 0.1
KCT 1.11 26 iPn 36 57.00 0.7
BNT 1.11 8 iPn 36 56.00 -0.3
EZN 1.22 299 ePn 36 58.00 -0.1
S.D. = 0.6 on 5 of 5 obs.

? FEB 21, 1989 10h 40m 36.93± 0.73s
52.643 N ±30.9km 157.202 E ±23.8km
DEPTH = 33.0km (normol)
4.3mb (9 obs.)
KAMCHATKA (217)

MAT 20.92 227 eP 45 21.00 2.1
0.8s 24.63nm 4.7mb
TTA 26.37 49 P 46 12.50 0.9
0.6s 4.43nm 4.2mb
IMA 27.55 42 P 46 22.80 0.4
0.5s 2.22nm 4.1mb
PMR 29.66 51 P 46 44.70 3.5X
1.0s 6.25nm 4.3mb
FBA 29.98 44 eP 46 45.00 1.0
0.9s 4.17nm 4.2mb
INK 35.29 37 iPc 47 30.80 0.6

YKA 44.67 41 P 48 48.10 0.3
LBFM 53.54 68 P 49 57.20 0.6
LRM 55.65 58 eP 50 15.70 3.6X
CHTO 56.09 256 iP 50 13.10 -2.1
0.9s 2.13nm 4.2mb
BGMT 56.26 58 eP 50 16.10 -0.4
KVN 57.22 67 P 50 23.00 -0.3
TNP 58.39 67 P 50 30.80 -0.7
0.8s 3.68nm 4.5mb
BW06 59.26 59 P 50 36.40 -1.2
0.6s 2.91nm 4.6mb
ALQ 66.62 63 eP 51 25.00 -1.3
0.8s 1.49nm 4.1mb
S.D. = 1.2 on 13 of 15 obs.

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* FEB 21, 1989 10h 55m 26.76± 1.40s
24.831 N ±10.5km 122.641 E ±12.1km
DEPTH = 10.0km (geophysicist)
TAIWAN REGION (243)

TWC 0.75 253 ePc 55 40.20 -1.3
eS 55 48.10
TWZ 1.00 286 eP 55 46.10 0.4
ANP 1.08 289 ePd 55 48.50 1.4
0.9s 67.23nm
eS 55 59.30
TWD 1.21 232 ePc 55 49.00 -0.3
SSE 6.37 349 eP 57 02.00 -1.0
Lg 59 02.00
WB5 45.88 165 eP 03 52.00 0.7
S.D. = 1.3 on 6 of 6 obs.

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* FEB 21, 1989 12h 29m 46.66± 0.84s
42.833 N ± 7.6km 23.548 E ±10.7km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
ML 2.6 (THE).

VAY 1.68 206 ePn 30 17.20 1.0
SRS 1.72 179 ePg 30 15.60 -1.1
KNT 1.74 196 ePg 30 17.40 0.3
eSg 30 42.60
SKO 1.78 242 ePn 30 23.00 5.3X
eSn 30 51.00
SOH 2.02 184 ePg 30 19.80 -1.3
GRG 2.06 205 ePg 30 24.40 2.6X
BZS 3.11 334 ePd 30 37.50 0.9
MLR 3.17 32 eP 30 36.00 -1.6
CTT 4.01 113 ePg 30 50.60 1.2
ISK 4.47 111 ePg 30 56.70 0.7
HRT 4.99 112 ePg 31 06.20 2.7X
S.D. = 1.4 on 8 of 11 obs.

? FEB 21, 1989 12h 59m 03.52±11.67s
40.769 N ±30.8km 30.418 E ±79.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

HRT 0.57 276 ePg 59 15.80 0.7
eSg 59 23.90
GBZT 0.74 272 ePg 59 17.50 -0.5
iSg 59 28.50
YLV 0.82 256 iPn 59 19.30 -0.2
ISK 1.07 287 ePn 59 23.00 -0.7
CTT 1.55 285 ePn 59 31.80 0.6
S.D. = 0.9 on 5 of 5 obs.

? FEB 21, 1989 13h 00m 11.91± 3.96s
51.445 N ±45.0km 178.355 W ±36.5km
DEPTH = 33.0km (normol)
3.9mb (1 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
Felt (III) on Adak.

ADK 1.13 66 iPd 00 31.60 0.2
KDC 16.20 57 eP 03 58.00 -0.3
FBA 20.72 38 eP 04 51.70 0.1
KVN 43.02 82 P 08 23.50 13.6X
BW06 46.02 73 eP 08 34.00 0.0
0.6s 1.02nm 3.9mb
S.D. = 0.3 on 4 of 5 obs.

FEB 21, 1989 13h 04m 15.11± 0.73s
39.223 N ± 6.4km 27.805 E ± 6.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

21d 13h

DST	0.74	59	iPg	04 29.60	-0.1
IZM	0.93	207	ePn	04 33.00	0.2
KCT	1.11	22	iPn	04 36.30	0.4
EDC	1.12	2	ePn	04 35.80	-0.4
BNT	1.14	4	iPn	04 36.80	0.4
EZN	1.29	298	ePn	04 38.80	-0.2
KAS	5.04	63	eP	05 32.30	-0.3

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

% FEB 21, 1989 13h 15m 45.29± 1.28s
26.195 S ± 9.1km 28.135 E ±14.6km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)

SLR	0.48	16	iPd	15 54.50	-0.4
			i	15 58.00	
PRY	0.94	219	iPd	16 02.50	-1.3
			S	16 15.50	
KSR	1.16	286	iPd	16 08.50	0.9
			S	16 23.50	
BFS	1.40	240	eP	16 11.00	-0.6
			S	16 30.50	
SEK	2.17	192	eP	16 24.00	1.3
			S	16 50.00	
FRS	4.33	214	iPd	16 10.50	-42.7X
	0.2s	111.11nm			

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

FEB 21, 1989 13h 16m 28.38± 0.51s
31.308 S ± 5.6km 67.183 W ± 4.4km
DEPTH = 48.8 ± 5.5 km
4.9mb (10 obs.)
SAN JUAN PROVINCE, ARGENTINA (137)
Felt (III) at San Juan.

CFA	0.95	251	iPd	16 44.10	-1.5
RTLL	1.10	269	iPd	16 47.20	-0.5
RTCV	1.28	244	iPc	16 49.60	-0.6
ZON	1.30	259	iPd	16 49.00	-1.5
RTCB	1.39	262	iPc	16 52.20	0.3
RTRS	2.26	299	iPd	17 06.70	2.6X
JACH	3.20	244	iPc	17 19.00	1.4
FCH	3.31	232	eP	17 20.50	1.2
			iS	18 06.50	
PEL	3.49	237	iPd	17 22.10	0.5
SAN	3.64	233	iPd	17 24.50	0.8
			iS	18 07.00	
PCH	3.64	230	iPd	17 24.50	0.8
			iS	18 10.60	
ROCH	3.65	242	iPd	17 24.40	0.4
CHCH	3.93	227	iPc	17 28.70	1.0
			iS	18 17.00	
TACH	3.94	233	iPd	17 27.50	-0.4
			iS	18 13.60	
LNV	4.44	232	eP	17 33.50	-1.3
HJA	8.22	12	ePc	18 30.00	2.3X
ITB7	13.02	65	eP	19 31.10	-1.8
ITB1	13.10	63	e(P)	19 35.00	1.0
ITB	13.16	64	e(P)	19 35.50	0.7
CNCB	14.45	357	P	19 52.00	-0.3
LPB	14.73	357	eP	20 04.00	8.2X
ZOBO	15.00	357	Pc	20 06.70	7.3X
Z	20s	0.67um			
			LR	26 16.00	
ARE	15.29	344	e(P)	20 05.80	2.8X
VAO	19.78	70	eP	21 07.20	9.8X
ITA	21.91	72	eP	21 20.20	0.7
BMA	22.21	73	eP	21 22.80	0.7
SPA	58.86	180	iPc	26 23.30	-1.1
	0.8s	33.75nm		5.5mb	
LIC	70.02	69	P	27 36.50	-0.8
TIC	70.27	69	P	27 39.00	0.1
KIC	70.33	69	P	27 38.40	-0.8
VVO	71.52	336	e(P)	27 45.80	-0.2
RLO	72.02	337	eP	27 45.20	-3.8X
LNO	72.06	336	e(P)	27 49.80	0.7
TUL	72.06	336	eP	27 49.00	-0.2
	1.0s	6.00nm		4.5mb	
SIO	72.09	335	e(P)	27 48.70	-0.7
FVM	72.27	341	eP	27 50.00	-0.4
	1.0s	15.00nm		4.9mb	
KUK	73.76	72	eP	27 59.50	-0.1
ALQ	75.55	328	eP	28 10.00	0.3
	0.9s	2.52nm		4.2mb	
FRS	77.13	117	iPd	28 19.00	0.4
	1.0s	12.00nm		4.9mb	
KIM	77.19	116	eP	28 18.50	-0.7
GOL	79.04	331	eP	28 29.80	0.7
	0.9s	9.47nm		4.7mb	
SEK	79.58	117	iPd	28 33.00	0.7
BFS	79.64	115	eP	28 32.00	-0.6
PRY	80.16	115	iPc	28 34.80	-0.6
KSR	80.24	114	iPd	28 35.00	-0.9
SLR	81.39	115	iPc	28 41.50	-0.3
	1.0s	20.00nm		5.0mb	
BW06	83.36	330	eP	28 51.10	-0.5
	0.8s	5.00nm		4.6mb	
KVN	84.51	323	eP	28 58.00	0.5
LRM	87.04	330	eP	29 10.60	0.7
BNG	88.63	84	iPd	29 19.50	1.5
	0.8s	10.00nm		5.2mb	
		ic		29 31.00	
FFC	90.77	341	eP	29 27.50	0.5
	0.8s	8.00nm		5.2mb	
YKA	100.90	340	Pdiff	30 13.70	0.7
VRI	114.25	50	ePKPc	35 06.50	2.5X
			ed	47 56.00	
WB5	125.06	205	ePKP	35 24.20	-1.2
GBA	143.07	110	PKPd	35 59.30	0.2
	0.5s	2.50nm			
HYB	146.02	106	iPKPc	36 05.30	1.2
	1.2s	57.10nm			
		e		36 17.00	
PSI	148.66	153	ePKPc	36 11.90	3.4X
NDI	149.14	86	iPKPc	36 13.20	4.4X
GKN	155.32	90	PKP	36 17.00	-0.9

S.D. = 0.9 on 49 of 59 obs.

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* FEB 21, 1989 13h 19m 53.25± 4.43s
41.537 N ±33.1km 23.179 E ± 9.4km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.5 (THE).

KNT	0.43	210	ePg	20 02.00	0.0
VAY	0.51	245	ePg	20 03.40	-0.1
			iSg	20 13.70	
SRS	0.52	143	ePg	20 03.10	-0.7
			eSg	20 15.90	
SOH	0.73	169	ePg	20 07.70	0.1
			eSg	20 20.50	
GRG	0.82	226	ePg	20 09.10	-0.1
			eSg	20 23.90	
OUR	1.35	153	ePb	20 18.80	0.8
			eSb	20 40.90	

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

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* FEB 21, 1989 13h 29m 08.59± 2.07s
42.325 N ±17.5km 24.135 E ±10.3km
DEPTH = 10.0km (geophysicist)
BULGARIA (359)
MG 3.0 (THE).

SRS	1.27	199	ePb	29 32.20	0.0
			eSb	29 54.90	
KNT	1.49	219	ePn	29 34.90	-0.4
			eSn	29 58.50	
VAY	1.54	230	ePn	29 36.00	-0.1
RDO	1.58	138	ePn	29 36.50	-0.1
			eSn	30 01.00	
SOH	1.61	202	ePn	29 36.80	-0.4
			eSn	30 04.70	
PLG	2.02	195	ePn	29 44.00	0.9
SKO	2.03	261	ePn	29 43.50	0.2
MLR	3.43	22	ePd	29 59.00	-4.2X
BZS	3.76	332	ePd	30 11.50	3.7X

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

% FEB 21, 1989 13h 39m 27.60± 0.85s
32.101 S ± 8.0km 117.206 E ± 9.1km
DEPTH = 10.0km (geophysicist)
WESTERN AUSTRALIA (590)

NWAO	0.82	178	eP	39 43.80	0.3
			eS	39 54.00	
MUN	0.86	278	iPd	39 43.70	-0.4
			eS	39 54.00	
BAL	1.55	344	eP	39 56.30	1.0
			eS	40 16.00	
MRWA	3.06	340	eP	40 16.30	-0.5
			iS	40 49.50	
COOL	3.58	71	eP	40 23.90	-0.4
			eS	41 03.00	

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

? FEB 21, 1989 13h 42m 26.27± 1.02s
43.033 N ± 9.2km 13.034 E ± 7.1km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

CIO	0.18	26	iPgd	42 30.47	0.1
			iSg	42 33.63	
ASS	0.28	278	P	42 32.10	0.0
			eSg	42 36.20	
ALP	0.47	122	ePg	42 35.90	0.0
			iSg	42 43.97	
AOI	0.66	39	e(Pg)	42 39.38	-0.1
			eSg	42 50.35	

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

% FEB 21, 1989 13h 54m 02.02± 0.82s
39.719 N ± 6.1km 28.755 E ± 7.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.15	221	iPg	54 04.60	-1.0
KCT	0.61	330	iPg	54 14.30	-0.1
BNT	0.90	315	iPn	54 19.30	0.0
EDC	0.93	313	iPn	54 19.80	0.1
YLV	0.97	29	iPn	54 20.30	-0.2
HRT	1.30	32	ePn	54 25.50	-0.7
GPA	1.32	64	iPn	54 16.70	-9.8X
ISK	1.36	10	ePn	54 27.80	0.8
CTT	1.45	350	ePn	54 28.50	0.3
IZM	1.76	222	ePn	54 34.00	1.2
EZN	1.88	274	ePn	54 34.00	-0.4

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

FEB 21, 1989 14h 09m 42.54± 0.33s
35.597 N ± 5.8km 80.592 E ± 5.9km
DEPTH = 33.0km (normal)
4.5mb (8 obs.) 4.0Msz (1 obs.)
KASHMIR-TIBET BORDER REGION (304)

KSH	5.32	318	Pn	11 03.50	1.7
			Sg	12 25.00	
NDI	7.46	203	eP	11 36.00	4.2X
	0.2s	111.11nm		6.5mb	X
			eS	13 03.50	
GKN	8.32	154	P	11 43.80	-0.1
	0.4s	13.00nm		5.4mb	X
KKN	8.75	152	P	11 49.60	-0.3
	0.6s	22.00nm		5.5mb	X
DMN	8.84	153	P	11 51.20	-0.1
	0.6s	43.00nm		5.8mb	X
PKI	8.99	152	P	11 53.80	0.4
	0.4s	19.00nm		5.6mb	X
WMQ	9.87	31	iPd	11 59.70	-5.5X
LSA	10.66	120	P	12 19.90	3.4X
QUE	12.67	249	eP	12 42.70	-0.6
SHL	13.94	133	iP	12 55.90	-4.2X
			eS	17 16.00	
GTA	15.72	70	P	13 26.00	2.8X
Z	14s	0.50um			
E	10s	0.60um			
MAIO	17.10	279	eP	13 39.00	-1.7
			eS	16 45.00	
POO	18.02	201	eP	13 51.50	-0.6
HYB	18.20	186	eP	13 57.30	3.0X
LZH	18.85	82	eP	14 00.00	-2.5
	1.5s	66.00nm		4.6mb	
CD2	19.92	97	eP	14 15.60	1.3
GBA	22.08	188	Pd	14 37.30	0.9
	0.7s	2.70nm		3.8mb	
XAN	23.28	86	eP	14 50.50	2.3X
CHG	23.30	131	eP	14 49.30	0.9
GYA	24.07	105	P	15 02.60	6.6X
HHC	24.82	68	eP	15 03.40	0.3
KOD	25.41	187	eP	15 15.00	6.0X
TIY	25.57	76	eP	15 10.20	0.0
N	10s	0.20um			
			S	19 40.00	
VRI	41.38	301	ePd	17 19.50	-7.5X
MLR	41.96	301	ePc	17 34.50	2.5X
KJF	42.58	329	eP	17 34.00	-2.6X
			i	17 38.80	
SUF	42.89	327	iP	17 38.70	-0.4
NUR	43.16	323	eP	17 41.00	-0.4
Z	20s	0.20um		4.0Msz	
			LR	36 20.00	
BZS	44.96	302	eP	17 57.00	0.9

HFS 48.57 322 eP 18 22.60 -1.7
0.5s 2.70nm 4.5mb
Z 17s 0.15um 4.1MszX
LR 38 44.00
PRU 48.99 309 eP 18 39.50 11.8X
BRG 49.23 310 e(P) 18 30.50 1.0
KHC 49.76 308 eP 18 35.00 1.3
NB2 49.77 323 P 18 32.20 -1.4
0.8s 3.60nm 4.5mb
KBA 50.32 305 eP 18 39.50 1.3
0.7s 3.30nm 4.5mb
TRI 50.35 303 iPc 18 39.00 0.9
DAG 57.77 344 eP 19 27.00 -5.2X
EKA 58.25 318 P 19 36.00 0.2
1.5s 22.70nm 5.0mb
BNG 64.82 257 ePc 20 19.00 -1.7
1.0s 5.00nm 4.6mb
ic 20 32.30
MBC 67.71 5 eP 20 37.00 -1.2
0.8s 10.00nm 5.0mb
INK 73.32 13 eP 21 12.00 -0.1
WB5 75.09 128 eP 21 23.60 0.5
YKA 81.49 7 P 21 57.20 -0.2
ZOBO 146.13 297 PKP 29 21.00 -0.1
LPB 146.28 296 (PKP) 29 29.00 7.9X
CNCB 146.37 296 PKP 29 23.00 1.5
S.D. = 1.1 on 31 of 46 obs.

FEB 21, 1989 14h 33m 35.34± 0.40s
11.922 N ± 4.2km 61.532 W ± 9.7km
DEPTH = 100.0 ± 4.9 km
4.4mb (2 obs.)
WINDWARD ISLANDS (95)

GRW 0.27 332 iP 33 49.40 -1.8
eS 33 57.00
TCE 1.24 190 iPc 33 59.20 0.4
eS 34 13.60
TRN 1.27 174 iPc 33 59.70 0.5
SVB 1.37 11 iP 34 00.10 -0.3
eS 34 17.60
SVV 1.42 12 iP 34 00.50 -0.5
SLB 1.95 14 iP 34 07.50 -0.3
eS 34 34.60
BIM 2.62 10 iPd 34 17.25 0.5
S 34 49.60
MVM 2.69 13 iPc 34 18.59 0.9
S 34 51.60
FDF 2.82 8 iPd 34 19.88 0.4
S 34 51.70
CUM 2.97 241 iPd 34 22.40 1.0
i 34 27.40
iS 35 04.60
DSVT 3.29 3 iP 34 26.58 0.7
eS 35 05.34
BBL 3.58 1 eP 34 30.00 0.2
MGG 3.98 3 eP 34 36.50 1.2
PAG 4.09 358 eP 34 37.00 0.2
S 35 32.00
DEG 4.39 6 eP 34 41.50 0.5
SEG 4.45 0 eP 34 43.00 1.2
MGH 4.82 352 eP 34 47.00 0.2
SKI 5.51 348 eP 34 52.20 -4.2X
ATB 17.72 148 Pd 37 36.10 -1.1
ZOBO 28.76 193 P 39 27.00 0.6
LPB 29.01 193 (P) 39 37.00 8.6X
CNCB 29.25 193 P 39 32.00 1.2
FRB 51.99 356 eP 42 35.00 -1.1
TIC 55.94 90 P 43 06.00 0.2
LIC 56.01 90 P 43 06.40 0.1
KIC 56.26 90 P 43 08.30 0.1
YKA 62.95 335 P 43 50.80 -2.3
MBC 71.09 348 eP 44 43.00 -1.2
0.6s 7.00nm 4.7mb
NB2 71.30 29 P 44 45.80 0.1
0.8s 2.70nm 4.1mb
INK 72.36 338 eP 44 50.00 -1.8
S.D. = 1.0 on 28 of 30 obs.

% FEB 21, 1989 16h 17m 08.22± 0.97s
40.639 N ± 7.9km 22.951 E ± 8.5km
DEPTH = 5.0km (geophysicist)
GREECE (364)
ML 2.0 (THE).

THE 0.01 124 ePg 17 08.40 -0.9
eSg 17 09.70

SOH 0.36 59 ePg 17 15.10 -0.3
GRG 0.52 307 ePg 17 18.70 0.0
KNT 0.52 356 ePg 17 18.90 0.2
PAIG 0.90 142 ePg 17 26.70 0.7
S.D. = 0.8 on 5 of 5 obs.

FEB 21, 1989 16h 50m 13.58± 0.63s
43.436 N ± 4.2km 5.438 E ± 4.8km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.9 (STR).

GELF 0.05 188 Pg 50 15.56 -0.2
TREF 0.19 348 Pg 50 17.50 -0.4
PUYF 0.21 63 Pg 50 17.50 -0.7
BERF 0.22 124 Pg 50 19.02 0.6
PRAF 0.42 332 Pg 50 22.59 0.5
VILF 0.46 26 Pg 50 22.31 -0.7
TAVF 0.49 68 Pg 50 23.15 -0.3
GANF 0.66 31 Pg 50 26.66 0.0
CALN 1.10 73 Pg 50 34.80 0.4
Sg 50 51.33
MVIF 1.33 69 Pn 50 38.57 0.4
Sg 50 56.84
TOUF 1.43 66 Pn 50 40.15 0.3
Sg 51 01.41
AURF 1.44 71 Pn 50 39.79 -0.1
AUTN 1.55 68 Pn 50 41.71 0.3
SAOF 1.63 70 Pn 50 42.62 0.2
DOI 1.69 50 P 50 43.90 0.6
eSn 51 07.50
BNI 1.85 28 P 50 48.60 2.9X
eSn 51 10.30
CKI 2.28 63 P 50 52.30 0.5
eSn 51 23.00
CVF 2.66 108 Pn 50 55.93 -1.4
S.D. = 0.6 on 17 of 18 obs.

FEB 21, 1989 16h 52m 53.77± 0.54s
4.608 S ± 7.9km 138.823 E ± 8.8km
DEPTH = 33.0km (normol)
4.9mb (4 obs.)
WEST IRIAN (201)

JAY 2.80 42 iPc 53 38.20 0.9
iS 54 04.00
e 57 50.00
MNDI 5.05 108 e(P) 54 09.00 -0.5
PMG 9.54 120 e(P) 55 08.00 -4.0X
MTN 11.17 222 iPc 55 35.60 1.3
eS 57 24.00
KNA 14.84 221 eP 56 23.50 0.4
eS 59 05.00
WB5 15.79 196 eP 56 34.10 -1.3
i 56 37.70
i 56 41.00
eS 59 27.50
QIS 15.87 177 eP 56 35.00 -1.5
eS 59 25.00
e 01 33.00
CTA 17.00 155 eP 57 00.00 9.2X
PCI 19.31 280 eP 57 27.00 7.8X
WARB 24.42 207 iPc 58 03.50 -7.1X
MBL 24.71 227 eP 58 15.30 1.8
BRS 26.28 151 iPc 58 41.70 13.6X
FORR 27.99 200 eP 58 44.00 0.4
CHG 45.65 302 eP 01 13.50 0.1
KKN 60.81 305 P 03 04.60 -1.0
0.7s 7.00nm 4.9mb
DMN 60.88 305 P 03 05.30 -0.8
0.7s 6.00nm 4.8mb
GKN 61.41 305 P 03 08.70 -1.0
0.7s 9.00nm 5.0mb
GBA 63.54 288 Pd 03 22.90 -0.9
0.6s 3.20nm 4.6mb
CNCB 146.02 129 iPKPc 12 34.00 1.2
LPB 146.09 129 ePKP 12 46.00 13.3X
ZOBO 146.23 128 PKPc 12 34.00 0.9
S.D. = 1.2 on 15 of 21 obs.

FEB 21, 1989 19h 35m 26.67± 0.84s
48.122 N ± 5.6km 153.303 E ± 2.8km
DEPTH = 115.6 ± 8.8 km
4.9mb (45 obs.)
KURIL ISLANDS (221)

KUSJ 7.84 233 P 37 17.90 -1.5
S 38 39.90
ASAJ 8.42 246 P 37 31.60 4.3X
HOOJ 9.10 235 eP 37 35.80 -0.6
eS 39 12.80
MRRJ 10.33 241 eP 37 52.50 -0.3
NIIJ 15.10 229 eP 38 53.40 -1.5
KAKJ 15.35 224 eP 38 59.80 1.7
CHJJ 16.04 226 eP 39 06.10 -0.6
MAT 16.04 229 (P) 39 07.00 0.3
0.8s 11.19nm 4.2mb
MTMJ 16.22 230 eP 39 10.10 1.1
MDJ 16.72 267 eP 39 16.70 1.7
IIDJ 17.02 228 eP 39 18.30 -0.6
CN2 19.79 268 Pd 39 48.00 -1.9
pP 40 16.00
SNY 21.86 264 Pc 40 11.40 0.7
TTA 31.32 43 eP 41 38.00 0.4
TIY 31.35 266 Pc 41 39.60 1.5
Z 20s 0.60um 4.3Msz
SVW 31.42 46 eP 41 39.30 0.8
IMA 32.63 37 iPd 41 49.20 0.2
0.9s 46.90nm 5.3mb
e 44 32.10
BRW 32.68 27 ePd 41 49.60 0.4
KDC 33.20 53 P 41 52.90 -1.0
0.9s 35.00nm 5.2mb
WHN 34.42 254 P 42 05.50 0.9
PMR 34.53 45 eP 42 05.70 0.4
0.9s 6.70nm 4.5mb
FBA 35.01 40 iPd 42 10.20 0.9
XAN 35.78 263 eP 42 17.00 0.8
LZH 37.99 270 eP 42 36.00 1.1
1.5s 66.00nm 5.3mb
GTA 38.90 277 Pc 42 42.30 -0.1
INK 40.43 33 iPd 42 55.40 1.0
0.6s 20.00nm 5.1mb
CD2 41.14 264 P 43 01.60 0.8
GYA 42.15 256 P 43 10.00 0.8
MBC 43.26 20 eP 43 18.00 0.5
WMQ 44.56 290 iPd 43 28.60 0.1
Z 12s 0.30um 4.4MszX
YKA 49.75 37 P 44 09.40 0.9
YKC 49.81 37 ePd 44 09.50 0.5
0.8s 20.00nm 5.1mb
SHL 52.55 268 iP 44 30.20 -0.2
CHG 52.57 256 iPc 44 31.20 0.8
0.9s 9.87nm 4.8mb
GMW 53.55 57 P 44 37.80 0.6
RMW 54.15 57 P 44 41.80 0.1
PNT 54.29 54 eP 44 43.00 0.3
LON 54.55 57 P 44 44.60 -0.1
EDM 55.28 47 iPc 44 49.50 -0.3
0.8s 53.00nm 5.6mb
DAG 55.28 358 eP 44 47.00 -2.5
KKN 55.50 274 P 44 52.00 0.1
0.5s 9.00nm 5.0mb
PKI 55.56 274 P 44 52.40 -0.1
0.5s 7.00nm 4.9mb
DMN 55.73 274 P 44 54.00 0.3
0.5s 12.00nm 5.1mb
GKN 55.79 275 P 44 53.70 -0.3
0.5s 13.00nm 5.2mb
VGB 55.85 58 P 44 54.50 0.5
DPW 55.90 54 P 44 54.00 -0.4
FHC 56.79 64 ePd 45 02.20 1.4
LBFM 57.71 62 P 45 08.40 0.9
WDC 57.79 64 iPd 45 08.30 0.5
SES 58.12 49 ePd 45 09.80 -0.2
LTCM 58.27 64 P 45 11.10 0.0
MIN 58.50 63 iPd 45 12.30 -0.6
ORV 59.06 64 iPd 45 16.30 -0.3
FFC 59.61 41 iPd 45 20.40 0.2
1.0s 39.00nm 5.4mb
NDI 60.26 281 eP 45 23.50 -1.4
LRM 60.27 53 eP 45 25.30 0.2
GCC 60.35 66 iPd 45 25.30 -0.1
MHC 60.37 66 iPd 45 25.80 0.1
ARN 60.43 66 P 45 26.20 0.2
CMB 60.69 65 iPd 45 28.10 0.3
BGMT 60.87 54 iPd 45 29.60 0.4
PRS 61.19 67 iPd 45 30.20 -0.9
LLA 61.27 66 iPd 45 31.80 0.1
HPI 61.27 56 P 45 32.50 0.5
KVN 61.41 62 P 45 33.20 0.3
FRI 61.78 65 iPd 45 34.90 -0.1
SUF 61.81 335 iP 45 33.40 -1.5
0.4s 3.30nm 4.7mb

21d 19h

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PHAM    62.11   67 P      45 37.90   0.6
TNP     62.56   63 P      45 40.70   0.2
        0.8s     29.41nm          5.3mb
FRB     63.71   19 eP     45 46.00  -1.4
MTN     63.82  204 iPc    45 48.60   0.0
CLC     63.83   65 eP     45 48.00  -0.7
BW06    63.83   54 P      45 49.00   0.2
        0.9s     37.08nm          5.3mb
NUR     64.02  335 iP     45 47.80  -1.7
SBB     64.44   66 eP     45 52.00  -0.7
DAU     64.48   57 P      45 53.20   0.0
MWC     64.61   66 eP     45 53.00  -0.9
GSC     64.65   65 eP     45 43.00 -11.1X
RVR     65.19   66 eP     45 56.00  -1.3
MSU     65.24   59 P      45 58.50   0.6
RSON    65.90   40 P      46 01.00  -0.7
TPC     65.92   65 eP     46 01.00  -1.1
PLM     65.93   66 eP     46 02.00  -0.4
BAR     66.51   67 eP     46 06.00   0.2
NB2     66.97  341 P      46 07.10  -1.3
        0.6s     3.70nm           4.5mb
HYB     67.10  271 ePc    46 10.00   0.2
HFS     67.22  339 eP     46 08.40  -1.5
        0.4s     12.20nm          5.2mb
GLA     67.38   65 eP     46 11.00  -0.4
GLD     68.28   54 P      46 18.20   1.1
        1.2s     50.51nm          5.3mb
WB5     69.78  199 iPd    46 26.00  -0.1
                    i      46 47.50
GBA     70.57  269 Pc     46 30.10  -1.0
        0.8s     7.40nm           4.6mb
ALQ     71.01   59 eP     46 33.00  -0.8
        0.9s     7.35nm           4.5mb
SCH     72.02   23 eP     46 39.00  -0.2
CLL     75.27  336 iPd    46 56.90  -1.1
        0.6s     19.00nm          5.1mb
SIO     76.01   52 eP     47 02.60   0.1
PRU     76.01  334 eP     47 02.00  -0.2
MLR     76.02  325 ePd    47 02.50   0.0
LNO     76.15   51 eP     47 03.30   0.1
TUL     76.15   51 eP     47 03.50   0.2
        1.0s     18.30nm          4.8mb
WTS     76.23  339 iP     47 03.70   0.3
        0.6s     14.00nm          4.9mb
RLO     76.36   51 eP     47 04.20  -0.2
VVO     76.62   52 eP     47 05.70  -0.2
KHC     77.06  334 eP     47 08.50   0.4
GRF     77.22  336 ePd    47 09.50   0.5
        0.5s     24.00nm          5.3mb
FVM     77.26   47 P      47 09.10  -0.3
GAC     77.28   33 eP     47 09.50   0.2
ENN     77.58  339 iP     47 11.40   0.5
        0.7s     9.00nm           4.7mb
MEM     77.71  339 P      47 11.80   0.2
ELC     78.39   46 P      47 15.50  -0.1
OLY     78.69   49 P      47 17.20  -0.1
KBA     78.97  333 iPd    47 19.30   0.5
        0.6s     12.30nm          4.9mb
                    i      47 23.40
CDF     79.44  338 eP     47 21.10  -0.1
        0.7s     4.40nm           4.4mb
RBL     79.48  333 P      47 18.40  -3.0X
HAU     80.05  338 eP     47 24.30  -0.1
        0.6s     3.60nm           4.3mb
LOR     81.34  339 eP     47 31.10  -0.1
        0.8s     12.00nm          4.7mb
LBF     81.58  339 eP     47 32.20  -0.2
        0.6s     4.50nm           4.4mb
SSF     81.61  340 eP     47 32.80   0.2
        0.8s     12.00nm          4.7mb
ORX     81.82  336 P      47 34.52   0.7
AVF     81.91  340 eP     47 34.20   0.1
        0.8s     10.70nm          4.7mb
SMF     81.93  339 eP     47 34.40   0.2
        1.0s     10.00nm          4.6mb
STJ     82.04   17 eP     47 35.50   0.8
LSD     82.20  337 P      47 36.98   1.0
BOB     82.21  335 P      47 36.40   0.6
BGF     82.24  340 eP     47 36.20   0.3
        0.6s     7.20nm           4.7mb
LPG     82.27  337 eP     47 37.30   0.9
        0.7s     13.20nm          4.9mb
TKL     82.29   44 P      47 36.00  -0.3
PGD     82.35  333 P      47 37.20   0.5
MAF     82.62  340 eP     47 38.40   0.5
        0.6s     18.90nm          5.1mb
TCF     82.64  340 eP     47 38.20   0.2
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        0.8s     13.40nm          4.9mb
RRL     82.80  337 P      47 39.95   0.9
LSF     82.83  341 eP     47 39.10   0.2
        1.0s     26.00nm          5.1mb
ROB     83.09  336 P      47 40.02  -0.3
PZZ     83.10  336 P      47 40.06  -0.4
STV     83.28  336 P      47 39.75  -1.6
IMI     83.44  336 P      47 42.11   0.0
SBF     83.60  336 eP     47 43.00   0.0
        1.0s     25.60nm          5.1mb
CAF     83.96  340 eP     47 45.50   0.8
        0.8s     8.00nm           4.7mb
LFF     84.25  341 eP     47 44.70  -1.4
        1.2s     32.10nm          5.1mb
LRG     84.27  336 eP     47 46.70   0.5
        0.8s     19.80nm          5.1mb
LMR     84.35  336 eP     47 47.10   0.5
        1.0s     20.00nm          5.0mb
TIC    122.22  334 PKP    54 08.50  -0.9
KIC    122.41  334 PKP    54 08.60  -1.2
LIC    122.62  334 PKP    54 09.40  -0.7
BMA    151.05   35 ePKPc  55 07.60   6.4X
      S.D. = 0.8  on 140 of 144 obs.
-----------------------------------------
?  FEB  21, 1989  19h 38m 27.66± 0.98s
   38.117 N ± 8.2km   23.124 E ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 GREECE                            (364)
      ML 2.4 (ATH).

ATH      0.49  107 ePb    38 37.20  -0.4
                   eSb    38 44.80
NEO      1.19    4 ePb    38 50.00   0.1
ITM      1.33  226 ePb    38 51.90  -0.4
VAM      2.84  162 ePn    39 14.50   0.6
      S.D. = 0.8  on   4 of   4 obs.
-----------------------------------------
*  FEB  21, 1989  19h 43m 57.98± 0.59s
   36.415 N ±11.1km   66.661 E ± 6.9km
   DEPTH =  33.0km  (normol)
   4.5mb (  6 obs.)  4.3Msz (  1 obs.)
 HINDU KUSH REGION                 (718)

MAIO     5.79  271 iPnd   45 23.20  -0.7
        0.5s      6.38nm          4.5mb
                   eSn    46 27.00
QUE      6.21  178 eP     45 19.50 -10.5X
                   eS     47 39.00
KSH      7.96   65 P      45 53.00  -1.5
NDI     11.77  128 eP     46 46.00  -0.6
                   eS     49 08.00
WMQ     17.68   59 iPc    48 03.20  -0.1
SHL     24.11  110 iP     49 12.70   0.9
GTA     26.25   73 eP     49 32.50   0.6
      Z  16s      0.36um          4.0MszX
      N  10s      0.33um
SUF     36.18  330 eP     50 59.00   0.0
KJF     36.29  332 eP     51 02.00   2.1
SOD     38.37  336 eP     51 18.00   0.7
HFS     40.99  322 eP     51 37.90  -1.1
        0.5s      1.70nm          4.0mb
      Z  20s      0.42um          4.3Msz
                   LR     09 16.00
NB2     42.36  323 P      51 49.00  -1.3
        0.8s      2.40nm          4.0mb
DAG     53.85  343 iPd    53 18.10  -1.3
        0.7s      6.16nm          4.7mb
BNG     54.38  246 ePd    53 24.30   0.2
        0.9s      9.00nm          4.8mb
                   id     53 29.80
MBC     67.55    2 eP     54 52.00  -0.6
INK     74.50    8 eP     55 35.00   0.6
YKA     81.43    1 P      56 13.60   1.1
FFC     88.70  353 eP     56 50.00   0.9
        1.0s     11.00nm          5.1mb
      S.D. = 1.1  on  17 of  18 obs.
-----------------------------------------
*  FEB  21, 1989  19h 53m 50.05± 0.95s
   14.629 N ±12.7km  145.955 E ±12.4km
   DEPTH = 169.1 ±  8.4 km
   4.8mb (  5 obs.)
 MARIANA ISLANDS                   (216)

PJG      1.48  226 iPc    54 21.30   0.1
GUA      1.48  223 iP     54 21.30   0.0
                   eS     54 44.70
WB5     36.14  199 eP     00 45.20   7.5X
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TIY     37.54  314 eP     00 48.50  -1.0
GYA     38.48  294 P      00 58.60   1.1
BTO     40.58  317 eP     01 14.00  -0.6
WARB    44.71  205 eP     01 47.20  -0.8
GTA     47.29  311 P      02 07.70  -0.7
PKI     57.45  294 P      03 23.80  -0.2
        0.3s      5.00nm          4.8mb
KKN     57.56  294 P      03 24.80   0.1
        0.5s      4.00nm          4.5mb
DMN     57.72  294 P      03 26.00   0.2
        0.5s      9.00nm          4.9mb
GKN     58.13  294 P      03 28.60   0.0
        0.5s     15.00nm          5.1mb
HYB     64.55  283 eP     04 13.00   1.5
GBA     66.21  279 Pd     04 22.30   0.1
        0.8s      7.30nm          4.6mb
INK     73.01   23 eP     05 02.00  -0.5
MBC     77.01   14 eP     05 25.00  -0.2
YKA     81.46   28 P      05 50.60   1.4
SES     86.94   39 eP     06 20.00   2.9X
KIC    144.23  304 PKP    13 08.00  -0.3
TIC    144.29  304 PKP    13 08.00  -0.4
LIC    144.54  304 PKP    13 09.20   0.4
      S.D. = 0.8  on  19 of  21 obs.
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?  FEB  21, 1989  20h 30m 48.00± 5.09s
   9.888 S ±27.0km  160.253 E ±67.0km
   DEPTH =  70.4 ± 14.1 km
   4.2mb (  1 obs.)
 SOLOMON ISLANDS                   (193)

HNR      0.54  326 eP     31 01.00  -0.4
                   eS     31 10.00
VSG      0.83  320 eP     31 05.00   0.4
CTA     16.89  232 eP     34 42.00   0.6
QIS     22.54  240 eP     35 43.00  -0.2
WB5     26.88  245 eP     36 23.70  -0.6
KNA     31.22  256 eP     37 02.80  -0.4
CHTO    66.83  295 eP     41 35.00   0.1
        1.0s      2.75nm          4.2mb
GBA     85.42  285 P      43 20.00   0.4
      S.D. = 0.6  on   8 of   8 obs.
-----------------------------------------
*  FEB  21, 1989  20h 55m 27.85± 0.49s
   37.498 S ±11.0km   50.877 E ± 6.7km
   DEPTH =  10.0km  (geophysicist)
   5.1mb ( 15 obs.)
 ATLANTIC-INDIAN RISE              (428)
      CENTROID, MOMENT TENSOR      (HRV)
        Data Used: GDSN
        L.P.B.: 12S, 25C
        Centroid Location:
        Origin Time        20:55:32.2 1.0
        Lat 37.62S 0.12 Lon  50.82E 0.12
        Dep  15.0 FIX Half-durotion  1.6
        Moment Tensor;   Scale 10**16 Nm
          Mrr=-5.51 0.38  Mtt= 5.26 0.58
          Mff= 0.25 0.42  Mrt= 6.99 1.28
          Mrf=-0.77 1.09  Mtf= 0.93 0.40
         Principal Axes:
          T  Val=  8.73  Plg=26  Azm=356
          N        0.35      7       90
          P       -9.08     63      195
        Best Double Couple:Mo=8.9*10**16
         NP1:Strike= 69 Dip=20 Slip=-112
         NP2:       273     71      -82

AVY     18.71  351 iPd    59 49.60   0.8
GRM     20.23  275 iPd    00 09.00   3.1X
        1.3s    192.31nm          5.3mb
BFT     21.25  298 iPd    00 21.00   4.5X
        1.1s     63.29nm          4.9mb
SEK     21.51  288 eP     00 21.00   1.8
        0.9s     13.45nm          4.3mb
                    i      00 24.00
SLR     22.47  295 iPc    00 27.00  -1.8
        1.2s     46.88nm          4.8mb
                    S      04 12.00
FRS     22.59  282 iP     00 34.00   4.3X
        0.9s     29.41nm          4.8mb
BFS     22.90  290 eP     00 33.00   0.0
        1.5s    166.67nm          5.3mb
KSR     23.40  293 iPd    00 37.60  -0.3
        1.2s     60.00nm          5.0mb
KIM     23.48  284 iPc    00 38.00  -0.6
        1.2s     46.88nm          4.9mb
SWZ     23.85  288 iPc    00 42.00  -0.2
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	0.9s	42.02nm			5.0mb	
BUL	25.96	306	iPd	01	00.70	-1.7
PTZ	28.95	318	iP	01	28.40	-1.2
LSZ	29.90	312	ePd	01	38.00	-0.2
NAI	38.31	337	eP	02	52.00	1.4
LWI	40.54	325	ePc	03	09.70	0.5
BNG	51.43	317	iPd	04	35.20	-0.1
	1.6s	65.00nm			5.3mb	
		ic		04	42.10	
		ic		06	31.40	
SPA	52.69	180	e(P)	04	44.50	0.0
	1.4s	59.80nm			5.3mb	
GBA	56.63	31	Pd	05	11.00	-2.4
	0.7s	3.30nm			4.5mb	
PSI	59.81	59	ePc	05	26.40	-9.4X
HYB	60.52	31	eP	05	46.00	5.5X
KIC	67.68	298	P	06	28.00	0.4
LIC	67.79	297	P	06	28.70	0.5
TIC	68.08	298	P	06	30.60	0.6
QUE	68.99	15	eP	06	36.90	1.3
CHG	71.99	48	eP	06	53.70	-0.1
DMN	72.29	32	P	06	54.90	-0.8
	1.0s	31.00nm			5.4mb	
PKI	72.39	32	P	06	55.10	-1.3
GKN	72.45	31	P	06	55.40	-1.1
	1.0s	32.00nm			5.4mb	
KKN	72.53	32	P	06	56.20	-0.8
	1.0s	22.00nm			5.2mb	
WB5	73.16	102	iPd	07	00.20	-0.6
MAIO	73.86	7	eP	07	05.00	0.5
			eS	16	44.00	
TAB	75.31	356	eP	07	15.00	2.2
LSA	76.75	35	P	07	22.20	0.6
QIS	76.81	106	iPd	07	21.90	0.2
GYA	82.40	48	P	07	52.00	0.4
VAY	82.60	339	eP	07	52.70	0.5
OHR	82.93	338	eP	07	54.70	0.7
TDS	83.08	334	P	07	59.20	4.5X
SKO	83.53	338	iP	08	00.20	3.2X
CD2	84.10	44	eP	08	00.80	0.6
CFR	84.82	344	eP	08	09.00	5.7X
MLR	85.61	343	ePc	08	07.50	0.0
VRI	85.79	343	ePd	08	08.50	0.3
BZS	86.83	340	eP	08	17.00	3.7X
CJR1	87.39	342	eP	08	09.00	-7.0X
WMO	87.56	26	eP	08	18.00	1.0
LZH	88.13	40	eP	08	25.00	5.0X
GTA	88.77	36	eP	08	22.70	-0.3
LJU	89.35	336	e(P)	08	25.00	-0.4
VOY	89.55	335	e(P)	08	24.20	-2.3
KHC	92.38	337	eP	08	45.50	6.2X
IMA	148.05	19	ePKP	15	14.20	3.1X
	1.3s	11.80nm				
INK	149.04	3	ePKP	15	17.00	4.7X
FBA	150.42	16	ePKP	15	19.30	4.8X
YKA	153.42	345	PKP	15	29.30	10.3X
FFC	154.73	322	ePKP	15	39.00	18.0X
	1.3s	14.00nm				
EDM	160.83	330	ePKP	15	30.00	1.6

S.D. = 1.1 on 40 of 57 obs.

% FEB 21, 1989 22h 00m 51.64± 1.19s
39.970 N ±11.0km 23.243 E ± 6.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PAIG	0.34	97	ePg	00	58.60	0.0
			eSg	01	03.80	
LIT	0.59	283	ePg	01	03.90	0.3
			eSg	01	11.70	
OUR	0.67	57	ePg	01	04.90	-0.1
			eSg	01	15.70	
SOH	0.86	6	ePg	01	08.50	0.4
			eSg	01	21.10	
GRG	1.18	327	ePb	01	12.90	-0.7
KNT	1.22	348	ePb	01	14.60	0.3
			eSb	01	33.50	

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

FEB 21, 1989 22h 08m 54.76± 0.17s
44.462 S ± 4.6km 78.766 W ± 5.7km
DEPTH = 25.6km (10 depth phases)
5.6mb (24 obs.) 5.3Msz (6 obs.)
OFF COAST OF SOUTHERN CHILE (143)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 14S, 29C

Centroid Location:
Origin Time 22:08:55.8 0.3
Lat 44.96S 0.04 Lon 78.44W 0.10
Dep 15.0 FIX Half-duration 2.1
Moment Tensor; Scale 10**17 Nm
Mrr=-1.37 0.07 Mtt= 1.61 0.07
Mff=-0.24 0.09 Mrt= 1.85 0.24
Mrf= 0.10 0.19 Mtf=-0.08 0.10
Principal Axes:

	Val=	Plg=26	Azm=
T	2.49	3	1
N	-0.23	64	269
P	-2.26	26	172

Best Double Couple:Mo=2.4**17
NP1:Strike= 98 Dip=20 Slip= -80
NP2: 268 71 -94

LNV	11.94	31	eP	11	44.00	-2.2
CHCH	12.24	34	eP	11	50.00	-0.4
TACH	12.38	32	eP	11	50.50	-1.7
SAN	12.66	33	ePd	11	53.30	-2.7
FCH	12.92	33	eP	11	59.00	-0.7
PEL	12.93	32	iPc	11	57.00	-2.6
ZON	15.13	35	eP	12	25.00	-3.5X
AIA	22.33	164	e(P)	13	58.00	6.4X
HJA	23.86	32	ePc	14	09.70	2.8X
ITB1	28.00	53	e(P)	14	47.30	1.8
ARE	28.58	15	iPc	14	52.60	1.5
CCH	29.01	25	P	14	57.70	2.7
CNCB	29.03	22	P	14	57.00	1.5
LPB	29.26	21	eP	14	56.00	-1.4
	1.0s	80.00nm			5.4mb	
Z	24s	4.65um			5.0MszX	
			i	15	02.00	21km
			LR	23	22.00	
ZOBO	29.51	21	iPc	15	01.00	1.2
	0.9s	75.69nm			5.5mb	
			LR	23	30.00	
VAO	33.70	61	eP	15	37.70	1.7
			e	15	45.50	27km
BMA	35.71	64	eP	15	54.30	1.2
			e	16	02.10	26km
BAO	38.77	52	eP	16	20.50	1.5
ATB	47.21	37	Pc	17	27.50	0.2
SDV	53.60	10	eP	18	15.80	-0.4
SJS	54.35	354	eP	18	21.90	0.3
SRA	54.53	353	iPc	18	23.50	0.6
CAR	55.75	14	eP	18	30.00	-1.8
POF	75.76	117	iPd	20	41.00	1.0
	1.2s	54.69nm			5.5mb	
GRM	77.12	124	iPd	20	47.80	0.2
	1.0s	90.00nm			5.8mb	
PRM	78.24	357	P	20	52 60	-0.8
JSC	78.40	358	P	20	53.50	-0.8
FRS	78.87	121	iPd	20	58.50	1.3
	1.0s	110.00nm			5.8mb	
KIM	79.24	120	iPc	20	58.80	-0.7
	0.9s	46.22nm			5.5mb	
RSCP	79.93	354	P	21	02.00	-0.6
OLY	80.42	350	P	21	04 00	-1.2
SWZ	80.68	119	iPd	21	06 40	-0.8
	0.8s	59.70nm			5.7mb	
MEO	80.90	344	eP	21	07.00	-0.8
	1.7s	243.20nm			6.0mb	
			e	21	15.80	28km
VVO	80.91	346	e(P)	21	08.50	0.7
SEK	81.30	121	iPd	21	11 50	1.0
	1.0s	100.00nm			5.8mb	
BLA	81.31	359	P	21	10 00	0.1
	1.5s	115.38nm			5.7mb	
SIO	81.41	346	eP	21	10.00	-0.4
TUL	81.48	346	iPd	21	05 80	-5.0X
	1.3s	73.70nm			5.6mb	
Z	22s	0.82um			5.0Msz	
			e	21	19.70	48kmX
LNO	81.48	346	iP	21	10.10	-0.5
RLO	81.59	347	eP	21	16.50	5.1X
BFS	81.80	120	iPd	21	13.00	0.0
	1.0s	220.00nm			6.1mb	
ELC	81.92	352	P	21	12.00	-1.0
CVL	82.06	0	P	21	11.00	-2.7X
PRY	82.20	120	iPc	21	15.00	-0.2
	0.7s	20.00nm			5.3mb	
KSR	82.61	119	iPd	21	17.40	0.1
	0.7s	35.00nm			5.6mb	
FVM	82.74	351	P	21	17.00	-0.3
LIC	82.87	74	Pd	21	19.84	1.3
	1.2s	110.00nm			5.8mb	

ALQ	82.94	337	ePc	21	19.00	0.3
	1.0s	27.50nm			5.3mb	
Z	18s	1.55um			5.4Msz	
KIC	83.16	74	Pd	21	21.32	1.3
	1.5s	82.00nm			5.7mb	
TIC	83.17	74	P	21	21.36	1.3
SLR	83.56	120	iPd	21	22.50	0.3
	1.0s	165.00nm			6.2mb	
GLA	83.84	330	eP	21	24.00	0.9
BAR	84.18	329	eP	21	26.00	1.2
BFT	84.69	121	iPd	21	29.30	1.3
	1.0s	84.00nm			5.9mb	
PLM	84.85	329	eP	21	29.00	0.7
TPC	85.23	330	eP	21	32.00	2.0
TBR	85.32	3	P	21	30.50	0.3
RVR	85.62	329	eP	21	32.00	0.1
MWC	86.08	328	eP	21	35.00	0.6
SBB	86.40	329	eP	21	36.00	0.1
GSC	86.58	330	eP	21	38.00	1.3
SYP	87.08	327	eP	21	41.00	1.7
GOL	87.14	340	iP	21	39.80	0.2
	0.9s	15.55nm			5.3mb	
Z	18s	0.86um			5.2Msz	
			ipP	21	47.80	25km
CLC	87.32	329	eP	21	41.00	0.7
BUL	87.82	116	iPc	21	44.00	0.7
MSU	87.93	334	P	21	44.00	0.6
PRI	88.77	327	iPd	21	48.90	1.6
TOO	89.07	214	eP	21	47.00	-1.9
PRS	89.21	327	iPd	21	50.90	1.7
TNP	89.21	331	eP	21	50.50	1.0
	1.0s	40.00nm			5.7mb	
			epP	21	59.00	27km
LLA	89.29	327	ePd	21	51.00	1.4
DAU	89.40	336	P	21	50.00	-0.5
GAC	89.83	2	eP	21	52.00	0.2
GCC	90.06	327	ePd	21	54.70	1.5
MHC	90.19	327	iPd	21	55.70	1.7
CMB	90.32	328	iPd	21	55.60	1.2
KVN	90.38	330	eP	21	55.00	0.1
			epP	22	03.00	25km
BKS	90.89	327	ePd	21	58.80	1.8
	0.8s	41.00nm			5.8mb	
Z	20s	1.30um			5.4Msz	
N	20s	1.20um				
E	20s	0.50um				
			e	22	07.00	26km
			e	29	16.00	
			e	32	08.00	
			eLR	52	17.00	
LSZ	91.07	113	iP	22	00.40	1.8
BW06	91.11	338	eP	21	57.80	-0.4
	1.6s	26.32nm			5.3mb	
			epP	22	06.00	26km
ORV	92.07	328	ePd	22	03.70	1.3
WDC	93.35	328	iPd	22	08.50	0.3
PTZ	93.90	114	iPc	22	12.80	1.2
			i	22	21.40	27km
BRS	94.39	224	eP	22	12.00	-1.7
BNG	98.31	92	iPc	22	33.20	1.7
	0.7s	15.00nm			5.6mb	
FRB	108.17	5	ePdiff	23	31.00	16.6X
YKA	110.41	343	PKP	27	25.30	0.2
LBF	116.54	49	ePKP	27	36.30	-1.2
	0.8s	6.70nm				
SBF	116.59	54	ePKP	27	37.40	-0.3
	0.8s	9.10nm				
LOR	116.65	49	ePKP	27	36.00	-1.6
	1.0s	4.80nm				
LPG	117.18	52	ePKP	27	39.10	0.0
	0.8s	5.90nm				
BSF	118.58	50	ePKP	27	40.80	-0.6
	0.8s	8.00nm				
DOU	118.73	47	PKP	27	42.30	0.9
			e	27	49.60	
TOA	119.12	330	ePKP	27	42.00	0.1
INK	119.63	340	ePKP	27	41.00	-1.6
MEM	119.76	47	PKP	27	43.20	-0.1
ENN	119.81	47	ePKP	27	43.50	0.1
	0.9s	16.00nm				
			e	27	51.00	
PMR	119.87	329	ePKP	27	41.80	-1.4
	1.4s	23.30nm				
WTS	120.96	46	ePKP	27	46.00	0.4
	1.0s	20.00nm				
TRI	121.34	55	iPKPc	27	46.40	-0.1
			i	27	54.50	

21d 22h

FBA	121.47	332	ePKP	27	44.80	-1.4
VOY	121.59	55	ePKP	27	46.70	-0.4
			e	29	23.90	
CEY	121.75	55	ePKP	27	47.40	0.0
KBA	121.84	54	ePKPc	27	46.50	-1.2
	0.8s		6.20nm			
			i	28	02.80	
LJU	121.98	55	ePKP	27	47.30	-0.5
			e	29	24.00	
VBY	122.11	56	ePKP	27	48.40	0.4
PTJ	122.74	56	ePKP	27	49.70	0.4
MOX	122.77	49	iPKPc	27	49.50	0.4
	1.5s		51.00nm			
			eLR	07	00.00	
KHC	123.06	52	iPKPc	27	49.80	0.0
	1.0s		7.00nm			
			e	27	58.80	
OHR	123.17	63	ePKP	27	51.00	0.7
MBC	123.20	349	ePKP	27	48.00	-1.2
	0.9s		39.00nm			
TTA	123.25	328	ePKP	27	49.40	-0.4
CLL	123.87	49	iPKP	27	51.30	0.1
	1.4s		31.00nm			
			e	28	17.00	
SKO	124.03	62	iPKP	27	51.50	-0.4
PRU	124.04	51	ePKP	27	51.50	-0.1
IMA	124.14	332	ePKPd	27	51.00	-0.5
	1.1s		18.00nm			
BRG	124.16	50	iPKP	27	51.70	-0.1
	1.0s		20.00nm			
			i	28	00.00	
VAY	124.41	64	ePKP	27	52.40	-0.2
ZST	124.59	54	e(PKP)	27	52.00	-0.7
KSP	125.44	51	ePKP	27	53.70	-0.6
BZS	126.00	59	ePKP	27	55.50	-0.1
MBH	126.48	82	ePKP	27	57.30	0.3
DAG	126.64	14	ePKP	27	54.60	-1.3
SPC	126.90	54	ePKP	27	57.50	0.1
ALE	127.00	3	ePKPd	27	55.70	-0.8
	1.0s		28.00nm			
NB2	127.56	38	PKP	27	57.40	-0.7
	1.1s		24.20nm			
CJR1	127.73	58	ePKPc	28	03.00	4.1X
BRW	127.78	336	ePKPd	27	57.90	-0.3
DSI	127.86	81	ePKP	28	00.00	0.5
HFS	128.29	40	ePKP	27	56.20	-3.3X
	0.5s		2.10nm			
	Z 21s		0.54um			5.2Msz
			LR	15	18.00	
MLR	128.61	61	ePKPd	28	00.00	-0.8
HRI	129.05	79	iPKP	28	02.30	0.4
VRI	129.27	60	ePKPc	28	01.50	-0.3
CFR	129.86	62	ePKPc	28	03.00	0.1
BBTK	130.37	70	ePKP	28	04.50	0.2
NUR	133.54	42	ePKP	28	09.00	-0.4
	0.8s		24.90nm			
	Z 22s		0.70um			5.3Msz
			i	28	18.60	
			LR	22	30.00	
SUF	134.78	39	iPKP	28	11.30	-0.4
	0.8s		7.00nm			
BHD	135.17	84	ePKPd	28	15.00	1.6
KJF	135.77	37	ePKP	28	12.00	-1.5
	1.0s		26.00nm			
SOD	135.82	32	ePKP	28	14.00	0.4
SLY	137.15	82	ePKP	28	16.00	-1.1
KER	137.67	85	ePKP	28	18.00	-0.3
PSI	138.36	177	ePKP	28	07.00	-13.0X
TA8	138.90	79	e(PKP)	28	17.00	-3.5X
KOD	140.20	142	ePKP	28	05.00	-18.6X
GBA	143.15	139	PKPc	28	22.80	-5.6X
	0.8s		12.80nm			
POO	145.47	130	iPKPc	28	32.20	-0.1
	1.1s		30.38nm			
QCP	145.82	216	ePKP	28	40.00	7.1X
HYB	146.98	138	ePKP	28	34.00	-0.8
	1.4s		375.00nm			
			e	28	36.20	
MAIO	147.47	90	iPKPd	28	35.50	0.3
	1.0s		135.00nm			
BAG	147.61	216	ePKP	28	36.00	0.0
NNT	148.21	177	ePKP	28	33.00	-3.8X
KUSJ	148.85	283	ePKP	28	37.80	0.8
QUE	149.49	106	iPKPd	28	39.20	0.5
OFUJ	149.60	274	ePKP	28	41.30	3.0X
HOOJ	149.63	281	ePKP	28	40.60	2.4X
CHJJ	150.20	267	PKP	28	43.70	4.4X
YAMJ	150.39	271	ePKP	28	44.00	4.5X
ASAJ	150.58	284	ePKP	28	43.20	3.6X
IIDJ	150.70	265	PKP	28	43.90	3.8X
MAT	150.99	267	ePKP	28	45.00	4.5X
	0.9s		16.81nm			
AOMJ	151.08	276	ePKP	28	46.80	6.4X
MRRJ	151.20	280	ePKP	28	45.20	4.7X
NST	151.29	178	ePKP	28	47.40	6.0X
MTMJ	151.30	267	PKP	28	43.90	2.8X
BDT	152.80	175	ePKP	28	40.90	-2.7X
	0.7s		12.00nm			
LOE	153.02	181	ePKPc	28	50.00	6.1X
CHG	154.36	175	iPKPd	28	45.00	-0.8
	0.9s		10.08nm			
NDI	155.23	121	iPKPd	28	46.50	-0.1
DMN	158.78	137	PKP	28	50.90	-0.6
	1.1s		48.00nm			
GKN	158.88	136	PKP	28	50.40	-1.0
PKI	158.90	138	PKP	28	50.80	-0.9
	0.9s		13.00nm			
KKN	159.02	137	PKP	28	50.80	-0.9
MDJ	159.82	280	ePKP	28	49.20	-2.5
KSH	160.60	96	ePKP	28	53.30	0.4
GYA	161.51	196	PKP	28	54.00	-0.1
CN2	162.61	276	PKP	28	50.00	-4.5X
			e	29	40.00	
LSA	163.23	148	PKP	28	56.60	0.4
TIA	165.36	241	ePKP	28	56.20	-1.2
CD2	166.33	189	ePKP	28	58.60	0.2
XAN	168.01	212	PKPc	28	59.50	0.0
BJI	168.08	253	ePKP	28	57.50	-1.8
			e	30	05.50	
TIY	169.19	235	ePKP	28	59.00	-1.2
	N 12s		0.40um			
			e	30	11.50	
			PP	34	01.00	
			SKS	35	50.00	
			eSKKS	40	41.00	
WMQ	170.24	89	iPKPc	29	01.10	0.5
			e	30	18.20	
LZH	171.40	194	ePKP	29	00.00	-1.5
	2.5s		236.00nm			
HHC	171.58	248	PKP	29	00.60	-0.7
BTO	172.45	242	ePKP	29	01.40	-0.3
GTA	174.84	168	iPKPd	29	02.30	-0.3
	Z 34s		0.90um			
	N 17s		0.60um			
			e	30	34.80	
			PP	34	27.00	
	S.D. = 1.0		on 159 of 188 obs.			

& FEB 21, 1989 22h 36m 37.13s
46.747 N 119.432 W
DEPTH = 0.0km
WASHINGTON (29)
<SEA>. CL 2.9 (SEA).

CRF	0.08	21	iPd	36	39.13	0.3
WAH2	0.09	276	iPd	36	39.29	0.4
OTH	0.15	93	eP	36	40.31	0.2
GBL	0.15	187	iP	36	40.54	0.4
MDW	0.26	240	iP	36	42.84	0.5
			eS	36	47.52	
WRD	0.30	42	eP	36	43.69	0.6
BVW	0.32	282	eP	36	43.98	0.6
WIW	0.33	162	eP	36	44.43	0.7
RSW	0.37	197	eP	36	45.23	0.7
ETP	0.38	138	eP	36	45.62	0.9
BRVW	0.47	236	eP	36	47.35	0.9
PRW	0.56	198	eP	36	49.67	1.3
EPH	0.62	350	eP	36	49.74	0.3
MXC	0.62	254	eP	36	50.48	1.0
ODS	0.73	40	eP	36	51.74	0.0
YAKW	0.79	254	eP	36	54.01	1.1
EBG	0.80	282	eP	36	53.70	0.7
			eS	37	07.20	
WG2	0.82	151	eP	36	53.89	0.4
TBM	0.90	298	eP	36	55.41	0.2
SAW	0.96	1	eP	36	55.60	-0.6
NAC	0.96	270	eP	36	56.70	0.4
WTV	1.02	340	eP	36	56.87	-0.5
TWW	1.06	292	eP	36	58.44	0.4
LNOR	1.18	137	eP	37	00.04	-0.1
GL2	1.24	231	eP	37	00.68	-0.6
DHW2	1.26	350	eP	37	00.73	-0.8
JBO	1.32	193	eP	37	02.10	-0.3
	27 obs. associated					

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* FEB 21, 1989 22h 44m 02.54± 1.04s
40.207 N ± 8.8km 25.713 E ±15.8km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 2.8 (ATH).

RDO	0.95	352	ePg	44	19.10	-1.5
			eSg	44	32.00	
PRK	1.05	156	ePg	44	22.20	-0.2
KDZ	1.46	351	iP	44	29.00	0.1
PLG	1.74	276	ePb	44	33.10	0.1
DIM	1.85	356	ePg	44	36.00	1.5
VTS	3.04	322	iP	45	41.00	49.4X
	S.D. = 1.5		on 5 of 6 obs.			

? FEB 21, 1989 23h 35m 59.06± 2.00s
43.172 N ±11.1km 13.030 E ±17.4km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.2 (SSO).

CIO	0.09	74	iPgd	36	02.06	0.4
			iSg	36	04.16	
ARV	0.33	349	Pc	36	06.00	0.0
			eSg	36	11.10	
ALP	0.56	134	ePg	36	10.43	-0.1
			iSg	36	19.36	
AOI	0.56	48	ePg	36	10.21	-0.3
			iSg	36	19.03	
	S.D. = 0.5		on 4 of 4 obs.			

FEB 21, 1989 23h 36m 50.22± 0.31s
47.510 N ± 3.8km 8.771 E ± 2.9km
DEPTH = 33.0km (normal)
SWITZERLAND (544)
ML 3.0 (GRF), 3.5 (LDG), 3.6 (KBA), 4.0 (VKA).

FEL	0.63	306	Pg	37	03.06	0.3
BBS	0.86	267	P	37	06.49	0.6
			Sg	37	18.99	
MOF	1.16	288	Pn	37	10.58	0.3
			Pg	37	12.42	
STR	1.27	328	Pg	37	14.97	3.3X
LOMF	1.33	264	Pn	37	12.91	0.2
CDF	1.35	312	Pn	37	13.06	0.0
			Pg	37	17.93	
BSF	1.38	284	Pn	37	13.50	0.1
			Pg	37	18.22	
VAI	1.64	180	P	37	20.90	3.7X
			eSn	37	39.90	
GWF	1.66	333	Pn	37	18.14	0.7
HAU	1.71	288	Pn	37	18.30	0.2
			Pg	37	22.90	
			Sg	37	44.90	
MDI	1.85	159	P	37	21.30	1.2
			eSn	37	48.70	
ORO	1.96	196	P	37	20.30	-1.6
VITF	2.01	292	Pg	37	29.35	7.0X
SCE	2.06	102	ePn	37	24.20	0.9
SAL	2.26	147	P	37	29.50	3.6X
			(Sn)	37	59.10	
LPL	2.44	216	Pn	37	29.70	0.9
			Pg	37	35.80	
LPG	2.45	215	Pn	37	30.00	1.0
			Pg	37	36.10	
CTI	2.46	125	P	37	30.30	1.3
RSP	2.58	205	P	37	38.46	7.8X
			S	38	11.70	
GRF	2.72	36	e(Pn)	37	33.90	1.3
			ePg	37	40.00	
			e(Sn)	38	09.00	
			eSg	38	14.60	
WLF	2.77	322	iPd	37	39.10	5.9X
			i	37	43.50	
			iS	38	19.40	
BOB	2.78	170	P	37	33.30	-0.2
BNI	2.86	211	P	37	35.00	0.4
FVI	2.89	107	P	37	35.60	0.7
RRL	2.93	209	P	37	36.72	0.9
			S	38	07.55	
KBA	3.14	96	iPnd	37	38.50	-0.2
	0.5s		13.20nm			
			i	37	47.60	
			i	37	57.50	
			iSn	38	12.80	

			iSg	38 25.20	
WET	3.19	58	iPnc	37 42.50	3.2X
PZZ	3.22	202	P	37 41.40	1.6
ROB	3.28	191	P	37 40.73	0.2
LBF	3.31	263	Pn	37 41.10	0.2
			Sg	38 33.10	
LOR	3.35	268	Pn	37 42.00	0.5
			Sn	38 18.10	
			Sg	38 34.70	
STV	3.42	198	P	37 42.00	-0.6
RBL	3.45	106	P	37 40.90	-2.2
SMF	3.48	257	Pn	37 43.50	0.1
			Pg	37 56.30	
			Sn	38 18.80	
			Sg	38 39.20	
KHC	3.59	61	iPn	37 43.00	-2.0
			iPg	37 47.20	
			Sn	38 21.60	
			Sg	38 41.40	
MEM	3.60	331	iP	37 44.80	-0.1
			e	37 50.10	
SSF	3.61	265	Pn	37 45.70	0.5
			Sg	38 43.40	
MOX	3.65	30	e(Pg)	37 55.00	9.2X
			e	38 05.00	
			iSg	38 42.50	
ENN	3.76	331	ePg	37 52.50	5.3X
	0.5s		6.00nm		
			e(Sg)	38 31.00	
SBF	3.77	195	Pn	37 47.80	0.4
AVF	3.77	261	Pn	37 47.50	0.2
			Sg	38 46.90	
DOU	3.78	315	Pn	37 50.10	2.5
			i	37 52.90	
VOY	3.82	111	ePn	37 47.30	-0.9
			eSn	38 38.90	
BGF	4.16	259	Pn	37 51.80	-1.2
SNF	4.21	317	eP	38 40.50	46.8X
FRF	4.22	201	Pn	37 53.50	-0.4
LJU	4.22	108	e(Pn)	38 06.00	12.1X
			eSn	39 03.00	
MAF	4.45	255	Pn	37 55.60	-1.5
PRU	4.55	55	Pn	38 13.50	14.9X
			Sg	39 09.80	
TCF	4.66	257	Pn	37 59.40	-0.7
			Sg	38 48.70	
BRG	4.78	43	ePn	38 21.00	19.3X
			e	39 17.00	
			e	39 22.00	
VKA	5.13	79	ePn	38 05.00	-1.8
			i(Sn)	39 01.10	
			i	39 31.30	
CAF	5.32	243	Pn	38 08.10	-1.4
ZST	5.65	80	i(Pn)	38 15.50	1.5
			i(Sn)	38 50.50	
			i(Sg)	38 57.50	
MFF	6.16	265	Pn	38 20.40	-0.9
FLN	6.32	285	Pn	38 21.80	-1.7
LPF	6.63	278	Pn	38 26.50	-1.4
	S.D. = 1.1		on 44 of 57 obs.		

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* FEB 21, 1989 23h 51m 26.82± 2.18s
42.761 N ±12.4km 145.919 E ±21.8km
DEPTH = 51.1 ± 13.9 km
4.1mb (2 obs.)
HOKKAIDO, JAPAN REGION (224)
Felt (II JMA) ot Nemuro.

NEM	0.62	337	iPd	51 39.70	0.1
			iS	51 46.70	
KUSJ	0.95	291	iPd	51 41.00	-3.0X
			S	51 49.10	
HOOJ	1.98	260	P	51 58.30	-0.2
			eS	52 21.00	
ASAJ	2.75	301	P	52 09.00	-0.4
MRRJ	3.59	266	P	52 21.90	0.5
			S	53 00.40	
OFUJ	4.89	223	eP	52 39.50	-0.1
NB2	70.20	338	P	02 36.40	0.6
	0.7s		2.10nm		4.2mb
HFS	70.25	337	eP	02 35.50	-0.6
	0.4s		0.90nm		4.1mb
	S.D. = 0.6		on 7 of 8 obs.		

% FEB 22, 1989 00h 00m 47.91± 0.89s
37.723 N ± 8.5km 1.518 W ± 7.6km
DEPTH = 10.0km (geophysicist)

SPAIN (377)
MG 3.0 (MDD). Felt (III) in the Totano area.

EALH	0.16	30	iPgd	00 51.60	0.1
			eSg	00 54.00	
ENIJ	0.93	217	ePg	01 05.80	0.0
			eSg	01 18.70	
ACU	1.18	48	ePg	01 09.80	-0.1
			eSg	01 26.60	
EVIA	1.20	320	ePn	01 10.30	0.0
			eSn	01 26.80	
AFC	1.68	254	ePg	01 23.50	5.9X
			eSg	01 45.00	
EBAN	1.85	285	ePn	01 20.10	0.2
			eSn	01 43.30	
ECHE	1.91	13	ePg	01 26.60	5.7X
			eSg	01 50.50	
TOL	2.92	318	ePg	01 41.00	5.7X
			eSg	02 19.00	
EHOR	2.96	273	ePn	01 35.50	-0.2
			eSn	02 10.20	
	S.D. = 0.2		on 6 of 9 obs.		

% FEB 22, 1989 00h 16m 43.98± 0.82s
40.661 N ± 7.0km 23.429 E ± 6.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.0 (THE).

SOH	0.17	340	ePg	16 47.60	-0.3
			eSg	16 50.10	
THE	0.35	265	ePg	16 51.60	0.3
			eSg	16 56.60	
SRS	0.47	15	ePg	16 54.20	0.6
			eSg	17 01.70	
OUR	0.53	128	ePg	16 54.60	-0.2
			eSg	17 02.00	
KNT	0.64	321	ePg	16 56.10	-0.8
GRG	0.83	291	ePg	17 00.40	0.3
			eSg	17 12.80	
	S.D. = 0.6		on 6 of 6 obs.		

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* FEB 22, 1989 02h 09m 34.41± 1.85s
7.892 N ±19.5km 82.760 W ± 7.5km
DEPTH = 33.0km (normal)
SOUTH OF PANAMA (83)
MD 4.3 (HDC).

PBC	0.59	332	iPc	09 46.40	0.1
CTCR	1.00	0	iPc	09 51.00	-1.3
			S	10 07.60	
TIG	1.25	335	iPc	09 55.90	0.1
			S	10 14.40	
IDC	1.37	307	ePc	09 57.10	-0.3
BUS	1.93	329	iPc	10 06.60	0.7
CDM	1.93	329	iPc	10 06.20	0.3
			S	11 32.10	
JCR	1.98	350	eP	10 20.10	13.8X
			S	10 55.10	
QPS	2.02	318	iPc	10 06.30	-0.6
			S	11 33.80	
QCR	2.07	318	iP	10 06.60	-0.9
LCR2	2.21	326	iP	10 09.80	0.1
ICR	2.33	333	iPc	10 12.20	0.6
			S	10 43.00	
IRZ2	2.35	332	iPc	10 12.10	0.2
			S	11 43.50	
SJS	2.40	328	iPd	10 12.90	0.5
			S	10 44.90	
PTCR	2.50	319	ePc	10 13.50	-0.4
			S	11 46.10	
HDC2	2.51	328	iPc	10 14.30	0.3
			S	11 46.50	
POA2	2.71	327	iP	10 17.00	0.2
SRA	2.74	323	iPc	10 17.30	0.1
			S	10 47.50	
UPA	3.37	71	eP	10 26.20	0.2
			iS	11 05.90	
	S.D. = 0.6		on 17 of 18 obs.		

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* FEB 22, 1989 02h 55m 18.26± 0.99s
50.611 N ±10.1km 19.078 E ± 9.6km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 3.5 (KRA), 3.2 (VKA), 3.5 (KBA).

KRA	0.78	135	iPgc	55 32.90	-0.6
			iSg	55 42.50	
SPC	1.61	152	iPc	55 45.80	-1.2
			iSg	56 04.50	
KSP	1.78	279	ePn	55 49.40	0.1
	0.7s		74.00nm		
			iPg	55 52.10	
			iS	56 15.40	
ZST	2.74	209	i(Pg)	56 09.50	6.4X
			i(Sg)	56 40.00	
PSZ	2.75	168	eP	56 04.80	1.5
SRO	2.85	190	i(Pn)	56 08.50	4.0X
			i(Sg)	56 51.20	
VKA	2.96	219	ePg	56 07.50	1.4
			iSg	56 42.30	
PRU	2.97	260	Pg	56 10.50	4.2X
			e	56 30.50	
			Sg	56 47.00	
BRG	3.27	277	ePg	56 17.00	6.4X
			iSg	57 00.00	
KHC	3.85	250	ePg	56 17.20	-1.7
			e	56 25.50	
CLL	3.90	283	ePg	56 31.00	11.5X
			eSg	57 26.00	
MOX	4.75	273	ePg	56 52.00	20.4X
			eSg	57 49.00	
GRF	5.13	263	ePg	56 52.00	15.0X
			eSg	57 58.00	
KBA	5.18	229	iPgd	56 50.10	12.3X
			i	57 57.20	
KJF	14.37	15	eP	58 44.00	0.5
	S.D. = 1.5		on 7 of 15 obs.		

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* FEB 22, 1989 03h 48m 59.88± 0.74s
42.068 N ± 8.7km 139.515 E ±16.8km
DEPTH = 33.0km (normol)
4.8mb (4 obs.)
HOKKAIDO, JAPAN REGION (224)

MAT	5.61	191	iPd	50 23.30	0.1
	0.7s		17.12nm		4.7mb
			(S)	51 23.00	
KKN	45.96	270	P	57 21.70	-0.1
GKN	46.33	271	P	57 24.40	-0.2
INK	50.63	29	eP	57 57.00	-0.2
KJF	61.37	332	eP	59 15.00	0.6
SUF	62.85	332	iP	59 24.70	0.4
	0.3s		3.50nm		5.0mb
NUR	64.84	330	iP	59 37.30	0.0
HFS	68.91	334	eP	00 02.60	-0.5
	0.3s		3.50nm		4.9mb
NB2	68.99	336	P	00 03.60	0.0
	0.5s		2.10nm		4.5mb
	S.D. = 0.4		on 9 of 9 obs.		

& FEB 22, 1989 04h 19m 53.20s
36.907 N 121.363 W
DEPTH = 6.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.9 (BRK). Small foreshock 1.9 seconds earlier.

SAO	0.16	205	iPd	19 57.30	0.8
LLA	0.44	131	iPd	20 01.70	-0.4
ARN	0.46	343	iPd	20 02.50	0.0
MHC	0.49	333	iPd	20 03.00	0.0
GCC	0.52	284	iPc	20 03.20	-0.5
			iS	20 11.00	
PRS	0.57	181	iPd	20 04.30	-0.4
PRI	0.95	143	ePc	20 12.60	0.9
PCC	1.01	306	iPc	20 12.00	-0.6
BKS	1.19	325	iPc	20 15.10	-0.7
			eS	20 35.10	
BRK	1.20	324	ePc	20 15.80	-0.1
ZSP	1.26	326	iPc	20 17.00	0.1
PHAM	1.32	144	eP	20 17.20	-0.8
FRI	1.33	86	iPc	20 16.60	-1.5
CMB	1.37	34	ePc	20 17.40	-1.4
BCH	2.01	149	eP	20 26.00	-2.1
BLP	2.47	161	eP	20 32.40	-2.2
KVN	3.35	49	eP	20 46.30	-1.1
	17 obs. ossociated				

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* FEB 22, 1989 05h 03m 32.99± 0.74s
42.862 N ± 5.0km 12.878 E ± 9.8km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

22d 05h

ASS	0.26	323	Pc	03 38.70	0.1
			eSg	03 42.30	
CIO	0.39	30	iPgc	03 40.88	0.0
			iSg	03 46.65	
MNS	0.50	197	P	03 43.00	-0.1
			eSg	03 50.50	
ARV	0.64	4	P	03 45.70	-0.1
			eSg	03 55.60	
SDI	1.35	149	P	03 58.00	0.2

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

FEB 22, 1989 05h 35m 12.18± 0.96s
40.552 N ± 8.0km 20.763 E ±10.9km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

KBN	0.08	29	iPgd	35 15.30	0.7
LSK	0.42	197	iPgc	35 21.20	0.4
OHR	0.56	3	iPg	35 24.00	0.4
			eSg	35 32.60	
TPE	0.63	246	ePg	35 24.00	-0.8
BERA	0.64	284	ePg	35 25.50	0.6
SKO	1.51	20	ePn	35 38.00	-1.2
			eSn	36 03.00	

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

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* FEB 22, 1989 05h 54m 25.90± 0.52s
5.994 S ± 8.4km 127.925 E ±16.6km
DEPTH = 407.2 ± 8.2 km
4.7mb (7 obs.)
BANDA SEA (280)

AAI	2.31	7	ePc	55 24.60	-0.3
			eS	56 06.20	
MTN	7.51	155	iPd	56 16.70	0.5
			eS	57 49.00	
KNA	9.73	175	eP	56 41.00	-0.8
			eS	58 38.00	
WRA	15.20	156	Pd	57 41.30	-1.1
	0.6s		41.30nm	5.1mb	
MBL	16.99	207	eP	58 00.20	-0.5
OIS	18.39	143	eP	58 15.00	0.3
			i	58 17.50	
			eS	02 21.00	
WARB	20.11	183	iPc	58 24.70	-6.8X
	0.4s		12.00nm	4.7mb	
MEKA	22.38	203	iPd	58 54.70	1.8
FORR	24.73	180	eP	59 14.00	-0.2
PSI	30.22	286	ePc	00 03.00	0.0
	0.6s		20.50nm	4.6mb	
CHG	37.73	311	eP	01 07.00	0.7
LZH	47.57	333	eP	02 24.50	-0.1
	1.5s		66.00nm	4.8mb	
PKI	52.91	311	P	03 04.00	-0.8
	0.5s		10.00nm	4.4mb	
KKN	53.13	311	P	03 06.70	0 5
	0.7s		19.00nm	4.5mb	
DMN	53.16	311	P	03 05.80	-0.7
GKN	53.72	311	P	03 09.80	-0.6
	0.7s		30.00nm	4.7mb	
YKA	107.75	26	PKP	12 07.80	1.3
ZOBO	152.77	145	ePKP	13 20.00	-10.5X
			e	15 25.00	

S.D. = 0.9 on 16 of 18 obs.

FEB 22, 1989 06h 24m 59.07± 0.60s
37.311 N ± 5.0km 120.133 W ± 5.2km
DEPTH = 5.0km (geophysicist)
CENTRAL CALIFORNIA (39)
ML 2.6 (BRK).

FRI	0.47	133	iPd	25 08.30	-0.1
			iS	25 15.10	
CMB	0.75	345	iPc	25 13.30	-0.8
			iS	25 24.00	
LLA	0.95	223	eP	25 18.10	0.5
			iS	25 30.60	
ARN	1.12	272	eP	25 20.50	0.0
SAO	1.18	243	iPd	25 21.70	0.1
MHC	1.20	272	iPc	25 22.70	0.7
			iS	25 33.30	
PRI	1.24	200	eP	25 22.40	-0.3
PRS	1.39	226	iPc	25 24.50	-0.7
KVN	2.36	42	e(P)	25 40.00	0.7

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

FEB 22, 1989 06h 42m 45.38± 0.46s
32.462 N ± 5.7km 137.992 E ± 3.8km
DEPTH = 340.9 ± 3.4 km
5.0mb (42 obs.)
SOUTH OF HONSHU, JAPAN (211)

WKYJ	2.67	312	iP+	43 43.20	1.7
			eS	44 27.50	
IIDJ	3.01	359	P	43 45.20	0.6
			S	44 33.10	
TKSJ	3.64	296	iP+	43 52.30	1.7
			eS	44 43.80	
CHJJ	3.67	13	P	43 50.70	-0.2
			S	44 41.00	
MAT	4.07	2	iPd	43 55.00	-0.1
			iS	44 49.30	
MTMJ	4.12	358	iPd	43 56.00	0.4
KAKJ	4.15	25	P	43 53.00	-2.8
			S	44 45.00	
YONJ	4.65	307	iP+	44 02.90	1.7
			S	45 04.90	
NIIJ	4.84	10	P	44 01.90	-1.4
			S	45 01.70	
SHK	4.90	296	iPc	44 05.40	1.4
	1.0s		800.00nm		
YAMJ	5.94	16	eP	44 14.20	-1.5
			eS	45 24.50	
SHNJ	6.00	288	P	44 18.30	1.9
			eS	45 33.10	
KUMJ	6.05	273	P	44 19.50	2.4
			eS	45 36.80	
KAGJ	6.18	260	P	44 20.80	2.3
			eS	45 36.70	
OFUJ	7.25	23	eP	44 28.80	-2.3
			eS	45 48.50	
MRRJ	10.24	13	eP	45 05.90	-1.2
			eS	46 58.10	
HOOJ	10.76	21	eP	45 12.40	-0.9
			eS	47 09.20	
KUSJ	11.87	25	P	45 26.30	-0.4
			eS	47 32.30	
ASAJ	12.19	16	P	45 29.10	-1.5
			S	47 40.80	
MDJ	13.79	334	iPd	45 47.50	-2.1
SSE	14.36	269	P	45 54.00	-2.0
	1.0s		24.00nm	4.5mb	
			i	46 17.00	
			eS	48 36.00	
DL2	14.76	300	P	46 00.00	-0.3
SNY	14.80	313	iPd	46 00.00	-0.7
CN2	15.00	323	Pd	46 01.00	-1.8
			ScP	53 47.00	
TIA	17.63	288	eP	46 29.40	-1.0
BJI	19.12	299	eP	46 45.00	-0.3
	4.0s		0.50nm	2.2mb X	
			esP	48 12.00	
			eS	50 04.00	
			eScP	53 56.50	
WHN	20.24	271	P	46 57.80	1.5
	1.0s		0.06nm	1.9mb X	
TIY	21.53	291	iPc	47 09.60	0.8
E	12s		0.40um		
			eS	50 45.50	
HHC	22.73	299	Pd	47 20.30	0.1
BTO	23.83	298	P	47 30.00	-0.3
XAN	24.33	282	Pd	47 34.90	0.0
LZH	28.36	287	eP	48 10.00	-1.2
	2.0s		82.00nm	4.7mb	
CD2	29.10	276	P	48 16.40	-1.2
GTA	31.50	294	Pd	48 37.70	-0.8
			S	53 19.20	
			ScP	54 32.40	
			ScS	58 28.80	
CHG	37.52	258	eP	49 29.50	0.2
LSA	39.97	279	P	49 50.70	0.9
WMQ	40.58	301	iPd	49 55.00	0.7
			S	55 39.00	
SHL	40.66	272	iP	49 54.80	-0.4
PKI	45.42	278	P	50 33.00	-0.4
KKN	45.45	279	P	50 33.40	-0.1
DMN	45.66	278	P	50 35.10	-0.1
GKN	45.92	279	P	50 37.00	-0.1
BRW	51.70	22	iP	51 21.40	1.3
NDI	51.85	283	iPd	51 21.50	-0.2
IMA	52.04	29	eP	51 24.70	1.9
WB5	52.16	184	eP	51 22.00	-2.0
			e	52 36.80	
WRA	52.23	184	Pc	51 22.10	-2.3
	0.9s		10.30nm	4.2mb	
QIS	52.74	178	eP	51 26.00	-2.2
CTA	52.85	170	iPd	51 27.60	-1.5
	1.1s		36.71nm	4.6mb	
HYB	55.30	269	eP	51 46.50	-0.4
	0.8s		34.60nm	4.8mb	
GBA	58.07	266	Pd	52 03.20	-2.9
	0.9s		29.10nm	4.7mb	
QUE	59.67	288	iPd	52 16.90	-0.2
INK	59.72	25	eP	52 17.00	0.3
BRS	61.16	165	iPd	52 21.20	-5.5X
MBC	61.68	15	eP	52 29.00	-0.7
MAIO	63.19	298	eP	52 40.00	-0.1
ALE	64.82	3	eP	52 50.00	0.1
	1.0s		29.00nm	4.9mb	
BWA	67.25	171	eP	53 05.20	-0.5
SOD	68.08	337	iP	53 10.30	0.0
YKA	69.16	28	P	53 17.30	0.3
KJF	69.38	334	iP	53 18.20	-0.1
	0.7s		48.10nm	5.3mb	
SUF	70.78	333	iP	53 26.20	-0.5
	0.8s		57.70nm	5.4mb	
NUR	72.63	332	iP	53 37.20	-0.3
	0.7s		37.40nm	5.2mb	
UPP	75.79	333	iP	53 55.40	0.0
LBFM	76.13	50	eP	53 59.10	1.1
HFS	77.05	335	eP	54 02.20	-0.2
	0.6s		42.50nm	5.4mb	
Z	18s		0.39um	4.8Msz	
			LR	26 51.00	
NB2	77.27	336	P	54 02.80	-0.9
	0.8s		42.10nm	5.3mb	
ORV	77.31	51	ePc	54 10.10	5.8X
NRA0	77.38	336	iP	54 04.20	0.0
BKS	77.70	53	eP	54 07.40	1.0
	0.9s		25.00nm	5.0mb	
MHC	78.38	53	ePc	54 10.60	0.3
ARN	78.45	53	eP	54 11.50	0.9
CMB	78.86	52	iPc	54 13.10	0.4
FFC	79.07	31	eP	54 14.50	1.1
	1.0s		12.00nm	4.7mb	
PRS	79.10	54	iPc	54 14.50	0.5
LLA	79.24	53	ePc	54 15.20	0.5
LRM	79.40	42	eP	54 16.70	1.0
PRI	79.68	54	ePc	54 18.10	0.9
KVN	79.81	50	eP	54 18.90	1.0
FRI	79.87	53	iPc	54 19.20	1.2
BGMT	79.98	42	eP	54 19.90	1.2
BBTK	80.22	311	iPd	54 21.00	1.1
HPI	80.26	44	eP	54 22.00	1.7
TNP	80.92	51	eP	54 24.50	0.8
	1.0s		25.00nm	5.0mb	
MLR	81.00	319	ePd	54 24.00	0.1
SPC	81.67	324	eP	54 28.40	1.0
FRB	81.83	12	eP	54 28.00	0.4
CLC	81.94	53	eP	54 29.00	0.1
SBB	82.42	54	eP	54 31.00	-0.3
KSP	82.45	327	ePd	54 32.00	0.9
	1.0s		83.00nm	5.5mb	
			ic	54 32.60	
BW06	82.89	43	eP	54 34.50	0.7
	1.0s		4.50nm	4.3mb	
DAU	83.33	46	eP	54 37.70	1.6
BRG	83.49	328	iP	54 36.60	0.3
	0.6s		40.00nm	5.4mb	
CLL	83.59	329	iPd	54 36.90	0.1
	1.2s		80.00nm	5.4mb	
ELL	83.83	310	eP	54 38.50	0.0
PLM	83.83	54	eP	54 32.90	-5.7X
PLM	83.83	54	eP	54 39.00	0.4
PRU	83.85	327	iPc	54 39.20	1.1
	1.0s		21.70nm	4.9mb	
			e	54 43.50	
ZST	83.88	325	eP	54 39.00	0.7
MSU	83.90	48	eP	54 40.40	1.5
TPC	83.96	53	eP	54 39.00	-0.1
BAR	84.35	55	eP	54 41.00	0.0
MOX	84.68	329	eP	54 42.50	0.2
	1.4s		21.00nm	4.8mb	
			e	58 05.00	
RSON	85.35	30	eP	54 45.50	-0.1
	1.0s		4.00nm	4.2mb	
GLA	85.40	54	eP	54 47.00	0.8
VAY	85.53	317	eP	54 47.00	0.4
GRF	85.55	329	eP	54 47.30	0.7
	1.1s		30.00nm	5.1mb	
SKO	85.75	318	eP	54 47.50	-0.2

KBA	86.48	326	eP	54 51.00	-0.3
	0.7s		4.50nm		4.5mb
OHR	86.68	318	eP	54 52.50	0.2
TRI	87.25	325	iPc	54 54.10	-0.7
CDF	88.23	330	eP	54 59.20	-0.4
	0.7s		6.60nm		4.7mb
BSF	88.88	330	eP	55 02.00	-0.7
	0.7s		5.20nm		4.6mb
HAU	88.94	330	eP	55 02.30	-0.5
	0.7s		4.40nm		4.5mb
VAI	89.51	327	P	55 04.60	-0.8
ALQ	89.71	48	eP	55 07.00	0.1
	1.0s		2.50nm		4.1mb
ORX	90.04	327	P	55 07.24	-0.8
LSD	90.55	328	P	55 11.04	0.4
LOR	90.56	331	eP	55 09.80	-0.5
	0.9s		8.80nm		4.7mb
LPG	90.70	328	eP	55 11.10	-0.3
	0.8s		17.40nm		5.0mb
LBF	90.74	331	eP	55 10.50	-0.7
	0.8s		5.90nm		4.6mb
SSF	90.87	331	eP	55 11.40	-0.3
	1.0s		14.80nm		4.9mb
FLN	91.05	334	eP	55 11.90	-0.6
LDF	91.05	334	eP	55 12.10	-0.4
SMF	91.06	330	eP	55 12.30	-0.3
	0.9s		16.30nm		5.0mb
RRL	91.13	328	P	55 13.19	-0.1
AVF	91.15	331	eP	55 12.70	-0.3
	0.8s		20.10nm		5.1mb
GRR	91.50	334	eP	55 14.50	-0.1
	0.9s		29.40nm		5.3mb
BGF	91.54	331	eP	55 14.60	-0.2
LPF	91.86	334	eP	55 16.30	0.1
	1.1s		58.60nm		5.5mb
MAF	91.93	331	eP	55 16.80	0.2
	1.1s		21.90nm		5.1mb
TCF	92.02	331	eP	55 16.90	-0.2
	1.0s		24.00nm		5.2mb
LSF	92.33	331	eP	55 18.20	-0.3
MFF	92.71	333	eP	55 20.60	0.4
	0.8s		21.40nm		5.2mb
RJF	93.10	331	eP	55 22.10	0.1
	0.8s		14.50nm		5.1mb
CAF	93.18	330	eP	55 22.80	0.4
	1.2s		24.90nm		5.1mb
LFF	93.72	331	eP	55 25.10	0.3
	0.8s		22.50nm		5.3mb
LPO	93.75	331	eP	55 25.10	0.1
ARE	148.93	66	ePKP	01 57.00	6.1X
ZOBO	151.38	62	PKPd	02 02.60	7.7X
	0.8s		8.84nm		
LPB	151.56	62	PKP	02 03.80	8.8X

S.D. = 1.0 on 135 of 141 obs.

FEB 22, 1989 07h 02m 13.15± 0.89s
42.864 N ± 6.2km 12.862 E ± 7.9km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.9 (SSO).

ASS	0.25	325	P	02 19.10	0.5
			eSg	02 23.30	
CIO	0.39	32	iPgc	02 21.21	0.0
			iSg	02 27.69	
MNS	0.50	196	P	02 23.30	0.0
			eSg	02 30.70	
ALP	0.53	99	ePgd	02 23.56	-0.4
			iSg	02 31.58	
SSO	0.59	43	e(Pg)	02 25.41	0.3
			e(Sg)	02 36.26	
ARV	0.64	5	P	02 24.20	-1.7
			eSg	02 34.90	
AOI	0.87	38	e(Pg)	02 31.17	1.2
			iSg	02 47.20	

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

FEB 22, 1989 07h 09m 02.21± 0.24s
44.670 N ± 2.8km 9.958 E ± 2.1km
DEPTH = 12.2 ± 1.7 km
NORTHERN ITALY (545)
MD 3.4 (FIR), 3.5 (TRI). ML 3.3 (KBA), 3.4 (LDG).

BOB	0.38	285	P	09 11.40	1.3
			eSg	09 17.20	
MME	0.71	132	P	09 17.30	1.1
			eSg	09 28.40	
GEN	0.78	251	P	09 18.27	1.2
			S	09 29.21	
SAL	1.02	23	P	09 23.20	1.9
			eSg	09 37.80	
PII	1.03	157	P	09 22.10	0.6
			eSg	09 35.70	
MDI	1.12	351	P	09 24.30	1.3
			eSg	09 40.60	
CKI	1.22	259	P	09 25.30	0.5
			eSg	09 39.90	
FIR	1.29	133	ePn	09 29.00	3.1X
			i	09 45.00	
FIN	1.34	250	P	09 26.38	-0.2
			S	09 41.99	
VAI	1.46	325	P	09 29.20	0.9
			eSg	09 48.20	
PGD	1.50	121	P	09 29.70	0.7
ROB	1.54	257	P	09 29.36	-0.2
			S	09 47.30	
SFI	1.55	118	P	09 30.90	1.3
IMI	1.67	244	P	09 31.20	-0.2
			S	09 49.74	
ORO	1.69	305	P	09 32.10	0.3
			eSn	09 52.80	
ORX	1.70	305	P	09 32.19	0.3
			S	09 51.03	
CTI	1.82	40	P	09 33.90	0.2
			eSn	09 57.70	
SAOF	1.85	249	Pn	09 33.89	-0.2
			Sg	09 56.83	
STV	1.93	258	P	09 35.15	-0.1
			S	09 56.49	
AUTN	1.94	251	Pn	09 35.44	0.0
DOI	1.95	266	P	09 35.30	-0.1
RSP	1.98	285	P	09 36.10	0.2
			S	09 57.49	
SBF	1.98	247	Pn	09 35.40	-0.6
			Sn	09 59.10	
AURF	2.04	248	Pn	09 37.55	0.7
			Sg	10 05.09	
PZZ	2.05	266	P	09 37.50	0.5
			S	10 01.37	
TOUF	2.05	252	Pn	09 37.40	0.3
LSD	2.14	293	P	09 37.31	-1.1
			S	10 00.79	
MVIF	2.16	250	Pn	09 38.83	0.3
			Sg	10 05.39	
CVF	2.25	201	Pn	09 38.50	-1.2
RRL	2.27	277	P	09 40.16	-0.2
			S	10 05.10	
BNI	2.37	280	P	09 40.90	-0.6
CALN	2.39	249	Pn	09 41.47	-0.4
ARV	2.45	118	P	09 42.80	0.2
ASS	2.53	128	P	09 43.40	-0.3
FRF	2.63	246	Pn	09 44.80	-0.4
			Sn	10 12.00	
FVI	2.76	45	P	09 47.30	0.3
			eSn	10 19.30	
LMR	2.82	243	Pn	09 47.10	-0.8
			Sn	10 17.70	
LRG	2.86	246	Pn	09 49.50	1.1
			Sn	10 19.20	
TRI	2.88	68	ePn	09 46.70	-2.0
			e	09 55.80	
			iSn	10 21.80	
			iSg	10 35.30	
			i	10 42.10	
VOY	3.09	62	iPnd	09 51.10	-0.6
			e	10 25.40	
			eSg	10 43.90	
RBL	3.09	54	P	09 51.30	-0.5
KBA	3.38	43	ePn	09 55.00	-0.9
			i	10 09.80	
			i	10 16.10	
			i	10 30.30	
			iSn	10 36.60	
			i	10 38.60	
			iSg	10 53.20	
BSF	3.85	326	Pn	10 02.10	-0.5
			Sn	10 45.80	
HAU	4.17	324	Pn	10 06.50	-0.5
			Sn	10 51.70	
CDF	4.18	335	Pn	10 06.20	-1.0
			Sn	10 51.30	
SMF	4.72	297	Pn	10 16.10	1.2
LBF	4.78	301	Pn	10 15.90	0.2
LOR	4.98	304	Pn	10 17.90	-0.6
KHC	5.11	28	eP	10 26.20	5.9X
			e	10 54.50	
BGF	5.33	293	Pn	10 23.80	0.3
CAF	5.62	275	Pn	10 27.50	-0.1
TCF	5.68	289	Pn	10 28.10	-0.4

S.D. = 0.8 on 50 of 52 obs.

? FEB 22, 1989 07h 55m 02.38±15.24s
43.230 N ±100.km 18.825 E ±15.1km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.4 (TTG).

BRY	0.39	212	ePg	55 09.50	-0.9
			eSg	55 16.20	
NKY	0.44	163	ePg	55 11.00	-0.3
			eSg	55 18.60	
HCY	0.82	197	ePg	55 19.10	0.9
			eSg	55 31.50	
TTG	0.86	158	ePg	55 18.50	-0.5
			eSg	55 32.00	
BDV	0.95	180	ePg	55 21.00	0.6
			eSg	55 35.00	

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

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* FEB 22, 1989 08h 25m 20.62± 0.93s
9.573 S ±13.8km 117.268 E ±12.0km
DEPTH = 33.0km (normol)
4.6mb (3 obs.)
SUMBAWA ISLAND REGION (285)

KHKI	2.03	306	ePd	25 53.60	0.4
			eS	26 16.00	
MBL	11.78	168	eP	28 20.70	11.2X
	0.3s		10.00nm		
			eS	30 37.00	
KNA	12.79	120	eP	28 24.00	1.1
			eS	30 32.00	
NANU	13.02	187	iPc	28 15.60	-10.4X
	0.3s		9.00nm		
			eS	30 46.00	
MTN	13.98	105	eP	28 35.00	-3.7X
			eS	30 53.00	
MEKA	16.99	176	eP	29 18.50	1.0
			eS	32 40.00	
WARB	18.76	153	iPd	29 40.50	1.1
	0.5s		20.00nm		4.6mb
WB5	19.44	124	eP	29 46.20	-1.3
			eS	33 12.00	
WRA	19.45	124	Pd	29 46.80	-0.8
	0.5s		8.20nm		4.3mb
BAL	20.93	181	eP	30 02.50	-0.6
COOL	21.51	171	eP	30 20.40	11.5X
	0.4s		7.00nm		
			eS	34 26.00	
MUN	22.32	182	eP	30 15.00	-1.9
NWAO	23.24	180	eP	30 34.00	8.0X
FORR	23.45	156	eP	30 29.00	1.0
OIS	24.14	119	eP	30 34.00	-0.8
	0.6s		26.00nm		4.9mb
			e	31 15.00	
BRS	37.87	123	iPd	32 37.20	0.8
			i	33 13.20	

S.D. = 1.2 on 11 of 16 obs.

& FEB 22, 1989 08h 26m 27.87s
61.347 N 150.307 W
DEPTH = 46.6km
SOUTHERN ALASKA (2)
<AGS-P>. ML 3.3 (PMR). Felt (III) at Anchorage.

PWA	0.37	34	iP	26 36.90	-0.5
PMS	0.37	106	iPd	26 37.50	-0.1
PLRM	0.62	66	Pn	26 39.72	-0.7
			eS	26 49.61	
PMR	0.62	66	iPc	26 39.80	-0.6
PME	0.67	65	Pn	26 40.66	-0.6
NKA	0.76	217	iP	26 43.44	1.1
GHO	0.79	57	Pn	26 42.18	-0.7
			eS	26 53.75	
CGLM	0.82	268	iP	26 42.63	-0.7
SLKM	0.84	177	iP	26 42.89	-0.7
			eS	26 54.54	
SPU	0.86	260	iP	26 43.12	-0.7
			eS	26 55.07	

22d 08h

KNK	0.89	85	iP	26 44.02	-0.2
			eS	26 57.35	
CRP	0.90	266	iP	26 43.78	-0.6
			eS	26 56.54	
SML	1.05	63	iP	26 45.79	-0.7
			eS	27 00.30	
RDT	1.28	234	iP	26 49.00	-0.8
			eS	27 06.01	
SEW	1.32	161	eP	26 49.58	-0.5
NNL	1.40	201	eP	26 51.85	0.6
KNIM	1.61	127	eP	26 52.35	-1.9
GLI	1.63	105	iP	26 52.95	-1.6
			eS	27 13.96	
ILIM	1.82	227	iP	26 56.92	-0.4
VZW	1.84	97	eP	26 56.39	-1.2
CNPM	1.88	195	Pn	26 57.27	-0.9
			eS	27 21.85	
MTU	1.89	135	iP	26 56.74	-1.5
VLZ	1.93	95	iP	26 57.66	-1.2
FID	1.96	106	eP	26 57.25	-2.0
HIN	2.09	115	eP	26 59.85	-1.3
TOA	2.11	67	iPc	27 01.20	-0.2
KLU	2.11	84	iP	27 00.15	-1.4
CVA	2.36	108	eP	27 07.54	2.6
MCK	2.48	14	eP	27 06.20	-0.5
SVW	2.58	267	eP	27 06.50	-1.7
SGAM	2.63	107	eP	27 06.53	-2.3
RAGM	2.92	107	eP	27 13.39	0.4
TTA	3.11	303	eP	27 13.90	-1.9
GLB	3.13	85	eP	27 13.81	-2.1
HMT	3.13	106	eP	27 13.79	-2.1
FBA	3.74	17	eP	27 23.00	-1.6
KDC	3.78	198	eP	27 24.40	-0.7
IMA	4.97	344	eP	27 40.00	-2.0
DWY	5.69	57	P	27 48.00	-4.1
INK	9.96	38	eP	28 47.00	-4.1
YKA	16.72	70	P	30 20.30	0.4

41 obs. associated

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* FEB 22, 1989 08h 33m 06.18± 0.88s
43.092 N ±10.7km 41.427 E ±10.7km
DEPTH = 33.0km (normal)
4.2mb (4 obs.)
WESTERN CAUCASUS (362)

KVT	4.48	245	ePn	34 14.40	0.8
MLR	11.36	288	ePc	35 46.50	-2.7
OHR	15.44	270	e(P)	36 50.70	7.6X
KRA	16.30	303	eP	36 50.00	-4.0X
KSP	18.76	303	ePd	37 25.60	1.0
KHC	20.16	297	Pd	37 41.30	0.9
KBA	20.18	291	i(P)	37 41.00	0.3
	0.8s		6.20nm		4.0mb
			i	37 44.90	
NUR	20.18	336	eP	37 39.00	-1.4
CLL	20.89	303	eP	37 48.00	0.3
	1.1s		18.00nm		4.4mb
SUF	21.60	341	iP	37 54.60	-0.3
	0.8s		14.20nm		4.4mb
KJF	22.55	344	eP	38 04.00	-0.3
APO	24.09	326	eP	38 19.20	-0.1
	0.6s		2.60nm		3.9mb
SOD	25.61	347	iP	38 35.50	1.8
KEV	27.74	349	eP	38 39.00	-14.2X
CHG	53.78	98	eP	42 27.00	-0.8
TIC	54.57	242	P	42 33.40	-0.2
LIC	54.90	242	Pd	42 36.00	0.0
FRB	60.11	331	eP	43 12.00	-0.1
MBC	60.31	355	eP	43 14.00	0.7

S.D. = 1.1 on 16 of 19 obs.

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* FEB 22, 1989 08h 52m 49.67± 1.48s
40.005 N ±10.8km 24.351 E ± 8.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.7 (THE).

OUR	0.43	319	ePg	52 58.20	-0.3
			eSg	53 04.10	
PAIG	0.52	262	ePg	52 59.80	-0.4
			eSg	53 07.10	
PLG	0.79	298	ePb	53 05.00	0.0
SOH	1.12	317	ePb	53 11.40	0.8
THE	1.23	301	ePb	53 13.00	0.5
SRS	1.25	333	ePb	53 12.32	-0.6
			eSb	53 32.80	
LIT	1.43	274	ePb	53 16.00	0.3
RDO	1.45	38	ePb	53 16.00	0.0
GRG	1.76	303	ePb	53 20.30	-0.2
VAY	1.89	315	ePn	53 26.20	4.0X
KZN	2.00	279	ePg	53 33.00	9.0X

S.D. = 0.5 on 9 of 11 obs.

% FEB 22, 1989 09h 01m 47.31± 0.81s
40.362 N ± 7.2km 23.351 E ± 6.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 1.4 (THE).

SOH	0.46	0	ePg	01 55.90	-0.8
			eSg	02 01.80	
OUR	0.48	93	ePg	01 57.50	0.4
			eSg	02 05.10	
PAIG	0.50	150	ePg	01 57.34	-0.2
			eSg	02 06.90	
LIT	0.71	249	ePg	02 00.90	-0.4
GRG	0.93	310	ePg	02 06.10	0.9

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

% FEB 22, 1989 09h 08m 01.49± 0.61s
44.612 N ± 8.7km 9.967 E ± 9.7km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)

BOB	0.40	293	P	08 09.30	-0.4
			eSg	08 16.20	
MME	0.67	128	Pc	08 15.20	0.2
			eSg	08 25.00	
BDI	0.71	140	P	08 15.20	-0.4
			eSg	08 26.00	
PII	0.98	156	P	08 20.30	0.3
			eSg	08 33.80	
MDI	1.18	351	Pc	08 23.00	-0.5
			eSg	08 40.00	
VAI	1.51	326	P	08 29.50	0.9
			eSn	08 48.50	
CRE	1.74	124	P	08 31.80	-0.2

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

% FEB 22, 1989 09h 28m 45.04± 1.60s
11.099 N ± 8.2km 61.872 W ±26.3km
DEPTH = 27.4 ± 13.0 km
WINDWARD ISLANDS (95)

TCE	0.42	164	eP	28 53.87	-0.1
			eS	29 07.95	
TRN	0.64	134	eP	28 58.06	0.4
			eS	29 12.22	
TPP	0.88	152	eP	29 01.64	0.2
			eS	29 16.00	
TBH	1.00	128	eP	29 02.71	-0.5
			eS	29 22.48	
GRW	1.07	11	eP	29 04.28	-0.1
			eS	29 26.07	
SVB	2.24	16	eP	29 21.63	0.5
SVV	2.30	16	eP	29 21.45	-0.4
			eS	29 59.97	

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

& FEB 22, 1989 09h 28m 59.01s
39.256 N 117.401 W
DEPTH = 4.0km
NEVADA (37)
<REN>. MD 2.9 (REN).

KVN	0.58	250	eP	29 09.30	-1.3
TNP	1.18	173	eP	29 19.00	-2.8
HCR	1.27	143	eP	29 20.80	-2.5
MZP	1.55	179	eP	29 25.90	-1.8
KRNA	1.71	152	eP	29 27.90	-2.1

5 obs. associated

& FEB 22, 1989 09h 49m 44.61s
39.230 N 117.338 W
DEPTH = 0.0km
NEVADA (37)
<REN>. MD 3.5 (REN).

KVN	0.62	253	iPc	49 56.00	-1.0
TNP	1.15	175	iPc	50 05.80	-1.4
HCR	1.22	144	eP	50 06.70	-1.7
MZP	1.53	181	eP	50 12.00	-1.5
KRNA	1.67	153	eP	50 14.00	-1.4

5 obs. associated

FEB 22, 1989 10h 06m 01.92± 0.55s
42.365 N ± 4.8km 18.845 E ± 5.0km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.5 (TTG).

BDV	0.08	189	iPgc	06 03.70	-0.7
			iSg	06 05.50	
HCY	0.27	288	iPgc	06 08.00	0.4
			iSg	06 13.50	
TTG	0.31	78	iPgd	06 07.90	-0.6
			iSg	06 13.00	
NKY	0.46	14	ePg	06 11.20	-0.1
			eSg	06 19.30	
ULC	0.50	143	ePg	06 11.40	-0.7
			eSg	06 19.50	
BRY	0.58	338	ePg	06 13.70	-0.1
			eSg	06 23.10	
SDA	0.60	125	ePg	06 14.70	0.7
PUK	0.84	112	ePg	06 19.50	1.3
BCI	0.91	89	ePg	06 18.70	-0.5
LACI	0.97	138	ePg	06 20.50	0.1
PHP	1.37	119	ePn	06 29.60	2.6X
OHR	1.93	130	ePn	06 35.20	0.1

S.D. = 0.7 on 11 of 12 obs.

FEB 22, 1989 10h 25m 45.27± 0.11s
56.152 N ± 2.6km 153.642 W ± 1.8km
DEPTH = 33.0km (normal)
5.7mb (80 obs.) 5.8Msz (25 obs.)
KODIAK ISLAND REGION (13)
ML 5.8 (PMR). Ms 5.9 (BRK), 5.5 (PAS). Mo=6*10**17 Nm (PPT).
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 39C
Centroid Location:
Origin Time 10:25:48.2 0.4
Lat 55.70N 0.06 Lon 153.76W 0.06
Dep 25.0 BDY Half-duration 3.5
Moment Tensor; Scale 10**17 Nm
Mrr= 3.66 0.18 Mtt=-1.87 0.26
Mff=-1.80 0.23 Mrt= 7.98 0.47
Mrf= 4.86 0.52 Mtf=-2.81 0.21
Principal Axes:

	Val=	Plg=	Azm=
T	9.88	56	336
N	0.73	7	237
P	-10.61	33	142

Best Double Couple:Mo=1.0*10**18
NP1:Strike=208 Dip=13 Slip= 60
NP2: 58 78 97

KDC	1.72	21	iP	26 12.10	-1.2
SDN	3.96	261	eP	26 43.80	-1.3
SVW	5.08	349	iPc	26 59.30	-1.8
MID	5.10	47	eP	26 59.50	-1.9
PMS	5.53	21	ePc	27 03.50	-4.0X
PWA	5.85	18	ePc	27 08.30	-3.6X
PMR	5.94	21	ePc	27 09.00	-4.1X
TTA	6.91	351	ePc	27 24.10	-2.7
TOA	7.10	30	ePc	27 25.80	-3.7X
YKU	8.16	60	eP	27 42.30	-2.0
FBA	9.23	16	ePd	27 54.80	-4.3X
IMA	9.95	360	eP	28 04.30	-4.8X
SIT	10.14	77	eP	28 05.00	-6.5X
Z	20s		9.50um		
DWY	10.61	36	P	28 14.70	-3.2X
ADK	14.18	262	eP	29 01.60	-3.9X
INK	15.27	29	eP	29 16.00	-3.6X
	0.8s		348.00nm		5.7mb
BRW	15.27	356	eP	29 15.20	-4.5X
SMY	18.97	273	eP	30 03.70	-2.3
PGC	19.77	100	eP	30 16.00	0.9
MCW	20.09	99	eP	30 17.60	-1.0
YKA	20.64	56	P	30 23.20	-0.9
YKC	20.70	56	ePc	30 23.00	-1.7
	0.8s		110.00nm		5.3mb
GMW	20.76	101	eP	30 25.00	-0.5
RMW	21.35	101	eP	30 31.20	-0.4
PNT	21.54	94	iPd	30 33.20	-0.2
	1.0s		372.00nm		5.8mb
SHW	21.88	104	eP	30 37.50	0.5
VGB	23.10	103	eP	30 49.60	0.7
DPW	23.11	96	eP	30 49.30	0.3
EDM	23.24	80	eP	30 50.00	-0.2
	1.1s		462.00nm		5.9mb

22d 10h

MBC 23.74 20 ePc 30 55.40 0.6
0.6s 363.00nm 6.1mb
FHC 24.68 116 eP 31 04.00 -0.2
1.0s 150.00nm 5.5mb
LBFM 25.35 112 eP 31 11.80 1.0
WDC 25.58 114 iPd 31 13.50 0.8
iScP 38 21.20
SES 25.79 85 eP 31 14.00 -0.6
1.0s 294.00nm 5.8mb
LTCM 26.07 114 eP 31 17.50 0.3
MIN 26.23 113 iPd 31 19.10 0.2
iScP 38 23.30
ORV 26.88 115 iPd 31 24.20 -0.4
NWRM 27.02 118 eP 31 26.00 0.1
LRM 27.51 94 eP 31 30.10 -0.6
BKS 27.79 118 ePd 31 33.10 0.1
1.6s 225.00nm 5.6mb
Z 20s 17.00um 5.6Msz
N 20s 10.00um
E 20s 28.00um
iS 36 20.00
eLQ 37 49.95
eLR 38 27.45
eScP 38 29.20
BGMT 28.10 95 eP 31 35.20 -0.8
HPI 28.47 99 eP 31 39.40 0.0
MHC 28.50 118 iPd 31 39.20 -0.3
ARN 28.55 118 eP 31 40.00 0.1
CMB 28.60 115 eP 31 40.00 -0.3
1.5s 92.38nm 5.3mb
FFC 28.79 71 eP 31 41.50 -0.2
0.8s 12.00nm 4.6mb X
KVN 29.01 111 ePd 31 44.00 -0.1
LLA 29.42 118 iPd 31 47.70 0.1
PRS 29.43 119 iPd 31 47.60 -0.2
FRI 29.74 116 iPd 31 50.20 -0.3
iScP 38 34.40
TNP 30.19 111 eP 31 54.40 -0.3
PHAM 30.30 118 eP 31 55.30 -0.2
BCH 30.98 118 eP 32 01.80 0.3
BW06 31.05 97 eP 32 01.40 -0.8
1.0s 40.00nm 5.2mb
BLP 31.32 120 eP 32 05.20 0.8
ISA 31.40 116 eP 32 05.00 -0.2
e 38 37.00
SYP 31.56 119 eP 32 07.00 0.3
CLC 31.73 115 eP 32 08.00 -0.1
e 38 41.00
SBB 32.50 116 eP 32 14.00 -0.8
e 38 43.00
GSC 32.53 114 eP 32 15.00 -0.1
MSU 32.55 105 iP 32 15.80 0.3
MWC 32.75 117 eP 32 17.00 -0.1
PAS 32.75 117 eP 32 16.00 -0.9
ePP 33 30.00
ePcP 34 40.00
eS 37 24.00
ePcS 38 43.00
eSS 40 00.00
eLg 40 48.00
eLR 41 10.00
RVR 33.27 116 eP 32 20.00 -1.5
PEC 33.46 116 eP 32 22.90 -0.3
TPC 33.85 115 eP 32 26.00 -0.6
e 38 50.00
PLM 34.04 116 eP 32 28.00 -0.4
BAR 34.67 117 eP 32 34.00 0.4
e 38 53.00
ALE 34.92 13 iPc 32 34.50 -0.7
0.8s 204.00nm 6.1mb
HON 34.93 187 eP 32 45.00 9.2X
Z 20s 12.23um 5.6Msz
RSON 35.04 73 eP 32 36.30 -0.3
1.0s 87.50nm 5.6mb
Z 20s 21.47um 5.9Msz
GLA 35.31 114 eP 32 38.00 -1.0
GOL 35.45 97 ePd- 32 40.10 -0.4
2.0s 147.06nm 5.6mb
ipP 32 54.50 56kmX
ePP 34 04.00
iS 38 53.90
ALQ 38.28 103 ePc 33 03.00 -1.3
1.5s 69.44nm 5.3mb
Z 20s 6.29um 5.4Msz
FRB 40.22 43 eP 33 19.00 -0.7
1.0s 156.00nm 5.7mb
KUSJ 40.64 278 eP 33 21.40 -2.0

ACO 41.03 95 ePc 33 27.70 0.9
0.8s 20.80nm 4.9mb
ASAJ 41.11 281 eP 33 26.90 -0.4
HOOJ 41.89 278 eP 33 32.80 -0.9
PCO 42.25 93 e(P) 33 36.60 -0.1
GDH 42.32 31 ePd 33 35.00 -1.9
1.5s 277.78nm 5.8mb
i 35 28.00
i 39 57.00
RRO 42.37 95 eP 33 40.30 2.5
MRRJ 43.09 280 eP 33 42.50 -1.0
SIO 43.31 93 e(P) 33 45.00 -0.4
LNO 43.48 93 eP 33 45.70 -0.9
TUL 43.47 93 ePd 33 46.30 -0.4
1.2s 27.30nm 4.9mb
Z 22s 7.12um 5.5Msz
e 33 54.40
LR 49 00.00
RLO 43.72 92 eP 33 48.20 -0.5
VVO 43.92 93 e(P) 33 49.90 -0.4
DAG 44.31 14 iPc 33 52.00 -1.0
0.7s 171.23nm 6.0mb
Z 19s 8.54um 5.7Msz
i 40 45.00
AOMJ 44.74 279 eP 33 58.70 1.8
FVM 44.99 86 eP 33 57.20 -1.8
OFUJ 45.05 276 eP 33 59.00 -0.4
SCH 46.08 53 ePc 34 06.40 -1.0
0.7s 74.00nm 5.7mb
ELC 46.16 86 eP 34 07.20 -1.0
ELF 46.41 74 P 34 10.40 0.3
DLA 46.50 75 P 34 11.10 0.3
LDN 46.59 74 P 34 11.50 0.0
YAMJ 46.59 276 eP 34 11.70 0.1
GAC 47.80 68 eP 34 22.00 1.0
MDJ 47.81 290 iPc 34 20.00 -1.1
N 20s 17.10um
epP 34 27.00 23kmX
ePP 36 12.00
NIIJ 47.83 276 P 34 20.90 -0.4
KAKJ 47.92 275 P 34 21.80 -0.3
PWLA 48.47 87 eP 34 25.40 -1.0
CHJJ 48.69 275 P 34 27.70 -0.3
MAT 48.77 276 iPc+ 34 28.20 -0.5
1.4s 302.33nm 6.1mb
Z 20s 9.22um 5.8Msz
eS 41 25.00
MTMJ 48.97 277 P 34 30.20 -0.1
RSNY 49.08 68 eP 34 30.00 -1.0
Z 18s 28.39um 6.3Msz
RSCP 49.40 85 eP 34 40.00 6.4X
Z 18s 19.35um 6.1Msz
INY 49.51 72 P 34 42.00 7.8X
S 41 42.00
SS 45 40.00
LQ 50 40.00
LR 52 26.00
IIDJ 49.71 276 P 34 35.20 -0.7
GBTN 50.12 83 eP 34 37.80 -1.2
TKL 50.37 83 eP 34 40.80 -0.1
CBM 50.69 62 eP 34 42.30 -0.9
BLA 51.10 79 eP 34 45.00 -1.5
1.0s 79.00nm 5.6mb
CVL 51.61 77 eP 34 49.00 -1.3
TBR 51.63 71 eP 34 49.50 -0.9
PNJ 51.83 71 eP 34 54.60 2.7X
GMTN 51.83 71 iP 34 54.30 2.4
WKYJ 51.92 276 eP 34 52.40 -0.4
CBN 52.04 76 eP 35 04.00 10.5X
PRM 52.31 83 eP 34 55.80 0.2
LHS 52.88 82 eP 34 59.00 -0.9
SNY 52.90 292 iPc 34 59.00 -0.9
Z 22s 9.20um 5.8Msz
N 22s 16.70um
E 21s 14.50um
sP 35 18.00
PP 37 00.00
PcS 40 05.60
S 42 29.50
TKSJ 52.96 277 eP 35 00.70 0.3
SHK 53.31 279 eP 35 02.90 -0.1
AKU 53.91 21 iPc 35 07.70 0.7
1.4s 176.74nm 5.9mb
CRX 54.23 110 (P) 35 10.50 0.2
TRO 54.41 3 iP 35 10.00 -0.6
REY 54.45 24 iP 35 21.90 10.9X
SHNJ 54.48 280 eP 35 11.40 -0.2

IISM 55.80 108 (P) 35 21.00 -0.3
KUMJ 55.83 279 eP 35 21.20 -0.2
DL2 56.05 291 Pc 35 22.00 -0.9
Z 24s 7.90um 5.7MszX
N 16s 4.50um
E 16s 8.80um
S 43 10.00
SOD 56.79 360 iP 35 26.90 -1.0
KAGJ 56.81 278 eP 35 27.70 -0.8
STJ 57.44 52 eP 35 31.00 -1.7
OXX 57.72 109 eP 35 35.30 0.1
BJI 58.02 295 eP 35 35.00 -1.8
5.0s 0.82nm 3.0mb X
Z 16s 13.20um 6.1MszX
N 15s 9.50um
E 16s 7.00um
eS 43 38.00
HHC 59.70 299 iPc 35 48.00 -0.7
Z 18s 23.90um 6.4Msz
N 13s 7.80um
E 15s 8.80um
pP 35 55.00 23kmX
PP 37 54.00
KJF 59.98 359 eP 35 40.00 -10.1X
0.8s 85.10nm
i 35 49.20
eS 44 12.00
TIA 60.43 292 Pc 35 52.60 -1.0
Z 15s 8.30um 6.0MszX
N 23s 11.80um
E 21s 8.50um
S 44 08.00
RGS 60.52 8 iP 35 53.00 -0.8
BTO 60.65 300 iPc 35 54.50 -0.7
N 14s 9.20um
E 14s 15.90um
pP 36 07.50 46kmX
S 44 13.00
sS 44 30.50
SUF 61.47 0 iP 35 59.80 -0.5
0.7s 33.70nm 5.6mb
TIY 61.68 296 P 36 01.00 -1.2
1.2s 0.10nm 2.8mb X
N 15s 14.80um
pP 36 07.00 20kmX
sP 36 12.00
PP 38 25.00
S 44 27.00
sS 44 42.50
SSE 62.20 285 P+ 36 05.70 0.1
1.1s 116.00nm 5.9mb
Z 20s 3.30um 5.5Msz
N 16s 2.40um
E 13s 3.90um
epP 36 12.00 21kmX
PP 38 24.00
S 44 34.00
sS 44 52.00
NB2 62.54 8 P 36 06.40 -1.2
0.8s 75.30nm 5.9mb
NJ2 62.72 287 Pc 36 08.00 -1.0
N 14s 5.80um
E 15s 2.60um
pP 36 15.00 23kmX
S 44 34.00
NRA0 62.87 8 P 36 08.30 -1.3
GUMO 63.05 253 eP 36 06.00 -5.4X
PJG 63.05 253 eP 36 05.70 -5.7X
GUA 63.07 253 eP 36 05.20 -6.3X
Z 22s 5.19um 5.7Msz
HFS 63.63 7 eP 36 13.30 -1.3
0.7s 71.10nm 5.9mb
Z 18s 4.30um 5.7Msz
LR 00 55.00
NUR 63.68 1 iP 36 14.60 -0.3
1.0s 156.00nm 6.1mb
Z 20s 4.20um 5.6Msz
eS 45 00.00
LR 09 10.00
UPP 64.13 5 iP 36 11.60 -6.3X
ELO 65.12 18 ePd 36 24.00 -0.4
1.1s 102.00nm 5.8mb
EAB 65.28 18 ePd 36 25.30 -0.1
1.0s 152.00nm 6.0mb
EBH 65.37 18 ePd 36 25.80 -0.2
EBL 65.90 18 eP 36 29.40 0.0
WHN 66.29 290 Pc 36 31.50 -0.7

22d 10h

		1.0s	0.02nm		2.2mb X	MOX		72.87	10 iPc	37 12.00	-0.2	SRO		76.19	6 iP	37 32.20	0.9
	Z	16s	5.99um		5.9MszX			1.2s	150.00nm	5.9mb		SOP		76.21	7 eP	37 32.30	0.8
	N	16s	4.09um						e	37 20.00		AGO		76.31	16 P	37 32.25	0.1
	E	16s	6.36um						eS	46 40.00		PLDF		76.47	16 P	37 33.11	0.1
			pP	36 38.50	22kmX				eSS	52 05.00		BUD		76.55	5 eP	37 33.20	-0.2
			eS	45 10.00					eSSS	55 20.00		KBA		76.56	9 iPc	37 33.90	0.2
EKA		66.30	18 P	36 32.00	0.0				eLQ	57 15.00				0.9s	154.00nm	6.0mb	
		0.8s	49.50nm	5.7mb		HKC		72.97	285 iPd	37 14.20	1.1				i	37 41.50	
ESK		66.31	18 iPd	36 20.00	-12.0X				S	46 47.00					i	40 21.20	
		1.0s	80.00nm			KSP		73.05	7 ePc	37 13.00	-0.2				e(S)	47 16.00	
XAN		66.32	296 Pc	36 32.20	-0.2			0.9s	76.00nm	5.7mb		PYM		76.59	17 P	37 33.44	-0.3
	N	14s	12.90um						id	37 13.90		KMI		76.67	295 Pc+	37 43.00	8.3X
	E	14s	6.30um			FLN		73.08	18 eP	37 12.90	-0.6		Z	18s	13.00um	6.3Msz	
			S	45 22.00				1.3s	129.90nm	5.8mb			N	23s	10.80um		
GTA		66.38	306 iPc	36 31.80	-1.1	WLF		73.22	14 iPc	37 14.50	0.3		E	23s	15.20um		
		6.0s	1.20nm	3.2mb X		LDF		73.31	18 eP	37 14.20	-0.6				sP	37 48.00	
	Z	16s	26.50um	6.5MszX				1.2s	83.30nm	5.6mb					PP	40 27.00	
	N	15s	18.20um			GRR		73.38	19 iPc	37 15.00	-0.2				S	47 20.00	
	E	15s	18.00um					1.1s	75.20nm	5.6mb					sS	47 34.00	
			pP	36 38.50	21kmX	MCO		73.44	285 eP	37 16.80	0.8				SS	52 22.00	
			S	45 20.00		PPT		73.51	176 iP+	37 19.70	3.5X	KMI		76.67	295 Pc	37 34.00	-0.7
			sS	45 38.00				1.3s	140.00nm	5.8mb			Z	18s	13.00um	6.3Msz	
ANP		66.65	281 eP	36 40.00	5.3X		Z	18s	10.00um	6.1Msz			N	23s	10.80um		
MUD		66.88	10 iPd	36 36.10	0.5	GYA		73.57	293 iPc	37 16.60	-0.2		E	23s	15.20um		
		0.8s	61.00nm	5.8mb			Z	28s	3.40um	5.5MszX					pP	37 42.00	26kmX
LZH		67.18	301 eP	36 37.00	-1.1		N	20s	3.50um						sP	37 48.00	
		4.0s	1208.00nm	6.3mb X			E	20s	3.80um						PP	40 27.00	
	Z	18s	16.90um	6.3Msz					pP	37 23.00	21kmX				S	47 20.00	
	N	14s	11.10um						S	46 47.00					sS	47 34.00	
			S	45 32.00					sS	46 57.00					SS	52 22.00	
WMQ		67.82	317 iPc	36 42.00	0.2	LPF		73.69	19 eP	37 16.80	-0.2	RJF		76.77	18 eP	37 34.30	-0.4
		4.0s	1.20nm	3.3mb X				1.1s	97.60nm	5.7mb				0.9s	75.30nm	5.7mb	
	Z	16s	24.00um	6.5MszX		TVO		73.74	176 iP	37 21.20	3.6X	LFF		76.99	18 iPc	37 36.10	0.2
	N	14s	6.30um					1.3s	195.00nm	5.9mb		FVI		76.99	10 P	37 35.60	-0.2
	E	15s	14.00um			UPA		73.75	98 e(P)	37 19.80	2.0	LBL		77.13	17 P	37 36.58	0.0
			S	45 41.50			Z	20s	3.28um	5.6Msz		RBL		77.22	9 P	37 36.60	-0.6
ETA		68.25	21 iPd	36 44.50	0.3	PRU		73.77	8 Pc	37 17.50	0.1	CAF		77.23	17 iPc	37 37.50	0.2
		1.0s	301.00nm	6.3mb				1.0s	53.50nm	5.5mb				0.9s	54.00nm	5.6mb	
YRH		68.42	20 iPd	36 45.10	-0.2		Z	16s	3.60um	5.8MszX		VAI		77.28	12 P	37 37.90	0.5
		0.9s	82.00nm	5.8mb			N	16s	4.10um			LPO		77.32	18 iPc	37 37.70	0.0
QZH		68.45	283 eP	36 45.50	-0.3		E	16s	3.80um					0.8s	88.60nm	5.8mb	
		6.0s	1.60nm	3.3mb X					e	38 21.20		LPG		77.39	14 eP	37 39.30	0.9
	Z	16s	2.50um	5.5MszX		GRF		73.78	10 ePc	37 17.40	-0.1			1.0s	56.00nm	5.5mb	
	E	14s	3.60um					1.1s	111.00nm	5.8mb		ORX		77.42	13 P	37 38.46	0.1
			PP	39 19.00			Z	22s	3.00um	5.5Msz		CTI		77.42	10 P	37 38.30	-0.1
			S	45 46.00		KRA		74.03	4 eP	37 19.20	0.3	CJR1		77.43	2 eP	37 47.00	8.8X
ECB		68.45	21 eP	36 44.80	-0.7			0.9s	70.00nm	5.7mb		LSD		77.48	14 P	37 40.16	1.3
		0.9s	127.00nm	6.0mb			Z	20s	4.40um	5.7Msz		VOY		77.65	9 eP	37 38.60	-1.0
ECP		68.71	21 eP	36 43.80	-3.2X		N	20s	4.70um			LJU		77.69	8 eP	37 39.00	-0.7
		1.0s	169.00nm	6.1mb					e	37 26.10		SAL		77.74	11 P	37 39.80	-0.1
WIT		70.20	13 eP	36 57.50	1.4				eS	47 09.00		RSP		77.79	14 P	37 41.72	1.3
			e	37 08.00		GWF		74.08	13 P	37 19.09	-0.2	BNI		77.81	14 P	37 42.30	1.7
WTS		71.02	13 iPc	37 01.30	0.2	BAG		74.20	276 eP	37 19.00	-1.6	PTJ		77.94	7 eP	37 40.60	-0.6
		0.8s	82.00nm	5.8mb					eS	46 50.00		RRL		77.96	14 P	37 43.42	1.9
			i	37 08.60		WET		74.47	9 eP	37 21.90	0.3	TRI		77.96	9 iPd	37 41.00	-0.1
TPT		71.04	174 iP	37 04.90	3.3X	KHC		74.55	9 iPc	37 22.50	0.5				i	38 48.50	
		1.3s	115.00nm	5.8mb				1.0s	5.00nm	4.5mb X		QIZ		77.96	286 Pd	37 42.80	1.2
PMO		71.04	174 iP	37 05.10	3.5X				e	37 45.20			E	18s	4.90um		
		1.3s	145.00nm	5.9mb		CDF		74.59	13 P	37 21.93	-0.4				eS	47 28.00	
RUV		71.26	174 iP	37 06.10	3.2X	VITF		74.62	14 P	37 21.87	-0.4				ScS	47 54.00	
		1.3s	165.00nm	5.9mb		HAU		74.87	14 iPc	37 23.80	-0.1	CEY		77.99	9 ePc	37 40.50	-0.9
VAH		71.29	174 iP	37 06.40	3.3X			0.9s	68.70nm	5.7mb		VBY		78.29	8 ePc	37 43.00	0.0
		1.3s	125.00nm	5.8mb		SPC		74.91	4 e(P)	37 24.70	0.4	TIM		78.39	4 eP	37 42.10	-1.4
CD2		71.42	298 P	37 04.00	0.0	BSF		75.10	14 P	37 24.72	-0.6	LSA		78.39	307 Pc	37 45.20	0.8
	Z	15s	10.10um	6.2MszX		MOF		75.13	13 P	37 25.11	-0.3		N	16s	13.50um		
	N	13s	7.80um			FEL		75.21	13 P	37 25.46	-0.5		E	15s	9.30um		
			pP	37 12.00	26kmX	MFF		75.23	19 iPc	37 25.80	-0.1				S	47 40.00	
			S	46 23.00				0.8s	73.60nm	5.7mb		PZZ		78.41	14 P	37 44.64	0.8
			sS	46 42.00		LOR		75.24	16 eP	37 25.90	-0.1	DOI		78.43	14 P	37 43.80	-0.1
UCC		71.87	14 P	37 09.00	2.8X			0.9s	87.00nm	5.8mb		BOB		78.45	12 P	37 44.80	0.8
ENN		72.11	13 iPc	37 08.00	0.3	QCP		75.36	274 eP	37 21.00	-6.1X	TOV		78.52	90 eP	37 44.70	-0.1
		1.1s	191.00nm	6.0mb		SSF		75.39	16 eP	37 26.80	0.0	CKI		78.64	13 P	37 44.90	0.0
SNF		72.14	15 Pd	37 08.40	0.5	LBF		75.53	16 iPc	37 27.30	-0.4	PTO		78.65	26 eP	37 45.30	0.3
MEM		72.27	13 Pc	37 08.80	0.1	LOMF		75.58	14 P	37 27.90	-0.1				eS	47 26.00	
CLL		72.34	9 iPc	37 09.20	0.2	VKA		75.62	7 i(P)	37 27.90	-0.2	STV		78.69	14 P	37 45.09	-0.3
		1.7s	115.00nm	5.6mb		AVF		75.63	16 iPc	37 27.70	-0.5	ROB		78.72	13 P	37 45.39	-0.1
	Z	17s	4.50um	5.8MszX		KMR		75.66	8 eP	37 27.00	-1.4	MLR		78.73	0 ePc	37 46.50	0.9
DOU		72.59	14 Pc	37 10.50	0.0				i	37 31.80		GEN		78.73	13 P	37 44.23	-1.1
		0.8s	81.70nm	5.8mb		BGF		75.78	16 eP	37 28.80	-0.2	EPF		78.77	19 iPc	37 45.40	-0.3
GZH		72.78	286 Pc	37 11.70	-0.4	LSF		75.86	17 eP	37 29.30	-0.2			0.9s	34.30nm	5.4mb	
	Z	14s	4.80um	5.9MszX		KSH		75.88	323 P	37 31.00	1.1	FIN		78.84	13 P	37 45.92	-0.2
	N	14s	5.20um				Z	15s	34.90um	6.8MszX		TOUF		78.91	14 P	37 47.09	0.4
	E	14s	2.10um				N	13s	24.10um			AUTN		78.95	14 P	37 47.37	0.4
			eS	46 38.50					PP	40 26.00		SAOF		78.98	14 P	37 46.85	0.0
BRG		72.85	8 iPc	37 12.00	-0.1	MAF		76.06	17 iPc	37 30.50	-0.2	MVIF		79.01	14 P	37 47.13	-0.1
		1.0s	70.00nm	5.6mb				0.9s	54.00nm	5.5mb		DAV		79.02	266 eP	37 47.00	-0.4
			i	37 22.20		PSZ		76.16	4 eP	37 31.60	0.3	CFR		79.02	359 eP	37 47.00	0.0

AURF	79.05	14	P	37	47.48	0.2
SBF	79.08	14	eP	37	47.60	0.1
IMI	79.10	13	P	37	47.66	0.1
MME	79.16	11	P	37	47.70	-0.4
FRF	79.27	14	eP	37	48.60	0.2
	0.8s	42.90nm			5.5mb	
BDI	79.27	11	P	37	47.60	-0.9
BEO	79.28	4	eP	37	48.50	0.1
LRG	79.34	15	eP	37	49.30	0.6
	1.1s	97.60nm			5.7mb	
LMR	79.48	15	iPc	37	50.10	0.6
	0.8s	33.30nm			5.4mb	
CAR	79.53	87	eP	38	02.00	11.6X
PGD	79.58	11	P	37	51.20	0.9
PII	79.60	12	P	37	49.40	-0.7
RSM	79.60	10	P	37	51.50	1.4
FIR	79.63	11	eP	37	52.00	1.7
ETER	79.92	17	eP	37	52.50	0.6
AOI	80.09	9	eP	37	53.62	0.8
GUD	80.16	23	eP	37	53.80	0.4
EPLA	80.28	25	eP	37	55.00	1.1
BOG	80.37	96	eP	38	06.00	10.9X
			eS	47	57.00	
CIO	80.40	10	eP	37	54.75	0.2
ETOR	80.44	21	e(P)	37	55.00	0.2
ASS	80.47	10	P	37	54.90	0.0
RKT	80.53	163	iP	38	04.40	9.2X
	1.4s	110.00nm			5.7mb	
CVF	80.54	13	iPc	37	55.60	0.3
	0.7s	19.80nm			5.2mb	
HVAR	80.69	7	iP	37	56.10	0.2
ALP	80.85	9	eP	37	57.55	0.6
TOL	80.91	23	iPc	37	58.00	0.8
	0.6s	40.00nm			5.6mb	
			iS	48	03.00	
			eSS	53	18.00	
			eSSS	56	42.00	
AQU	81.25	10	P	37	59.60	0.6
PSO	81.40	101	eP	38	05.00	4.4X
SHL	81.59	304	iP	38	00.00	-1.2
			iS	48	18.00	
TTG	81.61	5	eP	38	01.00	0.3
AZI	81.62	10	P	38	00.40	-0.4
BCI	81.71	5	eP	38	01.70	0.4
ECHE	81.84	21	eP	38	03.00	0.9
SDI	81.93	9	P	38	00.30	-2.3
PUK	82.02	5	eP	38	04.40	1.5
SDA	82.03	5	eP	38	02.60	-0.3
DUI	82.04	9	P	38	04.00	0.9
SKO	82.16	4	iPc	38	04.30	0.6
	1.0s	133.00nm			5.9mb	
	Z 18s	2.60um			5.6Msz	
	N 18s	2.88um				
	E 18s	2.99um				
			iPcP	38	11.30	
			iS	48	26.00	
			LR	20	04.00	
RFI	82.35	9	P	38	07.82	3.2X
DMK	82.39	359	eP	38	05.00	0.1
ESEL	82.39	18	eP	38	06.00	1.1
PHP	82.40	4	iPd	38	05.60	0.7
LACI	82.42	5	iP	38	05.50	0.5
EVIA	82.44	22	eP	38	06.30	1.0
EVAL	82.48	26	eP	38	06.00	0.6
EHOR	82.61	25	eP	38	07.00	0.9
EBAN	82.62	24	eP	38	07.50	1.4
KKN	82.62	310	Pd	38	07.80	1.2
GKN	82.71	311	Pd	38	07.90	0.9
TIR	82.72	5	eP	38	06.70	0.2
PKI	82.76	310	Pd	38	08.30	0.9
KVT	82.79	353	iP	38	08.30	1.3
VAY	82.84	3	iP	38	07.60	0.4
	1.0s	0.05nm			2.6mb X	
DMN	82.85	310	Pd	38	09.10	1.3
OHR	82.99	4	iPc	38	00.85	-7.2X
	1.1s	0.23nm			3.2mb X	
			iPcP	38	16.20	
			eS	48	26.20	
ACU	83.00	21	eP	38	09.00	0.9
KNT	83.01	3	eP	38	08.50	0.4
RDO	83.07	1	iPc	38	09.00	0.6
SRS	83.07	2	eP	38	08.40	0.0
ISK	83.13	358	eP	38	09.00	0.3
GRG	83.20	3	eP	38	09.40	0.3
AAPN	83.36	24	iPd	38	11.50	1.4
BERA	83.36	5	eP	38	10.20	0.3
SOH	83.36	2	eP	38	09.60	-0.4

ASMO	83.40	24	iPd	38	11.70	1.4
EALH	83.42	22	eP	38	12.00	1.8
EPRU	83.43	25	e(P)	38	12.00	1.7
LIJA	83.45	25	iP	38	12.50	2.0
AFC	83.54	24	eP	38	12.00	0.9
ALOJ	83.55	24	iPd	38	13.00	1.9
CRT	83.59	24	iPd	38	13.50	2.3
LOE	83.60	292	eP	38	10.80	-0.6
ACHM	83.62	24	eP	38	12.00	0.6
MGR	83.64	8	P	38	10.90	-0.4
MAIO	83.69	334	iPc+	38	12.80	1.1
	1.3s	47.39nm			5.5mb	
			eS	47	36.00	
CGL	83.76	13	P	38	12.76	0.7
ATEJ	83.76	24	iPd	38	13.50	1.3
TPE	83.77	5	eP	38	11.00	-1.0
APHE	83.80	24	iPd	38	14.00	1.6
CNIL	83.80	26	iP	38	14.00	1.8
PLG	83.81	2	eP	38	13.00	0.8
KZN	83.83	4	eP	38	13.00	0.6
MAL	83.85	24	iPc	38	13.50	1.1
			iS	48	40.00	
			iSS	53	48.00	
CHG	83.86	295	iPc	38	12.50	-0.3
	1.1s	91.77nm			5.8mb	
			eS	48	56.00	
OUR	83.86	2	eP	38	08.00	-4.4X
EJIF	83.86	25	eP	38	14.00	1.5
LSK	83.94	4	eP	38	14.10	1.1
LIT	84.06	3	eP	38	13.10	-0.4
TDS	84.18	8	P	38	14.60	0.5
OJEN	84.18	25	iP	38	17.00	2.8X
BBTK	84.22	355	iPc+	38	15.50	1.1
			i	38	26.00	
PAIG	84.26	2	eP	38	13.20	-1.2
DST	84.59	358	eP	38	16.20	0.0
TAB	84.62	344	eP+	38	18.00	1.5
NEO	84.87	2	eP	38	18.00	0.4
DZM	84.92	217	iPc	38	20.30	2.4
GRI	85.02	8	P	38	18.62	0.3
NDI	85.10	317	iPc	38	19.00	0.1
	0.8s	104.48nm			6.1mb	
BDT	85.14	294	iPd	38	19.00	-0.1
	1.0s	11.00nm			5.0mb	
LPI	85.23	9	P	38	19.62	0.2
IZM	85.81	359	eP	38	22.30	0.0
KHL	85.85	358	eP	38	20.50	-2.1
NST	85.88	292	eP	38	24.00	1.2
VLS	85.91	5	eP	38	23.00	0.2
ATH	86.22	2	eP	38	24.00	-0.2
			eS	49	00.00	
MSL	86.73	346	ePd	38	22.50	-4.3X
ITM	86.96	4	eP	38	28.00	0.1
SLY	87.16	344	eP	38	29.00	0.1
			iPP	41	53.00	
			eS	48	55.00	
ELL	87.41	357	eP	38	29.00	-1.3
IKL	87.76	354	iP	38	32.30	0.5
KAP	88.66	359	eP	38	36.00	-0.1
NNT	88.67	291	iPd	38	37.70	1.3
VAM	88.78	2	eP	38	37.00	0.3
NPS	88.94	1	eP	38	38.00	0.5
BHD	89.61	345	eP	38	42.00	1.4
			ePP	42	13.00	
			ePSP	43	23.00	
			eS	49	28.00	
BHL	89.95	352	Pc	38	42.00	-0.4
			SKS	49	08.00	
CTA	91.19	235	iPd	38	49.90	2.0
	1.2s	56.25nm			5.8mb	
			iS	49	48.00	
MTN	92.52	251	eP	38	55.00	0.9
SNG	92.74	287	eP	38	49.00	-6.3X
			eS	48	16.60	
HYB	94.64	311	ePc	39	03.80	-0.3
	1.0s	70.00nm			6.0mb	
QIS	94.72	240	eP	39	04.00	-0.2
BRS	94.81	226	eP	39	18.00	13.6X
			eSKS	50	06.00	
POO	95.56	315	eP	39	08.50	0.2
BOM	95.64	316	eP	39	05.00	-3.6X
			eS	50	21.00	
RMQ	95.68	230	eP	39	18.00	9.6X
WB5	96.74	244	eP	39	14.00	0.6
WRA	96.80	244	Pd	39	12.90	-0.8
	1.3s	8.20nm			5.1mb	
PSI	97.40	286	ePd	39	16.50	0.0

GBA	98.52	310	P	39	21.40	-0.2
SNZO	100.73	204	ePdiff	39	48.00	17.1X
			PP	43	52.00	
			SKS	50	10.00	
			iSKS	51	26.00	
			PS	52	44.00	
ZOBO	100.88	103	Pdiff	39	33.00	0.1
	Z 20s	3.13um			5.8Msz	
			LR	29	40.00	
LPB	101.11	103	ePdiff	39	42.00	8.3X
CNCB	101.40	103	ePdiff	39	40.00	4.8X
BNG	119.28	9	ePKPd	44	31.90	-0.7
	0.5s	3.00nm				
			ic	45	51.10	
LWI	126.21	357	iPKPc	44	47.60	1.4
KMZ	137.39	1	iPKP	45	10.00	2.7X
			i	47	52.00	
AVY	139.50	328	iPKPc	45	12.82	1.7
BUL	144.01	356	iPKPd	45	16.60	-2.3
			iPP	48	34.20	
SPA	145.97	180	iPKPc	45	21.80	1.0
	1.0s	65.00nm				
			i	46	00.00	
SLR	149.58	357	iPKPd	45	28.20	0.4
	0.9s	105.04nm				
	Z 20s	7.09um			6.5Msz	
KSR	149.74	359	ePKP	45	30.50	2.4X
	1.1s	54.05nm				
			i	46	30.50	
PRY	150.79	358	ePKP	45	28.50	-1.2
	0.8s	40.63nm				
			i	45	41.70	
SWZ	151.04	2	iPKPc	45	34.00	4.0X
	1.0s	160.00nm				
SEK	152.17	358	ePKP	45	31.50	-0.2
	1.0s	90.00nm				
			i	45	40.00	
KIM	152.59	3	iPKPc	45	39.50	7.3X
	1.0s	60.00nm				
FRS	153.60	2	iPKPd	45	42.00	8.6X
	0.7s	37.67nm				

S.D. = 0.9 on 373 of 429 obs.

FEB 22, 1989 11h 01m 06.60± 0.65s
43.429 N ± 5.3km 12.968 E ± 6.5km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

ARV	0.07	345	Pc	01	08.70	-0.3
			eSg	01	11.20	
CIO	0.27	151	ePgd	01	12.08	-0.2
			iSg	01	17.01	
ASS	0.42	212	P	01	15.20	0.0
AOI	0.48	75	iPg	01	16.35	0.1
			iSg	01	24.95	
RSM	0.62	323	P	01	19.40	0.3
ALP	0.79	145	e(Pg)	01	22.20	0.2
			eSg	01	34.89	

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

% FEB 22, 1989 11h 09m 44.24± 0.67s
60.632 N ± 5.5km 6.237 E ± 8.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.2 (BER).

HYA	0.54	357	iP	09	54.63	-0.5
			eS	10	04.69	
ODD1	0.75	165	iP	09	58.39	-0.5
			eS	10	06.84	
SUE	0.84	301	eP	10	00.69	0.3
			eS	10	12.40	
BLS1	1.28	166	iP	10	08.02	0.0
			iS	10	24.81	
KMY	1.51	200	eP	10	11.53	0.2
			iS	10	31.24	
NRA0	2.61	85	eP	10	27.70	0.5
			ePg	10	30.70	
			iS	11	04.40	

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

FEB 22, 1989 11h 56m 18.04± 0.49s
40.992 N ± 5.5km 141.969 E ± 8.6km
DEPTH = 71.3 ± 5.5 km
4.8mb (8 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (III JMA) ot Hachinohe.

22d 11h

HAC	0.57	216	P	56	31.00	-0.8
			iS	56	39.70	
AOMJ	1.29	251	iPd	56	40.80	0.2
			eS	56	57.90	
MRRJ	1.58	335	P	56	44.10	-0.4
			S	57	03.60	
HOOJ	1.70	35	iPd	56	47.20	1.0
			S	57	09.20	
OFUJ	1.92	187	iPd	56	48.90	-0.3
			S	57	12.70	
KUSJ	2.93	43	iPd	57	02.20	-1.0
			S	57	34.70	
ASAJ	3.16	9	P	57	07.00	0.5
			eS	57	45.90	
YAMJ	3.19	209	P	57	08.20	1.4
NIIJ	4.40	213	P	57	24.00	0.2
KAKJ	4.98	197	P	57	30.10	-1.9
			eS	58	25.30	
MAT	5.33	215	iPd	57	38.00	1.2
	0.9s	18.49nm			4.4mb	
			(S)	58	51.00	
CHJJ	5.46	206	eP	57	39.70	1.0
MTMJ	5.47	218	P	57	42.20	3.3X
BJI	19.62	276	eP	00	41.00	-2.2
CHTO	42.81	252	eP	04	11.00	0.6
	0.8s	2.75nm			4.1mb	
KKN	47.83	273	P	04	51.20	0.6
	0.7s	35.00nm			5.4mb	
PKI	47.84	272	P	04	51.00	0.1
	0.5s	10.00nm			5.0mb	
DMN	48.05	272	P	04	52.90	0.5
GKN	48.20	273	P	04	53.70	0.2
	0.6s	25.00nm			5.4mb	
INK	50.69	29	eP	05	12.00	0.3
MBC	52.62	17	eP	05	27.00	0.8
WB5	60.97	188	eP	06	24.90	-1.1
SOD	61.50	337	eP	06	29.00	-0.2
KJF	63.16	333	eP	06	28.00	-12.2X
SUF	64.66	333	iP	06	49.50	-0.5
	0.4s	6.20nm			4.9mb	
NUR	66.68	331	iP	07	02.30	-0.6
HFS	70.67	335	eP	07	26.90	-0.7
	0.4s	4.70nm			4.8mb	
NB2	70.71	337	P	07	27.40	-0.5
	0.9s	7.00nm			4.6mb	
KHC	79.40	328	eP	08	19.40	1.8
	S.D. = 1.0	on	27 of	29	obs.	

FEB 22, 1989 12h 32m 06.73± 1.33s
51.249 N ±11.8km 15.746 E ± 7.5km
DEPTH = 10.0km (geophysicist)
POLAND (548)
ML 4.4 (GRF), 4.1 (VKA), 3.7 (KBA).

KSP	0.53	139	iPd	32	15.90	-1.6
	0.4s	142.00nm				
			iS	32	25.00	
			iLR	32	30.50	
BRG	1.20	252	iPn	32	30.00	1.0
			iPg	32	31.20	
			iSg	32	49.50	
PRU	1.48	212	Pn	32	34.40	1.0
			Pg	32	36.40	
			Sn	32	53.00	
			Sg	32	59.00	
CLL	1.72	273	iPn	32	35.80	-1.1
			iPg	32	38.60	
			iSg	33	05.00	
KHC	2.54	214	iPn	32	49.40	0.8
			iPg	32	56.00	
			Sn	33	24.50	
			Sg	33	35.50	
MOX	2.68	259	ePn	32	51.00	0.3
			iPg	32	59.00	
			iSg	33	39.00	
WET	2.80	222	iPnc	32	53.40	1.0
KRA	2.92	112	eP	32	56.20	2.1
			eS	33	33.00	
VKA	3.01	173	iPgc	33	03.50	8.2X
	0.5s	187.00nm				
			iSg	33	48.80	
ZST	3.18	163	i(Pn)	33	05.50	7.8X
			i(Sg)	33	51.50	
GRF	3.28	243	ePn	32	58.10	-1.1
			i	32	59.80	
SOP	3.61	171	eP	33	03.00	-0.8
KBA	4.46	202	iPnc	33	16.40	0.3
			i(Pg)	33	35.30	
			i	34	20.10	
			iSg	34	37.20	
RBL	5.02	197	P	33	23.60	-0.3
			eSn	34	52.70	
FVI	5.05	204	P	33	24.30	0.0
			eSn	34	49.10	
LJU	5.27	189	eP	33	27.50	0.0
			e(Sn)	34	41.20	
PTJ	5.36	178	eP	33	26.90	-1.8
VOY	5.36	194	e(Pn)	33	31.10	2.3
			e	33	49.50	
			e(Sn)	34	55.00	
TRI	5.70	194	eP	33	21.00	-12.4X
			e	35	14.50	
			e	35	22.50	
VBY	5.76	183	e(Pn)	33	33.40	-0.9
MEM	6.19	268	P	33	39.90	-0.4
DOU	7.18	265	P	33	53.50	-0.8
LIC	48.09	208	P	40	57.70	9.3X
	S.D. = 1.2	on	19 of	23	obs.	

FEB 22, 1989 12h 44m 12.19± 0.57s
32.397 S ± 5.8km 68.954 W ± 7.5km
DEPTH = 55.5 ± 6.7 km
4.8mb (10 obs.)
MENDOZA PROVINCE, ARGENTINA (139)
Felt (III) in Mendoza Province.
Felt (III) at San Juan.

MDZ	0.49	170	iP	44	23.30	-0.6
			iS	44	33.40	
ZON	0.88	16	iPc	44	27.00	-1.7
RTCB	0.92	8	iPc	44	28.10	-1.1
CFA	0.99	38	iPd	44	31.20	1.0
RTLL	1.14	21	i(P)	44	28.90	-3.3X
FCH	1.46	230	iP	44	36.00	-0.9
SAN	1.78	233	iPc	44	41.40	0.3
			iS	45	03.50	
PCH	1.79	227	iPd	44	42.20	0.9
ROCH	1.83	251	iPd	44	41.50	-0.4
TACH	2.08	233	iP	44	46.10	0.7
			iS	45	13.00	
CHCH	2.09	222	eP	44	46.50	1.0
			iS	45	15.00	
RTRS	2.26	349	iPd	44	50.00	2.2
			S	45	19.00	
LCCH	2.45	243	iPd	44	50.00	-0.4
			iS	45	19.20	
LNV	2.58	232	iP	44	51.50	-0.8
			iS	45	22.20	
HJA	9.67	20	ePc	46	36.80	5.5X
			S	46	41.70	
CCH	15.16	10	eP	47	48.00	3.3X
CNCB	15.54	3	iPc	47	50.70	0.8
LPB	15.81	3	P	47	52.00	-1.2
	1.0s	80.00nm			4.8mb	
ARE	16.03	351	eP	47	58.00	2.2
ZOBO	16.07	3	P	47	56.40	-0.2
VAO	21.57	70	eP	48	59.10	0.2
BRAS	22.90	70	iPd	49	10.00	-2.3
BMA	23.97	72	eP	49	24.10	1.6
BAO	25.32	54	eP	49	29.20	-6.3X
SPA	57.78	180	e(P)	54	00.50	0.7
	1.0s	14.50nm			5.0mb	
			i	54	10.90	
LIC	71.81	70	P	55	31.50	0.4
TIC	72.06	70	P	55	33.00	0.3
KIC	72.11	70	P	55	33.30	0.3
	0.8s	27.00nm			5.2mb	
FVM	72.82	342	eP	55	35.80	-0.8
	0.8s	11.36nm			4.9mb	
ALQ	75.68	329	eP	55	52.00	-1.5
	1.0s	4.50nm			4.4mb	
FRS	77.97	118	iPd	56	07.80	1.6
	0.4s	8.47nm			5.1mb	
SWZ	79.28	115	iPd	56	13.00	-0.6
	0.6s	7.33nm			4.8mb	
GOL	79.28	332	eP	56	11.80	-1.5
	0.9s	4.55nm			4.4mb	
SEK	80.43	117	eP	56	18.00	-1.8
PRY	81.05	116	eP	56	16.50	-6.5X
KSR	81.16	115	eP	56	15.00	-8.7X
BW06	83.56	331	eP	56	35.50	-0.1
	1.0s	2.50nm			4.2mb	
KVN	84.47	324	eP	56	40.50	0.3
BNG	90.24	85	ePd	57	10.10	1.6
	0.4s	3.00nm			5.0mb	
GBA	144.06	114	PKPd	03	41.50	-2.2
	0.7s	2.70nm				
HYB	147.13	109	ePKPc	03	52.00	3.2X
	1.0s	25.00nm				
			e	04	03.00	
PSI	148.33	156	ePKP	03	53.00	2.2
	S.D. = 1.3	on	35 of	42	obs.	

? FEB 22, 1989 13h 24m 58.00± 1.57s
42.548 N ± 6.8km 12.614 E ±17.6km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

MNS	0.17	163	Pc	25	01.90	0.0
			eSg	25	04.10	
ASS	0.52	4	Pc	25	08.70	0.1
			eSg	25	17.80	
ALP	0.75	72	e(Pg)	25	12.81	0.1
			iSg	25	23.65	
CIO	0.75	31	ePgd	25	12.65	-0.2
			iSg	25	24.48	
	S.D. = 0.2	on	4 of	4	obs.	

• FEB 22, 1989 14h 52m 45.85± 1.03s
51.165 N ±16.6km 176.059 W ±10.6km
DEPTH = 33.0km (normal)
4.8mb (3 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)

ADK	0.82	332	iPc	53	01.60	0.7
IMA	18.77	29	eP	57	04.00	-0.3
FBA	20.08	36	eP	57	18.00	-0.9
EDM	37.41	62	eP	59	58.00	0.9
KVN	41.62	84	P	00	45.00	12.6X
BW06	44.72	74	eP	00	58.00	0.3
	0.8s	4.24nm			4.4mb	
FRB	52.30	32	eP	01	54.00	-1.8X
KKN	73.96	294	P	04	20.40	0.5
	0.6s	7.00nm			4.8mb	
PKI	74.05	294	P	04	23.60	3.1X
	0.6s	7.00nm			4.8mb	
GKN	74.17	295	P	04	19.90	-1.1
DMN	74.20	294	P	04	21.20	-0.1
	S.D. = 0.9	on	8 of	11	obs.	

? FEB 22, 1989 15h 02m 26.65± 6.81s
44.140 N ±44.1km 2.336 E ±29.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.7 (LDG).

CAF	0.81	346	Pg	02	42.20	-0.2
			Sg	02	50.10	
LPO	0.99	304	Pg	02	44.60	-0.8
			Sg	02	54.80	
RJF	1.30	334	Pg	02	51.60	0.8
			Sg	03	05.60	
LFF	1.39	306	Pg	02	52.80	0.7
			Sg	03	08.10	
MAF	2.09	4	Pg	03	06.80	4.7X
			Sg	03	31.80	
TCF	2.15	358	Pn	03	02.80	-0.3
			Pg	03	07.10	
			Sg	03	32.50	
LSF	2.19	345	Pg	03	06.80	3.2X
			Sg	03	32.40	
BGF	2.44	8	Pg	03	14.20	7.0X
			Sg	03	43.00	
	S.D. = 1.0	on	5 of	8	obs.	

? FEB 22, 1989 15h 17m 10.20± 2.08s
10.949 N ±11.6km 61.883 W ±29.8km
DEPTH = 33.0km (normal)
TRINIDAD (98)

TCE	0.28	153	eP	17	18.26	0.5
			eS	17	28.02	
TRN	0.56	122	eP	17	22.34	0.7
			eS	17	35.12	
TPP	0.76	146	eP	17	23.69	-0.7
			eS	17	39.29	
TBH	0.93	120	eP	17	26.39	-0.5
			eS	17	46.75	
GRW	1.22	10	eP	17	31.10	0.0
	S.D. = 0.9	on	5 of	5	obs.	

* FEB 22, 1989 15h 31m 26.72± 0.77s
27.450 N ±15.7km 57.662 E ± 8.4km
DEPTH = 33.0km (normal)
4.2mb (4 obs.)
SOUTHERN IRAN (353)

DHR	6.81	262	eP	33	09.00	2.0
OUE	8.59	69	eP	33	31.00	-1.0
			e(S)	35	56.00	
MAIO	8.96	10	eP	33	34.00	-2.9
			eS	35	25.00	
RYD	10.30	257	eP	33	54.00	-1.4
			eS	35	45.00	
KER	11.38	310	e(P)	34	10.00	-0.1
OASM	12.70	267	eP	34	25.00	-2.8
KMSA	13.95	242	eP	34	40.50	-3.8
JVI	19.88	288	eP	36	01.00	2.9
PRNI	20.05	284	eP	36	02.00	2.1
MBH	20.13	282	eP	36	02.50	1.8
HYB	21.71	113	eP	36	17.00	0.0
GBA	23.03	123	Pd	36	36.80	6.8X
	1.0s		7.60nm			4.1mb
KKN	24.46	83	P	36	44.80	0.7
	0.7s		16.00nm			4.7mb
PKI	24.59	83	P	36	46.00	0.5
KHC	40.09	315	Pd	39	01.10	0.4
HFS	44.18	330	eP	39	34.70	0.8
	0.5s		2.00nm			4.2mb
FRB	79.79	339	eP	43	32.00	-0.7
WB5	87.86	114	eP	44	15.30	0.9
WRA	87.87	114	Pc	44	15.20	0.7
	0.7s		1.10nm			4.3mb
YKA	90.16	356	P	44	31.70	7.1X

S.D. = 1.9 on 18 of 20 obs.

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* FEB 22, 1989 15h 42m 39.19± 1.16s
34.701 N ±13.5km 25.921 E ± 9.1km
DEPTH = 10.0km (geophysicist)
CRETE (370)
MD 4.0 (ATH).

NPS	0.61	336	ePb	42	50.60	-1.0
KAP	1.33	50	ePb	43	04.50	0.7
VAM	1.58	297	ePb	43	08.00	0.7
ITM	4.08	309	ePn	43	43.00	0.1
MBH	9.04	120	eP	44	52.00	-0.6

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

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* FEB 22, 1989 16h 00m 15.55± 1.73s
14.621 N ±21.6km 93.950 W ± 7.8km
DEPTH = 48.5 ± 9.4 km
4.6mb (3 obs.)
NEAR COAST OF CHIAPAS, MEXICO (69)

TPX	1.66	80	eP	00	42.50	-0.2
SCX	2.45	31	iP	00	53.80	-0.1
			iS	01	21.20	
OXX	3.62	313	iP	01	11.00	0.2
			iS	01	44.50	
IISM	5.44	323	iP	01	37.00	0.8
			iS	02	35.80	
IIT	6.05	317	(P)	01	52.00	7.0X
ACX	6.11	292	eP	01	45.20	-0.5
III	6.48	306	eP	01	53.50	2.5X
IIC	7.20	316	(P)	02	33.20	31.9X
CRX	7.26	312	(P)	02	35.00	33.0X
YKC	49.96	348	eP	09	05.50	-1.0
	0.8s		8.00nm			4.8mb
YKA	50.00	348	P	09	06.80	0.0
FRB	52.15	14	eP	09	18.00	-5.1X
MBC	63.07	353	eP	10	39.00	-0.8
DAG	72.47	14	eP	11	38.00	-0.5
NB2	84.50	28	P	12	45.40	1.0
	1.1s		6.60nm			4.6mb
APO	85.92	28	eP	12	52.50	1.0
	0.5s		0.80nm			4.2mb

S.D. = 0.8 on 11 of 16 obs.

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* FEB 22, 1989 19h 04m 36.22± 0.84s
25.991 N ± 6.1km 98.941 E ± 5.5km
DEPTH = 46.0 ± 9.9 km
4.7mb (6 obs.)
BURMA-CHINA BORDER REGION (297)

KMI	3.54	103	Pnc	05	31.50	1.2
			Pg	05	39.50	
			Sn	06	11.00	
			Sg	06	28.50	
SHL	6.38	268	eP	06	09.10	-1.1
			eS	08	08.00	
CD2	6.48	40	Pn	06	13.00	1.5
			Sg	08	01.20	
GYA	6.95	84	Pn	06	17.40	-0.8
CHG	7.14	180	eP	06	20.90	0.1
LSA	7.82	300	Pn	06	29.90	-0.8
BDT	8.70	180	eP	07	16.50	34.1X
LOE	8.93	163	eP	07	18.00	32.5X
LZH	10.90	21	eP	07	14.50	1.8
XAN	11.79	45	P	07	21.00	-3.6X
PKI	12.19	280	P	07	26.40	-3.9X
KKN	12.32	281	P	07	27.80	-4.1X
	0.8s		33.00nm			5.4mb
GKN	12.91	282	P	07	35.20	-4.4X
	0.7s		17.00nm			5.1mb
WHN	14.31	68	eP	07	56.00	-1.9
TIY	16.35	41	eP	08	22.80	-1.3
BTO	17.24	30	eP	08	34.00	-1.3
NDI	19.48	283	eP	09	03.00	0.7
WMO	20.00	336	eP	09	08.00	0.2
BJI	20.08	41	eP	09	09.50	1.0
HYB	20.75	250	eP	09	16.00	0.3
PSI	23.16	180	e(P)	09	41.00	1.4
MAIO	35.08	297	eP	11	30.00	2.9X
WB5	57.12	139	eP	14	19.70	-0.9
WRA	57.15	140	Pc	14	20.30	-0.6
	0.8s		4.70nm			4.6mb
KJF	58.76	331	iP	14	32.00	0.4
SUF	59.37	329	iP	14	36.50	0.7
	0.6s		4.10nm			4.7mb
SOD	59.49	335	eP	14	37.00	0.4
HFS	65.50	327	eP	15	16.10	-0.5
	0.5s		1.40nm			4.3mb
NB2	66.54	328	P	15	22.60	-0.7
	0.9s		4.00nm			4.5mb
MBC	75.28	9	eP	16	16.00	0.4
INK	78.42	18	eP	16	33.00	-0.2

S.D. = 1.1 on 24 of 31 obs.

% FEB 22, 1989 20h 34m 15.11± 0.66s
39.305 N ± 5.8km 28.943 E ± 6.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.39	321	iPg	34	22.30	-0.8
			eSg	34	30.30	
ALT	0.94	105	iPg	34	33.90	0.8
			eSg	34	45.60	
KCT	1.05	335	iPn	34	34.80	0.0
KHL	1.08	155	iPg	34	34.20	-1.3
			iSg	34	47.20	
YLV	1.30	15	iPn	34	38.80	-0.5
EDC	1.33	322	ePn	34	39.00	-0.7
GPA	1.44	47	ePn	34	41.00	-0.3
IZM	1.59	236	iPn	34	44.50	1.0
HRT	1.61	20	ePn	34	44.00	0.3
CTT	1.88	348	ePn	34	49.00	1.4

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

FEB 22, 1989 21h 17m 03.10± 1.50s
5.522 S ± 7.5km 131.468 E ± 9.4km
DEPTH = 48.2 ± 15.1 km
4.7mb (7 obs.)
BANDA SEA (280)

AAI	3.74	299	ePd	18	01.60	1.8
			eS	18	46.50	
MTN	7.29	183	iPd	18	49.40	-0.3
			eS	20	05.00	
KNA	10.50	194	eP	19	32.20	-1.8
	0.3s		125.00nm			6.5mb X
			iS	21	24.90	
MNDI	12.14	94	eP	19	54.50	-1.9
WB5	14.55	169	iPc	20	23.20	-4.6X
WRA	14.61	169	Pc	20	23.70	-4.9X
	0.5s		19.20nm			4.8mb
OIS	16.91	153	iPc	20	54.50	-3.5X
			e	20	57.00	
			eS	23	52.00	
MBL	19.21	215	eP	21	26.00	-0.1
	0.4s		10.00nm			4.4mb
CTA	20.40	137	iPc	21	40.30	1.5
	1.0s		33.00nm			4.6mb
WARB	21.06	192	eP	21	38.00	-7.5X
NANU	22.89	221	iPd	22	05.50	1.8
	0.5s		22.00nm			4.8mb
FORR	25.39	187	eP	22	28.00	0.3
	0.5s		136.00nm			5.7mb X
MRWA	27.74	210	eP	22	48.50	-0.8
STK	27.88	161	eP	22	52.00	1.5
BRS	29.74	139	iPc	23	07.40	0.1
BWA	32.77	154	eP	23	38.00	4.2X
PSI	33.51	283	eP	23	38.00	-2.5
CAN	33.78	154	eP	23	44.50	1.9
LOE	37.17	308	iPc	24	11.80	0.2
SSE	37.71	346	eP	24	16.00	0.1
BDT	39.25	306	eP	24	29.00	0.1
CHG	40.15	308	ePc	24	37.60	1.2
	0.6s		8.33nm			4.7mb
MAT	42.32	8	eP	24	52.00	-1.9
	1.0s		10.00nm			4.5mb
XAN	44.75	333	P	25	14.00	0.2
TIY	46.52	339	Pc	25	28.20	0.4
BJI	47.48	344	eP	25	35.50	0.3
LZH	48.83	330	eP	25	50.00	4.1X
GTA	53.42	330	eP	26	21.70	1.2
KOD	56.01	286	eP	26	39.50	-0.5
GBA	56.90	290	Pd	26	44.40	-1.6
	0.7s		4.60nm			4.6mb
HYB	57.00	295	ePc	26	45.50	-1.3
WMO	62.98	326	eP	27	28.00	0.7
MAIO	78.90	308	eP	29	05.00	1.6
AVY	82.32	252	eP	29	19.56	-2.3
CNCB	150.64	139	PKP	36	56.40	9.0X
ZOBO	150.94	138	PKP	37	00.00	12.2X

S.D. = 1.4 on 28 of 36 obs.

? FEB 22, 1989 21h 17m 41.33± 0.89s
40.277 N ±10.7km 28.915 E ± 9.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YLV	0.45	50	iPg	17	50.80	0.2
			iSg	17	56.80	
DST	0.71	198	iPg	17	55.30	0.0
			eSg	18	07.30	
HRT	0.79	46	ePg	17	56.50	-0.2
EDC	0.81	275	ePg	17	57.00	0.0

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

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* FEB 22, 1989 21h 24m 14.35± 1.02s
28.755 N ±11.4km 139.197 E ±13.2km
DEPTH = 455.7 ± 15.2 km
4.3mb (5 obs.)
BONIN ISLANDS REGION (212)

CHJJ	7.27	359	P	26	03.40	0.2
			S	27	28.20	
KAKJ	7.47	6	P	26	05.40	0.0
			S	27	31.60	
MAT	7.81	354	iPd	26	09.10	0.0
	0.6s		6.67nm			4.1mb
			eS	27	38.00	
NIIJ	8.46	359	P	26	15.90	-0.3
PKI	47.09	282	P	32	05.60	-0.1
	0.4s		4.00nm			4.2mb
KKN	47.15	282	P	32	06.20	0.2
	0.5s		9.00nm			4.5mb
DMN	47.34	282	P	32	07.50	0.0
	0.5s		11.00nm			4.5mb
GKN	47.65	283	P	32	09.70	0.0
WB5	48.57	186	iPd	32	16.80	0.3
WRA	48.64	186	Pd	32	16.70	-0.3
	0.4s		2.10nm			3.9mb
YKA	71.93	28	P	34	51.40	0.0

S.D. = 0.2 on 11 of 11 obs.

FEB 22, 1989 21h 24m 33.51± 0.74s
43.401 N ± 4.6km 5.428 E ± 5.6km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.7 (STR).

GELF	0.02	181	Pg	24	35.33	-0.1
BERF	0.21	115	Pg	24	38.78	0.6
TREF	0.23	352	Pg	24	37.94	-0.4
PUYF	0.24	56	Pg	24	37.83	-0.8
PRAF	0.44	335	Pg	24	42.90	0.3
VILF	0.50	25	Pg	24	42.95	-0.7
TAVF	0.51	65	Pg	24	43.25	-0.5
GANF	0.69	30	Pg	24	47.52	0.3

22d 21h

CALN	1.12	71	Pg	24	55.12	0.5
MVIF	1.35	68	Pn	24	58.57	0.2
TOUF	1.45	65	Pn	25	00.26	0.2
AURF	1.46	70	Pn	25	00.21	0.2
			Sg	25	20.65	
AUTN	1.57	67	Pn	25	02.42	0.8
			Sg	25	23.27	
SAOF	1.65	69	Pn	25	02.66	0.0
DOI	1.71	49	P	25	04.50	0.9
			eSn	25	26.20	
CVF	2.66	107	Pn	25	15.62	-1.6

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

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* FEB 23, 1989 00h 25m 44.27± 0.58s
15.975 N ±13.9km 93.913 W ± 9.5km
DEPTH = 113.9 ± 10.8 km
NEAR COAST OF CHIAPAS, MEXICO (69)

SCX	1.44	58	iP	26	11.30	0.3
TPX	1.92	124	iP	26	17.30	0.5
SBG	1.98	115	iP+	26	17.60	-0.4
KKG	2.06	119	iPd	26	18.30	-0.6
OC2	2.18	130	eP+	26	19.50	-0.7
JAT	2.75	127	iP+	26	27.80	0.1
OXX	2.91	293	iPc	26	30.30	0.2
			iS	27	01.80	
LHG	3.04	120	iP	26	31.30	-0.4
MRL	4.17	102	eP	26	46.90	-0.2
MYT	4.18	117	eP	26	49.00	1.7
IISM	4.46	313	iP	26	49.30	-1.6
			iS	27	36.00	
IIT	5.17	306	eP	27	02.50	1.5
YKA	48.70	347	P	34	18.70	0.1
MBC	61.74	353	eP	35	52.00	-0.4

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

& FEB 23, 1989 00h 43m 55.70s
35.212 N 95.862 W
DEPTH = 5.0km (geophysicist)
OKLAHOMA (499)
<TUL>. MD 1.4 (TUL).

VVO	0.16	39	iPg	43	39.30	-19.7
			eSg	44	02.50	
SIO	0.65	326	(Pg)	44	05.00	-3.6
			(Sg)	44	16.30	
TUL	0.70	5	(Pg)	44	09.50	-0.2
			eSg	44	19.00	
LNO	0.70	5	iPg	44	05.30	-4.4
			eSg	44	18.40	
RLO	1.17	35	(Pg)	44	16.10	-1.9
			eSg	44	33.00	

5 obs. associated

FEB 23, 1989 01h 31m 29.91± 0.80s
34.034 N ± 7.2km 26.139 E ± 5.3km
DEPTH = 59.6 ± 12.5 km
3.6mb (1 obs.)
CRETE (370)
MD 4.2 (ATH).

NPS	1.30	341	ePn	31	52.50	0.3
KAP	1.74	29	ePb	31	59.40	1.2
VAM	2.10	311	ePn	32	07.00	3.7X
KSL	3.51	53	ePn	32	23.50	0.3
ELL	4.10	48	iP	32	32.00	0.4
IZM	4.45	11	eP	32	36.10	-0.3
ITM	4.65	314	ePn	32	40.50	1.3
BCK	4.98	45	iP	32	43.90	0.0
KHL	5.08	32	eP	32	41.00	-4.4X
DST	5.91	19	eP	32	57.00	0.1
FAM	6.56	79	eP	32	58.00	-8.0X
IKL	6.56	68	iP	33	05.50	-0.5
DOR	7.63	107	eP	33	20.70	-0.1
			eS	34	39.70	
VAY	7.80	340	ePn	33	21.60	-1.6
BBTK	7.85	41	eP	33	24.00	0.0
JVI	8.02	103	eP	33	26.00	-0.2
			eS	34	50.00	
OHR	8.24	331	ePn	33	29.50	0.3
SALJ	8.27	102	P	33	28.30	-1.4
8URJ	8.27	100	P	33	29.30	-0.5
KFNJ	8.30	102	P	33	31.00	0.9
PRNI	8.36	114	eP	33	31.00	0.1
			eS	34	58.00	
MASJ	8.38	103	P	33	31.70	0.5
SKO	8.75	336	ePn	33	46.00	9.8X
MEU	9.63	292	P	33	49.00	0.6
			eSn	35	23.50	
TDS	9.65	308	P	33	47.30	-1.3
MGR	10.42	309	P	33	55.30	-3.8X
KBA	16.23	327	eP	35	28.00	12.5X
KHC	17.73	332	eP	35	46.10	12.0X
KSP	18.27	340	eP	35	39.00	-1.7
MEM	22.15	324	P	36	32.30	10.5X
HFS	27.36	346	eP	37	11.80	0.8
	0.5s		0.90nm			3.6mb
FRB	62.04	330	eP	41	47.00	1.0

S.D. = 0.9 on 24 of 32 obs.

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* FEB 23, 1989 01h 48m 32.21± 0.49s
30.258 S ±14.5km 177.724 W ± 8.5km
DEPTH = 33.0km (normal)
4.7mb (4 obs.)
KERMADEC ISLANDS (178)
Felt (III) on Raoul Island.

RAO	1.02	350	iP	48	50.00	-0.2
DZM	16.37	296	iPd	52	33.10	11.9X
BRS	25.97	269	iPc	54	04.40	0.7
			i	54	06.90	
			i	54	13.00	
			i	54	24.00	
			iScP	00	11.00	
CAN	28.35	251	eP	54	36.00	10.8X
CTA	34.01	279	iPd	55	16.20	0.9
	0.5s		14.79nm			5.2mb
WRA	44.33	272	Pc	56	40.10	-1.0
	0.5s		4.30nm			4.5mb
WB5	44.33	272	eP	56	40.70	-0.5
SYP	84.35	45	eP	01	03.00	0.5
BCH	84.74	44	P	01	05.50	1.2
PRS	84.76	42	eP	01	04.80	0.5
PLM	85.51	47	eP	01	09.00	0.6
RVR	85.61	46	eP	01	07.00	-1.6
SBB	85.78	46	eP	01	09.00	-0.5
ISA	86.03	45	eP	01	11.00	0.3
FRI	86.18	43	eP	01	11.20	-0.1
CMB	86.50	42	eP	01	12.50	-0.4
TPC	86.51	47	eP	01	14.00	0.9
GLA	86.62	48	eP	01	14.00	0.3
CLC	86.67	45	eP	01	14.00	0.2
GSC	86.82	46	eP	01	15.00	0.4
WDC	87.05	39	eP	01	15.00	-0.5
TNP	88.38	43	P	01	22.90	0.7
	0.7s		4.44nm			4.9mb
KVN	88.50	42	P	01	22.80	0.0
ALQ	93.30	51	eP	01	45.00	-0.1
	0.9s		1.89nm			4.5mb
BW06	95.88	43	P	01	55.70	-1.1
MBC	112.22	13	ePKP	07	03.00	-2.0
FRB	125.13	31	ePKP	07	29.00	-1.0
SUF	144.05	341	iPKP	08	01.30	-4.0X
	0.4s		2.10nm			
NUR	146.26	340	iPKP	08	08.10	-1.0
	0.7s		44.00nm			
NB2	148.65	352	PKP	08	14.80	1.8
	0.8s		10.30nm			
HFS	149.15	349	ePKP	08	14.70	1.0
	0.5s		3.20nm			
BNG	150.07	214	iPKPc	08	22.70	6.2X
	0.3s		10.00nm			
KIC	155.33	163	PKP	08	52.40	28.5X
CLL	157.50	342	e(PKP)	08	57.00	31.3X
BRG	157.63	340	e(PKP)	08	58.10	32.3X
KHC	159.29	339	ePKP	09	05.60	37.8X

S.D. = 0.9 on 28 of 36 obs.

? FEB 23, 1989 02h 09m 02.79± 4.53s
7.921 S ±35.2km 129.309 E ±19.3km
DEPTH = 145.2 ± 26.7 km
4.7mb (2 obs.)
BANDA SEA (280)

MTN	5.21	160	eP	10	22.00	2.2
			eS	11	08.00	
KNA	7.80	184	iPc	10	55.00	0.2
	0.3s		49.00nm			5.7mb X
			eS	12	22.00	
WB5	12.86	158	eP	12	00.10	-1.4
			eS	14	21.00	
WRA	12.91	158	Pc	12	00.40	-1.7
	0.5s		8.50nm			4.5mb
MBL	16.03	214	eP	12	40.50	-0.9
			eS	15	31.00	
QIS	16.03	143	eP	12	41.00	-0.5
			e	12	43.00	
			eS	15	36.00	
PMG	17.70	96	eP	13	01.50	-0.3
WARB	18.34	188	iPd	13	00.30	-8.6X
			eS	16	13.00	
CTA	20.38	128	eP	13	31.00	0.9
FORR	22.84	183	iPd	13	55.20	1.1
	0.4s		26.00nm			5.0mb
BRS	29.47	134	iPd	14	54.00	-1.3
			i	15	04.40	
			i	15	47.40	
			eS	18	21.00	
			e	22	11.00	
BWA	31.70	149	eP	15	15.70	0.9
CAN	32.70	149	eP	15	24.20	0.8

S.D. = 1.4 on 12 of 13 obs.

? FEB 23, 1989 02h 43m 36.45± 2.08s
15.747 S ±94.7km 177.798 W ±54.9km
DEPTH = 459.2 ± 19.0 km
4.0mb (2 obs.)
FIJI ISLANDS REGION (181)

SGE	4.49	245	iP	44	57.70	0.3
WB5	45.61	257	eP	51	16.20	0.2
WRA	45.63	257	Pc	51	14.80	-1.3
	0.4s		2.30nm			4.0mb
FORR	51.45	243	iPc	51	59.90	0.1
WARB	52.58	249	eP	51	59.50	-8.7X
ALQ	84.30	51	eP	55	19.00	-1.2
	0.8s		2.43nm			4.0mb
YKA	92.13	25	P	55	56.20	0.0
PRU	144.41	346	PKPc	02	20.50	-0.2
KHC	145.43	347	ePKP	02	24.60	2.1
FLN	147.00	3	ePKP	02	27.50	2.6X
LDF	147.19	3	ePKP	02	27.90	2.6X
GRR	147.35	4	ePKP	02	28.60	3.1X
LOR	148.54	358	ePKP	02	32.10	4.6X
SSF	148.76	358	ePKP	02	32.60	4.8X
LBF	148.82	358	ePKP	02	32.70	4.7X
BGF	149.28	359	ePKP	02	33.90	5.3X
MAF	149.62	359	ePKP	02	34.90	5.8X
LPG	150.10	354	ePKP	02	37.00	6.7X
CAF	150.91	0	ePKP	02	38.10	6.9X
LPO	151.14	2	ePKP	02	38.30	6.8X

S.D. = 1.4 on 8 of 20 obs.

FEB 23, 1989 03h 05m 38.79± 0.76s
3.076 N ± 5.8km 78.591 W ± 6.5km
DEPTH = 18.7 ± 4.6 km
4.9mb (28 obs.)
SOUTH OF PANAMA (83)

ANCC	1.78	76	iPc	06	08.70	-0.2
SALC	1.90	93	iPc	06	10.06	-0.7
HOQC	1.99	79	iPc	06	11.80	-0.4
CLMC	2.18	68	iPc	06	14.00	-0.8
PSO	2.26	146	iPd	06	17.00	0.8
PURC	2.35	109	iPc	06	17.60	0.0
DIAC	2.40	85	iPc	06	18.40	0.4
HOBC	2.76	63	iPc	06	22.05	-1.0
BOG	4.77	71	eP	06	54.00	2.2
			PS	08	46.00	
UPA	5.94	351	e(P)	07	07.10	-0.9
BMG	6.78	54	eP	07	24.00	4.1X
TPP	18.47	66	eP	09	57.20	1.6
TRN	18.64	65	eP	09	56.86	-0.8
SVB	19.91	58	eP	10	10.31	-2.1
SLB	20.36	57	eP	10	15.02	-2.2
ARE	20.64	160	eP	10	21.20	0.8
BIM	20.69	56	eP	10	22.80	2.2
FDF	20.74	55	eP	10	21.36	0.3
MVM	20.85	56	eP	10	19.80	-2.5
ZOBO	21.83	152	Pc	10	31.30	-1.5
	0.8s		21.63nm			4.6mb
Z	24s		0.48um			3.8MszX
			LR	18	30.00	
LPB	22.07	152	P	10	35.00	0.0
	1.0s		40.00nm			4.8mb
Z	16s		0.34um			3.9MszX
			SS	17	43.00	
			LR	19	24.00	
CNCB	22.37	152	P	10	37.70	-0.4
CCH	23.75	149	P	10	53.00	1.6
JSC	31.14	356	P	11	59.60	1.0

BAO	35.53	122	eP	12 32.00	-5.1X
FVM	36.39	344	P	12 43.00	-1.0
	0.6s	11.05nm		4.9mb	
VAO	40.29	132	eP	13 13.80	-3.0X
ALQ	40.92	324	eP	13 23.30	1.3
	0.9s	7.98nm		4.4mb	
BW06	48.20	329	P	14 21.80	1.4
RSON	49.29	347	P	14 26.80	-1.6
	0.5s	8.59nm		5.0mb	
TNP	49.58	320	P	14 32.30	1.2
KVN	50.70	320	P	14 40.00	0.4
BGMT	51.21	330	eP	14 44.40	1.0
			e	14 51.40	
LRM	51.83	330	eP	14 48.70	0.5
FFC	54.89	344	eP	15 09.00	-1.4
	0.6s	3.00nm		4.5mb	
FRB	60.98	5	eP	15 50.00	-2.9X
YKC	64.97	343	eP	16 18.00	-1.4
	0.6s	5.00nm		4.8mb	
YKA	65.02	342	P	16 18.80	-0.9
TIC	73.34	84	Pc	17 10.28	-1.6
	0.8s	28.00nm		5.3mb	
LIC	73.34	84	P	17 10.50	-1.4
	0.7s	28.00nm		5.4mb	
KIC	73.62	84	Pc	17 12.24	-1.3
	0.7s	30.00nm		5.4mb	
INK	74.76	342	eP	17 18.00	-1.1
MBC	76.54	351	eP	17 28.00	-1.1
	0.8s	9.00nm		4.9mb	
KOGH	78.10	84	eP	17 38.00	-0.9
LEGH	78.18	85	eP	17 38.50	-0.8
GRR	79.56	41	eP	17 46.30	0.1
EPF	79.82	47	iPc	17 48.30	0.5
MFF	79.83	43	eP	17 47.90	0.2
	0.7s	5.20nm		4.6mb	
FLN	79.86	41	iPc	17 47.90	0.1
	0.8s	11.80nm		4.9mb	
LDF	80.07	41	iPc	17 49.00	0.1
	0.8s	18.80nm		5.1mb	
LFF	80.28	45	iPc	17 50.50	0.4
	0.7s	4.40nm		4.6mb	
LPO	80.57	45	eP	17 51.80	0.1
	0.7s	7.40nm		4.8mb	
RJF	80.86	45	eP	17 53.30	0.1
TCF	81.42	44	iPc	17 56.10	-0.1
	0.7s	4.80nm		4.6mb	
MAF	81.67	44	eP	17 57.40	0.0
	0.8s	9.90nm		4.9mb	
AVF	82.25	43	eP	18 00.20	-0.2
SSF	82.37	43	eP	18 00.90	-0.1
SMF	82.57	44	iPc	18 02.30	0.2
	0.7s	4.80nm		4.7mb	
LOR	82.62	43	iPc	18 02.30	-0.1
	0.7s	4.80nm		4.7mb	
DOU	83.28	40	P	18 06.60	1.0
	0.7s	16.70nm		5.3mb	
ENN	84.16	39	eP	18 11.00	1.0
	0.7s	15.00nm		5.3mb	
LRG	84.23	47	eP	18 11.30	0.7
WLF	84.26	41	P	18 11.60	1.0
LMR	84.34	47	eP	18 11.70	0.6
FRF	84.44	47	eP	18 12.20	0.5
	0.8s	9.10nm		5.1mb	
LPG	84.55	45	eP	18 13.80	1.2
BSF	84.63	42	eP	18 12.50	-0.2
	0.7s	5.20nm		4.9mb	
WTS	84.76	38	eP	18 14.00	1.0
	0.7s	13.00nm		5.3mb	
SBF	85.02	46	iPc	18 15.00	0.4
	0.7s	13.20nm		5.3mb	
CVF	86.07	48	eP	18 20.30	0.5
	0.7s	5.20nm		4.8mb	
GRF	87.56	41	eP	18 28.00	1.1
MOX	87.78	40	eP	18 29.00	1.1
CLL	88.62	39	e(P)	18 32.00	0.1
KBA	89.09	43	e(P)	18 36.00	1.5
	0.7s	2.00nm		4.5mb	
KHC	89.12	41	iPd	18 36.30	1.9
RBL	89.28	44	P	18 35.20	-0.1
BZS	94.95	44	eP	19 03.00	1.7
WRA	143.76	240	PKPd	25 12.80	-2.6
	1.1s	4.20nm			
WB5	143.76	240	ePKP	25 12.60	-2.8
			e	25 20.70	
HYB	149.62	47	ePKP	25 29.00	4.0X
SHL	150.07	17	iPKP	25 29.50	3.8X
GBA	151.01	55	PKP	25 32.00	5.0X

S.D. = 1.2 on 75 of 82 obs.

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* FEB 23, 1989 03h 34m 53.39± 0.72s
11.202 N ±11.8km 141.792 E ±11.2km
DEPTH = 33.0km (normal)
4.0mb (1 obs.) 4.4Msz (1 obs.)
WEST CAROLINE ISLANDS (209)

PJG	3.83	51	eP	35 52.30	0.9
GUA	3.83	52	eP	35 51.30	-0.2
			eS	36 33.10	
PMG	21.16	165	e(P)	39 40.00	1.8
KNA	29.72	206	eP	40 57.00	-2.0
WB5	31.74	193	eP	41 22.80	6.0X
WRA	31.81	193	Pc	41 21.20	3.8X
	0.8s	2.00nm		4.0mb	
BJI	36.59	326	eP	41 57.00	-1.2
TIY	37.27	320	Pd	42 04.40	0.3
Z	20s	0.60um		4.4Msz	
WARB	39.98	201	eP	42 23.00	-3.8X
CD2	40.28	305	P	42 30.20	0.9
BTO	40.51	322	eP	42 32.00	0.9
GTA	46.60	315	P	43 21.00	0.6
WMQ	56.66	315	iPc	44 37.00	1.0
INK	77.70	22	eP	46 46.00	-2.1
MBC	81.30	14	eP	47 06.00	-1.4
YKA	86.34	27	P	47 33.70	0.5
LPB	150.52	104	ePKP	54 56.00	16.8X
ZOBO	150.52	103	ePKP	54 49.00	9.6X
CNCB	150.60	104	PKP	54 50.00	10.5X

S.D. = 1.4 on 13 of 19 obs.

& FEB 23, 1989 05h 33m 17.89s
60.035 N 152.766 W
DEPTH = 96.8km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.11	295	iP	33 31.23	1.1
			eS	33 41.95	
RDT	0.57	18	iP	33 33.57	-0.6
			eS	33 45.98	
HOM	0.68	123	eP	33 34.71	-0.3
AUL	0.74	208	eP	33 35.20	-0.4
NNL	0.74	89	eP	33 35.84	0.2
AUE	0.74	205	eP	33 34.90	-0.7
AUI	0.78	206	eP	33 35.08	-0.9
			eS	33 48.25	
CNPM	0.93	123	iP	33 36.75	-0.8
			eS	33 52.08	
BRLK	0.99	105	eP	33 37.60	-0.6
			eS	33 52.69	
NKA	1.04	46	iP	33 39.81	1.0
			eS	33 58.48	
SPU	1.20	17	iP	33 39.99	-0.8
			eS	33 57.76	
CRP	1.27	13	iP	33 41.11	-0.6
			eS	33 59.74	
CGLM	1.33	16	iP	33 41.65	-0.7
SLKM	1.35	68	eP	33 41.13	-1.5
			eS	33 59.70	
SEW	1.66	86	eP	33 44.69	-1.7
			eS	34 04.92	
SVW	1.77	309	iP	33 46.50	-1.4
PMS	1.99	51	iP	33 49.49	-1.3
			eS	34 13.67	
PLRM	2.37	47	eP	33 53.42	-2.3
PME	2.43	47	eP	33 54.54	-2.0
KNK	2.53	55	iP	33 55.42	-2.5
			eS	34 25.12	
KNIM	2.53	81	iP	33 54.69	-3.3
GHO	2.56	45	iP	33 56.12	-2.3
MTU	2.57	89	eP	33 56.54	-1.9
			eS	34 26.45	
SML	2.80	49	iP	33 59.09	-2.6
GLI	2.93	71	eP	33 59.16	-4.3
HIN	3.15	81	eP	34 04.49	-1.9
FID	3.20	74	eP	34 04.38	-2.7
VZW	3.24	69	eP	34 04.47	-3.2
KLU	3.66	64	iP	34 10.28	-3.2
TOA	3.82	54	eP	34 13.31	-2.3
WAX	4.96	81	eP	34 28.60	-2.8

31 obs. associated

FEB 23, 1989 05h 51m 11.42± 0.14s
14.771 S ± 4.4km 167.300 E ± 3.5km
DEPTH = 155.2km (11 depth phases)

5.4mb (44 obs.)
VANUATU ISLANDS (186)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 24C
Centroid Location:
Origin Time 05:51:15.9 0.7
Lat 15.06S 0.06 Lon 167.05E 0.06
Dep 154.7 1.8 Half-duration 2.3
Moment Tensor; Scale 10**17 Nm
Mrr= 2.07 0.10 Mtt=-0.03 0.15
Mff=-2.04 0.15 Mrt=-0.51 0.11
Mrf=-1.37 0.11 Mtf= 0.88 0.16
Principal Axes:

	Val=	Plg=	Azm=
T	2.70	65	131
N	-0.05	20	349
P	-2.65	14	254

Best Double Couple:Mo=2.7**17
NP1:Strike=319 Dip=35 Slip= 54
NP2: 180 62 112

PVC	3.11	162	iPc	52 00.20	-0.7
			iS	52 37.50	
DZM	7.31	186	iPd	52 55.50	-1.3
			iS	54 19.00	
VSG	9.23	306	eP	53 25.00	2.7
			e(S)	55 07.00	
VUN	11.18	108	ePc	53 50.60	2.6
PAA	14.33	305	eP	54 35.00	6.5X
BRS	18.45	225	iPc-	55 19.00	1.0
			i	55 23.00	
			e	55 52.00	
			iPcP	57 36.00	
			eS	58 29.00	
			e(SS)	58 48.00	
			iScP	03 04.50	
PMG	20.40	283	iPd	55 39.50	1.5
	1.0s	600.00nm		6.0mb	
CTA	20.76	252	iPd	55 43.10	1.5
	1.0s	408.00nm		5.8mb	
			i	56 00.20	80kmX
			i	56 26.00	
			iS	59 24.00	
RMQ	20.88	233	eP	55 51.00	8.2X
	1.0s	618.00nm		6.0mb	
COO	21.16	219	iPc	55 47.70	2.1
	1.0s	286.00nm		5.7mb	
RIV	23.95	215	iPc	56 13.80	1.3
			e	56 46.00	161km
KRP	24.19	164	P	56 14.00	-0.8
	1.0s	426.00nm		5.9mb	
CMS	25.74	226	iPc	56 29.90	0.6
	1.0s	392.00nm		6.0mb	
			e	57 05.00	174kmX
BWA	25.95	218	eP	56 29.70	-1.5
			eScP	03 22.20	
CNB	26.04	215	iPd	56 32.90	0.8
	0.4s	88.00nm		5.8mb	
			e	57 04.00	150km
QIS	26.99	254	iPc	56 39.80	-0.9
	1.1s	105.00nm		5.4mb	
			e	57 11.00	149km
STK	28.99	230	iPc	56 59.30	0.6
	0.9s	268.00nm		6.0mb	
			i	00 03.00	
TOO	29.84	216	iPc	57 06.50	0.4
WB5	31.81	256	iPc	57 22.10	-1.4
			epP	57 54.10	150km
			ePP	58 18.50	
			iPcP	00 10.00	
			eS	02 18.40	
			eScP	03 43.10	
WRA	31.84	256	Pd	57 22.30	-1.5
	0.9s	61.00nm		5.4mb	
ADE	32.63	227	iPc	57 31.00	0.4
	0.9s	102.52nm		5.6mb	
MTN	35.15	269	iPd	57 52.30	0.0
KNA	37.15	263	iPc	58 08.90	-0.2
	0.7s	206.00nm		6.0mb	
FORR	39.29	239	iPc	58 26.80	0.1
	0.4s	71.00nm		5.7mb	
WARB	39.59	247	iPc	58 20.20	-9.1X
AFR	41.26	100	iP	58 43.60	0.6
	0.7s	60.00nm		5.3mb	
PAE	41.44	100	iP	58 45.00	0.5
	0.7s	65.00nm		5.4mb	
PPT	41.45	100	iP	58 45.30	0.7

23d 05h

0.7s 40.00nm 5.1mb
PPN 41.59 100 iP 58 46.20 0.5
0.7s 60.00nm 5.3mb
TBI 41.62 109 iP 58 47.80 1.9
0.8s 85.00nm 5.4mb
TVO 41.75 100 iP 58 47.80 0.7
0.7s 135.00nm 5.7mb
PMO 43.24 96 iP 59 00.10 0.9
0.7s 135.00nm 5.7mb
VAH 43.47 97 iP 59 01.60 0.5
0.7s 80.00nm 5.4mb
TPT 43.51 96 iP 59 02.50 1.1
0.7s 80.00nm 5.4mb
RUV 43.72 97 iP 59 03.50 0.5
0.7s 100.00nm 5.5mb
COOL 45.13 241 iPc 59 13.20 -1.0
0.6s 17.00nm 4.8mb
MBL 45.47 255 iPc 59 16.90 0.0
0.4s 41.00nm 5.4mb
MEKA 46.87 247 iPc 59 28.00 0.1
0.5s 37.00nm 5.2mb
KLB 48.11 241 eP 59 36.00 -1.4
NWAO 48.75 239 eP 59 42.00 -0.4
PCI 48.86 282 ePd 59 44.60 1.2
1.0s 26.00nm 4.9mb
BAL 48.87 242 eP 59 42.00 -1.3
RKG 49.13 238 eP 59 46.00 0.7
MRWA 49.33 244 eP 59 45.40 -1.5
NANU 49.46 253 iPd 59 48.00 0.1
0.5s 46.00nm 5.4mb
MUN 49.47 240 eP 59 42.00 -5.9X
OPA 49.71 44 P 59 50.10 0.4
pP 00 29.60 176kmX
KHKI 50.95 271 ePd 59 59.00 -0.4
e 02 54.10
TSM 52.30 287 ePc 00 11.20 1.8
CHJJ 57.19 333 P 00 46.10 1.7
MAT 57.95 332 iPc 00 48.60 -1.2
1.2s 51.56nm 5.3mb
(S) 08 35.00
MTMJ 58.17 332 P 00 50.40 -1.0
OFUJ 58.68 337 P 00 54.50 -0.2
QZH 61.75 309 Pc 01 15.20 -0.6
MRRJ 61.82 338 eP 01 14.50 -1.4
ASAJ 62.78 340 eP 01 22.30 0.0
SSE 63.57 316 P 01 27.00 -0.7
1.4s 37.00nm 5.1mb
PcP 02 02.00
eS 09 48.00
eScS 11 12.00
KGM 65.47 279 ePd 01 41.20 0.9
WHN 67.99 312 P 01 55.50 -0.4
MDJ 68.33 332 Pc 01 58.00 0.3
epP 02 34.00 149km
S 10 47.00
eScS 11 35.00
esS 11 47.00
DL2 68.35 323 eP 01 57.50 -0.4
IPM 68.41 281 ePc 01 59.00 0.1
0.9s 139.10nm 5.8mb
TIA 69.39 318 Pc 02 03.60 -0.8
SNG 69.61 284 eP 02 06.90 0.8
1.6s 360.00nm 5.9mb
e 11 07.20
CN2 69.70 329 Pc 02 06.00 -0.1
GYA 71.76 305 iPc 02 19.40 0.3
NNT 72.21 289 iPc 02 23.00 1.3
NST 72.93 292 iPc 02 28.00 2.2
TIY 73.31 317 Pc 02 28.50 0.7
1.2s 0.10nm 2.4mb X
E 12s 0.30um
XAN 73.74 313 Pc 02 31.40 1.1
CHG 75.12 294 iPc 02 39.70 1.2
1.1s 55.70nm 5.2mb
CHTO 75.12 294 iP 02 39.50 1.0
1.0s 46.25nm 5.2mb
epP 03 15.00 143kmX
SPA 75.32 180 iPc 02 38.70 -0.4
0.6s 60.98nm 5.5mb
i 02 55.50 61kmX
HHC 75.64 320 P 02 42.00 0.9
CD2 76.06 308 P 02 44.60 0.9
BTO 76.47 319 P 02 47.00 1.2
LZH 78.37 312 eP 02 57.50 1.0
1.5s 154.00nm 5.5mb
KDC 79.50 21 P 03 02.00 0.2
SVW 81.18 17 eP 03 12.30 1.6

TTA 82.55 16 eP 03 17.10 -0.7
GTA 82.72 314 iPc 03 20.40 1.1
3.0s 0.41nm 2.7mb X
ScS 13 27.60
PMR 83.53 19 eP 03 21.20 -1.5
0.8s 16.50nm 4.9mb
SHL 83.61 298 iP 03 24.60 0.4
iS 13 32.00
GCC 84.04 49 eP 03 26.20 0.4
BKS 84.20 49 ePd 03 26.90 0.3
0.9s 33.00nm 5.2mb
PRS 84.22 50 eP 03 27.40 0.6
MHC 84.42 49 eP 03 28.40 0.5
ARN 84.50 49 P 03 28.00 -0.2
SYP 84.59 52 eP 03 30.00 1.2
PRI 84.68 51 eP 03 30.00 0.8
BCH 84.75 52 P 03 29.70 0.1
TOA 84.87 20 eP 03 29.50 0.0
WDC 85.07 46 e(P) 03 31.20 0.3
CMB 85.61 49 eP 03 33.90 0.2
LSA 85.61 302 Pc 03 35.60 1.2
IMA 85.68 15 eP 03 33.40 -0.2
1.0s 28.80nm 5.1mb
FRI 85.71 50 eP 03 34.40 0.3
LBFM 85.83 45 P 03 35.50 0.6
MWC 85.96 53 eP 03 35.00 -0.7
ISA 86.15 52 eP 03 36.00 -0.4
e 04 18.00 168kmX
SBB 86.30 53 eP 03 36.00 -1.2
e 04 16.00 159km
FBA 86.38 18 eP 03 35.00 -1.9
RVR 86.41 54 eP 03 37.00 -0.6
e 04 15.00 150km
BAR 86.51 55 eP 03 38.00 -0.2
PEC 86.54 54 P 03 38.00 -0.3
PLM 86.59 54 eP 03 39.00 0.2
e 04 20.00 163km
CLC 86.87 52 eP 03 40.00 0.1
e 04 21.00 163km
TPC 87.48 54 eP 03 43.00 0.1
e 04 21.00 150km
KVN 87.65 49 eP 03 43.40 -0.3
epP 04 19.00 139kmX
GMW 87.78 40 P 03 43.80 -0.1
TNP 87.95 50 eP 03 45.00 -0.2
0.9s 7.81nm 4.7mb
epP 04 26.00 163km
GLA 88.10 55 eP 03 46.00 0.2
MCW 88.22 39 P 03 45.90 -0.2
RMW 88.35 40 P 03 47.00 0.2
PNT 90.42 39 eP 03 57.00 0.7
0.8s 19.00nm 5.2mb
WMQ 92.78 315 P 04 01.60 -5.7X
INK 92.92 19 eP 04 06.00 -1.3
HYB 93.16 287 eP 04 09.00 -0.5
GBA 93.27 283 Pc 04 09.40 -0.6
1.0s 13.20nm 5.1mb
ALQ 95.30 55 eP 04 18.40 -0.9
1.0s 5.00nm 4.8mb
GOL 97.26 51 P 04 28.50 0.3
YKA 97.57 27 P 04 28.20 -0.4
YKC 97.62 27 eP 04 28.00 -0.9
0.8s 8.00nm 5.3mb
ZOBO 117.18 117 PKP 09 40.00 -1.3
Z 20s 0.09um 4.4Msz
LR 47 12.00
DAG 117.91 2 ePKP 09 38.00 -2.2
FRB 117.93 25 ePKP 09 39.00 -1.5
SOD 121.55 343 iPKP 09 47.40 0.1
SUF 124.89 339 iPKP 09 53.30 -0.6
0.4s 24.40nm
NUR 126.92 338 iPKP 09 57.30 -0.6
0.5s 28.10nm
NB2 130.67 345 PKP 10 03.80 -1.3
0.5s 5.10nm
HFS 130.77 343 ePKP 09 49.90 -15.4X
0.4s 0.80nm
NRA0 130.85 345 PKP 10 05.40 0.0
BAO 133.86 129 ePKP 10 07.50 -5.1X
SPC 136.37 329 ePKP 10 16.80 0.3
BZS 137.84 324 ePKPd 10 18.00 -1.1
BRG 138.06 335 ePKP 10 11.50 -7.9X
e 10 19.20
e 13 43.20
CLL 138.10 336 ePKP 10 21.00 1.6
1.2s 21.00nm
SRO 138.24 329 ePKP 10 19.80 0.0

e 13 47.40
ZST 138.58 330 ePKP 10 20.70 0.3
e 11 02.90
KHC 139.53 333 PKPc 10 16.40 -5.8X
e 10 24.40
SKO 139.98 319 ePKP 10 14.50 -8.7X
i 10 21.50
i 10 58.00
GRF 140.08 336 ePKP 10 17.00 -6.1X
OHR 140.85 319 ePKP 10 13.70 -11.1X
ENN 141.06 341 ePKP 10 19.50 -5.3X
1.0s 14.00nm
e 10 27.50
KBA 141.17 331 i(PKP)10 18.60 -6.8X
1.1s 9.60nm
i 10 21.00
i 10 26.00
i 11 05.20
MEM 141.18 341 PKP 10 20.00 -4.9X
LJU 141.34 329 e(PKP)10 21.00 -4.5X
VBY 141.36 328 e(PKP)10 20.70 -4.8X
RBL 141.53 331 PKP 10 19.60 -6.3X
CEY 141.61 329 e(PKP)10 21.00 -5.0X
VOY 141.67 330 iPKP 10 20.90 -5.3X
e 10 35.40
FVI 141.78 331 PKP 10 19.90 -6.3X
SNF 141.78 342 PKP 10 21.80 -4.3X
WLF 141.95 340 PKPc 10 22.60 -3.8X
TRI 141.96 330 iPKPd 10 21.50 -5.0X
i 11 05.20
GWF 142.03 338 PKP 10 21.81 -4.8X
CDF 142.62 338 PKP 10 23.30 -4.4X
FEL 142.80 337 PKP 10 23.45 -4.6X
MOF 143.15 338 PKP 10 24.85 -3.8X
VITF 143.25 339 PKP 10 24.71 -3.9X
BSF 143.29 338 PKP 10 25.46 -3.4X
HAU 143.30 338 ePKP 10 25.90 -2.9X
SAL 143.56 332 PKP 10 27.05 -2.2
SAL 143.56 332 PKP 10 16.40 -12.8X
AOI 143.56 327 ePKP 10 27.47 -1.9
LOMF 143.68 337 PKP 10 27.66 -1.9
RSM 143.89 329 PKP 10 29.00 -0.8
CIO 144.05 327 ePKPc 10 28.97 -1.3
ALP 144.10 326 ePKPc 10 28.86 -1.6
VAI 144.12 334 PKP 10 28.60 -1.6
PGD 144.29 329 PKP 10 30.40 -0.4
DUI 144.36 324 PKP 10 28.90 -2.0
ASS 144.39 327 PKP 10 29.50 -1.4
TDS 144.48 320 PKP 10 30.40 -0.6
AQU 144.49 326 PKP 10 29.30 -1.7
MME 144.55 330 PKP 10 30.60 -0.7
FIR 144.59 329 iPKPc 10 31.50 0.4
ORX 144.64 335 PKPc 10 29.95 -1.3
FLN 144.64 346 ePKP 10 28.90 -2.1
ORO 144.65 335 PKP 10 29.90 -1.4
MGR 144.68 321 PKP 10 29.40 -2.0
BOB 144.69 332 PKP 10 30.80 -0.6
SDI 144.70 325 PKP 10 28.50 -2.9
BDI 144.70 330 PKP 10 29.80 -1.6
LDF 144.71 346 ePKP 10 29.20 -1.9
AZI 144.72 325 PKP 10 30.20 -1.1
BSS 144.72 323 PKP 10 28.40 -3.0X
LOR 144.79 340 ePKP 10 30.20 -1.2
MNS 144.86 327 PKP 10 30.10 -1.5
RFI 144.87 324 PKP 10 31.50 -0.1
PII 144.99 330 PKP 10 30.50 -1.2
LBF 145.00 340 ePKP 10 30.80 -1.0
GRR 145.08 346 ePKP 10 30.80 -1.0
SSF 145.08 341 ePKP 10 31.40 -0.4
LSD 145.12 335 PKPc 10 32.86 0.6
GEN 145.20 332 PKP 10 31.12 -0.9
RMP 145.24 326 PKP 10 31.30 -1.0
LPG 145.25 336 ePKP 10 32.50 -0.1
RDP 145.27 326 PKP 10 32.00 -0.4
RSP 145.33 335 PKP 10 32.06 -0.4
SMF 145.34 340 ePKP 10 31.90 -0.4
AVF 145.37 340 ePKP 10 31.70 -0.6
LPF 145.46 346 ePKP 10 32.20 -0.2
SOI 145.58 318 PKPc 10 33.60 0.7
MAO 145.63 328 PKP 10 32.90 0.0
BNI 145.65 335 PKP 10 33.70 0.7
GMB 145.65 318 PKP 10 33.88 0.6
FIN 145.68 333 PKPc 10 33.00 0.0
RRL 145.71 335 PKPc 10 34.40 1.1
BGF 145.74 341 ePKP 10 33.20 0.2
ROB 145.76 333 PKPc 10 33.37 0.2
DOI 145.86 334 PKP 10 32.40 -1.0

ATN	145.91	318	PKP	10	33.00	-0.5
PZZ	145.92	334	PKP	10	33.30	-0.2
PLDF	146.00	339	PKP	10	35.19	1.7
STV	146.04	334	PKP	10	32.81	-0.8
IMI	146.06	333	PKP	10	34.46	0.8
AGO	146.09	340	PKP	10	35.12	1.5
MAF	146.13	341	ePKP	10	34.40	0.8
SAOF	146.14	333	PKP	10	34.83	1.1
TCF	146.18	341	ePKP	10	34.30	0.6
AUTN	146.19	333	PKP	10	34.82	0.7
TOUF	146.25	334	PKP	10	35.36	1.2
SBF	146.29	333	ePKP	10	34.30	0.2
AURF	146.32	333	PKP	10	35.19	1.1
MVIF	146.39	334	PKP	10	35.62	1.3
PYM	146.40	340	PKP	10	36.33	2.1
LSF	146.42	342	ePKP	10	34.90	0.8
MNO	146.54	319	PKP	10	36.10	1.3
MFF	146.57	344	ePKP	10	35.50	1.2
CALN	146.62	334	PKP	10	36.44	1.8
CVF	146.65	330	PKP	10	36.40	1.8
LBL	146.78	339	PKP	10	37.76	3.1X
MEU	146.87	317	PKP	10	36.40	1.2
FRF	146.88	334	ePKP	10	36.30	1.4
PZI	146.92	317	PKP	10	37.36	2.1
USI	147.01	321	PKP	10	35.40	0.2
LRG	147.08	334	ePKP	10	37.10	1.9
LMR	147.12	334	ePKP	10	37.00	1.7
RJF	147.28	341	ePKP	10	37.70	2.2X
CAF	147.44	340	ePKP	10	38.40	2.6X
BNG	147.57	255	iPKPc	10	35.90	-1.0
	0.5s	143.00nm				
			ic	10	39.30	
			ic	11	18.50	
			ic	11	35.00	
LFF	147.84	342	ePKP	10	39.30	2.9X
LPO	147.94	341	ePKP	10	39.50	2.9X
LVI	147.98	321	PKP	10	39.70	2.9
CGL	148.80	326	PKP	10	39.04	0.8
ETER	149.46	337	e(PKP)	10	43.30	4.3X
EPF	149.69	341	ePKP	10	43.70	4.3X
ECRI	150.90	344	e(PKP)	10	48.50	7.3X
EMON	151.06	352	e(PKP)	10	48.00	6.6X
ESEL	151.59	334	e(PKP)	10	49.00	6.7X
EROQ	151.64	339	e(PKP)	10	49.00	6.7X
STS	151.76	354	e(PKP)	10	49.80	7.4X
ETOR	152.44	342	e(PKP)	10	51.50	7.9X
GUD	153.17	345	e(PKP)	10	53.00	8.3X
LEGH	164.71	235	ePKP	10	59.00	0.6
KOGH	165.02	236	iPKPd	10	57.80	-0.9
KUK	165.19	236	ePKP	11	00.00	1.2
KIC	168.56	224	PKP	11	00.76	-0.5
	1.0s	55.00nm				
LIC	168.65	222	PKP	11	00.78	-0.5
	1.0s	48.00nm				
TIC	168.95	224	PKP	11	00.98	-0.5
	1.0s	46.00nm				

S.D. = 1.1 on 214 of 261 obs.

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* FEB 23, 1989 06h 03m 36.99± 1.36s
38.592 N ± 8.8km 20.199 E ±17.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 3.2 (ATH).

VLS	0.52	143	ePg	03	46.50	-0.9
			eSg	03	54.50	
LSK	1.59	11	ePn	04	05.80	0.5
VLO	1.95	344	ePn	04	15.70	5.3X
ITM	1.96	135	ePb	04	12.00	1.3
			eSn	04	38.00	
KBN	2.08	13	ePn	04	20.00	7.7X
KZN	2.10	35	ePb	04	12.50	-0.2
BERA	2.12	355	ePn	04	13.50	0.7
NEO	2.46	72	ePn	04	17.50	-0.4
OHR	2.56	10	iPn	04	19.90	0.7
LACI	3.06	353	ePn	04	25.80	-0.5
VAY	3.28	33	ePn	04	34.50	5.1X
PUK	3.45	356	ePn	04	30.60	-1.2
SKO	3.51	15	ePn	04	40.50	7.9X

S.D. = 1.0 on 9 of 13 obs.

? FEB 23, 1989 06h 26m 00.79± 1.82s
6.590 N ±24.5km 94.628 E ±11.3km
DEPTH = 33.0km (normal)
3.7mb (2 obs.)
NICOBAR ISLANDS REGION (704)

SNG	5.97	84	eP	27	28.50	-0.8
IPM	6.67	107	ePc	27	56.90	17.8X
NNT	7.80	40	iPc	27	56.00	1.1
CHG	12.86	19	eP	29	03.80	-0.2
GBA	18.30	294	Pd	30	13.80	-0.1
	0.9s	3.00nm			3.5mb	
PKI	22.63	338	P	30	59.00	-1.6
HFS	79.80	330	eP	38	08.70	1.6
	0.5s	0.80nm			4.0mb	

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

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* FEB 23, 1989 06h 50m 19.36± 0.79s
27.984 S ± 9.8km 25.937 E ±11.0km
DEPTH = 5.0km (geophysicist)
REPUBLIC OF SOUTH AFRICA (584)

KIM	1.27	233	iPd	50	44.30	0.7
	0.6s	326.67nm				
			S	50	58.50	
SEK	1.53	103	iPc	50	47.80	0.3
PRY	1.72	53	iPd	50	50.60	0.3
			S	50	58.00	
FRS	1.84	197	iPc	50	51.00	-0.8
			S	51	07.00	
KSR	2.28	22	eP	50	59.80	1.4
			S	51	24.00	
SLR	3.07	44	iPc	51	10.00	0.5
	0.7s	75.34nm				
			i	52	08.50	
EVA	3.16	63	eP	51	10.50	-0.4
			S	51	26.00	
BUL	8.18	18	iPn	52	19.70	-2.0
			iSn	53	46.00	

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

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* FEB 23, 1989 07h 07m 38.94± 1.56s
11.455 N ± 7.3km 141.942 E ±11.4km
DEPTH = 47.0 ± 15.9 km
4.6mb (4 obs.) 4.3Msz (1 obs.)
WEST CAROLINE ISLANDS (209)

PJG	3.56	53	eP	08	32.80	-0.2
GUA	3.56	54	eP	08	33.50	0.3
			eS	09	15.80	
PMG	21.37	166	e(P)	12	25.00	0.5
SSE	27.40	319	eP	13	20.70	-1.4
WB5	32.02	194	eP	14	04.00	0.7
WRA	32.09	194	Pc	14	04.80	0.9
	0.9s	3.00nm			4.1mb	
BJI	36.46	326	eP	14	41.00	-0.3
TIY	37.17	320	eP	14	47.50	0.1
	Z 20s	0.50um			4.3Msz	
XAN	37.58	312	P	14	51.00	0.2
BRS	40.02	165	P	15	09.00	-2.2
			e	23	04.00	
LZH	42.22	312	eP	15	30.00	0.7
	1.5s	44.00nm			5.0mb	
GTA	46.53	314	P	16	04.00	0.1
WMQ	56.58	315	iPc	17	20.20	0.7
GBA	62.85	279	Pd	18	02.10	-0.6
	0.6s	1.40nm			4.3mb	
POO	65.83	285	eP	18	06.50	-15.7X
INK	77.42	22	eP	19	29.50	-0.9
MBC	81.02	14	eP	19	50.00	0.2
YKA	86.05	27	P	20	16.50	0.9
YKC	86.11	27	eP	20	16.50	0.5
	0.6s	5.00nm			4.9mb	
LPB	150.44	103	ePKP	27	29.00	6.2X
ZOBO	150.44	103	PKPc	27	30.80	7.8X
CNCB	150.52	104	PKP	27	32.00	8.9X

S.D. = 0.9 on 18 of 22 obs.

? FEB 23, 1989 07h 52m 58.47± 9.36s
22.764 N ±80.8km 121.018 E ±10.9km
DEPTH = 10.0km (geophysicist)
TAIWAN REGION (243)

TWG	0.08	41	iPc	53	00.90	0.0
			eS	53	02.60	
TWK	0.70	316	ePc	53	12.30	0.0
			eS	53	23.20	
TWD	1.41	22	eP	53	23.90	-0.3
TWQ	1.51	354	ePd	53	25.70	0.1
			eS	53	46.60	
TWC	1.99	22	eP	53	32.70	0.2

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

% FEB 23, 1989 10h 01m 10.78± 0.77s
41.110 N ± 8.7km 28.482 E ± 8.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

CTT	0.05	313	iPg	01	12.30	-0.7
BNT	0.87	210	iPg	01	27.50	0.1
YLV	0.87	128	iPg	01	27.50	0.0
DMK	0.90	323	ePg	01	28.50	0.6
			eSg	01	41.30	
HRT	0.94	107	ePg	01	28.80	0.0

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

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* FEB 23, 1989 10h 31m 23.72± 0.61s
21.704 S ±24.3km 169.777 E ±14.2km
DEPTH = 33.0km (normal)
LOYALTY ISLANDS REGION (189)

DZM	3.12	263	iPc	32	11.10	-0.7
			iS	32	53.20	
SGE	8.70	63	iPd	33	29.00	-1.4
RMQ	19.77	252	eP	36	01.00	7.0X
CTA	22.03	270	iPd	36	28.00	10.8X
	1.2s	28.13nm				
CNB	22.43	228	eP	36	21.00	-0.2
BWA	22.66	231	eP	36	18.90	-4.5X
			e	36	21.50	
CAN	22.69	229	eP	36	23.80	0.1
CMS	23.48	240	iPc	36	31.30	-0.1
WB5	33.11	267	eP	37	57.00	-2.1
CHG	80.13	295	eP	43	34.10	1.6
KSP	144.28	331	ePKP	50	53.00	-4.8X
BRG	145.29	333	iPKPc	50	58.80	-0.7
	1.0s	17.00nm				
			i	51	06.90	
CLL	145.35	334	iPKPc	50	58.70	-0.9
			i	51	06.90	
PRU	145.68	331	PKPc	51	00.00	-0.2
			e	51	07.70	
ZST	145.69	327	ePKP	51	00.60	0.3
MOX	146.42	335	e(PKP)	51	04.00	2.6X
			e	51	10.00	
SKO	146.64	315	ePKP	51	03.00	1.0
			i	51	10.50	
KHC	146.73	331	iPKPc	51	03.30	1.3
	1.0s	7.00nm				
BNG	147.25	242	ePKPc	51	04.20	0.3
	0.7s	6.00nm				
			id	51	13.80	
OHR	147.46	314	ePKP	51	05.00	1.5
KBA	148.32	329	ePKP	51	13.50	8.7X
	1.0s	5.60nm				

S.D. = 1.1 on 15 of 21 obs.

FEB 23, 1989 10h 57m 58.17± 0.60s
39.212 N ± 4.2km 122.348 W ± 7.4km
DEPTH = 5.0km (geophysicist)
NORTHERN CALIFORNIA (36)
ML 2.7 (BRK).

ORV	0.74	62	iPd	58	12.90	-0.1
			iS	58	22.00	
NWRM	0.86	209	eP	58	15.50	0.3
LTCM	1.01	10	eP	58	18.50	0.8
MIN	1.27	27	eP	58	21.70	-0.6
WDC	1.37	354	eP	58	22.90	-1.0
CMB	1.94	127	eP	58	32.30	0.2
MHC	1.95	163	eP	58	31.80	-0.6
ARN	1.97	161	eP	58	32.70	0.1
FHC	2.02	322	eP	58	42.20	8.8X
LBFM	2.16	9	eP	58	36.30	0.8
KVN	3.31	91	eP	58	52.00	0.1

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

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* FEB 23, 1989 11h 08m 22.85± 1.62s
4.854 S ±21.0km 103.106 E ±18.1km
DEPTH = 75.1 ± 11.7 km
4.9mb (7 obs.)
SOUTHERN SUMATERA (274)

KSI	1.32	337	iPd	08	45.90	0.0
			iS	08	59.90	
			e	12	41.00	
KLI	1.74	90	eP	08	52.00	0.3
			eS	09	24.00	
CHG	23.87	350	eP	13	30.00	-0.5
GBA	31.39	306	Pc	14	38.50	-0.5

23d 11h

	0.4s	2.40nm		4.3mb		
WB5	33.90	119	eP	15 00.30	-0.5	
WRA	33.90	119	Pc	14 59.90	-0.9	
	0.4s	3.00nm		4.6mb		
NDI	41.62	325	iPc	16 05.00	-0.3	
	0.8s	59.70nm		5.5mb		
STK	44.95	131	eP	16 33.00	0.7	
KJF	88.03	335	iP	21 06.00	0.3	
	0.7s	16.00nm		5.3mb		
SUF	88.34	333	iP	21 07.70	0.5	
	0.4s	3.30nm		4.8mb		
NUR	88.53	331	iP	21 08.70	0.6	
	0.7s	9.30nm		5.1mb		
SOD	89.27	338	iP	21 11.80	0.2	
HFS	93.88	330	eP	21 33.00	0.1	
	0.4s	1.30nm		4.7mb		
	S.D. = 0.6	on	13 of	13 obs.		

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* FEB 23, 1989 11h 27m 58.30± 1.61s
24.269 N ±20.2km 123.255 E ±14.7km
DEPTH = 10.0km (geophysicist)
4.5mb (1 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

TWC	1.33	285	iPd	28 21.60	-1.1	
			eS	28 32.60		
TWD	1.53	263	iPd	28 24.90	-0.7	
			eS	28 40.10		
ANP	1.82	300	eP	28 31.00	1.0	
TWQ	2.21	271	iPd	28 35.70	0.1	
TWK	2.72	249	ePc	28 44.00	1.0	
WB5	45.20	165	eP	36 17.30	-0.1	
WRA	45.25	165	Pc	36 17.60	-0.2	
	0.8s	4.90nm		4.5mb		
WARB	50.26	176	eP	36 47.50	-9.3X	
	S.D. = 1.0	on	7 of	8 obs.		

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* FEB 23, 1989 12h 40m 33.08± 0.53s
21.913 S ± 8.2km 169.899 E ±10.5km
DEPTH = 26.2km (2 depth phases)
4.8mb (4 obs.) 5.1Msz (1 obs.)
LOYALTY ISLANDS REGION (189)

DZM	3.21	267	iPd	41 22.00	-1.1	
			iS	42 04.00		
PVC	4.41	340	iPc	41 41.30	1.3	
			iS	42 46.50		
VUN	8.94	66	eP	42 39.00	-4.6X	
HNR	15.67	321	eP	44 18.00	4.2X	
			eS	48 12.00		
BRS	16.49	247	iPc	44 23.00	-1.3	
			i	44 29.00		
			iS	48 13.50		
KRP	16.68	164	P	44 28.00	1.4	
WEL	19.75	169	P	45 03.00	-0.9	
RMQ	19.81	253	eP	45 12.00	7.3X	
PAA	20.85	316	eP	45 23.00	7.3X	
CTA	22.15	270	eP	45 32.00	3.4X	
	1.0s	31.00nm		4.7mb		
			iS	49 37.00		
CNB	22.38	229	eP	45 33.00	2.1	
BWA	22.62	232	eP	45 32.80	-0.4	
CAN	22.64	229	eP	45 34.80	1.4	
CMS	23.48	241	iPc	45 42.50	0.9	
RAB	24.62	313	e(P)	45 52.00	-0.7	
PMG	25.14	296	e(P)	45 59.00	1.3	
WB5	33.21	267	eP	47 09.00	-1.2	
WRA	33.23	267	Pc	47 09.10	-1.2	
	1.1s	5.20nm		4.4mb		
JAY	34.30	300	iPd	47 28.50	8.8X	
MTN	37.99	277	eP	47 50.00	-0.9	
MAT	65.39	332	eP	51 14.00	-1.6	
SPA	68.22	180	e(P)	51 31.00	-2.4	
	1.0s	19.50nm		5.2mb		
MDJ	75.76	332	eP	52 18.00	-0.2	
TIA	76.34	318	Pc	52 22.20	0.5	
CN2	77.05	329	eP	52 24.00	-1.5	
			pP	52 33.00	29km	
BJI	79.39	321	eP	52 39.00	0.6	
	Z 26s	0.34um		4.6MszX		
TIY	80.21	317	eP	52 43.50	0.6	
	Z 14s	0.60um		5.1MszX		
		S	02 36.50			
		SKS	02 50.00			
CHG	80.32	295	iPd	52 46.00	2.1	
	1.0s	12.25nm		4.9mb		
XAN	80.36	313	eP	52 44.00	0.2	
HHC	82.64	319	eP	52 55.80	0.1	
LZH	84.97	312	eP	53 10.00	2.4X	
	1.5s	0.04nm		2.5mb X		
		pP	53 17.50	24km		
SHL	89.15	298	iP	53 29.40	1.2	
GTA	89.40	313	eP	53 29.00	0.0	
FRB	123.26	27	ePKP	59 26.00	-2.5	
KSP	144.52	331	ePKP	00 06.50	-2.1	
			i	00 16.70		
BRG	145.52	333	iPKPd	00 09.60	-0.7	
	1.2s	38.00nm				
			i	00 19.50		
SRO	145.55	325	e(PKP)	00 09.90	-0.5	
			i	00 26.20		
CLL	145.58	334	iPKPd	00 09.50	-0.9	
	1.3s	31.00nm				
			i	00 16.60		
			eSg	13 52.00		
PRU	145.92	331	PKP	00 11.00	0.0	
ZST	145.93	327	i(PKP)	00 12.50	1.4	
			e	00 22.00		
VAY	146.39	313	ePKP	00 13.00	1.0	
MOX	146.66	335	ePKP	00 15.00	2.8X	
			e	00 23.00		
SKO	146.87	314	iPKP	00 15.00	2.2X	
			i	00 21.00		
			i	00 31.50		
KHC	146.97	331	iPKPd	00 14.80	2.0	
	1.0s	11.50nm				
			i	00 24.80		
BNG	147.25	242	iPKPd	00 16.20	1.9	
	0.7s	15.00nm				
			ic	00 25.30		
GRF	147.56	334	ePKP	00 17.50	3.8X	
	Z 19s	0.30um		5.1Msz		
			e	00 26.50		
OHR	147.69	313	ePKP	00 17.00	2.8X	
			i	00 26.10		
			i	00 33.90		
KBA	148.55	329	e(PKP)	00 20.00	4.4X	
	0.8s	10.00nm				
			i	00 24.60		
			i	00 30.10		
VBY	148.64	325	e(PKP)	00 18.30	2.8X	
LJU	148.67	326	e(PKP)	00 18.50	2.9X	
CEY	148.93	326	e(PKP)	00 20.50	4.5X	
VOY	149.01	327	ePKP	00 19.20	3.0X	
TRI	149.29	326	ePKP	00 20.00	3.5X	
			i	00 27.00		
CDF	150.13	336	ePKP	00 22.20	4.4X	
BSF	150.79	336	ePKP	00 23.90	5.0X	
HAU	150.81	337	ePKP	00 24.10	5.3X	
FLN	152.13	346	ePKP	00 26.00	5.3X	
	0.8s	10.70nm				
GRR	152.57	347	ePKP	00 27.90	6.6X	
LPG	152.73	334	ePKP	00 29.40	7.4X	
	0.5s	4.30nm				
LPF	152.94	347	ePKP	00 28.80	7.0X	
	S.D. = 1.4	on	36 of	60 obs.		

% FEB 23, 1989 13h 07m 44.12± 0.87s
39.254 N ± 7.7km 27.723 E ± 8.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.78	63	ePn	07 59.40	0.0	
IZM	0.93	203	ePn	08 01.80	-0.1	
KCT	1.11	26	iPn	08 05.40	0.5	
BNT	1.11	8	iPn	08 04.40	-0.6	
EZN	1.22	298	ePn	08 07.00	0.2	
	S.D. = 0.5	on	5 of	5 obs.		

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* FEB 23, 1989 13h 11m 18.49± 0.93s
47.343 N ± 9.2km 16.815 E ± 9.8km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
ML 3.1 (VKA), 2.9 (KBA).

SOP	0.38	333	ePn	11 26.50	0.2	
ZST	0.88	13	i(Pn)	11 38.50	3.2X	
			i(Sn)	11 55.00		
VKA	0.98	340	ePn	11 40.00	2.9X	
			iSg	12 02.00		
SRO	1.12	65	iPn	11 39.30	-0.1	
			i	11 58.90		
			i	12 03.40		
PTJ	1.56	203	ePn	11 41.80	-4.6X	
			eSn	11 55.60		
LJU	2.04	231	e(Pn)	11 53.00	-0.3	
			eSn	12 19.20		
VBY	2.13	211	e(Pn)	11 55.40	0.8	
			eSn	12 12.10		
CEY	2.30	227	eP	12 01.00	3.9X	
			eSn	12 29.00		
KBA	2.38	265	ePg	12 03.50	5.2X	
			iSn	12 27.80		
			iSg	12 40.30		
VOY	2.40	238	iPnd	12 00.10	1.6	
			eSn	12 33.90		
RBL	2.40	249	P	11 58.20	-0.3	
TRI	2.67	233	eP	12 00.40	-1.8	
			e	12 03.80		
			i	12 28.70		
			i	12 40.50		
	S.D. = 1.3	on	7 of	12 obs.		

? FEB 23, 1989 13h 50m 51.05± 4.00s
34.543 S ±28.9km 72.483 W ±21.1km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)

LCCH	1.31	36	iPc	51 15.10	-0.1	
			iS	51 39.20		
TACH	1.56	56	iP	51 18.50	-0.4	
			iS	51 45.50		
CHCH	1.63	69	iP	51 20.30	0.3	
			iS	51 47.50		
PCH	1.88	61	iPd	51 23.50	0.0	
			iS	51 53.00		
ROCH	1.99	38	eP	51 26.00	0.7	
FCH	2.19	57	iPd	51 28.00	-0.3	
			iS	52 04.00		
CNCB	18.12	14	P	55 05.00	0.0	
LPB	18.36	13	P	55 11.00	3.1X	
ZOBO	18.61	13	P	55 11.00	-0.2	
	S.D. = 0.4	on	8 of	9 obs.		

? FEB 23, 1989 14h 32m 01.34± 4.18s
44.964 N ± 9.9km 28.496 E ±37.1km
DEPTH = 10.0km (geophysicist)
ROMANIA (358)

CFR	0.33	312	iPc	32 07.00	-1.1	
TLB	0.50	221	iPc	32 11.00	-0.5	
ISR	1.39	278	ePd	32 29.00	2.1X	
PPE	1.40	334	ePd	32 23.00	-3.8X	
BIR	1.44	335	eP	32 47.00	19.6X	
VRI	1.54	307	ePd	32 29.50	0.6	
CLI	1.80	332	ePd	32 32.50	-0.1	
MLR	1.88	287	ePd	32 35.00	1.1	
	S.D. = 1.2	on	5 of	8 obs.		

% FEB 23, 1989 15h 37m 12.33± 0.91s
43.416 N ± 7.2km 5.468 E ± 6.5km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.5 (STR).

GELF	0.04	222	Pg	37 14.46	0.0	
PUYF	0.20	56	Pg	37 16.43	-0.4	
TREF	0.22	344	Pg	37 16.43	-0.6	
PRAF	0.44	331	Pg	37 21.74	0.3	
VILF	0.47	22	Pg	37 21.59	-0.3	
TAVF	0.47	65	Pg	37 22.01	0.0	
GANF	0.66	29	Pg	37 26.48	0.9	
	S.D. = 0.6	on	7 of	7 obs.		

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* FEB 23, 1989 16h 38m 49.25± 3.43s
19.465 N ±40.6km 64.345 W ± 8.1km
DEPTH = 33.0km (normal)
VIRGIN ISLANDS (91)

LPR	1.85	232	iP	39 18.70	-0.5	
CSB	2.08	236	iP	39 22.00	-0.5	
			S	39 43.00		
SJG	2.18	232	iP	39 23.40	-0.5	
APR	2.47	246	iP	39 28.80	0.7	
SKDB	2.52	144	eP	39 30.48	1.7X	
			eS	40 03.80		
SKI	2.61	144	eP	39 30.78	0.7	
			eS	40 02.23		
MCP	2.82	249	iP	39 33.20	0.3	
MGP	2.98	241	iP	39 35.50	0.3	
CPB	3.00	127	eP	39 41.50	5.9X	

		eS	40 16.00		
ANG	3.31	133 eP	39 39.97	-0.1	
		eS	40 19.10		
MGH	3.40	143 eP	39 42.38	1.1	
		S	40 26.00		
SEG	4.07	138 eP	39 50.57	-0.2	
PAG	4.26	143 eP	39 53.68	0.2	
		S	40 43.00		
DOG	4.29	142 eP	39 54.10	0.1	
DEG	4.43	135 eP	39 54.40	-1.6	
MGG	4.56	140 eP	39 57.70	0.0	
BBL	4.78	145 eP	40 00.93	0.1	

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

% FEB 23, 1989 17h 27m 56.51± 0.99s
39.270 N ± 8.4km 27.711 E ± 9.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.79	64 ePg	28 12.50	0.7	
		eSg	28 22.50		
IZM	0.94	202 ePn	28 14.00	-0.4	
EDC	1.08	6 ePn	28 15.00	-1.9	
BNT	1.10	8 iPn	28 17.70	0.6	
KCT	1.10	27 iPn	28 17.30	0.2	
EZN	1.21	298 ePn	28 19.80	0.8	
YLV	1.82	44 ePn	28 31.30	3.1X	

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

% FEB 23, 1989 17h 52m 46.04± 0.98s
40.000 N ±22.7km 26.800 E ±10.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EZN	0.40	245 iPg	52 54.30	0.0	
		iSg	52 59.80		
EDC	0.89	67 ePg	53 03.00	0.0	
		eSg	53 16.00		
BNT	0.93	67 iPn	53 03.80	0.0	
KCT	1.22	78 iPn	53 08.80	0.0	
DST	1.46	105 ePn	53 12.50	0.0	

S.D. = 0.0 on 5 of 5 obs.

FEB 23, 1989 19h 16m 44.52± 0.47s
46.488 N ±10.8km 153.682 E ± 5.3km
DEPTH = 33.0km (normal)
4.9mb (27 obs.)
KURIL ISLANDS (221)

MRRJ	9.89	250 eP	19 04.00	-3.3X	
		eS	20 52.30		
MAT	15.24	235 iPc	20 10.40	-8.5X	
		eS	24 22.00		
MDJ	16.96	272 eP	20 40.00	-0.7	
CN2	20.05	273 eP	21 13.00	-4.5X	
SNY	22.02	269 eP	21 36.00	-1.5	
BJI	27.87	270 (P)	22 35.00	2.1	
TIY	31.53	269 eP	23 06.00	0.3	
TTA	32.36	41 ePc	23 12.90	0.2	
SVW	32.38	45 eP	23 13.50	0.6	
IMA	33.79	36 ePc	23 25.10	-0.1	
	0.7s	7.90nm		4.7mb	
KDC	34.02	51 P	23 26.10	-0.9	
	0.8s	34.48nm		5.3mb	
BRW	34.02	26 P	23 30.60	3.7X	
PMR	35.52	44 eP	23 39.70	-0.1	
	0.8s	11.50nm		4.9mb	
FBA	36.13	38 ePc	23 45.20	0.3	
TOA	36.90	43 eP	23 52.20	0.7	
LZH	38.29	273 eP	24 04.00	0.3	
	1.0s	37.00nm		5.2mb	
CD2	41.25	266 eP	24 28.60	0.6	
INK	41.66	32 eP	24 32.00	1.1	
GYA	42.04	258 P	24 34.20	-0.5	
MBC	44.71	20 eP	24 56.00	0.4	
ALE	49.96	6 eP	25 36.50	-0.1	
	0.6s	7.00nm		4.9mb	
YKA	50.90	37 P	25 44.70	0.8	
YKC	50.96	37 ePc	25 44.50	0.1	
	0.7s	13.00nm		5.0mb	
CHG	52.44	257 eP	25 56.60	0.4	
CHTO	52.44	257 iP	25 56.20	0.0	
	1.0s	7.50nm		4.6mb	
		epP	26 09.00	46kmX	
DAG	56.93	358 eP	26 18.00	-10.1X	
KEV	57.72	341 eP	26 42.00	8.2X	
SOD	59.64	339 iP	26 46.20	-1.0	
FFC	60.69	40 iPc	26 54.60	0.1	
	0.8s	16.00nm		5.2mb	
LRM	61.04	53 eP	26 57.70	0.3	
KJF	61.81	336 iP	27 01.20	-0.8	
	0.7s	12.00nm		5.1mb	
KVN	61.94	62 P	27 03.00	-0.5	
HPI	61.99	55 P	27 03.90	0.0	
TNP	63.09	62 P	27 10.70	-0.4	
	0.6s	2.01nm		4.4mb	
SUF	63.41	336 iP	27 11.80	-0.8	
	0.4s	5.30nm		5.0mb	
BW06	64.58	54 P	27 20.60	-0.2	
	0.9s	7.10nm		4.8mb	
FRB	65.17	19 eP	27 23.00	-1.0	
NUR	65.61	335 iP	27 25.40	-1.5	
RSON	67.00	39 P	27 35.30	-0.6	
	0.8s	6.16nm		4.8mb	
NB2	68.60	341 P	27 45.10	-0.7	
	0.7s	1.51nm		4.2mb	
NRA0	68.80	341 P	27 46.20	-0.8	
HFS	68.84	340 eP	27 45.50	-1.7	
	0.6s	20.50nm		5.4mb	
GBA	70.81	270 Pd	27 58.80	-1.1	
	0.8s	3.60nm		4.5mb	
ALQ	71.64	59 eP	28 04.00	-0.9	
	0.7s	1.71nm		4.2mb	
KSP	76.31	334 eP	28 31.70	0.3	
CLL	76.86	336 iP	28 34.70	0.2	
	1.0s	18.00nm		5.1mb	
VRI	76.88	325 eP	28 36.00	1.3	
MLR	77.50	325 ePc	28 39.00	0.7	
MOX	77.85	336 eP	28 41.00	1.1	
KHC	78.64	335 P	28 45.30	0.9	
GRF	78.82	336 eP	28 46.20	0.9	
BZS	79.05	328 eP	28 46.50	0.0	
ELC	79.33	46 P	28 48.20	-0.1	
KBA	80.55	334 iPd	28 55.60	0.7	
	0.7s	17.10nm		5.2mb	
		i	28 57.00		
CDF	81.05	338 eP	28 57.10	-0.2	
	0.7s	7.40nm		4.8mb	
HAU	81.66	339 eP	29 01.00	0.5	
BSF	81.71	338 eP	29 00.30	-0.5	
GRR	82.93	343 eP	29 06.90	-0.1	
LOR	82.96	340 eP	29 06.80	-0.4	
	1.0s	12.00nm		4.9mb	
SSF	83.24	340 eP	29 08.40	-0.2	
	0.9s	5.50nm		4.7mb	
AVF	83.53	340 eP	29 10.10	0.0	
	0.9s	12.10nm		5.0mb	
SMF	83.55	340 eP	29 10.40	0.2	
	0.9s	16.30nm		5.2mb	
LPG	83.88	337 eP	29 12.90	0.6	
	0.7s	5.50nm		4.8mb	
MAF	84.25	340 eP	29 14.30	0.5	
	0.7s	11.40nm		5.2mb	
CAF	85.59	340 eP	29 22.00	1.5	
	0.8s	4.50nm		4.7mb	
MBH	86.12	310 eP	29 26.50	3.2X	

S.D. = 0.8 on 59 of 66 obs.

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* FEB 23, 1989 19h 16m 52.34± 2.30s
36.380 N ±14.8km 71.284 E ±12.6km
DEPTH = 61.6 ± 24.8 km
4.1mb (2 obs.)
AFGHANISTAN-USSR BORDER REGION (717)

QUE	7.16	212 eP	18 37.20	0.3	
		eS	19 55.00		
NDI	9.16	145 iPd	19 04.50	0.2	
MAIO	9.51	273 eP	19 09.00	-0.2	
		eS	20 46.00		
HYB	19.96	159 eP	21 21.50	-0.6	
SHL	20.65	116 iP	21 29.00	-0.3	
GBA	23.34	165 Pc	21 56.20	0.3	
	0.8s	3.50nm		3.9mb	
NB2	44.61	323 P	24 59.60	-0.4	
	0.9s	6.50nm		4.4mb	
YKA	81.36	3 P	29 03.80	0.7	

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

? FEB 23, 1989 19h 58m 25.08± 7.34s
52.145 N ±34.2km 4.205 W ±46.5km
DEPTH = 10.0km (geophysicist)
UNITED KINGDOM (533)

YRH	0.74	340 eP	58 39.80	0.3	
		eS	58 49.30		
ECP	1.33	272 eP	58 50.00	0.4	
		eS	59 07.20		
ETA	1.35	295 iPc	58 50.20	0.4	
		eS	59 07.60		
ECB	1.60	279 eP	58 53.40	0.0	
		eS	59 13.80		
DLE	1.83	310 iPc	58 56.40	-0.3	
		eS	59 20.00		
DCN	2.22	304 eP	59 02.20	-0.2	
		eS	59 33.00		
DMU	2.40	318 eP	59 04.80	-0.2	
		eS	59 38.00		

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

FEB 23, 1989 20h 37m 07.69± 1.40s
1.186 S ± 7.8km 126.879 E ±11.6km
DEPTH = 38.9 ± 14.3 km
4.8mb (4 obs.)
MOLUCCA SEA (269)

AAI	2.81	152 ePd	37 52.90	1.6	
		eS	38 26.50		
MNI	3.31	322 eP	38 00.50	2.1	
		eS	38 40.40		
PCI	7.05	272 ePd	38 50.60	-0.5	
		eS	39 33.00		
DAV	8.32	351 eP	39 14.00	5.1X	
MKS	8.41	241 i(P)c	39 09.50	-0.6	
MTN	12.33	160 eP	40 02.00	-1.6	
KNA	14.59	173 eP	40 31.00	-2.4	
BAG	18.56	341 eP	41 20.00	-3.8X	
MBL	21.01	199 eP	41 49.50	-0.9	
	0.6s	14.00nm		4.5mb	
PMG	21.76	113 e(P)	41 43.00	-15.0X	
KLI	22.29	260 eP	42 06.80	3.5X	
QIS	22.92	148 eP	42 08.00	-1.5	
		e	42 11.00		
		e	47 19.00		
NANU	23.94	207 eP	42 22.00	2.7X	
WARB	24.85	181 eP	42 20.20	-8.0X	
CTA	26.68	136 iPc	42 47.00	1.8	
	1.1s	70.25nm		5.2mb	
FORR	29.52	178 eP	43 10.00	-0.8	
SSE	32.56	351 eP	43 36.30	-1.1	
STK	33.54	157 eP	43 46.00	-0.1	
WHN	33.73	340 P	43 51.00	3.3X	
CHG	33.89	307 eP	43 49.00	-0.3	
TIA	38.30	347 eP	44 25.10	-1.3	
BWA	38.71	151 eP	44 31.10	1.2	
CD2	38.76	327 P	44 35.80	5.4X	
XAN	38.89	336 eP	44 32.00	0.6	
CAN	39.71	151 eP	44 39.70	1.5	
TOO	40.06	157 iPd	44 43.20	2.1	
TIY	40.95	342 eP	44 47.50	-0.9	
BJI	42.18	348 eP	44 57.50	-0.8	
LZH	42.84	332 eP	45 04.50	0.5	
	2.0s	82.00nm		5.1mb	
SNY	42.92	356 eP	45 03.10	-1.2	
HHC	44.10	343 eP	45 14.40	0.3	
MDJ	45.67	3 eP	45 24.50	-1.9	
GTA	47.41	331 eP	45 40.30	-0.2	
HYB	51.06	294 eP	46 08.50	-0.2	
GBA	51.15	288 Pc	46 11.60	2.2	
	0.6s	1.70nm		4.2mb	
WMQ	56.86	327 eP	46 51.00	0.0	
MAIO	72.63	309 eP	48 36.00	2.4	
CNCB	156.88	141 PKP	57 14.00	12.2X	
ZOBO	157.19	140 PKP	57 08.00	5.8X	

S.D. = 1.4 on 29 of 39 obs.

? FEB 23, 1989 20h 40m 35.24± 0.90s
17.665 S ±21.2km 178.601 W ±17.3km
DEPTH = 539.1 ± 9.1 km
5.5mb (9 obs.)
FIJI ISLANDS REGION (181)

VUN	2.82	263 ePd	41 50.30	1.5	
SGE	3.32	271 iPd	41 53.10	0.9	
AFI	7.55	61 iPd	42 27.00	-2.2	
		S	42 32.40		
BRS	28.10	245 iP	45 44.00	-1.4	
		e	45 58.00		
		e	49 19.00		
		i(S)	50 54.00		
COO	29.74	239 iPc	46 00.00	0.4	
RMQ	31.43	248 eP	46 21.00	7.0X	

23d 20h

```
        0.7s    152.00nm          5.7mb
                  e      46 35.00
CTA    33.31 260 iPd    46 28.80   -1.0
        0.9s     42.02nm          5.0mb
                  iS     49 35.00
CNB    33.43 232 iPc    46 31.30    0.5
        0.6s    161.00nm          5.8mb
CAN    33.71 232 iPd    46 33.30    0.2
BWA    33.81 234 iPd    46 32.00   -2.0
PMG    34.24 279 eP     46 37.50   -0.2
CMS    34.99 240 iPd    46 43.90    0.2
        0.9s    129.00nm          5.5mb
                  e      50 47.00
TOO    37.18 230 iPd    47 02.90    1.1
STK    38.59 241 iPd    47 14.20    0.9
        0.3s     35.00nm          5.4mb
ADE    41.61 237 iPd    47 38.00    0.3
        0.6s     44.00nm          5.2mb
FORR   49.91 244 iPd    48 40.20   -1.1
        0.4s    116.00nm          5.7mb
KNA    50.31 264 iPd    48 43.10   -1.3
        0.6s     87.00nm          5.4mb
WARB   51.19 250 iPd    48 40.60  -10.2X
        0.6s     66.00nm
MBL    57.86 256 iPd    49 36.10   -1.6
        0.4s     19.00nm          4.8mb
MAT    67.60 323 iPc    50 38.50   -1.4
                  (S)    53 03.00
NNT    86.01 284 eP     52 21.80    1.8
YKA    94.19  25 P      52 58.10    1.2
KSP   144.83 344 iPKPd  59 13.00    1.0
CLL   145.19 347 iPKPd  59 13.50    1.0
        0.7s     10.00nm
BRG   145.39 346 iPKP   59 13.90    1.0
PRU   146.06 345 ePKP   59 16.00    2.0X
DOR   146.89 301 ePKP   59 19.50    3.6X
PRNI  146.94 299 iPKPd  59 19.50    3.4X
KHC   147.10 345 PKP    59 19.60    3.9X
MBH   147.18 298 iPKPd  59 20.00    3.6X
FLN   148.94   2 ePKP   59 23.10    4.5X
CDF   148.96 352 ePKP   59 23.50    4.7X
KBA   149.06 344 iPKP   59 23.30    4.2X
        0.4s     2.30nm
LDF   149.13   2 ePKP   59 23.30    4.4X
GRR   149.30   3 ePKP   59 24.50    5.4X
HAU   149.47 353 ePKP   59 24.50    5.1X
BSF   149.59 353 ePKP   59 24.70    5.0X
LPF   149.65   3 ePKP   59 24.90    5.3X
LOR   150.41 357 ePKP   59 26.90    6.0X
SSF   150.63 357 ePKP   59 27.50    6.3X
LBF   150.68 356 ePKP   59 27.30    6.0X
AVF   150.91 357 ePKP   59 27.90    6.3X
MFF   151.12   2 ePKP   59 28.30    6.4X
BGF   151.16 358 ePKP   59 28.50    6.5X
TCF   151.45 359 ePKP   59 29.00    6.5X
LSF   151.50 360 ePKP   59 29.30    6.8X
MAF   151.51 358 ePKP   59 29.50    7.0X
LPG   151.89 352 ePKP   59 31.10    7.6X
     S.D. = 1.3  on  23 of  48 obs.
-------------------------------------
   FEB  23, 1989  20h 43m 56.45± 1.22s
    1.116 S ± 7.3km  126.974 E ± 9.3km
   DEPTH =  39.7 ± 12.3 km
    4.7mb (  2 obs.)  4.3Msz (  1 obs.)
 MOLUCCA SEA                        (269)

AAI     2.83 154 eP     44 39.50   -0.8
                 eS     45 14.50
MNI     3.32 320 ePd    44 48.60    1.3
                 eS     45 29.40
PCI     7.14 272 ePc    45 39.00   -2.1
                 e(S)   46 53.10
MKS     8.53 241 i(P)c  46 02.00    1.6
MTN    12.36 161 eP     46 49.00   -3.8X
                 eS     48 30.00
PMG    21.70 113 eP     48 47.50    1.4
QIS    22.93 148 eP     48 56.00   -2.2
                 e      48 59.00
QZH    27.15 343 eP     49 38.20    0.1
SSE    32.50 351 eP     50 24.00   -1.6
        1.0s    12.00nm          4.7mb
                 e      04 04.50
STK    33.57 157 eP     50 34.00   -1.0
WHN    33.70 340 P      50 37.00    0.9
CHG    33.93 307 eP     50 38.00   -0.3
TIA    38.25 347 eP     51 13.80   -0.8
BWA    38.73 151 iPd    51 19.90    1.2
CD2    38.75 327 P      51 20.00    1.0
XAN    38.87 336 P      51 20.60    0.7
CAN    39.73 151 iPd    51 27.70    0.7
TOO    40.09 157 eP     51 31.00    1.0
TIY    40.91 342 eP     51 36.60   -0.1
     Z  20s      0.40um          4.3Msz
BJI    42.13 348 eP     51 45.50   -1.1
SNY    42.86 356 eP     51 50.90   -1.6
HHC    44.06 343 P      52 03.10    0.6
BTO    44.30 341 eP     52 04.60    0.2
GTA    47.40 331 eP     52 30.00    1.0
HYB    51.12 293 eP     52 57.00   -0.8
GBA    51.22 288 P      52 58.00   -0.6
        0.9s     7.00nm          4.6mb
NDI    56.06 306 eP     53 34.00   -0.2
WMO    56.85 327 eP     53 40.00    0.3
MAIO   72.67 309 eP     55 23.00    0.5
AVY    79.46 251 eP     56 01.80    0.6
     S.D. = 1.1  on  29 of  30 obs.
-------------------------------------
*  FEB  23, 1989  21h 21m 14.66± 1.84s
    5.828 N ± 8.5km  126.715 E ±20.2km
   DEPTH = 171.2 ± 18.9 km
    4.8mb (  2 obs.)
 MINDANAO, PHILIPPINE ISLANDS       (259)

MNI     4.74 203 ePd    22 25.30   -0.5
                 eS     23 24.00
MTN    19.06 167 iPc    25 26.10   -0.3
QZH    20.54 339 eP     25 43.00    1.7
KNA    21.53 175 eP     25 52.00    0.8
WHN    27.20 336 P      26 45.00    0.7
TIA    31.49 345 eP     27 21.40   -0.9
WARB   31.82 180 eP     27 17.00   -8.2X
TIY    34.30 340 eP     27 46.00   -0.6
BJI    35.36 346 eP     27 55.00   -0.4
FORR   36.49 178 iPd    28 05.40    0.4
        0.4s    24.00nm          5.2mb
HHC    37.42 341 P      28 13.30    0.4
SHL    38.66 304 iP     28 23.50    0.0
MDJ    38.72   3 eP     28 23.00   -0.5
STK    40.09 160 eP     28 35.00    0.1
GTA    41.31 328 Pc     28 45.80    0.7
NDI    51.98 302 iPd    30 07.50   -1.1
MAIO   68.25 307 eP     32 00.00    0.9
HFS    96.17 332 eP     34 22.50   -1.5
        0.4s     0.80nm          4.5mb
     S.D. = 0.9  on  17 of  18 obs.
-------------------------------------
&  FEB  23, 1989  21h 23m 21.94s
    37.473 N          118.837 W
   DEPTH =   1.5km
 CALIFORNIA-NEVADA BORDER REGION ( 40)
      <REN>. MD 3.0 (REN).

PPK     0.74  93 iPc    23 35.80   -1.0
SVP     0.86  73 eP     23 38.10   -1.2
LCH     0.98 104 eP     23 40.00   -1.4
MGM     1.07  91 eP     23 41.80   -1.2
CMB     1.35 295 eP     23 46.30   -1.4
TNP     1.42  64 ePc    23 48.30   -0.7
SGV     1.52 108 eP     23 50.00   -0.5
KVN     1.68  20 eP     23 52.30   -0.4
LSM     2.18 109 eP     23 59.40   -0.5
        9 obs. associated
-------------------------------------
%  FEB  23, 1989  22h 00m 57.83± 1.21s
    40.729 N ±14.1km  109.360 E ± 6.7km
   DEPTH =  10.0km  (geophysicist)
 NORTHERN CHINA                     (323)
      ML 4.1 (BJI).

BTO     0.52 104 Pg     01 08.00   -0.3
                 Sg     01 15.00
HHC     1.68  85 iPgd   01 28.20    0.7
                 Sg     01 50.40
TIY     3.84 141 Pn     01 57.80   -0.6
                 Pg     02 04.60
                 Sn     02 52.20
BJI     5.25  95 Pg     02 32.00   13.8X
     Z  12s      1.20um
     N  10s      1.10um
                 Sg     03 38.00
LZH     6.34 225 Pn     02 35.00    1.2
                 Sn     03 42.00
XAN     6.69 183 Pn     02 38.00   -0.6
     E  12s      1.00um
GTA     7.44 263 Pn     02 48.20   -1.0
                 Sn     04 11.00
                 Sg     04 48.00
GYA    14.41 190 eP     04 24.40    0.5
WMQ    16.32 288 eP     04 53.00    4.3X
     S.D. = 1.0  on   7 of   9 obs.
-------------------------------------
%  FEB  23, 1989  23h 34m 08.39± 0.70s
    40.575 N ± 5.7km   23.563 E ± 7.4km
   DEPTH =  10.0km  (geophysicist)
 GREECE                             (364)
      ML 2.0 (THE).

SOH     0.29 327 ePg    34 14.40   -0.1
                 eSg    34 18.30
OUR     0.40 127 ePg    34 17.30    0.7
                 eSg    34 24.00
SRS     0.54   2 ePg    34 19.40    0.0
                 eSg    34 27.30
PAIG    0.65 172 ePg    34 20.30   -1.1
                 eSg    34 30.30
KNT     0.77 320 ePg    34 22.80   -0.7
LIT     0.95 240 ePg    34 27.00    0.5
                 eSg    34 39.00
GRG     0.96 294 ePg    34 27.30    0.6
                 eSg    34 41.20
     S.D. = 0.9  on   7 of   7 obs.
-------------------------------------
%  FEB  23, 1989  23h 55m 35.07± 0.80s
    37.726 N ± 7.3km   15.108 E ± 6.5km
   DEPTH =  10.0km  (geophysicist)
 SICILY                             (398)

MNO     0.39 302 P      55 43.40    0.4
                 eSg    55 50.00
ATN     0.52  33 P      55 46.10    0.6
                 eSg    55 52.90
MEU     0.64 193 P      55 47.70   -0.3
SOI     0.82  65 P      55 51.80    0.8
                 eSg    56 04.30
GIB     0.90 287 P      55 52.70    0.4
TDS     2.16  26 P      56 10.80   -0.7
MGR     2.43   8 P      56 14.30   -1.2
     S.D. = 0.9  on   7 of   7 obs.
-------------------------------------
%  FEB  24, 1989  00h 19m 07.60± 0.97s
    16.067 N ± 6.4km   61.215 W ± 9.1km
   DEPTH =  10.0km  (geophysicist)
 LEEWARD ISLANDS                    ( 92)
      ML 2.1 (FDF).

MGG     0.18 213 eP     19 11.50   -0.1
                 S      19 17.00
DEG     0.29  31 eP     19 13.50   -0.1
SEG     0.43 320 eP     19 16.70    0.2
PAG     0.45 265 eP     19 16.50   -0.3
                 S      19 26.50
BBL     0.60 205 eP     19 19.90    0.2
     S.D. = 0.3  on   5 of   5 obs.
-------------------------------------
?  FEB  24, 1989  00h 25m 03.66± 6.05s
    34.033 S ±27.0km   72.244 W ±39.1km
   DEPTH =  10.0km  (geophysicist)
 NEAR COAST OF CENTRAL CHILE        (135)

LCCH    0.79  45 iPd    25 19.10    0.1
                 iS     25 28.90
TACH    1.15  71 iPd    25 25.00   -0.2
                 iS     25 39.00
CHCH    1.33  86 iPd    25 28.40    0.2
                 iS     25 45.00
SAN     1.44  67 iPc    25 29.70   -0.1
                 iS     25 47.50
ROCH    1.48  45 ePd    25 30.50    0.0
PCH     1.50  75 iPd    25 30.50   -0.2
                 iS     25 50.00
PEL     1.57  56 iPc    25 32.00    0.3
                 iS     25 51.30
FCH     1.77  67 iPd    25 35.00    0.1
                 iS     25 58.50
JACH    1.93  46 iP     25 36.80   -0.1
                 iS     26 03.60
MDZ     3.06  69 i(P)   26 00.90    7.9X
     S.D. = 0.2  on   9 of  10 obs.
-------------------------------------
%  FEB  24, 1989  00h 32m 37.35± 0.83s
    17.868 N ± 6.3km   99.577 W ±10.4km
```

DEPTH = 33.0km (normal)
GUERRERO, MEXICO (59)

III	0.52	12	iP	32 48.70	0.3
			iS	32 56.70	
ACX	1.03	195	iPc	32 55.20	-0.3
			iS	33 07.00	
UNM	1.50	14	iP	33 02.30	-0.2
			iS	33 20.00	
CRX	1.53	356	iPc	33 03.20	0.2
IIT	1.66	46	iP	33 03.80	-1.1
			iS	33 20.00	
IIC	1.91	9	iPc	33 09.00	0.5
			iS	33 21.00	
IISM	2.37	62	iPc	33 14.50	-0.2
			iS	33 31.50	
OXX	2.83	106	iPd	33 22.30	0.8
			iS	34 02.80	

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

FEB 24, 1989 00h 40m 35.15± 0.34s
37.731 N ± 2.5km 29.347 E ± 2.3km
DEPTH = 18.5 ± 2.9 km
5.0mb (54 obs.) 4.6Msz (3 obs.)
TURKEY (366)

ML 4.9 (ATH). Slight damage in the Denizli area.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 30C
Centroid Location:
Origin Time 00:40:45.3 0.7
Lat 37.76N FIX;Lon 29.44E FIX
Dep 15.0 FIX Half-duration 1.8
Moment Tensor; Scale 10**17 Nm
Mrr=-1.03 0.05 Mtt= 1.05 0.08
Mff=-0.02 0.05 Mrt= 0.26 0.21
Mrf= 0.08 0.13 Mtf=-0.30 0.04
Principal Axes:

	Val=	Plg=	Azm=
T	1.15	6	14
N	-0.08	8	283
P	-1.08	80	141

Best Double Couple:Mo=1.1*10**17
NP1:Strike=113 Dip=39 Slip= -77
NP2: 276 52 -100

KHL	0.61	13	iPg	40 45.90	-1.1
BCK	1.02	105	iPn	40 54.10	0.0
ELL	1.08	155	iPn	40 54.00	-1.1
ALT	1.45	24	iPn	41 01.60	1.0
KSL	1.62	173	ePn	41 04.90	2.0
IZM	1.77	293	iPn	41 04.10	-1.1
DST	1.95	343	iPn	41 07.50	-0.3
KCT	2.63	343	iPn	41 16.50	-1.0
GPA	2.66	16	iPn	41 19.20	1.3
KAP	2.79	219	ePn	41 20.00	0.3
YLV	2.83	0	iPn	41 19.50	-0.9
BNT	2.85	337	iPn	41 19.50	-1.0
PRK	2.85	303	ePn	41 19.30	-1.2
EDC	2.86	337	iPn	41 20.00	-0.6
GBZT	3.05	1	ePn	41 25.80	2.4
			iPg	41 36.70	
			eSg	42 18.20	
HRT	3.10	5	iPn	41 24.10	0.0
EZN	3.15	312	iPn	41 23.50	-1.4
ISK	3.34	356	ePn	41 26.60	-0.8
BBTK	3.40	51	iP	41 30.50	2.0
			i	41 36.00	
			iS	42 28.50	
CTT	3.48	349	iPn	41 28.60	-1.0
PPCY	3.73	139	eP	41 36.00	2.9
IKL	3.78	112	iPn	41 37.00	3.2
DMK	4.26	344	iPn	41 39.60	-1.0
ATH	4.46	275	ePn	41 44.30	0.9
RDO	4.51	320	ePn	41 44.00	-0.1
FAM	4.64	125	eP	41 50.50	4.4X
VAM	4.75	242	ePn	41 48.10	0.6
OUR	4.92	304	ePn	41 48.10	-1.8
PAIG	4.94	298	ePn	41 49.30	-0.9
KDZ	4.95	323	iPc	41 50.00	-0.3
NEO	5.05	290	ePn	41 52.00	0.2
JMB	5.18	337	iP	41 53.00	-0.6
DIM	5.22	327	iP	41 53.00	-1.1
RZN	5.32	319	iPd	41 55.00	-0.8
SOH	5.58	305	ePn	41 57.70	-1.6
PLD	5.64	322	iPc	42 00.00	-0.1
THE	5.74	302	ePn	42 00.60	-0.9
			eSn	43 02.60	
LIT	5.85	296	ePn	42 02.40	-0.6
ITM	5.93	267	ePn	42 05.40	1.2
PSN	6.01	352	eP	42 06.00	0.8
KNT	6.05	306	ePn	42 04.60	-1.3
SZH	6.11	336	iP	42 06.00	-0.7
KVT	6.17	55	ePn	42 08.70	1.1
PGB	6.24	322	iP	42 07.00	-1.5
GRG	6.27	303	ePn	42 08.50	-0.6
PVL	6.27	332	iPc	42 08.00	-1.0
VAY	6.35	306	iPn	42 09.30	-0.8
KKB	6.35	313	iP	42 09.00	-1.1
BHL	6.39	125	Pn	42 08.00	-2.8
			Sn	43 24.00	
KZN	6.43	296	ePn	42 10.90	-0.5
ADI	6.68	132	eP	42 14.00	-0.8
VTS	6.76	318	iP	42 16.00	0.0
TLB	6.92	352	ePc	42 17.00	-1.1
VLS	6.93	276	ePn	42 21.20	2.8
BUC1	7.07	340	ePc	42 24.00	3.9X
BUC	7.11	341	eP	42 42.00	21.2X
ZNT	7.20	138	eP	42 20.80	-1.2
			eS	43 40.20	
KBN	7.23	296	eP	42 23.00	0.6
LSK	7.23	292	iPd	42 24.60	2.0
SKO	7.41	307	iPn	42 23.80	-1.2
	0.8s	116.00nm			6.1mb X
			i	42 25.50	
			i	42 28.30	
			iSn	43 50.00	
OHR	7.43	300	ePn	42 24.70	-0.6
CFR	7.50	354	ePd	42 26.50	0.3
BURJ	7.62	134	Pd	42 27.00	-0.9
ISR	7.69	345	eP	42 32.50	3.5X
JARJ	7.70	133	Pc	42 28.20	-1.0
TPE	7.71	292	iPd	42 30.00	0.9
SALJ	7.73	136	Pd	42 28.00	-1.5
KFNJ	7.83	136	Pc	42 29.40	-1.5
BERA	7.87	295	eP	42 33.40	1.9
PHP	7.92	303	eP	42 32.30	0.2
DRA	7.93	333	ePc	42 32.00	-0.2
MASJ	7.96	137	Pc	42 31.20	-1.6
MKRJ	8.05	138	Pc	42 32.40	-1.7
KKS	8.12	305	iP	42 37.00	2.1
VLO	8.13	293	iP	42 40.20	5.1X
MLR	8.16	343	ePc	42 35.00	-0.6
TIR	8.17	299	eP	42 38.00	2.4
MKT	8.29	143	iP	42 37.30	-0.1
			eS	44 06.60	
VRI	8.36	347	ePd	42 37.50	-0.8
LACI	8.39	301	eP	42 41.00	2.3
BCI	8.49	306	eP	42 41.10	1.1
PPE	8.58	352	ePc	42 45.00	3.8X
BIR	8.62	352	eP	42 50.00	8.1X
SHBJ	8.65	126	P	42 45.70	3.3
SDA	8.70	303	eP	42 44.70	1.8
CLI	8.94	351	ePc	42 47.00	0.7
TTG	9.04	304	eP	42 49.00	1.3
SSR	9.13	324	iPc	42 45.00	-3.9X
MBH	9.18	148	eP	42 47.30	-2.2
DEV	9.46	332	iPc	42 53.00	-0.3
IAS	9.55	353	eP	42 56.00	1.4
HQL	9.69	149	eP	42 56.20	-0.4
BEO	9.74	319	ePn	42 57.00	-0.3
			e(Sg)	45 34.00	
BZS	9.77	326	ePd	42 54.50	-3.1X
CJR1	9.99	336	eP	43 01.00	0.2
GRI	10.22	280	P	43 04.10	0.1
BADA	10.33	151	iPc	43 03.50	-1.9
TDS	10.35	285	P	43 04.50	-1.2
AYN	10.44	146	eP	43 05.50	-1.4
SOI	10.51	276	P	43 06.20	-1.7
ATN	10.97	276	P	43 11.60	-2.7
MGR	11.01	287	P	43 15.00	0.3
MSL	11.11	93	ePd	43 19.00	2.9
			eS	45 31.00	
			eLR	46 07.00	
HVAR	11.23	303	iPc	43 21.50	3.8X
MEU	11.48	271	P	43 20.10	-1.2
MNO	11.59	275	P	43 23.90	1.0
MNO	11.59	275	P	43 19.40	-3.5X
BSS	11.68	290	P	43 22.30	-1.5
DUI	12.12	294	P	43 28.20	-1.7
BUD	12.35	325	eP	43 32.20	-0.6
RFI	12.39	291	P	43 35.40	2.1
SDI	12.60	293	P	43 36.60	0.4
ZAG	12.82	313	eP	43 40.80	1.7
PTJ	12.88	314	eP	43 39.00	-1.0
SRO	12.92	325	eP	43 40.90	0.6
AZI	12.94	294	P	43 42.30	1.6
BHD	13.03	105	ePd	43 46.00	4.0X
			eS	46 22.00	
			e	47 02.00	
AQU	13.06	296	P	43 42.40	0.1
VBY	13.08	311	eP	43 42.50	-0.1
SLY	13.14	94	ePd	43 48.50	5.1X
			eS	46 25.00	
			eLQ	48 30.00	
RDP	13.41	293	P	43 56.30	9.3X
TAB	13.42	83	eP	43 52.00	4.8X
			i	46 35.00	
SOP	13.67	321	eP	43 49.00	-1.3
CEY	13.70	310	eP	43 50.50	-0.3
ZST	13.76	323	eP	43 50.60	-0.8
Z	11s	10.00um			
			LR	00 50.00	
LJU	13.79	312	eP	43 51.00	-1.0
			e	43 54.20	
			e(S)	47 46.00	
KRA	14.05	334	eP	43 55.20	0.0
	0.8s	33.00nm			5.1mb
Z	12s	4.10um			
N	12s	8.20um			
			e	43 58.90	
			i	44 06.00	
TRI	14.09	309	eP	43 53.50	-2.3
			i	44 46.50	
AKUR	14.10	167	eP	43 57.00	0.9
VOY	14.17	311	eP	43 56.70	-0.3
VKA	14.18	322	e(P)	43 56.00	-1.0
	2.0s	343.00nm			5.7mb X
Z	10s	6.00um			5.6Msz
			i	44 01.50	
			i	44 11.20	
			LR	50 16.00	
AGRW	14.35	167	eP	43 57.00	-2.3
AKSR	14.40	166	eP	43 59.00	-1.0
CRE	14.44	300	P	44 00.10	-0.5
AGAL	14.57	167	eP	44 03.00	0.8
RBL	14.57	312	P	44 06.60	4.3X
RBL	14.57	312	P	44 01.70	-0.6
SFI	14.61	301	P	44 03.80	1.2
PGD	14.68	300	P	44 04.90	1.1
KER	14.76	98	eP	44 12.00	7.2X
FIR	14.97	299	eP	44 10.00	2.6
KBA	15.04	313	iPc	44 09.00	0.5
	1.3s	38.80nm			4.6mb
			i	44 11.60	
			i	44 15.80	
			iPP	44 19.40	
			LR	50 32.00	
FVI	15.12	311	P	44 09.40	0.1
KMR	15.16	318	e(P)	44 16.00	6.1X
			iPP	44 21.60	
			i	44 52.00	
MME	15.48	300	P	44 12.10	-2.2
CTI	15.56	308	P	44 13.00	-2.1
CGL	15.77	282	P	44 19.50	1.5
KSP	16.06	329	eP	44 20.00	-1.5
			ic	44 29.80	
KHC	16.12	320	iPc	44 23.00	0.8
			i	44 27.30	
PRU	16.21	324	P	44 28.00	4.6X
Z	10s	7.50um			
N	10s	7.00um			
E	10s	2.80um			
			e	44 31.50	
WET	16.49	319	iPc	44 30.10	3.2X
			i	44 32.00	
BOB	16.51	301	P	44 23.80	-3.5X
BRG	17.10	325	eP	44 35.70	1.1
	1.5s	50.00nm			4.4mb
			i	44 41.70	
VAI	17.33	304	P	44 34.90	-2.6
IMI	17.35	298	P	44 38.30	0.4
SBF	17.66	297	eP	44 45.80	4.0X
	1.1s	99.60nm			4.9mb
GRF	17.68	318	eP	44 43.00	1.1
	1.0s	57.00nm			4.7mb
ORX	17.77	303	P	44 44.87	1.7
STV	17.83	298	P	44 43.64	-0.2
CLL	17.83	325	eP	44 43.00	-0.7
	1.8s	115.00nm			4.7mb
PZZ	18.05	299	P	44 46.72	0.1

24d 00h

MOX	18.06	321	eP+	44 48.00	1.5
	2.0s	206.00nm			4.9mb
Z	12s	5.60um			5.4Msz
N	10s	4.90um			
E	10s	2.80um			
		i		44 53.00	
		e(S)		48 16.00	
		LQ		52 40.00	
		LR		52 40.00	
RSP	18.11	301	P	44 46.51	-0.8
FRF	18.16	296	eP	44 49.30	1.5
	1.2s	77.30nm			4.7mb
LSD	18.27	302	P	44 50.00	0.6
LRG	18.34	295	eP	44 50.60	0.5
	1.2s	95.20nm			4.8mb
RRL	18.37	300	P	44 52.36	1.7
BNI	18.48	300	P	44 51.20	-0.7
LPG	18.55	302	eP	44 54.80	1.8
FEL	18.59	310	P	44 51.00	-2.3
LOMF	19.12	307	P	44 59.00	-0.6
MOF	19.12	309	P	44 58.50	-1.2
CDF	19.27	311	eP	45 00.80	-0.7
	1.0s	149.60nm			5.2mb
GWF	19.32	312	P	44 59.00	-3.0
BSF	19.32	309	eP	45 01.50	-0.7
	1.0s	73.60nm			4.9mb
HAU	19.67	309	eP	45 04.80	-1.2
VITF	19.98	309	P	45 08.00	-1.1
WLF	20.49	313	P	45 13.60	-0.8
PLDF	20.79	301	P	45 20.05	2.3
SMF	20.82	303	eP	45 17.10	-0.8
	1.4s	152.40nm			5.2mb
LBF	20.83	304	eP	45 17.90	-0.2
	1.0s	40.80nm			4.8mb
LBL	20.88	299	P	45 21.28	2.8
LOR	20.99	305	eP	45 19.00	-0.7
	1.0s	75.00nm			5.0mb
MEM	21.01	315	Pc	45 21.20	1.4
ENN	21.13	316	eP	45 22.00	1.0
	0.9s	41.00nm			4.8mb
		i		45 26.00	
		i		45 33.00	
AGO	21.14	301	P	45 21.64	0.4
PYM	21.16	301	P	45 22.04	0.6
SSF	21.16	304	eP	45 20.70	-0.7
AVF	21.18	304	eP	45 20.70	-0.9
	0.9s	42.50nm			4.9mb
COP	21.27	333	iPc	45 23.80	1.4
	1.0s	232.00nm			5.5mb
		i		45 26.30	
		iS		49 32.00	
WTS	21.29	319	eP	45 23.00	0.4
	0.8s	31.00nm			4.8mb
BGF	21.46	303	eP	45 23.70	-0.7
	1.0s	70.00nm			5.0mb
MAF	21.56	302	eP	45 26.40	0.9
	1.2s	68.40nm			4.9mb
DOU	21.58	313	P	45 25.40	-0.2
	0.9s	67.50nm			5.1mb
		LR		54 06.00	
CAF	21.65	298	eP	45 26.90	0.5
	1.2s	63.60nm			4.9mb
TCF	21.82	302	eP	45 29.10	1.0
	1.3s	77.20nm			5.0mb
WIT	21.82	321	eP	45 31.00	3.0X
SNF	21.94	314	Pc	45 30.40	1.2
UCC	22.02	314	P	45 34.00	4.0X
RJF	22.09	299	eP	45 32.00	1.2
	1.3s	82.30nm			5.0mb
LPO	22.22	297	eP	45 33.10	1.0
	1.2s	47.60nm			4.8mb
LSF	22.27	301	eP	45 33.20	0.6
	1.3s	57.70nm			4.9mb
LFF	22.58	298	eP	45 36.30	0.7
	1.1s	41.00nm			4.8mb
NUR	22.99	354	iP	45 40.30	0.8
	0.9s	47.30nm			5.0mb
Z	19s	1.40um			4.4Msz
		i		45 46.00	
		LR		55 10.00	
UPP	23.38	345	iP	45 46.10	2.9X
MFF	23.48	302	eP	45 44.70	0.4
	1.3s	144.40nm			5.4mb
ECHE	23.70	284	eP	45 49.00	2.4
LDF	23.94	306	eP	45 48.50	-0.3
	1.1s	112.30nm			5.3mb
MAIO	24.07	84	iPc	45 52.30	2.0
	0.9s	31.97nm			4.9mb
		eS		50 12.00	
FLN	24.21	307	eP	45 50.90	-0.5
	1.0s	69.60nm			5.2mb
GRR	24.35	306	eP	45 51.80	-1.0
	1.0s	128.00nm			5.5mb
LPF	24.38	305	eP	45 52.00	-1.1
	1.1s	107.40nm			5.4mb
ETOR	24.44	287	eP	45 54.70	0.9
HFS	24.54	341	eP	45 54.40	-0.1
	0.9s	97.70nm			5.4mb
Z	16s	2.59um			4.8MszX
		LR		54 53.00	
EVIA	24.99	282	eP	46 00.20	1.0
SUF	25.09	357	eP	46 00.00	0.2
	0.6s	15.90nm			4.8mb
NRA0	25.62	340	P	46 06.50	1.7
NB2	25.96	340	P	46 06.40	-1.6
	0.9s	34.20nm			5.0mb
TOL	26.03	285	iPc	46 09.50	0.7
	1.0s	60.00nm			5.2mb
		iS		50 58.00	
GUD	26.04	287	eP	46 09.80	0.7
EBAN	26.06	281	eP	46 08.00	-1.1
ASMO	26.17	279	eP	46 10.00	-0.2
APHE	26.20	279	eP	46 09.00	-1.6
ACHM	26.28	279	eP	46 13.00	1.7
ATEJ	26.47	279	eP	46 13.50	0.4
AAPN	26.47	279	eP	46 12.50	-0.5
ALOJ	26.50	279	eP	46 12.50	-0.8
KJF	26.52	358	iP	46 13.00	-0.1
	0.8s	33.70nm			5.1mb
IFR	28.24	272	iP	46 27.00	-2.2
SOD	29.73	358	iP	46 42.90	0.9
BNG	34.58	199	iPc	47 24.10	-0.9
	0.9s	63.00nm			5.5mb
		id		47 26.90	
		id		47 37.80	
LWI	39.77	181	iPd	48 09.80	0.9
KUK	41.42	228	eP	48 23.00	0.8
KOGH	41.43	228	eP	48 28.00	5.7X
LEGH	41.74	227	eP	48 24.00	-0.8
WMQ	43.81	63	iPc	48 44.00	2.4
Z	16s	1.50um			5.0MszX
		S		55 16.00	
		ScS		58 42.00	
TIC	43.93	234	P	48 41.82	-0.8
	0.7s	18.00nm			5.0mb
KIC	43.97	233	P	48 42.24	-0.7
	0.7s	16.00nm			4.9mb
LIC	44.25	234	P	48 44.66	-0.6
	0.7s	31 00nm			5.3mb
DAG	44.36	346	eP	48 45.00	-0.5
GKN	46.86	85	P	49 05.70	-0.4
	0.8s	34.00nm			5.4mb
DMN	47.41	85	P	49 10.50	-0.1
KKN	47.46	85	P	49 11.40	0.4
	0.6s	20.00nm			5.3mb
HYB	47.48	101	eP	49 12.00	1.0
GBA	48.90	106	Pd	49 18.90	-3.0X
	0.6s	3.50nm			4.6mb
SHL	53.71	84	iP	49 57.00	-1.5
		eS		02 08.00	
GTA	53.79	65	eP	49 58.00	-0.8
Z	20s	0.50um			4.6Msz
LZH	58.06	67	eP	50 27.00	-2.6
	2.0s	66.00nm			5.3mb
FRB	60.17	329	eP	50 42.00	-1.6
CD2	60.36	72	eP	50 43.60	-1.8
HHC	61.41	59	eP	50 52.20	-0.4
XAN	62.70	67	P	51 01.00	-0.2
CHG	62.80	87	eP	51 02.80	0.8
KSR	63.30	182	eP	51 05.50	0.3
TIY	63.46	62	eP	51 07.40	1.2
		S		59 47.00	
PRY	64.34	182	eP	51 03.50	-8.5X
	0.7s	5.00nm			4.8mb
		i		51 14.20	
MBC	64.56	352	eP	51 12.00	-0.8
GYA	64.78	75	P	51 14.00	-1.0
BJI	64.90	58	eP	51 15.00	-0.4
Z	20s	0.61um			4.8Msz
		eS		00 00.00	
NST	65.48	89	eP	51 19.50	0.0
SEK	65.73	182	eP	51 22.50	1.6
FRS	67.23	184	eP	51 31.50	1.3
WHN	68.43	68	eP	51 38.00	0.0
		pP		51 48.00	32kmX
CN2	68.94	50	eP	51 41.50	0.5
		pP		51 46.00	14kmX
BRW	71.18	2	eP	51 54.60	0.5
GAC	72.99	315	eP	52 07.00	1.7
RSNY	73.14	314	P	52 07.20	1.0
	0.8s	11.74nm			5.0mb
PTN	73.38	314	P	52 09.00	1.4
INK	73.50	353	eP	52 06.00	-1.9
TBR	75.00	311	P	52 17.80	0.8
YKA	75.99	344	P	52 22.90	0.6
IMA	76.50	1	eP	52 25.90	0.6
	1.0s	11.30nm			4.9mb
FBA	77.68	359	eP	52 32.00	0.4
RSON	78.62	327	P	52 35.90	-1.2
	0.7s	29.17nm			5.4mb
FFC	78.89	334	eP	52 38.00	-0.5
	1.1s	34.00nm			5.3mb
PMR	81.02	359	eP	52 50.70	1.1
	1.0s	20.00nm			5.1mb
TKL	84.25	311	P	53 07.00	0.1
SES	85.57	336	eP	53 11.00	-2.3
ELC	86.27	315	P	53 16.40	-0.5
FVM	86.42	317	P	53 17.30	-0.4
BAO	89.76	250	eP	53 34.50	0.5
LRM	90.01	334	eP	53 36.10	1.0
BW06	91.58	331	P	53 42.90	0.6
	1.0s	5.63nm			4.9mb
ITA	91.66	243	eP	53 44.70	1.8
VAO	93.66	244	e(P)	53 54.00	2.2
CTA	123.05	91	ePKP	59 32.00	-0.2
SPA	127.54	180	e(PKP)	59 40.50	0.8
	1.0s	8.00nm			

S.D. = 1.3 on 259 of 287 obs.

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* FEB 24, 1989 00h 46m 52.44± 1.25s
37.738 N ± 9.5km 29.397 E ±16.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.59	10	ePg	47 02.90	-1.6
BCK	0.99	106	ePn	47 12.00	0.8
ELL	1.07	157	iPn	47 12.00	-0.7
ALT	1.43	23	ePn	47 18.10	-0.4
DST	1.96	342	ePn	47 27.00	0.9
KCT	2.63	342	ePn	47 35.00	-0.7
YLV	2.82	360	ePn	47 40.00	1.5
BBTK	3.36	50	eP	47 48.50	2.3X

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

? FEB 24, 1989 00h 49m 02.35± 1.06s
37.502 N ±13.3km 29.107 E ±11.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ELL	0.99	139	iPn	49 21.50	0.3
BCK	1.18	92	ePn	49 24.00	-0.4
IZM	1.71	302	ePn	49 32.00	-0.4
ALT	1.74	27	ePn	49 28.60	-4.3X
DST	2.13	350	ePn	49 39.00	0.5
BNT	3.00	342	ePn	49 58.00	7.3X
YLV	3.07	4	ePn	49 56.00	4.2X
BBTK	3.69	50	eP	50 06.50	5.7X

S.D. = 0.8 on 4 of 8 obs.

% FEB 24, 1989 01h 06m 47.63± 0.85s
37.684 N ± 8.8km 29.407 E ± 9.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

BCK	0.97	103	ePn	07 06.60	0.6
ELL	1.02	157	iPn	07 06.60	-0.3
ALT	1.48	22	iPn	07 13.60	-0.7
IZM	1.84	293	ePn	07 19.60	0.1
DST	2.01	343	ePn	07 22.50	0.4

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

% FEB 24, 1989 01h 10m 32.41± 1.61s
32.045 N ± 7.4km 35.912 E ±16.8km
DEPTH = 10.0km (geophysicist)
DEAD SEA REGION (373)

JARJ	0.19	9	Pc	10 37.50	0.8
SALJ	0.20	260	Pc	10 37.60	0.8
BURJ	0.21	323	Pd	10 35.70	-1.3
KFNJ	0.27	228	Pc	10 38.70	0.6
MASJ	0.36	208	Pd	10 40.60	0.8

MKRJ 0.54 205 Pc 10 41.70 -1.7
S.D. = 1.5 on 6 of 6 obs.

% FEB 24, 1989 01h 11m 47.58± 0.87s
37.618 N ± 9.0km 29.259 E ± 9.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ELL 1.01 149 iPn 12 07.00 0.2
BCK 1.07 98 ePn 12 07.60 -0.2
ALT 1.58 25 ePn 12 15.60 -0.2
IZM 1.76 297 ePn 12 18.00 -0.3
DST 2.05 346 ePn 12 23.00 0.5
S.D. = 0.5 on 5 of 5 obs.

% FEB 24, 1989 01h 12m 59.58± 0.76s
37.690 N ± 7.4km 29.257 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ELL 1.07 151 iPn 13 19.50 -0.4
BCK 1.08 102 ePn 13 20.60 0.6
ALT 1.52 26 iPn 13 26.40 -0.5
IZM 1.73 295 ePn 13 30.00 0.2
DST 1.97 346 ePn 13 34.00 0.5
KCT 2.65 345 ePn 13 43.00 -0.1
YLV 2.87 2 ePn 13 46.00 -0.3
S.D. = 0.5 on 7 of 7 obs.

? FEB 24, 1989 01h 13m 02.17± 9.29s
13.767 N ±20.7km 59.993 W ±77.4km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)
MG 3.0 (FDF).

SLW 0.95 285 eP 13 19.29 0.1
eS 13 37.95
SLB 1.02 273 eP 13 20.15 -0.1
eS 13 39.03
MVM 1.17 312 eP 13 22.13 -0.2
S 13 40.30
BIM 1.28 306 eP 13 23.82 -0.1
S 13 43.70
SVB 1.32 248 eP 13 24.45 0.0
eS 13 46.29
FDF 1.48 311 eP 13 27.08 0.3
S 13 48.70
S.D. = 0.3 on 6 of 6 obs.

FEB 24, 1989 01h 17m 44.74± 0.38s
37.721 N ± 3.2km 29.255 E ± 3.3km
DEPTH = 27.1 ± 3.5 km
4.4mb (14 obs.)
TURKEY (366)
ML 4.3 (ATH). Felt at Denizli.

KHL 0.64 19 iPg 17 55.40 -1.9
BCK 1.09 103 iPn 18 03.70 -0.6
ELL 1.10 152 iPn 18 03.00 -1.5
ALT 1.49 27 iPn 18 10.70 0.6
KSL 1.62 171 ePn 18 13.20 1.4
IZM 1.71 294 iPn 18 14.10 0.9
DST 1.94 346 iPn 18 17.00 0.4
KCT 2.62 345 iPn 18 24.50 -1.7
GPA 2.69 17 iPn 18 29.60 2.4
KAP 2.74 218 ePn 18 29.40 1.6
PRK 2.79 304 ePn 18 28.80 0.2
BNT 2.83 339 iPn 18 28.00 -1.1
EDC 2.84 338 iPn 18 29.00 -0.2
YLV 2.84 2 iPn 18 28.50 -0.9
GBZT 3.07 3 ePn 18 34.40 1.9
iPg 18 45.40
eS 19 31.60
EZN 3.11 313 iPn 18 33.00 -0.1
HRT 3.11 6 iPn 18 28.50 -4.7X
ISK 3.34 357 ePn 18 35.00 -1.4
BBTK 3.46 51 eP 18 40.00 1.7
CTT 3.48 350 iPn 18 37.80 -0.6
PPCY 3.77 138 eP 18 44.00 1.5
IKL 3.84 111 iPn 18 45.50 2.0
DMK 4.26 345 iPn 18 48.90 -0.4
CSS 4.29 129 eP 18 51.00 1.1
ATH 4.39 275 ePn 18 52.00 0.7
RDO 4.47 321 ePn 18 52.30 -0.1
VAM 4.68 242 ePn 18 52.20 -3.2X
FAM 4.70 124 eP 19 03.50 7.9X
OUR 4.87 304 ePn 18 57.20 -0.8

PAIG 4.88 299 ePn 18 57.60 -0.6
KDZ 4.92 324 iPc 18 59.00 0.3
NEO 4.99 290 ePn 19 03.20 3.4X
JMB 5.16 337 iP 19 03.00 0.8
DIM 5.19 328 iP 19 02.00 -0.5
PLG 5.24 302 ePn 19 03.60 0.2
SOH 5.53 306 ePn 19 06.80 -0.6
SRS 5.54 309 ePn 19 06.60 -1.0
PLD 5.60 323 eP 19 09.00 0.6
THE 5.69 303 ePn 19 09.70 0.1
eSn 20 15.60
MMB 5.75 314 iPd 19 10.00 -0.6
LIT 5.79 296 ePn 19 10.80 -0.3
ITM 5.86 267 ePn 19 13.80 1.8
KNT 6.00 307 ePn 19 13.70 -0.4
PSN 6.01 353 eP 19 15.00 0.9
PGB 6.20 323 iP 19 16.00 -0.9
GRG 6.22 303 ePn 19 16.70 -0.4
KVT 6.24 55 ePn 19 17.70 0.3
PVL 6.25 333 iPc 19 17.00 -0.5
VAY 6.29 307 iPn 19 18.60 0.4
KKB 6.30 313 iP 19 17.00 -1.3
KZN 6.37 296 ePn 19 20.00 0.6
VTS 6.72 318 iP 19 26.00 1.8
ADI 6.72 132 iP 19 23.00 -1.2
TLB 6.92 353 eP 19 26.50 -0.4
ATZ 6.93 133 ePc 19 25.80 -1.4
eS 20 42.60
ZNT 7.24 137 iPc 19 29.00 -2.4
eS 20 48.50
SKO 7.36 308 iPn 19 33.00 -0.1
0.7s 51.00nm 5.7mb X
i 19 35.50
OHR 7.37 300 ePn 19 35.00 1.7
1.0s 0.05nm 2.5mb X
CFR 7.50 354 eP 19 20.00 -15.1X
MLR 8.15 343 ePd 19 44.50 0.2
VRI 8.36 348 ePc 19 48.50 1.5
CLI 8.94 351 eP 19 56.50 1.4
SSR 9.10 324 eP 19 54.00 -3.3
MBH 9.21 148 eP 19 57.40 -1.4
DEV 9.43 332 ePc 20 02.00 0.2
BZS 9.74 327 ePc 20 03.00 -3.0X
VKA 14.14 322 eP 21 05.00 -0.3
KBA 15.00 314 iP 21 02.20 -14.4X
1.2s 10.40nm
e 21 28.00
KHC 16.08 320 iPd 21 34.00 3.5X
PRU 16.18 324 eP 21 34.50 2.8X
WET 16.45 319 iPc 21 39.50 4.4X
BRG 17.07 325 eP 21 46.70 3.8X
2.0s 60.00nm 4.4mb
CLL 17.80 325 eP 21 56.00 4.0X
MOX 18.02 321 e(P) 21 58.00 3.2X
LPG 18.50 302 eP 22 04.60 3.7X
0.9s 9.80nm 4.0mb
CDF 19.22 311 eP 22 10.00 0.5
0.9s 14.40nm 4.2mb
BSF 19.27 309 eP 22 10.60 0.4
HAU 19.62 309 eP 22 13.90 -0.1
0.8s 14.50nm 4.3mb
SMF 20.77 303 eP 22 26.30 0.4
LOR 20.94 305 eP 22 27.30 -0.4
SSF 21.10 304 eP 22 29.10 -0.3
0.7s 6.60nm 4.2mb
AVF 21.13 304 eP 22 29.20 -0.4
MAIO 24.14 84 iPd 23 00.60 1.1
GRR 24.30 306 eP 22 59.70 -1.1
0.8s 16.10nm 4.6mb
HFS 24.53 341 eP 23 02.60 -0.3
0.5s 1.70nm 3.9mb
SUF 25.10 357 iP 23 08.80 0.5
0.7s 3.60nm 4.1mb
NB2 25.95 340 P 23 16.80 0.4
0.9s 5.90nm 4.2mb
KJF 26.53 358 eP 23 22.00 0.4
SOD 29.74 358 eP 23 54.00 3.4X
BNG 34.55 199 iPc 24 33.50 0.4
0.5s 5.00nm 4.7mb
ic 24 38.30
KIC 43.90 233 P 25 50.40 -0.5
LIC 44.19 233 P 25 53.00 -0.2
GKN 46.93 85 P 26 14.30 -0.8
DMN 47.48 85 P 26 18.90 -0.7
0.8s 12.00nm 5.0mb
KKN 47.53 85 P 26 18.80 -1.2
0.6s 5.00nm 4.7mb

FRB 60.15 329 eP 27 51.00 -0.8
CHG 62.87 87 eP 28 21.00 10.2X
CHTO 62.87 87 eP 28 20.50 9.7X
0.8s 2.20nm 4.3mb
SCH 63.35 320 eP 28 12.00 -1.5
YKA 75.98 344 P 29 33.40 2.8
FFC 78.87 334 eP 29 47.00 0.3
0.8s 6.00nm 4.7mb
BAO 89.69 250 eP 30 25.60 -16.4X
S.D. = 1.1 on 84 of 102 obs.

? FEB 24, 1989 01h 19m 12.52± 1.70s
47.184 N ±30.4km 152.688 E ±29.7km
DEPTH = 33.0km (normal)
4.8mb (5 obs.)
KURIL ISLANDS (221)

KUSJ 6.96 237 P 20 53.80 -1.0
ASAJ 7.68 250 eP 21 09.70 4.9X
HOOJ 8.23 238 eP 21 12.70 0.2
eS 22 43.50
MBC 44.29 20 eP 27 21.00 0.8
YKA 50.75 37 P 28 10.80 0.0
KKN 55.16 275 P 28 45.40 1.0
0.6s 8.00nm 4.9mb
DMN 55.39 275 P 28 46.80 0.7
0.6s 8.00nm 4.9mb
GKN 55.46 275 P 28 46.90 0.5
0.7s 8.00nm 4.9mb
NB2 67.72 341 P 30 07.70 -0.7
0.8s 3.80nm 4.5mb
HFS 67.95 339 eP 30 08.10 -1.6
0.5s 2.70nm 4.6mb
S.D. = 1.0 on 9 of 10 obs.

FEB 24, 1989 01h 59m 41.32± 0.59s
37.764 N ± 5.4km 29.356 E ± 7.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL 0.57 13 ePg 59 51.90 -1.1
BCK 1.02 107 iPn 00 00.60 -0.1
ELL 1.11 156 iPn 00 01.00 -1.2
ALT 1.42 24 iPn 00 08.10 0.9
KSL 1.65 174 ePn 00 11.50 1.0
eSn 00 37.60
IZM 1.77 292 ePn 00 10.60 -1.6
DST 1.92 343 ePn 00 14.50 0.0
YLV 2.80 0 ePn 00 30.00 3.0X
BNT 2.82 337 ePn 00 28.00 0.8
KAP 2.82 219 ePn 00 27.80 0.5
EDC 2.83 336 ePn 00 28.00 0.6
BBTK 3.37 51 eP 00 40.00 4.8X
S.D. = 1.1 on 10 of 12 obs.

FEB 24, 1989 01h 59m 54.59± 0.47s
24.057 S ± 4.4km 66.558 W ± 5.7km
DEPTH = 204.4 ± 5.1 km
4.8mb (11 obs.)
SALTA PROVINCE, ARGENTINA (129)

HJA 1.35 52 iPd 00 30.40 2.8
RTRS 6.62 202 ePc 01 32.00 1.5
CCH 6.65 3 P 01 33.00 1.6
CNCB 7.33 349 iPc 01 40.80 0.2
S 03 01.00
RTLL 7.44 193 ePc 01 40.50 -1.0
LPB 7.62 349 iPc 01 44.70 0.4
0.9s 319.33nm 5.5mb X
S 03 07.00
RTC8 7.66 195 ePd 01 43.90 -0.6
CFA 7.67 191 e(P) 01 43.60 -0.9
ZOBO 7.89 349 iPc 01 46.60 -1.4
(S) 03 11.00
RTCV 7.97 192 ePc 01 47.80 -0.7
ARE 8.86 328 iPd 01 55.70 -4.5X
iS 03 29.90
MDZ 9.02 192 e(P) 02 02.10 0.1
PEL 9.75 201 eP 02 10.50 -1.0
ITB1 11.11 96 e(P) 02 27.10 -1.9
ITB 11.28 96 e(P) 02 29.60 -1.6
VAO 18.00 91 iPc 03 52.80 0.1
e 03 56.20
e 04 01.80
e 04 12.90
BAO 19.35 68 eP 04 07.10 0.3
ITA 20.16 90 eP 04 14.30 -0.8

24d 02h

			e	04	21.10	
BMA	20.61	91	eP	04	20.10	0.8
			e	04	27.90	
JSC	59.67	346	P	09	38.00	-1.5
FVM	65.66	339	P	10	16.40	-2.4
	0.8s	34.09nm			5.2mb	
SPA	66.09	180	iPd	10	23.00	1.5
	0.9s	45.45nm			5.2mb	
LIC	67.07	72	P	10	27.32	-0.9
	0.4s	7.00nm			4.7mb	
TIC	67.28	71	P	10	28.80	-0.8
KIC	67.39	72	Pc	10	29.50	-0.7
	0.5s	22.00nm			5.2mb	
EMM	68.46	359	P	10	35.90	-0.3
RSNY	68.66	354	P	10	36.70	-0.7
ALQ	69.82	326	eP	10	44.00	-1.0
	0.9s	10.50nm			4.6mb	
GAC	69.90	353	eP	10	45.00	0.1
CBM	70.67	359	P	10	49.40	-0.1
KUK	71.12	74	eP	10	52.50	-0.5
GOL	73.04	330	P	11	03.70	-0.4
GLA	73.08	319	P	11	04.50	0.3
PEC	75.07	318	P	11	16.00	0.4
MSU	75.51	325	P	11	18.70	0.5
DAU	76.44	326	P	11	23.90	0.4
BW06	77.41	329	P	11	28.40	-0.3
	0.6s	4.27nm			4.4mb	
BCH	77.72	318	P	11	31.30	0.9
TNP	77.98	321	P	11	32.20	0.3
	0.7s	3.85nm			4.2mb	
RSON	78.34	343	P	11	32.00	-1.3
	1.0s	500.00nm			6.2mb	X
PHAM	78.35	318	P	11	34.50	0.8
SCH	78.55	360	eP	11	34.00	-0.3
KVN	79.14	322	P	11	38.30	0.2
FRS	79.98	118	eP	11	46.00	3.4X
ARN	80.02	319	P	11	43.40	0.7
LRM	81.07	329	eP	11	48.70	0.5
ORV	81.44	320	P	11	50.70	0.7
SEK	82.38	117	iPc	11	58.00	2.6
	0.9s	10.92nm			4.6mb	
PRY	82.81	116	e(P)	11	53.00	-4.6X
LBFM	82.83	321	P	11	57.50	0.1
SES	83.92	333	ePd	11	59.70	-2.7
FFC	84.15	340	eP	12	03.00	-0.4
	0.8s	9.00nm			4.6mb	
DPW	85.28	328	P	12	09.30	0.0
LON	86.33	326	P	12	14.30	-0.2
BUL	86.48	110	eP	12	17.20	1.2
RMW	86.80	326	P	12	16.00	-0.7
BMW	86.89	325	P	12	17.50	0.3
PNT	86.96	328	eP	12	18.00	0.6
	0.8s	13.00nm			4.8mb	
EDM	86.99	334	ePd	12	16.50	-1.0
YKC	94.26	340	ePd	12	50.50	-0.5
	0.7s	13.00nm			5.2mb	
YKA	94.32	340	P	12	51.50	0.2
GBA	144.47	100	PKPd	19	05.30	-3.4X
	0.6s	27.70nm				
HYB	146.77	95	ePKP	19	13.50	1.0
	1.0s	50.00nm				
NDI	147.30	74	iPKPd	19	16.90	3.9X
GKN	153.85	75	PKP	19	24.20	1.2
DMN	154.28	76	PKP	19	25.20	1.4
KKN	154.42	76	PKP	19	25.00	1.1
CHG	165.53	108	ePKP	19	37.90	2.0
S.D. = 1.1 on 63 of 68 obs.						

FEB 24, 1989 02h 02m 54.31± 0.75s
40.784 N ± 5.0km 19.887 E ± 8.7km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.4 (SKO).

BERA	0.09	150	iPgd	02	57.30	0.4
VLO	0.43	224	iPgd	03	04.30	1.2
TPE	0.50	169	iPgd	03	02.40	-2.0
TIR	0.56	358	iPgc	03	04.20	-1.5
KBN	0.72	102	ePg	03	09.00	0.5
OHR	0.76	64	iPg	03	07.70	-1.6
			iSg	03	19.10	
LSK	0.83	139	ePg	03	11.30	0.8
LACI	0.86	351	ePg	03	09.60	-1.3
PHP	1.00	25	ePn	03	15.30	2.2
PUK	1.26	0	ePn	03	17.80	0.2
KKS	1.35	17	ePn	03	20.00	0.9
SKO	1.67	44	ePn	03	24.00	0.3
			iSn	03	47.00	
VAY	2.10	74	ePn	03	17.20	-12.7X
S.D. = 1.4 on 12 of 13 obs.						

% FEB 24, 1989 02h 25m 28.15± 0.95s
37.762 N ± 8.2km 29.260 E ± 9.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.60	20	iPg	25	39.40	-0.9
BCK	1.10	106	ePn	25	48.70	-0.1
ELL	1.14	153	ePn	25	49.50	0.0
ALT	1.45	27	iPn	25	55.60	1.1
IZM	1.70	293	ePn	25	58.00	0.0
S.D. = 1.0 on 5 of 5 obs.						

FEB 24, 1989 02h 59m 41.06± 0.56s
37.816 N ± 5.1km 29.304 E ± 6.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.54	19	iPg	59	51.90	0.0
BCK	1.08	109	iPn	00	00.90	-0.5
ELL	1.17	155	iPn	00	00.50	-2.5
ALT	1.39	27	iPn	00	07.50	0.9
KSL	1.71	172	ePn	00	12.00	1.0
IZM	1.71	290	ePn	00	10.80	-0.3
DST	1.86	344	ePn	00	13.50	0.2
KCT	2.54	343	iPn	00	22.50	-0.5
YLV	2.75	1	ePn	00	27.00	1.0
BNT	2.76	337	iPn	00	26.00	-0.1
EDC	2.76	337	ePn	00	25.00	-1.2
PRK	2.77	302	ePn	00	26.40	0.1
KAP	2.84	218	ePn	00	29.30	2.1
HRT	3.02	5	ePn	00	35.00	5.3X
EZN	3.07	312	ePn	00	29.90	-0.6
ISK	3.25	357	ePn	00	32.00	-1.1
BBTK	3.37	52	eP	00	36.50	1.5
			eS	01	37.70	
IKL	3.84	113	ePn	00	46.60	5.1X
S.D. = 1.2 on 16 of 18 obs.						

? FEB 24, 1989 03h 05m 12.18± 1.69s
23.625 N ±22.8km 123.551 E ±12.8km
DEPTH = 33.0km (normal)
4.0mb (1 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

TWC	1.84	303	ePc	05	41.80	-0.2
			eS	05	59.80	
TWD	1.85	285	ePc	05	41.30	-0.8
			eS	05	58.60	
TWF1	2.09	263	ePc	05	46.10	0.5
ANP	2.42	310	eP	05	51.00	0.6
INK	72.93	22	eP	16	40.00	0.3
NB2	79.72	333	P	17	17.40	-0.6
0.7s 1.10nm 4.0mb						
S.D. = 0.8 on 6 of 6 obs.						

& FEB 24, 1989 04h 55m 21.60s
60.158 N 150.919 W
DEPTH = 64.8km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

NNL	0.22	239	Pn	55	32.61	0.7
SLKM	0.49	44	iP	55	33.79	-0.3
			eS	55	43.16	
NKA	0.61	345	iP	55	36.35	1.1
CNPM	0.65	194	iP	55	35.76	-0.1
			eS	55	46.27	
SEW	0.74	94	iP	55	36.14	-0.6
			eS	55	46.80	
RDT	0.85	300	Pn	55	37.49	-0.8
			eS	55	49.69	
RED	0.96	287	iP	55	38.83	-0.8
			eS	55	52.21	
ILIM	1.02	267	iP	55	39.76	-0.7
			eS	55	53.72	
SPU	1.17	332	iP	55	41.61	-0.8
			eS	55	57.15	
PTE	1.18	52	iP	55	41.62	-0.8
			eS	55	56.70	
CRP	1.27	332	iP	55	43.33	-0.5
			eS	56	00.15	
CGLM	1.27	336	iP	55	43.27	-0.5
PMS	1.28	31	Pn	55	43.62	-0.2
PWL	1.46	60	iP	55	45.12	-1.2
AUE	1.48	238	eP	55	46.11	-0.4
AUL	1.49	240	eP	55	46.42	-0.3
KNIM	1.60	82	iP	55	46.36	-1.8
MTU	1.65	95	iP	55	47.88	-1.6
			eS	56	07.84	
PLRM	1.68	31	eP	55	48.26	-1.1
PDB	1.69	259	iP	55	48.48	-0.9
			eS	56	09.69	
PME	1.74	31	Pn	55	49.34	-0.8
KNK	1.74	43	iP	55	49.22	-1.0
CDD	1.86	230	eP	55	51.38	-0.4
GHO	1.89	30	Pn	55	51.36	-0.9
			eS	56	13.95	
GLI	2.03	67	eP	55	51.40	-2.1
			eS	56	14.82	
SML	2.08	36	eP	55	53.89	-1.6
HIN	2.21	82	eP	55	54.48	-2.3
FID	2.28	73	iP	55	54.77	-2.9
			eS	56	20.44	
VZW	2.33	65	iP	55	56.34	-2.1
VLZ	2.46	65	eP	55	58.36	-1.8
KDC	2.55	199	iP	55	59.65	-1.3
KLU	2.79	59	iP	56	03.23	-1.1
			eS	56	35.21	
SGAM	2.86	81	iP	56	02.84	-3.0
TOA	3.02	48	eP	56	07.10	-1.8
MCK	3.71	14	eP	56	15.95	-1.1
GLB	3.71	67	eP	56	14.43	-3.4
PAX	3.84	40	eP	56	17.76	-1.9
LVY	4.15	10	eP	56	22.21	-1.7
NEA	4.52	10	eP	56	26.25	-2.8
WRH	4.53	16	iP	56	27.64	-1.5
CCB	4.73	16	eP	56	30.14	-1.9
RDS	4.86	14	eP	56	31.75	-2.1
FBA	4.97	16	eP	56	33.71	-1.8
GLM	5.11	17	eP	56	35.42	-2.1
44 obs. ossociated						

% FEB 24, 1989 05h 06m 20.53± 0.9
37.726 N ± 8.5km 29.326 E ±10.3
DEPTH = 10.0km (geophysicist)
TURKEY (366

KHL	0.62	15	iPg	06	31.50	-1.5
			iSg	06	42.50	
BCK	1.04	104	iPn	06	40.80	0.6
ELL	1.08	154	iPn	06	40.50	-0.4
ALT	1.46	25	iPn	06	47.30	0.2
IZM	1.76	293	ePn	06	51.00	-0.3
DST	1.95	344	ePn	06	55.50	1.4
S.D. = 1.3 on 6 of 6 obs.						

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* FEB 24, 1989 05h 35m 37.98± 2.92
1.166 N ±15.9km 97.363 E ±16.8
DEPTH = 53.0 ± 20.8 km
4.5mb (5 obs.)
NORTHERN SUMATERA (706

PSI	2.18	46	iPc	36	13.40	1.6
			e	38	53.50	
			e	43	00.00	
IPM	4.99	47	ePd	36	51.90	-0.3
	0.8s	177.10nm				
			e	36	57.50	
KGM	6.01	82	ePd	37	07.00	0.4
SNG	6.80	28	eP	36	57.10	-20.4
			eS	39	15.00	
BDT	16.06	6	eP	39	22.90	1.6
LOE	16.70	15	eP	39	28.00	-2.6
CHG	17.61	5	iPd	39	39.50	-1.8
	0.6s	6.67nm			4.0mb	
GBA	23.27	303	P	40	57.00	15.2
	1.0s	5.80nm				
KMI	24.38	12	Pc	40	54.50	1.7
SHL	24.83	348	iP	40	57.00	-0.1
GYA	26.69	19	P	41	14.00	-0.3
PKI	28.65	337	P	41	31.60	-0.6
	0.5s	10.00nm			4.7mb	
DMN	28.80	337	P	41	34.50	1.6
	0.7s	18.00nm			4.8mb	
KKN	28.89	337	P	41	34.60	0.3
LSA	28.99	349	P	41	36.10	0.7
GKN	29.33	337	P	41	38.40	0.2
CD2	30.20	11	P	41	44.80	-0.9
XAN	34.45	17	P	42	22.00	-0.7
GTA	38.13	3	iPc	42	53.70	-0.2

WRA 41.88 122 Pd 43 24.10 -0.9
0.8s 2.90nm 4.1mb
BJI 42.31 22 eP 43 29.00 0.8
WMQ 43.34 350 P 43 37.00 0.4
CN2 49.26 27 Pc 44 23.00 -0.3
pP 44 28.40 18kmX
MDJ 51.82 29 eP 44 44.00 1.2
NB2 87.11 331 P 48 18.80 -0.4
0.9s 4.10nm 4.6mb
S.D. = 1.0 on 23 of 25 obs.

FEB 24, 1989 06h 16m 51.85± 0.45s
16.043 N ± 2.9km 61.246 W ± 5.5km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 3.1 (FDF).

MGG 0.14 209 iPc 16 57.05 1.9
S 16 59.00
SFG 0.21 13 iPc 16 57.64 1.1
S 16 59.70
DEG 0.32 34 ePc 16 59.09 0.5
PAG 0.42 268 iPd 17 00.67 0.3
S 17 05.70
SEG 0.44 325 iPc 17 00.78 0.0
S 17 06.00
BTG 0.46 264 eP 17 00.90 -0.3
S 17 06.80
BBL 0.56 203 iPc 17 03.31 0.0
S 17 11.10
MDN 0.74 192 eP 17 06.45 0.1
DPMT 0.79 190 eP 17 07.66 0.5
eS 17 21.05
DGBT 0.80 186 eP 17 08.41 1.0
eS 17 20.68
DTMT 0.81 187 iP 17 07.66 0.1
eS 17 21.05
DSVT 0.82 188 eP 17 07.68 0.0
eS 17 21.41
DSC 0.84 188 eP 17 08.19 0.2
eS 17 24.04
MGH 1.15 306 eP 17 13.20 -0.2
ANG 1.24 333 eP 17 13.48 -1.4
FDF 1.30 176 iPc 17 14.67 -1.4
S 17 31.20
MVM 1.52 167 iPc 17 17.89 -1.2
S 17 36.00
BIM 1.53 174 iPc 17 18.16 -1.1
S 17 37.50
CPB 1.68 341 eP 17 21.06 -0.4
SLW 2.03 171 eP 17 47.78 21.2X
SLB 2.21 175 eP 17 47.98 18.8X
eS 17 57.39
S.D. = 0.9 on 19 of 21 obs.

? FEB 24, 1989 06h 54m 55.02± 1.11s
51.143 N ±18.7km 174.999 E ±14.0km
DEPTH = 33.0km (normal)
4.7mb (6 obs.)
NEAR ISLANDS, ALEUTIAN ISLANDS (5)

ADK 5.25 79 eP 56 15.20 2.1
TTA 19.49 42 eP 59 19.90 -2.1
IMA 21.78 35 eP 59 46.40 0.8
INK 29.91 36 ePc 01 02.90 1.4
MBC 35.29 22 eP 01 55.00 6.8X
0.6s 8.00nm 4.8mb
YKA 38.19 45 eP 02 13.60 0.9
YKC 38.25 45 eP 02 13.50 0.3
GMW 39.63 70 eP 02 23.80 -1.1
LON 40.60 71 eP 02 32.30 -0.7
PNT 40.63 66 eP 02 32.00 -1.1
0.7s 9.00nm 4.6mb
LBFM 43.48 77 eP 02 57.00 0.2
ORV 44.77 79 eP 03 06.50 -0.5
SES 44.92 61 eP 03 04.00 -4.1X
ARN 46.10 82 eP 03 18.00 0.4
KVN 47.18 78 eP 03 25.70 -0.6
PHAM 47.76 83 eP 03 31.60 0.9
TNP 48.32 78 P 03 34.90 -0.3
0.9s 9.77nm 4.8mb
BW06 50.05 68 P 03 47.20 -1.3
0.5s 4.73nm 4.8mb
PLM 51.59 82 eP 04 01.00 0.7
GLA 53.06 81 eP 04 11.50 0.4
GOL 54.44 69 eP 04 20.90 -0.5
FRB 55.19 29 eP 04 31.00 4.7X

ALQ 56.93 74 eP 04 39.00 -0.5
0.9s 2.73nm 4.3mb
GBA 84.21 284 P 07 25.00 0.6
0.7s 2.70nm 4.5mb
S.D. = 1.1 on 21 of 24 obs.

& FEB 24, 1989 07h 11m 21.00s
47.468 N 115.798 W
DEPTH = 0.0km (geophysicist)
MONTANA (456)
<SPEC>. MD 2.8 (BUT). Rockburst in the Lucky Fridoy mine neor Mullon, Idaho. Solution held to Lucky Friday mine coordinates.

DPW 1.67 285 eP 11 51.60 -0.2
HRY 2.81 104 ePn 12 08.30 0.1
LRM 2.83 124 ePc 12 08.10 -0.5
LCCM 3.15 120 ePnc 12 12.40 -0.6
CCMT 3.26 140 ePn 12 15.10 0.5
5 obs. ossocioted

? FEB 24, 1989 07h 22m 18.51± 0.97s
37.805 N ± 7.6km 29.336 E ±11.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL 0.54 16 iPg 22 29.00 -0.4
iSg 22 38.00
ELL 1.15 156 ePn 22 40.00 -0.1
ALT 1.39 26 ePn 22 44.50 0.5
IZM 1.74 291 ePn 22 49.00 0.0
S.D. = 0.7 on 4 of 4 obs.

FEB 24, 1989 07h 33m 48.94± 0.18s
14.159 N ± 3.2km 124.360 E ± 3.6km
DEPTH = 23.8km (4 depth phases)
5.2mb (21 obs.) 4.8Msz (5 obs.)
LUZON, PHILIPPINE ISLANDS (249)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 9S, 20C
Centroid Locotion:
Origin Time 07:33:49.7 0.4
Lat 14.12N FIX;Lon 124.37E FIX
Dep 24.3 3.4 Half-durotion 2.6
Moment Tensor; Scole 10**17 Nm
Mrr= 1.23 0.11 Mtt=-0.21 0.10
Mff=-1.01 0.18 Mrt=-1.60 0.25
Mrf= 2.96 0.42 Mtf= 0.53 0.10
Principol Axes:
T Vol= 3.56 Plg=55 Azm=241
N 0.05 1 332
P -3.61 35 62
Best Double Couple:Mo=3.6*10**17
NP1:Strike=156 Dip=10 Slip= 94
NP2: 332 80 89

QCP 3.22 279 eP 34 29.00 -10.1X
BAG 4.28 302 ePc+ 34 53.40 -1.0
iS 36 01.00
DAV 7.13 170 eP 35 42.00 7.6X
ANP 11.29 347 eP 36 35.00 3.0X
TSM 11.66 213 ePc 36 41.50 4.5X
QZH 12.02 334 eP 36 43.50 1.7
Z 18s 3.40um
N 16s 3.70um
HKC 12.62 311 iPc 36 47.50 -2.3
GZH 13.70 312 eP 37 08.00 3.9X
Z 16s 9.40um
N 14s 3.80um
E 15s 6.60um
QIZ 14.73 291 eP 37 20.00 2.3
N 15s 4.00um
E 17s 7.20um
eS 40 04.00
SSE 17.11 351 P 37 51.00 2.9X
1.5s 128.00nm 4.8mb
Z 18s 3.60um 4.0Msz
N 16s 2.80um
E 16s 2.90um
sP 38 06.00
eS 40 59.00
sS 41 12.00
SS 41 18.00
KAGJ 17.98 18 eP 38 01.50 2.5
NJ2 18.51 345 Pc 38 06.00 0.5
N 11s 1.20um
E 11s 1.40um
WHN 18.73 332 iPc 38 08.00 -0.2
7.0s 1.81nm 2.4mb X
Z 16s 4.79um 4.5MszX
N 14s 2.60um
E 14s 2.72um
S 41 40.00
KUMJ 19.22 17 P 38 14.20 0.0
GUMO 19.92 89 eP 38 22.00 0.0
PJG 19.92 89 eP 38 22.20 0.2
GUA 19.96 89 eP 38 21.80 -0.7
1.2s 837.50nm 5.9mb
Z 18s 4.95um 4.4MszX
GYA 20.59 309 iPc 38 29.00 -0.1
Z 16s 5.80um 5.0MszX
N 14s 5.90um
E 14s 3.50um
sP 38 42.00
PP 38 57.00
SHNJ 20.80 16 eP 38 30.70 -0.3
TKSJ 21.60 22 P 38 38.90 -0.3
SHK 21.63 19 eP 38 38.80 -0.7
LOE 22.01 281 eP 38 43.00 -0.5
WKYJ 22.41 25 eP 38 46.30 -1.1
YONJ 22.49 20 P 38 48.30 0.2
TIA 22.90 345 eP 38 51.40 -0.7
Z 20s 1.70um 4.5Msz
N 15s 1.10um
E 15s 1.90um
ePP 39 20.00
S 43 00.00
KMI 23.06 302 iPc+ 38 56.00 1.9
5.0s 1.70nm 2.8mb X
Z 18s 10.70um 5.3Msz
N 14s 3.90um
E 14s 3.30um
sP 39 18.00
PPP 39 42.00
eS 43 06.00
S 43 10.00
sS 43 30.00
NST 23.46 277 eP 38 59.80 2.2
KHKI 24.00 202 ePc 39 05.40 2.5
e 42 21.00
NNT 24.01 269 eP 39 03.00 0.0
KGM 24.04 242 eP 39 05.00 1.7
XAN 24.24 327 iPc 39 06.10 1.0
N 16s 3.00um
E 14s 2.50um
S 43 21.00
SNG 24.33 256 eP 39 05.00 -1.1
eS 43 37.40
IIDJ 24.48 27 eP 39 07.60 0.1
S 39 42.60
BDT 24.60 281 eP 39 07.90 -0.8
DL2 24.77 355 eP 39 10.00 -0.1
Z 18s 2.10um 4.7Msz
E 14s 2.70um
eS 43 28.00
esS 43 39.10
CHG 24.80 284 iPc 39 10.50 -0.2
1.0s 20.50nm 4.7mb
eS 43 52.00
IPM 24.89 250 ePd 39 11.70 0.1
0.7s 53.50nm 5.3mb
CD2 25.22 315 iPc 39 15.50 0.8
Z 17s 2.80um 4.8MszX
N 14s 4.50um
eS 43 32.00
MTMJ 25.36 26 eP 39 17.10 1.1
CHJJ 25.44 28 P 39 17.50 0.9
TIY 25.74 338 Pc 39 19.00 -0.5
1.2s 0.10nm 2.3mb X
N 13s 1.80um
S 43 42.50
BJI 26.76 346 eP 39 28.00 -0.8
8.0s 0.42nm 2.1mb X
Z 20s 1.50um 4.5Msz
N 12s 1.00um
eS 44 00.00
SNY 27.58 359 Pc 39 34.50 -1.6
Z 18s 4.50um 5.1Msz
N 14s 1.70um
E 14s 1.70um
S 44 13.00
PSI 27.58 248 eP 39 38.00 1.6

24d 07h

		e	42 00.00			
MTN	27.66	166 eP	39 36.00	-1.1		
		e	39 43.00	25km		
LZH	28.55	324 eP+	39 45.50	0.3		
	6.0s	822.00nm		5.6mb X		
	Z 14s	3.10um		5.1MszX		
	N 14s	3.30um				
	E 12s	0.70um				
		eS	44 28.00			
HHC	28.84	340 P	39 47.10	-0.7		
	Z 16s	2.40um		4.9MszX		
	N 16s	2.30um				
	E 14s	1.10um				
BTO	29.17	337 P	39 50.50	-0.2		
	N 13s	1.90um				
	E 13s	1.90um				
		pP	39 55.50	17km		
		S	44 40.00			
		SS	46 10.00			
CN2	29.56	2 P	39 52.00	-2.0		
	Z 16s	3.10um		5.0MszX		
	E 14s	1.90um				
		sP	40 11.00			
KNA	30.03	172 eP	39 57.00	-1.5		
MDJ	30.68	7 eP	40 03.50	-0.5		
SHL	32.50	295 iP	40 19.40	-0.9		
		iS	45 38.00			
GTA	33.15	324 iPc	40 25.60	-0.2		
	5.0s	0.59nm		2.8mb X		
	Z 16s	1.80um		4.9MszX		
	N 13s	1.47um				
		pP	40 36.50	40kmX		
		sP	40 43.00			
LSA	34.32	302 Pc	40 37.00	0.6		
	N 16s	1.50um				
	E 18s	2.50um				
		S	46 03.50			
WB5	35.23	164 eP	40 42.00	-1.7		
WRA	35.28	164 Pc	40 42.10	-2.1		
	0.5s	7.70nm		4.9mb		
MBL	35.38	187 eP	40 44.00	-1.0		
	0.5s	12.00nm		5.1mb		
NANU	37.51	193 iPd	41 02.60	-0.2		
	0.5s	8.00nm		4.8mb		
QIS	37.61	156 iPc	41 03.20	-0.6		
		e	41 13.00	33km		
		e	43 29.00			
PKI	38.60	297 Pc	41 12.20	-0.3		
KKN	38.75	297 Pc	41 13.50	-0.2		
DMN	38.87	297 Pc	41 14.50	-0.2		
GKN	39.36	297 P	41 18.40	-0.2		
WARB	40.16	177 eP	41 15.50	-9.5X		
CTA	40.27	147 iPc	41 25.60	-0.4		
	1.2s	39.06nm		5.0mb		
		ipP	41 49.00	100kmX		
		ePP	42 51.80			
		iPPP	43 36.00			
		iS	47 36.00			
MEKA	40.92	188 eP	41 31.00	-0.2		
	0.4s	13.00nm		5.0mb		
WMQ	43.04	321 P	41 48.70	0.2		
	Z 16s	1.80um		5.1MszX		
	N 13s	1.90um				
	E 13s	0.90um				
		S	48 14.50			
		ScS	51 46.00			
HYB	44.12	280 iPc	41 57.50	-0.1		
	1.4s	162.50nm		5.7mb		
FORR	44.89	175 iPd	42 02.10	-1.4		
	0.5s	46.00nm		5.7mb		
		e	43 45.00	571kmX		
GBA	45.50	275 Pc	42 07.80	-0.8		
	0.5s	23.10nm		5.4mb		
NDI	45.91	296 eP	42 10.00	-1.7		
RMO	46.85	150 eP	42 26.00	6.9X		
POO	48.54	282 iPd	42 32.80	0.2		
		i	49 41.00			
STK	48.67	160 iPc	42 33.60	0.4		
		e	42 47.00	50kmX		
KSH	49.26	310 P	42 39.00	1.1		
	E 15s	3.20um				
		eS	49 43.00			
BOM	49.50	283 iPc	42 39.60	-0.3		
		eS	49 57.60			
BRS	49.66	146 iPd	42 42.40	1.4		
		i	42 44.30	6kmX		
		i	42 49.00			

		iPcP	43 26.00			
		eS	49 52.00			
CMS	49.84	156 eP	42 43.00	0.7		
ADE	50.72	165 iPc	42 49.40	0.4		
	0.5s	66.20nm		5.8mb		
COO	51.77	150 iPd	42 46.70	-10.3X		
	0.5s	73.00nm				
BWA	53.46	155 eP	43 10.90	1.4		
CAN	54.47	155 eP	43 17.60	0.6		
CNB	54.62	155 iPc	43 18.90	0.8		
		e	43 25.00	20km		
QUE	54.97	297 iPc+	43 20.70	-0.3		
TOO	55.16	160 eP	43 22.00	0.0		
MAIO	61.57	304 iPc+	44 07.00	0.0		
		eS	52 32.00			
TAB	72.06	306 eP+	45 14.00	0.5		
TTA	72.78	28 eP	45 33.80	16.6X		
SLY	72.93	303 ePd	45 18.00	-0.4		
BRW	73.12	19 eP	45 19.90	1.0		
RYD	73.25	292 iPc	45 20.20	-0.4		
IMA	73.90	25 eP	45 23.70	0.0		
	1.3s	18.90nm		5.0mb		
BHD	74.09	301 iPd	45 26.00	0.8		
KDC	74.50	34 eP	45 31.70	4.6X		
MSL	74.74	304 ePd	45 28.50	-0.5		
KMSA	75.86	288 iPc	45 34.90	-0.8		
PMR	76.01	29 eP	45 34.40	-1.3		
	0.9s	10.40nm		4.9mb		
FBA	76.38	26 eP	45 33.80	-4.0X		
KEV	79.36	339 iP	45 55.00	0.9		
	0.8s	20.50nm		5.2mb		
		e	46 12.00	61kmX		
KVT	79.59	310 iP	45 56.50	0.6		
SOD	80.00	337 iP	45 57.70	0.2		
SUF	81.26	333 iP	46 04.20	-0.1		
INK	81.38	22 eP	46 04.00	-0.8		
ZNT	82.03	301 eP	46 10.90	2.0		
MKT	82.19	300 eP	46 08.00	-1.8		
BBTK	82.28	309 eP	46 10.00	-0.3		
AVY	82.30	248 iPc	46 11.30	0.6		
IKL	82.31	305 iP	46 10.00	-0.3		
MBC	82.34	13 eP	46 09.00	-0.7		
	1.0s	25.00nm		5.2mb		
NUR	82.51	331 eP	46 12.00	1.2		
	0.8s	17.60nm		5.2mb		
	Z 17s	1.30um		5.4MszX		
		LR	28 00.00			
MBH	82.66	299 iP	46 12.80	0.6		
ALE	83.43	1 eP	46 16.00	0.8		
	1.5s	46.00nm		5.4mb		
HRT	84.37	311 eP	46 20.00	-0.8		
CFR	84.39	315 ePc	46 21.00	0.3		
ALT	84.46	309 eP	46 19.00	-2.4		
TLB	84.62	314 ePc	46 22.00	0.1		
YLV	84.65	310 iP	46 22.50	0.2		
ISK	84.76	311 eP	46 20.00	-2.7		
KHL	85.08	308 eP	46 23.00	-1.5		
ELL	85.16	307 iP	46 24.50	-0.5		
VRI	85.19	316 ePc	46 25.50	0.8		
CTT	85.20	311 eP	46 24.00	-0.9		
BNT	85.78	310 iP	46 27.50	-0.3		
MLR	85.82	316 ePc	46 28.50	0.4		
UPP	86.05	331 iPd	46 28.50	-0.2		
DAG	86.69	352 iPc	46 30.00	-1.6		
	0.8s	14.93nm		5.3mb		
IZM	86.78	309 eP	46 32.00	-0.8		
DEV	87.75	317 iPc	46 38.00	0.8		
KRA	88.27	321 P	46 39.20	-0.5		
NB2	88.47	333 P	46 40.30	-0.2		
	1.2s	11.10nm		5.1mb		
VAY	89.39	312 iP	46 44.80	-0.4		
SKO	89.99	313 ePd	46 48.00	0.0		
SRO	90.07	320 eP	46 49.20	1.0		
KSP	90.16	323 ePc	46 49.70	1.1		
ZST	90.68	320 eP	46 51.10	0.1		
OHR	90.73	313 eP	46 47.70	-3.8X		
	1.2s	0.05nm		2.7mb X		
YKA	90.97	23 P	46 53.50	1.4		
BRG	91.51	324 eP	46 55.00	0.2		
MOX	92.94	324 e(P)	47 02.00	0.6		
KBA	93.46	320 eP	47 06.00	1.9		
PNT	95.43	36 eP	47 14.00	1.0		
WDC	97.61	45 ePc	47 24.00	1.1		
PCC	99.05	48 ePc	47 11.00	-18.5X		
CMB	100.23	47 e(Pdif	47 24.30	-10.6X		
FRB	101.70	6 ePdiff	47 46.00	5.3X		
KIC	125.54	289 PKP	52 50.62	-0.3		

TIC	125.69	289 PKP	52 50.76	-0.4
LIC	125.86	289 PKP	52 51.16	-0.3
LPB	167.75	103 PKP	53 59.00	3.5X
ZOBO	167.77	101 PKP	53 57.40	1.6
	Z 25s	0.22um		
CNCB	167.82	104 ePKP	53 57.00	1.2
CCH	169.39	109 (PKP)	53 57.50	1.1
	S.D. = 1.0	on 135 of 152 obs.		

% FEB 24, 1989 08h 46m 58.73± 1.00s
40.548 N ±12.4km 109.443 E ± 7.3km
DEPTH = 10.0km (geophysicist)
NORTHERN CHINA (323)
ML 3.6 (BJI).

BTO	0.44	83 iPgd	47 07.50	-0.2	
		Sg	47 14.20		
HHC	1.64	79 iPgd	47 28.10	0.3	
		Sg	47 50.00		
TIY	3.66	140 ePn	47 56.70	0.0	
		Pgd	48 03.70		
		Sg	48 50.60		
BJI	5.17	93 Pg	48 31.00	13.0X	
		Sg	49 39.00		
LZH	6.26	226 Pn	48 55.50	21.9X	
		Sn	50 11.00		
XAN	6.51	184 Pn	48 37.00	0.0	
GTA	7.48	264 Pn	48 50.60	-0.1	
		Pg	49 16.00		
		Sn	50 15.00		
		Sg	50 50.00		
KMI	16.37	202 Pg	50 46.00	-4.4X	
		Sg	51 34.00		
	S.D. = 0.3	on 5 of 8 obs.			

FEB 24, 1989 08h 48m 36.01± 0.79s
42.944 N ± 6.2km 13.006 E ± 6.6km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

CIO	0.27	22 iPgc	48 41.11	-0.6	
		iSg	48 48.44		
ASS	0.28	297 P	48 42.60	0.6	
		eSg	48 46.10		
ALP	0.45	111 iPg	48 45.24	0.0	
		iSg	48 55.97		
SSO	0.46	41 e(Pg)	48 45.16	-0.3	
		iSg	48 55.82		
ARV	0.56	355 P	48 46.40	-0.9	
		eSg	48 55.80		
MNS	0.61	203 P	48 48.00	-0.3	
		eSg	48 58.50		
AOI	0.75	36 e(Pg)	48 52.13	1.5	
		iSg	49 05.66		
	S.D. = 1.0	on 7 of 7 obs.			

? FEB 24, 1989 09h 04m 37.83± 0.96s
39.157 N ± 8.9km 27.621 E ± 9.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.81	200 ePg	04 53.70	0.2	
		eSg	05 05.00		
DST	0.90	60 ePn	04 54.60	-0.5	
EZN	1.20	304 ePn	05 00.00	-0.3	
KCT	1.23	27 iPn	05 01.30	0.6	
	S.D. = 0.8	on 4 of 4 obs.			

FEB 24, 1989 09h 41m 59.58± 0.89s
50.613 N ± 6.2km 129.564 W ± 9.6km
DEPTH = 10.0km (geophysicist)
4.3mb (1 obs.)
VANCOUVER ISLAND REGION (25)

PHC	1.36	85 iPnc	42 26.00	1.5	
		Sn	42 46.80		
EDB	1.74	114 Pn	42 28.78	-1.1	
ETB	2.31	121 Pn	42 32.08	-6.2X	
CBB	2.75	101 iPnc	42 45.04	0.5	
BTB	2.85	112 iPnc	42 45.16	-0.9	
OZB	3.11	121 Pn	42 47.81	-1.8	
OOW	4.55	127 eP	43 09.94	-0.1	
STW	4.57	120 eP	43 09.93	-0.4	
MCW	4.78	111 eP	43 13.52	0.1	
BLN	5.04	119 eP	43 16.70	-0.3	
OHW	5.13	114 eP	43 18.94	0.8	
HDW	5.20	122 eP	43 19.07	-0.3	

MBW	5.30	107	eP	43 20.91	0.1
CMW	5.32	111	eP	43 21.09	0.0
GMW	5.41	122	eP	43 21.75	-0.4
JCW	5.54	113	eP	43 23.49	-0.6
CPW	5.59	128	eP	43 24.41	-0.5
BLH	5.66	116	eP	43 25.80	0.0
RPW	5.67	109	eP	43 25.88	-0.1
HTW	5.83	116	eP	43 28.12	0.0
BMW	5.90	132	eP	43 37.50	8.3X
RMW	6.00	119	eP	43 30.50	0.0
LON	6.43	124	eP	43 36.00	-0.6
PNT	6.55	98	eP	43 39.00	0.7
SHW	6.58	129	eP	43 38.00	-0.9
SES	11.80	84	ePd	44 49.60	-1.2
LRM	12.37	106	eP	44 58.60	-0.2
KVN	14.11	141	eP	45 22.50	0.7
YKA	14.43	29	P	45 27.00	1.4
TNP	15.30	140	eP	45 37.50	0.2
BW06	15.77	112	eP	45 46.00	2.5
ISA	16.96	148	eP	46 01.00	2.6
CLC	17.13	145	eP	46 03.00	2.4
INK	17.86	355	eP	46 08.00	-1.3
MWC	18.41	148	eP	46 16.00	-0.6
RVR	18.85	147	eP	46 21.00	-0.8
TPC	19.23	144	eP	46 23.00	-3.5X
GLA	20.63	143	eP	46 40.00	-1.6
ALQ	22.94	124	eP	47 05.50	0.4
MBC	26.05	6	eP	47 34.00	-0.1
TUL	28.36	108	eP	47 55.60	0.0
	0.9s		5.50nm		4.3mb
LNO	28.36	108	e(P)	47 52.00	-3.5X
RLO	28.66	107	e(P)	47 57.90	-0.4
	S.D. = 1.1		on 39 of 43 obs.		

% FEB 24, 1989 09h 49m 10.21± 0.92s
37.782 N ± 7.6km 29.676 E ±20.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.55	347	iPg	49 20.60	-0.9
ELL	1.05	170	iPn	49 30.00	-0.1
ALT	1.32	15	ePn	49 34.80	0.2
DST	2.00	336	ePn	49 45.60	1.2
KCT	2.67	338	ePn	49 54.00	0.0
BNT	2.91	333	ePn	49 57.00	-0.4
	S.D. = 0.9		on 6 of 6 obs.		

% FEB 24, 1989 10h 03m 54.37± 0.87s
39.120 N ± 7.2km 27.627 E ± 9.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.78	202	ePg	04 09.30	-0.2
DST	0.92	58	iPg	04 12.60	0.7
			eSg	04 26.60	
EZN	1.23	305	ePn	04 17.60	0.4
EDC	1.24	8	ePn	04 17.00	-0.4
BNT	1.26	10	iPn	04 18.00	0.3
KCT	1.26	26	ePn	04 17.00	-0.8
	S.D. = 0.7		on 6 of 6 obs.		

% FEB 24, 1989 10h 34m 36.85± 0.75s
60.631 N ± 6.3km 6.230 E ± 9.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 2.0 (BER).

HYA	0.54	358	iP	34 47.45	-0.3
			eS	34 55.04	
ODD1	0.75	164	iP	34 51.12	-0.4
			eS	34 59.54	
SUE	0.84	301	eP	34 53.18	0.2
			eS	35 00.83	
BLS1	1.28	166	iP	35 00.88	0.2
			iS	35 16.67	
NRA0	2.62	85	iPc	35 20.10	0.3
			iPg	35 22.90	
			iS	35 57.00	
	S.D. = 0.4		on 5 of 5 obs.		

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* FEB 24, 1989 10h 54m 28.51± 0.60s
4.402 S ± 9.4km 134.905 E ± 8.3km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)
WEST IRIAN REGION (196)

MNDI	8.89	102	eP	56 38.50	0.6
MTN	9.18	204	eP	56 40.00	-1.8
			eS	58 22.00	
KNA	12.79	208	eP	57 27.50	-3.3X
	0.3s		50.00nm		6.1mb X
			e	59 43.00	
PMG	13.14	113	eP	57 34.00	-1.4
WB5	15.39	182	eP	58 00.80	-4.3X
			i	58 11.00	
			iS	00 47.10	
WRA	15.46	182	Pc	58 01.20	-4.7X
	0.5s		2.10nm		3.6mb
QIS	16.70	164	eP	58 21.00	-0.7
			e	58 23.00	
			e	01 15.00	
			e	03 20.00	
CTA	19.11	146	iPd	58 54.00	2.4X
	0.9s		88.24nm		5.0mb
			i	58 58.00	
			pP	59 05.20	48kmX
			eS	02 20.00	
MBL	22.18	220	eP	59 24.00	0.5
WARB	23.06	199	eP	59 24.50	-7.7X
RMQ	25.65	150	eP	00 09.00	11.9X
NANU	26.03	224	eP	00 01.70	1.1
FORR	27.08	193	eP	00 11.00	0.9
BRS	28.52	145	eP	00 25.00	1.7
CHG	42.27	304	iP	02 21.20	0.4
BJI	47.46	340	(P)	03 11.00	8.9X
KKN	57.53	307	P	04 17.20	-0.5
DMN	57.59	307	P	04 17.80	-0.4
GKN	58.13	307	P	04 21.40	-0.4
	0.8s		10.00nm		4.9mb
GBA	59.77	288	P	04 33.00	-0.1
	0.4s		0.60nm		4.1mb
CNCB	149.08	134	PKP	14 21.00	8.6X
LPB	149.18	133	(PKP)	14 24.00	11.6X
ZOBO	149.33	133	PKP	14 16.00	3.2X
	S.D. = 1.1		on 13 of 23 obs.		

% FEB 24, 1989 11h 35m 44.97± 0.99s
37.735 N ± 8.8km 29.355 E ±10.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.60	13	iPg	35 56.10	-1.1
			iSg	36 07.10	
BCK	1.02	105	ePn	36 05.50	1.2
ELL	1.08	156	iPn	36 04.50	-0.9
ALT	1.45	24	ePn	36 10.50	-0.8
IZM	1.78	292	ePn	36 16.00	0.0
DST	1.95	343	ePn	36 20.00	1.5
	S.D. = 1.4		on 6 of 6 obs.		

FEB 24, 1989 11h 46m 02.31± 0.99s
9.460 S ± 7.7km 159.004 E ± 7.9km
DEPTH = 69.7 ± 9.0 km
4.7mb (7 obs.)
SOLOMON ISLANDS (193)

HNR	0.93	88	eP	46 18.00	-2.2
			eS	46 28.00	
PAA	4.69	312	iPd	47 15.00	2.8
			eS	48 14.00	
RAB	8.57	307	eP	48 07.00	0.9
PMG	11.69	269	eP	48 50.00	1.6
CTA	16.22	228	iPd	49 44.00	-3.4X
	1.6s		833.33nm		5.6mb X
			i	49 50.50	
			eS	53 00.00	
BRS	18.78	197	iPd	50 19.00	0.1
			i	50 24.30	
			e	51 00.00	
			eS	53 48.00	
RMQ	19.52	209	iPc	50 34.80	7.9X
QIS	21.72	237	iPd	50 49.50	0.1
COO	22.03	197	eP	50 57.80	5.3X
CMS	25.10	207	eP	51 22.00	-0.2
WB5	25.95	244	iPd	51 29.60	-0.6
WRA	25.99	244	Pd	51 29.40	-1.2
	0.9s		21.10nm		4.7mb
BWA	26.68	200	eP	51 36.80	0.1
CAN	27.32	198	eP	51 50.80	8.3X
STK	27.54	213	eP	51 45.00	0.5
WARB	34.87	237	iPc	52 38.40	-10.7X
	0.9s		35.00nm		
BAG	45.89	304	eP	54 18.00	-2.1
WHN	58.47	315	P	55 52.50	-1.1
MDJ	60.03	336	eP	56 02.50	-1.6
CN2	61.14	333	Pc	56 10.40	-1.3
BJI	63.20	324	eP	56 24.00	-1.4
TIY	64.00	320	eP	56 29.20	-1.7
XAN	64.23	315	P	56 31.00	-1.4
CHG	65.54	296	iPc	56 40.70	-0.4
	0.8s		7.46nm		4.7mb
CD2	66.43	310	eP	56 46.00	-0.6
HHC	66.43	322	P	56 45.60	-0.9
LZH	68.85	315	eP	57 02.00	0.1
GTA	73.25	316	Pc	57 28.20	0.0
SHL	73.96	300	iP	57 32.50	-0.1
TTA	79.98	19	eP	58 06.10	0.9
PKI	80.09	300	P	58 07.00	0.1
KKN	80.26	300	P	58 08.20	0.5
DMN	80.35	300	P	58 08.70	0.5
GKN	80.86	300	P	58 11.00	0.2
	1.0s		33.00nm		5.2mb
PMR	81.49	22	eP	58 13.50	0.4
	0.7s		7.10nm		4.7mb
IMA	82.89	18	eP	58 21.30	0.8
	1.0s		6.30nm		4.5mb
WMQ	83.33	316	P	58 23.00	-0.1
FBA	84.01	20	eP	58 25.90	-0.1
GBA	84.12	285	Pc	58 27.40	-0.1
	0.8s		6.90nm		4.7mb
BRW	85.79	13	eP	58 35.60	0.8
KVN	90.43	51	P	59 00.20	2.4
TNP	90.91	52	P	59 02.30	2.2
	1.0s		3.58nm		4.7mb
BNG	140.45	266	ePKPc	05 26.30	-0.1
	0.8s		4.00nm		
			id	05 40.00	
ATB	146.40	111	e(PKP)	05 38.90	2.3
	S.D. = 1.2		on 39 of 44 obs.		

FEB 24, 1989 12h 12m 32.15± 0.25s
23.452 N ± 5.5km 143.277 E ± 4.0km
DEPTH = 42.5km (6 depth phases)
4.8mb (17 obs.) 4.2Msz (5 obs.)
VOLCANO ISLANDS REGION (213)

IIDJ	12.86	340	P	15 29.90	-5.0X
			eS	17 56.70	
KAKJ	12.99	349	P	15 34.50	-2.0
CHJJ	13.09	345	P	15 33.40	-4.5X
			eS	17 55.10	
MTMJ	13.92	341	P	15 43.80	-5.0X
NIIJ	14.23	346	P	15 47.50	-5.3X
SHK	14.41	322	eP	15 56.00	0.8
SSE	21.04	296	eP	17 14.00	-0.7
	1.0s		49.00nm		4.8mb
	Z 20s		0.50um		3.9Msz
	E 16s		0.50um		
			pP	17 20.00	22kmX
			eS	21 08.00	
			sS	21 21.00	
MDJ	23.90	335	eP	17 43.50	0.7
	Z 20s		1.30um		4.4Msz
			S	22 00.00	
SNY	24.62	323	Pc	17 48.00	-1.8
	Z 18s		0.80um		4.3Msz
	E 18s		0.80um		
			eS	22 00.00	
CN2	25.05	328	eP	17 53.00	-0.9
TIA	25.92	305	Pd	18 01.70	-0.4
	E 17s		0.90um		
WHN	26.68	292	eP	18 10.00	0.9
	Z 20s		1.27um		4.5Msz
BJI	28.21	312	eP	18 21.00	-1.9
	Z 20s		0.36um		4.0Msz
TIY	29.96	305	eP	18 38.40	-0.4
	E 14s		0.50um		
HHC	31.73	311	P	18 53.90	-0.5
BTO	32.73	309	eP	19 03.00	-0.1
	N 15s		0.50um		
	E 15s		0.50um		
GYA	33.26	283	P	19 08.60	0.7
CD2	35.79	291	P	19 30.00	0.6
LZH	36.23	299	eP	19 33.50	0.2
GTA	39.95	304	eP	20 03.60	-0.7
CHG	41.49	272	iPd	20 18.20	1.2
	1.0s		14.50nm		4.7mb
CHTO	41.49	272	eP	20 17.50	0.5
	1.1s		14.13nm		4.6mb
			epP	20 30.00	46km
BDT	41.84	270	eP	20 20.20	0.3

24d 12h

CTA	43.37	176	iPc	20	31.90	-0.3
	0.7s	23.29nm			5.0mb	
WB5	43.94	192	eP	20	35.90	-0.9
WRA	44.00	192	Pc	20	36.10	-1.3
	0.6s	7.00nm			4.6mb	
SHL	46.57	284	iP	20	58.50	0.4
LSA	46.72	289	Pc	21	01.80	2.3
PSI	47.59	251	ePc	21	06.50	0.5
			e	21	40.00	148kmX
WMQ	49.55	308	P	21	21.90	1.0
WARB	51.90	199	eP	21	29.00	-9.8X
			e	22	05.00	157kmX
PKI	51.99	287	P	21	40.00	0.0
	0.4s	7.00nm			5.0mb	
KKN	52.07	288	P	21	41.20	0.7
DMN	52.25	288	P	21	42.60	0.7
GKN	52.60	288	P	21	45.10	0.7
FORR	55.92	196	iPd	22	06.80	-1.4
	0.4s	29.00nm			5.7mb	
BWA	57.76	175	eP	22	21.00	-0.3
IMA	57.92	25	eP	22	22.30	0.0
	0.8s	2.60nm			4.4mb	
KSH	58.34	303	eP	22	27.00	1.4
BRW	58.48	19	eP	22	26.20	0.3
NDI	58.91	290	iPc	22	29.80	0.3
PMR	59.01	31	eP	22	28.10	-1.6
	1.1s	18.80nm			5.1mb	
FBA	60.08	27	eP	22	35.60	-1.5
HYB	60.52	277	eP	22	38.00	-2.8
GBA	62.75	274	Pc	22	54.40	-1.3
	1.2s	15.10nm			5.0mb	
INK	65.94	24	eP	23	15.00	-0.6
MBC	69.14	15	eP	23	35.00	-0.7
MAIO	71.72	302	eP	23	53.00	0.8
ALE	73.53	3	ePc	24	02.80	0.9
	0.6s	3.00nm			4.4mb	
YKA	74.87	28	P	24	09.90	0.0
YKC	74.94	28	ePc	24	10.00	-0.2
	0.4s	5.00nm			4.8mb	
GMW	75.62	44	P	24	15.40	0.9
RMW	76.28	44	P	24	19.20	0.9
PNT	77.00	42	eP	24	23.00	0.8
SOD	78.14	339	iP	24	28.00	-0.1
WDC	78.15	51	eP	24	29.10	0.4
LBFM	78.34	50	P	24	30.70	0.7
DPW	78.41	43	eP	24	30.00	0.0
			epP	24	42.50	42km
ORV	79.26	52	eP	24	34.60	-0.2
DAG	79.41	356	iPc	24	34.50	-0.3
	0.9s	8.40nm			4.7mb	
KJF	79.49	336	iP	24	35.80	0.3
MHC	79.97	54	eP	24	39.10	0.3
ARN	80.05	54	P	24	39.20	0.1
PRS	80.55	55	eP	24	42.30	0.5
CMB	80.63	53	ePc	24	42.60	0.4
			e	24	55.20	42km
LLA	80.76	54	eP	24	43.30	0.4
SUF	80.89	335	eP	24	43.00	0.0
	0.5s	5.30nm			4.8mb	
PHAM	81.46	55	P	24	47.50	0.9
FRI	81.53	53	ePc	24	47.20	0.4
			e	25	00.00	43km
SES	81.65	39	eP	24	45.00	-2.3
KVN	81.89	51	eP	24	49.50	0.5
			epP	25	02.00	42km
LRM	82.85	43	eP	24	54.40	0.5
TNP	82.91	52	iP	24	54.50	0.2
	1.0s	9.00nm			4.8mb	
			epP	25	06.50	40km
PLM	85.13	56	P	25	06.00	0.4
DAU	86.07	48	P	25	10.50	0.2
BW06	86.09	45	P	25	09.90	-0.3
GLA	86.80	55	P	25	14.80	1.1
NB2	87.35	339	P	25	15.30	-0.5
	1.3s	12.10nm			5.0mb	
FRB	89.58	14	eP	25	26.00	-0.2
ALQ	92.05	50	eP	25	38.70	0.2
	1.0s	7.25nm			5.1mb	
ZOBO	149.66	82	PKP	32	21.00	5.6X
LPB	149.77	83	PKP	32	22.00	6.6X
CNCB	149.96	83	PKP	32	17.00	1.2X
S.D. = 0.9 on 75 of 83 obs.						

FEB 24, 1989 12h 30m 11.65± 0.34s
37.729 N ± 2.9km 29.286 E ± 2.9km
DEPTH = 26.2 ± 3.3 km
4.4mb (12 obs.)

TURKEY (366)

ML 4.6 (ATH). Felt at Denizli.

KHL	0.62	17	iPg	30	22.60	-1.4
BCK	1.07	104	iPn	30	30.50	-0.5
ELL	1.10	153	iPn	30	30.50	-1.0
ALT	1.47	26	iPn	30	36.50	-0.3
KSL	1.62	171	iPnc	30	41.00	2.1
IZM	1.73	293	iPn	30	40.30	-0.2
DST	1.94	345	ePn	30	44.00	0.5
GPA	2.68	17	iPn	30	54.10	0.1
KAP	2.76	219	ePn	30	55.70	0.6
PRK	2.81	304	ePn	30	56.00	0.2
YLV	2.83	1	ePn	30	57.00	0.8
EDC	2.84	337	ePn	30	57.00	0.8
GBZT	3.06	2	ePn	31	00.70	1.4
			iPg	31	11.50	
			iSg	31	53.60	
EZN	3.12	313	ePn	30	59.10	-1.1
BBTK	3.44	51	iPc+	31	06.50	1.6
			i	31	10.00	
			iS	32	05.50	
CTT	3.48	349	ePn	31	05.00	-0.3
PPCY	3.76	138	eP	31	10.50	1.2
IKL	3.82	112	iPn	31	13.50	3.3X
NPS	3.85	231	ePn	31	10.80	0.2
LFK	4.20	124	eP	31	19.00	3.3X
DMK	4.25	344	ePn	31	15.50	-0.8
CSS	4.28	129	eP	31	18.60	1.9
ATH	4.41	275	ePn	31	19.50	0.9
RDO	4.48	321	ePn	31	20.00	0.5
FAM	4.68	124	eP	31	22.00	-0.4
VAM	4.70	242	ePn	31	23.20	0.5
OUR	4.88	304	eP	31	23.90	-1.3
PAIG	4.90	298	eP	31	24.40	-1.0
KDZ	4.92	324	iPd	31	26.00	0.2
NEO	5.01	290	ePn	31	27.60	0.5
JMB	5.17	337	iP	31	30.00	0.8
DIM	5.19	327	iPd	31	29.00	-0.6
PLG	5.26	302	ePn	31	31.00	0.4
RZN	5.30	320	iPd	31	32.00	0.7
SRS	5.56	309	eP	31	33.30	-1.5
THE	5.70	303	eP	31	36.20	-0.6
MMB	5.77	314	iPc	31	37.00	-0.8
LIT	5.80	296	eP	31	37.60	-0.7
ITM	5.88	267	ePn	31	40.50	1.1
KNT	6.02	307	eP	31	40.40	-0.9
PGB	6.21	322	iPc	31	43.00	-1.0
KVT	6.21	55	ePn	31	44.80	0.7
GRG	6.23	303	eP	31	43.60	-0.8
PVL	6.25	332	iPd	31	43.00	-1.6
VAY	6.31	307	iPn	31	45.00	-0.4
KZN	6.39	296	ePn	31	46.80	0.2
BHL	6.43	125	Pn	31	47.00	-0.2
			Sn	33	03.00	
VTS	6.73	318	eP	31	50.00	-1.4
VLS	6.89	276	ePn	31	56.50	3.0X
TLB	6.92	353	eP	31	52.50	-1.4
ATZ	6.92	133	eP	31	54.00	0.0
			eS	33	11.50	
BUC1	7.05	341	eP	32	52.00	56.2X
KBN	7.19	296	iP	32	00.10	2.4
LSK	7.19	292	eP	32	01.80	4.0X
SKO	7.37	308	ePn	32	00.50	0.2
OHR	7.39	300	ePn	32	01.60	1.0
CFR	7.50	354	ePd	32	02.00	0.0
DOR	7.64	143	iP	32	02.40	-1.6
			eS	33	25.80	
TPE	7.66	292	eP	32	05.50	1.1
ISR	7.68	345	eP	32	14.00	9.4X
BERA	7.83	295	eP	32	09.40	2.7
PHP	7.88	303	eP	32	05.30	-2.1
DRA	7.91	333	eP	32	13.00	5.3X
HLW	8.03	167	eP	32	09.00	-0.5
			S	33	33.00	
TIR	8.12	299	eP	32	13.00	2.2
MLR	8.15	343	ePc	32	10.50	-0.7
MKT	8.32	143	eP	32	12.00	-1.6
			eS	33	43.40	
LACI	8.35	301	eP	32	04.50	-9.4X
VRI	8.36	348	ePc	32	13.50	-0.5
MBH	9.20	148	iPc	32	23.50	-2.2
DEV	9.43	332	ePc	32	30.00	1.1
BZS	9.74	326	ePd	32	31.50	-1.6
TAB	13.47	83	eP	33	27.00	3.4X
KBA	15.01	314	e(P)	33	54.00	10.2X
	1.2s	13.50nm				

			e	34	24.00	
KHC	16.09	320	iPc	34	02.50	4.9X
BRG	17.08	325	e(P)	34	14.90	4.9X
	1.5s	25.00nm			4.1mb	
CLL	17.81	325	ePd	34	24.00	4.9X
MOX	18.03	321	eP	34	26.00	4.1X
LPG	18.51	302	eP	34	29.70	1.6
	0.8s	13.40nm			4.2mb	
CDF	19.23	311	eP	34	37.20	0.6
	0.9s	14.40nm			4.2mb	
BSF	19.29	309	eP	34	37.30	-0.1
HAU	19.63	309	eP	34	41.10	0.0
	0.8s	17.10nm			4.4mb	
LBF	20.79	304	eP	34	53.50	0.3
	1.1s	25.30nm			4.5mb	
LOR	20.95	305	eP	34	54.40	-0.4
SSF	21.12	304	eP	34	56.80	0.3
	1.1s	18.00nm			4.4mb	
AVF	21.14	304	eP	34	56.70	-0.1
DOU	21.55	313	P	35	01.40	0.6
NUR	22.99	354	eP	35	20.00	5.0X
MAIO	24.12	84	eP	35	29.00	2.7
SUF	25.09	357	iP	35	36.00	0.7
	0.5s	2.80nm			4.1mb	
NB2	25.95	340	P	35	43.80	0.4
	0.9s	6.50nm			4.3mb	
KJF	26.52	358	eP	35	48.00	-0.6
BNG	34.56	199	iPd	37	00.40	0.1
	0.7s	17.00nm			5.1mb	
			ic	37	04.90	
WMQ	43.86	63	eP	38	18.50	1.1
TIC	43.89	234	Pc	38	17.00	-0.8
KIC	43.93	233	Pc	38	17.20	-0.9
	0.6s	5.00nm			4.5mb	
LIC	44.21	233	Pc	38	19.90	-0.5
GKN	46.91	85	P	38	41.80	-0.2
	0.8s	10.00nm			4.9mb	
DMN	47.45	85	P	38	46.30	-0.1
GTA	53.84	65	eP	39	34.50	-0.1
FRB	60.15	329	eP	40	18.00	-0.9
HHC	61.46	59	eP	40	28.80	0.5
YKA	75.98	344	P	41	58.90	1.3
FFC	78.87	334	eP	42	14.50	0.7
	0.8s	9.00nm			4.8mb	
SES	85.55	336	eP	42	47.00	-1.6
BAO	89.71	250	eP	43	07.30	-1.8
S.D. = 1.1 on 91 of 106 obs.						

FEB 24, 1989 12h 36m 59.87± 0.27s
38.287 S ± 4.9km 71.151 W ± 6.5km
DEPTH = 33.0km (normal)
5.3mb (17 obs.) 4.7Msz (1 obs.)
S. CHILE-ARGENTINA BORDER REGION(145)
Felt (V) at Malalcahuello and (II) at Temuco, Chile.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 20C
Centroid Location:
Origin Time 12:36:48.0 0.5
Lat 39.26S 0.10 Lon 71.83W 0.09
Dep 15.0 FIX Half-duration 1.4
Moment Tensor; Scale 10**16 Nm
Mrr= 2.36 0.45 Mtt= 2.29 0.67
Mff=-4.65 0.73 Mrt= 4.16 1.61
Mrf= 3.47 1.90 Mtf= 6.39 0.52
Principal Axes:

	Val=	Plg=	Azm=
T	9.90	35	327
N	-1.37	54	159
P	-8.53	5	61

Best Double Couple:Mo=9.2*10**16
NP1:Strike=110 Dip=62 Slip= 23
NP2: 9 70 150

CHCH	4.36	5	iPd	38	07.00	1.4
TACH	4.63	2	iPc	38	08.30	-1.0
			iS	39	12.00	
PCH	4.69	7	iPd	38	10.50	0.3
			iS	39	11.00	
LCCH	4.81	356	ePc	38	15.00	3.1X
			iS	39	27.50	
FCH	5.00	8	eP	38	16.00	1.1
			iS	39	27.60	
PEL	5.15	4	iP	38	16.20	-0.5
JACH	5.61	5	iPc	38	22.50	-0.8
			iS	39	35.40	
MDZ	5.71	20	iP	38	30.60	6.0X

			iS	39	13.00	
			LR	40	05.10	
ZON	7.02	18	eP	38	29.00	-14.1X
HJA	15.81	20	ePd	40	44.90	3.3X
			S	40	46.90	
ITB1	19.69	51	e(P)	41	28.40	-0.8
ITB	19.69	52	e(P)	41	28.30	-1.0
CNCB	21.58	8	iPc	41	50.00	0.6
ARE	21.74	359	eP	41	50.00	-0.7
LPB	21.84	8	Pc	41	53.00	1.2
	1.3s	346.15nm			5.6mb	
Z	16s	7.41um			5.2MszX	
			S	45	58.00	
			LR	49	23.00	
ZOBO	22.09	8	P	41	54.00	-0.5
	1.2s	148.65nm			5.3mb	
Z	23s	3.07um			4.7MszX	
			eS	45	59.00	
			LR	48	44.00	
VAO	25.68	61	eP	42	27.80	-0.8
ITA	27.66	63	eP	42	46.50	-0.6
BMA	27.84	64	eP	42	40.80	-7.6X
SPA	51.90	180	iPd	46	05.00	-2.2
	0.8s	16.25nm			5.0mb	
			e	46	29.50	
TKL	74.50	349	P	48	35.40	-1.2
LIC	75.51	70	P	48	42.48	-0.4
TIC	75.79	70	P	48	43.98	-0.5
	1.0s	41.00nm			5.4mb	
KIC	75.81	70	P	48	44.00	-0.6
	0.9s	47.00nm			5.5mb	
VVO	76.72	340	e(P)	48	49.60	0.4
FRS	76.85	117	iPd	48	52.00	1.7
	1.0s	16.00nm			5.0mb	
ELC	77.03	345	P	48	50.00	-0.9
MEO	77.03	337	eP	48	47.00	-4.0X
	1.2s	36.40nm			5.3mb	
FKO	77.11	338	eP	48	50.40	-1.0
	1.2s	77.20nm			5.6mb	
SIO	77.26	339	eP	48	51.30	-0.9
TUL	77.27	340	eP	48	50.50	-1.8
	1.2s	43.20nm			5.4mb	
Z	20s	0.35um			4.7Msz	
			LR	02	20.00	
LNO	77.27	340	eP	48	51.20	-0.9
RLO	77.30	340	eP	48	51.60	-0.9
OCO	77.38	338	eP	48	53.10	0.2
RRO	77.58	338	eP	48	56.20	2.2
FVM	77.95	345	P	48	55.40	-0.6
KUK	78.96	73	eP	49	03.50	1.4
ACO	78.97	337	eP	49	02.10	0.5
	0.9s	12.00nm			4.9mb	
SEK	79.32	118	eP	49	04.50	0.4
	0.5s	7.04nm			4.9mb	
ALQ	79.88	331	eP	49	07.00	0.2
	1.0s	25.00nm			5.2mb	
PRY	80.06	116	eP	49	04.50	-3.6X
KSR	80.30	115	eP	49	05.50	-3.9X
SLR	81.37	116	eP	49	16.00	1.0
GLA	81.77	324	eP	49	16.00	-0.6
BAR	82.33	323	eP	49	20.00	0.5
KRP	82.45	227	eP	49	20.00	-0.2
PLM	82.98	323	eP	49	24.00	1.0
TPC	83.21	324	eP	49	24.00	-0.1
GLD	83.71	334	P	49	27.80	1.2
	1.0s	50.00nm			5.6mb	
GOL	83.72	334	P	49	27.00	0.2
	1.0s	27.50nm			5.4mb	
RVR	83.74	323	eP	49	27.00	0.3
MWC	84.26	323	eP	49	30.00	0.5
SBB	84.53	323	eP	49	31.00	0.3
GSC	84.55	324	eP	49	32.00	1.2
MSU	85.23	329	P	49	33.80	-0.6
CLC	85.34	324	eP	49	35.00	0.3
ISA	85.63	323	eP	49	36.00	-0.2
DAU	86.49	330	P	49	41.40	0.7
PHAM	86.69	322	P	49	42.80	1.4
TNP	87.03	325	P	49	43.10	-0.1
	1.0s	26.67nm			5.4mb	
PRI	87.06	322	eP	49	43.80	0.5
FRI	87.29	323	e(P)	49	43.90	-0.3
PRS	87.56	322	eP	49	45.60	0.1
LLA	87.58	322	eP	49	45.70	0.1
KVN	88.22	325	P	49	48.80	-0.1
CMB	88.44	323	eP	49	49.40	-0.4
HPI	90.03	331	P	49	57.80	0.4
ORV	90.18	323	e(P)	49	57.70	-0.2
RSON	90.95	346	P	49	59.30	-1.9
	1.0s	25.00nm			5.5mb	
WDC	91.48	323	eP	50	03.30	-0.5
LRM	91.58	333	eP	50	05.10	0.6
BNG	92.48	86	ePc	50	11.50	2.4
	0.9s	5.00nm			4.9mb	
SES	95.03	336	eP	50	17.00	-3.0X
WRA	117.32	207	PKP	55	43.00	-0.9
	1.3s	5.50nm				
WB5	117.37	207	ePKP	55	43.00	-1.0
MAIO	141.06	77	ePKP	56	29.00	0.5
GBA	142.86	123	PKP	56	28.00	-4.1X
PSI	143.43	163	ePKP	56	31.00	-2.1
			e	57	40.00	
HYB	146.33	120	iPKPc	56	38.50	0.5
	1.0s	50.00nm				
NDI	152.05	101	iPKPd	56	54.00	7.6X
CHG	158.76	153	ePKP	56	56.70	1.2
GTA	172.86	78	ePKP	57	07.00	0.9
TIA	173.08	255	ePKP	57	06.50	0.4
	S.D. = 1.0	on	72 of	83	obs.	

FEB 24, 1989 13h 21m 55.60± 0.69s
37.786 N ± 6.1km 29.317 E ± 8.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.56	17	iPg	22	06.60	-0.4
BCK	1.06	107	iPn	22	15.50	-0.1
ELL	1.14	155	iPn	22	14.50	-2.5
ALT	1.41	26	iPn	22	20.80	-0.6
KSL	1.68	173	eP	22	26.50	1.4
IZM	1.73	291	ePn	22	25.00	-1.0
DST	1.90	344	iPn	22	27.60	-0.7
KCT	2.57	343	iPn	22	37.80	-0.2
GPA	2.62	17	ePn	22	40.00	1.4
YLV	2.78	1	iPn	22	44.20	3.2X
BNT	2.79	337	iPn	22	47.00	5.9X
EDC	2.80	337	ePn	22	48.00	6.8X
KAP	2.82	218	eP	22	43.00	1.5
			eS	23	19.70	
HRT	3.04	5	ePn	22	54.00	9.3X
BBTK	3.38	52	eP	22	51.00	1.4
NPS	3.90	231	eP	23	01.00	4.1X
	S.D. = 1.4	on	11 of	16	obs.	

FEB 24, 1989 13h 38m 48.70± 1.04s
3.153 N ± 4.1km 96.255 E ± 4.9km
DEPTH = 58.3 ± 9.3 km
5.0mb (16 obs.)
NORTHERN SUMATERA (706)

PSI	2.70	100	ePc	39	31.60	1.0
			e	49	00.00	
IPM	4.97	73	ePc	40	02.80	0.2
	0.8s	280.80nm				
			e	41	56.80	
SNG	5.90	47	ePn	39	57.30	-18.3X
			ePg	40	26.40	
			eSn	41	24.50	
			eSg	42	05.90	
KGM	7.15	99	eP	40	32.80	-0.2
NNT	9.99	20	eP	41	12.60	0.4
KLI	11.72	133	ePd	41	21.50	-14.0X
NST	13.01	17	eP	41	57.70	5.0X
LOE	15.15	20	eP	42	24.00	3.3X
CHG	15.79	9	iPc	42	28.60	-0.3
	1.0s	17.00nm			4.2mb	
			eS	49	32.00	
QIZ	20.63	39	Pd	43	25.80	0.0
E	16s	1.40um				
GBA	21.30	300	Pc	43	29.70	-2.9
	1.0s	12.40nm			4.2mb	
TSM	21.80	87	eP	43	36.00	-1.6
HYB	22.42	310	ePc	43	44.00	0.2
KHKI	22.44	121	ePd	43	45.00	1.1
			e	45	55.00	
SHL	22.68	350	iP	43	43.40	-3.0X
			eS	48	10.00	
KMI	22.72	15	Pd	43	38.50	-8.4X
Z	16s	1.50um			4.5MszX	
N	14s	0.90um				
			pP	43	58.00	89kmX
			S	47	56.00	
KMI	22.72	15	Pd	43	48.50	1.6
Z	16s	1.50um			4.5MszX	
N	14s	0.90um				
			pP	43	58.00	35kmX
			S	47	56.00	
GYA	25.23	22	P	44	11.00	0.0
PKI	26.40	338	P	44	22.80	0.7
	0.5s	23.00nm			5.0mb	
DMN	26.55	337	P	44	23.50	0.2
	0.7s	31.00nm			5.0mb	
KKN	26.65	338	P	44	23.40	-0.8
POO	26.73	306	eP	44	26.50	1.7
LSA	26.84	350	P	44	25.80	-0.4
GKN	27.08	337	P	44	27.50	-0.6
CD2	28.50	14	eP	44	39.20	-1.5
NDI	31.19	326	iPc	45	07.00	2.4
WHN	32.17	30	eP	45	13.00	-0.1
XAN	32.92	20	P	45	19.20	-0.5
LZH	33.51	11	eP	45	23.00	-2.0
	2.0s	66.00nm			5.2mb	
Z	24s	0.60um			4.2MszX	
GTA	36.23	5	Pc	45	46.70	-1.4
Z	26s	0.43um			4.1MszX	
N	13s	0.35um				
TIY	37.46	21	eP	45	59.00	0.7
N	17s	2.10um				
E	15s	0.80um				
MTN	38.11	115	eP	46	02.00	-2.0
TIA	38.12	28	eP	46	03.80	-0.1
Z	15s	1.10um			4.8MszX	
N	13s	0.60um				
E	13s	0.50um				
QUE	38.63	317	eP	46	08.60	0.2
BTO	39.29	17	eP	46	14.00	0.3
N	16s	1.30um				
E	13s	0.90um				
MUN	39.75	153	eP	46	19.00	1.5
HHC	39.99	18	P	46	20.80	1.3
KLB	40.16	151	eP	46	21.00	0.2
BJI	40.91	24	Pc	46	27.00	0.1
Z	16s	0.40um			4.4MszX	
NWAO	41.01	153	eP	46	28.00	0.2
WMO	41.20	351	eP	46	28.60	-0.7
COOL	41.34	147	eP	46	31.00	0.5
WARB	41.41	137	eP	46	22.00	-9.2X
DL2	42.43	30	P	46	40.00	0.7
WB5	43.87	123	iPc	46	50.20	-1.2
			i	47	01.20	
WRA	43.88	123	Pd	46	51.00	-0.4
	0.9s	25.40nm			5.0mb	
FORR	45.44	140	eP	47	03.80	0.1
SNY	45.63	29	iPd	47	04.80	-0.2
MAIO	47.28	319	eP	47	19.00	0.6
CN2	48.02	28	Pc	47	22.80	-1.1
QIS	48.60	121	iPc	47	28.20	-0.5
MDJ	50.65	31	Pd	47	44.50	0.4
PMG	52.23	104	eP	47	56.00	-0.5
AVY	52.52	243	iPc	47	58.28	-0.6
CTA	54.22	117	iPc	48	10.70	-0.4
	1.0s	102.50nm			5.8mb	
STK	55.36	133	eP	48	19.00	-0.2
BHD	56.88	308	ePd	48	34.50	4.4X
TAB	57.26	314	eP	48	32.00	-0.9
CMS	58.35	130	eP	48	39.00	-1.4
RMQ	58.63	124	eP	48	49.00	6.5X
BWA	61.60	132	eP	49	03.70	0.9
BRS	62.31	123	iPc	49	07.70	0.2
CAN	62.43	133	eP	49	08.00	-0.2
PTZ	66.60	253	iP	49	35.00	-0.7
			i	49	40.50	
LSZ	69.78	253	eP	49	55.00	-0.5
BUL	70.23	247	eP	49	57.60	-0.7
KMZ	71.77	255	iP	50	08.00	0.4
VRI	73.56	317	ePd	50	18.00	0.6
MLR	74.01	316	ePc	50	20.00	-0.2
VAY	75.69	312	eP	50	28.60	-1.1
DEV	76.18	316	ePc	50	33.00	0.6
BNG	77.52	274	ePd	50	40.00	-0.5
	0.7s	9.00nm			4.9mb	
			ic	50	50.00	
KJF	77.94	335	iP	50	41.80	0.0
	0.8s	20.50nm			5.2mb	
SUF	78.17	334	eP	50	43.00	-0.1
	0.9s	17.00nm			5.0mb	
NUR	78.26	331	eP	50	44.00	0.4
Z	23s	0.30um			4.6MszX	
			LR	28	10.00	
SOD	79.34	338	iP	50	49.70	0.3
			i	51	01.00	
SRO	79.57	318	eP	51	01.50	10.5X

24d 13h

KEV	79.96	341	eP	50	53.00	0.3
ZST	80.43	318	e(P)	50	55.90	0.3
KSP	81.22	321	eP	51	00.50	0.8
			id	51	13.00	
UPP	81.57	330	iP	51	01.10	-0.2
KHC	82.83	319	iPd	51	09.20	1.0
KBA	82.87	317	eP	51	03.50	-5.1X
	1.0s	6.30nm			4.6mb	
			e	51	22.00	
NB2	84.85	331	P	51	16.60	-1.5
	1.1s	13.90nm			5.0mb	
LPG	87.43	315	eP	51	31.40	-0.1
	0.9s	11.40nm			5.1mb	
HAU	87.62	318	eP	51	31.20	-0.8
	0.9s	11.10nm			5.1mb	
BRW	92.43	18	eP	51	55.20	1.2
DAG	92.53	348	iPd	51	54.00	-0.4
	0.8s	6.72nm			5.1mb	
IMA	95.16	23	eP	52	07.90	1.1
	1.2s	13.70nm			5.3mb	
MBC	98.12	8	eP	52	20.00	0.1
PWA	98.33	26	eP	52	20.80	-0.2
LRM	124.99	24	ePKP	57	44.90	0.5
			e	57	55.40	
ALQ	136.51	27	ePKP	58	08.00	1.3
CNCB	159.41	228	ePKP	58	45.00	1.8
LPB	159.67	228	(PKP)	58	48.00	4.7X
ZOBO	159.85	229	ePKP	58	45.00	1.3
			e	58	55.00	

S.D. = 0.9 on 84 of 96 obs.

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* FEB 24, 1989 14h 07m 15.54± 1.55s
3.415 S ±13.1km 127.349 E ±26.8km
DEPTH = 74.2 ± 22.2 km
4.5mb (6 obs.)
CERAM (272)

AAI	0.89	108	iPd	07	32.90	-0.2
			iS	07	46.30	
MTN	10.09	158	eP	09	22.70	-17.2X
			eS	11	38.00	
WB5	17.74	158	eP	11	20.00	0.8
WRA	17.79	158	Pc	11	20.00	0.2
	0.4s	4.20nm			4.0mb	
QIS	20.81	146	eP	11	53.00	-0.1
WARB	22.65	182	eP	12	03.50	-7.9X
	0.4s	5.00nm			4.3mb	
MEKA	24.57	199	eP	12	30.00	0.1
FORR	27.30	179	iPd	12	54.10	-1.0
	0.4s	13.00nm			4.8mb	
PKI	50.81	310	P	16	11.00	-0.1
	0.5s	2.00nm			4.4mb	
KKN	51.02	310	P	16	12.60	0.1
	0.6s	4.00nm			4.6mb	
DMN	51.06	310	P	16	13.20	0.3
GKN	51.62	310	P	16	17.00	0.0
	0.6s	11.00nm			5.1mb	

S.D. = 0.5 on 10 of 12 obs.

? FEB 24, 1989 15h 16m 23.51±10.45s
22.090 N ±64.4km 119.846 E ±47.9km
DEPTH = 10.0km (geophysicist)
TAIWAN REGION (243)

TWK	1.31	27	eP	16	47.80	0.0
			eS	17	01.70	
TWG	1.35	57	ePd	16	48.40	0.1
TWF1	1.84	47	ePd	16	55.20	-0.1
TWQ	2.36	23	ePc	17	02.90	0.0

S.D. = 0.2 on 4 of 4 obs.

FEB 24, 1989 15h 24m 24.00± 0.57s
37.788 N ± 5.1km 29.348 E ± 7.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.55	14	iPg	24	34.60	-0.7
BCK	1.04	108	iPn	24	43.50	-0.2
ELL	1.13	157	iPn	24	42.50	-2.8
ALT	1.40	25	iPn	24	50.00	0.4
KSL	1.68	173	eP	24	54.10	0.6
			eS	25	21.00	
IZM	1.75	291	ePn	24	53.40	-1.3
DST	1.90	343	ePn	24	56.60	-0.2
KCT	2.58	343	ePn	25	06.00	-0.5
GPA	2.61	16	ePn	25	08.00	1.1
YLV	2.78	0	ePn	25	10.00	0.6
BNT	2.80	337	ePn	25	09.00	-0.6
EDC	2.80	336	ePn	25	10.00	0.3
KAP	2.83	219	eP	25	11.00	0.9
			eS	25	46.50	
EZN	3.12	312	ePn	25	12.60	-1.5
BBTK	3.36	51	eP	25	19.00	1.2
NPS	3.92	231	eP	25	28.00	2.4

S.D. = 1.3 on 16 of 16 obs.

& FEB 24, 1989 15h 52m 33.30s
33.070 N 117.930 W
DEPTH = 6.0km (geophysicist)
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.2 (PAS).

CIS	0.52	310	eP	52	42.90	-0.8
SCI	0.53	260	iPc	52	43.30	-0.6
PLM	0.94	72	iPc	52	50.30	-1.4
PEC	1.04	38	eP	52	52.20	-1.2
GLA	2.61	90	eP	53	16.20	-0.5
KVN	5.97	359	e(P)	54	17.00	12.5
	6 obs. associated					

? FEB 24, 1989 16h 07m 31.17± 1.56s
21.017 S ±16.5km 67.157 W ±28.7km
DEPTH = 200.0 ± 11.9 km
CHILE-BOLIVIA BORDER REGION (124)

HJA	2.72	144	iPc	08	16.80	-1.2
			S	08	47.20	
CCH	3.74	15	iPc	08	31.10	0.5
	0.5s	6.00nm				
CNCB	4.26	349	iPc	08	37.10	-0.2
LPB	4.55	349	iPc	08	41.00	0.1
	1.0s	500.00nm				
ZOBO	4.81	349	iPc	08	43.20	-1.2
BAO	18.96	77	eP	11	40.60	0.8
KIC	67.00	73	Pd	18	03.80	-1.1
KUK	70.86	75	eP	18	28.00	-0.5
HYB	147.46	90	ePKP	26	53.50	2.7

S.D. = 1.6 on 9 of 9 obs.

& FEB 24, 1989 16h 15m 00.08s
37.128 N 116.122 W
DEPTH = 0.0km
4.4mb (4 obs.)
SOUTHERN NEVADA (41)
<DOE>. ML 4.5 (BRK). 37° 07' 42.55" N., 116° 07' 19.05" W., Surface Elev. 1379 m., Depth of Burial 400 m., Shot Time 161500.081, "KAWICH," Nevada Test Site (Dept of Energy).

GLR	0.11	49	iPc	15	02.60	0.3
BGB	0.12	223	iPc	15	03.30	0.7
CPX	0.20	165	iPc	15	04.40	0.2
TMBR	0.23	246	iPc	15	05.20	0.5
CDH1	0.31	210	iPc	15	06.20	-0.1
GMR	0.35	54	iPc	15	07.50	0.5
YMT5	0.35	229	iPc	15	07.20	0.1
YMT6	0.35	220	iPc	15	07.40	0.3
YMT4	0.38	223	iPc	15	07.60	-0.2
LSM	0.41	197	iPc	15	08.00	-0.2
YMT3	0.41	215	iPc	15	08.40	0.1
YMT1	0.43	230	iPc	15	08.90	0.3
BMTN	0.44	291	eP	15	09.20	0.2
YMT2	0.45	221	iPc	15	09.00	-0.1
SPRG	0.50	150	iPc	15	09.90	-0.2
SDH	0.51	200	iPc	15	09.80	-0.5
KRNA	0.65	342	iPc	15	13.00	0.0
QCS	0.66	14	iPc	15	12.40	-0.8
CTS	0.71	318	iPc	15	14.20	-0.1
SGV	0.74	259	iPc	15	14.80	-0.1
AMR	0.78	201	eP	15	15.00	-0.7
MTI	0.87	51	iPc	15	16.50	-1.0
PRN	0.90	72	eP	15	17.40	-0.6
GMN	0.92	281	ePc	15	17.80	-0.7
WRN	0.95	26	ePc	15	17.90	-1.3
GVN	0.98	263	eP	15	18.80	-0.9
SHRG	0.99	128	eP	15	18.50	-1.5
NOP	1.00	181	ePc	15	18.70	-1.3
GWY	1.04	205	eP	15	19.70	-1.1
TMO	1.08	253	eP	15	20.80	-0.7
SRG	1.13	48	eP	15	21.50	-0.7
HCR	1.13	347	iPc	15	21.50	-0.9
MGM	1.14	286	iPc	15	21.80	-0.7
MZP	1.16	300	iPc	15	22.00	-0.8
DLM	1.20	66	iPc	15	23.00	-0.5
LCH	1.22	275	iPc	15	23.20	-0.7
TNP	1.29	318	iPc	15	24.90	-0.2
PPK	1.45	282	iPc	15	27.50	-0.3
SVP	1.46	294	iPc	15	27.80	-0.2
CLC	1.77	223	iPc	15	31.50	-0.7
GSC	1.90	197	iPc	15	33.70	-0.5
MNA	2.07	310	ePc	15	36.30	-0.4
			i	16	09.60	
KVN	2.47	321	iPc	15	41.90	-0.6
FRI	2.87	268	iPc	15	47.80	-0.2
			iS	16	33.40	
TPC	3.02	179	ePc	15	49.30	-0.8
PEC	3.34	195	ePc	15	54.30	-0.4
PKEM	3.38	253	eP	15	56.00	0.8
CMB	3.51	286	iPc	15	56.50	-0.5
			iS	16	53.40	
PHAM	3.68	251	eP	15	59.00	-0.5
BCH	3.75	240	eP	16	00.00	-0.5
PRI	3.78	256	ePc	16	02.20	1.1
PLM	3.81	189	iPc	16	01.10	-0.5
LLA	3.90	264	ePc	16	03.60	1.0
BKS	4.92	281	eP	16	26.90	9.8
LBFM	6.15	315	eP	16	34.80	0.2
BW06	7.57	40	eP	16	54.00	-0.6
ALQ	8.13	103	eP	17	00.70	-1.7
LRM	9.11	16	eP	17	08.20	-7.9
RSON	21.07	42	eP	19	46.00	-2.1
	1.1s	20.35nm			4.4mb	
PMR	31.97	331	eP	21	30.00	0.4
	0.7s	3.63nm			4.4mb	
FBA	33.52	336	eP	21	43.20	0.1
	0.7s	3.92nm			4.4mb	
IMA	36.18	335	eP	22	06.00	0.0
	0.8s	2.59nm			4.1mb	
FRB	38.91	32	eP	22	29.00	0.2
MBC	39.24	359	eP	22	31.00	-0.4
	64 obs. associated					

? FEB 24, 1989 16h 42m 34.32± 1.49s
27.832 S ±17.8km 176.620 W ±25.4km
DEPTH = 10.0km (geophysicist)
5.3mb (2 obs.)
KERMADEC ISLANDS REGION (177)

VUN	10.77	334	ePc	45	10.30	-1.4
SGE	11.37	333	ePc	45	20.70	0.8
DZM	16.39	287	iPd	46	27.60	1.5
HNR	28.68	305	eP	48	28.00	-5.6X
WB5	45.28	269	eP	50	52.60	-1.6
PSI	86.34	275	eP	55	17.00	-1.3
			e	57	00.00	
BJI	91.96	315	eP	55	43.50	-0.7
KMI	93.76	296	Pc	55	54.00	0.8
CHG	93.87	289	iPc	55	55.00	1.5X
	1.0s	15.00nm			5.3mb	
CHTO	93.87	289	iP	55	54.20	0.7
	1.1s	14.72nm			5.3mb	
NB2	146.38	353	PKP	02	16.40	1.2
	0.9s	13.00nm				
BNG	152.61	215	ePKPd	02	39.00	12.9X
	0.8s	14.00nm				
			id	02	49.00	

S.D. = 1.4 on 9 of 12 obs.

% FEB 24, 1989 16h 48m 23.75± 1.51s
42.354 N ±15.4km 2.478 E ± 6.6km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.3 (LDG).

EPF	1.72	294	Pn	48	54.20	0.3
			Pg	48	55.70	
LPO	2.51	338	Pg	49	12.00	6.8X
			Sn	49	34.80	
			Sg	49	42.20	
CAF	2.59	353	Pn	49	07.30	0.9
			Pg	49	12.20	
			Sg	49	45.40	
LFF	2.88	335	Pn	49	10.20	-0.2
RJF	3.03	347	Pn	49	12.40	-0.2
			Pg	49	22.30	
			Sn	49	46.20	
			Sg	49	59.70	
LRG	3.06	68	Pn	49	13.00	0.0
			Sn	49	49.40	

LMR	3.12	70	Pn	49	14.10	0.2
			Sn	49	51.30	
FRF	3.29	67	Pn	49	16.10	-0.2
			Sn	49	54.00	
MAF	3.87	1	Pn	49	24.20	-0.3
			Pg	49	36.80	
			Sg	50	26.30	
TCF	3.94	357	Pg	49	38.00	12.5X
			Sn	50	08.80	
			Sg	50	29.40	
LSF	3.95	350	Pg	49	37.30	11.6X
			Sg	50	28.00	
BGF	4.21	3	Pg	49	43.10	13.7X
			Sg	50	37.40	
LPL	4.41	43	Pg	49	33.10	0.7

S.D. = 0.5 on 9 of 13 obs.

? FEB 24, 1989 16h 49m 39.95± 12.37s
23.973 N ±54.6km 33.143 E ±59.6km
DEPTH = 10.0km (geophysicist)
ARAB REPUBLIC OF EGYPT (553)

AKUR	0.35	257	iPd	49	46.50	-0.6
AKSR	0.35	199	iPd	49	47.00	-0.2
AGRW	0.45	223	iPd	49	49.00	-0.1
AGAL	0.62	208	iPd	49	52.00	-0.3
AGMR	0.70	232	iPd	49	55.00	1.2

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

? FEB 24, 1989 17h 18m 50.19± 8.14s
8.642 S ±78.4km 129.929 E ±16.6km
DEPTH = 235.9 ± 35.1 km
4.2mb (1 obs.)
TIMOR SEA (290)

MTN	4.34	164	iPc	19	57.80	-0.2
			eS	20	51.00	
KNA	7.16	189	eP	20	34.50	1.1
	0.3s		53.00nm			5.2mb X
			eS	22	11.00	
WB5	11.97	159	eP	21	34.30	-0.5
			i	21	40.00	
			eS	24	02.00	
WRA	12.02	160	Pd	21	34.80	-0.7
	0.4s		5.00nm			4.2mb
QIS	15.09	143	iPc	22	13.40	0.0
			eS	25	05.00	
WARB	17.72	190	eP	22	38.60	-4.6X
			eS	26	12.00	
NANU	19.57	223	eP	23	01.50	-0.6
FORR	22.16	184	eP	23	30.20	2.7X
BWA	30.77	149	eP	24	46.90	1.1
CAN	31.77	150	eP	24	54.30	-0.2

S.D. = 0.9 on 8 of 10 obs.

% FEB 24, 1989 17h 52m 18.21± 0.94s
37.740 N ± 8.0km 29.307 E ± 9.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.61	16	iPg	52	29.60	-0.9
			iSg	52	40.60	
BCK	1.06	105	ePn	52	38.60	0.4
ELL	1.10	154	iPn	52	38.50	-0.5
ALT	1.46	25	ePn	52	45.30	0.7
IZM	1.74	293	ePn	52	49.00	0.3

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

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* FEB 24, 1989 18h 24m 52.74± 0.69s
47.876 S ±11.6km 31.786 E ±18.1km
DEPTH = 10.0km (geophysicist)
4.8mb (12 obs.) 4.7Msz (1 obs.)
SOUTH OF AFRICA (430)

FRS	18.77	342	iPd	29	15.50	1.5
	1.0s		60.00nm			4.8mb
SEK	19.79	349	eP	29	26.50	0.4
	0.6s		6.67nm			4.1mb
PRY	21.18	349	eP	29	38.00	-2.6
	0.7s		10.00nm			4.3mb
SLR	22.27	352	iPc	29	52.00	0.4
	1.0s		36.00nm			4.8mb
Z	20s		2.84um			4.7Msz
KSR	22.31	348	eP	29	51.00	-0.9
	1.1s		13.51nm			4.3mb
LSZ	32.64	354	eP	31	20.00	-7.0X
PTZ	33.53	359	iPc	31	35.40	0.7
KMZ	34.67	350	eP	31	45.00	0.4
SPA	42.32	180	e(P)	32	49.10	1.1
	1.0s		15.50nm			4.7mb
			i	32	57.10	
BNG	53.37	343	iPd	34	15.60	1.0
	0.7s		13.00nm			5.0mb
			id	34	23.50	
KIC	62.85	318	P	35	20.44	-0.5
	0.9s		19.00nm			5.3mb
LIC	62.86	318	P	35	20.36	-0.7
	1.0s		25.00nm			5.4mb
TIC	63.23	318	P	35	23.20	-0.3
	0.8s		44.00nm			5.7mb
GBA	73.46	46	Pc	36	26.90	-0.1
HYB	77.27	45	eP	36	49.50	0.7
WRA	83.51	112	Pc	37	21.20	-0.9
	1.0s		7.30nm			4.8mb
WB5	83.57	112	eP	37	21.20	-1.3
CNCB	84.08	252	P	37	30.00	4.3X
LPB	84.36	252	(P)	37	38.00	11.0X
ZOBO	84.57	252	eP	37	37.00	8.8X
CHTO	89.40	61	eP	37	52.00	1.1
	1.0s		5.00nm			4.7mb

S.D. = 1.1 on 17 of 21 obs.

? FEB 24, 1989 18h 43m 52.14± 2.71s
37.779 N ± 9.0km 29.208 E ±28.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.60	25	iPg	44	03.60	-0.7
			iSg	44	14.60	
BCK	1.14	106	ePn	44	13.60	0.0
ELL	1.17	151	ePn	44	14.00	-0.1
ALT	1.46	29	ePn	44	19.30	0.7

S.D. = 1.0 on 4 of 4 obs.

& FEB 24, 1989 19h 02m 44.38s
59.139 N 144.908 W
DEPTH = 10.0km (geophysicist)
4.3mb (3 obs.)
GULF OF ALASKA (15)
<AGS-P>. ML 4.3 (PMR).

MID	0.79	292	eP	02	56.40	-3.3
			i	02	57.20	
RAGM	1.26	5	iP	03	02.67	-5.1
			eS	03	19.24	
SGAM	1.38	354	iP	03	04.65	-4.9
CVA	1.47	344	iP	03	05.82	-5.1
			eS	03	24.50	
HIN	1.50	328	iP	03	06.45	-4.9
			eS	03	26.63	
MTU	1.64	303	eP	03	07.75	-5.5
FID	1.80	335	iP	03	10.53	-5.1
			eS	03	33.31	
KNIM	1.88	311	iP	03	10.78	-6.0
GLI	2.06	329	iP	03	13.60	-5.9
VZW	2.10	338	iP	03	14.47	-5.5
VLZ	2.12	341	iP	03	14.70	-5.6
GLB	2.37	13	iP	03	18.56	-5.5
KLU	2.41	348	iP	03	19.00	-5.6
PWL	2.44	317	eP	03	18.87	-6.0
SEW	2.50	295	eP	03	19.71	-6.0
PCA	2.55	66	eP	03	22.01	-4.5
CTGM	2.56	43	iP	03	21.44	-5.3
PTE	2.70	312	eP	03	21.94	-6.6
PNL	2.87	77	eP	03	26.23	-4.8
KNK	2.89	324	iP	03	26.51	-4.7
SLKM	3.01	299	eP	03	26.40	-6.6
TOA	3.04	349	iPc	03	28.40	-5.0
HQN	3.11	82	eP	03	29.72	-4.6
PMS	3.14	314	eP	03	29.30	-5.5
SML	3.17	329	iP	03	29.74	-5.5
PME	3.23	322	eP	03	31.31	-4.8
PLRM	3.23	321	eP	03	30.47	-5.6
PMR	3.23	321	eP	03	30.70	-5.4
CNPM	3.27	280	eP	03	30.62	-6.0
GHO	3.31	325	eP	03	32.08	-5.2
PWA	3.53	318	eP	03	35.30	-5.0
PAX	3.86	356	eP	03	38.97	-6.1
RDT	4.05	294	eP	03	41.30	-6.4
HYT	4.09	62	P	03	43.30	-5.0
SPU	4.12	303	eP	03	41.86	-6.8
RED	4.18	291	eP	03	42.35	-7.3
ILIM	4.20	286	eP	03	45.46	-4.4
KDC	4.22	254	eP	03	45.40	-4.7
MCK	5.00	339	eP	03	54.98	-6.2
SIT	5.49	108	eP	04	02.70	-5.5
DWY	5.58	26	P	04	03.30	-6.1
SVW	5.71	295	eP	04	06.00	-5.3
FBA	5.94	348	eP	04	07.00	-7.4
TTA	6.60	310	eP	04	18.70	-5.1
IMA	8.04	334	eP	04	36.60	-7.4
SDN	9.26	252	eP	04	54.10	-6.7
INK	10.47	24	eP	05	09.00	-8.4
YKA	15.08	64	P	06	21.10	2.3
PNT	17.65	113	eP	06	51.00	-0.6
MBC	19.39	18	eP	07	06.00	-6.7
	0.8s		8.00nm			4.0mb
FFC	23.52	82	eP	08	00.00	5.1
	0.8s		9.00nm			4.4mb
KVN	26.37	128	eP	08	21.50	-1.0
BW06	27.20	111	eP	08	28.00	-2.1
NB2	58.73	13	P	12	38.20	-5.9
	0.8s		3.40nm			4.5mb
GKN	84.00	317	P	15	13.00	-3.1

55 obs. associated

% FEB 24, 1989 20h 08m 48.53± 1.08s
39.224 N ± 8.4km 28.849 E ±11.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.42	336	iPg	08	56.70	-0.4
			eSg	09	03.70	
ALT	1.00	99	iPg	09	07.60	0.1
			eSg	09	19.30	
KHL	1.04	149	ePn	09	08.20	-0.1
KCT	1.09	340	iPn	09	09.50	0.5
YLV	1.40	17	iPn	09	14.20	0.0
GPA	1.55	46	ePn	09	16.00	-0.2

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

FEB 24, 1989 20h 22m 07.97± 0.52s
46.901 N ± 5.0km 0.317 E ± 6.0km
DEPTH = 17.2 ± 5.9 km
FRANCE (538)
ML 3.4 (LDG).

MFF	0.44	227	Pg	22	16.90	0.1
			Sg	22	22.60	
LSF	1.06	127	Pn	22	28.30	0.8
			Sg	22	42.90	
TCF	1.44	114	Pn	22	34.20	0.9
			Pg	22	35.30	
			Sg	22	53.00	
LPF	1.46	321	Pn	22	33.30	-0.2
			Pg	22	34.40	
			Sg	22	53.00	
GRR	1.69	332	Pn	22	36.30	-0.5
			Pg	22	38.20	
			Sg	23	00.10	
MAF	1.69	113	Pn	22	36.50	-0.5
			Pg	22	38.80	
			Sg	23	00.90	
LDF	1.72	350	Pn	22	37.00	-0.3
			Pg	22	38.80	
			Sg	23	00.60	
BGF	1.77	100	Pg	22	39.50	1.4
			Sg	23	02.50	
RJF	1.80	152	Pn	22	38.50	0.0
			Pg	22	41.40	
			Sg	23	04.60	
FLN	1.94	344	Pg	22	42.40	1.9
			Sg	23	07.00	
LFF	1.98	171	Pn	22	41.80	0.7
			Pg	22	45.90	
			Sg	23	11.40	
AVF	2.09	92	Pn	22	42.10	-0.5
			Pg	22	46.00	
			Sg	23	11.80	
LPO	2.30	164	Pg	22	49.80	4.1X
			Sg	23	19.40	
CAF	2.32	148	Pn	22	44.10	-1.9
			Pg	22	50.60	
			Sg	23	20.20	
SMF	2.44	95	Pg	22	52.00	4.4X
			Sg	23	21.70	
LOR	2.45	80	Pg	22	53.10	5.3X
			Sg	23	22.30	
LBF	2.51	87	Pn	22	48.60	-0.1
			Pg	22	54.10	
			Sg	23	24.00	

24d 20h

EPF	3.87	180	Pn	23	08.00	0.0
			Sn	23	48.80	
			Sg	24	12.60	
DOU	4.28	40	Pn	23	12.60	-1.2

S.D. = 1.1 on 16 of 19 obs.

FEB 24, 1989 20h 31m 16.74± 0.43s
2.339 N ± 7.5km 126.631 E ±11.7km
DEPTH = 33.0km (normol)
4.7mb (7 obs.)
MOLUCCA PASSAGE (266)

MTN	15.73	164	eP	34	58.00	0.3
KNA	18.10	173	eP	35	27.00	-0.4
WB5	23.35	161	iPc	36	23.00	-0.3
QIS	26.07	151	eP	36	48.00	-1.2
NANU	27.02	203	iPc	36	59.10	1.2
	0.4s		4.00nm			4.4mb
WARB	28.35	180	eP	37	01.70	-8.3X
BDT	30.92	300	eP	37	33.00	0.1
CHTO	31.67	303	eP	37	40.50	0.9
	0.8s		9.15nm			4.7mb
FORR	33.03	178	iPc	37	50.50	-0.7
	0.4s		25.00nm			5.5mb X
XAN	35.61	334	Pd	38	13.50	0.0
BJI	38.71	347	eP	38	39.50	0.1
BRS	38.83	141	iPd	38	39.70	-1.0
BWA	41.91	153	eP	39	07.70	1.7
MDJ	42.18	3	eP	39	08.70	0.8
CAN	42.92	153	eP	39	14.80	0.6
PKI	46.70	307	P	39	44.20	-0.8
	0.6s		5.00nm			4.7mb
KKN	46.90	307	P	39	45.60	-0.8
	0.6s		6.00nm			4.8mb
DMN	46.96	306	P	39	46.90	0.0
	0.7s		7.00nm			4.8mb
GKN	47.50	307	P	39	50.60	-0.5
	0.5s		5.00nm			4.8mb
HYB	49.50	291	eP	40	07.00	0.4
GBA	49.88	286	P	40	09.00	-0.4
	0.3s		1.90nm			4.6mb

S.D. = 0.8 on 20 of 21 obs.

% FEB 24, 1989 20h 46m 42.93± 0.73s
40.813 N ± 6.5km 27.971 E ± 7.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.47	190	iPg	46	52.00	-0.5
			eSg	46	59.00	
CTT	0.48	46	ePg	46	52.20	-0.5
ISK	0.86	73	ePg	46	59.70	0.2
DMK	1.02	351	ePg	47	02.20	0.0
			eSg	47	15.90	
HRT	1.29	89	ePn	47	07.30	0.5
EZN	1.60	232	ePn	47	11.70	0.4

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

FEB 24, 1989 21h 10m 12.89± 0.73s
42.924 N ± 5.0km 12.853 E ± 8.2km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

ASS	0.20	316	P	10	17.70	0.3
			eSg	10	22.00	
CIO	0.35	38	iPgc	10	20.44	0.4
			iSg	10	26.85	
ALP	0.55	105	iPgd	10	22.83	-1.4
			iSg	10	31.28	
MNS	0.55	193	P	10	22.60	-1.6
			eSg	10	30.70	
SSO	0.56	48	e(Pg)	10	24.69	0.5
			eSg	10	35.74	
ARV	0.58	6	P	10	24.90	0.3
			eSg	10	35.20	
AOI	0.83	41	e(Pg)	10	27.75	-1.2
			iSg	10	42.99	
AZI	1.03	155	P	10	34.00	1.7
			eSg	10	50.70	
RDP	1.17	185	P	10	34.40	-0.4
			eSg	10	49.90	
SDI	1.41	149	P	10	40.00	1.3
			eSg	11	00.70	

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

? FEB 24, 1989 21h 16m 22.48± 3.45s
37.753 N ± 9.8km 29.051 E ±33.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.68	33	iPg	16	35.20	-0.8
			iSg	16	46.20	
ELL	1.21	145	ePn	16	45.00	-0.2
BCK	1.26	103	ePn	16	46.00	0.1
ALT	1.54	32	ePn	16	51.00	0.8

S.D. = 1.2 on 4 of 4 obs.

% FEB 24, 1989 22h 06m 54.47± 1.04s
37.730 N ± 8.9km 29.206 E ±10.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.64	23	iPg	07	06.20	-1.2
			iSg	07	17.20	
ELL	1.13	150	iPn	07	15.50	-0.2
BCK	1.13	103	iPn	07	15.80	0.1
ALT	1.50	28	ePn	07	22.80	1.3
IZM	1.67	294	ePn	07	24.00	0.0

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

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* FEB 24, 1989 22h 26m 03.63± 1.64s
29.499 S ±10.4km 179.146 W ± 7.5km
DEPTH = 343.3 ± 16.3 km
4.8mb (8 obs.)
KERMADEC ISLANDS REGION (177)

KRP	9.50	206	P	28	16.00	-0.3
DZM	14.93	296	iPc	29	20.20	-0.2
BRS	24.76	268	iPc	30	58.60	1.7
			e	31	20.80	
			i	31	41.00	
CAN	27.44	249	eP	31	21.80	0.8
BWA	27.88	251	eP	31	25.60	0.7
			e	32	08.90	
RMQ	28.45	268	iPc	31	38.70	8.7X
			e	32	20.00	
TVO	29.68	74	eP	31	37.00	-3.8X
	0.9s		35.00nm			4.7mb
CTA	32.68	279	iPc	32	07.10	0.4
	0.8s		18.66nm			4.5mb
			i	32	48.50	
STK	33.72	256	eP	32	16.00	0.6
WB5	43.07	272	eP	33	31.20	-1.4
			eS	38	38.00	
FORR	45.27	255	eP	33	48.50	-1.3
	0.4s		11.00nm			4.5mb
MTN	48.86	279	eP	34	16.00	-1.6
NANU	58.45	260	iPd	35	25.30	-1.4
SPA	60.67	180	iPd	35	42.00	0.6
	1.0s		34.50nm			4.8mb
			i	36	21.90	
CHJJ	76.16	326	iPd	37	15.10	-0.8
IIDJ	76.24	325	P	37	15.50	-0.9
NIIJ	77.11	327	P	37	20.30	-0.7
MTMJ	77.17	326	iPd	37	20.90	-0.6
PSI	84.30	276	ePc	37	58.50	-0.5
			e	40	30.00	
BCH	85.06	45	P	38	03.00	0.5
ARN	85.63	42	P	38	05.30	0.2
PLM	85.91	48	eP	38	07.00	0.2
SBB	86.15	46	eP	38	07.00	-0.7
ISA	86.37	45	eP	38	09.00	0.3
CMB	86.77	43	P	38	10.70	0.1
	0.8s		10.67nm			4.8mb
TPC	86.91	48	eP	38	12.00	0.6
WHN	87.01	308	eP	38	10.50	-1.3
CLC	87.01	46	eP	38	11.00	-0.8
GLA	87.06	49	eP	38	13.00	0.9
GSC	87.18	46	eP	38	13.00	0.3
LBFM	88.13	39	P	38	17.60	0.4
TIA	88.63	313	Pd	38	20.20	0.8
TNP	88.69	44	P	38	20.00	0.1
	0.8s		8.82nm			4.7mb
KVN	88.78	43	P	38	20.00	-0.3
CN2	88.83	323	Pd	38	20.30	0.2
KDC	89.76	14	P	38	24.50	0.4
	1.0s		30.00nm			5.2mb
GYA	90.24	300	P	38	27.80	0.6
BJI	91.59	316	eP	38	33.00	0.1
CHG	92.34	290	eP	38	38.80	2.0
TIY	92.53	312	eP	38	38.10	0.7
XAN	92.78	308	P	38	40.60	2.0
CD2	94.77	303	P	38	50.20	2.4
FBA	97.21	13	P	38	57.70	-0.3
	0.9s		7.29nm			4.9mb
PKI	107.40	292	PKP	43	51.00	-0.8X
VAO	110.43	133	ePKP	44	09.40	12.1X
MBC	111.76	13	ePKP	43	57.00	-1.2
BAO	114.93	127	ePKP	44	24.00	17.8X
ALE	122.50	8	ePKP	44	17.00	-1.6
	0.7s		7.00nm			
BUL	123.86	212	iPKPd	44	22.90	-0.3
FRB	125.11	31	ePKP	44	23.00	-1.1
MAIO	130.94	294	ePKP	44	36.00	-0.3X
KEV	137.03	347	ePKP	44	34.00	-12.6X
SOD	139.07	345	ePKP	44	42.00	-8.4X
KJF	141.34	342	iPKP	44	48.60	-6.0X
	0.7s		20.00nm			
			i	44	56.40	
TAB	141.57	295	e(PKP)	44	51.00	-5.1X
SUF	142.94	341	iPKP	44	53.10	-4.3X
	0.3s		7.10nm			
NUR	145.13	340	iPKP	45	00.50	-0.7X
	0.9s		185.90nm			
UPP	147.58	344	iPKPd	45	06.90	1.8
			i	45	09.80	
NB2	147.71	351	PKP	45	04.40	-1.0X
	0.8s		45.10nm			
BNG	149.96	217	iPKPc	45	10.00	-0.3
	0.5s		38.00nm			
			id	45	15.30	
			ic	45	21.90	
HRI	150.07	286	ePKP	45	17.00	7.0X
PRNI	150.46	280	iPKPd	45	17.00	6.4X
MBH	150.48	279	iPKPd	45	17.00	6.4X
IKL	151.71	292	iPKP	45	18.70	6.5X
BBTK	151.94	300	ePKP	45	12.00	-0.6X
MLR	154.63	316	ePKP	45	24.50	8.4X
			ed	03	06.50	
KRA	154.90	330	ePKP	45	14.60	-1.5
KSP	155.73	336	ePKP	45	26.80	9.5X
	0.9s		39.00nm			
			ic	45	46.00	
LIC	156.19	165	PKP	45	19.28	0.3X
KIC	156.39	166	PKP	45	19.30	0.0
	0.9s		12.00nm			
CLL	156.39	341	ePKP	45	28.00	9.9X
	1.1s		43.00nm			
			i	45	48.20	
BRG	156.49	339	e(PKP)	45	18.00	-0.3
TIC	156.60	165	PKP	45	19.66	0.1
KHC	158.12	337	PKP	45	20.50	0.1
			i	45	57.00	

S.D. = 1.0 on 52 of 74 obs.

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* FEB 24, 1989 22h 40m 13.71± 3.73s
32.228 S ± 9.6km 68.085 W ±31.3km
DEPTH = 123.6 ± 25.9 km
MENDOZA PROVINCE, ARGENTINA (139)

RTCV	0.53	313	iPd	40	32.50	-0.1
CFA	0.63	348	ePd	40	33.40	0.2
ZON	0.85	323	iPc	40	34.00	-1.0
			eS	40	49.00	
MDZ	0.92	224	iP	40	36.20	0.5
			i(S)	40	50.00	
RTLL	0.95	340	iPc	40	35.90	-0.1
			S	40	50.90	
RTCB	0.96	320	iPc	40	36.00	0.0
FCH	2.16	239	iPd	40	50.20	0.1
			iS	41	20.50	
JACH	2.17	257	iP	40	51.00	1.0
			iS	41	15.00	
RTRS	2.37	330	iPd	40	53.00	0.6
			S	41	21.00	
PEL	2.38	247	iP	40	52.40	-0.2
			iS	41	20.00	
PCH	2.47	235	iPd	40	54.00	0.1
			iS	41	25.60	
SAN	2.49	240	iPc	40	54.00	-0.1
			iS	41	24.20	
ROCH	2.58	253	ePd	40	56.00	0.5
			iS	41	25.00	
CHCH	2.75	231	iPc	40	57.70	0.2
			iS	41	32.50	
TACH	2.79	239	iPc	40	57.50	-0.5
			iS	41	30.50	
LCCH	3.19	246	eP	41	02.00	-1.2
			iS	41	38.00	

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

FEB 24, 1989 23h 01m 21.20± 0.42s
39.042 N ± 3.9km 29.716 E ± 4.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ALT	0.31	87	iPg	01 26.30	-1.3
KHL	0.73	192	iPg	01 34.20	-1.5
DST	1.01	304	iPn	01 40.70	0.3
GPA	1.33	20	iPn	01 46.00	0.3
YLV	1.55	350	iPn	01 48.60	-0.3
KCT	1.60	319	iPn	01 50.60	1.0
BCK	1.72	156	iPn	01 51.70	0.3
GBZT	1.76	353	ePn	01 54.10	2.3
HRT	1.78	359	ePn	01 51.90	-0.3
BNT	1.91	314	iPn	01 54.60	0.5
EDC	1.93	313	ePn	01 54.00	-0.4
IZM	2.02	252	ePn	01 54.00	-1.8
ISK	2.08	346	ePn	01 56.10	-0.5
ELL	2.30	176	ePn	02 01.50	1.7
CTT	2.32	335	ePn	02 00.40	0.3
BBTK	2.49	70	eP	02 02.50	0.0
			iS	02 42.00	
PRK	2.69	275	eP	02 05.20	0.0
EZN	2.74	288	ePn	02 05.30	-0.7
KSL	2.92	182	eP	02 10.00	1.5
RDO	3.83	305	eP	02 22.00	0.5
JMB	4.17	326	eP	02 27.00	0.8
KDZ	4.19	310	iPd	02 27.00	0.4
PLG	5.02	287	eP	02 38.00	-0.3
MMB	5.24	301	iPd	02 33.00	-8.4X
PVL	5.32	323	eP	02 42.00	-0.6
TLB	5.68	348	eP	02 46.50	-1.1
VRI	7.17	343	ePd	03 07.50	-1.1

S.D. = 1.0 on 26 of 27 obs.

FEB 24, 1989 23h 15m 22.45± 0.43s
42.877 N ± 3.1km 12.876 E ± 4.9km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)
MD 2.8 (SSO).

ASS	0.25	321	P	15 27.20	-0.6
			eSg	15 30.70	
CIO	0.37	32	iPgc	15 29.70	-0.4
			iSg	15 36.15	
MNS	0.51	196	Pc	15 32.10	-0.8
			eSg	15 40.00	
ALP	0.52	100	iPgc	15 32.30	-0.8
			iSg	15 40.68	
SSO	0.58	44	e(Pg)	15 34.92	0.8
			eSg	15 46.08	
ARV	0.62	4	P	15 34.30	-0.7
			eSg	15 44.80	
AQU	0.65	143	P	15 35.90	0.4
AOI	0.86	38	e(Pg)	15 39.37	0.4
			i(Sg)	15 55.50	
AZI	0.98	155	P	15 41.50	0.5
			eSg	15 56.00	
CRE	1.01	318	P	15 42.60	1.0
			eSg	15 57.20	
RMP	1.07	187	P	15 42.50	-0.2
			eSg	15 57.80	
RDP	1.12	186	P	15 44.00	0.4
			eSg	16 00.30	
SDI	1.36	149	P	15 47.50	0.0
TRI	2.90	12	eP	16 28.10	18.6X
			i	17 00.10	
VOY	3.24	13	eP	16 29.00	14.6X
			e(Sn)	16 50.00	
LJU	3.38	20	eP	16 19.00	2.7X
			e(Sn)	16 59.20	

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

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* FEB 24, 1989 23h 53m 37.15± 0.47s
2.913 N ± 8.1km 126.349 E ±15.8km
DEPTH = 33.0km (normal)
4.7mb (3 obs.)
MOLUCCA PASSAGE (266)

MTN	16.36	163	eP	57 25.00	-1.1
KNA	18.70	173	eP	57 55.00	-0.2
WB5	23.98	161	eP	58 49.20	-0.6
NANU	27.44	202	eP	59 23.00	0.9
WARB	28.93	179	eP	59 26.50	-9.0X
CHTO	31.13	302	eP	59 56.00	0.8
	0.8s		5.67nm		4.4mb
FORR	33.62	177	iPd	00 15.70	-1.0
	0.4s		37.00nm		5.7mb X
BJI	38.09	347	eP	00 55.00	0.4
SNY	38.82	357	iPd	01 02.10	1.4
LZH	39.02	330	eP	01 02.50	-0.2
BWA	42.55	153	eP	01 33.10	1.5
CAN	43.56	153	eP	01 41.00	1.2
HYB	49.04	291	eP	02 23.00	-0.4
GBA	49.46	285	P	02 27.00	0.4
WMQ	53.18	326	eP	02 53.50	-0.9
MAIO	69.70	308	iPc	04 45.20	-0.9
PRNI	89.71	300	ePd	06 35.00	1.1
MBH	89.85	300	iPc	06 35.50	1.1
SOD	91.07	338	eP	06 38.00	-1.3
KJF	91.16	334	iP	06 39.30	-0.5
SUF	92.10	333	iP	06 43.70	-0.4
	0.4s		1.50nm		4.8mb
NB2	99.34	333	P	07 16.00	-1.3
	0.7s		1.70nm		4.7mb

S.D. = 1.0 on 21 of 22 obs.

& FEB 25, 1989 01h 00m 19.00s
33.930 N 118.630 W
DEPTH = 11.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.7 (PAS). Felt (V) at Sonto Monico; (IV) ot Hawthorne, Lowndale, Redondo Beach ond Venice; (III) ot Colobosos, Gordeno, Harbor City, Inglewood, Lo Verne, Lomito, Monhotton Beoch, Pocific Polisodes ond Torronce.

PAS	0.44	60	iPd	00 27.10	-0.9
CIS	0.56	160	iPd	00 29.40	-0.8
MWC	0.56	58	iPd	00 29.30	-1.1
SBB	1.01	41	iPd	00 37.00	-1.0
RVR	1.04	86	iP	00 37.50	-1.1
PEC	1.22	91	eP	00 39.90	-1.8
SYP	1.27	298	iPc	00 41.40	-1.1
PLM	1.58	111	eP	00 45.00	-2.2
BCH	1.73	317	eP	00 48.70	-0.6
ISA	1.73	4	iPc	00 49.10	-0.2
CLC	2.07	24	iPd	00 53.20	-0.9
PHAM	2.39	323	eP	00 57.50	-1.3
PRI	2.77	323	iPc	01 01.50	-2.7
FRI	3.18	344	ePd	01 08.80	-1.0
			eS	01 46.00	
LLA	3.28	325	ePd	01 10.20	-1.2
PRS	3.28	318	iPc	01 09.10	-2.3
SAO	3.65	322	eP	01 14.00	-2.5
TNP	4.30	15	eP	01 25.20	-0.8
CMB	4.34	341	ePc	01 25.00	-1.4
BKS	4.91	324	e(P)	01 32.20	-2.2
KVN	5.13	5	eP	01 37.70	0.0

21 obs. associated

FEB 25, 1989 01h 06m 43.14± 0.76s
37.719 N ± 7.6km 29.265 E ± 7.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

BCK	1.08	103	iPn	07 03.20	-0.4
ELL	1.10	152	iPn	07 04.00	0.2
ALT	1.49	26	iPn	07 09.30	-0.7
IZM	1.72	294	ePn	07 13.00	-0.3
DST	1.95	345	ePn	07 15.70	-0.9
KCT	2.62	345	ePn	07 23.00	-3.3X
BNT	2.83	339	ePn	07 30.00	0.7
EDC	2.84	338	ePn	07 30.00	0.6
BBTK	3.46	51	eP	07 39.00	0.8

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

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* FEB 25, 1989 01h 21m 52.51± 0.76s
41.198 N ± 5.9km 20.150 E ± 6.3km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.4 (SKO).

TIR	0.26	305	iPgc	21 58.10	0.1
OHR	0.50	100	iPg	22 02.60	0.0
			iSg	22 09.00	
BERA	0.52	197	ePg	22 03.00	0.0
PHP	0.54	24	ePg	22 03.40	0.1
LACI	0.55	323	ePg	22 03.50	-0.1
LSK	1.10	162	ePn	22 19.90	6.7X
SKO	1.24	51	ePn	22 21.00	5.5X
			i	22 38.00	
VAY	1.83	85	e(Pn)	22 27.00	2.8X

S.D. = 0.1 on 5 of 8 obs.

FEB 25, 1989 01h 30m 17.46± 0.53s
56.291 N ± 7.4km 153.398 W ± 6.8km
DEPTH = 33.0km (normal)
4.9mb (10 obs.)
KODIAK ISLAND REGION (13)
ML 4.7 (PMR).

KOC	1.54	18	iPc	30 44.00	1.1
SDN	4.12	260	eP	31 16.50	-3.1
SVW	4.97	347	iPc	31 31.80	0.0
PMS	5.35	20	eP	31 35.90	-1.3
PWA	5.68	17	eP	31 41.40	-0.2
PMR	5.76	21	eP	31 41.00	-1.8
TTA	6.79	350	eP	31 56.80	-0.6
TOA	6.91	29	eP	31 59.20	0.2
FBA	9.06	15	eP	32 25.40	-3.5
HYT	9.46	55	P	32 34.00	-0.5
IMA	9.81	359	eP	32 39.40	0.0
SIT	9.98	78	eP	32 35.10	-6.4X
INK	15.08	29	eP	33 54.00	4.6X
BRW	15.14	356	eP	33 55.30	5.1X
YKA	20.45	56	P	34 55.30	1.0
YKC	20.51	56	eP	34 55.00	0.1
PNT	21.41	95	eP	35 05.00	0.7
	0.9s		29.00nm		4.7mb
MBC	23.57	20	eP	35 28.00	2.8
	0.7s		18.00nm		4.7mb
SES	25.64	85	eP	35 43.00	-2.4
KVN	28.93	112	eP	36 15.50	-0.1
			e	36 23.50	
TNP	30.11	112	eP	36 25.80	-0.4
			e	36 34.00	
BW06	30.93	97	eP	36 40.00	6.6X
PLM	33.98	117	eP	36 59.50	-0.5
ALE	34.75	13	eP	37 06.00	0.0
	0.8s		16.00nm		5.0mb
DAG	44.14	14	iPc	38 24.20	0.4
	0.8s		13.43nm		4.8mb
CN2	50.61	292	eP	39 13.50	-1.3
KEV	54.26	360	iP	39 41.80	0.1
	0.7s		10.70nm		5.0mb
SOD	56.65	360	iP	39 59.30	0.2
KJF	59.84	359	eP	40 22.00	0.7
	0.7s		9.30nm		5.0mb
SUF	61.33	0	iP	40 31.70	0.2
NUR	63.53	1	iP	40 46.20	0.0
WHN	66.37	290	eP	41 04.50	-0.4
GTA	66.41	306	eP	41 05.00	-0.3
	Z 17s		0.67um		4.9MszX
WMQ	67.81	317	P	41 15.00	1.0
MOX	72.71	10	e(P)	41 45.00	1.5
GYA	73.64	293	P	41 50.00	0.6
KHC	74.39	9	P	41 45.50	-7.8X
KKN	82.63	310	P	42 39.70	0.9
	0.6s		6.00nm		4.8mb
GKN	82.72	311	P	42 40.00	0.8
	0.6s		9.00nm		5.0mb
PKI	82.77	310	P	42 40.30	0.6
	0.7s		9.00nm		5.0mb
DMN	82.87	310	P	42 41.00	0.9
	0.7s		14.00nm		5.2mb
MAIO	83.62	334	eP	42 46.00	2.4
SLR	149.45	357	ePKP	50 04.50	4.7X
PRY	150.65	358	ePKP	50 03.00	1.4X
SEK	152.04	358	ePKP	50 06.00	2.3X
FRS	153.46	2	ePKP	50 18.00	12.7X

S.D. = 1.3 on 37 of 46 obs.

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* FEB 25, 1989 01h 46m 27.98± 0.79s
48.763 N ±20.4km 154.917 E ±13.8km
DEPTH = 33.0km (normal)
4.8mb (9 obs.)
KURIL ISLANDS (221)

FBA	33.83	40	eP	53 11.50	2.7
INK	39.30	34	eP	54 07.00	12.1X
MBC	42.29	21	eP	54 19.00	-0.4
YKA	48.59	38	P	55 10.30	0.6
CHTO	53.77	257	eP	55 50.50	1.2
	1.1s		17.08nm		5.0mb
KKN	56.52	275	P	56 11.50	1.9
DMN	56.75	275	P	56 12.30	1.0
	0.6s		16.00nm		5.2mb

25d 01h

GKN	56.80	276	P	56 11.00	-0.5
	0.6s	11.00nm		5.1mb	
LRM	59.02	55	eP	56 27.40	0.4
KVN	60.16	64	eP	56 34.00	-0.8
BW06	62.58	56	eP	56 51.00	-0.2
	0.9s	3.51nm		4.5mb	
FRB	62.75	20	eP	56 50.00	-1.6
NB2	66.71	342	P	57 15.60	-1.8
	0.8s	2.00nm		4.3mb	
HYB	68.16	272	eP	57 27.00	-0.1
WB5	70.75	200	eP	57 42.10	-0.6
GBA	71.66	270	Pd	57 46.50	-1.9
	0.7s	2.80nm		4.4mb	
CDF	79.24	339	eP	58 40.60	9.5X
AVF	81.67	341	eP	58 43.90	0.0
	0.9s	8.10nm		4.7mb	
LPG	82.09	338	eP	58 47.20	0.7
	0.7s	5.90nm		4.7mb	
LSF	82.57	342	eP	58 48.00	-0.6
	1.0s	14.80nm		5.0mb	
	S.D. = 1.3	on	18 of	20 obs.	

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* FEB 25, 1989 02h 06m 00.78± 0.76s
47.688 N ±15.3km 154.158 E ± 9.8km
DEPTH = 33.0km (normol)
4.8mb (19 obs.)
KURIL ISLANDS (221)

CN2	20.35	270	eP	10 35.00	-1.9
FBA	34.98	39	eP	12 50.50	-1.0
	0.8s	5.17nm		4.5mb	
XAN	36.31	265	P	13 03.40	0.3
INK	40.48	33	eP	13 38.00	0.6
CD2	41.67	265	P	13 48.40	0.7
GYA	42.61	257	P	13 55.40	-0.2
MBC	43.47	20	eP	14 02.00	0.2
ALE	48.74	6	eP	14 43.00	-0.5
	0.7s	10.00nm		5.0mb	
YKA	49.75	37	P	14 52.00	0.6
MNI	52.60	218	ePd	15 25.60	12.0X
CHG	53.03	257	iPd	15 16.90	0.1
	0.9s	10.50nm		4.8mb	
PNT	54.09	54	eP	15 23.00	-1.2
	0.5s	3.00nm		4.6mb	
KKN	56.11	275	P	15 39.20	-0.2
PKI	56.16	275	P	15 39.50	-0.5
	0.5s	21.00nm		5.4mb	
DMN	56.34	275	P	15 41.00	-0.2
GKN	56.40	276	P	15 41.30	-0.2
SOD	58.63	339	eP	15 55.00	-1.5
LRM	60.06	54	eP	16 06.30	-0.7
KJF	60.84	336	eP	16 16.00	4.3X
SUF	62.45	336	eP	16 21.00	-1.5
	0.4s	2.10nm		4.6mb	
FRB	63.93	20	eP	16 31.00	-1.2
NUR	64.66	335	iP	16 35.30	-1.7
Z	16s	0.20um		4.4MszX	
		LR	27 20.00		
NB2	67.57	342	P	16 55.00	-0.6
	0.5s	1.30nm		4.3mb	
WB5	69.57	200	eP	17 06.20	-2.1X
KSP	75.38	334	eP	17 42.00	-0.4
CLL	75.90	336	iPc	17 44.80	-0.5
	0.9s	17.00nm		5.0mb	
PRU	76.65	335	P	17 49.80	0.2
MLR	76.70	325	ePc	17 50.50	0.4
KHC	77.70	335	iPd	17 56.40	1.0
	1.0s	7.00nm		4.6mb	
GRF	77.85	336	eP	17 57.00	0.8
	0.7s	14.00nm		5.1mb	
KBA	79.62	334	iPd	18 06.70	0.6
	0.8s	14.30nm		5.0mb	
CDF	80.05	338	eP	18 08.40	0.1
	0.8s	6.40nm		4.7mb	
HAU	80.66	339	eP	18 11.60	0.1
BSF	80.71	338	eP	18 11.60	-0.3
FLN	81.45	343	eP	18 15.50	0.0
LOR	81.94	340	eP	18 18.40	0.2
	0.7s	5.50nm		4.7mb	
SSF	82.22	340	eP	18 19.90	0.3
AVF	82.51	340	eP	18 21.40	0.3
	0.7s	4.80nm		4.7mb	
SMF	82.53	340	eP	18 21.60	0.3
	0.9s	17.00nm		5.1mb	
LPG	82.90	338	eP	18 24.50	1.0
	0.9s	13.10nm		5.0mb	
MAF	83.23	341	eP	18 25.50	0.7
	0.8s	13.40nm		5.1mb	
TCF	83.24	341	eP	18 25.50	0.6
	0.8s	5.90nm		4.8mb	
LSF	83.43	341	eP	18 26.40	0.5
SBF	84.23	336	eP	18 30.80	0.7
CAF	84.57	340	eP	18 32.70	1.0
LFF	84.85	341	eP	18 33.60	0.6
LRG	84.90	337	eP	18 33.80	0.5
	0.5s	7.80nm		5.2mb	
LMR	84.97	337	eP	18 34.10	0.5
LPO	84.99	341	eP	18 34.90	1.1
	S.D. = 0.8	on	46 of	49 obs.	

? FEB 25, 1989 02h 32m 28.82± 1.33s
3.550 S ±26.9km 130.007 E ±43.4km
DEPTH = 33.0km (normol)
4.7mb (2 obs.)
CERAM (272)

MTN	9.30	173	eP	34 45.00	1.3
			eS	36 30.00	
WB5	16.78	166	eP	36 21.10	-1.9
			eS	39 18.80	
QIS	19.32	152	eP	36 53.00	-1.3
			eS	40 19.00	
BWA	35.17	153	eP	39 23.50	1.7
CAN	36.18	153	eP	39 31.00	0.6
PKI	52.94	309	P	41 45.00	0.1
	0.6s	5.00nm		4.7mb	
KKN	53.15	309	P	41 45.90	-0.4
GKN	53.75	309	P	41 50.70	0.1
	0.5s	5.00nm		4.8mb	
	S.D. = 1.4	on	8 of	8 obs.	

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* FEB 25, 1989 02h 55m 16.94± 1.58s
43.613 N ± 9.8km 0.561 W ±12.5km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
ML 3.6 (LDG). Felt (V) in the
Lacq oilfield, Fronce.

EPF	0.88	131	Pg	55 33.80	-0.1
			Sg	55 45.60	
LFF	1.62	35	Pn	55 47.50	1.9
			Pg	55 51.30	
			Sg	56 14.60	
LPO	1.65	49	Pn	55 47.20	1.1
			Pg	55 51.20	
			Sg	56 13.80	
RJF	2.25	41	Pn	55 55.60	0.8
			Pg	56 02.40	
			Sn	56 23.10	
			Sg	56 33.70	
CAF	2.30	54	Pn	55 56.40	0.9
			Pg	56 03.60	
			Sg	56 34.40	
MFF	3.00	5	Pn	56 07.30	1.9
			Pg	56 17.00	
			Sg	56 57.40	
LSF	3.03	29	Pn	56 05.90	0.2
			Sn	56 41.80	
			Sg	56 57.80	
TCF	3.32	35	Pn	56 09.60	-0.4
			Sg	57 07.00	
MAF	3.43	39	Pn	56 10.80	-0.7
			Sg	57 10.00	
BGF	3.81	38	Pn	56 16.40	-0.5
			Pg	56 31.60	
			Sn	57 00.40	
			Sg	57 21.20	
AVF	4.21	40	Pn	56 22.60	0.0
			Pg	56 38.70	
			Sg	57 35.40	
HYF	4.29	31	Pn	56 24.40	0.6
SMF	4.35	44	Pn	56 24.60	0.1
			Pg	56 41.30	
			Sg	57 39.40	
LPF	4.43	356	Pn	56 25.50	-0.2
			Sg	57 43.20	
SSF	4.48	38	Pn	56 25.40	-1.0
			Pg	56 43.80	
			Sg	57 43.60	
LBF	4.65	42	Pn	56 27.80	-1.1
			Pg	56 48.00	
			Sg	57 47.60	
GRR	4.78	358	Pn	56 30.60	-0.1
LOR	4.80	39	Pn	56 29.30	-1.7
			Pg	56 49.90	
			Sg	57 53.40	
LDF	4.99	3	Pn	56 33.50	-0.1
			Sg	58 00.40	
FLN	5.15	1	Pn	56 35.10	-0.8
			Sg	58 05.20	
DOU	7.38	27	P	57 06.30	-1.0
	S.D. = 1.0	on	21 of	21 obs.	

? FEB 25, 1989 03h 41m 41.95± 1.59s
3.317 S ±17.6km 130.723 E ±29.1km
DEPTH = 33.0km (normol)
3.7mb (1 obs.)
CERAM (272)

MTN	9.48	178	eP	44 01.00	1.7
			eS	45 46.00	
KNA	12.50	189	eP	44 39.00	-1.5
WB5	16.84	168	eP	45 36.90	-0.1
			eS	48 40.00	
WRA	16.90	168	Pd	45 42.50	4.8X
	0.4s	2.80nm		3.7mb	
QIS	19.20	154	eP	46 09.00	3.0X
CTA	22.53	139	eP	46 40.00	-0.4
WARB	23.07	189	eP	46 41.00	-4.7X
GKN	54.17	308	P	51 07.00	0.2
	S.D. = 1.6	on	5 of	8 obs.	

FEB 25, 1989 04h 42m 18.21± 3.20s
1.933 N ± 6.1km 127.990 E ±11.6km
DEPTH = 32.2 ± 24.4 km
5.1mb (8 obs.)
HALMAHERA (267)

DAV	5.66	335	eP	43 43.90	1.6
PCI	8.63	251	ePc	43 32.00	-51.8X
	1.0s	11.50nm			
TSM	10.16	283	ePc	44 48.80	3.8X
MTN	15.01	168	eP	45 49.00	-0.8
			eS	48 32.00	
KHKI	16.03	230	ePc	46 11.00	8.0X
			e	48 10.00	
BAG	16.13	334	eP	46 03.00	-1.5
KNA	17.59	178	eP	46 23.00	0.4
PMG	22.17	121	e(P)	47 07.00	-6.2X
WB5	22.56	164	eP	47 16.80	-0.3
WRA	22.62	164	Pc	47 17.30	-0.4
	0.6s	9.40nm		4.4mb	
QZH	24.61	339	Pc	47 36.00	-1.0
	4.0s	0.80nm		2.6mb X	
QIS	25.08	154	iPc	47 41.60	0.0
			e	47 44.00	
PSI	29.05	272	ePc	48 19.60	1.6
SSE	29.71	348	eP	48 23.00	-0.7
	1.0s	12.00nm		4.6mb	
LOE	30.03	302	eP	48 26.40	-0.4
WHN	31.25	337	P	48 39.00	1.7
GYA	31.85	322	P	48 43.80	1.0
BDT	32.30	300	eP	48 44.70	-1.9
FORR	32.60	180	eP	48 48.20	-0.8
CHG	33.03	302	iPd	48 53.50	0.5
	1.1s	33.23nm		5.2mb	
KMI	33.53	316	eP	48 59.00	1.4
STK	36.02	160	eP	49 18.00	-0.5
XAN	36.58	333	P	49 23.30	0.1
CD2	36.83	324	eP	49 24.80	-0.6
ADE	38.06	166	e(P)	49 35.00	-0.6
TIY	38.37	340	Pc	49 39.60	1.3
Z	25s	0.60um		4.3MszX	
			eS	55 34.50	
BJI	39.42	346	eP	49 46.50	-0.4
SNY	39.91	355	eP	49 51.40	0.5
LZH	40.68	329	eP	49 57.50	0.0
	1.5s	88.00nm		5.3mb	
BWA	40.94	154	eP	50 02.40	2.8
HHC	41.49	341	eP	50 05.00	0.9
CN2	41.75	357	eP	50 05.00	-1.0
BTO	41.79	339	eP	50 07.00	0.5
CAN	41.95	154	eP	50 11.00	3.1X
SHL	41.95	307	iP	50 07.50	-0.7
			eS	57 27.00	
MDJ	42.53	2	eP	50 09.50	-2.9
LSA	44.57	312	Pc	50 32.50	2.8X
GTA	45.27	329	eP	50 34.00	-0.8
PKI	48.03	306	P	50 57.20	0.1
	0.7s	19.00nm		5.2mb	
KKN	48.23	306	P	50 57.80	-0.6

DMN 48.29 306 P 50 58.60 -0.4
GKN 48.83 306 P 51 02.40 -0.6
KOD 50.85 282 eP 51 18.00 -0.8
HYB 50.92 291 eP 51 19.00 0.1
1.2s 57.10nm 5.4mb
GBA 51.30 286 Pc 51 20.20 -1.6
0.9s 19.00nm 5.1mb
WMQ 54.91 325 eP 51 47.60 -0.7
KSH 60.17 315 eP 52 25.00 -0.5
MAIO 71.60 308 iPd 53 41.00 2.2
SOD 92.60 338 eP 55 28.00 0.5
KJF 92.75 334 eP 55 36.00 7.8X
MBC 93.42 13 eP 55 34.00 2.8X
SUF 93.71 333 iP 55 33.40 0.7
0.6s 2.50nm 4.8mb
MLR 97.06 316 ePd 55 50.00 1.4
S.D. = 1.2 on 45 of 53 obs.

? FEB 25, 1989 04h 50m 31.12± 1.23s
30.416 N ±22.7km 51.358 E ±14.3km
DEPTH = 33.0km (normal)
IRAN (348)

BHD 6.58 297 ePd 52 07.50 -0.6
e 54 23.00
eS 54 47.00
SLY 7.14 318 eP 52 39.00 23.2X
eS 54 55.00
MAIO 8.98 47 eP 52 41.00 -0.6
BBTK 17.86 307 eP 54 43.50 4.8X
KHC 34.08 314 eP 57 21.20 6.7X
KIC 57.70 257 P 00 20.80 -0.4
TIC 57.79 258 P 00 21.60 -0.2
LIC 58.01 257 P 00 23.40 0.0
FRB 74.95 336 eP 02 12.00 1.7
S.D. = 1.1 on 6 of 9 obs.

FEB 25, 1989 05h 41m 42.96± 4.16s
45.232 N ±34.4km 14.809 E ± 9.4km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.7 (TRI), 2.8 (LJU).

VBY 0.42 49 iPgc 41 51.00 -0.5
iSg 41 57.40
CEY 0.57 332 ePg 41 53.90 -0.7
0.3s 130.00nm
eSg 42 02.90
LJU 0.83 347 ePg 42 00.00 0.9
0.5s 60.00nm
eSg 42 11.00
TRI 0.88 303 ePg 41 58.80 -1.0
iSg 42 12.00
ZAG 1.01 54 iP 42 06.00 3.9X
iSg 42 20.00
VOY 1.03 322 ePg 42 01.50 -0.9
eSg 42 17.20
PTJ 1.05 50 ePg 42 10.70 7.9X
eSg 42 18.40
RBL 1.49 325 P 42 11.00 1.2
eSg 42 31.80
FVI 1.96 315 P 42 17.50 0.9
S.D. = 1.2 on 7 of 9 obs.

FEB 25, 1989 05h 41m 52.56± 0.55s
36.287 N ± 9.3km 70.788 E ± 7.4km
DEPTH = 33.0km (normal)
4.8mb (7 obs.)
HINDU KUSH REGION (718)

QUE 6.88 209 eP 43 33.50 -0.4
eS 44 46.80
MAIO 9.12 273 iPnd 44 06.00 1.0
0.6s 11.50nm 5.2mb
eSn 45 40.00
GKN 14.34 121 P 45 15.60 0.3
0.4s 19.00nm 5.0mb
DMN 14.91 121 P 45 23.40 0.5
0.4s 23.00nm 4.9mb
KKN 14.91 121 P 45 22.90 0.0
0.4s 18.00nm 4.8mb
PKI 15.14 121 P 45 26.00 0.0
0.4s 20.00nm 4.7mb
GBA 23.36 164 Pc 46 58.40 -0.6
0.4s 2.10nm 4.0mb
SUF 38.01 328 iP 49 09.70 0.8
NB2 44.45 323 P 50 00.40 -1.5
0.6s 1.20nm 3.9mb
MBC 67.56 3 eP 52 47.00 -0.2
S.D. = 0.8 on 10 of 10 obs.

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* FEB 25, 1989 05h 43m 58.68± 0.92s
37.134 N ± 8.0km 27.856 E ± 9.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM 1.35 340 ePn 44 24.00 0.5
KAP 1.67 199 ePn 44 27.60 -0.5
eSn 44 49.00
ELL 1.69 103 ePn 44 28.00 -0.5
KSL 1.72 126 ePn 44 30.00 1.2
KHL 1.78 48 ePn 44 29.00 -0.7
BCK 2.20 81 ePn 44 36.00 0.1
S.D. = 1.0 on 6 of 6 obs.

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* FEB 25, 1989 06h 10m 49.86± 2.82s
48.014 N ± 9.2km 8.157 E ±22.2km
DEPTH = 10.0km (geophysicist)
GERMANY (543)

FEL 0.17 215 Pg 10 53.50 -0.3
MOF 0.71 257 Pg 11 05.50 1.6
Sg 11 16.00
CDF 0.71 304 Pg 11 03.70 -0.3
Sg 11 17.00
BSF 0.94 259 Pg 11 07.40 -0.4
Sg 11 21.90
GWF 1.03 340 Pg 11 09.50 0.2
Sg 11 25.00
HAU 1.21 270 Pg 11 11.60 -0.9
Sg 11 30.50
S.D. = 1.1 on 6 of 6 obs.

FEB 25, 1989 06h 58m 04.23± 1.28s
36.098 N ± 8.0km 70.614 E ± 8.3km
DEPTH = 110.4 ± 14.7 km
4.5mb (6 obs.)
HINDU KUSH REGION (718)

KSH 5.41 50 eP 59 25.00 1.0
S 00 26.00
QUE 6.65 209 iPd 59 42.00 1.0
MAIO 8.99 275 iPc 00 12.20 -0.6
0.5s 5.87nm 4.6mb
eS 01 48.00
GKN 14.36 120 P 01 19.10 -4.5X
DMN 14.93 120 P 01 26.60 -4.4X
KKN 14.94 120 P 01 26.40 -4.7X
PKI 15.17 120 P 01 30.20 -3.8X
WMQ 15.18 54 iPd 01 31.50 -2.4
S 04 15.00
POO 17.73 170 eP 02 14.50 9.0X
iS 05 16.50
HYB 19.90 157 iPd 02 29.60 0.3
0.7s 57.10nm 5.0mb
SHL 21.02 114 iP 02 40.00 -0.8
eS 06 25.50
GBA 23.22 163 Pc 03 01.20 -1.0
0.6s 14.30nm 4.5mb
GTA 23.28 73 P 03 04.00 1.2
KOD 26.49 165 eP 03 34.00 0.7
CHTO 30.31 117 iP 04 07.30 0.1
0.8s 2.01nm 3.9mb
NUR 37.97 325 iP 05 15.00 2.6X
SUF 38.10 328 eP 05 15.00 1.6
SOD 39.97 335 iP 05 30.20 1.3
KEV 41.06 339 eP 05 37.00 -0.8
NB2 44.51 323 P 06 05.10 -1.0
0.7s 2.30nm 4.1mb
DAG 55.05 344 eP 07 25.00 -1.1
BNG 57.22 249 ePc 07 41.00 -1.3
0.8s 7.00nm 4.7mb
MBC 67.75 3 eP 08 51.00 -0.3
INK 74.35 9 eP 09 33.00 2.2
WB5 82.02 122 eP 10 17.00 3.6X
S.D. = 1.3 on 18 of 25 obs.

% FEB 25, 1989 07h 51m 08.75± 0.80s
45.465 N ± 9.4km 26.662 E ± 8.0km
DEPTH = 33.0km (normal)
ROMANIA (358)

ISR 0.34 194 eP 51 16.50 -0.6
VRI 0.41 6 iPc 51 21.50 3.5X
MLR 0.51 273 iPc 51 20.00 0.4
CFR 1.09 104 iPc 51 28.00 0.3
CLI 1.17 22 ePd 51 28.50 -0.3
TL8 1.31 132 ePd 51 31.00 0.2
S.D. = 0.6 on 5 of 6 obs.

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* FEB 25, 1989 11h 12m 38.24± 1.69s
15.411 N ± 7.7km 61.626 W ±19.6km
DEPTH = 144.6 ± 19.0 km
LEEWARD ISLANDS (92)

BBL 0.18 52 ePd 12 58.70 -0.4
DPMT 0.28 123 iP 12 59.17 -0.1
eS 13 24.49
DTMT 0.32 124 iP 12 59.10 -0.4
eS 13 24.27
MGG 0.59 31 ePd 12 59.76 0.1
PAG 0.62 355 ePd 13 00.73 0.8
S 13 18.00
FDF 0.82 146 iPd 13 01.61 0.3
S 13 22.00
SFG 0.93 26 eP 13 02.10 -0.1
CRM 0.95 133 iPd 13 02.25 -0.1
S 13 23.10
SEG 0.99 7 ePc 13 02.59 -0.1
S 13 20.50
BIM 1.04 149 iPd 13 03.39 0.2
S 13 25.80
DEG 1.05 31 ePd 12 52.55 -10.7X
MVM 1.11 140 iPd 13 03.70 -0.1
MGH 1.42 337 eP 13 06.60 -0.3
SLW 1.54 154 eP 13 07.96 -0.2
eS 13 32.62
SLB 1.67 160 eP 13 05.04 -4.7X
eS 13 33.65
SVV 2.12 169 eP 13 14.84 0.0
eS 13 46.52
SVB 2.16 170 eP 13 15.46 0.1
eS 13 45.53
S.D. = 0.3 on 15 of 17 obs.

FEB 25, 1989 11h 26m 35.47± 0.12s
29.915 S ± 4.7km 177.885 W ± 3.2km
DEPTH = 30.5km (geophysicist)
6.1mb (41 obs.) 6.7Msz (25 obs.)
KERMADEC ISLANDS (178)
Ms 6.6 (BRK), 6.3 (PAS).
Mo=1.3*10**19 Nm (PPT). Felt (V) on Rooul Island. Depth from broodbond displocement seismograms.
FAULT PLANE SOLUTION: P-Woves
NP1:Strike= 22 Dip=53 Slip= 128
NP2: 150 51 51
Principal Axes:
T Plg=61 Azm=354
P 1 86
Comment: The focol mechonism is poorly controlled ond corresponds to reverse faulting with a large strike-slip component. The preferred foult plane is not determined.
RADIATED ENERGY
No. of sta: 8 Focol mech. M
Energy 1.2±0.4*10**14 Nm
MOMENT TENSOR SOLUTION
Dep 31 No. of sto: 13
Moment Tensor; Scole 10**19 Nm
Mrr= 0.92 Mtt= 0.77
Mff=-1.69 Mrt= 0.90
Mrf= 1.19 Mtf= 0.36
Principal oxes:
T Val= 2.09 Plg=49 Azm=334
N 0.07 33 195
P -2.15 21 90
Best Double Couple:Mo=2.1*10**19
NP1:Strike=137 Dip=38 Slip= 27
NP2: 26 74 125
CENTROID, MOMENT TENSOR (HRV)
Dota Used: GDSN
L.P.B.: 16S, 45C M.W.: 14S, 34C
Centroid Locotion:
Origin Time 11:26:42.1 0.2
Lot 30.13S 0.01 Lon 177.46W 0.01
Dep 46.7 0.6 Holf-durotion 9.0
Moment Tensor; Scole 10**19 Nm

25d 11h

Mrr= 1.21 0.01 Mtt=-0.16 0.01
Mff=-1.05 0.01 Mrt= 0.09 0.02
Mrf= 0.74 0.02 Mtf=-0.22 0.01
Principal Axes:
T Val= 1.43 Plg=74 Azm=273
N -0.11 3 11
P -1.32 16 102
Best Double Couple:Mo=1.4*10**19
NP1:Strike=196 Dip=29 Slip= 95
NP2: 10 61 87

RAO 0.66 357 iP 26 50.00 1.5
KRP 9.68 213 P 28 56.00 0.3
i 29 08.70
VUN 12.31 343 eP 29 33.00 1.4
WEL 12.82 206 eP 29 30.00 -8.2X
S 31 51.00
ScP 38 43.00
ScS 42 20.00
SGE 12.85 342 ePc 29 42.00 3.1X
DZM 16.10 295 iPc 30 30.90 9.6X
AFI 16.90 21 P 30 35.20 3.8X
eS 31 20.00
PVC 17.48 311 iPc 30 46.40 7.8X
RAR 18.48 66 P 30 48.00 -2.9X
S 33 54.00
BRS 25.84 268 P 30 09.60 3.6X
e(pPP)32 26.00
e(PP) 33 10.00
iPcP 33 49.50
eS 36 00.00
iScP 39 18.50
iScS 43 08.40
COO 26.08 261 iPc 32 12.90 4.6X
e 32 21.00 29kmX
e 39 15.00
TBI 26.19 82 iP 32 08.10 -1.1
1.2s 295.00nm 5.8mb
RIV 26.53 253 iPc 32 16.10 3.9X
e 32 18.00 7kmX
e 37 12.00
e 39 16.00
CNB 28.03 250 eP 32 29.00 3.0X
CAN 28.33 250 iPc 32 31.10 2.4X
AFR 28.44 71 iP 32 29.40 -0.3
1.3s 125.00nm 5.5mb
PAE 28.54 71 iP 32 30.50 -0.1
1.3s 315.00nm 5.9mb
PPT 28.59 71 iP 32 31.00 -0.1
1.3s 360.00nm 5.9mb
PPN 28.73 71 iP 32 32.20 -0.1
1.3s 180.00nm 5.6mb
TVO 28.75 72 iP 32 32.40 -0.2
1.3s 205.00nm 5.7mb
BWA 28.80 252 iPc 32 33.00 0.1
HNR 29.06 310 eP+ 32 34.00 -1.3
eS 37 10.00
VSG 29.35 310 eP 32 43.00 5.0X
RMQ 29.54 268 iPc 32 49.70 10.1X
e 32 52.00 8kmX
e 35 19.00
e 39 36.00
TAU 30.63 235 Pc 32 50.30 1.2
iPcP 33 47.40
eScP 39 27.00
CMS 31.15 258 iPc 32 56.00 2.2
e 33 04.00 28kmX
e 39 12.00
TOO 31.25 246 iPd 32 57.20 2.5X
e 34 38.00
e 35 52.00
PMO 31.31 68 iP 32 55.30 0.0
1.3s 185.00nm 5.8mb
VAH 31.40 69 iP 32 55.80 -0.3
1.3s 240.00nm 5.9mb
TPT 31.55 69 iP 32 57.50 0.1
1.3s 150.00nm 5.7mb
RUV 31.63 69 iP 32 57.80 -0.3
1.3s 200.00nm 5.8mb
CTA 33.82 278 iPc+ 33 19.00 1.8
0.8s 349.63nm 6.3mb
ipP 33 28.50 32kmX
isP 33 35.00
e(PP) 34 12.00
i 34 41.00
e 34 59.00
eS 37 36.00

i(SS) 38 36.00
i 39 44.50
e 40 28.00
e(ScS)43 46.00
PAA 34.35 308 eP 33 28.00 6.1X
STK 34.69 256 eP 33 27.00 2.4X
0.7s 335.00nm 6.4mb
ADE 36.76 251 iPc 33 44.10 1.9
1.2s 687.50nm 6.4mb
RAB 38.15 306 iP+ 33 53.20 -0.8
iS 39 36.00
PMG 38.49 295 eP+ 33 58.00 1.2
1.4s 604.65nm 6.2mb
QIS 39.38 274 iPc 34 05.20 1.0
e 34 08.00 9kmX
e 44 14.00
LAT 40.31 298 eP 34 13.00 1.1
MNDI 43.21 295 eP 34 33.50 -2.4
WB5 44.18 272 iPc 34 43.90 0.4
iScP 40 25.00
eS 41 17.60
FORR 46.22 255 iPd 34 59.60 0.0
0.6s 551.00nm 6.7mb
SBA 48.53 184 Pd+ 35 21.30 4.2X
WARB 48.70 260 eP 35 09.40 -9.8X
MTN 50.01 278 iPd 35 29.20 -0.1
eS 36 50.00
KNA 50.73 274 eP 35 35.00 0.2
0.6s 246.00nm 6.4mb
COOL 52.00 253 eP 35 43.00 -1.3
HON 54.41 23 P 36 00.00 -2.0
Z 20s 22.87um 6.2Msz
KLB 54.60 251 iPd 36 02.00 -1.4
OPA 54.75 23 P 36 02.00 -2.6X
MEKA 55.47 257 iPd 36 09.00 -0.8
0.5s 86.00nm 6.0mb
BAL 55.74 252 eP 36 10.00 -1.7
MUN 55.76 250 eP 36 10.00 -1.8
GUA 56.14 315 eP 36 13.30 -1.4
0.8s 525.37nm 6.6mb
Z 24s 92.40um 6.8MszX
i 36 16.50 10kmX
GUMO 56.21 315 eP 36 13.00 -2.2
PJG 56.21 315 eP 36 13.80 -1.4
MBL 56.29 263 iPd 36 14.30 -1.5
0.6s 178.00nm 6.3mb
MRWA 56.76 253 eP 36 18.80 -0.2
NANU 59.46 260 iPd 36 37.20 -0.8
0.4s 67.00nm 6.1mb
SPA 60.25 180 iPc 36 39.90 -3.2
1.0s 110.50nm 5.9mb
MNI 62.82 289 ePd 36 59.60 -1.2
0.7s 725.20nm 6.9mb
MKS 63.76 280 iPc 37 07.10 0.0
DAV 65.53 295 ePc+ 37 16.00 -2.5X
eS 45 57.00
KHKI 65.53 274 eP 37 16.80 -1.8
e 43 43.00
PCI 65.69 284 iPd 37 21.50 1.9
iS 37 55.20
BKB2 68.00 282 ePc 37 34.50 0.3
TSM 69.96 287 ePc 37 47.80 1.5
0.9s 862.00nm 6.8mb
AIA 72.32 156 eP 38 00.00 0.3
MAW 72.80 200 eP 38 03.00 0.5
1.0s 250.00nm 6.2mb
QCP 73.60 298 eP 38 17.00 9.1X
BAG 75.06 299 ePc+ 38 14.00 -2.6X
TPI 75.17 275 ePd 38 16.00 -1.1
e 42 30.00
KLI 76.55 272 eP 38 23.00 -2.0
eS 41 20.00
KAKJ 76.67 326 eP 38 24.40 -0.7
CHJJ 77.12 325 eP 38 27.00 -0.6
IIDJ 77.22 324 P 38 27.60 -0.6
WKYJ 77.45 322 eP 38 29.40 -0.2
KAGJ 77.86 317 P 38 31.40 -0.4
MAT 77.90 325 P 38 31.00 -0.9
NIIJ 78.06 326 P 38 33.30 0.6
TKSJ 78.11 321 eP 38 33.90 0.8
MTMJ 78.14 325 eP 38 32.70 -0.6
TSRJ 78.25 323 eP 38 38.30 4.5X
OFUJ 78.30 329 eP 38 34.90 0.9
YAMJ 78.32 327 P 38 35.10 1.0
KUMJ 78.87 318 eP 38 37.40 0.1
TOTJ 79.11 322 eP 38 39.80 1.3
SHK 79.27 320 ePc 38 39.00 -0.5

YONJ 79.33 321 eP 38 39.50 -0.3
ANP 79.85 307 iP+ 38 42.00 -0.9
eS 48 58.00
SHNJ 79.86 319 eP 38 41.60 -1.0
AOMJ 80.09 329 eP 38 45.60 1.9
KGM 81.30 277 eP 38 51.00 0.3
ADK 81.45 1 iPc 38 49.70 -0.8
QZH 81.76 305 iPc 38 53.00 0.2
8.0s 7.00nm 3.7mb X
E 20s 9.90um
PP 41 57.00
S 49 00.00
SS 54 18.00
SMY 82.59 355 eP 38 53.50 -3.0X
HKC 83.41 300 iPc 39 02.00 0.6
S 49 20.00
SSE 83.86 311 iP+ 39 03.50 0.0
1.0s 86.00nm 5.9mb
Z 20s 15.80um 6.4Msz
N 22s 13.10um
E 22s 12.50um
PP 42 16.00
SKS 49 24.00
S 49 30.00
sS 49 40.00
PS 51 12.00
SS 54 46.00
SYP 84.21 45 eP 39 06.00 0.6
YSS 84.42 334 P 39 06.00 0.1
GZH 84.49 300 eP 39 07.00 0.2
Z 22s 11.60um 6.2Msz
N 17s 3.90um
E 18s 6.20um
PP 42 28.00
SKS 49 26.00
IPM 84.57 278 eP 39 09.10 1.6
1.0s 470.90nm 6.6mb
BCH 84.59 44 P 39 07.70 0.5
PRS 84.60 43 ePc 39 08.00 0.9
GCC 84.71 42 ePc 39 08.40 0.8
PCC 84.82 41 ePc 39 08.70 0.6
PHAM 84.84 43 P 39 08.50 0.2
SAO 84.85 42 eP 39 08.60 0.2
QIZ 84.88 295 P 39 06.00 -2.8X
E 20s 11.30um
sP 39 23.00
PP 42 28.00
S 49 35.00
PRI 84.89 43 ePc 39 09.70 1.0
LLA 85.04 43 eP 39 10.00 0.6
BAR 85.07 48 eP 39 09.00 -0.6
PAS 85.07 46 iP+ 39 09.50 0.0
esP 39 28.00
ePP 42 28.00
iSKS 49 36.00
ePS 51 12.00
eSS 55 22.00
eLg 02 04.00
eLR 04 48.00
MHC 85.13 42 ePc 39 10.70 0.8
ePP 42 35.00
eS 49 38.00
eSP 50 42.00
iSS 56 01.00
e 58 52.00
e 59 35.00
eLQ 01 20.00
e 02 13.00
eLR 04 58.00
BRK 85.15 41 eP 39 10.30 0.5
Z 20s 50.00um 6.9Msz
eS 49 40.00
e 51 00.00
e 58 50.00
eLR 04 50.00
BKS 85.16 41 iPc 39 10.00 0.1
1.0s 274.00nm 6.4mb
Z 20s 27.00um 6.6Msz
N 20s 27.00um
E 20s 3.00um
i 39 21.60 38kmX
i 39 29.40
eS 49 35.20
ePS 50 16.40
iSPP 50 37.00
i 51 10.00
e 54 42.00

			eSS	55	10.00	
			eSSS	58	23.00	
			eLQ	01	09.00	
			eLR	04	52.00	
MWC	85.19	46	eP	39	10.00	-0.4
PLM	85.38	47	eP	39	11.00	-0.3
PSI	85.43	276	iP	39	11.00	-0.8
	1.2s	431.30nm				6.5mb
RVR	85.47	47	eP	39	11.00	-0.5
PEC	85.54	47	P	39	11.80	-0.1
SBB	85.64	46	eP	39	12.00	-0.5
ISA	85.88	45	eP	39	13.00	-0.6
NJ2	86.00	311	iPc	39	15.00	0.8
	7.0s	6.30nm				4.0mb X
N	20s	14.50um				
E	20s	9.50um				
			sP	39	29.00	
			S	49	40.00	
FRI	86.03	43	ePc	39	14.40	0.2
			epP	39	33.20	68kmX
			ePP	42	48.00	
			ePKKP	57	14.10	
			eP'P'	05	21.70	
SNG	86.23	280	eP	39	14.00	-1.7
	1.5s	938.89nm				6.8mb
			e	41	28.70	635kmX
			eS	49	29.50	
FHC	86.25	38	eP	39	16.10	0.8
CMB	86.33	42	ePc	39	14.74	-1.1
			epPd	39	23.84	29kmX
			esPd	39	32.95	
			ePP	42	34.70	
			ePKKP	57	11.90	
			eP'P'	05	23.30	
TPC	86.38	47	eP	39	16.00	-0.1
TACH	86.41	127	ePd	39	16.70	0.3
GLA	86.50	49	P	39	17.80	1.1
CLC	86.52	45	eP	39	17.00	0.2
MZX	86.58	61	iPc	39	17.70	0.5
GSC	86.68	46	eP	39	18.00	0.4
SAN	86.71	127	iPc	39	18.50	0.6
PCH	86.72	127	eP	39	18.50	0.4
ORV	86.74	40	ePc	39	17.60	-0.1
PEL	86.87	127	iPc	39	19.00	0.3
WDC	86.87	39	iPc	39	18.50	0.2
FCH	87.04	127	eP	39	21.00	1.1
JACH	87.19	126	eP	39	20.50	0.1
MIN	87.22	40	ePc	39	19.50	-0.7
WHN	88.14	307	iPc	39	24.50	0.0
	7.0s	5.42nm				4.0mb X
Z	24s	22.40um				6.5MszX
N	19s	5.97um				
E	20s	12.30um				
			PP	42	56.00	
TNP	88.23	43	P	39	24.50	-0.6
MDJ	88.28	325	eP	39	25.00	0.1
Z	30s	22.00um				6.4MszX
N	18s	12.80um				
			S	50	00.00	
ACX	88.32	70	iPc	39	27.50	1.8
KVN	88.34	42	P	39	25.30	-0.4
			pP	39	39.30	47kmX
DL2	88.66	317	iPc	39	27.00	0.1
Z	24s	14.50um				6.3MszX
N	18s	7.20um				
E	18s	9.90um				
III	89.42	68	eP	39	32.30	1.1
SNY	89.48	320	iPc	39	31.00	0.3
	7.5s	4.40nm				3.8mb X
Z	25s	21.90um				6.5MszX
N	21s	11.70um				
			sP	39	46.00	
TIA	89.71	313	P	39	32.50	0.5
Z	27s	29.70um				6.6MszX
N	24s	17.50um				
E	25s	22.10um				
NNT	89.72	285	eP	39	33.50	1.1
CRX	89.79	68	eP	39	35.00	2.0
CN2	89.82	323	iPc	39	32.00	-0.2
	6.0s	4.20nm				3.9mb X
Z	26s	29.60um				6.6MszX
E	20s	14.40um				
			pP	39	45.00	43kmX
KDC	89.90	13	eP	39	32.00	-0.3
IIC	90.32	67	eP	39	36.30	0.8
LOE	90.52	290	iPc	39	36.80	0.8
BMW	90.66	34	P	39	35.40	-0.8

IIT	90.70	69	(P)	39	38.50	1.3
NST	90.95	287	iPc	39	41.00	3.0X
OXX	90.99	71	iPc	39	40.60	2.1
GYA	91.40	300	iPc	39	40.00	-0.1
Z	26s	8.00um				6.0MszX
E	21s	9.40um				
			sP	39	54.00	
IISM	91.43	69	iP	39	42.50	2.3
LON	91.55	35	ePc	39	39.17	-1.1
			epPd	39	48.60	29kmX
MSU	91.58	46	P	39	41.40	0.6
RMW	92.04	34	P	39	42.00	-0.5
PGC	92.09	33	eP	39	42.00	-0.5
BJI	92.65	315	iPc+	39	45.50	0.2
	8.0s	2.80nm				3.7mb X
Z	40s	44.70um				6.6MszX
N	22s	14.40um				
E	21s	12.30um				
			eSKS	50	13.00	
			eS	50	36.00	
BDT	92.68	288	eP	39	44.10	-1.8
	0.8s	9.00nm				5.3mb
ALQ	93.19	51	ePc	39	48.00	-0.3
	1.2s	261.72nm				6.5mb
Z	18s	11.00um				6.4Msz
			epP	40	02.00	47kmX
CHG	93.51	290	ePc	39	50.50	0.7
	0.8s	27.61nm				5.7mb
			eS	43	40.00	
TIY	93.62	312	Pc	39	50.80	0.8
	8.0s	3.00nm				3.8mb X
N	21s	12.50um				
			SKS	50	21.00	
KMI	93.69	297	ePc	39	51.76	1.0
N	20s	10.40um				
E	20s	11.10um				
			sP	40	19.00	
			SKS	50	17.00	
			S	50	47.00	
SIT	93.79	22	eP	39	51.40	1.2
XAN	93.90	307	P	39	52.00	0.7
N	23s	17.10um				
			SKS	50	25.00	
PMR	94.11	13	eP	39	51.00	-0.6
	1.0s	75.00nm				6.1mb
Z	20s	16.00um				6.5Msz
TTA	94.16	10	eP	39	51.70	-0.2
PNT	94.38	34	ePc	39	53.00	-0.1
	0.9s	55.00nm				6.0mb
TOA	95.19	14	eP	39	56.90	0.2
ARE	95.47	112	eP	40	00.00	0.6
BW06	95.72	43	P	39	58.80	-1.0
LRM	95.87	40	eP	40	00.20	-0.2
CD2	95.91	302	eP	40	01.80	1.1
Z	25s	11.80um				6.3MszX
E	18s	8.70um				
			PP	43	50.00	
HHC	95.97	314	Pc	40	01.00	0.2
Z	30s	47.50um				6.8MszX
N	23s	10.00um				
E	22s	20.60um				
			pP	40	12.00	35kmX
			PP	43	50.00	
			SKS	50	31.50	
GOL	96.57	48	eP+	40	03.00	-0.7
	2.0s	135.29nm				6.1mb
Z	20s	14.47um				6.5Msz
			ipP	40	20.00	59kmX
			ePP	43	57.70	
GLD	96.69	48	P	40	03.00	-1.2
Z	20s	28.00um				6.7Msz
BTO	96.80	313	iPc	40	05.00	0.5
Z	25s	41.10um				6.8MszX
N	25s	22.80um				
E	25s	34.60um				
			sP	40	20.00	
			SKS	50	40.00	
FBA	97.37	12	ePc	40	05.30	-1.1
IMA	97.47	10	eP	40	06.70	-0.3
	1.5s	62.50nm				5.9mb
CNCB	98.08	115	P	40	12.20	0.7
LPB	98.14	114	eP	40	20.00	8.4X
Z	22s	22.96um				6.6Msz
			S	50	51.00	
			LR	12	24.00	
ZOBO	98.27	114	Pc	40	13.00	0.7
			S	50	56.00	

			eLR	12	32.00	
LZH	98.51	307	eP	40	14.00	1.6
	9.0s	1990.00nm				6.6mb X
Z	26s	23.70um				6.6MszX
N	17s	3.10um				
E	20s	11.30um				
			pP	40	25.50	37kmX
			SKS	50	42.00	
			S	51	08.00	
			PS	53	00.00	
MEO	98.57	55	ePc	40	11.40	-1.1
	2.0s	232.30nm				6.4mb
			e	41	30.00	331kmX
CCH	99.19	116	eP	40	18.00	1.8
SES	99.36	37	ePd	40	13.80	-2.0
	0.9s	48.00nm				6.0mb
PSO	99.75	94	eP	40	25.00	6.1X
EDM	99.90	33	eP	40	17.50	-0.6
SIO	100.67	55	e(Pdif	40	21.70	-0.4
VVO	100.88	56	ePdiff	40	23.20	0.2
TUL	101.11	55	ePdiff	40	22.50	-1.6
	1.0s	7.30nm				5.2mb
Z	19s	34.61um				6.9Msz
			e	40	41.10	
			LR	13	30.00	
LNO	101.12	55	e(Pdif	40	40.60	16.6X
UPA	101.63	86	iPdiff	40	26.00	-0.8
Z	20s	17.38um				6.6Msz
RLO	101.78	55	e(Pdif	40	29.60	2.5X
SHL	102.48	292	iPdiff	40	32.00	1.4
			eS	51	24.00	
GTA	102.92	308	Pdiff	40	32.00	-0.2
Z	26s	10.20um				6.2MszX
E	19s	7.33um				
			PP	44	46.00	
			SKS	51	03.50	
			SS	59	26.00	
INK	103.29	15	ePdiff	40	32.00	-0.9
BOG	104.27	93	ePdiff	40	44.00	5.0X
			ePP	45	04.00	
LSA	104.91	296	ePdiff	40	45.00	3.3X
N	21s	5.68um				
E	24s	9.24um				
			PP	45	02.00	
			SKKS	51	20.00	
YKA	104.96	25	Pdiff	40	46.60	6.1X
FFC	106.35	36	ePdiff	40	52.00	5.1X
	1.7s	62.00nm				6.4mb
FFC	106.35	36	ePKP	45	06.00	7.9X
	1.0s	16.00nm				
KOD	107.68	272	ePdiff	40	56.00	1.9
			eSKS	51	36.00	
PKI	108.57	292	Pdiff	41	01.80	3.9X
	0.5s	4.00nm				5.9mb
PKI	108.57	292	PKP	44	45.00	-18.6X
KKN	108.76	292	Pdiff	41	02.80	4.2X
DMN	108.83	291	Pdiff	41	03.20	4.3X
RSON	109.15	42	Pdiff	41	10.00	10.5X
Z	20s	25.99um				6.8Msz
GBA	109.26	275	Pdiff	41	06.00	5.3X
	0.8s	2.70nm				
GBA	109.26	275	PKPc	45	03.30	-1.5
	0.8s	15.10nm				
GKN	109.37	292	Pdiff	41	07.50	6.3X
HYB	110.00	279	ePdiff	41	06.00	2.0
HYB	110.00	279	ePKP	45	07.00	0.8
RDJ	111.77	135	ePdiff	41	15.60	3.9X
MBC	111.92	13	ePdiff	41	12.00	0.8
MBC	111.92	13	ePKP	45	07.00	-1.1
	0.9s	31.00nm				
WMO	113.00	308	ePKP	45	10.50	-0.7
CAR	113.28	91	iPdiff	41	20.00	1.2
POO	114.52	278	iPdiff	41	25.00	0.9
			iS	46	07.00	
AVY	114.52	228	iPKPd	45	14.70	-0.3
BOM	115.56	278	ePKP	45	31.00	14.3X
			ePP	48	08.00	
FRS	116.68	203	iPKPd	45	18.60	0.0
	0.4s	50.85nm				
SEK	117.17	205	ePKP	45	20.50	0.7
	0.3s	23.38nm				
PRY	118.49	206	iPKPc	45	21.70	-0.6
	0.6s	23.21nm				
GAC	118.99	51	ePKP	45	22.00	-0.5
PTN	119.05	53	PKP	45	20.50	-2.1
SLR	119.25	207	iPKPc	45	22.50	-1.3
	0.3s	51.95nm				

25d 11h

	Z 22s	28.15um		6.9Msz					eSKS	52	44.00			LIC	155.49	163	PKP	46	27.80	0.0
RSNY	119.36	53 PKP	45	30.00	6.8X				ePS	57	14.00			ISK	155.50	304	ePKP	46	24.00	-3.0X
	Z 20s	28.25um		6.9Msz					e	00	50.50			ISR	155.51	315	ePKPd	46	29.00	2.0
KSR	119.66	206 ePKP	45	24.50	-0.1		NUR	145.89	340 iPKP	46	11.00	-1.1		DCN	155.60	14	ePKP	46	27.20	0.4
	1.1s	27.03nm						0.6s	1329.90nm					MLR	155.69	316	ePKPd	46	26.50	-0.9
KSH	120.06	301 PKP	45	25.50	0.6			Z 24s	12.20um			6.6MszX		KIC	155.70	163	PKP	46	27.96	-0.2
	Z 24s	15.20um		6.6MszX					i	46	18.00			LEGH	155.77	174	ePKP	46	28.50	0.3
	N 20s	16.00um							eSKP	49	32.00			KRA	155.80	331	ePKP	46	25.20	-2.0
		PP	46	52.00					epPS	59	40.00				1.6s	194.00nm				
		SKS	52	37.00					LR	45	40.00						e	46	28.90	
ALE	122.75	8 ePKP	45	27.00	-1.7		RGS	146.45	353 iPKP	46	13.40	0.4		DLE	155.80	13	ePKP	46	35.30	8.3X
	0.6s	28.00nm					UPP	148.27	345 iPKP	46	16.10	0.2		ELL	155.85	294	ePKP	46	27.50	-0.4
MIM	123.32	53 PKP	45	29.00	-1.7				i	46	17.60			KHL	155.87	298	ePKP	46	26.00	-1.8
BUL	124.07	210 iPKPc	45	32.10	-1.1				i	46	21.00			TIC	155.90	162	PKP	46	28.30	-0.1
OUE	124.60	288 iPKPc+	45	33.50	-0.5				i	46	34.80			BUC	156.14	314	ePKP	46	30.00	2.2
		e(S)	47	16.00			NB2	148.29	352 PKP	46	14.40	-1.6		DMK	156.16	307	ePKP	46	28.00	0.1
FRB	124.91	31 ePKP	45	31.00	-2.2		HYA	148.63	356 ePKP	46	19.67	3.2X		VAL	156.16	19	ePKP	46	28.00	0.4
	0.9s	77.00nm					SUE	148.81	358 ePKP	46	20.50	3.7X		KOGH	156.19	174	ePKP	46	29.50	0.7
SCH	125.84	42 ePKP	45	33.50	-1.9		BER	149.45	357 iPKP	46	21.81	4.0X		KSL	156.20	292	ePKP	46	31.00	2.9X
	1.1s	89.00nm					ODD1	149.85	355 ePKP	46	22.29	3.8X		DST	156.24	301	ePKP	46	27.00	-1.2
PTZ	127.83	217 iPKPd	45	40.00	-0.5		BNG	150.27	215 iPKPc	46	19.20	-1.3		KUK	156.28	174	ePKP	46	29.00	0.1
		i	45	51.00				1.2s	242.00nm						0.6s	234.00nm				
		i	46	28.40					id	46	22.70			CJR1	156.33	321	ePKP	46	28.70	0.7
		i	47	48.00					id	46	52.10			KSP	156.55	337	ePKP	46	27.30	-0.9
LSZ	128.52	213 ePKPd	45	45.00	3.2X		BLS1	150.35	355 ePKP	46	24.50	5.2X			1.3s	181.00nm				
		i	47	45.00			KVT	150.39	301 ePKP	46	21.90	2.0					i	46	41.30	
		i	48	58.00			KMY	150.63	357 ePKP	46	24.45	4.9X					i	46	59.80	
GDH	129.66	22 ePKPc	45	40.60	-1.6		JARJ	151.00	283 PKP	46	20.50	-0.6		EDC	156.59	303	ePKP	46	25.00	-3.5X
	2.2s	292.31nm					BURJ	151.15	283 PKP	46	20.10	-1.2		WIT	156.88	353	ePKP	46	30.00	1.5
	Z 22s	12.78um		6.6Msz			SALJ	151.20	283 PKP	46	21.60	0.2					ePKKP	46	40.00	
		i	47	54.00			BADA	151.32	275 ePKPc	46	21.00	-0.6					e	46	59.00	
		i	59	40.00			BHL	151.33	287 PKP	46	28.00	6.4X		CLL	157.13	342	iPKP	46	27.90	-1.0
KMZ	131.19	211 ePKP	45	40.00	-6.9X				PP	50	00.00				2.2s	240.00nm				
		i	45	48.00			MBH	151.63	278 ePKP	46	21.20	-0.8					i	46	40.00	
DAG	132.04	6 iPKPc	45	44.10	-2.5X		AKSR	151.76	265 ePKP	46	22.00	-0.4					i	47	01.30	
	0.8s	39.55nm					ZNT	151.77	283 iPKP	46	23.50	1.3		PVL	157.20	312	iPKPd	46	30.00	0.8
	Z 20s	7.45um		6.4Msz			AGAL	151.86	264 ePKP	46	26.50	4.0X		BRG	157.26	340	iPKPc	46	27.70	-1.3
		i	48	17.00			AGRW	151.95	265 ePKP	46	22.00	-0.6			Z 21s	6.50um				6.4Msz
MAIO	132.11	293 iPdiff	42	48.00	5.9X		DOR	152.01	282 ePKP	46	23.00	0.4			N 21s	10.50um				
MAIO	132.11	293 iPKPc	45	47.30	-0.8		AKUR	152.06	265 ePKP	46	22.00	-0.8			E 21s	3.50um				
	1.5s	85.59nm					AGMR	152.14	264 ePKP	46	23.50	0.6					i	46	41.40	
NAI	134.65	233 iPKPc	45	55.00	1.3		FAM	152.69	289 ePKP	46	30.50	7.1X					i	47	02.20	
	1.0s	15.00nm					IKL	152.88	292 iPKP	46	24.50	0.9		PSZ	157.41	328	ePKP	46	29.00	-0.4
KEV	137.67	347 ePKP	45	49.00	-8.4X		MUD	153.00	351 iPKPd	46	33.00	9.9X		IZM	157.59	299	ePKP	46	39.00	9.1X
	0.8s	73.30nm						1.8s	13.20nm					DIM	157.59	309	ePKP	46	11.00	-18.7X
	Z 24s	16.50um		6.7MszX			BBTK	153.09	300 ePKP	46	23.50	-0.5		WTS	157.67	352	ePKP	46	28.50	-1.0
		i	45	58.60					i	46	25.00				0.8s	216.00nm				
		epPP	48	36.00					iS	47	10.50						iPKKP	46	44.40	
		epPKS	49	28.00			EDU	153.13	6 ePKP	46	21.30	-2.0					i	47	01.50	
		LR	44	40.00				0.8s	574.00nm					DBN	157.72	355	iPKP+	46	32.00	2.5X
DHR	137.73	277 iPKPd	46	01.00	2.1		ELO	153.14	7 ePKP	46	24.90	1.5			Z 20s	10.00um				6.6Msz
ARO	138.02	253 iPKPd	46	03.00	3.2X			0.9s	649.00nm								e	47	12.00	
TRO	139.09	351 ePKP	45	55.30	-4.7X		COP	153.22	347 iPKP+	46	25.00	1.6					ePP	50	41.00	
LWI	139.11	223 iPKPd	45	55.00	-7.0X			1.0s	680.00nm								ePPP	54	23.00	
SOD	139.75	346 iPKP	45	53.20	-8.1X			Z 23s	10.61um			6.6MszX		KDZ	157.84	308	iPKP	46	30.00	-0.1
		i	45	59.30					i	50	18.00			PRU	157.86	338	ePKP	46	27.00	-2.8X
AAE	139.94	246 ePKP	45	50.00	-13.6X		CSS	153.24	289 ePKP	46	26.00	1.8			Z 19s	13.10um				6.8Msz
RYD	140.31	274 ePKPd	45	56.00	-7.7X		EBH	153.38	7 ePKP	46	25.70	2.0			N 20s	9.10um				
KER	141.88	289 ePKP	46	05.00	-1.3			1.0s	512.00nm						E 20s	7.40um				
KJF	142.07	342 ePKP	45	59.00	-6.5X		WAR	153.68	333 ePKP+	46	25.00	0.8					e	47	05.00	
	0.9s	174.00nm						Z 22s	24.00um			7.0Msz		RDO	157.96	307	ePKP	46	31.00	0.8
		i	46	06.90					e	46	52.00			MOX	158.10	344	ePKP	46	28.50	-1.6
		eSKP	49	00.00					e	50	16.00				2.3s	384.00nm				
		epPS	59	40.00					e	54	02.00			MOX	158.10	344	ePKP	46	44.00	13.9X
AKU	142.09	13 iPKP	46	12.60	7.1X		ESY	153.79	6 ePKP	46	26.00	1.7			Z 20s	13.70um				6.8Msz
	1.1s	91.14nm					EBL	153.89	7 ePKP	46	30.60	6.2X			N 21s	11.30um				
TAB	142.74	295 iPKP+	46	02.00	-5.7X			0.9s	478.00nm						E 22s	9.10um				
SLY	143.30	290 ePKPc	46	09.00	0.5		PPCY	154.05	289 ePKP	46	27.00	1.7					i	47	06.00	
		i	46	41.00			BIR	154.28	316 ePKP	46	32.00	6.8X					iPP	50	44.00	
		ePP	47	06.00			PPE	154.32	316 ePKP	46	27.00	1.7					eSKSP	01	06.00	
		ePP	49	43.00			EKA	154.32	7 PKP	46	30.00	5.0X					eSS	11	00.00	
		eSKS	52	43.50				1.0s	17.50nm								eSSS	17	25.00	
		e	55	34.00			ESK	154.33	7 ePKPd	46	32.50	7.5X		BZS	158.10	321	ePKP	46	29.00	-1.2
QASM	143.37	274 ePKPd	46	05.70	-3.3X			1.0s	240.00nm					PLD	158.12	310	iPKP	46	28.00	-2.3
SUF	143.68	342 iPKP	46	04.20	-4.1X		CLI	154.34	317 ePKP	46	27.50	2.1		BUD	158.13	328	ePKP	46	27.00	-3.2X
	0.7s	183.00nm					CFR	154.49	314 ePKPc	46	34.00	8.5X		SRO	158.20	330	ePKP	46	31.70	1.5
BHD	144.01	286 iPKP	46	07.50	-2.3		PTT	154.66	319 ePKP	46	32.00	6.3X					e	46	44.80	
		i	46	16.00			HLW	154.69	277 iPKP	46	26.00	-0.3					i	47	07.50	
		iPP	46	49.00					S	50	24.00						e	50	14.70	
		iPPP	49	27.00			GPA	154.81	302 ePKP	46	25.10	-1.1					e	50	45.90	
		eSKS	52	41.00			TLB	154.84	313 ePKPc	46	31.50	5.5X		PGB	158.27	311	ePKP	46	31.00	0.4
		eSP	56	21.50			VRI	155.03	316 ePKPd	46	28.50	2.3		RZN	158.30	309	iPKP	46	30.00	-0.8
		eSPP	57	10.00			HRT	155.13	303 ePKP	46	23.00	-3.6X		ZST	158.42	332	ePKP	46	29.80	-0.7
MSL	145.24	292 iPKPd	46	10.50	-1.3		DMU	155.15	13 ePKP	46	37.10	11.0X			Z 18s	18.00um				7.0Msz
		i	46	13.50			BCK	155.21	295 ePKP	46	26.80	-0.1					i	46	43.80	
		ePP	47	26.00			ALT	155.27	299 ePKP	46	27.80	0.9					i	47	08.40	
		ePPP	49	50.00			YLV	155.42	303 iPKP	46	31.00	3.9X					LR	50	53.30	

VKA	158.68	333	ePKP	46	30.00	-0.8				i(SPP)	04	22.00			BRS	25.87	268	iPd	08	46.20	3.1X
	Z 24s	12.00um				6.7MszX				i	08	22.00			COO	26.14	260	iPd	08	48.90	3.3X
			ePP	50	44.00					i(SS)	11	28.00			RIV	26.61	253	eP	08	52.00	2.2
VTS	158.87	313	iPKPd	46	31.00	-0.4				i(SSP)	12	24.00			CNB	28.13	250	eP	09	05.00	1.4
KHC	158.92	339	PKPc	46	30.50	-0.6				i(SSS)	17	56.00			CAN	28.43	250	iPd	09	07.50	1.2
			i	46	32.90		VVI	162.04	336	PKP	46	34.90	0.5		BWA	28.89	252	iPd	09	09.30	-1.2
			i	47	10.60		CTI	162.25	338	PKP	46	29.70	-5.0X		RMQ	29.57	268	iPd	09	25.90	9.3X
ENN	158.97	353	ePKP	46	30.00	-1.0	LOR	162.62	356	ePKP	46	34.10	-0.8			0.9s	175.00nm				5.7mb
	0.9s	299.00nm					SSF	162.85	357	ePKP	46	34.20	-0.9		CMS	31.22	257	iPd	09	32.40	1.2
			iPKKP	46	43.80		LBF	162.90	356	ePKP	46	34.20	-1.0		TOO	31.36	246	eP	09	33.00	0.6
			i	47	07.50		SAL	163.00	339	PKP	46	31.00	-4.3X		CTA	33.81	278	iPc	09	54.90	1.1
			ePP	50	48.00		AVF	163.12	357	ePKP	46	34.50	-0.9			0.9s	172.27nm				6.0mb
MMB	159.01	310	ePKP	46	30.00	-1.4	SMF	163.24	356	ePKP	46	34.20	-1.3					i	09	59.00	14kmX
UCC	159.07	356	PKP+	46	33.00	1.9	VAI	163.24	344	PKP	46	34.20	-1.3					i	10	06.80	
			e	47	11.00		MFF	163.25	5	ePKP	46	34.90	-0.6		STK	34.77	256	eP	10	03.00	1.1
			PP	50	50.00		BGF	163.37	358	ePKP	46	35.30	-0.4		QIS	39.39	273	eP	10	41.00	0.1
			PKKP	54	47.00		ORX	163.65	345	PKP	46	36.90	0.8		W85	44.19	271	iPc	11	19.50	-0.8
			e	59	12.00		TCF	163.65	360	ePKP	46	35.20	-0.8		FORR	46.30	254	iPd	11	35.00	-1.8
GRF	159.08	343	ePKP	46	30.30	-0.9	ORO	163.65	345	PKP	46	40.40	4.3X			0.4s	37.00nm				5.7mb
	Z 21s	16.00um				6.8Msz	LSF	163.68	1	ePKP	46	35.10	-0.9		MTN	49.99	278	eP	12	04.00	-1.7
			e	47	08.30		MAF	163.72	359	ePKP	46	35.50	-0.5		KNA	50.74	274	eP	12	10.00	-1.4
WET	159.12	340	ePKP	46	30.10	-1.2	RSM	163.77	332	PKP	46	37.00	0.9		MBL	56.34	263	eP	12	49.00	-3.7X
	Z 18s	12.30um				6.8Msz	LSD	163.99	347	PKP	46	36.39	-0.3		NANU	59.52	260	eP	13	12.50	-2.4
MEM	159.12	353	PKPc	46	32.40	1.3				S	47	29.99			SPA	60.49	180	ePc	13	18.90	-2.3
			e	47	08.40		SFI	164.02	334	PKP	46	38.10	1.8			0.9s	16.36nm				5.2mb
BEO	159.24	321	ePKP	46	32.00	0.5	LPG	164.02	348	ePKP	46	36.10	-0.6					e	13	25.90	23kmX
			e(Sg)	47	09.50		BOB	164.08	341	PKP	46	25.50	-11.0X		SYP	84.03	45	eP	15	41.00	0.2
KKB	159.30	311	ePKP	46	33.00	1.3	PGD	164.11	334	PKP	46	35.80	-0.9					e	15	55.00	48km
SNF	159.36	356	PKP	46	33.60	2.2	MME	164.20	337	PKP	46	35.50	-1.4		BCH	84.41	44	P	15	43.50	0.9
			e	47	08.90		RSP	164.26	346	PKP	46	40.75	4.0X		PRS	84.41	43	ePc	15	43.20	0.7
NPS	159.51	291	ePKP	46	35.00	2.9X	BDI	164.35	337	PKP	46	35.90	-0.9		GCC	84.53	42	eP	15	43.60	0.6
KMR	159.66	336	iPKP-	46	34.00	2.1	FIR	164.36	335	iPKPc	46	38.00	1.4		PRI	84.70	43	eP	15	45.00	0.9
			i	47	13.40					i	47	35.00			BAR	84.90	48	eP	15	44.00	-1.1
			iPP	50	51.40		ASS	164.39	330	PKP	46	47.30	10.5X		BKS	84.97	41	ePc	15	45.80	0.5
PLG	159.72	307	ePKP	46	35.00	2.8X	BNI	164.47	348	PKP	46	33.70	-3.2X			0.7s	22.00nm				5.4mb
DOU	159.76	355	PKPc+	46	33.80	1.9	RRL	164.57	347	PKP	46	38.44	1.3		ARN	85.02	42	P	15	46.80	1.2
			e	47	13.90		RJF	164.63	2	ePKP	46	36.60	-0.3		PLM	85.21	47	eP	15	47.00	0.2
			PP	50	53.00		CKI	164.71	343	PKP	46	38.20	1.2					e	16	03.00	56km
			e	59	10.00		TDS	164.82	314	PKP	46	38.20	1.0		RVR	85.30	47	eP	15	47.00	0.0
VAY	159.90	310	iPKP	46	32.70	0.4	DOI	164.88	346	PKP	46	31.00	-6.3X					e	16	02.00	52km
	1.2s	0.20nm					SDI	164.90	324	PKP	46	38.20	0.9		PEC	85.37	47	P	15	48.00	0.6
			i	47	11.40		PZZ	164.91	346	PKP	46	37.93	0.6		SBB	85.47	46	eP	15	47.00	-0.9
WLF	160.04	352	PKP	46	34.10	2.0				S	47	31.02						e	16	02.00	52km
			id	47	14.00		FIN	164.93	343	PKP	46	41.52	4.3X		ISA	85.70	45	eP	15	49.00	-0.1
NEO	160.30	304	ePKP	46	34.50	1.7	ROB	164.94	344	PKP	46	39.21	1.9					e	16	04.00	52km
SKO	160.31	313	iPKP	46	32.00	-0.7				S	47	32.82			FRI	85.84	43	ePc	15	50.00	0.4
	Z 27s	18.22um					LFF	164.96	4	ePKP	46	37.20	0.0					epP	16	04.60	50km
	N 27s	24.20um					MGR	165.01	316	PKP	46	36.40	-1.0		CMB	86.15	42	ePc	15	51.40	0.2
	E 28s	20.20um					CAF	165.02	0	ePKP	46	37.10	-0.2					epP	16	06.20	51km
			i	47	14.00		STV	165.11	345	PKP	46	41.52	4.1X		TPC	86.21	47	eP	15	52.00	0.4
			LR	01	24.00		LPO	165.24	3	ePKP	46	37.30	-0.1					e	16	06.00	48km
VAM	160.63	292	ePKP	46	37.00	3.8X	IMI	165.29	343	PKP	46	37.41	-0.2		GLA	86.33	49	eP	15	53.00	0.8
PTJ	160.71	330	ePKP	46	34.00	0.9	SBF	165.45	345	ePKP	46	36.20	-1.5					e	16	08.00	52km
ZAG	160.76	329	iPKP	46	35.00	2.0	PTO	165.82	35	ePKP	46	34.40	-3.6X		CLC	86.34	45	eP	15	52.00	-0.2
KBA	160.78	336	ePKP	46	31.50	-1.8	SOI	165.87	309	PKP	46	39.20	1.1					e	16	07.00	52km
	1.2s	37.50nm					FRF	165.91	346	ePKP	46	37.10	-0.9		GSC	86.50	46	eP	15	52.00	-1.0
			i	46	40.30		LRG	166.07	347	ePKP	46	37.40	-0.7					e	16	08.00	56km
			i	47	04.20		LMR	166.15	346	ePKP	46	37.40	-0.8		ORV	86.55	40	ePc	15	53.20	0.1
			i	47	17.70		EPF	166.83	6	ePKP	46	38.50	-0.3					epP	16	07.60	49km
			i	47	21.00		TOL	168.85	25	iPKP	46	44.30	4.1X		WDC	86.68	39	ePc	15	53.90	0.2
			iPP	51	00.20					ePKKP	47	53.00			TNP	88.05	43	P	16	01.00	0.4
			i	51	12.30					ePKS	50	25.00				0.8s	8.33nm				5.0mb
			(PPP)	54	40.00					iPP	51	40.00			KVN	88.16	42	P	16	01.00	-0.1
			e	56	37.00					eSKS	53	25.00						pP	16	16.00	51km
			e	56	49.00					ePPS	05	30.00			ALQ	93.03	51	eP	16	23.60	-0.2
FLN	161.07	5	ePKP	46	32.40	-0.8				eSS	12	30.00				1.0s	5.75nm				5.0mb
CDF	161.11	349	ePKP	46	32.10	-1.3				eSSS	19	25.00						e	16	38.00	49km
OHR	161.17	311	iPKP	46	32.20	-1.5	AAPN	170.98	34	ePKP	46	41.70	0.1		PKI	108.50	292	PKP	21	37.60	-2.1
	2.0s	0.38nm					ASMO	171.12	32	ePKP	46	41.70	0.0			0.5s	3.00nm				
			i	47	21.30		AVE	171.20	65	iPKPd	46	45.00	3.3X		KKN	108.70	292	PKP	21	37.90	-2.0
LJU	161.19	332	iPKPc	46	35.20	1.7				i	47	00.00			DMN	108.76	292	PKP	21	38.30	-1.8
			e	51	00.00		MAL	171.29	37	iPKP+	46	44.00	2.4X		G8A	109.26	275	PKPd	21	38.20	-2.7X
RBL	161.24	335	PKP	46	33.60	0.0	IFR	172.86	58	PKP	46	43.00	0.4			0.2s	2.80nm				
LDF	161.27	5	ePKP	46	32.60	-0.9	TAF	173.79	37	e(PKP)	46	30.00	-12.8X		MBC	111.69	13	ePKP	21	42.00	-1.8
VBY	161.32	330	ePKP	46	35.30	1.7				e	46	50.00			SUF	143.47	342	iPKP	22	39.80	-4.3X
FVI	161.39	336	PKP	46	29.00	-4.6X	S.D. = 1.1 on 353 of 463 obs.									0.5s	22.30nm				
VOY	161.46	333	ePKP	46	34.60	0.7	---								MSL	145.17	292	iPKPd	22	47.00	-0.9
CEY	161.49	332	ePKP	46	35.30	1.5	* FEB 25, 1989 12h 03m 14.35± 0.36s											e	23	02.50	
			i	47	20.40		29.681 S ±12.8km 177.862 W ± 8.7km								NUR	145.68	340	iPKP	22	47.20	-0.7
HAU	161.64	351	ePKP	46	33.10	-0.8	DEPTH = 51.2km (14 depth phases)									0.7s	54.70nm				
LPF	161.75	7	ePKP	46	33.30	-0.6	5.4mb (7 obs.)								RGS	146.22	353	iPKP	22	49.00	0.2
BSF	161.75	350	ePKP	46	33.00	-1.1	KERMADEC ISLANDS (178)								UPP	148.05	345	iPKP	22	53.20	1.4
TRI	161.78	333	i(PKP)	46	34.00	0.0	Felt (III) on Raoul Island.											i	22	56.80	
			i(PKKP	47	20.60										NB2	148.06	352	PKP	22	53.80	1.9
			i(PP)	51	02.00		RAO	0.43	353	iP	03	25.90	1.0			0.7s	17.30nm				
			i	53	50.00		KRP	9.88	212	eP	05	39.00	2.5		KVT	150.28	302	ePKP	23	00.90	5.0X
			i(SKSP	01	52.00		DZM	16.02	295	iPc	07	07.00	9.2X		BNG	150.48	215	iPKPd	23	00.90	3.9X

25d 12h

0.7s 33.00nm
id 23 06.60
id 24 24.80
BBTK 152.99 300 iPKPc 23 07.00 7.0X
KIC 155.91 163 PKP 23 12.00 7.4X
TIC 156.11 162 PKP 23 13.20 8.3X
S.D. = 1.2 on 50 of 62 obs.

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* FEB 25, 1989 13h 00m 51.65± 0.97s
40.255 N ±10.2km 25.944 E ± 9.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

EZN 0.52 146 ePg 01 02.00 -0.2
iSg 01 10.70
KDZ 1.45 344 iP 01 19.00 1.1
EDC 1.47 86 ePn 01 22.00 3.8X
RZN 1.71 327 iP 01 22.00 0.2
DIM 1.82 350 eP 01 27.00 3.8X
PLD 2.07 334 eP 01 31.00 4.1X
DMK 2.08 41 ePn 01 27.00 0.0
MMB 2.14 309 eP 01 27.00 -1.0
DST 2.16 107 iPn 01 29.80 1.5
YLV 2.64 82 ePn 01 35.00 0.0
HRT 2.89 78 ePn 01 37.00 -1.7
VTS 3.11 320 eP 01 50.00 8.2X
S.D. = 1.2 on 8 of 12 obs.

& FEB 25, 1989 13h 04m 39.60s
37.615 N 122.002 W
DEPTH = 7.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.4 (BRK). Felt at Fremant and Newark.

BKS 0.32 325 iPd 04 46.00 -0.1
iS 04 50.50
PCC 0.32 249 iPc 04 46.00 -0.2
BRK 0.33 322 iPd 04 46.10 -0.2
eS 04 51.30
ZSP 0.39 329 iPd 04 47.70 0.3
MHC 0.40 133 iPd 04 47.27 -0.4
eS 04 53.80
ARN 0.46 125 iPd 04 48.40 -0.4
GCC 0.58 180 ePd 04 50.50 -0.8
SAO 0.96 152 iPc 04 56.70 -1.4
eS 05 12.15
eTT 10 00.00
NWRM 1.09 321 eP 04 59.20 -1.2
CMB 1.35 71 eP 05 02.60 -2.2
KVN 3.39 64 eP 05 40.20 6.0
11 obs. associated

? FEB 25, 1989 13h 38m 05.20± 1.32s
37.790 N ±12.8km 29.269 E ± 9.6km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL 0.57 21 iPg 38 16.30 -0.5
iSg 38 27.30
BCK 1.10 107 ePn 38 25.80 -0.1
ALT 1.43 27 ePn 38 31.80 0.6
IZM 1.70 292 ePn 38 35.00 0.0
DST 1.88 345 ePn 38 45.80 8.1X
S.D. = 0.8 on 4 of 5 obs.

% FEB 25, 1989 13h 39m 44.59± 0.96s
37.680 N ± 8.5km 29.268 E ±10.0km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL 0.67 17 iPg 39 56.80 -1.2
iSg 40 07.80
ELL 1.06 151 ePn 40 04.00 -0.7
BCK 1.07 101 ePn 40 05.80 1.0
ALT 1.52 25 ePn 40 11.80 -0.2
IZM 1.74 295 ePn 40 15.00 0.0
DST 1.99 346 ePn 40 19.80 1.2
YLV 2.88 2 iPn 40 34.00 2.5X
S.D. = 1.2 on 6 of 7 obs.

? FEB 25, 1989 13h 56m 11.57± 3.43s
23.746 N ±18.3km 121.924 E ±36.3km
DEPTH = 33.0km (normal)
TAIWAN (244)

TWD 0.45 318 iPd 56 20.90 -0.5
eS 56 29.20
TWF1 0.70 236 iPd 56 24.20 -0.7
eS 56 34.90
TWC 0.86 355 ePc 56 27.00 -0.3
eS 56 39.20
TWZ 1.38 347 ePc 56 35.30 0.6
TWK 1.40 250 ePc 56 36.00 0.9
ANP 1.48 346 ePd 56 31.50 -4.7X
0.9s 436.97nm
eS 56 57.80
S.D. = 1.0 on 5 of 6 obs.

FEB 25, 1989 14h 01m 28.58± 0.27s
30.179 S ± 7.6km 177.848 W ± 5.9km
DEPTH = 51.8km (15 depth phases)
5.2mb (5 obs.)
KERMADEC ISLANDS (178)

KRP 9.47 214 eP 03 46.00 0.9
VUN 12.58 344 eP 04 27.30 0.2
WEL 12.59 206 eP 04 22.00 -5.3X
eS 06 32.00
SGE 13.11 342 eP 04 34.80 0.5
DZM 16.24 296 iPc 05 24.20 9.4X
BRS 25.87 269 Pd 06 57.50 0.3
i 07 10.70 54km
COO 26.07 261 iPc 07 02.60 3.5X
CAN 28.27 251 eP 07 20.30 1.2
BWA 28.75 253 eP 07 22.40 -1.0
RMQ 29.56 269 eP 07 39.00 8.2X
CMS 31.13 258 eP 07 45.00 0.5
TOO 31.17 246 eP 07 46.00 1.2
CTA 33.89 279 iPc 08 09.20 0.5
1.2s 142.19nm 5.8mb
i 08 22.20 50km
i 10 19.00
STK 34.66 257 iPd 08 16.40 1.2
OIS 39.43 274 eP 08 55.70 0.3
WB5 44.22 272 eP 09 33.80 -0.8
FORR 46.18 255 eP 09 49.00 -1.0
WARB 48.69 260 eP 09 59.00 -10.8X
MTN 50.08 279 eP 10 20.00 -0.5
COOL 51.95 253 eP 10 33.00 -1.6
MBL 56.29 264 eP 11 04.50 -2.0
SPA 59.99 180 e(P) 11 32.20 0.2
1.1s 17.86nm 5.1mb
e 11 38.10 19kmX
SYP 84.37 45 eP 13 57.00 0.3
e 14 12.00 52km
BCH 84.75 44 P 13 59.40 0.9
PRI 85.06 43 eP 14 00.90 0.9
BAR 85.22 48 eP 14 01.00 0.2
e 14 15.00 48km
MHC 85.31 42 eP 14 02.00 0.7
BKS 85.34 41 ePc 14 02.30 1.0
0.8s 16.00nm 5.2mb
MWC 85.35 46 eP 14 16.00 14.3X
ARN 85.38 42 P 14 02.00 0.5
PLM 85.54 47 eP 14 02.00 -0.6
e 14 17.00 52km
RVR 85.63 46 eP 14 02.00 -0.8
e 14 17.00 52km
PEC 85.70 47 P 14 03.10 -0.1
SBB 85.80 46 eP 14 03.00 -0.7
e 14 19.00 56km
ISA 86.05 45 eP 14 05.00 0.1
e 14 20.00 52km
FRI 86.20 43 eP 14 05.50 0.0
CMB 86.51 42 eP 14 07.00 -0.1
TPC 86.54 47 eP 14 08.00 0.7
e 14 22.00 48km
GLA 86.65 49 eP 14 08.00 0.1
e 14 23.00 52km
CLC 86.69 45 eP 14 07.00 -1.0
e 14 23.00 56km
GSC 86.84 46 eP 14 09.00 0.2
e 14 24.00 52km
ORV 86.92 40 eP 14 08.90 -0.1
WDC 87.06 39 eP 14 09.80 0.2
TNP 88.40 43 iP 14 16.20 -0.2
1.0s 19.00nm 5.3mb
ipP 14 31.00 51km
KVN 88.52 42 P 14 16.40 -0.5
pP 14 31.50 52km
ALQ 93.33 51 eP 14 38.50 -0.9
1.0s 8.25nm 5.1mb
epP 14 54.00 53km
PMR 94.36 13 P 14 27.00 -16.2X
FRB 125.12 31 ePKP 20 22.00 -1.9
MAIO 132.24 293 ePKP 20 39.00 0.4
KJF 142.33 342 ePKP 20 50.00 -6.3X
SUF 143.94 341 iPKP 20 54.60 -4.5X
0.4s 8.30nm
MSL 145.37 291 ePKPd 21 01.00 -1.3
e 21 16.00
NUR 146.15 340 iPKP 21 01.70 -1.2
0.5s 51.90nm
UPP 148.54 345 iPKP 21 08.60 1.9
NB2 148.55 352 PKP 21 08.80 2.0
1.0s 30.50nm
BNG 150.08 214 ePKPc 21 10.20 -0.3
0.9s 27.00nm
ic 21 14.50
id 21 25.80
KVT 150.55 301 ePKP 21 05.50 -5.0X
HRI 151.33 285 e(PKP) 21 17.00 5.0X
PRNI 151.68 279 ePKP 21 18.50 6.0X
MBH 151.70 278 ePKP 21 19.00 6.6X
BBTK 153.25 299 ePKP 21 21.50 7.0X
S.D. = 0.9 on 47 of 61 obs.

FEB 25, 1989 15h 08m 26.71± 0.47s
40.712 N ± 4.3km 23.318 E ± 4.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)
MD 2.9 (ATH). ML 2.5 (SKO).

SOH 0.11 14 ePg 08 28.70 -1.0
THE 0.28 254 ePg 08 31.90 -0.7
eSg 08 36.40
PLG 0.35 164 iPgc 08 33.50 -0.5
SRS 0.46 27 ePg 08 34.10 -1.9
KNT 0.55 325 ePg 08 36.70 -1.2
eSg 08 43.70
OUR 0.63 126 ePg 08 37.50 -1.9
eSg 08 46.90
GRG 0.74 290 ePg 08 41.20 0.0
eSg 08 52.70
VAY 0.83 317 iPg 08 43.00 0.2
iSg 08 54.70
LIT 0.88 226 ePg 08 44.10 0.5
eSg 08 56.10
KKB 1.17 351 iPgd 08 48.00 -0.5
KZN 1.25 252 ePb 08 51.00 1.1
NEO 1.41 183 ePb 08 52.60 0.2
RZN 1.44 47 iPg 08 53.00 0.0
RDO 1.74 75 ePb 08 58.80 1.7
eSb 09 21.80
PLD 1.74 36 P 08 59.00 1.9
KDZ 1.84 59 iPc 08 59.00 0.4
VTS 1.88 358 eP 09 00.00 0.7
PGB 1.94 19 iP 09 01.00 0.9
DIM 2.14 51 eP 09 06.00 3.1X
S.D. = 1.1 on 18 of 19 obs.

FEB 25, 1989 15h 22m 18.85± 0.43s
31.986 S ± 6.2km 68.167 W ± 8.7km
DEPTH = 118.9 ± 5.7 km
4.4mb (2 obs.)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCV 0.34 292 iPc 22 36.10 0.0
ZON 0.62 315 iPd 22 37.00 -0.8
RTLL 0.70 338 iPd 22 38.00 -0.4
RTCB 0.73 313 iPd 22 38.50 -0.2
MDZ 1.06 213 iP 22 43.30 1.5
iS 23 00.20
RTRS 2.12 328 iPc 22 54.50 0.2
S 23 20.00
JACH 2.17 251 iPd 22 54.60 -0.4
FCH 2.24 233 iPc 22 56.50 0.4
PEL 2.42 241 iPc 22 58.00 -0.2
iS 23 27.00
PCH 2.56 230 iPc 23 00.20 0.1
iS 23 34.10
SAN 2.56 235 iP 23 00.00 0.0
iS 23 28.00
ROCH 2.60 247 iPd 23 59.60 58.9X
CHCH 2.85 226 iPc 23 04.00 0.1
iS 23 39.00
TACH 2.86 234 iPc 23 03.00 -1.0
iS 23 37.00
CNCB 15.11 1 P 25 49.00 1.2
LPB 15.39 0 eP 25 52.00 0.9

ZOBO 15.65 0 P 25 55.00 0.4
0.8s 22.57nm 4.5mb
VAO 20.80 70 eP 26 52.50 0.1
ITA 22.92 71 eP 27 13.60 0.0
BMA 23.21 72 eP 27 16.30 0.3
e 27 25.00
BAO 24.54 53 eP 27 27.00 -2.0
LIC 71.04 70 P 33 25.50 -0.5
KIC 71.35 70 P 33 27.50 -0.4
ALQ 75.68 328 eP 33 51.50 -1.3
0.9s 4.20nm 4.2mb
WB5 124.09 206 ePKP 41 03.80 -1.4
GBA 143.61 112 PKP 41 43.00 1.3
HYB 146.62 108 ePKP 41 48.50 1.7
S.D. = 0.9 on 26 of 27 obs.

? FEB 25, 1989 15h 30m 12.31± 2.56s
40.727 N ±19.4km 23.345 E ±17.6km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.3 (THE).

SOH 0.09 4 ePg 30 15.30 0.3
THE 0.30 252 ePg 30 18.60 0.0
eSg 30 25.70
SRS 0.43 26 ePg 30 20.90 -0.2
KNT 0.55 322 ePg 30 23.40 -0.1
eSg 30 32.10
S.D. = 0.4 on 4 of 4 obs.

% FEB 25, 1989 15h 40m 33.61± 0.60s
40.699 N ± 4.8km 23.387 E ± 5.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.7 (THE).

SOH 0.13 348 ePg 40 36.90 0.2
THE 0.33 258 ePg 40 40.10 -0.3
eSg 40 44.40
SRS 0.45 20 ePg 40 42.50 -0.2
OUR 0.58 129 ePg 40 45.80 0.4
eSg 40 55.30
KNT 0.59 321 ePg 40 44.80 -0.8
eSg 40 53.00
PAIG 0.80 164 ePg 40 48.60 -0.6
VAY 0.88 315 iPg 40 51.30 0.9
iSg 41 03.50
LIT 0.91 229 ePg 40 51.40 0.4
S.D. = 0.7 on 8 of 8 obs.

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* FEB 25, 1989 15h 40m 50.76± 0.84s
17.723 S ± 8.9km 35.401 E ± 8.5km
DEPTH = 10.0km (geophysicist)
4.6mb (4 obs.)
MOZAMBIQUE (581)

SONG 3.28 310 ePn 41 42.50 -0.8
iPg 41 52.00
iSg 42 33.00
PTZ 5.21 311 iPn 42 12.00 1.2
iPg 42 28.00
iSb 43 10.00
iSg 43 27.00
BUL 6.86 248 iPn 42 34.80 0.7
iSn 43 43.80
iSg 44 20.00
LSZ 7.33 288 iPn 42 40.50 -0.2
iPg 43 56.70
iSn 44 26.00
iSb 44 34.00
iSg 45 45.00
KMZ 10.15 293 iPn 43 18.70 -1.0
iPg 43 22.00
iSn 45 05.00
iSb 46 07.50
iSg 46 17.80
SLR 10.36 218 eP 43 23.50 0.9
0.9s 84.03nm 6.2mb X
S 45 30.00
KSR 11.31 223 eP 43 34.50 -1.2
S 45 34.50
PRY 11.73 217 eP 43 26.50 -14.9X
S 45 43.50
AVY 11.77 98 eP 43 41.82 -0.2
SEK 12.74 213 iPc 44 02.00 7.0X
S 46 10.00
FRS 15.10 216 eP 44 06.00 -19.9X
BNG 27.59 321 ePc 46 48.10 7.7X
0.7s 6.00nm 4.5mb
BCAO 27.60 321 eP 46 41.00 0.6
0.9s 2.56nm 4.0mb
i 46 48.00
KIC 46.30 298 Pc 49 27.00 8.2X
0.6s 5.00nm 4.7mb
LIC 46.47 297 P 49 28.30 8.2X
TIC 46.68 298 Pc 49 30.20 8.4X
0.7s 12.00nm 5.1mb
S.D. = 1.0 on 9 of 16 obs.

FEB 25, 1989 15h 43m 51.77± 0.39s
47.789 N ± 4.8km 22.481 E ± 4.1km
DEPTH = 10.0km (geophysicist)
ROMANIA (358)

CEI 0.10 188 iPc 43 55.00 0.5
CJR1 1.26 144 iPd 44 15.10 0.0
PSZ 1.75 275 iPn 44 23.50 1.1
DEV 1.93 171 iPd 45 28.00 63.1X
BZS 2.25 196 iPd 44 28.50 -1.1
BUD 2.36 264 ePn 44 30.20 -0.9
PTT 2.79 106 eP 44 41.00 3.7X
SRO 2.81 272 iPn 44 37.40 -0.1
i 44 45.80
i 44 49.90
i 45 24.30
i 45 35.70
BEO 3.28 206 ePn 44 49.00 4.8X
MLR 3.31 133 ePd 44 46.00 1.2
DRA 3.35 158 eP 44 58.00 12.9X
VRI 3.49 122 ePd 44 48.00 0.8
CLI 3.50 109 ePc 44 48.00 0.6
ZST 3.63 278 ePn 44 48.80 -0.4
i 45 02.70
i 45 23.50
i 45 35.60
PPE 3.85 112 ePd 44 55.50 3.2X
ISR 3.86 132 eP 44 39.00 -13.5X
SOP 4.00 271 eP 44 54.20 -0.2
VKA 4.16 279 iP 44 57.30 0.6
CFR 4.70 122 ePd 45 14.00 9.6X
TLB 5.01 128 ePd 45 09.00 0.3
KSP 5.07 309 eP 45 11.00 1.4
VBY 5.47 248 e(Pn) 45 38.00 22.7X
e 46 12.20
PRU 5.68 296 P 45 18.20 0.0
LJU 5.72 255 e(Pn) 45 32.20 13.4X
e(Sn) 46 10.30
KHC 6.07 286 P 45 24.50 0.8
e 46 46.00
KBA 6.24 267 iPc 45 25.50 -0.7
0.7s 8.90nm 4.7mb
i 45 32.80
i 46 11.50
RZN 6.30 165 eP 45 39.00 11.8X
BRG 6.38 302 ePn 45 29.00 1.0
e 46 51.00
e 47 18.00
VAY 6.47 179 eP 45 27.40 -1.9
WET 6.53 286 eP 45 30.60 0.4
NUR 12.81 5 iP 46 55.20 -1.2
SUF 15.11 6 iP 47 25.70 -0.9
KJF 16.70 8 eP 47 46.00 -1.0
S.D. = 1.0 on 23 of 33 obs.

% FEB 25, 1989 15h 51m 31.01± 1.27s
34.116 N ±14.2km 135.135 E ± 6.8km
DEPTH = 10.0km (geophysicist)
NEAR S. COAST OF SOUTHERN HONSHU(233)
MG 3.3 (JMA). Felt (II JMA) at
Wakayama.

WKY 0.11 13 P 51 33.50 -0.4
iS 51 34.50
WKYJ 0.39 75 iPd 51 39.20 0.1
S 51 44.80
TKSJ 0.91 262 P 51 48.30 -0.2
S 52 01.30
TOTJ 1.53 333 P 51 58.60 0.2
S 52 18.00
YONJ 1.74 308 P 52 01.70 0.2
S 52 23.90
IIDJ 2.66 58 eP 52 21.20 6.5X
eS 52 56.40
S.D. = 0.4 on 5 of 6 obs.

% FEB 25, 1989 16h 14m 28.29± 0.76s
16.080 N ±10.8km 61.266 W ±13.3km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.0 (FDF).

MGG 0.17 197 ePg 14 34.18 -0.4
S 14 36.20
SFG 0.18 21 eP 14 34.71 0.0
DEG 0.31 40 ePc 14 36.23 0.1
S 14 41.00
PAG 0.40 263 eP 14 37.50 0.0
S 14 42.50
BBL 0.59 200 eP 14 40.53 0.3
S 14 48.40
S.D. = 0.4 on 5 of 5 obs.

% FEB 25, 1989 20h 11m 13.50± 1.23s
37.389 N ±10.6km 28.735 E ±10.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL 1.12 34 iPn 11 34.40 -0.2
ELL 1.14 124 iPn 11 35.00 0.2
BCK 1.48 87 iPn 11 39.90 -0.3
IZM 1.54 311 ePn 11 41.00 -0.1
ALT 1.99 33 ePn 11 48.00 0.4
S.D. = 0.4 on 5 of 5 obs.

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* FEB 25, 1989 20h 17m 59.13± 3.44s
2.219 N ±20.3km 126.742 E ±25.3km
DEPTH = 76.3 ± 29.5 km
4.3mb (3 obs.)
MOLUCCA PASSAGE (266)

MNI 2.05 248 ePd 18 32.20 0.0
eS 18 53.50
PCI 7.57 246 ePc 19 53.90 5.0X
0.8s 5.00nm 4.2mb
WB5 23.20 162 eP 22 59.00 -1.2
e 23 01.30
WRA 23.25 162 Pd 23 01.70 1.0
0.6s 5.30nm 4.1mb
QIS 25.91 151 eP 23 26.00 0.1
WARB 28.24 180 eP 23 38.40 -8.6X
CHG 31.83 303 eP 24 19.00 0.0
BJI 38.85 347 eP 25 19.00 0.5
PKI 46.86 307 P 26 23.30 -0.8
0.3s 2.00nm 4.5mb
KKN 47.06 307 P 26 24.80 -0.7
DMN 47.12 306 P 26 26.20 0.2
GKN 47.66 307 P 26 29.40 -0.8
HYB 49.65 291 eP 26 47.00 1.6
S.D. = 1.0 on 11 of 13 obs.

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* FEB 25, 1989 20h 40m 08.45± 0.96s
18.417 N ±16.3km 96.227 E ±13.0km
DEPTH = 10.0km (geophysicist)
BURMA (296)

CHG 2.61 81 iPg 40 56.00 4.6X
iSg 41 28.00
CHTO 2.61 81 ePn 40 52.00 0.6
ePg 40 57.00
eSg 41 28.00
BDT 2.89 113 ePn 40 54.30 -1.1
ePg 41 31.20
NST 4.63 126 eP 41 25.00 5.0X
LOE 5.33 100 iPn 41 48.10 18.0X
ePg 42 33.50
eSg 42 55.50
NNT 6.71 149 ePn 41 50.00 0.5
ePg 42 17.50
eSg 43 45.00
PKI 13.49 314 P 43 23.60 0.8
0.5s 6.00nm 4.8mb
GKN 14.29 314 P 43 32.20 -0.9
0.4s 4.00nm 4.5mb
S.D. = 1.3 on 5 of 8 obs.

FEB 25, 1989 20h 45m 27.33± 0.56s
62.675 N ± 5.4km 149.781 W ± 5.7km
DEPTH = 10.0km (geophysicist)
CENTRAL ALASKA (1)
ML 3.7 (PMR).

25d 20h

PWA	1.03	183	iPc	45 46.60	-0.1
PMR	1.13	164	iPc	45 48.10	-0.3
PMS	1.44	176	eP	45 53.00	-0.5
TOA	1.78	107	iPd	45 58.90	0.6
TTA	2.87	278	eP	46 13.70	-0.4
SVW	3.18	243	eP	46 18.70	0.3
IMA	3.80	335	iPd	46 27.40	0.0
DWY	4.86	69	P	46 41.90	-0.3
KDC	5.12	196	eP	46 46.50	0.6

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

? FEB 25, 1989 20h 48m 18.27± 2.62s
16.274 N ±29.3km 98.008 W ±10.9km
DEPTH = 33.0km (normal)
4.6mb (1 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

OXX	1.47	57	iP	48 43.00	0.1
			iS	48 49.50	
ACX	1.87	289	eP	48 49.20	0.6
			iS	49 13.00	
III	2.51	326	eP	48 57.30	-0.6
			iS	49 34.50	
IIT	2.75	354	eP	49 03.50	2.3X
			iS	49 41.50	
IISM	2.77	12	eP	49 02.00	0.8
			iS	49 45.00	
UNM	3.24	340	(P)	49 18.80	10.6X
			iS	49 56.50	
CRX	3.50	333	(P)	49 22.20	10.2X
			iS	50 09.00	
IIC	3.67	341	(P)	49 19.00	4.6X
			iS	49 56.00	
FFC	38.50	356	eP	55 38.00	-1.0
	0.8s		8.00nm		4.6mb
YKA	47.62	350	P	56 55.60	2.8X

S.D. = 1.1 on 5 of 10 obs.

FEB 25, 1989 20h 48m 24.74± 0.85s
41.090 N ± 4.4km 19.778 E ±10.0km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 2.0 (SKO).

TIR	0.27	15	iPd	48 30.70	0.4
BERA	0.41	161	iPgc	48 31.50	-1.6
LACI	0.55	355	ePg	48 35.30	-0.5
VLO	0.66	199	ePg	48 37.30	-0.5
OHR	0.77	88	iPg	48 38.60	-1.2
			iSg	48 50.20	
PHP	0.78	40	iPgc	48 39.20	-0.7
TPE	0.81	167	ePg	48 42.50	2.0
SDA	0.95	347	ePn	48 51.40	8.6X
KKS	1.09	26	ePg	48 45.50	0.3
LSK	1.13	146	ePg	48 46.20	0.3
SKO	1.53	54	iPn	48 53.00	0.9
			iSn	49 13.50	
VAY	2.12	83	ePn	49 01.40	0.7

S.D. = 1.2 on 11 of 12 obs.

% FEB 25, 1989 20h 50m 41.26± 2.58s
17.804 N ±28.1km 66.602 W ± 6.7km
DEPTH = 33.0km (normal)
PUERTO RICO REGION (90)

MGP	0.51	294	iP	50 52.00	0.0
SJG	0.53	55	iP	50 52.30	0.0
			S	51 00.60	
CSB	0.64	41	iP	50 53.90	0.0
			S	51 02.30	
APR	0.66	349	iP	50 54.20	0.1
MCP	0.78	322	iP	50 55.70	-0.1
			S	51 06.70	
LPR	0.86	54	iP	50 57.00	0.0
			S	51 08.00	

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

? FEB 25, 1989 21h 19m 01.64± 3.97s
31.834 N ± 9.1km 36.435 E ±29.9km
DEPTH = 10.0km (geophysicist)
DEAD SEA REGION (373)

JARJ	0.58	314	Pc	19 14.20	0.8
MASJ	0.62	260	Pc	19 15.00	0.8
KFNJ	0.65	273	Pd	19 15.00	0.5
QUTJ	0.65	214	P	19 14.70	0.1
SALJ	0.66	286	Pd	19 14.80	-0.1
BURJ	0.68	304	P	19 14.00	-1.2
MKRJ	0.73	248	P	19 15.10	-1.0

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

& FEB 25, 1989 21h 19m 16.80s
59.157 N 153.675 W
DEPTH = 96.3km
SOUTHERN ALASKA (2)
<AGS-P>.

PDB	0.69	338	eP	19 33.03	-0.9
			iS	19 46.03	
ILIM	1.00	21	iP	19 36.46	-0.8
			eS	19 53.04	
CNPM	1.30	72	iP	19 39.99	-0.8
NNL	1.50	53	eP	19 43.19	-0.1
			eS	20 03.34	
KDC	1.54	156	iP	19 42.55	-1.2
			eS	20 02.83	
RDT	1.56	24	eP	19 43.00	-1.1
			eS	20 03.33	
NKA	2.01	37	eP	19 50.25	0.4
SPU	2.19	21	eP	19 51.01	-1.3
SVW	2.19	334	iP	19 50.39	-1.9
SLKM	2.21	51	eP	19 51.27	-1.3
CRP	2.25	19	eP	19 53.19	0.0
CGLM	2.31	20	eP	19 52.98	-1.0
SEW	2.35	64	eP	19 53.29	-1.1
			eS	20 19.63	
PMS	2.93	43	eP	20 00.96	-1.4
PWA	3.13	35	eP	20 03.54	-1.5
MTU	3.18	72	eP	20 03.84	-1.8
KNIM	3.23	66	eP	20 03.51	-3.0
PLRM	3.33	41	eP	20 05.06	-2.6
PME	3.38	41	eP	20 07.10	-1.4
KNK	3.45	47	eP	20 06.78	-2.6
GHO	3.52	40	eP	20 08.14	-2.4
GLI	3.73	60	eP	20 09.46	-3.8
MID	3.77	83	iP	20 11.89	-1.9
HIN	3.83	68	eP	20 12.47	-2.3
TTA	3.95	344	iP	20 14.10	-2.3
FID	3.96	63	iP	20 12.68	-3.7
VZW	4.04	59	eP	20 14.75	-2.9
VLZ	4.17	59	eP	20 17.46	-1.8
CVA	4.23	67	eP	20 17.77	-2.4
SGAM	4.48	69	eP	20 21.23	-2.4
RAGM	4.71	71	eP	20 24.48	-2.4
TOA	4.73	48	eP	20 24.70	-2.4
CTGM	6.44	68	eP	20 48.38	-2.4
YKA	19.13	63	P	23 31.50	-3.0

34 obs. associated

FEB 25, 1989 21h 50m 19.09± 1.05s
8.034 S ± 7.3km 117.448 E ± 8.1km
DEPTH = 21.4 ± 9.3 km
4.2mb (2 obs.)
SUMBAWA ISLAND REGION (285)

KHKI	1.85	260	eP	50 50.60	0.6
			e(S)	51 20.00	
			e	55 25.00	
MKS	3.44	36	iPc	51 13.00	0.3
			i(S)	52 03.50	
PCI	7.47	19	ePd	52 14.50	4.9X
MBL	13.25	170	eP	53 28.80	0.1
			eS	55 44.00	
MTN	14.28	111	iPd	53 40.90	-1.3
			eS	55 55.00	
NANU	14.56	187	eP	53 45.00	-0.9
WARB	20.06	155	eP	54 45.30	-8.6X
			eS	57 41.50	
WB5	20.18	127	eP	54 56.10	0.8
WRA	20.20	128	Pd	54 56.50	1.1
	0.8s		3.40nm		3.7mb
PKI	47.05	320	P	58 51.40	-0.2
	0.6s		4.00nm		4.6mb
DMN	47.27	320	P	58 53.20	-0.1
	0.9s		20.00nm		5.2mb X
KKN	47.29	320	P	58 53.20	-0.2
	0.8s		9.00nm		4.9mb X
GKN	47.85	320	P	58 57.40	-0.3
	0.9s		21.00nm		5.2mb X

S.D. = 0.8 on 11 of 13 obs.

? FEB 25, 1989 22h 19m 03.54±11.09s
29.578 S ±72.7km 71.860 W ±59.8km
DEPTH = 33.0km (normal)

NEAR COAST OF CENTRAL CHILE (135)

RTRS	2.17	106	iPd	19 38.00	0.0
			S	20 04.00	
JACH	3.28	161	iPd	19 52.60	-1.3
			iS	20 30.00	
ZON	3.37	126	eP	19 55.00	-0.2
RTLL	3.41	122	e(P)	19 55.40	-0.3
RTCV	3.66	129	ePd	19 59.40	0.2
			S	20 48.50	
PEL	3.69	165	iPd	20 00.50	0.8
			iS	20 43.50	
CFA	3.72	124	e(P)	20 00.20	0.1
FCH	3.97	161	eP	20 05.00	1.0
			iS	20 53.50	
TACH	4.14	169	ePd	20 05.50	-0.5
			iS	20 54.00	
MDZ	4.18	143	e(P)	20 11.20	4.5X

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

FEB 25, 1989 22h 24m 54.22± 0.88s
46.847 N ± 8.0km 112.516 W ± 5.7km
DEPTH = 5.0km (geophysicist)
MONTANA (456)
ML 3.2 (BUT).

HRY	0.49	106	iPd	25 04.30	0.2
BUT	0.83	182	eP	25 11.20	0.2
			iS	25 21.00	
LRM	1.03	177	ePc	25 13.90	-0.4
LCCM	1.10	156	iPd	25 15.10	-0.4
MEMT	1.64	139	ePd	25 24.20	0.2
BGMT	1.65	168	ePn	25 24.10	-0.1
CCMT	1.95	187	ePn	25 28.50	0.0
HPI	3.16	188	eP	25 46.00	0.1
DPW	4.00	287	eP	25 56.80	-0.7
LNOR	4.11	258	e(P)	26 00.00	0.9
BW06	4.58	152	eP	26 10.50	4.5X

S.D. = 0.5 on 10 of 11 obs.

FEB 25, 1989 23h 07m 42.19± 0.31s
14.181 N ± 5.5km 124.400 E ± 5.3km
DEPTH = 26.2km (4 depth phases)
5.0mb (10 obs.) 4.6Msz (1 obs.)
LUZON, PHILIPPINE ISLANDS (249)

BAG	4.30	302	eP	08 45.00	-2.7
	0.8s		537.31nm		
			eS	09 35.00	
DAV	7.14	171	eP	09 28.00	0.3
PCI	15.65	197	ePc	11 31.60	8.8X
WHN	18.73	332	eP	12 01.00	-0.2
Z	12s		0.72um		
			pP	12 09.00	
GUMO	19.88	89	eP	12 13.80	-0.7
PJG	19.88	89	eP	12 14.20	-0.3
GUA	19.93	89	eP	12 14.80	-0.3
	1.0s		176.00nm		5.3mb
GYA	20.60	309	P	12 22.20	0.0
Z	16s		0.90um		4.2MszX
LOE	22.05	281	iPc	12 37.60	0.9
TIA	22.89	345	eP	12 44.40	-0.5
KMI	23.08	301	Pd	12 49.00	1.8
Z	18s		1.80um		4.6Msz
			pP	12 56.00	25km
			eS	16 34.00	
XAN	24.24	327	Pd	12 59.80	1.7
CHG	24.83	284	iPc	13 03.30	-0.6
	0.9s		12.18nm		4.5mb
CD2	25.24	315	P	13 08.10	0.4
TIY	25.74	338	eP	13 13.20	0.8
N	15s		0.80um		
			S	17 40.00	
BJI	26.75	346	(P)	13 22.00	0.4
SNY	27.56	359	eP	13 28.10	-0.8
PSI	27.62	248	eP	13 30.00	0.2
MTN	27.67	166	eP	13 36.00	5.9X
LZH	28.55	323	eP	13 37.00	-1.2
	1.5s		44.00nm		5.0mb
			pP	13 45.50	30km
HHC	28.84	340	eP	13 41.00	0.4
BTO	29.17	337	eP	13 44.80	1.2
GTA	33.15	324	eP	14 18.50	-0.3
LSA	34.34	302	P	14 29.80	0.2
WB5	35.24	164	eP	14 35.60	-1.1
			e	14 42.90	25km
WRA	35.29	164	P	14 38.00	0.8

0.8s 3.00nm 4.3mb
PKI 38.62 297 P 15 04.90 -0.7
0.7s 24.00nm 5.1mb
KKN 38.78 297 P 15 06.40 -0.4
1.0s 74.00nm 5.4mb
DMN 38.89 296 P 15 07.40 -0.4
1.0s 87.00nm 5.5mb
GKN 39.38 297 P 15 11.00 -0.8
WMQ 43.04 321 eP 15 42.00 0.5
GBA 45.53 275 Pd 16 00.90 -0.9
0.5s 7.70nm 4.9mb
MAIO 61.59 304 eP 18 00.00 -0.1
eS 26 31.00
TAB 72.08 306 eP 19 07.00 0.4
KEV 79.35 339 eP 19 47.00 0.1
SOD 80.00 337 eP 19 50.00 -0.4
i 19 58.00 25km
KJF 80.24 334 iP 19 51.80 0.0
0.6s 10.40nm 5.0mb
SUF 81.26 333 iP 19 57.10 -0.1
0.5s 2.30nm 4.5mb
INK 81.34 22 eP 19 57.00 -0.5
AVY 82.34 248 eP 20 04.50 0.7
VRI 85.20 316 iPd 20 19.00 1.3
MLR 85.83 316 eP 20 21.50 0.5
YKA 90.93 23 P 20 45.40 0.6
S.D. = 0.9 on 41 of 43 obs.

FEB 25, 1989 23h 23m 50.83± 0.71s
46.055 N ± 7.3km 14.749 E ± 5.4km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.4 (LJU). Felt (IV) at Kresnice.

LJU 0.15 266 iPgd 23 54.50 0.1
0.2s 250.00nm
iSg 23 57.50
CEY 0.39 216 ePg 23 58.90 0.1
eSg 24 05.90
VOY 0.60 268 iPgc 24 02.50 -0.4
eSg 24 11.90
VBY 0.66 147 ePg 24 04.80 0.9
iSg 24 16.60
TRI 0.77 244 P 24 05.20 -0.6
PTJ 0.86 100 e(Pg) 24 06.50 -0.9
eSg 24 19.80
RBL 0.91 296 P 24 07.60 -0.6
eSg 24 09.80
KBA 1.41 317 ePd 24 17.50 0.8
0.5s 5.10nm
i 24 38.70
FVI 1.47 292 P 24 17.90 0.6
S.D. = 0.8 on 9 of 9 obs.

% FEB 26, 1989 00h 09m 30.37± 0.75s
40.869 N ± 5.8km 28.174 E ± 7.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

CTT 0.34 35 ePg 09 37.00 -0.4
BNT 0.55 201 iPg 09 39.90 -1.6
EDC 0.57 205 iPg 09 31.00 -11.0X
eSg 09 47.00
KCT 0.63 167 iPg 09 42.90 -0.2
ISK 0.70 73 ePg 09 43.90 -0.3
eSg 09 55.90
YLV 0.96 108 iPg 09 48.40 -0.3
DMK 1.00 342 ePg 09 50.00 0.7
iSg 10 03.50
HRT 1.13 92 ePn 09 51.40 -0.2
DST 1.31 164 ePn 09 56.90 2.3
EZN 1.76 234 ePn 10 01.00 0.0
S.D. = 1.2 on 9 of 10 obs.

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* FEB 26, 1989 00h 46m 58.27± 0.74s
56.950 N ±13.2km 161.784 E ±17.0km
DEPTH = 33.0km (normol)
4.8mb (4 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

INK 30.27 42 eP 53 09.00 1.1
YKA 39.72 46 P 54 28.60 0.0
PIP 49.21 236 ePc 55 27.50 -17.6X
1.0s 97.00nm
SOD 51.61 340 iP 56 03.20 0.3
BGMT 51.85 64 ePc 56 01.30 -4.0X
FRB 53.58 25 eP 56 16.00 -1.6
KJF 54.17 337 iP 56 22.20 0.3
0.6s 9.10nm 5.0mb
SUF 55.81 337 iP 56 34.30 0.4
0.3s 6.20nm 5.1mb
NUR 58.12 337 iP 56 50.10 -0.1
NB2 60.10 344 P 57 03.70 -0.4
0.6s 3.40nm 4.7mb
WB5 79.92 206 eP 59 05.80 0.7
WRA 79.99 206 Pc 59 04.70 -0.7
1.1s 5.20nm 4.4mb
S.D. = 0.9 on 10 of 12 obs.

FEB 26, 1989 01h 44m 15.49± 0.83s
40.033 N ± 7.6km 24.335 E ± 7.1km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

PLG 0.76 297 eP 44 31.20 0.8
eS 44 42.00
SOH 1.09 317 eP 44 35.50 -0.5
NEO 1.12 230 eP 44 36.10 -0.5
THE 1.21 300 eP 44 41.50 3.6X
SRS 1.22 333 eP 44 38.70 0.5
RDO 1.44 39 eP 44 41.00 -0.6
EZN 1.54 97 ePn 45 03.00 20.0X
KNT 1.57 316 eP 44 50.00 6.5X
MMB 1.62 344 iPd 44 43.00 -1.2
RZN 1.68 10 eP 44 47.00 1.8
PRK 1.69 117 eP 44 45.70 0.5
KDZ 1.81 27 iPd 44 46.00 -1.0
VAY 1.86 314 eP 44 53.00 5.4X
KKB 2.06 333 eP 44 55.00 4.4X
PGB 2.52 357 iP 45 03.00 5.9X
S.D. = 1.1 on 9 of 15 obs.

FEB 26, 1989 01h 50m 40.22± 0.77s
7.302 S ± 6.0km 108.006 E ± 6.9km
DEPTH = 160.6 ± 7.8 km
4.9mb (10 obs.)
JAVA (277)

KLI 3.96 308 eP 51 41.50 0.6
eS 52 38.00
TPI 4.53 356 iPd 51 50.10 1.7
e 56 00.00
TRT 4.61 95 iPd 51 50.60 1.2
iS 52 32.50
KHKI 7.61 98 ePd 52 27.80 -1.6
eS 53 45.50
e 57 49.00
PPI 10.19 312 eP 53 02.20 -1.4
PCI 13.40 62 ePc 53 48.50 3.3X
PSI 13.44 317 eP 53 42.20 -3.6X
TSM 15.23 42 ePc 54 12.80 4.5X
NANU 16.81 155 eP 54 27.30 -0.4
0.3s 22.00nm 5.0mb
eS 57 19.00
MBL 17.90 142 eP 54 39.70 -0.8
e 54 44.00
eS 57 45.00
MEKA 21.66 154 eP 55 20.00 1.2
e 55 34.00
eS 59 18.00
KNA 21.99 114 iPd 55 22.80 0.7
MTN 23.42 105 eP 55 37.00 1.0
e 55 42.00
e 59 59.00
NST 24.12 341 eP 55 43.50 0.9
BAL 24.58 162 iPc 55 46.30 -0.6
MUN 25.71 164 iPd 55 56.60 -0.7
e 56 30.00
KLB 25.83 161 iPd 55 57.60 -0.8
0.5s 15.00nm 4.9mb
WARB 25.84 139 eP 55 48.00 -10.5X
e 56 21.00
eS 00 48.00
COOL 26.49 154 iPc 56 03.20 -1.2
e 56 36.00
eS 01 07.00
CHG 27.45 341 eP 56 12.60 -0.6
WB5 28.45 119 eP 56 22.00 -0.3
WRA 28.46 119 Pc 56 21.80 -0.5
0.9s 7.70nm 4.4mb
FORR 30.04 144 eP 56 35.00 -1.2
QIS 33.30 117 iPd 57 04.60 -0.1
GYA 33.58 358 P 57 07.80 0.6
PcP 59 44.60
KOD 35.05 299 eP 57 21.00 1.0
GBA 36.78 304 Pd 57 33.50 -0.7
1.0s 12.30nm 4.6mb
HYB 38.08 310 eP 57 44.50 -0.7
STK 39.70 133 iPd 57 59.30 0.9
0.5s 64.00nm 5.6mb
DMN 41.17 328 P 58 09.00 -1.8
KKN 41.23 329 P 58 09.30 -1.9
GKN 41.74 328 P 58 13.40 -1.8
LZH 43.33 355 e(P) 58 28.00 -0.1
TIY 44.97 5 iPd 58 41.40 0.4
NDI 46.49 322 iPd 58 52.50 -0.6
GTA 47.09 351 Pc 58 57.80 -0.1
pP 59 35.00 167kmX
PcP 00 27.80
BTO 47.70 2 eP 59 03.00 0.5
BJI 47.71 8 eP 59 02.00 -0.4
e 00 29.50
WMQ 54.11 342 P 59 49.70 -1.0
AVY 59.58 252 iPd 00 30.44 0.6
MAIO 62.84 317 eP 00 50.00 -1.3
TAB 72.91 313 eP 01 54.00 0.2
BUL 77.60 251 iPc 02 22.20 1.5
SEK 78.13 243 iPc 02 25.00 1.4
0.3s 12.99nm 5.1mb
MBH 79.16 302 iPc 02 30.00 1.1
PRNI 79.21 303 ePc 02 30.00 0.8
SPA 82.75 180 iPd 02 48.10 0.9
1.0s 15.50nm 4.7mb
BBTK 83.46 311 iPd 02 52.00 0.7
VRI 89.16 316 ePd 03 20.00 1.2
MLR 89.62 316 ePc 03 19.00 -2.1
KJF 92.31 334 iP 03 33.20 0.3
0.7s 13.30nm 5.2mb
SUF 92.71 333 iP 03 33.50 -1.3
0.7s 4.00nm 4.7mb
SOD 93.37 337 iP 03 37.20 -0.6
KEV 93.69 340 eP 03 27.00 -12.2X
KBA 98.47 316 eP 04 04.00 2.4
0.8s 2.40nm 4.8mb
YKA 116.80 21 PKP 09 07.60 0.9
FRB 123.61 358 ePKP 09 19.00 -0.6
LRM 128.18 35 ePKP 09 31.10 1.7
S.D. = 1.1 on 53 of 58 obs.

FEB 26, 1989 02h 50m 11.57± 0.56s
45.164 N ± 4.1km 26.987 E ± 4.7km
DEPTH = 19.9 ± 7.1 km
ROMANIA (358)

ISR 0.31 265 iPc 50 18.50 0.0
VRI 0.73 345 iPd 50 26.00 0.5
MLR 0.81 294 iPc 50 27.50 0.6
CFR 0.82 88 iPd 50 25.50 -1.6
BUC1 1.06 220 ePd 50 50.00 18.8X
CVD 1.12 138 eP 50 42.00 10.0X
PPE 1.14 23 ePc 50 33.50 1.1
BIR 1.19 22 eP 50 32.50 -0.6
CLI 1.40 8 ePc 50 36.50 0.4
PTT 1.82 347 ePd 50 47.00 4.9X
DRA 2.00 257 ePd 50 45.00 0.3
IAS 2.07 11 eP 50 56.00 10.3X
PVL 2.28 212 iPd 50 55.00 6.2X
CJR1 2.88 305 eP 50 57.60 0.3
DEV 2.96 286 ePd 50 57.00 -1.4
DIM 3.29 199 eP 51 03.00 0.0
PGB 3.31 219 iP 51 04.00 0.5
DMK 3.39 170 ePn 51 06.00 1.5
PLD 3.48 209 eP 51 05.00 -0.8
KDZ 3.69 199 iPd 51 10.00 1.1
VTS 3.75 228 iP 51 10.00 0.2
BZS 3.81 279 ePc 51 09.50 -1.0
RZN 3.85 206 iP 51 11.00 -0.2
KKB 4.35 222 iP 51 18.00 -0.1
HRT 4.76 155 ePn 51 18.10 -6.0X
VAY 5.02 222 ePn 51 27.20 -0.3
SKD 5.14 234 ePn 51 29.00 -0.3
BBTK 6.82 139 eP 52 09.00 15.9X
S.D. = 0.9 on 21 of 28 obs.

& FEB 26, 1989 03h 18m 39.74s
59.545 N 152.921 W
DEPTH = 90.5km
SOUTHERN ALASKA (2)
<AGS-P>.

26d 03h

ILIM	0.54	358	iP	18 54.61	-0.5
			eS	19 07.13	
CNPM	0.86	91	iP	18 57.77	-0.4
			eS	19 11.66	
NNL	0.96	58	iP	18 59.48	0.2
			eS	19 14.36	
RDT	1.06	14	iP	18 59.62	-1.0
			eS	19 13.02	
NKA	1.47	34	eP	19 06.64	1.2
			eS	19 25.20	
SLKM	1.66	53	eP	19 06.60	-1.5
SPU	1.70	14	iP	19 07.42	-1.1
CRP	1.77	12	iP	19 08.60	-1.0
			eS	19 31.59	
KDC	1.82	173	iP	19 08.25	-1.8
			eS	19 30.69	
CGLM	1.83	14	iP	19 09.22	-1.0
SEW	1.84	71	eP	19 08.85	-1.5
			eS	19 30.71	
SVW	2.07	321	iP	19 11.90	-1.5
PMS	2.39	43	eP	19 16.47	-1.3
PWA	2.59	34	eP	19 19.20	-1.3
MTU	2.70	78	eP	19 20.23	-1.8
KNIM	2.73	71	iP	19 19.88	-2.5
PLRM	2.78	41	eP	19 21.15	-1.9
PME	2.84	41	eP	19 22.32	-1.5
KNK	2.90	48	eP	19 22.62	-2.1
GHO	2.98	40	eP	19 24.07	-1.8
GLI	3.20	63	eP	19 25.66	-3.2
SML	3.20	43	eP	19 26.75	-2.2
HIN	3.34	72	eP	19 28.27	-2.5
FID	3.44	67	iP	19 28.74	-3.4
VZW	3.51	62	eP	19 30.72	-2.5
VLZ	3.64	61	eP	19 32.71	-2.2
CVA	3.73	71	eP	19 33.24	-2.9
SGAM	3.99	73	eP	19 36.72	-3.0
TOA	4.18	49	eP	19 41.31	-1.2
RAGM	4.23	75	eP	19 41.16	-2.0
GLB	4.89	63	eP	19 49.38	-2.9
CTGM	5.94	71	eP	20 04.62	-2.4

32 obs. associated

FEB 26, 1989 03h 26m 31.22± 0.62s
37.196 N ± 6.5km 20.800 E ± 4.8km
DEPTH = 10.0km (geophysicist)
4.8mb (1 obs.)
IONIAN SEA (399)
ML 3.9 (ATH).

ITM	0.90	91	ePg	26 47.10	-1.4
			eSg	27 00.00	
VLS	0.99	350	ePb	26 50.00	-0.1
			eSg	27 06.00	
ATH	2.44	71	ePb	27 14.00	2.2
NEO	2.84	41	ePn	27 18.10	0.6
LSK	2.95	357	iPn	27 22.20	3.1X
LIT	3.19	24	ePg	27 24.00	1.6
KZN	3.20	13	ePn	27 24.00	1.5
VLO	3.42	343	ePn	27 36.00	10.4X
BERA	3.56	350	ePn	27 38.50	10.9X
PLG	3.79	32	ePn	27 31.00	0.1
THE	3.82	26	ePg	27 30.30	-1.1
LCI	3.84	326	P	27 29.80	-1.8
SOI	3.87	285	P	27 32.70	0.7
OHR	3.91	360	ePn	27 35.80	3.2X
SOH	4.13	28	ePg	27 35.10	-0.6
			eSg	27 49.30	
TIR	4.21	350	ePn	27 40.00	3.2X
KNT	4.28	22	ePb	27 37.60	-0.3
			eSb	27 54.90	
ATN	4.34	284	P	27 39.60	0.8
NPS	4.34	115	ePb	27 42.00	3.2X
VAY	4.34	18	ePn	27 38.40	-0.3
SRS	4.48	28	ePb	27 39.50	-1.1
LACI	4.51	350	ePn	27 42.00	0.9
BRT	4.62	324	P	27 42.60	-0.1
MEU	4.69	271	P	27 43.80	0.0
			eSn	28 35.90	
SKO	4.80	6	ePn	27 50.00	4.8X
RDO	5.40	42	ePn	27 54.00	0.4
KAP	5.40	106	ePn	27 55.00	1.2
KSL	7.14	96	ePn	28 17.00	-1.2
NUR	23.46	5	iP	31 48.10	6.8X
SUF	25.76	6	eP	32 02.00	-1.4
KJF	27.36	7	eP	32 21.00	3.0X
BNG	32.67	184	iPd	33 05.30	-0.4
	0.4s		5.00nm		4.8mb

S.D. = 1.1 on 23 of 32 obs.

% FEB 26, 1989 03h 43m 53.22± 0.92s
37.715 N ± 8.1km 29.258 E ± 9.5km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL	0.64	19	iPg	44 05.00	-1.2
			iSg	44 15.50	
BCK	1.09	103	iPn	44 14.20	0.5
ELL	1.10	152	iPn	44 13.60	-0.3
ALT	1.50	26	ePn	44 20.30	0.1
IZM	1.72	294	ePn	44 23.00	-0.4
DST	1.95	346	ePn	44 28.00	1.2

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

FEB 26, 1989 03h 47m 43.77± 0.62s
45.169 N ± 5.5km 26.984 E ± 6.5km
DEPTH = 17.3 ± 10.0 km
ROMANIA (358)

ISR	0.31	264	iPc	47 50.50	-0.1
VRI	0.72	346	iPd	47 58.00	0.4
MLR	0.80	294	ePc	47 59.00	0.0
CFR	0.83	88	iPd	47 57.50	-1.8
CVD	1.12	138	iP	48 33.00	28.7X
PPE	1.14	23	eP	48 05.50	0.9
BIR	1.19	22	eP	48 21.00	15.6X
CLI	1.40	9	ePd	48 08.00	-0.5
PSN	1.72	150	eP	48 15.00	2.0
PGB	3.32	219	iP	48 36.00	0.0
KDZ	3.70	199	iP	48 42.00	0.6
VTS	3.75	228	iP	48 42.00	-0.3
MMB	4.29	215	eP	48 49.00	-0.8
KKB	4.35	222	eP	48 50.00	-0.6

S.D. = 1.1 on 12 of 14 obs.

FEB 26, 1989 04h 20m 00.85± 0.57s
41.454 N ± 5.1km 23.592 E ± 5.8km
DEPTH = 10.0km (geophysicist)
GREECE-BULGARIA BORDER REGION (363)
ML 2.5 (THE).

MMB	0.17	37	iPgd	20 04.00	-0.7
SRS	0.34	180	ePg	20 07.20	-0.6
KKB	0.56	317	iPgc	20 11.00	-1.3
KNT	0.60	241	ePg	20 11.80	-1.1
			eSg	20 20.60	
SOH	0.66	196	ePg	20 13.20	-0.8
			eSg	20 22.70	
VAY	0.78	261	ePg	20 18.40	2.4
			eSg	20 31.50	
RZN	0.88	74	ePg	20 18.00	0.2
GRG	1.03	241	ePg	20 34.80	14.5X
PLG	1.08	186	ePn	20 21.60	0.3
			eSn	20 38.00	
VTS	1.17	346	iPg	20 24.00	1.2
PGB	1.18	21	iPgd	20 22.00	-0.8
KDZ	1.38	81	iPd	20 26.00	-0.2
RDO	1.50	101	ePn	20 29.00	1.2
			eSn	20 50.00	

S.D. = 1.2 on 12 of 13 obs.

% FEB 26, 1989 04h 30m 49.47± 1.10s
39.211 N ± 9.0km 28.821 E ±11.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.42	339	iPg	30 57.90	-0.2
			eSg	31 04.90	
ALT	1.01	98	iPg	31 08.30	-0.4
			eSg	31 20.30	
KHL	1.04	148	ePn	31 09.50	0.3
KCT	1.10	341	iPg	31 06.10	-4.0X
EDC	1.35	327	ePn	31 14.00	-0.3
GPA	1.57	46	ePn	31 17.00	-0.5
HRT	1.73	22	ePn	31 21.00	1.1

S.D. = 0.8 on 6 of 7 obs.

% FEB 26, 1989 04h 38m 28.13± 1.18s
45.129 N ±12.6km 27.080 E ± 6.2km
DEPTH = 10.0km (geophysicist)
ROMANIA (358)

ISR	0.38	271	iPc	38 36.00	0.1
CFR	0.76	85	iPd	38 43.00	0.0
VRI	0.78	342	iPc	38 43.50	0.1
MLR	0.88	295	iPc	38 45.00	-0.1
PPE	1.15	19	eP	38 53.50	3.9X
CLI	1.43	6	ePc	38 54.00	-0.1

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

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* FEB 26, 1989 05h 34m 42.34± 0.34s
59.012 S ±11.5km 25.555 W ± 9.0km
DEPTH = 33.0km (normal)
5.4mb (7 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

SPA	31.16	180	iPc	41 00.00	0.0
	0.8s		32.08nm		5.2mb
ITA	39.08	331	eP	42 10.00	1.9
FCH	39.13	291	eP	42 10.00	1.4
TACH	39.18	290	eP	42 08.50	-0.1
SAN	39.21	290	eP	42 09.00	0.1
PEL	39.47	291	iPd	42 11.50	0.4
JACH	39.81	291	eP	42 16.50	2.6
FRS	45.06	72	e(P)	42 47.00	-9.5X
BAO	46.37	329	eP	43 01.20	-6.0X
SEK	47.37	74	eP	43 17.00	1.9
	0.4s		9.32nm		5.1mb
			i	43 31.50	
CNCB	52.28	305	P	43 53.00	-0.3
LPB	52.58	305	eP	43 54.00	-1.3
ZOBO	52.83	305	P	43 56.00	-1.3
Z	24s		0.15um		4.0MszX
			LR	01 40.00	
ARE	54.11	302	e(P)	44 05.00	-1.4
LIC	67.07	22	Pc	45 34.24	0.0
	0.7s		29.00nm		5.5mb
KIC	67.26	23	Pc	45 35.50	0.0
	0.8s		25.00nm		5.4mb
TIC	67.48	22	Pc	45 36.84	0.0
	0.7s		26.00nm		5.4mb
BNG	72.26	47	iPc	46 06.00	-0.1
	0.3s		10.00nm		5.3mb
CAN	85.91	176	eP	47 19.80	-0.1
BWA	86.78	175	eP	47 19.10	-5.1X
FORR	87.83	158	iPd	47 29.90	0.7
	0.5s		40.00nm		6.0mb
NB2	123.08		20 PKP	53 34.80	-0.6
	0.9s		6.40nm		
DMN	123.81		92 PKP	53 37.70	-0.5
GKN	123.89		91 PKP	53 37.30	-0.9
PKI	123.94		92 PKP	53 37.60	-1.0
	0.6s		11.00nm		
KKN	124.05		92 PKP	53 37.80	-0.8
	0.6s		11.00nm		
NUR	125.43		28 ePKP	53 40.00	0.1
LRM	126.31		300 ePKP	53 42.80	0.3
FRB	126.74		338 ePKP	53 41.00	-1.3
SUF	127.71		27 iPKP	53 43.40	-0.9
	0.7s		5.00nm		
FFC	128.80		314 ePKP	53 46.00	-0.6
	1.2s		19.00nm		
KJF	129.35		27 iPKP	53 47.10	-0.2
	0.7s		17.40nm		
SOD	131.78		24 iPKP	53 51.00	-0.9
DAG	135.59		2 ePKP	53 58.00	-0.9
YKC	138.87		315 ePKPc	54 04.50	-0.9
	0.7s		23.00nm		
YKA	138.93		315 PKP	54 04.90	-0.6
ALE	142.55		353 ePKP	54 08.00	-3.5X
	0.8s		10.00nm		
TIY	145.70		110 iPKPd	54 18.50	0.3
BTO	146.73		104 PKP	54 22.30	2.5
TIA	146.73		117 PKPc	54 21.10	1.3
MBC	147.04		334 ePKP	54 21.00	1.9
	0.8s		33.00nm		
INK	148.62		317 ePKP	54 21.00	-0.8
	0.7s		19.00nm		
BJI	149.34		111 ePKP	54 28.00	4.2X

S.D. = 1.1 on 38 of 43 obs.

FEB 26, 1989 05h 51m 59.88± 0.77s
35.514 N ± 8.3km 25.516 E ± 7.0km
DEPTH = 66.0 ± 19.2 km
CRETE (370)

VAM	1.08	265	ePn	52 19.40	-0.1
KAP	1.35	88	iPnc	52 23.60	0.5
IZM	3.20	25	ePn	52 50.00	1.1
KSL	3.36	78	ePn	52 53.00	1.9X
ELL	3.76	70	iPn	52 57.60	0.7
NEO	4.20	335	ePn	53 07.10	4.1X

KHL	4.26	48	ePn	53	03.50	-0.4
EZN	4.35	8	iPn	52	57.70	-7.3X
BCK	4.53	63	ePn	53	06.50	-1.1
VAY	6.24	339	e(Pn)	53	30.00	-1.4
BBTK	7.19	51	eP	53	44.50	-0.2
DSI	9.12	113	eP	54	10.50	-0.7
PRNI	9.49	120	eP	54	15.50	-0.8
MBH	9.75	123	eP	54	21.00	1.2
KHC	16.19	331	P	55	45.60	1.1

S.D. = 1.1 on 12 of 15 obs.

FEB 26, 1989 05h 58m 40.96± 0.19s
14.448 N ± 5.2km 146.970 E ± 3.8km
DEPTH = 54.4km (25 depth phases)
5.0mb (15 obs.)
MARIANA ISLANDS (216)

GUA	2.19	246	eP	59	14.80	-0.8
			eS	59	42.70	
PJG	2.21	248	eP	59	15.00	-0.9
GUMO	2.21	248	eP	59	15.20	-0.7
PMG	23.70	180	eP	03	48.50	-0.3
MTN	31.33	211	eP	04	58.00	-0.5
WB5	36.30	200	eP	05	41.00	-0.3
			i	05	56.70	62km
WRA	36.36	200	Pc	05	41.40	-0.5
	0.9s	4.80nm				4.4mb
BJI	37.08	319	eP	05	50.00	2.3
TIY	38.38	314	Pd	05	59.00	0.2
GYA	39.45	294	P	06	09.00	1.1
XAN	39.50	306	Pc	06	08.20	0.1
HHC	40.49	317	eP	06	19.90	3.7X
RMQ	40.73	178	eP	06	24.00	5.9X
BTO	41.39	316	eP	06	25.00	1.4
CD2	42.81	300	eP	06	35.70	0.3
LZH	44.10	307	eP	06	46.50	0.6
	1.5s	84.00nm				5.3mb
CHG	46.12	282	eP	07	02.50	0.5
NANU	47.97	220	eP	07	18.00	1.6
GTA	48.15	310	P	07	17.80	-0.1
TOO	51.76	181	iPc	07	46.40	1.2
			i	08	01.60	58km
SHL	52.61	291	iP	07	51.30	-0.8
LSA	53.43	296	Pc	07	59.10	0.7
WMQ	58.04	313	eP	08	30.60	-0.3
PKI	58.42	294	P	08	33.60	-0.5
KKN	58.53	294	P	08	34.50	-0.3
DMN	58.69	294	P	08	35.70	-0.2
GKN	59.10	294	P	08	38.50	-0.1
	0.7s	25.00nm				5.5mb
PMR	65.07	28	P	09	16.00	-1.6
	0.8s	6.47nm				4.7mb
			pP	09	32.00	59km
HYB	65.54	283	eP	09	21.50	0.0
FBA	66.59	25	P	09	25.40	-2.0
	0.8s	6.47nm				4.7mb
GBA	67.21	279	Pd	09	34.70	2.6X
	0.9s	5.00nm				4.5mb
INK	72.80	23	eP	10	04.50	-0.7
MBC	76.95	14	ePd	10	28.40	-0.5
	0.7s	15.00nm				5.1mb
MAIO	79.59	305	eP	10	32.00	-12.3X
GMW	79.65	44	P	10	44.70	0.5
			pP	11	00.00	54km
RMW	80.33	43	P	10	48.00	0.1
			pP	11	03.50	55km
LON	80.45	44	P	10	47.90	-0.7
			pP	11	02.50	51km
WDC	81.12	50	eP	10	52.40	0.3
			epP	11	08.00	55km
YKA	81.16	28	P	10	51.90	0.1
YKC	81.22	28	ePd	10	52.00	-0.2
PNT	81.39	41	eP	10	53.00	-0.4
	0.8s	21.00nm				5.2mb
MIN	81.87	51	eP	10	55.70	-0.5
			epP	11	11.40	55km
BKS	81.90	53	e(P)	10	56.80	0.6
	0.9s	29.00nm				5.3mb
ORV	82.11	51	eP	10	57.40	0.1
			epP	11	12.80	54km
ALE	82.25	4	eP	10	57.00	-0.2
	0.9s	11.00nm				4.9mb
MHC	82.47	53	eP	11	00.00	0.6
			epP	11	15.40	54km
ARN	82.55	53	P	11	00.00	0.3
			pP	11	15.00	52km
PRS	82.90	54	eP	11	02.20	0.7
			epP	11	17.40	53km
CMB	83.29	53	eP	11	03.90	0.4
			epP	11	19.30	54km
PRI	83.50	54	eP	11	05.20	0.5
			epP	11	20.90	55km
PHAM	83.78	55	P	11	06.80	0.8
			pP	11	22.00	53km
FRI	84.05	53	eP	11	07.50	0.2
			epP	11	23.00	54km
SYP	84.42	56	eP	11	09.00	-0.4
			e	11	25.00	56km
KVN	84.79	51	P	11	11.20	0.0
			pP	11	26.50	53km
ISA	85.34	55	eP	11	13.00	-0.9
TNP	85.71	52	P	11	16.00	0.2
	0.8s	4.66nm				4.7mb
CLC	85.99	54	eP	11	18.00	0.9
MWC	86.03	56	eP	11	18.00	0.5
SBB	86.10	55	eP	11	18.00	0.3
			e	11	33.00	52km
SES	86.46	39	iPd	11	17.60	-1.5
	0.6s	28.00nm				5.6mb
			pP	11	33.00	53km
RVR	86.64	56	eP	11	20.00	-0.2
			e	11	35.00	52km
GSC	86.75	55	eP	11	36.00	15.1X
PEC	86.84	56	P	11	21.00	-0.2
			pP	11	36.70	55km
LRM	86.97	44	eP	11	22.00	0.1
			e	11	36.50	50km
BAR	87.55	57	eP	11	25.00	0.3
TPC	87.67	56	eP	11	25.00	-0.3
DAG	88.57	357	iPc	11	27.80	-0.9
	0.9s	5.88nm				4.9mb
GLA	88.94	56	eP	11	32.00	0.6
BW06	89.91	46	P	11	35.50	-0.5
			pP	11	51.30	55km
FFC	90.00	33	eP	11	36.00	0.2
	1.0s	17.00nm				5.3mb
SUF	90.50	337	eP	11	36.00	-2.0
ALQ	94.91	52	eP	11	58.00	-1.1
	1.0s	2.50nm				4.6mb
			e	12	15.00	59km
KIC	145.15	304	PKP	18	15.04	0.0
	0.8s	52.00nm				
TIC	145.20	305	PKP	18	15.08	0.0
LIC	145.46	305	PKP	18	15.96	0.4
	0.8s	73.00nm				
ZOBO	146.13	98	PKP	18	19.30	2.0
LPB	146.17	98	PKP	18	20.00	2.8X
	1.0s	24.00nm				
CNCB	146.29	99	PKP	18	20.20	2.7X
CCH	148.05	100	PKP	18	26.80	6.8X

S.D. = 0.8 on 71 of 79 obs.

FEB 26, 1989 10h 12m 29.21± 0.34s
4.852 S ± 5.1km 76.748 W ± 8.5km
DEPTH = 33.0km (normal)
4.8mb (10 obs.)
NORTHERN PERU (111)

PURC	7.14	3	eP	14	14.50	0.0
SALC	7.77	0	eP	14	22.70	-0.4
DIAC	8.11	4	eP	14	28.80	1.0
HOQC	8.27	1	eP	14	29.30	-0.8
ANCC	8.31	359	eP	14	31.30	0.8
CLMC	8.68	1	eP	14	36.20	0.5
HOBC	9.17	4	eP	14	42.90	0.5
ZOBO	14.16	144	eP	15	48.00	-2.1
	Z 20s	0.23um				
			LR	22	00.00	
LPB	14.38	144	eP	16	00.00	7.1X
CNCB	14.67	145	eP	15	58.00	1.2
			i	16	05.00	
CCH	16.21	141	eP	16	21.00	4.4X
ATB	24.51	87	e(P)	17	46.20	-0.8
PRM	39.09	353	P	19	55.60	0.5
JSC	39.15	354	P	19	56.00	0.4
GBTN	40.91	351	P	20	09.70	-0.4
BLA	41.99	356	P	20	19.90	1.0
	0.7s	23.39nm				5.0mb
NAV	42.12	355	P	20	20.70	0.7
OLY	42.46	342	P	20	21.80	-1.0
CVL	42.64	358	P	20	24.80	0.5
ELC	43.50	346	P	20	29.60	-1.7
VVO	43.78	337	eP	20	33.60	0.0
RLO	44.25	339	iP	20	37.00	-0.4
LNO	44.31	338	eP	20	31.30	-6.4X
TUL	44.31	338	eP	20	37.40	-0.4
	0.9s	4.00nm				4.2mb
SIO	44.36	337	e(P)	20	38.20	-0.1
MEO	44.47	334	iPc	20	39.20	0.0
	0.5s	5.70nm				4.7mb
FVM	44.47	345	P	20	38.00	-1.2
PRIN	45.03	2	P	20	45.10	1.5
TBR	45.83	3	P	20	51.00	1.1
ACO	46.33	335	eP	20	54.70	0.7
	0.5s	4.10nm				4.6mb
ALQ	48.46	327	eP	21	10.90	0.0
	0.9s	18.49nm				5.1mb
GLD	51.55	332	P	21	34.50	0.0
	1.1s	12.05nm				4.8mb
GOL	51.58	332	P	21	34.60	-0.2
GLA	52.18	319	P	21	39.70	0.5
DAU	55.06	328	P	22	00.60	0.0
BW06	55.96	331	P	22	06.00	-1.0
	0.9s	5.35nm				4.6mb
BCH	56.94	318	P	22	14.00	0.0
KVN	58.01	323	P	22	21.10	-0.4
SCH	60.03	7	eP	22	35.00	0.0
ORV	60.41	321	P	22	38.00	0.1
LBFM	61.71	323	P	22	46.10	-0.9
SES	62.46	336	ePc	22	49.40	-2.2
LON	64.98	328	P	23	07.80	-0.4
RMW	65.42	328	P	23	10.00	-1.0
PNT	65.52	331	eP	23	12.00	0.5
	0.7s	5.00nm				4.7mb
GMW	66.00	328	P	23	14.00	-0.6
FRB	68.69	4	ePc	23	30.20	-1.0
KIC	72.74	82	P	23	56.70	0.0
YKA	73.09	343	P	23	57.50	-0.3
INK	82.82	342	ePc	24	51.30	0.1
MBC	84.61	351	eP	25	01.00	0.9
SPA	85.18	180	e(P)	25	04.00	0.6
	1.0s	10.50nm				5.0mb
DAG	87.71	11	iPc	25	15.80	0.4
	0.6s	6.00nm				5.0mb
CTA	131.02	238	ePdiff	28	34.00	2.7
			e	29	22.00	
WRA	140.74	230	PKPd	31	57.30	-1.0
	0.7s	1.80nm				
MTN	147.19	237	iPKPc	32	11.50	2.1
SSE	148.92	329	ePKP	32	15.50	3.8X
MBL	149.46	212	iPKPd	32	16.70	3.9X
GKN	150.96	36	PKP	32	21.70	6.6X
	0.8s	45.00nm				
KKN	151.49	35	PKP	32	23.00	7.0X
	0.7s	23.00nm				
DMN	151.52	35	PKP	32	22.90	6.8X
PKI	151.73	35	PKP	32	23.00	6.5X
GBA	153.10	69	PKPd	32	25.50	7.2X
	0.6s	1.70nm				

S.D. = 1.0 on 53 of 63 obs.

FEB 26, 1989 10h 13m 43.68± 0.72s
44.592 N ± 7.7km 18.518 E ±10.5km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MG 3.6 (BEO).

BEO	1.40	80	ePn	14	07.20	-2.0
			iSg	14	26.80	
UZD	2.00	1	eP	14	53.30	35.4X
HVAR	2.06	227	iP	14	17.90	-0.8
PTJ	2.23	307	eP	14	26.70	5.4X
VBY	2.49	293	ePn	14	29.00	4.2X
			iSn	15	05.00	
SDA	2.67	164	ePn	14	32.10	4.6X
LACI	3.08	163	ePn	14	47.30	14.1X
SRO	3.23	358	iP	14	36.70	1.4
			e	14	53.90	
			i	15	36.50	
PHP	3.23	153	ePn	14	35.50	0.2
DEV	3.36	66	iPc	14	46.00	8.8X
SKO	3.38	140	ePn	14	37.00	-0.5
			e	14	49.00	
			iSn	15	38.80	
SOP	3.38	337	eP	14	37.00	-0.5
TIR	3.39	163	ePn	14	47.00	9.3X
ZST	3.74	345	e(P)	14	43.00	0.4
			i	14	50.50	
			i	15	40.80	
VKA	3.98	338	e(P)	14	51.00	5.0X
	1.5s	169.00nm				

26d 10h

			i	14	56.00	
			i	16	18.70	
KBA	4.39	306	e(P)	15	08.00	16.0X
	1.0s	14.10nm				
			e	15	15.00	
			i	15	46.80	
VAY	4.42	136	ePn	14	54.40	2.1
MLR	5.34	78	eP	15	28.00	22.5X
KRA	5.55	10	ePd	15	47.60	39.3X
			e	15	58.10	
KHC	5.66	325	P	15	09.70	-0.2
			e	15	18.20	
PRU	6.04	335	eP	16	07.50	52.4X
			e	17	15.50	
KSP	6.43	347	e(P)	15	31.00	10.3X
			e	16	47.00	
MOX	7.64	325	e(P)	15	49.00	11.3X
			e	17	45.00	

S.D. = 1.4 on 9 of 23 obs.

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* FEB 26, 1989 11h 08m 49.40± 2.03s
35.467 S ±18.3km 71.006 W ±12.4km
DEPTH = 89.3 ± 11.4 km
4.4mb (6 obs.)
CENTRAL CHILE (136)

CHCH	1.56	11	iPc	09	16.50	0.2
TACH	1.81	2	iPc	09	19.50	-0.1
SAN	2.03	8	iPc	09	22.70	0.2
			iS	09	42.00	
LCCH	2.04	347	iPc	09	22.00	-0.7
FCH	2.21	16	iPc	09	26.20	0.9
			iS	09	51.30	
PEL	2.33	7	iPc	09	27.00	0.3
JACH	2.80	7	iPd	09	33.00	-0.1
RTCV	4.14	30	ePc	09	52.00	0.4
			S	10	39.50	
ZON	4.37	27	eP	09	54.00	-0.7
RTLL	4.64	28	ePc	09	58.30	-0.2
			S	10	49.00	
RTRS	5.44	14	iPc	10	08.90	-0.7
			S	11	08.20	
CNCB	18.78	9	P	13	05.00	0.0
LPB	19.03	9	P	13	09.00	1.4
ZOBO	19.29	8	P	13	11.00	0.5
BAO	28.53	52	e(P)	14	43.00	4.3X
PRM	70.00	350	P	19	52.00	-1.1
PWLA	71.87	345	P	20	03.30	-1.0
ELC	74.34	345	P	20	17.80	-0.9
MEO	74.48	337	eP	20	18.20	-1.4
	1.0s	5.30nm			4.4mb	
TUL	74.67	339	eP	20	19.60	-1.1
	0.8s	5.90nm			4.5mb	
LNO	74.67	339	eP	20	19.80	-0.7
KIC	74.75	71	P	20	22.00	0.4
	0.5s	7.00nm			4.8mb	
FVM	75.27	344	P	20	23.40	-0.6
ALQ	77.47	331	eP	20	37.00	0.4
	1.0s	5.00nm			4.3mb	
GOL	81.24	334	P	20	57.40	0.5
TNP	84.78	325	P	21	16.50	1.5
	0.8s	3.53nm			4.4mb	
BW06	85.46	333	P	21	18.40	0.1
	0.7s	3.29nm			4.4mb	
KVN	85.97	325	P	21	21.90	1.0
HPI	87.62	331	P	21	30.00	1.1
LBFM	89.56	324	P	21	39.50	1.4
GBA	144.22	119	PKP	28	16.00	-0.8

S.D. = 0.9 on 30 of 31 obs.

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* FEB 26, 1989 11h 52m 54.12± 1.78s
0.202 S ±13.3km 123.652 E ±17.9km
DEPTH = 154.4 ± 16.0 km
3.8mb (1 obs.)
MINAHASSA PENINSULA (265)

PCI	3.88	260	ePd	53	53.20	-0.4
			eS	54	12.00	
AAI	5.71	127	iPd	55	12.50	54.6X
TSM	7.10	308	ePc	54	37.00	0.4
MBL	21.16	190	eP	57	29.00	0.6
WB5	22.20	152	eP	57	39.10	0.6
WRA	22.24	153	Pc	57	39.10	0.1
	0.5s	2.10nm			3.8mb	
OIS	25.55	143	eP	58	10.00	-0.4
CTA	29.67	133	iPd	59	02.30	14.8X
	0.3s	29.87nm				

CHG	30.75	309	eP	58	57.00	-0.1
FORR	30.77	173	iPc	58	56.20	-0.8
KKN	46.14	310	P	01	05.00	-0.2
GMN	46.73	310	P	01	09.40	-0.4
HYB	47.71	294	eP	01	18.00	0.6

S.D. = 0.6 on 11 of 13 obs.

FEB 26, 1989 12h 21m 11.23± 0.34s
9.673 N ± 3.6km 84.184 W ± 3.3km
DEPTH = 22.5 ± 2.5 km
4.6mb (10 obs.) 4.8Msz (3 obs.)
COSTA RICA (78)

MD 4.7 (SJR), 4.4 (HDC). Minor domage (VII) and some landslides in the Guoitil-San Marcos area. Felt (V) at San Jose, in the Central Volley and along the Pacific coast between Herroduro and Quepos.

CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 12S, 25C
Centraid Location:
Origin Time 12:21:20.6 0.7
Lat 9.87N 0.06 Lon 84.66W 0.09
Dep 37.5 5.9 Half-duration 1.7
Moment Tensor; Scale 10**16 Nm
Mrr=-0.37 0.56 Mtt=-7.87 0.59
Mff= 8.24 0.90 Mrt=-0.67 1.18
Mrf=-2.72 1.09 Mtf= 9.93 0.66
Principal Axes:
T Val= 13.51 Plg=11 Azm=115
N -0.88 78 309
P -12.63 3 206
Best Double Couple:Mo=1.3*10**17
NP1:Strike=251 Dip=80 Slip= 6
NP2: 160 84 170

LCR2	0.19	69	iP	21	16.60	-0.2
QCR	0.23	175	iP	21	16.90	-0.1
			S	21	20.40	
OPS	0.27	169	iPd	21	17.30	-0.4
SJS	0.29	26	iP	21	18.40	0.3
			S	21	23.20	
HDC2	0.35	9	iPd	21	19.50	0.5
IRZ2	0.41	44	iPd	21	20.40	0.3
CDM	0.43	106	iPc	21	20.30	-0.2
ICR	0.46	49	iP	21	21.20	0.2
SRA	0.48	327	iP	21	20.95	-0.2
POA2	0.51	353	iPd	21	22.20	0.6
EPA	0.51	308	iPc	21	20.70	-0.8
VPS2	0.52	354	iP	21	21.50	-0.3
			S	21	28.50	
CAO	0.91	272	iPc	21	28.10	-0.1
VACR	0.93	329	iPc	21	29.00	0.4
JTS	0.97	309	iPc	21	29.20	-0.2
IDC	1.00	162	iPd	21	29.70	-0.1
JCR	1.07	80	iP	21	26.90	-3.9X
TIG	1.08	126	iPc	21	31.30	0.3
ACR	1.43	135	iP	21	35.20	-0.7
JUD	1.43	290	iPc	21	36.30	0.3
CTCR	1.60	119	iPc	21	39.40	0.7
RIN3	1.62	313	iPc	21	39.70	0.9
PBC	1.68	138	iPc	21	39.40	-0.3
DVD	2.11	126	iPc	21	45.60	-0.2
UPA	4.64	98	iPc	22	21.90	0.1
	0.9s	788.24nm				
			iS	23	12.00	
TPX	9.45	304	eP	23	33.30	4.2X
PSO	10.84	141	eP	23	51.50	2.9X
BOG	11.22	116	eP	23	58.00	4.2X
			eS	26	36.00	
BMG	11.29	102	eP	23	51.00	-3.5X
SDV	13.40	92	eP	24	22.30	-0.5
			eS	26	46.60	
TOV	14.19	88	eP	24	33.60	0.5
			iS	27	09.70	
OXX	14.24	302	eP	24	36.50	2.5X
CEOS	15.65	91	eP	24	51.50	-0.8
MORO	15.66	84	eP	24	51.60	-0.8
IISM	15.77	307	eP	24	55.70	2.0
IIT	16.53	306	(P)	25	07.80	4.2X
GUAC	16.67	87	eP	25	06.00	0.7
ACX	16.84	297	eP	25	12.50	5.2X
CAR	17.01	86	eP	25	10.00	0.4
LLAV	17.13	86	eP	25	10.50	-0.5
OLLA	17.13	87	eP	25	11.00	-0.1

III	17.16	302	eP	25	12.50	1.0
CRX	17.83	305	eP	25	24.00	3.9X
SVB	22.75	79	eP	26	17.21	3.9X
SVV	22.79	79	eP	26	11.62	-2.1
SSV	22.82	79	eP	26	16.17	2.2
PRM	24.35	4	P	26	29.00	0.3
JSC	24.64	6	P	26	31.00	-0.4
TKL	25.87	1	P	26	44.00	0.9
GBTN	25.87	360	P	26	44.00	0.9
BLA	27.63	6	P	27	00.50	1.3
VVO	27.64	339	e(P)	27	02.30	3.0X
RLO	28.15	341	eP	27	02.70	-1.2
TUL	28.17	340	eP	27	02.90	-1.2
	0.7s	5.20nm			4.4mb	
Z	19s	1.13um			4.5Msz	
			e	27	15.00	
			LR	35	00.00	
LNO	28.18	340	iP	27	02.90	-1.1
MEO	28.25	334	eP	27	04.00	-0.9
	0.6s	6.40nm			4.5mb	
CVL	28.65	9	P	27	09.00	0.6
FVM	28.74	350	P	27	07.50	-1.7
ARE	28.84	154	e(P)	27	10.00	-0.7
ACO	30.13	336	eP	27	20.50	-1.2
ZOBO	30.28	148	P	27	24.70	0.8
Z	24s	1.38um			4.5MszX	
			LR	34	04.00	
LPB	30.52	148	P	27	30.00	4.3X
			LR	35	08.00	
CNCB	30.81	149	P	27	29.50	1.0
CCH	32.26	146	P	27	44.50	3.6X
ALQ	32.36	324	eP	27	40.10	-1.4
	0.8s	5.41nm			4.5mb	
ATB	34.35	110	Pc	27	58.50	-0.2
GOL	35.37	331	eP	28	06.80	-0.7
	1.1s	6.65nm			4.5mb	
GLA	36.58	314	eP	28	19.00	1.4
BAR	37.71	312	eP	28	25.00	-2.1
TPC	38.00	315	eP	28	31.00	1.5
MSU	38.14	323	P	28	30.00	-0.8
PLM	38.19	313	eP	28	33.00	1.7
RVR	38.88	314	eP	28	43.00	6.1X
MWC	39.49	313	eP	28	49.00	6.9X
SBB	39.56	314	eP	28	43.00	0.4
BW06	39.75	330	P	28	43.60	-0.6
	1.0s	5.94nm			4.3mb	
CLC	39.99	316	eP	28	48.00	1.9
ISA	40.52	315	eP	28	52.00	1.6
TNP	40.99	319	P	28	55.00	0.5
	0.7s	5.19nm			4.4mb	
KVN	42.11	320	P	29	03.50	-0.1
PRS	42.88	314	eP	29	10.60	0.8
CMB	43.06	317	e(P)	29	13.20	2.0
BAO	43.79	125	eP	29	12.00	-5.4X
BKS	44.24	316	ePc	29	26.90	6.2X
Z	20s	1.50um			4.9Msz	
N	20s	1.50um				
E	20s	1.20um				
			e	36	09.00	
			eLR	45	48.00	
SES	46.27	336	eP	29	35.00	-1.8
FFC	47.11	346	eP	29	42.00	-1.3
	1.3s	12.00nm			4.8mb	
VAO	48.80	132	eP	29	55.10	-1.9
PNT	49.31	330	eP	30	00.00	-0.5
	0.7s	8.00nm			4.9mb	
ITA	50.12	130	eP	30	06.60	-0.8
FRB	55.13	8	eP	30	41.50	-2.3
YKC	57.09	344	eP	30	55.00	-3.0X
YKA	57.14	344	P	30	56.20	-2.1
INK	66.81	342	eP	32	02.00	-0.9
MBC	69.21	352	eP	32	16.00	-1.8
	0.5s	6.00nm			5.0mb	
FBA	70.25	336	eP	32	23.80	-0.6
DAG	75.11	13	eP	32	51.00	-1.9
TIC	78.27	85	P	33	13.00	1.3
LIC	78.32	86	P	33	13.20	1.2
KIC	78.59	85	P	33	14.50	1.1
DOU	81.88	41	Pc	33	30.70	0.5
MEM	82.73	40	P	33	35.40	0.8
WLF	82.93	41	Pc	33	36.60	0.9
KOGH	83.05	85	eP	33	38.00	0.9
LEGH	83.17	85	eP	33	39.00	1.3
NB2	84.22	29	P	33	41.60	-0.5
	1.1s	9.00nm			4.9mb	
GRF	86.18	40	eP	33	41.00	-11.1X
	1.0s	24.00nm				

Z 20s 0.40um 4.8Msz

MOX	86.26	39	ePc	33	53.00	0.5
BRG	87.66	39	e(P)	34	00.20	1.0
KHC	87.80	41	iPc	34	01.50	1.5
KBA	88.08	43	e(P)	34	02.00	0.4
ZST	90.29	41	eP	34	13.00	1.3
KKN	141.39	15	PKP	40	41.70	-1.5
WB5	141.45	250	ePKP	40	39.60	-3.6X
WRA	141.47	250	PKPd	40	41.70	-1.5
	0.6s		1.80nm			
SHL	144.77	6	ePKP	40	47.60	-1.4
MTN	145.24	261	iPKPd	40	51.40	1.6
			e	40	59.00	
HYB	148.13	32	ePKP	40	57.50	3.0X
	1.2s		64.30nm			
GBA	150.55	39	PKP	41	04.70	6.6X
MUN	150.85	217	ePKP	41	07.00	8.8X
CHG	151.53	354	ePKP	41	11.00	11.4X
KOD	153.09	43	ePKP	41	10.60	8.3X

S.D. = 1.1 on 96 of 121 obs.

FEB 26, 1989 12h 25m 02.33± 0.33s
9.646 N ± 2.9km 84.225 W ± 3.1km
DEPTH = 11.3 ± 3.4 km
COSTA RICA (78)
MD 3.1 (SJR), 3.4 (HDC). Felt (III) at San Marcos, San Pablo and Guaitil. Also felt at San Jose, Heredia and Cartago.

QCR	0.21	163	iP	25	02.00	-5.0X
QPS	0.26	159	iPc	25	08.50	0.6
SJS	0.34	30	iPc	25	09.90	0.5
			S	25	12.90	
HDC2	0.39	14	iPd	25	10.20	-0.2
IRZ2	0.46	45	iPd	25	11.80	0.0
			S	25	19.50	
CDM	0.46	101	iP	25	11.70	-0.2
SRA	0.49	333	iP	25	12.10	-0.2
EPA	0.50	313	iP	25	12.40	-0.1
ICR	0.51	49	ePc	25	13.00	0.1
POA2	0.53	357	iPd	25	12.70	-0.4
CAO	0.87	274	iPc	25	19.40	0.5
VACR	0.93	332	iPd	25	20.30	0.2
JTS	0.96	312	iP	25	20.20	-0.3
			S	25	35.00	
IDC	0.99	159	iPd	25	21.10	0.1
			S	25	35.70	
TIG	1.10	123	iPd	25	23.30	0.4
JCR	1.11	79	eP	25	19.00	-4.1X
JUD	1.40	292	iPc	25	28.00	0.2
ACR	1.44	133	iP	25	26.60	-1.6
RIN3	1.61	315	iPd	25	31.50	0.7
			S	25	54.10	
CTCR	1.63	117	ePc	25	31.40	0.2
			S	25	55.00	
PBC	1.69	136	iP	25	32.50	0.6
DVD	2.13	124	e(P)	25	38.60	0.4

S.D. = 0.6 on 20 of 22 obs.

FEB 26, 1989 12h 27m 38.18± 0.38s
39.136 N ± 3.5km 24.518 E ± 3.6km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.4 (ATH).

NEO	1.02	280	ePn	27	58.10	0.6
			eSn	28	13.40	
PAIG	1.02	321	ePb	27	57.70	0.2
ATH	1.32	209	iPnd	28	02.40	-0.2
			eSn	28	21.80	
PRK	1.37	85	ePn	28	03.10	-0.1
PLG	1.49	327	ePn	28	05.60	0.6
EZN	1.56	63	ePn	28	05.80	-0.2
LIT	1.84	302	ePn	28	09.20	-0.9
SOH	1.91	332	ePn	28	10.20	-0.9
			eSn	28	39.60	
THE	1.91	322	ePn	28	11.60	0.5
			eSn	28	41.60	
SRS	2.10	341	ePn	28	12.70	-1.2
RDO	2.15	21	ePn	28	15.00	0.4
KNT	2.37	329	ePn	28	17.80	0.0
KZN	2.42	300	ePn	28	18.60	0.1
MMB	2.52	346	iPd	28	19.00	-0.9
RZN	2.55	3	iP	28	21.00	0.5
KDZ	2.60	15	iP	28	20.00	-1.0
VAY	2.64	326	ePn	28	22.50	0.9
ITM	2.83	227	ePn	28	24.60	0.4
KKB	2.94	339	iPc	28	26.00	0.2
DIM	3.01	15	eP	28	27.00	0.2
DST	3.22	80	ePn	28	30.00	0.2
VTS	3.59	344	iP	28	36.00	0.8
SKO	3.68	321	ePn	28	35.00	-1.3
VAM	3.73	184	ePn	28	36.90	-0.2
MLR	6.44	9	ePd	29	16.50	1.0

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

? FEB 26, 1989 12h 31m 08.80± 4.37s
0.860 S ±47.7km 150.353 E ±14.5km
DEPTH = 33.0km (normal)
3.9mb (1 obs.)
NEW IRELAND REGION (190)

RAB	3.77	151	iPc	32	05.00	-1.1
			iS	32	28.00	
LAT	6.66	210	iPd	32	47.50	0.6
PAA	7.45	137	eP	32	59.00	0.9
WB5	24.54	219	eP	36	27.00	0.1
WRA	24.60	219	Pd	36	26.90	-0.6
	0.4s		1.30nm		3.9mb	
MBL	35.97	234	eP	38	24.30	15.6X

S.D. = 1.2 on 5 of 6 obs.

FEB 26, 1989 12h 39m 35.08± 0.46s
46.470 N ± 4.1km 13.186 E ± 4.1km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
MD 2.9 (KBA), 2.6 (TRI), 3.0 (LJU).

BOO	0.16	202	ePg	39	38.00	-0.8
BAD	0.24	170	ePg	39	40.50	0.3
MPRI	0.27	211	ePg	39	40.80	0.1
RBL	0.27	96	P	39	40.00	-0.7
			eSg	39	44.40	
FVI	0.31	294	P	39	40.80	-0.6
			eSg	39	47.80	
CSZ	0.39	271	ePg	39	42.60	-0.6
DRE	0.43	133	ePg	39	43.50	-0.5
KBA	0.62	10	iPgc	39	46.40	-1.3
			iSg	39	54.10	
VOY	0.66	131	ePgd	39	47.60	-0.7
			eSg	39	58.70	
VVI	0.72	228	P	39	51.00	1.7
			eSg	40	01.70	
TRI	0.86	152	ePg	39	51.30	-0.3
LJU	1.03	114	ePg	39	55.80	1.3
	0.4s		145.00nm			
			eSg	40	11.60	
SCE	1.16	300	iPgc	39	56.70	-0.2
KHC	2.68	6	Pn	40	20.00	1.0
			Pg	40	29.50	
			Sg	40	53.00	
WET	2.69	356	iPd	40	29.60	10.5X
PRU	3.64	14	Pn	40	33.80	1.2
			Pg	40	43.00	
			Sg	41	16.50	

S.D. = 1.0 on 15 of 16 obs.

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* FEB 26, 1989 12h 56m 06.90± 2.08s
2.225 N ± 8.0km 127.931 E ±11.7km
DEPTH = 69.0 ± 18.8 km
5.3mb (9 obs.)
MOLUCCA PASSAGE (266)

MNI	3.19	256	ePc	56	55.90	0.2
			eS	57	36.10	
TSM	10.04	282	eP	58	29.50	-1.3
PMG	22.37	121	eP	01	06.00	5.5X
WB5	22.86	164	eP	01	05.00	-0.3
WRA	22.91	164	Pc	01	05.00	-0.8
	0.5s		4.20nm		4.1mb X	
MBL	24.56	198	eP	01	21.80	0.1
QIS	25.37	154	iPd	01	29.50	0.1
			e	01	35.00	
LOE	29.83	302	iPd	02	10.00	0.1
NST	30.48	298	eP	02	16.10	0.5
WHN	30.96	337	eP	02	21.00	1.3
GYA	31.58	322	P	02	27.00	1.6
CHG	32.83	302	iPc	02	35.80	-0.4
	1.0s		27.00nm		5.0mb	
KMI	33.28	315	Pd	02	42.50	2.1
TIA	35.27	345	eP	02	55.20	-1.8
XAN	36.29	333	Pd	03	05.10	-0.6
STK	36.31	160	eP	03	06.00	0.2
CD2	36.56	324	eP	03	08.00	0.0
BRS	37.94	143	iPc	03	25.20	5.6X
TIY	38.08	340	iPd	03	21.70	1.0
	Z 20s		1.10um		4.7Msz	
BJI	39.12	346	eP	03	28.00	-1.3
SNY	39.62	355	eP	03	31.90	-1.4
LZH	40.40	329	eP	03	41.50	1.4
	2.0s		357.00nm		5.9mb	
HHC	41.20	341	eP	03	46.40	-0.1
BWA	41.23	154	eP	03	48.90	2.1
BTO	41.50	339	eP	03	49.00	0.1
SHL	41.73	307	eP	03	51.30	0.1
LSA	44.33	312	P	04	14.70	2.1
GTA	45.00	329	iPc	04	18.80	1.4
			PcP	05	58.00	
PKI	47.81	306	P	04	40.00	-0.1
	0.6s		14.00nm		5.1mb	
KKN	48.01	306	P	04	41.60	0.1
	0.6s		23.00nm		5.3mb	
DMN	48.08	306	P	04	42.30	0.3
	0.8s		45.00nm		5.5mb	
GKN	48.61	306	P	04	46.10	0.1
	0.8s		40.00nm		5.5mb	
KOD	50.73	281	eP	05	03.50	0.9
HYB	50.76	291	eP	05	02.70	0.3
	1.2s		71.40nm		5.6mb	
GBA	51.16	286	Pc	05	02.50	-3.0
	0.8s		14.30nm		5.1mb	
WMQ	54.64	325	iPd	05	31.00	0.0
NDI	54.95	304	iPd	05	32.00	-1.4
POO	55.36	291	eP	05	35.50	-1.0
QUE	63.96	303	eP	06	35.00	-0.7
MAIO	71.37	308	eP	07	22.00	0.2
INK	91.11	22	eP	09	04.00	-0.9
DAG	98.91	353	iPc	09	39.40	-0.9
	0.7s		4.11nm		5.1mb	
GOL	115.86	43	ePKP	14	54.80	10.7X
	0.8s		3.17nm			
ALQ	117.13	49	ePKP	14	46.00	-0.5

S.D. = 1.1 on 41 of 44 obs.

FEB 26, 1989 14h 39m 17.36± 0.27s
9.662 N ± 2.6km 84.218 W ± 2.7km
DEPTH = 10.7 ± 2.6 km
COSTA RICA (78)
MD 3.9 (SJR), 3.9 (HDC). Felt (IV) at San Marcos, San Pablo and Guaitil; (III) in the Central Valley. Also felt at San Jose, Heredia and Cartago.

QCR	0.23	166	iPc	39	23.10	0.9
			S	40	26.00	
LCR2	0.23	69	iPc	39	22.50	0.1
			S	39	25.10	
QPS	0.27	162	iPd	39	24.00	0.9
SJS	0.32	30	iPd	39	24.20	0.1
HDC2	0.37	14	iPd	39	25.60	0.6
CDM	0.46	103	iPc	39	26.80	0.0
SRA	0.48	332	iPc	39	26.90	-0.2
			S	39	33.00	
EPA	0.49	311	iPc	39	27.30	-0.1
ICR	0.50	50	iPd	39	27.40	-0.2
POA2	0.51	356	iPd	39	28.20	0.3
			S	39	36.30	
CAO	0.87	273	iPc	39	34.20	0.1
VACR	0.92	331	iPd	39	35.00	0.0
JTS	0.96	311	iPc	39	35.30	-0.2
IDC	1.00	160	iPd	39	36.20	-0.1
JCR	1.10	80	iPd	39	34.40	-3.6X
			S	39	46.00	
TIG	1.10	124	ePc	39	37.80	-0.2
JUD	1.40	291	iPc	39	42.60	-0.3
			S	40	02.70	
RIN3	1.60	315	iPc	39	45.60	-0.2
			S	40	07.60	
CTCR	1.63	118	iPc	39	45.90	-0.4
PBC	1.70	137	iPd	39	23.60	-23.5X
DVD	2.13	125	eP	39	52.20	-1.1
			S	40	26.60	
UPA	4.67	98	iPc	40	29.50	0.0
	0.5s		42.25nm			
FRB	55.14	8	eP	48	52.00	0.2
YKA	57.14	344	P	49	06.80	0.6

S.D. = 0.5 on 22 of 24 obs.

26d 14h

? FEB 26, 1989 14h 41m 31.70± 5.09s
39.889 N ±37.4km 20.397 E ±12.5km
DEPTH = 10.0km (geophysicist)
GREECE-ALBANIA BORDER REGION (392)

LSK	0.30	31	iPgd	41	36.90	-1.2
TPE	0.50	324	iPgd	41	41.10	-0.8
KBN	0.80	23	ePg	41	46.50	-0.7
OHR	1.26	14	iPn	41	56.80	1.7
TIR	1.51	345	ePn	42	02.20	3.4X
PHP	1.80	1	ePn	42	03.50	0.6
VAY	2.19	48	ePn	42	08.30	-0.3
SKO	2.23	20	ePn	42	09.80	0.6

S.D. = 1.2 on 7 of 8 obs.

% FEB 26, 1989 15h 17m 03.66± 1.64s
46.797 N ±23.5km 0.907 E ± 7.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.3 (LDG).

LSF	0.70	142	Pg	17	17.70	0.3
			Sg	17	27.40	
MFF	0.75	255	Pg	17	18.30	0.0
			Sg	17	30.00	
TCF	1.03	119	Pn	17	22.40	-0.8
			Pg	17	23.50	
			Sg	17	37.60	
MAF	1.28	116	Pg	17	27.80	0.3
			Sg	17	44.30	
BGF	1.36	99	Pg	17	28.80	0.2
			Sg	17	45.70	

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

FEB 26, 1989 15h 56m 14.51± 1.07s
34.140 N ± 9.8km 26.199 E ± 6.7km
DEPTH = 44.4 ± 10.2 km
4.4mb (10 obs.)
CRETE (370)
MD 4.0 (ATH).

NPS	1.22	337	ePn	56	35.00	-0.4
KAP	1.62	29	ePb	56	43.50	2.4
VAM	2.08	308	ePn	56	49.80	2.3
KSL	3.40	54	ePn	57	07.60	1.1
ELL	3.99	48	iP	57	15.60	0.7
ITM	4.61	312	ePn	57	23.40	-0.2
KHL	4.96	32	eP	57	26.50	-2.0
CSS	5.94	80	eP	57	43.00	0.7
IKL	6.48	69	iP	57	49.50	-0.2
DSI	8.14	106	eP	58	11.00	-1.9
			eS	59	37.50	
PRNI	8.36	115	eP	58	14.00	-2.0
MBH	8.56	118	eP	58	17.50	-1.3
KHC	17.66	332	P	00	19.50	0.7
LPG	18.71	313	eP	00	32.60	0.7
BSF	19.97	319	eP	00	44.70	-1.1
CDF	20.06	321	eP	00	45.20	-1.5
	0.9s		20.90nm			4.5mb
HAU	20.31	319	eP	00	47.30	-2.0
	0.7s		5.20nm			4.0mb
AVF	21.40	313	eP	00	59.70	-0.6
	0.8s		5.30nm			4.0mb
WLF	21.42	322	P	01	00.50	0.0
SSF	21.44	314	eP	00	59.70	-1.0
BGF	21.60	312	eP	01	03.50	1.1
	0.7s		11.40nm			4.4mb
MEM	22.10	324	P	01	07.70	0.5
DOU	22.48	322	P	01	12.50	1.4
LDF	24.31	314	eP	01	28.10	-0.8
	0.7s		14.10nm			4.6mb
FLN	24.60	314	eP	01	30.90	-0.8
LPF	24.62	312	eP	01	31.30	-0.6
	0.7s		7.40nm			4.3mb
GRR	24.66	313	eP	01	31.50	-0.8
NUR	26.40	358	iP	01	49.40	1.0
SUF	28.60	360	eP	02	07.00	-1.3
NB2	28.60	345	P	02	06.60	-1.8
	0.9s		2.50nm			3.9mb
EKA	29.36	325	P	02	15.00	-0.3
	0.9s		8.70nm			4.4mb
KJF	30.10	1	eP	02	20.00	-1.7
BNG	30.40	195	ePc	02	26.90	2.1
	0.2s		4.00nm			4.8mb
KIC	39.78	233	P	03	56.00	11.1X
GKN	49.85	80	P	05	07.00	1.4
DMN	50.38	81	P	05	11.20	1.4
KKN	50.46	80	P	05	11.60	1.3
FRB	61.98	330	eP	06	32.00	0.1
YKA	78.68	343	P	08	14.50	1.4
FFC	80.93	332	eP	08	27.00	1.7
	0.9s		8.00nm			4.7mb

S.D. = 1.4 on 39 of 40 obs.

FEB 26, 1989 17h 02m 29.36± 1.23s
2.213 N ± 4.6km 126.588 E ± 7.6km
DEPTH = 88.4 ± 11.4 km
5.1mb (17 obs.)
MOLUCCA PASSAGE (266)

MNI	1.91	246	ePd	02	59.70	-1.1
			eS	03	29.60	
PCI	7.43	245	ePd	04	18.90	1.9
			eS	04	43.50	
TSM	8.73	283	ePd	04	35.30	0.4
MTN	15.63	163	eP	06	02.00	-3.9X
			e	06	09.00	
			eS	09	00.00	
KNA	17.98	173	eP	06	33.00	-2.1
	0.7s		102.00nm			5.2mb
WB5	23.25	161	iPc	07	29.00	-0.7
			eS	11	38.10	
WRA	23.30	161	Pc	07	29.10	-1.1
	0.7s		47.40nm			5.0mb
QIZ	23.41	317	eP	07	32.20	0.9
MBL	24.15	196	iPd	07	38.90	0.4
GZH	24.40	329	eP	07	42.00	1.1
QIS	25.98	151	iPc	07	54.60	-1.1
	0.2s		22.00nm			5.3mb
NANU	26.89	203	eP	08	04.40	0.5
	0.4s		6.00nm			4.5mb
PSI	27.64	272	eP	08	11.70	0.8
WARB	28.23	180	eP	08	07.00	-9.0X
LOE	28.71	303	iPc	08	20.00	-0.5
SSE	29.18	350	eP	08	25.00	0.5
	1.1s		14.00nm			4.5mb
CTA	29.39	140	iPc	08	28.30	1.8
	1.0s		15.00nm			4.6mb
			e	11	08.50	
MEKA	29.70	195	iPd	08	29.40	0.2
WHN	30.47	339	eP	08	36.50	0.6
CHTO	31.70	303	iP	08	46.80	-0.2
	1.0s		35.00nm			5.1mb
MRWA	32.86	197	eP	08	57.10	0.2
FORR	32.91	178	iPd	08	56.80	-0.4
	0.3s		50.00nm			5.8mb
COOL	33.32	189	eP	09	00.50	-0.4
KLB	34.65	193	eP	09	13.00	0.7
	0.4s		11.00nm			5.1mb
MUN	35.40	195	eP	09	19.00	0.3
RMQ	35.67	145	iPd	09	27.10	6.1X
XAN	35.71	334	Pd	09	17.30	-4.0X
NWAO	36.05	193	eP	09	25.00	0.9
STK	36.78	158	iPd	09	30.20	0.0
TIY	37.65	341	eP	09	38.60	1.0
ADE	38.69	164	iPc	09	47.00	0.7
	0.8s		52.24nm			5.5mb
BRS	38.76	141	iPd	09	46.20	-0.8
BJI	38.82	347	eP	09	47.50	0.2
SNY	39.53	356	eP	09	53.30	0.2
LZH	39.74	331	eP	09	55.50	0.4
	1.0s		38.00nm			5.2mb
COO	40.56	145	eP	10	02.00	0.2
SHL	40.67	308	iP	10	02.10	-0.9
CN2	41.42	359	eP	10	08.00	-0.6
BWA	41.82	153	iPc	10	13.70	1.6
MDJ	42.31	3	eP	10	15.00	-0.9
CAN	42.83	153	eP	10	21.00	0.7
LSA	43.34	313	P	10	25.80	0.7
GTA	44.32	330	P	10	32.00	-0.5
PKI	46.74	307	P	10	51.10	-1.0
	0.5s		14.00nm			5.1mb
KKN	46.94	307	P	10	52.90	-0.6
	0.5s		20.00nm			5.2mb
DMN	47.00	307	P	10	53.80	-0.2
	0.9s		64.00nm			5.5mb
GKN	47.54	307	P	10	57.40	-0.8
	0.6s		27.00nm			5.3mb
HYB	49.51	291	eP	11	13.00	-0.3
GBA	49.88	286	Pd	11	13.60	-2.5
	0.7s		4.10nm			4.6mb
NDI	53.84	304	iPc	11	44.60	-1.0
WMQ	53.88	326	eP	11	47.00	1.2
MAIO	70.32	308	eP	13	36.00	0.3
KJF	91.89	334	eP	15	28.00	-0.7
SUF	92.83	333	eP	15	33.00	0.0
NUR	93.95	331	iP	15	42.50	4.3X
NB2	100.07	333	Pdiff	16	05.80	-0.3
	0.9s		1.80nm			4.7mb
ZOBO	159.88	135	PKP	22	24.00	3.4X

S.D. = 0.9 on 51 of 57 obs.

FEB 26, 1989 18h 39m 35.68± 0.54s
39.130 N ± 5.4km 24.558 E ± 5.2km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	1.05	280	iPbd	39	55.40	-0.1
ATH	1.33	210	iPbd	39	59.70	-0.5
			eSb	40	18.40	
PRK	1.34	85	ePb	40	00.50	0.2
PLG	1.51	326	ePb	40	03.20	0.4
EZN	1.53	63	ePn	40	02.90	-0.2
MMB	2.54	346	iP	40	23.00	5.4X
RZN	2.56	3	iPd	40	18.00	0.0
ITM	2.85	228	ePn	40	22.60	0.6
KKB	2.96	338	iP	40	23.00	-0.5
PGB	3.43	355	iPd	40	50.00	19.7X
VTS	3.61	344	eP	40	33.00	0.1

S.D. = 0.4 on 9 of 11 obs.

? FEB 26, 1989 19h 36m 17.66± 4.20s
39.982 N ±19.2km 23.861 E ±32.7km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 2.3 (THE).

PAIG	0.15	248	ePg	36	20.90	-0.2
			eSg	36	23.30	
SOH	0.92	335	ePg	36	34.90	-0.4
			eSg	36	46.90	
LIT	1.06	277	ePg	36	37.90	0.3
			eSg	36	52.80	
SRS	1.15	350	ePb	36	39.30	0.1
			eSb	36	54.50	
KNT	1.39	328	ePb	36	43.30	0.3
			eSb	37	02.60	

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

FEB 26, 1989 20h 59m 25.49± 0.27s
23.838 S ± 8.4km 177.340 W ± 6.8km
DEPTH = 25.6km (9 depth phases)
5.3mb (13 obs.)
SOUTH OF FIJI ISLANDS (171)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 10S, 21C
Centroid Location:
Origin Time 20:59:29.5 1.2
Lat 23.93S 0.09 Lon 177.63W 0.10
Dep 24.6 5.0 Half-duration 1.4
Moment Tensor; Scale 10**16 Nm
Mrr=-5.88 0.37 Mtt= 1.94 0.59
Mff= 3.94 0.45 Mrt=-0.18 0.68
Mrf=-0.68 0.92 Mtf= 1.20 0.40
Principal Axes:

T	Val= 4.55	Plg= 4	Azm=115
N	1.38	1	25
P	-5.93	86	280

Best Double Couple:Mo=5.2*10**16
NP1:Strike=206 Dip=41 Slip= -88
NP2: 24 49 -91

SGE	7.63	324	eP	01	20.40	2.4
DZM	15.04	274	iPc	03	11.70	13.5X
KRP	15.31	202	P	03	04.40	3.0
BRS	27.15	256	iPd	05	04.80	-3.9X
			i	05	10.80	21km
			i	05	16.20	
RMQ	30.75	258	eP	05	50.00	8.9X
	1.0s		98.00nm			5.6mb
			e	05	57.00	24km
CAN	31.29	241	eP	06	02.80	17.0X
BWA	31.58	243	eP	05	47.20	-1.2
CTA	33.91	269	iP	06	09.40	0.7
	1.0s		83.00nm			5.6mb
			e	06	15.80	22km
			eS	11	35.00	
PMG	36.79	287	eP	06	33.00	-0.3
	1.0s		180.00nm			5.9mb

WRA	44.84	265	Pc	07	39.00	-0.6
	1.0s		14.50nm			4.8mb
WARB	50.49	255	eP	08	12.80	-10.8X
NANU	61.17	256	iPd	09	40.20	-0.3
SPA	66.30	180	e(P)	10	20.00	6.2X
	1.0s		15.00nm			5.1mb
ADK	75.39	0	eP	11	06.70	-1.6
	0.7s		22.90nm			5.3mb
MAW	78.65	200	eP	11	26.00	-0.4
SYP	79.57	45	eP	11	33.00	0.9
PRS	79.82	43	ePd	11	33.90	0.6
			e	11	41.90	25km
GCC	79.88	42	ePd	11	33.90	0.4
BCH	79.91	44	P	11	34.70	0.8
PRI	80.14	43	ePd	11	35.90	0.8
			e	11	43.80	25km
BRK	80.26	41	eP	11	36.00	0.4
LLA	80.27	43	e(P)	11	36.20	0.5
BKS	80.28	41	eP	11	36.20	0.5
	0.8s		31.00nm			5.4mb
MHC	80.30	42	ePd	11	36.60	0.7
ARN	80.37	42	P	11	36.80	0.6
MWC	80.64	46	eP	11	38.00	0.1
BAR	80.66	48	eP	11	37.00	-0.8
PLM	80.92	48	eP	11	40.00	0.6
RVR	80.96	47	eP	11	39.00	-0.3
SBB	81.08	46	eP	11	40.00	0.0
FRI	81.27	43	eP	11	40.90	0.0
CMB	81.51	42	ePd	11	42.30	0.1
ORV	81.80	40	ePd	11	43.80	0.2
WDC	81.86	39	ePd	11	43.30	-0.6
			e	11	52.50	29km
CLC	81.90	45	eP	11	44.00	-0.3
TPC	81.91	47	eP	11	44.00	-0.4
GSC	82.11	46	eP	11	46.00	0.6
TNP	83.50	44	eP	11	52.80	0.1
	1.0s		22.50nm			5.3mb
			epP	12	02.00	29km
KVN	83.54	42	iP	11	53.00	0.1
			epP	12	01.50	27km
CN2	85.30	322	eP	12	01.00	-0.3
PSI	85.35	275	e(P)	12	02.00	-0.2
BMW	85.38	34	P	12	02.00	0.2
LON	86.30	35	P	12	05.00	-1.3
RMW	86.76	34	P	12	08.80	0.2
MSU	86.99	45	P	12	10.40	0.3
PMR	88.11	13	eP	12	14.30	-0.3
	0.8s		8.60nm			5.1mb
TTA	88.11	10	e(P)	11	58.90	-15.8X
BJI	88.68	315	eP	12	16.50	-1.3
DPW	88.90	35	eP	12	19.00	0.2
			epP	12	28.00	28km
ALQ	89.01	51	eP	12	19.50	-0.3
	1.1s		14.56nm			5.2mb
PNT	89.08	34	eP	12	20.00	0.4
	1.1s		23.00nm			5.4mb
TIY	89.95	312	eP	12	24.90	0.9
LRM	90.89	39	eP	12	28.80	0.4
BW06	90.98	43	P	12	28.00	-0.8
	1.0s		12.50nm			5.2mb
FBA	91.36	12	eP	12	29.10	-0.7
IMA	91.42	9	eP	12	30.00	-0.2
	1.4s		17.40nm			5.2mb
CHG	91.94	290	eP	12	34.90	1.5
GOL	92.12	47	P	12	34.00	-0.2
SES	94.20	36	eP	12	42.00	-1.2
ZOBO	100.23	113	(Pdiff	13	13.00	0.9
			LR	46	20.00	
FRS	122.44	203	iPKPc	18	19.50	-0.9
QUE	123.03	291	ePKP	18	21.00	-0.8
MAIO	129.91	298	ePKP	18	34.00	-0.8
KJF	136.42	344	iPKP	18	45.00	-1.1
	0.7s		9.30nm			
SUF	138.04	344	iPKP	18	47.60	-1.7
	0.8s		5.00nm			
NB2	142.35	353	PKP	18	51.60	-5.5X
	0.9s		12.70nm			
UPP	142.50	348	iPKP	18	51.80	-5.5X
LWI	143.69	228	iPKPc	18	58.20	-2.8
MUD	147.07	353	iPKP	19	07.00	2.0
EKA	148.25	6	PKP	19	09.00	2.0
	1.0s		21.20nm			
BHL	149.53	297	PKP	19	14.00	4.2X
HRI	149.57	295	iPKPd	19	15.50	5.6X
BBTK	150.04	309	iPKP	19	15.50	5.0X
DSI	150.11	292	iPKPd	19	16.40	5.8X
KRA	150.56	337	iPKPd	19	16.00	5.3X

	1.2s		75.00nm			
			e	19	23.00	
IKL	150.57	302	iPKP	19	16.00	4.8X
MBH	150.70	289	iPKPd	19	18.00	6.5X
WIT	150.91	355	ePKP	19	18.00	6.9X
			e	19	26.50	
KSP	151.04	342	iPKPd	19	17.70	6.3X
	0.8s		50.00nm			
SPC	151.16	336	ePKP	19	18.20	6.3X
MLR	151.32	325	ePKPc	19	18.00	5.8X
CLL	151.43	346	iPKP	19	18.20	6.2X
	1.1s		43.00nm			
GPA	151.56	312	iPKP	19	17.90	5.3X
BRG	151.63	345	ePKP	19	12.30	0.0
			i	19	18.60	
			i	19	27.50	
			e	19	51.00	
CJR1	151.64	329	ePKP	19	19.50	7.0X
WTS	151.71	355	ePKP	19	18.00	5.7X
	1.0s		63.00nm			
			i	19	27.60	
PRU	152.29	343	ePKP	19	20.00	6.7X
MOX	152.35	348	ePKP	19	20.00	6.6X
	1.2s		21.00nm			
ENN	153.00	355	e(PKP)	19	22.00	7.8X
	1.0s		37.00nm			
			e	19	33.00	
ZST	153.12	338	ePKP	19	31.00	16.5X
MEM	153.15	355	PKP	19	22.00	7.6X
KHC	153.33	344	ePKP	19	10.50	-4.4X
			e	19	23.50	
GRF	153.34	348	e(PKP)	19	23.00	8.2X
SNF	153.34	358	PKPc	19	34.00	19.3X
DOU	153.75	357	PKP	19	31.60	16.3X
WLF	154.08	355	PKP	19	24.40	8.6X
BNG	155.37	221	iPKPc	19	18.00	-0.6
	0.5s		18.00nm			
			ic	19	43.00	
			ic	19	50.00	

S.D. = 1.0 on 63 of 97 obs.

FEB 26, 1989 22h 06m 22.78± 0.41s
39.137 N ± 3.7km 24.481 E ± 4.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.5 (ATH).

NEO	0.99	280	ePn	06	42.00	0.4
			eSn	06	58.50	
PAIG	1.00	322	ePn	06	41.90	0.1
ATH	1.31	207	iPnd	06	46.10	-0.9
			eSn	07	05.50	
PRK	1.40	85	ePn	06	47.10	-1.2
PLG	1.47	327	ePn	06	49.60	0.3
EZN	1.58	64	ePn	06	51.50	0.6
SOH	1.89	333	ePn	06	54.50	-1.0
THE	1.89	322	ePn	06	55.30	-0.1
SRS	2.09	341	ePn	06	56.70	-1.6
RDO	2.16	22	ePn	06	59.80	0.5
KNT	2.36	330	ePn	07	02.90	0.8
			eSn	07	43.20	
KZN	2.39	300	ePn	07	02.60	-0.1
GRG	2.42	319	ePn	07	02.80	-0.2
MMB	2.52	347	iPd	07	04.00	-0.4
RZN	2.55	4	iPd	07	05.00	-0.1
KDZ	2.61	16	iP	07	05.00	-0.7
VAY	2.63	327	ePn	07	06.50	0.6
ITM	2.81	227	ePn	07	09.40	0.9
KKB	2.93	339	eP	07	11.00	0.8
DST	3.25	80	ePn	07	16.00	1.2
PGB	3.42	356	iPc	07	27.00	9.8X
VTS	3.58	345	eP	07	20.00	0.3
VAM	3.73	184	ePn	07	21.50	-0.2
BBTK	6.44	81	eP	08	27.00	26.8X

S.D. = 0.8 on 22 of 24 obs.

FEB 26, 1989 22h 14m 04.57± 0.62s
39.124 N ± 7.4km 24.549 E ± 5.4km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.0 (ATH).

NEO	1.05	280	iPnd	14	24.30	0.0
ATH	1.32	210	iPnd	14	28.40	-0.6
			eSn	14	47.40	
PRK	1.34	84	ePn	14	29.40	0.1
PLG	1.51	326	ePb	14	31.80	0.1
EZN	1.54	62	ePn	14	32.00	-0.1
KZN	2.45	300	ePn	14	45.00	-0.3
VAY	2.67	326	e(Pn)	14	57.30	9.0X
ITM	2.84	228	ePn	14	51.50	0.8

S.D. = 0.5 on 7 of 8 obs.

FEB 26, 1989 22h 45m 14.66± 0.63s
39.092 N ± 7.1km 24.541 E ± 6.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.1 (ATH).

NEO	1.05	282	iPgd	45	33.90	-0.5
ATH	1.29	210	iPbd	45	38.00	-0.6
			eSb	45	58.80	
PRK	1.35	83	ePb	45	40.10	0.6
PLG	1.53	327	ePb	45	41.60	-0.5
EZN	1.56	61	ePn	45	42.00	-0.5
RDO	2.19	20	ePn	45	51.50	-0.1
KZN	2.46	300	ePb	45	56.60	1.1
VAY	2.69	326	ePn	46	03.30	4.6X
ITM	2.81	228	ePn	46	01.00	0.5

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

FEB 26, 1989 23h 54m 36.96± 0.27s
39.155 N ± 2.6km 24.506 E ± 2.5km
DEPTH = 9.7 ± 1.7 km
4.7mb (14 obs.)
AEGEAN SEA (365)
ML 4.3 (ATH). Felt on Skiros.

PAIG	1.00	321	ePg	54	56.30	0.4
			eSg	55	11.20	
NEO	1.01	279	iPnc	54	56.50	0.4
ATH	1.33	208	iPnd	55	00.80	-0.8
			eSn	55	19.50	
PRK	1.37	86	iPnd	55	01.50	-0.7
PLG	1.47	326	ePn	55	03.90	0.4
EZN	1.56	64	iPn	55	04.20	-0.6
LIT	1.82	302	ePb	55	07.40	-1.2
			eSb	55	30.60	
SOH	1.89	332	ePn	55	09.20	-0.4
THE	1.89	322	ePn	55	09.20	-0.4
SRS	2.08	341	ePn	55	11.60	-0.8
RDO	2.14	21	iPnd	55	13.40	0.2
KNT	2.35	329	ePn	55	16.60	0.3
KZN	2.40	299	iPnd	55	17.00	-0.1
GRG	2.42	319	ePn	55	17.20	0.0
MMB	2.50	347	iPc	55	18.00	-0.4
RZN	2.54	4	iPc	55	19.00	0.0
KDZ	2.59	15	iPc	55	19.00	-0.6
VAY	2.62	326	iPn	55	20.50	0.4
ITM	2.83	227	ePn	55	23.00	-0.1
KKB	2.92	339	iPc	55	25.00	0.7
PLD	2.95	3	iPc	55	26.00	1.3
DIM	3.00	15	iP	55	26.00	0.7
LSK	3.18	289	iPnc	55	29.20	1.2
KBN	3.20	298	iPnc	55	30.00	1.8
DST	3.23	81	iPn	55	28.10	-0.6
PGB	3.40	356	iPc	55	31.00	-0.2
OHR	3.45	306	iPnd	55	32.40	0.5
VTS	3.57	344	iP	55	34.00	0.3
DMK	3.64	42	ePn	55	33.20	-1.3
TPE	3.65	290	iPnd	55	37.50	2.8X
SKO	3.66	321	iPn	55	35.50	0.7
Z	10s		5.92um			
N	10s		25.00um			
			i	56	17.00	
			iSn	56	28.00	
			i	56	36.00	
			i	56	40.00	
			LQ	56	41.00	
			LR	56	52.00	
JMB	3.66	25	iPd	55	35.00	0.1
VAM	3.75	184	ePn	55	34.60	-1.5
ISK	3.98	60	eP	55	46.00	6.7X
NPS	3.98	167	ePn	55	38.70	-0.7
PHP	4.00	310	iPnd	55	40.60	0.9
KHL	4.01	100	iP	55	39.50	-0.4
PVL	4.11	8	iPc	55	40.00	-1.1
GBZT	4.13	65	ePn	56	24.00	42.5X
TIR	4.17	303	iPnc	55	47.00	4.9X
KAP	4.18	149	ePn	55	40.60	-1.6
SZH	4.25	14	eP	55	44.00	0.9
ALT	4.36	90	iP	55	44.00	-0.9
LACI	4.42	306	ePn	55	51.50	5.9X
GPA	4.62	74	iP	55	47.60	-0.9

26d 23h

SDA	4.76	308	ePn	55	54.00	3.5X
ELL	4.90	118	iP	55	53.60	1.0
KSL	5.04	125	ePn	55	55.40	1.0
BCK	5.07	108	iP	55	53.20	-1.8
LCI	5.19	285	P	55	54.40	-2.1
BUC	5.39	12	eP	56	32.00	32.7X
DRA	5.52	358	ePd	56	01.00	-0.2
BRT	5.86	289	P	56	05.30	-0.7
TLB	6.03	25	eP	56	10.00	1.7
ISR	6.17	14	eP	56	11.00	0.7
TDS	6.35	277	P	56	12.00	-0.9
			eSn	57	26.70	
BEO	6.42	333	e(P)	56	16.50	2.7X
			i	56	38.80	
BBTK	6.42	81	eP	56	24.00	9.9X
MLR	6.42	9	ePc	56	13.50	-0.5
SOI	6.71	263	P	56	15.50	-2.4
VRI	6.91	13	ePd	56	21.00	0.3
MGR	6.98	281	P	56	22.00	0.3
ATN	7.15	265	P	56	19.40	-4.7X
BSS	7.63	285	P	56	30.60	-0.2
CJR1	7.64	355	eP	56	30.00	-0.9
MEU	7.82	258	P	56	29.20	-4.5X
			(Sn)	57	57.30	
SDI	8.54	291	P	56	43.00	-0.7
PTJ	9.23	320	e(P)	56	52.00	-1.1
SPC	10.49	344	eP	57	09.50	-1.0
ZST	10.50	332	e(P)	57	12.10	1.6
			e	57	29.60	
KBA	11.36	318	eP	57	20.00	-2.5
	1.0s	23.20nm			5.5mb X	
			i	57	22.70	
			e	58	15.00	
KRA	11.37	345	eP	57	23.00	0.6
KHC	12.68	325	iPc	57	40.00	0.0
			e	57	51.60	
BRG	13.88	331	e(P)	58	06.50	10.7X
LPG	14.57	302	eP	58	05.40	0.1
	1.3s	39.70nm			4.9mb X	
CLL	14.58	330	eP	58	04.00	-1.1
MOX	14.65	326	e(P)	58	13.00	7.0X
MSL	15.00	95	eP	58	15.00	4.3X
			e	05	26.00	
CDF	15.48	312	eP	58	17.80	0.9
BSF	15.48	310	eP	58	16.60	-0.4
	1.1s	16.60nm			4.2mb	
HAU	15.83	310	eP	58	21.80	0.4
AKUR	16.75	153	eP	58	36.10	2.8
AKUR	16.75	153	eP	58	38.50	5.2X
WLF	16.76	315	Pc	58	41.70	8.5X
SMF	16.86	303	eP	58	33.10	-1.5
AGRW	17.00	153	eP	58	38.00	1.7
LOR	17.06	305	eP	58	36.40	-0.7
	1.5s	62.60nm			4.5mb	
BHD	17.07	104	ePc	58	42.00	4.8X
			e	06	44.00	
AKSR	17.08	152	eP	58	39.00	1.6
TAB	17.09	87	eP	58	45.00	7.4X
SSF	17.22	304	eP	58	38.70	-0.3
AVF	17.23	303	eP	58	39.90	0.8
	1.3s	57.70nm			4.5mb	
BGF	17.49	302	eP	58	42.40	0.0
	1.6s	124.30nm			4.8mb	
MAF	17.58	301	eP	58	44.70	1.2
	1.2s	39.80nm			4.4mb	
DOU	17.84	314	Pc	58	51.80	5.0X
	0.9s	27.50nm			4.4mb	
LDF	20.03	306	eP	59	14.20	1.5
	1.2s	55.90nm			4.8mb	
FLN	20.31	306	eP	59	16.50	0.8
	1.0s	45.60nm			4.8mb	
GRR	20.43	305	eP	59	16.30	-0.6
	0.9s	26.20nm			4.6mb	
LPF	20.45	304	eP	59	16.70	-0.4
NB2	23.42	344	P	59	45.60	-1.2
	0.9s	23.80nm			4.7mb	
SUF	23.62	2	eP	59	48.00	-0.6
IFR	24.46	266	iP	59	40.50	-16.8X
EKA	24.55	320	P	59	59.00	1.2
	1.0s	23.60nm			4.8mb	
KJF	25.15	3	eP	00	00.50	-2.9X
MAIO	27.72	85	eP	00	31.00	3.5X
			eS	05	16.00	
BNG	34.98	190	iPc	01	30.80	-0.7
	1.5s	13.00nm			4.6mb	
			id	01	44.00	
TIC	41.90	227	Pc	02	30.04	0.8
	1.3s	84.00nm			5.3mb	
KIC	41.97	227	Pc	02	30.66	0.8
	0.2s	84.00nm			6.1mb X	
LIC	42.24	227	Pc	02	33.04	1.0
FRB	56.99	328	eP	04	25.00	0.4
YKA	73.50	342	P	06	13.00	1.8
FFC	75.87	331	eP	06	26.00	1.0
	1.0s	18.00nm			5.1mb	

S.D. = 1.0 on 90 of 112 obs.

FEB 27, 1989 00h 20m 55.45± 0.33s
39.145 N ± 3.4km 24.568 E ± 3.6km
DEPTH = 8.0 ± 2.4 km
4.0mb (1 obs.)
AEGEAN SEA (365)
ML 3.8 (ATH), 3.7 (THE).

PAIG	1.04	319	ePn	21	14.80	-0.4
NEO	1.06	279	ePn	21	15.20	-0.4
PRK	1.33	85	ePn	21	20.40	0.3
ATH	1.35	210	iPnd	21	19.60	-0.8
			eSn	21	38.50	
PLG	1.50	325	ePb	21	22.90	0.2
EZN	1.52	63	ePn	21	21.50	-1.4
LIT	1.87	301	ePn	21	26.30	-1.7
SOH	1.92	331	ePn	21	27.60	-1.1
THE	1.93	321	ePn	21	29.50	0.7
			eSn	22	02.60	
SRS	2.11	340	ePn	21	30.00	-1.4
RDO	2.13	20	ePn	21	32.50	0.7
KNT	2.39	328	ePn	21	34.80	-0.7
			eSn	22	16.50	
KZN	2.45	299	iPnd	21	36.80	0.4
GRG	2.46	318	ePn	21	35.70	-0.8
MMB	2.52	346	iPc	21	37.00	-0.4
RZN	2.54	2	iPc	21	38.00	0.2
VAY	2.66	325	ePn	21	39.50	0.2
ITM	2.86	228	ePn	21	42.20	0.0
KKB	2.94	338	iPc	21	43.00	-0.4
PLD	2.96	2	eP	21	45.00	1.5
DST	3.18	80	ePn	21	46.10	-0.7
LSK	3.22	289	ePn	21	47.40	0.0
KBN	3.24	298	ePn	21	49.00	1.4
PGB	3.42	355	iPc	21	50.00	-0.1
OHR	3.49	305	ePn	21	55.80	4.6X
VTS	3.59	344	iP	21	53.00	0.3
DMK	3.61	41	ePn	21	53.00	0.1
SKO	3.69	321	ePn	21	54.00	-0.1
VAM	3.74	185	ePn	21	56.20	1.4
BERA	3.88	295	iPnc	22	00.10	3.5X
ISK	3.94	59	eP	22	03.00	5.5X
KHL	3.96	100	eP	21	59.00	1.1
NPS	3.96	168	ePn	21	57.00	-0.9
PHP	4.05	310	ePn	22	00.60	1.6
PVL	4.11	8	eP	21	58.00	-1.8
KAP	4.15	149	ePn	21	59.70	-0.7
TIR	4.22	303	ePn	22	05.50	4.1X
ALT	4.31	89	eP	22	02.00	-0.9
GPA	4.57	74	eP	22	08.00	1.5
BBTK	6.37	81	eP	22	42.80	10.7X
MLR	6.42	9	ePc	22	32.50	-0.3
VRI	6.91	13	ePc	22	40.00	0.6
NB2	23.44	344	P	26	06.50	0.8
	0.9s	3.90nm			4.0mb	

S.D. = 1.0 on 38 of 43 obs.

? FEB 27, 1989 00h 35m 19.17± 3.86s
23.354 S ±39.0km 66.775 W ±46.5km
DEPTH = 251.3 ± 13.3 km
JUJUY PROVINCE, ARGENTINA (128)

HJA	1.27	84	iPd	35	56.10	-0.1
CCH	5.97	6	eP	36	48.00	0.1
CNCB	6.61	350	eP	36	57.00	0.8
LPB	6.90	349	eP	36	59.00	-0.7
ZOBO	7.16	350	P	37	03.00	-0.2
	0.5s	12.99nm			4.2mb X	
			S	38	23.00	
VAO	18.22	93	eP	39	17.00	0.7
BAO	19.29	70	eP	39	27.00	-0.3
BMA	20.83	93	e(P)	39	42.00	-0.4

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

FEB 27, 1989 00h 46m 26.31± 0.62s
39.146 N ± 5.8km 24.528 E ± 5.9km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.2 (ATH).

NEO	1.03	279	iPnd	46	45.90	0.2
ATH	1.33	209	iPnd	46	50.10	-0.8
			eSn	47	09.40	
PRK	1.36	85	ePn	46	52.10	0.9
PLG	1.48	326	ePn	46	53.10	0.0
EZN	1.55	63	ePn	46	53.50	-0.4
RDO	2.14	21	eP	47	02.60	0.1
KZN	2.42	299	ePn	47	06.30	-0.3
MMB	2.52	346	iPd	47	07.00	-0.9
RZN	2.54	3	iPc	47	09.00	0.6
VAY	2.64	326	ePn	47	11.40	1.8
ITM	2.84	227	ePn	47	13.00	0.5
KKB	2.93	338	iPd	47	14.00	0.2
PGB	3.41	356	eP	47	19.00	-1.7
VTS	3.58	344	eP	47	30.00	6.8X

S.D. = 0.9 on 13 of 14 obs.

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* FEB 27, 1989 01h 09m 42.45± 0.93s
24.147 S ± 9.4km 66.889 W ±10.9km
DEPTH = 199.8 ± 9.2 km
4.5mb (3 obs.)
SALTA PROVINCE, ARGENTINA (129)

HJA	1.65	56	iPd	10	19.00	1.3
CCH	6.77	6	iPc	11	27.50	6.8X
CNCB	7.37	352	iPd	11	29.20	0.2
LPB	7.66	351	Pd	11	33.10	0.4
	0.8s	149.25nm			5.3mb X	
ZOBO	7.92	351	iPd	11	35.00	-1.3
	0.5s	81.82nm			5.2mb X	
PEL	9.56	200	iPd	11	56.00	-1.0
ITB1	11.40	95	e(P)	12	29.80	9.1X
ITB7	11.61	97	e(P)	12	29.50	6.1X
VAO	18.30	90	iPc	13	43.70	-0.4
			i	13	47.80	
ITA	20.46	90	eP	14	05.70	-0.6
			e	14	07.80	
BMA	20.91	91	ePc	14	11.10	0.6
			e	14	13.70	
ATB	25.11	37	e(P)	14	48.40	-2.2
FVM	65.64	340	iP	20	07.10	0.1
	1.0s	22.00nm			4.9mb	
KIC	67.70	72	P	20	20.00	-0.5
ALQ	69.72	326	eP	20	33.20	0.5
	0.9s	2.73nm			4.0mb	
KVN	79.03	322	eP	21	27.00	1.1
BNG	87.64	84	iPd	22	11.90	2.1
	0.6s	6.00nm			4.6mb	
GBA	144.75	101	PKPd	28	57.40	-0.2

S.D. = 1.2 on 15 of 18 obs.

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* FEB 27, 1989 02h 07m 18.19± 2.44s
16.244 N ±12.7km 60.600 W ±15.2km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 2.8 (FDF).

DEG	0.45	279	ePc	07	27.48	0.2
			S	07	33.60	
SFG	0.57	271	eP	07	29.97	0.2
MGG	0.76	245	ePd	07	33.83	0.8
			S	07	41.60	
SEG	0.88	280	eP	07	34.60	-0.5
			S	07	43.20	
PAG	1.06	259	eP	07	38.20	0.0
			S	07	52.90	
BBL	1.11	230	eP	07	38.76	-0.2
			S	07	54.10	
DPMT	1.24	218	eP	07	41.05	-0.1
			eS	07	58.28	
DTMT	1.24	216	eP	07	40.82	-0.4
			eS	07	58.28	
FDF	1.59	200	iPc	07	46.25	-0.3
			S	08	07.30	
MVM	1.70	190	eP	07	48.44	0.3
			S	08	10.80	
BIM	1.78	195	eP	07	49.41	0.2
			S	0B	12.60	

S.D. = 0.4 on 11 of 11 obs.

% FEB 27, 1989 07h 45m 46.97± 1.86s
23.090 N ± 9.6km 121.368 E ±16.3km
DEPTH = 10.0km (geophysicist)
TAIWAN (244)

TWF1	0.27	346	iPd	45 52.80	0.2
			eS	45 56.80	
TWG	0.38	226	iPd	45 54.90	0.1
			eS	46 00.70	
TWK	0.83	282	iPc	46 02.90	-0.1
			eS	46 14.90	
TWD	1.01	12	ePc	46 05.90	-0.1
			eS	46 20.60	
TWO	1.28	338	ePc	46 10.70	0.0
			eS	46 28.10	

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

% FEB 27, 1989 07h 57m 49.38± 1.25s
36.357 N ±10.3km 140.157 E ± 9.7km
DEPTH = 57.8 ± 15.8 km
NEAR EAST COAST OF HONSHU, JAPAN(228)
MG 3.7 (JMA). Felt (II JMA) ot Mito and (I JMA) at Utsunomiyo.

KAKJ	0.15	175	iPd	57 58.10	-0.3
			S	58 04.30	
MIT	0.26	85	iP+	57 59.50	0.5
			iS	58 07.00	
UTS	0.30	309	iPd	57 59.30	0.0
			iS	58 06.60	
CHJJ	0.99	252	iPd	58 06.50	-0.8
			S	58 19.00	
NIIJ	1.28	314	iPd	58 11.30	0.0
YAMJ	1.82	357	P	58 19.40	0.7
			eS	58 42.60	
MTMJ	1.91	278	iPd	58 20.20	0.0
IIDJ	2.02	245	iP+	58 22.40	0.7
			S	58 47.30	
OFUJ	2.97	23	P	58 34.20	-0.9

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

? FEB 27, 1989 08h 21m 37.45± 1.28s
42.783 N ±11.7km 18.774 E ± 9.5km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.2 (TTG).

NKY	0.17	80	iPgc	21 42.50	1.2
			eSg	21 46.50	
BRY	0.21	305	iPgc	21 42.30	0.3
			iSg	21 46.50	
TTG	0.50	134	ePg	21 47.20	-0.5
			eSg	21 55.70	
PLE	0.71	40	ePg	21 50.60	-0.9
			eSg	22 01.70	

S.D. = 1.6 on 4 of 4 obs.

FEB 27, 1989 11h 12m 38.95± 0.67s
40.068 N ± 6.2km 27.815 E ± 5.2km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.28	8	iPg	12 45.00	0.2
			iSg	12 48.00	
DST	0.78	126	iPg	12 54.20	0.1
			iSg	13 05.20	
EZN	1.17	259	ePn	13 00.70	-0.1
YLV	1.29	67	iPn	13 03.70	0.8
ISK	1.37	43	ePn	13 03.70	-0.4
GBZT	1.44	59	ePn	13 04.40	-0.6
			iSg	13 25.00	
HRT	1.60	61	ePn	13 07.00	-0.4
DMK	1.75	359	iPn	13 09.10	-0.4
GPA	1.92	83	ePn	13 12.40	0.3
KHL	2.19	142	ePn	13 21.00	5.0X
MLR	5.59	346	eP	14 05.00	0.7

S.D. = 0.6 on 10 of 11 obs.

? FEB 27, 1989 11h 17m 01.14±16.60s
32.718 N ±105.km 141.018 E ±94.9km
DEPTH = 33.0km (normal)
SOUTH OF HONSHU, JAPAN (211)
MG 3.4 (JMA). Felt (I JMA) on Hachijo-jima.

HJJ	1.10	291	iP	17 20.20	-0.1
			iS	17 27.10	
KAKJ	3.55	349	iP+	17 55.80	0.6
CHJJ	3.72	334	iP+	17 57.00	-0.6
			S	18 31.70	
IIDJ	3.77	318	P	18 02.20	3.8X
MTMJ	4.68	326	P	18 12.30	0.9
NIIJ	4.81	340	P	18 12.20	-0.8

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

% FEB 27, 1989 12h 18m 11.15± 1.96s
36.226 N ±15.9km 140.131 E ±15.1km
DEPTH = 48.3 ± 24.1 km
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ	0.04	121	iPd	18 18.70	0.1
			S	18 24.20	
CHJJ	0.94	259	iPd	18 27.40	-0.7
			S	18 40.10	
NIIJ	1.36	318	iP+	18 34.10	0.1
			S	18 53.60	
MTMJ	1.91	281	P	18 42.10	0.2
YAMJ	1.95	358	P	18 42.60	0.3
			eS	19 07.60	
IIDJ	1.95	248	P	18 42.90	0.4
			S	19 07.30	
OFUJ	3.10	23	eP	18 58.40	-0.3

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

& FEB 27, 1989 13h 59m 45.03s
60.186 N 152.956 W
DEPTH = 119.2km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM	0.11	181	iP	00 01.09	1.0
			eS	00 13.03	
RDT	0.48	35	iP	00 02.44	-0.6
			eS	00 18.05	
PDB	0.74	238	iP	00 03.97	-0.9
			eS	00 18.97	
NNL	0.84	99	iP	00 05.99	0.2
NKA	1.02	56	iP	00 08.42	1.0
			eS	00 24.82	
CNPM	1.09	127	eP	00 07.62	-0.6
			eS	00 24.86	
SPU	1.09	24	iP	00 07.42	-0.9
			eS	00 25.67	
CRP	1.15	20	iP	00 08.45	-0.6
CGLM	1.22	22	iP	00 08.83	-0.8
SLKM	1.40	75	eP	00 10.58	-1.0
SVW	1.61	306	iP	00 12.36	-1.7
SEW	1.76	91	eP	00 14.48	-1.3
			eS	00 37.51	
PMS	1.98	56	iP	00 17.25	-1.4
			eS	00 42.88	
PWA	2.10	44	eP	00 19.79	-0.4
PLRM	2.34	51	eP	00 21.60	-1.7
KDC	2.46	174	iP	00 21.90	-2.8
KNK	2.53	59	eP	00 23.63	-2.1
GHO	2.53	49	eP	00 23.67	-2.1
			eS	00 54.00	
KNIM	2.61	84	iP	00 23.64	-3.1
MTU	2.67	92	eP	00 25.89	-1.6
			eS	00 57.24	
SML	2.78	52	eP	00 27.33	-1.7
GLI	2.98	74	eP	00 29.96	-1.7
FID	3.26	77	eP	00 33.22	-2.2
VZW	3.27	72	eP	00 34.64	-1.1
KLU	3.68	66	eP	00 38.42	-2.8

25 obs. associated

? FEB 27, 1989 14h 48m 01.18± 2.87s
54.600 N ±30.1km 161.888 W ±21.6km
DEPTH = 33.0km (normal)
ALASKA PENINSULA (12)
ML 3.5 (PMR).

SDN	1.09	47	iPc	48 19.90	-0.3
KDC	6.12	55	eP	49 32.00	0.4
SVW	7.33	25	eP	49 50.30	1.7
TTA	8.89	18	e(P)	50 10.00	-0.3
PMS	9.34	40	eP	50 14.60	-1.8
YKA	25.37	53	P	53 27.20	0.8
MBC	26.84	21	eP	53 40.00	0.1
NAO	64.78	4	P	58 37.50	-0.6
	1.1s		7.20nm		4.7mb

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

& FEB 27, 1989 14h 58m 46.90s
58.144 N 155.312 W
DEPTH = 113.8km
ALASKA PENINSULA (12)
<AGS-P>.

KDC	1.56	104	iPc	59 13.80	-1.1
PDB	1.75	19	iP	59 15.84	-1.5
			eS	59 39.56	
ILIM	2.29	31	iP	59 23.44	-0.9
			eS	59 49.06	
CNPM	2.53	55	eP	59 26.99	-0.5
NNL	2.81	46	eP	59 31.34	0.1
RDT	2.86	30	eP	59 30.48	-1.4
			eS	00 05.68	
SVW	2.98	357	iPd	59 30.50	-3.0
SPU	3.47	27	eP	59 38.60	-1.4
CRP	3.52	26	eP	59 36.16	-4.7
SLKM	3.52	46	eP	59 39.67	-1.1
CGLM	3.59	26	eP	59 40.53	-1.2
SEW	3.60	54	eP	59 40.26	-1.6
			eS	00 22.22	
SDN	4.01	228	eP	59 40.00	-7.3
PMS	4.26	41	eP	59 48.80	-2.0
MTU	4.36	62	iP	59 50.96	-1.2
			eS	00 39.10	
PWA	4.46	36	eP	59 51.10	-2.3
KNIM	4.47	57	eP	59 51.26	-2.4
PLRM	4.65	39	eP	59 52.92	-3.2
PMR	4.65	39	eP	59 53.00	-3.1
KNK	4.77	44	eP	59 54.83	-2.9
TTA	4.82	356	eP	59 54.90	-3.5
MID	4.84	71	eP	59 57.20	-1.5
GHO	4.85	39	eP	59 55.70	-3.2
GLI	5.00	53	eP	59 57.91	-3.0
HIN	5.05	60	eP	59 59.98	-1.6
SML	5.08	41	eP	59 58.53	-3.5
FID	5.21	56	iP	00 01.06	-2.7
VZW	5.32	53	eP	00 03.19	-2.1
VLZ	5.45	53	eP	00 05.30	-1.7
CVA	5.45	60	eP	00 05.06	-2.0
SGAM	5.69	61	iP	00 08.45	-1.9
KLU	5.81	51	eP	00 09.34	-2.7
TOA	6.05	45	eP	00 13.70	-1.7
GLB	6.68	55	iP	00 21.64	-2.3
FBA	7.67	25	eP	00 32.50	-4.8
IMA	7.99	5	eP	00 38.40	-3.5
YKA	20.36	60	eP	03 38.10	22.2
FRB	39.41	44	ePc	06 02.20	-4.2

38 obs. associated

& FEB 27, 1989 15h 13m 08.00s
38.827 N 111.616 W
DEPTH = 23.9km
UTAH (478)
<SLC-P>. ML 4.2 (SLC). Felt (V) at Goshen; (IV) at Aurora, Clawson and Ferron; (III) at Axtell, Centerfield, Emery, Fayette, Glenwood, Koosharem, Manti, Mayfield, Redmond, Salina and Sterling.

MSU	0.54	235	iPc	13 18.60	-0.3
DAU	1.61	10	iPd	13 36.70	1.2
DUG	1.65	326	eP	13 35.50	-0.4
RW1	3.05	100	eP	13 57.20	1.1
RW4	3.21	101	eP	13 59.50	1.1
BW06	4.25	21	eP	14 12.50	-0.5
TNP	4.46	262	eP	14 15.50	-0.5
GOL	4.92	78	iPnc	14 23.80	1.2
HPI	5.01	348	eP	14 24.90	1.1
GLD	5.05	77	eP	14 25.50	1.2
KVN	5.06	275	eP	14 24.30	-0.2
GSC	5.44	231	eP	14 48.00	18.2
CLC	5.63	240	eP	14 54.00	21.5
ALQ	5.67	132	eP	14 33.00	-0.1
GLA	6.32	205	eP	14 53.00	10.8
SBB	6.47	232	eP	14 49.00	4.7
PLM	6.92	219	eP	14 38.00	-12.7
LRM	7.02	355	eP	14 55.50	3.4
BAR	7.38	215	eP	14 44.00	-13.0
RSON	17.44	41	eP	17 11.00	-0.1
	0.6s		2.03nm		3.4mb

20 obs. associated

FEB 27, 1989 17h 09m 13.45± 0.53s
4.370 S ± 6.0km 135.550 E ± 8.7km
DEPTH = 33.0km (normal)
3.9mb (3 obs.)
WEST IRIAN REGION (196)

AAI	7.37	275	eP	11 01.00	-0.5

27d 17h

MTN	9.49	207	eP	11	32.00	1.1
			eS	13	18.00	
PMG	12.56	114	eP	12	13.00	0.3
KNA	13.13	210	iPc	12	20.60	0.4
	0.3s	30.00nm			5.8mb	X
			eS	14	42.00	
WB5	15.46	184	eP	12	49.90	-0.9
			i	13	01.00	
			eS	15	32.10	
WRA	15.52	184	P	12	52.00	0.3
	0.9s	5.60nm			3.8mb	
OIS	16.57	167	eP	13	04.00	-1.0
			e	13	12.00	
			eS	16	04.00	
CTA	18.78	147	iPc	13	36.00	3.4X
	0.6s	8.67nm			4.1mb	
			e	15	51.00	
			eS	17	24.00	
			i	18	36.00	
MBL	22.62	221	eP	14	17.00	4.2X
WARB	23.31	201	eP	14	14.80	-4.7X
			eS	18	34.00	
NANU	26.50	225	eP	14	54.50	4.6X
BWA	32.20	160	eP	15	44.10	3.3X
CHTO	42.78	304	eP	17	09.00	-1.0
	1.1s	2.36nm			3.8mb	
XAN	45.73	329	eP	17	33.00	-0.5
TIY	47.06	335	eP	17	43.90	-0.1
LZH	50.00	326	e(P)	18	07.50	0.5
WMO	64.40	323	iPc	19	49.00	0.3
MAIO	81.40	308	eP	21	30.00	1.1
CNCB	148.64	133	PKP	29	01.00	4.4X
LPB	148.73	132	PKP	29	05.00	8.4X
	S.D. = 0.8		on 13 of 20 obs.			

& FEB 27, 1989 19h 03m 09.47s
37.596 N 118.886 W
DEPTH = 3.5km
CALIFORNIA-NEVADA BORDER REGION (40)
<REN>. MD 3.5 (REN). ML 3.4 (BRK). Felt in the Mammoth Lakes, California area.

FRI	0.89	228	iPc	03	25.90	-1.2
			iS	03	37.70	
MNA	1.01	34	ePc	03	28.30	-1.1
			e(S)	03	42.20	
CMB	1.27	291	iPc	03	32.40	-1.2
			iS	03	48.60	
TNP	1.41	69	ePc	03	35.60	-0.6
KVN	1.58	23	ePc	03	38.40	-0.1
PKEM	1.82	213	eP	03	42.80	1.0
LLA	1.91	240	iPc	03	43.70	0.5
ISA	1.96	170	iPc	03	45.20	1.3
PRI	2.04	225	ePc	03	45.50	0.4
CLC	2.06	149	iPc	03	47.20	1.9
ARN	2.12	264	eP	03	46.60	0.3
PHAM	2.14	215	eP	03	46.60	0.1
SAO	2.21	249	iPc	03	48.00	0.5
MHC	2.21	264	iPc	03	48.05	0.4
			iS	04	17.40	
PRS	2.36	238	iPd	03	50.20	0.6
GCC	2.54	258	ePc	03	52.10	-0.1
BCH	2.59	202	eP	03	52.30	-0.8
BKS	2.67	277	eP	03	54.40	0.3
BRK	2.69	277	e(P)	03	53.90	-0.4
ZSP	2.69	278	ePd	03	55.00	0.6
PCC	2.78	269	e(P)	03	55.60	-0.1
ORV	2.83	314	ePc	03	59.40	3.0
EUR	2.96	50	iP	04	03.80	5.3
MIN	3.47	323	e(P)	04	12.20	6.7
	24 obs. associated					

? FEB 27, 1989 19h 06m 52.64± 1.16s
39.278 N ±11.6km 27.743 E ± 8.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

DST	0.76	64	iPn	07	07.30	-0.2
EDC	1.07	5	ePn	07	13.00	0.2
EZN	1.22	297	ePn	07	15.30	-0.1
KHL	1.69	124	ePn	07	22.50	0.1
	S.D. = 0.3		on 4 of 4 obs.			

? FEB 27, 1989 19h 19m 22.45± 4.00s
31.363 S ±21.0km 68.797 W ±31.8km
DEPTH = 77.5 ± 45.6 km

SAN JUAN PROVINCE, ARGENTINA (137)

ZON	0.21	151	iPd	19	34.00	-0.2
			eS	19	46.00	
RTLL	0.28	83	iPd	19	34.90	0.3
			S	19	47.00	
CFA	0.54	117	iPd	19	36.20	-0.3
RTCV	0.54	156	iPc	19	36.80	0.2
RTRS	1.32	334	iPc	19	45.60	0.0
			S	20	05.00	
	S.D. = 0.5		on 5 of 5 obs.			

FEB 27, 1989 19h 58m 15.63± 0.45s
35.714 N ± 4.4km 140.237 E ± 5.2km
DEPTH = 72.1 ± 3.3 km
4.8mb (10 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)
Felt (II JMA) at Yokohoma and (I JMA) at Ajiro, Mito, Kawaguchi-ka, Tateyoma, Tokyo and Utsunomiya.

TOK	0.39	266	iPd	58	28.50	0.7
			iS	58	38.40	
KAKJ	0.49	354	iP+	58	27.40	-1.3
			S	58	35.40	
YOK	0.55	240	iPd	58	30.60	1.4
			iS	58	41.40	
MIT	0.69	16	iP+	58	30.20	-0.5
			iS	58	40.70	
TAT	0.79	203	iPd	58	32.70	0.8
			iS	58	45.20	
UTS	0.88	340	iP+	58	32.20	-0.8
			iS	58	43.60	
CHJJ	1.06	289	iPd	58	35.10	-0.2
			S	58	51.70	
AJI	1.15	235	iPd	58	36.40	0.0
			iS	58	51.00	
FUN	1.22	260	P	59	00.00	22.6X
NIIJ	1.82	327	iPd	58	45.10	-0.3
			S	59	08.40	
IIDJ	1.91	264	iPd	58	47.70	1.0
			S	59	13.10	
MTMJ	2.15	295	iPd	58	50.70	0.6
YAMJ	2.46	356	P	58	54.50	0.2
OFUJ	3.55	18	P	59	08.20	-1.2
			S	59	47.00	
WKYJ	4.09	250	P	59	17.30	0.1
AOMJ	4.84	1	P	59	27.50	0.0
TKSJ	5.37	253	P	59	35.00	-0.1
YONJ	5.55	267	P	59	37.50	-0.1
SHK	6.31	261	eP	59	48.00	0.0
HOOJ	7.07	19	P	59	55.10	-3.4X
			S	01	10.60	
KUSJ	8.15	24	P	00	08.30	-5.1X
			eS	01	33.50	
KUMJ	8.42	251	eP	00	18.70	1.5
KAGJ	9.02	243	eP	00	23.90	-1.5
MDJ	12.05	321	eP	01	06.00	-0.2
CN2	13.94	310	eP	01	34.00	3.0X
NJ2	18.12	265	eP	02	24.00	0.1
BJI	19.46	290	eP	02	37.50	-1.6
WHN	22.26	264	eP	03	08.50	0.9
			pP	03	27.40	87kmX
TIY	22.35	283	eP	03	10.30	1.7
	Z 20s		0.40um		3.8Msz	
XAN	25.69	275	P	03	39.10	-1.5
GYA	30.08	262	P	04	18.20	-2.2
CHG	40.05	256	eP	05	45.00	-0.4
WMO	40.60	298	eP	05	50.50	0.7
LSA	41.39	276	P	05	57.70	0.8
KKN	46.88	276	P	06	41.00	0.2
DMN	47.10	276	P	06	42.40	-0.1
GKN	47.32	277	P	06	44.20	0.1
MTN	49.06	192	iPd	06	56.80	-0.6
FBA	50.72	32	eP	07	10.50	0.9
	1.0s	5.00nm			4.5mb	
WB5	55.57	187	eP	07	45.00	-0.9
WRA	55.63	187	Pc	07	44.70	-1.6
	0.6s	7.10nm			4.9mb	
HYB	57.22	269	iPd	07	57.30	-0.6
	1.0s	25.00nm			5.3mb	
			e	08	19.50	
MBC	58.06	16	eP	08	03.00	0.0
MBL	59.78	202	eP	08	14.90	-0.5
GBA	60.17	265	Pd	08	17.10	-1.2
	0.8s	15.40nm			5.2mb	

NANU	62.50	206	iPd	08	33.80	0.0
YKA	65.42	30	P	08	53.10	0.7
SOD	65.81	337	iP	08	54.50	-0.4
DAG	67.01	355	eP	08	44.00	-18.4X
FORR	67.19	191	eP	09	03.30	-0.6
KJF	67.29	334	iP	09	03.60	-0.7
	0.7s	18.70nm			5.1mb	
SUF	68.73	333	iP	09	12.80	-0.5
	0.7s	5.00nm			4.6mb	
NAO	75.32	337	P	09	51.80	-0.6
	0.9s	6.10nm			4.5mb	
FFC	75.33	32	eP	09	53.00	0.5
	0.8s	11.00nm			4.8mb	
LRM	75.76	44	eP	09	56.60	1.2
FRB	78.27	13	eP	10	09.00	0.3
BRG	81.70	329	eP	10	27.70	0.5
	1.0s	14.00nm			4.9mb	
CLL	81.76	330	eP	10	27.00	-0.5
KHC	83.16	328	Pd	10	36.40	1.5
PRNI	83.85	303	iP	10	40.00	1.3
MBH	84.28	303	iP	10	42.00	1.2
ALO	86.17	49	eP	10	52.10	1.7
	1.0s	5.75nm			4.6mb	
ZOBO	148.17	60	PKPc	17	56.40	3.9X
LPB	148.36	60	PKP	17	57.00	4.4X
CNCB	148.63	60	PKP	17	55.00	1.8X
	S.D. = 0.9		on 57 of 65 obs.			

FEB 27, 1989 20h 27m 08.81± 0.77s
43.408 N ± 6.0km 5.445 E ± 6.0km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.0 (STR).

GELF	0.03	207	Pg	27	10.62	-0.2
TREF	0.22	348	Pg	27	13.17	-0.4
PUYF	0.22	56	Pg	27	13.19	-0.5
PRAF	0.44	333	Pg	27	18.22	0.4
VILF	0.49	24	Pg	27	18.18	-0.5
TAVF	0.49	65	Pg	27	18.52	-0.3
GANF	0.68	30	Pg	27	22.51	0.2
DOI	1.70	49	P	27	39.60	0.9
			eSn	28	01.90	
CKI	2.29	63	P	27	47.60	0.4
			(Sn)	28	21.90	
	S.D. = 0.6		on 9 of 9 obs.			

FEB 27, 1989 20h 49m 14.09± 0.51s
40.442 N ± 5.5km 28.474 E ± 4.4km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC	0.48	259	iPg	49	23.50	-0.3
			eSg	49	31.00	
YLV	0.70	79	iPg	49	28.20	0.3
CTT	0.70	357	ePg	49	26.90	-1.1
ISK	0.76	35	ePg	49	28.90	-0.1
			eSg	49	39.90	
GBZT	0.82	65	ePg	49	29.80	-0.1
			iSg	49	41.80	
DST	0.84	172	iPg	49	30.30	-0.1
			eSg	49	44.30	
HRT	0.98	67	ePg	49	32.90	0.1
GPA	1.41	96	ePn	49	39.70	-0.1
DMK	1.48	339	ePn	49	42.00	1.2
EZN	1.76	250	ePn	49	44.90	0.1
KHL	2.27	159	ePn	49	58.00	5.7X
	S.D. = 0.7		on 10 of 11 obs.			

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* FEB 27, 1989 21h 07m 31.73± 0.63s
17.666 S ± 9.6km 69.786 W ± 9.6km
DEPTH = 144.3km (4 depth phases)
4.9mb (3 obs.)
PERU-BOLIVIA BORDER REGION (118)

CNCB	1.92	64	iPd	08	09.00	2.4
LPB	1.97	55	iPd	08	09.00	2.0
			S	09	36.00	
ARE	2.02	306	iPc	08	07.10	-0.4
			iS	08	33.00	
ZOBO	2.11	49	iPd	08	10.30	1.4
	Z 18s	1.22um				
			iS	08	40.00	
			LR	09	20.00	
CCH	3.49	86	iPc	08	29.00	2.9
HJA	6.88	144	ePc	09	12.10	0.8
			S	10	30.00	

```
PEL     15.43 183 iPc    11 03.10    0.1
FCH     15.60 182 eP     11 07.50    2.1
ITB1    15.95 118 e(P)   11 07.50   -1.9
ITB     16.15 119 e(P)   11 08.80   -3.2X
ITB7    16.31 120 e(P)   11 08.30   -5.6X
BAO     20.98  88 eP     12 03.50   -1.6
VAO     22.03 108 eP     12 12.60   -2.9
                  e      12 21.80   33kmX
                  e      12 31.10
ATB     22.38  52 Pc     12 16.50   -2.2
8MA     24.56 106 ePd    12 39.70    0.0
                  e      12 51.10   44kmX
FVM     58.66 341 iP     17 15.00   -1.0
        1.0s     31.00nm          5.2mb
                 epP    17 50.00 148km
LIC     68.18  76 Pc     18 17.54   -1.3
        0.4s     35.00nm          5.6mb X
TIC     68.34  75 P      18 18.95   -0.9
KIC     68.49  76 Pc     18 19.74   -1.1
        0.6s    148.00nm          6.0mb X
BW06    70.40 330 eP     18 32.00   -0.2
                 epP    19 07.00 143km
TNP     71.11 322 iP     18 38.00    1.5
        0.9s      4.30nm          4.3mb
                 epP    19 13.00 143km
SCH     72.23   2 eP     18 41.00   -1.6
KVN     72.27 322 iP     18 43.80    0.4
                 epP    19 19.00 143km
FRB     81.15   1 eP     19 27.00   -4.8X
YKC     87.26 341 eP     20 03.00    0.4
YKA     87.31 341 P      20 03.80    0.9
BNG     89.74  85 ePd    20 15.80    0.3
        0.4s     5.00nm          4.9mb
                 id     20 23.30   23kmX
WB5    135.79 214 ePKP   26 30.20   -7.4X
GBA    148.20  93 PKP    27 04.00    4.6X
        0.9s     2.10nm
HYB    149.83  86 ePKP   27 07.70    5.8X
     S.D. = 1.6  on  24 of  30 obs.
-------------------------------------
?  FEB  27, 1989  23h 25m 21.14± 4.04s
   12.348 S ±42.2km  122.560 E ±19.4km
   DEPTH =  33.0km  (normal)
   4.1mb (  1 obs.)
 SOUTH OF TIMOR                  (293)

KNA      6.91 120 eP     27 03.00    0.3
                 eS     28 24.00
MTN      8.38  94 eP     27 24.00    0.7
                 eS     28 50.00
MBL      9.14 196 eP     27 35.40    1.6
NANU    12.17 212 eP     28 14.00   -1.1
        0.4s     7.00nm          5.2mb X
WB5     13.59 125 eP     28 33.30   -0.8
                 eS     30 58.50
WRA     13.60 125 Pc     28 33.60   -0.6
        0.4s     1.30nm          4.1mb
WARB    14.29 165 eP     28 35.00   -8.2X
                 eS     31 16.00
MEKA    14.69 194 eP     28 51.50    3.1X
     S.D. = 1.3  on   6 of   8 obs.
-------------------------------------
   FEB  27, 1989  23h 39m 10.82± 0.35s
    2.301 N ± 3.2km  128.009 E ± 4.2km
   DEPTH =  53.7 ±  3.1 km
   5.8mb ( 33 obs.)
 HALMAHERA                       (267)
      Ms 6.2 (BRK). At leost six
      schools ond a number of
      houses domoged in the Golelo
      orea. Two events obout 2.5
      seconds opart, observed on
      broodbond displocement
      seismogroms.
      FAULT PLANE SOLUTION: P-Woves
       NP1:Strike=  9 Dip=85 Slip= -45
       NP2:        104      45      -173
       Principol Axes:
        T                Plg=26  Azm= 65
        P                  34       316
      Comment: The focol mechonism is
        moderotely well controlled and
        corresponds to strike-slip
        foulting with o lorge normol
        component. The preferred foult
        plone is not determined.
      RADIATED ENERGY
        No. of sto:   5  Focal mech.  F
        Energy          8.0±3.0*10**13 Nm
      MOMENT TENSOR SOLUTION
      Dep  21              No. of sto: 13
      Moment Tensor;   Scole 10**18 Nm
        Mrr=-0.54        Mtt= 0.69
        Mff=-0.15        Mrt=-0.54
        Mrf=-1.60        Mtf=-3.24
       Principol axes:
        T  Vol=  3.65  Plg=10  Azm= 44
        N          0.11      62      152
        P         -3.76      26      309
      Best Double Couple:Mo=3.7*10**18
       NP1:Strike= 89 Dip=64 Slip=-168
       NP2:        354      79      -26
      CENTROID, MOMENT TENSOR     (HRV)
      Dato Used: GDSN
      L.P.B.: 15S, 40C  M.W.: 12S, 22C
      Centroid Location:
      Origin Time          23:39:13.4 0.2
      Lat  2.29N  FIX;Lon 127.97E  FIX
      Dep  22.8 1.6 Holf-duration  6.0
      Moment Tensor;   Scole 10**18 Nm
        Mrr=-0.25 0.05  Mtt=-0.36 0.04
        Mff= 0.61 0.05  Mrt=-2.15 0.28
        Mrf=-1.89 0.29  Mtf=-2.90 0.06
       Principol Axes:
        T  Val=  3.07  Plg= 2  Azm= 51
        N          1.61      57      143
        P         -4.67      33      320
      Best Double Couple:Mo=3.9*10**18
       NP1:Strike=100 Dip=66 Slip=-157
       NP2:          0      69      -26

MNI      3.28 255 ePc    40 01.50    0.5
                 eS     40 24.00
DAV      5.34 333 eP-    40 30.00    0.0
AAI      5.95 178 eP     40 40.20    1.7
TSM     10.10 281 ePd    41 37.00    1.0
        0.8s   469.70nm          6.7mb X
MKS     11.34 229 iPc    41 51.50   -1.3
        0.6s     75.30nm          5.9mb
                 i(S)   44 04.50
QCP     14.04 331 eP     42 28.00   -0.6
MTN     15.36 168 eP     42 43.00   -2.8
                 eS     42 50.00
                 e      45 25.00
BAG     15.81 333 ePd    42 48.00   -3.8X
        1.7s   753.85nm          5.6mb
                 eS     46 10.00
KHKI    16.28 229 ePd    42 58.10    0.6
                 e(S)   45 06.00
MNDI    17.74 118 eP     43 20.00    4.0X
KNA     17.95 178 iPd    43 17.70   -0.6
        0.9s   634.00nm          5.8mb
TRT     18.28 237 ePc    43 23.60    1.3
        0.6s   329.10nm          5.7mb
GUMO    20.09  55 eP     43 42.50   -0.3
        1.3s   954.25nm          6.0mb
PJG     20.09  55 eP     43 42.50   -0.3
GUA     20.10  55 eP+    43 42.00   -0.9
        1.2s   912.50nm          6.0mb
     Z  19s     29.86um          5.7Msz
LAT     20.94 115 eP     43 55.00    3.5X
PMG     22.34 122 e(P)+  44 05.00   -0.5
WB5     22.91 164 iPc    44 10.90   -0.2
                 eS     48 21.00
WRA     22.96 165 Pd     44 10.20   -1.4
        0.9s    85.00nm          5.2mb
ANP     23.59 345 iP-    44 19.50    1.7
                 iS     48 30.00
HKC     24.00 327 iPd    44 22.00    0.4
                 iS     48 41.00
MCO     24.20 326 eP     44 23.00   -0.6
KLI     24.20 253 eP     44 26.50    2.8X
QZH     24.27 339 iPd    44 24.50    0.2
        6.0s    17.50nm          3.7mb X
     Z  24s     40.30um          5.8MszX
     E  15s     15.30um
                 pP     44 36.50   47kmX
QIZ     24.34 314 eP     44 23.00   -2.0
     N  19s     22.00um
     E  17s     27.30um
                 PP     45 05.00
                 sS     48 59.50
KGM     24.67 270 ePc    44 30.60    2.4
GZH     25.08 327 iPd    44 31.60   -0.4
     Z  20s     24.80um          5.7Msz
     N  18s     19.00um
     E  15s     16.50um
                 iS     48 57.50
QIS     25.40 154 iPc    44 34.70   -0.4
                 e      50 55.00
IPM     27.03 276 ePc    44 49.80   -0.3
        1.5s   110.50nm          5.3mb
                 e      48 11.50
NANU    27.55 206 iPd    44 54.30   -0.4
        0.5s    72.00nm          5.6mb
SNG     27.72 281 eP     44 56.00   -0.3
        1.6s   320.00nm          5.7mb
                 eS     49 09.00
WARB    28.35 183 eP     44 51.00  -10.9X
CTA     28.56 142 iPc+   45 04.20    0.3
        1.6s    41.67nm          4.8mb
                 i      45 08.00
                 e      45 24.00
                 epP    46 01.00 296kmX
                 eS     50 05.00
                 eScP   50 39.00
                 ePcS   51 30.00
                 iSS    52 45.00
PSI     29.06 271 iPc    45 08.00   -0.5
        1.1s   129.00nm          5.5mb
SSE     29.36 348 iPc    45 10.00   -0.9
        1.5s   480.00nm          5.9mb
     Z  20s     16.30um          5.6Msz
     N  14s      5.40um
     E  14s     17.50um
                 iS     50 00.00
                 sS     50 16.00
                 SS     51 36.00
                 PcS    52 32.00
                 ScS    56 08.00
NNT     29.80 291 eP     45 13.20   -1.9
LOE     29.86 302 iPd    45 14.00   -1.6
                 e      51 29.00
MEKA    30.17 197 eP     45 16.90   -1.3
NST     30.51 297 iPd    45 22.20    0.9
NJ2     30.82 345 Pd     45 23.00   -0.9
     N  14s     11.40um
     E  15s     25.50um
                 S      50 23.00
WHN     30.93 337 iPd    45 26.00    1.2
        4.0s     4.40nm          3.5mb X
     Z  22s     39.20um          6.0Msz
     N  16s     16.40um
     E  20s     39.50um
                 sP     45 43.00
                 S      50 24.00
GYA     31.57 321 P      45 32.00    1.2
     Z  18s     14.30um          5.7Msz
     N  16s     13.00um
     E  16s     14.30um
BDT     32.13 299 iPd    45 33.70   -1.9
        0.6s    43.00nm          5.5mb
SHK     32.36   7 eP     45 36.00   -1.4
CHG     32.85 302 iPd    45 41.00   -0.9
        1.1s   176.58nm          5.8mb
                 eS     51 20.00
CHTO    32.85 302 iPd    45 40.34   -1.5
                 id     45 42.82
                 ePP    46 50.03
FORR    32.97 180 eP     45 40.00   -2.6
        0.4s    96.00nm          6.0mb
KMI     33.29 315 iPd    45 45.88    0.1
                 id     45 48.37
MRWA    33.39 199 eP     45 44.90   -1.5
COOL    33.64 191 iPd    45 46.60   -2.0
HNR     33.89 111 eP     45 59.00    8.1X
BAL     34.45 197 iPd    45 54.20   -1.3
RMO     34.94 146 eP     46 06.00    6.2X
                 e      47 28.00
                 e      48 46.00
                 e      52 22.00
KLB     35.09 195 eP     45 59.30   -1.6
        0.4s    29.00nm          5.6mb
TIA     35.21 345 Pd     46 01.00   -1.0
        8.0s     1.50nm          3.0mb X
     Z  22s     17.70um          5.8Msz
     N  14s     11.50um
     E  15s     16.20um
                 S      51 32.00
                 ScP    52 14.90
MAT     35.35  14 P      46 01.00   -2.2
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27d 23h

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MUN     35.88 197 eP     46 06.30  -1.4
      Z 22s    10.90um           5.6Msz
XAN     36.26 333 iPc    46 10.70  -0.2
        4.0s    6.30nm           3.9mb X
      N 18s    15.80um
      E 18s    12.90um
                  pP     46 22.70  44kmX
                  S      51 51.40
STK     36.36 160 iPd    46 11.90   0.2
                  e      46 17.00
                  e      52 25.00
NWAO    36.49 195 iPd    46 12.00  -0.8
        0.4s   17.00nm           5.3mb
CD2     36.54 324 Pd     46 13.70   0.4
      Z 18s    16.40um           5.9Msz
      N 17s    24.80um
DL2     36.90 352 P      46 16.00  -0.1
      Z 19s    12.70um           5.7Msz
      E 18s    42.90um
                  eS     51 56.00
BRS     37.96 143 Pd     46 16.30  -8.9X
                  i      46 23.30
                  i      46 27.30
                  i      46 36.30
                  i      46 45.30
                  iPcP   48 01.20
                  iS     51 58.20
                  e      52 20.20
                  iScP   52 26.00
TIY     38.04 340 iPd    46 26.00   0.2
        1.4s    0.60nm           3.3mb X
      E 20s    24.70um
                  pP     46 39.00  49kmX
                  PP     47 57.00
                  S      52 17.00
                  sS     52 34.00
ADE     38.41 166 iPc    46 29.10   0.2
        0.8s  238.81nm           6.1mb
BJI     39.07 346 Pd-    46 34.00  -0.3
      Z 24s    13.30um           5.7MszX
      N 14s     7.40um
                  eS     52 32.00
SNY     39.55 355 iPd    46 37.40  -0.9
      Z 22s    23.00um           6.0Msz
      N 16s    10.30um
      E 16s    24.80um
                  pP     46 50.50  49kmX
                  iS     52 37.50
COO     39.84 147 eP     46 41.00   0.1
LZH     40.37 329 iPd    46 46.99   1.6
                  id     46 49.31
HHC     41.15 341 Pd     46 52.50   0.9
      Z 26s    35.50um           6.1MszX
      E 18s    13.50um
                  pP     47 00.00  25kmX
                  S      53 04.00
BWA     41.26 154 eP     46 54.20   1.7
                  i      47 01.80
                  e      48 41.30
CN2     41.39 357 Pd     46 51.50  -1.8
        5.0s    1.10nm           2.9mb X
      Z 21s    19.60um           6.0Msz
      N 17s    12.70um
                  S      53 00.00
BTO     41.45 339 iPd    46 54.00  -0.1
      N 20s    16.20um
      E 23s    28.20um
                  S      53 03.00
SHL     41.75 307 iP     46 56.20  -0.6
                  eS     53 14.00
MDJ     42.16   2 iPd    46 59.00  -0.7
      Z 20s    24.30um           6.1Msz
      N 18s    13.70um
                  epP    47 10.00  39kmX
                  esP    47 16.00
                  ScS    57 00.00
CAN     42.27 154 eP     47 02.00   1.2
                  i      47 13.20
                  e      48 54.00
SAP     42.29  15 eP     47 03.00   2.3
                  eS     53 25.00
CNB     42.43 154 eP     47 03.00   0.9
                  e      47 12.00
TOO     42.86 159 iPd    47 07.40   1.9
                  e      47 13.00
LSA     44.34 312 Pd     47 19.20   1.0
                  iS     53 56.00
DZM     44.67 125 iPc    47 31.00  10.5X
GTA     44.97 329 iPd    47 23.10   0.4
        5.0s    3.40nm           3.4mb X
      Z 34s    20.70um           5.8MszX
      N 28s    46.80um
      E 28s    30.80um
                  PcP    49 04.30
                  PP     49 06.00
                  S      53 50.00
HIA     47.32 353 iPd    47 40.21  -0.8
                  id     47 43.02
                  iS     54 32.45
PKI     47.83 306 P      47 45.60  -0.2
KKN     48.03 306 P      47 46.80  -0.3
DMN     48.10 306 P      47 48.00   0.3
TAU     48.26 161 eP     47 51.00   2.7
                  e      49 52.00
                  eS     54 58.00
GKN     48.63 306 P      47 51.40  -0.3
KOD     50.80 281 eP     48 09.00   0.4
                  eS     55 20.00
HYB     50.80 291 iPd    48 08.00  -0.3
        1.4s 1700.00nm           6.9mb X
                  iS     55 20.00
GBA     51.22 286 P      48 10.60  -0.8
WMQ     54.62 325 iPd    48 36.82   0.4
                  id     48 39.14
NDI     54.97 304 iPd    48 38.00  -1.1
        0.6s  186.67nm           6.3mb
                  iS     56 20.00
POO     55.41 291 iPc    48 41.60  -0.9
                  iS     56 21.60
KRP     59.39 137 eP     49 15.00   4.8X
KSH     59.92 315 iPd    49 16.00   2.0
      Z 30s    16.50um           6.0MszX
      N 16s    10.10um
WEL     60.68 141 P      49 26.00   7.1X
SMY     63.06  29 P      49 34.10  -0.5
QUE     63.99 303 iPd-   49 41.00  -0.5
                  eS     58 15.00
ADK     67.43  33 eP     50 01.90  -0.9
        1.3s  160.40nm           5.9mb
MAIO    71.39 308 iPd-   50 28.00   0.4
        1.5s  202.70nm           5.8mb
                  eS     59 44.00
KHI     71.68 305 iPd    50 26.80  -2.7
HON     74.25  69 P      50 45.60   1.1
      Z 20s    12.77um           6.2Msz
PFH     77.02  71 P      51 01.00   0.7
SDN     77.65  34 eP     51 03.00   0.0
DHR     78.11 296 iPd    51 06.20   0.1
KER     81.19 304 ePd    51 22.50  -0.3
RYD     81.23 295 iPd    51 23.20   0.2
AVY     81.55 251 iPc    51 26.30   1.3
TTA     81.59  27 eP     51 25.20   1.0
TAB     82.03 308 iP-    51 28.00   0.9
KDC     82.45  32 eP     51 29.30   0.7
SLY     82.57 305 iP     51 29.00  -0.7
                  eS     01 45.00
                  e      06 29.00
                  iPcP   51 39.00
                  ePP    54 39.00
KMSA    83.13 290 iPd    51 32.50  -0.4
IMA     83.17  24 ePd    51 33.00   0.6
        1.5s  194.40nm           5.9mb
BHD     83.41 303 iPc    51 35.00   0.9
                  eS     01 31.00
                  ePS    02 01.00
                  e      02 07.00
MSL     84.50 306 iPc    51 40.00   0.5
                  eS     02 01.50
                  ePS    02 17.00
                  ePcP   51 48.00
                  ePP    54 55.00
PMR     84.58  28 ePd    51 39.00  -0.4
        1.3s  283.00nm           6.2mb
      Z 21s     8.00um           6.1Msz
ABHA    84.79 288 ePc    51 43.90   2.3
ARO     84.81 281 iPd    51 43.50   2.0
FBA     85.46  25 ePd    51 45.30   1.6
KVT     89.99 311 iP     52 06.20   0.1
JARJ    90.53 302 P      52 09.30   0.5
BHL     90.69 304 Pd     52 09.50   0.0
                  SKS    02 45.00
BURJ    90.69 302 P      52 09.00  -0.5
GLH     90.75 303 iPd    52 11.50   1.8
MASJ    90.75 302 P      52 10.40   0.6
SALJ    90.77 302 P      52 10.30   0.4
KFNJ    90.78 302 P      52 10.30   0.5
MKRJ    90.83 301 P      52 10.70   0.5
INK     91.01  22 eP     52 09.00  -1.2
NAI     91.25 269 iPc    52 15.50   2.8X
        1.0s   15.00nm           5.4mb
ZNT     91.31 302 iPd    52 13.50   1.2
MBH     91.59 300 iPd    52 14.80   1.2
KEV     91.66 340 eP     52 13.00  -0.1
      Z 20s     3.90um           5.8Msz
                  eSKS   02 40.00
                  eS     03 04.00
                  LR     41 20.00
IKL     92.15 306 iP     52 16.00   0.0
SOD     92.27 338 iP     52 15.10  -0.9
                  i      52 20.00
SPA     92.29 180 e(P)   52 25.20   9.0X
        1.0s   30.00nm           5.7mb
KJF     92.42 334 iP     52 16.00  -0.7
        0.9s   33.80nm           5.8mb
      Z 18s    10.70um           6.3Msz
                  eSKS   02 44.00
                  ePS    04 36.00
                  LR     36 40.00
                  i      52 26.30
ANTO    92.55 310 ePd    52 18.36   0.4
BBTK    92.58 310 eP     52 17.00  -1.1
                  e      52 20.00
MBC     93.06  13 eP     52 19.00  -0.5
SUF     93.40 333 eP     52 20.00  -1.2
AKSR    93.66 294 eP     52 23.50   0.3
AGRW    93.85 294 eP     52 24.50   0.4
AKUR    93.86 294 eP     52 24.50   0.4
NUR     94.56 331 eP     52 26.00  -0.6
      Z 23s     8.50um           6.1MszX
                  eSKS   03 00.00
                  ePS    04 52.00
                  LR     36 40.00
HLW     94.65 300 eP     52 34.00   6.3X
                  eS     03 00.00
                  e      56 06.00
ALE     95.14   1 eP     52 29.00   0.0
        0.7s    6.00nm           5.1mb
CFR     95.32 316 eP     52 30.00  -0.4
                  e      56 18.00
TLB     95.50 315 eP     52 30.50  -0.7
VRI     96.20 316 ePc    52 35.00   0.5
ISR     96.45 316 eP     52 25.00 -10.7X
MLR     96.81 316 iPc    52 37.00  -0.4
KDZ     97.87 312 eP     52 41.00  -1.1
UPP     98.12 331 iP     52 51.50   8.8X
                  iSKS   03 18.00
                  iS     04 02.00
                  iPP    56 45.80
DAG     98.84 353 iPc    52 44.50  -1.3
        1.3s   82.69nm           6.1mb
      Z 19s     2.08um           5.7Msz
MMB     99.12 313 eP     52 47.00  -0.8
LWI     99.28 268 ePd    52 53.40   4.1X
VTS     99.30 314 eP     52 49.00   0.2
KRA     99.75 322 eP     52 50.00  -0.4
                  e      52 57.50
SLR     99.76 244 iPc    52 55.60   4.5X
      Z 20s     5.67um           6.1Msz
                  e      56 56.80
SPC     99.78 321 eP     52 46.50  -4.4X
                  e      52 52.00
                  e      56 51.10
                  e      57 00.70
VAY    100.03 312 ePdiff52 50.40  -1.5
YKA    100.26  25 Pdiff 52 53.20   0.8
SKO    100.72 313 ePdiff52 56.00   1.0
      Z 20s     2.48um           5.7Msz
      N 20s     3.00um
      E 20s     3.01um
                  iPP    03 30.00
                  iSP    05 58.00
                  iSS    11 30.00
                  LR     44 15.00
                  i      56 27.00
NAO    100.89 334 Pdiff 52 53.60  -1.7X
        1.5s   42.50nm           5.8mb
KSP    101.75 323 ePdiff52 59.20  -0.1
                  e      57 08.50
PRU    103.08 323 ePdiff53 05.50   0.2
BRG    103.14 324 ePdiff53 05.60   0.1
        2.0s   44.00nm           5.9mb
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	Z 18s	5.50um			6.1Msz
	N 20s	3.50um			
	E 20s	3.00um			
		e	57	07.20	
CLL	103.54	324 ePdiff	53	05.00	-2.3
	2.7s	140.00nm			6.3mb
	Z 18s	6.00um			6.2Msz
		iPP	57	26.10	
KHC	103.97	322 iPdiff	53	10.30	1.0
BKS	104.06	50 ePdiff	53	25.00	15.1X
	Z 20s	6.00um			6.1Msz
	N 20s	1.50um			
	E 20s	5.00um			
		e(PP)	57	30.00	
		i	58	16.00	
MOX	104.60	324 e(Pdif	53	13.00	1.0X
	2.3s	27.00nm			5.7mb
	Z 18s	3.20um			5.9Msz
	N 17s	5.30um			
	E 18s	4.10um			
		eSKS	03	48.00	
		ePS	06	38.00	
		eSS	12	30.00	
		e	23	00.00	
		e	56	40.00	
		e	57	20.00	
		ePP	57	35.00	
GRF	105.20	323 ePKP	57	19.00	-9.9X
	1.7s	65.00nm			
	Z 20s	7.00um			6.2Msz
WTS	106.78	326 ePKP	57	49.00	17.2X
	1.5s	114.00nm			
KVN	106.86	48 PKP	57	34.50	1.8
SES	107.35	35 ePdiff	53	27.00	2.6X
FIR	107.36	317 ePKP	57	53.00	19.9X
ENN	107.83	326 ePKP	57	56.50	22.7X
	1.4s	71.00nm			
WLF	108.20	324 PKPc	57	39.20	4.7X
EUR	108.30	47 iPKP	57	37.00	1.6
	0.2s	7.82nm			
LRM	108.42	40 ePKP	57	37.30	1.8
BSF	108.63	323 ePKP	57	36.50	0.9
HAU	108.82	323 ePKP	57	37.20	1.3
BNG	109.20	275 ePdiff	53	39.90	6.5
	0.7s	6.00nm			
		id	57	40.00	
LPG	109.65	320 ePKP	57	38.00	0.1
	1.0s	16.00nm			
FFC	109.89	28 ePdiff	53	48.00	12.5X
	0.9s	9.00nm			
FFC	109.89	28 ePKP	57	42.00	4.4X
	1.2s	39.00nm			
BW06	111.57	42 PKP	57	43.00	1.5
GOL	115.75	43 iPdiff	54	16.60	14.3X
	0.7s	11.13nm			
GOL	115.75	43 iPKP	57	49.50	-0.2
	Z 20s	3.55um			6.0Msz
		e	57	55.00	
RSON	116.23	28 PKP	57	49.00	-0.9
ALQ	117.02	49 ePdiff	53	59.00	-9.0X
	0.8s	2.80nm			
ALQ	117.02	49 ePKP	57	52.00	-0.2
	Z 19s	5.90um			6.2Msz
ASMO	120.40	316 ePKP	58	00.00	1.6
APHE	120.57	316 ePKP	57	58.50	-0.3
AAPN	120.69	317 iPKP	57	58.50	-0.4
ALOJ	120.78	316 ePKP	58	02.00	2.9X
SCH	121.78	10 ePKP	58	01.00	0.7
MEO	122.86	45 ePKP	58	03.90	0.9
	1.5s	35.10nm			
IFR	123.29	313 iPKP	58	06.00	1.9
AVE	125.05	314 ePKP	58	12.00	4.7X
		i	58	24.00	
GAC	127.86	21 ePKP	58	12.00	-0.3
KIC	132.05	281 PKP	58	21.24	0.0
TBR	132.26	23 PKP	58	18.00	-2.8X
TIC	132.28	281 PKP	58	21.64	0.0
LIC	132.35	280 PKP	58	21.70	-0.1
SAN	144.42	153 ePKP	58	42.50	-0.8
PEL	144.67	152 iPKPd	58	43.60	-0.2
JACH	145.09	152 iPKP	58	44.50	-0.1
SRA	145.42	69 ePKP	58	46.30	0.6
MDZ	145.71	154 i(PKP)	58	46.50	0.9
SJS	145.83	69 ePKP	58	45.00	-1.4
ICR	146.03	68 ePKP	58	48.20	1.1
UPA	150.35	67 ePKPc	58	58.20	4.9X
	Z 20s	5.83um			6.4Msz

ARE	156.20	127 ePKP	59	14.00	12.1X
RDJ	157.83	202 ePKP	59	14.00	10.7X
SDV	158.35	59 ePKP	59	05.50	1.1
TOV	158.59	56 ePKP	59	10.60	6.1X
ZOBO	158.91	132 PKP	59	06.00	0.6
	Z 22s	3.67um			6.2Msz
		LR	56	43.00	
		i	59	25.70	
CAR	160.43	49 ePKP	59	14.00	7.5X
BAO	166.18	196 ePKP	59	10.00	-1.9
	S.D. = 1.2	on 183 of 223 obs.			

FEB 27, 1989 23h 46m 22.37± 0.68s
6.897 N ± 6.3km 72.804 W ± 9.3km
DEPTH = 141.2 ± 7.2 km
4.9mb (6 obs.)

NORTHERN COLOMBIA (99)

BMG	0.32	303 eP	46	42.50	-1.0
FUQ	1.69	213 eP	46	53.00	-1.1
BOG	2.58	209 iPd	47	07.00	2.0
		iS	47	36.50	
UPA	6.98	288 e(P)	48	03.50	0.1
PSO	7.24	219 eP	48	08.00	0.7
ZOBO	23.48	169 Pc	51	21.20	0.2
	0.5s	28.57nm			5.0mb
LPB	23.74	169 P	51	22.00	-1.4
	1.0s	40.00nm			4.9mb
CNCB	24.03	169 Pc	51	27.00	0.7
JSC	28.35	345 P	52	06.70	1.7
ELC	33.74	336 P	52	52.30	0.0
FVM	34.83	335 P	53	02.40	0.8
GAC	38.73	357 eP	53	37.00	2.8
VAO	39.01	140 eP	53	36.70	-0.2
BMA	40.63	137 e(P)	53	50.00	-0.2
GLA	46.83	310 P	54	39.80	-0.1
RSON	47.15	342 P	54	41.80	-0.3
	0.5s	19.10nm			5.0mb
SCH	48.03	5 eP	54	50.00	1.1
BW06	48.21	324 P	54	49.80	-0.9
	0.7s	6.58nm			4.5mb
TNP	50.73	314 P	55	10.00	-0.1
HPI	50.85	323 P	55	11.20	0.2
LRM	51.69	325 eP	55	17.00	-0.3
KVN	51.78	315 P	55	17.50	-0.5
SES	53.79	331 eP	55	31.00	-1.4
DPW	56.11	325 P	55	48.60	-0.7
FRB	56.83	2 eP	55	53.00	-0.9
PNT	57.67	326 eP	56	00.00	-0.1
	0.6s	8.00nm			4.8mb
LON	57.69	322 P	55	59.60	-0.8
YKA	63.30	340 P	56	37.70	-0.3
LIC	67.28	86 P	57	04.60	0.2
KIC	67.55	86 P	57	06.30	0.2
INK	73.06	340 eP	57	38.00	-0.3
MBC	73.79	350 eP	57	43.00	0.6
	0.6s	14.00nm			4.9mb
SNF	76.50	40 P	58	03.00	4.8X
DOU	76.66	40 P	58	05.20	6.1X
MEM	77.60	40 P	57	56.30	-8.0X
TRI	82.72	45 iPc	58	30.60	-1.0
		e	06	48.00	
		i	07	48.00	
		e	14	08.00	
		e	17	48.00	
WRA	150.65	241 PKPc	05	58.60	4.4X
	0.4s	2.40nm			
WB5	150.65	241 ePKP	05	59.30	5.1X
	S.D. = 1.0	on 33 of 38 obs.			

? FEB 28, 1989 00h 04m 11.78±15.06s
31.844 N ±21.9km 36.566 E ±103.km
DEPTH = 10.0km (geophysicist)

DEAD SEA REGION (373)

JARJ	0.66	307 P	04	25.90	1.0
MASJ	0.73	261 P	04	26.90	0.7
KFNJ	0.76	272 P	04	26.80	0.3
SALJ	0.77	283 P	04	26.80	0.0
BURJ	0.78	299 P	04	25.50	-1.4
MKRJ	0.84	250 P	04	27.50	-0.6
	S.D. = 1.1	on 6 of 6 obs.			

FEB 28, 1989 00h 26m 41.18± 0.72s
27.139 N ± 4.9km 92.644 E ± 3.8km
DEPTH = 44.8 ± 8.3 km
4.6mb (9 obs.)

INDIA-CHINA BORDER REGION (313)

Felt in the Gauhati area, India.

SHL	1.71	204 iP	27	11.50	2.3
		iS	27	30.50	
LSA	2.87	333 iPnc	27	31.00	5.0X
PKI	6.45	275 P	28	15.80	-0.6
KKN	6.57	277 P	28	17.80	-0.2
DMN	6.72	276 P	28	19.00	-1.1
GKN	7.16	279 P	28	25.20	-0.9
KMI	9.29	100 eP	28	57.00	1.2
		S	30	30.00	
CHG	10.11	144 iPc	29	05.40	-1.4
	1.0s	32.50nm			5.5mb X
BDT	11.47	148 eP	29	21.90	-3.3X
	0.5s	39.70nm			5.8mb X
GYA	12.54	90 iPc	29	38.80	-0.9
LZH	13.05	44 iPd	29	46.00	-0.5
	1.0s	844.00nm			6.7mb X
NST	13.37	147 eP	29	51.00	0.5
NDI	13.73	280 iPc	29	52.30	-2.9X
	0.5s	35.21nm			5.4mb
		eS	32	11.50	
XAN	15.60	60 Pd	30	17.60	-2.1
NNT	15.93	154 eP	30	23.00	-0.9
HYB	16.22	236 ePd	30	24.00	-3.6X
	0.8s	57.70nm			4.8mb
		eS	31	23.00	
WMQ	17.12	348 P	30	41.00	2.2
QIZ	17.75	113 eP	30	48.30	1.6
KSH	18.53	316 eP	30	57.00	0.7
POO	19.31	248 eP	31	03.60	-1.9
		iS	34	25.60	
WHN	19.31	75 eP	31	05.50	0.1
	1.0s	0.08nm			1.9mb X
GBA	19.58	230 Pd	31	07.40	-1.1
	0.7s	22.30nm			4.6mb
BTO	19.66	43 P	31	09.00	-0.3
TIY	19.72	53 Pd	31	08.30	-1.6
	0.8s	0.10nm			2.2mb X
HHC	20.75	44 Pc	31	20.80	0.2
SNG	21.25	158 eP	31	26.00	0.3
KOD	22.08	223 eP	31	36.00	1.6
QUE	22.73	284 eP	31	41.50	0.9
NJ2	23.29	72 eP	31	46.40	0.7
BJI	23.37	51 eP	31	48.00	1.6
IPM	23.82	159 ePd	31	51.90	0.8
	0.8s	22.40nm			4.7mb
SSE	25.21	74 P	32	04.00	-0.3
		sP	32	24.80	
CN2	31.21	49 eP	32	59.00	0.6
VRI	54.64	309 eP	36	08.80	1.1
KJF	55.02	331 eP	36	10.00	-0.2
MLR	55.22	308 eP	36	12.00	0.0
SUF	55.50	329 iP	36	13.50	-0.1
	0.4s	1.70nm			4.4mb
SOD	56.04	335 iP	36	17.40	-0.1
KSP	61.04	315 eP	37	08.00	15.5X
WB5	61.80	135 iPc	36	57.40	-0.6
WRA	61.83	135 Pc	36	57.10	-1.1
	0.8s	10.90nm			5.0mb
WARB	62.31	145 iPd	36	50.90	-10.4X
	0.4s	5.00nm			
BRG	62.50	316 e(P)	37	18.40	16.1X
NAO	62.76	327 P	37	02.60	-1.3
	0.5s	1.50nm			4.4mb
KHC	63.05	314 eP	37	07.00	1.0
QIS	65.70	131 iPc	37	23.10	-0.4
CDF	67.28	314 eP	37	47.90	14.5X
CTA	70.00	126 iPc	37	50.40	-0.1
	0.8s	7.46nm			4.7mb
SSF	70.11	313 eP	38	06.90	16.1X
	0.5s	2.90nm			
BNG	73.84	267 ePc	38	13.10	-0.4
	0.6s	3.00nm			4.4mb
MBC	74.95	8 eP	38	19.00	0.2
INK	78.95	16 eP	38	41.00	-0.2
FRB	88.21	352 eP	39	29.00	0.6
	S.D. = 1.1	on 44 of 53 obs.			

? FEB 28, 1989 00h 42m 05.94± 0.66s
14.947 S ± 8.5km 24.485 E ± 9.2km
DEPTH = 10.0km (geophysicist)

ZAMBIA (576)

MG 3.6 (BUL).

KMZ	1.98	42 iPn	42	39.00	-1.0

28d 00h

		iSn	43 03.00			S	01 02.00			MUN	35.84	197	iPd	58 22.60	-0.8
		iSg	43 46.50		MCO	24.16	326	eP	56 40.00	0.8		0.6s	70.00nm		5.8mb
LSZ	3.59	96	iPn	43 04.00	1.0	OZH	24.25	339	iPd	56 41.00	0.9	XAN	36.23	333	iPd	58 27.10	0.4
			iSn	43 13.00			4.0s	11.50nm			3.7mb X		E 10s	1.80um			
			iSg	43 36.00			Z 23s	4.60um			4.9MszX	STK	36.38	160	iPd	58 28.80	0.9
BUL	6.50	143	iPnd	44 09.10	25.0X		N 14s	2.30um							e	58 33.00	
			iSn	45 38.60				pP	56 51.00	37kmX					e	04 07.00	
			iSg	46 32.00				S	00 50.00			NWAO	36.45	195	iPd	58 28.20	-0.3
PTZ	6.67	85	iPn	43 22.00	-24.6X	QIZ	24.29	314	Pd	56 40.50	-0.1		0.6s	32.00nm			5.4mb
			iSn	44 17.30			N 16s	3.90um				CD2	36.50	324	Pd	58 29.70	0.7
			iSg	44 43.00			E 15s	2.80um				DL2	36.90	352	P	58 32.00	-0.1
KSR	11.09	169	e(P)	44 47.00	-0.9			pP	56 50.50	37kmX		CMS	37.66	155	eP	58 39.00	0.3
SLR	11.31	162	eP	44 51.00	0.2			eS	01 00.00			BRS	38.00	143	Pd	58 40.70	-1.0
			S	47 52.00				sS	01 14.00						i	58 49.20	
PRY	12.24	167	eP	44 54.50	-9.0X	KGM	24.58	270	ePd	56 46.20	2.8				e	59 05.00	
			S	48 06.00		MBL	24.61	198	eP	56 42.80	-0.8				eS	04 30.90	
FRS	14.75	177	eP	45 46.00	9.5X	GZH	25.04	327	iPd	56 48.00	0.3				iScP	04 43.20	
			S	48 43.50			Z 23s	6.00um			5.0MszX				iScS	08 49.20	
KIC	35.88	304	P	49 08.50	0.1		E 15s	5.50um				TIY	38.02	340	iPd	58 42.50	0.8
	0.5s	11.00nm			5.0mb			iS	01 14.50				1.4s	0.30nm			3.0mb X
LIC	36.03	304	P	49 10.10	0.5	QIS	25.43	154	iPd	56 51.70	0.3		E 13s	1.80um			
	0.5s	4.00nm			4.5mb	IPM	26.94	276	ePd	57 05.20	-0.2				S	04 33.50	
TIC	36.27	304	P	49 11.60	0.0		1.2s	63.40nm			5.1mb	ADE	38.42	166	iPd	58 46.10	1.0
	0.6s	14.00nm			5.0mb			e	00 27.90				1.1s	210.13nm			5.9mb
	S.D. = 0.9	on	7 of	11 obs.		NANU	27.50	205	iPd	57 10.60	0.3	BJI	39.06	346	Pd-	58 50.50	0.2
							0.6s	92.00nm			5.6mb		Z 20s	2.73um			5.1Msz
	FEB 28, 1989 00h 51m 27.11± 0.34s					SNG	27.63	281	eP	57 10.40	-1.2		N 10s	0.85um			
	2.288 N ± 2.9km 127.916 E ± 3.9km								e	04 08.20					eScP	04 44.50	
	DEPTH = 55.9 ± 3.0 km					WARB	28.33	182	eP	57 08.00	-9.8X				S	04 47.00	
	5.7mb (33 obs.)					CTA	28.61	142	iPd	57 20.60	0.2				ScS	09 00.00	
	MOLUCCA PASSAGE				(266)		1.6s	115.00nm			5.3mb	SNY	39.56	355	iPd	58 53.60	-0.8
	CENTROID, MOMENT TENSOR				(HRV)			i	57 25.40			COO	39.88	147	eP	58 57.00	-0.3
	Doto Used: GDSN							ipP	57 29.20	30kmX		LZH	40.34	329	ePd	59 03.34	2.2
	L.P.B.: 14S, 31C							i(sP)	57 49.20						epPc	59 05.65	8kmX
	Centroid Location:							iPcP	00 27.00			HHC	41.13	341	Pd	59 08.60	1.1
	Origin Time 00:51:25.6 0.6							e	01 56.00				Z 24s	5.00um			5.3MszX
	Lot 2.46N 0.05 Lon 127.67E 0.07							eS	02 08.00				N 13s	0.90um			
	Dep 43.0 5.9 Half-duration 3.3							e	03 19.00				E 11s	1.00um			
	Moment Tensor; Scale 10**17 Nm							eScP	04 09.50						S	05 18.00	
	Mrr=-1.11 0.33 Mtt= 0.91 0.31							i	05 10.60			BWA	41.29	154	iPd	59 10.70	1.9
	Mff= 0.20 0.52 Mrt=-3.61 0.55					PSI	28.97	271	ePc	57 23.60	-0.1				eScP	04 55.80	
	Mrf=-2.16 0.51 Mtf=-5.65 0.37					SSE	29.35	348	Pd	57 26.50	-0.4	CN2	41.39	357	Pd	59 08.00	-1.4
	Principal Axes:						1.0s	98.00nm			5.4mb		Z 18s	3.60um			5.3Msz
	T Val= 6.43 Plg=11 Azm=219						Z 18s	3.20um			5.0Msz				PcP	01 08.50	
	N 1.21 56 113						N 11s	1.40um							ScP	04 54.50	
	P -7.64 32 316							PcP	00 29.50						eS	05 19.00	
	Best Double Couple:Mo=7.0*10**17							S	02 18.00						ScS	09 08.00	
	NP1:Strike=353 Dip=60 Slip= -16							sS	02 38.00			BTO	41.43	339	iPd	59 10.00	0.0
	NP2: 92 76 -148							SS	03 54.00				N 12s	1.10um			
						NNT	29.72	292	iPd	57 29.00	-1.5		E 12s	1.00um			
MNI	3.19	255	ePd	52 17.80	1.9	LOE	29.78	302	iPd	57 30.20	-0.8				pP	59 23.50	51kmX
			eS	52 54.40		MEKA	30.13	197	eP	57 33.20	-0.7				S	05 24.50	
DAV	5.31	334	eP	52 47.00	1.2	NST	30.43	298	eP	57 33.00	-3.7X	SHL	41.68	307	iP	59 12.80	0.5
	1.3s	4092.31nm			6.6mb X	NJ2	30.81	345	Pd	57 40.00	0.1				iS	05 26.00	
AAI	5.94	177	eP	52 58.00	3.4X		Z 22s	3.80um			5.0Msz	MDJ	42.18	2	Pd	59 15.50	-0.4
			eS	54 07.50		WHN	30.90	337	iPd	57 43.00	2.3		Z 20s	5.30um			5.4Msz
TSM	10.01	281	ePd	53 53.00	2.0		4.0s	4.70nm			3.6mb X	CAN	42.30	154	iPd	59 18.00	0.9
	1.0s	40.60nm			5.5mb X		Z 20s	6.36um			5.3Msz				iPcP	01 08.60	
MKS	11.26	229	iPd	54 08.50	0.6		N 16s	3.18um							eScP	04 59.50	
	0.6s	111.10nm			6.1mb X		E 16s	2.27um				CNB	42.46	154	iPd	59 19.70	1.3
		i(S)	56 13.00					pP	57 53.80	40kmX		TOO	42.88	159	eP	59 24.00	2.3
JAY	13.65	110	ePc	54 54.00	14.4X	GYA	31.53	322	P	57 46.80	0.4				e	03 29.00	
OCP	14.01	332	eP	54 44.00	-0.3		Z 20s	2.70um			4.9Msz	LSA	44.28	312	Pd	59 35.40	1.7
MTN	15.37	168	eP	55 00.00	-2.1		N 12s	2.00um							S	06 11.00	
			e	55 11.00			E 12s	1.30um				GTA	44.93	329	iPd	59 39.80	1.3
BAG	15.78	333	eP	55 05.00	-2.5			PcP	00 39.40				5.0s	3.40nm			3.4mb X
	1.7s	530.77nm			5.4mb			S	02 55.00				Z 31s	3.50um			5.1MszX
PIP	17.47	336	ePc	55 27.50	-1.0			ScP	04 20.20				N 31s	7.00um			
	1.0s	291.00nm			5.4mb			ScS	08 17.60						PcP	01 20.70	
KNA	17.94	177	eP	55 33.00	-1.3	BDT	32.06	299	iPd	57 50.20	-0.8				PP	01 30.00	
TRT	18.19	237	iPc	55 37.60	0.2		0.7s	120.30nm			5.8mb				ScP	05 11.20	
	1.0s	304.70nm			5.4mb	CHG	32.78	302	iPd	57 57.90	0.6				S	06 18.00	
		eS	59 13.90				1.0s	197.00nm			5.9mb				sS	06 30.00	
GUMO	20.17	55	eP	56 00.80	1.1			eS	03 48.00						ScS	09 34.00	
	0.9s	218.24nm			5.5mb	CHTO	32.78	302	ePd	57 56.50	-0.8	PKI	47.77	306	P	00 01.80	0.5
PJG	20.17	55	eP	56 00.60	0.9	FORR	32.95	180	eP	57 58.50	0.0	KKN	47.96	306	P	00 03.30	0.6
GUA	20.18	55	eP	56 00.70	0.8	KMI	33.23	315	ePd	58 01.90	0.5	DMN	48.03	306	P	00 04.30	1.1
	0.8s	167.16nm			5.4mb				epPc	58 05.87	14kmX	TAU	48.28	161	eP	00 06.00	1.5
LAT	21.02	115	e(P)	56 11.00	2.6	MRWA	33.34	199	eP	58 01.40	-0.6	GKN	48.57	306	P	00 07.80	0.5
PMG	22.41	121	e(P)	56 23.00	0.7	COOL	33.61	191	eP	58 03.10	-1.3	KOD	50.71	281	eP	00 24.00	0.0
WB5	22.92	164	iPc	56 27.50	0.2	BAL	34.41	197	eP	58 10.40	-0.9	HYB	50.72	291	iPd	00 24.20	0.5
		eS	00 37.00				0.6s	39.00nm			5.5mb		1.4s	750.00nm			6.5mb
		iScP	03 53.00			RMO	34.98	146	eP	58 22.00	5.8X				eS	07 36.00	
WRA	22.98	164	Pc	56 27.50	-0.3				e	00 56.00		GBA	51.13	286	P	00 26.90	0.1
	0.7s	55.50nm			5.1mb	KLB	35.05	195	iPd	58 16.00	-0.7	WMO	54.58	325	iPd	00 52.84	0.7
ANP	23.58	345	eP	56 34.50	0.7		0.7s	81.00nm			5.8mb				epPc	00 55.65	9kmX
HKC	23.96	327	iPd	56 37.90	0.6	TIA	35.20	345	Pd	58 17.10	-0.8	NDI	54.90	304	iPd	00 54.10	-0.6

	1.2s	500.00nm			6.4mb	
		eS	08	33.20		
POO	55.33	291 iPc	00	57.30	-0.6	
KSH	59.86	315 Pd	01	32.00	2.4	
QUE	63.91	303 iPd	01	57.20	0.2	
		eS	10	33.10		
MAIO	71.32	308 iPd	02	44.60	1.3	
	1.3s	155.23nm			5.8mb	
KHI	71.61	305 iPd	02	43.30	-1.8	
DHR	78.03	296 iPd	03	22.50	0.7	
KER	81.12	304 ePd	03	37.50	-1.0	
RYD	81.15	295 iPd	03	39.00	0.4	
AVY	81.46	251 iPd	03	41.44	0.9	
SVW	81.47	29 eP	03	40.70	1.1	
TAB	81.97	308 ePd-	03	44.00	1.2	
SLY	82.50	305 iPc	03	45.00	-0.4	
		eS	14	03.50		
KDC	82.52	32 eP	03	45.10	0.2	
KMSA	83.04	290 iPd	03	48.30	-0.2	
IMA	83.22	24 eP	03	49.50	0.8	
	1.0s	105.00nm			5.8mb	
BHD	83.34	303 iPc	03	51.00	1.3	
		iS	14	11.00		
		i	14	34.00		
MSL	84.44	306 iPc	03	56.00	0.8	
		ePP	07	08.00		
		eS	14	18.00		
		ePS	14	33.00		
PMR	84.64	28 eP	03	55.30	-0.4	
ABHA	84.70	288 iPc	04	00.00	2.8	
ARO	84.72	281 iPd	03	59.80	2.7	
FBA	85.51	25 eP	03	59.60	-0.4	
NPA	89.30	255 iP	04	21.00	1.7	
KVT	89.93	311 iP	04	22.80	1.0	
HRI	90.58	303 iPd	04	27.20	2.1	
BHL	90.62	304 Pd	04	26.00	0.8	
		SKS	14	57.00		
DSI	90.98	301 iPd	04	28.50	1.7	
INK	91.06	22 eP	04	26.00	-0.4	
NAI	91.16	269 iPd	04	32.00	3.7X	
	1.0s	25.00nm			5.6mb	
MBH	91.51	300 iPd	04	31.00	1.7	
KEV	91.64	340 eP	04	28.00	-1.1	
SOD	92.24	338 iP	04	31.60	-0.3	
SPA	92.27	180 iPc	04	33.50	1.3	
	1.5s	90.91nm			6.0mb	
KJF	92.40	334 iP	04	32.20	-0.4	
	0.9s	35.50nm			5.8mb	
BBTK	92.51	310 eP	04	33.00	-0.8	
MBC	93.09	13 eP	04	36.00	0.4	
	1.3s	57.00nm			5.8mb	
SUF	93.37	333 iP	04	36.60	-0.5	
	0.8s	12.10nm			5.4mb	
AKSR	93.58	294 eP	04	40.00	1.2	
AKUR	93.78	294 eP	04	41.20	1.4	
NUR	94.53	331 iP	04	42.40	-0.1	
ALE	95.15	1 eP	04	45.00	-0.1	
	0.5s	4.00nm			5.1mb	
TLB	95.44	315 eP	04	47.00	0.0	
VRI	96.15	316 ePd	04	51.00	0.7	
MLR	96.76	316 eP	04	53.20	0.0	
EZN	97.43	310 eP	04	54.00	-2.1	
DAG	98.84	353 iPc	05	00.90	-0.9	
	0.8s	52.24nm			6.1mb	
BUL	99.52	250 eP	05	06.10	0.0	
KRA	99.70	322 eP	05	06.50	0.3	
	1.7s	123.00nm			6.2mb	
		e	05	13.50		
VAY	99.97	312 eP	05	07.00	-0.6	
YKA	100.31	25 Pdiff	05	09.60	1.0	
YKC	100.37	25 ePdiff	05	08.00	-0.9	
SKO	100.66	313 ePdiff	05	10.00	-0.7	
		e	09	21.50		
NAO	100.86	334 Pdiff	05	10.30	-0.8	
	1.2s	20.70nm			5.6mb	
KSP	101.70	323 ePdiff	05	15.80	0.7	
		e	09	26.00		
PRU	103.04	323 Pdiffc	05	22.10	1.0	
		e	09	43.00		
BRG	103.09	324 ePdiff	05	22.20	0.9	
	1.8s	46.00nm			5.9mb	
CLL	103.49	324 ePdiff	05	22.00	-1.1	
	2.1s	54.00nm			6.0mb	
Z	18s	1.50um			5.6Msz	
		iPP	09	41.00		
KHC	103.92	322 Pdiff	05	17.00	-8.1X	
		e	05	31.80		

MOX	104.55	324 e(Pdif	05	29.00	1.1	
	2.0s	123.00nm			6.5mb	
		e	09	37.00		
		ePP	09	50.00		
GRF	105.15	323 ePKP	09	55.00	10.1X	
	1.9s	174.00nm				
WTS	106.74	326 ePKP	10	03.50	15.8X	
	1.5s	82.00nm				
SES	107.42	35 ePdiff	05	40.00	-0.7	
SES	107.42	35 ePKP	09	47.00	-2.2X	
EUR	108.38	47 iPKP	09	52.50	0.9	
	0.2s	8.93nm				
LRM	108.49	40 ePKP	09	52.70	1.1	
BNG	109.11	275 iPKPd	09	55.10	1.7	
	1.6s	39.00nm				
		id	10	28.10		
LPG	109.60	320 ePKP	09	54.70	0.9	
	0.7s	4.80nm				
FFC	109.94	28 ePKP	09	55.00	1.3	
	1.0s	20.00nm				
SSF	110.92	323 ePKP	09	59.50	3.7X	
	0.6s	3.90nm				
FRB	113.00	8 ePKP	09	59.00	-0.2	
MFF	113.33	324 ePKP	10	01.20	0.8	
ALQ	117.10	49 ePKP	10	08.80	0.5	
ASMO	120.35	316 ePKP	10	15.50	1.2	
APHE	120.51	316 ePKP	10	15.00	0.3	
AAPN	120.64	317 ePKP	10	15.00	0.2	
SCH	121.81	10 ePKP	10	17.00	0.6	
MEO	122.93	45 ePKP	10	18.30	-0.9	
	1.2s	27.10nm				
GAC	127.91	21 ePKP	10	28.00	-0.4	
KIC	131.96	281 PKP	10	38.28	1.2	
	1.0s	61.00nm				
TIC	132.19	281 PKP	10	38.72	1.2	
LIC	132.26	280 PKP	10	38.80	1.2	
	1.0s	66.00nm				
SAN	144.45	153 iPKPc	10	58.20	-1.2	
PEL	144.70	152 iPKPc	10	59.90	0.0	
SRA	145.51	69 iPKPc	11	03.00	1.2	
MDZ	145.74	154 i(PKP)	11	03.20	1.5	
SJS	145.92	69 iPKPc	11	03.00	0.5	
BUS	146.32	69 iPKPc	11	04.80	1.2	
UPA	150.44	67 ePKPc	11	14.90	5.5X	
	1.3s	346.15nm				
ARE	156.27	128 ePKP	11	30.00	12.1X	
LPB	158.82	133 PKP	11	24.00	2.9	
	1.0s	32.00nm				
VAO	158.82	193 ePKP	11	21.80	1.2	
		e	11	56.90		
ZOBO	158.97	132 PKP	11	23.30	1.8	
	1.0s	10.50nm				
CCH	159.61	138 ePKP	11	25.00	3.2X	
BAO	166.14	197 ePKP	11	22.10	-5.8X	
	S.D. = 1.1	on 166 of 181 obs.				

FEB 28, 1989 01h 25m 34.21± 0.62s
2.259 N ± 3.4km 127.992 E ± 5.2km
DEPTH = 57.6 ± 5.6 km
5.3mb (15 obs.)
MOLUCCA PASSAGE (266)

MNI	3.25	256 iPd	26	24.40	0.5	
		eS	26	53.70		
DAV	5.37	333 eP	26	53.00	-0.7	
		eS	28	03.00		
AAI	5.91	178 eP	27	03.50	2.2	
TSM	10.09	281 eP	28	01.00	1.9	
MKS	11.30	229 iPd	28	19.50	4.0X	
KKM	12.33	288 ePd	28	30.00	0.6	
QCP	14.07	331 eP	28	55.00	2.9X	
MTN	15.33	168 eP	29	06.00	-2.5	
BAG	15.84	333 eP	29	12.00	-3.3X	
PIP	17.53	336 ePd	29	34.80	-1.4	
KNA	17.91	178 eP	29	40.00	-0.9	
TRT	18.24	237 ePd	29	49.40	4.4X	
	1.2s	243.10nm			5.3mb	
GUA	20.14	55 eP	30	07.00	0.7	
	0.8s	101.49nm			5.2mb	
LAT	20.94	115 eP	30	17.00	2.5	
PMG	22.33	122 e(P)	30	25.00	-3.5X	
WB5	22.87	164 iPd	30	33.50	-0.3	
WRA	22.93	165 Pc	30	34.50	0.2	
	0.5s	31.60nm			5.0mb	
HKC	24.03	327 Pc	30	45.00	0.1	
QZH	24.31	339 Pd	30	47.00	-0.6	
	4.0s	1.70nm			2.9mb X	

	N 16s	2.00um				
		S	35	06.00		
QIZ	24.36	314 eP	30	50.00	1.8	
MBL	24.61	199 eP	30	49.00	-1.5	
KGM	24.66	270 eP	30	55.50	4.4X	
GZH	25.11	327 Pc	30	55.50	0.3	
QIS	25.37	154 iPd	30	57.40	-0.4	
IPM	27.01	276 ePd	31	16.50	3.5X	
NANU	27.51	206 iPc	31	17.00	-0.3	
	0.5s	36.00nm			5.2mb	
WARB	28.31	183 eP	31	14.70	-9.8X	
CTA	28.54	142 iPc	31	27.00	0.3	
	1.5s	61.11nm			5.0mb	
		e	31	30.50		
		e	34	07.00		
SSE	29.39	348 eP	31	32.50	-1.7	
MEKA	30.12	197 eP	31	40.20	-0.6	
NST	30.51	298 eP	31	45.80	1.4	
NJ2	30.86	345 eP	31	46.60	-0.6	
WHN	30.96	337 eP	31	48.50	0.4	
GYA	31.60	322 P	31	53.80	-0.1	
BDT	32.14	299 eP	31	55.90	-2.7	
CHG	32.86	302 iPd	32	04.00	-0.9	
	1.0s	47.50nm			5.3mb	
FORR	32.92	180 eP	32	03.50	-1.7	
KMI	33.30	315 eP	32	09.50	0.5	
MRWA	33.34	199 eP	32	07.90	-1.1	
COOL	33.60	191 iPc	32	09.90	-1.3	
BAL	34.41	197 eP	32	17.00	-1.1	
RMQ	34.92	146 eP	32	28.00	5.5X	
		e	35	03.00		
KLB	35.04	195 iPc	32	22.50	-1.0	
	0.5s	25.00nm			5.4mb	
TIA	35.25	345 P	32	23.70	-1.6	
MUN	35.84	197 eP	32	29.50	-0.8	
XAN	36.29	333 iPd	32	33.60	-0.5	
		S	38	15.50		
STK	36.33	160 iPd	32	34.40	0.0	
	0.3s	45.00nm			5.9mb	
		e	32	40.00		
		e	34	58.00		
NWAO	36.44	195 iPc	32	35.00	-0.4	
CD2	36.57	324 eP	32	36.00	-0.5	
CMS	37.60	155 eP	32	44.00	-1.1	
BRS	37.93	143 iP	32	49.00	1.0	
		i	32	58.20		
		iScS	41	52.40		
TIY	38.07	340 eP	32	48.50	-0.6	
ADE	38.37	166 iPd	32	52.10	0.5	
	0.8s	74.63nm			5.6mb	
BJI	39.11	346 P	32	56.00	-1.6	
		S	38	52.00		
		ScP	38	53.00		
SNY	39.59	355 eP	33	00.40	-1.2	
COO	39.82	147 eP	33	04.00	0.3	
LZH	40.40	329 Pd	33	10.00	1.4	
	3.0s	2414.00nm			6.5mb X	
		eS	39	18.00		
HHC	41.18	341 P	33	15.00	0.1	
Z	26s	1.40um			4.7MszX	
		eS	39	30.00		
BWA	41.23	154 iPc	33	17.00	1.8	
CN2	41.43	357 P	33	17.00	0.4	
BTO	41.49	339 eP	33	17.50	0.2	
SHL	41.76	307 iP	33	19.00	-0.9	
		iS	39	04.80		
MDJ	42.20	2 eP	33	22.00	-1.0	
CAN	42.24	154 iPc	33	24.50	1.0	
CNB	42.40	154 eP	33	25.00	0.2	
TOO	42.82	159 eP	33	29.00	0.8	
LSA	44.35	312 P	33	42.40	1.1	
GTA	45.00	329 iPd	33	46.20	0.3	
	3.0s	0.90nm			3.1mb X	
PKI	47.84	306 P	34	09.30	0.5	
KKN	48.04	306 P	34	10.20	0.0	
DMN	48.11	306 P	34	10.90	0.1	
GKN	48.64	306 P	34	14.70	-0.1	
KOD	50.79	281 eP	34	32.00	0.5	
HYB	50.80	291 ePc	34	31.00	-0.3	
	1.4s	175.00nm			5.9mb	
GBA	51.21	286 Pc	34	33.00	-1.3	
	0.9s	32.90nm			5.4mb	
WMQ	54.64	325 iPd	34	59.50	0.0	
	4.0s	0.90nm			3.2mb X	
Z	20s	0.50um			4.6Msz	
		ScS	44	46.00		
NDI	54.98	304 eP	35	01.80	-0.3	

28d 01h

		eS	42	12.50	
POO	55.41	291 iPd	35	03.80	-1.6
KSH	59.94	315 P	35	39.20	2.2
QUE	63.99	303 eP	36	03.60	-0.9
		eS	44	43.30	
MAIO	71.40	308 iPd	36	51.00	0.4
SVW	81.46	29 eP	37	46.80	0.4
TTA	81.64	27 eP	37	47.60	0.3
	1.1s	25.00nm			5.1mb
TAB	82.05	308 eP	37	51.00	0.9
KDC	82.50	32 eP	37	51.90	0.2
	0.8s	55.17nm			5.6mb
IMA	83.21	24 eP	37	55.40	-0.1
	1.1s	4.38nm			4.4mb
BHD	83.42	303 eP	37	58.00	1.0
MSL	84.51	306 ePd	38	02.50	0.0
PMR	84.63	28 eP	38	02.10	-0.4
	1.0s	62.50nm			5.6mb
FBA	85.50	25 eP	38	08.10	1.2
JARJ	90.54	302 P	38	31.60	-0.2
GLH	90.76	303 iP	38	34.30	1.7
MASJ	90.76	302 P	38	33.02	0.2
SALJ	90.77	302 P	38	33.50	0.7
MKRJ	90.84	301 P	38	33.50	0.4
DSI	91.06	301 iP	38	35.00	1.0
INK	91.06	22 eP	38	33.50	0.2
NAI	91.24	269 iPc+	38	38.00	2.5
MBH	91.59	300 iPc	38	37.60	1.1
KEV	91.69	340 eP	38	38.00	1.8
SOD	92.30	338 iP	38	38.80	-0.2
KJF	92.45	334 eP	38	39.00	-0.8
MBC	93.10	13 eP	38	42.00	-0.6
SUF	93.42	333 iP	38	44.60	0.3
VRI	96.22	316 eP	38	57.50	0.0
DAG	98.88	353 eP	39	07.00	-1.9
YKA	100.30	25 Pdiff	39	17.10	1.6
BNG	109.19	275 ePKPc	44	02.10	1.7
	0.7s	6.00nm			
ALQ	117.06	49 ePKP	44	15.00	-0.1
KIC	132.04	281 PKP	44	45.00	0.9
LIC	132.34	280 PKP	44	45.60	0.9
SAN	144.39	153 ePKP	45	05.00	-1.2
PEL	144.64	152 iPKPc	45	06.10	-0.5
JACH	145.06	152 ePKPd	45	07.50	0.1
MDZ	145.68	154 i(PKP)	45	09.50	1.1
CNCB	158.65	134 PKP	45	29.00	1.0
LPB	158.74	133 PKP	45	30.50	2.6X
ZOBO	158.89	132 PKP	45	29.20	0.9
	0.8s	4.70nm			
	Z 21s	0.83um			5.5Msz
		LR	07	05.00	
CCH	159.54	138 ePKP	45	26.00	-2.6X
BAO	166.13	196 ePKP	45	35.50	0.8
	S.D. = 1.1	on 109 of 120 obs.			

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* FEB 28, 1989 04h 49m 11.90± 1.99s
2.101 N ± 9.4km 127.846 E ±13.5km
DEPTH = 102.7 ± 18.8 km
4.8mb (8 obs.)
MOLUCCA PASSAGE (266)

MNI	3.08	258 eP	50	00.00	0.5
		eS	50	43.20	
WB5	22.76	164 eP	54	06.20	-0.1
WRA	22.82	164 Pc	54	06.50	-0.3
	0.8s	13.30nm			4.3mb
QZH	24.40	339 Pd	54	22.00	-0.1
GZH	25.16	327 eP	54	27.60	-1.6
QIS	25.30	153 eP	54	30.00	-0.6
WHN	31.04	337 eP	55	22.60	0.5
CHG	32.82	302 iPc	55	38.00	0.2
	0.6s	6.67nm			4.6mb
STK	36.23	160 eP	56	07.00	0.3
		e	56	10.00	
XAN	36.36	333 Pd	56	06.30	-1.6
CD2	36.61	324 P	56	09.50	-0.5
ADE	38.25	166 eP	56	27.70	3.9X
BJI	39.22	346 eP	56	28.00	-3.7X
LZH	40.46	329 P	56	43.00	0.9
	2.0s	88.00nm			5.2mb
GTA	45.06	329 P	57	18.50	-0.9
PKI	47.82	306 P	57	42.30	0.7
	0.5s	6.00nm			4.7mb
KKN	48.01	306 P	57	43.20	0.3
	0.6s	18.00nm			5.1mb
DMN	48.08	306 P	57	44.10	0.6
	0.9s	44.00nm			5.3mb
GKN	48.62	306 P	57	47.60	0.1
	0.6s	12.00nm			5.0mb
HYB	50.72	291 eP	58	04.00	0.4
GBA	51.12	286 Pd	58	05.30	-1.2
	1.0s	5.30nm			4.5mb
WMQ	54.69	325 iPd	58	33.80	1.1
IMA	83.41	24 eP	01	29.40	0.4
PMR	84.83	28 eP	01	37.00	1.1
	S.D. = 0.9	on 22 of 24 obs.			

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* FEB 28, 1989 05h 10m 34.74± 2.09s
2.062 N ± 8.9km 127.926 E ±13.0km
DEPTH = 64.1 ± 19.1 km
5.0mb (7 obs.)
MOLUCCA PASSAGE (266)

MNI	3.15	259 ePc	11	23.10	0.1
		eS	12	03.00	
WB5	22.70	164 eP	15	31.90	-0.2
		e	15	37.00	
WRA	22.76	164 Pd	15	31.90	-0.7
	0.6s	7.00nm			4.3mb
MBL	24.40	199 eP	15	48.00	-0.5
QZH	24.47	339 eP	15	49.20	0.1
QIS	25.23	154 iPc	15	56.40	0.0
CTA	28.42	142 eP	16	27.00	1.4
		e	17	14.00	
CHG	32.91	302 eP	17	04.80	-0.5
STK	36.16	160 iPc	17	32.70	-0.2
XAN	36.43	333 P	17	34.30	-0.9
BJI	39.28	346 eP	17	57.50	-1.4
LZH	40.54	329 eP	18	10.00	0.5
	1.5s	44.00nm			5.1mb
LSA	44.43	312 P	18	43.50	1.7
GTA	45.13	329 eP	18	47.20	0.4
PKI	47.91	306 P	19	09.40	0.2
	0.6s	10.00nm			5.0mb
KKN	48.10	306 P	19	10.80	0.3
	0.7s	17.00nm			5.1mb
DMN	48.17	306 P	19	10.90	-0.2
	0.7s	26.00nm			5.3mb
GKN	48.71	306 P	19	15.00	-0.1
	0.6s	13.00nm			5.1mb
GBA	51.20	286 P	19	34.00	-0.1
	0.2s	2.70nm			4.9mb
MAIO	71.47	308 eP	21	51.00	0.2
	S.D. = 0.8	on 20 of 20 obs.			

? FEB 28, 1989 05h 38m 15.90± 5.36s
12.584 N ±19.1km 60.561 W ±47.6km
DEPTH = 33.0km (normal)
WINDWARD ISLANDS (95)

FCV	0.88	311 eP	38	32.12	0.3
		eS	38	44.46	
SVB	0.96	316 eP	38	32.88	-0.2
		eS	38	45.10	
SSV	0.96	320 eP	38	33.13	0.0
		eS	38	45.43	
SVV	0.97	319 eP	38	33.06	-0.1
		eS	38	45.41	
GRW	1.15	249 eP	38	35.85	0.0
		eS	38	52.40	
SLB	1.32	339 eP	38	38.26	0.1
		eS	38	54.89	
	S.D. = 0.2	on 6 of 6 obs.			

FEB 28, 1989 05h 50m 31.67± 1.13s
2.257 N ± 4.1km 127.934 E ± 6.4km
DEPTH = 53.4 ± 10.9 km
5.2mb (13 obs.) 4.4Msz (6 obs.)
MOLUCCA PASSAGE (266)
CENTROID, MOMENT TENSOR (HRV)
Doto Used: GDSN
L.P.B.: 11S, 22C
Centroid Locotion:
Origin Time 05:50:31.1 0.6
Lot 2.30N 0.05 Lon 127.65E 0.07
Dep 37.9 5.1 Half-durotion 1.7
Moment Tensor; Scole 10**16 Nm
Mrr=-8.86 0.56 Mtt= 1.02 0.54
Mff= 7.84 0.92 Mrt=-3.42 1.05
Mrf= 1.51 0.97 Mtf=-4.60 0.54
Principol Axes:

	Vol= 10.59	Plg=	Azm=
T		9	242
N	-0.66	15	149
P	-9.92	73	2

Best Double Couple:Mo=1.0*10**17
NP1:Strike=349 Dip=38 Slip= -66
NP2: 139 56 -108

MNI	3.20	255 ePd	51	21.00	0.3
		eS	51	57.00	
DAV	5.34	334 eP	51	52.00	1.1
AAI	5.91	177 eP	52	01.00	2.2X
TSM	10.04	281 eP	53	01.00	5.0X
MKS	11.25	229 e(P)	53	23.00	10.5X
KKM	12.28	288 ePd	53	28.00	1.7
OCP	14.04	332 eP	53	48.00	-1.5
MTN	15.34	168 eP	54	06.00	-0.3
		e	57	35.00	
BAG	15.82	333 eP	54	12.00	-0.7
PIP	17.51	336 ePd	54	35.50	1.8
KNA	17.91	177 eP	54	38.00	-0.7
TRT	18.19	237 ePd	54	45.50	3.4X
	0.7s	63.90nm			4.9mb
GUMO	20.18	55 eP	55	05.00	0.4
PJG	20.18	55 eP	55	05.70	1.1
LAT	20.99	115 eP	55	12.00	-0.9
PMG	22.38	121 e(P)	55	10.00	-16.8X
WB5	22.89	164 eP	55	31.20	-0.6
		eS	58	54.50	
WRA	22.94	164 Pd	55	33.80	1.5
	1.1s	103.30nm			5.2mb
QZH	24.29	339 Pd	55	44.00	-1.3
	Z 18s	0.90um			4.3Msz
		S	00	01.00	
QIZ	24.32	314 eP	55	45.40	-0.3
MBL	24.59	198 eP	55	47.00	-1.2
GZH	25.08	327 eP	55	53.20	0.4
QIS	25.40	154 iPd	55	55.20	-0.7
	0.9s	265.00nm			5.8mb
		e	59	16.00	
NANU	27.48	205 eP	56	14.30	-0.7
SNG	27.65	281 eP	56	17.20	0.6
WARB	28.30	182 eP	56	12.20	-10.2X
CTA	28.57	142 iPd	56	25.90	1.0
	1.3s	50.00nm			5.0mb
		i	56	29.00	
		ipP	56	35.60	34kmX
		i(PP)	57	30.00	
		e	58	42.00	
		iPcP	59	52.00	
		iS	01	19.00	
SSE	29.38	348 eP	56	30.00	-2.1
	Z 16s	0.40um			4.1MszX
	N 10s	0.40um			
		eS	01	18.00	
		esS	01	40.00	
NNT	29.75	292 eP	56	34.00	-1.5
MEKA	30.10	197 eP	56	37.80	-0.8
NJ2	30.85	345 eP	56	44.50	-0.5
	Z 20s	0.60um			4.2Msz
WHN	30.94	337 eP	56	45.50	-0.3
	Z 24s	1.40um			4.5MszX
		S	01	50.00	
BDT	32.09	300 eP	56	56.60	0.5
CHG	32.81	302 iPc	57	03.10	0.7
	0.8s	10.07nm			4.7mb
FORR	32.92	180 eP	57	00.50	-2.6
KMI	33.27	315 eP	57	06.50	0.0
MRWA	33.32	199 eP	57	06.00	-0.7
COOL	33.58	191 eP	57	08.00	-1.0
BAL	34.39	197 eP	57	15.00	-0.9
RMQ	34.95	146 eP	57	27.00	6.3X
		e	00	01.00	
KLB	35.02	195 iPc	57	20.00	-1.3
TIA	35.24	345 P	57	21.70	-1.4
MUN	35.82	197 eP	57	27.50	-0.5
	0.7s	40.00nm			5.5mb
XAN	36.27	333 Pd	57	30.30	-1.5
STK	36.34	160 iPc	57	32.10	-0.3
		e	57	34.00	
		e	57	41.00	
NWAO	36.43	195 eP	57	33.10	0.0
	0.6s	18.00nm			5.2mb
	Z 20s	0.60um			4.4Msz
CD2	36.53	324 eP	57	35.20	1.1
CMS	37.62	155 eP	57	43.00	-0.2
BRS	37.97	143 iPd	57	42.00	-4.2X
		i	57	45.60	
TIY	38.05	340 eP	57	46.00	-0.8
ADE	38.38	166 iPc	57	50.30	0.7
	1.0s	82.00nm			5.6mb

BJI	39.10	346	eP	57	53.50	-1.9
COO	39.85	147	eP	58	03.00	1.1
LZH	40.37	329	eP	58	06.50	0.3
	4.0s	484.00nm				5.7mb X
	Z 26s	0.30um				4.0MszX
			pP	58	15.00	29kmX
			eS	04	25.00	
HHC	41.17	341	eP	58	12.00	-0.6
	Z 22s	0.90um				4.6Msz
			eS	04	23.00	
BWA	41.26	154	eP	58	14.50	1.2
			e	01	37.90	
CN2	41.43	357	eP	58	11.00	-3.5X
	Z 18s	0.60um				4.5Msz
			eS	04	21.00	
BTO	41.47	339	eP	58	21.00	5.9X
			eS	04	19.00	
MDJ	42.21	2	eP	58	19.50	-1.4
	Z 20s	0.90um				4.7Msz
			eS	04	30.00	
CAN	42.27	154	eP	58	22.50	0.9
			e	01	05.00	
CNB	42.42	154	iPc	58	25.60	2.7
TOO	42.84	159	eP	58	27.00	0.7
LSA	44.31	312	P	58	41.80	2.9X
GTA	44.97	329	Pc	58	44.00	0.4
	3.0s	0.41nm				2.7mb X
	E 12s	0.33um				
			PP	00	25.00	
			eS	05	15.00	
PKI	47.80	306	P	59	05.60	-0.8
	0.5s	24.00nm				5.5mb
KKN	47.99	306	P	59	07.50	-0.3
DMN	48.06	306	P	59	08.00	-0.3
GKN	48.60	306	P	59	12.40	0.0
KOD	50.73	281	eP	59	31.80	2.8
HYB	50.75	291	eP	59	29.00	0.2
	1.0s	70.00nm				5.6mb
			e	59	36.00	
GBA	51.16	286	P	59	33.00	1.1
	0.5s	7.00nm				4.9mb
WMO	54.61	325	P	59	56.50	-0.7
	Z 16s	0.40um				4.6MszX
			S	07	39.00	
NDI	54.93	304	eP	59	58.00	-1.7
			eS	03	21.00	
POO	55.36	291	eP	00	05.00	2.0
KSH	59.90	315	eP	00	37.00	2.3
MAIO	71.36	308	eP	01	50.00	1.7
			eS	11	07.00	
SVW	81.49	29	eP	02	46.20	1.7
IMA	83.24	24	eP	02	53.50	-0.1
	1.0s	10.00nm				4.8mb
PMR	84.66	28	eP	02	59.60	-1.0
INK	91.08	22	eP	03	18.00	-13.4X
PRNI	91.41	300	eP	03	36.00	2.3
MBH	91.55	300	ePc	03	32.00	-2.3
MBC	93.12	13	eP	03	42.00	1.4
DAG	98.88	353	iPc	04	06.60	-0.2
	0.7s	4.79nm				5.1mb
YKA	100.33	25	Pdiff	04	15.90	2.3X
KIC	131.98	281	PKP	09	43.50	1.5
SAN	144.41	153	ePKP	10	04.20	0.0
MDZ	145.70	154	ePKP	10	01.30	-5.2X
			i	11	56.90	
UPA	150.43	67	e(PKP)	10	20.90	6.6X
BAO	166.11	197	ePKP	10	32.70	0.0
	S.D. = 1.2	on 75 of 90 obs.				

FEB 28, 1989 06h 07m 11.56± 1.45s
2.294 N ± 5.0km 127.954 E ± 7.8km
DEPTH = 62.2 ± 13.9 km
5.0mb (11 obs.)
MOLUCCA PASSAGE (266)

MNI	3.23	255	eP	08	01.20	0.3
TSM	10.05	281	eP	09	36.50	0.8
MTN	15.37	168	eP	10	45.00	-1.2
KNA	17.95	177	eP	11	17.50	-0.9
TRT	18.23	237	ePd	11	26.50	4.6X
WB5	22.92	164	eP	12	10.70	-0.4
WRA	22.97	164	Pc	12	10.80	-0.8
	0.8s	37.00nm				4.9mb
QZH	24.26	339	Pd	12	24.00	-0.1
MBL	24.63	198	eP	12	27.60	-0.1
GZH	25.06	327	eP	12	32.10	0.4
QIS	25.42	154	eP	12	35.00	-0.1
			e	12	37.00	
NANU	27.52	205	eP	12	54.00	-0.4
CTA	28.59	142	iPd	13	06.30	2.3
	1.0s	6.50nm				4.2mb
			e	13	09.20	
			eS	17	22.00	
			eSS	18	19.00	
PSI	29.01	271	eP	13	03.00	-4.9X
SSE	29.35	348	eP	13	10.50	-0.3
NJ2	30.82	345	Pc	13	24.00	0.3
WHN	30.91	337	eP	13	25.00	0.5
GYA	31.55	322	P	13	31.20	0.8
CHG	32.81	302	iPd	13	41.40	0.0
	0.6s	8.33nm				4.7mb
MRWA	33.36	199	eP	13	45.00	-1.0
TIA	35.21	345	P	14	00.00	-1.8
XAN	36.24	333	iPd	14	10.10	-0.5
STK	36.37	160	iPc	14	11.60	0.0
			e	14	14.00	
CD2	36.52	324	eP	14	12.80	-0.2
BRS	37.98	143	iP	14	26.50	1.2
TIY	38.02	340	Pc	14	26.40	0.8
	N 13s	0.30um				
ADE	38.41	166	iPc	14	32.10	3.3X
	0.8s	38.81nm				5.4mb
BJI	39.06	346	eP	14	32.50	-1.6
SNY	39.55	355	Pc	14	37.80	-0.3
LZH	40.35	329	eP	14	46.00	1.0
	2.0s	402.00nm				5.9mb
HHC	41.14	341	eP	14	51.00	-0.4
BWA	41.28	154	eP	14	56.00	3.5X
SHL	41.71	307	iP	14	56.40	0.1
MDJ	42.17	2	eP	14	59.00	-0.6
CAN	42.29	154	eP	15	03.00	2.2
TOO	42.87	159	eP	15	09.00	3.5X
GTA	44.95	329	Pd	15	23.00	0.6
	E 11s	0.27um				
			ePP	17	04.00	
PKI	47.79	306	P	15	46.20	0.9
	0.6s	13.00nm				5.1mb
KKN	47.99	306	P	15	47.10	0.5
DMN	48.05	306	P	15	47.80	0.6
GKN	48.59	306	P	15	51.40	0.2
KOD	50.74	281	eP	16	08.40	0.4
HYB	50.76	291	eP	16	08.00	0.2
	1.2s	78.60nm				5.6mb
GBA	51.17	286	Pc	16	09.80	-1.0
	0.9s	7.20nm				4.7mb
WMO	54.59	325	P	16	36.00	0.0
POO	55.36	291	eP	16	40.50	-1.4
KSH	59.89	315	eP	17	13.00	-0.5
MAIO	71.35	308	eP	18	28.00	0.9
SVW	81.45	29	eP	19	24.00	0.8
IMA	83.19	24	eP	19	32.70	0.5
	1.2s	13.70nm				4.8mb
PMR	84.61	28	eP	19	37.60	-1.6
	1.4s	46.50nm				5.4mb
DAG	98.84	353	iPc	20	44.80	-0.7
	0.8s	5.22nm				5.1mb
	S.D. = 0.9	on 47 of 52 obs.				

FEB 28, 1989 06h 07m 30.89± 0.44s
23.217 S ± 5.2km 70.628 W ± 9.7km
DEPTH = 33.0km (normol)
4.7mb (4 obs.)
NEAR COAST OF NORTHERN CHILE (122)

HJA	4.80	91	ePd	08	42.90	0.1
FSA	5.08	125	ePd	08	47.00	0.3
ARE	6.77	353	eP	09	08.00	-2.8
			iS	10	22.80	
CNCB	6.84	22	P	09	12.00	-0.1
RTRS	7.00	172	ePd	09	14.90	1.2
			S	10	55.00	
LPB	7.06	20	iPd	09	16.00	1.0
	1.0s	396.00nm				6.3mb X
			S	10	41.00	
			eLR	11	22.00	
CCH	7.17	37	eP	09	18.00	1.6
			i	09	21.00	
ZOBO	7.30	19	Pc	09	17.00	-1.5
	0.5s	81.82nm				6.0mb X
	Z 25s	0.60um				4.4Msz
			LR	12	01.00	
RTLL	8.31	167	ePc	09	30.60	-1.4
			S	11	17.00	
RTCB	8.40	169	ePd	09	32.70	-0.6
			S	11	23.00	
ZON	8.47	169	eP	09	35.00	0.6
CFA	8.62	166	ePc	09	36.10	-0.3
RTCV	8.81	168	ePc	09	37.50	-1.5
PEL	9.89	180	iPc	10	05.00	11.1X
			iS	12	04.40	
VAO	21.76	94	eP	12	13.70	-8.0X
			e	12	18.90	
			e	12	33.70	
BMA	24.37	94	eP	12	48.00	0.7
ATB	26.64	45	e(P)	13	14.30	5.7X
ELC	62.68	343	P	17	53.10	-1.5
FVM	63.66	343	P	17	59.40	-1.7
ALQ	67.09	329	eP	18	24.20	0.7
	1.0s	7.25nm				4.7mb
GOL	70.50	332	P	18	44.60	0.0
MSU	72.72	327	P	18	59.80	1.9
TNP	75.04	324	P	19	13.30	2.0
	0.8s	3.73nm				4.4mb
KVN	76.22	324	P	19	19.00	1.0
RSON	76.51	345	P	19	18.00	-1.1
	0.9s	7.35nm				4.7mb
HPI	77.16	330	P	19	25.00	1.7
LBFM	79.89	323	P	19	39.50	1.3
SES	81.54	335	eP	19	45.00	-1.4
FFC	82.16	342	eP	19	49.00	-0.4
	1.0s	16.00nm				5.0mb
DPW	82.64	330	P	19	53.50	1.3
FRB	86.69	1	eP	20	11.00	-1.0
	S.D. = 1.4	on 28 of 31 obs.				

? FEB 28, 1989 07h 12m 46.08± 4.26s
31.006 N ±79.0km 41.503 W ±17.8km
DEPTH = 10.0km (geophysicist)
4.9mb (2 obs.)
NORTH ATLANTIC RIDGE (403)

GRF	43.32	49	eP	20	52.00	2.3
	1.3s	27.00nm				4.8mb
CLL	44.61	47	e(P)	21	00.00	-0.1
KHC	44.82	50	P	21	02.00	0.1
PRU	45.49	49	Pc	21	07.50	0.4
KSP	46.65	48	eP	21	14.70	-1.6
DAG	47.06	7	eP	21	19.00	-0.2
ZST	47.14	51	eP	21	20.00	-0.2
FFC	48.47	318	eP	21	31.00	0.4
	0.8s	9.00nm				4.9mb
BZS	50.39	54	eP	21	45.00	-0.4
MLR	53.42	54	eP	22	08.00	-0.3
YKA	55.26	327	P	22	29.20	7.8X
INK	62.32	335	ePd	23	10.00	-0.4
	S.D. = 1.0	on 11 of 12 obs.				

FEB 28, 1989 09h 05m 29.97± 0.81s
43.463 N ± 6.0km 5.436 E ± 5.9km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.2 (STR).

GELF	0.08	185	Pg	05	31.51	-1.0
TREF	0.17	347	Pg	05	33.57	-0.2
PUYF	0.20	70	Pg	05	33.41	-1.0
PRAF	0.39	330	Pg	05	38.58	0.6
VILF	0.44	27	Pg	05	38.57	-0.4
TAVF	0.48	71	Pg	05	39.10	-0.6
CALN	1.09	74	Pn	05	51.02	0.4
MVIF	1.32	70	Pn	05	54.58	0.1
TOUF	1.42	67	Pn	05	56.40	0.3
AURF	1.44	72	Pn	05	55.99	-0.1
			Sg	06	15.70	
AUTN	1.54	69	Pn	05	57.63	-0.1
			Sg	06	18.95	
CVF	2.67	108	Pn	06	15.70	1.9
	S.D. = 0.9	on 12 of 12 obs.				

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* FEB 28, 1989 10h 33m 52.83± 3.50s
44.405 N ± 6.4km 8.133 E ±34.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 2.8 (LDG).

AUTN	0.65	231	Pg	34	04.89	-1.1
SBF	0.74	223	Pn	34	08.80	1.4
			Sn	34	21.70	
TOUF	0.75	239	Pg	34	07.98	0.4
			Sg	34	21.10	
AURF	0.78	229	Pg	34	08.17	0.1

28d 10h

REVF	0.86	220	Pg	34 09.17	-0.3
MVIF	0.87	235	Pg	34 09.20	-0.5
			Sg	34 22.19	
CALN	1.11	234	Pg	34 14.31	0.6
FRF	1.36	232	Pn	34 17.40	-0.5
			Sn	34 37.40	
LPG	1.47	319	Pn	34 19.70	0.1
			Sn	34 40.00	
LPL	1.49	319	Pn	34 20.00	0.1
LMR	1.59	228	Pn	34 20.60	-0.4
			Sn	34 43.00	
LRG	1.59	234	Pn	34 21.30	0.2
			Sn	34 44.00	
BGF	4.30	302	Pn	34 59.60	-0.1

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

% FEB 28, 1989 10h 53m 07.45± 0.87s
60.635 N ± 5.7km 6.241 E ±14.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.9 (BER).

HYA	0.53	357	iP	53 17.39	-0.9
			iS	53 25.45	
ODD1	0.75	165	iP	53 21.26	-0.9
			eS	53 30.95	
BLS1	1.28	166	iP	53 30.98	-0.3
			iS	53 47.67	
KMY	1.51	200	iP	53 35.52	1.0
			iS	53 55.04	
MOL	2.04	17	eP	53 42.85	0.7
			eS	54 05.38	
NRA0	2.61	85	eP	53 50.80	0.4
			iPg	53 53.00	
			eS	54 17.70	
			iSg	54 26.90	

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

FEB 28, 1989 11h 31m 58.38± 0.52s
46.278 N ± 5.0km 13.000 E ± 4.6km
DEPTH = 10.0km (geophysicist)
AUSTRIA (546)
MD 3.2 (LJU), 2.9 (TRI). ML 2.9 (KBA).

MPRI	0.04	192	ePg	32 00.20	-0.3
BOO	0.08	59	ePg	32 00.10	-0.8
BAD	0.17	104	ePg	32 01.30	-1.0
CSZ	0.33	306	ePg	32 04.90	-0.4
FVI	0.35	334	P	32 05.10	-0.5
			eSg	32 10.80	
TLI	0.36	169	ePg	32 05.40	-0.5
RBL	0.43	67	P	32 05.50	-1.6
			eSg	32 11.60	
VVI	0.50	234	P	32 08.30	-0.2
			eSg	32 17.00	
VOY	0.67	111	iPgd	32 09.60	-2.1
			eSg	32 20.30	
TRI	0.78	137	ePg	32 11.60	-2.0
KBA	0.83	16	iPgc	32 14.30	-0.3
			iSg	32 25.80	
CTI	0.97	257	P	32 17.20	0.4
			eSg	32 33.20	
LJU	1.09	102	ePg	32 20.80	1.9
	0.2s	140.00nm			
			iSg	32 33.50	
CEY	1.13	118	ePg	32 21.90	2.3
	0.2s	130.00nm			
			eSg	32 36.00	
SCE	1.17	311	iPgc	32 20.80	0.5
VBY	1.76	115	ePn	32 30.70	1.7
			iSn	32 53.30	
PTJ	2.09	99	e(Pn)	32 35.90	1.9
			e(Sn)	32 59.60	
WET	2.87	358	iPnc	32 45.50	0.5
KHC	2.88	8	iPg	32 45.80	0.6
			Sg	33 20.00	
ZST	3.39	54	eP	33 51.00	58.6X
SRO	3.94	65	eP	33 09.60	9.4X
MLR	9.07	90	eP	34 15.00	2.7X

S.D. = 1.4 on 19 of 22 obs.

% FEB 28, 1989 12h 07m 57.84± 1.08s
38.520 N ± 8.6km 14.578 E ± 9.1km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.60	171	P	08 10.60	0.6
GIB	0.69	219	P	08 11.10	-0.4
			eSg	08 22.50	
ATN	0.78	117	P	08 13.30	0.2
			eSg	08 24.80	
SOI	1.25	111	P	08 20.30	-0.6
			eSg	08 39.30	
MGR	1.78	25	P	08 29.10	0.2

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

% FEB 28, 1989 12h 14m 22.80± 0.71s
38.550 N ± 5.9km 14.590 E ± 6.0km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.62	172	P	14 35.50	0.0
			eSg	14 45.00	
GIB	0.71	219	P	14 37.00	0.1
			eSg	14 47.00	
ATN	0.79	119	P	14 38.80	0.7
			eSg	14 50.70	
MSI	0.83	114	P	14 39.00	0.1
			eSg	14 52.70	
MCT	1.19	220	P	14 45.20	0.1
SOI	1.25	112	P	14 45.50	-0.4
			eSg	15 05.20	
MEU	1.47	169	P	14 48.60	-0.8
MGR	1.75	25	P	14 53.00	-0.4
TDS	1.75	50	P	14 53.60	0.2

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

FEB 28, 1989 12h 16m 28.39± 1.22s
49.162 N ± 4.9km 128.914 W ±11.0km
DEPTH = 10.0km (geophysicist)
4.4mb (3 obs.)
VANCOUVER ISLAND REGION (25)

EDB	1.37	58	iPnc	16 54.46	1.0
ETB	1.57	81	iPnc	16 57.31	1.0
BTB	2.24	81	iPnc	17 06.77	0.5
OZB	2.26	94	iPnc	17 05.82	-0.6
CBB	2.47	68	iPnc	17 10.73	1.5
MCW	4.04	95	eP	17 31.96	0.4
BLN	4.11	104	eP	17 32.11	-0.5
HDW	4.19	109	eP	17 34.34	0.6
			eS	18 22.68	
GMW	4.39	109	eP	17 36.00	-0.6
CMW	4.55	97	eP	17 39.00	0.0
MBW	4.64	92	eP	17 40.42	0.2
BMW	4.68	123	eP	17 40.87	0.1
JCW	4.73	99	eP	17 41.24	-0.2
APW	4.91	118	eP	17 43.78	-0.1
HTW	4.94	103	eP	17 44.32	-0.1
RPW	4.94	96	eP	17 44.16	-0.3
RMW	5.04	107	eP	17 45.77	-0.1
LMW	5.10	117	eP	17 46.89	0.1
RVC	5.16	113	eP	17 47.79	0.3
KOSW	5.27	118	eP	17 48.87	-0.3
TDL	5.32	119	eP	17 49.60	-0.3
FL2	5.33	121	eP	17 50.07	0.0
FMW	5.34	112	eP	17 50.16	-0.1
LON	5.35	114	eP	17 50.00	-0.2
CWZ	5.36	117	eP	17 50.45	0.1
SHW	5.40	121	eP	17 50.00	-1.0
PNT	6.09	85	eP	18 00.00	-0.6
	0.6s	13.00nm		4.9mb	
DPW	7.23	96	eP	18 15.00	-1.7
FHC	9.06	156	ePc	18 40.40	-1.7
WDC	9.70	150	ePc	18 51.40	0.5
MIN	10.23	147	ePc	18 58.00	-0.3
SES	11.62	77	eP	19 16.00	-1.3
KVN	12.74	138	eP	19 36.00	3.6X
TNP	13.92	138	eP	19 50.00	1.9
BW06	14.88	108	eP	20 03.00	2.4
YKA	15.53	25	P	20 09.30	0.5
YKC	15.56	26	eP	20 08.00	-1.1
FFC	17.45	61	eP	20 32.00	-1.2
	0.8s	9.00nm		4.0mb X	
FFC	17.45	61	eP	20 37.00	3.8X
	0.6s	23.00nm		4.5mb	
INK	19.34	355	eP	20 48.00	-8.3X
ALQ	21.80	122	eP	21 24.00	1.5
	0.9s	3.15nm		3.7mb	

S.D. = 0.9 on 38 of 41 obs.

FEB 28, 1989 12h 20m 16.20± 0.30s
10.286 S ± 5.6km 161.514 E ± 5.6km
DEPTH = 81.1km (3 depth phases)
4.8mb (7 obs.)
SOLOMON ISLANDS (193)

HNR	1.76	299	ePc	20 45.00	-0.4
VSG	2.05	300	eP	20 45.00	-4.4X
			eS	21 08.00	
PAA	7.15	303	eP	22 01.00	0.7
			eS	23 25.00	
PVC	9.92	139	iPc	22 38.00	-0.1
RAB	11.07	302	e(P)	22 55.00	1.4
DZM	12.64	159	iPd	23 15.20	0.8
			iS	25 32.00	
PMG	14.18	272	e(P)	23 36.00	1.5
CTA	17.64	235	iPd	24 19.20	0.9
	1.5s	144.44nm		5.0mb	
			i	24 33.80	
			i	24 57.50	
			i	26 54.00	
			eS	27 57.50	
			i	29 53.00	
BRS	18.90	205	iPc	24 33.70	0.4
			i	24 41.20	
			e(S)	29 30.20	
			iScP	29 46.40	
			eScS	34 55.00	
RMQ	20.13	215	eP	24 53.00	6.8X
			e	24 55.00	8kmX
COO	22.09	203	eP	25 07.00	1.1
QIS	23.43	242	eP	25 19.00	0.0
			e	25 33.00	59kmX
CMS	25.62	212	eP	25 42.00	2.2
BWA	26.85	205	eP	25 49.80	-1.3
CAN	27.41	203	eP	25 54.00	-2.1
WB5	27.85	247	eP	25 58.50	-1.8
			e	26 17.20	82km
WRA	27.89	247	Pc	25 58.50	-2.2
	0.6s	3.60nm		4.2mb	
TOO	30.76	205	eP	26 27.00	0.9
WARB	36.55	240	eP	27 06.00	-10.0X
MRWA	46.45	239	eP	28 35.50	-1.4
CHG	68.13	295	eP	31 11.00	0.9
SVW	78.74	20	iPd	32 11.30	0.2
TTA	79.96	18	P	32 17.40	-0.3
	0.8s	15.69nm		5.0mb	
PMR	81.33	22	eP	32 24.00	-0.8
	1.0s	17.50nm		4.9mb	
IMA	82.94	17	eP	32 33.30	0.0
	0.9s	7.30nm		4.6mb	
GKN	83.41	300	P	32 35.00	-1.5
FBA	83.95	19	eP	32 36.90	-1.3
WDC	86.15	48	ePKPc	32 50.50	0.8
PRI	86.34	52	ePKPc	32 55.80	4.9X
ORV	86.63	49	ePKPc	32 52.50	0.4
CMB	87.05	51	ePKPc	32 54.60	0.4
FRI	87.30	52	ePKPc	32 56.10	0.8
GMW	88.04	41	P	32 58.70	0.0
RMW	88.65	41	P	33 01.80	0.1
KVN	89.05	50	P	33 04.30	0.4
			pP	33 26.70	82km
TNP	89.49	51	P	33 06.50	0.4
	1.0s	4.67nm		4.6mb	
			pP	33 28.30	80km
PNT	90.56	40	eP	33 10.00	-0.5
INK	90.56	20	eP	33 09.00	-1.1
EUR	90.75	50	iP	33 12.50	0.6
	0.9s	20.21nm		5.4mb	
DPW	91.11	42	P	33 12.90	-0.2
HPI	93.71	46	P	33 26.40	0.9
YKA	96.22	28	P	33 35.40	-0.8
BNG	142.84	264	ePKPd	39 37.10	-6.0X
	0.6s	8.00nm			
			ic	43 48.50	
			id	44 20.90	

S.D. = 1.1 on 38 of 43 obs.

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* FEB 28, 1989 12h 23m 57.25± 0.95s
23.921 S ±17.7km 177.237 W ±13.4km
DEPTH = 33.0km (normal)
4.6mb (5 obs.)
SOUTH OF FIJI ISLANDS (171)

VUN	7.12	325	eP	25 41.10	-0.7
SGE	7.76	323	ePc	25 51.30	0.5
RMQ	30.83	258	eP	30 20.00	7.5X
			e	30 27.00	
CTA	34.00	269	iPc	30 42.30	2.0

1.3s 37.50nm 5.2mb
i 30 47.00
PMG 36.91 287 eP 31 10.00 5.0X
WB5 44.92 265 eP 32 09.70 -1.3
e 32 16.20
WRA 44.92 265 Pd 32 09.20 -1.8
0.7s 3.40nm 4.3mb
TNP 83.50 43 P 36 23.50 0.1
KVN 83.54 42 P 36 23.60 0.1
ALQ 88.99 51 eP 36 50.00 -0.4
1.0s 4.25nm 4.7mb
8W06 90.97 43 P 36 59.20 -0.3
0.9s 3.44nm 4.7mb
CHTO 92.06 290 eP 37 06.50 1.9
0.9s 1.28nm 4.4mb
NAO 142.70 353 PKP 43 23.40 -4.9X
0.8s 3.30nm
HFS 143.01 351 (PKP) 43 26.10 -2.7X
0.8s 7.20nm
MLR 151.44 325 ePKP 43 48.50 5.5X
CLL 151.54 346 iPKPc 43 49.10 6.3X
1.1s 42.00nm
BRG 151.73 345 iPKP 43 49.40 6.3X
S.D. = 1.4 on 10 of 17 obs.

FEB 28, 1989 13h 01m 57.64± 0.13s
23.113 S ± 3.2km 61.465 W ± 3.4km
DEPTH = 569.0km (8 depth phases)
5.6mb (78 obs.)
PARAGUAY (126)
CENTROID, MOMENT TENSOR (HRV)
Dato Used: GDSN
L.P.B.: 15S, 40C M.W.: 15S, 31C
Centroid Location:
Origin Time 13:02: 4.2 0.1
Lat 23.23S 0.02 Lon 61.59W 0.01
Dep 589.7 1.0 Half-duration 6.8
Moment Tensor; Scale 10**18 Nm
Mrr=-4.56 0.06 Mtt=-1.09 0.07
Mff= 5.65 0.08 Mrt= 0.89 0.07
Mrf=-4.96 0.07 Mtf= 0.19 0.08
Principal Axes:
T Val= 7.67 Plg=22 Azm= 89
N -0.95 8 356
P -6.71 66 247
Best Double Couple:Mo=7.2*10**18
NP1:Strike=194 Dip=24 Slip= -70
NP2: 352 68 -99

HJA 3.63 268 iPc 03 20.20 1.5
ITB 6.84 106 eP 04 38.90 53.3X
ITB7 6.95 108 eP 04 42.20 55.6X
CCH 7.20 322 iPc 03 50.70 1.4
CNCB 8.77 315 iPc 04 04.20 -0.6
LPB 9.04 315 iPc 04 07.20 -0.2
1.0s 2100.00nm 6.3mb X
LR 05 52.00
ZOBO 9.26 316 Pc 04 08.00 -1.7
LR 05 59.00
RTRS 10.02 224 iPc 04 16.00 -0.7
RTLL 10.28 216 ePc 04 16.70 -2.7
S 06 09.00
CFA 10.38 214 ePc 04 17.70 -2.6
ZON 10.56 216 iPc 04 18.80 -3.4X
RTCB 10.58 216 iPc 04 20.30 -2.1
RTCV 10.74 214 ePd 04 22.10 -1.8
MDZ 11.71 212 iP 04 33.10 -0.5
i 05 17.20
i 05 56.70
iS 06 38.20
JACH 12.48 218 iPd 04 40.50 -0.9
i 06 44.00
i 06 54.00
FCH 12.80 215 iPc 04 44.00 -0.9
e 06 55.50
PEL 12.88 217 iPc 04 43.50 -1.8
SAN 13.10 216 iPc 04 49.00 1.5X
e 06 57.00
i 07 12.50
VAO 13.35 92 iPc 04 49.30 -0.8
TACH 13.40 216 iPc 04 48.10 -2.3
iS 06 55.50
CHCH 13.46 215 iPc 04 49.00 -2.1
e 06 57.00
i 07 12.50
BAO 14.72 62 eP 05 03.50 -0.2
ITA 15.48 91 iPc 05 11.70 0.4

BMA 15.96 92 iPc 05 15.90 0.3
RDJ 16.80 93 iPd 05 24.40 0.7
ATB 21.64 26 Pc 06 07.80 -1.2
ITR 26.29 61 iPc 06 49.20 -1.4
BOG 30.19 334 iPd 07 24.50 -0.1
iS 11 43.00
FUQ 30.84 336 eP 07 28.00 -2.1
BMG 32.08 338 eP 07 32.50 -7.7X
TPP 33.22 0 eP 07 53.03 3.3X
TBH 33.39 1 eP 07 53.83 2.7X
CUM 33.48 355 iP 07 51.80 0.0
e 12 51.00
TRN 33.55 0 eP 07 53.74 1.3
TCE 33.60 359 eP 07 53.63 0.7
FCV 36.05 0 eP 08 10.03 -3.1X
SVB 36.16 0 eP 08 13.63 -0.4
SVV 36.21 0 eP 08 14.78 0.4
SSV 36.22 0 eP 08 16.24 1.7
UPA 36.47 329 eP 08 15.20 -1.4
SLB 36.71 1 eP 08 19.02 0.4
e 13 20.48
BIM 37.40 1 eP 08 24.19 0.0
MVM 37.44 1 eP 08 24.08 -0.5
DVD 37.48 324 iPc 08 26.60 1.7
FDF 37.61 0 eP 08 25.59 -0.4
CRM 37.64 1 eP 08 25.60 -0.5
DSC 38.09 0 eP 08 29.74 0.0
DSVT 38.11 0 eP 08 29.67 -0.3
DTMT 38.11 0 eP 08 30.01 0.0
DPMT 38.14 0 eP 08 30.07 -0.1
MDN 38.19 0 eP 08 30.70 0.0
BBL 38.40 360 eP 08 31.70 -0.7
MGG 38.79 0 eP 08 34.91 -0.6
PAG 38.90 360 eP 08 35.90 -0.6
SFG 39.12 0 eP 08 37.50 -0.7
DEG 39.19 1 eP 08 37.56 -1.2
MGH 39.59 359 eP 08 40.80 -1.3
BPA 39.91 359 eP 08 43.70 -1.0
ANG 40.02 359 eP 08 43.30 -2.2
CPB 40.50 359 eP 08 47.01 -2.3
e 14 12.67
SJG 41.23 353 iP 08 53.30 -1.8
MGP 41.24 352 iP 08 53.50 -1.6
CSB 41.40 353 iP 08 54.20 -2.3
MCP 41.64 352 iP 08 56.00 -2.4
AIA 42.17 182 e(P) 09 02.00 0.0
TPX 48.33 318 (P) 09 50.00 0.0
OXX 52.76 316 (P) 10 23.00 0.3
IISM 54.59 317 (P) 10 36.00 0.8
ACX 54.66 313 (P) 10 36.00 0.2
IIT 55.21 316 (P) 10 41.00 1.1
III 55.48 315 (P) 10 42.50 0.8
IIC 56.36 316 (P) 10 48.50 0.6
CRX 56.37 315 (P) 10 49.00 1.1
JSC 60.10 341 P 11 10.90 -1.4
TKL 62.15 340 P 11 23.50 -2.2
LIC 62.35 69 Pc 11 26.08 -1.3
0.5s 220.00nm 5.8mb
S 19 06.60
TIC 62.57 69 Pc 11 27.64 -1.2
0.5s 313.00nm 6.0mb
BLA 62.60 343 P 11 27.20 -1.4
KIC 62.67 69 Pc 11 28.30 -1.1
0.6s 666.00nm 6.2mb
S 19 12.40
RSCP 62.70 338 P 11 27.00 -2.3
1.0s 300.00nm 5.7mb
CBN 62.80 346 eP 11 29.00 -0.8
e 11 43.00 50kmX
CVL 62.83 345 P 11 29.00 -1.0
PRIN 64.35 349 P 11 39.00 -0.6
GMTN 64.76 349 iP 11 40.60 -1.6
PNJ 64.77 349 iP 11 42.20 -0.1
pP 13 41.40 597kmX
TBR 65.01 349 P 11 43.00 -0.8
ELC 65.52 336 P 11 44.00 -3.0X
LEGH 66.29 72 eP 11 51.00 -1.2
KOGH 66.44 72 eP 11 52.50 -0.7
SHGH 66.54 72 eP 11 52.50 -1.3
FVM 66.59 335 P 11 51.00 -2.6
RKT 66.86 254 iP 11 55.40 -0.2
0.8s 45.00nm 5.0mb
SPA 67.03 180 iPd 11 56.80 0.6
1.0s 270.00nm 5.7mb
i 12 19.60 89kmX
EMM 67.74 355 P 12 00.30 -0.1
DLA 68.21 344 P 12 01.50 -1.8

LDN 68.28 345 P 12 02.00 -1.8
MIM 68.37 354 P 12 04.20 0.0
RSNY 68.38 350 P 12 02.50 -1.9
1.0s 620.00nm 6.1mb
ELF 68.46 345 P 12 03.45 -1.4
CBM 69.97 355 P 12 13.60 -0.1
CER 70.28 119 iPc 12 21.50 5.4X
1.0s 250.00nm 5.7mb
e 12 22.00 2kmX
STJ 70.79 6 eP 12 17.00 -1.4
ALQ 71.80 322 iPd 12 24.90 0.0
1.0s 242.50nm 5.7mb
epP 14 24.00 575km
POF 71.91 115 iPc 12 25.00 -0.5
0.7s 82.19nm 5.4mb
i 14 23.00 567km
GLD 74.69 326 P 12 41.70 0.6
GOL 74.73 326 iPd- 12 41.50 0.1
0.9s 150.21nm 5.5mb
ePP 15 23.20
iS 21 34.00
eSS 24 54.00
GLA 75.55 316 eP 12 46.00 0.2
IKP 76.12 315 eP 12 52.10 3.1X
AVE 76.15 44 iP 12 50.00 1.0
i 13 19.00 114kmX
FRS 76.26 117 iPc 12 48.70 -1.1
0.9s 184.87nm 5.5mb
i 21 46.00
BAR 76.51 315 eP 12 51.00 -0.1
CPE 76.91 315 eP 12 56.00 2.8
TPC 77.01 316 eP 12 54.00 0.2
PLM 77.05 315 eP 12 55.00 0.8
SCH 77.74 357 ePd 12 56.80 -0.4
0.7s 119.00nm 5.4mb
IFR 77.77 45 iPd 12 58.50 0.5
RVR 77.79 315 eP 12 57.00 -0.9
CIS 78.10 314 eP 13 02.40 2.8
GSC 78.24 317 eP 13 03.70 3.3X
MWC 78.37 315 eP 13 01.00 -0.2
PAS 78.40 315 iPd 13 01.50 0.4
ePP 16 01.00
ePPP 19 00.00
eSKS 22 12.00
eSKKS 22 40.00
eS 23 03.00
ePS 25 16.00
ePPS 25 51.00
ePKKP 27 37.00
eSS 30 40.00
esSS 31 00.00
eSSS 34 12.00
eLg 39 38.00
eLR 42 24.00
BFS 78.42 114 eP 12 59.90 -1.8
1.0s 470.00nm 5.9mb
SBB 78.51 316 eP 13 02.00 0.2
KSR 78.87 113 iPc 13 02.50 -1.6
1.0s 100.00nm 5.2mb
i 15 03.20 566km
RSON 78.95 340 P 13 02.30 -1.3
1.0s 350.00nm 5.7mb
CNIL 78.97 43 eP 13 07.00 3.0X
PRY 78.99 115 iPc 13 03.00 -1.6
0.7s 25.00nm 4.8mb
i 15 03.40 564km
PLAT 78.99 43 eP 13 07.50 3.3X
CLC 79.07 317 eP 13 04.00 -0.7
OJEN 79.12 43 eP 13 02.00 -2.9
OJEN 79.12 43 eP 13 09.50 4.6X
BW06 79.13 326 P 13 05.00 0.0
MOMI 79.14 43 eP 13 07.00 2.1
EVAL 79.32 41 eP 13 06.50 0.7
EJIF 79.38 43 eP 13 07.90 1.7
TBI 79.43 249 iP 13 09.10 2.4
0.6s 195.00nm 5.7mb
ISA 79.53 316 eP 13 07.00 -0.1
LIJA 79.70 43 eP 13 10.00 2.1
SYP 79.82 314 eP 13 10.00 1.3
SLR 80.08 114 iPc 13 09.00 -1.3
0.9s 117.65nm 5.3mb
Z 19s 6.94um 6.0Msz
i 15 10.50 569km
MAL 80.22 43 ePg 13 13.30 2.8
TNP 80.26 319 P 13 11.60 0.6
0.8s 80.88nm 5.2mb
pP 15 19.00 603kmX

28d 13h

TAF	80.34	46	eP	13	12.00	0.7	FRB	86.75	357	eP	13	42.00	-0.1				e	17	53.80										
EHOR	80.38	42	eP	13	11.60	0.3	EPF	86.93	40	eP	13	42.60	-1.0				e	18	07.80										
EUR	80.41	320	iP	13	12.40	0.6		0.8s		25.50nm			5.0mb				SKS	23	52.00										
	0.2s	121.69nm				6.0mb	PTZ	87.03	104	iPd	13	46.00	1.2				S	24	30.00										
RUV	80.51	258	iP	13	14.30	1.9				i	14	08.00	81kmX				e	27	19.00										
	1.0s	240.00nm				5.6mb				i	15	50.00		BSF	93.36	39	eP	14	12.80	-0.4								
PTO	80.56	38	eP	13	13.30	1.2				i	17	10.80			1.0s	37.60nm				5.5mb								
			eS	22	18.00		LFF	88.27	39	eP	13	49.80	0.1	SNF	93.38	36	P	14	13.60	0.5								
ATEJ	80.59	43	iPd	13	13.70	1.1	EDM	88.29	332	iPd	13	49.40	-0.3	VAI	93.54	41	P	14	13.30	-0.6								
ALOJ	80.65	43	iPd	13	14.00	1.1	LON	88.29	323	P	13	49.30	-0.6	CDF	93.94	38	eP	14	15.40	-0.4								
MAW	80.70	161	eP	13	12.50	0.0	LPO	88.38	39	eP	13	50.30	0.0		1.0s	60.00nm				5.7mb								
VAH	80.71	257	iP	13	16.00	2.5		1.0s	69.60nm				5.5mb	WLF	93.95	37	P	14	16.60	0.9								
	1.0s	425.00nm				5.9mb	PNT	88.69	326	ePd	13	52.00	0.4	MEM	94.36	36	P	14	17.90	0.4								
AAPN	80.76	43	iPd	13	13.90	0.4		1.0s	211.00nm				6.0mb	ENN	94.40	36	eP	14	17.50	-0.2								
TPT	80.80	258	iP	13	16.60	2.7	MFF	88.74	37	eP	13	51.80	0.0		1.0s	32.00nm				5.5mb								
	1.0s	365.00nm				5.8mb		1.0s	100.00nm				5.7mb	YKC	95.07	338	ePd	14	20.00	-0.5								
APHE	80.81	43	iPd	13	15.00	1.2	BMW	88.91	322	P	13	53.00	0.3		0.8s	43.00nm				5.7mb								
ACHM	80.82	43	iP	13	14.00	0.3				pP	16	00.00	584kmX	YKA	95.12	338	P	14	21.10	0.4								
CRT	81.02	43	eP	13	15.00	0.3	RJF	88.93	39	eP	13	52.50	-0.3	FVI	96.33	42	P	14	26.30	-0.1								
ASMO	81.03	43	iP	13	13.00	-1.8		0.9s	45.80nm				5.4mb	GRF	96.83	39	eP	14	30.00	1.3								
PMO	81.04	258	iP	13	17.60	2.5	ECB	88.97	30	eP	13	51.40	-1.3		1.1s	57.00nm				5.8mb								
	1.0s	240.00nm				5.7mb	ECP	89.03	30	eP	13	51.60	-1.4	KBA	96.89	42	ePc	14	29.00	-0.3								
MNA	81.06	318	ePd	13	15.80	0.8	CAF	89.04	39	eP	13	53.50	0.2		1.2s	13.50nm				5.1mb								
AFC	81.09	43	eP	13	15.50	0.3	LPF	89.10	36	eP	13	52.70	-0.7				e	16	37.00	585kmX								
FRI	81.13	316	ePd	13	14.50	-0.7		1.1s	78.10nm				5.6mb				e	18	32.00										
PRI	81.23	315	iPd	13	16.30	0.4	LWI	89.38	92	iPc	13	56.80	1.0				e	24	08.00										
TVO	81.24	254	iP	13	18.60	2.4	DCN	89.39	29	iPc	13	55.20	0.6				i	24	13.50										
	1.0s	295.00nm				5.8mb		1.3s	230.00nm				5.9mb	MOX	97.49	38	eP	14	32.00	0.3								
EPLA	81.31	40	eP	13	16.70	0.6	GRR	89.41	36	eP	13	54.20	-0.7		1.2s	28.00nm				5.5mb								
KVN	81.41	319	P	13	17.00	0.2		1.0s	80.00nm				5.6mb		Z 15s	1.30um				5.5MszX								
			pP	15	20.00	575km	ETA	89.45	30	eP	13	52.90	-2.0				epP	16	35.00	556kmX								
PPN	81.49	255	iP	13	19.60	2.2	LSF	89.48	38	eP	13	55.20	-0.1				eSKS	24	16.00										
	1.0s	75.00nm				5.2mb		0.9s	44.80nm				5.4mb				eS	25	12.00										
EBAN	81.50	42	eP	13	17.50	0.4	DLE	89.68	29	iPd	13	56.10	0.1				eSP	26	35.00										
PAE	81.57	254	iP	13	20.10	2.3		1.0s	121.00nm				5.8mb				eSS	32	00.00										
	1.0s	160.00nm				5.5mb	FLN	89.84	35	eP	13	56.20	-0.6				e	42	20.00										
PPT	81.60	255	iP	13	20.40	2.4		1.0s	56.00nm				5.4mb	KHC	97.95	40	iPc	14	34.40	0.5								
	1.0s	180.00nm				5.6mb	TCF	89.89	38	eP	13	56.80	-0.4		1.0s	7.50nm				5.0mb								
Z	19s	11.00um				6.2Msz		0.9s	34.30nm				5.3mb				e	15	04.70	115kmX								
LLA	81.70	316	ePd	13	18.40	0.3	LBL	89.90	40	P	13	58.26	1.1	CLL	98.58	38	iP	14	37.80	1.2								
AFR	81.79	254	iP	13	21.10	2.2	DMU	89.92	29	iPc	13	56.50	-0.6		1.8s	59.00nm				5.7mb								
	1.0s	190.00nm				5.6mb		1.0s	139.00nm				5.8mb				epP	16	46.00	587kmX								
PRS	81.80	315	ePd	13	18.40	-0.2	LDF	89.93	36	eP	13	56.60	-0.6				iSKS	24	19.00										
SAO	82.11	315	e(P)	13	20.00	-0.2		1.2s	89.20nm				5.6mb				PKKP	31	33.00										
CMB	82.19	317	ePd	13	20.80	0.2	PYM	90.05	39	P	13	57.53	-0.5	PRU	98.88	39	P	14	39.00	1.0								
ERUA	82.21	37	eP	13	21.00	0.5	MAF	90.06	39	eP	13	57.90	0.0				e	24	24.00										
BUL	82.39	109	iPc	13	21.60	-0.5		0.9s	32.70nm				5.3mb	BRG	98.92	38	eP	14	39.40	1.3								
			ipP	15	24.10	570km	YRH	90.27	31	eP	13	58.50	-0.2		1.1s	16.00nm				5.4mb								
			iS	22	46.60		AGO	90.29	39	P	13	59.59	0.6	AVY	99.25	115	eP	14	41.58	0.9								
TOL	82.40	41	iPd	13	24.00	2.4	PGC	90.31	324	eP	14	00.00	1.1	KSP	100.26	39	ePdiff	14	44.50	0.3								
	1.2s	250.00nm				5.6mb		0.8s	182.00nm				6.1mb				e	18	52.00										
			iS	22	49.00		BGF	90.41	38	eP	13	59.50	0.0	NAO	101.72	28	Pdiff	14	51.20	0.8X								
			isS	23	45.00			0.9s	32.70nm				5.3mb		1.1s	7.40nm				5.2mb								
BNG	82.57	82	iPc	13	22.90	-0.1	PLDF	90.53	39	P	14	00.69	0.5	SLL	102.67	29	ePdiff	14	55.50	0.8								
	1.6s	143.00nm				5.3mb	AVF	90.83	38	eP	14	01.30	-0.1		0.9s	7.10nm				5.3mb								
			id	15	24.90	566km	LRG	90.83	42	eP	14	02.10	0.6	DAG	102.94	9	ePdiff	14	56.00	0.5								
			id	16	38.90			0.9s	87.00nm				5.8mb	INK	104.88	339	ePdiff	15	03.00	-1.3								
MHC	82.58	316	ePd	13	23.40	0.8	LMR	90.86	43	eP	14	02.10	0.5	MBC	105.18	348	ePdiff	15	06.00	0.5								
EVIA	82.58	43	eP	13	22.80	0.2		0.9s	52.40nm				5.6mb		0.6s	6.00nm				5.6mb								
GCC	82.62	315	ePd	13	22.90	0.2	SMF	91.03	39	eP	14	02.40	0.0	MBC	105.18	348	ePKP	19	33.00	16.9X								
LRM	82.74	327	ePd	13	24.00	0.6	FRF	91.06	42	eP	14	03.00	0.4		1.1s	40.00nm												
EMON	82.79	37	eP	13	24.30	0.9		0.8s	22.50nm				5.2mb	ALE	105.43	360	ePdiff	15	06.00	-0.5								
GUD	82.81	40	eP	13	24.20	0.4	SSF	91.06	38	eP	14	02.30	-0.2		0.4s	2.00nm				5.3mb								
PCC	83.15	316	ePd	13	25.40	0.1		1.1s	62.00nm				5.6mb	ALE	105.43	360	ePKP	19	26.00	9.5X								
BKS	83.27	316	ePd	13	27.30	1.4	LBF	91.29	39	eP	14	03.30	-0.3		1.2s	26.00nm												
	1.6s	875.00nm				6.1mb		1.0s	42.80nm				5.4mb	PMR	108.96	330	ePKP	19	29.80	6.2X								
			ePP	16	26.40		CALN	91.31	42	P	14	04.99	1.1	FBA	109.14	333	Pdiff	15	24.90	1.6								
			eS	23	00.00		LOR	91.38	38	eP	14	03.70	-0.3	FBA	109.14	333	ePKP	19	25.10	1.2								
			ePPS	24	07.80			1.1s	48.80nm				5.4mb	IMA	111.77	334	ePKP	19	29.50	0.5								
BRK	83.29	316	ePd	13	26.50	0.5	REVF	91.60	43	P	14	06.36	1.2		0.9s	7.80nm												
ORV	83.80	318	ePd	13	28.90	0.4	AURF	91.65	42	P	14	06.31	0.9	TOO	114.52	203	ePKP	19	34.00	-1.1								
LSZ	83.82	104	iPc	13	30.20	0.9	SBF	91.71	42	eP	14	06.00	0.4	CAN	115.11	207	ePKP	19	34.90	-1.4								
			i	13	41.50	37kmX		0.9s	91.70nm				5.8mb				e	20	43.80										
			i	15	34.00		AUTN	91.77	42	P	14	06.94	0.8				e	22	18.90										
			i	16	50.00		CVF	91.96	44	eP	14	07.10	0.3				e	30	14.90										
ECHE	84.11	43	eP	13	30.30	0.2	LPG	92.13	41	eP	14	08.50	0.7	BWA	116.12	207	ePKP	19	37.50	-0.7								
ETOR	84.18	41	eP	13	31.20	0.7		0.9s	56.30nm				5.6mb				e	20	39.00										
MIN	84.34	318	ePd	13	30.50	-0.8	GDH	92.28	3	iPd	14	08.30	0.7				e	30	10.20										
FFC	84.95	338	iPd	13	33.50	-0.3		1.2s	71.88nm				5.6mb	SLY	116.43	61	iPKP	19	38.00	-0.7								
	1.1s	341.00nm				5.9mb				e	16	16.00	584kmX				e	22	43.00										
WDC	85.05	318	iPd	13	33.50	-1.1				i	24	47.00					iS	25	34.50										
SES	85.29	331	ePd	13	34.40	-1.1	EKA	92.52	29	P	14	09.00	0.0				i	26	52.00										
	0.9s	323.00nm				6.0mb		1.4s	77.30nm				5.6mb				iS	29	39.00										
EBR	85.74	42	eP	13	39.00	1.2	HAU	93.19	39	eP	14	11.90	-0.4	TAB	117.50	58	ePKP	19	38.00	-2.9								
			e	15	36.00	532kmX		0.9s	27.50nm				5.4mb				e	20	51.00										
			eS	23	09.00		DOU	93.32	36	P	14	13.00	0.2	COO	117.75	212	ePKP	19	42.00	0.5								
FHC	86.07	318	ePd	13	40.70	1.2		1.0s	66.70nm				5.7mb	CMS	119.74	207	ePKP	19	44.00	-1.2								

28d 13h

BRS	119.88	215	iPKPc	19	44.70	-0.9
			i(ScS)	29	59.20	
STK	121.03	203	iPKPd	19	47.80	0.2
			e	22	30.00	
RMO	122.67	212	iPKPd	19	58.50	7.6X
			e	22	41.00	
NWAO	124.26	179	iPKPc	19	53.40	-0.4
	0.7s		31.00nm			
MUN	125.18	178	iPKPd	19	54.50	-1.1
	0.5s		58.00nm			
FORR	125.57	190	ePKP	19	43.00	-13.4X
			i	19	55.00	
KLB	125.60	179	iPKPc	19	56.00	-0.5
	0.7s		50.00nm			
COOL	126.25	183	iPKPc	19	57.10	-0.7
BAL	126.56	178	iPKPc	19	57.70	-0.6
	0.5s		18.00nm			
MAIO	127.78	61	iPKPd	20	00.40	-0.2
	0.8s		27.82nm			
MRWA	127.91	177	ePKP	20	00.20	-0.8
			e	22	28.50	
CTA	129.26	214	iPKPc	20	03.20	-0.5
	1.3s	1837.50nm				
			iS	23	27.00	
OIS	131.98	207	ePKP	19	50.00	-18.9X
			e	20	09.00	
QUE	133.68	70	ePKP	20	00.00	-12.1X
			eS	22	49.60	
NANU	134.51	176	ePKP	20	01.00	-12.6X
			e	20	11.00	
WRA	134.51	201	PKPc	19	57.10	-16.6X
	0.5s		8.00nm			
WRA	134.51	201	PKP	20	24.00	10.3X
	0.5s		6.90nm			
WB5	134.56	201	ePKP	19	55.10	-18.7X
			i	19	58.80	
WB5	134.56	201	iPKP	20	13.10	-0.7
			iPP	22	50.00	
MBL	135.98	182	ePKP	20	03.50	-13.0X
PMG	137.23	224	ePKP	20	10.00	-9.0X
BOM	137.24	87	ePKP	20	14.50	-4.4X
			eS	23	24.00	
POO	138.11	88	ePKP	20	26.00	5.5X
KOD	138.77	101	ePKP	20	13.00	-9.2X
GBA	139.98	96	PKPd	20	13.10	-10.8X
	1.0s		10.90nm			
KNA	140.10	195	ePKP	20	15.50	-8.6X
	0.7s		53.00nm			
			e	23	06.00	
KSH	140.54	55	PKP	20	19.00	-5.5X
HYB	142.15	91	ePKP	20	22.30	-5.4X
	1.0s		95.00nm			
			e	20	47.00	
MTN	142.19	200	iPKPd	20	23.20	-4.6X
			e	23	13.00	
NDI	142.55	73	iPKPd	20	24.20	-3.9X
			eS	23	09.00	
JAY	146.59	223	ePKPc	20	43.00	7.7X
WMO	147.30	43	iPKPd	20	36.00	0.4
TRT	148.83	169	ePKPc	20	38.00	-0.7
	0.8s		72.90nm			
GKN	149.10	74	PKP	20	39.10	0.1
DMN	149.52	75	PKP	20	40.00	0.2
KKN	149.67	74	PKP	20	40.10	0.1
PKI	149.79	75	PKP	20	40.20	-0.1
AAI	151.74	201	ePKPc	20	49.50	6.4X
MKS	151.83	182	ePKPc	20	46.00	2.8X
PSI	152.20	134	ePKP	20	45.00	1.3
SAP	152.58	322	ePKP	20	45.00	1.6
GUA	153.25	254	ePKP	20	44.00	-1.1
GUMO	153.31	254	ePKP	20	44.50	-0.7
PJG	153.31	254	ePKP	20	43.70	-1.5
KGM	154.36	143	ePKP	20	56.00	9.3X
LSA	154.65	69	PKP	20	48.40	1.1
			pPKP	23	03.00	
IPM	154.99	135	ePKPc	20	48.10	0.5
	1.0s		45.70nm			
SHL	155.61	79	iPKP	20	48.40	0.1
			eS	30	46.00	
SNG	156.59	130	ePKP	20	31.50	-18.1X
			e	22	39.50	
MDJ	156.71	340	ePKP	20	50.00	1.1
			e	21	24.00	
			pPKP	23	00.00	
			PP	25	00.00	
			SS	44	00.00	
GTA	157.27	40	iPKPd	20	50.00	0.1
CN2	158.59	346	iPKPd	20	50.00	-1.1
			e	21	28.00	
			pPKP	23	00.00	
			SKKS	31	00.00	
NNT	159.29	117	ePKP	20	54.00	1.4
BDT	160.77	104	ePKP	20	53.80	-0.2
SNY	160.87	348	PKPd	20	54.00	0.5
CHG	161.21	100	iPKPd	20	55.80	1.3
	1.0s		48.50nm			
			eS	27	32.00	
HHC	161.37	17	PKPd	20	55.50	1.3
			e	21	44.00	
			PP	25	19.00	
			SKKS	31	12.00	
			SS	44	59.00	
LZH	161.85	41	PKP	20	56.00	1.1
DAV	162.69	204	ePKP	20	56.00	-0.1
BJI	163.01	6	PKP	20	57.00	1.3
SHK	163.20	316	iPKP	20	58.00	1.9
	0.9s		84.03nm			
DL2	164.04	351	iPKPd	20	58.00	1.3
			e	21	56.00	
			pPKP	23	10.00	
			PP	25	40.00	
TIY	164.53	18	PKPd	20	58.00	0.7
			e	21	58.00	
			pPKP	23	12.00	
			PP	25	45.00	
			SKKS	31	37.00	
			SS	45	29.00	
CD2	164.72	56	ePKP	20	58.40	0.7
			pPKP	23	14.00	
KMI	165.44	79	PKPd-	20	59.00	0.4
	5.0s		1.40nm			
XAN	166.23	36	iPKPd	20	59.40	0.6
			pPKP	23	11.40	
TIA	166.89	5	PKP	21	00.00	0.8
			e	22	06.50	
			pPKP	23	13.20	
			ePP	25	53.60	
			SS	45	47.00	
GYA	168.71	70	PKP	21	00.80	0.0
			e	22	20.00	
			pPKP	23	16.00	
			sPKP	24	20.00	
			PP	26	07.00	
			SKKS	31	52.00	
			SS	46	10.00	
QIZ	170.93	115	ePKP	21	03.00	1.0
			pPKP	23	15.00	
NJ2	171.09	358	iPKPd	21	02.00	0.3
			pPKP	23	17.00	
			sPKP	24	23.00	
			PP	26	15.00	
			SKKS	32	07.00	
SSE	171.71	344	PKP-	21	02.00	0.1
	1.0s		61.00nm			
	Z 24s		2.00um			6.8Msz
	E 12s		1.70um			
			pP	21	28.00	
			sP	23	14.00	
			ePPP	24	32.00	
			PcS	26	16.00	
			i	28	20.00	
			eScS	30	08.00	
			eSS	31	46.00	
WHN	171.71	26	PKP	21	03.00	1.0
			e	22	28.00	
			pPKP	23	18.00	
			ePP	26	22.00	
			SKKS	32	06.00	
			SS	46	44.00	
BAG	173.06	196	ePKP	21	03.90	0.8
GZH	175.22	89	PKP	21	02.00	-1.4
			PP	26	39.00	
			SKKS	32	27.00	
ANP	176.58	308	ePKP	21	07.00	3.2X
OZH	178.18	358	PKPd	21	05.00	1.2
			e	22	58.00	
			pPKP	23	14.00	
			PP	26	49.00	
			SKKS	32	44.00	

S.D. = 1.1 on 319 of 363 obs.

& FEB 28, 1989 13h 29m 05.70s
36.793 N 121.290 W
DEPTH = 8.0km

CENTRAL CALIFORNIA (39)
<BRK>. ML 3.0 (BRK).

SAO	0.13	257	iPd	29	08.60	0.0
			iS	29	11.00	
LLA	0.33	122	iPc	29	12.20	-0.2
PRS	0.46	188	iPd	29	14.50	-0.6
ARN	0.59	341	eP	29	17.00	-0.5
GCC	0.61	293	ePc	29	16.70	-1.3
MHC	0.62	333	iPc	29	17.75	-0.3
			eS	29	27.70	
PRI	0.82	142	iPc	29	22.30	0.4
PCC	1.12	309	iPc	29	25.70	-1.2
PHAM	1.20	143	eP	29	27.40	-0.8
FRI	1.28	81	ePc	29	29.20	-0.5
			eS	29	45.90	
BKS	1.32	325	eP	29	28.80	-1.4
BRK	1.33	325	e(P)d	29	28.40	-2.0
ZSP	1.38	326	eP	29	29.70	-1.5
CMB	1.43	30	ePc	29	30.80	-1.3
BCH	1.88	148	eP	29	36.70	-1.8

15 obs. associated

& FEB 28, 1989 13h 33m 08.09s
60.530 N 152.788 W
DEPTH = 111.8km

SOUTHERN ALASKA (2)
<AGS-P>.

RDT	0.19	77	iP	33	23.44	1.1
ILIM	0.46	191	iP	33	24.41	-0.8
			iS	33	37.39	
SPU	0.75	28	iP	33	26.80	-0.5
NKA	0.79	74	eP	33	28.66	1.0
CRP	0.80	22	eP	33	27.58	-0.4
NNL	0.89	123	eP	33	28.88	0.3
PDB	1.02	224	iP	33	29.00	-0.9
SLKM	1.27	90	eP	33	31.94	-0.8
			iS	33	49.80	
CNPM	1.27	142	eP	33	31.94	-0.8
SVW	1.50	294	eP	33	33.68	-1.8
SEW	1.72	103	eP	33	36.42	-1.6
PMS	1.73	64	eP	33	37.54	-0.8
			eS	34	00.32	
PWA	1.81	50	eP	33	38.41	-0.7
PTE	1.88	78	eP	33	38.33	-1.7
PLRM	2.07	57	eP	33	40.79	-1.7
PME	2.13	57	eP	33	41.86	-1.5
PWL	2.22	79	P	33	42.36	-2.1
GHO	2.25	55	eP	33	43.36	-1.6
KNK	2.29	65	eP	33	43.50	-1.9
KNIM	2.51	92	eP	33	44.97	-3.3
SML	2.51	57	eP	33	46.33	-2.0
KLU	3.48	71	eP	33	58.61	-2.8

22 obs. associated

FEB 28, 1989 13h 48m 57.03± 0.52s
7.624 S ± 3.8km 127.399 E ± 5.6km
DEPTH = 196.4 ± 5.0 km
5.0mb (15 obs.)

BANDA SEA (280)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 9S, 17C
Centroid Location:
Origin Time 13:48:41.1 2.2
Lat 8.39S 0.18 Lon 128.08E 0.15
Dep 263.0 4.1 Half-duration 4.3
Moment Tensor; Scale 10**18 Nm
Mrr=-0.47 0.15 Mtt=-0.17 0.18
Mff= 0.64 0.26 Mrt= 0.03 0.18
Mrf=-1.76 0.15 Mtf= 0.14 0.18
Principal Axes:

	Vol=	1.94	Plg=36	Azm= 93
N		-0.17	5	0
P		-1.77	53	263

Best Double Couple:Mo=1.9*10**18
NP1:Strike=208 Dip=10 Slip= -62
NP2: 359 81 -95

AAI	3.99	11	ePd	49	59.50	0.4
KUG	4.53	236	iPd	49	34.00	-32.0X
			eS	50	24.50	
MTN	6.36	145	eP	50	25.00	-4.6X
KNA	8.19	171	iPd	50	49.10	-4.7X
			eS	52	13.00	
WB5	13.93	152	eP	52	01.50	-5.9X

28d 13h

		eS	54 29.00		
WRA	13.97	152 Pc	52 02.20	-5.8X	
	0.3s	8.00nm		4.6mb	
TRT	14.63	269 ePc	52 16.60	0.5	
	0.7s	75.10nm		5.2mb	
MBL	15.31	208 eP	52 21.00	-3.5X	
		eS	55 07.00		
QIS	17.46	139 eP	52 48.00	-2.0	
		e	55 50.00		
KKM	17.57	320 ePd	52 54.00	2.7	
WARB	18.47	182 iPd	52 49.60	-11.1X	
		eS	56 10.00		
NANU	18.74	216 iPc	53 03.40	0.0	
	0.5s	40.00nm		5.2mb	
		eS	56 33.00		
PMG	19.62	97 eP	53 13.00	0.5	
MEKA	20.68	203 iPd	53 23.80	0.7	
		eS	57 15.00		
CTA	22.07	126 iP	53 30.00	-6.8X	
	1.0s	15.00nm		4.5mb	
		ePP	54 10.00		
		i	56 45.00		
		eS	57 14.00		
FORR	23.12	178 eP	53 46.00	-0.7	
	0.4s	19.00nm		5.1mb	
		e	53 55.00		
		eS	58 08.00		
COOL	23.87	193 eP	53 53.80	-0.2	
		eS	58 22.00		
MRWA	24.02	205 eP	53 55.40	0.1	
		eS	58 27.00		
BAL	24.96	202 eP	54 05.30	1.2	
		e	54 32.50		
		eS	58 48.00		
KLB	25.49	199 eP	54 09.00	0.1	
		e	54 31.80		
		eS	59 01.00		
MUN	26.38	202 iPc	54 17.10	0.1	
		e	54 49.00		
		eS	59 23.00		
NWAO	26.89	199 iPc	54 21.20	-0.4	
	0.5s	13.00nm		4.9mb	
		e	54 58.00		
		eS	59 37.00		
STK	27.52	153 iPd	54 26.80	-0.5	
		e	57 40.00		
		e	59 50.00		
IPM	28.97	294 ePc	54 39.90	-0.6	
	0.6s	39.80nm		5.3mb	
ADE	29.13	161 e(P)	54 42.00	0.3	
CMS	29.32	147 eP	54 42.00	-1.3	
		e	00 28.00		
SNG	30.49	298 eP	54 54.20	0.4	
	0.9s	75.63nm		5.4mb	
BWA	32.96	147 iPc	55 16.30	1.1	
CAN	33.95	147 eP	55 23.30	-0.3	
TOO	34.03	154 eP	55 25.00	0.7	
NNT	34.05	306 iPc	55 24.50	-0.1	
BDT	37.39	312 iPc	55 52.20	-0.6	
	0.8s	77.30nm		5.4mb	
CHG	38.44	313 iPc	56 02.10	0.6	
	1.0s	27.50nm		4.8mb	
SSE	38.96	352 eP	56 04.50	-1.0	
GYA	39.41	330 P	56 10.20	0.7	
		PcP	58 14.60		
WHN	39.96	342 eP	56 15.00	1.2	
KMI	40.45	324 Pc	56 20.00	1.8	
CD2	44.51	331 eP	56 51.00	0.2	
XAN	44.99	338 Pc	56 53.40	-1.1	
SHL	47.76	315 iP	57 15.40	-1.2	
		eS	58 42.40		
BJI	48.55	348 eP	57 20.00	-2.1	
LZH	48.79	335 eP	57 25.00	0.7	
	1.5s	88.00nm		5.0mb	
LSA	50.91	318 Pc	57 41.50	0.6	
GTA	53.32	333 iPc	57 58.00	-0.2	
PKI	53.60	312 Pc	58 00.00	-0.7	
KKN	53.82	313 Pc	58 01.60	-0.6	
DMN	53.85	312 Pc	58 01.80	-0.6	
GBA	53.90	293 Pc	58 01.10	-1.5	
	0.5s	6.80nm		4.5mb	
HYB	54.30	298 eP	58 03.80	-1.8	
	0.8s	23.10nm		4.9mb	
GKN	54.41	312 Pc	58 05.90	-0.5	
POO	58.86	297 iPc	58 37.50	-0.2	
NDI	60.34	309 iPd	58 46.00	-1.7	
WMQ	62.54	329 iPc	59 01.70	-0.5	
QUE	69.06	306 iPc	59 43.60	-0.4	
MAIO	77.08	310 iPc	00 31.00	0.6	
	1.0s	16.00nm		4.7mb	
SPA	82.43	180 e(P)	00 58.90	0.6	
	0.9s	17.27nm		4.8mb	
YKA	109.44	26 PKP	07 05.40	0.3	
CDF	115.45	320 ePKP	07 16.60	-0.6	
BSF	115.94	320 ePKP	07 17.80	-0.4	
	0.6s	11.50nm			
HAU	116.17	320 ePKP	07 18.50	0.0	
LPG	116.69	317 ePKP	07 20.00	0.1	
	0.6s	4.50nm			
LOR	118.00	320 ePKP	07 22.10	0.1	
	0.6s	3.90nm			
LBF	118.03	320 ePKP	07 22.10	0.0	
	0.6s	7.50nm			
SMF	118.23	319 ePKP	07 22.30	-0.1	
	0.6s	3.60nm			
SSF	118.30	320 ePKP	07 22.80	0.3	
	0.5s	9.70nm			
AVF	118.50	320 iPKPc	07 22.60	-0.3	
	0.6s	6.60nm			
BGF	118.90	320 iPKPc	07 24.10	0.4	
	0.6s	18.00nm			
MAF	119.21	319 ePKP	07 24.50	0.2	
	0.6s	3.60nm			
TCF	119.41	319 ePKP	07 24.90	0.2	
	0.7s	7.70nm			
CAF	120.00	318 ePKP	07 26.60	0.7	
	0.5s	2.90nm			
LPO	120.67	318 ePKP	07 27.90	0.8	
	0.6s	7.90nm			
LPF	120.75	322 ePKP	07 27.30	0.2	
	0.5s	8.70nm			
MFF	120.79	320 ePKP	07 27.50	0.2	
LFF	120.87	318 ePKP	07 28.30	0.9	
	0.7s	11.00nm			
EPF	121.85	316 iPKPc	07 30.50	1.1	
	0.5s	2.40nm			
FRB	122.82	8 ePKP	07 30.00	-0.5	
GOL	123.13	47 ePKP	07 32.50	0.2	
	0.9s	5.46nm			
ALQ	123.74	53 ePKP	07 34.00	0.4	
KIC	132.50	272 PKPd	07 50.00	-0.7	
LIC	132.77	271 PKPd	07 51.20	0.0	
TIC	132.79	272 PKP	07 52.00	0.8	
BMA	148.75	195 ePKP	08 24.30	5.0X	
VAO	149.07	190 ePKP	08 25.50	5.7X	
CNCB	151.35	148 iPKPc	08 32.50	8.5X	
LPB	151.52	147 PKP	08 33.00	9.0X	
ZOBO	151.72	147 iPKP	08 32.70	8.2X	
		LR	31 40.00		
CCH	151.78	152 (PKP)	08 25.70	1.4	
	S.D. = 0.9	on 74 of 87 obs.			

? FEB 28, 1989 14h 44m 30.92± 0.99s
38.974 N ± 8.3km 27.346 E ±11.1km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

IZM	0.58	186 ePg	44 42.60	-0.1	
		eSg	44 52.00		
EZN	1.16	317 ePn	44 53.00	0.4	
DST	1.18	57 ePn	44 53.50	0.6	
EDC	1.43	16 ePn	44 56.00	-0.9	
	S.D. = 1.1	on 4 of 4 obs.			

FEB 28, 1989 16h 31m 00.96± 0.50s
26.191 N ± 8.4km 130.514 E ± 7.3km
DEPTH = 33.0km (normal)
4.7mb (11 obs.)
RYUKYU ISLANDS REGION (239)

NJ2	11.74	303 Pc	33 49.40	0.2	
	Z 15s	0.60um			
WHN	14.87	291 eP	34 29.00	-1.6	
TIA	15.18	314 eP	34 40.20	5.6X	
SNY	16.61	342 eP	34 52.00	-0.8	
CN2	18.05	348 eP	35 08.40	-2.3	
BJI	18.27	323 eP	35 14.00	0.5	
TIY	19.13	311 eP	35 24.50	0.4	
	N 13s	0.70um			
	E 14s	0.90um			
		eS	39 00.00		
XAN	20.23	298 Pc	35 34.00	-2.0	
GYA	21.38	276 P	35 51.00	3.0X	
HHC	21.46	318 P	35 51.50	2.8X	
BTO	22.27	315 eP	36 00.00	3.2X	
	N 14s	0.50um			
	E 14s	0.60um			
CD2	23.94	288 eP	36 15.00	1.9	
KMI	25.04	274 eP	36 25.00	1.0	
GTA	28.83	305 Pd	36 57.40	-1.0	
CHG	30.02	262 eP	37 09.80	0.6	
SHL	34.68	278 iP	37 50.10	0.1	
		eS	40 22.90		
WMQ	38.75	308 eP	38 24.70	0.7	
PKI	40.09	282 P	38 35.80	0.2	
	0.4s	8.00nm		4.8mb	
KKN	40.17	283 P	38 36.60	0.5	
	0.8s	16.00nm		4.8mb	
DMN	40.35	283 P	38 38.60	1.0	
GKN	40.70	283 P	38 40.60	0.2	
	0.4s	7.00nm		4.8mb	
WB5	45.95	175 eP	39 21.10	-1.6	
WRA	46.01	175 Pd	39 21.60	-1.5	
	0.7s	2.40nm		4.2mb	
GBA	51.14	267 Pc	40 02.30	-0.8	
	1.0s	8.40nm		4.7mb	
MAIO	60.34	298 eP	41 10.00	0.8	
FBA	63.10	28 eP	41 27.50	0.3	
	1.0s	5.00nm		4.6mb	
MBC	69.38	14 eP	42 06.00	-1.0	
	0.9s	16.00nm		5.1mb	
ALE	71.33	2 eP	42 19.00	0.2	
SUF	73.33	332 iP	42 31.50	0.7	
YKA	77.69	26 P	42 56.10	0.5	
HFS	79.80	333 eP	43 06.20	-0.9	
	0.8s	10.00nm		4.9mb	
NB2	80.24	334 P	43 08.60	-1.0	
	0.9s	8.00nm		4.7mb	
KSP	83.93	324 eP	43 30.00	1.1	
KVN	88.84	46 eP	43 54.50	1.1	
	0.9s	0.80nm		4.0mb	
FRB	89.11	8 eP	43 54.00	0.0	
TNP	89.95	47 eP	44 00.00	1.3	
BW06	91.89	40 eP	44 08.50	0.9	
	1.0s	2.75nm		4.6mb	
	S.D. = 1.1	on 33 of 37 obs.			

% FEB 28, 1989 17h 15m 12.97± 0.58s
37.724 N ± 6.0km 15.006 E ± 4.3km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.32	310 P	15 19.40	-0.3	
ATN	0.57	40 P	15 24.60	0.1	
MEU	0.62	186 P	15 24.90	-0.7	
		eSg	15 34.40		
MSI	0.65	42 P	15 26.30	0.4	
		eSg	15 36.70		
GIB	0.82	289 P	15 29.30	0.4	
		eSg	15 42.50		
SOI	0.90	67 P	15 30.70	0.5	
MCT	1.09	266 P	15 34.20	0.6	
USI	1.74	305 P	15 42.70	-0.7	
CVT	1.76	269 P	15 44.30	0.7	
ERC	1.94	280 P	15 46.30	0.0	
MGR	2.45	10 Pc	15 52.60	-1.0	
	S.D. = 0.7	on 11 of 11 obs.			

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* FEB 28, 1989 17h 25m 53.45± 2.37s
34.271 N ±10.3km 139.232 E ±10.9km
DEPTH = 135.5 ± 20.5 km
4.1mb (9 obs.)
NEAR S. COAST OF HONSHU, JAPAN (230)
Felt (III JMA) on Miyoke-jima.
Also felt at Yokohama, Toteyomo
ond on Oshimo.

SHK	5.43	275 iP	27 13.00	-0.3	
	0.8s	232.84nm		5.5mb X	
MDJ	12.73	327 eP	28 45.50	-5.0X	
	Z 20s	1.30um			
NJ2	17.21	268 eP	29 45.50	-1.4	
	N 11s	0.90um			
	E 10s	0.80um			
TIA	18.16	282 eP	30 00.00	1.8	
	Z 18s	1.90um			
	N 13s	1.40um			
	E 13s	0.80um			
BJI	19.24	294 (P)	30 09.50	0.0	
	N 14s	1.10um			
		eS	33 48.00		

WHN		21.32	267	eP	30 31.50	0.9
	Z	16s		1.80um		4.6MszX
	N	12s		0.73um		
	E	12s		1.27um		
TIY		21.93	287	eP	30 38.60	1.9
	N	13s		1.70um		
XAN		25.04	278	P	31 06.60	0.0
	N	18s		4.10um		
CD2		29.98	274	eP	31 50.00	-1.2
	Z	16s		1.80um		4.8MszX
	N	15s		3.30um		
CHG		38.92	257	eP	33 28.00	20.4X
CHTO		38.92	257	eP	33 08.00	0.5
		1.1s		2.94nm		4.0mb
WMQ		40.57	299	eP	33 24.50	3.5X
PKI		46.21	277	P	34 06.40	-0.5
KKN		46.23	277	P	34 06.80	-0.2
		0.7s		7.00nm		4.5mb
DMN		46.45	277	P	34 08.20	-0.5
GKN		46.68	278	P	34 10.00	-0.4
		0.8s		9.00nm		4.5mb
WB5		54.05	186	eP	35 04.90	-1.0
WRA		54.11	186	Pd	35 05.50	-0.9
		0.5s		1.20nm		4.0mb
GBA		59.23	266	P	35 43.00	0.2
		1.1s		4.80nm		4.4mb
YKA		67.08	29	P	36 33.20	-0.6
KJF		68.22	334	eP	36 40.00	-0.8
DAG		68.37	355	iPd	36 40.00	-1.6
		0.7s		3.42nm		4.3mb
BWA		68.88	172	eP	36 47.10	1.9
SUF		69.64	333	eP	36 50.00	0.5
SLL		75.74	336	eP	37 25.60	0.3
		0.4s		0.70nm		3.8mb
NB2		76.03	337	P	37 26.50	-0.5
		0.7s		2.20nm		4.0mb
KVN		77.86	51	eP	37 39.00	1.3
FRB		79.85	12	eP	37 48.00	0.3
BW06		80.87	44	eP	37 54.00	0.1
		1.0s		1.75nm		3.8mb
KHC		83.94	328	P	38 05.20	-4.1X
ZOBO		149.60	61	ePKP	45 28.00	3.4X
CNCB		150.05	61	PKP	45 31.00	5.7X

S.D. = 1.0 on 26 of 32 obs.

FEB 28, 1989 17h 31m 50.84± 0.65s
33.643 N ± 6.7km 87.092 W ± 5.8km
DEPTH = 0.0km (geophysicist)
ALABAMA (507)
mbLg 3.5 (NEIS). Mine Collopse.

TSAL		0.39	177	P	31 58.80	0.3
				S	32 02.90	
BKA		0.73	270	P	32 05.50	0.1
PWLA		1.56	329	eP	32 19.60	-0.3
CDG		2.23	64	P	32 31.10	1.5
				S	33 01.90	
RSCP		2.31	32	eP	32 31.50	0.6
GBTN		3.12	49	eP	32 42.00	-0.2
TKL		3.39	53	eP	32 46.00	-0.2
PRM		3.96	82	eP	32 52.60	-1.6
ELC		4.03	335	eP	33 01.50	6.3X
JSC		4.89	81	eP	33 05.50	-1.9X
FVM		5.11	329	eP	33 10.30	-0.2
LHS		5.28	79	eP	33 10.80	-2.2X
CVL		8.24	56	eP	33 52.80	-1.7X

S.D. = 1.0 on 9 of 13 obs.

FEB 28, 1989 18h 33m 47.70± 0.83s
2.533 S ± 6.4km 140.859 E ± 8.8km
DEPTH = 54.8 ± 7.5 km
4.9mb (8 obs.)
NEAR N. COAST OF WEST IRIAN (197)

JAY		0.16	277	iPc	33 57.00	0.6
				iS	34 05.00	
MNDI		4.55	142	eP	34 57.00	1.1
PMG		9.26	138	e(P)	36 05.00	3.6X
MTN		14.06	223	eP	37 05.00	-0.7
				e	39 36.00	
GUMO		16.50	14	eP	37 31.00	-6.1X
QIS		17.96	184	eP	37 54.00	-1.2
				e	37 59.00	
				e	41 26.00	
CTA		18.23	164	e(P)	37 59.00	0.5
				eS	41 26.00	
				e	43 19.00	
				e	43 39.50	
WB5		18.37	200	eP	37 59.40	-0.9
				eS	41 19.00	
WRA		18.44	200	Pd	38 00.70	-0.4
		0.6s		5.60nm		3.9mb
VSG		19.90	110	eP	38 15.00	-2.6
HNR		20.17	111	eP	38 16.00	-4.4X
RMQ		25.00	163	eP	39 16.00	8.0X
WARB		27.19	209	eP	39 19.20	-9.1X
		0.5s		7.00nm		4.5mb
BRS		27.22	156	Pc	39 29.20	0.6
				i	39 32.20	
				i	39 44.00	
FORR		30.64	202	eP	39 59.00	-0.1
BWA		32.50	168	iPc	40 16.30	0.9
CAN		33.49	168	eP	40 24.10	0.1
SNG		41.30	284	eP	41 30.90	1.1
NST		44.15	296	eP	41 58.00	5.0X
CHG		46.36	299	eP	42 11.20	0.6
CHTO		46.36	299	eP	42 11.00	0.4
		1.1s		5.30nm		4.4mb
XAN		47.19	323	Pd	42 16.10	-0.9
BJI		48.03	334	eP	42 22.00	-1.4
CN2		48.16	345	P	42 23.00	-1.3
CD2		48.52	316	eP	42 28.30	0.9
BTO		51.34	330	eP	42 48.60	-0.3
LZH		51.65	322	eP	42 52.00	0.6
		1.5s		44.00nm		5.3mb
KKN		61.32	304	P	44 00.90	0.3
		1.1s		36.00nm		5.4mb
DMN		61.40	303	P	44 01.20	0.0
		0.9s		23.00nm		5.3mb
GKN		61.92	304	P	44 04.80	0.2
		1.1s		43.00nm		5.5mb
HYB		64.52	291	eP	44 20.50	-1.1
GBA		64.89	286	Pc	44 23.00	-1.0
		0.8s		3.60nm		4.4mb
WMQ		66.22	321	P	44 32.60	0.4
YKA		98.93	27	P	47 19.20	-3.9X
NB2		110.40	336	PKP	52 03.70	-11.5X
		0.6s		5.10nm		
KIC		145.50	278	PKP	53 23.00	0.6
CNCB		145.65	125	PKP	53 25.00	1.7
LPB		145.69	125	(PKP)	53 19.00	-4.2X
ZOBO		145.81	124	PKP	53 24.90	1.3

S.D. = 1.0 on 30 of 39 obs.

% FEB 28, 1989 19h 38m 19.44± 2.69s
39.659 N ± 9.5km 26.252 E ±27.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EZN		0.18	19	iPg	38 23.90	0.5
EDC		1.42	60	iPn	38 45.00	-0.2
BNT		1.46	61	iPn	38 44.20	-1.6
IZM		1.49	148	ePn	38 46.00	-0.2
DST		1.84	91	ePn	38 52.50	1.2
DMK		2.44	27	ePn	39 00.00	0.0
HRT		2.86	65	ePg	39 47.30	41.3X

S.D. = 1.2 on 6 of 7 obs.

FEB 28, 1989 20h 27m 04.66± 0.52s
40.449 N ± 4.9km 29.211 E ± 4.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

YLV		0.17	46	iPg	27 08.20	-0.4
GBZT		0.38	28	ePg	27 13.00	0.5
				iSg	27 19.50	
HRT		0.51	43	ePg	27 14.80	-0.2
ISK		0.63	349	ePg	27 17.60	0.4
				eSg	27 26.80	
KCT		0.68	253	iPg	27 17.20	-1.0
				iSg	27 28.20	
GPA		0.85	100	iPg	27 20.00	-1.1
CTT		0.92	320	ePg	27 22.40	0.2
				eSg	27 36.10	
DST		0.95	208	iPn	27 22.50	-0.4
EDC		1.03	265	iPn	27 24.00	-0.2
DMK		1.76	322	ePn	27 35.80	0.5
KHL		2.14	173	ePn	27 43.00	2.1
EZN		2.30	255	ePn	27 42.90	-0.3
IZM		2.54	217	ePn	27 50.00	3.3X
BBTK		2.79	101	iPc	27 56.20	5.9X
				iS	28 37.00	

S.D. = 0.9 on 12 of 14 obs.

& FEB 28, 1989 21h 00m 09.14s
59.818 N 153.250 W
DEPTH = 119.8km
SOUTHERN ALASKA (2)
<AGS-P>.

ILIM		0.30	29	Pn	00 25.72	0.9
				iS	00 39.71	
AUH		0.47	192	iP	00 26.65	-0.6
PDB		0.48	267	iP	00 26.33	-0.8
				iS	00 39.99	
RED		0.65	21	eP	00 27.76	-0.7
				eS	00 42.89	
HOM		0.83	100	eP	00 29.41	-0.4
RDT		0.87	29	iP	00 29.55	-0.7
CDD		0.91	193	iP	00 29.59	-1.1
				eS	00 46.72	
NNL		1.01	76	iP	00 31.93	0.4
				iS	00 48.73	
CNPM		1.06	105	iP	00 31.27	-0.8
				iS	00 48.32	
BRLK		1.20	92	iP	00 32.55	-1.0
				eS	00 51.09	
NKA		1.37	46	eP	00 36.23	0.9
				eS	00 55.35	
SPU		1.49	23	iP	00 35.90	-1.0
CRP		1.55	20	iP	00 37.04	-0.7
				eS	00 59.03	
SLKM		1.67	64	P	00 38.19	-0.7
SVW		1.75	319	iP	00 38.21	-1.8
SEW		1.93	80	eP	00 40.87	-1.3
KDC		2.11	169	eP	00 41.21	-3.2
PMS		2.32	50	iP	00 45.72	-1.4
PTE		2.35	62	eP	00 45.79	-1.7
PWL		2.66	65	eP	00 50.60	-1.0
PLRM		2.70	47	eP	00 49.48	-2.5
KNIM		2.81	77	eP	00 51.14	-2.5
MTU		2.83	84	eP	00 52.43	-1.4
KNK		2.85	54	eP	00 51.56	-2.6
GHO		2.89	45	eP	00 52.04	-2.6
SML		3.13	48	eP	00 55.02	-2.8
GLI		3.24	68	eP	00 57.20	-2.1
TTA		3.39	338	eP	00 59.00	-2.4
FID		3.50	72	eP	01 00.50	-2.3
				eS	01 37.98	
VZW		3.54	67	iP	01 02.38	-1.1
VLZ		3.67	66	eP	01 03.90	-1.1
KLU		3.98	62	eP	01 06.52	-2.8
TOA		4.14	53	eP	01 09.46	-2.1

33 obs. assaciated

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* FEB 28, 1989 21h 02m 58.06± 1.37s
24.076 N ±20.1km 123.694 E ±12.7km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
SOUTHWESTERN RYUKYU ISLANDS (246)

TWC		1.77	288	ePc	03 27.60	0.8
				eS	03 49.70	
TWD		1.92	271	ePc	03 29.80	0.8
ANP		2.27	300	eP	03 38.80	4.8X
SSE		7.34	343	e(P)	04 45.50	-0.1
KKN		34.65	284	P	09 46.30	-0.6
DMN		34.81	284	P	09 47.80	-0.5
GKN		35.21	285	P	09 50.80	-0.8
MBC		72.86	13	eP	14 25.00	-0.1
HFS		78.77	331	eP	14 57.80	-0.9
		0.4s		1.20nm		4.3mb
NB2		79.38	333	P	15 01.60	-0.5
		0.6s		2.40nm		4.4mb
YKA		82.17	24	P	15 18.40	1.7

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

? FEB 28, 1989 21h 34m 58.46± 1.10s
37.784 N ± 9.1km 29.172 E ± 9.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KHL		0.61	27	iPg	35 10.50	-0.2
				iSg	35 21.50	
YER		0.96	228	iPn	35 17.00	0.2
BCK		1.17	106	ePn	35 21.00	0.6
ELL		1.19	150	ePn	35 20.10	-0.6
IZM		1.63	293	ePn	35 32.00	4.7X

S.D. = 0.9 on 4 of 5 obs.

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* FEB 28, 1989 21h 45m 27.86± 2.70s

28d 21h

1.967 N ±15.4km 126.549 E ±19.1km
DEPTH = 79.1 ± 25.5 km
5.0mb (5 obs.)
MOLUCCA PASSAGE (266)

MNI	1.79	253	ePd	45 57.70	0.3
			eS	46 24.60	
TSM	8.76	285	eP	47 35.70	1.8
MTN	15.40	163	eP	49 00.00	-2.1
WB5	23.03	161	eP	50 26.80	-0.2
QIS	25.78	151	eP	50 53.00	-0.2
CHG	31.81	304	eP	51 47.00	-0.3
FORR	32.67	178	eP	51 54.00	-0.5
XAN	35.91	335	Pd	52 20.10	-2.3
BJI	39.05	347	eP	52 47.50	-1.1
BWA	41.62	152	eP	53 13.40	3.5X
CAN	42.63	153	eP	53 20.50	2.3
GTA	44.52	330	eP	53 32.00	-1.5
PKI	46.85	307	P	53 54.40	2.0
KKN	47.05	307	P	53 52.50	-1.4
	0.8s	13.00nm		4.9mb	
DMN	47.11	307	P	53 54.80	0.4
	0.9s	23.00nm		5.1mb	
GKN	47.66	307	P	53 57.20	-1.3
	0.9s	16.00nm		4.9mb	
HYB	49.56	291	eP	54 13.00	-0.2
GBA	49.91	286	Pd	54 14.30	-1.5
	0.7s	1.60nm		4.2mb	
WMQ	54.06	326	eP	54 46.00	-0.6
MAIO	70.44	308	eP	56 39.00	3.0
SVW	82.41	29	eP	57 45.00	2.5
IMA	84.06	24	ePc	57 52.10	1.2
PMR	85.57	29	ePc	57 58.30	0.0
	0.9s	16.70nm		5.1mb	
MBC	93.70	13	eP	58 36.00	-0.4

S.D. = 1.6 on 23 of 24 obs.

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* FEB 28, 1989 21h 57m 49.70± 1.88s
11.342 S ± 8.0km 166.241 E ±11.2km
DEPTH = 51.9 ± 14.7 km
5.2mb (7 obs.)
SANTA CRUZ ISLANDS (184)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 23C
Centroid Location:
Origin Time 21:57:53.1 0.8
Lat 11.52S 0.08 Lon 165.74E 0.08
Dep 69.8 4.6 Half-duration 1.5
Moment Tensor; Scale 10**16 Nm
Mrr= 6.44 0.45 Mtt=-0.92 1.13
Mff=-5.53 1.01 Mrt= 0.31 0.51
Mrf= 2.37 0.53 Mtf= 0.65 0.52
Principal Axes:
T Val= 6.92 Plg=78 Azm=286
N -0.87 4 174
P -6.05 11 83
Best Double Couple:Mo=6.5*10**16
NP1:Strike=168 Dip=34 Slip= 82
NP2: 357 56 95

HNR	6.48	286	eP	59 26.00	1.2
VSG	6.75	287	eP	59 26.00	-2.7
			eS	00 42.00	
DZM	10.67	179	iPc	00 24.00	1.2
			iS	02 37.90	
PMG	18.87	274	e(P)	02 17.00	8.4X
CTA	21.09	243	eP	02 34.00	1.8
			i	02 44.50	
RMQ	22.33	225	eP	02 53.00	8.5X
			e	03 08.00	
CMS	27.53	220	eP	03 33.00	-0.5
BWA	28.15	212	eP	03 37.70	-1.5
WB5	31.80	251	eP	04 10.60	-1.2
FORR	40.26	235	eP	05 24.00	0.6
MBL	45.47	252	eP	06 06.50	0.7
KLB	48.96	238	eP	06 32.40	-0.6
NANU	49.56	250	eP	06 38.00	0.2
NJ2	62.57	315	Pd	08 10.80	0.0
CN2	66.24	329	Pc	08 33.80	-0.7
BJI	69.02	321	eP	08 51.00	-0.9
TIY	70.11	317	eP	08 59.00	0.2
XAN	70.68	312	iPd	09 02.70	0.4
CHG	72.79	294	eP	09 15.70	0.6
CD2	73.17	307	eP	09 18.20	1.0
BTO	73.23	319	eP	09 18.40	1.0
LZH	75.32	312	eP	09 31.00	1.3
	1.5s	44.00nm		5.2mb	
SPA	78.73	180	iPd	09 47.60	-0.5
	0.9s	26.82nm		5.2mb	
GTA	79.61	314	iPc	09 54.20	0.9
PMR	80.67	20	eP	10 02.50	4.3X
FBA	83.45	18	eP	10 12.00	-0.7
	0.9s	15.83nm		5.0mb	
KVN	86.18	49	eP	10 28.00	0.9
PKI	87.21	299	P	10 33.60	1.1
	0.6s	9.00nm		5.2mb	
KKN	87.37	299	P	10 33.60	0.4
DMN	87.48	299	P	10 34.40	0.7
	1.0s	48.00nm		5.7mb	
GKN	87.97	299	P	10 36.00	0.0
	1.0s	36.00nm		5.5mb	
WMQ	89.65	315	iPd	10 44.00	0.5
HYB	91.17	287	eP	10 51.00	0.1
GBA	91.48	283	Pc	10 51.60	-0.7
	1.2s	8.30nm		5.0mb	
YKA	95.01	27	P	11 08.60	1.0
SOD	117.98	344	ePKP	16 33.00	1.3
KJF	119.82	340	ePKP	16 34.00	-1.3
SUF	121.34	340	iPKP	16 37.10	-1.1
	0.7s	4.00nm			
NUR	123.37	338	ePKP	16 41.00	-1.2
APO	126.81	343	ePKP	16 47.50	-1.4
	0.4s	1.50nm			
NB2	127.11	345	PKP	16 48.20	-1.3
	0.8s	1.90nm			
BNG	147.30	260	ePKPd	17 27.10	-0.6
	0.6s	53.00nm			
			ic	17 30.00	
			id	17 32.50	
			id	17 44.00	

S.D. = 1.1 on 39 of 42 obs.

% FEB 28, 1989 22h 12m 52.53± 0.81s
37.643 N ± 6.7km 15.041 E ± 6.9km
DEPTH = 10.0km (geophysicist)
SICILY (398)

MNO	0.40	317	P	13 00.70	0.0
MEU	0.55	189	P	13 03.50	-0.1
ATN	0.62	33	P	13 04.40	-0.5
			eSg	13 13.60	
GIB	0.87	294	P	13 09.60	0.2
			eSg	13 22.20	
SOI	0.91	62	P	13 10.40	0.5

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

FEB 28, 1989 22h 16m 03.73± 0.65s
43.380 N ± 5.7km 12.809 E ± 5.4km
DEPTH = 10.2 ± 8.3 km
CENTRAL ITALY (381)

ARV	0.15	39	Pc	16 07.20	-0.1
			eSg	16 10.30	
CIO	0.31	127	iPg	16 10.49	0.3
			iSg	16 16.31	
ASS	0.33	199	P	16 10.60	0.0
			eSg	16 16.10	
AOI	0.60	73	iPgd	16 15.62	-0.3
			iSg	16 25.72	
RSM	0.61	335	P	16 16.30	0.4
CRE	0.67	292	P	16 16.30	-0.8
			eSg	16 26.70	
ALP	0.82	137	e(Pg)	16 19.62	-0.1
			iSg	16 33.58	
SFI	0.88	308	P	16 21.20	0.6

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

? FEB 28, 1989 22h 39m 48.08± 1.09s
2.519 S ±11.8km 139.588 E ±24.6km
DEPTH = 33.0km (normol)
5.0mb (4 obs.)
NEAR N. COAST OF WEST IRIAN (197)

MTN	13.24	219	iPc	42 56.80	0.4
			e	45 21.00	
QIS	17.93	180	eP	43 57.00	0.3
			eS	47 13.00	
WB5	17.99	196	eP	43 57.20	-0.3
			i	44 00.90	
			eS	47 12.50	
WARB	26.61	207	eP	45 17.40	-8.1X
BWA	32.79	166	eP	46 24.20	3.6X
CHG	45.25	300	eP	48 05.80	1.2
PKI	60.07	304	P	49 55.30	0.2
	0.6s	4.00nm		4.7mb	
KKN	60.25	304	P	49 56.80	0.6
	0.8s	17.00nm		5.2mb	
DMN	60.33	304	P	49 57.60	0.8
	0.7s	15.00nm		5.2mb	
GBA	63.67	286	Pd	50 17.40	-1.5
	0.6s	1.30nm		4.2mb	
KIC	144.24	277	PKPd	59 21.70	-1.7
	0.9s	33.00nm			
TIC	144.49	278	PKPd	59 22.40	-1.5
	0.9s	36.00nm			
LIC	144.54	277	PKPd	59 22.70	-1.2
CNCB	146.69	126	PKP	59 31.00	2.9X
LPB	146.74	126	(PKP)	59 39.00	11.0X
ZOBO	146.86	125	PKP	59 31.00	2.6

S.D. = 1.4 on 12 of 16 obs.

FEB 28, 1989 23h 09m 27.97± 0.73s
43.384 N ± 6.9km 12.780 E ± 6.7km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

ASS	0.33	195	P	09 35.30	0.6
			eSg	09 40.90	
CIO	0.33	125	iPgd	09 34.95	0.2
			iSg	09 40.74	
RSM	0.59	336	P	09 40.80	0.9
AOI	0.62	74	iPgd	09 40.28	-0.2
			iSg	09 50.44	
CRE	0.65	292	P	09 40.10	-1.0
ALP	0.84	136	e(Pg)	09 43.82	-0.5
			i(Sg)	09 57.21	

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

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* FEB 28, 1989 23h 33m 47.52± 0.82s
51.412 N ±16.1km 175.109 W ± 7.5km
DEPTH = 33.0km (normol)
4.5mb (5 obs.)
ANDREANOF ISLANDS, ALEUTIAN IS. (7)
Felt (III) on Adak.

ADK	1.09	296	iPd	34 07.70	1.2
KDC	14.52	55	eP	37 12.00	-0.3
TTA	15.42	34	eP	37 24.40	0.3
IMA	18.27	28	eP	38 01.20	1.4
FBA	19.53	36	eP	38 13.90	-0.8
MBC	32.72	21	eP	40 17.00	-1.5
LON	34.57	76	eP	40 35.70	0.7
BW06	44.08	74	eP	41 55.50	1.3
	0.6s	3.49nm		4.3mb	
GOL	48.45	75	eP	42 30.00	1.2
	0.8s	5.95nm		4.7mb	
RSON	48.52	57	eP	42 28.20	-0.7
	0.6s	2.38nm		4.4mb	
FVM	58.42	67	eP	43 40.50	-1.6
CVL	65.14	60	eP	44 27.20	0.1
KKN	74.40	295	P	45 23.90	-0.2
PKI	74.49	295	P	45 24.60	-0.2
	0.5s	3.00nm		4.5mb	
GKN	74.60	296	P	45 24.70	-0.5
	0.4s	2.00nm		4.5mb	
DMN	74.64	295	P	45 24.90	-0.6

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

? FEB 28, 1989 23h 52m 58.74± 4.69s
33.402 S ±12.1km 70.700 W ±24.4km
DEPTH = 76.8 ± 43.5 km
CHILE-ARGENTINA BORDER REGION (127)

SAN	0.06	148	iPc	53 10.00	-0.1
			iS	53 19.50	
PEL	0.26	3	iPc	53 10.70	0.0
			iS	53 19.50	
TACH	0.32	218	iPd	53 11.00	0.0
FCH	0.35	78	iP	53 11.60	0.0
			iS	53 22.50	
CHCH	0.53	176	iPc	53 12.70	0.0
			iS	53 24.50	
JACH	0.72	7	iPd	53 14.70	0.0
			iS	53 27.50	

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

FEB 28, 1989 23h 53m 17.95± 0.69s
43.383 N ± 6.0km 12.798 E ± 5.9km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

ARV	0.16	42	Pc	53 21.50	-0.1	
CIO	0.32	126	iPgd	53 24.60	0.1	
			iSg	53 30.43		
ASS	0.33	198	Pc	53 25.00	0.2	
			eSg	53 30.50		
RSM	0.60	335	P	53 30.80	0.8	
AOI	0.61	74	iPg	53 30.00	-0.3	
			iSg	53 40.12		
CRE	0.66	292	P	53 30.50	-0.7	
ALP	0.83	136	e(Pg)	53 30.28	-3.8X	
			i(Sg)	53 40.64		
S.D. = 0.6			on	6 of 7 obs.		

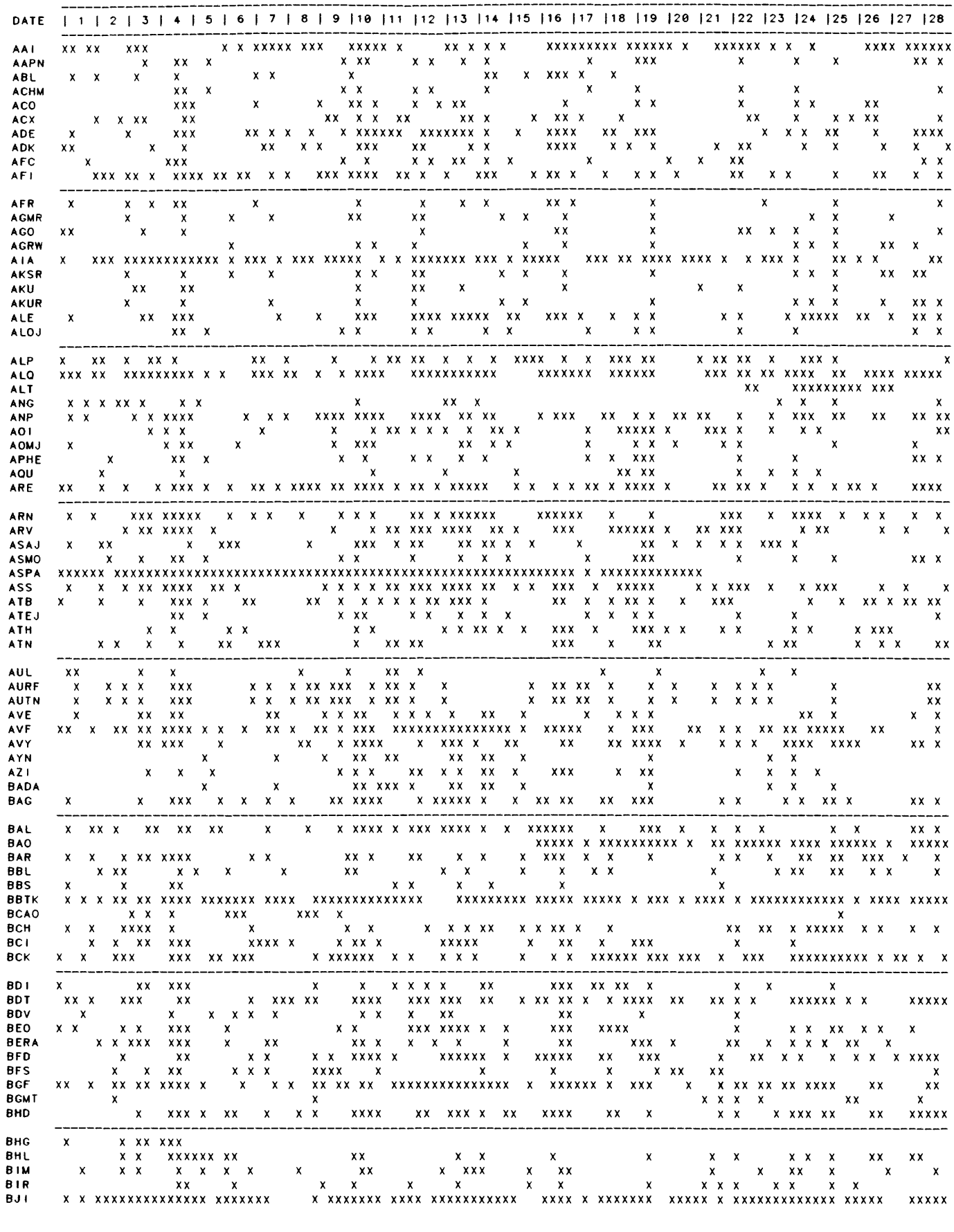
? FEB 28, 1989 23h 56m 00.69± 2.49s
21.158 N ±60.1km 97.166 E ±61.9km
DEPTH = 10.0km (geophysicist)
BURMA (296)

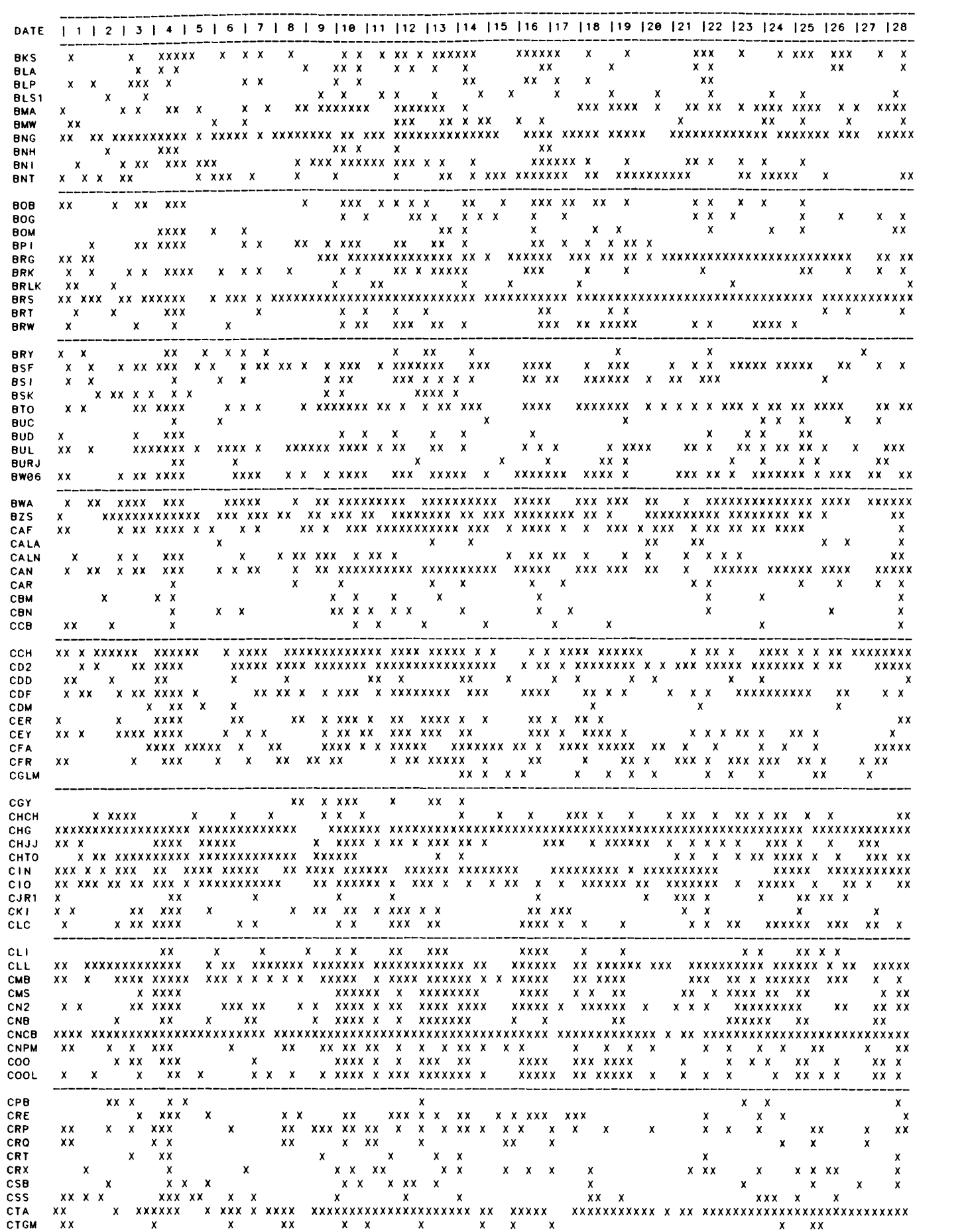
CHG	2.87	144	iPn	56 47.70	0.3	
			iPg	56 55.80		
			iSg	57 33.50		
CHTO	2.87	144	ePn	56 47.00	-0.3	
			iPg	56 55.00		
			iSg	57 30.00		
BDT	4.26	156	ePn	57 07.10	0.0	
			ePg	57 24.00		
			eSg	58 22.00		
GKN	13.28	303	P	59 12.00	0.0	
S.D. = 0.5			on	4 of 4 obs.		

STATION DATA REPORT FOR FEBRUARY, 1989

1325 stations reported 56860 reading arrival groups

X = data received for this 6-hour time period

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BWA BZS CAF CALA CALN CAN CAR CBM CBN CCB
CCH CD2 CDD CDF CDM CER CEY CFA CFR CGLM
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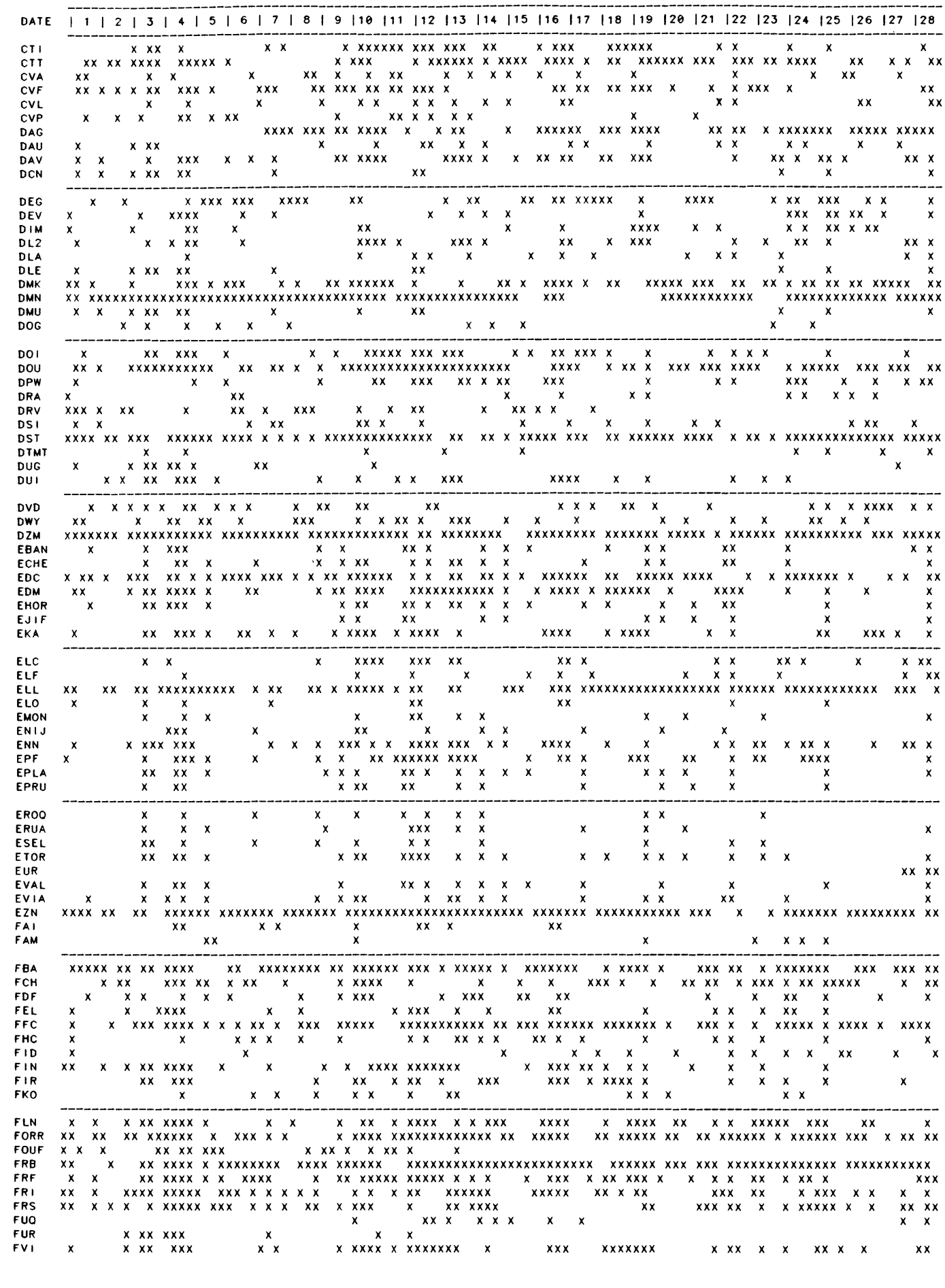
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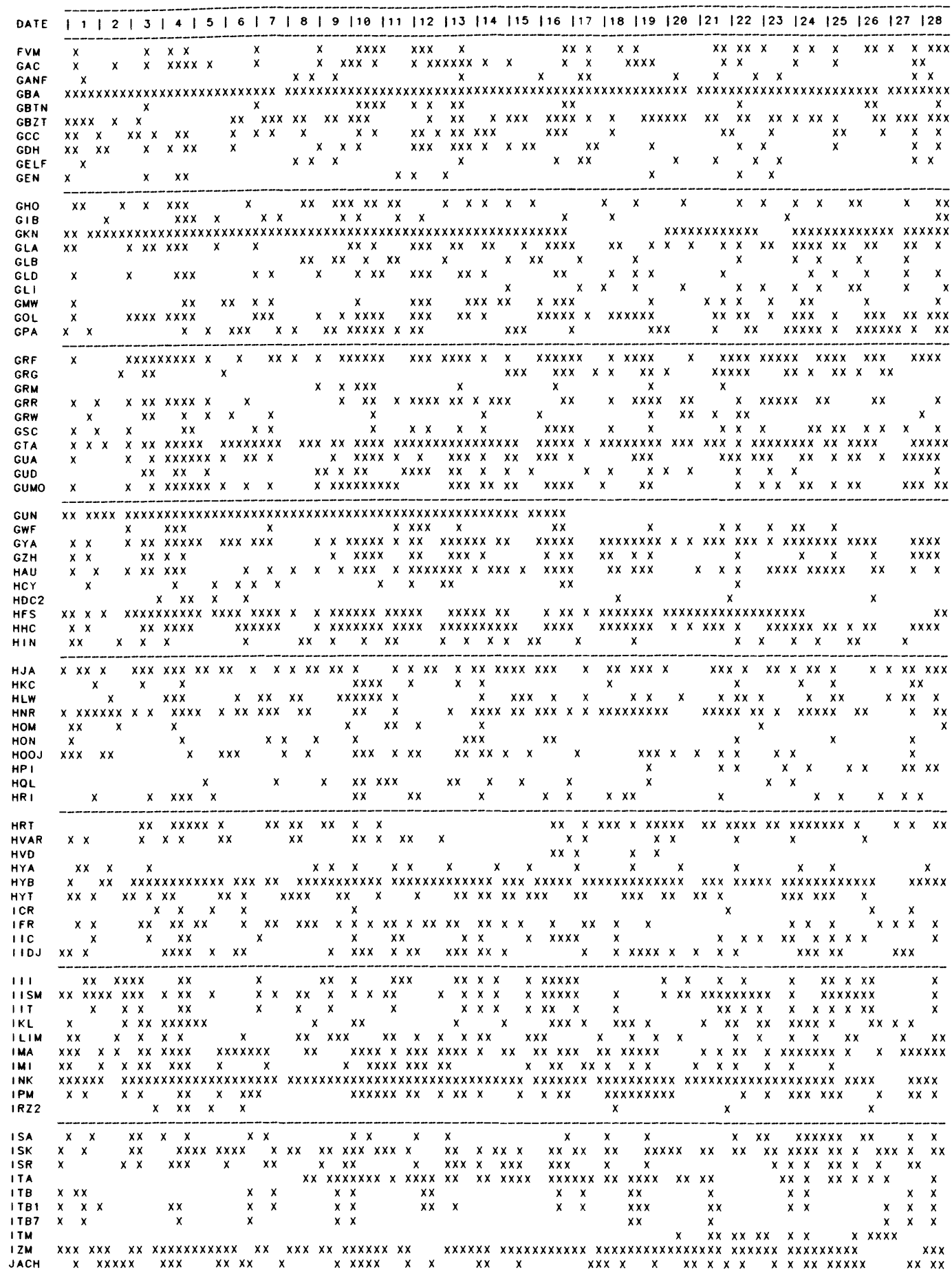
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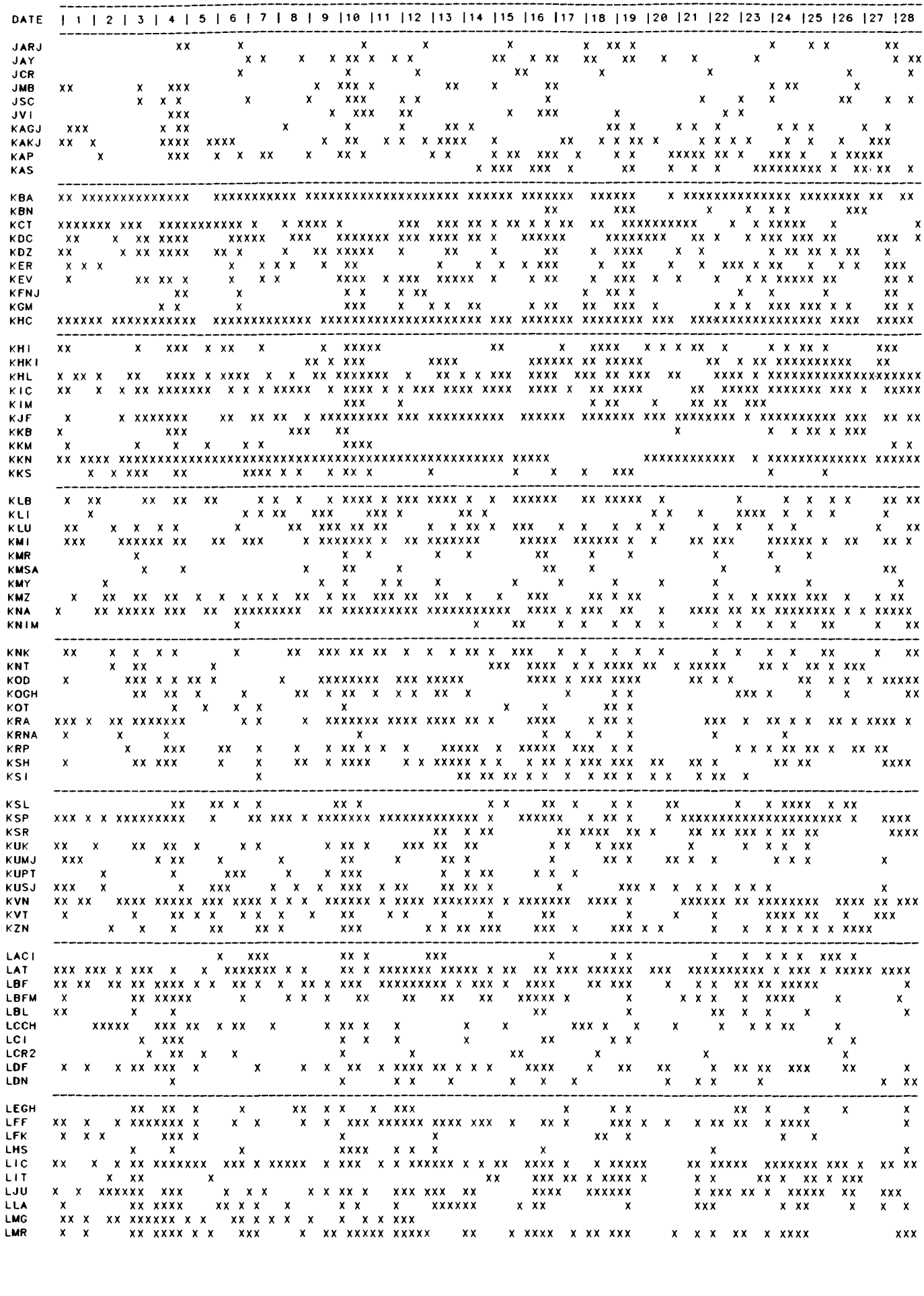
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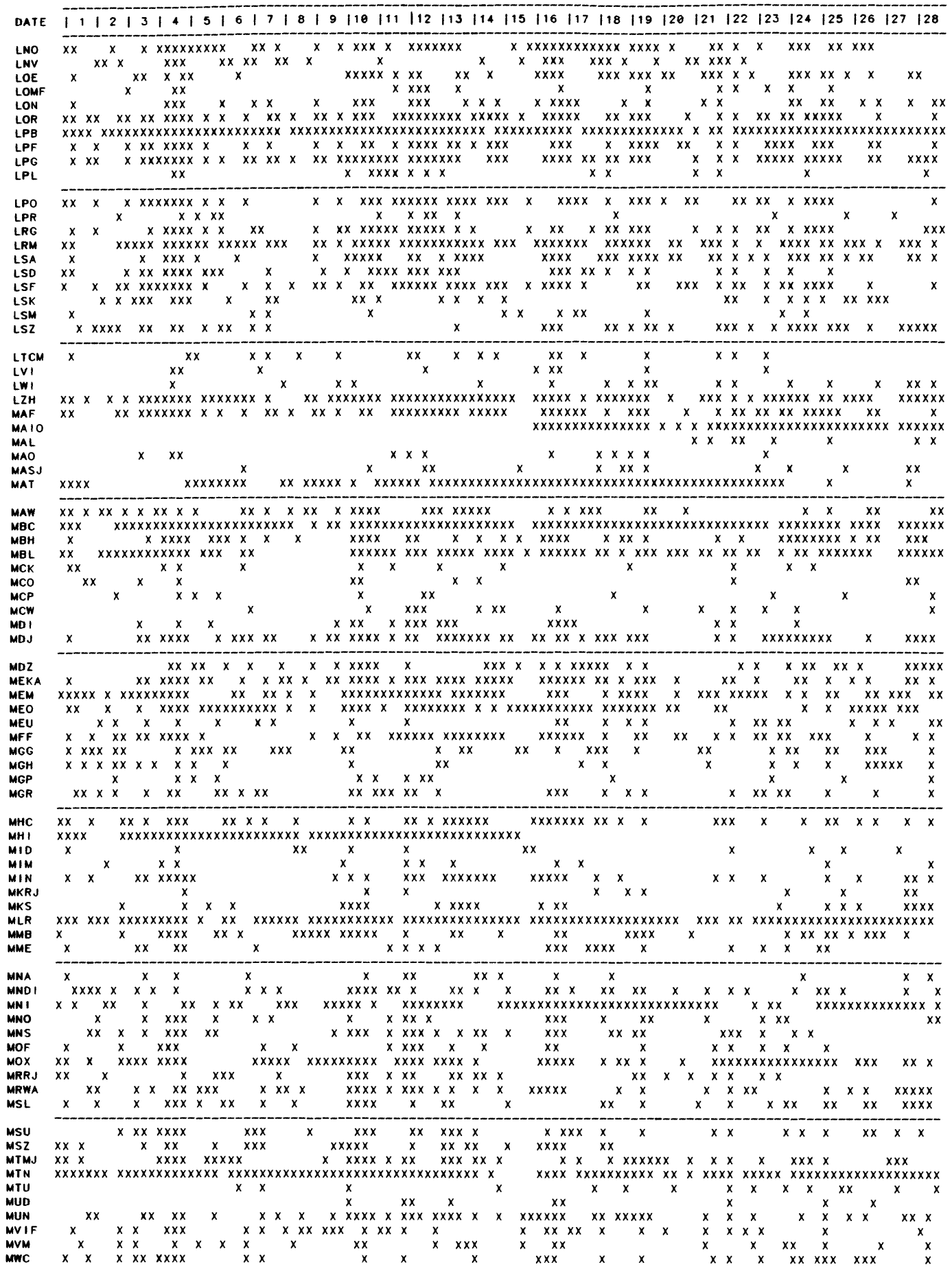
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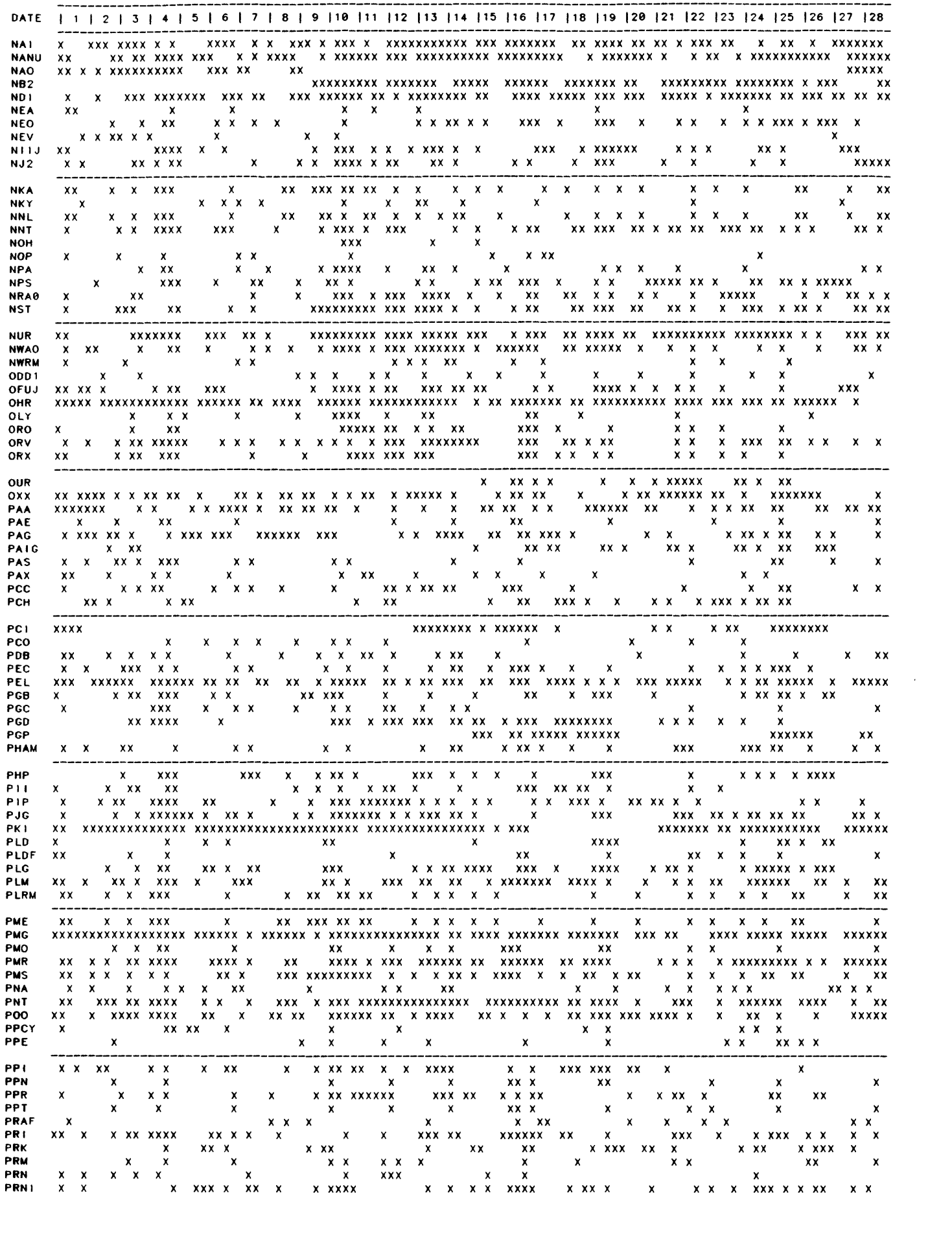
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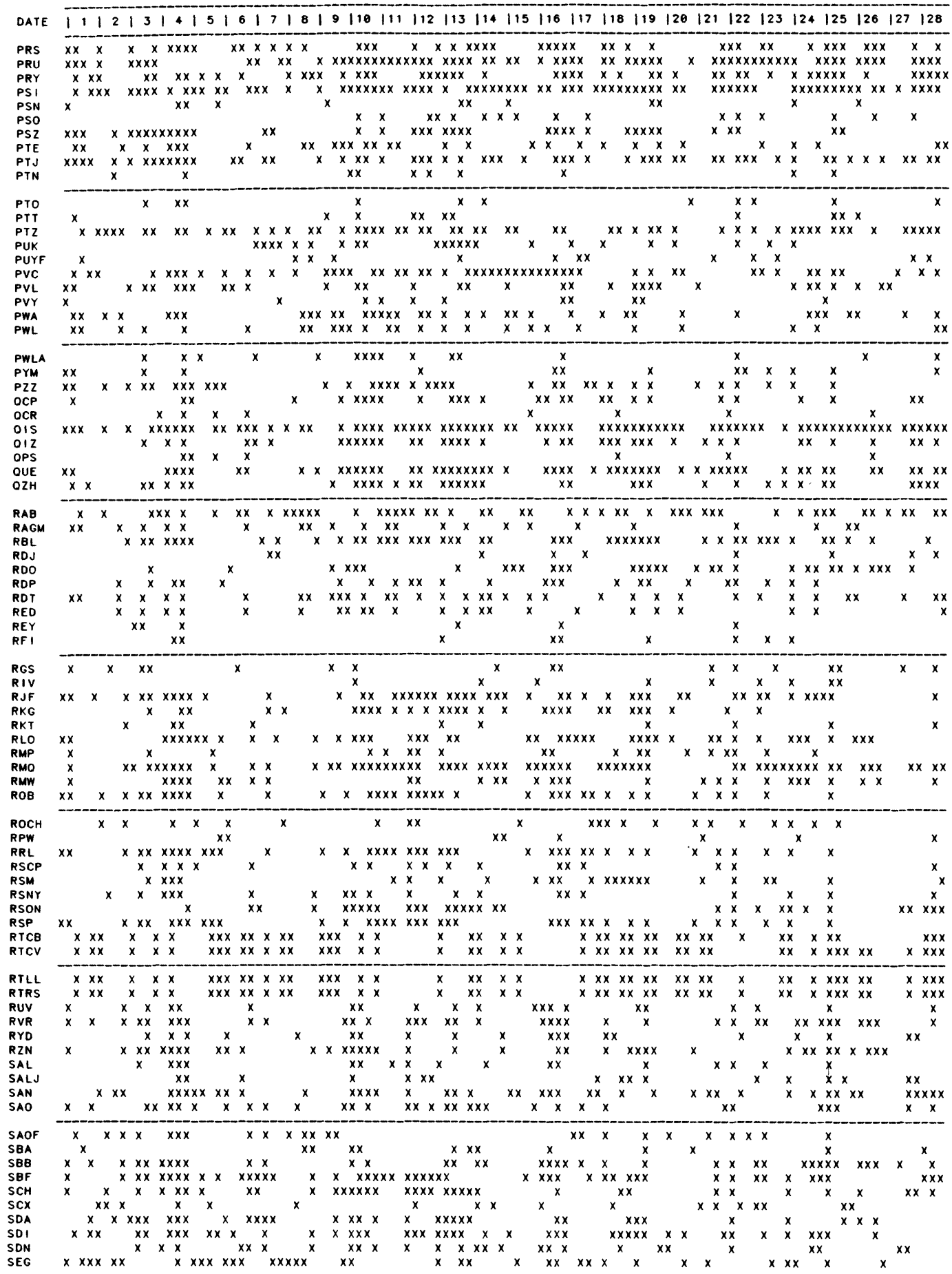
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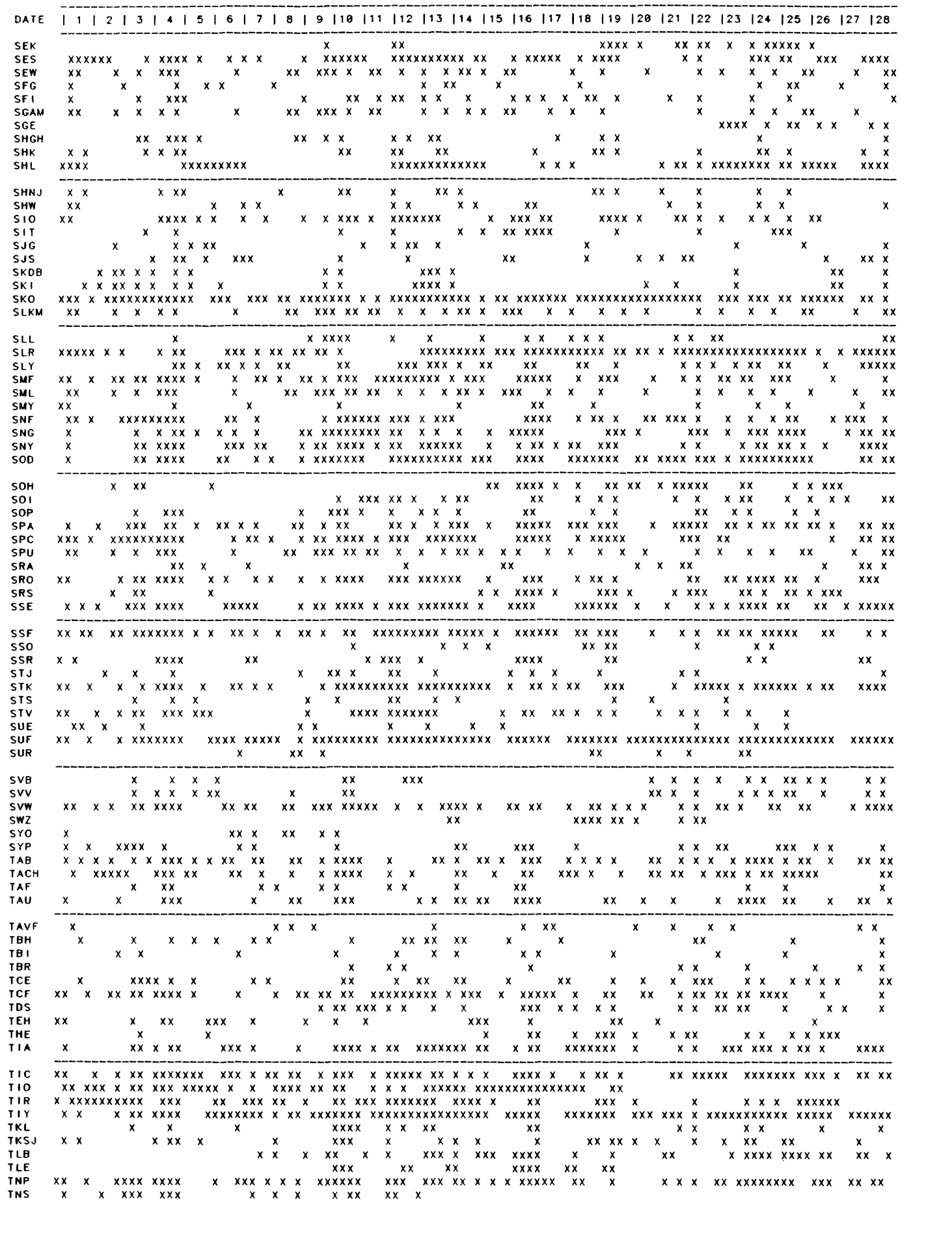
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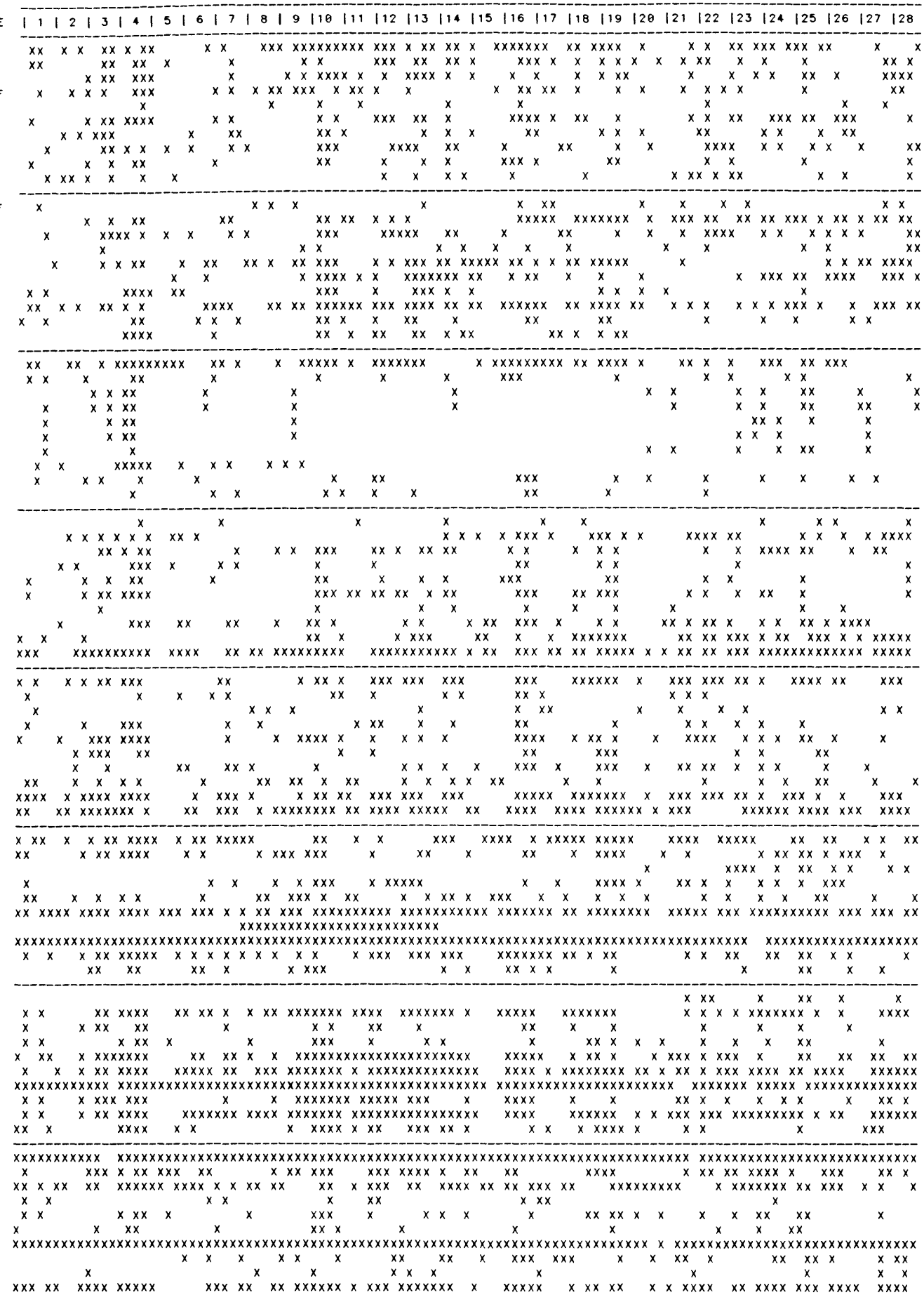
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The following stations each reported less thon 10 readings:

AAE	ABHA	ACR	ACU	ADH	ADI	AGAL	AGM	AHU	AJI	ALJ	AMR	ANCC	ANMO	ANTO	APM	APO	APR
APW	ARG	ARO	ASR	ASW	ATA	ATZ	AUE	AUH	AUI	BAD	BALA	BCPM	BENE	BER	BERF	BFT	BGB
BIB	BKA	BKB2	BKC	BLF	BLH	BLN	BLS3	BLT	BMG	BMTN	BNS	BOO	BOT	BPA	BRAS	BRVW	BSO
BSS	BTB	BTG	BUC1	BUS	BUT	BVA	BVW	CAO	CBB	CBI	CCMT	CCU	CDFW	CDG	CDH1	CEI	CEOS
CFTV	CGL	CHO	CIS	CLE	CLK	CLMC	CMW	CNIL	CNK	COL	COP	CPE	CPW	CPX	CRF	CRM	CSZ
CTAO	CTCR	CTFE	CTS	CUM	CVD	CVT	CWZ	CZM	DAF	DBN	DDM	DGBT	DHR	DHW2	DIAC	DIX	DLB
DLM	DMMT	DOR	DPMT	DRE	DSC	DSVT	EAB	EALH	EAU	EBG	EBH	EBL	EBN	EBR	ECB	ECP	ECRI
EDB	EDI	EDU	EMEL	EMK	EMM	EMS	EPA	EPH	ERC	ERK	ESD	ESK	ESY	ETA	ETB	ETER	ETP
EVA	EZAM	FCV	FG2	FG3	FISA	FKS	FL2	FLAG	FMT	FMW	FSA	FUG	FUN	FYU	GAR	GBL	GBN
GCG	GCM	GGC	GHW	GIF	GL2	GLH	GLK	GLM	GLR	GMB	GMN	GMR	GMTN	GRA2	GRB1	GRB2	GRB3
GRB5	GRFO	GRI	GROR	GSM	GSQ	GT2	GTO	GUAC	GULW	GVN	GWY	HAC	HAY	HBF	HCR	HDA	HDW
HIA	HIK	HIR	HJJ	HKL	HLD	HMM	HMT	HNB	HNME	HOBC	HOF	HOGG	HOJ	HOO	HOQC	HOR	HQN
HRY	HSR	HTQ	HTW	HWK	HYF	IAS	IDC	IKP	IMW	INY	ISI	ISN	ITG	ITR	IVA	IXG	JAQ
JAT	JBO	JCM	JCW	JHN	JLK	JON	JTS	JUD	KAN	KBS	KKG	KLH	KLM	KLN	KMG	KMOR	KOC
KOSW	KUG	KUS	KYO	LAC	LCCM	LCH	LCNE	LGAR	LHG	LIJA	LIS	LLAV	LLS	LMN	LMW	LNOR	LOF
LOM	LOP	LPI	LPQ	LVVM	LVY	MAE	MAJO	MBW	MCA	MCQ	MCT	MDN	MDW	MEMT	MEW	MGM	MIT
MIY	MKL	MKT	MLK	MMG	MMK	MML	MMN	MNB	MNQ	MOL	MOMI	MOO	MORO	MPRI	MRK	MRL	MSI
MTI	MTMW	MTY	MXC	MYT	MZP	MZX	NA2	NAC	NAG	NAR	NAV	NBO	NC2	NEM	NGS	NLO	NLW
NPN	NSS	OBC	OBH	OBI	OBO	OC2	OCO	ODS	OFU	OGA	OHW	OJEN	OLLA	ONA	ONR	OOW	OPA
OPT	OSA	OSD	OSH	OSS	OTH	OWA	OZB	PANV	PBC	PCA	PCG	PFH	PGO	PGW	PHC	PIG	PKEM
PLAT	PLE	PNJ	PNL	POA2	POF	PPK	PQ0	PRIN	PRJ	PRW	PTCR	PTS	PURC	PZI	QASM	QCS	QSM
QUTJ	RAO	RAR	RBA	RDS	REC	REVF	RIN3	RMN	RRO	RSW	RVC	RVW	RW1	RW4	SALC	SAP	SAV
SAW	SAX	SBG	SBQ	SCE	SCI	SCN	SCV	SDH	SDV	SEN	SFF	SGH	SGO	SGS	SGV	SHBJ	SHR
SHRG	SLB	SLE	SLP	SLW	SMMM	SMW	SNB	SNK	SNZO	SOG	SOG2	SONG	SOSW	SPRG	SPW	SRFA	SRG
SRN	SSP	SSV	STD	STR	STW	SUM	SVA	SVP	SVT	SXM	SZH	TAC	TAT	TBM	TBT	TBY	TCK
TDD	TDH	TDL	TER	TIG	TIH	TIM	TLI	TMA	TMBR	TMO	TMR	TOK	TOTJ	TPI	TPU	TRQ	TRR
TSAL	TSI	TSU	TWM1	TWQ	TWW	TWZ	UAV	ULM	URA	UTS	UWA	UZD	VACR	VBA	VBEM	VDB	VDL
VFP	VGZ	VLA	VLL	VLMM	VPS2	VTG	VTHM	VVI	WA4	WAH2	WAJH	WAR	WAX	WG2	WHC	WHNE	WIW
WKA	WKY	WMZ	WPB	WPW	WRD	WRH	WRN	WTV	YAH	YAKW	YAM	YEL	YER	YKU	YMT1	YMT2	YMT4
YMT5	YMT6	YOK	YRH	YSS	YUP	ZLA	ZNT										