

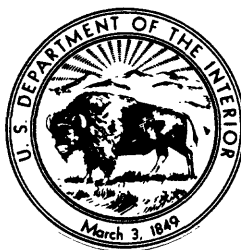
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EARTHQUAKE DATA REPORT
APRIL 1990

by

U.S. Geological Survey
NATIONAL EARTHQUAKE INFORMATION CENTER¹

Open-File Report 90-604



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1990

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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 (i.e., 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 Bayesian 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 $20^\circ \leq \Delta \leq 160^\circ$, 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 $\Delta \leq 5^\circ$. Amplitude values stated in this report are in nanometers (nm) for body-waves and micrometers (μm) for surface-waves.

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

The pulse distortion of seismic phases that have ray paths that touch a single internal caustic (e.g., PP, pPP, SS and PKPab) can be corrected using the method of Hilbert transformation described by Choy and Richards (1975). Arrival times that are read from the phases that are corrected for pulse distortion are identified by the symbol H preceding the phase identifier (e.g., HPP, HpPP, HSS and HP'ab).

Hypocenter Symbols

- & Indicates that parameters of the hypocenter were supplied or determined by a computational procedure not normally used by the National Earthquake Information Service (NEIS). The source or nature of the determination is indicated by a 2 to 5 letter code enclosed by angle brackets and appearing in the first line of comments. A "-P" appended to the code indicates that the computation is preliminary. These codes are included with the list of abbreviations in the PDE Monthly Listing.
- % Indicates a single network solution. A non-furnished hypocenter has been computed using data reported by a single network of stations for which the date and/or origin time cannot be confirmed from seismograms available to a NEIS analyst. Also, if we define η to be the geometric mean of the semi-major and semi-minor axes of the horizontal 90% confidence ellipse, then $\eta \leq 16.0$ km.
- * Indicates a less reliable solution. In general, $8.5 < \eta \leq 16.0$ km.
- ? Indicates a poor solution, published for completeness of the catalog. In general, $\eta > 16.0$ km. This includes poor solutions computed using data reported by a single network.

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

Note: On printers available to the NEIS for this publication, the symbol for degrees ($^{\circ}$) appears as "°". Also note that certain phase codes are abbreviated because the data base and file format limit the length of the codes to five characters. Thus, PKP is occasionally abbreviated to P' and the numbers 2 and 3 are sometimes used to represent the AB (AC for SKKS) and BC branches of core phases, respectively. In some codes, R is used to represent repetition; for example, pRPPKP represents the phase pPKPPKP and RPPG represents PgPgPg.

References

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- 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.
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APR 01, 1990 00h 13m 23.39± 0.53s					MLR	5.73	14	iPd	14 50.00	-0.4	35.814 N ± 5.9km 70.943 E ± 3.6km					
39.939 N ± 4.6km 24.032 E ± 4.6km					ROI	5.76	269	P	14 50.80	-0.1	DEPTH = 74.8 ± 9.9 km					
DEPTH = 11.5 ± 2.6 km					ORI	5.82	274	P	14 53.00	1.3	5.1mb (62 obs.)					
3.8mb (2 obs.)					TDS	5.93	270	P	14 54.00	0.8	HINDU KUSH REGION (718)					
AEGEAN SEA (365)					BZS	5.95	343	ePc	14 51.00	-2.3	QUE	6.54	212	iPd	48 25.00	1.0
ML 3.9 (THE), 3.8 (ATH).					CSI	5.96	271	P	14 55.30	1.7	NDI	8.87	141	iPc	48 56.60	0.6
					DEV	6.00	352	ePc	14 58.00	3.9X	0.8s 111.94nm 5.7mb					
					CFR	6.06	29	eP	15 03.00	8.1X						
					CZI	6.14	266	P	14 55.60	-0.6	MAIO	9.28	276	iPc	49 02.40	0.7
					MMN	6.18	272	P	14 57.20	0.5	0.8s 36.60nm 5.3mb					
					VRI	6.25	18	ePc	14 00.00	-57.6X						
					MGR	6.51	274	P	15 00.40	-1.0	GKN	13.99	120	P	50 03.00	-1.4
								eSn	16 04.10		DMN	14.56	120	P	50 10.10	-1.8
					SGO	6.70	278	P	15 03.60	-0.5	KKN	14.57	119	P	50 09.90	-2.2
								eSn	16 11.70		PKI	14.79	120	P	50 12.70	-2.4
					BBTK	6.71	88	eP	15 38.00	33.6X	GUN	14.93	118	P	50 14.80	-2.0
					ATN	6.90	258	P	15 04.30	-2.6	IR2	16.28	275	eP	50 36.00	2.3
					BSS	7.10	280	P	15 09.30	-0.3	IR4	16.33	274	iPc	50 35.00	0.6
								eSn	16 20.70		IR5	16.59	274	eP	50 38.00	0.3
					MEU	7.68	251	P	15 14.00	-3.8X	BOM	16.93	174	eP	50 42.20	0.4
					CEI	7.83	352	eP	14 31.00	-48.7X			eS	53 54.00		
					ZAG	8.33	317	eP	15 29.00	2.2	POO	17.40	171	eP	50 48.00	0.3
					BUD	8.37	336	e(P)	16 07.00	39.7X			iS	54 29.30		
					PTJ	8.40	318	eP	15 25.90	-2.0	HYB	19.53	158	iPd	51 13.90	1.4
					VBY	8.52	314	e(Pn)	15 30.00	0.5		1.0s	90.00nm		5.0mb	
					SRO	8.89	334	eP	15 36.70	2.2	KER	19.56	273	ePc	51 13.00	0.2
								e	17 44.70		TAB	19.79	284	eP	51 19.00	3.7X
					CEY	9.13	313	ePn	15 37.00	-0.9	SLY	20.65	277	ePd	51 26.00	2.1
					LJU	9.25	314	ePn	15 39.50	-0.1	BHD	22.00	271	ePd	51 35.00	-2.5
								e(Sn)	17 42.00		GBA	22.87	164	Pc	51 50.10	4.0X
					TRI	9.49	311	eP	15 56.80	13.9X	0.9s 20.10nm 4.5mb					
								e	17 24.00		LZH	26.57	80	eP	52 24.50	3.3X
					VOY	9.60	313	ePn	15 42.50	-2.0	1.5s 29.00nm 4.6mb					
								eSn	17 24.50							
					SPC	9.63	345	eP	15 59.30	14.3X	KAS	29.43	292	eP	52 48.50	1.7
					ZST	9.64	331	eP	15 52.90	8.0X	CHG	29.94	117	eP	52 54.20	2.6
					KHC	11.82	324	P	16 14.20	-0.6	PRNI	30.50	270	eP	52 58.00	1.7
					HFS	21.23	346	eP	18 10.50	-0.7	MBH	30.79	269	eP	53 00.00	1.1
						0.4s	1.50nm		3.7mb		LOE	32.87	116	eP	53 19.00	1.8
					NB2	22.56	344	P	18 24.70	0.1	VRI	34.54	301	ePd	53 32.50	1.2
						0.8s	3.20nm		3.9mb		MLR	35.08	300	iPc	53 38.00	1.9
					SUF	22.85	3	eP	18 29.80	2.5X	BJI	35.64	69	eP	53 43.00	2.3
					BCAO	35.69	189	ePd	20 34.50	10.8X	1.2s 16.00nm 4.8mb					
						0.4s	4.00nm				CMP	35.72	300	ePd	53 44.00	2.6
					S.D. = 1.2 on 69 of 88 obs.											
					* APR 01, 1990 00h 17m 38.68± 1.10s											
					39.948 N ± 8.3km 23.788 E ± 10.3km											
					DEPTH = 10.0km (geophysicist)											
					AEGEAN SEA (365)											
					PLG	0.50	328	ePb	17 48.10	-0.7	SUF	38.48	329	iP	54 05.10	0.8
					NEO	0.77	214	ePb	17 53.60	-0.2		0.7s	108.60nm			5.9mb
					KZN	1.59	284	ePb	18 07.20	0.2	SKO	38.58	295	eP	54 05.80	0.4
					VAY	1.66	326	ePn	18 08.60	0.7	SPC	38.98	306	eP	54 09.50	0.7
					RDO	1.79	48	ePn	18 09.80	0.0	OHR	39.18	293	eP	54 07.00	-3.5X
					S.D. = 0.8 on 5 of 5 obs.											
					? APR 01, 1990 00h 20m 58.71± 0.99s											
					37.807 N ± 10.1km 5.586 W ± 8.5km											
					DEPTH = 10.0km (geophysicist)											
					SPAIN (377)											
					mbLg 3.2 (MDD). Felt (III) at											
					San Nicolas Puerto											
					EHOR	0.27	87	iPgc	21 03.60	-0.8	UPP	41.58	322	iP	54 30.10	0.3
								eSg	21 07.80		SSE	41.82	82	Pc	54 35.50	3.4X
					EPRU	0.89	161	ePg	21 16.50	0.8	1.0s 19.00nm 4.9mb					
								eSg	21 30.00							
					EVAL	0.95	257	iPgc	21 16.00	-0.7	PTJ	42.04	301	eP	54 33.50	-0.5
								eSg	21 28.50		VBY	42.58	301	e(P)	54 39.40	1.2
					MAL	1.43	139	ePn	21 33.50	8.9X	ROI	42.64	292	P	54 45.60	6.7X
								iSg	21 46.00		PRU	42.67	308	eP	54 39.00	0.1
					EBAN	1.47	75	iPnc	21 21.70	-3.5X	e 55 12.00					
								eSn	21 40.80		TDS	42.80	292	Pd	54 41.10	1.0
					AFC	1.71	108	ePg	21 31.00	2.1X	CSI	42.81	292	P	54 40.80	0.6
								eSg	21 52.50		MMN	43.01	293	P	54 43.10	1.3
					EPLA	2.29	350	ePg	21 37.90	0.8	LJU	43.01	302	eP	54 42.50	0.7
								eSg	22 03.30		BRG	43.01	309	iP	54 42.00	0.3
					TOL	2.39	30	ePg	21 53.50	14.9X	1.1s 30.00nm 5.0mb					
								eSb	22 06.50							
								eSg	22 11.00							
					GUD	3.04	21	ePn	21 42.60	-5.3X	CZI	43.05	292	P	54 43.10	1.0
					S.D. = 1.5 on 4 of 9 obs.											
					APR 01, 1990 00h 46m 48.29± 0.96s											

01d 00h

			e	56	29.50	
SGO	43.38	294	P	54	45.60	0.9
VOY	43.46	302	eP	54	45.80	0.3
HFS	43.58	322	eP	54	45.70	-0.4
	0.6s	33.80nm				5.4mb
Z	18s	0.14um				3.9msz
		LR	10	09.00		
TRI	43.59	301	iPc	54	46.10	-0.3
CLL	43.59	310	eP	54	46.00	-0.3
BSS	43.70	294	P	54	47.90	0.5
ATN	43.82	290	Pd	54	48.60	0.2
BHG	43.94	304	iPd	54	49.00	-0.3
	1.0s	23.00nm				5.0mb
MOX	44.50	309	iPd	54	55.00	1.2
	1.2s	21.00nm				4.8mb
ARV	44.52	298	Pd	54	54.70	0.7
ASS	44.80	298	Pd	54	57.70	1.4
GRF	44.84	307	iPc	54	57.80	1.3
	1.5s	36.00nm				5.0mb
NB2	44.90	323	P	54	56.10	-0.8
	0.8s	34.40nm				5.2mb
RDP	45.03	296	Pd	54	58.20	0.0
OGA	45.31	303	eP	55	00.20	-0.2
PGD	45.32	299	eP	55	02.00	1.4
FIR	45.67	299	eP	55	03.00	-0.1
OSS	45.93	303	ePd	55	05.20	-0.1
SAX	46.38	304	ePd	55	08.60	-0.4
VDL	46.42	303	ePd	55	09.10	-0.2
LLS	46.68	304	ePd	55	10.80	-0.5
SLE	46.87	305	ePd	55	12.10	-0.5
TMA	46.90	303	ePd	55	12.30	-0.7
ZLA	46.99	305	ePd	55	13.10	-0.4
VAI	47.01	302	Pd	55	13.00	-0.6
FEL	47.17	305	eP	55	14.74	-0.4
PCP	47.43	301	P	55	15.24	-1.8
RUP	47.52	308	eP	55	18.30	0.6
MMK	47.53	303	ePd	55	17.80	-0.3
PGF	47.55	298	iPc	55	17.60	-0.5
	0.7s	22.05nm				5.2mb
CDF	47.57	306	eP	55	18.30	0.1
	0.6s	3.60nm				4.5mb
ORX	47.60	302	P	55	16.26	-2.2
FIN	47.73	300	P	55	17.60	-1.8
DIX	47.90	303	ePd	55	20.90	-0.1
ROB	47.95	300	P	55	20.06	-1.1
BSF	47.99	305	eP	55	21.00	-0.5
	0.9s	26.20nm				5.2mb
IMI	48.02	300	P	55	20.88	-0.8
MEM	48.06	309	P	55	22.40	0.7
RSP	48.20	302	P	55	23.03	0.0
LSD	48.20	302	P	55	22.62	-0.7
EMS	48.23	303	ePd	55	23.20	-0.2
HAU	48.25	306	eP	55	23.20	-0.2
	0.8s	10.75nm				4.9mb
ENR	48.28	300	P	55	22.62	-1.1
STV	48.35	300	P	55	22.42	-1.8
SBF	48.36	300	iPc	55	24.20	0.0
	0.8s	37.60nm				5.4mb
PZZ	48.44	301	P	55	22.52	-2.5
LPG	48.47	302	iPc	55	25.30	-0.1
	0.8s	18.80nm				5.1mb
LPL	48.48	302	iPc	55	25.40	0.0
	1.0s	26.00nm				5.2mb
RRL	48.57	301	P	55	25.49	-0.6
FRF	48.98	300	iPc	55	29.00	0.0
	0.8s	14.80nm				5.1mb
DOU	49.03	309	Pc	55	30.30	1.0
SNF	49.16	309	P	55	30.30	0.1
KBS	49.27	347	iPd	55	32.00	1.3
LBF	50.03	305	eP	55	36.40	-0.7
	1.0s	14.00nm				4.9mb
LOR	50.05	305	eP	55	36.40	-0.8
	1.0s					

LSF	51.85	304	eP	55	50.10	-0.7
	1.0s	23.00nm				5.2mb
RJF	52.10	303	eP	55	52.50	-0.2
	0.9s	11.45nm				4.9mb
LDF	52.36	308	eP	55	53.70	-0.9
	0.9s	11.45nm				4.9mb
LPO	52.49	302	eP	55	55.20	-0.4
	0.8s	4.05nm				4.5mb
LFF	52.73	303	eP	55	57.00	-0.3
	0.8s	12.75nm				5.0mb
EKA	52.75	316	Pd	55	56.40	-1.0
	0.8s	9.90nm				4.9mb
MFF	52.87	305	eP	55	57.50	-0.9
	0.9s	11.45nm				4.9mb
GRR	52.88	307	eP	55	58.30	-0.1
	1.0s	16.00nm				5.0mb
LPF	53.09	307	eP	55	59.00	-0.9
	1.0s	12.00nm				4.9mb
MAT	53.25	68	(P)	56	02.00	0.7
	1.0s	15.00nm				5.0mb
EPF	53.56	301	eP	56	02.10	-1.4
	0.8s	7.40nm				4.8mb
DLE	55.14	314	eP	56	13.30	-1.6
DAG	55.40	344	iPc	56	15.70	-0.8
	0.2s	50.00nm				6.2mb
DCN	55.55	315	eP	56	16.90	-0.9
BCAO	57.38	250	iPc	56	30.20	-1.2
	0.9s	103.00nm				6.0mb
		id		56	54.00	
GUD	57.52	299	eP	56	31.50	-0.7
TOL	57.72	298	iPd	56	33.50	0.0
	1.0s	80.00nm				5.8mb
EBAN	58.18	297	eP	56	36.10	-0.6
AFG	58.36	295	eP	56	36.80	-1.3
ASMO	58.46	296	iPc	56	37.50	-1.3
APHE	58.58	295	iPc	56	38.50	-1.2
AAPN	58.76	296	iPc	56	38.60	-2.3
ATEJ	58.84	295	iPc	56	40.00	-1.5
EPLA	59.10	299	eP	56	43.00	-0.1
BRW	67.98	15	eP	57	41.00	0.2
MBC	68.02	3	ePc	57	41.30	0.3
	0.7s	53.00nm				5.6mb
IMA	72.79	17	ePc	58	10.00	-0.2
	0.8s	30.00nm				5.3mb
LKO	73.58	270	Pc	58	13.68	-1.8
	0.8s	17.50nm				5.0mb
MTN	74.61	119	eP	58	22.70	1.4
PRY	74.68	220	eP	58	22.60	1.0
	0.7s	5.00nm				4.6mb
TTA	74.68	20	eP	58	21.60	0.5
KIC	74.70	267	P	58	20.78	-1.1
	0.7s	14.00nm				5.0mb
TIC	74.76	267	P	58	21.26	-1.0
	0.6s	11.50nm				4.9mb
LIC	75.01	267	P	58	22.64	-1.0
	0.6s	11.00nm				4.9mb
BFS	75.01	220	iPd	58	23.00	-0.5
	0.7s	13.70nm				5.0mb
FBA	75.14	16	iPc	58	24.00	0.4
FRB	75.70	343	eP	58	26.00	-0.8
PMR	77.63	18	eP	58	37.40	-0.1
	0.8s	20.50nm				5.1mb
TOA	77.92	17	eP	58	40.50	1.2
KDC	79.91	22	eP	58	50.30	0.3
WRA	81.67	122	Pc	59	00.40	0.6
	0.6s	7.50nm				4.8mb
YKA	81.93	3	eP	59	01.10	0.6
	0.6s	15.40nm				5.1mb
ASPA	83.90	125	iPc	59	12.10	0.9
	0.9s	14.00nm				5.0mb
		i		59	35.80	
QIS	85.77	119	ePd			

ML 3.3 (SKO), 3.1 (THE), 3.0 (TTG).					
0.24	187	iPg	10	23.20	1.6
0.41	347	iPg	10	24.00	-1.0
0.64	74	iPg	10	28.70	-0.7
0.8s	0.95nm				
		iSn	10	37.90	
		Lg	10	39.20	
0.70	117	ePg	10	29.50	-0.9
1.13	341	iPg	10	37.70	0.0
1.16	332	ePg	10	37.50	-0.7
		eSg	10	54.80	
1.24	187	eP	10	43.50	4.0X
1.43	2	ePg	10	43.20	0.8
1.50	114	eP	10	45.00	1.5
		eS	11	09.00	
1.50	46	iPn	10	43.50	0.0
		iS	11	03.00	
1.58	340	iPg	10	45.00	0.4
		eSg	11	06.50	
1.60	327	ePg	10	44.40	-0.5
		eSg	11	05.50	
1.65	360	ePn	10	47.10	1.3
		eSn	11	09.60	
1.66	249	P	10	46.10	0.3
		eSg	11	03.00	
1.87	324	ePn	10	47.50	-1.4
		eSn	11	14.00	
1.93	358	iPnc	10	51.60	1.8
		eSn	11	17.50	
1.99	78	ePn	10	50.30	-0.2
2.01	339	ePn	10	51.60	0.6
		eSn	11	17.50	
2.08	113	eP	10	53.50	1.5
		eS	11	21.60	
2.21	83	eP	10	53.90	0.1
		eS	11	22.40	
2.23	332	ePn	10	54.50	0.2
		eSn	11	26.00	
2.63	136	eP	10	58.10	-1.7
2.73	85	eP	11	00.60	-0.7
3.00	109	eP	11	03.90	-1.0
3.06	249	P	11	04.70	-1.1
3.23	252	P	11	07.60	-0.6
3.42	241	P	11	11.80	0.9
3.47	258	P	11	11.50	-0.2
3.57	265	P	11	12.90	-0.2
S.D. = 1.0 on 28 of 29 obs.					
R 01, 1990 01h 22m 11.19± 0.68s					
005 N ± 6.0km 23.816 E ± 6.2km					
PTH = 10.0km (geophysicist)					
CE (364)					
MD 3.4 (ATH).					
0.46	322	ePg	22	20.50	-0.1
0.83	213	ePg	22	26.50	-0.8
1.58	358	eP	22	39.00	-0.4
1.60	282	ePg	22	14.60	-25.0X
1.62	325	ePn	22	40.70	0.8
1.74	48	ePb	22	42.10	0.5
1.81	22	iPc	22	42.00	-0.9
1.94	344	eP	22	44.00	-0.5
2.04	111	ePb	22	47.00	1.0
2.04	36	iP	22	44.00	-2.0
2.20	17	eP	22	48.00	-0.3
2.42	32	eP	22	52.00	0.6
2.55	297	ePn	22	58.00	4.7X
2.56	6	eP	22	54.00	0.6
2.62	350	iP	22	55.00	0.5
2.66	318	ePn	22	55.50	0.6
3.23	39	eP	23	09.00	6.2X
3.40	19	eP	23	02.00	-3.3X
S.D. = 0.9 on 14 of 18 obs.					
R 01, 1990 01h 53m 47.38± 1.01s					
817 N ± 8.0km 21.424 E ± 8.9km					
PTH = 10.0km (geophysicist)					
HERN GREECE (368)					
ML 3.2 (ATH).					
0.75	148	ePg	54	02.10	0.0
0.75	299	ePg	54	02.00	-0.1
1.40	30	eP	54	14.80	1.9
		eS	54	36.40	
1.82	84	ePb	54	19.30	0.3

NEO 2.05 43 ePn 54 22.40 0.1
 KEK 2.28 327 ePg 54 29.70 4.1X
 LIT 2.43 20 eP 54 29.30 1.6
 eS 54 56.00
 KZN 2.50 6 ePn 54 29.40 0.6
 PAIG 2.75 39 eP 54 30.90 -1.4
 FNA 2.96 359 eP 54 36.40 1.0
 PLG 3.00 31 ePn 54 34.50 -1.3
 OHR 3.33 352 ePn 54 39.20 -1.3
 KNT 3.53 18 eP 54 42.90 -0.5
 VAY 3.61 14 ePn 54 45.00 0.5
 SRS 3.70 26 eP 54 44.30 -1.5
 eS 55 28.20
 SKO 4.15 0 ePn 55 01.50 9.4X
 S.D. = 1.2 on 14 of 16 obs.

APR 01, 1990 02h 50m 48.43 ± 0.60s
 39.943 N ± 5.0km 23.932 E ± 5.4km
 DEPTH = 7.0 ± 3.4 km
 AEGEAN SEA (365)
 ML 3.5 (ATH), 3.2 (THE).

PAIG 0.19 265 iPd 50 21.00 -31.5X
 eS 50 55.80
 OUR 0.39 6 ePc 50 56.20 -0.2
 PLG 0.57 319 ePg 50 48.20 -11.7X
 NEO 0.84 221 ePg 51 04.10 -0.8
 THE 1.01 313 ePc 51 07.20 -0.6
 iS 51 21.10
 LIT 1.12 279 ePd 51 09.20 -0.5
 eS 51 25.40
 SRS 1.20 348 eP 51 10.60 -0.5
 iS 51 25.60
 KNT 1.45 327 eP 51 14.90 -0.2
 eS 51 34.00
 AGG 1.54 234 eP 51 15.40 -1.0
 eS 51 34.90
 MMB 1.65 355 iPd 51 16.00 -2.0
 KZN 1.70 283 ePn 51 18.00 -0.7
 RDO 1.72 45 ePg 51 20.00 1.2
 VAY 1.72 323 iPn 51 18.00 -1.0
 RZN 1.84 19 iPc 51 19.00 -1.9
 ALN 1.87 59 eP 51 19.90 -1.3
 PRK 1.94 110 ePn 51 25.70 3.6X
 ATH 1.97 185 ePn 51 21.50 -1.1
 KKB 2.03 342 iPd 51 22.00 -1.4
 KDZ 2.04 33 iPc 51 21.00 -2.6
 FNA 2.13 294 eP 51 26.10 1.2
 PLD 2.24 15 eP 51 11.00 -15.4X
 DIM 2.43 29 eP 51 30.00 0.9
 PGB 2.61 4 eP 51 32.00 0.2
 OHR 2.66 297 ePn 51 32.80 0.3
 VTS 2.70 349 iP 51 32.00 -1.2
 SKO 2.77 318 ePn 51 33.00 -1.0
 ITM 3.18 210 ePg 51 51.30 11.5X
 JMB 3.22 38 eP 51 48.00 7.7X
 PVL 3.44 17 eP 51 40.00 -3.4X
 CMP 5.38 8 ePc 52 14.00 2.9X
 MLR 5.74 14 eP 52 16.00 -0.2
 S.D. = 1.0 on 23 of 31 obs.

& APR 01, 1990 03h 25m 55.96s
 47.809 N 119.161 W
 DEPTH = 7.7km
 WASHINGTON (29)
 <SEA>. CL 2.8 (SEA).

SAW 0.19 237 Pc 25 59.96 -0.2
 DHW2 0.45 294 Pd 26 04.26 -0.7
 WTV 0.55 259 P 26 05.83 -1.1
 S 26 13.65
 DPW 0.65 84 P 26 07.95 -1.0
 ETW 0.82 256 P 26 10.83 -1.3
 NLW 0.84 289 Pd 26 11.17 -1.3
 WRD 0.84 179 P 26 11.19 -1.2
 CRF 1.00 189 P 26 14.38 -0.7
 VTG 1.02 214 P 26 15.20 -0.2
 WAH2 1.09 195 P 26 16.01 -0.6
 BVW 1.11 206 P 26 16.72 -0.4
 TBM 1.17 237 P 26 17.68 -0.3
 GBL 1.23 190 P 26 18.55 -0.5
 MDW 1.26 199 P 26 18.81 -0.8
 EBG 1.31 227 P 26 20.67 0.2
 WIW 1.38 184 P 26 21.33 -0.2
 BRVW 1.44 203 P 26 22.23 -0.2
 RSW 1.45 192 P 26 22.14 -0.5
 MXC 1.45 212 P 26 21.57 -1.0

RPW 1.70 293 P 26 25.56 -0.6
 RMW 1.82 260 P 26 26.66 -1.3
 FMW 1.92 244 P 26 30.67 1.2
 WPW 1.97 237 P 26 31.10 1.0
 LNOR 2.03 162 P 26 32.33 1.4
 CMW 2.08 288 P 26 34.31 2.7
 25 obs. associated

APR 01, 1990 04h 05m 48.74 ± 0.56s
 45.865 N ± 7.2km 15.869 E ± 4.5km
 DEPTH = 10.0km (geophysicist)
 YUGOSLAVIA (383)
 ML 2.5 (LJU), MD 3.0 (TRI), Felt
 at Bistro and Somobor.

PTJ 0.07 60 iPg 05 51.30 0.1
 e(Sg) 05 53.60
 ZAG 0.09 121 iPg 05 51.40 0.0
 iSg 05 53.10
 VBY 0.56 230 ePg 05 59.60 -0.5
 iSg 06 07.00
 LJU 0.95 281 iPg 06 06.80 0.0
 i 06 08.00
 iSg 06 21.90
 CEY 1.02 263 ePg 06 08.40 0.4
 eSg 06 24.40
 RIY 1.16 244 ePg 06 10.50 0.0
 iSg 06 26.60
 VOY 1.39 278 ePn 06 14.50 0.3
 eSn 06 34.50
 TRI 1.48 265 ePg 06 15.40 0.0
 iSg 06 36.10
 ZST 2.48 19 eP 06 36.80 7.0X
 SRO 2.57 40 e(P) 06 41.00 9.9X
 e 07 19.30
 HVAR 2.72 171 i(Pn) 06 13.40 -19.8X
 iSg 06 54.10
 KHC 3.62 335 iPn 06 45.60 -0.4
 Sn 07 26.50
 Sg 07 45.00
 PRU 4.22 348 ePg 07 08.50 14.0X
 eSg 08 13.50
 GRF 4.95 322 e(Pg) 07 26.50 21.7X
 eSg 08 29.00
 S.D. = 0.3 on 9 of 14 obs.

APR 01, 1990 05h 07m 36.10 ± 0.91s
 68.061 N ± 6.5km 154.440 W ± 11.2km
 DEPTH = 10.0km (geophysicist)
 3.6mb (1 obs.)
 ALASKA (676)
 ML 4.0 (PMR).

IMA 2.02 171 iPc 08 10.70 -0.1
 BRW 3.36 347 e(P) 08 30.70 1.1
 FBA 4.14 137 iPc 08 40.30 -0.4
 TTA 5.19 188 eP 08 55.20 -0.5
 PMR 6.88 158 eP 09 18.80 -0.5
 TOA 6.92 146 eP 09 22.00 2.0
 SWW 7.00 185 eP 09 20.00 -1.2
 PMS 7.15 161 eP 09 24.60 1.3
 DWY 7.30 116 P 09 25.00 -0.3
 INK 7.79 78 P 09 33.00 1.0
 MBC 13.25 37 P 10 45.00 -1.5
 YKA 17.30 90 eP 11 37.90 -0.9
 0.6s 2.90nm 3.6mb
 S.D. = 1.2 on 12 of 12 obs.

* APR 01, 1990 05h 29m 02.54 ± 0.91s
 38.090 N ± 8.4km 21.645 E ± 9.1km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 ML 3.1 (ATH).

VLS 0.84 276 iPg 29 18.00 -0.7
 ITM 0.94 166 ePg 29 20.00 -0.4
 eSn 29 36.50
 ATH 1.64 93 ePn 29 33.10 1.6
 eSb 29 54.00
 NEO 1.73 45 ePb 29 30.70 -2.2
 KEK 2.17 319 ePb 29 40.50 1.3
 KZN 2.22 2 ePb 29 40.80 0.9
 PLG 2.67 31 ePn 29 47.00 0.6
 OHR 3.09 348 ePn 29 53.50 1.3
 VAY 3.30 12 ePn 29 55.00 -0.3
 SKO 3.88 358 ePn 30 01.50 -2.0
 S.D. = 1.5 on 10 of 10 obs.

* APR 01, 1990 07h 43m 12.08 ± 1.50s
 34.415 N ± 14.2km 138.166 E ± 9.9km
 DEPTH = 41.6 ± 11.9 km
 3.9mb (1 obs.)
 NEAR S. COAST OF HONSHU, JAPAN (230)

IIDJ 1.08 349 iPd 43 30.60 -0.4
 S 43 44.40
 CHJJ 1.77 22 P 43 41.20 0.5
 S 44 03.60
 TSJR 2.11 303 P 43 45.40 -0.3
 MAT 2.12 1 iPd 43 46.30 0.5
 iS 44 12.20
 WKYJ 2.14 266 P 43 46.10 0.0
 MTMJ 2.19 352 P 43 47.20 0.4
 S 44 14.80
 KAKJ 2.43 42 P 43 49.40 -0.7
 NIJJ 2.90 13 P 43 56.90 0.0
 eS 44 36.10
 TKSJ 3.44 264 P 44 05.00 0.5
 YONJ 3.95 283 P 44 11.30 -0.4
 MBC 59.77 16 eP 53 14.50 -0.2
 YKA 67.38 29 eP 54 04.00 -0.9
 1.0s 1.20nm 3.9mb
 LRM 77.86 42 eP 55 08.20 1.0
 ZOBO 150.29 59 PKP 03 02.00 5.9X
 S.D. = 0.6 on 13 of 14 obs.

* APR 01, 1990 08h 26m 52.51 ± 0.93s
 35.080 N ± 10.1km 45.493 E ± 8.6km
 DEPTH = 33.0km (normal)
 IRAN-IRAQ BORDER REGION (346)

SLY 0.52 1 iPn 27 03.00 -0.4
 iS* 27 04.50
 iSn 27 09.00
 KER 1.51 118 ePc 27 09.50 -8.2X
 BHD 2.02 207 ePn 27 25.00 0.1
 e 27 29.00
 iSn 27 55.00
 i 28 01.00
 MSL 2.31 305 ePnd 27 29.00 0.0
 iPg 27 34.50
 iSn 28 03.50
 iSg 28 13.50
 TAB 3.06 12 eP 27 40.00 0.2
 IR5 4.17 87 eP 27 55.00 -0.6
 IR1 4.27 84 iPd 27 58.00 1.1
 IR4 4.43 86 eP 27 57.00 -2.4
 IR2 4.45 81 eP 28 01.50 1.9
 S.D. = 1.5 on 8 of 9 obs.

* APR 01, 1990 09h 15m 54.20 ± 0.95s
 18.369 S ± 16.6km 177.844 W ± 11.3km
 DEPTH = 608.4 ± 10.5 km
 4.4mb (13 obs.)
 FIJI ISLANDS REGION (181)

VUN 3.53 275 eP 17 18.40 0.8
 WB5 45.06 260 eP 23 18.50 -0.8
 WRA 45.08 260 Pc 23 18.80 -0.7
 0.6s 6.50nm 4.3mb
 ASPA 45.19 255 iPd 23 19.90 -0.4
 1.1s 26.00nm 4.7mb
 iPcP 24 46.00
 iS 29 16.00
 iScS 32 12.30
 MBL 58.39 256 eP 24 54.10 -1.1
 0.4s 4.00nm 4.0mb
 NANU 62.11 254 iPc 25 19.40 -0.1
 MAT 68.59 323 iPd 25 58.90 -0.5
 0.8s 11.19nm 4.4mb
 SPA 71.75 180 iPc 26 17.80 0.2
 0.8s 11.67nm 4.5mb
 PRS 76.19 44 eP 26 43.50 0.9
 MHC 76.59 43 e(P) 26 45.10 0.1
 PLM 77.63 49 P 26 51.00 0.3
 FRI 77.66 44 eP 26 50.90 0.4
 PEC 77.71 48 P 26 50.50 -0.4
 CMB 77.81 43 eP 26 51.40 0.1
 WDC 77.95 40 eP 26 51.60 -0.4
 MIN 78.38 40 eP 26 54.70 0.3
 KVN 79.86 43 P 27 02.00 -0.2
 TNP 79.91 44 P 27 02.70 0.2
 0.7s 2.89nm 3.8mb
 PMR 82.92 13 P 27 16.10 -0.8

01d 09h

	0.8 s	15.17 nm			4.6 mb
BJI	84.49	315 eP	27	26.00	0.9
PNT	84.81	34 eP	27	27.00	0.5
	0.7 s	9.00 nm			4.5 mb
PV09	85.62	47 P	27	31.00	0.0
ALQ	85.96	51 eP	27	32.00	-0.6
	1.0 s	4.50 nm			4.1 mb
ANMO	85.96	51 P	27	29.80	-2.8
	0.8 s	2.99 nm			4.1 mb
FBA	86.14	12 P	27	31.50	-1.1
	0.5 s	10.74 nm			4.8 mb
LRM	86.98	40 eP	27	37.90	0.6
BW06	87.32	43 P	27	38.10	-0.9
	0.7 s	4.09 nm			4.3 mb
GOL	88.78	47 P	27	46.00	0.2
	0.5 s	2.16 nm			4.3 mb
RSSD	91.52	44 P	27	57.40	-0.8
INK	92.19	15 ePd	27	59.80	-0.7
YKA	94.52	25 eP	27	53.70	-17.5X
	0.3 s	0.20 nm			
KEV	126.41	350 ePKP	33	53.00	3.3X
SOD	128.56	348 ePKP	33	55.00	1.2
SUF	132.67	345 ePKP	34	01.10	-0.7
	0.6 s	1.60 nm			
NUR	134.94	344 ePKP	34	07.20	1.1
NB2	136.89	354 PKP	34	10.60	0.7
	0.8 s	2.00 nm			
APD	137.04	351 ePKP	33	59.80	-10.4X
	0.7 s	2.90 nm			
EKA	142.88	5 PKP	34	17.00	-3.7X
	1.3 s	15.60 nm			
KAS	144.58	317 iPKPc	34	25.50	1.4
KRA	145.32	340 ePKP	34	25.90	0.9
WIT	145.45	355 ePKP	34	27.50	2.5X
KSP	145.70	344 ePKP	34	25.50	-0.1
	0.8 s	35.00 nm			
		ic	34	27.50	
SPC	145.96	339 ePKP	34	27.60	1.3
CLL	146.02	348 iPKPd	34	27.90	1.9
	0.8 s	39.00 nm			
BRG	146.24	347 iPKP	34	28.70	2.3X
	0.9 s	20.00 nm			
WTS	146.25	355 ePKP	34	29.00	2.7X
	0.8 s	24.00 nm			
MLR	146.50	329 ePKP	34	08.00	-19.2X
MOX	146.92	349 e(PKP)	34	10.00	-17.5X
PRU	146.93	345 PKP	34	30.20	2.7X
ENN	147.54	356 ePKP	34	32.50	4.0X
	0.7 s	6.00 nm			
MEM	147.69	355 PKP	34	32.60	3.9X
SRO	147.80	339 ePKP	34	33.80	4.8X
ZST	147.85	341 ePKP	34	32.90	3.8X
		e	57	08.70	
GRF	147.91	349 ePKP	34	33.70	4.5X
		e	34	38.50	
KHC	147.95	346 iPKPd	34	33.50	4.2X
	1.0 s	10.50 nm			
ABH	148.27	353 ePKP	34	34.15	4.4X
DOU	148.29	357 iPKPc	34	34.20	4.5X
TOD	148.38	352 ePKP	34	34.43	4.5X
RUP	148.49	354 ePKP	34	34.81	4.7X
FLN	149.61	3 ePKP	34	36.90	5.2X
	0.6 s	10.80 nm			
CDF	149.74	353 ePKP	34	37.70	5.6X
	0.8 s	8.05 nm			
LDF	149.80	3 ePKP	34	37.40	5.4X
	0.6 s	6.30 nm			
KBA	149.93	345 iPKPc	34	37.50	5.0X
	0.9 s	10.00 nm			
		i	34	47.20	
GRR	149.96	4 ePKP	34	37.90	5.6X
	0.8 s	16.10 nm			
FEL	150.18	352 ePKP	34	38.34	5.5X
HAU	150.24	354 ePKP	34	39.00	6.2X
	0.8 s	10.75 nm			
LPF	150.30	4 ePKP	34	38.90	6.1X
	0.8 s	25.50 nm			
BSF	150.37	354 ePKP	34	39.10	6.0X
	0.6 s	5.40 nm			
VOY	150.75	343 ePKP	34	39.30	5.6X
VBY	150.83				

LBF	151.42	357	ePKP	34	41.40	6.8X
	0.8s	67.15nm				
AVF	151.64	358	ePKP	34	41.60	6.8X
	0.8s	2.70nm				
MFF	151.78	3	ePKP	34	41.90	6.9X
	0.6s	7.20nm				
TCF	152.16	360	ePKP	34	43.00	7.4X
	0.6s	31.55nm				
LSF	152.19	1	ePKP	34	42.80	7.2X
	0.8s	94.05nm				
MAF	152.22	359	ePKP	34	43.50	7.8X
	0.6s	2.70nm				
BCAO	158.83	231	ePKPc	34	44.00	-1.1
	0.7s	3.00nm				
S.D. = 0.9 on 40 of 81 obs.						
? APR 01, 1990 09h 28m 51.37±0.99s						
31.292 S ± 9.7km 69.212 W ±10.1km						
DEPTH = 33.0km (normal)						
SAN JUAN PROVINCE, ARGENTINA						(137)
RTCB	0.40	119	eP	29	02.00	1.4
			S	29	15.40	
RTBS	0.42	209	ePd	29	01.00	0.2
			S	29	12.80	
RTLL	0.64	94	ePc	29	04.20	0.2
			eS	29	19.20	
RTCV	0.81	135	ePc	29	05.30	-1.1
			S	29	20.70	
CFA	0.89	111	iPd	29	06.90	-0.6
			iS	29	23.00	
RTRS	1.14	349	ePc	29	10.90	-0.1
S.D. = 1.1 on 6 of 6 obs.						
? APR 01, 1990 10h 35m 12.30±9.69s						
12.070 S ±96.9km 122.062 E ±30.9km						
DEPTH = 33.0km (normal)						
3.9mb (2 obs.)						
SOUTH OF TIMOR						(293)
KNA	7.47	120	eP	37	03.10	1.4
			eS	38	24.00	
MBL	9.29	193	eP	37	26.30	-0.7
			eS	39	05.00	
NANU	12.15	210	eP	38	04.40	-1.7
	0.3s	12.00nm				5.6mb X
			eS	40	11.00	
WB5	14.15	125	eP	38	31.20	-1.3
			eS	40	59.80	
WRA	14.16	125	P	38	32.00	-0.7
	0.3s	0.50nm				3.7mb
MEKA	14.84	192	eP	38	46.40	4.8X
	0.3s	11.00nm				4.7mb X
ASPA	16.11	137	iPc	38	58.40	0.3
	0.5s	10.00nm				4.2mb
			eS	41	48.30	
MRWA	17.97	197	eP	39	23.00	1.6
COOL	18.74	182	eP	39	30.00	-0.8
BAL	19.10	194	eP	39	37.00	1.9
MUN	20.53	194	eP	39	55.00	4.4X
S.D. = 1.5 on 9 of 11 obs.						
* APR 01, 1990 10h 52m 36.28±1.47s						
34.973 S ± 9.1km 67.299 W ± 9.1km						
DEPTH = 29.0 ± 10.4 km						
4.5mb (2 obs.)						
MENDOZA PROVINCE, ARGENTINA						(139)
Felt (11) at Mendoza.						
CHCH	2.96	290	eP	53	23.20	0.8

RTRS	5.12	339	iPc	53	54.00	0.9
ANT	11.55	346	e(P)	55	30.50	8.2X
CCH	17.55	4	P	56	37.70	-3.1X
LPB	18.38	358	P	56	52.80	1.7
	1.0s	64.00nm				4.7mb
ZOBO	18.64	358	Pd	56	54.80	0.3
	1.0s	23.75nm				4.3mb
Z	20s	0.18um				
		LR	03	30.00		
SIV	19.71	18	P	57	05.80	-0.7
BAO	25.90	47	eP	58	08.50	0.8
KIC	71.74	68	P	03	58.00	0.0
HYB	144.95	111	ePKP	12	13.00	0.3
	S.D. = 0.8	on	17	of	20 obs.	
<hr/>						
APR	01,	1990	10h	55m	05.12±	0.90s
	40.358	N ±	9.4km		21.996	E ± 7.5km
	DEPTH =	10.0km	(geophysicist)			
GREECE						(364)
MD	3.3	(ATH).				
KZN	0.18	254	iPg	55	09.00	-0.2
VAY	1.06	24	ePn	55	24.00	-1.0
PLG	1.11	89	ePg	55	25.70	-0.2
			eSg	55	41.00	
OHR	1.18	310	iPn	55	26.30	-0.9
	0.9s	0.12nm				
		iSg	55	47.50		
		Lg	55	51.70		
NEO	1.41	138	ePb	55	31.20	0.3
SKO	1.67	346	ePn	55	36.50	2.0
KEK	1.81	250	ePg	55	43.00	6.5X
	S.D. = 1.4	on	6	of	7 obs.	
<hr/>						
* APR	01,	1990	11h	36m	39.67±	0.83s
	5.811	S ±	8.1km		129.826	E ± 15.2km
	DEPTH =	217.5 ±	8.4 km			
	4.8mb	(2 obs.)				
BANDA SEA						(280)
AAI	2.66	322	ePd	37	27.20	0.4
MTN	7.11	170	eP	38	22.00	-0.2
			eS	39	38.00	
KNA	9.93	186	eP	38	58.10	-0.7
			eS	40	42.00	
WB5	14.67	163	eP	39	58.00	-0.4
			e	40	05.00	
			eS	42	35.00	
QIS	17.46	148	iPc	40	31.90	0.7
			eS	43	40.00	
MBL	18.07	211	eP	40	37.30	-0.3
ASPA	18.18	168	iPd	40	39.00	0.2
	0.3s	15.00nm				4.9mb
		iS	43	54.70		
NANU	21.63	218	eP	41	14.60	1.2
	0.3s	7.00nm				4.7mb
GUN	54.05	311	P	45	44.48	-0.1
PKI	54.23	310	P	45	45.32	-0.5
KKN	54.44	310	P	45	46.98	-0.2
DMN	54.48	310	P	45	47.68	0.1
GKN	55.04	310	P	45	51.22	-0.2
	0.3s	28.00nm				5.4mb X
	S.D. = 0.6	on	13	of	13 obs.	
<hr/>						
& APR	01,	1990	11h	38m	04.30s	
	36.812	N			121.577	W
	DEPTH =	7.0km				
CENTRAL CALIFORNIA						(39)
<BRK>	ML	2.5	(BRK).			
SAO	0.12	114	iPd	38	06.80	-0.1
GCC	0.40	303	eP	38	11.80	-0.6
PRS	0.51	161	iPd	38	14.20	-0.3
MHC	0.53	354	iPd	38	15.20	0.2
			iS	38	23.00	
ARN	0.54	4	iPc	38	15.10	0.0
LLA	0.55	111	iPc	38		

? APR 01, 1990 12h 04m 32.85 ± 2.48s
36.508 S ± 17.6km 149.322 E ± 23.6km
DEPTH = 10.0km (geophysicist)
NEAR S.E. COAST OF AUSTRALIA (603)
ML 3.4 (CNB), 3.4 (RIV), 3.2
(TOO).

CNB	1.19	2	iPc	04 55.20	0.1
			eS	05 14.00	
CAN	1.21	347	iPd	04 56.30	0.8
			eS	05 15.80	
BWA	2.21	340	iPd	05 09.00	-1.1
			eS	05 43.00	
RIV	3.07	30	e(P)	05 31.00	8.8X
			eS	06 05.00	
TOO	3.24	250	ePn	05 25.00	0.2
			ePg	05 37.00	
			eSn	06 00.00	
			eSg	06 15.00	
CMS	5.79	329	eP	06 04.60	3.8X
			eS	07 44.00	
COO	6.29	21	e(P)	06 08.00	0.0
			eS	07 44.00	

S.D. = 1.0 on 5 of 7 obs.

APR 01, 1990 12h 07m 04.36 ± 1.27s
31.696 S ± 5.9km 72.028 W ± 11.8km
DEPTH = 58.7 ± 10.7 km
4.9mb (2 obs.)
OFF COAST OF CENTRAL CHILE (134)

ROCH	1.54	146	iPd	07 29.00	-1.1
			iS	07 48.00	
JACH	1.56	129	iPc	07 29.50	-0.8
			iS	07 47.00	
LCCH	1.82	168	iPd	07 34.50	0.8
			iS	07 54.50	
SAN	2.10	147	iPc	07 37.90	0.2
			iS	08 03.50	
TACH	2.16	155	iP	07 38.50	-0.1
			iS	08 04.00	
FCH	2.19	138	iP	07 39.00	-0.3
			iS	08 05.00	
RTBS	2.20	90	ePd	07 39.70	0.7
PCH	2.31	147	eP	07 40.50	-0.2
			iS	08 09.00	
LNK	2.31	167	iPd	07 40.60	-0.1
			i	07 52.50	
			i	08 12.70	
CHCH	2.51	153	eP	07 44.00	0.4
			iS	08 15.00	
RTRS	2.68	56	iPc	07 46.40	0.5
RTCB	2.76	87	iPc	07 47.90	0.7
			eS	08 35.00	
ZON	2.86	88	iPc	07 48.20	-0.4
			eS	08 35.00	
RTCV	2.98	94	ePc	07 51.00	0.8
RTLL	3.06	84	iPc	07 51.10	-0.3
CFA	3.23	89	iPd	07 53.90	0.1
			eS	08 36.10	
LPB	15.51	14	eP	10 55.00	13.7X
ZOBO	15.76	14	P	10 44.90	0.2
	Z	22s	0.18um		
			LR	16 04.00	
SIV	18.55	35	P	11 17.50	-1.3
BAO	27.11	59	eP	12 42.40	-1.5
LIC	74.05	72	P	18 36.60	0.5
KIC	74.36	72	P	18 38.50	0.6
	0.8s	10.00nm		4.8mb	
LKO	75.53	69	Pc	18 45.22	0.6
	0.8s	17.00nm		5.0mb	
WRA	122.77	210	PKPd	25 58.10	2.5X
	0.8s	1.20nm			
GBA	146.73	116	PKPc	26 42.50	2.6X
	0.8s	5.50nm			
HYB	149.82	111	ePKP	26 52.00	7.2X

S.D. = 0.7 on 22 of 26 obs.

% APR 01, 1990 12h 58m 15.35 ± 0.93s
31.118 S ± 9.3km 69.119 W ± 11.0km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB	0.46	143	iPd	58 26.50	1.1
RTLL	0.59	111	iPc	58 27.80	0.4
			eS	58 41.00	

RTBS	0.61	208	ePd	58 27.60	0.1
			S	58 40.00	
RTCV	0.89	146	eP	58 30.60	-1.0
			S	58 46.00	
CFA	0.90	123	iP	58 31.00	-0.6
			S	58 46.10	
RTRS	0.99	343	iPc	58 32.90	0.0
			eS	58 49.50	

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

% APR 01, 1990 13h 04m 39.81 ± 4.97s
42.965 N ± 17.6km 1.141 W ± 27.2km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
MD 2.0 (STR).

BOH	0.17	35	Pg	04 43.68	0.0
			Sg	04 45.65	
ELYF	0.23	28	Pg	04 44.74	-0.1
			Sg	04 47.61	
ISSF	0.26	76	Pg	04 45.63	0.2
			Sg	04 49.27	
MADF	0.30	53	Pg	04 46.15	0.1
			Sg	04 50.10	
ATE	0.34	69	Pg	04 46.98	0.1
			Sg	04 51.48	
LHE	0.39	98	Pg	04 47.84	0.1
			Sg	04 53.09	
ESCF	0.43	75	Pg	04 48.47	-0.1
			Sg	04 54.08	
OGE	0.53	67	Pg	04 50.42	-0.1
			Sg	04 57.44	
JAU	0.57	82	Pg	04 51.12	-0.4

S.D. = 0.2 on 9 of 9 obs.

APR 01, 1990 13h 50m 04.11 ± 0.94s
39.977 N ± 7.9km 23.885 E ± 8.0km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
MD 2.9 (ATH).

PLG	0.52	320	iPg	50 14.00	-0.6
NEO	0.84	218	ePg	50 20.00	-0.4
MMB	1.61	356	ePd	50 33.00	0.3
KZN	1.65	282	ePb	50 34.00	0.6
VAY	1.67	324	ePn	50 34.00	0.4
RDO	1.72	47	ePb	50 35.60	1.4
RZN	1.82	20	iPc	50 36.00	0.1
KKB	1.98	342	eP	50 38.00	-0.1
KDZ	2.04	34	iPd	50 37.00	-1.8
PGB	2.58	5	eP	50 52.00	5.4X
VTS	2.66	349	eP	50 48.00	0.1
PVL	3.41	18	eP	51 20.00	21.6X

S.D. = 1.0 on 10 of 12 obs.

& APR 01, 1990 13h 52m 22.80s
37.270 N 121.625 W
DEPTH = 6.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.7 (BRK).

MHC	0.07	349	iPd	52 24.80	0.0
ARN	0.11	43	iPc	52 25.30	0.1
GCC	0.38	231	ePc	52 30.40	-0.1
			iS	52 36.00	
SAO	0.52	164	iPd	52 33.30	0.0
PCC	0.64	291	eP	52 34.50	-1.2
BKS	0.78	322	iPc	52 38.90	0.6
BRK	0.79	320	eP	52 37.60	-0.8
ZSP	0.84	324	ePc	52 38.90	-0.5
LLA	0.85	140	eP	52 38.50	-1.1
PRS	0.96	168	eP	52 40.40	-1.0
CM8	1.25	52	eP	52 45.50	-0.9
PRI	1.37	145	eP	52 47.20	-1.2
KVN	3.30	56	e(P)	53 20.00	3.8

13 obs. associated

* APR 01, 1990 14h 48m 39.93 ± 1.06s
43.192 N ± 7.7km 13.291 E ± 11.3km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

ARV	0.40	320	P	48 42.90	-5.2X
			eSg	48 51.50	
ASS	0.48	256	P	48 49.00	-0.6
			eSg	49 03.10	
MNS	0.92	209	P	48 59.50	1.9

PGD	1.33	301	P	49 20.00	
			eSg	49 04.00	-0.6
SDI	1.53	165	P	49 25.00	
			eSn	49 06.00	-1.4
RBL	3.26	3	P	49 32.50	
			eSn	49 32.50	0.4
KBA	3.89	1	eP	49 56.50	0.3
			e	50 26.00	

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

? APR 01, 1990 15h 13m 38.81 ± 3.00s
46.232 N ± 28.7km 2.672 E ± 17.1km
DEPTH = 5.0km (geophysicist)
FRANCE (538)
ML 1.7 (LDG).

MAF	0.07	262	Pg	13 40.70	0.1
			Sg	13 41.50	
TCF	0.33	280	Pg	13 45.30	-0.1
			Sg	13 49.10	
BGF	0.35	20	Pg	13 45.90	0.1
			Sg	13 50.80	
AVF	0.73	40	Pg	13 53.30	-0.1
			Sg	14 03.90	

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

* APR 01, 1990 15h 38m 54.28 ± 1.09s
23.357 S ± 19.8km 111.733 W ± 16.7km
DEPTH = 10.0km (geophysicist)
4.8mb (9 obs.)
EASTER ISLAND REGION (685)

LPB	41.45	89	eP	46 50.00	6.4X
ZOBO	41.51	88	P	46 45.20	1.0
	1.2s	12.84nm		4.5mb	
	Z	25s	0.28um	4.0mszx	
			LR	59 08.00	
SIV	48.07	91	P	47 35.60	-0.7
ALO	58.19	5	eP	48 51.50	0.4
	1.0s	2.50nm		4.2mb	
FRI	60.49	353	eP	49 07.00	0.4
TUL	60.84	15	eP	49 09.10	0.0
	1.1s	8.40nm		4.8mb	
			e	49 16.50	
			e	49 22.70	
PV09	61.58	2	P	49 14.50	0.1
CM8	61.60	352	eP	49 15.20	0.9
OLY	61.61	19	P	49 14.00	-0.3
KVN	62.36	354	P	49 20.00	0.4
GOL	63.01	6	P	49 24.00	0.1
FVM	64.22	19	P	49 31.00	-0.6
	0.7s	10.88nm		5.2mb	
WDC	64.40	351	eP	49 32.60	-0.1
BLA	67.08	27	P	49 50.00	0.0
	1.2s	27.27nm		5.3mb	
RSSD	67.51	6	P	49 52.00	-0.9
LRM	68.85	359	eP	50 05.40	4.2X
NEW	71.45	356	P	50 15.20	-1.5
	1.0s	15.00nm		5.1mb	
PNT	72.68	355	eP	50 25.00	1.0
	0.7s	4.00nm		4.6mb	
RSON	75.59	12	P	50 40.80	0.1
	0.9s	9.29nm		4.8mb	
EDM	76.27	359	eP	50 45.00	0.5
YKA	85.58	359	eP	51 32.80	-0.7
	1.0s	5.20nm		4.7mb	
INK	92.79	352	eP	52 07.00	-0.5
LZH	146.79	301	ePKP	58 37.00	0.1
	1.5s	29.00nm			
CHG	151.05	267	ePKP	58 48.00	4.3X

S.D. = 0.7 on 21 of 24 obs.

APR 01, 1990 16h 13m 05.35 ± 0.14s
24.358 N ± 3.0km 141.188 E ± 3.2km
DEPTH = 208.0km (4 depth phases)
5.3mb (49 obs.)
VOLCANO ISLANDS REGION (213)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 23C
Centroid Location:
Origin Time 16:13:10.2 0.9
Lat 24.06N 0.10 Lon 140.62E 0.05
Dep 202.7 3.8 Hertz-duration 1.7
Moment Tensor: Scale 10**17 Nm
Mrr=-0.11 0.05 Mtt=-0.31 0.10

01d 16h

```

Mff= 0.42 0.09   Mrt=-0.29 0.06
Mrf= 0.32 0.08   Mtf= 1.20 0.09
Principal Axes:
T Val= 1.31      Plg= 4      Azm=306
N          0.03      71      206
P        -1.34      19      37
Best Double Couple:Mo=1.3*10**17
NP1:Strike= 80 Dip=74 Slip= -11
NP2:       173      79      -164

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WKYJ	10.97	335	eP	15	39.40	1.5
PJG	11.26	161	eP	15	42.10	0.5
			pP	15	47.80	
GUMO	11.26	161	eP	15	42.20	0.5
	0.9 s	818.41nm				6.1mb
			eS	17	50.00	
GUA	11.32	161	eP	15	43.00	0.6
	0.8 s	668.66nm				6.1mb
KAGJ	11.37	309	iP+	15	45.70	2.7
TKSJ	11.44	329	P	15	46.40	2.6
CHJJ	11.80	351	P	15	44.90	-3.6X
			S	17	48.40	
KAKJ	11.84	356	P	15	45.50	-3.4X
			S	17	50.50	
TSRJ	12.02	339	P	15	51.40	0.2
KUMJ	12.22	314	iP+	15	57.70	4.0X
MAT	12.41	349	eP	15	54.00	-2.2
	0.7 s	34.25nm				4.9mb
			eS	18	00.00	
MTMJ	12.53	347	P	15	55.50	-2.3
YONJ	12.70	330	eP	16	01.90	2.1
NI1J	12.98	352	P	15	59.20	-4.1X
SHNJ	13.11	320	iP+	16	08.10	3.1X
MRRJ	18.02	360	P	17	01.40	-1.8
			S	20	15.50	
HO0J	18.06	5	P	17	03.90	0.3
			S	20	14.80	
KUSJ	18.92	8	P	17	12.20	-0.3
			S	20	35.30	
SSE	18.92	295	iPd	17	13.50	0.8
	0.9 s	699.00nm				6.2mb
			i	17	18.00	
CVP	19.24	254	ePd	17	16.40	0.4
			eS	17	52.00	
ASAJ	19.75	3	P	17	20.90	-0.1
			S	20	56.30	
PIP	20.07	257	iPd	17	25.00	0.7
	0.7 s	148.00nm				5.6mb
SZP	20.50	255	ePd	17	29.60	1.0
BAG	20.86	252	eP	17	33.90	1.5
			eS	21	12.00	
PGP	21.95	244	eP	17	44.00	1.2
	0.8 s	31.00nm				4.9mb
HKC	24.88	271	iP	18	12.20	1.6
			eS	22	22.00	
PPR	25.85	240	ePc	18	25.00	5.4X
BJI	26.19	313	eP	18	21.50	-1.0
	0.8 s	78.00nm				5.5mb
N	11 s	0.58um				
			ePP	18	58.00	
			eS	22	36.00	
MNI	27.73	217	ePc	18	35.70	-0.9
PMG	34.06	169	eP	19	31.00	-0.8
LZH	34.12	299	iPc	19	33.30	0.8
	4.0 s	400.00nm				5.4mb X
Z	15 s	0.50um				4.4MsZ X
N	11 s	0.40um				
			pP	19	36.30	10kmX
			sP	19	37.50	
			PPP	20	54.00	
			S	24	43.00	
			sS	24	50.00	
KMI	34.85	279	iPc+	19	40.00	1.2
	2.0 s	0.40nm				2.7mb X
			sP	21	10.50	
			i	21	26.50	
			S	24	56.00	
			sS	26	06.00	
LOE	37.41	267	eP	20	00.00	-0.2
MTN	38.26	196	iPd	20	05.60	-1.5
NST	39.41	265	iPc	20	19.00	2.3
CHG	39.56	270	iPc	20	18.80	0.9
	0.9 s	49.37nm				5.1mb
BDT	39.95	268	eP	20	20.00	-1.0
	0.6 s	121.50nm				5.6mb
KNA	41.67					

SNG	42.41	253	eP	20	41.80	0.6
IPM	43.34	250	ePc	20	51.00	2.2
	0.7s	25.00nm				4.8mb
CTA	44.45	173	iPd	20	57.30	-0.2
	1.0s	16.50nm				4.4mb
		i		21	39.70	
WB5	44.47	189	iPd	20	56.90	-0.7
		e		26	09.00	
		iScP		27	13.20	
SHL	44.51	282	iP	20	58.30	0.1
		iS		27	16.50	
WRA	44.54	189	Pd	20	57.00	-1.1
	0.5s	83.20nm				5.4mb
QIS	44.67	182	iPd	20	58.40	-0.8
	0.6s	28.00nm				4.9mb
		e		21	46.00	
ASPA	48.26	189	iPd	21	25.80	-1.4
	0.6s	52.00nm				5.1mb
Z	22s	0.31um				4.2Msx
		iPP		22	12.70	
		iS		28	07.50	
		LR		39	36.50	
GUN	49.43	287	Pc	21	36.88	0.2
	0.4s	182.00nm				5.9mb
PKI	49.90	286	Pc	21	39.70	-0.5
	0.6s	78.00nm				5.4mb
KKN	49.98	287	Pc	21	40.36	-0.3
	0.6s	106.00nm				5.5mb
DMN	50.16	286	Pc	21	41.80	-0.3
	0.5s	72.00nm				5.5mb
GKN	50.50	287	Pc	21	44.30	-0.3
	0.5s	96.00nm				5.6mb
RMO	51.07	171	eP	21	48.00	-0.6
WARB	52.18	197	eP	21	56.00	-0.8
	0.4s	15.00nm				4.9mb
SDN	52.39	38	iPd	21	57.00	-1.0
BRS	52.65	167	iP	21	59.90	-0.4
		e		22	03.50	
		i		22	12.80	
		eS		28	27.00	
ANM	52.81	26	eP	22	01.60	0.6
TTA	56.26	29	iPd	22	26.00	-0.1
NDI	56.81	289	iPc	22	30.30	0.0
	0.5s	49.30nm				5.5mb
		iS		30	07.00	
KDC	57.14	36	iPd	22	31.50	-0.7
IMA	57.93	26	iPd	22	37.70	-0.2
		i		23	27.50	
COOL	58.19	200	eP	22	38.00	-1.8
BRW	58.26	20	ePd	22	39.70	-0.2
HYB	58.52	276	iPc	22	42.00	-0.4
ADE	59.05	182	eP	22	45.50	-0.1
PMR	59.23	31	iPd	22	45.30	-1.3
	1.0s	390.00nm				6.1mb
		e		23	38.80	
BAL	59.48	205	eP	22	45.00	-3.6x
CAN	59.81	173	eP	22	51.00	0.1
FBA	60.17	28	eP	22	52.00	-1.0
MID	60.47	34	eP	22	55.20	0.1
TOA	60.66	31	iPd	22	56.40	-0.1
GBA	60.79	272	Pc	22	57.20	-0.7
	0.7s	24.90nm				5.0mb
MUN	60.89	204	eP	22	58.00	-0.2
KOD	61.98	269	eP	23	05.60	-0.6
POO	62.42	279	iPc	23	07.30	-1.4
RKG	62.49	203	iPc	23	11.60	2.8
	0.5s	31.00nm				5.4mb
BOM	63.24	280	eP	23	11.90	-2.1
QUE	65.18	293	eP	23	26.90	0.2
		eS		31	55.00	
INK	65.89	24	ePd	23	29.20	-1.1
	0.5s	24.00nm				5.2mb
SIT	66.42	36	ePd	23	34.30	0.4
MBC	68.75	15	ePd	23	47.10	-1.0
	0.5s	49.00nm				5.5mb
MAIO	69.62	301	iPc	23	55.50	1.3
	0.8s					

			e	25	26.00	
PGC	75.49	43	ePd	24	23.70	-4.4X
	0.7s		81.00nm			5.6mb
MCW	75.87	43	P	24	31.30	1.0
GMW	76.30	44	P	24	33.90	1.2
BMW	76.40	45	P	24	34.20	0.8
SOD	76.62	339	iP	24	32.90	-1.2
			e	25	43.00	
RMW	76.95	44	P	24	37.30	0.9
SHW	77.15	45	P	24	38.80	1.2
LON	77.21	44	P	24	38.30	0.5
PNT	77.60	41	ePd	24	40.50	0.7
	0.9s		99.00nm			5.5mb
FHC	77.95	51	eP	24	43.40	1.4
VGB	78.35	45	P	24	45.00	1.0
DAG	78.36	355	iPd	24	41.50	-2.0
	0.7s		9.59nm			4.6mb
TAB	79.00	307	eP	24	49.00	1.1
DPW	79.04	42	P	24	48.30	0.6
WDC	79.05	50	iPd	24	48.50	0.6
SUF	79.27	335	iP	24	47.10	-1.5
	0.5s		23.80nm			5.2mb
PMO	79.47	112	iP	24	51.70	1.3
	0.8s		50.00nm			5.3mb
LTCM	79.49	51	P	24	50.00	-0.2
NEW	79.53	42	P	24	51.00	0.6
			pP	25	41.80	210km
EDM	79.54	36	iPd	24	50.50	0.2
	1.0s		102.00nm			5.5mb
NWRM	79.62	53	P	24	51.00	0.1
TPT	79.70	112	iP	24	52.70	1.1
	0.8s		45.00nm			5.3mb
MIN	79.80	50	ePd	24	52.00	-0.1
VAH	79.81	112	iP	24	53.00	0.8
	0.8s		15.00nm			4.8mb
RUV	80.00	112	iP	24	54.40	1.2
	0.8s		25.00nm			5.0mb
ORV	80.19	51	ePd	24	54.00	0.0
BRK	80.31	53	ePd	24	55.10	0.5
PCC	80.36	53	ePd	24	55.00	0.1
GCC	80.83	54	ePd	24	57.70	0.4
MHC	80.97	53	ePd	24	58.70	0.5
ARN	81.04	53	P	24	58.80	0.3
NUR	81.10	333	iP	24	56.80	-1.4
	0.6s		13.00nm			4.8mb
			e	25	53.00	
SAO	81.34	54	eP	25	00.20	0.2
PRS	81.57	54	ePd	25	01.90	0.7
CMB	81.60	52	iPd	25	01.80	0.4
LLA	81.77	54	ePd	25	02.70	0.4
SES	82.13	38	iPd	25	04.10	0.2
	0.9s		121.00nm			5.6mb
PRI	82.17	54	ePd	25	05.40	0.9
PHAM	82.49	54	P	25	06.70	0.7
FRI	82.52	53	iPd	25	06.30	0.2
KVN	82.80	50	P	25	08.00	0.2
BCH	83.00	55	P	25	09.00	0.3
SYF	83.35	55	eP	25	11.00	0.4
LRM	83.48	42	iPd	25	21.70	10.5X
ABL	83.78	55	P	25	13.00	0.2
TNP	83.84	51	P	25	13.00	-0.1
ISA	83.99	54	eP	25	13.00	-0.7
HPI	84.07	45	P	25	15.60	1.4
UPP	84.28	335	iP	25	12.40	-2.1
FFC	84.53	31	iPd	25	16.00	0.1
	0.6s		36.00nm			5.3mb
CLC	84.56	53	iPd	25	17.00	0.5
PAS	84.86	55	eP	25	17.00	-1.0
SBB	84.89	54	eP	25	18.00	-0.2
MWC	84.92	55	eP	25	18.00	-0.5
PTI	84.94	45	P	25	19.70	1.3
IMW	85.35	44	P	25	21.90	1.3
GSC	85.37	53	iPd	25	21.00	0.4
RVR						

BW06	86.79	44 P	25 27.40	-0.1	DEPTH = 33.0km (normal)			eSg	42 41.20
	0.9s	6.78nm	4.5mb		OFF COAST OF CENTRAL CHILE	(134)		S.D. = 0.2	on 5 of 5 obs.
DAU	86.86	47 P	25 17.60	204km	RTRS	3.12 96 iPc	50 55.90	-0.6	
		pP	25 28.40	0.4	JACH	3.47 143 iPc	51 01.50	-0.1	
MSU	87.16	49 P	25 16.50	195kmX		iS	51 40.50		
GLA	87.85	55 iPd	25 30.00	0.6	ROCH	3.51 151 eP	51 12.90	10.6X	
FRB	89.13	13 eP	25 33.50	0.9		i	51 59.50		
RSSD	89.47	41 P	25 37.00	-1.0	RTBS	3.55 120 ePc	51 03.80	1.2	
		pP	25 40.40	0.1	ZON	4.10 115 eP	51 11.00	0.5	
SPC	89.89	326 e(P)	25 30.50	202km	FCH	4.14 146 iPd	51 11.00	-0.3	
RSON	90.87	31 P	25 40.70	-1.4		iS	51 57.00		
	0.9s	62.73nm	5.6mb		TACH	4.14 155 iPd	51 10.50	-0.5	
GOL	91.09	45 P	25 48.70	0.9		iS	51 55.00		
		pP	25 41.80	215km	RTLL	4.19 111 iPc	51 11.00	-0.7	
GLD	91.16	45 P	25 49.30	1.2	LNV	4.26 161 eP	51 12.90	0.2	
SRO	91.76	326 eP	25 49.70	-0.7		iS	51 56.00		
BRG	91.86	330 eP	25 49.80	-1.0	PCH	4.28 150 iP	51 12.90	-0.2	
CLL	91.98	330 iPc	25 50.10	-1.3		iS	51 59.50		
ZST	92.13	326 eP	25 51.80	-0.3	RTCV	4.33 118 eP	51 14.60	0.8	
PRU	92.19	329 eP	25 51.00	-1.3	CFA	4.47 113 iP	51 15.40	-0.4	
ANMO	92.93	50 P	25 56.80	0.5		iS	51 47.50		
	1.1s	22.15nm	5.2mb		CHCH	4.50 154 iPc	51 16.30	0.1	
ALO	92.93	50 ePd	25 56.00	-0.3		iS	20 38.00		
	1.0s	21.50nm	5.2mb		ZOBO	14.31 19 P	53 32.00	0.6	
		e	26 48.00		SIV	17.69 41 P	54 13.30	-0.7	
KHC	93.23	329 Pc	25 56.60	-0.6		S.D. = 0.7	on 14 of 15 obs.		
VAY	93.40	319 eP	25 57.00	-1.1		APR 01, 1990 18h 01m 19.83±1.20s			
GRF	93.93	330 eP	26 00.00	-0.4		20.878 N ±12.5km 123.815 E ±17.1km			
OHR	94.59	319 eP	26 02.70	-1.0		DEPTH = 33.0km (normal)			
KIC	134.89	308 PKP	32 03.00	1.1		3.8mb (1 obs.)			
TIC	134.89	309 PKP	32 03.00	1.1		PHILIPPINE ISLANDS REGION	(248)		
LIC	135.19	308 PKP	32 04.00	1.6		TWG	3.20 308 ePc	02 09.40	0.4
ARE	148.44	82 ePKP	32 31.00	5.1X		TWF1	3.39 317 ePc	02 16.50	4.7X
LNV	150.07	116 ePKPd	32 32.50	5.0X		CVP	3.68 211 ePc	02 16.50	0.8
TACH	150.51	116 ePKPd	32 34.00	5.8X			eS	02 57.00	
ROCH	150.56	114 ePKPc	32 34.60	6.0X		TWM1	3.70 302 iPc	02 15.10	-1.0
SAN	150.78	115 ePKP	32 34.50	5.9X			eS	02 31.50	
PCH	150.87	116 ePKPc	32 34.60	5.7X		PIP	3.94 230 iPd	02 35.20	15.7X
FCH	151.10	115 ePKPd	32 36.70	7.2X		SZP	4.58 224 iPc	03 24.00	55.3X
ZOBO	151.40	79 PKP	32 31.00	0.3		W85	41.80 165 eP	09 07.00	-1.1
	1.0s	31.25nm				YKA	85.04 23 eP	13 54.00	0.9
		i	32 37.00				0.6s	0.40nm	3.8mb
LPB	151.52	80 PKP	32 37.00	6.3X			S.D. = 1.4	on 5 of 8 obs.	
CCH	153.57	80 PKP	32 40.60	7.2X			APR 01, 1990 18h 13m 52.73±2.57s		
SIV	157.53	72 PKP	32 38.60	0.3			15.729 N ±10.0km 60.479 W ±24.8km		
		i	33 10.50				DEPTH = 33.0km (normal)		
	S.D. = 1.0	on 171 of 189 obs.					LEEWARD ISLANDS	(92)	
	APR 01, 1990 17h 06m 20.21±0.90s						ML 2.8 (FDF).		
	31.509 S ±11.1km 69.002 W ±8.3km						MGG	0.83 283 eP	14 07.78
	DEPTH = 33.0km (normal)							S	14 17.70
	SAN JUAN PROVINCE, ARGENTINA	(137)					SFG	0.87 307 eP	14 08.17
ZON	0.28 98 iPd	06 30.30	2.5X					S	14 18.70
	eS	06 43.00					BBL	0.98 258 eP	14 10.10
RTBS	0.41 248 iPd	06 30.00	0.5					S	14 22.20
RTLL	0.49 69 iPc	06 31.90	1.2				DOG	1.14 286 eP	14 12.54
RTCV	0.53 132 e(P)	06 30.90	-0.4				FDF	1.18 213 iPc	14 13.19
CFA	0.66 99 iP	06 32.50	-0.6					0.1s	1.45nm
	eS	06 46.90						S	14 28.20
RTRS	1.39 343 eP	06 42.80	-0.7				SEG	1.19 304 eP	14 13.43
	S.D. = 1.1	on 5 of 6 obs.						S	14 27.70
	APR 01, 1990 17h 46m 21.89±4.03s						PAG	1.19 285 eP	14 13.42
	33.719 S ±9.9km 71.611 W ±29.8km							S	14 27.30
	DEPTH = 10.0km (geophysicist)						MVM	1.24 199 iPc	14 13.69
	NEAR COAST OF CENTRAL CHILE	(135)						S	14 29.40
LNV	0.29 145 iPc	46 28.60	0.7				BIM	1.33 205 iPd	14 15.27
	iS	46 35.80						S	14 32.20
TACH	0.57 84 iPd	46 34.60	1.2				SLB	1.97 196 eP	14 48.82
	iS	46 45.00						S.D. = 0.2	on 9 of 10 obs.
CHCH	0.83 105 iPd	46 36.00	-1.9					APR 01, 1990 18h 42m 04.30±1.36s	
	iS	46 47.50						40.971 N ±15.9km 14.491 E ±21.2km	
SAN	0.84 72 iP	46 39.30	1.2					DEPTH = 10.0km (geophysicist)	
	iS	46 53.00						SOUTHERN ITALY	(390)
ROCH	0.90 34 iPd	46 39.00	-0.3				BSS	0.30 127 P	42 10.80
	iS	46 53.30						eSg	42 17.40
PCH	0.92 84 iPd	46 39.00	-0.5				DUI	0.69 358 P	42 18.00
	iS	46 53.30					SGO	0.74 123 P	42 18.70
FCH	1.17 71 iPd	46 43.60	-0.4					eSg	42 29.10
	iS	47 01.50					SDI	0.89 326 P	42 21.50
	S.D. = 1.4	on 7 of 7 obs.						eSg	42 35.50
	APR 01, 1990 17h 50m 08.52±1.16s						MGR	1.16 135 P	42 25.90
	29.912 S ±5.4km 73.044 W ±12.4km								

01d 19h

Sn 15 40.00 Sg 16 06.60 AVF 4.95 42 Pn 14 47.00 0.1 Sn 15 40.80 SMF 5.09 45 Pn 14 49.60 0.6 Sn 15 45.50 SSF 5.22 40 Pn 14 49.60 -1.1 Sn 15 47.80 Sg 16 17.60 GRR 5.22 4 Pn 14 50.60 -0.2 Sn 15 47.00 Sg 16 20.00 EBAN 5.32 201 eP 14 50.30 -2.0 eS 15 49.20 LBF 5.39 43 Pn 14 52.20 -1.0 Sn 15 51.80 Sg 16 23.00 LDF 5.49 9 Pn 14 54.90 0.4 Sn 15 54.60 LOR 5.53 41 Pn 14 54.20 -1.0 Pg 15 17.30 Sn 15 54.00 Sg 16 26.50 FLN 5.62 6 Pn 14 56.10 -0.3 Sn 15 57.00 LRG 5.68 85 Pn 14 57.20 -0.1 LPG 6.30 66 Pn 15 05.50 -0.8 DOU 8.06 29 Pc 15 29.40 -1.2 S 16 57.30 MEM 9.00 32 P 15 46.50 3.0X iS 17 22.80 S.D. = 0.8 on 41 of 45 obs.						31.443 S ± 8.0km 68.178 W ± 20.8km DEPTH = 10.0km (geophysicist) SAN JUAN PROVINCE, ARGENTINA (137) CFA 0.17 198 iPd 30 20.00 0.3 eS 30 24.90 RTLL 0.27 294 iPd 30 21.70 0.2 ePc 30 25.80 -0.4 eS 30 35.20 RTBS 1.11 258 eP 30 36.70 0.2 eS 30 53.50 RTRS 1.68 319 e(P) 30 45.10 -0.2 S.D. = 0.4 on 5 of 5 obs.						0.4s 1.00nm 4.2mb S.D. = 0.9 on 9 of 9 obs. ? APR 02, 1990 00h 21m 25.85± 8.27s 42.610 N ± 9.8km 18.239 E ± 61.6km DEPTH = 10.0km (geophysicist) YUGOSLAVIA (383) ML 2.1 (TTG).					
Sg 16 23.00 LOR 5.53 41 Pn 14 54.20 -1.0 Pg 15 17.30 Sn 15 54.00 Sg 16 26.50 FLN 5.62 6 Pn 14 56.10 -0.3 Sn 15 57.00 LRG 5.68 85 Pn 14 57.20 -0.1 LPG 6.30 66 Pn 15 05.50 -0.8 DOU 8.06 29 Pc 15 29.40 -1.2 S 16 57.30 MEM 9.00 32 P 15 46.50 3.0X iS 17 22.80 S.D. = 0.8 on 41 of 45 obs.						% APR 01, 1990 21h 27m 45.87± 0.70s 41.090 N ± 10.5km 14.731 E ± 15.6km DEPTH = 10.0km (geophysicist) SOUTHERN ITALY (390) BSS 0.30 169 P 27 52.60 0.4 eSg 28 00.60 DUI 0.61 340 P 27 58.50 0.3 SGO 0.69 140 P 27 59.50 0.0 eSg 28 10.90 SDI 0.92 312 P 28 03.50 0.0 eSg 28 18.00 MGR 1.14 146 P 28 06.80 -0.4 eSg 28 22.70 AZI 1.32 313 P 28 18.00 -0.3 eSg 28 30.00 S.D. = 0.4 on 6 of 6 obs.						HCY 0.25 130 iPg 21 31.60 0.4 iSg 21 35.00 BRY 0.37 38 ePg 21 33.20 -0.2 eSg 21 38.00 BDV 0.54 127 iPg 21 36.50 -0.4 iSg 21 43.30 NKY 0.59 70 ePg 21 38.50 0.5 eSg 21 44.50 TTG 0.78 103 ePg 21 40.60 -0.4 eSg 21 50.40 HVAR 1.43 294 i(Pn) 21 36.00 -15.9X iSn 21 58.10 S.D. = 0.6 on 5 of 6 obs.					
? APR 01, 1990 19h 25m 55.25± 1.08s 47.185 N ± 11.4km 14.386 E ± 11.7km DEPTH = 10.0km (geophysicist) AUSTRIA (546) ML 2.8 (VKA), 1.9 (KBA). Felt (IV) of Ober Zeiring.						* APR 01, 1990 22h 24m 27.51± 1.23s 39.945 N ± 9.5km 23.955 E ± 13.0km DEPTH = 10.0km (geophysicist) AEGEAN SEA (365) PLG 0.58 318 ePb 24 38.50 -0.8 NEO 0.85 222 ePb 24 44.00 0.0 MMB 1.65 354 eP 24 58.00 1.3 RDO 1.70 45 ePn 25 01.00 3.7X VAY 1.73 323 ePn 25 01.00 3.2X RZN 1.83 18 eP 25 00.00 0.5 KKB 2.03 341 iPd 25 02.00 -0.1 KDZ 2.03 33 eP 25 01.00 -1.2 PGB 2.61 3 eP 25 16.00 5.6X VTS 2.70 348 iP 25 12.00 0.1 JMB 3.21 37 eP 25 25.00 6.1X S.D. = 1.0 on 7 of 11 obs.						? APR 02, 1990 01h 10m 37.84± 7.54s 42.976 N ± 37.5km 1.811 W ± 48.5km DEPTH = 5.0km (geophysicist) PYRENEES (378) BOH 0.60 78 Pg 10 49.94 0.1 Sg 10 54.66 ELYF 0.63 72 Pg 10 50.37 -0.1 Sg 10 55.22 MADF 0.75 77 Pg 10 52.60 -0.2 Sg 10 59.04 ISSF 0.75 86 Pg 10 52.86 0.1 Sg 10 59.75 ATE 0.82 82 Pg 10 53.97 -0.2 Sg 11 01.85 ESCF 0.91 83 Pg 10 55.42 -0.4 Sg 11 04.14 OGE 1.00 78 Pg 10 57.65 0.4 JAU 1.06 86 Pg 10 58.41 0.0 Sg 11 09.61 S.D. = 0.3 on 8 of 8 obs.					
KBA 0.72 262 iPg 26 09.50 0.0 iSg 26 19.60 RBL 0.93 217 P 26 13.10 0.0 eSg 26 22.50 VKA 1.69 50 ePg 26 25.00 0.0 eSg 26 45.50 i 26 47.40 KHC 2.02 345 iPg 26 29.80 0.0 Sg 26 56.10 PRU 2.81 2 ePg 26 46.50 5.5X Sg 27 20.50 S.D. = 0.0 on 4 of 5 obs.						APR 01, 1990 22h 31m 24.42± 0.75s 37.802 N ± 11.6km 13.165 E ± 5.5km DEPTH = 10.0km (geophysicist) SICILY (398) CVT 0.32 247 P 31 29.80 -1.3 MCT 0.41 114 P 31 32.80 0.0 eSg 31 41.20 ERC 0.51 297 P 31 35.50 0.7 FAI 0.66 142 P 31 40.00 2.4 LVI 0.68 286 P 31 38.30 0.4 eSg 31 48.50 GIB 0.71 74 P 31 38.60 0.2 eSg 31 50.40 MNO 1.22 83 P 31 47.20 0.0 MEU 1.57 116 P 31 50.20 -2.3 ATN 1.85 78 P 31 56.40 -0.1 S.D. = 1.5 on 9 of 9 obs.						APR 02, 1990 02h 36m 13.01± 0.81s 35.373 N ± 8.0km 3.680 W ± 8.0km DEPTH = 10.0km (geophysicist) STRAIT OF GIBRALTAR (385) mbLg 2.9 (MDD).					
% APR 01, 1990 19h 29m 16.78± 0.83s 41.164 N ± 9.7km 14.801 E ± 14.8km DEPTH = 10.0km (geophysicist) SOUTHERN ITALY (390) BSS 0.37 179 P 29 24.30 -0.1 iSg 29 32.00 DUI 0.56 333 P 29 28.00 -0.2 SGO 0.72 147 P 29 31.10 0.2 eSg 29 42.90 SDI 0.92 306 P 29 34.60 0.2 eSg 29 48.50 MGR 1.17 151 P 29 38.60 -0.1 eSg 29 56.20 AZI 1.31 309 P 29 41.00 0.0 S.D. = 0.2 on 6 of 6 obs.						APR 01, 1990 22h 35m 48.20± 0.73s 42.859 N ± 14.0km 147.025 E ± 14.8km DEPTH = 33.0km (normal) 4.2mb (6 obs.) OFF COAST OF HOKKAIDO, JAPAN (225) BJI 23.23 274 eP 40 53.00 -0.2 INK 47.22 30 eP 44 20.00 0.8 GUN 50.98 274 P 44 49.40 0.2 KKN 51.49 274 P 44 52.80 -0.1 YKA 56.59 33 eP 45 28.80 -0.9 0.8s 0.50nm 3.6mb WB5 63.51 193 eP 46 16.00 -1.3 WRA 63.57 193 Pd 46 19.20 1.4 0.9s 2.00nm 4.2mb NB2 70.40 339 P 47 00.40 -0.1 1.1s 3.10nm 4.3mb HFS 70.48 337 eP 47 01.20 0.3						EMEL 0.60 97 iP 36 24.70 -0.3 eS 36 32.00 TAF 1.18 118 iPg 36 36.00 0.9 iSg 36 52.00 i 36 55.00 MAL 1.48 337 ePn 36 44.00 4.4X EJIF 1.81 307 eP 36 45.60 1.2 AFC 1.88 3 eP 36 44.20 -1.4 eS 37 08.00 ENIJ 1.99 36 eP 36 47.00 0.0 eS 37 07.00 EPRU 2.03 322 eP 36 50.70 3.1X IFR 2.20 213 iPn 36 49.50 -0.9 iSn 37 16.50 i 37 17.00 EBAN 2.79 358 eP 36 59.00 0.5 S.D. = 1.2 on 7 of 9 obs.					
% APR 01, 1990 19h 59m 02.05± 1.60s 41.255 N ± 12.1km 15.018 E ± 18.3km DEPTH = 10.0km (geophysicist) SOUTHERN ITALY (390) BSS 0.49 199 P 59 12.50 0.5 iSg 59 18.20 DUI 0.58 314 P 59 15.00 1.1 SGO 0.73 162 P 59 16.30 -0.1 eSg 59 26.30 SDI 1.01 297 P 59 20.00 -1.2 eSg 59 36.00 MGR 1.19 160 P 59 23.90 -0.3 eSg 59 40.30 S.D. = 1.2 on 5 of 5 obs.						? APR 01, 1990 22h 35m 48.20± 0.73s 42.859 N ± 14.0km 147.025 E ± 14.8km DEPTH = 33.0km (normal) 4.2mb (6 obs.) OFF COAST OF HOKKAIDO, JAPAN (225) BJI 23.23 274 eP 40 53.00 -0.2 INK 47.22 30 eP 44 20.00 0.8 GUN 50.98 274 P 44 49.40 0.2 KKN 51.49 274 P 44 52.80 -0.1 YKA 56.59 33 eP 45 28.80 -0.9 0.8s 0.50nm 3.6mb WB5 63.51 193 eP 46 16.00 -1.3 WRA 63.57 193 Pd 46 19.20 1.4 0.9s 2.00nm 4.2mb NB2 70.40 339 P 47 00.40 -0.1 1.1s 3.10nm 4.3mb HFS 70.48 337 eP 47 01.20 0.3						* APR 02, 1990 03h 40m 44.58± 1.11s 29.660 N ± 9.0km 138.150 E ± 11.1km DEPTH = 492.5 ± 12.8 km 4.0mb (6 obs.) SOUTH OF HONSHU, JAPAN (211) MAT 6.86 0 (P) 42 30.00 -0.2 CHTO 37.19 262 iP 47 14.70 0.6 0.9s 6.82nm 4.2mb GUN 45.52 281 P 48 21.40 0.2 KKN 46.07 281 P 48 25.20 0.0 GKN 46.56 282 P 48 28.80 -0.1 WB5 49.39 185 eP 48 50.00 -0.1 WRA 49.45 185 Pc 48 50.30 -0.2 0.5s 1.70nm 3.7mb INK 62.19 25 eP 50 19.00 0.4 MBC 64.34 15 eP 50 33.00 0.7 YKA 71.56 28 eP 51 16.20 0.0					

0.5s 0.90nm 3.6mb
SUF 73.34 334 eP 51 25.90 -0.5
0.5s 3.60nm 4.2mb
HFS 79.64 335 eP 52 00.00 -0.7
0.5s 3.90nm 4.1mb
NB2 79.89 337 P 52 01.00 -0.3
0.6s 3.10nm 3.9mb
S.D. = 0.5 on 13 of 13 obs.

? APR 02, 1990 03h 47m 48.19 ± 6.69s
33.421 S ± 17.8km 72.917 W ± 50.9km
DEPTH = 10.0km (geophysicist)
OFF COAST OF CENTRAL CHILE (134)

LCCH 1.13 93 iPc 48 09.00 -0.3
iS 48 19.00
IHA 1.14 70 eP 48 10.00 0.5
iS 48 20.80
LNV 1.36 113 iP 48 13.50 0.3
iS 48 29.50
ROCH 1.66 75 eP 48 17.10 -0.6
eS 48 35.00
TACH 1.67 99 iPc 48 17.20 -0.4
iS 48 35.00
SAN 1.89 92 iP 48 20.60 -0.2
iS 48 41.20
i 48 44.00
CHCH 1.96 106 iP 48 21.80 0.0
iS 48 45.00
PCH 2.02 96 iPd 48 23.00 0.3
iS 48 47.00
FCH 2.20 88 iPd 48 26.00 0.4
iS 48 52.00
S.D. = 0.4 on 9 of 9 obs.

APR 02, 1990 05h 11m 20.13 ± 1.82s
8.248 N ± 7.5km 127.058 E ± 8.6km
DEPTH = 46.8 ± 17.7 km
4.8mb (11 obs.) 4.0Msz (1 obs.)
PHILIPPINE ISLANDS REGION (248)

DAV 1.87 232 eP 11 52.00 1.8
1.0s 1360.00nm
BAG 10.29 323 eP 13 54.50 6.2X
GUMO 18.27 72 eP 15 31.20 -0.8
PJG 18.27 72 eP 15 31.00 -1.0
MTN 21.34 169 eP 16 05.00 -0.5
SSE 23.38 347 Pc 16 27.50 2.0
1.0s 19.00nm 4.5mb
Z 20s 0.50um 4.0Msz
E 12s 0.20um
KNA 23.90 176 eP 16 31.00 0.3
WB5 28.86 166 eP 17 15.50 -1.1
e 17 22.20
WRA 28.92 166 Pd 17 15.10 -2.0
0.9s 1.40nm 3.6mb X
CHTO 29.24 294 eP 17 19.20 -0.8
1.1s 11.78nm 4.5mb
QIS 31.17 157 eP 17 36.00 -1.1
BJI 33.12 345 eP 17 53.50 -0.4
0.9s 10.00nm 4.7mb
LZH 34.87 326 eP 18 07.60 -1.7
Z 15s 0.30um 4.2Msz X
MRWA 38.74 196 eP 18 41.50 -0.3
NWA0 42.00 192 eP 19 09.50 1.0
GUN 43.48 302 P 19 20.82 -0.4
0.9s 69.00nm 5.4mb
PKI 43.77 301 P 19 22.76 -0.7
0.7s 20.00nm 5.0mb
KKN 43.94 302 P 19 24.02 -0.8
0.9s 28.00nm 5.0mb
DMN 44.03 301 P 19 24.98 -0.6
0.9s 34.00nm 5.1mb
GKN 44.55 302 P 19 28.68 -1.0
0.6s 14.00nm 5.0mb
BWA 47.01 156 eP 19 50.10 1.2
CAN 48.03 156 eP 19 58.60 1.8
GBA 48.95 281 Pc 20 03.20 -0.9
0.9s 3.80nm 4.4mb
MAIO 67.10 306 eP 22 11.00 -0.4
KEV 85.79 340 eP 24 01.00 5.6X
INK 85.87 22 eP 23 58.00 2.1
MBC 87.50 13 ePd 24 05.80 2.1
1.0s 14.00nm 5.2mb
pP 24 17.20 36kmX
SUF 87.70 333 eP 24 05.60 0.8

NUR 88.93 331 eP 24 13.00 2.2
DAG 92.86 353 eP 24 28.00 -0.7
YKA 95.27 24 eP 24 45.50 5.4X
0.7s 1.40nm 4.5mb
ZOBO 163.17 120 ePKP 31 23.00 3.0X
S.D. = 1.4 on 28 of 32 obs.

* APR 02, 1990 05h 16m 27.20 ± 2.07s
34.037 S ± 16.9km 70.528 W ± 8.1km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

CHCH 0.15 315 iPc 16 31.50 0.9
iS 16 39.50
PCH 0.42 2 iPc 16 35.50 -0.2
TACH 0.51 318 iPc 16 37.50 -0.1
SAN 0.59 349 iPc 16 38.90 -0.3
iS 16 53.00
FCH 0.73 16 iPc 16 39.50 -2.4
iS 16 55.00
LNV 0.74 276 iP 16 40.20 -1.4
iS 16 55.00
ROCH 1.14 339 iPd 16 48.40 -0.2
iS 17 10.00
IHA 1.37 317 eP 16 54.00 1.7
i(S) 17 14.60
RTCV 2.74 38 e(P) 17 13.10 1.0
ZON 2.93 33 eP 17 16.00 1.2
CFA 3.10 39 e(P) 17 15.10 -1.9
eS 17 20.00
RTLL 3.21 33 iPd 17 19.00 0.3
RTRS 3.96 14 e(P) 17 30.70 1.4
S.D. = 1.4 on 13 of 13 obs.

APR 02, 1990 05h 21m 02.71 ± 0.50s
43.900 N ± 5.4km 7.217 E ± 4.4km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.0 (LDG), 2.0 (STR).

MVIF 0.05 265 Pg 21 03.56 -1.4
AURF 0.08 99 Pg 21 04.72 -0.6
TOUF 0.12 11 Pg 21 04.60 -1.2
SBF 0.16 103 Pg 21 07.00 0.5
Sg 21 09.80
AUTN 0.18 58 Pg 21 06.40 -0.5
Sg 21 10.34
REVF 0.19 146 Pg 21 07.48 0.5
Sg 21 12.57
SAOF 0.26 70 Pg 21 08.11 -0.1
Sg 21 12.01
CALN 0.28 238 Pg 21 07.76 -0.9
LMR 0.76 222 Pg 21 18.30 0.7
Sg 21 28.10
LRG 0.76 235 Pg 21 18.50 0.9
Sg 21 29.00
LPG 1.63 348 Pn 21 32.70 0.9
Pg 21 35.40
Sg 21 59.70
LPL 1.65 348 Pn 21 33.30 1.2
Pg 21 36.00
S.D. = 1.0 on 12 of 12 obs.

* APR 02, 1990 05h 42m 42.36 ± 1.50s
16.055 N ± 7.4km 61.208 W ± 11.6km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 1.9 (FDF).

SFG 0.20 3 eP 42 46.99 0.3
S 42 49.50
DOG 0.39 267 eP 42 50.93 0.5
SEG 0.45 321 eP 42 50.95 -0.5
S 42 56.00
PAG 0.45 267 eP 42 51.59 0.0
S 42 57.20
BBL 0.59 206 eP 42 54.10 -0.2
S 43 02.60
S.D. = 0.6 on 5 of 5 obs.

APR 02, 1990 05h 56m 09.76 ± 0.32s
30.805 S ± 9.1km 177.729 W ± 7.6km
DEPTH = 51.8km (5 depth phases)
5.1mb (10 obs.)
KERMADEC ISLANDS (178)

PUZ 7.97 203 P 58 04.20 -1.4

S 59 37.40
NOZ 8.54 203 eP 58 13.00 -0.4
MNG 11.23 208 eP 58 45.20 -5.1X
TCW 12.23 210 eP 58 58.40 -5.2X
THZ 13.28 212 eP 59 19.10 1.5
eS 01 39.10
MSZ 17.86 215 eP 00 16.00 0.0
BRS 25.96 270 iPd 01 41.50 2.2
0.7s 16.00nm 4.7mb
e 01 49.00 27kmX
eS 05 18.00
CNB 27.87 252 iPd 01 59.90 3.3X
CAN 28.17 252 iPc 02 01.80 2.5
BWA 28.66 254 iPc 02 04.00 0.2
RMO 29.66 270 iPc 02 14.00 1.2
0.7s 61.00nm 5.4mb
TOO 31.02 247 eP 02 27.00 2.3
CTA 34.09 280 iPc 02 52.00 0.4
0.8s 129.10nm 5.9mb
eS 09 04.00
QIS 39.58 275 iPc 03 37.60 -0.2
ASPA 43.32 267 iPd 04 07.00 -1.5
0.4s 23.00nm 5.3mb
LR 21 43.80
WRA 44.34 272 Pd 04 15.80 -1.0
0.4s 25.30nm 5.3mb
WB5 44.35 273 eP 04 15.50 -1.3
SBA 47.65 184 eP 04 49.80 7.6X
VNDA 47.71 186 e(P) 04 47.80 5.1X
MTN 50.28 279 eP 05 01.00 -2.2
COOL 51.87 253 iPc 05 14.30 -0.9
0.3s 4.00nm 4.9mb
MUN 55.58 250 eP 05 41.20 -1.2
SPA 59.36 180 eP 06 13.40 4.5X
1.1s 19.05nm 5.1mb
NANU 59.44 260 eP 06 08.30 -1.4
PRS 85.16 42 ePc 08 42.20 0.6
PRI 85.44 43 eP 08 44.20 1.1
PAS 85.59 46 eP 08 52.00 8.2X
PLM 85.89 47 eP 08 45.00 -0.5
e 09 01.00 56km
RVR 85.98 46 eP 08 45.00 -0.7
SBB 86.17 46 eP 08 47.00 0.3
FRI 86.59 43 ePc 08 49.10 0.5
TPC 86.89 47 eP 08 51.00 0.8
e 09 04.00 43km
CMB 86.91 42 ePc 08 50.20 0.0
CLC 87.05 45 eP 08 51.00 0.0
e 09 07.00 56km
GSC 87.20 46 eP 08 52.00 0.3
e 09 07.00 52km
WDC 87.48 39 ePc 08 53.10 0.3
MIN 87.82 39 eP 08 54.50 -0.2
TNP 88.78 43 P 08 59.70 0.3
0.6s 4.17nm 4.9mb
KVN 88.91 42 P 08 59.80 -0.2
ALQ 93.65 51 eP 09 22.00 0.0
1.0s 3.50nm 4.7mb
e 09 37.30 52km
ANMO 93.65 51 P 09 22.50 0.5
0.8s 2.24nm 4.6mb
PV09 93.99 47 P 09 23.50 -0.1
LPB 97.65 114 P 09 45.00 4.0X
RSSD 100.34 45 Pdiff 09 51.50 -0.8
YKA 105.71 25 ePKP 14 26.20 -1.9X
0.6s 0.30nm
MBC 112.75 13 ePKP 14 40.00 -1.1
FRB 125.60 31 ePKP 15 04.00 -2.1X
SCH 126.41 42 ePKP 15 07.00 -1.0
DAG 132.91 6 ePKP 15 17.00 -2.7X
SOD 140.64 345 ePKP 15 23.00 -11.4X
SUF 144.57 341 iPKP 15 37.80 -3.5X
0.6s 19.10nm
NUR 146.77 340 iPKP 15 45.30 0.3
0.7s 44.00nm
NB2 149.19 352 PKP 15 51.90 3.0X
0.9s 25.50nm
BCAO 149.62 214 iPKPc 15 57.00 6.0X
0.3s 38.00nm
ic 16 33.20
HFS 149.69 349 ePKP 15 52.50 2.9X
0.7s 20.40nm
Z 17s 0.15um 4.9Msz X
LR 02 07.00
KHC 159.79 338 ePKP 16 04.10 0.6
e 16 42.40
S.D. = 1.1 on 40 of 56 obs.

* APR 02, 1990 06h 20m 42.44± 1.13s
4.691 S ± 12.7km 145.538 E ± 10.4km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
NEAR N COAST OF PAPUA NEW GUINEA (200)

LAT	2.43	143	iPd	21	21.40	0.7
PMG	4.95	161	eP	21	56.00	-0.5
MTN	16.37	239	eP	24	32.00	0.5
WB5	18.61	215	eP	25	00.00	0.6
WRA	18.68	215	Pd	24	59.90	-0.3
	0.6s	10.70nm			4.2mb	
ASPA	21.95	210	eP	25	34.40	-0.8
	0.7s	12.00nm			4.4mb	
INK	90.98	22	eP	33	44.00	-0.1
	S.D. = 0.7	on	7	of	7	obs.

APR 02, 1990 06h 22m 57.68± 0.30s
42.908 N ± 6.7km 146.870 E ± 6.2km
DEPTH = 33.0km (normal)
4.8mb (35 obs.) 4.0Msz (1 obs.)
OFF COAST OF HOKKAIDO, JAPAN (225)

NIIJ	8.27	229	P	24	57.70	-0.5
KAKJ	8.46	220	eP	24	59.00	-1.8
			eS	26	29.00	
CHJJ	9.16	224	eP	25	10.00	-0.5
			S	26	49.70	
MAT	9.21	229	(P)	25	11.00	-0.3
	0.8s	13.43nm			5.2mb	
			(S)	26	55.00	
MTMJ	9.41	231	eP	25	16.00	1.9
BJI	23.11	273	eP	28	01.00	-0.5
	1.5s	52.00nm			4.8mb	
	N 16s	0.58um				
		eS	32	14.00		
SSE	23.56	248	P	28	10.50	4.6X
	1.2s	22.00nm			4.5mb	
Z	20s	0.50um			4.0Msz	
N	12s	0.30um				
E	14s	0.30um				
		eS	32	30.00		

LZH	33.60	273	eP	29	38.00	0.9
	2 0s	33.00nm			4.9mb	
Z	14s	0.40um			4.3MszX	
		i	30	24.00		

SVW	38.31	41	eP	30	17.20	0.6
IMA	39.49	34	eP	30	26.90	0.4
	0.7s	17.90nm			4.9mb	
FBA	41.90	35	eP	30	48.30	2.2
CHTO	46.86	254	eP	31	28.30	1.8
	0.7s	4.13nm			4.5mb	
INK	47.23	30	iPc	31	28.20	-0.6
MBC	49.68	18	eP	31	46.50	-1.2
GUN	50.86	274	P	31	58.20	0.4
	0.5s	24.00nm			5.4mb	

KKN	51.37	274	P	32	01.58	0.1
	0.6s	15.00nm			5.1mb	
PKI	51.40	274	P	32	01.88	0.0
	0.6s	7.00nm			4.8mb	
DMN	51.60	274	P	32	03.42	0.2
	0.6s	13.00nm			5.1mb	

GKN	51.72	275	P	32	04.50	0.4
YKA	56.62	33	eP	32	38.20	-1.1
	0.7s	1.50nm			4.1mb	
EDM	62.16	42	eP	33	18.00	0.2
NEW	63.05	48	P	33	24.20	0.5
WB5	63.53	193	eP	33	26.90	-0.1
WRA	63.59	193	Pc	33	26.70	-0.7
	1.2s	4.80nm			4.5mb	

SUF	64.59	334	iP	33	31.90	-1.6
	0.7s	7.40nm			4.9mb	
GBA	65.83	266	Pc	33	41.70	-0.3
	0.6s	2.60nm			4.5mb	
FFC	66.50	36	eP	33	45.00	-0.9
	0.7s	8.00nm			4.9mb	

NUR	66.69	333	P	33	45.90	-1.1
LRM	67.06	48	eP	33	48.30	-1.7
CMB	67.14	59	eP	33	50.80	0.5
KVN	67.95	57	P	33	55.80	0.3
TNP	69.09	57	P	34	02.90	0.3
	0.7s	4.78nm			4.7mb	

FRB	70.05	16	eP	34	06.00	-1.7
NB2	70.31	339	P	34	07.80	-1.7
	0.7s	4.00nm			4.6mb	
HFS	70.39	337	eP	34	08.30	-1.6

0.6s	8.00nm	5.0mb				
BW06	70.61	49	P	34	11.80	0.0
	0.7s	2.92nm			4.5mb	
PV09	73.67	52	P	34	30.80	0.6
ANMO	77.66	54	P	34	53.50	0.8
ALQ	77.67	54	eP	34	53.00	0.3
	0.9s	1.89nm			4.1mb	
CLL	77.97	332	iPc	34	53.10	-0.7
	0.9s	11.00nm			4.9mb	
KBA	81.41	330	iPd	35	12.80	0.2
	0.7s	6.70nm			4.8mb	

SKO	82.28	322	eP	35	16.50	-0.5
OHR	83.26	322	eP	35	22.70	0.6
FLN	84.30	339	eP	35	27.80	0.6
	0.6s	3.60nm			4.7mb	
LOR	84.43	336	eP	35	27.90	0.0
	0.8s	5.35nm			4.8mb	
LBF	84.65	335	eP	35	29.10	0.0
	0.6s	4.05nm			4.8mb	
GRR	84.75	339	eP	35	29.80	0.4
	0.6s	5.40nm			4.9mb	
SMF	84.99	335	eP	35	31.10	0.4
	0.6s	4.50nm			4.8mb	

AVF	85.01	336	eP	35	31.30	0.5
	0.6s	3.60nm			4.7mb	
LPL	85.08	333	eP	35	32.00	0.6
	0.6s	2.70nm			4.6mb	
LPG	85.09	333	eP	35	32.10	0.5
	0.6s	3.60nm			4.7mb	
LPF	85.12	339	eP	35	32.20	0.9
	0.6s	5.40nm			4.9mb	

MAF	85.76	336	eP	35	35.40	0.8
	0.8s	6.05nm			4.9mb	
TCF	85.81	336	eP	35	34.70	-0.1
	0.7s	2.20nm			4.5mb	
LSF	86.04	337	eP	35	36.60	0.6
	0.6s	1.80nm			4.5mb	
MFF	86.19	338	eP	35	37.30	0.6
	0.6s	5.40nm			5.0mb	

S.D. = 0.9 on 55 of 56 obs.

% APR 02, 1990 07h 38m 31.92± 0.93s
31.160 S ± 10.3km 68.979 W ± 10.3km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL	0.47	111	iPc	38	43.10	1.0
RTBS	0.64	219	ePd	38	45.00	0.5
			S	38	58.00	
CFA	0.77	125	iPd	38	45.90	-0.5
			eS	38	59.10	
RTCV	0.79	152	iPc	38	46.00	-0.7
			S	38	56.00	
RTRS	1.07	337	iP	38	50.40	-0.2
	S.D. = 1.0	on	5	of	5	obs.

* APR 02, 1990 08h 19m 34.10± 0.59s
10.066 S ± 8.2km 154.375 E ± 10.5km
DEPTH = 33.0km (normal)
4.9mb (10 obs.)
DENTRECASTEAUX ISLANDS REGION (194)

PMG	7.15	275	eP	21	20.00	0.9
RMQ	17.18	197	eP	23	35.00	1.7
BRS	17.30	185	eP	23	33.50	-1.3
WB5	21.63	241	eP	24	23.00	-0.7
WRA	21.68	241	Pc	24	24.40	0.2
	1.3s	32.00nm			4.6mb	
MTN	22.95	261	eP	24	36.00	-0.7
ASPA	23.76	233	iPd	24	45.80	1.2
	1.0s	32.00nm			4.8mb	
Z	15s	0.10um			3.4MszX	

PPR	40.58	298	ePc	27	13.00	0.5
MAT	48.79	343	(P)	28	20.00	1.9
	1.2s	12.50nm			4.8mb	
CHTO	61.73	298	eP	29	51.50	-0.6
	1.0s	10.50nm			4.9mb	

GUN	76.19	302	P	31	21.06	-0.6
	0.9s	22.00nm			5.2mb	
PKI	76.48	302	P	31	22.34	-0.9
	1.1s	18.00nm			5.0mb	
KKN	76.66	302	P	31	23.22	-0.9
	1.0s	16.00nm			5.0mb	
DMN	76.74	301	P	31	24.06	-0.6
	1.1s	46.00nm			5.4mb	

GKN	77.26	302	P	31	26.44	-1.0
	1.1s	35.00nm			5.3mb	
PMR	83.83	24	eP	32	02.00	0.7
FBA	86.18	21	eP	32	12.80	-0.2
INK	92.79	21	eP	32	44.00	0.0
YKA	99.32	28	eP	33	14.30	0.4
	0.9s	0.70nm			4.2mb	
BAO	146.20	139	ePKP	39	15.70	2.9X
	S.D. = 1.0	on	19	of	20	obs.

% APR 02, 1990 09h 28m 17.62± 4.14s
18.599 N ± 34.2km 66.486 W ± 9.0km
DEPTH = 10.0km (geophysicist)
PUERTO RICO REGION (90)

LRS	0.46	228	P	28	27.00	0.1
			S	28	37.00	
PORP	0.56	195	P	28	28.80	-0.2
SJG	0.58	147	iP	28	30.80	0.6
			S	28	42.10	
LPR	0.65	116	P	28	30.80	0.1
CPD	0.78	136	P	28	32.20	-0.6
			S	28	45.70	
	S.D. = 0.6	on	5	of	5	obs.

APR 02, 1990 09h 34m 22.71± 0.86s
35.616 N ± 9.1km 28.240 E ± 7.6km
DEPTH = 10.0km (geophysicist)
EASTERN MEDITERRANEAN SEA (371)
MD 3.7 (ATH).

ARG	0.61	351	iPbc	34	35.60	0.7
KAP	0.87	266	iPnd	34	45.60	6.2X
KSL	1.20	65	ePn	34	45.60	0.5
CIN	1.98	356	ePn	34	56.00	-0.6
			iSg	35	18.00	
NPS	2.17	261	ePb	35	10.00	10.5X
SMG	2.37	332	ePn	35	01.50	-0.7
CSS	4.22	97	eP	35	28.20	-0.3
VLI	4.43	286	ePn	35	32.00	0.5
PRNI	7.74	131	eP	36	18.00	-0.1
	S.D. = 0.7	on	7	of	9	obs.

APR 02, 1990 09h 38m 58.11± 0.83s
42.901 N ± 5.7km 146.898 E ± 4.4km
DEPTH = 38.5 ± 7.8 km
5.0mb (46 obs.) 4.0Msz (2 obs.)
OFF COAST OF HOKKAIDO, JAPAN (225)

KUSJ	1.62	278	iP+	39	24.40	-0.2
			eS	39	44.90	
HOOJ	2.71	260	P	39	42.50	2.2
			eS	40	15.50	
ASAJ	3.33	293	iP+	39	50.70	1.7
MRRJ	4.32	266	P	40	04.40	1.3
			eS	40	55.90	

NIIJ	8.28	230	P	40	57.90	-0.7
KAKJ	8.46	220	P	40	58.80	-2.3
			S	42	28.60	
CHJJ	9.17	224	P	41	08.80	-2.1
			S	42	47.80	

MAT	9.22	229	eP	41	11.00	-0.7
	1.0s	22.00nm			5.3mb	
		eS	42	54.00		
MTMJ	9.42	231	P	41	13.90	-0.6

KMI	40.16	258	Pc	46	33.50	1.1	EKA	78.88	343	P	50	59.00	0.5	Sg	47	03.20				
PMR	41.42	41	P	46	41.50	-0.5		0.8s	7.20nm				4.7mb	EMS	3.23	252	ePd	46	16.30	0.8
	0.7s	7.56nm				4.5mb	KHC	79.61	331	iPc	51	03.00	0.3	HAU	3.47	286	Pn	46	18.80	-0.1
FBA	41.89	35	ePc	46	46.10	0.2		0.9s	6.00nm				4.6mb				Sg	47	14.20	
CHTO	46.88	255	iPc	47	28.10	1.6	KBA	81.43	330	iPc	51	12.50	0.0	LPG	3.59	244	Pn	46	21.40	0.6
	1.1s	22.08nm				5.0mb		0.9s	10.80nm				4.8mb	BNI	3.87	238	P	46	30.00	5.4X
INK	47.23	30	iP	47	28.30	-0.3			id		51	13.20		SMF	5.16	267	Pn	46	41.30	-1.5
	0.8s	30.00nm				5.3mb	SKO	82.30	322	iP	51	17.60	0.7	AVF	5.47	269	Pn	46	46.00	-1.2
GUN	50.88	274	P	47	58.12	0.3	VAY	82.30	321	eP	51	17.20	0.4	BGF	5.85	267	Pn	46	51.00	-1.5
	0.9s	78.00nm				5.7mb	CDF	82.37	334	eP	51	17.30	0.1	MAF	6.10	264	Pn	46	54.20	-1.9
KKN	51.39	274	P	48	01.60	0.1		0.8s	5.35nm				4.6mb	S.D. = 1.3 on 25 of 30 obs.						
	0.9s	53.00nm				5.5mb	TUL	82.97	47	eP	51	09.00	-11.5X	-----						
PKI	51.42	274	P	48	01.80	0.0		0.7s	3.10nm					& APR 02, 1990 11h 13m 22.98s						
DMN	51.62	274	P	48	03.46	0.2	OHR	83.27	322	eP	51	22.00	0.0	48.832 N 122.188 W						
	1.0s	47.00nm				5.4mb	FVM	84.13	42	P	51	26.40	0.1	DEPTH = 0.8km						
GKN	51.74	275	P	48	04.04	0.0		0.8s	12.12nm				5.1mb	4.2mb (8 obs.)						
YKA	56.61	33	eP	48	37.70	-1.4	LOR	84.45	336	eP	51	27.80	0.0	WASHINGTON (29)						
	0.8s	4.50nm				4.6mb		0.6s	4.95nm				4.8mb	<SEA>. CL 4.3 (SEA). Slight						
NDI	56.77	280	iPd	48	40.80	0.1	LBF	84.66	336	eP	51	28.80	-0.1	damage (VI) at Deming. Felt (V)						
KEV	59.44	339	eP	48	57.00	-1.8	SSF	84.74	336	eP	51	29.30	0.1	at Nooksock; (IV) at Acme,						
DAG	60.26	356	eP	49	01.00	-3.3X	SMF	85.01	335	eP	51	31.00	0.4	Everson, Ferndale, Glacier,						
PNT	61.08	48	eP	49	10.00	-0.3	AVF	85.03	336	eP	51	31.00	0.4	Lynden, Maple Falls and Sumos;						
	0.8s	6.00nm				4.8mb		0.8s	6.70nm				5.1mb	(III) at Bellingham. Also felt						
SOD	61.18	338	eP	49	08.00	-2.7	LPL	85.09	333	eP	51	32.00	0.7	in the Abbotsford-Mission area,						
EDM	62.15	42	ePc	49	16.70	-0.8	LPG	85.10	333	eP	51	31.90	0.5	British Columbia.						
HYB	62.57	269	eP	49	20.00	-0.7	BGF	85.39	336	eP	51	33.30	0.8	MBW	0.20	104	P	13	27.53	0.6
NEW	63.04	48	P	49	22.50	-0.9	CKI	85.52	332	P	51	26.50	-6.7X	VDB	0.20	16	Pd	13	27.72	0.7
	1.1s	14.81nm				5.0mb	MAF	85.78	336	eP	51	35.20	0.8	CMW	0.41	174	Pc	13	30.73	-0.5
WB5	63.52	193	eP	49	27.20	0.5	TCF	85.82	336	eP	51	35.40	0.7	MCW	0.45	251	Pd	13	31.50	-0.5
WRA	63.59	193	Pc	49	27.70	0.5	LSF	86.06	337	eP	51	36.50	0.7	HNB	0.51	330	P	13	32.52	-0.7
	0.7s	6.70nm				4.8mb	MFF	86.21	338	eP	51	37.30	0.8	OHW	0.56	204	P	13	33.49	-0.6
WDC	64.28	58	ePc	49	32.00	0.4	SIV	144.08	50	PKP	58	30.80	-0.8	RPW	0.59	130	Pd	13	34.14	-0.6
SUF	64.61	334	iP	49	31.50	-1.9	BAO	149.98	30	ePKP	58	58.20	17.0X	SNB	0.65	265	Pd	13	35.29	-0.7
	0.7s	6.30nm				4.8mb	S.D. = 1.0 on 97 of 103 obs.						JCW	0.66	165	Pd	13	35.39	-0.8	
MAIO	64.74	297	eP	49	35.00	0.2	APR 02, 1990 10h 45m 23.69±0.52s						PGC	0.86	258	P	13	38.00	-2.1	
MIN	64.99	57	ePc	49	36.20	-0.3	47.173 N ± 6.3km 11.329 E ± 4.2km						VGZ	0.86	241	Pd	13	38.32	-1.9	
POO	65.32	273	eP	49	37.00	-1.7	DEPTH = 10.0km (geophysicist)						BIB	0.93	308	Pd	13	39.65	-1.9	
ORV	65.52	58	e(P)	49	39.50	-0.2	AUSTRIA (546)						BLN	0.98	213	Pd	13	40.90	-1.5	
GBA	65.85	266	Pc	49	41.60	-0.4	ML 3.1 (KBA), 3.0 (LDG).						BLH	1.00	174	Pd	13	42.00	-0.8	
	0.8s	8.80nm				4.9mb	OGA	0.37	214	iPgC	45	30.10	-1.2	PGW	1.05	195	P	13	42.57	-1.0
FFC	66.49	36	iPc	49	45.00	-0.6	OSS	0.95	240	ePc	45	40.50	-1.4	WPB	1.06	321	Pd	13	41.89	-2.0
	0.8s	13.00nm				5.1mb	FUR	0.99	358	iPc	45	43.60	1.0	HTW	1.07	165	Pd	13	42.65	-1.3
NUR	66.71	333	eP	49	45.70	-1.2	CTI	1.15	169	P	45	44.50	-0.7	STW	1.20	236	Pd	13	44.13	-2.0
LRM	67.05	48	eP	49	50.10	0.4	FVI	1.15	120	P	45	44.50	-0.7	NAB	1.26	289	Pd	13	44.97	-2.2
CMB	67.13	59	eP	49	50.50	0.5	BHG	1.19	62	iPc	45	45.20	-0.6	SPW	1.28	182	ePc	13	47.25	-0.3
ASPA	67.31	193	eP	49	52.50	1.4	SAX	1.35	274	ePc	45	49.30	0.4	HDW	1.32	206	Pd	13	46.20	-2.1
	0.8s	6.00nm				4.7mb	KBA	1.38	93	iPgC	45	47.30	-1.8	SHB	1.35	305	Pd	13	46.68	-2.1
KVN	67.93	57	P	49	55.40	0.1			i				46.06.00	GMW	1.35	198	Pd	13	46.83	-1.9
FRI	68.19	59	e(P)	49	56.80	0.2			e				02 32.00	WHB	1.39	339	P	13	47.64	-1.8
TNP	69.08	57	P	50	02.90	0.6			iSg				03 09.30	RMW	1.40	169	Pc	13	48.66	-1.0
	0.7s	7.33nm				4.8mb	VDL	1.45	242	ePc	45	49.40	-0.7	OSD	1.43	226	Pd	13	48.42	-1.8
FRB	70.05	16	eP	50	06.00	-1.5	LLS	1.62	260	ePc	45	54.30	1.7	NLW	1.44	121	Pd	13	49.57	-0.8
CLC	70.25	59	eP	50	10.00	0.6	SAL	1.66	200	P	45	55.00	2.1				S	14	09.65	
NB2	70.33	339	P	50	07.20	-2.2			eSg				46 15.50	OBC	1.49	238	P	13	48.88	-2.2
	0.9s	15.50nm				5.0mb	RBL	1.70	115	P	45	55.00	1.3	PFB	1.51	261	Pd	13	48.85	-2.5
HFS	70.40	337	eP	50	08.00	-1.8	MDI	1.79	219	P	45	58.00	3.2X	OTR	1.62	243	Pd	13	50.96	-1.9
	0.8s	15.50nm				5.1mb			eSg				46 21.20	GSM	1.65	171	P	13	52.39	-1.0
BW06	70.60	49	P	50	11.00	-0.6	TMA	2.00	239	ePc	46	01.70	3.6X	MEW	1.66	191	P	13	53.22	-0.1
	1.0s	9.25nm				4.8mb	SLE	2.01	288	ePd	45	59.00	0.9	MGB	1.66	277	Pd	13	51.42	-2.1
SBB	70.82	60	eP	50	13.00	0.2	ZLA	2.02	280	ePd	46	01.40	3.1X	OSP	1.69	252	P	13	51.51	-2.2
PAS	70.94	61	eP	50	10.00	-3.5X	VOY	2.10	122	ePn	46	00.70	1.2	OFK	1.69	239	P	13	52.59	-1.3
GSC	71.08	59	eP	50	15.00	0.6	VAI	2.20	234	P	46	06.00	5.3X	SMW	1.70	208	P	13	53.22	-0.8
RVR	71.55	61	eP	50	17.00	-0.1			eSn				46 29.00	OOW	1.73	231	Pd	13	53.96	-0.5
PLM	72.28	61	P	50	24.20	2.4	MMK	2.58	245	ePd	46	08.40	2.0	ETW	1.75	134	Pd	13	54.49	-0.3
TPC	72.32	60	eP	50	22.00	0.2	DIX	2.91	249	ePd	46	12.70	1.5	PNT	1.76	73	P	13	54.40	-0.4
RSSD	72.68	45	P	50	23.70	-0.3	CDF	3.00	296	Pn	46	12.10	-0.1	GHW	1.79	182	P	13	54.52	-0.8
BAR	72.84	61	eP	50	26.00	1.2			Pg				46 21.00	ALB	1.79	285	P	13	53.52	-1.7
PV09	73.66	53	P	50	30.00	0.1	BSF	3.15	284	Pn	46	14.00	-0.3	DHW2	1.82	117	P	13	55.48	-0.3
GOL	75.00	50	P	50	37.80	0.2								WTV	1.87	126	P	13	56.21	-0.3
GLD	75.05	49	P	50	39.00	1.3														

02d 11h

GLK	2.30	170	P	14	03.22	0.4
KOSW	2.37	180	P	14	03.73	-0.1
VTG	2.39	141	P	14	03.73	-0.2
CZM	2.41	185	P	14	04.16	-0.1
BMW	2.46	197	Pc	14	04.53	-0.5
TDL	2.48	180	Pc	14	05.30	-0.1
ERK	2.53	182	Pc	14	05.85	-0.2
BVW	2.55	142	P	14	06.26	0.0
YAKW	2.57	154	P	14	06.40	-0.1
MXC	2.59	150	P	14	06.57	-0.3
STD	2.60	181	P	14	07.19	0.2
SOSW	2.60	179	Pd	14	07.42	0.4
YEL	2.62	180	P	14	07.83	0.4
REMW	2.63	180	P	14	08.27	0.6
ESD	2.64	179	P	14	08.02	0.4
FL2	2.64	182	P	14	07.74	0.1
SHW	2.64	181	P	14	08.00	0.4
HSR	2.66	180	P	14	08.58	0.6
JLK	2.69	179	P	14	08.69	0.4
RVW	2.71	188	P	14	08.62	0.1
ASR	2.71	171	P	14	09.44	0.8
CDFW	2.72	178	P	14	09.23	0.5
WAH2	2.73	139	P	14	08.09	-0.7
CRF	2.76	136	P	14	08.67	-0.5
MDW	2.76	143	Pd	14	09.13	-0.1
WRD	2.77	131	P	14	09.35	0.0
BRVW	2.78	147	P	14	09.12	-0.4
MTMW	2.81	180	P	14	10.50	0.5
DPW	2.83	108	eP	14	09.00	-1.2
NEW	3.41	98	eP	14	17.30	-1.3
VGB	3.45	163	eP	14	19.00	-0.1
EDM	7.10	48	P	15	07.00	-3.5
BUT	7.11	110	eP	15	16.30	5.4
LRM	7.27	111	eP	15	10.70	-2.5
HRV	7.29	103	eP	15	11.60	-1.8
SES	7.41	74	P	15	12.00	-2.9
MCMT	7.55	119	eP	15	15.50	-1.6
LCCM	7.62	109	eP	15	17.50	-0.5
BGMT	7.81	114	eP	15	18.90	-1.8
SXM	7.91	106	eP	15	21.30	-0.8
HPI	8.11	126	eP	15	24.60	-0.4
FHC	8.13	190	eP	15	23.50	-1.6
LTMT	8.16	118	eP	15	23.10	-2.5
WDC	8.26	182	ePc	15	27.30	0.5
MIN	8.50	177	eP	15	30.80	0.5
ORV	9.29	177	eP	15	41.30	0.2
KVN	10.21	162	eP	15	55.00	1.0
BW06	10.69	120	eP	16	00.00	-0.5
CMB	10.87	172	e(P)	16	08.40	5.5
TNP	11.33	160	eP	16	11.00	1.7
DAU	11.46	133	eP	16	12.00	0.9
MHC	11.49	178	e(P)	16	12.00	0.6
FRI	11.97	170	eP	16	22.10	4.3
LLA	12.24	175	eP	16	22.80	1.3
PRS	12.51	177	eP	16	25.50	0.5
PRI	12.73	174	eP	16	31.00	2.9
RSSD	13.36	104	eP	16	39.00	2.5
CLC	13.44	164	eP	16	47.00	9.6
ISA	13.44	167	eP	16	48.00	10.5
FFC	13.81	57	eP	16	37.00	-5.1
FFC	0.5s	6.00nm			4.8mb	
FFC	13.81	57	eP	16	50.00	7.9
FFC	0.6s	41.00nm			5.5mb X	
GSC	14.09	162	eP	16	54.00	7.9
YKA	14.33	14	eP	16	48.30	-0.6
YKA	0.8s	14.00nm			4.7mb	
SBB	14.50	165	eP	16	58.00	6.6
MWC	14.92	167	eP	17	05.00	8.0
RVR	15.25	165	eP	17	07.00	5.8
PEC	15.39	164	eP	17	08.00	5.0
TPC	15.41	160	eP	17	08.00	4.8
PLM	15.97	164	eP	17	15.00	4.4
BAR	16.66	164	eP	17	23.00	3.7
ALO	18.11	134	eP	17	37.00	-0.6
ALO	1.0s	5.00nm			3.6mb	
RSON	18.44	73	eP	17	39.50	-1.8
RSON	1.0s	14.37nm			4.1mb	
INK	20.34	348	eP	18	04.00	1.0
FBA	21.09	329	eP	18	10.20	-0.6
FBA	0.8s	6.03nm			4.0mb	
TUL	23.25	114	eP	18	31.20	-1.4
TUL	0.9s	7.10nm			4.2mb	
TTA	23.28	320	eP	18	33.00	0.2
TTA	1.0s	10.00nm			4.3mb	
IMA	23.77	328	eP	18	37.00	-0.6
IMA	0.8s	3.45nm			4.0mb	
FRB	32.17	42	eP	19	49.00	-5.0

ZOBO	80.59	128	P	25	37.00	-2.4
139 obs. associated						
* APR 02, 1990 12h 22m 45.22±1.59s						
18.005 S ±10.4km 174.858 W ±15.2km						
DEPTH = 158.6 ± 18.6 km						
4.5mb (8 obs.)						
TONGA ISLANDS (173)						
AFI	5.04	36	eP	24	00.00	-0.1
AFI			e(S)	24	51.00	
HBZ	20.42	196	eP	27	13.00	1.4
HBZ	0.3s	14.00nm			4.9mb	
PUZ	20.88	195	eP	27	16.30	0.1
NOZ	21.45	195	eP	27	23.40	1.6
PGZ	23.80	197	eP	27	47.30	2.8X
MNG	24.02	198	eP	27	45.60	-1.2
MNG	0.1s	2.00nm			4.6mb	
LTZ	27.01	201	eP	28	12.30	-1.9
WB5	47.92	259	eP	31	09.50	-0.1
WRA	47.93	259	Pc	31	09.70	0.0
WRA	0.4s	2.40nm			4.2mb	
ASPA	48.02	254	iPd	31	10.60	0.3
ASPA	0.7s	38.00nm			5.2mb	
MTN	52.17	268	eP	31	42.00	0.0
MBL	61.23	255	eP	32	40.30	-5.6X
MBL	0.3s	1.00nm			4.2mb	
SPA	72.11	180	iPd	33	53.50	-0.4
SPA	0.8s	15.42nm			4.8mb	
ALO	83.53	50	eP	34	57.00	0.0
ALO	1.0s	2.00nm			3.9mb	
YKA	93.03	24	eP	35	41.70	0.4
YKA	0.9s	0.50nm			3.7mb	
S.D. = 1.1 on 13 of 15 obs.						
APR 02, 1990 12h 34m 02.58±0.32s						
53.453 N ± 7.5km 169.866 E ± 4.3km						
DEPTH = 22.9km (6 depth phases)						
4.7mb (34 obs.)						
KOMANDORSKY ISLANDS REGION (4)						
SMY	2.66	104	eP	34	45.50	0.7
ADK	8.33	95	eP	36	04.20	-0.6
SVW	19.96	54	eP	38	47.90	12.2X
TTA	20.09	48	eP	38	36.50	-0.6
KDC	21.50	63	eP	38	56.40	5.0X
IMA	21.88	41	eP	38	56.00	0.6
IMA	1.1s	9.40nm			4.1mb	
FBA	24.01	45	eP	39	16.50	0.4
MAT	27.74	245	eP	39	51.00	-0.2
MAT	1.0s	18.00nm			4.7mb	
INK	29.96	38	eP	40	10.00	-0.8
MBC	34.38	24	ePd	40	49.50	0.2
MBC	0.9s	5.00nm			4.4mb	
YKA	38.81	46	eP	41	26.20	-0.6
YKA	0.5s	0.80nm			3.7mb X	
PNT	42.56	66	eP	41	59.00	1.1
EDM	43.73	58	eP	42	07.50	0.1
NEW	44.52	66	P	42	14.30	0.5
NEW	0.8s	7.29nm			4.6mb	
WDC	46.14	78	e(P)	42	32.40	5.7X
WDC			e	42	43.70	
LZH	48.18	277	iPc	42	43.80	0.8
LZH	1.0s	33.00nm			5.3mb	
Z	15s	1.20um			5.0mszX	
E	15s	0.80um				
LRM	48.54	66	eP	42	49.50	3.7X
CMB	49.07	79	e(P)	42	55.00	5.3X
KVN	49.72	76	P	42	55.30	0.4
KVN			pP	43	01.90	22km
DAG	49.93	3	iPd	42	55.00	-0.7
DAG	0.8s	7.46nm			4.8mb	
TNP	50.88	76	P	43	04.20	0.4
TNP			pP	43	10.00	19km
BW06	52.09	67	P	43	12.00	-1.0
BW06	1.0s	9.25nm			4.7mb	
RSSD	54.18	62	P	43	27.00	-1.3
FRB	54.66	28	eP	43	29.00	-2.2
RSON	54.73	50	P	43	31.50	-0.5
RSON	0.8s	5.21nm			4.6mb	
PV09	55.23	71	P	43	36.00	-0.3
SOD	56.39	344	eP	43	47.00	3.2X
GOL	56.50	67	P	43	46.00	0.7
GLD	56.54	67	P	43	47.00	1.5

ANMO	0.9s	40.00nm			5.4mb	
ANMO	59.26	72	P	44	05.00	0.3
ALQ	0.7s	2.74nm			4.5mb	
ALQ	59.27	72	eP	44	05.00	0.3
SUF	0.9s	3.57nm			4.5mb	
SUF	60.72	342	iP	44	13.30	-0.7
SUF	0.7s	13.20nm			5.2mb	
SCH	62.40	33	eP	44	24.00	-1.5
NUR	63.04	342	iP	44	29.00	-0.5
NUR	0.7s	13.30nm			5.2mb	
CHTO	63.76	266	iPc	44	35.00	0.1
CHTO	0.9s	12.57nm			5.1mb	
CHTO			pP	44	44.60	31km
CHTO			sP	44	51.80	
NB2	64.60	349	P	44	38.90	-0.9
NB2	0.7s	7.50nm			4.9mb	
GUN	64.62	283	P	44	40.00	-0.8
GUN	0.9s	64.00nm			5.8mb X	
KKN	65.06	283	P	44	42.72	-0.8
KKN	0.8s	28.00nm			5.4mb	
PKI	65.15	283	P	44	43.18	-1.0
PKI	0.9s	40.00nm			5.6mb	
GKN	65.27	284	P	44	43.84	-0.9
GKN	0.9s	34.00nm			5.5mb	
FVM	65.70	59	P	44	44.90	-2.3
FVM	0.7s	8.16nm			5.0mb	
FVM			pP	44	52.50	24km
EKA	71.43	356	P	45	23.00	0.6
EKA	1.0s	9.50nm			4.8mb	
KHC	75.84	344	iP	45	49.50	1.2
HYB	76.98	282	eP	45	55.00	-0.1
FLN	77.83	353	eP	45	59.30	0.1
FLN	0.6s	7.20nm			4.9mb	
GRR	78.23	354	eP	46	01.80	0.4
GRR	0.8s	9.40nm			4.9mb	
LPF	78.60	354	eP	46	04.00	0.5
LPF	0.8s	5.35nm			4.6mb	
LOR	78.95	350	eP	46	05.70	0.2
LOR	0.8s	4.05nm			4.5mb	
SSF						

02d 12h

CVP	21.70	242	eP	43	55.50	6.2X	ZOBO	149.54	71	PKP	58	45.00	1.6	SNF	4.89	109	iP	47	47.57	1.4
SZP	22.85	244	iPd	44	02.00	1.3		1.0s	10.00nm					DOU	5.26	112	iP	47	49.10	-2.2
BAG	23.43	241	eP	44	09.00	2.5	LPB	149.69	72	PKP	58	52.00	8.6X	ENN	5.77	102	iPnc	47	59.10	0.6
BJI	23.56	304	eP	44	07.50	0.0	CCH	151.73	71	(PKP)	59	05.00	18.7X		0.5s	110.00nm			5.8mb X	
	1.0s	12.00nm			4.4mb		SIV	155.05	63	(PKP)	59	05.00	14.5X				ePg	48	26.20	
Z	18s	1.47um			4.5msz			S.D. = 1.4	on 67 of 78 obs.							eSn	49	01.00		
E	16s	0.83um														eSg	49	35.00		
		eS	48	14.00										MEM	5.87	103	iP	48	00.63	0.7
PGP	25.00	235	eP	44	22.50	0.9		* APR 02, 1990 12h 44m 37.18±0.92s						WIT	5.91	81	ePn	48	01.00	0.6
	0.8s	52.00nm			5.2mb			29.359 N ± 8.7km	142.054 E ± 22.4km							ePg	48	26.00		
CHTO	40.37	265	iPc	46	36.10	0.3		DEPTH = 33.0km (normol)						JCK	6.00	99	ePn	48	02.00	0.4
	1.1s	42.11nm			5.1mb			4.5mb (3 obs.)								eSg	49	06.20		
MTN	43.24	195	eP	46	56.00	-3.2X		SOUTH OF HONSHU, JAPAN	(211)					MFF	6.01	161	Pn	48	01.80	-0.1
IPM	45.82	245	ePd	47	22.40	2.4	KAKJ	7.01	347	P	46	19.60	-0.5				Sn	49	07.80	
GUN	48.75	283	P	47	43.04	-0.3			S	47	36.90						Sg	49	42.00	
	0.5s	15.00nm			5.3mb		IIDJ	7.04	331	eP	46	21.50	0.9	WTS	6.04	89	iPnc	48	02.40	0.1
PKI	49.24	282	P	47	46.04	-1.1	CHJJ	7.15	340	P	46	21.70	-0.4		0.6s	161.00nm			5.9mb X	
	0.6s	6.00nm			4.8mb				S	47	40.30					ePg	48	33.00		
KKN	49.29	283	P	47	46.68	-0.7	MAT	7.86	337	eP	46	32.00	0.0	GSH	6.05	101	ePn	48	02.60	0.1
DMN	49.49	283	P	47	48.22	-0.7		0.6s	11.33nm			5.1mb X				eSg	49	07.80		
	0.4s	4.00nm			4.8mb				eS	47	58.00						Sn	49	28.00	
WB5	49.51	189	eP	47	46.60	-2.1	MTMJ	8.04	335	P	46	35.50	0.8	HYF	6.22	142	Pn	48	05.30	0.3
WRA	49.58	189	Pc	47	46.90	-2.3	NIIJ	8.26	343	P	46	35.40	-2.3	WLF	6.35	111	iP	48	08.36	1.7
	0.9s	14.40nm			5.0mb		CHTO	40.53	265	iP	52	15.90	0.8	BNS	6.47	98	iPc	48	09.00	0.6
QIS	49.70	183	eP	47	48.00	-2.2		0.8s	6.95nm			4.5mb					iSn	49	16.80	
		e	48	31.00			WB5	49.51	190	eP	53	26.20	-0.5	LOR	6.72	136	Pn	48	11.40	-0.5
GKN	49.78	283	P	47	50.14	-0.9	WRA	49.58	190	Pc	53	26.10	-1.1				Sn	49	22.00	
	0.7s	12.00nm			5.1mb			0.5s	2.30nm			4.5mb		SSF	6.73	139	Pn	48	11.80	-0.3
ASPA	53.30	189	eP	48	15.20	-2.1	SUF	75.10	335	iP	56	18.20	0.9				Sn	49	23.40	
	0.5s	5.00nm			4.8mb			0.4s	2.00nm			4.5mb		LSF	6.75	152	Pn	48	12.20	-0.2
Z	23s	0.30um			4.3msz X		LRM	79.30	43	eP	56	42.60	1.3				Sn	49	23.30	
		LR	08	05.50				S.D. = 1.2	on 11 of 11 obs.					RUP	6.86	108	eP	48	13.71	-0.2
MBL	54.55	205	eP	48	25.80	-0.7								AVF	6.89	141	Pn	48	14.00	-0.4
	0.4s	2.00nm			4.5mb			APR 02, 1990 13h 46m 31.76±0.38s					BGF	6.90	144	Pn	48	14.20	-0.3	
NDI	55.84	286	iPd	48	35.60	-0.3		52.314 N ± 2.2km	2.985 W ± 2.5km					TCF	6.92	149	Pn	48	14.50	-0.3
BR5	57.41	168	eP	48	46.00	-1.0		DEPTH = 18.0 ± 3.8 km								Sn	49	28.80		
INK	61.08	25	eP	49	10.00	-1.8		4.7mb (18 obs.)						LBF	6.99	137	Pn	48	14.80	-1.0
GBA	61.29	270	Pd	49	13.50	-0.6		UNITED KINGDOM	(533)								Sn	49	30.50	
	1.0s	12.70nm			5.0mb			ML 5.1 (LDG), 5.2 (BGS), MD 4.8					ABH	7.07	106	eP	48	16.52	-0.3	
POO	62.34	277	iP	49	19.10	-2.0		(STR). Damage (VI) in the					MAF	7.10	147	Pn	48	16.50	-0.7	
MBC	63.76	15	eP	49	30.50	0.9		Wrexham-Welshpool-Shrewsbury					SMF	7.21	139	Pn	48	17.80	-1.0	
BWA	63.77	174	eP	49	30.00	-0.1		area. Some buildings damaged in					HAU	7.38	122	Pn	48	20.50	-0.7	
CAN	64.71	174	eP	49	36.10	-0.2		Manchester and Liverpool. Felt								Sn	49	38.50		
MAIO	67.58	300	eP	49	57.00	2.1		throughout Wales, in eastern					AGO	7.44	145	P	48	21.18	-0.8	
		eS	59	12.00				Ireland and in England from					TNS	7.47	102	iPnc	48	22.30	-0.2	
YKA	70.27	29	eP	50	08.60	-2.3		Newcastle-upon-Tyne to Kent and								iSn	49	41.80		
	0.7s	2.00nm			4.3mb			Cornwall.					GWF	7.52	112	P	48	22.98	-0.2	
KEV	70.73	340	eP	50	15.00	1.4	HCG	0.41	271	iPgc	46	42.10	1.8	RJF	7.62	155	Pn	48	23.80	-0.7
SOD	72.17	338	eP	50	19.00	-3.2X	LLW	0.68	323	P	46	44.70	-0.1				Sn	49	42.50	
DAG	73.42	355	iPc	50	28.30	-1.1	LPW	0.70	254	P	46	47.40	2.3	KTD	7.62	109	eP	48	24.73	0.1
	1.0s	14.00nm			4.9mb								CDF	7.63	117	Pn	48	24.20	-0.6	
PNT	73.47	42	eP	50	32.00	1.8	CRW	1.11	67	iPnc	46	53.50	1.4				Sn	49	43.40	
IR2	74.25	302	eP	50	36.00	0.9	YRH	1.13	298	iPnc	46	53.30	0.8	PYM	7.66	147	P	48	24.19	-0.9
FHC	74.35	52	e(P)	50	37.40	1.9	BUW	1.42	129	P	47	00.80	4.2X	ECH	7.68	118	P	48	25.04	-0.4
IR4	74.43	302	iPc	50	37.50	1.3	HEA	1.43	131	P	47	01.20	4.3X	BSF	7.72	122	Pn	48	25.60	-0.5
IR7	74.45	302	eP	50	37.00	0.7	BKN	1.47	130	P	47	01.70	4.4X				Sn	49	46.00	
IR5	74.68	302	eP	50	38.00	0.4	WOL	1.48	132	P	47	02.20	4.6X	MOF	7.89	120	P	48	27.85	-0.6
SUF	75.00	335	iP	50	38.70	-0.1	BHM	1.58	134	P	47	19.40	20.5X	LOMF	7.92	105	eP	48	28.26	-0.5
EDM	75.16	37	eP	50	38.50	-1.4	HPK	1.84	26	iPnc	47	03.30	0.6	CAF	8.05	124	P	48	29.82	-0.9
WDC	75.43	52	ePc	50	42.60	0.9	BUWY	1.84	38	iPnd	47	03.70	0.9		8.11	154	Pn	48	30.40	-1.1
MIN	76.18	51	eP	50	46.30	0.2	MMY	1.98	19	P	47	02.70	-2.1				Sn	49	57.40	
ORV	76.61	52	e(P)	50	49.60	1.3	ECP	2.08	268	iPc	47	06.90	0.6	LPO	8.12	158	Pn	48	30.70	-0.9
NUR	76.89	333	eP	50	49.40	0.0	SCK	2.35	75	P	47	12.40	2.4				Sn	49	58.00	
MHC	77.52	54	eP	50	55.20	1.7	DLE	2.37	296	iP	47	11.00	0.6	LBL	8.19	147	P	48	31.56	-0.9
SES	77.83	39	eP	50	54.00	-0.9	DCN	2.80	293	iPc	47	16.70	0.2	KMY	8.32	31	iP	48	29.67	-4.6X
CMB	78.08	53	eP	50	56.70	0.2	ESK	3.01	358	ePn	47	18.50	-0.9				eLg	49	54.95	
PRS	78.18	55	ePc	50	56.70	-0.3	EKA	3.03	358	Pc	47	18.50	-1.2	BBS	8.33	121	P	48	34.69	0.2
PRI	78.77	55	ePc	51	02.50	2.1		0.2s	82.10nm					FEL	8.35	118	P	48	34.87	0.0
FRI	79.05	54	ePc	51	02.50	0.8	EBL	3.47	359	iPnc	47	24.90	-1.0	STU	8.53	110	ePc	48	37.00	-0.2
LRM	79.40	43	eP	51	03.00	-0.9	EAU	3.55	356	iPnc	47	26.10	-1.0		0.8s	110.45nm			6.2mb X	
FFC	79.95	32	eP	51	05.00	-1.3	ESY	3.62	3	ePn	47	27.20	-0.9	SSB	8.61	142	P	48	36.93	-1.5
	0.9s	20.00nm			5.1mb		EDI	3.62	358	iPnc	47	26.90	-1.2	SLE	8.67	117	ePd	48	39.30	0.0
		LR	24	46.00					eSn	48	24.00		ZLA	8.79	119	ePc	48	41.10	0.3	
ISA	80.56	54	eP	51	10.00	0.0							BLS2	8.94	35	iP	48	38.63	-4.4X	
CLC	81.10	54	eP	51	12.00	-0.9	FLN	3.90	155	Pn	47	33.80	1.8				eLg	50	13.42	
HFS	81.22	337	eP	51	12.20	-0.7			Sg	48	38.20		BLS1	8.98	34	iP	48	39.10	-4.4X	
	0.4s	3.40nm			4.7mb		EBH	3.95	356	ePnc	47	31.30	-1.5				eLg	50	12.67	
Z	17s	0.16um			4.4msz X		BST	4.07	190	P	47	36.24	1.7	EMS	9.01	130	ePc	48	43.00	-1.0
		LR	24	46.00			LDF	4.15	153	Pn	47	37.20	1.6	DIX	9.23	128	ePc	48	46.60	-0.5
SBB	81.50	55	eP	51	16.00	1.0	GRR	4.16	160	Pn	47	37.30	1.5	ELYF	9.25	171	P	48	45.78	-1.4

02d 13h

MADF	9.29	170	P	48	46.10	-1.7	EZAM	10.88	203	eP	49	09.20	-0.4			iS	52	09.50		
BER	9.31	26	iP	48	42.81	-5.1X	SAOF	10.90	136	P	49	08.79	-1.0	VBY	13.78	112	eP	49	57.40	9.1
OGE	9.31	169	P	48	46.56	-1.4	PCP	10.91	131	P	49	07.49	-2.4			e(S)	52	10.50		
ODD1	9.31	31	iPd	48	43.47	-4.5X	SBF	10.95	136	Pn	49	08.80	-1.7	ARV	13.83	123	P	49	48.00	-1.0
			eLg	50	20.75					Sn	51	05.80		NSS	14.48	26	iP	49	54.14	-3.3
BOH	9.31	171	P	48	46.30	-1.9	KHC	10.97	100	Pn	49	12.20	1.4	MNS	14.51	127	P	49	51.00	-7.0
LPL	9.33	133	Pn	48	48.20	-0.3				e	49	25.00		BUD	14.96	100	e(P)	50	19.00	15.2
			Sn	50	27.40		FIN	11.01	133	P	49	10.29	-1.0	SPC	15.02	93	eP	50	02.00	-2.7
GRF	9.33	101	eP	48	49.50	1.2	LMR	11.01	141	Pn	49	10.30	-1.0			e	16	12.10		
			e(Sn)	50	03.70		SAL	11.12	122	P	49	15.00	2.2	AZI	15.18	126	P	50	14.00	7.4
			e(S)	50	26.70					eSn	51	18.00		AKU	15.44	336	eP	50	15.90	6.0
EMON	9.35	200	eP	48	47.80	-0.8	BOB	11.17	128	P	49	16.00	2.5			1.0s	32.00nm	4.5mb		
ASK	9.35	26	iPd	48	43.30	-5.2X				eSn	51	20.00		SDI	15.58	126	P	50	18.00	6.1
			eLg	50	20.11		PRU	11.25	95	Pn	49	16.00	1.4	DUI	15.93	125	P	50	23.00	6.5
LPG	9.35	133	Pn	48	48.40	-0.5				e	49	36.10		SGO	17.18	126	P	50	29.00	-3.2
ATE	9.36	170	P	48	46.69	-2.0				Sg	51	18.20		NUR	17.24	51	iP	50	29.70	-3.1
ESCF	9.38	169	P	48	46.99	-2.1	CTI	11.44	117	P	49	15.00	-2.2			0.8s	32.30nm	4.5mb		
BTH	9.38	167	iPn	48	47.00	-2.0				eSn	51	20.00				i	50	53.90		
			(sP)	48	52.40		ETOR	11.52	176	eP	49	18.20	-0.1			iS	53	36.10		
			(PPP)	48	53.50		NRA0	11.62	38	Pn	49	13.90	-5.6X	SUF	18.62	45	eP	50	46.30	-3.5
			(S)	50	30.00					e	49	23.90				0.4s	7.10nm	4.2mb		
			Sn	50	40.00					e	49	31.10				eS	54	02.40		
			SSS	51	00.00					e	49	37.70		IFR	18.85	186	iP	50	54.50	1.4
ISSF	9.41	170	P	48	47.66	-1.8				Sn	51	13.80		SKO	19.48	112	ePn	50	59.80	-0.6
SAX	9.45	118	ePd	48	51.20	1.1				S	51	27.80				11s	0.89um			
JAU	9.45	168	P	48	48.05	-2.0				e	51	40.80				N	10s	0.75um		
LLS	9.49	120	ePd	48	52.20	1.5				e	51	45.40		CMP	19.68	100	ePc	51	05.00	2.4
MMK	9.52	127	ePc	48	50.80	-0.3	NB2	11.70	36	P	49	15.50	-5.1X	OHR	19.69	115	eP	51	03.70	0.9
EPF	9.55	165	Pn	48	49.90	-1.5										0.9s	35.00nm	4.7mb		
			Sn	50	31.30		GUD	11.70	184	eP	49	20.70	-0.2	VTs	20.10	109	iPc	51	03.00	-4.3
LSD	9.57	132	P	48	51.30	-0.5	MOL	11.72	25	iPc	49	15.61	-5.3X	FNA	20.23	115	eP	51	10.10	1.6
BNI	9.67	135	Pc	48	53.00	-0.1				eLg	51	32.70		VR1	20.40	97	eP	51	12.50	2.4
			eSn	50	36.00		EROD	11.73	167	eP	49	20.30	-0.8	IGT	20.54	119	eP	51	13.10	1.5
COP	9.68	64	iPc	48	51.30	-1.8	FVI	11.74	113	P	49	24.50	3.3X	VAY	20.54	112	eP	51	11.40	-0.3
			i	48	59.80					eSn	51	27.00		KNT	20.84	112	eP	51	16.20	1.5
			i	49	30.70		KMR	11.77	104	i(P)	49	27.70	6.1X	SOD	20.87	32	iP	51	12.90	-1.8
			i	50	34.40		KBA	11.79	110	iPc	49	24.00	1.9	MMB	21.03	110	ePc	51	18.00	1.3
ECRI	9.71	178	eP	48	54.50	0.8								LIT	21.32	115	eP	51	20.00	0.4
SUE	9.74	23	iP	48	48.31	-5.5X				i	49	25.00		SOH	21.32	112	eP	51	21.10	1.4
			eLg	50	26.98					i	49	38.20		TIO	21.60	190	iP	51	25.00	2.4
MLS	9.75	162	P	48	53.00	-1.1				iS	51	28.00		AGG	21.99	117	eP	51	27.50	1.2
RRL	9.82	135	P	48	54.49	-0.8				i	51	30.00		KEV	22.32	27	eP	51	28.00	-1.3
			S	50	34.90					i	51	32.60				0.7s	17.40nm	4.6mb		
ORX	9.83	129	P	48	54.89	-0.3				i	52	43.60		DAG	25.28	352	iPc	51	58.30	0.3
			S	50	37.10		KSP	12.08	89	iP	49	27.50	1.7			0.9s	5.04nm	4.2mb		
ORO	9.83	129	P	48	56.00	0.7				i	49	30.50		FRB	34.92	315	eP	53	24.00	0.1
TMA	9.93	124	ePc	48	58.50	1.8				iS	52	08.50		SCH	36.81	300	eP	53	44.00	4.0
CLL	9.96	89	iPnc	48	58.20	1.3				i	52	26.00		LKO	42.70	184	Pd	54	30.50	1.3
	1.2s	29.00nm				5.5mb X				i	53	13.50				1.0s	37.00nm	5.1mb		
			iSn	50	50.00					i	53	25.00		MBC	45.48	342	eP	54	56.50	5.6
			eSg	52	03.00					i	53	25.00		TIC	45.56	183	P	54	52.96	0.8
VDL	9.99	121	ePd	48	59.60	2.1	HFS	12.12	43	eP	49	21.00	-5.2X	KIC	45.83	182	P	54	55.22	0.9
FUR	10.03	109	iPc	48	58.90	0.9				LR	52	41.00		LIC	45.97	183	P	54	56.10	0.7
VAI	10.05	125	P	48	58.00	-0.1								BCAO	50.95	152	iPc	55	34.70	0.6
			eSn	50	40.00										0.6s	10.00nm	4.9mb			
FOUF	10.13	136	iPnc	49	00.15	0.9	BDI	12.24	127	P	49	17.00	-11.1X	RSON	52.72	307	P	55	44.00	-3.1
			i	50	46.70		RBL	12.27	112	Pc	49	30.00	1.5	YKA	53.55	328	eP	55	56.20	3.2
STS	10.15	204	eP	48	58.70	-0.9				eSn	51	40.00				0.9s	4.70nm	4.5mb		
HYA	10.19	26	eP	48	55.12	-5.0X	EPLA	12.43	191	eP	49	30.60	0.0	FFC	54.03	315	iPd	56	01.10	4.4
			eLg	50	42.96		PII	12.46	128	P	49	45.00	14.1X			0.7s	8.00nm	4.9mb		
OSS	10.22	118	ePc	49	02.20	1.5	PGF	12.68	136	Pn	49	32.20	-1.8	INK	54.24	340	eP	56	02.00	4.0
FOO	10.28	22	eP	48	55.30	-5.9X	VOY	12.69	113	eP	49	35.20	1.1	IMA	59.85	347	eP	56	39.20	1.1
			eLg	50	42.83					eS	51	48.70				1.0s	7.50nm	4.8mb		
PZZ	10.29	135	P	49	01.69	0.1	TRI	12.81	114	e(Pn)	49	38.30	2.7	FBA	60.00	344	eP	56	40.60	1.6
			S	50	46.40					e(Sn)	51	51.90		NEW	65.19	318	eP	57	13.90	0.1
ERUA	10.32	197	eP	49	01.70	-0.2	RGS	12.88	28	iP	49	34.20	-2.2			0.9s	1.75nm	4.2mb		
DOI	10.35	135	P	49	03.00	0.6	PGD	12.94	125	P	49	37.50	0.1			pP	57	18.00	13km	
FRO	10.38	21	eP	48	56.54	-6.1X	SFI	12.97	124	P	49	38.00	0.3	GKN	66.97	74	P	57	25.24	-0.3
			eLg	50	43.67		VKA	12.98	101	iP	49	55.70	17.8X			0.7s	10.00nm	5.1mb		
WET	10.54	101	eP	49	06.10	1.1				i	52	22.00		KKN	67.51	73	P	57	29.52	0.5
MDI	10.59	123	P	49	07.00	1.5				LR	53	54.00				0.7s	9.00nm	5.1mb		
			eSn	51	00.00		LJU	13.05	112	e(P)	49	35.00	-3.8X	DMN	67.54	74	P	57	30.18	0.9
STV	10.59	136	P	49	04.69	-1.0				e	49	47.00				0.8s	14.00nm	5.2mb		
			S	50	49.00					eS	51	41.00		PKI	67.75	73	P	57	31.68	1.0
OGA	10.60	115	eP	49	06.30	0.4	CEY	13.17	113	eP	49	45.00	4.7X			0.9s	8.00nm	4.9mb		
ENR	10.65	135	P	49	04.89	-1.6				i	49	52.20		GUN	67.77	73	P	57	32.06	1.3
TOUF	10.75	137	P	49	07.16	-0.7				eS	52	00.70				0.9s	10.00nm	5.0mb		
ETER	10.77	156	eP	49	07.00	-1.0				e	52	04.50		ANMO	70.57	302	eP	57	49.90	2.2
ROB	10.79	134	P	49	07.29	-1.1	CRE	13.23	125	P	49	41.00	-0.3	KVN	73.00	313	P	58	03.50	1.3
MVIF	10.80	137	P	49	07.50	-1.1	SOP	13.39	102	eP	49	55.10	11.9X	GBA	73.51	89	Pd	58	05.70	0.5
AUTN	10.84	136	P	49	08.11	-1.0	ZST	13.49	100	eP	49	51.80	7.3X			0.6s	1.80nm	4.3mb		
			S	51	12.96					e	51	57.60		CHTO	82.					

* APR 02, 1990 13h 49m 42.96 \pm 2.20s
32.694 S \pm 8.3km 72.711 W \pm 20.1km
DEPTH = 33.0km (normal)
OFF COAST OF CENTRAL CHILE (134)

IHA	0.96	110	eP	49	59.00	-1.1
			i(S)	50	08.20	
LCCH	1.24	129	iP	50	04.60	0.6
			iS	50	20.00	
ROCH	1.46	101	iPd	50	05.50	-1.9
			iS	50	21.20	
LNv	1.66	139	iPc	50	11.10	0.9
			iS	50	35.00	
TACH	1.77	123	iPc	50	12.00	0.3
			iS	50	33.60	
JACH	1.79	90	iPd	50	10.00	-2.1
			iS	50	29.00	
SAN	1.88	114	iP	50	13.10	-0.3
			iS	50	35.00	
PCH	2.06	117	iPc	50	16.10	0.0
			iS	50	41.25	
CHCH	2.12	126	iPc	50	17.60	0.8
			iS	50	40.50	
FCH	2.13	108	iPc	50	16.50	-0.7
			iS	50	41.50	
RTBS	2.95	70	ePc	50	28.80	0.3
RTCB	3.53	71	iP	50	39.10	2.2
ZON	3.61	73	eP	50	40.00	2.0
			eS	51	30.00	
RTCV	3.63	78	e(P)	50	38.60	0.3
RTRS	3.75	49	ePc	50	40.00	0.2
RTLL	3.85	70	eP	50	40.10	-1.3
			e	50	42.80	
CFA	3.94	75	eP	50	44.00	1.3
			eS	51	41.00	
ZOBO	16.87	15	P	53	39.20	0.4
SIV	19.69	35	P	54	10.60	-1.9

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

APR 02, 1990 13h 56m 34.83 \pm 0.78s
32.672 S \pm 4.3km 72.086 W \pm 7.0km
DEPTH = 40.8 \pm 6.9 km
5.6mb (25 obs.) 5.5Msz (10 obs.)
OFF COAST OF CENTRAL CHILE (134)
Ms 5.4 (PAS). Felt (III) at
Valparaiso.
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 15S, 36C
Centroid Location:
Origin Time 13:56:37.9 0.3
Lat 33.04S 0.04 Lon 72.63W 0.05
Dep 15.0 FIX Half-duration 2.8
Moment Tensor; Scale 10 \times 17 Nm
Mrr=-2.92 0.09 Mtt=-0.69 0.13
Mff=-3.61 0.14 Mrt=-0.52 0.27
Mrf=-1.15 0.34 Mtf=-0.31 0.09
Principal Axes:
T Vol= 3.20 Plg=76 Azm= 41
N 0.64 9 173
P -3.84 10 265
Best Double Couple: Mo=3.5 \times 10 \times 17
NP1:Strike= 6 Dip=36 Slip= 106
NP2: 167 56 79

IHA	0.51	133	iPc	56	45.00	-0.8
LCCH	0.91	152	iPc	56	51.00	-0.3
ROCH	0.95	109	iPd	56	51.50	-0.6
JACH	1.26	91	iPc	56	56.00	-0.4
TACH	1.37	136	iPc	56	56.20	-1.7
LNv	1.40	156	iPc	56	57.10	-1.1
SAN	1.43	123	iPc	56	59.50	0.8
			iS	57	17.80	
PCH	1.62	126	iPd	57	02.20	0.7
FCH	1.64	114	iPc	57	02.20	0.2
CHCH	1.74	137	iPc	57	03.60	0.5
RTBS	2.45	66	eP	57	15.00	1.8
RTCB	3.03	68	iPd	57	23.10	1.5
ZON	3.10	70	eP	57	23.00	0.4
			eS	58	10.00	
RTCV	3.11	76	ePc	57	24.50	1.8
RTLL	3.35	67	ePd	57	26.20	0.1
CFA	3.43	73	eP	57	27.50	0.3
ANT	9.05	10	eP	58	38.50	-7.5X
			i	59	02.50	
			i	00	54.50	
			eS	00	59.00	

BAA	11.50	103	P-	59	17.60	-1.8
CCH	16.14	21	P	00	19.70	-1.0
ARE	16.15	2	eP	00	17.00	-3.8X
LPB	16.47	14	P	00	24.00	-1.0
	1.2s	671.88nm		5.6mb		
		S	03	42.00		
		LR	05	51.00		
ZOBO	16.72	13	Pc	00	25.00	-3.3X
	1.5s	274.19nm		5.2mb		
		S	03	56.00		
		eLR	05	56.00		
PT03	18.90	349	e(P)	00	55.00	0.2
SIV	19.38	34	P	00	56.00	-4.3X
BAO	27.66	58	eP	02	09.50	-11.6X
PSO	34.04	351	eP	03	18.50	0.7
BOG	37.14	357	eP	03	46.00	2.1
		iS	09	32.00		
FUO	37.96	357	eP	03	51.00	0.1
BMG	39.53	358	eP	04	00.50	-3.2X
PLAV	42.53	7	eP	04	33.50	5.0X
OLLA	42.75	8	iP	04	39.00	8.9X
GUAN	42.83	9	iP	04	30.70	-0.1
GUAC	42.87	7	iP	04	31.80	0.7
LLAV	43.20	8	eP	04	31.80	-1.9
CAR	43.22	7	iP	04	30.00	-3.9X
		iS	10	01.00		
CUM	43.55	11	eP	04	35.00	-1.5
FISA	43.77	4	eP	04	37.00	-1.3
SPA	57.50	180	eP	06	22.70	0.5
	1.0s	56.00nm		5.6mb		
Z	18s	3.10um		5.5Msz		
SBA	64.37	192	e(P)	07	08.90	0.6
VNDA	65.40	191	e(P)	07	15.10	0.2
PRM	67.10	351	P	07	25.00	-1.2
JSC	67.15	352	P	07	25.00	-1.5
TKL	68.05	350	P	07	33.30	-3.8X
GBTN	68.92	349	P	07	36.00	-1.5
PWLA	68.95	346	P	07	35.00	-2.7
RSCP	69.08	348	P	07	35.00	-3.6X
	1.0s	119.31nm		5.9mb		
TPT	70.02	265	eP	07	52.00	7.3X
	1.2s	60.00nm		5.5mb		
TVO	70.03	261	iP	07	53.80	9.0X
	1.2s	115.00nm		5.8mb		
PPN	70.30	261	iP	07	55.10	8.7X
	1.2s	55.00nm		5.4mb		
PAE	70.36	261	iP	07	55.50	8.8X
	1.2s	145.00nm		5.9mb		
PPT	70.40	261	iP	07	55.90	8.9X
	1.2s	205.00nm		6.0mb		
MBO	70.45	58	eP	07	38.00	-9.3X
FVM	72.34	345	P	07	55.00	-3.2X
LIC	74.40	72	P	08	09.22	-1.4
	1.1s	66.00nm		5.5mb		
Z	21s	2.25um		5.4Msz		
		S	17	52.00		
MAW	74.46	164	eP	08	11.00	0.8
ALO	74.60	331	eP	08	11.00	-0.6
	1.2s	42.19nm		5.3mb		
Z	18s	2.75um		5.6Msz		
ANMO	74.60	331	P	08	11.90	0.3
	1.0s	25.00nm		5.1mb		
Z	18s	2.06um		5.5Msz		
TIC	74.65	72	P	08	10.96	-1.2
KIC	74.71	72	P	08	11.28	-1.2
	0.9s	65.50nm		5.6mb		
LKO	75.92	69	P	08	18.32	-1.1
	1.0s	102.50nm		5.8mb		
HBVT	76.67	359	P	08	24.70	1.8
WNY	76.71	359	P	08	22.80	-0.4
GLA	76.79	324	P	08	24.60	0.7
RSNY	76.88	358	P	08	23.40	-0.7
	1.0s	43.38nm		5.4mb		
Z	20s	2.26um		5.5Msz		
BAR	77.42	323	eP	08	27.00	-0.4
PLM	78.05	323	eP	08	32.00	1.0
TPC	78.24	324	eP	08	33.00	1.1
GLD	78.33	335	P	08	33.00	0.6
	1.0s	70.00nm		5.6mb		
GOL	78.34	334	P	08	32.00	-0.6
	1.0s	50.00nm		5.5mb		
Z	18s	0.87um		5.1Msz		
RVR	78.81	323	eP	08	36.00	1.0
CBM	79.32	3	P	08	37.80	0.4
PAS	79.34	323	eP	08	38.00	0.1
		ePP	11	53.00		
		eSKS	18	40.00		

			eSS	24	08.00	
			eSSS	27	40.00	
			eLg	30	04.00	
			eLR	34	10.00	
MWC	79.34	323	eP	08	40.00	1.9
GSC	79.56	324	eP	08	39.00	-0.1
SBB	79.59	323	eP	08	38.00	-1.3
MSU	80.03	329	P	08	42.00	0.2
CLC	80.36	324	eP	08	43.00	-0.4
ABL	80.43	322	P	08	44.70	0.8
SYP	80.57	322	eP	08	45.00	0.4
ISA	80.68	323	eP	08	44.00	-1.1
DUG	81.71	330	P	08	52.50	2.1
	1.0s	22.50nm		5.1mb		
RSSD	81.80	337	P	08	50.50	-0.4
PR1	82.17	322	ePc	08	53.20	0.3
FR1	82.34	323	ePc	08	54.00	0.4
BW06	82.57	333	P	08	55.50	0.5
	1.0s	9.00nm		4.8mb		
SEK	82.64	119	eP	08	56.00	0.3
	1.0s	35.00nm		5.4mb		
LLA	82.68	322	ePc	08	56.00	0.6
PRS	82.68	322	ePc	08	56.00	0.6
BFS	82.78	117	iPc	08	55.50	-1.0
	0.7s	47.95nm		5.7mb		
KVN	83.17	326	P	08	57.50	-0.6
PRY	83.28	118	eP	08	58.50	-0.6
	1.1s	27.03nm		5.2mb		
		i	09	10.80		
CMB	83.49	324	ePc	08	59.00	0.3
GCC	83.54	322	eP	08	59.40	-0.3
ARN	83.54	322	P	09	01.20	1.4
MHC	83.59	322	eP	09	01.00	0.8
SNZO	84.09	224	P	09	12.00	9.4X
		PP	12	20.00		
		SKS	19	36.00		
		SS	25	08.00		
BRK	84.32	322</				

02d 14h

GUA	141.27	249	ePKP	16 01.00	-2.5X
	1.0s	120.00nm			
GUMO	141.33	249	ePKP	16 02.00	-1.6
KOD	144.15	122	ePKP	16 07.20	-1.6
BOM	145.72	105	ePKP	16 10.60	-0.4
		ePP	16 30.10		
GBA	146.34	117	PKPd	16 13.10	1.0
	0.9s	48.20nm			
POO	146.37	106	iPKP	16 12.00	-0.1
IPM	151.32	166	ePKPd	16 22.90	3.0X
		e	16 35.60		
NDI	153.35	90	ePKP	16 20.00	-2.4X
CHJJ	154.18	286	ePKP	16 27.30	4.0X
NIJ	154.18	289	ePKP	16 25.00	1.7
MAT	154.82	287	(PKP)	16 26.00	1.8
IIDJ	155.04	285	ePKP	16 28.50	4.0X
MTMJ	155.14	287	ePKP	16 32.30	7.6X
GKN	159.39	97	PKP	16 30.98	0.7
DMN	159.65	98	PKP	16 31.30	0.6
	1.3s	28.00nm			
KKN	159.86	98	PKP	16 31.80	0.9
PKI	159.89	99	PKP	16 30.70	-0.4
	1.2s	22.00nm			
GUN	160.40	98	PKP	16 33.40	1.8
CHTO	164.02	148	ePKP	16 35.10	0.1
HKC	168.28	210	ePKP	16 40.00	1.8
SSE	168.61	266	PKP	16 36.00	-2.2X
BJI	170.08	320	ePKP	16 40.00	1.2
	2.0s	55.00nm			
KMI	171.22	148	PKP+	16 40.00	-0.1
LZH	175.21	44	PKP	16 42.00	0.8
		sPKP	17 07.00		

S.D. = 1.1 on 113 of 146 obs.

* APR 02, 1990 14h 41m 47.92±0.56s
 49.245 N ±10.5km 156.322 E ±10.9km
 DEPTH = 33.0km (normal)
 4.9mb (30 obs.) 5.1msz (1 abs.)
 KURIL ISLANDS (221)

KUSJ	10.13	237	eP	44 11.10	-2.9X
		eS	45 57.00		
ASAJ	10.70	247	P	44 23.70	1.8X
HOJ	11.38	238	eP	44 29.60	-1.5X
		eS	46 30.40		
MRRJ	12.62	243	eP	44 47.20	-0.6X
NIJ	17.36	233	P	45 50.00	0.9X
CHJJ	18.28	230	P	46 03.00	2.5X
MAT	18.31	233	eP	45 59.00	-1.8X
		(S)	46 40.00		
MTMJ	18.49	234	eP	46 04.50	1.4X
TSRJ	20.24	235	P	46 23.00	0.1X
FBA	32.87	41	iP	48 20.60	0.2
	0.9s	1.10nm			3.8mb X
YKA	47.63	39	eP	50 22.20	0.0
	0.8s	1.70nm			4.1mb
KMI	47.81	260	eP	50 24.50	0.1
DAG	54.22	359	iPd	51 09.90	-2.0
	0.8s	4.48nm			4.5mb
	20s	1.70um			5.1msz
	N 20s	0.71um			
	E 20s	0.43um			
CHTO	54.78	258	iPc	51 17.50	0.8
	1.2s	22.92nm			5.1mb
GUN	56.92	276	P	51 31.82	-0.7
	0.4s	7.00nm			5.0mb
KKN	57.39	276	P	51 35.04	-0.6
	0.5s	9.00nm			5.1mb
PKI	57.45	276	P	51 35.72	-0.5
	0.6s	6.00nm			4.8mb
DMN	57.63	276	P	51 36.24	-1.1
	0.4s	5.00nm			4.9mb
GKN	57.66	277	P	51 37.10	-0.4
LRM	57.99	56	eP	51 44.40	4.7X
FRB	61.97	21	eP	52 04.00	-2.4
NB2	66.53	342	P	52 34.60	-1.6
	0.5s	1.10nm			4.2mb
HYB	69.07	273	eP	52 53.00	0.4
WB5	71.53	202	eP	53 07.00	-0.4
WRA	71.60	202	Pd	53 07.90	0.1
	0.9s	1.70nm			4.1mb
GBA	72.58	271	Pd	53 13.90	0.1
	0.9s	6.00nm			4.6mb
KHC	76.89	336	P	53 38.50	0.4
	Z 16s	1.87um			5.5msz X
	N 16s	1.10um			

DOU	78.11	342	Pc	53 39.60	-5.1X
KBA	78.83	335	iPd	53 50.00	1.1
	0.8s	27.60nm			5.3mb
		i	53 53.50		
		i	54 03.40		
CDF	79.12	340	eP	53 50.30	-0.1
	0.8s	10.75nm			4.9mb
OGA	79.64	337	eP	53 54.00	0.6
	0.7s	9.00nm			4.9mb
HAU	79.71	340	eP	53 53.60	0.1
	0.8s	6.70nm			4.7mb
BSF	79.77	340	eP	53 53.80	-0.2
	0.8s	6.70nm			4.7mb
FLN	80.34	345	iPc	53 56.80	0.0
	0.8s	16.10nm			5.1mb
LDF	80.44	344	iPc	53 57.30	-0.1
	1.0s	32.00nm			5.3mb
GRR	80.77	345	iPc	53 59.50	0.4
	0.8s	28.20nm			5.3mb
SKO	80.89	328	eP	54 04.70	4.9X
LOR	80.95	341	eP	54 00.20	0.1
	0.8s	9.40nm			4.8mb
VAY	81.06	327	eP	54 00.50	-0.2
LPF	81.15	345	iPc	54 01.50	0.4
	1.0s	24.00nm			5.2mb
LBF	81.19	341	eP	54 01.60	0.2
	0.8s	5.35nm			4.6mb
SSF	81.22	342	eP	54 01.70	0.2
	0.9s	8.20nm			4.7mb
AVF	81.51	342	eP	54 03.50	0.5
	0.8s	8.05nm			4.8mb
SMF	81.55	341	eP	54 03.70	0.5
	0.8s	9.40nm			4.9mb
LPL	81.97	339	iPc	54 06.70	1.0
	0.6s	12.65nm			5.1mb
LPG	81.98	339	iPc	54 06.80	0.9
	0.6s	14.45nm			5.2mb
MAF	82.21	342	iPc	54 07.50	0.8
	0.9s	10.65nm			4.9mb
TCF	82.22	342	eP	54 07.30	0.5
	0.9s	8.20nm			4.8mb
MFF	82.37	344	iPc	54 08.20	0.7
	0.8s	10.75nm			5.0mb
PGF	84.19	336	eP	54 17.20	0.2
	0.6s	14.45nm			5.3mb

S.D. = 0.8 on 38 of 50 obs.

* APR 02, 1990 14h 50m 00.44±3.38s
 43.988 N ±21.9km 7.150 E ±13.4km
 DEPTH = 10.0km (geophysicist)
 NEAR SOUTH COAST OF FRANCE (379)

STV	0.29	26	P	50 06.60	0.1
		S	50 14.81		
ENR	0.31	39	P	50 07.12	0.2
		S	50 15.42		
PZZ	0.52	356	P	50 10.40	-0.6
		S	50 21.98		
ROB	0.60	59	P	50 12.45	-0.2
		S	50 23.73		
FIN	0.79	73	P	50 15.63	-0.3
		S	50 28.96		
RRL	0.97	344	P	50 18.50	-0.5
LSD	1.47	0	P	50 28.34	1.1

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

* APR 02, 1990 14h 52m 47.93±1.93s
 32.817 S ±5.3km 71.809 W ±16.7km
 DEPTH = 10.0km (geophysicist)
 NEAR COAST OF CENTRAL CHILE (135)

IHA	0.25	146	eP	52 54.50	1.2
		iS	53 05.00		
LCCH	0.69	163	iPc	53 01.10	-0.4
		iS	53 15.00		
ROCH	0.69	103	iPc	53 01.50	-0.2
		iS	53 16.50		
JACH	1.03	83	iPc	53 06.00	-1.5
		iS	53 24.50		
TACH	1.11	139	iPd	53 08.50	-0.2
		iS	53 27.20		
SAN	1.15	124	eP	53 10.00	0.5
		iS	53 29.00		
PCH	1.35	127	ePd	53 13.30	0.5
		iS	53 38.50		
FCH	1.37	112	iPc	53 12.70	-0.7

CHCH	1.48	139	eP	53 13.60	-1.0
		iS	53 14.70		
		i	53 41.00		
RTBS	2.30	61	ePc	53 27.50	1.0
		S	54 00.20		
RTCB	2.88	63	iP	53 35.10	0.3
		eS	54 17.00		
RTCV	2.93	72	e(P)	53 37.00	1.6
ZON	2.94	65	eP	53 36.00	0.4
RTLL	3.20	63	ePd	53 38.50	-0.8
CFA	3.26	69	eP	53 40.00	-0.1
		eS	54 51.00		
RTRS	3.31	38	ePc	53 40.30	-0.6

S.D. = 0.9 on 16 of 16 obs.

% APR 02, 1990 15h 10m 07.10±0.68s
 44.402 N ±6.8km 7.386 E ±6.1km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.0 (GEN).

STV	0.16	196	P	10 10.94	0.0
		S	10 12.99		
ENR	0.18	172	P	10 10.94	-0.2
		S	10 13.35		
PZZ	0.23	297	P	10 12.52	0.4
		S	10 16.17		
ROB	0.36	107	P	10 14.83	0.2
		S	10 20.14		
FIN	0.62	108	P	10 19.55	-0.1
RRL	0.67	321	P	10 20.21	-0.4

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

? APR 02, 1990 15h 11m 40.12±1.80s
 33.120 S ±7.9km 71.686 W ±17.0km
 DEPTH = 10.0km (geophysicist)
 NEAR COAST OF CENTRAL CHILE (135)

IHA	0.10	22	eP	11 43.00	0.2
		iS	11 53.10		
LCCH	0.37	165	iPd	11 49.00	1.3
ROCH	0.59	76	iPd	11 50.00	-2.1X
		iS	12 05.00		
TACH	0.82	131	iPc	11 56.00	0.0
LNV	0.86	165	iPc	11 55.10	-1.6
		iS	12 19.20		
SAN	0.92	111	eP	11 57.50	-0.2
		i	12 18.00		
PCH	1.10	117	iPc	12 00.50	-0.4
		iS	12 24.00		
CHCH	1.18	134	eP	12 03.00	0.7
FCH	1.19	100	iPd	11 56.00	-6.5X
		iS	12 24.00		
ZON	2.99	59	eP	13 25.00	56.5X

S.D. = 1.1 on 7 of 10 obs.

* APR 02, 1990 16h 04m 21.06±0.81s
 2.745 N ±16.5km 126.866 E ±26.4km
 DEPTH = 33.0km (normal)
 4.9mb (9 obs.)
 MOLUCCA PASSAGE (266)

WB5	23.66	162	eP	09 30.00	-0.6
WRA	23.71	162	Pc	09 31.00	-0.1
	0.6s	4.90nm			4.2mb
ASPA	27.13	166	eP	10 04.00	0.7
	0.5s	7.00nm			4.6mb
CHTO	31.65	302	eP	10 44.30	0.6
	0.5s	2.30nm			4.3mb
MAT	35.22	16	(P)	10 32.00	-42.5X
BJI	38.37	347	eP	11 41.00	0.1
	1.0s	61.00nm			5.4mb
GUN	46.41	307	P	12 47.36	0.3X
	0.6s	30.00nm			5.4mb
PKI	46.65	306	P	12 48.42	-0.5
	0.7s	8.00nm			4.8mb
KKN	46.85	306	P	12 50.32	0.0
	0.6s	14.00nm			5.1mb
DMN	46.91	306	P	12 51.00	0.1
	0.8s	19.00nm			5.1mb
GKN	47.45	306	P	12 54.62	-0.4
	0.5s	6.00nm			4.8mb

S.D. =

DEPTH = 33.0km (normal)					NEO	1.94	73	ePn	33	03.50	0.0		0.6s	157.00nm	5.4mb	
SAN JUAN PROVINCE, ARGENTINA (137)					FNA	2.06	11	eP	33	05.80	0.4	PKI	15.79	106 P	09 52.92 -2.1	
								iS	33	37.40			0.7s	204.00nm	5.4mb	
RTLL	0.15	14	iPc	35 06.90 -0.1	OHR	2.35	359	ePn	33	09.50	0.0	GUN	16.03	105 P	09 55.96 -2.1	
RTCB	0.25	267	iPd	35 09.00 1.0	ATH	2.39	108	ePg	33	14.50	4.4X		0.4s	42.00nm	4.9mb	
			eS	35 20.10	THE	2.49	41	eP	33	11.40	0.0	KER	17.66	280 eP	10 19.00 0.7	
CFA	0.27	120	iPd	35 08.00 -0.2	PAIG	2.49	61	eP	33	12.50	1.1	HYB	18.22	147 eP	10 24.00 -1.3	
			eS	35 19.30				eS	33	42.30			1.2s	114.30nm	4.9mb	
RTCV	0.39	183	ePd	35 10.00 0.2	PLG	2.58	50	ePn	33	11.70	-1.1			i	10 27.00	
			eS	35 22.50	VLI	2.63	140	ePb	33	17.00	3.6X			eS	14 00.00	
RTBS	0.82	257	eP	35 15.00 -0.9	LCI	2.73	306	P	33	20.00	5.1X	TAB	18.50	291 eP-	10 30.00 1.3	
			eS	35 30.60	SOH	2.83	42	eP	33	17.20	0.9	SLY	18.96	284 ePc	10 35.00 0.8	
S.D. = 1.0 on 5 of 5 obs.								eS	33	54.70				e	10 53.00	
* APR 02, 1990 18h 19m 51.49±0.63s					KNT	2.87	33	eP	33	16.50	-0.4			eS	14 19.00	
33.405 N ±13.1km 68.923 E ±11.6km					VAY	2.88	27	ePn	33	17.70	0.7			eLQ	17 17.00	
DEPTH = 33.0km (normal)					OUR	2.89	56	eP	33	18.20	1.0	BHD	19.99	277 iPc	10 46.00 -0.1	
4.4mb (12 obs.)					SRS	3.17	41	eP	33	21.50	0.5			iS	14 30.00	
AFGHANISTAN (709)					SKO	3.24	8	ePn	33	18.50	-3.6X			eLQ	17 33.00	
MAIO	8.27	293	eP	22 14.00 21.8X	ROI	3.42	285	P	33	25.80	1.1	RYD	20.74	252 iPd	10 35.50 -18.4X	
			eS	23 52.00	KKB	3.55	28	iP	33	27.00	0.6	MSL	20.88	286 ePc	10 54.00 -1.3	
NDI	8.53	121	iPc	22 00.20 4.5X	MMB	3.59	37	ePc	33	27.00	-0.1			e	10 57.50 13km	
	0.7s	30.82nm		5.5mb X	ORI	3.64	292	P	33	27.00	-0.8			eS	14 35.00	
		eS	23 40.00		CSI	3.68	287	P	33	28.10	-0.3			eLQ	18 01.50	
GKN	14.55	108 P	23 17.86 0.9		CZI	3.70	279	P	33	28.30	-0.3	GBA	21.21	155 Pd	11 00.30 1.6	
	0.5s	25.00nm	5.0mb		MMN	3.93	288	P	33	32.20	0.4		1.2s	34.50nm	4.6mb	
DMN	15.09	108 P	23 24.06 -0.2		RZN	4.17	44	eP	33	35.00	-0.4	KOD	24.36	158 eP	11 35.20 5.0X	
	0.9s	42.00nm	4.7mb		MGR	4.32	290	P	33	37.00	-0.4			eS	16 00.00	
KKN	15.15	107 P	23 24.48 -0.5		SGO	4.63	295	P	33	43.00	1.1	KMSA	24.72	245 eP	11 32.70 -0.6	
	0.6s	81.00nm	5.1mb		BSS	5.07	295	P	33	48.60	0.5	LZH	29.29	74 P	12 17.50 2.1	
PKI	15.35	108 P	23 27.18 -0.5		DUI	5.68	303	P	33	56.00	-0.8		2.0s	37.00nm	4.8mb	
	0.9s	62.00nm	4.9mb		SDI	6.13	301	P	33	58.00	-5.0X		Z	18s	0.80um	4.4Msz
GUN	15.58	106 P	23 30.06 -0.6		S.D. = 1.1 on 31 of 36 obs.							N	13s	0.90um		
	0.6s	38.00nm	4.7mb		? APR 02, 1990 19h 00m 20.78±0.95s									i	13 07.00 251kmX	
HYB	18.12	149 eP	24 02.00 -0.4		44.344 N ±10.2km 7.297 E ±10.2km									eS	17 17.50	
		eS	27 49.00		DEPTH = 9.1km (geophysicist)									sS	17 42.00	
GBA	21.18	157 Pd	24 36.30 -0.1		NORTHERN ITALY (545)							CHTO	30.91	110 eP	12 30.80 1.1	
	1.1s	7.00nm	4.0mb		ML 1.5 (GEN).									pP	12 36.00 18km	
CHTO	30.49	111 e(P)	26 05.70 1.9		STV	0.10	169	P	00	23.54	0.0	KMI	31.03	96 eP	12 32.50 1.5	
	1.0s	1.75nm	3.8mb					S	00	25.29		KMI	31.03	96 Pc	12 37.00 6.0X	
SUF	39.71	331 iP	27 23.50 1.5		ENR	0.15	143	P	00	24.14	-0.1		3.0s	0.20nm	2.5mb X	
	0.6s	4.00nm	4.4mb					S	00	26.21		Z	12s	0.60um	4.5MszX	
SOD	41.86	337 eP	27 39.00 -0.7		PZZ	0.21	319	P	00	25.43	0.0	N	10s	0.40um		
HFS	44.51	324 eP	28 01.70 0.4					S	00	28.57		E	15s	0.70um		
NB2	45.88	325 P	28 11.60 -0.6		ROB	0.41	97	P	00	29.26	0.0			pP	12 51.00 56kmX	
	0.7s	2.10nm	4.2mb		S.D. = 0.1 on 4 of 4 obs.									S	17 43.00	
WB5	81.84	120 eP	32 12.20 3.2X		APR 02, 1990 19h 06m 10.97±0.22s							CLI	33.80	305 ePc	12 56.00 1.3	
WRA	81.86	120 Pd	32 09.00 -0.1		33.192 N ±6.6km 68.294 E ±4.4km							VR1	34.09	304 eP	12 58.00 0.8	
	0.5s	1.40nm	4.2mb		DEPTH = 12.6km (4 depth phases)							ISR	34.14	303 eP	12 58.50 0.8	
YKA	84.40	2 eP	32 20.10 -1.2		5.1mb (49 obs.) 4.6Msz (5 obs.)							MLR	34.59	303 iPc	13 03.00 1.3	
	0.6s	0.60nm	3.9mb		AFGHANISTAN (709)							VAY	36.93	296 eP	13 21.00 -0.4	
S.D. = 1.0 on 14 of 17 obs.					CENTROID, MOMENT TENSOR (HRV)							SKO	37.75	297 eP	13 26.50 -1.8	
* APR 02, 1990 18h 26m 43.55±0.96s					Dato Used: GDSN							BJI	38.66	66 eP	13 41.00 5.1X	
36.552 N ±7.9km 25.533 E ±11.2km					L.P.B.: 13S, 19C								1.0s	11.00nm	4.5mb	
DEPTH = 10.0km (geophysicist)					Centroid Location:							Z	20s	0.60um	4.4Msz	
DODECANESE ISLANDS (369)					Origin Time 19:06:17.9 1.1							N	12s	0.32um		
ML 3.4 (ATH).					Lat 33.06N 0.11 Lon 68.36E 0.12									ePcP	15 52.00	
APE	0.52	360 ePg	26 54.50 0.5		Dep 15.0 FIX Half-duration 1.5							SPC	38.83	309 eP	13 38.40 0.9	
		eSg	27 02.50		Moment Tensor: Scale 10**16 Nm							PSZ	38.95	307 eP	13 39.60 1.2	
NPS	1.29	177 ePg	27 07.20 -0.2		Mrr=-1.70 0.35 Mtt=2.15 0.57							NUR	39.31	327 iP	13 47.80 6.8X	
SMG	1.56	42 ePg	27 14.50 3.2X		Mff=-0.45 0.45 Mrt=-2.96 1.37									e	28 40.00	
VAM	1.57	224 ePg	27 13.00 1.5		Mrf=-0.79 1.15 Mtf=-4.36 0.38									e	33 16.00	
KAP	1.66	126 ePb	27 12.50 -0.4		Principal Axes:							SUF	39.64	331 iP	13 44.40 0.7	
ATH	2.03	315 ePg	27 23.00 4.9X		T Vol= 5.91 Plg=15 Azm=213								0.6s	7.90nm	4.6mb	
VLI	2.09	275 ePn	27 17.80 -1.3		N -0.50 51 103							SRO	40.01	307 iP	13 47.90 0.9	
S.D. = 1.5 on 5 of 7 obs.					P -5.41 35 314							ZST	40.84	307 eP	13 54.40 0.6	
APR 02, 1990 18h 32m 30.24±0.48s					Best Double Couple:Mo=5.7*10**16							KSP	41.53	311 ePd	14 00.50 1.1	
38.758 N ±5.5km 20.840 E ±4.6km					NP1:Strike=348 Dip=54 Slip=-16									e	15 35.00 516kmX	
DEPTH = 10.2 ± 3.8 km					NP2: 87 77 -142							IPM	41.72	126 ePc	14 07.30 5.9X	
GREECE (364)					MAIO							TDS	41.82	294 P	14 06.00 4.0X	
ML 3.6 (ATH), 3.3 (THE).					8.88 118 iPc							SOD	41.86	337 iP	14 03.00 1.1	
VLS	0.61	199 ePg	32 41.00 -1.6		0.7s 102.74nm							VBY	42.10	303 e(P)	14 05.00 0.8	
EVR	0.77	78 ePg	32 42.50 -2.9		eS							MGR	42.35	295 P	14 06.50 0.2	
IGT	0.87	333 iPd	32 45.90 -1.0		eS							SGO	42.48	296 P	14 08.50 1.1	
AGG	1.19	77 ePd	32 50.70 -1.8		eS							LJU	42.59	304 eP	14 09.00 0.8	
		eS	33 10.40		eS							PRU	42.59	310 ePd	14 08.80 0.6	
KEK	1.25	320 ePg	32 52.20 -1.3		0.4s 69.00nm								1.2s	24.80nm	4.8mb	
KZN	1.71	25 ePg	33 00.60 0.4		eS							Z	18s	1.20um	4.8Msz	
ITM	1.79	151 ePg	33 03.80 2.3		eS							CEY	42.68	303 eP	14 09.40 0.4	
LIT	1.85	43 iPd	33 02.10 -0.2		eS							DUI	42.98	297 P	14 15.00 3.4X	
		eS	33 28.00		eS							VOY	43.03	304 eP	14 11.70 -0.3	
					eS							KEV	43.10	340 eP	14 07.00 -5.1X	
					eS									e	29 30.00	
					eS							KHC	43.20	308 iP	14 13.80 0.6	
					eS									e	14 18.50 16km	

RBL	43.24	305 Pd	14 14.50	0.8	MFF	52.62	306 eP	15 25.40	-1.3
KBA	43.37	305 eP	14 14.50	-0.3		1.0s	33.35nm		5.2mb
	0.9s	12.30nm		4.7mb	GRR	52.77	309 eP	15 26.80	-0.9
		ic	14 15.60	4km		0.8s	25.60nm		5.2mb
SDI	43.45	298 P	14 07.00	-8.4X	LPF	52.95	308 eP	15 27.80	-1.3
CLL	43.63	312 iPd	14 16.90	0.3		1.2s	28.35nm		5.1mb
	1.4s	25.00nm		4.8mb	EKA	53.16	317 P	15 35.00	4.4X
AZI	43.70	298 P	14 17.00	-0.3		1.1s	19.80nm		5.0mb
FVI	43.78	305 P	14 18.50	0.6	BCAO	54.41	249 iPd	15 30.00	-10.3X
ARV	43.89	300 P	14 19.00	0.1		0.8s	7.00nm		
ASS	44.14	300 P	14 23.00	2.0			id	15 43.70	50kmX
MNS	44.21	299 P	14 21.00	-0.5	MAT	56.30	65 (P)	15 53.00	-0.7
HFS	44.37	324 eP	14 22.00	-0.5	DAG	57.31	344 iPc	15 59.90	-0.5
	1.5s	67.80nm		5.3mb		1.0s	15.00nm		5.0mb
Z	18s	1.74um		5.0Msz	MBC	70.72	2 eP	17 29.50	1.4
		LR	31 43.00			0.8s	4.00nm		4.6mb
MOX	44.48	311 eP	14 25.00	1.4	LKO	71.38	269 P	17 31.50	-1.6
	1.4s	57.00nm		5.3mb		0.6s	18.00nm		5.3mb
CTI	44.59	304 P	14 24.50	-0.2	KIC	72.35	266 P	17 37.20	-1.7
PGD	44.73	301 P	14 26.00	0.1	TIC	72.43	266 P	17 37.40	-2.0
GRF	44.74	309 ePd	14 27.20	1.6	IMA	75.93	16 eP	17 59.20	0.3
	1.0s	63.00nm		5.5mb	INK	77.50	8 eP	18 08.00	0.6
Z	19s	0.50um		4.5Msz	FR8	77.53	342 eP	18 07.00	-0.6
FIR	45.08	301 eP	14 29.00	0.6	FBA	78.24	15 eP	18 13.30	1.7
BDI	45.52	301 P	14 31.00	-1.0	WB5	82.19	120 eP	18 34.10	0.8
PIL	45.61	301 P	14 31.50	-1.1	WRA	82.21	120 Pd	18 34.40	1.0
NB2	45.75	325 P	14 32.70	-0.9		0.6s	6.20nm		4.9mb
	1.3s	2.90nm		4.1mb X	ASPA	84.26	123 iPd	18 44.90	1.0
MDI	45.97	304 P	14 35.00	-0.4		0.5s	5.00nm		5.0mb
BOB	46.26	302 P	14 36.00	-1.8	YKA	84.62	1 eP	18 45.40	0.4
VAI	46.61	304 P	14 38.00	-2.5		0.6s	2.40nm		4.6mb
KTD	46.79	309 eP	14 43.05	1.1	FFC	92.04	354 eP	19 21.00	0.3
ABH	47.11	310 eP	14 45.53	1.1		1.2s	18.00nm		5.3mb
CDF	47.39	308 eP	14 46.10	-0.7		S.D. = 1.1	on 111 of 125 obs.		
	1.2s	14.90nm		4.9mb	? APR 02, 1990	19h 08m 09.54±5.35s			
RUP	47.44	309 eP	14 48.10	1.0		18.018 N ±45.5km	66.856 W ±38.8km		
WTS	47.49	313 eP	14 48.00	0.7		DEPTH = 33.0km (normal)			
	1.0s	42.00nm		5.5mb	PUERTO RICO REGION	(90)			
WIT	47.55	314 eP	14 49.00	1.2	PORP	0.21	80 P	08 16.30	0.0
BSF	47.76	307 eP	14 49.00	-0.7	LRS	0.27	2 P	08 17.00	0.0
	1.2s	23.80nm		5.1mb	SJG	0.68	82 iP	08 22.20	-0.5
HAU	48.04	307 eP	14 51.50	-0.3			S	08 28.80	
	1.0s	28.00nm		5.3mb	CPD	0.89	89 P	08 26.00	0.2
MEM	48.06	311 P	14 47.60	-4.2X	LPR	0.98	73 P	08 27.30	0.3
LPG	48.06	304 eP	14 51.50	-0.8		S.D. = 0.4	on 5 of 5 obs.		

CTI 2.52 296 P 41 14.00
e(Sg) 41 21.50
eSn 41 31.80
S.D. = 0.8 on 8 of 11 obs.

* APR 03, 1990 01h 08m 17.01 ± 1.60s
31.736 N ± 12.9km 78.731 E ± 8.4km
DEPTH = 51.2 ± 17.4 km
3.9mb (5 obs.)
TIBET-INDIA BORDER REGION (305)

NDI 3.31 204 ePn 09 10.60 3.0
ePg 09 19.60
eSn 09 45.80
eSg 09 57.50
GKN 6.34 124 P 09 50.40 0.1
0.3s 84.00nm 5.7mb X
DMN 6.90 125 P 09 58.20 -0.1
0.3s 44.00nm 5.7mb X
KKN 6.92 123 P 09 57.90 -0.6
0.5s 193.00nm 6.1mb X
PKI 7.14 124 P 10 00.88 -0.8
0.4s 75.00nm 5.8mb X
GUN 7.29 120 P 10 02.96 -0.8
0.4s 41.00nm 5.6mb X
POO 13.87 200 eP 11 30.00 -2.6
iS 14 33.00
HYB 14.26 181 eP 11 32.00 -5.7X
eS 14 35.00
MAIO 16.58 291 eP 12 07.00 -0.5
GBA 18.09 184 Pc 12 26.90 0.7
0.5s 1.90nm 3.5mb
CHG 22.30 120 eP 13 11.90 0.5
CHTO 22.30 120 eP 13 11.90 0.5
0.8s 3.84nm 3.9mb
MLR 42.73 304 eP 16 11.00 0.1
SUF 45.32 329 iP 16 31.80 0.5
0.5s 1.40nm 4.1mb
NUR 45.40 326 eP 16 33.00 1.1
BCAO 62.45 257 ePd 18 35.00 -2.6
0.5s 8.00nm 5.1mb X
WB5 74.00 126 eP 19 50.20 1.0
WRA 74.02 126 Pc 19 50.40 1.1
0.6s 2.80nm 4.4mb
YKA 85.49 6 eP 20 49.70 -0.5
0.5s 0.40nm 3.8mb
S.D. = 1.4 on 18 of 19 obs.

APR 03, 1990 01h 40m 19.85 ± 0.62s
40.483 N ± 5.7km 23.547 E ± 7.3km
DEPTH = 10.0km (geophysicist)
GREECE (364)

PLG 0.13 215 iPgc 40 23.00 -0.1
MMB 1.11 7 ePg 40 39.00 -1.8
Sg 40 53.00
VAY 1.12 319 ePn 40 41.40 0.6
NEO 1.20 192 ePb 40 42.00 -0.2
KZN 1.37 263 ePb 40 45.00 0.0
KKB 1.43 346 iP 40 45.00 -0.8
iS 41 03.00
RZN 1.49 36 iP 40 46.00 -0.9
iS 41 06.00
RDO 1.65 66 ePb 40 49.50 0.6
eSb 41 10.00
KDZ 1.83 50 eP 40 52.00 0.4
PGB 2.12 12 eP 40 57.00 1.2
VTS 2.12 353 iP 40 57.00 1.0
iS 41 23.00
iSg 42 28.00
S.D. = 1.0 on 11 of 11 obs.

? APR 03, 1990 01h 58m 37.11 ± 3.92s
32.848 S ± 16.4km 71.910 W ± 32.2km
DEPTH = 33.0km (normal)
NEAR COAST OF CENTRAL CHILE (135)

IHA 0.29 128 iP 58 44.10 -0.6
iS 58 55.20
LCCH 0.69 156 iPd 58 50.70 0.3
iS 59 06.50
ROCH 0.77 100 iPd 58 51.00 -0.7
iS 59 07.30
JACH 1.12 82 iP 58 55.50 -1.2
iS 59 15.50
TACH 1.14 135 iP 58 57.20 0.3

LNV 1.18 159 eP 58 56.50 -0.8
iS 59 21.90
SAN 1.21 120 eP 58 58.50 0.7
iS 59 20.00
PCH 1.40 124 iPc 58 02.50 -58.1X
iS 59 27.50
FCH 1.44 110 eP 59 01.50 0.1
iS 59 25.20
CHCH 1.51 136 eP 59 03.00 0.8
iS 59 27.00
ZON 3.03 66 e(P) 59 25.00 1.1
S.D. = 0.9 on 10 of 11 obs.

& APR 03, 1990 02h 18m 20.81s
48.836 N 122.175 W
DEPTH = 1.7km
4.1mb (1 obs.)
WASHINGTON (29)
<SEA>. ML 4.1 (SEA). Felt (V) at
Deming and Nooksock; (LV) at
Bloine, Bow, Lymon, Lynden and
Mount Vernon; (III) Acme,
Bellingham, Custer, Everson,
Glacier, Maple Falls, Sedro
Woolley and Sumas.

MBW 0.19 106 P 18 25.39 0.8
VDB 0.20 14 Pd 18 25.44 0.7
CMW 0.41 175 Pd 18 28.46 -0.6
MCW 0.46 250 Pd 18 29.20 -0.8
HNB 0.51 329 Pd 18 30.27 -0.8
OHW 0.57 205 P 18 31.30 -0.8
S 18 40.48
RPW 0.59 131 Pd 18 31.78 -0.7
SNB 0.66 265 P 18 33.14 -0.9
JCW 0.66 166 Pd 18 33.00 -1.1
PGC 0.86 258 P 18 36.00 -2.1
VGZ 0.87 241 Pc 18 36.23 -2.0
BIB 0.94 308 Pd 18 37.49 -2.0
BLN 0.98 213 Pc 18 38.76 -1.5
BLH 1.00 175 Pd 18 39.74 -0.9
PGW 1.05 196 Pd 18 40.34 -1.1
WPB 1.07 321 Pd 18 39.60 -2.0
HTW 1.07 165 Pd 18 40.26 -1.5
STW 1.21 236 Pc 18 41.99 -2.1
NAB 1.26 289 Pd 18 42.83 -2.2
SPW 1.28 182 P 18 44.88 -0.5
HDW 1.33 207 Pc 18 44.10 -2.0
SHB 1.35 305 Pd 18 44.49 -2.1
GMW 1.35 198 Pc 18 44.73 -1.9
WHB 1.39 339 Pd 18 45.31 -1.9
RMW 1.40 170 Pd 18 46.24 -1.2
NLW 1.44 121 Pd 18 47.15 -0.9
OSD 1.44 226 Pc 18 46.29 -1.8
OBC 1.50 238 P 18 46.68 -2.2
PFB 1.52 261 P 18 46.70 -2.5
OTR 1.63 243 P 18 48.87 -1.8
GSM 1.65 171 ePd 18 50.04 -1.1
MEW 1.67 191 P 18 50.79 -0.4
MGB 1.67 277 Pd 18 49.28 -2.1
OSP 1.70 252 P 18 50.51 -1.1
SMW 1.71 208 P 18 51.53 -0.3
OOW 1.74 231 Pc 18 51.83 -0.4
ETW 1.74 134 P 18 51.77 -0.7
PNT 1.75 73 P 18 52.10 -0.3
GHW 1.80 182 P 18 52.07 -1.0
ALB 1.80 285 Pd 18 51.34 -1.8
DHW2 1.81 117 P 18 53.14 -0.3
WTV 1.87 127 P 18 53.74 -0.5
OBH 1.89 218 P 18 53.84 -0.6
TWW 1.91 152 P 18 55.37 0.5
FMW 1.94 170 Pd 18 54.50 -0.8
CPW 1.97 200 P 18 54.43 -1.3
LON 2.10 173 iPc 18 57.40 -0.2
LMW 2.17 182 P 18 58.22 -0.4
SAW 2.17 120 P 18 59.53 0.9
WPW 2.18 169 P 18 58.64 -0.1
APW 2.21 188 P 18 58.26 -0.8
EBG 2.21 150 P 18 59.19 0.1
ONR 2.24 209 P 18 58.80 -0.6
EPH 2.28 130 P 19 01.61 1.5
NAC 2.29 156 P 19 00.65 0.3
GLK 2.31 170 P 19 01.12 0.5
KOSW 2.38 180 P 19 01.64 0.1
VTG 2.39 141 P 19 02.93 1.3
CZM 2.41 185 P 19 01.80 -0.2

BMW 2.47 197 P 19 02.23 -0.6
TDL 2.49 181 P 19 03.01 -0.2
ERK 2.53 183 P 19 03.60 -0.2
BYW 2.55 142 P 19 04.45 0.5
YAKW 2.57 154 P 19 04.39 0.2
MXC 2.59 150 P 19 04.26 -0.3
STD 2.60 181 P 19 04.98 0.2
SOSW 2.60 179 P 19 05.30 0.5
YEL 2.63 180 P 19 05.67 0.5
REMW 2.64 180 P 19 06.50 1.1
ESD 2.64 180 P 19 05.87 0.5
FLZ 2.64 183 P 19 05.48 0.1
SHW 2.65 181 P 19 05.95 0.5
HSR 2.66 180 P 19 06.31 0.6
JLK 2.69 180 P 19 06.73 0.7
ASR 2.72 171 P 19 07.04 0.6
RVW 2.72 188 P 19 06.31 0.0
CDFW 2.72 178 P 19 06.95 0.5
WAH2 2.73 139 P 19 07.22 0.8
CRF 2.75 136 P 19 08.48 1.7
MDW 2.76 143 P 19 06.58 -0.3
WRD 2.77 131 P 19 09.32 2.3
LVP 2.77 183 P 19 07.54 0.3
BRVW 2.78 147 P 19 06.79 -0.5
DPW 2.82 109 P 19 06.84 -1.0
NLO 2.88 198 P 19 08.23 -0.5
GBL 2.89 140 P 19 09.19 0.4
GULW 2.94 172 P 19 10.14 0.5
RSW 3.01 143 P 19 10.03 -0.5
GL2 3.02 162 P 19 11.01 0.3
WLV 3.10 140 P 19 12.28 0.6
APM 3.12 174 P 19 13.08 1.0
PRW 3.12 146 P 19 11.82 -0.2
VLMW 3.30 178 P 19 16.09 1.4
KMOR 3.32 196 P 19 13.72 -1.3
PGO 3.38 183 P 19 16.40 0.7
PATW 3.38 150 P 19 14.78 -1.0
VLL 3.39 174 P 19 17.10 1.1
NEW 3.41 98 eP 19 14.20 -2.0
VGB 3.46 163 eP 19 15.00 -1.8
VFP 3.55 172 P 19 19.00 0.7
TDH 3.56 176 P 19 19.72 1.3
WG2 3.60 140 P 19 25.01 6.2
VBEM 3.80 174 P 19 22.82 1.0
VTHM 3.82 163 P 19 21.91 -0.1
LNOR 3.97 137 P 19 23.60 -0.6
EDM 7.09 48 P 20 06.00 -2.1
LRM 7.26 111 eP 20 07.50 -3.3
KVN 10.21 162 eP 20 54.00 2.3
FFC 13.80 57 eP 21 35.00 -4.7
FFC 13.80 57 eP 21 47.00 7.3
0.6s 14.00nm 5.0mb X
YKA 14.32 14 eP 21 43.30 -4.1mb
0.8s 3.30nm
111 obs. associated

APR 03, 1990 02h 55m 17.32 ± 0.39s
13.095 N ± 7.3km 124.864 E ± 8.4km
DEPTH = 30.0km (2 depth phases)
4.8mb (14 obs.)

LUZON, PHILIPPINE ISLANDS (249)
PGP 3.83 277 ePd 56 18.50 2.9
eS 56 59.00
CVP 5.44 328 eP 56 37.00 -1.5
eS 57 35.00
PIP 6.61 322 ePc 56 57.50 2.5
PCI 14.78 200 ePc 58 53.50 7.4X
MKS 18.97 197 e(P)d 59 41.50 2.6
GUMO 19.47 86 e(P) 59 46.50 1.6
Z 22s 0.22um
e 19 27.50
PJG 19.47 86 e(P) 59 37.80 -7.1X
KMI 24.04 303 Pc 00 32.50 1.3
pP 00 40.50 28km
CHG 25.55 286 eP 00 55.40 10.0X
CHTO 25.55 286 e(P) 00 45.10 -0.2
0.6s 0.70nm 3.4mb X
pP 00 54.00 32km
MTN 26.51 166 e(P) 00 53.00 -1.2
e 00 57.00 14kmX
BJI 27.91 346 eP 01 07.50 0.7
LZH 29.69 324 eP 01 23.00 -0.1
2.0s 23.00nm 4.6mb
Z 16s 0.40um 4.1mszX
WB5 34.08 164 eP 01 59.90 -1.5
i 04 38.20

03d 03h

WRA 34.13 164 Pd 01 59.90 -2.0
0.6s 1.80nm 4.2mb
ASPA 37.59 166 iPd 02 30.80 -0.4
0.6s 22.00nm 5.2mb
iPcP 04 48.40
eS 08 19.00
CTA 39.12 147 iPd 02 44.00 0.0
1.0s 17.50nm 4.8mb
GUN 39.19 298 P 02 44.42 -0.6
1.0s 64.00nm 5.3mb
PKI 39.51 298 P 02 46.54 -1.2
0.7s 13.00nm 4.8mb
KKN 39.68 298 P 02 47.80 -1.1
0.9s 25.00nm 4.9mb
DMN 39.78 298 P 02 48.90 -0.9
GKN 40.28 298 P 02 52.62 -1.2
HYB 44.80 282 eP 03 30.50 -0.2
GBA 46.09 276 Pd 03 40.40 -0.4
0.6s 9.10nm 4.9mb
ADE 49.57 165 iPc 04 08.30 0.6
0.8s 31.34nm 5.4mb
BWA 52.29 155 eP 04 30.50 2.1
CAN 53.31 155 eP 04 38.80 2.9X
MAIO 62.57 304 eP 05 41.00 -0.2
BRW 73.96 19 eP 06 52.30 1.0
IMA 74.66 25 eP 06 56.50 0.9
1.0s 6.30nm 4.6mb
PMR 76.69 29 eP 07 06.70 -0.3
SOD 81.17 337 iP 07 31.20 0.0
INK 82.18 22 eP 07 37.00 0.6
SUF 82.43 333 iP 07 37.80 0.0
0.7s 11.10nm 5.0mb
MBC 83.27 13 eP 07 42.50 0.5
NUR 83.68 331 eP 07 44.00 -0.2
MLR 86.92 316 eP 08 15.00 14.1X
HFS 88.92 332 eP 08 07.80 -2.3
0.4s 1.70nm 4.7mb
NB2 89.63 334 P 08 11.80 -1.7
0.9s 2.50nm 4.5mb
YKA 91.74 24 eP 08 23.30 0.2
0.6s 1.30nm 4.5mb
ZOBO 167.04 106 PKP 15 22.20 -0.5
S.D. = 1.3 on 36 of 41 obs.

* APR 03, 1990 03h 29m 50.30±0.61s
42.437 N ± 5.2km 13.078 E ± 5.6km
DEPTH = 10.0km (geophysicist)

CENTRAL ITALY (381)

AQU 0.25 109 P 29 54.90 -0.8
eSg 29 58.60
MNS 0.30 260 P 29 55.20 -1.4
AZI 0.52 149 P 30 00.50 -0.4
eSg 30 07.50
RMP 0.69 204 P 30 05.10 1.2
eSg 30 17.00
ASS 0.70 334 P 30 04.50 0.3
iSg 30 15.90
RDP 0.73 202 P 30 04.90 0.2
SDI 0.91 143 P 30 08.00 0.2
eSg 30 21.00
ARV 1.07 355 P 30 10.80 0.4
eSg 30 26.20
DUI 1.29 127 P 30 14.50 0.3
S.D. = 0.9 on 9 of 9 obs.

* APR 03, 1990 04h 33m 09.68±0.98s
9.947 S ± 8.9km 119.396 E ± 12.2km
DEPTH = 33.0km (normal)
3.8mb (2 obs.)

SUMBA ISLAND REGION (287)

MKS 4.70 1 iPc 34 20.00 -0.1
e(S) 35 14.50
KNA 10.80 123 eP 35 45.00 -0.2
eS 37 38.00
MBL 11.16 178 iPd 35 49.20 -0.8
eS 37 47.00
MTN 11.86 105 eP 35 59.00 -0.5
eS 38 04.00
NANU 13.08 196 eP 36 15.00 -0.8
0.2s 7.00nm 5.4mb X
eS 38 32.00
MEKA 16.60 183 eP 37 08.00 6.4X
eS 40 00.00
WB5 17.50 126 eP 37 13.90 0.9
eS 40 17.50

WRA 17.51 126 Pc 37 16.80 3.7X
0.8s 2.10nm 3.3mb
MRWA 19.43 189 eP 37 38.00 1.6
eS 40 57.00
ASPA 19.44 136 eP 37 41.00 4.4X
0.6s 11.00nm 4.3mb
eS 41 08.60
S.D. = 1.1 on 7 of 10 obs.

? APR 03, 1990 06h 02m 10.55±1.65s
31.248 S ± 37.0km 68.859 W ± 17.3km
DEPTH = 110.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.24 168 eP 02 26.50 -0.2
ZON 0.33 153 iPc 02 26.80 0.1
eS 02 38.00
RTLL 0.34 104 iPc 02 26.80 0.0
CFA 0.64 124 iPc 02 28.80 0.1
eS 02 42.00
RTBS 0.65 231 ePc 02 28.80 0.1
S 02 41.00
RTCV 0.67 156 iPd 02 28.90 -0.1
S.D. = 0.1 on 6 of 6 obs.

* APR 03, 1990 06h 48m 23.60±0.90s
9.540 S ± 11.1km 110.663 E ± 13.3km
DEPTH = 33.0km (normal)
3.8mb (3 obs.)
SOUTH OF JAVA (282)

TRT 2.67 47 iPc 49 05.70 0.5
iS 49 47.80
KHKI 5.02 77 eP 49 48.70 10.0X
eS 51 07.00
e 52 56.00
NANU 13.76 161 eP 51 38.20 -0.6
0.3s 5.00nm 4.9mb X
eS 54 23.00
MBL 14.54 144 eP 51 54.00 5.0X
eS 54 50.00
MTN 20.34 101 eP 53 00.00 0.0
WRA 25.09 117 P 53 47.00 0.0
0.5s 0.80nm 3.6mb
WB5 25.09 117 eP 53 44.00 -3.0X
CHTO 30.45 338 e(P) 54 34.50 -1.2
0.6s 0.70nm 3.6mb
BUL 79.36 251 iPc 00 29.80 1.3
1.0s 6.00nm 4.5mb
S.D. = 1.1 on 6 of 9 obs.

APR 03, 1990 07h 33m 25.65±0.10s
5.843 S ± 2.3km 147.664 E ± 2.9km
DEPTH = 88.2km (14 depth phases)
5.8mb (51 obs.)

EAST PAPUA NEW GUINEA REGION (207)

FAULT PLANE SOLUTION: P-Waves

NP1: Strike= 40 Dip=55 Slip= 145

NP2: 152 62 41

Principal Axes:

T Vol= 2.09 Plg=48 Azm= 9

P 4 274

Comment: The focal mechanism is

poorly controlled and

corresponds to strike-slip

faulting with a large reverse

component. The preferred fault

plane is not determined.

RADIATED ENERGY

No. of sto: 4 Focal mech. F

Energy 1.8±0.7*10**12 Nm

MOMENT TENSOR SOLUTION

Dep 87 No. of sto: 16

Moment Tensor; Scale 10**18 Nm

Mrr= 0.73 Mtt= 0.82

Mff=-1.55 Mrt= 0.90

Mrf=-1.22 Mtf=-0.49

Principal axes:

T Vol= 2.09 Plg=45 Azm= 27

N 0.00 36 164

P -2.09 23 272

Best Double Couple: Mo=2.1*10**18

NP1: Strike= 48 Dip=39 Slip= 159

NP2: 155 77 53

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN

L.P.B.: 18S, 49C

Centroid Location:

Origin Time 07:33:32.7 0.2

Lat 6.02S 0.03 Lon 147.49E 0.02

Dep 102.1 1.5 Half-duration 4.5

Moment Tensor; Scale 10**18 Nm

Mrr= 0.70 0.04 Mtt= 0.71 0.06

Mff=-1.42 0.06 Mrt= 1.11 0.03

Mrf=-0.88 0.03 Mtf=-0.69 0.05

Principal Axes:

T Vol= 2.17 Plg=43 Azm= 24

N -0.39 43 173

P -1.78 16 279

Best Double Couple: Mo=2.0*10**18

NP1: Strike= 51 Dip=47 Slip= 157

NP2: 157 73 45

LAT 1.04 219 iPc 33 48.20 2.2
PMG 3.58 188 iPc 34 19.70 -0.3
eS 35 00.00
KDB 3.64 188 P 34 20.60 -0.2
MNDI 4.00 265 eP 34 30.00 4.0X
RAB 4.78 70 iPd- 34 37.50 0.8
HNR 12.68 107 eP- 36 24.00 -0.1
eS 38 48.00
CTA 14.23 185 iPc 36 44.80 0.5
0.8s 302.24nm 5.6mb
Z 18s 18.56um 3.4msz X

i(PP) 36 55.50
i(PPP) 37 04.50
e 37 20.00
iS 39 24.00
ePcP 42 00.00
iScS 49 03.00
CTAO 14.23 185 iPc 36 44.61 0.3
OIS 16.59 207 iPd 37 13.50 -0.7
eS 40 08.00
MTN 17.73 246 eP 37 29.00 0.7
WB5 19.02 222 iPd 37 41.80 -1.7
eS 41 10.80
WRA 19.08 222 Pc 37 44.00 -0.2
1.0s 436.90nm 5.7mb
GUA 19.45 352 ePc 37 50.00 2.0
eS 41 27.00
GUMO 19.50 352 eP 37 50.20 1.6
2.3s 7918.92nm 6.6mb
PJG 19.50 352 eP 37 50.50 1.9
RMO 20.56 177 eP 38 00.00 0.6
e 39 10.00
KNA 20.99 241 eP 38 03.00 -0.8
BRS 21.98 168 iPd 38 14.00 0.4
0.6s 21.00nm 4.7mb X
i 38 27.00
e 38 39.00
i 39 03.00
i 39 13.00
iPcP 41 33.70
iS 42 10.00
e(ScS) 45 41.00

ASPA 22.13 215 iPd 38 16.30 1.2
1.2s 1431.00nm 6.2mb
Z 18s 28.16um 5.7msz
iS 42 14.00
LR 47 28.30
iScS 49 26.50

COO 24.92 171 iPd 38 44.40 2.3
DAV 25.51 300 eP 38 46.00 -1.7
CMS 25.57 184 iPc 38 50.20 2.1
e 38 53.00 10kmX
e 45 52.00
RIV 28.04 174 eP 39 27.00 16.5X
eS 44 20.00
CAN 29.36 178 iPd 39 22.70 0.2
i 39 30.20 26kmX
i 39 43.20
iScP 46 01.80

CNB 29.37 177 eP 39 23.00 0.4
e 39 42.00 82km
ADE 30.14 195 iPd- 39 29.30 -0.1
1.1s 182.28nm 5.7mb
MBL 30.96 238 iPd 39 36.70 0.0
TSM 31.20 288 eP 39 47.00 8.2X
TOO 31.64 183 iPc 39 43.30 0.8
e 40 03.00 85km
e 46 10.00
KHKI 31.90 264 ePd 39 43.00 -2.0
QCP 33.30 308 eP 40 10.00 12.9X
KKM 33.54 290 ePd 40 07.50 8.1X

[illegible]

RVR	97.34	57	eP	46	51.00	0.5		CTI	124.83	324	PKP	52	16.50	-0.6	SIV	144.23	128	PKPc	52	51.40	-2.5X
PEC	97.51	57	P	46	51.70	0.4		MEM	125.11	331	PKP	52	18.20	0.9	PLAV	144.95	81	iPKPc	52	53.50	-2.0
	1.3s		18.86nm			5.5mb		RUP	125.18	330	ePKP	52	17.19	-0.4	GUAC	145.15	81	ePKP	52	55.00	-0.7
TNP	97.59	52	P	46	52.10	0.3		SGO	125.18	316	PKP	52	18.00	0.2	LLAV	145.58	80	iPKP	52	55.20	-1.2
	1.2s		9.81nm			5.2mb		GWf	125.35	329	PKP	52	15.89	-2.0	OLLA	145.62	81	iPKPc	52	55.50	-1.0
PLM	97.75	57	eP	46	53.00	0.4		ARV	125.37	321	PKP	52	18.00	-0.1	TIO	145.70	320	iPKPc	52	56.00	-0.2
			e	50	51.00			EKA	125.40	340	PKPc	52	18.40	0.7			i		53	17.50	
NEW	97.80	42	P	46	52.00	-0.3			1.1s	23.50nm							i		53	51.60	
	1.0s		40.88nm			5.9mb		SAL	125.73	324	PKP	52	18.00	-0.7	GUAN	146.76	81	ePKP	52	59.00	0.7
GSC	97.85	55	eP	46	53.00	0.1		AZI	125.78	319	PKP	52	17.50	-1.4	SHGH	147.88	272	ePKP	53	04.00	4.0X
			e	50	18.00			FEL	125.82	327	PKP	52	16.58	-2.5X	LEGH	148.01	271	ePKP	53	04.00	3.8X
BAR	97.88	58	eP	46	54.00	1.0		WLS	125.84	328	PKP	52	16.23	-2.7X	WEGH	148.15	271	ePKP	53	04.50	4.1X
			e	50	40.00			LNV	125.86	140	ePKPc	52	18.50	-0.8	SKI	148.16	66	ePKP	53	01.25	0.9
TPC	98.44	56	eP	46	55.00	-0.5		CDF	125.88	328	PKP	52	16.58	-2.5X	CUM	148.17	80	iPKP	53	02.00	1.6
			e	50	48.00			PGD	125.94	322	PKP	52	19.00	-0.4	NEV	148.37	67	ePKP	53	01.68	1.0
YKA	98.73	28	eP	46	55.20	-0.9		SNF	125.99	332	PKP	52	19.00	-0.1	WIGH	148.43	271	ePKP	53	05.00	4.1X
	1.0s		6.50nm			5.2mb		ECH	126.06	328	PKP	52	17.41	-1.9	MGH	148.82	67	ePKP	53	04.75	3.4X
GLA	99.44	58	eP	47	00.00	-0.1		MNS	126.08	320	PKP	52	18.50	-1.1	BPA	149.05	66	ePKP	53	01.76	0.0
			e	51	01.00			DOU	126.12	331	PKP	52	21.30	1.9X	PAG	149.51	68	ePKP	53	06.81	4.3X
EDM	100.03	37	ePdiff	47	01.90	-0.5			e	11	23.00			SEG	149.56	67	ePKP	53	05.79	3.3X	
LRM	101.05	45	ePdiff	47	07.10	-0.3		MOF	126.30	328	PKP	52	17.84	-2.1	DOG	149.56	68	ePKP	53	07.00	4.5X
SES	101.68	40	ePdiff	47	09.80	0.0		BBS	126.34	327	PKP	52	17.24	-2.7X	BBL	149.83	69	ePKP	53	07.50	4.6X
BW06	103.32	48	Pdiff	47	16.70	-0.9		TACH	126.35	140	ePKP	52	19.70	-0.7	FDf	150.34	70	ePKP	53	09.10	5.4X
	1.0s		5.00nm			5.3mb		CHCH	126.36	140	ePKP	52	20.50	0.1		0.4s	0.95nm				
MSL	105.13	306	ePKP	51	21.00																

DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.9 (BRK).

SAO	0.15	123	iPd	01	48.40	-0.1
			iS	01	50.80	
GCC	0.37	300	iPc	01	52.40	-0.5
MHC	0.50	356	iPd	01	55.60	0.1
			iS	02	03.20	
ARN	0.51	6	iPc	01	55.50	-0.1
PRS	0.54	160	iPd	01	56.00	-0.4
LLA	0.57	113	iPc	01	56.80	-0.2
PCC	0.91	316	ePc	02	01.80	-1.5
PRI	1.03	133	ePc	02	05.00	-0.5
BKS	1.15	334	ePc	02	07.65	0.2
			eS	02	24.55	
BRK	1.15	333	eP	02	07.20	-0.3
			eS	02	23.10	
ZSP	1.22	335	ePd	02	06.80	-1.8
			i	02	08.90	
			eS	02	26.10	
PHAM	1.40	136	eP	02	09.80	-1.9
FRI	1.52	84	eP	02	12.30	-1.1
			iS	02	32.30	
CMB	1.53	39	eP	02	12.10	-1.5
			e	02	13.30	
NWRM	1.91	328	eP	02	16.00	-2.9
BCH	2.06	143	eP	02	19.00	-2.3

16 obs. associated

* APR 03, 1990 11h 29m 44.89±0.49s
53.704 N ±10.8km 160.384 E ±12.6km
DEPTH = 33.0km (normal)
4.5mb (9 obs.)
NEAR EAST COAST OF KAMCHATKA (218)

NIJ	22.13	231	P	34	40.00	1.0
MAT	23.07	231	iPd	34	49.70	1.5
	0.8s	13.43nm				4.5mb
CHJJ	23.12	229	eP	34	54.50	5.8X
MTMJ	23.22	232	P	34	54.80	5.0X
INK	33.28	38	eP	36	21.00	0.2
MBC	36.41	23	eP	36	49.00	1.5
YKA	42.60	43	eP	37	39.40	0.5
	0.6s	1.70nm				4.0mb
EDM	48.26	54	ePd	38	24.50	0.3
FFC	52.48	46	eP	38	56.00	-0.3
	0.8s	7.00nm				4.7mb
CHTO	58.20	258	eP	39	38.00	0.0
	0.8s	0.40nm				3.5mb
SUF	58.50	337	iP	39	39.30	-0.3
	0.7s	11.70nm				5.1mb
NB2	63.00	344	P	40	10.00	-0.3
	0.8s	7.20nm				4.9mb
HFS	63.42	342	eP	40	11.20	-1.8
	0.4s	1.40nm				4.4mb
PRU	72.75	338	eP	41	11.50	0.3
KHC	73.77	338	eP	41	17.00	-0.2
CTA	74.49	194	e(P)	41	21.00	-0.6
			e(PP)	42	51.50	
			e	48	18.00	
GBA	75.00	273	Pc	41	24.70	0.0
	0.9s	6.50nm				4.6mb
WB5	76.64	205	eP	41	32.20	-1.6
WRA	76.71	205	Pd	41	33.70	-0.5
	0.9s	2.40nm				4.2mb

S.D. = 0.9 on 17 of 19 obs.

? APR 03, 1990 11h 38m 29.28±5.89s
3.055 S ±62.4km 139.934 E ±15.6km
DEPTH = 33.0km (normal)
4.0mb (2 obs.)

WEST IRIAN (201)

MNDI	4.82	130	eP	39	41.00	-0.7
MTN	13.06	221	eP	41	35.00	-0.2
			eS	43	26.00	
QIS	17.40	181	eP	42	31.00	-0.3
			e	44	22.00	
WB5	17.58	198	eP	42	33.50	-0.1
WRA	17.65	198	Pd	42	35.60	1.2
	0.6s	6.20nm				3.9mb
ASPA	21.30	195	eP	43	14.10	-1.5
	0.9s	9.00nm				4.2mb
BRS	27.14	154	eP	44	13.00	1.5
			i	46	04.00	

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

? APR 03, 1990 11h 52m 06.23±1.19s
9.938 N ±26.3km 84.842 W ±15.2km
DEPTH = 33.0km (normal)
4.6mb (7 obs.)

COSTA RICA (78)
MD 4.3 (SJR). Felt (IV) at
Portegolpe and (III) at
Filodelfia.

UPA	5.32	100	iPc	53	43.00	17.5X
	1.0s	120.00nm				
TUL	27.71	341	eP	57	52.70	-0.8
	0.7s	6.90nm				4.4mb
		e	57	55.60		
		e	58	33.00		
ZOBO	30.85	147	P	58	06.00	-16.5X
Z	23s	0.12um				3.5mszX
		i	59	50.00		
		LR	08	20.00		
ANMO	31.77	325	eP	58	29.30	-0.7
	1.2s	5.86nm				4.3mb
GOL	34.83	332	eP	58	55.00	-1.5
	0.7s	5.58nm				4.6mb
PLM	37.54	313	eP	59	20.00	0.6
FRI	41.42	316	eP	59	50.20	-1.1
KVN	41.49	320	iP	59	52.20	0.1
PRI	41.64	315	eP	59	54.40	1.1
LLA	42.08	315	eP	59	56.60	-0.2
PRS	42.23	314	eP	59	59.50	1.5
CMB	42.42	317	eP	59	59.90	0.3
		e	00	08.30		
LRM	42.86	332	eP	00	03.10	-0.2
MHC	42.92	315	eP	00	03.80	0.0
GCC	43.01	315	eP	00	05.50	1.1
ORV	43.97	318	eP	00	13.20	1.1
MIN	44.46	319	eP	00	16.30	0.1
WDC	45.18	319	ePc	00	19.80	-2.1
FHC	46.24	318	ePc	00	31.00	0.8
FFC	46.70	346	iPd	00	33.30	-0.4
	0.7s	7.00nm				4.7mb
SCH	47.00	14	eP	00	39.00	2.9
PNT	48.76	330	eP	00	50.00	0.2
	0.6s	6.00nm				4.8mb
EDM	48.89	338	eP	00	49.50	-1.3
YKA	56.71	344	eP	01	47.00	-1.8
	0.4s	2.80nm				4.6mb
INK	66.36	342	eP	02	54.00	0.4
MBC	68.85	352	eP	03	10.00	0.9
	0.9s	5.00nm				4.6mb
TIC	78.89	85	P	04	08.20	-0.4
LIC	78.95	86	P	04	08.60	-0.3
KIC	79.21	85	P	04	10.00	-0.3
GBA	150.74	37	PKPd	12	03.60	11.8X
	1.1s	6.10nm				

S.D. = 1.1 on 27 of 30 obs.

APR 03, 1990 11h 54m 12.13±0.46s
2.829 S ±6.1km 140.352 E ±8.6km
DEPTH = 33.0km (normal)
4.9mb (8 obs.)

NEAR N. COAST OF WEST IRIAN (197)

MNDI	4.67	135	eP	55	23.00	0.7
MTN	13.50	222	eP	57	24.00	0.1
QIS	17.64	182	eP	57	56.00	-21.1X
WB5	17.93	199	eP	58	20.80	0.1
		eS	01	50.00		
WRA	17.99	199	Pd	58	21.10	-0.4
	1.0s	21.60nm				4.2mb
ASPA	21.63	196	iPd	59	01.60	-0.2
	1.1s	49.00nm				4.8mb
BRS	27.16	155	iPd	59	55.00	0.4
LOE	43.07	299	eP	02	11.80	0.8
CHG	46.06	300	eP	02	35.70	0.7
CHTO	46.06	300	eP	02	35.80	0.8
	1.0s	2.20nm				4.0mb
GUN	60.61	304	P	04	22.82	0.0
	0.9s	24.00nm				5.3mb
PKI	60.88	304	P	04	24.12	-0.5
	0.8s	8.00nm				4.9mb
KKN	61.06	304	P	04	25.54	-0.2
	0.9s	33.00nm				5.5mb
DMN	61.14	304	P	04	26.36	0.0
GKN	61.67	304	P	04	29.54	-0.2
	0.9s	46.00nm				5.6mb
GBA	64.49	286	Pc	04	47.90	-0.4

	0.9s	3.90nm	4.5mb
POO	68.76	291 eP	05 03.00 -12.5X
KIC	145.04	277 PKP	13 48.40 -0.4
ZOBO	146.06	125 PKP	13 50.00 -1.2
SIV	151.74	132 PKP	14 04.50 5.2X

S.D. = 0.6 on 17 of 20 obs.

? APR 03, 1990 13h 28m 21.51±7.08s
59.940 N ±17.6km 2.696 E ±62.5km
DEPTH = 10.0km (geophysicist) (534)

NORTH SEA MD 1.9 (BER).

KMY	1.49	118	eP	28	48.35	0.1
			iS	29	06.73	
SUE	1.52	41	eP	28	48.93	0.3
			eS	29	06.61	
ODD1	1.98	89	eP	28	55.69	0.2
			eS	29	18.44	
HYA	2.12	53	eP	28	57.17	-0.2
			iS	29	22.02	
BLS2	2.25	105	eP	28	59.14	-0.2
			eS	29	24.49	
MOL	3.53	40	eP	29	17.28	-0.1
			eS	29	55.82	

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

APR 03, 1990 16h 49m 49.75±1.07s
5.614 S ±7.5km 113.010 E ±7.6km
DEPTH = 36.1 ±12.8 km
4.6mb (8 obs.) 3.7msz (1 obs.)
JAVA SEA (275)

TRT	2.11	190	iPd	50	23.30	0.0
			iS	50	54.20	
KHKI	3.76	137	eP	50	47.00	0.2
			eS	51	30.30	
			e	56	52.30	
BKB2	5.81	42	iPd	51	33.00	17.2X
MKS	6.44	87	ePc	51	50.00	25.2X
PCI	8.27	56	ePc	51	49.50	-0.7
			e(S)	52	33.20	
IPM	15.68	310	ePc	53	30.50	0.7
			e	58	07.00	
MTN	19.26	113	eP	54	14.00	-0.4
NNT	22.39	324	eP	54	41.40	-5.1X
WB5	25.15	126	eP	55	13.00	-0.4
WRA	25.16	126	Pc	55	14.30	0.8
	1.0s	14.40nm				4.5mb
ASPA	26.96	134	iPc	55	30.20	0.1
	1.5s					

03d 16h

IHA 4.99 14 eP 55 05.50 -1.1
 FCH 5.09 28 iPd 55 09.50 1.1
 ROCH 5.19 20 iPc 55 09.10 -0.6
 JACH 5.58 22 iPc 55 15.00 -0.1
 RTBS 6.90 27 e(P) 55 35.00 1.6
 RTCV 7.09 33 e(P) 55 36.00 -0.2
 ZON 7.30 31 e(P) 55 38.00 -1.1
 RTCB 7.30 30 eP 55 40.00 0.8
 CFA 7.43 34 eP 55 40.50 -0.5
 RTLL 7.57 32 ePc 55 41.70 -1.3
 ITB7 20.51 57 e(P) 58 29.60 -0.4
 ITB1 20.69 56 e(P) 58 31.80 0.0
 ITB 20.71 56 Pd 58 32.70 0.6
 CCH 21.32 19 eP 58 38.00 -0.7
 ARE 21.38 4 eP 58 39.00 -0.3
 LPB 21.72 13 P 58 44.00 1.2

Z 18s 4.81um 4.9Msz
 S 02 54.00
 LR 07 12.00
 ZOBO 21.97 13 P 58 46.80 1.3
 1.3s 41.40nm 4.7mb
 Z 20s 2.54um 4.6Msz
 S 03 00.00
 LR 07 08.00

SIV 24.26 29 Pc 59 08.40 1.1
 BAO 31.35 52 eP 00 13.30 1.3
 LIC 76.84 71 P 05 41.96 -0.6
 0.8s 17.00nm 5.1mb
 Z 20s 0.20um 4.4Msz

TIC 77.12 71 P 05 43.76 -0.4
 0.8s 15.00nm 5.1mb
 KIC 77.14 71 Pc 05 43.76 -0.5
 0.8s 18.00nm 5.2mb

BUL 86.67 113 iPc 07 16.00 41.9X
 1.0s 6.50nm
 BCAO 94.00 88 ePd 07 08.30 0.0
 0.5s 3.00nm 5.0mb

MAIO 142.48 77 ePKP 13 17.00 -6.2X
 GBA 144.38 125 PKPd 13 21.80 -5.0X
 0.7s 7.10nm

QUE 146.23 91 ePKP 13 29.60 -0.3
 HYB 147.87 122 ePKP 13 32.50 -0.1
 S.D. = 0.9 on 31 of 34 obs.

? APR 03, 1990 17h 27m 05.24 ± 0.95s
 28.993 N ± 13.7km 128.766 E ± 14.9km
 DEPTH = 33.0km (normal)
 4.9mb (7 obs.)

RYUKYU ISLANDS (238)

BJI 15.12 320 eP 30 38.50 0.5
 Z 18s 0.88um
 LZH 22.13 295 eP 32 00.00 0.2
 Z 16s 0.50um 4.0MszX

KMI 23.48 267 Pd 32 16.00 2.9
 CHTO 29.01 256 eP 33 03.70 -0.7
 0.7s 0.30nm 3.1mb X

GUN 37.57 279 P 34 18.62 -0.2
 0.7s 32.00nm 5.3mb
 PKI 38.05 279 P 34 22.18 -0.7
 0.8s 22.00nm 5.1mb

KKN 38.12 279 P 34 22.80 -0.5
 0.8s 25.00nm 5.1mb
 DMN 38.31 279 P 34 24.54 -0.4
 0.7s 14.00nm 4.9mb

GKN 38.63 280 P 34 26.74 -0.7
 0.7s 17.00nm 5.0mb
 WB5 48.89 173 eP 35 50.80 0.9
 WRA 48.95 173 P 35 50.00 -0.4
 0.8s 1.50nm 4.1mb

GBA 49.84 263 Pc 35 56.40 -1.0
 0.9s 3.20nm 4.4mb
 YKA 75.83 25 eP 38 49.50 0.0
 0.8s 0.50nm 3.6mb X

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

APR 03, 1990 17h 36m 14.50 ± 0.34s
 37.103 N ± 6.8km 73.177 E ± 6.4km
 DEPTH = 33.0km (normal)
 4.9mb (27 obs.) 4.1Msz (2 obs.)

TAJIK SSR (715)
 Felt (11) at Khorog.

QUE 8.63 219 eP 38 18.00 -2.2
 NDI 9.06 157 iPd 38 28.00 2.1
 0.6s 20.00nm 5.5mb

MAIO 11.02 270 iPc 38 47.80 -5.1X
 0.9s 174.00nm 6.0mb X
 KKN 13.80 129 P 39 27.94 -2.3
 0.7s 94.00nm 5.7mb

DMN 13.82 130 P 39 28.98 -1.6
 0.9s 153.00nm 5.8mb
 PKI 14.03 129 P 39 31.20 -2.2
 0.7s 73.00nm 5.5mb

GUN 14.09 127 P 39 31.88 -2.3
 0.9s 156.00nm 5.7mb
 IR2 17.99 272 eP 40 22.50 -1.3
 IR4 18.08 271 eP 40 23.00 -1.9

IR7 18.22 272 eP 40 25.50 -1.1
 IR5 18.34 271 eP 40 21.00 -7.1X
 POO 18.51 178 iPc 40 32.50 2.4
 HYB 20.18 165 ePc 40 49.00 -0.1

1.0s 40.00nm 4.7mb
 TAB 21.28 281 eP 41 03.00 2.6
 KER 21.32 270 eP 41 01.00 0.1

SLY 22.32 275 ePc 41 11.00 0.4
 0.8s 23.60nm 4.8mb
 GBA 23.71 170 Pd 41 26.20 1.9
 0.8s 23.60nm 4.8mb

BHD 23.80 269 ePd 41 27.00 2.0
 0.8s 45.48.00
 MSL 24.03 277 ePd 41 27.50 0.2
 e 42 23.00

LZH 24.60 83 eP 41 37.50 4.5X
 4.0s 320.00nm 5.2mb X
 Z 18s 0.70um 4.2Msz
 E 11s 0.30um

pP 41 46.50 32kmX
 PP 42 21.00
 eS 46 08.00
 KOD 27.03 171 eP 41 57.60 1.6

KMI 27.87 107 eP 42 10.50 7.0X
 CHG 29.01 122 eP 42 20.00 6.5X
 CHTO 29.01 122 e(P) 42 14.30 0.8
 0.8s 2.93nm 4.0mb

BBTK 31.57 288 eP 42 36.00 -0.2
 NNT 34.08 129 eP 42 47.00 -11.1X
 MLR 36.02 299 iPd 43 15.00 0.5
 CMP 36.67 298 ePc 43 16.00 -3.9X

SUF 38.35 327 iP 43 33.60 -0.1
 0.9s 9.70nm 4.6mb
 NUR 38.37 323 iP 43 34.70 0.8
 SOD 39.95 334 eP 43 46.00 -0.9

SRO 41.07 303 eP 43 57.00 0.6
 i 44 06.70
 KSP 42.14 308 eP 44 05.00 -0.2
 e 45 32.00

PRU 43.33 307 eP 44 14.50 -0.4
 e 45 58.00
 HFS 43.68 321 eP 44 16.00 -1.5
 0.5s 5.90nm 4.6mb

KHC 44.06 305 iPc 44 21.00 0.2
 e 46 03.50
 CLL 44.18 309 eP 44 23.00 1.3
 1.6s 24.00nm 4.8mb

KBA 44.51 303 e(P) 44 24.00 -0.7
 1.0s 4.50nm 4.3mb
 NB2 44.96 323 P 44 26.50 -1.4
 0.8s 10.10nm 4.8mb

MOX 45.12 308 eP 44 31.00 1.7
 GRF 45.50 307 eP 44 33.00 0.6
 Z 18s 0.20um 4.1Msz
 BSF 48.73 305 eP 44 56.60 -1.2

0.9s 8.20nm 4.8mb
 HAU 48.98 305 eP 44 58.80 -0.8
 LPG 49.32 302 eP 45 03.40 0.8
 1.0s 13.00nm 4.9mb

LPL 49.32 302 eP 45 03.90 1.3
 1.0s 10.00nm 4.8mb
 SMF 50.97 304 eP 45 13.50 -1.3
 0.9s 11.45nm 4.8mb

SSF 51.08 305 eP 45 14.50 -1.1
 1.0s 5.00nm 4.4mb
 MAT 51.11 70 eP 44 58.00 -18.0X
 AVF 51.25 304 eP 45 15.70 -1.3

1.0s 16.00nm 4.9mb

MAF 51.93 304 eP 45 20.70 -1.5
 1.0s 11.00nm 4.8mb
 TCF 52.15 304 eP 45 22.80 -1.0
 0.9s 8.20nm 4.7mb

DAG 54.67 344 iPd 45 40.00 -2.0
 1.0s 18.00nm 5.1mb
 BCAO 59.51 251 iPc 46 13.30 -3.8X
 0.9s 21.00nm 5.3mb

MBC 66.65 3 ePd 47 04.00 0.6
 1.0s 19.00nm 5.1mb
 IMA 71.01 18 eP 47 31.10 0.4
 INK 73.02 10 ePd 47 42.90 0.6

FBA 73.39 17 eP 47 45.70 1.1
 TOA 76.15 18 eP 48 02.40 1.8
 YKA 80.55 4 eP 48 24.60 0.2
 0.8s 4.50nm 4.5mb

WB5 80.82 123 eP 48 28.20 1.6
 WRA 80.85 123 Pc 48 28.60 1.9
 1.1s 10.90nm 4.8mb
 FFC 88.44 357 iPd 49 05.20 0.9

1.0s 18.00nm 5.3mb
 EDM 89.87 4 eP 49 12.50 1.3
 S.D. = 1.4 on 55 of 64 obs.

* APR 03, 1990 17h 46m 48.77 ± 1.79s
 6.011 S ± 11.9km 147.811 E ± 19.5km
 DEPTH = 109.3 ± 10.6 km
 4.7mb (5 obs.)

EAST PAPUA NEW GUINEA REGION (207)

LAT 1.03 232 iPc 47 10.20 -0.3
 PMG 3.44 191 iPc 47 41.30 -0.1
 eS 48 19.00

MNDI 4.13 268 eP 47 52.00 0.9
 QIS 16.51 208 eP 50 36.00 0.8
 eS 53 33.00
 MTN 17.79 246 eP 50 50.00 -1.0

WB5 19.00 222 eP 51 03.80 -0.8
 WRA 19.06 222 Pd 51 03.90 -1.4
 0.4s 4.90nm 4.2mb
 ASPA 22.08 216 iPd 51 37.50 1.6

0.3s 50.00nm 5.3mb
 eS 55 33.10
 MBL 31.00 238 iPc 52 58.10 0.0
 0.4s 4.00nm 4.5mb

NANU 35.22 239 iPc 53 35.20 0.6
 0.4s 10.00nm 5.1mb
 MAT 43.27 349 iPc 54 40.90 -0.2
 0.8s 6.72nm 4.5mb

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

& APR 03, 1990 17h 53m 38.17s
 48.820 N 122.178 W
 DEPTH = 1.6km
 WASHINGTON (29)

<SEA>. CL 2.4 (SEA).

MBW 0.19 101 P 53 42.32 0.4
 VDB 0.21 13 Pd 53 42.77 0.4
 S 53 46.71

CMW 0.40 174 Pd 53 45.67 -0.5
 MCW 0.46 252 Pd 53 46.85 -0.4
 HNB 0.53 330 P 53 47.51 -1.2
 OHW 0.55 205 P 53 49.20 0.1

RPW 0.58 130 Pd 53 48.97 -0.7
 JCW 0.65 165 Pd 53 50.20 -0.9
 VGZ 0.86 242 P 53 52.61 -2.8
 S 54 05.23

BIB 0.95 309 P 53 54.73 -2.2
 BLN 0.97 213 P 53 56.13 -1.3
 BLH 0.99 174 P 53 56.16 -1.5
 HTW 1.05 165 P 53 57.84 -1.0

WPB 1.08 321 P 53 56.88 -2.3
 STW 1.20 237 P 53 59.22 -2.0
 HDW 1.31 207 P 54 01.36 -1.9
 GMW 1.34 198 P 54 02.09 -1.6

SHB 1.36 306 P 54 01.68 -2.4
 S 54 20.04
 RMW 1.38 169 P 54 03.57 -1.0
 WHB 1.40 339 P 54 03.18 -1.6

S 54 21.98
 OSD 1.43 226 P 54 03.60 -1.7
 GSM 1.64 171 P 54 07.84 -0.4
 MGB 1.67 277 P 54 06.71 -2.0

DHW2 1.81 117 P 54 11.84 1.1
 WTV 1.86 126 P 54 11.83 0.4
 RVC 1.88 176 P 54 11.46 -0.3

FMW 1.92 170 P 54 11.77 -0.7
 TBM 1.96 147 P 54 13.80 0.8
 LON 2.09 173 eP 54 14.40 -0.3
 EBG 2.20 150 P 54 17.12 0.8
 BTB 2.29 288 P 54 16.51 -1.2
 ERK 2.52 183 P 54 21.00 0.0
 NEW 3.41 98 eP 54 31.00 -2.5

33 obs. associated

* APR 03, 1990 19h 38m 36.36 ± 1.92s
 21.625 N ± 7.9km 144.171 E ± 9.7km
 DEPTH = 130.6 ± 17.0 km
 4.5mb (8 obs.)

MARIANA ISLANDS REGION (215)

KAKJ 14.94 347 eP 42 02.30 0.3
 CHJJ 15.07 344 P 42 03.20 -0.4
 MAT 15.74 342 eP 42 12.00 -0.1
 0.8s 14.18nm 4.3mb

MTMJ 15.90 341 P 42 14.10 0.0
 NIJJ 16.19 345 P 42 17.60 0.0
 WB5 42.35 194 eP 46 19.00 -0.1
 WRA 42.42 194 Pc 46 19.50 -0.2
 0.5s 4.00nm 4.4mb

PKI 53.34 289 P 47 45.40 0.6
 DMN 53.60 289 P 47 47.60 0.9
 GKN 53.97 290 P 47 50.10 0.9
 CAN 56.82 175 eP 48 08.50 -0.8
 INK 67.27 24 iPd 49 17.60 -0.8
 MBC 70.69 15 eP 49 39.00 -0.3
 YKA 76.09 28 eP 50 10.10 -0.7
 0.6s 7.40nm 4.6mb

WDC 78.65 51 eP 50 25.90 0.4
 ORV 79.74 52 eP 50 31.30 0.0
 EDM 80.10 37 eP 50 33.00 0.0
 PRS 80.93 55 eP 50 38.20 0.5
 CMB 81.08 53 eP 50 38.90 0.4
 PRI 81.53 55 e(P) 50 41.80 0.9
 FRI 81.95 54 eP 50 43.00 0.1
 SUF 82.89 336 eP 50 46.20 -1.1
 0.6s 4.40nm 4.5mb

LRM 83.61 43 eP 50 51.80 0.2
 CLC 83.96 54 eP 50 53.00 -0.4
 SBB 84.21 55 eP 50 46.00 -8.7X
 NUR 84.75 334 eP 50 58.60 2.0
 GSC 84.76 54 eP 50 58.00 0.6
 FFC 85.40 32 iPd 51 00.30 0.2
 0.7s 12.00nm 4.9mb

TPC 85.79 55 eP 51 02.00 -0.5
 GLA 87.15 56 eP 51 10.00 0.9
 HFS 89.15 338 eP 51 15.70 -2.4
 0.6s 2.90nm 4.5mb
 NB2 89.34 339 P 51 17.40 -1.6
 0.7s 1.60nm 4.2mb
 ALO 92.56 51 eP 51 35.00 0.4
 1.0s 4.50nm 4.7mb

ZOBO 149.03 86 PKP 58 12.00 4.4X
 S.D. = 0.9 on 32 of 34 obs.

APR 03, 1990 20h 04m 37.07 ± 0.28s
 22.243 S ± 7.7km 174.265 E ± 6.9km
 DEPTH = 33.0km (normal)
 5.1mb (7 obs.) 4.8Msz (3 obs.)

LOYALTY ISLANDS REGION (189)

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN

L.P.B.: 11S, 16C

Centroid Location:

Origin Time 20:04:42.4 1.0

Lat 22.40S 0.18 Lon 173.65E 0.15

Dep 43.7 9.9 Half-duration 1.5

Moment Tensor: Scale 10**16 Nm

Mrr=2.80 0.41 Mtt=-0.43 0.87

Mff=-2.37 0.74 Mrt=-0.80 0.75

Mrf=-1.84 0.88 Mtf=5.09 0.49

Principal Axes:

T Vol=5.18 Plg=37 Azm=137

N 1.50 52 329

P -6.67 6 231

Best Double Couple: Mo=5.9*10**16

NP1: Strike=281 Dip=60 Slip=24

NP2: 178 69 148

NDF 5.37 34 eP 05 55.20 -1.9

SVA 5.69 45 eP 05 59.30 -2.2

S 07 25.60

SGE 5.77 37 eP 06 02.70 -0.1
 VUN 5.77 44 eP 05 59.10 -3.6X
 MBU 6.72 39 ePc 06 15.30 -0.7
 PUZ 16.15 169 eP 08 23.10 0.0
 HNR 18.74 311 eP 08 57.00 1.4
 BRS 20.16 251 iPc 09 10.50 -1.0
 09 26.10
 13 04.50

LTZ 20.55 184 eP 09 08.90 -6.6X
 COO 21.66 243 eP 09 26.00 -0.9
 MSZ 22.97 192 P 09 40.00 0.4
 RMO 23.60 255 iPc 09 45.70 -0.3
 CNB 25.33 234 eP 10 02.00 -0.6
 CAN 25.61 234 eP 10 07.00 1.8
 CTA 26.20 269 eP 10 09.00 -1.7
 10 19.50
 e(sP) 12 05.00
 e 14 09.00
 e(S) 14 48.00
 eScs 19 48.00

ADE 33.51 240 eP 11 13.50 -2.3
 ASPA 37.11 260 iPc 11 43.30 -3.2X
 1.4s 15.00nm 4.7mb
 Z 21s 28.10um 4.9Msz

WB5 37.23 266 eP 11 43.80 -3.8X
 WRA 37.25 266 Pc 11 43.40 -4.3X
 0.7s 1.80nm 4.0mb
 SBA 55.78 182 e(P) 14 10.20 -2.5
 MAT 67.66 329 iPd 15 32.00 -1.0
 1.2s 28.13nm 5.2mb

SPA 67.89 180 iPc 15 30.70 -3.7X
 1.3s 34.17nm 5.3mb
 BJI 82.25 319 eP 16 57.00 0.6
 KMI 83.84 300 eP 17 04.50 -0.8
 SYP 84.16 49 eP 17 07.00 0.5
 CHG 84.16 293 eP 17 06.00 -0.7
 CHTO 84.16 293 eP 17 06.50 -0.2
 0.9s 1.00nm 4.0mb X

PRS 84.16 47 eP 17 07.10 0.7
 BCH 84.43 49 P 17 08.40 0.5
 PRI 84.54 48 e(P) 17 09.20 0.8
 ARN 84.61 46 P 17 09.00 0.4
 MWC 85.36 50 eP 17 13.00 0.4
 BAR 85.59 52 eP 17 15.00 1.4
 FRI 85.65 47 eP 17 13.90 0.2
 RVR 85.73 51 eP 17 13.00 -1.2
 WDC 85.74 43 eP 17 14.70 0.6

CMB 85.74 46 eP 17 14.40 0.1
 SBB 85.76 50 eP 17 14.00 -0.5
 PLM 85.78 52 eP 17 15.00 0.3
 ISA 85.80 49 eP 17 16.00 1.3
 ORV 85.83 44 eP 17 14.70 0.1
 MIN 86.20 44 eP 17 16.70 0.1
 CLC 86.50 49 eP 17 18.00 0.0
 TPC 86.74 51 eP 17 18.00 -1.3
 GSC 86.79 50 eP 17 19.00 -0.6

GLA 87.12 53 eP 17 22.00 0.9
 KVN 87.80 46 P 17 23.90 -0.6
 LZH 88.24 310 eP 17 26.00 -0.6
 MSU 91.59 49 P 17 42.50 0.2
 FBA 91.65 15 P 17 40.00 -1.6
 1.1s 21.88nm 5.5mb

PNT 92.24 37 eP 17 47.00 2.3
 DAU 93.08 47 P 17 50.00 0.8
 ALO 94.18 54 eP 17 52.50 -1.7
 1.1s 8.86nm 5.1mb
 Z 18s 0.34um 4.9Msz

ANMO 94.19 54 P 17 53.00 -1.2
 1.1s 7.59nm 5.0mb
 GOL 96.88 50 P 18 06.50 0.0
 MLR 145.30 320 ePKP 24 10.00 -3.2X
 KRA 145.69 330 ePKP 24 11.30 -2.2X
 KSP 146.67 334 iPKPd 24 15.00 -0.1
 CLL 147.53 338 iPKPd 24 17.10 0.6

1.4s 22.00nm
 SRO 148.03 329 ePKP 24 19.20 1.8
 PRU 148.04 335 ePKP 24 18.00 0.7
 ZST 148.32 330 e(PKP) 24 18.90 1.1
 KHC 149.10 335 PKP 24 20.00 0.9
 GRF 149.51 338 ePKP 24 23.00 3.3X
 Z 21s 0.10um 4.6Msz

e 24 29.00
 VAY 149.54 315 ePKP 24 21.30 1.3
 SKO 149.93 317 iPKP 24 22.80 2.3
 BAO 150.57 237 ePKPd 24 24.80 2.4X

0.7s 11.00nm
 ic 24 40.70
 OHR 150.79 316 ePKP 24 24.00 2.1
 KBA 150.83 333 e(PKP) 24 25.00 3.0X
 0.8s 6.40nm
 S.D. = 1.2 on 58 of 69 obs.

* APR 03, 1990 20h 13m 33.13 ± 0.60s
 12.494 N ± 11.5km 87.130 W ± 7.9km
 DEPTH = 80.8km (3 depth phases)
 4.6mb (9 obs.)

NEAR COAST OF NICARAGUA (74)
 Felt at Managua and in western
 Nicaragua. Felt (11) at San
 Salvador, El Salvador.

QZA 2.09 300 iPc 14 16.70 9.9X
 SJAS 2.30 301 iPc 14 10.60 0.7
 SSS 2.33 301 eP 14 10.30 0.0
 eS 14 36.70

VSS 2.40 301 iPd 14 12.70 1.4
 YPE 2.96 303 iPc 14 19.50 0.4
 QZG 3.06 314 ePc 14 19.80 -0.6
 CUSS 3.08 297 eP 14 21.20 0.6
 YUP 3.10 303 ePc 14 19.40 -1.6
 CMG2 3.36 310 iPc 14 24.20 -0.4
 S 14 57.25

PCG 3.91 299 eP 14 31.20 -1.1
 S 15 22.50
 GCG 3.91 303 eP 14 38.40 6.2X
 S 15 44.60
 BVA 4.04 303 ePd 14 33.10 -1.0
 S 15 07.20

HUG 4.36 291 P 14 36.20 -2.1
 JSC 22.34 13 P 18 29.60 4.4X
 ALO 28.40 325 eP 19 22.90 0.7
 0.9s 5.25nm 4.2mb
 ANMO 28.40 325 P 19 23.40 1.2
 0.9s 4.73nm 4.1mb

GOL 31.53 332 P 19 51.10 1.1
 0.7s 12.14nm 4.8mb
 GLA 32.55 313 P 20 00.00 1.3
 ZOBO 34.21 146 P 20 14.00 0.2
 Z 24s 0.11um 3.5Msz X

eLR 30 28.00
 DAU 34.98 327 P 20 21.00 1.1
 KVN 38.10 320 P 20 47.00 0.9
 SIV 38.28 137 P 20 47.20 -0.4
 LRM 39.56 332 eP 20 59.60 1.4
 FFC 43.72 348 eP 21 22.00 -9.8X
 0.6s 24.00nm 5.2mb

SCH 45.15 16 eP 21 43.00 -0.3
 pP 22 03.00 82km
 PNT 45.44 330 eP 21 46.00 0.4
 0.6s 18.00nm 5.1mb
 EDM 45.69 338 iPd 21 47.50 -0.1
 0.5s 14.00nm 5.1mb

FRB 52.83 10 eP 22 41.00 -1.2
 YKA 53.65 345 eP 22 47.00 -1.2
 0.6s 3.00nm 4.5mb
 INK 63.26 342 eP 23 55.00 0.0
 pP 24 15.00 77km

MBC 66.02 352 eP 24 12.00 -0.8
 0.6s 3.00nm 4.4mb
 pP 24 33.50 83km
 IMA 69.22 336 P 24 41.00 7.9X
 1.1s 3.13nm 4.1mb
 DAG 73.01 13 eP 24 54.00 -1.5
 WB5 139.56 254 ePKP 32 48.10 -5.9X
 e 32 54.80

WRA 139.58 254 PKPd 32 54.70 0.7
 0.7s 1.90nm
 S.D. = 1.0 on 29 of 35 obs.
 & APR 03, 1990 21h 12m 14.10s
 38.835 N 122.793 W
 DEPTH = 2.0km
 NORTHERN CALIFORNIA (36)
 <BRK>. ML 4.1 (BRK).
 Mo=1.4*10**15 Nm (BRK). Felt
 (1V) at Cobb and Loch Lomond.
 Also felt at Finley and The
 Geysers.

NWRM 0.38 191 eP 12 21.80 0.0
 ZSP 0.98 154 iPc 12 33.30 -0.2
 BRK 1.05 156 iPd 12 34.00 -0.6

BKS	1.05	155	eP	12	34.80	0.1			iSg	04	20.00				iSg	04	56.00					
			iS	12	49.10		LJU	3.32	323	ePnc	03	31.90	1.8	LIT	5.05	129	ePc	03	55.60	0.9		
ORV	1.24	54	ePd	12	36.20	-1.6			iSn	04	13.80			SOH	5.14	118	eP	03	56.90	0.9		
PCC	1.37	166	iPd	12	38.90	-1.2	OHR	3.42	131	iPnc	03	33.90	2.3			eS	04	57.80				
LTCM	1.47	20	eP	12	40.30	-1.3		1.0s	4106.00nm					SRS	5.15	114	eP	03	57.40	1.4		
MHC	1.75	148	ePc	12	43.70	-2.0			iSg	04	27.00					eS	04	57.10				
WDC	1.75	6	ePd	12	44.40	-1.3	ORI	3.43	192	P	03	32.30	0.7	KMR	5.17	335	iPn+	03	57.40	1.1		
MIN	1.77	31	ePc	12	44.40	-1.6	TRI	3.46	313	ePnd	03	32.90	0.9			iSn	05	07.00				
ARN	1.79	146	eP	12	44.30	-1.9			iPg	03	40.30			GMB	5.37	193	Pn	03	58.66	-0.7		
GCC	1.91	160	eP	12	45.70	-2.2			iSn	04	25.50			SAL	5.37	296	Pc	03	59.20	0.0		
CMB	2.05	112	eP	12	48.40	-1.7	ASS	3.47	266	P	03	34.00	1.7	ATN	5.45	196	Pc	03	58.60	-1.8		
FHC	2.17	335	e(P)	12	53.80	2.1	MGR	3.55	203	Pd	03	33.40	0.0	PLD	5.54	101	eP	04	03.00	1.4		
SAO	2.33	152	ePd	12	51.70	-2.3	TIM	3.59	48	iPc	03	40.00	6.1X	CEI	5.56	38	eP	04	33.00	31.2X		
KVN	3.67	85	eP	13	11.40	-1.8	VOY	3.61	318	ePnc	03	35.90	1.6	OGA	5.67	310	ePn	04	04.00	0.4		
TNP	4.44	98	e(P)	13	18.00	-6.3	MNS	3.61	255	Pc	03	35.60	1.3	RZN	5.68	105	iP	04	06.00	2.2		
FFC	21.22	35	eP	17	01.00	-2.3	RSM	3.62	280	P	03	35.90	1.6	AGG	5.76	138	eP	04	04.40	-0.3		
	0.9s	15.00nm			4.4mb		MMN	3.68	197	P	03	36.40	1.2			eS	05	09.90				
	18 obs.	associated							eSn	04	20.50		VLS	5.77	154	iPnd	04	02.70	-2.1			
							CSI	3.73	193	P	03	36.10	0.1			eSn	05	08.00				
	APR 03, 1990	22h 02m	37.10 ± 0.14s				BZS	3.74	53	iPd	03	34.50	-1.6	MTUR	5.80	69	eP	04	06.00	0.8		
	43.419 N ± 2.1km	17.387 E ± 1.7km					RMP	3.81	247	Pd	03	37.70	0.6	PVL	5.80	89	iPd	04	04.00	-1.2		
	DEPTH = 10.0km	(geophysicist)					RDP	3.83	246	P	03	37.90	0.5	OUR	5.81	120	eP	04	06.20	0.9		
	5.1mb (13 obs.)						TDS	3.84	192	P	03	37.40	-0.1			eS	05	15.60				
	YUGOSLAVIA	(383)					ROI	3.89	189	P	03	38.40	0.1	MNO	5.85	201	P	04	06.30	0.2		
	ML 5.6 (ATH), 5.0 (TTG), 4.9						CRE	3.96	275	Pd	03	41.80	2.5	PAIG	5.86	124	eP	04	06.20	0.1		
	(ZAG), 4.7 (ROM), MD 5.1 (STR),						FNA	3.97	130	ePd	03	41.20	1.9	BOB	5.87	286	P	04	06.90	0.5		
	4.8 (TRI), 4.5 (FIR), Felt (VII)								eS	04	30.40		MDI	5.97	296	P	04	06.60	-0.9			
	in the Imotski oreo. Also felt						SFI	4.05	279	P	03	41.80	1.4	GIB	5.99	206	P	04	08.10	0.1		
	ot Sinj, Zenico, Sorajevo,						RBL	4.06	319	Pd	03	42.30	1.7	NEO	6.01	131	ePn	04	07.20	-1.0		
	Mostar, Makorsko and on Brac.						KEK	4.12	153	ePn	03	41.50	0.1	OSS	6.08	305	ePc	04	10.50	1.1		
							PGD	4.14	278	P	03	43.60	1.8	SPC	6.10	18	ePn	04	10.30	0.7		
BRY	0.99	121	iPgc	02	55.40	-0.6			BUD	4.22	15	iPnd	03	42.00	-0.9			e	04	32.30		
			eSg	03	11.20				CZI	4.30	193	P	03	38.60	-5.4X	DIM	6.15	100	ePc	04	12.00	1.8
HCY	1.27	140	iPgc	03	00.20	-0.4			SOP	4.30	353	eP	03	39.80	-4.3X	KDZ	6.19	104	iPd	04	12.00	1.3
			iSg	03	20.00				VTS	4.35	99	iPd	03	46.00	1.1	PGF	6.21	265	P	04	11.81	0.6
NKY	1.33	117	iPg	03	01.40	-0.2					iSg	04	34.00		KHC	6.29	337	iPn	04	12.40	0.2	
			iSg	03	22.10				VAY	4.37	117	iPnc	03	46.00	0.9			Pg	04	20.50		
BLY	1.34	354	iPn	03	02.50	0.8		1.0s	1796.00nm							Sg	05	26.00				
			iSn	03	20.50																	
PLE	1.47	93	iPg	03	04.10	0.4																
			eSg	03	25.80																	
BDV	1.55	136	ePg	03	05.40	0.6																
			eSg	03	29.10																	
TTG	1.69	125	iPnc	03	07.80	1.0																
			eSn	03	33.40																	
IYA	1.92	106	ePn	03	12.50	2.3																
			eSn	03	40.00																	
ULC	2.00	136	iPnc	03	13.00	1.7																
			eSn	03	40.50		SRO	4.44	8	iPn	03	46.00	0.0									
PVY	2.07	113	ePn	03	15.40	3.0X		1.0s	1.30nm													
			eSn	03	43.50																	
FG2	2.30	226	Pn	03	16.70	1.1																
BAI	2.33	190	P	03	16.00	0.0																
			eSn	03	45.00		FIR	4.47	277	ePn	03	48.00	1.6									
BRT	2.54	183	Pd	03	18.60	-0.5																
VBY	2.58	325	iPnc	03	22.30	2.7																
ZAG	2.60	338	iPnc	03	21.60	1.8																
			iSn	03	53.50		IGT	4.47	149	ePg	03	46.70	0.3									
BEO	2.62	57	iPn	03	19.50	-0.6	KKB	4.48	108	iPc	03	49.00	2.4									
			iPg	03	26.50																	
			iSg	04	02.00		FVI	4.55	316	P	03	48.60	1.0									
FG4	2.67	212	Pn	03	22.00	1.1	KBA	4.64	323	iPnd	03	50.80	1.8									
PTJ	2.68	338	ePn	03	21.80	0.6		0.5s	323.00nm													
			eSn	03	53.70																	
DUI	2.79	232	Pc	03	23.80	1.1																
RIY	2.89	313	iPnd	03	26.30	2.4																
			iSn	04	01.90																	
LCI	3.11	172	P	03	27.00	-0.1																
			eSn	04	02.80																	
AOU	3.12	251	P	03	28.50	1.3																
CEY	3.14	319	ePnc	03	30.20	2.7	DEV	4.64	56	iPc	03	49.00	0.1									
			i	03	34.40		GRI	4.66	189	Pn	03	49.39	0.3									
			eSn	04	11.50		KNT	4.67	117	ePc	03	50.50	1.2									
SDI	3.15	238	Pd	03	28.00	0.3																
ARV	3.24	273	P	03	30.20	1.2	MAO	4.69	260	Pc	03	49.70	0.1									
AZI	3.24	245	P	03	30.70	1.7	ZST	4.78	358	iPn	03	50.80	-0.1									
SGO	3.25	209	P	03	29.00	-0.1																
			eSn	04	06.30																	
BSS	3.25	217	P	03	29.80	0.6	PSZ	4.83	20	iPn	03	50.80	-0.8									
RFI	3.29	231	Pn	03	31.63	1.9	CTI	4.86	305	P	03	52.50	0.4									
SKO	3.32	114	iPnc	03	32.40	2.3	BDI	4.96	280	P	03	53.80	0.3									
	0.7s	2412.00nm					PII	5.00	276	P	03	54.50	0.6									
			iPb	03	35.60		THE	5.00	122	ePd	03	54.80	0.9									
			iPg	03	38.80																	
			iSn	04	08.00		MMB	5.03	109	iPc	03	56.00	1.6									
			iS	04	12.80																	
			iSb	04	15.00																	
							PGB	5.05	98	iPd	03	57.00	2.3									

		i	05	03.50		DSI	18.50	124	eP	06	54.00	-1.0	DEPTH = 26.9 ± 9.1 km							
		i	07	26.80		DLE	18.64	310	eP	06	58.00	1.4	OFF COAST OF CENTRAL CHILE (134)							
RSP	7.47	287	P	04	24.54	-4.3X	MKRJ	18.67	123	Pd	06	55.80	-1.4							
PZZ	7.50	282	P	04	26.43	-2.9	DCN	19.06	310	eP	06	57.00	-4.8X	LCCH	0.47	100	iPd	51	26.50	0.1
ZLA	7.52	306	ePc	04	29.40	0.0	NKM	19.28	253	iP	07	06.00	1.3				iS	51	30.90	
GRF	7.58	328	ePd	04	30.10	-0.1	MBH	19.51	129	eP	07	06.00	-1.4	TACH	1.02	105	iPc	51	34.50	-0.8
DIX	7.58	294	ePc	04	28.90	-1.7	SUF	20.00	12	eP	07	11.30	-1.1				iS	51	45.00	
LSD	7.60	289	P	04	26.64	-4.2X		0.4s	9.60nm		4.5mb			ROCH	1.03	66	iPd	51	35.00	-0.5
SLE	7.60	308	ePc	04	29.60	-1.0	IFR	20.16	248	iP	07	15.00	0.6				iS	51	44.90	
CALN	7.63	276	P	04	30.97	-0.1	BADA	20.53	131	eP	07	16.70	-1.4	SAN	1.22	93	eP	51	38.00	-0.1
CLI	7.68	63	ePd	04	28.00	-3.7X	AYN	20.83	128	ePc	07	20.50	-0.7				iS	51	50.60	
RRL	7.77	285	P	04	29.77	-3.4X	MSL	20.93	101	iPd	07	21.50	-0.7	CHCH	1.34	114	eP	51	40.00	0.3
STU	7.81	316	ePd	04	33.00	-0.5				e	07	26.00					i	51	41.00	
	0.8s		20.90nm						eS	11	16.50						iS	51	54.30	
STU	7.81	316	iPc	04	34.60	1.1	AVE	21.84	251	iP	07	30.50	-1.0	PCH	1.36	100	iPd	51	40.70	0.6
	1.0s		290.00nm						i	07	56.50						iS	51	56.00	
Z	20s		17.73um				TAB	22.51	94	eP	07	38.00	-0.2	JACH	1.47	61	iPd	51	42.10	0.4
PSN	7.85	84	iPd	04	35.00	1.0	SLY	22.98	100	iPd	07	42.00	-0.6				iS	51	58.50	
BNI	7.87	286	P	04	31.90	-2.5				eS	12	05.00		FCH	1.54	88	iPd	51	43.00	0.1
EMS	7.90	293	ePc	04	34.60	-0.4	TIO	23.17	246	iP	07	50.00	5.2X				iS	51	59.60	
CFR	7.92	73	ePc	04	37.50	2.5	WAJH	23.23	132	eP	07	46.50	1.3	S.D. = 0.6 on 8 of 8 obs.						
VLI	7.93	146	ePn	04	31.80	-3.3X	BHD	23.38	107	ePd	07	46.00	-0.6	APR 03, 1990 22h 57m 00.92± 0.38s						
FEL	7.94	307	P	04	34.44	-0.9				eS	12	09.00		11.426 N ± 3.4km 86.301 W ± 2.8km						
8BS	8.04	304	P	04	36.37	-0.3	AGMR	23.44	143	iPc	07	50.00	2.7	DEPTH = 52.5 ± 3.6 km						
MOX	8.23	333	iPn	04	39.50	0.2	AGAL	23.66	142	eP	07	51.90	2.5	5.5mb (54 obs.) 6.4Msz (27 obs.)						
	1.5s		101.00nm				SOD	24.52	9	iP	07	57.90	0.5	NEAR COAST OF NICARAGUA (74)						
N	11s		4.20um						i	08	08.00		Ms 6.7 (BRK), 5.9 (PAS). MD 6.6							
E	11s		5.40um				KER	24.74	101	eP	07	59.00	-0.9	(UPA), 5.9 (SJR).						
			iSn	06	11.00		IR7	26.61	96	iPd	08	17.50	0.0	Mo=2.0*10**19 Nm (PPT). Felt (V)						
LOMF	8.41	302	P	04	41.11	-0.8	IR5	26.82	96	eP	08	18.50	-0.9	at Rivas and (IV) at Managua.						
CLL	8.44	341	iPn	04	43.80	1.6	IR2	26.84	95	iPd	08	19.00	-0.6	Felt throughout much of						
			e	04	52.00		KEV	26.86	7	eP	08	12.00	-7.2X	Nicaragua. Felt (V) at						
			(Sg)	06	40.00		IR4	27.04	96	iPd	08	20.50	-0.9	Cuajiniquil and Liberia, (IV) at						
MOF	8.44	305	P	04	41.57	-0.8	MAIO	32.82	88	eP	09	12.00	-0.8	Puntarenas, (III) at San Jose						
TOD	8.56	319	eP	04	43.11	-0.8	DAG	36.68	347	iP	09	44.10	-1.2	and (II) at Limon, Costa Rica.						
WLS	8.59	309	P	04	43.43	-1.0	BCAO	38.84	178	iPc	10	04.00	0.0	Aisa felt (II) at San Salvador,						
ECH	8.60	307	P	04	42.77	-1.8		0.8s	26.00nm		5.0mb		El Salvador.							
BSF	8.64	304	P	04	44.11	-1.0	OUE	41.25	92	eP	10	23.00	-1.1	FAULT PLANE SOLUTION: P-Waves						
CDF	8.64	309	P	04	43.70	-1.4	KIC	41.73	214	P	10	27.86	0.0	NP1:Strike=122 Dip=71 Slip= 98						
GWF	8.76	313	P	04	45.43	-1.3	NDI	49.55	87	iPd	11	29.00	-1.0	NP2: 279 21 68						
APE	8.88	133	ePn	04	46.10	-2.4	FRB	50.48	325	eP	11	35.00	-1.6	Principal Axes:						
ITU	8.93	101	eP	04	49.00	0.0	SCH	53.03	314	eP	11	54.00	-2.1	T Plg=63 Azm= 45						
TNS	9.15	321	ePd	04	51.60	-0.6	POO	53.25	99	iPd	11	56.50	-1.7	P 26 206						
			eS	06	38.00		GKN	55.32	83	P	12	10.96	-2.4	Comment: The focal mechanism is						
SMG	9.17	125	ePn	04	52.00	-0.4	DMN	55.88	83	P	12	15.68	-1.9	poorly controlled and						
VITF	9.29	305	P	04	54.11	0.1	KKN	55.90	82	P	12	15.20	-2.5	corresponds to reverse						
GBZT	9.34	102	iPd	04	55.00	0.3	PKI	56.12	83	P	12	17.30	-2.1	faulting with a small right-						
ABH	9.35	317	eP	04	54.50	-0.4		0.9s	23.00nm		5.2mb		lateral strike-slip component.							
VAM	9.58	144	ePn	04	54.00	-4.0X	GUN	56.27	82	P	12	18.14	-2.3	The preferred fault plane is						
CIN	10.00	122	eP	05	04.00	0.2	HYB	57.37	97	ePd	12	25.00	-3.0X	NP2.						
MEM	10.58	317	iP	05	12.30	0.6		1.0s	25.00nm		5.2mb		RADIATED ENERGY							
			iS	07	03.90		MBC	57.46	349	eP	12	26.50	-1.4	Na. of sta: 4 Focal mech. F						
ENN	10.72	317	iPc	05	15.40	1.8	KOD	61.40	104	eP	12	54.00	-2.2	Energy 3.4±1.5*10**13 Nm						
	0.7s		36.00nm				LZH	64.02	64	P	13	12.00	-1.2	CENTROID, MOMENT TENSOR (HRV)						
			e	07	13.00			1.5s	25.00nm		5.2mb		Data Used: GDSN							
			e	08	37.00		Z	15s	0.20um		4.4MszX		L.P.B.: 175, 45C M.W.: 14S, 27C							
KAP	10.90	133	ePb	05	14.00	-2.1			pP	13	15.00	10kmX	Centroid Location:							
DOU	11.02	312	iP	05	18.90	1.2	INK	66.48	349	eP	13	26.00	-2.3	Origin Time 22:57:16.4 0.2						
			e	05	20.30		YKA	67.65	338	eP	13	34.40	-1.5	Lat 11.24N 0.02 Lon 86.64W 0.02						
			S	07	17.60			0.5s	3.40nm		4.8mb		Dep 31.6 0.9 Half-duration 9.0							
WTS	11.14	324	eP	05	23.00	3.7X	BJI	69.30	54	eP	13	42.50	-3.9X	Moment Tensor; Scale 10**19 Nm						
	0.8s		41.00nm				FFC	69.48	327	iPd	13	46.50	-0.8	Mrr= 1.00 0.02 Mtt=-0.76 0.01						
			i	05	30.40			0.7s	13.00nm		5.2mb		Mff=-0.23 0.01 Mrt= 1.32 0.06							
			e	07	31.00		SLR	69.54	170	iPd	13	48.50	0.5	Mrf=-0.56 0.04 Mtf= 0.53 0.01						
SNF	11.41	313	P	05	25.50	2.4		1.0s	15.00nm		5.1mb		Principal Axes:							
KSL	11.87	124	ePn	05	34.00	4.6X	KMI	69.96	74	Pd	13	49.00	-2.0	T Val= 1.73 Plg=63 Azm= 17						
BBTK	12.05	102	iPd	05	32.00	0.2	PRY	70.61	170	eP	13	51.50	-3.1X	N 0.08 5 116						
LFK	14.89	118	iP	06	13.40	4.1X	IMA	70.63	356	eP	13	54.00	-0.3	P -1.81 27 208						
TOL	16.40	265	eP	06	31.00	2.2		0.7s	8.60nm		5.0mb		Best Double Couple:Mo=1.8*10**19							
HFS	16.89	354	eP	06	34.00	-0.9	CHG	71.28	82	ePd	13	57.50	-1.3	NP1:Strike=310 Dip=19 Slip= 105						
	0.9s		9.50nm					1.0s	17.50nm		5.1mb		NP2: 114 72 85							
APHE	17.33	255	iPc	06	44.50	3.8X	CHTO	71.28	82	iP	13	56.90	-1.9	RIN3 1.10 125 iPc 57 20.70 0.3						
ACHM	17.36	256	iPd	06	44.00	3.0X		1.0s	17.50nm		5.1mb		S 57 39.20							
ADI	17.37	121	eP	06	39.50	-1.6	FBA	71.40	353	eP	13	58.30	-0.5	JUD 1.46 149 iPd 57 21.70 -3.6X						
AAPN	17.47	257	iPd	06	46.00	3.6X	SEK	72.01	171	eP	14	03.50	0.5	S 57 46.30						
HLW	17.53	136	eP	06	43.50	0.4	TTA	73.87	357	eP	14	13.60	0.2	JTS 1.74 130 iPd 57 28.30 -0.9						
			(S)	09	43.00		NNT	75.93	86	eP	14	23.20	-2.7	VACR 1.85 121 eP 57 32.30 1.4						
ALOJ	17.55	256	eP	06	47.00	3.6X	SIV	92.71	251	P	15	51.90	1.2	CAO 2.08 145 ePc 57 29.50 -4.5X						
ATEJ	17.58	256	eP	06	46.20	2.4	WB5	122.86	87	ePKP	21	33.30	-1.8	EPA 2.20 130 eP 57 34.80 -1.0						
NUR	17.67	12	iP	06	45.70	1.1	WRA	122.88	87	PKPd	21	33.60	-1.5	POA2 2.37 121 eP 57 38.50 0.1						
	0.6s		14.30nm					0.4s	3.70nm		5.1X		PTCR 2.46 131 ePd 57 39.50 0.0							
			i	06	51.00		PMO	149.01	332	ePKP	22	28.00	5.1X	HDC2 2.55 123 eP 57 41.00 0.2						
SHMJ	17.94	120	Pd	06	49.10	0.9		1.6s	25.00nm				IRZ2 2.77 121 eP 57 44.90 0.7							
NB2	18.03	350	P	06	48.80	-0.4	S.D. = 1.3 on 237 of 269 abs.							OPS 2.93 133 ePc 57 44.60 -1.5						
	0.7s		9.20nm											CDM 3.11 126 iPc 57 48.70 -0.4						
SALJ	18.38	122	Pc	06	52.80	-0.8														
JARJ	18.38	121	Pd	06	52.70	-1.0														

03d 22h

QZA	3.36	309	eP	57	50.00	-2.2	ALO	29.73	325	iPc+	03	04.50	-0.3	SIV	36.95	137	P	03	50.50	-16.6X
SJAS	3.58	309	iPc	57	54.00	-1.4		0.9s	315.13nm			6.0mb					i	03	59.50	
SSS	3.61	309	eP	57	53.90	-1.9	Z	18s	54.98um			6.2MsZ		BW06	37.21	331	iPc	04	08.60	-0.7
VSS	3.68	309	eP	57	55.50	-1.3			e	03	12.50			CLC	37.29	316	iP+	04	10.00	0.2
YPE	4.25	309	eP	58	05.50	0.6			e(S)	08	00.00						e	04	23.00	
CUSS	4.33	305	eP	58	05.00	-0.9	ANMO	29.73	325	iPc	03	04.61	-0.2				ePcP	06	38.00	
QZG	4.38	317	eP	58	04.50	-2.3	Z	20s	48.40um			6.1MsZ					e	06	42.00	
YUP	4.39	309	iP	58	03.00	-3.8X	SCP	30.18	13	iPc	03	10.15	1.7	CLC	37.29	316	eP	04	12.60	2.8X
CMG2	4.68	314	eP	58	08.00	-2.9	CLE	30.24	7	iP	03	10.20	1.3	ISA	37.81	315	eP	04	16.00	1.8
			S	58	37.80		LVNJ	30.98	17	P	03	17.60	2.1				e	04	29.00	
PCG	5.16	305	eP	58	17.30	-0.6	GMTN	31.22	18	iP	03	19.80	2.3				ePcP	06	31.00	
GCG	5.18	308	iPd	58	12.00	-6.1X	PNJ	31.25	18	iP	03	20.00	2.2				e	06	44.00	
			S	58	57.00				(PP)	10	04.40		ISA	37.81	315	eP	04	17.10	2.9X	
MMG	5.27	306	iP	58	13.15	-6.3X	ARE	31.34	152	eP	03	21.00	1.8	ANT	38.22	156	eP	04	18.50	1.0
BVA	5.31	308	iPd	58	17.50	-2.5	DLA	31.58	7	P	03	21.00	0.3	SYN	38.31	312	eP	04	20.00	1.5
TPX	6.76	301	P	58	40.84	0.9	LDN	31.81	7	P	03	22.75	0.1				e	04	30.00	
UPA	7.09	109	iPc+	58	45.00	0.4	ELF	31.94	7	P	03	23.80	-0.1				ePcP	06	33.00	
	1.0s	30.00nm				5.0mb	GLD	32.82	333	P	03	31.90	0.1				e	06	43.00	
		pP		58	49.20			1.4s	1027.03nm			6.5mb		SYN	38.31	312	eP	04	20.90	2.4
		iS		00	17.00			Z	18s	61.64um		6.4MsZ		TNP	38.31	319	P	04	18.70	0.2
SCX	8.10	311	P	59	07.54	9.0X	GOL	32.85	332	iPc-	03	31.00	-1.1	CBM	38.58	20	P	04	22.60	2.2
PSM	9.97	303	eP	59	23.35	-1.1	Z	20s	43.00um			6.1MsZ		KVN	39.44	320	P	04	27.80	-0.1
OXX	11.56	300	P	59	47.70	1.6	ZOBO	32.87	146	iPc	03	32.53	-0.3	RSON	39.78	353	iPc+	04	27.90	-2.5
HOQC	12.42	129	eP	59	58.70	1.0	LPB	33.10	147	Pc	03	35.00	0.3				1.8s	1589.30nm	6.6mb X	
SALC	12.70	131	eP	00	02.70	1.4		1.0s	210.00nm			5.9mb		CMB	40.36	317	iPc	04	35.44	0.1
LVM	12.79	311	P	00	03.50	1.1	Z	22s	37.78um			6.1MsZ		LRM	40.88	332	ePd	04	39.50	-0.2
DIAC	12.87	128	eP	00	05.03	1.5			S	08	54.00		SES	43.85	337	eP	05	02.20	-1.5	
PURC	13.38	132	eP	00	12.31	1.7			LR	14	16.00					0.7s	318.00nm	6.2mb		
PSO	13.52	138	eP	00	14.00	1.7	HRV	33.53	20	iPc	03	39.22	1.6	NEW	44.84	331	iPd+	05	10.00	-1.7
COTA	13.56	144	P	00	13.50	0.5	PV09	33.79	327	P	03	40.70	0.3	RTBS	45.78	160	e(P)	05	25.00	5.8X
BMG	13.75	107	iPd	00	16.00	0.9	GLA	33.87	314	eP	03	41.00	0.2	RTLL	45.82	159	ePc	05	20.10	0.5
FUQ	13.76	114	eP	00	22.00	6.6X			e	03	54.00		SCH	45.94	16	eP	05	19.00	-1.3	
IIT	13.82	305	eP	00	18.20	2.0			ePcP	06	24.00			1.1s	547.00nm			6.4mb		
GGP	13.84	146	eP	00	14.00	-2.7			e	06	29.00		ZON	45.95	159	eP	05	20.00	-0.6	
BOG	13.87	118	iPc	00	20.00	3.1X	RSNY	34.52	15	ePd	03	50.00	3.8X	LON	46.23	326	iPc	05	21.53	-1.2
		iS		03	24.00		Z	20s	105.80um			6.6MsZ		JACH	46.36	162	eP	05	34.00	10.1X
QUR	13.87	146	eP	00	16.20	-0.8	WNY	34.55	16	P	03	47.20	0.7	IHA	46.36	163	eP	05	27.50	3.7X
CAYA	13.98	143	eP	00	15.70	-2.7	HBVT	34.74	17	P	03	48.70	0.6	BAO	46.49	125	eP	05	22.90	-2.3
PPM	14.11	304	iPc	00	20.56	0.4	CCH	34.87	145	P	03	50.50	0.7	ROCH	46.50	162	iPd	05	34.00	8.9X
ACX	14.21	294	eP	00	22.48	1.4			i	03	59.50		PNT	46.77	330	eP	05	26.00	-0.9	
VC1	14.33	146	eP	00	24.00	0.9	BAR	35.00	312	eP	03	52.00	1.5	LCCH	46.80	163	eP	05	35.10	7.8X
III	14.47	300	iP	00	25.39	0.7			e	04	06.00		EDM	46.97	338	eP	05	25.00	-3.5X	
IIJ	15.34	304	iPc	00	38.83	2.6			ePcP	06	23.00			0.8s	535.00nm			6.5mb X		
FISA	16.64	89	eP	00	56.00	3.8X			e	06	34.00		FCH	47.05	162	eP	05	30.30	0.7	
PLAV	18.54	93	eP	01	17.00	1.0	BAR	35.00	312	eP	03	52.90	2.4	SAN	47.05	162	eP	05	29.50	0.2
GUAC	18.73	92	eP	01	18.00	-0.2	TPC	35.30	315	eP	03	53.00	0.0	TACH	47.15	162	eP	05	30.10	0.0
LLAV	19.16	91	iP	01	23.00	-0.3			e	04	08.00		PCH	47.25	162	eP	05	37.50	6.5X	
OLLA	19.21	92	eP	01	22.00	-1.8			ePcP	06	22.00		LVN	47.30	163	eP	05	30.50	-0.7	
PORP	20.12	69	P	01	34.00	0.7			e	06	32.00					i	05	40.00		
GUAN	20.35	92	eP	01	35.00	-0.8	TPC	35.30	315	eP	03	55.60	2.6	ITB1	47.49	139	e(P)	05	30.20	-2.6
SJG	20.58	69	e(P)	01	38.00	-0.1	CPE	35.41	312	eP	03	56.30	2.4	ITB	47.71	139	e(P)	05	33.30	-1.3
CPD	20.77	69	P	01	41.00	0.9	PLM	35.48	313	eP	03	55.00	0.3	ITB7	47.97	140	e(P)	05	35.10	-1.5
CUM	21.75	90	iP	01	51.00	1.1			e	04	09.00		PGC	48.27	328	eP	05	35.00	-3.6X	
HBV	22.09	13	P	01	57.00	3.9X			ePcP	06	25.00			0.5s	151.00nm			6.3mb		
PRM	22.84	8	P	02	03.70	3.2X			e	06	36.00		BAA	52.83	151	P-	06	16.00	2.6	
JSC	23.21	11	P	02	07.10	3.0X	BNH	35.49	19	P	03	56.70	2.2	FRB	53.73	10	eP	06	17.00	-2.6
LHS	23.49	11	P	02	09.30	2.5	MSU	35.50	324	P	03	55.20	0.3		0.9s	155.00nm			6.0mb	
PWLA	23.50	356	P	02	08.10	1.2	PEC	35.97	313	P	04	00.00	1.3	YKA	54.89	344	eP	06	32.60	4.4X
SKI	23.56	73	eP	02	10.30	2.7	RSSD	35.99	338	iPc+	03	59.30	0.3		0.8s	88.70nm			5.8mb	
MGH	23.94	75	eP	02	13.00	1.7	RVR	36.17	313	eP	04	01.00	0.6	RKT	58.72	234	iP	07	02.60	6.7X
RSCP	24.08	1	iP+	02	14.00	1.5			e	04	14.00			1.2s	135.00nm			6.0mb		
GRW	24.13	86	eP	02	15.85	2.6			ePcP	06	38.00		SIT	58.93	331	e(P)	06	50.50	-6.4X	
BPA	24.33	74	eP	02	16.88	1.7	RVR	36.17	313	eP	04	02.80	2.4	Z	22s	48.00um			6.6MsZ	
PAG	24.34	76	eP	02	14.50	-0.8	VPD	36.36	313	eP	04	04.50	2.6	GDH	61.46	13	ePc	07	13.00	-1.1
OLY	24.42	350	P	02	15.70	-0.2	GSC	36.47	316	eP	04	03.00	0.1				i	07	25.00	
TPP	24.43	90	eP	02	14.66	-1.4			e	04	16.00					i	07	47.00		
TRN	24.45	89	eP	02	14.70	-1.6			ePcP	06	27.00					i	08	12.00		
CPB	24.47	73	eP	02	16.45	0.0			e	06	38.00					i	11	14.00		
BBL	24.47	78	eP	02	16.00	-0.5	GSC	36.47	316	eP	04	05.90	3.0X				i	16	30.00	
DPMT	24.53	78	eP	02	19.11	2.0	MWC	36.78	313	eP	04	07.00	1.3	INK	64.51	342	eP	07	32.50	-1.7
SVB	24.54	83	eP	02	17.96	0.8			e	04	20.00					0.9s	198.00nm		6.1mb	
DBCT	24.57	78	eP	02	19.10	1.6	MIM	36.80	20	P	04	08.20	2.8X				pP	07	44.00	39kmX
SVV	24.57	83	eP	02	18.80	1.3	PAS	36.82	313	iPc	04	07.08	1.3	RUV	66.01	248	iP	07	44.40	-0.2
FDF	24.71	80	eP	02	20.00	1.1			eSP	04	20.00					1.3s	95.00nm		5.7mb	
		S		07	10.00				ePP	05	35.00		TOA	66.10	334	ePc	07	44.40	-0.2	
SLB	24.76	82	eP	02	19.61	0.3			ePPP	05	58.00		TPT	66.16	248	iP	07	45.20	-0.3	
POW	25.01	351	P	02	21.00	-0.4			ePcP	06	40.00			1.3s	75.00nm			5.6mb		
TPR	25.03	88	eP	02	16.24	-5.6X			eS	09	20.00		VAH	66.26	248	iP	07	46.00	-0.2	
TUL	25.85	342	iPd	02																

KDC	67.77	328	eP	07	54.70	-0.4	LIC	80.27	86	P	09	07.32	-1.0	GRF	86.20	40	eP	09	37.10	-0.9
COL	67.81	336	iPc	07	54.00	-1.3		0.7s	35.50nm			5.4mb		Z	21s	34.00um			6.7Msz	
FBA	67.81	336	eP	07	53.40	-1.9		20s	5.50um			5.9Msz						09	47.80	
TVO	68.59	246	eP	08	00.00	-0.9	LPO	80.29	46	eP	09	06.40	-1.5					09	59.20	
	1.3s	85.00nm				5.6mb		1.1s	34.20nm			5.2mb	MOX	86.23	39	eP+		09	38.00	
REY	68.73	25	iP	08	13.10	12.1X	LSF	80.36	45	eP	09	07.70	-0.5					09	38.00	
KIP	69.02	289	eP	08	04.07	0.6		1.0s	26.00nm			5.1mb		Z	19s	16.90um			6.5Msz	
SVW	70.11	331	eP	08	08.40	-1.1	ILT	80.41	337	iPc	09	08.00	0.0							
IMA	70.52	336	ePc	08	10.40	-1.7			eS		19	20.00		N	19s	11.60um				
	1.4s	66.90nm				5.4mb	KBS	80.45	11	eP	09	09.70	1.6					09	48.50	
TTA	70.70	333	eP	08	11.00	-2.1	RJF	80.46	46	eP	09	07.20	-1.5	SAL	86.65	44	P	09	51.00	
AKU	70.73	24	eP	08	15.30	2.1		0.8s	18.80nm			5.1mb		SMY	86.74	323	eP	09	41.20	
	1.7s	246.15nm				5.9mb	KIC	80.52	85	P	09	08.66	-1.0	BRN	86.77	37	eP	09	37.00	
Z	22s	25.93um				6.4Msz		0.7s	18.00nm			5.1mb		CLL	86.92	38	eP	09	40.00	
									S		19	27.00						09	40.00	
SDN	71.69	325	P	08	30.00	10.9X	TCF	80.82	45	eP	09	10.20	-0.5	Z	18s	15.50um		10	13.00	
	Z	20s	22.50um			6.4Msz		1.0s	34.00nm			5.2mb						20	24.00	
VAL	72.49	39	eP	08	23.00	-0.9	MAF	81.08	45	eP	09	11.10	-0.9	BDI	87.05	46	P	09	49.00	
		S				17	12.00		1.0s	27.00nm		5.1mb		UPP	87.09	29	iP	09	51.40	
BRW	73.01	341	ePc	08	25.50	-1.2	BGF	81.23	44	eP	09	12.10	-0.7					13	04.00	
EZAM	73.26	49	e(P)	08	40.00	11.4X		1.0s	52.00nm			5.4mb		KEY	87.16	19	eP	09	50.00	
PTO	73.34	50	eP	08	41.50	12.4X	ADK	81.35	321	eP	09	12.90	-0.3	CTI	87.32	44	P	09	43.00	
		eS				17	58.00	Z	22s	24.00um		6.5Msz		FIR	87.58	46	e(P)	09	52.00	
STS	73.36	49	e(P)	08	41.00	11.8X	AVF	81.54	44	eP	09	13.00	-0.6	BHG	87.73	42	eP	09	55.20	
DAG	73.87	13	iPc+	08	29.30	-2.2		1.2s	38.70nm			5.3mb			1.2s	33.00nm			5.4mb	
	0.8s	50.75nm				5.5mb	SSF	81.61	44	eP	09	15.00	0.3	KHC	87.83	40	Pd	09	45.50	
Z	24s	65.12um				6.8MszX		0.8s	17.45nm			5.1mb			Z	18s	22.40um		6.6Msz	
N	24s	35.66um					UCC	81.67	40	P	09	35.00	20.1X		N	20s	8.10um			
E	24s	46.51um					LOR	81.82	43	eP	09	15.40	-0.5		E	19s	13.90um			
								1.0s	34.00nm			5.3mb						09	56.90	
DCN	74.37	38	iPd	08	33.30	-1.5	DOU	81.91	41	P	09	16.00	-0.2					20	34.00	
AVE	74.59	58	eP	08	35.00	-1.5		Z	19s	24.90um		6.6Msz		PGD	87.88	46	P	09	56.50	
									S		19	51.00		FVI	87.95	43	P	09	48.00	
							LBF	81.94	44	eP	09	16.30	-0.2	SFI	87.96	46	P	09	51.00	
ECB	74.64	39	eP	08	46.60	10.2X		1.1s	17.10nm			5.0mb		SOD	88.07	21	iP	09	45.70	
	1.0s	201.00nm					DBN	81.99	39	eP	09	15.00	-1.5					13	21.00	
DLE	74.81	38	iPd	08	37.70	0.4			e		12	19.00		KBA	88.20	42	iPd	09	47.00	
									e		19	30.00			1.7s	160.00nm		6.0mb		
ECP	74.89	39	eP	08	47.10	9.3X			e		24	34.00						09	57.00	
	1.2s	190.00nm				5.9mb	ENN	82.65	40	eP	09	21.00	1.0					10	06.00	
JNW	75.32	19	iP	08	51.10	11.1X		0.9s	30.00nm			5.3mb						10	13.20	
CNIL	75.51	55	iP	08	48.50	6.8X			e		09	35.00						13	25.00	
PLAT	75.76	55	iP	08	56.00	12.8X			e		12	55.00						13	43.40	
ALJ	75.85	55	iP	08	53.00	9.2X	WIT	82.79	38	eP	09	33.00	12.3X	PRU	88.21	39	P	09	50.70	
EJIF	75.97	55	e(P)	08	45.00	0.6	WTS	83.00	38	eP	09	32.50	10.7X		Z	20s	32.10um		6.7Msz	
NKM	76.09	56	i(P)	08	48.00	2.9X		1.0s	61.00nm						N	20s	4.30um			
									e		12	42.00			E	20s	25.00um			
IFR	76.48	58	iP	08	47.50	0.0	HAU	83.37	42	eP	09	24.60	0.7					10	15.00	
								0.8s	20.15nm			5.2mb						13	22.00	
							RUP	83.55	41	eP	09	23.60	-1.2					20	25.00	
GUD	76.72	51	e(P)	08	47.80	-0.9	BSF	83.70	43	eP	09	26.30	0.7	KMR	88.46	41	iP+	09	47.40	
EKA	76.80	36	P	08	47.00	-1.6		0.8s	20.15nm			5.2mb		RBL	88.51	43	P	09	48.50	
	0.7s	12.80nm				5.0mb	NB2	83.71	29	P	09	24.40	-0.9	ASS	88.74	46	P	09	52.00	
TOL	76.86	52	iPc	08	48.40	-0.9		1.2s	105.00nm			5.7mb		ARV	88.83	46	P	09	50.00	
AAPN	76.99	54	eP	08	51.50	1.3	ABH	83.83	40	eP	09	24.65	-1.5	TRI	88.83	44	eP	09	52.30	
ALOJ	77.02	54	iPc	08	50.50	0.1	CDF	83.91	42	eP	09	26.90	0.2					21	08.00	
ATEJ	77.11	55	iPc	08	52.00	1.1		0.8s	8.05nm			4.8mb						e(SS)	26	
ACHM	77.24	54	iPc	08	50.60	-0.9	EMS	84.10	44	ePd	09	27.90	0.1					e(SSS)	33	
ASMO	77.29	54	iPc	08	52.50	0.7	BNI	84.10	45	P	09	37.00	9.2X					eLR	40	
APHE	77.36	55	iPc	08	51.60	-0.7	TNS	84.34	40	eP	09	35.60	6.9X	VOY	88.84	43	eP	09	53.00	
AFC	77.45	54	e(P)	08	53.00	0.2	DIX	84.43	44	ePd	09	30.50	1.0	MNS	88.92	47	P	09	55.00	
ECRI	77.82	49	e(P)	08	54.00	-0.6	FEL	84.50	42	eP	09	27.75	-1.9	KSP	89.05	38	eP	09	59.50	
AIA	78.22	171	eP	09	07.10	11.0X	TRO	84.60	20	eP	09	35.20	5.6X					e	12	
ETOR	78.30	50	e(P)	08	58.80	1.5	DOI	84.60	46	P	09	32.00	1.8	LJU	89.26	43	eP	09	53.00	
LPF	78.45	43	eP	08	56.30	-1.5	WIGH	84.73	86	eP	09	32.50	1.2					e	10	
	1.0s	72.00nm				5.6mb	MMK	84.81	44	ePd	09	32.20	0.8					eS	20	
GRR	78.54	43	eP	08	57.10	-1.2	ZLA	84.82	43	ePd	09	30.20	-1.0	AZI	89.57	47	P	09	58.00	
	0.8s	72.55nm				5.7mb	KUK	84.82	85	eP	09	28.30	-3.5X	SUF	89.88	25	eP	09	57.70	
FLN	78.76	42	eP	08	59.20	-0.3			S		19	56.50		SDI	89.91	47	P	09	56.00	
	0.8s	37.60nm				5.4mb	SLE	84.84	42	ePd	09	30.30	-0.9	SOP	90.14	41	eP	09	52.50	
LDF	79.01	42	eP	08	59.60	-1.3	ORO	84.90	45	P	09	42.80	11.1X	NUR	90.14	28	iP	09	58.80	
	0.8s	51.05nm				5.5mb	WEGH	84.98	85	eP	09	33.00	0.5						2.3	
RAR	79.08	246	P	09	12.00	10.3X	LEGH	85.11	85	eP	09	31.00	-2.2					21.40nm	5.6mb	
		S				19	04.00		0.7s			40.10um		Z	24s			40.10um	6.8MszX	
MFF	79.17	44	eP	08	59.80	-2.0	HFS	85.11	30	ePKP	09	30.00	-2.3					i	10	
	0.9s	37.65nm				5.3mb		1.2s	19.90nm			5.1mb						e	13	
BTH	79.46	48	e(P)	09	08.00	4.6X	SHGH	85.19	85	eP	09	35.00	1.4					LR	45	
		(SKS)					CKI	85.34	46	P	09	32.50	-1.3	APA	90.26	20	eP	09	57.00	
		(S)					LLS	85.35	43	ePd	09	33.80	-0.3					eS	20	
EPF	79.87	48	eP	09	04.20	-1.5	VAI	85.40	44	P	09	33.00	-1.0	PTJ	90.26	43	eP	10	07.70	
	1.2s	56.55nm				5.4mb	TMA	85.42	44	ePd	09	33.70	-0.7	ZAG	90.30	43	eP	10	02.50	
LFF	79.95	46	eP	09	04.80	-1.2	SAX	85.51	43	ePd	09	34.30	-0.6	ZST	90.33	41	eP	09	56.70	
	1.0s	44.00nm				5.3mb	COP	85.53	34	iP+	09	35.00	0.5					i	10	
TIC	80.20	85	P	09	06.68	-1.3		Z	19s	10.42um		6.2Msz						i	10	
	0.6s	7.50nm				4.8mb	VDL	85.75	44	ePd	09	36.00	-0.1					e	13	
EBR	80.23	50	eP	09	06.00	-1.6	MDI													

03d 23h

		e	10 33.20		PJK	123.49	295	ePdiff	12 28.50	1.4X	PIP	140.26	318	ePKPc	16 34.00	7.4X
		i	13 47.40		KUMJ	123.71	322	ePKP	15 56.40	1.5	DMN	140.31	12	PKP	16 20.48	-6.4X
		e	25 36.80		CNB	124.44	235	ePKP	15 56.00	-0.4	PKI	140.41	12	PKP	16 20.22	-6.9X
SGO	91.31	48 P	10 08.00	5.7X	KAGJ	124.61	321	ePKP	15 57.50	0.8	HKC	140.93	329	ePKP	16 23.20	-4.5X
KRA	91.51	38 eP	10 04.00	1.0	BJI	124.71	339	ePKP	15 56.00	-0.6	BAG	141.63	316	ePKP	16 20.00	-9.4X
	Z 22s	21.30um		6.5MsZ							KMI	142.62	346	PKP+	16 24.00	-7.0X
	E 22s	21.40um														
		e	10 12.90													
		e	10 25.10													
		e	22 22.00													
		e	25 50.30													
		e	26 10.10													
MGR	91.61	49 P	10 11.00	7.3X	CAN	124.73	235	ePKP	15 58.30	1.4	KMI	142.62	346	ePKPc	16 32.16	1.2
BUD	91.78	41 eP	10 14.00	9.6X	WMQ	124.75	5	ePKP	15 56.37	-0.3						
PSZ	92.20	40 eP	10 17.90	11.5X												
TDS	92.32	49 P	10 07.00	0.0	BWA	125.37	236	ePKP	16 00.00	2.7X						
BRT	92.60	48 P	10 06.00	-2.3	RMQ	126.20	246	ePKP	15 59.00	-1.0						
PUL	93.01	27 eP	10 10.00	0.2	TOO	126.97	231	ePKP	16 00.00	-1.1	PGP	143.34	312	ePKPd	16 28.00	-3.3X
		eS	20 32.00		NPA	126.99	100	ePKP	16 08.00	6.3X	DAV	143.34	299	ePKP	16 27.00	-5.2X
UZH	93.45	39 eP	10 10.00	-2.0	PMG	127.45	267	ePKP	16 03.00	0.4	MTN	143.40	264	ePKP	16 30.00	-2.2X
		eS	21 00.00		CTA	128.86	253	iPKPc	16 05.50	0.3						
TIK	93.87	349 eP	10 13.00	-0.5												
		eS	21 23.00													
BZS	94.10	42 eP	10 11.00	-4.1X												
OHR	95.10	46 eP	10 31.00	11.1X												
	1.1s	38.00nm														
		e	10 41.70													
SKO	95.26	45 eP	10 20.00	-0.5												
	Z 21s	12.11um		6.3MsZ												
	N 21s	9.69um														
	E 21s	8.81um														
		i	10 32.00													
		i	10 47.00													
		i	10 58.50													
		i	11 04.00													
		i	14 11.00													
		iSKS	21 03.00													
		iPS	23 00.00													
		iSS	27 45.00													
		iSSS	31 52.00													
PET	95.39	327 iPc	10 20.00	-0.8												
		eSKS	21 20.00													
VAY	96.28	46 eP	10 26.00	0.8												
MLR	96.96	41 eP	10 40.00	11.7X												
OBN	98.34	29 ePKP	10 28.00	-6.1X												
	Z 20s	18.00um		6.6MsZ												
		eSKS	21 12.00													
ITU	100.83	44 ePdiff	10 44.00	-1.7												
SPA	101.35	180 ePdiff	10 59.00	12.2X												
	1.2s	35.21nm														
	Z 20s	21.98um		6.7MsZ												
SIM	102.35	39 ePdiff	10 50.00	-2.4X												
		eS	22 04.00													
BBT	103.95	44 ePdiff	10 00.00	0.2												
		e	11 23.00													
SNZO	104.18	230 ePdiff	10 08.00	7.5X												
		(PP)	15 12.00													
		SKS	21 40.00													
		PS	23 20.00													
YSS	107.24	327 ePdiff	11 14.00	0.0												
		eSKS	22 05.00													
HLW	107.32	54 ePKP	15 41.00	17.3X												
		e	17 07.00													
		e	22 00.00													
		e	25 00.00													
TAB	113.78	39 ePKP	15 35.00	-1.0												
		e	16 15.00													
		e	16 42.00													
IRK	115.91	353 ePKP	15 30.00	-9.4X												
PRY	116.20	114 ePKP	15 41.70	0.7												
		i	26 17.40													
MAT	116.51	321 (Pdiff)	11 52.00	-3.6X												
MAT	116.51	321 ePKP	15 40.00	-1.1												
	Z 20s	6.38um		6.2MsZ												
MTMJ	116.73	321 PKP	15 43.60	2.0X												
SLR	116.93	113 ePKP	15 41.00	-1.4												
	1.3s	76.92nm														
	Z 20s	31.91um		6.9MsZ												
MAIO	122.62	33 ePKP	15 54.00	1.2												
		eS	27 48.00													
COO	123.04	241 ePKP	15 55.00	1.3												
FRU	123.25	17 ePKP	15 55.00	1.3												
		eSKS	23 13.00													
GUA	123.47	295 ePKP	15 55.00	0.1												
	Z 22s	8.57um		6.4MsZ												
GUMO	123.49	295 ePdiff	12 28.70	1.6												
GUMO	123.49	295 PKP	15 55.20	0.3												

CMG2	4.59	314	iP	13	21.50	-1.9	BLP	38.54	312	P	19	34.00	1.2	RJF	80.50	46	eP	24	21.50	0.1
			S	13	50.20		CBM	38.58	20	P	19	33.40	0.4		1.0s	10.00nm			4.7mb	
PCG	5.07	305	eP	13	28.80	-1.4	BCH	38.62	313	P	19	33.40	-0.2	KIC	80.61	85	P	24	20.48	-2.0
GCG	5.09	308	eP	13	14.00	-16.4X	PHAM	39.16	314	P	19	39.60	1.6	TCF	80.86	45	eP	24	23.20	-0.1
MMG	5.18	307	iP	13	22.70	-9.0X	FRI	39.27	316	eP	19	38.10	-0.7		0.6s	3.60nm			4.5mb	
BVA	5.22	308	iP	13	31.00	-1.3	KVN	39.35	320	P	19	40.20	0.4	CAF	80.93	46	eP	24	23.90	0.2
TPX	6.66	302	P	13	51.59	-0.5	PRI	39.50	314	eP	19	41.20	0.3		0.8s	4.70nm			4.5mb	
PSM	9.88	303	P	14	35.73	-0.8	LLA	39.93	315	eP	19	44.20	-0.1	MAF	81.12	45	eP	24	24.60	0.0
OXX	11.46	300	P	14	59.25	1.1	PRS	40.09	314	eP	19	45.90	0.3		0.8s	5.35nm			4.5mb	
LVVM	12.71	312	P	15	14.57	0.2	CMB	40.28	317	eP	19	47.50	0.3	BGF	81.27	44	eP	24	25.20	-0.2
SALC	12.79	131	P	15	17.60	1.9	SAO	40.35	315	eP	19	49.60	1.8		0.8s	6.05nm			4.6mb	
DIAC	12.96	128	eP	15	19.50	1.6	MHC	40.77	315	eP	19	52.20	0.8	ADK	81.27	321	ePc	24	25.90	0.7
PURC	13.47	132	eP	15	19.30	-5.7X	LRM	40.80	332	iPc	19	51.70	0.0		1.0s	520.00nm			6.4mb X	
IIT	13.73	305	P	15	29.91	1.7	GCC	40.87	315	eP	19	52.60	0.6	AVF	81.58	44	eP	24	26.70	-0.3
PPM	14.01	304	iPc	15	33.20	1.1	ORV	41.82	318	eP	20	00.80	1.0		0.6s	1.80nm			4.2mb	
III	14.38	300	iPd	15	38.22	1.6	WDC	43.04	319	eP	20	08.70	-1.1	SSF	81.65	44	eP	24	27.10	-0.2
IIJ	15.25	304	iP	15	50.65	2.5	FFC	44.88	347	iPc	20	24.00	-0.4		0.8s	4.05nm			4.4mb	
SGS	22.30	13	P	17	10.80	3.0X	RTBS	45.85	160	e(P)	20	34.00	1.8	LOR	81.86	43	eP	24	28.40	-0.1
JSC	23.19	11	P	17	19.50	2.9X	RTLL	45.89	158	ePd	20	32.10	-0.6		1.0s	8.00nm			4.6mb	
PWLA	23.46	357	P	17	21.80	2.6	SCH	45.94	16	ePc	20	31.20	-1.6	SMF	81.94	44	eP	24	28.60	-0.2
LHS	23.47	12	P	17	25.00	5.7X		0.6s	39.00nm			5.5mb			0.6s	1.80nm			4.2mb	
MGH	24.02	75	eP	17	24.00	-0.8	JACH	46.41	162	eP	20	49.50	12.6X	LBF	81.98	44	eP	24	28.70	-0.4
GBTN	24.18	4	P	17	28.30	2.1	ROCH	46.56	162	eP	20	39.50	1.3		0.6s	2.70nm			4.4mb	
TKL	24.21	5	P	17	28.30	1.8	PNT	46.69	330	iPc	20	38.80	0.0	ENN	82.69	40	eP	24	45.00	12.4X
OLY	24.38	350	P	17	28.40	0.3	EDM	46.91	338	iPc	20	39.00	-1.5		1.0s	12.00nm				
BPA	24.41	74	eP	17	30.59	2.0	FCH	47.11	162	eP	20	43.00	0.4	WTS	83.04	38	iPc	24	48.50	14.1X
PAG	24.42	76	eP	17	29.00	0.2	SAN	47.11	162	eP	20	42.00	-0.3		0.9s	17.00nm				
BBL	24.55	78	eP	17	30.00	0.0	TACH	47.21	162	eP	20	42.00	-1.1	HAU	83.41	42	eP	24	36.80	0.3
POW	24.96	351	P	17	33.50	-0.2	PCH	47.31	162	eP	20	49.50	5.5X	NB2	83.73	29	P	24	36.50	-1.3
TUL	25.79	342	iPc	17	40.60	-0.8	LNv	47.36	163	eP	20	43.00	-1.2		1.4s	46.40nm			5.3mb	
	1.0s	64.00nm			5.1mb		CHCH	47.56	162	eP	20	45.00	-0.9	BSF	83.73	43	eP	24	38.20	0.0
SIO	25.79	341	eP	17	39.60	-1.8	PGC	48.20	328	eP	20	50.00	-0.6	CDF	83.95	42	eP	24	39.40	0.1
NAV	26.23	10	P	17	46.70	1.2	YKA	54.84	344	eP	21	38.00	-2.3	KUK	84.91	85	eP	24	40.00	-4.6X
CVL	27.35	14	P	17	56.80	1.2		0.9s	36.70nm			5.4mb		HFS	85.13	30	eP	24	42.20	-2.6
NA2	27.66	15	P	17	59.80	1.4	INK	64.46	342	eP	22	45.00	-1.3		0.5s	1.80nm			4.4mb	
CBN	27.83	15	eP	18	02.00	2.0		1.0s	85.00nm			5.7mb		GRF	86.23	40	eP	24	48.80	-1.7
ALO	29.65	325	iPc	18	16.50	-0.2	RUV	65.94	248	iP	22	56.40	-0.2		Z 20s	15.00um			6.4MszX	
	Z 18s	17.18um			5.7Msz			1.2s	45.00nm			5.3mb			e					
ANMO	29.66	325	P	18	16.60	-0.1			iP	23	06.30	32kmX			e					
	0.8s	48.23nm			5.2mb		TOA	66.03	334	eP	22	56.20	-0.4		e					
LVNJ	30.98	17	P	18	29.20	1.2	TPT	66.09	248	iP	22	57.30	-0.2	SMY	86.66	323	P	24	53.50	1.0
ARE	31.41	152	eP	18	33.00	0.6		1.2s	35.00nm			5.2mb		CLL	86.95	38	e(P)	24	52.00	-1.9
TBR	31.45	18	P	18	33.00	0.9			iP	23	07.30	32kmX			Z 17s	6.50um			6.1MszX	
DLA	31.56	7	P	18	32.35	-0.8	VAH	66.19	248	iP	22	57.90	-0.3			e				
LDN	31.79	7	P	18	34.30	-0.8		1.2s	35.00nm			5.2mb		KEV	87.16	19	eP	24	57.00	2.4
ELF	31.92	7	P	18	35.30	-1.0			iP	23	07.80	32kmX		FIR	87.62	46	e(P)	25	02.00	4.7X
GLD	32.75	333	P	18	43.30	-0.4	PMO	66.35	248	iP	22	59.20	0.0	KHC	87.86	40	P	24	50.50	-7.9X
GOL	32.78	332	P	18	43.80	-0.3		1.2s	30.00nm			5.1mb			e					
ZOBO	32.95	146	P	18	45.00	-1.1			iP	23	09.10	32kmX		SOD	88.07	21	eP	24	58.00	-1.1
GLA	33.78	314	eP	18	53.00	0.3	MBC	67.14	352	eP	23	02.00	-1.3	KBA	88.24	42	e(P)	25	00.00	-0.5
		e		21	21.00			1.0s	40.00nm			5.3mb			1.8s	58.60nm			5.5mb	
RSNY	34.52	15	P	18	59.50	0.7	PMR	67.16	333	eP	23	02.40	-1.3			e				
	1.3s	180.18nm			5.8mb			1.5s	104.20nm			5.6mb		PRU	88.24	39	eP	24	56.00	-4.2X
WNY	34.54	16	P	18	59.20	0.2	KDC	67.69	328	eP	23	06.00	-1.0			e				
HBVT	34.74	17	P	19	00.60	-0.1	FBA	67.75	336	eP	23	05.80	-1.5	KSP	89.08	38	eP	25	12.00	7.8X
BAR	34.91	312	eP	19	03.00	0.7	PAE	68.77	246	iP	23	14.00	-0.4	NUR	90.15	28	eP	25	12.00	3.0X
		e		19	21.00			1.2s	45.00nm			5.3mb		CMP	96.50	41	ePc	25	40.00	1.5
		e		21	35.00				iP	23	24.30	33kmX		PRNI	110.01	52	ePd	26	44.00	4.8X
CCH	34.95	145	P	19	03.80	0.7	SVW	70.04	331	ePc	23	19.30	-2.2	MAT	116.43	321	ePKP	30	52.00	-1.2
TPC	35.21	315	eP	19	05.00	0.1	IMA	70.45	336	ePc	23	22.50	-1.6		1.0s	9.00nm				
		e		21	35.00			1.4s	46.50nm			5.2mb		BUL	117.19	107	iPd	26	53.50	-18.0X
PLM	35.39	313	eP	19	07.00	0.4	TTA	70.63	333	ePc	23	23.20	-1.9	CAN	124.67	235	ePKP	31	12.90	3.8X
		e		21	35.00		SDN	71.62	325	eP	23	30.70	-0.4	BWA	125.31	236	ePKP	31	13.50	3.2X
BNH	35.49	19	P	19	07.70	0.6	BRW	72.96	341	ePc	23	37.00	-1.7	CTA	128.79	253	iPKPc	31	17.00	-0.4
PEC	35.88	313	P	19	12.00	1.5	DCN	74.40	38	eP	23	45.60	-1.8		1.5s	41.67nm				
	1.4s	52.08nm			5.3mb		ALOJ	77.07	54	iPc	24	06.20	3.1X			i				
RVR	36.09	313	eP	19	12.00	-0.2	ATEJ	77.16	55	iPc	24	06.50	2.9			iSKP				
		e		21	37.00		ACHM	77.29	54	iPc	24	04.00	-0.2			e(SS)				
GSC	36.38	316	eP	19	15.00	0.2	ASMO	77.34	54	eP	24	04.50	0.0	SSE	130.09	329	PKP	31	19.80	0.3
MWC	36.69	313	eP	19	18.00	0.5	APHE	77.42	55	iPc	24	04.60	-0.4		1.5s	157.00nm				
		e		21	39.00			78.49	43	eP	24	10.40	0.0	QUE	131.29	31	ePKP	31	21.00	-1.1
PAS	36.73	313	eP	19	19.00	1.4		1.0s	14.00nm			4.9mb			e					
		e		21	39.00		GRR	78.58	43	eP	24	11.10	0.2	LZH	131.74	349	PKP	31	23.50	0.8
SBB	36.76	314	eP	19	19.00	1.0		0.8s	21.50nm			5.1mb			pPKP					
		e		21	40.00		FLN	78.80	42	eP	24	12.30	0.2		PP					
DUG	36.93	325	P	19	18.80	-0.6		0.6s	9.00nm			4.9mb		ADE	132.91	233	ePKP	31	25.50	0.7
	1.0s	39.50nm			5.3mb		LDF	79.05	42	eP	24	13.80	0.3		1.3s	103.85nm				
SIV	37.04	137	P	19	20.00	-0.4		0.6s	9.00nm			4.9mb		GKN	139.82	12	PKP	31	29.76	-8.4X
BW06	37.14	331	P	19	20.80	-0.4	MFF	79.21	44											

03d 23h

SZP 140.83 317 ePKP 31 31.60 -8.3X
 KMI 142.57 346 PKPc+ 31 43.00 -0.2
 Z 20s 12.00um 6.7mszX
 N 22s 11.90um
 E 19s 11.90um
 PP 35 42.50
 POO 144.39 33 ePKP 31 46.00 -0.2
 HYB 147.68 28 ePKP 31 51.50 -0.1
 0.7s 50.00nm
 LOE 150.22 344 ePKP 31 56.00 0.5
 GBA 150.38 33 PKPd 31 55.80 0.0
 1.6s 76.60nm
 TSM 151.10 301 ePKP 31 58.50 1.6
 S.D. = 1.1 on 167 of 196 obs.

* APR 04, 1990 00h 44m 59.28±0.57s
 11.531 N ±14.4km 86.105 W ±20.5km
 DEPTH = 33.0km (normal)
 4.7mb (3 obs.)
 NEAR COAST OF NICARAGUA (74)
 MD 4.5 (SJR). Felt (II) at
 Cuajiniquil and La Cruz, Costa
 Rica.

TUL 25.81 342 ePd 50 29.90 0.7
 0.9s 22.20nm 4.8mb
 ALQ 29.76 325 eP 51 05.20 -0.1
 ANMO 29.76 325 eP 51 06.00 0.7
 ZOBO 32.85 147 eP 51 34.00 0.9
 SIV 36.90 137 P 52 07.20 0.2
 KVN 39.48 320 e(P) 52 30.00 1.3
 pP 52 42.10 44kmX
 LRM 40.87 332 eP 52 40.90 0.8
 FFC 44.88 347 iPc 53 21.70 9.4X
 0.7s 9.00nm 4.8mb
 SCH 45.79 15 eP 53 21.00 1.5
 BAO 46.39 125 eP 53 24.50 -0.4
 PNT 46.77 330 eP 53 28.00 0.7
 EDM 46.95 338 ePc 53 28.00 -0.7
 FRB 53.60 10 eP 54 18.00 -1.2
 YKA 54.84 344 eP 54 26.40 -2.0
 0.8s 2.30nm 4.3mb
 INK 64.47 342 eP 55 33.00 -1.5
 MBC 67.11 352 eP 55 51.50 0.2
 WB5 140.25 253 ePKP 04 26.20 -1.2
 WRA 140.27 253 PKPd 04 26.80 -0.7
 0.7s 1.60nm
 GBA 150.17 34 PKPd 04 44.90 0.9
 0.9s 2.50nm
 S.D. = 1.1 on 18 of 19 obs.

APR 04, 1990 01h 41m 56.58±0.25s
 45.761 N ±2.6km 10.925 E ±2.4km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 3.7 (GRF), 3.5 (FUR), 3.4
 (KBA), 3.3 (LDC), 2.6 (LJU), MD
 3.2 (FIR).

SAL 0.32 241 Pc 42 04.70 1.5
 eSg 42 10.70
 CTI 0.58 60 P 42 07.90 -0.6
 eSg 42 16.20
 MDI 0.85 272 P 42 14.50 1.6
 iSg 42 27.00
 OSS 1.07 330 iPd 42 17.40 0.5
 OGA 1.11 4 iPgD 42 18.10 0.6
 VDL 1.25 306 iPd 42 20.50 0.6
 BOB 1.44 227 P 42 24.30 1.5
 eSg 42 44.80
 TMA 1.47 284 iPc 42 24.30 1.0
 VAI 1.51 275 Pc 42 24.20 0.6
 eSg 42 45.00
 FVI 1.54 56 Pd 42 25.10 1.1
 eSg 42 44.00
 BDI 1.71 188 P 42 28.10 1.4
 eSn 42 50.90
 LLS 1.74 310 ePd 42 29.00 1.9
 SAX 1.85 324 ePd 42 31.70 2.9X
 SFI 1.95 160 P 42 30.50 0.4
 eSn 42 55.00
 RBL 1.96 69 P 42 31.00 0.7
 PGD 1.97 163 P 42 31.30 0.8
 eSn 42 56.00
 TRI 1.99 90 P 42 31.00 0.4
 eSn 42 55.50
 FIR 2.00 173 ePn 42 31.00 0.3

iSn 43 04.00
 P 42 31.50 -0.1
 ORX 2.07 267 P 42 35.15 3.3X
 ORO 2.07 267 P 42 31.00 -0.9
 eSn 43 00.20
 PCP 2.08 235 P 42 33.41 1.4
 S 42 59.92
 MMK 2.09 279 ePd 42 31.40 -0.9
 VOY 2.09 81 ePn 42 31.80 -0.4
 eSn 42 59.50
 KBA 2.13 51 iPnc 42 34.20 1.4
 iPgD 42 37.00
 i 42 41.00
 i 42 45.00
 iSg 43 03.30
 RSM 2.13 149 P 42 32.80 0.2
 eSn 43 00.70
 CRE 2.25 161 P 42 34.50 -0.1
 CKI 2.30 235 P 42 35.50 0.4
 BHG 2.38 34 iPnc 42 39.60 3.4X
 FUR 2.42 6 iPnc 42 42.80 6.0X
 CEY 2.45 89 e(Pn) 42 43.00 5.7X
 eSn 43 13.00
 RIY 2.47 98 eP 42 41.70 4.3X
 iSn 43 15.80
 iSb 43 22.80
 DIX 2.47 279 ePd 42 38.50 0.7
 FIN 2.47 232 P 42 37.82 0.2
 LJU 2.54 82 ePn 42 43.50 5.1X
 eSn 43 16.50
 SLE 2.61 321 ePd 42 40.50 0.9
 ROB 2.61 237 P 42 39.97 0.3
 RSP 2.65 258 P 42 36.59 -3.7X
 LSD 2.66 265 P 42 42.64 2.1
 ARV 2.68 147 P 42 40.10 -0.5
 EMS 2.80 278 ePd 42 44.60 2.1
 DOI 2.89 246 P 42 43.20 -0.4
 FEL 2.91 318 eP 42 44.02 0.1
 ENR 2.92 240 P 42 42.95 -1.1
 LPG 2.94 266 Pn 42 45.60 1.1
 LPL 2.95 267 Pn 42 44.80 0.2
 ASS 2.96 155 P 42 44.00 -0.6
 STV 2.97 241 P 42 42.74 -1.9
 PZZ 2.98 246 P 42 43.76 -1.2
 RRL 3.04 255 P 42 44.89 -0.9
 VBY 3.05 93 e(Pg) 42 58.00 12.3X
 iSn 43 33.40
 BNI 3.08 258 P 42 46.40 0.2
 SBF 3.13 234 Pn 42 47.00 0.2
 PGF 3.50 204 Pn 42 51.40 -0.8
 BSF 3.51 308 Pn 42 52.80 0.4
 Pg 43 05.70
 Sn 43 33.80
 Sg 43 51.30
 PTJ 3.52 86 ePn 43 02.00 9.5X
 eSn 43 35.30
 MNS 3.60 159 P 42 53.00 -0.7
 WET 3.64 21 iPnc 42 53.40 -0.7
 CDF 3.64 318 Pn 42 54.60 0.4
 Sg 43 56.80
 FRF 3.76 236 Pn 42 55.90 0.0
 KHC 3.82 27 iPn 42 55.70 -1.1
 ePg 43 04.50
 Sn 43 39.40
 Sg 43 57.00
 AQU 3.85 151 P 42 57.10 0.0
 HAU 3.86 307 Pn 42 57.60 0.3
 Sg 44 00.10
 GRF 3.94 3 e(Pn) 42 56.50 -1.9
 ePg 43 11.60
 e(Sn) 43 43.60
 eSg 44 01.30
 LMR 3.98 234 Pn 42 58.70 -0.2
 LRG 3.99 236 Pn 42 59.00 -0.1
 SDI 4.56 152 P 43 06.00 -1.3
 PRU 4.88 29 eP 43 16.00 4.3X
 e 44 10.50
 eSg 44 29.00
 MOX 4.91 5 (Pn) 43 31.00 18.8X
 eSg 44 35.00
 LBF 4.96 287 Pn 43 11.80 -1.1
 SMF 5.00 283 Pn 43 12.30 -1.1
 Sn 44 06.40
 LOR 5.11 290 Pn 43 14.40 -0.5
 Sn 44 12.00
 SSF 5.29 287 Pn 43 16.40 -1.2
 AVF 5.35 284 Pn 43 17.20 -1.2

BGF 5.67 281 Pn 43 21.40 -1.5
 MAF 5.84 278 Pn 43 23.80 -1.5
 TCF 6.09 278 Pn 43 27.70 -1.1
 CAF 6.30 266 Pn 43 30.90 -0.9
 LSF 6.56 278 Pn 43 34.10 -1.4
 S.D. = 1.0 on 67 of 79 obs.

* APR 04, 1990 02h 00m 48.95±1.09s
 37.802 S ±13.2km 72.876 W ±19.1km
 DEPTH = 33.0km (normal)
 4.6mb (2 obs.)

CENTRAL CHILE (136)

LNK 4.02 18 iPd 01 49.50 -0.2
 iS 03 05.00
 CHCH 4.26 26 iPd 01 54.50 1.3
 i 02 52.20
 i 03 15.00
 TACH 4.43 21 iP 02 03.50 7.9X
 LCCH 4.45 14 eP 01 55.00 -0.8
 PCH 4.59 25 ePd 01 58.60 0.6
 SAN 4.70 23 eP 01 59.00 -0.4
 FCH 4.94 26 iPd 02 04.20 1.1
 ROCH 5.05 18 eP 02 03.50 -1.2
 CCH 21.19 18 eP 05 33.00 -1.2
 LPB 21.60 13 eP 05 30.00 -8.5X
 ZOBO 21.85 12 P 05 40.00 -1.2
 SIV 24.10 29 eP 06 04.00 1.4
 SIO 76.33 341 eP 12 36.50 0.3
 TUL 76.36 341 eP 12 36.50 0.2
 1.0s 10.30nm 4.8mb
 TIC 76.91 71 P 12 39.80 -0.1
 KIC 76.94 71 P 12 39.00 -1.0
 ALQ 78.80 332 eP 12 51.00 0.9
 1.0s 5.25nm 4.5mb
 GBA 144.27 124 PKPc 20 17.10 -6.4X
 0.2s 0.60nm
 S.D. = 1.0 on 15 of 18 obs.

& APR 04, 1990 02h 13m 39.80s
 34.330 N 117.090 W
 DEPTH = 6.0km
 SOUTHERN CALIFORNIA (43)
 <PAS-P>. ML 3.7 (PAS). Felt (IV)
 at Apple Valley, Crest Park and
 Lucerne Valley; (III) at
 Redlands and March Air Force
 Base. Also felt at Fawnskin,
 Riverside and San Bernardino.

RVR 0.41 215 iPc 13 47.50 -0.6
 PEC 0.44 188 iPd 13 47.90 -0.8
 PEM 0.67 256 P 13 52.10 -1.1
 SBB 0.70 301 iPc 13 52.90 -1.0
 VPD 0.76 228 P 13 54.00 -0.9
 MWC 0.81 263 iPc 13 54.80 -1.2
 TPC 0.89 104 iPc 13 56.50 -0.8
 PAS 0.91 259 iPc 13 56.50 -1.2
 PLM 0.99 169 iPd 13 58.00 -1.1
 GSC 1.00 14 iPd 13 58.50 -0.6
 CIS 1.43 230 P 14 04.60 -1.7
 CPE 1.45 180 iPd 14 04.90 -1.6
 CLC 1.54 344 iPd 14 06.70 -1.2
 BAR 1.68 168 iPd 14 09.00 -0.9
 ABL 1.83 287 eP 14 10.80 -1.5
 GLA 2.28 123 iPd 14 17.20 -1.4
 BCH 2.61 290 eP 14 21.90 -1.4
 BLP 2.75 276 eP 14 23.70 -1.5
 FRI 3.41 322 eP 14 34.60 0.1
 eS 15 22.00
 PRI 3.44 303 eP 14 33.10 -2.0
 TNP 3.75 358 eP 14 38.00 -1.6
 LLA 3.89 307 eP 14 40.30 -1.1
 PRS 4.03 301 eP 14 40.70 -2.7
 SAO 4.30 306 eP 14 45.00 -2.3
 CMB 4.56 325 eP 14 50.60 -0.3
 ARN 4.70 311 eP 14 50.50 -2.5
 MHC 4.76 310 eP 14 51.50 -2.5
 KVN 4.78 351 eP 14 52.50 -1.8
 GCC 4.82 305 eP 14 53.40 -1.2
 MSU 5.76 42 eP 15 07.00 -1.1
 DUG 6.77 29 e(P) 15 20.00 -2.3
 ALQ 8.78 83 eP 15 57.00 6.5
 32 obs. associated

APR 04, 1990 04h 19m 25.09±0.51s
 11.608 N ±4.3km 86.425 W ±3.5km

DEPTH = 61.0 ± 4.9 km
 5.1mb (49 obs.)
 NEAR COAST OF NICARAGUA (74)
 Ms 5.6 (BRK). MD 5.1 (SJR). Felt
 at Managua. Felt (IV) at
 Cuajiniquil, (III) at Liberia
 and (II) at Atenas, Costa Rica.
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 17S, 32C
 Centroid Location:
 Origin Time 04:19:26.2 0.6
 Lat 11.48N FIX; Lon 86.55W FIX
 Dep 15.0 FIX Half-duration 2.6
 Moment Tensor; Scole 10**17 Nm
 Mrr=-1.57 0.17 Mtt=-1.16 0.21
 Mff=-0.40 0.30 Mrt= 6.73 0.44
 Mrrf=-3.75 0.52 Mtf= 0.37 0.18
 Principal Axes:
 T Vol= 7.97 Plg=50 Azm= 30
 N -0.27 1 299
 P -7.70 40 208
 Best Double Couple: Mo=7.8*10**17
 NP1:Strike=289 Dip= 5 Slip= 80
 NP2: 119 85 91

QZA 3.15 307 iPc 20 11.80 -1.6
 SJAS 3.37 308 eP 20 15.70 -0.8
 SSS 3.40 308 eP 20 15.10 -1.8
 VSS 3.47 308 eP 20 16.60 -1.4
 TME 3.73 310 eP 20 21.10 -0.4
 YPE 4.04 309 eP 20 25.70 -0.3
 CUSS 4.13 304 eP 20 27.20 0.1
 QZG 4.17 317 eP 20 26.70 -1.1
 S 21 19.00
 YUP 4.18 308 ePc 20 24.70 -3.3X
 S 20 59.90
 CMG2 4.46 313 eP 20 28.50 -3.5X
 CGG 4.98 307 eP 20 37.00 -2.2
 MMG 5.07 306 eP 20 38.30 -2.3
 BVA 5.11 307 ePc 20 39.60 -1.5
 TPX 6.56 301 iP 21 00.00 -1.2
 SCX 7.89 311 iP 21 25.00 5.4X
 PSM 9.77 302 (P) 21 46.00 0.4
 OXX 11.36 300 iPd 22 06.50 -0.8
 ANCC 12.42 130 eP 22 22.30 1.0
 LVVM 12.58 311 eP 22 22.50 -0.8
 DIAC 13.08 128 eP 22 30.67 0.6
 PURC 13.59 132 eP 22 37.78 0.7
 IIT 13.62 304 iPd 22 38.00 0.7
 PSO 13.73 138 eP 22 39.00 0.1
 COTA 13.78 144 eP 22 41.00 1.4
 PPM 13.90 304 iPd 22 42.00 0.8
 BMG 13.92 108 iPd 22 44.50 3.4X
 FUQ 13.95 115 eP 22 43.00 1.4
 ACX 14.03 293 iPd 22 43.00 0.6
 GGP 14.05 146 eP 22 48.50 5.2X
 BOG 14.06 119 eP 22 46.00 2.9X
 eS 25 44.00
 QUR 14.09 146 eP 22 45.50 1.9
 CAYA 14.19 143 eP 22 45.00 0.0
 III 14.28 300 iPc 22 46.00 0.2
 UNM 14.49 304 (P) 22 59.50 10.8X
 VC1 14.55 146 eP 22 49.50 -0.2
 IJJ 15.14 304 iPd 22 58.50 1.2
 FISA 16.76 89 eP 23 20.00 2.6
 PLAV 18.67 93 eP 23 43.00 1.9
 LLAV 19.29 91 iP 23 48.00 -0.1
 OLLA 19.34 93 eP 23 47.00 -1.6
 PORP 20.16 69 P 23 59.50 2.3
 GUAN 20.48 93 eP 24 01.00 0.5
 SJG 20.63 69 eP 24 04.00 2.0
 CPD 20.82 70 P 24 05.50 1.5
 CUM 21.87 91 iP 24 16.00 1.5
 HBF 21.94 14 P 24 20.00 5.0X
 SGS 22.16 13 P 24 21.50 4.4X
 MZX 22.26 304 iP 24 20.00 1.7
 PRM 22.68 9 P 24 25.80 3.5X
 JSC 23.05 11 P 24 30.00 4.1X
 LHS 23.34 12 P 24 32.40 3.8X
 RSCP 23.90 2 P 24 37.20 3.0X
 Z 22s 3.17um 4.7MsZ
 MGH 24.01 75 eP 24 35.00 -0.4
 OLY 24.22 350 eP 24 37.90 0.6
 e 25 07.00
 e 25 16.20
 e 25 36.30

BPA 24.40 74 eP 24 41.33 2.2
 PAG 24.42 77 eP 24 40.00 0.6
 TPP 24.55 91 eP 24 40.32 -0.3
 BBL 24.55 78 eP 24 41.00 0.3
 TRN 24.57 90 eP 24 40.28 -0.5
 SVB 24.63 83 eP 24 43.30 1.9
 SLB 24.86 82 eP 24 44.28 0.7
 TUL 25.64 342 iPc 24 50.70 0.0
 1.0s 63.30nm 5.1mb
 SIO 25.64 341 e(P) 24 50.00 -0.7
 BLA 26.06 11 P 24 57.50 2.9X
 1.0s 110.00nm 5.3mb
 NAV 26.09 10 P 24 57.20 2.3
 FVM 26.51 353 ePc 24 58.20 -0.5
 0.9s 67.80nm 5.2mb
 CVL 27.21 14 P 25 08.00 2.9
 CBN 27.69 15 eP 25 12.30 2.9
 e 25 23.00
 ALQ 29.51 325 iPc 25 26.00 -0.1
 0.9s 67.86nm 5.3mb
 Z 20s 2.84um 4.9MsZ
 ANMO 29.52 325 iPc 25 26.40 0.3
 1.0s 65.00nm 5.3mb
 i 26 08.50
 i 27 08.50
 iPcP 28 31.40
 LVNJ 30.85 17 P 25 40.60 3.0X
 TBR 31.31 18 P 25 44.20 2.5
 DLA 31.42 7 P 25 42.70 0.1
 ARE 31.56 152 eP 25 45.00 0.6
 LDN 31.64 7 P 25 44.70 0.2
 ELF 31.78 7 P 25 45.75 0.0
 GLD 32.60 333 P 25 53.80 0.6
 1.2s 131.31nm 5.6mb
 Z 22s 4.64um 5.1MsZ
 GOL 32.63 332 iPc 25 53.40 -0.1
 0.8s 92.26nm 5.7mb
 i 27 20.00
 iPcP 28 39.70
 ZOBO 33.09 146 Pc 25 57.00 -1.1
 1.3s 47.32nm 5.2mb
 S 31 16.00
 LR 36 22.00
 LPB 33.32 147 P 26 00.00 0.1
 1.0s 60.00nm 5.4mb
 Z 16s 8.75um 5.6MsZ
 LR 36 44.00
 PV09 33.58 327 eP 26 01.40 -0.4
 i 27 24.00
 iPcP 28 41.20
 GLA 33.66 314 eP 26 03.00 0.7
 e 28 42.00
 RSNY 34.38 15 iPc 26 10.30 2.0
 1.2s 206.51nm 5.9mb
 Z 19s 16.77um 5.8MsZ
 i 26 19.90
 WNY 34.41 16 P 26 10.50 1.9
 HBVT 34.60 17 P 26 11.90 1.7
 BAR 34.79 312 eP 26 14.00 2.0
 e 28 45.00
 TPC 35.08 314 eP 26 14.00 -0.5
 e 28 46.00
 CCH 35.09 145 P 26 14.70 -0.3
 PLM 35.27 313 eP 26 16.00 -0.2
 e 28 46.00
 MSU 35.28 324 P 26 17.20 0.8
 BNH 35.36 19 P 26 19.20 2.6
 RSSD 35.78 338 ePc 26 20.90 0.4
 iPcP 28 47.50
 RVR 35.96 313 eP 26 23.00 1.1
 e 28 48.00
 DAU 36.09 327 P 26 24.00 0.7
 GSC 36.25 316 eP 26 25.00 0.6
 e 28 50.00
 MWC 36.57 313 eP 26 28.00 0.8
 e 28 49.00
 PAS 36.61 313 eP 26 29.00 1.7
 ePcP 28 02.00
 ePP 28 51.00
 ePcS 32 08.00
 eS 32 30.00
 eLg 35 04.00
 eScS 36 34.00
 eLR 37 20.00

SBB 36.64 314 eP 26 28.00 0.4
 e 28 50.00
 BW06 36.99 331 iPc 26 30.50 -0.2
 0.6s 45.35nm 5.6mb
 iPcP 28 49.00
 e 32 38.70
 SIV 37.17 137 iPc 26 31.60 -0.6
 ISA 37.60 315 eP 26 37.00 1.3
 e 28 54.00
 ABL 37.71 313 P 26 38.80 2.0
 TNP 38.09 319 iPc 26 41.00 1.0
 1.0s 29.17nm 5.2mb
 iPcP 28 55.00
 SYP 38.10 312 eP 26 42.00 2.0
 e 28 55.00
 BLP 38.42 312 P 26 44.00 1.5
 CBM 38.45 20 P 26 43.80 1.2
 BCH 38.49 313 eP 26 44.60 1.4
 ePcP 28 57.00
 PHAM 39.03 314 P 26 49.00 1.4
 FRI 39.14 316 eP 26 48.30 -0.2
 ePcP 28 58.00
 KVN 39.22 320 iPc 26 50.00 0.6
 iPcP 28 59.00
 PRI 39.37 314 eP 26 51.20 0.6
 HPI 39.41 329 P 26 52.00 1.0
 RSON 39.59 353 iPc 26 52.20 0.2
 1.0s 273.86nm 6.1mb
 Z 22s 3.17um 5.1MsZ
 i 27 01.30
 i 27 13.90
 e 32 46.00
 LLA 39.80 315 eP 26 54.30 0.3
 ePcP 29 00.70
 PRS 39.96 314 eP 26 55.70 0.4
 ePcP 29 01.20
 CMB 40.15 317 eP 26 57.20 0.3
 ePcP 29 11.40
 ARN 40.58 315 P 27 02.00 1.6
 MHC 40.65 315 eP 27 02.20 1.1
 LRM 40.66 332 iPc 27 01.70 0.5
 i 29 04.50
 GCC 40.74 314 eP 27 02.10 0.5
 PCC 41.24 315 eP 27 07.00 1.3
 BRK 41.34 315 eP 27 07.70 1.2
 ePcP 29 05.40
 ORV 41.69 318 eP 27 10.30 0.9
 ePcP 29 05.70
 MIN 42.18 319 eP 27 13.60 0.0
 ePcP 29 07.80
 WDC 42.91 319 eP 27 16.00 -3.4X
 ePcP 29 09.70
 SES 43.64 337 iPc 27 25.30 0.1
 1.0s 202.00nm 5.8mb
 NEW 44.62 331 ePd 27 32.80 -0.4
 1.2s 68.18nm 5.3mb
 Z 20s 3.00um 5.2MsZ
 iPcP 29 15.40
 FFC 44.73 347 iPc 27 33.80 -0.1
 0.7s 144.00nm 5.9mb
 DPW 44.88 330 P 27 35.20 -0.1
 SCH 45.80 16 ePc 27 42.40 0.0
 0.9s 117.00nm 5.8mb
 LON 46.02 326 P 27 44.00 -0.3
 PNT 46.55 330 ePc 27 49.00 0.6
 BMW 46.63 325 P 27 48.00 -1.1
 BAO 46.69 125 eP 27 47.90 -2.2
 EDM 46.76 338 iPc 27 49.50 -0.6
 0.7s 135.00nm 6.0mb
 GMW 47.03 327 P 27 51.40 -0.8
 FCH 47.26 162 eP 28 03.00 8.4X
 SAN 47.26 162 eP 27 58.50 4.3X
 TACH 47.36 162 eP 27 58.80 3.8X
 PCH 47.46 162 eP 28 02.00 6.1X
 LNV 47.51 163 eP 27 55.00 -1.1
 ITB1 47.71 139 e(P) 27 56.10 -1.7
 CHCH 47.71 162 eP 28 05.00 7.3X
 MCW 47.75 328 P 27 57.50 -0.4
 ITB 47.93 139 e(P) 27 57.30 -2.2
 PGC 48.06 328 eP 28 00.00 -0.2
 ITB7 48.18 140 e(P) 27 59.80 -1.7
 FRB 53.57 10 eP 28 41.00 -0.7
 0.8s 43.00nm 5.5mb
 YKA 54.68 344 eP 28 47.50 -2.4
 0.9s 57.90nm 5.6mb
 GDH 61.31 13 eP 29 36.00 -0.3
 Z 1Bs 5.15um 5.7MsZ

04d 04h

			e	33	30.00				1.2s	8.95nm		4.6mb	WRA	139.99	253	PKP	38	42.00	-7.2X	
			e	38	45.00		SSF	81.56	44	eP	31	35.20	-2.4							
			e	42	33.00			0.8s		4.05nm		4.4mb	GUN	140.01	11	PKP	38	41.66	-7.8X	
TOA	65.88	334	eP	30	04.50	-1.9	LOR	81.77	43	eP	31	36.50	-2.2							
RUV	65.97	248	iP	30	07.40	-0.1	SMF	81.85	44	eP	31	36.60	-2.5	KKN	140.02	11	PKP	38	42.08	-7.3X
	1.2s	15.00nm			4.9mb		ENN	82.59	40	eP	31	43.00	0.1	DMN	140.16	12	PKP	38	43.30	-6.4X
		iP	30	17.30	32kmX			1.0s	11.00nm			4.8mb	PKI	140.26	11	PKP	38	43.54	-6.4X	
TPT	66.12	248	iP	30	08.40	-0.1	WTS	82.94	38	eP	31	51.00	6.4X		1.0s	41.00nm				
	1.2s	15.00nm			4.9mb		HAU	83.32	42	eP	31	44.80	-2.0	BAG	141.42	316	ePKP	38	46.00	-6.1X
VAH	66.21	248	iP	30	08.90	-0.2	NB2	83.61	29	P	31	47.20	-0.8	KMI	142.41	346	PKP+	38	48.00	-5.7X
	1.2s	10.00nm			4.7mb			1.0s	12.00nm			4.9mb		Z	25s	1.00um			5.5mszX	
		iP	30	18.80	32kmX		BSF	83.65	43	eP	31	46.40	-2.1		E	18s	1.00um			
PMO	66.37	248	iP	30	10.40	0.3	CDF	83.86	42	eP	31	47.40	-2.2			pPKP	39	03.50		
	1.2s	5.00nm			4.4mb		KUK	84.93	85	eP	31	48.00	-7.4X	DAV	143.15	299	ePKP	38	52.00	-2.9X
		iP	30	20.10	31kmX		HFS	85.01	30	eP	31	53.30	-1.6	MTN	143.30	264	ePKP	38	52.00	-3.1X
MBC	66.99	352	eP	30	12.50	-0.6		0.4s	1.00nm			4.3mb	POO	144.28	33	PKP	38	55.50	-1.3	
	0.9s	86.00nm			5.7mb		GRF	86.14	40	eP	32	00.00	-0.8	KNA	145.59	259	ePKP	38	59.00	0.0
		pP	32	34.00	748kmX		Z	20s	5.00um			5.9msz	WARB	145.64	240	iPKPd	38	59.30	0.4	
PMR	67.02	333	eP	30	12.70	-0.8			e	32	18.00			0.4s	3.00nm					
KDC	67.55	328	eP	30	16.80	-0.1			e	33	11.00		MNI	146.33	291	e(PKP)	39	02.50	2.2X	
FBA	67.60	336	ePc	30	16.80	-0.3	MOX	86.16	39	eP	32	02.00	1.1	PPR	147.19	309	iPKPc	39	06.00	4.4X
	0.8s	43.10nm			5.5mb		Z	19s	1.90um			5.5msz		1.0s	110.00nm					
		ePP	32	44.00			N	19s	1.90um				HYB	147.57	27	ePKPc	39	03.00	0.8	
		e	32	55.90			E	20s	1.40um				CHG	149.31	350	iPKPd	39	06.10	1.2	
SVW	69.89	331	ePc	30	29.90	-1.5			eS	42	53.00			1.0s	18.75nm					
	1.2s	78.10nm			5.5mb		SMY	86.52	323	eP	32	02.90	0.3	CHTO	149.31	350	ePKP	39	05.20	0.3
IMA	70.30	336	ePc	30	32.40	-1.5	CLL	86.85	38	iP	32	03.80	-0.4		1.2s	23.61nm				
	1.1s	31.30nm			5.2mb			1.1s	12.00nm			5.0mb			pP	39	10.20			
TTA	70.48	333	ePc	30	33.20	-1.8	Z	18s	2.50um			5.7msz	NWAO	149.65	222	ePKP	39	06.00	1.0	
	1.0s	70.00nm			5.5mb			e	32	21.00			GBA	150.27	33	PKPc	39	07.30	0.9	
SDN	71.48	325	ePc	30	40.90	-0.1	KHC	87.77	40	P	32	08.00	-0.7		0.9s	37.60nm				
BRW	72.80	341	eP	30	47.80	-0.8	Z	19s	5.70um			6.0msz	BDT	150.83	349	iPKPd	39	08.80	1.7	
DAG	73.72	13	iPd	30	52.10	-1.7	N	19s	0.70um					1.0s	196.70nm					
	0.8s	18.66nm			5.1mb		E	19s	3.80um				MUN	150.92	222	ePKP	39	07.30	0.3	
	Z	22s	5.19um		5.8msz				e	32	30.50				e	39	13.00			
	N	22s	2.52um				SOD	87.94	21	iP	32	10.00	0.8	TSM	151.00	301	ePKP	39	09.00	1.5
	E	22s	2.81um				PRU	88.14	39	eP	32	11.00	0.5	BAL	151.42	225	ePKP	39	08.00	0.3
DCN	74.30	38	eP	30	57.50	-0.1		Z	21s	4.50um		5.9msz	KKM	151.45	307	ePKPd	39	10.00	1.6	
AVE	74.59	59	eP	30	59.50	-0.2		N	21s	1.20um			NST	152.13	346	ePKP	39	12.00	2.9X	
		i	31	21.00			E	21s	3.60um				KOD	153.03	37	ePKP	39	12.00	1.1	
DLE	74.74	38	eP	30	58.00	-2.1			e	32	27.00		NNT	155.19	346	ePKP	39	15.30	1.9	
ANM	74.84	334	ePc	31	00.60	0.1	KBA	88.15	42	eP	32	04.50	-6.3X	SNG	160.07	339	ePKP	39	19.10	-0.2
EKA	76.72	36	P	31	10.00	-1.3		1.0s	8.00nm			4.9mb	IPM	162.29	335	ePKPc	39	22.50	0.9	
	1.7s	55.20nm			5.3mb			e	32	13.00			KGM	163.36	324	ePKPd	39	24.00	1.4	
MAL	76.80	55	eP	31	10.00	-2.1		e	32	35.00									S.D. = 1.3 on 220 of 260 obs.	
		iS	41	20.00				e	33	33.00										
TOL	76.84	52	eP	31	10.00	-2.3	ZST	90.27	41	eP	32	19.60	-0.9	? APR 04, 1990 05h 03m	34.89±2.05s					
		ePP	35	06.00			SPC	91.92	39	eP	32	33.00	4.6X		45.683 N ±17.7km	14.280 E ±8.3km				
		eS	41	22.00			BJI	124.50	339	PKP	38	20.00	0.7		DEPTH = 10.0km (geophysicist)					
		ePS	41	53.00				1.0s	48.00nm						YUGOSLAVIA	(383)				
		eSS	46	10.00			Z	26s	2.05um			5.7mszX			ML 2.5 (KBA). MD 2.5 (LJU).					
ALOJ	77.01	54	iPd	31	13.50	0.0		ePP	40	04.00			CEY	0.12	61	ePg	03	38.50	0.6	
ATEJ	77.10	55	iPc	31	14.50	0.5	CAN	124.74	235	ePKP	38	18.80	-1.2			eSg	03	50.50		
ACHM	77.23	54	eP	31	15.00	0.4		e	38	29.10			RIY	0.35	168	ePg	04	30.10	48.1X	
ASMO	77.28	54	iPc	31	15.00	0.1	BWA	125.37	236	ePKP	38	21.00	-0.2			iSg	04	39.90		
APHE	77.36	55	eP	31	15.50	0.1		e	38	31.50			TRI	0.36	274	iPg	03	41.30	-1.0	
LPF	78.40	43	eP	31	18.50	-2.2	RMQ	126.16	246	ePKP	38	24.00	1.0			iSg	03	58.90		
	1.0s	24.00nm			5.1mb		TOO	126.99	232	ePKP	38	25.00	0.7			ePn	03	42.00	-1.1	
GRR	78.49	43	eP	31	19.20	-2.0		e	38	36.00			LJU	0.40	26	eSg	04	00.00		
	0.6s	10.80nm			5.0mb		CTA	128.80	254	iPKPd	38	29.00	0.9			iPnd	03	44.90	1.0	
FLN	78.71	42	eP	31	20.50	-1.9		1.0s	30.00nm				VOY	0.44	322	eSn	04	05.10		
	0.7s	8.80nm			4.8mb			i	38	39.50						eSn	03	51.50	-0.8	
LDF	78.96	42	eP	31	21.90	-1.9		e(SKp)	41	47.00			RBL	0.91	327	P	04	01.50		
	0.8s	13.45nm			4.9mb			e(PKS)	42	01.50						eSn	04	19.50		
MFF	79.13	44	eP	31	22.50	-2.2	SSE	129.95	329	PKPd	38	30.00	0.0	FVI	1.38	312	P	04	01.50	1.3
	0.9s	11.45nm			4.8mb			1.1s	110.00nm							eSn	04	33.00		
EPF	79.84	48	eP	31	26.80	-1.9	Z	20s	0.50um			5.2msz	KBA	1.54	335	e(Pn)	04	00.00	-2.6X	
	1.3s	18.05nm			4.8mb			ePKS	41	48.00						iSg	04	30.00		
LFF	79.91	46	eP	31	27.10	-1.9	LZH	131.58	349	PKPc	38	34.00	0.8							
EBR	80.20	50	eP	31	32.00	1.4		Z	22s	3.40um		6.0msz	FIR	2.88	230	eP	05	00.00	38.4X	
LPO	80.26	46	eP	31	28.80	-2.0	N	21s	2.70um										S.D. = 1.4 on 6 of 9 obs.	
	0.9s	9.85nm			4.7mb			ePP	41	50.00										
KBS	80.29	11	iP	31	32.60	2.2		i	42	00.00										
TIC	80.30	85	P	31	30.50	-1.2		i	42	20.00										
LIC	80.37	86	P	31	30.38	-1.6		SKKKS	48	42.00										
RJF	80.42	46	eP	31	29.60	-2.1	ADE	132.98	233	iPKPd	38	36.50	0.8							
	1.1s	14.65nm			4.8mb		QIS	135.01	253	ePKP	38	40.00	0.1							
KIC	80.63	85	P	31	31.72	-1.7	GKN	139.68	12	PKP	38	40.96	-7.7X							
TCF	80.78	45	eP	31	31.30	-2.3	ASPA	139.88	247	iPKPd	38	44.10	-4.9X							
	1.1s	9.75nm			4.6mb		Z	22s	0.88um			5.5mszX								
MAF	81.03	45	eP	31	32.80	-2.1			i	38	49.00									
	1.1s	11.00nm			4.7mb			LR	28	42.90										
ADK	81.13	321	ePd	31	35.00	-0.2	WB5													

WRA	139.99	253	PKP	38	42.00	-7.2X
GUN	140.01	11	PKP	38	41.66	-7.8X
KKN	140.02	11	PKP	38	42.08	-7.3X
DMN	140.16	12	PKP	38	43.30	-6.4X
PKI	140.26	11	PKP	38	43.54	-6.4X
BAG	141.42	316	ePKP	38	46.00	-6.1X
KMI	142.41	346	PKP+	38	48.00	-5.7X
Z	25s	1.00um			5.5mszX	
E	18s	1.00um				

DAV	143.15	299	ePKP	38	52.00	-2.9X
MTN	143.30	264	ePKP	38	52.00	-3.1X
POO	144.28	33	ePKP	38	55.50	-1.3
KNA	145.59	259	ePKP	38	59.00	0.0
WARB	145.64	240	iPKPd	38	59.30	0.4
MNI	146.33	291	e(PKP)	39	02.50	2.2X
PPR	147.19	309	iPKPc	39	06.00	4.4X
HYB	147.57	27	ePKPc	39	03.00	0.8
CHG	149.31	350	iPKPd	39	06.10	1.2
CHTD	149.31	350	ePKP	39	05.20	0.3
NWAO	149.65	222	ePKP	39	06.00	1.0
GBA	150.27	33	PKPc	39	07.30	0.9
BDT	150.83	349	iPKPd	39	08.80	1.7
MUN	150.92	222	ePKP	39	07.30	0.3
TSM	151.00	301	ePKP	39	09.00	1.5
BAL	151.42	225	ePKP	39	08.00	0.3
KKM	151.45	307	ePKPd	39	10.00	1.6
NST	152.13	346	ePKP	39	12.00	2.9X
KOD	153.03	37	ePKP	39	12.00	1.1
NNT	155.19	346	ePKP	39	15.30	1.9
SNG	160.07	339	ePKP	39	19.10	-0.2
IPM	162.29	335	ePKPc	39	22.50	0.9
KGM	163.36	324	ePKPd	39	24.00	1.4

S.D. = 1.3 on 220 of 260 obs.

? APR 04, 1990 05h 03m 34.89± 2.05s
 45.683 N ± 17.7km 14.280 E ± 8.3km
 DEPTH = 10.0km (geophysicist)
 YUGOSLAVIA (383)
 ML 2.5 (KBA). MD 2.5 (LJU).

Mff=-7.30 1.32 Mrt=-5.77 2.89
 Mrf=-1.84 4.63 Mtf=-1.09 1.01
 Principal Axes:
 T Val= 11.80 Plg=67 Azm=170
 N -3.63 19 26
 P -8.17 13 292
 Best Double Couple: Mo=1.0*10**17
 NP1:Strike=359 Dip=36 Slip= 57
 NP2: 218 60 112

SVA 7.98 294 eP 42 05.20 -0.4
 VUN 8.02 295 eP 42 05.30 -1.0
 SGE 8.67 296 ePc 42 16.00 0.6
 NDF 8.99 293 eP 42 21.10 1.4
 RAR 13.16 91 P 43 32.00 15.8X
 S 45 23.00
 TBI 22.65 99 eP 45 25.00 16.6X
 1.1s 150.00nm
 AFR 23.07 84 eP 45 13.00 0.4
 1.0s 70.00nm 5.1mb
 PPN 23.39 84 eP 45 16.00 0.3
 1.0s 40.00nm 4.9mb
 TVO 23.50 85 eP 45 18.00 1.2
 1.0s 105.00nm 5.3mb
 PMO 25.52 80 iP 45 34.30 -1.8
 1.0s 25.00nm 4.8mb
 VAH 25.69 80 iP 45 35.30 -2.4
 1.0s 20.00nm 4.7mb
 TPT 25.78 80 iP 45 36.50 -2.0
 1.0s 35.00nm 4.9mb
 RUV 25.93 80 iP 45 37.60 -2.3
 1.0s 25.00nm 4.8mb
 MSZ 27.49 209 eP 45 56.00 2.0
 RMO 34.38 254 eP 46 53.00 -2.1
 ADE 43.44 242 iPc 48 08.00 -1.7
 ASPA 48.01 257 iPd 48 43.50 -3.5X
 1.0s 69.00nm 5.6mb
 Z 21s 0.90um 4.7MsZ
 eS 55 37.30
 LR 06 47.40
 WB5 48.23 262 eP 48 44.90 -3.8X
 WRA 48.25 262 Pc 48 44.50 -4.3X
 1.2s 43.30nm 5.4mb
 MTN 53.00 270 eP 49 21.00 -4.0X
 VNDA 57.21 186 e(P) 49 57.70 3.0X
 MBL 61.26 257 eP 50 20.60 -2.9
 0.4s 10.00nm 5.3mb
 MRWA 62.97 247 eP 50 33.00 -1.8
 NANU 64.81 254 iPd 50 45.60 -1.3
 0.4s 10.00nm 5.3mb
 SPA 68.55 180 eP 51 12.50 2.3
 1.3s 33.33nm 5.2mb
 MAT 73.39 321 eP 51 37.00 -2.5
 1.3s 53.85nm 5.4mb
 SYP 75.74 44 eP 51 54.00 0.8
 PRS 76.02 41 eP 51 54.60 0.0
 BCH 76.09 43 P 51 56.00 0.8
 GCC 76.09 40 eP 51 54.80 -0.2
 PCC 76.17 40 e(P) 51 55.10 -0.3
 SAO 76.25 41 eP 51 55.50 -0.4
 PRI 76.33 42 eP 51 56.60 0.1
 BRK 76.49 40 eP 51 56.60 -0.6
 MHC 76.51 40 eP 51 57.50 0.0
 ARN 76.58 40 P 51 58.20 0.4
 PAS 76.68 45 eP 51 59.00 0.7
 MWC 76.80 45 eP 52 01.00 1.7
 PLM 77.07 46 eP 52 02.00 1.2
 RVR 77.11 45 eP 52 01.00 0.3
 SBB 77.23 45 eP 52 02.00 0.5
 ISA 77.41 43 eP 52 03.00 0.5
 FRI 77.47 42 eP 52 02.20 -0.4
 CMB 77.72 41 eP 52 03.90 -0.2
 ORV 78.04 39 eP 52 05.10 -0.7
 TPC 78.06 46 eP 52 07.00 1.0
 CLC 78.07 44 eP 52 07.00 0.9
 WDC 78.13 37 eP 52 05.80 -0.4
 GLA 78.27 47 eP 52 08.00 0.8
 GSC 78.27 45 eP 52 08.00 0.8
 MIN 78.50 38 eP 52 07.60 -0.9
 TNP 79.69 42 P 52 15.00 -0.1
 1.0s 20.83nm 5.1mb
 pP 52 27.00 40km
 KVN 79.75 41 P 52 15.00 -0.3
 BMW 81.75 33 P 52 26.50 1.0
 LON 82.66 33 P 52 30.00 -0.2
 GMW 82.71 32 P 52 30.50 0.1
 RMW 83.14 33 P 52 32.80 0.1

MSU 83.16 44 P 52 34.00 0.8
 MCW 83.46 31 P 52 35.20 0.9
 SVW 83.71 9 eP 52 35.30 0.0
 KGM 84.03 275 ePd 52 38.10 0.2
 ALO 85.13 50 eP 52 42.50 -0.7
 1.0s 21.25nm 5.3mb
 Z 18s 0.52um 5.0MsZ
 ANMO 85.13 50 P 52 43.90 0.7
 1.0s 20.00nm 5.3mb
 PMR 85.24 12 eP 52 41.50 -1.3
 TTA 85.40 8 ePc 52 43.10 -0.7
 1.0s 40.00nm 5.6mb
 PNT 85.46 32 eP 52 45.00 0.7
 NEW 86.06 34 P 52 47.00 -0.3
 1.0s 7.50nm 4.9mb
 TOA 86.28 13 eP 52 47.40 -0.8
 IPM 87.10 276 ePc 52 54.20 1.1
 1.1s 66.00nm 5.8mb
 LRM 87.15 38 eP 52 52.40 -0.5
 GOL 88.27 46 P 52 59.50 1.0
 1.0s 10.00nm 5.1mb
 SNG 88.44 278 eP 52 59.90 0.5
 BJI 89.37 314 eP 53 03.00 -0.3
 2.2s 120.00nm 5.8mb
 Z 20s 0.42um 4.9MsZ
 SES 90.52 35 eP 53 08.10 -0.4
 EDM 90.97 32 eP 53 09.50 -1.0
 LOE 91.24 288 eP 53 13.00 0.6
 NNT 91.24 283 eP 53 14.20 1.7
 e 03 14.00
 RSSD 91.31 43 P 53 12.40 -0.1
 NST 92.01 286 eP 53 19.00 3.0X
 SIO 92.86 53 eP 53 20.00 0.4
 KMI 93.26 296 P+ 53 23.00 1.1
 2.0s 0.10nm 2.9mb X
 pP 53 33.50 33km
 TUL 93.31 53 eP 53 22.70 1.1
 1.1s 6.90nm 5.0mb
 BRW 93.40 5 eP 53 22.20 1.0
 CHG 94.22 288 iPd 53 27.80 1.7
 1.0s 21.75nm 5.5mb
 CHTO 94.22 288 eP 53 26.80 0.7
 1.0s 24.50nm 5.6mb
 INK 94.35 14 eP 53 25.00 -0.7
 YKA 95.92 24 eP 53 31.70 -1.3
 1.0s 3.70nm 4.8mb
 LZH 96.48 306 eP 53 36.80 0.4
 2.5s 60.00nm 5.7mb
 FRB 115.92 28 ePKP 59 09.00 19.9X
 DAG 123.39 7 ePKP 59 03.50 0.4
 MAIO 131.60 300 ePKP 59 20.00 -0.2
 BHD 144.26 297 ePKPd 59 41.50 -1.8
 MSL 144.63 303 ePKPd 59 41.00 -2.9X
 DCN 146.67 15 ePKP 59 51.20 4.5X
 DLE 146.89 14 ePKP 59 50.00 2.9X
 LWI 147.55 226 iPKPc 59 52.40 2.8X
 KAS 149.45 317 iPKPc 59 56.80 5.2X
 KRA 149.55 342 ePKP 59 55.90 4.5X
 e 00 48.10
 WTS 149.63 359 ePKP 59 56.00 4.6X
 0.9s 21.00nm
 KSP 149.72 347 ePKP 59 56.50 4.9X
 1.2s 51.00nm
 ic 00 01.50
 CLL 149.84 351 iPKPd 59 57.00 5.2X
 2.0s 140.00nm
 SPC 150.24 341 ePKP 59 57.00 4.3X
 VRI 150.49 330 ePKP 00 00.00 7.1X
 MOX 150.67 353 ePKP 59 59.00 5.9X
 1.8s 54.00nm
 ENN 150.87 0 ePKP 00 00.00 6.7X
 1.0s 20.00nm
 PRU 150.87 349 ePKP 59 58.50 5.1X
 e 00 04.00
 MLR 151.13 330 ePKP 59 54.00 -0.1
 e 23 40.00
 TNS 151.35 357 ePKP 00 01.80 7.6X
 DOU 151.52 2 PKP 00 02.90 8.6X
 GRF 151.65 353 ePKP 00 01.20 6.6X
 e 00 09.60
 e 00 21.50
 ABH 151.73 358 ePKP 00 01.12 6.4X
 KHC 151.87 350 ePKP 00 00.00 5.0X
 1.0s 14.00nm
 e 00 10.50
 RUP 151.93 359 ePKP 00 01.91 6.9X
 TOD 151.95 356 ePKP 00 01.41 6.4X

ZST 152.01 344 e(PKP)00 10.60 15.5X
 DSI 152.06 297 ePKP 59 59.00 3.3X
 BUD 152.13 341 e(PKP)00 02.00 6.7X
 LFK 152.39 306 ePKP 00 03.80 7.6X
 MBH 152.87 293 e(PKP)00 04.00 7.1X
 LPF 152.99 11 ePKP 00 00.00 3.5X
 1.0s 18.00nm
 FEL 153.72 357 ePKP 00 01.69 4.0X
 KBA 153.89 349 e(PKP)00 08.00 9.9X
 1.0s 10.70nm
 MFF 154.52 10 ePKP 00 01.40 2.8X
 0.8s 10.75nm
 BGF 154.94 5 ePKP 00 10.10 10.9X
 0.8s 12.75nm
 CTI 155.17 351 PKP 00 16.00 16.3X
 RJF 156.04 8 ePKP 00 04.00 3.2X
 0.7s 8.80nm
 LFF 156.28 10 ePKP 00 01.30 0.2
 0.7s 16.55nm
 CAF 156.48 7 ePKP 00 05.10 3.7X
 0.9s 9.85nm
 LPO 156.60 9 ePKP 00 02.10 0.6
 0.7s 9.90nm
 BCAO 159.12 217 iPKPd 00 06.30 0.9
 1.0s 53.00nm
 ic 00 14.90
 id 00 35.00
 S.D. = 1.1 on 87 of 130 obs.

APR 04, 1990 05h 47m 10.51 ± 0.76s
 16.179 S ± 4.3km 72.974 W ± 5.3km
 DEPTH = 93.4 ± 7.1 km
 5.5mb (24 obs.)
 NEAR COAST OF PERU (115)
 Felt (111) at Arequipa.
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 10S, 19C
 Centroid Location:
 Origin Time 05:47:16.5 0.6
 Lat 16.27S FIX; Lon 73.30W FIX
 Dep 56.0 FIX Half-duration 2.0
 Moment Tensor; Scale 10**17 Nm
 Mrr=-0.50 0.15 Mtt= 0.09 0.20
 Mff= 0.41 0.23 Mrt= 0.05 0.13
 Mrf=-1.69 0.11 Mtf=-0.01 0.18
 Principal Axes:
 T Val= 1.71 Plg=38 Azm= 88
 N 0.09 0 358
 P -1.79 52 268
 Best Double Couple: Mo=1.8*10**17
 NP1:Strike=179 Dip= 7 Slip= -89
 NP2: 358 83 -90
 ARE 1.45 101 iPd 47 35.80 -0.7
 PT03 3.49 308 iPc 47 54.10 -9.6X
 ZOBO 4.66 92 iPc 48 22.50 2.1
 LPB 4.69 95 Pc 48 23.30 2.6
 S 49 38.00
 CCH 6.65 101 P 48 46.90 -0.8
 i 48 49.50
 ANT 7.86 163 iPd 48 57.80 -6.2X
 iS 50 19.50
 SIV 11.44 91 iP 49 48.20 -4.2X
 TUNG 15.63 339 P 50 47.00 -0.2
 ZON 15.79 166 e(P) 50 45.00 -3.8X
 VC1 16.34 340 eP 50 56.50 0.2
 JACH 16.57 173 eP 51 09.00 10.4X
 OUR 16.82 340 eP 51 03.30 1.1
 CAYA 16.89 343 eP 51 05.00 1.8
 COTA 17.24 342 eP 51 07.50 0.0
 FCH 17.25 172 eP 51 08.40 1.2
 LCCH 17.27 176 eP 51 07.50 0.4
 SAN 17.33 173 eP 51 07.00 -0.9
 TACH 17.50 174 eP 51 09.50 -0.4
 LNV 17.76 176 eP 51 12.40 -0.7
 PSO 17.79 346 eP 51 14.50 0.5
 CHCH 17.80 174 eP 51 11.50 -2.2
 PURC 18.69 349 eP 51 25.65 0.7
 ITB1 19.33 119 Pd 51 28.60 -2.5
 SALC 19.38 349 eP 51 31.24 -0.7
 ITB 19.54 119 e(P) 51 31.00 -2.4
 DIAC 19.61 350 eP 51 35.10 0.8
 ITB7 19.69 120 Pd 51 30.30 -4.7X
 ANCC 19.94 349 eP 51 37.00 -0.7
 BOG 20.70 357 iPc 51 47.00 1.3
 iS 55 40.00

04d 05h

FUQ	21.52	358	eP	51	45.00	-8.9X	GCC	70.23	320	eP	58	15.60	0.2	1.6s	66.67nm					
BMG	23.10	360	eP	52	09.00	-0.1	LIC	70.80	77	Pc	58	17.78	-1.6	MAIO	133.42	55	ePKP	06	18.00	0.1
BAO	24.03	92	eP	52	17.00	-1.2	SCH	70.91	4	eP	58	19.00	-0.2	WRA	135.18	218	PKPd	06	20.70	-0.9
PLAV	26.45	12	eP	52	41.00	0.2			pP	58	40.00	80kmX	0.5s	5.50nm						
OLLA	26.74	14	iPc	52	48.00	4.6X	TIC	70.95	77	P	58	18.66	-1.6	WB5	135.21	218	ePKP	06	21.50	-0.1
GUAC	26.80	13	eP	52	44.00	0.0	KIC	71.11	77	Pc	58	19.86	-1.4	MTN	142.59	221	iPKPd	06	30.80	-4.4X
LLAV	27.18	13	iPc	52	47.00	-0.3		0.8s	94.50nm			5.7mb		NIJ	144.82	313	PKP	06	37.30	-1.1
FISA	27.50	8	eP	52	48.00	-2.3	RUV	71.25	259	iP	58	22.90	0.9	CHJJ	145.37	311	PKP	06	39.80	0.4
SLB	32.06	22	eP	53	28.62	-2.1		1.5s	80.00nm			5.4mb		MAT	145.71	312	ePKP	06	38.00	-2.0
PORP	34.58	11	P	53	50.50	-1.9	LRM	71.29	332	eP	58	20.00	-2.0		1.2s	364.06nm				
OXX	40.50	324	iPd	54	44.00	1.8	VAH	71.47	259	iP	58	24.20	0.9	MTMJ	145.98	313	PKP	06	40.80	0.3
IT	42.95	324	iPd	55	05.00	2.7		1.5s	115.00nm			5.5mb		IIDJ	146.41	311	PKP	06	42.20	1.0
III	43.12	322	iPc	55	05.00	1.4	TPT	71.52	259	iP	58	24.60	1.0	TSRJ	147.77	312	PKP	06	48.90	5.6X
PPM	43.17	323	iPd	55	07.00	2.6		1.5s	155.00nm			5.6mb		POO	148.27	81	iPKPc	06	49.30	4.7X
IIJ	44.33	323	iPc	55	16.00	2.2	ORV	71.56	322	eP	58	24.00	0.6	KOD	150.64	98	ePKP	06	50.20	1.5
MRX	45.18	321	iPd	55	21.30	1.7	PMO	71.77	259	iP	58	26.20	1.1	GBA	151.30	91	PKPd	06	50.00	0.8
JSC	50.79	351	eP	56	02.30	-0.9		1.5s	105.00nm			5.5mb			1.2s	12.50nm				
			e	56	29.50		MIN	72.13	323	eP	58	26.10	-0.9	HYB	152.72	83	ePKP	06	52.00	0.7
			e	56	40.00		TVO	72.47	256	eP	58	20.00	-9.3X	BJI	154.93	343	PKP	06	55.50	1.9
RSCP	52.86	347	P	56	17.00	-1.8		1.5s	105.00nm			5.5mb			1.5s	21.00nm				
	1.0s	108.46nm					WDC	72.83	323	eP	58	29.20	-1.7	KMI	170.24	24	PKPc	07	11.00	2.0
BLA	53.56	353	eP	56	23.00	-0.9	FHC	73.82	322	eP	58	37.00	0.3		sP	07	44.00			
			e	56	58.60		SPA	73.92	180	eP	58	37.40	0.3	CHG	171.86	70	ePKP	07	11.90	2.3X
NA2	54.20	355	P	56	27.60	-0.9		1.0s	31.00nm			5.1mb			S.D. = 1.3	on 147 of 168 obs.				
CBN	54.25	356	eP	56	27.00	-1.9	SES	74.25	336	eP	58	38.40	-0.6							
OLY	54.31	341	ePc	56	26.90	-2.5		1.2s	114.00nm			5.6mb								
			e	56	55.80				pP	59	08.00	117kmX								
POW	54.82	342	P	56	30.80	-2.3	WIGH	74.68	80	eP	58	41.00	-1.1							
			pP	57	00.00	123kmX	FFC	74.81	343	iPd	58	40.80	-1.3							
TUL	56.13	338	iPc	56	41.40	-1.2		0.7s	24.00nm			5.2mb								
	1.0s	26.70nm					WEGH	75.02	80	eP	58	43.00	-1.1	ZON	0.37	145	iPd	19	50.00	1.0
SIO	56.17	337	eP	56	40.70	-2.2	KUK	75.17	79	eP	58	43.50	-1.5		eS	20	01.00			
FYM	56.31	343	eP	56	42.00	-1.9	LEGH	75.18	80	eP	58	43.50	-1.5	RTLL	0.40	103	iPc	19	50.50	1.1
	1.3s	126.32nm					NEW	75.24	331	eP	58	44.20	-0.5	RTBS	0.62	227	ePc	19	52.70	0.3
			e	57	10.10			1.3s	43.87nm			5.2mb			S	20	04.00			
			eP	57	10.50	119kmX			e	59	10.00		CFA	0.69	122	iPd	19	52.30	-1.3	
ALO	59.97	328	eP	57	08.00	-1.6	TEGH	75.34	80	eP	58	45.00	-0.9		iS	20	05.00			
	1.0s	55.25nm					SHGH	75.40	79	eP	58	45.50	-0.7	RTCV	0.70	152	iPc	19	52.80	-0.9
			eP	57	43.00	148kmX	LON	76.48	328	P	58	52.00	0.3		S	20	05.20			
ANMO	59.97	328	eP	57	08.90	-0.7	PNT	77.15	331	eP	58	56.00	0.6	RTRS	1.16	337	e(P)	19	59.90	-0.2
	1.4s	119.19nm					EDM	77.35	336	iPd	58	55.40	-1.1		S.D. = 1.3	on 6 of 6 obs.				
			e	57	43.80		PGC	78.56	329	eP	59	04.00	0.9							
CBM	62.97	4	ePc	57	29.20	0.0	AVE	79.53	51	eP	59	09.50	0.8							
			iPcP	57	49.30				i	59	31.00									
MBO	63.13	64	iP	57	31.00	0.2			i	59	44.50									
GLA	63.21	321	eP	57	30.00	-1.2	SBA	80.33	191	e(P)	59	12.90	0.7							
GOL	63.27	332	eP	57	30.50	-1.3	IFR	81.34	52	iP	59	21.00	2.5							
	1.0s	77.50nm							i	59	41.00									
			e	57	59.00		VNDA	81.38	190	P	59	18.60	0.8							
			e	58	05.20		EVAL	81.98	47	eP	59	24.00	2.5	LVI	1.79	62	Pd	20	41.20	-0.2
			e	59	10.00		EJIF	82.38	49	e(P)	59	26.00	2.4	MCT	2.67	79	P	20	57.40	3.2X
BAR	64.08	320	eP	57	37.00	0.1	EPLA	83.58	45	eP	59	31.00	1.3	FAI	2.67	87	P	20	57.00	2.9X
PV09	64.08	329	eP	57	36.00	-1.1	ATEJ	83.63	49	iPc	59	32.00	1.8		eSn	21	22.00			
PLM	64.65	320	eP	57	41.00	0.2	ALOJ	83.65	49	iPc	59	31.50	1.2	MNO	3.55	76	P	21	07.10	0.4
TPC	64.67	321	eP	57	41.00	0.3	AAPN	83.73	48	iPc	59	32.50	1.9	PZI	3.66	91	P	21	09.88	1.6
PEC	65.20	320	P	57	43.90	-0.2	APHE	83.89	49	iPc	59	33.00	1.5	MEU	3.67	90	P	21	09.00	0.6
	1.3s	26.32nm					ERUA	83.95	43	eP	59	33.80	2.3	ATN	4.19	75	P	21	16.20	0.6
RVR	65.40	320	eP	57	46.00	0.7	ASMO	84.02	49	iPc	59	33.00	0.9	MGR	5.05	52	P	21	26.10	-1.7
MSU	65.64	327	P	57	47.00	-0.1	AFC	84.12	49	eP	59	33.50	0.8	GRI	5.08	69	P	21	28.10	-0.2
GSC	65.94	322	eP	57	49.00	0.1	EBAN	84.33	48	eP	59	36.00	2.5	SGO	5.15	47	Pd	21	28.30	-1.0
MWC	65.97	320	eP	57	49.00	-0.3	YKA	84.94	342	eP	59	34.90	-1.1	SDI	5.27	30	P	21	31.00	-0.1
SBP	66.14	321	eP	57	50.00	-0.2		1.0s	40.20nm			5.3mb		TDS	5.33	60	P	21	30.80	-1.1
RSDD	66.38	336	ePd	57	51.30	-0.4		84.96	49	eP	59	36.80	0.1	PGF	5.47	350	Pn	21	34.00	0.0
			ePcP	58	19.80		ENIJ	85.15	45	eP	59	40.00	2.3		Sn	22	28.00			
CLC	66.76	322	eP	57	53.00	-1.1	GUD	85.45	48	eP	59	42.00	2.8X	DUI	5.51	34	P	21	36.00	1.6
ISA	67.19	321	eP	57	56.00	-0.8	EVIA	86.67	46	eP	59	46.60	1.5	MNS	5.52	18	P	21	37.00	2.5X
DUG	67.22	328	P	57	57.00	0.0	ETOR	91.19	118	iPc	00	22.50	15.6X	ASS	6.16	16	P	21	45.00	1.4
	1.0s	87.50nm					BFS	0.7s	47.95nm					CRE	6.57	10	P	21	51.00	1.5
SYF	67.37	319	eP	57	58.00	-0.1		91.44	120	iPc	00	09.00	0.9	PGD	6.78	8	P	21	55.50	3.0X
BW06	67.62	332	ePd	57	58.80	-0.8	SEK	0.7s	20.55nm			5.5mb		LMR	6.82	336	Pn	21	49.10	-3.7X
	1.3s	70.90nm							i	00	28.00		LRG	6.98	335	Pn	21	54.40	-0.6	
BLP	67.66	319	P	57	58.80	-0.9	PRY	91.77	119	iPd	00	29.60	20.0X	FRF	6.98	337	Pn	21	51.80	-3.3X
BCH	67.86	320	P	58	01.30	0.2		0.7s	5.00nm					SBF	7.05	343	Pn	21	52.50	-3.5X
TNP	68.09	324	P	58	02.60	0.0	BNI	94.18	44	P	00	31.50	11.3X	LPG	8.75	343	Pn	22	21.40	1.3
	1.0s	60.17nm					INK	94.67	341	eP	00	21.00	-0.7	LPL	8.77	343	Pn	22	21.00	0.7
PHAM	68.48	320	P	58	05.10	0.3			pP	00	42.00	76kmX		KBA	10.15	12	eP	22	39.00	-0.3
FRI	68.81	321	eP	58	05.30	-1.5	BUL	94.97	112	iPd	00	00.10	-16.3X		1.0s	7.10nm				
PRI	68.84	320	eP	58	07.30	0.2		0.9s	8.40nm					BSF	10.97	347	Pn	22	50.20	-0.2
RSON	69.18	346	ePd	58	07.20	-1.6			iP	01	08.00	246kmX		APHE	11.21	273	eP	22	59.00	5.2X

NB2	23.90	1 P	25 23.40	-1.4	0.8s	22.92nm	4.8mb	NUR	134.29	344 iPKP	55 12.40	-5.2X		
	1.0s	10.80nm		4.4mb	BLP	76.15	46 P	47 55.10	0.5	NB2	136.36	353 PKP	55 23.00	1.4
SUF	27.37	16 iP	25 55.70	-1.6	GCC	76.47	44 eP	47 56.60	0.4		0.6s	2.60nm		
	0.7s	6.10nm		4.4mb	PRS	76.48	44 eP	47 57.00	0.6	KAS	143.67	317 iPKPc	55 35.80	0.5
YKA	71.32	336 eP	31 29.30	-2.4	PCC	76.48	43 eP	47 56.50	0.2	DCN	144.05	9 iPKPd	55 34.50	-0.9
	0.7s	1.00nm		4.0mb	SAO	76.68	44 eP	47 57.60	0.2		0.8s	95.00nm		
S.D. = 1.2 on 25 of 36 obs.					BCH	76.71	46 P	47 58.40	0.6	DLE	144.20	8 iPKPd	55 35.20	-0.4
APR 04, 1990 06h 37m 03.53±0.31s					NWRM	76.72	42 P	47 57.80	0.2	KRA	144.61	339 ePKP	55 36.20	-0.3
17.936 S ± 5.2km 178.761 W ± 4.8km					BRK	76.78	43 eP	47 58.10	0.2	WIT	144.94	354 iPKP	55 39.00	2.1X
DEPTH = 573.8 ± 3.7 km					PRI	76.85	45 eP	47 59.20	0.7	VR1	145.03	328 ePKP	55 38.00	0.7
5.0mb (26 obs.)					MHC	76.88	43 eP	47 58.90	0.2	KSP	145.04	343 ePKPd	55 38.00	0.8
FIJI ISLANDS REGION (181)					ARN	76.95	43 P	47 59.60	0.6		0.8s	70.00nm		
VUN	2.64	268 iP	38 18.10	-0.9	ABL	77.13	47 P	48 00.20	0.0			id	55 39.20	
SVA	2.65	266 eP	38 18.90	-0.1	PAS	77.48	48 eP	48 02.00	0.2	ECB	145.07	9 ePKP	55 37.70	0.6
		eS	39 22.50		MWC	77.60	48 eP	48 03.00	0.3	SPC	145.24	338 ePKP	55 38.30	0.5
SGE	3.18	276 eP	38 22.60	0.4	BAR	77.80	50 eP	48 04.00	0.4	ECP	145.31	8 ePKP	55 38.50	1.0
NDF	3.61	272 eP	38 26.10	1.2	FRI	77.96	45 eP	48 04.50	0.2		0.8s	106.00nm		
		eS	39 36.50		RVR	77.97	48 eP	48 04.00	-0.4	CLL	145.41	347 iPKPd	55 38.60	0.9
PVC	12.31	269 iPc	39 48.00	2.5X	PLM	78.00	49 eP	48 04.00	-0.9		0.9s	71.00nm		
THZ	24.80	195 P	41 42.80	-0.1	SBB	78.01	47 eP	48 04.00	-0.7	MLR	145.68	329 ePKP	55 41.00	2.4X
KHZ	25.27	193 P	41 45.50	-1.4	PEC	78.07	48 P	48 04.60	-0.4	WTS	145.73	354 ePKP	55 40.00	1.8
LTZ	25.92	195 P	41 51.20	-1.5	ISA	78.08	46 eP	48 05.00	0.0		0.9s	49.00nm		
MMCZ	28.83	198 P	42 16.80	-1.3	CMB	78.09	43 eP	48 05.10	0.1	PRU	146.28	344 PKPc	55 41.90	2.7X
MHZ	28.84	198 P	42 16.60	-1.6	WDC	78.18	40 eP	48 05.70	0.3		1.2s	29.70nm		
MSZ	28.90	200 P	42 19.00	0.4	ORV	78.23	42 eP	48 05.70	0.0			i	55 44.00	
	1.0s	64.00nm		5.2mb	KDC	78.50	14 ePc	48 06.50	-0.1	MOX	146.33	348 ePKP	55 42.00	2.7X
COO	29.47	239 iPd	42 25.10	1.3	MIN	78.62	41 eP	48 07.50	-0.4		1.5s	45.00nm		
PMO	29.72	89 iP	42 37.70	11.8X	CLC	78.76	47 eP	48 08.00	-0.6	ENN	147.03	355 ePKPc	55 43.50	3.2X
	0.9s	10.00nm			TPC	78.97	49 eP	48 10.00	0.3		0.7s	22.00nm		
VAH	29.94	90 iP	42 39.10	11.4X	GSC	79.05	47 eP	48 10.00	-0.2			i	55 46.90	
	0.9s	5.00nm			GLA	79.33	50 eP	48 12.00	0.4	SRO	147.09	339 iPKP	55 43.80	3.3X
TPT	29.99	89 iP	42 40.00	11.8X	KVN	80.14	44 P	48 15.50	-0.4	ZST	147.16	340 e(PKP)	55 44.70	4.0X
	0.9s	5.00nm			TNP	80.21	45 P	48 16.30	0.0	MEM	147.18	354 iPKPc	55 44.00	3.4X
RUV	30.18	89 iP	42 41.50	11.7X	SVW	80.93	11 ePc	48 18.40	-0.9	TNS	147.27	351 ePKPc	55 44.20	3.3X
	0.9s	10.00nm				1.0s	35.00nm		4.8mb	KHC	147.32	345 ePKP	55 42.00	1.0
RMQ	31.19	248 iPd	42 39.00	0.7	BMW	81.31	35 P	48 21.80	0.2			i	55 45.00	
		i	42 53.20		SHW	81.69	36 P	48 24.50	0.9	ABH	147.73	352 ePKP	55 45.73	4.1X
CTA	33.11	261 iPd	42 55.00	0.5	VGB	82.11	37 P	48 25.70	0.1	DOU	147.80	356 PKP	55 45.80	4.2X
	0.9s	81.93nm		5.4mb	GMW	82.20	35 P	48 26.30	0.4	TOD	147.82	351 ePKP	55 45.77	4.0X
		e(PP)	43 16.00		LON	82.25	36 P	48 25.80	-0.5	RUP	147.97	353 ePKP	55 46.49	4.5X
		i	43 54.00		TTA	82.56	10 ePc	48 26.90	-0.6	KTD	148.21	351 ePKP	55 46.89	4.5X
		iPp	44 30.00			0.9s	33.30nm		4.9mb	GWf	148.61	352 PKP	55 48.17	5.2X
		e(PcP)	45 15.00		RMW	82.68	35 P	48 28.30	-0.1	BEO	148.74	333 i(PKP)	55 49.00	5.8X
		eS	47 36.00		PMR	82.71	14 ePc	48 27.10	-1.0	BHG	148.80	345 iPKPd	55 48.70	5.4X
		iScP	48 14.00			0.6s	22.00nm		4.9mb		0.7s	30.00nm		
CNB	33.14	232 ePc	42 55.60	0.9	MCW	82.86	34 P	48 29.80	0.6	WLS	149.20	352 PKP	55 49.25	5.3X
CAN	33.42	232 iPd	42 58.00	1.0	ANM	82.88	6 ePc	48 28.70	-0.3	CDF	149.21	352 PKP	55 49.43	5.4X
BWA	33.53	234 iPd	42 57.50	-0.5	BJI	83.57	316 eP	48 34.00	1.1	FLN	149.22	2 ePKP	55 48.90	5.1X
PMG	34.14	280 iPc	43 04.10	1.0		1.5s	26.00nm		4.6mb		0.9s	62.25nm		
	0.9s	100.84nm		5.4mb	TOA	83.85	15 ePc	48 33.80	-0.1	KBA	149.27	344 iPKPc	55 49.00	4.8X
TOO	36.89	231 ePd	43 27.50	1.9		0.8s	99.30nm		5.5mb		0.4s	13.00nm		
	0.9s	265.00nm		5.9mb	MSU	83.86	46 P	48 35.20	0.5			i	55 51.40	
OIS	39.32	259 eP	43 45.00	-0.6	DUG	84.23	45 P	48 36.20	-0.2	LDF	149.40	2 ePKP	55 49.30	5.2X
ADE	41.34	237 iPd	44 02.60	1.0		0.8s	4.17nm		4.1mb		0.6s	17.15nm		
	0.6s	46.67nm		5.2mb	PNT	84.95	34 ePc	48 40.00	0.5	ECH	149.41	352 PKP	55 49.49	5.3X
WB5	44.28	260 iPd	44 24.10	-0.7		0.8s	41.00nm		5.1mb	VITF	149.55	354 PKP	55 50.02	5.7X
		i	44 41.30		DAU	85.38	45 P	48 42.50	0.3	PTJ	149.55	340 ePKP	55 49.00	4.4X
WRA	44.30	260 Pc	44 24.70	-0.2	NEW	85.73	36 P	48 43.00	-0.3	GRR	149.58	3 ePKP	55 50.00	5.6X
	0.8s	40.00nm		5.0mb	HPI	85.77	41 P	48 44.10	0.2		0.6s	27.05nm		
ASPA	44.46	254 iPd	44 26.30	0.1	PTI	85.82	42 P	48 44.90	0.9	FEL	149.63	351 PKP	55 50.00	5.3X
	0.8s	463.00nm		6.1mb X	IMA	85.85	10 ePc	48 42.90	-0.7	HAU	149.72	353 ePKP	55 50.60	5.9X
		iScP	48 58.90		FBA	85.91	13 ePc	48 42.40	-1.3		0.8s	21.50nm		
		iS	50 19.80		ALO	86.37	52 eP	48 47.00	0.1	MOF	149.78	352 PKP	55 50.36	5.5X
		iScS	53 23.60			1.0s	13.75nm		4.6mb	RBL	149.80	343 PKPc	55 50.00	5.1X
MTN	48.46	269 iPc	44 56.10	-0.6	ANMO	86.38	52 P	48 47.50	0.6	BSF	149.84	353 PKP	55 50.77	5.8X
FORR	49.66	245 eP	45 05.00	-0.3		1.0s	12.50nm		4.6mb	LJU	149.88	341 ePKP	55 50.60	5.7X
	0.3s	58.00nm		5.6mb	LRM	87.21	40 ePc	48 50.90	0.2	LPF	149.93	3 ePKP	55 50.90	6.0X
KNA	50.14	264 eP	45 08.50	-0.5	IMW	87.23	42 P	48 51.40	0.5		0.6s	28.85nm		
WARB	50.96	251 eP	45 15.00	0.0	BW06	87.61	44 P	48 51.80	-0.8	VOY	150.08	342 ePKP	55 51.20	5.8X
	0.7s	80.00nm		5.3mb		0.8s	10.71nm		4.7mb	VBY	150.13	340 iPKPd	55 54.50	9.2X
COOL	55.64	245 iPc	45 47.40	-0.8	GOL	89.13	48 P	48 59.80	0.1	CEY	150.18	341 ePKP	55 51.50	6.1X
MBL	57.65	256 iPc	46 01.40	-0.6		0.9s	24.62nm		5.1mb	LOMF	150.31	352 PKP	55 52.02	6.4X
KLB	58.51	244 eP	46 07.30	-0.4		1.3s	54.60nm		5.3mb	VAY	150.37	326 ePKP	55 51.40	5.6X
NWAO	58.90	242 eP	46 10.30	0.0	SES	90.24	36 iPc	49 04.30	0.0	SKO	150.48	328 iPKP	55 52.20	6.2X
BAL	59.47	245 eP	46 13.30	-0.8	EDM	90.36	33 ePc	49 04.20	-0.6	CTI	150.66	345 PKP	55 46.00	-0.3
MUN	59.81	243 eP	46 16.00	-0.3	RSSD	91.82	44 P	49 11.60	-0.3	LOR	150.67	356 ePKP	55 52.60	6.5X
MRWA	60.19	246 eP	46 18.70	-0.1	INK	92.00	15 ePc	49 10.70</						

04d 06h

BGF 0.8s 32.25nm 151.43 358 ePKP 55 54.30 7.1X
 0.8s 28.20nm
 OHR 151.44 328 ePKP 55 54.90 7.4X
 1.1s 81.00nm
 VAI 151.45 349 PKP 55 47.00 -0.2
 TCF 151.72 359 ePKP 55 55.00 7.3X
 0.9s 18.00nm
 LSF 151.76 360 ePKP 55 54.90 7.2X
 0.9s 29.50nm
 MAF 151.77 358 ePKP 55 55.20 7.4X
 1.0s 17.00nm
 LPL 152.12 352 ePKP 55 56.80 8.2X
 0.9s 9.85nm
 LPG 152.14 352 ePKP 55 56.70 8.0X
 1.0s 16.00nm
 BOB 152.38 347 PKP 55 56.00 7.3X
 BNI 152.58 352 PKP 55 57.00 7.9X
 ARV 152.66 341 PKP 55 50.00 0.9
 RJF 152.71 360 ePKP 55 56.10 7.0X
 0.7s 9.90nm
 BDI 152.79 345 PKP 55 55.00 5.7X
 LFF 153.07 1 ePKP 55 57.90 8.3X
 0.9s 9.85nm
 CAF 153.08 359 ePKP 55 57.90 8.2X
 0.6s 4.50nm
 LPO 153.33 0 ePKP 55 58.40 8.4X
 0.9s 8.20nm
 SBF 153.63 350 ePKP 56 00.70 10.2X
 0.8s 20.15nm
 SGO 154.40 335 PKP 55 50.00 -1.5
 S.D. = 0.8 on 125 of 192 obs.

& APR 04, 1990 07h 00m 22.45s
 19.493 N 155.458 W
 DEPTH = 0.0km
 HAWAII (613)
 <HVO-P>. MD 4.1 (HVO). Felt (11)
 at Volcano.

PLL 0.04 356 iPc 00 24.82 1.6
 MLH 0.07 87 iPd 00 25.22 1.4
 KFH 0.08 153 iPc 00 25.74 1.7
 MLX 0.11 107 iPd 00 26.16 1.5
 HMH 0.11 347 iPc 00 26.24 1.5
 TRH 0.12 228 iPd 00 26.75 2.0
 AIN 0.12 181 iPc 00 26.53 1.7
 WOB 0.13 291 iPd 00 26.50 1.5
 MWH 0.13 268 iPd 00 26.57 1.4
 CPK 0.16 129 iPd 00 26.97 1.4
 DES 0.17 157 ePc 00 27.11 1.3
 UWE 0.17 114 iP 00 27.10 1.2
 IS 00 30.00
 NPH 0.18 115 iPd 00 27.16 1.1
 OUT 0.20 122 iPd 00 27.43 1.1
 RIM 0.20 119 iPd 00 27.47 1.1
 AHA 0.22 123 iPd 00 27.89 1.1
 eS 00 30.50
 ESR 0.22 111 iPd 00 27.70 0.8
 KNH 0.22 135 iPd 00 28.00 1.1
 HLP 0.24 144 iPd 00 28.33 1.1
 DAI 0.24 236 iPd 00 28.17 0.9
 WOH 0.24 190 iPc 00 28.34 1.0
 PUH 0.25 117 iPd 00 28.21 0.7
 HTC 0.26 168 iPc 00 28.57 1.0
 HPU 0.29 360 iPc 00 29.15 1.0
 KHU 0.29 212 iPc 00 28.95 0.8
 KIH 0.29 273 iPd 00 29.08 0.8
 eS 00 32.55
 PWH 0.30 133 iPd 00 29.21 0.7
 MKA 0.30 114 iPd 00 29.02 0.5
 PPL 0.33 181 iPc 00 29.75 0.6
 KAE 0.37 123 iPd 00 30.24 0.4
 MVH 0.37 88 iPd 00 30.57 0.7
 HUH 0.41 298 ePc 00 32.17 1.6
 KKH 0.41 15 iPc 00 31.25 0.6
 WKH 0.41 332 iPc 00 30.94 0.3
 HIL 0.42 57 iPd 00 32.86 2.1
 IS 00 39.36
 WHA 0.42 112 iPd 00 30.86 0.1
 CPH 0.43 269 ePd 00 31.76 0.6
 KUH 0.45 240 ePd 00 31.80 0.3
 NGH 0.46 63 iPc 00 32.29 0.8
 HUL 0.46 99 ePd 00 31.42 -0.2
 PKL 0.51 94 iPd 00 32.73 0.1
 HBH 0.53 86 iPd 00 33.31 0.3
 SPT 0.54 201 iPc 00 33.43 0.1

POH 0.57 93 iPd 00 33.67 -0.2
 KPO 0.58 89 iPd 00 33.74 -0.3
 KOH 0.70 334 iPc 00 35.58 -0.9
 46 obs. associated

* APR 04, 1990 07h 28m 51.59±2.85s
 17.323 N ±12.5km 61.257 W ±21.7km
 DEPTH = 14.5 ± 5.8 km

LEEWARD ISLANDS (92)
 ML 2.8 (FDF). MD 2.8 (TRN).

CPB 0.63 300 eP 29 03.84 0.1
 eS 29 11.66
 BPA 0.64 244 eP 29 03.80 -0.1
 SEG 0.94 195 eP 29 09.47 0.3
 S 29 20.40
 MGH 1.10 237 eP 29 11.90 0.1
 S 29 25.30
 NEV 1.27 262 eP 29 15.23 0.5
 eS 29 30.37
 PAG 1.35 198 eP 29 15.70 -0.2
 S 29 33.30
 SKI 1.42 271 eP 29 16.52 -0.3
 eS 29 31.92

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

* APR 04, 1990 08h 14m 32.63±1.08s
 22.705 S ±11.7km 68.724 W ±11.1km
 DEPTH = 106.5 ± 12.2 km
 4.3mb (2 obs.)

NORTHERN CHILE (123)

ANT 1.85 237 iPc 15 04.00 0.0
 IS 15 26.30
 CCH 5.82 25 eP 15 58.00 -0.3
 LPB 6.17 6 P 16 06.00 2.8X
 ZOBO 6.43 5 P 16 09.00 2.1
 ARE 6.74 337 eP 16 09.00 -1.8
 eS 17 23.00
 ITB1 13.28 101 e(P) 17 43.80 5.7X
 ITB 13.46 102 e(P) 17 41.10 0.7
 ITB7 13.52 103 e(P) 17 47.00 5.7X
 BAO 20.79 74 eP 19 05.80 -1.6
 ALQ 67.59 327 eP 25 20.20 0.1
 0.8s 2.99nm 4.3mb
 KIC 68.88 73 P 25 20.00 -0.2
 SES 81.83 334 eP 26 42.00 1.0
 YKA 92.37 341 eP 27 31.70 0.0
 0.6s 1.30nm 4.4mb
 S.D. = 1.4 on 10 of 13 obs.

& APR 04, 1990 08h 54m 39.30s
 32.970 N 117.810 W
 DEPTH = 6.0km
 4.5mb (10 obs.)

CALIFORNIA-MEXICO BORDER REGION (45)
 <PAS-P>. ML 4.0 (PAS). Felt (V)
 at La Jolla, Poway and San
 Diego; (IV) at El Cajon,
 Encinitas, Julian, Lakeside, San
 Juan Capistrano, Santee, San
 Marcos and Spring Valley; (III)
 at Chula Vista, La Mesa,
 Oceanside, Santa Ana and San
 Luis Rey, California.

CPE 0.60 98 iPc 54 50.60 -0.8
 SCI 0.62 271 iPd 54 51.10 -0.6
 CIS 0.66 311 iPc 54 51.60 -1.0
 CIW 0.79 309 P 54 53.70 -1.4
 VPD 0.84 3 P 54 55.00 -1.0
 PLM 0.88 64 iPc 54 55.60 -1.1
 PVPS 0.95 329 P 54 56.10 -1.7
 BAR 1.00 106 iPc 54 57.10 -1.6
 PEC 1.07 30 iPd 54 58.90 -0.9
 RVR 1.08 19 iPd 54 59.20 -0.8
 PEM 1.20 358 P 55 00.50 -1.5
 PAS 1.21 346 eP 55 00.40 -1.9
 MWC 1.27 351 iPc 55 01.40 -1.9
 IKP 1.47 102 iPd 55 05.00 -1.4
 SBB 1.71 360 iPc 55 08.60 -1.3
 ABL 2.21 328 eP 55 14.70 -2.6
 GSC 2.47 19 iPc 55 19.80 -1.0
 GLA 2.51 87 iPc 55 19.10 -2.2
 BLP 2.68 307 eP 55 20.50 -3.2
 CLC 2.85 3 ePc 55 24.60 -1.6
 BCH 2.91 320 eP 55 24.70 -2.4

PHAM 3.57 324 eP 55 33.50 -2.9
 PRI 3.94 324 iPc 55 38.90 -2.9
 eS 56 25.60

FRI 4.30 339 eP 55 44.30 -2.5
 PRS 4.46 320 iPc 55 45.00 -3.9
 LLA 4.46 326 eP 55 46.40 -2.6
 SAO 4.82 323 eP 55 50.30 -3.9
 eS 56 44.00

TNP 5.12 5 ePc 55 57.70 -0.9
 GCC 5.31 321 eP 55 56.00 -5.1
 ARN 5.33 326 eP 55 57.50 -3.9
 MHC 5.37 325 eP 55 58.50 -3.6
 CMB 5.47 338 eP 56 00.00 -3.4
 PCC 5.87 322 eP 56 03.90 -4.9
 KVN 6.07 358 eP 56 11.00 -1.0
 MSU 7.18 38 eP 56 26.40 -1.2
 DAU 9.10 33 eP 56 55.00 0.6
 ALQ 9.63 75 eP 57 00.00 -1.7
 ANMO 9.63 75 eP 57 01.00 -0.7
 GOL 12.06 53 eP 57 36.00 1.0
 NEW 15.29 2 eP 58 18.00 0.7
 1.0s 8.75nm 4.1mb

RSSD 15.47 40 eP 58 18.00 -1.8
 PNT 16.39 356 eP 58 32.00 0.6
 SIO 17.97 75 eP 58 51.30 0.0
 SES 18.12 14 ePd 58 53.30 0.2
 TUL 18.39 75 ePd 58 56.50 -0.1
 1.2s 17.30nm 4.1mb

EDM 20.49 8 eP 59 18.00 -2.5
 1.1s 39.00nm 4.7mb
 FFC 24.45 22 eP 59 59.00 -0.7
 0.8s 11.00nm 4.6mb

YKA 29.61 3 eP 00 44.90 -2.2
 0.8s 1.00nm 3.7mb
 INK 36.52 350 eP 01 46.50 -0.4
 FRB 43.19 29 eP 02 41.00 -1.2
 MBC 43.36 359 eP 02 44.00 0.5
 1.0s 4.00nm 4.1mb

LSF 84.02 37 eP 07 11.00 -0.9
 TCF 84.34 37 eP 07 12.60 -0.9
 SSF 84.46 36 eP 07 13.40 -0.6
 0.9s 6.55nm 4.9mb

BGF 84.48 37 eP 07 13.30 -0.8
 LOR 84.49 36 eP 07 13.50 -0.7
 LFF 84.49 39 eP 07 13.70 -0.5
 MAF 84.57 37 eP 07 13.60 -1.0
 1.2s 17.85nm 5.2mb

AVF 84.57 36 eP 07 13.70 -0.9
 1.1s 9.75nm 4.9mb
 SMF 84.91 36 eP 07 15.30 -1.0
 1.1s 11.00nm 5.0mb

60 obs. associated

APR 04, 1990 09h 07m 27.23±0.92s
 0.788 S ± 5.1km 122.323 E ± 6.7km
 DEPTH = 32.6 ± 7.2 km
 5.1mb (19 obs.) 4.5msz (3 obs.)

MINAHASSA PENINSULA (265)
 CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN
 L.P.B.: 12S, 24C

Centroid Location:
 Origin Time 09:07:27.6 0.8

Lot 0.47S 0.08 Lon 122.68E 0.14
 Dep 33.0 FLX Half-duration 1.5

Moment Tensor: Scale 10**16 Nm
 Mrr=-2.26 0.53 Mtt= 4.75 0.45

Mff=-2.49 0.80 Mrt=-2.78 1.39
 Mrf= 2.49 0.82 Mtf= 0.50 0.59

Principal Axes:
 T Val= 5.74 Plg=20 Azm=183

N -0.33 37 289
 P -5.41 46 71

Best Double Couple: Mo=5.6*10**16
 NP1: Strike=229 Dip=41 Slip=-156

NP2: 121 74 -51

MNI 3.35 49 ePc 08 20.00 1.4
 eS 09 08.00

MKS 5.24 213 iPd 08 45.50 0.1
 IS 09 44.50

BKB2 5.45 265 iPc 08 48.30 0.1
 AAI 6.54 116 eP 09 08.50 4.9X

eS 10 22.10
 TSM 6.54 320 ePc 09 06.00 2.3

DAV 8.47 22 eP 09 32.00 1.3
 KKM 9.12 318 ePc 09 41.00 1.2

PPR 11.09 341 e 11 23.50
 PGP 14.26 355 iPc 10 10.00 3.4X
 MTN 14.82 144 eP 10 55.00 -1.3
 OCP 15.38 355 eP 11 00.50 -3.0
 BAG 17.18 354 eP 11 27.00 0.3
 CVP 18.38 358 ePc 11 41.00 -0.4
 0.9s 130.00nm 5.1mb
 PIP 19.07 355 ePd 11 48.00 -1.8
 MBL 20.39 187 iPc 12 03.10 -1.1
 0.6s 71.00nm 5.2mb
 IPM 21.94 284 ePc 12 23.10 3.2X
 1.3s 82.80nm 5.0mb
 WB5 22.34 149 eP 12 22.50 -1.4
 eS 16 26.00
 WRA 22.38 149 Pd 12 25.60 1.3
 0.8s 63.50nm 5.1mb
 NANU 22.63 197 iPc 12 26.40 -0.3
 0.6s 37.00nm 5.0mb
 SNG 23.06 290 eP 12 36.70 5.8X
 HKC 24.29 341 eP 12 44.00 1.2
 ASPA 25.36 155 iPc 12 53.40 0.2
 0.7s 29.00nm 5.0mb
 Z 21s 1.35um 4.4MsZ
 LR 23 04.70
 eScS 23 49.10
 WARB 25.59 171 eP 12 55.00 -0.3
 0.7s 1.00nm 3.5mb X
 QIS 25.91 140 eP 12 58.00 -0.3
 NNT 26.06 301 iPd 13 01.70 2.0
 e 17 16.20
 PMG 26.15 110 iPc 13 01.10 0.5
 1.0s 60.00nm 5.2mb
 GUMO 26.52 57 eP 13 04.50 0.6
 NST 27.35 308 eP 13 12.50 1.0
 CHG 30.12 311 ePd 13 35.90 -0.6
 1.2s 26.95nm 4.9mb
 CHTO 30.12 311 eP 13 35.90 -0.5
 1.3s 48.20nm 5.1mb
 CTA 30.27 131 eP 13 31.00 -6.8X
 e 13 38.00
 e(PcP) 16 38.00
 eS 18 39.00
 KMI 31.98 325 Pc 13 53.50 0.5
 Z 25s 1.30um 4.5MsZ X
 eS 19 08.00
 ADE 37.28 158 iPd 14 38.80 0.7
 1.0s 42.00nm 5.3mb
 MAT 39.97 20 eP 14 56.00 -4.5X
 0.8s 17.91nm 4.9mb
 Z 20s 0.71um 4.5MsZ
 LZH 40.52 337 Pd 15 04.50 -0.7
 2.0s 117.00nm 5.3mb
 Z 20s 0.70um 4.5MsZ
 N 11s 0.30um
 pP 15 10.00 19kmX
 sP 15 16.00
 PP 16 42.00
 eS 21 11.00
 SS 24 20.00
 BJI 41.02 353 eP 15 05.50 -3.5X
 1.5s 52.00nm 5.0mb
 BWA 41.41 147 eP 15 15.20 2.8
 CAN 42.39 147 eP 15 21.20 0.7
 GUN 45.13 312 P 15 42.90 -0.2
 0.5s 56.00nm 5.7mb
 PKI 45.30 311 P 15 43.78 -0.7
 0.8s 10.00nm 4.8mb
 KKN 45.51 312 P 15 45.54 -0.4
 0.3s 5.00nm 5.0mb
 DMN 45.55 311 P 15 45.10 -1.2
 GKN 46.11 311 P 15 50.10 -0.5
 GBA 46.72 290 Pc 15 54.30 -1.0
 1.4s 17.90nm 4.9mb
 HYB 46.74 295 ePc 15 55.00 -0.6
 1.2s 100.00nm 5.7mb
 NDI 52.15 308 iPc 16 34.80 -2.3
 eS 23 58.00
 MSZ 59.42 144 P 17 38.00 9.0X
 MAIO 68.85 310 eP 18 31.00 0.0
 VNDA 79.56 172 eP 19 32.40 0.3
 SPA 89.22 180 eP 20 22.20 1.1
 1.4s 21.57nm 5.3mb
 INK 95.95 21 eP 20 49.00 -2.9
 YKA 105.39 24 ePKP 25 46.00 -2.0
 0.4s 0.10nm

ALO 123.30 48 ePKP 26 22.00 -1.2
 1.0s 3.75nm
 LPB 159.95 150 ePKP 27 16.00 -9.5X
 ZOBO 160.16 149 PKPc 27 27.50 1.6
 LR 25 20.00

S.D. = 1.3 on 45 of 55 obs.

* APR 04, 1990 11h 15m 55.51± 2.01s
 24.343 S ±26.3km 64.985 W ±20.8km
 DEPTH = 33.0km (normol)
 5.0mb (1 obs.)

SALTA PROVINCE, ARGENTINA (129)

CCH 7.01 351 P 17 40.70 1.9
 LPB 8.30 339 P 17 57.00 0.0
 S 19 22.00
 ZOBO 8.55 339 P 17 58.30 -2.3
 S 19 25.00
 SIV 9.08 25 P 17 40.70 -26.7X
 ITB1 9.66 94 Pc 18 15.30 0.0
 ITB 9.82 95 e(P) 18 17.10 -0.4
 ITB7 9.86 97 e(P) 18 18.00 -0.1
 ARE 9.93 321 i(P)d 18 19.70 0.3
 IS 20 05.00
 BUL 85.04 110 iPc 28 30.20 0.5
 0.8s 7.84nm 5.0mb
 S.D. = 1.4 on 8 of 9 obs.

APR 04, 1990 11h 59m 35.33± 0.31s
 16.437 N ± 5.7km 145.868 E ± 7.2km
 DEPTH = 54.9km (2 depth phases)
 4.8mb (18 obs.)

MARIANA ISLANDS (216)

PJG 2.99 199 eP 00 20.20 -1.2
 GUMO 2.99 199 e(P) 00 20.10 -1.3
 GUA 3.03 198 eP 00 20.80 -1.1
 eS 00 56.20
 MAT 21.15 343 eP 04 25.00 7.1X
 1.0s 18.00nm 4.4mb
 Z 20s 1.06um 4.2MsZ
 eS 08 16.00
 DAV 21.91 247 eP 04 28.00 2.3
 BAG 24.25 274 eP 04 50.00 1.3
 PMG 25.71 177 eP 05 03.00 0.7
 SSE 26.81 307 P 05 11.00 -1.3
 Z 20s 0.50um 4.1MsZ
 pP 05 23.00 47km
 i 06 43.60
 eS 09 44.00
 BJI 34.90 318 eP 06 23.50 -0.1
 1.6s 61.00nm 5.3mb
 Z 20s 0.60um 4.3MsZ
 ePP 07 40.00
 eS 11 56.00

QIS 37.27 190 eP 06 43.00 -0.8
 WB5 37.82 198 eP 06 47.70 -0.7
 WRA 37.89 198 Pc 06 48.60 -0.4
 1.0s 7.90nm 4.6mb
 KMI 41.10 289 eP 07 19.00 3.1X
 Z 18s 0.70um 4.6MsZ
 eS 13 30.00
 ASPA 41.54 197 eP 07 19.50 0.3
 1.3s 7.00nm 4.3mb
 Z 26s 0.08um 3.5MsZ X
 LZH 42.07 306 P 07 23.00 -0.6
 2.5s 101.00nm 5.1mb
 Z 23s 0.60um 4.4MsZ X
 pP 07 39.00 63km
 sP 07 42.50
 PP 09 05.00
 PPP 09 28.00
 eS 13 47.00

RMO 42.76 176 eP 07 30.00 0.9
 e 09 02.00
 CHG 44.69 280 eP 07 46.00 1.1
 CHTO 44.69 280 eP 07 46.00 1.1
 1.0s 2.75nm 4.0mb
 GUN 56.24 293 P 09 13.64 0.6
 0.6s 19.00nm 5.3mb
 PKI 56.67 292 P 09 16.12 0.0
 0.6s 9.00nm 5.0mb
 KKN 56.77 293 P 09 16.50 -0.2
 0.8s 11.00nm 5.0mb
 DMN 56.94 292 P 09 18.26 0.3
 0.5s 14.00nm 5.2mb
 GKN 57.33 293 P 09 20.22 -0.4

TTA 61.19 26 P 09 45.60 -0.9
 IMA 63.27 23 P 09 58.60 -1.8
 1.0s 3.75nm 4.4mb
 PMR 63.84 29 P 10 02.10 -1.9
 1.0s 12.50nm 4.9mb

HYB 64.09 282 eP 10 06.00 -0.4
 FBA 65.25 25 P 10 11.80 -1.3
 POO 68.29 284 iPc 10 32.70 -0.5
 INK 71.38 23 eP 10 49.00 -2.1
 PMO 72.46 112 eP 11 01.00 2.6
 0.8s 5.00nm 4.5mb

MBC 75.29 14 eP 11 15.00 1.1
 MAIO 77.60 304 eP 11 39.00 11.4X
 GMW 78.95 44 P 11 36.30 1.6
 YKA 79.90 28 eP 11 38.20 -1.3
 0.7s 3.90nm 4.4mb

PNT 80.61 41 eP 11 44.00 0.4
 0.8s 10.00nm 4.8mb
 NEW 82.48 42 P 11 54.20 0.8
 0.9s 11.51nm 4.9mb
 CMB 82.93 53 P 12 06.20 10.2X
 0.8s 6.00nm

EDM 83.30 36 eP 11 57.50 0.0
 KVN 84.38 51 P 12 04.30 0.8
 TNP 85.32 52 P 12 09.00 0.8
 0.7s 1.85nm 4.3mb

SES 85.59 39 eP 12 09.00 -0.1
 LRM 86.26 43 ePc 12 13.50 0.7
 e 14 45.60
 FFC 88.90 33 eP 12 24.60 -0.4
 0.8s 8.00nm 5.1mb

RSSD 92.43 43 P 12 43.10 1.3
 ZOBO 147.40 95 PKP 19 16.20 2.6X
 1.1s 14.50nm
 S.D. = 1.2 on 41 of 46 obs.

? APR 04, 1990 12h 01m 03.77± 3.14s
 16.930 N ±18.6km 144.693 E ±120.6km
 DEPTH = 33.0km (normol)
 4.8mb (1 obs.)

MARIANA ISLANDS REGION (215)

PJG 3.33 177 e(P) 01 55.20 0.5
 GUMO 3.33 177 e(P) 01 55.10 0.4
 GUA 3.38 176 e(P) 01 54.70 -0.8
 eS 02 33.40
 INK 71.37 23 eP 12 22.00 -0.1
 GMW 79.38 44 P 13 08.80 0.7
 PNT 80.98 41 eP 13 16.00 -0.6
 NEW 82.86 42 P 13 26.70 0.2
 1.0s 8.13nm 4.8mb
 KVN 84.95 51 P 13 38.50 1.1
 TNP 85.90 52 P 13 40.80 -1.4

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

? APR 04, 1990 12h 16m 14.52± 2.28s
 61.234 N ±26.8km 150.537 W ±11.5km
 DEPTH = 94.1 ± 30.9 km

SOUTHERN ALASKA (2)

PMR 0.77 61 iPc 16 31.10 -1.1
 TOA 2.26 65 eP 16 52.70 1.8
 SVW 2.47 269 iPc 16 53.80 0.1
 FBA 3.89 18 eP 17 13.40 0.3
 IMA 5.05 345 eP 17 30.00 0.6
 ANM 7.55 303 eP 18 03.40 -0.2
 INK 10.12 38 eP 18 37.00 -1.5
 S.D. = 1.6 on 7 of 7 obs.

? APR 04, 1990 12h 18m 24.42± 1.01s
 42.768 N ± 7.7km 19.171 E ± 9.5km
 DEPTH = 10.0km (geophysicist)

YUGOSLAVIA (383)

ML 2.0 (TTG).
 NKY 0.14 289 iPd 18 28.00 0.3
 iSg 18 31.20
 TTG 0.34 169 iPd 18 31.50 0.0
 iSg 18 37.00
 BRY 0.48 286 ePg 18 34.00 -0.2
 eSg 18 42.50
 PLE 0.58 16 ePg 18 36.30 0.0
 eSg 18 47.00

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

APR 04, 1990 12h 28m 51.23± 1.37s
 17.021 N ± 9.3km 61.025 W ±14.8km

04d 12h

DEPTH = 50.0 ± 12.9 km
4.1mb (1 obs.)
LEEWARD ISLANDS (92)
MD 3.8 (TRN).

SEG	0.77	217	eP	29 04.97	-1.0
SFG	0.78	192	iPd	29 05.44	-0.7
BPA	0.80	272	iPd	29 05.72	-0.7
			S	29 14.70	
CPB	0.98	309	eP	29 09.03	0.2
			eS	29 19.01	
MGG	1.13	194	ePd	29 10.69	-0.3
			S	29 24.80	
DOG	1.14	210	iPd	29 10.47	-0.6
			S	29 24.10	
PAG	1.17	213	iPd	29 10.81	-0.8
			S	29 25.40	
MGH	1.18	255	ePd	29 11.75	0.1
			S	29 27.00	
NEV	1.48	275	eP	29 16.90	1.0
			S	29 35.00	
BBL	1.55	196	ePd	29 16.00	-0.9
			S	29 34.80	
SKI	1.67	281	eP	29 19.26	0.7
			eS	29 33.78	
MDN	1.73	192	eP	29 20.26	0.8
			eS	29 44.35	
DBCT	1.77	190	eP	29 21.07	1.1
			eS	29 46.06	
DPMT	1.79	191	eP	29 21.38	1.2
			eS	29 46.43	
FDF	2.28	183	iPd	29 27.25	0.1
	0.1s		0.70nm		
			S	29 53.60	
MVM	2.46	177	iPd	29 29.74	0.1
BIM	2.49	181	eP	29 30.58	0.4
SLB	3.18	180	eP	29 40.22	0.2
SVB	3.73	183	eP	29 47.94	0.1
SIV	32.80	180	P	35 21.80	-0.3
YFA	58.57	334	eP	38 44.30	-0.7
	0.3s		0.50nm		4.1mb
	S.D. = 0.7	on	21 of	21 obs.	

* APR 04, 1990 12h 53m 33.53 ± 1.05s
61 441 N ± 9.4km 5.306 E ± 10.8km
DEPTH = 10.0km (geophysicist)

SOUTHERN NORWAY (535)
MD 3.0 (BER).

SUE	0.47	215	iP	53 43.48	0.5
			eS	54 01.55	
HYA	0.51	123	eP	53 52.10	8.3X
			iS	54 18.81	
ASK	0.96	183	eP	53 51.53	-0.3
			iS	54 14.19	
OSG	1.52	232	eP	54 00.36	-0.3
MOL	1.55	42	iP	54 01.23	0.1
			eS	54 34.64	
ODD1	1.67	156	iP	54 03.80	0.9
			iS	54 36.58	
BLS2	2.30	159	iPd	54 11.34	-0.8
			iS	54 48.82	
	S.D. = 0.8	on	6 of	7 obs.	

* APR 04, 1990 13h 48m 11.15 ± 0.46s
55.807 S ± 12.2km 28.021 W ± 22.0km
DEPTH = 33.0km (normal)
5.2mb (4 obs.) 3.9msz (1 obs.)
SOUTH SANDWICH ISLANDS REGION (153)

SPA	34.37	180	iPc	54 58.40	1.6
	1.3s		84.17nm		5.5mb
MAW	40.62	144	iPd	55 48.80	-0.1
SBA	46.29	184	P	56 36.00	1.4
VNDA	46.80	183	iPc	56 39.10	0.5
SIV	47.07	314	P	56 41.90	0.5
			i	58 14.60	
LPB	49.63	306	eP	57 00.00	-1.7
ZOBO	49.87	306	iPc	57 08.00	4.2X
	1.1s		17.98nm		5.0mb
	Z 20s		0.12um		3.9msz
			LR	10 08.00	
LKO	67.74	24	P	59 08.92	1.5
MSZ	78.99	192	eP	00 12.00	-0.7
MUN	87.38	150	eP	00 54.70	-1.2
ADE	88.88	169	eP	01 02.80	-0.3
ASPA	99.36	163	iPc	01 49.60	-1.8

WRA	103.08	163	Pdiffd02	06.30	-1.5
	0.7s		1.10nm		4.7mb
MSU	117.82	298	PKP	06 55.50	0.2
RSSD	118.32	307	PKP	06 55.00	-1.0
DAU	118.83	300	PKP	06 58.00	0.7
KVN	121.23	294	PKP	07 02.00	0.3
IMW	121.33	303	PKP	07 02.00	0.1
ARN	121.75	291	PKP	07 04.00	1.5
LON	128.68	298	PKP	07 15.80	0.2
BMW	129.19	297	PKP	07 17.10	0.5
YKA	135.68	318	ePKP	07 21.40	-6.9X
	1.0s		3.90nm		
MBC	143.57	336	ePKP	07 41.00	-1.2
INK	145.32	321	ePKP	07 46.00	0.6
			pP	08 13.00	
PMR	149.81	305	ePKP	07 58.00	5.3X
FBA	150.01	312	iPKPc	07 58.00	5.0X
	1.0s		25.00nm		
KDC	150.23	297	ePKP	07 59.10	5.6X
	0.6s		14.78nm		
BJI	151.69	109	PKP	08 01.00	4.8X
	1.2s		19.00nm		
IMA	152.60	314	ePKP	08 14.60	17.6X
	1.0s		10.00nm		
TTA	153.24	307	ePKP	08 06.30	8.4X
	S.D. = 1.1	on	22 of	30 obs.	

* APR 04, 1990 14h 07m 42.39 ± 0.91s
59.566 N ± 7.7km 152.365 W ± 16.4km
DEPTH = 33.0km (normal)

SOUTHERN ALASKA (2)

KDC	1.82	182	eP	08 11.90	0.0
PMR	2.58	37	e(P)	08 23.20	0.4
TTA	3.81	334	eP	08 40.40	0.2
FBA	5.76	20	eP	09 07.30	-0.5
IMA	6.56	355	eP	09 19.00	-0.1
	S.D. = 0.5	on	5 of	5 obs.	

* APR 04, 1990 15h 03m 38.14 ± 0.58s
38.273 N ± 6.3km 15.055 E ± 6.5km
DEPTH = 10.0km (geophysicist)

SICILY (398)

ATN	0.34	109	Pc	03 45.40	0.2
			eSg	03 50.50	
MNO	0.44	220	Pc	03 47.40	0.2
			eSg	03 53.40	
GIB	0.86	251	P	03 54.90	0.2
MEU	1.17	185	Pc	03 59.90	-0.2
			eSn	04 14.80	
CZI	1.27	41	P	04 08.50	-1.1
FAI	1.48	228	P	04 04.50	-0.3
TDS	1.71	35	P	04 09.30	1.2
MGR	1.90	12	P	04 10.80	-0.1
	S.D. = 0.8	on	8 of	8 obs.	

* APR 04, 1990 15h 07m 53.57 ± 12.84s
44.503 N ± 36.2km 8.429 E ± 82.9km
DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
MD 2.3 (STR).

CKI	0.13	234	Pc	07 55.80	-1.0
			eSg	07 56.80	
SAOF	0.81	231	Pg	08 09.28	-0.1
DOI	0.85	270	P	08 10.30	0.3
AUTN	0.88	235	Pg	08 09.70	-0.9
TOUF	0.98	240	Pg	08 11.84	-0.5
AURF	1.00	233	Pg	08 13.31	0.7
REVF	1.08	225	Pg	08 15.24	1.3
MVIF	1.10	237	Pg	08 13.88	-0.5
			Sg	08 30.54	
	S.D. = 0.9	on	8 of	8 obs.	

* APR 04, 1990 15h 13m 56.09 ± 1.20s
5.148 S ± 8.6km 130.430 E ± 10.3km
DEPTH = 102.5 ± 13.4 km
4.7mb (7 obs.)

BANDA SEA (280)

AAI	2.66	303	ePc	14 38.50	0.4
MTN	7.68	175	eP	15 47.00	0.0
			eS	17 07.00	
KNA	10.66	189	eP	16 26.50	-0.8
	0.3s		26.00nm		5.6mb X

WB5	15.14	166	eS	18 19.00	
			eP	17 21.80	-3.9X
			eS	20 05.00	
WRA	15.19	166	Pc	17 22.40	-4.0X
	0.6s		20.10nm		4.5mb
PMG	17.12	105	eP	17 51.20	0.8
QIS	17.72	151	eP	17 56.00	-1.9
			e	21 03.00	
ASPA	18.71	170	eP	18 09.80	0.2
	0.6s		65.00nm		5.1mb
			eS	21 30.40	
MBL	18.95	212	eP	18 12.50	0.5
CTA	21.39	135	iPd	18 39.00	1.9
	0.8s		9.33nm		4.2mb
			e(S)	22 30.00	
			e	22 41.00	
			e(SS)	22 54.50	
BWA	33.57	153	eP	20 32.50	4.2X
CAN	34.57	153	eP	20 40.00	3.0X
CHTO	39.11	308	eP	21 16.20	1.0
	0.6s		1.10nm		3.9mb
MAT	42.11	9	eP	21 38.00	-1.6
	0.8s		7.46nm		4.6mb
GUN	54.08	310	P	23 13.00	0.0
	0.6s		10.00nm		5.0mb
PKI	54.27	309	P	23 14.00	-0.4
KKN	54.48	309	P	23 15.80	0.0
DMN	54.52	309	P	23 16.20	0.0
GKN	55.08	309	P	23 20.00	-0.1
	0.6s		8.00nm		4.9mb
	S.D. = 1.1	on	15 of	19 obs.	

? APR 04, 1990 15h 57m 46.57 ± 4.20s
45.994 N ± 34.9km 2.080 E ± 8.5km
DEPTH = 10.0km (geophysicist)

FRANCE (538)
ML 1.9 (LDG).

TCF	0.31	17	Pg	57 53.20	0.2
			Sg	57 56.20	
MAF	0.41	56	Pg	57 55.60	0.7
			Sg	58 00.50	
LSF	0.46	304	Pg	57 56.00	0.1
			Sg	58 01.60	
BGF	0.77	43	Pg	58 00.70	-1.0
			Sg	58 09.70	
	S.D. = 1.2	on	4 of	4 obs.	

* APR 04, 1990 16h 37m 07.00 ± 0.87s
33.337 S ± 7.0km 70.578 W ± 7.4km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

FCH	0.24	88	iP	37 13.00	0.7
PCH	0.29	169	iPc	37 13.00	-0.1
			iS	37 36.10	
TACH	0.44	223	iP	37 15.80	-0.1
			iS	37 41.70	
ROCH	0.51	315	iPd	37 19.10	1.6
CHCH	0.60	186	iPc	37 13.70	-5.4X
			iS	37 37.10	
JACH	0.65	359	iP	37 18.50	-1.6
LCCH	0.84	260	eP	37 22.70	-0.5
LNV	0.93	228	eP	37 19.50	-5.2X
	S.D. = 1.4	on	6 of	8 obs.	

* APR 04, 1990 16h 59m 59.75 ± 1.07s
16.638 N ± 11.2km 99.298 W ± 8.0km
DEPTH = 29.8 ± 6.0 km
4.4mb (2 obs.) 4.0msz (1 obs.)
NEAR COAST OF GUERRERO, MEXICO (58)

ACX	0.58	293	iP	00 11.00	-0.5
			(S)	00 26.00	
III	1.74	355	iP	00 28.50	0.0
			iS	00 49.50	
PPM	2.50	15	iP	00 39.50	-0.2
			(S)	01 13.00	
OXX	2.50	79	iP	00 40.00	0.5
			(S)	01 17.00	
IIT	2.55	22	eP	00 42.00	1.8
			(S)	01 15.50	
UNM	2.68	2	iP	00 44.00	1.9X
			(S)	01 20.00	
IIJ	3.11	352	eP	00 45.00	-3.3X
MRX	3.54	330	eP	00 57.50	3.5X
PSM	4.08	88	eP	01 02.50	0.7

04d 17h

LVVM 4.10 41 iS 01 48.50
 01 02.00 0.0
 iS 01 50.00
 TPX 6.99 103 eP 01 48.00 5.2X
 TUL 19.45 9 eP 04 24.80 -2.1
 0.6s 7.70nm 4.2mb
 GLA 21.53 322 eP 04 51.00 2.3
 BAR 22.41 319 eP 05 04.00 6.7X
 PLM 22.97 320 eP 05 06.00 2.9X
 TPC 23.00 322 eP 05 06.00 2.8X
 RVR 23.72 320 eP 05 09.00 -1.1
 GSC 24.28 323 eP 05 13.00 -2.7X
 MWC 24.29 320 eP 05 23.00 7.1X
 SBB 24.46 321 eP 05 20.00 2.6
 CLC 25.10 323 eP 05 24.00 0.5
 CMB 28.25 323 eP 05 59.10 6.7X
 LRM 31.11 342 eP 06 18.00 0.0
 FFC 38.07 357 eP 07 16.00 -1.2
 0.7s 9.00nm 4.7mb
 ZOBO Z 20s 0.18um 4.0Msz
 LR 22 36.00
 SIV 49.73 129 iP 08 50.60 -1.0
 FRB 51.59 17 eP 09 08.00 2.9X
 INK 56.02 345 eP 09 37.00 -0.7
 MBC 60.54 355 eP 10 09.00 -0.2
 WRA 129.14 258 PKPc 19 07.10 -0.3
 0.9s 2.00nm
 HYB 146.10 4 ePKP 19 38.50 0.0
 GBA 149.78 6 PKPd 19 48.30 4.0X
 0.8s 4.10nm
 S.D. = 1.3 on 20 of 32 obs.

* APR 04, 1990 17h 08m 15.37 ± 0.74s
 16.751 N ± 10.2km 99.139 W ± 7.4km
 DEPTH = 10.0km (geophysicist)
 4.3mb (10 obs.) 4.3Msz (1 obs.)
 NEAR COAST OF GUERRERO, MEXICO (58)
 Felt strongly at Acapulco.

ACX 0.70 280 iP 08 27.44 -1.7
 III 1.65 349 iP 08 48.05 3.4X
 OXX 2.34 82 iP 09 00.40 5.8X
 eS 09 36.05
 PPM 2.35 12 iP 08 58.71 3.6X
 IIT 2.39 19 iP 09 01.99 6.5X
 UNM 2.57 359 iP 09 03.00 5.1X
 iS 09 39.00
 CRX 2.69 349 (P) 09 19.00 19.2X
 (S) 09 45.64
 IIC 3.00 358 iP 09 10.63 6.5X
 IIT 3.02 349 iPc 09 09.71 5.1X
 MRX 3.53 327 (P) 09 14.50 3.2X
 (S) 10 05.00
 LVVM 3.92 40 (P) 09 14.03 -2.9X
 PSM 3.93 90 iP 09 22.06 5.0X
 (S) 11 37.73
 AGX 5.91 330 (P) 10 32.00 47.0X
 TPX 6.87 105 (P) 10 10.00 11.3X
 ALO 19.26 342 eP 12 42.00 -1.1
 0.8s 4.48nm 3.8mb
 ANMO 19.27 342 P 12 42.00 -1.1
 TUL 19.31 8 eP 12 42.20 -1.3
 0.7s 10.30nm 4.2mb
 POW 20.58 19 P 12 56.00 -1.0
 UPA 20.60 110 eP 13 04.00 6.6X
 PWLA 20.68 27 P 12 57.00 -1.1
 GLA 21.54 322 eP 13 08.00 1.1
 RSCP 22.33 30 P 13 17.00 2.2
 BAR 22.42 318 eP 13 21.00 5.2X
 PLM 22.98 319 eP 13 24.00 2.5X
 TPC 23.00 322 eP 13 24.00 2.5X
 GBTN 23.06 32 P 13 23.40 1.4
 TKL 23.28 33 P 13 24.60 0.5
 GOL 23.50 348 P 13 27.00 0.5
 0.6s 7.20nm 4.4mb
 JSC 23.70 39 P 13 27.00 -1.2
 RVR 23.73 320 eP 13 30.00 1.5
 GSC 24.29 323 eP 13 35.00 1.0
 MWC 24.31 319 eP 13 36.00 1.7
 PAS 24.33 319 eP 13 39.00 4.7X
 SBB 24.47 320 eP 13 38.00 2.2X
 MSU 24.51 335 P 13 37.00 0.7
 CLC 25.11 323 eP 13 43.00 1.1
 ISA 25.52 321 eP 13 47.00 1.2
 BLA 26.24 35 P 13 53.00 0.6
 0.7s 20.83nm 4.9mb

BW06 27.42 343 P 14 03.00 -0.5
 1.0s 5.00nm 4.2mb
 RSSD 27.60 352 P 14 04.00 -1.0
 KVN 27.71 327 P 14 06.50 0.4
 LRM 31.05 342 ePc 14 36.90 1.0
 RSON 34.30 6 P 15 03.00 -0.9
 0.8s 4.01nm 4.4mb
 NEW 34.71 339 P 15 07.00 -0.5
 0.8s 3.13nm 4.2mb
 PNT 36.49 337 eP 15 23.00 0.4
 0.7s 10.00nm 4.7mb
 EDM 38.06 346 eP 15 35.50 -0.2
 ZOBO 44.85 135 P 16 33.00 0.5
 Z 18s 0.35um 4.3Msz
 LR 32 28.00
 YKA 46.97 350 eP 16 46.30 -1.7
 0.9s 2.70nm 4.3mb
 FRB 51.44 17 eP 17 27.00 4.5X
 INK 55.95 345 eP 17 55.00 -0.7
 MBC 60.44 355 eP 18 27.50 0.4
 1.0s 4.00nm 4.5mb
 WRA 129.31 258 PKPc 27 25.50 -1.0
 0.5s 0.80nm
 NNT 145.39 326 ePKP 27 55.20 -0.9
 HYB 145.97 4 ePKP 27 57.00 -0.1
 GBA 149.65 7 PKPd 28 05.60 2.7X
 0.9s 5.90nm
 S.D. = 1.1 on 34 of 55 obs.

APR 04, 1990 17h 08m 49.79 ± 0.69s
 45.797 N ± 7.5km 10.960 E ± 4.3km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.4 (KBA).

SAL 0.36 238 P 08 56.80 -0.4
 eSg 09 04.00
 CTI 0.54 62 P 09 00.10 -0.7
 eSg 09 07.70
 MDI 0.87 269 P 09 06.00 -0.6
 eSg 09 20.00
 OSS 1.06 328 ePd 09 09.70 -0.1
 OGA 1.07 2 iPg 09 09.30 -0.8
 VDL 1.24 304 ePc 09 12.80 -0.3
 SCE 1.35 22 iPg 09 14.40 -0.3
 TMA 1.49 283 ePc 09 17.10 0.3
 FVI 1.49 57 P 09 16.80 0.2
 eSn 09 36.40
 LLS 1.73 309 ePd 09 21.70 1.4
 SAX 1.83 323 ePc 09 24.60 2.8X
 RBL 1.93 69 P 09 23.00 0.0
 eSg 09 45.50
 TRI 1.97 92 e(Pg) 09 27.60 4.1X
 e(Sg) 09 48.90
 KBA 2.09 51 iP 09 26.60 1.2
 iPg 09 29.20
 i 09 49.20
 iSg 09 55.40
 SLE 2.60 320 ePc 09 38.70 6.1X
 S.D. = 0.8 on 12 of 15 obs.

* APR 04, 1990 17h 31m 28.82 ± 0.68s
 39.104 N ± 11.0km 72.315 E ± 10.7km
 DEPTH = 33.0km (normal)
 4.5mb (9 obs.) 4.1Msz (1 obs.)
 KIRGHIZ SSR (716)
 Felt (IV) in the Dorout-Kurgon area.

QUE 9.93 208 eP 33 55.00 2.5
 MAIO 10.54 259 eP 33 59.00 -1.7
 0.7s 7.94nm 5.1mb
 eS 35 56.00
 NDI 11.16 157 eP 34 15.50 6.4X
 eS 36 19.50
 GKN 15.09 134 P 35 01.00 -0.3
 0.5s 23.00nm 4.7mb
 KKN 15.61 132 P 35 07.48 -0.8
 DMN 15.65 133 P 35 07.86 -1.0
 PKI 15.85 133 P 35 10.84 -0.6
 0.8s 15.00nm 4.2mb
 GUN 15.87 131 P 35 12.30 0.6
 0.5s 18.00nm 4.4mb
 TAB 20.32 275 eP 36 18.00 13.0X
 SHL 21.29 124 eP 36 21.50 6.6X
 eS 40 09.50
 HYB 22.28 164 eP 36 33.00 8.3X

LZH 25.10 87 eP 37 00.00 7.9X
 Z 18s 0.50um 4.1Msz
 N 10s 0.20um
 HFS 41.70 320 eP 39 14.50 -1.2
 0.4s 2.30nm 4.3mb
 KHC 42.36 304 eP 39 36.50 15.2X
 NB2 42.97 321 P 39 25.10 -1.0
 0.7s 2.30nm 4.0mb
 BAO 59.56 249 ePc 41 37.70 6.0X
 0.7s 5.00nm 4.8mb
 MBC 64.69 3 eP 42 07.50 2.4
 0.7s 5.00nm 4.7mb
 INK 71.17 10 eP 42 46.00 0.3
 YKA 78.60 3 eP 43 29.00 0.8
 0.6s 0.70nm 3.8mb
 WB5 82.48 123 eP 43 52.80 3.3X
 WRA 82.51 123 Pd 44 00.30 10.7X
 1.0s 3.00nm
 S.D. = 1.5 on 12 of 21 obs.

? APR 04, 1990 18h 53m 27.49 ± 11.38s
 46.216 N ± 60.4km 3.065 E ± 75.1km
 DEPTH = 10.0km (geophysicist)
 FRANCE (538)
 ML 1.8 (LDG).

MAF 0.35 271 Pg 53 34.60 0.0
 Sg 53 39.40
 TCF 0.60 277 Pg 53 39.50 -0.1
 Sg 53 47.80
 LSF 1.07 272 Pg 53 47.70 0.1
 Sg 54 02.10
 CAF 1.47 209 Pg 53 54.00 0.0
 Sg 54 09.90
 S.D. = 0.2 on 4 of 4 obs.

* APR 04, 1990 19h 29m 59.02 ± 0.64s
 16.524 N ± 10.7km 145.971 E ± 23.5km
 DEPTH = 33.0km (normal)
 4.5mb (4 obs.)
 MARIANA ISLANDS (216)

GUMO 3.11 200 e(P) 30 46.90 0.0
 PJG 3.11 200 e(P) 30 46.70 -0.2
 GUA 3.14 199 e(P) 30 48.30 1.0
 eS 31 30.70
 BJI 34.90 318 eP 36 50.00 0.5
 1.5s 13.00nm 4.6mb
 WRA 38.00 198 P 37 14.60 -1.3
 0.5s 4.50nm 4.6mb
 INK 71.26 23 eP 41 16.00 -0.7
 GMW 78.82 44 P 42 16.80 16.5X
 YKA 79.78 28 eP 42 03.90 -1.2
 0.8s 2.10nm 4.2mb
 NEW 82.35 42 P 42 19.80 0.8
 1.0s 4.13nm 4.4mb
 KVN 84.25 51 P 42 30.40 1.2
 ZOBO 147.31 94 PKP 49 43.00 3.0X
 S.D. = 1.1 on 9 of 11 obs.

* APR 04, 1990 19h 51m 48.95 ± 1.19s
 4.738 S ± 7.3km 151.645 E ± 10.7km
 DEPTH = 31.2 ± 11.3 km
 4.9mb (6 obs.)
 NEW BRITAIN REGION (192)

RAB 0.75 44 iP+ 52 02.00 -1.3
 LAT 5.00 247 eP 53 06.00 2.2
 PMG 6.43 224 eP 53 24.00 -0.1
 HNR 9.47 120 eP 54 08.00 1.7
 eS 56 20.00
 CTA 16.14 199 iPd 55 46.50 11.3X
 2.0s 279.41nm
 eS 58 42.00
 GUA 19.35 340 e(P) 56 14.00 -1.0
 1.0s 64.00nm 4.8mb
 GUMO 19.41 340 e(P) 56 18.00 2.3
 eS 59 55.00
 QIS 19.60 216 eP 56 17.00 -0.9
 PVC 20.81 130 iPc 56 40.00 9.6X
 RMQ 21.80 187 eP 56 41.00 0.6
 WB5 22.58 227 eP 56 46.50 -1.6
 eS 00 54.20
 WRA 22.64 227 P 56 49.00 0.3
 1.1s 40.60nm 4.8mb
 ASPA 25.43 221 iPd 57 15.10 -0.7
 2.0s 51.00nm 4.8mb

04d 19h

Z	23s	0.33um	3.8mszX	ALQ	1.0s	6.25nm	4.5mb	Esg	16 01.70
		eS	01 50.90		32.39 131 eP	25 46.00	-0.2	S.D. = 0.9	on 5 of 5 obs.
		LR	06 49.70		1.0s	6.75nm	4.5mb		
MNI	27.48 282	e(P)	57 33.50 -1.1	DAG	36.71 20 eP	26 22.50	0.0	& APR 04, 1990	21h 42m 33.60s
ADE	32.38 200	eP	58 17.00 -1.0	JSC	43.78 102 P	27 19.00	-2.4	48.717 N	112.370 W
LOE	53.96 295	eP	01 13.00 0.5	SPC	68.19 17 eP	30 15.60	-0.9	DEPTH =	6.0km
BJI	55.21 327	eP	01 21.50 0.2	ZST	68.69 19 eP	30 20.80	1.4	MONTANA	(456)
	2.0s	55.00nm	5.2mb	GKN	85.11 325 P	31 51.76	0.2	<BUT>.	ML 3.1 (BUT). Felt at
KMI	56.00 305	Pd	01 27.50 0.0		0.9s	18.00nm	5.3mb	Cutbank.	
Z	25s	1.30um	4.9mszX	KKN	85.13 324 P	31 52.16	0.4		
		pP	01 35.00 25kmX		0.7s	15.00nm	5.3mb		
		sP	01 41.00	PKI	85.30 324 P	31 52.80	0.1		
		eS	07 58.00		0.9s	9.00nm	5.0mb		
CHG	56.92 296	ePc	01 35.00 1.0	DMN	85.35 324 P	31 53.42	0.5		
	1.0s	14.50nm	5.0mb		0.9s	21.00nm	5.4mb		
CHTO	56.92 296	eP	01 33.90 -0.1		S.D. = 1.2	on 45 of 51 obs.			
LZH	60.39 316	eP	01 58.00 0.0	% APR 04, 1990	20h 29m 04.91±0.66s				
	2.0s	56.00nm	5.3mb	44.428 N ± 6.8km	7.284 E ± 6.5km				
Z	23s	0.30um	4.4mszX	DEPTH =	10.0km (geophysicist)				
		pP	02 05.00 23kmX	NORTHERN ITALY	(545)				
		sP	02 11.00	ML 1.9 (GEN).					
SHL	65.28 301	iP	02 29.50 -1.2	PZZ	0.15 301 P	29 00.37	-0.2		
ZOBO	135.47 119	PKP	11 14.00 4.6X		S	29 10.72			
SIV	141.63 123	PKP	11 24.00 3.9X	STV	0.19 171 P	29 09.08	0.0		
BAO	151.93 137	e(PKP)	11 47.00 10.2X		S	29 11.75			
	S.D. = 1.3	on 20 of 25 obs.		ENR	0.22 154 P	29 09.81	0.0		
					S	29 12.88			
				ROB	0.44 107 P	29 14.06	0.1		
				RRL	0.61 324 P	29 17.57	0.2		
				PCP	0.91 82 P	29 22.15	-0.2		
					S.D. = 0.2	on 6 of 6 obs.			
				* APR 04, 1990	20h 45m 57.87±1.67s				
				17.314 N ± 8.3km	61.680 W ± 24.8km				
				DEPTH =	33.0km (normal)				
				LEEWARD ISLANDS	(92)				
				ML 3.8 (FDF).					
				BPA	0.32 212 eP	46 06.50	0.6		
					S	46 13.10			
				CPB	0.35 337 eP	46 06.29	0.0		
					eS	46 12.67			
				MBET	0.73 219 eP	46 11.79	0.0		
					eS	46 23.96			
				MGH	0.78 221 eP	46 12.00	-0.5		
				PAG	1.28 180 eP	46 19.40	-0.2		
					S.D. = 0.6	on 5 of 5 obs.			
				? APR 04, 1990	21h 12m 10.86±8.21s				
				32.603 S ± 42.6km	72.414 W ± 49.5km				
				DEPTH =	10.0km (geophysicist)				
				OFF COAST OF CENTRAL CHILE	(134)				
				LCCH	1.12 141 iP	12 32.50	0.6		
					iS	12 47.50			
				ROCH	1.24 108 iP	12 33.10	-0.9		
					iS	12 48.10			
				JACH	1.54 93 iP	12 44.80	6.3X		
					iS	13 07.00			
				LNv	1.59 148 iP	12 38.50	-0.6		
				TACH	1.62 131 iPc	12 39.50	-0.1		
					iS	13 00.20			
				SAN	1.70 120 eP	12 41.60	0.9		
					iS	13 02.60			
				PCH	1.89 123 iPd	12 44.00	0.4		
					iS	13 08.50			
				FCH	1.93 113 iP	12 44.80	0.5		
					iS	13 07.00			
				CHCH	1.98 132 iPd	12 44.00	-0.9		
					iS	13 08.50			
					S.D. = 0.8	on 8 of 9 obs.			
				% APR 04, 1990	21h 15m 34.17±0.86s				
				41.893 N ± 7.5km	12.779 E ± 7.8km				
				DEPTH =	10.0km (geophysicist)				
				SOUTHERN ITALY	(390)				
				RMP	0.10 215 Pc	15 36.10	-0.8		
					eSg	15 38.80			
				RDP	0.14 199 P	15 38.50	0.9		
					eSg	15 41.00			
				MNS	0.50 351 P	15 44.30	0.0		
					eSg	15 52.30			
				AZI	0.50 79 P	15 44.50	0.2		
				SDI	0.80 103 P	15 49.30	-0.4		

APR 05, 1990 00h 21m 15.04± 0.52s				0.6s 31.70nm 5.5mb				LRG 90.80 319 iPc 34 16.10 0.1			
23.547 N ± 3.5km 121.722 E ± 4.2km				SUF 71.85 331 iP 32 34.70 -1.3				VGB 90.89 39 eP 34 18.00 1.5			
DEPTH = 35.5 ± 4.4 km				0.4s 5.30nm 4.9mb				DPW 90.91 36 eP 34 18.00 1.4			
5.2mb (38 obs.)				NUR 73.18 329 iP 32 42.80 -1.0				BGF 91.05 323 iPc 34 16.70 -0.4			
TAIWAN (244)				MBC 73.77 13 eP 32 46.00 -1.0				0.6s 4.05nm 5.0mb			
TWF1 0.44 244 iPc 21 24.30 -0.4				BBTK 74.56 307 iPc 32 52.00 -0.4				NEW 91.25 35 eP 34 17.60 -0.5			
eS 21 32.10				MLR 77.45 314 eP 33 09.00 0.4				1.0s 7.50nm 5.0mb			
TWD 0.54 348 iPc 21 24.80 -1.4				HFS 78.36 331 eP 33 12.00 -1.1				MAF 91.41 323 iPc 34 18.90 0.1			
eS 21 33.90				0.9s 11.70nm 4.9mb				0.7s 12.70nm 5.4mb			
TWG 0.94 220 iPd 21 31.50 -0.4				Z 16s 0.52um 5.0mszx				TCF 91.56 323 iPc 34 19.50 -0.1			
eS 21 45.60				NB2 79.02 332 P 33 15.40 -1.4				0.8s 6.70nm 5.1mb			
TWC 1.06 6 iPc 21 33.50 -0.1				0.9s 8.60nm 4.7mb				LSF 91.96 323 eP 34 21.00 -0.4			
eS 21 48.00				KRA 79.46 320 ePc 33 18.70 -0.6				0.9s 4.90nm 4.9mb			
TWQ 1.09 312 iPc 21 35.00 1.0				KSP 81.23 322 iPc 33 28.50 -0.2				CAF 92.47 322 iPc 34 24.10 0.4			
TWK 1.17 256 iPc 21 36.90 1.7				1.0s 25.00nm 5.2mb				0.9s 11.45nm 5.3mb			
eS 21 53.30				VAY 81.30 311 eP 33 28.40 -0.8				RJF 92.55 322 iPc 34 24.30 0.2			
TWZ 1.55 355 iPd 21 40.90 0.2				SKO 81.81 312 ePc 33 31.70 -0.2				0.8s 21.50nm 5.6mb			
ANP 1.64 353 eP 22 27.50 45.4X				PRU 82.62 322 Pc 33 36.00 0.0				FRB 92.63 5 eP 34 23.00 -1.0			
PIP 5.30 191 ePd 22 34.00 0.2				e 33 49.50				LPO 93.11 322 eP 34 26.80 0.1			
CVP 5.81 179 eP 22 39.50 -1.7				CLL 82.85 323 iP 33 36.70 -0.4				FFC 93.52 24 iPd 34 28.60 0.2			
eS 23 41.50				0.9s 15.00nm 5.1mb				0.8s 12.00nm 5.4mb			
HKC 7.07 261 iP 22 58.40 -0.4				YKA 83.36 23 eP 33 40.00 0.4				ORV 93.88 44 eP 34 30.00 -0.3			
iS 24 13.70				0.7s 9.60nm 5.0mb				CMB 95.47 45 eP 34 38.50 0.8			
BAG 7.18 189 eP 23 00.80 0.3				KHC 83.58 321 iPc 33 41.50 0.5				1.0s 9.50nm 5.2mb			
SSE 7.53 356 Pd 23 01.00 -4.3X				MOX 83.95 323 eP 33 43.00 0.2				KVN 96.31 43 eP 34 42.00 0.2			
Z 12s 3.20um				WET 83.97 321 eP 33 43.40 0.4				S.D. = 0.9 on 114 of 120 obs.			
N 11s 2.80um				VBY 84.29 317 e(P) 33 45.60 1.0				% APR 05, 1990 01h 55m 26.34± 0.80s			
S 24 21.50				GRF 84.64 322 iPc 33 46.90 0.6				33.638 S ± 9.7km 70.693 W ± 9.2km			
Lg 25 15.00				0.8s 14.00nm 5.2mb				DEPTH = 33.0km (normal)			
MCO 7.66 261 iP 23 06.10 -1.0				BHG 84.67 320 iPc 33 46.80 0.3				CHILE-ARGENTINA BORDER REGION (127)			
PPR 13.99 192 iPd 24 40.00 7.0X				0.9s 25.00nm 5.4mb				PCH 0.15 84 iPc 55 33.50 0.9			
BJI 17.10 345 eP 25 14.00 1.1				CEY 84.69 318 eP 33 46.90 0.2				iS 55 44.60			
1.0s 18.00nm 4.2mb X				KBA 84.71 319 iPd 33 43.20 -3.7X				0.19 8 iP 55 34.50 1.6			
N 12s 1.29um				0.6s 8.40nm 5.1mb				iS 55 47.20			
eS 28 32.00				VOY 84.88 318 eP 33 45.20				TACH 0.20 266 iPc 55 35.60 2.6X			
KMI 17.37 279 Pd 25 21.00 4.3X				i 33 46.20				iS 55 48.50			
Z 10s 1.90um				i 34 08.40				CHCH 0.30 173 iPc 55 34.10 0.0			
N 10s 1.10um				i 34 11.80				iS 55 46.00			
E 10s 2.20um				FUR 85.38 321 eP 33 50.70 0.6				FCH 0.46 48 iPc 55 35.10 -1.5			
pP 25 28.00				0.8s 26.00nm 5.5mb				iS 55 49.10			
i 26 41.50				WTS 85.80 326 eP 33 52.50 0.5				LNV 0.68 242 iPc 55 38.60 -0.8			
eS 28 33.00				0.8s 13.00nm 5.2mb				iS 55 53.90			
LZH 19.88 313 Pc 25 47.00 0.6				ENN 86.95 325 eP 33 57.50 -0.1				ROCH 0.72 338 iPd 55 39.50 -0.7			
2.0s 80.00nm 4.7mb				0.9s 15.00nm 5.2mb				iS 55 55.00			
Z 14s 3.10um				MEM 86.99 325 P 33 57.70 -0.1				LCCH 0.75 282 iPd 55 41.00 0.6			
N 10s 1.00um				CDF 87.52 323 eP 34 00.40 -0.2				iS 55 56.50			
E 11s 1.60um				PGC 87.61 37 eP 34 02.00 1.2				JACH 0.96 5 iP 55 35.10 -8.5X			
pP 25 52.00 19kmX				FIR 87.62 317 eP 34 05.00 4.0X				iS 55 49.10			
sP 25 59.00				DOU 88.03 325 P 34 02.50 -0.4				S.D. = 1.3 on 7 of 9 obs.			
eS 29 28.00				0.7s 21.10nm 5.5mb				? APR 05, 1990 01h 56m 40.17±15.48s			
sS 29 45.00				BSF 88.12 322 eP 34 02.80 -0.7				9.676 N ±82.4km 59.087 W ±97.1km			
CHG 21.75 262 ePc 26 07.30 1.8				HAU 88.27 323 eP 34 03.50 -0.6				DEPTH = 33.0km (normal)			
1.0s 30.50nm 4.7mb				GMW 88.59 38 eP 34 07.30 1.6				NORTH ATLANTIC OCEAN (402)			
CHTO 21.75 262 iPc 26 07.30 1.8				ORX 88.64 320 P 34 04.60 -1.5				MD 3.8 (TRN).			
1.2s 7.70nm 4.0mb X				BMW 88.94 39 eP 34 08.20 0.8				BOT 2.18 313 eP 57 15.77 0.9			
NNT 23.54 246 eP 26 24.40 1.3				RMW 89.19 37 eP 34 09.80 1.2				eS 57 28.35			
GUN 32.51 285 P 27 45.68 0.5				LSD 89.22 320 P 34 09.01 0.0				TPR 2.24 312 eP 57 16.40 0.7			
PKI 32.93 285 P 27 47.44 -1.4				FIN 89.27 319 P 34 08.29 -0.7				eS 57 28.99			
KKN 33.04 285 P 27 49.70 0.0				PNT 89.29 35 eP 34 10.00 1.0				TPP 2.41 286 eP 57 19.08 0.9			
DMN 33.20 285 P 27 51.10 0.0				ROB 89.43 319 P 34 08.70 -1.1				eS 57 43.51			
GKN 33.60 286 P 27 54.30 -0.2				LPG 89.43 320 iPc 34 10.00 -0.1				TRN 2.48 293 eP 57 18.29 -0.8			
NDI 40.12 287 eP 28 49.50 0.3				0.6s 16.25nm 5.5mb				eS 57 40.68			
HYB 40.78 270 eP 28 56.50 1.6				0.6s 14.45nm 5.5mb				TCE 2.81 291 eP 57 23.19 -0.6			
GBA 42.98 265 Pc 29 14.00 1.2				LON 89.59 38 eP 34 11.30 0.8				eS 57 48.01			
1.1s 11.60nm 4.5mb				SHW 89.66 39 eP 34 13.00 2.1				GRW 3.53 315 eP 57 33.33 -0.8			
MBL 44.47 183 iPd 29 23.20 -1.5				PGF 89.67 317 eP 34 11.10 0.1				eS 58 12.15			
POO 44.80 273 iPd 29 28.20 0.6				0.8s 24.20nm 5.5mb				SVB 4.16 330 eP 57 42.54 -0.4			
WB5 44.89 163 eP 29 27.00 -1.2				RRL 89.73 320 P 34 10.55 -0.9				eS 58 23.85			
WRA 44.94 163 Pc 29 27.50 -1.1				ENR 89.74 319 P 34 08.80 -2.5				SLB 4.55 335 eP 57 48.71 0.2			
0.6s 3.20nm 4.4mb				STV 89.79 319 P 34 09.83 -1.6				eS 58 33.73			
OIS 47.17 157 eP 29 46.70 0.5				EDM 89.92 30 ePc 34 12.50 0.7				S.D. = 0.9 on 8 of 8 obs.			
ASPA 48.40 165 eP 29 57.20 1.4				0.8s 25.00nm 5.5mb				? APR 05, 1990 02h 22m 52.50± 8.44s			
0.6s 9.00nm 5.0mb				SBF 89.93 319 iPc 34 11.60 -0.5				44.740 N ±20.0km 6.640 E ±70.2km			
QUE 48.92 290 eP 30 00.90 0.9				LOR 90.07 323 iPc 34 11.90 -0.7				DEPTH = 10.0km (geophysicist) (538)			
MAIO 54.58 299 iPc 30 43.60 1.2				0.9s 9.85nm 5.1mb				FRANCE ML 2.2 (GEN).			
ANM 61.66 28 eP 31 31.20 -0.3				LBF 90.17 323 iPc 34 12.60 -0.6				RRL 0.21 30 P 22 57.13 0.0			
BRW 65.19 21 eP 31 54.40 -0.1				0.8s 17.45nm 5.4mb				S 23 00.62			
TTA 65.81 30 eP 31 58.70 -0.1				SSF 90.39 323 iPc 34 13.70 -0.4				PZZ 0.40 125 P 23 00.82 0.0			
SVW 66.16 32 eP 32 01.20 0.2				0.9s 9.85nm 5.1mb				S 23 07.08			
IMA 66.55 26 eP 32 03.80 0.3				0.9s 9.85nm 5.1mb				RSP 0.60 47 P 23 04.72 0.0			
0.7s 14.30nm 5.2mb				SMF 90.44 322 iPc 34 14.00 -0.4							
FBA 69.15 27 eP 32 20.30 0.7				0.7s 22.60nm 5.6mb							
PMR 69.18 31 eP 32 19.50 -0.3				FRF 90.57 319 eP 34 14.60 -0.4							
KEV 69.75 338 eP 32 21.00 -2.2				AVF 90.63 323 iPc 34 14.90 -0.3							
SOD 70.44 336 iP 32 26.30 -1.1				0.7s 14.90nm 5.4mb							
TOA 70.45 30 eP 32 28.20 0.6											

05d 02h

LSD 0.80 27 P 23 08.31 0.0
S.D. = 0.0 on 4 of 4 obs.

? APR 05, 1990 02h 24m 09.34 ± 0.93s
49.184 N ± 7.5km 7.092 E ± 11.8km
DEPTH = 10.0km (geophysicist)

GERMANY (543)

RUP 0.52 358 ePg 24 19.44 -0.4
ABH 0.76 23 ePg 24 24.30 0.1
FEL 1.45 155 ePg 24 35.61 -0.1
MEM 1.59 334 iP 24 38.10 0.6
DOU 1.86 300 iP 24 41.30 -0.2
S.D. = 0.5 on 5 of 5 obs.

* APR 05, 1990 03h 05m 26.15 ± 0.87s
11.076 N ± 13.6km 86.462 W ± 9.7km
DEPTH = 33.0km (normal)
4.6mb (14 obs.)

NEAR COAST OF NICARAGUA (74)

CMG2 4.82 318 eP 06 36.00 -2.5
REC 5.18 311 ePc 06 42.20 -1.4
BVA 5.41 312 ePc 06 45.50 -1.5
SGS 22.68 13 P 10 30.00 4.0X
PRM 23.21 9 P 10 33.80 2.7
JSC 23.58 11 eP 10 36.80 2.1
PWL 23.84 357 P 10 37.80 0.5
RSCP 24.43 2 iPc 10 43.90 0.9
GBTN 24.57 4 P 10 45.40 1.1
TKL 24.59 5 P 10 45.20 0.6
OLY 24.74 350 P 10 45.10 -0.9
POW 25.33 351 P 10 50.80 -0.8
TUL 26.13 343 eP 10 58.90 -0.1
1.1s 38.10nm 4.9mb
BLA 26.58 11 P 11 04.30 1.0
1.0s 20.00nm 4.7mb
NAV 26.62 10 P 11 04.40 0.8
CVL 27.74 14 P 11 14.00 0.3
NA2 28.05 15 P 11 17.50 1.1
ALO 29.93 326 eP 11 33.20 -0.5
0.9s 8.19nm 4.5mb
ANMO 29.93 326 P 11 33.40 -0.3
1.0s 8.75nm 4.5mb
GOL 33.08 333 P 12 00.80 -0.6
0.8s 8.93nm 4.7mb
GLA 34.00 314 eP 12 11.00 1.8
RSNY 34.90 15 P 12 16.10 -0.6
1.0s 24.58nm 5.1mb
TPC 35.43 315 eP 12 22.00 0.6
PLM 35.60 313 eP 12 25.00 2.0
MSU 35.69 324 P 12 24.00 0.2
RSSD 36.25 338 P 12 29.70 1.2
RVR 36.30 314 eP 12 30.00 1.3
DAU 36.52 327 P 12 31.00 0.2
MWC 36.90 314 eP 12 36.00 2.0
SBB 36.98 315 eP 12 36.00 1.5
DUG 37.20 326 P 12 37.00 0.6
0.7s 3.16nm 4.3mb
BW06 37.44 332 P 12 37.80 -0.7
0.8s 3.21nm 4.2mb
TNP 38.47 320 P 12 47.20 0.0
1.0s 5.00nm 4.3mb
KVN 39.60 320 eP 12 56.90 0.4
e 13 10.50

RSON 40.11 353 P 12 57.80 -2.5
CMB 40.51 317 P 13 06.20 2.4
1.2s 9.26nm 4.4mb
LRM 41.11 332 eP 13 10.20 1.3
FFC 45.24 347 iPc 13 40.70 -1.3
0.8s 12.00nm 4.9mb
BAO 46.42 124 eP 13 52.50 0.5
PNT 46.99 331 eP 13 55.00 -1.0
0.7s 9.00nm 4.9mb
EDM 47.24 338 eP 13 56.00 -1.9
FRB 54.10 10 eP 14 47.00 -2.7
YKA 55.18 345 eP 14 54.00 -3.8X
1.0s 3.60nm 4.4mb
MBC 67.51 352 eP 16 19.00 -1.7
LKO 79.34 82 P 17 29.20 -1.7
0.8s 17.50nm 5.1mb
LIC 80.45 85 P 17 36.00 -0.9
KIC 80.71 85 P 17 37.20 -1.0
CHG 149.83 350 ePKP 25 15.20 4.9X
GBA 150.74 33 PKPd 25 13.10 1.4

0.9s 4.50nm
S.D. = 1.4 on 46 of 49 obs.

APR 05, 1990 04h 35m 13.30 ± 0.98s
36.470 N ± 7.3km 71.182 E ± 5.4km
DEPTH = 206.1 ± 11.8 km
4.3mb (21 obs.)

AFGHANISTAN-USSR BORDER REGION (717)

QUE 7.20 211 iPd 36 56.90 -0.2
0.8s 951.49nm 6.1mb X
eS 38 16.00
NDI 9.28 145 iPc 37 24.00 0.0
0.5s 49.30nm 5.1mb
iS 39 01.50

MAIO 9.43 272 ePn 37 36.00 10.0X
eSn 39 07.00

GKN 14.16 123 P 38 26.72 0.5
0.5s 43.00nm 5.1mb

DMN 14.73 123 P 38 33.02 -0.4

KKN 14.74 122 P 38 32.94 -0.5

PKI 14.96 122 P 38 36.20 -0.1

0.5s 21.00nm 4.8mb

GUN 15.07 120 P 38 37.56 -0.1

0.4s 12.00nm 4.7mb

POO 18.02 172 iPc 39 12.50 1.0

HYB 20.07 159 eP 39 15.00 -17.5X

GBA 23.45 165 Pc 40 06.70 1.3

0.4s 5.00nm 4.5mb

CHTO 30.08 118 e(P) 41 04.90 -0.5

NUR 37.94 324 eP 42 13.10 1.1

SUF 38.03 328 iP 42 13.80 1.1

0.4s 3.60nm 4.3mb

SOD 39.83 335 iP 42 28.90 1.4

HFS 43.18 322 eP 42 54.30 -0.6

0.4s 3.30nm 4.2mb

NB2 44.49 323 P 43 05.50 0.0

0.6s 3.60nm 4.0mb

BSF 47.77 305 eP 43 31.30 -0.1

0.6s 3.60nm 4.0mb

HAU 48.03 305 eP 43 33.20 -0.1

LPG 48.29 302 eP 43 35.70 0.1

0.7s 4.40nm 4.0mb

LPL 48.30 302 eP 43 35.10 -0.5

SMF 49.99 304 eP 43 47.90 -0.4

0.6s 4.05nm 4.1mb

AVF 50.28 304 eP 43 50.00 -0.5

0.7s 4.95nm 4.1mb

TCF 51.17 304 eP 43 57.20 -0.1

0.5s 2.20nm 3.9mb

CAF 51.64 302 eP 44 00.60 -0.2

0.7s 3.30nm 4.0mb

LSF 51.64 304 eP 44 00.10 -0.6

LDF 52.11 307 eP 44 03.20 -1.0

FLN 52.30 307 eP 44 04.70 -0.8

0.5s 3.65nm 4.2mb

DAG 54.83 344 eP 44 23.20 -0.4

BCAO 57.79 250 iPc 44 45.70 0.4

0.5s 5.00nm 4.5mb

MBC 67.36 3 ePc 45 48.20 0.7

0.5s 6.00nm 4.6mb

BUL 69.19 223 iPc 46 42.10 42.5X

0.7s 3.77nm

YKA 81.27 3 eP 47 07.50 0.5

0.5s 1.60nm 4.0mb

WB5 81.83 122 eP 47 10.00 -0.6

WRA 81.85 122 Pc 47 09.90 -0.9

0.5s 2.90nm 4.3mb

FFC 88.98 356 eP 47 46.00 0.6

0.9s 9.00nm 4.7mb

S.D. = 0.7 on 33 of 36 obs.

APR 05, 1990 04h 44m 30.13 ± 0.80s
19.453 S ± 8.2km 68.983 W ± 7.3km
DEPTH = 131.2 ± 7.0 km
4.9mb (16 obs.)

CHILE-BOLIVIA BORDER REGION (124)

LPB 3.02 16 iPc 45 20.50 2.3
1.0s 900.00nm

i 45 58.00

ZOBO 3.27 15 iPc 45 23.00 1.4

CCH 3.39 53 iPc 45 24.20 1.3

ARE 3.81 321 iPc 45 26.80 -1.8

iS 46 08.00

ANT 4.44 197 iP 45 35.50 -1.1

SIV 8.29 67 iPc 46 23.00
PT03 8.49 309 eP 46 29.70 -1.9
eS 47 46.60

ITB1 14.48 114 e(P) 47 50.20 0.2

ITB 14.68 114 e(P) 47 52.00 -0.6

ITB7 14.82 115 e(P) 47 55.00 0.7

BAO 20.37 83 eP 48 57.60 -0.9

JSC 54.69 348 P 53 46.20 -1.6

PRM 54.74 346 P 53 46.50 -1.7

TKL 56.57 346 P 53 59.00 -2.3

GBTN 56.68 345 P 54 00.20 -1.9

RSCP 56.96 344 P 54 02.20 -1.9

0.7s 55.36nm 5.6mb

PWLA 57.09 341 P 54 02.90 -2.0

OLY 58.67 339 P 54 13.40 -2.5

TUL 60.63 335 eP 54 28.70 -0.6

1.0s 14.30nm 4.9mb

ALQ 64.76 326 eP 54 56.50 -0.3

1.0s 4.75nm 4.4mb

ANMO 64.76 326 P 54 57.00 0.2

LIC 67.90 75 Pc 55 15.90 -1.0

0.5s 7.00nm 4.8mb

GLD 67.92 331 P 55 16.90 0.1

0.9s 31.58nm 5.2mb

GOL 67.95 330 P 55 16.40 -0.7

0.8s 23.81nm 5.1mb

TIC 68.07 74 P 55 16.98 -1.1

KIC 68.21 75 Pc 55 18.08 -0.8

0.5s 19.50nm 5.2mb

LKO 68.76 71 Pc 55 21.34 -0.9

0.5s 13.50nm 5.0mb

MSU 70.46 325 P 55 33.50 1.0

RSSD 70.93 334 P 55 35.00 -0.2

DAU 71.38 327 P 55 38.50 0.5

DUG 72.02 326 P 55 42.40 0.7

0.5s 2.92nm 4.3mb

KUK 72.14 77 eP 55 42.00 -0.7

BW06 72.32 330 P 55 42.90 -0.6

0.8s 2.79nm 4.1mb

TNP 72.98 322 P 55 48.10 0.7

RSON 73.31 344 P 55 46.30 -2.5

0.8s 8.01nm 4.5mb

FRI 73.74 320 eP 55 54.20 2.7

PTI 73.75 328 P 55 52.20 0.5

PRI 73.79 319 eP 55 53.30 1.3

IMW 73.83 330 P 55 52.70 0.4

KVN 74.14 322 P 55 54.80 0.7

PRS 74.35 318 eP 55 56.40 1.3

HPI 74.73 328 P 55 59.00 1.5

CM8 74.83 320 eP 55 58.70 0.8

ARN 75.09 319 P 56 00.70 1.3

MHC 75.15 319 eP 55 54.40 -5.5X

LRM 75.98 330 eP 56 05.60 1.1

ORV 76.47 321 eP 56 08.70 1.7

WDC 77.73 321 e(P) 56 12.70 -1.3

FFC 79.08 341 eP 56 21.00 0.0

0.9s 12.00nm 4.7mb

NEW 79.95 330 P 56 26.00 0.1

0.8s 4.17nm 4.3mb

DPW 80.20 329 P 56 28.00 0.7

LON 81.27 326 P 56 33.50 0.6

RMW 81.73 327 P 56 35.80 0.5

BMW 81.85 325 P 56 37.00 1.1

PNT 81.87 329 ePd 56 37.00 1.1

0.7s 13.00nm 4.8mb

EDM 81.89 335 iPd 56 35.80 -0.1

0.8s 24.00nm 5.0mb

GMW 82.30 327 P 56 38.90 0.8

FRB 82.93 0 eP 56 40.00 -0.9

MCW 83.05 327 P 56 43.50 1.5

YKA 89.24 341 eP 57 12.50 0.6

0.7s 16.50nm 5.2mb

WRA 134.66 212 PKPc 03 36.40 0.9

0.5s 1.60nm

WB5 134.70 212 ePKP 03 35.90 0.4

GBA 147.32 95 PKP 03 59.00 1.1

0.7s 5.00nm

S.D. = 1.3 on 61 of 63 obs.

APR 05, 1990 04h 48m 36.74 ± 0.30s
43.386 N ± 3.1km 17.419 E ± 3.0km
DEPTH = 14.0 ± 2.5 km

YUGOSLAVIA (383)

ML 3.7 (KBA), 3.6 (TTC), 3.5
(ZAG), MD 4.0 (TRI). Felt in
the Imotski area.

[illegible]

05d 08h

[illegible]

eSn 51 13.00
 AZI 1.89 267 P 50 56.00 10.4X
 MGR 2.01 189 P 50 46.70 -0.6
 eSn 51 06.00
 LCI 2.33 139 P 50 55.90 4.0X
 eSn 51 19.60
 CSI 2.35 174 P 50 52.20 -0.1
 TDS 2.48 173 P 50 53.80 -0.2
 eSn 51 17.10
 ROI 2.59 170 P 50 56.60 1.0
 CZI 2.90 178 P 50 59.40 -0.6
 SKO 4.08 90 ePg 51 56.00 39.3X
 eSg 52 02.50

S.D. = 0.6 on 9 of 15 obs.

APR 05, 1990 14h 19m 23.98 ± 0.40s
 45.794 N ± 4.2km 17.885 E ± 4.0km
 DEPTH = 10.0km (geophysicist)
 YUGOSLAVIA (383)
 MD 3.8 (TRI). ML 3.7 (VKA). 3.5
 (KBA).

BLY 1.16 206 iPn 19 46.10 0.5
 iSn 19 59.60
 ZAG 1.33 272 iPg 19 48.60 0.1
 iSg 20 09.00
 PTJ 1.35 275 iPg 19 48.10 -0.8
 iSg 20 07.00
 BUD 1.86 24 e(P) 20 01.00 4.8X
 SRO 2.04 8 e(P) 20 01.50 2.7
 i 20 07.10
 i 20 28.20
 i 21 11.60
 i 49 23.80
 BEO 2.06 117 i(Pn) 20 11.20 12.2X
 SOP 2.10 335 iPnc 19 58.80 -0.8
 LJU 2.35 277 ePn 20 03.00 -0.3
 e 20 11.90
 eSn 20 31.50
 e 20 43.00
 CEY 2.42 270 ePn 20 03.50 -0.8
 e 20 12.00
 e(Sn) 20 36.40
 e 20 43.00
 ZST 2.46 348 iPc 20 05.30 0.5
 i 20 35.00
 i 20 59.00
 e 49 24.30
 RIY 2.50 261 ePn 20 04.70 -0.6
 iSn 20 34.90
 PSZ 2.53 32 iPn 20 04.60 -1.3
 BZS 2.62 93 iPc 20 05.50 -1.5
 VKA 2.69 337 iPgc 20 08.70 0.6
 i 20 15.80
 i 20 17.00
 i 20 32.10
 iSg 20 40.70
 VOY 2.80 276 ePnc 20 08.80 -0.9
 eSg 20 56.40
 HVAR 2.81 202 iPnd 19 49.50 -20.3X
 iSg 20 25.60
 TRI 2.89 270 iPnd 20 11.30 0.5
 i(Sn) 20 44.90
 iSg 20 58.90
 RBL 3.07 284 P 20 13.80 0.3
 eSn 20 35.00
 KBA 3.39 294 iPnd 20 17.70 -0.5
 i 20 34.60
 iSn 20 58.80
 iSg 21 16.20
 i 21 22.00
 TTG 3.51 163 ePn 20 22.00 2.4
 eSn 21 02.00
 DEV 3.51 87 ePc 20 50.00 30.4X
 FVI 3.63 285 P 20 21.20 -0.2
 CTI 4.36 276 Pd 20 30.90 -0.9
 eSn 21 04.50
 KHC 4.44 320 iPn 20 34.00 1.1
 Pg 20 41.40
 Sn 21 23.40
 Sg 21 37.10
 SKO 4.60 145 ePn 20 33.00 -2.2
 PRU 4.76 333 ePn 20 37.00 -0.5
 e 20 43.50
 Sn 21 32.00
 WET 4.77 316 iPnd 20 37.80 0.2
 PGD 4.79 249 P 20 40.00 2.0

DUI 4.82 212 P 20 47.50 9.1X
 OGA 4.87 285 eP 20 39.20 0.0
 AZI 4.98 222 P 20 47.00 6.5X
 SDI 5.04 217 P 20 46.00 4.6X
 OHR 5.14 155 ePn 20 43.50 0.7
 SAL 5.16 271 P 20 42.00 -1.0
 KSP 5.16 349 iP 20 43.50 0.4
 iS 21 55.50
 VAY 5.62 141 ePn 20 50.00 0.4
 MLR 5.66 90 eP 20 50.00 -0.3
 e 49 06.00
 BRG 5.72 334 e(P) 21 09.00 18.0X
 e 21 39.00
 e 22 16.00
 GRF 5.95 313 iPg 20 54.10 -0.1
 e(Sn) 21 52.00
 eSg 21 59.80
 CLL 6.40 331 (Pg) 21 42.00 41.4X
 eSg 23 00.00
 MOX 6.41 321 iPn 21 01.00 0.3
 e 22 40.00
 e 23 02.00
 TNS 7.72 308 iPnc 21 23.00 3.8X
 eSn 22 42.50

S.D. = 1.1 on 32 of 42 obs.

* APR 05, 1990 14h 29m 29.09 ± 1.51s
 17.627 S ± 8.7km 173.007 W ± 11.1km
 DEPTH = 74.8 ± 13.0 km
 4.4mb (8 obs.)

TONGA ISLANDS (173)

AFI 3.88 18 eP 30 28.00 0.3
 WLZ 22.49 204 eP 34 21.20 -1.9
 THZ 26.91 204 eP 35 05.90 0.8
 LTZ 28.03 203 eP 35 15.80 0.6
 WB5 49.72 259 eP 38 11.60 -4.4X
 WRA 49.74 259 P 38 12.00 -4.1X
 0.5s 1.30nm 4.2mb
 ASPA 49.82 254 eP 38 11.60 -5.1X
 1.1s 13.00nm 4.9mb
 Z 20s 0.20um 4.1msz
 eS 45 15.30
 LR 56 00.70
 GUA 51.80 304 eP 38 32.50 0.7
 GUMO 51.87 304 eP 38 32.00 -0.3
 PJG 51.87 304 eP 38 32.00 -0.3
 TNP 76.22 42 P 41 11.00 -0.4
 KVN 76.23 41 P 41 10.90 -0.5
 MSU 79.75 44 P 41 31.00 0.2
 PMR 81.22 11 P 41 36.00 -1.7
 TTA 81.40 8 P 41 38.00 -0.7
 0.8s 3.45nm 4.3mb
 ALO 81.94 50 eP 41 43.00 0.6
 1.0s 2.50nm 4.1mb
 IMW 83.40 40 P 41 50.00 0.2
 LRM 83.53 38 eP 41 51.10 0.7
 BW06 83.68 42 P 41 50.00 -1.2
 FBA 84.50 11 P 41 54.00 -0.5
 0.8s 18.97nm 5.2mb
 IMA 84.70 8 P 41 55.80 0.1
 0.8s 3.02nm 4.4mb
 GOL 84.92 46 P 41 58.00 0.5
 0.8s 3.72nm 4.5mb
 EDM 87.18 31 eP 42 08.50 0.5
 BJI 87.27 313 eP 42 08.00 -0.6
 CHTO 93.77 288 eP 42 40.10 0.7
 1.0s 1.10nm 4.2mb
 pP 42 55.40 52kmX
 ZOBO 98.71 110 (P) 43 14.00 11.3X
 Z 24s 0.13um 4.3mszX
 LR 16 08.00

KRA 146.01 345 ePKP 49 01.80 0.9
 e 49 15.70
 CLL 146.06 353 iPKPc 49 02.20 1.3
 1.3s 26.00nm
 MOX 146.85 355 ePKP 49 05.00 2.8X
 KHC 148.13 352 ePKP 49 08.10 3.7X
 FLN 148.35 9 ePKP 49 08.80 4.1X
 0.6s 7.20nm
 LDF 148.57 9 ePKP 49 09.50 4.5X
 0.7s 6.60nm
 GRR 148.66 10 ePKP 49 09.90 4.7X
 0.7s 6.60nm
 LPF 148.97 10 ePKP 49 10.80 5.1X
 0.8s 6.70nm
 CDF 149.29 360 ePKP 49 11.90 5.6X

HAU 149.70 1 ePKP 49 12.90 6.1
 0.7s 6.60nm
 BSF 149.88 0 ePKP 49 13.00 5.8
 LOR 150.33 4 ePKP 49 14.40 6.6
 0.9s 6.55nm
 SSF 150.51 5 ePKP 49 14.90 6.9
 0.9s 8.20nm
 LBF 150.62 4 ePKP 49 14.90 6.6
 0.9s 6.55nm
 AVF 150.76 5 ePKP 49 15.00 6.6
 0.9s 6.55nm
 BGF 150.95 6 ePKP 49 15.50 6.8
 0.7s 6.60nm
 TCF 151.15 7 ePKP 49 15.90 6.8
 0.9s 7.35nm
 MAF 151.25 6 ePKP 49 16.40 7.2
 0.9s 8.20nm
 S.D. = 0.9 on 24 of 44 obs.

APR 05, 1990 15h 49m 21.88 ± 0.47s
 44.821 N ± 3.8km 7.292 E ± 4.8km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.5 (GEN). 2.4 (LDG).

DOI 0.32 186 P 49 28.20 -0.3
 eSg 49 31.70
 PZZ 0.34 203 P 49 28.62 -0.4
 S 49 33.36
 RRL 0.37 286 P 49 29.36 -0.3
 S 49 33.56
 BNI 0.50 298 Pd 49 31.40 -0.6
 eSg 49 39.00
 STV 0.58 178 P 49 32.23 -1.4
 S 49 39.49
 ENR 0.60 171 P 49 32.86 -1.2
 S 49 39.92
 LSD 0.64 351 P 49 34.92 0.0
 S 49 43.10
 ROB 0.67 142 P 49 34.92 -0.3
 S 49 44.02
 LPG 0.78 331 Pg 49 37.10 -0.1
 Sg 49 46.90
 LPL 0.80 331 Pg 49 37.70 0.1
 Sg 49 47.90
 CKI 0.81 119 P 49 38.00 0.4
 eSg 49 49.80
 FIN 0.90 133 P 49 38.56 -0.5
 S 49 48.96
 PCP 0.94 107 P 49 40.38 0.6
 S 49 52.37
 SBF 0.96 174 Pg 49 40.60 0.3
 Sg 49 51.80
 FRF 1.34 200 Pg 49 46.80 0.2
 Sg 50 03.80
 LRG 1.52 206 Pg 49 50.50 1.4
 Sg 50 08.90
 LMR 1.59 201 Pg 49 52.30 2.2
 Sg 50 11.20

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

? APR 05, 1990 15h 52m 41.39 ± 1.00s
 30.872 S ± 17.8km 68.990 W ± 28.3km
 DEPTH = 33.0km (normol)
 SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.63 165 eP 52 54.80 0.8
 (S) 53 07.00
 RTLL 0.64 136 iPc 52 54.50 0.5
 eS 53 08.00
 RTRS 0.81 330 iPc 52 56.30 0.0
 iS 53 11.80
 CFA 0.97 139 ePc 52 58.50 -0.3
 eS 53 14.00
 RTCV 1.06 159 e(P) 52 59.00 -1.0
 S 53 16.00

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

& APR 05, 1990 15h 55m 43.33s
 48.844 N 122.174 W
 DEPTH = 4.9km
 WASHINGTON (29)
 <SEA>. CL 2.7 (SEA). Felt at
 Deming.

VDB 0.19 14 Pc 55 47.36 0.2
 MBW 0.19 108 P 55 47.27 0.0

05d 15h

CMW	0.42	175	Pd	55	50.61	-1.2
MCW	0.47	250	Pd	55	51.50	-1.2
HNB	0.51	328	P	55	52.07	-1.4
			S	55	59.51	
OHW	0.57	205	P	55	53.99	-0.8
RPW	0.59	132	Pd	55	53.80	-1.4
SNB	0.66	264	P	55	55.22	-1.4
JCW	0.67	166	P	55	55.15	-1.6
PGC	0.87	258	P	55	57.93	-2.5
VGZ	0.88	241	P	55	58.34	-2.3
BIB	0.93	308	Pd	55	59.38	-2.2
BLN	0.99	213	P	56	01.15	-1.5
BLH	1.01	175	P	56	01.98	-1.0
WPB	1.06	321	P	56	01.54	-2.2
PGW	1.06	196	P	56	02.65	-1.1
HTW	1.08	165	P	56	02.64	-1.5
STW	1.21	236	P	56	04.11	-2.3
NAB	1.26	288	P	56	04.89	-2.3
			S	56	21.27	
HDW	1.33	207	P	56	06.14	-2.3
SHB	1.35	305	Pd	56	06.42	-2.3
GMW	1.36	198	Pc	56	06.85	-2.1
WHB	1.38	339	P	56	07.56	-1.8
RMW	1.41	170	P	56	08.49	-1.2
NLW	1.44	121	Pc	56	09.40	-0.9
OSD	1.44	225	P	56	08.51	-1.9
PFB	1.53	261	P	56	08.96	-2.4
OTR	1.63	243	P	56	14.13	1.3
GSM	1.66	171	P	56	12.23	-1.1
MBB	1.67	276	P	56	11.30	-2.2
SMW	1.71	208	P	56	14.16	0.1
ETW	1.75	134	P	56	14.47	-0.2
DHW2	1.82	117	P	56	16.96	1.4
WTV	1.87	127	Pc	56	16.87	0.5
RVC	1.91	176	P	56	16.25	-0.7
TWW	1.92	152	P	56	17.86	0.8
FMW	1.94	170	P	56	16.54	-1.0
CPW	1.98	199	P	56	16.89	-1.0
TBM	1.98	147	P	56	18.79	0.8
LMW	2.18	182	P	56	20.31	-0.6
WPW	2.19	169	P	56	21.09	0.1
APW	2.22	188	P	56	20.92	-0.4
EBG	2.22	150	P	56	22.09	0.7
ONR	2.24	209	P	56	21.33	-0.3
BTB	2.28	287	P	56	21.15	-1.3
NAC	2.30	156	P	56	22.62	0.1
KOSW	2.38	180	P	56	23.99	0.2
CZM	2.42	185	P	56	23.84	-0.4
TDL	2.49	181	P	56	25.26	-0.1
ERK	2.54	183	P	56	25.74	-0.3
MXC	2.60	150	P	56	26.87	0.1
STD	2.61	181	P	56	27.55	0.6
SOSW	2.61	179	P	56	27.47	0.5
ESD	2.65	180	P	56	28.77	1.2
ASR	2.72	171	P	56	30.11	1.4
CDFW	2.73	178	P	56	29.33	0.6
MDW	2.76	143	P	56	32.65	3.5

57 obs. associated

S.D. = 1.3 on 12 of 13 obs.

& APR 05, 1990 18h 27m 48.66s
60.174 N 152.854 W
DEPTH = 119.7km
2.8mb (1 obs.)
SOUTHERN ALASKA
<AGS-P>.

(2)

RED	0.25	9	iP	28	05.09	1.0
			eS	28	18.15	
RDT	0.46	29	iP	28	06.02	-0.7
			eS	28	20.10	
PDB	0.78	241	iP	28	07.95	-0.9
			eS	28	22.99	
NNL	0.79	99	iP	28	09.19	0.2
			eS	28	24.08	
AUL	0.85	201	iP	28	08.64	-0.9
AUE	0.86	198	iP	28	08.51	-1.1
XLV	0.92	141	eP	28	09.15	-1.0
			eS	28	25.53	
NKA	0.98	54	eP	28	11.86	1.1
CNPM	1.04	128	iP	28	10.81	-0.6
			eS	28	27.63	
BRLK	1.07	112	eP	28	11.37	-0.4
SPU	1.09	21	eP	28	11.20	-0.7
CRP	1.15	17	eP	28	12.12	-0.6
			eS	28	30.96	
CGLM	1.21	20	eP	28	12.61	-0.7
NCG	1.28	15	eP	28	13.47	-0.6
CDD	1.31	198	iP	28	12.69	-1.6
SLKM	1.35	75	iP	28	13.71	-1.1
			eS	28	33.04	
BGM	1.43	238	iP	28	14.08	-1.6
			eS	28	33.70	
SVW	1.65	306	eP	28	16.75	-1.6
SUA	1.66	38	eP	28	17.81	-0.6
			eS	28	40.33	
SEW	1.71	91	eP	28	17.19	-1.7
SKT	1.92	19	eP	28	20.45	-1.2
			eS	28	47.67	
PMS	1.94	55	eP	28	20.62	-1.3
			eS	28	44.96	
PWA	2.08	43	eP	28	22.67	-0.8
PLRM	2.31	50	eP	28	24.19	-2.3
GHO	2.50	48	eP	28	26.88	-2.2
CUT	2.56	28	eP	28	28.29	-1.5
GLI	2.93	74	eP	28	31.18	-3.6
VZW	3.23	71	eP	28	35.74	-3.0
			eS	29	12.38	
NCA	3.45	55	eP	28	39.30	-2.4
KTH	3.51	14	eP	28	40.63	-1.9
KLU	3.64	66	eP	28	41.53	-2.8
RND	3.76	29	eP	28	43.94	-1.9
TOA	3.77	56	eP	28	44.13	-1.9
MCK	4.02	26	eP	28	47.04	-2.3
PAX	4.51	48	eP	28	53.63	-2.4
GLB	4.61	70	eP	28	54.58	-2.8
NEA	4.76	20	eP	28	56.55	-2.8
WRH	4.85	25	eP	28	57.80	-2.8
TGL	5.00	79	eP	29	00.46	-2.2
HDA	5.06	30	eP	29	00.32	-3.2
CCB	5.06	25	eP	29	00.87	-2.6
RDS	5.15	23	eP	29	01.70	-3.1
FBA	5.29	24	eP	29	03.75	-2.8
PCA	6.30	85	eP	29	18.01	-2.5
YKA	18.31	66	eP	31	52.60	-3.2

0.5s 0.30nm 2.8mb
45 obs. associated

APR 05, 1990 19h 20m 44.16±0.35s
2.927 S ± 5.7km 35.891 E ± 8.7km
DEPTH = 10.0km (geophysicist)
4.9mb (16 obs.)

TANZANIA (573)

mbLg 5.2 (BUL).

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN

L.P.B.: 13S, 26C

Centroid Location:

Origin Time 19:20:48.9 0.8

Lat 3.05S 0.10 Lon 36.05E 0.07

Dep 15.0 FIX Half-duration 1.5

Moment Tensor; Scale 10**16 Nm

Mrr=-3.89 0.48 Mtt=-1.86 0.68

Mrf= 5.74 0.45 Mrt= 0.00 0.00

Mrrf= 0.00 0.00 Mtrf=-1.02 0.41

Principal Axes:

T Vol= 5.88 Plg= 0 Azm=262

N -1.99 0 172

P -3.89 90 180

Best Double Couple: Mo=4.9*10**16

NP1: Strike=352 Dip=45 Slip= -90

NP2: 172 45 -90

NAI	1.88	29	iPd	21	10.00	-6.8X
	0.5s		45.77nm			
AAE	12.22	14	eP	23	45.00	3.5X
NPA	12.53	165	eP	23	45.00	-0.5
	1.0s		530.00nm			6.7mb X
			eSn	26	10.90	
			iSg	27	17.00	
BUL	18.53	202	iP	25	41.90	39.0X
			iSn	28	56.90	
			iLg	30	54.90	
SLR	23.83	197	iPd	25	59.20	0.7
KSR	24.39	200	iPd	26	03.20	-0.8
	1.0s		105.00nm			5.4mb
PRY	25.19	198	eP	26	01.20	-10.5X
SEK	26.46	197	eP	26	23.50	0.0
	0.8s		7.46nm			4.4mb
WIN	26.71	221	eP	26	28.00	2.1
BLF	27.63	199	iPd	26	33.00	-1.1
HLW	32.89	353	eP	27	20.50	-0.1
PRNI	33.09	359	eP	27	24.00	1.6
DSI	34.31	359	eP	27	34.00	1.1
KIC	41.60	283	P	28	34.40	0.1
LKO	43.14	287	P	28	46.72	-0.2
QUE	44.33	40	eP	28	57.80	1.3
GBA	44.36	67	Pd	28	55.00	-1.8
	1.2s		29.30nm			5.0mb
MAIO	44.81	27	eP	29	03.00	2.7
VAY	45.68	346	eP	29	07.00	0.1
SKO	46.58	345	eP	29	13.00	-1.0
HYB	46.68	63	ePd	29	14.50	-0.8
MLR	49.01	351	eP	29	35.00	1.8
SRO	52.82	345	e(P)	30	04.50	2.6X
ZST	53.49	344	eP	30	08.80	1.9
SPC	53.65	347	eP	30	08.00	-0.3
LPG	54.73	335	eP	30	15.20	-1.2
	1.0s		6.00nm			4.6mb
LPL	54.75	335	eP	30	15.50	-1.0
	1.0s		5.00nm			4.5mb
KHC	55.34	342	Pc	30	19.40	-1.1
			e	32	04.10	
			e	56	54.50	
			Sg	57	39.00	
SMF	56.88	334	eP	30	31.10	-0.4
	1.2s		11.90nm			4.8mb
LBF	57.08	334	eP	30	32.20	-0.8
	1.1s		9.75nm			4.7mb
MAF	57.12	333	eP	30	33.50	0.2
	1.2s		17.85nm			5.0mb
AVF	57.20	334	eP	30	33.40	-0.4
	1.1s		9.75nm			4.7mb
BGF	57.25	333	eP	30	33.80	-0.3
TCF	57.33	333	eP	30	35.10	0.3
	1.1s		18.30nm			5.0mb
SSF	57.34	334	eP	30	34.20	-0.6
LOR	57.35	335	eP	30	33.20	-1.7
NUR	63.86	354	eP	31	18.00	-0.9
IPM	65.51	84	ePd	31	31.00	0.5
	1.2s		51.80nm			5.6mb
APD	65.56	348	eP	31	28.20	-1.7
	0.5s		2.50nm			4.7mb
CHG	65.64	68	eP	31	30.00	-1.2
SUF	65.89	355	iP	31	32.20	0.3
	0.8s		10.00nm			5.1mb
NB2	66.58	347	P	31	35.20	-1.4
	1.2s		16.20nm			5.1mb
SOD	70.45	356	iP	32	02.30	2.0
BAO	83.33	255	e(P)	33	15.00	1.5
BJI	84.44	49	eP	33	19.00	0.5
	1.4s		22.00nm			5.2mb
WRA	96.94	110	Pd	34	17.70	0.0
	1.4s		13.90nm			5.4mb
WB5	96.97	110	eP	34	18.00	0.1

S.D. = 1.2 on 42 of 47 obs.

APR 05, 1990 20h 41m 34.30±1.90s

7.798 S ±30.1km 119.749 E ±15.1km

DEPTH = 199.0 ± 29.3 km

4.3mb (2 obs.)

FLORES SEA (279)

05d 21h

HON	51.83	75	iP+	21	47.10	1.1			PcP	24	02.00		PAS	85.08	56	eP	25	13.25	0.3	
COOL	52.34	209	eP	21	48.70	-1.0			PP	25	42.00					id	25	20.53	23kmX	
			i	22	00.80	43kmX			PPP	27	20.00					ec	25	25.34		
TOO	52.45	182	iPd	21	51.70	1.3			iS	32	12.00					ePP	28	53.00		
			e	22	03.00	39kmX			SS	36	44.00					iSKS	35	48.00		
			e	31	46.00				iP	23	23.00	-1.6				eS	36	10.00		
MRWA	53.62	215	eP	21	58.20	-0.9	HYB	65.99	283	iP	23	23.00	-1.6			ePS	36	42.00		
KUH	53.97	77	eP	22	03.30	1.3		1.0s	950.00nm			6.9mb				ePKKP	43	06.00		
KIH	54.05	77	eP	22	04.50	1.7			iS	32	16.00	30kmX				eLg	48	30.00		
DAH	54.16	77	eP	22	03.20	-0.6			e	33	24.00					eLR	51	00.00		
SPT	54.19	77	eP	22	03.70	0.1	FRU	67.44	310	eP	23	33.00	-0.5	CIS	85.08	57	eP	25	16.10	3.1X
HMH	54.31	77	eP	22	05.80	1.0			iS	32	33.00		CLC	85.11	54	eP	25	13.00	-0.1	
BAL	54.32	213	eP	22	03.30	-1.0	GBA	67.71	279	Pc	23	32.30	-3.2X	MWC	85.15	56	eP	25	13.00	-0.6
			i	22	14.50	38kmX		0.6s	21.80nm			5.5mb	SBB	85.22	56	eP	25	13.00	-0.7	
AIN	54.35	77	eP	22	04.00	-1.0	KOD	68.35	275	eP	23	40.80	0.8	SBB	85.22	56	eP	25	16.00	2.3
KKU	54.42	76	eP	22	07.90	2.4			eS	32	12.00		SES	85.56	39	ePd	25	14.80	-0.3	
PFH	54.82	77	P	22	08.00	-0.2	DWY	69.07	27	P	23	43.30	0.1		1.0s	146.00nm			6.1mb	
MUN	55.67	212	eP	22	13.10	-1.0	HYT	69.55	30	Pc	23	46.30	-0.1	RVR	85.76	56	eP	25	15.00	-1.4
			iS	30	15.00		AFR	69.76	115	iP	23	49.30	1.2	GSC	85.87	55	eP	25	17.00	0.0
NWAO	55.90	211	P	22	15.30	-0.5	PPT	69.94	115	iP	23	50.40	1.1	KEV	85.87	343	eP	25	16.89	0.7
SDN	56.41	33	P	22	30.00	10.8X		1.2s	270.00nm			6.3mb		1.3s	2950.20nm			7.3mb		
Z	18s	261.90um			7.4Msz		PAE	69.98	115	iP	23	50.50	1.1			ed	25	23.02	19kmX	
SDN	56.41	33	eP	22	19.40	0.2	MCQ	70.02	173	eP	23	53.00	4.1X			ec	25	26.83		
	1.2s	1593.80nm			6.9mb		PPN	70.05	115	iP	23	51.00	1.1			ec	25	28.48		
RKG	56.94	210	iPc	22	26.30	3.1X	POO	70.22	285	iP	23	50.00	-1.0			eHPP	28	47.60		
ILT	57.04	14	iPd	22	21.50	-2.0	TVO	70.31	115	iP	23	52.90	1.3			ePP	28	48.43		
			iS	30	21.50		SIT	70.42	34	eP	23	51.80	0.3			i	29	37.70		
TIK	57.60	353	eP	22	26.00	-1.3		2.0s	1531.30nm			6.8mb				eS	35	43.97		
			eS	30	20.00		Z	19s	121.00um			7.2Msz	PEC	85.96	56	P	25	17.10	-0.3	
WMO	58.03	312	eP	22	32.42	1.5	PMO	70.43	112	iP	23	52.60	0.4	LRM	86.07	44	iPd	25	17.70	-0.3
			ec	22	42.52	33kmX		1.2s	720.00nm			6.7mb	TEH	86.23	306	eP	25	21.00	2.2	
			ec	22	43.84		VAH	70.75	112	iP	23	54.20	0.0	CPE	86.27	57	eP	25	22.30	3.4X
			ePP	24	35.08			1.2s	270.00nm			6.3mb	CPE	86.27	57	eP	25	29.30	10.4X	
			eHPP	24	49.70		DSH	72.08	306	eP	24	02.00	0.0	PLM	86.34	57	eP	25	18.00	-1.5
			eS	30	35.91				eS	33	24.00		PLM	86.34	57	eP	25	22.70	3.2X	
GUN	58.28	294	P	22	32.56	-0.7	MBC	76.14	14	ePd	24	24.20	-0.6	IR2	86.63	306	eP	25	21.50	0.7
	1.0s	1597.00nm			7.0mb			1.0s	464.00nm			6.5mb	BAR	86.68	57	eP	25	20.00	-0.9	
PKI	58.71	293	P	22	34.90	-1.3	PGC	78.12	43	eP	24	37.00	0.8	BAR	86.68	57	eP	25	22.70	1.8
ANM	58.79	22	eP	22	35.00	-0.9		1.1s	594.00nm			6.6mb	IR4	86.75	305	eP	25	20.50	-0.9	
KKN	58.82	294	P	22	35.80	-1.1	MCW	78.52	43	P	24	40.00	1.5	TPC	86.79	56	eP	25	21.00	-0.5
WLZ	58.88	154	eP	22	36.70	0.0	BMW	78.64	45	P	24	39.20	0.0	TPC	86.79	56	eP	25	23.00	1.5
DMN	58.98	293	P	22	37.08	-1.0	GMW	78.75	44	P	24	40.00	0.3	IR7	86.85	306	eP	25	21.00	-0.8
GKN	59.38	294	P	22	39.66	-1.0	FHC	79.11	51	eP	24	44.00	2.2	IR5	87.00	306	eP	25	23.00	0.4
	1.1s	243.00nm			6.3mb		RMW	79.42	44	P	24	45.00	1.5	PTI	87.02	46	P	25	23.50	0.9
NOZ	60.59	153	eP	22	46.90	-1.5	LON	79.55	44	eP	24	44.03	-0.1	IKP	87.14	57	eP	25	26.20	2.9
SVW	61.08	28	eP	22	51.10	-0.5			id	24	50.65	21kmX	HAY	87.23	56	eP	25	34.10	10.5X	
	2.0s	3875.00nm			7.2mb		MAIO	79.71	305	iPd-	24	46.00	0.7	SOD	87.32	341	iP	25	22.00	-1.3
KIW	61.20	157	eP	22	50.80	-1.8			eS	34	50.00		DUG	87.51	49	P	25	25.00	0.0	
MNG	61.21	156	P	22	50.50	-2.1	WDC	80.23	51	iPd	24	48.00	0.2	DAG	87.93	357	iPd-	25	24.90	-1.2
	0.7s	140.00nm			6.2mb		YKA	80.28	28	eP	24	45.90	-1.7		0.6s	561.33nm			7.1mb	
THZ	61.24	159	P	22	51.20	-1.7		1.0s	138.70nm			5.9mb	Z	20s	87.94um			7.2Msz		
TCW	61.26	157	P	22	51.90	-1.1	PNT	80.48	42	ePd	24	49.00	0.0	N	20s	95.04um				
KDC	61.41	32	eP	22	55.60	1.8	LTCM	80.61	51	P	24	51.50	1.6	E	18s	59.11um				
	2.0s	3718.80nm			7.2mb		MIN	80.97	51	eP	24	51.10	-0.9	GLA	88.06	56	eP	25	28.00	0.4
MRW	61.43	157	P	22	52.30	-1.8	PCC	80.97	54	eP	24	51.40	-0.4	TRO	88.19	344	iP	25	27.70	0.3
CAW	61.47	157	P	22	52.70	-1.7	BRK	80.99	53	ePd	24	51.90	0.0	DAU	88.58	49	P	25	30.00	-0.3
WEL	61.50	157	P	22	52.00	-2.6		Z	20s	110.00um			7.2Msz	BW06	89.01	46	ePc	25	31.00	-1.2
PGZ	61.52	155	eP	22	52.70	-2.0	ORV	81.22	51	ePd	24	52.70	-0.4		Z	20s	264.23um		7.7Msz	
WDW	61.58	157	eP	22	53.20	-1.9	GCC	81.37	54	ePd	24	53.70	-0.2	FFC	89.10	33	eP	25	31.00	-1.1
TTA	61.63	26	eP	22	54.50	-0.9	ARN	81.67	54	P	24	57.00	1.5		1.2s	960.00nm			6.9mb	
	1.5s	1625.00nm			7.0mb		DRV	81.75	183	eP	24	58.00	3.0	OBN	89.24	328	eP	25	31.00	-1.7
MTW	61.68	156	eP	22	54.40	-1.4	SAO	81.86	54	eP	24	57.00	0.5	Z	19s	340.00um			7.8Msz	
MOV	61.81	157	eP	22	55.10	-1.6	PRS	82.02	55	eP	24	57.60	0.3			eS	36	04.00		
LTZ	61.92	160	eP	22	54.70	-2.8	LLA	82.29	54	eP	24	58.60	-0.1	DHR	89.90	297	eP	25	33.50	-2.9
KHZ	62.04	158	P	22	55.80	-2.4	NEW	82.33	42	iP+	24	59.00	0.3	KER	89.99	306	eP	25	36.00	-0.9
	0.6s	24.00nm			5.6mb			Z	18s	128.15um			PUL	90.02	333	iPd	25	41.00	4.7X	
MOZ	62.87	160	eP	23	03.90	0.2	CMB	82.40	53	eP	24	59.51	0.2			iS	36	09.00		
MMCZ	62.96	163	eP	23	03.40	-1.0			id	25	06.29	21kmX	SUF	90.12	337	iP	25	35.00	-1.7	
TLC	63.12	163	eP	23	05.40	-0.1			ec	25	11.76		BKR	90.22	313	iPc	25	42.00	4.2X	
IMA	63.81	23	eP	23	09.90	0.0			eS	35	22.05				iS	36	12.00			
	1.7s	1500.00nm			6.9mb				ePS	36	06.20		SLY	90.84	307	ePc	25	39.00	-1.5	
PMR	64.19	28	eP	23	10.40	-1.8			eSKKP	47	32.90				iPP	25	46.50	23kmX		
	1.6s	2887.10nm			7.2mb				eP'P'	51	35.60				iPP	29	27.00			
Z	22s	205.00um			7.3Msz		PRI	82.62	55	eP	25	01.10	0.5			iPPP	31	11.50		
BRW	65.09	17	eP	23	17.90	0.0	KBS	83.07	352	iP	25	02.00	0.0			eSKS	36	06.00		
TLG	65.42	311	iP	23	20.80	0.1	FRI	83.17	54	iPd	25	03.30	0.1			iS	36	14.50		
			iS	32	13.00				eSKKP	47	33.30		NUR	91.98	335	ePKP	25	43.00	-2.3	
TOA	65.68	28	eP	23	22.20	0.3			eP'P'	51	33.00			1.3s	1948.20nm			7.3mb		
	1.3s	962.30nm			6.8mb		BCH	83.30	55	P	25	04.90	0.8			i	25	52.20	29kmX	
COL	65.72	25	eP	23	20.86	-1.2	EDM	83.35	37	ePd	25	03.50	-0.4			i	29	33.20		
			ed	23	27.48	21kmX</														

BHD	92.48	305	eS	36	43.00		AYN	100.79	304	ePdiff26	25.30	-0.7	SLM	103.97	43	Pdiff	26	50.00	10.0X
			eSPP	38	09.50		SPC	100.88	328	ePdiff26	26.30	0.1		Z	20s	80.00um			7.3Msz
			ePc	25	48.00	-0.1				i	26	32.80		MOX	104.02	333	ePdiff26	41.00	1.1
			ePP	25	55.00	22kmX				i	29	29.30			1.7s	305.00nm			6.9mb
			ePP	29	31.00					i	30	43.60			Z	18s	289.40um		7.9Msz
			eSKS	36	26.00					i	39	32.30			N	20s	203.50um		
			eS	37	01.00		ARO	100.92	285	iPdiff26	35.00	8.0X		E	17s	137.80um			
JNW	92.50	352	iP	25	50.70	3.2X	PRNI	100.98	306	ePdiff26	26.00	-0.9				i	26	47.00	
VNDA	92.83	177	iP	25	49.20	0.5	JMB	101.17	320	ePdiff26	28.00	0.6				e	29	49.00	
GLD	93.14	48	ePc	25	51.00	-0.4	MBH	101.31	305	ePdiff26	27.00	-1.3				P'P'	50	44.00	
	Z	20s	285.00um			7.7Msz	DRA	101.36	323	ePdiff26	35.00	6.8X	HLW	104.05	307	ePdiff26	45.50	5.0X	
RYD	93.41	297	iPc	25	52.60	-0.1	HQL	101.39	305	ePdiff26	45.50	16.8X				e	27	10.00	
SBA	93.45	176	P	25	53.90	2.3	WAJH	101.40	301	ePdiff26	44.50	15.7X				e	27	34.00	
			S	37	04.40		DEV	101.45	324	ePdiff26	36.00	7.4X				e	31	46.00	
ALQ	94.02	52	eP	25	55.00	-0.5	TUL	101.52	48	ePdiff26	35.00	5.8X	FVM	104.20	44	Pdiff	26	48.00	7.0X
	1.0s	187.50nm				6.4mb		1.3s	65.30nm			6.1mb	KHC	104.20	331	iPdiff26	41.00	0.2	
	Z	18s	285.22um			7.8Msz	PVL	101.54	321	iPdiff26	35.00	6.0X		Z	26s	200.00um			7.5MszX
GDH	94.52	7	ePd	25	57.00	0.2	KSP	101.75	331	ePdiff26	29.00	-0.8		N	26s	141.00um			
			i	26	03.00	19kmX		1.0s	111.00nm			6.4mb	E	26s	171.00um				
			i	36	10.00					ic	26	37.50				i	26	48.00	
UPP	95.12	337	iP	25	58.30	-1.5				i	29	27.60		VAY	104.30	320	iPdiff26	39.70	-1.7
			i	26	00.90	8kmX				i	36	10.00			1.4s	656.00nm			7.3mb
			iS	36	37.00		PSZ	101.85	327	iPdiff26	34.00	3.5X				i	26	47.40	
SIM	95.20	319	iPd	26	06.00	5.5X	MAW	101.86	203	ePdiff26	42.00	12.2X	KAP	104.40	313	ePdiff26	47.00	5.0X	
			eS	37	24.00		BRN	102.05	333	ePdiff26	35.00	3.9X	WIT	104.42	337	ePdiff26	50.00	8.4X	
RGS	95.29	342	eP	26	03.50	3.0				ePP	30	49.00				ePP	31	04.00	
RSON	95.36	34	P	25	59.00	-2.1	DIM	102.05	320	ePdiff26	31.00	-0.4	WET	104.52	331	ePdiff26	46.30	4.1X	
HFS	96.36	339	eP	26	02.90	-2.6	BZS	102.33	324	ePdiff26	32.00	-0.5	SKO	104.60	322	ePdiff26	42.20	-0.5	
	1.7s	180.60nm				6.3mb	KDZ	102.35	320	ePdiff26	34.00	1.3				0.7s	85.00nm		6.7mb
	Z	18s	173.46um			7.6Msz	KSL	102.42	313	ePdiff26	38.50	5.4X		Z	17s	117.94um			7.5MszX
			LR	05	50.00		TIM	102.48	325	iPdiff26	39.00	5.9X		N	14s	131.57um			
NB2	96.53	340	P	26	05.90	-0.4	RDO	102.54	319	iPdiff26	42.50	8.9X		E	15s	74.32um			
FRB	96.58	15	eP	26	05.00	-1.4	BUD	102.59	327	e(Pdiff26	35.00	1.4				i	26	43.50	
	1.1s	348.00nm				6.8mb	PGB	102.62	321	ePdiff26	34.00	0.0				i	26	47.80	
KMSA	96.64	293	eP	26	06.00	-1.5	SRO	102.75	328	ePdiff26	40.60	6.3X				i	26	49.60	
KAS	97.06	316	iPc	26	09.50	0.4		Z	17s	502.70um		8.1MszX				i	26	50.00	
FRO	97.90	343	iP	26	19.38	7.0X				i	29	34.80				i	27	07.30	
FOO	97.98	343	eP	26	17.87	5.1X				i	30	49.70				iPP	31	12.00	
HYA	98.00	342	eP	26	19.00	6.2X				i	31	12.70				i	36	26.00	
KONO	98.11	340	ePd	26	18.84	5.5X				e	39	49.90				iSKS	37	29.00	
BBTK	98.44	315	iPd	26	14.00	-1.4	RZN	102.76	320	iPdiff26	35.00	0.2				iS	38	41.00	
SUE	98.50	343	eP	26	23.00	7.9X	BRG	102.81	332	ePdiff26	33.60	-0.9	KMR	104.68	330	iPdiff26	48.80	5.9X	
PPE	98.54	323	eP	26	23.00	7.5X		1.3s	18.00nm			5.6mb				i	30	10.30	
CLI	98.56	323	ePd	26	20.00	4.3X	BRG	102.81	332	iPdiff26	39.80	5.3X	APE	104.74	315	ePdiff26	48.50	5.0X	
AKU	98.71	354	eP	26	17.80	1.9		1.4s	160.00nm			6.5mb	GRF	104.88	332	ePdiff26	44.70	0.9	
	1.4s	241.86nm				6.6mb				i	26	56.60			Z	20s	425.00um		8.0Msz
	Z	22s	77.04um			7.2Msz				i	29	57.40				e(PP)d31	12.00		
			i	26	24.20	20kmX				i	31	02.40		WTS	105.00	336	ePdiff26	51.00	6.8X
			i	30	33.50					iSKS	37	20.00			1.0s	48.00nm			6.4mb
CFR	98.77	321	eP	26	15.00	-1.5				iS	38	20.00				ePP	31	06.00	
ASK	98.84	342	eP	26	25.00	8.4X				i	42	30.00		SPA	105.03	180	ePdiff26	41.90	-2.3X
ODD1	98.86	341	iP	26	25.30	8.5X				i	42	46.10			2.7s	1094.44nm			7.3mb
PTT	98.87	324	eP	26	24.00	7.0X				eP'P'	51	02.40			Z	20s	36.04um		6.9Msz
BER	98.88	342	iPc	26	24.10	7.3X	CLL	102.93	333	ePdiff26	34.00	-1.0	SPA	105.03	180	iPdiff26	52.00	7.8X	
HRI	99.19	308	eP	26	20.00	1.1		1.2s	21.00nm			5.7mb	KKS	105.16	322	ePdiff26	47.50	2.4X	
BRD	99.25	322	eP	26	28.00	9.2X	CLL	102.93	333	ePdiff26	40.00	5.0X	PTJ	105.22	327	e(Pdiff26	46.60	1.1	
VRI	99.25	323	ePd	26	18.00	-0.8		1.4s	250.00nm			6.7mb	ZAG	105.26	327	iPdiff26	51.00	5.5X	
BLS2	99.25	341	iPc	26	26.50	7.8X				i	26	52.20				i	31	17.10	
CSTJ	99.35	306	Pc	26	17.60	-2.0				ePP	30	54.00		ATH	105.46	317	iPdiff26	54.00	7.4X
SHMJ	99.39	308	Pd	26	22.20	2.5				eSKS	37	20.00		OHR	105.50	321	iPdiff26	47.00	0.2
MDSJ	99.47	306	Pc	26	19.20	-1.0				PKKP	42	34.00			1.0s	78.00nm			6.6mb
PSN	99.53	320	eP	26	28.00	7.9X	ZST	103.11	329	ePdiff26	36.50	0.6				i	26	54.00	
SALJ	99.75	307	Pc	26	20.60	-0.9		Z	16s	340.70um		8.0MszX				i	27	04.00	
ISR	99.75	322	ePc	26	29.00	7.8X				i	26	42.20				e	30	14.00	
MLR	99.92	323	iPc	26	24.00	2.0				e	29	46.80				i	30	57.20	
MKRJ	99.98	306	Pd	26	21.10	-1.4				i	30	53.80				iSKS	37	22.50	
COP	100.03	336	iPdiff26	29.10	7.1X		PRU	103.15	331	ePdiff26	36.50	0.4				e	42	28.50	
	1.1s	293.67nm				6.7mb		Z	20s	211.40um		7.7Msz	DBN	105.55	337	iPdiff26	54.00	7.4X	
	Z	18s	96.22um			7.3Msz				i	26	40.00			Z	20s	129.00um		7.5Msz
			i	26	39.00					iPP	31	02.80				iPP	31	19.00	
UZH	100.15	327	ePdiff26	26.00	3.3X		VTS	103.18	321	iPdiff26	36.00	-0.6				iSP	40	25.00	
GBZT	100.21	317	ePdiff26	27.00	3.8X		ARG	103.40	314	ePdiff26	42.00	4.5X				eSS	46	01.00	
CSS	100.26	310	ePdiff26	24.50	0.9		MMB	103.43	320	ePdiff26	38.00	0.4	EKA	105.59	343	Pdiff26	53.30	6.5X	
ITU	100.33	318	iPdiff26	28.00	4.3X		VKA	103.46	329	iPdiff26	44.00	6.5X			2.1s	277.20nm			6.9mb
KRA	100.49	329	ePdiff26	24.00	-0.2			Z	18s	232.40um		7.8Msz	TTG	105.62	323	ePdiff26	51.20	4.0X	
	1.4s	168.00nm				6.4mb				i	29	53.80		TNS	105.69	334	ePdiff26	48.40	0.9
	Z	18s	485.90um			8.1Msz				iPP	30	58.80				ePP	31	08.20	
			i	26	30.50					i	31	03.00				eSKS	40	11.10	
			e	26	39.00					i	36	06.70		KBA	105.74	329	iPdiff26	49.60	1.7
			i	26	45.80					i	36	59.00			1.4s	70.00nm			6.5mb
			i	26	48.70					i	37	26.00				i	26	54.10	
			e	29	52.00					LR	17	00.00				i	27	02.40	
			iS	37	42.00		BEO	103.46	324	ePdiff26	45.00	7.4X				i	27	20.10	
BUC1	100.49	322	iPdiff26	28.00	3.7X		SMG	103.52	315	ePdiff26	44.00	6.0X				i	29	30.10	
CMY	100.57	323																	

05d 21h

			i	30	17.40		LOR	109.91	335	ePdiff	27	06.20	0.0	ALJ	122.61	335	iPKP	31	35.00	1.8
			iPP	31	11.70			1.6s	139.90nm					EJIF	122.74	334	ePKP	31	34.00	0.7
			i	31	18.80		LPL	110.02	332	ePdiff	27	07.10	0.1	TAF	122.75	331	iPKP	31	33.00	-0.5
			i	31	22.00			0.7s	9.90nm								i	31	42.00	
			e	36	26.00		LPG	110.02	332	ePdiff	27	07.00	-0.2				i	33	08.00	
			e	40	10.00			0.7s	12.70nm								i	33	23.00	
			i	40	33.30		LBF	110.08	334	ePdiff	27	07.10	0.0	CNIL	123.05	335	iPKP	31	37.50	3.6X
LJU	105.86	328	ePdiff	26	49.00	0.8		1.6s	96.40nm					PLAT	123.14	334	iPKP	31	39.00	4.8X
			e	26	53.50		CKI	110.11	330	Pdiff	27	15.00	7.8X	SEK	123.21	246	ePKP	31	32.00	-2.7X
TIR	105.92	322	ePdiff	26	47.10	-1.5	SSF	110.22	335	ePdiff	27	07.90	0.3		0.7s	68.49nm				
			iS	36	30.00			1.4s	76.25nm					PRY	123.33	248	ePKP	31	34.00	-1.0
FUR	105.96	331	ePdiff	26	50.50	1.8	FLN	110.37	338	ePdiff	27	08.50	0.3		0.7s	77.50nm				
Z	18s	307.00um				7.9msz		1.6s	161.70nm							i	31	42.20		
			i	31	10.50		LDF	110.38	338	ePdiff	27	08.70	0.5	NKM	123.57	334	iPKP	31	34.00	-1.0
TOD	106.01	334	ePdiff	26	50.86	2.0		1.5s	151.45nm							i	31	35.50		
RBL	106.07	329	Pdiff	26	54.00	4.7X	BNI	110.40	332	Pdiff	27	15.30	6.7X	KSR	123.83	249	ePdiff	28	14.00	5.1X
CEY	106.12	328	e(Pdiff)	26	53.00	3.6X	SMF	110.41	334	ePdiff	27	08.70	0.2	BLF	124.47	245	iPKPc	31	36.50	-0.7
			e	26	55.00			1.7s	132.35nm						0.9s	107.69nm				
VOY	106.19	328	ePdiff	26	54.70	4.9X	AVF	110.50	335	ePdiff	27	09.20	0.4	HVD	125.02	243	ePKP	31	55.00	16.8X
ENN	106.31	336	ePdiff	26	52.00	1.9X		1.6s	167.90nm						1.5s	166.67nm				
	1.3s	153.00nm				6.9mb	ATN	110.56	321	Pdiff	27	16.30	6.9X	IFR	125.07	332	iPKP	31	34.50	-3.7X
			ePP	31	20.00		GRR	110.82	338	ePdiff	27	10.70	0.5			i	31	40.00		
ABH	106.33	334	ePdiff	26	52.33	2.1X		1.5s	151.45nm					AVE	126.26	334	iPKP	31	41.50	1.2
FVI	106.36	329	Pdiff	26	55.00	4.6X	BGF	110.89	335	ePdiff	27	10.90	0.3			i	31	49.00		
MEM	106.40	336	Pdiff	26	53.50	3.1X		1.4s	43.55nm							i	31	49.00		
RIY	106.41	328	ePdiff	26	54.90	4.3X	NPA	111.14	259	ePdiff	27	21.00	8.6X			i	32	43.00		
STU	106.46	333	ePdiff	26	52.50	1.7		e	27	25.00						i	33	35.50		
	0.8s	7.46nm				5.8mb	MNO	111.17	322	Pdiff	27	19.90	7.6X	PDA	127.03	353	iPKPd	31	50.80	9.2X
TRI	106.48	328	ePdiff	26	56.90	5.9X	LPF	111.18	338	ePdiff	27	12.70	0.9	UPA	127.51	66	ePKPc	31	43.50	0.3
			i	31	20.40			1.4s	139.40nm						1.1s	50.63nm				
KTD	106.53	334	ePdiff	26	53.07	1.9	MAF	111.28	335	ePdiff	27	13.10	0.8	Z	20s	40.39um				7.1msz
VAM	106.54	315	ePdiff	26	45.00	-6.5X		1.5s	91.40nm					TIO	128.22	332	iPKP	31	44.00	-0.3
RUP	106.67	334	ePdiff	26	53.95	2.1X	TCF	111.37	335	ePdiff	27	13.40	0.6			i	33	56.40		
SRN	106.73	320	ePdiff	26	56.40	4.2X		1.3s	32.50nm					PSO	132.72	74	ePKP	31	50.00	-3.7X
HVAR	106.74	325	ePdiff	26	38.30	-13.9X	MEU	111.57	321	Pdiff	27	22.00	8.0X	WIN	132.74	253	ePKP	31	41.00	-12.2X
UCC	106.89	337	Pdiff	27	00.00	7.3X	LSF	111.68	335	ePdiff	27	14.60	0.5		1.2s	46.88nm				
			SKS	37	41.00			1.3s	61.35nm					CFTV	133.23	338	iPKPc	31	55.20	1.4
ITM	107.08	317	iPdiff	26	53.80	-0.1	MFF	112.04	337	ePdiff	27	16.40	0.7	BMG	134.05	64	ePKP	31	47.00	-8.8X
SNF	107.15	336	Pdiff	27	01.30	7.5X		1.3s	79.40nm					BOG	134.30	68	iPKPd	32	07.00	10.4X
CTI	107.30	330	PKP	31	23.20	19.4X	PNJ	112.15	33	(Pdiff	27	14.70	-1.6	FISA	134.99	56	ePKP	31	59.00	1.5
CTI	107.30	330	Pdiff	27	00.20	5.4X			PP	31	22.50		CHIE	135.16	342	ePKPc	32	05.00	7.6X	
DOU	107.36	336	Pdiff	26	59.80	5.0X	HRV	112.29	30	ePdiff	27	26.26	9.4X	SDV	135.23	60	ePKP	31	51.00	-7.1X
VLS	107.37	319	ePdiff	27	01.50	6.3X			ePP	32	03.07		MGH	136.79	44	ePKP	31	55.57	-5.2X	
CDF	107.57	333	ePdiff	26	56.20	0.3			eHPP	32	03.90		BPA	136.80	43	ePKP	31	56.91	-3.9X	
	1.7s	242.60nm				7.0mb			SDIF	39	53.24		MBET	136.81	44	ePKP	31	55.71	-5.1X	
FEL	107.66	333	ePdiff	26	55.47	-0.9	RJF	112.45	335	ePdiff	27	18.20	0.6	PLAV	137.26	57	ePKP	32	10.00	8.0X
LCI	107.69	322	Pdiff	27	02.60	6.1X		1.2s	56.55nm				GUAC	137.26	56	ePKP	31	56.00	-6.0X	
BRT	107.79	323	Pdiff	27	05.00	8.1X	CAF	112.53	334	ePdiff	27	18.80	0.8	LLAV	137.47	55	ePKP	31	58.00	-4.3X
BAI	107.83	323	Pdiff	27	04.00	6.9X	LFF	113.07	335	ePdiff	27	21.00	0.7	PT03	138.03	94	e(PKP)	32	05.50	2.3X
SAL	108.16	330	Pdiff	27	05.00	6.6X		1.1s	24.40nm				MDN	138.34	45	ePKP	31	55.24	-8.4X	
BSF	108.22	333	ePdiff	26	58.80	0.0	LPO	113.09	335	ePdiff	27	21.20	0.8	GUAN	138.69	55	ePKP	32	08.00	-4.6X
	1.5s	67.90nm				6.6mb	EPF	114.79	334	ePdiff	27	28.30	0.2	FDF	138.92	45	ePKP	32	08.00	-4.8X
HAU	108.28	334	ePdiff	26	59.20	0.2		1.5s	31.35nm				CUM	139.54	53	iPKP	32	14.00	8.1X	
	1.3s	68.60nm				6.7mb	BTH	114.95	335	e(Pdiff	27	32.00	3.3X	SLB	139.63	46	ePKP	31	56.72	-9.4X
DLE	108.33	344	ePdiff	27	06.70	7.7X			PP	32	20.50		SVB	139.86	47	ePKP	32	01.13	-5.3X	
ARV	108.43	327	Pdiff	27	05.60	5.9X	ECRI	116.31	336	e(PKP)	31	23.00	2.0	LVN	140.17	125	ePKP	32	08.00	1.5
MDI	108.43	330	Pdiff	26	56.00	-3.6X	ETOR	117.63	334	ePKP	31	24.00	0.4	LCCH	140.19	124	ePKP	32	12.00	5.4X
DCN	108.47	344	ePdiff	27	06.40	6.8X	STS	118.26	340	e(PKP)	31	27.70	3.1X	TACH	140.64	125	ePKP	32	07.00	-0.4
SFI	108.70	328	Pdiff	27	12.00	11.1X	GUD	118.63	336	ePKP	31	25.80	0.2	CHCH	140.78	126	ePKP	32	09.00	1.3
ORI	108.75	322	Pdiff	27	04.30	3.0X	TOL	119.24	335	iPKP	31	35.00	8.4X	SAN	140.92	125	iPKPc	32	09.50	1.6
PGD	108.80	328	Pdiff	27	08.60	7.0X			iPP	32	52.00		PCH	140.99	125	ePKP	32	09.00	0.9	
VAI	108.81	331	Pdiff	27	05.20	3.9X			iPKS	34	16.00		JACH	141.22	124	ePKP	32	11.50	2.9X	
DUI	108.85	325	Pdiff	27	09.00	7.2X			iPPP	35	38.00		TCE	141.22	50	ePKP	32	09.24	0.3	
CRE	108.85	328	Pdiff	27	10.30	8.5X			iSKS	38	17.00		FCH	141.26	125	ePKP	32	11.00	2.0	
ASS	108.87	327	Pdiff	27	09.30	7.5X			iPS	42	29.00		TRN	141.51	50	ePKP	32	08.58	-0.9	
ROI	108.99	322	Pdiff	27	03.80	1.4			ePPS	43	55.00		PIG	141.59	49	ePKP	32	12.92	3.4X	
CSI	109.03	322	Pdiff	27	03.40	0.9			iSS	49	26.00		TPP	141.69	50	ePKP	32	10.03	0.3	
TDS	109.08	322	Pdiff	27	03.90	1.2	EVIA	119.63	333	ePKP	31	28.90	1.4	SHGH	141.71	301	ePKP	32	15.00	5.1X
SGO	109.10	323	Pdiff	27	09.30	6.6X	PTO	119.83	339	ePKP	31	27.50	-0.1	TEGH	141.84	300	ePKP	32	14.00	3.9X
FIR	109.11	328	ePdiff	27	06.00	3.3X			ePP	35	34.00		KUK	141.84	301	ePKP	32	04.50	-5.6X	
			i	31	12.00				eLR	10	42.00		LEGH	141.98	301	ePKP	32	09.00	-1.3	
			i	36	52.00		EBAN	120.58	334	ePKP	31	29.10	-0.1	WEGH	142.13	301	ePKP	32	13.50	2.9X
			iS	37	46.00		ENIJ	120.89	332	ePKP	31	29.80	0.0	ARE	142.40	97	ePKP	32	05.00	-6.4X
			i	40	00.00		ASMO	121.24	333	iPKPc	31	29.00	-1.6	WIGH	142.50	301	ePKP	32	10.00	-1.2
MMN	109.13	322	Pdiff	27	05.40	2.5X	AAPN	121.44	334	iPKPc	31	29.00	-2.0	RTRS	142.86	120	ePKPc	32	09.80	-1.5
SDI	109.18	325	Pdiff	27	10.00	6.8X	EHOR	121.48	335	e(PKP)	31	32.00	1.1	ZON	143.11	123	ePKP	32	07.00	-4.9X
AZI	109.20	326	Pdiff	27	10.90	7.8X	ACHM	121.49	333	iPKPc	31	31.20	0.1	RTCV	143.13	123	e(PKP)	32	18.70	6.8X
ECB	109.22	344	ePdiff	27	14.90	11.9X	APHI	121.56	333	iPKPc	31	30.50	-0.8	ANT	143.24	109	ePKP			

LPB 145.66 97 PKP 32 19.00 2.0
 MBO 146.93 332 iPKPd 32 22.00 3.5x
 CCH 147.56 99 PKP 32 22.00 2.1
 BAA 149.56 134 PKP- 32 32.00 9.8x
 SIV 152.38 96 PKPd 32 27.50 0.5
 ITB1 157.29 118 e(PKP) 32 43.50 10.2x
 ITB7 157.30 119 e(PKP) 32 46.00 12.6x
 ITB 157.39 119 e(PKP) 32 44.00 10.5x
 BAO 164.96 94 ePKP 32 42.50 0.9

S.D. = 1.2 on 328 of 533 obs.

APR 05, 1990 21h 22m 31.33 ± 0.21s
 15.331 N ± 4.5km 147.553 E ± 6.2km
 DEPTH = 33.0km (normol)
 5.7mb (20 obs.)

MARIANA ISLANDS REGION (215)

KAGJ 21.94 319 eP 27 24.10 0.2
 MAT 22.71 340 (P) 27 29.00 -2.4
 KUMJ 22.90 321 eP 27 33.50 0.2
 SHNJ 23.88 325 eP 27 42.20 -0.6
 PMG 24.58 181 eP 27 51.50 1.7
 PIP 25.94 280 ePd 28 03.20 0.6
 HOOJ 27.21 353 P 28 14.70 0.7
 MRRJ 27.57 350 eP 28 18.40 1.1
 KUSJ 27.78 356 eP 28 19.90 0.7
 SSE 28.76 308 Pc 28 26.00 -2.2
 1.0s 68.00nm 5.3mb
 ASAJ 29.00 353 P 28 30.90 0.8
 WRA 37.38 201 Pd 29 44.10 1.1
 1.4s 180.60nm 5.7mb
 KHKI 39.45 235 ePd 30 02.10 1.7
 NNT 46.42 273 iPc 30 58.00 1.0
 e 34 32.70
 e 40 49.70
 e 43 36.00
 e 48 11.20
 e 54 34.40

NANU 49.01 220 eP 31 19.30 2.2
 BWA 49.48 179 eP 31 21.70 1.1
 CAN 50.39 178 eP 31 27.50 0.0
 KIW 61.40 157 P 32 45.80 -0.8
 MNG 61.41 156 P 32 45.80 -0.9
 0.8s 30.00nm 5.5mb
 THZ 61.45 159 eP 32 45.70 -1.3
 TCW 61.46 157 P 32 46.40 -0.6
 MRW 61.64 157 P 32 46.90 -1.3
 CAW 61.67 157 P 32 47.60 -0.8
 WEL 61.71 157 P 32 48.00 -0.6
 WDW 61.78 157 P 32 48.90 -0.2
 MTW 61.88 156 P 32 48.70 -1.1
 CCW 61.91 158 eP 32 49.30 -0.7
 MOW 62.01 157 eP 32 50.00 -0.7
 BLW 62.05 156 P 32 50.10 -0.9
 LTZ 62.13 160 P 32 50.50 -1.0
 KHZ 62.25 158 P 32 50.50 -1.7
 0.8s 98.00nm 6.0mb
 MSZ 62.53 164 P 32 54.00 0.0
 1.0s 241.00nm 6.3mb

MMCZ 63.17 163 eP 32 57.20 -1.2
 MHZ 63.26 163 P 32 59.00 -0.1
 TLC 63.32 163 eP 32 58.50 -1.0
 GBA 67.64 279 Pd 33 28.00 0.4
 0.8s 23.00nm 5.3mb
 AFR 69.88 115 iP 33 42.60 1.2
 1.3s 290.00nm 6.2mb
 PPT 70.07 115 iP 33 43.80 1.2
 1.3s 70.00nm 5.6mb
 PAE 70.10 116 iP 33 43.90 1.1
 1.3s 125.00nm 5.8mb
 PPN 70.18 115 iP 33 44.20 1.0
 1.3s 95.00nm 5.7mb

TVO 70.44 116 iP 33 46.40 1.5
 1.3s 165.00nm 5.9mb
 PMO 70.54 112 iP 33 46.50 1.0
 1.3s 200.00nm 6.0mb
 TPT 70.78 112 iP 33 47.80 0.9
 1.3s 145.00nm 5.9mb

VAH 70.87 112 iP 33 48.20 0.7
 1.3s 85.00nm 5.7mb
 RUV 71.07 112 iP 33 49.50 0.8
 1.3s 165.00nm 5.9mb

MBC 75.96 14 ePc 34 17.00 0.8
 1.3s 212.00nm 6.0mb
 PNT 80.36 42 iPc 34 41.50 0.6
 SYP 83.46 56 eP 34 58.00 0.5

ISA 84.37 55 eP 35 02.00 0.0
 PAS 85.00 56 eP 35 05.00 -0.1
 CLC 85.02 54 eP 35 05.00 -0.2
 MWC 85.07 56 eP 35 06.00 0.3
 SBB 85.14 56 eP 35 06.00 0.2
 KEV 85.66 343 iP 35 08.00 0.3
 0.9s 52.40nm 5.8mb
 RVR 85.68 56 eP 35 08.00 -0.5
 GSC 85.78 55 eP 35 09.00 -0.1
 PLM 86.26 57 eP 35 11.00 -0.6
 BAR 86.60 57 eP 35 13.00 -0.1
 TPC 86.71 56 eP 35 13.00 -0.6
 SOD 87.11 341 iP 35 14.70 -0.1
 GLA 87.98 56 eP 35 20.00 0.2
 SUF 89.91 337 iP 35 27.80 -0.4
 0.6s 11.90nm 5.3mb
 NUR 91.78 335 eP 35 30.00 -6.9x
 HFS 96.15 339 eP 35 55.20 -1.8
 0.7s 8.30nm 5.3mb
 NB2 96.33 340 P 35 55.90 -2.0
 0.8s 6.30nm 5.2mb
 KIC 145.10 306 PKP 42 08.00 0.0
 0.9s 85.00nm
 TIC 145.14 307 PKP 42 08.20 0.1
 LIC 145.41 306 PKP 42 09.00 0.5

S.D. = 1.0 on 67 of 68 obs.

APR 05, 1990 21h 32m 21.96 ± 0.37s
 15.303 N ± 8.8km 147.507 E ± 10.1km
 DEPTH = 33.0km (normol)
 5.3mb (10 obs.)

MARIANA ISLANDS REGION (215)

MAT 22.72 340 (P) 37 23.00 0.8
 HOOJ 27.23 353 eP 38 05.30 0.5
 MRRJ 27.59 350 eP 38 08.80 0.7
 ASAJ 29.02 353 eP 38 22.10 1.1
 LZH 44.01 306 Pd 40 30.00 1.6
 1.0s 56.00nm 5.3mb
 TOO 52.62 182 eP 41 36.00 1.0
 GUN 58.13 294 P 42 15.50 0.0
 PKI 58.56 293 P 42 18.20 -0.3
 0.6s 20.00nm 5.4mb
 KKN 58.67 293 P 42 19.00 -0.1
 0.7s 21.00nm 5.4mb
 DMN 58.83 293 P 42 20.20 -0.1
 0.4s 18.00nm 5.5mb
 GKN 59.23 294 P 42 22.80 -0.1
 MSZ 62.51 164 eP 42 45.00 0.5
 PMO 70.57 112 iP 43 36.80 0.5
 1.2s 50.00nm 5.5mb
 TPT 70.82 112 iP 43 38.20 0.4
 1.2s 30.00nm 5.2mb
 RUV 71.10 112 iP 43 39.80 0.3
 1.2s 40.00nm 5.4mb
 MBC 75.99 14 eP 44 07.00 -0.1
 0.5s 8.00nm 5.0mb

PAS 85.05 56 eP 44 55.00 -1.0
 SBB 85.19 56 eP 44 53.00 -3.7x
 KEV 85.68 342 eP 44 59.00 0.6
 SOD 87.12 341 iP 45 04.90 -0.6
 SUF 89.92 337 iP 45 18.60 -0.3
 NUR 91.78 335 eP 45 24.00 -3.5x
 APO 95.79 339 eP 45 43.70 -2.3
 0.7s 10.50nm 5.4mb
 NB2 96.34 340 P 45 47.20 -1.4
 0.8s 4.00nm 5.0mb
 KIC 145.08 306 PKP 51 57.92 -0.7
 TIC 145.12 307 PKP 51 57.94 -0.8
 LIC 145.39 306 PKP 51 58.90 -0.2

S.D. = 0.9 on 25 of 27 obs.

APR 05, 1990 21h 57m 09.16 ± 0.23s
 15.529 N ± 5.5km 147.769 E ± 5.6km
 DEPTH = 10.0km (geophysicist)
 5.2mb (18 obs.)

MARIANA ISLANDS REGION (215)

GUMO 3.41 236 eP 58 06.00 2.5
 PJG 3.41 236 eP 58 06.00 2.5
 MAT 22.59 340 eP 02 12.00 0.8
 PMG 24.78 181 eP 02 31.50 -1.1
 SSE 28.81 307 P 03 16.40 6.8x
 1.2s 42.00nm 5.1mb
 WRA 37.64 201 Pc 04 25.80 -0.5
 0.8s 33.60nm 5.2mb
 KHKI 39.73 235 ePc 04 42.60 -1.2

ASPA 41.25 199 iPd 04 55.70 -0.5
 0.7s 21.00nm 5.0mb
 NNT 46.62 273 eP 05 40.40 0.7
 BWA 49.68 179 eP 06 02.80 -0.4
 CAN 50.58 179 eP 06 10.20 0.1
 TOO 52.86 182 eP 06 27.00 -0.3
 GUN 58.28 293 P 07 06.66 -0.4
 0.7s 32.00nm 5.5mb
 PKI 58.70 293 P 07 09.20 -0.9
 0.7s 14.00nm 5.2mb
 KKN 58.81 293 P 07 09.92 -0.8
 0.7s 18.00nm 5.3mb
 DMN 58.97 293 P 07 11.28 -0.6
 0.8s 28.00nm 5.5mb
 GKN 59.37 294 P 07 13.98 -0.5
 MSZ 62.66 164 eP 07 34.50 -1.6
 HYB 66.06 282 eP 07 58.50 -0.4
 GBA 67.81 279 Pd 08 08.80 -1.2
 0.6s 5.30nm 4.9mb
 PMO 70.43 112 iP 08 26.00 0.0
 1.2s 35.00nm 5.4mb
 TPT 70.67 112 iP 08 27.30 -0.2
 1.2s 30.00nm 5.3mb
 RUV 70.95 112 iP 08 29.20 0.0
 1.2s 25.00nm 5.2mb
 INK 71.51 23 eP 08 32.00 0.2
 MAIO 79.62 305 eP 09 19.00 0.4
 WDC 79.84 51 eP 09 20.30 0.7
 YKA 79.85 28 eP 09 18.30 -0.8
 0.8s 5.70nm 4.6mb

PNT 80.07 42 eP 09 21.00 0.3
 BRK 80.62 53 eP 09 24.20 0.4
 ORV 80.84 52 eP 09 25.10 0.2
 GCC 81.00 54 eP 09 26.20 0.4
 PRS 81.65 55 eP 09 30.20 1.0
 CMB 82.03 53 eP 09 31.90 0.7
 PRI 82.25 55 eP 09 33.60 1.1
 FRI 82.79 54 eP 09 35.70 0.5
 KEV 85.54 343 iP 09 48.90 0.5
 0.7s 18.70nm 5.4mb
 LRM 85.66 44 eP 09 50.10 0.3
 SOD 87.00 341 iP 09 55.60 0.0
 DAG 87.54 357 iPc 09 58.00 0.0
 0.7s 14.38nm 5.4mb

i 10 07.00
 SUF 89.81 337 iP 10 08.40 -0.7
 0.7s 9.20nm 5.1mb
 NUR 91.68 336 iP 10 17.00 -0.8
 0.7s 16.00nm 5.5mb
 HFS 96.04 339 eP 10 34.90 -3.0x
 0.5s 2.60nm 5.0mb
 NB2 96.21 340 P 10 37.40 -1.4
 0.9s 6.00nm 5.1mb
 BAO 125.98 287 ePKPc 16 14.10 -0.1
 0.6s 5.00nm
 KIC 145.15 307 PKPd 16 48.86 -0.7
 1.0s 65.50nm
 LIC 145.46 307 PKP 16 49.74 -0.4
 1.0s 88.00nm
 ZOBO 145.50 96 PKP 16 51.00 0.2
 1.0s 35.00nm
 LPB 145.54 97 PKP 16 52.30 1.6
 SIV 152.25 95 iPKPc 17 01.80 1.2
 i 17 07.50

S.D. = 0.9 on 48 of 50 obs.

APR 05, 1990 22h 25m 10.27 ± 0.88s
 41.245 N ± 8.5km 21.024 E ± 6.6km
 DEPTH = 10.0km (geophysicist)
 YUGOSLAVIA (383)
 ML 2.5 (SKO), 2.4 (TTG).

OHR 0.22 232 iPg 25 14.20 -0.8
 iSg 25 18.10
 SKO 0.79 23 ePg 25 24.50 -1.1
 0.3s 290.00nm
 iSg 25 34.10
 i 25 38.20
 VAY 1.17 86 ePn 25 32.80 0.7
 ULC 1.51 299 ePg 25 37.50 0.1
 eSg 25 58.30
 PVY 1.56 330 ePg 25 37.70 -0.5
 eSg 25 57.40
 TTG 1.77 313 ePn 25 41.90 0.8
 eSn 26 04.00

05d 22h

IVA 1.83 333 ePn 25 42.00 -0.1
 eSn 26 04.30
 HCY 2.24 303 ePn 25 48.80 0.9
 eSn 26 17.00
 S.D. = 0.9 on 8 of 8 obs.

APR 05, 1990 22h 28m 39.26 ± 0.25s
 15.323 N ± 5.0km 147.603 E ± 6.1km
 DEPTH = 33.0km (normal)
 5.2mb (11 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.15 236 eP 29 28.80 1.0
 PJG 3.16 237 eP 29 28.50 0.6
 MAT 22.73 340 (P) 33 38.00 -1.6
 PMG 24.58 181 eP 33 57.00 -0.6
 SSE 28.81 308 P 34 35.00 -1.5
 0.8s 16.00nm 4.8mb
 MTN 32.39 211 eP 35 07.00 -1.3
 BJI 36.83 318 eP 35 47.00 0.8
 WRA 37.39 201 Pd 35 50.70 -0.4
 0.8s 36.20nm 5.3mb
 ASPA 41.00 199 iPd 36 20.00 -1.0
 0.8s 24.00nm 5.0mb
 LZH 44.07 306 P 36 51.00 4.8X
 2.0s 112.00nm 5.3mb
 NANU 49.03 221 eP 37 25.40 0.2
 BWA 49.48 179 eP 37 28.70 0.2
 CAN 50.38 179 eP 37 36.20 0.8
 TOO 52.65 182 eP 37 53.00 0.5
 GUN 58.21 294 Pd 38 33.74 0.4
 0.6s 41.00nm 5.7mb
 PKI 58.64 293 Pd 38 36.18 -0.2
 0.6s 23.00nm 5.5mb
 KKN 58.74 293 Pd 38 36.90 0.0
 0.7s 25.00nm 5.5mb
 DMN 58.90 293 Pd 38 38.24 0.1
 0.6s 39.00nm 5.7mb
 MSZ 62.51 164 P 39 00.50 -1.3
 HYB 65.95 282 eP 39 25.00 0.1
 GBA 67.69 279 Pc 39 35.90 0.0
 0.7s 3.40nm 4.6mb
 INK 71.76 23 eP 39 59.00 -0.9
 MBC 75.95 14 ePc 40 24.50 0.3
 1.0s 14.00nm 4.9mb
 MHI 79.60 305 eP 40 47.00 1.8
 WDC 80.10 51 eP 40 48.00 0.4
 PNT 80.33 42 eP 40 49.00 0.3
 ORV 81.09 51 eP 40 52.80 -0.1
 PRS 81.90 55 eP 40 57.70 0.6
 CMB 82.28 53 eP 40 59.50 0.4
 PRI 82.50 55 eP 41 01.10 0.7
 KEV 85.69 343 iP 41 15.80 0.1
 0.6s 9.10nm 5.2mb
 LRM 85.92 44 eP 41 17.80 0.1
 SOD 87.13 341 iP 41 22.70 -0.2
 DAG 87.73 357 eP 41 25.40 -0.1
 SUF 89.94 337 eP 41 41.00 4.7X
 NUR 91.80 335 eP 41 54.00 9.1X
 LKO 143.72 311 PKP 48 12.10 -1.5
 KIC 145.14 306 PKP 48 15.82 -0.2
 0.7s 28.00nm
 TIC 145.18 307 PKP 48 15.86 -0.2
 LIC 145.45 306 PKP 48 16.76 0.2
 0.8s 33.50nm
 ZOBO 145.63 96 PKP 48 18.80 1.3
 LPB 145.67 97 ePKP 48 05.00 -12.4X
 SIV 152.39 95 PKP 48 34.00 6.7X
 S.D. = 0.8 on 38 of 43 obs.

* APR 05, 1990 22h 45m 41.91 ± 0.74s
 15.339 N ± 17.7km 147.589 E ± 12.8km
 DEPTH = 33.0km (normal)
 5.0mb (5 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.15 236 eP 46 32.50 2.1
 GUMO 3.16 237 eP 46 28.00 -2.5
 MAT 22.71 340 (P) 50 36.00 -6.1X
 WRA 37.40 201 Pd 52 37.40 -16.4X
 0.9s 1.80nm
 GUN 58.19 294 P 55 36.40 0.5
 PKI 58.62 293 P 55 38.70 -0.2
 0.8s 12.00nm 5.1mb
 KKN 58.73 293 P 55 39.34 -0.1
 0.8s 13.00nm 5.1mb
 DMN 58.89 293 P 55 40.70 0.1

0.6s 10.00nm 5.1mb
 GKN 59.29 294 P 55 43.36 0.1
 MBC 75.94 14 eP 57 27.00 0.3
 1.0s 9.00nm 4.7mb
 MAIO 79.58 305 eP 57 50.00 2.3
 YKA 80.10 28 eP 57 41.50 -8.2X
 0.8s 2.00nm 4.2mb
 PNT 80.33 42 eP 57 51.00 -0.3
 PRS 81.90 55 eP 58 00.20 0.4
 CMB 82.28 53 eP 58 02.00 0.2
 FRI 83.05 54 eP 58 05.80 0.1
 KEV 85.67 343 eP 58 18.00 -0.3
 LRM 85.92 44 eP 58 20.40 0.1
 SOD 87.12 341 iP 58 25.30 -0.1
 DAG 87.72 357 eP 58 27.80 -0.3
 SUF 89.92 337 eP 58 38.00 -0.9
 NUR 91.78 335 eP 58 46.00 -1.5
 KIC 145.12 306 PKP 05 10.50 -8.1X
 TIC 145.16 307 PKP 05 10.42 -8.3X
 LIC 145.43 306 PKP 05 11.58 -7.6X
 ZOBO 145.65 96 ePKP 05 13.00 -7.2X
 0.5s 21.20
 CCH 147.59 98 (PKP) 06 01.00 38.0X
 S.D. = 1.1 on 19 of 27 obs.

APR 05, 1990 22h 52m 59.90 ± 0.15s
 15.552 N ± 2.8km 147.529 E ± 3.5km
 DEPTH = 45.5km (4 depth phases)
 5.5mb (37 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.23 232 eP 53 48.60 -0.8
 PJG 3.23 233 eP 53 49.20 -0.3
 GUMO 3.23 233 eP 53 49.50 0.0
 WKYJ 21.48 332 P 57 44.00 -2.7
 KAKJ 21.59 344 P 57 47.40 -0.3
 IIDJ 21.63 338 P 57 47.40 -0.9
 KAGJ 21.76 319 P 57 51.00 1.5
 CHJJ 21.79 341 P 57 48.40 -1.3
 TKSJ 22.02 329 eP 57 50.40 -1.6
 TSRJ 22.43 335 eP 57 56.70 0.7
 MAT 22.49 340 eP 57 55.00 -1.7
 0.8s 88.81nm 5.3mb
 MTMJ 22.67 339 P 57 57.40 -1.1
 KUMJ 22.72 321 eP 57 59.70 0.8
 NIJJ 22.89 342 P 58 00.80 0.2
 DAV 23.09 251 eP 58 04.00 1.3
 SHK 23.15 327 eP 58 03.40 0.3
 YONJ 23.27 330 eP 58 01.20 -3.1X
 SHNJ 23.69 324 P 58 07.80 -0.5
 PMG 24.80 181 eP 58 19.00 -0.3
 BAG 25.92 276 eP 58 30.50 0.6
 HOJO 26.99 353 eP 58 40.70 1.4
 MRRJ 27.35 350 eP 58 43.60 1.0
 KUSJ 27.56 356 eP 58 44.80 0.3
 SSE 28.61 307 Pc 58 52.40 -1.7
 0.8s 24.00nm 4.9mb
 i 59 04.90
 ASAJ 28.77 353 P 58 56.60 1.1
 MTN 32.55 211 eP 59 27.00 -2.0
 0.2s 15.00
 CTA 35.44 182 iPc 59 52.50 -1.4
 1.2s 50.78nm 5.3mb
 KNA 36.20 212 eP 00 00.30 -0.1
 BJI 36.62 318 Pc 00 03.50 -0.2
 1.8s 230.00nm 5.8mb
 e 00 16.50
 OIS 36.72 192 iPd 00 04.40 -0.3
 WB5 37.51 201 iPd 00 11.20 -0.2
 WRA 37.58 201 Pc 00 12.20 0.2
 0.8s 38.90nm 5.4mb
 KHKI 39.56 235 ePd 00 29.10 0.5
 e 03 46.50
 ASPA 41.19 199 iPd 00 42.10 0.2
 1.4s 54.00nm 5.1mb
 RMO 41.80 178 iPd 00 46.10 -0.8
 KMI 42.90 290 Pd 00 57.50 1.3
 2.5s 0.20nm 2.4mb X
 E 15s 8.10um
 pP 01 10.50 48km
 BRS 42.99 173 iP 00 55.30 -1.3
 LZH 43.88 306 iPd 01 05.00 1.0
 2.0s 281.00nm 5.7mb
 pP 01 17.50 46km
 LOE 43.88 279 iPd 01 04.00 0.0
 MBL 45.50 217 iPc 01 17.00 0.2
 NNT 46.38 273 iPd 01 25.60 1.6

CHG 46.42 281 iPd 01 25.00 0.7
 0.9s 75.63nm 5.6mb
 BDT 46.49 279 iPd 01 26.20 1.5
 0.6s 53.60nm 5.7mb
 IPM 46.96 262 ePd 01 30.90 2.3
 1.0s 27.70nm 5.2mb
 e 03 03.10
 NANU 49.16 220 eP 01 45.30 -0.2
 0.5s 17.00nm 5.3mb
 BWA 49.71 179 eP 01 49.90 0.4
 CAN 50.61 178 eP 01 56.80 0.4
 ADE 50.93 189 iPc 01 59.90 1.0
 1.0s 80.00nm 5.7mb
 COOL 52.68 209 eP 02 11.30 -0.8
 TOO 52.87 182 eP 02 14.00 0.6
 BAL 54.64 213 iPd 02 26.00 -0.5
 0.7s 32.00nm 5.5mb
 MUN 55.99 212 eP 02 35.70 -0.6
 NWA0 56.24 211 eP 02 37.40 -0.6
 GUN 58.05 293 Pd 02 51.86 0.3
 0.8s 168.00nm 6.2mb
 ANM 58.42 22 eP 02 53.00 -0.1
 PKI 58.48 293 Pd 02 54.30 -0.2
 0.7s 101.00nm 6.0mb
 KKN 58.59 293 Pd 02 55.00 -0.1
 0.8s 107.00nm 6.0mb
 DMN 58.75 293 Pd 02 56.34 0.1
 0.6s 110.00nm 6.2mb
 GKN 59.15 294 Pd 02 58.98 0.1
 SVW 60.73 28 eP 03 08.90 -0.2
 0.8s 13.70nm 5.1mb
 TTA 61.28 26 eP 03 12.40 -0.4
 MSZ 62.74 164 P 03 22.00 -0.6
 IMA 63.45 23 eP 03 26.80 -0.5
 1.1s 18.80nm 5.1mb
 PMR 63.84 28 eP 03 28.20 -1.5
 TOA 65.33 28 eP 03 40.10 0.7
 FBA 65.36 25 eP 03 38.60 -0.9
 NDI 65.64 295 iP 03 42.00 0.1
 1.0s 95.00nm 5.8mb
 HYB 65.83 282 iP 03 43.00 -0.3
 1.0s 100.00nm 5.8mb
 i 03 56.00
 GBA 67.58 279 Pc 03 54.60 0.2
 0.8s 30.70nm 5.4mb
 POO 70.05 284 iPd 04 08.50 -1.2
 PMO 70.65 112 iP 04 13.60 0.4
 1.0s 30.00nm 5.2mb
 TPT 70.89 112 iP 04 14.80 0.1
 1.0s 15.00nm 4.9mb
 RUV 71.18 112 iP 04 16.50 0.1
 1.0s 15.00nm 4.9mb
 INK 71.58 23 iPd 04 17.20 -0.8
 0.7s 57.00nm 5.6mb
 pP 04 30.00 44km
 MBC 75.75 14 ePd 04 42.60 0.4
 0.9s 78.00nm 5.7mb
 pP 04 55.50 44km
 MAIO 79.41 305 iPd 05 05.20 1.9
 0.7s 16.52nm 5.1mb
 YKA 79.94 28 eP 05 04.40 -1.0
 0.8s 10.20nm 4.8mb
 WDC 80.01 51 eP 05 06.70 0.5
 ORV 81.00 52 eP 05 11.70 0.2
 PRS 81.82 55 eP 05 16.60 0.7
 LLA 82.09 54 eP 05 18.80 1.5
 CMB 82.20 53 eP 05 18.30 0.5
 PRI 82.42 55 eP 05 20.40 1.2
 FRI 82.97 54 eP 05 22.00 0.2
 EDM 83.05 37 eP 05 22.50 0.6
 PAS 84.90 56 eP 05 32.00 0.4
 CLC 84.91 54 eP 05 32.00 0.3
 e 05 45.00
 e 05 53.00
 MWC 84.97 56 eP 05 32.00 -0.2
 e 05 45.00
 SBB 85.03 56 eP 05 32.00 -0.4
 e 05 46.00
 SES 85.27 39 ePd 05 33.00 -0.2
 KEV 85.45 342 iP 05 34.00 0.4
 1.0s 66.00nm 5.8mb
 RVR 85.57 56 eP 05 35.00 0.0
 GSC 85.67 55 eP 05 36.00 0.4
 e 05 49.00
 LRM 85.80 44 ePd 05 36.20 0.0
 PLM 86.16 57 eP 05 38.00 -0.2

05d 23h

BAR	86.50	57	eP	05 40.00	0.4	4.9mb (12 obs.)	MARIANA ISLANDS REGION	(215)	KMI	42.93	290	Pc	31 38.00	1.4			
TPC	86.60	56	eP	05 40.00	-0.1							2.0s	0.10nm	pP	31 50.00	43kmX	
			e	05 53.00													
SOD	86.90	341	iP	05 41.00	0.2	GUA	2.97	237	eP	22 47.20	-9.4X	NNT	46.42	273	eP	32 05.60	1.1
DAG	87.50	357	iPd	05 43.40	-0.2	KAKJ	21.93	339	P	27 02.40	-0.7	CHG	46.46	281	ePd	32 05.10	0.4
	0.5s	21.83nm			5.6mb	IIDJ	21.96	342	P	27 03.90	0.5		1.0s	49.25nm			5.4mb
			i	05 56.60		CHJJ	22.12	342	P	27 04.80	-0.2			e	34 44.00		
GLA	87.88	56	eP	05 47.00	0.7	MAT	22.82	340	eP	27 12.00	0.1	CHTO	46.46	281	iPd	32 05.70	1.0
FFC	88.78	33	iPd	05 50.40	0.3		1.0s	17.00nm		4.5mb			0.8s	25.62nm			5.2mb
	1.0s	27.00nm			5.5mb	MTMJ	22.99	340	P	27 13.00	-0.7	NANU	49.20	220	iPd	32 26.50	0.5
SUF	89.70	337	iP	05 53.90	-0.4	NIIJ	23.23	343	eP	27 15.90	0.1	ADE	50.96	189	iPc	32 40.40	1.1
	0.8s	27.80nm			5.6mb	PMG	24.43	181	eP	27 17.00	-10.7X	GUN	58.08	293	P	33 31.90	-0.1
NUR	91.57	335	iP	06 02.60	-0.3	SSE	28.79	308	Pc	28 06.10	-1.7	PKI	58.51	293	P	33 34.60	-0.3
	0.8s	38.10nm			5.9mb		0.9s	24.00nm		4.9mb			0.7s	29.00nm			5.5mb
ALO	93.81	52	ePd	06 14.50	0.4	MTN	32.20	211	eP	28 37.00	-1.1	KKN	58.62	293	P	33 35.40	-0.2
	1.0s	5.00nm			4.9mb			e	30 09.00				0.7s	32.00nm			5.5mb
UPP	94.70	337	iP	06 15.80	-1.6	QIS	36.34	192	ePd	29 13.50	-0.2	DMN	58.78	293	P	33 36.60	-0.1
HFS	95.94	339	eP	06 21.20	-1.9	BJI	36.86	318	eP	29 17.50	-0.3		0.7s	34.00nm			5.6mb
	0.7s	10.80nm			5.5mb		1.2s	24.00nm		4.9mb		GKN	59.18	294	P	33 39.30	-0.1
NB2	96.11	340	P	06 23.20	-0.8	WB5	37.14	201	eP	29 20.20	-0.2	NDI	65.67	295	iP	34 22.50	0.1
	0.9s	14.20nm			5.5mb	WRA	37.21	201	Pc	29 21.20	0.2	HYB	65.87	282	iPd	34 23.60	-0.2
FRB	96.19	15	eP	06 23.00	-1.1		0.8s	12.60nm		4.8mb			1.0s	40.00nm			5.5mb
CLL	102.52	333	ePd	06 52.00	-0.7	ASPA	40.82	199	iPd	29 51.10	0.1	GBA	67.62	279	Pd	34 33.50	-1.4
KHC	103.80	331	ePd	06 59.00	0.5		1.2s	12.00nm		4.5mb			0.9s	13.20nm			5.0mb
SKO	104.23	322	iPd	07 01.00	0.4	KMI	42.97	291	Pd	30 10.00	1.1	KOD	68.29	275	eP	34 40.00	0.4
		i	07 13.00			LZH	44.05	307	Pd	30 18.50	1.0	POO	70.09	284	iPc	34 49.00	-1.2
SLR	122.67	249	iPKPd	11 53.40	0.3		1.5s	83.00nm		5.3mb		PMO	70.62	112	iP	35 05.40	12.0X
	0.9s	8.40nm				CHG	46.44	282	ePd	30 27.20	-9.3X		1.0s	20.00nm			
KSR	123.92	249	ePKP	11 43.20	-12.4X		1.0s	14.50nm		4.9mb		TPT	70.86	112	iP	35 06.80	12.0X
BCAO	125.75	287	iPKPc	12 09.00	9.7X	CHTO	46.44	282	iPd	30 37.40	0.9		1.0s	15.00nm			
	0.6s	6.00nm					0.7s	7.94nm		4.8mb		RUV	71.15	112	iP	35 08.40	11.8X
		i	13 51.00			GUN	58.15	294	P	32 04.48	0.1		1.0s	15.00nm			
LKO	143.52	311	PKP	12 29.20	-3.1X		0.9s	57.00nm		5.7mb		INK	71.54	23	ePd	34 57.10	-1.0
KIC	144.95	306	PKPd	12 34.68	-0.1	PKI	58.57	293	P	32 06.90	-0.4	MBC	75.72	14	ePc	35 23.50	1.2
	0.8s	177.00nm				KKN	58.68	293	P	32 07.82	-0.1		1.0s	15.00nm			4.9mb
TIC	144.99	307	PKPd	12 34.62	-0.2		0.9s	42.00nm		5.5mb		MAIO	79.43	305	eP	35 46.00	2.3
	0.8s	138.00nm				DMN	58.84	293	P	32 09.10	0.0	PNT	80.17	42	eP	35 49.00	1.7
LIC	145.26	306	PKPd	12 35.58	0.3	GKN	59.25	294	P	32 11.62	-0.2		0.5s	4.00nm			4.7mb
	0.8s	229.00nm				HYB	65.86	283	iPc	32 55.50	-0.2	ORV	80.96	52	eP	35 52.20	0.5
ZOBO	145.73	96	PKP	12 38.10	1.4	KOD	68.23	275	eP	32 59.80	-11.3X	PRS	81.78	55	eP	35 57.10	1.1
	1.0s	22.50nm				POO	70.09	285	iPc	33 21.00	-1.2	CMB	82.15	53	eP	35 58.90	0.9
LPB	145.77	97	PKP	12 39.00	2.4X	INK	71.94	23	eP	33 22.00	-10.4X	FRI	82.92	54	eP	36 00.70	-1.2
CCH	147.68	98	PKP	12 42.00	2.5X	MBC	76.12	14	eP	33 56.50	-0.1	SES	85.23	39	eP	36 11.00	-2.3
SIV	152.48	95	PKP	12 47.80	1.4		1.0s	11.00nm		4.8mb		KEV	85.44	343	iP	36 14.80	0.8
		i	12 54.30			MAIO	79.58	305	iPd	34 18.00	1.5	SOD	86.89	341	iP	36 21.80	0.6
S.D. = 0.9 on 116 of 122 obs.						YKA	80.29	28	eP	34 18.00	-1.6	DAG	87.48	357	eP	36 24.00	0.2
APR 05, 1990 23h 03m 40.88 ± 0.45s							1.0s	2.40nm		4.1mb		FFC	88.74	33	eP	36 31.00	0.7
44.026 N ± 3.5km 7.093 E ± 3.9km						PRS	82.09	55	eP	34 29.80	0.2		1.0s	12.00nm			5.2mb
DEPTH = 10.0km (geophysicist)						CMB	82.47	53	eP	34 31.70	0.1	SUF	89.70	337	iP	36 34.20	-0.5
NORTHERN ITALY (545)						FRI	83.23	54	eP	34 35.50	0.1		0.7s	8.00nm			5.1mb
ML 2.4 (LDG), 2.2 (GEN), MD 1.9 (STR).						SES	85.59	39	ePc	34 47.10	0.0	NUR	91.57	335	iP	36 43.00	-0.3
TOUF	0.11	96	Pg	03 43.80	-0.2	KEV	85.78	342	eP	34 54.00	6.4X		0.7s	17.40nm			5.6mb
MVIF	0.14	162	Pg	03 44.13	-0.1	LRM	86.11	44	eP	34 50.30	0.2	APO	95.56	339	eP	37 00.40	-1.4
AURF	0.22	129	Pg	03 45.99	0.3	SOD	87.23	341	iP	34 54.70	-0.1		0.8s	8.10nm			5.2mb
AUTN	0.24	97	Pg	03 47.12	0.9	SUF	90.02	337	iP	35 07.50	-0.6	NB2	96.11	340	P	37 03.40	-0.9
		Sg	03 50.78			NUR	91.88	335	eP	35 19.00	2.3		0.8s	4.00nm			4.9mb
STV	0.27	37	P	03 46.45	-0.2	LKO	143.72	311	PKP	41 46.32	1.2	LKO	143.54	311	PKP	43 11.96	-0.8
		S	03 50.57			KIC	145.12	306	PKPd	41 47.20	-0.2	KIC	144.97	306	PKPd	43 15.04	-0.2
SBF	0.30	123	Pg	03 47.50	0.4	TIC	145.16	307	PKPd	41 47.40	-0.1		0.8s	57.00nm			
		Sg	03 52.60			LIC	145.43	306	PKPd	41 48.30	0.4	TIC	145.01	307	PKPd	43 15.04	-0.3
ENR	0.31	49	P	03 47.19	-0.2	SIV	152.50	96	PKPd	42 06.40	7.5X		0.8s	52.50nm			
		S	03 51.80			S.D. = 0.8 on 38 of 45 obs.						LIC	145.28	307	PKPd	43 15.98	0.2
SAOF	0.34	97	Pg	03 47.70	-0.1	* APR 05, 1990 23h 23m 38.75 ± 0.31s							0.8s	82.00nm			
		Sg	03 53.10			15.572 N ± 5.8km 147.572 E ± 7.4km						CCH	147.64	98	ePKP	43 23.00	3.1X
PZZ	0.48	1	P	03 50.06	-0.6	DEPTH = 33.0km (normal)						S.D. = 1.0 on 48 of 54 obs.					
FRF	0.57	215	Pg	03 51.70	-0.7	5.1mb (18 obs.)						APR 05, 1990 23h 26m 17.44 ± 0.20s					
		S	03 50.83			MARIANA ISLANDS REGION (215)						15.526 N ± 4.7km 147.592 E ± 4.6km					
ROB	0.62	64	P	03 52.59	-0.8	KAKJ	21.58	344	eP	28 28.00	0.4	DEPTH = 37.0km (13 depth phases)					
		S	04 01.10			IIDJ	21.63	338	eP	28 32.50	4.3X	5.2mb (18 obs.)					
LRG	0.78	223	Pg	03 55.70	-0.4	CHJJ	21.78	341	eP	28 29.80	0.1	MARIANA ISLANDS REGION (215)					
		Sg	04 06.80			MAT	22.49	340	eP	28 37.00	0.3	PJG	3.27	234	eP	27 08.70	1.2
LMR	0.81	212	Pg	03 56.90	0.3		1.0s	33.00nm		4.8mb			eS	27 46.50			
		Sg	04 08.50			MTMJ	22.66	339	eP	28 37.90	-0.6	KAKJ	21.63	344	eP	31 06.60	0.1
FIN	0.82	77	P	03 56.52	-0.3	PMG	24.82	181	eP	28 51.50	-8.0X	CHJJ	21.83	341	P	31 10.80	2.3
RRL	0.92	346	P	03 58.09	-0.5	SSE	28.63	307	P	29 32.50	-1.9	MAT	22.54	340	eP	31 16.00	0.5
PCP	1.16	63	P	04 02.40	-0.3	CTA	35.46	182	iP	30 32.00	-2.2		0.8s	26.87nm			4.8mb
LPL	1.51	350	Pg	04 10.60	2.4		1.0s	12.50nm		4.8mb		MTMJ	22.71	339	P	31 17.40	0.1
S.D. = 0.8 on 17 of 17 obs.						BJI	36.63	318	eP	30 43.50	-0.4		22.93	342	P	31 21.20	1.9
APR 05, 1990 23h 22m 10.70 ± 0.32s							1.2s	24.00nm		5.0mb		DAV	23.14	251	eP	31 33.90	12.4X
15.178 N ± 5.3km 147.469 E ± 7.4km						QIS	36.75	193	iPd	30 45.20	0.1	PMG	24.78	181	eP	31 31.50	-5.9X
DEPTH = 33.0km (normal)						WB5	37.55	201	eP	30 52.10	0.3	BAG	25.98	276	eP	31 49.00	0.1
						ASPA	41.22	199	iPd	31 22.70	0.3	SSE	28.67	307	P	32 13.00	-0.1
							0.8s	13.00nm		4.7mb			i	32 22.50			33km
						RMQ	41.82	178	eP	31 27.00	-0.2	CTA	35.42	182	iP	33 11.00	-1.1
													2.0s	176.47nm			5.6mb

05d 23h

BJI	36.68	318	eP	33	20.00	-2.6	1.2s	21.01nm	5.3mb	EDM	83.40	37	ePc	42	30.50	0.3				
	1.7s	89.00nm				5.4mb	DAG	87.53	357	iPd	39	02.10	-0.2	SES	85.61	39	ePc	42	41.50	0.1
QIS	36.71	193	eP	33	33.00	-0.3	0.6s	11.33nm	5.3mb	KEV	85.76	342	eP	42	42.00	0.3				
			i	33	34.40	42km	GLA	87.85	56	eP	39	05.00	0.3	LRM	86.13	44	eP	42	44.10	-0.2
WB5	37.51	201	eP	33	30.30	0.5				SOD	87.21	341	eP	42	48.00	-0.8				
WRA	37.58	201	Pd	33	10.50	-19.9X	MSU	88.25	51	P	39	07.00	0.2	DUG	87.59	49	P	42	51.00	0.4
	0.7s	4.10nm					FFC	88.77	33	ePc	39	08.80	0.2	IMW	87.76	45	P	42	53.00	0.7
ASPA	41.19	199	iPd	34	01.80	1.5		0.9s	15.00nm	5.3mb	MSU	88.58	51	P	42	56.40	0.1			
RMO	41.78	178	eP	34	04.00	-1.1	SUF	89.75	337	iP	39	12.20	-0.9	SUF	90.00	337	eP	43	02.00	-0.1
KMI	42.96	290	Pd	34	17.50	2.3	NUR	91.62	335	eP	39	18.00	-3.7X	GOL	93.13	48	P	43	17.50	0.1
	2.5s	0.10nm				2.1mb X	RSSD	91.96	43	P	39	23.60	-0.4		1.3s	23.44nm			5.5mb	
N	13s	3.70um					GOL	92.79	48	P	39	27.50	-0.4	GLD	93.22	47	P	43	21.30	3.6X
E	12s	4.80um						1.4s	39.16nm	5.6mb	KIC	145.09	306	PKP	49	41.12	-0.4			
			pP	34	28.00	36km	ALQ	93.78	52	eP	39	32.00	-0.5	TIC	145.13	367	PKP	49	41.20	-0.4
LZH	43.94	306	P	34	24.00	1.1		1.0s	5.00nm	4.9mb	LIC	145.39	306	PKP	49	42.10	0.1			
	2.0s	164.00nm				5.5mb	ANMO	93.78	52	P	39	31.80	-0.7	ZOBO	145.79	97	PKP	49	44.00	0.7
			sP	34	35.00			1.3s	9.62nm	5.1mb	LPB	145.82	97	ePKP	49	46.00	2.8X			
NNT	46.44	273	eP	34	43.60	0.7	NB2	96.16	340	P	39	41.40	-1.4	SIV	152.54	96	PKP	50	00.00	7.0X
BWA	49.68	179	eP	35	08.00	0.2		1.1s	9.00nm	5.2mb					S.D. = 0.7 on 48 of 51 obs.					
CAN	50.58	179	eP	35	14.00	-0.7	FRB	96.20	15	eP	39	42.00	-0.8							
GUN	58.12	293	P	36	10.48	0.0	CLL	102.57	333	ePd	40	22.00	10.5X		APR 05, 1990 23h 33m 37.10 ± 0.16s					
ANM	58.42	22	eP	36	11.20	-0.4	SKO	104.29	322	ePd	40	20.50	1.1X		15.457 N ± 3.7km 147.706 E ± 3.9km					
PKI	58.55	293	P	36	12.12	-1.3									DEPTH = 34.3km (18 depth phases)					
KKN	58.65	293	P	36	13.00	-1.0	SLR	122.72	249	ePKP	44	54.00	-17.8X		5.4mb (39 obs.)					
DMN	58.81	293	P	36	14.40	-0.8	BCAO	125.81	287	ePKPd	45	18.40	0.4		MARIANA ISLANDS REGION			(215)		
GKN	59.22	294	P	36	15.96	-1.9		0.5s	4.00nm											
SVW	60.73	28	eP	36	27.20	-0.3	KIC	145.01	306	PKP	45	52.72	-0.8	GUA	3.31	235	eP	34	29.00	
TTA	61.27	26	eP	36	30.50	-0.8		0.9s	38.00nm						eS	35	06.00		1.1	
IMA	63.45	23	eP	36	45.20	-0.6	TIC	145.05	307	PKP	45	52.66	-0.9	GUMO	3.32	236	eP	34	26.00	
	0.9s	8.30nm				4.8mb		0.9s	38.00nm					KAKJ	21.73	343	P	38	27.40	
PMR	63.84	28	eP	36	44.10	-4.1X	LIC	145.32	307	PKP	45	53.64	-0.4	CHJJ	21.93	341	P	38	29.50	
BRW	64.71	17	eP	36	53.70	0.0		0.9s	59.00nm					MAT	22.64	340	eP	38	37.00	
TOA	65.33	28	eP	36	58.10	0.2	ZOBO	145.67	96	PKP	45	56.10	0.9		0.9s	15.13nm			4.5mb	
FBA	65.36	25	eP	36	57.60	-0.4	LPB	145.71	97	PKP	45	57.00	1.9	MTMJ	22.82	339	P	38	39.20	
	0.8s	13.70nm				5.1mb	SIV	152.42	95	ePKPd	46	06.00	1.0	NIJJ	23.03	342	P	38	40.40	
NDI	65.70	295	eP	37	01.50	0.7								DAV	23.22	251	eP	38	45.00	
GBA	67.65	279	Pc	37	13.60	0.3		S.D. = 0.9 on 80 of 93 obs.						PMG	24.71	181	eP	38	56.00	
	0.8s	6.60nm				4.8mb								BAG	26.10	276	eP	39	11.00	
POO	70.12	284	iPd	37	27.50	-1.1		* APR 05, 1990 23h 30m 04.83 ± 0.26s						HNR	27.54	153	eP	39	31.00	
INK	71.58	23	eP	37	35.00	-1.5		15.186 N ± 5.9km 147.429 E ± 4.8km						SSE	28.80	307	P	39	31.00	
			pP	37	46.00	36km		DEPTH = 33.0km (normal)							i	39	42.00	41km		
QUE	74.41	298	eP	37	54.00	-0.1		5.1mb (10 obs.)						MTN	32.56	211	eP	40	06.00	
MBC	75.76	14	ePc	38	00.90	0.1	MARIANA ISLANDS REGION							CTA	35.35	182	iP	40	30.50	
	1.2s	71.00nm				5.5mb									2.0s	88.24nm			5.3mb	
MAIO	79.48	305	eP	38	12.50	39km	KAKJ	21.91	344	P	34	57.30	0.3	QIS	36.66	193	eP	40	41.00	
YKA	79.93	28	eP	38	27.00	4.8X	CHJJ	22.10	342	P	34	58.90	0.0	BJI	36.80	318	eP	40	43.00	
	1.3s	13.30nm				4.8mb	MAT	22.80	341	eP	35	05.00	-0.9		1.5s	52.00nm			5.2mb	
WDC	79.98	51	eP	38	25.80	1.2		1.1s	56.96nm	5.0mb					e	40	53.00	34km		
PNT	80.19	42	eP	38	26.00	0.4	MTMJ	22.97	340	P	35	06.60	-1.0	WB5	37.48	201	eP	40	49.60	
ORV	80.97	52	eP	38	30.20	0.3	PMG	24.44	181	eP	35	21.00	-0.9	WRA	37.55	201	Pd	40	49.50	
ARN	81.43	54	P	38	32.70	0.3	SSE	28.76	308	Pc	36	00.50	-1.1		0.9s	42.80nm			5.3mb	
PRS	81.79	55	eP	38	34.80	0.5		1.0s	29.00nm	4.9mb				KHKI	39.64	236	ePc	41	07.80	
NEW	82.04	42	P	38	36.10	0.7	BJI	36.82	318	eP	37	12.00	0.4		e	44	37.50			
	1.3s	42.45nm				5.3mb		1.8s	164.00nm	5.6mb				ASPA	41.16	199	iPd	41	20.40	
CMB	82.16	53	eP	38	36.70	0.5	WRA	37.21	201	Pd	37	13.80	-1.3		1.1s	39.00nm			5.0mb	
PRI	82.39	55	eP	38	38.50	1.0		0.7s	7.10nm	4.6mb				BRS	42.88	173	i(P)	41	35.00	
FRI	82.93	54	eP	38	40.60	0.4	KMI	42.93	291	Pd	38	04.50	1.7	KMI	43.09	290	Pd	41	37.00	
EDM	83.03	37	eP	38	40.50	0.1	GUN	58.11	294	P	39	58.90	0.7		pP	41	48.00	39km		
BCH	83.08	56	P	38	40.40	-0.7	PKI	58.54	293	P	40	01.24	0.0	LZH	44.07	306	Pd	41	45.00	
KVN	83.65	51	P	38	44.40	0.3	KKN	58.64	293	P	40	02.02	0.2		2.0s	164.00nm			5.5mb	
ISA	84.23	55	eP	38	43.00	-3.9X	DMN	58.80	293	P	40	03.30	0.3		sP	41	55.00			
PAS	84.86	56	eP	38	54.00	4.0X	GKN	59.21	294	P	40	05.86	0.2	MBL	45.53	218	eP	41	55.50	
CLC	84.88	54	eP	38	50.00	-0.1	TTA	61.65	26	P	40	20.90	-0.8	CHG	46.61	281	eP	42	04.10	
			e	39	01.00	35km		1.3s	22.41nm	5.1mb					1.0s	20.25nm			5.0mb	
			e	39	20.00		IMA	63.82	23	P	40	35.30	-0.8	CAN	50.51	179	eP	42	34.30	
MWC	84.93	56	eP	38	52.00	1.4		1.2s	11.36nm	4.9mb	ADE	50.87	190	eP	42	37.50	0.7			
			e	39	02.00	31km	PMR	64.21	28	P	40	36.70	-1.7		0.9s	58.82nm			5.6mb	
SBB	85.00	56	eP	38	50.00	-0.8	NDI	65.70	295	eP	40	49.00	0.3	TOO	52.78	182	eP	42	52.00	
			e	39	03.00	44km	FBA	65.74	25	P	40	47.80	-0.5	GUN	58.25	293	P	43	31.00	
SES	85.25	39	ePc	38	51.00	-0.7		1.2s	17.05nm	5.0mb					0.9s	86.00nm			5.8mb	
KEV	85.49	343	eP	38	53.00	0.6	HYB	65.82	283	iPc	40	50.00	0.4	PKI	58.68	293	P	43	33.42	
RVR	85.54	56	eP	38	53.00	-0.4	INK	71.95	23	eP	41	26.00	-0.6		0.9s	42.00nm			5.5mb	
			e	39	04.00	35km	MBC	76.12	14	eP	41	51.00	0.3	KKN	58.78	293	P	43	33.98	
GSC	85.64	55	eP	38	53.00	-1.0		1.0s	28.00nm	5.2mb					0.9s	43.00nm			5.5mb	
			e	39	05.00	39km	BMW	78.71	45	P	42	05.60	0.0	DMN	58.94	293	P	43	35.34	
PEC	85.74	56	P	38	53.90	-0.5	GMW	78.82	44	P	42	06.40	0.3		0.9s	48.00nm			5.6mb	
	1.2s	14.71nm				5.1mb	RMW	79.49	44	P	42	10.40	0.6	GKN	59.34	294	P	43	37.62	
LRM	85.78	44	ePc	38	54.80	0.1	WDC	80.31	51	eP	42	15.00	0.7		1.0s	121.00nm			6.0mb	
			e	39	06.10	36km	PNT	80.54	41	eP	42	16.00	0.6	TTA	61.29	26	eP	43	50.70	
PLM	86.13	57	eP	38	57.00	0.4	VGB	80.57	45	P	42	15.70	0.1		1.3s	37.74nm			5.4mb	
BAR	86.46	57	eP	38	59.00	1.0	ORV	81.31	51	eP	42	19.50	-0.1			eP	44	01.00	34km	
TPC	86.57	56	eP	39	09.00	10.5X	PRS	82.11	55	eP	42	24.40	0.6	MSZ	62.61	164	P	43	59.00	
SOD	86.94	341	iP	38	59.40	-0.														

BRW	64.75	17 P	44 16.70	35km	epP	44 16.70	35km	AP0	95.72	339 eP	46 59.20	-1.5	1.0s	55.00nm	5.6mb	GBA	67.65	279 Pc	55 43.60	2.2			
FBA	65.38	25 eP	44 13.40	-0.5				NB2	96.26	340 P	47 01.70	-1.5	0.7s	4.00nm	4.6mb	POO	70.13	284 eP	55 55.50	-1.2			
	1.0s	15.00nm	44 15.70	-2.4	5.0mb			BRG	102.57	332 e(Pdiff47	34.10	2.5X	1.0s	20.00nm		PMO	70.58	112 eP	56 10.00	10.6X			
NDI	65.83	295 iP	44 22.00	0.4				CLL	102.68	333 ePdiff47	32.00	0.0	1.0s	15.00nm		RUV	71.11	112 eP	56 13.00	10.4X			
HYB	66.02	282 iPd	44 22.70	-0.3	5.4mb					e	47 41.00		1.0s	15.00nm		INK	71.56	23 eP	56 04.00	-0.5			
	1.0s	55.00nm	44 33.20	34km				VAY	104.11	321 ePdiff47	37.60	-1.0				pP	56 14.00	32km					
GBA	67.76	279 Pc	44 28.00	-5.3X	5.6mb			SKO	104.41	322 iPdfff47	40.50	0.5				eP	56 29.00	0.3					
	0.2s	0.90nm	44 28.00	-5.3X	4.5mb			SLR	122.80	249 iPKPc	52 32.30	0.3				pP	56 40.00	36km					
KOD	68.43	275 eP	44 40.00	1.3				KSR	124.05	249 ePKP	52 33.70	-0.8				P	56 44.80	0.6					
POO	70.24	284 eP	44 47.50	-1.9				BCAO	125.94	287 iPKPc	52 33.00	-5.3X				pP	56 55.80	36km					
TVO	70.36	116 eP	44 42.00	-8.1X	5.1mb			KIC	145.14	306 PKPd	53 13.68	0.0				eP	56 54.00	3.8X					
	1.2s	25.00nm	44 50.80	0.2	5.4mb			TIC	145.18	307 PKPd	53 13.58	-0.2				MAIO	79.48	305 eP	56 50.70	-1.1			
PMO	70.45	112 iP	44 50.80	0.2					1.1s	89.00nm			1.2s	5.60nm	4.4mb	YKA	79.91	28 eP	56 50.70	-1.1			
TPT	70.70	112 iP	44 52.10	0.1				LIC	145.45	307 PKP	53 14.48	0.3				PNT	80.17	42 eP	56 55.00	1.5			
	1.2s	35.00nm	44 53.80	0.0	5.3mb			ZOBO	145.55	96 PKP	53 16.00	1.0				VGB	80.20	45 P	56 54.40	0.6			
RUV	70.98	112 iP	44 53.80	0.0					1.2s	85.14nm			ORV	80.95	52 eP	56 58.30	0.4						
INK	71.60	23 ePd	44 55.60	-1.0				LPB	145.59	97 iPKPc	53 17.00	2.1X				PRS	81.77	55 eP	57 03.00	0.8			
QUE	74.54	298 eP	45 15.40	0.5					1.0s	72.00nm			NEW	82.02	42 P	57 03.00	-0.3						
MBC	75.80	14 eP	45 21.00	0.0	5.4mb			CCH	147.50	98 PKP	53 20.00	2.2X				1.2s	22.73nm	5.1mb					
	1.0s	46.00nm	45 31.50	34km				SIV	152.30	95 iPKPd	53 26.30	1.5				pP	57 14.00	35km					
		pP	45 36.00	-0.2						i	53 32.00		CMB	82.15	53 eP	57 04.80	0.6						
GMW	78.44	44 P	45 36.00	-0.2					S.D. = 0.9 on 97 of 107 obs.										FRI	82.92	54 eP	57 08.70	0.6
MAIO	79.61	305 eP	45 45.00	2.1					APR 05, 1990 23h 44m 45.43±0.24s										SES	85.23	39 ePd	57 19.00	-0.6
WDC	79.93	51 eP	45 44.90	0.5					15.540 N ± 4.8km 147.604 E ± 5.4km											pP	57 31.00	39km	
PNT	80.17	42 eP	45 46.00	0.5					DEPTH = 36.7km (11 depth phases)										KEV	85.48	343 eP	57 17.00	-3.4X
ORV	80.93	52 eP	45 50.00	0.3					5.0mb (20 obs.)										LRM	85.76	44 eP	57 22.60	0.0
ARN	81.39	54 P	45 52.60	0.4					MARIANA ISLANDS REGION (215)											e	57 34.00	37km	
PRS	81.74	55 eP	45 54.80	0.8									SOD	86.93	341 iP	57 27.80	0.2						
NEW	82.01	42 P	45 55.40	0.2				PJG	3.29	234 eP	45 35.50	-0.2	BW06	88.71	46 P	57 37.10	0.1						
	1.1s	47.84nm	45 55.40	0.2	5.4mb			KAKJ	21.62	344 P	49 34.70	0.3		1.2s	4.79nm	4.7mb	FFC	88.75	33 eP	57 36.00	-0.6		
CMB	82.12	53 eP	45 56.50	0.5				IIDJ	21.67	338 eP	49 45.10	10.1X		1.0s	12.00nm	5.2mb		1.0s	12.00nm	5.2mb			
PRI	82.34	55 eP	45 58.70	1.4				CHJJ	21.82	341 P	49 36.00	-0.4	SUF	89.74	337 eP	57 40.00	-1.1						
FRI	82.89	54 eP	46 00.40	0.5				MAT	22.53	340 (P)	49 44.00	0.6	RSSD	91.95	43 P	57 52.00	0.1						
BCH	83.02	56 P	46 01.20	0.4					0.5s	14.08nm				pP	58 02.80	34km			pP	58 02.80	34km		
EDM	83.02	37 eP	46 00.50	0.1				MTMJ	22.70	339 eP	49 44.80	-0.4	ALO	93.76	52 eP	58 01.00	0.5						
	1.2s	43.00nm	46 00.50	0.1	5.4mb			NIJJ	22.92	342 P	49 48.30	1.1	BCAO	125.82	287 ePKPc	03 57.60	11.5X						
KVN	83.61	51 P	46 03.20	-0.7				DAV	23.16	251 eP	49 53.20	3.5X		0.5s	5.00nm				0.5s	5.00nm			
ISA	84.18	55 eP	46 17.00	10.4X				PMG	24.79	181 eP	50 05.00	-0.5	KIC	145.02	306 PKP	04 20.76	-0.7						
PAS	84.81	56 eP	46 10.00	0.3				BAG	25.99	276 eP	50 16.90	-0.1		0.6s	14.00nm				0.6s	14.00nm			
CLC	84.83	54 eP	46 10.00	0.1				SSE	28.67	307 P	50 43.00	1.9	TIC	145.05	307 PKP	04 20.70	-0.9						
		e	46 20.00	31km				BJI	36.67	318 eP	51 50.00	-0.6	LIC	145.32	307 PKP	04 21.68	-0.3						
MWC	84.88	56 eP	46 11.00	0.7					1.5s	26.00nm				0.7s	19.00nm					0.7s	19.00nm		
SBB	84.94	56 eP	46 10.00	-0.5						e	52 01.50	41km	ZOBO	145.66	96 PKP	04 24.00	0.8						
		e	46 20.00	31km				OIS	36.72	193 eP	51 50.00	-1.2	LPB	145.70	97 PKP	04 25.00	1.9						
SES	85.24	39 ePd	46 11.10	-0.5				WB5	37.53	201 eP	51 58.00	0.0	CCH	147.61	98 ePKP	04 26.00	0.0						
		pP	46 23.00	39km				WRA	37.60	201 Pc	51 58.60	0.1	SIV	152.41	95 ePKP	04 26.00	-7.0X						
RVR	85.49	56 eP	46 13.00	-0.1					0.9s	11.50nm													
		e	46 23.00	31km				ASPA	41.20	199 eP	52 28.50	0.0											
KEV	85.59	343 eP	46 13.00	0.1					0.7s	12.00nm													
	0.8s	22.00nm	46 13.00	0.1	5.4mb			KMI	42.97	290 Pd	52 55.50	12.2X											
GSC	85.59	55 eP	46 13.00	-0.7						pP	53 08.50	48kmX											
		e	46 24.00	35km				LZH	43.94	306 P	52 52.50	1.6											
PEC	85.69	56 P	46 14.00	-0.2					1.8s	59.00nm													
	1.0s	19.50nm	46 14.00	-0.2	5.3mb					sP	53 02.50												
LRM	85.75	44 eP	46 14.50	0.0				NNT	46.46	273 eP	53 12.20	1.2	GUA	3.23	242 eP	58 02.30	0.5						
		e	46 25.00	33km				CHG	46.49	281 eP	53 12.00	0.7			eS	58 34.20							
PLM	86.07	57 eP	46 16.00	-0.3					1.0s	15.50nm			GUMO	3.24	243 eP	58 02.70	0.7						
BAR	86.41	57 eP	46 18.00	0.2				BWA	49.69	179 eP	53 36.50	0.6	PJG	3.24	243 eP	58 02.70	0.7						
TPC	86.52	56 eP	46 18.00	-0.3				CAN	50.60	179 eP	53 43.20	0.4	CHJJ	22.30	341 eP	02 09.30	1.0						
		e	46 28.00	31km				GUN	58.13	293 P	54 37.76	-0.8	MTMJ	23.18	339 eP	02 15.70	-1.4						
SOD	87.04	341 iP	46 20.10	0.0					0.7s	20.00nm			NIJJ	23.40	342 eP	02 19.80	0.8						
DUG	87.21	49 P	46 21.80	0.1				PKI	58.55	293 P	54 40.38	-1.1	SSE	29.11	308 eP	03 00.00	-12.2X						
	0.8s	9.72nm	46 21.80	0.1	5.1mb			KKN	58.66	293 P	54 41.84	-0.3		1.0s	19.00nm								
DAG	87.61	357 iPc	46 22.80	0.2					0.7s	12.00nm													

6d 00h

0.9s 7.00nm 4.7mb
 MAIO 79.90 305 eP 09 21.00 1.3
 YKA 80.19 28 eP 09 14.90 -5.7X
 0.9s 2.50nm 4.2mb
 ZOBO 145.39 97 PKP 16 50.00 0.0
 KIC 145.45 306 PKP 16 44.88 -4.6X
 TIC 145.49 307 PKP 16 44.92 -4.7X
 LIC 145.75 306 PKP 16 45.86 -4.2X
 S.D. = 1.1 on 19 of 24 obs.

APR 05, 1990 23h 58m 57.44 ± 0.28s
 15.604 N ± 5.5km 147.555 E ± 6.6km
 DEPTH = 33.0km (normol)
 5.3mb (19 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.28 232 eP 59 49.50 1.7
 00 26.20
 GUMO 3.29 233 eP 59 50.10 2.3
 PJG 3.29 233 eP 59 50.10 2.3
 KAKJ 21.55 344 P 03 47.10 1.1
 IIDJ 21.60 338 P 03 47.30 0.7
 CHJJ 21.75 341 P 03 46.40 -1.6
 MTMJ 22.63 339 P 03 56.20 -0.7
 NIJJ 22.85 342 P 04 00.10 1.2
 PMG 24.85 181 eP 04 18.00 -0.5
 HOJJ 26.94 353 P 04 39.60 2.0
 MRRJ 27.30 349 eP 04 43.70 2.7
 KUSJ 27.51 355 eP 04 44.40 1.6
 ASAJ 28.73 353 eP 04 55.20 1.4
 CTA 35.49 182 iP 05 52.50 -0.7
 1.7s 69.23nm 5.3mb
 BJI 36.60 318 eP 06 01.50 -0.8
 1.9s 145.00nm 5.5mb
 OIS 36.77 193 eP 06 03.00 -1.0
 WB5 37.57 201 eP 06 10.00 -0.7
 06 23.80
 ASPA 41.25 199 iPc 06 41.00 -0.2
 1.0s 14.00nm 4.6mb
 RMO 41.86 178 eP 06 45.00 -1.1
 BRS 43.04 173 e(P) 07 04.00 8.2X
 LZH 43.87 306 Pd 07 03.00 0.3
 2.0s 80.00nm 5.2mb
 pP 07 06.00 10kmX
 MBL 45.55 217 eP 07 15.00 -1.1
 NST 45.59 277 eP 07 18.70 2.2
 NNT 46.41 273 eP 07 09.00 -14.0X
 NANU 49.22 220 eP 07 44.50 -0.3
 ADE 50.99 189 eP 08 00.00 1.8
 GUN 58.06 293 P 08 49.88 -0.6
 0.8s 64.00nm 5.8mb
 PKI 58.48 293 P 08 52.30 -1.1
 0.8s 27.00nm 5.4mb
 KKN 58.59 293 P 08 53.12 -0.9
 0.8s 38.00nm 5.6mb
 DMN 58.75 293 P 08 54.32 -0.9
 0.5s 37.00nm 5.7mb
 GKN 59.15 294 P 08 57.02 -0.9
 0.7s 47.00nm 5.7mb
 MSZ 62.79 164 eP 09 25.00 3.2X
 IMA 63.39 23 eP 09 25.00 -0.9
 1.2s 15.60nm 5.0mb
 PMR 63.79 28 eP 09 26.50 -1.8
 NDI 65.64 295 iP 09 40.00 -0.9
 1.0s 35.00nm 5.4mb
 HYB 65.85 282 iPd 09 42.00 -0.4
 GBA 67.60 279 Pd 09 52.50 -1.0
 0.8s 6.50nm 4.8mb
 POO 70.06 284 iPc 10 07.00 -1.8
 INK 71.52 23 ePd 10 15.20 -1.5
 1.2s 49.00nm 5.4mb
 MBC 75.69 14 ePd 10 40.50 -0.4
 1.0s 28.00nm 5.2mb
 MAIO 79.40 305 eP 11 03.00 0.7
 YKA 79.88 28 eP 11 02.70 -1.4
 1.0s 8.10nm 4.7mb
 WDC 79.95 51 eP 11 06.50 1.5
 PNT 80.15 42 eP 11 07.00 1.1
 ORV 80.95 52 eP 11 10.20 -0.1
 PRS 81.77 55 eP 11 14.80 0.1
 CMB 82.15 53 eP 11 16.10 -0.5
 FRI 82.92 54 eP 11 10.30 -10.3X
 EDM 82.99 37 eP 11 21.00 0.3
 ISA 84.21 55 eP 11 35.00 7.7X
 PAS 84.85 56 eP 11 33.00 2.6
 CLC 84.86 54 eP 11 30.00 -0.5
 MWC 84.92 56 eP 11 31.00 0.0

SBB 84.98 56 eP 11 31.00 -0.2
 SES 85.21 39 eP 11 31.00 -1.0
 KEV 85.41 342 eP 11 48.00 15.5X
 RVR 85.53 56 eP 11 34.00 0.2
 GSC 85.62 55 eP 11 35.00 0.6
 12 17.00
 LRM 85.75 44 eP 11 35.00 0.0
 PLM 86.11 57 eP 11 37.00 0.0
 BAR 86.45 57 eP 11 40.00 1.5
 TPC 86.55 56 eP 11 41.00 2.0
 SOD 86.86 341 iP 11 38.10 -1.6
 DAG 87.45 357 eP 11 41.80 -0.6
 GLA 87.83 56 eP 11 48.00 2.9
 FFC 88.72 33 eP 11 48.00 -0.9
 1.0s 18.00nm 5.3mb
 SUF 89.66 337 iP 11 51.70 -1.5
 NUR 91.53 335 iP 12 15.00 13.2X
 ALO 93.76 52 eP 12 13.00 0.1
 1.1s 5.70nm 4.9mb
 HFS 95.90 339 eP 12 21.10 -0.9
 0.7s 4.80nm 5.1mb
 NB2 96.07 340 P 12 22.40 -0.5
 0.9s 5.40nm 5.0mb
 FRB 96.13 15 eP 12 22.00 -1.0
 SKO 104.21 322 ePd i f 12 59.00 -0.6
 KBA 105.31 329 ePKP 17 19.00 0.4
 21 00.00
 SLR 122.71 249 ePKP 17 49.00 -3.3X
 BLF 124.63 245 ePKP 18 02.00 6.0X
 BCAO 125.76 287 ePKPc 18 00.70 2.3X
 0.4s 4.00nm
 LKO 143.50 311 PKP 18 29.36 -2.1X
 KIC 144.94 306 PKPd 18 32.70 -1.2
 0.6s 40.00nm
 TIC 144.98 307 PKPd 18 32.76 -1.2
 0.8s 42.00nm
 LIC 145.25 307 PKPd 18 33.70 -0.7
 0.7s 77.00nm
 ZOBO 145.71 96 PKP 18 36.00 0.2
 LPB 145.75 97 PKP 18 39.00 3.3X
 CCH 147.66 98 PKP 18 41.00 2.4X
 SIV 152.46 95 PKP 18 41.00 -4.5X
 S.D. = 1.2 on 71 of 85 obs.

APR 06, 1990 00h 02m 26.87 ± 0.20s
 15.198 N ± 4.3km 147.510 E ± 4.2km
 DEPTH = 36.0km (4 depth phases)
 5.2mb (22 obs.) 5.7MsZ (1 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.01 237 eP 03 15.00 1.7
 03 47.50
 GUMO 3.02 238 eP 03 14.50 1.0
 PJG 3.02 238 eP 03 14.80 1.3
 WKYJ 21.78 333 eP 07 15.60 -2.0
 KAKJ 21.92 344 P 07 19.20 0.3
 IIDJ 21.95 339 P 07 18.30 -1.0
 KAGJ 22.01 319 eP 07 20.60 0.7
 CHJJ 22.12 341 P 07 20.90 0.1
 TKSJ 22.31 329 P 07 21.30 -1.5
 KUMJ 22.98 322 eP 07 30.40 1.0
 MTMJ 22.99 340 P 07 28.40 -1.2
 NIJJ 23.22 343 P 07 32.10 0.5
 YONJ 23.57 330 P 07 35.10 0.1
 SHNJ 23.96 325 eP 07 36.30 -2.6
 HNR 27.40 152 eP 08 08.00 -3.2X
 MRRJ 27.69 350 eP 08 16.40 2.8
 KUSJ 27.91 356 eP 08 15.70 0.1
 PPR 28.59 263 ePd 08 24.50 2.5
 SSE 28.81 308 iPd 08 23.20 -0.6
 0.8s 99.00nm 5.5mb
 ASAJ 29.12 353 eP 08 27.70 1.2
 CTA 35.09 182 iP 09 17.50 -1.4
 0.9s 12.60nm 4.8mb
 OIS 36.37 193 eP 09 28.00 -1.7
 BJI 36.87 318 eP 09 34.00 0.3
 1.8s 287.00nm 5.9mb
 Z 18s 11.15um 5.7MsZ
 N 16s 6.51um
 E 17s 4.61um
 WB5 37.18 201 eP 09 35.20 -1.3
 KHKI 39.34 236 ePc 09 54.00 -0.8
 11 10.50
 ASPA 40.85 199 iPc 10 05.90 -1.2
 0.7s 15.00nm 4.8mb
 eS 16 08.40

RMO 41.45 178 eP 10 10.00 -2.0
 NST 45.60 277 iPd 10 48.00 2.3
 NNT 46.38 273 eP 10 52.00 0.0
 NANU 48.88 221 P 11 10.60 -0.7
 TOO 52.52 182 eP 11 38.00 -0.8
 GUN 58.18 294 P 12 20.62 0.2
 0.8s 159.00nm 6.1mb
 PKI 58.60 293 P 12 23.10 -0.3
 0.9s 88.00nm 5.8mb
 KKN 58.71 293 P 12 23.84 -0.1
 0.9s 89.00nm 5.9mb
 DMN 58.87 293 P 12 25.14 0.0
 1.0s 118.00nm 6.0mb
 GKN 59.27 294 P 12 27.78 0.0
 1.0s 285.00nm 6.3mb X
 TTA 61.60 26 eP 12 42.70 -0.4
 IMA 63.78 23 eP 12 57.00 -0.5
 1.2s 13.70nm 4.9mb
 PMR 64.16 28 eP 12 58.60 -1.2
 FBA 65.69 25 eP 13 06.60 -3.1X
 NDI 65.77 295 eP 13 11.50 0.7
 HYB 65.89 283 iPd 13 11.50 -0.3
 1.0s 40.00nm 5.5mb
 GBA 67.62 279 Pd 13 22.20 -0.5
 0.6s 6.10nm 4.9mb
 KOD 68.26 275 eP 13 27.80 0.6
 POO 70.12 285 iPc 13 37.50 -0.7
 PMO 70.53 112 eP 13 43.00 2.4
 1.2s 15.00nm 4.9mb
 TPT 70.77 112 eP 13 44.00 1.9
 1.2s 25.00nm 5.1mb
 RUV 71.06 112 eP 13 46.00 2.2
 1.2s 15.00nm 4.9mb
 INK 71.91 23 eP 13 47.00 -1.1
 QUE 74.49 298 eP 14 04.60 0.5
 MBC 76.09 14 ePd 14 12.80 0.6
 1.0s 65.00nm 5.6mb
 MCW 78.53 43 P 14 27.00 0.8
 GMW 78.75 44 P 14 27.40 -0.1
 pP 14 39.00 38km
 SHW 79.37 45 P 14 31.40 0.4
 RMW 79.42 44 P 14 31.70 0.5
 pP 14 42.00 33km
 MAIO 79.60 305 iPd 14 33.50 1.1
 WDC 80.24 51 eP 14 36.30 0.7
 PNT 80.48 42 iPd 14 37.20 0.5
 VGB 80.51 45 P 14 37.00 0.0
 pP 14 48.20 36km
 MIN 80.99 51 eP 14 39.40 -0.4
 ORV 81.24 51 eP 14 41.00 0.1
 DPW 81.72 43 P 14 43.70 0.4
 PRS 82.04 55 eP 14 45.70 0.6
 NEW 82.33 42 P 14 46.00 -0.4
 1.0s 26.88nm 5.2mb
 pP 14 57.30 37km
 CMB 82.42 53 eP 14 47.50 0.3
 PRI 82.64 55 eP 14 49.30 0.9
 FRI 83.19 54 eP 14 51.20 0.2
 EDM 83.34 37 iPd 14 52.00 0.4
 CLC 85.13 54 eP 15 01.00 0.0
 MWC 85.18 56 eP 15 01.00 -0.4
 SBB 85.25 56 eP 15 01.00 -0.6
 SES 85.55 39 ePd 15 03.00 0.3
 KEV 85.78 342 eP 15 03.00 -0.4
 e 15 15.00
 RVR 85.79 56 eP 15 04.00 -0.2
 GSC 85.89 55 eP 15 05.00 0.2
 LRM 86.07 44 ePd 15 05.80 0.1
 PLM 86.37 57 eP 15 07.00 -0.3
 BAR 86.71 57 eP 15 08.00 -0.8
 SOD 87.22 341 iP 15 10.30 -0.2
 e 15 24.00
 DAG 87.85 357 eP 15 13.00 -0.4
 GLA 88.09 56 eP 15 16.00 0.5
 MSU 88.51 51 P 15 13.30 -4.3X
 DAU 88.59 49 P 15 18.00 -0.1
 BW06 89.02 46 P 15 19.80 -0.1
 1.1s 4.17nm 4.7mb
 FFC 89.09 33 eP 15 19.00 -0.7
 1.3s 36.00nm 5.5mb
 SUF 90.02 337 iP 15 23.30 -0.6
 RSSD 92.26 43 P 15 34.90 0.0
 GOL 93.07 48 P 15 39.60 0.8
 0.9s 10.42nm 5.3mb
 ALO 94.04 52 eP 15 43.00 -0.3
 1.2s 7.03nm 5.0mb
 APO 95.89 339 eP 15 49.00 -2.0

NB2	0.7s	5.20nm	15	52.00	-1.6	GBA	67.85	279 Pd	24	57.00	-0.4	CTA	35.56	182 iPc	44	23.00	-0.8
	96.44	340 P					0.8s	4.60nm			4.6mb		1.0s	15.00nm			4.9mb
SKO	104.50	321 iPd	16	30.20	0.3	INK	71.41	23 eP	25	19.00	0.7			i	44	30.00	24km
EKA	105.49	343 PKP	20	54.00	6.5X	MBC	75.62	14 eP	25	44.00	1.2			i	44	36.00	
	1.2s	10.30nm				YKA	79.75	28 eP	26	05.10	-0.6	BJI	36.58	318 eP	44	32.00	-0.2
SLR	122.53	249 ePKP	21	17.50	-3.5X		0.6s	0.50nm			3.7mb X		1.5s	52.00nm			5.2mb
KSR	123.78	249 ePKP	21	22.00	-1.5	KIC	145.14	307 PKPd	33	36.52	0.0	QIS	36.85	193 eP	44	33.00	-1.7
LKO	143.74	311 PKP	21	57.70	-3.2X		0.6s	6.00nm				WB5	37.65	201 eP	44	40.80	-0.6
KIC	145.14	306 PKPd	22	03.10	-0.2	TIC	145.17	307 PKPd	33	36.54	-0.1	RMQ	41.92	178 eP	45	16.00	-0.7
	1.0s	106.50nm				LIC	145.44	307 PKP	33	37.34	0.3	BRS	43.10	173 iPc	45	25.00	-1.4
TIC	145.18	307 PKPd	22	03.12	-0.2	ZOBO	145.46	96 ePKP	33	36.00	-1.7			i	45	32.50	25km
	0.9s	81.50nm					S.D. = 0.7	on 17 of 17 obs.				LZH	43.87	306 Pd	45	33.00	0.2
LIC	145.45	306 PKPd	22	04.16	0.4								2.0s	117.00nm			5.4mb
	0.9s	88.50nm				? APR 06, 1990 01h 18m 40.28±0.85s								pP	45	39.50	22km
ZOBO	145.71	97 PKP	22	05.00	0.1	6.263 N ±20.7km 126.983 E ±25.3km								i	46	24.50	
LPB	145.75	97 PKP	22	07.00	2.3X	DEPTH = 33.0km (normal)								S	52	06.00	
CCH	147.65	99 PKP	22	08.00	0.4	4.7mb (5 obs.)						LOE	43.93	279 eP	45	33.00	-0.3
SIV	152.47	95 PKP	22	08.00	-6.6X	MINDANAO, PHILIPPINE ISLANDS (259)						NST	45.63	277 eP	45	49.50	2.6
	S.D. = 1.0	on 95 of 103 obs.				WB5	26.98	165 eP	24	21.20	0.1	M8L	45.64	217 iPd	45	46.30	-0.5
* APR 06, 1990 00h 51m 06.92±0.51s						OIS	29.40	155 eP	24	43.00	0.0		0.4s	2.00nm			4.4mb
15.567 N ±10.2km 147.602 E ±11.2km						CHTO	30.02	297 iP	24	49.80	1.2	NNT	46.45	273 eP	45	55.20	1.8
DEPTH = 33.0km (normal)							0.7s	2.22nm			4.1mb	CHG	46.47	281 ePd	45	54.10	0.5
4.7mb (7 obs.)						BJI	35.00	345 eP	25	36.00	4.3X		0.9s	12.60nm			4.9mb
MARIANA ISLANDS REGION (215)						GUN	44.49	304 P	26	51.50	0.5	NANU	49.30	220 eP	46	15.50	0.0
							0.7s	22.00nm			5.1mb	ADE	51.06	189 e(P)	46	29.50	0.7
GUA	3.29	233 eP	52	04.80	7.4X	PKI	44.76	303 P	26	53.00	-0.1	TTA	61.14	26 P	47	40.80	-0.1
		eS	52	36.30			0.7s	8.00nm			4.7mb		1.0s	21.25nm			5.2mb
PJG	3.30	234 eP	52	03.80	6.3X	KKN	44.94	303 P	26	54.70	0.2	IMA	63.31	23 eP	47	55.10	-0.3
PMG	24.82	181 eP	56	36.50	8.9X	DMN	45.02	303 P	26	55.30	0.1		1.0s	5.60nm			4.7mb
BJI	36.65	318 eP	58	12.50	0.2	GKN	45.55	303 P	26	59.40	0.2	PMR	63.70	28 eP	47	56.50	-1.3
	1.5s	26.00nm				HYB	48.55	288 eP	27	22.00	-0.7	FBA	65.23	25 eP	48	06.30	-1.4
WB5	37.55	201 eP	58	20.00	0.0	GBA	49.27	282 P	27	27.00	-1.3	HYB	65.88	282 iPc	48	12.50	-0.2
WRA	37.62	201 P	58	20.80	0.2		0.8s	5.60nm			4.6mb		1.0s	25.00nm			5.3mb
	0.9s	5.50nm				NDI	51.98	302 eP	27	48.00	-0.8	GBA	67.64	278 Pc	48	23.50	-0.3
LZH	43.92	306 Pd	59	13.50	0.8	MAIO	68.20	307 eP	29	40.00	0.0		0.9s	9.20nm			4.9mb
	1.5s	42.00nm				HRI	87.64	303 eP	31	28.00	0.8	KOD	68.31	275 eP	48	28.70	0.2
CHG	46.49	281 eP	59	22.50	30kmX	SOD	88.24	338 eP	31	24.00	-5.2X	POO	70.09	284 eP	48	37.00	-2.0
GUN	58.11	293 P	01	00.80	0.5	PRNI	88.58	300 eP	31	32.00	0.3	INK	71.44	23 ePc	48	45.30	-1.0
PKI	58.54	293 P	01	03.00	-0.3	MBH	88.75	300 eP	31	33.00	0.6			pP	49	04.00	70kmX
KKN	58.65	293 P	01	04.00	0.1	NUR	90.62	331 eP	31	45.00	4.5X	MBC	75.61	14 ePc	49	11.40	0.9
DMN	58.81	293 P	01	05.40	0.3	NB2	96.64	334 P	32	07.00	-1.2		1.0s	29.00nm			5.3mb
GKN	59.21	294 P	01	08.00	0.2		0.9s	2.30nm			4.7mb			pP	49	29.50	66kmX
	0.8s	20.00nm					S.D. = 0.8	on 16 of 19 obs.				GMW	78.35	44 P	49	27.50	1.2
HYB	65.90	282 eP	01	52.00	-0.2	APR 06, 1990 01h 28m 07.75±0.61s						RMW	79.02	44 P	49	49.00	19.0X
GBA	67.65	279 P	02	01.00	-2.3	39.442 N ± 4.3km 25.519 E ± 9.3km						MAIO	79.40	305 eP	49	33.00	0.6
	0.8s	4.90nm				DEPTH = 10.0km (geophysicist)						YKA	79.80	28 eP	49	33.50	-0.3
POO	70.12	284 eP	02	18.00	-0.6	AEGEAN SEA (365)							0.7s	5.00nm			4.6mb
INK	71.54	23 eP	02	26.00	-0.2	ML 3.3 (ATH).						PNT	80.07	42 eP	49	36.00	0.4
MBC	75.72	14 eP	02	51.00	0.5	RDO	1.70	0 iPbd	28	37.50	-0.1	ORV	80.87	52 eP	49	50.30	10.3X
	1.0s	6.00nm				NEO	1.78	266 ePn	28	40.60	1.7	PRS	81.69	55 eP	49	45.40	1.0
YKA	79.89	28 eP	03	12.80	-0.8	SMG	2.02	149 ePn	28	43.00	0.9	NEW	81.92	42 P	49	45.50	0.1
	0.9s	1.40nm				ATH	2.04	224 ePn	28	42.80	0.4		0.8s	11.98nm			5.0mb
DRV	82.19	183 eP	03	17.00	-8.4X	KDZ	2.21	358 iPc	28	45.00	0.0	CMB	82.07	53 eP	49	47.20	0.9
KEV	85.45	343 eP	03	43.00	0.8	RZN	2.33	345 iPc	28	47.00	0.2	PRI	82.29	55 eP	49	48.90	1.2
SOD	86.91	341 iP	03	50.00	0.6	APE	2.37	180 ePn	28	47.00	-0.3	FRI	82.84	54 eP	49	50.90	0.6
SUF	89.72	337 eP	04	01.00	-1.9	MMB	2.54	328 eP	28	48.00	-1.7	EDM	82.91	37 ePc	49	51.00	0.6
NUR	91.58	335 eP	04	05.00	-6.5X	PLD	2.73	347 eP	28	53.00	0.6	PAS	84.77	56 eP	50	15.00	14.9X
KIC	145.00	306 PKP	10	43.30	-0.1	VAY	2.93	311 ePn	29	03.60	8.4X	CLC	84.78	54 eP	50	06.00	5.7X
	0.9s	18.50nm				KKB	3.05	323 eP	29	04.00	7.1X			e	50	19.00	44kmX
TIC	145.03	307 PKP	10	43.22	-0.3	JMB	3.13	15 eP	29	03.00	5.0X	MWC	84.84	56 eP	50	08.00	7.2X
LIC	145.30	307 PKP	10	44.26	0.3	PGB	3.27	342 eP	29	00.00	-0.1	SBB	84.90	56 eP	50	01.00	0.1
	0.9s	21.50nm				VLI	3.40	218 ePn	29	00.50	-1.4	SES	85.13	39 ePc	50	02.00	0.3
ZOBO	145.66	96 PKP	10	46.40	1.2	VTS	3.60	332 eP	29	06.00	1.1	KEV	85.35	343 eP	50	04.00	1.6
LPB	145.70	97 PKP	10	51.00	5.9X	ITM	3.62	232 ePn	29	04.50	-0.5	RVR	85.45	56 eP	50	21.00	17.5X
	S.D. = 0.9	on 23 of 29 obs.				PVL	3.77	358 iPd	29	06.00	-1.2	GSC	85.54	55 eP	50	03.00	-1.1
? APR 06, 1990 01h 13m 59.78±0.49s						MLR	6.05	3 eP	29	40.00	0.5	LRM	85.67	44 eP	50	01.20	-3.5X
15.617 N ±10.2km 147.818 E ±11.2km							S.D. = 1.0	on 15 of 18 obs.				PLM	86.03	57 eP	50	03.00	-3.7X
DEPTH = 33.0km (normal)						APR 06, 1990 01h 37m 26.17±0.26s						BAR	86.37	57 eP	50	09.00	0.8
4.9mb (3 obs.)						15.673 N ± 5.5km 147.606 E ± 6.4km						TPC	86.47	56 eP	50	15.00	6.3X
MARIANA ISLANDS REGION (215)						DEPTH = 23.4km (3 depth phases)						SOD	86.81	341 iP	50	09.70	0.1
						5.0mb (16 obs.)						DAG	87.39	357 eP	50	12.00	-0.2
WB5	37.67	201 eP	21	13.80	-0.1	MARIANA ISLANDS REGION (215)						GLA	87.75	56 eP	50	17.00	2.1
WRA	37.74	201 Pd	21	15.50	1.0	GUA	3.36	231 eP	38	20.80	2.3	FFC	88.64	33 ePc	50	18.80	0.2
LZH	44.06	306 Pd	22	07.00	0.3								0.9s	9.00nm			5.1mb
	1.5s	31.00nm										SUF	89.62	337 eP	50	22.00	-1.1
		pP	22	14.00	23kmX							RSSD	91.85	43 P	50	34.00	-0.1
GUN	58.28	293 P	23	54.40	0.0	PJG	3.37	232 eP	38	19.50	1.0	ALO	93.68	52 eP	50	43.00	0.3
	0.8s	17.00nm				GUMO	3.37	232 eP	38	19.00	0.5		1.0s	2.25nm			4.5mb
PKI	58.71	293 P	23	57.00	-0.4	KAKJ	21.50	343 P	42	13.30	-2.1	APD	95.48	339 eP	50	49.20	-1.0
KKN	58.82	293 P	23	57.80	-0.2	CHJJ	21.70	341 P	42	16.80	-0.7		1.0s	7.20nm			5.1mb
DMN	58.98	293 P	23	59.00	-0.2	NIJJ	22.80	342 P	42	29.90	1.6	NB2	96.02	340 P	50	52.10	-0.7
GKN	59.38	294 P	24	01.70	-0.1	PMG	24.92	181 eP	42	49.00	-0.1		0.9s	3.50nm			4.8mb
HYB	66.09	282 ePd	24	46.50	0.2	SSE	28.60	307 eP	43	20.60	-2.2	KIC	144.94	307 PKPd	57	02.86	-1.2
						MTN	32.69	211 eP	43	57.00	-2.1		0.8s	37.50nm			

06d 01h

LIC 145.24 307 PKPd 57 03.80 -0.8
0.9s 63.00nm
ZOBO 145.67 96 PKP 57 07.00 1.1
LPB 145.71 96 PKP 57 07.80 2.0
CCH 147.62 98 PKP 57 11.20 2.5X
SIV 152.42 95 PKP 57 23.00 7.3X
S.D. = 1.1 on 62 of 73 obs.

? APR 06, 1990 01h 39m 47.71±0.96s
14.558 N ±29.6km 148.910 E ±24.0km
DEPTH = 33.0km (normal)
4.7mb (1 obs.)

MARIANA ISLANDS REGION (215)

PJG 4.04 257 eP 40 49.50 0.7
MTN 32.43 214 eP 46 17.00 -0.1
INK 71.98 22 eP 51 09.00 -0.7
MBC 76.38 14 eP 51 34.50 -0.5
1.0s 8.00nm 4.7mb
SES 85.19 39 ePc 52 24.80 2.7
LRM 85.59 44 eP 52 28.00 3.5X
KIC 146.61 307 PKP 59 26.00 -0.9
TIC 146.65 307 PKP 59 26.20 -0.8
LIC 146.92 307 PKP 59 27.00 -0.4
S.D. = 1.4 on 8 of 9 obs.

* APR 06, 1990 02h 06m 54.63±0.71s
15.274 N ±13.3km 147.731 E ±14.1km
DEPTH = 33.0km (normal)
4.3mb (3 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.23 238 eP 07 44.70 0.5
eS 08 19.80
GUMO 3.24 239 eP 07 44.90 0.5
PJG 3.24 239 eP 07 45.00 0.6
WB5 37.32 201 eP 14 05.10 -0.7
ASPA 41.00 200 eP 14 35.60 -0.8
0.5s 3.00nm 4.3mb
ADE 50.69 190 iPc 15 44.80 -8.4X
GUN 58.34 294 P 16 49.60 -0.1
0.5s 6.00nm 4.9mb
KKN 58.88 293 P 16 53.00 -0.2
GKN 59.44 294 P 16 54.80 -2.3
MBC 75.97 14 eP 18 41.00 1.4
YKA 80.09 28 eP 19 02.00 -0.4
0.5s 0.50nm 3.8mb
KIC 145.27 306 PKPd 26 32.02 0.4
0.6s 13.00nm
TIC 145.31 307 PKPd 26 31.96 0.3
0.6s 10.00nm
LIC 145.58 306 PKPd 26 32.96 0.8
0.6s 11.00nm
SIV 152.26 95 ePKP 26 50.00 7.5X
S.D. = 1.0 on 13 of 15 obs.

* APR 06, 1990 02h 32m 34.51±0.54s
40.953 S ±13.1km 80.724 E ±10.1km
DEPTH = 10.0km (geophysicist)
5.7mb (6 obs.) 5.3msz (1 obs.)
MID-INDIAN RISE (429)

SEK 44.84 269 eP 40 51.50 0.7
SLR 45.70 273 eP 40 55.50 -2.1
KSR 46.68 271 eP 40 55.00 -10.4X
ASPA 47.40 86 iPd 41 10.40 -0.5
1.2s 24.00nm 5.2mb
Z 20s 3.04um 5.3msz
LR 58 28.90
WB5 49.96 82 eP 41 30.20 -0.6
BWA 52.77 106 eP 41 56.30 4.4X
CAN 52.77 107 eP 41 53.20 1.3
GBA 54.36 356 Pc 42 03.10 -0.5
1.0s 3.40nm 4.3mb X
HYB 58.10 358 eP 42 31.00 0.6
CTA 58.81 90 iPd 42 35.00 -0.6
1.5s 55.56nm 5.5mb
CHG 61.82 20 eP 42 55.60 -0.4
CHTO 61.82 20 eP 42 55.90 -0.1
1.0s 1.30nm 4.1mb X
e 43 05.90
PMG 66.12 82 eP 43 24.00 -0.2
PKI 68.31 4 P 43 37.90 -0.3
1.2s 68.00nm 5.7mb
DMN 68.33 4 P 43 38.00 -0.2
1.1s 79.00nm 5.8mb
KKN 68.52 4 P 43 39.40 0.1

1.3s 97.00nm 5.8mb
GUN 68.68 5 P 43 40.50 0.0
GKN 68.70 4 P 43 40.10 -0.2
1.2s 101.00nm 5.9mb
KMI 68.85 21 eP 43 46.50 5.1X
BCAO 72.41 292 iPd 44 05.50 2.5X
MAIO 79.31 343 eP 44 48.00 6.4X
LZH 79.55 19 P 44 49.50 6.4X
pP 44 53.00 11kmX
SLY 82.77 332 ePd 45 07.00 7.3X
MSL 84.33 330 eP 45 10.00 2.4
eS 03 40.00
PMO 108.41 130 ePKP 51 16.20 11.1X
1.1s 35.00nm
RUV 108.56 131 iPKP 51 19.20 13.8X
1.1s 30.00nm
TPT 108.59 130 iPKP 51 17.40 12.0X
1.1s 30.00nm
FRB 150.97 332 ePKP 52 33.00 11.1X
SYP 162.43 105 ePKP 52 39.00 1.8
PAS 163.56 108 ePKP 52 34.00 -4.2X
MWC 163.68 108 ePKP 52 33.00 -5.6X
e 52 46.00
BAR 163.83 115 ePKP 52 43.00 4.4X
e 52 54.00
ISA 164.04 103 ePKP 52 31.00 -7.7X
RVR 164.05 110 ePKP 52 38.00 -0.7
e 52 49.00
PLM 164.07 113 ePKP 52 39.00 0.0
SBB 164.08 107 ePKP 52 35.00 -3.8X
e 52 45.00
CLC 164.75 104 ePKP 52 34.00 -5.4X
e 52 45.00
TPC 165.05 112 ePKP 52 43.00 3.3X
GSC 165.10 107 ePKP 52 39.00 -0.7
e 52 49.00
GLA 165.30 117 ePKP 52 50.00 10.1X
ALO 171.75 134 ePKP 52 51.00 6.9X
S.D. = 1.0 on 21 of 41 obs.

APR 06, 1990 02h 40m 01.77±0.19s
15.520 N ±4.2km 147.566 E ±4.3km
DEPTH = 38.3km (18 depth phases)
5.1mb (19 obs.) 5.0msz (3 obs.)
MARIANA ISLANDS REGION (215)

GUA 3.24 233 eP 40 51.30 -0.1
eS 41 28.80
GUMO 3.24 234 eP 40 51.90 0.4
PJG 3.24 234 eP 40 51.50 0.0
KAKJ 21.63 344 P 44 50.10 -0.6
IIDJ 21.68 338 P 44 51.10 -0.1
CHJJ 21.83 341 P 44 51.90 -0.8
NIJJ 22.93 342 P 45 03.70 0.2
DAV 23.12 251 eP 45 06.00 0.5
PMG 24.77 181 eP 45 21.00 -0.5
1.0s 60.00nm 5.1mb
BAG 25.96 276 eP 45 32.00 -0.9
SSE 28.66 307 eP 45 54.80 -2.3
Z 20s 1.80um 4.7msz
N 13s 0.90um
E 12s 0.70um
pP 46 07.00 47km
S 50 50.00
sS 51 10.00
PPR 28.69 262 ePd 46 02.00 4.4X
MTN 32.54 211 eP 46 32.00 0.5
CTA 35.41 182 iPd 46 55.50 -0.8
2.9s 458.33nm 5.9mb
BJI 36.66 318 eP 47 06.50 -0.2
1.5s 39.00nm 5.1mb
BJI 36.66 318 eP 47 17.50 10.8X
1.5s 183.00nm
Z 23s 1.81um 4.8msz X
eS 52 46.00
OIS 36.69 193 eP 47 06.00 -1.1
WB5 37.49 201 eP 47 12.80 -1.1
ASPA 41.17 199 iPd 47 43.90 -0.5
1.6s 53.00nm 5.0mb
eS 53 56.20
RMO 41.77 178 eP 47 48.00 -1.2
KMI 42.94 290 P 48 01.50 2.3
Z 20s 2.70um 5.1msz
E 20s 1.70um
sP 48 11.50
S 54 18.00
S 54 24.00

LOE 43.92 279 eP 48 07.00 0.1
e 56 11.00
LZH 43.92 306 Pc 48 07.50 0.5
3.0s 279.00nm 5.5mb
Z 20s 1.80um 5.0msz
E 15s 0.70um
pP 48 19.00 41km
i 48 30.00
eS 54 41.00
NST 45.61 277 eP 48 23.20 2.7
NNT 46.42 273 eP 48 23.20 -3.7X
CHG 46.46 281 eP 48 27.80 0.6
CHTO 46.46 281 eP 48 27.70 0.5
0.8s 9.33nm 4.8mb
pP 48 39.60 43km
SNG 46.69 265 eP 48 41.10 12.1X
NANU 49.16 220 eP 48 47.80 -0.3
BWA 49.67 179 eP 48 52.20 0.3
CAN 50.58 178 eP 48 59.00 0.2
ADE 50.91 189 iPc 49 01.80 0.5
0.8s 55.22nm 5.6mb
SHL 52.77 290 eP 49 15.50 -0.3
iS 56 39.50
TOO 52.84 182 eP 49 16.00 0.1
GUN 58.10 293 P 49 54.20 -0.3
PKI 58.53 293 P 49 56.80 -0.7
KKN 58.63 293 P 49 57.60 -0.5
DMN 58.79 293 P 49 58.80 -0.5
0.5s 16.00nm 5.4mb
GKN 59.20 294 P 50 01.60 -0.3
TTA 61.29 26 eP 50 14.70 -0.9
IMA 63.47 23 eP 50 29.20 -0.9
1.2s 15.60nm 5.0mb
PMR 63.86 28 eP 50 31.00 -1.5
e 50 43.00
BRW 64.73 17 P 50 38.30 0.3
pP 50 49.30 36km
FBA 65.38 25 eP 50 40.90 -1.4
NDI 65.68 295 eP 50 45.00 0.1
eS 58 48.50
HYB 65.87 282 eP 50 47.00 0.7
e 50 57.50
GBA 67.62 279 Pc 50 56.00 -1.4
0.9s 7.40nm 4.8mb
POO 70.09 284 eP 51 12.00 -0.7
INK 71.59 23 eP 51 19.00 -1.8
QUE 74.39 298 eP 51 39.50 1.3
MBC 75.77 14 eP 51 45.50 0.5
1.0s 32.00nm 5.3mb
pP 51 57.00 38km
MCW 78.26 43 P 52 00.40 1.1
GMW 78.49 44 P 52 01.70 1.1
pP 52 12.70 36km
RMW 79.16 44 P 52 05.10 0.7
pP 52 16.00 35km
LON 79.29 44 P 52 04.50 -0.6
pP 52 16.80 41km
MAIO 79.46 305 iPc 52 08.00 1.7
YKA 79.95 28 eP 52 07.00 -1.2
1.0s 8.70nm 4.7mb
WDC 80.00 51 eP 52 09.70 0.8
PNT 80.21 42 eP 52 11.00 1.1
VGB 80.24 45 P 52 10.90 0.7
pP 52 21.80 35km
MIN 80.75 51 eP 52 13.00 -0.1
ORV 81.00 52 eP 52 14.20 0.0
PRS 81.81 55 eP 52 19.00 0.4
NEW 82.06 42 P 52 19.70 0.1
0.9s 17.54nm 5.1mb
pP 52 30.70 35km
CMB 82.19 53 eP 52 20.60 0.1
PRI 82.41 55 eP 52 23.20 1.4
FRI 82.96 54 eP 52 24.50 0.0
EDM 83.05 37 eP 52 24.00 -0.7
SES 85.27 39 ePc 52 37.20 1.3
pP 52 48.00 34km
KEV 85.49 343 iP 52 37.80 1.2
LRM 85.80 44 eP 52 38.70 -0.3
SOD 86.94 341 iP 52 43.70 -0.1
DUG 87.28 49 P 52 46.60 0.5
pP 52 58.50 39km
IMW 87.43 45 P 52 48.20 1.2
pP 52 59.00 34km
DAG 87.54 357 eP 52 46.00 -0.5
MSU 88.27 51 P 52 50.50 -0.6
DAU 88.34 49 P 52 50.00 -1.5
pP 53 03.00 43km

BW06 88.75 46 P 52 51.00 -2.3
1.8s 19.10nm 5.1mb
pP 53 04.00 43km
FFC 88.79 33 iPc 52 53.80 0.9
1.0s 18.00nm 5.3mb
SUF 89.75 337 iP 52 57.40 0.1
NUR 91.61 335 eP 53 16.00 10.1X
RSSD 91.99 43 P 53 07.80 -0.5
pP 53 19.00 35km
GOL 92.81 48 P 53 13.10 0.9
1.1s 28.85nm 5.6mb
pP 53 24.10 35km
GLD 92.90 48 P 53 13.10 0.6
pP 53 25.10 39km
ALQ 93.81 52 eP 53 18.00 1.2
1.0s 6.25nm 5.0mb
HFS 95.98 339 eP 53 25.80 -0.2
0.5s 1.20nm 4.6mb
NB2 96.15 340 P 53 25.40 -1.5
1.2s 12.00nm 5.3mb
SKO 104.28 322 iPdiffer 54 04.00 0.4
i 54 15.00
BCAO 125.79 287 iPKPc 59 02.90 0.7
0.6s 5.00nm
i 01 07.40
LKO 143.57 311 PKP 59 32.48 -2.7X
KIC 145.00 306 PKP 59 36.82 -0.8
0.9s 51.50nm
TIC 145.04 307 PKP 59 36.84 -0.8
LIC 145.30 306 PKP 59 37.66 -0.5
ZOBO 145.69 96 PKP 59 40.10 0.7
LPB 145.73 97 PKP 59 41.00 1.7
CCH 147.64 98 ePKP 59 41.00 -1.2
SIV 152.44 95 ePKP 59 51.00 1.8
i 59 56.50

S.D. = 1.0 on 91 of 97 obs.

APR 06, 1990 02h 48m 05.82±0.24s
15.571 N ± 5.2km 147.574 E ± 4.8km
DEPTH = 39.0km (12 depth phases)
4.9mb (15 obs.) 5.0Msz (1 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.28 232 eP 48 55.30 -0.7
eS 49 33.20
GUMO 3.28 233 eP 48 55.60 -0.4
PJG 3.28 233 eP 48 55.70 -0.3
KAKJ 21.59 344 eP 52 54.30 0.1
IIDJ 21.63 338 eP 52 55.20 0.4
CHJJ 21.79 341 eP 52 56.40 0.2
MTMJ 22.67 339 P 53 05.50 0.4
NIJJ 22.88 342 eP 53 07.40 0.3
DAV 23.14 251 eP 53 10.90 1.2
PMG 24.82 181 eP 53 23.00 -3.0X
BAG 25.96 276 eP 53 37.00 0.1
SSE 28.63 307 eP 53 59.00 -1.9
1.3s 0.60nm 3.1mb X
i 54 10.00
CTA 35.46 182 iPc 54 59.00 -1.7
e 55 10.00
e 55 40.00
OIS 36.75 193 iPc 55 11.50 0.0
WB5 37.55 201 eP 55 18.00 -0.3
ASPA 41.22 199 iPc 55 49.20 0.4
1.4s 17.00nm 4.6mb
KMI 42.93 290 P 56 03.00 -0.1
LZH 43.90 306 Pd 56 11.00 0.2
2.5s 235.00nm 5.5mb
Z 20s 1.80um 5.0Msz
N 15s 0.90um
E 15s 0.90um
pP 56 14.50 12kmX
i 56 52.50
i 57 32.00
NST 45.61 277 eP 56 27.00 2.5
NNT 46.43 273 eP 56 32.40 1.5
CHG 46.46 281 ePd 56 31.90 0.7
1.0s 12.00nm 4.8mb
CHTO 46.46 281 iP 56 31.90 0.7
1.0s 9.75nm 4.7mb
pP 56 43.60 42km
ADE 50.96 189 iPc 57 06.50 0.8
SHL 52.76 290 iP 57 19.50 -0.2
GUN 58.09 293 P 57 58.20 -0.2
PKI 58.51 293 P 58 01.00 -0.4
1.0s 34.00nm 5.4mb
KKK 58.62 293 P 58 01.80 -0.2

DMN 58.78 293 P 58 02.80 -0.3
GKN 59.18 294 P 58 05.00 -0.8
TTA 61.24 26 eP 58 19.80 0.6
1.3s 22.41nm 5.1mb
IMA 63.42 23 eP 58 32.80 -0.9
1.0s 5.63nm 4.6mb
epP 58 44.00 37km
PMR 63.81 28 eP 58 35.00 -1.1
0.2s 6.35nm 5.4mb
epP 58 44.90 32km
FBA 65.33 25 eP 58 44.80 -1.2
0.8s 7.76nm 4.8mb
HYB 65.87 282 iPc 58 50.50 0.3
e 59 02.50
GBA 67.62 279 Pd 59 00.50 -0.8
0.7s 5.40nm 4.7mb
POO 70.09 284 eP 59 15.00 -1.6
PMO 70.62 112 iP 59 32.00 12.3X
1.0s 15.00nm
TPT 70.86 112 iP 59 33.30 12.1X
1.0s 25.00nm
RUV 71.14 112 iP 59 35.00 12.1X
1.0s 20.00nm
INK 71.54 23 eP 59 24.00 -0.5
pP 59 36.00 40km
MBC 75.72 14 eP 59 49.00 0.3
1.0s 23.00nm 5.1mb
pP 00 01.00 40km
GMW 78.44 44 eP 00 05.60 1.2
epP 00 17.00 37km
RMW 79.11 44 eP 00 08.70 0.6
epP 00 20.00 37km
MAIO 79.44 305 eP 00 12.00 1.9
YKA 79.90 28 eP 00 11.00 -0.9
1.2s 4.20nm 4.3mb
PNT 80.17 42 eP 00 14.00 0.4
ORV 80.96 52 eP 00 18.20 0.2
PRS 81.78 55 eP 00 23.00 0.6
NEW 82.02 42 eP 00 23.00 -0.4
1.2s 21.78nm 5.1mb
epP 00 35.20 41km
CMB 82.15 53 eP 00 25.00 0.7
FRI 82.92 54 eP 00 28.80 0.6
EDM 83.01 37 eP 00 27.00 -1.4
SBB 84.98 56 eP 00 39.00 0.2
SES 85.23 39 eP 00 40.00 0.3
pP 00 52.00 39km
KEV 85.44 343 eP 00 41.00 0.7
RVR 85.53 56 eP 00 40.00 -1.5
e 00 53.00
GSC 85.63 55 eP 00 43.00 0.9
e 00 55.00
LRM 85.76 44 eP 00 43.30 0.6
e 00 54.90
BAR 86.45 57 eP 00 58.00 11.9X
TPC 86.56 56 eP 00 46.00 -0.6
SOD 86.89 341 iP 00 47.80 0.3
IMW 87.39 45 eP 00 49.70 -1.1
epP 01 02.70 43km
MSU 88.23 51 eP 00 55.50 0.6
epP 01 07.40 39km
DAU 88.30 49 eP 00 55.50 0.3
epP 01 07.90 41km
FFC 88.74 33 iPc 00 56.90 0.3
1.0s 12.00nm 5.2mb
SUF 89.70 337 eP 01 00.00 -1.0
NUR 91.57 335 eP 01 07.00 -2.7
NB2 96.11 340 P 01 35.00 4.3X
0.8s 4.20nm 5.0mb
SKO 104.25 322 iPdiffer 02 08.00 0.6
i 02 18.50
LKO 143.54 311 PKP 07 47.48 8.4X
KIC 144.97 306 PKP 07 40.86 -0.7
TIC 145.01 307 PKP 07 41.00 -0.6
LIC 145.28 307 PKP 07 41.78 -0.3
ZOBO 145.69 96 PKP 07 45.00 1.6
1.6s 62.66nm
LPB 145.73 97 PKP 07 45.00 1.7
CCH 147.64 98 PKP 07 50.00 3.8X
SIV 152.44 95 PKP 08 00.60 7.5X
i 08 13.00
S.D. = 1.0 on 68 of 77 obs.

? APR 06, 1990 02h 54m 38.79±12.14s
51.722 N ± 65.6km 16.492 E ± 78.7km
DEPTH = 10.0km (geophysicist)
POLAND (548)

KSP 0.89 188 iP 54 56.00 0.1
0.4s 33.00nm
iS 55 05.50
BRG 1.81 243 iPg 55 10.40 0.2
iSg 55 30.50
PRU 2.13 216 Pn 55 14.50 -0.4
Pg 55 16.20
Sn 55 33.00
Sg 55 39.00
CLL 2.22 261 ePn 55 16.00 -0.1
ePg 55 19.00
iSg 55 44.40
KHC 3.19 217 Pn 55 30.10 0.1
Pg 55 36.00
Sn 56 02.80
Sg 56 12.30
MOX 3.25 253 ePn 55 31.00 0.2
ePg 55 39.00
iSg 56 20.00
WET 3.46 223 eP 55 53.60 19.8X
KBA 5.08 205 iPnd 55 56.90 0.0
i 56 05.50
e(Sn) 57 00.00
i 57 20.50
e 58 37.00
S.D. = 0.2 on 7 of 8 obs.

* APR 06, 1990 03h 19m 37.07±0.49s
15.560 N ± 6.4km 147.491 E ± 11.2km
DEPTH = 33.0km (normal)
5.0mb (10 obs.)

MARIANA ISLANDS REGION (215)

KAKJ 21.57 344 P 24 25.10 -0.8
CHJJ 21.77 341 P 24 27.60 -0.3
MTMJ 22.65 339 P 24 36.70 0.0
NIJJ 22.87 342 P 24 39.70 1.0
BJJ 36.59 318 eP 26 42.00 0.1
WB5 37.51 201 eP 26 49.80 0.0
ASPA 41.19 199 eP 27 20.40 0.0
0.4s 3.00nm 4.4mb
LZH 43.84 306 Pd 27 42.50 0.3
2.5s 80.00nm 5.1mb
SHL 52.69 290 iP 28 51.00 -0.1
GUN 58.02 293 P 29 30.10 0.3
0.6s 17.00nm 5.3mb
PKI 58.44 293 P 29 32.60 -0.2
0.5s 10.00nm 5.2mb
KKK 58.55 293 P 29 33.40 0.0
0.6s 10.00nm 5.1mb
DMN 58.71 293 P 29 34.60 0.0
0.5s 19.00nm 5.5mb
GKN 59.11 294 P 29 37.20 0.0
0.6s 21.00nm 5.4mb
HYB 65.80 282 eP 30 21.50 -0.2
GBA 67.54 279 Pd 30 32.70 -0.1
1.0s 5.00nm 4.6mb
MBC 75.75 14 eP 31 21.00 0.2
1.0s 6.00nm 4.5mb
MAIO 79.38 305 eP 31 43.00 1.3
YKA 79.95 28 eP 31 39.90 -4.2X
0.7s 1.40nm 4.1mb
KSP 101.32 331 iPdiffer 33 25.00 -1.1
KIC 144.92 306 PKP 39 12.88 -0.6
0.8s 16.50nm
TIC 144.95 307 PKP 39 12.88 -0.6
LIC 145.22 306 PKP 39 13.82 -0.1
0.6s 17.00nm
ZOBO 145.77 96 PKP 39 16.50 1.0
LPB 145.81 97 ePKP 39 19.00 3.6X
S.D. = 0.6 on 23 of 25 obs.

* APR 06, 1990 03h 46m 35.19±0.50s
15.479 N ± 13.1km 147.632 E ± 14.0km
DEPTH = 33.0km (normal)
4.5mb (3 obs.)

MARIANA ISLANDS REGION (215)

WB5 37.48 201 eP 53 46.70 -1.0
e 54 17.90
ASPA 41.16 199 eP 54 01.00 -17.2X
0.3s 3.00nm
LZH 44.00 306 eP 54 42.00 0.4
INK 71.61 23 eP 57 54.00 -0.9
MBC 75.79 14 eP 58 19.50 0.3
1.0s 6.00nm 4.5mb
pP 58 30.00 34kmX

06d 03h

YKA 79.95 28 eP 58 41.00 -1.3
0.8s 1.40nm 4.0mb
PRS 81.79 55 eP 58 53.00 0.5
NEW 82.05 42 eP 58 53.20 -0.4
0.8s 4.69nm 4.6mb
CMB 82.16 53 eP 58 54.80 0.3
FRI 82.93 54 eP 58 58.70 0.3
SES 85.26 39 eP 59 10.00 0.0
KEV 85.55 343 eP 59 11.00 0.1
LRM 85.79 44 eP 59 13.00 0.0
SOD 87.00 341 iP 59 18.20 0.1
SUF 89.81 337 eP 59 36.00 4.4X
NUR 91.68 335 eP 59 45.00 4.8X
RSSD 91.97 43 ePc 59 41.70 -0.6
eP 59 52.00 32kmX
ALO 93.78 52 eP 59 50.50 -0.2
ZOBO 145.62 96 PKP 06 14.10 0.7
LPB 145.67 97 PKP 06 15.00 1.7
CCH 147.57 98 ePKP 06 14.00 -2.2X
SIV 152.37 95 PKP 06 30.20 7.0X
S.D. = 0.8 on 17 of 22 obs.

APR 06, 1990 03h 47m 07.14 ± 0.76s
15.224 N ± 9.4km 147.551 E ± 11.6km
DEPTH = 33.0km (normal)
5.0mb (12 obs.)
MARIANA ISLANDS REGION (215)

GUA 3.06 237 eP 47 54.50 0.2
eS 48 21.30
PJG 3.07 238 eP 47 54.00 -0.4
GUMO 3.07 238 eP 47 54.80 0.4
KAKJ 21.91 344 eP 51 58.10 -1.2
IIDJ 21.94 339 P 52 00.10 0.4
CHJJ 22.10 341 eP 52 01.70 0.4
MTMJ 22.98 340 eP 52 12.20 2.2
NIJJ 23.21 342 eP 52 12.20 0.1
SSE 28.83 308 Pd 53 03.20 -1.3
0.8s 16.00nm 4.8mb
BJI 36.87 318 eP 54 14.50 0.1
1.5s 39.00nm 5.1mb
KMI 43.03 291 Pc 55 07.50 1.6
LZH 44.09 306 eP 55 12.50 -1.7
2.0s 117.00nm 5.3mb
pP 55 25.50 48kmX
i 55 39.50
CHG 46.51 282 eP 55 34.10 0.6
CHTO 46.51 282 eP 55 34.10 0.6
1.0s 3.20nm 4.2mb
GUN 58.20 294 P 57 01.00 -0.2
PKI 58.63 293 P 57 03.60 -0.6
0.6s 21.00nm 5.4mb
KKN 58.74 293 P 57 04.40 -0.4
0.6s 16.00nm 5.3mb
DMN 58.90 293 P 57 05.70 -0.2
0.6s 26.00nm 5.5mb
GKN 59.30 294 P 57 08.40 -0.2
NDI 65.79 295 eP 57 51.50 -0.1
GBA 67.65 279 P 58 03.40 -0.1
0.6s 2.70nm 4.5mb
INK 71.87 23 eP 58 28.00 -0.5
MBC 76.06 14 eP 58 53.50 0.9
1.0s 6.00nm 4.5mb
MAIO 79.61 305 eP 59 14.00 0.9
KEV 85.76 343 iP 59 45.00 1.0
0.6s 11.70nm 5.3mb
SOD 87.21 341 iP 59 51.60 0.5
SUF 90.01 337 eP 00 03.00 -1.5
APO 95.88 339 eP 00 30.30 -1.3
0.5s 2.60nm 4.9mb
NB2 96.43 340 P 00 33.20 -0.9
0.7s 1.80nm 4.7mb
KIC 145.16 306 PKPd 06 43.96 0.0
0.7s 22.00nm
TIC 145.20 307 PKP 06 44.06 0.0
LIC 145.47 306 PKP 06 45.14 0.7
0.8s 32.00nm
S.D. = 0.9 on 32 of 32 obs.

APR 06, 1990 03h 49m 16.78 ± 0.54s
43.408 N ± 4.3km 5.475 E ± 3.7km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 2.4 (STR).

GELF 0.04 235 Pg 49 18.00 -0.2
BERF 0.18 121 Pg 49 20.94 0.3

PUYF 0.21 53 Pg 49 20.51 -0.5
TREF 0.23 343 Pg 49 20.78 -0.6
PRAF 0.45 331 Pg 49 25.97 0.1
TAVF 0.47 64 Pg 49 25.22 -1.1
VILF 0.48 21 Pg 49 26.68 0.3
GANF 0.67 28 Pg 49 30.14 0.0
CALN 1.08 71 Pg 49 38.03 0.3
MVIF 1.31 68 Pn 49 41.63 0.0
Sg 50 00.89
TOUF 1.42 64 Pn 49 43.47 0.0
AUTN 1.53 67 Pn 49 45.38 0.3
Sg 50 07.07
STV 1.58 57 P 49 45.59 0.0
S 50 05.24
PZZ 1.61 46 P 49 47.33 1.3
S 50 07.33
SAOF 1.62 68 Pn 49 45.44 -0.6
ENR 1.63 59 P 49 46.31 0.0
S 50 06.73
RRL 1.78 31 P 49 51.37 2.7X
S 50 15.12
ROB 1.95 62 P 49 51.21 0.3
S 50 24.96
FIN 2.14 67 P 49 52.99 -0.6
RSP 2.16 36 P 49 55.25 1.2
LSD 2.38 30 P 49 59.13 1.8X
PCP 2.49 62 P 49 58.20 -0.5
S.D. = 0.6 on 20 of 22 obs.

APR 06, 1990 03h 56m 42.00 ± 0.18s
15.259 N ± 4.4km 147.620 E ± 3.9km
DEPTH = 33.0km (normal)
5.2mb (22 obs.) 4.2msz (1 obs.)
MARIANA ISLANDS REGION (215)

GUA 3.13 237 eP 57 32.20 2.0
eS 58 06.50
GUMO 3.14 238 eP 57 29.80 -0.6
PJG 3.14 238 eP 57 30.20 -0.1
KAKJ 21.89 344 eP 01 31.60 -2.4
IIDJ 21.94 338 eP 01 35.00 0.5
CHJJ 22.09 341 eP 01 34.30 -1.7
MTMJ 22.97 339 eP 01 44.30 -0.5
NIJJ 23.19 342 eP 01 43.50 -3.3X
PMG 24.51 181 iPc 01 59.30 -0.5
1.0s 80.00nm 5.2mb
HOOJ 27.29 353 eP 02 26.20 0.8
SSE 28.86 308 Pd 02 38.50 -1.2
1.0s 31.00nm 5.0mb
Z 20s 0.60um 4.2msz
MTN 32.34 211 eP 03 09.00 -1.6
CTA 35.15 182 iPc 03 34.00 -0.9
2.0s 73.53nm 5.3mb
e 04 05.00
OIS 36.45 193 iPc 03 44.50 -1.4
BJI 36.89 318 eP 03 49.50 0.1
1.8s 103.00nm 5.4mb
WB5 37.27 201 eP 03 51.50 -1.3
ASPA 40.95 199 iPc 04 22.70 -0.6
0.8s 9.00nm 4.6mb
KMI 43.08 291 Pc 04 42.50 1.4
LZH 44.12 306 Pd 04 50.00 0.6
2.0s 164.00nm 5.5mb
pP 05 03.00 48kmX
NST 45.69 277 eP 05 04.50 2.6
CHG 46.56 282 eP 05 09.20 0.4
CHTO 46.56 282 eP 05 09.40 0.6
1.0s 14.50nm 4.9mb
ADE 50.66 189 iPc 05 36.70 -3.6X
GUN 58.25 294 P 06 36.30 -0.1
PKI 58.68 293 P 06 38.60 -0.8
KKN 58.78 293 P 06 39.60 -0.4
1.0s 50.00nm 5.6mb
DMN 58.94 293 P 06 40.80 -0.3
GKN 59.35 294 P 06 43.40 -0.4
TTA 61.50 26 eP 06 57.20 -0.6
IMA 63.68 23 eP 07 11.00 -1.3
1.3s 14.15nm 4.9mb
PMR 64.06 28 eP 07 13.00 -1.6
1.0s 21.25nm 5.2mb
FBA 65.59 25 eP 07 23.00 -1.5
0.9s 10.94nm 5.0mb
NDI 65.84 295 eP 07 26.50 -0.2
HYB 65.98 283 iPc 07 27.50 -0.3
GBA 67.71 279 P 07 38.50 -0.3
0.8s 5.40nm 4.7mb
POO 70.21 284 eP 07 53.00 -1.2

PMO 70.46 112 iP 07 55.50 -0.1
1.2s 25.00nm 5.2mb
TPT 70.70 112 iP 07 56.90 -0.2
1.2s 35.00nm 5.3mb
RUV 70.99 112 iP 07 58.50 -0.3
1.2s 25.00nm 5.2mb
QUE 74.55 298 eP 08 20.80 0.8
MCW 78.41 43 eP 08 41.80 0.7
BMW 78.53 45 eP 08 41.80 0.0
GMW 78.64 44 eP 08 42.80 0.5
LON 79.44 44 eP 08 46.50 -0.2
MAIO 79.65 305 eP 08 50.00 1.9
WDC 80.12 51 eP 08 51.10 0.0
YKA 80.15 28 eP 08 41.50 -8.6X
1.1s 0.10nm 2.7mb
PNT 80.37 42 iPc 08 52.20 0.6
1.0s 36.00nm 5.3mb
VGB 80.39 45 eP 08 52.10 0.3
MIN 80.87 51 eP 08 54.60 0.0
ORV 81.12 51 eP 08 56.00 0.3
GCC 81.28 54 eP 08 57.00 0.4
DPW 81.60 43 eP 08 58.20 0.0
PRS 81.92 55 eP 09 00.50 0.5
NEW 82.22 42 eP 09 01.20 -0.1
1.1s 37.04nm 5.3mb
CMB 82.30 53 eP 09 02.60 0.6
PRI 82.52 55 eP 09 04.00 0.7
FRI 83.07 54 eP 09 06.20 0.3
EDM 83.23 37 ePd 09 06.50 0.0
PAS 84.99 56 eP 09 15.00 -0.7
MWC 85.06 56 eP 09 16.00 -0.3
SBB 85.12 56 eP 09 16.00 -0.4
SES 85.44 39 eP 09 17.30 -0.4
1.2s 114.00nm 6.0mb
RVR 85.67 56 eP 09 18.00 -1.1
GSC 85.77 55 eP 09 20.00 0.3
LRM 85.95 44 ePd 09 20.50 -0.1
BAR 86.58 57 eP 09 24.00 0.3
TPC 86.69 56 eP 09 24.00 -0.2
IMW 87.58 45 eP 09 29.30 0.7
DAG 87.80 357 eP 09 28.00 -0.6
GLA 87.97 56 eP 09 31.00 0.6
MSU 88.39 51 eP 09 32.90 0.4
BW06 88.90 46 eP 09 34.10 -0.8
1.0s 3.00nm 4.6mb
FFC 88.98 33 eP 09 35.00 0.3
1.3s 29.00nm 5.4mb
RSSD 92.14 43 eP 09 50.00 0.2
GOL 92.95 48 eP 09 54.20 0.5
0.9s 12.31nm 5.3mb
VNDA 92.96 177 eP 09 52.70 0.2
GLD 93.04 48 eP 09 55.30 1.3
ALO 93.92 52 eP 09 58.00 -0.2
1.0s 4.50nm 4.9mb
BCAO 125.92 287 iPKPc 15 43.70 0.4
0.7s 4.00nm
LKO 143.78 311 PKP 16 13.42 -3.0X
KIC 145.19 306 PKPd 16 18.70 -0.2
TIC 145.23 307 PKPd 16 19.00 0.1
LIC 145.50 306 PKPd 16 19.60 0.2
ZOBO 145.61 97 PKPc 16 21.00 0.8
1.8s 92.59nm
LPB 145.65 97 PKP 16 22.00 1.9
CCH 147.55 98 PKP 16 24.00 1.0
SIV 152.37 95 PKP 16 31.00 1.0
i 16 37.00
S.D. = 0.9 on 84 of 88 obs.

? APR 06, 1990 04h 14m 13.81 ± 0.72s
15.141 N ± 13.4km 147.485 E ± 24.8km
DEPTH = 33.0km (normal)
4.3mb (3 obs.)
MARIANA ISLANDS REGION (215)

WB5 37.12 201 eP 21 23.20 -0.1
ASPA 40.79 199 eP 21 53.60 -0.3
0.8s 4.00nm 4.2mb
LZH 44.08 307 eP 22 21.00 0.1
1.4s 32.00nm 4.9mb
INK 71.97 23 eP 25 35.00 -0.7
MBC 76.15 14 eP 26 00.00 0.1
YKA 80.32 28 eP 26 18.20 -4.6X
1.1s 2.30nm 4.1mb
ZOBO 145.73 97 ePKP 33 53.00 0.8
CCH 147.66 99 PKP 33 58.50 3.5X
SIV 152.49 96 PKP 34 09.20 7.2X
S.D. = 0.6 on 6 of 9 obs.

APR 06, 1990 04h 24m 58.71±0.28s
15.193 N ± 5.3km 147.628 E ± 5.5km
DEPTH = 33.0km (normal)
4.9mb (14 obs.)

MARIANA ISLANDS REGION (215)

GUA	3.10	238	eP	25	47.60	1.1
			eS	26	22.70	
GUMO	3.12	240	eP	25	47.80	1.1
PJG	3.12	240	eP	25	48.00	1.3
KAKJ	21.96	344	eP	29	51.40	0.0
IIDJ	22.00	338	eP	29	52.60	0.7
CHJJ	22.16	341	P	29	51.70	-1.7
TSRJ	22.79	335	eP	30	01.20	1.6
MTMJ	23.03	339	eP	30	00.60	-1.5
NIJJ	23.26	342	eP	30	03.70	-0.4
PMG	24.45	181	eP	30	15.00	-0.8
SSE	28.90	308	P	30	55.20	-1.6
	1.0s	19.00nm			4.7mb	
MTN	32.29	211	eP	31	25.00	-1.9
CTA	35.09	182	eP	31	50.50	-0.5
OIS	36.39	193	eP	32	01.00	-1.1
BJI	36.95	318	eP	32	07.00	0.5
	1.5s	39.00nm			5.1mb	
WB5	37.21	201	eP	32	08.10	-0.9
			e	32	19.00	
ASPA	40.89	199	eP	32	50.00	10.5X
	0.6s	9.00nm				
KMI	43.11	291	eP	32	59.50	1.4
LOE	44.03	279	eP	33	05.00	-0.3
			e	47	15.00	
			e	50	41.00	
LZH	44.16	306	Pd	33	06.50	0.1
	1.6s	109.00nm			5.4mb	
		pP	33	18.00	41kmX	
NST	45.71	277	eP	33	21.10	2.3
SHL	52.94	291	eP	34	13.80	-0.8
GUN	58.28	294	P	34	53.00	-0.3
	1.0s	58.00nm			5.6mb	
PKI	58.71	293	P	34	55.60	-0.7
KKN	58.82	293	P	34	56.40	-0.5
DMN	58.98	293	P	34	57.60	-0.5
GKN	59.38	294	P	35	00.20	-0.5
TTA	61.56	26	eP	35	14.10	-0.8
	1.3s	18.87nm			5.1mb	
IMA	63.74	23	eP	35	29.40	0.0
	1.4s	11.36nm			4.8mb	
PMR	64.11	28	eP	35	30.20	-1.5
FBA	65.65	25	eP	35	40.50	-1.1
	0.7s	6.18nm			4.8mb	
HYB	66.00	283	eP	35	44.00	-0.7
GBA	67.73	279	Pd	35	54.60	-1.0
	0.7s	3.00nm			4.5mb	
INK	71.87	23	ePd	36	19.10	-0.9
MBC	76.07	14	ePc	36	45.10	0.8
	0.8s	15.00nm			5.0mb	
RMW	79.35	44	eP	37	03.70	0.7
MAIO	79.69	305	eP	37	06.00	0.9
YKA	80.21	28	eP	37	06.30	-0.8
	1.0s	4.30nm			4.4mb	
PNT	80.41	42	eP	37	09.00	0.4
	0.6s	7.00nm			4.8mb	
VGB	80.43	45	eP	37	09.80	1.0
NEW	82.26	42	eP	37	18.60	0.3
	0.7s	7.50nm			4.8mb	
EDM	83.28	37	eP	37	24.00	0.6
SES	85.49	39	ePd	37	35.50	0.9
LRM	86.00	44	ePd	37	37.90	0.4
DUG	87.44	49	eP	37	45.40	0.9
	0.6s	4.93nm			4.9mb	
IMW	87.62	45	eP	37	46.60	1.1
MSU	88.43	51	eP	37	50.20	0.8
FFC	89.03	33	eP	37	52.00	0.4
	1.2s	16.00nm			5.2mb	
RSSD	92.18	43	eP	38	06.90	0.1
ALO	93.96	52	eP	38	15.50	0.4
LKO	143.83	311	PKP	44	30.54	-2.7X
KIC	145.24	306	PKPd	44	35.50	-0.1
	0.7s	45.50nm				
TIC	145.28	307	PKP	44	35.52	-0.2
LIC	145.55	306	PKPd	44	36.46	0.3
	0.7s	43.50nm				
ZOBO	145.60	97	PKP	44	38.00	1.1
LPB	145.63	97	PKP	44	39.00	2.2X
CCH	147.53	99	PKP	44	44.20	4.5X
SIV	152.35	96	PKP	44	44.50	-2.2X

S.D. = 1.0 on 53 of 58 obs.

APR 06, 1990 04h 39m 08.40±0.23s
15.252 N ± 4.5km 147.510 E ± 5.0km
DEPTH = 33.0km (normal)
5.1mb (19 obs.)

MARIANA ISLANDS REGION (215)

GUA	3.04	236	eP	39	56.20	0.9
			eS	40	32.00	
GUMO	3.05	237	eP	39	55.70	0.3
PJG	3.05	237	eP	39	55.60	0.2
KAKJ	21.87	344	P	43	58.50	-1.7
IIDJ	21.90	339	eP	44	01.90	1.3
CHJJ	22.07	341	P	44	01.20	-0.9
TSRJ	22.69	335	eP	44	15.30	7.0X
MTMJ	22.94	340	P	44	10.30	-0.6
DAV	22.98	252	eP	44	08.00	-3.3X
NIJJ	23.17	343	P	44	12.90	-0.1
PMG	24.50	181	eP	44	25.00	-1.1
BAG	25.93	276	eP	44	40.00	0.2
SSE	28.78	308	P	45	04.50	-0.9
	1.0s	39.00nm			5.1mb	
MTN	32.28	211	iPc	45	35.40	-1.1
CTA	35.14	182	eP	46	00.00	-1.2
OIS	36.42	193	ePd	46	11.40	-0.6
BJI	36.83	318	eP	46	16.00	0.8
	1.5s	118.00nm			5.5mb	
WB5	37.23	201	eP	46	18.20	-0.6
ASPA	40.90	199	iPd	46	49.10	-0.3
	1.3s	25.00nm			4.8mb	
KMI	42.98	291	Pc	47	09.00	2.3
NST	45.59	277	eP	47	30.80	3.3X
CHG	46.46	282	iPd	47	35.80	1.4
	1.0s	12.50nm			4.8mb	
CHTO	46.46	282	iPd	47	35.80	1.4
	0.7s	6.99nm			4.7mb	
ADE	50.64	189	iPd	48	06.70	0.2
TOO	52.57	182	eP	48	21.00	-0.1
SHL	52.81	291	eP	48	23.00	-0.4
GUN	58.16	294	P	49	01.70	-0.4
PKI	58.58	293	P	49	03.40	-1.7
	1.2s	80.00nm			5.7mb	
KKN	58.69	293	P	49	04.00	-1.7
	1.2s	89.00nm			5.7mb	
DMN	58.85	293	P	49	06.00	-0.9
	1.1s	111.00nm			5.9mb	
GKN	59.25	294	P	49	08.20	-1.3
IMA	63.73	23	eP	49	38.80	-0.3
	1.2s	11.70nm			4.9mb	
PWA	63.79	28	P	49	37.80	-1.5
FBA	65.64	25	eP	49	49.60	-1.6
NDI	65.74	295	iPd	49	52.50	0.0
	1.0s	4.00nm			4.5mb	
HYB	65.88	282	iPd	49	53.00	-0.6
	1.2s	35.70nm			5.3mb	
GBA	67.61	279	Pc	50	04.70	0.2
	0.8s	5.00nm			4.7mb	
INK	71.86	23	iPd	50	29.20	-0.4
QUE	74.46	298	eP	50	46.50	0.6
MBC	76.04	14	ePd	50	54.50	0.7
	1.0s	37.00nm			5.3mb	
MAIO	79.57	305	iPd	51	16.00	1.9
YKA	80.21	28	eP	51	15.60	-1.2
	1.1s	9.50nm			4.7mb	
WDC	80.21	51	eP	51	18.00	0.7
PNT	80.44	42	ePd	51	18.00	-0.4
	1.0s	24.00nm			5.1mb	
MIN	80.96	51	eP	51	21.30	-0.2
ORV	81.20	51	eP	51	22.70	0.1
PRS	82.01	55	eP	51	27.60	0.7
CMB	82.39	53	eP	51	29.50	0.6
PRI	82.61	55	eP	51	31.10	1.0
FRI	83.16	54	eP	51	33.20	0.4
EDM	83.30	37	ePd	51	33.50	0.3
SES	85.51	39	ePd	51	44.30	-0.1
	1.0s	58.00nm			5.7mb	
KEV	85.73	342	eP	51	46.00	0.9
LRM	86.03	44	ePd	51	47.80	0.4
SOD	87.17	341	iP	51	52.10	-0.1
DAG	87.80	357	eP	51	55.00	0.0
FFC	89.04	33	eP	52	02.00	0.6
	1.7s	47.00nm			5.5mb	
SUF	89.97	337	iP	52	05.40	-0.2
NUR	91.83	335	eP	52	33.00	18.8X
ALO	94.01	52	eP	52	25.00	0.0

1.0s 4.25nm 4.8mb
NB2 96.39 340 P 52 34.40 -0.8
1.1s 4.10nm 4.8mb
BCAO 125.82 287 iPKPc 58 10.10 0.6
0.5s 4.00nm
LKO 143.70 311 PKPd 58 39.98 -2.8X
KIC 145.11 306 PKPd 58 45.20 0.1
0.9s 59.50nm
TIC 145.15 307 PKPd 58 45.28 0.1
LIC 145.42 306 PKPd 58 46.16 0.5
ZOBO 145.72 97 PKPd 58 48.10 1.3
1.2s 37.16nm
LPB 145.76 97 PKP 58 49.00 2.4X
CCH 147.66 98 PKP 58 51.00 1.5
SIV 152.47 95 PKP 58 57.60 1.1
i 59.04.00

S.D. = 0.9 on 64 of 70 obs.

APR 06, 1990 04h 42m 32.05±0.59s
15.128 N ± 3.2km 147.621 E ± 3.4km
DEPTH = 12.6 ± 3.5 km
5.5mb (37 obs.) 5.0Msz (4 obs.)

MARIANA ISLANDS REGION (215)

GUA	3.06	239	eP	43	20.50	-0.6
			eS	43	59.00	
GUMO	3.08	241	eP	43	21.30	0.0
PJG	3.08	241	eP	43	21.30	0.0
RAB	19.72	166	e(P)	47	06.00	1.5
WKYJ	21.89	332	eP	47	23.30	-3.5X
KAKJ	22.02	344	P	47	27.90	0.0
IIDJ	22.06	338	P	47	27.30	-1.1
KAGJ	22.14	319	P	47	30.10	0.9
CHJJ	22.22	341	P	47	28.90	-1.0
TKSJ	22.42	329	eP	47	30.40	-1.6
TSRJ	22.85	335	P	47	38.20	2.1
DAV	23.04	252	eP	47	41.60	3.4X
MTMJ	23.09	340	P	47	37.50	-1.2
KUMJ	23.10	322	eP	47	40.20	1.5
NIJJ	23.32	342	P	47	40.30	-0.4
SHK	23.55	328	eP	47	42.70	-0.3
YONJ	23.68	330	eP	47	42.00	-2.3
SHNJ	24.08	325	eP	47	48.30	0.2
PMG	24.38	181	iPd	47	50.20	-1.0
	0.9s	210.00nm			5.8mb	
QCP	25.65	272	eP	48	04.00	0.6
PGP	25.89	270	ePc	48	06.00	0.5
	0.8s	52.00nm			5.3mb	
PIP	26.04	281	ePd	48	07.00	0.0
BAG	26.05	276	eP	48	07.10	-0.2
	1.6s	880.00nm			6.2mb	
ANP	26.42	296	eP	48	11.20	0.6
			eS	53	10.00	
HNR	27.29	153	eP	48	20.00	1.6
			e(S)	53	04.00	
HOOJ	27.42	353	eP	48	18.80	-0.5
MRRJ	27.78	350	eP	48	23.60	1.0
KUSJ	27.99	355	eP	48	23.50	-1.0
PPR	28.69	263	ePc	48	33.00	1.9
SSE	28.94	308	P	48	31.00	-2.2
	0.6s	46.00nm				

06d 04h

RMO	41.38	178	eP	50	18.80	-0.9	GCC	81.35	54	eP	54	50.70	0.6	LIC	145.58	306	PKP	02	12.42	-0.3	
			e	52	18.00		ARN	81.65	54	P	54	52.00	0.3		1.1s	258.50nm					
TRT	41.44	239	ePd	50	21.90	1.6	DPW	81.70	43	P	54	52.00	0.2		1.1s	386.50nm					
BRS	42.56	173	iPd	50	28.50	-0.9	SAO	81.84	54	eP	54	52.00	0.1	ZOBO	145.60	97	PKP	02	14.00	0.6	
	0.8s		6.00nm				PRS	82.00	55	eP	54	54.20	0.7		1.5s	150.54nm					
			i	50	45.60		LLA	82.27	54	eP	54	55.00	0.9	LPB	145.63	97	PKP	02	15.00	1.7	
			i (PcP)	52	22.00		NEW	82.31	42	P	54	55.00	0.1		1.2s	109.38nm					
			e(S)	56	40.00			1.0s		93.75nm		5.9mb		MBO	146.94	332	iPKP	02	18.00	3.1X	
KMI	43.13	291	Pd	50	35.00	0.6	CMB	82.38	53	eP	54	56.20	0.7	CCH	147.53	99	PKP	02	14.00	-2.2	
Z	20s		2.20um			5.1msz	PRI	82.59	55	eP	54	58.00	1.2	SIV	152.35	96	PKP	02	24.00	0.8	
E	18s		1.60um				PHAM	82.87	55	P	54	58.70	0.6			i		02	30.00		
			pP	50	40.00	17kmX	KBS	83.07	352	iP	54	59.30	1.0	BAO	164.93	94	ePKP	02	38.50	0.6	
			eS	56	54.00		FRI	83.15	54	eP	54	59.20	-0.2		S.D. = 1.0	on 155 of 165 obs.					
			sS	57	22.00		BCH	83.28	56	P	55	01.10	0.8								
MBL	45.22	218	eP	50	51.00	0.0	EDM	83.33	37	ePc	55	00.00	-0.1								
	1.0s		51.00nm			5.4mb		0.9s		60.00nm		5.8mb									
NST	45.71	277	eP	50	57.70	2.7	SYN	83.52	56	eP	55	02.00	0.4								
NNT	46.49	273	iPc	51	02.70	1.5	KVN	83.88	51	P	55	03.40	0.0								
			e	16	30.00		ABL	84.04	56	P	55	04.50	0.1								
CHG	46.59	282	iPd	51	02.90	0.9	ISA	84.44	55	eP	55	07.00	0.9								
	0.9s		27.31nm			5.3mb	TNP	84.79	52	P	55	08.00	0.0								
BDT	46.64	280	eP	51	03.80	1.5		1.0s		43.33nm		5.6mb		SSE	28.23	307	Pd	51	02.50	0.0	
	0.8s		53.50nm			5.6mb	PAS	85.06	56	eP	55	09.00	-0.1	WB5	37.83	200	eP	52	26.00	0.0	
SNG	46.71	266	eP	51	08.00	5.1X	MWC	85.13	56	eP	55	10.00	0.2	ASPA	41.52	199	eP	52	57.30	0.7	
IPM	46.99	262	ePc	51	07.10	1.9	SBB	85.20	56	eP	55	09.00	-0.9		0.7s		22.00nm			5.0mb	
	1.1s		62.60nm			5.6mb			e		57	41.00		NST	45.35	276	eP	53	28.00	0.2	
NANU	48.90	221	eP	51	20.00	0.2	SES	85.54	39	ePc	55	11.20	-0.1	GBA	67.35	278	P	56	04.00	-1.0	
CNB	50.19	178	eP	51	30.00	0.3		1.2s		374.00nm		6.5mb			0.5s		3.90nm			4.8mb	
ADE	50.53	189	eP	51	32.50	0.3			pP		55	22.00	34kmX	MBC	75.40	14	eP	56	52.50	0.2	
	1.1s		63.29nm			5.5mb	RVR	85.74	56	eP	55	13.00	0.5		1.0s		33.00nm			5.3mb	
TOO	52.45	182	eP	51	46.00	-0.7	GSC	85.85	55	eP	55	13.00	-0.2	OBH	77.63	44	Pd	57	22.91	17.6X	
SHL	52.96	291	iP	51	50.50	-0.5	KEV	85.88	343	iP	55	12.00	-0.5	ONR	77.77	45	Pd	57	16.86	10.8X	
			iS	58	16.40		PEC	85.94	56	P	55	13.00	-0.6	SMW	77.98	44	Pd	57	22.98	15.7X	
MRWA	53.63	215	eP	51	54.20	-1.4	LRM	86.05	44	eP	55	13.80	-0.4	CPW	78.19	44	Pd	57	18.51	10.1X	
GUN	58.30	294	P	52	29.80	0.1	PLM	86.32	57	eP	55	15.00	-0.7	MEW	78.47	44	P	57	24.04	14.2X	
PKI	58.73	293	P	52	32.40	-0.3	BAR	86.65	57	eP	55	17.00	-0.1	COR	78.52	47	Pd	57	09.98	-0.2	
KKN	58.84	294	P	52	33.20	-0.1	TPC	86.77	56	eP	55	18.00	0.3	APW	78.58	45	P	57	15.80	5.3X	
DMN	59.00	293	P	52	34.20	-0.3	SOD	87.32	341	iP	55	19.30	-0.4	RVW	78.61	45	Pd	57	09.76	-0.9	
GKN	59.40	294	P	52	37.00	-0.2	DUG	87.49	49	P	55	21.00	-0.2	CZM	78.71	45	P	57	14.51	3.2X	
KDC	61.40	32	e(P)	52	48.80	-1.2		1.0s		65.00nm		5.9mb		GHW	78.75	44	P	57	23.37	11.9X	
TTA	61.62	26	eP	52	51.30	-0.3	DAG	87.93	357	iPd	55	21.70	-0.7	ERK	78.85	45	Pd	57	14.06	1.9	
MSZ	62.31	164	eP	52	55.00	-1.3		0.9s		25.21nm		5.5mb		LVP	78.85	45	P	57	11.33	-0.8	
IMA	63.80	23	eP	53	05.50	-0.6	GLA	88.04	56	eP	55	25.00	1.2	FL2	78.87	45	P	57	13.24	1.0	
	1.2s		33.20nm			5.4mb	DAU	88.56	49	P	55	26.10	-0.4	TDL	78.93	45	P	57	15.86	3.3X	
PMR	64.17	28	eP	53	06.80	-1.6	BW06	88.99	46	P	55	28.10	-0.3	PGO	78.94	46	P	57	08.25	-4.2X	
	1.2s		85.90nm			5.8mb	FFC	89.09	33	eP	55	27.00	-1.3	STD	78.94	45	Pd	57	14.62	1.9	
BRW	65.08	17	eP	53	14.20	0.0		0.9s		27.00nm		5.5mb		RVC	78.97	44	P	57	23.79	11.0X	
TOA	65.66	28	eP	53	18.50	0.4	SUF	90.12	337	iP	55	32.40	-0.6	YEL	78.97	45	P	57	14.86	1.9X	
FBA	65.71	25	eP	53	17.00	-1.3		0.7s		11.20nm		5.2mb		REMW	78.98	45	P	57	14.96	2.0	
NDI	65.89	295	iPd	53	19.50	-0.6	NUR	91.99	335	iP	55	41.20	-0.4	HSR	78.98	45	P	57	14.70	1.7	
HYB	66.01	283	ePd	53	21.00	0.0		1.0s		40.00nm		5.8mb		MTMW	78.99	45	P	57	12.76	-0.2	
	1.2s		42.90nm			5.5mb	RSSD	92.23	43	P	55	43.00	-0.4	ESD	79.00	45	P	57	15.14	2.1	
GBA	67.73	279	Pd	53	31.60	-0.4	VNDA	92.83	177	eP	55	45.00	0.0	SOSW	79.00	45	P	57	15.39	2.4	
	0.8s		12.00nm			5.1mb	GOL	93.04	48	P	55	47.90	0.6	MAIO	79.04	305	eP	57	14.00	0.6	
KOD	68.38	275	eP	53	37.40	1.0		1.0s		35.00nm		5.7mb		GSM	79.04	44	P	57	27.63	14.4X	
POO	70.24	285	eP	53	46.00	-1.5	ALO	94.00	52	eP	55	51.30	-0.4	FMW	79.18	44	P	57	25.80	11.8X	
TVO	70.29	115	iP	53	49.10	1.3		1.0s		12.75nm		5.3mb		VLMW	79.21	46	Pd	57	12.45	-1.7	
	1.2s		45.00nm			5.5mb		Z	18s		0.60um		5.1msz		GLK	79.30	45	P	57	22.58	8.0X
PMO	70.41	112	iP	53	49.10	0.7	HFS	96.36	339	eP	56	00.10	-1.7	WPW	79.31	44	P	57	24.02	9.4X	
	1.2s		55.00nm			5.6mb		0.8s		7.30nm		5.2mb		ASR	79.39	45	P	57	19.13	4.0X	
TPT	70.65	112	iP	53	50.30	0.5	NB2	96.54	340	P	56	02.00	-0.7	APM	79.42	45	P	57	16.28	1.1	
	1.2s		40.00nm			5.4mb		0.9s		7.00nm		5.2mb		TDH	79.43	46	Pd	57	14.88	-0.5	
RUV	70.94	112	iP	53	52.10	0.5	FRB	96.57	15	eP	56	02.00	-0.7	GULW	79.44	45	P	57	17.79	2.5X	
	1.2s		40.00nm			5.4mb	KSP	101.76	331	ePd	56	26.00	-0.2	VLL	79.47	46	Pd	57	16.00	0.5	
BOM	71.15	285	eP	53	51.90	-1.0	VAY	104.31	320	ePd	56	36.70	-1.0	VBEM	79.62	46	Pd	57	18.11	1.7	
			eS	03	06.90		SKO	104.62	322	iPd	56	39.50	0.4	GL2	79.96	45	P	57	24.95	6.9X	
INK	71.93	23	iPd	53	56.30	-0.4	EKA	105.59	343	PKP	01	03.00	6.6X	PNT	80.02	42	eP	57	17.00	-1.3	
QUE	74.61	298	eP	54	13.80	0.4		2.6s		271.20nm					0.8s		13.00nm			5.0mb	
			e	56	44.70		KBA	105.75	329	e(PKP)	01	04.00	6.8X	CROR	80.05	46	P	57	23.19	4.6X	
			eS	03	49.50			1.0s		8.90nm				MXC	80.18	44	P	57	33.62	14.4X	
MBC	76.14	14	ePc	54	21.00	0.0			i		01	17.30		VTHM	80.31	46	P	57	26.89	7.0X	
	1.0s		157.00nm			6.0mb	SLR	122.60	249	iPKPd	01	29.80	-0.1	VIPM	80.41	46	P	57	29.22	8.5X	
PGC	78.11	43	eP	54	33.00	0.6		0.7s		10.27nm				MIN	80.63	51	eP	57	19.30	-2.6X	
MCW	78.51	43	P	54	35.50	0.8	PRY	123.36	248	ePKP	01	21.70	-9.6X	JBO	80.74	45	P	57	33.41	11.2X	
RMW	79.40	44	P	54	40.80	1.1	KSR	123.85	249	ePKP	01	31.00	-1.4	ORV	80.89	52	eP	57	20.80	-2.3	
MAIO	79.73	305	iPd	54	43.80	2.1	BFS	123.97	248	ePKP	01	31.00	-1.6	PRS	81.73	55	eP	57	25.30	-2.2	
	0.7s		12.71nm			5.0mb	BLF	124.49	245	ePKP	01	34.00	0.5	CMB	82.09	53	eP	57	27.20	-2.2	
WDC	80.21	51	eP	54	44.80	0.8															

DEPTH = 43.5km
WASHINGTON-OREGON BORDER REGION (28)
<SEA>. CL 3.2 (SEA). Felt (III)
at Forest Grove, Garibaldi and
Rockaway, Oregon.

GROR	0.14	215	Pc	57	00.66	0.7
			S	57	06.11	
KMOR	0.17	14	Pd	57	01.00	0.2
NLO	0.63	6	Pd	57	06.38	0.6
			S	57	15.45	
BMW	1.03	12	Pd	57	11.21	-0.3
SHW	1.17	51	P	57	14.38	0.9
VFP	1.48	95	Pd	57	18.38	0.5
LON	1.76	43	eP	57	23.20	1.4
VGB	1.95	88	eP	57	24.40	-0.1
GMW	2.15	14	Pd	57	26.86	-0.4
HDW	2.21	9	Pd	57	27.71	-0.5
OOV	2.31	349	Pd	57	29.17	-0.5
RMW	2.33	31	P	57	30.50	0.6
OSD	2.36	357	Pd	57	30.05	-0.4
OFK	2.55	348	Pd	57	32.26	-0.6
BLN	2.57	9	Pd	57	33.47	0.1
OBG	2.59	352	P	57	33.01	-0.7
HTW	2.64	27	Pd	57	34.39	0.1
OTR	2.67	348	Pd	57	34.20	-0.6
STW	2.69	358	Pd	57	34.57	-0.3
OSP	2.91	346	Pd	57	37.26	-0.7
JCW	2.95	22	Pc	57	38.50	-0.1
CMW	3.12	18	P	57	40.98	-0.1
CRF	3.20	63	P	57	43.24	1.1
MCW	3.25	8	Pd	57	42.28	-0.7
RPW	3.29	24	Pd	57	43.36	-0.2
NEW	5.22	55	P	58	42.00	31.2
KVN	7.58	146	P	59	01.00	17.0

27 obs. associated

APR 06, 1990 05h 08m 00.72± 0.21s
15.070 N ± 4.9km 147.624 E ± 4.2km
DEPTH = 33.0km (normal)
5.0mb (16 obs.)

MARIANA ISLANDS REGION (215)

GUA	3.04	240	eP	08	47.20	-0.4
			eS	09	22.60	
GUMO	3.05	241	eP	08	47.70	-0.1
PJG	3.05	241	eP	08	47.50	-0.3
KAKJ	22.08	344	P	12	54.30	-0.2
CHJJ	22.27	341	P	12	57.20	0.7
MTMJ	23.15	340	P	13	03.70	-1.5
NIJJ	23.37	342	P	13	07.80	0.5
PMG	24.32	181	iPc	13	17.20	0.5
	0.9s	58.82nm			5.1mb	
SSE	28.98	308	P	13	57.50	-2.0
OIS	36.27	193	eP	15	02.00	-1.1
BJI	37.03	318	eP	15	10.00	0.7
	1.5s	39.00nm			5.0mb	
WB5	37.10	201	eP	15	09.00	-1.0
		i	15	27.60		
ASPA	40.77	199	iPd	15	40.30	-0.3
	0.6s	9.00nm			4.7mb	
LOE	44.05	280	eP	16	08.00	0.5
LZH	44.23	307	Pd	16	10.00	1.0
	2.0s	98.00nm			5.3mb	
		pP	16	20.00	34kmX	
NST	45.72	277	eP	16	24.60	3.7X
CHG	46.61	282	eP	16	28.50	0.6
CHTO	46.61	282	eP	16	28.70	0.8
	0.7s	5.08nm			4.6mb	
		pP	16	39.50	37kmX	
SHL	52.98	291	eP	17	16.50	-0.4
GUN	58.33	294	P	17	55.70	0.0
	0.6s	27.00nm			5.5mb	
PKI	58.75	293	P	17	58.30	-0.3
	0.6s	10.00nm			5.1mb	
KKN	58.86	294	P	17	59.10	-0.1
DMN	59.02	293	P	18	00.30	-0.1
GKN	59.43	294	P	18	03.00	-0.1
	1.0s	70.00nm			5.7mb	
TTA	61.67	26	eP	18	15.90	-1.8
IMA	63.85	23	eP	18	31.70	-0.5
	1.3s	8.25nm			4.7mb	
PMR	64.22	28	eP	18	32.50	-1.9
	1.3s	30.66nm			5.2mb	
HYB	66.03	283	eP	18	50.50	3.7X
GBA	67.74	279	Pc	18	58.70	1.0
	0.9s	4.30nm			4.5mb	

INK	71.98	23	eP	19	22.00	-0.7
MBC	76.19	14	eP	19	47.50	0.5
	1.0s	12.00nm			4.9mb	
MCW	78.55	43	eP	20	00.50	0.0
GMW	78.77	44	eP	20	02.00	0.2
MAIO	79.76	305	eP	20	09.00	1.5
WDC	80.24	51	eP	20	10.30	0.5
YKA	80.32	28	eP	20	08.70	-1.0
	0.9s	6.40nm			4.6mb	
PNT	80.51	42	eP	20	11.00	-0.1
	0.8s	18.00nm			5.1mb	
VGB	80.52	45	eP	20	11.50	0.3
MIN	80.99	51	eP	20	13.70	-0.3
ORV	81.23	51	eP	20	15.10	0.0
DPW	81.74	43	eP	20	18.00	0.4
PRS	82.03	55	eP	20	20.00	0.7
NEW	82.35	42	eP	20	20.70	-0.1
CMB	82.41	53	eP	20	21.60	0.3
PRI	82.62	55	eP	20	23.20	0.7
FRI	83.18	54	eP	20	25.60	0.4
EDM	83.38	37	ePc	20	26.30	0.4
SES	85.58	39	ePd	20	37.30	0.2
LRM	86.09	44	eP	20	40.20	0.2
SOO	87.38	341	eP	20	50.00	4.5X
DUG	87.53	49	eP	20	47.50	0.6
MSU	88.51	51	eP	20	52.50	0.7
BW06	89.03	46	eP	20	54.00	-0.2
SUF	90.18	337	eP	21	02.00	3.1X
RSSD	92.27	43	eP	21	08.80	-0.4
GOL	93.07	48	eP	21	13.20	0.2
	0.9s	9.47nm			5.2mb	
ALO	94.03	52	eP	21	16.00	-1.4
	0.9s	1.89nm			4.5mb	
KIC	145.31	306	PKPd	27	37.80	0.0
	0.7s	12.50nm				
TIC	145.35	307	PKP	27	37.78	-0.1
ZOBO	145.59	97	PKP	27	39.50	0.6
LIC	145.61	306	PKP	27	38.70	0.4
LPB	145.62	97	ePKP	27	19.00	-19.7X
CCH	147.52	99	PKP	27	45.50	3.8X
SIV	152.34	96	PKP	27	49.80	1.1

S.D. = 0.8 on 58 of 64 obs.

? APR 06, 1990 05h 14m 18.41± 1.13s
15.705 N ± 11.0km 148.430 E ± 23.1km
DEPTH = 33.0km (normal)
4.9mb (8 obs.)

MARIANA ISLANDS REGION (215)

IIDJ	21.83	336	P	19	12.00	2.1
CHJJ	21.94	339	P	19	11.30	0.4
MTMJ	22.84	338	P	19	21.50	1.5
NIJJ	23.02	340	P	19	25.80	4.3X
BJI	37.09	317	eP	21	27.50	0.0
	1.5s	29.00nm			4.9mb	
WB5	37.97	202	eP	21	35.80	0.8
		e	21	46.00		
ASPA	41.63	200	eP	22	06.70	1.4
	0.9s	4.00nm			4.1mb	
LZH	44.49	306	Pd	22	28.00	-0.8
	1.8s	67.00nm			5.2mb	
		pP	22	35.00	23kmX	
GUN	58.79	293	P	24	16.40	-0.2
	0.9s	33.00nm			5.5mb	
PKI	59.22	293	P	24	18.80	-0.7
KKN	59.33	293	P	24	19.60	-0.5
DMN	59.49	293	P	24	20.80	-0.5
GKN	59.89	293	P	24	23.40	-0.5
	1.0s	36.00nm			5.5mb	
HYB	66.65	282	eP	25	08.20	-0.3
GBA	68.42	279	Pd	25	18.80	-0.8
	0.7s	4.10nm			4.6mb	
INK	71.10	23	eP	25	41.00	5.9X
MBC	75.39	14	ePc	26	06.50	6.4X
	1.0s	9.00nm			4.7mb	
YKA	79.40	28	eP	26	20.50	-2.0
	0.8s	2.10nm			4.2mb	
ZOBO	144.88	96	PKP	34	02.00	6.6X
	Z 24s	0.48um			5.2mszX	
LPB	144.93	97	PKP	34	03.00	7.8X
KIC	145.55	308	PKP	33	59.00	3.1X
TIC	145.58	308	PKP	33	59.20	3.3X
LIC	145.86	308	PKP	34	00.00	3.6X
CCH	146.84	98	(PKP)	34	08.00	9.8X
SIV	151.63	95	PKP	34	18.00	12.7X

S.D. = 1.2 on 15 of 25 obs.

APR 06, 1990 05h 31m 20.65± 0.25s
15.178 N ± 6.4km 147.507 E ± 5.6km
DEPTH = 33.0km (normal)
5.0mb (16 obs.)

MARIANA ISLANDS REGION (215)

GUA	3.00	237	eP	32	05.30	-1.7
		eS	32	46.00		
PJG	3.01	239	eP	32	05.30	-1.8
GUMO	3.01	239	eP	32	06.30	-0.8
PMG	24.43	181	iPc	36	38.60	1.0
	0.9s	50.42nm			5.1mb	
SSE	28.82	308	P	37	17.80	-0.2
OIS	36.35	193	eP	38	23.00	-0.7
BJI	36.88	318	eP	38	27.00	-0.9
WB5	37.16	201	eP	38	31.00	0.5
ASPA	40.83	199	iPd	39	01.70	0.6
	0.5s	14.00nm			5.0mb	
LZH	44.08	306	Pd	39	29.00	1.3
	1.6s	58.00nm			5.1mb	
		pP	39	37.50	28kmX	
GUN	58.18	294	P	41	15.70	1.1
	1.0s	71.00nm			5.7mb	
PKI	58.61	293	P	41	18.00	0.5
KKN	58.72	293	P	41	18.90	0.8
DMN	58.87	293	P	41	20.00	0.7
GKN	59.28	294	P	41	22.70	0.7
	1.0s	70.00nm			5.7mb	
TTA	61.62	26	eP	41	36.70	-0.6
IMA	63.80	23	eP	41	50.80	-1.0
	1.0s	5.00nm			4.6mb	
PMR	64.18	28	eP	41	52.20	-1.9
	1.1s	17.97nm			5.1mb	
FBA	65.71	25	eP	42	03.30	-0.6
	0.8s	6.03nm			4.7mb	
GBA	67.62	279	Pc	42	17.80	1.0
	0.6s	2.50nm			4.5mb	
MBC	76.11	14	ePc	43	07.00	0.5
	1.0s	15.00nm			4.9mb	
MCW	78.54	43	eP	43	20.80	0.4
GMW	78.77	44	eP	43	22.00	0.3
LON	79.57	44	eP	43	25.50	-0.6
WDC	80.26	51	eP	43	30.00	0.2
YKA	80.28	28	eP	43	27.80	-1.6
	0.9s	3.30nm			4.3mb	
PNT	80.50	42	ePc	43	31.00	0.0
	0.8s	11.00nm			4.9mb	
VGB	80.52	45	eP	43	31.30	0.1
ORV	81.25	51	eP	43	34.70	-0.4
PRS	82.06	55	eP	43	40.00	0.6
NEW	82.35	42	eP	43	40.40	-0.3
	0.7s	11.50nm			5.0mb	
CMB	82.44	53	eP	43	41.70	0.3
FRI	83.21	54	eP	43	45.50	0.3
EDM	83.36	37	iPc	43	45.80	0.0
SES	85.57	39				

06d 05h

Dep 15.0 FIX Half-duration 3.1	TAB 84.89 333 e(P) 55 46.00 4.3X	KOD 32.35 301 eP 54 14.10 1.3
Moment Tensor: Scale 10**17 Nm	HRI 84.90 323 eP 55 42.00 0.2	eS 59 33.00
Mrr=-0.99 0.28 Mtt= 6.99 0.40	BJI 86.89 26 eP 55 55.50 4.1X	GBA 34.18 306 Pc 54 28.60 0.3
Mff=-6.00 0.29 Mrt= 0.00 0.00	Z 21s 2.73um 5.6Msz	1.0s 43.10nm 5.3mb
Mrf= 0.00 0.00 Mtf=-0.23 0.37	eSKS 06 30.00	HYB 35.64 313 eP 54 40.50 -0.3
Principal Axes:	eS 07 16.00	1.2s 71.40nm 5.5mb
T Val= 7.00 Plg= 0 Azm=181	KIC 90.86 278 P 56 11.90 1.1	OIS 36.06 116 ePc 54 42.50 -1.9
N -0.99 90 180	LIC 90.99 277 P 56 12.60 1.2	PMG 41.66 96 iPc 55 28.70 -2.3
P -6.01 0 91	TIC 91.26 278 P 56 13.90 1.2	1.0s 600.00nm 6.3mb
Best Double Couple: Mo=6.5*10**17	OHR 98.29 319 eP 56 40.20 -4.0X	CTA 41.97 112 iP 55 33.20 -0.3
NP1:Strike=226 Dip=90 Slip=-180	MBC 143.65 8 ePKP 02 43.50 2.5X	1.2s 70.31nm 5.3mb
NP2: 316 90 0	1.3s 13.00nm	ipP 55 49.50 65kmX
SEK 44.97 269 iPc 51 24.00 1.0	INK 147.10 23 ePKP 02 48.00 1.1	i 55 51.00
1.0s 40.00nm 5.3mb	1.1s 47.00nm	i 56 06.50
ADE 45.23 102 iPc 51 25.60 0.8	SBB 163.90 107 ePKP 02 51.00 -18.8X	ePP 57 12.50
HVD 45.44 265 iPc 51 42.50 15.9X	e 04 02.00	eS 01 50.00
1.5s 138.89nm	CLC 164.58 104 ePKP 02 51.00 -19.3X	e 11 33.00
BLF 45.66 267 iPc 51 28.50 0.1	e 03 20.00	OLP 42.04 123 eP 55 34.00 0.0
PRY 45.82 271 iPc 51 29.20 -0.5	e 04 06.00	RMQ 45.84 120 eP 56 04.00 -0.7
SLR 45.85 273 iPc 51 29.20 -0.7	GSC 164.93 107 ePKP 02 55.00 -15.7X	TOO 47.71 136 eP 56 21.00 1.7
1.5s 194.44nm 5.9mb	e 04 10.00	BWA 48.40 131 eP 56 26.50 1.8
BFS 46.35 270 iPc 51 32.50 -1.4	ALO 171.55 134 ePKP 03 15.00 -0.1	CAN 49.20 132 eP 56 31.50 0.6
1.3s 280.77nm 6.1mb	S.D. = 0.9 on 45 of 57 obs.	CNB 49.47 131 eP 56 34.00 1.0
KSR 46.82 271 iPc 51 36.20 -1.4	APR 06, 1990 05h 47m 43.65±0.28s	QUE 51.92 317 eP 56 50.20 -1.7
1.0s 10.00nm 4.8mb	6.817 S ± 7.2km 105.140 E ± 6.3km	MAIO 60.57 318 eP 57 52.00 -1.6
e 59 32.70	DEPTH = 33.0km (normal)	NPA 65.01 257 eP 58 29.20 5.9X
ASPA 47.28 85 iPd 51 40.30 -0.8	5.5mb (12 obs.) 5.6Msz (3 obs.)	e 06 42.80
1.5s 89.00nm 5.6mb	SUNDA STRAIT (276)	IR4 65.96 313 iPd 58 27.50 -1.7
VNDA 48.32 163 P 51 47.20 -1.3	CENTROID, MOMENT TENSOR (HRV)	MSZ 66.00 136 eP 58 30.50 1.4
KNA 48.32 73 eP 51 50.00 0.8	Data Used: GDSN	IR2 66.17 314 iPc 58 30.00 -0.5
i 53 02.70	L.P.B.: 11S, 20C	IR7 66.39 314 iPd 58 30.00 -2.0
TOO 49.06 108 eP 51 56.00 1.3	Centroid Location:	KER 68.36 311 eP 58 42.00 -2.4
SPA 49.10 180 iPc 51 54.10 -0.8	Origin Time 05:47:52.9 2.0	THZ 68.94 132 P 58 48.00 0.2
WB5 49.85 82 eP 52 00.20 -0.8	Lot 6.88S 0.17 Lon 105.14E 0.19	BHD 70.00 309 ePd 58 53.00 -1.3
MTN 51.95 72 iPc 52 16.70 -0.3	Dep 53.112.2 Half-duration 3.0	SLY 70.08 312 ePc 58 52.00 -2.7
CAN 52.59 107 eP 52 23.80 2.1	Moment Tensor: Scale 10**17 Nm	TAB 70.52 314 eP 58 57.00 -0.6
BWA 52.60 106 eP 52 25.20 3.5X	Mrr=-2.04 0.34 Mtt=-3.81 0.39	MSL 72.14 312 eP 59 05.00 -2.2
OIS 53.38 86 iPd 52 27.10 -0.5	Mff= 5.85 0.58 Mrt=-2.19 0.68	SLR 75.25 245 eP 59 26.20 0.5
GBA 54.51 356 Pd 52 34.40 -1.4	Mrf= 0.82 0.56 Mtf=-0.79 0.49	Z 18s 19.24um 6.4Msz
1.1s 20.60nm 5.1mb	Principal Axes:	SEK 75.82 243 eP 59 30.00 1.0
WIN 56.07 269 iPc 52 47.50 0.0	T Val= 6.04 Plg= 7 Azm=264	PRY 75.97 244 eP 59 26.50 -3.3X
e 00 22.00	N -0.75 55 163	VNDA 76.48 169 e(P) 59 31.80 0.2
RMO 56.92 98 eP 52 52.00 -1.3	P -5.29 34 359	BFS 76.58 244 eP 59 32.50 -0.7
HYB 58.25 357 ePc 53 01.40 -1.2	Best Double Couple: Mo=5.7*10**17	DSI 76.60 305 eP 59 34.00 1.0
1.2s 85.70nm 5.7mb	NP1:Strike= 36 Dip=61 Slip= -20	AGAL 76.67 296 iPd 59 34.00 0.5
CTA 58.68 90 iPd 53 05.20 -0.5	NP2: 136 72 -150	HRI 76.80 306 eP 59 35.00 0.8
1.2s 50.78nm 5.5mb		AGMR 76.95 296 iPd 59 36.50 1.4
eS 01 09.00	TRT 7.49 97 ePc 49 33.50 0.2	BLF 77.08 242 eP 59 36.50 0.5
BRS 59.42 101 iP 53 11.00 0.2	0.9s 127.60nm 5.9mb	LFK 79.13 308 eP 59 47.70 0.7
i 56 33.80	KGM 8.96 348 eP 49 54.00 0.2	CSS 79.20 307 eP 59 47.20 -0.1
e(PcP) 59 24.00	KHKI 10.49 99 ePd 50 12.20 -2.7	BBTK 81.01 312 eP 00 03.00 6.0X
iS 01 27.00	eS 52 12.20	SPA 83.23 180 iPc 00 09.40 1.4
MSZ 60.86 125 P 53 20.30 -0.1	e 56 55.00	1.1s 16.67nm 5.1mb
PMG 66.00 81 eP 53 44.00 -10.6X	IPM 12.04 340 ePd 50 35.50 -0.5	JMB 86.19 313 eP 00 36.00 12.9X
KMI 68.93 21 eP 54 11.00 -2.0	1.0s 48.50nm 5.6mb	BRD 86.55 316 eP 00 20.00 -4.8X
QUE 72.09 347 eP 54 32.00 -0.1	e 54 17.80	VR1 86.85 317 ePc 00 22.50 -3.8X
BCAO 72.59 292 iPc 54 35.30 0.1	SNG 14.61 342 eP 51 10.90 0.9	BUC1 86.99 315 eP 00 26.00 -0.9
1.4s 232.00nm 6.1mb	eS 54 49.00	BCAO 87.16 275 iPc 00 29.10 0.6
RYD 72.81 328 iPd 54 36.50 0.3	PCI 15.79 69 ePc 51 27.50 2.2	0.7s 42.00nm 5.8mb
MAIO 79.48 343 eP 55 14.00 0.3	1.0s 10.00nm 3.9mb X	i 02 01.10
LZH 79.64 19 Pd 55 16.00 1.3	KKM 16.89 41 ePd 51 40.80 1.4	i 03 56.00
2.0s 117.00nm 5.5mb	eSc 57 14.50	i 05 33.90
Z 20s 5.10um 5.9Msz	TSM 16.94 50 ePc 51 46.30 6.5X	i 11 00.40
N 11s 1.20um	KUPT 18.56 102 ePd 52 11.20 11.2X	PVL 87.25 314 iPc 00 32.00 3.8X
E 14s 3.50um	0.5s 624.30nm	MLR 87.30 316 eP 00 30.00 1.4
pP 55 25.00 29kmX	eS 55 41.00	RZN 87.39 312 iPc 00 30.00 0.8
i 55 41.50	NANU 18.58 148 eP 51 59.00 -1.2	CMP 87.88 316 ePc 00 35.00 3.7X
S 05 20.00	MBL 20.14 137 eP 52 17.00 -0.9	VTS 88.66 313 iPc 00 35.00 -0.2
IR4 80.81 336 eP 55 21.00 0.1	0.9s 125.00nm 5.3mb	SKO 89.85 312 eP 00 40.00 -0.6
IR2 81.20 336 eP 55 23.00 0.1	NST 22.89 348 eP 52 48.50 2.9X	Z 20s 1.08um 5.3Msz
BHD 81.30 330 eP 55 27.00 3.8X	LOE 24.30 352 eP 52 59.00 -0.4	N 23s 1.57um
eSKS 05 39.00	DAV 24.62 56 eP 53 03.50 1.0	E 22s 1.35um
iPd 55 23.50 -0.1	CHG 26.19 347 eP 53 13.40 -3.9X	i 04 12.50
MBH 82.37 321 eP 55 30.00 1.1	CHTO 26.19 347 eP 53 13.20 -4.0X	LR 41 40.00
SLY 82.96 332 ePc 55 32.50 0.7	MTN 26.29 105 eP 53 15.00 -3.2X	OHR 90.19 311 eP 00 41.20 -1.1
eSKS 05 56.00	e 57 50.00	1.2s 55.00nm 5.7mb
eSKKS 06 45.00	WB5 31.19 117 eP 54 00.30 -2.0	SUF 90.99 333 iP 00 47.50 2.1
i 55 34.40 0.6	KMI 31.83 356 Pd 54 15.00 7.0X	NUR 91.22 331 eP 00 56.00 9.5X
MDSJ 83.29 323 Pd 55 34.30 -0.5	Z 14s 9.70um 5.6MszX	SPC 91.78 319 eP 01 04.30 14.7X
MKRJ 83.50 322 Pc 55 34.30 -0.5	E 12s 7.00um	e 04 19.60
DSI 83.63 322 eP 55 31.00 -4.4X	eS 59 16.00	e 04 27.90
SALJ 83.86 323 Pc 55 36.00 -0.6	ASPA 32.30 124 iPc 54 10.20 -1.8	SOD 91.84 338 eP 00 40.00 -9.3X
HLW 84.17 318 eP 55 39.00 0.9	1.1s 56.00nm 5.4mb	KRA 92.10 320 eP 00 54.00 3.2X
eS 05 08.40	Z 21s 9.09um 5.4Msz	ZST 93.72 318 eP 01 04.20 5.9X
MSL 84.52 330 ePd 55 39.50 -0.2	LR 08 38.80	e 04 42.50
eSKS 06 11.00		PTJ 94.27 316 eP 01 03.80 2.8X
eSKKS 06 36.00		BRG 95.99 320 eP 01 11.60 2.9X

KHC	96.12	319	eP	01 18.80	9.4X	CTA	39.90	257	iP	16 30.50	-5.4X	GOL	82.60	46	eP	21 24.80	0.0
			e	04 52.50					i	16 34.50		GLD	82.73	46	eP	21 25.90	0.6
HFS	96.58	330	eP	01 19.60	8.5X	PMG	40.15	273	eP	16 37.50	-0.5	SES	84.30	34	ePd	21 32.70	-0.2
	0.8s		4.20nm		5.0mb	CAN	40.16	233	eP	16 34.70	-3.2X		1.0s		67.00nm		5.8mb
CLL	96.61	321	e(P)	01 17.00	5.5X	BWA	40.31	234	eP	16 34.70	-4.5X	EDM	84.64	31	iPc	21 34.30	-0.2
MBC	106.50	10	ePd	01 49.00	-6.2X	TOO	43.57	231	eP	17 03.00	-2.8X	RSSD	85.45	42	eP	21 37.80	-1.2
KIC	110.40	274	Pdiff	02 09.40	-4.6X	ADE	48.18	236	iPd	17 39.80	-2.7	BJI	86.19	313	eP	21 43.00	0.5
LIC	110.68	274	Pdiff	02 10.20	-5.0X	WB5	51.07	257	eP	18 01.20	-3.6X		1.4s		33.00nm		5.4mb
TIC	110.70	275	Pdiff	02 09.60	-5.8X				e	19 20.00		INK	87.74	13	iPd	21 48.30	-1.1
YKA	117.32	20	ePKP	06 28.50	1.5	ASPA	51.36	252	iPc	18 03.50	-3.4X	YKA	89.39	23	eP	21 56.00	-1.3
	0.8s		1.90nm				0.8s		38.00nm		5.4mb		0.9s		12.80nm		5.2mb
FRB	123.00	357	ePd	02 59.00	-9.9X	Z	20s		eS	25 19.00		FFC	91.22	33	eP	22 05.00	-1.0
EDM	124.17	27	ePKP	06 40.50	0.0				LR	37 43.30			1.0s		12.00nm		5.2mb
FFC	127.50	19	ePKP	06 48.00	1.2	COOL	62.57	243	eP	19 24.00	-2.5	NNT	91.47	283	eP	22 09.20	1.3
	0.8s		8.00nm			SBA	63.60	185	e(P)	19 31.90	-0.6	NST	91.89	286	eP	22 13.20	3.4X
CLC	131.41	47	ePKP	06 57.00	2.0	VNDA	63.75	186	iP	19 32.90	-0.6	CHG	93.79	288	eP	22 20.00	1.4
			e	07 06.00		MBL	64.52	254	iPc	19 37.50	-1.9	LZH	94.07	306	Pd	22 19.50	-0.3
SBB	131.73	49	ePKP	06 58.00	2.4X		0.6s		14.00nm		5.2mb		1.5s		54.00nm		5.8mb
GSC	132.22	48	ePKP	06 58.00	1.5	KLB	65.44	242	eP	19 43.30	-1.9			pP		22 25.50	19kmX
PLM	133.01	50	ePKP	07 02.00	3.8X	NWAO	65.81	240	eP	19 46.00	-1.6	MBC	96.45	11	eP	22 29.50	-0.1
BAR	133.44	51	ePKP	06 42.00	-16.8X		0.6s		8.00nm		5.0mb	GUN	107.37	295	PKP	27 35.40	6.4X
TUL	145.26	31	ePKPc	07 18.60	-1.5	BAL	66.40	243	eP	19 49.80	-1.6	PKI	107.73	294	PKP	27 37.70	8.1X
	1.2s		47.70nm				0.6s		22.00nm		5.4mb	KKN	107.88	295	PKP	27 40.60	10.8X
BAO	145.27	230	ePKP	07 22.00	1.2	MUN	66.73	241	eP	19 51.90	-1.6	DMN	108.01	294	PKP	27 41.80	11.7X
PNJ	146.05	359	(PKP)	07 24.50	3.3X		0.6s		30.00nm		5.6mb	GKN	108.47	295	PKP	27 48.60	17.8X
GMTN	146.07	359	ePKP	07 22.40	1.1	ADK	66.87	357	e(P)	19 52.50	-1.3	DAG	116.84	7	ePKP	27 43.20	-1.9
SIV	153.54	211	PKP	07 35.00	1.6	MRWA	67.13	244	eP	19 54.00	-2.0	KEV	124.13	352	iPKP	27 58.60	-0.6
			i	07 56.60			0.7s		24.00nm		5.4mb		0.7s		22.70nm		
ZOBO	156.11	196	PKP	07 40.00	2.4X	NANU	68.30	251	eP	20 02.20	-1.2	SOD	126.40	351	iPKP	28 02.70	-1.0
	1.3s		11.83nm				0.5s		12.00nm		5.2mb	MAIO	129.60	305	ePKP	28 11.00	0.1
	S.D. = 1.3	on 66 of 101 obs.				PCI	68.58	275	ePd	20 06.70	1.4	SUF	130.77	349	iPKP	28 11.70	-0.4
							1.0s		5.00nm		4.5mb		0.7s		9.20nm		
APR	06, 1990	06h 09m	03.08 ± 0.16s			SYP	69.96	44	eP	20 20.00	6.4X	NUR	133.09	349	iPKP	28 15.20	-1.4
	15.152 S ± 5.9km	172.126 W ± 5.1km			PRS	70.12	42	eP	20 15.60	1.3		0.7s		24.00nm			
	DEPTH = 33.0km (normal)				PRI	70.46	42	eP	20 17.20	0.6	NB2	134.12	358	PKP	28 07.20	-11.4X	
	5.3mb (29 obs.)	5.6Msz (3 obs.)			PAS	70.97	45	eP	20 19.00	-0.5		1.0s		5.00nm			
SAMOA ISLANDS REGION			(169)		MWC	71.09	45	eP	20 21.00	0.5	HFS	134.89	356	ePKP	28 18.30	-1.7	
Ms 5.7 (BRK).					BAR	71.20	47	eP	20 23.00	2.0		0.5s		3.70nm			
CENTROID, MOMENT TENSOR (HRV)					RVR	71.43	46	eP	20 26.00	3.7X	EKA	139.00	10	PKP	28 29.00	1.1	
Data Used: GDSN					PLM	71.43	47	eP	20 23.00	0.4		0.9s		6.20nm			
L.P.B.: 8S, 17C					SBP	71.51	45	eP	20 21.00	-1.9	DCN	140.06	14	ePKP	28 31.30	1.5	
Centroid Location:					FRI	71.58	42	eP	20 24.00	0.9	DLE	140.29	14	ePKP	28 31.70	1.5	
Origin Time	06:09: 5.2	0.9			ISA	71.62	44	eP	20 25.00	1.5	WTS	143.24	1	ePKP	28 33.00	-2.4X	
Lat 16.44S 0.16 Lon 171.50W 0.14								e	20 33.00			1.0s		16.00nm			
Dep 15.0 FIX Half-duration 2.4					CMB	71.77	41	eP	20 25.30	0.9	CLL	143.70	355	iPKPc	28 32.90	-3.4X	
Moment Tensor: Scale 10**17 Nm					ORV	72.01	39	e(P)	20 25.70	0.0		1.0s		58.00nm			
Mrr=-2.27 0.35 Mlt=-0.03 0.37					WDC	72.03	38	eP	20 16.30	-9.5X	KSP	143.76	351	ePKP	28 32.00	-4.4X	
Mff= 2.30 0.33 Mrt= 0.63 0.90					CLC	72.29	44	eP	20 27.00	-0.5		0.4s		25.00nm			
Mrf=-0.71 1.17 Mtf=-0.68 0.35					TPC	72.41	46	eP	20 29.00	0.8			id		28 34.00		
Principal Axes:					GSC	72.54	45	eP	20 29.00	0.0	KRA	143.83	347	ePKP	28 33.80	-2.7X	
T Vol= 2.63 Plg=10 Azm= 73					GLA	72.71	48	eP	20 31.00	1.0	BRG	144.03	353	iPKP	28 34.20	-2.7X	
N -0.14 10 342					KVN	73.82	41	P	20 36.00	-0.5		0.9s		28.00nm			
P -2.49 76 207					TNP	73.83	42	P	20 36.30	-0.3	UCC	144.33	4	PKP	28 36.00	-1.3	
Best Double Couple: Mo=2.6*10**17					PIP	74.13	294	ePd	20 20.00	-18.4X	ENN	144.44	2	iPKPc	28 36.00	-1.5	
NP1:Strike=176 Dip=36 Slip=-73					KDC	74.43	11	eP	20 38.20	-1.2		0.9s		24.00nm			
NP2: 335 56 -102					SPA	74.95	180	iPd	20 42.00	-0.6	MOX	144.47	356	iPKPc	28 36.50	-1.1	
						0.9s		63.18nm		5.6mb		0.9s		53.00nm			
AFI	1.28	15	eP	09 20.00	-4.8X	BMW	75.46	33	eP	20 45.70	0.0	SPC	144.58	346	i(PKP)	28 36.90	-1.2
			e(S)	11 28.00		SHW	75.80	33	eP	20 48.50	0.8	MEM	144.60	2	iPKPc	28 36.50	-1.3
MBU	8.98	257	eP	11 14.60	1.0	VGB	76.15	34	eP	20 49.80	0.2	SNF	144.61	4	iPKPc	28 36.72	-1.1
SVA	9.49	251	eP	11 20.30	-0.3	LON	76.38	33	eP	20 50.20	-0.7	CLI	144.74	337	iPKPc	28 37.00	-1.2
			S	12 02.00		GMW	76.40	32	eP	20 50.80	-0.1	PRU	144.83	353	PKPd	28 37.00	-1.3
			LR	13 01.90		PGC	76.79	31	eP	20 54.00	1.0		1.0s		46.30nm		
NDF	10.33	254	eP	11 33.10	1.0	RMW	76.84	32	eP	20 52.00	-1.5	Z	19s		1.40um		5.8Msz
RAR	13.19	119	P	12 04.00	-6.7X	MSU	77.39	44	eP	20 57.50	0.6	N	16s		0.50um		
			S	14 20.00		DUG	77.85	42	eP	20 59.00	-0.3	E	18s		1.00um		
PPN	21.90	99	iP	13 54.00	-1.3		0.7s		6.86nm		4.8mb			e		28 41.20	
	1.0s		25.00nm		4.6mb	PMR	78.64	11	eP	21 02.20	-0.7	DOU	145.05	4	PKPd	28 37.70	-0.9
TBI	22.88	114	eP	14 05.00	0.1		1.2s		46.90nm		5.4mb	ABH	145.36	0	ePKP	28 38.85	-0.4
	0.9s		30.00nm		4.8mb	TTA	78.84	7	eP	21 04.30	0.2	GRF	145.45	356	iPKPd	28 39.50	0.2
PMO	23.39	93	iP	14 09.40	-0.6	DAU	78.98	43	eP	21 05.50	-0.2	CFR	145.51	334	ePKP	28 39.00	-0.5
	1.0s		115.00nm		5.3mb	DPW	79.00	34	eP	21 05.10	-0.2	VRI	145.52	336	ePKPd	28 39.00	-0.6
VAH	23.64	93	iP	14 11.40	-0.9	PNT	79.15	32	iPc	21 06.20	0.2	RUP	145.54	1	ePKP	28 39.58	0.0
	1.0s		105.00nm		5.3mb		0.7s		21.00nm		5.2mb	KAS	145.58	324	iPKPc	28 40.50	0.6
TPT	23.66	93	iP	14 11.70	-0.9	TOA	79.68	12	eP	21 09.00	0.3	TOD	145.63	359	ePKP	28 39.62	-0.1
	1.0s		180.00nm		5.5mb	ALQ	79.70	50	eP	21 09.00	-0.6	BRD	145.69	336	ePKPc	28 41.50	1.6
RUV	23.88	93	iP	14 13.60	-1.1		1.0s		11.25nm		4.8mb	FLN	145.79	10	ePKP	28 37.10	-2.8X
	1.0s		180.00nm		5.6mb	NEW	79.82	34	eP	21 08.70	-1.0	KHC	145.79	353	iPKPc	28 40.00	0.0
PUZ	24.36	199	eP	14 21.40	2.1		0.7s		11.50nm		5.0mb		1.0s		89.00nm		
WLZ	25.08	203	P	14 26.90	0.8	LRM	81.07	38	eP	21 16.40	-0.2	Z	18s		0.80um		5.5Msz
TAZ	25.09	201	P	14 28.60	2.4	BW06	81.27	41	eP	21 17.00	-0.8	N	18s		0.70um		
MNG	27.57	201	eP	14 49.90	0.8		0.8s		5.36nm		4.6mb	E	18s		0.70um		
TCW	28.52	202	P	14 58.50	0.8	FBA	81.93	10	iPd	21 20.10	-0.3			i		28 53.00	
MSZ	33.94	206	P	15 48.00	2.7	IMA	82.15	7	eP	21 21.80	0.1	ARO	145.80	268	iPKPd	28 43.00	2.0
	0.9s		65.00nm		5.6mb		0.9s		13.50nm		5.0mb						

06d 06h

PSZ	145.85	346	iPKP	28	40.50	0.3	LBL	149.76	6	PKP	28	51.84	5.6X	1.0s	12.00nm	4.8mb				
WET	145.85	354	ePKP	28	40.00	-0.1	LSD	149.78	1	PKP	28	51.93	5.2X		pP	29	38.00	34km		
KTD	145.93	360	ePKP	28	40.61	0.4	RZN	149.81	334	iPKPd	28	51.00	4.2X	GMW	78.54	44	eP	29	43.10	0.7
LDF	146.01	10	ePKP	28	37.10	-3.2X	CAF	149.92	8	ePKP	28	47.20	0.6	WDC	80.07	51	eP	29	51.20	0.4
GRR	146.08	10	ePKP	28	37.80	-2.6X	ERUA	149.93	23	ePKP	28	52.40	5.7X	PNT	80.26	42	eP	29	52.00	0.3
MLR	146.14	337	iPKPc	28	42.00	1.2	RSP	150.09	1	PKP	28	51.42	4.4X	ORV	81.06	51	eP	29	56.30	0.2
ZST	146.18	349	iPKP	28	41.90	1.3	BNI	150.18	2	PKP	28	47.90	0.7	PRS	81.89	55	eP	30	01.20	0.8
ISR	146.20	336	ePKPd	28	42.00	1.2	MMB	150.30	336	ePKPc	28	52.00	4.7X	NEW	82.11	42	eP	30	00.00	-1.4
GWf	146.27	0	PKP	28	41.37	0.6	KKB	150.31	337	ePKP	28	53.00	5.7X	CMB	82.26	53	eP	30	03.00	0.6
SRO	146.30	347	iPKP	28	41.80	1.0	RRL	150.31	2	PKP	28	53.17	5.7X	FRI	83.03	54	eP	30	06.80	0.5
LPF	146.40	11	ePKP	28	39.10	-1.8	BOB	150.45	358	PKP	28	53.06	5.6X	PAS	84.96	56	eP	30	30.00	13.9X
BUD	146.46	346	iPKP	28	42.30	1.3		0.9s	138.30nm					CLC	84.97	54	eP	30	16.00	-0.3
CMP	146.67	338	ePKPc	28	44.00	2.5X	BOB	150.45	358	PKP	28	49.40	1.9	SBB	85.09	56	eP	30	17.00	0.1
SOP	146.77	349	ePKP	28	40.90	-0.6	PCP	150.70	359	PKP	28	52.04	4.2X	KEV	85.44	342	iP	30	18.60	0.7
KMR	146.78	352	iPKP-	28	43.30	1.7	PZZ	150.74	1	PKP	28	51.73	3.7X		0.5s	8.40nm			5.2mb	
CDf	146.83	1	PKP	28	43.32	1.6	SKO	150.82	339	iPKP	28	52.60	4.6X	RVR	85.64	56	eP	30	19.00	-0.5
FUR	146.96	356	iPKPd	28	43.90	2.0	CKI	150.82	359	PKP	28	52.70	4.7X	GSC	85.73	55	eP	30	20.00	-0.1
	0.8s	213.00nm					ROB	150.95	0	PKP	28	52.86	4.6X	TPC	86.66	56	eP	30	29.00	4.3X
VITF	146.99	2	PKP	28	43.78	2.0	VAY	150.98	337	ePKP	28	53.80	5.5X	SOD	86.89	341	iP	30	24.60	-0.5
BUC1	147.06	336	ePKPc	28	44.00	1.9	STV	151.00	1	PKP	28	52.24	3.9X	DUG	87.34	49	eP	30	28.20	0.2
BBTK	147.16	323	ePKP	28	46.00	3.4X	ENR	151.02	1	PKP	28	52.75	4.4X		0.6s	2.88nm			4.7mb	
HAU	147.22	2	ePKP	28	42.30	0.0	FIN	151.04	360	PKP	28	52.96	4.6X	MSU	88.34	51	eP	30	33.00	0.1
FEL	147.37	360	PKP	28	44.77	2.1X	ELYF	151.06	13	PKP	28	53.91	5.5X	SUF	89.69	337	iP	30	37.70	-0.8
MOF	147.39	1	PKP	28	44.65	2.0	BDI	151.09	356	PKP	28	54.00	5.5X	RSSD	92.04	43	eP	30	49.80	-0.2
GRC	147.70	6	PKP	28	46.05	3.0X	HVAR	151.12	347	iPKPc	28	54.10	-14.3X	ALQ	93.87	52	e(P)	30	58.50	-0.1
ZLA	147.76	359	ePKPd	28	45.80	2.6X	MADF	151.12	13	PKP	28	54.23	5.7X	KIC	144.91	306	PKPd	37	18.00	-1.0
LOR	147.80	5	ePKP	28	43.40	0.2	SFI	151.13	354	PKP	28	49.30	0.9	TIC	144.95	307	PKPd	37	18.20	-0.9
	0.9s	8.20nm					OGF	151.18	13	PKP	28	54.56	6.0X	LIC	145.22	306	PKPd	37	19.00	-0.5
KBA	147.84	353	iPKPd	28	44.40	0.9	PGD	151.18	354	PKP	28	54.40	5.7X	ZOBO	145.79	96	PKP	37	21.90	0.8
	1.0s	48.90nm					ATE	151.21	13	PKP	28	54.71	6.1X		Z	22s	0.97um		5.5msz	
		i					MBH	151.21	305	ePKP	28	41.00	-7.9X			LR	40	18.00		
		i					ECRI	151.22	16	ePKP	28	55.20	6.5X	CCH	147.74	98	PKP	37	26.70	2.8X
		i					ISSF	151.24	13	PKP	28	55.29	6.5X	SIV	152.54	95	PKP	37	26.70	-4.1X
		e					JAU	151.32	13	PKP	28	54.99	6.0X		S.D. = 0.7	on	30	of	38	obs.
MFF	147.94	10	ePKP	28	42.70	-0.7	FIR	151.32	355	ePKP	28	51.00	2.3							
	0.9s	8.20nm					LHE	151.39	13	PKP	28	55.71	6.7X							
SAX	147.97	358	ePKPd	28	46.80	2.9X	CRE	151.41	354	PKP	28	55.00	6.0X							
SSF	147.98	6	ePKP	28	43.80	0.3	ARV	151.42	352	PKPc	28	55.30	6.4X							
	0.9s	8.20nm					PII	151.44	356	PKP	28	53.50	4.7X							
LBF	148.10	5	ePKP	28	43.80	0.0	EPF	151.47	12	ePKP	28	49.60	0.5							
	1.1s	9.75nm					OHR	151.80	339	ePKP	28	50.00	0.4							
AVF	148.23	6	ePKP	28	44.00	0.1		0.9s	112.00nm											
OGA	148.27	356	ePKP	28	41.80	-2.5X		i												
LLS	148.36	359	ePKPd	28	47.90	3.5X	ASS	151.88	353	PKP	28	55.50	5.8X	GUA	3.22	234	eP	31	00.50	0.0
FVI	148.39	354	PKP	28	44.00	-0.1	EPLA	152.34	23	ePKP	28	58.00	7.6X	GUMO	3.22	235	eP	31	00.70	0.1
BGF	148.41	7	ePKP	28	44.60	0.4	AQU	152.48	351	PKP	28	57.20	6.7X	PJG	3.22	235	eP	31	00.70	0.1
SMF	148.42	5	ePKP	28	44.30	0.1	GUD	152.53	20	ePKP	28	58.40	7.6X	KAKJ	21.70	344	P	35	00.80	-0.4
	1.1s	7.35nm					MNS	152.55	352	PKPd	28	56.90	6.3X	IIDJ	21.75	338	P	35	00.90	-0.9
RBL	148.44	352	PKP	28	47.20	2.8X	ETER	152.60	8	ePKP	28	58.00	7.4X	CHJJ	21.90	341	P	35	03.30	0.1
OSS	148.50	357	ePKPd	28	48.30	3.7X	AZI	152.83	351	PKP	28	58.00	7.1X	MTMJ	22.78	339	P	35	11.40	-0.6
LSF	148.54	8	ePKP	28	44.50	0.0	DUI	152.98	349	PKP	28	58.00	6.7X	NIIJ	23.00	342	(P)	35	15.20	1.2
BEO	148.56	343	e(PKP)	28	48.20	3.7X	ETOR	153.01	17	ePKP	28	58.50	7.1X	PMG	24.71	181	eP	35	30.00	-0.8
TCF	148.60	8	ePKP	28	44.60	0.0	LWI	153.03	232	iPKPd	29	00.40	8.1X	HOOJ	27.09	353	eP	35	53.80	1.1
	0.9s	6.55nm					SDI	153.05	350	PKP	28	58.00	6.7X	MRRJ	27.46	349	eP	35	58.20	2.2
PTJ	148.60	349	ePKP	28	49.70	5.0X	LCI	153.41	343	PKP	28	59.00	7.2X	KUSJ	27.66	355	eP	35	58.60	0.7
ZAG	148.68	349	ePKP	28	48.00	3.4X	SGO	153.87	347	PKP	29	00.00	7.6X	SSE	28.71	307	Pc	36	05.80	-1.7
LJU	148.70	351	ePKP	28	47.50	2.8X	ORI	154.07	345	PKP	29	02.00	9.2X		1.0s	41.00nm			5.1mb	
MAF	148.71	7	ePKP	28	45.20	0.5	MGR	154.22	346	PKP	29	00.00	7.1X	ASAJ	28.88	353	eP	36	10.30	1.4
VOY	148.80	352	ePKP	28	44.50	-0.5	TDS	154.48	345	PKP	28	53.00	-0.3	CTA	35.34	182	ePd	37	05.30	-0.3
AGO	148.94	6	PKP	28	48.85	3.7X	LIC	164.54	124	PKP	29	04.50	-0.8	BJI	36.73	318	eP	37	17.00	-0.1
EMON	148.96	22	ePKP	28	49.60	4.4X	TIC	164.78	122	PKP	29	04.60	-0.9		1.5s	92.00nm			5.4mb	
STS	148.97	24	ePKP	28	49.80	4.6X	KIC	164.85	124	PKP	29	04.60	-1.0	WB5	37.44	201	eP	37	22.80	-0.5
HRI	148.99	311	e(PKP)	28	45.00	-0.7								ASPA	41.12	199	iPc	37	54.30	0.4
CEY	149.01	351	ePKP	28	48.70	3.5X		S.D. = 1.1	on	160	of	270	obs.		0.6s	18.00nm			5.0mb	
CTI	149.04	355	PKP	28	48.60	3.2X									iS	44	05.00			
PLDF	149.07	6	PKP	28	49.67	4.3X								KMI	42.98	290	Pd	38	10.50	1.0
VBY	149.11	350	ePKP	28	50.00	4.7X								LOE	43.95	279	eP	38	17.00	-0.1
HLBJ	149.12	308	PKPd	28	48.00	2.1X								LZH	43.98	306	Pd	38	17.50	0.1
TMA	149.13	359	ePKPd	28	49.60	4.0X									2.5s	308.00nm			5.7mb	
TRI	149.14	352	PKP	28	49.20	3.8X									pP	38	23.00	18kmx		
DIX	149.16	1	ePKPd	28	50.80	5.0X									i	38	44.50			
DIM	149.17	334	iPKP	28	50.00	4.5X								MBL	45.45	218	iPc	38	29.00	-0.1
PYM	149.22	7	PKP	28	49.82	4.2X									0.4s	3.00nm			4.6mb	
SHMJ	149.23	310	PKPd	28	51.00	5.0X								NST	45.64	277	iPd	38	33.40	2.8
MDSJ	149.35	307	PKPd	28	50.20	3.9X								NNT	46.44	273	eP	38	33.20	-3.8X
VAI	149.37	359	PKP	28	45.60	-0.1								CHG	46.50	281	ePd	38	38.00	0.6
MDI	149.43	357	PKPc	28	49.00	3.2X									0.9					

KKN	58.68	293	Pd	40	08.00	-0.4	SSE	28.82	308	Pd	00	38.50	-1.1	MARIANA ISLANDS REGION (215)							
DMN	58.84	293	Pd	40	09.30	-0.2		0.8s	29.00nm			5.0mb		GUA	3.25	232	eP	34	20.70	0.4	
	0.8s	57.00nm				5.7mb	QIS	36.42	193	eP	01	45.00	-0.8				eS	34	57.20		
GKN	59.24	294	Pd	40	11.90	-0.3	BJI	36.86	318	eP	01	50.00	0.6								
TTA	61.34	26	eP	40	25.40	-0.5		1.6s	45.00nm			5.1mb		GUMO	3.26	234	eP	34	20.50	0.1	
IMA	63.52	23	eP	40	40.10	-0.3	WB5	37.23	201	eP	01	52.10	-0.6								
	1.2s	19.50nm				5.1mb			i	02	01.50			PJG	3.26	234	eP	34	20.40	0.0	
PMR	63.90	28	eP	40	41.40	-1.3	ASPA	40.91	199	eP	02	22.80	-0.4		KAKJ	21.60	344	P	38	18.40	-0.3
	1.3s	37.70nm				5.3mb		0.7s	7.00nm			4.5mb		IJDJ	21.65	338	P	38	18.00	-1.3	
BRW	64.78	17	eP	40	48.30	0.0	LZH	44.08	306	Pd	02	50.00	0.8		KAGJ	21.78	319	eP	38	22.60	2.0
FBA	65.43	25	eP	40	51.40	-1.2		2.0s	126.00nm			5.4mb		CHJJ	21.80	341	P	38	20.40	-0.4	
NDI	65.73	295	iPd	40	54.60	-0.6			pP	03	00.00	34kmX		MTMJ	22.68	339	P	38	28.70	-0.9	
	1.0s	85.00nm				5.8mb	NST	45.63	277	eP	03	04.00	2.3		KUMJ	22.74	321	eP	38	31.20	1.2
HYB	65.91	282	ePd	40	56.30	-0.2	CHG	46.51	282	eP	03	09.20	0.6		NIJJ	22.90	342	P	38	31.50	-0.1
	1.0s	50.00nm				5.6mb	GUN	58.20	294	P	04	36.40	0.1		DAV	23.12	251	eP	38	36.00	2.1
POO	70.13	284	iPc	41	21.50	-1.4		0.8s	36.00nm			5.5mb		SHNJ	23.71	324	eP	38	39.10	-0.3	
INK	71.65	23	iPd	41	30.10	-1.0	PKI	58.63	293	P	04	38.80	-0.4		PMG	24.80	181	eP	38	50.00	-0.1
QUE	74.44	298	eP	41	49.50	1.0	KKN	58.73	293	P	04	39.50	-0.3		BAG	25.95	276	eP	39	01.20	0.1
MBC	75.83	14	ePd	41	55.80	0.5		0.9s	20.00nm			5.2mb		MRRJ	27.36	350	eP	39	13.30	-0.3	
	1.0s	47.00nm				5.4mb	DMN	58.89	293	P	04	40.60	-0.4		KUSJ	27.57	355	eP	39	16.60	1.2
MAIO	79.51	305	iPd	42	18.00	1.4	GKN	59.30	294	P	04	43.20	-0.5		SSE	28.64	307	Pd	39	23.50	-1.8
YKA	80.00	28	eP	42	17.20	-1.2	TTA	61.54	26	e(P)	04	54.00	-4.4X		Z	20s	0.80um			4.3Msz	
	0.8s	9.00nm				4.8mb	IMA	63.72	23	eP	05	12.10	-0.7		E	14s	0.50um				
WDC	80.02	51	eP	42	19.60	0.5		1.0s	3.13nm			4.4mb				S	44	16.00			
PNT	80.24	42	eP	42	20.00	-0.1	FBA	65.63	25	eP	05	23.70	-1.3			S	44	32.00			
MIN	80.77	51	eP	42	23.00	-0.2		0.7s	5.09nm			4.7mb		ASAJ	28.78	353	eP	39	27.50	1.1	
PCC	80.79	54	eP	42	23.20	0.1	NDI	65.79	295	eP	05	26.50	-0.1		MTN	32.56	211	eP	39	58.00	-2.0
ORV	81.02	51	eP	42	24.40	0.0	HYB	65.92	283	eP	05	27.50	-0.2		CTA	35.44	182	iPd	40	24.60	-0.2
GCC	81.19	54	eP	42	25.60	0.3	INK	71.85	23	ePd	06	02.70	-0.7		BJI	36.64	318	eP	40	34.00	-0.8
PRS	81.83	55	eP	42	29.20	0.5	MBC	76.04	14	ePc	06	28.00	0.4			1.5s	105.00nm			5.5mb	
CMB	82.21	53	eP	42	31.00	0.3		1.0s	18.00nm			5.0mb		Z	22s	0.86um			4.5Msz		
PRI	82.43	55	eP	42	32.80	0.9	GMW	78.69	44	eP	06	43.30	0.5		QIS	36.72	193	eP	40	35.00	-0.6
FRI	82.98	54	eP	42	34.90	0.3	MAIO	79.61	305	eP	06	49.00	0.9		WB5	37.52	201	eP	40	42.00	-0.4
EDM	83.09	37	ePc	42	35.50	0.6	YKA	80.20	28	eP	06	49.20	-1.4		KHKI	39.58	235	ePc	40	59.90	0.2
PAS	84.90	56	eP	42	45.00	0.6		1.0s	3.30nm			4.3mb				e	41	52.00	251kmX		
CLC	84.92	54	eP	42	43.00	-1.5	PNT	80.42	42	eP	06	52.00	-0.1		ASPA	41.20	199	iPc	41	12.80	-0.1
MWC	84.98	56	eP	42	45.00	0.0		0.5s	4.00nm			4.7mb				1.4s	30.00nm			4.8mb	
SBB	85.04	56	eP	42	45.00	-0.1	ORV	81.18	51	eP	06	56.10	-0.2		RMQ	41.80	178	eP	41	17.00	-0.7
SES	85.31	39	ePd	42	46.00	-0.1	PRS	81.98	55	eP	07	00.80	0.3		LZH	43.90	306	Pd	41	36.00	0.9
KEV	85.56	343	iP	42	47.60	0.7	NEW	82.27	42	eP	07	01.50	-0.3			2.0s	187.00nm			5.5mb	
RVR	85.58	56	eP	42	47.00	-0.8		0.8s	8.85nm			4.9mb		Z	20s	0.80um			4.6Msz		
GSC	85.68	55	eP	42	49.00	0.6	CM8	82.36	53	eP	07	02.80	0.3			pP	41	48.00	43km		
PLM	86.17	57	eP	42	50.00	-1.0	FRI	83.13	54	eP	07	06.70	0.3			i	41	50.50			
BAR	86.51	57	eP	42	52.00	-0.4	EDM	83.28	37	eP	07	07.00	0.1		LOE	43.91	279	eP	41	35.00	-0.1
TPC	86.61	56	eP	42	53.00	0.1	SES	85.49	39	ePd	07	18.50	0.4		NNT	46.41	273	eP	41	56.10	1.0
SOD	87.01	341	iP	42	54.30	0.2	LRM	86.01	44	ePd	07	21.20	0.1		CHG	46.45	281	ePd	41	56.00	0.6
DAG	87.60	357	iPd	42	56.00	-0.8	DUG	87.46	49	eP	07	28.40	0.3			0.9s	45.17nm			5.4mb	
	0.7s	17.12nm				5.4mb		0.6s	2.47nm			4.6mb		CHTO	46.45	281	eP	41	55.70	0.3	
GLA	87.89	56	eP	43	01.00	1.9	IMW	87.63	45	eP	07	29.80	0.7			0.9s	23.30nm			5.1mb	
FFC	88.83	33	eP	43	03.00	-0.1	MSU	88.45	51	eP	07	33.70	0.7		BDT	46.52	279	eP	41	57.00	1.1
	1.2s	27.00nm				5.4mb	RSSD	92.20	43	eP	07	50.00	-0.3			0.8s	40.50nm			5.4mb	
SUF	89.81	337	iP	43	06.60	-1.0	GOL	93.01	48	eP	07	54.90	0.7		NANU	49.18	220	eP	42	16.50	0.0
	0.8s	18.00nm				5.4mb	KIC	145.15	306	PKPd	14	18.90	-0.1		BWA	49.70	179	eP	42	20.90	0.5
NUR	91.68	335	iP	43	15.50	-0.7	TIC	145.19	307	PKPd	14	19.00	-0.1		ADE	50.93	189	eP	42	30.00	0.2
	0.9s	35.50nm				5.8mb	LIC	145.46	306	PKPd	14	19.80	0.3		NWAO	56.25	211	eP	43	08.50	-0.5
ALQ	93.83	52	eP	43	27.00	0.1	ZOBO	145.67	97	PKP	14	22.00	1.5		GUN	58.08	293	P	43	22.90	0.3
	1.0s	5.75nm				5.0mb	LPB	145.71	97	PKP	14	25.00	4.6X		PKI	58.51	293	P	43	25.20	-0.4
NB2	96.22	340	P	43	36.00	-1.2	CCH	147.61	98	PKP	14	23.00	-0.3		KKN	58.62	293	P	43	26.00	-0.2
	1.0s	7.70nm				5.1mb	SIV	152.43	95	PKP	14	23.00	-7.3X		DMN	58.78	293	P	43	27.00	-0.4
FRB	96.27	15	eP	43	36.00	-1.3		S.D. = 0.7 on 49 of 52 obs.						GKN	59.18	294	P	43	29.90	-0.2	
BCAO	125.83	287	iPKPc	49	12.50	0.2	? APR 06, 1990 07h 10m 11.10±1.60s							KDC	61.08	32	e(P)	43	35.20	-7.1X	
	0.6s	6.00nm					18.014 S ±20.9km 177.144 E ±15.2km							TTA	61.27	26	eP	43	43.20	-0.5	
KIC	145.05	306	PKPd	49	47.30	-0.5	DEPTH = 45.5 ±17.7 km							MSZ	62.73	164	eP	43	52.80	-0.6	
TIC	145.09	307	PKPd	49	47.40	-0.4	4.1mb (1 obs.)							IMA	63.44	23	eP	43	57.40	-0.8	
LIC	145.36	306	PKPd	49	48.40	0.1									1.0s	10.60nm			4.9mb		
ZOBO	145.66	96	PKP	49	51.10	1.7	FIJI ISLANDS (182)							PMR	63.83	28	eP	43	58.80	-1.8	
	1.0s	24.50nm													1.2s	31.30nm			5.3mb		
LPB	145.70	97	PKP	49	51.00	1.7	NDF	0.39	49	iP	10	21.10	0.3		BRW	64.70	17	eP	44	06.00	-0.1
CCH	147.61	98	PKP	49	56.20	4.0X			eS	11	14.90			FBA	65.36	25	eP	44	09.00	-1.4	
SIV	152.41	95	PKP	49	56.30	-2.9X	SGE	0.85	60	iP	10	26.10	-0.9		NDI	65.67	295	iPd	44	12.50	-0.5
	S.D. = 0.9 on 85 of 88 obs.							eS	10	34.70					1.0s	65.00nm			5.6mb		
	APR 06, 1990 06h 54m 42.22±0.21s						SVA	1.25	95	iP	10	33.00	0.5		HYB	65.86	282	ePd	44	14.10	-0.4
	15.242 N ±4.4km 147.555 E ±4.3km							eS	11	34.20					1.0s	65.00nm			5.6mb		
	DEPTH = 33.0km (normol)						VUN	1.26	90	eP	10	32.10	-0.4		GBA	67.61	279	Pc	44	25.60	0.1
	4.9mb (13 obs.)							eS	10	41.80					0.9s	22.80nm			5.2mb		
MARIANA ISLANDS REGION (215)							MBU	1.83	56	eP	10	41.10	0.4		KOD	68.28	275	eP	44	11.50	-18.7X
GUA	3.																				

06d 07h

epP 45 44.80 40km
 LON 79.27 44 eP 45 33.50 0.3
 MAIO 79.44 305 iPd 45 36.00 1.6
 YKA 79.93 28 eP 45 34.90 -1.4
 0.8s 7.20nm 4.7mb
 WDC 79.99 51 eP 45 37.60 0.5
 PNT 80.19 42 eP 45 38.00 0.0
 1.0s 14.00nm 4.9mb
 VGB 80.23 45 eP 45 38.50 0.2
 MIN 80.73 51 eP 45 40.90 -0.4
 ORV 80.98 52 eP 45 42.50 0.1
 PRS 81.80 55 eP 45 47.30 0.6
 NEW 82.04 42 eP 45 47.70 -0.1
 1.0s 18.13nm 5.1mb

CMB 82.18 53 eP 45 49.20 0.5
 PRI 82.40 55 eP 45 51.00 1.0
 FRI 82.95 54 eP 45 52.80 0.2
 EDM 83.03 37 eP 45 53.00 0.2
 PAS 84.87 56 eP 46 03.00 0.5
 CLC 84.89 54 eP 46 03.00 0.4
 MWC 84.95 56 eP 46 03.00 -0.1
 SBB 85.01 56 eP 46 03.00 -0.2
 SES 85.25 39 eP 46 04.00 -0.1
 KEV 85.46 343 iP 46 05.40 0.7
 RVR 85.55 56 eP 46 05.00 -0.8
 GSC 85.65 55 eP 46 06.00 -0.4
 LRM 85.79 44 ePd 46 07.20 0.1
 PLM 86.14 57 eP 46 08.00 -1.0
 BAR 86.48 57 eP 46 11.00 0.5
 TPC 86.58 56 eP 46 11.00 0.0
 SOD 86.91 341 iP 46 11.90 0.0
 DUG 87.26 49 eP 46 14.90 0.6
 0.6s 2.88nm 4.7mb
 DAG 87.51 357 iPd 46 14.00 -0.5
 0.7s 14.38nm 5.3mb
 GLA 87.86 56 eP 46 18.00 0.8
 MSU 88.26 51 eP 46 19.70 0.5
 DAU 88.32 49 eP 46 20.00 0.4
 BW06 88.74 46 eP 46 21.30 -0.2
 FFC 88.77 33 iPc 46 21.50 0.5
 1.0s 12.00nm 5.2mb
 SUF 89.72 337 iP 46 24.60 -0.7
 0.7s 16.80nm 5.5mb
 NUR 91.58 335 iP 46 33.50 -0.5
 0.9s 28.70nm 5.7mb
 RSSD 91.97 43 eP 46 36.00 -0.4
 epP 46 49.60 45km
 GOL 92.80 48 eP 46 41.00 0.6
 GLD 92.88 48 eP 46 42.00 1.3
 0.8s 29.41nm 5.8mb
 ALQ 93.79 52 eP 46 45.00 0.0
 1.0s 4.50nm 4.9mb
 NB2 96.13 340 P 46 53.40 -1.6
 0.9s 6.60nm 5.1mb
 FRB 96.19 15 eP 46 55.00 -0.1
 VAY 103.95 321 ePd i f 47 29.50 -0.8
 SKO 104.25 322 iPd i f 47 32.00 0.3
 BCAO 125.78 287 iPKPc 52 30.00 -0.3
 0.4s 7.00nm
 KIC 144.98 306 PKPd 53 05.34 -0.4
 0.8s 103.00nm
 TIC 145.01 307 PKPd 53 05.40 -0.4
 0.9s 89.50nm
 LIC 145.28 307 PKPd 53 06.32 0.1
 0.9s 146.50nm
 ZOBO 145.70 96 PKP 53 09.00 1.4
 1.1s 22.04nm
 LPB 145.74 97 PKP 53 10.00 2.5X
 CCH 147.65 98 PKP 53 12.00 1.6
 SIV 152.45 95 PKP 53 12.00 -5.4X

S.D. = 0.8 on 109 of 113 obs.

APR 06, 1990 07h 52m 02.01±0.21s
 60.527 S ± 6.5km 25.482 W ± 6.1km
 DEPTH = 33.0km (normal)
 5.6mb (20 obs.) 5.6MsZ (3 obs.)
 SOUTH SANDWICH ISLANDS REGION (153)
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 13S, 32C
 Centroid Location:
 Origin Time 07:52: 5.4 0.3
 Lat 61.27S 0.04 Lon 23.46W 0.10
 Dep 15.0 FIX Half-duration 3.5
 Moment Tensor; Scale 10¹⁷ Nm
 Mrr=-5.41 0.21 Mtt= 6.59 0.24
 Mff=-1.17 0.26 Mrl= 6.24 0.88

Mrr= 4.10 0.66 Mlt= 2.62 0.26
 Principal Axes:
 T Val= 10.65 Plg=2⁺ Azm=339
 N -1.52 12 243
 P -9.13 62 129
 Best Double Couple: Ma=9.9*10¹⁷
 NP1: Strike= 93 Dip=23 Slip= -58
 NP2: 239 70 -103

AIA 18.07 238 eP 56 12 10 0.4
 SPA 29.64 180 iPc 58 03 90 -2.4
 1.1s 226.79nm 5.8mb
 Z 20s 12.66um 5.5MsZ
 CHCH 39.39 292 eP 59 28.50 -1.5
 PCH 39.59 292 eP 59 32.00 0.3
 LNV 39.72 291 iPc 59 31.00 -1.7
 FCH 39.73 293 eP 59 33.50 0.3
 TACH 39.76 292 eP 59 31.00 -2.0
 SAN 39.80 292 eP 59 31.50 -1.9
 LCCH 40.20 291 iPd 59 39.50 2.9X
 JACH 40.41 293 eP 59 40.00 1.5
 ZON 40.51 296 eP 59 40.00 0.8
 ITB7 40.52 318 e(P) 59 36.90 -2.4
 ITB 40.83 318 Pc 59 39.80 -2.1
 ITB1 41.03 318 e(P) 59 41.00 -2.4
 SBA 41.66 184 e(P) 59 48.00 -0.1
 VNDA 42.13 182 P 59 50.40 -1.5
 HVD 44.87 72 iPc 00 30 00 15.1X
 1.0s 40.00nm
 BLF 46.45 71 iPd 00 27 00 -0.4
 0.9s 53.85nm 5.5mb
 BAO 47.71 330 eP 00 35 00 -2.4
 SEK 47.78 72 eP 00 36 00 -1.9
 0.6s 30.00nm 5.5mb
 WIN 48.07 57 iPc 00 40 00 -0.3
 BFS 48.59 70 iPc 00 37 00 -7.2X
 1.1s 151.90nm 5.9mb
 PRY 48.89 71 iPc 00 45 70 -0.8
 1.2s 50.00nm 5.4mb
 KSR 49.53 70 iPc 00 49 30 -2.1
 0.8s 40.63nm 5.5mb
 SLR 50.28 71 iPc 00 56 40 -0.8
 1.0s 55.00nm 5.5mb
 Z 18s 9.62um 5.9MsZ
 SIV 51.34 314 P 01 08 00 2.9X
 CCH 51.95 308 P 01 08 00 -2.1
 DRV 52.66 173 eP 01 12 60 -1.9
 LPB 53.50 306 P 01 21 00 -0.7
 Z 24s 5.43um 5.5MsZ
 LR 17 40 00
 ZOBO 53.75 306 P 01 22 00 -1.7
 LR 17 48 00
 ARE 54.95 303 eP 01 32 00 -0.2
 NPA 64.61 75 eP 02 43 50 5.2X
 LIC 68.47 22 Pd 03 04 22 1.6
 0.8s 29.00nm 5.4mb
 WIGH 68.53 27 eP 03 04 00 1.0
 KIC 68.65 22 Pd 03 05 14 1.3
 1.0s 41.50nm 5.5mb
 WEGH 68.82 27 eP 03 06 00 1.2
 TIC 68.88 22 Pd 03 06 60 1.4
 LEGH 68.90 27 eP 03 10 50 5.1X
 TEGH 68.93 27 eP 03 10 50 5.0X
 SHGH 69.20 27 eP 03 11 00 3.8X
 KUK 69.38 27 eP 03 10 00 1.7
 LWI 71.20 59 iPd 03 23 00 3.3X
 BCAO 73.27 46 iPc 03 31 60 -0.1
 0.4s 43.00nm 5.8mb
 i 03 38 00
 03 50 10
 MSZ 74.59 190 eP 03 27 00 -11.9X
 1.0s 88.00nm
 MBO 74.97 9 eP 03 45 00 3.7X
 RKT 79.20 242 iP 04 06 40 1.5
 1.1s 55.00nm 5.5mb
 TOO 81.97 173 eP 04 19 00 -0.5
 NWA0 81.99 149 eP 04 19 00 -0.6
 MUN 82.63 148 eP 04 22 00 -0.9
 1.0s 60.00nm 5.6mb
 ADE 83.97 167 iPd 04 29 40 -0.4
 1.2s 71.88nm 5.7mb
 CAN 84.39 175 eP 04 31 20 -0.7
 CNB 84.41 176 eP 04 32 00 0.0
 TBI 84.92 230 iP 04 37 10 2.5
 1.2s 80.00nm 5.8mb
 BWA 85.26 175 eP 04 35 90 -0.4

TVO 89.89 232 iP 05 00.50 1.6
 1.0s 30.00nm 5.5mb
 RUV 91.49 235 iP 05 07.70 1.5
 1.0s 55.00nm 5.9mb
 VAH 91.55 235 iP 05 07.80 1.4
 1.0s 45.00nm 5.8mb
 TPT 91.77 235 iP 05 09.20 1.7
 1.0s 60.00nm 6.0mb
 PMO 91.87 235 iP 05 09.60 1.7
 1.0s 25.00nm 5.6mb
 TIO 92.34 16 iP 05 13.50 3.8X
 i 05 18.50
 BRS 92.39 178 i(P) 05 09.30 -1.0
 RMQ 93.17 175 eP 05 13.50 -0.4
 ASPA 94.44 161 iPKPc 05 17.00 -2.8
 1.1s 29.00nm 5.6mb
 Z 22s 9.90um 6.2MsZ
 LR 43 40 70
 WB5 98.23 161 eP 05 36.00 -1.0
 MGR 105.79 32 PKP 10 42.10 19.4X
 eSg 10 50.00
 SGO 106.12 31 PKP 10 34.70 11.4X
 eSg 10 36.30
 BSS 106.21 31 PKP 10 40.70 17.2X
 eSg 10 45.80
 OHR 108.12 35 ePKP 10 46.00 18.8X
 VAY 108.83 36 ePKP 10 30.00 1.6
 HYB 111.90 93 ePKP 10 34.80 -0.2
 KHC 113.77 27 ePKP 10 37.90 0.2
 e 11 36.50
 BRG 115.49 26 e(PKP) 10 43.40 2.5X
 e 11 34.70
 ALQ 115.58 296 ePKP 10 41.50 -0.3
 1.0s 3.50nm
 QUE 116.94 76 ePKP 10 45.50 1.0
 BAR 118.41 287 ePKP 10 36.00 -11.0X
 MAIO 118.51 66 ePKP 10 48.00 0.8
 PLM 119.05 287 ePKP 10 51.00 2.6X
 GOL 119.08 300 ePKP 10 48.20 -0.2
 TPC 119.29 288 ePKP 10 50.00 1.3
 SCH 119.59 334 ePKP 10 48.00 -0.5
 RVR 119.82 287 ePKP 10 50.00 0.4
 PAS 120.32 286 ePKP 10 52.00 1.4
 SBB 120.60 287 ePKP 10 51.00 -0.2
 GSC 120.62 288 ePKP 10 52.00 0.8
 NDI 120.70 85 ePKP 10 51.60 0.2
 MSU 121.10 294 ePKP 10 53.30 1.0
 CLC 121.41 288 ePKP 10 53.00 0.3
 RSSD 122.16 304 ePKP 10 53.60 -0.5
 DAU 122.24 296 ePKP 10 55.40 0.9
 DUG 122.76 295 ePKP 10 56.20 1.0
 CHG 122.92 111 ePKP 10 56.00 0.1
 PRI 123.13 286 ePKP 10 58.20 2.2X
 FRI 123.36 287 ePKP 10 57.60 1.3
 BW06 123.41 299 ePKP 10 55.70 -0.8
 PRS 123.62 285 ePKP 10 58.70 1.8
 HFS 124.10 22 ePKP 10 55.00 -2.0X
 0.8s 7.50nm
 NB2 124.49 21 PKP 10 57.60 -0.2
 0.8s 6.20nm
 UPP 124.62 25 iPKP 10 57.90 0.0
 IMW 124.91 299 ePKP 11 00.00 0.5
 SHL 125.33 100 iPKP 11 01.00 0.3
 HPI 125.70 297 ePKP 11 02.50 1.4
 NUR 126.76 28 ePKP 11 02.50 0.4
 MIN 126.93 288 ePKP 11 04.00 0.7
 LRM 127.09 299 ePKPd 11 04.90 1.3
 WDC 127.55 288 ePKP 11 04.80 0.5
 FRB 128.15 337 ePKP 11 05.00 0.3
 SUF 129.05 28 iPKP 11 06.30 -0.1
 0.6s 8.20nm
 FFC 129.87 313 ePd i f 08 15.00 18.2X
 0.8s 11.00nm
 FFC 129.87 313 ePKPc 11 08.90 0.7
 1.2s 21.00nm
 NEW 131.00 298 ePKP 11 10.80 0.1
 PNT 132.89 297 ePKPd 11 15.00 0.8
 EDM 133.11 305 ePKP 11 14.00 -0.5
 SOD 133.15 25 iPKP 11 13.60 -0.5
 MCW 133.85 294 ePKP 11 17.50 1.4
 KEV 135.23 23 ePKP 11 13.00 -5.0X
 DAG 137.11 2 iPKPc 11 21.90 0.5
 SSE 143.24 128 PKP+ 11 30.00 -3.7X
 1.0s 19.00nm
 Z 18s 0.80um 5.5MsZ
 E 16s 1.80um
 sPKP 11 52.00

PP 14 36.00
 SS 33 18.00
 KAGJ 146.73 141 ePKP 11 40.70 1.1
 KUMJ 147.97 140 ePKP 11 44.50 3.0X
 MBC 148.42 333 ePKP 11 40.00 -1.0
 1.0s 65.00nm
 BJI 148.73 113 ePKP 11 42.00 -0.5
 1.0s 18.00nm
 SHNJ 149.52 139 ePKP 11 48.50 4.6X
 INK 149.74 315 ePKP 11 41.00 -2.2X
 0.8s 64.00nm
 IIDJ 152.75 149 PKP 11 56.30 7.6X
 IMA 156.68 306 ePKP 11 51.20 -2.0X
 1.0s 5.00nm
 S.D. = 1.2 on 96 of 125 obs.

APR 06, 1990 08h 26m 58.77 ± 0.35s
 15.067 N ± 5.9km 147.643 E ± 6.3km
 DEPTH = 33.0km (normal)
 4.4mb (5 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.05 240 eP 27 46.00 0.1
 eS 28 21.00
 GUMO 3.07 242 eP 27 45.80 -0.3
 PJG 3.07 242 eP 27 46.00 -0.1
 CHJJ 22.28 341 P 31 55.20 0.5
 MTMJ 23.16 340 eP 32 03.00 -0.4
 NIIJ 23.38 342 eP 32 05.90 0.5
 WB5 37.10 201 eP 34 07.80 -0.3
 ASPA 40.77 199 eP 34 38.50 -0.2
 0.7s 4.00nm 4.3mb
 LOE 44.07 280 eP 35 06.00 0.3
 LZH 44.25 307 P 35 07.00 -0.2
 pP 35 12.00 17kmX
 i 35 18.00
 CHTO 46.63 282 eP 35 26.90 0.8
 0.7s 3.02nm 4.4mb
 pP 35 37.10 34kmX
 GUN 58.35 294 P 36 53.70 -0.1
 PKI 58.77 293 P 36 56.20 -0.6
 KKN 58.88 294 P 36 57.00 -0.4
 DMN 59.04 293 P 36 58.40 -0.2
 0.4s 10.00nm 5.3mb
 GKN 59.44 294 P 37 01.00 -0.2
 INK 71.98 23 eP 38 20.00 -0.7
 MBC 76.19 14 eP 38 45.00 0.0
 YKA 80.31 28 eP 39 06.60 -1.1
 0.8s 2.80nm 4.3mb
 PNT 80.50 42 eP 39 09.00 -0.1
 0.8s 6.00nm 4.6mb
 LRM 86.08 44 eP 39 38.20 0.2
 KIC 145.32 306 PKP 46 36.82 1.0
 TIC 145.37 307 PKP 46 35.80 -0.1
 ZOBO 145.57 97 PKP 46 38.00 1.1
 LPB 145.60 97 PKP 46 42.00 5.2X
 LIC 145.63 306 PKP 46 36.68 0.3
 S.D. = 0.5 on 25 of 26 obs.

* APR 06, 1990 08h 40m 12.92 ± 0.29s
 15.088 N ± 12.2km 147.588 E ± 11.3km
 DEPTH = 33.0km (normal)
 4.4mb (2 obs.)

MARIANA ISLANDS REGION (215)

GUMO 3.03 241 eP 40 59.90 0.2
 PJG 3.03 241 eP 40 59.80 0.1
 WB5 37.10 201 eP 47 21.90 -0.4
 ASPA 40.78 199 iPd 47 52.70 -0.2
 0.8s 4.00nm 4.2mb
 LZH 44.20 307 eP 48 24.50 3.6X
 pP 48 34.00 32kmX
 GUN 58.29 294 P 50 00.00 -7.6X
 INK 71.98 23 eP 51 34.00 -0.9
 MBC 76.18 14 eP 51 59.50 0.4
 GMW 78.78 44 eP 52 14.40 0.4
 PNT 80.52 42 eP 52 23.00 -0.3
 VGB 80.53 45 eP 52 23.60 0.1
 NEW 82.36 42 eP 52 32.60 -0.4
 1.0s 6.88nm 4.7mb
 SES 85.59 39 eP 52 50.00 0.7
 LRM 86.10 44 eP 52 52.10 -0.1
 DUG 87.54 49 eP 52 59.20 0.0
 IMW 87.72 45 eP 53 00.90 0.7
 RSSD 92.28 43 eP 53 20.90 -0.5
 KIC 145.27 306 PKP 59 49.56 -0.3
 1.0s 14.50nm

TIC 145.31 307 PKP 59 49.56 -0.4
 LIC 145.58 306 PKP 59 50.54 0.1
 ZOBO 145.62 97 PKP 59 52.00 0.9
 LPB 145.66 97 ePKP 59 54.00 3.0X
 S.D. = 0.5 on 19 of 22 obs.

APR 06, 1990 08h 44m 09.53 ± 0.25s
 15.621 N ± 7.1km 147.720 E ± 5.1km
 DEPTH = 33.0km (normal)
 4.5mb (5 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.42 233 eP 45 02.20 0.4
 eS 45 40.50
 GUMO 3.42 234 eP 45 02.70 0.8
 PJG 3.42 234 eP 45 02.50 0.6
 BJI 36.69 318 eP 51 16.00 0.8
 Z 28s 0.76um 4.3mszX
 WB5 37.64 201 eP 51 21.80 -1.6
 ASPA 41.32 199 eP 51 46.90 -7.0X
 0.7s 7.00nm 4.5mb
 LZH 43.98 306 eP 52 16.00 0.2
 2.0s 70.00nm 5.1mb
 Z 25s 0.70um 4.5mszX
 i 52 32.00
 SHL 52.87 290 iP 53 25.00 0.0
 GUN 58.20 293 P 54 03.60 0.1
 PKI 58.62 293 P 54 05.60 -0.9
 KKN 58.73 293 P 54 06.80 -0.3
 DMN 58.89 293 P 54 08.00 -0.3
 GKN 59.29 294 P 54 10.70 -0.2
 HYB 66.00 282 ePc 54 55.00 -0.4
 GBA 67.75 279 Pc 55 06.00 -0.6
 0.7s 1.80nm 4.3mb
 INK 71.44 23 eP 55 28.00 -0.3
 MBC 75.64 14 eP 55 53.00 0.4
 GMW 78.31 44 eP 56 08.00 0.0
 MAIO 79.52 305 eP 56 16.00 1.0
 PNT 80.04 42 eP 56 17.00 -0.4
 0.8s 5.00nm 4.6mb
 VGB 80.07 46 eP 56 17.80 0.2
 MIN 80.57 51 eP 56 20.20 -0.4
 ORV 80.82 52 eP 56 21.80 0.1
 PRS 81.63 55 eP 56 26.60 0.6
 NEW 81.88 42 eP 56 27.00 -0.1
 CM8 82.01 53 eP 56 28.60 0.6
 FRI 82.78 54 eP 56 32.40 0.5
 SES 85.10 39 ePc 56 43.50 0.0
 DUG 87.10 49 eP 56 54.00 0.3
 MSU 88.09 51 eP 56 59.00 0.4
 DAU 88.16 49 eP 56 59.00 0.0
 RSSD 91.81 43 eP 57 15.00 -0.9
 ALO 93.63 52 eP 57 24.00 -0.4
 0.9s 1.68nm 4.5mb
 KIC 145.06 307 PKPd 03 45.36 -0.8
 0.9s 13.50nm
 TIC 145.09 307 PKP 03 45.44 -0.8
 LIC 145.36 307 PKP 03 46.18 -0.5
 1.0s 19.50nm
 ZOBO 145.56 96 PKP 03 48.20 0.6
 LPB 145.60 97 PKP 03 49.00 1.5
 CCH 147.51 98 PKP 03 54.00 3.6X
 S.D. = 0.6 on 37 of 39 obs.

* APR 06, 1990 09h 03m 37.25 ± 0.52s
 15.670 N ± 8.0km 147.560 E ± 9.7km
 DEPTH = 38.3km (3 depth phases)
 4.7mb (7 obs.)

MARIANA ISLANDS REGION (215)

PJG 3.33 232 eP 04 37.00 8.8X
 KAKJ 21.49 344 P 08 24.30 -0.4
 IIDJ 21.54 338 P 08 25.60 0.3
 CHJJ 21.69 341 P 08 26.90 0.2
 MTMJ 22.57 339 P 08 36.40 0.8
 NIIJ 22.79 342 P 08 39.10 1.5
 BJI 36.55 318 eP 10 41.00 -0.2
 1.5s 11.00nm 4.5mb
 WB5 37.63 201 eP 10 49.50 -1.0
 e 11 00.40 39km
 ASPA 41.31 199 iPd 11 23.30 2.3
 0.6s 4.00nm 4.3mb
 LZH 43.83 306 Pc 11 42.00 0.3
 i 12 02.00 83kmX
 LOE 43.89 279 eP 11 42.00 -0.2
 SHL 52.71 290 iP 12 50.00 -0.9
 GUN 58.03 293 P 13 29.50 0.0

PKI 58.46 293 P 13 32.00 -0.5
 0.4s 5.00nm 5.0mb
 KKN 58.57 293 P 13 32.80 -0.3
 0.6s 6.00nm 4.9mb
 DMN 58.73 293 P 13 34.10 -0.2
 0.5s 9.00nm 5.1mb
 GKN 59.13 293 P 13 36.70 -0.2
 INK 71.46 23 eP 14 54.50 -1.0
 pP 15 06.00 38km
 MBC 75.63 14 eP 15 20.00 0.3
 1.0s 7.00nm 4.6mb
 pP 15 31.50 38km
 YKA 79.82 28 eP 15 36.20 -6.7X
 0.7s 1.10nm 3.9mb
 PRS 81.73 55 eP 15 53.80 0.2
 CMB 82.10 53 eP 15 55.50 -0.1
 SES 85.16 39 eP 16 10.00 -0.9
 LPB 145.76 96 PKP 23 22.00 7.2X
 S.D. = 0.8 on 21 of 24 obs.

APR 06, 1990 10h 06m 01.58 ± 0.15s
 15.268 N ± 3.7km 147.563 E ± 3.7km
 DEPTH = 33.0km (normal)
 5.1mb (18 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.09 237 eP 06 50.10 0.9
 eS 07 25.70
 GUMO 3.10 238 eP 06 50.20 0.9
 PJG 3.10 238 eP 06 50.00 0.7
 MTMJ 22.94 340 eP 11 04.80 0.7
 NIIJ 23.17 342 eP 11 06.70 0.6
 PMG 24.52 181 eP 11 19.00 -0.4
 SSE 28.81 308 Pd 11 57.50 -1.3
 0.8s 24.00nm 4.9mb
 MTN 32.32 211 eP 12 29.00 -1.0
 CTA 35.16 182 iPd 12 54.00 -0.5
 OIS 36.45 193 iPd 13 05.10 -0.3
 BJI 36.85 318 eP 13 09.00 0.4
 WB5 37.26 201 iPd 13 12.00 -0.2
 ASPA 40.94 199 iPd 13 42.80 0.0
 0.9s 22.00nm 4.9mb
 RMQ 41.52 178 eP 13 47.00 -0.5
 LOE 43.96 279 eP 14 08.00 0.4
 LZH 44.07 306 eP 14 09.50 1.0
 2.0s 66.00nm 5.1mb
 pP 14 24.00 56kmX
 NNT 46.43 273 eP 14 27.00 -0.4
 CHG 46.51 282 eP 14 29.50 1.5
 NANU 48.97 221 eP 14 47.00 0.0
 BWA 49.42 179 eP 14 50.80 0.4
 CAN 50.33 178 eP 14 57.70 0.4
 TOO 52.59 182 eP 15 15.00 0.6
 SHL 52.86 291 eP 15 16.50 -0.4
 MRWA 53.72 215 iPd 15 22.20 -0.6
 MUN 55.77 212 eP 15 37.00 -0.7
 NWA0 56.01 211 eP 15 39.00 -0.4
 GUN 58.20 294 P 15 55.80 0.2
 0.6s 32.00nm 5.6mb
 PKI 58.62 293 P 15 58.20 -0.4
 0.6s 23.00nm 5.5mb
 KKN 58.73 293 P 15 59.20 0.0
 0.7s 22.00nm 5.4mb
 DMN 58.89 293 P 16 00.20 -0.1
 0.5s 29.00nm 5.7mb
 GKN 59.29 294 P 16 03.00 0.0
 0.6s 32.00nm 5.6mb
 TTA 61.52 26 eP 16 22.80 5.3X
 0.9s 8.33nm 4.9mb
 IMA 63.70 23 eP 16 31.30 -0.7
 PMR 64.08 28 eP 16 32.60 -1.7
 FBA 65.61 25 eP 16 42.90 -1.3
 0.8s 7.76nm 4.9mb
 HYB 65.93 283 eP 16 47.00 0.0
 GBA 67.66 279 Pd 16 57.50 -0.5
 0.6s 3.60nm 4.6mb
 INK 71.83 23 ePd 17 21.10 -1.5
 pP 17 41.00 75kmX
 MBC 76.01 14 ePd 17 47.00 0.2
 1.0s 27.00nm 5.2mb
 BMW 78.56 45 eP 18 01.50 0.0
 GMW 78.67 44 eP 18 02.50 0.4
 RMW 79.34 44 eP 18 06.00 0.2
 LON 79.47 44 eP 18 06.20 -0.3
 MAIO 79.60 305 eP 18 05.00 -2.5
 WDC 80.16 51 eP 18 11.00 0.8
 YKA 80.17 28 eP 18 09.10 -0.7

06d 10h

	0.9s	4.90nm	4.5mb
VGB	80.42	45 eP	18 11.80 0.2
MIN	80.91	51 eP	18 14.40 0.0
PCC	80.92	54 eP	18 14.50 0.2
BRK	80.93	53 eP	18 14.90 0.6
ORV	81.15	51 eP	18 16.00 0.5
PRS	81.96	55 eP	18 20.70 0.9
NEW	82.25	42 eP	18 21.30 0.2
	0.8s	15.10nm	5.1mb
CMB	82.34	53 eP	18 22.60 0.8
PRI	82.56	55 eP	18 24.30 1.3
FRI	83.11	54 eP	18 26.50 0.8
EDM	83.26	37 eP	18 26.50 0.3
PAS	85.03	56 eP	18 33.00 -2.4
CLC	85.05	54 eP	18 36.00 0.4
MWC	85.10	56 eP	18 36.00 -0.1
SBB	85.16	56 eP	18 36.00 -0.2
SES	85.47	39 ePd	18 37.30 -0.1
RVR	85.71	56 eP	18 38.00 -0.8
GSC	85.81	55 eP	18 40.00 0.5
LRM	85.99	44 ePd	18 40.60 0.3
BAR	86.63	57 eP	18 38.00 -5.5X
DUG	87.44	49 eP	18 47.80 0.4

	0.6s	7.81nm	5.1mb
IMW	87.61	45 eP	18 49.00 0.7
DAG	87.79	357 eP	18 48.00 -0.1
GLA	88.01	56 eP	18 51.00 0.9
MSU	88.43	51 eP	18 53.00 0.7
DAU	88.51	49 eP	18 53.00 0.3
BW06	88.93	46 eP	18 54.20 -0.4
FFC	89.00	33 eP	18 54.00 -0.4
	1.0s	13.00nm	5.2mb
RSSD	92.17	43 eP	19 10.00 0.4
GOL	92.98	48 eP	19 14.00 0.5
	0.8s	5.21nm	5.0mb
ALQ	93.96	52 eP	19 17.20 -0.8
	1.0s	4.50nm	4.9mb
BCAO	125.86	287 ePKPc	25 03.00 0.2
	0.6s	6.00nm	
		i	26 32.00
KIC	145.14	306 PKPd	25 38.14 -0.2
	0.6s	58.50nm	
TIC	145.18	307 PKP	25 38.12 -0.3
	0.5s	34.00nm	
LIC	145.45	306 PKPd	25 39.06 0.2
	0.6s	46.50nm	
ZOBO	145.67	97 PKP	25 41.00 1.1
LPB	145.71	97 PKP	25 42.00 2.3X
CCH	147.61	98 PKP	25 46.50 3.9X
SIV	152.42	95 PKP	25 56.80 7.2X

S.D. = 0.8 on 80 of 85 obs.

? APR 06, 1990 10h 22m 31.24 ± 3.31s
 40.847 N ± 23.9km 25.613 E ± 17.3km
 DEPTH = 10.0km (geophysicist)

AEGEAN SEA (365)

KDZ	0.82	350 iPd	22 47.00 -0.1
		iSg	23 00.00
RZN	1.08	321 iPg	22 52.00 0.3
		iSg	23 07.00
DIM	1.20	357 iP	22 54.00 0.4
		iS	23 15.00
MMB	1.60	298 ePc	22 58.00 -1.7
JMB	1.77	24 iP	23 02.00 -0.1
		iS	23 31.00
PGB	2.02	328 iP	23 10.00 4.3X
VAY	2.35	283 ePn	23 11.70 1.2
VTS	2.51	315 eP	23 18.00 5.2X

S.D. = 1.3 on 6 of 8 obs.

APR 06, 1990 10h 46m 13.97 ± 0.31s
 15.100 N ± 7.4km 147.561 E ± 6.9km
 DEPTH = 33.0km (normal)
 4.6mb (5 obs.)

MARIANA ISLANDS REGION (215)

GUA	3.00	239 eP	47 00.50 0.2
		eS	47 34.40
PJG	3.01	240 eP	47 00.40 -0.1
GUMO	3.01	240 eP	47 00.50 0.0
PMG	24.35	181 eP	51 30.50 0.3
BJI	36.97	318 eP	53 22.00 0.0
	1.5s	26.00nm	4.9mb
ASPA	40.78	199 iPc	53 53.30 -0.6
	0.6s	4.00nm	4.3mb
LZH	44.17	307 Pc	54 22.00 0.3

	2.0s	47.00nm	5.0mb
INK	71.98	23 eP	54 47.00
MBC	76.18	14 ePc	58 00.50 0.4
	1.0s	6.00nm	4.6mb
MAIO	79.69	305 eP	58 21.00 0.6
YKA	80.32	28 eP	58 21.90 -1.1
	0.9s	2.90nm	4.3mb
PNT	80.52	42 eP	58 24.00 -0.4
CMB	82.44	53 eP	58 35.40 0.7
FRI	83.21	54 eP	58 39.30 0.7
SES	85.60	39 ePd	58 50.00 -0.4
LRM	86.11	44 eP	58 53.60 0.3
KIC	145.24	306 PKP	05 50.42 -0.5
	1.1s	24.00nm	
TIC	145.28	307 PKP	05 50.50 -0.5
LIC	145.55	306 PKP	05 51.40 0.0
	1.1s	34.00nm	
ZOBO	145.65	97 PKP	05 53.00 0.8
LPB	145.69	97 PKP	06 09.00 16.9X
SIV	152.41	96 PKP	06 09.40 7.4X

S.D. = 0.5 on 20 of 22 obs.

% APR 06, 1990 10h 56m 20.88 ± 0.56s
 40.704 N ± 7.5km 15.238 E ± 7.5km
 DEPTH = 10.0km (geophysicist)

SOUTHERN ITALY (390)

SGO	0.15	160 Pc	56 24.10 -0.4
		iSg	56 27.40
BSS	0.34	285 P	56 28.00 0.1
		eSg	56 34.00
MGR	0.61	157 P	56 31.90 -1.4
		eSg	56 41.40
MMN	1.00	144 P	56 41.50 1.8
		eSg	56 56.60
DUI	1.12	329 P	56 42.00 0.0
		eSn	56 58.50
ORI	1.12	124 P	56 41.80 -0.2
		eSn	56 57.80
CSI	1.23	139 P	56 44.20 0.5
TDS	1.34	141 P	56 46.00 0.4
		eSn	57 02.00
SDI	1.47	313 P	56 47.50 0.1
		eSn	57 06.20
BRT	1.50	83 P	56 47.50 -0.4
		eSn	57 05.70
ROI	1.52	138 P	56 47.60 -0.6

S.D. = 0.9 on 11 of 11 obs.

APR 06, 1990 11h 36m 05.74 ± 0.33s
 15.172 N ± 9.0km 147.649 E ± 8.3km
 DEPTH = 33.0km (normal)
 4.6mb (4 obs.)

MARIANA ISLANDS REGION (215)

GUMO	3.12	240 eP	36 54.00 0.2
PJG	3.12	240 eP	36 53.50 -0.3
		eS	37 29.80
BJI	36.98	318 eP	43 14.00 0.2
WB5	37.20	201 eP	43 15.80 -0.1
ASPA	40.87	199 iPd	43 46.30 -0.2
	0.6s	7.00nm	4.6mb
LZH	44.19	306 Pc	44 14.50 0.8
	1.5s	27.00nm	4.8mb
INK	71.88	23 eP	47 26.00 -1.1
MBC	76.09	14 eP	47 51.50 0.1
YKA	80.22	28 eP	48 13.10 -1.1
	0.6s	0.70nm	3.8mb
PRS	81.95	55 eP	48 24.60 0.7
NEW	82.26	42 ePc	48 25.00 -0.3
	0.7s	5.00nm	4.7mb
CMB	82.33	53 eP	48 26.40 0.5
FRI	83.10	54 eP	48 30.30 0.5
SES	85.49	39 ePc	48 41.50 -0.1
LRM	86.00	44 eP	48 44.60 0.1
KIC	145.27	306 PKPd	55 42.26 -0.5
	0.6s	11.50nm	
TIC	145.31	307 PKP	55 42.30 -0.5
ZOBO	145.57	97 PKP	55 45.00 1.1
LIC	145.57	306 PKP	55 43.24 0.0

S.D. = 0.6 on 19 of 19 obs.

APR 06, 1990 11h 39m 37.54 ± 0.41s
 15.242 N ± 6.5km 147.552 E ± 7.4km
 DEPTH = 33.0km (normal)
 4.6mb (8 obs.)

MARIANA ISLANDS REGION (215)

GUMO	3.08	238 eP	40 26.10 1.1
PJG	3.08	238 eP	40 26.10 1.1
		eS	41 02.50
KAKJ	21.89	344 eP	44 30.00 0.5
CHJJ	22.09	341 eP	44 31.40 -0.1
MTMJ	22.96	340 eP	44 40.70 0.5
SSE	28.82	308 eP	45 33.80 -1.1
	0.8s	13.00nm	4.7mb
BJI	36.86	318 eP	46 45.00 0.3
	1.5s	16.00nm	4.7mb
WB5	37.23	201 eP	46 47.00 -1.0
ASPA	40.91	199 eP	47 17.60 -1.0
	0.6s	2.00nm	4.0mb
LZH	44.08	306 Pc	47 45.00 0.5
	2.5s	74.00nm	5.0mb
		pP	47 55.00 34kmX
CHTO	46.50	282 eP	48 03.60 -0.3
	0.6s	1.90nm	4.2mb
GUN	58.20	294 P	49 31.30 -0.3
	0.7s	12.00nm	5.1mb
PKI	58.62	293 P	49 33.90 -0.6
KKN	58.73	293 P	49 34.80 -0.3
DMN	58.89	293 P	49 36.00 -0.3
	0.4s	5.00nm	5.0mb
GKN	59.29	294 P	49 38.60 -0.4
INK	71.85	23 eP	50 58.00 -0.8
MBC	76.04	14 eP	51 24.00 1.1
YKA	80.20	28 eP	51 45.10 -0.8
	0.8s	1.40nm	4.0mb
ORV	81.18	51 eP	51 52.20 0.6
PRS	81.99	55 eP	51 56.80 0.9
KIC	145.15	306 PKPd	59 14.06 -0.3
	0.7s	11.00nm	
TIC	145.19	307 PKPd	59 14.04 -0.4
	0.7s	8.00nm	
LIC	145.46	306 PKP	59 14.64 -0.2
	0.7s	10.00nm	
ZOBO	145.68	97 PKP	59 17.00 1.1

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

* APR 06, 1990 12h 04m 05.87 ± 0.47s
 16.042 N ± 12.8km 147.614 E ± 8.4km
 DEPTH = 33.3km (7 depth phases)
 5.1mb (15 obs.) 4.4Msz (3 obs.)

MARIANA ISLANDS REGION (215)

SSE	28.38	307 Pd	09 59.80 0.5
	0.8s	16.00nm	4.8mb
Z	18s	0.60um	4.2Msz
E	12s	0.30um	
		pP	10 08.00 29km
		S	14 31.00
		i	15 18.00
CTA	35.93	182 eP	11 06.50 1.2
BJI	36.31	317 eP	11 10.50 2.2
	1.5s	39.00nm	5.1mb
Z	20s	0.60um	4.4Msz
WB5	38.00	201 eP	11 23.60 0.9
		e	11 34.70 40km
		e	13 43.20
KMI	42.81	290 eP	12 03.50 0.8
LZH	43.66	306 Pd	12 11.00 1.6
	3.0s	155.00nm	5.3mb
Z	18s	0.70um	4.6Msz
		pP	12 20.50 32km
		sP	12 26.00
NST	45.60	276 eP	12 25.00 0.0
CHG	46.41	281 eP	12 30.00 -1.4
CHTO	46.41	281 eP	12 27.50 -3.9X
NNT	46.44	272 eP	12 35.20 3.5X
GUN	57.94	293 P	13 57.40 -0.6
	0.8s	43.00nm	5.6mb
PKI	58.37	293 P	13 59.70 -1.3
KKN	58.47	293 P	14 00.80 -0.8
	0.8s	19.00nm	5.2mb
DMN	58.63	293 P	14 01.70 -1.1
	0.8s	15.00nm	5.1mb
GKN	59.03	293 P	14 04.40 -1.0
	0.9s	41.00nm	5.6mb
TTA	60.80	26 eP	14 29.30 12.4X
IMA	62.97	23 eP	14 43.10 11.6X
	1.1s	4.69nm	
PMR	63.38	29 eP	14 44.00 10.0X
FBA	64.89	25 eP	14 54.50 10.6X
	0.7s	5.09nm	

NDI 65.51 295 iPc 14 57.00 8.6X
0.8s 29.85nm 5.4mb
POO 70.01 284 eP 15 13.00 -3.8X
INK 71.10 23 eP 15 34.00 11.5X
MBC 75.26 14 eP 15 49.50 2.7
1.0s 27.00nm 5.2mb

GMW 78.08 44 eP 16 03.70 0.6
MAIO 79.20 305 eP 16 10.00 0.4
YKA 79.47 28 eP 16 03.90 -6.4X
0.8s 2.80nm 4.3mb
PNT 79.79 42 eP 16 12.00 -0.4
0.6s 4.00nm 4.6mb

VGB 79.85 46 eP 16 13.60 0.8
ORV 80.64 52 e(P) 16 15.30 -1.8
NEW 81.64 42 eP 16 22.40 0.2
0.8s 8.33nm 4.8mb

CMB 81.84 53 eP 16 23.20 -0.2
EDM 82.61 37 ePc 16 27.60 0.5
FRI 82.61 54 eP 16 27.00 -0.4
CLC 84.56 54 eP 16 47.00 9.6X
SBB 84.69 56 eP 16 37.00 -1.1
SES 84.84 39 ePc 16 38.70 0.2
KEV 85.01 342 iP 16 50.10 11.2X
0.6s 26.10nm

GSC 85.33 55 eP 16 40.00 -1.3
BAR 86.17 57 eP 16 41.00 -4.5X
SOD 86.46 341 iP 16 56.30 10.1X
DUG 86.90 49 eP 16 48.70 -0.3
0.8s 7.00nm

DAG 87.02 357 eP 16 59.00 10.3X
GLA 87.54 56 eP 16 55.00 2.9X
FFC 88.33 33 eP 17 06.00 10.6X
0.8s 7.00nm

SUF 89.29 337 eP 17 08.40 8.6X
0.8s 10.30nm 5.2mb
NUR 91.16 335 eP 17 13.00 4.5X
HFS 95.51 339 eP 17 37.70 9.1X
0.8s 7.10nm 5.2mb

Z 23s 0.16um 4.4MszX
LR 03 50.00
NB2 95.68 340 P 17 38.70 9.2X
0.8s 2.70nm 4.8mb

KIC 144.72 307 PKP 23 39.44 -2.4X
0.9s 40.50nm
TIC 144.76 308 PKP 23 39.48 -2.5X
LIC 145.03 307 PKP 23 40.40 -2.0
LPB 145.74 96 ePKP 23 45.00 0.9
S.D. = 1.2 on 29 of 52 obs.

% APR 06, 1990 12h 27m 41.23 ± 1.42s
46.420 N ± 11.9km 3.468 E ± 9.8km
DEPTH = 10.0km (geophysicist)

FRANCE (538)
ML 1.8 (LDG).

SMF 0.34 49 Pg 27 48.80 0.5
Sg 27 53.70
AVF 0.38 348 Pg 27 49.50 0.5
Sg 27 55.00
SSF 0.64 2 Pg 27 54.10 0.0
Sg 28 03.30
MAF 0.66 253 Pg 27 54.30 0.0
Sg 28 03.20
LBF 0.67 32 Pg 27 54.40 -0.1
Sg 28 03.20
LOR 0.89 17 Pg 27 57.50 -0.8
Sg 28 09.80
S.D. = 0.6 on 6 of 6 obs.

? APR 06, 1990 12h 41m 28.03 ± 0.87s
45.020 N ± 7.2km 7.033 E ± 10.4km
DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
ML 1.9 (GEN).

RRL 0.20 241 P 41 32.60 0.0
S 41 36.09
RSP 0.21 50 P 41 32.60 0.0
S 41 36.09
LSD 0.45 11 P 41 37.22 0.0
S 41 43.27
PZZ 0.52 175 P 41 38.55 0.0
S 41 45.11
S.D. = 0.0 on 4 of 4 obs.

? APR 06, 1990 12h 48m 36.46 ± 1.06s
16.422 S ± 56.5km 174.807 W ± 29.6km
DEPTH = 33.0km (normal)
4.9mb (4 obs.)

TONGA ISLANDS (173)

WB5 48.28 258 eP 57 12.30 -4.4X
ASPA 48.51 253 iPc 57 19.90 1.3
0.8s 97.00nm 5.9mb

MTN 52.31 266 iPc 57 47.90 0.3
COOL 59.70 244 eP 58 40.00 -0.5
MBL 61.69 255 iPc 58 53.50 -0.6
0.4s 6.00nm 5.1mb

MWC 73.81 46 eP 00 11.00 1.0
SBB 74.23 46 eP 00 12.00 -0.2
TPC 75.15 47 eP 00 18.00 0.4
GSC 75.27 46 eP 00 18.00 -0.2
ALQ 82.49 50 eP 00 57.20 -0.4
1.0s 4.25nm 4.5mb

CHTO 91.75 289 iP 01 41.90 -0.7
0.8s 2.75nm 4.7mb
MBC 98.19 11 eP 02 20.00 9.2X
PRU 145.67 349 ePKP 08 10.50 -2.5X
KHC 146.67 350 PKPd 08 14.10 -0.7
S.D. = 0.8 on 11 of 14 obs.

APR 06, 1990 13h 18m 35.02 ± 0.23s
15.227 N ± 6.1km 147.546 E ± 4.5km
DEPTH = 33.0km (normal)
4.9mb (11 obs.)

MARIANA ISLANDS REGION (215)

GUMO 3.06 238 eP 19 21.30 -1.0
PJG 3.06 238 eP 19 21.80 -0.5
eS 19 58.20

PMG 24.48 181 eP 23 52.00 -0.5
SSE 28.82 308 P 24 31.50 -0.9
1.0s 12.00nm 4.5mb

BJI 36.87 318 eP 25 43.00 0.8
1.5s 24.00nm 4.8mb
N 11s 0.35um

WB5 37.22 201 eP 25 46.40 1.1
ASPA 40.89 199 iPc 26 15.60 -0.3
0.5s 6.00nm 4.6mb

KMI 43.02 291 eP 26 34.50 0.8
LZH 44.08 306 P 26 42.00 -0.1
2.0s 66.00nm 5.1mb

CHG 46.50 282 eP 27 02.10 0.7
SHL 52.85 291 iP 27 49.50 -0.8
GUN 58.20 294 P 28 29.10 0.1
0.8s 47.00nm 5.6mb

PKI 58.62 293 P 28 31.70 -0.3
KKN 58.73 293 P 28 32.40 -0.2
0.8s 16.00nm 5.2mb

DMN 58.89 293 P 28 33.60 -0.2
1.0s 57.00nm 5.6mb

GKN 59.29 294 P 28 36.30 -0.1
HYB 65.92 283 eP 29 20.50 0.1
INK 71.87 23 eP 29 55.00 -1.3
MBC 76.06 14 ePd 30 21.00 0.5
1.0s 12.00nm 4.8mb

MAIO 79.61 305 eP 30 43.00 2.1
WDC 80.20 51 eP 30 44.20 0.3
YKA 80.22 28 eP 30 42.20 -1.3
1.1s 3.80nm 4.3mb

PNT 80.44 42 eP 30 45.00 0.0
0.9s 10.00nm 4.8mb

MIN 80.95 51 eP 30 47.60 -0.4
ORV 81.19 51 eP 30 49.20 0.0
PRS 82.00 55 eP 30 53.90 0.5
CMB 82.38 53 eP 30 55.70 0.3
FRI 83.15 54 eP 30 59.50 0.2
PAS 85.06 56 eP 31 09.00 -0.1
CLC 85.09 54 eP 31 09.00 -0.2
MWC 85.14 56 eP 31 09.00 -0.7
SBB 85.20 56 eP 31 09.00 -0.8
SES 85.51 39 ePd 31 11.10 0.1
RVR 85.74 56 eP 31 12.00 -0.5
GSC 85.85 55 eP 31 13.00 -0.1
LRM 86.03 44 eP 31 14.20 0.2
TPC 86.77 56 eP 31 12.00 -5.6X
GLA 88.05 56 eP 31 24.00 0.2
ALQ 94.00 52 eP 31 51.30 -0.3
1.0s 2.75nm 4.6mb

KIC 145.15 306 PKP 38 11.74 -0.1

0.8s 28.00nm
TIC 145.19 307 PKP 38 11.64 -0.3
0.8s 26.50nm

LIC 145.46 306 PKP 38 12.60 0.3
0.8s 31.00nm

ZOBO 145.68 97 PKP 38 14.20 0.9
1.1s 17.98nm

LPB 145.72 97 PKP 38 15.00 1.8
SIV 152.44 95 PKP 38 30.30 7.2X
S.D. = 0.7 on 43 of 45 obs.

? APR 06, 1990 13h 32m 09.44 ± 5.34s
33.083 S ± 15.3km 72.068 W ± 37.6km
DEPTH = 10.0km (geophysicist)

OFF COAST OF CENTRAL CHILE (134)

LCCH 0.57 133 iPd 32 21.50 0.5
iS 32 28.00

ROCH 0.89 83 iPd 32 27.00 0.2
iS 32 37.80

LNv 1.03 148 iPd 32 28.90 0.0
iS 32 41.50

TACH 1.10 121 iPd 32 30.00 -0.2
iS 32 43.00

SAN 1.23 108 iP 32 32.00 -0.4
S 32 47.80

JACH 1.30 73 iPc 32 33.60 0.0
iS 32 50.00

PCH 1.41 113 iPc 32 35.00 -0.2
iS 32 53.00

CHCH 1.46 126 iPc 32 35.50 -0.3
iS 32 53.80

FCH 1.51 100 iPd 32 37.20 0.4
iS 32 55.50

S.D. = 0.4 on 9 of 9 obs.

* APR 06, 1990 13h 48m 30.35 ± 0.48s
15.188 N ± 9.0km 147.622 E ± 10.1km
DEPTH = 33.0km (normal)
4.1mb (3 obs.)

MARIANA ISLANDS REGION (215)

PJG 3.11 240 eP 49 18.00 -0.2
eS 49 54.30

GUMO 3.11 240 eP 49 19.00 0.8
WB5 37.21 201 eP 55 40.00 -0.6
WRA 37.27 201 Pd 55 40.70 -0.4
0.9s 5.30nm 4.4mb

ASPA 40.88 199 eP 56 11.20 0.1
0.9s 4.00nm 4.2mb

GUN 58.28 294 P 58 24.40 -0.6
PKI 58.71 293 P 58 27.60 -0.3
KKN 58.81 293 P 58 28.80 0.3
DMN 58.97 293 P 58 29.80 0.1
MBC 76.08 14 eP 00 16.50 0.5
YKA 80.22 28 eP 00 37.90 -0.9
0.9s 0.80nm 3.7mb

KIC 145.24 306 PKP 08 07.00 -0.3
TIC 145.28 307 PKP 08 07.20 -0.2
LIC 145.54 306 PKP 08 08.00 0.2
ZOBO 145.60 97 PKP 08 10.00 1.5
S.D. = 0.6 on 15 of 15 obs.

APR 06, 1990 14h 08m 07.93 ± 0.52s
2.518 S ± 6.6km 139.232 E ± 8.1km
DEPTH = 33.0km (normal)
5.0mb (9 obs.) 3.9Msz (1 obs.)

NEAR N. COAST OF WEST IRIAN (197)

MNDI 5.70 129 eP 09 35.00 2.2
PMG 10.43 131 eP 10 36.50 -1.9
MTN 13.02 218 eP 11 13.00 -0.4
eS 13 37.00

KNA 16.71 217 eP 12 02.50 1.3
KUPT 17.27 243 ePd 12 26.20 17.9X
0.7s 172.80nm

WB5 17.90 195 eP 12 15.80 -0.4
eS 15 31.80

QIS 17.93 179 eP 12 16.00 -0.6
e 15 30.00

WRA 17.97 195 Pd 12 14.70 -2.3
0.4s 9.90nm 4.3mb

CTA 18.76 159 iPc 12 27.00 0.2
iPd 12 43.00
ePcP 15 01.30
e 16 30.00
eS 17 48.00

06d 14h

PCI 19.45 274 ePd 12 39.20 4.3X
1.0s 4.50nm 3.7mb X
ASPA 21.65 193 iPd 12 57.00 -0.7
0.5s 30.00nm 5.0mb
Z 20s 0.50um 3.9Msz
iS 16 54.80
LR 21 48.10
RMO 25.53 160 eP 13 35.00 -0.3
MBL 26.46 224 eP 13 45.00 1.0
0.4s 8.00nm 4.7mb
BRS 27.92 154 iP 14 03.20 5.9X
NANU 30.43 227 eP 14 20.50 0.7
0.4s 9.00nm 4.9mb
ADE 32.29 181 eP 14 36.00 0.0
BWA 32.88 166 eP 14 42.30 1.1
CAN 33.88 166 eP 14 50.20 0.4
MRWA 34.54 217 iPd 14 56.20 0.6
0.5s 10.00nm 5.0mb
CHTO 44.94 300 eP 16 22.70 0.8
1.0s 1.80nm 3.9mb
pP 16 43.90 88kmX
BJI 47.33 336 eP 16 39.50 -1.0
GUN 59.51 305 P 18 11.00 -0.1
0.7s 30.00nm 5.5mb
PKI 59.77 304 P 18 12.40 -0.5
KKK 59.96 304 P 18 13.80 -0.2
0.7s 29.00nm 5.5mb
DMN 60.04 304 P 18 14.60 0.0
0.6s 19.00nm 5.4mb
GKN 60.57 304 P 18 18.00 -0.1
KIC 143.89 277 PKP 27 39.76 -2.9X
0.8s 15.00nm
TIC 144.14 278 PKP 27 40.58 -2.6X
LIC 144.18 277 PKP 27 40.62 -2.6X
ZOBO 147.15 126 PKP 27 49.00 0.2
S.D. = 1.0 on 24 of 30 obs.

* APR 06, 1990 14h 17m 42.54±0.68s
15.314 N ±10.0km 147.644 E ±12.2km
DEPTH = 33.0km (normal)
4.1mb (4 obs.)

MARIANA ISLANDS REGION (215)

GUMO 3.19 238 eP 18 33.20 1.6
PJG 3.19 238 eP 18 32.50 0.9
eS 19 06.20
BJI 36.87 318 eP 24 49.50 -0.2
WB5 37.33 201 eP 24 52.70 -1.1
WRA 37.40 201 Pd 24 53.30 -1.1
0.9s 4.70nm 4.3mb
LZH 44.11 306 Pc 25 50.00 0.2
2.5s 60.00nm 5.0mb
i 26 10.00
CHTO 46.58 282 eP 26 09.50 0.0
0.7s 0.48nm 3.6mb
GUN 58.25 294 P 27 36.20 -0.7
PKI 58.68 293 P 27 38.60 -1.3
KKK 58.78 293 P 27 40.20 -0.3
DMN 58.94 293 P 27 40.80 -0.9
GKN 59.35 294 P 27 44.00 -0.3
MBC 75.95 14 eP 29 29.00 1.6
YKA 80.09 28 eP 29 50.90 0.6
0.9s 1.20nm 3.9mb
KIC 145.18 306 PKP 37 19.50 0.1
TIC 145.22 307 PKP 37 19.70 0.2
LIC 145.49 306 PKP 37 20.50 0.6
ZOBO 145.60 97 PKP 37 23.00 2.3X
SIV 152.35 95 PKP 37 38.60 8.1X
S.D. = 0.9 on 17 of 19 obs.

APR 06, 1990 14h 31m 46.14±0.16s
21.618 S ±4.4km 174.213 W ±3.8km
DEPTH = 28.5km (3 depth phases)
5.5mb (33 obs.) 6.4Msz (3 obs.)

TONGA ISLANDS (173)

FAULT PLANE SOLUTION: P-Waves
NP1:Strike=218 Dip=84 Slip=-90
NP2: 38 6 -90

Principal Axes:
T Plg=39 Azm=308
P 51 128

Comment: The focal mechanism is poorly controlled and corresponds to normal faulting. The preferred fault plane is NP1.

RADIATED ENERGY

No. of sta: 4 Focal mech. C
Energy 2.4±1.2*10**12 Nm
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 11S, 23C
Centroid Location:
Origin Time 14:31:50.6 1.5
Lat 22.02S 0.11 Lon 173.93W 0.12
Dep 24.9 6.6 Half-duration 2.0
Moment Tensor: Scale 10**17 Nm
Mrr= 1.19 0.10 Mtt=-0.19 0.16
Mff=-1.00 0.13 Mrt= 0.34 0.29
Mrf= 1.06 0.40 Mtf=-0.53 0.11
Principal Axes:
T Val= 1.63 Plg=68 Azm=281
N 0.05 5 22
P -1.69 21 114
Best Double Couple: Mo=1.7*10**17
NP1:Strike=213 Dip=24 Slip= 101
NP2: 20 66 85

SVL 7.73 296 ePc 33 42.10 2.5
VUN 7.77 296 ePd 33 42.10 1.8
AFI 8.01 17 eP 33 40.00 -3.6X
e(PPP) 35 00.00
eS 38 00.00
MBU 8.11 303 eP 33 45.00 0.7
SGE 8.42 297 ePc 33 52.10 2.7
NDF 8.74 295 eP 33 57.10 3.4X
RAR 13.46 91 P 34 48.00 -9.7X
S 37 07.00
PVC 16.90 280 iPc 35 45.50 3.2X
PUZ 17.64 200 P 35 55.20 3.8X
TAZ 18.39 204 eP 36 03.30 2.6
WLZ 18.41 206 eP 36 04.70 3.7X
PGZ 20.59 201 eP 36 27.50 2.0
0.9s 65.00nm 5.0mb
MNG 20.86 202 eP 36 27.40 -0.9
0.9s 25.00nm 4.6mb
MTW 21.34 202 P 36 34.20 1.1
CAW 21.44 203 eP 36 33.90 -0.3
BLW 21.53 202 eP 36 35.60 0.5
WDW 21.61 203 eP 36 36.50 0.7
MRW 21.68 203 eP 36 34.80 -1.7
WEL 21.71 203 P 36 41.00 4.2X
S 40 35.00
TCW 21.83 204 P 36 36.90 -1.1
THZ 22.83 205 P 36 48.80 0.8
TBI 22.93 99 iP 36 48.50 -0.5
1.3s 195.00nm 5.5mb
KHZ 23.14 204 eP 36 51.50 0.6
0.5s 24.00nm 5.0mb
AFR 23.37 84 iP 36 52.60 -0.7
1.3s 220.00nm 5.5mb
PAE 23.52 85 iP 36 54.30 -0.5
1.3s 235.00nm 5.6mb
PPT 23.55 84 iP 36 54.90 -0.2
1.3s 235.00nm 5.6mb
PPN 23.69 84 iP 36 56.20 -0.2
1.3s 125.00nm 5.3mb
TVO 23.80 85 iP 36 57.30 -0.3
1.3s 165.00nm 5.4mb
LTZ 23.94 205 P 36 58.60 -0.2
MQZ 24.59 203 eP 37 07.40 2.5
PMO 25.81 80 iP 37 15.20 -1.5
1.3s 105.00nm 5.3mb
VAH 25.98 80 iP 37 16.70 -1.6
1.3s 70.00nm 5.1mb
TPT 26.07 80 iP 37 17.70 -1.5
1.3s 130.00nm 5.4mb
RUV 26.22 80 iP 37 18.90 -1.7
1.3s 55.00nm 5.0mb
MHZ 27.04 206 eP 37 27.40 -0.6
MMCZ 27.05 207 P 37 28.20 0.1
TLC 27.23 206 eP 37 30.20 0.5
MSZ 27.31 209 eP 37 33.00 2.7X
HNR 27.63 292 eP 37 32.00 -1.5
BRS 30.53 253 iP 38 04.00 4.6X
COO 31.62 247 eP 38 08.00 -1.0
RMO 34.08 254 eP 38 29.00 -1.5
CNB 34.60 239 eP 38 35.00 0.1
CAN 34.89 239 eP 38 37.50 0.1
BWA 35.17 241 eP 38 37.90 -1.9
RKT 36.25 100 iP 38 48.60 -0.3
1.2s 60.00nm 5.4mb
CMS 36.90 246 eP 38 53.00 -1.3
CTA 36.91 265 iPc 38 52.00 -2.5

1.6s 183.33nm 5.7mb
ipP 38 59.00 24km
ePP 40 18.00
eS 44 33.00
eSS 47 27.00
eScS 49 00.00
CTAO 36.91 265 iPc 38 52.61 -1.9
ePP 40 23.07
PMG 39.04 282 eP 39 10.00 -2.4
OIS 42.98 263 eP 39 41.00 -3.8X
ADE 43.16 242 iPd 39 45.80 -0.4
1.0s 46.00nm 5.2mb
ASPA 47.72 257 iPc 40 20.50 -2.1
1.1s 110.00nm 5.8mb
Z 18s 4.98um 5.5Msz
iS 47 12.10
iScS 50 18.20
LR 59 47.70
WB5 47.94 262 eP 40 21.00 -3.4X
e 41 53.20 478kmX
40 22.10 -2.4
WRA 47.95 262 Pd 40 22.10 -2.4
1.3s 105.40nm 5.7mb
MTN 52.71 270 iPc 40 58.40 -2.4
KNA 54.09 266 eP 41 08.50 -2.4
SBA 57.02 185 iPd 41 36.10 4.8X
VND 57.14 186 iPd 41 36.30 4.1X
COOL 58.02 246 eP 41 38.00 -1.0
MBL 60.96 257 iPc 41 57.40 -2.0
0.4s 16.00nm 5.5mb
NWA 61.03 243 iPc 41 59.22 -0.5
MUN 62.03 244 eP 42 06.00 -0.6
MRWA 62.69 247 eP 42 09.50 -1.4
NANU 64.52 255 eP 42 22.30 -0.7
0.5s 41.00nm 5.8mb
PCI 67.36 278 ePd 42 41.70 0.4
1.2s 5.00nm 4.5mb X
SPA 68.51 180 eP 42 51.10 3.1X
1.4s 76.47nm 5.6mb
KAKJ 71.88 323 eP 43 07.30 -1.2
CHJJ 72.44 322 eP 43 09.60 -2.3
IIDJ 72.68 321 eP 43 12.10 -1.3
ADK 73.21 358 eP 43 14.40 -1.6
NIJ 73.27 323 eP 43 15.50 -1.2
MTMJ 73.50 321 eP 43 17.20 -1.0
TSRJ 73.87 320 eP 43 19.40 -0.8
SYP 75.97 44 eP 43 37.00 4.4X
PRS 76.24 41 eP 43 34.40 0.5
BCH 76.32 43 P 43 35.00 0.5
PRI 76.56 42 e(P) 43 36.20 0.4
BRK 76.71 40 eP 43 36.70 0.3
MHC 76.73 41 eP 43 37.20 0.5
ARN 76.80 41 P 43 37.00 0.0
PAS 76.91 45 eP 43 34.00 -3.7X
MWC 77.03 45 eP 43 39.00 0.4
BAR 77.04 47 eP 43 43.00 4.6X
PLM 77.31 46 eP 43 40.00 -0.1
RVR 77.35 45 eP 43 40.00 -0.1
SBB 77.47 45 eP 43 41.00 0.2
ISA 77.65 44 eP 43 43.00 1.2
FRI 77.69 42 eP 43 41.90 0.0
CMB 77.94 41 eP 43 43.50 0.2
ORV 78.26 39 eP 43 44.80 -0.2
TPC 78.30 46 eP 43 46.00 0.6
CLC 78.30 44 eP 43 45.00 -0.4
WDC 78.34 38 eP 43 45.40 0.0
GSC 78.51 45 eP 43 47.00 0.5
GLA 78.51 48 eP 43 50.00 3.4X
MIN 78.71 38 eP 43 47.10 -0.5
KVN 79.97 41 P 44 04.00 -0.5
KDC 81.12 12 eP 44 00.10 0.2
SSE 81.13 308 Pd 43 59.40 -1.2
1.4s 62.00nm 5.4mb
eS 54 10.00
BMW 81.95 33 P 44 05.00 0.4
LON 82.85 33 iPc 44 08.87 -0.4
PGC 83.33 31 eP 44 12.00 0.5
RMW 83.33 33 P 44 11.70 0.0
MSU 83.39 44 P 44 13.00 0.6
KGM 83.74 275 ePd 44 15.40 1.0
PMR 85.33 12 eP 44 21.10 -0.2
1.7s 213.00nm 6.1mb
ALQ 85.38 50 eP 44 23.00 0.5
1.3s 48.08nm 5.6mb
TTA 85.48 8 eP 44 22.70 0.5
PNT 85.65 32 iPd 44 24.50 1.3
1.1s 81.00nm 5.9mb
NEW 86.26 34 P 44 24.00 -2.3

TOA	1.7s	54.35nm	5.5mb	MOX	150.67	352	ePKP	51	32.00	0.8	KBA	153.87	348	e(PKP)	51	36.00	-0.1	
IPM	86.39	13 eP	44 27.50	0.8		1.5s	96.00nm					1.1s	25.60nm					
	86.81	276 ePc	44 31.30	1.6	Z	18s	8.00um		6.6MsZ		LOMF	154.31	358	PKP	51	45.27	8.7X	
	1.1s	109.40nm	6.0mb		N	20s	5.90um				LOR	154.36	3	ePKP	51	45.70	9.1X	
LRM	87.36	38 eP	44 31.50	-0.5	E	18s	4.20um					1.1s	19.55nm					
BW06	87.40	42 P	44 31.00	-1.2			i	51	38.00		PTJ	154.39	343	ePKP	51	37.80	1.1	
SNG	88.15	278 eP	44 37.90	1.8	BBTK	150.72	314	ePKP	51	33.00	1.3	RBL	154.44	347	PKP	51	28.00	-8.8X
GOL	88.51	46 P	44 38.00	0.3	CSTJ	150.84	295	PKPd	51	38.70	6.6X		e	52	17.00			
COL	88.61	11 iPc	44 36.93	-0.3	PRU	150.85	348	ePKP	51	32.50	1.1	FVI	154.44	349	PKP	51	28.00	-8.6X
FBA	88.61	11 eP	44 36.90	-0.4	PRU	150.85	348	ePKP	51	37.90	6.5X	OGA	154.45	352	ePKP	51	39.00	2.1X
IMA	88.79	8 eP	44 38.60	0.3			e	51	42.20		ZAG	154.46	343	ePKP	51	37.50	0.8	
	2.0s	156.30nm	6.0mb		UCC	150.86	2	PKP	51	39.00	7.6X	VTS	154.50	329	ePKP	51	32.00	-5.1X
BJI	89.19	314 iPc	44 40.73	0.2			e	16	01.00		SSF	154.55	4	ePKP	51	46.20	9.4X	
	2.0s	249.00nm	6.2mb		ENN	150.91	360	ePKP	51	37.00	5.5X		1.1s	24.40nm				
SES	90.72	35 eP	44 48.00	0.5		1.0s	31.00nm				LJU	154.61	346	ePKP	51	38.00	1.1	
LOE	90.97	288 eP	44 50.00	0.8			e	51	43.50		MFF	154.61	10	ePKP	51	45.80	9.0X	
EDM	91.16	32 eP	44 52.50	3.1X	HLBJ	150.94	297	PKPd	51	38.70	6.5X		1.0s	16.00nm				
RSSD	91.54	43 P	44 50.00	-1.6	ISR	151.00	329	ePKPc	51	39.00	7.1X	LBF	154.65	3	ePKP	51	24.63	-12.3X
HIA	91.68	323 iPc	44 52.13	0.3			e	11	09.00		VOY	154.76	347	ePKP	51	37.30	0.1	
KMI	93.01	296 iPc	45 00.40	1.6	MLR	151.02	330	ePKP	51	34.00	2.0X	AVF	154.81	4	ePKP	51	46.40	9.3X
		pP	45 12.00	37km			e	11	11.00			1.0s	8.00nm					
BDT	93.33	287 eP	45 01.90	1.9	MEM	151.07	360	PKP	51	37.80	6.1X	CEY	154.92	346	e(PKP)	51	41.00	3.7X
	0.8s	43.60nm	5.9mb				e	16	02.30				e	52	01.40			
CHG	93.95	289 iPc	45 04.50	1.6	MDSJ	151.08	297	PKPd	51	39.10	6.6X	VBY	154.94	344	ePKP	51	38.60	1.3
	0.8s	31.72nm	5.8mb		HRI	151.10	300	ePKP	51	23.00	-9.5X	SMF	154.98	3	ePKP	51	46.90	9.5X
CHTO	93.95	289 iPc	45 04.44	1.5	SNF	151.14	2	PKP	51	38.40	6.6X	MMB	155.00	327	ePKP	51	36.00	-1.6
INK	94.46	14 eP	45 04.00	-0.2	JARJ	151.19	298	PKPd	51	39.50	6.9X	BGF	155.01	5	ePKP	51	47.00	9.6X
YKA	96.07	24 eP	45 11.50	-0.2	BURJ	151.31	298	PKPc	51	40.60	7.8X	TRI	155.10	347	ePKP	51	41.00	3.5X
	0.8s	1.80nm	4.6mb		TNS	151.38	356	ePKP	51	13.88	-18.4X	KKB	155.11	328	iPKP	51	27.00	-10.7X
LZH	96.27	306 P	45 14.00	0.5	PSZ	151.41	340	ePKP	51	33.70	1.3	LSF	155.18	7	ePKP	51	47.00	9.4X
	2.0s	98.00nm	5.9mb		DOU	151.56	2	PKPd	51	36.40	3.9X	MAF	155.32	5	ePKP	51	47.60	9.8X
Z	20s	0.50um	5.0MsZ				id	51	40.00			1.1s	13.40nm					
ZOBO	98.38	111 P	45 22.00	25km	CMP	151.61	331	ePKPc	51	36.00	3.2X	VAL	155.69	355	PKP	51	45.00	6.7X
MBC	103.15	12 ePdiff	45 45.00	1.7X	GRF	151.66	353	ePKP	51	33.60	0.9	LPG	156.17	358	ePKP	51	49.50	10.1X
GUN	108.19	293 PKP	50 00.00	-14.1X		Z	20s	8.00um		6.5MsZ		CAF	156.55	7	ePKP	51	48.20	8.6X
MAIO	131.36	300 ePKP	50 58.00	0.2			ic	51	40.10			1.1s	9.75nm					
NUR	138.94	346 ePKP	51 12.00	0.8			e	51	48.00		BNI	156.61	358	PKP	51	49.00	9.2X	
NB2	140.43	356 PKP	51 05.60	-8.4X			ePP	15	42.00			e	52	11.00				
	1.4s	12.60nm			ABH	151.76	358	ePKP	51	40.03	7.2X	BOB	156.72	353	PKP	51	32.00	-7.9X
HFS	141.11	354 ePKP	51 07.70	-7.4X	DSI	151.82	297	e(PKP)	51	33.00	-0.4		e	52	10.00			
	1.0s	10.00nm			KHC	151.85	349	ePKPd	51	34.00	1.0	SFI	157.19	349	PKP	51	37.50	-2.8X
TAB	141.54	304 ePKP	51 08.00	-8.8X	KHC	151.85	349	iPKP	51	40.20	7.2X		e	52	05.50			
BHD	144.02	297 ePKPd	51 19.00	-2.0	RUP	151.96	358	ePKP	51	40.58	7.4X	ARV	157.38	346	PKP	51	41.00	0.3
		ePKS	55 02.00		WET	151.96	350	ePKP	51	35.20	2.0X		e	52	14.00			
MSL	144.40	303 ePKPd	51 14.80	-6.8X	ZST	151.97	344	ePKP	51	34.70	1.5	FIR	157.44	350	ePKP	51	40.00	-0.6
OASM	145.27	285 ePKPc	51 23.70	0.3			e	55	19.40		ASS	157.85	347	PKP	51	47.00	5.7X	
COP	145.62	353 iPKPd	51 24.00	1.0			e	11	31.70			e	52	13.00				
	1.2s	225.00nm					e	14	57.80		MNS	158.50	346	PKPd	51	45.00	3.0X	
EKA	145.67	9 PKP	51 23.00	-0.1			e	15	34.50			e	52	16.50				
	1.9s	151.90nm			SRO	151.99	342	ePKP	51	34.20	1.0	AZI	158.69	344	PKP	51	40.00	-2.1X
AAE	145.91	254 ePKP	51 28.00	2.8X			e	51	40.00			e	52	18.00				
DCN	146.79	14 ePKP	51 26.90	1.9X			i	51	49.90		DUI	158.72	342	PKP	51	41.50	-0.8	
DLE	147.00	14 ePKP	51 27.70	2.4X	BUD	152.07	341	ePKP	51	40.50	7.2X		e	52	18.00			
KRA	149.50	342 ePKP	51 29.60	0.2	VKA	152.10	345	e(PKP)	51	22.00	-11.4X	SDI	158.86	343	PKP	51	40.00	-2.4X
	1.3s	115.00nm				Z	17s	5.70um		6.4MsZ			e	52	18.00			
		e	51	34.00			e	51	38.00		BCAO	158.91	218	iPKPd	51	44.60	1.3	
		i	51	39.10			e	15	36.00			0.5s	23.00nm					
CLI	149.61	330 ePKPd	51 33.00	3.3X	LFK	152.18	305	iPKP	51	40.70	6.7X		i	52	21.00			
WTS	149.67	359 ePKP	51 33.00	3.5X	FLN	152.46	9	ePKP	51	41.10	7.3X	BCAO	158.91	218	ePKP	51	40.81	-2.5X
		e	51	37.50			1.0s	50.00nm			ORI	159.49	336	PKP	51	43.00	-0.1	
WTS	149.67	359 ePKP	51 34.50	5.0X	SOP	152.58	344	ePKP	51	33.50	-0.5		e	52	22.00			
	1.0s	52.00nm			MBH	152.61	293	e(PKP)	51	36.00	1.4	MGR	159.75	338	PKP	51	42.00	-1.4
		e	51	40.00	GWf	152.66	357	PKP	51	41.99	7.8X		e	52	22.00			
KSP	149.69	347 ePKP	51 30.50	0.8	LDF	152.67	9	ePKP	51	41.60	7.5X	TDS	159.88	336	PKP	51	43.00	-0.6
	1.0s	80.00nm				1.1s	39.05nm					e	52	23.00				
		id	51	35.50	BADA	152.70	291	ePKP	51	43.30	8.5X	LIC	161.46	144	PKP	51	47.46	1.6
		id	51	40.50	GRR	152.76	10	ePKP	51	42.00	7.7X	KIC	161.73	145	PKP	51	47.82	1.7
		ic	52	28.50		1.0s	44.00nm					1.1s	18.00nm					
CLL	149.83	351 iPKP	51 30.90	1.1	BZS	152.78	335	ePKP	51	34.50	0.1	TIC	161.81	143	PKP	51	47.84	1.6
	1.8s	31.00nm					e	14	29.50		IFR	164.71	37	iPKP	51	50.00	1.2	
CLL	149.83	351 iPKP	51 35.30	5.5X	KMR	152.78	348	iPKP+	51	31.50	-2.8X		S.D. = 1.2 on 155 of 259 obs.					
	1.7s	190.00nm					iPP	15	44.90									
		i	51	49.80	LPF	153.08	10	ePKP	51	42.80	8.1X		APR	06, 1990	14h	43m	50.63±0.66s	
OTFJ	150.02	296 PKPd	51 36.90	6.1X		0.9s	32.75nm						41.277 N ± 7.7km	20.931 E ± 4.9km				
BRG	150.11	350 iPKP	51 30.70	0.4	FUR	153.15	352	iPKPd	51	43.60	8.7X		DEPTH = 10.0km (geophysicist)					
	2.0s	170.00nm			WLS	153.24	358	PKP	51	43.08	8.1X	ALBANIA					(391)	
		i	51	36.50	CDf	153.24	358	PKP	51	43.10	8.0X		ML 3.2 (SKO), 3.0 (TTG).					
		i	51	40.80	BHG	153.34	349	iPKPd	51	43.90	8.8X							
		i	51	50.00	ECH	153.44	358	PKP	51	43.44	8.2X	OHR	0.19	211	iPg	43	54.20	-0.7
		iSg	09	32.00	VITF	153.46	360	PKP	51	43.59	8.4X		iSg	43	58.20			
SPC	150.18	341 ePKP	51 31.60	0.9	HAU	153.67	359	ePKP	51	44.20	8.6X	SKO	0.79	29	iPg	44	04.60	-1.4
		i	51	36.80		1.0s	12.00nm						0.3s	539.00nm				
		e	55	23.70	FEL	153.74	357	ePKP	51	41.08	5.2X		iSg	44	13.50			
		e	14	24.80	FEL	153.74	357	PKP	51	44.32	8.5X		LR	44	18.50			
		e																

06d 14h

PVY	1.50	332	eSg	44	38.00	
			ePg	44	17.20	-0.5
			eSg	44	38.40	
TTG	1.70	313	ePn	44	20.00	-0.4
			eSn	44	43.50	
KKB	1.72	69	iP	44	22.00	1.2
IVA	1.77	335	ePn	44	21.60	0.0
			eSn	44	46.00	
BDV	1.87	303	ePn	44	24.00	1.1
			eSn	44	49.50	
NKY	2.10	317	ePn	44	28.00	1.6
			eSn	44	55.50	
MMB	2.13	81	iPc	44	27.00	0.3
VTS	2.15	52	eP	44	23.00	-4.1X
HCY	2.16	304	ePn	44	28.00	0.8
			eSn	44	55.00	
BRY	2.41	313	ePn	44	31.10	0.3
			eSn	45	02.00	
RZN	2.87	81	eP	44	38.00	0.5
VOY	6.97	315	ePn	45	32.90	-2.5
			eSn	46	51.80	

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

* APR 06, 1990 14h 50m 54.58 \pm 2.42s
 41.225 N \pm 15.1km 21.065 E \pm 17.0km
 DEPTH = 10.0km (geophysicist)
 YUGOSLAVIA (383)
 ML 3.0 (SKO), 3.0 (TTG).

OHR	0.23	241	iPg	50	59.70	0.1
			iSg	51	03.70	
SKO	0.80	21	iPg	51	10.00	-0.1
			iSg	51	19.00	
ULC	1.55	299	ePg	51	20.00	-2.2
			eSg	51	40.80	
PVY	1.59	330	ePg	51	22.00	-1.0
			eSg	51	43.20	
TTG	1.81	312	ePg	51	25.70	-0.2
			eSg	51	48.80	
IVA	1.86	333	ePn	51	27.20	0.4
			eSn	51	51.50	
BDV	1.98	303	ePn	51	29.50	1.0
			eSn	51	54.00	
NKY	2.21	317	ePn	51	33.50	1.6
			eSn	52	01.50	
HCY	2.27	303	ePn	51	33.00	0.2
			eSn	52	01.00	
BRY	2.52	313	ePn	51	36.50	0.2
			eSn	52	07.00	
BEO	3.62	353	iP	51	57.80	6.0X

S.D. = 1.2 on 10 of 11 obs.

APR 06, 1990 14h 57m 20.10 \pm 0.13s
 15.177 N \pm 3.1km 147.596 E \pm 3.3km
 DEPTH = 15.5km (geophysicist)
 5.9mb (51 obs.) 6.1msz (12 obs.)
 MARIANA ISLANDS REGION (215)

Ms 6.2 (BRK), 5.7 (PAS). Depth
 from broadband displacement
 seismograms.

FAULT PLANE SOLUTION: P-Waves
 NP1: Strike= 60 Dip=85 Slip= -90
 NP2: 240 5 -90

Principal Axes:
 T Vol= 3.58 Plg=40 Azm=150
 P 50 330

Comment: The focal mechanism is
 poorly controlled and
 corresponds to normal
 faulting. The preferred fault
 plane is not determined.

RADIATED ENERGY
 No. of sta: 6 Focal mech. M
 Energy 1.1 \pm 0.4 \times 10¹⁴ Nm

MOMENT TENSOR SOLUTION
 Dep 15 No. of sta: 14
 Moment Tensor: Scale 10¹⁸ Nm

Mrr=-0.49 Mtt=-2.12
 Mff= 2.61 Mrt=-1.31
 Mrf= 0.16 Mtf= 2.31

Principal axes:
 T Vol= 3.58 Plg= 5 Azm=113
 N 0.01 67 215
 P -3.59 23 21

Best Double Couple: Mo=3.6 \times 10¹⁸
 NP1: Strike=159 Dip=70 Slip=-167
 NP2: 65 78 -20

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN
 L.P.B.: 15S, 39C M.W.: 10S, 22C

Centroid Location:
 Origin Time 14:57:28.5 0.2
 Lat 15.11N 0.02 Lon 147.82E 0.02
 Dep 15.0 FLX Half-duration 4.5

Moment Tensor: Scale 10¹⁸ Nm
 Mrr=-1.82 0.03 Mtt= 0.34 0.03
 Mff= 1.48 0.03 Mrt=-0.93 0.11
 Mrf= 1.36 0.12 Mtf= 0.49 0.03

Principal Axes:
 T Vol= 1.98 Plg=18 Azm=276
 N 0.69 20 180
 P -2.67 62 45

Best Double Couple: Mo=2.3 \times 10¹⁸
 NP1: Strike= 35 Dip=32 Slip= -50
 NP2: 170 66 -112

GUA	3.07	238	eP	58	01.00	-7.9X
			eS	58	44.50	
GUMO	3.08	239	eP	58	09.00	0.8
PJG	3.08	239	eP	58	10.20	1.2
RAB	19.77	166	e(P)	01	48.00	-4.6X
			iS	05	52.00	
MNDI	21.55	191	eP	02	12.00	0.7
LAT	21.70	182	eP	02	10.50	-2.0
MAJO	22.87	340	ePd	02	21.57	-2.4
			i	02	28.02	
MAT	22.87	340	P	02	30.00	6.0X
DAV	23.04	252	eP	02	26.00	0.2
SHK	23.50	328	eP	02	30.00	-0.1
PMG	24.43	181	eP	02	39.00	-0.3
PGP	25.86	270	ePc	02	53.00	0.1
			1.0s	55.00nm	5.2mb	
BAG	26.02	276	ePd-	02	54.00	-0.6
			1.8s	3227.27nm	6.7mb	
TATO	26.34	296	eP	02	58.13	0.8
			iPc	03	02.26	15kmX
ANP	26.38	296	iP	03	00.00	2.2
			S	07	55.20	
HNR	27.34	153	eP	03	05.00	-1.5
PPR	28.67	263	ePd	03	20.00	1.4
			1.0s	69.00nm	5.4mb	
SSE	28.89	308	P-	03	18.00	-2.4
			1.0s	232.00nm	5.9mb	
Z	20s	28.90um			5.9msz	
N	13s	4.30um				
E	15s	15.00um				
			pP	03	26.00	28kmX
			PP	04	17.00	
			S	08	16.00	
			sS	08	34.00	
			SS	09	56.00	
TSM	31.02	252	eP	03	40.00	0.5
PCI	31.76	242	ePc	03	47.50	1.5
			1.5s	4.00nm	4.1mb X	
YSS	32.00	354	iPd	03	46.00	-1.8
			eS	08	48.00	
KKM	32.11	257	ePc	03	48.50	-0.7
			1.1s	100.20nm	5.7mb	
MTN	32.26	211	iPc	03	49.30	-1.0
			e	06	42.00	
HKC	32.38	288	iP	03	52.50	1.1
			eS	09	16.00	
CTA	35.07	182	iPc	04	13.50	-1.1
			2.4s	1325.00nm	6.4mb	
			epP	04	42.00	126kmX
			iPP	05	13.00	
			iPcP	06	44.00	
			eS	09	45.00	
			eSS	13	00.00	
			eSScS	14	30.00	
			e	14	37.00	
CTAO	35.07	182	ePc	04	16.76	2.2
			epPc	04	22.05	18kmX
KNA	35.92	212	eP	04	21.50	-0.3
OIS	36.37	193	iPd	04	25.40	-0.2
BJI	36.94	318	ePd	04	29.69	-0.5
			1.5s	590.00nm	6.2mb	
Z	24s	33.75um			6.1mszX	
N	17s	12.80um				
E	18s	12.63um				
			epPd	04	34.32	16kmX
			esPc	04	36.80	
			ePP	05	55.10	
			eS	10	12.00	

WB5	37.19	201	iPd	04	32.00	-0.5
			iPcP	06	55.00	
			eS	10	22.00	
WRA	37.26	201	Pd	04	32.50	-0.6
	0.9s	94.80nm				5.6mb
PET	38.75	11	eP	04	45.00	-0.3
			eS	10	40.00	
KHK I	39.40	236	ePd	04	50.10	-1.0
ASPA	40.86	199	iPd	05	02.90	-0.2
	1.0s	95.00nm				5.5mb
Z	19s	16.02um				5.9Ms z
			iS	11	15.30	
			LR	23	12.40	
HIA	40.91	332	ePd	05	02.81	-0.4
			epPd	05	06.95	14 kmX
			esPc	05	09.43	
			eHPP	06	42.62	
			ePP	06	43.73	
			eS	11	14.77	
RMO	41.43	178	eP	05	07.00	-0.7
			e	05	26.00	
			e	07	20.00	
TRT	41.44	239	ePd	05	08.30	0.4
	1.3s	253.80nm				5.8mb
BRS	42.61	173	eP	05	22.50	5.1 X
			e	07	20.50	
			i	09	35.30	
			e(S)	10	57.00	
SMY	42.95	23	P	05	20.00	0.2
	1.0s	133.33nm				5.6mb
KMI	43.09	291	ePd	05	23.17	1.5
	2.5s	0.60nm				2.9mb X
Z	24s	23.10um				6.0Ms z X
E	18s	29.70um				
			epPd	05	27.31	14 kmX
			esPc	05	30.12	
			eS	11	50.44	
			SS	15	10.00	
LOE	44.00	279	eP	05	29.00	0.1
LZH	44.15	306	ePd	05	31.48	1.4
	2.5s	3016.00nm				6.7mb
Z	50s	39.90um				5.9Ms z X
N	16s	8.90um				
E	16s	11.80um				
			epPd	05	35.78	14 kmX
			esPc	05	38.43	
			i	06	11.00	
			i	06	39.00	
			eHPP	07	18.85	
			ePP	07	21.89	
			PPP	07	56.00	
			eS	12	05.42	
			sS	12	17.00	
			SS	15	18.00	
MBL	45.24	218	eP	05	38.00	-0.7
	0.7s	35.00nm				5.4mb
KGM	45.57	258	eP	05	43.00	1.5
COO	45.68	175	eP	05	43.60	1.5
ADK	46.36	30	e(P)	05	47.30	0.1
CHG	46.56	282	iPd	05	49.80	0.5
	1.0s	78.75nm				5.7mb
			eS	12	46.00	
CHTO	46.56	282	ePd	05	49.94	0.7
			epPd	05	54.41	15 kmX
			esPc	05	57.06	
BDT	46.61	280	eP	05	51.00	1.3
	0.8s	185.90nm				6.2mb
SNG	46.69	266	eP	05	57.00	6.7 X
			eS	12	04.80	
IPM	46.97	262	ePc	05	52.20	-0.4
	1.2s	84.50nm				5.7mb
BWA	49.33	179	eP	06	12.10	1.5
FORR	49.45	202	eP	06	12.00	0.4
			i	06	15.30	
CAN	50.24	179	eP	06	19.10	1.6
CNB	50.24	178	eP	06	20.00	2.4
			e	06	32.00	
IRK	50.42	327	ePd	06	18.00	-0.8
			eS	13	25.00	
ADE	50.58	189	iPd	06	20.00	-0.2
	1.0s	330.00nm				6.2mb
COOL	52.39	209	eP	06	33.00	-0.9
TOO	52.50	182	iPc	06	35.60	0.9
			e	06	38.00	
SHL	52.92	291	iP	06	34.00	-4.3 X
			iS	14	02.20	
MRWA	53.66	215	eP	06	42.40	-0.9

	0.5s	24.00nm	5.4mb	MAIO	79.68	305	iPd-	09	30.40	1.4		Z	18s	5.50um	6.0msz
BAL	54.37	213 eP	06 47.80	-0.7			i	12	33.00					i	10 36.80
MUN	55.71	212 eP	06 57.30	-1.0			eS	19	36.00					e	21 08.00
NWAO	55.95	211 ePc	07 01.55	1.6	WDC	80.19	51 eP	09 32.00	0.5					e	22 44.00
Z	20s	5.50um	5.6msz	17kmX	YKA	80.24	28 eP	09 30.30	-0.9					e	25 24.00
		epPc	07 06.68			1.3s	34.30nm		5.2mb					LR	57 04.00
WMQ	57.99	312 ePP	09 06.97		PNT	80.44	42 ePd	09 33.00	0.3		RSSD	92.22	43 P	10 31.20	0.3
		ePd	07 15.08	0.5		0.8s	94.00nm		5.8mb		MSL	92.34	309 ePc	10 30.50	-0.8
		esPd	07 19.06	13kmX	MIN	80.94	51 eP	09 35.60	-0.1				ePP	14 10.00	
		esPc	07 22.04		BRK	80.96	53 eP	09 36.00	0.4				eSKS	21 03.50	
		eS	15 12.63		ORV	81.19	51 eP	09 36.60	-0.2				eSKKS	21 41.00	
GUN	58.26	294 P	07 17.40	0.4	GCC	81.34	54 eP	09 38.00	0.4		BHD	92.45	305 ePc	10 31.00	-0.9
PKI	58.69	293 P	07 20.00	0.0	ARN	81.64	54 P	09 40.30	1.1				ePP	14 21.00	
KKN	58.80	293 P	07 20.60	0.0	DRV	81.80	183 eP	09 42.00	2.8				eSKS	21 07.00	
DMN	58.95	293 P	07 21.80	0.0	PRS	81.99	55 eP	09 41.30	0.3				eSKKS	21 38.00	
GKN	59.36	294 P	07 24.20	-0.2	NEW	82.29	42 P	09 42.10	-0.3		VNDA	92.88	177 P	10 33.20	0.4
THZ	61.29	159 eP	07 34.80	-2.3	CMB	82.37	53 ePd	09 43.00	0.0		GOL	93.02	48 P	10 35.60	0.9
TCW	61.30	157 eP	07 34.50	-2.6	PRI	82.59	55 eP	09 45.20	0.9			0.8s	28.27nm		5.7mb
KDC	61.37	32 e(P)	07 36.70	-0.7	PHAM	82.87	55 P	09 47.00	1.4		SBA	93.50	176 iP	10 48.10	12.4X
MRW	61.48	157 P	07 36.20	-2.1	KBS	83.01	352 iP	09 46.20	0.7		ANMO	93.99	52 P	10 39.40	0.2
WEL	61.55	157 eP	07 36.90	-1.9	FRI	83.14	54 eP	09 47.30	0.4			1.4s	43.02nm		5.6mb
PGZ	61.57	155 eP	07 33.50	-5.4X	BCH	83.27	56 P	09 49.00	1.2		ALO	93.99	52 eP	10 39.00	-0.2
	1.0s	146.00nm	6.1mb		EDM	83.31	37 iPd	09 47.80	0.3			1.0s	22.50nm		5.5mb
TTA	61.59	26 eP	07 38.70	-0.3	KVN	83.87	51 P	09 51.20	0.3		Z	18s	3.73um		5.9msz
WDW	61.62	157 eP	07 37.50	-1.8	ABL	84.04	56 P	09 53.00	1.1		UPP	95.07	337 iP	10 47.50	4.1X
BLW	61.89	156 eP	07 38.50	-2.7	ISA	84.43	55 eP	09 54.00	0.4		RSON	95.32	34 P	10 43.40	-1.3
LTZ	61.97	160 P	07 40.00	-1.7	PAS	85.05	56 ePc	09 55.41	-1.2			1.7s	99.07nm		6.0mb
KHZ	62.09	158 eP	07 39.60	-2.8			epPd	10 00.21	15kmX		HFS	96.31	339 eP	10 51.50	2.4
	0.8s	53.00nm	5.8mb				esPd	10 03.36				0.5s	1.60nm		4.8mb X
MSZ	62.37	164 eP	07 43.00	-1.2			ePP	13 04.00			NB2	96.49	340 P	10 48.70	-1.3
MMCZ	63.01	163 eP	07 47.80	-0.8			eSKS	20 20.00				0.9s	16.80nm		5.6mb
MHZ	63.11	163 eP	07 48.70	-0.6			ePS	21 22.00			FRB	96.53	15 eP	10 50.00	0.0
TLC	63.17	163 P	07 50.60	0.9			ePPS	22 05.00			BBTK	98.41	315 eP	10 59.00	-0.1
IMA	63.77	23 eP	07 53.20	-0.3			eSS	26 24.00			VR1	99.21	323 ePc	11 08.00	5.5X
	3.0s	869.60nm	6.4mb				eSSS	31 08.00			COP	99.98	336 eP	11 10.00	4.2X
PMR	64.14	28 eP	07 54.60	-1.2			eLR	35 40.00					i	15 15.00	
	2.4s	611.10nm	6.3mb		CLC	85.08	54 eP	09 57.00	0.2		UZH	100.10	327 ePdiff11	10 00.00	3.6X
Z	20s	5.00um	5.7msz		MWC	85.12	56 eP	09 58.00	0.7		KSP	101.70	331 ePdiff11	12 50.00	-1.0
BRW	65.04	17 eP	08 01.70	0.2	SBB	85.19	56 eP	09 58.00	0.6		SRO	102.70	328 e(Pdiff11	17 10.00	-0.8
TOA	65.63	28 eP	08 05.50	0.0	SES	85.52	39 ePd	09 59.00	0.3				e	15 48.50	
COL	65.68	25 ePd	08 04.56	-1.1		1.2s	394.00nm		6.5mb		BRG	102.77	332 ePdiff11	17 00.00	-0.4
		esPc	08 12.17		RVR	85.73	56 eP	10 00.00	-0.1			3.0s	95.00nm		6.0mb
		iS	16 49.97		KEV	85.82	343 ePd	09 59.94	0.1		Z	18s	6.50um		6.2msz
FBA	65.68	25 eP	08 04.10	-1.6	Z	18s	8.60um		6.2msz		N	20s	6.00um		
NDI	65.85	295 iPd	08 06.80	-0.6			epPc	10 05.07	16kmX		E	20s	6.00um		
	1.0s	205.00nm	6.2mb				esPc	10 06.89					i	11 30.50	
		eS	16 52.00				ePP	13 26.51					e	14 26.00	
		eSS	21 34.00				e	20 32.00					i	15 25.00	
HYB	65.98	283 iPd	08 07.80	-0.6			e	24 40.00					i	15 36.00	
	1.0s	110.00nm	6.0mb				LR	52 26.00					eSKS	22 04.00	
FRU	67.41	310 iPd	08 17.00	-0.2	GSC	85.84	55 eP	10 01.00	0.3				i	23 12.00	
		eS	17 14.00		PEC	85.93	56 P	10 00.00	-1.1				e	25 24.00	
GBA	67.70	279 Pd	08 18.50	-0.8	LRM	86.03	44 ePd	10 02.10	0.5		CLL	102.88	333 iPdiff11	24 90.00	6.2X
	1.2s	57.90nm	5.6mb		PLM	86.31	57 eP	10 03.00	-0.2		Z	18s	8.50um		6.3msz
KOD	68.35	275 eP	08 24.00	0.2	IR2	86.60	306 eP	10 04.00	-0.5				eSKS	22 05.00	
		eS	17 22.00		BAR	86.65	57 eP	10 04.00	-0.7				PKKP	27 42.00	
AFR	69.78	115 iP	08 34.10	2.0			e	13 30.00			PRU	103.11	331 ePdiff11	20 00.00	0.3
	1.4s	305.00nm	6.2mb		IR4	86.72	305 iPd	10 05.50	0.4		Z	16s	7.90um		6.3mszX
PPT	69.97	115 iP	08 35.40	2.1	TPC	86.76	56 eP	10 05.00	-0.2		N	16s	4.10um		
	1.4s	200.00nm	6.1mb		IR7	86.82	306 eP	10 05.00	-0.5		E	15s	3.30um		
PPN	70.08	115 iP	08 35.90	2.0	SOD	87.27	341 iP	10 06.30	-0.6				e	11 30.00	
	1.4s	195.00nm	6.0mb				i	10 11.80					PP	15 25.50	
POO	70.21	285 iPd	08 32.80	-2.0	DAG	87.88	357 iPd	10 09.00	-0.7				SKS	22 06.00	
TVO	70.33	115 iP	08 37.80	2.2		0.7s	17.12nm		5.5mb				PS	25 20.00	
	1.4s	435.00nm	6.4mb		GLA	88.03	56 eP	10 12.00	0.7		KHC	104.16	331 ePdiff11	25 10.00	0.6
PMO	70.45	112 iP	08 36.80	0.6	MSU	88.46	51 P	10 12.90	-0.7		Z	20s	8.00um		6.3msz
	1.4s	345.00nm	6.3mb		DAU	88.54	49 P	10 13.80	-0.2		N	22s	3.80um		
TPT	70.69	112 iP	08 38.00	0.4	BW06	88.97	46 P	10 16.00	0.1		E	22s	4.40um		
	1.4s	270.00nm	6.2mb		FFC	89.06	33 ePc	10 16.10	0.4				e	14 36.10	
VAH	70.77	112 iP	08 38.40	0.2		2.2s	231.00nm		6.1mb		VAY	104.26	320 ePdiff11	24 40.00	-0.6
	1.4s	145.00nm	5.9mb		OBN	89.19	328 iPd	10 14.50	-1.8		SKO	104.56	322 iPdiff11	26 00.00	-0.4
RUV	70.98	112 iP	08 39.80	0.4	Z	18s	12.60um		6.4msz		Z	17s	5.15um		6.1mszX
	1.4s	285.00nm	6.2mb				eS	20 44.00			N	17s	4.23um		
BOM	71.11	285 eP	08 39.40	-0.8	TAB	89.38	309 eP	10 23.00	5.2X		E	20s	4.68um		
		iS	17 57.40		BRF	89.56	297 (P)	10 27.90	9.3X				i	11 32.20	
INK	71.90	23 eP	08 44.00	-0.1		1.3s	355.00nm		6.5mb				iPP	15 46.00	
	0.8s	51.00nm	5.6mb		BBU	89.63	297 (P)	10 28.30	9.4X				iSKS	22 05.00	
QUE	74.57	298 eP	09 00.60	-0.1	BEE	89.63	297 eP	10 28.20	9.3X				iS	23 29.00	
	1.3s	107.69nm	5.7mb			1.4s	380.00nm		6.5mb				iPS	25 04.00	
		eS	18 36.60		KER	89.96	306 eP	10 22.00	1.4				iSS	31 00.00	
MBC	76.09	14 ePd	09 08.60	0.3	SUF	90.07	337 eP	10 19.30	-1.0				i(SSS)	34 00.00	
	1.0s	143.00nm	6.0mb		SLY	90.81	307 ePc	10 22.00	-2.2				LR	03 48.50	
MCW	78.49	43 P	09 22.40	0.3			ePP	14 03.00			PTJ	105.18	327 ePKP	15 45.50	1.9
BMW	78.60	45 P	09 21.80	-1.0			eSKS	20 54.00			ZAG	105.22	327 ePKP	15 49.00	5.5X
GMW	78.71	44 P	09 24.00	0.6			eSKKS	21 19.00			OHR	105.46	321 ePdiff11	30 00.00	-0.5
SHW	79.33	45 P	09 27.90	1.0	NUR	91.93	335 iP	10 28.20	-0.7			1.1s	54.00nm		6.4mb
RMW	79.38	44 P	09 28.50	1.4		1.1s	55.20nm		5.9mb		DBN	105.50	337 ePKP	15 53.00	9.2X

06d 15h

TNS 105.65 334 ePKPc 15 53.90 9.6X
 LJU 105.82 328 ePdiff 11 34.00 2.1X
 LJU 105.82 328 ePKP 15 54.00 9.3X
 e 22 16.00
 RBL 106.03 329 PKP 15 52.00 6.8X
 ENN 106.26 336 ePKP 15 55.00 9.7X
 2.0s 84.00nm
 ABH 106.29 334 ePKP 15 56.61 11.1X
 RUP 106.63 334 ePKP 15 59.05 12.9X
 SAL 108.12 330 PKP 15 41.00 -8.0X
 ARV 108.38 327 PKP 15 55.00 5.3X
 SFI 108.66 328 PKP 15 57.50 7.4X
 VAI 108.77 331 PKP 16 00.20 10.0X
 DUI 108.81 325 PKP 16 06.00 15.4X
 ASS 108.83 327 PKP 15 51.00 0.4
 SGO 109.06 323 PKP 16 08.50 17.6X
 SDI 109.14 325 PKP 16 04.00 12.8X
 AZI 109.15 326 PKP 16 07.50 16.4X
 BNI 110.35 332 PKP 15 58.00 4.5X
 SLR 122.60 249 ePKP 16 17.20 -0.2

0.9s 21.01nm
 Z 20s 6.38um 6.3Msz
 PRY 123.35 248 ePKP 16 22.70 3.8X
 KSR 123.85 249 ePKP 16 06.50 -13.4X
 0.7s 7.50nm
 BFS 123.97 248 ePKP 16 18.00 -2.1X
 0.6s 18.67nm
 IFR 125.03 332 iPKP 16 23.00 1.0
 i 16 29.00
 BCAA 125.92 287 ePKP 16 23.44 -0.7
 e 16 29.00
 eHPP 18 14.10
 ePP 18 14.66

AVE 126.21 334 ePKP 16 28.00 3.9X
 UPA 127.49 66 ePKP 16 29.90 2.9X
 TIO 128.18 332 iPKPd 16 28.60 0.5
 PSO 132.70 74 ePKP 16 38.00 0.5
 WIN 132.75 253 ePKP 16 39.00 1.9
 BMG 134.03 64 ePKP 16 21.50 -18.1X
 LNV 140.20 125 ePKP 16 46.50 -3.9X
 SAN 140.95 125 ePKP 16 56.00 4.2X
 PCH 141.02 125 ePKP 16 59.00 7.0X
 KUK 141.81 301 ePKP 16 48.50 -5.4X
 RTRS 142.88 120 e(PKP) 16 53.90 -1.3
 e 16 56.60

RTCB 143.06 122 e(PKP) 16 57.00 1.3
 RTLL 143.37 122 e(PKP) 16 53.00 -3.1X
 e 16 56.70
 KIC 145.22 306 PKP 16 59.38 -0.3
 TIC 145.26 307 PKP 16 59.40 -0.4
 LIC 145.53 306 PKP 17 00.32 0.1
 ZOBO 145.62 97 iPKPd 17 02.13 1.1
 iPKPc 17 06.93

LPB 145.66 97 PKP 17 03.00 2.1X
 LR 04 40.00
 CCH 147.56 99 PKP 17 08.00 4.2X
 SIV 152.38 96 PKP 17 11.80 1.0
 i 17 15.40
 BAO 164.96 94 ePKP 17 26.80 1.4
 S.D. = 1.1 on 193 of 241 obs.

* APR 06, 1990 16h 03m 03.26± 0.50s
 36.455 N ± 14.9km 71.457 E ± 9.9km
 DEPTH = 33.0km (normal)
 4.3mb (6 obs.)

AFGHANISTAN-USSR BORDER REGION (717)

MAIO 9.65 273 eP 05 23.00 0.0
 eS 07 03.00
 GKN 13.97 123 P 06 21.20 0.0
 0.4s 7.00nm 4.8mb
 DMN 14.54 123 P 06 28.60 -0.2
 KKN 14.54 123 P 06 28.40 -0.3
 PKI 14.77 123 P 06 32.20 0.4
 0.4s 5.00nm 4.3mb
 GUN 14.88 121 P 06 33.40 0.1
 0.4s 6.00nm 4.3mb
 HFS 43.33 322 eP 11 03.90 0.4
 0.8s 8.70nm 4.6mb
 NB2 44.64 323 P 11 13.60 -0.5
 0.5s 2.00nm 4.2mb
 YKA 81.27 3 eP 15 17.10 0.1
 0.4s 0.20nm 3.5mb
 S.D. = 0.4 on 9 of 9 obs.

APR 06, 1990 16h 23m 07.46± 0.32s
 26.194 N ± 5.8km 128.708 E ± 6.4km

DEPTH = 29.5km (4 depth phases)

4.8mb (16 obs.)

RYUKYU ISLANDS (238)

Felt (1 JMA) at Naha.

KAGJ 5.33 21 eP 24 26.00 -1.1
 eS 25 23.90
 KUMJ 6.58 16 eP 24 44.30 -0.5
 SSE 8.22 308 Pd 25 14.50 6.9X
 1.0s 29.00nm 5.4mb
 Z 12s 4.10um 4.4Msz
 N 10s 26.00um
 E 10s 2.80um

i 25 26.00
 LZH 23.40 301 P 28 12.50 -2.4
 1.6s 70.00nm 4.9mb
 pP 28 25.00 51kmX
 i 28 36.50
 KMI 23.42 273 eP 28 15.50 0.3
 pP 28 24.00 30km
 sP 28 27.50

CHG 28.42 261 eP 29 03.70 2.0
 CHTO 28.42 261 eP 29 02.70 1.0
 1.0s 2.40nm 3.9mb

SHL 33.07 277 iP 29 41.00 -2.0
 GUN 38.04 283 P 30 25.20 -0.3
 0.8s 43.00nm 5.3mb

PKI 38.50 282 P 30 28.70 -0.7
 KKN 38.58 282 P 30 29.60 -0.3
 DMN 38.76 282 P 30 30.90 -0.6
 GKN 39.12 283 P 30 33.70 -0.6
 NDI 45.48 285 eP 31 24.70 -1.3
 WB5 46.13 173 eP 31 31.00 0.0

WRA 46.19 173 Pd 31 31.10 -0.4
 0.4s 2.10nm 4.4mb
 HYB 47.14 270 eP 31 39.00 -0.3
 OIS 47.66 166 eP 31 43.00 -0.2

CTA 49.06 158 iPc 31 54.50 0.5
 0.8s 8.96nm 4.8mb
 i 32 03.00 28km

GBA 49.52 266 Pc 31 57.60 -0.1
 0.5s 1.90nm 4.4mb
 ASPA 49.82 174 iPd 31 59.80 0.0

1.5s 12.00nm 4.7mb
 POO 51.00 273 eP 32 08.00 -1.0
 MAIO 58.91 298 eP 33 07.00 0.7

INK 68.75 23 eP 34 10.00 -0.3
 MBC 69.76 14 eP 34 16.50 0.2
 1.0s 12.00nm 4.9mb

SOD 70.61 336 iP 34 21.30 -0.3
 SUF 72.57 332 eP 34 32.80 -0.6
 1.0s 17.10nm 5.0mb

NUR 74.13 330 iP 34 42.10 -0.4
 DAG 75.36 353 eP 34 49.00 -0.4
 BBTK 77.97 308 eP 35 04.00 -0.8

YKA 78.38 25 eP 35 06.50 0.1
 0.7s 1.70nm 4.2mb
 HRI 78.42 301 eP 35 08.00 0.6

HFS 79.05 332 eP 35 09.50 -0.6
 0.7s 3.10nm 4.4mb
 Z 17s 0.46um 4.9MszX

LR 06 38.00
 DSI 79.39 300 eP 35 13.00 0.5
 MNG 79.41 146 eP 35 12.30 0.0

0.2s 20.00nm 5.8mb
 VRI 79.41 316 ePd 35 13.00 0.6
 ed 51 33.00

MRW 79.48 147 P 35 24.30 11.7X
 NB2 79.54 334 P 35 12.20 -0.6
 0.8s 6.60nm 4.7mb

PGZ 79.82 145 eP 35 12.20 -2.2
 MLR 80.07 316 eP 35 18.00 1.9
 e 51 40.00

e 05 27.00
 MBH 80.52 298 eP 35 19.00 0.4
 KRA 81.41 322 eP 35 23.10 0.2

KSP 82.98 324 eP 35 32.00 1.0
 ZST 83.98 321 eP 35 38.00 1.9
 e 51 35.80

BRG 84.19 325 eP 35 37.00 -0.2
 VAY 84.22 313 eP 35 37.50 0.0
 PRU 84.38 324 P 35 39.00 0.9

CLL 84.42 325 iPc 35 38.90 0.6
 1.4s 20.00nm 5.1mb
 e 35 48.00 29km

SKO 84.63 314 iP 35 40.50 0.9
 KHC 85.39 323 Pc 35 43.90 0.6

GRF 86.30 325 eP 35 50.00 2.2
 e 35 59.80 31km
 FFC 88.43 27 iPd 35 58.80 0.9
 0.9s 13.00nm 5.2mb
 FRB 89.34 8 eP 36 07.00 5.0X
 S.D. = 1.0 on 50 of 53 obs.

APR 06, 1990 16h 31m 34.46± 0.24s
 25.988 S ± 6.8km 175.955 W ± 4.6km
 DEPTH = 32.3km (3 depth phases)
 5.5mb (26 obs.) 5.9Msz (8 obs.)

SOUTH OF TONGA ISLANDS (175)

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN

L.P.B.: 14S, 25C

Centroid Location:

Origin Time 16:31:41.8 1.0

Lat 26.43S 0.11 Lon 176.16W 0.11

Dep 15.0 FIX Half-duration 2.9

Moment Tensor: Scale 10**17 Nm

Mrr= 0.48 0.19 Mtt=-0.24 0.25

Mff=-0.24 0.27 Mrt= 1.67 0.61

Mrf= 4.51 0.63 Mtf=-2.32 0.22

Principal Axes:

T Vol= 4.67 Plg=46 Azm=263

N 1.17 22 17

P -5.84 36 124

Best Double Couple: Mo=5.2*10**17

NP1: Strike=273 Dip=22 Slip= 167

NP2: 15 85 68

SVA 9.39 325 eP 33 53.00 2.4

eS 35 08.00

VUN 9.48 326 eP 33 51.20 -0.6

NDF 10.22 322 eP 34 03.40 1.3

PUZ 13.01 201 eP 34 30.80 -8.8X

S 36 55.20

RAR 15.57 76 P 35 05.00 -8.3X

S 37 43.00

PVC 16.74 296 iPc 35 31.00 2.8

WEL 17.08 204 eP 35 35.00 2.7

S 38 26.00

KHZ 18.52 205 eP 35 41.70 -8.4X

0.3s 25.00nm 4.9mb

MSZ 22.74 211 eP 36 25.00 -9.8X

TBI 24.21 89 iP 36 48.20 -1.0

1.0s 75.00nm 5.2mb

AFR 25.69 76 iP 37 03.40 0.0

1.4s 200.00nm 5.5mb

PAE 25.81 77 iP 37 04.60 0.1

1.4s 235.00nm 5.6mb

PPT 25.85 76 eP 37 05.10 0.2

1.4s 270.00nm 5.7mb

PPN 25.99 76 iP 37 06.50 0.3

1.4s 125.00nm 5.3mb

TVO 26.05 77 iP 37 07.20 0.3

1.4s 185.00nm 5.5mb

BRS 27.94 260 iPd 37 25.00 1.0

i 37 35.00 36km

COO 28.63 253 eP 37 32.00 1.8

CNB 31.12 244 eP 37 52.00 -0.4

CAN 31.42 244 eP 37 58.20 3.2X

i 38 01.40 11kmX

RMQ 31.60 261 eP 37 57.00 0.4

e 38 06.00 31km

BWA 31.79 246 eP 37 56.80 -1.4

TOO 34.53 241 eP 38 23.00 1.0

CTA 35.18 272 iPc 38 25.70 -2.0

Z 20s 16.31um 5.8Msz

e 38 34.00

epP 39 55.00 481kmX

ePP 40 03.00

e 43 47.00

eS 44 21.00

eSS 46 30.00

PMG 38.64 288 iPd 38 54.50 -2.3

1.0s 80.00nm 5.5mb

ADE 39.80 246 eP 39 06.20 -0.2

QIS 41.03 268 eP 39 15.00 -1.6

ASPA 45.35 262 iPd 39 50.10 -1.6

0.5s 31.00nm 5.5mb

Z 18s 18.08um 6.1Msz

iPcS 45 23.30

iS 46 25.80

LR 58 48.00

WB5 45.94 267 eP 39 54.40 -1.9

WRA 45.94 267 Pc 39 53.50 -2.9X

DRV	1.0s	23.60nm	5.1mb	1.0s	31.25nm	5.7mb	ENN	155.22	357	ePKP	51	41.00	15.9)	
FORR	48.89	202 iPc	40 21.40	2.6	93.33	9 P	44 46.40	-0.6	1.0s	11.00nm				
KNA	49.02	251 eP	40 19.00	-1.3	0.8s	6.03nm		5.1mb	KHC	155.73	345 PKP	51	25.20 -0.8	
SBA	52.32	270 eP	40 44.00	-1.6	KMI	93.48	296 Pc	44 50.00	1.4	Z 18s	1.30um		5.8Msz	
VNDA	52.56	185 e(P)	40 51.00	4.4X			sP	45 12.00		N 19s	0.70um			
CDOL	52.65	186 eP	40 52.90	5.6X	CHG	93.84	289 ePd	44 52.00	1.9	E 19s	0.60um			
MBL	54.89	249 eP	41 02.80	-1.7		1.0s	34.75nm		5.7mb		e	51	54.00	
	58.54	260 eP	41 29.00	-1.5	CHTO	93.84	289 iPc	44 52.00	1.9	KDZ	156.44	317 ePKP	51	47.00 19.8)
	0.5s	6.00nm		4.9mb	SES	95.20	36 eP	44 55.00	-0.7	RZN	156.85	318 ePKP	51	40.00 12.1)
BAL	58.68	249 eP	41 30.00	-1.3	EDM	95.69	32 ePc	44 57.80	-0.1	KBA	157.70	343 e(PKP)	51	42.00 13.2)
NANU	61.90	257 eP	41 52.00	-1.5	RSSD	95.81	43 P	44 59.40	0.5		1.0s	16.10nm		
SPA	64.16	180 eP	42 10.60	2.6	LZH	97.55	306 eP	45 09.50	2.6			i	52	02.40
	1.1s	23.21nm		5.2mb			i	45 24.00	49kmX			e	55	30.50
Z	20s	10.09um		6.0Msz	INK	99.07	15 eP	45 14.00	1.2	KIC	158.75	155 PKP	51	30.16 -0.5
KAKJ	74.43	324 P	43 11.00	-0.1	YKA	100.70	24 ePd	45 19.20	-1.2	OHR	159.50	322 ePKP	51	33.00 2.2)
CHJJ	74.93	324 P	43 13.50	-0.6		1.0s	1.50nm		4.5mb		S.D. = 1.2	on 108 of 157 obs.		
IIDJ	75.09	322 P	43 14.40	-0.7	PKI	108.70	292 Pd	46 00.00	2.7X					
NIJJ	75.82	324 P	43 23.30	4.2X	FRB	120.67	30 ePKP	50 23.00	-0.9					
MTMJ	75.97	323 P	43 19.60	-0.5	SLR	123.51	206 ePKP	50 23.50	-7.3X					
TSRJ	76.21	321 P	43 21.10	-0.2		Z 20s	4.26um		6.1Msz					
ADK	77.53	360 eP	43 26.90	-1.4	KSR	123.93	205 ePKP	50 16.70	-15.0X					
KUSJ	77.69	332 P	43 30.20	0.8	DAG	127.96	7 ePKP	50 36.00	-1.7					
HOOJ	77.73	330 eP	43 31.80	2.2	WIN	130.10	196 ePKP	50 49.50	5.9X					
MRRJ	78.77	329 eP	43 33.40	-1.9	MAIO	132.01	296 ePKP	50 35.00	-11.7X					
ASAJ	79.40	331 eP	43 41.00	2.2	SOD	136.34	348 iPKP	51 03.00	9.2X	SVA	7.82	297 eP	47	30.00 1.2
PRS	80.55	42 eP	43 54.60	9.5X	SUF	140.45	344 ePKP	51 01.00	-0.5	VUN	7.86	297 eP	47	31.00 1.5
BCH	80.58	43 P	43 45.80	0.4		0.7s	4.40nm			NDF	8.83	296 eP	47	50.10 7.2X
GCC	80.65	41 eP	43 46.20	0.6	TA8	142.48	299 ePKP	51 02.00	-4.1X	MNG	20.69	203 eP	50	14.40 0.1
PCC	80.74	40 eP	43 46.50	0.5	NUR	142.71	343 ePKP	50 58.00	-7.5X	THZ	22.66	206 eP	50	36.00 1.9
SAO	80.80	41 eP	43 46.60	0.2	SLY	143.35	295 ePKPd	51 07.00	-0.4	TBI	22.90	99 eP	50	36.00 -0.5
PRI	80.85	42 eP	43 47.60	0.7	BHD	144.36	291 ePKPd	51 09.00	-0.2		0.9s	25.00nm		4.7mb
BRK	81.07	40 eP	43 48.00	0.3	QASM	144.61	279 ePKPc	51 10.00	0.1	PAE	23.54	84 eP	50	42.00 -0.8
ARN	81.14	41 P	43 48.80	0.6	NB2	144.62	354 PKP	51 06.80	-2.1		0.8s	20.00nm		4.7mb
MWC	81.24	45 eP	43 43.00	-6.0X		1.1s	53.40nm			PPN	23.71	84 eP	50	44.00 -0.4
PLM	81.46	47 eP	43 50.00	-0.2	UPP	144.86	348 iPKP	51 07.20	-2.0		0.8s	25.00nm		4.8mb
RVR	81.53	46 eP	43 50.00	-0.3			i	51 14.80		LTZ	23.77	205 eP	50	47.20 2.3
SBB	81.68	45 eP	43 50.00	-1.1	MSL	145.19	297 ePKP	51 10.00	-0.5	MSZ	27.14	209 eP	51	24.00 7.5X
ISA	81.89	44 eP	43 52.00	-0.2	HFS	145.22	352 ePKP	51 08.20	-1.6	RMO	34.04	255 eP	52	17.00 -0.8
FRI	81.99	42 eP	43 52.70	0.1		0.9s	28.50nm			CTA	36.90	265 i(P)	52	40.50 -1.7
CMB	82.27	41 eP	43 54.00	-0.1	Z 21s		0.89um		5.5Msz	ASPA	47.68	257 eP	54	08.30 -1.8
TPC	82.46	46 eP	43 55.00	-0.2			LR	43 10.00			1.0s	23.00nm		5.2mb
CLC	82.54	44 eP	43 55.00	-0.6	BER	145.61	359 ePKP	51 13.60	3.1X			iS	01	01.00
GLA	82.62	48 eP	43 56.00	0.0	EKA	150.21	8 PKP	51 23.00	5.1X	WB5	47.92	262 iPd	54	10.00 -2.0
SSE	82.63	310 P	43 54.40	-1.6		1.8s	70.10nm			WRA	47.93	262 P	54	11.00 -1.1
	1.0s	19.00nm		5.1mb	CSTJ	150.95	288 PKPd	51 24.30	4.4X		1.0s	12.20nm		4.9mb
ORV	82.64	39 eP	43 55.70	-0.2	KAS	151.07	310 ePKP	51 33.00	13.2X	VNDA	56.95	186 eP	55	22.80 4.2X
GSC	82.72	45 eP	43 56.00	-0.5	HLBJ	151.22	290 PKPc	51 24.40	4.1X	MBL	60.93	257 eP	55	45.00 -1.9
WDC	82.75	38 eP	43 56.20	-0.3	DCN	151.39	14 iPKP	51 26.20	6.5X		0.4s	5.00nm		5.0mb
MIN	83.11	39 eP	43 58.10	-0.4	HRI	151.59	292 ePKP	51 25.00	4.1X	PNT	85.81	32 eP	58	13.00 1.2
TNP	84.21	43 P	44 04.10	-0.1	DLE	151.61	13 ePKP	51 28.10	8.0X	BJI	89.33	314 eP	58	28.00 -0.9
	1.2s	55.11nm		5.6mb	SALJ	151.75	290 PKP	51 23.60	2.5X	Z 23s		1.88um		5.5MszX
KVN	84.29	41 P	44 04.00	-0.6	VAL	151.91	19 ePKP	51 37.00	16.5X	SES	90.88	35 eP	58	39.00 3.1X
BMW	86.46	33 P	44 16.00	1.0	DSI	152.04	289 ePKP	51 30.00	8.6X	EDM	91.32	32 eP	58	42.00 4.1X
LON	87.36	34 P	44 19.00	-0.4	BBTK	152.36	307 iPKPd	51 30.50	8.7X	KMI	93.10	296 Pd	58	46.50 -0.4
GMW	87.42	33 P	44 20.50	0.9	ECB	152.42	14 ePKP	51 37.50	16.2X	CHG	94.01	289 eP	58	52.50 1.5
MSU	87.61	45 P	44 22.00	1.0	MBH	152.53	285 e(PKP)	51 31.00	8.9X	CHTO	94.01	289 eP	58	52.40 1.4
RMW	87.85	33 P	44 22.20	0.5	ECP	152.68	14 ePKP	51 41.70	20.1X	INK	94.64	14 eP	58	53.00 0.2
DAU	89.30	44 P	44 29.50	0.4	KRA	153.02	337 ePKP	51 37.00	14.8X	YKA	96.25	24 eP	59	06.40 6.1X
ALO	89.40	50 eP	44 29.00	-0.6			i	51 38.10			0.8s	0.90nm		4.3mb
	1.0s	28.25nm		5.5mb	LFK	153.07	297 ePKP	51 32.00	9.2X	EKA	145.86	9 PKP	05	24.00 12.9X
Z	18s	4.47um		5.9Msz	KSP	153.46	342 ePKP	51 30.00	7.2X		2.1s	77.70nm		
ANMO	89.40	50 P	44 29.40	-0.2			i	51 39.50		KSP	149.88	347 ePKP	05	23.00 5.3X
	1.0s	26.25nm		5.5mb	SPC	153.63	336 e(PKP)	51 30.30	6.9X	CLL	150.02	351 ePKPc	05	22.00 4.2X
PMR	89.92	12 eP	44 31.40	0.3			e	51 40.20			1.5s	25.00nm		
TTA	90.02	9 eP	44 31.80	0.1	CLL	153.81	347 iPKPc	51 32.10	8.8X			i	05	27.80
PNT	90.18	33 iPc	44 33.40	0.8		1.0s	26.00nm			BRG	150.30	350 iPKP	05	23.50 5.2X
	0.9s	62.00nm		5.9mb			i	51 39.60			1.4s	24.00nm		
NNT	90.42	284 iPd	44 36.70	2.3	WTS	153.94	356 ePKP	51 34.00	10.6X			i	05	36.40
		e	46 49.20	614kmX		1.0s	26.00nm					e	06	04.40
NEW	90.74	35 P	44 35.20	-0.1	WTS	153.94	356 e(PKP)	51 39.00	15.6X	SPC	150.36	341 ePKP	05	23.50 4.8X
	1.1s	16.98nm		5.3mb	BRG	154.02	346 iPKP	51 32.50	8.9X	BBTK	150.86	314 iPKPd	05	26.00 6.4X
LOE	90.84	289 eP	44 37.00	0.7			i	51 40.40		MOX	150.86	352 ePKP	05	26.00 6.9X
TOA	90.99	14 eP	44 36.70	0.5			i	51 45.20			1.8s	31.00nm		
BJI	91.09	315 eP	44 38.50	1.5			i	51 51.10				e	05	31.00
	1.6s	42.00nm		5.6mb	BCAO	154.46	215 ePKPc	51 27.00	1.7	PRU	151.04	348 ePKP	05	20.50 1.1
Z	24s	1.91um		5.5MszX		1.5s	25.00nm					e	05	41.50
		eSKS	55 08.00				i	51 31.70		HRI	151.20	300 ePKP	05	28.00 7.7X
		eS	55 32.00				i	51 50.80		DOU	151.76	2 PKP	05	27.90 7.4X
BW06	91.70	42 P	44 40.50	0.4			i	53 09.10		GRF	151.85	353 ePKP	05	29.00 8.3X
LRM	91.76	39 eP	44 40.60	0.3	MOX	154.70	349 e(PKP)	51 43.00	18.5X	DSI	151.91	296 e(PKP)	05	28.00 6.7X
GOL	92.66	47 P	44 45.00	0.4			e	51 55.00		KHC	152.04	349 PKP	05	25.50 4.5X
	1.0s	25.00nm		5.6mb	PRU	154.70	344 ePKP	51 16.00	-8.5X	ZST	152.16	344 ePKP	05	34.00 12.9X
GLD	92.79	47 P	44 45.50	0.4		Z 20s	1.10um		5.7Msz	SRO	152.17	342 ePKP	05	32.80 11.7X
	1.2s	60.61nm		5.9mb		N 19s	0.80um					e	05	40.60
FBA	93.19	12 P	44 44.70	-1.5		E 20s	0.70um				S.D. = 1.4	on 21 of 41 obs.		
							e	51 32.50						
											& APR 06, 1990	16h 46m 28.13s		

06d 16h

60.214 N 151.964 W
 DEPTH = 69.0km
 3.9mb (3 obs.)
 KENAI PENINSULA, ALASKA (14)
 <AGS-P>. Felt (III) at Clom
 Gulch.

NNL	0.38	117	iP	46	40.21	0.3
RDT	0.42	329	iP	46	39.76	-0.6
RED	0.45	297	iP	46	40.16	-0.5
			eS	46	50.45	
HOM	0.58	164	eP	46	41.37	-0.5
			eS	46	53.38	
NKA	0.64	34	iP	46	43.61	1.1
			eS	46	53.90	
BRLK	0.71	129	iP	46	42.34	-0.9
			iS	46	54.14	
XLV	0.77	171	iP	46	43.02	-1.0
			eS	46	54.71	
CNPM	0.78	152	iP	46	43.35	-0.8
SLKM	0.92	70	iP	46	44.49	-1.3
			iS	46	59.17	
SPU	0.97	357	iP	46	45.95	-0.6
CGLM	1.10	359	iP	46	47.92	-0.3
			eS	47	03.81	
AUE	1.11	220	iP	46	47.66	-0.6
AUL	1.12	222	iP	46	47.80	-0.6
NCG	1.20	356	iP	46	49.33	-0.2
PDB	1.20	250	iP	46	48.32	-1.1
			eS	47	02.14	
SEW	1.26	94	iP	46	48.23	-2.0
			eS	47	06.03	
SUA	1.39	25	iP	46	51.75	-0.3
			eS	47	11.78	
CDD	1.55	214	iP	46	53.15	-1.0
			eS	47	08.26	
PMS	1.57	48	iPd	46	53.60	-0.9
SHU	1.60	187	iP	46	53.13	-1.7
PWA	1.77	34	iPd	46	56.60	-0.5
SKT	1.79	7	iP	46	56.83	-0.6
			eS	47	20.45	
BGM	1.84	245	iP	46	56.74	-1.5
			eS	47	19.20	
PLRM	1.96	44	iP	46	58.39	-1.3
			eS	47	20.72	
PMR	1.96	44	iPd	46	58.50	-1.2
SVW	2.01	298	iPc	46	58.80	-1.8
GHO	2.15	42	iP	47	01.21	-1.3
MTU	2.17	94	eP	47	00.51	-2.2
CUT	2.35	20	iP	47	04.42	-0.7
KDC	2.49	187	iPd	47	04.50	-2.6
GLI	2.50	72	eP	47	03.90	-3.4
VZW	2.80	70	eP	47	08.60	-2.9
MID	2.95	103	iPd	47	12.20	-1.3
HUR	2.99	21	eP	47	13.50	-0.6
NCA	3.07	52	eP	47	13.27	-2.0
KLU	3.22	64	iP	47	14.94	-2.6
TTA	3.34	326	iPc	47	17.50	-1.7
TOA	3.39	53	iPd	47	18.20	-1.6
KTH	3.39	8	eP	47	18.25	-1.5
RND	3.53	23	eP	47	19.97	-1.8
MCK	3.81	21	eP	47	24.31	-1.3
SDG	3.86	50	eP	47	24.23	-2.2
PAX	4.16	45	iP	47	28.76	-1.8
GLB	4.18	69	eP	47	27.36	-3.5
TGL	4.55	79	eP	47	31.95	-4.2
NEA	4.58	16	eP	47	33.59	-2.9
DDM	4.60	36	eP	47	36.23	-0.5
WRH	4.64	21	eP	47	34.77	-2.5
HDA	4.81	27	eP	47	37.63	-2.1
DMW	4.84	34	eP	47	37.27	-2.8
CCB	4.85	22	eP	47	37.18	-3.0
RDS	4.96	19	eP	47	38.98	-2.7
DOT	5.08	44	eP	47	40.62	-2.8
FBA	5.08	20	eP	47	41.10	-2.4
GLM	5.24	22	iP	47	43.47	-2.2
IMA	5.93	353	iPc	47	53.40	-2.0
YKU	6.20	91	eP	47	56.30	-2.7
SDN	6.68	227	eP	48	03.30	-2.4
DWY	7.02	51	P	48	07.40	-3.0
SIT	9.23	103	eP	48	35.50	-5.3
INK	11.36	37	eP	49	05.00	-4.5
ADK	16.05	250	eP	50	09.70	-0.8
YKA	17.89	67	eP	50	29.70	-3.7
	0.7s		3.00nm			3.6mb
MBC	19.62	23	eP	50	52.00	-1.1
	0.8s		6.00nm			3.9mb

EDM 22.05 91 eP 51 16.50 -1.4
 SOD 52.72 1 iP 55 32.80 -4.3
 i 55 45.80
 SUF 57.38 1 eP 56 06.80 -4.1
 0.6s 1.30nm 4.2mb
 NUR 59.58 2 iP 56 24.40 -1.8
 68 obs. associated

APR 06, 1990 17h 33m 45.96±0.43s
 15.555 N ± 6.2km 147.612 E ± 9.7km
 DEPTH = 41.7km (3 depth phases)
 4.2mb (5 obs.)

MARIANA ISLANDS REGION (215)

KAKJ 21.61 343 eP 38 35.60 1.3
 IIDJ 21.66 338 P 38 33.50 -1.4
 CHJJ 21.81 341 P 38 36.10 -0.3
 MTMJ 22.69 339 P 38 45.60 0.4
 WB5 37.54 201 eP 40 58.40 0.3
 WRA 37.61 201 Pd 40 58.90 0.2
 0.7s 2.00nm 4.1mb
 ASPA 41.22 199 eP 41 27.70 -0.9
 0.6s 3.00nm 4.2mb
 LZH 43.94 306 eP 41 51.50 0.6
 pP 41 54.50 10kmX
 i 42 03.00
 CHG 46.50 281 eP 42 12.00 0.7
 CHTO 46.50 281 eP 42 12.00 0.7
 0.8s 2.20nm 4.2mb
 pP 42 24.30 45km

GUN 58.13 293 P 43 38.20 -0.3
 PKI 58.55 293 P 43 40.80 -0.7
 KKN 58.66 293 P 43 41.80 -0.3
 DMN 58.82 293 P 43 42.80 -0.4
 GKN 59.22 294 P 43 45.50 -0.4
 HYB 65.91 282 eP 44 30.50 0.2
 INK 71.54 23 eP 45 04.00 -0.3
 pP 45 16.00 40km
 MBC 75.73 14 eP 45 29.00 0.5
 1.1s 7.00nm 4.5mb
 pP 45 41.00 40km
 YKA 79.90 28 eP 45 51.00 -0.7
 0.6s 1.50nm 4.1mb
 KIC 145.01 306 PKP 53 21.28 -0.1
 0.7s 9.50nm
 TIC 145.05 307 PKP 53 21.28 -0.2
 LIC 145.32 307 PKP 53 22.26 0.4
 0.6s 8.50nm
 ZOBO 145.65 96 PKP 53 24.00 0.9
 SIV 152.40 95 ePKP 53 40.40 7.5X
 S.D. = 0.7 on 23 of 24 obs.

* APR 06, 1990 17h 34m 40.84±1.86s
 41.326 N ± 11.5km 20.825 E ± 19.8km
 DEPTH = 10.0km (geophysicist)
 ALBANIA (391)
 ML 2.9 (SKO).
 OHR 0.22 185 iPg 34 45.50 -0.1
 iSg 34 49.50
 SKO 0.79 35 iPg 34 55.70 -0.5
 iSg 35 04.50
 VAY 1.31 90 ePn 35 04.40 -0.7
 KKB 1.78 72 eP 35 13.00 1.2
 VTS 2.18 54 eP 35 18.00 0.2
 MMB 2.20 82 ePc 35 21.00 3.0X
 S.D. = 1.1 on 5 of 6 obs.

? APR 06, 1990 17h 44m 09.59±1.24s
 41.280 N ± 12.4km 20.912 E ± 15.3km
 DEPTH = 10.0km (geophysicist)
 ALBANIA (391)
 ML 2.8 (SKO).
 OHR 0.19 207 iPg 44 13.80 0.0
 iSg 44 17.70
 SKO 0.80 30 ePg 44 24.60 -0.5
 iSg 44 33.50
 VAY 1.25 88 iPn 44 32.50 -0.3
 KKB 1.73 69 eP 44 43.00 3.1X
 MMB 2.14 81 eP 44 50.00 4.1X
 VTS 2.16 52 eP 44 47.00 0.8
 S.D. = 1.0 on 4 of 6 obs.

APR 06, 1990 18h 04m 58.29±0.35s
 14.988 N ± 7.2km 147.642 E ± 7.2km
 DEPTH = 33.0km (normol)

4.4mb (5 obs.) MARIANA ISLANDS REGION (215)

GUMO 3.03 243 eP 05 45.00 0.0
 PJG 3.03 243 eP 05 44.70 -0.3
 eS 06 20.00
 WB5 37.03 201 eP 12 06.90 -0.1
 WRA 37.10 201 Pc 12 07.70 0.1
 0.8s 6.10nm 4.5mb
 ASPA 40.70 200 eP 12 37.50 -0.1
 0.8s 4.00nm 4.2mb
 LZH 44.30 307 eP 13 07.50 0.4
 2.0s 28.00nm 4.7mb
 GUN 58.38 294 P 14 54.60 1.0
 PKI 58.80 293 P 14 55.60 -0.9
 KKN 58.91 294 P 14 57.20 0.1
 DMN 59.07 293 P 14 58.70 0.4
 GKN 59.47 294 P 15 00.60 -0.4
 INK 72.05 23 eP 16 20.00 -0.7
 MBC 76.27 14 eP 16 45.00 0.0
 0.9s 5.00nm 4.5mb
 YKA 80.38 28 eP 17 06.60 -1.0
 0.9s 2.60nm 4.2mb
 PNT 80.56 42 eP 17 09.00 0.1
 LRM 86.13 44 eP 17 38.30 0.5
 KIC 145.37 306 PKP 24 35.44 0.0
 1.0s 16.00nm
 TIC 145.41 307 PKP 24 35.48 -0.1
 0.9s 10.00nm
 ZOBO 145.56 97 PKP 24 37.00 0.6
 LIC 145.68 306 PKP 24 36.44 0.5
 1.0s 23.00nm
 SIV 152.32 96 PKPc 24 54.00 7.8X
 S.D. = 0.5 on 20 of 21 obs.

* APR 06, 1990 18h 30m 11.97±0.51s
 18.460 S ± 11.4km 168.235 E ± 12.5km
 DEPTH = 40.8km (4 depth phases)
 4.6mb (7 obs.)
 VANUATU ISLANDS (186)

PVC 0.72 6 iPd 30 25.50 -0.3
 iS 30 36.00
 BRS 16.77 235 iP 34 09.70 4.1X
 0.5s 3.00nm 3.7mb
 COO 19.12 228 e(P) 34 35.00 0.5
 RMO 19.68 243 eP 34 42.00 1.3
 e 34 51.00
 CTA 20.81 262 iPc 34 54.00 1.5
 1.0s 20.00nm 4.4mb
 iP 35 05.00 45km
 i 35 10.00
 e(S) 38 51.00
 PMG 22.33 291 eP 35 08.50 0.7
 CNB 23.70 221 eP 35 22.00 0.9
 e 35 34.00
 BWA 23.76 224 eP 35 20.90 -0.7
 CAN 23.93 222 eP 35 25.20 1.9
 e 35 37.80
 WB5 31.99 262 eP 36 34.30 -2.5
 e 36 47.30
 WRA 32.01 262 Pc 36 34.40 -2.6
 0.9s 1.40nm 3.8mb
 ASPA 32.41 255 iPc 36 38.80 -1.6
 0.7s 16.00nm 5.0mb
 Z 22s 0.61um 4.2MszX
 iP 36 49.70 40km
 LR 49 06.70
 MUN 48.53 243 eP 39 04.30 11.1X
 PCI 50.58 285 ePd 39 10.50 1.5
 SPA 71.66 180 iPc 41 29.00 -2.4
 1.0s 17.00nm 5.0mb
 KMI 77.06 302 Pd 42 03.00 -0.2
 CHG 77.46 295 eP 42 05.10 -0.2
 CHTO 77.46 295 eP 42 05.00 -0.3
 1.2s 11.81nm 4.8mb
 pP 42 17.20 41km
 LZH 81.50 312 eP 42 38.00 11.1X
 1.6s 35.00nm
 pP 42 49.50 38km
 SHL 86.15 298 iP 43 02.00 11.3X
 PKI 92.27 298 P 43 00.00 -19.8X
 GBA 94.96 283 Pd 43 31.00 -0.9
 0.4s 1.20nm 4.7mb
 KHC 143.21 332 PKP 49 49.40 6.0X
 GRF 143.79 335 ePKP 49 39.60 -4.7X
 e 49 52.60

OHR	144.16	316	ePKP	49 41.00	-4.3X		0.6s	3.00nm	4.2mb	CHG	149.03	350	iPKPc	39 27.00	4.4X
	0.9s	35.00nm				LZH	43.85	307 eP	48 12.50 0.6		1.0s	14.25nm			
KBA	144.80	330	ePKP	49 41.50	-4.9X		1.6s	23.00nm	4.7mb	LOE	149.77	344	ePKP	39 29.00	5.3X
	1.0s	16.10nm						pP	48 20.50 27kmX	GBA	150.24	32	PKPd	39 25.70	1.3
		i	49 42.20			CHTO	45.93	282 eP	48 29.00 0.5		1.1s	4.70nm			
		i	49 54.90					pP	48 38.90 33kmX		S.D. = 1.0	on 15 of 18 obs.			
TOD	144.80	337	ePKP	49 43.14	-2.9X	GUN	57.78	294 P	49 57.70 -0.1						
VBY	144.93	326	ePKP	49 56.60	10.2X	PKI	58.20	293 P	50 00.60 -0.2		& APR 06, 1990	20h 55m 53.60s			
MEM	144.93	340	PKP	49 42.50	-3.7X	KKN	58.31	294 P	50 01.50 0.1		37.868 N	121.998 W			
		e	49 55.50			DMN	58.47	294 P	50 02.60 0.0		DEPTH =	3.0km			
LJU	144.94	328	ePKP	49 43.00	-3.4X	GKN	58.88	294 P	50 05.20 -0.1		CENTRAL CALIFORNIA		(39)		
FUR	144.94	333	iPKPc	49 43.40	-3.0X	HYB	65.35	283 eP	50 49.00 0.4		<BRK>. ML 3.5 (BRK).				
		i	49 56.50			INK	72.65	23 eP	51 32.00 -0.7		Mo=1.3+10**15 Nm (BRK). Felt (V)				
DLE	145.01	355	ePKP	49 42.30	-3.9X	MBC	76.77	14 eP	51 57.50 1.3		at Concord, Diablo, Oakland,				
DCN	145.01	355	ePKP	49 40.80	-5.4X		1.0s	7.00nm	4.6mb		Pleasant Hill and Walnut Creek.				
ABH	145.03	338	ePKP	49 42.94	-3.5X	MAIO	79.35	305 eP	52 19.00 7.7X		Felt in Alameda, Contra Costa				
RBL	145.15	329	PKP	49 43.00	-3.8X	YKA	81.04	28 eP	52 10.90 -8.6X		and Son Francisco Counties.				
CEY	145.20	327	e(PKP)	49 43.90	-3.0X		0.8s	4.10nm	4.5mb						
VOY	145.27	328	iPKP	49 43.90	-3.2X	SES	86.38	39 ePd	52 47.50 0.4		BKS	0.19	273 eP	55 58.00	0.6
		e	49 56.00			LRM	86.91	43 eP	52 50.70 0.6			eS	56 01.00		
KTD	145.31	337	ePKP	49 43.95	-3.0X	KIC	144.90	305 PKP	59 39.96 -3.2X		BRK	0.21	272 iPc	55 57.90	0.1
RUP	145.36	338	ePKP	49 44.15	-2.9X	TIC	144.95	305 PKP	59 40.02 -3.2X		ZSP	0.22	291 iPc	55 58.70	0.7
DOU	145.83	341	PKPd	49 45.70	-2.1	LIC	145.21	305 PKP	59 40.80 -2.8		PCC	0.48	220 IPd	56 02.80	-0.3
CDF	146.36	337	ePKP	49 47.30	-1.5	ZOBO	146.31	97 PKP	59 42.00 -4.1X		MHC	0.60	152 iPc	56 05.60	0.1
	0.7s	8.80nm				Z 20s	0.29um	5.1msz		ARN	0.64	144 IPd	56 06.00	-0.3	
SLE	146.41	335	ePKPd	49 47.20	-1.7		LR	37 34.00		GCC	0.84	180 IPd	56 09.40	-0.9	
LLS	146.92	334	ePKPd	49 49.10	-0.8	LPB	146.34	98 PKP	59 48.00 2.0X		NWRM	0.92	310 eP	56 10.00	-1.7
BSF	147.02	337	ePKP	49 49.10	-0.8	SIV	153.08	96 PKP	00 05.00 9.3X		SAO	1.19	158 iP	56 14.30	-2.1
HAU	147.04	337	ePKP	49 49.20	-0.6		S.D. = 1.2	on 18 of 31 obs.		CMB	1.29	82 iPc	56 16.10	-2.0	
	0.9s	8.20nm				? APR 06, 1990	19h 59m 32.03± 5.76s			LLA	1.51	146 eP	56 18.80	-2.8	
ARV	147.50	326	PKP	49 51.50	0.8		33.994 S ±22.3km	72.761 W ±40.6km		PRS	1.61	162 eP	56 17.40	-5.7	
TMA	147.57	333	ePKPd	49 50.60	-0.4		DEPTH = 10.0km (geophysicist)			ORV	1.73	13 eP	56 22.00	-2.7	
VAI	147.80	333	PKPd	49 51.00	0.0		OFF COAST OF CENTRAL CHILE	(134)		FRI	2.02	115 eP	56 26.60	-2.4	
FIR	148.19	327	ePKP	49 53.00	1.3	LCCH	1.12	63 iPc	59 52.10 -0.9		BCH	3.09	149 eP	56 41.50	-2.8
OIX	148.21	334	ePKPd	49 52.90	0.8		iS	00 06.50		KVN	3.28	68 eP	56 44.80	-2.3	
ORO	148.34	333	PKP	49 52.50	0.4	LNV	1.12	88 iPc	59 53.70 0.7		ABL	3.75	143 e(P)	56 51.00	-2.9
BOB	148.34	331	PKP	49 47.00	-5.1X	IHA	1.34	44 iP	59 58.80 2.0		TNP	3.78	85 e(P)	56 53.50	-0.8
MNS	148.38	324	PKP	49 42.00	-10.2X		iS	00 14.40			18 obs. associated				
FLN	148.42	346	ePKP	49 52.40	0.4	TACH	1.56	78 iP	00 00.00 0.2			APR 06, 1990	21h 03m 09.60± 0.28s		
	0.8s	12.10nm					iS	00 18.70			15.014 N ± 5.3km	147.538 E ± 5.8km			
LDF	148.49	345	ePKP	49 52.60	0.5	CHCH	1.75	89 iPc	00 03.30 0.6			DEPTH = 33.0km (normol)			
LOR	148.54	339	ePKP	49 53.00	0.7		iS	00 26.50			4.9mb (7 obs.)				
LBF	148.75	339	ePKP	49 53.70	1.1		iS	00 27.50		MARIANA ISLANDS REGION		(215)			
SSF	148.84	340	ePKP	49 54.00	1.3	ROCH	1.78	56 IPd	00 02.00 -1.3		GUA	2.94	240 eP	03 55.40	0.3
	0.8s	10.75nm					iS	00 28.50			eS	04 30.60			
GRR	148.86	346	ePKP	49 53.80	1.1	SAN	1.83	73 eP	00 03.50 -0.3		GUMO	2.95	242 eP	03 55.10	-0.2
LPL	148.95	334	ePKP	49 54.90	1.7X		iS	00 28.10			eS	04 31.20			
LPG	148.96	334	ePKP	49 55.00	1.7X	PCH	1.91	79 iPc	00 04.50 -0.5		PJG	2.95	242 eP	03 55.20	-0.1
	0.7s	5.50nm					iS	00 33.30		KAKJ	22.11	344 eP	08 03.40	-0.3	
SMF	149.09	339	ePKP	49 54.40	1.3	FCH	2.16	73 iPc	00 08.50 -0.4		IIDJ	22.14	339 P	08 05.90	1.8
AVF	149.13	340	ePKP	49 54.40	1.3		iS	00 40.00		CHJJ	22.30	342 eP	08 04.80	-0.9	
	1.0s	10.00nm				RTCB	4.17	54 eP	00 38.00 0.8		MTMJ	23.17	340 eP	08 15.40	1.1
LPF	149.24	346	ePKP	49 54.80	1.5X		S	00 48.20		NIJJ	23.40	343 P	08 16.50	0.1	
	0.7s	8.80nm				RTLl	4.49	55 ePc	00 41.40 -0.3		PMG	24.27	181 eP	08 25.30	0.3
BNI	149.35	334	PKP	49 58.00	4.3X	CFA	4.49	59 e(P)	00 41.50 -0.2		SSE	28.94	308 P	09 06.00	-2.1
BGF	149.50	340	ePKP	49 55.50	1.8X		S	00 50.00			0.8s	16.00nm	4.8mb		
	0.7s	5.50nm				RTRS	4.73	37 ePd	00 44.70 -0.4		WB5	37.01	201 eP	10 18.00	-0.2
TCF	149.94	340	ePKP	49 56.80	2.4X		S.D. = 0.9	on 13 of 13 obs.		BJI	37.02	318 eP	10 19.00	0.9	
LSF	150.19	341	ePKP	49 57.00	2.2X		? APR 06, 1990	20h 19m 39.58± 0.89s			1.5s	26.00nm	4.9mb		
	0.7s	5.50nm					11.839 N ±19.0km	86.722 W ±24.3km		WRA	37.08	201 Pd	10 18.30	-0.5	
MFF	150.34	344	ePKP	49 57.40	2.4X		DEPTH = 33.0km (normol)				0.9s	20.20nm	5.0mb		
LFF	151.61	341	ePKP	50 00.50	3.6X		4.6mb (5 obs.)			ASPA	40.69	199 eP	10 48.70	-0.1	
LPO	151.70	340	ePKP	50 00.90	3.8X	NEAR COAST OF NICARAGUA		(74)			0.7s	15.00nm	4.8mb		
BTH	153.54	341	PKP	50 10.00	10.2X	TUL	25.33	343 eP	25 06.50 1.5		LZH	44.20	307 Pd	11 18.00	0.4
	S.D. = 1.3	on 37 of 72 obs.					1.0s	46.00nm	5.0mb			101.00nm	5.2mb		
? APR 06, 1990	19h 40m 06.75± 0.67s						29.16	325 eP	25 41.00 0.7		SHL	52.92	291 iP	12 24.40	-1.0
	14.667 N ±10.4km	146.819 E ±14.6km				ANMO	0.9s	2.10nm	3.9mb		HYB	65.96	283 eP	13 55.50	0.2
	4.5mb (5 obs.)	5.1msz (1 obs.)				BW06	36.65	331 eP	26 45.00 -0.3		INK	72.07	23 eP	14 31.00	-1.1
MARIANA ISLANDS		(216)				SIV	37.53	137 P	26 52.00 -0.6		MBC	76.27	14 eP	14 56.50	0.2
							0.7s	7.00nm	4.6mb			1.0s	12.00nm	4.9mb	
GUMO	2.18	241 eP	40 32.60	-8.8X		KVN	38.86	320 eP	27 04.10 0.3		MAIO	79.72	305 eP	15 17.00	0.9
PJG	2.18	241 eP	40 32.80	-8.6X		FFC	44.44	347 eP	27 49.00 -0.1		YKA	80.41	28 eP	15 17.40	-1.7
		eS	41 25.50				0.7s	7.00nm	4.6mb			0.9s	5.00nm	4.5mb	
IIDJ	22.22	340 eP	45 13.80	11.7X		SCH	45.66	16 eP	28 00.00 1.2		PNT	80.60	41 eP	15 20.00	-0.5
KAKJ	22.26	346 eP	45 04.50	2.1		PNT	46.21	331 eP	28 03.00 -0.2			81.33	51 eP	15 24.40	-0.1
CHJJ	22.42	343 eP	45 01.40	-2.6			0.5s	6.00nm	4.8mb		ORV	82.13	55 eP	15 29.20	0.5
TSRJ	22.95	337 eP	45 19.00	9.8X		EDM	46.44	338 eP	28 03.50 -1.5		CMB	82.51	53 eP	15 31.00	0.3
MTMJ	23.27	341 eP	45 15.30	2.9X		FRB	53.40	10 eP	28 57.00 -1.0		PRI	82.73	55 eP	15 32.70	0.8
PMG	23.92	179 eP	45 26.60	7.8X		YKA	54.39	345 eP	29 04.10 -1.2		FRI	83.28	54 eP	15 34.80	0.2
WB5	36.45	200 eP	47 10.80	0.2			0.8s	2.90nm	4.4mb		SLP	83.65	56 eP	15 36.00	-0.7
		e	47 19.30			INK	64.00	342 eP	30 11.00 -0.7		CYC	85.22	54 eP	15 44.00	-0.5
WRA	36.52	200 Pd	47 11.30	0.1		MBC	66.72	352 eP	30 29.00 -0.1		SBB	85.33	55 eP	15 45.00	-0.1
	0.7s	2.60nm	4.2mb			GKN	139.52	12 PKP	39 00.00 -6.4X		SES	85.68	39 eP	15 46.00	-0.5
ASPA	40.14	199 eP	47 41.60	0.1		HYB	147.49	27 ePKP	39 21.00 0.8		GLA	88.17	56 eP	16 06.00	7.1

06d 21h

KIC 145.27 306 PKP 22 46.36 -0.2
 LIC 145.58 306 PKP 22 47.24 0.1
 ZOBO 145.66 97 PKP 22 49.00 1.1
 1.1s 10.15nm
 LPB 145.70 97 PKP 22 36.00 -11.8X
 SIV 152.42 96 PKP 22 59.00 1.3
 i 23 05.30

S.D. = 0.8 on 35 of 37 obs.

& APR 06, 1990 21h 52m 48.10s
 37.867 N 122.003 W
 DEPTH = 4.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.7 (BRK).
 Mo=8.6*10**13 Nm (BRK).

BRK 0.20 272 iPc 52 52.30 0.1
 ZSP 0.22 291 iPc 52 52.60 0.1
 PCC 0.47 219 iPd 52 57.20 -0.4
 MHC 0.60 151 iPc 53 00.20 0.1
 ARN 0.64 144 iPd 53 00.70 -0.2
 GCC 0.84 180 iPd 53 03.90 -0.8
 SAO 1.19 158 eP 53 09.10 -1.7
 CMB 1.29 82 ePc 53 10.70 -1.9
 eS 53 27.70
 LLA 1.51 146 e(P) 53 14.80 -1.2
 PRS 1.61 162 eP 53 15.20 -2.2
 ORV 1.73 13 e(P) 53 19.00 -0.1
 FRI 2.02 115 eP 53 20.60 -2.8
 eS 53 46.70
 KVN 3.28 68 eP 53 39.00 -2.6
 13 obs. associated

* APR 06, 1990 22h 06m 45.71±0.58s
 15 083 N ±14.9km 147.629 E ±14.0km
 DEPTH = 33.0km (normal)
 4.0mb (2 obs.)

MARIA NA ISLANDS REGION (215)

GUA 3.05 240 eP 07 33.40 0.6
 eS 08 07.90
 GUMO 3.06 241 eP 07 32.60 -0.3
 eS 08 08.50
 PJG 3.06 241 eP 07 32.50 -0.4
 WB5 37.11 201 eP 13 55.20 0.1
 WRA 37.18 201 Pc 13 55.70 0.0
 0.8s 2.00nm 4.0mb
 MBC 76.18 14 eP 18 32.50 0.6
 YKA 80.30 28 eP 18 53.90 -0.7
 0.9s 1.50nm 4.0mb
 KIC 145.30 306 PKP 26 22.60 -0.2
 TIC 145.35 307 PKP 26 22.80 0.0
 LIC 145.61 306 PKP 26 23.60 0.3
 S.D. = 0.5 on 10 of 10 obs.

APR 06, 1990 22h 30m 57.30±0.79s
 38.898 N ±8.0km 21.996 E ±8.6km
 DEPTH = 10.0km (geophysicist)

GREECE (364)

NEO 1.04 66 ePn 31 17.20 0.3
 VLS 1.32 237 ePn 31 20.70 -0.9
 ITM 1.72 182 ePb 31 28.70 1.3
 KEK 1.89 296 ePn 31 30.80 0.9
 VLI 2.30 161 ePn 31 35.00 -0.8
 VAY 2.46 10 ePn 31 37.40 -0.7
 S.D. = 1.2 on 6 of 6 obs.

APR 06, 1990 22h 31m 55.55±0.37s
 8.963 S ±8.9km 109.950 E ±7.8km
 DEPTH = 33.0km (normal)
 4.8mb (12 obs.)

JAVA (277)

TRT 2.94 65 iPd 32 43.00 2.0
 eS 33 17.00
 KHKI 5.63 84 ePc 33 18.40 -0.7
 eS 34 24.20
 e 38 50.00
 PCI 12.69 51 ePc 35 01.00 4.5X
 1.0s 6.00nm 4.6mb
 NANU 14.54 159 eP 35 20.00 -0.9
 S 37 48.00
 TSM 15.40 32 eP 35 37.40 5.3X
 MBL 15.42 143 eP 35 30.00 -2.4
 0.3s 11.00nm 4.6mb
 eS 38 05.00

KNA 19.57 112 eP 36 23.00 -0.9
 MRWA 20.93 165 eP 36 41.10 3.1X
 eS 40 12.00
 MTN 21.15 102 iPd 36 39.90 -0.4
 e 40 23.00
 MUN 23.63 167 eP 37 21.00 16.4X
 eS 41 26.50
 NWA0 24.78 165 eP 37 35.00 19.2X
 eS 41 51.00
 WB5 25.98 117 eP 37 28.00 0.7
 eS 42 17.50
 WRA 25.98 118 Pd 37 27.90 0.7
 0.7s 13.20nm 4.6mb
 ASPA 27.18 125 iPc 37 38.80 0.6
 0.9s 17.00nm 4.7mb
 Z 23s 0.20um 3.6mszX

CHTO 29.66 339 eP 38 01.00 0.4
 0.6s 1.12nm 3.8mbX
 QIS 30.84 115 iPc 38 11.30 0.2
 CTA 36.76 112 iPc 39 03.50 1.4
 1.0s 25.00nm 5.0mb
 SHL 38.56 333 iP 39 16.00 -1.4
 GBA 39.30 304 Pc 39 25.10 1.7
 0.7s 17.70nm 4.9mb
 HYB 40.62 310 eP 39 36.00 1.7
 PKI 43.40 328 P 39 57.10 -0.2
 GUN 43.43 328 P 39 56.80 -0.8
 DMN 43.59 327 P 39 58.10 -0.7
 0.8s 42.00nm 5.3mb
 KKN 43.65 328 P 39 58.80 -0.4
 1.1s 46.00nm 5.2mb

GKN 44.16 327 P 40 02.20 -1.1
 BRS 44.35 120 iPc 40 07.30 2.6X
 i 40 49.50
 POO 44.89 308 iPc 40 09.50 0.3
 LZH 45.17 353 eP 40 10.50 -0.8
 NDI 48.98 321 eP 40 40.50 -0.6
 BJI 49.09 6 eP 40 40.00 -1.7
 1.0s 12.00nm 4.9mb
 IIDJ 51.48 29 P 40 57.60 -2.5X
 MTMJ 52.32 28 P 41 04.10 -2.5
 CHJJ 52.46 30 P 41 04.40 -3.1X
 KAKJ 53.17 31 P 41 08.80 -3.9X
 NIJJ 53.42 29 P 41 11.90 -2.6X
 MAIO 65.36 317 eP 42 37.00 -0.2
 TAB 75.44 313 eP 43 39.00 0.6
 SLR 78.70 246 iPd 44 01.70 4.9X
 0.8s 7.46nm 4.7mb

PRY 79.33 244 eP 44 04.00 3.8X
 MBH 81.67 302 eP 44 15.50 3.2X
 HRI 81.91 305 eP 44 17.00 3.3X
 BBTK 85.99 311 iPd 44 37.00 2.8X
 WIN 89.22 247 eP 44 39.00 -11.3X
 SUF 95.06 333 eP 45 17.10 1.1
 0.4s 2.40nm 5.0mb
 NUR 95.42 330 eP 45 24.00 6.3X
 IMA 100.72 24 Pd diff 45 42.00 0.2
 0.9s 3.13nm 4.9mb
 PMR 103.03 29 Pd diff 46 01.00 9.0X
 MBC 107.72 11 ePKPd 50 31.50 11.2X
 1.0s 54.00nm
 YKA 117.64 22 ePd diff 47 09.10 12.1X
 0.6s 0.30nm
 YKA 117.64 22 ePKP 50 39.10 -0.4
 0.8s 1.50nm

PNT 122.43 36 ePKPd 50 56.00 6.9X
 0.9s 51.00nm
 EDM 123.78 30 ePKP 51 10.00 18.4X
 WDC 123.95 47 ePKP 50 53.70 1.4
 ORV 125.04 48 ePKP 50 59.70 5.3X
 PRS 126.15 51 ePKP 51 04.50 7.8X
 CMB 126.36 49 ePKP 51 05.00 7.8X
 LLA 126.39 51 ePKP 51 06.00 8.8X
 PRI 126.75 51 ePKP 51 08.10 10.1X
 PHAM 127.05 52 PKP 51 09.60 11.1X
 KVN 127.69 47 PKP 51 01.50 1.7
 SYP 127.76 53 ePKP 51 13.00 13.0X
 TNP 128.69 48 PKP 51 04.00 2.2X
 CLC 129.21 51 ePKP 51 20.00 17.4X
 PAS 129.30 53 ePKP 51 19.00 16.2X
 MWC 129.37 53 ePKP 51 20.00 16.8X
 SBB 129.41 52 ePKP 51 20.00 16.9X
 RVR 129.98 53 ePKP 51 22.00 17.9X
 GSC 129.99 51 ePKP 51 23.00 18.8X
 RSON 133.89 21 PKP 51 11.40 0.4

RSSD 134.22 34 PKP 51 14.00 1.9
 GOL 136.09 40 PKP 51 17.00 1.1
 ANMO 137.86 47 PKP 51 23.60 4.3X
 ALO 137.86 47 ePKP 51 23.00 3.7X
 TUL 144.37 37 ePKP 51 29.80 -0.7
 0.8s 16.30nm
 BNH 144.49 1 PKP 51 29.80 -0.6
 WNY 144.55 5 PKP 51 29.50 -1.1
 HBVT 144.64 4 PKP 51 30.40 -0.3
 FVM 145.76 29 PKP 51 33.60 0.8
 OLY 147.13 33 PKP 51 37.10 2.0X
 BAO 147.22 222 ePKP 51 41.80 5.9X
 PWLA 149.30 30 PKP 51 42.90 4.4X
 RSCP 149.94 26 PKP 51 44.50 5.0X
 NAV 150.14 17 PKP 51 44.80 5.0X
 NA2 150.15 12 PKP 51 45.80 6.2X
 GBTN 150.44 24 PKP 51 46.50 6.3X
 TKL 150.62 23 PKP 51 46.40 5.9X
 PRM 152.55 23 PKP 51 51.40 8.0X
 JSC 152.78 21 PKP 51 43.20 -0.5
 SIV 153.66 200 PKP 51 48.80 3.4X
 ZOBO 154.86 184 ePKP 51 52.00 4.3X
 S.D. = 1.1 on 41 of 90 obs.

APR 06, 1990 22h 38m 44.99±0.19s
 15.028 N ±3.6km 147.564 E ±4.2km
 DEPTH = 35.2km (3 depth phases)
 5.3mb (24 obs.) 4.6msz (3 obs.)

MARIA NA ISLANDS REGION (215)

CENTROID, MOMENT TENSOR (HRV)

Dato Used: GDSN

L.P.B.: 12S, 22C

Centroid Location:

Origin Time 22:38:47.7 1.2

Lot 14.97N 0.12 Lon 148.03E 0.13

Dep 15.0 FIX Half-duration 1.6

Moment Tensor: Scale 10**16 Nm

Mrr=-2.97 0.40 Mtt=-0.14 0.45

Mff= 3.11 0.53 Mrt= 2.76 1.24

Mrf= 8.73 1.41 Mtf= 0.78 0.49

Principal Axes:

T Val= 9.82 Plg=36 Azm=285

N -0.30 2 109

P -9.53 54 107

Best Double Couple:Mo=9.7*10**16

NP1:Strike= 5 Dip=10 Slip=-102

NP2: 197 81 -88

GUA 2.97 240 eP 39 30.70 -0.1
 eS 40 06.30
 GUMO 2.98 242 eP 39 30.50 -0.5
 eS 40 07.00
 PJG 2.98 242 eP 39 31.00 0.0
 KAKJ 22.10 344 P 43 38.10 -0.7
 IIDJ 22.13 339 P 43 40.50 1.3
 KAGJ 22.18 319 eP 43 39.80 0.1
 CHJJ 22.29 341 P 43 39.30 -1.5
 TSRJ 22.91 335 P 43 48.10 1.2
 DAV 22.96 252 eP 43 48.00 0.5
 KUMJ 23.14 322 eP 43 50.00 0.8
 MTMJ 23.17 340 P 43 47.60 -1.9
 NIJJ 23.40 343 P 43 51.10 -0.4
 SHNJ 24.13 325 eP 43 55.40 -3.3X
 PMG 24.28 181 eP 43 59.50 -0.8
 BAG 26.01 277 eP 44 17.20 0.3
 HNR 27.23 152 eP 44 25.00 -2.8
 SSE 28.96 308 Pd 44 42.00 -1.3
 0.8s 38.00nm 5.1mb
 Z 20s 0.90um 4.4mszX
 E 10s 0.20um

MTN 32.12 211 iPd 45 10.90 -0.5
 CTA 34.92 182 iP 45 35.00 -0.7
 1.0s 15.00nm 4.9mb
 ePcP 48 08.00
 e 49 49.00
 e(S) 51 03.00
 QIS 36.22 193 iPd 45 46.40 -0.3
 BJI 37.03 318 eP 45 53.00 -0.3
 1.7s 92.00nm 5.4mb
 Z 24s 0.57um 4.3mszX
 WB5 37.04 201 iPd 45 53.70 0.1
 WRA 37.11 201 Pd 45 54.00 -0.1
 0.8s 51.50nm 5.4mb
 ASPA 40.71 199 iPd 46 24.50 0.3

0.7s	32.00nm	5.2mb	0.9s	4.50nm	5.0mb	MTMJ	23.14	340 P	02 01.40	-1.9
Z 17s	0.46um	4.4MsZ	BCAO	125.93 287 ePKPc	57 46.40 0.3	NIIJ	23.37	343 P	02 05.60	0.2
	eS	52 15.50		0.4s 5.00nm		YONJ	23.72	330 P	02 09.50	0.7
RMQ	41.28 178 eP	46 28.50 -0.3	KIC	145.28 306 PKP	58 21.82 0.1	SSJ	28.95	308 P	02 55.50	-2.0
TRT	41.34 239 ePd	46 30.30 0.9		1.1s 164.50nm			0.7s	17.00nm		4.9mb
BRS	42.47 173 iP	46 38.70 0.2	TIC	145.33 306 PKPd	58 21.98 0.2	WB5	37.08	201 eP	04 07.90	-0.2
	i	48 32.70		1.0s 130.00nm		WRA	37.15	201 Pc	04 08.20	-0.5
KMI	43.11 291 Pc	46 45.50 1.4	LIC	145.59 306 PKP	58 22.72 0.5	ASPA	40.7s	4.70nm		4.5mb
	pP	46 49.50 13kmX	ZOBO	1.1s 188.00nm			40.76	199 eP	04 38.30	-0.4
LOE	44.00 280 eP	46 51.00 -0.1		1.5s 98.39nm	1.9	LOE	0.5s	5.00nm		4.5mb
LZH	44.21 307 Pd	46 53.50 0.6	Z	20s 0.15um	4.8MsZ	LZH	44.02	280 eP	05 05.00	-0.4
	2.0s 140.00nm	5.4mb		LR	46 12.00		44.21	307 Pd	05 07.50	0.5
Z 20s	0.70um	4.6MsZ	LPB	145.68 97 PKP	58 25.40 2.6X		2.5s	94.00nm		5.2mb
	pP	47 04.00 36km	SIV	152.40 96 iPKP	58 34.40 1.7	CHG		i	05 22.50	
	i	47 54.00		i	58 40.80	SHL	46.58	282 eP	05 26.30	0.5
	eS	53 24.00		S.D. = 0.9 on 82 of 86 obs.		GUN	52.95	291 iP	06 14.00	-0.9
CHG	46.56 282 iPd	47 12.20 0.7				PKI	58.30	294 P	06 53.30	-0.4
	0.9s 31.51nm	5.3mb	& APR 06, 1990 22h 41m 27.20s				58.73	293 P	06 55.70	-0.9
CHTO	46.56 282 iPd	47 12.00 0.5	37.870 N	121.992 W			0.8s	13.00nm		5.1mb
	0.8s 29.47nm	5.3mb	DEPTH = 5.0km			KKN	58.84	294 P	06 56.90	-0.3
	pP	47 23.00 38km	CENTRAL CALIFORNIA	(39)		DMN	59.00	293 P	06 58.10	-0.3
BDT	46.61 280 eP	47 13.50 1.6	<BRK>. ML 3.7 (BRK).				0.9s	21.00nm		5.3mb
	0.8s 55.00nm	5.6mb	Mo=4.2*10**15 Nm (BRK). Felt (V)			GKN	59.40	294 P	07 00.80	-0.2
ADE	50.42 189 iPd	47 41.70 0.5	at Concord, Danville, Diablo and			HYB	66.00	283 eP	07 44.50	-0.3
COOL	52.24 209 eP	47 54.20 -0.9	San Pablo; (IV) at Antioch,			MBC	76.20	14 eP	08 46.00	0.8
TOO	52.35 182 eP	47 56.70 0.9	Benicio, Brentwood, Emeryville,				1.0s	7.00nm		4.6mb
SHL	52.94 291 iP	48 00.00 -0.7	Hoyward, Lafayette, Oakland and			MAIO	79.74	305 eP	09 07.00	1.5
	eS	55 24.60	Walnut Creek. Felt in Alameda,			YKA	80.33	28 eP	09 07.60	-0.4
BAL	54.22 213 eP	48 09.00 -0.7	Contra Costa, San Francisco and				0.9s	2.60nm		4.2mb
GUN	58.29 294 P	48 40.00 0.6	San Mateo Counties.			SES	85.60	39 eP	09 36.00	0.6
PKI	58.72 293 P	48 42.00 -0.4				KEV	85.92	343 eP	09 47.00	10.5X
	1.0s 58.00nm	5.6mb	BKS	0.19 272 iPc	41 31.50 0.3	SUF	90.17	337 eP	09 56.10	-0.9
KKN	58.83 294 P	48 43.20 0.2		eS	41 34.50	KIC	145.28	306 PKP	16 36.04	0.1
	1.0s 66.00nm	5.7mb	BRK	0.21 271 iPc	41 31.40 -0.1	TIC	145.33	307 PKP	16 36.02	0.0
DMN	58.98 293 P	48 44.30 0.1	ZSP	0.22 290 iPc	41 31.90 0.2	LIC	145.59	306 PKP	16 36.92	0.5
	0.9s 79.00nm	5.8mb	PCC	0.48 220 iPd	41 36.40 -0.5	ZOBO	145.61	97 ePKP	16 40.00	2.9X
GKN	59.39 294 P	48 47.20 0.4	MHC	0.60 152 iP	41 39.10 -0.1		S.D			
TTA	61.73 26 P	49 01.30 -0.8	ARN	0.63 145 iPd	41 39.70 -0.2	* APR 06, 1990 23h 11m 30.88± 0.85s				
	1.3s 33.02nm	5.3mb	GCC	0.84 180 iPd	41 42.90 -1.0	38.847 N ± 8.0km				21.906 E ± 9.5km
IMA	63.92 23 eP	49 16.10 -0.5	SAO	1.19 158 iPc	41 47.70 -2.1	DEPTH = 10.0km (geophysicist)				
PMR	64.29 28 eP	49 17.30 -1.5	CMB	1.28 82 iPc	41 49.60 -1.9	GREECE (364)				
BRW	65.19 17 eP	49 24.70 0.1	LLA	1.51 146 eP	41 52.30 -2.6	ML 3.1 (ATH).				
FBA	65.82 25 P	49 27.60 -1.1	PRS	1.61 162 eP	41 54.20 -2.2					
	1.3s 28.30nm	5.2mb	ORV	1.73 13 eP	41 55.60 -2.4	NEO	1.12	65 ePb	11 52.00	0.0
NDI	65.89 295 ePd	49 28.50 -1.3	FRI	2.02 115 iPc	42 00.30 -2.0	VLS	1.23	237 ePb	11 54.00	0.2
HYB	65.98 283 eP	49 30.50 0.0	PHAM	2.40 147 eP	42 05.50 -2.3	ITM	1.67	179 ePg	12 03.00	2.8X
POO	70.21 285 iPd	49 55.30 -1.7	BCH	3.09 150 eP	42 14.60 -3.0	ATH	1.67	121 ePg	12 01.70	1.4
QUE	74 61 298 eP	50 13.40 -9.7X	KVN	3.27 68 ePc	42 18.50 -1.9	KEK	1.85	299 ePb	12 05.70	2.8X
	eS	59 59.00	BLP	3.54 158 eP	42 21.00 -3.0	VLI	2.28	159 ePn	12 07.70	-1.4
BMW	78.73 45 P	50 46.10 0.5	ABL	3.75 143 eP	42 24.00 -3.2	OHR	2.42	340 ePn	12 12.80	1.7
LON	79.64 44 P	50 50.80 0.2	TNP	3.78 85 eP	42 27.00 -0.6	VAY	2.52	11 ePn	12 11.80	-0.7
MAIO	79.74 305 iPd	50 52.50 1.2		19 obs. associated		SKO	3.14	354 ePn	12 20.00	-1.3
NEW	82.42 42 P	51 05.00 -0.1	& APR 06, 1990 22h 43m 37.50s				S.D			
	1.0s 47.50nm	5.5mb	37.882 N	121.982 W		* APR 06, 1990 23h 22m 11.81± 0.67s				
KVN	83.99 51 P	51 14.30 0.8	DEPTH = 8.0km			38.893 N ± 5.9km				21.900 E ± 8.7km
ABL	84.15 56 P	51 15.70 1.2	CENTRAL CALIFORNIA	(39)		DEPTH = 10.0km (geophysicist)				
TNP	84.90 52 P	51 18.50 0.4	<BRK>. ML 3.0 (BRK).			GREECE (364)				
	1.0s 21.67nm	5.3mb	Mo=1.4*10**14 Nm (BRK).			ML 3.1 (ATH).				
SES	85.65 39 eP	51 22.00 0.6	BKS	0.20 269 eP	43 41.70 -0.1	NEO	1.11	68 ePb	22 33.00	0.4
	1.1s 144.00nm	6.1mb	BRK	0.22 268 iPc	43 41.90 -0.2	VLS	1.25	236 ePb	22 34.00	-1.1
	pP	51 32.00 31km	ZSP	0.23 286 iPc	43 42.30 0.1	ATH	1.70	122 ePb	22 42.00	0.4
KEV	85.95 343 eP	51 23.00 0.5	PCC	0.50 220 iPd	43 46.90 -0.6	ITM	1.71	179 ePg	22 44.00	2.2
PEC	86.04 56 P	51 23.80 0.1	MHC	0.60 153 iPc	43 49.40 -0.2	KEK	1.82	297 ePn	22 47.20	3.7X
	0.8s 11.36nm	5.2mb	ARN	0.64 146 eP	43 50.00 -0.4	VLI	2.32	159 ePn	22 49.00	-1.7
LRM	86.16 44 ePd	51 24.50 0.2	GCC	0.85 181 eP	43 53.30 -0.8	OHR	2.37	339 ePn	22 53.00	1.6
PLM	86.42 57 eP	51 26.00 0.2		eS	44 05.10	VAY	2.48	12 ePn	22 53.00	0.2
BAR	86.75 57 eP	51 28.00 0.8		7 obs. associated		MMB	3.03	27 ePd	23 00.00	-0.8
TPC	86.87 56 eP	51 27.00 -0.8	APR 06, 1990 22h 56m 58.89± 0.51s			SKO	3.10	354 ePn	23 01.00	-0.6
SOD	87.40 341 iP	51 29.60 0.0	15.068 N ± 5.9km	147.593 E ± 8.8km		KKB	3.10	17 eP	23 02.00	0.3
DUG	87.60 49 P	51 32.10 0.8	DEPTH = 33.0km (normal)			RZN	3.53	37 eP	23 07.00	-0.9
DAG	88.02 357 eP	51 31.60 -0.8	4.8mb (8 obs.)				S.D			
	0.8s 8.96nm	5.1mb	MARIANA ISLANDS REGION	(215)		* APR 06, 1990 23h 42m 58.66± 0.60s				
GLA	88.14 56 eP	51 34.00 0.1	GUA	3.01 240 eP	57 46.00 0.6	25.759 S ±16.0km				176.189 W ±14.8km
FFC	89.20 33 iPd	51 38.40 0.0		eS	58 20.30	DEPTH = 33.0km (normal)				
	1.2s 27.00nm	5.4mb	GUMO	3.03 241 eP	57 46.60 1.0	5.1mb (7 obs.)				
SUF	90.19 337 iP	51 41.70 -1.2		eS	58 21.60	SOUTH OF FIJI ISLANDS (171)				
	0.8s 8.90nm	5.1mb	PJG	3.02 241 eP	57 45.60 0.0	RMQ	31.43	261 eP	49 20.00	0.8
NUR	92.06 335 eP	51 57.00 5.5X	WKYJ	21.93 333 eP	01 53.50 2.1	CTA	34.97	271 iPc	49 40.50	-9.5X
RSSD	92.34 43 P	51 53.80 0.3	KAKJ	22.07 344 P	01 52.60 0.0			e(S)	55 49.00	
VNDA	92.74 177 e(P)	51 55.10 0.9	IIDJ	22.10 339 P	01 54.00 0.9	ASPA	45.17	262 iPc	51 13.40	-1.0
GOL	93.14 48 P	51 58.70 1.4	TKSJ	22.26 341 P	01 53.60 -1.0		0.4s	9.00nm		5.0mb
	0.9s 15.15nm	5.4mb	CHJJ	22.46 329 P	01 57.20 0.6	WB5	45.74	267 eP	51 17.20	-1.7
ALQ	94.11 52 eP	52 02.00 0.2								
HFS	96.43 339 ePKP	52 09.50 -2.2								
	1.8s 70.70nm	5.9mb								
NB2	96.61 340 P	52 11.30 -1.3								

06d 23h

WRA 45.75 267 Pc 51 17.10 -1.8
0.9s 9.30nm 4.7mb
SBA 52.77 184 eP 52 14.20 1.9
VND 52.86 186 e(P) 52 13.00 0.1
NANU 61.75 257 eP 53 25.00 8.5X
SPA 64.39 180 eP 53 32.80 -0.8
1.2s 33.10nm 5.3mb
SSE 82.32 310 eP 55 18.80 0.3
1.0s 15.00nm 5.0mb
ALO 89.42 50 eP 55 53.00 -0.8
1.2s 12.50nm 5.1mb
PNT 90.10 33 eP 55 57.00 0.6
BJI 90.78 315 eP 56 01.00 1.4
LRM 91.71 39 eP 56 03.50 -0.7
KMI 93.19 296 Pc 56 13.00 1.6
CHG 93.56 289 ePd 56 14.70 1.8
0.9s 12.60nm 5.3mb
CHTO 93.56 289 iPd 56 14.80 1.9
0.8s 12.45nm 5.4mb
pP 56 22.90 25kmX
SES 95.14 36 eP 56 19.00 -0.5
YKA 100.58 25 ePd diff 56 49.00 5.1X
0.5s 0.30nm 4.1mb X
BHD 144.08 292 ePKPc 02 31.00 -1.8
NB2 144.37 354 PKP 02 28.90 -3.6X
1.0s 12.00nm
UPP 144.59 348 iPKP 02 30.30 -2.5X
MSL 144.89 297 ePKPc 02 32.50 -1.6
KAS 150.77 310 ePKP 02 49.50 6.1X
HLBJ 150.94 290 PKPc 02 49.10 5.1X
MDSJ 151.02 289 PKPc 02 49.40 5.3X
DCN 151.22 14 ePKP 02 48.70 5.1X
HRI 151.30 293 e(PKP) 02 47.00 2.5X
DLE 151.43 13 ePKP 02 55.70 11.8X
BBTK 152.05 307 iPKPc 02 52.00 6.6X
MBH 152.26 285 ePKP 02 53.00 7.2X
KSP 153.18 342 ePKP 02 53.50 7.0X
SPC 153.34 336 ePKP 02 57.40 10.4X
e 03 01.00
MLR 153.48 324 ePKP 02 56.00 8.7X
CLL 153.54 347 e(PKP) 02 54.00 7.0X
BRG 153.74 345 ePKP 02 35.20 -12.1X
e 02 53.80
i 03 07.10
BCAO 154.52 216 ePKPd 02 58.20 8.7X
0.7s 8.00nm
i 03 41.10
KHC 155.46 344 PKPc 02 50.20 0.5
e 03 15.60
KBA 157.42 343 e(PKP) 03 10.00 17.5X
i 03 24.80
S.D. = 1.4 on 19 of 39 obs.

SIV 152.37 96 PKP 24 40.60 7.0X
S.D. = 0.7 on 19 of 21 obs.
& APR 07, 1990 00h 24m 17.80s
37.863 N 122.002 W
DEPTH = 3.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.5 (BRK).
Mo=4.4+10+13 Nm (BRK)
BRK 0.20 273 iPc 24 21.90 0.0
eS 24 25.50
ZSP 0.22 292 iPc 24 22.40 0.2
PCC 0.47 220 iPd 24 26.80 -0.4
MHC 0.59 151 iPc 24 29.70 0.0
GCC 0.83 180 iPd 24 33.50 -0.9
eS 24 44.40
SAO 1.18 158 eP 24 38.50 -2.0
CMB 1.29 82 eP 24 40.50 -1.9
eS 24 59.00
LLA 1.50 145 e(P) 24 43.40 -2.3
PRS 1.61 162 e(P) 24 43.00 -4.2
KVN 3.28 68 e(P) 25 09.00 -2.4
10 obs. associated

* APR 07, 1990 00h 27m 29.02±1.26s
32.585 S ±10.8km 179.774 W ±22.8km
DEPTH = 33.0km (normal)
4.7mb (2 obs.)
SOUTH OF KERMADEC ISLANDS (179)
PUZ 5.71 196 eP 28 57.90 4.2X
S 30 04.00
MNG 8.88 204 eP 29 39.00 1.0
eS 31 16.80
MTW 9.35 202 eP 29 43.00 -1.6
CAW 9.46 204 eP 29 45.70 -0.3
MOW 9.67 203 P 29 49.00 0.0
CTA 32.75 284 eP 34 02.50 1.4
WRA 42.73 275 Pc 35 24.10 -0.8
0.6s 7.50nm 4.6mb
WB5 42.73 276 eP 35 24.80 -0.1
SPA 57.59 180 iPd 37 19.30 1.4
1.0s 8.00nm 4.7mb
GUN 107.83 292 Pd diff 41 54.10 6.4X
PKI 108.04 292 Pd diff 41 57.50 8.9X
1.0s 36.00nm 6.5mb X
KKN 108.24 292 Pd diff 41 58.20 8.8X
0.9s 32.00nm 6.5mb X
DMN 108.30 291 Pd diff 41 58.60 8.9X
GKN 108.85 292 Pd diff 42 02.30 10.3X
SUF 145.64 339 iPKP 46 59.70 -5.0X
0.5s 4.60nm
NUR 147.79 337 ePKP 47 06.40 -1.8
NB2 150.64 349 PKP 47 13.40 0.7
0.6s 9.00nm
S.D. = 1.3 on 10 of 17 obs.

APR 07, 1990 00h 04m 45.56±0.41s
15.078 N ± 6.8km 147.597 E ± 8.4km
DEPTH = 33.0km (normal)
4.5mb (5 obs.)
MARIANA ISLANDS REGION (215)
GUA 3.02 240 eP 05 32.80 0.6
eS 06 08.20
GUMO 3.03 241 eP 05 32.10 -0.3
PJG 3.03 241 eP 05 31.90 -0.5
CHJJ 22.26 341 P 09 40.60 -0.6
MTMJ 23.13 340 P 09 51.40 1.5
NIJJ 23.36 342 P 09 51.30 -0.7
WB5 37.09 201 eP 11 54.80 0.0
WRA 37.16 201 Pd 11 55.00 -0.4
0.8s 6.20nm 4.5mb
ASPA 40.77 199 eP 12 25.60 0.2
0.7s 3.00nm 4.1mb
LZH 44.21 307 eP 12 53.50 -0.1
2.0s 33.00nm 4.8mb
i 13 06.00
HYB 66.00 283 eP 15 32.00 0.5
MBC 76.19 14 ePc 16 32.00 0.2
1.0s 8.00nm 4.7mb
YKA 80.32 28 eP 16 53.50 -1.1
1.0s 1.80nm 4.0mb
SES 85.59 39 eP 17 22.00 0.0
LRM 86.10 44 eP 17 24.80 -0.1
KIC 145.28 306 PKP 24 22.26 -0.3
0.7s 9.50nm
TIC 145.32 307 PKP 24 22.22 -0.4
LIC 145.59 306 PKP 24 23.10 0.0
ZOBO 145.61 97 PKP 24 25.30 1.5
LPB 145.65 97 PKP 24 32.00 8.4X
pP 40 19.00 34kmX

NST 45.70 277 eP 40 22.10 1.9
CHG 46.58 282 eP 40 28.00 0.7
CHTO 46.58 282 iP 40 28.00 0.8
0.9s 8.53nm 4.7mb
BDT 46.63 280 eP 40 28.00 0.4
NDI 65.90 295 eP 42 46.00 0.6
HYB 66.00 283 eP 42 47.00 0.8
QUE 74.63 298 eP 43 39.80 1.1
YKA 80.35 28 eP 44 08.00 -1.4
0.8s 3.70nm 4.4mb
PNT 80.54 42 eP 44 11.00 0.2
CLC 85.15 54 eP 44 36.00 1.2
MWC 85.20 56 eP 44 35.00 -0.2
SBB 85.26 56 eP 44 36.00 0.6
SES 85.62 39 eP 44 37.00 0.2
GSC 85.91 55 eP 44 38.00 -0.7
LRM 86.12 44 eP 44 39.60 -0.1
TPC 86.83 56 eP 44 42.00 -1.2
SOD 87.39 341 eP 44 31.00 -14.1X
GLA 88.11 56 eP 44 50.00 0.7
KIC 145.30 306 PKP 51 36.94 -0.4
TIC 145.34 307 PKP 51 36.94 -0.5
LIC 145.60 306 PKP 51 37.78 0.0
1.0s 39.00nm
ZOBO 145.61 97 PKP 51 40.00 1.5
1.0s 13.00nm
LPB 145.65 97 PKP 51 43.00 4.7X
SIV 152.37 96 PKP 51 51.00 2.7X
i 51 56.20
S.D. = 0.9 on 36 of 39 obs.

& APR 07, 1990 01h 07m 05.10s
33.870 N 116.160 W
DEPTH = 5.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.8 (PAS). Felt (IV)
at Indio and Mecca.
TPC 0.25 21 iPc 07 10.00 -0.2
HAY 0.46 110 iPd 07 14.00 -0.4
PLM 0.78 229 iPc 07 19.90 -1.0
PEC 0.83 272 iPc 07 20.70 -1.0
RVR 1.02 277 iPc 07 23.80 -1.0
BAR 1.26 200 iPd 07 27.50 -1.5
VPD 1.33 268 iP 07 29.50 -0.7
GLA 1.38 126 eP 07 28.70 -2.3
SBB 1.60 301 ePc 07 33.00 -1.2
MWC 1.61 283 iPc 07 34.30 -0.2
ABL 2.71 292 eP 07 49.20 -1.2
BCH 3.50 293 eP 08 01.00 -0.3
BLP 3.58 282 eP 08 02.00 -0.4
FRI 4.25 318 eP 08 11.30 -0.7
eS 09 14.60
TNP 4.29 349 eP 08 11.70 -1.0
PRI 4.34 303 eP 08 12.80 -0.5
PRS 4.93 301 eP 08 19.40 -2.2
SAO 5.20 305 e(P) 08 23.90 -1.5
CMB 5.39 322 eP 08 25.40 -2.7
KVN 5.40 344 eP 08 27.20 -1.3
ARN 5.59 310 eP 08 29.80 -1.1
MSU 5.64 34 eP 08 31.00 -0.9
MHC 5.65 309 eP 08 32.60 0.7
ALO 8.09 80 eP 09 05.00 -1.3
SES 16.94 11 eP 11 08.00 3.7
FFC 23.10 21 eP 12 13.00 0.4
0.9s 9.00nm 4.3mb X
YKA 28.66 2 eP 13 19.80 15.3
0.4s 0.10nm
27 obs. associated

APR 07, 1990 01h 10m 32.87±0.48s
15.119 N ± 6.9km 147.598 E ± 9.6km
DEPTH = 33.0km (normal)
4.3mb (5 obs.)
MARIANA ISLANDS REGION (215)
GUA 3.04 239 eP 11 20.30 0.5
eS 11 55.40
PJG 3.05 240 eP 11 19.90 -0.1
GUMO 3.05 240 eP 11 20.00 0.0
KAKJ 22.02 344 P 15 26.60 0.4
CHJJ 22.22 341 P 15 28.90 0.8
MAT 22.92 340 eP 15 33.00 -2.1
0.7s 6.16nm 4.2mb
NIJJ 23.32 342 P 15 38.80 -0.1
WB5 37.13 201 eP 17 42.50 0.0
WRA 37.20 201 Pc 17 43.10 0.0

0.7s 4.90nm 4.5mb
 ASPA 40.81 199 eP 18 11.90 -1.2
 0.9s 5.00nm 4.3mb
 LZH 44.19 307 eP 18 41.00 0.2
 2.0s 37.00nm 4.9mb
 YKA 80.29 28 eP 22 41.10 -0.6
 0.8s 1.30nm 4.0mb
 SES 85.56 39 eP 23 10.00 0.9
 LRM 86.07 44 eP 23 12.30 0.3
 KIC 145.26 306 PKP 30 09.96 0.1
 0.9s 18.00nm
 TIC 145.30 307 PKP 30 09.94 0.0
 LIC 145.57 306 PKP 30 10.96 0.6
 SIV 152.37 96 PKP 30 28.80 7.9X
 S.D. = 0.8 on 17 of 18 obs.

& APR 07, 1990 02h 39m 18.20s
 37.872 N 121.985 W
 DEPTH = 1.0km
 4.5mb (9 obs.) 4.0msz (1 obs.)
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 4.2 (BRK).
 Mo=1.3*10**16 Nm (BRK). Felt (V)
 at Bethel Island, Concord,
 Donville and Richmond; (IV) at
 Antioch, Bolinas, Byron,
 Hayward, Millbrae, Milpitas,
 Oakland, Pleasanton, Port Costa,
 San Francisco Airport and Walnut
 Creek. Felt throughout the San
 Francisco Bay area.

BRK 0.22 270 iPc 39 22.80 0.3
 ZSP 0.23 289 iPc 39 23.50 0.8
 PCC 0.49 220 iPd 39 27.70 -0.2
 MHC 0.60 153 iPc 39 30.40 0.3
 ARN 0.63 145 iPd 39 30.90 0.1
 GCC 0.84 181 iPd 39 34.40 -0.6
 NWRM 0.92 310 eP 39 35.00 -1.5
 SAO 1.19 159 iPd 39 39.00 -2.2
 CMB 1.28 82 iPd 39 40.80 -1.9
 LLA 1.50 146 iPc 39 43.50 -2.9
 PRS 1.61 162 iPd 39 45.60 -2.3
 ORV 1.72 13 eP 39 46.60 -2.9
 FRI 2.01 115 iPc 39 51.20 -2.5
 PRI 2.02 148 eP 39 51.20 -2.8
 LTCM 2.34 357 eP 39 56.70 -1.7
 PKEM 2.35 140 eP 39 56.20 -2.4
 PHAM 2.40 147 eP 39 56.50 -2.8
 MIN 2.49 7 eP 39 57.70 -3.0
 WDC 2.74 351 eP 39 59.20 -4.9
 BCH 3.09 150 eP 40 05.70 -3.4
 KVN 3.27 68 ePd 40 09.00 -2.8
 BLP 3.54 158 eP 40 13.50 -2.0
 ABL 3.75 143 eP 40 15.00 -3.7
 MWC 4.83 138 eP 40 29.50 -4.6
 PEC 5.58 134 eP 40 40.50 -3.9
 PLM 6.14 136 eP 40 48.30 -4.2
 GLA 7.56 127 eP 41 07.50 -4.8
 LRM 10.65 39 eP 42 00.10 4.8
 PNT 11.57 8 eP 42 14.00 6.5
 0.5s 4.00nm 5.0mb
 ALO 12.85 98 eP 42 26.00 1.0
 SES 14.76 28 eP 42 54.00 4.1
 EDM 16.48 19 eP 43 08.50 -3.6
 0.7s 18.00nm 4.3mb
 TUL 21.02 87 eP 44 02.80 -2.9
 0.9s 10.20nm 4.2mb
 Z 19s 0.65um 4.0msz
 LR 50 34.00
 RSON 23.86 48 eP 44 27.50 -6.2
 0.8s 4.01nm 4.1mb
 YKA 25.06 8 eP 44 42.00 -3.2
 0.9s 1.20nm 3.6mb
 PMR 29.11 333 eP 45 22.50 0.2
 0.8s 12.07nm 4.8mb
 TTA 32.47 332 eP 45 51.00 -1.1
 1.0s 12.50nm 4.8mb
 IMA 33.61 337 eP 46 01.50 -0.5
 1.3s 10.14nm 4.6mb
 MBC 38.49 1 eP 46 44.00 1.0
 FRB 40.78 33 eP 47 05.00 2.8
 NB2 74.31 22 P 50 56.80 -2.0
 1.2s 5.40nm 4.5mb
 MAT 75.29 305 (P) 51 05.00 0.2
 SIV 78.31 121 P 51 18.20 -3.6
 43 obs. associated

& APR 07, 1990 02h 41m 12.50s
 37.872 N 121.985 W
 DEPTH = 1.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 3.1 (BRK).
 BKS 0.20 271 iPc 41 17.00 0.5
 iS 41 20.50
 PCC 0.49 220 eP 41 22.90 0.7
 MHC 0.60 153 eP 41 27.10 2.7
 GCC 0.84 181 eP 41 29.10 -0.2
 4 obs. associated

APR 07, 1990 02h 44m 30.99±0.31s
 26.163 S ± 9.3km 175.994 W ± 6.3km
 DEPTH = 25.6km (4 depth phases)
 5.3mb (24 obs.) 5.3msz (9 obs.)
 SOUTH OF TONGA ISLANDS (175)
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 13S, 25C
 Centroid Location:
 Origin Time 02:44:37.8 0.8
 Lot 25.985 0.10 Lon 176.17W 0.09
 Dep 15.0 FIX Half-duration 1.7
 Moment Tensor: Scale 10**17 Nm
 Mrr=-0.14 0.05 Mtt= 0.19 0.06
 Mff=-0.05 0.06 Mrt= 0.63 0.14
 Mrf= 1.03 0.18 Mtf=-0.88 0.06
 Principal Axes:
 T Val= 1.05 Plg=23 Azm=237
 N 0.67 44 351
 P -1.72 37 128
 Best Double Couple: Mo=1.4*10**17
 NP1: Strike=278 Dip=45 Slip=-168
 NP2: 180 81 -46

SVA 9.51 326 eP 46 57.10 7.7X
 RAR 15.65 75 P 48 12.00 0.5
 S 50 49.00
 PGZ 15.79 202 eP 48 11.30 -1.8
 0.8s 133.00nm 5.2mb
 MNG 16.06 204 eP 48 12.60 -4.1X
 0.8s 26.00nm 4.4mb
 PVC 16.79 297 iPc 48 29.50 3.5X
 THZ 18.06 208 eP 48 41.10 -0.6
 KHZ 18.35 205 eP 48 44.40 -0.9
 MSZ 22.57 211 eP 49 35.00 4.5X
 TBI 24.24 89 iP 49 47.30 0.3
 0.9s 45.00nm 5.0mb
 PAE 25.89 76 iP 50 03.70 1.1
 0.8s 35.00nm 5.0mb
 PPT 25.93 76 iP 50 04.20 1.2
 0.8s 50.00nm 5.2mb
 PPN 26.07 76 iP 50 05.40 1.1
 0.8s 25.00nm 4.9mb
 TVO 26.13 77 iP 50 06.10 1.2
 0.8s 50.00nm 5.2mb
 BRS 27.88 260 iPd 50 23.30 2.5
 e(S) 55 57.00
 RMQ 31.54 261 eP 50 56.00 2.5
 CTA 35.15 272 iP 51 25.00 0.1
 2.0s 88.24nm 5.3mb
 Z 19s 4.17um 5.2msz
 iPP 51 34.00 30km
 e(PP) 52 01.00
 e(PPP) 52 18.00
 e 52 53.00
 eS 56 54.00
 PMG 38.67 289 iPd 51 52.60 -1.9
 0.9s 50.42nm 5.3mb
 QIS 40.99 268 eP 52 14.00 0.3
 ASPA 45.29 262 eP 52 49.20 0.6
 1.2s 34.00nm 5.2mb
 Z 18s 4.89um 5.5msz
 iPCs 58 22.20
 eS 59 26.30
 LR 11 46.50
 WB5 45.89 267 eP 52 53.30 -0.1
 WRA 45.90 267 Pd 52 53.10 -0.4
 1.2s 17.80nm 4.9mb
 SBA 52.38 185 eP 53 50.90 8.2X
 VNDA 52.47 186 e(P) 53 49.10 5.7X
 GUA 54.81 311 eP 54 06.50 5.2X
 GUMO 54.87 311 eP 54 06.00 4.2X
 SPA 63.99 180 iPc 55 08.70 4.3X

1.1s 22.62nm 5.2mb
 Z 20s 3.15um 5.5msz
 i 55 33.90 100kmX
 CHJJ 75.05 324 P 56 11.60 -0.7
 MAT 75.84 323 eP 56 15.00 -1.8
 0.8s 20.90nm 5.2mb
 Z 20s 1.06um 5.1msz
 eS 05 49.00
 MTMJ 76.09 323 P 56 17.40 -0.9
 TSRJ 76.32 321 P 56 19.20 -0.3
 MAW 76.88 200 eP 56 28.00 5.8X
 ADK 77.71 360 P 56 24.80 -1.9
 PAS 81.26 45 eP 56 44.00 -2.4
 MWC 81.38 45 eP 56 45.00 -2.3
 PLM 81.61 47 eP 56 49.00 0.6
 RVR 81.68 46 eP 56 48.00 -0.5
 SBB 81.83 45 eP 56 49.00 -0.4
 ISA 82.04 44 eP 56 50.00 -0.5
 TPC 82.60 46 eP 56 53.00 -0.4
 GLA 82.76 48 eP 56 54.00 -0.3
 GSC 82.86 45 eP 56 53.00 -1.8
 TNP 84.36 43 P 57 02.60 0.1
 1.3s 35.71nm 5.4mb
 BMW 86.63 33 P 57 14.10 0.7
 MSU 87.76 45 P 57 21.00 1.8
 RMW 88.01 33 P 57 21.20 1.2
 ALO 89.54 50 eP 57 27.20 -0.6
 1.0s 20.00nm 5.3mb
 Z 20s 1.77um 5.5msz
 ANMO 89.54 50 P 57 28.80 1.0
 1.1s 23.73nm 5.4mb
 PMR 90.10 12 eP 57 28.60 -0.9
 1.2s 46.90nm 5.6mb
 TTA 90.20 9 eP 57 30.40 0.3
 PNT 90.34 33 eP 57 32.00 1.1
 1.0s 46.00nm 5.7mb
 pP 57 38.00 19km
 BJI 91.18 315 eP 57 35.50 0.6
 1.0s 10.00nm 5.1mb
 Z 24s 0.64um 5.0mszX
 N 12s 1.10um
 eSKS 08 06.00
 eS 08 32.00
 NST 91.45 287 eP 57 42.00 5.4X
 LRM 91.92 39 eP 57 38.60 0.0
 GOL 92.81 47 P 57 43.10 0.3
 1.5s 55.03nm 5.8mb
 Z 20s 1.00um 5.3msz
 FBA 93.37 12 P 57 43.80 -0.7
 1.2s 22.73nm 5.5mb
 IMA 93.51 9 P 57 45.60 0.3
 KMI 93.52 296 P 57 48.50 2.1
 pP 57 59.00 33km
 sP 58 02.00
 CHG 93.86 289 ePc 57 50.30 2.6
 1.2s 38.28nm 5.7mb
 eS 08 28.00
 CHTO 93.86 289 iPc 57 50.30 2.6
 1.2s 33.68nm 5.6mb
 pP 57 56.90 21km
 SES 95.36 36 eP 57 54.00 0.0
 RSSD 95.96 44 P 57 57.40 0.3
 LZH 97.63 306 P 58 04.50 -0.3
 Z 20s 0.50um 5.0msz
 ZOBO 98.21 113 P 58 16.00 7.6X
 Z 18s 0.66um 5.2msz
 LR 30 24.00
 YKA 100.87 25 ePd iff 58 17.30 -1.3
 0.8s 0.80nm 4.3mb
 KKN 108.92 292 Pd iff 59 00.00 4.4X
 NUR 142.87 343 ePKP 04 19.00 15.7X
 LWI 142.96 224 iPKPc 04 08.20 2.9X
 BHD 144.39 291 ePKPd 04 07.00 0.2
 NB2 144.79 354 PKP 04 04.90 -1.8
 1.1s 23.40nm
 UPP 145.02 348 iPKP 04 05.50 -1.5
 i 04 13.00
 MSL 145.23 297 ePKPd 04 08.50 0.3
 HFS 145.39 351 ePKP 04 06.50 -1.2
 1.0s 41.00nm
 BER 145.78 359 ePKP 04 08.50 0.2
 KAS 151.16 309 ePKP 04 26.00 8.5X
 MDSJ 151.31 289 PKPc 04 25.10 7.1X
 DCN 151.57 14 ePKP 04 24.50 6.9X
 1.0s 93.00nm
 HRI 151.62 292 ePKP 04 25.00 6.5X
 DLE 151.78 13 ePKP 04 25.00 7.1X

07d 03h

DSI 152.06 288 e(PKP) 04 25.00 6.0X
 BBTk 152.43 307 ePKP 04 27.00 7.5X
 CLI 152.51 324 ePKP 04 27.00 7.8X
 MBH 152.54 285 ePKP 04 29.00 9.3X
 LFK 153.12 297 ePKP 04 28.00 7.5X
 KRA 153.17 337 ePKP 04 27.00 7.6X

VR1 153.25 323 ePKPc 04 32.00 11.8X
 SPC 153.78 335 ePKP 04 21.70 0.6
 e 04 29.20
 e 04 41.10

MLR 153.91 323 ePKP 04 32.00 10.6X
 CLL 153.97 347 iPKPd 04 30.10 9.1X
 0.9s 23.00nm

WTS 154.12 356 ePKP 04 31.00 9.8X
 0.8s 10.00nm

BRG 154.18 345 ePKP 04 29.70 8.4X
 e 08 20.30

BCAO 154.30 215 ePKPc 04 28.30 5.6X
 0.7s 12.00nm

CMP 154.54 324 ePKPc 04 36.00 14.0X
 PRU 154.86 344 PKP 04 32.70 10.4X

Z 16s 0.60um 5.5MsZ
 e 07 25.00

ENN 155.39 357 ePKP 04 37.50 14.6X
 0.7s 8.00nm

GRF 155.85 348 ePKP 04 37.00 13.3X
 Z 19s 0.50um 5.4MsZ

KHC 155.89 344 PKP 04 18.00 -5.0X
 Z 16s 0.70um 5.6MsZ
 E 16s 0.20um

SKO 158.68 322 ePKP 04 48.50 21.1X
 i 05 17.20

S.D. = 1.2 on 59 of 97 obs.

& APR 07, 1990 02h 51m 12.60s
 37.872 N 121.980 W

DEPTH = 3.0km
 CENTRAL CALIFORNIA (39)

<BRK>. ML 3.4 (BRK).
 Mo=1.5*10**15 Nm (BRK).

BKS 0.20 271 eP 51 16.90 0.2
 eS 51 21.40

BRK 0.22 270 iPc 51 17.20 0.1
 ZSP 0.23 289 iPc 51 17.50 0.3

PCC 0.49 221 iPd 51 22.00 -0.4
 MHC 0.59 153 iPc 51 24.00 0.3

ARN 0.63 146 iPd 51 25.30 0.1
 GCC 0.84 181 iPd 51 28.40 -1.0

NWRM 0.92 310 eP 51 29.30 -1.6
 SAO 1.18 159 iPc 51 34.40 -1.0

CMB 1.27 82 iPd 51 34.90 -2.0
 LLA 1.50 146 eP 51 37.80 -2.7

PRS 1.61 162 eP 51 40.00 -2.1
 ORV 1.72 12 ePc 51 41.00 -2.6

FR1 2.01 115 ePc 51 45.50 -2.3
 PRI 2.02 148 e(P) 51 46.10 -2.0

MIN 2.49 7 eP 51 52.10 -2.7
 BCH 3.09 150 eP 52 00.30 -3.0

KVN 3.27 68 eP 52 03.20 -2.7
 ABL 3.75 143 eP 52 10.00 -2.8

19 obs. associated

& APR 07, 1990 02h 55m 58.50s
 37.880 N 121.973 W

DEPTH = 2.0km
 CENTRAL CALIFORNIA (39)

<BRK>. ML 2.5 (BRK).
 Mo=6.2*10**13 Nm (BRK).

BRK 0.23 268 iPc 56 03.20 0.1
 iS 56 07.70

ZSP 0.23 286 iPc 56 03.60 0.4
 iS 56 07.90

PCC 0.50 221 iPd 56 08.00 -0.5
 MHC 0.60 154 iPd 56 10.90 0.4

ARN 0.63 146 iPd 56 11.20 0.0
 GCC 0.85 181 eP 56 14.60 -0.8

NWRM 0.92 309 eP 56 15.30 -1.6
 SAO 1.19 159 eP 56 19.30 -2.1

CMB 1.26 82 eP 56 20.70 -2.1
 9 obs. associated

& APR 07, 1990 02h 59m 34.20s
 37.883 N 121.960 W

DEPTH = 4.0km
 CENTRAL CALIFORNIA (39)

<BRK>. ML 3.1 (BRK).
 Mo=3.1*10**14 Nm (BRK).

BKS 0.22 268 iP 59 38.70 0.1
 iS 59 42.30

BRK 0.24 268 iPc 59 38.90 -0.1
 ZSP 0.24 285 iPc 59 39.30 0.2

PCC 0.51 221 iPd 59 43.80 -0.6
 MHC 0.60 155 iPc 59 46.30 0.2

ARN 0.63 147 iPd 59 46.90 0.1
 GCC 0.85 182 ePd 59 50.40 -0.7

NWRM 0.93 308 eP 59 51.00 -1.5
 SAO 1.19 160 eP 59 54.40 -2.5

CMB 1.25 83 ePd 59 56.50 -1.6
 eS 00 13.20

LLA 1.50 147 eP 00 00.10 -1.9
 PRS 1.62 163 eP 00 02.40 -1.2

ORV 1.71 12 eP 00 03.00 -1.9
 FR1 2.00 116 eP 00 07.40 -1.7

MIN 2.47 6 e(P) 00 14.70 -1.4
 KVN 3.25 68 eP 00 25.20 -1.9

16 obs. associated

* APR 07, 1990 03h 27m 13.03±0.91s
 41.808 N ±16.4km 19.619 E ±14.0km

DEPTH = 10.0km (geophysicist)
 ALBANIA (391)

ML 2.2 (TTG).

ULC 0.32 300 iPgD 27 19.50 -0.1
 iSg 27 24.40

TTG 0.68 337 ePg 27 26.00 -0.4
 eSg 27 35.50

BDV 0.76 309 ePg 27 27.50 -0.3
 eSg 27 38.00

HCY 1.05 308 ePg 27 33.00 0.2
 eSg 27 48.00

OHR 1.13 128 ePg 27 34.20 0.0
 BRY 1.35 324 ePg 27 38.00 0.8

eSg 27 58.00

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

* APR 07, 1990 03h 47m 16.56±0.55s
 46.752 N ±14.8km 150.969 E ±11.7km

DEPTH = 33.0km (normal)
 4.2mb (8 obs.)

KURIL ISLANDS (221)

FBA 37.08 38 iP 54 27.20 2.3
 0.7s 1.20nm 3.9mb

INK 42.44 32 eP 55 11.00 1.7
 CHTO 50.69 255 e(P) 56 14.00 -0.9

0.6s 1.26nm 4.1mb
 YKA 51.80 36 eP 56 22.60 -0.2

0.6s 1.90nm 4.2mb
 GUN 53.53 274 P 56 37.30 0.7

KKN 54.02 274 P 56 41.00 1.0
 PKI 54.07 274 P 56 41.20 0.7

DMN 54.25 274 P 56 42.80 1.0
 GKN 54.32 274 P 56 43.10 0.9

EDM 57.37 45 eP 57 03.00 -0.7
 FFC 61.68 39 eP 57 33.00 -0.3

0.7s 5.00nm 4.8mb
 KVN 63.46 60 iP 57 45.90 0.4

pP 57 58.40 43kmX
 TNP 64.61 61 iP 57 52.90 -0.2

pP 58 06.10 46kmX
 BW06 65.92 53 iP 58 01.00 -0.5

0.6s 1.98nm 4.4mb
 pP 58 13.80 44kmX

NB2 67.74 340 P 58 10.40 -2.1
 0.5s 0.60nm 3.9mb

HFS 67.93 339 ePKP 58 10.80 -2.8
 1.8s 69.70nm 5.5mb X

WB5 67.99 197 eP 58 14.00 -0.4
 WRA 68.06 197 P 58 14.40 -0.4

0.6s 1.10nm 4.1mb
 ASPA 71.77 196 eP 58 37.40 0.0

0.6s 4.00nm 4.6mb
 S.D. = 1.3 on 19 of 19 obs.

APR 07, 1990 04h 28m 26.74±0.81s

41.324 N ± 8.5km 20.827 E ± 6.8km
 DEPTH = 10.0km (geophysicist)

ALBANIA (391)
 ML 3.3 (SKO), 2.9 (TTG). Felt

(III) at Kruseva, Yugoslavia.

OHR 0.21 186 iPgC 28 30.80 -0.6
 iSg 28 34.10

SKO 0.79 35 ePg 28 40.50 -1.7
 iSg 28 49.80

ULC 1.34 299 ePg 28 50.00 -1.5
 eSg 29 11.00

PVY 1.42 334 ePg 28 52.00 -0.7
 eSg 29 13.60

TTG 1.61 314 ePn 28 56.00 0.8
 eSn 29 20.00

IVA 1.69 336 ePn 28 57.60 1.0
 eSn 29 22.00

KKB 1.78 71 eP 28 57.00 -0.7
 NKY 2.02 318 ePn 29 02.90 1.6

eSn 29 32.00
 VTS 2.18 54 eP 29 03.00 -0.7

MMB 2.20 82 eP 29 06.00 2.2
 RZN 2.94 82 eP 29 15.00 0.4

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

APR 07, 1990 04h 39m 33.39±0.47s
 12.998 N ± 6.6km 70.088 W ± 8.0km

DEPTH = 10.0km (geophysicist)
 4.6mb (4 obs.) 4.3MsZ (1 obs.)

NEAR COAST OF VENEZUELA (97)

PORP 6.03 33 iP 41 04.40 -0.4
 CUM 6.32 113 iP 41 09.40 0.5

iS 42 21.20
 SJG 6.34 36 iP 41 08.40 -0.9

CPD 6.42 38 iP 41 09.50 -0.9
 BMG 6.58 207 iPd 41 11.00 -1.8

LPR 6.66 37 iP 41 14.00 0.2
 MGH 8.46 63 eP 40 50.00 -49.0X

S 42 12.00
 PAG 8.68 69 eP 42 14.00 31.9X

UPA 10.10 248 eP 42 03.80 2.3
 ZOBO 29.14 176 P 45 36.80 -0.8

Z 19s 0.69um 4.3MsZ
 LR 55 48.00

LPB 29.41 176 eP 45 40.00 0.2
 Z 16s 1.68um 4.8MsZ

eLR 57 54.00
 SIV 30.15 163 P 45 44.20 -1.8

TUL 32.49 319 eP 46 05.80 -0.6
 1.2s 8.60nm 4.6mb

BAO 35.88 142 eP 46 36.50 0.6
 ALQ 39.45 310 eP 47 06.00 0.2

SCH 41.80 3 eP 47 27.00 2.4
 LRM 48.44 321 eP 48 18.50 0.3

FFC 48.54 336 eP 48 18.00 -0.5
 0.8s 6.00nm 4.7mb

SES 49.99 327 eP 48 30.00 0.2
 FRB 50.69 1 eP 48 35.00 0.2

EDM 52.74 329 eP 48 49.50 -1.1
 YKA 58.63 338 eP 49 30.50 -2.3

0.8s 2.10nm 4.3mb
 KIC 64.61 89 P 50 15.00 1.1

BCAO 87.68 86 iPc 52 26.40 2.2
 0.4s 5.00nm 5.2mb

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

& APR 07, 1990 04h 46m 08.50s
 37.882 N 121.963 W

DEPTH = 3.0km
 CENTRAL CALIFORNIA (39)

<BRK>. ML 3.0 (BRK).
 Mo=4.2*10**14 Nm (BRK).

BKS 0.22 269 eP 46 13.00 0.2
 iS 46 16.70

BRK 0.24 268 iPc 46 13.20 0.0
 ZSP 0.24 285 iPc 46 13.60 0.3

PCC 0.51 221 iPd 46 18.20 -0.4
 MHC 0.60 155 iPd 46 20.60 0.2

ARN 0.63 147 eP 46 21.00 -0.1
 GCC 0.85 182 iPc 46 24.80 -0.7

NWRM 0.93 309 eP 46 25.20 -1.7
 SAO 1.19 160 iPc 46 30.00 -1.3

CMB 1.26 83 iPc 46 30.70 -1.8
 eS 46 47.70

LLA 1.50 147 ePd 46 34.50 -1.9
 PRS 1.62 163 ePc 46 36.20 -1.8
 ORV 1.71 12 e(P) 46 39.00 -0.3
 KVN 3.25 68 e(P) 46 58.50 -3.1
 14 obs. associated

* APR 07, 1990 05h 30m 31.60±0.74s
 15.394 N ±11.2km 147.438 E ±13.8km
 DEPTH = 33.0km (normal)
 4.3mb (3 obs.)

MARIANA ISLANDS REGION (215)

GUMO 3.07 235 eP 31 19.50 0.6
 PJG 3.07 235 eP 31 19.30 0.4
 MAT 22.61 340 (P) 35 12.00 -18.8X
 0.8s 6.72nm
 WB5 37.33 201 eP 37 42.80 -0.1
 WRA 37.40 201 Pd 37 42.90 -0.6
 0.7s 2.80nm 4.2mb
 LZH 43.90 306 eP 38 38.00 0.8
 1.6s 31.00nm 4.8mb
 GUN 58.04 293 P 40 25.50 1.0
 PKI 58.46 293 P 40 28.00 0.5
 KKN 58.57 293 P 40 27.80 -0.3
 DMN 58.73 293 P 40 28.20 -1.0
 GKN 59.13 294 P 40 29.40 -2.5
 INK 71.76 23 eP 41 52.00 -0.2
 MBC 75.92 14 eP 42 17.50 1.2
 YKA 80.12 28 eP 42 39.30 -0.2
 0.6s 0.60nm 3.8mb
 KIC 144.97 306 PKP 50 08.50 0.4
 S.D. = 1.0 on 14 of 15 obs.

APR 07, 1990 05h 48m 16.98±1.07s
 42.978 N ±11.8km 0.229 W ±5.0km
 DEPTH = 10.0km (geophysicist)
 PYRENEES (378)
 ML 2.6 (LDG).

JAU 0.12 300 Pg 48 20.20 0.1
 Sg 48 22.67
 BTH 0.15 6 iPg 48 19.40 -1.0
 eSg 48 24.00
 OGE 0.26 317 Pg 48 22.11 -0.4
 ESCF 0.27 292 Pg 48 22.91 0.2
 Sg 48 26.81
 LHE 0.30 257 Pg 48 23.61 0.4
 ATE 0.36 287 Pg 48 24.86 0.4
 Sg 48 30.09
 ISSF 0.42 277 Pg 48 25.73 0.2
 Sg 48 32.19
 EPF 0.42 83 Pg 48 24.60 -1.0
 Sg 48 30.10
 MADF 0.46 291 Pg 48 26.23 -0.2
 Sg 48 33.18
 BOH 0.59 283 Pg 48 28.01 -0.9
 Sg 48 36.98
 LPO 1.99 31 Pg 48 53.40 2.4
 Sg 49 18.40
 LFF 2.08 19 Pg 48 55.20 2.9X
 Sg 49 21.20
 CAF 2.56 40 Pg 49 03.80 4.6X
 Sg 49 36.20
 RJF 2.64 28 Pn 48 56.80 -3.6X
 Pg 49 04.80
 Sg 49 38.60
 TCF 3.74 27 Pg 49 25.50 9.5X
 Sg 50 12.90
 S.D. = 1.1 on 11 of 15 obs.

? APR 07, 1990 05h 56m 40.79±1.61s
 4.604 S ±15.5km 152.250 E ±27.6km
 DEPTH = 56.4 ±15.0 km
 4.1mb (3 obs.)
 NEW BRITAIN REGION (192)

RAB 0.42 349 iPd 56 52.00 0.3
 iS 57 04.00
 PMG 6.95 226 eP 58 21.50 -1.0
 CTA 16.46 200 iPd 50 38.00 8.4X
 1.9s 78.95nm 4.5mb
 BRS 22.67 179 iP 01 37.70 -0.7
 WB5 23.11 227 eP 01 43.10 0.3
 WRA 23.17 227 Pc 01 43.70 0.4
 0.7s 2.50nm 3.8mb
 ASPA 25.93 221 eP 02 11.40 1.7

0.9s 5.00nm 4.0mb
 LR 14 13.40
 CHG 57.41 296 eP 06 25.30 -1.1
 S.D. = 1.4 on 7 of 8 obs.

* APR 07, 1990 06h 04m 02.28±0.66s
 56.406 N ±9.6km 153.971 W ±8.1km
 DEPTH = 33.0km (normal)
 4.5mb (8 obs.)

KODIAK ISLAND REGION (13)

ML 5.0 (PMR).
 KDC 1.57 30 iPc 04 29.00 0.9
 SDN 3.83 257 iPc 04 58.00 -2.3
 SVW 4.79 350 iPc 05 15.40 1.4
 PMS 5.37 23 eP 05 20.90 -1.2
 PMR 5.77 24 eP 05 26.50 -1.3
 TTA 6.63 352 eP 05 41.00 1.1
 TOA 6.97 32 eP 05 43.20 -1.5
 YKU 8.20 61 e(P) 06 02.50 0.7
 FBA 9.04 17 eP 06 12.50 -0.9
 IMA 9.70 1 e(P) 06 22.00 -0.6
 INK 15.13 30 eP 07 37.00 2.1X
 pP 07 50.00
 YKA 20.65 57 eP 08 39.20 -2.0
 0.9s 4.20nm 3.8mb
 PNT 21.74 94 eP 08 54.00 1.6
 MBC 23.57 20 ePd 09 12.80 2.8
 0.6s 10.00nm 4.5mb
 SES 25.95 85 eP 09 37.00 3.9X
 FRB 40.16 43 eP 11 35.00 -1.2
 DAG 44.11 13 iPc 12 08.20 -0.1
 0.3s 18.18nm 5.4mb
 SOD 56.54 360 iP 13 43.20 0.1
 i 13 50.20
 NB2 62.32 8 P 14 22.20 -0.9
 0.9s 6.00nm 4.7mb
 HFS 63.39 7 eP 14 29.10 -1.0
 0.8s 6.10nm 4.8mb
 Z 16s 0.06um 3.9mszx
 LR 42 12.00
 NUR 63.42 1 eP 14 32.00 1.7
 KHC 74.32 8 P 15 38.50 0.8
 LOR 75.04 15 eP 15 42.00 0.1
 SSF 75.19 16 eP 15 42.80 0.1
 0.5s 2.20nm 4.4mb
 AVF 75.43 16 eP 15 43.90 -0.2
 BGF 75.58 16 eP 15 44.60 -0.4
 LSF 75.67 17 eP 15 45.30 -0.2
 0.5s 2.20nm 4.4mb
 TCF 75.74 17 eP 15 45.90 0.0
 LFF 76.81 18 eP 15 51.50 -0.3
 0.4s 2.30nm 4.6mb
 GUN 81.95 309 P 16 20.90 0.6
 KKN 82.32 310 P 16 22.70 0.7
 GKN 82.40 310 P 16 22.90 0.5
 PKI 82.45 310 P 16 23.20 0.3
 DMN 82.55 310 P 16 23.80 0.5
 S.D. = 1.2 on 32 of 34 obs.

? APR 07, 1990 06h 08m 16.33±5.18s
 36.452 N ±44.1km 14.464 E ±7.8km
 DEPTH = 10.0km (geophysicist)
 SICILY (398)

MEU 0.75 30 P 08 30.40 -0.6
 iSg 08 39.80
 FAI 1.04 323 P 08 36.40 0.5
 eSg 08 48.00
 MCT 1.35 331 P 08 42.20 0.9
 eSn 08 57.00
 MNO 1.49 7 Pd 08 43.50 0.2
 eSg 08 59.90
 GIB 1.57 347 Pc 08 44.40 0.0
 eSn 09 01.30
 ATN 1.88 25 P 08 49.20 0.4
 eSn 09 10.30
 LVI 2.29 313 P 08 54.50 -0.1
 USI 2.47 336 P 08 55.70 -1.5
 eSn 09 22.60
 CZI 3.06 25 P 09 05.40 -0.2
 TDS 3.53 24 P 09 11.70 -0.5
 ROI 3.53 27 P 09 13.20 0.9
 MGR 3.78 13 P 09 15.70 -0.2
 ORI 3.93 23 P 09 18.50 0.5
 S.D. = 0.7 on 13 of 13 obs.

APR 07, 1990 06h 25m 51.42±0.41s
 83.786 N ±6.7km 113.160 E ±6.5km
 DEPTH = 10.0km (geophysicist)
 4.4mb (11 obs.)

NORTH OF SEVERNAYA ZEMLYA (651)

DAG 18.09 327 iPd 30 02.10 -1.7
 0.8s 8.21nm 3.9mb
 MBC 18.33 37 eP 30 08.00 1.3
 0.9s 5.00nm 3.7mb
 KEV 20.86 283 eP 30 40.00 4.7X
 SOD 23.20 281 iP 30 59.00 0.4
 i 31 10.80
 INK 24.94 54 eP 31 16.00 0.6
 SUF 27.77 279 iP 31 41.00 -0.6
 0.6s 6.90nm 4.6mb
 NB2 30.98 292 P 32 09.80 -0.5
 0.7s 1.70nm 4.0mb
 YKA 32.18 40 eP 32 19.80 -1.0
 0.5s 0.70nm 3.8mb
 CLL 40.38 288 e(P) 33 37.00 6.6X
 KSP 40.49 284 eP 33 32.00 0.6
 BRG 40.71 286 eP 33 33.40 0.3
 1.1s 12.00nm 4.5mb
 e 33 41.60
 KRA 40.88 281 eP 33 35.40 0.9
 MOX 41.18 289 eP 33 38.50 1.5
 GRF 42.16 289 eP 33 46.70 1.6
 e 33 54.60
 KHC 42.47 286 Pc 33 48.50 0.9
 CDF 43.83 292 eP 33 59.20 0.5
 HAU 44.33 293 eP 34 03.00 0.3
 BSF 44.45 293 eP 34 03.60 -0.2
 LOR 45.30 295 eP 34 10.00 -0.5
 SSF 45.54 296 eP 34 12.00 -0.4
 0.7s 4.40nm 4.5mb
 LBF 45.57 295 eP 34 12.10 -0.6
 0.6s 3.60nm 4.5mb
 BGF 46.11 296 eP 34 16.40 -0.4
 0.7s 5.50nm 4.7mb
 TCF 46.43 297 eP 34 19.10 -0.4
 MAF 46.47 296 eP 34 19.30 -0.4
 LSF 46.54 297 eP 34 19.70 -0.6
 GKN 56.71 210 P 35 37.10 -0.1
 GUN 56.73 209 P 35 37.80 0.2
 KKN 56.88 210 P 35 38.80 0.2
 DMN 57.07 210 P 35 41.00 1.0
 PKI 57.09 209 P 35 40.20 0.0
 ALO 60.15 37 eP 36 01.00 -0.2
 1.0s 5.00nm 4.6mb
 CHTO 65.25 195 eP 36 33.10 -1.8
 GBA 71.44 217 Pc 37 12.60 -0.8
 0.9s 4.50nm 4.6mb
 S.D. = 0.9 on 31 of 33 obs.

APR 07, 1990 06h 26m 53.84±0.31s
 15.289 N ±7.1km 147.434 E ±7.6km
 DEPTH = 33.0km (normal)
 4.4mb (7 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.00 235 eP 27 41.70 1.5
 eS 28 18.50
 GUMO 3.01 236 eP 27 40.60 0.3
 PJG 3.01 236 eP 27 40.30 0.0
 MAT 22.71 340 (P) 31 53.00 -1.0
 0.8s 10.45nm 4.4mb
 MTMJ 22.88 340 P 31 56.40 0.7
 NIJJ 23.11 343 P 31 57.60 -0.2
 BJI 36.75 318 eP 34 09.50 9.5X
 WB5 37.24 201 eP 34 03.50 -0.8
 e 36 10.50
 WRA 37.30 201 Pd 34 03.60 -1.3
 0.6s 3.30nm 4.4mb
 ASPA 40.92 199 eP 34 33.70 -1.2
 0.7s 5.00nm 4.4mb
 LZH 43.96 306 eP 35 00.00 0.1
 3.0s 83.00nm 5.0mb
 pP 35 10.50 36kmX
 CHTO 46.38 282 eP 35 18.50 -0.7
 0.6s 1.26nm 4.0mb
 INK 71.85 23 eP 38 14.00 -1.1
 MBC 76.02 14 eP 38 39.50 0.4
 1.0s 7.00nm 4.6mb
 YKA 80.21 28 eP 39 01.20 -1.1
 0.9s 2.00nm 4.1mb
 WDC 80.24 51 eP 39 05.20 2.3

07d 06h

PNT 80.46 42 eP 39 04.00 0.0
 MIN 80.99 51 eP 39 06.30 -0.8
 ORV 81.24 51 eP 39 07.90 -0.3
 PRS 82.05 55 eP 39 12.60 0.1
 CMB 82.43 53 eP 39 14.50 0.0
 FRI 83.20 54 eP 39 18.20 -0.2
 SES 85.53 39 eP 39 30.00 0.1
 LRM 86.06 44 eP 39 32.80 -0.1
 KIC 145.03 306 PKPd 46 30.30 -0.1
 0.7s 14.50nm
 TIC 145.07 307 PKP 46 30.30 -0.2
 0.9s 18.00nm
 LIC 145.34 306 PKPd 46 31.36 0.4
 0.6s 11.00nm
 ZOBO 145.79 97 PKP 46 33.00 0.6
 LPB 145.83 97 PKP 46 34.00 1.8
 CCH 147.73 98 PKP 46 36.00 0.9
 SIV 152.55 95 PKP 46 48.20 6.1X
 S.D. = 0.9 on 29 of 31 obs.

& APR 07, 1990 06h 28m 56.50s
 37.473 N 118.812 W
 DEPTH = 12.0km
 CALIFORNIA-NEVADA BORDER REGION (40)
 <BRK>. ML 3.5 (BRK), 3.2 (PAS).

FRI 0.86 236 iPc 29 12.20 -0.7
 iS 29 25.00
 CMB 1.37 295 iPc 29 20.90 -0.5
 iS 29 38.60
 TNP 1.40 64 eP 29 22.00 0.0
 KVN 1.67 19 eP 29 25.90 0.0
 PKEM 1.75 217 eP 29 28.30 1.4
 ISA 1.83 171 iP 29 29.60 1.6
 LLA 1.91 244 iPc 29 30.20 1.1
 PRI 1.99 229 eP 29 31.30 0.8
 i 29 32.00
 PHAM 2.07 218 eP 29 32.30 0.8
 ARN 2.17 268 eP 29 33.90 0.9
 SAO 2.22 252 eP 29 34.50 0.8
 MHC 2.26 268 ePc 29 35.40 1.1
 PRS 2.35 242 iPc 29 36.20 0.7
 BCH 2.50 205 eP 29 38.40 0.6
 ABL 2.64 187 eP 29 41.40 1.6
 PCC 2.84 272 eP 29 43.00 0.6
 ORV 2.96 315 eP 29 48.10 4.0
 PEC 3.82 159 eP 29 57.30 0.9
 18 obs. associated

APR 07, 1990 07h 06m 15.44±0.68s
 46.367 N ± 7.4km 13.335 E ± 6.0km
 DEPTH = 10.0km (geophysicist)
 AUSTRIA (546)
 ML 2.0 (KBA), MD 2.5 (LJU).

RBL 0.18 65 P 06 19.00 -0.5
 eSg 06 22.00
 FVI 0.44 301 P 06 23.50 -1.0
 eSg 06 29.50
 VOY 0.51 131 ePg 06 25.30 -0.6
 eSg 06 33.80
 KBA 0.71 1 iPg 06 28.60 -1.0
 iSg 06 38.70
 TRI 0.72 155 e(Pg) 06 28.30 -1.3
 i(Sg) 06 39.80
 LJU 0.89 111 e(Pg) 06 34.50 1.9
 eSg 06 48.00
 CTI 1.21 255 Pc 06 36.40 0.3
 eSn 06 56.50
 SCE 1.30 302 ePg 06 39.00 -0.7
 OGA 1.67 288 iPc 06 47.00 2.0
 KHC 2.77 3 ePn 07 01.60 0.9
 ePg 07 08.80
 Sg 07 46.20
 PRU 3 71 12 ePg 07 25.00 11.0X
 Sg 08 14.50
 S.D. = 1.4 on 10 of 11 obs.

* APR 07, 1990 07h 21m 19.74±0.92s
 39.241 N ± 11.0km 22.271 E ± 8.8km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 ML 3.1 (ATH).

NEO 0.74 85 ePn 21 35.00 0.7
 ATH 1.70 138 ePb 21 49.00 -0.6
 KEK 1.97 285 ePn 21 54.00 0.5

ITM 2.08 188 ePn 21 47.50 -7.6X
 VAY 2.09 6 ePn 21 54.70 -0.5
 OHR 2.18 329 ePn 21 56.50 -0.1
 S.D. = 0.8 on 5 of 6 obs.

APR 07, 1990 07h 45m 34.37±0.59s
 38.895 N ± 8.1km 21.959 E ± 6.1km
 DEPTH = 10.0km (geophysicist)
 3.8mb (2 obs.)
 GREECE (364)
 ML 3.6 (ATH).

NEO 1.07 67 ePn 45 55.70 1.2
 VLS 1.29 237 ePn 45 52.50 -5.8X
 ATH 1.66 123 ePb 46 05.20 1.6
 ITM 1.71 181 ePb 46 05.00 0.6
 KEK 1.86 297 ePb 46 08.70 2.1
 VLI 2.31 160 ePn 46 13.00 0.0
 SRS 2.55 29 eP 46 34.70 18.3X
 APE 3.36 122 ePn 46 27.00 -1.0
 LCI 3.41 296 P 46 34.00 5.4X
 RDO 3.55 50 ePn 46 28.70 -1.9
 ALN 3.73 56 eP 47 15.00 41.8X
 SMG 4.02 106 ePn 46 36.20 -1.0
 TTG 4.08 331 ePn 46 38.00 -0.1
 eSn 47 26.50
 ROI 4.24 281 P 46 39.10 -1.4
 ORI 4.42 287 P 46 40.00 -3.0X
 TDS 4.43 282 P 46 43.00 -0.1
 CZI 4.55 276 P 46 43.60 -1.1
 ATN 5.15 264 P 46 51.00 -2.3X
 CMP 6.77 19 ePc 47 10.00 -6.2X
 HFS 21.89 349 eP 50 30.30 1.2
 0.6s 3.90nm 4.0mb
 NB2 23.16 347 P 50 38.80 -2.8X
 0.6s 1.00nm 3.5mb
 S.D. = 1.4 on 13 of 21 obs.

APR 07, 1990 09h 01m 00.11±0.50s
 38.880 N ± 4.8km 21.986 E ± 5.8km
 DEPTH = 20.4 ± 4.1 km
 3.3mb (2 obs.)
 GREECE (364)
 ML 3.4 (THE), MD 3.2 (ATH).

AGG 0.30 62 iPc 01 06.30 -0.6
 eS 01 12.10
 NEO 1.05 66 ePn 01 20.00 0.4
 LIT 1.28 18 iPc 01 23.10 0.2
 eS 01 41.50
 VLS 1.30 238 ePn 01 21.20 -2.0
 ATH 1.63 123 ePb 01 31.50 3.6X
 PAIG 1.68 51 ePd 01 28.70 0.1
 eS 01 51.70
 ITM 1.70 182 ePb 01 31.20 2.3
 KEK 1.89 297 ePb 01 34.50 2.8X
 THE 1.91 23 eP 01 31.50 -0.4
 eS 01 57.90
 FNA 1.96 346 iPc 01 33.20 0.5
 eS 01 58.40
 OUR 2.12 46 ePd 01 35.20 0.3
 eS 02 02.90
 SOH 2.21 28 ePd 01 36.90 0.6
 eS 02 04.60
 VLI 2.29 160 ePn 01 36.60 -0.7
 OHR 2.41 338 ePn 01 40.00 0.9
 1.2s 400.00nm
 iSg 02 15.00
 Lg 02 19.50
 VAY 2.48 10 ePn 01 40.30 0.2
 SRS 2.55 28 eP 01 41.10 -0.1
 eS 02 13.40
 MMB 3.02 26 iPc 01 48.00 0.3
 SKO 3.12 352 iPn 01 49.00 -0.1
 RZN 3.50 36 iPc 01 55.00 0.3
 RDO 3.54 49 ePn 01 54.40 -0.8
 ALN 3.72 56 eP 01 57.40 -0.3
 KDZ 3.81 42 iP 01 58.00 -1.0
 VTS 3.82 14 eP 01 59.00 -0.3
 NB2 23.18 347 P 06 05.20 -0.9
 0.7s 0.70nm 3.3mb
 YKA 73.12 341 eP 12 31.50 1.0
 0.4s 0.10nm 3.2mb
 S.D. = 0.9 on 23 of 25 obs.

APR 07, 1990 09h 41m 26.65±0.49s
 15.048 N ± 7.3km 147.553 E ± 9.5km

DEPTH = 33.0km (normal)
 4.7mb (7 obs.)
 MARIANA ISLANDS REGION (215)

GUA 2.97 240 eP 42 12.70 0.2
 eS 42 47.70
 GUMO 2.98 241 eP 42 12.50 -0.2
 PJG 2.98 241 eP 42 11.70 -1.0
 KAKJ 22.08 344 eP 46 21.10 0.6
 IIDJ 22.11 339 eP 46 19.30 -1.6
 CHJJ 22.27 341 P 46 20.90 -1.5
 MAT 22.97 340 (P) 46 27.00 -2.3
 1.4s 27.91nm 4.6mb
 eS 50 34.00
 MTMJ 23.14 340 P 46 30.90 -0.2
 NIJ 23.37 343 P 46 34.00 0.8
 BJI 37.01 318 eP 48 35.00 0.0
 1.4s 22.00nm 4.8mb
 WB5 37.05 201 eP 48 34.90 -0.7
 WRA 37.12 201 Pc 48 35.80 -0.4
 0.8s 10.30nm 4.7mb
 ASPA 40.73 199 eP 49 05.30 -0.9
 0.6s 5.00nm 4.4mb
 LOE 43.98 280 eP 49 35.50 2.6
 LZH 44.19 307 eP 49 36.00 1.4
 2.0s 51.00nm 5.0mb
 pP 49 45.00 30kmX
 CHG 46.54 282 eP 49 57.00 3.7X
 POO 70.20 285 eP 52 40.00 1.2
 INK 72.03 23 eP 52 48.00 -0.9
 MBC 76.23 14 eP 53 14.00 0.9
 YKA 80.37 28 eP 53 35.20 -0.7
 0.9s 3.90nm 4.4mb
 PNT 80.57 41 eP 53 38.00 0.7
 0.9s 10.00nm 4.8mb
 SES 85.64 39 eP 54 04.00 0.7
 LRM 86.15 44 eP 54 06.80 0.6
 KIC 145.26 306 PKP 01 03.84 0.2
 1.0s 26.00nm
 TIC 145.31 306 PKP 01 03.80 0.1
 LIC 145.57 306 PKP 01 04.62 0.5
 1.1s 43.50nm
 ZOBO 145.65 97 PKP 01 05.00 0.1
 LPB 145.69 97 PKP 01 07.00 2.2X
 S.D. = 1.1 on 26 of 28 obs.

APR 07, 1990 09h 56m 21.13±0.38s
 15.057 N ± 6.1km 147.551 E ± 7.4km
 DEPTH = 33.0km (normal)
 4.6mb (7 obs.)
 MARIANA ISLANDS REGION (215)

PJG 2.98 241 eP 57 07.40 0.2
 KAKJ 22.07 344 eP 01 14.80 -0.1
 IIDJ 22.10 339 eP 01 18.60 3.3X
 CHJJ 22.26 341 P 01 17.20 0.4
 MAT 22.96 340 eP 01 22.00 -1.7
 0.8s 8.96nm 4.3mb
 MTMJ 23.14 340 eP 01 24.10 -1.4
 NIJ 23.36 343 eP 01 27.80 0.2
 BJI 37.00 318 eP 03 30.50 1.1
 1.3s 19.00nm 4.8mb
 WB5 37.06 201 eP 03 29.80 -0.3
 WRA 37.13 201 Pd 03 30.10 -0.6
 0.8s 7.00nm 4.6mb
 ASPA 40.73 199 iPd 04 00.50 -0.2
 0.5s 6.00nm 4.6mb
 LOE 43.98 280 eP 04 27.00 -0.4
 LZH 44.19 307 Pd 04 30.00 1.0
 CHG 46.54 282 eP 04 48.20 0.4
 CHTO 46.54 282 eP 04 48.30 0.5
 0.7s 4.76nm 4.6mb
 GUN 58.27 294 P 06 15.70 0.0
 PKI 58.69 293 P 06 18.30 -0.3
 KKN 58.80 294 P 06 19.10 -0.1
 DMN 58.96 293 P 06 20.40 0.0
 GKN 59.37 294 P 06 22.90 -0.2
 INK 72.02 23 eP 07 44.00 0.6
 MBC 76.22 14 eP 08 08.00 0.5
 YKA 80.36 28 eP 08 29.50 -0.9
 0.8s 1.90nm 4.1mb
 PNT 80.56 41 eP 08 32.00 0.2
 0.8s 6.00nm 4.6mb
 SES 85.64 39 eP 08 58.00 0.2
 LRM 86.14 44 eP 09 01.10 0.4
 KIC 145.26 306 PKP 15 58.00 -0.1
 ZOBO 145.65 97 ePKP 15 58.00 -1.4

LBP 145.69 97 PKP 15 57.00 -2.3X
SIV 152.41 96 ePKP 16 11.00 1.8
S.D. = 0.8 on 28 of 30 obs.

& APR 07, 1990 10h 12m 54.50s
37.878 N 121.970 W
DEPTH = 3.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.5 (BRK).
Mo=7.8+10+13 Nm (BRK).

8KS	0.21	270	iPc	12 59.00	0.3
			iS	13 02.10	
BRK	0.23	269	iPc	12 59.20	0.1
ZSP	0.24	287	iPc	12 59.50	0.2
PCC	0.50	221	iPd	13 04.10	-0.4
MHC	0.60	154	iPc	13 06.70	0.3
ARN	0.63	147	iPd	13 07.20	0.1
GCC	0.85	181	eP	13 10.50	-0.9
NWRM	0.93	309	eP	13 11.40	-1.4
SAO	1.19	159	eP	13 16.20	-1.1
CMB	1.26	82	eP	13 16.70	-1.9
PRS	1.62	163	eP	13 23.00	-1.0
KVN	3.26	68	eP	13 46.00	-1.7

12 obs. associated

* APR 07, 1990 10h 20m 30.33±0.44s
14.968 N ±13.6km 147.801 E ±16.6km
DEPTH = 33.0km (normal)
4.3mb (3 obs.)

MARIANA ISLANDS REGION (215)

GUMO	3.16	245	eP	21 19.40	0.5
WB5	37.06	201	eP	27 38.90	-0.5
WRA	37.13	201	Pc	27 39.50	-0.4
	0.8s	6.30nm			4.5mb
ASPA	40.73	200	iPc	28 09.80	-0.1
	0.6s	4.00nm			4.3mb
INK	72.01	23	eP	31 52.00	-0.5
MBC	76.25	14	eP	32 17.00	0.1
YKA	80.33	28	eP	32 38.20	-1.2
	1.1s	1.60nm			3.9mb
PNT	80.47	42	eP	32 41.00	0.5
SES	85.55	39	eP	33 07.00	0.4
ZOBO	145.40	97	PKP	40 10.00	1.8
KIC	145.50	306	PKP	40 07.30	-0.4
TIC	145.55	307	PKP	40 07.50	-0.3
LIC	145.81	306	PKP	40 08.30	0.1

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

APR 07, 1990 10h 35m 20.93±0.62s
27.244 N ±9.1km 141.781 E ±14.2km
DEPTH = 33.0km (normal)
4.7mb (5 obs.)

BONIN ISLANDS REGION (212)

MAT	9.75	343	eP	37 43.00	1.0
			(S)	39 36.00	
MTN	41.17	196	iPc	43 06.80	2.8
WB5	47.39	189	eP	43 53.00	-1.0
WRA	47.46	190	Pc	43 53.60	-1.0
	0.6s	4.80nm			4.7mb
GUN	49.18	284	P	44 08.20	-0.2
PKI	49.66	284	P	44 11.80	-0.3
KKN	49.72	284	P	44 11.90	-0.5
DMN	49.91	284	P	44 13.40	-0.5
GKN	50.23	285	P	44 17.30	1.1
INK	63.05	25	eP	45 47.00	0.3
MBC	65.84	15	eP	46 05.50	0.7
YKA	72.18	28	eP	46 43.70	-0.4
	0.6s	1.60nm			4.2mb
SUF	76.90	335	iP	47 10.90	-0.3
	0.4s	4.70nm			4.9mb
NUR	78.77	333	iP	47 20.90	-0.6
HFS	83.15	337	eP	47 43.80	-0.8
	0.8s	6.20nm			4.8mb
NB2	83.34	338	P	47 45.30	-0.4
	0.8s	3.30nm			4.5mb
ZOBO	150.23	75	PKP	55 12.00	5.8X

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

APR 07, 1990 11h 13m 42.95±0.43s
43.067 N ±4.7km 0.745 W ±2.9km
DEPTH = 5.0km (geophysicist)
PYRENEES (378)
ML 2.5 (LDG).

ATE	0.04	59	Pg	13 44.40	0.1
			Sg	13 45.57	
ISSF	0.05	223	Pg	13 44.66	0.1
			Sg	13 46.07	
MADF	0.10	325	Pg	13 45.27	0.2
			Sg	13 47.05	
ESCF	0.13	85	Pg	13 45.70	0.1
			Sg	13 47.87	
LHE	0.18	150	Pg	13 46.70	0.0
			Sg	13 49.48	
BOH	0.20	280	Pg	13 46.90	-0.2
			Sg	13 50.04	
ELVF	0.21	300	Pg	13 47.16	-0.1
			Sg	13 50.04	
OGE	0.22	63	Pg	13 47.37	-0.1
			Sg	13 51.58	
JAU	0.28	96	Pg	13 48.46	-0.1
EPF	0.80	92	Pg	13 58.90	0.0
			Sg	14 09.80	
LPO	2.14	40	Pg	14 23.20	3.5X
			Sg	14 51.00	
LFF	2.16	29	Pg	14 23.70	3.7X
			Sg	14 52.00	
CAF	2.75	47	Pg	14 35.00	6.4X
			Sg	15 11.40	
RJF	2.77	35	Pg	14 36.20	7.4X
			Sg	15 10.30	
MFF	3.56	7	Pn	14 42.10	2.1X
			Pg	14 49.70	
			Sg	15 24.20	

S.D. = 0.1 on 10 of 15 obs.

* APR 07, 1990 11h 41m 52.06±0.74s
38.925 N ±7.0km 21.887 E ±12.6km
DEPTH = 33.0km (normal)
3.1mb (1 obs.)

GREECE (364)
MD 3.2 (ATH).

NEO	1.11	69	ePn	42 11.40	0.1
VLS	1.26	234	ePn	42 12.80	-0.7
ITM	1.74	179	ePb	42 22.20	1.7
OHR	2.34	339	ePn	42 33.30	4.3X
VLI	2.35	159	ePn	42 27.40	-1.8
VAY	2.45	12	ePn	42 31.00	0.4
MMB	3.01	27	iPc	42 38.00	-0.6
SKO	3.06	354	ePn	42 37.50	-1.8
KKB	3.08	17	iPc	42 40.00	0.5
VTS	3.80	15	eP	42 50.00	0.2
YKA	73.05	340	eP	53 22.00	1.8

0.5s 0.10nm 3.1mb
S.D. = 1.4 on 10 of 11 obs.

APR 07, 1990 12h 05m 00.30±0.35s
15.095 N ±8.6km 147.552 E ±9.2km
DEPTH = 33.0km (normal)
4.3mb (5 obs.) 4.6Msz (1 obs.)

MARIANA ISLANDS REGION (215)

GUA	2.99	239	eP	05 46.70	0.2
			eS	06 23.30	
GUMO	3.00	240	eP	05 46.70	0.0
PJG	3.00	240	eP	05 46.20	-0.5
MAT	22.93	340	(P)	10 03.00	0.4
	0.7s	8.22nm			4.3mb
WB5	37.09	201	eP	12 09.60	0.0
WRA	37.16	201	Pc	12 10.20	0.0
	0.9s	4.00nm			4.3mb
ASPA	40.77	199	eP	12 40.10	-0.1
	0.7s	3.00nm			4.1mb
INK	71.99	23	eP	16 21.00	-1.3
MBC	76.18	14	eP	16 47.00	0.5
	1.0s	6.00nm			4.6mb
YKA	80.33	28	eP	17 08.20	-1.2
	1.1s	2.70nm			4.2mb
PNT	80.53	42	eP	17 11.00	0.2
SES	85.61	39	eP	17 37.00	0.2
LRM	86.12	44	eP	17 40.20	0.5
KIC	145.24	306	PKP	24 37.20	0.0
TIC	145.28	307	PKP	24 37.40	0.1
LIC	145.54	306	PKP	24 38.20	0.4
ZOBO	145.66	97	PKP	24 39.00	0.4
	2.2s	0.12um			4.6Msz
		LR	52 10.00		

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

APR 07, 1990 12h 49m 47.71±1.20s

15.453 N ±6.6km 147.596 E ±9.7km
DEPTH = 31.5 ±8.2 km
4.5mb (9 obs.)

MARIANA ISLANDS REGION (215)

GUMO	3.23	235	eP	50 37.70	0.3
			eS	51 16.70	
KAKJ	21.70	344	P	54 37.00	-1.0
CHJJ	21.90	341	P	54 39.70	-0.3
MAT	22.61	340	eP	54 47.00	0.0
	0.9s	27.73nm			4.7mb
MTMJ	22.78	339	P	54 48.80	0.0
NIJJ	23.00	342	P	54 50.90	0.1
BJI	36.73	318	eP	56 53.50	-0.5
	1.5s	29.00nm			4.9mb
WB5	37.44	201	eP	57 00.20	0.1
WRA	37.51	201	Pd	57 00.30	-0.4
	0.9s	9.60nm			4.7mb
ASPA	41.12	199	eP	57 28.50	-2.2
	1.2s	7.00nm			4.3mb
KMI	42.99	290	Pc	57 58.00	11.7X
CHG	46.50	281	eP	58 15.70	1.4
NDI	65.74	295	eP	00 31.20	-0.8
HYB	65.92	282	ePd	00 34.00	0.7
GBA	67.66	279	Pc	00 44.30	-0.1
	0.9s	3.80nm			4.5mb
POO	70.14	284	eP	01 00.00	0.3
INK	71.64	23	eP	01 07.00	-0.9
MBC	75.83	14	ePc	01 32.50	0.4
	1.0s	8.00nm			4.7mb
MAIO	79.52	305	iPc	01 54.50	1.1
YKA	79.99	28	eP	01 54.10	-1.1
	0.9s	1.90nm			4.1mb
PRS	81.83	55	eP	02 06.00	0.6
CMB	82.21	53	eP	02 08.01	0.6
FRI	82.97	54	eP	02 12.00	0.7
SES	85.31	39	eP	02 24.00	1.1
DAG	87.60	357	eP	02 33.50	-0.1
SUF	89.82	337	eP	02 43.80	-0.6
	0.4s	0.80nm			4.3mb
NB2	96.23	340	P	03 12.30	-1.7
	1.1s	2.10nm			4.5mb
KIC	145.06	306	PKP	09 24.52	0.0
	1.0s	27.00nm			
TIC	145.10	307	PKP	09 24.62	0.0
	0.9s	18.00nm			
LIC	145.37	306	PKP	09 25.36	0.3
ZOBO	145.66	96	PKP	09 27.00	0.8
SIV	152.41	95	PKP	09 43.00	7.0X

S.D. = 0.9 on 30 of 32 obs.

APR 07, 1990 12h 54m 19.81±1.24s
5.059 S ±6.1km 130.971 E ±7.3km
DEPTH = 58.2 ±13.0 km
4.7mb (8 obs.)

BANDA SEA (280)

AAI	3.09	296	iPd	55 09.10	1.9
			iS	55 46.50	
MTN	7.74	179	iPc	56 12.10	-0.3
			eS	57 19.00	
KUPT	8.88	235	eP	56 43.00	14.9X
			eS	57 25.00	
KNA	10.84	191	eP	56 53.50	-1.4
	0.3s	56.00nm			6.1mb X
			eS	58 39.00	
MNDI	12.67	96	eP	57 19.00	-0.6
WB5	15.10	168	eP	57 32.00	-19.2X

[illegible]

SUE 0.54 142 iPc 06 07.42 0.7
 iS 06 14.33
 HYA 1.07 106 iPd 06 15.98 0.2
 eS 06 23.81
 ASK 1.14 151 eP 06 17.87 0.7
 eS 06 33.43
 MOL 1.97 55 iPd 06 30.60 1.1
 iSg 06 55.80
 ODD1 2.01 140 eP 06 30.38 0.2
 eS 06 53.79
 KMY 2.35 165 eP 06 34.22 -0.8
 NRA0 3.70 98 Pn 06 52.00 -2.2
 Lg 07 46.60
 S.D. = 1.1 on 9 of 9 obs.

* APR 07, 1990 15h 18m 00.85±0.91s
 38.737 N ± 8.9km 22.081 E ± 9.1km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 MD 2.8 (ATH).

NEO 1.06 57 ePn 18 21.00 0.2
 VLS 1.30 245 ePn 18 23.70 -1.2
 KEK 2.02 300 ePb 18 37.20 1.8
 VLI 2.13 161 ePn 18 37.30 0.4
 OHR 2.57 338 ePn 18 43.00 -0.2
 VAY 2.61 8 ePn 18 42.70 -1.0
 S.D. = 1.4 on 6 of 6 obs.

& APR 07, 1990 15h 37m 54.86s
 40.082 N 109.519 W
 DEPTH = 3.5km
 UTAH (478)
 <SLC-P>. ML 3.5 (SLC).

DAU 1.37 285 iPd 38 19.80 -1.3
 PV09 1.61 169 eP 38 24.00 -0.5
 DUG 2.53 274 eP 38 37.00 -0.6
 MSU 2.59 234 eP 38 39.00 0.5
 BW06 2.69 359 eP 38 37.00 -3.0
 GOL 3.21 95 eP 38 47.00 -0.4
 PTI 3.51 323 eP 38 52.00 0.4
 IMW 3.96 345 eP 38 55.00 -3.0
 ANMO 5.67 154 eP 39 22.00 -0.3
 ALO 5.68 154 eP 39 22.00 -0.3
 KVN 6.71 264 e(P) 39 36.50 -0.4
 11 obs. associated

* APR 07, 1990 15h 56m 14.45±1.18s
 40.620 N ±13.1km 19.707 E ± 7.7km
 DEPTH = 10.0km (geophysicist)
 ALBANIA (391)
 ML 2.9 (SKO), 2.8 (TTG).

OHR 0.96 59 iPg 56 31.10 -1.7
 0.6s 0.13nm
 iSg 56 46.10
 LCI 1.37 259 Pc 56 39.30 -0.2
 eSg 56 56.90
 TTG 1.84 350 ePn 56 45.20 -1.1
 eSn 57 08.50
 SKO 1.88 43 iPn 56 46.90 0.0
 0.6s 115.00nm
 iSg 57 10.40
 i 57 10.90
 PVY 1.98 6 ePn 56 49.00 0.5
 eSn 57 13.80
 IVA 2.25 4 ePn 56 53.60 1.2
 eSn 57 21.00
 VAY 2.28 71 ePn 56 52.70 0.0
 MMB 3.19 71 eP 57 07.00 1.4
 VTS 3.28 52 eP 57 07.00 -0.1
 S.D. = 1.1 on 9 of 9 obs.

* APR 07, 1990 15h 56m 33.23±0.53s
 14.965 N ±10.9km 147.491 E ±16.5km
 DEPTH = 33.0km (normal)
 4.7mb (4 obs.)
 MARIANA ISLANDS REGION (215)

GUA 2.88 241 eP 57 25.50 7.7X
 eS 57 52.20
 PMG 24.22 181 eP 01 48.50 0.4
 WB5 36.95 201 eP 03 40.80 -0.5
 WRA 37.02 201 Pc 03 41.40 -0.5
 0.8s 9.40nm 4.7mb
 ASPA 40.63 199 iPd 04 11.60 -0.4

0.6s 10.00nm 4.7mb
 CHG 46.50 282 eP 05 00.60 1.0
 SHL 52.90 291 iP 05 48.50 -0.3
 INK 72.13 23 eP 07 54.00 -2.1
 YKA 80.47 28 eP 08 42.90 -0.1
 0.6s 2.30nm 4.4mb
 PNT 80.67 41 eP 08 45.00 0.6
 0.7s 6.00nm 4.7mb
 SES 85.75 39 eP 09 11.00 0.6
 KIC 145.26 306 PKP 16 10.00 -0.2
 ZOBO 145.70 97 PKP 16 13.20 1.6
 SIV 152.46 96 PKP 16 28.80 7.4X
 S.D. = 1.0 on 12 of 14 obs.

APR 07, 1990 16h 14m 31.20±1.63s
 4.892 N ± 7.1km 126.691 E ±10.4km
 DEPTH = 63.5 ± 14.7 km
 4.9mb (12 obs.) 3.9MsZ (1 obs.)
 TALAUD ISLANDS (263)

DAV 2.45 333 eP 15 10.10 0.5
 TSM 8.62 266 ePd 16 41.80 6.0X
 PCI 8.95 230 ePd 16 41.00 0.7
 BAG 12.92 333 eP 17 42.00 8.0X
 MTN 18.17 166 eP 18 38.00 -2.7
 KGM 23.50 264 ePd 19 38.50 2.1
 IPM 25.58 270 ePd 19 58.40 2.1
 WRA 25.80 163 Pc 19 58.70 0.5
 0.9s 41.50nm 5.0mb
 MBL 26.75 194 eP 20 07.00 0.1
 0.4s 2.00nm 4.0mb

LOE 27.42 299 eP 20 12.00 -1.1
 NNT 27.70 288 eP 20 15.20 -0.4
 NST 28.20 294 eP 20 21.20 1.1
 QIS 28.29 154 eP 20 20.00 -0.9
 ASPA 29.24 166 iPd 20 30.20 0.7
 0.6s 17.00nm 4.9mb
 Z 18s 0.29um 3.9MsZ

NANU 29.39 201 iPd 20 40.40 -0.3
 0.5s 6.00nm 4.5mb
 CHG 30.41 299 eP 20 38.40 -1.5
 e 23 40.00
 KMI 30.55 314 Pd 20 41.50 0.2
 CTA 31.40 143 i(P) 20 43.50 -5.1X
 i 20 50.00

BJI 36.25 346 eP 21 30.00 -0.1
 1.0s 36.00nm 5.3mb
 BAL 36.57 195 eP 21 32.50 -0.3
 RMO 37.81 147 eP 21 44.00 0.6
 MUN 38.00 195 eP 21 45.00 0.1
 BRS 40.80 143 iPd- 22 09.00 0.8
 0.6s 15.00nm 5.0mb

ADE 41.23 165 eP 22 15.50 3.9X
 BWA 44.15 154 eP 22 40.00 4.5X
 CAN 45.16 154 eP 22 46.80 3.3X
 HYB 48.70 289 eP 23 11.00 -0.5
 GBA 49.30 284 Pc 23 13.80 -2.3
 0.6s 5.20nm 4.7mb
 QUE 61.50 302 eP 24 42.80 -1.5
 MAIO 68.78 307 eP 25 31.00 0.0
 INK 89.10 21 eP 27 21.00 0.5
 SOD 89.38 338 eP 27 31.00 9.1X
 SUF 90.50 333 iP 27 27.50 0.4
 0.6s 9.70nm 5.3mb

MBC 90.83 13 eP 27 30.00 1.5
 DAG 96.12 352 eP 27 52.00 -0.8
 HFS 96.98 332 eP 27 55.20 -1.7
 0.5s 1.00nm 4.6mb
 NB2 97.74 334 P 28 00.00 -0.4
 0.8s 3.80nm 5.0mb
 YKA 98.46 24 eP 28 03.50 0.0
 0.8s 1.10nm 4.4mb

BRG 100.29 324 e(Pdiff) 28 12.80 0.8X
 0.8s 14.00nm 5.6mb
 CLL 100.68 324 ePdiff 28 14.00 0.3X
 ZOBO 161.58 129 PKP 34 30.00 2.7
 S.D. = 1.3 on 32 of 41 obs.

? APR 07, 1990 17h 41m 43.57±1.11s
 30.533 S ±23.3km 69.139 W ±34.5km
 DEPTH = 10.0km (geophysicist)
 CHILE-ARGENTINA BORDER REGION (127)

RTRS 0.46 322 iPd 41 52.90 0.1
 iS 42 05.30

RTLL 0.98 144 ePd 42 02.90 0.7
 RTCB 0.99 163 e(P) 42 03.00 0.5
 CFA 1.32 144 iPc 42 07.50 -0.5
 S 42 32.00
 RTCV 1.42 159 ePc 42 08.70 -0.8
 S.D. = 0.9 on 5 of 5 obs.

APR 07, 1990 18h 25m 56.39±0.84s
 18.049 S ± 4.1km 168.126 E ± 4.0km
 DEPTH = 36.3 ± 7.2 km
 5.2mb (19 obs.) 4.9MsZ (6 obs.)
 VANUATU ISLANDS (186)

CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 13S, 29C
 Centroid Location:
 Origin Time 18:26: 3.8 0.3
 Lat 18.14S 0.04 Lon 167.62E 0.03
 Dep 35.1 2.7 Half-duration 2.2
 Moment Tensor: Scale 10**17 Nm
 Mrr= 1.52 0.05 Mtt= 0.50 0.09
 Mff=-2.02 0.09 Mrt= 0.63 0.12
 Mrf=-1.23 0.17 Mtf=-0.04 0.06
 Principal Axes:
 T Val= 2.13 Plg=64 Azm= 37
 N 0.27 19 171
 P -2.41 18 267
 Best Double Couple: Mo=2.3*10**17
 NP1: Strike= 24 Dip=32 Slip= 128
 NP2: 162 65 69

PVC 0.35 30 iPd 26 05.90 0.9
 iS 26 12.90
 NDF 8.88 90 ePc 28 07.30 1.9
 SGE 9.34 89 eP 28 14.90 3.0X
 SVA 9.83 92 ePc 28 25.20 6.8X
 VUN 9.84 91 eP 28 25.60 7.1X
 MBU 10.17 86 eP 28 21.30 -1.8
 HNR 11.68 316 eP 28 44.00 0.3
 eS 31 00.00
 BRS 16.93 234 eP 29 52.00 -0.2
 i 30 31.20
 i(S) 33 10.00
 COO 19.32 227 eP 30 22.00 0.4
 RMO 19.78 241 iPd 30 27.60 1.0
 e 30 39.00
 CTA 20.77 261 iPd 30 37.00 0.1
 1.0s 60.00nm 4.9mb
 Z 18s 6.19um 5.0MsZ

iPp 30 41.80 18kmX
 iSP 30 52.50
 e 32 20.00
 iS 34 31.00
 e(SS) 35 33.00

PUZ 21.83 158 P 30 46.40 -1.1
 PMG 22.09 290 eP 30 51.50 1.3
 NOZ 22.24 159 P 30 51.40 -0.1
 MNG 23.37 166 P 31 02.10 -0.5
 PGZ 23.56 164 P 31 04.10 -0.3
 TCW 23.68 168 P 31 06.30 0.7
 CAW 23.74 167 P 31 06.10 -0.1
 MRW 23.79 168 P 31 06.90 0.3
 WEL 23.85 168 P 31 08.00 0.8
 WDW 23.88 167 P 31 08.50 1.0
 MTW 23.89 166 P 31 06.50 -1.1
 CNB 23.94 220 eP 31 10.00 1.7
 e 31 18.00

BWA 23.98 223 eP 31 08.80 0.2
 THZ 23.99 171 P 31 09.90 1.3
 BLW 24.08 166 P 31 08.90 -0.6
 MOW 24.08 167 P 31 08.80 -0.7
 CAN 24.17 221 eP 31 12.20 1.7
 i 31 20.00

KHZ 24.72 170 P 31 14.70 -1.0
 LTZ 24.91 173 P 31 17.00 -0.5
 MSZ 26.54 180 eP 31 36.00 3.4X
 OIS 27.02 260 eP 31 35.00 -2.2
 TOO 27.78 221 eP 31 52.00 7.9X
 WB5 31.95 261 eP 32 19.20 -2.1
 WRA 31.97 261 Pc 32 19.90 -1.6

1.1s 10.00nm 4.6mb
 ASPA 32.41 254 iPd 32 23.70 -1.7
 0.4s 33.00nm 5.6mb
 Z 20s 5.77um 5.3MsZ
 eS 37 10.30
 LR 44 45.70
 MTN 35.99 273 eP 32 55.50 -0.6

07d 18h

KNA	37.68	267	eP	33	09.50	-0.8	YKA	100.10	27	ePd	139	37.70	-1.6	BCAO	147.32	249	iPKPc	45	37.80	1.5
TPT	42.47	93	eP	33	52.00	2.1		0.5s	0.70nm				4.5mb		0.8s	35.00nm				
	1.0s	60.00nm			5.3mb		FRB	120.55	26	ePKP	44	43.00	-2.2X					45	50.30	
RUV	42.65	93	eP	33	53.00	1.5	DAG	121.15	2	ePKP	44	43.20	-2.9X	ROI	147.35	317	PKP	45	37.70	2.1
	1.0s	65.00nm			5.3mb		KEV	123.13	345	ePKP	44	49.00	-1.0	SFI	147.38	327	PKPd	45	37.00	1.6
MBL	45.47	258	eP	34	13.00	-1.1	BAO	131.15	131	ePKP	45	05.00	-2.2X	VAI	147.39	333	PKPd	45	37.30	1.9
	0.5s	6.00nm			4.8mb		NB2	134.02	345	PKP	45	09.80	-1.4	TDS	147.45	317	PKP	45	39.00	3.3X
NWAO	47.83	242	eP	34	32.00	-0.7		0.9s	5.40nm					PGD	147.48	327	PKPd	45	39.10	3.2X
	0.6s	15.00nm			5.2mb		HRI	134.87	299	ePKP	45	14.00	0.2	CRE	147.53	327	PKP	45	38.00	2.1X
Z	20s	1.30um			4.9msz		PRNI	135.81	295	ePKP	45	15.00	-0.6	SGO	147.59	319	PKP	45	38.50	2.6X
N	20s	0.90um					BBTK	135.87	309	ePKP	45	15.00	-0.5	FIR	147.79	328	iPKPd	45	38.00	1.9
E	20s	1.10um					MBH	135.96	294	ePKP	45	16.00	0.2	CZI	147.83	317	PKP	45	38.70	2.4X
		eS		42	13.00		KRA	139.16	329	ePKP	45	19.10	-2.1X	AZI	147.83	323	PKPc	45	39.00	2.8X
RKT	53.23	106	iP	35	13.80	-0.1		e		48	13.80		ORX	147.92	333	PKP	45	38.25	1.8	
	1.2s	55.00nm			5.4mb		SPC	139.56	327	ePKP	45	13.10	-9.1X	ORO	147.92	333	PKPd	45	38.00	1.6
VNDA	59.58	182	e(P)	35	55.80	-2.6		e		45	21.30		BOB	147.94	331	PKPd	45	39.30	2.8X	
SBA	59.84	180	P	36	00.20	0.0	KSP	140.34	332	ePKP	45	16.50	-6.8X	MNS	147.99	324	PKP	45	39.00	2.4X
CHJJ	60.46	333	eP	36	05.00	0.1	BRG	141.34	334	iPKP	45	23.10	-2.0X	FLN	148.00	346	ePKP	45	37.40	1.1
IIDJ	60.46	332	P	36	03.20	-1.8		1.1s	21.00nm						0.9s	65.50nm				
MAT	61.21	333	eP	36	08.00	-2.1				45	27.20		LDF	148.07	345	ePKP	45	37.70	1.3	
	1.2s	53.13nm			5.5mb		CLL	141.40	335	iPKPd	45	22.70	-2.4X	LOR	148.12	340	ePKP	45	38.10	1.5
		eS		44	24.00			1.3s	17.00nm						0.9s	51.20nm				
MTMJ	61.43	332	P	36	11.00	-0.6	SRO	141.42	327	ePKP	45	27.60	2.3X	LBF	148.33	339	ePKP	45	38.60	1.6
IPM	69.84	282	ePd	37	07.10	1.1	PRU	141.74	332	ePKP	45	19.50	-6.3X		1.2s	68.45nm				
SPA	72.06	180	iPc	37	16.90	-1.8		e		45	27.80		GRC	148.35	340	PKP	45	39.99	3.1X	
	1.0s	39.50nm			5.4mb		ZST	141.79	328	ePKP	45	23.70	-2.3X	RDP	148.38	324	PKP	45	39.80	2.6X
NNT	74.02	289	eP	37	31.00	0.3	MOX	142.47	335	ePKP	45	22.00	-5.1X	LSD	148.41	334	PKP	45	40.92	3.5X
LOE	74.21	295	eP	37	32.50	0.7	VAY	142.52	316	ePKP	45	22.40	-5.0X	SSF	148.42	340	ePKP	45	39.00	2.0
BJI	75.35	321	eP	37	38.50	0.5	KHC	142.79	332	PKP	45	24.00	-3.7X	GRR	148.44	346	ePKP	45	38.80	1.8
	1.8s	103.00nm			5.5mb			1.0s	11.00nm						1.0s	76.00nm				
Z	24s	0.32um			4.5msz		SKO	142.95	317	ePKP	45	21.50	-6.7X	PCP	148.52	331	PKP	45	39.07	1.7
		eS		47	16.00		WTS	143.06	341	ePKPc	45	26.00	-2.0X	LPL	148.53	335	ePKP	45	40.00	2.4X
KMI	76.75	302	Pc+	37	47.50	1.0		1.0s	13.00nm						0.9s	49.95nm				
	22s	0.60um			4.9msz		GRF	143.37	335	ePKPc	45	25.40	-3.3X	LPG	148.54	335	ePKP	45	40.00	2.3X
		pP		37	57.00	30kx		Z	22s	0.20um		4.8msz			0.9s	60.60nm				
		eS		47	34.00		OHR	143.79	316	ePKP	45	25.50	-4.2X	RSP	148.61	334	PKP	45	38.66	1.1
		S		47	36.00		TNS	144.01	338	ePKPd	45	27.40	-2.4X	SMF	148.67	339	ePKP	45	39.50	2.0
CHG	77.20	295	ePc	37	50.00	1.2	TOD	144.39	337	ePKP	45	28.42	-2.0X		1.2s	81.80nm				
	1.2s	42.97nm			5.4mb		KBA	144.40	330	ePKP	45	26.50	-4.2X	AVF	148.71	340	ePKP	45	39.30	1.8
		eS		47	40.00			1.0s	49.10nm						1.2s	72.90nm				
MAW	79.13	202	iPc	38	00.10	1.6				45	28.50		CKI	148.73	332	PKP	45	33.50	-4.1X	
PRS	85.71	50	eP	38	33.00	-0.1				45	35.00		LPF	148.81	346	ePKP	45	40.00	2.4X	
BRK	85.76	48	eP	38	32.50	-0.7				45	41.50			1.1s	161.15nm					
BKS	85.77	48	iPd	38	33.50	0.1	ENN	144.40	341	ePKPc	45	27.50	-2.8X	ATN	148.84	316	PKP	45	42.00	4.0X
	1.2s	63.00nm			5.7mb			1.0s	57.00nm				BNI	148.93	334	PKPc	45	42.00	3.9X	
		e		05	20.40		MEM	144.51	340	PKPc	45	28.20	-2.3X	FIN	148.93	331	PKP	45	40.41	2.4X
SHL	85.86	298	iP	38	34.10	-0.2	FUR	144.53	333	ePKP	45	29.30	-1.4	RRL	149.00	334	PKP	45	41.95	3.6X
MHC	85.96	49	eP	38	34.00	-0.5		1.1s	182.00nm				ROB	149.02	332	PKP	45	40.92	2.7X	
SYF	85.97	52	eP	38	34.00	-0.6	LJU	144.54	328	ePKPc	45	29.20	-1.5	BGF	149.08	340	ePKP	45	40.50	2.4X
ARN	86.04	49	P	38	35.00	0.2	DLE	144.59	354	ePKP	45	29.20	-1.3		1.0s	68.00nm				
PRI	86.14	50	eP	38	35.20	-0.2	DCN	144.59	355	ePKP	45	28.50	-2.0X	DOI	149.13	333	PKP	45	40.50	2.1X
BCH	86.16	51	P	38	36.00	0.5		1.0s	167.00nm				PZZ	149.19	333	PKP	45	40.92	2.4X	
ABL	86.67	52	P	38	38.00	-0.1	ABH	144.61	338	ePKP	45	29.26	-1.5	ENR	149.27	332	PKP	45	39.90	1.3
WDC	86.78	46	eP	38	37.80	-0.4	RBL	144.74	329	PKP	45	29.00	-2.2X	STV	149.30	332	PKP	45	40.51	1.9
ORV	87.03	47	eP	38	38.90	-0.6	CEY	144.80	327	ePKP	45	30.00	-1.2	PLDF	149.33	339	PKP	45	42.53	3.9X
CMB	87.16	49	eP	38	39.60	-0.6	UCC	144.85	342	PKP	45	30.00	-1.1	SAOF	149.40	332	PKP	45	41.89	3.2X
PAS	87.17	53	eP	38	30.00	-10.3X	VOY	144.87	328	iPKPc	45	29.40	-2.0X	AGO	149.43	339	PKP	45	42.65	4.0X
FRI	87.20	50	eP	38	39.60	-0.7	KTD	144.89	337	ePKP	45	30.02	-1.3	AUTN	149.45	332	PKP	45	43.00	3.9X
MWC	87.29	53	eP	38	40.00	-1.1	STU	144.91	336	ePKPc	45	30.00	-1.3	MAF	149.46	340	ePKP	45	41.40	2.7X
ISA	87.56	51	eP	38	42.00	-0.2		1.0s	144.00nm						1.2s	86.30nm				
SBH	87.65	52	eP	38	42.00	-0.7	RUP	144.94	338	ePKP	45	30.42	-0.9	TOUF	149.52	332	PKP	45	42.74	3.6X
RVR	87.71	53	eP	38	42.00	-0.9	FVI	145.01	330	PKP	45	30.00	-1.5	TCF	149.52	341	ePKP	45	41.70	2.9X
BAR	87.74	55	eP	38	43.00	-0.1	SNF	145.13	342	PKP	45	30.00	-0.7	SBF	149.55	332	ePKP	45	41.60	2.6X
PLM	87.86	54	eP	38	43.00	-0.8	WLF	145.28	339	PKPd	45	32.00	0.2		1.1s	136.75nm				
CLC	88.27	52	eP	38	45.00	-0.6	GWf	145.34	337	PKP	45	31.31	-0.7	AURF	149.58	332	PKP	45	42.67	3.6X
GSC	88.66	52	eP	38	47.00	-0.5	DOU	145.40	341	PKP	45	31.30	-0.7	MVIF	149.65	332	PKP	45	42.74	3.5X
TPC	88.77	54	eP	38	47.00	-1.0	ECB	145.52	354	ePKP	45	31.60	-0.6	REVF	149.68	332	PKP	45	42.09	2.9X
KVN	89.21	48	P	38	50.00	-0.2		1.1s	212.00nm					PYM	149.73	339	PKP	45	43.55	4.3X
FBA	89.25	17	P	38	49.00	-0.6	STR	145.61	337	PKP	45	32.66	0.2	LSF	149.76	341	ePKP	45	42.00	2.8X
	1.0s	6.00nm			4.9mb		ECP	145.67	354	ePKP	45	31.80	-0.6	PGF	149.81	328	PKP	45	43.71	4.2X
GLA	89.32	55	eP	38	51.00	0.4		1.1s	356.00nm				CALN	149.88	332	PKP	45	43.60	4.0X	
TNP	89.45	50	P	38	51.00	-0.4				45	32.66	-0.4	MFF	149.92	344	ePKP	45	42.50	3.1X	
	1.0s	15.00nm			5.3mb		WLS	145.91	337	PKP	45	33.01	-0.2		1.0s	110.00nm				
GUN	91.71	299	P	39	02.20	0.0	CDF	145.94	337	PKP	45	33.01	-0.2	FRF	150.14	332	ePKP	45	43.10	3.3X
PKI	91.99	298	P	39	03.30	-0.2	CTI	145.95	330	PKP	45	32.50	-0.8		1.1s	122.10nm				
KKN	92.17	298	P	39	04.20	0.1	FEL	146.10	336	ePKP	45	31.96	-1.5	LR						

LPO 151.28 340 ePKP 45 46.00 4.5X
0.9s 55.70nm
EPF 153.03 340 ePKP 45 49.70 5.6X
1.0s 15.00nm
S.D. = 1.1 on 145 of 226 obs.

APR 07, 1990 18h 26m 05.76 ± 0.81s
38.895 N ± 7.2km 21.879 E ± 9.4km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.2 (ATH), 2.7 (SKO).

NEO 1.12 68 ePb 26 27.70 0.9
VLS 1.24 235 ePb 26 29.00 0.2
ATH 1.71 122 ePg 26 37.20 1.4
KEK 1.81 298 ePn 26 41.50 4.3X
VLI 2.33 159 ePn 26 43.50 -1.2
OHR 2.36 340 iPg 27 19.10 33.9X
iSg 27 22.80
VAY 2.48 12 ePn 26 47.00 0.2
MMB 3.04 27 eP 26 55.00 0.2
SKO 3.09 354 ePn 26 56.00 0.5
iSg 27 37.50
KKB 3.11 17 iPd 26 56.00 0.3
KDZ 3.86 43 iP 27 04.00 -2.4
S.D. = 1.3 on 9 of 11 obs.

APR 07, 1990 18h 31m 53.39 ± 0.54s
41.285 N ± 5.8km 20.935 E ± 4.6km
DEPTH = 10.0km (geophysicist)
ALBANIA (391)
ML 3.1 (SKO), 3.0 (TTG).

OHR 0.20 211 iPg 31 57.00 -0.9
iSg 32 00.90
SKO 0.78 29 iPg 32 07.30 -1.3
iSg 32 16.50
VAY 1.23 88 iPnc 32 15.70 -0.6
iSn 32 33.00
ULC 1.43 299 ePg 32 17.50 -2.0
eSg 32 41.00
PVY 1.49 332 ePg 32 20.00 -0.3
eSg 32 40.50
TTG 1.69 313 ePn 32 23.00 -0.1
eSn 32 47.60
KKB 1.71 69 iPd 32 24.00 0.5
IVA 1.76 334 ePn 32 24.40 0.2
eSn 32 48.00
KEK 1.79 209 ePb 32 25.50 0.9
NKY 2.10 317 ePn 32 31.00 1.9
eSn 32 58.00
MMB 2.12 81 eP 32 30.00 0.6
VTS 2.14 52 iP 32 30.00 0.2
PLE 2.34 331 ePn 32 33.00 0.4
eSn 33 04.00
BRY 2.40 313 ePn 32 34.00 0.5
eSn 33 05.00
NEO 2.64 138 ePn 32 40.50 3.7X
PGB 2.72 61 eP 32 38.00 0.0
VLS 3.12 185 ePb 32 38.20 -5.3X
KDZ 3.39 82 iP 32 54.00 6.6X
PVL 3.79 58 eP 33 00.00 6.9X
HVAR 3.83 301 ePn 33 02.10 38.4X
S.D. = 1.0 on 15 of 20 obs.

APR 07, 1990 18h 38m 50.26 ± 0.50s
38.837 N ± 6.6km 21.972 E ± 4.7km
DEPTH = 25.1 ± 9.0 km
3.9mb (2 obs.)
GREECE (364)
ML 3.5 (ATH), 3.7 (TTG).

NEO 1.08 64 ePn 39 10.70 0.9
VLS 1.27 239 ePn 39 10.00 -2.5
ATH 1.62 122 ePn 39 18.70 1.2
ITM 1.65 181 ePb 39 20.00 2.0
KEK 1.90 298 ePb 39 25.00 3.4X
VLI 2.25 160 ePn 39 26.50 -0.1
OHR 2.44 339 iPn 39 31.20 1.8
0.9s 0.54nm
iSg 40 04.80
VAY 2.52 10 iPn 39 30.60 0.1
MMB 3.06 26 iPc 39 38.00 -0.1
KKB 3.14 15 iPc 39 40.00 0.7
SKO 3.16 353 iPnc 39 39.70 0.2
0.5s 243.00nm
i 39 44.50

i 39 51.00
i 40 18.70
APE 3.32 121 ePn 39 42.70 0.9
LCI 3.45 297 P 39 45.60 2.0
eSn 40 25.30
RDO 3.58 49 ePn 39 45.10 -0.4
KDZ 3.85 42 iPc 39 48.00 -1.3
VTS 3.87 14 iPc 39 50.00 0.4
SMG 3.99 105 ePn 39 52.50 1.2
PGB 4.07 24 iP 39 52.00 -0.4
TTG 4.14 331 ePn 39 54.60 1.2
eSn 40 42.50
DIM 4.21 39 eP 39 55.00 0.7
ROI 4.26 282 P 39 55.40 0.2
ORI 4.45 288 P 39 58.90 1.1
TDS 4.45 282 P 39 59.90 2.0
eSn 40 47.00
CSI 4.51 284 P 40 00.90 2.2
BAI 4.54 302 P 39 58.00 -1.1
CZI 4.56 277 P 39 59.70 0.3
eSn 40 44.20
NKY 4.57 331 ePn 40 00.50 0.9
eSn 40 52.90
PLE 4.89 337 ePn 40 05.50 1.3
eSn 41 01.50
PVL 5.06 29 iPd 40 05.00 -1.4
MGR 5.13 287 P 40 07.50 0.0
ATN 5.15 264 P 40 08.00 0.2
KAP 5.29 127 ePn 40 13.70 4.0X
MNO 5.79 263 P 40 17.00 0.1
MEU 5.83 255 P 40 14.40 -3.0
HVAR 6.02 318 ePn 39 59.40 -20.6X
iSg 41 04.40
CMP 6.82 19 ePc 40 07.00 -24.2X
MLR 7.27 23 eP 40 39.00 1.3
VRI 7.86 25 ePd 40 46.00 0.2
MNS 7.91 300 P 40 47.00 0.5
PTJ 8.34 330 e(P) 40 51.00 -1.6
CRE 8.94 306 P 41 00.00 -0.9
PSZ 9.20 351 iP 41 03.70 -0.8
KBA 10.38 325 e(P) 41 20.00 -0.7
iS 43 12.60
e 43 52.00
KHC 11.93 332 P 41 39.50 -2.1
HFS 21.95 349 eP 43 43.70 0.2
0.5s 1.80nm 3.8mb
NB2 23.22 347 P 43 56.20 0.2
0.7s 3.80nm 4.0mb
SUF 24.05 5 eP 44 04.40 0.4
YKA 73.16 341 eP 50 00.80 -19.3X
0.6s 0.30nm

S.D. = 1.2 on 43 of 48 obs.
? APR 07, 1990 19h 55m 50.30 ± 5.01s
31.212 S ± 13.7km 67.893 W ± 44.8km
DEPTH = 33.0km (normal)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.49 217 eP 56 00.00 -0.9
eS 56 10.00
RTLL 0.51 256 ePc 56 00.20 -0.9
RTCB 0.82 250 ePc 56 06.50 0.9
S 56 21.80
RTCV 0.85 220 ePc 56 06.50 0.6
RTRS 1.70 307 ePd 56 18.10 0.0
eS 56 42.10
S.D. = 1.2 on 5 of 5 obs.

& APR 07, 1990 20h 08m 59.50s
36.887 N 121.643 W
DEPTH = 4.0km
CENTRAL CALIFORNIA (39)
<BRK> ML 4.2 (BRK).
Mo=2.4*10**15 Nm (BRK). Felt (V)
at Gilroy; (III) at Soquel; (II)
at San Martin and San Juan
Bautista.

SAO 0.20 127 iP 09 03.50 -0.1
GCC 0.32 297 iPc 09 05.70 -0.2
MHC 0.45 0 iPd 09 08.90 0.3
ARN 0.47 11 iPc 09 08.90 0.0
PRS 0.60 158 iPd 09 10.90 -0.5
LLA 0.62 115 iPd 09 11.80 -0.2
PCC 0.85 316 iPc 09 15.10 -1.3
PRI 1.08 133 iPd 09 19.70 -0.8
BKS 1.09 335 iPc 09 18.60 -2.0

iS 09 35.90
BRK 1.10 334 eP 09 18.30 -2.4
CMB 1.52 41 eP 09 26.00 -1.6
FRI 1.55 86 ePc 09 25.80 -2.2
NWRM 1.85 328 eP 09 29.60 -2.7
BCH 2.12 143 eP 09 33.70 -2.5
BLP 2.53 156 eP 09 40.50 -1.6
ORV 2.67 2 eP 09 42.50 -1.5
ABL 2.83 135 eP 09 43.50 -3.0
KVN 3.54 51 eP 09 55.00 -1.5
TNP 3.72 70 e(P) 09 59.00 -0.1
PEC 4.73 128 eP 10 13.50 0.2
EDM 17.33 17 eP 13 04.00 0.2
21 obs. associated

APR 07, 1990 20h 11m 02.10 ± 0.17s
56.157 N ± 2.9km 153.843 W ± 2.8km
DEPTH = 33.0km (normal)
5.2mb (62 obs.) 4.4Msz (3 obs.)
KODIAK ISLAND REGION (13)
ML 5.1 (PMR).

KDC 1.76 24 iPc 11 29.90 -0.8
SHU 2.61 17 eP 11 45.36 2.6
CDD 2.78 2 eP 11 45.34 0.0
AUE 3.22 4 eP 11 52.01 0.5
AUL 3.24 4 eP 11 52.22 0.4
BGM 3.33 348 eP 11 52.87 -0.2
XLV 3.50 18 P 11 54.86 -0.6
PDB 3.65 357 eP 11 56.87 -0.7
CNPM 3.65 21 eP 11 56.55 -1.1
SDN 3.85 261 eP 11 59.00 -1.4
NNL 4.12 18 eP 12 03.68 -0.7
RED 4.31 7 eP 12 06.29 -0.8
RDT 4.49 9 eP 12 08.12 -1.6
SVW 5.05 350 ePc 12 16.30 -1.3
CRP 5.20 9 eP 12 18.42 -1.4
PMR 5.97 22 eP 12 27.00 -3.5X
TTA 6.88 352 eP 12 41.20 -2.1
TOA 7.15 30 eP 12 44.30 -2.7
FBA 9.26 16 eP 13 12.10 -4.2X
HYT 9.74 55 P 13 20.00 -3.0X
IMA 9.95 0 eP 13 22.70 -3.2X
ANM 10.17 331 eP 13 26.80 -1.9
SIT 10.25 77 eP 13 24.00 -5.8X
ADK 14.07 262 eP 14 17.90 -3.0X
INK 15.32 29 eP 14 35.00 -2.1
0.9s 45.00nm 4.7mb
pP 14 47.00

YKA 20.73 56 eP 15 40.00 -1.8
1.1s 45.30nm 4.8mb
GMW 20.87 101 eP 15 43.20 -0.3
BMW 21.28 104 eP 15 47.00 -0.7
RMW 21.47 100 eP 15 49.50 0.0
PNT 21.65 94 ePd 15 51.00 -0.3
1.0s 72.00nm 5.0mb
LON 21.89 102 eP 15 53.20 -0.5
EDM 23.35 80 eP 16 09.00 1.0
NEW 23.61 94 eP 16 11.50 0.9
0.8s 22.14nm 4.7mb
MBC 23.78 20 ePc 16 13.50 1.6
1.2s 229.00nm 5.6mb
FHC 24.79 116 eP 16 22.30 0.2
WDC 25.69 114 eP 16 31.20 0.7
SES 25.90 85 eP 16 32.00 -0.4
ORV 26.98 114 eP 16 41.30 -1.1
CMB 28.70 115 eP 16 58.10 0.1
FFC 28.89 71 eP 17 06.00 6.5X
0.8s 7.00nm 4.4mb

KVN 29.11 111 eP 17 02.00 0.1
LLA 29.52 118 e(P) 17 05.40 0.0
PRS 29.53 118 e(P) 17 04.10 -1.4
BW06 31.16 96 e(P) 17 20.00 -0.1
CLC 31.83 114 eP 17 25.00 -0.8
e 17 33.00
SBB 32.60 116 eP 17 32.00 -0.5
e 17 39.00
GSC 32.63 114 eP 17 31.00 -1.9
e 17 40.00
MSU 32.66 105 eP 17 33.50 0.2
MWC 32.85 117 eP 17 42.00 7.1X
PAS 32.85 117 eP 17 42.00 7.4X
RVR 33.38 116 eP 17 39.00 -0.2
e 17 46.00
RSSD 33.38 90 eP 17 39.00 -0.4
PEC 33.56 116 eP 17 40.00 -0.9
TPC 33.96 114 eP 17 44.00 -0.3

07d 20h

PLM	34.14	116 eP	17 52.00		BRG	72.86	8 iPc	22 35.30		LFF	77.02	18 iPc	22 53.20	0.3
		e	17 46.00	-0.1		1.2s	64.00nm	5.5mb		TMA	77.08	12 ePd	22 54.00	0.6
BAR	34.78	117 eP	17 51.00	-0.3			i	22 35.80		LBL	77.16	16 P	22 54.00	0.5
RSON	35.15	73 eP	17 53.60	-0.7			i	22 46.20		RBL	77.23	9 P	22 54.00	-0.1
	0.9s	29.04nm	5.2mb		MOX	72.88	10 iPc	22 29.50	0.4	CAF	77.26	17 eP	22 54.50	0.3
GLA	35.41	114 eP	17 56.00	-0.8		1.1s	35.00nm	5.3mb			1.0s	19.00nm	5.1mb	
		e	18 04.00				i	22 37.50		VAI	77.30	12 Pd	22 55.00	0.7
GOL	35.56	97 eP	17 59.00	0.8	TNS	72.97	12 ePc	22 30.10	0.4	LPO	77.35	18 eP	22 55.00	0.3
	0.8s	6.70nm	4.6mb		KSP	73.05	7 eP	22 29.50	-0.6		1.0s	26.00nm	5.2mb	
ANMO	38.39	103 eP	18 22.00	0.0		1.1s	59.00nm	5.5mb		LPL	77.39	14 eP	22 56.30	1.1
	1.0s	7.81nm	4.5mb				i	22 30.50		LPG	77.41	14 eP	22 56.70	1.3
ALO	38.39	103 eP	18 20.90	-1.1			i	22 38.00		CTI	77.44	10 P	22 54.00	-1.3
	1.0s	9.25nm	4.6mb		FLN	73.11	18 eP	22 30.30	-0.2	BNI	77.84	14 Pd	22 59.20	1.7
FRB	40.29	43 eP	18 36.00	-1.1		1.2s	41.65nm	5.3mb		PTJ	77.95	7 eP	22 58.40	0.3
KUSJ	40.52	278 eP	18 37.00	-1.5	ABH	73.20	12 eP	22 31.07	0.0	VR1	78.34	360 ePd	23 00.00	-0.1
ASAJ	41.00	281 eP	18 43.50	0.3	HOF	73.24	10 eP	22 31.40	0.2	BZS	78.53	3 eP	23 00.00	-1.1
HOOJ	41.78	278 eP	18 49.00	-0.6	RUP	73.32	13 eP	22 31.80	0.1	MLR	78.72	0 eP	23 05.00	2.6
GDH	42.38	31 iPc	18 55.00	0.8	LDF	73.34	18 eP	22 31.70	-0.1	EPF	78.80	19 eP	23 01.70	-1.0
	1.5s	61.11nm	5.1mb		GRR	73.41	18 eP	22 32.30	0.1		1.0s	10.00nm	4.8mb	
		e	35 40.00		TOD	73.62	12 eP	22 32.85	-0.6	CMP	78.94	1 ePc	23 04.00	0.6
DAG	44.33	13 iPc	19 09.30	-0.7	LPF	73.72	19 eP	22 34.30	0.3	SBF	79.11	14 eP	23 04.00	0.4
	0.9s	76.47nm	5.5mb		PRU	73.78	8 iPc	22 34.60	0.3		0.9s	21.30nm	5.1mb	
KBS	44.91	4 iPc	19 15.60	1.0			e	22 42.00		BEO	79.28	4 e(P)	23 05.50	0.3
OFUJ	44.93	276 eP	19 14.40	-0.9	GRF	73.79	10 ePd	22 34.60	0.2	BDI	79.29	11 P	23 06.00	0.6
SCH	46.17	53 ePc	19 24.30	-0.6		0.9s	17.00nm	5.0mb		FRF	79.30	14 iPc	23 05.00	0.4
	1.0s	57.00nm	5.5mb		Z	22s	0.20um	4.4MsZ			1.0s	16.00nm	5.0mb	
NIIJ	47.72	276 eP	19 36.70	-0.6			e	22 42.70		LMR	79.50	14 eP	23 07.20	0.8
KAKJ	47.81	274 P	19 36.70	-1.3	KRA	74.03	4 eP	22 35.70	0.0		1.0s	14.00nm	4.9mb	
KJJJ	48.58	275 P	19 43.00	-0.2		1.1s	86.00nm	5.7mb		PGD	79.60	11 Pd	23 08.90	1.7
PWLA	48.59	87 P	19 43.00	-1.1			e	22 43.30		FIR	79.64	11 eP	23 07.00	-0.2
MAT	48.66	276 eP	19 44.00	-0.6	WET	74.49	9 iPc	22 39.00	0.5	CRE	79.87	10 P	23 17.00	8.5X
	1.3s	88.46nm	5.6mb			1.3s	38.00nm	5.2mb		GUD	80.20	23 eP	23 11.00	0.6
Z	20s	0.71um	4.7MsZ		KHC	74.56	9 iPc	22 39.20	0.3	EPLA	80.32	25 eP	23 12.00	1.1
		eS	26 50.00				i	22 47.20		PVL	81.00	1 eP	23 12.00	-2.4
MTMJ	48.85	277 eP	19 45.20	-1.0	CDF	74.61	13 eP	22 39.70	0.4	SHL	81.49	304 iP	23 16.00	-1.5
RSCP	49.53	84 eP	19 55.50	4.2X		1.0s	16.00nm	5.0mb		VTs	81.59	2 iP	23 18.00	0.3
IIDJ	49.60	275 eP	19 51.30	-0.6	HAU	74.89	14 eP	22 41.10	0.2	JMB	81.75	360 eP	23 09.00	-9.3X
TSRJ	50.63	277 eP	19 59.50	-0.2		0.9s	13.10nm	4.9mb		SKO	82.16	4 ePc	23 20.50	0.0
AKU	53.95	21 iP	20 25.00	0.9	SPC	74.91	4 iP	22 41.40	0.3		1.0s	42.00nm	5.4mb	
	1.1s	50.63nm	5.5mb				i	22 47.50		GUN	82.17	310 Pc	23 21.80	0.6
KEV	54.39	360 iP	20 26.20	-1.1	GRC	75.12	16 P	22 42.24	0.1	KKB	82.31	2 iPd	23 22.00	0.7
	1.0s	82.00nm	5.7mb		BSF	75.12	13 eP	22 42.40	0.1	EVIA	82.48	22 eP	23 24.00	1.6
		i	20 34.20			1.0s	16.00nm	5.0mb		RZN	82.52	1 iPc	23 23.00	0.4
TRO	54.41	3 iPd	20 26.80	-0.6	FEL	75.23	13 eP	22 41.96	-1.0	KKN	82.53	310 Pc	23 23.40	0.5
SOD	56.79	360 iP	20 44.00	-0.7	MFF	75.26	18 iPc	22 43.20	0.3		1.3s	105.00nm	5.7mb	
		i	20 51.80			1.0s	24.00nm	5.1mb		GKN	82.62	311 Pc	23 23.60	0.3
BJI	57.91	295 eP	20 52.00	-0.9	LOR	75.26	15 iPc	22 43.10	0.1	EBAN	82.66	23 eP	23 25.00	1.8
	1.5s	63.00nm	5.5mb			1.0s	24.00nm	5.1mb		PKI	82.67	310 Pc	23 24.00	0.2
Z	17s	1.11um	5.0MsZ		FUR	75.31	10 eP	22 43.60	0.4		1.0s	66.00nm	5.7mb	
E	14s	0.43um					i	22 51.80		DMN	82.76	310 Pc	23 24.90	0.7
SUF	61.46	0 eP	21 16.00	-1.1	SLE	75.40	12 ePd	22 43.90	0.2		1.0s	72.00nm	5.7mb	
	0.5s	6.70nm	5.0mb		SSF	75.41	16 iPc	22 44.10	0.3	VAY	82.85	3 eP	23 23.80	-0.2
NB2	62.55	8 P	21 23.40	-1.1		1.0s	35.00nm	5.3mb		OHR	83.00	4 eP	23 26.00	1.1
	1.1s	100.20nm	5.9mb		LBF	75.56	15 iPc	22 44.50	-0.2		1.2s	164.00nm	6.0mb	
HFS	63.63	7 eP	21 30.50	-1.0		0.9s	14.75nm	5.0mb		AAPN	83.40	24 iPd	23 28.50	1.4
	0.7s	17.20nm	5.3mb		AVF	75.65	16 iPc	22 45.20	0.0	ASMO	83.44	24 iPd	23 28.70	1.4
Z	18s	0.21um	4.4MsZ			1.0s	21.00nm	5.1mb		LOE	83.49	291 eP	23 27.00	-0.7
		LR	50 41.00		ZST	75.74	6 iP	22 46.50	0.9	AFC	83.58	23 eP	23 30.00	1.9
NUR	63.67	1 iP	21 30.90	-0.8			i	22 53.80		ALOJ	83.59	24 iPc	23 29.70	1.5
	1.0s	90.00nm	5.8mb		BGF	75.80	16 iPc	22 46.10	0.1	MAIO	83.63	333 iPc	23 29.40	1.1
		i	21 38.80			1.0s	25.00nm	5.2mb			eS	34 18.00		
UPP	64.13	5 iP	21 33.80	-0.9	SMF	75.87	16 iPc	22 46.40	0.0	CHG	83.75	294 ePc	23 28.80	-0.3
		i	21 41.90			1.2s	37.20nm	5.3mb			1.3s	45.67nm	5.5mb	
EKA	66.33	18 Pd	21 48.90	-0.1	LSF	75.89	17 eP	22 46.50	0.0	ATEJ	83.80	24 iPc	23 31.00	1.8
	1.2s	32.70nm	5.3mb			1.0s	33.00nm	5.3mb		APHE	83.84	24 iPc	23 31.50	2.1
DCN	67.46	21 eP	21 54.40	-1.7	TCF	75.96	17 eP	22 46.90	-0.1	MAL	83.89	24 iPd	23 31.50	2.1
ECB	68.48	21 eP	22 10.00	7.5X		1.1s	29.30nm	5.2mb		EJIF	83.91	25 eP	23 31.00	1.4
ECP	68.74	21 eP	22 11.00	6.9X	SAX	76.00	12 ePd	22 48.00	0.5	TDS	84.19	8 P	23 30.00	-0.9
WIT	70.21	12 eP	22 15.00	1.9	MAF	76.09	17 eP	22 47.80	0.2	TAB	84.59	344 e(P)	23 34.00	0.8
		e	22 22.00			1.0s	18.00nm	5.0mb		KKM	84.99	273 ePd	23 36.50	1.1
WTS	71.04	13 ePc	22 18.50	0.4	PSZ	76.16	4 eP	22 48.70	0.6	NDI	85.02	317 iPc	23 35.00	-0.3
	1.0s	71.00nm	5.7mb		SRO	76.19	5 eP	22 48.50	0.3	TSM	85.45	271 ePc	23 38.00	0.4
		e	22 26.00		AGO	76.34	16 P	22 49.51	0.4	NST	85.77	292 eP	23 41.10	2.0
		e	22 40.00		PLDF	76.50	16 P	22 50.40	0.4	IR2	86.14	340 eP	23 42.00	1.1
UCC	71.89	14 iP+	22 30.00	6.8X	KMI	76.57	295 Pc	22 50.50	-0.5	IR7	86.16	340 eP	23 41.50	0.5
ENN	72.13	13 ePc	22 24.50	-0.1			pP	22 58.00	24kmX	IR4	86.55	340 iPc	23 43.50	0.5
	1.0s	82.00nm	5.7mb		KBA	76.58	9 iPc	22 50.50	-0.1	QUE	87.25	326 eP	23 47.00	0.5
		e	22 32.50			1.2s	82.90nm	5.6mb		NNT	88.56	290 eP	23 53.00	0.3
SNF	72.16	14 Pc	22 25.80	1.0			i	22 59.00		HRI	90.55	352 eP	24 03.00	1.0
		id	22 32.30				i	23 02.40		CTA	91.10	234 iPc	24 04.30	0.0
MEM	72.30	13 Pc	22 25.30	-0.3	PYM	76.61	16 P	22 50.78	0.1		1.0s	11.00nm	5.2mb	
		id	22 33.40		OSS	76.65	11 ePd	22 51.70	0.7	HYB	94.55	311 ePc	24 20.00	-0.5
CLL	72.35	9 iPc	22 25.50	-0.4	VDL	76.77	12 ePd	22 52.40	0.7	GBA	98.43	310 Pc	24 37.30	-0.7
	1.2s	26.00nm	5.1mb		RJF	76.80	18 eP	22 51.60	-0.1		0.6s	3.20nm	5.0mb	
		i	22 32.90			1.0s	24.00nm	5.2mb		SPA	145.98	180 iPKPd	30 36.80	-0.9
DOU	72.61	14 P	22 27.70	0.2	FVI	77.01	9 P	22 56.00	3.3X					

1.1s 50.60nm
i 30 59.70
SLR 149.57 356 ePKP 30 43.00 -1.7X
1.2s 101.56nm
i 30 48.70
KSR 149.73 359 iPKPd 30 48.40 3.4X
1.2s 30.00nm
BFS 150.76 359 iPKPd 30 49.00 2.6X
1.0s 100.00nm
i 30 57.00
BLF 152.97 360 ePKP 30 56.50 6.9X
S.D. = 0.9 on 203 of 223 obs.

? APR 07, 1990 20h 58m 05.27±0.90s
25.698 S ±24.1km 176.226 W ±16.8km
DEPTH = 33.0km (normal)
5.0mb (5 obs.)

SOUTH OF FIJI ISLANDS (171)

CTA 34.93 271 iP 04 55.60 -0.7
e 05 17.00
ASPA 45.15 261 iPd 06 21.40 0.6
0.4s 8.00nm 5.0mb
WB5 45.71 267 eP 06 25.20 -0.1
WRA 45.72 267 Pc 06 24.50 -0.8
0.8s 3.90nm 4.4mb
SPA 64.45 180 iPd 08 40.30 -0.3
1.1s 23.81nm 5.2mb
MAT 75.34 324 (P) 09 46.00 -1.2
0.9s 12.60nm 4.9mb
ALO 89.40 50 eP 11 00.00 -0.3
PNT 90.07 33 eP 11 03.00 0.2
KMI 93.13 296 eP 11 20.50 2.8X
CHG 93.51 289 eP 11 22.90 3.6X
CHTO 93.51 289 iP 11 21.90 2.6
1.1s 8.24nm 5.1mb
pP 11 32.50 33kmX
sP 11 42.10
NB2 144.31 354 PKP 17 36.40 -2.6X
0.9s 7.00nm
UPP 144.53 348 iPKP 17 36.90 -2.4X
HFS 144.90 351 ePKP 17 37.90 -2.1X
1.2s 20.60nm
HRI 151.25 293 ePKP 17 58.00 6.9X
BBTK 151.99 307 iPKPc 17 59.00 7.0X
PRNI 152.10 287 ePKP 18 01.00 8.7X
MBH 152.21 286 ePKP 18 00.00 7.6X
BRG 153.68 345 ePKP 18 05.40 11.6X
S.D. = 1.3 on 9 of 19 obs.

? APR 07, 1990 21h 45m 31.43±0.59s
15.942 N ±10.7km 145.235 E ±29.6km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)

MARIANA ISLANDS (216)

MAT 21.45 344 eP 50 19.00 0.0
WB5 37.17 197 eP 52 41.00 -0.3
WRA 37.23 197 Pc 52 42.10 0.2
0.8s 4.80nm 4.4mb
ASPA 40.89 196 iPc 53 12.30 0.0
1.3s 11.00nm 4.4mb
YKA 80.62 28 eP 57 42.40 0.4
0.8s 1.60nm 4.1mb
SES 86.35 39 eP 58 11.00 -0.6
ZOBO 147.97 95 PKP 05 13.80 0.4
S.D. = 0.4 on 7 of 7 obs.

& APR 07, 1990 21h 49m 55.60s
36.887 N 121.635 W
DEPTH = 4.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.7 (BRK).

SAO 0.20 129 iPd 49 59.00 -0.6
GCC 0.32 296 iPc 50 01.70 -0.4
MHC 0.45 359 iPd 50 05.00 0.3
ARN 0.47 10 iPc 50 04.90 -0.1
PRS 0.59 159 iPd 50 06.70 -0.8
LLA 0.62 116 iPc 50 07.70 -0.3
PCC 0.85 316 eP 50 11.50 -1.1
BKS 1.10 334 eP 50 15.40 -1.4
iS 50 32.10
BRK 1.10 333 eP 50 16.20 -0.6
eS 50 31.20
PHAM 1.45 136 e(P) 50 19.60 -3.1

CMB 1.52 41 eP 50 22.50 -1.1
eS 50 39.70
FRI 1.55 86 eP 50 23.00 -1.0
KVN 3.53 51 e(P) 50 56.00 3.5
13 obs. associated

APR 07, 1990 22h 06m 45.71±0.68s
56.240 N ±9.1km 153.776 W ±8.0km
DEPTH = 33.0km (normal)

4.6mb (6 obs.)
KODIAK ISLAND REGION (13)
ML 4.6 (PMR).

KDC 1.67 24 iPc 07 13.80 0.8
SDN 3.90 259 iPc 07 42.70 -2.0
SVW 4.98 350 iPc 08 00.10 0.0
PMS 5.48 22 eP 08 05.90 -1.2
PMR 5.88 22 eP 08 13.40 0.6
TTA 6.81 351 eP 08 25.50 -0.4
TOA 7.06 30 eP 08 28.00 -1.4
FBA 9.17 16 eP 08 58.00 -0.6
IMA 9.86 0 eP 09 08.50 0.2
SIT 10.19 78 e(P) 09 11.00 -1.7
YKA 20.65 56 eP 11 24.10 -0.5
0.8s 3.50nm 3.8mb
PNT 21.62 94 eP 11 42.00 7.4X
MBC 23.69 20 eP 11 57.50 2.9
0.5s 6.00nm 4.4mb
SES 25.85 85 eP 12 17.00 1.4
KVN 29.11 111 eP 12 46.00 0.5
FRB 40.21 43 eP 14 18.00 -2.0
DAG 44.24 13 eP 14 53.10 0.2
SOD 56.70 360 iP 16 28.10 0.4
i 16 35.10
SUF 61.38 0 eP 17 00.50 0.4
NB2 62.47 8 P 17 07.23 -0.3
1.1s 8.50nm 4.8mb
HFS 63.55 7 eP 17 13.20 -1.3
0.6s 3.90nm 4.7mb
NUR 63.59 1 eP 17 14.00 -0.8
BRG 72.77 8 iP 18 20.20 8.2X
1.0s 10.00nm 4.8mb
MOX 72.79 10 eP 18 21.00 8.8X
KHC 74.47 9 P 18 23.60 1.6
KBA 76.49 9 eP 18 35.00 1.3
1.0s 7.10nm 4.6mb
i 18 42.70
GUN 82.14 310 P 19 05.80 1.1
KKN 82.51 310 P 19 07.50 1.1
GKN 82.59 311 P 19 07.70 0.9
PKI 82.64 310 P 19 08.00 0.7
DMN 82.74 310 P 19 05.90 -1.8
SLR 149.49 356 ePKP 26 26.20 -2.0X
S.D. = 1.3 on 28 of 32 obs.

* APR 07, 1990 22h 10m 38.76±0.99s
38.898 N ±9.7km 21.902 E ±11.5km
DEPTH = 10.0km (geophysicist)

GREECE (364)

NEO 1.11 68 eP 10 58.70 -0.8
VLS 1.26 235 eP 11 01.20 -0.9
ITM 1.72 179 eP 11 10.20 1.4
VLI 2.33 159 eP 11 17.30 -0.4
VAY 2.47 12 ePn 11 20.50 0.8
S.D. = 1.4 on 5 of 5 obs.

APR 07, 1990 22h 35m 02.23±0.28s
26.796 N ±5.4km 127.769 E ±5.9km
DEPTH = 33.0km (normal)
5.1mb (33 obs.) 4.2Msz (1 obs.)

RYUKYU ISLANDS (238)

Felt (IV) at Kadena. Felt (II
JMA) at Naha; (I JMA) at Nago
and on Kume-shima.

ANP 5.85 255 eP 36 35.20 6.2X
MAT 13.16 40 (P) 38 13.00 3.6X
eS 40 44.00
BJI 16.35 327 eP 38 53.00 2.2
1.2s 24.00nm 4.2mb
Z 15s 0.87um 4.4Msz
N 14s 0.86um
eS 42 00.00
KMI 22.56 271 eP 40 02.00 0.9
Z 12s 2.20um 4.8MszX
N 11s 0.50um

E 11s 1.40um
S 44 19.00
LOE 25.83 254 eP 40 32.00 -0.4
CHG 27.69 259 ePc 40 49.70 0.3
1.0s 30.00nm 4.9mb
CHTO 27.69 259 iPc 40 49.90 0.5
1.1s 34.45nm 4.9mb
NST 27.97 252 eP 40 54.80 2.8
NNT 29.85 247 eP 40 55.40 -13.5X
SHL 32.16 276 iP 41 27.00 -2.4
IPM 33.77 234 ePd 41 44.50 1.2
0.9s 24.30nm 5.1mb
GUN 37.09 282 P 42 11.10 -0.7
PKI 37.56 281 P 42 14.50 -1.2
0.6s 20.00nm 5.2mb
KKN 37.64 281 P 42 15.40 -0.8
0.6s 21.00nm 5.2mb
DMN 37.82 281 P 42 16.80 -1.0
GKN 38.17 282 P 42 19.90 -0.7
0.6s 23.00nm 5.2mb
MTN 39.54 175 eP 42 31.00 -0.9
NDI 44.51 285 iPc 43 11.50 -1.1
HYB 46.30 269 eP 43 26.80 -0.2
WB5 46.84 171 eP 43 30.70 -0.3
WRA 46.90 172 Pc 43 31.50 0.1
0.6s 6.20nm 4.8mb
OIS 48.45 165 iPd 43 43.40 -0.2
GBA 48.73 265 Pc 43 46.30 0.4
1.0s 31.30nm 5.3mb
CTA 49.93 157 eP 43 55.00 0.0
KOD 50.13 261 eP 43 57.80 0.8
ASPA 50.52 173 iPd 43 59.50 0.1
0.9s 13.00nm 4.9mb
Z 19s 0.20um 4.2Msz
LR 04 40.20
QUE 53.01 289 eP 44 18.00 -0.5
SVW 60.50 33 eP 45 11.70 0.6
IMA 61.20 27 eP 45 15.90 -0.1
1.0s 8.80nm 4.8mb
INK 68.54 23 eP 46 03.00 -0.2
KEV 68.76 338 eP 46 21.00 16.4X
MBC 69.38 14 ePd 46 07.70 -0.6
0.9s 26.00nm 5.3mb
SOD 69.72 336 P 46 10.20 -0.3
SUF 71.64 332 iP 46 21.20 -0.9
0.8s 6.60nm 4.7mb
DAG 74.66 352 iPc 46 38.60 -1.0
0.6s 12.00nm 5.1mb
UPP 76.60 331 iP 46 50.20 -0.6
BBTK 76.94 308 iPc 46 53.00 -0.3
HFS 78.13 332 ePKP 46 56.90 -2.4
1.1s 10.10nm 4.8mb
YKA 78.19 25 eP 46 59.80 0.2
0.8s 7.30nm 4.8mb
DSI 78.36 299 eP 47 01.50 0.4
NB2 78.63 334 P 47 01.10 -1.0
0.9s 11.50nm 4.9mb
MBH 79.49 298 eP 47 08.00 0.7
KRA 80.42 322 eP 47 12.10 0.2
0.8s 38.00nm 5.4mb
e 47 14.90
SPC 80.69 321 eP 47 13.40 -0.2
KSP 81.99 323 iPc 47 20.50 0.4
ZST 82.98 321 eP 47 26.80 1.5
BRG 83.21 324 iP 47 27.00 0.5
i 47 36.50
PRU 83.40 323 P 47 28.20 0.8
PNT 83.45 37 eP 47 29.00 1.3
CLL 83.45 325 iPc 47 28.20 0.6
1.5s 34.00nm 5.3mb
KHC 84.40 323 iPc 47 33.50 0.9
1.1s 12.50nm 5.0mb
MOX 84.55 325 iPc 47 34.00 0.7
HOF 84.61 325 iPc 47 34.50 0.9
1.0s 19.00nm 5.2mb
WET 84.77 323 eP 47 35.50 1.1
KBA 85.71 321 eP 47 38.00 -1.4
0.6s 8.30nm 5.1mb
i 47 39.70
i 47 46.40
FUR 86.21 323 iPc 47 43.20 1.6
0.9s 52.00nm 5.8mb
OGA 87.12 322 eP 47 46.50 0.2
MEM 87.37 327 P 47 47.60 0.5
CDF 88.16 325 eP 47 50.80 -0.3
0.8s 10.75nm 5.2mb
FFC 88.27 26 iPd 47 52.20 0.8

07d 22h

0.9s 21.00nm 5.4mb
 DOU 88.39 327 Pc 47 52.00 -0.1
 BSF 88.78 325 eP 47 53.20 -0.9
 0.7s 5.50nm 5.0mb
 FRB 88.85 7 eP 47 53.00 -1.0
 HAU 88.89 325 eP 47 53.90 -0.7
 LPL 90.30 323 eP 48 01.20 -0.3
 0.8s 7.40nm 5.0mb
 LPG 90.30 323 eP 48 01.30 -0.2
 0.8s 8.75nm 5.1mb
 PGF 90.91 320 eP 48 04.80 -0.7
 0.8s 25.50nm 5.6mb
 SMF 91.07 325 eP 48 04.00 -0.7
 LDF 91.67 328 eP 48 06.80 -0.6
 0.9s 9.85nm 5.2mb
 FLN 91.72 329 eP 48 07.00 -0.6
 LMR 91.82 321 eP 48 09.10 -0.9
 0.9s 13.10nm 5.4mb
 LRG 91.83 322 eP 48 08.20 -0.0
 0.9s 31.10nm 5.7mb
 LPF 92.50 328 eP 48 11.10 -0.1
 CAF 93.15 325 eP 48 14.40 -0.0
 1.0s 9.00nm 5.2mb
 KIC 123.43 299 PKP 53 58.40 -0.0
 S.D. = 0.9 on 71 of 75 obs.

APR 07, 1990 22h 56m 23.01 ± 0.40s
 15.078 N ± 7.5km 147.536 E ± 7.9km
 DEPTH = 33.0km (normal)
 4.4mb (6 obs.)
 MARIANA ISLANDS REGION (215)

GUMO 2.98 241 eP 57 08.50 -0.6
 PJG 2.98 241 eP 57 08.50 -0.6
 0.8s 5.00nm 5.0mb
 MAT 22.94 340 (P) 01 24.00 -1.4
 1.0s 13.00nm 4.4mb
 BJI 36.97 318 eP 03 30.00 -1.1
 WB5 37.07 201 eP 03 32.00 -0.1
 WRA 37.14 201 Pd 03 31.90 -0.8
 0.7s 5.70nm 4.5mb
 ASPA 40.75 199 iPc 04 02.90 -0.2
 1.1s 6.00nm 4.2mb
 CHG 46.52 282 eP 04 50.50 -1.0
 CHTO 46.52 282 eP 04 50.60 -1.1
 0.7s 2.22nm 4.2mb
 pP 04 59.80 31kmX
 SHL 52.90 291 eP 05 38.00 -0.6
 GUN 58.25 294 P 06 17.80 -0.4
 PKI 58.67 293 P 06 20.30 -0.0
 KKN 58.78 294 P 06 21.20 -0.2
 DMN 58.94 293 P 06 22.30 -0.2
 GKN 59.35 294 P 06 25.10 -0.3
 INK 72.01 23 eP 07 44.50 -0.7
 MBC 76.20 14 eP 08 09.50 -0.2
 1.0s 7.00nm 4.6mb
 MAIO 79.69 305 eP 08 31.00 -1.6
 YKA 80.35 28 eP 08 31.10 -1.1
 0.9s 3.10nm 4.3mb
 SES 85.63 39 eP 09 00.00 -0.4
 LRM 86.14 44 eP 09 03.00 -0.5
 KIC 145.23 306 PKP 15 59.88 -0.1
 0.9s 16.00nm 4.2mb
 TIC 145.28 307 PKP 16 00.02 -0.0
 LIC 145.54 306 PKP 16 00.88 -0.4
 ZOBO 145.67 97 PKP 16 03.00 -1.7
 LPB 145.71 97 PKP 16 00.00 -1.2
 S.D. = 0.8 on 26 of 26 obs.

APR 07, 1990 23h 57m 15.33 ± 0.70s
 38.825 N ± 7.1km 22.003 E ± 8.5km
 DEPTH = 10.0km (geophysicist)
 3.2mb (1 obs.)
 GREECE (364)
 ML 3.2 (ATH).

NEO 1.06 63 ePb 57 36.00 -0.6
 VLS 1.28 240 ePb 57 37.50 -1.6
 VLS 1.59 122 ePb 57 43.70 -0.1
 ITM 1.64 182 ePg 57 46.00 -1.6
 KEK 1.93 298 ePn 57 50.20 -1.7
 VLI 2.23 160 ePn 57 52.00 -0.9
 OHR 2.46 338 ePn 57 57.80 -1.6
 VAY 2.53 10 ePn 57 55.80 -1.3
 SKO 3.17 352 ePn 58 05.00 -1.2
 YKA 73.18 341 eP 08 47.00 -0.6
 0.4s 0.10nm 3.2mb

S.D. = 1.5 on 10 of 10 obs.
 APR 08, 1990 00h 10m 22.66 ± 0.75s
 43.248 N ± 11.8km 17.344 E ± 7.6km
 DEPTH = 10.0km (geophysicist)
 YUGOSLAVIA (383)
 ML 2.7 (TTG). MD 3.6 (TRI).

HVAR 0.66 264 iPg 10 34.30 -1.5
 iSg 10 46.30
 NKY 1.29 109 ePg 10 46.00 -0.6
 eSg 11 06.00
 PLE 1.50 86 ePg 10 48.20 -1.5
 eSg 11 00.00
 BLY 1.50 356 eP 10 48.50 -1.2
 eS 11 01.50
 TTG 1.63 119 ePn 10 52.30 -0.8
 eSn 11 15.50
 PVY 2.04 108 ePn 10 59.00 -1.5
 eSn 11 28.00
 PTJ 2.83 340 eP 11 15.20 -6.4X
 LJU 3.44 325 eP 11 27.00 -9.6X
 eSn 12 12.00
 TRI 3.55 315 e(Pn) 11 28.90 -10.0X
 e(Sn) 12 12.30
 VOY 3.72 320 ePn 11 21.70 -0.3
 eSn 12 08.10
 RBL 4.17 321 P 11 28.00 -0.2
 KBA 4.76 325 ePn 11 37.00 -0.7
 e(Sn) 12 30.00
 e 12 55.00
 CTI 4.93 307 P 11 40.00 -1.3
 S.D. = 1.3 on 10 of 13 obs.

* APR 08, 1990 00h 19m 17.84 ± 3.90s
 33.448 S ± 8.5km 72.117 W ± 29.7km
 DEPTH = 12.9 ± 4.8 km
 OFF COAST OF CENTRAL CHILE (134)

LCCH 0.46 94 iPc 19 28.20 -1.0
 iS 19 40.00
 IHA 0.58 44 iPd 19 29.40 -0.1
 iS 19 41.30
 LNV 0.78 131 iPc 19 33.00 -0.3
 iS 19 49.00
 TACH 1.01 102 iPd 19 36.60 -0.0
 iS 19 54.50
 ROCH 1.04 63 iPd 19 37.00 -0.4
 iS 19 54.70
 SAN 1.22 91 iP 19 40.20 -0.0
 iS 20 02.20
 CHCH 1.31 112 iP 19 41.50 -0.4
 iS 20 03.20
 PCH 1.35 98 eP 19 42.20 -0.2
 iS 20 10.00
 JACH 1.49 60 iP 19 45.60 -1.2
 FCH 1.53 86 iPc 19 45.50 -0.3
 iS 20 09.50
 S.D. = 0.7 on 10 of 10 obs.

* APR 08, 1990 00h 31m 05.19s
 60.792 N 150.677 W
 DEPTH = 43.6km
 KENAI PENINSULA, ALASKA (14)
 <AGS-P>.

NKA 0.28 260 iP 31 15.03 -1.5
 SLKM 0.36 142 iP 31 14.25 -0.3
 PMS 0.71 50 iP 31 18.23 -0.7
 SPU 0.78 301 iP 31 19.28 -0.6
 eS 31 30.33
 NNL 0.81 202 iP 31 21.01 -0.7
 CGLM 0.83 309 eP 31 20.15 -0.5
 CRP 0.86 304 eP 31 20.75 -0.5
 RDT 0.88 256 iP 31 20.53 -0.8
 SEW 0.92 138 iP 31 20.68 -1.1
 eS 31 33.48
 NCG 0.95 311 iP 31 21.84 -0.5
 eS 31 35.54
 PWA 0.94 24 iP 31 21.77 -0.4
 BRLK 1.04 186 eP 31 23.03 -0.5
 eS 31 37.15
 PLRM 1.10 42 iP 31 23.40 -0.9
 iS 31 38.74
 RED 1.10 251 iP 31 23.56 -0.9
 eS 31 39.13
 GHO 1.30 40 iP 31 26.32 -0.9

CNPM 1.30 193 iP 31 26.56 -0.7
 SML 1.52 47 iP 31 29.64 -0.8
 CUT 1.63 7 eP 31 32.23 -0.4
 GLI 1.76 86 iP 31 30.98 -2.7
 AUE 1.97 224 eP 31 36.97 -0.2
 AUL 1.98 226 eP 31 37.38 -0.6
 PDB 2.02 242 iP 31 36.60 -0.8
 VZW 2.03 81 eP 31 35.22 -2.4
 NCA 2.21 55 eP 31 38.79 -1.4
 HUR 2.25 12 eP 31 41.99 -1.3
 SHU 2.33 202 iP 31 42.22 -0.4
 CDD 2.39 220 iP 31 42.26 -0.6
 KLU 2.41 71 iP 31 40.93 -2.2
 SVW 2.43 280 iP 31 41.61 -1.8
 TOA 2.53 57 eP 31 43.59 -1.2
 RND 2.76 17 eP 31 48.56 -0.5
 KTH 2.77 358 eP 31 48.88 -0.6
 PAX 3.30 46 eP 31 54.30 -1.4
 GLB 3.40 76 eP 31 54.07 -3.0
 34 obs. associated

* APR 08, 1990 01h 01m 26.00s
 37.863 N 121.998 W
 DEPTH = 1.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.5 (BRK).
 Mo=4.1*10+13 Nm (BRK).

BKS 0.19 274 iPc 01 30.00 -0.2
 iS 01 33.30
 BRK 0.21 273 iPc 01 30.30 -0.2
 ZSP 0.22 292 iPc 01 30.60 -0.2
 PCC 0.47 220 iPd 01 35.20 -0.2
 MHC 0.59 151 iPc 01 38.10 -0.3
 ARN 0.63 144 iPd 01 38.60 -0.0
 GCC 0.83 180 eP 01 42.10 -0.5
 NWRM 0.92 310 eP 01 43.00 -1.3
 CMB 1.29 82 eP 01 48.80 -1.9
 LLA 1.50 146 e(P) 01 52.00 -2.2
 PRS 1.61 162 e(P) 01 53.80 -1.8
 KVN 3.28 68 eP 02 17.50 -2.3
 12 obs. associated

? APR 08, 1990 01h 17m 54.80 ± 4.85s
 10.109 S ± 47.2km 121.849 E ± 21.1km
 DEPTH = 33.0km (normal)
 4.3mb (4 obs.)
 SAVU SEA (288)

KNA 8.77 130 eP 20 02.50 -0.2
 0.3s 14.00nm 5.7mb
 eS 21 32.00
 MTN 9.49 108 eP 20 12.00 -0.4
 eS 21 51.00
 MBL 11.16 190 eP 20 35.00 -0.2
 0.3s 18.00nm 5.7mb X
 eS 22 30.00
 NANU 13.78 205 eP 21 10.00 -0.2
 eS 23 35.00
 WB5 15.50 130 eP 21 30.90 -1.8
 eS 24 12.50
 WRA 15.52 130 P 21 33.00 -0.0
 0.5s 3.60nm 3.8mb
 ASPA 17.72 141 iPd 22 02.30 -1.5
 0.4s 8.00nm 4.2mb
 eS 25 07.30
 MRWA 19.78 195 eP 22 30.30 -5.0X
 0.3s 5.00nm 4.3mb
 OIS 20.01 123 iPc 22 28.60 -0.9
 eS 26 00.00
 MUN 22.38 193 eP 23 04.30 -12.6X
 NWA0 23.10 190 eP 23 12.00 -13.2X
 S.D. = 1.1 on 8 of 11 obs.

? APR 08, 1990 01h 22m 14.58 ± 1.00s
 38.793 N ± 9.3km 20.899 E ± 10.9km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 MD 2.9 (ATH).

VLS 0.66 202 ePg 22 27.00 -0.7
 eSg 22 36.70
 KEK 1.25 317 ePg 22 38.20 -0.3
 ITM 1.80 153 ePn 22 47.00 -1.1
 NEO 1.88 73 ePb 22 46.50 -0.6
 OHR 2.32 358 iPg 23 49.10 -55.7X
 iSg 23 52.90

VLI 2.63 141 ePg 23 01.50 3.7X
S.D. = 1.5 on 4 of 6 obs.

? APR 08, 1990 01h 34m 10.46±3.36s
48.567 N ±45.3km 114.606 W ±18.6km
DEPTH = 5.0km (geophysicist)
MONTANA (456)
ML 3.0 (BUT).

NEW 1.70 261 eP 34 41.00 0.0
HRY 2.64 134 ePn 34 54.30 -0.3
BUT 2.91 151 (P) 35 00.00 1.6X
eSg 35 45.00
LRM 3.11 151 ePn 35 01.40 0.0
LCCM 3.30 145 ePn 35 03.90 -0.1
SXM 3.34 135 ePn 35 05.00 0.3
BGMT 3.77 151 ePn 35 10.00 0.1
S.D. = 0.3 on 6 of 7 obs.

* APR 08, 1990 02h 28m 20.33±0.58s
15.555 N ±11.5km 147.589 E ±14.9km
DEPTH = 33.0km (normal)
4.2mb (3 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.28 233 eP 29 10.80 0.2
eS 29 43.50
GUMO 3.28 234 eP 29 10.50 -0.2
PJG 3.28 234 eP 29 10.30 -0.4
MAT 22.51 340 eP 33 19.00 0.5
WRA 37.60 201 Pd 35 34.70 0.8
0.7s 2.70nm 4.2mb
ASPA 41.21 199 eP 36 04.00 0.2
0.5s 3.00nm 4.3mb
INK 71.55 23 eP 39 39.00 -0.7
MBC 75.73 14 eP 40 05.50 1.5
YKA 79.91 28 eP 40 26.60 -0.5
1.2s 2.30nm 4.1mb
KIC 144.99 306 PKPd 47 56.22 -0.6
0.6s 12.50nm
TIC 145.03 307 PKPd 47 56.32 -0.6
0.7s 13.00nm
LIC 145.30 307 PKPd 47 57.18 -0.2
BAO 164.99 92 ePKP 48 32.40 9.4X
S.D. = 0.7 on 12 of 13 obs.

APR 08, 1990 02h 42m 47.24±0.51s
30.455 S ±4.2km 73.004 W ±7.0km
DEPTH = 10.0km (geophysicist)
4.7mb (4 obs.)

OFF COAST OF CENTRAL CHILE (134)

IHA 2.81 156 eP 43 33.00 -0.1
iS 44 05.20
JACH 3.03 138 iP 43 36.50 0.3
iS 44 09.50
ROCH 3.03 146 iPc 43 35.70 -0.6
iS 44 09.10
LCCH 3.25 158 iPd 43 39.00 -0.2
iS 44 14.50
RTBS 3.28 112 eP 43 41.00 1.4
TACH 3.64 152 iPd 43 44.60 -0.2
iS 44 26.00
FCH 3.68 142 eP 43 45.50 -0.2
iS 44 28.50
LNV 3.74 159 iPd 43 45.50 -0.8
iS 44 26.00
RTCB 3.75 107 ePd 43 47.30 0.7
eS 44 50.50
PCH 3.80 147 iPc 43 46.70 -0.5
iS 44 31.20
ZON 3.87 107 eP 43 48.00 -0.1
eS 44 30.00
RTLL 3.99 104 ePd 43 49.30 -0.6
eS 44 33.10
CHCH 4.00 151 iP 43 50.00 0.1
iS 44 33.60
CFA 4.25 107 ePc 43 53.50 0.0
S 44 35.50
LPB 14.57 19 P 46 15.00 -0.8
ZOBO 14.81 19 P 46 18.50 -0.6
0.9s 17.30nm 4.6mb
SIV 18.08 40 P 46 52.40 -7.8X
i 46 59.40
SPA 59.71 180 eP 52 55.00 0.7
1.0s 16.00nm 5.1mb
TUL 69.40 340 eP 53 57.90 0.6

0.8s 7.40nm 4.9mb
YKA 98.44 342 eP 56 26.10 -0.1
0.6s 0.50nm 4.3mb
GBA 148.02 115 PKPc 02 32.60 0.7
0.6s 3.50nm
HYB 151.04 110 iPKPc 02 42.90 6.4X
0.8s 19.20nm
S.D. = 0.6 on 20 of 22 obs.

& APR 08, 1990 04h 07m 34.54s
61.637 N 149.612 W
DEPTH = 28.5km
SOUTHERN ALASKA (2)
<AGS-P>.

PWA 0.13 276 iP 07 40.58 0.7
iS 07 44.38
PLRM 0.23 101 iP 07 40.84 -0.1
eS 07 46.93
GHO 0.35 67 iP 07 42.24 -0.5
iS 07 49.51
PMS 0.39 176 iP 07 42.92 -0.4
SUA 0.57 253 eP 07 45.40 -0.7
SML 0.63 74 iP 07 45.56 -1.5
CUT 0.83 338 eP 07 48.80 -1.4
eS 08 00.85
SLKM 1.17 195 iP 07 53.43 -1.7
SKA 1.19 222 eP 07 55.83 0.5
CGLM 1.20 255 eP 07 54.62 -0.9
NCG 1.24 260 iP 07 55.35 -0.8
eS 08 11.92
SPU 1.26 250 iP 07 55.30 -1.1
HUR 1.35 360 iP 07 56.96 -0.6
eS 08 14.49
NCA 1.37 74 iP 07 56.53 -1.4
eS 08 14.72
GLI 1.43 121 iP 07 57.05 -1.8
SEW 1.54 177 eP 07 58.45 -1.9
VZW 1.58 110 eP 07 59.33 -1.7
eS 08 19.61
TOA 1.70 72 iP 08 02.20 -0.5
RDT 1.73 233 iP 08 01.64 -1.5
KLU 1.77 93 iP 08 02.02 -1.8
NNL 1.80 208 eP 08 04.47 0.3
RND 1.81 11 iP 08 03.43 -0.9
RED 1.96 233 eP 08 05.23 -1.4
KTH 2.02 343 iP 08 06.54 -0.8
iS 08 32.87
SDG 2.11 63 eP 08 07.97 -0.7
MCK 2.13 8 eP 08 08.19 -0.7
CNPM 2.26 201 eP 08 08.66 -2.1
PAX 2.35 54 eP 08 11.51 -0.6
CCB 3.13 14 eP 08 21.12 -1.9
FBA 3.38 13 eP 08 24.78 -1.8
30 obs. associated

APR 08, 1990 04h 34m 27.03±0.92s
36.211 N ±6.0km 141.962 E ±5.9km
DEPTH = 20.9 ±5.3 km
5.0mb (28 obs.) 4.6Msz (2 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ 1.45 270 iPd 34 51.50 -0.6
S 35 08.10
CHJJ 2.41 267 iPd 35 05.20 -0.7
S 35 34.10
NIJ 2.59 294 iPd 35 08.80 0.2
MAT 3.05 277 iPc 35 15.30 0.3
(S) 35 55.00
IIDJ 3.37 259 iP+ 35 21.10 1.4
eS 35 59.90
MTMJ 3.37 278 iPd 35 20.40 0.6
TSRJ 4.90 264 eP 35 42.60 1.3
WKYJ 5.58 251 P 35 51.20 0.2
MRRJ 6.24 354 P 35 59.50 -0.7
eS 37 12.80
HOJ 6.25 9 P 35 57.60 -2.7
S 37 07.40
SHK 7.77 260 eP 36 21.20 -0.5
BJI 20.62 288 eP 39 04.00 -3.5X
1.0s 12.00nm 4.2mb
Z 16s 0.87um 4.2MszX
N 14s 1.03um
eS 43 28.00
ANP 20.69 244 eP 39 20.40 12.0X
SHL 43.85 271 eP 42 32.50 -1.2
IPM 49.03 240 ePc 43 15.20 0.7

MTN 49.85 194 eP 43 20.00 -0.7
NDI 54.27 282 iPc 43 52.50 -1.3
0.5s 17.61nm 5.3mb
INK 54.92 27 eP 43 58.00 -0.1
WB5 56.25 189 eP 44 07.20 -0.9
WRA 56.31 189 Pc 44 07.50 -1.1
0.9s 9.80nm 4.8mb
MBC 57.19 16 ePc 44 14.60 0.2
0.9s 14.00nm 5.0mb
HYB 58.63 269 eP 44 24.00 -1.2
KBS 61.55 350 iPd 44 44.90 0.5
GBA 61.60 266 Pc 44 44.40 -1.1
0.9s 37.10nm 5.5mb
POO 61.84 273 P 44 46.20 -1.1
KOD 63.48 263 eP 44 57.80 -0.6
YKA 64.30 30 eP 45 02.10 -0.6
0.8s 4.00nm 4.6mb
KEV 64.37 340 iP 45 02.60 -0.5
SOD 65.89 337 iP 45 12.40 -0.6
DAG 66.64 355 iPc 45 16.80 -0.8
0.7s 11.64nm 5.1mb
PNT 68.45 44 eP 45 29.00 -0.5
SUF 68.92 334 iP 45 31.40 -0.6
0.7s 18.40nm 5.3mb
EDM 69.72 38 ePc 45 37.00 -0.2
NUR 70.88 332 eP 45 43.50 -0.5
SES 72.51 40 eP 45 55.00 1.0
UPP 73.89 334 iP 46 01.50 -0.3
i 46 11.90
FFC 74.16 33 iPc 46 04.00 0.5
0.9s 13.00nm 5.0mb
LRM 74.43 44 ePc 46 06.80 1.2
HFS 75.02 336 eP 46 07.30 -1.1
1.0s 22.40nm 5.2mb
Z 19s 0.41um 4.7Msz
LR 18 58.00
NB2 75.12 338 P 46 08.70 -0.3
0.9s 25.40nm 5.3mb
FRB 77.47 13 eP 46 22.00 0.0
KRA 80.02 326 eP 46 25.90 -10.3X
KSP 81.03 329 eP 46 41.50 -0.1
ic 46 42.00
BRG 81.98 330 iP 46 47.40 0.9
0.9s 16.00nm 5.1mb
i 47 05.40
CLL 82.03 330 iPc 46 47.00 0.3
0.9s 19.00nm 5.1mb
PRU 82.41 329 iPc 46 49.30 0.5
e 47 06.20
KHC 83.48 329 iPc 46 54.60 0.3
e 47 11.00
RZN 83.55 318 iPc 46 56.00 1.0
VTS 83.73 319 iP 46 57.00 1.1
GRF 84.00 330 iPc 46 47.90 -9.1X
1.1s 25.00nm 5.4mb
Z 18s 0.20um 4.5Msz
EKA 84.05 341 Pc 46 57.70 0.6
0.7s 3.60nm 4.7mb
MMB 84.15 318 eP 46 59.00 1.1
KKB 84.30 319 iPc 46 59.00 0.4
PRNI 84.74 304 eP 47 01.00 0.0
ALO 84.78 50 eP 47 03.00 1.6
1.0s 5.50nm 4.7mb
e 47 13.00
VAY 84.96 319 eP 47 02.40 0.6
KBA 85.16 328 e(P) 47 02.50 -0.5
0.6s 2.10nm 4.5mb
i 47 04.00
i 47 09.40
MBH 85.18 303 eP 47 03.00 -0.2
CDF 86.58 332 eP 47 10.00 0.1
0.7s 7.70nm 5.0mb
HAU 87.27 332 eP 47 13.10 -0.1
SSF 89.12 333 eP 47 22.30 0.2
1.0s 8.00nm 5.0mb
LPL 89.17 330 eP 47 22.70 0.1
0.7s 4.40nm 4.9mb
LPG 89.17 330 eP 47 22.70 0.0
0.7s 5.50nm 5.0mb
AVF 89.40 333 eP 47 23.80 0.4
0.9s 8.20nm 5.0mb
MAF 90.17 333 eP 47 27.50 0.5
TCF 90.25 333 eP 47 27.80 0.4
0.7s 2.75nm 4.6mb
LSF 90.52 334 eP 47 29.00 0.4
0.7s 5.50nm 4.9mb
RJF 91.34 333 eP 47 32.90 0.5

08d 04h

0.8s 6.70nm 5.1mb
 CAF 91.46 333 eP 47 33.80 0.8
 0.8s 6.70nm 5.1mb
 LFF 91.93 334 eP 47 35.80 0.7
 0.9s 13.10nm 5.3mb
 LPO 91.99 333 eP 47 36.10 0.7
 0.8s 8.05nm 5.2mb
 ZOBO 146.71 61 PKPc 54 10.30 2.0X
 0.8s 8.47nm
 LPB 146.90 62 PKP 54 11.00 2.6X
 CCH 148.85 60 PKP 54 16.60 5.2X
 SIV 151.26 52 PKP 54 21.00 6.3X
 S.D. = 0.8 on 67 of 75 obs.

? APR 08, 1990 04h 34m 35.58 ± 4.47s
 16.739 S ± 35.3km 169.770 E ± 55.6km
 DEPTH = 33.0km (normal)
 4.8mb (2 obs.) 4.1msz (1 obs.)
 VANUATU ISLANDS (186)

PVC 1.71 234 iPd 35 03.90 0.4
 iS 35 10.90
 RMO 21.79 240 eP 39 24.70 -2.0
 CTA 22.55 258 iPc 39 35.00 0.7
 1.0s 20.00nm 4.5mb
 CAN 26.19 221 eP 40 09.80 0.7
 WB5 33.72 259 eP 41 16.60 0.4
 WRA 33.74 259 P 40 59.00 -17.4X
 0.4s 0.30nm
 ASPA 34.29 252 iPc 41 21.00 -0.2
 0.5s 14.00nm 5.1mb
 Z 20s 0.35um 4.1msz
 LR 53 39.30
 S.D. = 1.3 on 6 of 7 obs.

APR 08, 1990 05h 43m 05.14 ± 0.29s
 17.589 S ± 4.6km 69.631 W ± 6.1km
 DEPTH = 158.9km (5 depth phases)
 4.7mb (16 obs.)
 PERU-BOLIVIA BORDER REGION (118)

LPB 1.80 55 Pd 43 41.20 1.8
 ZOBO 1.95 48 iPc 43 42.30 1.1
 CCH 3.33 87 P 43 59.20 1.2
 (S) 44 39.00
 ANT 6.13 187 iP 44 32.50 -2.0
 iS 45 39.50
 PT03 6.93 300 iP 44 41.60 -3.8X
 eS 46 49.00
 PT02 8.03 304 eP 44 57.40 -2.7
 eS 46 21.10
 SIV 8.35 80 iPc 45 02.00 -2.3
 PT08 8.72 309 iPd 45 08.00 -1.6
 iS 46 37.70
 RTLL 13.72 176 ePc 46 12.10 -2.2
 RTCB 13.86 177 e(P) 46 15.00 -1.1
 S 46 22.90
 CFA 14.01 175 eP 46 15.90 -2.1
 S 46 22.30
 FCH 15.68 182 iPd 46 41.30 2.2
 SAN 15.82 183 eP 46 41.00 0.4
 ITB1 15.85 119 e(P) 46 39.90 -1.0
 LCCH 15.92 186 eP 46 42.00 0.4
 PCH 15.98 183 ePc 46 45.60 3.0X
 TACH 16.04 184 eP 46 43.50 0.3
 ITB 16.06 119 e(P) 46 42.60 -0.9
 ITB7 16.22 120 e(P) 46 45.50 0.0
 CHCH 16.30 183 eP 46 48.00 1.6
 iS 49 48.00
 LNV 16.38 185 eP 46 48.00 0.7
 BAO 20.83 88 eP 47 35.20 -0.6
 RSCP 55.01 344 P 52 21.00 -1.3
 FVM 58.63 341 P 52 46.50 -1.2
 1.0s 72.00nm 5.5mb
 pP 53 24.00 160km
 TUL 58.69 335 eP 52 47.80 -0.4
 1.2s 12.30nm 4.7mb
 ALO 62.87 326 eP 53 15.90 -0.7
 0.8s 3.73nm 4.4mb
 eP 53 57.00 175kmX
 ANMO 62.87 326 P 53 15.20 -1.4
 1.0s 2.75nm 4.1mb
 pP 53 58.00 183kmX
 GOL 66.03 330 P 53 37.00 0.0
 1.0s 9.00nm 4.6mb
 pP 54 15.00 159km
 PV09 66.96 327 P 53 43.80 0.8

LIC 68.01 76 P 53 49.04 -0.6
 TIC 68.18 75 P 53 50.26 -0.4
 0.4s 6.00nm 4.8mb
 KIC 68.33 76 P 53 50.80 -0.8
 0.6s 68.50nm 5.7mb
 RSSD 69.00 334 P 53 55.10 -0.3
 pP 54 34.20 163km
 BW06 70.41 330 P 54 03.80 -0.2
 pP 54 45.00 171kmX
 TNP 71.14 322 P 54 10.10 1.6
 1.0s 5.50nm 4.3mb
 pP 54 47.10 152km
 SCH 72.15 2 eP 54 13.00 -0.9
 KVN 72.30 322 P 54 16.10 0.7
 pP 54 59.00 178kmX
 KUK 72.32 77 eP 54 14.50 -1.2
 SPA 72.52 180 iPc 54 18.10 1.9
 1.2s 26.06nm 4.8mb
 LRM 74.06 330 eP 54 26.60 1.1
 ORV 74.64 321 P 54 30.50 1.8
 pP 55 10.00 161km
 SES 76.87 334 eP 54 41.00 0.0
 FFC 77.13 341 iPc 54 42.70 0.5
 0.7s 5.00nm 4.4mb
 EDM 79.95 335 eP 54 57.50 -0.2
 PNT 79.97 329 eP 55 00.00 2.2
 0.6s 7.00nm 4.6mb
 VNDA 80.57 190 e(P) 55 03.00 2.4
 YKA 87.29 341 eP 55 34.70 0.2
 0.8s 7.60nm 4.7mb
 MFF 89.26 40 eP 55 44.70 0.5
 LPF 89.37 39 eP 55 44.60 0.0
 0.9s 13.10nm 4.9mb
 BCAA 89.58 85 ePc 55 51.40 5.0X
 0.5s 5.00nm 4.8mb
 GRR 89.64 38 eP 55 44.70 -1.2
 CAF 89.92 42 eP 55 48.00 0.7
 0.9s 8.20nm 4.7mb
 FLN 90.03 38 eP 55 47.10 -0.6
 LDF 90.17 38 eP 55 47.80 -0.5
 0.9s 13.10nm 5.0mb
 SSF 91.72 41 eP 55 57.50 2.0
 LPL 93.18 43 eP 56 03.30 0.7
 LPG 93.18 43 eP 56 03.40 0.7
 WRA 135.90 213 PKPd 02 03.60 -5.9X
 0.5s 0.50nm
 WB5 135.94 213 ePKP 02 01.70 -7.8X
 e 02 11.00
 GBA 148.06 92 PKPd 02 32.00 1.3
 0.9s 4.20nm
 HYB 149.67 85 ePKP 02 39.50 6.2X
 S.D. = 1.3 on 55 of 61 obs.

APR 08, 1990 05h 58m 05.33 ± 0.70s
 38.918 N ± 6.8km 22.003 E ± 8.2km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 ML 3.1 (ATH).
 NEO 1.03 67 ePn 58 26.20 1.5
 VLS 1.33 237 ePn 58 29.00 -0.9
 ATH 1.64 125 ePb 58 35.80 1.5
 ITM 1.74 182 ePb 58 36.60 0.9
 KEK 1.89 296 ePn 58 40.00 2.1
 VLI 2.32 161 ePn 58 41.90 -2.2
 OHR 2.38 338 ePn 58 47.50 2.5X
 VAY 2.44 10 ePn 58 45.60 -0.2
 MMB 2.98 26 ePd 58 53.00 -0.5
 SKO 3.08 352 ePn 58 54.00 -0.9
 RZN 3.46 36 eP 59 00.00 -0.5
 KDZ 3.78 43 eP 59 04.00 -0.9
 S.D. = 1.5 on 11 of 12 obs.

APR 08, 1990 06h 00m 56.01 ± 0.49s
 86.550 N ± 7.7km 65.328 E ± 11.7km
 DEPTH = 10.0km (geophysicist)
 4.0mb (6 obs.)
 NORTH OF FRANZ JOSEF LAND (644)

KBS 9.50 250 eP 03 13.00 -2.6
 MBC 17.31 4 eP 04 59.00 0.3
 1.0s 5.00nm 3.6mb
 SOD 20.17 225 iP 05 33.40 0.7
 SUF 24.84 224 iP 06 21.40 2.3
 0.6s 5.10nm 4.4mb
 INK 25.14 16 eP 06 23.00 1.1
 NB2 27.22 240 P 06 41.20 -0.1

0.9s 2.60nm 3.9mb
 FBA 28.22 30 eP 06 51.00 0.8
 0.8s 0.80nm 3.6mb
 YKA 31.14 360 eP 07 15.40 -0.8
 0.8s 1.70nm 4.0mb
 KRA 37.76 229 eP 08 15.50 2.3
 e 08 21.50
 KVN 54.60 3 eP 10 26.10 -0.4
 TUL 57.57 342 eP 10 47.90 0.3
 1.3s 9.50nm 4.7mb
 ALO 58.68 352 eP 10 54.50 -1.1
 GKN 58.89 160 P 10 56.50 -0.6
 GUN 59.00 159 P 10 57.70 -0.5
 KKN 59.11 159 P 10 58.20 -0.5
 DMN 59.29 160 P 10 59.70 -0.3
 PKI 59.33 159 P 10 59.90 -0.5
 GBA 73.09 168 P 12 27.40 -0.3
 S.D. = 1.3 on 18 of 18 obs.

APR 08, 1990 06h 02m 17.40 ± 0.36s
 14.885 N ± 6.5km 147.428 E ± 7.1km
 DEPTH = 33.0km (normal)
 4.8mb (11 obs.)
 MARIANA ISLANDS REGION (215)

GUA 2.78 242 eP 03 00.50 -0.1
 eS 03 36.20
 GUMO 2.80 243 eP 03 00.90 0.1
 PJG 2.80 243 eP 03 00.50 -0.3
 MAT 23.09 341 eP 07 20.00 -1.2
 0.9s 18.49nm 4.6mb
 PMG 24.14 181 eP 07 30.00 -1.5
 WB5 36.86 201 eP 09 25.00 0.3
 WRA 36.93 201 Pd 09 25.10 -0.2
 0.8s 13.00nm 4.8mb
 BJI 37.05 319 eP 09 25.00 -1.1
 1.5s 26.00nm 4.9mb
 ASPA 40.53 199 iPc 09 55.50 0.2
 0.7s 9.00nm 4.6mb
 CHTO 46.46 282 eP 10 44.10 0.7
 0.6s 1.54nm 4.1mb
 SHL 52.87 291 iP 11 13.60 -19.2X
 GUN 58.23 294 P 12 12.10 0.4
 0.8s 27.00nm 5.4mb
 PKI 58.65 293 P 12 14.40 -0.2
 0.8s 9.00nm 4.9mb
 KKN 58.76 294 P 12 15.40 0.2
 0.8s 11.00nm 5.0mb
 DMN 58.92 293 P 12 16.40 0.0
 GKN 59.33 294 P 12 19.20 0.1
 0.8s 11.00nm 5.0mb
 INK 72.23 23 eP 13 40.00 -0.8
 MBC 76.42 14 eP 14 05.50 0.6
 MAIO 79.71 305 eP 14 26.00 2.1
 YKA 80.57 28 eP 14 27.20 -0.5
 0.7s 5.50nm 4.7mb
 KVN 84.18 51 eP 14 47.90 0.7
 SES 85.85 39 eP 14 55.00 -0.1
 LRM 86.35 44 eP 14 58.30 0.3
 NB2 96.70 340 P 15 44.30 -1.4
 0.8s 1.50nm 4.6mb
 KIC 145.26 305 PKP 21 54.44 0.1
 1.1s 22.00nm
 TIC 145.31 306 PKP 21 54.36 -0.1
 LIC 145.57 306 PKP 21 55.42 0.5
 ZOBO 145.75 97 PKP 21 57.00 1.2
 LPB 145.79 98 PKP 21 58.00 2.3X
 SIV 152.51 96 PKP 22 13.40 7.8X
 S.D. = 0.8 on 27 of 30 obs.

APR 08, 1990 06h 15m 44.45 ± 2.06s
 33.934 S ± 24.7km 70.958 W ± 11.2km
 DEPTH = 33.0km (normal)
 CHILE-ARGENTINA BORDER REGION (127)

TACH 0.28 4 iPc 15 53.00 1.0
 iS 16 02.50
 LNV 0.38 267 iPc 15 53.50 0.3
 PCH 0.48 50 iPd 15 54.80 -0.1
 iS 16 04.60
 LCCH 0.68 312 iPd 15 56.90 -0.8
 iS 16 09.00
 FCH 0.82 43 iPc 15 59.50 -0.4
 iS 16 13.40
 S.D. = 1.0 on 5 of 5 obs.

APR 08, 1990 06h 38m 26.63 ± 0.95s

15.150 N \pm 15.1km 147.598 E \pm 11.3km
 DEPTH = 33.0km (normal)
 4.4mb (3 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.06 239 eP 39 14.00 0.2
 eS 39 49.00
 PJG 3.07 240 eP 39 13.80 -0.1
 GUMO 3.07 240 eP 39 14.10 0.2
 PMG 24.40 181 eP 43 44.00 0.7
 WB5 37.16 201 eP 45 36.00 -0.5
 WRA 37.23 201 Pd 45 36.70 -0.4
 0.8s 5.80nm 4.5mb
 ASPA 40.84 199 eP 46 06.90 -0.2
 0.5s 6.00nm 4.6mb
 INK 71.92 23 eP 50 00.50 12.3X
 YKA 80.26 28 eP 50 35.40 0.1
 0.8s 0.70nm 3.7mb
 S.D. = 0.4 on 8 of 9 obs.

APR 08, 1990 06h 59m 57.03 \pm 0.46s
 38.826 N \pm 4.8km 21.921 E \pm 4.2km
 DEPTH = 11.9 \pm 3.2 km
 3.7mb (3 obs.)

GREECE (364)
 ML 3.4 (ATH).

NEO 1.12 64 iPbc 00 18.50 0.6
 VLS 1.23 239 ePb 00 17.60 -2.1
 ITM 1.64 180 ePn 00 26.20 0.4
 ATH 1.65 121 ePg 00 27.20 1.3
 KEK 1.87 299 ePg 00 32.50 3.4X
 VLI 2.25 159 ePn 00 34.10 -0.6
 OHR 2.44 340 iPn 00 39.00 1.7
 0.8s 0.34nm

VAY 2.54 11 iPn 00 38.40 -0.3
 MMB 3.09 26 iPc 00 45.00 -1.5
 SKO 3.16 353 iPnc 00 47.20 -0.4
 iSn 01 23.50

KKB 3.16 16 iPc 00 47.00 -0.6
 APE 3.35 120 ePn 00 50.40 0.1
 LCI 3.42 297 P 00 50.00 -1.1
 eSn 01 30.50

RZN 3.57 36 iPc 00 53.00 -0.5
 RDO 3.62 49 ePn 00 52.50 -1.5
 VAM 3.87 151 ePn 00 59.50 1.9
 VTS 3.89 14 iPc 00 58.00 0.0
 KDZ 3.89 42 iPd 00 56.00 -1.9
 PLD 3.90 32 eP 01 00.00 2.0
 PVY 4.05 339 ePn 01 02.00 1.8
 eSn 01 50.60

PGB 4.09 24 eP 00 55.00 -5.8X
 TTG 4.13 332 ePn 01 02.30 1.1
 eSn 01 50.80

BRT 4.17 301 P 01 02.40 0.5
 eSn 01 52.50

ORI 4.41 288 P 01 06.00 0.7
 TDS 4.41 283 P 01 06.40 1.1
 iSn 01 55.20

BAI 4.51 302 P 01 06.00 -0.6
 NKY 4.56 332 ePn 01 08.20 0.7
 eSn 02 02.50

PLE 4.89 338 ePn 01 13.00 0.9
 eSn 02 10.00

PVL 5.09 29 iPc 01 14.00 -0.8
 MGR 5.10 287 Pc 01 15.00 0.0
 eSn 02 12.20

ATN 5.11 265 P 01 14.00 -1.2
 eSn 02 09.40

BSS 5.82 292 P 01 25.00 -0.2
 HVAR 6.00 318 i(Pn) 01 08.70 -19.0X
 AZI 7.20 299 P 01 45.00 0.3

MLR 7.30 23 eP 01 42.00 -4.1X
 MNS 7.88 300 P 01 54.00 -0.2
 VRI 7.89 25 eP 01 53.00 -1.2

ARV 8.22 307 P 01 58.00 -1.0
 SFI 9.12 307 P 02 12.00 0.7
 TRI 9.15 321 e(Pn) 02 14.30 2.5
 e(Sn) 03 45.20

VOY 9.33 323 ePn 02 12.60 -1.7
 eSn 03 54.00

RBL 9.78 324 P 02 23.00 2.5
 FVI 10.26 322 P 02 28.00 1.0
 KBA 10.36 325 eP 02 28.00 -0.6
 eS 04 20.50

CTI 10.47 317 P 02 27.00 -3.0
 HFS 21.95 349 eP 04 52.10 0.1
 0.5s 1.10nm 3.5mb
 NB2 23.22 347 P 05 03.70 -0.9
 0.8s 3.30nm 3.9mb
 SUF 24.06 5 eP 05 14.30 1.7
 YKA 73.15 341 eP 11 27.10 -1.8
 0.8s 0.60nm 3.7mb

S.D. = 1.3 on 45 of 49 obs.

* APR 08, 1990 07h 08m 23.89 \pm 0.40s
 16.094 N \pm 6.9km 145.699 E \pm 10.4km
 DEPTH = 33.0km (normal)
 4.8mb (6 obs.)

MARIANA ISLANDS (216)

GUMO 2.62 198 eP 09 23.80 19.0X
 e 09 25.80
 PJG 2.62 198 eP 09 23.90 19.1X
 e 09 25.80

GUA 2.65 197 eP 09 24.00 18.7X
 eS 09 58.40

PMG 25.38 177 eP 13 51.00 1.1
 WB5 37.44 198 eP 15 35.90 -0.2
 WRA 37.51 198 Pd 15 36.70 0.0
 0.8s 7.30nm 4.6mb

ASPA 41.16 197 iPc 16 06.30 -0.7
 0.4s 12.00nm 5.0mb
 MBL 44.88 215 iPc 16 36.70 -0.6
 0.4s 5.00nm 4.8mb

NANU 48.46 218 iPd 17 05.20 -0.2
 GUN 56.22 293 P 18 04.40 0.5
 0.4s 8.00nm 5.1mb

PKI 56.65 293 P 18 07.00 0.0
 KKN 56.76 293 P 18 08.40 0.8
 DMN 56.92 293 P 18 08.80 0.0
 0.4s 6.00nm 5.0mb

GKN 57.32 293 P 18 11.80 0.3
 INK 71.76 23 eP 19 44.00 -0.5
 MBC 75.66 14 eP 20 07.00 -0.1
 YKA 80.28 28 eP 20 32.20 -0.5
 0.5s 2.60nm 4.5mb

PNT 80.97 41 eP 20 38.00 1.3
 SES 85.95 39 eP 21 02.00 -0.1
 SUF 88.51 336 eP 21 13.10 -1.1
 KIC 143.21 305 PKP 27 51.70 -5.7X

ZOBO 147.54 95 PKP 28 07.30 2.1X
 CCH 149.50 97 ePKP 28 12.00 4.1X
 SIV 154.28 94 ePKP 28 12.00 -2.5X
 S.D. = 0.7 on 17 of 24 obs.

APR 08, 1990 07h 33m 05.29 \pm 0.39s
 15.626 N \pm 7.3km 147.618 E \pm 8.7km
 DEPTH = 33.0km (normal)
 4.7mb (10 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.34 232 eP 33 57.80 1.3
 eS 34 35.30

PJG 3.35 233 eP 33 56.20 -0.4
 GUMO 3.35 233 eP 33 56.50 -0.1
 IIDJ 21.60 338 P 37 56.10 1.7
 CHJJ 21.75 341 P 37 56.70 0.8

MAT 22.45 340 (P) 38 03.00 0.1
 0.8s 24.63nm 4.7mb

MTMJ 22.63 339 P 38 05.30 0.6
 WB5 37.61 201 eP 40 18.60 -0.3
 WRA 37.68 201 Pc 40 19.10 -0.4
 0.8s 2.80nm 4.2mb

NNT 46.46 273 eP 41 26.00 -5.4X
 CHG 46.49 281 ePd 41 32.70 1.2
 0.9s 10.50nm 4.8mb

SHL 52.78 290 iP 42 18.50 -1.5
 HYB 65.90 282 ePd 43 51.00 0.4
 GBA 67.66 279 Pc 44 00.00 -1.7
 0.7s 7.20nm 4.9mb

POO 70.12 284 iPc 44 17.00 0.1
 INK 71.48 23 ePd 44 23.70 -0.5
 MBC 75.66 14 eP 44 49.00 0.5
 0.9s 11.00nm 4.9mb

YKA 79.83 28 eP 45 10.80 -0.9
 0.7s 2.60nm 4.3mb

PNT 80.10 42 eP 45 13.00 -0.5
 0.8s 5.00nm 4.6mb

SES 85.16 39 ePc 45 39.60 0.1
 KEV 85.40 343 iPc 45 41.00 0.7
 0.6s 7.80nm 5.1mb

LRM 85.69 44 eP 45 42.90 0.3
 SOD 86.86 341 iP 45 47.40 -0.1
 DAG 87.43 357 eP 45 50.00 -0.1
 SUF 89.67 337 eP 46 00.00 -1.1
 ALO 93.70 52 eP 46 20.00 -0.5
 HFS 95.90 339 eP 46 27.60 -2.2
 0.5s 1.50nm 4.7mb

NB2 96.07 340 P 46 29.70 -1.0
 0.8s 2.70nm 4.8mb

KIC 144.98 307 PKPd 52 41.38 -0.4
 1.0s 42.50nm

TIC 145.01 307 PKPd 52 41.32 -0.5
 LIC 145.28 307 PKPd 52 42.34 0.1
 0.7s 19.50nm

ZOBO 145.65 96 PKP 52 44.60 1.0
 LPB 145.70 97 PKP 52 45.00 1.6
 CCH 147.61 98 PKP 52 48.20 1.8
 SIV 152.40 95 ePKP 53 00.00 6.7X
 S.D. = 1.0 on 33 of 35 obs.

? APR 08, 1990 08h 06m 10.24 \pm 2.14s
 13.501 N \pm 16.5km 44.795 W \pm 50.8km
 DEPTH = 10.0km (geophysicist)
 4.3mb (5 obs.) 3.8msz (1 obs.)

NORTH ATLANTIC RIDGE (403)

ZOBO 37.51 219 eP 13 26.00 -0.9
 Z 20s 0.15um 3.8msz

LR 24 26.00
 LPB 37.69 218 P 13 29.00 0.7
 TUL 50.77 305 eP 15 12.80 0.1
 1.2s 15.00nm 4.8mb

FRB 52.86 347 eP 15 28.00 -0.1
 BW06 62.46 311 eP 16 31.10 -5.4X
 1.6s 13.16nm 4.9mb

SES 64.60 320 eP 16 50.00 -0.1
 TNP 68.02 306 eP 17 12.70 0.3
 0.7s 0.67nm 3.9mb

KVN 68.71 307 ePd 17 16.50 -0.1
 YKA 68.82 332 eP 17 14.20 -2.4
 1.0s 1.60nm 4.2mb

PNT 70.00 318 eP 17 25.00 0.9
 INK 77.09 338 eP 18 05.00 -0.1
 FBA 83.31 335 eP 18 40.00 1.6
 0.9s 0.80nm 3.9mb

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

* APR 08, 1990 08h 16m 02.67 \pm 1.62s
 15.540 N \pm 9.6km 147.675 E \pm 10.4km
 DEPTH = 41.6 \pm 13.8 km
 4.5mb (7 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.33 234 e(P) 16 55.50 1.8
 eS 17 31.30

GUMO 3.34 235 eP 16 53.30 -0.4
 PJG 3.34 235 eP 16 52.70 -1.0
 MAT 22.55 340 (P) 21 01.00 0.5
 0.9s 16.81nm 4.5mb

BJI 36.72 318 eP 23 12.00 4.3X
 WB5 37.55 201 eP 23 14.00 -0.9
 WRA 37.62 201 Pc 23 14.90 -0.6
 0.9s 6.00nm 4.5mb

NNT 46.52 273 eP 24 24.20 -4.1X
 SHL 52.86 290 eP 25 12.50 -4.6X
 GUN 58.19 293 P 25 55.40 -0.3

PKI 58.62 293 P 25 57.80 -0.8
 KKN 58.72 293 P 25 58.80 -0.4
 DMN 58.88 293 P 25 59.80 -0.6
 GKN 59.28 294 P 26 02.40 -0.7

HYB 65.97 282 eP 26 49.00 1.6
 e 26 57.00

GBA 67.72 279 Pd 27 07.60 9.1X
 0.9s 4.70nm 4.6mb

POO 70.19 284 eP 27 15.00 1.2
 INK 71.53 23 eP 27 20.00 -1.0
 MBC 75.73 14 eP 27 45.50 0.2
 1.0s 6.00nm 4.5mb

MAIO 79.53 305 eP 28 11.00 3.8X
 YKA 79.88 28 eP 28 07.20 -1.1
 0.8s 2.30nm 4.2mb

PNT 80.12 42 eP 28 10.00 0.0
 0.9s 8.00nm 4.7mb

SES 85.19 39 eP 28 36.00 0.0
 LRM 85.71 44 eP 28 39.00 0.0
 ALO 93.71 52 eP 29 17.00 0.1
 1.0s 2.25nm 4.6mb

08d 08h

KIC 145.07 307 PKPc 35 38.02 -0.2
 TIC 145.11 307 PKP 35 37.94 -0.4
 TIC 145.11 307 PKP 35 38.10 -0.2
 LIC 145.38 307 PKP 35 38.90 0.2
 LIC 145.38 307 PKP 35 38.98 0.3
 ZOBO 145.59 96 PKP 35 40.90 1.2
 LPB 145.63 97 PKP 35 41.00 1.4
 CCH 147.54 98 ePKP 35 46.00 3.5X
 SIV 152.34 95 (PKP) 36 05.00 15.5X
 S.D. = 0.9 on 27 of 34 obs.

* APR 08, 1990 08h 30m 08.15 ± 2.65s
 41.202 N ± 22.8km 25.066 E ± 11.5km
 DEPTH = 10.0km (geophysicist)
 GREECE-BULGARIA BORDER REGION (363)

KDZ 0.52 30 iPd 30 18.00 -0.7
 RZN 0.55 332 eP 30 21.00 1.5
 DIM 0.92 22 eP 30 27.00 1.3
 PLD 0.94 343 iPd 30 32.00 5.9X
 MMB 1.08 291 ePc 30 29.00 0.5
 PCB 1.51 334 eP 30 34.00 -1.2
 KKB 1.63 295 eP 30 34.00 -3.0X
 JMB 1.70 41 iPc 30 38.00 0.0
 VAY 1.89 274 ePn 30 41.30 0.6
 VTS 1.96 316 iPd 30 40.00 -1.9
 PVL 2.02 6 eP 30 46.00 3.4X
 S.D. = 1.4 on 8 of 11 obs.

? APR 08, 1990 08h 57m 38.65 ± 4.05s
 15.643 N ± 35.1km 99.428 W ± 21.3km
 DEPTH = 10.0km (geophysicist)
 3.8mb (1 obs.)
 OFF COAST OF GUERRERO, MEXICO (65)

ACX 1.29 341 iP 58 01.38 -1.1
 IIS 2.72 359 eP 58 25.06 1.7
 OXX 2.96 61 iP 58 26.45 -0.4
 PPM 3.49 13 eP 58 37.63 3.1X
 IIT 3.52 18 eP 58 34.50 -0.3
 IJJ 4.08 356 eP 58 45.38 2.5X
 IIC 4.10 2 (P) 58 53.02 9.9X
 MRX 4.37 338 (P) 58 54.00 7.4X
 YKA 48.01 351 eP 06 19.60 0.1
 S.D. = 1.5 on 5 of 9 obs.

% APR 08, 1990 09h 15m 39.83 ± 1.25s
 11.077 N ± 7.9km 61.760 W ± 14.4km
 DEPTH = 33.0km (normal)
 WINDWARD ISLANDS (95)
 MD 2.9 (TRN).

TCE 0.38 179 eP 15 47.60 -1.1
 TRN 0.55 141 eP 15 51.80 0.6
 TPP 0.81 158 eP 15 55.72 0.9
 PIG 0.91 85 eP 15 55.69 -0.5
 TPR 0.97 84 eP 16 00.89 3.7X
 BOT 1.03 85 eP 15 57.66 -0.3
 GRW 1.08 5 eP 15 59.05 0.3
 S.D. = 0.9 on 6 of 7 obs.

APR 08, 1990 09h 16m 36.90 ± 0.45s
 46.789 N ± 5.5km 12.258 E ± 4.1km
 DEPTH = 5.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.7 (KBA), 2.6 (LJU), MD 2.6 (TRI).

FVI 0.41 118 Pd 16 44.10 -1.0
 SCE 0.45 304 iPg 16 45.10 -0.9
 KBA 0.80 68 iPg 16 52.00 -1.0
 OGA 0.85 276 iPg 16 52.20 -1.7
 CTI 0.85 210 P 16 51.80 -2.1

RBL 0.97 111 P 16 54.50 -1.3
 VOY 1.36 123 ePn 17 02.90 0.3
 TRI 1.50 135 ePg 17 04.70 0.2
 FUR 1.53 335 eP 17 07.00 2.1
 SAL 1.69 226 P 17 08.00 0.9
 LJU 1.74 115 ePn 17 09.50 1.5
 CEY 1.83 124 ePn 17 10.90 1.5
 MDI 2.04 241 P 17 13.00 0.8
 WET 2.39 10 ePn 17 17.40 0.0
 KHC 2.51 20 iPn 17 19.50 0.5
 VAI 2.59 250 P 17 21.00 0.9
 GRF 2.99 347 ePg 17 34.00 8.2X
 PRU 3.54 25 Pg 17 43.30 9.6X
 CDF 3.74 298 Pn 17 36.20 -0.4
 BSF 3.86 288 Pn 17 37.80 -0.6
 MOX 3.88 354 ePn 17 37.00 -1.6
 HAU 4.19 289 Pn 17 44.50 1.6
 BRG 4.24 15 iPg 17 57.00 13.5X
 SMF 5.79 272 Pn 18 01.60 -3.9X
 AVF 6.12 273 Pn 18 09.80 -0.3
 S.D. = 1.3 on 21 of 25 obs.

APR 08, 1990 09h 26m 15.31 ± 0.25s
 45.093 N ± 6.5km 148.728 E ± 3.3km
 DEPTH = 48.7km (4 depth phases)
 5.1mb (60 obs.)

KURIL ISLANDS (221)
 KUSJ 3.52 237 P 27 11.30 2.5X
 ASAJ 4.45 260 iPd 27 28.60 6.6X
 HOOJ 4.78 237 P 27 30.80 4.2X
 MRRJ 6.15 247 P 27 49.90 4.0X
 NIJJ 10.73 226 P 28 49.00 -0.1X
 KAKJ 11.00 219 P 28 50.50 -2.2X
 CHJJ 11.67 223 P 29 00.30 -1.5X
 MAT 11.67 227 eP 29 02.00 0.1X
 MTMJ 11.85 228 P 29 04.50 0.2X
 IIDJ 12.65 224 P 29 15.30 0.3X
 ADK 23.74 61 e(P) 31 23.40 -0.2
 BJI 24.40 270 eP 31 31.00 0.9
 TTA 35.67 40 iPc 33 11.30 0.9
 BRW 36.80 26 eP 33 19.90 0.3
 IMA 36.93 35 iPc 33 21.80 0.8
 KDC 37.56 49 eP 33 26.10 -0.1
 PMR 38.90 42 eP 33 37.30 -0.1
 FBA 39.34 37 iPc 33 42.20 1.1
 TOA 40.25 41 ePc 33 50.20 1.5
 INK 44.67 31 iPc 34 25.20 0.7
 SIT 46.75 47 eP 34 43.20 2.1
 MBC 47.18 19 ePc 34 45.00 0.7
 CHG 48.74 254 iPd 34 58.50 1.4

CHTO 0.9s 11.55nm 4.9mb
 48.74 254 eP 34 58.30 1.2
 0.7s 8.26nm 4.9mb
 SHL 49.24 267 iP 35 01.40 0.3
 GUN 52.07 273 P 35 23.20 0.4
 KKN 52.56 274 P 35 26.80 0.4
 PKI 52.60 273 P 35 27.00 0.2
 NNT 52.66 248 eP 35 42.20 15.4X
 DMN 52.79 273 P 35 28.80 0.7
 GKN 52.89 274 P 35 29.20 0.5
 YKA 54.06 35 eP 35 35.90 -0.7
 NDI 57.70 280 iPc 36 03.00 -0.2
 KEV 57.85 340 eP 35 58.00 -5.8X
 RMW 58.47 53 P 36 07.20 -1.3
 PNT 58.64 50 ePc 36 09.00 -0.6
 LON 58.86 53 P 36 11.00 -0.3
 EDM 59.65 44 iPc 36 16.00 -0.6
 NEW 60.60 50 iP 36 23.00 -0.1
 SES 62.49 45 ePc 36 35.40 -0.4
 SUF 63.21 334 iP 36 38.20 -2.1
 HYB 63.94 269 ePd 36 45.00 -0.7
 FFC 63.95 38 eP 36 45.00 -0.3
 ARN 64.60 62 P 36 50.40 0.6
 LRM 64.62 50 ePc 36 50.30 0.2
 CMB 64.88 61 P 36 52.00 0.3
 NUR 65.35 333 eP 36 53.30 -0.9
 HPI 65.61 52 P 36 53.50 -3.0X
 KVN 65.65 59 P 36 57.40 0.7
 WB5 65.97 195 eP 36 57.50 -1.1
 WRA 66.04 195 P 36 58.10 -0.9
 PHAM 66.26 63 P 37 01.10 0.7
 PTI 66.55 52 P 37 03.60 1.2
 IMW 66.68 51 P 37 04.10 0.7
 TNP 66.79 59 P 37 04.60 0.5
 GBA 67.30 267 Pd 37 07.00 -0.2
 FRB 67.57 17 ePc 37 06.40 -1.9
 ISA 67.57 62 eP 37 08.00 -0.8
 CLC 68.02 61 eP 37 11.00 -0.6
 DUG 68.04 55 P 37 12.40 0.6
 BW06 68.18 51 iPc 37 12.00 -0.7
 SBB 68.60 62 eP 37 15.00 -0.3
 PAS 68.74 63 eP 37 16.00 0.0
 NB2 68.75 339 P 37 13.70 -2.0
 MWC 68.76 63 eP 37 16.00 -0.4
 DAU 68.79 54 P 37 17.50 0.8
 GSC 68.84 61 eP 37 16.00 -0.8
 HFS 68.88 338 eP 37 13.70 -2.8
 RVR 69.34 62 eP 37 19.00 -0.7
 MSU 69.52 56 P 37 21.50 0.4
 PEC 69.54 62 P 37 21.00 0.0
 KOD 69.60 264 eP 37 21.80 -0.1
 PLM 70.08 63 eP 37 23.00 -1.5
 TPC 70.09 61 eP 37 23.00 -1.4
 RSSD 70.21 47 P 37 25.00 -0.1
 RSON 70.23 37 iP 37 24.00 -0.8
 BAR 70.65 63 eP 37 28.00 0.3
 GLA 71.56 62 eP 37 33.00 -0.2
 GOL 72.58 51 P 37 39.90 0.4
 GLD 72.63 51 P 37 40.80 1.2
 ANMO 75.30 55 P 37 56.10 0.9
 ALQ 75.31 55 eP 37 55.70 0.4

08d 09h

KRA	0.9s	9.45nm	4.7mb	LMR	85.75	333 eP	38 49.70	-0.5	DIM	3.54	76 eP	42 08.00	38.1X					
KSP	75.31	329 ePd	37 55.00	0.3		0.8s	16.10nm		5.3mb	PVL	3.81	58 eP	41 45.00	11.4X				
SCH	75.95	331 iPc	37 59.00	0.7	LFF	85.97	338 eP	38 51.40	0.1	S.D. = 1.4 on 13 of 16 obs.								
CLL	76.00	20 eP	37 58.00	-0.6		0.8s	28.20nm		5.5mb	APR 08, 1990 09h 46m 15.88±0.32s								
	76.63	333 iPc	38 01.90	-0.3	LPO	86.08	337 eP	38 51.90	0.0	17.822 S ± 4.6km 178.899 W ± 5.0km								
	0.9s	26.00nm		5.2mb		0.8s	16.10nm		5.3mb	DEPTH = 546.2 ± 3.8 km								
BRG	76.70	332 eP	38 07.60	18kmX	EPF	87.84	337 eP	39 00.10	-0.4	4.9mb (25 obs.)								
PRU	77.26	332 Pc	38 06.10	0.4	KIC	123.52	328 PKP	45 08.80	-0.3	FIJI ISLANDS REGION (181)								
	0.9s	14.00nm		5.0mb	LIC	123.75	328 PKP	45 09.80	0.3	MBU	2.42	290 iP	47 27.90	0.0				
		e	38 11.50	17kmX	ZOBO	137.81	59 PKP	45 26.00	-11.0X	VUN	2.52	265 ePd	47 28.20	-0.1				
MOX	77.65	334 eP	38 08.50	0.7	LPB	138.03	59 PKP	45 39.00	1.8X	SAV	2.53	263 eP	47 28.70	0.3				
BBTK	77.78	315 iPd	38 10.00	1.1	SIV	141.67	50 PKP	45 36.00	-7.3X			eS	48 33.10					
ZST	77.89	329 eP	38 10.00	0.9	BAO	147.42	31 ePKP	45 52.50	-0.5	SGE	3.04	274 eP	47 21.10	-10.4X				
KHC	78.32	332 iP	38 12.50	0.9	S.D. = 0.8 on 129 of 147 obs.				NDF	3.48	271 eP	47 34.50	0.2					
GRF	78.61	333 iPc	38 14.10	1.0	APR 08, 1990 09h 36m 32.32±0.43s				AFI	7.88	61 eP	48 32.00	18.7X					
	0.8s	28.00nm		5.3mb	41.394 N ± 6.3km 20.811 E ± 3.7km				PUZ	20.33	186 eP	50 16.00	-0.2					
DLE	79.73	345 eP	38 19.40	0.3	DEPTH = 5.0km (geophysicist)				NOZ	20.89	187 P	50 22.10	0.8					
DCN	79.81	346 eP	38 19.60	0.1	ALBANIA (391)				MNG	23.23	191 eP	50 41.00	-1.5					
KBA	80.17	331 iPc	38 22.50	0.7	ML 3.4 (SKO).				THZ	24.87	195 P	50 57.50	0.2					
	1.6s	8.30nm		4.4mb	OHR	0.28	182 iPgd	36 37.30	-0.7	KHZ	25.35	193 P	50 59.80	-1.6				
		i	38 24.80	7kmX		iSg	36 41.30			LTZ	25.99	195 eP	51 05.40	-1.7				
PTJ	80.25	329 eP	38 18.50	-3.6X	SKO	0.75	39 iPg	36 47.10	-0.1	BRS	27.77	245 iPc	51 28.60	5.8X				
TUL	80.51	48 iPd	38 24.30	0.7		0.6s	529.00nm				0.6s	19.00nm		4.9mb				
	0.9s	10.80nm		4.8mb			iSg	36 56.70		MMCZ	28.89	198 P	51 31.30	-1.2				
RBL	80.64	330 Pc	38 24.00	-0.2	VAY	1.33	93 iPn	36 56.40	-0.9	MHZ	28.91	197 P	51 31.30	-1.3				
ECB	80.66	345 iPd	38 24.60	0.6	KKB	1.77	74 iPd	37 04.00	0.2	MSZ	28.96	200 P	51 34.00	1.1				
ECP	80.76	345 iPd	38 25.30	0.8	VTB	2.15	55 iPd	37 10.00	0.5	TLC	29.08	198 P	51 33.60	-0.5				
	0.6s	55.00nm		5.7mb	MMB	2.20	84 eP	37 10.00	-0.1	RMQ	31.11	248 iPd	51 52.50	1.0				
CDF	80.95	335 eP	38 25.80	0.0	LCI	2.41	245 P	37 12.00	-1.1		0.7s	212.00nm		5.9mb				
	0.8s	14.80nm		5.0mb	BRT	2.77	260 P	37 19.50	1.3	CTA	33.00	260 iPd	52 07.90	0.5				
HAU	81.59	336 eP	38 29.00	0.0	RZN	2.95	83 eP	37 20.00	-0.8		0.9s	79.83nm		5.3mb				
	0.7s	8.80nm		4.9mb	BAI	2.99	266 P	37 22.00	0.8	CNB	33.11	232 iPc	52 10.20	1.9				
BSF	81.62	335 eP	38 29.00	-0.3	PLD	3.00	75 eP	37 24.00	2.6		0.6s	161.00nm		5.8mb				
	0.8s	5.35nm		4.6mb	ORI	3.57	250 P	37 30.00	0.5	CAN	33.39	232 iPd	52 12.00	1.4				
CTI	81.65	331 P	38 28.60	-0.9	DIM	3.59	78 eP	37 41.00	11.2X	BWA	33.49	234 iPd	52 11.00	-0.5				
FLN	82.73	340 eP	38 34.70	-0.2	HVAR	3.70	300 i(Pn)	37 13.20	-18.1X	PMG	33.99	280 eP	52 15.50	-0.3				
	0.5s	9.50nm		5.1mb	PVL	3.82	60 eP	37 42.00	9.0X	TOO	36.86	230 iPd	52 41.70	2.3				
VAI	82.76	333 Pd	38 35.00	0.0	TDS	3.82	245 P	37 33.00	-0.2		0.7s	129.00nm		5.7mb				
LDF	82.80	340 eP	38 35.20	0.0			eSn	38 33.00		QIS	39.21	259 iPd	52 58.50	-0.2				
	0.8s	13.45nm		5.0mb	MGR	4.18	254 P	37 38.30	0.1	ADE	41.29	237 iPd	53 16.50	1.2				
LOR	82.97	337 eP	38 36.10	-0.1			eSn	38 42.50			0.6s	62.67nm		5.3mb				
	0.9s	14.75nm		5.0mb	SGO	4.25	260 P	37 40.00	0.9	WB5	44.17	260 iPd	53 37.80	-0.3				
GRR	83.17	340 eP	38 37.50	0.4	BZS	4.26	8 eP	37 37.50	-1.8	WRA	44.19	260 Pd	53 37.40	-0.8				
LBF	83.20	337 eP	38 37.30	-0.1	SDI	5.26	276 P	37 53.00	-0.6		0.4s	10.10nm		4.7mb				
	0.7s	10.45nm		5.0mb	AZI	5.55	279 P	37 57.00	-0.6	MTN	48.34	268 iPc	54 09.70	-0.3				
ORX	83.22	333 P	38 36.50	-1.1	MNS	6.15	282 P	38 07.00	0.9	FORR	49.59	244 iPd	54 19.20	0.1				
SSF	83.26	337 eP	38 37.70	0.0	ARV	6.19	292 P	38 04.00	-2.6		0.4s	151.00nm		5.9mb				
	0.8s	14.80nm		5.1mb	VOY	6.83	315 ePn	38 16.60	1.0	KNA	50.02	264 eP	54 22.20	-0.2				
SFI	83.44	330 P	38 45.00	6.5X			e(Sn)	39 36.20		MBL	57.55	256 iPd	55 15.50	-0.2				
LPF	83.54	340 iPc	38 39.70	0.6	CRE	6.92	292 P	38 17.50	0.6		0.3s	5.00nm		4.3mb				
	0.7s	19.85nm		5.3mb	SFI	7.07	294 P	38 19.00	0.0	KLB	58.44	244 eP	55 21.20	-0.5				
SMF	83.55	336 iPc	38 39.40	0.2	CTI	8.10	308 P	38 48.00	14.5X	NWAO	58.84	242 eP	55 24.50	0.2				
	0.9s	42.60nm		5.5mb	S.D. = 1.2 on 23 of 27 obs.				BAL	59.40	245 eP	55 27.70	-0.3					
AVF	83.55	337 iPc	38 39.50	0.4	APR 08, 1990 09h 40m 33.68±0.87s									MUN	59.75	243 eP	55 29.00	-1.3
	0.9s	19.65nm		5.1mb	41.288 N ± 8.7km 20.912 E ± 6.7km									MRWA	60.11	246 iPd	55 32.70	-0.1
LSD	83.63	334 P	38 40.19	0.2	DEPTH = 9.6 ± 5.7 km										0.5s	7.00nm		4.3mb
LPL	83.71	334 iPc	38 40.90	0.6	ALBANIA (391)									NANU	61.30	254 iPd	55 41.10	0.5
	0.8s	16.10nm		5.1mb	ML 2.9 (TTG).										0.4s	8.00nm		4.5mb
LPG	83.72	334 eP	38 41.10	0.7	OHR	0.20	206 iPgc	40 37.00	-1.0	MAT	67.56	324 iPc	56 19.00	-0.7				
	0.7s	15.45nm		5.2mb	SKO	0.79	30 iPg	40 46.90	-2.2		0.8s	35.82nm		5.0mb				
RSP	83.88	334 P	38 40.50	-0.5		0.3s	600.00nm			ADK	69.43	1 eP	56 28.80	-1.8				
BGF	83.90	337 eP	38 41.20	0.2	VAY	1.25	88 iPn	40 55.80	-1.1	SMY	70.52	355 eP	56 35.20	-1.7				
	0.6s	9.00nm		5.0mb	PVY	1.48	332 ePg	41 01.00	0.5	BLP	76.17	46 P	57 10.00	0.7				
PCP	84.01	333 P	38 42.03	0.4			iSg	40 56.80		GCC	76.47	44 eP	57 11.00	0.0				
BNI	84.15	334 P	38 43.00	0.6			eSg	41 21.20		PCC	76.49	43 eP	57 10.90	-0.1				
RRL	84.23	334 P	38 42.96	0.0	TTG	1.68	313 ePn	41 03.30	0.0	PRS	76.49	44 ePc	57 11.50	0.4				
MAF	84.29	337 iPc	38 42.90	0.0			eSn	41 26.30		NWRM	76.72	42 P	57 12.50	0.2				
	0.6s	10.80nm		5.1mb	KKB	1.73	70 iPd	41 04.00	0.0	BCH	76.73	46 P	57 13.10	0.5				
TCF	84.33	337 eP	38 42.70	-0.4	IVA	1.75	335 ePn	41 04.50	0.1	BRK	76.79	43 eP	57 12.00	-0.6				
FIN	84.42	333 P	38 43.06	-0.5			eSn	41 28.00		BKS	76.80	43 iPc	57 12.90	0.1				
ROB	84.45	333 P	38 43.67	-0.1	MMB	2.14	81 eP	41 12.00	2.0		0.8s	59.00nm		5.1mb				
MNS	84.48	329 P	38 42.00	-1.9	VTS	2.15	52 iP	41 10.00	-0.3	PRI	76.86	45 ePc	57 13.70	0.3				
PZZ	84.51	333 P	38 42.65	-1.5	PLE	2.33	332 ePn	41 13.00	0.2	PHAM	76.87	45 P	57 13.50	0.3				
ENR	84.65	333 P	38 42.96	-1.9	BRY	2.39	313 ePn	41 14.00	0.4	MHC	76.88	43 ePc	57 13.70	0.3				
MFF	84.65	339 eP	38 45.00	0.3			eSn	41 46.00		LLA	76.94	44 eP	57 13.90	0.4				
	0.8s	24.20nm		5.4mb	PGB	2.74	61 eP	41 17.00	-1.6	ARN	76.96	44 P	57 14.20	0.5				
STV	84.67	333 P	38 44.08	-0.9	RZN	2.89	81 eP	41 23.00	2.2	ABL	77.14	47 P	57 14.40	-0.6				
RJF	85.42	337 eP	38 48.30	-0.3	KDZ	3.40	82 iP	41 37.00	9.0X	FHC	77.43	40 eP	57 16.60	0.5				
	0.8s	10.75nm		5.1mb						FRI	77.97	45 eP	57 19.00	0.0				
CAF	85.62	337 eP	38 49.90	0.3						PLM	78.03	49 P	57 20.00	0.3				
	0.9s	13.90nm		5.2mb						PEC	78.09	48 P	57 20.00	0.2				
LRG	85.68	334 eP	38 49.70	-0.2						CMB	78.10	43 ePc	57 19.70	-0.1				
	0.5s	7.30nm		5.1mb						WDC	78.18	40 eP	57 20.20	0.1				

DRV	78.24	42 eP	57 20.00	-0.4	TNS	147.14 351 ePKPc	04 59.20	3.5X	LRG	154.06 351 iPKPc	05 16.80	10.8X
KDC	78.42	14 ePc	57 20.40	-0.5	KHC	147.17 345 PKP	04 56.50	0.7		0.7s	8.80nm	
KVN	80.15	44 P	57 30.60	-0.1			04 59.50		BCAO	158.36 234 ePKPd	05 12.80	0.4
TNP	80.22	45 P	57 31.80	0.7	GRF	147.18 348 iPKPc	04 59.60	3.9X		0.5s	5.00nm	
	1.0s	23.33nm		4.6mb		e	05 02.50		KIC	167.26 153 PKP	05 20.80	0.1
BMW	81.29	35 P	57 36.20	0.0	SNF	147.29 356 PKP	04 59.20	3.4X		S.D. = 0.8	on 108 of 181 obs.	
GMW	82.18	35 P	57 41.00	0.4		ic	05 02.20					
TTA	82.47	10 iPc	57 41.70	-0.1	DOU	147.68 356 PKP	05 00.30	3.8X		APR 08, 1990	10h 02m 58.24± 0.46s	
PMR	82.63	14 iPc	57 41.60	-0.9	GWf	148.48 352 PKP	05 02.48	4.6X		38.420 N ± 4.9km	21.779 E ± 4.7km	
	0.9s	56.20nm		5.1mb	FUR	148.61 347 iPKPc	05 03.00	4.9X		DEPTH = 10.0km	(geophysicist)	
MCW	82.84	34 P	57 45.00	1.1		i	05 08.50			3.6mb (2 obs.)		
BJI	83.40	316 eP	57 47.50	0.7	BHG	148.66 345 iPKPd	05 03.20	5.1X		GREECE		(364)
	1.5s	39.00nm		4.8mb		i	05 09.10			ML 3.3 (ATH).		
TOA	83.77	15 ePc	57 48.20	-0.1	VTs	148.97 327 iPKP	04 56.00	-3.0X				
MSU	83.88	46 P	57 50.50	0.9	WLS	149.06 352 PKP	05 03.85	5.1X	VLS	0.97 256 ePg	03 16.00	-0.6
PNT	84.93	34 ePc	57 54.00	-0.1	CDf	149.08 352 PKP	05 03.81	5.0X		eSb	03 32.50	
	0.7s	27.00nm		5.0mb	FLN	149.11 2 iPKPc	05 03.50	4.8X	ITM	1.24 175 ePg	03 21.40	0.0
NEW	85.72	36 P	57 57.60	-0.4		0.5s	22.60nm			eSn	03 41.90	
	1.0s	15.00nm		4.6mb	KBA	149.13 344 iPKPc	05 03.40	4.3X	NEO	1.43 51 ePb	03 24.00	-0.3
MA	85.77	10 ePc	57 57.20	-0.8		0.4s	18.60nm		ATH	1.59 106 ePb	03 26.00	0.3
	0.6s	5.50nm		4.4mb		i	05 06.70		VLI	1.93 151 ePb	03 31.70	0.2
FBA	85.83	13 iPc	57 56.90	-1.2		i	05 14.20		KEK	2.01 311 ePn	03 34.60	2.0
PTI	85.83	43 P	57 59.60	0.8	ECH	149.28 352 PKP	05 04.13	5.0X	OHR	2.79 345 ePn	03 47.50	3.7X
ALO	86.41	52 eP	58 01.90	0.1	LDF	149.29 2 iPKPc	05 04.00	5.0X	VAY	2.96 12 ePn	03 46.00	-0.1
	1.0s	11.75nm		4.6mb		0.5s	18.95nm		APE	3.27 113 ePn	03 50.40	-0.1
		e	00 02.00		VITF	149.42 354 PKP	05 04.52	5.3X	MMB	3.50 25 eP	03 55.00	1.2
ANMO	86.41	52 P	58 01.90	0.1	GRR	149.47 3 iPKPc	05 04.70	5.4X	LCI	3.53 304 P	04 01.00	6.9X
	1.0s	11.25nm		4.6mb		0.4s	17.75nm		SKO	3.56 356 ePn	03 54.00	-0.6
LRM	87.21	40 eP	58 05.30	-0.2	FEL	149.50 351 PKP	05 04.66	5.1X	VAM	3.58 146 ePn	03 55.00	0.1
IMW	87.23	42 P	58 06.20	0.5	HAU	149.59 353 iPKPc	05 05.10	5.6X	KKB	3.58 16 eP	03 55.00	0.0
BW06	87.62	44 P	58 07.00	-0.4		0.5s	15.30nm		RZN	3.97 34 eP	04 00.00	-0.6
GOL	89.15	48 P	58 15.50	0.9	RBL	149.65 343 PKP	05 04.00	4.3X	RDO	3.97 46 ePn	04 02.10	1.6
	1.0s	22.50nm		5.0mb	BSF	149.71 352 PKP	05 05.02	5.2X	ROI	4.22 287 P	04 03.00	-1.1
GLD												

PWA	1.37	203	eP	24	13.85	0.3		1.0s	23.75nm	4.6mb		0.6s	10.00nm	4.9mb	
TOA	1.45	123	eP	24	15.62	0.8			eS	18 52.00		KKN	46.58 276 P	01 19.20 -0.3	
PAX	1.51	86	eP	24	15.72	0.1	CHTO	6.62	139 ePn	16 57.20 -0.6			0.6s	13.00nm	5.0mb
			eS	24	34.86				ePg	17 24.30		DMN	46.80 276 P	01 20.80 -0.5	
DDM	1.58	55	eP	24	17.52	1.0	KMI	7.75	79 Pgc	17 15.50 1.9		GKN	47.01 277 P	01 22.60 -0.3	
			eS	24	38.10				Sg	18 21.00		MTN	49.27 191 iPd	01 39.80 -0.3	
SKT	1.59	235	iP	24	16.42	-0.2	KMI	7.75	79 Pgc	17 42.00 28.4X		WB5	55.81 186 eP	02 28.00 -0.8	
WRH	1.59	11	iP	24	15.73	-0.9			Sg	18 47.00		INK	55.87 27 eP	02 29.00 0.3	
			eS	24	34.11		BDT	7.91	146 eP	17 47.20 31.6X		WRA	55.88 186 Pd	02 27.70 -1.5	
NEA	1.68	355	eP	24	16.70	-1.1		1.0s	358.80nm				0.6s	3.40nm	4.6mb
			eS	24	36.15		GUN	8.61	300 P	17 25.00 -0.6		HYB	56.96 268 eP	02 36.50 -0.7	
HDA	1.70	28	eP	24	17.40	-0.8	PKI	8.85	296 P	17 27.70 -1.1		MBC	57.87 16 eP	02 43.00 0.2	
			iS	24	37.75		KKN	9.04	297 P	17 30.60 -0.7		GBA	59.92 265 P	02 56.60 -1.2	
PMS	1.72	193	eP	24	19.24	0.8	DMN	9.12	296 P	17 30.80 -1.6			0.7s	9.20nm	5.0mb
			eS	24	41.95		LOE	9.45	132 ePn	17 37.00 0.4		MBL	59.93 202 iPd	02 57.20 -0.4	
SUA	1.73	213	eP	24	19.26	0.6			ePg	18 03.00			0.3s	2.00nm	4.7mb
			eS	24	41.21				eSg	19 46.00		KEV	63.98 339 eP	03 18.00 -6.2X	
CCB	1.79	13	iP	24	18.25	-1.1	GKN	9.65	297 P	17 37.90 -1.6		YKA	65.32 30 eP	03 32.10 -0.8	
			eS	24	38.67		NST	9.81	145 eP	18 11.00 29.5X			0.8s	2.10nm	4.2mb
KLU	1.95	136	eP	24	21.75	0.0	NNT	12.34	155 eP	18 27.00 11.7X		SOD	65.45 337 iP	03 32.80 -0.9	
			eS	24	46.15		NDI	16.08	291 eP	19 06.00 2.3		DAG	66.72 355 iPc	03 41.00 -0.7	
FBA	2.04	12	iP	24	21.84	-1.0			eS	21 49.00			0.8s	7.46nm	4.7mb
			eS	24	44.77		HYB	16.11	249 iPd	19 09.70 5.7X		SUF	68.37 333 eP	03 51.30 -0.9	
VZV	2.13	150	eP	24	24.20	0.0		1.0s	40.00nm	4.5mb			0.6s	3.00nm	4.4mb
GLI	2.19	158	eP	24	24.44	-0.5	SNG	17.66	159 eP	19 50.30 27.0X		NUR	70.29 332 iP	04 03.30 -0.7	
NCG	2.20	228	eP	24	26.02	0.8	GBA	18.97	240 Pd	19 39.50 0.7			i	04 16.60	
CGLM	2.22	225	eP	24	27.17	1.7		0.9s	7.40nm	4.0mb		WDC	72.67 52 eP	04 20.00 1.4	
SPU	2.33	223	eP	24	27.64	0.7	POO	19.82	258 eP	19 50.50 2.7		ORV	73.90 53 eP	04 26.60 0.8	
SLKM	2.51	197	eP	24	30.35	0.8			iS	23 21.20		HFS	74.53 335 eP	04 27.90 -1.1	
GLB	2.75	120	iP	24	32.88	-0.1	IPM	20.24	160 ePd	19 54.00 1.9			1.3s	24.00nm	5.0mb
SEW	2.84	187	eP	24	34.50	0.4			e	20 20.10		NB2	74.67 337 P	04 29.20 -0.7	
RDT	2.92	218	eP	24	35.71	0.4	KOD	21 05 233	eP	20 04.00 3.4X			0.6s	3.20nm	4.4mb
TGL	3.55	125	eP	24	42.53	-1.7	MAT	39.64	61 eP	23 33.00 46.6X		FFC	75.24 32 eP	04 33.00 -0.2	
CNPM	3.60	208	eP	24	44.82	-0.1	NANU	50.55	154 eP	24 13.50 0.4			0.9s	15.00nm	4.9mb
	32 obs. associated								e	24 40.00		CMB	75.47 54 eP	04 36.30 1.4	
	APR 08, 1990 14h 03m 09.56± 0.32s						MBL	51.18	149 iPd	24 17.70 -0.3		LRM	75.74 43 eP	04 37.80 1.2	
	15.400 N ±10.1km 147.721 E ± 8.4km							0.4s	6.00nm	5.0mb		PRS	75.77 55 eP	04 38.10 1.5	
	DEPTH = 33.0km (normal)						WB5	58.42	135 iPc	25 09.80 -0.8		FRI	76.50 54 eP	04 41.50 0.9	
	4.4mb (2 obs.)						WRA	58.45	135 Pc	25 09.70 -1.1		FRB	78.06 13 eP	04 49.00 0.3	
MARIANA ISLANDS REGION (215)								0.6s	11.60nm	5.2mb		CLL	81.39 329 iPd	05 06.90 0.1	
							SUF	59.07	330 eP	25 14.90 0.3		PRU	81.73 328 eP	05 08.50 -0.1	
GUA	3.29	236	eP	04 00.60	0.6		MUN	59.34	158 eP	25 16.10 -0.7		KHC	82.79 328 P	05 15.10 0.9	
			eS	04 38.20				e	25 42.00			PRNI	83.47 303 eP	05 19.00 1.0	
GUMO	3.30	237	eP	04 00.50	0.4	COOL	60.21	153 eP	25 21.80 -0.9		WBH	83.90 302 eP	05 21.00 0.9		
PJG	3.30	237	e(P)	03 59.20	-0.9	NWAO	60.56	158 eP	25 24.00 -1.0		ZOBO	148.26 59 PKP	12 36.00 2.1X		
MAT	22.70	340	(P)	08 12.00	2.4	UPP	63 02 327	iP	26 07.30 26.1X		CCH	150.40 58 ePKP	12 40.00 3.2X		
BJI	36.85	318	eP	10 15.00	-1.6			i	26 34.70		SIV	152.69 49 PKP	12 48.20 8.4X		
	1.5s	13.00nm				KSP	64.44	317 eP	26 24.00 33.3X			S.D. = 0.9 on 44 of 48 obs.			
	Z	24s	0.32um			HFS	64.98	327 eP	25 54.00 0.0			? APR 08, 1990 17h 23m 21.98± 4.96s			
WB5	37.44	201 eP	10 22.10	0.4		PRU	65.67	316 eP	26 26.50 27.9X			44.783 N ± 7.5km 6.391 E ±38.8km			
INK	71.65	23 eP	14 29.00	-0.5		NB2	66.11	328 P	26 01.30 0.0			DEPTH = 10.0km (geophysicist)			
YKA	79.98	28 eP	15 15.30	-1.5			0.9s	2.60nm	4.2mb		FRANCE	(538)			
	0.9s	2.10nm				KHC	66.42	315 eP	26 30.90 27.4X			ML 1.9 (GEN).			
PNT	80.20	42 eP	15 18.00	-0.3		SLR	80.72	237 iPc	27 55.70 28.7X		RRL	0.31 64 P	23 28.81 0.3		
ORV	80.95	52 eP	15 22.40	0.0			0.7s	27.40nm				S	23 31.46		
PRS	81.76	55 eP	15 27.10	0.4		INK	81.65	16 eP	27 57.00 26.1X		PZZ	0.58 119 P	23 34.38 0.6		
LLA	82.03	54 eP	15 28.60	0.5		YKA	90.89	13 eP	28 34.80 18.4X			S	23 40.00		
CMB	82.14	53 eP	15 29.10	0.4			0.5s	0.30nm			RSP	0.72 59 P	23 35.38 -0.8		
PRI	82.36	55 eP	15 30.80	0.8		BAO	143.70	276 ePKP	35 12.50 23.6X			S	23 42.38		
FRI	82.91	54 eP	15 32.90	0.3		ZOBO	161.88	291 PKP	35 43.00 28.3X		STV	0.86 129 P	23 38.00 -0.6		
EDM	83.06	37 eP	15 33.00	-0.2			S.D. = 1.3 on 24 of 41 obs.				LSD	0.86 38 P	23 39.17 0.4		
CLC	84.85	54 eP	15 42.00	-0.6			APR 08, 1990 15h 52m 55.89± 0.59s					S	23 49.23		
MWC	84.90	56 eP	15 43.00	0.0			35.989 N ± 6.4km 139.904 E ± 5.5km				ENR	0.92 127 P	23 39.84 0.2		
SBB	84.96	56 eP	15 43.00	-0.2			DEPTH = 64.0 ± 4.6 km					S.D. = 0.7 on 6 of 6 obs.			
RVR	85.51	56 eP	15 42.00	-3.8X			4.8mb (12 obs.)					* APR 08, 1990 17h 35m 27.03± 0.73s			
GSC	85.61	55 eP	15 46.00	-0.4			NEAR S. COAST OF HONSHU, JAPAN (230)					15.254 S ±19.6km 72.606 W ±12.3km			
LRM	85.79	44 eP	15 47.50	0.2		KAKJ	0.31	45 P	53 04.90 -1.7			DEPTH = 33.0km (normal)			
GLA	87.81	56 eP	15 57.00	-0.2				S	53 10.80			3.6mb (1 abs.)			
KIC	145.19	306 PKP	22 46.10	-0.3		CHJJ	0.74	275 P	53 10.30 -0.8		SOUTHERN PERU (117)				
	1.0s	23.00nm						S	53 20.60		ARE	1.61 138 eP	35 54.00 0.2		
TIC	145.23	307 PKP	22 46.12	-0.4				S	53 20.60			iS	36 18.00		
LIC	145.50	307 PKP	22 47.00	0.1		NIIJ	1.44	330 P	53 19.90 -0.4		PT03	3.33 292 eP	36 17.30 -0.8		
ZOBO	145.53	96 PKPc	22 48.50	0.9		MAT	1.48	292 iPd	53 20.90 0.1			eS	36 52.70		
LPB	145.57	97 PKP	22 43.00	-4.5X				eS	53 38.00		PT02	4.37 301 eP	36 33.70 0.8		
SIV	152.28	95 PKP	23 04.60	7.2X		IIDJ	1.70	253 P	53 25.70 1.8			eS	37 30.10		
	S.D. = 0.8 on 26 of 29 obs.								S	53 50.90		ZOBO	4.43 104 P	36 42.80 8.5X	
	APR 08, 1990 15h 15m 21.25± 0.83s						MTMJ	1.80	290 P	53 25.80 0.5		LPB	4.52 107 P	36 46.00 10.6X	
	23.877 N ±11.0km 94.341 E ± 8.4km						TSRJ	3.22	263 P	53 46.70 1.6		PT08	5.04 310 iPc	36 42.90 0.2	
	DEPTH = 84.5 ± 10.5 km						WKYJ	3.95	245 P	53 55.70 0.3			eS	37 58.00	
	4.5mb (7 obs.)						TKSJ	5.21	249 eP	54 13.40 0.3		SIV	11.14 95 (P)	38 07.00 -0.1	
BURMA-INDIA BORDER REGION (294)							YONJ	5.31	263 eP	54 15.00 0.5		YKA	84.18 342 eP	47 55.70 -0.2	
						BJI	19.11	289 eP	57 16.00 -0.4			0.6s	0.30nm	3.6mb	
SHL	2.80	307 iP	16 06.00	1.1		GUN	46.05	276 P	01 15.40 -0.1			S.D. = 0.7 on 6 of 8 obs.			
		eS	16 32.40				0.8s	16.00nm	5.0mb						
CHG	6.62	139 iPc	16 57.00	-0.8		PKI	46.57	276 P	01 19.00 -0.6						

& APR 08, 1990 17h 48m 47.38s
62.630 N 151.113 W
DEPTH = 98.0km
2.7mb (1 obs.)
CENTRAL ALASKA (1)
<AGS-P>

CUT	0.45	120	iP	49 02.69	-0.1
			eS	49 13.56	
SKT	0.68	197	iP	49 04.50	-0.2
			eS	49 17.19	
HUR	0.76	62	iP	49 05.18	-0.3
			eS	49 18.46	
KTH	0.93	5	iP	49 07.03	-0.2
			iS	49 20.88	
PWA	1.14	149	iP	49 09.55	0.0
			eS	49 26.50	
SUA	1.18	171	eP	49 10.09	-0.1
			iS	49 27.11	
RND	1.29	52	iP	49 11.12	-0.3
			iS	49 28.45	
NCG	1.33	202	iP	49 11.54	-0.3
			eS	49 30.09	
GHO	1.34	129	eP	49 12.15	0.1
			eS	49 31.48	
PLRM	1.40	137	eP	49 12.18	-0.4
			eS	49 32.27	
CRP	1.45	200	eP	49 13.47	0.0
			eS	49 32.25	
SPU	1.52	197	eP	49 14.10	-0.1
			eS	49 34.75	
SML	1.54	121	eP	49 14.62	0.1
PMS	1.57	151	eP	49 14.57	-0.3
NKA	1.89	182	eP	49 21.27	2.3
NCA	2.10	106	eP	49 21.42	-0.4
RDT	2.15	197	eP	49 22.99	0.5
NEA	2.16	24	eP	49 21.47	-1.0
SLKM	2.17	168	eP	49 22.60	-0.1
WRH	2.29	35	iP	49 23.48	-0.8
RED	2.36	200	eP	49 25.43	0.2
TOA	2.36	101	eP	49 25.40	0.1
CCB	2.51	35	iP	49 26.26	-0.9
RDS	2.57	30	iP	49 27.44	-0.6
HDA	2.58	44	eP	49 27.34	-0.8
GLI	2.60	131	eP	49 27.40	-1.0
PAX	2.62	80	eP	49 28.67	-0.1
SVW	2.63	236	iP	49 28.38	-0.4
DDM	2.65	62	iP	49 29.45	0.3
SEW	2.66	162	eP	49 29.61	0.4
VZW	2.68	124	eP	49 28.65	-0.8
KLU	2.70	113	iP	49 28.50	-1.3
FBA	2.71	31	iPd	49 29.00	-1.0
	0.6s		29.56nm		
GLM	2.89	33	eP	49 31.66	-0.7
CNPM	3.12	181	eP	49 35.98	0.5
PDB	3.22	209	eP	49 36.54	-0.3
DOT	3.36	69	eP	49 38.07	-0.7
CDD	3.91	200	eP	49 46.92	0.5
YKA	16.69	74	eP	52 36.20	0.1
	0.8s		0.40nm		
	39 obs.		associated		

APR 08, 1990 19h 13m 51.32±0.18s
30.058 N ± 3.3km 99.279 E ± 3.6km
DEPTH = 10.0km (geophysicist)
5.2mb (41 obs.) 4.2Msz (2 obs.)
SICHUAN PROVINCE, CHINA (307)

KMI	5.80	147	ePn	15 19.00	-0.6
SHL	7.93	237	iP	15 48.00	-1.6
			eS	17 13.20	
CHG	11.20	182	ePd	16 35.90	1.4
	1.0s		23.50nm		5.5mb
			eS	19 40.00	
CHTO	11.20	182	eP	16 35.10	0.6
GUN	11.93	263	P	16 43.80	-0.9
PKI	12.41	262	P	16 49.60	-1.6
	0.6s		15.00nm		5.4mb
KKN	12.47	263	P	16 50.80	-1.1
	0.4s		9.00nm		5.4mb
DMN	12.66	262	P	16 53.20	-1.3
	0.6s		28.00nm		5.7mb
LOE	12.79	169	eP	16 57.50	1.5
GKN	12.98	265	P	16 55.00	-3.6X
	0.4s		7.00nm		5.2mb
NST	14.34	177	eP	17 18.50	2.1

BJI	17.02	50	eP	17 51.00	0.1
	1.5s		813.00nm		5.6mb
NNT	17.39	179	eP	17 57.20	1.5
			e	22 52.00	
NDI	19.28	271	eP	18 18.00	-1.0
	0.6s		30.00nm		4.7mb
			iS	21 45.00	
ANP	20.28	98	eP	18 18.00	-12.0X
HYB	22.72	241	eP	18 54.50	-0.1
	1.0s		85.00nm		5.2mb
BAG	23.77	120	eP	19 06.00	1.0
IPM	25.40	176	ePd	19 22.90	2.4
POO	25.80	249	eP	19 24.00	-0.3
GBA	25.98	236	Pc	19 25.90	-0.1
	0.9s		33.30nm		5.0mb
BOM	26.46	251	eP	19 09.50	-20.9X
			eS	24 13.50	
KOD	28.33	230	eP	19 48.00	0.2
MAT	33.01	68	eP	20 26.00	-2.7
MAIO	33.70	291	eP	20 36.00	1.2
			eS	26 07.00	
BJA	42.90	277	eP	21 50.80	-1.0
	0.5s		37.00nm		5.4mb
BBU	42.97	277	eP	21 50.90	-1.4
	0.8s		143.00nm		5.8mb
BEE	42.97	277	iP	21 51.10	-1.3
	0.5s		90.00nm		5.8mb
TAB	44.09	295	eP	22 02.00	0.5
MSL	46.83	293	ePc	22 23.50	0.4
QASM	48.94	280	ePd	22 39.30	-0.6
HRI	53.43	291	eP	23 10.00	-3.8X
DSI	54.18	289	eP	23 20.00	0.9
BBTK	54.27	300	iPc	23 28.50	0.7
MBH	55.12	287	ePd	23 26.00	0.0
SOD	55.97	334	iP	23 32.60	0.9
KEV	56.01	336	iP	23 32.60	0.6
	0.7s		14.70nm		5.1mb
SUF	56.07	328	iP	23 32.70	0.2
	0.5s		17.80nm		5.4mb
NUR	56.85	325	iP	23 38.30	0.2
	0.7s		25.40nm		5.4mb
VRI	57.44	308	ePc	23 43.50	1.0
MLR	58.06	307	iPc	23 48.50	1.6
WB5	60.05	141	iPd	23 59.00	-1.9
WRA	60.09	141	Pd	23 57.70	-3.5X
	1.2s		59.00nm		5.6mb
UPP	60.41	325	iPd	24 03.10	0.2
PMG	60.47	123	eP	24 02.50	-1.4
SKO	62.08	304	iP	24 14.20	-0.2
HFS	62.30	326	eP	24 15.00	-0.7
	0.7s		24.50nm		5.5mb
Z	20s		0.29um		4.4Msz
			LR	51 45.00	
SRO	62.62	311	eP	24 18.50	0.6
NB2	63.28	327	P	24 21.70	-0.5
	0.9s		24.40nm		5.4mb
ZST	63.30	312	eP	24 22.90	0.5
MUN	63.75	164	eP	24 24.20	-1.3
COOL	64.07	159	eP	24 26.00	-1.7
PRU	64.41	315	P	24 29.50	-0.2
			e	25 04.00	
BRG	64.52	316	iP	24 30.40	0.0
	1.2s		22.00nm		5.2mb
			i	24 39.00	
			i	25 05.20	
NWAO	64.91	163	iPc	24 32.00	-1.1
	0.8s		25.00nm		5.5mb
CLL	64.96	316	iPc	24 33.90	0.7
KHC	65.26	314	P	24 36.00	0.7
WET	65.69	314	eP	24 38.90	0.8
KBA	66.06	312	eP	24 40.00	-0.6
	1.0s		11.60nm		5.0mb
RBL	66.12	311	P	24 46.50	5.6X
BRW	66.16	20	eP	24 40.40	-0.2
TDS	66.48	303	Pc	24 44.00	0.8
GRF	66.54	315	iPd	24 45.00	1.5
	0.9s		19.00nm		5.3mb
Z	19s		0.10um		4.0Msz
FVI	66.58	311	P	24 38.00	-5.7X
CZI	66.78	303	P	24 45.00	-0.1
SGO	66.91	305	Pc	24 45.50	-0.4
FUR	67.02	313	eP	24 47.50	1.0
NAI	67.07	254	iPd	24 43.50	-4.1X
DUI	67.13	306	P	24 47.00	-0.4
CTA	67.30	132	iPc	24 47.50	-1.1
	1.1s		31.65nm		5.4mb
CTI	67.51	311	P	24 48.50	-1.3

AZI	67.73	307	P	24 51.00	0.0
SFI	68.12	309	P	24 53.50	0.0
VDL	68.76	312	ePc	24 58.10	0.4
LLS	68.92	313	ePc	24 58.90	0.2
TMA	69.29	312	ePc	25 00.80	-0.1
CDF	69.42	315	eP	25 01.60	0.0
	0.9s		6.55nm		4.8mb
IMA	69.43	25	eP	25 00.90	-0.5
	1.4s		32.00nm		5.3mb
VAI	69.44	312	Pc	25 01.50	-0.1
BSF	69.95	314	eP	25 04.70	-0.1
	0.7s		5.50nm		4.8mb
HAU	70.15	315	eP	25 06.00	0.0
LPG	70.89	312	eP	25 11.40	0.5
	0.6s		12.65nm		5.2mb
LPL	70.90	312	eP	25 11.40	0.6
	0.7s		16.00nm		5.3mb
SVW	70.98	30	eP	25 11.10	0.3
BNI	71.12	312	P	25 13.00	0.9
MBC	71.23	9	eP	25 12.50	0.5
LMR	71.93	310	eP	25 16.80	0.1
LOR	71.99	315	eP	25 16.50	-0.6
	0.8s		3.35nm		4.5mb
LBF	72.04	314	eP	25 17.00	-0.4
	0.9s		7.35nm		4.8mb
FBA	72.14	24	ePd	25 17.20	-0.4
SMF	72.27	314	eP	25 18.60	-0.1
	1.0s		12.00nm		4.9mb
SSF	72.30	314	eP	25 18.70	-0.2
	0.9s		11.45nm		5.0mb
EKA	72.41	324	Pc	25 20.10	0.8
	1.0s		20.50nm		5.2mb
AVF	72.51	314	eP	25 20.10	0.0
	1.0s		23.00nm		5.2mb
PMR	73.44	28	eP	25 24.50	-0.7
	0.9s		37.50nm		5.5mb
TCF	73.44	314	eP	25 26.10	0.5
	1.1s		17.10nm		5.0mb
RMO	73.51	135	eP	25 26.00	-0.2
LDF	73.82	317	eP	25 27.90	0.2
	0.9s		9.85nm		4.8mb
KDC	74.03	32	eP	25 27.80	-0.9
CAF	74.13	313	eP	25 30.40	0.7
	1.1s		11.00nm		4.8mb
TOA	74.31	26	eP	25 30.70	0.3
LWI	74.33	258	iPd	25 31.10	-0.4
GRR	74.35	317	eP	25 31.00	0.2
INK	74.47	18	eP	25 31.00	-0.1
DLE	75.13	323	eP	25 36.30	1.1
DCN	75.48	324	eP	25 38.30	1.1
VAL	77.76	323	eP	25 52.00	2.1
YKA	83.85	15	eP	26 20.20	-1.8
	1.0s		4.40nm		4.6mb
FRB	86.02	355	eP	26 32.00	-0.8
SLR	87.74	239	iPd	26 42.10	0.1
	1.0s		15.00nm		5.3mb
BLF	91.18	237	eP	26 57.50	-0.6
EDM	92.34	19	iPc	27 04.00	0.9
FFC	93.60	12	eP	27 08.00	-0.8
	0.9s		13.00nm		5.3mb
PNT	93.71	24	ePc	27 10.00	0.6
WIN	94.65	247	eP	27 15.00	0.8
BAO	146.74	288	ePKP	33 33.00	-1.1
ZOBO	162.06	317	PKP	33 55.00	0.0
	1.0s		12.50nm		
	S.D. = 0.9		on 108 of 116 obs.		

APR 08, 1990 21h 11m 41.61±0.35s
51.104 N ± 8.4km 178.445 E ± 4.2km
DEPTH = 33.0km (normol)
4.8mb (17 obs.)

YKA	0.7s	12.00nm	4.9mb	8JI	16.06	109 eP	54 42.00	LSD	58.20	304 P	00 25.64	0.5
	36.67	46 eP	18 45.90		1.5s	26.00nm	54 20.00	RSP	58.33	304 P	00 23.90	-2.0
	0.5s	2.10nm	4.3mb		12s	1.15um	55 13.40	FIN	58.35	302 P	00 24.51	-1.4
BMW	37.83	74 eP	18 57.00			Lg	58 58.00	LPL	58.40	304 eP	00 26.90	0.3
LON	38.56	72 eP	19 04.00				55 13.40		1.0s	14.00nm		5.0mb
PNT	38.65	68 eP	19 03.00	GUN	20.91	207 P	55 13.40	LPG	58.40	304 eP	00 27.00	0.3
	0.6s	6.00nm	4.6mb		0.8s	38.00nm	55 16.40		1.0s	14.00nm		5.0mb
EDM	40.45	59 iP	19 17.50	KKN	21.21	208 P	55 16.40	ROB	58.49	303 P	00 26.05	-0.9
	0.5s	2.00nm	5.1mb	GKN	21.22	210 P	55 16.40	RRL	58.73	304 P	00 28.72	-0.2
NEW	40.60	68 eP	19 19.00	PKI	21.37	207 P	55 18.20	ENR	58.79	303 P	00 27.79	-1.3
	0.8s	14.58nm	4.8mb	DMN	21.43	208 P	55 18.80	STV	58.83	303 P	00 28.51	-0.9
WDC	41.39	81 eP	19 27.50	SHL	21.87	191 eP	55 22.80	LOR	58.94	307 eP	00 29.10	-0.9
ORV	42.64	81 eP	19 37.20	KMI	22.62	165 eP	55 31.50		0.6s	7.20nm		5.0mb
SES	43.03	62 eP	19 38.00	NDI	23.72	226 eP	55 43.00	LBF	59.04	307 eP	00 29.80	-1.0
BJI	43.73	281 eP	19 46.00	CHTO	28.40	175 eP	56 22.10		0.8s	8.05nm		4.9mb
CMB	44.25	82 eP	19 50.90	MAIO	29.27	262 eP	56 35.00	SSF	59.25	307 eP	00 31.60	-0.6
LRM	44.59	69 eP	19 51.80	GBA	37.02	211 Pc	57 39.40		0.6s	3.60nm		4.7mb
KVN	45.06	80 eP	19 56.00		0.8s	2.80nm	58 09.00	SMF	59.32	307 eP	00 32.10	-0.6
TNP	46.19	80 eP	20 06.00	KEV	39.67	329 eP	58 12.50		0.8s	6.70nm		4.8mb
CLC	47.38	83 eP	20 14.00	SUF	40.89	319 eP	58 22.30	AVF	59.50	307 eP	00 33.40	-0.5
SBB	47.96	84 eP	20 23.00		0.6s	4.10nm	58 22.30		0.7s	5.50nm		4.8mb
BW06	48.03	70 eP	20 19.20	NUR	42.10	316 iP	58 22.30	BGF	59.92	307 eP	00 36.30	-0.5
MWC	48.11	85 eP	20 25.00		0.6s	10.40nm	58 50.80		0.8s	6.05nm		4.8mb
GSC	48.20	83 eP	20 21.00	UPP	45.64	316 iP	58 50.80	LDF	60.23	311 eP	00 38.40	-0.5
DAU	48.43	74 eP	20 23.00	HFS	47.37	318 eP	59 03.70		0.6s	21.65nm		5.5mb
MSU	49.04	76 eP	20 28.00		0.6s	8.40nm	59 09.60	MAF	60.28	307 eP	00 39.30	0.0
PLM	49.43	85 eP	20 31.00		Z 15s	0.04um	59 12.00		0.8s	14.80nm		5.2mb
TPC	49.45	84 eP	20 31.00			LR	59 09.60	FLN	60.31	311 eP	00 39.00	-0.4
BAR	50.00	85 eP	20 36.00	NB2	48.12	319 P	59 13.40		0.6s	25.25nm		5.5mb
GLA	50.91	84 eP	20 41.00		0.6s	3.20nm	59 18.60	DLE	60.39	318 eP	00 39.60	-0.3
RSON	52.02	53 eP	20 47.90	KRA	48.47	303 iPd	59 22.00	TCF	60.43	307 eP	00 40.20	-0.1
	0.7s	7.79nm	4.8mb			e	59 22.00		0.7s	6.05nm		4.8mb
GOL	52.41	71 eP	20 53.50	BZS	49.64	297 eP	59 26.50	DCN	60.69	318 eP	00 41.90	0.0
	0.7s	19.42nm	5.2mb	KSP	50.15	306 iPc	59 26.50	GRR	60.74	311 eP	00 41.80	-0.5
LZH	53.79	285 eP	21 19.50	SRO	50.49	301 eP	59 19.40		0.6s	22.55nm		5.5mb
		pP	22 18.50			i	59 29.20	LSF	60.82	308 eP	00 42.20	-0.8
FRB	54.15	30 eP	21 14.00	ZST	51.00	302 eP	59 32.80		0.4s	2.30nm		4.7mb
ANMO	54.84	76 eP	21 11.30	BRG	51.42	307 iP	59 35.90	LPF	61.06	310 eP	00 44.40	-0.1
	0.8s	2.05nm	4.2mb		1.1s	14.00nm	59 37.00		0.6s	7.20nm		5.0mb
SOD	59.95	348 iP	21 45.30	PRU	51.54	305 P	59 37.00	RJF	61.43	307 eP	00 47.00	-0.1
TUL	60.59	68 eP	21 51.10			e	59 42.00		0.8s	8.05nm		4.9mb
	1.0s	11.70nm	5.0mb	SOP	51.58	302 eP	59 36.80	MFF	61.50	309 eP	00 47.40	-0.1
SUF	64.43	346 iP	22 16.10	CLL	51.72	307 iPc	59 38.30		0.6s	12.65nm		5.2mb
	0.6s	3.00nm	4.6mb		0.8s	15.00nm	59 43.40	LPO	62.00	306 eP	00 51.10	0.1
NUR	66.76	346 eP	22 32.70			i	59 44.50		0.6s	8.10nm		5.1mb
GBTM	67.36	61 eP	22 34.40	KHC	52.52	305 P	59 44.50	LFF	62.08	307 eP	00 51.70	0.2
NB2	67.74	353 P	22 36.20	MOX	52.81	307 eP	59 46.50		0.8s	18.80nm		5.3mb
	0.7s	3.10nm	4.5mb	WET	52.91	305 eP	59 47.50	YKA	67.91	15 eP	01 27.50	-1.3
HFS	68.44	352 eP	22 40.40		1.0s	21.00nm	59 52.40		0.7s	1.60nm		4.3mb
	1.9s	79.50nm	5.5mb	GRF	53.53	306 iPc	59 52.40	WRA	75.10	143 Pd	02 11.80	-0.5
SHL	68.45	284 eP	22 41.50		1.1s	26.00nm	59 53.80		0.7s	6.00nm		4.7mb
JSC	70.01	60 eP	22 51.00	KBA	53.75	303 iPc	59 53.80	EDM	76.82	18 ePd	02 22.20	0.5
GUN	70.34	290 P	22 54.60		0.8s	16.70nm	59 56.40	FFC	77.28	11 iPc	02 24.20	0.0
	0.6s	15.00nm	5.2mb			i	00 18.30		0.7s	13.00nm		5.1mb
KKN	70.78	290 P	22 57.20			i	00 18.30	ASPA	78.27	145 eP	02 29.90	-0.1
PKI	70.87	290 P	22 57.60	RBL	53.97	302 Pc	59 54.50		0.8s	12.00nm		5.0mb
GKN	71.00	291 P	22 58.20	FUR	54.33	305 eP	59 58.00	BCAO	78.43	264 iPc	02 30.20	-1.0
	0.8s	17.00nm	5.2mb	FVI	54.34	303 P	59 57.00		0.8s	14.00nm		5.1mb
DMN	71.02	290 P	22 59.20	MBC	54.72	10 eP	59 59.50			ic	02 35.00	15km
QUE	79.15	305 eP	23 44.30	IMA	55.08	28 P	00 02.00	SES	79.97	17 eP	02 39.00	0.0
KHC	79.31	350 eP	23 51.80		0.8s	4.31nm	00 03.90	RSON	81.94	6 P	02 47.80	-1.5
WB5	80.57	222 eP	23 50.80	OGA	55.19	304 iPc	00 03.90		0.6s	6.04nm		4.8mb
WRA	80.64	222 Pd	23 51.10		0.8s	16.00nm	00 02.50	ORV	87.29	28 P	03 17.00	0.6
	0.5s	3.00nm	4.5mb	CTI	55.30	302 P	00 11.00	RSSD	87.31	14 P	03 16.50	-0.3
KBA	81.36	350 iPd	23 55.00	DUI	56.15	297 P	00 11.50	KVN	88.81	26 P	03 24.90	0.9
	0.6s	4.60nm	4.6mb	TDS	56.16	294 Pd	00 11.50	GOL	91.35	17 P	03 36.50	0.6
		i	24 33.00	MGR	56.36	295 P	00 11.50		0.9s	5.30nm		4.9mb
HYB	82.67	289 eP	24 03.50	SFI	56.40	300 Pc	00 13.00	ANMO	95.72	19 P	03 57.20	1.2
SLR	145.94	307 ePKP	31 13.70	CDF	56.40	307 eP	00 12.20		0.9s	3.99nm		4.9mb
	0.8s	11.19nm			0.8s	8.05nm	00 14.10	ALO	95.72	19 eP	03 57.00	1.0
BFS	147.65	308 ePKP	31 21.00	PGD	56.50	300 P	00 14.10		0.9s	3.99nm		4.9mb
WIN	148.03	326 ePKP	31 28.00	CRE	56.51	300 P	00 10.00	ZOBO	146.56	332 PKP	10 11.00	0.0
BLF	149.76	306 ePKP	31 30.00	CZI	56.55	293 P	00 13.40		S.D. = 0.8 on 95 of 102 obs.			
				AZI	56.58	298 P	00 14.00					
S.D. = 1.0 on 58 of 67 obs.												
APR 08, 1990 21h 50m 29.35 ± 0.22s												
47.200 N ± 3.5km 96.278 E ± 4.6km												
DEPTH = 14.9km (5 depth phases)												
4.9mb (46 obs.)												
MONGOLIA (334)												
LZH	12.45	150 eP	53 30.00	PII	57.29	301 P	00 19.00					
	Z 12s	1.30um		ORX	57.63	304 P	00 19.79					
	N 10s	0.90um		FBA	57.70	27 P	00 21.10					
		pP	53 40.00		0.7s	6.98nm	00 15.90					
		Lg	56 27.50	PCP	57.95	303 P	00 19.79					
					0.8s	16.10nm	00 13.50					
					57.14	307 eP	00 17.50					
					0.8s		00 14.00					
					57.29	301 P	00 19.00					
					57.63	304 P	00 19.79					
					57.70	27 P	00 21.10					
					0.7s	6.98nm	00 15.90					
					57.95	303 P	00 19.79					
					0.8s		00 13.50					
					57.14	307 eP	00 17.50					
					0.8s		00 14.00					
					57.29	301 P	00 19.00					
					57.63	304 P	00 19.79					
					57.70	27 P	00 21.10					
					0.7s	6.98nm	00 15.90					
					57.95	303 P	00 19.79					
					0.8s		00 13.50					
					57.14	307 eP	00 17.50					
					0.8s		00 14.00					
					57.29	301 P	00 19.00					
					57.63	304 P	00 19.79					
					57.70	27 P	00 21.10					
					0.7s	6.98nm	00 15.90					
					57.95	303 P	00 19.79					
					0.8s		00 13.50					
					57.14	307 eP	00 17.50					
					0.8s		00 14.00					
					57.29	301 P	00 19.00					
					57.63	304 P	00 19.79					
					57.70	27 P	00 21.10					
					0.7s	6.98nm	00 15.90					
					57.95	303 P	00 19.79					
					0.8s		00 13.50					
					57.14	307 eP	00 17.50					
					0.8s		00 14.00					
					57.29	301 P	00 19.00					
					57.63	304 P	00 19.79					
					57.70	27 P	00 21.10					
					0.7s	6.98nm						

08d 22h

KKN	52.33	274	P	52	51.20	0.0
	0.8s	17.00nm			5.1mb	
PKI	52.37	273	P	52	51.20	-0.4
DMN	52.56	274	P	52	53.00	0.0
	0.8s	19.00nm			5.2mb	
GKN	52.66	274	P	52	52.80	-0.8
	0.4s	6.00nm			5.0mb	
YKA	54.65	34	eP	53	06.30	-1.3
	0.7s	2.00nm			4.3mb	
NEW	61.15	50	eP	53	53.60	0.1
	1.0s	6.50nm			4.7mb	
SES	63.06	45	eP	54	06.00	-0.2
FFC	64.54	37	eP	54	15.50	-0.2
	0.6s	10.00nm			5.0mb	
LRM	65.17	50	eP	54	20.40	0.2
WRA	65.45	194	Pd	54	21.50	-0.3
	0.7s	1.50nm			4.1mb	
KVN	66.16	58	eP	54	26.50	0.0
		pP			54 41.00	52km
GBA	67.00	267	P	54	32.00	0.1
	0.7s	2.70nm			4.4mb	
BW06	68.72	51	eP	54	42.10	-0.6
	0.9s	2.75nm			4.2mb	
NB2	69.16	339	P	54	43.40	-1.4
	0.7s	2.70nm			4.3mb	
HFS	69.28	338	eP	54	43.40	-2.0
	0.5s	2.10nm			4.3mb	
EKA	77.60	344	P	55	34.00	0.0
	0.5s	2.80nm			4.5mb	
DLE	80.18	345	eP	55	47.80	-0.2
LOR	83.36	337	eP	56	04.30	-0.5
	0.8s	4.05nm			4.5mb	
LBF	83.58	336	eP	56	06.30	0.4
	0.8s	5.35nm			4.6mb	
SSF	83.65	337	eP	56	06.80	0.6
	0.8s	4.05nm			4.5mb	
PRNI	83.89	307	eP	56	08.00	0.3
SMF	83.93	336	eP	56	07.50	-0.2
	1.0s	8.00nm			4.7mb	
AVF	83.94	337	eP	56	08.50	0.9
	0.8s	6.05nm			4.7mb	
LPL	84.08	334	eP	56	08.80	0.1
	0.7s	3.30nm			4.5mb	
LPG	84.09	334	eP	56	09.00	0.2
	0.6s	3.15nm			4.5mb	
BGF	84.29	337	eP	56	10.10	0.6
	0.8s	8.05nm			4.8mb	
MBH	84.38	307	ePc	56	11.00	0.8
MAF	84.68	337	eP	56	11.70	0.3
	0.6s	4.05nm			4.7mb	
CAF	86.01	337	eP	56	18.80	0.7
	0.8s	5.35nm			4.8mb	
LFF	86.36	338	eP	56	20.40	0.6
	0.8s	10.75nm			5.1mb	
LPO	86.47	337	eP	56	20.80	0.4
	0.6s	3.60nm			4.8mb	
S.D. = 0.7 on 34 of 35 obs.						

& APR 08, 1990 22h 51m 35.50s
 37.862 N 121.973 W
 DEPTH = 2.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.5 (BRK).
 Mo=3.3*10¹³ Nm (BRK).

BKS	0.21	274	iPc	51	39.70	0.0
		iS			51 43.70	
BRK	0.23	273	iPc	51	40.20	0.1
ZSP	0.24	290	iPc	51	40.60	0.3
PCC	0.49	222	iPd	51	44.80	-0.4
MHC	0.58	153	eP	51	47.40	0.3
		iS			51 57.90	
ARN	0.62	146	eP	51	48.00	0.1
GCC	0.83	181	eP	51	51.40	-0.7
CM8	1.27	82	eP	51	58.00	-1.8
KVN	3.26	67	eP	52	33.00	4.1
9 obs. associated						

* APR 08, 1990 23h 10m 41.28±1.22s
 23.392 N ± 8.4km 121.674 E ± 11.9km
 DEPTH = 14.7 ± 5.8 km
 3.3mb (1 obs.)

TAIWAN (244)						
TWF1	0.35	264	iPd	10	49.50	0.8
		eS			10 54.40	
TWD	0.69	354	iPc	10	54.80	0.4

TWG	0.79	224	iPc	10	55.90	-0.4
TWK	1.10	264	ePd	11	01.10	-0.4
TWO	1.17	319	ePc	11	02.40	-0.3
		eS			11 17.00	
TWC	1.22	7	eP	11	03.50	0.0
TWZ	1.70	357	ePc	11	10.00	-0.5
YKA	83.52	23	eP	23	10.00	0.4
	0.5s	0.10nm			3.3mb	
S.D. = 0.6 on 8 of 8 obs.						

* APR 09, 1990 00h 18m 55.14±0.90s
 15.367 N ± 12.2km 147.878 E ± 13.4km
 DEPTH = 33.0km (normol)
 4.1mb (4 obs.)

MARIANA ISLANDS REGION (215)

GUA	3.40	238	eP	19	48.00	0.8
		eS			20 20.50	
GUMO	3.41	239	eP	19	46.80	-0.5
PJG	3.41	239	eP	19	47.30	0.0
WB5	37.46	201	eP	26	07.40	-0.1
WRA	37.53	201	Pc	26	08.10	0.0
	0.6s	2.30nm			4.2mb	
LZH	44.26	306	eP	27	04.00	0.4
	2.5s	60.00nm			5.0mb	
CHTO	46.79	282	eP	27	23.10	-0.6
	0.8s	1.65nm			4.1mb	
YKA	79.94	28	eP	31	02.20	0.1
	0.6s	0.30nm			3.5mb	
S.D. = 0.5 on 8 of 8 obs.						

* APR 09, 1990 00h 53m 39.92±0.75s
 60.150 N ± 6.1km 6.068 E ± 8.3km
 DEPTH = 10.0km (geophysicist)

SOUTHERN NORWAY (535)
 MD 1.3 (BER).

ODD1	0.37	130	iPd	53	47.68	0.2
		iS			53 52.54	
ASK	0.55	308	eP	53	51.12	0.1
		eS			53 58.74	
HYA	1.02	3	iP	53	59.44	0.2
		eS			54 13.19	
KMY	1.03	204	iPd	53	59.22	-0.1
		iS			54 12.21	
MOL	2.53	16	eP	54	21.27	-0.4
		eSg			54 59.75	
NRA0	2.78	75	Pn	54	28.70	3.5x
		Lg			55 09.10	
S.D. = 0.4 on 5 of 6 obs.						

* APR 09, 1990 00h 57m 04.17±1.32s
 34.311 N ± 14.3km 25.047 E ± 12.1km
 DEPTH = 33.0km (normol)

CRETE (370)

VAM	1.30	328	eP	57	26.50	0.4
		eS			57 43.50	
KAP	2.14	54	eP	57	40.90	2.6
APE	2.78	8	eP	57	45.90	-1.4
VLI	2.95	325	eP	57	50.40	0.6
ITM	3.83	319	eP	58	02.00	-0.2
CIN	4.10	36	eP	58	05.00	-1.1
DSI	9.10	105	eP	59	15.00	-1.2
		eS			00 52.00	
PRNI	9.30	112	eP	59	19.00	0.0
MBH	9.49	116	eP	59	22.00	0.4
MSL	14.92	77	eP	00	48.00	13.7x
		eS			03 22.00	
S.D. = 1.4 on 9 of 10 obs.						

& APR 09, 1990 01h 12m 55.79s
 59.754 N 153.637 W
 DEPTH = 143.2km

SOUTHERN ALASKA (2)
 <AGS-P>.

PDB	0.28	277	iP	13	14.48	0.4
		eS			13 29.31	
AUL	0.39	164	iP	13	15.35	0.8
AUE	0.42	161	iP	13	15.40	-0.8
RED	0.80	33	eP	13	17.82	-0.8
		eS			13 35.30	
CDD	0.83	180	iP	13	17.50	-1.3
		iS			13 35.28	
RDT	1.03	36	iP	13	19.73	-0.8
		eS			13 37.96	

CNPM	1.24	100	eP	13	21.67	-0.8
		eS			13 41.12	
CKL	1.58	23	eP	13	25.53	-0.7
SPU	1.63	28	eP	13	26.01	-0.7
BGL	1.64	22	eP	13	26.17	-0.6
SVV	1.68	325	eP	13	25.85	-1.4
NCG	1.81	23	eP	13	28.52	-0.3
SLKM	1.87	65	eP	13	28.73	-0.7
SEW	2.14	79	eP	13	31.26	-1.3
PMS	2.51	52	eP	13	37.17	-0.1
15 obs. associated						

% APR 09, 1990 01h 17m 10.73±0.90s
 36.339 N ± 8.8km 3.648 W ± 7.6km
 DEPTH = 5.0km (geophysicist)
 STRAIT OF GIBRALTAR (385)
 mbLg 3.0 (MDD).

MAL	0.73	302	iPnc	17	23.40	-1.9
		iSg			17 32.00	
AFC	0.92	5	ePg	17	28.00	-0.8
		eSg			17 41.00	
EMEL	1.18	151	ePg	17	33.00	-0.2
		eSg			17 49.50	
ENIJ	1.31	61	ePn	17	35.30	-0.2
		eSn			17 50.00	
EPRU	1.42	297	ePn	17	37.60	0.4
		eSn			17 57.00	
EJIF	1.47	275	ePn	17	38.00	0.1
		eSn			18 00.00	
EBAN	1.82	357	ePn	17	43.50	0.5
		eSn			18 06.00	
EHOR	1.95	320	ePn	17	47.00	2.1
		eSn			18 10.80	
S.D. = 1.4 on 8 of 8 obs.						

? APR 09, 1990 01h 23m 38.95±0.73s
 27.569 N ± 13.0km 128.715 E ± 14.0km
 DEPTH = 33.0km (normol)
 4.0mb (5 obs.)

RYUKYU ISLANDS (238)

BJI	16.21	323	eP	27	31.00	5.3x
CHTO	28.66	259	e(P)	29	34.80	-0.1
	1.0s	2.00nm			3.8mb	
GUN	37.77	281	P	30	55.00	0.7
PKI	38.24	280	P	30	58.10	-0.1
KKN	38.31	281	P	30	59.90	1.2
DMN	38.50	280	P	30	59.40	-0.9
GKN	38.84	281	P	31	03.20	0.2
WB5	47.48	173	eP	32	11.80	-1.0
WRA	47.54	173	P	32	14.00	0.7
	0.5s	1.00nm			4.1mb	
KEV	68.35	338	eP	34	39.00	0.2
NUR	72.94	330	eP	34	47.00	-19.6x
YKA	77.13	25	eP	35	32.00	1.5
	0.7s	0.30nm			3.4mb	
HFS	77.84	332	eP	35	32.70	-1.7
	0.9s	6.10nm			4.6mb	
NB2	78.31	334	P	35	35.80	-1.3
	0.7s	1.80nm			4.2mb	
CLL	83.30	325	eP	36	04.00	0.4
S.D. = 1.1 on 13 of 15 obs.						

APR 09, 1990 02h 49m 34.16±0.59s
 22.884 N ± 4.3km 121.403 E ± 5.5km
 DEPTH = 36.1 ± 5.8 km
 4.7mb (14 obs.)

MCO	7.29	266	iP	51	21.10	0.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</
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09d 04h

ZST 9.97 341 e(P) 59 03.50 -1.4
FVI 10.25 322 P 59 13.20 4.5X
KBA 10.34 325 iPd 59 21.00 10.7X
1.4s 50.70nm
i 59 26.30
i 59 35.30
iS 01 01.20
i 01 09.30
i 01 12.60
CTI 10.45 317 P 59 08.50 -3.2X
eSn 01 01.00
KRA 11.28 353 eP 59 34.00 11.1X
KHC 11.89 332 Pd 59 29.60 -1.6
e 01 42.00
VAI 11.99 310 P 59 30.50 -1.9
PRU 12.31 337 eP 59 34.00 -2.7
Z 10s 0.80um
E 12s 0.60um
e 02 06.00
KSP 12.63 343 eP 59 47.50 6.6X
LPG 13.06 305 eP 59 50.60 3.6X
0.8s 4.05nm 4.5mb
LPL 13.08 305 eP 59 50.80 3.6X
0.6s 3.15nm 4.5mb
DSI 13.17 119 e(P) 59 48.00 -0.1
GRF 13.26 328 e(P) 00 01.00 11.7X
Z 15s 0.50um
BRG 13.27 337 eP 59 47.60 -1.8
e 01 05.80
MOX 13.86 332 e(P) 00 10.00 12.8X
CLL 13.94 336 eP 00 06.00 7.8X
MBH 14.01 126 eP 59 58.00 -1.2
LBF 15.44 308 eP 00 22.80 5.0X
0.8s 6.05nm 3.9mb
LOR 15.63 308 eP 00 25.40 5.1X
0.8s 3.35nm 3.6mb
SSF 15.76 307 eP 00 26.20 4.3X
1.0s 11.00nm 4.0mb
MEM 16.27 321 Pc 00 42.70 14.4X
UPP 21.20 354 iP 01 05.20 -20.2X
NUR 21.74 4 iP 01 32.30 1.5
0.7s 16.00nm 4.5mb
HFS 21.92 349 eP 01 33.50 0.8
0.6s 8.00nm 4.3mb
NB2 23.19 347 P 01 45.60 0.4
0.9s 15.10nm 4.5mb
EKA 23.54 323 P 01 49.00 0.5
1.0s 15.40nm 4.5mb
SUF 24.03 5 eP 01 53.30 0.1
0.6s 9.50nm 4.5mb
SOD 28.68 4 eP 02 38.00 1.8
BCAO 34.41 186 ePd 03 31.00 4.0X
0.6s 5.00nm 4.6mb
KIC 40.35 224 P 04 07.00 -9.9X
0.6s 3.00nm 4.2mb
LIC 40.62 224 P 04 09.10 -10.0X
0.6s 6.00nm 4.5mb
GKN 52.52 82 P 06 00.00 6.9X
FRB 56.17 328 eP 06 19.00 0.0
INK 71.58 351 eP 08 00.00 0.1
YKA 73.13 341 eP 08 09.40 0.3
0.7s 3.40nm 4.4mb
TUL 85.99 314 eP 09 21.00 2.2
1.5s 13.50nm 5.0mb
S.O. = 1.3 on 86 of 116 obs.

APR 09, 1990 05h 04m 26.44 ± 0.68s
38.890 N ± 6.9km 22.010 E ± 5.9km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.0 (THE). MD 3.0 (ATH).

AGG 0.28 62 ePd 04 32.70 0.3
eS 04 39.50
NEO 1.03 66 ePg 04 46.60 0.6
LIT 1.27 17 ePc 04 49.50 -0.4
eS 05 07.70
VLS 1.32 238 ePb 04 48.60 -2.3
eSb 05 08.60
IGT 1.45 297 ePd 04 53.50 0.8
eS 05 12.90
PAIG 1.66 51 ePc 04 54.70 -0.9
ITM 1.71 182 ePg 04 57.40 1.0
KEK 1.90 296 ePn 05 00.50 1.3
eSn 05 27.20
FNA 1.95 346 eP 04 59.60 -0.4

OUR 2.10 46 ePc 05 28.70 26.7X
eS 06 28.70
SOH 2.19 28 eP 05 02.80 -0.6
eS 05 31.40
OHR 2.41 338 ePn 05 07.00 0.5
VAY 2.47 10 ePn 05 07.20 -0.1
S.D. = 1.1 on 12 of 13 obs.

APR 09, 1990 06h 00m 08.65 ± 0.26s
15.709 N ± 5.9km 147.562 E ± 5.4km
DEPTH = 10.0km (geophysicist)
5.0mb (15 obs.) 4.4Msz (1 obs.)
MARIANA ISLANDS REGION (215)

GUA 3.35 230 e(P) 01 04.00 1.8
eS 01 41.60
GUMD 3.35 231 eP 01 02.10 -0.1
PJG 3.35 231 eP 01 02.20 0.0
MAT 22.36 340 eP 05 09.00 0.7
1.0s 47.00nm 4.9mb
eS 09 18.00
PMG 24.96 181 eP 05 34.00 0.2
BAG 25.93 275 eP 05 43.00 -0.2
BJI 36.52 318 eP 07 15.00 -1.2
1.5s 66.00nm 5.2mb
Z 24s 0.57um 4.3MszX
N 18s 0.84um

QIS 36.88 192 eP 07 18.00 -1.3
WB5 37.67 201 eP 07 24.70 -1.3
e 07 37.00 46kmX
WRA 37.74 201 P 07 38.00 11.4X
0.7s 9.70nm

ASPA 41.35 199 eP 07 56.10 -0.4
1.5s 19.00nm 4.6mb
KMI 42.87 290 Pc+ 08 11.50 2.2
LZH 43.81 306 Pc 08 17.50 0.8
2.0s 94.00nm 5.3mb
Z 20s 0.50um 4.4Msz

pP 08 38.00 85kmX
eS 14 48.00
NST 45.58 277 iPd 08 33.80 2.8
NNT 46.41 273 eP 08 35.40 -1.1
CHG 46.42 281 eP 08 38.00 0.4
CHTO 46.42 281 iP 08 38.00 0.4
1.1s 12.66nm 4.9mb

pP 08 45.80 26kmX
sP 08 50.80
ADE 51.09 189 iPc 09 25.40 11.9X
GUN 58.02 293 P 10 04.50 -0.3
PKI 58.45 293 P 10 06.90 -0.9
KKN 58.56 293 P 10 07.50 -0.9
DMN 58.72 293 P 10 08.90 -0.7
GKN 59.12 293 P 10 11.60 -0.6
IMA 63.29 23 eP 10 39.10 -0.7
BRW 64.55 17 eP 10 48.00 0.2
FBA 65.21 25 P 10 51.90 -0.3
0.8s 7.93nm 5.0mb

NDI 65.60 295 iP 10 55.00 -0.3
1.0s 30.00nm 5.4mb
HYB 65.83 282 eP 10 56.50 -0.4
GBA 67.59 278 Pc 11 07.10 -1.0
1.0s 8.40nm 4.9mb

INK 71.42 23 eP 11 30.00 -0.7
pP 11 42.00 40kmX
MBC 75.59 14 eP 11 55.50 0.5
1.0s 19.00nm 5.1mb

pP 12 07.00 38kmX
MAIO 79.35 305 eP 12 17.00 0.3
PNT 80.07 42 eP 12 21.00 0.8
PRS 81.71 55 eP 12 29.60 0.6
NEW 81.92 42 P 12 29.30 -0.6
0.8s 10.42nm 5.0mb

CMB 82.08 53 eP 12 31.50 0.5
FRI 82.85 54 eP 12 35.00 0.1
KVN 83.56 51 P 12 39.00 0.2
TNP 84.49 52 P 12 43.10 -0.4
0.7s 2.78nm 4.6mb

SES 85.13 39 eP 12 46.00 -0.3
KEV 85.31 342 eP 12 52.00 5.3X
LRM 85.67 44 ePd 12 49.60 0.3
SOD 86.76 341 iP 12 55.00 1.0
DAG 87.35 357 eP 12 56.50 -0.1
FFC 88.63 33 iPc 13 03.80 0.6
1.0s 16.00nm 5.3mb

SUF 89.57 337 eP 13 06.80 -0.7

0.9s 8.90nm 5.0mb
PV09 90.41 50 P 13 12.90 0.6
RSSD 91.85 43 P 13 18.50 -0.2
ALQ 93.69 52 eP 13 27.00 -0.3
1.0s 2.50nm 4.6mb
NB2 95.98 340 P 13 36.00 -1.2
1.0s 5.50nm 5.0mb
KIC 144.88 307 PKP 19 47.30 -1.3
TIC 144.92 307 PKP 19 47.28 -1.4
1.0s 42.50nm
LIC 145.19 307 PKP 19 48.32 -0.8
ZOBO 145.72 96 PKPc 19 52.00 1.3
1.2s 13.51nm
LPB 145.76 96 PKP 19 52.00 1.5
CCH 147.67 98 ePKP 19 54.00 0.5
SIV 152.46 95 PKP 20 01.60 1.2
S.D. = 0.9 on 54 of 57 obs.

& APR 09, 1990 06h 08m 47.36s
56.674 N 152.975 W
DEPTH = 34.3km
KODIAK ISLAND REGION (13)
<AGS-P>. ML 3.1 (PMR).

KDC 1.11 14 iPc 09 05.60 -1.0
CDD 2.29 351 eP 09 22.03 -1.6
eS 09 49.86
AUE 2.70 356 iP 09 28.05 -1.3
AUL 2.73 355 eP 09 28.90 -0.8
CNPM 3.01 17 eP 09 32.24 -1.5
eS 10 04.39

PDB 3.19 349 eP 09 33.35 -3.0
NNL 3.49 14 eP 09 39.32 -1.3
RED 3.76 2 eP 09 41.65 -2.8
SEW 3.91 27 eP 09 43.45 -3.1
RDT 3.92 4 eP 09 43.98 -2.8

SLKM 4.11 19 eP 09 46.62 -2.7
SDN 4.43 256 eP 09 51.50 -2.4
SPU 4.55 6 eP 09 52.66 -3.0
CKL 4.55 4 eP 09 52.76 -3.0
BGL 4.61 4 eP 09 54.00 -2.6
CRP 4.63 5 eP 09 54.74 -2.1

SVW 4.65 344 ePc 09 53.30 -3.8
CGLM 4.68 6 eP 09 54.65 -2.8
NCG 4.76 5 eP 09 55.95 -2.8
PMS 4.91 20 eP 09 57.81 -3.0
PMR 5.31 20 eP 10 02.10 -4.3

TOA 6.46 30 eP 10 19.80 -2.8
TTA 6.46 348 eP 10 18.60 -4.0
FBA 8.63 15 eP 10 48.00 -4.8
24 obs. associated

APR 09, 1990 06h 14m 10.74 ± 0.62s
38.895 N ± 6.8km 22.043 E ± 4.2km
DEPTH = 25.0 ± 4.5 km
3.8mb (1 obs.)
GREECE (364)
ML 3.5 (ATH).

AGG 0.26 60 ePd 14 16.20 -1.0
NEO 1.01 66 ePn 14 30.40 1.2
LIT 1.25 16 ePc 14 32.90 0.2
eS 14 50.80

VLS 1.35 238 ePn 14 29.10 -4.9X
IGT 1.47 296 ePc 14 34.30 -1.6
eS 14 55.90

ATH 1.61 125 ePn 14 40.00 2.2
PAIG 1.63 50 ePc 14 38.20 0.0
ITM 1.71 183 ePb 14 40.10 0.7
SRN 1.86 303 ePn 14 41.60 0.1

THE 1.87 22 eP 14 40.90 -0.8
KEK 1.92 296 ePb 14 43.10 0.7
FNA 1.96 345 eP 14 42.50 -0.4
eS 15 07.50

OUR 2.08 46 ePc 14 45.00 0.4
TPE 2.10 312 ePn 14 44.00 -1.0
SOH 2.17 27 eP 14 46.60 0.6
OHR 2.41 337 iPn 14 51.40 2.0
1.7s 0.59nm

iSg 15 23.50
BERA 2.42 319 ePn 14 51.70 2.2
VLO 2.52 309 ePn 14 51.10 0.2
SRS 2.52 28 eP 14 50.40 -0.5
TIR 2.96 326 ePn 14 58.20 1.1
MMB 2.98 25 iPc 14 58.00 0.5
iSg 15 36.00
PHP 3.05 337 ePn 15 00.50 2.2

LACI 3.27 328 ePn 15 02.00 0.5
 LCI 3.47 296 P 15 05.50 1.1
 RDO 3.50 49 ePn 15 03.90 -0.9
 PUK 3.55 333 ePn 15 06.90 1.4
 SDA 3.67 329 ePn 15 07.70 0.5
 KDZ 3.77 42 iPc 15 07.00 -1.7
 BCI 3.78 337 ePn 15 12.00 3.3X
 PLD 3.79 31 eP 15 13.00 4.1X
 VTS 3.80 13 eP 15 04.00 -5.2X
 PGB 3.99 23 eP 15 10.00 -1.8
 DIM 4.13 39 iP 15 14.00 0.3
 ORI 4.48 287 P 15 17.10 -1.7
 TDS 4.49 282 Pd 15 20.50 1.5
 JMB 4.96 43 eP 15 24.00 -1.6
 PVL 4.98 29 eP 15 22.00 -3.8X
 MGR 5.17 286 Pc 15 26.10 -2.4
 ATN 5.21 264 P 15 27.00 -2.1
 SGO 5.45 290 P 15 30.30 -2.2
 DUI 6.42 298 P 15 42.00 -4.3X
 SDI 6.89 297 P 15 53.50 0.8
 MLR 7.20 22 ePd 15 57.00 -0.1
 VRI 7.78 25 eP 16 05.00 -0.2
 YKA 73.12 341 eP 25 40.70 0.3

0.7s 0.70nm 3.8mb
 S.D. = 1.3 on 39 of 45 obs.

APR 09, 1990 06h 47m 52.36 ± 0.85s
 20.218 N ± 4.5km 145.100 E ± 5.0km
 DEPTH = 161.4 ± 8.5 km
 4.9mb (17 obs.)

MARIANA ISLANDS (216)

PJG 6.60 182 eP 49 28.80 0.7
 GUMO 6.60 182 eP 49 28.90 0.8
 1.3s 653.59nm 5.8mb
 GUA 6.64 182 eP 49 28.00 -0.7
 1.3s 1153.85nm 6.0mb X
 MAT 17.35 341 eP 51 46.00 -0.2
 0.8s 52.24nm 4.9mb
 MTN 35.62 204 eP 54 35.00 -1.4
 KNA 39.18 205 eP 55 05.80 -0.4
 LZH 39.34 303 eP 55 23.00 15.4X
 pP 55 43.00 83kmX
 OIS 40 88 188 iPc 55 19.60 -0.5
 WB5 41 21 195 iPc 55 22.30 -0.5
 WRA 41.28 195 Pc 55 22.90 -0.5
 0.6s 7.30nm 4.5mb
 NST 42.92 272 eP 55 40.50 3.6X
 ADK 43.37 34 eP 55 40.70 0.7
 CHG 43.42 276 eP 55 42.40 1.5
 CHTO 43.42 276 eP 55 41.90 1.0
 1.0s 4.50nm 4.0mb
 pP 56 13.90 143kmX

ASPA 44.96 195 iPc 55 52.10 -1.0
 0.4s 11.00nm 4.8mb
 SDN 53.54 35 eP 56 57.50 -0.7
 GUN 54.18 290 P 57 04.30 0.5
 PKI 54.63 290 P 57 07.00 -0.1
 KKN 54.72 290 P 57 07.70 0.1
 DMN 54.89 290 P 57 09.00 0.1
 GKN 55.26 291 P 57 11.50 0.1
 SVW 57.77 30 ePd 57 28.90 0.4
 KDC 58.45 34 eP 57 32.60 -0.6
 IMA 60.13 24 ePd 57 44.40 -0.4
 1.1s 15.60nm 4.8mb
 PMR 60.92 30 ePd 57 48.80 -1.2
 1.1s 40.60nm 5.2mb

BRW 60.99 18 ePd 57 50.50 0.1
 FBA 62.19 26 eP 57 57.20 -1.2
 TOA 62.39 30 eP 57 59.90 0.0
 INK 68.21 23 eP 58 36.00 -0.9
 MBC 71.83 15 ePd 58 58.70 0.0
 0.4s 8.00nm 4.8mb
 YKA 76.92 28 eP 59 27.20 -0.8
 0.5s 11.70nm 4.9mb
 PNT 78.28 42 eP 59 36.00 0.2
 WDC 78.86 51 eP 59 39.50 0.4
 ORV 79.93 52 eP 59 45.00 0.1
 NEW 80.18 42 P 59 46.40 0.4
 0.8s 28.13nm 5.0mb

GCC 80.33 54 eP 59 47.50 0.5
 EDM 80.71 37 ePd 59 49.00 0.3
 PRS 81.03 55 eP 59 51.30 0.6
 CMB 81.23 53 eP 59 52.30 0.5
 LLA 81.26 54 eP 59 52.40 0.5
 SOD 81.75 340 iP 59 50.30 -3.5X
 FRI 82.08 54 eP 59 56.40 0.3

KVN 82.59 51 P 59 59.40 0.4
 SES 83.11 39 ePd 00 01.70 0.5
 ISA 83.47 55 eP 00 03.00 -0.4
 TNP 83.57 52 P 00 04.50 0.5
 0.9s 8.79nm 4.6mb
 LRM 84.03 43 ePd 00 06.70 0.5
 CLC 84.08 54 eP 00 06.00 -0.4
 SBB 84.30 55 eP 00 07.00 -0.6
 SUF 84.52 336 iP 00 07.00 -1.0
 0.5s 8.80nm 4.8mb
 GSC 84.87 54 eP 00 10.00 -0.4
 RVR 84.89 56 eP 00 10.00 -0.5
 TPC 85.88 55 eP 00 15.00 -0.4
 BAR 85.91 57 eP 00 15.00 -0.6
 FFC 86.12 32 iPd 00 16.70 0.6
 1.0s 34.00nm 5.1mb

NUR 86.39 335 eP 00 16.70 -0.5
 GLA 87.22 56 eP 00 22.00 0.1
 HFS 90.77 338 eP 00 36.20 -1.8
 0.8s 2.20nm 4.3mb
 GOL 91.35 47 P 00 42.00 0.5
 1.0s 14.00nm 5.0mb
 RSON 92.44 33 P 00 46.30 0.4
 1.2s 16.03nm 5.0mb

ALQ 92.76 51 eP 00 48.00 0.1
 1.0s 5.25nm 4.7mb
 ARE 145.11 90 ePKP 07 14.00 0.8
 ZOBO 148.23 88 PKP 07 20.00 1.4
 1.0s 15.00nm

LPB 148.31 89 PKP 07 20.00 1.5
 CCH 150.31 90 ePKP 07 22.00 0.6
 S.D. = 0.7 on 62 of 65 obs.

? APR 09, 1990 07h 08m 41.22 ± 4.71s
 17.813 N ± 37.3km 61.656 W ± 16.6km
 DEPTH = 21.3 ± 8.3 km

LEEWARD ISLANDS (92)
 ML 3.8 (FDF).

BPA 0.79 194 iPd 08 56.07 -0.1
 S 09 06.00
 NEV 1.10 232 ePc 09 01.34 -0.1
 MGH 1.21 206 ePd 09 03.10 0.1
 S 09 18.80
 SEG 1.41 174 eP 09 05.75 0.0
 S 09 24.50
 SFG 1.61 164 eP 09 08.60 -0.1
 DOG 1.77 179 eP 09 10.90 -0.1
 S 09 34.30
 PAG 1.77 181 eP 09 10.95 -0.1
 S 09 34.20
 BBL 2.28 176 eP 09 18.60 0.2
 S.D. = 0.2 on 8 of 8 obs.

* APR 09, 1990 07h 09m 37.12 ± 0.97s
 18.089 N ± 7.5km 61.605 W ± 7.4km
 DEPTH = 10.0km (geophysicist)
 3.7mb (1 obs.)

LEEWARD ISLANDS (92)
 ML 3.8 (FDF).

CPB 0.49 205 eP 09 48.10 1.0
 eS 10 01.40
 BPA 1.06 193 eP 09 56.09 -1.1
 eS 10 10.21
 SKI 1.32 235 eP 10 01.60 0.1
 eS 10 16.74
 NEV 1.32 224 eP 10 01.44 -0.1
 eS 10 15.54
 BSK 1.39 238 eP 10 02.90 0.4
 eS 10 18.19
 MBET 1.44 202 eP 10 02.70 -0.6
 eS 10 17.97
 MGH 1.48 203 eP 10 03.08 -0.8
 eS 10 18.36
 MDN 2.76 176 eP 10 22.46 0.2
 eS 10 56.81
 DPMT 2.82 176 eP 10 24.11 1.0
 eS 10 58.76
 FDF 3.37 172 eP 10 30.50 -0.4
 0.2s 0.40nm

CRM 3.38 169 eP 10 31.00 0.0
 MYM 3.58 169 eP 10 34.15 0.3
 BIM 3.59 172 eP 10 34.10 0.1
 YKA 57.38 334 eP 19 27.70 0.0
 0.7s 0.60nm 3.7mb
 S.D. = 0.6 on 14 of 14 obs.

? APR 09, 1990 07h 21m 14.28 ± 3.99s
 2.341 S ± 36.7km 134.320 E ± 24.8km,
 DEPTH = 33.0km (normol)
 4.2mb (3 obs.)

WEST IRIAN REGION (196)

AAI 6.26 258 ePc 22 46.20 -0.6
 MTN 10.91 197 iPc 23 52.00 0.8
 eS 25 57.00
 KNA 14.40 202 eP 24 37.60 -0.3
 WB5 17.43 180 eP 25 17.00 0.3
 eS 28 40.10
 WRA 17.50 180 Pd 25 15.60 -1.9
 0.6s 2.10nm 3.4mb
 OIS 18.83 164 iPc 25 33.90 0.0
 eS 28 40.00
 ASPA 21.20 181 iPd 26 00.10 0.5
 0.8s 23.00nm 4.6mb
 Z 17s 0.64um 4.1mszX
 iS 29 58.80
 LR 35 01.70
 MBL 23.43 216 eP 26 23.00 1.4
 0.4s 4.00nm 4.3mb
 NANU 27.14 221 eP 26 56.30 -0.3
 S.D. = 1.1 on 9 of 9 obs.

* APR 09, 1990 07h 21m 56.89 ± 1.14s
 18.583 S ± 7.6km 71.421 W ± 10.9km
 DEPTH = 40.8 ± 11.6 km
 4.4mb (2 obs.)

OFF COAST OF NORTHERN CHILE (121)

ARE 2.11 358 iPd 22 30.60 -0.2
 iS 22 55.50
 LPB 3.77 58 iPc 22 55.10 0.6
 1.1s 531.65nm
 ZOBO 3.90 54 iPc 22 56.20 -0.2
 CCH 5.16 77 P 23 13.50 -0.6
 ANT 5.18 170 e(P) 23 14.00 0.0
 iS 24 10.80
 SIV 10.22 77 P 24 18.00 -6.1X
 BAO 22.58 86 eP 26 43.00 -12.3X
 TUL 58.91 337 eP 31 54.00 -0.2
 1.3s 3.40nm 4.3mb
 KIC 70.22 76 P 33 08.50 0.3
 EDM 80.14 336 iPc 34 04.40 0.3
 YKA 87.67 341 eP 34 41.80 -0.2
 0.7s 2.10nm 4.5mb
 S.D. = 0.5 on 9 of 11 obs.

* APR 09, 1990 07h 23m 01.61 ± 0.86s
 38.838 N ± 8.4km 22.057 E ± 10.3km
 DEPTH = 10.0km (geophysicist)

GREECE (364)

NEO 1.02 62 ePn 23 21.00 0.1
 VLS 1.33 241 ePn 23 22.00 -4.1X
 ITM 1.66 184 ePb 23 32.10 1.2
 KEK 1.96 297 ePn 23 34.60 -0.6
 VLI 2.23 161 ePn 23 38.00 -1.1
 OHR 2.47 337 e(Pn) 23 43.00 0.5
 S.D. = 1.3 on 5 of 6 obs.

APR 09, 1990 07h 47m 55.24 ± 0.60s
 38.791 N ± 6.0km 21.986 E ± 6.0km
 DEPTH = 40.5 ± 18.6 km
 3.3mb (1 obs.)

GREECE (364)
 ML 3.2 (ATH).

NEO 1.09 61 ePb 48 14.00 -0.3
 VLS 1.26 241 ePb 48 14.40 -2.2
 ATH 1.59 120 ePb 48 22.10 0.8
 ITM 1.61 182 ePb 48 23.00 1.4
 SRN 1.89 306 ePn 48 27.10 1.6
 KEK 1.93 299 ePb 48 28.90 2.6
 TPE 2.14 315 ePn 48 29.50 0.2
 VLI 2.20 160 ePn 48 30.10 -1.1
 BERA 2.47 321 ePn 48 35.80 1.9
 OHR 2.49 339 iPn 48 34.00 -0.3
 1.1s 174.00nm
 iSn 49 04.60
 Lg 49 12.90
 VAY 2.57 10 iPn 48 34.00 -1.3
 TIR 3.03 328 ePn 48 45.50 3.7X
 MMB 3.10 25 iPc 48 42.00 -0.9

09d 07h

KKB 3.18 15 iSg 49 20.00 -1.1
 SKO 3.20 353 iPc 48 43.00 -0.9
 LACI 3.33 329 ePn 48 46.60 0.4
 RZN 3.57 35 iPc 48 49.00 -0.7
 PUK 3.62 334 ePn 48 51.90 1.7
 SDA 3.74 330 ePn 48 52.50 0.6
 VAM 3.81 152 ePb 48 58.10 5.1X
 KDZ 3.88 42 eP 48 55.00 1.0
 PLD 3.91 31 eP 49 44.00 49.7X
 VTS 3.91 13 eP 48 54.00 -0.5
 TDS 4.47 283 P 49 00.00 -2.4
 ORI 4.47 288 P 49 08.00 5.6X
 PVL 5.09 29 eP 49 07.00 -4.1X
 MGR 5.16 287 P 49 10.00 -2.0
 SGO 5.45 291 P 49 15.80 -0.3
 (Sn) 50 14.00
 YKA 73.20 341 eP 59 23.60 0.2
 0.3s 0.10nm 3.3mb
 S.D. = 1.4 on 24 of 29 obs.

& APR 09, 1990 08h 09m 16.80s
 36.983 N 121.938 W
 DEPTH = 8.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.5 (BRK). Felt at
 Capitola and Santo Cruz.

GCC 0.07 315 iPc 09 18.40 -0.4
 MHC 0.43 33 iPd 09 25.60 0.1
 SAO 0.45 119 iPc 09 25.40 -0.5
 ARN 0.49 41 iPc 09 26.50 -0.2
 PCC 0.63 326 eP 09 28.50 -0.9
 PRS 0.79 145 ePc 09 32.00 -0.4
 LLA 0.88 114 iPc 09 33.00 -0.9
 BKS 0.92 345 iPc 09 34.10 -0.5
 BRK 0.92 344 eP 09 33.70 -0.9
 PRI 1.32 129 eP 09 41.30 -0.2
 CMB 1.62 49 eP 09 44.50 -1.3
 PHAM 1.69 132 eP 09 45.60 -1.2
 BCH 2.34 140 eP 09 54.20 -2.1
 ABL 3.06 133 eP 10 03.80 -2.8
 KVN 3.67 55 eP 10 15.10 -0.1
 TNP 3.91 72 e(P) 10 17.50 -1.1
 16 obs. associated

APR 09, 1990 08h 10m 46.92±0.73s
 38.824 N ± 7.7km 22.018 E ± 7.5km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 ML 3.0 (ATH).

NEO 1.06 62 ePn 11 08.00 1.2
 VLS 1.29 241 ePn 11 11.10 0.2
 ATH 1.58 122 ePn 11 15.20 0.2
 KEK 1.94 298 ePn 11 21.50 1.3
 VLI 2.22 161 ePn 11 23.50 -0.9
 OHR 2.47 338 ePn 11 26.80 -1.1
 VAY 2.53 9 ePn 11 27.80 -0.9
 S.D. = 1.2 on 7 of 7 obs.

APR 09, 1990 08h 32m 09.77±0.30s
 42.866 N ± 4.9km 68.673 E ± 6.6km
 DEPTH = 33.0km (normal)
 4.6mb (9 obs.)
 CENTRAL KAZAKH SSR (713)
 Felt (IV) at Tortkol and (II) at
 Chimkent.

MAIO 9.65 230 eP 34 29.00 -0.5
 QUE 12.73 187 eP 35 12.00 0.7
 NDI 15.74 151 eP 35 51.00 0.3
 GKN 19.67 134 P 36 38.80 -0.3
 KKN 20.19 133 P 36 44.10 -0.5
 DMN 20.24 133 P 36 45.60 0.5
 GUN 20.42 131 P 36 46.20 -0.9
 PKI 20.43 133 P 36 46.90 -0.3
 0.6s 17.00nm 4.6mb

HFS 37.06 317 eP 39 18.00 -0.1
 NB2 38.32 319 P 39 28.10 -0.6
 MBC 61.06 2 eP 42 22.50 0.4
 IMA 66.60 17 eP 42 58.30 -0.3
 INK 67.91 9 eP 43 07.00 0.4
 TTA 68.68 20 eP 43 12.00 0.4
 FBA 68.85 16 eP 43 12.00 -0.5
 PMR 71.49 18 eP 43 28.00 -0.6
 KIC 73.55 263 P 43 41.40 0.0
 YKA 74.96 2 eP 43 48.60 -0.2
 FFC 82.46 355 eP 44 31.00 1.3
 WRA 86.84 121 Pd 44 53.20 1.0
 0.6s 2.10nm 4.5mb
 S.D. = 0.6 on 20 of 20 obs.

* APR 09, 1990 08h 38m 45.74±0.47s
 15.513 N ± 8.2km 146.725 E ± 10.3km
 DEPTH = 33.0km (normal)
 5.0mb (13 obs.) 4.3Msz (2 obs.)
 MARIANA ISLANDS (216)

GUMO 2.63 223 eP 39 28.20 1.4
 PJG 2.63 223 eP 39 27.50 0.7
 GUA 2.63 223 eP 39 27.20 0.3
 MAT 22.28 342 (P) 43 38.00 -3.6X
 BJI 36.13 319 P 45 47.50 0.8
 Z 22s 0.37um 4.1Msz
 QIS 36.52 191 eP 45 48.00 -2.2
 WB5 37.21 199 eP 45 53.90 -2.1
 WRA 37.28 199 P 45 59.00 2.4
 LZM 43.28 306 Pd 46 48.00 1.8
 Z 20s 70.00nm 5.1mb
 0.50um 4.4Msz
 CHG 45.67 281 eP 47 06.10 0.6
 CHTO 45.67 281 eP 47 06.10 0.6
 NANU 48.63 220 eP 47 28.50 -0.1
 GUN 57.36 293 P 48 34.10 0.2
 PKI 57.78 293 P 48 36.60 -0.2
 KKN 57.89 293 P 48 37.40 -0.1
 DMN 58.05 293 P 48 38.50 -0.1
 GKN 58.45 294 P 48 41.40 0.1
 PMR 64.25 29 eP 49 20.50 0.9
 HYB 65.08 282 eP 49 25.00 -0.8
 FBA 65.73 25 eP 49 29.60 0.5
 GBA 66.82 278 Pc 49 35.70 -1.2
 POO 69.31 284 eP 49 51.50 -1.0
 INK 71.91 23 eP 50 07.00 -0.3
 MBC 75.98 14 ePd 50 32.00 1.2
 YKA 80.33 28 eP 50 54.80 0.0
 PNT 80.75 41 eP 51 02.00 4.6X
 EDM 83.54 37 eP 51 15.00 3.2X
 KEV 85.25 342 eP 51 19.00 -1.0
 SES 85.79 39 eP 51 24.00 0.9
 LRM 86.37 43 eP 51 28.50 2.1
 SOD 86.67 340 iP 51 27.20 0.1
 FFC 89.23 33 eP 51 39.00 -0.6
 SUF 89.43 337 iP 51 39.80 -0.6
 NUR 91.28 335 eP 51 47.80 -1.2
 NB2 95.89 340 P 52 08.60 -1.7
 KIC 144.35 305 PKP 58 19.28 -1.9
 LIC 144.65 306 PKP 58 20.40 -1.3
 ZOBO 146.50 96 PKP 58 27.00 1.6
 LPB 146.54 97 PKP 58 38.00 4.7X
 CCH 148.44 98 ePKP 58 32.00 3.9X
 S.D. = 1.2 on 35 of 40 obs.

* APR 09, 1990 08h 53m 55.96±0.60s
 16.516 N ± 11.2km 145.867 E ± 23.8km
 DEPTH = 33.0km (normal)
 4.3mb (4 obs.)

MARIANA ISLANDS (216)

GUMO 3.07 198 eP 54 44.30 1.0
 PJG 3.07 198 eP 54 43.80 0.5
 GUA 3.10 197 eP 54 43.70 0.0
 BJI 34.84 318 eP 00 46.50 0.5
 WB5 37.89 198 eP 01 09.00 -2.9
 WRA 37.96 198 P 01 13.00 0.5
 ASPA 41.61 197 eP 01 48.00 5.3X
 INK 71.31 23 eP 05 13.00 -0.9
 YKA 79.83 28 eP 06 01.40 -1.0
 ORV 81.66 51 eP 06 12.50 0.0
 CMB 82.89 53 eP 06 20.20 1.2
 SES 85.53 39 ePc 06 32.30 0.3
 LRM 86.21 43 eP 06 36.60 0.8
 ZOBO 147.41 94 ePKP 13 34.00 -3.1X
 S.D. = 1.3 on 12 of 14 obs.

APR 09, 1990 09h 31m 09.63±0.17s
 25.806 S ± 5.4km 176.058 W ± 4.3km
 DEPTH = 17.4km (geophysicist)
 5.7mb (31 obs.) 5.9Msz (17 obs.)
 SOUTH OF FIJI ISLANDS (171)

Ms 6.0 (BRK), 5.7 (PAS).
 Mo=3.0*10**18 Nm (PPT). Depth
 from broadband displacement
 seismograms.

RADIATED ENERGY
 No. of sto: 8 Focal mech. C
 Energy 3.3±0.9*10**12 Nm

CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 14S, 34C

Centroid Location:
 Origin Time 09:31:17.3 0.4
 Lat 25.99S 0.04 Lon 175.77W 0.04
 Dep 15.0 FIX Half-duration 3.0
 Moment Tensor; Scale 10**17 Nm
 Mrr=-8.05 0.19 Mtt=-0.96 0.24
 Mff= 9.01 0.25 Mrt= 1.02 0.58
 Mrf= 4.78 0.90 Mtr= 0.06 0.21

Principal Axes:
 T Vol= 10.27 Plg=15 Azm=272
 N -0.86 6 3
 P -9.41 74 115
 Best Double Couple: Mo=9.8*10**17
 NP1: Strike=353 Dip=31 Slip=-102
 NP2: 187 60 -83

RAO 3.81 205 iP 32 09.70 1.0
 SVA 9.19 325 eP 33 26.00 1.7
 VUN 9.28 326 eP 33 26.10 0.6
 SGE 9.90 324 eP 33 23.90 -10.4X
 NDF 10.02 322 eP 33 38.60 2.8
 AFI 12.50 20 e(P) 34 00.00 -9.6X
 PUZ 13.14 200 eP 34 08.40 -9.6X
 RAR 15.62 76 P 34 44.00 -6.5X
 PGZ 16.09 201 eP 34 49.70 -6.8X
 DZM 16.42 279 iPc 35 05.50 4.6X
 PVC 16.58 296 iPc 35 08.00 5.2X
 BLW 17.03 202 eP 35 01.70 -6.8X
 WEL 17.21 204 eP 35 08.00 -2.6
 TCW 17.33 205 eP 35 05.40 -6.8X
 KHZ 18.65 205 P 35 23.50 -4.9X
 LTZ 19.45 207 eP 35 31.50 -6.8X
 MQZ 20.09 204 eP 35 40.60 -4.4X
 MSZ 22.85 210 P 36 12.00 -0.9
 TBI 24.30 90 eP 36 28.00 0.8
 1.0s 90.00nm 5.3mb

AFR	25.73	77	iP	36	40.80	-0.1				eS	53	39.60		IMW	91.43	41	P	44	16.10	-0.2	
	1.2s	145.00nm				5.5mb				ePPS	54	29.60		BW06	91.62	42	P	44	16.00	-1.1	
PAE	25.86	77	iP	36	41.90	-0.2				iLQ	04	33.60		LRM	91.68	39	eP	44	16.20	-1.1	
	1.2s	145.00nm				5.5mb				eLR	07	40.10		GOL	92.60	47	P	44	21.50	-0.2	
PPT	25.90	77	iP	36	42.40	-0.1				ePd	43	24.95	-0.2		1.2s	45.08nm			5.8mb		
	1.2s	205.00nm				5.7mb		PAS	81.05	45	ePP	46	36.00		GLD	92.73	47	P	44	22.50	0.3
PPN	26.04	77	iP	36	44.00	0.2				eSKS	53	13.00			1.2s	55.56nm			5.9mb		
	1.2s	80.00nm				5.3mb				eS	53	36.00		COL	93.03	12	eP	44	21.68	-1.1	
BRS	27.88	260	iPc	37	02.00	1.4				ePS	54	36.00				epPd	44	27.64	19kmX		
			i	37	18.00					eSS	58	42.00				isPc	44	29.29			
			e	37	25.50					eSSS	04	20.00		FBA	93.03	12	ePd	44	22.30	-0.5	
			e	40	30.00					eLg	07	48.00		IMA	93.17	9	ePd	44	23.40	-0.2	
			e	41	30.00			BAR	81.11	47	eP	43	25.00	-0.5		1.8s	26.80nm		5.4mb		
			e	43	36.00			MWC	81.17	45	eP	43	24.00	-2.0	KMI	93.31	296	iPd	44	27.38	2.1
COO	28.59	253	eP	37	10.00	3.0X		PLM	81.40	47	eP	43	27.00	-0.2		2.0s	0.30nm		3.4mb X		
CAN	31.41	244	eP	37	35.20	3.1X		RVR	81.47	46	eP	43	28.00	0.7	Z	20s	2.40um		5.6Msz		
RMQ	31.54	261	iPd	37	34.70	1.5		PEC	81.54	46	P	43	26.20	-1.6	N	16s	1.80um				
			e	37	44.00				1.0s	10.00nm		4.8mb		E	16s	1.50um					
BWA	31.78	246	eP	37	33.90	-1.4		SBB	81.62	45	eP	43	27.00	-1.2			ipP	44	33.67	20kmX	
TOO	34.53	241	eP	38	00.00	0.8		ISA	81.83	44	eP	43	32.00	2.8			S	55	01.00		
CTA	35.09	271	iPc	38	04.00	0.0		SDN	81.91	9	eP	43	30.10	1.1			sS	55	14.00		
	1.8s	159.09nm				5.6mb		FRI	81.92	42	eP	43	29.20	-0.4	CHG	93.69	289	ePd	44	29.00	2.2
			ipP	38	12.00	27kmX		FHC	82.02	37	P	43	30.00	-0.1		1.1s	76.58nm		6.0mb		
			i	38	15.00				1.4s	4.39nm		4.3mb X		CHTO	93.69	289	eP	44	28.94	2.2	
			iPcP	40	35.00			CMB	82.20	41	iPd	43	30.18	-0.9			i	44	31.43		
			eS	43	39.00					epPd	43	35.64	17kmX			ipP	44	35.23	20kmX		
			eScP	44	06.00					esPc	43	38.29				isP	44	36.72			
CTAO	35.09	271	eP	38	02.45	-1.6		TPC	82.40	46	eP	43	31.00	-1.2			eP	44	26.87	-0.8	
RAB	37.27	300	e(P)	38	26.00	3.5X		CLC	82.47	44	eP	43	32.00	-0.6	HIA	94.02	324	epPd	44	32.67	18kmX
			e(S)	44	04.00			ORV	82.56	39	eP	43	32.70	-0.2			esPc	44	34.98		
PMG	38.50	288	iPc	38	31.30	-1.5		GLA	82.57	48	eP	43	33.00	-0.1			ePP	48	09.00		
	1.0s	70.00nm				5.4mb		GSC	82.65	45	eP	43	33.00	-0.6	SES	95.10	36	eP	44	32.00	-0.7
ADE	39.79	246	eP	38	47.00	3.5X		WDC	82.66	38	eP	43	33.20	-0.2	EDM	95.59	32	ePd	44	34.00	-0.8
OIS	40.95	268	ePc	38	52.50	-0.6		HKC	82.80	299	eP	43	36.50	2.1		1.2s	43.00nm		5.8mb		
ASPA	45.28	262	iPd	39	26.90	-1.5				eS	53	56.00		RSSD	95.74	44	P	44	35.20	-0.8	
	1.4s	145.00nm				5.7mb		TNP	84.14	43	P	43	40.50	-0.7	LZH	97.37	306	Pc	44	44.50	1.0
Z	17s	56.04um				6.6Msz X			1.4s	93.75nm		5.8mb			2.0s	42.00nm		5.7mb			
			iPcS	45	01.00			KVN	84.22	42	eP	43	41.30	-0.3		Z	20s	3.10um		5.8Msz	
			iS	46	06.30			KDC	85.55	12	eP	43	48.50	1.0	N	18s	1.30um				
			iScS	49	35.30			MRX	85.61	66	(P)	43	50.00	1.4	E	18s	1.80um				
WB5	45.86	267	eP	39	31.00	-1.9		IPM	85.61	277	ePd	43	52.00	3.1X			i	44	55.00		
			e	41	23.00			BMW	86.36	33	P	43	52.00	0.1			pP	45	01.50	59kmX	
WRA	45.86	267	Pd	39	30.60	-2.3		III	86.40	68	(P)	43	55.00	2.2			sP	45	10.00		
	1.2s	43.30nm				5.3mb		SHW	86.66	34	P	43	54.50	1.0			i	45	18.00		
FORR	48.99	251	iPd	39	45.80	-11.5X		CRX	86.71	67	(P)	43	58.50	4.0X			i	45	32.00		
	0.4s	52.00nm						IIJ	86.82	66	(P)	43	55.00	-0.3			eS	55	23.00		
DRV	49.03	201	eP	39	58.60	1.6		VGB	86.95	35	P	43	55.50	0.7			i	55	31.00		
MTN	51.17	274	eP	40	16.00	1.9		SNG	87.12	279	eP	43	47.30	-8.9X			sS	55	54.00		
KNA	52.23	270	eP	40	21.60	-0.6				eS	54	30.50				PS	56	19.00			
SBA	52.73	185	iPd	40	28.50	3.4X		LON	87.26	34	ePd	43	55.21	-1.1			SS	01	18.00		
VNDA	52.82	186	P	40	27.40	1.6				isPc	44	02.99		TUL	97.42	54	e(P)	44	42.50	-1.0	
GUA	54.53	311	eP	40	37.70	-1.3				eHPP	47	24.99			1.3s	4.50nm		4.9mb			
	1.2s	262.50nm				6.1mb		GMW	87.32	33	P	43	57.00	0.5	ZOBO	98.40	113	P	44	47.00	-2.1
Z	18s	7.68um				5.8Msz		PPM	87.42	68	(P)	44	05.00	6.8X	INK	98.91	15	eP	44	47.00	-2.4
GUMO	54.59	311	e(P)	40	39.00	-0.5		MSU	87.55	45	P	43	59.00	0.9	YKA	100.57	25	ePd	44	56.40	-0.8
	1.3s	366.01nm				6.2mb		RMW	87.75	33	P	43	58.00	-0.6		1.1s	1.80nm		4.5mb X		
PJG	54.59	311	eP	40	38.50	-1.0		OXX	88.10	70	(P)	44	02.50	1.4	BAO	114.81	123	ePKP	49	55.00	3.2X
COOL	54.87	249	eP	40	40.00	-1.5		SVW	88.18	10	eP	44	00.10	-0.3	HVD	120.23	202	iPKPc	50	19.00	17.2X
MBL	58.48	260	eP	41	06.00	-1.3		DAU	89.23	44	P	44	06.20	0.0	FRB	120.56	30	ePKP	50	00.00	-1.1
	0.5s	6.00nm				4.9mb		ALO	89.35	50	iPd	44	06.60	-0.2	BLF	121.37	203	ePKP	50	04.50	0.5
BAL	58.66	249	eP	41	06.00	-2.5			1.3s	81.73nm		5.8mb		SLR	123.63	207	ePKP	50	05.40	-3.1X	
MUN	58.77	247	eP	41	02.00	-7.2X		Z	18s	8.42um		6.2Msz			Z	18s	7.56um		6.4Msz		
SPA	64.35	180	iPd	41	46.90	0.4		ANMO	89.36	50	iPd	44	07.09	0.3	KSR	124.06	205	ePKP	50	08.60	-0.7
	1.3s	196.67nm				6.1mb			1.0s	35.00nm		5.6mb			1.0s	10.00nm					
Z	19s	8.10um				5.9Msz		PMR	89.76	13	ePd	44	07.60	-0.2	QUE	124.81	290	ePKP	50	10.50	-0.2
DAV	65.41	292	eP	41	52.00	-1.8			1.5s	125.00nm		5.9mb		DAG	127.79	6	iPKPd	50	13.00	-1.8	
BAG	74.55	297	eP	42	36.50	-13.3X			Z	18s	2.40um		5.7Msz			1.1s	16.46nm				
MAT	75.52	323	iPc	42	54.20	-0.6		TTA	89.86	9	ePd	44	08.80	0.5	WIN	130.25	196	iPKPc	50	22.60	1.3
	1.5s	222.22nm				6.0mb		PTI	89.98	41	P	44	10.50	1.0		0.7s	10.27nm				
Z	20s	2.84um				5.6Msz		PNT	90.07	33	ePd	44	09.00	-0.5	Z	18s	6.87um		6.4Msz		
			eS	52	34.00				1.1s	95.00nm		5.9mb		MAIO	131.84	297	ePKP	50	24.00	0.2	
MAW	77.20	200	iPc	43	06.00	2.3		NNT	90.28	284	iPc	44	13.70	2.5			e	53	54.00		
ADK	77.35	360	eP	43	03.60	-1.0		NEW	90.65	35	P	44	11.00	-1.2	SOD	136.14	348	ePKP	50	40.00	9.1X
	1.4s	314.00nm				6.2mb			1.0s	22.50nm		5.4mb		NAI	138.37	235	ePKP	50	44.00	7.0X	
ANP	78.76	305	eP	43	11.20	-2.0		LOE	90.69	289	eP	44	15.00	2.0	SUF	140.25	344	ePKP	50	30.70	-7.9X
SYF	80.15	44	eP	43	21.00	0.5		TOA	90.83	14	ePd	44	13.20	0.4	RYD	141.52	278	iPKPd	50	41.60	-0.5
PRS	80.48	42	eP	43	22.00	-0.1		BJI	90.89	315	eP	44	14.00	0.6	TAB	142.31	300	ePKP	50	38.00	-5.3X
GCC	80.57	41	eP	43	22.30	-0.2			1.8s	131.00nm		6.0mb		NUR	142.51	343	ePKP	50	40.00	-2.6X	
PRI	80.78	42	eP	43	24.10	0.3			N	18s	1.68um					i	50	48.00			
BRK	80.99	40	eP	43	24.50	-0.2			E	18s	3.82um					ipPKPc	50	44.00	-1.5		
MHC	80.99	41	eP	43	25.00	0.1					sP	44	25.00		SLY	143.19	296	iPKPc	50	37.50	-7.1X
BKS	81.00	40	ePd	43	24.80	0.0					eSKS	54									

09d 09h

UPP	144.66	348	iPKP	50	43.80	-2.5X
			i	50	50.90	
MSL	145.02	297	iPKPc	50	47.00	-0.7
			e	54	40.00	
HFS	145.03	351	ePKP	50	44.70	-2.3X
	1.1s	77.00nm				
BER	145.42	359	iPKP	50	47.90	0.3
KONO	145.95	355	ePKPd	50	48.06	-0.5X
			i	50	54.18	
COP	149.51	351	ePKP	51	03.00	8.7X
			e	51	10.00	
EKA	150.05	8	PKP	51	01.00	5.9X
	1.4s	77.40nm				
WAJH	150.72	278	ePKP	51	04.00	7.0X
KAS	150.89	310	ePKP	51	04.00	7.0X
DCN	151.24	14	ePKP	51	02.90	5.9X
	0.8s	126.00nm				
AYN	151.40	283	ePKP	51	05.00	7.0X
HRI	151.43	293	ePKP	50	59.00	0.9
DLE	151.45	13	ePKP	51	03.40	6.1X
MASJ	151.59	289	PKPc	51	04.40	6.1X
SALJ	151.60	290	PKPc	51	05.20	6.9X
MKRJ	151.67	289	PKPc	51	05.40	7.0X
DSI	151.89	289	ePKP	51	05.00	6.4X
BBTK	152.17	307	ePKP	50	52.00	-7.0X
			e	51	05.00	
PPE	152.23	323	ePKP	51	05.00	6.3X
HQL	152.24	284	ePKP	51	07.00	7.8X
ECB	152.26	14	ePKP	51	03.90	5.4X
MBH	152.39	285	ePKP	51	00.00	0.6
ECP	152.53	14	ePKP	51	04.60	5.7X
CFR	152.56	321	ePKP	51	06.00	6.9X
KRA	152.82	337	ePKP	50	59.50	0.1
			e	51	07.50	
			e	51	17.50	
LFK	152.91	297	ePKP	51	07.00	6.9X
VRI	152.93	324	ePKP	51	02.00	2.3X
WIT	152.95	356	ePKP	51	08.00	8.6X
TLB	152.98	320	ePKP	51	08.00	8.3X
KSP	153.26	342	ePKPc	51	00.00	0.0
	1.0s	48.00nm				
			i	51	08.20	
			i	52	11.60	
SPC	153.43	336	ePKP	51	02.00	1.5
ISR	153.49	322	ePKP	51	07.00	6.4X
MLR	153.59	324	ePKPc	51	01.00	0.2
CLL	153.61	347	ePKP	51	00.00	-0.4X
	Z 18s	1.50um				5.9Msz
			e	51	19.00	
WTS	153.76	356	ePKP	51	09.00	8.4X
	1.0s	39.00nm				
			e	51	22.00	
BRG	153.82	346	iPKP	51	01.40	0.6
	Z 18s	1.50um				5.9Msz
	N 18s	1.50um				
	E 18s	1.50um				
			i	51	08.60	
			i	51	19.20	
			e	51	27.00	
ITU	154.23	313	ePKP	51	00.00	-1.6
BUC1	154.27	322	ePKP	51	04.00	2.4X
PRU	154.50	344	ePKP	51	01.50	-0.2
	Z 18s	2.40um				6.1Msz
	N 18s	0.90um				
	E 18s	0.80um				
			i	51	11.00	
MOX	154.51	349	ePKP	51	00.00	-1.7
	1.6s	37.00nm				
	Z 17s	1.40um				5.8Mszx
	N 18s	1.50um				
	E 18s	1.00um				
			e	51	35.00	
BCAO	154.56	216	iPKPd	51	03.27	0.4X
			epPKP	51	10.05	
PSZ	154.60					

TNS	155.37	353	ePKPc	51	30.40	
HLW	155.46	286	ePKP	51	14.50	11.6X
			e	51	04.00	0.4
			e	51	32.00	
			e	52	15.00	
GRF	155.49	349	ePKP	51	03.00	-0.1
Z	22s		0.30um			5.1MsZ
			e	51	14.00	
			e	51	24.90	
			e	51	30.00	
KHC	155.53	345	iPKP	51	03.90	0.7
Z	20s		1.80um			5.9MsZ
N	20s		1.10um			
E	20s		0.70um			
			i	51	14.60	
BZS	155.67	329	ePKP	51	03.50	0.1
DOU	155.74	359	PKP	51	06.00	2.6X
Z	19s		1.60um			5.9MsZ
			e	51	28.00	
			e	15	12.00	
SOP	156.00	339	ePKP	51	04.60	0.8
KMR	156.39	343	iPKP-	51	13.90	9.6X
			iPP	54	53.50	
BEO	156.81	329	e(PKP)	51	15.00	10.1X
KBA	157.50	343	iPKPc	51	16.10	10.1X
	1.6s	151	0.00nm			
			e	51	26.00	
			i	51	39.00	
			i	51	46.00	
			i	51	49.80	
			i	52	05.90	
			e	55	21.00	
PTJ	157.76	337	ePKP	51	14.90	8.7X
ZAG	157.82	337	ePKP	51	09.00	2.9X
VAY	158.15	320	ePKP	51	07.00	0.3
	1.3s	152	0.00nm			
			i	51	41.00	
SKO	158.37	323	iPKP	51	06.80	-0.1
Z	18s		2.20um			6.0MsZ
N	18s		1.63um			
E	18s		1.74um			
			i	51	42.30	
			i	51	56.70	
			ePP	55	18.00	
			ePPP	59	15.00	
			LR	11	39.00	
LOR	158.58	0	ePKP	51	07.90	0.9
	1.6s	49	0.75nm			
TRI	158.63	341	ePKP	51	06.00	-1.0
LIC	158.72	155	PKP	51	08.90	0.8
SSF	158.78	1	ePKP	51	08.60	1.4
	1.4s	26	0.15nm			
LBF	158.86	360	ePKP	51	08.40	1.0
	1.4s	30	0.50nm			
KIC	158.96	155	PKP	51	09.36	1.0
TIC	159.11	154	PKP	51	09.54	1.0
SMF	159.20	0	ePKP	51	08.50	0.8
WIGH	159.21	167	ePKP	51	10.00	1.4
BGF	159.27	2	ePKP	51	09.30	1.5
OHR	159.30	322	ePKP	51	08.00	0.0
	2.2s	228	0.00nm			
			i	51	42.60	
WEGH	159.49	168	ePKP	51	10.00	1.0
VAI	159.61	350	PKP	51	08.60	0.5
SHGH	159.87	168	ePKP	51	10.00	0.6
KUK	160.06	167	ePKP	51	10.00	0.4
TDS	162.72	326	PKP	51	10.50	-1.0
TOL	164.45	24	ePKP	51	12.20	-1.0
			ePKKP	52	19.20	
			iPP	55	42.00	
			iPPS	09	26.20	
			eSS	16	27.20	
EBR	164.75	10	ePKP	51	12.00	-1.4
			ePP	56	04.00	
MAL	166.99	31	iPKP-	51	16.00	0.7
			i	56	08.00	
S.D. = 1.2 on 162 of 23						

TH	1.64	119	eP	g	44	15.00	2.0
KEK	1.88	300	eP	n	44	19.10	2.5
KBN	2.02	335	eP	n	44	19.10	0.6
TPE	2.10	316	eP	n	44	20.00	0.2
VLI	2.22	158	eP	n	44	20.60	-1.0
OH	2.47	340	eP	n	44	26.50	1.4
	1.2s		0.12nm				
			eS	n	44	57.20	
			Lg		45	03.90	
VAY	2.58	11	eP	n	44	25.00	-1.6
TIR	3.00	329	eP	n	44	38.00	5.5X
PHP	3.11	339	eP	n	44	34.00	0.0
SKO	3.20	354	iP	n	44	33.70	-1.7
			iS	n	45	10.00	
SDA	3.71	331	eP	n	44	44.20	1.5
MGR	5.10	287	P		45	01.00	-1.4
SGO	5.39	291	P		45	05.00	-1.6
YKA	73.18	341	eP		55	16.60	0.1
	0.8s		0.50nm				3.6mb
	S.D. = 1.5	on	15	of	16	obs.	
<hr/>							
APR	09.	1990	09h	45m	31.19±	0.31s	
21.470	S	±	5.5km	68.368	W	±	6.9km
DEPTH =	128.7km	(16	depth	phases)		
5.0mb	(13	obs.)				
CHILE-BOLIVIA BORDER REGION						(124)	
ANT	2.92	220	iP		46	16.70	-0.6
			iS		46	34.50	
CCH	4.58	28	P		46	41.60	1.7
LPB	4.92	3	P		46	47.00	2.4X
	1.0s		760.00nm				
Z	18s		4.47um				
			LR		16	50.00	
ZOBO	5.18	3	iP	d	46	49.10	0.8
			LR		17	10.00	
ARE	5.79	329	iP	d	46	53.50	-2.9
			iS		47	55.00	
SIV	8.80	53	Pc		47	33.00	-3.9X
ZON	10.04	182	eP		47	42.00	-11.3X
PT03	10.26	315	eP		47	53.80	-2.6
			eS		49	38.60	
PT02	11.46	316	eP		48	09.30	-2.8
			e(S)		50	02.60	
SAN	12.11	189	eP		48	21.50	1.0
PCH	12.25	188	eP		48	22.50	0.0
PT08	12.28	319	iP	c	48	21.00	-2.2
			iS		50	26.40	
TACH	12.35	190	eP		48	21.70	-2.0
LNV	12.73	192	eP		48	26.50	-2.0
ITB1	13.25	106	e(P)		48	36.00	0.6
ITB	13.44	107	e(P)		48	38.10	0.2
ITB7	13.54	108	e(P)		48	38.50	-0.7
JSC	56.78	347	P		55	03.10	-0.9
			pP		55	34.80	134km
BLA	59.46	349	P		55	22.00	-0.7
	0.6s		5.45nm				4.7mb
OLY	60.75	338	P		55	29.20	-2.2
			pP		56	00.70	131km
FVM	62.67	340	P		55	42.70	-1.5
	0.8s		36.36nm				5.4mb
			pP		56	14.50	132km
TUL	62.70	335	eP		55	44.00	-0.4
	1.2s		20.50nm				4.9mb
Z	18s		3.71um				5.6MsZ
			e		56	15.00	
			LR		16	20.00	
ALQ	66.75	327	eP		56	11.00	0.1
	1.5s		33.33nm				

09d 09h

KUK	72.06	76	iPd	56	42.00	-1.5
RVR	72.23	319	eP	56	45.00	0.9
			e	57	18.00	
GSC	72.77	320	eP	56	49.00	1.6
			e	57	21.00	
MWC	72.81	319	eP	56	49.00	1.3
			e	57	21.00	
PAS	72.83	318	eP	56	49.00	1.4
SBB	72.98	319	eP	56	49.00	0.4
			e	57	21.00	
RSSD	72.99	334	P	56	49.00	0.4
			pP	57	21.00	128km
CLC	73.60	320	eP	56	52.00	-0.1
			e	57	24.00	
ISA	74.02	319	eP	56	56.00	1.4
			e	57	28.00	
TNP	74.92	322	P	57	01.20	1.3
	1.2s	23.39nm				4.8mb
			pP	57	33.50	129km
RSON	75.40	344	P	57	01.20	-0.9
			pP	57	34.60	134km
FRI	75.65	320	eP	57	05.70	1.9
			epP	57	36.10	120km
PRI	75.67	319	eP	57	05.50	1.4
			epP	57	36.70	124km
SCH	75.99	1	eP	57	05.00	-0.3
KVN	76.09	322	P	57	07.20	0.7
			pP	57	39.90	130km
LLA	76.15	319	eP	57	08.20	1.5
			epP	57	40.20	127km
PRS	76.23	318	eP	57	08.50	1.4
			epP	57	40.70	128km
CMB	76.74	320	eP	57	10.90	1.0
			epP	57	43.30	129km
MHC	77.05	319	eP	57	13.10	1.3
WIN	78.06	110	iPc	57	17.70	-0.1
	0.7s	30.82nm				5.2mb
ORV	78.39	321	ePd	57	20.60	1.7
			epP	57	53.00	128km
WDC	79.66	321	ePd	57	25.50	-0.3
			epP	57	58.00	128km
SES	80.87	334	eP	57	32.00	0.0
HVD	82.52	120	iPc	57	57.00	15.7X
	0.9s	53.78nm				
PNT	83.89	329	eP	57	49.00	1.5
EDM	83.95	335	eP	57	47.50	-0.3
BFS	84.89	117	iPd	57	49.00	-4.3X
FRB	84.93	360	eP	57	50.00	-2.3
KSR	85.36	116	iPc	57	54.40	-1.3
	0.9s	19.23nm				5.0mb
SLR	86.57	116	eP	57	58.00	-3.6X
	0.9s	8.40nm				4.7mb
YKA	91.33	340	eP	58	23.20	0.3
	0.6s	4.60nm				4.8mb
ASPA	130.17	207	iPKPc	04	27.80	-0.4
	1.0s	6.00nm				
WRA	133.23	210	PKPd	04	34.60	0.5
	0.8s	2.50nm				
WB5	133.27	210	ePKP	04	34.60	0.5
GBA	146.53	98	PKPc	04	58.40	0.4
	0.5s	10.60nm				
NDI	148.09	70	iPKP	05	03.50	3.3X
	0.5s	21.13nm				

S.D. = 1.3 on 62 of 69 obs.

? APR 09, 1990 09h 53m 43.00±11.09s
39.835 N ±93.6km 24.332 E ±19.3km
DEPTH = 10.0km (geophysicist)

AEGEAN SEA (365)

MMB	1.81	346	ePc	54	15.00	0.5
			eS	54	39.00	
KDZ	1.99	24	eP	54	17.00	-0.1
			iS	54	49.00	
VAY	2.00	318	ePn	54	17.40	0.2
KKB	2.24	335	iPc	54	20.00	-0.7
PLD	2.28	7	eP	54	26.00	4.7X
DIM	2.39	22	eP	54	33.00	10.2X
PGB	2.72	357	eP	54	31.00	3.5X
			S	55	10.00	
VTS	2.88	343	eP	54	50.00	20.1X
PVL	3.46	12	iPd	54	38.00	0.1

S.D. = 0.6 on 5 of 9 obs.

& APR 09, 1990 10h 48m 54.70s
36.922 N 121.672 W
DEPTH = 5.0km

CENTRAL CALIFORNIA (39)

<BRK>. ML 2.8 (BRK).

SAO	0.24	131	iPd	48	59.20	-0.4
GCC	0.28	293	iPc	49	00.20	-0.2
MHC	0.42	3	iPd	49	03.40	0.3
ARN	0.44	15	iPc	49	03.70	0.1
PRS	0.64	158	iPc	49	06.60	-0.9
LLA	0.66	117	iPc	49	07.50	-0.4
PCC	0.81	316	eP	49	09.40	-1.4
BKS	1.05	335	iPd	49	14.30	-0.7
			eS	49	28.90	
BRK	1.06	334	eP	49	13.30	-1.8
PRI	1.12	134	eP	49	15.30	-1.0
PHAM	1.49	136	eP	49	20.30	-1.9
CMB	1.51	42	eP	49	21.20	-1.3
			eS	49	40.00	
FRI	1.57	87	eP	49	22.20	-1.1
KVN	3.53	52	eP	49	56.50	5.0

14 obs. associated

* APR 09, 1990 11h 07m 10.74±0.84s
38.757 N ±8.7km 21.993 E ±8.1km
DEPTH = 10.0km (geophysicist)

GREECE (364)

NEO	1.10	60	ePb	07	31.00	-0.5
VLS	1.24	243	ePb	07	33.00	-0.9
ITM	1.58	182	ePg	07	42.00	3.2X
KEK	1.95	300	ePn	07	45.00	0.7
VLI	2.17	160	ePn	07	48.00	0.6
OHR	2.52	339	ePn	07	52.50	0.0
VAY	2.60	10	ePn	07	47.00	-6.5X

S.D. = 1.0 on 5 of 7 obs.

* APR 09, 1990 11h 58m 53.60±0.75s
23.915 S ±7.5km 179.287 E ±28.5km
DEPTH = 562.1 ±15.0 km
4.6mb (10 obs.)

SOUTH OF FIJI ISLANDS (171)

SGE	6.42	348	iPd	00	37.30	-0.2
PUZ	14.14	183	eP	01	53.00	-0.9
WLZ	14.24	192	P	01	57.50	2.7
PGZ	16.85	188	eP	02	20.10	-0.1
	0.4s	11.00nm				4.8mb
MNG	16.96	190	eP	02	20.30	-1.0
	0.2s	12.00nm				5.1mb
KIW	17.29	191	eP	02	24.00	-0.6
MTW	17.49	190	eP	02	25.40	-1.0
CAW	17.51	191	P	02	26.50	-0.1
WDW	17.67	191	eP	02	27.70	-0.5
MRW	17.69	191	eP	02	28.80	0.5
WEL	17.73	191	eP	02	29.70	1.0
TCW	17.75	192	eP	02	28.90	-0.1
KHZ	19.06	193	P	02	41.40	0.1
	0.3s	3.00nm				4.4mb
LTZ	19.70	195	P	02	47.40	0.1
MMCZ	22.61	199	eP	03	13.70	-0.2
TLC	22.79	199	eP	03	15.80	0.1
CAN	28.57	240	eP	04	11.90	5.3X
BWA	28.82	242	eP	04	05.80	-2.9X
WRA	41.75	266	Pc	05	59.60	3.9X
	0.8s	1.50nm				3.6mb
PRS	82.01	45	eP	10	16.60	0.4
GCC	82.03	44	eP	10	16.50	0.2
PCC	82.08	43	eP	10	16.70	0.2
BKS	82.40	43	iPd	10	18.90	0.8
	0.7s	17.00nm				4.7mb
MHC	82.45	44	eP	10	19.10	0.6
PLM	83.28	49	eP	10	23.00	0.1
RVR	83.29	48	eP	10	22.00	-0.6
SBB	83.38	48	eP	10	23.00	-0.2
FRI	83.47	45	eP	10	23.60	0.1
CMB	83.66	44	eP	10	24.50	0.0
ORV	83.89	42	eP	10	25.70	0.2
WDC	83.89	41	eP	10	25.90	0.4
CLC	84.17	47	eP	10	27.00	-0.1
TPC	84.26	49	eP	10	27.00	-0.5
GSC	84.41	48	eP	10	28.00	-0.3
GLA	84.54	50	eP	10	30.00	1.1
KVN	85.71	44	P	10	34.50	-0.1
TNP	85.72	45	P	10	34.50	-0.2
	0.7s	5.00nm				4.3mb
PMR	88.92	15	P	10	49.00	0.1
	0.7s	8.72nm				4.8mb
PV09	91.32	48	P	11	00.40	-0.4

ALO	91.48	52	eP	11	00.50	-1.0
	0.8s	2.80nm				4.3mb
FBA	92.12	13	P	11	02.80	-0.7
	0.6s	2.46nm				4.4mb
GOL	94.46	48	P	11	15.00	-0.2
	0.5s	2.88nm				4.7mb
PKI	103.92	294	Pdiff	12	00.00	2.0X
NB2	141.99	351	PKP	17	19.40	-3.4X
	0.7s	2.60nm				
HFS	142.43	348	ePKP	17	20.20	-3.3X
	0.4s	16.70nm				
EKA	148.57	3	PKP	17	39.00	5.3X
	0.7s	5.40nm				
KSP	150.06	338	ePKPc	17	43.00	6.9X
	0.6s	18.00nm				
		id		17	44.00	
CLL	150.67	342	iPKPc	17	45.00	8.0X
	0.9s	19.00nm				
BRG	150.79	341	iPKP	17	45.20	8.0X

S.D. = 0.7 on 39 of 49 obs.

? APR 09, 1990 12h 41m 44.00±5.88s
42.800 N ±31.9km 19.240 E ±36.7km
DEPTH = 10.0km (geophysicist)

YUGOSLAVIA (383)

ML 2.0 (TTG).

NKY	0.18	274	ePg	41	48.20	0.1
			eSg	41	52.00	
TTG	0.37	178	ePg	41	51.60	0.0
			eSg	41	57.00	
BRY	0.52	281	ePg	41	54.50	-0.1
			eSg	42	02.00	
HCY	0.65	237	ePg	41	57.00	0.0
			eSg	42	06.50	

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

APR 09, 1990 12h 42m 30.85±0.27s
53.795 N ±6.0km 160.550 E ±3.7km
DEPTH = 33.0km (normal)
4.9mb (42 obs.)

NEAR EAST COAST OF KAMCHATKA (218)

MAT	23.20	231	iPc	47	37.40	1.9
	0.7s	23.97nm				4.8mb
TTA	24.09	50	ePc	47	45.40	1.4
IMA	25.34	43	ePc	47	56.40	0.4
	0.7s	20.00nm				4.8mb
BRW	25.50	31	eP	47	57.80	0.6
FBA	27.74	46	ePc	48	18.10	0.3
TOA	28.69	52	ePc	48	26.60	0.1
INK	33.15	38	eP	49	06.00	0.4
MBC	36.29	23	ePc	49	33.00	0.6
	0.5s	6.00nm				4.8mb
YKA	42.46	43	eP	50	24.30	0.5
	0.6s	11.10nm				4.8mb
EDM	48.13	54	iPc	51	09.50	0.3
	0.6s	26.00nm				5.4mb
DAG	49.71	360	eP	51	20.00	-0.9
SES	51.02	55	ePc	51	31.00	-0.3
FFC	52.34	47	eP	51	41.00	-0.2
	0.9s	13.00nm				4.9mb
LRM	53.33	61	eP	51	49.10	0.1
KVN	54					

09d 12h

NB2 62.94 344 P 52 54.30 -1.5
0.5s 6.40nm 5.0mb
HFS 63.37 342 eP 52 56.80 -1.7
0.4s 9.50nm 5.3mb
ALQ 64.31 66 eP 53 05.00 -0.3
0.8s 5.04nm 4.7mb
SCH 64.93 28 eP 53 07.00 -1.8
EKA 70.41 350 Pd 53 42.70 -0.4
0.6s 8.30nm 5.0mb
CLL 71.79 339 iPd 53 51.30 -0.1
1.3s 24.00nm 5.0mb
BRG 72.00 338 e(P) 53 52.80 0.1
1.4s 12.00nm 4.7mb
PRU 72.70 338 P 53 57.00 0.1
GRF 73.70 340 eP 54 03.70 1.0
KHC 73.72 338 Pd 54 03.80 0.9
MEM 73.79 343 Pd 54 03.30 0.2
MLR 73.79 329 ePd 54 04.00 0.6
DOU 74.52 344 P 54 07.10 -0.3
CDF 75.69 342 eP 54 14.30 0.1
0.8s 8.05nm 4.8mb
HAU 76.24 342 eP 54 17.20 -0.1
0.6s 7.20nm 4.9mb
RBL 76.26 337 P 54 17.50 0.0
BSF 76.33 342 eP 54 17.50 -0.4
0.8s 8.05nm 4.8mb
FLN 76.57 347 eP 54 18.50 -0.6
0.7s 13.25nm 5.1mb
LDF 76.68 347 eP 54 19.30 -0.4
0.8s 10.75nm 4.9mb
WB5 76.77 205 eP 54 20.20 -0.2
WRA 76.83 205 Pd 54 20.10 -0.7
1.1s 3.10nm 4.2mb
GRR 76.98 347 eP 54 21.20 -0.2
0.5s 11.65nm 5.2mb
CTI 77.07 338 Pc 54 21.60 -0.4
LPF 77.36 347 eP 54 23.40 0.0
0.6s 9.00nm 5.0mb
LOR 77.38 344 eP 54 23.40 -0.3
0.7s 11.00nm 5.0mb
LBF 77.64 344 eP 54 24.80 -0.3
0.8s 9.40nm 4.9mb
SSF 77.64 344 eP 54 25.00 0.0
0.8s 10.75nm 4.9mb
VAI 77.84 340 Pd 54 26.20 0.1
AVF 77.93 344 eP 54 26.70 0.1
0.8s 10.75nm 4.9mb
SMF 77.99 344 eP 54 27.00 0.0
0.8s 6.70nm 4.7mb
ORX 78.22 341 P 54 28.42 0.0
LSD 78.55 341 P 54 31.18 0.8
LPL 78.57 342 eP 54 31.40 0.9
0.8s 22.15nm 5.2mb
LPG 78.59 342 eP 54 31.50 0.8
0.8s 28.20nm 5.3mb
TCF 78.60 345 eP 54 30.70 0.3
0.8s 8.05nm 4.8mb
MAF 78.61 345 eP 54 30.80 0.4
0.8s 12.75nm 5.0mb
AGO 78.69 344 P 54 31.57 0.7
PLDF 78.69 344 P 54 31.27 0.4
LSF 78.74 345 eP 54 31.30 0.2
0.8s 10.75nm 4.9mb
BOB 78.76 339 Pc 54 32.30 1.0
RSP 78.83 341 P 54 31.49 -0.2
PYM 79.00 344 P 54 33.24 0.6
BNI 79.03 341 P 54 33.00 0.1
RRL 79.14 341 P 54 34.47 0.9
PCP 79.16 340 P 54 33.34 -0.1
BDI 79.18 338 Pc 54 34.60 1.0
LBL 79.46 344 P 54 36.69 1.7
PZZ 79.48 341 P 54 34.57 -0.7
ROB 79.53 340 P 54 34.98 -0.5
FIN 79.54 340 P 54 34.88 -0.6
ENR 79.68 341 P 54 34.57 -1.8
STV 79.69 341 P 54 35.08 -1.3
CAF 79.95 345 eP 54 38.60 0.9
0.8s 9.40nm 4.8mb
SBF 80.03 341 eP 54 38.30 0.1
1.0s 40.00nm 5.4mb
LFF 80.14 346 eP 54 39.40 0.8
0.7s 11.00nm 5.0mb
LPO 80.32 345 eP 54 40.30 0.7
0.8s 18.80nm 5.1mb
FRF 80.48 341 eP 54 40.80 0.3
1.0s 22.00nm 5.1mb
ASPA 80.51 205 eP 54 35.80 -5.0X

1.6s 7.00nm 4.4mb
LRG 80.63 341 eP 54 42.00 0.7
0.6s 25.25nm 5.4mb
LMR 80.72 341 eP 54 42.30 0.6
0.8s 16.10nm 5.1mb
PGF 80.97 339 eP 54 43.50 0.3
0.8s 17.45nm 5.1mb
S.D. = 0.7 on 95 of 96 obs.
APR 09, 1990 13h 03m 47.55s
63.053 N 150.846 W
DEPTH = 117.9km
2.6mb (1 obs.)
CENTRAL ALASKA (1)
<AGS-P>
KTH 0.50 356 iP 04 05.35 -0.3
eS 04 18.23
HUR 0.56 97 eP 04 05.49 -0.4
eS 04 19.23
CUT 0.70 158 iP 04 06.72 -0.2
RND 0.97 68 iP 04 08.85 -0.6
eS 04 24.95
MCK 1.10 51 iP 04 10.26 -0.5
SKT 1.12 197 iP 04 10.63 -0.4
eS 04 28.31
PWA 1.48 162 iPc 04 14.90 0.0
GHO 1.57 144 iP 04 15.72 -0.4
SUA 1.60 178 eP 04 16.48 0.0
eS 04 40.22
PLRM 1.67 151 iP 04 16.36 -0.9
eS 04 39.40
PMR 1.67 151 ePc 04 16.40 -0.8
SML 1.71 136 eP 04 17.15 -0.7
NEA 1.72 26 iP 04 16.60 -1.3
eS 04 37.90
NCG 1.77 201 eP 04 17.97 -0.6
CGLM 1.83 198 iP 04 18.95 -0.4
WRH 1.88 39 iP 04 18.81 -1.0
CRP 1.90 200 eP 04 20.01 -0.2
iS 04 45.01
PMS 1.91 161 ePc 04 19.60 -0.7
BGL 1.94 203 eP 04 20.93 0.2
SPU 1.96 197 eP 04 20.60 -0.3
CKL 1.99 201 eP 04 21.15 -0.2
eS 04 46.91
CCB 2.09 39 iP 04 21.36 -1.1
RDS 2.14 33 iP 04 22.06 -1.1
NCA 2.15 118 eP 04 22.51 -0.8
HDA 2.20 50 eP 04 22.74 -1.2
FBA 2.29 35 iPd 04 24.00 -1.1
NKA 2.33 185 eP 04 27.46 1.9
DDM 2.36 70 eP 04 25.56 -0.5
TTA 2.36 269 iPd 04 25.30 -0.8
TOA 2.36 112 eP 04 25.70 -0.4
PAX 2.45 90 eP 04 26.63 -0.7
GLM 2.47 37 iP 04 26.38 -1.1
SDG 2.49 100 eP 04 27.38 -0.4
DMW 2.50 64 eP 04 26.84 -1.0
SLKM 2.57 173 eP 04 28.00 -0.8
RDT 2.60 197 eP 04 29.36 0.2
KLU 2.78 122 iP 04 29.88 -1.8
RED 2.80 200 eP 04 31.56 -0.3
GLI 2.81 139 eP 04 30.12 -1.8
VZW 2.84 133 iP 04 30.35 -2.1
SVW 2.98 231 eP 04 33.43 -0.7
NNL 3.03 184 eP 04 36.15 1.3
SEW 3.03 167 eP 04 33.87 -1.0
DOT 3.12 76 eP 04 34.57 -1.5
IMA 3.27 339 iPc 04 36.80 -1.3
PDB 3.65 208 eP 04 42.64 -0.5
GLB 3.67 113 eP 04 42.02 -1.4
DWY 5.20 74 Pd 05 02.30 -2.0
YKA 16.46 76 eP 07 32.00 -0.4
0.3s 0.10nm 2.6mb
49 obs. associated
APR 09, 1990 13h 04m 56.55±5.75s
10.547 S ±54.9km 124.947 E ±21.5km
DEPTH = 33.0km (normal)
4.6mb (2 obs.)
TIMOR (289)
KNA 6.37 145 eP 06 35.80 5.2X
0.3s 3.00nm 4.6mb X
eS 08 00.00
MTN 6.47 111 iPc 06 32.60 0.6

eS 07 52.00
MBL 11.64 204 eP 07 43.50 0.0
0.3s 3.00nm 4.9mb X
eS 10 01.00
WB5 12.98 137 eP 08 01.80 0.3
eS 10 34.70
WRA 13.01 137 Pc 08 01.50 -0.3
0.5s 13.10nm 5.3mb X
NANU 14.96 216 eP 08 34.00 6.6X
eS 11 11.00
ASPA 15.59 148 iPd 08 36.00 0.3
0.5s 25.00nm 4.7mb
eS 11 38.50
OIS 17.26 127 iPd 08 55.90 -0.9
0.5s 18.00nm 4.5mb
eS 12 10.00
S.D. = 0.7 on 6 of 8 obs.
APR 09, 1990 13h 15m 23.50±0.42s
26.204 S ±13.7km 175.904 W ±8.4km
DEPTH = 33.0km (normal)
5.0mb (11 obs.)
SOUTH OF TONGA ISLANDS (175)
PGZ 15.78 202 eP 19 11.60 6.8X
0.6s 42.00nm 4.8mb
DZM 16.63 281 iPc 19 15.60 -0.2
KHZ 18.35 206 eP 19 36.80 -0.2
ASPA 45.36 262 iPc 23 39.30 -1.4
1.5s 21.00nm 4.8mb
Z 17s 1.09um 4.8msz X
LR 42 37.70
WB5 45.97 267 eP 23 44.80 -0.8
WRA 45.98 267 Pd 23 44.50 -1.1
1.1s 6.10nm 4.4mb
MAT 75.92 323 eP 27 07.00 -1.7
1.6s 50.00nm 5.3mb
PRS 80.68 42 eP 27 35.30 0.6
BCH 80.71 43 P 27 35.50 0.5
PLM 81.58 47 P 27 39.00 -0.7
RVR 81.65 46 eP 27 39.00 -0.8
SBB 81.80 45 eP 27 40.00 -0.7
FRI 82.12 42 eP 27 42.50 0.3
CMB 82.41 41 eP 27 44.10 0.4
TPC 82.57 46 eP 27 45.00 0.3
CLC 82.66 44 eP 27 45.00 -0.1
ORV 82.78 39 e(P) 27 44.70 -0.9
GSC 82.83 45 eP 27 46.00 -0.1
WDC 82.89 38 eP 27 46.60 0.5
TNP 84.33 43 P 27 53.90 0.1
0.8s 6.62nm 4.9mb
ALQ 89.50 50 eP 28 19.00 0.0
1.0s 7.75nm 5.0mb
PV09 89.67 46 P 28 19.80 0.0
PMR 90.12 12 P 28 20.20 -0.8
0.9s 12.50nm 5.2mb
PNT 90.33 33 eP 28 23.00 0.7
BJI 91.27 315 eP 28 27.00 0.3
1.6s 24.00nm 5.3mb
BW06 91.82 42 P 28 29.00 -0.6
LRM 91.90 39 eP 28 30.20 0.3
GOL 92.78 47 P 28 34.00 -0.1
1.0s 10.00nm 5.2mb
FBA 93.39 12 P 28 35.00 -1.0
1.0s 7.50nm 5.1mb
KMI 93.61 296 Pd 28 40.50 2.3
CHG 93.95 289 eP 28 42.00 2.5
CHTO 93.95 289 eP 28 41.60 2.1
1.2s 8.68nm 5.1mb
pP 28 48.40 21kmX
RSSD 95.93 43 P 28 48.30 -0.1
BHD 144.48 291 ePKP 35 05.00 6.7X
NB2 144.84 354 PKP 34 56.20 -2.0X
1.4s 22.10nm
MSL 145.32 297 ePKP 35 00.10 0.4
BBTK 152.52 307 ePKP 35 20.50 9.6X
KRA 153.23 337 ePKP 35 27.00 15.6X
KSP 153.68 342 ePKP 35 19.00 6.9X
SPC 153.85 336 ePKP 35 32.20 19.6X
CLL 154.03 347 ePKP 35 20.00 7.5X
1.6s 27.00nm
e 35 39.00
BRG 154.24 346 e(PKP) 35 18.80 6.0X
e 35 30.00
S.D. = 1.0 on 33 of 42 obs.
APR 09, 1990 14h 47m 47.06±0.71s

44.991 N \pm 4.1km 6.761 E \pm 7.2km
 DEPTH = 10.0km (geophysicist)
 FRANCE (538)
 ML 2.3 (GEN).

RRL	0.07	167	P	47	49.83	0.2
			S	47	51.47	
BNI	0.09	316	Pd	47	49.80	0.1
			iSg	47	52.10	
RSP	0.39	65	P	47	55.27	0.2
			S	48	01.08	
PZZ	0.54	153	P	47	57.73	-0.4
			S	48	04.91	
LSD	0.54	31	P	47	57.83	-0.3
			S	48	05.07	
STV	0.85	151	P	48	03.88	0.4
			S	48	15.06	
ENR	0.90	148	P	48	04.09	-0.2
			S	48	15.16	
ORX	1.07	53	P	48	07.44	0.1

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

• APR 09, 1990 14h 48m 45.09 \pm 0.85s
 38.944 N \pm 8.0km 22.145 E \pm 10.5km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)

NEO	0.91	66	ePg	49	03.50	0.9
VLS	1.44	238	ePb	49	06.50	-4.7X
ITM	1.77	186	ePg	49	15.90	-0.1
KEK	1.98	294	ePn	49	19.10	0.2
VLI	2.31	164	ePn	49	23.50	-0.3
VAY	2.40	8	ePn	49	23.00	-2.0
OHR	2.40	335	ePn	49	26.30	1.2

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

• APR 09, 1990 15h 01m 58.77 \pm 3.13s
 43.965 N \pm 19.3km 7.115 E \pm 12.7km
 DEPTH = 10.0km (geophysicist)
 NEAR SOUTH COAST OF FRANCE (379)

STV	0.32	28	P	02	05.41	0.0
			S	02	14.03	
ENR	0.34	40	P	02	05.82	0.0
			S	02	14.64	
PZZ	0.54	359	P	02	09.82	0.1
			S	02	21.20	
ROB	0.64	59	P	02	11.46	-0.1
FIN	0.82	72	P	02	14.85	0.1
CKI	0.96	61	P	02	17.00	0.0
			eSg	02	33.00	
BNI	1.13	344	P	02	20.00	-0.1
			eSn	02	37.50	
PCP	1.18	60	P	02	20.79	0.0

S.D. = 0.1 on 8 of 8 obs.

APR 09, 1990 15h 40m 22.29 \pm 0.68s
 38.940 N \pm 6.5km 22.042 E \pm 8.4km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)

NEO	0.99	68	ePb	40	41.40	0.3
VLS	1.37	237	ePb	40	42.50	-4.9X
ITM	1.76	183	ePg	40	53.10	0.1
KEK	1.98	295	ePg	40	55.00	-0.1
VLI	2.33	162	ePb	41	01.10	-0.1
OHR	2.37	337	ePn	41	02.50	0.7
VAY	2.41	9	ePn	41	01.60	-0.8

S.D. = 0.6 on 6 of 7 obs.

? APR 09, 1990 16h 41m 08.28 \pm 5.14s
 5.707 S \pm 58.7km 146.288 E \pm 32.2km
 DEPTH = 108.4 \pm 22.2 km
 3.8mb (2 obs.)
 EAST PAPUA NEW GUINEA REGION (207)

LAT	1.18	143	iPd	41	31.70	0.2
MNDI	2.65	260	eP	41	50.00	-0.5
PMG	3.78	167	eP	42	05.60	0.1
MTN	16.55	244	iPc	44	56.50	1.2
WB5	18.25	218	eP	45	15.40	-0.6
WRA	18.31	218	Pc	45	17.30	0.5
	0.3s	1.40nm			3.7mb	
ASPA	21.47	212	iPc	45	48.70	-0.8
	1.4s	8.00nm			3.9mb	

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

APR 09, 1990 16h 56m 53.33 \pm 0.36s
 43.145 N \pm 3.3km 110.628 W \pm 3.7km
 DEPTH = 5.0km (geophysicist)
 3.4mb (1 obs.)
 WYOMING (460)

ML 3.5 (NEIS).

ALPW	0.27	271	P	56	58.90	0.0
SNOW	0.33	344	P	57	00.30	0.3
TPAW	0.42	326	P	57	01.70	-0.1
IMW	0.78	343	iPd	57	08.30	-1.0
BW06	0.87	115	eP	57	10.30	-0.4
PTI	1.31	258	eP	57	18.40	0.3
LTMT	1.75	323	ePnc	57	25.80	1.0
HPI	1.89	288	eP	57	27.00	0.2
BGMT	2.32	335	eP	57	34.90	1.9X
MCMT	2.32	317	ePnc	57	34.70	1.6X
MEWT	2.47	354	ePn	57	37.70	2.6X
DAU	2.77	190	eP	57	39.20	-0.3
LCCM	2.84	342	ePn	57	43.50	3.2X
LRM	2.98	335	ePn	57	45.20	2.9X
SXM	3.03	352	ePn	57	47.40	4.3X
BUT	3.18	335	ePn	57	51.80	6.6X
DUG	3.37	210	eP	57	47.50	-0.4
MSU	4.77	195	eP	58	07.70	-0.2
RS5D	4.88	76	eP	58	10.00	0.6
GOL	5.24	129	eP	58	15.00	0.5
NEW	6.84	321	eP	58	36.50	-0.3
KVN	6.97	237	eP	58	39.00	0.2
SES	7.26	358	eP	59	07.00	24.4X
YKA	19.52	354	eP	01	23.70	-0.5

1.0s 2.00nm 3.4mb
 S.D. = 0.5 on 16 of 24 obs.

APR 09, 1990 17h 00m 33.86 \pm 1.07s
 5.281 S \pm 7.3km 153.858 E \pm 8.3km
 DEPTH = 101.3 \pm 9.3 km
 4.5mb (6 obs.)
 NEW IRELAND REGION (190)

RAB	2.00	303	iPd	01	07.60	0.6
	0.5s	563.38nm				
		iS	01	36.50		
HNR	7.31	125	eP	02	30.00	10.3X
PMG	7.81	238	eP	02	25.30	-1.3
	0.8s	164.18nm			5.7mb X	
DZM	20.66	145	iPd	05	07.40	-0.3
BRS	22.01	183	iPc	05	22.50	1.4
WB5	23.88	231	eP	05	39.80	0.5
WRA	23.94	231	Pd	05	40.20	0.4
	0.6s	5.90nm			4.2mb	
ASPA	26.53	224	eP	06	03.70	-0.3
	0.5s	3.00nm			4.1mb	
TCW	40.17	156	P	08	02.20	0.6
MNG	40.18	154	P	08	01.60	-0.1
MRW	40.36	156	P	08	03.60	0.5
CAW	40.41	155	P	08	03.50	-0.1
WDW	40.51	155	P	08	04.20	-0.2
MTW	40.64	155	P	08	05.00	-0.4
LTZ	40.76	159	P	08	06.90	0.5
BLW	40.80	155	P	08	06.00	-0.7
KHZ	40.91	158	P	08	06.90	-0.7
CHTO	59.14	295	eP	10	26.70	0.1
	1.0s	2.00nm			4.2mb	
LZH	62.31	315	P	10	47.00	-0.9
	2.0s	23.00nm			4.8mb	
GUN	73.27	301	P	11	56.90	0.2
	0.8s	28.00nm			5.1mb	
PKI	73.58	301	P	11	58.50	0.0
KKN	73.75	301	P	11	59.40	0.0
	7.0s	4609.00nm			6.4mb X	
DMN	73.85	301	P	12	00.30	0.3
	0.8s	17.00nm			4.9mb	
GKN	74.36	301	P	12	02.80	0.0
YKA	95.36	28	eP	14	20.60	33.0X
	0.9s	0.70nm				

S.D. = 0.6 on 23 of 25 obs.

APR 09, 1990 18h 33m 16.31 \pm 0.67s
 38.787 N \pm 6.5km 22.048 E \pm 7.6km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)

ML 3.1 (ATH).

NEO	1.05	60	ePn	33	36.40	0.2
VLS	1.30	242	ePn	33	38.60	-1.7
ATH	1.54	121	ePn	33	44.00	0.1

ITM	1.61	183	ePb	33	46.50	1.7
KEK	1.98	299	ePb	33	51.70	1.5
KBN	2.07	333	ePn	33	51.60	0.2
TPE	2.18	314	ePn	33	54.00	0.9
VLI	2.18	161	ePn	33	52.10	-1.1
OHR	2.51	338	ePn	33	57.00	-0.9

1.1s 114.00nm
 eSg 34 28.50
 Lg 34 34.50
 VAY 2.56 9 ePn 33 56.60 -1.9
 TIR 3.06 327 ePn 34 14.60 9.1X
 PHP 3.15 338 ePn 34 08.70 1.9X
 SKO 3.21 352 ePn 34 02.50 -5.3X
 LACI 3.36 329 ePn 34 15.00 5.1X
 RDO 3.57 48 ePn 34 10.10 -2.7X
 VAM 3.79 152 ePb 34 20.90 4.9X
 BCI 3.88 338 ePn 34 23.00 5.8X
 MLR 7.30 22 eP 35 06.50 0.9

S.D. = 1.4 on 11 of 18 obs.
 APR 09, 1990 18h 49m 54.56 \pm 0.66s
 38.828 N \pm 6.3km 22.056 E \pm 7.3km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)

ML 3.1 (ATH).

NEO	1.03	62	ePn	50	14.90	0.9
VLS	1.32	241	ePn	50	16.50	-2.5
ATH	1.56	123	ePn	50	22.40	0.1
ITM	1.65	184	ePb	50	25.00	1.3
KEK	1.96	297	ePb	50	29.50	1.3
KBN	2.03	332	ePn	50	30.00	0.8
TPE	2.16	313	ePn	50	32.00	1.0
VLI	2.22	161	ePn	50	32.00	0.1
OHR	2.48	337	iPn	50	35.50	-0.1

1.1s 163.00nm
 iSg 51 06.50
 Lg 51 10.80
 VAY 2.52 9 ePn 50 35.00 -1.2
 TIR 3.03 327 ePn 50 48.00 4.7X
 PHP 3.11 337 iPnc 50 43.70 -0.8
 SKO 3.18 352 eP 50 43.20 -2.3
 LACI 3.33 328 ePn 50 48.50 0.8
 RDO 3.54 48 ePn 50 48.60 -2.0
 PUK 3.61 333 ePn 50 52.60 1.0
 SDA 3.74 329 ePn 50 49.00 -4.4X
 VAM 3.82 153 ePb 51 02.10 7.4X
 MLR 7.26 22 ePd 51 45.00 1.7

S.D. = 1.5 on 16 of 19 obs.
 & APR 09, 1990 19h 22m 43.98s
 60.074 N 153.076 W
 DEPTH = 118.7km
 2.8mb (1 obs.)
 SOUTHERN ALASKA (2)
 <AGS-P>.

RED	0.38	24	iP	23	00.58	-0.9
			eS	23	14.46	
RDT	0.60	33	iP	23	02.04	-0.8
			iS	23	15.98	
PDB	0.63	243	iP	23	01.87	-1.1
			iS	23	15.91	
AUL	0.72	195	iP	23	02.89	-0.7
AUE	0.73	192	iP	23	02.74	-1.0
NNL	0.89	91	eP	23	05.50	0.3
XLV	0.93	132	eP	23	04.24	-1.2
			eS	23	20.57	
CNPM	1.08	120	iP	23	06.20	-0.8

09d 19h

SEW	1.82	87	eP	23	13.88	-1.6
SKT	2.06	21	eP	23	17.90	-0.7
PMS	2.09	54	eP	23	18.04	-1.0
			eS	23	43.76	
PWA	2.23	43	iP	23	20.76	0.1
			eS	23	47.08	
PLRM	2.46	50	eP	23	22.55	-1.2
			eS	23	51.56	
KNK	2.64	57	eP	23	24.05	-2.1
GHO	2.65	48	eP	23	24.54	-1.8
CUT	2.70	29	eP	23	25.94	-1.0
SML	2.90	51	eP	23	29.35	-0.2
GLI	3.07	72	eP	23	30.54	-1.3
VZW	3.37	70	eP	23	33.32	-2.6
KTH	3.64	15	eP	23	38.05	-1.5
KLU	3.79	65	eP	23	38.96	-2.6
RND	3.90	29	eP	23	41.42	-1.7
GLB	4.75	69	eP	23	52.00	-2.6
YKA	18.46	66	eP	26	49.70	-3.0
	0.5s				0.30nm	2.8mb

34 obs. associated

* APR 09, 1990 19h 22m 54.26 ± 0.61s
 15.439 N ± 7.7km 146.912 E ± 12.0km
 DEPTH = 33.0km (normol)
 4.6mb (10 obs.)

MARIANA ISLANDS

(216)

PJG	2.70	227	eP	23	37.70	1.4
GUMO	2.70	227	eP	23	37.80	1.4
GUA	2.71	226	eP	23	36.80	0.4
			eS	24	07.40	

MAT	22.40	341	(P)	27	50.00	-1.4
PMG	24.69	179	eP	28	13.00	-0.7
WB5	37.20	200	eP	30	03.00	-1.4
WRA	37.27	200	Pd	30	04.30	-0.7
	0.7s				2.50nm	4.2mb

ASPA	40.89	198	eP	30	34.70	-0.5
	0.6s				3.00nm	4.2mb

LZH	43.46	306	eP	31	04.00	7.7X
			pP	31	09.00	17kmX
			i	31	15.00	
			i	31	29.50	

CHTO	45.86	281	eP	31	16.00	0.5
	0.7s				0.64nm	3.7mb

GUN	57.55	293	P	32	43.60	-0.2
	0.7s				13.00nm	5.1mb

PKI	57.98	293	P	32	46.10	-0.6
	0.6s				11.00nm	5.1mb

KKN	58.09	293	P	32	47.00	-0.3
	0.6s				9.00nm	5.0mb

DMN	58.25	293	P	32	48.10	-0.4
	0.5s				17.00nm	5.4mb

GKN	58.65	294	P	32	50.00	-0.4
	0.5s				7.00nm	5.0mb

GBA	67.01	278	Pd	33	45.90	-0.7
	0.6s				1.70nm	4.3mb

INK	71.91	23	eP	34	17.00	1.2
MBC	76.00	14	eP	34	41.50	2.0
YKA	80.31	28	eP	35	04.20	1.0
	0.5s				1.00nm	4.1mb

LIC	144.84	306	PKPd	42	30.00	-0.5
ZOBO	146.31	96	PKP	42	36.00	2.4X

S.D. = 1.0 on 19 of 21 obs.

& APR 09, 1990 19h 44m 07.55s
 59.957 N 151.650 W
 DEPTH = 48.0km

KENAI PENINSULA, ALASKA

(14)

<AGS-P>

NNL	0.20	64	iP	44	16.91	1.2
CNPM	0.48	154	iP	44	17.99	-0.6
			eS	44	26.91	

XLV	0.51	184	iP	44	17.76	-1.1
			eS	44	26.98	

RDT	0.72	329	iP	44	21.00	-0.7
			eS	44	31.46	

RED	0.73	310	iP	44	21.02	-0.8
			eS	44	32.37	

NKA	0.81	14	iP	44	24.29	1.4
SLKM	0.90	52	iP	44	23.21	-0.9
			iS	44	36.73	

AUE	1.06	236	iP	44	25.24	-1.0
AUL	1.07	238	iP	44	25.85	-0.6
			eS	44	40.57	

SEW	1.11	81	iP	44	26.85	-0.1
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SPU	1.25	351	eP	44	41.31	
CKL	1.29	345	iP	44	29.28	-0.3
PDB	1.29	264	iP	44	28.32	-1.2
			eS	44	45.33	
CRP	1.34	349	eP	44	30.40	0.1
			eS	44	49.10	
BGL	1.36	345	eP	44	30.56	0.0
CGLM	1.37	353	eP	44	30.66	0.0
SHU	1.38	195	eP	44	30.81	0.1
			eS	44	49.46	
CDD	1.45	226	iP	44	30.81	-0.9
			eS	44	50.16	
SUA	1.58	16	eP	44	35.25	-0.4
			eS	44	55.67	
PMS	1.65	38	eP	44	34.80	0.2
			eS	44	56.14	
PWA	1.91	26	eP	44	38.77	0.6
SKT	2.03	2	eP	44	40.05	0.1
PLRM	2.05	36	eP	44	39.34	-0.9
GHO	2.26	35	eP	44	42.62	-0.6
GLI	2.44	66	eP	44	43.03	-2.7
			iS	45	11.45	

CUT	2.55	15	eP	44	47.19	0.0
VZW	2.75	64	eP	44	47.99	-2.3
NCA	3.12	47	eP	44	54.34	-1.1
KLU	3.21	59	iP	44	54.72	-2.0
TOA	3.43	49	eP	44	59.29	-0.6
KTH	3.63	5	iP	45	03.54	0.8
RND	3.71	20	eP	45	03.35	-0.5
PAX	4.23	42	eP	45	10.23	-1.0

33 obs. associated

& APR 09, 1990 19h 46m 59.90s
 36.913 N 121.653 W
 DEPTH = 4.0km

CENTRAL CALIFORNIA

(39)

<BRK>. ML 3.2 (BRK).

SAO	0.22	131	iPd	47	04.20	-0.2
GCC	0.30	293	iPc	47	05.70	-0.2
MHC	0.43	1	iPd	47	08.70	0.2
ARN	0.45	12	iPc	47	09.00	0.2
PRS	0.62	158	iPc	47	11.50	-0.9
LLA	0.64	117	iPd	47	12.30	-0.4
PCC	0.83	315	eP	47	14.90	-1.5
BKS	1.07	334	eP	47	18.60	-2.0
			iS	47	35.50	

BRK	1.07	333	eP	47	19.60	-1.0
			eS	47	34.70	
PRI	1.11	134	eP	47	20.50	-0.8
PHAM	1.48	136	e(P)	47	26.30	-1.0
CMB	1.51	42	eP	47	26.10	-1.7
			eS	47	45.70	

FRI	1.56	87	eP	47	26.60	-1.8
BCH	2.14	143	eP	47	34.50	-2.5
KVN	3.53	52	e(P)	47	58.50	1.7

15 obs. associated

? APR 09, 1990 19h 56m 18.28 ± 1.07s
 26.287 S ± 37.4km 175.830 W ± 12.8km
 DEPTH = 33.0km (normol)
 4.8mb (11 obs.) 4.6msz (1 obs.)

SOUTH OF TONGA ISLANDS

(175)

DZM	16.71	281	iPc	00	12.90	1.3
PMG	38.84	289	eP	03	38.00	-4.3X
ASPA	45.42	262	iPc	04	35.10	-0.8
	1.1s				10.00nm	4.6mb

Z	18s				0.67um	4.6msz
					LR	23 32.10

WB5	46.03	267	eP	04	39.80	-1.0
WRA	46.04	267	Pd	04	39.50	-1.4
	0.9s				3.50nm	4.3mb

MAT	76.03	323	eP	08	02.00	-2.0
ARN	81.29	41	P	08	32.50	-0.2
FRI	82.14	42	eP	08	36.30	-0.7
CMB	82.42	41	eP	08	38.80	0.2
WDC	82.92	38	eP	08	41.60	0.6
TNP	84.35	43	P	08	49.60	1.0
KVN	84.44	41	P	08	48.80	-0.3
MSU	87.74	45	P	09	06.50	1.1
ALO	89.50	50	eP	09	14.00	0.2
	1.0s				7.25nm	4.9mb

ANMO	89.50	50	P	09	14.60	0.8
	1.1s				9.49nm	5.0mb

PMR	90.19	12	P	09	15.50	-0.6
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TTA	1.3s				2.83nm	4.4mb
	90.30	9	P	09	16.30	-0.4
	1.4s				31.25nm	5.4mb

NNT	90.60	284	eP	09	18.20	-0.7
BJI	91.38	315	eP	09	22.00	0.0
	1.0s				7.00nm	5.0mb

BW06	91.84	42	P	09	24.20	-0.2
	1.0s				3.50nm	4.7mb

LRM	91.92	39	eP	09	25.20	0.4
FBA	93.46	12	P	09	29.60	-1.5
	1.1s				14.84nm	5.3mb

KMI	93.71	296	eP	09	35.50	2.1
			sP	09	45.00	
CHG	94.04	289	eP	09	36.70	2.0
CHTO	94.04	289	iP	09	36.70	2.0
	1.0s				7.25nm	5.1mb

			pP	09	43.00	20kmX
			sP	09	46.90	

RSSD	95.94	43	P	09	42.80	-0.5
YKA	100.92	24	ePd	10	11.90	6.8X
	0.9s				0.40nm	4.0mb

NB2	144.93	354	PKP	15	57.00	3.9X
	1.1s				15.70nm	

HFS	145.53	352	ePKP	15	52.70	-1.4
	1.5s				57.30nm	

KAS	151.35	309	ePKP	16	17.00	13.1X
HRI	151.80	292	ePKP	16	18.00	13.1X
PRNI	152.61	286	ePKP	16	2	

NEO 0.97 60 ePb 27 54.00 1.4
 VLS 1.37 242 ePn 27 56.10 -2.2
 ATH 1.51 124 ePn 28 01.50 1.2
 ITM 1.65 186 ePb 28 03.10 0.7
 KEK 2.02 297 ePb 28 08.50 0.9
 KBN 2.06 331 ePn 28 08.80 0.6
 VLI 2.20 163 ePn 28 10.00 -0.2
 OHR 2.50 336 iPn 28 14.40 -0.2

1.1s 272.00nm
 iSg 28 45.70
 Lg 28 52.20

VAY 2.51 8 iPn 28 14.00 -0.7
 MMB 3.02 23 ePc 28 22.00 0.2
 Sg 28 59.00

TIR 3.06 326 ePn 28 27.50 5.1X
 KKB 3.12 13 iPc 28 23.00 -0.3
 iS 29 00.00

PHP 3.14 336 ePn 28 24.30 0.8
 SKO 3.18 351 iPn 28 23.00 -1.2
 iSn 28 59.00

LACI 3.36 327 ePn 28 27.70 1.0
 RZN 3.47 34 iPc 28 28.00 -0.5
 RDO 3.49 47 ePn 28 27.90 -0.7

PUK 3.64 333 ePn 28 32.00 1.4
 KDZ 3.78 41 eP 28 32.00 -0.6
 iS 29 07.00

VAM 3.79 154 ePb 28 37.60 4.8X
 VTS 3.85 12 eP 28 34.00 0.3
 PGB 4.03 22 eP 28 35.00 -1.2

PVL 5.01 28 eP 28 57.00 7.0X
 MLR 7.23 22 eP 29 21.00 -0.5
 VRI 7.81 24 eP 29 30.00 0.5

S.D. = 1.0 on 22 of 25 obs.

APR 09, 1990 20h 33m 03.43±0.66s
 38.874 N ± 5.8km 22.011 E ± 8.1km
 DEPTH = 10.0km (geophysicist)

GREECE (364)
 ML 3.2 (ATH).

NEO 1.04 65 ePg 33 24.10 1.1
 VLS 1.31 238 ePb 33 25.00 -2.7
 ATH 1.61 123 ePb 33 32.00 0.0
 ITM 1.69 182 ePg 33 34.20 1.0
 KEK 1.91 297 ePg 33 38.90 2.6
 VLI 2.27 161 ePn 33 40.10 -1.5
 OHR 2.42 338 iPn 33 44.70 1.0

1.2s 153.00nm
 iSn 34 16.00
 Lg 34 22.30

VAY 2.48 10 iPn 33 44.40 -0.1
 MMB 3.01 25 ePc 33 51.00 -1.1
 eSg 34 29.00

KKB 3.10 15 eP 33 53.00 -0.3
 SKO 3.12 352 ePnc 33 52.70 -0.9
 RZN 3.49 36 iPc 33 59.00 0.0

iSg 34 35.00
 RDO 3.53 49 ePn 33 58.50 -0.9
 KDZ 3.80 42 eP 34 02.00 -1.4

VTS 3.82 13 eP 34 04.00 0.3
 VAM 3.88 153 ePb 34 06.50 2.1
 PGB 4.02 23 eP 34 05.00 -1.4

PVL 5.01 29 eP 34 15.00 -5.4X
 MLR 7.23 23 ePc 34 54.00 2.2

S.D. = 1.5 on 18 of 19 obs.

APR 09, 1990 21h 09m 50.65±0.70s
 38.986 N ± 6.7km 21.857 E ± 7.8km
 DEPTH = 10.0km (geophysicist)

GREECE (364)
 ML 3.0 (ATH).

NEO 1.11 73 ePb 10 11.10 -0.4
 VLS 1.28 231 ePb 10 14.20 -0.2
 KEK 1.75 295 ePb 10 27.70 6.4X
 ATH 1.78 124 ePg 10 21.40 -0.2
 ITM 1.80 178 ePg 10 22.50 0.5
 OHR 2.27 339 ePn 10 28.30 -0.6
 VAY 2.40 13 ePn 10 31.40 0.9
 VLI 2.42 159 ePn 10 26.80 -4.1X

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

? APR 09, 1990 22h 28m 17.07±1.09s
 42.156 N ± 7.7km 21.357 E ± 14.2km
 DEPTH = 10.0km (geophysicist)

YUGOSLAVIA (383)
 ML 2.8 (SKO). Felt (IV) at

Skopje.

SKO 0.19 162 iPg 28 20.90 -0.5
 0.3s 2155.00nm

i 28 21.00
 iSg 28 22.50
 i 28 23.80

OHR 1.12 202 iPg 28 38.40 0.2
 0.6s 91.00nm

iSg 28 53.10
 Lg 28 55.80
 VAY 1.23 132 iPn 28 40.30 0.3

iSn 28 55.40
 iSg 28 56.80
 BZS 3.46 3 ePc 29 12.00 -0.1

RMP 6.46 270 P 29 58.80 4.2X
 eSg 30 01.50

S.D. = 0.6 on 4 of 5 obs.

APR 09, 1990 22h 28m 32.49±0.23s
 51.128 N ± 7.2km 29.927 W ± 2.6km
 DEPTH = 10.0km (geophysicist)

4.8mb (40 obs.) 4.5msz (7 obs.)
 NORTH ATLANTIC RIDGE (403)

DCN 14.04 72 eP 31 51.00 -2.5
 ECB 14.38 76 eP 32 08.10 10.2X
 0.8s 87.00nm

DLE 14.48 72 eP 31 57.70 -1.5
 ECP 14.65 77 eP 32 05.40 4.0X
 ETA 14.71 75 eP 32 08.80 6.6X

1.0s 116.00nm 5.4mb
 AKU 15.81 18 iP 32 26.00 9.6X
 1.4s 93.02nm 4.8mb

EKA 16.52 65 P 32 27.00 1.4
 1.3s 32.50nm 4.3mb
 GRR 18.92 87 eP 32 54.90 -0.6

LPF 18.93 88 eP 32 54.90 -0.6
 1.1s 43.95nm 4.6mb
 FLN 19.04 86 eP 32 56.00 -0.9

0.8s 10.75nm 4.1mb
 LDF 19.32 86 eP 32 59.20 -1.2
 MFF 20.03 91 eP 33 06.90 -1.2

1.3s 72.20nm 4.8mb
 TOL 21.22 112 iPd 33 20.50 -0.1
 1.3s 153.85nm 5.2mb

LSF 21.23 91 eP 33 19.20 -1.4
 1.2s 93.70nm 5.0mb
 LFF 21.32 95 eP 33 20.30 -1.1

1.2s 104.15nm 5.1mb
 UCC 21.49 77 P 33 22.90 -0.2
 SNF 21.51 78 iPc 33 23.03 -0.3

RJF 21.64 93 eP 33 23.50 -1.2
 1.1s 63.50nm 4.9mb
 TCF 21.65 90 eP 33 23.70 -1.1

1.2s 80.35nm 5.0mb
 DBN 21.70 74 eP 33 29.00 3.9X
 LPO 21.72 95 eP 33 24.50 -1.0

1.3s 86.65nm 5.0mb
 DOU 21.82 79 P 33 26.40 0.0
 1.1s 119.20nm 5.2mb

Z 19s 2.60um 4.7msz
 S 37 37.00
 MAF 21.90 90 eP 33 26.20 -1.1

1.2s 65.45nm 4.9mb
 BGF 21.94 89 eP 33 26.60 -1.0
 1.1s 54.95nm 4.9mb

SSF 22.15 87 eP 33 28.80 -1.0
 0.9s 34.40nm 4.8mb
 CAF 22.16 94 eP 33 28.90 -1.0

1.3s 59.55nm 4.9mb
 AVF 22.16 88 eP 33 28.90 -1.0
 1.0s 40.00nm 4.8mb

LOR 22.29 87 eP 33 30.30 -0.9
 1.0s 52.00nm 4.9mb
 SCH 22.33 294 eP 33 31.00 -0.5

ENN 22.46 77 eP 33 32.00 -0.7
 1.0s 22.00nm 4.6mb
 WIT 22.46 71 eP 33 34.00 1.3

LBF 22.48 87 eP 33 32.10 -1.0
 1.1s 61.05nm 5.0mb
 SMF 22.53 88 eP 33 32.60 -0.9

1.1s 48.85nm 4.9mb
 MEM 22.55 77 P 33 33.50 -0.1
 WTS 22.71 73 ePc 33 35.50 0.3

1.0s 33.00nm 4.8mb
 AAPN 22.93 117 iPc 33 39.50 1.8

ALOJ 23.08 117 iPd 33 41.00 1.8
 ASMO 23.11 116 iPc 33 41.00 1.5
 ATEJ 23.27 118 iPc 33 40.00 -1.1

VITF 23.28 83 P 33 41.12 0.3
 APHE 23.43 117 iPd 33 46.00 3.4X
 RUP 23.46 79 eP 33 44.14 1.5

HAU 23.58 83 eP 33 43.70 -0.1
 0.7s 7.70nm 4.4mb
 ABH 23.70 78 eP 33 46.71 1.7

FRB 23.88 317 eP 33 47.00 0.6
 BSF 23.92 83 P 33 47.83 0.6
 ECH 24.01 82 P 33 49.29 1.3

CDF 24.02 82 P 33 49.00 0.9
 GWF 24.04 80 P 33 49.18 1.0
 LOMF 24.13 85 P 33 50.70 1.5

MOF 24.13 83 P 33 50.74 1.5
 TOD 24.56 78 eP 33 49.37 -4.0X
 NB2 24.60 50 P 33 54.20 0.6

1.1s 10.00nm 4.4mb
 FEL 24.67 83 eP 33 54.75 0.3
 LPL 24.83 89 eP 33 55.90 -0.3

0.9s 17.20nm 4.7mb
 LPG 24.85 89 eP 33 56.20 -0.2
 0.9s 23.75nm 4.9mb

BNI 25.00 90 P 34 02.50 4.8X
 ORO 25.57 87 P 34 03.50 0.5
 VAI 25.96 86 Pd 34 07.50 1.0

MOX 25.97 75 eP 34 07.00 0.4
 GRF 26.02 77 eP 34 07.80 0.7
 0.8s 7.00nm 4.4mb

Z 22s 1.00um 4.3msz
 e 34 15.60
 CLL 26.61 73 e(P) 34 12.00 -0.5

OGA 26.95 83 eP 34 16.80 0.9
 BRG 27.31 73 eP 34 18.50 -0.4
 1.2s 19.00nm 4.7mb

i 34 39.00
 KHC 27.66 77 P 34 22.50 0.3
 Z 18s 1.20um 4.5msz

N 18s 0.50um
 E 18s 0.70um
 PRU 27.95 75 eP 34 31.50 6.8X

Z 20s 1.10um 4.4msz
 N 20s 0.50um
 E 20s 0.70um

NUR 31.19 51 eP 34 53.30 -0.1
 KRA 31.19 72 eP 34 53.50 -0.1
 Z 16s 1.20um 4.7msz

E 16s 1.80um
 SUF 31.66 47 eP 34 58.00 0.4
 0.8s 8.00nm 4.7mb

MLR 36.81 76 eP 35 43.50 1.3
 RSON 39.00 295 P 36 00.00 -0.4
 MBC 40.94 339 ePc 36 18.00 2.0

1.1s 23.00nm 4.8mb
 FFC 41.83 304 iPd 36 24.10 0.5
 1.0s 18.00nm 4.8mb

YKA 44.37 319 eP 36 43.00 -1.2
 1.1s 5.10nm 4.3mb
 INK 48.26 331 eP 37 14.00 -0.8

EDM 48.41 307 eP 37 16.00 -0.3
 SES 48.78 303 eP 37 19.00 -0.2
 DSI 51.01 86 eP 37 37.00 0.6

PRNI 51.60 88 eP 37 42.50 1.6
 GOL 51.96 289 P 37 43.30 -0.6
 LRM 52.24 299 eP 37 45.30 -0.6

IMW 52.58 296 P 37 48.20 -0.3
 NEW 53.25 304 P 37 52.60 -0.5
 0.9s 7.13nm 4.6mb

PNT 53.89 306 eP 37 59.00 1.3
 FBA 54.78 333 eP 38 04.50 0.4
 IMA 55.52 336 eP 38 09.70 0.1

1.2s 7.80nm 4.6mb
 ANMO 55.71 285 P 38 11.90 0.4
 1.0s 7.19nm 4.7mb

ALQ 55.72 285 eP 38 11.00 -0.5
 1.0s 7.25nm 4.7mb
 Z 18s 0.81um 4.9msz

DUG 56.02 294 P 38 13.40 -0.2
 1.0s 12.50nm 4.9mb
 TOA 56.35 330 eP 38 16.20 0.7

BMW 57.58 305 P 38 23.50 -1.0
 PMR 57.66 330 eP 38 25.50 0.7
 KVN 59.81 296 P 38 39.80 -0.5

WDC 61.23 300 eP 38 48.80 -0.9
 ORV 61.37 298 eP 38 49.10 -1.6
 GSC 61.66 292 eP 38 53.00 0.2

09d 22h

CLC 61.76 293 eP 38 53.00 -0.4
 CMB 61.81 296 eP 38 53.20 -0.5
 FHC 61.86 301 eP 38 54.00 0.0
 TPC 62.05 290 eP 38 56.00 0.6
 GLA 62.06 289 eP 38 55.00 -0.5
 FRI 62.15 295 eP 38 53.60 -2.3
 MAIO 62.43 66 eP 39 05.00 7.1X
 SBB 62.68 292 eP 39 01.00 1.4
 PLM 63.06 290 eP 39 04.00 1.8
 LLA 63.12 296 eP 39 02.60 0.2
 MWC 63.15 292 eP 39 02.00 -0.8
 PRI 63.30 295 eP 39 03.90 0.2
 BAR 63.42 290 eP 39 05.00 0.6
 BAO 68.33 199 eP 39 36.50 0.5
 SIV 72.17 212 P 39 59.50 0.2
 ZOBO 74.96 218 P 40 16.00 -0.2

1.2s 6.76nm 4.6mb
 Z 20s 0.19um 4.4Msz
 LR 04 32.00

LZH 84.13 36 P 41 18.50 13.6X
 2.0s 47.00nm
 Z 20s 0.30um 4.7Msz
 pP 41 32.00 46kmX
 sP 41 36.50

GBA 90.08 68 Pc 41 41.40 7.5X
 1.1s 7.10nm 4.8mb
 WB5 146.45 27 ePKP 48 15.20 1.3
 e 48 22.70

ASPA 149.86 31 iPKPc 48 23.80 4.6X
 0.9s 6.00nm
 S.D. = 1.0 on 103 of 116 obs.

APR 09, 1990 22h 34m 52.42 ± 0.34s
 42.527 N ± 7.6km 144.678 E ± 5.8km
 DEPTH = 33.0km (normal)
 4.9mb (40 obs.) 3.8Msz (1 obs.)
 HOKKAIDO, JAPAN REGION (224)

MAT 7.79 222 iPc 36 45.70 -0.6
 0.7s 44.52nm 5.6mb
 (S) 38 12.00

BJI 21.52 273 eP 39 39.00 -1.5
 1.0s 30.00nm 4.7mb
 Z 20s 0.42um 3.8Msz
 eS 43 46.00

KMI 38.48 257 Pc 42 14.50 1.1
 pP 42 24.00 32kmX
 TTA 39.52 38 eP 42 21.70 0.3
 SVW 39.66 41 eP 42 23.70 1.1
 IMA 40.70 33 eP 42 31.50 0.3

0.7s 12.90nm 4.8mb
 PMR 42.76 40 eP 42 48.30 0.4
 0.8s 5.10nm 4.3mb
 FBA 43.14 35 ePc 42 51.60 0.6
 TOA 44.10 39 eP 42 59.90 1.0
 CHG 45.20 253 ePc 43 09.70 1.5

1.0s 16.00nm 4.9mb
 CHTO 45.20 253 iPc 43 09.30 1.2
 0.8s 10.98nm 4.8mb
 pP 43 15.50 21kmX
 sP 43 19.30

INK 48.37 29 iPc 43 32.20 -0.2
 GUN 49.27 273 P 43 40.50 0.1
 0.6s 27.00nm 5.5mb
 KKN 49.78 273 P 43 44.40 0.3
 0.7s 15.00nm 5.1mb
 PKI 49.80 273 P 43 44.20 -0.3
 0.7s 13.00nm 5.1mb

DMN 50.01 273 P 43 46.20 0.3
 GKN 50.14 274 P 43 46.60 -0.2
 0.7s 20.00nm 5.2mb
 MBC 50.54 18 eP 43 49.00 0.0
 1.0s 6.00nm 4.5mb

NDI 55.21 279 eP 44 24.00 -0.4
 YKA 57.82 33 eP 44 41.00 -1.5
 0.7s 2.30nm 4.3mb
 KEV 59.21 339 iP 44 51.20 -1.0
 DAG 60.52 356 eP 44 59.00 -2.0
 SOD 60.89 337 iP 45 02.70 -1.0
 HYB 60.92 267 eP 45 04.00 -0.6
 QUE 61.77 286 eP 45 09.40 -1.0
 PNT 62.54 47 eP 45 14.00 -1.1
 0.4s 3.00nm 4.8mb

WB5 62.82 191 eP 45 16.80 -0.2
 EDM 63.52 41 eP 45 21.50 0.0
 GBA 64.19 265 Pc 45 23.80 -2.4
 0.8s 10.60nm 5.0mb

SUF 64.21 333 iP 45 24.60 -1.2
 0.6s 15.30nm 5.3mb
 NEW 64.50 47 P 45 27.50 -0.5
 NUR 66.28 332 iP 45 37.80 -1.3
 0.6s 23.50nm 5.5mb
 ASPA 66.61 191 iPc 45 41.40 -0.2
 0.5s 2.00nm 4.5mb
 FFC 67.75 35 iPc 45 48.10 -0.4
 1.0s 16.00nm 5.1mb
 LRM 68.52 47 iPc 45 53.90 0.1
 CMB 68.72 58 P 45 50.00 -4.9X
 UPP 69.11 334 iP 45 55.30 -1.5
 NB2 70.07 338 P 46 01.90 -0.9
 0.8s 15.70nm 5.1mb
 HFS 70.10 336 eP 46 01.20 -1.7
 0.6s 20.00nm 5.4mb

IMW 70.58 48 P 46 07.40 0.9
 FRB 70.84 15 eP 46 06.00 -1.3
 BW06 72.07 48 P 46 14.90 -0.5
 0.5s 4.02nm 4.7mb

RSON 74.02 34 P 46 24.50 -1.8
 RSSD 74.10 44 P 46 26.50 -0.7
 KRA 75.91 327 ePd 46 37.50 0.3
 e 46 41.50

KSP 76.71 329 eP 46 21.50 -20.2X
 CLL 77.54 331 iPc 46 46.10 -0.1
 1.0s 15.00nm 5.0mb

PRU 78.07 330 iPc 46 49.50 0.4
 e 47 12.80
 SRO 78.34 326 eP 46 50.40 -0.2
 ZST 78.53 327 eP 46 52.60 0.9
 EKA 78.75 342 Pd 46 53.20 0.4

1.1s 10.40nm 4.8mb
 KHC 79.13 330 eP 46 55.30 0.3
 ANMO 79.18 52 P 46 56.00 0.2
 1.0s 3.75nm 4.3mb

ALQ 79.19 52 eP 46 56.00 0.2
 1.0s 2.50nm 4.2mb
 GRF 79.52 331 ePc 46 57.90 0.8
 1.1s 14.00nm 4.9mb

HRI 80.40 307 eP 47 03.00 0.8
 KBA 80.91 329 iPd 47 05.70 1.0
 0.8s 8.30nm 4.8mb
 i 47 07.30
 i 47 22.60
 i 47 35.00

DLE 81.40 343 eP 47 07.20 0.3
 CDF 81.97 333 eP 47 10.40 0.3
 HAU 82.64 333 eP 47 12.90 -0.6
 FLN 84.06 338 eP 47 21.30 0.6
 0.5s 4.35nm 4.9mb

LOR 84.09 334 eP 47 21.00 0.0
 1.1s 13.45nm 5.0mb
 LBF 84.31 334 eP 47 22.10 0.0
 0.7s 4.40nm 4.7mb

SSF 84.39 334 eP 47 22.60 0.2
 GRR 84.51 338 eP 47 23.30 0.3
 SMF 84.65 334 eP 47 24.10 0.3
 0.7s 3.85nm 4.7mb

LPL 84.67 332 eP 47 24.90 0.8
 LPG 84.68 332 eP 47 24.90 0.6
 0.8s 6.70nm 4.9mb
 AVF 84.68 334 eP 47 24.40 0.5
 0.7s 5.50nm 4.9mb

MAF 85.43 335 eP 47 28.60 0.9
 0.8s 8.05nm 5.0mb
 TCF 85.49 335 eP 47 28.10 0.1
 LSF 85.73 335 eP 47 32.00 2.8
 0.7s 7.70nm 5.0mb

MFF 85.92 337 eP 47 30.80 0.7
 0.6s 5.40nm 5.0mb
 RJF 86.58 335 eP 47 34.20 0.8
 0.7s 6.60nm 5.0mb

CAF 86.75 334 eP 47 35.60 1.3
 0.9s 16.40nm 5.3mb
 LFF 87.15 335 eP 47 37.20 1.1
 0.7s 8.80nm 5.1mb

LPO 87.24 335 eP 47 37.80 1.2
 0.6s 3.60nm 4.8mb
 SIV 145.56 48 PKPc 54 29.50 0.4
 BAO 151.07 26 ePKP 54 36.50 -1.4

S.D. = 0.9 on 77 of 79 obs.

APR 10, 1990 00h 04m 39.99 ± 0.50s
 57.907 N ± 6.2km 155.357 W ± 5.3km
 DEPTH = 113.3 ± 3.0 km
 4.9mb (35 obs.)

ALASKA PENINSULA (12) Felt (IV) at Perryville.

CDD 1.37 41 iP 05 05.73 -0.1
 BGM 1.49 3 iP 05 07.44 0.1
 KDC 1.54 95 iPd 05 07.10 -0.7
 AUE 1.79 35 iP 05 11.44 0.6
 iS 05 33.49

AUL 1.79 33 iP 05 11.39 0.5
 iS 05 33.65
 PDB 1.98 17 iP 05 13.61 0.3
 eS 05 36.63
 CNPM 2.69 51 iP 05 22.27 -0.4
 eS 05 52.85

RED 2.85 27 iP 05 25.12 0.3
 iS 05 58.71
 BRLL 2.98 49 eP 05 25.91 -0.6
 >NNL 3.00 43 iP 05 27.29 0.5

RDT 3.07 28 iP 05 27.72 -0.1
 SVW 3.21 358 eP 05 30.00 0.3
 NKA 3.54 35 eP 05 35.07 1.0
 CKL 3.64 24 iP 05 35.70 0.2
 BGL 3.69 23 iP 05 36.59 0.4
 SPU 3.69 26 iP 05 35.93 -0.2
 eS 06 16.56

SLKM 3.71 43 eP 05 34.92 -1.5X
 CRP 3.74 24 iP 05 37.15 0.2
 SEW 3.77 52 eP 05 35.16 -1.9X
 CGLM 3.81 25 iP 05 37.79 -0.1
 SDN 3.83 230 ePd 05 37.90 -0.1
 NCG 3.86 23 iP 05 38.77 0.2

SUA 4.27 31 eP 05 43.29 -0.8X
 PMS 4.46 39 ePd 05 45.60 -1.0X
 SKT 4.52 24 iP 05 46.70 -0.7X
 PWA 4.66 34 ePd 05 48.10 -1.2X
 PLRM 4.85 38 eP 05 49.84 -2.1X
 PMR 4.85 38 ePd 05 49.90 -2.0X
 MID 4.95 68 ePd 05 51.00 -2.2X

KNK 4.96 42 eP 05 51.49 -1.9X
 TTA 5.05 357 ePd 05 55.00 0.3X
 GHO 5.05 37 eP 05 52.66 -2.1X
 CUT 5.18 27 eP 05 55.08 -1.3X
 SML 5.27 39 eP 05 56.18 -1.6X
 HUR 5.82 27 eP 06 04.24 -1.0X
 NCA 5.93 43 eP 06 04.51 -2.3X

KLU 5.98 49 iP 06 05.57 -1.9X
 KTH 6.07 19 eP 06 07.36 -1.4X
 TOA 6.24 44 ePd 06 09.20 -1.8X
 RND 6.37 27 eP 06 10.60 -2.3X
 MCK 6.63 26 eP 06 14.74 -1.6X
 SDG 6.73 42 eP 06 16.65 -1.1X
 GLB 6.83 54 iP 06 17.33 -1.8X

TGL 7.01 61 iP 06 20.02 -1.7X
 PAX 7.05 40 eP 06 19.80 -2.3X
 NEA 7.34 22 eP 06 22.89 -3.1X
 WRH 7.46 25 eP 06 24.42 -3.2X
 DDM 7.50 34 eP 06 26.92 -1.3X
 CCB 7.67 25 eP 06 27.06 -3.4X
 HDA 7.68 28 eP 06 27.54 -3.0X

RDS 7.75 23 eP 06 29.45 -2.2X
 FBA 7.89 24 ePc 06 30.40 -3.1X
 GLM 8.06 25 eP 06 32.54 -3.3X
 PCA 8.10 68 eP 06 34.62 -1.8X
 IMA 8.23 5 eP 06 37.10 -1.1X
 BCPM 8.39 69 iP 06 38.20 -2.0X
 HQN 8.72 73 iP 06 42.21 -2.5X

HYT 9.56 65 P 06 55.00 -1.2
 DWY 9.87 45 P 06 59.40 -0.8
 SIT 10.81 86 eP 07 09.00 -3.6X
 ADK 13.64 253 eP 07 49.10 -0.5
 INK 14.26 34 P 07 57.00 -0.4
 YKA 20.50 60 eP 09 09.80 -0.6
 0.5s 8.20nm 4.3mb

MBC 22.43 22 ePd 09 30.50 1.2
 0.5s 4.00nm 4.0mb
 PNT 22.64 97 eP 09 56.00 24.3X
 0.5s 4.00nm
 EDM 23.91 83 eP 09 45.50 1.5
 FRB 39.60 44 eP 12 01.50 0.5

DAG 0.3s 14.00nm 5.2mb
 42.82 13 eP 12 26.10 -1.2
 0.4s 9.32nm 4.9mb
 SOD 55.02 359 iP 14 00.00 -1.1
 SUF 59.70 359 iP 14 32.80 -1.2
 0.4s 7.50nm 5.1mb

NB2 60.93 7 P 14 40.90 -1.6
 0.6s 2.10nm 4.3mb

APR 10, 1990	00h 09m 30.31±	0.82s
23.699 S ± 5.9km	179.989 W ± 7.7km	
DEPTH = 557.5 ± 11.0 km		
5.0mb (9 obs.)		
SOUTH OF FIJI ISLANDS (171)		
SGE	6.39 342 ePd	11 13.00 -0.7
DZM	12.61 275 iPd	12 17.00 1.5
TAZ	14.79 191 eP	12 40.70 3.7X
PGZ	17.16 190 P	13 01.30 1.2
MNG	17.30 192 eP	13 00.20 -1.2
KIW	17.64 193 P	13 04.50 -0.3
MTW	17.82 191 eP	13 05.80 -0.7
CAW	17.85 192 P	13 07.30 0.5
WDW	18.02 192 eP	13 08.30 -0.1
BLW	18.02 191 P	13 08.90 0.4
MWR	18.04 193 P	13 09.00 0.4
TCW	18.11 194 P	13 09.80 0.5
MOW	18.12 192 P	13 09.30 -0.1
KHZ	19.43 195 P	13 21.70 0.1
LTZ	20.09 197 P	13 27.50 -0.3
RMQ	28.41 258 iPd	14 43.50 1.4
	1.1s 122.00nm	5.4mb
CAN	29.25 240 iPd	14 51.00 1.6
BWA	29.50 242 eP	14 51.20 -0.4
CTA	31.49 270 iPc	15 09.00 0.5
	0.8s 149.25nm	5.7mb
	i	15 12.00
DIS	37.48 267 iPd	15 58.00 -0.2
WB5	42.42 266 iPd	16 37.70 -0.3
KNA	48.67 270 iPd	17 25.80 -0.3
GUA	50.47 314 eP	17 38.00 -1.3
	0.7s 131.51nm	5.5mb
GUMO	50.54 314 eP	17 38.70 -1.0
PJG	50.54 314 eP	17 38.70 -1.0
COOL	52.30 248 eP	17 51.50 -1.0
KLB	55.07 247 eP	18 11.50 -0.5
MBL	55.32 260 iPd	18 13.10 -0.8
	0.5s 18.00nm	4.7mb
NWAO	55.33 245 eP	18 13.70 -0.1
BAL	56.11 248 iPd	18 19.00 -0.3
	0.3s 10.00nm	4.6mb
MUN	56.32 246 iPd	18 20.50 -0.2
NANU	58.84 257 iPd	18 37.90 0.0
SPA	66.44 180 iPc	19 23.40 -2.8
	1.0s 22.00nm	4.6mb
MAT	71.74 326 eP	19 57.00 -0.8
	0.9s 21.85nm	4.7mb
PLM	82.64 49 eP	20 57.00 0.2
BBB	82.74 47 eP	20 57.00 -0.1
CLC	83.55 46 eP	21 01.00 -0.1
TPC	83.62 49 eP	21 02.00 0.5
GSC	83.78 47 eP	21 03.00 0.7
SLA	83.89 50 eP	21 04.00 1.2
CHG	89.62 291 iPd	21 32.00 1.9
	1.1s 25.32nm	5.1mb
CHTO	89.62 291 iPd	21 32.20 2.1
	1.3s 31.45nm	5.1mb
MBC	106.29 13 ePd i f22	29.00 -15.0X
SUF	137.21 343 iPKP	27 44.50 -6.8X
	0.6s 3.40nm	
NB2	141.89 351 PKP	27 54.90 -4.9X
	0.8s 5.70nm	
HFS	142.35 349 ePKP	27 55.50 -5.0X
	0.5s 13.60nm	
KAS	146.80 310 iPKPd	28 12.20 3.5X
HRI	147.31 295 iPKPd	28 13.50 3.7X
DSI	147.81 292 ePKP	28 14.50 4.1X
SBTK	148.06 308 iPKPd	28 15.00 4.2X
PRNI	148.23 290 iPKPd	28 16.00 4.8X
KRA	149.43 334 ePKP	28 17.40 5.0X
MLR	149.76 322 ePKP	28 20.00 6.8X
GPC	149.99 333 iPKP	28 19.00 5.5X
KSP	150.10 339 iPKPd	28 19.50 6.1X
	e	28 27.50
CLL	150.66 343 iPKPd	28 20.60 6.4X
	0.9s 26.00nm	
	i	28 29.40
BRG	150.80 342 iPKP	28 20.80 6.4X
	1.0s 20.00nm	
	i	28 30.40
PRU	151.40 340 PKP	28 22.20 6.9X
NHC	152.46 341 ePKP	28 24.50 7.6X
	e	28 38.00
VET	152.65 341 iPKPc	28 38.80 21.6X
FUR	153.99 343 iPKPc	28 44.70 25.7X
	0.7s 18.00nm	

SKO	154.50	321	iPKP	28	47.00	27.1X
CDF	154.67	349	ePKP	28	46.20	26.2X
S.D. = 1.0 on 41 of 63 obs.						

APR 10, 1990 00h 35m 35.47± 0.79s						
15.160 N ± 9.6km 147.542 E ± 7.4km						
DEPTH = 20.2 ± 5.8 km						
5.0mb (10 obs.)						
MARIANA ISLANDS REGION (215)						
GUA	3.02	238	eP	36	23.20	0.1
			eS	36	59.50	
GUMO	3.03	239	eP	36	23.00	-0.2
PJG	3.03	239	eP	36	23.80	0.6
MAT	22.86	340	eP	40	38.00	-0.7
	1.0s	20.00nm				4.6mb
PMG	24.41	181	eP	40	49.00	-4.9X
BJI	36.92	318	eP	42	45.00	0.2
	1.5s	26.00nm				4.8mb
WB5	37.15	201	eP	42	46.20	-0.7
LZH	44.12	306	Pd	43	45.00	0.5
	3.0s	83.00nm				5.1mb
			pP	44	11.00	112kmX
GUN	58.22	294	P	45	31.40	0.0
	1.0s	50.00nm				5.5mb
PKI	58.65	293	P	45	33.90	-0.5
KKN	58.75	293	P	45	34.80	-0.2
	1.0s	22.00nm				5.2mb
DMN	58.91	293	P	45	35.80	-0.4
	1.0s	48.00nm				5.6mb
GKN	59.32	294	P	45	38.60	-0.3
	1.0s	72.00nm				5.8mb
HYB	65.93	283	eP	46	23.00	0.2
GBA	67.65	279	Pc	46	33.20	-0.5
	0.8s	3.00nm				4.5mb
INK	71.93	23	eP	46	58.00	-1.0
MBC	76.12	14	eP	47	23.50	0.3
	1.0s	13.00nm				4.9mb
MAIO	79.64	305	eP	47	44.00	0.5
YKA	80.28	28	eP	47	45.00	-1.1
	1.2s	4.80nm				4.4mb
PNT	80.49	42	eP	47	48.00	0.4
CMB	82.42	53	eP	47	58.30	0.3
FRI	83.19	54	eP	48	01.40	-0.5
SES	85.56	39	ePc	48	14.00	0.4
LRM	86.08	44	iPc	48	17.00	0.4
IR4	86.68	305	eP	48	20.00	0.4
IR7	86.78	306	eP	48	22.00	1.9
IR5	86.94	306	eP	48	21.00	0.1
TAB	89.35	309	eP	48	39.00	6.6X
KIC	145.19	306	PKPd	55	13.84	-0.4
TIC	145.23	307	PKP	55	13.76	-0.6
LIC	145.50	306	PKP	55	14.80	0.0
ZOBO	145.67	97	PKP	55	17.00	1.3
	1.2s	6.76nm				
LPB	145.71	97	ePKP	55	21.00	5.4X
S.D. = 0.7 on 30 of 33 obs.						

* APR 10, 1990 01h 16m 19.53± 0.54s						
21.738 N ± 6.8km 97.737 E ± 11.3km						
DEPTH = 10.0km (geophysicist)						
4.1mb (3 obs.)						
BURMA (296)						
CHG	3.12	159	eP	17	10.50	0.8
CHTO	3.12	159	iPn	17	09.30	-0.4
BDT	4.63	165	ePn	17	30.10	-1.0
			ePg	17	49.00	
			eSg	18	44.00	
KMI	5.70	53	Pgc	18	05.00	18.5X
			Sg	19	15.00	
LOE	5.72	138	eP	18	03.00	16.4X
NST	6.45	159	ePn	17	57.50	0.7
			eSg	19	56.00	
PKI	12.62	300	P	19	21.00	-1.3
LZH	15.26	19	Pd	19	57.00	0.2
	2.0s	47.00nm				4.5mb
Z	10s	1.00um				4.3mszX
N	10s	0.80um				
			pP	20	02.50	
			i	20	20.50	
			eS	22	18.00	
HYB	18.58	260	eP	20	45.00	6.3X
NDI	19.80					

10d 01h

HFS	68.46	328	eP	27	23.50	-0.2	VLS	0.23	96	iPgc	19	19.70	-0.4			eSn	23	00.00							
	2.3s	249.30nm				6.0mb X	KEK	1.56	346	ePb	19	44.60	1.7	TRI	8.94	329	e(Pn)	21	25.70	-1.5					
INK	82.79	17	ePd	28	44.80	0.0	ITM	1.65	128	ePn	19	44.20	0.0			i(Sn)	23	00.60							
YKA	92.21	14	eP	29	29.70	-0.9	SRN	1.69	352	iPn	19	46.90	2.1	VRI	9.03	30	eP	21	28.50	0.1					
	0.8s	0.50nm				3.9mb	LSK	1.96	7	iPnc	19	50.10	1.3	VOY	9.16	331	ePn	21	28.20	-2.0					
	S.D. = 1.0	on 11 of 15 obs.					TPE	2.10	354	iPnc	19	51.50	0.7			eSn	23	08.70							

* APR 10, 1990 01h 48m 36.09± 1.26s																									
38.772 N ± 9.9km 21.916 E ± 15.2km																									
DEPTH = 10.0km (geophysicist)																									
GREECE (364)																									
NEO	1.15	62	ePb	48	57.90	0.3	VLI	2.57	124	ePn	19	58.20	0.7	RBL	9.62	331	P	21	34.90	-1.8					
ITM	1.59	180	ePb	49	09.80	5.5X	ATH	2.71	94	ePn	19	59.10	-0.4	FVI	10.06	329	P	21	40.80	-1.7					
VLI	2.20	158	ePn	49	13.20	-0.1	LCI	2.80	320	P	20	01.00	0.2	CTI	10.13	323	P	21	41.40	-2.3					
OHR	2.49	340	ePn	49	17.00	-0.3	OHR	2.93	7	iPnc	20	04.30	1.6	KBA	10.24	332	iPd	21	43.60	-1.7					
VAY	2.60	11	ePn	49	17.50	-1.3										0.4s	9.80nm		5.5mb X						
SKO	3.22	354	ePn	49	29.00	1.4																			
	S.D. = 1.4	on 5 of 6 obs.					TIR	3.16	354	iPnc	20	07.50	1.7	ZST	10.26	348	eP	22	22.20	36.9X					

APR 10, 1990 02h 25m 19.51± 0.39s																									
4.494 S ± 5.9km 136.728 E ± 7.1km																									
DEPTH = 33.0km (normol)																									
5.1mb (8 obs.)																									
WEST IRIAN REGION (196)																									
MNDI	7.10	104	eP	27	05.00	1.1	TDS	3.41	296	P	20	13.00	3.5X	SAL	10.38	319	P	21	45.00	-2.0					
MTN	9.97	213	eP	27	45.00	1.3	LACI	3.46	353	iPnd	20	11.00	0.9	BOB	10.45	312	P	21	48.70	0.6					
			eS	29	38.00		PHP	3.49	2	iPnd	20	10.90	0.5	MDI	10.92	317	P	21	52.50	-1.9					
PMG	11.44	116	eP	28	01.50	-2.2	ORI	3.52	303	P	20	14.10	3.1X	SPC	10.98	360	eP	22	05.40	9.9X					
KNA	13.65	214	eP	28	32.70	-0.5	VAY	3.57	29	iPnc	20	11.30	-0.4			e	22	17.70							
			eS	30	58.00		BRT	3.59	319	Pc	20	13.50	1.6	OGA	11.03	325	eP	21	56.10	0.0					
WB5	15.47	188	eP	28	55.80	-1.2	ATN	3.81	271	P	20	16.90	1.7	OSS	11.31	322	eP	21	59.40	-0.6					
			i	29	04.00		ULC	3.84	348	ePn	20	15.20	-0.4	VAI	11.49	315	P	22	00.20	-1.9					
			eS	31	35.00									VDL	11.51	319	eP	22	03.00	0.3					
WRA	15.53	188	P	28	57.00	-0.8	PUK	3.85	355	iPnd	20	16.60	1.0	TMA	11.58	317	eP	22	02.20	-1.4					
	0.4s	1.60nm				3.6mb X	SDA	3.86	351	ePn	20	16.70	0.9	ORO	11.79	313	P	22	06.00	-0.4					
OIS	16.21	170	eP	29	03.00	-3.5X	SKO	3.87	13	iPn	20	15.60	-0.3	KHC	11.95	338	P	22	05.40	-3.1X					
			eS	31	59.00											e	22	27.60							
CTA	18.06	150	iPc	29	32.00	2.2								LLS	12.01	320	eP	22	09.80	0.4					
	1.0s	17.50nm				4.1mb	BAI	3.94	319	P	20	18.00	1.1	LPG	12.45	310	eP	22	15.00	-0.4					
			i	29	34.00		MGR	4.16	299	P	20	22.40	2.3	LPL	12.47	310	eP	22	15.00	-0.6					
			eS	32	40.50		BCI	4.17	358	iPnd	20	21.00	0.9	PRU	12.48	343	P	22	13.30	-2.2					
			eSS	33	06.00		VAM	4.19	131	ePn	20	19.50	-1.0			e	22	25.20							
			e(SSS)	33	26.00		KKB	4.24	29	iPc	20	21.00	-0.2	EMS	12.65	313	eP	22	19.20	1.2					
			e	39	45.00		MMB	4.29	37	eP	20	22.00	0.0	HRI	13.47	107	eP	22	20.50	-8.4X					
ASPA	19.26	188	iPd	29	44.40	0.1	TTG	4.30	350	ePn	20	21.70	-0.3	BSF	13.78	319	eP	22	31.40	-1.4					
	0.7s	58.00nm				4.9mb	APE	4.30	104	ePn	20	23.50	1.3		0.6s	3.60nm			4.4mb						
Z	22s	0.37um				4.4msz	PVY	4.40	357	ePn	20	24.20	0.7	CDF	13.91	321	eP	22	31.40	-3.2X					
			eS	33	11.40									DSI	14.03	114	eP	22	30.00	-6.0X					
			LR	37	14.20		MEU	4.40	257	P	20	22.40	-1.2	CLL	14.08	341	e(P)	22	46.00	9.3X					
MBL	23.32	223	eP	30	29.00	3.3X	HCY	4.46	343	ePn	20	23.00	-1.3	HAU	14.12	318	eP	22	36.40	-0.8					
RMO	24.71	153	eP	30	44.00	4.8X								MBH	14.72	121	eP	22	49.00	3.9X					
			e	36	40.00		SGO	4.53	303	P	20	28.80	3.6X	SMF	14.78	310	eP	22	46.60	0.8					
CHTO	43.83	303	eP	33	24.70	0.2	IVA	4.68	356	ePn	20	28.10	0.6	LBF	14.86	311	eP	22	48.60	1.6					
LZH	50.76	325	Pd	34	18.50	-0.3									1.1s	15.85nm			4.4mb						
	1.0s	41.00nm				5.4mb	NKY	4.71	348	ePn	20	27.00	-1.0	MEM	16.03	325	P	23	13.20	11.2X					
			pP	34	24.00	18kmX								DOU	16.34	322	P	23	13.00	7.0X					
GUN	58.61	306	P	35	16.40	0.0	BRY	4.88	345	ePn	20	29.00	-1.4	UPP	21.74	356	iP	24	06.20	-2.1					
PKI	58.85	306	P	35	17.80	-0.3								HFS	22.35	351	eP	24	13.30	-1.1					
	0.8s	16.00nm				5.2mb	VTS	4.92	26	iPg	20	11.00	-19.9X		1.2s	26.20nm			4.6mb						
KKN	59.04	306	P	35	19.20	-0.1	RDO	5.00	52	ePn	20	30.60	-1.3	Z	15s	0.08um			3.3mszX						
	0.8s	32.00nm				5.5mb	PLE	5.17	353	ePn	20	36.00	1.5	NUR	22.50	6	eP	24	14.00	-1.8					
DMN	59.11	306	P	35	19.80	0.0								EKA	23.31	325	Pd	24	24.50	0.7					
	0.8s	41.00nm				5.6mb	SMG	5.19	93	ePn	20	37.00	2.3		1.0s	10.10nm			4.3mb						
GKN	59.65	306	P	35	23.60	0.2	KDZ	5.23	47	iPd	20	33.00	-2.2	NB2	23.56	349	P	24	24.70	-1.6					
TTA	83.85	25	eP	37	47.40	0.4									0.7s	3.30nm			4.0mb						
IMA	85.94	23	eP	37	57.80	0.3	DUI	5.66	309	Pc	20	43.50	2.0	SUF	24.81	6	iP	24	38.30	0.0					
	0.9s	5.20nm				4.8mb	SDI	6.09	307	P	20	49.60	2.2	LKO	36.81	226	P	26	25.10	-0.1					
PMR	86.45	27	eP	37	59.40	-0.4	BEO	6.62	1	ePn	20	56.00	1.2	YKA	73.31	340	eP	30	47.00	-1.2					
	1.2s	9.80nm				4.9mb	AQU	6.71	310	P	20	58.50	2.4		0.9s	0.90nm			3.8mb						
FBA	87.92	24	eP	38	06.20	-0.7	BLV	6.95	341	eP	21	22.90	23.5X	S.D. = 1.3 on 86 of 105 obs.											
TOA	87.94	27	eP	38	07.80	0.7	MNS	7.17	308	P	21	04.00	1.5	& APR 10, 1990 03h 28m 21.70s											
LPB	147.77	131	PKP	45	07.00	5.9X	BZS	7.48	7	ePc	21	03.50	-3.3X	36.872 N 121.618 W											
ZOBO	147.91	131	PKP	45	04.00	2.5X	ARV	7.69	316	P	21	09.80	0.0	DEPTH = 4.0km											
	1.1s	11.60nm					VBY	8.21	334	ePnd	21	16.00	-1.0	CENTRAL CALIFORNIA (39)											
CCH	148.66	134	PKP	45	08.90	6.5X								<BRK>. ML 3.8 (BRK).											
SIV	153.08	139	PKP	45	17.80	9.2X	ZAG	8.26	339	e(Pn)	21	13.00	-4.7X	Mo=7.8*10**14 Nm (BRK). Felt											
	S.D. = 1.0	on 20 of 27 obs.					PTJ	8.34	339	ePn	21	16.00	-3.0X	(111) at Costrovillo, Moss											
-----																				Landing on San Juan Bautista.					
APR 10, 1990 03h 19m 15.13± 0.47s																									
38.200 N ± 5.0km 20.298 E ± 3.7km																									
DEPTH = 10.0km (geophysicist)																									
4.3mb (6 obs.)																									
GREECE (364)																									
ML 4.5 (TTG), 4.0 (ATH).																									
							LJU	8.93	333	ePn	21	25.80	-1.2	SAO	0.18	128	iPd	28	25.00	-0.3					
														GCC	0.34	298	iPc	28	28.10	-0.5					
														MHC	0.47	358	iPd	28	31.30	0.2					
														ARN	0.48	8	iPc	28	31.40	0.1					
														PRS	0.58	160	iPd	28	32.50	-0.7					
														LLA	0.60	115	iPc	28	33.40	-0.3					
														PCC	0.87	316	ePc	28	37.40	-1.6					
														PRJ	1.06	133	ePd	28	41.40	-0.9					

10d 03h

PHAM 1.43 136 eP 28 46.30 -2.2
 PKEM 1.46 123 eP 28 47.80 -1.1
 CMB 1.52 40 eP 28 48.20 -1.6
 eS 29 07.30
 FRI 1.53 85 eP 28 47.40 -2.5
 eS 29 07.80
 NWRM 1.88 328 eP 28 53.20 -1.6
 BCH 2.09 143 eP 28 55.30 -2.8
 BLP 2.51 156 eP 29 01.30 -2.6
 ORV 2.68 2 eP 29 04.50 -1.9
 ABL 2.80 135 eP 29 05.20 -3.2
 KVN 3.53 51 eP 29 16.40 -2.2
 TNP 3.70 70 e(P) 29 20.00 -1.1
 PEC 4.70 128 eP 29 32.20 -2.9
 22 obs. associated

? APR 10, 1990 03h 40m 13.22± 7.72s
 31.532 S ±16.0km 67.591 W ±72.2km
 DEPTH = 119.1 ± 28.6 km

SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.78 285 iPc 40 33.20 -0.3
 RTCV 0.87 248 ePd 40 34.40 0.1
 ZON 0.93 269 iPd 40 34.50 -0.3
 eS 40 47.00
 RTCB 1.03 272 eP 40 35.70 -0.2
 RTBS 1.59 265 ePc 40 41.80 -0.2
 RTRS 2.10 310 iPc 40 48.80 0.4
 JACH 2.79 245 eP 40 59.00 1.5
 iS 41 29.50
 FCH 2.90 231 iP 41 01.00 1.8
 iS 41 35.00
 SAN 3.22 233 ePd 41 03.90 0.7
 iS 41 39.70
 PCH 3.23 229 iPd 41 04.00 0.7
 iS 41 42.00
 ROCH 3.23 243 iPc 41 02.60 -0.9
 iS 41 37.00
 TACH 3.53 232 iP 41 06.50 -0.8
 iS 41 44.70
 LNV 4.02 232 eP 41 11.50 -2.4
 eS 41 54.40
 S.D. = 1.3 on 13 of 13 obs.

* APR 10, 1990 05h 51m 10.55± 0.80s
 7.738 S ± 9.2km 127.563 E ±14.6km
 DEPTH = 176.1 ± 10.1 km
 4.7mb (7 obs.)

BANDA SEA (280)

AAI 4.07 9 ePc 52 14.60 1.5
 KUPT 4.59 238 ePd 52 33.50 13.8X
 eS 53 24.00
 MTN 6.17 146 iPc 52 40.90 0.3
 KNA 8.05 172 iPd 53 05.30 -0.2
 0.2s 100.00nm 5.9mb X
 eS 54 22.50
 WB5 13.76 152 eP 54 16.70 -2.8
 eS 56 43.00
 WRA 13.80 152 Pc 54 18.20 -1.8
 0.3s 22.30nm 5.0mb X
 MBL 15.29 208 eP 54 39.50 0.9
 eS 57 20.00
 ASPA 16.97 160 eP 54 58.00 -1.1
 0.8s 193.00nm 5.5mb X
 Z 20s 0.13um 4.3mszX
 eS 57 59.60
 LR 01 50.00
 OIS 17.27 139 eP 55 03.70 1.0
 eS 58 10.00
 NANU 18.74 217 eP 55 20.30 1.8
 eS 58 50.00
 PMG 19.44 96 eP 55 21.00 -4.8X
 CTA 21.87 126 iP 56 10.50 20.5X
 0.7s 13.70nm
 iP 56 22.00 46kmX
 eS 00 15.00
 CTA 21.87 126 e(P) 55 51.00 1.0
 ADE 28.97 161 e(P) 57 22.20 26.5X
 CAN 33.76 147 eP 57 40.80 3.3X
 GUN 53.65 313 P 00 15.00 -0.9
 0.6s 19.00nm 5.0mb
 PKI 53.80 312 P 00 16.60 -1.1
 0.6s 12.00nm 4.8mb
 KKN 54.02 313 P 00 18.40 -0.8
 0.6s 7.00nm 4.6mb
 DMN 54.04 312 P 00 18.80 -0.6

GBA 0.6s 8.00nm 4.6mb
 54.09 293 P 00 19.00 -0.6
 0.2s 2.90nm 4.7mb
 GKN 54.61 312 P 00 22.60 -0.8
 0.5s 13.00nm 4.9mb
 VNDA 72.02 173 P 02 18.40 2.0
 SPA 82.31 180 iPc 03 15.90 2.4
 0.9s 10.45nm 4.6mb
 YKA 109.47 26 ePKP 09 20.70 -0.4
 0.6s 0.60nm
 LPB 151.34 147 PKP 10 49.00 9.3X
 CCH 151.60 152 ePKP 10 45.00 5.0X
 S.D. = 1.5 on 19 of 26 obs.

* APR 10, 1990 06h 42m 45.18± 0.63s
 14.614 N ±18.6km 146.860 E ±10.0km
 DEPTH = 33.0km (normol)
 5.1mb (11 obs.)

MARIANA ISLANDS (216)

GUMD 2.19 242 eP 43 18.40 -1.5
 eS 44 05.80
 PJG 2.19 242 eP 43 19.10 -0.8
 MAT 23.17 342 (P) 47 44.00 -5.8X
 PMG 23.87 179 eP 48 06.00 9.3X
 BAG 25.38 278 eP 48 17.00 5.6X
 CTA 34.49 181 e(P) 49 15.00 -17.4X
 WB5 36.41 200 eP 50 00.00 11.3X
 WRA 36.48 200 Pc 50 00.10 10.8X
 1.0s 4.70nm
 BJI 36.89 319 eP 49 51.00 -1.5
 LZH 43.92 307 Pc 50 51.50 0.6
 1.6s 66.00nm 5.2mb
 pP 51 07.00 61kmX
 sP 51 15.00
 NST 45.05 278 eP 51 07.00 7.0X
 CHG 45.98 282 eP 51 11.00 3.6X
 CHTO 45.98 282 e(P) 51 04.80 -2.6
 0.8s 0.73nm 3.7mb X
 pP 51 11.20 21kmX
 sP 51 16.20
 GUN 57.84 294 P 52 38.40 1.7
 0.8s 30.00nm 5.4mb
 PKI 58.26 294 P 52 40.80 1.2
 KKN 58.37 294 P 52 41.60 1.4
 0.8s 13.00nm 5.1mb
 DMN 58.52 294 P 52 42.80 1.4
 GKN 58.93 294 P 52 45.60 1.5
 0.8s 28.00nm 5.4mb
 GBA 67.08 279 Pd 53 41.10 3.1X
 1.0s 15.10nm 5.0mb
 INK 72.69 23 eP 54 12.00 0.7
 MBC 76.81 14 eP 54 33.50 -1.4
 0.9s 6.00nm 4.6mb
 YKA 81.06 28 eP 54 55.50 -2.6
 0.8s 4.60nm 4.5mb
 PNT 81.34 41 eP 55 00.00 0.1
 NEW 83.18 42 P 55 09.20 -0.3
 1.0s 11.25nm 4.9mb
 CMB 83.28 53 eP 55 10.20 0.0
 FRI 84.04 53 eP 55 14.00 0.0
 EDM 84.18 37 eP 55 14.00 -0.5
 KVN 84.77 51 P 55 18.20 0.3
 TNP 85.69 52 P 55 23.00 0.4
 0.8s 20.29nm 5.4mb
 SES 86.40 39 ePc 55 25.00 -0.6
 LRM 86.92 43 ePd 55 28.90 0.4
 DAG 88.40 357 eP 55 33.00 -1.7
 IMW 88.55 45 P 55 37.20 0.8
 FFC 89.91 33 eP 55 42.00 -0.3
 0.9s 11.00nm 5.1mb
 RSSD 93.11 43 P 55 57.00 -0.5
 GOL 93.92 47 P 56 02.00 0.6
 ALO 94.90 52 eP 56 07.00 1.1
 1.0s 1.50nm 4.4mb
 FRB 97.26 15 eP 56 14.00 -1.8
 KIC 144.96 305 PKP 02 22.66 1.0
 0.9s 25.50nm
 TIC 145.02 305 PKP 02 22.94 1.2
 LIC 145.27 305 PKP 02 23.92 1.7
 0.9s 44.50nm
 ZOBO 146.26 97 PKP 02 29.00 4.5X
 LPB 146.30 98 PKP 02 31.00 6.7X
 CCH 148.18 99 ePKP 02 34.00 6.8X
 S.D. = 1.3 on 32 of 44 obs.

APR 10, 1990 08h 38m 45.47± 0.57s

38.342 N ± 6.3km 20.443 E ± 7.7km
 DEPTH = 5.0km (geophysicist)
 GREECE (364)
 ML 3.7 (ATH).

VLS 0.20 145 iPgc 38 48.60 -1.0
 eSg 38 53.00
 KEK 1.46 340 ePb 39 16.00 3.5X
 SRN 1.57 347 ePn 39 15.40 1.3
 ITM 1.65 134 ePb 39 14.90 -0.3
 LSK 1.81 4 iPnd 39 19.10 1.5
 TPE 1.98 350 ePn 39 19.50 -0.5
 KBN 2.30 7 ePn 39 27.00 2.5X
 NEO 2.38 65 ePn 39 28.50 2.8X
 VLI 2.56 129 ePb 39 30.20 1.9
 ATH 2.61 97 ePb 39 34.00 5.0X
 LCI 2.77 317 P 39 31.90 0.6
 OHR 2.78 6 iPn 39 32.20 0.7
 0.6s 92.00nm
 eSn 40 08.40
 Lg 40 10.00

TIR 3.03 352 iPnd 39 36.00 1.0
 LACI 3.34 351 iPn 39 39.00 -0.3
 PHP 3.34 360 iPnd 39 39.50 0.1
 VAY 3.40 28 ePn 39 35.60 -4.6X
 TDS 3.46 294 P 39 24.00 -17.1X
 ORI 3.55 300 P 39 42.00 -0.3
 BRT 3.56 316 P 39 42.30 -0.2
 SKO 3.71 12 ePn 39 40.00 -4.6X
 iSn 49 02.60
 PUK 3.72 354 ePn 39 43.90 -0.9
 KKB 4.06 29 eP 39 56.00 6.4X
 MMB 4.11 37 eP 39 50.00 -0.3
 TTG 4.18 348 ePn 39 50.50 -0.8
 eSn 40 38.00
 MGR 4.20 297 P 39 53.00 1.4
 VAM 4.20 133 ePn 39 51.10 -0.5
 SGO 4.55 301 P 39 57.50 1.0
 SDI 6.10 306 P 39 52.00 -26.5X
 VBY 8.13 333 ePn 40 45.40 -1.5
 eSn 42 17.50
 VOY 9.09 330 e(Pn) 40 57.50 -2.8
 S.D. = 1.2 on 21 of 30 obs.

? APR 10, 1990 09h 27m 13.76± 3.95s
 36.610 N ±27.2km 15.164 E ±20.6km
 DEPTH = 10.0km (geophysicist)

SICILY (398)

MEU 0.52 339 P 27 24.00 -0.4
 eSg 27 31.20
 FAI 1.37 300 Pc 27 37.80 -1.0
 eSn 27 56.80
 MNO 1.37 344 P 27 39.20 0.1
 ATN 1.57 9 P 27 41.40 -0.3
 eSn 28 01.30
 MCT 1.59 310 P 27 42.90 0.7
 GIB 1.65 327 P 27 43.80 0.9
 S.D. = 0.9 on 6 of 6 obs.

? APR 10, 1990 09h 46m 36.88± 6.65s
 45.059 N ±53.0km 14.927 E ±10.6km
 DEPTH = 10.0km (geophysicist)

YUGOSLAVIA (383)

MD 2.5 (TRI).

RIY 0.48 307 iPg 46 45.50 -1.1
 iSg 46 53.40
 VBY 0.50 27 iPg 46 46.90 -0.2
 iSg 46 56.50
 TRI 1.05 309 iPgc 46 57.10 0.5
 iSg 47 12.60
 PTJ 1.11 40 ePg 46 57.70 -0.1
 eSg 47 13.00
 VOY 1.21 324 ePn 47 00.30 0.8
 eSn 47 19.20
 RBL 1.68 326 Pc 47 32.00 25.5X
 eSg 47 35.00
 CTI 2.51 294 P 47 53.00 34.6X
 eSg 48 00.00
 S.D. = 1.0 on 5 of 7 obs.

& APR 10, 1990 10h 49m 04.95s
 61.479 N 144.607 W
 DEPTH = 45.3km
 SOUTHERN ALASKA (2)
 <AGS-P>.

10d 10h

GLB	0.38	95	iP	49	13.77	-0.9
KLU	0.63	272	iP	49	16.94	-0.8
			iS	49	26.56	
TOA	0.97	311	iP	49	21.72	-0.7
			iS	49	34.55	
VZW	1.03	247	iP	49	22.33	-0.9
TGL	1.13	129	iP	49	23.75	-0.9
			eS	49	39.84	
NCA	1.17	297	eP	49	24.49	-0.8
GLI	1.35	245	eP	49	26.81	-0.8
			eS	49	45.15	
PAX	1.55	345	iP	49	29.36	-1.3
SML	1.81	282	eP	49	33.31	-0.9
GHO	2.08	280	eP	49	36.94	-1.2
PLRM	2.17	275	eP	49	38.11	-1.2
PMS	2.40	267	eP	49	41.77	-0.8
PCA	2.54	121	eP	49	43.52	-1.2
SEW	2.75	242	eP	49	45.77	-1.7
RND	2.76	316	eP	49	46.65	-1.2
CUT	2.83	292	eP	49	47.50	-1.3
SLKM	2.90	253	eP	49	48.54	-1.3
SUA	2.94	272	eP	49	49.72	-0.8
SKT	3.33	282	iP	49	54.04	-1.8

19 obs. associated

? APR 10, 1990 12h 30m 20.40±1.48s
45.820 N ± 8.1km 3.611 E ± 12.6km
DEPTH = 10.0km (geophysicist)

FRANCE (538)

MD 1.6 (STR).

PLDF	0.15	3	Pg	30	23.99	0.1
			Sg	30	26.00	
AGO	0.41	305	Pg	30	28.63	-0.1
PYM	0.43	261	Pg	30	29.27	0.1
			Sg	30	35.36	
LBL	0.64	204	Pg	30	33.17	-0.1

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

? APR 10, 1990 12h 50m 36.61±2.46s
50.935 N ± 16.5km 15.300 E ± 17.9km
DEPTH = 10.0km (geophysicist)

CZECHOSLOVAKIA (547)

ML 3.8 (VKA).

KSP	0.64	98	iP	51	46.70	57.3X
	0.4s		40.00nm			
			iS	51	54.80	
			iLR	52	01.00	

BRG	0.86	266	iPg	50	54.00	0.8
			iSg	51	14.00	

PRU	1.06	207	ePn	50	56.50	-0.2
			Pg	50	58.80	
			eSn	51	15.50	
			Sg	51	22.00	

CLL	1.50	285	iPg	51	03.50	0.0
			eSg	51	30.00	

KHC	2.12	212	Pn	51	12.60	0.0
			Pg	51	20.40	
			Sn	51	44.00	
			Sg	51	55.60	

MOX	2.36	264	ePn	51	15.00	-0.9
			ePg	51	23.00	
			iSg	52	03.00	

VKA	2.75	166	iPg	51	21.80	0.2
			iSg	52	07.80	

ZST	2.98	156	eP	52	10.40	45.6X
			e	09	07.80	

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

* APR 10, 1990 13h 10m 22.00±0.97s
9.247 S ± 11.2km 113.669 E ± 12.1km
DEPTH = 65.0 ± 19.1 km
4.0mb (2 obs.)

SOUTH OF JAVA (282)

TRT	1.84	326	iPc	10	52.00	0.1
			eS	11	11.60	

KHKI	2.11	66	iPd	10	55.50	-0.1
			iS	11	17.80	
			e	13	44.00	

MBL	13.25	154	eP	13	29.30	0.4
			eS	15	47.50	

NANU	13.36	173	eP	13	30.00	-0.3
			eS	15	55.00	

WB5	22.62	120	eP	15	18.90	0.4
WRA	22.63	120	Pc	15	18.70	0.2

ASPA	0.3s	1.10nm	3.8mb
	24.08	129 eP	15 32.00 -0.6
	0.6s	6.00nm	4.2mb
	S.D. = 0.5	on 7 of 7 obs.	

APR 10, 1990 13h 40m 53.43±0.33s
15.030 N ± 6.6km 147.573 E ± 6.7km
DEPTH = 33.0km (normal)
4.6mb (8 obs.)

MARIANA ISLANDS REGION (215)

GUA	2.98	240	eP	41	40.20	0.8
			eS	42	13.50	

GUMO	2.99	242	eP	41	40.20	0.6
PJG	2.99	242	eP	41	40.20	0.6

MAT	22.99	340	eP	45	54.00	-2.4
	0.7s	4.79nm	4.1mb			

PMG	24.28	181	eP	46	08.00	-1.0
MTN	32.13	211	iPc	47	19.10	-1.1

BJI	37.03	318	eP	48	01.00	-1.0
WB5	37.04	201	eP	48	01.90	-0.4

WRA	37.11	201	Pd	48	02.20	-0.7
	0.9s	12.80nm	4.8mb			

ASPA	40.72	199	iPd	48	32.60	-0.3
	0.7s	6.00nm	4.4mb			

LZH	44.22	307	eP	49	02.50	0.9
	2.5s	40.00nm	4.8mb			

CHTO	46.57	282	eP	49	20.90	0.6
	0.8s	1.46nm	4.0mb			

GUN	58.30	294	P	50	47.80	-0.4
	0.8s	13.00nm	5.1mb			

PKI	58.72	293	P	50	51.00	-0.1
GKN	59.40	294	P	50	55.80	0.2

WDC	80.30	51	eP	53	03.60	0.7
YKA	80.38	28	eP	53	01.80	-0.9

	0.8s	2.80nm	4.3mb			
PNT	80.57	41	eP	53	04.00	-0.1

PRS	82.09	55	eP	53	13.10	0.8
CMB	82.48	53	eP	53	15.00	0.7

FRI	83.24	54	eP	53	18.60	0.4
SES	85.65	39	eP	53	31.00	0.9

LRM	86.15	44	eP	53	33.30	0.3
LKO	143.89	311	PKP	00	25.54	-2.6X

KIC	145.29	306	PKP	00	30.60	0.1
TIC	145.33	306	PKP	00	30.80	0.3

LIC	145.60	306	PKP	00	31.40	0.4
ZOBO	145.63	97	PKP	00	33.70	2.0X

SIV	152.39	96	PKP	00	49.20	7.8X
	S.D. = 0.8	on 26 of 29 obs.				

* APR 10, 1990 15h 08m 22.84±1.09s
53.603 N ± 19.9km 164.039 W ± 12.1km
DEPTH = 33.0km (normal)
4.2mb (4 obs.)

UNIMAK ISLAND REGION (10)

SDN	2.70	48	eP	09	06.70	1.8
KDC	7.73	53	eP	10	18.00	2.2

ADK	7.87	262	eP	10	19.50	1.8
SVW	8.79	28	ePd	10	31.00	0.5

TTA	10.25	21	eP	10	50.40	-0.4
PMS	10.91	40	eP	10	58.00	-1.7

PMR	11.29	39	eP	11	04.00	-0.8
TOA	12.73	41	eP	11	21.30	-2.8X

IMA	13.52	18	eP	11	35.60	1.0
FBA	13.99	30	eP	11	38.00	-2.6X

INK	20.56	33	eP	13	02.00	1.3
YKA	26.98	51	eP	14	03.40	0.5

	0.6s	1.90nm	3.9mb			
MBC	28.23	21	eP	13	58.00	-16.1X

			pP	14	13.50	65kmX
NEW	29.61	81	P	14	35.50	8.6X

	0.8s	3.13nm	4.1mb			
SES	32.16	74	eP	14	48.00	-1.3

KVN	34.25	96	eP	15	21.00	13.2X
RSSD	39.49	79	P	16	03.40	11.5X

FRB	46.06	38	eP	16	44.00	-0.6
NB2	65.64	3	P	19	03.40	-1.9

	0.8s	2.40nm	4.3mb			
HFS	66.60	1	eP	19	09.00	-2.4

	0.4s	3.50nm	4.8mb			
GUN	78.88	302	P	20	24.60	0.0

KKN	79.28	302	P	20	26.60	0.0
PKI	79.40	302	P	20	27.00	-0.4

GKN	79.43	303	P	20	27.20	-0.2
DMN	79.52	303	P	20	28.00	0.0

HYB	91.32	302	eP	21	27.00	0.6
	S.D. = 1.3	on 20 of 26 obs.				

APR 10, 1990 15h 25m 35.71±0.59s
10.888 N ± 9.9km 65.436 W ± 5.7km
DEPTH = 10.0km (geophysicist)

4.0mb (1 obs.)
NEAR COAST OF VENEZUELA (97)

GUAN	0.95	193	iPd	25	52.30	-1.6
CUM	1.31	109	iP	25	59.00	-1.0

LLAV	1.41	253	eP	26	02.00	0.5
OLLA	1.60	237	iPc	26	04.00	-0.2

			eS	26	19.50	
GUAC	1.93	249	iPc	26	10.50	1.4

			iS	26	34.00	
PLAV	2.27	244	iPd	26	14.50	0.5

			iS	26	47.00	
TCE	3.62	93	eP	26	33.33	0.2

			eS	27	18.79	
TRN	3.97	93	eP	26	38.85	0.9

			eS	27	28.77	
TBH	4.31	95	eP	26	44.76	1.9

			eS	27	36.75	
SVB	4.73	60	eP	26	48.35	-0.5

			eS	27	42.63	
SVV	4.78	59	eP	26	49.72	0.2

			eS	27	44.34	
SLB	5.19	55	eP	26	55.00	-0.4

			eS	27	55.00
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10d 16h

YKA	0.6s	8.70nm	5.0mb	DMN	14.67	124 P	33	29.50	-0.1	DMN	58.93	293 P	10	25.20	-0.4					
	94.04	24 eP	40 29.20	-1.7	KKN	14.67	123 P	33	28.80	-0.8		0.6s	14.00nm		5.3mb					
	0.8s	0.60nm	3.8mb X		PKI	14.90	123 P	33	32.80	0.2	GKN	59.33	294 P	10	28.00	-0.3				
MBC	100.80	12 ePdiff	40 49.60	-11.7X	GUN	15.01	121 P	33	33.30	-0.6		0.8s	28.00nm		5.4mb					
	0.5s	8.00nm			HYB	20.11	160 eP	34	34.00	1.2	HYB	66.02	282 iPc	11	12.50	-0.2				
KEV	127.56	351 ePKP	46 18.00	1.0	GBA	23.50	165 Pc	35	06.00	-0.2		1.0s	30.00nm		5.3mb					
SUF	134.00	347 ePKP	46 29.60	0.2		0.4s	0.80nm		3.5mb X											
	0.6s	4.10nm			NUR	37.94	324 eP	37	13.80	0.6	GBA	67.77	279 Pc	11	21.20	-2.6				
NUR	136.29	346 ePKP	46 34.90	1.1	SUF	38.02	328 iP	37	14.50	0.7		0.8s	6.30nm		4.8mb					
KRA	146.85	342 ePKP	46 54.20	1.5		0.5s	7.10nm		4.7mb		POO	70.24	284 iPc	11	37.30	-1.7				
KSP	147.05	347 iPKPc	46 56.00	2.9X	SOD	39.80	335 iP	37	29.70	1.2	MBC	75.73	14 eP	12	10.50	0.3				
	1.0s	*****nm			HFS	43.19	322 eP	37	56.00	-0.3		1.0s	9.00nm		4.7mb					
		e	47 27.50			0.5s	15.30nm		5.0mb		MAIO	79.58	305 eP	12	34.00	1.6				
CLL	147.20	351 iPKPd	46 55.60	2.3X	NB2	44.50	323 P	38	06.50	-0.4	YKA	79.87	28 eP	12	32.10	-1.1				
	1.1s	34.00nm				0.7s	11.80nm		4.7mb			0.9s	2.30nm		4.2mb					
		e	47 29.00		DAG	54.78	344 iPc	39	24.90	-0.1	PRS	81.69	55 eP	12	43.90	0.5				
BRG	147.47	349 iPKP	46 56.80	3.1X		0.4s	13.56nm		5.2mb		CMB	82.06	53 eP	12	45.70	0.3				
	1.0s	20.00nm			INK	73.80	9 eP	41	29.00	0.5	FRI	82.83	54 eP	12	49.80	0.5				
PRU	148.21	348 PKP	46 58.80	3.9X	YKA	81.18	3 eP	42	09.30	0.2	CLC	84.78	54 eP	13	09.00	9.7X				
		e	47 32.50			0.4s	2.00nm		4.2mb		MWC	84.83	56 eP	13	02.00	2.3				
DOU	149.03	1 PKP	47 00.70	4.5X	WB5	81.76	122 eP	42	11.20	-1.7	SBB	84.89	56 eP	13	02.00	2.1				
HRI	149.14	303 ePKP	47 02.00	4.9X	WRA	81.79	122 Pd	42	12.20	-0.8	GSC	85.54	55 eP	13	03.00	-0.1				
ABH	149.18	357 ePKP	47 01.10	4.6X		0.4s	0.80nm		3.8mb		SOD	86.98	341 iP	13	09.80	0.3				
KHC	149.22	349 PKPd	47 01.50	4.9X	FFC	88.90	356 eP	42	48.00	0.2	DAG	87.54	357 eP	13	11.80	-0.2				
		e	49 14.00			1.1s	13.00nm		4.9mb		FFC	88.70	33 eP	13	18.00	0.1				
ZST	149.32	344 ePKP	47 02.00	5.3X	S.D. = 0.9 on 21 of 21 obs.															
SRO	149.34	342 ePKP	47 02.40	5.7X	APR 10, 1990 16h 56m 46.40±0.85s															
TOD	149.37	355 ePKP	47 01.54	4.7X	41.348 N ± 7.1km 20.871 E ± 7.2km															
RUP	149.39	357 ePKP	47 01.83	5.0X	DEPTH = 10.0km (geophysicist)															
FLN	150.04	7 ePKP	47 02.60	4.8X	ALBANIA (391)															
	0.8s	12.10nm			ML 2.8 (SKO).															
LDF	150.25	7 ePKP	47 02.90	4.8X	OHR	0.24	193 iPgc	56	51.00	-0.6		HFS	96.03	339 eP	13	50.50	-1.3			
	0.6s	5.40nm					iSg	56	54.30				0.7s	2.30nm		4.8mb				
GRR	150.36	8 ePKP	47 03.60	5.3X	PHP	0.47	317 iPgc	56	54.10	-1.8	KIC	145.12	307 PKP	20	03.00	-0.3				
PRNI	150.62	298 ePKPd	47 06.50	7.2X	SKO	0.76	34 ePg	57	01.70	0.5			1.0s	36.00nm						
CDF	150.66	357 ePKP	47 04.70	5.8X		0.3s	174.00nm				TIC	145.15	307 PKP	20	03.10	-0.3				
	0.8s	13.45nm					iSg	57	11.80		LIC	145.42	307 PKPd	20	04.00	0.2				
LPF	150.68	8 ePKP	47 04.30	5.6X			Lg	57	12.50		ZOBO	145.54	96 PKP	20	05.20	0.5				
	0.8s	18.80nm			TIR	0.76	270 ePg	57	02.70	1.5			LR	25	24.00					
MBH	150.87	297 ePKP	47 06.50	6.9X	KKS	0.80	335 ePg	57	02.20	0.2	SIV	152.29	95 PKP	20	21.20	6.7X				
HAU	151.11	358 ePKP	47 05.50	6.1X	LACI	0.92	289 ePg	57	07.00	3.1X	S.D. = 1.2 on 38 of 40 obs.									
	0.6s	11.70nm			PUK	1.01	314 ePg	57	08.00	2.5X	APR 10, 1990 17h 01m 04.63±4.34s									
FEL	151.15	356 ePKP	47 06.52	6.9X	BCI	1.18	330 ePg	57	08.70	0.3	22.572 N ± 31.5km 120.184 E ± 24.3km									
KBA	151.23	348 iPKPc	47 04.90	5.0X	VAY	1.28	91 ePn	57	10.00	-0.1	DEPTH = 30.4 ± 9.8 km									
	0.6s	8.40nm			TTG	1.62	312 ePn	57	18.00	3.0X	3.7mb (1 obs.)									
		i	47 05.50				eSn	57	41.50		TAIWAN (244)									
		i	47 06.10		S.D. = 1.3 on 7 of 10 obs.															
		e	47 22.00		APR 10, 1990 17h 00m 26.66±0.40s															
BSF	151.26	358 ePKP	47 05.70	5.9X	15.525 N ± 7.9km 147.724 E ± 7.9km															
	0.6s	8.10nm			DEPTH = 33.5km (2 depth phases)															
OGA	151.83	351 iPKPc	47 07.50	6.7X	4.9mb (17 obs.)															
	0.8s	16.00nm			MARIANA ISLANDS REGION (215)															
LOR	151.85	2 ePKP	47 07.20	6.6X	GUA	3.36	234 eP	01	19.20	1.0			1.0s	6.00nm		3.7mb				
	0.8s	9.40nm					eS	01	52.80		S.D. = 1.0 on 6 of 6 obs.									
SSF	152.04	2 ePKP	47 07.80	7.0X	GUMO	3.37	236 eP	01	20.00	1.7	APR 10, 1990 17h 27m 45.45±0.64s									
	0.8s	13.45nm			PJG	3.37	236 eP	01	19.30	1.0	41.300 N ± 5.1km 20.913 E ± 5.8km									
LBF	152.14	2 ePKP	47 07.80	6.8X	MAT	22.58	340 eP	05	24.00	-1.5	DEPTH = 10.0km (geophysicist)									
AVF	152.31	2 ePKP	47 08.10	6.9X		0.8s	18.66nm		4.6mb		ALBANIA (391)									
SMF	152.47	2 ePKP	47 09.30	7.8X	PMG	24.78	181 eP	05	44.00	-2.9	ML 3.0 (SKO).									
BGF	152.52	3 ePKP	47 08.60	7.1X	BJI	36.76	318 eP	07	32.00	-0.9	OHR	0.21	205 iPgc	27	49.40	-0.6				
	1.1s	9.75nm				1.4s	22.00nm		4.8mb				iSg	28	10.50					
LSF	152.73	5 ePKP	47 08.90	7.1X	WB5	37.55	201 eP	07	39.80	0.1	SKO	0.78	30 ePg	28	00.50	-0.1				
TCF	152.75	4 ePKP	47 08.70	6.8X			i	07	49.10					Lg	28	11.60				
	0.8s	6.70nm			WRA	37.62	201 Pd	07	39.90	-0.4	TIR	0.79	274 ePg	27	59.50	-1.3				
MAF	152.84	4 ePKP	47 09.70	7.7X		0.8s	5.30nm		4.5mb		KKS	0.86	334 ePg	28	01.00	-1.0				
	0.8s	9.40nm			ASPA	41.23	199 eP	08	09.30	-0.9	LACI	0.97	291 ePg	28	03.80	0.0				
S.D. = 1.5 on 34 of 70 obs.											PUK	1.07	314 ePg	28	04.50	-1.0				
APR 10, 1990 16h 30m 06.89±1.25s											LSK	1.17	192 ePg	28	08.00	0.6				
36.558 N ± 10.1km 71.342 E ± 7.6km											BCI	1.24	330 ePg	28	07.80	-0.6				
DEPTH = 126.7 ± 14.9 km											VAY	1.25	88 ePn	28	08.40	-0.2				
4.8mb (8 obs.)											SDA	1.28	304 ePg	28	09.20	0.1				
AFGHANISTAN-USSR BORDER REGION (717)											ULC	1.41	299 ePn	28	13.00	1.8				
					KMI	43.08	290 Pd	08	27.50	1.8			eSn	28	34.00					
QUE	7.34	211 eP	31 53.50	0.5	LZH	44.04	306 Pd	08	34.00	0.7	PVY	1.47	332 ePg	28	12.00	-0.1				
		eS	33 13.50			2.0s	75.00nm		5.1mb				eSg	28	34.00					
NDI	9.28	146 eP	32 20.50	1.6	CHG	46.61	281 eP	08	54.50	0.7	TTG	1.67	313 ePn	28	16.40	1.5				
		eS	33 55.00		CHTO	46.61	281 iPd	08	54.30	0.5			eSg	28	40.00					
MAIO	9.55	272 iPc	32 21.00	-1.7		0.7s	6.83nm		4.7mb		IVA	1.74	335 ePn	28	17.00	1.0				
	0.5s	55.10nm		5.6mb			pP	08	44.00	34km	S.D. = 1.0 on 14 of 14 obs.									
		eS	34 03.00				sP	08	49.50		APR 10, 1990 17h 38m 39.91±2.57s									
GKN	14.10	123 P	33 21.90	-0.4			eP	08	54.50	0.7	10.564 S ± 61.7km 79.733 W ± 55.1km									
							eP	08	54.30	0.5	DEPTH = 33.0km (normol)									
							0.8s	17.00nm		5.2mb	3.7mb (1 obs.)									

10d 17h

OFF COAST OF PERU

(114)

PT10 3.10 119 iP 39 28.10 0.4
 NNA 3.17 117 iPc 39 28.40 -0.3
 PT08 3.42 114 iPd 39 32.50 0.0
 PT02 4.00 127 iPd 39 40.40 -0.1
 YKA 77.69 344 eP 50 34.60 0.0
 0.8s 0.60nm 3.7mb
 S.D. = 0.4 on 5 af 5 obs.

& APR 10, 1990 17h 44m 39.60s

36.873 N 121.623 W

DEPTH = 4.0km

CENTRAL CALIFORNIA

(39)

<BRK>. ML 2.8 (BRK).

SAO 0.18 127 iPd 44 43.90 0.6
 GCC 0.34 298 iPc 44 46.00 -0.4
 MHC 0.47 358 iPd 44 49.10 0.1
 ARN 0.48 9 iPc 44 49.20 0.0
 PRS 0.58 159 iPd 44 50.40 -0.7
 LLA 0.60 115 iPc 44 51.40 -0.3
 PCC 0.87 316 eP 44 55.20 -1.7
 PRI 1.06 133 eP 44 59.40 -0.9
 BKS 1.11 334 iPc 44 59.20 -1.8
 BRK 1.12 333 eP 45 00.60 -0.5
 PHAM 1.43 136 eP 45 04.00 -2.4
 CMB 1.52 40 eP 45 06.00 -1.7
 FRI 1.54 85 eP 45 06.20 -1.6
 BCH 2.10 143 eP 45 13.00 -3.0
 KVN 3.53 51 e(P) 45 35.50 -1.1
 15 obs. associated

& APR 10, 1990 18h 00m 42.10s

63.514 N 151.145 W

DEPTH = 16.3km

CENTRAL ALASKA

(1)

<AGS-P>.

KTH 0.11 69 iP 00 45.60 -0.2
 HUR 0.87 128 eP 00 58.47 0.1
 MCK 1.01 76 eP 01 01.93 1.1
 RND 1.04 95 eP 01 01.09 -0.2
 CUT 1.18 160 eP 01 03.31 -0.4
 NEA 1.40 40 eP 01 08.71 1.8
 SKT 1.55 187 eP 01 08.85 -0.2
 WRH 1.65 53 eP 01 10.64 0.1
 CCB 1.86 51 eP 01 12.26 -1.2
 RDS 1.86 44 eP 01 12.71 -0.9
 PWA 1.96 162 eP 01 15.24 0.3
 GHO 2.03 149 eP 01 15.66 -0.4
 SUA 2.07 175 eP 01 16.39 -0.3
 PLRM 2.14 153 eP 01 17.41 -0.2
 NCG 2.17 193 eP 01 17.52 -0.6
 BGL 2.33 195 eP 01 20.09 -0.4
 SPU 2.38 191 eP 01 20.79 -0.3
 CKL 2.39 194 eP 01 22.08 0.8
 PMS 2.39 161 eP 01 22.51 1.3
 TOA 2.69 120 eP 01 26.22 0.8
 KLU 3.16 128 eP 01 33.24 1.1
 21 obs. associated

& APR 10, 1990 18h 38m 28.85±1.42s

25.307 N ±21.4km 62.868 E ±15.2km

DEPTH = 33.0km (normal)

4.2mb (6 obs.)

PAKISTAN

(354)

NDI 13.23 72 iPc 41 35.20 -1.7
 GBA 17.99 128 Pc 42 37.50 -0.5
 DMN 20.04 79 P 43 03.20 0.9
 KKN 20.20 78 P 43 04.80 0.9
 PKI 20.31 79 P 43 06.00 0.9

0.6s 12.00nm 4.4mb
 GUN 20.73 78 P 43 09.20 -0.4
 0.6s 16.00nm 4.6mb
 NB2 49.86 330 P 47 19.90 -0.8
 0.7s 1.30nm 4.1mb
 YKA 92.48 359 eP 51 38.20 0.7
 0.5s 0.30nm 4.0mb
 S.D. = 1.2 on 8 af 8 obs.

APR 10, 1990 18h 55m 38.92±1.10s

15.125 N ±6.8km 147.536 E ±10.2km

DEPTH = 24.4 ±6.6 km

4.8mb (7 obs.)

MARIANA ISLANDS REGION

(215)

GUMO 3.01 240 eP 56 26.50 0.5
 PJG 3.01 240 eP 56 26.20 0.2
 MAT 22.89 340 eP 00 41.00 -0.9
 PMG 24.38 181 eP 00 57.00 0.5
 BJI 36.94 318 eP 02 48.00 0.2
 1.5s 16.00nm 4.6mb
 WB5 37.12 201 eP 02 49.00 -0.6
 WRA 37.19 201 Pd 02 49.20 -0.9
 0.8s 9.90nm 4.7mb
 ASPA 40.79 199 eP 03 19.50 -0.7
 LZH 44.13 307 Pc 03 48.50 0.9
 2.0s 47.00nm 5.0mb
 CHG 46.51 282 eP 04 07.30 0.5
 CHTO 46.51 282 iPc 04 07.30 0.8
 0.8s 5.49nm 4.6mb
 GUN 58.23 294 P 05 34.40 0.0
 0.6s 16.00nm 5.2mb
 PKI 58.65 293 P 05 36.80 -0.5
 KKN 58.76 294 P 05 37.50 -0.4
 DMN 58.92 293 P 05 38.60 -0.5
 GKN 59.33 294 P 05 41.50 -0.3
 1.0s 30.00nm 5.4mb
 MBC 76.16 14 eP 07 27.00 0.8
 YKA 80.31 28 eP 07 48.50 -0.6
 0.9s 1.90nm 4.1mb
 SES 85.59 39 eP 08 17.00 0.4
 SUF 90.09 337 eP 08 37.00 -1.0
 KIC 145.21 306 PKP 15 17.00 -0.1
 TIC 145.25 307 PKP 15 17.20 0.0
 LIC 145.51 306 PKP 15 18.00 0.4
 ZOBO 145.68 97 PKP 15 20.00 1.4
 S.D. = 0.7 on 24 af 24 obs.

& APR 10, 1990 19h 07m 39.62±1.12s

42.973 N ±10.2km 18.761 E ±7.9km

DEPTH = 10.0km (geophysicist)

YUGOSLAVIA

(383)

ML 2.2 (TTG).

BRY 0.18 246 iPd 07 43.70 0.0
 NKY 0.24 132 iPc 07 47.10 0.4
 PLE 0.58 52 eP 07 51.50 0.0
 TTG 0.66 146 eP 07 52.30 -0.4
 0.6s 0.80nm 4.3mb
 S.D. = 0.5 on 4 af 4 obs.

APR 10, 1990 20h 18m 51.04±0.35s

37.397 N ±7.4km 56.936 E ±4.4km

DEPTH = 33.0km (normal)

4.3mb (5 obs.)

IRAN

(348)

ML 4.1 (MHI).

MHI 2.33 117 iPc 19 27.30 -0.6
 0.7s 306.85nm 19 58.00
 TEH 4.76 251 eP 20 05.00 2.5
 IR2 5.16 252 eP 20 09.00 0.8
 IR4 5.33 248 eP 20 10.00 -0.5
 IR7 5.37 254 eP 20 11.00 0.0
 IR5 5.58 249 eP 20 13.00 -1.0
 TAB 8.43 278 e(P) 21 05.00 11.0X
 KER 8.54 252 eP 21 14.00 18.5X
 QUE 11.00 128 eP 21 29.50 0.2
 0.6s 11.00nm 4.4mb
 0.6s 11.00nm 4.4mb

GKN 25.05 104 P 24 14.60 0.7
 DMN 25.60 104 P 24 19.40 0.1
 KKN 25.65 104 P 24 19.40 -0.2
 PKI 25.86 104 P 24 21.60 -0.1
 GUN 26.06 103 P 24 23.60 0.0
 GBA 29.93 137 Pc 24 59.70 1.4
 0.4s 1.80nm 4.2mb
 NUR 30.83 329 eP 25 06.00 0.2
 ZST 30.84 303 eP 25 06.00 0.0
 SUF 31.57 333 eP 25 12.90 0.6
 BRG 33.18 308 e(P) 25 27.50 1.0
 MOX 34.63 307 eP 25 40.00 1.0
 HFS 35.52 324 eP 25 46.00 -0.5
 0.6s 3.70nm 4.5mb
 NB2 36.97 325 P 25 58.20 -0.6
 0.8s 4.10nm 4.3mb
 BAO 48.03 236 ePd 27 28.00 -1.2
 0.4s 3.00nm 4.7mb
 KIC 63.76 257 P 29 20.50 -1.7
 LIC 64.07 257 P 29 22.60 -1.6
 FRB 70.36 337 eP 30 02.50 -0.6
 YKA 80.22 356 eP 30 59.00 -0.2
 0.7s 0.80nm 3.8mb
 S.D. = 1.0 on 25 of 27 obs.

APR 10, 1990 20h 26m 56.64±0.97s

15.113 N ±7.5km 147.535 E ±6.8km

DEPTH = 26.6 ±6.5 km

5.0mb (12 obs.) 4.2Msz (2 obs.)

MARIANA ISLANDS REGION

(215)

GUMO 3.00 240 eP 27 43.80 0.3
 PJG 3.00 240 eP 27 43.70 0.2
 MAT 22.91 340 eP 31 58.00 -1.5
 1.0s 23.00nm 4.6mb
 DAV 22.96 252 eP 32 02.00 1.8
 PMG 24.37 181 eP 32 13.50 -0.3
 BAG 25.97 276 eP 32 29.20 0.0
 MNI 26.20 241 e(P) 32 31.00 -0.2
 BJI 36.95 318 eP 34 05.00 -0.3
 1.5s 58.00nm 5.2mb
 Z 22s 0.31um 4.0Msz
 WB5 37.11 201 eP 34 06.20 -0.7
 WRA 37.17 201 Pd 34 06.60 -0.9
 0.7s 15.00nm 4.9mb
 ASPA 40.78 199 eP 34 36.50 -1.0
 0.6s 12.00nm 4.8mb
 KMI 43.05 291 Pc 34 57.50 1.1
 LOE 43.96 280 eP 35 03.00 -0.5
 LZH 44.14 307 Pd 35 05.50 0.5
 2.0s 140.00nm 5.5mb
 Z 20s 0.40um 4.3Msz
 NST 45.63 277 eP 35 19.70 2.8
 CHG 46.51 282 iPd 35 24.10 0.1
 0.9s 10.92nm 4.8mb
 CHTO 46.51 282 iPd 35 24.20 0.3
 0.9s 10.44nm 4.8mb
 BDT 46.56 280 eP 35 24.80 0.5
 GUN 48.23 294 P 36 51.40 -0.4
 1.0s 62.00nm 5.6mb
 PKI 58.66 293 P 36 53.80 -1.0
 KKN 58.77 294 P 36 54.80 -0.6
 0.8s 21.00nm 5.3mb
 DMN 58.93 293 P 36 56.00 -0.5
 1.0s 32.00nm 5.4mb
 GKN 59.33 294 P 36 58.60 -0.6
 NDI 65.83 295 eP 37 41.00 -1.2
 HYB 65.93 283 eP 37 42.00 -1.1
 MBC 76.17 14 ePc 38 44.00 0.3
 1.2s 18.00nm 5.0mb
 MAIO 79.67 305 iPd 39 05.00 1.2
 WDC 80.28 51 eP 39 07.30 0.4
 YKA 80.32 28 eP 39 05.40 -1.2
 0.9s 3.50nm 4.4mb
 PNT 80.53 42 eP 39 08.00 -0.1
 ORV 81.27 51 eP 39 11.70 -0.4
 PRS 82.07 55 eP 39 18.20 1.8
 CMB 82.46 53 eP 39 18.50 0.1
 FRI 83.22 54 eP 39 22.20 -0.1
 SES 85.60 39 eP 39 34.00 -0.1

pP 39 44.00 31kmX
 KIC 145.21 306 PKP 46 34.00 -0.5
 TIC 145.25 307 PKP 46 34.10 -0.5
 LIC 145.52 306 PKP 46 35.00 0.0
 ZOBO 145.68 97 PKP 46 37.10 1.2
 1.2s 11.15nm
 CCH 147.61 99 (PKP) 46 40.00 1.3
 SIV 152.43 96 PKP 46 53.00 7.3X
 S.D. = 1.0 on 40 of 41 obs.

APR 10, 1990 21h 28m 00.54 ± 0.56s
 15.778 N ± 6.9km 147.814 E ± 10.7km
 DEPTH = 33.0km (normal)
 4.6mb (5 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.58 232 eP 28 55.80 0.6
 eS 29 33.20
 PJG 3.59 233 eP 28 55.40 0.2
 GUMO 3.59 233 eP 28 55.10 -0.1
 MAT 22.38 339 (P) 32 58.00 0.6
 PMG 25.03 182 eP 33 24.00 0.7
 BJI 36.64 318 eP 35 05.50 -0.3
 1.5s 16.00nm 4.7mb
 WB5 37.82 201 eP 35 15.30 -0.6
 WRA 37.89 201 Pd 35 15.80 -0.7
 0.9s 9.10nm 4.6mb
 ASPA 41.49 199 iPd 35 45.90 -0.5
 0.9s 7.00nm 4.4mb
 LZH 43.97 306 P 36 07.50 0.9
 1.6s 19.00nm 4.6mb
 pP 36 20.00 46kmX
 GUN 58.22 293 P 37 55.60 0.9
 PKI 58.65 293 P 37 56.80 -0.9
 GKN 59.31 293 P 38 01.60 -0.5
 YKA 79.61 28 eP 40 05.70 -0.1
 0.7s 0.70nm 3.8mb
 SUF 89.60 337 eP 40 54.30 -1.7
 KIC 145.04 307 PKP 47 37.00 -0.1
 ZOBO 145.48 96 PKP 47 40.00 1.5
 S.D. = 0.9 on 17 of 17 obs.

* APR 10, 1990 21h 44m 26.05 ± 0.99s
 45.322 S ± 18.6km 166.850 E ± 6.7km
 DEPTH = 33.0km (normal)
 4.5mb (2 obs.)
 OFF W. COAST OF S. ISLAND, N.Z. (161)
 ML 5.0 (WEL). Felt at Te Anau
 and Invercorgill.

MSZ 1.00 50 Pd 44 42.00 -1.7
 TMP 2.54 68 iP 45 06.00 0.2
 S 45 33.00
 DNZ 2.63 103 P 45 07.80 0.7
 S 45 42.00
 WEL 7.04 58 P 46 13.00 3.5X
 S 47 25.00
 CNB 16.63 301 eP 48 19.00 0.8
 eTT 03 12.00
 CAN 16.85 300 eP 48 20.20 -0.8
 eS 51 18.90
 eTT 03 17.00
 TOO 17.75 288 eP 48 32.00 -0.2
 eTT 02 48.00
 BWA 17.81 301 eP 48 32.00 -0.9
 eS 51 39.80
 eTT 03 36.00
 COO 18.82 316 eP 48 49.00 3.7X
 eTT 03 26.00
 BRS 21.13 323 eP 49 10.00 -0.3
 DZM 23.19 359 iPc 49 32.50 1.6
 RMO 23.74 316 eP 49 38.50 2.5
 ASPA 34.34 298 iPc 51 11.30 -0.5
 1.3s 13.00nm 4.7mb
 Z 17s 1.59um 4.8MszX
 LR 03 35.80
 WRA 36.87 303 Pc 51 32.60 -0.6
 1.1s 5.10nm 4.3mb
 WB5 36.90 303 eP 51 33.10 -0.4
 YKA 124.24 33 ePKP 03 21.30 -0.4
 0.8s 0.40nm
 MBC 129.86 17 ePKP 03 37.00 4.8X
 KIC 140.50 193 PKP 03 48.00 -6.0X
 LKO 143.76 193 PKP 03 56.44 -3.2X
 0.9s 28.50nm
 FRB 144.38 39 ePKP 03 57.00 -2.1X
 KAS 146.03 280 ePKP 04 05.00 2.2X

KEV 148.44 335 ePKP 04 08.00 2.3X
 SOD 149.69 331 iPKP 04 13.70 6.0X
 SUF 151.71 322 ePKP 04 18.40 7.6X
 0.6s 7.50nm
 NUR 153.09 318 ePKP 04 23.00 10.2X
 S.D. = 1.2 on 14 of 25 obs.

? APR 10, 1990 22h 04m 28.12 ± 4.90s
 30.251 N ± 15.4km 53.803 E ± 55.2km
 DEPTH = 33.0km (normal)

IRAN (348)

IR4 5.54 335 eP 05 50.00 -0.6
 IR5 5.64 332 eP 05 51.50 -0.5
 TEH 5.84 340 eP 06 01.00 6.2X
 IR2 5.92 336 eP 05 52.50 -3.5X
 IR7 6.06 335 eP 05 59.00 1.0
 KER 6.99 308 eP 06 11.00 0.1
 RYD 8.43 231 eP 06 31.00 0.0
 S.D. = 0.9 on 5 of 7 obs.

APR 10, 1990 22h 44m 44.10 ± 0.24s
 10.524 S ± 5.2km 109.592 E ± 4.6km
 DEPTH = 39.9km (4 depth phases)
 5.3mb (13 obs.) 4.6Msz (2 obs.)
 SOUTH OF JAVA (282)

TRT 4.11 47 iPd 45 46.60 0.5
 eS 46 26.50
 KHKI 6.31 71 ePd 46 16.00 -1.2
 eS 47 23.00
 e 52 15.00
 MKS 11.11 62 ePd 47 18.50 -5.1X
 NANU 13.25 155 eP 47 43.50 -8.6X
 eS 49 57.00
 KUPT 13.79 90 eP 48 09.70 10.4X
 0.7s 241.90nm
 eS 50 33.00
 MBL 14.44 138 eP 48 00.50 -7.4X
 eS 50 26.00
 TSM 16.91 30 ePc 48 39.60 0.1
 IPM 17.26 330 ePd 48 41.80 -2.1
 e 48 47.40
 KKM 17.73 22 ePc 48 50.00 0.1
 MNI 19.27 53 ePd 49 07.30 -1.2
 AAI 19.66 71 ePd 49 11.10 -1.7
 SNG 19.72 333 eP 49 10.70 -2.8
 1.0s 82.00nm 5.0mb
 eS 56 48.10
 MTN 21.22 98 eP 49 28.00 -0.9
 e 49 39.00 44km
 e 53 17.00
 PPR 22.12 25 ePc 49 39.00 1.1
 DAV 23.65 43 eP 49 54.00 1.1
 WRA 25.62 114 Pc 50 10.80 -1.0
 0.8s 39.80nm 5.0mb
 WB5 25.62 114 iPc 50 11.10 -0.7
 i 50 14.40 12kmX
 i 50 22.20
 e 50 35.00
 eS 54 54.00
 FORR 26.54 142 eP 50 19.00 -1.1
 eS 55 14.00
 ASPA 26.60 123 iPc 50 19.60 -1.2
 0.9s 67.00nm 5.2mb
 Z 20s 1.15um 4.4Msz
 eS 55 12.30
 LR 00 19.60
 NST 27.66 340 iPd 50 23.00 -7.4X
 LOE 28.82 344 eP 50 40.00 -0.9
 BAG 28.89 22 eP 50 41.80 0.1
 BDT 29.51 339 eP 50 46.80 -0.3
 QIS 30.54 113 eP 50 55.00 -1.2
 e 51 44.00 246kmX
 e 56 58.00
 e 04 32.00
 CHG 30.99 340 iPd 51 00.10 -0.1
 1.0s 83.75nm 5.5mb
 CHTO 30.99 340 iPd 51 00.20 0.0
 1.1s 63.90nm 5.3mb
 HKC 32.93 8 eP 51 17.80 0.7
 ADE 35.99 137 iPc 51 43.30 -0.1
 1.0s 34.00nm 5.2mb
 KMI 36.05 349 Pd 51 46.00 1.8
 Z 16s 1.80um 4.9MszX
 N 15s 1.70um
 pP 52 03.00 68kmX

sP 53 07.50
 S 57 24.00
 PMG 37.00 92 eP 51 54.00 2.0
 KOD 38.03 302 eP 52 02.00 1.0
 RMO 40.20 119 eP 52 19.00 0.4
 e 52 30.00 39km
 HYB 41.37 312 ePd 52 28.00 -0.3
 PKI 44.54 329 Pd 52 54.00 -0.3
 GUN 44.58 330 Pd 52 54.60 -0.1
 DMN 44.72 328 Pd 52 55.60 -0.1
 KKN 44.78 329 Pd 52 56.00 -0.2
 GKN 45.28 328 Pd 52 59.60 -0.5
 POO 45.58 309 iPd 53 01.50 -0.9
 LZH 46.67 354 Pd 53 11.00 0.0
 1.6s 156.00nm 5.7mb
 Z 18s 0.80um 4.7Msz
 sP 53 21.50
 PcP 53 57.00
 PP 55 06.00
 eS 01 08.00
 NDI 49.98 322 iPd 53 34.60 -1.9
 0.7s 27.40nm 5.4mb
 eS 00 50.00
 BJI 50.67 7 Pd- 53 40.50 -1.1
 1.0s 75.00nm 5.6mb
 Z 28s 0.34um 4.2MszX
 eS 01 08.00
 MAT 54.01 28 iPd 54 03.50 -3.1X
 1.2s 59.38nm 5.5mb
 QUE 57.62 316 iPd 54 31.70 -1.3
 MAW 64.79 198 iPd 55 20.40 -0.2
 e 55 32.00 39km
 MAIO 66.26 317 iPd 55 29.50 -1.1
 eS 04 16.00
 HBZ 66.80 126 P 55 44.90 10.8X
 RYD 70.68 301 iPd 55 58.00 -0.3
 KMSA 70.99 296 iPd 55 59.00 -1.3
 IR4 71.69 313 iPd 56 04.50 0.1
 IR2 71.89 313 eP 56 05.00 -0.5
 IR5 71.91 312 eP 56 05.50 -0.2
 VNDA 72.05 170 iP 56 04.70 -0.9
 IR7 72.12 313 iPd 56 06.50 -0.4
 SBA 73.12 169 e(P) 56 11.20 -0.7
 BHD 75.74 308 ePc 56 28.00 0.3
 SLY 75.82 311 ePc 56 27.00 -1.1
 TAB 76.25 313 eP 56 30.00 -0.7
 SLR 77.74 246 iPd 56 42.80 3.6X
 0.7s 17.12nm 5.2mb
 MSL 77.88 311 ePc 56 39.00 -0.6
 e 56 50.50 38km
 KSR 78.97 246 eP 56 45.00 -1.0
 BLF 79.24 242 eP 56 50.00 2.6
 SPA 79.54 180 eP 56 46.70 -1.6
 0.9s 14.09nm 4.9mb
 HVD 79.68 241 eP 56 54.00 4.2X
 WAJH 79.73 299 eP 56 51.00 1.1
 LWI 80.54 269 iPc 56 56.10 1.3
 AYN 81.00 302 iPd 56 57.30 0.8
 MKRJ 82.09 304 Pd 57 02.70 0.4
 SALJ 82.19 305 Pd 57 03.50 0.7
 MBH 82.20 302 iPd 57 03.50 0.8
 DSI 82.31 304 eP 57 04.00 0.7
 HRI 82.53 306 iPd 57 06.00 1.4
 LFK 84.87 307 iP 57 17.90 1.6
 BBTK 86.75 311 iPd 57 26.00 0.4
 WIN 88.30 248 eP 57 30.70 -2.9
 BCAA 91.83 274 iPc 57 50.40 0.4
 0.6s 11.00nm 5.5mb
 i 57 54.40 12kmX
 YKA 119.21 22 ePKP 03 29.60 -0.5
 1.1s 5.10nm
 PNT 123.89 37 ePKP 03 41.00 1.4
 EDM 125.30 30 iPKPc 03 43.20 1.0
 NEW 125.84 37 PKP 03 44.00 0.5
 FRB 126.85 359 ePKP 03 44.50 -0.3
 PRS 127.39 52 ePKP 03 48.30 1.6
 CMB 127.64 50 ePKP 03 48.40 1.2
 SES 128.10 32 ePKP 03 48.00 0.3
 FRI 128.47 51 ePKP 03 50.30 1.6
 KVN 129.00 48 PKP 03 51.00 1.0
 FFC 129.33 23 ePKPc 03 50.20 0.4
 0.9s 12.00nm
 LRM 129.82 38 ePKP 03 53.20 1.8
 RSON 135.47 21 PKP 04 01.20 -0.4
 PV09 135.60 45 PKP 04 03.70 1.0
 RSSD 135.69 35 PKP 04 10.00 7.4X
 GOL 137.50 41 PKP 04 06.60 0.4

10d 23h

ALQ 139.17 48 ePKP 04 04.00 -5.3X
 TUL 145.81 38 ePKPc 04 22.00 1.4
 1.3s 94.90nm
 BAO 145.82 221 ePKP 04 23.50 2.2X
 RSNY 145.91 5 PKP 04 21.40 0.9
 FVM 147.28 30 PKP 04 24.00 1.1
 UYO 147.78 39 iPKPd 04 24.50 0.7
 OLY 148.62 34 PKP 04 28.00 2.9X
 RSCP 151.49 27 PKP 04 34.00 4.5X
 BLA 151.94 17 PKP 04 36.50 6.4X
 CCH 151.95 189 PKP 04 42.00 11.0X
 SIV 152.08 199 PKP 04 33.60 2.7X
 i 04 43.00

LPB 153.02 185 ePKP 04 40.00 7.3X
 i 04 46.00

ZOBO 153.28 185 PKP 04 37.00 3.8X
 S.D. = 1.1 on 86 of 105 obs.

? APR 10, 1990 23h 16m 49.01 ± 6.23s
 51.490 N ± 36.4km 16.287 E ± 39.1km
 DEPTH = 10.0km (geophysicist)

POLAND (548)
 ML 2.7 (KRA).

KSP 0.65 180 iP 17 02.00 0.0
 0.3s 28.00nm
 iS 17 10.00
 iLR 17 16.00

BRG 1.60 248 iPg 17 17.80 0.5
 iSg 17 38.20

PRU 1.87 217 ePn 17 21.00 -0.3
 Pg 17 23.00
 Sn 17 40.20
 eSg 17 46.00

CLL 2.06 266 ePn 17 24.00 -0.1
 iPg 17 26.50
 iSg 17 51.50

KRA 2.73 120 eP 17 43.60 10.0X
 eS 18 20.60

KHC 2.93 217 Pn 17 36.80 0.3
 Pg 17 42.50
 Sg 18 19.00

MOX 3.07 256 ePg 17 46.00 7.6X
 iSg 18 26.00

WET 3.21 224 eP 17 40.30 -0.1
 e 18 47.90

SPC 3.43 131 eP 18 17.00 33.3X
 e 18 47.90

GRF 3.70 243 ePn 17 47.10 -0.3
 ePg 17 59.30
 eSg 18 44.20

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

? APR 11, 1990 00h 02m 30.52 ± 2.19s
 42.094 N ± 22.1km 8.069 W ± 8.0km
 DEPTH = 5.0km (geophysicist)

SPAIN (377)
 mbLg 2.9 (MDD).

EZAM 0.47 277 iPg 02 40.00 0.1
 eSg 02 47.00

ERUA 0.75 66 iPg 02 45.00 -0.5
 eSg 02 55.00

STS 0.87 336 ePg 02 47.00 -0.7
 eSg 03 00.00

EMON 1.45 22 eP 02 58.50 1.1
 eS 03 17.00

S.D. = 1.4 on 4 of 4 obs.

? APR 11, 1990 01h 30m 52.63 ± 3.54s
 39.711 N ± 32.8km 20.561 E ± 12.5km
 DEPTH = 33.0km (normal)

GREECE-ALBANIA BORDER REGION (392)

LSK 0.44 4 ePn 31 01.90 -0.5
 SRN 0.46 291 ePn 31 02.80 0.1

TPE 0.72 324 ePn 31 06.10 -0.2
 KBN 0.93 12 ePn 31 13.30 4.0X

BERA 1.10 335 ePn 31 16.70 5.0X
 OHR 1.41 7 ePn 31 17.00 0.8

VAY 2.22 43 ePn 31 27.70 -0.1
 S.D. = 0.7 on 5 of 7 obs.

* APR 11, 1990 01h 40m 13.28 ± 1.63s
 37.796 N ± 17.2km 43.744 E ± 10.0km
 DEPTH = 10.0km (geophysicist)

TURKEY (366)
 Felt at Hakkari.

MSL 1.49 199 iPnc 40 41.00 0.9
 iPg 40 43.00
 iSn 41 01.80
 iSg 41 04.00
 TAB 2.06 82 iPc 40 48.00 0.3
 SLY 2.61 147 iPnc 40 56.00 -0.1
 iP* 41 00.50
 iPg 41 05.00
 iSn 41 29.50
 iS* 41 34.00
 KER 4.38 141 eP 41 21.00 -0.6
 HRI 7.93 238 iPd 42 11.00 -0.5

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

* APR 11, 1990 01h 58m 45.94 ± 0.46s
 15.079 N ± 9.8km 147.512 E ± 9.1km
 DEPTH = 33.0km (normal)

4.3mb (3 obs.)

MARIANA ISLANDS REGION (215)

GUA 2.95 239 eP 59 32.00 0.4
 eS 00 06.80

GUMD 2.96 240 eP 59 31.60 -0.1
 PJG 2.96 240 eP 59 31.80 0.1

WB5 37.07 201 eP 05 54.80 -0.2
 WRA 37.13 201 Pc 05 55.20 -0.4
 0.7s 2.80nm
 LZH 44.14 307 eP 06 54.50 1.0
 1.5s 21.00nm

GUN 58.23 294 P 08 40.20 0.0
 PKI 58.65 293 P 08 42.00 -1.1

KKN 58.76 294 P 08 43.40 -0.3
 GKN 59.32 294 P 08 47.40 -0.2

MBC 76.21 14 eP 10 33.00 0.7
 YKA 80.36 28 eP 10 54.40 -0.8
 0.9s 2.30nm

KVN 83.99 51 e(P) 11 13.80 -1.0
 SES 85.65 39 eP 11 23.00 0.4

KIC 145.21 306 PKP 18 22.20 -0.6
 TIC 145.26 306 PKP 18 22.40 -0.5

LIC 145.52 306 PKP 18 24.20 0.8
 ZOBO 145.69 97 PKP 18 26.00 1.7

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

* APR 11, 1990 02h 30m 07.60 ± 0.56s
 53.345 N ± 11.1km 164.690 W ± 7.1km
 DEPTH = 33.0km (normal)

4.7mb (19 obs.)

UNIMAK ISLAND REGION (10)

ADK 7.45 263 eP 31 56.00 -0.6
 KDC 8.20 53 eP 32 02.90 -4.2X

TTA 10.64 22 eP 32 40.00 -0.7
 PMR 11.74 39 eP 32 51.50 -4.0X

TOA 13.18 41 eP 33 10.30 -4.5X
 IMA 13.88 19 eP 33 25.00 0.9

FBA 14.40 30 eP 33 25.50 -5.3X
 INK 20.98 33 eP 34 47.00 -2.9
 0.5s 13.00nm

YKA 27.45 51 eP 35 52.30 0.4
 0.5s 2.40nm

MBC 28.60 21 eP 36 02.50 0.2
 0.5s 2.00nm

EDM 30.15 69 eP 36 15.50 -0.9
 KVN 34.61 95 eP 36 55.80 0.2

e 37 11.00
 TNP 35.77 96 eP 37 05.50 0.0
 e 37 20.50

GOL 41.82 84 eP 37 56.00 0.1
 MAT 42.55 270 (P) 38 01.00 -0.6

0.8s 8.96nm
 FRB 46.51 38 eP 38 32.00 -0.9

DAG 48.36 10 iPd 38 47.00 -0.3
 0.8s 12.69nm

SCH 52.78 46 eP 39 20.00 -1.3
 KEV 56.91 355 eP 40 02.00 10.9X

SOD 59.31 355 iP 40 07.50 -0.4
 SUF 63.96 354 iP 40 39.30 0.1

0.3s 3.30nm
 NB2 65.92 2 P 40 51.40 -0.4

1.0s 4.40nm
 HFS 66.87 1 eP 40 56.40 -1.4

0.4s 2.80nm
 KHC 77.89 1 eP 42 04.70 1.5

GUN 78.69 302 P 42 08.50 0.2
 0.5s 15.00nm

KKN 79.09 302 P 42 09.80 -0.6

PKI 79.21 302 P 42 10.80 -0.3
 GKN 79.24 303 P 42 08.50 -2.6
 LOR 79.29 8 eP 42 11.60 0.7
 0.6s 2.25nm
 DMN 79.33 302 P 42 12.60 0.9

SSF 79.47 8 eP 42 12.80 1.0
 0.7s 6.60nm

MFF 79.56 11 eP 42 12.80 0.5
 1.0s 14.00nm

LBF 79.58 8 eP 42 13.00 0.5
 0.8s 8.05nm

AVF 79.72 8 eP 42 13.90 0.8
 0.9s 8.20nm

SMF 79.91 8 eP 42 14.90 0.7
 1.0s 9.00nm

LSF 80.09 10 eP 42 15.90 0.8
 0.8s 8.05nm

TCF 80.12 9 eP 42 16.10 0.8
 0.8s 4.05nm

MAF 80.22 9 eP 42 16.70 0.9
 1.0s 14.00nm

LFF 81.30 10 eP 42 23.40 1.9
 0.8s 8.05nm

HYB 91.12 301 ePd 43 11.00 0.7
 WIN 149.24 357 ePKP 49 35.50 -14.4X

SLR 150.76 336 iPKPc 49 57.20 5.2X
 0.7s 10.27nm

KSR 151.21 338 ePKP 49 48.70 -4.1X
 S.D. = 1.1 on 35 of 43 obs.

* APR 11, 1990 03h 14m 35.77 ± 1.14s
 9.997 N ± 12.3km 69.491 W ± 10.3km
 DEPTH = 10.0km (geophysicist)

VENEZUELA (101)

FISA 1.27 7 iP 14 59.20 -0.2
 SDV 1.58 226 iPd 15 04.10 0.1

PLAV 1.96 93 iP 15 10.00 0.4
 GUAC 2.19 85 iP 15 15.00 2.0

OLLA 2.65 89 iP 15 18.00 -1.4
 eS 16 02.00

LLAV 2.68 80 iPc 15 20.50 0.6
 GUAN 3.79 90 iP 15 34.00 -1.6

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

? APR 11, 1990 06h 09m 11.62 ± 2.47s
 32.167 S ± 39.4km 179.024 E ± 31.8km
 DEPTH = 657.3 ± 24.7 km

4.0mb (3 obs.)

SOUTH OF KERMADEC ISLANDS (179)

HBZ 5.45 186 eP 10 51.80 0.1
 CTA 31.66 284 iPc 14 45.00 -1.2

0.9s 12.60nm
 WRA 41.67 276 Pd 16 08.20 0.6

0.6s 2.00nm
 WB5 41.68 276 eP 16 08.20 0.6

SPA 58.01 180 eP 18 05.80 -0.3
 1.0s 10.00nm

SUF 144.89 339 iPKP 27 35.20 -1.1
 0.7s 18.00nm

BCAO 146.90 218 iPKPd 27 47.10 6.1X
 NUR 147.01 337 ePKP 27 41.00 1.3

NB2 150.03 348 PKP 27 58.60 14.1X
 0.8s 1.90nm

S.D. = 1.3 on 7 of 9 obs.

* APR 11, 1990 06h 38m 10.45 ± 1.20s
 7.157 S ± 8.6km 129.515 E ± 12.1km
 DEPTH = 131.2 ± 14.8 km

5.5mb (5 obs.)

BANDA SEA (280)

AAI 3.69 339 ePd 39 08.00 1.1
 0.4s 85.30nm

MTN 5.87 164 eP 39 37.00 0.6
 eS 40 28.00

KNA 8.57 185 iPc 40 11.70 -1.3
 0.2s 108.00nm

S 41 42.00
 WB5 13.50 160 iPd 41 15.10 -2.7

0.4s 43.38.20
 OIS 16.52 145 eP 41 56.00 0.1

eS 44 48.00
 MBL 16.78 213 eP 41 59.00 0.0

PMG 17.60 99 eP 42 09.00 0.0
 NANU 20.40 220 iPd 42 40.30 1.3

NUR	66.05	332	iP	04	17.10	-1.4
	0.8s	143.80nm				6.0mb
WDC	66.24	56	eP	04	20.20	0.2
SES	66.68	42	ePc	04	22.00	-0.8
	0.5s	69.00nm				5.9mb
MIN	66.95	56	eP	04	24.30	-0.5
MBL	67.21	205	eP	04	26.00	-0.2
	0.6s	5.00nm				4.6mb
ORV	67.49	57	eP	04	27.30	-0.7
DZM	67.53	158	iPc	04	29.90	1.6
FFC	68.01	35	eP	04	30.00	-0.9
	0.7s	87.00nm				5.8mb
RMQ	68.82	175	eP	04	36.00	-0.2
LRM	68.85	47	eP	04	36.40	-0.2
UPP	68.89	334	iP	04	35.40	-0.9
IR2	69.03	299	eP	04	37.00	-0.7
CMB	69.10	57	eP	04	38.20	0.1
IR7	69.19	300	iPc	04	38.80	0.1
PRS	69.53	59	eP	04	40.70	0.1
MOL	69.59	340	iP	04	39.98	-0.5
HPI	69.84	49	P	04	43.00	0.2
KVN	69.88	55	P	04	43.00	0.1

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HFS      69.90 336 eP      04 41.20 -1.2
          0.5s    101.40nm          6.0mb
Z   18s      0.83um          5.0Ms z
          LR      33 46.00

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NANU	69.92	208 eP	04	43.00	0.1
	0.6s	12.00nm			5.0mb
FR1	70.17	58 eP	04	44.20	-0.3
TAB	70.41	304 eP	04	46.00	-0.2
PTI	70.79	49 P	04	49.00	1.4
IMW	70.91	48 P	04	49.80	0.5
FRB	70.95	15 eP	04	47.00	-1.7
	0.4s	34.50nm			5.6mb
TNP	71.02	56 P	04	50.40	0.5
HYA	71.13	340 iPd	04	49.61	-0.2
SUE	71.58	340 eP	04	53.06	0.5
ISA	71.78	58 eP	04	53.00	-1.3
ASK	71.96	340 ePd	04	55.68	0.8
ODD1	72.08	339 iPd	04	55.23	-0.4
CLC	72.23	58 eP	04	56.00	-1.0
DUG	72.28	52 P	04	57.50	0.2
	0.5s	10.42nm			5.0mb
BW06	72.41	48 P	04	57.00	-1.2
	0.5s	22.32nm			5.3mb
SLY	72.49	302 ePc	05	02.00	3.6X
SBB	72.81	59 eP	05	01.00	0.6
MWC	72.96	59 eP	05	01.00	-0.5
DAU	73.03	51 P	05	02.30	0.4
GSC	73.06	58 eP	05	02.00	0.1

RVR	73.54	59	eP	05	22.50	66 km
PEC	73.74	59	P	05	05.20	-0.6
RSON	74.27	34	P	05	07.50	-1.0
	0.7 s	67.47 nm				5.7 mb
PLM	74.28	59	eP	05	09.00	-0.1
TPC	74.31	58	eP	05	08.00	-1.1
RSSD	74.42	44	P	05	08.80	-1.0
BHD	74.70	301	ePd	05	12.00	0.8
			eS	14	40.00	
			eScS	15	14.00	

CAN	75.06	320	iPc	05	13.00	-0.2
CLL	75.06	320	iPc	05	13.00	-0.2
KRA	75.65	327	iPc	05	16.50	0.1
			i	05	20.70	13 kmX
GLA	75.77	58	eP	05	17.00	-0.4
SPC	76.20	326	eP	05	19.60	-0.1
KSP	76.47	329	iPc	05	21.00	0.0
	1.0 s	36.00 nm				5.3 mb
			e	07	59.50	
MLR	76.47	320	ePc	05	21.50	0.2
BWA	76.70	176	eP	05	24.50	2.2
			e	05	43.80	71 km
GOL	76.81	48	P	05	23.80	0.3
GLD	76.86	48	P	05	24.20	0.6
	0.7 s	46.67 nm				5.5 mb
BBTK	77.10	313	eP	05	24.00	-0.8
CLL	77.30	331	iPc	05	25.40	-0.2
	1.0 s	60.00 nm				5.5 mb
			i	05	43.60	67 km
			i	06	03.40	
BRG	77.32	330	iP	05	25.50	-0.2
	2.0 s	66.00 nm				5.2 mb
			i	06	04.60	158 kmX
CAN	77.62	176	eP	05	29.00	1.6

11d 08h

PRU	77.82	329	P	e	05 51.30	84kmX	PRNI	82.53	304	eP	05 55.00	1.1		0.6s	18.05nm	5.3mb		
				P	05 29.00	0.6	SAL	82.96	329	P	05 56.00	0.2	LRG	86.35	331	eP	06 12.40	-0.5
				e	05 33.40	14kmX	LSK	83.09	320	iPd	05 57.50	0.8		0.7s	68.35nm	5.8mb		
BUD	78.04	325	e(P)	05 30.00	0.3		MDI	83.13	330	P	05 57.00	0.4	RJF	86.37	335	eP	06 13.10	0.1
SRO	78.07	326	iP	05 30.70	0.8		KMSA	83.22	291	eP	05 58.30	0.6		0.6s	21.65nm	5.4mb		
			i	06 09.60	157kmX		TPE	83.25	320	eP	05 56.00	-1.4	LMR	86.40	330	eP	06 12.70	-0.4
ZST	78.26	327	eP	05 31.70	0.8		VAI	83.40	330	Pc	05 57.90	-0.1		0.6s	41.50nm	5.7mb		
			e	06 09.50	152kmX		ARV	83.78	327	P	06 01.50	1.4	CBM	86.46	21	P	06 13.00	-0.3
MOX	78.35	331	eP	05 32.00	0.6		SFI	83.86	327	P	06 01.70	1.3	CAF	86.53	334	eP	06 14.30	0.5
Z	24s			1.50um			FLN	83.87	337	eP	06 00.30	-0.1	RSNY	86.69	27	P	06 14.90	0.4
E	30s			1.30um				0.6s	25.25nm		5.4mb		UYO	86.77	45	e(P)	06 15.00	-0.1
			i	05 53.00	78km		LOR	83.88	334	eP	05 59.90	-0.6	CLE	86.79	33	iP	06 16.20	1.1
BZS	78.37	323	eP	05 30.00	-1.5			0.7s	23.15nm		5.3mb		LFF	86.94	335	eP	06 16.10	0.4
HOF	78.53	331	iPc	05 32.20	-0.2		ORX	83.89	331	P	06 00.36	-0.4	LPO	87.03	334	eP	06 16.70	0.5
EKA	78.59	342	Pc	05 33.20	0.6		LDF	83.92	337	eP	06 00.60	-0.1		0.6s	37.90nm	5.7mb		
	0.4s			17.50nm	5.3mb			0.6s	14.45nm		5.2mb		WNY	87.05	26	P	06 16.80	0.5
WTS	78.82	335	eP	05 34.50	0.6		PGD	83.95	327	P	06 02.40	1.3	OLY	87.25	42	P	06 16.90	-0.5
	0.7s			31.00nm	5.3mb		CRE	84.07	327	Pd	06 02.50	0.9	HBVT	87.33	26	P	06 17.40	-0.2
RYD	78.86	293	eP	05 34.00	-0.7		BOB	84.08	329	Pd	06 02.20	0.5	BNH	87.69	24	P	06 20.00	0.6
KHC	78.88	329	iP	05 35.00	0.6		MME	84.09	328	P	06 03.10	1.2	EPF	88.79	334	eP	06 25.00	0.3
	0.6s			19.00nm	5.2mb		LBF	84.09	334	eP	06 01.50	-0.1		0.6s	9.00nm	5.2mb		
NWAO	79.03	203	eP	05 37.00	1.9			0.6s	20.75nm		5.3mb		PWLA	89.33	40	P	06 26.90	-0.4
WET	79.13	330	iPc	05 36.50	0.8		GRC	84.11	334	P	06 01.73	0.1	TBR	89.81	28	P	06 29.80	0.3
	0.7s			30.00nm	5.3mb		SSF	84.18	334	eP	06 02.20	0.2	RSCP	89.99	38	P	06 30.00	-0.5
GRF	79.28	331	iPc	05 37.30	0.8			0.8s	21.50nm		5.2mb		GBTN	90.55	37	P	06 33.00	0.0
	1.0s			75.00nm	5.6mb		BDI	84.24	328	P	06 03.00	0.5	NAV	90.64	34	P	06 33.50	0.1
Z	19s			1.20um	5.3msz		LSO	84.33	331	P	06 03.43	0.3	TKL	90.76	37	P	06 34.00	0.1
			e	05 56.50	71km		LPL	84.43	331	eP	06 03.70	0.1	PRM	92.70	37	P	06 43.80	0.9
			e	06 09.30				0.6s	23.90nm		5.4mb		ASMO	95.24	335	eP	06 59.00	4.3X
			e	06 15.30			SMF	84.43	334	eP	06 02.80	-0.5	AAPN	95.40	335	iPd	06 56.50	1.0
SCH	79.51	18	ePc	05 37.30	-0.4			0.6s	23.00nm		5.4mb		ALOJ	95.58	335	eP	06 58.00	1.7
	0.7s			35.00nm	5.4mb		LPG	84.44	331	eP	06 03.60	-0.1	APHE	95.59	335	iPd	06 57.50	1.1
ALO	79.55	52	eP	05 39.00	0.6			0.6s	28.20nm		5.5mb		LKO	121.20	324	PKP	12 23.22	-0.9
	1.0s			10.75nm	4.7mb		AVF	84.46	334	eP	06 03.20	-0.2		0.7s	13.50nm			
LFK	79.90	309	iP	05 40.90	0.8		PII	84.55	328	P	06 03.50	-0.4	TIC	123.53	322	PKP	12 28.00	-0.6
HRI	80.02	306	eP	05 40.00	-0.9		RSP	84.56	331	P	06 03.84	-0.3	KIC	123.65	322	PKP	12 28.80	-0.1
ENN	80.16	335	eP	05 41.00	-0.1		PCP	84.61	330	P	06 03.43	-0.9	LIC	123.90	322	PKP	12 28.60	-0.8
	0.7s			30.00nm	5.3mb		DUI	84.65	325	P	06 06.00	1.4	SPA	132.35	180	ePKP	12 46.00	1.9
MEM	80.27	334	P	05 43.90	2.2		LPF	84.69	337	eP	06 04.80	0.3		0.8s	5.83nm			
BHG	80.31	329	eP	05 43.00	1.0			0.6s	20.75nm		5.3mb		LPB	142.25	56	PKPc	13 03.70	-0.6
	0.7s			66.00nm	5.7mb		TUL	84.73	45	eP	06 05.60	0.7			eLR	09 10.00		
ABH	80.39	333	eP	05 42.24	-0.2			0.6s	57.60nm		5.8mb		CCH	144.10	55	PKP	13 05.80	-1.5
KBA	80.66	328	iPc	05 44.90	0.8		Z	22s	0.81um		5.1msz		BAO	151.26	25	ePKP	13 19.50	1.0
	0.6s			34.90nm	5.5mb				LR	35	47.00				e	19 25.30		
			i	06 23.80	156kmX		MNS	84.81	326	P	06 05.80	0.5		S.D. = 0.9 on 279 of 285 obs.				
			i	08 27.30			CKI	84.81	330	Pc	06 05.30	0.1		% APR 11, 1990 08h 57m 35.45± 0.77s				
			i	08 50.50			AZI	84.82	325	P	06 06.00	0.8		44.237 N ± 6.2km 10.622 E ± 7.0km				
			i	08 51.50			BGF	84.83	334	eP	06 05.30	0.0		DEPTH = 5.0km (geophysicist)				
RUP	80.71	333	eP	05 44.37	0.2			0.6s	19.85nm		5.3mb			NORTHERN ITALY (545)				
SNF	80.90	335	P	05 46.00	1.0		BNI	84.85	331	P	06 07.00	1.4	MME	0.07	127	Pd	57 37.60	0.2
LJU	81.04	327	eP	05 45.50	-0.4		SDI	84.89	325	P	06 05.70	0.0			eSg	57 39.30		
RBL	81.09	328	P	05 45.90	-0.3		RRL	84.93	331	P	06 06.50	0.4	BDI	0.18	186	Pc	57 39.00	-0.1
GWf	81.14	333	P	05 46.44	0.0		FIN	85.02	330	P	06 05.38	-0.9			eSg	57 41.40		
DOU	81.16	335	Pc	05 47.30	0.9		ROB	85.07	330	P	06 05.99	-0.6	PII	0.52	188	P	57 45.10	-0.8
YRH	81.23	341	eP	05 48.00	1.3		ORI	85.08	322	P	06 09.00	2.4			eSg	57 52.70		
DLE	81.25	343	eP	05 47.30	0.5		PLDF	85.10	334	P	06 07.17	0.4	SFI	0.94	109	P	57 54.00	0.2
	0.5s			36.00nm	5.6mb		DOI	85.12	331	P	06 05.50	-1.4			eSg	58 08.00		
SKO	81.27	321	eP	05 47.20	0.1		PZZ	85.17	331	P	06 05.58	-1.6	BOB	0.99	303	P	57 55.70	0.9
FVI	81.28	328	P	05 47.00	0.0		SGO	85.19	323	P	06 08.00	0.9			eSg	58 09.00		
VOY	81.30	327	eP	05 46.50	-0.9		AGO	85.19	334	P	06 08.26	1.1	CRE	1.14	122	P	57 58.00	0.7
CEY	81.33	327	eP	05 47.00	-0.4		MAF	85.22	334	eP	06 07.60	0.3			eSg	58 14.20		
DCN	81.36	343	eP	05 47.80	0.5		TCF	85.28	335	eP	06 07.70	0.1	CTI	1.95	22	P	58 08.50	-1.2
	0.6s			48.00nm	5.6mb			0.6s	14.45nm		5.2mb				eSn	58 33.00		
BCI	81.60	322	eP	05 50.50	1.7		ENR	85.30	330	P	06 05.99	-1.8		S.D. = 0.9 on 7 of 7 obs.				
TRI	81.62	327	eP	05 47.70	-1.1		STV	85.32	330	P	06 05.89	-2.0		* APR 11, 1990 09h 44m 06.55± 1.52s				
OGA	81.72	330	iPd	05 50.40	0.8		SAOF	85.45	330	P	06 08.29	-0.2		43.146 N ±19.7km 17.292 E ±20.9km				
	0.7s			43.00nm	5.5mb		AUTN	85.49	330	P	06 08.90	0.0		DEPTH = 10.0km (geophysicist)				
ETA	81.73	342	eP	05 49.60	0.3		PYM	85.50	334	P	06 09.83	1.1		YUGOSLAVIA (383)				
CDF	81.75	333	eP	05 49.40	-0.2		LSF	85.52	335	eP	06 08.70	-0.1		ML 2.7 (TTG).				
	0.6s			10.80nm	5.0mb			0.6s	15.35nm		5.2mb		BRY	0.95	105	ePg	44 23.20	-1.6
FEL	81.95	332	eP	05 50.43	-0.3		TOUF	85.54	330	P	06 08.95	-0.2			eSg	44 38.00		
PHP	81.96	321	iPd	05 49.90	-0.8		SBF	85.60	330	eP	06 08.90	-0.4	HCY	1.13	128	ePg	44 27.70	0.0
ECB	82.16	342	eP	05 52.40	0.9			0.6s	55.90nm		5.8mb				eSg	44 46.90		
CTI	82.17	329	P	05 51.00	-0.9		AURF	85.62	330	P	06 08.94	-0.5	BDV	1.42	127	ePg	44 32.90	0.5
OHR	82.24	320	ePd	05 52.50	0.2		MVIF	85.68	330	P	06 08.90	-0.9			eSg	44 54.40		
	0.5s			67.00nm	5.8mb		MFF	85.72	336	eP	06 10.10	0.4	BLY	1.60	357	eP	44 35.90	0.9
			e	06 11.80	70km			0.6s	27.05nm		5.5mb				eS	44 53.40		
ECP	82.24	342	eP	05 52.50	0.5		REVF	85.74	330	P	06 09.70	-0.2	TTG	1.62	116	ePn	44 36.20	1.0
MOF	82.28	332	P	05 51.69	-0.7		FVM	85.79	40	P	06 10.00	-0.2			eSn	45 00.00		
LACI	82.34	321	eP	05 53.50	0.9			0.5s	45.49nm		5.8mb		VOY	3.77	321	ePn	45 05.20	-0.9
VITF	82.35	333	P	05 51.88	-0.7		LBL	85.88	333	P	06 11.91	1.4			eSn	45 49.90		
BSF	82.41	333	eP	05 52.60	-0.5		CALN	85.90	330	P	06 11.93	1.1		S.D. = 1.3 on 6 of 6 obs.				
	0.6s			11.70nm	5.0mb		GRI	86.10	322	P	06 13.14	1.4						
HAU	82.41	333	eP	05 52.80	-0.2			0.1s	25.00nm		6.2mb							
	0.7s			8.80nm	4.8mb		PGF	86.14	328	eP	06 12.10	0.1						

* APR 11, 1990 09h 52m 30.50±0.64s
27.964 N ±13.8km 56.303 E ± 6.8km
DEPTH = 33.0km (normol)
4.2mb (3 obs.)
SOUTHERN IRAN (353)
ML 4.0 (BMU).

BRF	5.44	251	ePn	53	52.40	1.1
BBU	5.49	253	(Pn)	53	51.80	-0.3
			(Sn)	54	45.10	
BEE	5.51	251	iPn	53	53.50	1.1
			(Sn)	54	43.30	
MAIO	8.74	17	eP	54	48.00	10.3X
RYD	9.27	252	eP	54	43.50	-1.5
POO	18.64	116	eP	56	47.00	-0.7
BBTK	22.78	307	eP	57	30.00	-1.3
PKI	25.73	84	P	58	00.00	-0.1
KHC	38.87	315	P	59	54.50	0.1
	1.0s				7.00nm	4.4mb
CHG	40.02	94	eP	00	05.10	0.9
NB2	44.65	331	P	00	42.40	0.9
	0.8s				2.50nm	4.1mb
MBC	76.01	359	eP	04	23.00	7.5X
FRB	78.87	338	eP	04	36.00	4.4X
INK	83.74	4	eP	05	05.00	8.0X
YKA	89.57	356	eP	05	33.00	7.4X
	0.8s				1.20nm	4.2mb

S.D. = 1.1 on 10 of 15 obs.

& APR 11, 1990 10h 50m 23.94s
61.480 N 146.671 W
DEPTH = 21.7km
3.0mb (1 obs.)
SOUTHERN ALASKA (2)
<AGS-P>. ML 3.1 (PMR).

KLU	0.36	88	iP	50	31.51	-0.3
			eS	50	37.68	
VZW	0.43	172	iP	50	32.28	-0.5
			iS	50	39.91	
NCA	0.52	352	iP	50	33.64	-0.7
			eS	50	41.76	
GLI	0.64	199	iP	50	35.39	-0.9
			eS	50	44.23	
TOA	0.67	20	eP	50	36.10	-0.8
SML	0.86	293	iP	50	38.39	-1.7
GHO	1.12	286	iP	50	42.49	-1.9
			eS	50	58.61	
SDG	1.18	26	iP	50	43.49	-1.7
			iS	50	58.26	
PLRM	1.18	277	iP	50	43.85	-1.4
			eS	50	59.58	
PMR	1.18	277	eP	50	43.60	-1.6
GLB	1.37	90	eP	50	45.94	-2.0
			eS	51	04.41	
PMS	1.41	262	iP	50	47.68	-0.8
			eS	51	06.20	
PWA	1.54	278	iP	50	49.37	-1.0
PAX	1.60	20	eP	50	49.89	-1.4
			iS	51	09.69	
CUT	1.94	300	iP	50	55.46	-0.6
			eS	51	20.27	
SEW	1.94	226	eP	50	54.67	-1.4
			eS	51	18.92	
SUA	1.95	271	eP	50	55.39	-1.0
			eS	51	20.67	
SLKM	1.99	242	eP	50	55.66	-1.1
TGL	2.00	110	eP	50	55.23	-1.9
			eS	51	22.57	
HUR	2.05	319	eP	50	57.00	-0.7
			eS	51	23.21	
RND	2.18	333	eP	50	59.08	-0.6
			eS	51	26.44	
NKA	2.34	254	eP	51	02.51	0.8
DDM	2.35	9	eP	51	02.17	0.2
SKT	2.37	284	eP	51	00.11	-2.1
MCK	2.49	336	eP	51	03.63	-0.4
CGLM	2.57	268	eP	51	03.82	-1.4
SPU	2.61	266	eP	51	04.01	-1.8
NCG	2.64	271	eP	51	04.42	-1.8
CRP	2.65	268	eP	51	07.40	1.0
YAH	2.65	113	eP	51	04.09	-2.4
NNL	2.69	240	eP	51	06.02	-0.8
CKL	2.75	267	eP	51	06.03	-1.7
			eS	51	40.28	
BGL	2.76	268	eP	51	06.18	-1.7
KTH	2.87	318	eP	51	08.71	-0.6

RDT	2.94	254	iP	51	08.40	-1.9
HDA	2.94	358	eP	51	10.33	0.0
CNPM	2.99	231	eP	51	09.14	-1.9
WRH	3.07	348	eP	51	11.84	-0.4
RED	3.16	253	iP	51	11.51	-2.1
CCB	3.22	351	eP	51	12.04	-2.3
NEA	3.30	342	eP	51	14.50	-0.9
RDS	3.43	349	eP	51	16.64	-0.6
PCA	3.44	111	eP	51	15.38	-2.1
FBA	3.47	352	eP	51	17.90	0.0
GLM	3.54	355	eP	51	17.95	-0.9
BCPM	3.78	111	eP	51	19.50	-2.8
PDB	4.07	249	eP	51	23.40	-3.0
CDD	4.32	237	eP	51	27.75	-2.2
SVW	4.33	269	eP	51	30.00	-0.2
IMA	5.55	239	eP	51	45.90	-1.6
INK	8.82	33	eP	52	50.00	17.0
YKA	15.02	72	eP	53	57.20	1.0
	0.8s				0.60nm	3.0mb
	52 obs.					associated

APR 11, 1990 11h 31m 49.32±0.23s
15.246 N ± 5.5km 147.515 E ± 4.5km
DEPTH = 34.1km (3 depth phases)
5.0mb (20 obs.)

MARIANA ISLANDS REGION (215)

GUA	3.04	236	eP	32	35.70	-0.5
			eS	33	12.50	
GUMO	3.05	238	eP	32	35.60	-0.7
PJG	3.05	238	eP	32	35.80	-0.5
MAT	22.77	340	eP	36	48.00	-2.0
	0.9s				37.82nm	4.9mb
					eS	40
PMG	24.50	181	eP	37	07.00	0.2
BAG	25.93	276	eP	37	21.00	0.4
MNI	26.25	241	e(P)	37	25.00	1.6
SSE	28.78	308	iPd	37	45.30	-1.0
	0.8s				53.00nm	5.3mb
QIS	36.42	193	eP	38	52.00	-0.8
			i	39	21.40	130kmX
BJI	36.83	318	eP	38	56.00	-0.1
	1.5s				79.00nm	5.4mb
WB5	37.22	201	eP	38	58.50	-1.1
			e	39	10.80	45kmX
WRA	37.29	201	Pd	38	59.10	-1.0
	1.0s				15.10nm	4.8mb
KMI	42.99	291	Pd	39	49.00	1.4
	1.5s				0.10nm	2.3mb X
			pP	40	02.70	52kmX
LOE	43.91	279	eP	39	55.00	0.1
LZH	44.05	306	iPd	39	57.50	1.5
	1.6s				187.00nm	5.6mb
			i	40	07.00	32km
NST	45.59	277	iPd	40	11.00	2.7
NNT	46.38	273	iPc	40	15.10	0.5
CHTO	46.47	282	iPd	40	15.90	0.6
			pP	40	27.00	39km
BDT	46.52	279	eP	40	16.10	0.4
	0.8s				43.60nm	5.5mb
ADE	50.63	189	iPc	40	47.80	0.5
GUN	58.16	294	P	41	42.70	-0.3
PKI	58.59	293	P	41	45.20	-0.7
	0.8s				36.00nm	5.5mb
KKN	58.70	293	P	41	46.00	-0.5
	0.9s				49.00nm	5.6mb
DMN	58.86	293	P	41	47.40	-0.3
	0.8s				47.00nm	5.7mb
GKN	59.26	294	P	41	49.90	-0.5
IMA	63.74	23	P	42	20.40	0.5
	1.0s				4.38nm	4.5mb
FBA	65.65	25	P	42	31.00	-1.1
	0.5s				3.10nm	4.7mb
HYB	65.89	283	eP	42	34.00	-0.4
GBA	67.61	279	Pd	42	44.70	-0.7
	0.7s				4.50nm	4.7mb
POO	70.11	284	iPc	43	01.00	0.2
INK	71.86	23	eP	43	10.00	-0.5
QUE	74.47	298	eP	43	27.50	0.8
MBC	76.05	14	ePd	43	34.90	0.3
	1.0s				18.00nm	5.0mb
MAIO	79.57	305	eP	43	56.00	1.1
YKA	80.21	28	eP	43	56.50	-1.1
	1.1s				2.80nm	4.2mb
PNT	80.45	42	eP	43	59.00	-0.2
NEW	82.29	42	P	44	09.00	0.1

	1.3s				14.15nm	4.9mb
CMB	82.39	53	eP	44	10.00	0.3
FRI	83.16	54	eP	44	13.70	0.1
EDM	83.30	37	eP	44	14.00	0.0
KVN	83.89	51	eP	44	18.00	0.5
			e	44	28.10	32km
ISA	84.45	55	eP	44	20.00	-0.2
TNP	84.80	52	P	44	22.30	0.2
	0.9s				3.91nm	4.6mb
PAS	85.08	56	eP	44	23.00	-0.3
CLC	85.10	54	eP	44	24.00	0.5
MWC	85.15	56	eP	44	23.00	-0.9
SBB	85.22	56	eP	44	26.00	1.9
SES	85.51	39	eP	44	25.00	-0.2
KEV	85.73	342	eP	44	26.00	0.1
GSC	85.86	55	eP	44	30.00	2.7
LRM	86.03	44	eP	44	28.60	0.4
TPC	86.79	56	eP	44	31.00	-0.8
SOD	87.18	341	iP	44	33.10	0.1
DUG	87.49	49	P	44	35.20	0.0
	0.6s				2.30nm	4.6mb
IMW	87.66	45	P	44	36.40	0.2
DAG	87.80	357	iPc	44	35.10	-0.7
	0.7s				6.16nm	5.0mb
GLA	88.06	56	eP	44	38.00	0.0
FFC	89.04	33	eP	44	42.00	-0.2
	1.2s				14.00nm	5.2mb
SUF	89.98	337	eP	44	45.70	-0.7
NUR	91.84	335				

11d 12h

PMG	35.30	277	eP	33	26.50	2.4
BWA	35.31	234	iPd	33	22.20	-1.8
TOO	38.67	230	iPd	33	52.30	0.6
	0.6s	55.00nm			5.1mb	
ADE	43.10	237	eP	34	28.00	0.4
WB5	45.83	258	eP	34	48.20	-0.8
				36	19.00	
WRA	45.85	258	Pd	34	48.20	-1.0
	0.5s	5.20nm			4.2mb	
MTN	49.86	267	iPc	35	19.60	-0.2
KNA	51.61	263	eP	35	32.10	-0.5
	0.3s	18.00nm			4.9mb	
AAI	54.97	277	eP	35	56.20	-0.7
MBL	59.25	255	iPd	36	25.80	-0.5
MAT	67.62	322	eP	37	20.00	0.3
	0.8s	6.72nm			4.4mb	
SPA	73.33	180	iPd	37	54.20	0.9
	1.1s	9.52nm			4.3mb	
KVN	78.38	43	e(P)	38	21.00	-0.6
				39	53.50	411kmX
SNG	84.49	279	eP	38	56.90	3.8X
CHG	89.58	290	eP	39	20.20	3.0X
YKA	92.88	24	eP	39	32.00	0.5
	0.4s	0.20nm			3.5mb X	
KSP	144.30	345	ePKP	45	50.00	-2.5
		ic		45	53.00	
CLL	144.57	349	iPKP	45	53.60	0.6
	0.9s	9.00nm				
BRG	144.80	348	iPKP	45	54.80	1.4
	0.9s	20.00nm				
MOX	145.46	350	ePKP	45	52.00	-2.5
PRU	145.51	346	ePKP	45	57.00	2.4
KHC	146.53	347	PKP	46	00.00	3.7X
FLN	148.00	4	ePKP	46	03.70	5.1X
	0.8s	14.80nm				
LDF	148.19	4	ePKP	46	03.60	4.7X
CDF	148.22	354	ePKP	46	04.20	5.1X
	0.6s	4.50nm				
GRR	148.34	4	ePKP	46	04.50	5.3X
	0.6s	5.40nm				
LPF	148.68	5	ePKP	46	04.80	5.1X
	0.7s	8.80nm				
VBY	149.48	342	e(PKP)	46	08.00	7.0X
LOR	149.58	358	ePKP	46	07.50	6.4X
	0.8s	8.05nm				
SSF	149.79	359	ePKP	46	08.00	6.6X
	0.6s	5.40nm				
LBF	149.86	358	ePKP	46	07.90	6.3X
	0.6s	8.10nm				
AVF	150.07	359	ePKP	46	08.20	6.4X
	0.6s	3.60nm				
BGF	150.31	360	ePKP	46	08.80	6.6X
	0.6s	6.30nm				
TCF	150.57	1	ePKP	46	09.60	6.9X
	0.6s	4.50nm				
LSF	150.60	2	ePKP	46	09.50	6.8X
	0.7s	7.70nm				
MAF	150.64	0	ePKP	46	09.80	7.0X
	0.6s	4.50nm				

S.D. = 1.2 on 28 of 46 obs.

APR 11, 1990 13h 10m 16.82 ± 0.19s
 30.991 S ± 5.2km 177.806 W ± 5.9km
 DEPTH = 33.0km (normal)
 5.4mb (20 obs.) 5.4Msz (13 obs.)
 KERMADEC ISLANDS (178)
 Ms 5.6 (BRK).
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 13S, 34C
 Centroid Location:
 Origin Time 13:10:32.0 0.5
 Lat 30.20S 0.04 Lon 178.29W 0.04
 Dep 27.1 2.0 Half-duration 3.0
 Moment Tensor: Scale 10**17 Nm
 Mrr= 4.27 0.10 Mtt= 0.56 0.14
 Mff= -4.83 0.13 Mrt= -0.47 0.25
 Mrt= 4.19 0.43 Mtf= -2.01 0.12
 Principal Axes:
 T Vol= 6.16 Plg=64 Azm=241
 N 0.71 16 8
 P -6.87 20 104
 Best Double Couple: Mo=6.5*10**17
 NP1: Strike=220 Dip=29 Slip= 125
 NP2: 1 66 72

HBZ 7.34 205 eP 12 07.10 2.8

PUZ	7.77	204	P	12	11.70	1.2
			S	13	44.30	
MNG	11.04	208	eP	12	52.80	-2.7
			S	14	58.70	
MTW	11.50	206	eP	12	59.20	-2.4
MRW	11.87	209	eP	13	04.00	-2.7
SVA	13.26	344	eP	13	25.30	0.0
KHZ	13.34	209	eP	13	23.60	-2.6
VUN	13.36	344	eP	13	25.70	-0.9
NDF	13.86	341	eP	13	35.60	2.4
SGE	13.90	343	eP	13	34.10	0.3
DZM	16.64	298	iPd	14	12.70	3.4X
			i	22	51.00	
MSZ	17.67	215	P	14	24.00	2.1
			S	17	33.00	
AFI	17.88	19	eP	14	20.00	-4.8X
			e(S)	17	36.00	
PVC	18.25	313	iPc	14	29.00	-0.2
COO	26.00	263	iPd	15	54.30	5.8X
			e	23	16.00	
CNB	27.75	252	eP	16	10.00	5.5X
CAN	28.05	252	iPc	16	11.90	4.7X
BWA	28.55	254	iPc	16	14.10	2.4
PPN	29.03	69	eP	16	14.00	-2.1
	1.0s	25.00nm			4.9mb	
RMQ	29.59	270	iPc	16	24.20	3.1X
	0.5s	102.00nm			5.8mb	
			e	16	37.00	50kmX
HNR	29.81	311	e(P)	16	36.00	12.9X
TOO	30.89	248	eP	16	36.00	3.5X
			e	16	49.00	51kmX
CMS	31.01	260	eP	16	37.00	3.4X
CTA	34.06	280	iPc	17	01.50	1.2
	1.4s	906.98nm			6.5mb X	
Z 20s		10.64um			5.6Msz	
			iPp	17	13.00	42kmX
			iSp	17	19.50	
			i	17	28.00	
			ePPP	18	39.00	
			e	21	34.00	
			iS	22	21.00	
			i	22	49.00	
			iScP	23	32.00	
			eSS	24	45.00	
			iScS	27	38.00	
ADE	36.48	252	iPc	17	24.50	3.7X
	1.1s	202.53nm			5.9mb	
RKT	38.76	89	eP	17	46.00	6.1X
	1.0s	25.00nm			5.0mb	
QIS	39.53	275	eP	17	47.00	0.6
DRV	43.66	203	eP	18	25.00	5.3X
WRA	44.29	273	P	18	25.00	-0.4
	1.4s	331.20nm			6.0mb	
WB5	44.29	273	iPc	18	25.90	0.5
FORR	46.01	256	iPd	18	40.40	1.5
	0.4s	47.00nm			5.8mb	
SBA	47.46	184	eP	18	58.00	8.2X
MTN	50.24	279	eP	19	11.00	-1.0
KNA	50.88	275	P	19	16.80	-0.1
HON	55.38	23	P	20	00.00	10.0X
Z 20s		1.06um			4.9Msz	
MBL	56.24	264	eP	19	56.00	-0.4
	0.6s	13.00nm			5.1mb	
SPA	59.18	180	iPc	20	22.20	5.4X
	1.0s	75.00nm			5.8mb	
Z 19s		3.67um			5.5Msz	
NANU	59.34	261	eP	20	18.40	0.2
TSM	70.35	288	ePc	21	30.50	0.9
MAW	71.82	201	iPd	21	42.40	4.7X
KKM	72.90	288	ePc	21	43.50	-1.5
BAG	75.64	299	eP	21	58.00	-2.9
MAT	78.82	325	iPc+	22	15.30	-2.6
	1.2s	25.00nm			5.1mb	
Z 20s		0.71um			5.0Msz	
			iS	32	18.00	
ADK	82.52	1	P	22	35.60	-1.5
	1.2s	424.24nm			6.4mb	
SMY	83.66	355	P	22	40.90	-2.0
	1.3s	440.25nm			6.4mb	
Z 20s		6.00um			6.0Msz	
SSE	84.62	311	P	22	47.00	-1.2
	1.3s	17.00nm			5.1mb	
Z 20s		0.90um			5.2Msz	
			eSP	23	03.30	
			S	33	20.00	
			sS	33	42.00	
			SS	39	08.00	
IPM	84.79	278	ePd	22	50.80	1.3
BCH	85.31	44	P	22	53.00	1.2
PRS	85.34	42	eP	22	52.20	0.4
PRI	85.62	43	eP	22	53.60	0.2
BAR	85.74	48	eP	22	54.00	0.1
PAS	85.77	46	eP	22	54.00	0.0
MWC	85.89	46	eP	22	55.00	0.2
			e	23	08.00	43kmX
BKS	85.93	41	iPd	22	55.30	0.6
	1.0s	43.00nm			5.6mb	
Z 20s		1.80um			5.5Msz	
N 20s		1.40um				
E 20s		1.80um				
			eS	33	25.60	
			eLQ	45	30.40	
			eLR	48	53.20	
ARN	85.96	42	P	22	55.60	0.7
PLM	86.06	47	eP	22	56.00	0.3
RVR	86.16	46	eP	22	56.00	0.1
PEC	86.23	47	P	22	57.10	0.8
SBB	86.34	46	eP	22	57.00	0.1
FRI	86.77	43	eP	22	58.60	-0.2
TPC	87.06	47	eP	23	01.00	0.6
CMB	87.09	42	eP	23	00.30	-0.1
GLA	87.16	49	eP	23	01.00	0.1
CLC	87.23	45	eP	23	01.00	-0.2
GSC	87.38	46	eP	23	02.00	0.1
ORV	87.52	40	eP	23	01.80	-0.6
WDC	87.67	39	eP	23	03.10	0.0
MIN	88.01	39	eP	23	03.80	-1.1
TNP	88.96	43	P	23	10.00	0.4
KVN	89.09	42	P	23	10.00	-0.2
NNT	90.05	285	eP	23	11.00	-3.9X
LOE	90.94	290	eP	23	21.00	2.1
BMW	91.51	34	P	23	21.20	0.2
NNA	93.10	106	eP	23	30.00	0.9
	1.0s	10.00nm			5.2mb	
BJI	93.46	315	eP	23	29.50	-0.5
	1.4s	22.00nm			5.4mb	
Z 20s		0.96um			5.3Msz	
			eSKS	34	06.00	
			eS	34	44.00	
			ePS	36	06.00	
			eSS	41	16.00	
ALO	93.81	51	eP	23	32.00	-0.1
	1.0s	13.25nm			5.3mb	
Z 20s		1.24um			5.4Msz	
CHG	93.93	289	eP	23	34.00	1.3
KMI	94.23	297	eP	23	35.00	0.7
Z 20s		0.90um			5.2Msz	
			S	35	00.00	
			iS	35	03.00	
			PS	35	45.00	
ARE	95.00	112	eP	23	42.00	3.9X
PMR	95.14	13	P	23	35.20	-2.1
	1.3s	18.87nm			5.4mb	
TTA	95.21	10	P	23	37.00	-0.7
	1.3s	23.58nm			5.5mb	
PNT	95.23	34	eP	23	38.00	0.0
LRM	96.65	40	eP	23	45.00	0.1
GOL	97.24	48	eP	23	48.20	0.5
GLD	97.36	48	eP	23	48.00	-0.1
ZOBO	97.77	114	eP	23	48.00	-3.0X
			SKS	34	36.00	
			LR	56	18.00	
FBA	98.41	12	P	23	50.10	-1.9
	1.1s	9.38nm				

FRB	125.79	31	ePKP	29	14.50	-1.4	CEY	162.46	331	e(PKP)	30	16.00	0.3	PMG	24.19	181	eP	51	22.00	-1.6
MAIO	132.59	293	ePKP	29	30.00	0.1	GRR	162.47	7	ePKP	30	16.50	0.9	WB5	36.97	201	eP	53	16.90	-0.2
DAG	133.10	6	iPKPc	29	27.10	-2.4		1.3s	21.65nm					WRA	37.03	201	Pd	53	17.20	-0.5
	0.7s	5.48nm					FEL	162.56	347	ePKP	30	15.95	0.1		0.9s	12.00nm				4.8mb
KEV	138.73	347	ePKP	29	38.00	-2.3	HAU	162.71	351	ePKP	30	16.40	0.5	BJI	37.13	318	P	53	19.00	0.7
RYD	140.44	272	ePKP	29	43.00	-1.8		1.6s	31.10nm					LZH	44.30	307	eP	54	18.50	0.7
SOD	140.80	345	iPKP	29	38.80	-5.3X	LPF	162.80	7	ePKP	30	16.70	0.8		1.5s	19.00nm				4.7mb
TAB	143.23	293	ePKP	29	47.00	-2.5		1.3s	25.25nm					Z	25s	0.90um				4.6Mszx
			e	33	42.00		BSF	162.82	349	ePKP	30	16.20	0.1	CHG	46.62	282	eP	54	36.20	0.0
SLY	143.73	289	ePKPd	29	48.00	-2.2	CTI	163.26	337	PKP	30	16.50	-0.1	CHTO	46.62	282	eP	54	36.20	0.0
BHD	144.37	285	iPKPd	29	50.50	-0.8			e	31	06.00				e	54	46.20	33km		
SUF	144.72	341	iPKP	29	48.00	-3.0X	LOR	163.69	356	ePKP	30	17.40	0.5	GUN	58.37	294	P	56	03.00	-1.2
	0.7s	82.20nm						1.4s	26.15nm				PKI	58.79	293	P	56	10.00	2.9	
MSL	145.69	290	iPKPd	29	54.00	0.5	SSF	163.92	357	ePKP	30	17.70	0.6		0.5s	4.00nm				4.8mb
		e	30	05.50			LBF	163.97	356	ePKP	30	17.60	0.4	KKN	58.90	294	P	56	07.30	-0.4
NUR	146.92	340	iPKP	29	55.50	0.8		1.4s	30.50nm					0.5s	4.00nm					4.8mb
	0.8s	161.40nm					VAI	164.29	343	PKP	30	18.00	0.6	DMN	59.06	293	P	56	09.20	0.3
UPP	149.33	345	iPKP	30	01.30	2.8	MFF	164.31	6	ePKP	30	18.10	0.6		0.4s	8.00nm				5.2mb
NB2	149.36	351	PKP	29	57.60	-1.1		0.8s	8.05nm				GKN	59.47	294	P	56	10.40	-1.1	
	1.2s	124.00nm					TCF	164.73	360	ePKP	30	18.60	0.7	INK	72.11	23	eP	57	31.00	-0.7
BCAO	149.43	213	iPKPc	30	01.30	1.1		1.4s	26.15nm				MBC	76.32	14	eP	57	56.00	0.1	
	0.6s	18.00nm					MAF	164.79	359	ePKP	30	19.00	1.0		1.0s	8.00nm				4.7mb
		i	30	06.70			SFI	165.00	332	PKP	30	16.00	-2.1	YKA	80.44	28	eP	58	17.60	-1.0
HFS	149.85	349	ePKP	30	02.70	3.4X			e	31	16.00		PNT	80.62	41	ePc	58	20.00	0.2	
	1.2s	127.20nm					CRE	165.20	331	PKP	30	19.00	0.5		0.9s	14.00nm				5.0mb
SHBJ	149.93	282	PKPd	30	06.40	5.9X	BNI	165.53	347	PKP	30	21.00	2.2	ORV	81.33	51	e(P)	58	23.70	-0.1
ODD1	150.92	355	ePKP	30	07.00	6.0X			e	31	17.00		ARN	81.77	54	P	58	26.50	0.4	
HLBJ	150.97	281	PKPc	30	08.70	6.7X	RJF	165.70	2	ePKP	30	19.50	0.8	PRS	82.12	55	eP	58	28.50	0.6
BURJ	151.41	281	PKPc	30	09.20	6.5X		1.4s	34.85nm				NEW	82.46	42	P	58	29.80	0.3	
BLS1	151.43	355	iPKPc	30	08.20	6.3X	MNS	165.87	326	PKP	30	19.00	0.0		1.0s	9.38nm				4.8mb
HRI	151.57	283	ePKP	30	11.00	8.1X	LFF	166.03	4	ePKP	30	19.80	0.9	CMB	82.51	53	eP	58	30.40	0.4
DSI	151.69	280	iPKPc	30	10.50	7.5X		1.6s	74.65nm				FRI	83.27	54	eP	58	34.10	0.3	
MBH	151.83	276	iPKPc	30	11.00	7.8X	LPO	166.31	3	ePKP	30	20.40	1.2	KVN	84.01	51	P	58	37.80	-0.1
KAS	152.63	301	iPKPc	30	12.20	8.0X		1.6s	49.75nm				TNP	84.92	52	P	58	43.00	0.5	
LFK	153.47	288	iPKP	30	13.40	7.9X	TOL	169.78	28	ePKP	30	24.00	2.3		0.5s	2.05nm				4.6mb
BBTK	153.67	298	iPKPd	30	06.00	0.3			ePKPK	31	28.00		CLC	85.21	54	eP	58	44.00	0.3	
KIC	154.65	164	PKP	30	09.72	2.1			ePP	35	17.00		SBB	85.32	56	eP	58	44.00	-0.3	
KUK	155.21	174	ePKP	30	10.00	1.6			eSKS	54	44.00		SES	85.70	39	ePd	58	45.80	-0.1	
MLR	156.50	315	ePKPd	30	20.00	10.6X	IFR	173.31	66	iPKP	30	27.00	3.3X	GSC	85.97	55	eP	58	48.00	0.4
SPC	157.27	328	ePKP	30	09.60	-0.7		S.D. = 1.2 on 140 of 180 obs.					PEC	86.05	56	P	58	48.00	0.0	
LKO	157.46	160	PKP	30	12.96	1.6	? APR 11, 1990 13h 27m 01.16±1.32s					LRM	86.19	44	eP	58	49.00	0.3		
KSP	157.56	336	ePKP	30	11.00	0.6	41.417 N ± 9.6km 20.566 E ±13.2km					PLM	86.44	57	eP	58	50.00	0.0		
	1.0s	39.00nm				DEPTH = 10.0km (geophysicist)						INW	87.81	45	P	58	57.00	0.4		
		id	30	41.60		ALBANIA (391)						RSSD	92.38	43	P	59	17.30	-0.6		
CLL	158.17	342	ePKP	30	10.00	-1.0	ML 2.8 (SKO).					ALO	94.13	52	eP	59	26.00	-0.1		
	1.7s	24.00nm											0.7s	1.20nm					4.4mb	
BRG	158.29	340	ePKP	30	10.70	-0.5	OHR	0.35	150	iPg	27	08.80	0.4	KIC	145.37	306	PKP	05	45.92	-0.2
	1.7s	80.00nm						iSg	27	12.80			TIC	145.42	306	PKP	05	46.02	-0.1	
		i	31	01.60			SKO	0.86	49	ePg	27	18.30	0.6	ZOBO	145.58	97	PKP	05	48.50	1.4
PSZ	158.35	326	ePKP	30	11.50	0.0			iSg	27	28.20		LPB	145.62	98	(PKP)	05	40.00	-6.9X	
PRU	158.88	337	ePKP	30	12.30	0.4	VAY	1.51	93	ePn	27	27.40	-0.9	LIC	145.68	306	PKP	05	46.78	0.2
Z	18s	1.10um			5.7Msz		KHC	9.15	330	eP	29	16.00	-0.1		S.D. = 0.9 on 42 of 43 obs.					
		i	30	47.20				S.D. = 1.1 on 4 of 4 obs.					& APR 11, 1990 13h 52m 18.20s							
BZS	158.97	319	ePKP	30	17.00	4.9X							60.201 N 150.993 W							
BUD	159.07	327	e(PKP)	30	11.00	-1.1	? APR 11, 1990 13h 40m 43.89±9.77s						DEPTH = 44.2km							
MOX	159.14	343	ePKP	30	13.00	0.9	46.193 N ±33.7km 16.158 E ±63.4km						KENAI PENINSULA, ALASKA (14)							
	2.0s	39.00nm				DEPTH = 10.0km (geophysicist)							<AGS-P>.							
SRO	159.16	328	ePKP	30	11.60	-0.6	YUGOSLAVIA (383)						NNL	0.22	224	iP	52	26.86	0.7	
		e	34	41.00		MD 2.8 (LJU).							BRLK	0.44	173	eP	52	27.88	-0.6	
ZST	159.39	331	ePKP	30	13.40	0.9								eS	52	35.68				
KHC	159.94	338	iPKPd	30	13.70	0.6	PTJ	0.32	205	ePg	40	50.60	0.0	SLKM	0.49	51	iP	52	28.56	-0.5
	Z	19s	1.10um		5.7Msz			eSg	40	54.40				iS	52	37.13				
	N	19s	0.60um				LJU	1.14	263	ePg	41	05.00	-0.2	NKA	0.56	348	iP	52	31.26	1.4
	E	19s	0.60um					eSg	41	19.00			CNPM	0.69	190	iP	52	30.83	-0.9	
SOP	160.02	331	ePKP	30	14.60	1.4	CEY	1.29	250	e(Pg)	41	08.00	0.2		iS	52	41.10			
ABH	160.70	349	ePKP	30	14.32	0.5			e(Sg)	41	26.00		SEW	0.78	97	iP	52	32.06	-0.8	
RUP	160.95	350	ePKP	30	14.67	0.5	VOY	1.58	265	ePnd	41	12.20	0.1		eS	52	43.78			
PTJ	161.66	328	ePKP	30	15.70	0.7		S.D. = 0.3 on 4 of 4 obs.					RDT	0.80	299	iP	52	32.55	-0.7	
FLN	162.13	6	ePKP	30	15.70	0.4								iS	52	44.24				
	1.3s	36.10nm											XLV	0.83	206	eP	52	32.45	-1.2	
LJU	162.17	331	ePKP	30	16.00	0.6		APR 11, 1990 13h 46m 08.98±0.26s						iS	52	44.07				
CDF	162.17	349	ePKP	30	15.20	-0.3		14.935 N ± 7.0km 147.608 E ± 5.3km					RED	0.91	285	iP	52	34.01	-0.8	
	1.6s	24.90nm					DEPTH = 33.5km (2 depth phases)							iS	52	46.72				
RBL	162.23	333	PKP	30	15.00	-0.5		4.7mb (13 obs.)					SPU	1.11	333	iP	52	37.09	-0.6	
		e	31	02.00			MARIANA ISLANDS REGION (215)							eS	52	52.05				
VBY	162.28	329	e(PKP)	30	16.40	0.9	GUA	2.96	242	eP	46	55.20	0.4	CKL	1.20	327	iP	52	38.34	-0.6
LDF	162.33	5	ePKP	30	16.10	0.6			eS	47	29.00		CRP	1.21	332	eP	52	38.81	-0.3	
	1.3s	21.65nm					GUMD	2.98	244	eP	46	55.20	0.2	COLM	1.22	336	iP	52	38.74	-0.4
FVI	162.40	335	PKP	30	12.00	-3.5X	PJG	2.98	244	eP	46	55.00	0.0	PMS	1.26	33	iP	52	39.43	-0.3
		e	31	02.00			MAT	23.10	340	eP	51	10.00	-2.8		iS	52	55.65			
VOY	162.44	332	ePKP	30	14.80	-1.0		1.0s	16.00nm			4.5mb	BGL	1.27	328	eP	52	39.45	-0.4	
									eS	55	20.00			eS	52					

11d 13h

SUA	1.27	5	eP	52	39.34	-0.6
NCG	1.33	335	iP	52	40.51	-0.3
			eS	52	58.51	
AUL	1.48	237	eP	52	42.33	-0.5
PDB	1.66	257	eP	52	44.68	-0.6
			eS	53	05.60	
PLRM	1.67	32	iP	52	44.39	-1.0
SKT	1.80	352	iP	52	47.29	-0.1
CDD	1.86	228	eP	52	47.95	-0.2
GHO	1.87	32	eP	52	47.40	-1.0
GLI	2.04	69	eP	52	48.15	-2.6
CUT	2.24	9	eP	52	53.09	-0.4
VZW	2.35	67	eP	52	52.94	-2.3
KLU	2.80	60	iP	52	59.81	-1.8
TOA	3.02	49	eP	53	03.81	-0.9

28 obs. associated

APR 11, 1990 14h 06m 40.51±0.63s
 41.318 N ± 5.5km 20.930 E ± 7.0km
 DEPTH = 5.0km (geophysicist)
 ALBANIA (391)
 ML 2.9 (SKO), 2.7 (TTG).

OHR	0.23	206	iPgc	06	45.10	-0.1
			iSg	06	49.10	
PHP	0.52	315	iPgc	06	48.10	-2.8
FNA	0.63	148	eP	06	52.60	-0.6
			eS	07	02.80	
KBN	0.70	187	ePg	06	53.50	-1.0
SKO	0.76	30	ePg	06	05.20	-50.5X
			iSg	07	05.20	
TIR	0.80	272	ePg	06	55.20	-1.3
LACI	0.97	290	ePg	06	59.00	-0.4
PUK	1.06	313	ePg	07	00.80	-0.1
LSK	1.19	192	iPg	07	05.10	1.8
BCI	1.23	329	ePg	07	02.80	-1.0
VAY	1.24	89	iPnc	07	03.70	-0.2
SDA	1.28	304	ePg	07	06.50	1.8
ULC	1.41	298	ePg	07	05.60	-1.3
			eSg	07	26.00	
PVY	1.46	331	ePg	07	07.50	-0.2
			eSg	07	29.00	
TTG	1.67	312	ePn	07	10.70	0.2
			eSn	07	34.00	
LIT	1.70	135	eP	07	10.90	-0.1
IYA	1.73	334	ePn	07	12.50	1.0
			eSn	07	36.20	
BDV	1.84	302	ePn	07	15.00	1.9
			eSn	07	41.20	
HCY	2.14	303	ePn	07	17.60	0.3
			eSn	07	48.00	
PLE	2.31	331	ePn	07	22.50	2.6X
			eSn	07	53.00	
BRY	2.38	312	ePn	07	23.10	2.2
			eSn	07	53.00	

S.D. = 1.4 on 19 of 21 obs.

APR 11, 1990 14h 54m 04.25±1.34s
 29.627 S ± 8.9km 71.678 W ± 16.1km
 DEPTH = 33.0km (normal)
 NEAR COAST OF CENTRAL CHILE (135)

RTBS	2.79	137	eP	54	49.60	2.1
ZON	3.22	127	e(P)	54	52.00	-1.7
ROCH	3.38	170	eP	54	56.00	-0.3
			iS	55	34.50	
RTCV	3.50	130	ePc	54	58.20	0.4
CFA	3.56	125	eP	54	58.40	-0.2
			eS	55	36.30	
LCCH	3.84	179	eP	55	03.50	1.1
			iS	55	43.00	
TACH	4.06	171	iPd	55	04.60	-1.1
			iS	55	50.00	
PCH	4.10	166	eP	55	06.70	0.4
CHCH	4.38	169	eP	55	09.50	-0.8
			iS	55	58.00	
ZOBO	13.69	15	eP	57	19.00	0.0

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

APR 11, 1990 14h 57m 06.94±2.74s
 33.709 S ± 12.5km 71.099 W ± 9.2km
 DEPTH = 56.4 ± 32.8 km
 NEAR COAST OF CENTRAL CHILE (135)

TACH	0.15	68	iPc	57	16.00	0.1
			iS	57	23.90	
LNV	0.36	226	iPd	57	17.40	0.2

CHCH	0.43	121	iPc	57	18.00	-0.1
			iS	57	27.50	
LCCH	0.46	301	iPc	57	18.00	-0.2
			iS	57	27.30	
PCH	0.50	80	iPc	57	18.70	-0.1
			iS	57	29.00	
ROCH	0.74	6	iPc	57	22.00	0.2
			iS	57	33.50	

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

APR 11, 1990 16h 45m 55.22±0.88s
 38.736 N ± 10.8km 22.018 E ± 8.5km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 MD 3.3 (ATH).

NEO	1.10	58	ePb	46	16.20	0.3
			eSb	46	33.00	
VLS	1.25	244	ePb	46	17.50	-1.0
ATH	1.54	119	ePg	46	26.60	3.9X
KEK	1.98	300	ePn	46	30.20	1.1
VLI	2.14	160	ePn	46	32.10	0.6
RDO	3.62	47	ePn	46	51.50	-1.0

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

APR 11, 1990 16h 55m 58.30±1.34s
 39.089 N ± 12.4km 22.173 E ± 7.2km
 DEPTH = 11.3 ± 4.0 km
 GREECE (364)
 ML 3.5 (THE).

AGG	0.14	118	ePg	56	02.20	0.4
LIT	1.04	14	ePbc	56	19.10	1.3
PAIG	1.44	54	ePb	56	24.60	0.4
LSK	1.61	312	ePn	56	24.60	-2.2
FNA	1.80	340	ePn	56	29.20	-0.3
			eSn	56	55.40	
OUR	1.87	48	ePn	56	31.10	0.7
			eSn	56	58.80	
SOH	1.95	27	ePn	56	32.60	0.9
			eSn	57	01.40	
TPE	2.06	307	ePn	56	31.50	-1.7
VAY	2.25	8	ePn	56	35.40	-0.6
OHR	2.28	333	ePn	56	36.00	-0.4
	1.4s		0.11nm			
			eSg	57	10.70	
			Lg	57	14.60	
BERA	2.35	314	ePn	56	39.30	1.9
MMB	2.77	25	iPc	56	43.00	-0.3
			eS	57	19.00	
KKB	2.86	14	iPc	56	45.00	0.4
			eS	57	19.00	
TIR	2.86	323	ePn	56	46.60	1.9
PHP	2.91	334	ePn	56	45.10	-0.2
SKO	2.93	349	iPn	56	44.50	-1.1
LACI	3.17	324	ePn	56	55.50	6.6X
RZN	3.24	36	eP	56	49.00	-1.2
			eS	57	30.00	
PUK	3.42	330	ePn	56	53.40	0.8
VTS	3.59	12	eP	56	56.00	0.9
			iSg	57	40.00	
BCI	3.64	335	ePn	56	57.30	1.6
PVL	4.76	29	eP	57	09.00	-2.6

S.D. = 1.4 on 21 of 22 obs.

APR 11, 1990 17h 26m 18.21±0.75s
 15.511 N ± 10.4km 147.811 E ± 12.5km
 DEPTH = 33.0km (normal)
 4.4mb (2 obs.)
 MARIANA ISLANDS REGION (215)

GUA	3.42	235	eP	27	11.20	0.6
			eS	27	49.80	
PJG	3.43	237	eP	27	11.00	0.3
GUMO	3.43	237	eP	27	11.30	0.6
MAT	22.62	340	eP	31	18.00	0.5
WB5	37.57	201	eP	33	31.00	-0.5
LZH	44.12	306	eP	34	27.00	1.4
	2.0s		47.00nm			5.0mb
			pP	34	37.00	34kmX
CHTO	46.69	281	eP	34	46.40	0.3
GUN	58.32	293	P	36	12.20	-0.9
PKI	58.75	293	P	36	16.00	-0.1
KKN	58.85	293	P	36	16.00	-0.7
DMN	59.01	293	P	36	17.20	-0.6
GKN	59.41	294	P	36	18.60	-1.9

INK	71.51	23	eP	37	38.00	0.6
MBC	75.72	14	eP	38	02.50	0.7
YKA	79.85	28	eP	38	24.70	0.0
	0.6s		0.60nm			3.8mb
KIC	145.19	307	PKP	45	54.60	-0.5

S.D. = 0.9 on 16 of 16 obs.

APR 11, 1990 18h 33m 23.76±1.10s
 12.886 N ± 11.7km 142.984 E ± 13.7km
 DEPTH = 126.7 ± 13.4 km
 4.3mb (3 obs.)

SOUTH OF MARIANA ISLANDS (210)

GUMO	1.96	69	eP	33	57.80	0.3
PJG	1.96	69	eP	33	57.50	0.0
GUA	1.99	71	eP	33	57.70	-0.1
			eS	34	08.50	
MAT	23.94	350	iPd	38	27.00	-0.4
	0.9s		16.81nm			4.5mb
WB5	33.65	195	eP	39	54.00	-0.4
BJI	35.89	324	eP	40	14.00	0.8
	1.2s		10.00nm			4.5mb
GUN	55.12	295	P	42	45.40	-0.3
PKI	55.52	295	P	42	48.70	0.2
KKN	55.64	295	P	42	49.00	-0.3
DMN	55.79	295	P	42	50.80	0.4
GKN	56.22	295	P	42	53.20	-0.2
YKA	84.32	27	eP	45	41.40	-1.0
	0.5s		0.30nm			3.4mb
ZOBO	149.72	100	PKP	52	57.90	1.2

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

APR 11, 1990 19h 12m 55.39s
 60.191 N 147.700 W
 DEPTH = 11.5km
 SOUTHERN ALASKA (2)
 <AGS-P>.

GLI	0.75	23	eP	13	08.71	-1.3
			iS	13	19.46	
SEW	0.88	265	eP	13	10.80	-1.3
			iS	13	23.55	
VZW	1.04	32	eP	13	13.34	-1.5
			iS	13	28.35	
KNK	1.28	344	eP	13	17.54	-1.5
SLKM	1.29	285	eP	13	17.46	-1.8
			iS	13	34.13	
PMS	1.40	320	eP	13	19.36	-1.4
KLU	1.57	33	eP	13	21.98	-1.3
			iS	13	43.32	
PLRM	1.57	334	eP	13	21.70	-1.4
GHO	1.70	340	eP	13	23.80	-1.3
PWA	1.81	325	eP	13	25.11	-1.5
NCA	1.86	13	eP	13	26.61	-0.8
CNPM	1.90	251	eP	13	26.23	-1.8
SUA	1.96	312	eP	13	27.17	-1.8
TOA	2.06	20	eP	13	30.26	-0.1
GLB	2.28	55	eP	13	31.95	-1.6
SPU	2.36	297	eP	13	32.27	-2.4
RDT	2.37	281	eP	13	32.48	-2.3
CKL	2.49	296	eP	13	34.20	-2.4
NCG	2.50	301	eP	13	34.53	-2.1
RED	2.54	277	eP	13	34.64	-2.5
BGL	2.54	297	eP	13	35.09	-2.2

21 obs. associated

APR 11, 1990 20h 51m 12.19±0.08s
 35.474 N ± 2.0km 135.451 E ± 2.0km
 DEPTH = 362.3km (geophysicist)
 5.6mb (114 obs.)

SOUTHERN HONSHU, JAPAN (232)

Depth from broadband
 displacement seismograms.
 RADIATED ENERGY
 No. of sta: 5 Focal mech. F
 Energy 1.0±0.2*10**13 Nm
 MOMENT TENSOR SOLUTION
 Dep 361 No. of sta: 13
 Moment Tensor; Scale 10**18 Nm
 Mrr=-0.91 Mtt=1.63
 Mff=-0.72 Mrt=-0.01
 Mrf=0.72 Mtf=0.48
 Principal axes:
 T Vol=1.73 Plg=3 Azm=348
 N -0.16 43 255
 P -1.57 47 81
 Best Double Couple: Mo=1.6*10**18

NP1:Strike=113 Dip=56 Slip=-35			eS 01 18.81			i 01 37.50		
NP2: 225 61 -141			e 03 32.57			ePP 02 14.00		
CENTROID, MOMENT TENSOR (HRV)			ePd 57 09.20 0.1			eScP 05 29.00		
Data Used: GDSN			1.1s 2256.30nm 6.4mb			e 05 55.00		
L.P.B.: 13S, 29C			34.22 216 ePc 57 26.50 -0.3			eS 07 33.00		
Centroid Location:			0.9s 114.20nm 5.2mb			eSP 07 38.00		
Origin Time 20:51:15.7 0.2			34.92 248 ePd 57 32.80 0.3			e(ScS)09 56.00		
Lat 35.50N 0.02 Lon 135.26E 0.04			35.00 211 ePd 57 33.80 0.6			e 13 23.00		
Dep 367.1 1.1 Half-duration 4.1			36.23 252 iPd 57 44.30 0.7			CTAO 56.20 168 ePc 00 10.93 -6.8X		
Moment Tensor: Scale 10**18 Nm			0.9s 85.08nm 5.1mb			isPc 02 12.32		
Mrr=-0.95 0.03 Mtt= 1.33 0.04			e 58 58.00 375kmX			GBA 56.26 263 Pc 00 16.30 -2.1		
Mff=-0.37 0.04 Mrt= 0.16 0.04			e 01 29.00			0.7s 129.40nm 5.4mb		
Mrf= 0.51 0.03 Mtf= 0.48 0.04			e 03 11.00			POO 56.57 270 iPd 00 20.50 -0.1		
Principal Axes:			36.23 252 iPd 57 44.28 0.7			0.8s 123.88nm 5.4mb		
T Val= 1.49 Plg= 7 Azm=344			ipPc 58 52.98 344kmX			DWY 56.67 32 Pd 00 20.10 -0.6		
N -0.23 30 250			isPd 59 36.85			QUE 56.77 286 ePd 00 22.20 0.2		
P -1.25 59 85			37.09 250 eP 57 51.60 0.9			0.8s 69.40nm 5.1mb		
Best Double Couple:Ma=1.4*10**18			0.8s 57.10nm 5.0mb			ePP 07 12.60		
NP1:Strike=104 Dip=46 Slip=-46			37.19 247 iPd 57 54.00 2.5			e 07 45.20		
NP2: 229 59 -126			37.27 298 iPc 57 53.24 1.2			e 09 12.60		
			ePc 59 03.32 350kmX			BOM 57.24 271 ePd 00 24.00 -1.2		
			is 03 13.43			eS 07 48.00		
			esS 05 19.90			YKU 57.67 37 eP 00 28.30 0.7		
SHK 2.46 248 iPd 52 11.10 2.7			37.55 49 ePd 57 53.20 -0.9			JNK 57.94 26 iPd 00 28.20 -1.1		
0.6s 2933.33nm			0.6s 739.00nm 6.2mb			0.4s 115.00nm 5.7mb		
MAT 2.48 64 iPd- 52 09.00 0.5			39.46 244 iPd 58 10.50 0.4			KOD 58.14 259 iPd 00 32.00 0.3		
iS 52 53.20			39.54 191 ePc 58 11.10 0.3			1.0s 260.00nm 5.6mb		
SAP 8.84 29 iP 53 15.40 -1.7			42.49 274 Pd 58 35.60 0.5			MBL 58.24 197 iPc 00 30.60 -1.2		
iS 54 50.80			42.57 237 iPd 58 36.80 1.4			OPA 59.03 84 P 00 37.60 0.2		
SSE 12.71 254 iPc 54 03.20 -0.1			0.8s 101.49nm 5.1mb			KIP 59.16 85 iPd 00 37.85 -0.4		
0.7s 296.00nm 5.8mb			e(S) 03 48.00			HON 59.22 85 P 00 38.00 -0.6		
Z 12s 4.50um 4.8MszX			e 59 41.30 318kmX			MBC 59.35 16 ePc 00 38.00 -0.9		
N 10s 7.50um			e 03 37.00			0.5s 134.00nm 5.7mb		
pP 54 06.50			43.00 274 Pd 58 39.20 0.0			MAIO 59.96 295 iPc 00 43.80 0.1		
S 56 23.00			43.02 274 Pd 58 39.50 0.3			i 02 04.00 373kmX		
sS 56 26.00			43.17 204 iPd 58 40.50 0.3			eS 08 30.00		
SS 56 36.00			43.23 274 Pd 58 41.20 0.2			SIT 60.67 39 iPd 00 48.10 0.2		
Lg 57 34.00			43.29 163 eP 58 41.50 0.4			NANU 60.73 201 iPd 00 48.10 -0.5		
TWZ 15.81 233 eP 54 38.60 1.4			43.46 275 Pd 58 43.00 0.4			KBS 61.34 349 iPc 00 51.80 -0.3		
BJI 15.91 292 iPc 54 36.70 -1.4			44.20 234 ePd 58 49.90 1.6			RMQ 62.90 167 iPc 01 02.40 -0.4		
1.6s 36.00nm 4.5mb X			0.8s 129.20nm 5.2mb			KEV 63.15 338 ePc 01 02.94 -1.1		
esP 56 12.00			e 00 02.40 362kmX			0.9s 294.00nm 5.9mb		
eS 57 24.48			e 03 44.90			i 02 24.60 376kmX		
eScS 05 47.00			44.69 229 ePc 58 53.20 1.0			i 03 25.40		
TWC 15.98 231 ePc 54 37.40 -1.6			45.44 31 iPd 58 58.20 0.7			i 06 52.00		
eS 54 47.10			45.99 164 eP 59 01.50 -0.8			eS 09 05.11		
TWD 16 52 230 ePc 54 41.70 -2.9			47.30 44 ePd 59 09.70 -2.3			eSKS 10 16.89		
TWO 16.87 233 ePd 54 47.00 -1.2			0.6s 429.30nm 5.9mb			e 13 22.00		
HIA 17 97 325 iPc 54 57.50 -1.7			48.03 211 ePc 59 18.60 0.6			DZM 64.33 148 iPd 01 12.20 0.0		
eS 58 06.27			48.23 186 iPc 59 18.50 -0.9			i 02 36.20 386kmX		
CVP 21.45 218 iPd 55 33.00 -0.4			e 00 37.00 390kmX			SOD 64.48 336 iP 01 12.00 -0.6		
PIP 21.56 221 ePc 55 34.00 -0.4			e 05 49.00			i 03 37.00 792kmX		
0.7s 276.00nm 5.7mb			NDI 49.20 279 iPd 59 27.00 0.1			BRS 64.63 163 iPc 01 13.90 -0.1		
SZP 22.28 221 iPc 55 41.50 0.3			0.5s 105.63nm 5.4mb			e 01 30.00 59kmX		
HKC 22.73 240 ePc 55 46.60 1.2			49.43 34 iPd 59 27.80 -0.5			e 01 42.00		
i 56 48.40			49.64 36 iPd 59 30.30 0.4			e 01 47.00		
iS 59 32.00			49.73 23 iPc 59 30.50 0.2			i 02 32.00		
BAG 23.17 219 eP 55 47.50 -2.2			50.30 148 eP 59 34.00 -1.2			e 03 02.00		
e 59 21.40			50.46 30 iPd 59 35.70 -0.4			iS 09 25.00		
GUMO 23.39 156 eP 55 50.50 -1.0			51.33 188 iPc 59 42.10 -0.6			i 11 42.00		
0.8s 2395.31nm 6.6mb			0.4s 133.00nm 5.6mb			e 13 27.00		
i 55 52.80 8kmX			51.50 41 iPd 59 42.50 -1.1			TRO 65.57 340 iPc 01 18.60 -0.9		
eS 59 43.00			52.72 36 iPd 59 51.00 -1.5			TEH 66.13 298 eP 01 24.00 0.3		
PJG 23.39 156 eP 55 50.70 -0.8			0.8s 541.10nm 5.9mb			FORR 66.33 187 iPd 01 23.70 -0.9		
GUA 23.45 156 eP 55 50.10 -2.0			52.96 31 iPd 59 54.37 0.1			0.3s 85.00nm 6.0mb		
0.7s 1232.88nm 6.4mb			iS 06 56.14			IR2 66.52 298 iPc 01 26.00 -0.1		
e 56 54.60			esS 09 03.61			IR7 66.71 298 iPc 01 27.50 0.2		
e 57 39.60			52.96 31 iPd 59 53.80 -0.5			IR4 66.71 297 iPc 01 28.00 0.6		
LZH 25.59 281 ePc 56 11.46 -0.2			53.31 266 iPd 59 57.00 -0.5			DAG 66.86 354 iPc 01 26.10 -1.4		
2.0s 164.00nm 5.0mb			1.0s 220.00nm 5.4mb			0.7s 255.48nm 6.1mb		
Z 18s 7.30um 5.2Msz			i 00 20.50 96kmX			isP 02 45.80		
N 11s 3.30um			iS 07 00.00			IR5 66.96 298 eP 01 29.00 0.1		
E 13s 3.10um			e 09 06.00			SUF 67.14 332 iP 01 28.50 -0.9		
i 56 16.50			54.04 35 iPd 00 02.20 0.0			0.8s 233.50nm 6.0mb		
i 56 34.50			55.06 181 iPc 00 08.60 -1.2			CMS 67.32 170 eP 01 30.00 -0.7		
pP 57 17.50			iS 07 19.90			COO 67.50 165 iPd 01 32.20 0.3		
i 58 00.00			e 29 37.50			YKA 67.52 28 eP 01 30.40 -1.3		
i 58 55.00			e 30 20.40			1.0s 185.90nm 5.8mb		
eS 00 10.80			55.86 175 iPc 00 14.00 -1.4			TAB 68.62 302 eP 01 39.00 0.0		
i 00 11.00			e 01 33.00 376kmX			e 02 58.00 353kmX		
i 00 27.00			56.20 168 iPc 00 16.70 -1.0			NUR 68.98 330 iP 01 39.80 -0.8		
sS 02 14.00			0.7s 34.25nm 4.9mb			0.8s 184.80nm 5.8mb		
isS 02 14.61			i 00 47.00 128kmX			i 03 03.40 377kmX		
ScS 06 25.00			e 01 05.00			i 04 14.00		
DAV 29.67 200 eP 56 44.00 -3.7X			ePcP 01 32.00			e 10 12.00		
PPR 29.78 215 eP 56 51.00 2.4						e 12 34.00		
1.0s 110.00nm 5.1mb						KER 69.88 298 iPc 01 46.20 -0.5		
KMI 29.95 259 ePd 56 50.12 -0.2								
ipPc 57 57.71 361kmX								

	70.14	177	iPd	01	48.00	0.1	FFC	77.54	30	iPd	02	29.80	0.0				i	04	09.50	
	0.5s	35.21nm			5.3mb			0.8s	320.00nm			6.2mb		ZST	80.21	323	iP	02	45.40	1.3
NWAO	70.15	196	iPd	01	47.20	-0.7	KRA	77.58	323	iPc	02	30.40	0.3				e	03	44.30	247kmX
SLY	70.40	300	iP	01	49.50	-0.1		0.8s	165.00nm			5.9mb					i	04	10.10	
			esP	03	08.00		Z	16s	2.00um			5.5MsZx					i	05	51.90	
			iS	10	31.50		E	16s	2.10um					RDO	80.29	314	eP	02	45.40	0.8
			iScS	11	12.50					02	33.70	11kmX		BCH	80.54	54	P	02	47.00	0.8
BWA	70.59	169	iPd	01	51.50	1.0				03	56.40			VKA	80.54	324	eP	02	46.00	0.2
			e	03	19.00	395kmX				iS	11	50.00			1.8s	255.00nm				5.7mb
JNW	70.71	348	iPd	01	52.00	1.2	PCC	77.68	53	iPd	02	30.90	0.0				i	02	47.00	3kmX
PGC	70.84	44	iPc	01	52.00	0.1	SHBJ	77.73	301	Pd	02	32.40	1.0				i	04	11.40	
	1.1s	529.00nm			6.2mb		CMP	77.99	317	ePd	02	33.00	0.5				i	04	32.80	
MCW	71.17	43	P	01	54.50	0.5	SPC	78.00	323	iPc	02	33.60	1.0				i	04	53.20	
CAN	71.56	168	iPd	01	56.80	0.6				e	03	55.90	361kmX				i	05	53.60	
			e	03	20.00	372kmX				i	05	34.70					i	05	57.00	
CNB	71.61	168	iPc	01	56.90	0.3				e	11	53.90		PRNI	80.65	301	iPd	02	48.00	1.2
	0.9s	72.00nm			5.4mb		GBZT	78.17	312	eP	02	33.00	-0.4	BEQ	80.77	319	iP	02	47.70	0.6
MSL	71.66	302	iPd	01	56.50	-0.5	GCC	78.20	53	iPd	02	33.80	0.1				i	04	13.20	374kmX
			esP	03	15.50	440kmX	MHC	78.25	53	iPd	02	34.40	0.2	AYN	80.80	299	iPd	02	48.30	0.8
			e	03	32.50		ARN	78.32	52	P	02	35.00	0.6	SOP	80.83	323	iPc	02	48.00	0.7
			eS	10	43.50		HRV	78.33	40	iPd	02	35.00	0.6	KSL	80.89	308	eP	02	47.50	-0.3
			esP	11	13.50		BUT	78.38	41	iPd	02	35.40	0.6	SYF	81.00	54	iPd	02	49.50	0.8
			esPP	11	25.00		HRI	78.46	303	eP	02	35.00	-0.3				e	04	13.00	363kmX
DHR	71.67	290	eP	01	57.00	-0.2	LRM	78.56	41	iPd	02	36.30	0.4	MOX	81.02	328	iPc	02	48.50	0.2
GMW	71.81	44	P	01	58.40	0.7				e	03	59.70	365kmX		1.8s	138.00nm			5.5mb	
			pP	03	20.00	363kmX	CMB	78.65	51	iPd	02	36.64	0.4				iP	04	14.00	373kmX
BMW	72.13	45	P	02	00.20	0.5				iPc	03	59.13	361kmX	MBH	81.07	300	iPd	02	49.50	0.6
UPP	72.15	332	iPc	01	58.40	-1.0				iS										

ZAG	82.41	322	iP	02 56.20	0.7	KTD	83.53	328	eP	03 01.14	0.0	YRH	85.44	337	eP	03 09.40	-1.1
			i	04 19.60	362kmX	RIY	83.54	323	iPd	03 00.80	-0.4	ARO	85.50	281	iPd	03 13.00	1.5
			i	06 11.60					i	04 28.20	380kmX	LOMF	85.57	328	P	03 11.16	-0.2
PAS	82.42	53	eP	02 54.73	-1.1	TRI	83.58	323	ePd	03 00.90	-0.5	ARV	85.58	322	P	03 11.60	0.2
			e	04 19.00	366kmX				e	04 26.70	372kmX				ipP	04 38.50	376kmX
			e	06 19.00					i	13 43.00					ePP	06 39.00	
			iS	12 41.48		RUP	83.67	329	eP	03 01.82	0.0	DLE	85.65	338	iPd	03 11.60	0.1
MWC	82.45	53	iPd	02 56.50	0.3	PLM	83.77	53	iPd	03 03.00	0.2	SFI	85.82	323	P	03 14.00	1.5
			e	04 20.00	362kmX				e	06 19.00					ipP	04 42.00	381kmX
			e	06 20.00		RSON	83.77	29	P	03 01.80	-0.5				ePP	06 45.00	
EBL	82.46	338	iPd	02 55.80	0.2		0.8s	336.54nm			6.2mb				eS	13 17.00	
EAB	82.50	339	iPd	02 56.10	0.3	BERA	83.79	316	eP	03 03.10	0.6	DCN	85.82	339	iPd	03 12.60	0.3
	0.9s	93.00nm			5.6mb	LSK	83.79	316	eP	03 03.90	1.2		0.9s	143.00nm			5.9mb
EAU	82.52	338	iPd	02 56.10	0.2	TPC	83.83	52	iPd	03 02.50	-0.4	VAI	85.84	326	Pd	03 12.00	-0.5
BHG	82.56	325	iPc	02 57.30	1.0				e	04 26.00	361kmX				ipP	04 39.00	376kmX
	1.0s	144.00nm			5.7mb				e	06 14.00					iPP	06 37.00	
GSC	82.59	52	iPd	02 58.00	1.2	CPE	83.90	54	eP	03 03.50	0.2				eSKS	13 02.00	
			e	04 21.00	359kmX	UCC	83.91	331	Pd-	03 03.00	0.1	PGD	85.91	323	Pd	03 14.30	1.1
			e	06 04.00					pP	04 28.00	368kmX				ipP	04 40.00	370kmX
TNS	82.69	329	ePd	02 57.30	0.4				iSKS	12 50.00					ePP	06 44.00	
			e	04 21.50	365kmX				SP	13 47.00		CRE	85.98	323	P	03 14.00	0.6
			e	06 06.80		GWf	83.99	328	P	03 03.82	0.4				ipP	04 42.00	381kmX
CIS	82.72	54	eP	02 57.30	-0.1	TPE	84.03	316	eP	03 03.20	-0.6				ePP	06 47.00	
LIT	82.74	315	iPd	02 57.50	0.2	OGA	84.05	325	iPd	03 04.50	0.5				eSKS	13 10.00	
KBA	82.80	324	iPc	02 57.60	-0.1		1.2s	164.00nm			5.7mb	ETA	86.06	338	eP	03 12.50	-1.0
	0.8s	80.40nm			5.6mb	RSSD	84.13	39	P	03 04.00	-0.5	DUI	86.12	320	P	03 13.00	-1.1
			id	02 58.00	1kmX	SNF	84.17	331	iPc	03 04.06	-0.2				ipP	04 40.00	376kmX
			i	03 01.20					ipP	04 38.60	375kmX				ePP	06 45.00	
			i	03 35.80		THZ	84.18	153	P	03 03.70	-0.6				eS	13 20.00	
			i	04 25.10		MNG	84.20	151	P	03 04.00	-0.3	AQU	86.17	321	P	03 15.50	1.2
			i	06 12.10		STR	84.22	328	P	03 05.30	0.8	ORI	86.18	318	P	03 16.00	1.7
			e	12 40.00		TCW	84.23	152	eP	03 03.90	-0.5				ePP	06 45.00	
PHP	82.86	317	iPd	02 57.70	-0.1	HAY	84.34	52	eP	03 05.80	0.3	MME	86.18	324	Pc	03 15.30	0.7
APE	82.86	311	eP	02 57.20	-0.8	CTI	84.36	324	Pd	03 04.70	-0.7	FIR	86.21	323	eP	03 15.00	0.6
HBZ	82.86	147	P	02 57.30	-0.4				ipP	04 32.00	379kmX				i	04 42.00	376kmX
EKA	82.86	338	Pd	02 57.80	0.2				iPP	06 21.00					iS	13 03.00	
	0.5s	15.10nm			5.1mb				eSKS	12 50.00		BDI	86.32	324	P	03 15.00	-0.1
SCI	82.88	55	eP	02 58.50	0.3	DOU	84.37	331	P-	03 04.90	-0.4				ipP	04 42.00	375kmX
VPD	82.89	53	iP	02 58.20	0.0		0.8s	45.00nm			5.3mb	BOB	86.35	325	Pd	03 15.20	0.0
			e(PP)	03 25.00				pP	04 31.30	374kmX					ePP	06 46.00	
FNA	82.93	316	eP	02 58.50	0.2			S	12 51.00						ipP	04 42.00	374kmX
LJU	82.97	323	iPd	02 58.50	0.1	MRW	84.41	151	P	03 04.90	-0.4				iPP	06 48.00	
			e(pP)	04 24.00	371kmX	CAW	84.45	151	P	03 05.40	-0.2	ORX	86.37	326	P	03 14.00	-1.3
			ePP	06 13.00		SNZO	84.48	151	ePd	03 05.06	-0.6	ORO	86.38	326	Pd	03 14.70	-0.6
			eS	12 39.50				ipPc	04 29.32	364kmX					ipP	04 42.00	377kmX
			e	13 33.00											eSKS	13 03.00	
			e(sS)	15 20.00		WEL	84.48	151	P	03 05.40	-0.3				eS	13 03.00	
FUR	82.98	326	iPc	02 59.20	0.8	SLE	84.53	327	ePd	03 05.90	-0.2	AZI	86.42	321	P	03 16.00	0.6
	1.0s	163.00nm			5.8mb	WLS	84.53	328	P	03 06.47	0.3				ipP	04 44.00	380kmX
VBY	82.99	322	iPd	02 59.30	0.9	SAX	84.53	326	ePd	03 06.60	0.1				ePP	06 44.00	
			ipP	04 25.00	372kmX	KEK	84.54	316	eP	03 07.20	0.9	SDI	86.42	320	P	03 15.50	-0.1
			ePP	06 13.50		WDW	84.56	151	P	03 05.60	-0.5				ipP	04 42.00	373kmX
RVR	83.03	53	iPd	02 58.50	-0.4	CDF	84.57	328	eP	03 06.60	0.2				ePP	06 47.00	
OHR	83.04	316	iPd	02 59.40	0.5		0.8s	51.05nm			5.4mb	SGO	86.45	319	P	03 16.00	0.4
	1.1s	222.00nm			5.9mb	FEL	84.65	328	eP	03 06.35	-0.6				ipP	04 42.00	371kmX
			i	04 24.20	368kmX	MTW	84.67	151	P	03 06.20	-0.4				ePP	06 44.00	
			i	06 15.20		CCW	84.67	152	P	03 06.40	-0.2	ROI	86.45	317	P	03 16.00	0.3
			iS	12 41.10		VLI	84.68	312	eP	03 07.10	0.1	CSI	86.47	318	P	03 13.60	-2.1
KOT	83.11	302	eP	03 00.00	0.7	IKP	84.70	53	eP	03 07.90	0.5	ECB	86.52	338	eP	03 15.20	-0.5
RBL	83.15	324	P	02 58.90	-0.5	VAM	84.75	310	eP	03 07.80	0.4	MNS	86.52	321	P	03 11.00	-5.0X
			ipP	04 26.00	379kmX	ECH	84.77	328	P	03 07.28	0.0				ePP	04 42.00	395kmX
			iPP	06 16.00		MOW	84.79	151	P	03 06.50	-0.8				ePP	06 45.00	
			eSKS	12 48.00		BLW	84.83	151	P	03 07.00	-0.5				eSKS	13 05.00	
SDA	83.16	318	eP	03 00.20	0.9	KHZ	84.98	153	P	03 07.00	-1.2	TDS	86.52	317	Pd	03 17.10	1.1
CEY	83.24	323	iPd	02 59.90	0.2	MSZ	85.03	157	Pd	03 09.60	1.3				ipP	04 43.00	370kmX
			ePP	04 25.50	372kmX		1.0s	322.00nm			6.1mb				ePP	06 46.00	
PEC	83.24	53	P	02 59.80	-0.2	VDL	85.05	326	ePd	03 09.10	0.1	GOL	86.53	42	P	03 16.60	0.2
VOY	83.29	323	ePc	02 59.40	-0.7	MOF	85.06	328	P	03 08.61	-0.2	ECP	86.55	338	eP	03 14.90	-0.9
			ePP	04 24.80	371kmX	VLS	85.11	314	eP	03 09.20	0.0	GLD	86.57	42	P	03 17.00	0.5
LACI	83.30	317	iPc	03 01.20	1.2	LCI	85.16	317	P	03 13.00	3.7X		1.2s	525.25nm			6.3mb
ENN	83.31	330	iPc	03 00.00	0.1				ePP	04 35.00	352kmX	PII	86.61	323	Pd	03 15.20	-1.1
	0.9s	112.00nm			5.7mb				ePP	06 34.00					ePP	04 43.00	379kmX
			e	04 24.00	364kmX	BBS	85.19	328	P	03 09.20	-0.2				ePP	06 40.00	
ABH	83.33	329	eP	03 00.15	0.0	SAL	85.21	325	P	03 09.00	-0.5	LSD	86.88	326	P	03 17.79	-0.2
MEM	83.40	330	iPc	03 01.10	0.7				ipP	04 36.50	379kmX	LOR	86.90	329	eP	03 17.00	-0.7
			ipP	04 26.65	371kmX				ePP	06 31.00			1.0s	30.00nm			5.2mb
			PKKP	21 16.30		BSF	85.22	328	eP	03 09.40	-0.3	RMP	86.93	321	P	03 18.00	0.1
TIR	83.41	317	eP	03 02.40	1.8		1.0s	48.00nm			5.3mb	PCP	86.94	325	P	03 16.87	-1.1
FVI	83.42	324	Pd	03 00.00	-0.5	VITF	85.27	329	P	03 09.54	-0.2	CZI	86.94	317	P	03 17.10	-0.9
			ipP	04 27.00	378kmX	HAU	85.28	328	eP	03 09.50	-0.3	RDP	86.96	321	P	03 18.00	-0.1
			iPP	06 18.00			0.8s	21.50nm			5.1mb				ePP	04 44.00	
			eSKS	12 50.00		GLA	85.28	52	iPd	03 10.50	0.3	LPL	87.03	327	eP	03 18.50	-0.1
STU	83.46	328	iPd	03 01.20	0.5				e	04 35.00	364kmX	LPG	87.03	327	eP	03 18.60	-0.1
	1.0s	120.00nm			5.7mb				e	06 31.00			0.7s	34.45nm			5.4mb

11d 21h

RSP 87.07 326 P 03 17.69 -1.0
 LBF 87.08 329 eP 03 17.70 -0.9
 0.8s 9.40nm 4.7mb
 CKI 87.15 325 Pd 03 17.90 -1.0
 ipP 04 44.00 370kmX
 eSKS 06 52.00
 GRC 87.20 330 P 03 19.29 0.2
 SSF 87.21 329 eP 03 18.60 -0.6
 0.6s 13.55nm 5.0mb
 FIN 87.35 325 P 03 18.51 -1.4
 SMF 87.40 329 eP 03 19.70 -0.4
 1.0s 28.00nm 5.1mb
 BNI 87.41 326 Pd 03 20.10 -0.2
 ipP 04 48.00 379kmX
 ePP 06 54.00
 eS 13 27.00
 FLN 87.41 333 P 03 19.40 -0.7
 0.8s 37.60nm 5.3mb
 LDF 87.42 332 eP 03 19.70 -0.4
 1.0s 32.00nm 5.2mb
 ROB 87.44 325 P 03 18.72 -1.7
 RRL 87.46 326 P 03 20.15 -0.6
 AVF 87.49 329 eP 03 20.20 -0.3
 0.6s 20.75nm 5.2mb
 DOI 87.57 326 P 03 18.00 -3.1X
 epP 04 46.00 379kmX
 PZZ 87.64 326 P 03 19.23 -2.2
 ENR 87.70 325 P 03 19.13 -2.6
 STV 87.74 326 P 03 18.92 -2.9
 GRR 87.86 333 eP 03 22.10 -0.1
 0.8s 44.35nm 5.4mb
 BGF 87.89 329 eP 03 22.00 -0.4
 1.0s 26.00nm 5.1mb
 SBF 87.98 325 eP 03 22.10 -0.9
 0.8s 57.75nm 5.5mb
 PLDF 88.03 329 P 03 23.34 0.1
 SCH 88.06 13 iPd 03 23.10 0.0
 1.0s 119.00nm 5.8mb
 PMO 88.08 110 iP 03 25.40 1.8
 1.2s 190.00nm 5.9mb
 AGO 88.17 329 P 03 23.90 0.1
 AFR 88.19 113 iP 03 26.20 2.1
 1.2s 370.00nm 6.2mb
 LPF 88.23 332 eP 03 24.10 0.1
 0.8s 59.10nm 5.5mb
 PGF 88.23 324 eP 03 23.80 -0.4
 0.8s 25.50nm 5.2mb
 MAF 88.27 329 eP 03 24.40 0.2
 1.0s 54.00nm 5.4mb
 TPT 88.28 110 iP 03 26.10 1.5
 1.2s 270.00nm 6.0mb
 TCF 88.37 330 eP 03 24.50 -0.2
 0.8s 21.50nm 5.1mb
 PAE 88.42 113 iP 03 27.10 1.9
 1.2s 260.00nm 6.0mb
 VAH 88.43 110 iP 03 26.80 1.6
 1.2s 130.00nm 5.7mb
 PPN 88.45 113 iP 03 27.20 1.9
 PYM 88.46 329 P 03 25.39 0.1
 FRF 88.57 325 eP 03 25.60 -0.1
 0.8s 25.50nm 5.2mb
 RUV 88.59 110 iP 03 27.60 1.6
 1.2s 215.00nm 5.9mb
 LSF 88.68 330 eP 03 25.80 -0.3
 0.8s 30.90nm 5.3mb
 TVO 88.74 113 iP 03 28.90 2.1
 1.2s 405.00nm 6.2mb
 LBL 88.78 328 P 03 26.91 0.4
 LRG 88.79 326 eP 03 26.20 -0.5
 0.7s 24.25nm 5.2mb
 LMR 88.81 325 eP 03 26.20 -0.6
 0.8s 40.30nm 5.4mb
 MFF 89.06 331 eP 03 28.00 0.1
 0.9s 55.70nm 5.5mb
 ALO 89.22 46 iPd 03 29.80 0.7
 0.9s 149.16nm 5.9mb
 epP 04 55.00 364kmX
 RJF 89.45 329 eP 03 29.80 0.1
 1.2s 89.25nm 5.5mb
 CAF 89.52 329 eP 03 30.40 0.3
 1.0s 59.00nm 5.4mb
 LFF 90.06 330 eP 03 32.80 0.3
 1.0s 126.00nm 5.8mb
 LPO 90.09 329 eP 03 32.70 0.0
 1.0s 48.00nm 5.4mb
 EPF 91.79 329 eP 03 40.00 -0.6
 1.0s 20.00nm 5.1mb

TBI 91.98 117 iP 03 43.30 1.8
 0.9s 95.00nm 5.8mb
 TUL 94.44 39 iPd 03 53.00 0.1
 Z 19s 0.86um 5.2Msz
 LR 25 45.00
 CCM 95.01 35 iP 03 56.17 0.8
 eHPP 07 48.46
 IPP 07 49.28
 FVM 95.45 35 P 03 57.30 -0.1
 1.0s 120.00nm 6.0mb
 pP 05 22.00 360kmX
 RSNY 95.83 21 P 03 58.50 -0.5
 0.9s 30.98nm 5.5mb
 CLE 96.23 27 iP 04 01.90 1.0
 TOL 96.24 330 eP 04 01.50 0.6
 ePP 07 42.00
 eS 14 02.00
 iPS 16 13.00
 HBVT 96.42 20 P 04 01.20 -0.5
 UYO 96.48 40 eP 04 01.20 -0.9
 BNH 96.71 19 P 04 03.50 0.5
 OLY 96.94 37 P 04 03.90 -0.2
 ASMO 98.23 328 iPc 04 09.50 -0.6
 AAPN 98.44 328 iPc 04 10.50 -0.6
 ACHM 98.48 328 iPc 04 10.50 -0.7
 APHE 98.55 328 iPc 04 10.50 -1.1
 ALOJ 98.60 328 eP 04 12.50 0.6
 ATEJ 98.72 328 iPc 04 11.00 -1.4
 TBR 99.03 22 P 04 13.00 -0.6
 BLA 100.38 28 Pd diff 04 20.00 0.5
 1.0s 110.00nm 6.3mb
 CVL 100.44 27 Pd diff 04 20.20 0.5
 BCAO 108.91 290 ePd diff 05 03.00 5.1X
 0.5s 3.00nm 5.8mb
 SBA 114.64 173 iPKPd 09 10.60 0.6
 MAW 116.10 204 iPKPc 09 13.80 0.9
 SLR 117.83 257 iPKPd 09 16.80 -1.0
 0.7s 61.64nm
 KSR 118.99 258 iPKPd 09 17.50 -2.5
 0.6s 10.71nm
 PRY 119.02 256 iPKPc 09 18.50 -1.5
 0.6s 17.86nm
 SEK 119.54 255 iPKPd 09 20.00 -1.0
 0.7s 44.52nm
 BFS 119.56 257 iPKPd 09 14.20 -6.8X
 0.7s 178.08nm
 BLF 121.01 255 iPKPd 09 23.00 -0.7
 KUK 121.34 306 iPKPc 09 23.00 -1.6
 LEGH 121.61 305 iPKPc 09 24.40 -0.7
 WEGH 121.75 305 iPKPc 09 24.50 -0.8
 LKO 122.06 313 PKPd 09 24.90 -1.0
 0.6s 98.50nm
 WIGH 122.12 305 iPKPc 09 25.00 -1.0
 HVD 122.20 253 iPKPd 09 40.50 14.6X
 1.0s 50.00nm
 TIC 123.98 310 PKP 09 28.98 -0.7
 KIC 124.03 310 PKPd 09 29.06 -0.7
 0.7s 124.50nm
 LIC 124.31 310 PKPd 09 29.52 -0.8
 NEV 124.96 21 ePKP 09 30.00 -1.4
 BPA 125.25 20 ePKP 09 30.50 -1.5
 SPA 125.29 180 iPKPd 09 30.90 0.1
 1.0s 290.00nm
 i 11 01.10
 MGH 125.46 21 ePKP 09 31.00 -1.4
 PAG 126.26 21 ePKP 09 32.00 -2.1
 MGG 126.47 20 ePKP 09 33.00 -1.4
 BBL 126.80 21 ePKP 09 33.50 -1.6
 BMG 129.87 38 iPKPc 09 40.50 -0.6
 PT10 142.56 60 iPKPc 09 59.50 -4.9X
 PT02 143.54 60 iPKP 10 02.70 -3.4X
 PT03 144.70 61 ePKP 10 07.90 -0.2
 ARE 149.42 59 PKPd 10 17.30 1.4
 ZOBO 151.57 54 iPKPd 10 20.24 0.7
 eHP'pb10 35.03
 LPB 151.77 54 iPKPd 10 21.10 1.5
 1.0s 980.00nm
 i 10 27.50
 LR 14 10.00
 CCH 153.67 52 iPKPd 10 23.00 0.9
 i 10 44.50
 BAO 160.00 10 ePKP 10 30.50 0.8
 S.D. = 0.8 on 456 of 468 obs.
 APR 11, 1990 21h 38m 33.00 ± 0.19s
 44.810 N ± 2.3km 10.002 E ± 1.8km
 DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
 ML 4.2 (KBA), 3.9 (LDG), 3.8 (LJU), MD 4.0 (ROM).
 BOB 0.40 264 Pd 38 42.90 1.8
 eSg 38 48.70
 MME 0.79 141 P 38 48.60 0.0
 eSg 39 00.50
 BDI 0.86 150 P 38 49.30 -0.3
 eSg 39 01.30
 SAL 0.88 25 Pc 38 53.10 3.2X
 eSg 39 07.10
 MDI 0.99 348 P 38 54.50 2.8
 eSn 39 10.00
 PCP 1.07 256 Pg 38 53.99 0.7
 Sg 38 55.46
 S 39 07.50
 PII 1.15 161 Pd 38 54.00 -0.5
 eSn 39 08.90
 CKI 1.29 253 P 38 57.20 0.3
 eSn 39 14.70
 VAI 1.37 321 P 38 59.70 1.7
 eSn 39 18.90
 FIR 1.37 138 iPg 38 59.00 0.9
 iSg 39 18.00
 FIN 1.42 246 Pg 38 58.33 -0.5
 S 39 16.64
 PGD 1.55 127 P 39 02.20 1.4
 eSn 39 21.00
 SFI 1.60 123 P 39 03.40 2.1
 eSn 39 23.00
 ROB 1.61 252 Pg 39 01.52 -0.1
 Sg 39 03.49
 S 39 21.93
 ORO 1.65 300 P 39 02.80 0.6
 eSn 39 25.20
 ORX 1.65 301 P 39 02.88 0.7
 S 39 20.14
 CTI 1.70 43 P 39 03.90 1.0
 eSn 39 27.00
 CRE 1.83 129 Pc 39 06.00 1.1
 eSn 39 31.00
 ENR 1.94 253 P 39 06.43 0.1
 S 39 29.35
 RSM 1.97 116 P 39 08.20 1.5
 RSP 1.98 281 P 39 05.94 -1.1
 S 39 29.06
 DOI 1.99 262 P 39 08.20 1.0
 eSn 39 31.20
 STV 2.00 254 Pg 39 07.36 0.1
 S 39 31.30
 AUTN 2.02 247 P 39 07.85 0.2
 S 39 32.87
 SBF 2.07 244 Pn 39 08.20 -0.1
 Sn 39 33.20
 PZZ 2.09 263 P 39 09.38 0.7
 S 39 33.23
 LSD 2.12 289 P 39 08.81 -0.3
 S 39 34.86
 TOUF 2.13 249 P 39 09.67 0.4
 S 39 35.80
 AURF 2.13 245 P 39 08.83 -0.3
 S 39 35.71
 REVF 2.17 241 P 39 09.75 0.0
 S 39 38.16
 OGA 2.18 19 ePn 39 12.30 2.3
 MVIF 2.24 247 P 39 10.88 0.1
 RRL 2.29 274 P 39 12.88 1.2
 PGF 2.37 198 Pn 39 10.80 -1.9
 Sn 39 36.40
 BNI 2.38 277 P 39 13.20 0.5
 eSn 39 40.80
 LPL 2.42 288 Pn 39 13.70 0.3
 Sn 39 48.40
 CALN 2.47 246 P 39 15.04 0.9
 SAX 2.48 350 ePc 39 16.70 2.3
 ARV 2.49 121 P 39 14.70 0.5
 eSn 39 45.10
 SCE 2.53 28 iPnc 39 15.60 0.7
 MAO 2.53 160 Pc 39 13.60 -1.2
 FVI 2.64 47 P 39 17.40 1.1
 eSn 39 49.60
 FRF 2.72 244 Pn 39 16.60 -0.9
 Sn 39 48.60
 TRI 2.80 70 iPnd 39 17.60 -1.1
 iSn 39 50.00
 iSg 40 03.00

LMR	2.92	241	Pn	39 19.00	-1.3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								</
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APR 11, 1990 22h 16m 43.59 \pm 0.25s
 44.742 N \pm 2.9km 9.973 E \pm 2.4km
 DEPTH = 22.6 \pm 2.8 km
 NORTHERN ITALY (545)
 ML 3.4 (KBA), 3.2 (LDG), MD 3.4
 (STR), 3.2 (ROM).

VEA	0.29	300	P	16	49.60	-0.7
BOB	0.37	274	Pc	16	50.70	-1.0
			iSg	16	57.50	
MME	0.76	136	P	16	56.70	-1.5
			eSn	17	08.60	
GEN	0.81	247	P	16	58.20	-0.7
			S	17	09.70	
BDI	0.81	146	P	16	58.00	-1.0
			eSg	17	11.10	
SAL	0.95	24	Pd	17	00.90	-0.4
			eSn	17	14.90	
PCP	1.04	259	P	17	01.66	-1.1
			S	17	16.25	
MDI	1.05	350	P	17	02.50	-0.4
			eSn	17	17.00	
PII	1.09	159	P	17	01.90	-1.6
			eSn	17	17.90	
CKI	1.25	256	P	17	05.50	-0.2
			iSn	17	23.40	
FIR	1.33	136	ePg	17	07.00	0.1
			iSg	17	26.00	
FIN	1.37	248	P	17	06.13	-1.3
			S	17	23.09	
VAI	1.41	323	P	17	09.50	1.6
			eSn	17	26.80	
PGD	1.53	124	P	17	10.20	0.4
			eSn	17	28.70	
ROB	1.57	254	P	17	09.31	-1.1
			S	17	27.53	
SFI	1.58	121	P	17	11.60	1.2
			eSn	17	31.00	
ORO	1.66	303	P	17	12.40	0.6
			eSn	17	33.50	
ORX	1.67	303	P	17	10.77	-1.1
			S	17	29.54	
CTI	1.76	42	Pd	17	11.70	-1.5
			eSn	17	34.00	
VDL	1.78	349	ePc	17	13.50	-0.1
CRE	1.81	127	P	17	14.00	0.1
			eSn	17	36.50	
SAOF	1.89	247	Pg	17	14.15	-0.9
			Sg	17	39.29	
ENR	1.90	255	eP	17	14.47	-0.7
			S	17	36.46	
STV	1.96	256	P	17	14.94	-1.1
			S	17	37.68	
DOI	1.96	264	P	17	16.40	0.3
			eSn	17	41.00	
RSP	1.97	283	P	17	14.30	-2.0
			S	17	36.19	
AUTN	1.97	249	Pg	17	15.78	-0.6
SBF	2.02	245	Pn	17	16.20	-0.8
			S	17	42.00	
PZZ	2.06	264	P	17	16.48	-1.2
			S	17	41.21	
AURF	2.08	247	Pg	17	17.32	-0.5
			Sg	17	45.33	
TOUF	2.08	251	Pg	17	17.40	-0.6
			Sg	17	44.49	
LSD	2.12	291	P	17	16.87	-1.7
			S	17	42.42	
REVF	2.12	243	Pg	17	17.75	-0.6
MVIF	2.19	248	Pg	17	18.86	-0.6
			Sg	17	48.26	
LLS	2.23	343	ePc	17	20.40	0.3
DIX	2.25	307	ePc	17	22.20	1.8
OGA	2.25	19	ePn	17	21.40	1.1
RRL	2.28	276	P	17	20.49	-0.2
PGF	2.30	198	Pn	17	19.10	-1.9
			S	17	47.20	
BNI	2.36	279	P	17	21.50	-0.4
			eSn	17	51.00	
LPG	2.40	289	Pn	17	22.30	-0.3
LPL	2.42	290	Pn	17	21.80	-1.0
CALN	2.43	247	Pg	17	23.21	0.4
ARV	2.47	119	P	17	22.90	-0.4
SAX	2.55	350	ePd	17	26.20	1.6
FRF	2.67	245	Pn	17	24.60	-1.5
			S	17	56.30	

FVI	2.70	46	P	17	25.30	-1.2
			eSn	17	58.00	
TRI	2.85	69	iPc	17	25.40	-3.2
LMR	2.87	242	Pn	17	27.30	-1.5
			S	18	00.50	
LRG	2.90	245	Pn	17	29.50	0.2
			S	18	03.10	
RBL	3.04	55	P	17	29.00	-2.5
VOY	3.05	64	iPn	17	28.90	-2.7
			eSn	18	19.10	
MNS	3.07	139	P	17	30.50	-1.3
KBA	3.32	44	iPnc	17	34.40	-1.0
			i	17	44.60	
			iSn	18	11.80	
			i	18	13.90	
			iSg	18	29.80	
FEL	3.42	337	eP	17	34.61	-2.2
LJU	3.47	66	ePn	17	47.00	9.6x
			e	18	16.00	
			e	18	32.00	
BSF	3.80	326	Pn	17	40.60	-1.6
			S	18	24.70	
VBY	3.82	77	eP	17	44.00	1.6
CDF	4.12	334	Pn	17	44.60	-2.1
			S	18	31.70	
HAU	4.12	324	Pn	17	45.00	-1.7
			S	18	32.60	
SMF	4.70	296	Pn	17	53.20	-1.7
			S	18	47.50	
LBF	4.75	300	Pn	17	54.30	-1.4
			S	18	48.20	
LOR	4.95	303	Pn	17	56.90	-1.6
			S	18	53.00	
KHC	5.04	28	Pg	17	57.50	-2.2
			Sg	18	51.70	
SSF	5.07	299	Pn	17	59.60	-0.6
			S	18	57.20	
BGF	5.32	292	Pn	18	02.00	-1.6
			S	19	01.20	
MAF	5.41	288	Pn	18	04.30	-0.7
			S	19	05.00	
CAF	5.63	275	Pn	18	06.90	-1.2
TCF	5.67	289	Pn	18	07.40	-1.3
			S	19	09.90	
LSF	6.12	287	Pn	18	14.10	-0.9
			S	18	14.10	

S.D. = 1.1 on 69 of 70 obs.
 APR 11, 1990 22h 19m 16.34 \pm 0.63s
 44.725 N \pm 6.2km 9.968 E \pm 7.3km
 DEPTH = 33.0km (normal)
 NORTHERN ITALY (545)
 ML 2.6 (LDG).

BOB	0.37	277	P	19	23.50	-1.7
			eSg	19	30.50	
BDI	0.80	146	P	19	32.00	0.7
			eSg	19	43.00	
SAL	0.97	24	P	19	33.50	-0.1
			eSg	19	48.50	
MDI	1.07	350	P	19	36.00	1.0
			eSg	19	52.00	
PII	1.08	158	P	19	35.50	0.3
			eSg	19	49.00	
ORO	1.67	303	P	19	45.00	1.2
			eSg	20	07.00	
CTI	1.78	41	P	19	44.00	-1.3
			eSg	20	06.50	
SBF	2.01	246	Pn	19	49.60	0.9
			S	20	15.10	
PGF	2.29	198	Pn	19	52.00	-0.6
			S	20	18.60	
LMR	2.86	242	Pn	20	00.00	-0.6
			S	20	35.30	

S.D. = 1.1 on 10 of 10 obs.
 APR 11, 1990 22h 19m 42.91 \pm 0.70s
 44.655 N \pm 7.6km 9.825 E \pm 7.8km
 DEPTH = 33.0km (normal)
 NORTHERN ITALY (545)

BOB	0.29	293	P	19	49.00	-1.7
			eSg	19	56.00	
BDI	0.81	137	P	19	58.00	0.0
			eSg	20	08.00	
PII	1.06	151	P	20	01.00	-0.5
			eSg	20	15.50	
SAL	1.07	27	P	20	02.00	0.4

MDI	1.13	356	P	20	01.00	-1.4
VAI	1.42	329	P	20	06.50	-0.1
			eSg	20	25.00	
ORO	1.63	307	P	20	11.00	1.3
DOI	1.85	266	P	20	14.00	1.1
CTI	1.90	42	P	20	14.50	0.9

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

? APR 11, 1990 22h 20m 35.61 \pm 0.92
 44.617 N \pm 13.3km 9.744 E \pm 18.1km
 DEPTH = 33.0km (normal)
 NORTHERN ITALY (545)

BOB	0.26	305	P	20	43.00	0.0
			eSg	20	49.40	
BDI	0.83	132	P	20	51.00	0.1
			eSg	21	01.00	
PII	1.06	148	P	20	54.00	-0.1
			eSg	21	09.00	
MDI	1.16	359	P	20	55.50	0.0
			eSg	21	11.00	

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

APR 11, 1990 22h 38m 09.84 \pm 0.39
 44.718 N \pm 4.0km 9.957 E \pm 3.5km
 DEPTH = 16.4 \pm 5.0 km
 NORTHERN ITALY (545)
 ML 2.5 (LDG).

BVT	0.27	209	P	38	15.70	-0.1
			S	38	20.20	
BOB	0.37	278	P	38	18.20	0.6
			eSg	38	24.50	
MME	0.75	134	P	38	24.60	0.4
GEN	0.79	248	P	38	25.20	0.4
			S	38	36.50	
BDI	0.80	145	P	38	24.90	-0.1
			eSn	38	40.00	
SAL	0.98	24	P	38	28.30	0.4
			eSg	38	41.70	
PCP	1.02	261	P	38	29.14	0.4
			S	38	44.12	
MDI	1.07	351	P	38	30.00	0.5
			eSn	38	43.90	
PII	1.08	158	P	38	29.50	-0.1
			eSn	38	45.10	
CKI	1.23	257	P	38	32.70	0.4
			eSn	38	49.20	
FIN	1.35	248	P	38	33.76	-0.2
			S	38	51.81	
VAI	1.42	324	P	38	36.80	1.9
			eSn	38	52.60	
PGD	1.52	123	P	38	36.50	0.0
			eSg	38	59.00	
ROB	1.55	255	P	38	36.32	-0.5
			S	38	55.79	
ORO	1.67	304	P	38	40.40	1.8
			eSn	38	58.10	
ORX	1.67	304	P	38	37.96	-0.7
			S	38	57.48	
CTI	1.79	41	P	38	39.20	-1.1
			eSn	39	02.50	
CRE	1.80	127	P	38	42.50	2.0
			eSg	39	03.00	
ENR	1.88	256	P	38	41.04	-0.6
			S	39	04.81	
STV	1.94	257	P	38	42.17	-0.4
			S	39	06.78	
DOI	1.95	265	P	38	45.00	2.4
			eSg	39	07.00	
SBF	2.00	246	Pn	38	43.70	0.3
			Sn	39	09.20	
PZZ	2.05	265	P	38	43.94	-0.2
			S	39	07.06	
RRL	2.27	276	P	38	48.88	1.5
FRF	2.65	245	Pn	38	53.70	1.1
			Sn	39	24.70	
FVI	2.73	46	P	38	55.00	1.3
			eSn	39	26.00	
LMR	2.85	242	Pn	38	54.80	-0.5
			Sn	39	28.30	
HAU	4.13	324	Pn	39	12.50	-1.1
			Sn	39	58.30	
CDF	4.13	334	Pn	39	11.90	-1.8
			Sn	39	59.40	

S.D. = 1.129 of 29 obs.

12d 00h

% APR 12, 1990 00h 04m 16.03±3.21s
44.630 N ±10.5km 6.740 E ±28.1km
DEPTH = 5.0km (geophysicist)
FRANCE (538)

ML 2.1 (GEN).

PZZ	0.29	116 P	04 22.56	0.7
		S	04 26.76	
RRL	0.29	6 P	04 22.25	0.3
		S	04 26.66	
STV	0.57	132 P	04 27.07	-0.4
		S	04 35.17	
ENR	0.63	129 P	04 28.52	-0.2
		S	04 37.59	
RSP	0.64	35 P	04 28.40	-0.4
		S	04 36.76	

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

* APR 12, 1990 00h 15m 10.27±1.11s
4.245 N ±14.1km 128.969 E ±20.5km
DEPTH = 33.0km (normol)
4.4mb (2 obs.)
NORTH OF HALMAHERA (264)

MNI	4.98	236 eP	16 25.00	0.3
		eS	17 16.00	
MTN	17.11	173 iPc	19 09.00	0.3
WB5	24.55	168 eP	20 28.50	0.0
WRA	24.61	168 Pd	20 28.70	-0.3
	0.8s	9.30nm		4.4mb
QIS	26.77	157 iPc	20 49.20	0.0
CHG	32.70	299 eP	21 43.60	1.4
CHTO	32.70	299 ePc	21 43.50	1.4
		e	21 56.20	49kmX
BJI	37.46	344 eP	22 34.00	11.6X
LZH	39.24	327 P	22 40.00	2.4
		i	22 58.00	73kmX
GUN	47.25	305 P	23 42.40	-0.5
PKI	47.52	304 P	23 42.60	-2.4
KKN	47.70	304 P	23 43.60	-2.7
GBA	51.66	284 Pc	24 16.50	0.1
	0.8s	3.30nm		4.3mb

S.D. = 1.6 on 12 of 13 obs.

& APR 12, 1990 01h 12m 55.60s
33.880 N 116.150 W
DEPTH = 4.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.3 (PAS).

TPC	0.24	20 iPd	13 00.40	-0.1
HAY	0.46	112 iPd	13 04.60	-0.2
PLM	0.79	229 iPd	13 10.60	-0.9
PEC	0.84	271 iPc	13 11.40	-0.9
RVR	1.02	277 iPc	13 14.40	-1.1
BAR	1.27	200 iPd	13 18.20	-1.6
CPE	1.28	219 iPd	13 18.30	-1.5
VPD	1.34	268 iP	13 20.50	-0.4
GLA	1.38	126 eP	13 19.00	-2.7
ABL	2.72	292 eP	13 40.30	-0.8
TNP	4.28	349 eP	14 02.30	-0.9
KVN	5.39	344 eP	14 17.60	-1.4
ALQ	8.08	80 e(P)	15 21.00	24.3

13 obs. associated

* APR 12, 1990 01h 50m 05.17±0.80s
53.754 N ±16.1km 168.959 E ±8.4km
DEPTH = 33.0km (normol)
4.6mb (3 obs.)
KOMANDORSKY ISLANDS REGION (4)

SMY	3.26	106 e(P)	50 55.00	-0.1
TTA	20.30	49 e(P)	54 39.00	-1.6
IMA	22.01	41 e(P)	55 00.00	2.0
FBA	24.19	46 e(P)	55 19.00	-0.1
YKA	38.99	46 eP	57 29.80	0.3
	0.5s	0.40nm		3.4mb X
SUF	60.26	341 eP	00 12.40	0.4
	0.6s	3.70nm		4.7mb
NUR	62.58	341 eP	00 27.50	-0.1
GUN	64.03	282 P	00 38.10	0.0
NB2	64.19	348 P	00 38.00	-0.3
	0.8s	3.20nm		4.5mb
KKN	64.46	283 P	00 41.00	0.2
PKI	64.56	282 P	00 41.70	0.2
HFS	64.75	347 eP	00 41.00	-0.9
	0.6s	3.60nm		4.6mb

S.D. = 0.9 on 12 of 12 obs.

& APR 12, 1990 02h 06m 10.70s
37.243 N 121.650 W
DEPTH = 6.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.8 (BRK).

MHC	0.10	4 iPd	06 12.90	-0.2
ARN	0.14	41 iPc	06 13.30	-0.4
GCC	0.35	233 iPd	06 18.10	0.3
		iS	06 23.20	
SAO	0.50	161 iPd	06 20.80	0.0
PCC	0.64	294 eP	06 22.80	-0.7
		iS	06 34.30	
BKS	0.79	324 ePc	06 25.50	-0.8
		eS	06 37.60	
BRK	0.79	323 eP	06 26.00	-0.5
		iS	06 39.80	
LLA	0.84	138 ePd	06 26.30	-1.1
PRS	0.94	166 ePd	06 28.00	-1.0
CMB	1.28	51 eP	06 33.50	-1.3
		iS	06 51.30	
FRI	1.57	99 eP	06 37.30	-1.9
		eS	06 57.10	
KVN	3.33	56 e(P)	07 05.00	0.4

12 obs. associated

APR 12, 1990 02h 29m 58.66±0.54s
44.787 N ±5.3km 9.901 E ±5.0km
DEPTH = 26.8 ± 5.0 km
NORTHERN ITALY (545)
ML 2.6 (LDG).

BOB	0.32	267 P	30 06.10	-0.2
		eSg	30 12.30	
BDI	0.88	145 P	30 16.00	0.8
		eSg	30 30.50	
SAL	0.93	28 Pc	30 16.20	0.3
		eSg	30 30.20	
MDI	1.00	352 P	30 18.10	1.3
		eSg	30 33.40	
PII	1.16	157 P	30 19.60	0.5
		eSn	30 35.50	
CKI	1.21	253 P	30 21.40	1.5
		eSn	30 38.50	
ORO	1.60	302 P	30 27.30	1.8
		eSn	30 47.00	
CTI	1.76	44 Pd	30 26.90	-1.0
		eSn	30 49.00	
DOI	1.92	262 P	30 30.50	0.3
SBF	2.00	243 Pn	30 31.20	-0.1
		Sn	30 57.10	
LPG	2.34	289 Pn	30 36.70	0.3
LPL	2.36	289 Pn	30 37.00	0.4
FRF	2.64	243 Pn	30 40.10	-0.3
		Sn	31 12.40	
LMR	2.84	240 Pn	30 42.30	-0.9
		Sn	31 15.70	
CDF	4.05	334 Pn	31 00.00	-0.5
		Sn	31 46.20	
LBF	4.68	300 Pn	31 08.90	-0.5
		Sn	32 03.00	
LOR	4.88	303 Pn	31 12.00	-0.2
		Sn	32 07.80	

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

& APR 12, 1990 02h 45m 56.40s
33.880 N 116.150 W
DEPTH = 2.0km
SOUTHERN CALIFORNIA (43)
<PAS-P>. ML 3.1 (PAS).

TPC	0.24	20 iPd	46 01.10	-0.1
HAY	0.46	112 iPd	46 05.40	-0.2
PLM	0.79	229 iPd	46 11.40	-0.8
RVR	1.02	277 iPc	46 15.20	-1.3
BAR	1.27	200 iPd	46 19.10	-1.7
CPE	1.28	219 eP	46 19.30	-1.5
VPD	1.34	268 iP	46 20.80	-1.1
		iS	46 35.50	
GSC	1.52	339 iPc	46 23.30	-1.4
SBB	1.60	301 iPc	46 24.30	-1.6
MWC	1.62	283 iPc	46 25.60	-0.7
CIS	1.94	257 iP	46 24.80	-5.9
		iS	46 45.50	
ABL	2.72	292 eP	46 40.00	-2.1

BCH 3.50 293 eP 46 52.00 -1.1
TNP 4.28 349 eP 47 02.50 -1.8
KVN 5.39 344 eP 47 18.30 -1.8
15 obs. associated

APR 12, 1990 03h 56m 49.27±0.21s
86.589 N ±3.7km 68.181 E ±4.5km
DEPTH = 10.0km (geophysicist)
4.8mb (48 obs.) 4.4MsZ (4 obs.)
NORTH OF FRANZ JOSEF LAND (644)

KBS	9.67	253 iP	59 06.80	-4.5X
		eS	00 49.00	
DAG	13.57	281 iPd	00 01.00	-2.8
	0.9s	12.60nm		4.9mb
MBC	17.26	6 eP	00 50.50	-0.8
	1.0s	34.00nm		4.4mb
KEV	17.92	228 eP	01 01.00	1.4
	0.8s	17.60nm		4.2mb
SOD	20.32	228 iP	01 26.40	-1.1
SUF	24.99	227 eP	02 14.00	0.3
	0.8s	29.80nm		5.0mb
INK	25.05	19 eP	02 14.00	-0.3
	0.8s	27.50nm		5.0mb
IMA	26.73	37 eP	02 31.00	0.9
	0.8s	24.00nm		4.9mb
NUR	27.26	228 iP	02 34.80	0.0
	1.0s	34.00nm		5.0mb
NB2	27.39	242 P	02 35.20	-0.9
	1.2s	12.00nm		4.5mb
ANM	27.75	48 eP	02 40.70	1.4
FBA	28.10	32 ePc	02 43.70	1.3
	0.8s	24.00nm		5.0mb
HFS	28.16	240 eP	02 41.00	-2.0
	1.1s	9.10nm		4.5mb
Z	22s	0.59um		4.1MsZ
		LR	10 50.00	
UPP	28.24	235 iP	02 42.90	-0.8
FRB	29.00	321 eP	02 49.00	-1.4
TTA	29.78	40 ePc	02 58.40	0.8
TOA	30.95	31 ePc	03 09.10	1.2
	0.8s	47.90nm		5.4mb
PMR	31.36	34 eP	03 11.30	-0.2
	0.9s	20.80nm		5.0mb
SVW	31.62	40 eP	03 14.50	0.7
CLL	37.01	239 iPc	04 00.30	0.2
	1.4s	23.00nm		4.8mb
KSP	37.31	235 eP	04 02.50	-0.2
BRG	37.40	238 iPc	04 04.00	0.6
	1.5s	25.00nm		4.8mb
		e	04 10.20	21kmX
MOX	37.74	240 iPd	04 07.00	0.7
	1.2s	32.00nm		5.0mb
Z	16s	0.60um		4.5MsZ X
KRA	37.92	231 iPd	04 08.10	0.3
	1.0s	62.00nm		5.3mb
Z	18s	1.40um		4.8MsZ
		e	04 11.10	10kmX
PRU	38.25	237 P	04 11.10	0.5
		e	04 17.80	23kmX
GRF	38.72	241 iPd	04 15.80	1.3
	1.2s	23.00nm		4.8mb
Z	21s	0.20um		3.9MsZ
SPC	38.77	231 eP	04 14.90	-0.3
FFC	38.85	351 eP	04 15.00	-0.5
	0.8s	7.00nm		4.4mb
KHC	39.15	238 iP	04 19.00	0.8
	1.0s	6.00nm		4.2mb
WET	39.17	239 iPc	04 19.80	1.4
	1.0s	13.00nm		4.6mb
ZST	39.91	234 eP	04 25.30	0.9
CDF	40.20	244 eP	04 27.50	0.6
	1.0s	16.00nm		4.7mb
SRO	40.23	233 eP	04 27.70	0.6
EDM	40.40	1 ePc	04 29.00	0.6
HAU	40.66	245 eP	04 31.30	0.7
	0.8s	12.10nm		4.7mb
GRR	40.68	253 eP	04 30.20	-0.5
	1.2s	35.70nm		5.0mb
BSF	40.81	245 eP	04 32.40	0.5
	0.8s	13.45nm		4.7mb
KBA	41.21	238 e(P)	04 36.00	0.7
	1.0s	11.60nm		4.6mb
LOR	41.53	248 eP	04 37.40	-0.3
	0.8s	5.35nm		4.3mb
SSF				

12d 04h

LBF	1.0s	9.00nm	4.5mb	
	41.81	248 eP	04 40.60	0.6
AVF	1.0s	14.00nm	4.6mb	
	42.03	248 eP	04 41.90	0.1
SMF	1.1s	12.20nm	4.5mb	
	42.15	248 eP	04 42.60	-0.2
LJU	1.2s	11.90nm	4.5mb	
	42.19	237 e(P)	04 43.50	0.4
VOY	42.23	237 eP	04 44.20	0.6
BGF	42.29	249 eP	04 44.30	0.3
CEY	1.0s	34.00nm	5.0mb	
	42.50	237 e(P)	04 46.00	0.3
TCF	42.60	249 eP	04 46.50	0.0
RSON	1.2s	22.30nm	4.8mb	
	42.61	343 P	04 51.20	4.7X
MAF	0.6s	5.43nm	4.5mb	
	42.65	249 eP	04 46.90	0.0
LPL	1.2s	17.85nm	4.7mb	
	43.12	245 eP	04 51.90	0.9
LPG	1.0s	8.00nm	4.4mb	
	43.14	245 eP	04 52.20	1.0
SES	1.0s	8.00nm	4.4mb	
	43.23	359 eP	04 53.00	1.4
RJF	43.62	250 eP	04 54.90	0.1
NEW	1.2s	26.80nm	4.9mb	
	45.35	5 P	05 09.80	1.1
SKO	1.5s	40.09nm	5.1mb	
	45.92	229 eP	05 13.20	0.0
VAY	46.52	228 eP	05 17.50	-0.4
OHF	46.81	230 eP	05 10.50	-9.8X
LRM	47.81	1 Pd	05 28.80	0.4
BJI	47.90	130 eP	05 29.00	0.1
Z	1.1s	14.00nm	5.0mb	
	16s	0.35um	4.4MsZ	
		eS	12 32.00	
		eSS	15 58.00	
RSSD	49.48	353 P	05 40.00	-1.3
MAIO	50.49	189 eP	05 50.00	1.1
BA06	50.85	358 P	05 50.90	-0.9
	1.3s	20.49nm	4.9mb	
LZH	51.33	143 eP	05 56.50	1.0
	2.5s	67.00nm	5.1mb	
Z	16s	0.20um	4.2MsZ	
		pP	06 15.00	73kmX
		P	13 12.00	
WDC	52.99	10 e(P)	06 07.00	-0.6
MIN	53.23	9 eP	06 09.40	-0.2
GOL	53.90	354 P	06 14.00	-0.7
	0.7s	8.25nm	4.9mb	
KVN	54.55	6 P	06 19.90	0.5
PV09	55.12	357 P	06 23.00	-0.7
FYM	55.41	340 P	06 24.50	-0.9
TNP	55.53	5 P	06 25.70	-0.8
	0.7s	3.11nm	4.4mb	
PRNI	56.97	214 eP	06 36.50	-0.2
MBH	57.54	214 e(P)	06 35.00	-5.7X
TUL	57.58	345 eP	06 42.50	1.6
	1.0s	13.30nm	4.9mb	
Z	20s	0.55um	4.7MsZ	
		LR	23 39.00	
ALO	58.66	355 eP	06 47.50	-1.3
	1.0s	5.75nm	4.6mb	
GKN	58.87	163 P	06 49.10	-1.1
GUN	58.98	162 P	06 50.10	-1.2
KKN	59.09	162 P	06 50.50	-1.4
DMN	59.27	163 P	06 52.30	-0.8
PKI	59.31	162 P	06 52.20	-1.3
	1.0s	40.00nm	5.5mb	
SHL	61.45	156 iP	07 06.20	-1.7
KMI	62.21	144 Pd	07 12.50	-0.7
CHG	68.36	149 ePd	07 52.00	-0.5
	1.0s	10.00nm	5.0mb	
LKO	79.58	254 P	08 57.52	-0.1
	1.5s	72.00nm	5.4mb	
KIC	82.68	253 P	09 14.00	0.1
S.D. = 0.9 on 81 of 85 obs.				
APR 12, 1990 04h 23m 20.01 ± 0.45s				
44.775 N ± 4.8km 9.928 E ± 4.2km				
DEPTH = 22.8 ± 4.3 km				
NORTHERN ITALY (545)				
ML 2.8 (LDG).				
BOB	0.34	269 P	23 27.40	-0.2
		eSg	23 33.60	
BDI	0.86	146 P	23 36.10	-0.1
SAL	0.93	27 P	23 38.00	0.6

MDI	1.01	351 P	eSn	23 52.00
			eSg	23 39.60
PCP	1.01	257 P	S	23 53.50
			S	23 38.84
PII	1.14	158 P	P	23 53.84
CKI	1.23	254 P	P	23 40.60
			P	23 41.80
FIN	1.35	246 P	eSn	23 59.80
			S	23 42.84
VAI	1.36	324 P	S	25 00.68
			Pc	23 45.90
ROB	1.55	253 P	eSn	24 03.00
			S	23 46.33
ORO	1.62	302 P	S	24 05.59
ORX	1.62	303 P	P	23 49.80
			P	23 47.30
SFI	1.62	121 P	S	24 10.35
CTI	1.76	43 P	Pc	23 49.00
			eSn	23 48.30
CRE	1.85	128 P	P	24 09.90
			eSn	23 51.00
ENR	1.88	254 P	P	23 15.50
RSP	1.93	282 P	P	23 50.94
DOI	1.93	263 P	P	23 52.48
			eSn	23 53.60
STV	1.94	255 P	P	24 18.00
			S	23 51.45
SBF	2.01	244 Pn	S	24 15.55
			Sn	23 52.90
PZZ	2.04	263 P	P	24 19.20
			S	23 54.33
LSD	2.08	290 P	S	24 20.61
			S	23 54.29
RRL	2.24	275 P	S	24 22.24
PGF	2.33	197 Pn	P	23 58.33
			Sn	23 55.80
BNI	2.33	278 P	P	24 24.30
			eSn	23 58.50
LPG	2.36	289 Pn	P	24 28.50
LPL	2.38	289 Pn	P	23 58.00
LRG	2.89	244 Pn	P	23 58.90
			Sn	24 06.20
BSF	3.75	326 Pn	Sn	24 41.30
			Sn	24 17.40
HAU	4.07	324 Pn	Sn	25 01.50
			Sn	24 20.60
CDI	4.07	334 Pn	Sn	25 08.90
			Sn	24 20.70
LOR	4.91	303 Pn	Sn	25 08.00
			Sn	24 33.40
AVF	5.02	296 Pn	Sn	25 28.20
BGF	5.27	292 Pn	P	24 34.60
			P	24 37.70
S.D. = 1.1 on 34 of 34 obs.				
& APR 12, 1990 04h 45m 53.70s				
36.925 N 121.688 W				
DEPTH = 11.0km				
CENTRAL CALIFORNIA (39)				
<BRK>. ML 3 0 (BRK)				
SAO	0.25	129 iPd	45 58.60	-0.5
GCC	0.27	293 iPd	45 59.00	-0.4
MHC	0.42	5 iPd	46 02.30	0.0
ARN	0.44	16 iPd	46 02.80	0.1
PRS	0.65	157 iPd	46 05.80	-0.7
LLA	0.67	117 iPd	46 06.40	-0.6
PCC	0.80	316 iPd	46 08.20	-0.9
			eS	46 19.80
BKS	1.05	336 eP	46 12.90	-0.4
			eS	46 27.30
BRK	1.05	334 eP	46 12.90	-0.5
PRI	1.14	133 eP	46 14.30	-0.7
CMB	1.52	43 eP	46 19.30	-1.5
FRI	1.59	87 eP	46 20.60	-1.2
KVN	3.54	52 e(P)	46 55.00	5.1
13 obs. associated				
APR 12, 1990 05h 30m 02.04 ± 0.57s				
44.746 N ± 5.0km 9.971 E ± 5.1km				
DEPTH = 19.7 ± 4.9 km				
NORTHERN ITALY (545)				
ML 2.5 (LDG).				
BOB	0.37	273 Pd	30 10.60	0.6
		eSg	30 17.30	
BDI	0.82	147 P	30 18.50	1.0

SAL	0.95	24	P	eSg	30	31.00	
				P	30	19.50	-0.1
PCP	1.04	259	P	eSn	30	33.00	
				S	30	21.57	0.3
MDI	1.05	350	P	P	30	36.96	
				P	30	23.10	1.8
CKI	1.25	256	P	eSg	30	38.00	
				Pc	30	26.20	1.7
FIN	1.37	248	P	eSg	30	43.50	
				S	30	25.98	-0.2
ROB	1.57	254	P	S	30	44.16	
				S	30	29.16	0.1
ORX	1.66	303	P	S	30	49.84	
				S	30	30.31	-0.2
CTI	1.76	42	Pd	S	30	51.64	
				eSn	30	31.50	-0.3
ENR	1.90	255	P	P	30	53.20	
STV	1.96	256	P	P	30	34.60	0.7
RSP	1.97	283	P	P	30	35.11	0.4
SBF	2.02	245	Pn	P	30	34.05	-0.9
				Sn	30	35.70	0.1
PZZ	2.06	264	P	P	31	01.80	
LSD	2.12	291	P	P	30	36.40	0.1
				S	30	36.65	-0.5
RRL	2.27	276	P	P	31	03.00	
PGF	2.31	198	Pn	P	30	40.84	1.4
				Sn	30	38.50	-1.2
LPG	2.40	289	Pn	P	31	04.10	
LPL	2.42	290	Pn	P	30	40.90	-0.3
LMR	2.87	242	Pn	P	30	41.20	-0.2
				Sn	30	46.50	-1.1
HAU	4.11	324	Pn	P	31	18.70	
				Sn	31	04.00	-1.3
				Sn	31	52.70	
S.D. = 0.9 on 22 of 22 obs.							
? APR 12, 1990 06h 04m 32.90± 1.76s							
16.083 N ±15.5km 144.790 E ±20.2km							
DEPTH = 97.8 ± 16.2 km							
4.3mb (2 obs.)							
MARIANA ISLANDS REGION (215)							
GUMO	2.48	178	eP	05	12.80	0.4	
PJG	2.48	178	eP	05	12.00	-0.4	
GUA	2.53	177	eP	05	13.00	-0.1	
			eS	05	47.10		
WB5	37.18	196	eP	11	36.50	0.2	
WRA	37.25	196	Pd	11	36.40	-0.4	
	0.9s		8.90nm			4.7mb	
GUN	55.42	293	P	14	00.00	-0.1	
YKA	80.70	28	eP	16	37.10	0.9	
	1.1s		2.30nm			3.9mb	
SES	86.51	38	eP	17	06.00	-0.1	
LRM	87.23	43	eP	17	08.80	-1.2	
ZOBO	148.41	95	PKP	24	08.00	0.6	
CCH	150.36	97	ePKP	24	15.00	5.0X	
S.D. = 0.7 on 10 of 11 obs.							
* APR 12, 1990 06h 38m 30.98± 0.98s							
44.756 N ± 8.9km 10.073 E ± 8.8km							
DEPTH = 5.0km (geophysicist)							
NORTHERN ITALY (545)							
BOB	0.44	272	P	38	39.10	-0.8	
			eSg	38	45.00		
BDI	0.79	151	P	38	47.60	0.8	
SAL	0.91	20	P	38	49.00	0.2	
MDI	1.05	346	Pc	38	51.30	0.0	
			eSn	39	06.50		
CTI	1.70	40	P	39	00.50	-1.1	
			eSn	39	21.50		
SBF	2.09	246	Pn	39	05.60	-1.6	
			Sn	39	33.60		
LPG	2.47	289	Pn	39	15.30	2.5	
S.D. = 1.7 on 7 of 7 obs.							
APR 12, 1990 07h 08m 48.84± 1.15s							
34.731 N ±10.2km 26.314 E ± 7.9km							
DEPTH = 25.5 ± 9.4 km							
3.5mb (1 obs.)							
CRETE (370)							
VAM	1.86	292	ePn	09	20.00	0.5	
APE	2.42	345	iPnc	09	25.70	-1.9	
SMG	3.00	8	ePn	09	36.00	0.2	
KSL	3.01	62	ePn	09	37.50	1.6	
VLI	3.39	307	ePn	09	40.00	-1.3	

ATH 3.85 328 ePn 09 48.20 0.4
 ITM 4.32 306 ePn 09 55.30 0.8
 VAY 7.21 337 eP 10 36.00 0.8
 BBTk 7.24 43 iPc 10 36.00 0.2
 DSI 8.23 110 eP 10 48.00 -1.5
 PRNI 8.53 118 eP 10 53.00 -0.8
 eS 12 25.00
 MBH 8.78 122 eP 10 58.00 0.9
 KIC 40.21 233 P 16 25.80 0.8
 YKA 78.15 343 eP 20 45.90 -1.1
 0.4s 0.20nm 3.5mb
 KVN 99.54 333 e(P) 22 31.80 0.4
 S.D. = 1.2 on 15 of 15 obs.

? APR 12, 1990 08h 25m 19.39± 2.57s
 17.820 N ±18.7km 102.161 W ±20.2km
 DEPTH = 33.0km (normal)
 3.0mb (1 obs.)
 NEAR COAST OF MICHOCAN, MEXICO (56)

MRX 2.09 26 eP 25 53.50 0.8
 iS 26 17.50
 ACX 2.39 113 eP 25 58.00 0.8
 iS 26 27.50
 III 2.62 77 eP 26 00.00 -0.5
 iS 26 28.50
 CRX 2.83 56 (P) 26 06.00 2.4
 (S) 26 39.38
 IIJ 2.99 50 iP 26 05.50 -0.5
 (S) 26 33.44
 UNM 3.20 62 iP 26 11.50 2.7X
 iS 26 46.00
 IIC 3.36 54 eP 26 10.65 -0.6
 PPM 3.58 69 eP 26 12.50 -1.9
 iS 26 52.50
 IIT 3.85 71 (P) 26 06.50 -11.5X
 YKA 45.47 352 eP 33 36.40 -0.5
 0.5s 0.10nm 3.0mb
 S.D. = 1.5 on 8 of 10 obs.

? APR 12, 1990 08h 49m 05.79± 1.32s
 44.483 N ±25.2km 8.509 E ± 9.4km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)

CKI 0.17 250 Pc 49 09.50 -0.2
 eSg 49 14.50
 BOB 0.73 67 Pc 49 20.20 0.0
 eSg 49 30.50
 DOI 0.90 272 P 49 23.70 0.5
 eSn 49 37.50
 BNI 1.42 294 Pc 49 31.50 -0.3
 eSn 49 50.00
 S.D. = 0.7 on 4 of 4 obs.

& APR 12, 1990 11h 40m 27.19s
 63.265 N 150.645 W
 DEPTH = 130.7km
 CENTRAL ALASKA (1)
 <AGS-P>.

KTH 0.31 337 iP 40 45.61 1.6
 eS 40 59.35
 HUR 0.54 122 eP 40 46.23 -0.6
 eS 41 01.59
 RND 0.82 79 iP 40 48.25 -0.7
 eS 41 05.04
 CUT 0.88 169 eP 40 48.92 -0.4
 eS 41 06.72
 MCK 0.90 58 iP 40 49.01 -0.6
 SKT 1.35 198 eP 40 53.41 -0.7
 eS 41 14.42
 NEA 1.49 27 eP 40 53.96 -1.6
 WRH 1.66 42 eP 40 56.32 -1.2
 PWA 1.66 167 eP 40 56.85 -0.6
 GHO 1.70 151 eP 40 57.21 -0.9
 eS 41 21.20
 SUA 1.81 181 eP 40 58.93 -0.5
 SML 1.81 143 eP 40 58.43 -1.0
 PLRM 1.82 157 eP 40 58.11 -1.3
 HDA 2.00 53 eP 41 00.08 -1.5
 NCG 2.00 201 eP 41 00.87 -0.8
 FBA 2.07 36 eP 41 01.23 -1.2
 PMS 2.09 165 eP 41 01.83 -1.0
 BGL 2.17 203 eP 41 03.86 0.0
 NCA 2.18 124 eP 41 02.67 -1.2
 SPU 2.19 198 eP 41 03.69 -1.0

DDM 2.21 74 eP 41 03.37 -0.9
 CKL 2.22 202 eP 41 03.92 -0.6
 GLM 2.24 38 iP 41 03.54 -1.2
 TOA 2.37 117 eP 41 05.50 -0.8
 PAX 2.37 95 eP 41 05.44 -0.9
 NKA 2.55 187 eP 41 10.23 1.7
 SLKM 2.77 176 eP 41 10.48 -1.0
 RDT 2.83 198 eP 41 11.18 -1.1
 KLU 2.83 127 eP 41 10.22 -2.1
 GLI 2.92 143 eP 41 11.21 -2.2
 VZW 2.93 137 eP 41 11.36 -2.2
 RED 3.03 200 eP 41 14.48 -0.4
 SEW 3.22 169 eP 41 15.87 -1.5
 GLB 3.67 117 eP 41 21.71 -1.7
 CNPM 3.76 185 eP 41 23.17 -1.4
 PDB 3.88 208 eP 41 25.21 -0.9
 36 obs. associated

* APR 12, 1990 12h 12m 19.62± 0.90s
 25.850 N ±13.5km 128.568 E ±18.1km
 DEPTH = 33.0km (normal)
 4.0mb (3 obs.)
 RYUKYU ISLANDS (238)

BJI 17.54 327 eP 16 24.00 0.9
 Z 14s 0.53um
 N 12s 0.39um
 KMI 23.32 274 Pd 17 27.00 1.0
 Z 16s 0.30um 3.8mszx
 eS 21 50.00
 CHTO 28.24 262 eP 18 10.40 -1.4
 WB5 45.80 172 eP 20 40.50 0.3
 WRA 45.86 172 Pc 20 41.10 0.4
 0.7s 1.30nm 4.0mb
 YKA 78.74 25 eP 24 20.00 0.0
 0.8s 1.10nm 3.9mb
 NB2 79.79 334 P 24 24.50 -1.3
 0.9s 3.70nm 4.4mb
 S.D. = 1.2 on 7 of 7 obs.

* APR 12, 1990 12h 15m 14.22± 0.57s
 11.634 N ±17.8km 86.011 W ±24.6km
 DEPTH = 33.0km (normal)
 4.6mb (3 obs.) 3.7msz (1 obs.)
 NEAR COAST OF NICARAGUA (74)

UYO 23.72 342 iPc 20 25.70 1.5
 TUL 25.74 341 eP 20 44.00 0.5
 1.0s 16.70nm 4.6mb
 Z 22s 0.26um 3.7msz
 e 20 52.50
 LR 29 20.00
 ALO 29.73 325 eP 21 19.50 -0.5
 SIV 36.91 138 P 22 22.00 -0.1
 BW06 37.17 331 eP 22 23.40 -0.8
 KVN 39.46 319 e(P) 22 44.00 0.5
 LRM 40.83 332 eP 22 54.40 -0.3
 SES 43.77 337 eP 23 18.00 -0.4
 FFC 44.80 347 iPd 23 26.70 0.1
 0.6s 10.00nm 4.9mb
 BAO 46.37 125 eP 23 39.50 -0.2
 PNT 46.73 330 eP 23 42.00 0.1
 0.5s 2.00nm 4.4mb
 INK 64.40 342 eP 25 48.00 -1.0
 MBC 67.02 352 eP 26 05.00 -0.7
 WRA 140.38 253 PKP 34 43.00 0.4
 0.6s 0.60nm
 CHTO 149.35 351 e(PKP) 34 58.00 0.3
 GBA 150.03 34 PKPd 34 59.30 0.6
 0.7s 2.20nm
 S.D. = 0.7 on 16 of 16 obs.

* APR 12, 1990 12h 18m 44.95± 0.82s
 42.326 N ± 7.1km 24.255 E ±11.5km
 DEPTH = 10.0km (geophysicist)
 BULGARIA (359)
 ML 2.6 (THE).

SRS 1.31 203 ePn 19 09.80 0.7
 VAY 1.61 232 ePn 19 13.20 -0.3
 SOH 1.65 205 ePn 19 14.20 0.1
 eSn 19 42.70
 THE 1.95 210 ePn 19 17.10 -1.3
 ALN 1.96 136 ePn 19 19.20 0.7
 eSn 19 52.10
 SKO 2.12 261 ePn 19 15.00 -5.9X
 MLR 3.39 21 ePd 19 38.00 -1.1

BZS 3.80 331 ePc 19 46.00 1.2
 S.D. = 1.2 on 7 of 8 obs.

APR 12, 1990 12h 41m 28.12± 0.71s
 33.836 N ± 7.1km 116.102 W ± 6.1km
 DEPTH = 5.0km (geophysicist)
 SOUTHERN CALIFORNIA (43)
 ML 3.0 (NEIS). Felt (III) at
 Indio.

PLM 0.80 233 iPd 41 43.90 -0.3
 PEC 0.88 274 iPd 41 44.70 -0.9
 GLA 1.32 126 eP 41 53.10 0.1
 VPD 1.38 270 P 41 53.40 -0.6
 PCF 1.42 279 P 41 54.10 -0.5
 PEM 1.51 283 P 41 54.80 -1.0
 MWC 1.67 284 P 41 58.40 0.1
 PAS 1.75 281 P 42 00.70 1.4
 SCY 1.97 279 P 42 03.10 0.5
 CIW 2.08 260 P 42 04.70 0.7
 ABL 2.77 292 eP 42 15.20 1.0
 TNP 4.33 348 eP 42 35.70 -0.7
 KVN 5.45 343 eP 42 52.40 0.2
 S.D. = 0.8 on 13 of 13 obs.

APR 12, 1990 13h 25m 30.64± 0.28s
 49.151 N ± 2.4km 6.870 E ± 3.1km
 DEPTH = 10.0km (geophysicist)
 GERMANY (543)
 MD 3.5 (STR), 3.3 (UCC).

GWf 0.52 109 Pg 25 41.08 -0.2
 RUP 0.57 13 ePg 25 41.98 -0.2
 WLF 0.70 318 iP 25 43.84 -0.5
 iS 25 53.00
 CDF 0.79 160 Pg 25 45.59 -0.4
 WLS 0.81 156 Pg 25 45.89 -0.4
 KTD 0.81 78 ePg 25 46.40 0.0
 ABH 0.85 31 ePg 25 47.08 0.0
 ECH 0.96 168 Pg 25 49.35 0.5
 VITF 1.10 212 Pg 25 51.06 -0.3
 Sg 26 06.23
 MOF 1.31 172 Pg 25 55.57 0.6
 BSF 1.32 182 Pg 25 55.49 0.4
 Sg 26 13.82
 TOD 1.34 69 ePg 25 54.42 -1.0
 FEL 1.49 149 ePg 25 56.73 -0.8
 TNS 1.48 43 ePnc 25 58.40 1.0
 eSn 26 19.70
 MEM 1.56 339 iP 25 58.69 0.2
 ENN 1.73 340 ePn 26 01.00 0.1
 0.9s 12.00nm
 iPbc 26 03.60
 ePg 26 06.50
 eSn 26 29.00
 DOU 1.76 303 P 26 01.30 0.0
 i 26 03.70
 iS 26 22.70
 LOMF 1.80 181 Pn 26 01.44 -0.6
 Sg 26 28.80
 SNF 2.16 310 iP 26 07.40 0.3
 WTS 2.85 359 e(Pg) 26 31.00 14.1X
 GRF 2.89 78 ePg 26 26.20 8.6X
 eSg 27 03.30
 MOX 3.41 62 ePg 26 39.00 14.0X
 eSg 27 18.00
 OGA 3.61 128 iPc 26 29.10 1.2
 WET 3.95 88 iPnc 26 32.70 0.2
 BHG 4.25 107 eP 26 37.50 0.7
 KHC 4.40 88 eP 26 38.40 -0.7
 e 27 16.30
 CLL 4.49 59 ePg 26 58.00 17.8X
 eSg 27 54.00
 BRG 4.88 67 e(Pg) 27 06.00 20.3X
 eSg 28 08.00
 S.D. = 0.6 on 23 of 28 obs.

APR 12, 1990 13h 31m 38.85± 1.35s
 43.232 N ±12.1km 24.860 E ± 6.2km
 DEPTH = 10.0km (geophysicist)
 BULGARIA (359)

PVL 0.35 92 iPg 31 46.00 0.0
 iS 31 52.00
 PGB 0.85 217 ePg 31 55.00 -0.3
 Sg 32 06.00
 PLD 1.13 186 ePg 32 00.00 0.0

12d 13h

DIM 1.28 157 iSg 32 13.00
eP 32 03.00 0.4
Sg 32 24.00
VTS 1.37 243 eP 32 04.00 -0.1
iSg 32 24.00
RZN 1.55 184 eP 32 07.00 0.4
iSg 32 28.00
KDZ 1.63 165 eP 32 07.00 -0.7
eS 32 28.00
MMB 1.84 207 ePd 32 14.00 3.2X
eS 32 38.00
KKB 1.89 225 eP 32 12.00 0.5
eS 32 36.00
VAY 2.56 222 ePn 32 25.60 4.6X
S.D. = 0.5 on 8 of 10 obs.

& APR 12, 1990 14h 22m 54.20s
37.370 N 121.720 W
DEPTH = 7.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.6 (BRK).

MHC 0.07 114 iPc 22 56.10 -0.2
ARN 0.15 98 iPd 22 57.10 -0.4
GCC 0.40 213 iPc 23 02.10 -0.3
eS 23 08.00
PCC 0.54 284 ePc 23 04.30 -0.8
SAO 0.64 160 iPd 23 06.60 -0.5
BKS 0.65 321 iPc 23 06.90 -0.4
eS 23 16.10
BRK 0.66 320 eP 23 07.00 -0.5
PRS 1.07 165 iPc 23 13.50 -1.2
CM8 1.25 58 eP 23 16.70 -1.0
KVN 3.31 58 eP 23 53.00 5.4
10 obs. associated

? APR 12, 1990 19h 08m 36.93 ± 3.05s
35 225 S ± 17.5km 179.728 W ± 40.3km
DEPTH = 314.0 ± 13.4 km
4.4mb (2 obs.)
EAST OF NORTH ISLAND, N.Z. (688)

HBZ 2.85 213 P 09 30.90 -1.7
PUZ 3.27 209 P 09 36.50 -0.2
S 10 25.00
NOZ 3.83 207 P 09 43.20 0.7
TAZ 4.26 224 P 09 47.70 0.6
WLZ 4.59 234 P 09 50.10 -0.7
MOH 4.63 212 eP 09 52.70 1.4
S 10 53.60
WHH 4.74 218 P 09 52.00 -0.6
TUTZ 4.88 223 P 09 55.20 1.0
HITZ 5.01 225 P 09 55.70 0.1
TTH 5.11 211 eP 09 57.80 1.1
S 11 05.70
NGZ 5.43 222 P 10 01.30 0.7
CNZ 5.47 222 P 10 02.20 1.1
PGZ 6.24 209 P 10 10.90 0.9
MNG 6.58 214 P 10 13.50 -0.6
S 11 32.20
MTW 7.01 211 P 10 18.90 -0.4
KIW 7.04 215 P 10 18.80 -0.8
CAW 7.16 213 eP 10 19.80 -1.3
BLW 7.20 210 P 10 22.30 0.7
S 11 47.60
WDW 7.32 213 P 10 22.30 -0.7
S 11 48.30
MOW 7.34 211 P 10 23.10 -0.1
MRW 7.43 214 P 10 23.40 -0.9
S 11 53.10
WEL 7.44 214 eP 10 23.90 -0.5
S 11 50.90
TCW 7.61 216 P 10 25.10 -1.5
S 11 55.80
CCW 8.06 214 P 10 33.80 1.8
CTA 33.50 288 iPd 14 48.60 -0.7
0.8s 16.79nm 4.6mb
WRA 43.08 278 Pc 16 09.00 0.6
0.4s 6.50nm 4.2mb
WB5 43.09 278 eP 16 08.90 0.4
S.D. = 1.0 on 27 of 27 obs.

* APR 12, 1990 19h 51m 17.47 ± 1.54s
32.502 S ± 19.1km 70.386 W ± 18.4km
DEPTH = 33.0km (normal)
CHILE-ARGENTINA BORDER REGION (127)

ROCH 0.71 228 iPd 51 32.00 0.8
iS 51 44.50
PCH 1.12 185 iP 51 38.00 1.0
iS 51 55.00
TACH 1.24 202 iP 51 38.00 -0.6
iS 51 56.00
CHCH 1.45 189 iPc 51 41.50 -0.1
iS 52 02.40
LNV 1.69 210 iPc 51 43.90 -1.1
iS 52 05.00
CFA 2.03 64 eP 51 50.00 -0.1
eS 52 15.10
S.D. = 1.0 on 6 of 6 obs.

APR 12, 1990 20h 16m 34.72 ± 0.46s
15.151 N ± 8.1km 147.563 E ± 8.4km
DEPTH = 33.0km (normal)
4.9mb (4 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.03 238 eP 17 21.80 0.3
eS 17 56.30
GUMO 3.04 240 eP 17 21.60 0.0
PJG 3.04 240 eP 17 21.80 0.2
MAT 22.88 340 (P) 21 35.00 -1.5
WB5 37.15 201 eP 23 44.20 -0.3
WRA 37.22 201 Pd 23 44.80 -0.3
0.8s 7.40nm 4.6mb
LZH 44.14 306 eP 24 43.50 1.3
3.0s 115.00nm 5.2mb
pP 24 52.00 28kmX
i 25 19.50
CHG 46.53 282 eP 25 02.00 0.9
SHL 52.90 291 iP 25 49.00 -1.3
GUN 58.24 294 P 26 29.00 -0.1
0.8s 24.00nm 5.3mb
PKI 58.67 293 P 26 31.50 -0.5
DMN 58.94 293 P 26 33.60 -0.2
GKN 59.34 294 P 26 36.00 -0.5
HYB 65.95 283 eP 27 20.50 0.2
INK 71.93 23 eP 27 57.00 0.6
QUE 74.55 298 eP 28 13.60 0.9
MBC 76.13 14 eP 28 21.50 0.9
YKA 80.27 28 eP 28 43.00 -0.5
0.9s 1.50nm 4.0mb
KVN 83.91 51 e(P) 29 04.20 1.0
KIC 145.21 306 PKPd 36 11.62 0.0
TIC 145.25 307 PKPd 36 11.70 0.0
LIC 145.52 306 PKP 36 12.56 0.4
ZOBO 145.65 97 PKP 36 11.50 -1.5
S.D. = 0.8 on 23 of 23 obs.

? APR 12, 1990 20h 26m 12.92 ± 2.09s
12.798 S ± 20.8km 118.561 E ± 21.4km
DEPTH = 33.0km (normal)
SOUTH OF SUMBAWA ISLAND (291)

MBL 8.40 172 iPd 28 15.90 0.5
iS 29 54.00
NANU 10.13 196 iPd 28 36.30 -2.9
iS 30 32.00
WB5 16.72 117 eP 30 05.20 -1.2
eS 33 13.00
BAL 17.81 185 eP 30 19.00 -0.9
eS 33 34.00
COOL 18.16 173 eP 30 26.00 1.7
eS 33 43.00
KLB 18.72 182 eP 30 32.00 0.9
MUN 19.21 186 eP 30 38.00 0.9
eS 34 06.00
NWA0 20.07 183 eP 30 47.00 0.6
eS 34 28.00
KIC 123.82 269 PKP 45 10.50 0.4
S.D. = 1.6 on 9 of 9 obs.

APR 12, 1990 21h 53m 09.32 ± 1.42s
27.160 N ± 7.9km 140.120 E ± 6.9km
DEPTH = 420.4 ± 14.7 km
4.7mb (10 obs.)

BONIN ISLANDS REGION (212)

MAT 9.49 351 iPc 55 22.20 -0.3
0.8s 19.40nm 4.5mb
eS 57 08.00
KMI 33.54 275 Pc 59 15.50 1.6
CHTO 38.67 267 eP 59 57.10 0.9
SHL 43.04 279 iP 00 32.00 0.3

WB5 47.09 187 eP 01 02.50 -0.6
WRA 47.16 187 Pc 01 02.90 -0.7
0.3s 2.50nm 4.1mb
GUN 47.76 284 P 01 09.60 0.9
PKI 48.24 284 P 01 12.70 0.4
DMN 48.50 284 P 01 14.60 0.5
GKN 48.82 285 P 01 17.00 0.6
MBL 51.89 204 eP 01 38.50 -0.5
GBA 59.76 270 Pc 02 32.10 -2.2
0.8s 7.20nm 4.2mb
INK 63.73 24 iPd 02 58.30 -1.2
MBC 66.30 15 ePd 03 15.40 -0.3
0.5s 11.00nm 4.8mb

YKA 72.95 28 eP 03 54.70 -0.9
0.5s 9.30nm 4.7mb
SOD 73.67 338 iP 03 59.30 -0.3
PNT 76.15 42 eP 04 14.00 0.2
SUF 76.34 334 iP 04 14.30 -0.2
0.5s 29.30nm 5.2mb

WDC 78.02 51 eP 04 24.50 0.3
NUR 78.17 333 eP 04 24.10 -0.4
ORV 79.19 51 eP 04 30.40 0.0
CMB 80.65 52 eP 04 38.30 0.2
PRS 80.71 54 eP 04 39.00 0.6
UPP 81.35 334 iP 04 40.20 -1.0
KVN 81.76 50 ePc 04 44.10 0.1
LRM 82.07 42 eP 04 46.30 0.8
HFS 82.63 336 eP 04 46.50 -1.2
0.4s 10.90nm 4.9mb
FFC 82.65 31 iPd 04 47.90 0.0
0.8s 16.00nm 4.8mb
NB2 82.86 338 P 04 48.40 -0.5
0.7s 14.20nm 4.8mb
CLC 83.66 53 eP 04 54.00 0.6
SBB 84.04 54 eP 04 56.00 0.6
GSC 84.47 53 eP 04 58.00 0.4
TPC 85.60 54 eP 05 03.00 -0.1
FRB 86.62 12 eP 05 07.00 -0.3
GLA 87.01 54 eP 05 10.00 0.2
ALQ 91.84 49 eP 05 34.00 1.6
0.8s 4.66nm 4.5mb

ZOBO 151.68 73 PKP 12 18.00 7.4X
S.D. = 0.8 on 36 of 37 obs.

APR 12, 1990 22h 04m 43.16 ± 1.57s
45.143 N ± 3.8km 6.501 E ± 13.8km
DEPTH = 10.0km (geophysicist)

FRANCE (538)
ML 2.0 (GEN).

BNI 0.15 126 Pc 04 47.10 0.3
iSg 04 49.30
RRL 0.30 138 P 04 49.90 0.4
S 04 53.10
LPG 0.40 26 Pg 04 51.70 0.3
Sg 04 57.60
LPL 0.41 23 Pg 04 51.80 0.2
Sg 04 57.40
RSP 0.54 89 P 04 54.41 0.4
S 05 00.39
LSD 0.56 55 P 04 54.41 -0.3
S 05 00.59
PZZ 0.77 146 P 04 57.90 -0.3
S 05 08.36
STV 1.07 147 P 05 03.13 -0.3
ENR 1.13 144 P 05 04.46 0.1
ORX 1.15 64 P 05 03.99 -0.8
S.D. = 0.5 on 10 of 10 obs.

APR 12, 1990 22h 47m 52.76 ± 0.67s
36.768 N ± 4.0km 2.492 E ± 3.2km
DEPTH = 13.5 ± 3.9 km
4.7mb (16 obs.)

ALGERIA (396)

MD 4.7 (STR). Felt strongly at
Algiers, Blido and Tipozo.

ALG 0.45 89 P 48 03.00 1.0
ACU 2.89 308 iPd 48 39.10 -0.1
eSn 49 11.80
ESEL 3.01 6 iPnc 48 41.30 0.4
EALH 3.30 290 ePn 48 45.80 0.7
eSn 49 22.50
ENIJ 3.78 274 ePn 48 49.40 -2.5
eSn 49 31.00
ECHE 3.92 317 ePn 48 55.00 1.1
eSn 49 37.80

12d 22h

EBR	4.34	340	ePn	49 00.00	0.3	AVE	8.83	250	eP	50 11.00	8.1X	MLR	19.64	56	ePd	52 25.00	0.9	
			eS	49 52.00					i	51 09.80		VR1	20.28	56	ePc	52 30.50	-0.2	
			eSg	50 00.00					i	52 55.00		HFS	24.47	14	eP	53 12.50	0.4	
EROQ	4.36	339	iPnc	49 00.00	-0.1	BNI	8.86	20	P	50 04.50	1.1		0.8s		26.30nm		4.9mb	
			eSn	49 48.00		PYM	8.98	2	P	50 05.80	0.8	Z	17s		0.37um		3.9MszX	
EVIA	4.38	297	ePn	49 00.40	-0.1	PLDF	9.23	5	P	50 08.20	-0.3				LR	01 51.00		
			eSn	49 47.50		AGO	9.29	3	P	50 09.45	0.2	NB2	24.91	10	P	53 18.20	1.7	
TAF	4.44	245	eP	49 00.00	-1.3	LPG	9.29	19	Pn	50 11.30	1.8		0.8s		20.10nm		4.8mb	
			i	49 04.00		LPL	9.30	19	Pn	50 11.40	1.8	UPP	25.08	18	eP	53 15.00	-3.0X	
			i	49 06.00		MAF	9.45	0	Pn	50 11.70	0.3	PRNI	27.75	94	eP	53 55.00	12.0X	
			i	50 20.00		LSF	9.50	356	Pn	50 10.80	-1.3	SUF	29.79	22	iP	54 00.40	-0.6	
			i	50 23.00		TCF	9.51	359	Pn	50 12.10	-0.2		0.7s		5.00nm		4.4mb	
			i	50 34.00		BOB	9.57	31	P	50 13.00	-0.2	SOD	33.58	17	eP	54 31.00	-3.1X	
EMEL	4.65	253	ePn	49 05.50	1.2	MNS	9.66	51	Pc	50 12.80	-1.5	BCAO	35.39	152	ePd	54 51.60	1.4	
AFC	4.85	278	ePn	49 08.40	1.1	ORO	9.76	23	Pd	50 17.00	1.2	NAI	49.46	132	eP	56 38.00	-6.9X	
			eSn	50 01.00		BGF	9.79	1	Pn	50 16.00	0.0	FRB	49.47	326	eP	56 47.00	2.9X	
EBAN	5.18	287	ePn	49 11.00	-0.8	EMS	9.87	18	ePd	50 18.50	1.1	RSON	66.04	316	P	58 40.00	-1.0	
			eSn	50 08.00		SMF	9.92	5	Pn	50 17.40	-0.5		1.0s		10.85nm		5.0mb	
ETOR	5.38	320	ePn	49 16.70	2.0	DIX	10.01	20	ePc	50 21.20	1.8	FFC	68.34	323	eP	58 55.00	-0.5	
			eSn	50 14.80		MFF	10.02	349	Pn	50 17.90	-1.4		0.7s		7.00nm		4.9mb	
ETER	5.53	3	ePn	49 16.70	0.0	AVF	10.03	3	Pn	50 18.70	-0.8	YKA	69.02	334	eP	58 58.50	-1.0	
			eSn	50 16.00		MMK	10.14	22	ePd	50 23.60	2.4		0.8s		4.80nm		4.7mb	
MAL	5.54	272	ePn	49 25.00	8.1X	VAI	10.24	25	P	50 22.50	0.3	FVM	70.55	303	P	59 08.20	-1.1	
			iSg	50 19.00		SSF	10.31	4	Pn	50 23.30	0.0		0.7s		10.20nm		5.1mb	
TOL	6.01	303	ePn	49 14.50	-8.9X	TMA	10.48	25	ePd	50 25.10	-0.7	OLY	72.58	301	P	59 20.00	-1.5	
			iPb	49 24.50		LOR	10.54	5	Pn	50 26.40	0.0	EDM	74.59	326	ePc	59 32.90	0.0	
			ePg	49 44.00		VDL	11.02	26	ePd	50 34.70	1.6	SHL	74.72	69	iP	59 33.00	-1.3	
			iSn	50 29.50		LLS	11.19	24	ePd	50 37.60	2.1	RSSD	75.59	315	P	59 40.00	0.9	
			iSb	50 58.50		OSS	11.43	28	ePd	50 40.10	1.3	IMA	75.85	350	e(P)	59 41.70	1.7	
EJIF	6.41	270	ePn	49 30.20	1.1	BSF	11.50	15	Pn	50 38.50	-1.1	LRM	79.09	320	eP	59 59.80	1.3	
EPF	6.47	346	Pn	49 30.00	0.0	CTI	11.53	34	P	50 39.70	-0.4	SIV	79.59	241	eP	00 00.00	-1.3	
			Sn	50 40.70		LPF	11.55	348	Pn	50 39.30	-0.9	NEW	79.73	324	P	00 02.00	0.4	
GUD	6.48	309	iPn	49 30.00	-0.2	ZLA	11.56	20	ePc	50 39.90	-0.5		0.7s		7.00nm		4.8mb	
			eSn	50 39.00		HAU	11.58	13	Pn	50 39.70	-0.9	PNT	80.13	326	eP	00 05.00	1.3	
OJEN	6.51	267	eP	49 33.50	3.0X	SLE	11.85	20	ePc	50 43.40	-0.8	PV09	82.11	313	P	00 14.00	-0.7	
BTH	6.68	343	ePn	49 33.50	0.7	GRR	11.87	349	Pn	50 42.80	-1.7	ANMO	82.78	308	P	00 18.50	0.4	
			Sn	50 47.00		LDF	11.97	352	Pn	50 44.60	-1.3		0.6s		3.00nm		4.6mb	
			Sg	51 23.50		CDF	12.16	15	Pn	50 47.10	-1.3	ALO	82.79	308	eP	00 19.00	0.9	
PLAT	6.68	267	eP	49 36.00	3.0X	FLN	12.18	351	Pn	50 47.00	-1.7		1.0s		4.50nm		4.6mb	
CNIL	6.89	269	eP	49 44.50	8.7X	KBA	13.08	35	e(P)	51 05.00	4.2X	CCH	84.12	243	(P)	00 20.00	-5.2X	
GELF	6.98	18	P	49 36.42	-0.7		1.0s		8.90nm		4.9mb	ZOBO	84.83	245	P	00 29.00	-0.1	
8ERF	6.98	20	P	49 36.94	-0.2					i	51 09.60		KVN	86.80	318	P	00 37.50	-0.7
ECRI	6.99	328	ePn	49 38.20	0.9	DOU	13.41	6	P	51 06.30	1.3	S.D. = 1.1 on 123 of 151 obs.						
IFR	7.03	245	iP	49 38.00	0.0	ZAG	13.57	44	eP	51 11.50	4.3X	APR 12, 1990 23h 05m 25.62± 0.64s						
			i	51 40.00		PTJ	13.61	44	eP	51 07.70	0.0	44.708 N ± 6.5km 9.934 E ± 7.3km						
			i	52 38.00		SNF	13.80	5	P	51 12.40	2.3	DEPTH = 23.9 ± 8.6 km						
TREF	7.20	17	P	49 40.28	0.2	MEM	14.06	9	P	51 14.80	1.2	NORTHERN ITALY (545)						
LMR	7.24	24	Pn	49 39.80	-0.9	ENN	14.21	9	eP	51 17.50	2.0	BOB	0.35	280	Pd	05 33.60	0.2	
			Sn	50 55.30			0.5s		12.00nm		4.9mb				eSg	05 40.20		
LRG	7.31	23	Pn	49 41.10	-0.5	GRF	14.38	23	eP	51 21.20	3.4X	MME	0.75	133	P	05 40.40	0.2	
			Sn	50 57.80			Z	22s		0.30um					eSg	05 51.80		
PRAF	7.32	15	P	49 41.74	-0.1					ic	51 26.20							
TAVF	7.36	21	P	49 42.58	0.1					ic	51 30.70		SAL	0.99	25	P	05 44.00	0.1
EPLA	7.49	299	ePn	49 43.00	-1.3	KHC	14.76	30	iP	51 24.00	1.2	PII	1.07	157	P	05 46.60	1.5	
			eSn	51 04.00		OHF	14.89	67	eP	51 24.50	-0.1				eSn	06 01.60		
FRF	7.49	24	Pn	49 43.40	-0.8	MOX	15.34	22	eP	51 34.00	3.6X	MDI	1.08	352	P	05 45.80	0.6	
			Sn	51 02.40			1.8s		62.00nm		4.6mb				eSg	06 00.20		
VILF	7.49	18	P	49 44.59	0.3		E	13s		1.20um		CTI	1.81	41	P	05 54.40	-1.4	
PGF	7.65	39	Pn	49 44.60	-1.9					i	51 40.00					eSn	06 16.40	
			Sn	51 05.40		WTS	15.53	10	eP	51 42.50	9.8X	SBF	1.98	246	Pn	05 58.20	-0.1	
GANF	7.68	19	P	49 47.50	0.7		0.7s		7.00nm		4.0mb	PGF	2.26	198	Pn	06 01.50	-0.8	
CALN	7.74	24	P	49 47.31	-0.6	SKO	15.54	65	eP	51 30.00	-3.0X				Sn	06 17.30		
MVIF	7.96	25	P	49 49.98	-0.9		Z	13s		0.86um		LPL	2.41	291	Pn	06 05.70	1.2	
			S	51 14.70			N	12s		0.70um		LMR	2.83	242	Pn	06 08.90	-1.3	
LPO	7.97	353	Pn	49 50.50	-0.4		E	13s		0.86um		S.D. = 1.2 on 10 of 10 obs.						
			Sn	51 16.40		ZST	15.67	39	eP	51 39.00	4.4X	% APR 12, 1990 23h 58m 42.61± 1.69s						
AURF	8.01	26	P	49 50.89	-0.7	PRU	15.82	30	P	51 40.70	4.1X	45.612 N ± 8.0km 2.746 E ± 18.1km						
SBF	8.03	27	Pn	49 50.00	-1.8					e	51 45.00		DEPTH = 10.0km (geophysicist)					
			Sn	51 14.40		SRO	16.06	42	eP	51 45.80	6.3X	FRANCE (538)						
TOUF	8.09	25	P	49 52.06	-0.8					i	51 50.30		ML 1.6 (LDG).					
			S	51 19.21		VAY	16.24	68	eP	51 42.50	0.5	MAF	0.62	348	Pg	58 54.70	-0.4	
AUTN	8.14	26	P	49 52.27	-1.2	BUD	16.25	44	iP	51 47.00	5.0X				Sg	59 04.30		
			S	51 19.86		WIT	16.31	9	eP	51 49.00	6.3X	TCF	0.77	331	Pg	58 57.70	0.0	
CAF	8.16	358	Pn	49 53.00	-0.5	BRG	16.31	27	eP	51 4								

13d 00h

DEPTH = 33.0km (normal)

4.6mb (14 abs.)

PHILIPPINE ISLANDS REGION (248)

PIP 0.94 201 iPd 04 39.00 0.1
iS 04 50.00
CVP 1.69 152 iPc 04 49.80 0.0
eS 05 10.00
TWG 3.60 1 eP 05 17.00 0.1
TWK 4.07 354 ePc 05 23.50 -0.1
TWD 4.88 7 eP 05 35.80 0.6
TWO 5.05 359 ePc 05 37.20 -0.3
TWC 5.44 8 eP 05 43.80 0.8
HKC 7.07 297 iPd 06 04.90 -1.1
iS 07 23.30
MCO 7.53 294 iP 06 11.00 -1.4
PPR 9.62 193 iPd 06 45.00 3.6X
SSE 11.84 1 eP 07 21.00 9.4X
Z 20s 1.40um
e 08 04.00
KMI 17.88 292 eP 08 32.00 1.7
MNI 18.05 167 e(P) 08 33.20 0.9
CHG 20.84 273 eP 09 07.00 3.4X
1.0s 22.00nm 4.5mb
TSRJ 20.99 36 eP 09 04.90 -0.1
BJI 21.17 350 eP 09 08.00 1.2
1.5s 92.00nm 5.0mb
Z 16s 1.46um 4.5MszX
N 14s 0.86um
eS 13 00.00
NNT 21.45 255 eP 09 07.20 -2.6
LZH 22.59 322 eP 09 25.00 3.7X
2.5s 60.00nm 4.6mb
Z 16s 2.20um 4.7MszX
N 12s 0.90um
E 13s 0.60um
pP 09 34.50 35kmX
sP 09 38.50
PP 09 59.00
PPP 10 10.00
i 11 09.00
eS 13 32.00
eSS 14 25.00
MTMJ 22.76 37 eP 09 25.40 2.5
MAT 22.96 38 (P) 09 20.00 -4.8X
1.2s 15.63nm 4.4mb
eS 13 30.00
CHJJ 23.09 40 eP 09 25.20 -0.8
GUMO 23.58 100 eP 09 30.50 -0.3
IPM 24.29 236 ePd 09 39.10 1.3
0.7s 18.50nm 4.7mb
GUN 33.23 292 P 10 59.90 1.1
0.9s 48.00nm 5.4mb
PKI 33.60 291 P 11 02.20 0.2
DMN 33.87 291 P 11 05.20 0.9
GKN 34.33 292 P 11 08.40 0.3
1.0s 44.00nm 5.3mb
HYB 40.24 275 eP 11 58.60 0.8
WB5 41.00 161 eP 11 59.60 -4.3X
WRA 41.05 161 Pc 11 59.10 -5.2X
0.6s 2.90nm 4.2mb
GBA 42.06 269 Pc 12 12.90 0.2
0.8s 3.00nm 4.1mb
GIS 43.53 154 P 12 20.00 -4.5X
QUE 49.89 294 eP 13 15.20 0.3
MAIO 56.14 301 eP 14 03.00 1.9
TAB 66.53 304 eP 15 18.00 6.6X
FBA 73.32 26 eP 15 51.80 -0.2
KEV 73.52 339 eP 15 53.00 -0.1
SOD 74.11 336 iP 15 56.70 0.1
SUF 75.31 332 iP 16 02.80 -0.7
0.4s 1.80nm 4.4mb
NUR 76.55 330 eP 16 10.00 -0.5
MSZ 76.63 148 P 16 11.00 -0.1
INK 77.90 21 ePd 16 16.60 -1.3
MBC 78.14 12 eP 16 17.50 -1.6
0.4s 4.00nm 4.8mb
VRI 79.34 315 ePc 16 26.50 0.2
MLR 79.97 315 ePd 16 30.00 0.2
DAG 81.25 351 iPd 16 34.70 -1.1
1.0s 7.00nm 4.6mb
HFS 81.80 331 eP 16 38.00 -0.9
1.5s 47.30nm 5.3mb
KRA 82.34 320 eP 16 42.10 0.2
NB2 82.52 332 P 16 41.50 -1.3
0.9s 3.10nm 4.4mb
VAY 83.63 311 eP 16 48.40 -0.4

KSP 84.20 322 eP 16 52.00 0.5
ec 17 11.50 71kmX
BRG 85.55 323 eP 16 59.00 0.8
i 17 24.10 94kmX
PRU 85.58 322 eP 16 57.30 -1.1
e 17 12.00 51kmX
CLL 85.90 323 e(P) 17 11.00 11.1X
PNT 93.23 35 eP 17 35.00 0.4
EDM 94.02 29 ePc 17 37.40 -0.8
KVN 99.96 43 e(P) 18 06.00 0.3
SIV 176.25 32 ePKP 24 30.00 -0.4
S.D. = 1.0 on 48 of 58 obs.

APR 13, 1990 00h 05m 56.57 ± 0.75s
46.703 N ± 3.8km 3.873 E ± 6.9km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
MD 1.0 (STR).

LBF 0.29 14 Pg 06 03.00 0.3
Sg 06 07.10
AVF 0.37 284 Pg 06 03.60 -0.5
Sg 06 08.00
SSF 0.44 325 Pg 06 05.30 -0.2
Sg 06 10.90
LOR 0.57 359 Pg 06 08.00 -0.1
Sg 06 15.30
BGF 0.72 259 Pg 06 11.00 0.2
PLDF 0.75 193 Pg 06 10.64 -0.7
Sg 06 22.07
GRC 0.81 318 P 06 12.28 0.1
Sg 06 23.47
AGO 0.83 219 P 06 12.51 -0.1
Sg 06 25.25
MAF 1.02 242 Pg 06 16.50 0.6
Sg 06 28.40
PYM 1.13 213 Pg 06 18.32 0.6
Sg 06 33.90
TCF 1.22 251 Pg 06 19.90 0.6
Sg 06 34.20
LSF 1.68 255 Pn 06 25.50 -0.7
Pg 06 27.30
Sg 06 48.70
S.D. = 0.5 on 12 of 12 obs.

? APR 13, 1990 00h 08m 17.05 ± 3.15s
18.047 N ± 23.3km 102.123 W ± 35.2km
DEPTH = 157.7 ± 26.6 km
3.1mb (1 obs.)
MICHOCAN, MEXICO (57)

MRX 1.87 28 iP 08 51.50 0.0
iS 09 13.50
ACX 2.46 118 iP 08 59.27 0.8
iS 09 26.00
III 2.54 82 eP 08 57.11 -2.7
iS 09 24.00
CRX 2.68 59 (P) 09 02.50 0.9
IIJ 2.82 53 iP 09 02.85 -0.6
eS 09 33.44
UNM 3.07 65 (P) 09 08.00 1.6
(S) 09 44.50
PPM 3.47 72 eP 09 10.54 -1.2
iS 09 48.50
IIT 3.75 74 (P) 09 16.50 1.3
YKA 45.25 352 eP 16 19.80 -0.2
0.5s 0.30nm 3.1mb
S.D. = 1.7 on 9 of 9 obs.

? APR 13, 1990 00h 19m 07.10 ± 2.55s
37.008 N ± 22.8km 2.556 E ± 13.5km
DEPTH = 10.0km (geophysicist)
3.4mb (1 obs.)
WESTERN MEDITERRANEAN SEA (387)
ML 3.4 (LDG).

ESEL 2.77 5 ePn 19 52.60 0.3
eSn 20 28.00
EPF 6.25 345 Pn 20 41.70 0.0
Sn 21 50.40
LMR 7.01 24 Pn 20 51.10 -1.1
Sn 22 08.00
LRG 7.07 23 Pn 20 53.20 0.2
Sn 22 08.40
FRF 7.25 24 Pn 20 55.20 -0.4
Sn 22 13.80
PGF 7.43 40 Pn 20 59.00 0.7

Sn 22 17.80
CAF 7.92 357 Pn 21 05.90 0.9
LFF 8.04 351 Pn 21 06.10 -0.6
YKA 68.83 334 eP 30 13.20 -0.1
0.4s 0.10nm 3.4mb
S.D. = 0.7 on 9 of 9 obs.

* APR 13, 1990 02h 52m 30.89 ± 2.30s
17.688 N ± 21.4km 62.256 W ± 11.3km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.8 (FDF). MD 2.7 (TRN).

CPB 0.41 97 eP 52 40.14 0.0
eS 52 47.09
SKI 0.58 233 eP 52 42.97 0.3
eS 52 51.48
NEV 0.63 209 eP 52 42.90 -0.4
S 52 50.60
BPA 0.74 149 eP 52 43.90 -1.1
S 52 52.70
MBET 0.95 175 eP 52 47.45 -0.4
eS 52 59.14
MGH 0.96 178 eP 52 47.50 -0.6
S 52 58.60
PAG 1.74 161 eP 53 01.50 2.2
S 53 19.20
S.D. = 1.3 on 7 of 7 obs.

% APR 13, 1990 03h 06m 20.05 ± 1.38s
16.353 N ± 9.2km 61.226 W ± 14.8km
DEPTH = 27.4 ± 8.2 km
LEEWARD ISLANDS (92)
ML 2.2 (FDF).

SFG 0.10 164 ePd 06 24.94 -0.1
S 06 28.00
SEG 0.27 280 eP 06 27.13 0.2
S 06 31.00
MGG 0.44 191 ePd 06 29.50 0.1
S 06 34.40
PAG 0.54 234 eP 06 30.81 -0.3
S 06 38.60
BBL 0.86 196 eP 06 36.30 0.1
S 06 47.50
BPA 0.92 319 eP 06 36.97 -0.1
S 06 48.30
S.D. = 0.3 on 6 of 6 obs.

APR 13, 1990 03h 35m 12.04 ± 0.29s
40.255 N ± 5.6km 138.957 E ± 5.8km
DEPTH = 18.9km (3 depth phases)
4.8mb (29 obs.) 4.6Msz (2 obs.)
EASTERN SEA OF JAPAN (223)

MRRJ 2.69 36 P 35 54.20 -0.9
eS 36 23.90
NIJ 3.01 179 P 35 59.20 -0.5
eS 36 33.70
MAT 3.75 189 iPd 36 10.30 0.0
eS 36 54.00
MTMJ 3.77 194 P 36 12.30 1.6
HOOJ 3.89 55 eP 36 12.90 0.7
eS 36 55.50
KAKJ 4.16 166 eP 36 25.90 10.0X
CHJJ 4.20 180 P 36 23.90 7.3X
ASAJ 4.73 34 P 36 25.00 0.9
KUSJ 5.16 55 eP 36 29.80 -0.3
eS 37 26.00
SSE 17.06 243 eP 39 16.00 5.0X
Z 18s 0.90um
N 10s 0.70um
E 10s 0.80um
eS 39 37.20
eS 42 36.00
sS 44 44.00
BJI 17.42 277 eP 39 17.50 2.0
2.0s 55.00nm 4.3mb
Z 16s 1.17um 4.4MszX
E 14s 0.70um
eS 42 44.00
LZH 27.80 273 eP 41 00.00 -2.1
2.5s 74.00nm 5.0mb
Z 13s 2.00um 4.9MszX
N 11s 0.80um
E 14s 0.70um
pP 41 17.50 76kmX

[illegible]

13d 05h

ALO 81.42 50 eP 49 19.50 0.4
1.0s 4.50nm 4.4mb
ANMO 81.42 50 e(P) 49 20.60 1.5
LRM 82.95 38 eP 49 27.40 0.5
e 49 41.00 46km
BW06 83.11 41 P 49 25.50 -2.3
1.3s 14.34nm 4.9mb
FBA 83.88 10 P 49 29.80 -1.1
0.9s 18.75nm 5.1mb
SES 86.22 34 eP 49 43.00 0.1
EDM 86.58 31 eP 49 43.50 -1.1
INK 89.71 14 eP 50 01.00 1.8
YKA 91.36 23 eP 50 05.90 -1.0
0.8s 0.80nm 4.2mb
CLL 145.48 354 e(PKP) 56 51.00 11.4X
SPC 146.21 345 e(PKP) 56 41.80 0.6
MOX 146.27 355 e(PKP) 56 44.00 3.0X
PRU 146.58 351 ePKP 56 42.50 1.0
e 56 49.50
GRF 147.25 355 ePKP 56 47.50 4.9X
e 56 59.00
e 57 07.00
KHC 147.56 352 PKP 56 52.30 9.1X
S.D. = 1.3 on 21 of 28 obs.

? APR 13, 1990 05h 39m 30.87 ± 1.23s
31.495 S ± 31.2km 68.248 W ± 22.0km
DEPTH = 100.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.11 176 iPd 39 45.50 0.2
eS 39 56.30
RTLL 0.25 311 iPc 39 45.70 -0.1
ZON 0.37 262 iPd 39 46.00 -0.1
eS 39 58.00
RTCV 0.44 214 iPc 39 46.40 -0.1
RTBS 1.04 261 ePc 39 52.10 0.1
S 40 08.00
S.D. = 0.2 on 5 of 5 obs.

* APR 13, 1990 05h 58m 23.57 ± 0.41s
15 185 N ± 10.1km 147.585 E ± 9.2km
DEPTH = 23.4km (2 depth phases)
4.5mb (4 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.06 238 eP 59 12.40 0.8
eS 59 46.30
GUMO 3.08 239 eP 59 11.70 -0.1
PJG 3.08 239 eP 59 11.70 -0.1
MAT 22.85 340 (P) 03 27.00 0.7
SSE 28.87 308 eP 04 21.70 -1.0
WB5 37.19 201 eP 05 34.00 -0.9
WRA 37.26 201 Pd 05 34.60 -0.9
0.8s 3.60nm 4.2mb
LZH 44.14 306 eP 06 33.50 1.2
1.5s 38.00nm 5.0mb
i 06 49.50 63kmX
CHTO 46.55 282 eP 06 51.90 0.4
INK 71.89 23 eP 09 45.00 -1.4
MBC 76.09 14 eP 10 10.50 -0.1
1.0s 9.00nm 4.8mb
YKA 80.23 28 eP 10 31.50 -2.0
0.9s 1.50nm 4.0mb
PNT 80.45 42 eP 10 36.00 1.0
CMB 82.37 53 eP 10 44.80 -0.6
KVN 83.87 51 eP 10 54.00 0.8
e 11 01.70 24km
TNP 84.79 52 eP 10 58.80 1.0
e 11 06.00 23km
SES 85.52 39 eP 11 00.00 -1.0
LRM 86.03 44 eP 11 04.00 0.1
KIC 145.21 306 PKPd 18 01.14 -0.8
0.8s 10.00nm
TIC 145.25 307 PKP 18 01.00 -0.9
LIC 145.52 306 PKP 18 02.06 -0.4
ZOBO 145.64 97 PKP 18 04.00 0.7
1.1s 9.28nm
LPB 145.68 97 PKP 18 05.00 1.8
CCH 147.57 99 PKP 18 08.00 1.9
S.D. = 1.1 on 24 of 24 obs.

* APR 13, 1990 06h 05m 45.68 ± 1.25s
20.163 S ± 14.9km 178.095 W ± 13.1km
DEPTH = 416.6 ± 11.5 km
4.9mb (9 obs.)
FIJI ISLANDS REGION (181)

SVA 3.84 301 P 06 58.10 0.2
VUN 3.90 303 P 06 57.10 -1.3
SGE 4.56 304 eP 07 05.90 1.1
DZM 14.55 260 iPd 08 56.90 1.9
BRS 27.57 249 iPd 10 59.00 0.2
0.7s 9.50nm 4.3mb
i 11 03.50
COO 28.95 243 iPd 11 12.10 1.1
RMO 31.03 252 iPd 11 29.80 0.8
e 11 43.00
CNB 32.34 235 iPc 11 41.00 0.8
1.0s 80.00nm 5.0mb
CAN 32.63 235 eP 11 43.00 0.4
BWA 32.81 237 eP 11 42.20 -1.9
CTA 33.43 264 iPc 11 50.00 0.5
0.6s 66.67nm 5.2mb
i 12 04.50
WB5 44.54 262 eP 13 19.40 -0.8
WRA 44.56 262 Pc 13 18.80 -1.5
0.4s 7.70nm 4.4mb
COOL 55.28 246 eP 14 38.00 -2.2
M8L 57.75 257 eP 14 56.20 -1.2
0.7s 58.00nm 5.1mb
KLB 58.11 245 eP 14 59.00 -0.8
S8A 58.20 184 eP 15 00.80 1.1
VNDA 58.23 185 P 15 00.20 0.3
NWA0 58.44 243 eP 15 01.00 -1.0
BAL 59.11 246 eP 15 05.00 -1.6
MUN 59.39 244 eP 15 08.00 -0.5
NANU 61.40 255 eP 15 21.50 -0.4
0.5s 34.00nm 5.1mb
SPA 69.96 180 iPc 16 15.40 0.3
1.0s 76.00nm 5.3mb
PLM 78.99 48 eP 17 06.60 0.1
FRI 79.11 44 eP 17 06.50 -0.2
CMB 79.28 43 eP 17 07.50 -0.2
WDC 79.47 40 eP 17 08.60 0.0
ORV 79.48 41 eP 17 09.20 0.6
MIN 79.89 40 eP 17 10.50 -0.5
KVN 81.33 43 eP 17 18.00 -0.5
TNP 81.35 44 eP 17 18.80 0.1
SNG 84.34 280 eP 17 36.20 2.3
PNT 86.43 34 eP 17 44.00 0.7
0.7s 8.00nm 4.6mb
LRM 88.51 40 eP 17 52.70 -0.9
CHTO 90.04 290 eP 18 02.30 1.4
INK 93.97 15 eP 18 16.00 -1.9
YKA 96.24 25 eP 18 26.50 -1.8
1.1s 1.00nm 3.9mb
EKA 144.68 5 PKP 24 33.00 -1.7
2.4s 110.20nm
CLL 147.71 347 iPKPd 24 42.60 2.9
1.1s 14.00nm
e 26 19.00
BRG 147.91 346 i(PKP) 24 42.70 2.6
WTS 148.00 354 ePKP 24 42.50 2.4
0.9s 10.00nm
PRU 148.59 344 PKP 24 45.50 4.3X
MOX 148.63 348 ePKP 24 45.00 3.8X
ENN 149.30 355 ePKP 24 46.50 4.3X
GRF 149.61 348 ePKP 24 47.70 4.9X
KHC 149.62 345 ePKP 24 47.10 4.3X
DOU 150.06 357 PKP 24 48.40 5.0X
KIC 164.84 154 PKP 25 01.00 -1.1
S.D. = 1.4 on 42 of 48 obs.

* APR 13, 1990 06h 08m 05.07 ± 0.43s
15.297 N ± 10.3km 147.526 E ± 8.5km
DEPTH = 33.0km (normal)
4.8mb (6 obs.)
MARIANA ISLANDS REGION (215)

GUA 3.08 236 eP 08 52.50 0.0
eS 09 28.80
GUMO 3.09 237 eP 08 52.00 -0.6
PJG 3.09 237 eP 08 51.50 -1.1
MAT 22.73 340 (P) 13 03.00 -2.4
SSE 28.76 308 eP 14 01.30 -0.6
WRA 37.34 201 Pc 15 15.20 -1.2
0.9s 5.10nm 4.4mb
LZH 44.02 306 eP 16 13.50 1.9
2.0s 47.00nm 4.9mb
CHG 46.47 282 eP 16 33.30 2.2
e 18 02.70
GUN 58.15 294 P 17 59.20 0.4
0.8s 16.00nm 5.1mb
PKI 58.58 293 P 18 02.80 1.1

DMN 58.85 293 P 18 03.00 -0.5
0.6s 11.00nm 5.2mb
GKN 59.25 294 P 18 06.30 0.1
INK 71.81 23 eP 19 25.00 -1.0
MBC 76.00 14 eP 19 51.00 0.8
0.9s 7.00nm 4.7mb
YKA 80.16 28 eP 20 11.60 -1.6
0.9s 1.80nm 4.1mb
PNT 80.40 42 eP 20 15.00 0.2
ORV 81.16 51 eP 20 18.60 -0.5
CMB 82.35 53 eP 20 25.30 0.0
FRI 83.12 54 eP 20 29.00 -0.2
TNP 84.76 52 eP 20 37.30 -0.5
SES 85.47 39 eP 20 41.00 0.1
LRM 85.99 44 eP 20 43.90 0.1
KIC 145.10 306 PKPd 27 41.44 -0.3
0.8s 20.50nm
TIC 145.14 307 PKPd 27 41.58 -0.3
LIC 145.40 306 PKP 27 42.38 0.1
ZOBO 145.71 97 PKP 27 44.20 0.8
1.1s 14.50nm
LPB 145.75 97 PKP 27 45.00 1.7
CCH 147.65 98 ePKP 27 48.00 1.8
S.D. = 1.1 on 28 of 28 obs.

APR 13, 1990 06h 17m 53.13 ± 1.18s
11.600 N ± 5.7km 143.007 E ± 6.9km
DEPTH = 46.1 ± 10.5 km
4.9mb (17 obs.) 4.5MsZ (2 obs.)
SOUTH OF MARIANA ISLANDS (210)

GUA 2.68 44 ePc 18 35.20 0.4
eS 19 04.40
GUMO 2.68 42 iPc 18 35.40 0.5
PJG 2.68 42 iPc 18 35.30 0.4
PMG 21.27 169 eP 22 36.50 -1.4
CHJJ 24.61 352 eP 23 09.20 -1.3
KAKJ 24.63 354 eP 23 08.70 -1.9
MAT 25.21 351 iPd 23 14.10 -2.1
1.1s 39.24nm 4.9mb
MTMJ 25.31 350 eP 23 16.30 -1.0
NIJJ 25.78 353 eP 23 20.30 -1.2
SSE 27.99 317 eP 23 42.50 0.8
CTA 31.65 174 iPd 24 14.30 -0.1
0.7s 10.27nm 4.7mb
i 24 20.00
i 24 30.50
OIS 32.13 186 eP 24 18.00 -0.6
WB5 32.42 195 eP 24 20.00 -1.1
WRA 32.49 195 Pc 24 21.50 -0.2
0.5s 8.20nm 4.8mb
BJI 36.94 325 eP 24 59.50 0.0
Z 20s 0.30um 4.1MsZ
BRS 39.90 166 iPd 25 25.00 0.5
LOE 40.32 283 eP 25 29.00 1.0
KMI 40.35 295 Pc 25 30.00 1.5
DZM 40.60 145 iPc 25 30.20 -0.2
SNG 42.02 268 eP 25 51.80 9.7X
LZH 42.90 311 eP 25 50.50 1.3
1.2s 34.00nm 5.0mb
i 26 08.50
CHTO 43.03 285 eP 25 51.20 0.9
e 26 04.30
SHL 50.12 294 iP 26 46.40 0.1
GUN 55.69 296 Pc 27 28.00 0.1
PKI 56.08 295 Pc 27 30.40 -0.3
0.6s 25.00nm 5.4mb
DMN 56.35 295 Pc 27 32.60 0.1
0.7s 48.00nm 5.6mb
GKN 56.79 296 Pc 27 35.40 -0.2
SDN 61.77 33 e(P) 28 07.60 -1.7
HYB 62.43 284 eP 28 14.80 0.5
SVW 66.26 28 iPc 28 38.90 0.4
IMA 68.78 23 ePc 28 54.30 -0.1
1.0s 12.30nm 4.8mb
PMR 69.39 28 ePc 28 57.00 -1.0
0.9s 18.70nm 5.0mb
BRW 69.76 17 eP 29 00.40 0.3
FBA 70.78 25 eP 29 05.50 -1.0
TOA 70.87 28 eP 29 07.20 0.1
QUE 72.28 298 eP 29 17.00 0.6
INK 76.89 22 ePc 29 41.40 -0.4
MAIO 78.04 305 eP 29 50.00 1.1
MBC 80.63 14 ePc 30 02.40 0.4
0.5s 10.00nm 5.0mb
YKA 85.45 27 eP 30 27.10 0.2
0.5s 7.70nm 5.1mb

		e	30	10.00	
FORR	49.86	244 iPd	24	01.30	-0.6
	0.4s	164.00nm			5.9mb
KNA	50.22	264 iPd	24	03.50	-1.2
	0.5s	68.00nm			5.4mb
COOL	55.84	244 iPd	24	43.40	-1.4
	0.5s	37.00nm			5.0mb
MBL	57.78	256 iPd	24	57.00	-1.1
	0.4s	28.00nm			4.9mb
KLB	58.72	243 eP	25	03.00	-1.4
NWAO	59.12	242 iPd	25	06.20	-0.8
BAL	59.67	244 iPd	25	09.70	-1.0
MUN	60.02	243 eP	25	12.00	-1.0
	0.6s	132.00nm			5.4mb
SBA	60.74	183 iP	25	19.80	2.8
VNDA	60.76	185 iPd	25	18.90	1.8
NANU	61.54	253 iPd	25	22.50	-0.5
	0.4s	60.00nm			5.4mb
MAT	67.46	323 iPd	25	58.00	-1.9
	0.8s	14.18nm			4.5mb
ADK	69.17	1 eP	26	08.00	-1.8
	1.3s	56.60nm			4.9mb
SPA	72.55	180 iPd	26	31.40	1.7
	0.9s	85.00nm			5.3mb
		i	26	49.30	66kmX
PLM	77.73	49 P	26	58.50	-0.3
KVN	79.84	44 P	27	09.80	0.0
		pP	29	08.00	549km

TNP	79.92	45	P	27	10.00	-0.3
	1.3s	20.41nm				4.4mb
SVW	80.56	11	eP	27	11.50	-1.4
IPM	82.12	277	ePd	27	23.40	1.6

TTA	82.19	10 eP	27	20.80	-0.3
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PMR	82.34	14 eP	27	26.36	1.3
	1.5s	34.70nm			4.7mb
SNG	83.33	280 eP	27	29.30	1.6
BJI	83.34	315 eP	27	27.50	0.3
	1.8s	103.00nm			5.1mb
		eS	37	00.00	
TOA	83.48	15 eP	27	27.30	-0.3
MAW	84.09	200 iP	27	32.60	2.1
PNT	84.61	34 eP	27	33.00	-0.4
NEW	85.40	36 P	27	36.20	-1.0
	0.7s	8.60nm			4.5mb
FBA	85.54	13 eP	27	35.30	-2.2
PV09	85.68	48 P	27	39.80	0.6

			pP	29	39.90	549km
ALQ	86.11	52	eP	27	40.00	-1.1
	1.1s		5.38nm			4.2mb
			epP	29	42.00	560km
OWOC	87.31	44	pP	27	46.00	-0.7

0.9s 8.47nm 4.5mb

KMI	87.42	297	Pd-	27	49.00	1.4
	2.0s		0.10nm			2.2mb x
CHG	88.61	290	ePd	27	54.00	1.1
	0.9s		11.13nm			4.8mb
LZH	90.45	308	P	28	02.00	0.7
	1.5s		38.00nm			5.1mb
			i	30	06.00	565km
			S	38	17.00	
RSSD	91.52	44	P	28	06.00	-0.1

			pP	30	07.40	549km
INK	91.63	15	eP	28	05.00	-0.8
YKA	94.14	25	eP	28	16.10	-1.3
	0.7s		1.90nm			4.4mb
MA10	125.65	302	ePKP	33	58.00	0.2

SUF	131.68	345	iPKP	34	07.10	-1.2
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NUR	133.94	344	ePKP	34	10.80	-1.8
NB2	136.00	353	PKP	34	17.20	0.6
EKA	142.15	4	PKP	34	25.00	-2.8X
DCN	143.67	9	ePKP	34	27.90	-2.5
DLE	143.83	8	ePKP	34	28.40	-2.3
CLI	143.98	329	iPKPd	34	30.00	-1.3
PPE	144.05	328	ePKPc	34	31.00	-0.3
WIT	144.57	354	ePKP	34	33.00	1.0
KSP	144.70	343	iPKPd	34	32.80	0.5
VRI	144.73	329	ePKPd	34	31.00	-1.6
BBTK	144.87	316	iPKPc	34	33.00	-0.1
SPC	144.91	338	iPKP	34	34.20	1.2
TLB	144.94	326	ePKP	34	33.50	0.6
CLL	145.06	347	iPKP	34	32.90	0.0

13d 08h

BRG	1.8s	170.00nm				TMA	150.85	349	ePKPd	34	48.40	6.0X	BVA	4.31	137	ePd	52	44.50	-1.9	
	145.26	346	iPKP	34	32.90	-0.4	SMF	150.92	356	iPKPd	34	48.30	6.1X			S	53	54.50		
	2.0s	150.00nm						0.8s	9.40nm				MMG	4.38	138	eP	52	47.50	0.1	
		i	36	43.60		MFF	151.02	2	iPKPd	34	48.90	6.5X			S	54	01.00			
HRI	145.37	303	iPKPd	34	35.00	0.9		0.8s	29.55nm				SLP	4.50	133	ePc	52	47.00	-2.0	
WTS	145.37	354	ePKP	34	33.00	-0.3	MMK	151.06	350	ePKPd	34	49.60	6.8X			S	54	01.00		
	1.0s	39.00nm				BGF	151.06	358	iPKPd	34	49.00	6.6X	IIT	4.53	286	iP	52	50.00	0.4	
MLR	145.39	329	ePKPd	34	34.50	0.7		0.6s	27.05nm						(S)	53	43.00			
PRU	145.94	345	PKPd	34	36.20	1.8	VAI	151.10	349	PKPd	34	48.30	5.9X	REC	4.56	138	eP	52	50.15	0.3
		e	36	46.50		DIX	151.11	351	ePKPd	34	49.90	7.0X	PPM	4.84	285	iPd	52	55.27	1.2	
MOX	145.97	348	iPKPd	34	36.00	1.6	OHR	151.15	328	ePKP	34	49.00	6.2X			(S)	53	50.20		
	1.8s	77.00nm						1.1s	109.00nm				III	5.52	276	iP	53	01.50	-1.9	
CMP	145.99	329	ePKPc	34	34.00	-0.7	EMS	151.19	352	ePKPd	34	49.80	6.9X	ACX	5.97	262	(P)	53	06.00	-3.6X
DSI	146.16	301	ePKPd	34	37.00	1.7	TCF	151.35	359	iPKPd	34	49.40	6.5X	IIJ	6.02	289	(P)	53	12.50	1.6
LFK	146.37	308	iPKP	34	37.00	1.4		0.6s	12.65nm				TUL	18.09	355	eP	56	05.00	13.4X	
LWI	146.49	237	iPKPd	34	40.00	3.4X	MAF	151.40	358	iPKPd	34	49.90	6.9X		1.2s	10.90nm				
ENN	146.67	355	ePKP	34	38.00	2.5		0.6s	11.70nm				YKA	46.93	347	eP	00	10.30	0.0	
	1.1s	36.00nm				ORX	151.46	350	PKP	34	48.92	5.7X		0.6s	0.20nm				3.3mb	
UCC	146.75	356	PKP	34	39.00	3.4X	LSO	151.76	351	PKP	34	51.08	7.3X	S.D. = 1.6 on 13 of 15 obs.						
SRO	146.76	339	i(PKP)	34	38.80	3.1X	BOB	152.03	348	PKP	34	50.00	6.0X	APR 13, 1990 11h 28m 37.09±3.24s						
PRNI	146.80	299	iPKPd	34	39.00	2.6	RSP	152.04	351	PKP	34	50.97	6.9X	42.876 N ±29.0km 1.548 E ±14.9km						
MEM	146.82	355	iPKPd	34	38.80	3.1X	BNI	152.22	352	PKPd	34	52.00	7.7X	DEPTH = 5.0km (geophysicist)						
ZST	146.83	341	ePKP	34	38.60	2.8X	RRL	152.34	352	PKP	34	52.20	7.6X	PYRENEES (378)						
		e	36	49.50		RJF	152.34	360	iPKPd	34	51.70	7.4X	ML 2.9 (LDG)							
GRF	146.96	348	ePKPd	34	39.20	3.1X	PCP	152.42	349	PKP	34	50.56	6.1X	EPF	0.90	280	Pg	28	54.60	-0.2
KHC	146.97	345	PKPd	34	35.70	-0.4	PZZ	152.70	351	PKP	34	51.59	6.6X			Sg	29	12.30		
		i	34	39.00		CAF	152.71	359	ePKP	34	52.80	7.9X	LPO	1.83	352	Pg	29	08.30	-1.1	
MBH	147.04	298	ePKPd	34	39.00	2.3		0.6s	6.30nm						Sg	29	12.30			
SNF	147.04	356	PKPd	34	39.00	2.9X	ROB	152.78	350	PKP	34	51.59	6.6X	CAF	2.08	10	Pg	29	11.30	-1.8
BZS	147.30	333	ePKP	34	39.50	2.8X	FIN	152.80	349	PKP	34	51.08	6.1X			Sg	29	12.30		
ABH	147.37	352	ePKP	34	39.91	3.2X	STV	152.92	350	PKP	34	51.28	6.0X	LFF	2.14	344	Pg	29	15.60	1.6
DOU	147.44	356	iPKPd	34	40.10	3.3X	ENR	152.92	350	PKP	34	51.18	5.9X			Sg	29	47.30		
SOP	147.45	341	iPKPd	34	41.90	5.0X	LPO	152.96	0	ePKP	34	53.00	7.8X	RJF	2.43	359	Pg	29	19.10	1.0
TOD	147.47	351	ePKP	34	40.00	3.1X		0.8s	8.05nm						Sg	29	53.00			
RUP	147.60	353	ePKP	34	40.75	3.6X	SBF	153.27	350	iPKPd	34	53.30	7.6X	MAF	3.42	12	Pg	29	36.30	4.1X
KTD	147.85	352	ePKP	34	41.14	3.6X		0.4s	6.85nm						Sg	30	22.00			
GWf	148.25	352	PKP	34	42.35	4.2X	BCAO	158.66	234	iPKPd	34	53.10	-0.2	TCF	3.44	8	Pg	29	36.30	3.8X
FUR	148.40	347	iPKPd	34	42.70	4.3X			i	35	33.40				Sg	30	23.60			
WLS	148.84	352	PKP	34	43.63	4.5X	LIC	167.15	151	PKP	35	01.20	0.0	BGF	3.80	14	Pg	29	43.00	5.5X
CDF	148.85	352	iPKPd	34	43.80	4.6X	KIC	167.40	151	PKP	35	01.60	0.2			Sg	30	32.50		
	0.6s	23.45nm				TIC	167.52	150	PKP	35	01.60	0.1	PRU	11.43	47	eP	31	24.50	0.5	
FLN	148.85	2	iPKPd	34	43.40	4.4X	LKO	169.60	139	PKP	35	02.46	-0.3	S.D. = 1.7 on 6 of 9 obs.						
	0.7s	46.30nm					1.0s	26.50nm					APR 13, 1990 11h 31m 56.47±2.22s							
KBA	148.93	344	iPKPd	34	43.10	3.6X	S.D. = 1.2 on 123 of 203 obs.						4.136 N ±20.7km 97.475 E ±17.4km							
LDF	149.03	2	iPKPd	34	43.80	4.5X	* APR 13, 1990 10h 39m 09.55±0.51s						DEPTH = 162.1 ± 22.0 km							
	0.7s	27.80nm				15.048 N ± 9.2km 147.577 E ± 9.6km						4.2mb (3 obs.)								
ECH	149.05	352	PKP	34	43.87	4.5X	DEPTH = 33.0km (normal)						NORTHERN SUMATERA (706)							
VITF	149.19	354	PKP	34	44.32	4.8X	4.6mb (3 obs.)						IPM 3.57 83 ePc 32 51.60 -0.5							
GRR	149.21	3	iPKPd	34	44.50	4.9X	MARIANA ISLANDS REGION (215)						0.6s 49.10nm e 33 36.60							
	0.6s	28.85nm				GUA	2.99	240	eP	39	56.20	0.5	SNG	4.35	46	eP	33	02.90	0.7	
PTJ	149.22	340	ePKP	34	35.70	-4.1X			eS	40	31.30			0.5s	183.10nm					
FEL	149.27	351	ePKP	34	44.37	4.5X	PJG	3.00	241	eP	39	56.10	0.2	CHG	14.66	6	eP	35	25.00	7.7X
SLE	149.30	350	ePKPd	34	44.50	4.7X	WB5	37.06	201	eP	46	18.00	-0.5	GBA	21.90	297	Pd	36	38.10	0.8
HAU	149.36	353	iPKPd	34	45.00	5.1X	WRA	37.13	201	Pd	46	18.80	-0.3		1.0s	8.90nm			4.2mb	
	0.6s	16.25nm				LZH	44.21	307	eP	47	18.50	0.9	SHL	21.97	346	eP	36	37.70	-0.5	
RBL	149.46	343	PKP	34	44.50	4.4X		2.0s	51.00nm			5.0mb	HYB	22.76	307	eP	36	45.00	-0.8	
BSF	149.48	353	iPKPd	34	45.20	5.0X	CHTO	46.57	282	eP	47	36.80	0.4	WB5	43.40	125	eP	39	45.20	0.3
	0.6s	13.55nm				GUN	58.30	294	P	49	04.00	-0.3	WRA	43.41	125	Pd	39	44.70	-0.2	
FVI	149.53	344	PKP	34	44.10	4.0X	PKI	58.72	293	P	49	06.40	-0.8	HFS	0.5s	5.30nm			4.4mb	
LJU	149.54	342	e(PKP)	34	45.00	4.8X	DMN	58.99	293	P	49	08.60	-0.4		83.33	330	ePKP	44	06.50	0.4
LPF	149.55	3	iPKPd	34	45.60	5.5X	GKN	59.39	294	P	49	11.10	-0.6	S.D. = 0.8 on 8 of 9 obs.						
	0.8s	64.50nm				MBC	76.22	14	eP	50	56.50	0.5	APR 13, 1990 11h 48m 25.29s							
ZLA	149.60	350	ePKPd	34	45.30	5.0X	YKA	80.36	28	eP	51	17.90	-0.9	60.878 N 151.037 W						
SAX	149.66	349	ePKPd	34	45.80	5.1X		0.8s	0.90nm			3.8mb	DEPTH = 18.3km							
VOY	149.74	342	iPKPd	34	45.30	4.7X	KIC	145.28	306	PKP	58	46.40	-0.2	KENAI PENINSULA, ALASKA (14)						
BBS	149.74	352	PKP	34	45.75	5.3X	TIC	145.33	307	PKP	58	46.50	-0.1	<AGS-P>						
VBY	149.80	340	iPKPd	34	46.20	5.6X	LIC	145.59	306	PKP	58	47.30	0.2	NKA	0.17	216	iP	48	31.73	1.9
CEY	149.85	342	ePKPd	34	45.90	5.2X	ZOBO	145.63	97	PKP	58	49.20	1.4	SLKM	0.55	132	iP	48	35.50	-0.6
LOMF	149.95	352	PKP	34	46.16	5.3X	S.D. = 0.7 on 16 of 16 obs.						SPU	0.58	302	iP	48	36.02	-0.7	
OSS	150.05	348	ePKPd	34	46.90	5.8X	* APR 13, 1990 10h 51m 41.20±0.91s						SUA	0.60	13	iP	48	36.64	-0.5	
TRI	150.07	342	PKP	34	41.00	0.1	17.845 N ±16.8km 93.693 W ±12.0km								eS	48	45.31			
LLS	150.09	349	ePKPd	34	46.80	5.6X	DEPTH = 33.0km (normal)						CRP	0.67	306	iP	48	37.76	-0.5	
VAY	150.09	327	ePKP	34	45.70	4.6X	3.3mb (1 obs.)						CKL	0.71	297	iP	48	38.18	-0.7	
SKO	150.19	329	iPKPd	34	46.70	5.4X	CHIAPAS, MEXICO (61)						RDT	0.74	246	iP	48	38.59	-0.8	
		i	34	55.00		SCX	1.50	137	iP	52	08.58	2.6			iS	48	48.57			
LOR	150.30	356	iPKPd	34	47.30	6.0X	OXX	2.99	256	iPd	52	26.76	-0.8	NCG	0.76	315	iP	48	38.95	-0.8
	0.6s	28.20nm				LVVM	3.22	306	iPc	52	29.91	-0.7	BGL	0.76	301	iP	48	39.18	-0.6	
CTI	150.32	345	PKP	34	46.90	5.4X	TPX	3.23	155	eP	52	32.00	1.2			iS	48	49.39		
VDL	150.37	349	ePKPd	34	47.60	5.9X			(S)	53	12.00		PMS	0.81	62	iP	48	39.40	-1.1	
SSF	150.53	357	iPKPd	34	47.90	6.3X														
LBF	150.58	356	iPKPd	34	47.80	6.0X														
	0.7s	18.75nm																		
AVF	150.80	357	iPKPd	34	48.20	6.2X														
	0.6s	9.00nm																		

13d 11h

NNL	0.85	189	iP	48 41.76	0.6
			eS	48 53.49	
PWA	0.96	35	eP	48 42.44	-0.6
			iS	48 55.35	
RED	0.97	242	iP	48 42.31	-1.0
			eS	48 55.25	
SEW	1.11	134	eP	48 44.51	-1.0
			eS	48 58.87	
SKT	1.13	348	iP	48 45.18	-0.8
			eS	49 00.33	
PLRM	1.17	51	eP	48 44.55	-2.0
			eS	49 00.24	
GHO	1.36	48	eP	48 47.95	-1.4
			eS	49 06.26	
CNPM	1.36	184	eP	48 48.38	-1.0
			eS	49 05.86	
XLV	1.47	194	eP	48 50.41	-0.5
			eS	49 09.13	
CUT	1.58	13	iP	48 52.06	-0.4
			eS	49 12.03	
PDB	1.91	237	eP	48 56.83	-0.5
			eS	49 19.97	
AUE	1.92	219	eP	48 57.49	0.1
AUL	1.92	220	eP	48 57.89	0.4
GLI	1.93	88	eP	48 56.82	-0.7
			eS	49 21.35	
VZW	2.19	83	eP	49 01.28	-0.2
			eS	49 28.28	
HUR	2.21	17	eP	49 02.68	1.0
			eS	49 29.26	
SVW	2.25	278	eP	49 00.95	-1.3
NCA	2.31	59	eP	49 03.57	0.4
			eS	49 33.77	
CDD	2.35	215	iP	49 03.54	-0.2
KLU	2.55	74	eP	49 06.37	-0.2
TOA	2.64	60	eP	49 08.77	1.0
KTH	2.69	1	eP	49 08.90	0.4
RND	2.74	21	eP	49 09.01	-0.2
			eS	49 48.07	
MCK	3.03	18	eP	49 14.48	1.2
PAX	3.37	49	eP	49 19.62	1.5
GLB	3.55	78	eP	49 18.94	-1.7
DDM	3.79	37	eP	49 26.99	2.9
WRH	3.85	19	eP	49 25.05	0.1
HDA	4.01	26	eP	49 28.17	1.0
TGL	4.02	88	eP	49 30.11	2.7
CCB	4.06	20	eP	49 28.04	0.2
GLM	4.45	20	eP	49 33.16	-0.3
42 obs. associated					

? APR 13, 1990 13h 19m 39.88±1.15s
36 337 N ±15.7km 27.360 E ±10.1km
DEPTH = 33.0km (normol)

DODECANESE ISLANDS (369)

SMG	1.43	343	ePb	20 04.50	0.8
APE	1.64	297	ePn	20 05.60	-1.3
KSL	1.81	96	ePn	20 09.00	-0.2
VAM	2.73	251	ePn	20 23.00	0.7

S.D. = 1.6 on 4 of 4 obs.

APR 13, 1990 14h 17m 04.03±0.35s
7.120 S ± 9.7km 106.695 E ±10.5km
DEPTH = 33.0km (normol)
5.0mb (4 obs.)

JAVA (277)

NANU	17.55	152	eP	21 06.00	-1.9
			eS	24 04.00	
MBL	18.87	139	eP	21 25.00	0.8
			eS	24 38.00	
MTN	24.72	105	eP	22 23.00	-0.8
CHG	26.88	344	eP	22 43.80	-0.2
WB5	29.68	118	eP	23 11.10	1.7
WRA	29.68	118	P	23 10.00	0.6
	0.6s	3.50nm			4.3mb
KMI	32.28	353	eP	23 33.50	1.2
QIS	34.54	116	iPd	23 51.20	-0.6
GBA	35.61	305	Pd	24 02.20	1.3
	0.8s	19.00nm			5.1mb
HYB	36.98	312	eP	24 13.60	1.1
PKI	40.17	330	P	24 37.80	-1.5
GUN	40.22	331	P	24 38.60	-1.2
DMN	40.35	330	P	24 39.40	-1.3
KKN	40.41	330	P	24 40.00	-1.2
GKN	40.91	330	P	24 43.90	-1.3
NDI	45.55	323	eP	25 28.00	5.3X

BRS	48.06	121	iP	25 43.00	0.4
MAIO	61.83	318	eP	27 22.00	-0.5
IR4	67.30	313	eP	27 58.50	0.4
IR2	67.49	313	iPc	28 00.00	0.7
IR5	67.52	313	eP	28 01.00	1.5
IR7	67.72	313	iPc	28 01.50	0.7
VNDA	75.90	169	e(P)	28 48.20	-0.5
SLR	76.53	245	iPc	28 54.00	0.7
	1.0s	25.00nm			5.2mb
KSR	77.77	245	eP	28 59.20	-1.0
BFS	77.84	244	eP	28 55.00	-5.5X
BLF	78.30	242	eP	29 02.00	-1.1
SPA	82.93	180	eP	29 27.00	0.1
	1.1s	11.90nm			4.9mb
MLR	88.59	316	ePc	29 56.50	1.3
SUF	91.96	333	eP	30 10.60	0.3
YKA	117.08	20	ePKP	35 45.70	-1.2
	0.5s	0.40nm			
BAO	146.24	228	ePKP	36 44.30	1.5

S.D. = 1.1 on 30 of 32 obs.

APR 13, 1990 14h 50m 36.82±0.95s
15.659 N ± 6.6km 60.996 W ±13.3km
DEPTH = 33.0km (normol)
LEEWARD ISLANDS (92)
ML 2.6 (FDF).

MGG	0.40	310	ePd	50 45.85	-0.1
			S	50 51.00	
BBL	0.48	254	ePd	50 46.99	-0.2
			S	50 53.40	
PAG	0.75	299	ePd	50 51.54	0.5
			S	54 01.30	
SEG	0.89	327	eP	50 53.38	0.5
			S	51 04.00	
CRM	0.90	175	iPc	50 52.91	-0.2
FDF	0.93	189	iPc	50 53.36	-0.2
	0.1s	0.55nm			
			S	51 05.00	
MVM	1.10	175	iPc	50 56.20	0.2
			S	51 10.10	
BIM	1.14	184	eP	50 56.86	0.3
			S	51 10.90	
BPA	1.61	329	eP	51 02.60	-0.7

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

APR 13, 1990 15h 21m 51.45±0.51s
41.400 N ± 4.0km 22.778 E ± 4.5km
DEPTH = 5.0km (geophysicist)

YUGOSLAVIA (383)

KKB	0.52	26	iPg	22 01.00	-0.9
			iSg	22 08.00	
SRS	0.68	114	ePg	22 05.10	0.1
			eSg	22 14.40	
SOH	0.72	143	ePg	22 06.20	0.3
			eSg	22 16.50	
MMB	0.74	75	iPg	22 06.00	-0.2
			eSg	22 17.00	
THE	0.78	169	ePg	22 06.40	-0.6
			eSg	22 17.30	
SKO	1.15	300	e(Pg)	22 13.20	-0.3
FNA	1.23	240	ePb	22 15.00	0.3
			eSb	22 31.90	
VTS	1.23	15	iPg	22 16.00	1.1
			iSg	22 34.00	
LIT	1.32	190	ePb	22 16.30	0.0
			eSb	22 33.70	
OUR	1.40	139	ePb	22 17.80	0.1
			eSb	22 36.60	

S.D. = 0.6 on 10 of 10 obs.

APR 13, 1990 15h 25m 04.17±0.53s
3.858 N ± 5.6km 76.298 W ± 7.1km
DEPTH = 164.1 ± 6.4 km
4.6mb (7 obs.)

COLOMBIA (103)

Felt (III) in the Buenaventura-
Colli-Tulua area.

BOG	2.35	71	eP	25 47.00	2.0
			eS	26 17.50	
PSO	2.84	201	iPc	25 50.50	-0.5
FUO	3.01	58	eP	25 54.00	0.9
COTA	4.05	210	P	26 05.80	-0.8
			eS	26 51.00	
CAYA	4.11	204	P	26 07.50	0.0

BMG	4.53	45	iPc	26 12.00	-0.5
QUR	4.58	209	eP	26 12.80	-0.7
GGP	4.62	210	P+	26 13.20	-1.0
			S	27 12.40	
VC1	4.94	205	P	26 18.00	-0.3
UPA	6.02	328	iPd	26 31.20	-0.9
	1.0s	80.00nm			4.9mb X
			iS	27 42.00	
NNA	15.75	182	iP	28 41.00	2.4
	0.9s	14.29nm			4.3mb
BIM	18.37	54	eP	29 08.30	-0.9
FDF	18.43	53	eP	29 10.01	0.2
MVM	18.53	54	eP	29 10.33	-0.6
CRM	18.63	53	eP	29 12.06	0.2
ARE	20.74	167	eP	29 35.00	1.2
ZOBO	21.57	158	P	29 41.20	-1.1
	0.9s	16.65nm			4.5mb
LPB	21.82	158	P	29 43.00	-1.6
CCH	23.36	155	P	30 02.10	2.6
BAO	34.06	125	eP	31 34.50	-0.5
ANMO	41.68	322	eP	32 40.80	2.4
BW06	48.74	328	eP	33 35.00	0.7
KVN	51.60	319	eP	33 57.00	0.9
LRM	52.33	329	eP	34 02.20	0.8
FFC	54.83	342	eP	34 18.00	-1.2
	0.6s	5.00nm			4.5mb
YKA	64.99	341	eP	35 26.70	-1.6
	0.5s	2.90nm			4.4mb
LKO	70.36	81	P	36 01.54	-1.1
	0.8s	20.50nm			5.0mb
TIC	70.98	84	P	36 05.26	-1.1
LIC	70.99	85	P	36 05.44	-1.0
KIC	71.27	85	Pc	36 07.20	-0.9
	0.7s	13.50nm			4.9mb
BCAO	94.51	85	iPd	38 07.70	0.0
	0.5s	4.00nm			4.9mb
WRA	146.13	239	PKPc	44 27.20	1.0
	0.8s	6.20nm			
WB5	146.13	239	ePKP	44 27.20	1.0
GBA	148.69	56	PKPd	44 34.40	4.1X
	0.7s	4.60nm			

S.D. = 1.3 on 33 of 34 obs.

APR 13, 1990 16h 01m 33.11±0.69s
6.817 N ± 5.1km 71.926 W ± 5.1km
DEPTH = 38.3 ± 7.6 km
4.7mb (7 obs.) 4.2MsZ (1 obs.)
NORTHERN COLOMBIA (99)

BMG	1.17	283	eP	01 54.50	1.2
BOG	3.05	224	eP	02 21.00	0.7
			iS	03 10.00	
PLAV	5.33	55	iPd	02 52.00	-0.5
			iS	03 55.00	
GUAC	5.70	54	eP	03 00.00	2.3
OLLA	5.98	58	eP	03 01.00	-0.7
			iS	04 10.00	
LLAV	6.23	54	iPd	03 05.50	0.3
			iS	04 14.00	
GUAN	6.95	63	iPc	03 13.50	-1.8
			iS	04 20.00	
PSO	7.76	224	eP	03 27.00	0.1
UPA	7.84	286	eP	03 26.00	-1.6
PT08	19.21	194	iPc	05 56.00	-1.3
NNA	19.31	195	eP	05 59.00	0.9
	0.9s	8.40nm			4.0mb
ZOBO	23.24	171	P	06 38.00	-0.7
	1.0s	28.75nm			4.7mb
Z	18s	0.85um			4.2MsZ
			S	10 56.00	
			LR	14 08.00	
LPB	23.51	171	P	06 41.00	-0.1
Z	16s	1.35um			4.5MsZ X
			SS	13 50.00	
			LR	15 20.00	
CCH	24.71	167	P	06 53.90	1.2
BAO	32.55	133	eP	08 02.50	-0.7
TUL	36.29	326	eP	08 35.20	0.3
	0.9s	9.90nm			4.7mb
ANMO	42.33	316	eP	09 26.50	1.1
GLA	47.55	309	eP	10 07.00	-0.1
SCH	48.04	4	eP	10 11.00	0.5
PLM	49.24	309	eP	10 20.00	-0.3
GSC	49.96	311	eP	10 26.00	0.3
SBB	50.49	310	eP	10 29.00	-0.7
LRM	52.26	325	ePc	10 43.70	0.5
KVN	52.45	315	eP	10 44.60	-0.1

13d 16h

FFC 53.51 339 iPc 10 51.50 -0.5
 0.5s 6.00nm 4.9mb
 SES 54.29 330 eP 10 58.00 0.2
 FRB 56.87 2 eP 11 14.50 -1.7
 EDM 57.18 332 iPc 11 17.80 -0.9
 YKA 63.68 339 eP 12 01.30 -1.4
 0.8s 14.20nm 5.1mb
 INK 73.44 340 eP 13 03.00 0.0
 MBC 74.02 349 eP 13 07.00 0.7
 1.0s 7.00nm 4.6mb
 NB2 80.75 29 P 13 45.40 1.5
 0.9s 8.00nm 4.7mb
 KHC 81.95 41 eP 13 52.20 1.8
 OIS 146.55 243 ePKP 21 11.00 -0.5
 WB5 151.37 240 ePKP 21 24.20 5.2X
 S.D. = 1.1 on 34 of 35 obs.

APR 13, 1990 16h 26m 14.93± 0.49s
 58.879 N ± 4.0km 154.419 W ± 5.1km
 DEPTH = 121.2 ± 3.5 km
 4.4mb (8 obs.)

ALASKA PENINSULA (12)
 Felt (11) at Iliamna and
 Nondalton.

CDD 0.41 83 iP 26 31.80 -1.0
 BGM 0.66 321 iP 26 34.48 0.1
 eS 26 48.56
 AUL 0.72 45 iP 26 35.29 0.5
 AUE 0.72 48 iP 26 35.40 0.6
 PDB 0.92 7 iP 26 37.39 0.8
 eS 26 53.81
 XLV 1.50 66 eP 26 42.91 0.1
 iS 27 04.52
 KDC 1.52 137 iPd 26 40.00 -3.0
 RED 1.76 28 iP 26 47.37 1.4
 CNPM 1.76 67 eP 26 45.83 -0.1
 eS 27 09.00
 >NNL 1.98 52 eP 26 49.90 1.3
 RDT 1.98 30 iP 26 49.85 1.1
 eS 27 15.16
 BRK 2.02 62 eP 26 49.99 0.8
 eS 27 13.91
 SVW 2.32 345 iPd 26 54.60 1.6
 NKA 2.47 39 eP 26 57.09 2.3
 CKL 2.55 23 iP 26 57.71 1.6
 SPU 2.60 26 iP 26 57.85 1.2
 BGL 2.60 22 iP 26 58.60 1.9
 CRP 2.65 24 iP 26 59.02 1.6
 SLKM 2.68 51 eP 26 57.43 -0.3
 NCG 2.77 23 iP 27 00.68 1.6
 SEW 2.82 62 eP 26 58.73 -0.7
 SUA 3.18 34 iP 27 05.22 0.8
 eS 27 43.30
 PMS 3.40 44 iPd 27 07.60 0.3
 SKT 3.43 23 iP 27 08.54 0.9
 PWA 3.58 37 iPd 27 10.10 0.4
 MTU 3.63 69 eP 27 10.17 -0.2
 PLRM 3.79 42 eP 27 11.89 -0.6
 PMR 3.79 42 iPd 27 11.90 -0.6
 GH0 3.99 41 iP 27 14.69 -0.5
 CUT 4.08 28 eP 27 16.72 0.3
 TTA 4.14 350 iPd 27 19.00 1.7
 MID 4.20 79 eP 27 17.00 -1.0
 GLI 4.20 58 iP 27 16.38 -1.7
 SML 4.22 43 eP 27 18.47 0.2
 VZW 4.52 58 eP 27 21.09 -1.3
 HUR 4.73 28 eP 27 25.82 0.6
 SDN 4.85 226 eP 27 24.30 -2.6
 NCA 4.89 47 eP 27 26.78 -0.7
 KTH 4.98 18 eP 27 28.94 0.1
 KLU 4.99 55 iP 27 27.93 -0.9
 TOA 5.20 48 ePd 27 31.30 -0.5
 RND 5.28 28 eP 27 32.42 -0.4
 MCK 5.54 26 eP 27 36.03 -0.3
 GLB 5.89 60 eP 27 39.76 -1.4
 PAX 5.99 43 eP 27 41.86 -0.7
 TGL 6.14 67 eP 27 43.79 -0.9
 NEA 6.25 22 eP 27 45.09 -1.0
 WRH 6.37 26 eP 27 46.30 -1.3
 DDM 6.41 36 eP 27 48.77 0.4
 HDA 6.58 29 eP 27 49.24 -1.4
 RDS 6.66 24 eP 27 50.26 -1.4
 FBA 6.80 25 ePd 27 52.20 -1.3
 GLM 6.97 25 eP 27 54.47 -1.3
 IMA 7.22 2 iPd 28 00.20 0.8
 PCA 7.31 74 eP 27 59.47 -1.1

YKU 7.57 79 eP 28 06.80 2.9
 BCPM 7.62 76 eP 28 03.78 -0.9
 HON 8.01 79 eP 28 08.21 -1.7
 HYT 8.73 70 P 28 20.00 0.2
 DWY 8.84 48 P 28 20.00 -1.1
 SIT 10.30 92 eP 28 38.20 -2.4
 BRW 12.51 357 eP 29 09.20 -0.4
 INK 13.17 36 eP 29 17.00 -1.1
 0.5s 30.00nm 5.0mb
 ADK 14.42 251 e(P) 29 37.30 3.2X
 YKA 19.60 62 eP 30 36.00 0.5
 0.6s 5.70nm 4.1mb
 MBC 21.34 22 eP 30 52.00 -0.9
 0.5s 8.00nm 4.3mb
 EDM 23.33 86 iPc 31 14.00 1.4
 0.5s 15.00nm 4.7mb
 NEW 24.24 100 eP 31 22.00 0.6
 SES 26.08 90 eP 31 39.00 0.5
 WDC 27.17 118 eP 31 49.70 1.3
 MIN 27.79 117 eP 31 55.00 0.8
 LRM 28.25 99 eP 31 58.80 0.4
 FFC 28.39 75 iPc 31 59.90 0.6
 0.6s 8.00nm 4.6mb
 ORV 28.47 118 eP 32 00.10 0.0
 CMB 30.21 119 eP 32 16.30 0.7
 KVN 30.45 115 eP 32 18.50 0.5
 LLA 31.12 121 eP 32 24.80 1.1
 PRS 31.17 122 eP 32 24.90 0.8
 FRI 31.37 119 ePc 32 26.60 0.9
 TNP 31.64 115 eP 32 28.80 0.4
 PRI 31.64 121 eP 32 30.00 1.7
 BW06 31.86 100 eP 32 30.90 0.6
 RSSD 33.76 93 eP 32 47.80 1.1
 GSC 34.09 117 eP 32 50.00 0.5
 MWC 34.41 120 eP 32 51.00 -1.4
 PAS 34.43 120 eP 32 53.00 0.8
 RSON 34.71 76 eP 32 54.70 0.2
 RVR 34.92 119 eP 32 57.00 0.6
 TPC 35.43 117 eP 33 01.00 0.2
 PLM 35.68 119 eP 33 04.00 0.9
 GOL 36.26 100 eP 33 09.00 1.0
 GLA 36.87 117 eP 33 13.00 0.1
 FRB 38.56 45 eP 33 27.00 0.4
 DAG 41.75 14 eP 33 51.00 -1.7
 PWLA 48.80 89 eP 34 49.50 0.4
 BLA 51.03 81 eP 35 05.80 -0.4
 CVL 51.45 79 eP 35 09.50 0.3
 JSC 52.87 84 eP 35 18.70 -1.1
 SOD 54.06 359 eP 35 27.00 -1.2
 NB2 59.89 8 P 36 08.70 -0.8
 0.8s 2.20nm 4.3mb
 NUR 60.95 1 eP 36 15.00 -1.6
 HFS 60.96 7 eP 36 14.40 -2.3
 0.5s 0.90nm 4.0mb
 MOX 70.24 9 e(P) 37 16.00 0.0
 KHC 71.90 8 P 37 26.20 0.1
 KBA 73.93 9 iPd 37 38.40 0.3
 0.4s 2.90nm 4.4mb
 KMI 75.16 294 eP 37 33.50 -12.0X
 GUN 80.20 309 P 38 00.00 -13.3X
 SLR 146.82 356 ePKP 45 43.00 1.1X
 SPA 148.71 180 iPKPc 45 47.90 4.2X
 0.9s 8.64nm 46 20.10
 S.D. = 1.1 on 104 of 109 obs.

APR 13, 1990 16h 58m 29.95± 0.70s
 38.851 N ± 7.1km 21.931 E ± 6.7km
 DEPTH = 10.0km (geophysicist)
 3.2mb (1 obs.)

GREECE (364)
 ML 3.2 (ATH), 2.9 (THE).

AGG 0.36 61 ePg 58 36.70 -0.6
 eSg 58 44.30
 NEO 1.10 65 ePb 58 51.10 0.4
 eSb 59 07.10
 VLS 1.25 238 ePb 58 51.00 -2.1
 LIT 1.32 19 ePbc 58 53.70 -0.7
 eSb 59 15.30
 ATH 1.65 121 ePg 59 00.50 1.4
 ITM 1.67 180 ePg 59 03.00 3.6X
 KEK 1.87 298 ePb 59 04.00 1.8
 eSn 59 31.50
 FNA 1.98 348 ePb 59 03.70 -0.2
 eSb 59 30.30
 OUR 2.17 46 ePn 59 05.70 -0.9

SOH 2.25 29 ePn 59 07.20 -0.7
 VLI 2.27 159 ePb 59 08.70 0.6
 OHR 2.42 339 ePn 59 12.00 1.8
 VAY 2.52 11 ePn 59 14.70 3.2X
 YKA 73.13 341 eP 10 01.20 -0.8
 0.5s 0.10nm 3.2mb
 S.D. = 1.3 on 12 of 14 obs.

? APR 13, 1990 18h 10m 57.04± 4.46s
 10.029 S ± 40.6km 117.829 E ± 26.4km
 DEPTH = 33.0km (normal)
 3.4mb (1 obs.)

SOUTH OF SUMBAWA ISLAND (291)

MBL 11.23 170 eP 13 38.00 -0.4
 eS 15 37.00
 KNA 12.08 119 eP 13 49.80 -0.1
 eS 16 02.00
 NANU 12.66 190 eP 13 58.50 0.9
 eS 16 12.00
 WB5 18.72 123 eP 15 15.00 -0.4
 eS 18 37.70
 WRA 18.73 124 Pd 15 16.50 1.0
 0.6s 1.50nm 3.4mb
 COOL 20.98 172 eP 15 39.00 -1.0
 eS 19 22.00
 BRS 37.15 123 i(P) 18 06.90 0.0
 S.D. = 0.9 on 7 of 7 obs.

APR 13, 1990 19h 42m 54.67± 1.91s
 37.249 N ± 10.9km 71.627 E ± 6.5km
 DEPTH = 51.6 ± 20.7 km
 4.6mb (9 obs.)

AFGHANISTAN-USSR BORDER REGION (717)
 Felt (11) at Khorog, USSR.

QUE 8.05 210 eP 44 53.60 1.8
 eS 46 20.00
 NDI 9.74 150 iPd 45 17.00 2.0
 0.5s 26.76nm 5.6mb
 iS 46 58.00
 MAIO 9.78 268 iPd 45 14.30 -1.3
 0.7s 9.53nm 5.0mb
 eS 46 53.00
 GKN 14.31 126 P 46 14.00 -1.7
 KKN 14.87 125 P 46 23.00 -0.5
 DMN 14.88 126 P 46 23.60 -0.1
 PKI 15.10 126 P 46 25.60 -1.0
 GUN 15.18 124 P 46 26.20 -1.5
 HYB 20.68 161 ePd 47 33.20 0.4
 e 47 47.30
 SHL 20.80 118 iP 47 35.10 1.0
 iS 51 11.00
 BEE 21.13 244 iPn 47 36.70 -0.5
 GBA 24.11 166 Pc 48 06.60 0.0
 0.8s 3.20nm 3.9mb
 RYD 24.74 247 eP 48 12.50 -0.2
 LZH 25.81 83 eP 48 25.00 2.2
 1.5s 19.00nm 4.4mb
 KMSA 28.97 242 eP 48 49.70 -1.9
 CHTO 30.14 120 e(P) 49 02.00 0.0
 MLR 34.86 298 ePc 49 45.00 2.0
 NUR 37.52 324 eP 50 06.00 1.0
 SOD 39.28 334 eP 50 20.00 0.4
 HFS 42.79 321 eP 50 48.20 -0.3
 0.6s 10.90nm 4.8mb
 NB2 44.09 323 P 50 58.80 -0.3
 0.7s 4.20nm 4.3mb
 MBC 66.57 3 eP 53 41.00 0.1
 0.5s 4.00nm 4.7mb
 INK 73.09 10 eP 54 20.00 -0.7
 YKA 80.48 3 eP 55 01.10 -0.9
 0.6s 2.50nm 4.3mb
 FFC 88.23 356 eP 55 41.00 -0.2
 0.6s 5.00nm 4.9mb
 S.D. = 1.2 on 25 of 25 obs.

% APR 13, 1990 20h 32m 20.10± 0.48s
 44.811 N ± 3.5km 7.627 E ± 4.6km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.4 (GEN).

DOI 0.41 222 P 32 28.60 0.1
 eSg 32 34.20
 RSP 0.43 322 P 32 29.65 0.7
 PZZ 0.48 231 P 32 29.82 -0.2

ROB	0.54	161	P	32	36.36	0.6	LRG	0.61	243	Pg	08	55.50	0.0	AVE	3.17	224	iPnd	18	01.20	-1.0
			S	32	31.76					Sg	09	03.70					iSn	18	35.50	
			S	32	39.40												i	18	37.00	
ENR	0.60	194	P	32	31.91	-0.4		S.D. = 0.2	on	9 of	9 obs.			EALH	3.51	50	iPnd	18	07.50	0.7
			S	32	39.34												eSn	18	46.00	
STV	0.61	201	P	32	31.81	-0.6											iPnd	18	07.20	0.2
			S	32	39.48												eSn	18	46.00	
RRL	0.61	281	P	32	32.73	0.2											eP	18	14.00	-0.4
			S	32	40.97												iS	18	58.00	
PCP	0.71	112	P	32	34.43	0.3											iPnd	18	17.50	-0.2
LSD	0.73	333	P	32	34.43	-0.1											iPb	18	24.50	
FIN	0.73	145	P	32	34.47	0.0											iSn	19	03.50	
ORX	0.86	17	P	32	35.84	-0.9											iSb	19	19.00	
																	iSg	19	30.50	
								S.D. = 0.6	on	11 of	11 obs.						ePn	18	21.30	0.1
																	iPnd	18	20.90	-0.4
																	eSn	19	09.00	
																	iP	18	22.50	-0.2
																	iS	19	12.30	
																	iPc	18	24.50	-0.2
																	iS	19	14.50	
																	iPnd	18	27.30	-0.1
																	eSn	19	22.00	
																	iPnd	18	27.60	-0.6
																	eSn	19	21.00	
																	iPn	18	28.60	-0.8
																	iSn	19	23.70	
																	ePn	18	35.80	-0.4
																	iPnc	18	50.00	0.2
																	eSn	20	03.00	
																	e	23	00.70	-0.3
																	iPnd	18	54.60	-0.6
																	ePn	18	57.40	-0.4
																	iPn	18	58.00	0.0
																	ePn	19	00.70	0.5
																	ePn	19	05.40	-1.0
																	P	19	12.55	4.0X
																	P	19	09.16	-0.1
																	P	19	09.01	-0.3
																	iPn	19	08.90	-0.7
																	P	19	09.95	-0.2
																	P	19	09.84	-0.4
																	P	19	10.70	0.2
																	P	19	10.42	-0.3
																	P	19	11.72	0.5
																	P	19	12.55	0.3
																	Pn	19	13.80	-0.6
																	Sn	20	42.60	
																	Pn	19	36.60	-1.4
																	Pn	19	38.60	-0.5
																	Sn	21	24.90	
																	Pn	19	44.10	-1.0
																	Sn	21	36.80	
																	Pn	19	45.30	-1.5
																	P	19	53.72	-0.8
																	Pn	19	55.70	-0.7
																	Pn	20	00.30	2.5
																	Pn	20	00.60	2.6
																	Pn	19	56.60	-1.4
																	Sn	21	56.60	
																	P	19	58.60	-0.5
																	Pn	20	04.50	3.6X
																	Pn	19	59.60	-1.8
																	Pn	20	01.00	-1.2
																	P	19	59.41	-3.1X
																	P	20	02.19	-0.8
																	P	20	03.66	-1.0
																	Pn	20	06.00	-1.3
																	Pn	20	11.70	-0.4
																	Sn	22	20.40	
																	Pn	20	11.60	-0.7
																	Pn	20	16.20	3.5X
																	Pn	20	13.00	-0.1
																	Pn	20	15.40	-0.6
																	P	20	16.23	-0.5
																	Pn	20	16.60	-0.4
																	Sn	22	28.70	
																	Pn	20	17.00	-0.5
																	Pn	20	22.50	3.8X
																	Pn	20	22.20	3.5X
																	Pn	20	19.00	-1.0
																	Pn	20	21.30	0.0
																	Sn	22	39.00	
																	Pn	20	22.20	-0.4
																	Sn	22	40.00	
																	Pd	20	40.00	8.4X

13d 22h

VAI	14.48	41 P	20 42.10	6.9X
HAU	14.88	30 Pn	20 45.60	5.2X
BSF	14.93	32 Pn	20 46.40	5.3X
DOU	16.00	22 Pc	20 56.00	1.6
		e	21 12.90	
		S	23 43.80	
CTI	16.19	45 Pd	21 00.70	3.6X
SNF	16.27	21 P	21 01.70	3.8X
OGA	16.33	42 iPc	21 02.50	3.7X
ECP	16.59	357 eP	21 08.00	6.2X
ECB	16.80	356 eP	21 06.00	1.6
FVI	17.15	45 P	21 10.70	1.9
YRH	17.21	0 eP	21 16.00	6.5X
FUR	17.28	39 iPc	21 12.10	1.6
RBL	17.53	46 Pd	21 15.00	1.5
DLE	17.70	357 eP	21 20.70	5.1X

KBA	17.74	44 e(P)	21 12.00	-4.3X
	0.3s	3.60nm		4.1mb
		i	21 16.60	
		i	21 18.50	
DCN	17.80	355 eP	21 24.50	7.7X
GRF	18.28	35 eP	21 23.50	0.8
KHC	19.07	39 P	21 31.70	0.0
EKA	19.74	3 P	21 39.00	0.4
	0.8s	5.80nm		3.9mb
VKA	20.07	45 iPd	21 41.60	-0.5
		e	21 52.00	
CLL	20.23	34 iPd	21 44.90	1.2
	1.5s	20.00nm		4.2mb
MLR	25.21	58 ePd	22 34.00	1.4
VR1	25.83	57 ePc	22 38.50	0.3
LKO	25.97	182 P	22 39.72	0.0
	0.5s	9.50nm		4.6mb
CLI	26.35	56 ePd	22 45.00	2.0
HFS	27.29	20 eP	22 51.40	0.1
	0.3s	2.90nm		4.3mb
KIC	29.12	180 P	23 08.00	-0.3
BCAO	37.77	140 ePd	24 23.10	0.2
	0.5s	4.00nm		4.6mb
YKA	67.33	332 eP	28 01.30	0.5
	0.6s	0.60nm		3.7mb

S.D. = 1.0 on 91 of 109 obs.

* APR 13, 1990 22h 20m 11.40 ± 0.95s
38.254 N ± 8.8km 20.577 E ± 16.0km
DEPTH = 13.3 ± 5.9 km

GREECE (364)
MD 3.3 (ATH).

VLS	0.08	172 iPgc	20 14.30	0.0
ITM	1.52	135 ePb	20 38.10	-0.1
KEK	1.58	338 ePb	20 40.30	1.2
LSK	1.89	1 ePn	20 48.00	4.3X
TPE	2.09	348 ePn	20 49.50	3.1X
VLI	2.42	129 ePg	20 57.00	5.7X
BERA	2.49	349 ePn	20 58.50	6.3X
LCI	2.91	316 Pd	20 58.00	-0.1
VAY	3.43	26 ePn	21 05.30	-0.2
PHP	3.43	358 ePn	21 03.70	-1.8
SKO	3.77	10 ePn	21 12.00	1.6
PUK	3.82	352 ePn	21 09.70	-1.4

S.D. = 1.5 on 8 of 12 obs.

% APR 13, 1990 22h 21m 03.43 ± 3.00s
45.162 N ± 7.6km 6.499 E ± 22.3km
DEPTH = 10.0km (geophysicist)

FRANCE (538)

BNI	0.17	131 Pc	21 07.10	-0.2
		eSg	21 09.00	
RRL	0.32	140 P	21 09.91	-0.2
		S	21 14.73	
RSP	0.54	91 P	21 14.26	-0.1
		S	21 21.31	
LSD	0.55	57 P	21 14.81	0.0
		S	21 21.86	
PZZ	0.78	147 P	21 18.32	-0.5
		S	21 28.14	
STV	1.09	147 P	21 24.27	0.3
ENR	1.14	145 P	21 24.68	-0.2
ORX	1.15	65 P	21 24.72	-0.2
ROB	1.31	131 P	21 28.06	0.4

S.D. = 0.3 on 9 of 9 obs.

APR 13, 1990 22h 39m 58.20 ± 0.55s
45.148 N ± 3.7km 6.723 E ± 6.2km

DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.3 (LDG).

BNI	0.10	200 Pc	39 59.60	-1.5
		iSg	40 01.70	
RRL	0.23	169 P	40 02.41	-0.9
		S	40 07.13	
LPG	0.35	3 Pg	40 04.30	-1.2
		Sg	40 10.10	
LPL	0.37	1 Pg	40 04.50	-1.3
		Sg	40 10.40	
RSP	0.38	89 P	40 06.82	0.8
		S	40 13.07	
LSD	0.43	44 P	40 07.02	-0.1
		S	40 14.20	
PZZ	0.70	157 P	40 10.82	-1.3
		S	40 21.17	
DOI	0.74	150 P	40 12.00	-0.8
		eSn	40 23.50	
STV	1.00	154 P	40 16.87	-0.3
		S	40 30.89	
ORX	1.01	61 P	40 17.69	0.3
		S	40 31.28	
ENR	1.05	151 P	40 17.38	-0.6
ROB	1.18	136 P	40 20.46	0.2
SBF	1.38	158 Pg	40 24.50	0.9
FIN	1.42	131 P	40 24.15	0.1
PCP	1.43	114 P	40 25.69	1.4
FRF	1.59	182 Pg	40 27.10	0.7
		Sn	40 49.00	
LRG	1.71	189 Pg	40 28.70	0.5
LMR	1.82	185 Pg	40 30.70	0.9
		Sg	40 55.30	
SMF	2.51	308 Pg	40 41.90	2.2
		Sg	41 13.00	
BGF	3.05	299 Pg	40 52.20	4.8X

S.D. = 1.1 on 19 of 20 obs.

% APR 13, 1990 22h 42m 36.74 ± 3.85s
45.170 N ± 8.5km 6.434 E ± 28.9km
DEPTH = 10.0km (geophysicist)

FRANCE (538)

BNI	0.21	124 Pc	42 41.30	0.0
		eSg	42 43.50	
RRL	0.35	135 P	42 44.17	0.1
		S	42 47.62	
RSP	0.58	91 P	42 48.61	0.0
		S	42 54.62	
LSD	0.59	60 P	42 48.80	0.0
		S	42 55.80	
PZZ	0.82	144 P	42 52.71	0.0
		S	43 02.91	
STV	1.12	145 P	42 57.74	-0.1
ENR	1.18	143 P	42 58.82	0.0
ORX	1.18	66 P	42 58.93	0.0

S.D. = 0.1 on 8 of 8 obs.

APR 13, 1990 22h 46m 55.32 ± 0.27s
6.638 S ± 5.3km 130.513 E ± 8.4km
DEPTH = 17.7km (2 depth phoses)
5.2mb (15 obs.)

BANDA SEA (280)

MTN	6.20	174 iPd	48 31.10	2.8
KNA	9.22	191 iPd	49 10.80	0.4
	0.3s	255.00nm		7.0mb X
		eS	50 49.00	
MNI	9.82	325 eP	49 27.50	8.7X
WB5	13.69	164 iPd	50 08.20	-2.8
WRA	13.74	165 Pd	50 09.00	-2.7
	0.6s	164.90nm		6.1mb
OIS	16.41	148 iPc	50 45.00	-1.4
		eS	53 33.00	
TSM	16.45	311 ePd	50 56.10	9.1X
PMG	16.71	101 eP	50 55.50	5.3X
MBL	17.76	215 eP	51 03.30	0.0
		eS	54 07.00	
KKM	19.03	311 ePc	51 21.50	2.3
	0.3s	82.50nm		5.4mb
PPR	20.09	324 ePd	51 35.50	4.5X
	1.0s	83.00nm		5.0mb
CTA	20.30	133 iPc	51 35.20	2.0
	0.9s	33.61nm		4.7mb
		i(Pp)	51 39.00	14km
		i	51 53.50	

		eS	55 00.00	
		eSSS	55 32.00	
		i	57 51.00	
		iScP	59 45.00	
NANU	21.43	221 iPc	51 46.00	1.3
		eS	55 37.00	
FORR	24.19	185 eP	52 12.00	0.2
	0.4s	114.00nm		5.8mb
		eS	56 35.00	
COOL	25.67	199 eP	52 26.00	0.0
RMQ	26.30	141 eP	52 32.00	0.1
		e	52 48.00	68kmX
BAL	27.14	207 eP	52 40.00	0.5
		eS	57 49.00	
MUN	28.53	206 eP	52 52.00	-0.1
NWAO	28.93	204 eP	52 56.00	0.4
ADE	29.19	166 e(P)	52 57.20	-0.8
COO	31.14	143 iPc	53 17.00	1.6
BWA	32.22	152 iPc	53 26.80	2.0
CAN	33.23	152 eP	53 34.50	0.9
TOO	33.67	158 iPd	53 39.20	1.8
		e	54 29.00	246kmX
SSE	38.57	347 Pc	54 21.00	2.1
	1.0s	19.00nm		4.8mb
		i	54 49.50	127kmX
		i	56 31.70	
CHG	40.10	310 ePc	54 33.10	1.2
	1.0s	39.25nm		5.1mb
CHTO	40.10	310 ePc	54 33.00	1.1
		pP	54 39.30	21km
KMI	41.56	320 Pc+	54 46.00	2.0
	1.0s	0.10nm		2.5mb X
		pP	55 08.00	93kmX
		sP	55 14.50	
MAT	43.55	9 (P)	55 01.00	1.1
	0.9s	15.97nm		4.8mb
BJI	48.29	345 eP	55 38.50	1.0
	1.0s	42.00nm		5.4mb
		PcP	57 04.50	
LZH	49.33	331 P	55 47.00	1.3
	1.5s	38.00nm		5.2mb
		pP	56 09.00	91kmX
THZ	51.31	140 P	56 00.80	0.1
LTZ	51.44	141 P	56 01.70	0.0
KHZ	52.05	140 P	56 05.60	-0.6
MNG	52.45	137 eP	56 08.20	-1.1
GUN	55.10	311 Pc	56 29.20	-0.2
PKI	55.28	310 Pc	56 30.20	-0.5
KKN	55.49	310 Pc	56 32.00	-0.1
DMN	55.53	310 Pc	56 32.20	-0.2
GKN	56.09	310 Pc	56 36.10	-0.2
GBA	56.40	291 Pc	56 36.40	-2.1
	1.1s	12.50nm		4.9mb
HYB	56.61	296 iPc	56 38.50	-1.6
	1.0s	43.00nm		5.4mb
POO	61.20	295 iPd	57 11.00	-0.9
NDI	62.17	307 iPc	57 16.80	-1.5
	0.7s	58.22nm		5.8mb
BOM	62.25	295 eP	57 10.00	-8.9X
QUE	71.00	305 eP	58 14.50	-0.1
VNDA	72.74	173 P	58 24.70	0.8
MAIO	78.85	309 iPd	59 00.40	1.0
SPA	83.41	180 iPc	59 22.20	-0.7
	0.7s	15.63nm		5.3mb
INK	98.34	22 eP	00 32.00	-0.8
MBC	101.15	13 ePd diff	00 45.50	0.1
YKA	107.20	26 ePd diff	01 12.50	-0.1
	0.9s	0.70nm		4.7mb
YKA	107.20	26 ePKP	05 20.30	-1.4
	0.7s	0.50nm		
BCAO	112.30	272 ePKPc	05 31.90	-1.0
	0.5s	6.00nm		
BSF	117.16	321 ePKP	05 40.10	-1.3
	0.7s	5.50nm		
PGF	117.46	315 ePKP	05 41.00	-1.1
	0.4s	2.30nm		
LPG	118.03	319 ePKP	05 42.40	-0.9
	0.4s	2.30nm		
LPL	118.03	319 ePKP	05 42.40	-0.9
	0.4s	3.45nm		
SBF	118.13	317 ePKP	05 42.00	-1.3
	0.5s	4.35nm		
FRF	118.77	316 ePKP	05 43.30	-1.1
LMR	118.94	316 ePKP	05 43.60	-1.1
LOR	119.21	321 ePKP	05 44.20	-0.9
LBF	119.25	321 ePKP	05 44.30	-1.0
	0.7s	3.85nm		

SSF 119.51 321 ePKP 05 45.00 -0.7
0.7s 6.05nm
AVF 119.72 321 ePKP 05 45.10 -1.0
0.7s 3.85nm
BGF 120.13 321 ePKP 05 46.40 -0.5
0.7s 13.25nm
TCF 120.64 321 ePKP 05 47.30 -0.6
0.6s 3.60nm
LDF 121.02 324 ePKP 05 48.00 -0.5
FLN 121.15 324 ePKP 05 48.00 -0.7
FRB 121.36 10 ePKP 05 47.00 -1.6
MFF 121.97 322 ePKP 05 49.80 -0.6
0.5s 8.75nm
KIC 135.55 272 PKPd 06 17.92 0.6
0.7s 13.50nm
LIC 135.83 272 PKP 06 18.44 0.6
TIC 135.84 273 PKP 06 18.42 0.5
LKO 136.46 277 PKP 06 17.90 -1.2
NNA 147.10 124 iPKP 06 40.00 2.2
0.7s 23.97nm
MBO 147.13 286 iPKP 06 40.70 3.0X
ITB7 148.10 172 PKPd 06 41.50 2.4
ARE 148.37 137 ePKP 06 44.00 3.9X
ITB 148.42 172 e(PKP) 06 42.10 2.5
LPB 150.52 142 PKPc 06 50.20 6.7X
ZOBO 150.70 141 PKP 06 44.80 0.8
1.0s 50.00nm
i 06 50.10
CCH 151.01 146 PKP 06 52.50 8.4X
S.D. = 1.3 on 74 of 83 obs.

? APR 13, 1990 22h 53m 32.30±4.52s
45.238 N ±14.1km 6.164 E ±30.3km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

BNI 0.41 117 Pd 53 41.60 0.9
eSg 53 42.60
RRL 0.54 126 P 53 42.66 -0.7
S 53 46.35
LSD 0.73 72 P 53 47.07 0.2
S 53 54.14
RSP 0.78 96 P 53 46.90 -0.6
S 53 53.10
PZZ 0.99 137 P 53 50.97 -0.2
S 54 00.66
ENR 1.35 138 P 53 57.53 0.3
S.D. = 0.8 on 6 of 6 obs.

% APR 13, 1990 22h 59m 55.24±4.15s
45.148 N ±11.5km 6.523 E ±30.1km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

BNI 0.14 131 P 59 58.60 -0.1
eSn 00 01.00
RRL 0.29 141 P 00 01.63 0.2
S 00 05.32
RSP 0.52 89 P 00 05.73 -0.1
S 00 12.91
LSD 0.54 55 P 00 06.34 0.0
S 00 13.42
PZZ 0.76 147 P 00 10.24 0.0
S 00 21.11
ENR 1.12 145 P 00 16.19 -0.1
S.D. = 0.1 on 6 of 6 obs.

& APR 13, 1990 23h 21m 46.00s
48.826 N 122.182 W
DEPTH = 1.0km
WASHINGTON (29)
<SEA>. CL 2.2 (SEA).

MBW 0.19 103 P 21 50.18 0.3
VDB 0.21 15 Pd 21 50.41 0.3
S 21 54.31
CMW 0.40 174 Pd 21 53.48 -0.6
S 22 01.17
MCW 0.45 251 Pd 21 54.43 -0.6
HNB 0.52 330 Pd 21 55.19 -1.2
OHV 0.55 205 P 21 56.97 -0.1
RPW 0.58 130 ePd 21 56.71 -0.9
JCW 0.65 165 Pd 21 58.02 -1.1
SNB 0.66 266 P 21 58.30 -0.8
PGC 0.86 259 P 22 01.18 -2.0
VGZ 0.86 242 P 22 01.35 -1.9
S 22 13.04

BIB 0.94 309 P 22 02.34 -2.3
BLN 0.97 213 P 22 04.07 -1.3
HTW 1.06 165 P 22 05.49 -1.4
STW 1.20 236 P 22 07.09 -2.1
NAB 1.26 289 P 22 07.88 -2.4
HDW 1.31 207 Pc 22 09.14 -2.1
GMW 1.34 198 P 22 09.57 -2.1
SHB 1.35 305 Pd 22 09.46 -2.4
RMW 1.39 169 P 22 11.38 -1.1
OSD 1.43 226 P 22 11.55 -1.7
NLW 1.44 121 P 22 12.26 -1.0
PFB 1.52 261 P 22 12.07 -2.3
GSM 1.64 171 P 22 15.72 -0.6
MGB 1.66 277 P 22 14.47 -2.1
ETW 1.74 134 P 22 17.33 -0.3
DHW2 1.81 117 P 22 19.88 1.2
WTV 1.87 126 P 22 19.81 0.4
RVC 1.89 176 P 22 19.26 -0.5
FMW 1.93 170 P 22 19.55 -0.9
CPW 1.96 199 P 22 21.37 0.6
TBM 1.97 147 P 22 22.32 1.4
SAW 2.17 120 P 22 25.34 1.5
BTB 2.28 288 P 22 24.25 -1.3
34 obs. associated

? APR 14, 1990 03h 06m 00.68±9.32s
32.100 S ±72.6km 69.719 W ±76.1km
DEPTH = 120.0km (geophysicist)
MENDOZA PROVINCE, ARGENTINA (139)

RTCB 0.99 52 iP 06 22.90 -0.2
S 06 39.80
RTCV 1.03 77 e(P) 06 23.20 -0.2
S 06 40.80
RTLL 1.31 55 ePc 06 25.90 -0.5
eS 06 45.90
CFA 1.35 69 e(P) 06 27.50 0.7
S 06 41.50
RTRS 1.94 7 iPd 06 33.90 0.1
S.D. = 0.6 on 5 of 5 obs.

? APR 14, 1990 03h 09m 18.13±4.71s
45.160 N ±10.5km 6.462 E ±35.2km
DEPTH = 10.0km (geophysicist)
FRANCE (538)

BNI 0.19 125 P 09 22.10 -0.3
eSn 09 24.40
RRL 0.33 136 P 09 25.31 0.2
S 09 28.46
RSP 0.56 91 P 09 29.60 0.0
S 09 36.78
LSD 0.57 58 P 09 30.01 0.1
S 09 36.84
PZZ 0.80 145 P 09 33.70 0.0
S 09 44.15
ENR 1.16 143 P 09 39.75 -0.1
S.D. = 0.2 on 6 of 6 obs.

* APR 14, 1990 04h 22m 18.86±2.12s
11.974 N ±6.7km 60.183 W ±28.7km
DEPTH = 62.7 ±16.9 km
3.2mb (1 obs.)
WINDWARD ISLANDS (95)
MD 3.6 (TRN).

BOT 0.96 213 eP 22 35.85 -0.9
eS 22 52.88
TPR 0.98 217 eP 22 36.23 -0.7
eS 22 53.29
GRW 1.46 277 eP 22 42.91 -0.6
eS 23 02.15
FCV 1.57 319 eP 22 44.98 0.0
eS 23 04.84
SVB 1.66 321 eP 22 46.35 0.1
eS 23 06.61
TRN 1.78 222 eP 22 47.68 -0.2
eS 23 08.21
TCE 2.00 231 eP 22 51.26 0.3
eS 23 13.75
SLB 2.02 336 eP 22 51.93 0.6
eS 23 15.82
TPP 2.06 217 eP 22 53.73 1.9
eS 23 16.82
YKA 63.46 335 eP 32 43.70 -0.5
0.4s 0.10nm 3.2mb
S.D. = 1.0 on 10 of 10 obs.

? APR 14, 1990 04h 42m 24.86±2.34s
27.488 N ±24.6km 53.454 E ±21.8km
DEPTH = 51.3 ±19.8 km
4.2mb (4 obs.)

SOUTHERN IRAN (353)

BRF 2.93 242 ePn 43 13.00 3.0X
BEE 3.00 241 iPn 43 13.50 2.4
(Sn) 44 05.70
RYD 6.74 247 eP 44 02.00 -1.7
QASM 8.97 263 eP 44 32.00 -2.7
MAIO 10.17 29 eP 44 51.00 -0.1
PRNI 16.41 284 eP 46 15.00 1.8
BBTK 21.12 311 iPd 47 09.00 1.5
KHC 37.44 316 P 49 36.30 1.5
NUR 38.36 337 eP 49 42.00 -0.3
SUF 39.54 341 iP 49 51.80 -0.3
0.4s 1.60nm 4.2mb
HFS 42.33 332 eP 50 13.60 -1.5
0.4s 3.30nm 4.4mb
SOD 43.10 345 eP 50 21.00 -0.3
NB2 43.85 332 P 50 26.00 -1.5
0.6s 1.10nm 3.8mb
LIC 59.26 260 P 52 23.40 -0.4
MBC 76.42 358 eP 54 10.50 0.5
YKA 89.82 354 eP 55 19.80 0.8
0.7s 0.80nm 4.2mb
S.D. = 1.6 on 15 of 16 obs.

APR 14, 1990 05h 29m 50.05±1.16s
7.983 N ±5.1km 126.645 E ±6.7km
DEPTH = 66.1 ±9.8 km
5.5mb (28 obs.)

MINDANAO, PHILIPPINE ISLANDS (259)

CENTROID, MOMENT TENSOR (HRV)

Date Used: GDSN

L.P.B.: 12S, 24C

Centroid Location:

Origin Time 05:29:51.6 0.4

Lot 7.74N 0.06 Lon 126.92E 0.08

Dep 60.5 3.6 Half-duration 1.8

Moment Tensor: Scale 10*17 Nm

Mrr=0.99 0.08 Mtl=0.44 0.09

Mff=-1.43 0.13 Mrt=0.07 0.09

Mrf=0.10 0.08 Mtr=-0.78 0.09

Principal Axes:

T Val= 1.00 Plg=84 Azm=357

N 0.72 6 200

P -1.71 3 110

Best Double Couple: Mo=1.4*10*17

NP1: Strike=194 Dip=43 Slip= 81

NP2: 26 48 98

DAV 1.39 230 iPd- 30 14.20 0.5
PGP 7.83 315 ePc 31 49.00 5.3X
eS 32 36.80
PPR 8.02 283 ePd 31 45.50 -0.8
eS 32 29.00
TSM 9.31 247 ePd 32 07.80 3.8X
BAG 10.26 325 eP 32 16.00 -1.2
KKM 10.53 260 ePd 32 22.80 2.0
1.2s 323.40nm 6.2mb
CVP 10.74 335 eP 32 26.00 2.4
HKC 18.62 321 iP 34 05.00 0.1
eS 34 37.90
GUA 18.77 71 e(P) 34 15.50 8.7X
MTN 21.17 168 e(P) 34 29.50 -2.5
e 34 32.00 9kmX
e 38 19.00
SSE 23.55 348 Pc 34 54.60 -0.7
1.2s 28.00nm 4.6mb
Z 20s 1.30um 4.4msz
N 16s 0.60um

S 39 05.00
sS 39 24.00
SS 40 00.00
KNA 23.67 175 eP 34 56.00 -0.6
KGM 23.97 257 ePc 35 01.20 1.7
IPM 25.69 264 ePc 35 18.20 2.4
0.7s 151.00nm 5.6mb
SNG 25.81 270 eP 35 18.70 1.7
0.9s 126.05nm 5.4mb
LOE 26.02 294 iPc 35 18.50 -0.4
PMG 26.76 130 eP 35 30.00 4.4X
NNT 26.86 282 iPc 35 28.00 1.4
NST 27.03 289 iPd 35 30.30 2.2

14d 05h

KMI	28.47	310	Pc	35	41.00	-0.4	JARJ	86.39	302	Pc	42	27.50	0.6	SNB	0.67	264	Pd	33	38.71	-1.0
	1.2s	0.10nm			2.3mb	X	SHMJ	86.48	302	Pc	42	28.30	1.1	PGC	0.88	258	P	33	41.50	-1.7
		sP		35	54.00		BURJ	86.51	302	Pc	42	26.80	-0.7	VGZ	0.88	241	Pc	33	41.79	-1.5
WRA	28.77	165	Pc	35	41.20	-2.6	SOD	86.53	338	iP	42	25.70	-1.0	BIB	0.94	307	Pd	33	42.92	-1.3
	0.6s	2.40nm			4.0mb	X	WAJH	86.60	296	iPc	42	28.70	0.8	BLN	1.00	213	Pc	33	44.25	-1.0
CHG	28.97	295	iPc	35	45.90	0.2	DSI	86.95	301	eP	42	29.00	-0.5	BLH	1.01	175	Pd	33	45.17	-0.3
	1.1s	78.80nm			5.3mb		PRNI	87.44	300	iPc	42	32.00	0.1	WPB	1.06	320	Pd	33	45.05	-1.3
MBL	29.72	193	eP	35	51.30	-1.0	MBH	87.61	300	ePc	42	32.00	-0.7							
MAT	30.32	19	(P)	35	55.00	-2.5	VNDA	87.62	173	e(P)	42	30.90	-0.9	PGW	1.06	196	Pc	33	46.01	-0.4
	1.2s	73.44nm			5.3mb		BADA	87.68	298	iPc	42	33.70	0.7	HTW	1.07	166	Pd	33	45.76	-0.9
NANU	32.25	200	eP	36	13.00	-1.5	SUF	87.75	333	iP	42	31.80	-0.9	STW	1.22	236	Pc	33	47.50	-1.6
BJI	33.27	345	eP	36	21.00	-2.2		0.6s	52.30nm			5.9mb		NAB	1.27	288	Pd	33	48.25	-1.7
	1.0s	30.00nm			5.1mb		MBC	87.85	13	ePc	42	34.20	1.2							
Z	24s	0.64um			4.3msz	X		1.0s	103.00nm			5.9mb		SPW	1.29	183	Pc	33	50.51	0.2
		PcP		39	05.00		BBTK	87.92	310	iPd	42	33.50	-0.6	HDW	1.34	207	Pc	33	49.56	-1.5
		eS		41	32.00		NUR	88.97	331	iP	42	37.60	-0.9	SHB	1.35	304	Pd	33	49.90	-1.4
		eScP		42	43.00			0.8s	102.70nm			6.1mb								
CTA	33.92	146	iPc	36	30.30	1.2	VRI	91.18	316	ePd	42	49.00	-0.1	GMW	1.36	198	Pc	33	50.15	-1.2
		e		36	50.00	84kmX	MLR	91.79	316	eP	42	52.00	-0.2	WHB	1.38	338	Pd	33	50.72	-0.9
		e(S)		41	48.00		UPP	92.51	331	iP	42	54.20	-0.7	RMW	1.41	170	Pd	33	51.71	-0.3
LZH	34.87	327	eP	36	36.00	-1.2	DAG	93.07	352	iPc	42	55.90	-1.4	NLW	1.44	122	Pd	33	52.56	0.1
	1.4s	80.00nm			5.5mb			0.9s	43.70nm			5.9mb		OSD	1.45	226	Pc	33	51.79	-1.0
E	13s	0.30um					HFS	94.24	332	eP	43	01.10	-1.8	OBG	1.51	238	Pc	33	52.24	-1.2
		i		36	40.00			0.8s	31.40nm			5.8mb		PFB	1.53	261	P	33	52.22	-1.5
		i		36	43.50		NB2	94.96	334	P	43	04.60	-1.7	OTR	1.64	243	Pc	33	54.41	-0.9
		pP		36	51.00	60kmX		0.7s	11.70nm			5.4mb		GSM	1.66	171	Pc	33	55.60	-0.1
		sP		37	06.50		VAY	95.20	313	eP	43	06.40	-1.3	MEW	1.68	191	Pc	33	56.01	0.3
		i		37	13.00		KSP	96.41	323	eP	43	13.00	-0.1	MGB	1.68	276	Pd	33	54.73	-1.2
		i		37	28.00			1.0s	31.00nm			5.8mb		OSP	1.71	252	Pc	33	54.99	-1.2
		i		42	49.00				e		43	14.50	5kmX	OFK	1.72	239	P	33	56.00	-0.3
SHL	37.43	302	eP	36	58.50	-0.5	PRU	97.77	323	P	43	18.50	-0.7	SMW	1.72	208	Pc	33	56.02	-0.5
		iS		42	47.00		BRG	97.78	324	iP	43	20.40	1.2	PNT	1.74	73	Pc	33	57.60	0.9
								1.0s	20.00nm			5.6mb		ETW	1.74	135	Pd	33	57.16	0.3
BAL	39.54	194	eP	37	15.00	-1.3	CLL	98.16	324	eP	43	21.00	0.1	OOO	1.75	231	Pc	33	57.30	0.4
MUN	40.97	194	eP	37	28.00	0.0		1.1s	10.00nm			5.3mb		ALB	1.81	285	Pd	33	56.81	-0.8
NWAO	41.66	192	eP	37	34.00	0.4	KHC	98.68	322	P	43	23.50	0.1	DHW2	1.81	117	Pd	33	58.44	0.7
GUN	43.27	303	P	37	47.20	-0.2	MOX	99.23	324	eP	43	27.50	1.7	WTW	1.87	127	Pd	33	59.08	0.5
BRS	43.32	145	iP	37	41.00	-6.4X	KBA	99.62	320	e(P)	43	27.50	-0.4	OBH	1.90	218	Pc	33	59.31	0.3
		e		38	08.00	118kmX		0.8s	6.10nm			5.2mb		TWW	1.92	153	Pd	34	00.73	1.4
		i		39	36.50									FMW	1.94	170	Pc	33	59.95	0.1
		i		43	22.50		RBL	99.72	320	Pd	43	28.50	0.3	TBM	1.98	147	Pd	34	01.68	1.4
		i		47	34.50		GRF	99.86	323	ePKP	43	29.00	0.3	CPW	1.98	200	Pc	34	00.11	-0.2
PKI	43.56	302	P	37	49.00	-0.7	FVI	100.16	320	Pdiff	43	31.00	1.0	LOH	2.11	173	iPc	34	02.60	0.5
KKN	43.74	302	P	37	50.40	-0.6	CTI	101.10	320	Pdiff	43	35.00	0.6	SAW	2.17	121	Pd	34	02.87	-0.1
DMN	43.82	302	P	37	51.20	-0.6	PGD	101.92	318	Pdiff	43	40.00	1.8	LMW	2.18	182	Pc	34	03.48	0.3
GKN	44.34	302	P	37	55.00	-0.9	DOU	103.47	326	Pdiff	43	46.40	1.7	WPM	2.19	169	Pc	34	03.95	0.6
BWA	46.95	155	eP	38	16.10	-0.1	ORD	103.60	321	Pdiff	43	44.00	-1.6	OZB	2.20	274	P	34	02.82	-0.6
HYB	47.73	286	iPc	38	22.00	-0.6	GOL	112.49	41	ePKP	48	21.00	0.0	EBG	2.21	150	Pd	34	04.79	1.2
	1.0s	70.00nm			5.6mb		ANMO	114.19	46	ePKP	48	26.20	1.8	APW	2.22	189	P	34	03.46	-0.2
		e		39	51.00	458kmX		1.0s	2.00nm					ONR	2.25	209	Pc	34	04.33	0.3
CAN	47.96	155	eP	38	25.00	0.9	ALO	114.20	46	ePKP	48	25.00	0.6	EPH	2.28	130	P	34	04.31	-0.2
GBA	48.60	281	Pc	38	28.60	-0.6	LKO	129.34	289	PKP	48	52.92	-0.8	BTB	2.29	287	Pd	34	04.17	-0.7
	1.0s	48.60nm			5.5mb		KIC	129.47	285	PKP	48	54.60	0.6	NAC	2.30	156	Pc	34	05.96	1.2
DZM	49.13	128	iPd	38	33.60	0.2	TIC	129.66	285	PKP	48	54.88	0.5	GLK	2.31	171	Pc	34	06.35	1.2
NDI	50.81	301	iPc	38	40.00	-6.1X	LIC	129.78	285	PKP	48	55.14	0.6	KOSW	2.39	180	Pd	34	06.82	0.7
	0.8s	59.70nm			5.7mb		UPA	148.95	58	iPKPd	49	33.50	4.7X	VTG	2.39	141	Pd	34	06.40	0.4
POO	52.28	287	iPd	38	57.00	-0.4		1.0s	140.00nm					CBB	2.41	301	Pd	34	05.46	-0.8
QUE	59.88	300	eP	39	50.50	-1.4	LPB	163.28	122	PKP	49	50.00	2.7	CZM	2.42	186	Pc	34	07.19	0.6
	1.1s	56.96nm			5.6mb		ZOBO	163.39	121	PKP	49	49.20	1.6	BMW	2.48	197	Pc	34	07.70	0.3
ADK	63.54	35	eP	40	13.30	-2.4		1.1s	13.05nm					TDL	2.50	181	Pc	34	08.41	0.7
MAIO	66.92	306	iPc	40	37.00	-0.9		Z	20s	0.10um				ERK	2.54	183	Pc	34	08.98	0.6
		eS		50	24.00				LR		19	36.00		BVW	2.55	142	P	34	08.56	0.2
IR2	73.82	305	iPc	41	18.50	-1.3	CCH	164.42	128	PKP	49	50.80	2.5	YAKW	2.57	154	P	34	09.40	0.7
BRF	74.05	295	iP	41	21.60	0.6		S.D. = 1.2	on 107 of 114 obs.					MXC	2.60	150	Pd	34	09.70	0.7
	0.7s	151.00nm			6.0mb									STD	2.61	181	P	34	10.28	0.9
IR7	74.06	305	iPc	41	20.00	-1.1	& APR 14, 1990 05h 33m 26.60s							SOSW	2.61	180	Pd	34	10.02	0.7
IR5	74.07	304	eP	41	20.50	-0.7	48.845 N 122.161 W							YEL	2.64	180	P	34	10.64	0.8
BEE	74.10	295	eP	41	21.70	0.4	DEPTH = 12.6km							REM	2.65	180	P	34	11.31	1.3
	0.9s	307.00nm			6.2mb		4.4mb (12 obs.) 4.1msz (1 obs.)							ESD	2.65	180	Pc	34	11.12	1.2
SVW	77.13	29	eP	41	40.00	2.1	WASHINGTON (29)							FL2	2.65	183	Pc	34	10.85	0.9
TTA	77.18	27	P	41	39.40	1.2	<SEA>. ML 5.2 (SEA). Slight							SHW	2.65	181	Pc	34	11.13	1.1
	0.9s	13.13nm			4.9mb		damage (VI) in the Deming-Van							HSR	2.67	180	Pc	34	11.51	1.2
RYD	77.69	294	iPc	41	41.00	-0.7	Zandt area. Felt (V) at Acme,							JLK	2.70	180	Pc	34	11.70	1.1
BRW	78.19	19	eP	41	45.10	1.6	Nooksack and Sumas; (IV) at							GDR	2.71	292	P	34	10.56	-0.1
SLY	78.22	305	ePd	41	43.00	-1.3	Bellingham, Baw, Burlington,							ASR	2.72	172	Pc	34	11.85	0.9
KDC	78.42	33	eP	41	46.50	1.6	Clearlake, Concrete, Custer,							RVW	2.73	189	Pc	34	11.66	0.8
IMA	78.56	24	ePc	41	47.20	1.4	Eastsound, Glacier, Hamilton,							WAH2	2.73	139	P	34	10.75	-0.1
	0.9s	20.80nm			5.1mb		Lakewood, Maple Falls, Mount													

RSW	3.01	144 P	34	14.94	0.0
WIW	3.10	140 P	34	16.03	0.0
PRW	3.12	147 Pd	34	16.96	0.5
APM	3.13	174 P	34	18.06	1.5
VLMW	3.31	179 Pc	34	20.57	1.3
KMOR	3.34	196 Pc	34	19.00	-0.6
PATW	3.38	150 P	34	20.57	0.4
PGO	3.39	183 P	34	21.47	1.3
NEW	3.40	98 eP	34	20.00	-0.4
VLL	3.40	174 P	34	22.17	1.6
EDB	3.40	289 P	34	21.94	1.5
VGB	3.46	164 eP	34	22.00	0.7
VFP	3.56	172 P	34	24.14	1.3
TDH	3.57	176 ePc	34	23.85	0.9
PHC	3.89	301 P	34	26.97	-0.4
EDM	7.07	48 P	35	09.80	-2.6
LRM	7.26	111 eP	35	12.20	-2.9
HRY	7.28	103 eP	35	13.70	-1.6
SES	7.39	74 P	35	15.00	-1.8
LCCM	7.61	109 eP	35	19.40	-0.5
BGMT	7.80	114 eP	35	20.60	-2.1
SXM	7.89	106 eP	35	23.40	-0.6
FHC	8.15	190 eP	35	26.50	-0.9
WDC	8.27	182 eP	35	28.30	-0.8
MIN	8.51	177 eP	35	33.30	0.7
ORV	9.30	177 eP	35	44.60	1.3
KVN	10.22	162 eP	35	58.00	1.9
BW06	10.68	120 eP	36	03.00	0.5
CMB	10.88	173 eP	36	07.80	2.7
BKS	10.96	180 eP	36	06.20	0.0
	0.7s	33.00nm		5.8mb X	
		eS	38	34.00	
BRK	10.97	180 eP	36	08.10	1.9
TNP	11.34	160 eP	36	12.00	0.5
SIT	11.41	321 e(P)	36	13.80	1.6
DAU	11.45	133 eP	36	14.50	1.4
ARN	11.50	177 eP	36	14.30	0.8
FRI	11.98	171 eP	36	24.60	4.6
PRS	12.52	177 eP	36	28.00	0.8
PRI	12.74	175 eP	36	33.00	2.7
CLC	13.45	164 eP	36	46.00	6.4
		e	36	50.00	
ISA	13.45	167 eP	36	45.00	5.4
		e	36	50.00	
FFC	13.79	57 eP	36	40.00	-3.9
	0.5s	10.00nm		4.9mb	
GSC	14.10	162 eP	36	53.00	4.8
		e	36	57.00	
YKA	14.31	14 eP	36	46.80	-3.9
	0.7s	6.10nm		4.4mb	
SYP	14.40	173 eP	36	58.00	5.8
		e	37	03.00	
SBB	14.51	166 eP	36	58.00	4.5
		e	37	01.00	
MWC	14.92	167 eP	37	06.00	6.9
PAS	14.98	167 eP	37	07.00	7.4
GOL	15.08	121 eP	37	02.50	1.3
	1.2s	22.95nm		4.5mb	
GLD	15.13	121 eP	37	03.00	1.3
	1.3s	29.31nm		4.5mb	
RVR	15.26	165 eP	37	10.00	6.7
PEC	15.40	164 eP	37	10.30	5.2
TPC	15.41	161 eP	37	10.00	4.7
PLM	15.98	164 eP	37	17.00	4.3
BAR	16.67	164 eP	37	24.00	2.6
GLA	16.71	158 eP	37	23.00	1.1
		e	37	25.00	
ANMO	18.10	134 eP	37	39.30	-0.1
	1.0s	6.00nm		3.7mb	
ALO	18.10	134 eP	37	39.00	-0.5
	0.9s	7.98nm		3.9mb	
RSON	18.42	73 eP	37	42.60	-0.4
	1.0s	27.39nm		4.4mb	
PMR	19.80	320 eP	37	58.60	-0.6
	1.2s	37.88nm		4.6mb	
PMS	19.83	319 eP	38	01.60	2.0
INK	20.33	348 P	38	08.00	3.2
FBA</					

14d 05h

DZM	17.80	260	iPc	48	55.10	-1.4
CTA	36.70	263	eP	51	53.00	-2.8
ADE	43.56	240	e(P)	52	55.00	2.5
WRA	47.81	261	Pd	53	19.80	-6.6X
	1.0s	7.40nm			4.7mb	
ADK	71.75	359	e(P)	56	10.50	0.1
PRS	75.39	42	e(P)	56	33.90	1.8
FRI	76.85	42	eP	56	40.00	-0.3
CMB	77.07	41	eP	56	40.30	-1.3
ORV	77.35	39	eP	56	43.10	0.1
WDC	77.40	38	eP	56	42.40	-0.9
MIN	77.80	39	eP	56	45.00	-0.6
TNP	79.09	43	eP	56	52.40	-0.5
KVN	79.11	41	e(P)	56	52.50	-0.5
PMR	83.98	12	eP	57	18.30	0.7
	1.1s	9.40nm			4.9mb	
TTA	84.10	8	eP	57	19.80	1.5
ALQ	84.71	50	eP	57	20.00	-2.2
	1.1s	3.80nm			4.5mb	
ANMO	84.72	50	eP	57	21.50	-0.7
FBA	87.25	11	eP	57	34.20	0.4
		e		57	44.80	33km
IMA	87.41	8	e(P)	57	35.70	1.0
KMI	92.06	296	Pd	57	58.50	1.0
		pP		58	05.00	20km
CHG	93.15	289	eP	58	03.00	0.7
YKA	94.89	24	eP	58	12.70	3.3X
	0.6s	0.30nm			3.9mb	
KSP	148.19	347	ePKP	04	29.00	-1.4
CLL	148.34	351	ePKP	04	32.00	1.4
BRG	148.61	350	ePKP	04	32.60	1.5
	1.0s	10.00nm				
MOX	149.18	352	ePKP	04	35.00	3.0X
PRU	149.36	348	ePKP	04	35.00	2.7X
GRF	150.17	352	ePKP	04	45.50	12.0X
KHC	150.36	349	PKP	04	38.80	4.9X
		e		04	46.50	

S.D. = 1.4 on 23 of 29 obs.

& APR 14, 1990 06h 02m 49.53s
48.830 N 122.179 W
DEPTH = 3.1km
3.6mb (1 obs.)
WASHINGTON (29)
<SEA>. CL 3.6 (SEA).

MBW	0.19	104	P	02	53.67	0.3
VDB	0.20	14	P	02	54.03	0.4
		S		02	58.13	
CMW	0.41	174	Pd	02	56.93	-0.8
MCW	0.46	251	Pc	02	57.87	-0.8
HNB	0.52	330	P	02	58.78	-1.1
OHW	0.56	205	P	02	59.88	-0.8
RPW	0.58	131	Pd	03	00.29	-0.9
JCW	0.66	165	Pd	03	01.53	-1.2
SNB	0.66	266	P	03	01.68	-1.0
PGC	0.86	258	P	03	04.37	-2.3
VGZ	0.87	242	P	03	04.70	-2.1
BIB	0.94	308	Pd	03	06.02	-2.0
BLN	0.98	213	Pc	03	07.19	-1.6
BLH	1.00	174	Pd	03	08.18	-0.9
PGW	1.05	196	P	03	08.97	-0.9
HTW	1.06	165	Pd	03	08.72	-1.5
WPB	1.07	321	P	03	08.17	-2.1
		S		03	22.08	
STW	1.20	236	Pc	03	10.42	-2.2
NAB	1.26	289	P	03	11.20	-2.4
		S		03	27.81	
SPW	1.28	182	Pd	03	13.32	-0.5
HDW	1.32	207	P	03	12.48	-2.1
GMW	1.35	198	Pc	03	13.23	-1.8
SHB	1.35	305	Pd	03	12.99	-2.2
		S		03	30.48	
RMW	1.39	170	Pd	03	14.71	-1.2
WHB	1.39	339	P	03	14.04	-1.8
OSD	1.43	226	Pc	03	14.71	-1.9
NLW	1.44	121	Pd	03	15.62	-1.0
OBC	1.49	239	P	03	15.28	-2.1
PFB	1.52	261	P	03	15.30	-2.4
		S		03	35.82	
OTR	1.62	243	ePc	03	17.28	-1.9
GSM	1.65	171	P	03	18.49	-1.1
MEW	1.66	191	P	03	18.88	-0.7
OSP	1.69	252	P	03	19.53	-0.5
OFK	1.70	240	P	03	19.11	-1.1
SMW	1.70	208	P	03	20.21	-0.1
OOW	1.73	232	P	03	20.21	-0.5

ETW	1.74	134	Pd	03	20.66	-0.3
GHW	1.79	182	P	03	20.72	-0.8
DHW2	1.81	117	P	03	22.49	0.5
OBH	1.88	218	P	03	22.25	-0.6
RVC	1.89	176	P	03	22.63	-0.5
TWW	1.91	152	P	03	23.57	0.2
FMW	1.93	170	P	03	22.75	-1.0
CPW	1.97	199	P	03	23.35	-0.8
TBM	1.97	147	P	03	24.66	0.4
WPW	2.18	168	P	03	27.06	-0.2
APW	2.20	188	P	03	26.87	-0.7
EBG	2.21	150	P	03	27.75	0.1
ONR	2.23	209	P	03	27.29	-0.6
EPH	2.28	130	P	03	30.32	1.7
NAC	2.29	156	P	03	28.91	0.1
GLK	2.30	170	P	03	28.98	-0.1
VTG	2.38	141	P	03	29.84	-0.3
CZM	2.41	185	P	03	29.80	-0.7
BMW	2.46	197	P	03	30.42	-0.9
ERK	2.53	183	P	03	31.97	-0.3
CDFW	2.72	178	P	03	35.58	0.6
EDM	7.09	48	P	05	00.50	23.7
YKA	14.33	14	eP	06	13.00	-2.1
	0.7s	0.90nm			3.6mb	
	59 obs.	associated				

APR 14, 1990 06h 11m 58.62±1.55s
43.378 N ± 9.2km 5.403 E ± 10.1km
DEPTH = 10.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
MD 3.0 (STR).

GELF	0.02	73	Pg	12	00.09	-0.5
BERF	0.22	107	Pg	12	03.53	0.1
TREF	0.25	357	Pg	12	03.14	-0.7
PRAF	0.46	338	Pg	12	08.25	0.3
VILF	0.53	25	Pg	12	08.40	-0.9
GANF	0.72	30	Pg	12	12.06	-0.7
CALN	1.14	70	Pg	12	20.27	0.2
MVIF	1.37	67	Pn	12	24.04	0.1
		Sg		12	43.30	
REVF	1.47	75	Pn	12	25.14	-0.1
		Sg		12	45.97	
TOUF	1.48	64	Pn	12	25.62	0.1
		Sg		12	45.64	
AURF	1.49	69	Pn	12	25.45	0.0
AUTN	1.59	67	Pn	12	27.07	-0.1
		Sg		12	49.95	
SAOF	1.68	68	Pn	12	28.09	-0.1
DOI	1.74	49	P	12	29.70	0.5
		eSn		12	54.90	
BNI	1.91	28	Pc	12	33.10	1.5
		eSn		12	59.00	
CKI	2.33	62	P	12	38.00	0.4
		eSn		13	07.70	
PGF	2.77	106	Pn	12	43.02	-0.9
BOB	3.23	63	P	12	51.10	0.7

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

& APR 14, 1990 06h 14m 59.91s
48.826 N 122.192 W
DEPTH = 1.6km
WASHINGTON (29)
<SEA>. CL 3.1 (SEA).

MBW	0.20	102	P	15	04.20	0.3
VDB	0.21	16	Pd	15	04.56	0.5
		S		15	08.58	
CMW	0.41	173	Pd	15	07.52	-0.5
MCW	0.45	251	Pc	15	08.36	-0.5
HNB	0.52	331	Pd	15	09.24	-1.0
		S		15	16.60	
OHW	0.55	204	P	15	10.45	-0.5
RPW	0.59	130	Pd	15	10.87	-0.8
		S		15	20.01	
SNB	0.65	266	Pc	15	12.20	-0.7
JCW	0.66	164	Pd	15	11.99	-1.0
PGC	0.85	259	Pc	15	15.01	-1.9
VGZ	0.86	242	Pc	15	15.16	-1.9
		S		15	26.82	
BIB	0.93	309	Pd	15	16.36	-2.1
BLN	0.97	213	P	15	17.69	-1.5
BLH	1.00	174	P	15	18.80	-0.8
PGW	1.04	195	P	15	19.63	-0.7
HTW	1.06	164	P	15	19.27	-1.5
WPB	1.07	322	P	15	18.59	-2.2
STW	1.19	236	Pc	15	20.92	-2.0

NAB	1.26	289	Pd	15	21.85	-2.2
		S		15	38.26	
SPW	1.27	182	P	15	24.48	0.2
HDW	1.31	206	Pc	15	23.04	-2.0
GMW	1.34	197	Pc	15	23.72	-1.7
SHB	1.35	306	Pd	15	23.43	-2.2
RMW	1.39	169	P	15	25.26	-1.1
WHB	1.40	339	P	15	24.36	-2.1
OSD	1.42	226	Pc	15	25.26	-1.7
NLW	1.44	121	Pd	15	26.26	-1.0
PFB	1.51	261	P	15	25.70	-2.4
GSM	1.65	171	P	15	29.40	-0.7
MGB	1.66	277	P	15	28.24	-2.1
OFK	1.69	240	P	15	30.40	-0.2
OOW	1.72	231	P	15	30.86	-0.3
ETW	1.74	134	P	15	31.15	-0.4
ALB	1.79	285	P	15	30.35	-1.7
		S		15	53.28	
DHW2	1.82	117	P	15	33.54	0.9
WTV	1.87	126	P	15	33.09	-0.3
OBH	1.87	217	P	15	33.10	-0.2
RVC	1.89	175	Pd	15	33.41	-0.2
FMW	1.93	169	P	15	33.65	-0.6
TBM	1.97	147	P	15	35.48	0.6
WPW	2.17	168	P	15	38.31	0.5
SAW	2.18	120	P	15	39.43	1.7
BTB	2.28	288	P	15	38.44	-0.9
CZM	2.40	185	P	15	41.25	0.2
ERK	2.52	182	P	15	42.94	0.1

45 obs. associated

& APR 14, 1990 06h 19m 13.07s
48.832 N 122.196 W
DEPTH = 1.3km
WASHINGTON (29)
<SEA>. CL 3.0 (SEA).

MBW	0.20	104	P	19	17.47	0.4
VDB	0.20	18	Pc	19	17.56	0.4
		S		19	21.48	
CMW	0.41	173	Pd	19	20.73	-0.6
MCW	0.45	250	Pc	19	21.44	-0.6
HNB	0.51	330	Pd	19	22.29	-0.9
		S		19	29.60	
OHW	0.56	204	P	19	23.97	-0.2
RPW	0.59	130	Pd	19	24.04	-0.9
SNB	0.65	265	Pc	19	25.26	-0.7
JCW	0.66	164	Pd	19	25.27	-1.0
PGC	0.85	258	Pc	19	28.08	-2.0
VGZ	0.86	241	P	19	28.12	-2.1
BIB	0.93	309	Pd	19	29.44	-2.1
BLN	0.97	212	P	19	30.86	-1.5
BLH	1.00	174	P	19	32.05	-0.8
PGW	1.05	195	P	19	32.80	-0.8
WPB	1.06	322	P	19	32.11	-1.7
HTW	1.07	164	P	19	33.07	-1.0
STW	1.19	236	Pc	19	34.07	-2.1
NAB	1					

14d 06h

LMW 2.17 182 P 19 50.83 0.0
 WPW 2.18 168 P 19 52.08 1.0
 SAW 2.18 120 P 19 52.50 1.5
 APW 2.20 188 P 19 51.32 0.0
 EBG 2.21 150 P 19 51.96 0.5
 ONR 2.23 209 P 19 51.12 -0.5
 BTB 2.27 288 P 19 51.15 -1.3
 NAC 2.29 156 P 19 52.96 0.3
 GLK 2.30 170 P 19 53.50 0.6
 CZM 2.41 185 P 19 54.55 0.3
 BMW 2.46 197 P 19 54.82 -0.2
 ERK 2.53 182 P 19 56.19 0.1
 SOSW 2.60 179 P 19 57.75 0.7
 57 obs. associated

? APR 14, 1990 07h 03m 59.23±1.38s
 31.342 S ±12.3km 178.289 W ±27.2km
 DEPTH = 33.0km (normal)
 4.6mb (2 obs.)

KERMADEC ISLANDS REGION (177)

HBZ 6.85 203 eP 05 42.00 2.1
 PUZ 7.29 202 eP 05 46.40 0.2
 eS 07 12.50
 NOZ 7.86 202 eP 05 54.50 0.4
 MNG 10.54 207 P 06 28.20 -2.8
 eS 08 26.30
 CTA 33.72 281 iPd 10 41.00 1.3
 1.0s 15.00nm 4.9mb
 WRA 43.89 273 Pd 12 04.10 -0.5
 0.4s 2.00nm 4.3mb
 WB5 43.89 273 eP 12 04.10 -0.5
 SUF 144.92 341 iPKP 23 28.50 -5.2X
 0.7s 15.40nm
 NUR 147.11 339 ePKP 23 35.80 -1.6
 BCAO 148.91 214 iPKPd 23 45.20 3.4X
 0.5s 8.00nm
 i 23 49.20
 NB2 149.64 351 PKP 23 42.40 0.9
 0.6s 3.90nm
 HFS 150.11 348 ePKP 23 42.60 0.5
 0.8s 7.80nm
 S.D. = 1.6 on 10 of 12 obs.

& APR 14, 1990 07h 25m 42.31s
 58.503 N 155.919 W
 DEPTH = 139.5km
 2.9mb (1 obs.)
 ALASKA PENINSULA (12)
 <AGS-P>

CDD 1.26 69 iP 26 07.68 -1.3
 eS 26 27.77
 AUL 1.56 55 iP 26 11.04 -1.1
 PDB 1.57 34 iP 26 10.81 -1.3
 eS 26 33.73
 AUE 1.58 56 iP 26 11.20 -1.0
 CNPM 2.63 65 eP 26 23.03 -2.1
 eS 26 54.08
 RDT 2.74 39 eP 26 25.05 -1.5
 NKA 3.27 45 eP 26 25.18 1.8
 BGL 3.29 31 eP 26 32.72 -1.0
 SPU 3.32 34 eP 26 32.07 -2.0
 NCG 3.47 31 eP 26 34.75 -1.4
 SLKM 3.53 53 eP 26 34.96 -1.9
 eS 27 13.39
 SEW 3.69 61 iP 26 36.53 -2.3
 eS 27 16.58
 SUA 3.95 39 eP 26 39.84 -2.6
 eS 27 23.80
 SKT 4.12 30 iP 26 42.69 -1.9
 PMS 4.22 47 eP 26 42.92 -3.1
 PWA 4.37 41 eP 26 44.65 -3.3
 MTU 4.50 67 eP 26 46.72 -3.0
 PLRM 4.60 45 eP 26 47.23 -3.8
 GHO 4.79 44 eP 26 49.38 -4.3
 CUT 4.81 33 eP 26 50.54 -3.3
 GLI 5.07 58 eP 26 53.04 -4.3
 VZW 5.38 58 eP 26 58.13 -3.4
 NCA 5.72 48 eP 27 01.85 -4.3
 KLU 5.84 55 eP 27 04.11 -3.8
 RND 6.00 32 eP 27 05.78 -4.2
 WRH 7.06 29 eP 27 18.71 -5.6
 HDA 7.31 32 eP 27 22.42 -5.2
 YKA 20.46 61 eP 30 05.50 -4.7
 0.6s 0.30nm 2.9mb
 28 obs. associated

APR 14, 1990 08h 00m 13.85±0.11s
 27.296 N ±2.9km 139.924 E ±2.8km
 DEPTH = 457.6km (3 depth phases)
 5.6mb (73 obs.)

BONIN ISLANDS REGION (212)

CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 12S, 26C
 Centroid Location:
 Origin Time 08:00:18.8 0.4
 Lat 27.16N 0.05 Lon 139.60E 0.03
 Dep 444.0 2.5 Half-duration 3.0
 Moment Tensor: Scale 10**17 Nm
 Mrr=-2.30 0.12 Mtt=-1.11 0.20
 Mff= 3.41 0.19 Mrt=-2.48 0.20
 Mrf= 0.50 0.19 Mtf=-2.14 0.17
 Principal Axes:
 T Val= 4.57 Plg=13 Azm=244
 N -0.19 39 144
 P -4.38 48 349
 Best Double Couple: Mo=4.5*10**17
 NP1: Strike= 13 Dip=47 Slip= -31
 NP2: 125 68 -133

MAT 9.33 351 iPd 02 23.70 -1.6
 eS 04 07.00
 SHK 9.52 321 iPd 02 29.60 2.2
 0.7s 1671.23nm 6.5mb
 GUMO 14.40 160 eP 03 19.50 -0.2
 PJG 14.40 160 eP 03 19.00 -0.7
 GUA 14.46 160 eP 03 19.30 -1.1
 0.8s 208.96nm 5.7mb
 SAP 15.77 4 eP 03 34.00 0.4
 iS 06 19.00
 ANP 16.65 267 eP 03 45.00 2.3
 eS 06 32.00
 SSE 16.79 287 P- 03 43.00 -0.9
 1.0s 116.00nm 5.4mb
 Z 20s 1.60um 4.0Msz
 N 10s 1.40um
 sP 05 32.00
 e 06 29.00
 iS 06 36.00
 CVP 19.24 244 eP 04 10.00 2.1
 YSS 19.81 6 P 04 13.00 -0.3
 BAG 20.94 243 eP 04 24.00 -0.5
 e 06 21.00
 eS 07 42.00
 MAN 21.59 238 P 04 30.00 -0.3
 PGP 22.42 236 ePc 04 38.20 0.3
 BJI 23.42 389 iPd- 04 46.50 -0.4
 1.5s 419.00nm 5.8mb
 eS 06 52.00
 eS 08 24.00
 eScS 14 57.00
 HKC 23.88 264 iP 04 54.70 3.5X
 DAV 24.28 217 eP 04 54.00 -0.9
 e 06 03.00
 PPR 26.52 233 iPc 05 16.00 1.1
 KKM 30.90 231 ePc 05 54.50 1.2
 0.5s 50.90nm 5.2mb
 TSM 31.01 226 ePc 05 55.00 1.0
 LZH 31.78 295 iPd 06 02.00 1.3
 1.5s 847.00nm 6.0mb
 N 13s 0.90um
 E 10s 0.60um
 i 06 10.00
 i 06 21.50
 i 06 24.50
 pP 07 29.00 498kmX
 i 07 44.50
 PcP 08 39.50
 eS 10 27.00
 ScP 11 40.00
 i 12 19.00
 SS 13 06.00
 ScS 15 37.00
 SMY 35.92 36 eP 06 36.40 1.4
 LOE 36.55 263 eP 06 42.00 1.4
 PMG 37.15 168 eP 06 45.50 0.0
 CHG 38.50 266 eP 06 58.00 1.3
 1.1s 103.48nm 5.2mb
 eS 12 22.00
 NST 38.63 261 eP 07 02.00 4.3X
 NNT 40.32 257 iPd 07 14.40 2.9X
 ADK 40.64 41 iPd 07 13.70 0.0

0.9s 179.20nm 5.5mb
 MTN 40.80 193 iPc 07 14.90 -0.4
 e 12 10.00
 e 13 47.00
 SNG 42.28 249 eP 07 28.00 0.8
 SHL 42.85 279 eP 07 32.80 0.9
 iS 13 22.00
 KNA 44.14 196 eP 07 41.00 -0.8
 WB5 47.20 187 eP 08 04.30 -1.2
 ePP 09 31.00
 iPcP 10 31.10
 eScP 14 21.60
 WRA 47.27 187 Pc 08 05.20 -0.8
 0.4s 21.20nm 4.9mb
 CTA 47.50 172 iPc 08 07.50 -0.2
 e 08 40.00 143kmX
 GUN 47.56 284 Pd 08 10.20 1.5
 QIS 47.57 180 iPc 08 07.30 -0.9
 PKI 48.04 284 Pd 08 13.00 0.7
 KKN 48.11 284 Pd 08 13.70 1.1
 DMN 48.30 284 Pd 08 15.10 0.9
 GKN 48.61 284 Pd 08 17.40 1.0
 SDN 50.82 39 iP 08 30.80 -1.4
 MBL 51.95 204 eP 08 40.20 -0.7
 SVW 54.19 33 iPd 08 57.10 0.4
 NDI 54.81 287 iPd 09 02.00 0.6
 0.8s 302.24nm 5.7mb
 eS 16 08.00
 NANU 54.89 208 eP 09 02.40 0.5
 0.4s 5.00nm 4.2mb X
 DZM 55.37 150 iPc 09 06.00 0.6
 KDC 55.46 37 eP 09 04.90 -0.6
 BRS 55.76 166 iPc 09 06.50 -1.5
 e 09 17.00 35kmX
 i 10 43.80
 e 11 22.50
 IMA 55.82 27 iPd 09 08.10 -0.1
 0.6s 22.00nm 4.7mb
 id 10 01.10 238kmX
 BRW 55.90 20 iPd 09 08.90 0.4
 i 10 01.00 233kmX
 HYB 57.13 274 iPd 09 18.00 0.2
 1.0s 100.00nm 5.2mb
 i 10 06.00 212kmX
 e 10 49.50
 iS 16 38.50
 PMR 57.35 32 ePd 09 17.00 -1.6
 0.9s 229.20nm 5.6mb
 e 10 06.00 217kmX
 FBA 58.12 29 eP 09 23.00 -0.9
 TOA 58.76 32 eP 09 28.20 -0.1
 GBA 59.58 270 Pd 09 34.70 0.3
 0.8s 70.90nm 5.1mb
 COOL 60.57 199 eP 09 40.00 -0.6
 BOM 61.67 278 eP 09 45.50 -2.6
 iS 17 35.50
 BAL 61.70 203 eP 09 47.00 -1.1
 ADE 61.93 181 e(P) 09 50.20 0.7
 QUE 63.01 292 iPd- 09 57.70 0.8
 NWA0 63.66 201 eP 10 00.00 -0.6
 INK 63.68 24 iPd 09 59.20 -1.2
 0.5s 74.00nm 5.5mb
 pP 10 32.00 136kmX
 SIT 64.75 37 eP 10 07.70 0.3
 MBC 66.22 15 iPd 10 16.30 0.0
 0.5s 118.00nm 5.8mb
 pP 10 42.00 102kmX
 MAIO 67.15 300 iPd- 10 23.90 1.1
 eS 18 46.00
 KBS 70.03 351 iPd 10 40.10 0.7
 YKA 72.92 28 eP 10 55.90 -0.5
 0.6s 129.10nm 5.7mb
 IR2 73.92 302 iPd 11 04.00 1.2
 IR4 74.07 302 iPd 11 05.50 1.8
 IR7 74.12 302 iPd 11 05.50 1.5
 PGC 74.14 43 eP 11 05.00 1.4
 IR5 74.32 302 eP 11 06.50 1.4
 MCW 74.50 43 eP 11 06.30 0.6
 TRO 74.52 342 iPd 11 05.50 0.1
 GMW 74.99 44 eP 11 10.00 1.6
 MNG 75.21 153 P 11 08.70 -0.9
 DAG 75.35 355 iPd 11 09.10 -0.8
 0.8s 72.39nm 5.3mb
 PGZ 75.53 152 P 11 09.80 -1.5
 RMW 75.63 44 eP 11 12.50 0.4
 SHW 75.89 45 eP 11 15.00 1.4
 LON 75.92 45 eP 11 13.80 0.1

14d 08h

KHZ	75.98	155	P	11	11.90	-1.8	PLM	85.45	55	eP	12	03.00	-0.4	WTS	91.01	333	eP	16	11.00	
MSZ	76.05	160	P	11	14.00	-0.1	BW06	85.47	44	P	12	02.50	-0.9		0.8s	333.00nm		12	28.50	-0.3
SUF	76.14	334	iP	11	14.80	0.4		1.0s	70.25nm				5.3mb							5.3mb
TAB	76.35	306	eP	11	17.00	0.7			pP	13	50.00	480kmX								
FHC	76.98	51	eP	11	20.70	1.1	KMSA	85.48	290	iPd	12	04.00	0.5							
VGB	77.10	45	eP	11	20.50	0.4	TPC	85.66	54	eP	12	04.00	-0.2	PTJ	91.19	325	eP	12	29.60	-0.3
DPW	77.64	42	eP	11	23.50	0.4	DAU	85.68	46	eP	12	05.10	0.6	ZAG	91.23	325	iP	12	31.20	1.2
EDM	77.85	36	iPd	11	24.00	0.0	AKU	85.78	351	eP	12	05.10	1.0	BHG	91.46	327	iPd	12	31.50	0.5
	1.0s	202.00nm				5.7mb		1.0s	52.00nm			5.2mb	PHP	91.48	319	iPc	12	31.30	0.1	
SLY	77.97	304	iPc	11	20.80	-4.1X	BAR	85.92	55	eP	12	05.00	-0.5	OHR	91.63	319	ePd	12	31.60	-0.4
		eS		20	39.00		MLR	86.00	320	ePc	12	06.50	0.8		1.0s	147.00nm				5.9mb
NUR	77.97	333	iP	11	24.70	0.3	COP	86.03	333	iPc	12	06.00	0.6	KBA	91.69	327	iPd	12	31.60	-0.7
	0.7s	130.80nm				5.6mb		0.7s	186.30nm			5.9mb		2.1s	135.00nm					5.6mb
WDC	78.07	51	ePd	11	25.80	0.4	HRI	86.20	306	iPd	12	06.50	-0.4							
NEW	78.11	42	P	11	26.00	0.5	SHMJ	86.45	305	Pd	12	09.90	1.9							4kmX
	0.9s	81.14nm				5.3mb	FRB	86.52	12	ePd	12	07.50	-0.2							
		pP	13	11.20		479kmX		0.4s	28.00nm			5.3mb								
DHR	78.23	294	iPd	11	27.00	0.6	CMP	86.65	320	ePc	12	05.00	-3.7X	SDA	91.81	320	eP	12	32.80	0.1
NWRM	78.75	53	eP	11	29.50	0.5	BURJ	86.66	305	Pd	12	08.30	-0.8	VBV	91.82	325	ePd	12	33.10	0.4
MIN	78.82	50	ePd	11	29.30	-0.3	LFK	86.74	308	iP	12	08.80	-0.6	LJU	91.82	325	ePd	12	32.00	-0.7
ORV	79.24	51	iPd	11	31.70	0.1	SPC	86.84	325	iPd	12	10.10	0.4	EKA	91.85	340	P	12	32.00	-0.6
MSL	79.36	305	ePd	11	32.00	-0.3			e	15	38.10			1.3s	73.70nm					5.5mb
		ePP	13	21.50			GLA	87.07	54	iPd	12	12.00	1.0	ANMO	91.88	49	P	12	34.90	1.5
		eS	20	54.00				e	14	32.00		666kmX		0.9s	52.94nm					5.6mb
JNW	79.44	350	iP	11	34.00	2.0	MKRJ	87.13	304	Pd	12	10.30	-1.0							
BRK	79.45	53	eP	11	33.00	0.3	DSI	87.31	304	eP	12	11.00	-1.1	FUR	91.91	328	iPd	12	33.60	0.5
BKS	79.47	53	iPd	11	33.20	0.4	JMB	87.37	317	iPd	12	13.00	0.9		1.2s	337.00nm				6.2mb
	0.9s	160.00nm				5.6mb	PVL	87.68	318	iPd	12	14.00	0.4	LACI	91.94	320	eP	12	33.00	-0.3
		eLR	37	50.00			KSP	87.69	328	iPd	12	13.80	0.3	TOD	91.97	331	eP	12	33.39	0.0
PCC	79.53	53	eP	11	32.70	-0.4		1.2s	205.00nm			5.8mb	RBL	92.02	326	Pc	12	32.60	-1.1	
BHD	79.80	302	iPd	11	35.50	0.9			e	12	16.00		7kmX	TIR	92.03	319	eP	12	34.00	0.3
		ePP	13	22.00			REY	87.76	352	iP	12	16.10	2.5	CEY	92.08	325	ePd	12	33.50	-0.4
		iS	20	59.00			PSZ	87.83	324	iP	12	15.10	0.8	VOY	92.15	326	iPd	12	33.40	-0.9
GCC	80.01	54	eP	11	35.80	0.2	RSSD	87.99	40	P	12	15.40	0.0	ABH	92.30	331	eP	12	34.86	0.0
MHC	80.13	53	eP	11	36.90	0.5			pP	13	57.90		451km	ENN	92.30	333	eP	12	34.50	-0.3
ARN	80.20	53	eP	11	37.00	0.3	AYN	88.21	302	iPd	12	16.70	0.4		1.0s	66.00nm				5.6mb
SES	80.52	38	iPd	11	38.80	0.7	DIM	88.24	317	iP	12	17.00	0.7	FVI	92.31	327	Pd	12	33.80	-1.1
SAO	80.53	54	eP	11	38.20	-0.2	BZS	88.35	322	eP	12	17.00	0.3	MEM	92.39	333	P	12	36.00	0.8
CMB	80.70	52	ePd	11	39.20	-0.1	KDZ	88.55	317	iP	12	18.00	0.3							
PRS	80.78	54	eP	11	40.30	0.6	MBH	88.60	303	ePd	12	17.00	-1.1	TRI	92.44	326	eP	12	33.90	-1.6
UPP	81.15	334	iPd	11	40.50	-0.6	SRO	88.71	325	iP	12	18.60	0.3	KTD	92.49	331	eP	12	35.76	0.0
		i	14	54.40				e	13	36.70		330kmX	RUP	92.65	332	eP	12	36.50	0.0	
PRI	81.37	54	eP	11	43.70	0.8	BRG	88.76	329	iPd	12	18.30	-0.2	SRN	92.88	318	eP	12	37.30	-0.4
PMO	81.61	112	iP	11	46.50	2.4		2.0s	240.00nm			5.7mb	UCC	92.91	334	P	12	38.00	0.4	
	1.0s	25.00nm				4.8mb			i	15	54.00									
FRI	81.66	53	ePd	11	44.50	0.3	PGB	88.76	318	eP	12	19.00	0.2	GWF	92.95	331	P	12	37.64	-0.3
RYD	81.78	293	iPd	11	46.00	0.9	CLL	88.88	330	iPd	12	18.50	-0.5	OGA	92.96	328	iPd	12	37.80	-0.4
PXEM	81.81	54	eP	11	47.00	2.0		1.5s	170.00nm			5.7mb	SNF	93.16	333	P	12	38.50	-0.3	
KVN	81.81	50	P	11	45.90	0.7	RSON	88.95	31	P	12	19.10	-0.3	CTI	93.24	327	Pd	12	38.20	-1.2
VAH	81.95	112	iP	11	47.90	2.0			e	15	56.00		DOU	93.36	333	P	12	39.60	-0.1	
	1.0s	15.00nm				4.6mbX		0.9s	222.58nm			6.0mb	SAX	93.47	329	ePd	12	40.40	-0.2	
LRM	82.09	42	iPd	11	47.40	0.9			pP	14	03.00		457km	SLE	93.47	330	ePd	12	39.80	-0.5
BCH	82.23	55	eP	11	48.00	0.7	RZN	88.95	317	iP	12	20.00	0.2	WLS	93.49	331	P	12	39.76	-0.7
HFS	82.43	336	eP	11	47.10	-0.5	ZST	89.07	326	iP	12	20.60	0.6	OSS	93.51	328	ePd	12	40.60	-0.1
	0.4s	92.20nm				5.8mb		e	15	58.00			CDF	93.53	331	eP	12	39.90	-0.7	
Z	17s	0.23um				4.6MszX	PRU	89.10	328	iPd	12	20.00	-0.1		1.2s	86.30nm				5.7mb
SYP	82.61	55	eP	11	50.00	0.7		1.6s	162.50nm			5.6mb	FEL	93.61	330	eP	12	40.41	-0.6	
FFC	82.62	31	iPd	11	48.90	0.2	VTS	89.30	319	iPd	12	22.00	0.6	ECH	93.73	331	P	12	41.05	-0.4
	1.0s	191.00nm				5.7mb	MMB	89.60	318	iPd	12	23.00	0.4	ZLA	93.73	329	ePd	12	41.50	0.0
NB2	82.67	337	P	11	48.50	-0.4	SOP	89.68	326	iPd	12	24.00	1.2	BRT	93.86	320	P	12	43.00	0.8
TNP	82.88	51	eP	11	51.10	0.5	GOL	89.81	44	P	12	25.20	1.3	LLS	93.91	329	ePd	12	42.10	-0.5
ABL	83.01	54	eP	11	51.80	0.4		0.8s	8.93nm			4.7mb	VDL	93.97	328	ePd	12	42.70	-0.2	
ISA	83.16	53	eP	11	51.00	-0.9	KKB	89.82	318	iPd	12	24.00	0.4	MOF	94.02	330	P	12	42.39	-0.5
		e	14	01.00		613kmX	GLD	89.88	44	P	12	25.50	1.4	SAL	94.11	327	P	12	42.10	-1.1
KAS	83.46	313	iPd	11	54.80	1.6	MOX	89.97	330	iPd	12	24.00	-0.1	BBS	94.14	330	P	12	41.80	-1.6
QASM	83.66	296	iPd	11	56.00	1.5		1.5s	135.00nm			5.7mb	BSF	94.18	330	eP	12	42.40	-1.3	
CLC	83.72	53	iPd	11	55.00	0.4		Z	16s	0.80um		5.2MszX		1.1s	48.85nm					5.5mb
		e	14	24.00		731kmX			e	16	01.00		VITF	94.24	331	P	12	42.93	-0.8	
SBB	84.10	54	eP	11	57.00	0.4	HOF	90.09	330	iPd	12	24.80	0.1	HAU	94.24	331	eP	12	42.80	-1.1
PAS	84.11	55	eP	11	56.00	-0.6	KHC	90.14	328	iPd	12	25.00	0.0		0.6s	14.45nm				5.3mb
MWC	84.16	55	eP	11	57.00	0.0		1.4s	145.00nm			5.7mb	RSM	94.35	325	P	12	45.60	1.3	
FRO	84.16	340	iPd	11	56.71	0.5			e	16	05.80		MDI	94.38	328	P	12	44.00	-0.4	
HYA	84.22	339	iP	11	57.00	0.5	WIT	90.44	334	eP	12	27.50	1.3	ARV	94.40	324	P	12	44.10	-0.6
FOO	84.24	340	iPd	11	57.10	0.5	VAY	90.46	318	iPd	12	26.40	-0.1	TMA	94.53	328	ePd	12	44.60	-0.8
GSC	84.53	53	iPd	11	59.00	0.3	WET	90.46	328	iPd	12	26.60	0.2	DLE	94.62	341	eP	12	44.70	-0.7
		e	14	24.00		703kmX		1.6s	186.00nm			5.8mb	SFI	94.66	325	P	12	45.50	-0.2	
PPE	84.62	320	ePd	11	59.50	0.7	SKO	90.72	319	Pd	12	28.20	0.5	VAI	94.76	328	Pd	12	45.20	-0.9
CLI	84.63	320	iPd	11	59.50	0.6														

SCH 95.06 15 eP 12 47.00 -0.4
 ROI 95.09 320 P 12 48.90 1.0
 CSI 95.12 320 P 12 47.90 -0.1
 SGO 95.15 321 P 12 47.50 -0.5
 TDS 95.17 320 Pd 12 48.90 0.7
 SDI 95.18 323 Pd 12 47.60 -0.7
 BDI 95.19 326 Pd 12 47.10 -1.2
 AZI 95.19 323 P 12 48.20 0.0
 MMN 95.21 320 P 12 46.40 -1.9
 DIX 95.23 329 ePd 12 48.60 -0.1
 BOB 95.24 327 Pc 12 48.00 -0.5
 MGR 95.29 321 Pd 12 47.80 -0.9
 ORX 95.30 328 P 12 47.61 -1.2
 ORO 95.30 328 P 12 48.00 -0.8
 MNS 95.32 324 P 12 48.00 -0.8
 EMS 95.45 329 ePd 12 49.10 -0.5
 PII 95.47 326 P 12 48.00 -1.4
 CZI 95.58 320 P 12 49.50 -0.5
 GRI 95.68 319 P 12 51.36 0.8
 1.1s 135.80nm 6.1mb
 RDP 95.74 323 P 12 50.30 -0.5
 LSD 95.81 329 P 12 51.20 -0.1
 PCP 95.84 327 P 12 50.38 -0.8
 LOR 95.88 332 eP 12 50.10 -1.1
 1.1s 50.05nm 5.6mb
 LPL 95.96 329 eP 12 51.10 -0.8
 0.6s 25.70nm 5.6mb
 LPG 95.97 329 eP 12 51.20 -0.8
 0.6s 28.20nm 5.7mb
 RSP 96.00 328 P 12 50.79 -1.2
 LBF 96.05 331 eP 12 50.60 -1.5
 1.1s 41.50nm 5.6mb
 SSF 96.19 332 eP 12 51.70 -0.9
 1.1s 36.65nm 5.5mb
 FIN 96.25 327 P 12 51.20 -1.8
 BNI 96.34 329 Pd 12 53.10 -0.4
 ROB 96.35 328 P 12 52.12 -1.4
 SMF 96.38 331 eP 12 52.40 -1.1
 1.2s 56.55nm 5.7mb
 RRL 96.39 329 P 12 53.45 -0.4
 FLN 96.42 335 eP 12 53.00 -0.6
 0.7s 11.00nm 5.2mb
 LDF 96.42 335 eP 12 52.50 -1.1
 0.5s 8.75nm 5.2mb
 GMB 96.44 319 P 12 54.93 0.8
 1.0s 114.30nm 6.1mb
 AVF 96.47 332 eP 12 52.80 -1.1
 1.2s 84.80nm 5.9mb
 PZZ 96.56 328 P 12 52.12 -2.4
 ENR 96.62 328 P 12 51.92 -2.8
 STV 96.65 328 P 12 53.66 -1.2
 ATN 96.68 319 Pd 12 54.60 -0.4
 GRR 96.87 335 eP 12 54.70 -0.9
 BGF 96.87 332 eP 12 54.70 -1.0
 1.3s 46.95nm 5.6mb
 SBF 96.88 328 eP 12 54.20 -1.7
 0.6s 21.65nm 5.6mb
 PGF 97.09 326 eP 12 55.20 -1.7
 0.5s 8.75nm 5.3mb
 LPF 97.23 335 eP 12 56.60 -0.7
 0.6s 19.85nm 5.6mb
 MAF 97.25 332 eP 12 56.80 -0.6
 MNO 97.28 319 Pd 12 59.10 1.1
 TCF 97.35 332 eP 12 57.10 -0.8
 FRF 97.49 328 eP 12 56.70 -1.8
 0.6s 9.00nm 5.2mb
 LSF 97.66 332 eP 12 58.30 -1.0
 LRG 97.70 328 eP 12 58.10 -1.4
 0.9s 24.55nm 5.5mb
 LMR 97.72 328 eP 12 57.90 -1.7
 MFF 98.06 333 eP 13 00.20 -0.9
 0.6s 5.40nm 5.1mb
 RJF 98.43 332 eP 13 02.00 -0.8
 CAF 98.50 331 eP 13 02.60 -0.6
 LFF 99.05 332 eP 13 05.00 -0.6
 0.7s 14.35nm 5.5mb
 LPO 99.06 332 eP 13 05.30 -0.4
 BCAA 115.28 290 ePKPc 18 04.30 -0.3
 0.2s 44.00nm
 i 18 05.80
 i 19 12.50
 i 19 23.30
 SPA 117.14 180 ePKP 18 06.40 -0.2
 1.1s 19.05nm
 NNA 142.34 73 iPKP 18 50.70 -4.9X
 0.6s 12.00nm
 PT02 143.15 75 iPKPd 18 53.60 -3.3X

PT03 144.19 76 e(PKP) 18 58.10 -0.5
 ARE 149.00 76 ePKP 19 09.00 2.3
 ZOBO 151.80 73 PKP 19 12.00 0.7
 Z 22s 0.24um 5.0msz
 eLR 42 00.00
 LPB 151.95 73 PKP 19 12.00 0.7
 1.0s 240.00nm
 CCH 154.00 73 PKP 19 15.70 1.8
 i 19 50.20
 BAO 166.26 34 ePKP 19 28.00 1.1
 S.D. = 0.9 on 323 of 330 obs.
 * APR 14, 1990 08h 06m 48.08 ± 1.91s
 27.571 N ± 16.6km 139.890 E ± 7.7km
 DEPTH = 473.8 ± 17.3 km
 4.6mb (13 obs.)
 BONIN ISLANDS REGION (212)
 MAT 9.06 351 eP 08 57.00 0.4
 eS 10 39.00
 CHTO 38.49 266 e(P) 13 28.50 -1.1
 PMR 57.13 33 P 15 49.50 -0.5
 1.0s 19.00nm 4.4mb
 FBA 57.90 29 P 15 54.90 -0.3
 1.0s 9.50nm 4.1mb
 GBA 59.55 270 P 16 08.00 0.9
 0.2s 0.40nm 3.5mb X
 INK 63.45 25 eP 16 31.00 -0.7
 MBC 65.96 15 ePd 16 47.90 0.4
 0.5s 6.00nm 4.5mb
 KEV 71.85 340 eP 17 21.00 -1.9
 SOD 73.21 338 iP 17 31.30 0.5
 SUF 75.88 334 eP 17 46.20 0.4
 0.3s 13.10nm 5.0mb
 NUR 77.71 333 eP 17 56.10 0.3
 WDC 77.92 51 eP 17 57.60 0.3
 NEW 77.93 42 P 17 57.00 -0.3
 1.1s 27.78nm 4.7mb
 MIN 78.67 50 eP 18 01.00 -0.5
 ORV 79.09 51 ePd 18 03.40 -0.1
 CMB 80.56 52 eP 18 11.50 0.2
 PRS 80.64 54 eP 18 11.80 0.1
 UPP 80.89 334 iP 18 12.50 0.1
 FRI 81.52 53 eP 18 16.10 -0.1
 KVN 81.66 50 P 18 17.60 0.5
 pP 19 58.00 448kmX
 HFS 82.17 336 eP 18 18.50 -0.5
 0.4s 10.20nm 4.8mb
 NB2 82.40 337 P 18 20.20 -0.1
 0.9s 10.90nm 4.5mb
 ISA 83.03 53 eP 18 23.00 -0.9
 CLC 83.58 53 eP 18 27.00 0.4
 SBB 83.96 54 eP 18 28.00 -0.6
 PAS 83.98 55 eP 18 28.00 -0.6
 MWC 84.02 55 eP 18 29.00 -0.1
 GSC 84.39 53 eP 18 30.00 -0.7
 BW06 85.29 44 P 18 35.90 0.7
 0.9s 6.14nm 4.3mb
 PLM 85.32 55 eP 18 35.00 -0.4
 TPC 85.53 54 eP 18 36.00 -0.3
 BAR 85.79 55 eP 18 38.00 0.5
 GLA 86.94 54 eP 18 44.00 0.9
 RSSD 87.80 40 P 18 47.90 0.7
 RSON 88.73 31 P 18 51.10 0.1
 1.2s 29.15nm 5.0mb
 GOL 89.64 44 P 18 55.90 0.1
 1.0s 5.00nm 4.4mb
 GLD 89.70 44 P 18 54.90 -1.1
 1.1s 13.50nm 4.8mb
 GRF 90.58 330 e(P) 19 00.70 1.1
 ANMO 91.72 49 P 19 06.90 1.5
 1.0s 5.75nm 4.5mb
 ALQ 91.72 49 eP 19 06.20 0.8
 0.9s 8.40nm 4.7mb
 ZOBO 151.75 72 PKP 25 51.00 7.3X
 1.0s 18.75nm
 S.D. = 0.7 on 40 of 41 obs.
 * APR 14, 1990 08h 15m 55.30 ± 1.72s
 27.272 N ± 10.2km 140.040 E ± 10.7km
 DEPTH = 430.2 ± 17.8 km
 4.3mb (7 obs.)
 BONIN ISLANDS REGION (212)
 MAT 9.37 351 eP 18 07.00 -0.2
 0.7s 22.60nm 4.6mb

eS 19 52.00
 WB5 47.19 187 eP 23 48.80 -0.2
 WRA 47.26 187 Pd 23 48.50 -1.0
 0.4s 2.80nm 4.0mb
 GUN 47.67 284 P 23 54.10 1.0
 PKI 48.15 284 P 23 56.60 -0.1
 KKN 48.21 284 P 23 57.80 0.7
 DMN 48.40 284 P 23 59.20 0.6
 GKN 48.72 284 P 24 01.60 0.7
 GBA 59.68 270 Pc 25 18.80 -0.2
 0.3s 1.10nm 3.0mb
 MBC 66.21 15 eP 26 00.00 -0.2
 KEV 72.18 340 eP 26 36.00 0.0
 YKA 72.89 28 eP 26 39.50 -0.7
 0.6s 4.00nm 4.2mb
 SOD 73.54 338 iP 26 43.80 -0.1
 SUF 76.21 334 iP 26 58.30 -0.5
 0.5s 6.60nm 4.6mb
 NUR 78.04 333 eP 27 08.30 -0.5
 KVN 81.75 50 eP 27 30.00 1.0
 HFS 82.50 336 eP 27 30.30 -1.8
 0.4s 3.10nm 4.4mb
 NB2 82.73 338 P 27 32.30 -1.0
 0.7s 3.90nm 4.2mb
 TNP 82.82 51 eP 27 35.40 1.0
 ANMO 91.82 49 eP 28 18.80 1.5
 S.D. = 0.9 on 20 of 20 obs.
 * APR 14, 1990 09h 33m 46.24 ± 1.41s
 42.834 N ± 8.3km 12.237 E ± 18.0km
 DEPTH = 10.0km (geophysicist)
 CENTRAL ITALY (381)
 MNS 0.56 144 P 33 57.60 0.1
 iSg 34 04.80
 CRE 0.82 345 P 34 02.20 0.0
 eSg 34 14.50
 ARV 0.84 38 P 34 02.50 0.0
 eSg 34 14.00
 AZI 1.23 133 P 34 09.00 0.0
 eSg 34 26.00
 SDI 1.63 133 P 34 15.00 -0.1
 eSg 34 34.00
 S.D. = 0.1 on 5 of 5 obs.
 * APR 14, 1990 09h 39m 17.07 ± 0.70s
 15.303 N ± 21.9km 147.775 E ± 18.9km
 DEPTH = 33.0km (normol)
 3.7mb (2 obs.)
 MARIANA ISLANDS REGION (215)
 GUA 3.28 238 eP 40 07.20 -0.2
 eS 40 43.00
 GUMO 3.29 239 eP 40 07.50 -0.1
 PJG 3.29 239 eP 40 07.80 0.2
 WRA 37.43 201 Pd 46 29.20 0.0
 0.7s 1.60nm 4.0mb
 YKA 80.04 28 eP 51 24.50 -0.1
 0.8s 0.30nm 3.3mb
 KIC 145.29 306 PKP 58 54.00 -0.1
 TIC 145.33 307 PKP 58 54.00 -0.2
 LIC 145.59 306 PKP 58 55.00 0.4
 S.D. = 0.2 on 8 of 8 obs.
 APR 14, 1990 09h 40m 38.83 ± 0.57s
 36.069 N ± 5.3km 27.121 E ± 3.7km
 DEPTH = 41.2 ± 6.5 km
 4.6mb (37 obs.)
 DODECANESE ISLANDS (369)
 MD 4.5 (ATH), 4.3 (HLW).
 APE 1.62 308 iPnd 41 05.10 -0.4
 SMG 1.65 352 ePb 41 07.00 1.2
 KSL 1.99 88 ePn 41 12.00 1.3
 VAM 2.47 255 ePn 41 19.50 2.0
 ATH 3.32 306 iPnc 41 30.80 1.2
 VLI 3.44 282 ePn 41 32.50 1.3
 ITM 4.32 286 iPnd 41 48.10 4.2X
 PPCY 4.42 104 ePn 41 45.50 0.2
 eSn 42 37.00
 NEO 4.47 317 ePn 41 45.70 -0.3
 AGG 4.81 309 ePnc 41 51.90 1.1
 ALN 4.89 350 ePn 41 50.10 -1.7
 OUR 4.92 331 ePn 41 51.30 -0.9
 CSS 5.18 100 eP 41 54.50 -1.5
 eSn 42 56.50
 RDO 5.22 347 iPnc 41 54.70 -1.7

14d 09h

LFK	5.28	97	iPn	41	56.50	-0.9	TMA	16.99	312	eP	44	36.60	1.5	KKN	49.42	82	P	49	27.60	0.6	
LIT	5.44	319	ePnd	41	59.00	-0.5	LLS	17.30	314	eP	44	41.90	2.8X		0.6s	18.00nm			5.3mb		
SOH	5.59	329	ePn	42	00.80	-0.9	SAX	17.31	316	eP	44	41.50	2.3	PKI	49.61	82	P	49	29.10	0.5	
THE	5.61	326	ePn	42	01.50	-0.4	MMK	17.51	311	eP	44	44.80	3.1X	GUN	49.85	82	P	49	31.20	0.8	
VLS	5.63	294	ePn	42	05.50	3.2X	BRG	17.58	331	eP	44	43.60	1.4	GBA	50.21	103	Pd	49	32.40	-0.4	
FAM	5.71	99	eP	42	04.00	0.6		1.0s	12.00nm			4.0mb			0.6s	1.80nm			4.3mb		
KDZ	5.73	347	iP	42	02.00	-1.7			e	44	54.20		FRB	60.70	330	eP	50	46.00	-1.9		
			eS	43	13.00				e	45	19.80		SCH	63.51	320	eP	51	06.00	-0.9		
SRS	5.75	332	ePn	42	02.60	-1.3	GRF	17.87	325	ePc	44	47.50	1.7	YKA	77.07	343	eP	52	27.00	-1.9	
BBTK	5.83	48	iPd	42	06.00	0.8		Z	16s	0.40um					1.0s	1.20nm			3.9mb		
RZN	5.92	342	iPd	42	05.00	-1.4			e	44	50.50		FFC	79.57	333	eP	52	43.00	0.2		
DIM	6.10	349	eP	42	07.00	-1.8	DIX	17.87	310	eP	44	48.70	2.6		1.1s	12.00nm			4.8mb		
MMB	6.11	335	ePd	42	07.00	-2.1	ZLA	17.98	315	eP	44	48.30	1.0	EDM	84.69	337	ePc	53	09.80	0.4	
PLD	6.31	343	eP	42	11.00	-0.8	LPG	18.03	308	eP	44	47.20	-1.0	TUL	90.87	317	eP	53	40.20	0.8	
			eS	11	04.00			0.8s	23.50nm			4.4mb			1.1s	12.60nm			5.2mb		
VAY	6.34	327	ePn	42	12.40	0.3	LPL	18.05	308	eP	44	47.30	-1.0		S.D. = 1.5 on 134 of 155 obs.						
IGT	6.39	305	ePnc	42	14.30	1.4		0.6s	9.45nm			4.1mb		? APR 14, 1990 10h 03m 58.85±1.64s							
JMB	6.40	356	eP	42	13.00	-0.1	SLE	18.08	316	eP	44	49.10	0.7		35.968 N ±22.1km 27.129 E ±10.3km						
FNA	6.52	318	ePnc	42	15.50	0.7	EMS	18.16	310	eP	44	51.50	1.8		DEPTH = 33.0km (normal)						
KKB	6.59	333	eP	42	14.00	-1.7	CLL	18.29	331	i(P)	44	51.70	0.8		DODECANESE ISLANDS (369)						
KEK	6.84	304	ePn	42	20.00	0.8		1.1s	11.00nm			3.9mb		APE	1.69	311	eP	04	27.60	1.0	
PGB	6.86	341	eP	42	21.00	1.4	MOX	18.37	327	eP	44	55.00	3.1X	SMG	1.75	352	eP	04	26.80	-0.6	
HLW	7.14	149	ePn	42	23.80	0.4		1.3s	24.00nm			4.2mb				eS	04	40.00			
			eSn	43	40.00		BSF	19.09	314	eP	44	58.40	-2.4				04	31.00	0.1		
VTS	7.18	336	iP	42	24.00	-0.2		0.8s	8.05nm			4.0mb		KSL	1.99	85	eP	04	30.00	0.1	
PVL	7.27	350	eP	42	24.00	-1.2	CDF	19.12	316	eP	44	59.40	-1.7	VAM	2.45	258	eP	04	43.60	6.2X	
KAS	7.42	42	eP	42	27.00	-0.3		1.0s	24.00nm			4.4mb		VLI	3.47	284	eP	04	51.20	-0.6	
HRI	7.63	109	eP	42	26.00	-4.4X	HAU	19.43	314	eP	45	02.40	-2.2		S.D. = 1.3 on 4 of 5 obs.						
SHMJ	7.88	113	Pd	42	42.20	8.4X		0.9s	18.00nm			4.3mb		& APR 14, 1990 10h 25m 08.20s							
BURJ	8.15	115	Pd	42	44.80	7.3X	ABH	19.81	320	eP	45	08.54	-0.1		61.466 N 146.456 W						
SALJ	8.18	117	Pd	42	45.20	7.2X	RUP	19.96	319	eP	45	10.41	0.2		DEPTH = 29.1km						
DSI	8.21	121	eP	42	35.50	-2.7	SMF	20.35	308	eP	45	11.20	-3.1X		SOUTHERN ALASKA (2)						
LCI	8.38	303	P	42	39.00	-1.6		1.1s	24.40nm			4.5mb			<AGS-P>						
TLB	8.54	4	eP	42	43.00	0.2	LBF	20.40	309	eP	45	11.80	-3.0X								
GRI	8.94	291	P	42	48.45	0.0		0.8s	16.10nm			4.4mb		KLU	0.26	84	iP	25	14.89	-0.3	
MBH	9.05	132	eP	42	48.00	-1.9	LOR	20.59	310	eP	45	13.80	-2.9			iS	25	20.33			
ROI	9.05	296	P	42	49.40	-0.6		1.0s	19.00nm			4.4mb		VZW	0.41	187	iP	25	16.39	-0.9	
BRT	9.14	305	P	42	50.50	-0.6	AVF	20.71	308	eP	45	15.30	-2.7			eS	25	23.10			
GMB	9.23	286	P	42	52.61	0.0		1.1s	34.20nm			4.6mb		NCA	0.56	342	iP	25	18.26	-1.3	
TDS	9.25	296	P	42	52.50	-0.2	SSF	20.72	309	eP	45	15.40	-2.7			iS	25	26.87			
CZI	9.26	293	P	42	52.80	0.0		1.0s	68.00nm			5.0mb		TOA	0.66	12	iP	25	20.24	-0.9	
ORI	9.31	299	Pd	42	52.60	-0.9	CAF	20.94	303	eP	45	18.10	-2.3	GLI	0.66	208	iP	25	20.01	-1.3	
MLR	9.46	355	eP	42	57.50	1.9		1.0s	25.00nm			4.5mb				eS	25	29.43			
ATN	9.54	286	P	42	56.50	-0.2	BGF	20.95	307	eP	45	17.90	-2.5	GHO	1.22	286	eP	25	27.88	-1.5	
MMN	9.58	297	P	42	56.40	-0.8		0.9s	28.65nm			4.6mb				eS	25	44.01			
VRI	9.80	358	ePd	43	02.00	1.8	MAF	21.01	306	eP	45	19.60	-1.5	GLB	1.27	90	eP	25	28.81	-1.3	
PZI	9.87	279	P	43	00.66	-0.6	MEM	21.04	320	iPc	45	22.52	1.3	PLRM	1.29	277	iP	25	29.30	-1.0	
MGR	9.98	297	P	42	59.50	-3.2X	ENN	21.17	321	eP	45	23.00	0.4			eS	25	45.87			
MNO	10.11	284	P	43	02.00	-2.7		1.1s	16.00nm			4.3mb		PMS	1.51	263	iP	25	33.07	-0.5	
SGO	10.31	299	P	43	06.50	-0.6	EBR	21.35	291	(P)	45	27.00	2.5			eS	25	51.50			
BZS	10.41	338	eP	43	07.50	-1.0	RJF	21.42	303	eP	45	23.10	-2.1	PAX	1.58	17	eP	25	33.44	-1.2	
BSS	10.75	300	P	43	13.39	0.2		0.6s	8.10nm			4.3mb		PWA	1.65	278	eP	25	35.04	-0.5	
DUI	11.34	303	P	43	19.50	-1.8	LPO	21.48	302	eP	45	23.60	-2.2	TGL	1.90	110	eP	25	38.74	-0.5	
SDI	11.79	303	P	43	28.00	0.6	DOU	21.50	318	P	45	26.40	0.5	SEW	2.01	228	eP	25	39.31	-1.4	
AZI	12.17	303	P	43	34.30	2.0		0.9s	67.50nm			5.0mb		CUT	2.03	299	eP	25	40.82	-0.3	
MNS	12.84	304	P	43	41.50	0.1	LFF	21.85	302	eP	45	27.90	-1.6	SUA	2.06	272	eP	25	41.21	-0.4	
PTJ	12.93	323	eP	43	42.00	-0.5	SNF	21.89	318	iPd	45	30.44	0.6	SLKM	2.07	244	eP	25	41.40	-0.3	
VBY	13.01	320	e(P)	43	45.80	2.3	UCC	22.01	319	P	45	37.00	6.0X		RND	2.24	331	eP	25	43.59	-0.6
ARV	13.18	309	P	43	45.50	-0.3	MFF	22.91	306	eP	45	38.40	-1.5	SKT	2.47	284	eP	25	46.17	-1.2	
SRO	13.43	334	eP	43	54.50	5.5X		1.1s	41.50nm			4.8mb		SPU	2.71	266	eP	25	49.40	-1.4	
			e	44	04.50		LDF	23.57	311	eP	45	44.30	-2.0	NCG	2.74	271	eP	25	49.88	-1.3	
CEY	13.60	319	e(P)	43	52.50	1.2		1.1s	24.40nm			4.6mb		CKL	2.85	267	eP	25	51.77	-1.0	
LJU	13.75	320	e(P)	43	54.50	1.3	FLN	23.86	311	eP	45	47.20	-1.9	BGL	2.87	269	eP	25	52.88	-0.1	
CRE	13.87	308	P	43	55.00	0.0		1.0s	28.00nm			4.7mb		RDT	3.03	255	eP	25	53.25	-2.1	
TRI	13.94	318	ePc	44	03.70	8.0X	LPF	23.95	309	eP	45	48.20	-1.7	PCA	3.34	112	eP	25	58.64	-1.0	
SPC	14.05	341	eP	44	06.50	9.2X		0.9s	29.50nm			4.8mb		24 obs. associated							
VOY																					

14d 10h

0.4s 11.00nm 5.2mb
PKI 47.79 306 P 38 23.20 0.7
KKK 47.98 306 P 38 23.50 -0.4
DMN 48.05 306 P 38 24.40 0.0
GKN 48.59 306 P 38 28.20 -0.3
S.D. = 1.0 on 13 of 13 obs.

APR 14, 1990 10h 35m 10.31±0.82s
49.661 N ± 8.3km 8.541 E ± 8.6km
DEPTH = 33.0km (normal)

GERMANY (543)
ML 3.1 (LDG).

TOD 0.18 108 ePg 35 17.58 0.8
KTD 0.45 221 ePg 35 20.94 0.6
TNS 0.57 354 iPg 35 22.30 0.4
ABH 0.68 289 ePg 35 23.88 0.4
RUP 0.96 273 ePg 35 29.06 1.5
CDF 1.50 214 Pn 35 36.20 0.9
Pg 35 39.80
Sg 35 59.70

FEL 1.82 191 ePg 35 41.52 1.6
BSF 2.17 213 Pn 35 46.10 1.2
Pg 35 52.60
Sg 36 19.90

HAU 2.20 222 Pn 35 46.10 0.8
Pg 35 52.80
Sg 36 20.60

LOR 3.93 234 Pn 36 09.10 -0.7
LBF 4.06 230 Pn 36 10.50 -1.1
SSF 4.25 234 Pn 36 12.30 -2.0
SMF 4.36 228 Pn 36 14.80 -1.1
BGF 4.92 233 Pn 36 22.40 -1.4
IR7 33.46 99 eP 41 54.00 5.6X
IR5 33.75 99 eP 41 49.00 -1.9
IR4 33.94 99 eP 41 48.00 -4.5X

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

* APR 14, 1990 10h 59m 17.90±0.76s
15.484 N ± 8.2km 147.886 E ± 11.9km
DEPTH = 33.0km (normal)
4.4mb (3 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.47 236 eP 00 10.70 -0.2
eS 00 50.00
GUMO 3.48 238 eP 00 11.40 0.3
PJG 3.48 238 eP 00 11.30 0.2
MAT 22.67 339 (P) 04 18.00 0.3
WB5 37.57 201 eP 06 31.00 -0.2
WRA 37.64 201 Pd 06 32.00 0.2
0.8s 6.70nm 4.6mb

LZH 44.19 306 eP 07 26.50 0.6
2.0s 42.00nm 4.9mb
pP 07 41.50 58kmX

CHTO 46.77 281 eP 07 46.10 -0.3
GUN 58.40 293 P 09 12.90 -0.4
GKN 59.49 294 P 09 20.00 -0.7
YKA 79.84 28 eP 11 24.40 0.1
0.7s 0.40nm 3.5mb

S.D. = 0.4 on 11 of 11 obs.

APR 14, 1990 11h 02m 42.30±0.55s
35.754 N ± 9.0km 24.497 E ± 5.8km
DEPTH = 131.9 ± 10.6 km

CRETE (370)

VAM 0.42 215 iPc 03 01.50 0.1
eS 03 11.50
APE 1.56 32 eP 03 10.20 -1.3
VLI 1.59 308 iPc 03 11.50 -0.4
eS 03 30.00

ATH 2.30 344 iPc 03 20.00 -0.5
ITM 2.51 305 eP 03 24.50 1.2
SMG 2.71 43 eP 03 27.00 1.2
NEO 3.69 344 eP 03 38.60 -0.1
KSL 4.14 83 eP 03 46.00 1.2

KEK 5.43 318 eP 04 01.20 -1.0
ROI 7.35 304 P 04 28.80 0.4
CZI 7.49 300 P 04 29.30 -0.9
CSI 7.64 304 P 04 32.40 0.2
ORI 7.68 306 Pc 04 32.50 -0.2
eSg 04 35.00

MMN 7.90 304 P 04 36.80 1.2
DSI 9.98 112 eP 05 03.00 -0.5
eS 06 47.00

PRNI 10.33 119 eP 05 07.00 -1.2
MBH 10.58 121 eP 05 12.00 0.6
S.D. = 1.0 on 17 of 17 obs.

& APR 14, 1990 11h 14m 11.80s
33.870 N 116.160 W

DEPTH = 5.0km

SOUTHERN CALIFORNIA (43)

<PAS-P>. ML 3.3 (PAS).

TPC 0.25 21 iPd 14 16.70 -0.2
HAY 0.46 110 iPd 14 20.80 -0.3
PLM 0.78 229 iPd 14 26.60 -1.0
PEC 0.83 272 iPd 14 27.50 -0.9
RVR 1.02 277 iPd 14 30.50 -1.0
BAR 1.26 200 iPd 14 34.30 -1.4
VPD 1.33 268 eP 14 36.28 -0.6
PCF 1.37 278 eP 14 36.64 -0.8
GLA 1.38 126 eP 14 35.60 -2.1
PEW 1.45 282 eP 14 38.10 -0.6
GSC 1.52 340 iPd 14 38.80 -1.0
SBB 1.60 301 eP 14 39.70 -1.2
MWC 1.61 283 eP 14 41.02 -0.2
CIW 2.03 259 eP 14 47.51 0.4
ABL 2.71 292 eP 14 56.00 -1.1
BCH 3.50 293 eP 15 07.50 -0.5
TNP 4.29 349 eP 15 18.20 -1.2
CMB 5.39 322 e(P) 15 35.00 0.2
KVN 5.40 344 eP 15 33.70 -1.5
ALO 8.09 80 e(P) 16 14.00 1.0
20 obs. associated

* APR 14, 1990 11h 43m 26.66±0.75s
5.615 N ± 8.0km 0.318 W ± 7.1km

DEPTH = 10.0km (geophysicist)

NORTHWEST AFRICA (550)

ML 3.1 (LIC), 3.0 (KUK). Felt at

Accra, Ghana.

WEGH 0.02 203 Pg 43 28.80 0.2
LEGH 0.14 76 Pg 43 29.90 0.0
TEGH 0.32 86 Pg 43 33.20 0.0
Sg 43 37.50

WIGH 0.39 230 Pg 43 34.50 -0.2
Sg 43 39.70

KUK 0.57 355 Pg 43 38.30 0.0
Sg 43 46.10

KIC 4.46 280 Pg 44 47.00 11.1X
Sn 45 25.40

LIC 4.72 278 Pg 44 52.00 12.3X
Sn 45 29.90
Sg 45 53.00

S.D. = 0.2 on 5 of 7 obs.

APR 14, 1990 12h 18m 19.55±4.16s
31.333 S ± 22.3km 68.797 W ± 29.4km

DEPTH = 86.1 ± 43.5 km

SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.15 181 iPd 18 32.50 0.0
(S) 18 42.00

RTLL 0.28 89 iPd 18 32.60 -0.1
eS 18 43.20

CFA 0.55 120 iPd 18 34.60 0.1
eS 18 47.10

RTCV 0.57 157 ePd 18 34.70 0.0
S 18 46.00

RTRS 1.29 334 eP 18 42.80 0.0

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

& APR 14, 1990 12h 42m 02.90s
37.617 N 122.525 W

DEPTH = 10.0km

CENTRAL CALIFORNIA (39)

<BRK>. ML 2.3 (BRK). Felt at

Pacifico.

PCC 0.16 136 iPd 42 06.30 -0.3
iS 42 08.80

BRK 0.33 39 eP 42 09.20 -0.5

BKS 0.35 41 iPd 42 09.80 -0.3
eS 42 14.10

GCC 0.72 144 eP 42 16.00 -1.1
eS 42 26.80

MHC 0.75 111 eP 42 17.20 -0.6
eS 42 28.20

ARN 0.83 108 eP 42 18.40 -0.6

NWRM 0.89 341 e(P) 42 18.90 -1.0
SAO 1.21 134 eP 42 23.40 -2.1
8 obs. associated

? APR 14, 1990 12h 56m 25.17±1.87s
31.273 S ± 30.0km 69.132 W ± 46.0km

DEPTH = 120.0km (geophysicist)

SAN JUAN PROVINCE, ARGENTINA (137)

ZON 0.47 125 iPd 56 43.50 0.2
eS 56 56.00

RTLL 0.57 96 iPd 56 43.30 -0.6
eS 56 56.90

RTCV 0.78 139 ePd 56 45.20 -0.3
eS 57 02.00

CFA 0.83 114 iPd 56 46.50 0.5
eS 57 02.00

RTRS 1.14 345 iPd 56 48.90 0.1
eS 57 05.50

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

% APR 14, 1990 13h 16m 37.10±0.81s
19.934 S ± 10.4km 133.643 E ± 7.9km

DEPTH = 10.0km (geophysicist)

NORTHERN TERRITORY, AUSTRALIA (591)

WB5 0.68 86 iPd 16 50.80 0.1
OIS 5.63 97 iPd 18 03.20 0.2
eS 19 04.00

e 19 35.00

KNA 6.23 311 eP 18 13.00 1.6
eS 19 12.00

MTN 7.45 341 eP 18 27.00 -1.5
eS 19 50.00

FORR 11.96 204 eP 19 31.50 0.9
0.3s 23.00nm 5.9mb X

MBL 12.99 262 eP 19 45.00 0.5
eS 22 05.00

COOL 15.68 223 eP 20 18.00 -1.8
NANU 17.09 258 eP 20 44.00 6.3X
eS 23 43.00

S.D. = 1.5 on 7 of 8 obs.

? APR 14, 1990 14h 01m 52.61±1.41s
36.090 N ± 19.4km 27.051 E ± 9.4km

DEPTH = 33.0km (normal)

DOECANESE ISLANDS (369)

APE 1.57 309 ePn 02 19.00 0.5
SMG 1.63 354 ePb 02 19.00 -0.3

KSL 2.05 88 ePn 02 25.50 0.1

VAM 2.42 254 ePn 02 35.60 4.9X
eS 23 43.00

VLI 3.38 282 ePn 02 44.00 -0.3

S.D. = 0.7 on 4 of 5 obs.

? APR 14, 1990 14h 50m 09.64±6.38s
36.238 N ± 49.5km 5.310 W ± 19.8km

DEPTH = 10.0km (geophysicist)

STRAIT OF GIBRALTAR (385)

mbLg 2.8 (MDD).

EJIF 0.25 329 iPg 50 14.20 -0.7
eSg 50 17.10

EPRU 0.73 5 ePg 50 23.90 -0.1
eSg 50 34.50

MAL 0.87 56 iPd 50 25.70 -0.7
iSg 50 36.00

EHOR 1.58 2 ePn 50 39.00 1.3
eSn 51 00.00

AFC 1.74 54 ePn 50 40.50 0.2

EBAN 2.28 32 ePg 50 52.60 4.7X
eSg 51 22.00

S.D. = 1.2 on 5 of 6 obs.

? APR 14, 1990 15h 03m 37.78±1.25s
36.575 N ± 11.2km 25.544 E ± 13.7km

DEPTH = 10.0km (geophysicist)

DOECANESE ISLANDS (369)

APE 0.49 359 ePb 03 48.00 0.2
SMG 1.53 42 ePn 04 05.00 -0.2

VAM 1.60 224 ePn 04 06.30 0.2

VLI 2.10 275 ePn 04 13.20 -0.3

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

* APR 14, 1990 15h 08m 01.50±2.87s

14d 15h

15.172 N \pm 8.1km 60.325 W \pm 27.9km
 DEPTH = 33.0km (normal)
 LEEWARD ISLANDS (92)
 ML 3.0 (FDF).

CRM 0.71 234 iPd 08 14.80 -0.2
 S 08 23.90
 MVM 0.83 222 iPd 08 16.67 0.0
 S 08 27.40
 FDF 0.91 241 iPd 08 17.80 -0.2
 0.1s 3.70nm
 S 08 29.50
 BIM 0.97 228 iPd 08 18.92 0.1
 S 08 31.50
 BBL 1.17 288 eP 08 22.00 0.4
 MGG 1.21 308 eP 08 22.00 -0.2
 SLB 1.51 207 eP 08 26.89 0.4
 eS 08 45.56
 PAG 1.56 303 eP 08 27.20 -0.1
 S 08 48.00
 SVB 2.09 206 eP 08 34.74 -0.2
 eS 08 58.11
 S.D. = 0.3 on 9 of 9 obs.

APR 14, 1990 16h 09m 51.69 \pm 0.48s
 39.993 N \pm 4.3km 23.925 E \pm 6.0km
 DEPTH = 5.0km (geophysicist)
 AEGEAN SEA (365)
 ML 3.6 (ATH).

NEO 0.87 219 ePg 10 07.40 -1.6
 MMB 1.60 355 iPc 10 21.00 0.3
 iS 10 45.00
 VAY 1.68 323 iPn 10 22.40 0.6
 i 10 25.00
 RDO 1.68 46 iPbd 10 21.50 -0.4
 RZN 1.80 19 iPc 10 24.00 0.3
 iS 10 48.00
 KKB 1.98 341 iPc 10 26.00 -0.2
 iS 10 51.00
 KOZ 2.01 34 iPc 10 25.00 -1.6
 iS 10 51.00
 ATH 2.02 185 ePn 10 28.70 1.9
 PLD 2.19 15 eP 10 30.00 0.8
 eS 11 04.00
 DIM 2.39 30 iP 10 32.00 -0.1
 iS 11 02.00
 LSK 2.56 275 ePn 10 34.00 0.0
 OHR 2.63 296 ePn 10 40.00 4.4X
 VTS 2.65 348 iP 10 37.00 1.0
 iSg 11 19.00
 SKO 2.73 317 ePn 10 36.00 -0.4
 e(Sn) 11 18.20
 PHP 3.14 304 iPnc 10 44.00 1.3
 VLS 3.17 236 ePg 10 47.00 3.9X
 JMB 3.18 38 eP 10 48.00 4.7X
 eSg 11 38.00
 KEK 3.19 266 ePn 10 37.80 -5.6X
 ITM 3.22 210 ePn 10 43.10 -0.8
 VLI 3.36 194 ePn 10 46.50 0.6
 TIR 3.37 295 ePn 10 52.00 6.0X
 PVL 3.39 18 iPc 10 46.00 -0.3
 SDA 3.91 303 ePn 10 58.90 5.2X
 MLR 5.69 14 ePd 11 19.00 -0.1
 BZS 5.87 344 ePc 11 20.00 -1.4
 CZI 6.07 265 P 11 23.60 -0.6
 VRI 6.22 18 ePd 11 27.00 0.6
 S.D. = 0.9 on 21 of 27 obs.

? APR 14, 1990 17h 20m 39.33 \pm 2.66s
 31.851 S \pm 28.1km 179.795 W \pm 26.7km
 DEPTH = 462.2 \pm 28.2 km
 3.5mb (1 obs.)
 KERMADEC ISLANDS REGION (177)

HBZ 5.94 195 eP 22 14.50 0.1
 PUZ 6.41 194 eP 22 18.10 -1.2
 S 23 46.40
 NOZ 6.98 194 P 22 26.90 1.7
 PGZ 9.31 199 P 22 51.70 1.3
 MNG 9.54 202 eP 22 51.20 -1.9
 eS 24 51.90
 KIW 9.95 204 eP 22 59.50 2.0
 MTW 10 03 201 P 22 56.40 -1.9
 CAW 10 12 203 eP 22 57.60 -1.7
 WDW 10 29 203 eP 23 00.40 -0.7
 MOW 10 34 201 eP 23 02.20 0.5

MRW 10.35 204 eP 23 01.90 0.2
 S 25 09.40
 WEL 10.38 203 eP 23 02.60 0.6
 eS 25 10.40
 TCW 10.49 205 eP 23 03.00 -0.2
 S 25 13.30
 THZ 11.49 209 eP 23 14.40 0.2
 S 25 34.90
 KHZ 11.81 205 eP 23 18.40 0.9
 LTZ 12.60 208 P 23 30.00 4.0X
 MQZ 13.25 205 P 23 37.40 4.6X
 WRA 42.64 275 P 27 56.00 0.8
 0.4s 0.80nm 3.5mb
 WB5 42.65 275 eP 27 54.50 -0.7
 SUF 144.95 339 ePKP 39 18.20 -5.2X
 0.4s 2.70nm
 NUR 147.11 338 iPKP 39 25.10 -1.8
 0.6s 11.70nm
 NB2 149.92 349 PKP 39 32.50 1.2
 0.6s 3.10nm
 HFS 150.32 346 ePKP 39 32.40 0.5
 0.4s 1.70nm
 S.D. = 1.3 on 20 of 23 obs.

? APR 14, 1990 17h 53m 21.51 \pm 1.42s
 21.549 S \pm 16.4km 67.568 W \pm 20.3km
 DEPTH = 200.0km (geophysicist)
 CHILE-BOLIVIA BORDER REGION (124)

ANT 3.39 230 eP 54 16.40 0.1
 iS 54 54.00
 CCH 4.36 18 Pc 54 30.30 1.6
 LPB 5.02 354 P 54 36.00 -1.2
 i 55 34.00
 ZOBO 5.28 354 P 54 40.90 0.2
 S 55 39.00
 SIV 8.27 49 P 55 18.60 -0.7
 (S) 56 47.60
 S.D. = 1.5 on 5 of 5 obs.

* APR 14, 1990 18h 03m 41.65 \pm 3.46s
 1.778 N \pm 10.6km 127.364 E \pm 20.8km
 DEPTH = 128.0 \pm 36.0 km
 4.8mb (2 obs.)
 MALMAHERA (267)

TSM 9.59 285 eP 05 58.00 0.1
 WB5 22.59 163 iPc 08 32.00 -0.2
 WRA 22.65 163 Pc 08 32.60 -0.1
 0.6s 29.80nm 4.9mb
 MBL 23.96 198 eP 08 45.20 -0.2
 QIS 25.23 152 eP 08 57.00 -0.4
 NANU 26.81 205 iPc 09 11.60 -0.1
 BJI 39.42 346 eP 11 00.00 -0.5
 LZH 40.50 330 eP 11 10.00 0.4
 1.3s 18.00nm 4.7mb
 BWA 41.08 153 eP 11 16.90 2.6X
 CAN 42.09 153 eP 11 23.60 1.0
 S.D. = 0.6 on 9 of 10 obs.

* APR 14, 1990 18h 12m 34.01 \pm 2.04s
 0.090 S \pm 12.0km 99.634 E \pm 12.1km
 DEPTH = 115.5 \pm 16.8 km
 4.7mb (8 obs.)
 SOUTHERN SUMATERA (274)

KLM 3.75 32 ePc 13 30.20 -0.9
 KGM 4.24 60 ePc 13 37.80 0.2
 e 14 26.80
 SNG 7.29 8 eP 14 18.40 -0.9
 NNT 12.60 0 eP 15 30.80 0.5
 LOE 17.51 7 eP 16 34.00 1.6
 KKM 17.64 70 ePc 16 36.00 1.9
 0.7s 82.80nm 5.1mb
 CHTO 18.80 358 eP 16 47.00 -0.3
 pP 17 03.00
 TSM 18.91 77 ePc 16 48.00 -0.5
 GBA 25.86 303 Pc 17 57.00 0.3
 0.6s 3.00nm 4.0mb
 SHL 26.58 344 eP 18 02.40 -1.1
 MBL 28.77 138 eP 18 24.10 1.0
 0.4s 2.00nm 4.1mb
 PKI 30.71 335 P 18 40.80 0.3
 GUN 30.81 336 P 18 41.00 -0.4
 0.4s 12.00nm 5.0mb
 DMN 30.87 334 P 18 43.60 1.7
 KKN 30.95 335 P 18 42.10 -0.5

GKN 31.42 334 P 18 45.90 -0.6
 WB5 39.29 122 eP 19 52.70 -0.7
 WRA 39.29 122 Pc 19 52.60 -0.8
 0.5s 7.10nm 4.7mb
 BJI 42.70 19 P 20 20.00 -1.0
 QIS 44.05 120 eP 20 32.00 -0.3
 CTA 49.75 116 iPc 21 16.50 -0.4
 1.0s 15.00nm 4.9mb
 e 21 34.00
 BRS 57.72 123 iP 22 16.00 0.7
 SUF 82.55 334 eP 24 45.50 0.5
 0.8s 6.90nm 4.6mb
 NUR 82.71 331 iP 24 46.30 0.5
 SOD 83.59 338 iP 24 50.80 0.6
 HFS 88.05 330 eP 25 12.00 -0.2
 0.8s 6.50nm 4.7mb
 YKA 112.66 16 ePKP 30 57.10 -1.0
 0.5s 0.10nm
 S.D. = 0.9 on 27 of 27 obs.

* APR 14, 1990 19h 27m 34.13 \pm 0.90s
 17.038 N \pm 29.9km 94.715 W \pm 13.1km
 DEPTH = 172.5 \pm 19.3 km
 2.9mb (1 obs.)
 CHIAPAS, MEXICO (61)

OXX 1.92 272 iPd 28 09.50 -0.9
 iS 28 35.00
 SCX 2.01 98 eP 28 11.00 -0.2
 iS 28 34.50
 LVVM 3.15 329 (P) 28 20.50 -4.3X
 (S) 28 53.50
 TPX 3.17 132 iP 28 25.50 0.4
 IIT 3.95 301 (P) 29 10.00 34.8X
 iS 29 30.50
 PPM 4.23 299 eP 28 40.00 0.8
 iS 29 12.50
 IIT 4.72 287 iP 28 45.50 0.2
 YKA 47.50 348 eP 35 52.90 -0.4
 0.5s 0.20nm 2.9mb
 S.D. = 1.0 on 6 of 8 obs.

* APR 14, 1990 19h 56m 57.43 \pm 3.47s
 13.080 N \pm 30.8km 89.611 W \pm 7.2km
 DEPTH = 33.0km (normal)
 EL SALVADOR (73)
 Felt (11) at San Salvador.

SSS 0.72 34 iPc 57 10.20 -1.0
 eS 57 20.20
 SJAS 0.73 37 iPc 57 11.50 0.2
 QZA 0.74 54 iPc 57 11.60 0.1
 VSS 0.75 29 iPd 57 12.20 0.5
 CUSS 0.89 338 iPc 57 13.50 -0.1
 TME 0.96 15 iPc 57 15.00 0.3
 YPE 1.04 356 iPc 57 16.20 0.3
 CMG2 1.58 354 iP 57 23.30 -0.4
 S 57 43.30
 PCG 1.64 322 iP 57 24.70 0.0
 S 57 46.60
 SLP 1.78 339 iPc 57 26.30 -0.2
 MMG 1.78 324 iPc 57 26.80 0.1
 S.D. = 0.5 on 11 of 11 obs.

APR 14, 1990 19h 58m 15.75 \pm 0.49s
 37.650 N \pm 11.5km 56.266 E \pm 5.6km
 DEPTH = 33.0km (normal)
 4.8mb (8 obs.)
 IRAN (348)
 ML 4.7 (MHI).

MHI 2.91 117 iPnc 59 01.30 0.3
 0.7s 698.63nm
 eSn 59 49.00
 TEH 4.36 246 eP 59 22.00 0.4
 IR2 4.75 247 eP 59 31.00 4.0X
 IR7 4.94 249 eP 59 29.00 -0.8
 IR4 4.95 243 eP 59 30.00 0.1
 IR5 5.19 244 eP 59 32.00 -1.3
 TAB 7.87 276 eP 00 09.00 -2.0
 BBTK 18.46 284 eP 02 32.00 1.3
 CLI 23.17 302 eP 03 22.50 2.4
 VRI 23.42 300 eP 03 29.00 6.5X
 MLR 23.90 299 ePd 03 30.00 2.7
 GKN 25.63 104 P 03 44.00 -0.1
 0.6s 21.00nm 4.9mb
 DMN 26.18 104 P 03 49.70 0.4

14d 20h

KKN 26.23 103 P 03 49.60 -0.1
 0.8s 24.00nm 4.9mb
 PKI 26.43 104 P 03 51.80 0.1
 1.0s 60.00nm 5.2mb
 GUN 26.63 103 P 03 52.80 -0.8
 0.9s 54.00nm 5.2mb
 HFS 35.00 324 eP 05 05.00 -1.8
 0.5s 1.60nm 4.2mb
 KMI 41.21 94 eP 05 59.50 0.2
 EKA 43.12 314 P 06 13.00 -1.4
 1.9s 54.40nm 5.0mb
 BCAO 47.73 236 ePc 06 53.00 1.4
 0.6s 4.00nm 4.6mb
 FRB 69.93 337 eP 09 25.00 -0.1
 YKA 79.93 356 eP 10 21.30 -1.1
 0.8s 1.00nm 3.9mb
 S.D. = 1.3 on 20 of 22 obs.

* APR 14, 1990 20h 09m 19.57 ± 1.75s
 44.493 N ± 10.0km 8.890 E ± 14.1km
 DEPTH = 5.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.7 (LDG).

CKI 0.44 261 Pd 09 27.90 -0.5
 iSg 09 33.80
 DOI 1.18 271 P 09 41.00 -1.1
 (Sg) 09 52.00
 SBF 1.22 239 Pn 09 42.90 0.1
 Sn 09 59.80
 LPG 1.82 304 Pn 09 52.50 0.4
 LPL 1.84 305 Pn 09 52.60 0.3
 FRF 1.87 241 Pn 09 54.40 1.9
 Sn 10 18.90
 PGF 1.95 178 Pn 09 53.00 -0.7
 LMR 2.07 237 Pn 09 59.00 3.6X
 Sn 10 24.80
 LRG 2.10 241 Pn 09 59.60 3.8X
 Sn 10 26.60
 BGF 4.72 298 Pn 10 32.70 -0.5
 S.D. = 1.1 on 8 of 10 obs.

? APR 14, 1990 20h 25m 24.78 ± 1.34s
 40.477 N ± 15.1km 15.515 E ± 13.1km
 DEPTH = 10.0km (geophysicist)
 SOUTHERN ITALY (390)

SGO 0.18 297 Pc 25 28.80 0.0
 eSg 25 34.20
 MGR 0.34 175 P 25 31.30 -0.5
 eSg 25 39.20
 ORI 0.83 120 P 25 40.00 -0.8
 TDS 1.03 142 P 25 45.50 1.2
 S.D. = 1.5 on 4 of 4 obs.

? APR 14, 1990 21h 02m 49.11 ± 1.65s
 11.087 N ± 8.1km 61.784 W ± 29.6km
 DEPTH = 10.0km (geophysicist)
 WINDWARD ISLANDS (95)
 MD 2.9 (TRN).

TCE 0.39 176 eP 02 56.47 -0.6
 eS 03 03.26
 TRN 0.57 139 eP 03 00.12 -0.6
 eS 03 09.10
 TPP 0.83 157 eP 03 06.40 1.2
 eS 03 17.00
 GRW 1.07 6 eP 03 09.35 0.0
 eS 03 26.43
 S.D. = 1.5 on 4 of 4 obs.

APR 14, 1990 22h 29m 12.63 ± 0.76s
 34.748 N ± 9.4km 26.396 E ± 6.8km
 DEPTH = 33.0km (normal)
 4.2mb (3 obs.)
 CRETE (370)
 ML 4.2 (ATH).

VAM 1.92 291 ePn 29 45.00 1.4
 APE 2.42 343 ePn 29 50.00 -0.8
 KSL 2.94 61 ePn 30 00.00 1.9
 SMG 2.98 7 ePn 29 58.00 -0.6
 CIN 3.16 25 eP 30 02.00 0.9
 VLI 3.43 306 ePn 30 04.60 -0.5
 ATH 3.88 327 ePn 30 12.20 0.9
 ITM 4.36 305 ePn 30 20.00 1.7
 NEO 5.21 332 ePn 30 34.20 3.9X

CSS 5.71 86 eP 30 37.00 -0.3
 LFK 5.88 83 ePn 30 40.70 0.9
 RDO 6.42 354 ePb 30 54.00 6.7X
 KDZ 6.93 354 iP 30 57.00 2.5
 RZN 7.05 350 eP 30 54.00 -2.4
 MMB 7.15 344 eP 30 58.00 0.5
 BBTk 7.18 43 iPd 30 58.00 -0.1
 e 31 00.00
 VAY 7.22 336 eP 31 01.50 3.0X
 KEK 7.23 315 ePn 30 56.00 -2.6
 KKB 7.57 341 eP 31 03.00 -0.4
 OHR 7.74 327 eP 31 13.80 8.0X
 SHMJ 8.06 102 Pd 31 11.60 1.3
 DSI 8.17 110 eP 31 10.00 -1.8
 eS 32 41.00
 SKO 8.19 333 eP 31 13.60 1.5
 BURJ 8.25 105 Pd 31 11.80 -1.2
 MKRJ 8.38 110 Pd 31 13.30 -1.5
 PVL 8.50 355 eP 31 14.00 -2.3
 MBH 8.73 122 eP 31 20.00 0.5
 TDS 9.40 304 P 31 29.00 0.2
 MLR 10.74 358 eP 31 51.50 4.3X
 KHC 17.21 330 eP 33 15.00 3.0X
 PRU 17.53 334 eP 33 20.00 4.0X
 DOU 22.11 321 Pc 34 06.30 -0.3
 0.7s 8.90nm 4.3mb
 GBA 50.50 102 Pc 38 11.50 1.8
 0.7s 3.50nm 4.5mb
 FRB 61.54 330 eP 39 24.00 -4.3X
 YKA 78.15 343 eP 41 08.60 -1.1
 0.5s 0.20nm 3.4mb
 S.D. = 1.5 on 27 of 35 obs.

% APR 14, 1990 22h 32m 34.83 ± 1.72s
 10.933 N ± 8.7km 61.820 W ± 19.9km
 DEPTH = 10.0km (geophysicist)
 TRINIDAD (98)
 MD 3.0 (TRN).

TCE 0.24 164 eP 32 40.55 0.5
 eS 32 45.48
 TRN 0.50 125 eP 32 44.16 -0.8
 eS 32 52.32
 TPP 0.71 149 eP 32 47.98 -0.9
 eS 33 00.25
 TBH 0.86 121 eP 32 52.66 1.2
 eS 33 05.15
 GRW 1.23 7 eP 32 57.65 -0.1
 eS 33 13.78
 S.D. = 1.2 on 5 of 5 obs.

APR 15, 1990 00h 26m 10.46 ± 0.42s
 42.439 N ± 4.0km 19.071 E ± 3.8km
 DEPTH = 10.0km (geophysicist)
 YUGOSLAVIA (383)
 MD 2.9 (TTG).

TTG 0.14 94 iPg 26 14.00 0.3
 iSg 26 17.50
 BDV 0.24 229 iPg 26 16.10 0.5
 iSg 26 21.40
 NKY 0.38 352 ePg 26 18.60 0.4
 iSg 26 26.30
 HCY 0.42 271 iPg 26 19.60 0.5
 iSg 26 27.60
 ULC 0.49 164 iPg 26 18.50 -2.0
 iSg 26 26.50
 SDA 0.53 143 ePg 26 23.50 2.3
 PVY 0.69 77 iPg 26 22.90 -1.2
 iSg 26 33.20
 IVA 0.75 54 iPg 26 24.50 -0.7
 iSg 26 35.50
 PLE 0.92 15 ePg 26 28.50 0.4
 eSg 26 44.00
 LACI 0.93 149 ePg 26 27.60 -0.6
 TIR 1.24 151 ePg 26 34.00 0.5
 PHP 1.27 126 iPg 26 33.10 -0.9
 SKO 1.82 104 ePn 26 42.50 0.4
 1.0s 42.00nm
 iSn 27 06.00
 OHR 1.85 135 ePn 26 43.90 1.3
 BRT 2.10 223 Pd 26 45.20 -0.8
 eSn 27 07.00
 LCI 2.27 202 P 26 49.50 1.0
 iSn 27 11.70
 SGO 3.39 238 P 27 03.60 -0.9
 eSn 27 37.30

MGR 3.51 230 P 27 05.60 -0.5
 eSn 27 40.20
 BZS 3.67 29 ePc 27 08.50 0.1
 SDI 3.98 261 P 27 12.90 0.0
 eSn 27 51.60
 S.D. = 1.0 on 20 of 20 obs.

* APR 15, 1990 00h 39m 26.75 ± 1.80s
 36.604 N ± 16.2km 2.551 E ± 7.4km
 DEPTH = 10.0km (geophysicist)
 3.6mb (2 obs.)
 ALGERIA (396)
 mbLg 3.5 (MDD).

ACU 3.03 310 ePn 40 15.40 -0.2
 eSn 40 48.60
 ESEL 3.17 5 ePn 40 18.20 0.6
 eSn 40 53.00
 ECHE 4.07 318 ePn 40 31.40 0.9
 eSn 41 15.80
 EVIA 4.50 298 ePn 40 36.60 0.0
 eSn 41 26.60
 EROO 4.53 339 ePn 40 36.60 -0.4
 eSn 41 26.80
 EBAN 5.28 289 ePn 40 47.20 -0.4
 eSn 41 45.00
 GUD 6.62 310 ePn 41 06.20 -0.4
 eSn 42 17.00
 EPF 6.64 346 Pn 41 07.10 0.3
 LMR 7.38 23 Pn 41 16.40 -0.6
 Sn 42 31.90
 LRG 7.44 22 Pn 41 18.00 0.1
 Sn 42 34.00
 FRF 7.62 23 Pn 41 19.80 -0.7
 Sn 42 39.80
 PGF 7.75 38 Pn 41 21.40 -0.9
 Sn 42 42.60
 LPO 8.14 353 Pn 41 27.50 -0.2
 CAF 8.32 358 Pn 41 29.80 -0.5
 LFF 8.44 351 Pn 41 31.00 -0.9
 RJF 8.73 355 Pn 41 35.80 -0.1
 LPG 9.43 18 Pn 41 48.00 2.1
 MAF 9.61 0 Pn 41 48.50 0.4
 NB2 25.07 10 P 44 57.70 5.2X
 0.7s 1.00nm 3.6mb
 YKA 69.19 334 eP 50 35.90 0.8
 0.8s 0.30nm 3.5mb
 S.D. = 0.8 on 19 of 20 obs.

% APR 15, 1990 01h 19m 02.72 ± 0.75s
 41.611 N ± 10.4km 14.189 E ± 6.4km
 DEPTH = 5.0km (geophysicist)
 SOUTHERN ITALY (390)

DUI 0.21 76 P 19 07.00 0.0
 eSg 19 09.20
 SDI 0.30 289 Pc 19 09.00 0.3
 eSg 19 14.70
 AZI 0.68 304 P 19 16.20 -0.1
 eSn 19 27.20
 AQU 0.95 322 P 19 21.60 0.4
 eSn 19 35.60
 SGO 1.35 141 P 19 28.10 0.1
 iSn 19 45.90
 MNS 1.37 305 P 19 27.80 -0.6
 eSn 19 46.20
 S.D. = 0.4 on 6 of 6 obs.

? APR 15, 1990 02h 09m 32.71 ± 4.16s
 31.303 S ± 15.3km 68.658 W ± 17.8km
 DEPTH = 95.0 ± 40.7 km
 SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.16 100 iPg 09 46.50 -0.2
 RTCB 0.22 214 iPd 09 47.00 0.1
 ZON 0.24 184 iPd 09 47.20 0.2
 eS 09 59.00
 CFA 0.47 130 iPd 09 48.00 0.0
 eS 10 00.50
 RTCV 0.57 170 ePc 09 48.80 0.0
 eS 10 01.50
 RTBS 0.77 242 ePc 09 50.40 -0.1
 S 10 04.00
 RTRS 1.32 328 iPg 09 56.90 0.1
 eS 10 15.30
 S.D. = 0.2 on 7 of 7 obs.

15d 03h

% APR 15, 1990 03h 12m 43.06 \pm 2.15s
38.696 N \pm 21.7km 27.910 E \pm 25.5km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

IZM 0.59 240 ePg 12 55.00 0.0
DST 1.07 31 iPn 13 03.00 -0.2
KCT 1.59 12 iPn 13 11.70 0.4
EDC 1.65 359 iPn 13 12.00 -0.1
BNT 1.66 0 iPn 13 12.20 -0.1
YLV 2.18 31 iPn 13 24.70 4.7X
S.D. = 0.3 on 5 of 6 obs.

& APR 15, 1990 04h 17m 15.00s
38.802 N 122.763 W
DEPTH = 2.0km
NORTHERN CALIFORNIA (36)
<BRK>. ML 3.2 (BRK).

NWRM 0.36 196 eP 17 22.30 0.1
ZSP 0.94 155 ePd 17 33.10 -0.6
BRK 1.01 157 eP 17 34.20 -0.6
BKS 1.01 156 iPc 17 34.10 -0.8
ORV 1.24 52 eP 17 37.10 -1.6
PCC 1.33 167 eP 17 38.10 -2.3
MHC 1.71 148 eP 17 44.70 -1.3
ARN 1.75 146 eP 17 45.00 -1.5
MIN 1.78 30 eP 17 46.00 -1.2
WDC 1.78 5 eP 17 47.00 0.0
CMB 2.02 112 ePc 17 49.00 -1.5
SAO 2.29 152 eP 17 51.70 -2.7
KVN 3.65 85 eP 18 12.00 -1.8
13 obs. associated

% APR 15, 1990 04h 32m 45.28 \pm 0.59s
39.567 N \pm 5.5km 29.139 E \pm 5.0km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

DST 0.40 276 iPg 32 52.00 -1.4
KCT 0.91 319 iPg 33 03.20 0.5
ALT 0.91 124 ePg 33 02.90 0.1
YLV 1.01 10 iPg 33 04.00 -0.5
GPA 1.15 51 ePn 33 07.00 0.1
BNT 1.22 310 iPn 33 08.20 0.1
EDC 1.25 309 iPn 33 09.00 0.4
KHL 1.28 166 ePn 33 09.10 0.1
HRT 1.32 18 ePn 33 09.10 -0.5
KGT 1.66 303 iPn 33 15.70 1.1
S.D. = 0.8 on 10 of 10 obs.

% APR 15, 1990 04h 42m 52.15 \pm 2.48s
41.399 N \pm 19.8km 23.680 E \pm 10.2km
DEPTH = 5.0km (geophysicist)

GREECE-BULGARIA BORDER REGION (363)

MMB 0.19 11 iPg 42 56.00 -0.1
KKB 0.65 316 iPg 43 05.00 -0.1
RZN 0.83 69 ePg 43 09.00 0.2
VTS 1.24 344 iPg 43 16.00 0.2
KDZ 1.33 79 iPg 43 17.00 -0.2
S.D. = 0.3 on 5 of 5 obs.

* APR 15, 1990 05h 46m 18.56 \pm 0.97s
11.543 N \pm 6.9km 62.078 W \pm 17.2km
DEPTH = 124.6 \pm 12.0 km
3.2mb (1 obs.)

WINDWARD ISLANDS (95)
MD 3.9 (TRN).

GRW 0.74 34 eP 46 38.21 -0.8
TCE 0.90 159 eP 46 40.76 0.4
TRN 1.11 143 eP 46 42.90 0.6
PIG 1.27 107 eP 46 43.32 -0.7

TPR 1.32 105 eS 47 04.22
eP 46 43.76 -0.9
TPP 1.36 153 eS 47 05.15
eP 46 45.66 0.6
BOT 1.39 106 eP 46 44.77 -0.5
TBH 1.45 137 eS 47 05.88
eP 46 50.36 4.3X
FCV 1.80 27 eP 47 12.07
eS 46 49.65 -0.6
SVB 1.90 25 eP 47 11.89
eS 46 51.13 -0.3
SOA 2.03 26 eP 47 13.31
eS 46 54.67 1.6
SLB 2.48 24 eP 47 22.89
eS 46 58.78 -0.2
BDH 2.94 56 eP 47 29.33
eS 47 06.19 1.3
YKA 63.07 336 eP 47 40.52
eS 56 34.00 -0.5
S.D. = 0.9 on 13 of 14 obs.

APR 15, 1990 05h 50m 48.35 \pm 0.64s
39.947 N \pm 5.7km 23.449 E \pm 8.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)
ML 3.3 (ATH).

NEO 0.66 195 ePg 51 01.00 -0.6
eSg 51 11.00
VAY 1.53 334 iPn 51 15.70 0.0
MMB 1.65 7 iPg 51 17.00 -0.6
iS 51 40.00
KKB 1.94 352 iPd 51 21.00 -0.7
ATH 1.98 174 ePg 51 29.00 6.7X
RZN 1.99 29 iPd 51 23.00 0.5
RDO 1.99 52 ePn 51 21.90 -0.5
KDZ 2.26 41 iP 51 25.00 -1.4
iSg 52 00.00
OHR 2.33 301 ePn 51 26.80 -0.6
PLD 2.36 23 eP 51 35.00 7.4X
SKO 2.53 324 ePn 51 29.50 -0.6
DIM 2.63 36 ePg 51 38.00 6.5X
eSg 52 14.00
VTS 2.65 356 iP 51 33.00 1.0
iS 52 06.00
PGB 2.66 12 eP 51 34.00 2.0
ITM 3.01 204 ePn 51 38.00 1.1
PVL 3.56 23 eP 51 45.00 0.3
S.D. = 1.0 on 13 of 16 obs.

APR 15, 1990 06h 16m 53.36 \pm 0.35s
44.787 N \pm 3.4km 11.934 E \pm 4.3km
DEPTH = 16.9 \pm 5.1 km
NORTHERN ITALY (545)
ML 3.0 (KBA).

SFI 0.87 184 P 17 09.50 -0.1
eSg 17 22.30
RSM 0.94 156 Pd 17 11.50 0.8
eSg 17 24.10
MME 1.06 237 Pd 17 13.70 0.6
CRE 1.16 179 P 17 14.50 -0.2
eSn 17 29.50
BDI 1.20 233 P 17 15.10 -0.2
eSn 17 32.30
CTI 1.28 351 P 17 16.20 -0.3
eSn 17 34.00
SAL 1.29 310 P 17 17.00 0.5
eSn 17 34.70
PII 1.47 224 P 17 18.60 -0.5
eSn 17 37.90
ARV 1.48 150 P 17 19.20 0.0
eSn 17 38.00
TRI 1.59 54 P 17 19.90 -0.9
BOB 1.77 270 P 17 23.50 0.0
eSn 17 45.50
VOY 1.86 47 ePn 17 24.20 -0.6
eSn 17 55.20
FVI 1.90 18 P 17 25.80 0.5
eSn 17 50.20
RBL 2.01 34 P 17 28.20 1.2
iSn 17 52.70
OGA 2.18 343 ePn 17 33.50 4.0X
KBA 2.49 23 iPnc 17 34.30 0.3
iPg 17 40.30

iSn 18 06.30
eSg 18 15.00
i 18 17.10
CKI 2.64 263 P 17 35.50 -0.4
S.D. = 0.6 on 16 of 17 obs.

? APR 15, 1990 06h 20m 09.09 \pm 2.58s
22.119 S \pm 20.5km 113.163 E \pm 22.7km
DEPTH = 33.0km (normol)

WESTERN AUSTRALIA (590)

NANU 2.23 102 eP 20 46.10 1.6
e 21 03.00
MBL 6.28 82 P 21 42.00 0.1
eS 22 40.00
MEKA 6.63 133 eP 21 45.00 -1.8
i 21 49.50
eS 22 49.00
eLR 23 30.00
MRWA 7.52 161 eP 22 03.40 4.2X
eS 22 15.00
BAL 9.03 160 eP 22 24.00 3.8X
eS 23 53.00
MUN 10.19 165 eP 22 39.00 2.9X
eS 24 21.00
COOL 11.28 142 eP 22 50.00 -1.0
eS 24 39.00
NWA0 11.35 162 eP 22 54.00 2.0
eS 24 45.00
FORR 15.94 126 eP 23 49.20 -3.3X
0.3s 29.00nm 4.9mb
eS 26 26.00
WB5 19.92 87 eP 24 40.50 -0.5
eS 28 01.00
AIA 92.89 181 eP 33 19.20 -0.4
S.D. = 1.7 on 7 of 11 obs.

& APR 15, 1990 06h 27m 39.64s
19.357 N 155.079 W
DEPTH = 9.7km
3.3mb (1 obs.)
HAWAII (613)
<HVO-P>. MD 4.0 (HVO). Felt (11)
at Hilo and Mountain View.

WHA 0.04 131 iPc 27 41.44 -0.2
MKA 0.08 278 iPd 27 41.98 -0.2
KAE 0.08 217 iPc 27 42.13 0.0
HUL 0.11 57 iPd 27 42.52 0.0
eS 27 44.56
PUH 0.13 279 iPd 27 42.75 -0.1
eS 27 45.05
MVH 0.15 6 iPd 27 43.18 0.1
PWH 0.16 242 iPd 27 43.38 0.2
ESR 0.16 290 iPd 27 43.27 -0.1
AHA 0.18 275 iPd 27 43.51 -0.1
eS 27 46.00
PKL 0.18 56 iPd 27 43.47 -0.2
RIM 0.19 282 iPd 27 43.68 -0.2
OUT 0.19 280 iPd 27 43.76 -0.2
KNH 0.20 264 iPd 27 43.90 -0.2
NPH 0.20 287 iPd 27 43.74 -0.4
UWE 0.21 288 iPc 27 44.00 -0.3
eS 27 47.10
HLP 0.23 255 iPd 27 44.45 -0.1
POH 0.23 65 ePd 27 44.61 0.0
CPK 0.24 279 iPd 27 44.33 -0.4
KPO 0.27 57 ePd 27 44.99 -0.2
MLX 0.27 292 ePd 27 44.97 -0.4
DES 0.29 266 iPd 27 45.16 -0.6
MLH 0.32 296 iPd 27 46.05 -0.4
HTC 0.33 249 eP 27 46.30 -0.1
KFH 0.33 281 iPd 27 46.23 -0.2
AIN 0.36 273 iPd 27 46.66 -0.4
HIL 0.36 359 iPd 27 51.46 4.4
iS 27 57.36
PLL 0.40 296 iPd 27 47.15 -0.8
WOH 0.41 255 iPd 27 47.64 -0.5
PPL 0.41 242 iPc 27 47.68 -0.4
TRH 0.45 278 iPd 27 48.25 -0.6
HMH 0.46 303 iPd 27 48.36 -0.6
WIH 0.49 283 iPc 27 49.11 -0.6
SWH 0.51 281 ePc 27 48.91 -1.1
MWH 0.51 285 ePc 27 49.21 -0.8
KHU 0.52 258 iPc 27 49.10 -1.1
HPU 0.55 320 iPd 27 50.12 -1.0
DAH 0.56 270 iPd 27 49.45 -1.7

KKU 0.59 335 iPc 27 50.94 -0.7
 KIH 0.66 283 iPc 27 51.17 -1.9
 WKH 0.74 312 iPc 27 52.43 -1.9
 KUH 0.75 263 iPc 27 52.06 -2.4
 HUH 0.79 295 iPc 27 53.47 -1.7
 CPH 0.80 279 ePc 27 52.80 -2.5
 KOH 1.01 319 iPc 27 55.88 -3.0
 YKA 51.30 23 eP 36 43.70 -2.0
 0.9s 0.40nm 3.3mb
 45 obs. associated

% APR 15, 1990 06h 34m 36.10 ± 2.52s
 38.732 N ± 14.4km 26.561 E ± 21.5km
 DEPTH = 10.0km (geophysicist)
 AEGEAN SEA (365)

Izm 0.64 121 iPg 34 49.00 0.0
 iSg 34 58.00
 EZN 1.11 351 iPn 34 56.90 0.1
 KGT 1.81 18 iPn 35 07.50 0.0
 DST 1.83 61 ePn 35 08.00 0.1
 EDC 1.90 32 ePn 35 09.00 0.2
 BNT 1.93 33 iPn 35 09.00 -0.3
 S.D. = 0.2 on 6 of 6 obs.

* APR 15, 1990 06h 56m 40.68 ± 1.21s
 38.951 N ± 15.9km 55.656 E ± 10.8km
 DEPTH = 10.0km (geophysicist)
 3.6mb (1 obs.)
 IRAN-USSR BORDER REGION (341)
 ML 4.0 (MHI).

MAIO 4.04 130 ePn 57 44.00 0.1
 0.7s 8.58nm
 eSn 58 31.00
 IR7 5.17 233 eP 58 01.00 1.0
 IR4 5.31 227 eP 58 01.00 -1.1
 IR5 5.51 229 eP 58 05.00 0.1
 YKA 78.60 355 eP 08 43.50 -0.1
 0.6s 0.40nm 3.6mb
 S.D. = 1.0 on 5 of 5 obs.

APR 15, 1990 07h 50m 34.73 ± 0.29s
 43.562 N ± 2.9km 7.776 E ± 1.8km
 DEPTH = 10.0km (geophysicist)
 3.9mb (2 obs.)
 NEAR SOUTH COAST OF FRANCE (379)
 MD 4.3 (TRI), 4.2 (STR), ML 4.2
 (LDG), 4.0 (GEN). Felt (11) at
 Nice. Also felt along the French
 Riviera.

REVF 0.35 301 Pg 50 43.31 1.4
 Sg 50 47.94
 SBF 0.39 321 Pg 50 43.60 0.9
 SAOF 0.45 339 Pg 50 44.62 0.7
 AURF 0.46 315 Pg 50 44.98 0.9
 AUTN 0.50 330 Pg 50 45.60 0.6
 Sg 50 52.43
 MVIF 0.56 307 Pg 50 47.08 0.8
 Sg 50 54.64
 TOUF 0.59 320 Pg 50 47.38 0.5
 Sg 50 55.57
 CALN 0.67 287 Pg 50 49.31 1.1
 Sg 50 58.39
 ENR 0.71 339 Pg 50 49.49 0.7
 FIN 0.72 26 Pg 50 49.96 1.1
 S 50 58.68
 ROB 0.74 5 Pg 50 50.15 0.9
 STV 0.76 335 Pg 50 50.24 0.7
 FRF 0.82 270 Pg 50 51.60 1.0
 Sg 51 02.30
 CKI 0.94 23 Pc 50 53.80 1.2
 iSg 51 05.90
 LMR 0.95 257 Pg 50 53.50 0.7
 Sg 51 05.30
 DOI 1.02 338 Pd 50 54.40 0.4
 iSg 51 07.70
 LRG 1.04 265 Pg 50 55.30 1.0
 Sg 51 08.60
 PZZ 1.06 333 Pg 50 55.42 0.6
 PCP 1.13 29 Pc 50 56.07 0.2
 TAVF 1.25 273 Pn 50 58.51 0.5
 Pg 50 59.76
 Sg 51 17.28
 PGF 1.35 138 Pn 50 59.70 0.0
 Sn 51 15.70

GANF 1.42 288 Pn 51 01.13 0.5
 Pg 51 02.40
 Sg 51 21.46
 VILF 1.52 282 Pn 51 02.48 0.4
 Pg 51 04.26
 RRL 1.53 333 Pg 51 03.02 0.6
 S 51 20.93
 BERF 1.54 261 Pn 51 02.76 0.4
 Sg 51 25.61
 RSP 1.63 347 Pg 51 03.01 -0.7
 S 51 20.93
 BNI 1.69 332 Pd 51 05.50 1.0
 eSn 51 25.20
 BOB 1.70 44 Pd 51 05.00 0.3
 eSn 51 26.20
 GELF 1.72 265 Pn 51 05.10 0.2
 Sg 51 31.60
 TREF 1.74 273 Pn 51 05.46 0.3
 Sg 51 33.04
 PRAF 1.91 278 Pn 51 07.68 0.1
 Pg 51 12.60
 Sg 51 38.37
 LSD 1.95 347 Pg 51 08.29 -0.1
 PII 2.00 84 P 51 09.10 0.2
 eSn 51 34.20
 ORO 2.07 4 P 51 09.70 -0.3
 eSn 51 35.10
 LPG 2.07 340 Pn 51 11.30 1.1
 Sn 51 35.60
 ORX 2.08 4 Pg 51 09.52 -0.6
 LPL 2.09 339 Pn 51 11.70 1.2
 Sn 51 37.00
 BDI 2.10 75 Pc 51 11.00 0.5
 iSn 51 35.70
 MME 2.21 72 P 51 12.40 0.2
 eSn 51 39.90
 VAI 2.41 17 P 51 15.20 0.4
 MMK 2.49 3 ePd 51 16.00 -0.2
 DIX 2.53 354 ePc 51 17.10 0.3
 EMS 2.58 347 ePd 51 19.50 2.1
 MDI 2.61 31 P 51 17.70 0.1
 eSn 51 46.90
 TMA 2.66 17 ePc 51 18.40 -0.2
 MAO 2.73 114 P 51 19.10 -0.3
 eSn 51 51.40
 SAL 2.84 43 P 51 21.40 0.5
 eSn 51 53.40
 PGD 2.88 82 P 51 22.00 0.4
 SFI 2.98 82 P 51 23.70 0.9
 eSn 51 57.50
 VDL 3.16 22 ePd 51 26.30 0.7
 RSM 3.41 82 P 51 30.50 1.5
 LLS 3.42 14 ePc 51 28.80 -0.5
 OSS 3.55 27 ePc 51 32.20 1.1
 CTI 3.71 47 P 51 33.00 -0.4
 eSn 52 14.50
 ARV 3.76 89 P 51 34.50 0.5
 eSn 52 15.90
 MNS 3.79 106 P 51 34.30 -0.1
 SAX 3.85 16 ePd 51 37.10 1.6
 ZLA 3.94 6 ePd 51 36.70 0.1
 OGA 4.02 34 iPnc 51 39.90 2.0
 SMF 4.15 319 Pn 51 38.40 -1.2
 SLE 4.23 7 ePd 51 39.70 -1.0
 FEL 4.32 2 eP 51 40.55 -1.5
 CAF 4.32 290 Pn 51 40.90 -1.2
 Sn 52 29.90
 BSF 4.33 351 Pn 51 41.30 -0.8
 Sn 52 29.70
 LBF 4.35 323 Pn 51 42.60 0.2
 SCE 4.45 37 iPnc 51 43.60 -0.3
 AVF 4.49 317 Pn 51 42.40 -2.0
 HAU 4.56 348 Pn 51 44.60 -0.7
 Sn 52 33.70
 MAF 4.56 307 Pn 51 45.30 0.0
 BGF 4.60 312 Pn 51 45.70 -0.2
 SSF 4.62 321 Pn 51 45.30 -0.8
 LOR 4.62 325 Pn 51 46.30 0.1
 Pg 52 01.80
 Sn 52 36.00
 FVI 4.66 48 P 51 46.50 -0.3
 eSn 52 37.20
 TRI 4.78 61 ePn 51 47.00 -1.5
 iSn 52 39.10
 TCF 4.80 307 Pn 51 47.80 -1.0
 RJF 4.81 293 Pn 51 47.60 -1.3
 SDI 4.83 111 P 51 49.00 -0.2

CDF 4.86 356 Pn 51 48.20 -1.5
 Sn 52 42.60
 LPO 4.87 286 Pn 51 48.60 -1.2
 VOY 5.01 58 ePn 51 50.70 -1.0
 eSn 52 45.80
 RBL 5.02 53 P 51 50.90 -1.0
 eSn 52 44.90
 LSF 5.19 303 Pn 51 53.10 -1.1
 Pg 52 12.60
 Sn 52 49.30
 Sg 53 19.00
 CEY 5.22 63 eP 52 11.40 16.7X
 eSn 52 53.00
 LFF 5.24 288 Pn 51 53.70 -1.2
 KBA 5.27 46 iPnd 51 55.80 0.2
 iPg 52 08.20
 i 52 10.70
 iSn 52 36.80
 i 52 53.10
 iSg 52 55.70
 LJU 5.41 60 eP 52 02.50 5.1X
 e 52 19.00
 eSn 52 57.00
 EPF 5.45 267 Pn 51 55.70 -2.4
 VBY 5.69 67 eP 52 13.00 11.7X
 eSn 53 00.80
 BTH 5.84 268 e(Pg) 52 25.50 22.1X
 Sn 53 10.50
 Sg 53 51.00
 PTJ 6.28 65 eP 52 43.00 33.3X
 MFF 6.38 301 Pn 52 11.20 0.2
 GRF 6.57 20 ePn 52 10.50 -3.3X
 e(Pg) 52 41.70
 eSg 53 22.20
 TNS 6.68 4 ePn 52 14.80 -0.5
 eSn 53 26.60
 KHC 6.86 34 ePn 52 15.90 -2.0
 Sg 53 29.00
 DOU 6.89 343 P 52 16.70 -1.5
 id 52 24.60
 S 53 30.40
 MEM 7.15 351 iP 52 20.70 -1.1
 S 53 32.50
 LDF 7.45 315 Pn 52 26.50 0.5
 MOX 7.55 19 (Pg) 53 04.00 36.5X
 (Sn) 53 46.00
 LPF 7.61 309 Pn 52 27.40 -0.9
 GRR 7.71 312 Pn 52 29.30 -0.4
 FLN 7.74 315 Pn 52 29.80 -0.3
 PRU 7.93 33 Pn 52 30.50 -2.2
 e 53 14.00
 Sn 53 55.00
 BRG 8.43 28 e(P) 53 10.00 30.3X
 e 54 07.00
 e 54 58.00
 i 55 09.00
 BCAA 40.11 163 ePc 58 13.80 1.6
 0.6s 4.00nm 4.3mb
 YKA 64.70 334 eP 01 12.70 -1.9
 0.5s 0.20nm 3.6mb
 S.D. = 1.0 on 97 of 105 obs.

APR 15, 1990 07h 55m 22.33 ± 0.95s
 43.571 N ± 5.6km 7.793 E ± 5.1km
 DEPTH = 10.0km (geophysicist)
 NEAR SOUTH COAST OF FRANCE (379)
 ML 1.9 (LDG), MD 1.5 (STR).

REVF 0.35 299 Pg 55 30.39 0.8
 Sg 55 34.83
 SBF 0.39 318 Pg 55 30.60 0.2
 Sg 55 35.80
 SAOF 0.45 338 Pg 55 31.36 -0.1
 AURF 0.46 313 Pg 55 32.01 0.2
 AUTN 0.50 328 Pg 55 32.47 -0.1
 Sg 55 39.14
 MVIF 0.57 305 Pg 55 34.16 0.2
 Sg 55 41.03
 TOUF 0.59 318 Pg 55 34.14 -0.3
 CALN 0.68 286 Pg 55 35.89 0.0
 FIN 0.71 25 P 55 36.70 0.4
 S 55 45.23
 ENR 0.71 338 P 55 35.98 -0.4
 S 55 44.80
 ROB 0.73 4 P 55 36.70 0.1
 S 55 45.73
 STV 0.75 333 P 55 36.70 -0.4

15d 07h

FRF	0.83	270	Pg	55 46.14	0.1
			Sg	55 38.50	
CKI	0.92	22	P	55 49.30	0.0
			eSn	55 40.00	
LMR	0.96	256	Pg	55 52.50	-0.3
			Sg	55 40.40	
DOI	1.01	337	P	55 51.30	-0.1
			eSg	55 41.50	
LRG	1.05	264	Pg	55 54.00	-0.1
			Sg	55 42.00	
PZZ	1.06	332	P	55 54.80	-0.2
			S	55 42.14	
			S	55 54.75	

S.D. = 0.3 on 18 of 18 obs.

APR 15, 1990 07h 56m 23.31 ± 1.03s
 43.590 N ± 7.4km 7.726 E ± 6.2km
 DEPTH = 10.0km (geophysicist)
 NEAR SOUTH COAST OF FRANCE (379)
 ML 1.9 (LDG).

SBF	0.34	322	Pg	56 31.00	0.5
			Sg	56 36.20	
ENR	0.67	341	P	56 36.40	-0.3
			S	56 45.88	
FIN	0.71	29	P	56 36.86	-0.5
			S	56 45.99	
ROB	0.71	8	P	56 37.13	-0.3
			S	56 46.29	
STV	0.72	336	P	56 37.01	-0.4
			S	56 46.84	
FRF	0.78	268	Pg	56 38.80	0.2
			Sg	56 48.90	
LMR	0.92	254	Pg	56 40.60	-0.3
			Sg	56 51.50	
CKI	0.93	25	P	56 41.50	0.5
			eSg	56 52.20	
DOI	0.98	339	P	56 42.00	0.1
			eSg	56 54.50	
LRG	1.00	263	Pg	56 42.40	0.1
			Sg	56 55.40	
PZZ	1.02	334	P	56 42.70	0.0
			S	56 56.14	
PCP	1.12	32	P	56 44.69	0.4

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

APR 15, 1990 08h 12m 51.03 ± 0.81s
 43.597 N ± 5.2km 7.728 E ± 4.2km
 DEPTH = 10.0km (geophysicist)
 NEAR SOUTH COAST OF FRANCE (379)
 ML 2.4 (LDG).

REVF	0.30	299	Pg	12 57.91	0.6
			Sg	13 02.53	
SBF	0.34	322	Pg	12 58.40	0.3
			Sg	13 03.20	
SAOF	0.41	342	Pg	12 59.02	-0.4
			Sg	13 04.74	
AURF	0.41	315	Pg	12 59.54	0.1
AUTN	0.45	331	Pg	13 00.12	-0.2
			Sg	13 06.69	
MVIF	0.51	306	Pg	13 01.81	0.3
			Sg	13 08.87	
TOUF	0.54	320	Pg	13 01.75	-0.3
			Sg	13 09.71	
CALN	0.63	285	Pg	13 04.26	0.5
ENR	0.67	341	P	13 03.85	-0.5
			S	13 13.19	
FIN	0.70	29	P	13 04.78	-0.2
			S	13 14.00	
ROB	0.71	8	P	13 04.68	-0.3
			S	13 14.21	
STV	0.71	336	P	13 04.57	-0.5
			S	13 14.31	
FRF	0.79	268	Pg	13 06.30	0.0
			Sg	13 16.40	
CKI	0.92	26	P	13 09.30	0.7
			eSg	13 21.00	
LMR	0.93	254	Pg	13 08.10	-0.6
			Sg	13 19.70	
DOI	0.97	339	P	13 10.00	0.5
			eSg	13 22.00	
LRG	1.00	262	Pg	13 10.00	0.0
			Sg	13 22.70	
PZZ	1.01	334	P	13 10.11	-0.2
			S	13 23.03	
PCP	1.11	32	P	13 12.16	0.2

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

APR 15, 1990 08h 14m 14.18 ± 1.25s
 43.582 N ± 8.6km 7.722 E ± 7.8km
 DEPTH = 10.0km (geophysicist)
 NEAR SOUTH COAST OF FRANCE (379)
 ML 2.0 (LDG).

SBF	0.35	324	Pg	14 22.00	0.6
			Sg	14 26.60	
ENR	0.68	341	P	14 27.27	-0.5
			S	14 35.89	
FIN	0.72	29	P	14 28.81	0.5
			S	14 37.94	
ROB	0.72	9	P	14 28.30	-0.1
			S	14 37.63	
STV	0.72	337	P	14 27.99	-0.4
			S	14 37.63	
FRF	0.78	269	Pg	14 29.60	0.2
			Sg	14 40.00	
LMR	0.92	255	Pg	14 31.40	-0.3
			Sg	14 43.40	
CKI	0.93	25	P	14 31.80	-0.2
			eSg	14 44.50	
LRG	1.00	263	Pg	14 33.20	0.1
			Sg	14 46.40	
PZZ	1.03	334	P	14 33.73	0.1
			S	14 46.55	

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

* APR 15, 1990 08h 42m 05.50 ± 0.89s
 14.999 N ± 21.6km 147.548 E ± 17.2km
 DEPTH = 33.0km (normal)
 4.0mb (2 obs.)
 MARIANA ISLANDS REGION (215)

GUA	2.94	241	e(P)	42 49.50	-1.5
			eS	43 27.70	
GUMO	2.95	242	e(P)	42 52.20	1.0
PJG	2.95	242	e(P)	42 51.70	0.5
WB5	37.00	201	eP	49 13.90	-0.1
WRA	37.07	201	Pc	49 14.70	0.1
	0.8s		3.40nm		4.3mb
YKA	80.41	28	eP	54 14.40	-0.6
	0.7s		0.80nm		3.8mb
PNT	80.61	41	eP	54 17.00	0.6
	0.8s		0.80nm		3.8mb
	S.D. = 1.0	on 7 of 7 obs.			
% APR 15, 1990 09h 59m 21.18 ± 0.89s 39.067 N ± 7.2km 27.652 E ± 9.2km DEPTH = 10.0km (geophysicist)					

TURKEY (366)

IZM	0.73	205	iPg	59 35.60	0.0
			iSg	59 47.60	
DST	0.93	54	iPn	59 39.00	0.1
EZN	1.28	307	iPn	59 44.90	0.1
EDC	1.29	7	iPn	59 45.00	-0.1
BNT	1.30	9	iPn	59 45.30	0.0

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

* APR 15, 1990 10h 06m 42.17 ± 0.48s
 14.914 N ± 11.5km 147.268 E ± 11.6km
 DEPTH = 33.0km (normal)
 4.2mb (2 obs.)
 MARIANA ISLANDS REGION (215)

GUA	2.66	239	eP	07 24.30	0.6
			eS	07 55.30	
PJG	2.68	241	eP	07 23.80	-0.1
GUMO	2.68	241	eP	07 23.80	-0.1
MAT	23.01	341	(P)	11 45.00	-0.2
SSE	28.80	308	eP	12 47.50	8.1x
			i	12 51.00	
WB5	36.83	201	eP	13 48.70	-0.5
WRA	36.90	201	Pd	13 48.90	-0.9
	0.8s		4.90nm		4.4mb
CHG	46.30	282	eP	15 20.30	13.4x
INK	72.26	23	eP	18 05.00	-0.8
YKA	80.62	28	eP	18 51.50	-1.3
	0.6s		1.10nm		4.0mb
PNT	80.85	41	eP	18 55.00	0.7
LRM	86.44	44	eP	19 23.60	0.5
KIC	145.12	305	PKP	26 19.00	0.1
TIC	145.16	306	PKP	26 19.00	0.0
LIC	145.43	305	PKP	26 19.80	0.4
ZOBO	145.91	97	PKP	26 22.50	1.6

S.D. = 0.8 on 14 of 16 obs.

APR 15, 1990 10h 30m 43.26 ± 0.25s
 22.908 N ± 4.4km 124.485 E ± 4.5km
 DEPTH = 37.9km (4 depth phases)
 4.8mb (15 obs.)
 SOUTHEAST OF TAIWAN (247)

TWD	2.90	294	ePd	31 27.10	-1.0
TWC	2.95	306	iPc	31 28.40	-0.4
TWF1	2.97	279	iPc	31 28.00	-1.1
			eS	32 02.30	
TWG	3.15	269	ePc	31 31.00	-0.6
			eS	32 06.80	
TWZ	3.44	310	ePc	31 35.40	-0.3
ANP	3.53	310	eP	31 44.00	6.8X
CVP	5.75	206	ePd	32 07.00	-1.4
			eS	33 15.00	
PIP	5.82	219	iPc	32 09.50	0.0
	1.0s		2634.00nm		6.7mb X
SZP	6.53	216	eP	32 21.00	1.5
			iS	33 36.00	
BAG	7.44	210	eP	32 32.00	-0.3
SSE	8.67	341	Pc	32 45.50	-3.7X
	0.7s		21.00nm		5.3mb X
Z	20s		1.40um		4.4msz
N	13s		1.60um		
			Lg	35 18.50	
HKC	9.55	268	iP	33 11.80	10.4X
PGP	9.94	200	iPc	33 06.00	-0.7
			iS	33 17.80	
TSRJ	16.08	36	eP	34 30.50	2.4
IJDJ	17.13	40	eP	34 44.20	2.7
MTMJ	17.85	37	P	34 51.30	0.8
MAT	18.04	38	iPc	34 52.50	-0.3
	1.5s		222.22nm		5.1mb
			eS	38 15.00	
CHJJ	18.16	41	P	34 53.50	-0.8
BJI	18.48	340	eP	34 56.50	-1.5
	1.5s		52.00nm		4.5mb
Z	12s		1.21um		5.2msz
			eS	38 24.00	
KAKJ	18.99	42	eP	35 00.40	-3.9X
NIIJ	18.99	38	eP	35 01.60	-2.7
TSM	19.58	199	ePc	35 11.60	0.4
KMI	19.99	281	Pd	35 20.00	4.3X
	2.0s		0.10nm		1.8mb X
Z	10s		1.30um		4.5mszX
N	10s		0.40um		
E	10s		0.60um		
			S	39 09.00	
GUMO	21.44	112	eP	35 30.60	0.2
	0.8s		146.41nm		5.4mb
PJG	21.44	112	eP	35 30.60	0.2
GUA	21.50	112	eP	35 30.50	-0.5
	0.9s		161.34nm		5.4mb
LOE	22.04	260	eP	35 41.00	4.6X
LZH	22.20	311	eP	35 39.50	1.5
	2.0s		47.00nm		4.6mb
N	13s		0.60um		
			pP	35 49.50	37km
			PP	36 04.00	
			i	36 26.50	
			i	36 47.50	
			eS	39 42.00	
			eS	40 29.00	
CHG	24.20	265	eP	36 01.40	3.9X
CHTO	24.20	265	e(P)	36 01.70	4.2X
			pP	36 11.90	38km
SHL	29.81	282	iP	36 51.00	1.7
NDI	42.73	288	eP	38 39.60	1.0
HYB	43.33	271	eP	38 46.50	2.8X
WB5	43.61	166	eP	38 45.50	-0.2
WRA	43.66	167	Pd	38 45.80	-0.4
	0.7s		8.70nm		4.6mb
QUE	51.52	291	eP	40 00.60	12.7X
BRS	56.99	150	eP	40 26.00	-1.6
			i	41 23.50	259kmX
MAIO	57.11	299	eP	40 30.00	1.4
BRW	64.89	20	eP	41 20.70	0.1
TTA	65.10	30	eP	41 21.50	-0.7
IMA	66.00	26	eP	41 27.40	-0.5
	1.2s		15.60nm		5.0mb
KDC	67.25	35	e(P)	41 34.30	-1.5
PMR	68.43	31	eP	41 41.40	-1.7
	1.3s		23.60nm		5.1mb
FBA	68.55	27	eP	41 42.60	-1.2

KEV	71.27	339	eP	41 54.00	-6.4X	WASHINGTON	(29)	GULW	2.95	172	P	08 22.53	2.0			
SOD	72.06	336	iP	42 05.40	0.3	<SEA>. CL 3.0 (SEA).		RSW	3.02	144	P	08 21.40	-0.1			
INK	73.26	22	eP	42 11.00	-1.1			GL2	3.03	162	P	08 24.92	3.2			
SUF	73.63	332	eP	42 13.90	-0.4	VDB	0.19 15 P	07 35.64	0.3	WIW	3.11	140	P	08 27.04	4.4	
	0.6 s			7.70nm	4.9mb			S	07 39.84	PRW	3.13	146	P	08 22.89	-0.1	
MBC	73.83	13	eP	42 14.50	-0.8	MBW	0.19 109 P	07 36.18	0.7	VBEM	3.81	174	P	08 36.98	4.1	
	1.1 s			7.00nm	4.6mb	CMW	0.43 175 Pd	07 39.51	-0.6	LNOR	3.98	137	P	08 35.17	0.0	
NUR	75.02	330	iP	42 22.40	0.0	MCW	0.46 249 Pc	07 40.45	-0.4	YKA	14.31	14	eP	10 57.00	-0.2	
BBTK	76.96	308	eP	42 28.00	-6.0X	HNB	0.50 328 P	07 40.45	-1.2		0.5 s		0.30nm		3.3mb	
DAG	78.09	352	iPd	42 38.00	-1.3		S	07 48.21			86 obs. associated					
	0.8 s			6.72nm	4.7mb	OHW	0.57 204 P	07 42.79	-0.3							
UPP	78.51	330	iP	42 41.90	0.1	RPW	0.59 132 P	07 42.48	-1.0	% APR 15, 1990	11h	33m	23.09± 0.58s			
VRI	79.05	315	ePc	42 46.00	0.8	SNB	0.66 264 Pc	07 44.18	-0.6		41.198 N ± 9.2km		14.684 E ± 9.6km			
MLR	79.70	315	eP	42 50.00	1.1	JCW	0.67 166 Pd	07 44.09	-1.0		DEPTH = 10.0km	(geophysicist)				
HFS	80.14	332	eP	42 49.70	-1.0	PGC	0.87 257 Pc	07 47.06	-1.8		SOUTHERN ITALY		(390)			
	0.7 s			3.70nm	4.5mb	VGZ	0.88 241 Pc	07 47.26	-1.8							
Z	17 s			0.34um	4.8mszX		S	07 59.24		DUI	0.49	340	P	33 33.30	0.2	
				LR	19 08.00	BIB	0.93 307 P	07 48.10	-2.0			eSg	33 41.50			
NB2	80.75	333	P	42 53.60	-0.4	BLN	0.99 212 P	07 49.87	-1.4	SGO	0.79	143	P	33 39.00	0.5	
	1.0 s			12.50nm	4.8mb	BLH	1.02 174 ePd	07 50.79	-0.8			eSg	33 50.40			
YKA	82.94	24	eP	43 03.60	-1.7	WPB	1.06 321 P	07 50.17	-2.1	SDI	0.83	308	P	33 40.60	1.5	
	0.7 s			1.80nm	4.3mb	PGW	1.06 195 Pd	07 51.53	-0.9			eSn	33 51.70			
VAY	83.62	312	eP	43 09.40	0.2	HTW	1.08 165 ePd	07 51.28	-1.5	AZI	1.23	311	P	33 46.00	0.1	
SKO	84.11	313	eP	43 11.00	-0.7	STW	1.21 235 Pc	07 53.06	-1.9			eSn	34 03.50			
				e	43 23.50	NAB	1.26 288 Pc	07 53.66	-2.1	MGR	1.25	148	P	33 46.00	-0.3	
BRG	84.58	323	iP	43 14.40	0.5		S	08 10.29				eSn	34 04.00			
PRU	84.69	322	eP	43 15.00	0.6	SPW	1.30 182 Pd	07 55.99	-0.4	RMP	1.61	293	P	33 50.50	-1.1	
				e	45 30.00	HDW	1.33 206 Pc	07 55.41	-1.7			eSg	34 12.00			
CLL	84.87	324	eP	43 16.00	0.7	SHB	1.34 365 P	07 54.88	-2.4	MNS	1.91	309	P	33 56.50	0.5	
				e	43 27.00		S	08 13.32				eSn	34 19.60			
MOX	85.97	324	e(P)	43 22.00	1.2	GMW	1.36 198 Pd	07 55.77	-1.8	BRT	1.93	99	P	33 56.30	0.0	
EDM	89.19	31	ePd	43 36.80	0.4	WHB	1.38 339 P	07 56.49	-1.4			eSn	34 18.40			
NEW	90.29	36	eP	43 42.30	0.7		S	08 14.09		ARV	2.64	331	P	34 06.20	-0.2	
WDC	91.34	45	eP	43 47.20	0.7	RMW	1.41 170 Pd	07 57.37	-1.0	SFI	3.43	323	P	34 16.50	-1.1	
FRB	93.03	6	eP	43 52.00	-1.8	OSD	1.45 225 ePc	07 57.34	-1.7		S.D. = 0.9	on	10 of 10 obs.			
FFC	93.05	25	eP	43 54.00	-0.1	NLW	1.45 121 ePd	07 58.14	-0.8							
	0.8 s			8.00nm	5.2mb	OTR	1.63 243 P	07 59.99	-1.6		APR 15, 1990	11h	38m	56.31± 0.60s		
CMB	94.11	46	eP	44 00.20	0.8	GSM	1.66 171 Pd	08 01.20	-0.9			16.740 N ± 5.6km		61.992 W ± 6.0km		
KVN	95.03	44	eP	44 04.70	0.9	MFB	1.67 276 Pc	08 00.25	-1.9			DEPTH = 10.0km	(geophysicist)			
FRI	95.14	46	eP	44 04.50	0.5	OGK	1.71 239 P	08 02.15	-0.4			LEEWARD ISLANDS		(92)		
TNP	96.15	44	eP	44 09.80	0.8	SMW	1.72 207 P	08 03.04	0.2			ML 2.8 (FDF).				
KIC	122.48	294	PKP	49 37.40	0.4	OOW	1.74 231 Pc	08 02.91	-0.3	MGH	0.22	265	eP	39 01.45	0.5	
LIC	122.79	294	PKP	49 38.00	0.4	ETW	1.75 135 P	08 03.08	-0.3			S	39 04.50			
ZOBO	166.41	63	PKP	50 49.20	2.4	ALB	1.80 285 Pc	08 02.24	-1.6	BPA	0.33	23	ePc	39 03.38	0.2	
SIV	171.35	38	PKP	50 51.00	1.8	GHW	1.81 182 P	08 03.19	-0.9			S	39 07.70			
	S.O. = 1.1	on		65 of 77 obs.		DHW2	1.82 117 P	08 04.44	0.1	SEG	0.57	126	eP	39 07.98	0.0	
						WTV	1.88 127 Pc	08 05.79	0.6	NEV	0.68	305	eP	39 09.25	-0.5	
	APR 15, 1990	10h	57m	36.69± 0.98s		OBH	1.90 212 P	08 05.08	-0.3			S	39 18.60			
	43.572 N ± 6.1km			7.770 E ± 5.4km		RVC	1.91 176 Pd	08 05.03	-0.6	PAG	0.77	157	ePd	39 11.35	0.0	
	DEPTH = 10.0km	(geophysicist)				TWW	1.92 152 P	08 06.58	0.8			S	39 21.90			
	NEAR SOUTH COAST OF FRANCE			(379)		FMW	1.95 170 Pd	08 05.54	-0.7	SFG	0.90	122	eP	39 09.00	-3.8X	
	ML 1.8 (LDG).					CPW	1.98 199 P	08 05.78	-0.9	MGG	1.04	142	ePd	39 15.89	-0.1	
SBF	0.38	320	Pg	57 44.90	0.4	TBM	1.99 147 ePd	08 07.20	0.5	BBL	1.31	158	eP	39 20.40	-0.1	
			Sg	57 49.80		SAW	2.18 121 P	08 11.21	1.7		S.D. = 0.4	on	7 of 8 obs.			
SAOF	0.44	340	Pg	57 45.51	-0.2	LMW	2.18 182 P	08 09.06	-0.6							
			Sg	57 51.21		WPW	2.19 169 P	08 09.56	-0.2	* APR 15, 1990	11h	39m	55.69± 0.84s			
AURF	0.45	315	Pg	57 46.26	0.4	APW	2.22 188 P	08 09.46	-0.6			16.640 N ± 10.7km		62.061 W ± 12.2km		
AUTN	0.49	330	Pg	57 46.55	-0.2	EBG	2.22 150 P	08 10.42	0.3			DEPTH = 33.0km	(normol)			
MVIF	0.55	306	Pg	57 48.76	0.7	ONR	2.24 209 P	08 10.24	-0.1			LEEWARD ISLANDS		(92)		
			Sg	57 55.72		BTB	2.28 207 Pd	08 10.06	-1.0			MD 3.1 (TRN).				
TOUF	0.58	320	Pg	57 48.20	-0.4	EPH	2.29 130 P	08 13.01	2.0	MBET	0.14	316	eP	40 00.85	-0.9	
			Sg	57 48.20		NAC	2.30 156 P	08 11.58	0.3			eS	40 05.15			
ENR	0.70	339	P	57 50.29	-0.3	GLK	2.32 170 ePd	08 11.97	0.4	MGH	0.17	298	eP	40 01.41	-0.6	
			S	57 58.83		KOSW	2.39 180 P	08 12.60	0.1			eS	40 05.86			
FIN	0.71	26	P	57 50.66	-0.1	VTG	2.40 141 P	08 14.27	1.7	BPA	0.45	26	eP	40 05.50	0.0	
			S	57 59.41		CZM	2.42 185 P	08 12.98	0.0	NEV	0.69	315	eP	40 09.43	0.4	
ROB	0.73	6	P	57 51.11	0.1	BMW	2.48 197 P	08 13.71	-0.1			eS	40 18.64			
			S	57 59.98		TDL	2.50 181 P	08 14.12	0.0	PAG	0.71	149	eP	40 09.70	0.4	
STV	0.75	335	P	57 50.90	-0.5	ERK	2.55 183 P	08 14.62	-0.2	SKI	0.95	317	eP	40 13.49	0.8	
			S	57 59.84		BVW	2.56 142 P	08 17.54	2.6			eS	40 24.80			
FRF	0.82	270	Pg	57 52.50	0.0	YAKW	2.58 154 P	08 16.72	1.5		S.D. = 0.9	on	6 of 6 obs.			
			Sg	58 03.10		MXC	2.60 150 P	08 15.40	-0.1	* APR 15, 1990	11h	50m	44.54± 1.59s			
LMR	0.95	256	Pg	57 54.50	-0.2	SOSW	2.61 179 P	08 16.09	0.3			8.665 S ± 21.9km		120.539 E ± 12.0km		
			Sg	58 06.40		YEL	2.64 180 P	08 16.78	0.6			DEPTH = 137.7 ± 28.2 km				
LRG	1.03	264	Pg	57 56.20	0.0	ESD	2.65 180 P	08 17.26	0.9			3.5mb (1 obs.)				
			Sg	58 09.60		HSR	2.68 180 P	08 17.80	1.1			FLORES ISLAND REGION		(286)		
PZZ	1.05	333	P	57 56.54	-0.1	JLK	2.70 180 P	08 18.32	1.3	KHKI	4.89	273	ePd	51 57.20	0.1	
			S	58 09.26		RVW	2.73 188 P	08 18.03	0.7			eS	52 49.90			
PCP	1.12	30	P	57 58.08	0.4	ASR	2.73 171 P	08 18.80	1.4	KNA	10.69	132	eP	53 13.80	-1.2	
			S	58 12.18		CDFW	2.73 178 P	08 18.28	0.8			eS	55 17.00			
	S.D. = 0.4	on		15 of 15 obs.		WAH2	2.74 139 P	08 20.64	3.2	MTN	11.20	113	eP	53 22.00	0.2	
						CRF	2.76 136 P	08 20.40	2.6			eS	55 19.00			
	APR 15, 1990	11h	07m	31.60s		MDW	2.77 143 P	08 17.81	-0.1							
	48.847 N			122.178 W		LVP	2.78 183 P	08 18.54	0.3							
	DEPTH = 1.4km					BRVW	2.79 147 P	08 17.75	-0.5							
	3.3mb (1 obs.)					MTNW	2.82 180 P	08 19.29	0.5							
						GBL	2.90 140 P	08 24.20	4.4							

MBL	12.44	183	eP	53	38.00	0.0
NANU	14.63	199	eP	54	11.00	4.9X
WB5	17.42	131	eP	54	41.10	0.5
WRA	17.44	131	Pd	54	41.90	1.0
BRS	35.70	126	eP	57	31.00	-0.6
S.D. = 1.0 on 7 of 8 obs.						
APR 15, 1990 13h 05m 15.17±0.69s 4.841 S ± 8.7km 151.996 E ± 8.9km DEPTH = 90.5 ± 7.1 km 4.5mb (6 obs.) NEW BRITAIN REGION (192)						
RAB	0.67	15	iPc	05	31.50	-0.1
PMG	6.61	226	eP	06	52.00	0.5
CTA	16.15	200	ePd	09	04.00	5.8X
OIS	19.73	217	iPc	09	40.00	-0.3
MTN	22.08	248	iPd	10	04.60	0.6
DZM	22.12	142	iPc	10	04.10	-0.4
BRS	22.44	178	iPc	10	07.70	0.2
WB5	22.76	227	iPc	10	11.30	0.6
WRA	22.82	227	Pd	10	10.30	-1.0
KNA	25.26	243	eP	10	34.80	0.1
MBL	35.17	240	iPd	12	02.10	-0.4
NANU	39.40	240	eP	12	37.50	-0.4
FBA	82.22	22	eP	17	26.60	-0.7
INK	88.78	21	eP	18	19.00	19.3X
KVN	92.94	51	eP	18	20.40	0.6
TNP	93.57	52	e(P)	18	23.70	0.9
YKA	95.84	28	eP	18	32.10	-0.2
S.D. = 0.6 on 15 of 17 obs.						
% APR 15, 1990 13h 16m 55.69±0.79s 30.512 S ± 8.3km 116.964 E ± 7.7km DEPTH = 10.0km (geophysicist) WESTERN AUSTRALIA (590)						
BAL	0.24	247	iPd	16	59.80	-1.0
KLB	1.28	148	eP	17	21.00	1.6
MWRA	1.54	327	iPd	17	24.30	1.1
MUN	1.60	204	eP	17	24.00	-0.1
NWAO	2.42	175	eP	17	39.00	3.1X
COOL	3.62	97	eP	17	53.00	0.0
MEKA	4.12	20	eP	18	00.00	-0.1
FORR	9.60	95	eP	19	15.20	-1.6
S.D. = 1.4 on 7 of 8 obs.						
* APR 15, 1990 13h 17m 58.66±0.90s 0.036 N ± 10.1km 123.487 E ± 10.6km DEPTH = 166.0 ± 10.9 km 4.6mb (5 obs.) MINAHASSA PENINSULA (265)						
MNI	1.94	44	ePd	18	34.00	-0.5
AAI	5.98	128	ePc	19	26.50	0.3
MKS	6.58	217	iPc	19	32.50	-1.6
TSM	6.82	308	ePd	19	38.90	1.5
KKM	9.40	310	ePd	20	14.00	2.4
MTN	14.88	150	eP	21	20.00	-2.0
WB5	22.48	152	eP	22	45.50	0.6
WRA	22.52	152	Pd	22	45.20	-0.1
IPM	22.89	282	ePc	22	50.00	1.2
QIS 1.0s 47.10nm 4.9mb 25.84 143 iPc 23 16.50 0.0 e 23 53.00 e 28 12.00 e 31 14.00 LOE 27.51 310 eP 23 30.00 -1.7 CHG 30.48 309 eP 23 57.10 -1.0 MAT 38.81 19 iPd 25 07.50 -1.4 BRS 39.18 136 iPc 25 12.20 0.1 BWA 41.47 148 eP 25 33.40 2.6 CAN 42.47 149 eP 25 40.20 1.3 HYB 47.46 294 eP 26 16.50 -2.4 VND A 80.21 172 e(P) 29 51.20 -0.3 YKA 104.17 24 ePd diff 31 44.00 -0.3 ZOBO 160.22 145 PKP 37 42.00 1.3 S.D. = 1.6 on 20 of 20 obs. ? APR 15, 1990 14h 36m 10.33±1.81s 50.128 N ± 19.6km 7.824 E ± 10.5km DEPTH = 10.0km (geophysicist) GERMANY (543) ABH 0.30 216 ePg 36 17.07 0.4 TNS 0.41 76 iPgc 36 18.90 0.1 RUP 0.65 229 ePg 36 23.04 -0.3 TOD 0.82 129 ePg 36 26.10 -0.2 S.D. = 0.5 on 4 of 4 obs. % APR 15, 1990 15h 48m 58.74±0.75s 39.353 N ± 7.3km 29.299 E ± 7.1km DEPTH = 5.0km (geophysicist) TURKEY (366) DST 0.58 296 iPg 49 09.00 -1.3 ALT 0.70 115 iPg 49 12.20 -0.5 KHL 1.04 170 iPg 49 19.30 0.3 YLV 1.21 3 iPn 49 23.00 1.2 GPA 1.22 39 ePn 49 22.00 0.1 BNT 1.46 314 iPn 49 26.00 0.2 EDC 1.48 312 ePn 49 26.00 -0.1 HRT 1.49 11 ePn 49 26.00 -0.3 IZM 1.85 240 ePn 49 35.00 3.5X KGT 1.89 306 iPn 49 34.00 2.1 CTT 1.91 340 ePn 49 30.50 -1.8 S.D. = 1.3 on 10 of 11 obs. & APR 15, 1990 16h 25m 20.42s 60.033 N 152.174 W DEPTH = 90.2km SOUTHERN ALASKA <AGS-P> (2) NNL 0.44 88 iP 25 35.49 0.5 RED 0.49 323 iP 25 34.63 -0.8 RDT 0.55 348 iP 25 35.13 -0.8 XLV 0.62 158 iP 25 35.76 -0.7 CNPM 0.70 137 iP 25 36.78 -0.4 NKA 0.85 33 iP 25 40.05 1.3 AUE 0.91 222 iP 25 38.43 -0.9 AUL 0.91 225 iP 25 38.7						

NCG 1.16 323 iP 40 54.15 -0.6
 PWA 1.23 18 iP 40 55.68 0.1
 PLRM 1.35 34 iP 40 56.53 -0.6
 GHO 1.55 33 iP 40 59.59 -0.6
 SKT 1.55 345 eP 41 00.13 0.0
 GLI 1.82 76 iP 41 02.01 -1.9
 PDB 1.88 250 iP 41 04.44 -0.4
 CUT 1.94 6 iP 41 05.53 -0.1
 KLU 2.54 64 iP 41 12.60 -1.7
 TOA 2.72 51 iP 41 16.47 -0.4
 GLB 3.49 71 iP 41 25.26 -2.5
 YKA 17.20 68 eP 44 29.20 -3.9
 0.6s 0.20nm 2.4mb
 26 obs. associated

% APR 15, 1990 19h 16m 43.82 ± 0.74s
 39.319 N ± 5.8km 27.409 E ± 7.0km
 DEPTH = 10.0km (geophysicist)

TURKEY (366)

IZM 0.93 187 ePg 17 01.80 0.2
 EZN 0.98 301 iPg 17 02.00 -0.4
 DST 0.99 73 iPg 17 02.00 -0.6
 EDC 1.08 19 iPg 17 04.00 -0.2
 BNT 1.11 21 iPn 17 04.80 0.2
 KGT 1.13 356 iPn 17 05.30 0.3
 KCT 1.18 38 iPn 17 06.30 0.4
 S.D. = 0.5 on 7 of 7 obs.

% APR 15, 1990 19h 43m 34.26 ± 0.89s
 41.792 N ± 11.0km 14.209 E ± 7.2km
 DEPTH = 5.0km (geophysicist)

SOUTHERN ITALY (390)

DUI 0.23 125 Pd 43 38.90 0.0
 SDI 0.31 254 P 43 40.40 -0.1
 AZI 0.61 289 P 43 46.20 -0.3
 AOU 0.82 313 P 43 50.80 0.1
 RDP 1.12 269 P 43 56.00 0.3
 MNS 1.28 298 P 43 58.50 0.0
 S.D. = 0.2 on 6 of 6 obs.

% APR 15, 1990 19h 49m 44.07 ± 1.48s
 17.128 N ± 9.0km 99.975 W ± 17.1km
 DEPTH = 5.0km (geophysicist)

GUERRERO, MEXICO (59)

ACX 0.28 157 iP 49 49.00 -0.8
 III 1.33 21 iP 50 07.50 -1.8
 CRX 2.28 7 (P) 50 29.00 5.7X
 PPM 2.32 33 eP 50 24.00 0.1
 UNM 2.32 19 eP 50 29.00 5.3X
 IIT 2.46 40 eP 50 27.00 1.2
 IIJ 2.60 5 eP 50 26.64 -1.3
 MRX 2.81 336 eP 50 32.00 1.5
 OXX 3.11 90 eP 50 36.00 1.1
 S.D. = 1.6 on 7 of 9 obs.

% APR 15, 1990 20h 55m 35.76 ± 0.51s
 39.614 N ± 4.1km 16.327 E ± 5.3km
 DEPTH = 12.9 ± 4.6 km

SOUTHERN ITALY (390)

TDS 0.05 11 Pd 55 38.30 0.0
 CSI 0.16 350 P 55 39.90 0.1
 ROI 0.19 103 P 55 40.60 0.3
 MMN 0.38 317 P 55 43.80 0.1
 CZI 0.42 201 P 55 44.60 0.1
 ORI 0.46 12 Pd 55 45.10 -0.1
 MGR 0.79 312 P 55 50.70 -0.2
 SGO 1.22 321 P 55 58.60 0.4
 BRT 1.43 28 P 56 01.00 -0.4

ATN 1.60 205 P 56 19.50 -0.3
 S.D. = 0.3 on 10 of 10 obs.

APR 15, 1990 22h 44m 08.12 ± 0.63s
 24.379 N ± 4.5km 122.046 E ± 5.6km
 DEPTH = 44.3 ± 5.9 km
 5.0mb (13 obs.)

TAIWAN REGION (243)

Felt in northern and eastern Taiwan.

TWC 0.29 322 iPd 44 15.80 -0.8
 TWD 0.51 234 iPd 44 18.20 -1.0
 TWZ 0.83 329 iPd 44 24.80 1.2
 TWQ 1.11 265 iPc 44 28.80 1.3
 TWF1 1.23 214 ePc 44 31.30 2.1
 TWK 1.81 232 ePc 44 38.90 1.5
 PIP 6.17 193 ePd 45 38.60 -0.5
 CVP 6.64 182 eP 45 45.00 -0.7
 SSE 6.73 354 iPd 45 45.00 -1.9
 Z 0.7s 257.00nm 6.1mb X
 N 18s 3.60um 4.6MsZ
 N 13s 3.50um

S 46 59.00
 Lg 47 47.50
 HKC 7.52 256 iP 45 56.50 -1.6
 BAG 8.05 190 eP 46 05.00 -0.5
 MCO 8.12 256 iP 46 03.70 -2.6
 8JI 16.38 344 ePc+ 47 58.50 2.1
 1.5s 210.00nm 5.0mb
 Z 14s 1.76um 4.1MsZ
 N 14s 2.90um

eS 51 04.00
 KMI 17.55 276 eP 48 11.00 -0.5
 MAT 18.44 45 (P) 48 32.00 9.9X
 eS 51 48.00
 KKM 19.07 198 ePd 48 29.50 -0.5
 LZH 19.55 311 iPc 48 36.00 0.8
 1.4s 160.00nm 5.1mb
 N 11s 1.00um
 E 14s 1.40um

sP 48 48.00
 PP 48 56.50
 PPP 49 10.50
 i 49 17.00
 i 49 44.50
 eS 52 15.00
 i 54 10.00
 Lg 54 28.00
 e 54 56.00
 i 55 24.00
 i 55 52.00
 i 55 42.00

LOE 20.20 254 eP 49 03.00 0.1
 CHG 22.17 260 eP 49 03.00 1.0
 1.0s 45.25nm 4.9mb
 CHTO 22.17 260 ePc 49 02.60 0.7
 pP 49 13.60 43kmX
 GUMO 24.06 112 eP 49 22.10 1.7
 1.2s 344.44nm 5.8mb
 PJG 24.06 112 eP 49 22.20 1.8
 GUA 24.13 112 eP 49 22.20 1.2
 1.0s 240.00nm 5.7mb

SHL 27.34 279 iP 49 51.30 0.1
 MTN 38.05 166 eP 51 22.00 -2.1
 NDI 40.16 286 iPd 51 42.00 0.3
 HYB 41.09 269 eP 51 50.50 1.0
 PMG 41.58 141 iPd 51 54.20 0.8
 1.0s 70.00nm 5.3mb
 GBA 43.35 264 Pc 52 08.80 0.8
 1.1s 10.00nm 4.5mb

POO 45.06 272 eP 52 23.50 1.7
 WB5 45.60 164 eP 52 25.00 -0.9
 i 53 19.10
 WRA 45.65 164 Pd 52 24.80 -1.5
 1.0s 7.30nm 4.5mb
 QIS 47.82 158 iPd 52 43.30 -0.2

QUE 48.92 290 eP 52 52.80 0.7
 CTA 50.09 150 iPd 53 01.30 0.4
 1.0s 40.00nm 5.4mb
 i 53 31.00

MAIO 54.44 298 iPc 53 34.10 0.6
 eS 01 36.00

RMQ 56.77 151 eP 53 50.00 -0.2
 FBA 68.27 27 e(P) 55 05.90 -0.3
 KEV 69.09 338 eP 55 10.00 -1.2
 SOD 69.81 336 iP 55 14.80 -0.8
 SUF 71.27 331 eP 55 21.00 -3.5X
 NUR 72.62 329 iP 55 32.00 -0.6
 INK 72.75 22 eP 55 32.00 -1.2

MBK 72.90 13 eP 55 33.00 -1.0
 KAS 73.09 308 eP 55 36.00 0.2
 BBTk 74.29 307 eP 55 43.00 0.1
 UPP 76.13 330 iP 55 53.80 1.0
 VRI 76.43 314 ePd 55 54.00 -0.9
 HFS 77.78 331 eP 56 01.40 -0.5
 0.7s 4.20nm 4.6mb

NB2 78.42 332 P 56 04.40 -1.1
 0.8s 6.40nm 4.7mb
 KSP 80.77 322 eP 56 18.50 0.2
 VAY 80.97 311 eP 56 18.70 -0.9
 SKO 81.47 312 eP 56 19.00 -3.2X
 PRU 82.16 322 eP 56 30.30 4.7X
 e 56 36.00

YKA 82.49 23 eP 56 25.70 -1.3
 0.6s 2.60nm 4.4mb
 KHC 83.12 321 P 56 31.00 0.3
 PNT 88.45 35 eP 56 59.00 2.1
 EDM 89.05 30 eP 57 00.00 0.2
 FRB 91.78 5 eP 57 11.00 -1.1
 FFC 92.64 24 eP 57 16.00 -0.3
 0.7s 8.00nm 5.3mb

TNP 96.64 43 e(P) 57 36.00 0.7
 S.D. = 1.2 on 57 of 61 obs.

% APR 16, 1990 01h 02m 30.78s
 58.109 N 142.452 W
 DEPTH = 10.0km (geophysicist)
 3.1mb (1 obs.)

GULF OF ALASKA (15)

<AGS-P>

YAH 2.29 9 iP 03 04.17 -5.2
 PCA 2.29 29 eP 03 04.16 -5.1
 HQN 2.30 53 eP 03 03.27 -6.0
 BCPM 2.35 37 eP 03 04.80 -5.3
 YKA 14.42 61 eP 05 57.70 1.1
 0.7s 0.30nm 3.1mb
 5 obs. associated

APR 16, 1990 01h 08m 30.78 ± 0.28s
 15.745 N ± 5.3km 147.937 E ± 5.0km
 DEPTH = 31.2km (7 depth phases)
 4.9mb (22 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.66 234 eP 09 27.00 0.4
 GUMO 3.66 235 eP 09 26.70 0.0
 PJG 3.66 235 eP 09 26.00 -0.7
 KAKJ 21.52 343 P 13 19.80 0.5
 IIDJ 21.60 337 P 13 21.30 1.1
 CHJJ 21.74 340 P 13 21.60 0.1
 MAT 22.45 339 (P) 13 28.00 -0.6
 0.8s 41.04nm 4.9mb

eS 17 44.00
 MTMJ 22.63 338 P 13 30.20 -0.2
 NIJJ 22.83 341 P 13 33.40 1.1
 BAG 26.29 275 eP 14 06.00 0.3
 SSE 28.81 307 eP 14 26.00 -2.3
 i 14 30.00 14kmX
 i 14 42.00

BJI 36.74 318 eP 15 36.50 -0.6
 1.5s 31.00nm 5.0mb
 WB5 37.83 201 eP 15 46.50 0.0
 e 19 26.20
 WRA 37.90 201 Pd 15 46.70 -0.4
 0.7s 19.60nm 5.1mb
 LZH 44.08 306 iPd 16 39.00 0.9
 1.5s 245.00nm 5.8mb

16d 01h

	i	16 45.00	20kmX	OHW	0.56 205 P	13 10.85	-0.2	FRI	74.36	43 eP	33 32.60	-0.2				
NST	45.94 277 eP	16 56.00	3.1X	RPW	0.58 131 P	13 10.46	-1.0	PEC	74.37	47 P	33 32.30	-0.7				
CHG	46.77 281 iPd	17 00.30	0.8	JCW	0.66 166 Pd	13 11.88	-1.1		0.6s	3.62nm		4.3mb				
	0.8s	9.33nm	4.8mb	SNB	0.66 265 Pc	13 12.03	-1.0	CMB	74.52	42 ePd	33 33.60	-0.2				
GUN	58.34 293 P	18 26.20	0.2	PGC	0.87 258 P	13 14.76	-2.2	WDC	74.71	39 eP	33 34.20	-0.5				
	0.6s	27.00nm	5.5mb	VGZ	0.87 242 P	13 14.91	-2.2	ORV	74.72	40 eP	33 34.30	-0.5				
PKI	58.77 293 P	18 28.20	-0.8	BIB	0.94 308 P	13 16.15	-2.1	CLC	75.11	45 eP	33 37.00	-0.2				
	0.6s	20.00nm	5.4mb	BLN	0.98 213 P	13 17.68	-1.3	TPC	75.26	47 eP	33 37.00	-1.1				
KKN	58.87 293 P	18 29.40	-0.2	BLH	1.00 175 P	13 18.55	-0.8	GSC	75.37	46 eP	33 37.00	-1.7				
	0.6s	28.00nm	5.6mb	PGW	1.05 196 P	13 20.09	-0.1	GLA	75.59	49 eP	33 40.00	0.1				
DMN	59.04 293 P	18 30.60	-0.2	HTW	1.06 165 P	13 19.51	-0.9	KVN	76.57	42 P	33 45.10	-0.4				
	0.6s	36.00nm	5.7mb	WPB	1.07 321 P	13 18.28	-2.2			pP	34 44.00	250km				
GKN	59.43 293 P	18 33.40	0.0		S	13 32.15		TNP	76.61	43 P	33 45.60	-0.1				
	0.6s	21.00nm	5.4mb	STW	1.21 236 P	13 20.65	-2.2		0.7s	6.85nm		4.5mb				
TTA	60.93 26 P	18 42.70	-0.3	NAB	1.27 289 P	13 21.56	-2.3			pP	34 42.50	240km				
	1.0s	6.25nm	4.7mb		S	13 38.08		BMW	78.02	34 P	34 03.00	10.0X				
IMA	63.12 23 P	18 56.90	-0.8	HDW	1.32 207 Pd	13 23.03	-1.8	LON	78.95	34 P	33 57.80	-0.3				
	1.1s	6.25nm	4.7mb	GMW	1.35 198 P	13 23.59	-1.7	RMW	79.39	34 P	34 00.50	0.0				
		pP	19 07.20	33km	SHB	1.35 305 P	13 23.16	-2.3	PMR	80.44	12 P	34 05.30	-0.2			
PMR	63.49 28 P	18 58.40	-1.5		S	13 41.15		TTA	80.49	9 P	34 06.60	0.7				
	0.9s	12.50nm	5.0mb	WHB	1.39 339 P	13 24.05	-2.0		0.8s	8.19nm		4.5mb				
		pP	19 07.80	30km		13 42.34		PNT	81.69	33 ePd	34 12.00	-0.3				
FBA	65.03 25 P	19 09.50	-0.4	RMW	1.40 170 P	13 25.28	-0.9		0.8s	13.00nm		4.7mb				
	0.9s	7.29nm	4.8mb	NLW	1.44 121 ePc	13 26.09	-0.7	DAU	81.77	44 P	34 13.50	0.1				
		pP	19 20.00	34km	OSD	1.44 226 P	13 25.16	-1.7	NEW	82.40	35 P	34 15.60	-0.5			
NDI	65.91 295 eP	19 16.00	-0.2	GSM	1.65 171 Pd	13 28.90	-0.9		0.7s	7.00nm		4.5mb				
HYB	66.18 282 eP	19 18.00	-0.1	MGB	1.67 277 P	13 28.07	-2.0	ALQ	82.60	50 eP	34 17.30	-0.3				
	1.0s	25.00nm	5.3mb		S	13 50.38			1.0s	9.50nm		4.5mb				
GBA	67.94 279 Pc	19 29.20	-0.1	ETW	1.74 134 P	13 31.11	0.0		e	35 16.50	247km					
	0.6s	6.50nm	4.9mb	DHW2	1.81 117 P	13 33.06	1.0	ANMO	82.60	50 P	34 18.40	0.8				
INK	71.25 23 eP	19 48.00	-0.6	RVC	1.90 176 P	13 33.06	-0.3		0.8s	6.06nm		4.4mb				
	pP	19 58.00	32km	FMW	1.93 170 Pd	13 33.39	-0.6	FBA	83.69	11 P	34 23.20	1.0				
MBC	75.47 14 eP	20 13.50	0.3	TBM	1.97 147 P	13 35.21	0.8		0.7s	31.98nm		5.2mb				
	1.0s	8.00nm	4.7mb	SAW	2.17 120 ePd	13 39.14	1.9			pP	35 21.80	243km				
		pP	20 23.50	32km	EBG	2.21 150 P	13 39.23	1.4	LRM	83.75	39 eP	34 23.30	0.1			
GMW	78.08 44 P	20 38.40	10.1X	BTB	2.29 287 P	13 38.05	-1.0	IMA	83.80	9 P	34 23.30	0.4				
RMW	78.75 44 P	20 41.90	9.9X	ERK	2.53 183 P	13 42.83	0.4		0.8s	7.76nm		4.6mb				
LON	78.88 44 P	20 42.00	9.2X	MXC	2.59 150 P	13 43.75	0.6	BW06	84.03	42 P	34 23.90	-0.8				
WDC	79.58 51 e(P)	20 36.50	-0.1	ASR	2.71 171 P	13 46.72	1.6	BJI	85.11	314 eP	34 32.00	2.2				
YKA	79.58 28 eP	20 35.50	-0.6	CDFW	2.72 178 P	13 46.23	1.1		1.0s	19.00nm		4.9mb				
	0.6s	1.70nm	4.2mb	MDW	2.75 143 P	13 49.50	4.0	GOL	85.44	46 P	34 31.50	-0.3				
					41 obs. associated				0.6s	7.72nm		4.7mb				
MAIO	79.62 305 iPd	20 38.50	1.4	APR 16, 1990 01h 22m 20.22± 0.24s								MAW	86.34	199 iPc	34 36.30	0.9
PNT	79.80 42 eP	20 47.00	9.4X	16.437 S ±0.5km 174.945 W ± 8.1kms								EDM	87.14	32 iPd	34 39.50	0.1
ORV	80.58 52 e(P)	20 42.30	0.4	DEPTH = 245.0km (4 depth phases)								RSSD	88.23	43 P	34 44.40	-0.7
ARN	81.04 54 P	20 44.90	0.4	4.5mb (18 obs.)								CHG	91.63	289 iPd	35 03.90	2.8X
NEW	81.65 42 P	20 47.50	0.1	TONGA ISLANDS (173)									0.9s	18.07nm		5.1mb
	1.2s	14.20nm	4.9mb	AFI	3.96 51 eP	23 20.00	-3.9X	YKA	91.64	24 eP	34 59.20	-1.0				
		pP	20 56.50	29km		eS	24 04.00			0.8s	1.80nm		4.1mb			
CMB	81.77 53 ePc	20 49.20	0.9	DZM	18.44 249 iPc	26 19.80	-0.3	SUF	131.46	347 iPKP	41 04.00	-0.5				
FRI	82.54 54 ePc	20 53.00	0.8	BRS	31.78 244 iPd	28 23.20	-0.7		0.5s	2.80nm						
EDM	82.66 37 eP	20 49.00	-3.6X		0.6s	4.00nm	4.2mb	WTS	144.50	358 ePKPd	41 28.00	-0.6				
KVN	83.26 51 P	20 56.80	0.6	RMQ	35.13 247 iPd	28 51.80	-0.6		0.9s	27.00nm						
		pP	21 05.80	28km		0.6s	43.00nm	5.2mb	KSP	144.51	348 iPKPd	41 28.50	-0.2			
TNP	84.18 52 P	21 00.00	-0.9	CTA	36.97 258 ePc	29 09.00	1.0		1.0s	86.00nm						
	1.0s	4.58nm	4.6mb		0.7s	6.85nm	4.3mb	CLL	144.63	351 iPKPd	41 28.20	-0.7				
KEV	85.38 343 eP	21 06.00	0.0	CAN	37.22 233 eP	29 09.60	-0.4		0.8s	40.00nm						
LRM	85.39 44 eP	21 07.50	0.7	BWA	37.36 234 eP	29 10.20	-1.0	CLI	144.74	333 ePKPd	41 29.50	0.2				
SOD	86.85 341 iP	21 14.70	1.4	WB5	48.14 258 eP	30 37.10	-0.8	BRG	144.91	350 iPKPd	41 29.00	-0.4				
SUF	89.68 337 iP	21 26.10	-0.8		i	32 02.00	430kmX		1.2s	40.00nm						
	0.5s	2.00nm	4.7mb	WRA	48.16 258 Pc	30 37.30	-0.8			i	41 33.40					
ALQ	93.39 52 eP	21 43.00	-1.8		0.5s	3.60nm	4.0mb	KAS	144.95	321 ePKP	41 31.00	1.1				
	1.0s	2.00nm	4.5mb	MTN	52.18 266 iPc	31 08.20	-0.1	SPC	145.07	343 iPKP	41 30.10	0.1				
KIC	145.15 307 PKPd	28 07.90	0.1	KNA	53.93 262 eP	31 20.50	-0.7	MOX	145.47	353 iPKPc	41 31.00	0.6				
	0.7s	57.50nm		SBA	62.11 184 e(P)	32 18.10	1.2		1.4s	54.00nm						
TIC	145.18 308 PKPd	28 07.90	0.0	VNDA	62.20 186 P	32 17.80	0.3	VR1	145.52	333 ePKPd	41 32.00	1.4				
ZOBO	145.36 96 PKP	28 10.00	1.2	KLB	62.44 243 eP	32 19.00	-0.8	PRU	145.66	349 iPKPd	41 32.30	1.6				
	1.2s	13.51nm		BAL	63.40 244 eP	32 25.00	-1.1		0.5s	23.80nm						
LPB	145.40 96 PKP	28 20.00	11.3X	MUN	63.74 242 eP	32 28.00	-0.3			e	41 42.00					
LIC	145.46 307 PKPd	28 08.90	0.6	MAT	68.78 321 eP	33 00.00	0.1	UCC	145.72	1 iPKPd	41 32.20	1.5				
CCH	147.32 98 (PKP)	28 27.00	15.3X		1.0s	19.00nm	4.8mb	ENN	145.75	359 iPKPd	41 32.00	1.2				
SIV	152.10 95 PKP	28 24.00	5.3X	PRS	72.89 43 eP	33 24.70	0.4		0.5s	14.00nm						
	S.D. = 0.8 on 49 of 58 obs.			PCC	72.93 41 eP	33 24.50	0.0	MEM	145.90	359 iPKPd	41 32.70	1.7				
				BCH	73.07 44 P	33 25.90	0.3	SNF	146.00	1 iPKPd	41 33.00	1.8				
& APR 16, 1990 01h 12m 59.79s				SAO	73.09 42 eP	33 25.30	-0.2	DOU	146.42	1 PKPd	41 34.00	2.1				
48.833 N 122.173 W				BRK	73.23 41 eP	33 26.40	0.1			e	11 31.90					
DEPTH = 4.0km				PRI	73.24 43 eP	33 27.00	0.5	GRF	146.46	353 iPKPd	41 34.90	2.9X				
WASHINGTON (29)				MHC	73.31 42 eP	33 27.10	0.2	BBTK	146.47	320 ePKP	41 30.00	-2.5				
<SEA>. CL 2.8 (SEA).				LLA	73.33 43 e(P)	33 25.10	-1.8	ABH	146.58	357 ePKP	41 34.71	2.5				
				ARN	73.38 42 P	33 27.50	0.3	KHC	146.66	350 iPKPc	41 33.10	0.7				
MBW	0.19 105 P	13 03.76	0.1	MWC	73.92 46 eP	33 30.00	-0.6			i	41 35.40					
VDB	0.20 13 Pd	13 03.85	0.0	RVR	74.27 47 eP	33 26.00	-6.4X	TOD	146.78	356 ePKP	41 35.26	2.7X				
	S	13 07.83		PLM	74.29 48 eP	33 33.00	0.2	RUP	146.78	358 ePKP	41 35.54	2.9X				
CMW	0.41 175 Pd	13 07.33	-0.7	SBB	74.34 46 eP	33 32.00	-0.8	ZST	146.82	345 iPKP	41 35.70	3.1X				
MCW	0.46 251 P	13 08.14	-0.9					SRO	146.86	344 iPKP	41 36.20	3.5X				
HNB	0.52 329 Pd	13 08.91	-1.2					FLN	147.44	7 ePKP	41 36.30	2.7X				
	S	13 16.13														

	0.7 s	35.30nm				BOB	151.52	353 PKP	41 47.10	7.0X	PVPS	0.65	241 eP	21 41.32	-0.7		
LDF	147.65	6 ePKP	41 36.80	2.9X		RRL	151.57	357 PKP	41 47.78	7.4X	CIS	0.90	219 iPd	21 45.70	-1.2		
	0.5 s	11.65nm				LPO	151.65	6 ePKP	41 46.90	6.7X	CIW	0.95	227 eP	21 46.28	-1.3		
HRI	147.67	307 ePKP	41 38.00	3.4X			0.7 s	15.45nm			PLM	1.04	136 iPc	21 48.10	-1.2		
BZS	147.77	338 ePKP	41 48.50	14.3X		PCP	151.83	355 PKP	41 47.07	6.5X	CPE	1.33	157 eP	21 52.60	-1.6		
GRR	147.77	7 ePKP	41 37.50	3.4X		OHR	151.90	334 ePKP	41 47.50	6.8X	TPC	1.39	90 iPc	21 54.60	-0.6		
	0.5 s	23.30nm				DOI	151.96	357 PKP	41 48.00	7.2X	GSC	1.41	32 eP	21 55.20	-0.3		
CDF	148.06	357 ePKP	41 38.40	3.7X		PZZ	151.97	357 PKP	41 47.27	6.4X	ABL	1.44	301 eP	21 54.90	-1.3		
	0.8 s	20.15nm				BDI	152.07	351 PKP	41 47.00	6.1X	BAR	1.67	148 ePd	21 58.10	-1.1		
LPF	148.10	8 ePKP	41 38.40	3.8X		PGD	152.07	350 PKP	41 49.00	8.0X	CLC	1.71	3 ePd	21 59.30	-0.4		
	0.7 s	45.20nm				ROB	152.13	356 PKP	41 47.78	6.8X	BCH	2.22	299 eP	22 06.50	-0.8		
CTT	148.17	325 iPKP	41 29.40	-5.6X		ARV	152.20	348 PKP	41 48.00	7.0X	BLP	2.26	282 eP	22 05.50	-2.2		
HAU	148.50	358 ePKP	41 39.50	4.1X		STV	152.21	356 PKP	41 47.58	6.5X	GLA	2.64	113 eP	22 10.50	-2.6		
	0.8 s	17.45nm				ENR	152.23	356 PKP	41 47.37	6.2X	TNP	3.98	6 eP	22 32.00	-0.4		
FEL	148.55	356 ePKP	41 39.91	4.3X		FIR	152.24	350 ePKP	41 48.00	7.0X	CMB	4.47	332 e(P)	22 40.00	0.8		
DSI	148.60	304 ePKP	41 40.00	4.0X		CRE	152.27	349 PKP	41 48.00	6.8X	KVN	4.94	357 eP	22 46.80	0.8		
SLE	148.63	356 ePKPd	41 40.00	4.4X		SBF	152.59	356 ePKP	41 49.30	7.7X		24 obs. associated					
BSF	148.66	358 ePKP	41 39.90	4.2X			0.6 s	14.45nm									
	0.6 s	7.20nm				BCAO	162.18	229 iPKPd	41 54.10	0.2		APR 16, 1990 08h 59m 43.53±0.30s					
KBA	148.68	349 iPKPd	41 40.00	4.1X			0.4 s	23.00nm				2.504 N ± 5.1km	128.613 E ± 6.3km				
	0.5 s	10.00nm						i	42 43.20			DEPTH = 30.7km (6 depth phases)					
BEQ	148.87	339 ePKP	41 41.00	5.0X			S.D. = 0.9	on 79 of 167 obs.				5.0mb (21 obs.)					
ZLA	148.92	356 ePKPd	41 41.60	5.5X			% APR 16, 1990 02h 26m 58.62±0.75s					HALMAHERA	(267)				
AYN	148.98	299 ePKP	41 42.40	5.8X			38.324 N ± 6.2km	30.235 E ± 8.1km			MNI	3.92	254 iPd	00 47.00	4.0X		
SAX	149.07	354 ePKPd	41 41.70	5.1X			DEPTH = 5.0km (geophysicist)					iS	01 29.50				
WAJH	149.16	294 iPKPd	41 42.70	5.7X			TURKEY	(366)			AAL	6.16	184 eP	01 22.40	7.5X		
GRC	149.19	3 PKP	41 41.93	5.5X							MKS	11.93	230 iPd	02 36.50	2.0		
LOR	149.24	2 ePKP	41 41.30	4.8X							KKM	12.85	286 ePd	02 49.50	2.5		
	0.5 s	13.10nm									MTN	15.45	171 eP	03 19.00	-2.1		
FVI	149.25	350 PKP	41 39.60	3.1X			KHL	0.56	270 iPg	27 09.50	-0.3		e	03 28.00			
RBL	149.25	348 PKPc	41 41.10	4.5X				iSg	27 19.50			KHKI	16.87	230 eP	03 41.30	2.1	
OGA	149.25	352 iPKPc	41 42.60	5.8X			ALT	0.74	352 iPg	27 12.90	-0.5		e	05 54.30			
	1.0 s	33.00nm					BCK	0.91	162 iPn	27 15.00	-1.5			03 55.00	0.1		
PRNI	149.34	302 iPKPd	41 42.50	5.3X			ELL	1.59	189 ePn	27 29.20	1.5		KNA	18.14	180 eP	03 55.00	0.1
SSF	149.44	2 ePKP	41 42.00	5.2X			DST	1.79	316 iPn	27 31.20	0.8		TRT	18.89	237 ePd	04 02.50	-1.7
	0.8 s	31.55nm					GPA	1.96	2 ePn	27 37.00	4.1X			06 02.50	5.0mb		
LLS	149.48	355 ePKPd	41 42.50	5.4X			YLV	2.34	344 iPn	27 45.30	6.9X		GUMO	19.48	55 eP	04 11.50	0.4
LBF	149.53	1 ePKP	41 42.10	5.1X			BBTK	2.48	52 eP	27 41.00	0.5		PMG	21.94	123 eP	04 39.00	2.5
	0.5 s	18.95nm						eS	28 14.00			WBS	22.95	166 eP	04 46.50	0.0	
OSS	149.54	353 ePKPd	41 42.90	5.7X			BNT	2.71	319 ePn	27 43.00	-0.6			i	04 53.90	27km	
VOY	149.58	348 ePKP	41 36.00	-1.2			EDC	2.73	318 ePn	27 44.00	0.1			i	06 12.80		
		i	41 42.00				S.D. = 1.1	on 8 of 10 obs.					WRA	23.01	166 Pd	04 47.00	0.0
MFF	149.61	7 ePKP	41 42.10	5.0X			* APR 16, 1990 07h 59m 53.36±0.74s							0.5 s	9.10nm	4.5mb	
	0.6 s	12.65nm					15.707 N ±11.6km	148.036 E ±13.8km			MBL	25.04	200 eP	05 06.20	-0.5		
MBH	149.63	301 iPKPd	41 43.00	5.4X			DEPTH = 33.0km (normal)				OIS	25.33	155 iPc	05 09.80	0.4		
AVF	149.70	2 ePKP	41 42.30	5.1X			4.2mb (3 obs.)						e	05 15.00	19kmX		
	0.8 s	19.50nm					MARIANA ISLANDS REGION	(215)			NANU	28.00	206 eP	05 33.00	-0.8		
VBY	149.78	346 i(PKP)	41 43.50	6.2X									0.4 s	3.00nm	4.4mb		
VDL	149.81	354 ePKPd	41 43.60	6.0X			GUMO	3.72	236 eP	00 50.90	1.0		CTA	28.35	143 iPc	05 39.20	2.1
SMF	149.86	2 ePKP	41 42.70	5.2X			PJG	3.72	236 eP	00 50.20	0.3			1.0 s	11.50nm	4.5mb	
BGF	149.91	3 ePKP	41 42.90	5.4X				eS	01 32.00					e	05 48.00	31km	
	0.8 s	38.30nm					MAT	22.52	339 (P)	04 47.00	-4.6X		LOE	30.27	301 eP	05 53.80	-0.5
BADA	149.92	299 ePKP	41 43.00	5.0X			WB5	37.83	201 eP	07 07.00	-1.8		NNT	30.29	291 eP	05 49.20	-5.4X
CTI	149.97	351 PKP	41 43.10	5.3X			WRA	37.90	201 Pd	07 09.70	0.3		CHG	33.26	301 iPc	06 20.90	0.3
LSF	150.13	5 ePKP	41 43.10	5.2X				0.6 s	2.00nm		4.2mb			1.0 s	17.50nm	4.9mb	
	0.7 s	38.60nm					CHTO	46.87	281 e(P)	08 21.40	-1.2		CHTO	33.26	301 ePc	06 20.90	0.4
TCF	150.14	4 ePKP	41 43.40	5.5X			GUN	58.44	293 P	09 49.20	0.1			e	06 31.80	40km	
	0.6 s	10.80nm						0.6 s	8.00nm		5.0mb		KMI	33.57	314 Pd	06 24.00	0.6
MAF	150.23	3 ePKP	41 43.90	5.9X			PKI	58.87	293 P	09 51.60	-0.5			pP	06 33.00	31km	
	0.7 s	27.00nm					KKN	58.98	293 P	09 52.40	-0.3		BAL	34.83	198 eP	06 32.00	-1.9
TMA	150.25	355 ePKPd	41 44.30	6.0X			GKN	59.54	293 P	09 56.40	-0.1		MAT	35.01	14 (P)	06 27.00	-8.4X
MMK	150.37	356 ePKPd	41 45.20	6.6X			YKA	79.57	28 eP	11 58.30	-0.1		NWAO	36.85	196 eP	06 50.00	-0.9
DIX	150.38	357 ePKPd	41 45.60	7.0X				0.6 s	0.50nm		3.7mb		BRS	37.76	144 eP	06 57.00	-1.7
EMS	150.41	357 ePKPd	41 45.30	6.8X			KIC	145.25	307 PKP	19 30.80	0.5			i	14 03.70		
AGO	150.43	3 PKP	41 44.59	6.3X			TIC	145.28	308 PKP	19 31.00	0.6		ADE	38.46	167 iPc	07 05.10	0.6
VAI	150.49	355 PKP	41 44.50	6.2X			LIC	145.56	307 PKP	19 31.90	1.1			0.9 s	95.80nm	5.6mb	
PLDF	150.53	2 PKP	41 45.09	6.5X				S.D. = 0.9	on 13 of 14 obs.			BJI	39.03	345 eP	07 08.00	-1.2	
SAL	150.56	352 PKP	41 42.00	3.5X			& APR 16, 1990 08h 21m 29.00s						1.0 s	12.00nm	4.6mb		
PYM	150.72	3 PKP	41 45.66	6.8X			34.110 N	117.720 W			LZH	40.51	329 Pc	07 23.00	1.3		
ORX	150.79	356 PKP	41 45.01	6.0X			DEPTH = 4.0km						1.5 s	71.00nm	5.2mb		
ORO	150.80	356 PKP	41 45.00	6.0X			SOUTHERN CALIFORNIA	(43)				N	12 s	0.30um			
SKO	150.92	334 iPKP	41 45.50	6.3X			<PAS-P>. ML 3.2 (PAS). Felt (V)							pP	07 31.00	27km	
VAY	150.96	332 ePKP	41 45.40	6.2X			ot Claremont; (IV) at Glendora,							sP	07 36.00		
LPL	150.98	358 ePKP	41 46.50	7.0X			Rosemead and Upland; (III) at							i	08 16.00		
	0.7 s	21.50nm					Corona, Covina, Hociendo Heights							ePP	09 03.00		
LPG	150.99	358 ePKP	41 46.70	7.1X			and Placentia.							eS	13 30.00		
	0.7 s	22.60nm															
LSD	151.01	357 PKP	41 46.86	7.3X			PCF	0.08	226 iPc	21 30.80	0.0		SHL	42.11	306 iP	07 35.00	0.0
RJF	151.07	5 ePKP	41 45.50	6.2X			PEM	0.14	295 iPc	21 32.01	0.2		CAN	42.20	155 eP	07 36.10	0.7
	0.8 s	13.45nm					VPD	0.30	187 iPd	21 35.31	0.4		GUN	47.96	306 P	08 22.20	0.1
LBL	151.25	3 PKP	41 47.10	7.6X				(S)	21 41.02					0.6 s	28.00nm	5.5mb	
RSP	151.31	357 PKP	41 46.04	6.2X			MWC	0.30	292 iPc	21 35.00	-0.1		PKI	48.21	305 P	08 23.60	-0.3
LFF	151.35	6 ePKP	41 46.40	6.7X			RVR	0.31	112 iPc	21 35.00	-0.2			0.6 s	14.00nm	5.2mb	
	0.7 s	18.75nm					PAS	0.38	276 iPc	21 36.20	-0.4		KKN	48.40	306 P	08 25.00	-0.3
BNI	151.44	358 PKP	41 48.00	8.0X			PEC	0.51	115 iPc	21 38.70	-0.6			0.6 s	32.00nm	5.5mb	
CAF	151.49	4 ePKP	41 46.70	6.7X			SBB	0.58	351 iPd	21 40.10	-0.6		DMN	48.47	305 P	08 25.80	-0.1
	0.7 s	13.80nm											GKN	49.00	306 P	08 29.60	-0.3

16d 09h

	0.6 s	23.00nm		5.4mb
HYB	51.30	290 iPc	08 47.00	-0.4
	0.8 s	38.40nm		5.4mb
		e	08 56.00	30km
KOD	51.35	281 eP	08 48.00	-0.1
GBA	51.75	285 Pd	08 50.30	-0.4
	1.1 s	23.30nm		5.0mb
POO	55.90	291 iPc	09 21.50	0.2
MA10	71.74	307 eP	11 05.00	-0.2
SVW	80.95	28 eP	11 57.70	1.3
KDC	81.96	32 eP	12 02.00	0.4
BRW	82.74	18 eP	12 06.00	0.6
IMA	82.74	24 ePc	12 06.20	0.5
	1.0 s	7.50nm		4.7mb
PMR	84.12	28 eP	12 12.00	-0.6
	0.9 s	8.30nm		4.9mb
INK	90.60	22 eP	12 43.00	-0.9
SOD	92.31	338 iP	12 50.40	-1.3
MBC	92.72	13 eP	12 55.00	1.5
SUF	93.49	333 iP	12 55.50	-1.7
	0.7 s	5.10nm		5.1mb
NUR	94.68	331 eP	13 10.00	7.3
YKA	99.82	25 eP	13 24.70	-1.4
	0.8 s	0.60nm		4.2mb
HFS	99.97	333 ePKP	13 23.70	-3.1
	0.4 s	1.70nm		4.9mb
NB2	100.71	334 Pd iff	13 27.60	-2.5
	0.9 s	2.60nm		4.8mb
KIC	132.60	281 PKP	18 58.40	0.4
TIC	132.83	281 PKP	18 58.90	0.5
LIC	132.91	281 PKP	18 59.00	0.5
ZOBO	158.59	131 ePKP	19 44.00	3.2
S.D. = 1.2 on 50 of 57 obs.				

% APR 16, 1990 09h 32m 36.83± 1.60
37.984 N ±16.4km 52.261 E ±11.0km
DEPTH = 33.0km (normal)

CASPIAN SEA (338)

TEH	2.35	198	ePd	33	13.00	-1.1
IR2	2.56	206	ePd	33	19.00	1.9
IR7	2.63	211	eP	33	22.00	3.9
IR4	2.95	202	iPd	33	21.50	-1.1
IR5	3.08	207	eP	33	24.50	0.1
TAB	4.69	273	eP	33	47.00	-0.2
MA10	6.02	104	ePn	34	06.00	0.0
			eSn	35	32.00	
S.D. = 1.4 on 6 of 7 obs.						

* APR 16, 1990 09h 38m 49.63 ± 0.66
36 683 N ±16.9km 71.563 E ±13.4km
DEPTH = 33.0km (normal)
4.5mb (8 obs.)

AFGHANISTAN-USSR BORDER REGION (717)

NDI	9.29	148	eP	41	07.00	2.7
			eS	42	39.00	
MAIO	9.73	271	eP	41	09.00	-1.4
			eS	42	47.00	
GKN	14.03	124	P	42	07.80	-0.5
	0.4 s	14.00nm				5.0mb
KKN	14.59	124	P	42	14.80	-1.0
	0.4 s	13.00nm				4.8mb
DMN	14.60	124	P	42	15.60	-0.3
	0.4 s	12.00nm				4.7mb
PKI	14.82	124	P	42	18.50	-0.4
	0.4 s	8.00nm				4.4mb
GUN	14.92	122	P	42	19.40	-0.8
	0.4 s	12.00nm				4.6mb
NUR	37.95	324	eP	46	07.00	1.6
HFS	43.20	322	ePKP	46	49.00	0.2
	0.6 s	4.10nm				4.3mb
NB2	44.51	323	P	46	59.20	-0.3
	0.7 s	3.00nm				4.3mb
YKA	81.04	3	eP	51	02.30	0.1
	0.9 s	0.80nm				3.7mb

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

? APR 16, 1990 11h 14m 37.54± 5.13s
9.020 S ±56.3km 74.404 W ±17.9km
DEPTH = 33.0km (normgl)

PERU (116)

PT08	3.60	216	iP	15	34.20	1.4
			iS	16	18.20	
NNA	3.80	219	iPd	15	34.50	-0.8
			eS	16	07.50	

PT10	3.95	219	eP	15	37.00	-0.3
			eS	16	19.50	
PT02	4.38	207	eP	15	43.30	-0.3
			iS	16	32.10	
PT03	5.13	195	ePd	15	54.00	-0.1
			eS	16	52.80	
ZOBO	9.46	140	P	16	51.00	-4.1X
SIV	14.74	119	P	18	05.60	0.0
			(S)	20	49.00	
S.D.	= 1.0	on	6 of	7	obs.	

APR 16, 1990 11h 32m 04.27 ± 0.19s
15.350 N ± 4.3km 147.592 E ± 3.6km
DEPTH = 33.0km (normal)
5.0mb (19 obs.) 4.0Msz (1 obs.)
MARIA ISLANDS REGION (215)

GUA	3.16	236	eP	32	52	80	-0.1
			eS	33	27	70	
GUMO	3.17	237	eP	32	52	60	-0.4
PJG	3.17	237	eP	32	52	60	-0.4
KAKJ	21.80	344	P	36	53	40	-1.9
			S	37	13	30	
CHJJ	22.00	341	P	36	57	60	0.2
MAT	22.70	340	eP	37	04	00	-0.3
	0.7s	36.99nm					5.0mb
			eS	41	12	00	
MTMJ	22.88	339	P	37	05	50	-0.6
NIJJ	23.10	342	P	37	07	50	-0.6
BAG	26.00	276	eP	37	37	00	0.7
SSE	28.78	308	P	38	00	00	-1.3
	1.0s	33.00nm					5.0mb
Z	2.0s	0.40um					4.0msz

QIS	36.54	193	iPd	39	08.00	-0.8
BJI	36.81	318	eP	39	11.00	0.1
	1.4 s	55.00nm				5.2mb
WB5	37.35	201	eP	39	15.00	-0.7
WRA	37.41	201	Pc	39	15.90	-0.3
	0.8 s	17.10nm				5.0mb
DZM	41.53	153	iPc	39	50.10	-0.3
KMI	43.02	290	Pc	40	05.00	2.1
LOE	43.97	279	eP	40	11.00	0.6
LZH	44.04	306	iPd	40	12.30	1.3
	1.8 s	253.00nm				5.7mb
E	16 s	1.20um				
NST	45.66	277	eP	40	27.00	3.1X
CHG	46.52	281	eP	40	31.50	0.7
SHL	52.85	291	iP	41	19.00	-0.5

GUN	58.19	294	P	42	58.40	0.2
PKI	58.62	293	P	42	00.80	-0.4
KKN	58.72	293	P	42	01.60	-0.2
	1.0s	46.00nm				5.5mb
DMN	58.88	293	P	42	02.80	-0.2
	0.8s	32.00nm				5.5mb
GKN	59.29	294	P	42	05.60	0.0
	0.8s	30.00nm				5.5mb
TTA	61.43	26	P	42	19.30	-0.3
IMA	63.61	23	eP	42	34.00	-0.1
	1.0s	3.80nm				4.5mb
PMR	63.99	28	eP	42	35.30	-1.2
BRW	64.88	17	eP	42	42.60	0.5

NDA	65.32	23 eP	43	58.50	9.9X
HYB	65.94	282 eP	42	49.50	-0.3
GBA	67.67	279 Pd	43	00.30	-0.5
	0.9s	4.80nm			4.6mb
INK	71.74	23 eP	43	24.00	-0.8
MBC	75.93	14 eP	43	49.50	0.5
	1.0s	19.00nm			5.0mb
BMW	78.48	45 P	44	04.20	0.4
GMW	78.59	44 P	44	05.00	0.7
LON	79.39	44 P	44	08.80	0.0
MAIO	79.58	305 iPd	44	11.20	1.2
YKA	80.09	28 eP	44	11.00	-1.0

WDC	80.09	51 eP	44	13.30	0.8
PNT	80.32	42 eP	44	13.00	-0.6
	0.8 s	10.00nm			4.9mb
MIN	80.83	51 eP	44	16.40	-0.3
BRK	80.86	53 e(P)	44	16.70	0.0
ORV	81.08	51 eP	44	16.80	-1.0
GCC	81.25	54 eP	44	17.60	-1.1
MHC	81.45	54 eP	44	20.60	0.6
SAO	81.73	54 eP	44	20.50	-0.8
PRS	81.89	55 eP	44	22.80	0.7

NEW	82.17	42 P	44 24.00	0.7
	0.7s	7.50nm		4.8mb
CMB	82.27	53 ePd	44 24.50	0.4
FRI	83.04	54 eP	44 28.40	0.4
KVN	83.76	51 P	44 32.30	0.3
TNP	84.68	52 P	44 36.90	0.3
	0.8s	2.94nm		4.5mb
SES	85.39	39 ePd	44 40.20	0.5
KEV	85.66	343 eP	44 41.00	0.4
PEC	85.84	56 P	44 42.50	0.3
	0.8s	5.28nm		4.8mb
LRM	85.91	44 ePd	44 43.20	0.6
PTI	86.86	46 P	44 50.50	3.2X
SOD	87.11	341 iP	44 48.00	0.3
DAG	87.71	357 iPd	44 50.90	0.5
	0.9s	8.40nm		5.0mb
DAU	88.43	49 P	44 55.50	0.4
FFC	88.92	33 eP	44 57.00	0.4
	1.1s	15.00nm		5.2mb
SUF	89.91	337 eP	45 01.10	-0.1
NUR	91.78	335 eP	45 10.00	0.2
RSSD	92.09	43 P	45 10.70	-1.2
GOL	92.91	48 P	45 16.50	0.7
ALO	93.89	52 eP	45 20.20	-0.1
	0.9s	1.89nm		4.5mb
KIC	145.12	306 PKPd	51 40.80	-0.2
TIC	145.16	307 PKPd	51 41.00	-0.1
	0.9s	46.50nm		
LIC	145.43	306 PKPd	51 42.00	0.5
ZOBO	145.65	96 PKP	51 44.00	1.5
	1.0s	11.25nm		

S.D. = 0.7 on 70 of 73 obs.

* APR 16, 1990 11h 56m 41.34 ± 0.76s
15.342 N ± 11.1km 147.531 E ± 15.8km
DEPTH = 33.0km (normal)
4.2mb (1 obs.)
MARIANA ISLANDS REGION (215)

GUM0	3.11	236	eP	57	29.40	0.1
PJG	3.11	236	eP	57	29.30	0.0
			eS	58	07.00	
MAT	22.69	340	(P)	01	41.00	-0.3
WB5	37.32	201	eP	03	52.10	-0.4
WRA	37.39	201	Pd	03	53.10	0.0
	0.8 s		2.80 nm			4.2 mb
KIC	145.07	306	PKP	16	18.00	0.0
TIC	145.11	307	PKP	16	18.10	0.0
LIC	145.38	306	PKP	16	19.00	0.5
S.D.	= 0.3	on	8 of	8 obs.		

% APR 16, 1990 14h 15m 22.29± 0.92s
38.860 N ± 8.9km 28.041 E ± 10.9km
DEPTH = 33.0km (normol)
TURKEY (366)

IZM	0.76	233	ePg	15	36.70	0.0
			eSg	15	45.70	
DST	0.87	31	iPn	15	38.30	0.1
KHL	1.28	114	ePn	15	44.00	0.0
EDC	1.49	355	ePn	15	46.00	-1.0
BNT	1.50	356	iPn	15	48.10	1.0
	S. D.	= 1.0	on	5 of	5 obs.	

? APR 16, 1990 15h 07m 46.75 \pm 2.26s
3.728 S \pm 19.3km 143.931 E \pm 16.5km
DEPTH = 126.7 \pm 23.1 km
3.9mb (1 obs.)

NAME	RA	DEC	FLUX	WAVELENGTH	FLUX DENSITY	WAVELENGTH	FLUX DENSITY
MND1	2.43	186	eP	08	26.00	-0.6	
			eS	09	05.10		
LAT	4.22	134	eP	08	50.00	-0.2	
PMG	6.49	151	eP	09	21.50	0.3	
CTA	16.42	172	iPc	11	39.50	8.3X	
			i (pP)	11	48.00		
			e (S)	14	34.00		
			e	16	52.00		
			e	17	04.00		
QIS	17.25	194	eP	11	44.00	2.6	
			eS	14	50.00		
WB5	18.57	209	eP	11	55.30	-1.4	
			eS	15	16.00		
WRA	18.64	209	Pd	11	57.20	-0.2	
	0.6s	3.70nm				3.9mb	
KNA	19.11	230	eP	12	01.00	-1.4	
RMQ	23.10	169	eP	12	48.00	5.7X	

PCI 24.23 276 ePd 12 55.00 1.7
 PKI 64.35 303 P 18 17.00 5.2X
 KKN 64.53 303 P 18 13.60 0.7
 DMN 64.62 303 P 18 12.20 -1.3
 YKA 98.59 27 eP 21 22.90 10.9X
 0.8s 0.50nm

ZOBO 142.59 123 PKP 27 08.00 -0.1
 S.D. = 1.5 on 11 of 15 obs.

APR 16, 1990 15h 47m 58.31±0.77s
 11.856 N ± 7.2km 143.220 E ± 5.5km
 DEPTH = 13.2 ± 3.9 km
 5.1mb (13 obs.) 4.2Msz (1 obs.)
 SOUTH OF MARIANA ISLANDS (210)

GUA 2.35 44 eP 48 37.90 0.7
 i 48 39.40
 e(S) 49 06.20

GUMO 2.35 43 iPd 48 37.90 0.7
 PJG 2.35 43 iPd 48 37.90 0.7
 CHJJ 24.39 352 eP 53 16.80 -0.5
 KAKJ 24.40 354 eP 53 16.10 -1.3
 MAT 24.99 350 iPc 53 21.90 -1.2
 Z 20s 0.71um 4.2Msz
 eS 57 50.00

MTMJ 25.10 350 eP 53 23.40 -0.9
 NIJJ 25.56 352 eP 53 28.50 0.1
 QIS 32.41 186 eP 54 28.00 -2.1
 WB5 32.72 196 eP 54 31.10 -1.8
 WRA 32.79 196 Pc 54 30.30 -3.2X
 1.2s 16.00nm 4.8mb
 BJI 36.85 324 eP 55 08.00 -0.1
 Z 17s 0.58um 4.4MszX
 eS 00 22.00

KMI 40.43 295 eP 55 40.00 1.5
 OZM 40.69 146 iPc 55 40.00 -0.4
 NNT 42.47 276 eP 55 56.60 1.6
 LZH 42.89 311 P 56 03.00 4.6X
 1.5s 37.00nm 4.9mb

CHTO 43.17 285 e(P) 56 02.20 1.5
 SHL 50.21 293 iP 56 56.00 -0.4
 GUN 55.77 296 P 57 37.40 -0.5
 PKI 56.16 295 P 57 39.80 -0.9
 KKN 56.29 295 P 57 41.00 -0.5
 DMN 56.43 295 P 57 42.00 -0.6
 GKN 56.87 296 P 57 45.20 -0.4
 HYB 62.57 284 iPd 58 25.30 0.5
 e 58 37.00

GBA 64.02 279 Pc 58 33.90 -0.4
 0.8s 5.90nm 4.8mb
 SVW 65.93 28 ePc 58 45.70 -0.3
 TTA 66.41 26 ePc 58 48.30 -0.8
 IMA 68.47 23 ePc 59 01.10 -1.0
 1.0s 11.30nm 5.0mb
 PMR 69.07 28 ePc 59 04.00 -1.6
 0.8s 24.00nm 5.4mb

BRW 69.46 17 ePc 59 07.70 -0.2
 FBA 70.47 25 ePc 59 12.40 -1.7
 TOA 70.55 28 ePc 59 14.60 -0.2
 QUE 72.34 298 eP 59 27.00 0.6
 INK 76.57 22 eP 59 49.00 -0.7
 pP 00 20.00 122kmX

MAIO 78.07 305 eP 00 00.00 1.2
 MBC 80.33 14 eP 00 10.50 0.3
 FHC 84.45 50 ePc 00 33.60 1.4
 IR2 85.06 305 eP 00 37.00 1.6
 YKA 85.13 27 eP 00 34.00 -1.0
 0.7s 7.20nm 5.0mb

IR4 85.13 305 ePc 00 36.50 0.6
 IR7 85.28 305 ePc 00 37.00 0.4
 IR5 85.40 305 eP 00 39.00 1.8
 WDC 85.58 50 ePc 00 38.50 0.7
 PNT 85.73 41 eP 00 39.00 0.6
 MIN 86.32 50 ePc 00 41.70 0.0
 ORV 86.57 50 ePc 00 42.90 0.2
 PRS 87.37 54 ePc 00 47.80 1.1
 NEW 87.59 41 P 00 47.50 0.0
 1.0s 22.00nm 5.4mb

LLA 87.64 53 eP 00 48.70 0.7
 KEV 87.66 342 eP 00 49.00 1.6
 CMB 87.76 52 ePc 00 49.20 0.7
 PRI 87.97 54 ePc 00 51.00 1.3
 FRI 88.52 53 ePc 00 52.60 0.5
 BCH 88.65 54 P 00 53.50 0.5
 SOD 88.93 340 iP 00 52.90 -0.6
 KVN 89.25 50 P 00 56.00 0.1
 TNP 90.17 51 P 01 00.80 0.6

0.8s 10.15nm 5.1mb
 CLC 90.46 53 eP 01 02.00 0.6
 SBB 90.57 54 eP 01 02.00 0.1
 DAG 90.90 356 iPd 01 02.00 -0.5
 1.0s 12.00nm 5.2mb

GSC 91.22 54 eP 01 05.00 0.1
 PEC 91.30 55 P 01 05.50 0.2
 1.0s 13.33nm 5.2mb

SUF 91.38 336 eP 01 02.20 -2.8
 0.9s 8.20nm 5.1mb
 PLM 91.69 56 eP 01 08.00 0.8
 TPC 92.14 55 eP 01 09.00 -0.1

NUR 93.11 334 iP 01 11.60 -1.4
 GLA 93.41 55 eP 01 16.00 1.0
 FFC 94.13 32 iPd 01 18.00 0.2
 1.0s 17.00nm 5.4mb

BW06 94.32 45 P 01 19.00 -0.2
 1.2s 9.59nm 5.1mb
 RSSD 97.53 42 P 01 33.50 -0.3
 S.D. = 1.0 on 68 of 70 obs.

? APR 16, 1990 16h 13m 01.30±3.27s
 34.661 N ± 34.8km 26.269 E ± 10.8km
 DEPTH = 10.0km (geophysicist)
 CRETE (370)

VAM 1.85 294 ePb 13 34.80 1.4
 APE 2.48 346 ePn 13 41.30 -1.1
 eSn 14 07.00

SMG 3.08 8 ePn 13 52.50 1.7
 VLI 3.40 308 ePn 13 53.90 -1.6
 ELL 3.62 54 eP 13 58.00 -0.7
 ITM 4.33 307 ePb 14 11.90 3.2X
 BCK 4.48 50 eP 14 11.00 0.2

S.D. = 1.7 on 6 of 7 obs.

APR 16, 1990 17h 20m 05.08±0.85s
 20.693 S ± 6.7km 68.934 W ± 7.7km
 DEPTH = 77.8 ± 7.0 km
 4.9mb (15 obs.)

CHILE-BOLIVIA BORDER REGION (124)

ANT 3.30 204 eP 20 55.50 0.1
 i 20 56.50
 iS 21 36.60

LPB 4.21 11 Pc 21 17.40 8.7X
 1.0s 500.00nm
 CCH 4.22 39 P 21 17.40 8.7X

ZOBO 4.47 10 iPc 21 19.10 6.7X
 ARE 4.86 330 iPd 21 18.50 0.9
 iS 22 11.20

SIV 8.81 59 P 22 12.80 0.9
 PT03 9.34 314 eP 22 17.20 -2.1
 e(S) 23 57.20

PT08 11.35 319 eP 22 41.60 -5.0X
 iS 24 54.20
 NNA 11.51 318 eP 22 48.50 0.0

1.0s 20.00nm 5.0mb
 eS 24 55.50
 RSCP 58.16 344 P 29 51.60 -1.6

0.6s 39.25nm 5.7mb
 OLY 59.83 339 P 30 03.00 -1.7
 FVM 61.76 341 P 30 16.00 -1.7

0.7s 44.22nm 5.7mb
 RSNY 65.12 356 P 30 39.80 0.2
 0.7s 12.46nm 5.0mb

ALQ 65.81 327 eP 30 43.80 -0.7
 0.8s 6.53nm 4.6mb
 ANMO 65.81 327 P 30 44.80 0.3

KIC 68.50 74 P 31 01.00 -0.6
 0.6s 5.50nm 4.7mb
 GLD 69.02 331 P 31 04.80 0.3

0.8s 54.12nm 5.5mb
 GOL 69.05 331 P 31 04.20 -0.6
 0.8s 11.90nm 4.9mb

SPA 69.43 180 iPd 31 05.70 -1.0
 1.1s 24.40nm 5.0mb
 PV09 69.92 327 P 31 10.00 -0.2

BAR 69.99 318 eP 31 11.00 0.6
 TPC 70.57 320 eP 31 15.00 1.0
 RVR 71.30 319 eP 31 19.00 0.7

GSC 71.84 320 eP 31 22.00 0.4
 SBB 72.05 319 eP 31 23.00 0.2
 RSSD 72.06 334 P 31 22.20 -0.7

CLC 72.67 320 eP 31 27.00 0.6
 BW06 73.41 330 P 31 30.00 -0.8
 1.0s 8.25nm 4.6mb

BCH 73.77 318 P 31 33.00 0.1
 TNP 73.98 322 P 31 34.00 -0.2
 0.8s 6.91nm 4.6mb

RSON 74.51 344 P 31 36.00 -0.7
 FRI 74.72 320 e(P) 31 39.50 1.3
 PRI 74.75 319 eP 31 39.60 1.0

KVN 75.15 322 P 31 40.80 -0.1
 LLA 75.22 319 eP 31 42.00 0.8
 SCH 75.22 1 eP 31 41.00 0.3

PRS 75.30 319 ePd 31 42.30 0.7
 CMB 75.81 320 e(P) 31 45.00 0.5
 MHC 76.12 319 eP 31 47.50 1.1

GCC 76.14 319 eP 31 47.70 1.4
 LRM 77.07 330 eP 31 52.20 0.6
 ORV 77.46 321 ePd 31 54.40 0.8

MIN 78.03 322 eP 31 56.50 -0.4
 WDC 78.73 321 ePd 31 59.70 -0.8
 FHC 79.72 321 eP 32 07.10 1.2

SES 79.94 334 ePd 32 07.00 0.1
 FFC 80.26 341 eP 32 09.00 0.5
 1.0s 16.00nm 4.9mb

NEW 81.04 330 P 32 11.00 -1.7
 1.0s 8.75nm 4.6mb
 PNT 82.96 329 eP 32 23.00 0.4

0.7s 10.00nm 4.9mb
 FRB 84.16 0 eP 32 28.00 -0.3
 YKA 90.42 341 eP 32 58.10 -0.5

0.6s 6.50nm 5.1mb
 NAI 104.25 97 iPd diff 34 03.00 0.2
 WRA 133.63 211 PKPd 39 14.90 -0.2

0.6s 2.10nm
 WB5 133.67 211 ePKP 39 14.50 -0.6
 MAT 151.55 310 ePKP 39 51.00 5.5X

S.D. = 0.9 on 50 of 55 obs.

* APR 16, 1990 17h 50m 25.45±0.80s
 42.367 N ± 8.1km 26.262 E ± 10.3km
 DEPTH = 10.0km (geophysicist)
 BULGARIA (359)

DMK 1.24 116 iPn 50 48.50 0.0
 CTT 2.03 126 iPn 50 59.90 -0.2
 BNT 2.36 148 ePn 51 05.90 1.0

ISK 2.46 121 ePn 51 12.00 5.7X
 EZN 2.54 179 ePn 51 09.00 1.7
 VAY 2.95 250 ePn 51 11.40 -1.8

HRT 2.98 120 ePn 51 12.00 -1.7
 CMP 3.03 343 ePc 51 16.00 1.6
 MLR 3.13 356 ePd 51 16.50 0.6

VRI 3.52 5 ePc 51 20.00 -1.2
 BZS 4.67 316 ePc 51 30.00 -7.6X
 S.D. = 1.6 on 9 of 11 obs.

? APR 16, 1990 17h 53m 05.64±4.45s
 13.741 N ± 13.2km 60.082 W ± 40.1km
 DEPTH = 33.0km (normal)

WINDWARD ISLANDS (95)
 ML 3.2 (FDF).

SLB 0.94 275 eP 53 22.39 -0.1
 eS 53 33.74
 MVM 1.13 316 iPd 53 25.58 0.4

S 53 37.80
 SVB 1.23 248 eP 53 26.44 -0.2
 eS 53 38.15

BIM 1.23 309 eP 53 26.32 -0.3
 S 53 38.70
 FCV 1.27 243 eP 53 27.41 0.2

eS 53 39.19
 CRM 1.29 321 iPd 53 27.99 0.5
 S 53 42.20

FDF 1.43 314 eP 53 29.44 -0.1
 0.1s 28.00nm
 S 53 44.20

MGG 2.47 331 eP 53 44.00 -0.5
 PAG 2.75 326 eP 53 48.50 0.1
 S 54 17.00

S.D. = 0.4 on 9 of 9 obs.

APR 16, 1990 18h 23m 57.92±0.37s
 15.451 N ± 6.4km 147.858 E ± 6.7km
 DEPTH = 27.0km (4 depth phases)
 4.6mb (7 obs.)

MARIANA ISLANDS REGION (215)

PJG 3.44 238 eP 24 51.40 0.4
 eS 25 29.00

16d 18h

GUMO 3.44 238 eP 24 51.50 0.5
 KAKJ 21.78 343 eP 28 48.00 -1.5
 CHJJ 21.99 341 P 28 52.30 0.7
 MAT 22.70 340 (P) 28 59.00 0.3
 1.3s 21.15nm 4.5mb
 MTMJ 22.87 339 P 29 00.70 0.2
 NIJJ 23.08 342 P 29 03.90 1.5
 BJI 36.90 318 eP 31 06.00 -0.2
 1.8s 25.00nm 4.8mb
 e 31 14.00 27km
 WB5 37.53 201 eP 31 11.10 -0.6
 WRA 37.60 201 Pd 31 11.60 -0.7
 0.9s 6.90nm 4.5mb
 LZH 44.19 306 P 32 07.60 0.9
 1.5s 66.00nm 5.3mb
 sP 32 24.40
 LOE 44.21 279 eP 32 07.50 0.7
 CHG 46.75 281 eP 32 28.00 0.9
 CHTD 46.75 281 eP 32 27.90 0.9
 pP 32 35.10 24km
 SHL 53.06 291 eP 33 15.50 0.0
 GUN 58.38 293 P 33 54.40 0.3
 PKI 58.81 293 P 33 56.20 -0.9
 KKN 58.92 293 P 33 57.00 -0.7
 DMN 59.08 293 P 33 58.20 -0.6
 GKN 59.48 294 P 34 01.00 -0.5
 HYB 66.16 282 eP 34 45.00 -0.8
 e 34 54.00 29km
 INK 71.55 23 eP 35 17.50 -0.7
 MBC 75.77 14 eP 35 43.00 0.4
 1.0s 6.00nm 4.6mb
 MAIO 79.73 305 eP 36 06.00 0.6
 YKA 79.88 28 eP 36 04.50 -0.9
 0.8s 1.50nm 4.1mb
 PRS 81.62 55 ePc 36 16.40 1.1
 CMB 82.00 53 ePc 36 18.20 0.9
 FRI 82.77 54 ePc 36 22.10 0.9
 e 36 31.10 28km
 SES 85.15 39 eP 36 33.00 0.0
 KEV 85.64 343 eP 36 34.00 -1.0
 SOD 87.10 341 iP 36 42.00 -0.2
 DAG 87.62 357 eP 36 44.00 -0.5
 0.7s 4.11nm 4.8mb
 SUF 89.92 337 eP 36 54.00 -1.7
 NUR 91.79 336 eP 36 55.00 -9.4X
 KIC 145.26 307 PKP 43 35.30 -0.5
 TIC 145.30 307 PKP 43 35.40 -0.5
 ZOBO 145.41 96 PKP 43 38.00 1.3
 LIC 145.57 307 PKP 43 36.40 0.1
 S.D. = 0.8 on 37 of 38 obs.

? APR 16, 1990 18h 44m 33.72 ± 1.60s
 32.631 S ± 13.6km 179.358 W ± 32.2km
 DEPTH = 33.0km (normal)
 4.3mb (1 obs.)

SOUTH OF KERMADEC ISLANDS (179)

HBZ 5.31 201 eP 45 54.50 1.7
 PUZ 5.77 199 eP 45 59.70 0.4
 eS 47 05.60
 MNG 8.98 206 eP 46 41.90 -2.3
 WRA 43.08 275 Pd 52 32.80 0.3
 0.4s 2.70nm 4.3mb
 WB5 43.09 275 eP 52 32.70 0.2
 SUF 145.81 339 ePKP 04 05.00 -4.7X
 NUR 147.97 338 ePKP 04 12.00 -1.2
 NB2 150.75 349 PKP 04 18.50 0.9
 0.6s 1.70nm
 S.D. = 1.6 on 7 of 8 obs.

APR 16, 1990 19h 09m 32.74 ± 0.33s
 41.741 N ± 4.3km 14.206 E ± 3.4km
 DEPTH = 5.0km (geophysicist)
 SOUTHERN ITALY (390)
 ML 3.2 (TTG).

BUI 0.21 113 Pd 09 37.30 0.3
 SDI 0.29 263 Pd 09 40.00 1.3
 eSg 09 47.00
 AZI 0.63 294 P 09 46.00 0.7
 eSg 09 57.00
 AQU 0.86 316 P 09 50.00 0.3
 RDP 1.11 271 P 09 53.90 -0.2
 RMP 1.13 274 P 09 55.50 1.2
 MNS 1.31 300 P 09 58.80 1.4
 SGO 1.45 144 P 09 58.20 -1.4
 ASS 1.75 320 P 10 04.00 0.0

MGR 1.90 147 P 10 04.50 -1.6
 BAI 2.09 106 P 10 08.00 -0.9
 MMN 2.29 143 P 10 14.20 2.4
 MAO 2.37 288 P 10 12.10 -0.8
 ORI 2.39 134 P 10 12.50 -0.7
 BRT 2.42 110 P 10 12.00 -1.6
 eSn 10 40.00
 CRE 2.51 319 P 10 16.00 1.0
 CSI 2.52 140 P 10 16.00 0.9
 SFI 2.78 322 P 10 18.50 -0.2
 PGD 2.81 320 P 10 20.20 0.9
 ROI 2.82 140 P 10 21.30 2.0
 CZI 2.92 149 P 10 19.30 -1.3
 LCI 3.16 115 P 10 25.00 0.9
 HCY 3.27 76 ePn 10 20.50 -5.2X
 eSn 11 03.00
 BDI 3.52 312 P 10 29.00 -0.3
 NKY 3.71 72 ePn 10 32.50 0.4
 eSn 11 16.50
 TTG 3.82 78 ePn 10 33.00 -0.6
 eSn 11 16.60
 VBY 3.84 11 e(Pn) 10 36.00 2.3
 iSn 11 19.50
 PGF 3.95 284 Pn 10 35.10 -0.4
 Sn 11 24.40
 TRI 3.98 356 eP 10 34.30 -1.4
 i 11 21.80
 i 11 59.40
 PLE 4.15 66 ePn 10 39.00 0.8
 eSn 11 28.50
 VOY 4.30 357 ePn 10 39.40 -0.9
 eSn 11 29.40
 LJU 4.31 3 e(Pn) 10 43.00 2.6
 eSn 11 30.00
 PTJ 4.35 16 eP 10 40.40 -0.6
 IVA 4.37 73 ePn 10 42.00 0.6
 eSn 11 33.00
 PVY 4.37 77 ePn 10 41.50 0.1
 eSn 11 33.00
 CTI 4.68 338 P 10 45.00 -0.8
 eSn 11 36.20
 SAL 4.70 327 P 10 45.00 -0.9
 RBL 4.72 355 P 10 46.00 -0.4
 FVI 4.96 349 P 10 47.90 -1.7
 eSn 11 42.50
 SBF 5.41 295 Pn 10 55.40 -0.8
 LMR 5.90 288 Pn 11 01.50 -1.5
 LRG 6.04 289 Pn 11 03.90 -0.9
 CDF 8.28 326 Pn 11 33.00 -3.3X

S.D. = 1.2 on 41 of 43 obs.

APR 16, 1990 19h 12m 54.77 ± 0.54s
 5.301 S ± 9.1km 102.380 E ± 9.7km
 DEPTH = 38.9km (2 depth phases)
 4.9mb (8 obs.)

SOUTHERN SUMATRA (274)

KGM 7.33 7 ePc 14 44.30 2.2
 IPM 9.91 352 ePd 15 19.00 1.2
 TRT 10.47 104 ePd 15 23.20 -2.2
 0.6s 58.00nm 6.0mb X
 SNG 12.52 352 eP 15 55.10 1.9
 KHKI 13.48 104 eP 16 05.20 -0.7
 e 18 19.00
 KKM 17.83 51 ePc 17 02.00 0.2
 NNT 17.97 352 eP 17 00.00 -3.4X
 PCI 17.97 77 iPd 17 08.00 4.6X
 1.0s 7.10nm 3.8mb X
 NST 20.96 354 eP 17 37.00 0.0
 LOE 22.57 358 eP 17 51.00 -2.1
 e 26 56.00
 CHG 24.20 352 ePd 18 08.90 -0.1
 1.0s 27.50nm 4.7mb
 CHTD 24.20 352 eP 18 08.00 -1.0
 e 18 18.50 39km
 MTN 29.34 107 eP 18 49.00 -7.4X
 GBA 31.08 307 P 19 13.00 1.2
 0.4s 1.20nm 4.0mb
 SHL 32.33 342 iP 19 20.90 -2.0
 WRA 34.32 118 P 19 40.60 0.5
 1.2s 15.40nm 4.8mb
 WB5 34.32 118 eP 19 41.50 1.4
 PKI 36.56 334 P 19 58.60 -0.7
 0.6s 14.00nm 5.0mb
 GUN 36.66 335 P 20 00.10 -0.1
 DMN 36.73 334 P 20 00.80 0.2
 0.4s 7.00nm 4.9mb

KKN 36.81 334 P 20 00.80 -0.5
 0.6s 29.00nm 5.3mb
 GKN 37.27 334 P 20 04.80 -0.3
 0.8s 48.00nm 5.4mb
 QIS 39.19 116 eP 20 22.00 0.9
 LZH 41.19 2 P 20 37.20 -0.3
 NDI 41.57 326 iP 20 40.50 -0.1
 CTA 45.09 113 eP 21 08.00 -1.3
 e 21 19.00 38km
 BJI 46.87 15 eP 21 22.50 -0.5
 0.9s 15.00nm 5.0mb
 BWA 51.46 130 eP 21 59.50 0.8
 CAN 52.26 131 eP 22 05.30 0.6
 BRS 52.67 121 iPc 22 09.70 1.8
 i 24 40.00
 MAIO 57.63 319 eP 22 42.00 -1.7
 MLR 84.32 317 ePd 25 25.50 1.2
 SUF 88.41 333 iP 25 45.00 1.2
 NUR 88.57 331 eP 25 45.00 0.4
 SOD 89.41 338 iP 25 49.30 0.8
 SRO 89.91 318 eP 25 48.70 -2.5
 KEV 89.91 340 eP 25 54.00 3.2X
 ZST 90.76 318 eP 25 55.60 0.5
 YKA 116.78 18 ePKP 31 35.50 -0.9
 0.8s 0.60nm
 S.D. = 1.3 on 35 of 39 obs.

APR 16, 1990 19h 18m 51.67 ± 0.28s
 2.179 S ± 4.4km 141.448 E ± 6.3km
 DEPTH = 29.2km (6 depth phases)
 5.2mb (16 obs.) 4.5msz (1 obs.)
 NEAR N COAST OF PAPUA NEW GUINEA(200)
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 10S, 15C
 Centroid Location:
 Origin Time 19:18:50.1 2.0
 Lat 2.87S 0.18 Lon 140.47E 0.19
 Dep 33.0 FIX Half-duration 1.5
 Moment Tensor: Scale 10**16 Nm
 Mrr=-3.62 0.62 Mtt=3.55 0.51
 Mff=0.07 0.65 Mrt=2.49 1.07
 Mrf=1.31 1.01 Mtf=-2.13 0.75
 Principal Axes:
 T Val= 4.94 Plg=12 Azm= 21
 N 0.19 26 285
 P -5.13 60 133
 Best Double Couple: Mo=5.0*10**16
 NP1:Strike=141 Dip=40 Slip=-46
 NP2: 269 62 -120

MNDI 4.52 151 eP 20 03.00 2.8
 LAT 7.10 129 eP 20 37.00 0.7
 PMG 9.15 142 eP 21 03.00 -1.9
 MTN 14.72 223 iPd 22 17.00 -2.8
 e 24 52.00
 GUA 15.99 12 e(P) 22 37.70 1.4
 0.8s 137.31nm 5.1mb
 GUMO 16.03 12 eP 22 36.50 -0.2
 1.5s 432.43nm 5.4mb
 PJG 16.03 12 eP 22 37.00 0.3
 MNI 16.99 282 P 22 51.50 2.6
 QIS 18.36 185 iPd 23 05.30 -0.6
 0.8s 93.00nm 5.0mb
 KNA 18.39 222 eP 23 04.80 -1.5
 CTA 18.41 166 iPd 23 07.00 0.4
 0.8s 26.12nm 4.5mb
 i 23 31.50
 i 23 54.00
 WB5 18.91 201 eP 23 10.90 -1.8
 eS 26 34.00
 WRA 18.97 201 Pd 23 12.70 -0.8
 0.6s 50.80nm 4.9mb
 RMO 25.17 164 eP 24 17.00 0.8
 PPR 25.55 298 ePd 24 27.00 7.1X
 KKM 26.49 288 ePd 24 27.50 -1.2
 NANU 32.31 229 eP 25 21.00 0.5
 ADE 32.72 184 eP 25 24.20 0.2
 BWA 32.73 169 eP 25 25.20 1.1
 CAN 33.71 169 eP 25 33.10 0.4
 COOL 34.41 212 eP 25 39.00 0.3
 BAL 36.72 217 eP 26 00.00 1.8
 NWA0 38.10 214 eP 26 13.00 3.1X
 MAT 38.64 356 (P) 26 09.00 -5.3X
 NST 44.53 295 eP 27 04.70 1.8
 KMI 46.30 308 P 27 18.50 1.4
 CHG 46.71 298 eP 27 20.00 -0.2

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 Bayesian 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 $20^\circ \leq \Delta \leq 160^\circ$, 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 $\Delta \leq 5^\circ$. Amplitude values stated in this report are in nanometers (nm) for body-waves and micrometers (μm) for surface-waves.

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

The pulse distortion of seismic phases that have ray paths that touch a single internal caustic (*e.g.*, PP, pPP, SS and PKPab) can be corrected using the method of Hilbert transformation described by Choy and Richards (1975). Arrival times that are read from the phases that are corrected for pulse distortion are identified by the symbol H preceding the phase identifier (*e.g.*, HPP, HpPP, HSS and HP'ab).

Hypocenter Symbols

- & Indicates that parameters of the hypocenter were supplied or determined by a computational procedure not normally used by the National Earthquake Information Service (NEIS). The source or nature of the determination is indicated by a 2 to 5 letter code enclosed by angle brackets and appearing in the first line of comments. A "-P" appended to the code indicates that the computation is preliminary. These codes are included with the list of abbreviations in the PDE Monthly Listing.
- % Indicates a single network solution. A non-furnished hypocenter has been computed using data reported by a single network of stations for which the date and/or origin time cannot be confirmed from seismograms available to a NEIS analyst. Also, if we define η to be the geometric mean of the semi-major and semi-minor axes of the horizontal 90% confidence ellipse, then $\eta \leq 16.0$ km.
- * Indicates a less reliable solution. In general, $8.5 < \eta \leq 16.0$ km.
- ? Indicates a poor solution, published for completeness of the catalog. In general, $\eta > 16.0$ km. This includes poor solutions computed using data reported by a single network.

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

Note: On printers available to the NEIS for this publication, the symbol for degrees ($^{\circ}$) appears as "°". Also note that certain phase codes are abbreviated because the data base and file format limit the length of the codes to five characters. Thus, PKP is occasionally abbreviated to P' and the numbers 2 and 3 are sometimes used to represent the AB (AC for SKKS) and BC branches of core phases, respectively. In some codes, R is used to represent repetition; for example, pRPPK represents the phase pPKPPK and RPPG represents PgPgPg.

References

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16d 19h

CHTO 46.71 298 eP 27 20.00 -0.2
 pP 27 29.00 30km
 BJI 47.97 334 eP 27 28.50 -1.2
 1.6s 45.00nm 5.2mb
 Z 20s 0.54um 4.5msz
 e 27 37.00 28km
 eS 34 30.00
 LZH 51.75 321 Pd 27 59.00 0.0
 1.8s 42.00nm 5.1mb
 pP 28 07.50 28km
 i 28 14.00
 SHL 55.31 303 iP 28 25.00 -0.5
 GUN 61.15 304 P 29 06.60 0.0
 0.8s 47.00nm 5.7mb
 PKI 61.43 303 P 29 08.10 -0.4
 KKN 61.61 303 P 29 09.60 0.0
 0.8s 42.00nm 5.6mb
 DMN 61.70 303 P 29 10.40 0.2
 0.8s 59.00nm 5.8mb
 GKN 62.22 303 P 29 13.60 0.0
 0.6s 28.00nm 5.6mb
 HYB 64.95 290 iPc 29 31.10 -0.3
 GBA 65.36 286 Pd 29 33.30 -0.7
 0.6s 3.20nm 4.6mb
 QUE 77.74 301 eP 30 48.70 0.5
 SVW 79.17 26 eP 30 55.30 0.1
 KOC 79.31 30 eP 30 55.20 -0.7
 TTA 79.79 24 eP 30 58.30 -0.3
 IMA 82.03 22 ePd 31 09.90 -0.5
 1.2s 23.40nm 5.1mb
 e 31 19.20 29km
 PMR 82.25 27 ePd 31 10.00 -1.4
 1.2s 35.20nm 5.3mb
 e 31 19.60 30km
 TOA 83.75 27 ePd 31 19.00 -0.2
 e 31 28.20 29km
 FBA 83.90 24 eP 31 18.00 -1.8
 MAIO 84.79 307 iPd 31 26.20 1.2
 SPA 87.84 180 eP 31 39.00 -0.4
 1.1s 11.31nm 5.1mb
 INK 90.16 22 iPc 31 48.90 -1.3
 YKA 98.35 27 eP 32 25.80 -1.9
 0.9s 2.00nm 4.6mb
 FRB 114.75 14 ePKP 37 29.00 -1.7
 BCAA 122.97 274 iPKPc 37 48.90 1.0
 0.5s 4.00nm
 LPB 145.40 124 PKP 38 30.00 0.0
 ZOBO 145.51 123 PKPd 38 30.20 -0.2
 1.3s 35.49nm
 KIC 146.04 278 PKP 38 31.80 1.1
 TIC 146.28 279 PKP 38 32.20 1.1
 LIC 146.33 278 PKP 38 32.60 1.5
 CCH 146.56 127 PKP 38 33.40 1.6
 S.D. = 1.2 on 55 of 58 obs.

* APR 16, 1990 19h 30m 31.47±0.87s
 15.495 S ±16.4km 73.197 W ±11.7km
 DEPTH = 58.8 ± 15.3 km
 4.6mb (2 obs.)
 SOUTHERN PERU (117)

ARE 1.90 121 iPd 31 04.80 2.4
 iS 31 23.00
 PT03 2.93 300 iPc 31 16.60 0.0
 iS 31 52.90
 PT08 4.79 317 iPd 31 41.80 -1.4
 eS 32 38.80
 ZOBO 4.94 100 iPc 31 44.70 -0.8
 S 32 36.00
 PT10 5.00 312 e(P) 31 47.00 1.2
 e(S) 32 42.00
 LPB 5.01 103 P 31 46.00 -0.3
 1.1s 210.13nm 5.3mb X
 CCH 7.02 106 P 32 13.90 -0.5
 ANT 8.58 163 e(P) 32 34.50 -1.0
 KIC 71.18 78 P 41 41.20 -5.3X
 0.8s 9.50nm 4.8mb
 YKA 84.23 342 eP 42 58.50 1.0
 0.7s 3.20nm 4.5mb
 TOL 84.58 46 eP 42 59.00 -0.7
 S.D. = 1.5 on 10 of 11 obs.

? APR 16, 1990 19h 31m 55.14±1.58s
 1.145 S ±10.4km 78.317 W ±33.5km
 DEPTH = 33.0km (normal)
 ECUADOR (107)

TUNG 0.30 205 iP 32 03.20 -0.1
 eS 32 09.10
 VC1 0.51 351 iP+ 32 04.60 -1.7
 S 32 11.00
 OTO 0.96 347 eP 32 12.80 0.1
 S 32 26.50
 OUR 0.99 348 iP+ 32 13.30 0.2
 S 32 26.20
 GGP 1.00 344 iP+ 32 13.80 0.3
 S 32 28.50
 CAYA 1.26 15 iP+ 32 16.50 -0.5
 COTA 1.47 359 P 32 21.80 1.7
 eS 32 42.30
 S.D. = 1.3 on 7 of 7 obs.

? APR 16, 1990 19h 32m 27.79±4.19s
 31.193 S ±45.6km 68.001 W ±52.5km
 DEPTH = 100.0km (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.42 251 iPc 32 43.30 0.0
 CFA 0.46 206 iPd 32 43.60 0.0
 eS 32 55.00
 RTCB 0.74 247 iPd 32 46.00 0.0
 (S) 32 58.00
 RTCV 0.81 214 iPd 32 46.50 0.0
 S.D. = 0.1 on 4 of 4 obs.

& APR 16, 1990 19h 38m 51.53s
 48.849 N 122.170 W
 DEPTH = 4.2km
 WASHINGTON (29)
 <SEA>. CL 2.7 (SEA).

VDB 0.18 14 Pd 38 55.43 0.2
 MBW 0.19 110 P 38 55.43 0.0
 CMW 0.43 175 P 38 58.97 -1.1
 MCW 0.47 249 P 38 59.83 -1.1
 HNB 0.50 328 Pd 39 00.47 -1.1
 S 39 07.65
 OHW 0.58 205 P 39 02.48 -0.6
 RPW 0.59 132 P 39 02.24 -1.1
 SNB 0.67 264 P 39 03.62 -1.2
 JCW 0.68 166 Pd 39 03.57 -1.5
 PGC 0.87 257 P 39 06.49 -2.3
 VGZ 0.88 241 P 39 06.73 -2.2
 S 39 18.66
 BIB 0.93 307 Pd 39 07.77 -2.1
 S 39 20.36
 BLN 1.00 213 P 39 08.81 -2.2
 BLH 1.02 175 P 39 10.25 -1.1
 WPB 1.06 320 Pd 39 09.87 -2.1
 S 39 24.00
 HTW 1.08 166 P 39 11.34 -1.1
 STW 1.22 236 P 39 12.31 -2.4
 HDW 1.34 207 P 39 14.72 -2.1
 SHB 1.35 304 P 39 14.83 -2.1
 GMW 1.37 198 P 39 15.23 -2.1
 WHB 1.38 338 P 39 15.90 -1.6
 RMW 1.41 170 P 39 16.90 -1.2
 NLW 1.44 122 P 39 17.71 -0.9
 OSD 1.45 225 P 39 16.82 -1.9
 GSM 1.67 171 P 39 21.20 -0.5
 MGB 1.67 276 P 39 19.62 -2.2
 S 39 41.86
 OOW 1.75 231 P 39 22.47 -0.4
 ETW 1.75 135 P 39 23.52 0.6
 DHW2 1.82 118 P 39 24.77 0.9
 WTV 1.88 127 P 39 25.20 0.5
 RVC 1.91 176 P 39 24.50 -0.8
 FMW 1.95 170 Pd 39 25.00 -0.9
 TBM 1.98 147 P 39 27.25 0.9
 SAW 2.18 121 P 39 30.70 1.6
 LMW 2.18 182 P 39 28.91 -0.3
 EBG 2.22 150 P 39 31.57 1.9
 APW 2.22 189 P 39 29.23 -0.5
 BTB 2.29 287 P 39 29.67 -1.1
 CZM 2.43 185 P 39 32.14 -0.5
 ASR 2.73 172 P 39 38.35 1.3
 40 obs. associated

% APR 16, 1990 19h 50m 11.62±1.76s
 44.126 N ±18.1km 7.883 E ± 6.4km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 1.7 (GEN).

ROB 0.17 357 P 50 15.76 0.3
 S 50 18.06
 FIN 0.25 70 P 50 16.89 0.0
 S 50 19.86
 ENR 0.35 287 P 50 19.45 0.6
 STV 0.42 287 P 50 20.13 -0.1
 PZZ 0.68 304 P 50 24.37 -0.8
 S.D. = 0.7 on 5 of 5 obs.

APR 16, 1990 19h 51m 07.02±0.69s
 38.736 N ± 6.7km 21.760 E ± 6.5km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 ML 3.1 (ATH).

AGG 0.53 57 iPgD 51 16.70 -1.0
 eSg 51 25.10
 VLS 1.07 239 ePn 51 25.60 -1.7
 NEO 1.27 63 ePn 51 30.00 -0.7
 LIT 1.48 22 ePb 51 32.90 -0.7
 eSb 51 52.80
 ATH 1.72 116 ePb 51 38.40 1.3
 KEK 1.81 303 ePb 51 39.00 0.5
 FNA 2.07 352 ePn 51 43.60 1.4
 VLI 2.22 155 ePb 51 45.00 0.6
 OHR 2.49 343 ePn 51 48.00 0.6
 VAY 2.66 13 ePn 51 50.30 -0.3
 S.D. = 1.2 on 10 of 10 obs.

& APR 16, 1990 20h 03m 47.91s
 57.569 N 140.557 W
 DEPTH = 10.0km (geophysicist)
 OFF COAST OF SOUTHEASTERN ALASKA (20)
 <AGS-P>.

HON 2.08 24 eP 04 18.28 -5.0
 eS 04 41.88
 BCPM 2.44 11 eP 04 23.13 -5.3
 eS 04 51.25
 PCA 2.54 3 iP 04 24.69 -5.2
 eS 04 52.33
 YAH 2.87 348 eP 04 29.16 -5.6
 eS 05 00.89
 4 obs. associated

? APR 16, 1990 20h 08m 27.97±5.14s
 41.792 N ±34.7km 19.191 E ±10.9km
 DEPTH = 5.0km (geophysicist)
 ALBANIA (391)
 ML 2.0 (TTG).

BDV 0.56 331 ePg 08 39.00 -0.2
 eSg 08 50.50
 TTG 0.64 5 ePg 08 40.60 -0.2
 eSg 08 52.50
 HCY 0.83 322 ePg 08 44.50 -0.1
 eSg 09 00.00
 PVY 0.99 36 ePg 08 47.20 -0.1
 eSg 09 02.50
 NKY 1.03 352 ePg 08 48.50 0.5
 eSg 09 05.50
 S.D. = 0.4 on 5 of 5 obs.

? APR 16, 1990 20h 53m 46.65±1.26s
 13.539 N ±21.5km 87.885 W ±20.0km
 DEPTH = 145.4 ± 13.9 km
 4.5mb (2 obs.)
 HONDURAS (72)
 Felt (11) at San Salvador.

QZA 1.08 269 iPc 54 11.00 -1.0
 LFU 1.21 280 iPc 54 12.70 -0.6
 SJAS 1.25 276 iPc 54 12.60 -1.2
 SSS 1.28 276 iPc 54 12.60 -1.4
 eS 54 31.30
 VSS 1.33 279 iPc 54 14.30 -0.3
 TME 1.51 289 iPd 54 16.00 -0.3
 QZG 1.82 307 iPc 54 23.40 3.4X
 YPE 1.84 289 iPd 54 19.40 -0.8
 CUSS 2.04 281 iPd 54 20.50 -1.9
 CMG2 2.16 301 iP 54 26.50 2.5
 SLP 2.62 298 iPd 54 31.90 2.2
 REC 2.71 290 iPd 54 22.30 -8.6X
 GCG 2.77 292 eP 54 33.50 1.8
 S 55 06.50
 PCG 2.81 288 iPc 54 33.00 0.7
 S 55 08.80

16d 20h

MMG 2.89 290 iPd 54 35.00 1.7
 BVA 2.90 293 iPd 54 35.20 1.8
 TPX 4.46 288 iP 54 52.00 -1.6
 iS 55 40.00
 OXX 9.23 294 iP 55 56.50 -1.3
 PPM 11.68 299 iPc 56 31.00 0.5
 III 12.13 295 iP 56 36.00 -0.1
 ZOBO 35.48 146 P 00 34.00 2.2
 LRM 38.29 332 eP 00 55.90 1.1
 FFC 42.55 348 eP 01 30.00 0.7
 0.6s 12.00nm 4.7mb
 SCH 44.37 17 eP 01 45.00 1.0
 FRB 51.94 11 eP 02 41.00 -1.3
 YKA 52.46 345 eP 02 44.50 -1.7
 1.0s 5.90nm 4.3mb
 INK 62.04 342 eP 03 52.00 -1.4
 MBC 64.89 352 eP 04 10.50 -1.4
 MBL 152.51 250 iPKPc 13 27.10 6.5X
 S.D. = 1.5 on 26 of 29 obs.

& APR 16, 1990 20h 56m 22.80s
 36.660 N 121.328 W
 DEPTH = 4.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 3.0 (BRK).

SAO 0.14 318 iPc 56 25.50 -0.2
 LLA 0.31 98 iPc 56 29.10 0.0
 PRS 0.33 186 iPd 56 29.30 -0.1
 GCC 0.65 305 ePc 56 34.60 -1.2
 ARN 0.71 347 iPc 56 36.00 -0.1
 MHC 0.73 340 iPd 56 37.10 -0.2
 PRI 0.74 134 ePd 56 37.10 -0.6
 PHAM 1.11 137 eP 56 43.30 -1.0
 PCC 1.19 315 eP 56 44.00 -1.5
 FRI 1.34 75 eP 56 46.30 -1.8
 eS 57 04.30
 BKS 1.41 329 e(P) 56 47.80 -1.5
 BRK 1.42 329 e(P) 56 49.60 0.2
 ZSP 1.48 330 eP 56 48.40 -1.8
 CMB 1.56 28 eP 56 50.10 -1.4
 eS 57 09.90
 BCH 1.78 145 eP 56 52.00 -2.7
 ABL 2.49 136 eP 57 03.00 -2.0
 KVN 3.50 46 eP 57 24.00 4.7
 17 obs. associated

* APR 16, 1990 21h 08m 27.85±0.53s
 10.211 N ±12.3km 84.790 W ±10.2km
 DEPTH = 33.0km (normal)
 4.8mb (10 obs.) 4.4Msz (1 obs.)
 COSTA RICA (78)
 MD 4.4 (SJR). Felt (V) at
 Cobano, (IV) at Cobuyo and
 Paquera and (II) at San Jose.

UPA 5.32 103 iPc 09 50.00 2.9
 0.9s 33.61nm 4.8mb X
 Z 20s 4.6lum 4.2Msz
 PPM 16.01 305 eP 12 19.00 6.1X
 UYO 25.44 341 iPc 13 54.50 0.2
 OLY 25.90 347 P 13 58.50 -0.1
 FVM 28.11 351 P 14 18.50 -0.3
 ZOBO 31.05 148 P 14 43.00 -2.9
 Z 20s 0.76um 4.4Msz
 eLR 25 54.00
 ALD 31.57 325 eP 14 48.90 -1.0
 1.0s 12.50nm 4.7mb
 ANMO 31.58 325 P 14 49.00 -0.9
 1.0s 10.75nm 4.7mb
 GLD 34.58 332 P 15 15.80 -0.2
 1.0s 44.00nm 5.3mb
 GOL 34.61 331 P 15 15.80 -0.5
 0.7s 11.65nm 4.9mb
 GLA 35.78 314 eP 15 22.00 -4.1X
 TPC 37.20 315 eP 15 41.00 3.0X
 PLM 37.39 313 eP 15 41.00 1.2
 RSSD 37.67 337 P 15 41.80 -0.3
 GSC 38.37 316 eP 15 49.00 1.1
 SBB 38.76 314 eP 15 52.00 0.9
 BW06 38.99 331 P 15 51.50 -1.6
 CLC 39.19 316 eP 15 55.00 0.3
 TNP 40.20 319 P 16 03.90 0.7
 1.0s 21.25nm 4.9mb
 RSON 41.19 351 P 16 10.00 -0.8
 FRI 41.26 316 eP 16 10.30 -1.3
 KVN 41.32 320 P 16 13.00 0.7

PRI 41.49 314 eP 16 14.60 0.9
 LLA 41.92 315 eP 16 17.50 0.4
 CMB 42.26 317 eP 16 20.50 0.6
 LRM 42.64 331 eP 16 23.20 0.0
 MHC 42.76 315 ePc 16 25.20 1.0
 GCC 42.86 315 eP 16 25.60 0.9
 BKS 43.44 316 ePd 16 31.00 1.6
 1.0s 57.00nm 5.3mb
 BRK 43.45 316 e(P) 16 29.30 -0.2
 ORV 43.80 318 eP 16 33.20 0.9
 FHC 46.07 318 eP 16 51.20 0.7
 FFC 46.45 346 eP 16 52.50 -0.8
 1.1s 12.00nm 4.8mb
 SCH 46.73 14 eP 16 56.00 0.5
 PNT 48.55 330 eP 17 10.00 0.1
 FRB 54.69 9 eP 17 54.00 -1.8
 YKA 56.46 344 eP 18 05.70 -2.9
 1.0s 1.70nm 4.0mb
 MBC 68.59 352 eP 19 28.00 -1.2
 1.0s 6.00nm 4.6mb
 FBA 69.52 336 P 19 36.50 1.5
 1.0s 9.00nm 4.8mb
 TIC 78.82 85 P 20 30.30 0.5
 LIC 78.88 86 P 20 30.80 0.7
 KIC 79.14 85 P 20 32.00 0.5
 ADK 83.22 321 P 20 52.90 0.7
 BJI 126.36 340 ePKP 27 28.50 -0.8
 1.2s 10.00nm
 WB5 141.07 251 ePKP 27 56.00 -1.5
 WRA 141.08 251 PKP 27 58.00 0.5
 0.9s 3.10nm
 SHL 144.29 5 ePKP 28 02.00 -1.2
 CHG 150.93 353 ePKP 28 14.00 0.3
 LOE 151.81 347 ePKP 28 22.00 7.0X
 S.D. = 1.2 on 45 of 49 obs.

APR 16, 1990 22h 37m 11.29±0.12s
 14.858 S ±3.4km 167.278 E ±3.7km
 DEPTH = 119.1km (10 depth phases)
 5.5mb (38 obs.)
 VANUATU ISLANDS (186)
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 16S, 37C
 Centroid Location:
 Origin Time 22:37:20.7 0.4
 Lat 14.66S 0.05 Lon 166.76E 0.04
 Dep 122.9 1.5 Half-duration 2.6
 Moment Tensor; Scale 10¹⁷ Nm
 Mrr=2.28 0.09 Mtt=1.15 0.17
 Mff=-3.43 0.17 Mrt=-1.51 0.10
 Mrf=-0.57 0.09 Mtf=-1.21 0.14
 Principal Axes:
 T Vol=3.34 Plg=54 Azm=184
 N 0.54 34 22
 P -3.88 9 286
 Best Double Couple: Mo=3.6*10¹⁷
 NP1: Strike=343 Dip=47 Slip=40
 NP2: 223 62 129

PVC 3.03 161 iPd 38 01.00 2.3
 iS 38 39.50
 DZM 7.22 186 iPd 38 56.40 0.6
 iS 40 18.90
 HNR 8.97 306 eP- 39 21.00 1.6
 eS 39 28.00
 NDF 10.18 108 ePc 39 39.60 4.0X
 SGE 10.58 106 eP 39 43.20 2.2
 e 04 37.10
 VUN 11.18 108 P 39 53.20 4.4X
 e 04 25.40
 SVA 11.20 108 ePc 39 52.60 3.5X
 e 41 29.60
 eS 42 05.00
 MBU 11.21 102 eP 39 52.10 2.9X
 RAB 18.27 304 e(P) 41 14.00 -4.5X
 eS 44 50.00
 BRS 18.38 225 iPd 41 22.00 2.3
 i 41 45.80
 iS 44 51.00
 i 49 11.10
 PMG 20.40 283 eP 41 44.00 3.2X
 CTA 20.71 252 iPd- 41 46.00 2.0
 1.3s 206.73nm 5.3mb
 Z 18s 2.41um 4.6Msz
 i(PP) 42 03.50
 i(PPP) 42 24.50

i 42 25.00
 eS 45 29.00
 eScS 53 00.00
 RMO 20.81 233 iPd 41 47.10 2.1
 1.2s 588.00nm 5.8mb
 COO 21.08 220 iPc 41 50.60 2.9X
 WLZ 24.05 164 P 42 17.90 1.4
 HBZ 24.67 159 eP 42 21.90 -0.5
 PUZ 25.08 159 P 42 25.00 -1.3
 NOZ 25.50 160 P 42 29.30 -0.8
 CMS 25.67 226 eP 42 33.00 1.3
 BWA 25.86 218 iPc 42 33.20 -0.4
 e 49 30.00
 CNB 25.96 215 eP 42 36.00 1.5
 1.1s 174.00nm 5.5mb
 CAN 26.17 216 iPc 42 37.10 0.8
 e 49 30.30
 MNG 26.64 166 P 42 39.60 -1.0
 KIW 26.75 167 P 42 40.70 -0.8
 PGZ 26.84 165 P 42 41.10 -1.2
 DIS 26.94 254 iPd 42 43.70 0.2
 TCW 26.95 168 P 42 43.10 -0.3
 CAW 27.02 167 P 42 43.00 -1.0
 MRW 27.06 168 P 42 43.60 -0.7
 WEL 27.12 168 P 42 45.00 0.1
 MTW 27.16 166 P 42 43.70 -1.6
 e 43 31.10 243kmX
 THZ 27.25 171 P 42 45.60 -0.5
 KHZ 27.99 170 P 42 51.50 -1.2
 LTZ 28.16 172 P 42 53.70 -0.6
 MQZ 29.12 172 P 43 02.30 -0.5
 MSZ 29.72 179 Pd 43 09.20 1.1
 TOO 29.75 216 eP 43 10.00 1.4
 1.0s 127.00nm 5.6mb
 e 46 10.00
 e 49 42.00
 MMCZ 30.09 177 P 43 11.40 -0.1
 MHZ 30.15 177 P 43 11.60 -0.5
 TLC 30.27 177 P 43 13.20 0.0
 WB5 31.77 256 eP 43 25.70 -0.8
 iPCP 46 16.00
 eS 48 25.00
 WRA 31.80 256 Pd 43 25.20 -1.5
 0.6s 12.00nm 4.8mb
 ADE 32.56 227 iPd 43 34.60 1.4
 1.0s 210.00nm 5.9mb
 KNA 37.12 263 eP 44 11.00 -1.2
 FORR 39.22 239 iPd 44 30.30 0.7
 0.4s 65.00nm 5.8mb
 AFR 41.26 100 iP 44 46.90 0.4
 1.1s 165.00nm 5.7mb
 PAE 41.45 100 iP 44 48.10 0.1
 1.1s 150.00nm 5.7mb
 PPT 41.46 100 iP 44 48.50 0.4
 1.1s 185.00nm 5.7mb
 PPN 41.59 100 iP 44 49.60 0.4
 1.1s 70.00nm 5.3mb
 TVO 41.75 100 iP 44 51.00 0.4
 1.1s 325.00nm 6.0mb
 PMO 43.25 96 iP 45 04.00 1.3
 1.1s 180.00nm 5.7mb
 VAH 43.49 97 iP 45 05.40 0.8
 1.1s 145.00nm 5.6mb
 TPT 43.52 96 iP 45 05.90 1.0
 1.1s 140.00nm 5.6mb
 RUV 43.73 97 iP 45 07.50 0.9
 1.1s 190.00nm 5.8mb
 COOL 45.07 241 eP 45 17.00 -0.2
 MBL 45.42 255 eP 45 20.60 0.6
 0.6s 41.00nm 5.4mb
 MEKA 46.81 247 eP 45 30.60 -0.4
 MKS 47.95 276 eP 45 41.50 1.5
 KLB 48.04 241 eP 45 40.00 -0.5
 NWA0 48.69 239 eP 45 45.00 -0.5
 BAL 48.81 242 eP 45 46.00 -0.4
 MUN 49.41 241 eP 45 51.00 0.0
 NANU 49.41 253 iPd 45 51.70 0.6
 0.6s 66.00nm 5.7mb
 OPA 49.78 44 P 45 55.40 1.5
 TRT 53.95 271 iPc 46 22.10 -3.1X
 0.5s 67.50nm 5.9mb
 KKM 54.71 289 ePc 46 31.50 0.6
 BAG 55.60 302 eP 46 36.10 -1.2
 eS 54 14.00
 CHJJ 57.26 333 P 46 48.60 0.0
 IIDJ 57.28 332 P 46 50.70 1.9
 MAT 58.02 333 (P) 46 53.00 -0.9

	0.8s	24.63nm	5.3mb	PNT	90.50	39 eP	50 01.00	0.3		0.7s	35.30nm			
		eS	54 38.00											
MTMJ	58.24	332 P	46 54.70	-0.8	GKN	90.54	299 P	50 01.60	0.0	VDL	143.40	334 ePKPd	56 31.50	-2.1
NIIJ	58.26	334 P	46 56.10	0.6		0.6s	23.00nm	5.5mb		SAL	143.63	332 PKP	56 31.30	-2.4
VNDA	62.73	181 P	47 24.90	-0.4	NEW	91.66	40 P	50 06.00	-0.1	RSM	143.95	329 PKP	56 34.10	-0.2
IPM	68.41	281 ePc	48 03.50	0.8		0.8s	6.25nm	4.9mb		TMA	143.96	334 ePKPd	56 32.70	-1.8
	1.0s	61.60nm	5.4mb	HYB	93.17	287 eP	50 13.50	-0.2	ARV	144.00	328 PKP	56 33.30	-1.2	
LOE	72.16	294 eP	48 26.00	0.7		e	50 48.00	133km	VAI	144.19	334 PKPc	56 32.90	-1.7	
BJI	72.37	321 eP	48 26.50	0.4	GBA	93.27	283 Pd	50 14.90	0.8	ORI	144.23	320 PKPc	56 34.10	-0.8
	2.0s	83.00nm	5.2mb			0.9s	11.40nm	5.2mb	SFI	144.25	329 PKPc	56 34.50	-0.3	
		epP	48 56.00	117km	ALQ	95.37	55 eP	50 23.00	-0.7	PGD	144.35	329 PKP	56 34.90	-0.3
		esP	49 12.00			0.9s	2.73nm	4.7mb	MMK	144.38	335 ePKPd	56 34.70	-0.6	
		eS	57 40.00		ANMO	95.37	55 P	50 20.90	-2.8	CRE	144.42	329 PKP	56 34.00	-1.3
		eScS	58 21.00		YKA	97.66	27 eP	50 30.40	-2.7	DUI	144.42	324 PKP	56 34.00	-1.3
NST	72.94	292 eP	48 34.00	4.2X		0.7s	1.70nm	4.7mb	ROI	144.44	319 PKP	56 35.20	-0.2	
KMI	74.38	302 Pc	48 39.50	1.1	ZOBO	117.16	117 PKP	55 45.80	0.3	CSI	144.50	320 PKP	56 34.80	-0.6
CHG	75.14	294 iPc	48 44.00	1.4		LR	06 52.00		TDS	144.54	320 PKPc	56 34.80	-0.7	
	1.0s	29.50nm	5.0mb	DAG	118.00	2 iPKPd	55 43.10	-1.6	AQU	144.55	326 PKP	56 32.60	-2.9	
CHTO	75.14	294 ePc	48 43.80	1.3		0.6s	6.00nm		DIX	144.58	336 ePKPd	56 35.40	-0.3	
		pP	49 14.80	123km	FRB	118.02	25 ePKP	55 44.00	-1.0	MME	144.62	330 PKP	56 33.00	-2.8
SPA	75.24	180 iPc	48 41.90	-0.6	KEV	119.85	345 iPKP	55 48.00	-0.3	MMN	144.62	320 PKP	56 39.50	4.0X
	1.0s	175.00nm	5.8mb			0.5s	8.40nm		SGO	144.62	322 PKP	56 34.50	-1.0	
LZH	78.41	312 Pc	49 02.00	1.4	SOD	121.62	343 iPKP	55 50.90	-0.9	FIR	144.65	329 ePKP	56 34.00	-1.5
	2.0s	112.00nm	5.3mb	SUF	124.96	339 iPKP	55 56.80	-1.5	ORX	144.71	335 PKP	56 34.23	-1.5	
		pP	49 32.00	118km	NUR	126.99	338 iPKP	56 02.70	0.4	ORO	144.72	335 PKP	56 34.70	-1.0
		sP	49 48.00			0.6s	19.60nm		FLN	144.72	346 ePKP	56 33.30	-2.2	
		i	50 15.00		NB2	130.75	345 PKP	56 09.10	-0.5		0.7s	86.15nm		
		i	51 03.20			0.9s	10.10nm		MGR	144.73	321 PKP	56 34.40	-1.4	
		S	58 46.00		HFS	130.85	343 ePKP	56 08.90	-0.8	SDI	144.75	325 PKP	56 34.20	-1.6
		SKS	59 00.00			0.4s	2.10nm		BOB	144.76	332 PKP	56 35.20	-0.6	
		sS	59 39.00		WIN	132.71	219 iPKPd	56 15.70	1.0	BDI	144.76	330 PKP	56 34.10	-1.7
		PS	59 44.00			0.7s	17.12nm		AZI	144.78	325 PKP	56 35.30	-0.4	
		i	05 15.00			e	59 31.80		EMS	144.78	336 ePKPd	56 35.50	-0.4	
SVW	81.27	17 eP	49 16.50	1.3	BBTK	133.20	311 iPKPd	56 16.00	1.0	LDF	144.79	345 ePKP	56 33.70	-1.9
MAW	81.77	202 iP	49 18.50	0.8	MBH	133.85	297 ePKP	56 16.00	-0.3		0.7s	74.95nm		
	1.0s	69.00nm	5.4mb	MLR	135.42	321 ePKP	56 20.00	0.9	LOR	144.86	340 ePKP	56 34.40	-1.4	
TTA	82.64	16 eP	49 22.00	-0.3	LWI	135.53	251 ePKPc	56 19.70	-0.6		0.8s	5.35nm		
PMR	83.62	19 eP	49 27.20	0.0	KSP	137.15	333 ePKP	56 22.50	0.5	MNS	144.92	326 PKPc	56 34.80	-1.3
		e	49 57.40	117km		e	56 58.00		CZI	144.92	319 PKP	56 34.70	-1.4	
SHL	83.63	298 iP	49 28.80	0.5	BRG	138.13	335 iPKP	56 20.30	-3.5X	GRI	144.97	318 PKP	56 36.50	0.2
		iS	59 41.00			1.4s	36.00nm		PII	145.05	330 PKP	56 34.80	-1.4	
PCC	84.01	49 eP	49 30.50	0.8		i	56 24.00		LBF	145.07	340 ePKP	56 35.10	-1.1	
GCC	84.11	49 ePd	49 30.90	0.7		e	57 10.00		GRC	145.09	341 PKP	56 36.97	0.9	
PRS	84.30	50 ePd	49 31.40	0.2		e	59 49.00		SSF	145.16	340 ePKP	56 35.80	-0.5	
SAO	84.41	50 eP	49 32.00	0.3		e	01 52.00		GRR	145.16	346 ePKP	56 35.20	-1.0	
MHC	84.49	49 eP	49 32.80	0.5	CLL	138.17	336 i(PKP)	56 24.80	0.9	LSD	145.19	335 PKP	56 37.21	0.5
ARN	84.57	49 P	49 33.00	0.4		1.1s	26.00nm		RMP	145.30	326 PKP	56 36.90	0.2	
PRI	84.75	51 ePd	49 35.00	1.4		e	56 49.00		LPL	145.31	336 ePKP	56 36.60	-0.3	
BCH	84.82	52 P	49 34.30	0.3	PRU	138.54	333 ePKP	56 19.00	-5.6X	LPG	145.32	336 ePKP	56 36.70	-0.3
TOA	84.96	20 eP	49 34.50	0.5		e	56 24.30			1.0s	156.25nm			
WDC	85.15	46 ePd	49 36.40	1.1	ZST	138.65	330 ePKP	56 24.90	0.1	RDP	145.33	326 PKP	56 37.00	0.2
		epP	50 06.70	117km	MOX	139.24	336 e(PKP)	56 21.00	-4.8X	PCP	145.34	333 PKP	56 36.38	-0.4
ORV	85.47	47 eP	49 36.90	0.0	KHC	139.60	333 PKP	56 20.50	-6.1X	RSP	145.40	335 PKP	56 35.97	-0.9
CMB	85.68	49 ePd	49 38.80	0.7		e	56 26.50		SMF	145.41	340 ePKP	56 36.10	-0.6	
		epP	50 08.40	114km	SKO	140.04	319 ePKP	56 21.00	-6.5X	AVF	145.45	340 ePKP	56 36.10	-0.6
IMA	85.77	15 eP	49 37.80	-0.3		i	56 26.00		LPF	145.54	346 ePKP	56 36.60	-0.3	
	0.9s	11.50nm	4.8mb			i	57 03.00		CKI	145.55	333 PKP	56 36.80	-0.2	
FRI	85.78	50 ePd	49 39.40	0.9	OHR	140.90	319 ePKP	56 22.50	-6.7X	MAO	145.69	328 PKP	56 38.00	0.7
		epP	50 08.90	113km	KBA	141.23	331 e(PKP)	56 24.50	-5.3X	BNI	145.72	335 PKP	56 38.60	1.1
MWC	86.03	53 eP	49 40.00	-0.1		0.7s	6.70nm		FIN	145.75	333 PKP	56 37.10	-0.3	
SBB	86.37	53 eP	49 44.00	2.4		i	56 28.90		RRL	145.78	335 PKP	56 37.92	0.2	
FBA	86.47	18 eP	49 40.90	-0.4		i	56 35.60		BGF	145.81	341 ePKP	56 37.40	0.0	
		pP	50 13.00	124km		i	57 11.50		ROB	145.83	333 PKP	56 37.51	-0.1	
RVR	86.48	54 eP	49 43.00	1.0	MEM	141.25	341 PKPd	56 24.50	-4.9X	DOI	145.93	334 PKP	56 37.20	-0.6
BAR	86.58	55 eP	49 43.00	0.4	ABH	141.36	339 ePKP	56 24.04	-5.7X	PZZ	145.99	334 PKP	56 37.31	-0.6
PEC	86.61	54 P	49 43.30	0.6	LJU	141.41	329 ePKP	56 25.00	-4.9X	PLDF	146.08	339 PKP	56 39.55	1.6
PLM	86.66	54 eP	49 44.00	0.8	VBY	141.42	328 ePKP	56 24.10	-5.8X	ENR	146.08	334 PKP	56 37.51	-0.5
		e	50 32.00	194kmX	UCC	141.58	343 PKP+	56 25.00	-5.0X	STV	146.10	334 PKP	56 37.72	-0.4
CLC	86.94	52 eP	49 45.00	0.7	RBL	141.59	330 PKP	56 25.60	-4.7X	AGO	146.17	340 PKP	56 39.06	1.0
		e	50 15.00	115km	RUP	141.68	339 ePKP	56 25.31	-5.0X	MAF	146.20	341 ePKP	56 38.80	0.7
BMW	87.14	40 P	49 45.50	0.5	VOY	141.73	330 e(PKP)	56 25.50	-5.1X	SAOF	146.21	333 PKP	56 39.10	0.9
GSC	87.37	53 eP	49 46.00	-0.4	FVI	141.85	331 PKP	56 27.00	-3.6X	TCF	146.25	341 ePKP	56 38.80	0.6
TPC	87.55	54 eP	49 48.00	0.7	DOU	142.14	342 PKP	56 27.80	-3.2X	AUTN	146.26	333 PKP	56 39.82	1.3
KVN	87.72	49 P	49 48.00	-0.1	OGA	142.44	333 ePKP	56 28.50	-3.4X	TOUF	146.32	334 PKP	56 40.01	1.4
GMW	87.86	40 P	49 49.10	0.7		1.6s	121.00nm		SSB	146.35	338 PKP	56 39.06	0.7	

16d 22h

LMR 147.19 334 ePKP 56 41.00 1.3
1.1s 163.60nm
RJF 147.35 341 ePKP 56 41.90 2.0
1.1s 127.00nm
CAF 147.52 340 ePKP 56 42.60 2.4
BCAO 147.54 255 iPKPc 56 40.10 -1.1
0.3s 108.00nm
i 56 44.00
i 57 16.80
i 58 09.30
LFF 147.92 342 ePKP 56 43.50 2.7X
LPO 148.01 341 ePKP 56 43.90 2.9X
1.0s 152.00nm
CGL 148.86 326 PKP 56 47.00 4.3X
EPF 149.77 341 ePKP 56 48.60 4.8X
1.2s 89.25nm
ECRI 150.98 344 ePKP 56 52.40 6.7X
EMON 151.15 352 ePKP 56 53.00 7.1X
ESEL 151.66 334 ePKP 56 54.00 7.3X
EBR 151.69 339 ePKP 56 54.00 7.3X
STS 151.84 353 ePKP 56 54.20 7.3X
ETOR 152.52 342 ePKP 56 56.20 8.2X
GUD 153.25 345 ePKP 56 57.40 8.3X
KIC 168.48 224 PKP 57 05.10 -0.5
LIC 168.57 222 PKP 57 05.30 -0.3
TIC 168.87 224 PKP 57 05.60 -0.2
S.D. = 1.1 on 226 of 272 obs.

APR 16, 1990 23h 24m 47.58 ± 1.39s
43.558 N ± 7.5km 7.789 E ± 6.6km
DEPTH = 10.5 ± 5.5 km
NEAR SOUTH COAST OF FRANCE (379)
ML 1.8 (LDG). MD 1.7 (STR).

REVF 0.36 301 Pg 24 55.57 0.6
Sg 25 00.08
SBF 0.40 320 Pg 24 56.00 0.2
Sg 25 01.30
SAOF 0.46 338 Pg 24 56.74 -0.2
Sg 25 02.07
AURF 0.47 315 Pg 24 57.72 0.5
Sg 25 03.28
AUTN 0.51 329 Pg 24 57.67 -0.3
Sg 25 03.91
MVIF 0.57 306 Pg 24 59.47 0.2
Sg 25 06.38
TOUF 0.60 319 Pg 24 59.25 -0.6
Sg 25 05.78
FIN 0.72 25 P 25 02.05 0.4
S 25 10.55
ENR 0.72 338 P 25 01.32 -0.4
S 25 09.92
ROB 0.74 5 P 25 02.04 0.0
S 25 10.45
STV 0.76 334 P 25 02.49 0.0
S 25 11.63
FRF 0.83 271 Pg 25 03.80 0.2
Sg 25 14.50
LMR 0.96 257 Pg 25 05.40 -0.4
Sg 25 17.40
LRG 1.05 265 Pg 25 07.40 0.2
Sg 25 20.00
PZZ 1.07 333 P 25 07.68 -0.1
S 25 20.19
PCP 1.12 29 P 25 09.03 0.4
S.D. = 0.4 on 16 of 16 obs.

APR 16, 1990 23h 44m 39.13 ± 0.25s
16.788 N ± 5.4km 93.952 W ± 4.6km
DEPTH = 127.0km (4 depth phases)
4.6mb (16 obs.)
CHIAPAS, MEXICO (61)

SCX 1.26 92 P 45 08.40 3.7X
iS 45 27.93
TPX 2.48 139 P 45 18.90 -0.6
eS 45 46.67
OXX 2.67 277 P 45 20.20 -2.0
(S) 45 40.08
LVVM 3.77 321 iP 45 34.13 -2.5
BVA 3.83 123 iPc 45 38.20 0.6
MMG 3.86 125 iPc 45 38.00 -0.1
REC 4.05 125 iPd 45 41.00 0.5
SLP 4.08 119 iPd 45 41.10 0.2
CMG2 4.53 117 iPc 45 57.00 9.9X
IIT 4.70 299 iP 45 49.61 0.1
iS 46 40.00

OZG 4.89 115 ePc 45 52.50 0.5
PPM 4.99 298 P 45 53.72 0.1
(S) 46 39.00
III 5.49 288 iP 45 58.75 -1.4
iS 46 56.00
UNM 5.58 298 iP 46 01.50 0.1
ACX 5.66 272 P 45 58.26 -3.9X
(S) 47 15.58
IIC 5.85 301 P 46 05.31 0.2
CRX 6.04 296 P 46 08.47 0.7
IJJ 6.23 299 iP 46 11.54 1.1
MRX 7.47 294 iP 46 22.00 -4.8X
UYO 17.31 359 iPd 48 35.20 0.8
OLY 18.77 6 P 48 50.20 -0.9
TUL 19.12 355 eP 48 53.90 -0.8
0.7s 8.30nm 4.2mb
POW 19.44 7 P 48 57.80 -0.3
JSC 20.81 31 P 49 13.50 1.5
LHS 21.19 31 P 49 33.50 17.7X
ALO 21.26 331 iPd 49 18.00 1.3
0.8s 16.98nm 4.5mb
ANMO 21.26 331 ePd 49 18.20 1.4
e 49 47.50 155kmX
GLA 24.84 315 eP 49 52.00 0.8
GLD 24.89 339 P 49 52.30 0.5
1.5s 39.06nm 4.7mb
GOL 24.90 339 ePd 49 52.30 0.3
pP 50 22.00 145kmX
sP 50 33.50
TPC 26.28 315 eP 50 05.00 0.5
e 50 47.00 213kmX
PLM 26.41 313 eP 50 07.00 1.1
e 50 48.00 207kmX
PEC 26.92 314 P 50 11.00 0.7
GSC 27.48 316 eP 50 16.00 0.6
MWC 27.72 313 eP 50 18.00 0.3
SBB 27.82 314 eP 50 19.00 0.6
DAU 27.91 331 P 50 19.80 0.3
CLC 28.31 317 eP 50 23.00 0.2
RSSD 28.55 345 P 50 24.40 -0.7
BW06 29.13 336 P 50 30.00 -0.3
0.8s 2.50nm 4.0mb
TNP 29.45 321 P 50 33.70 0.5
1.0s 10.83nm 4.5mb
FRI 30.37 317 eP 50 40.70 -0.4
ePcP 53 36.70
PRI 30.55 314 eP 50 43.20 0.4
epP 51 25.80 209kmX
ePcP 53 36.80
KVN 30.60 321 ePd 50 44.00 0.7
pP 51 12.80 134km
sP 51 25.80
LLA 30.99 315 eP 50 46.60 0.0
PRS 31.13 314 e(P) 50 48.20 0.4
ePcP 53 39.80
CMB 31.41 318 ePd 50 50.50 0.2
sP 51 33.10
ARN 31.78 316 P 50 54.00 0.5
MHC 31.85 315 ePd 50 55.20 1.0
epP 51 37.10 204kmX
LRM 32.81 336 iPd 51 03.50 0.9
ORV 33.00 319 eP 51 05.00 1.0
RSON 33.99 0 P 51 10.00 -2.3
WDC 34.24 320 eP 51 13.10 -1.6
ePcP 53 47.10

FHC 35.27 319 eP 51 24.50 1.0
SES 36.24 341 ePd 51 32.30 0.8
NEW 36.68 334 P 51 34.50 -0.7
0.6s 19.19nm 5.1mb
DPW 36.84 333 P 51 37.00 0.4
LON 37.74 328 P 51 44.20 0.0
FFC 38.37 353 iPd 51 49.20 0.0
0.5s 15.00nm 5.1mb
PNT 38.55 333 ePd 51 52.00 1.2
0.7s 21.00nm 5.0mb
MCW 39.57 330 P 51 59.00 -0.3
ZOBO 41.56 141 P 52 17.00 0.4
LPB 41.78 141 P 52 19.00 0.8
CCH 43.63 140 eP 52 33.00 -0.1
e 53 02.00 127km
SIV 45.96 133 Pc 52 50.00 -1.3
i 53 18.40 123km
FRB 50.06 14 eP 53 21.00 -1.5
PMR 59.09 333 P 54 27.40 -0.6
FBA 59.95 337 P 54 32.80 -1.1
0.9s 21.25nm 5.2mb
MBC 60.93 353 ePd 54 40.00 -0.4

0.9s 6.00nm 4.6mb
pP 55 10.00 124km
TTA 62.57 333 P 54 50.20 -1.4
0.9s 17.92nm 5.0mb
IMA 62.67 337 P 54 50.20 -2.1
0.9s 3.23nm 4.3mb
DAG 70.38 14 iPd 55 39.30 -1.3
0.6s 5.33nm 4.5mb
ADK 72.52 320 P 55 52.30 -1.5
0.8s 60.69nm 5.4mb
NB2 82.60 28 P 56 50.60 1.5
0.7s 2.30nm 4.1mb
HFS 84.08 29 ePKP 56 57.00 0.5
0.4s 0.60nm 3.8mb
KEV 84.40 17 eP 56 57.00 -1.0
SOD 85.64 20 iP 57 04.30 0.1
SUF 88.09 24 iP 57 17.00 0.8
NUR 88.71 26 eP 57 19.00 -0.2
WB5 134.15 258 ePKP 03 43.00 -1.0
WRA 134.18 258 PKPd 03 42.90 -1.2
0.4s 2.00nm
NST 144.88 336 ePKP 04 04.60 1.1
HYB 145.22 13 iPKPd 04 02.90 -1.2
0.8s 34.60nm
e 04 37.00
MBL 147.79 257 ePKP 04 10.00 1.9
GBA 148.63 16 PKPc 04 09.40 -0.2
0.7s 5.70nm
S.D. = 1.0 on 80 of 85 obs.

? APR 17, 1990 01h 11m 58.30 ± 2.09s
53.371 N ± 27.1km 169.216 E ± 18.0km
DEPTH = 33.0km (normal)
4.0mb (3 obs.)
KOMANDORSKY ISLANDS REGION (4)
SMY 3.02 100 eP 12 45.00 0.2
TTA 20.43 48 eP 16 34.50 -0.6
IMA 22.20 41 eP 16 54.00 1.0
FBA 24.35 45 eP 17 14.00 0.2
MBC 34.61 24 eP 18 46.00 0.3
YKA 39.15 46 eP 19 23.80 -0.2
0.5s 0.50nm 3.5mb
FRB 54.91 27 eP 21 26.00 -1.4
NB2 64.60 348 P 22 34.80 0.7
0.7s 1.10nm 4.1mb
HFS 65.16 347 eP 22 37.50 -0.1
0.5s 0.90nm 4.1mb
S.D. = 0.8 on 9 of 9 obs.

* APR 17, 1990 01h 38m 00.81 ± 1.04s
34.307 N ± 10.1km 35.317 E ± 13.0km
DEPTH = 33.0km (normal)
4.4mb (5 obs.)
JORDAN - SYRIA REGION (374)
SHMJ 1.62 167 Pd 38 28.80 1.4
LFK 1.76 304 ePn 38 29.40 -0.1
BURJ 2.10 169 Pd 38 34.60 0.2
JARJ 2.13 165 Pd 38 35.20 0.4
HLBJ 2.37 159 Pd 38 36.30 -2.0
MSL 6.73 70 ePn 39 40.00 0.2
eSn 40 51.00
S.D. = 1.4 on 6 of 6 obs.

APR 17, 1990 01h 59m 26.04 ± 0.32s
39.280 N ± 7.2km 74.783 E ± 5.9km
DEPTH = 127.0km (normal)
4.4mb (5 obs.)
SOUTHERN XINJIANG, CHINA (321)
Foreshock.
FRU 3.55 358 iP 00 21.50 1.3
iS 01 24.00
TLG 4.44 25 iPc 00 32.70 -0.2
iS 01 15.00
NDI 10.76 168 eP 02 01.50 0.6
eS 04 04.00
MAIO 12.46 261 eP 02 20.00 -3.9X
0.7s 70.20nm 5.9mb X
eS 04 45.00
GKN 13.91 141 P 02 40.10 -3.1X
KKN 14.41 140 P 02 46.20 -3.6X
DMN 14.47 140 P 02 48.50 -2.1
GUN 14.62 138 P 02 50.30 -2.3
PKI 14.65 140 P 02 50.70 -2.4
IR2 19.29 267 eP 03 52.00 1.0
IR4 19.42 265 eP 03 50.00 -2.6

IR7 19.50 267 eP 03 54.00 0.6
 IR5 19.67 266 eP 03 55.00 -0.4
 TAB 22.22 276 eP 04 23.00 1.7
 e 04 30.00 25kmX
 LZH 23.18 89 eP 04 31.50 0.7
 GBA 25.68 174 Pd 04 55.30 0.6
 0.5s 5.50nm 4.4mb
 RYD 27.82 247 ePd 05 14.30 0.0
 MJMA 28.09 250 ePd 05 24.70 7.9X
 CHTO 29.20 127 iPc 05 31.19 4.4X
 e 05 38.64 26kmX
 OBN 29.93 315 eP 05 33.00 0.1
 Z 20s 32.00um 6.0Msz
 eS 10 23.00
 AFIF 30.67 250 ePd 05 51.30 11.4X
 ANTO 32.16 285 eP 05 53.85 1.1
 BBTK 32.19 285 iPd 05 54.00 0.9
 i 06 04.00 36kmX
 HIA 33.26 58 ePc 06 06.98 4.8X
 eS 11 28.96
 HRT 34.28 287 eP 06 13.00 1.8
 ISK 34.68 288 eP 06 15.00 0.5
 KHL 35.01 283 eP 06 16.00 -1.5
 ELL 35.17 280 eP 06 20.00 1.0
 DST 35.34 286 eP 06 21.40 1.1
 DMK 35.48 290 iP 06 22.60 1.3
 VRI 35.55 297 ePd 06 23.00 1.0
 MLR 36.15 296 ePd 06 29.00 1.9
 JMB 36.20 291 eP 06 29.00 1.6
 CMP 36.81 296 iPc 06 33.00 0.4
 PVL 36.95 292 iPc 06 36.00 2.3
 EZN 37.00 287 iP 06 35.50 1.4
 SUF 37.25 325 iP 06 37.80 1.8
 NUR 37.43 321 eP 06 37.00 -0.5
 PLD 37.64 291 eP 06 41.00 1.5
 RZN 37.73 290 eP 06 40.00 -0.5
 PGB 37.93 292 eP 06 44.00 2.0
 SSE 38.45 88 P 06 46.00 -0.4
 MMB 38.47 290 iPc 06 47.00 0.5
 SOD 38.57 332 iP 06 47.30 0.3
 VTS 38.61 292 eP 06 49.00 1.1
 BZS 39.13 297 eP 06 52.00 0.1
 KEV 39.41 336 eP 07 00.86 6.9X
 eS 13 00.73
 SPC 39.53 303 eP 06 55.40 -0.1
 SRO 41.00 301 eP 07 07.80 0.5
 PUK 41.13 292 eP 07 10.40 2.0
 ZST 41.73 302 eP 07 15.10 1.8
 KSP 41.86 306 eP 07 13.50 -0.8
 SOP 42.18 301 eP 07 19.10 2.1
 HFS 42.80 320 eP 07 20.40 -1.5
 0.6s 10.20nm 4.7mb
 PRU 43.09 305 eP 07 24.50 0.1
 HVAR 43.28 295 iP 07 31.70 5.6X
 BRG 43.33 306 eP 07 27.20 0.9
 KMR 43.71 302 eP 07 31.00 1.5
 LJU 43.89 299 eP 07 33.00 2.0
 i 07 38.50 18kmX
 e 09 24.50
 eS 14 12.00
 NB2 44.03 321 P 07 30.20 -1.8
 CEY 44.03 299 eP 07 33.40 1.2
 eS 14 19.00
 WET 44.31 304 eP 07 33.90 -0.5
 VOY 44.32 299 eP 07 35.20 0.6
 i 07 41.40 21kmX
 KBA 44.45 301 iPd 07 34.60 -1.1
 TRI 44.49 299 i(P)d 07 36.50 0.7
 BHG 44.61 302 eP 07 37.80 1.0
 MOX 44.82 306 eP 07 40.00 1.5
 GRF 45.26 305 eP 07 42.00 0.1
 FUR 45.56 303 eP 07 45.80 1.5
 CTI 45.83 300 P 07 47.00 0.4
 BAG 45.86 107 eP 07 49.00 1.8
 OSS 46.67 301 ePc 07 52.10 -1.2
 FIR 46.74 297 eP 07 55.00 1.4
 SAX 47.05 302 ePc 07 58.00 1.6
 VDL 47.17 301 ePc 07 58.00 0.7
 LLS 47.38 302 ePc 07 58.70 -0.3
 SLE 47.47 303 ePc 08 00.30 0.9
 WTS 47.50 309 eP 08 01.50 1.9
 ZLA 47.61 303 ePc 08 01.90 1.3
 TMA 47.68 301 ePc 08 00.90 -0.4
 BOB 47.68 299 P 08 01.60 0.4
 VAI 47.81 301 P 08 03.07 1.0
 1.6s 1000.40nm 6.6mb X
 CDF 48.08 304 eP 08 02.40 -1.9

MMK 48.30 301 ePc 08 07.30 1.1
 PCP 48.36 299 P 08 07.74 1.3
 ORX 48.41 300 P 08 06.21 -0.7
 BSF 48.55 304 eP 08 05.90 -2.1
 DIX 48.66 301 ePc 08 08.80 -0.2
 PGF 48.69 296 eP 08 07.20 -1.9
 FIN 48.70 299 P 08 08.77 -0.3
 HAU 48.79 304 eP 08 07.60 -2.1
 1.3s 282.05nm 6.1mb X
 ROB 48.90 299 P 08 11.95 1.3
 EMS 48.98 301 ePc 08 10.90 -0.5
 LSD 49.02 300 P 08 12.46 0.7
 RSP 49.04 300 P 08 10.10 -1.7
 MAT 49.20 72 eP 08 13.00 0.0
 0.8s 30.60nm 5.4mb X
 Z 21s 9.32um 5.8Msz
 eS 15 25.00
 ENR 49.23 299 P 08 13.90 0.7
 DOI 49.26 299 P 08 13.50 0.1
 LPG 49.27 301 eP 08 12.10 -1.7
 1.3s 479.50nm 6.4mb X
 LPL 49.28 301 eP 08 12.10 -1.6
 STV 49.29 299 P 08 13.38 -0.3
 SBF 49.34 298 eP 08 12.30 -1.7
 PZZ 49.35 299 P 08 14.10 -0.1
 RRL 49.43 300 P 08 16.87 1.9
 BNI 49.47 300 P 08 16.00 0.9
 KKM 49.86 121 ePd 08 20.00 1.7
 FRF 49.98 298 eP 08 16.70 -2.1
 LMR 50.15 298 eP 08 18.10 -2.0
 LRG 50.21 298 eP 08 18.60 -2.0
 1.5s 408.05nm 6.2mb X
 LOR 50.62 304 eP 08 20.90 -2.8
 1.5s 172.35nm 5.8mb X
 LBF 50.63 303 eP 08 21.10 -2.7
 1.6s 236.30nm 5.9mb X
 SSB 50.82 301 P 08 27.25 2.0
 SMF 50.83 303 eP 08 22.80 -2.5
 SSF 50.91 303 eP 08 23.40 -2.5
 AVF 51.10 303 eP 08 25.00 -2.3
 BGF 51.51 303 eP 08 27.90 -2.5
 MAF 51.80 303 eP 08 30.90 -1.8
 TCF 52.01 303 eP 08 32.30 -2.0
 LSF 52.47 303 eP 08 35.00 -2.7
 CAF 52.59 301 eP 08 36.70 -1.9
 LDF 52.72 306 eP 08 36.80 -2.7
 RJF 52.81 302 eP 08 38.50 -1.8
 FLN 52.89 307 eP 08 37.80 -2.9X
 1.6s 304.75nm 6.0mb X
 GRR 53.25 306 eP 08 40.60 -2.8
 LPO 53.26 301 eP 08 42.00 -1.5
 1.6s 342.05nm 6.1mb X
 MFF 53.43 304 eP 08 42.00 -2.7
 1.6s 379.35nm 6.1mb X
 LFF 53.46 302 eP 08 43.10 -1.9
 LPF 53.49 306 eP 08 43.00 -2.1
 1.6s 273.65nm 6.0mb X
 EPF 54.45 300 eP 08 49.40 -3.0X
 1.3s 141.00nm 5.8mb X
 TRT 58.44 134 ePc 09 21.80 0.8
 1.1s 136.60nm 6.0mb X
 BCAO 61.42 251 ePd 09 41.60 0.0
 0.8s 2.00nm 4.3mb
 MBC 64.40 4 eP 10 00.50 0.0
 0.5s 67.00nm 6.0mb X
 IMA 68.55 19 P 10 29.20 2.0
 1.4s 102.27nm 5.7mb X
 TTA 70.35 22 P 10 41.60 3.4X
 1.6s 98.36nm 5.6mb X
 COL 70.94 18 eP 10 45.74 4.1X
 eS 19 59.82
 eSKS 20 43.52
 FBA 70.94 18 ePc 10 45.30 3.7X
 1.0s 1.90nm 4.1mb
 FRB 73.27 344 eP 10 56.00 0.6
 MBL 73.41 136 eP 10 57.00 0.3
 TOA 73.69 19 eP 11 01.60 3.6X
 TIC 77.94 269 P 11 25.00 2.3
 YKA 78.29 4 eP 11 25.50 1.7
 0.7s 52.40nm 5.7mb X
 KSR 78.73 223 eP 11 28.60 1.7
 0.8s 34.38nm 5.4mb X
 W85 80.99 125 eP 11 39.90 1.0
 WRA 81.02 125 P 11 37.50 -1.6
 0.7s 3.20nm 4.4mb
 PMG 82.56 108 eP 11 48.00 0.8
 QIS 84.88 122 eP 12 01.00 2.2

e 12 06.00 16kmX
 S.D. = 1.5 on 131 of 146 obs.
 APR 17, 1990 01h 59m 33.40±0.17s
 39.436 N ± 4.5km 74.900 E ± 2.8km
 DEPTH = 33.0km (normol)
 6.0mb (24 obs.) 6.2Msz (13 obs.)
 SOUTHERN XINJIANG, CHINA (321)
 Two people injured and many
 houses collapsed in Wuqiao
 County. Felt at Kashi, Shufu and
 Wuqiao.
 FAULT PLANE SOLUTION: P-Waves
 NP1: Strike=115 Dip=77 Slip= 158
 NP2: 210 69 14
 Principal Axes:
 T P1g=25 Azm= 71
 P 6 164
 Comment: The focal mechanism is
 poorly controlled and
 corresponds to strike-slip
 faulting with a moderate
 reverse component. The
 preferred fault plane is not
 determined.
 RADIATED ENERGY
 No. of sta: 5 Focal mech. M
 Energy 4.2±1.2*10**13 Nm
 MOMENT TENSOR SOLUTION
 Dep 8 No. of sta: 9
 Moment Tensor; Scale 10**18 Nm
 Mrr= 0.20 Mtt=-1.10
 Mff= 0.89 Mrt=-0.12
 Mrf=-0.47 Mtf=-0.22
 Principal axes:
 T Vol= 1.14 P1g=26 Azm= 86
 N 0.00 63 247
 P -1.15 8 352
 Best Double Couple: Mo=1.1*10**18
 NP1: Strike=126 Dip=66 Slip= 166
 NP2: 221 78 25
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 20S, 45C M.W.: 5S, 10C
 Centroid Location:
 Origin Time 01:59:35.1 0.4
 Lat 39.29N 0.05 Lon 74.78E 0.06
 Dep 15.0 FIX Half-duration 3.8
 Moment Tensor; Scale 10**17 Nm
 Mrr= 0.86 0.31 Mtt=-8.82 0.40
 Mff= 7.96 0.35 Mrt= 1.67 1.10
 Mrf=-8.04 1.06 Mtf=-3.72 0.36
 Principal Axes:
 T Val= 13.91 P1g=32 Azm= 78
 N -4.31 58 257
 P -9.61 0 348
 Best Double Couple: Mo=1.2*10**18
 NP1: Strike=118 Dip=68 Slip= 156
 NP2: 218 68 24
 BOM 20.55 186 eP 04 12.00 0.3
 eS 08 00.00
 POO 20.85 183 iPn 04 16.00 1.1
 iS 08 04.00
 HYB 22.17 171 iPc 04 27.00 -1.2
 1.0s 380.00nm 5.8mb
 eS 08 21.00
 LZH 23.08 89 eP 04 39.50 2.3
 1.8s 84.00nm 4.9mb
 N 11s 29.40um
 E 14s 39.80um
 sP 04 42.00
 S 08 52.00
 SS 09 04.00
 SS 09 56.00
 IRK 23.98 48 ePc 04 45.00 -0.6
 iS 09 14.00
 BBU 24.32 245 eP 04 49.70 0.7
 1.5s 799.00nm 6.0mb
 BJA 24.35 244 iP 04 49.90 0.6
 1.1s 673.00nm 6.1mb
 DHR 24.48 245 ePd 04 49.70 -0.9
 BHD 25.26 265 iPd 05 05.00 7.0X
 iPP 05 48.00
 iPCp 08 37.00
 iS 09 29.00
 iSS 10 45.00

			iSSS	11	12.50				i	07	26.40				i	08	07.60			
KMI	27.39	113	iScP	11	53.00				iPP	08	45.20				e(S)	14	19.00			
			iPc	05	16.45	-1.6			iPPP	09	04.70				i(SS)	17	36.00			
			i	05	21.92				i	09	52.00			MMN	44.62	290	P	07	44.50	0.3
			eSS	14	50.18				iS	13	09.00			GR I	44.66	289	P	07	44.20	-0.5
CHTO	29.22	128	eP	05	34.80	0.5			i	13	50.00			HOF	44.70	306	iPc	07	44.80	-0.1
	1.3s	32.68nm			4.9mb	X			iSS	15	37.00			SHNJ	44.72	78	eP	07	45.50	0.4
QASM	29.38	253	ePd	05	34.70	-1.1			iSSS	16	07.00			CZ I	44.74	289	P	07	45.00	-0.2
KVT	29.53	286	iP	05	36.90	-0.1			i	17	45.00			MOX	44.80	306	iP	07	46.50	0.8
SIM	30.47	294	eP	05	46.00	0.8	VLI	40.53	283	eP	07	08.50	-2.5			1.7s	479.00nm		6.1mb	
			eS	10	47.00		OHR	40.75	290	eP	07	10.00	-2.8	Z	14s	42.40um		6.5mszX		
SHBJ	30.91	268	Pc	05	49.50	0.2									eS	14	24.00			
BJI	31.55	75	iP	05	54.58	-0.1			i	08	15.40			MGR	44.85	291	P	07	50.00	3.8X
HLBJ	31.99	269	Pc	05	59.00	0.3			iPPP	08	50.70			SGO	44.89	291	P	07	48.00	1.6
LOE	32.02	126	eP	06	02.00	3.0X	IVA	40.94	293	eP	07	15.70	1.4	FVI	44.94	300	P	07	46.20	-0.5
SHMJ	32.14	270	Pc	06	02.70	2.7	PVY	40.95	293	eP	07	15.70	1.2	DUI	45.15	293	P	07	49.00	0.4
BURJ	32.30	269	Pc	06	01.90	0.4	SRO	40.99	301	iP	07	15.10	0.5	KUMJ	45.16	81	eP	07	49.40	0.7
NST	32.36	130	eP	06	02.80	0.8			iPP	08	56.80			GRF	45.24	305	iP	07	50.00	0.8
DSI	32.91	269	e(P)	06	06.00	-0.6	LSK	41.17	289	eP	07	15.80	-0.5			20s	31.00um		6.2msz	
LFK	32.94	276	eP	06	07.90	1.0	PLE	41.18	294	eP	07	17.20	0.8	KGM	45.35	138	ePd	07	48.90	-1.4
CSS	33.20	276	eP	06	10.20	1.0	TIR	41.36	291	eP	07	18.00	0.3	ATN	45.60	288	P	07	52.00	-0.1
AYN	33.64	264	eP	06	13.30	0.3	LAC I	41.40	291	iPd	07	20.60	2.6	ARV	45.66	296	P	07	52.00	-0.6
PRNI	33.74	267	e(P)	06	14.00	0.1	SDA	41.45	292	eP	07	16.60	-1.8	AQU	45.69	294	P	07	55.40	2.6
GPA	33.97	286	eP	06	15.00	-0.8	TTG	41.51	293	eP	07	18.70	-0.2	SHK	45.74	77	eP	07	52.20	-1.1
PPCY	33.99	276	eP	06	15.00	-1.0			e(S)	13	36.00			AZI	45.78	294	P	07	54.80	1.4
MBH	34.09	266	eP	06	17.00	0.1	ZST	41.73	302	iP	07	20.20	-0.4	KAGJ	45.79	82	eP	07	54.30	0.6
ALT	34.42	284	iP	06	19.00	-0.8			i	08	57.50			CTI	45.83	300	P	07	52.90	-1.1
PUL	34.43	321	iP	06	20.00	0.5	KSP	41.84	306	iP	07	22.00	0.5	RSM	45.88	297	P	07	54.00	-0.2
			iS	11	48.00			1.4s	271.00nm			5.8mb	BLS1	46.25	319	iP	07	57.50	0.4	
GBZT	34.49	287	iPc	06	18.50	-1.8			i	08	58.00			SFI	46.29	297	P	07	58.10	0.6
BCK	34.50	281	eP	06	19.00	-1.5			e	15	27.50			ODD1	46.30	320	eP	08	01.00	3.6X
WAJH	34.57	259	eP	06	22.00	0.9	KEK	41.89	289	eP	07	20.00	-2.1	CRE	46.31	297	P	07	58.00	0.2
ITU	34.74	288	iPd	06	23.50	1.1	TRO	41.90	334	eP	07	23.00	1.3	RMP	46.35	294	P	07	57.80	-0.2
TLB	34.82	294	ePc	06	22.50	-0.5	IPM	41.99	139	ePc	07	23.00	-0.1	RDP	46.36	294	P	07	57.50	-0.6
BIR	34.90	297	eP	06	25.00	1.3		1.2s	117.30nm			5.5mb	MEU	46.38	287	P	08	03.50	5.1X	
PPE	34.91	297	ePd	06	25.00	1.2	PTJ	42.96	299	eP	07	30.70	-0.2	PGD	46.40	297	P	07	59.30	0.8
CLI	35.10	298	ePc	06	25.50	0.0	ZAG	42.96	298	iPc	07	32.10	1.3	KBS	46.47	346	eP	08	00.00	1.6
BRD	35.38	296	ePd	06	31.00	3.1X	PRU	43.08	305	iP	07	32.50	0.8	SAL	46.71	300	P	08	00.00	-0.7
PTT	35.68	298	eP	06	34.00	3.7X		Z	13s	31.00um			6.4mszX	GIB	46.72	289	P	08	01.00	0.0
BNT	35.72	287	iP	06	30.90	0.1		N	18s	50.50um			STU	46.75	304	e(P)	08	01.00	0.0	
EDC	35.77	287	iP	06	31.00	-0.2		E	14s	27.00um					1.6s	800.00nm		6.4mb		
ISR	35.79	295	ePc	06	32.50	1.1			eS	13	56.00			TOD	46.79	305	eP	08	01.05	-0.4
BUC	36.22	294	ePd	06	38.00	3.1X	BRG	43.31	306	iP	07	33.50	0.0	TNS	46.87	306	ePc	08	02.00	-0.1
APA	36.23	334	ePd	06	34.10	-0.6			1.6s	480.00nm			6.0mb			ePP	09	54.20		
			eS	12	12.00			N	20s	72.50um				BER	46.89	320	iPc	08	04.50	2.5
I ZM	36.74	284	iP	06	47.90	8.5X		E	20s	5.50um				MME	47.00	298	P	08	06.00	2.6
HLW	36.78	269	eP	06	41.00	1.2			eS	14	00.00			BDI	47.11	298	P	08	06.00	1.9
			e	08	06.00		BRT	43.43	291	P	07	39.00	4.4X	FAI	47.24	288	P	08	05.50	0.4
			ePPP	08	31.00		BRL	43.47	309	eP	07	35.50	0.7	MAO	47.25	295	P	08	05.10	0.0
			e	09	20.00				ePP	09	17.00		PII	47.27	297	P	08	04.10	-1.1	
			eS	21	26.60		VBY	43.53	298	iPc	07	35.50	0.1	KTD	47.32	305	eP	08	05.07	-0.5
KDZ	37.26	290	eP	06	41.00	-2.7	BRN	43.53	308	ePc	07	36.50	1.2	QCP	47.32	108	eP	08	10.00	4.1X
SMG	37.27	283	eP	06	43.80	0.1	COP	43.60	313	iPc	07	36.90	1.1	WIT	47.38	310	eP	08	06.00	0.1
RDO	37.29	289	eP	06	43.80	-0.1			1.3s	438.46nm			6.1mb	WTS	47.47	309	eP	08	06.50	-0.2
NUR	37.36	321	iP	06	44.60	0.3			i	14	07.00				1.6s	473.00nm		6.3mb		
	Z	16s	33.50um		6.2mszX				i	17	10.00			ABH	47.52	306	eP	08	06.72	-0.4
			i	08	13.00		KMR	43.71	302	iP	07	36.00	-0.8	BOB	47.68	299	P	08	12.00	3.4X
			e	12	32.00				iPP	09	12.40			GWf	47.70	305	P	08	06.80	-1.8
			e	14	28.00				iPcP	09	18.30			FEL	47.74	303	eP	08	08.08	-1.0
			LR	22	18.00				i	13	17.20			VAI	47.81	300	P	08	13.50	4.1X
HKC	37.45	105	iP	06	46.00	0.6			iS	13	52.60			TSRJ	47.82	74	eP	08	08.90	-0.7
DRA	37.47	295	ePd	06	48.00	2.6			iSS	17	05.80			RUP	47.87	306	eP	08	09.53	-0.4
DEV	38.21	297	eP	06	53.00	1.4			iScS	17	27.80			WLS	48.02	304	P	08	10.27	-0.9
CEI	38.25	300	eP	07	02.00	10.1X	CLL	43.82	307	iP	07	37.50	-0.2	CDF	48.07	304	P	08	10.96	-0.6
SSE	38.35	88	iP	06	53.00	0.1			1.7s	470.00nm			6.0mb	BBS	48.18	303	P	08	10.90	-1.5
	1.2s	33.00nm			5.0mb				iPP	09	22.00			ECH	48.20	304	P	08	11.65	-0.9
	Z	16s	18.50um		6.0mszX				eS	14	11.00			MEM	48.29	307	iPc	08	12.23	-0.9
	N	14s	29.80um				LJU	43.89	299	iP	07	38.50	0.2	ENN	48.31	307	eP	08	12.00	-1.2
	E	13s	8.30um						e	09	24.50				1.5s	234.00nm		6.0mb		
			S	12	43.00				eS	14	12.00			MOF	48.32	303	P	08	12.67	-0.8
			sS	12	52.00		RIY	44.16	298	eP	07	39.80	-0.7	ORO	48.41	300	P	08	13.50	-0.8
APE	38.46	283	eP	06	53.00	-0.9	ORI	44.23	290	P	07	41.50	0.4	CKI	48.58	299	P	08	15.70	0.2
SOD	38.48	332	iP	06	53.10	-0.5	ROI	44.30	290	P	07	44.20	2.4	YSS	48.59	58	iPc	08	16.50	1.1
SPC	39.52	303	iP	07	02.90	0.1	VOY	44.33	299	eP	07	41.40	-0.6			eS	15	24.00		
			i(PP)	08	25.20		RGS	44.33	324	eP	07	43.80	2.1	LOMF	48.66	303	P	08	15.56	-0.5
ATH	39.53	285	eP	07	03.70	1.0	CSI	44.44	290	P	07	42.30	-0.6	PGF	48.71	296	P	08	15.89	-0.7
SNG	39.57	137	eP	07	03.50	0.3	TDS	44.44	290	P	07	43.10	0.2	MTMJ	48.75	72	P	08	15.00	-2.0
ARO	39.74	234	ePd	07	10.00	5.2X	KBA	44.44	301	iP	07	37.70	-5.3X	PPR	48.90	115	ePc	08	20.00	1.8
PSZ	39.92	301	iP	07	06.30	0.3		1.4s	264.00nm			5.9mb			1.0s	69.00nm		5.6mb	X	
VAM	40.04	281	eP	07	06.10	-0.9			i	07	42.40			VITF	48.95	304	P	08	17.66	-0.5
SKO	40.06	291	iPc	07	07.30	0.2			i	07	45.00									

AUTN 49.30 298 P 08 21.26 0.0
 NIJJ 49.37 71 eP 08 21.30 -0.3
 SNF 49.38 307 iPc 08 21.21 -0.3
 AURF 49.41 298 P 08 21.71 -0.2
 TOUF 49.42 299 P 08 22.26 0.1
 REVf 49.43 298 P 08 21.80 -0.2
 BNI 49.47 300 P 08 24.00 1.6
 MVIF 49.52 298 P 08 22.49 -0.4
 CALN 49.75 298 P 08 24.12 -0.5
 CHJJ 49.85 73 eP 08 25.50 0.2
 KAKJ 50.65 72 eP 08 28.90 -2.4
 GRC 51.11 304 P 08 32.25 -2.4
 AGO 51.48 302 P 08 36.49 -1.1
 PYM 51.67 302 P 08 36.90 -2.2
 LBL 51.69 301 P 08 38.47 -0.7
 TSM 52.44 121 ePc 08 43.00 -2.2
 DAG 52.83 343 iPd 08 44.50 -2.8
 0.9s 112.61nm 5.8mb
 ipP 09 36.90 238kmX
 isP 16 16.00
 ETER 53.03 298 e(P) 08 49.20 -0.1
 NAI 53.46 230 iPd 08 53.00 0.1
 ESEL 54.02 295 eP 08 56.80 0.3
 DLE 54.89 313 eP 09 00.50 -2.3
 ETA 54.91 313 eP 09 05.20 2.3
 JAU 54.93 300 P 09 03.31 -0.1
 OGE 54.95 300 P 09 04.50 1.2
 LHE 55.15 300 P 09 04.30 -0.6
 MADF 55.19 300 P 09 04.10 -1.0
 ICSF 55.19 312 eP 09 06.00 1.1
 ISSP 55.22 300 P 09 05.80 0.4
 EBR 55.25 297 eP 09 05.00 -0.5
 (S) 16 48.00
 ELYF 55.29 300 P 09 04.43 -1.5
 EROO 55.31 297 eP 09 05.00 -1.0
 BOH 55.33 300 P 09 05.17 -1.1
 ECB 55.36 312 eP 09 05.80 -0.3
 DAV 55.62 112 eP 09 08.00 -0.5
 AKU 56.01 330 eP 09 08.20 -2.4
 1.9s 568.42nm 6.3mb
 e 09 12.70
 PET 56.28 46 eP 09 13.00 0.2
 eS 16 52.00
 ECRI 56.54 300 eP 09 14.80 -0.1
 ECHE 56.79 296 e(P) 09 16.60 -0.1
 ETOR 57.00 298 eP 09 18.30 0.0
 EVIA 58.29 296 eP 09 27.90 0.6
 GUD 58.51 299 eP 09 27.80 -1.1
 TOL 58.78 298 eP 09 29.73 -0.9
 ENIJ 58.86 294 eP 09 31.20 0.0
 LWI 59.20 237 ePc 09 33.50 -0.5
 EMON 59.36 303 e(P) 09 35.30 0.7
 EBAN 59.40 296 eP 09 34.40 -0.5
 AFC 59.66 295 eP 09 36.00 -0.9
 ERUA 59.71 302 eP 09 37.60 0.6
 ILT 59.81 25 eP 09 36.00 -1.3
 is 17 51.00
 EPLA 60.08 299 eP 09 39.80 0.2
 STS 60.40 303 eP 09 43.00 1.3
 MAL 60.52 295 iPd 09 41.00 -1.6
 is 18 00.00
 EHOR 60.58 296 eP 09 43.00 0.1
 EZAM 60.84 302 eP 09 45.60 0.9
 EPRU 60.98 296 eP 09 45.00 -0.8
 PTO 61.26 301 eP 09 48.00 0.4
 eS 18 06.00
 eSS 22 00.00
 eLO 25 06.00
 EJIF 61.40 295 eP 09 48.00 -0.6
 BCAA 61.56 251 iP 09 48.80 -1.1
 i 11 14.30
 EVAL 61.73 297 eP 09 50.20 -0.6
 IFR 62.63 292 iPc 09 56.50 -0.6
 BRW 63.65 16 eP 10 01.00 -2.0
 AVE 64.38 293 iP 10 06.00 -2.3
 i 10 25.50
 i 10 48.00
 TIO 65.52 291 iP 10 14.50 -1.4
 GUMO 66.07 92 eP 10 18.00 -1.4
 1.2s 133.33nm 5.9mb
 Z 21s 3.95um 5.6msz
 ADK 69.83 39 eP 10 44.10 1.7
 TTA 70.17 22 eP 10 45.00 0.6
 FBA 70.77 18 iP 10 49.20 1.3
 1.2s 8.30nm 4.7mb X
 SVW 71.70 23 eP 10 53.00 -0.7
 FRB 73.14 344 eP 11 02.00 0.0

PMR 73.18 20 eP 11 00.20 -2.1
 1.4s 98.80nm 5.6mb X
 Z 21s 8.30um 6.0msz
 SHGH 74.63 265 eP 11 10.50 -0.9
 TEGH 74.78 265 eP 11 14.00 1.7
 LEGH 74.91 265 eP 11 13.50 0.5
 WEGH 75.06 265 eP 11 15.50 1.6
 KDC 75.35 24 eP 11 14.10 -0.7
 WIGH 75.43 265 eP 11 16.00 0.0
 MRWA 78.29 144 eP 11 29.00 -2.6
 SIT 80.55 16 P 11 45.30 1.9
 1.0s 60.00nm 5.5mb X
 SCH 80.55 339 eP 11 44.00 0.5
 MUN 80.74 145 eP 11 45.00 0.3
 WB5 81.00 125 iP 11 47.00 0.6
 BLF 81.90 222 iPc 11 50.50 -0.5
 WIN 81.95 232 iPc 11 53.10 1.6
 1.5s 125.00nm 5.7mb X
 Z 20s 8.51um 6.1msz
 NWA0 82.00 145 eP 11 51.00 -0.2
 COOL 82.11 141 eP 11 53.00 1.1
 MBO 82.42 282 iP 11 56.00 2.2
 OIS 84.88 122 iP 12 06.00 -0.2
 FFC 86.17 358 eP 12 11.00 -1.2
 1.2s 136.00nm 6.1mb
 RSON 89.53 353 P 12 26.10 -2.3
 1.8s 276.79nm 6.3mb
 Z 20s 12.43um 6.3msz
 SES 90.39 4 eP 12 31.00 -1.5
 PGC 90.80 12 eP 12 38.00 3.7X
 BNH 90.97 337 P 12 36.70 1.4
 WNY 91.93 338 P 12 38.00 -1.7
 GMW 91.98 12 P 12 39.30 -0.5
 RSNY 91.98 339 P 12 40.50 0.6
 1.4s 81.86nm 6.0mb
 Z 22s 9.52um 6.2msz
 NEW 92.03 8 P 12 40.00 -0.1
 1.8s 6.37um 6.1msz
 RMW 92.21 11 P 12 44.00 3.0X
 DPW 92.30 9 P 12 40.00 -1.4
 SHW 93.38 12 P 12 49.70 3.2X
 VGB 94.27 11 P 12 52.00 1.5
 ADE 94.60 132 e(P) 12 55.00 3.1X
 LRM 94.87 5 eP 12 52.40 -1.1
 e 12 56.60
 TBR 95.01 337 P 12 52.00 -1.9
 RSSD 96.82 359 P 13 01.00 -1.4
 BU06 98.07 3 P 13 09.80 1.7
 NA2 98.83 338 P 13 12.20 1.0
 CVL 99.17 339 P 13 12.70 -0.1
 BLA 100.42 340 Pdfff 13 21.00 2.7
 1.2s 22.73nm 5.6mb X
 KVN 100.99 10 Pdfff 13 23.20 2.2
 GLD 101.19 0 Pdfff 13 25.00 3.1X
 1.5s 42.97nm 5.8mb
 Z 22s 11.36um 6.3msz
 GOL 101.24 0 Pdfff 13 22.20 0.0
 1.4s 33.94nm 5.7mb X
 Z 18s 7.02um 6.2msz
 FVM 101.79 348 Pdfff 13 27.00 2.6
 TKL 102.73 342 Pdfff 13 30.00 1.4
 GBTN 102.82 343 Pdfff 13 30.00 1.0
 TUL 104.54 352 ePdfff 13 39.30 2.7
 1.3s 12.30nm 5.6mb X
 Z 20s 4.41um 6.0msz
 LR 49 00.00
 ALQ 105.98 1 ePdfff 13 46.00 2.6
 1.4s 6.40nm 5.5mb X
 Z 19s 10.94um 6.4msz
 VNDA 127.48 164 e(PKP) 18 33.20 -2.0
 SBA 128.58 164 e(PKP) 18 37.60 0.3
 SPA 129.25 180 ePKP 18 40.10 1.2
 1.0s 24.50nm
 Z 19s 2.74um 6.0msz
 LPB 140.55 295 PKP 19 03.00 1.0
 Z 20s 4.26um 6.2msz
 LR 03 30.00
 NNA 142.94 310 ePKP 19 04.50 -1.3
 1.2s 31.25nm
 CFA 149.16 273 ePKPc 19 18.80 3.2X
 RTLL 149.22 274 e(PKP) 19 17.80 2.1
 RTCB 149.54 274 e(PKP) 19 20.00 3.7X
 PCH 151.72 271 ePKP 19 28.50 9.0X
 SAN 151.77 271 ePKP 19 28.50 9.0X
 CHCH 151.95 270 ePKP 19 29.00 9.3X
 TACH 152.06 271 ePKP 19 23.00 3.1X
 LNV 152.54 271 ePKP 19 24.00 3.6X

S.D. = 1.2 on 277 of 306 obs.
 & APR 17, 1990 02h 54m 53.65s
 59.176 N 150.924 W
 DEPTH = 69.2km
 2.8mb (1 obs.)
 KENAI PENINSULA, ALASKA (14)
 <AGS-P>.
 CNPM 0.39 336 iP 55 03.46 -2.1
 eS 55 13.03
 XLV 0.50 305 iP 55 04.29 -2.2
 eS 55 14.15
 NNL 0.89 348 eP 55 11.67 0.7
 SHU 0.92 234 eP 55 14.84 3.5
 SEW 1.19 38 eP 55 13.49 -1.4
 AUE 1.27 279 eP 55 14.55 -1.3
 SLKM 1.38 15 eP 55 17.41 0.0
 RED 1.56 324 eP 55 19.53 -0.3
 RDT 1.59 333 eP 55 20.30 0.0
 YKA 17.85 64 eP 59 06.00 7.6
 0.5s 0.30nm 2.8mb
 10 obs. associated
 APR 17, 1990 03h 31m 53.72±0.50s
 43.216 N ± 5.4km 3.408 W ± 5.1km
 DEPTH = 10.0km (geophysicist)
 SPAIN (377)
 mbLg 3.4 (MDD). ML 3.1 (LDG).
 ECRI 0.90 132 iP 32 11.80 0.9
 eS 32 24.00
 ETOR 2.60 157 ePn 32 42.00 5.4X
 eSn 33 12.80
 GUD 2.63 192 ePn 32 41.80 4.7X
 eSn 33 14.00
 EPF 2.75 93 Pn 32 38.40 -0.3
 Sn 33 12.00
 ERUA 2.87 255 eP 32 41.60 1.2
 eS 33 16.00
 EMON 2.87 276 eP 32 41.60 1.2
 eS 33 14.40
 TOL 3.37 188 ePn 32 57.00 9.6X
 iSg 33 43.00
 LFF 3.45 59 Pn 32 50.30 1.7
 Sn 33 31.30
 LPO 3.63 65 Pn 32 51.70 0.6
 Sn 33 34.00
 EROO 3.72 129 eP 32 51.60 -0.8
 eS 33 34.20
 EPLA 3.73 213 eP 32 50.50 -2.1
 eS 33 33.80
 MFF 4.10 33 Pn 32 58.60 0.8
 RJF 4.11 58 Pn 32 58.50 0.6
 Sn 33 44.80
 CAF 4.30 65 Pn 33 00.90 0.2
 Sn 33 49.20
 LSF 4.64 48 Pn 33 05.60 0.0
 Sn 33 59.40
 TCF 5.04 51 Pn 33 11.00 -0.2
 Sn 34 08.30
 LPF 5.09 18 Pn 33 11.60 -0.2
 MAF 5.21 53 Pn 33 13.30 -0.3
 GRR 5.47 18 Pn 33 16.40 -0.8
 BGF 5.56 51 Pn 33 18.00 -0.5
 LDF 5.85 22 Pn 33 21.60 -0.8
 FLN 5.91 19 Pn 33 22.20 -1.1
 AVF 5.98 51 Pn 33 24.50 0.2
 SSF 6.22 49 Pn 33 27.10 -0.6
 S.D. = 1.0 on 21 of 24 obs.
 & APR 17, 1990 04h 17m 41.12s
 60.173 N 153.239 W
 DEPTH = 144.1km
 SOUTHERN ALASKA (2)
 <AGS-P>.
 RED 0.34 43 iP 18 00.48 0.6
 OPT 0.52 179 eP 18 02.90 0.7
 RDT 0.58 45 iP 18 01.72 -0.8
 eS 18 17.27
 PDB 0.62 232 iP 18 01.14 -1.5
 AUL 0.80 187 iP 18 02.99 -1.0
 AUE 0.82 185 iP 18 02.90 -1.2
 NNL 0.98 97 eP 18 05.42 0.0
 XLV 1.05 133 iP 18 04.95 -1.1
 eS 18 24.80

17d 04h

CKL	1.12	23	iP	18 06.39	-0.4
NKA	1.14	59	eP	18 07.76	0.9
			eS	18 26.62	
SPU	1.17	29	iP	18 06.52	-0.7
			eS	18 26.28	
BGL	1.17	20	iP	18 07.07	-0.2
CNPM	1.20	122	iP	18 06.78	-0.7
			eS	18 26.88	
CRP	1.22	25	iP	18 07.47	-0.4
BRLK	1.25	108	eP	18 07.65	-0.4
CDD	1.26	190	iP	18 06.68	-1.5
			eS	18 26.02	
CGLM	1.29	27	iP	18 07.85	-0.6
NCG	1.34	23	iP	18 08.68	-0.4
SVW	1.50	310	iPd	18 08.80	-1.9
SLKM	1.54	76	eP	18 10.02	-1.0
SUA	1.78	42	iP	18 13.17	-0.7
			eS	18 38.33	
SEW	1.90	90	eP	18 14.02	-1.0
SKT	1.99	24	iP	18 15.52	-0.7
PMS	2.10	58	ePd	18 16.30	-1.3
PWA	2.21	46	iPd	18 17.50	-1.3
PLRM	2.46	53	eP	18 19.81	-2.1
			eS	18 50.29	
PMR	2.46	53	ePd	18 19.80	-2.1
KDC	2.46	171	eP	18 19.00	-2.9
GHO	2.65	51	iP	18 22.27	-2.1
CUT	2.66	31	eP	18 23.32	-1.1
TTA	3.07	336	ePd	18 27.80	-2.0
KTH	3.57	17	eP	18 34.98	-1.3
KLU	3.82	67	eP	18 37.32	-2.3
RND	3.85	31	eP	18 38.41	-1.7
TOA	3.94	57	eP	18 39.80	-1.3
MCK	4.11	28	eP	18 42.44	-1.0
PAX	4.65	50	eP	18 49.22	-1.5
GLB	4.79	71	eP	18 50.46	-2.0
WRH	4.94	27	eP	18 51.97	-2.4
FBA	5.37	26	iPd	18 58.00	-2.2
IMA	5.92	358	ePd	19 06.30	-1.5
MBC	19.91	23	eP	22 04.50	1.6

42 obs. associated

* APR 17, 1990 04h 25m 43.34±0.70s
39.303 N ±11.9km 74.861 E ±13.4km
DEPTH = 33.0km (normal)
4.1mb (3 obs.)

SOUTHERN XINJIANG, CHINA (321)

NDI	10.77	169	eP	28 21.00	2.7
			eS	30 15.00	
MAIO	12.52	261	eP	28 41.00	-1.0
			eS	31 02.00	
GKN	13.89	141	P	28 59.00	-1.3
KKN	14.38	140	P	29 06.60	-0.2
GUN	14.59	138	P	29 09.90	0.3
PKI	14.63	140	P	29 08.60	-1.5
HFS	42.82	320	eP	33 39.30	-0.1
	0.5s	2.30nm		4.2mb	
NB2	44.05	321	P	33 49.40	0.0
	0.6s	2.10nm		4.1mb	
MBC	64.37	4	eP	36 18.50	0.9
YKA	78.26	4	eP	37 41.20	0.3
	0.7s	1.00nm		3.9mb	

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

APR 17, 1990 04h 35m 22.01±0.38s
45.062 N ±3.8km 23.378 E ±4.7km
DEPTH = 33.0km (normal)
3.6mb (1 obs.)

ROMANIA (358)

DRA	0.73	121	iPd	35 42.00	6.1X
DEV	0.89	338	iPd	35 37.00	-1.1
CMP	1.19	79	iPc	35 43.00	0.5
BZS	1.36	295	iPc	35 44.00	-0.8
BEO	2.09	264	iPn	35 54.90	-0.5
			i(Sg)	36 25.90	
PVL	2.32	142	iPc	36 00.00	1.3
VTS	2.47	183	iPd	36 01.00	0.0
VRI	2.49	70	iPc	36 05.50	4.4X
PGB	2.58	167	iPc	36 03.00	0.6
PLD	3.11	161	eP	36 11.00	1.1
CLI	3.11	60	iPd	36 14.00	4.1X
KKB	3.20	184	iPd	36 11.00	-0.2
SKO	3.40	205	iPn	36 13.40	-0.6
	1.0s	235.00nm			
		iSg	37 09.00		

MMB	3.48	176	iPd	36 16.00	0.8
JMB	3.48	137	iPc	36 15.00	-0.2
RZN	3.51	163	iPc	36 16.00	0.2
KDZ	3.72	156	eP	36 18.00	-0.5
PSZ	3.74	321	iPn	36 17.10	-1.7
BUD	3.87	310	eP	36 22.00	1.4
PUK	3.94	221	ePn	36 21.50	-0.1
SRS	3.95	178	eP	36 21.90	0.1
SOH	4.24	180	eP	36 25.30	-0.6
LACI	4.35	219	ePn	36 28.20	0.8
THE	4.44	184	eP	36 28.10	-0.7
TIR	4.51	216	ePn	36 31.00	1.2
FNA	4.52	200	eP	36 29.30	-0.7
DMK	4.55	134	iPn	36 30.10	-0.2
ALN	4.60	154	eP	36 31.10	0.1
SPC	4.65	334	iPn	36 30.60	-1.3
			i	37 20.80	
OUR	4.75	174	eP	36 32.30	-0.8
LIT	5.00	188	eP	36 36.20	-0.6
PTJ	5.28	282	eP	36 39.10	-1.7
ZST	5.34	308	ePn	36 43.00	1.6
			e	37 21.80	
			e	37 35.50	
			i	38 10.60	
CTT	5.38	135	ePn	36 42.30	0.2
EZN	5.67	156	ePn	36 45.00	-1.1
EDC	5.76	143	eP	36 47.00	-0.3
BNT	5.77	143	iP	36 47.80	0.2
RBL	7.00	285	P	37 07.00	2.1
			eSn	38 20.00	
KSP	7.49	323	eP	37 14.00	2.4
FVI	7.56	285	P	37 19.00	6.4X
KHC	7.83	305	Pg	37 22.50	6.1X
			Sg	38 37.50	
CTI	8.29	281	P	37 40.00	17.0X
			(Sn)	38 40.00	
YKA	67.64	340	eP	46 16.10	-1.2
	0.9s	0.50nm		3.6mb	

S.D. = 1.0 on 37 of 43 obs.

* APR 17, 1990 05h 18m 53.34±0.85s
44.624 N ±7.3km 7.245 E ±6.9km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
ML 1.9 (GEN).

PZZ	0.16	221	P	18 57.15	0.1
			S	18 59.12	
STV	0.38	171	P	19 01.17	-0.1
			S	19 01.89	
ENR	0.42	162	P	19 01.84	0.0
			S	19 07.15	
RRL	0.44	312	P	19 02.38	0.0
			S	19 07.77	
ROB	0.56	126	P	19 04.66	0.0
FIN	0.81	121	P	19 09.07	0.1

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

* APR 17, 1990 05h 48m 45.11±0.81s
31.217 S ±16.6km 69.001 W ±20.4km
DEPTH = 120.0km (geophysicist)
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB	0.32	147	eP	49 02.30	-0.4
			S	49 14.90	
RTLL	0.47	104	iPc	49 01.90	-1.3
RTBS	0.59	221	eP	49 03.60	-0.2
			S	49 16.50	
RTCV	0.75	148	ePc	49 06.00	0.8
			S	49 20.30	
CFA	0.76	121	ePd	49 06.00	0.7
			eS	49 21.80	
RTRS	1.12	339	iPc	49 09.00	0.4
			eS	49 26.30	

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

* APR 17, 1990 05h 50m 33.74±1.63s
14.991 N ±27.6km 147.723 E ±18.0km
DEPTH = 33.0km (normal)
4.0mb (1 obs.)
MARIANA ISLANDS REGION (215)

GUMO	3.10	244	eP	51 21.80	0.3
PJG	3.10	244	eP	51 21.20	-0.3
			eS	51 51.30	
WB5	37.06	201	eP	57 42.00	-0.7

WRA 37.13 201 P 57 44.00 0.7
0.7s 1.60nm 4.0mb
KIC 145.43 306 PKP 10 11.00 0.0
S.D. = 0.8 on 5 of 5 obs.

? APR 17, 1990 06h 27m 39.76±0.90s
45.878 N ±6.8km 14.527 E ±7.7km
DEPTH = 5.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.5 (LJU).

CEY	0.16	207	iPgc	27 42.80	-0.2
			iSg	27 45.90	
LJU	0.16	2	iPgd	27 43.00	-0.2
			iSg	27 46.50	
VOY	0.47	289	ePg	27 49.40	0.2
			eSg	27 58.00	
VBY	0.63	126	e(Pg)	27 52.60	0.2
			iSg	27 58.80	

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

* APR 17, 1990 07h 30m 48.45±0.62s
39.332 N ±9.5km 75.068 E ±11.5km
DEPTH = 33.0km (normal)
4.3mb (7 obs.)
SOUTHERN XINJIANG, CHINA (321)

NDI	10.77	170	eP	33 25.00	1.6
			eS	35 20.00	
QUE	11.30	219	eP	33 30.80	0.0
			eS	53 53.00	
MAIO	12.68	261	eP	33 44.00	-5.3X
			eS	35 55.00	
GKN	13.81	142	P	34 03.00	-1.4
KKN	14.30	141	P	34 10.50	-0.3
DMN	14.37	141	P	34 11.50	-0.2
GUN	14.51	138	P	34 12.90	-0.7
PKI	14.55	141	P	34 13.70	-0.5
HYB	22.05	171	eP	35 44.00	2.0
LZH	22.95	89	Pd	35 57.00	6.0X
	1.5s	37.00nm		4.7mb	

GBA	25.71	175	P	36 02.00	18kmX
	0.4s	0.70nm		36 22.00	4.6X
MLR	36.32	296	eP	37 49.00	-2.0
HFS	42.90	320	eP	38 46.10	0.9
	0.5s	3.10nm		4.3mb	
Z	16s	0.11um		3.8mszX	

NB2	44.13	321	P	38 54.60	-0.6
	0.7s	3.10nm		4.2mb	
BCAO	61.65	251	ePc	41 04.80	-0.8
	0.7s	5.00nm		4.8mb	
MBC	64.33	4	eP	41 24.00	1.5
	0.9s	4.00nm		4.5mb	
YKA	78.22	5	eP	42 46.20	0.4
	0.7s	1.40nm		4.1mb	

S.D. = 1.3 on 14 of 17 obs.

* APR 17, 1990 08h 05m 25.90s
67.525 N 149.769 W
DEPTH = 0.6km
3.1mb (1 obs.)

ALASKA (676)

<AGS-P>.					
FYU	2.03	116	eP	06 01.15	-0.5
			eS	06 28.84	
GLM	2.72	158	eP	06 11.57	-0.1
FBA	2.76	162	eP	06 12.37	0.3
RDS	2.79	166	eP	06 13.07	0.5
NEA	2.97	174	eP	06 14.99	-0.2
CCB	3.00	164	eP	06 14.99	-0.5
WRH	3.14	167	eP	06 16.96	-0.6
HDA	3.34	159	eP	06 19.57	-0.8
YKA	15.52	92	eP	09 09.30	2.0
	0.5s	0.50nm		3.1mb	

9 obs. associated

* APR 17, 1990 08h 30m 46.83±3.48s
15.156 S ±68.5km 74.379 W ±40.3km
DEPTH = 33.0km (normal)
NEAR COAST OF PERU (115)

PT03	1.80	310	iPd	31 15.60	-0.4
			iS	31 36.40	
PT02	2.97	318	iPc	31 32.20	-0.6

PT08 3.81 326 iS 32 06.00
 NNA 3.96 322 eP 31 44.00 -1.0
 PT10 3.96 320 eP 32 27.50
 ZOBO 6.12 101 iPd 31 46.70 -0.1
 S.D. = 1.4 on 6 of 6 obs.

& APR 17, 1990 08h 47m 32.20s
 34.160 N 117.730 W
 DEPTH = 12.0km
 SOUTHERN CALIFORNIA (43)
 <PAS-P>. ML 3.3 (PAS).

MWC 0.28 283 iPc 47 37.70 -0.6
 RVR 0.34 119 iPc 47 38.70 -0.6
 PAS 0.37 268 iPc 47 39.10 -0.7
 SBB 0.53 352 iPd 47 42.10 -0.9
 PEC 0.54 119 iPd 47 42.20 -1.0
 CIS 0.94 217 iPc 47 49.30 -0.6
 PLM 1.08 138 iPd 47 51.50 -1.0
 GSC 1.37 34 iPd 47 57.10 -0.1
 CPE 1.38 157 eP 47 56.20 -1.0
 TPC 1.40 92 iPc 47 57.10 -0.4
 ABL 1.41 300 eP 47 57.00 -0.9
 CLC 1.66 4 iPd 48 00.60 -0.6
 BCH 2.19 298 eP 48 08.00 -1.1
 BLP 2.24 281 eP 48 07.70 -2.0
 GLA 2.66 114 eP 48 15.50 -0.2
 TNP 3.94 6 eP 48 33.30 -0.6
 KVN 4.89 357 eP 48 47.70 0.3
 17 obs. associated

& APR 17, 1990 09h 04m 36.94s
 62.145 N 151.828 W
 DEPTH = 103.1km
 2.9mb (1 obs.)
 CENTRAL ALASKA (1)
 <AGS-P>.

SKT 0.22 140 eP 04 50.91 0.8
 NCG 0.76 192 iP 04 54.74 -0.8
 CUT 0.77 70 iP 04 54.84 -0.7
 CGLM 0.84 186 eP 04 55.42 -0.9
 SUA 0.86 143 eP 04 56.11 -0.4
 CRP 0.89 190 iP 04 56.23 -0.7
 BGL 0.92 197 iP 04 56.57 -0.6
 SPU 0.97 186 iP 04 56.60 -1.1
 CKL 0.98 195 iP 04 57.10 -0.7
 PWA 1.05 117 iPc 04 58.20 -0.2
 HUR 1.32 50 eP 05 00.45 -1.1
 PLRM 1.39 112 eP 05 00.93 -1.5
 PMR 1.39 112 iPc 05 01.00 -1.4
 PMS 1.41 129 ePc 05 01.70 -1.0
 GHO 1.42 104 eP 05 01.97 -0.9
 NKA 1.44 168 eP 05 04.01 1.1
 KTH 1.47 16 iP 05 01.67 -1.8
 RDT 1.60 190 iP 05 04.20 -0.9
 SML 1.68 100 eP 05 05.31 -0.8
 RED 1.79 195 iP 05 06.80 -0.7
 SLKM 1.82 154 eP 05 07.28 -0.5
 RND 1.86 46 eP 05 06.73 -1.7
 MCK 2.07 38 eP 05 09.27 -1.8
 SVW 2.09 242 iPd 05 09.50 -1.9
 TTA 2.09 294 iPc 05 09.00 -2.4
 NNL 2.13 173 eP 05 12.07 0.3
 SEW 2.35 150 eP 05 13.58 -1.1
 NCA 2.36 91 eP 05 13.47 -1.5
 GLI 2.60 117 eP 05 15.51 -2.6
 PDB 2.63 207 iP 05 17.66 -0.9
 CNPM 2.64 173 eP 05 16.72 -2.0
 TOA 2.66 88 eP 05 17.70 -1.2
 VZW 2.75 111 iP 05 18.00 -2.1
 FBA 3.30 31 ePd 05 24.70 -2.9
 IMA 4.02 349 ePc 05 35.00 -2.6
 YKA 17.15 72 eP 08 27.80 -3.2
 0.4s 0.30nm 2.9mb

36 obs. associated
 ? APR 17, 1990 09h 09m 20.11 ± 0.96s
 39.836 N ± 8.2km 28.873 E ± 8.8km
 DEPTH = 5.0km (geophysicist)
 TURKEY (366)

DST 0.30 219 iPg 09 25.50 -0.6
 YLV 0.82 28 iPg 09 31.50 -0.7
 BNT 0.90 306 iPg 09 35.90 -0.7
 ALT 1.24 129 ePn 09 38.50 0.7
 S.D. = 1.3 on 4 of 4 obs.

* APR 17, 1990 09h 52m 42.42 ± 0.81s
 14.436 S ± 30.6km 73.529 W ± 15.9km
 DEPTH = 33.0km (normal)
 PERU (116)

PT03 2.24 281 iPc 53 18.20 0.2
 PT08 3.83 310 iPd 53 44.90 0.7
 NNA 4.04 307 eP 53 45.90 -0.6
 0.5s 23.24nm
 PT10 4.09 305 e(P) 53 46.50 -0.2
 ZOBO 5.52 110 eS 54 30.00 0.7
 CCH 7.69 113 P 54 33.00 -0.7
 S.D. = 0.8 on 6 of 6 obs.

APR 17, 1990 10h 27m 34.78 ± 0.44s
 40.460 N ± 4.4km 84.852 W ± 3.6km
 DEPTH = 5.0km (geophysicist)
 OHIO (471)
 mbLg 3.0 (NEIS). Felt (IV) at
 Burkettsville, Fort Recovery and
 Saint Henry, Ohio. Felt (III) at
 Berne, Bryant, Geneva and
 Portland, Indiana.

AN11 0.17 51 P 27 38.70 0.4
 AN10 0.29 87 P 27 41.00 0.3
 AN9 0.37 47 P 27 42.50 0.3
 AN8 0.48 116 P 27 44.50 0.0
 AN1 0.55 88 P 27 46.00 0.2
 AN12 0.69 48 P 27 48.00 -0.5
 AN3 0.80 83 P 27 50.00 -0.7
 IN1 0.80 276 P 27 50.50 -0.2
 IN4 0.89 183 P 27 52.00 -0.3
 IN3 1.39 211 P 28 00.50 -0.3
 BLO 1.82 226 P 28 07.80 0.8
 TH1 2.20 242 P 28 33.00 20.6X
 S 28 39.00
 LR 28 42.00
 ACM 2.31 341 P 28 14.00 -0.1
 CLE 2.72 67 iP 28 24.60 4.7X
 DLA 3.43 45 P 28 39.30 9.3X
 LDN 3.77 46 P 28 42.90 8.1X
 LDN 3.77 46 P 29 37.90 63.1X
 ELF 3.80 43 P 28 42.20 6.9X
 BLA 4.74 132 e(P) 28 59.00 10.3X
 GBTN 4.81 174 e(P) 28 50.00 0.3X
 TKL 4.87 170 e(P) 28 50.00 -0.4X
 RSCP 4.88 187 e(P) 29 01.50 10.8X
 FVM 4.98 242 e(P) 28 56.00 3.9X
 CVL 5.55 114 e(P) 29 10.00 10.0X
 EEO 7.47 32 P 29 25.00 -2.0X
 S.D. = 0.5 on 12 of 25 obs.

? APR 17, 1990 10h 54m 30.89 ± 0.72s
 56.321 S ± 13.7km 25.726 W ± 19.3km
 DEPTH = 33.0km (normal)
 5.0mb (4 obs.)
 SOUTH SANDWICH ISLANDS REGION (153)

SPA 33.86 180 iPc 01 11.10 -1.0
 0.9s 23.18nm 5.1mb
 Vnda 46.34 182 P 01 32.40 0.4
 SIV 48.36 312 P 03 08.60 -2.7
 LPB 50.98 304 P 03 33.00 1.2
 ZOBO 51.22 304 P 03 34.00 0.2
 1.0s 35.50nm 5.3mb

ARE 52.64 300 iPd 03 44.80 0.6
 LIC 64.62 23 P 05 07.10 0.0
 KIC 0.7s 4.50nm 4.7mb
 64.81 23 P 05 08.20 -0.2
 0.6s 5.50nm 4.8mb
 TIC 65.02 23 P 05 09.70 -0.1
 MBC 144.56 336 ePKP 14 03.50 -0.1
 1.0s 11.00nm
 INK 146.53 320 ePKP 14 09.00 1.9
 BJI 150.31 107 ePKP 14 19.00 5.1X
 S.D. = 1.3 on 11 of 12 obs.

APR 17, 1990 11h 34m 09.02 ± 0.17s
 7.368 N ± 4.0km 35.286 W ± 2.3km
 DEPTH = 10.0km (geophysicist)
 5.5mb (71 obs.) 5.7Msz (24 obs.)
 CENTRAL MID-ATLANTIC RIDGE (406)
 Ms 5.7 (PAS), 5.5 (BRK).
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 17S, 46C
 Centroid Location:
 Origin Time 11:34:14.1 0.2
 Lot 7.23N 0.03 Lon 34.96W 0.02
 Dep 15.0 FIX Half-duration 4.1
 Moment Tensor: Sacle 10**18 Nm
 Mrr=-0.30 0.03 Mtt=0.17 0.03
 Mff=0.13 0.04 Mrt=-0.47 0.09
 Mrf=0.01 0.10 Mtf=-1.50 0.03
 Principal Axes:
 T Vol= 1.70 Plg=10 Azm=224
 N -0.26 71 104
 P -1.44 16 317
 Best Double Couple: Mo=1.6*10**18
 NP1: Strike=359 Dip=71 Slip=-5
 NP2: 91 86 -161

MBO 19.30 67 iPc 38 38.00 0.9
 iS 41 55.00
 TBH 25.65 279 eP 39 45.49 4.7X
 TRN 26.00 279 eP 39 46.33 2.4
 TPP 26.02 278 eP 39 46.68 2.5
 SLB 26.10 286 eP 39 45.27 0.3
 MYM 26.12 288 eP 39 46.75 1.6
 CRM 26.18 288 eP 39 47.20 1.5
 SVB 26.20 285 eP 39 48.43 2.6
 BIM 26.28 288 eP 39 49.76 3.2X
 FDF 26.40 288 eP 39 47.88 0.1
 S 44 20.00
 PAG 27.21 291 eP 40 00.00 4.8X
 SKI 28.55 293 eP 40 07.25 0.0
 CUM 28.69 278 iP 40 11.00 2.4
 TIC 30.05 89 Pd 40 20.00 -0.8
 LIC 30.06 90 Pd 40 20.40 -0.5
 S 45 20.00
 GUAN 30.12 277 eP 40 22.00 0.4
 KIC 30.34 90 Pd 40 22.80 -0.6
 1.2s 69.50nm 5.4mb
 OLLA 31.26 277 eP 40 31.00 -0.6
 LLAV 31.28 278 eP 40 32.00 0.2
 CPD 31.65 293 P 40 34.00 -0.9
 PORP 32.32 292 P 40 40.00 -0.7
 SIV 34.50 228 P 40 59.20 -0.5
 WIGH 34.50 91 eP 40 59.50 -0.2
 KUK 34.69 90 eP 41 00.00 -1.3
 LEGH 34.91 91 eP 41 03.00 -0.3
 SDV 35.02 275 eP 40 57.30 -7.1X
 SHGH 35.03 90 eP 41 04.50 0.2
 TEGH 35.09 91 eP 41 05.50 0.7
 TIO 35.16 45 iP 41 06.00 0.7
 i 41 59.00 256kmX
 AVE 36.49 41 eP 41 17.00 0.6
 i 41 28.50 41kmX
 BMG 37.48 272 iPc 41 26.00 0.9
 IFR 38.14 43 iP 41 32.00 1.5
 BOG 38.65 268 eP 41 37.00 1.8
 iS 47 32.00
 CCH 39.17 231 P 41 41.00 1.6
 EVAL 39.68 36 eP 41 44.50 1.4
 EJIF 39.72 39 eP 41 45.90 2.5
 ZOBO 40.10 234 iPc 41 47.20 -0.2
 S 47 52.00
 eLR 53 08.00
 LPB 40.22 234 P 41 49.20 0.9
 1.2s 712.50nm 6.2mb
 Z 19s 25.14um 6.1Msz
 LR 53 23.00

17d 11h

MAL	40.55	39	S	57 54.00	1.3	LRC	51.17	38 eP	43 13.40	-1.0	MNO	54.39	48 P	43 41.00	2.2					
			iPc	41 51.50		LMR	1.1s	56.15nm	5.4mb	e						51 19.00				
			iPP	42 20.00			51.19	39 eP	43 13.20	-1.4						FIR	54.41	40 iP	43 38.00	-0.5
			iS	48 08.00			1.1s	39.05nm	5.3mb	MDI						54.42	37 P	43 38.00	-0.5	
TAF	40.73	43	iP	41 52.50	0.7	AVF	51.33	33 eP	43 14.40	-1.1	CDF	54.43	34 eP	43 36.90	-1.8					
EHOR	40.73	37	eP	41 53.00	1.3		1.4s	74.05nm	5.4mb		1.2s	56.55nm	5.5mb							
ATEJ	40.92	39	iPd	41 55.10	1.6	FRF	51.40	38 eP	43 14.80	-1.4	WLS	54.47	34 P	43 37.99	-1.0					
ALOJ	40.98	39	iPc	41 55.10	1.2		1.1s	39.05nm	5.3mb	RDP	54.47	43 P	43 40.00	0.8						
AAPN	41.10	39	iPd	41 56.50	1.7	SMF	51.51	34 eP	43 15.90	-1.1	RMP	54.49	43 P	43 35.00	-4.2X					
APHE	41.15	40	iPc	41 57.50	2.2	SSF	51.57	33 eP	43 16.30	-1.1	ZLA	54.54	35 ePc	43 39.70	0.2					
ACHM	41.15	39	iPc	41 56.50	1.2		1.6s	108.85nm	5.5mb	FEL	54.54	35 eP	43 39.80	0.2						
PTO	41.16	31	eP	41 48.50	-6.6X	CALN	51.65	38 P	43 18.03	-0.2	LLS	54.56	36 ePc	43 39.40	-0.5					
			eS	48 06.00		WVLY	51.69	320 P	43 18.00	-0.4	VDL	54.64	37 ePc	43 39.30	-1.2					
ASMO	41.36	39	iPc	41 58.50	1.5	LBF	51.78	33 eP	43 17.80	-1.3	MNS	54.72	42 P	43 41.00	0.1					
AFC	41.42	39	eP	41 59.00	1.4		1.6s	124.40nm	5.6mb	SLE	54.75	35 ePc	43 41.00	-0.1						
EPLA	41.75	34	eP	42 01.00	0.9	MVIF	51.89	38 P	43 19.14	-0.9	PGD	54.75	40 P	43 41.30	0.0					
EBAN	41.84	38	eP	42 02.00	1.2	LOR	51.89	33 eP	43 18.50	-1.4	CRE	54.79	41 P	43 41.00	-0.5					
ENIJ	42.10	41	eP	42 04.80	1.8		1.1s	59.85nm	5.4mb	SAL	54.83	38 P	43 41.00	-0.6						
STS	42.48	29	eP	42 07.00	1.0	AURF	51.99	38 P	43 19.84	-1.0	SFI	54.86	40 P	43 42.30	0.5					
TOL	42.78	36	iP+	42 09.00	0.5	TOUF	52.01	38 P	43 20.76	-0.3	GWf	54.94	33 P	43 41.22	-1.2					
ERUA	42.82	31	eP	42 10.00	1.2	SBF	52.04	38 eP	43 20.00	-1.2	SAX	54.96	36 ePc	43 42.70	-0.3					
EVIA	42.92	39	eP	42 11.10	1.3		1.2s	163.65nm	5.8mb	MEM	55.04	31 P	43 42.40	-0.6						
ARE	42.94	236	eP	42 08.00	-2.4	AUTN	52.11	38 P	43 21.06	-0.8	RUP	55.05	32 eP	43 43.29	0.0					
GUD	43.22	35	eP	42 13.80	1.5	STV	52.18	38 P	43 23.00	0.8	AZI	55.06	43 P	43 43.50	0.2					
EMON	43.49	30	eP	42 15.90	1.6	PZZ	52.18	38 P	43 23.51	1.3	ENN	55.09	31 ePc	43 43.00	-0.4					
UPA	43.81	275	iPc-	42 17.80	0.6	SAOF	52.18	38 P	43 21.54	-0.6		1.0s	40.00nm	5.4mb						
	0.5s		28.17nm			RRL	52.21	37 P	43 23.30	0.7	OSS	55.14	37 ePc	43 43.30	-0.8					
Z	18s		3.78um			BNI	52.22	37 P	43 23.80	1.3	SDI	55.20	44 P	43 44.50	0.0					
ECHE	44.45	38	eP	42 24.00	1.9	ENR	52.23	38 P	43 23.20	0.6	ARV	55.37	41 P	43 46.00	0.3					
ETOR	44.55	36	eP	42 32.00	9.0X	DOI	52.27	38 P	43 23.70	0.9	KTD	55.38	33 eP	43 46.06	0.4					
ECRI	45.44	34	eP	42 32.00	2.0	PGF	52.37	41 eP	43 22.20	-1.5	ABH	55.41	32 eP	43 46.13	0.3					
EBR	46.08	38	(P)	42 24.00	-11.0X		1.1s	92.80nm	5.6mb	BSS	55.52	45 P	43 46.90	0.1						
ANT	46.16	227	iPc	42 34.80	-1.0	TKL	52.46	310 P	43 23.00	-1.4	PWLA	55.57	308 P	43 45.90	-1.3					
			iS	49 20.80		LPL	52.50	36 eP	43 24.20	-0.6	DUI	55.62	44 P	43 48.00	0.4					
			iSS	52 36.00			1.1s	36.65nm	5.2mb	CTI	55.73	38 P	43 48.00	-0.3						
			e-	56 01.20		LPG	52.51	36 eP	43 24.20	-0.7	OGA	55.75	37 iPd	43 48.00	-0.6					
EMM	46.57	328	P	42 38.90	0.2		1.3s	72.20nm	5.4mb	SGO	55.79	45 P	43 49.10	0.5						
ESEL	46.99	41	eP	42 43.80	1.6	ROB	52.54	38 P	43 25.35	0.5	MGR	55.81	46 P	43 48.30	-0.5					
BTH	47.07	35	P	42 44.50	1.7	ROCH	52.57	218 iPd	43 24.30	-1.1	TOD	55.93	33 eP	43 49.40	-0.2					
			e	43 18.00	148kmX	RSP	52.62	37 P	43 25.97	0.4	TNS	56.08	32 ePc	43 50.40	-0.3					
			PP	44 38.00		SAN	52.68	217 ePd	43 24.50	-1.5	TDS	56.20	47 P	43 52.00	0.4					
			S	49 40.00		FIN	52.70	38 P	43 26.17	0.1	WTS	56.28	30 eP	43 51.50	-0.4					
			SS	54 50.00		PCH	52.71	217 ePc	43 25.50	-0.8		0.9s	48.00nm	5.5mb						
EPF	47.33	36	eP	42 45.10	0.2	LSO	52.72	37 P	43 27.20	0.7	ORI	56.42	46 P	43 53.00	-0.3					
	1.0s		78.15nm			GBTN	52.80	310 P	43 26.00	-0.9	FUR	56.55	36 eP	43 53.00	-1.1					
MIM	47.72	328	P	42 47.90	0.0	CKI	52.86	38 P	43 27.40	0.2		Z	18s	6.00um	5.7msz					
TBR	48.23	320	P	42 52.00	0.1	EMS	52.92	36 ePc	43 28.40	0.5	FVI	56.68	38 P	43 54.70	-0.2					
LVNJ	48.39	320	P	42 52.50	-0.7	TACH	52.99	218 iPd	43 27.50	-0.8	WIT	56.70	29 eP	43 56.00	1.0					
BNH	48.50	326	P	42 53.90	-0.1	CHCH	53.01	217 iPc	43 27.50	-1.0	TRI	56.88	39 P	43 56.50	0.1					
LFF	48.75	34	eP	42 55.30	-0.5	PCP	53.08	38 P	43 28.64	-0.2	RBL	57.09	38 P	43 58.00	0.0					
	1.0s		76.00nm			DIX	53.21	36 ePc	43 30.60	0.5	VOY	57.10	39 iPc	43 57.80	-0.4					
LPO	48.83	34	eP	42 55.90	-0.6	LCCH	53.25	218 iPd	43 29.50	-0.7	RIY	57.11	40 eP	43 58.10	0.0					
	0.8s		34.90nm			ORO	53.30	37 P	43 30.50	0.0	KBA	57.25	38 iPd	43 57.50	-1.7					
NA2	49.05	315	P	42 57.80	-0.5	ORX	53.31	37 P	43 30.17	-0.4		1.3s	103.00nm	5.7mb						
MFF	49.34	32	eP	42 59.60	-0.8	FAI	53.39	49 P	43 33.00	1.8			i	43 58.40	3kmX					
HVV	49.38	325	P	43 00.40	-0.3	LNV	53.48	218 iP	43 30.00	-1.8			i	44 18.60						
RJF	49.40	34	eP	42 59.70	-1.2	MMK	53.52	36 ePc	43 32.90	0.6			i	45 17.80						
	1.0s		32.00nm			LOMF	53.58	35 P	43 32.01	-0.5	BRT	57.25	46 P	43 55.00	-4.1X					
CAF	49.47	35	eP	43 00.50	-1.0	BCAO	53.59	90 iPd	43 31.40	-1.7	BHG	57.27	37 iPd	43 58.00	-0.4					
CVL	49.48	315	P	43 01.10	-0.5		1.1s	23.00nm	5.1mb	GRF	57.30	34 eP	43 58.40	-1.0						
LHS	49.77	309	P	43 03.70	-0.2			i	43 33.90	8kmX		1.7s	266.00nm	6.0mb						
LPF	49.85	30	eP	43 03.60	-0.7			i	45 05.10			Z	20s	3.00um	5.4msz					
	0.8s		52.40nm			VITF	53.61	33 P	43 31.65	-0.9	CEY	57.31	39 eP	43 59.00	-0.5					
WNY	49.85	324	P	43 03.80	-0.6	HAU	53.68	34 eP	43 31.90	-1.3	LJU	57.51	39 ePc	44 00.20	-0.7					
LSF	50.00	33	eP	43 04.30	-1.2		1.6s	174.15nm	5.8mb	VBY	57.73	40 ePc	44 02.70	0.3						
JSC	50.04	309	P	43 05.80	-0.2	MAO	53.72	42 P	43 34.00	0.5	WET	57.96	35 iPc	44 03.20	-0.8					
GRR	50.18	29	eP	43 05.90	-0.9	BOB	53.75	38 P	43 34.20	0.4		1.5s	58.00nm	5.4mb						
	0.9s		39.30nm			RSCP	53.82	309 P	43 34.00	-0.4		Z	18s	4.00um	5.6msz					
RSNY	50.33	324	P	43 08.00	-0.1		1.7s	340.56nm	6.1mb											
	1.2s		29.15nm				Z	21s	5.76um		HOF	57.99	34 eP	44 03.40	-0.7					
Z	22s		11.85um			BSF	53.83	34 eP	43 32.90	-1.5	MOX	58.01	33 iPc	44 04.00	-0.3					
TCF	50.39	33	eP	43 07.50	-1.0		1.5s	146.25nm	5.8mb											

TPE	59.07	47 eP	44 11.00	-0.9	PLD	62.98	46 eP	44 39.00	0.7	BHD	77.38	58 ePd	46 08.00	1.9
CLL	59.11	33 iP	44 11.40	-0.5	RDO	63.34	48 eP	44 41.00	0.3	TPC	78.28	303 eP	46 12.00	0.8
	1.7s	51.00nm		5.4mb	DRA	63.39	43 ePd	44 42.00	1.0	YKA	78.57	332 eP	46 08.80	-3.3X
		eS	52 25.00		DIM	63.56	47 eP	44 42.00	-0.2		0.8s	14.40nm		5.1mb
BERA	59.15	47 eP	44 10.80	-1.6	EZN	63.61	49 iP	44 42.70	0.2	BAR	78.83	302 eP	46 14.00	-0.2
TTG	59.23	45 eP	44 13.30	0.4	ALN	63.65	48 eP	44 42.50	-0.3	GSC	78.88	304 eP	46 15.00	0.5
		e(S)	52 18.00		NB2	63.67	23 P	44 41.80	-0.8	TAB	78.91	53 eP	46 14.00	-0.7
SDA	59.26	45 eP	44 14.00	0.9		0.9s	35.00nm		5.5mb	PLM	78.97	302 eP	46 16.00	0.8
WIN	59.27	122 eP	44 13.70	-0.1	PVL	63.73	45 eP	44 43.00	-0.2	TNP	79.16	307 P	46 16.00	-0.1
	0.9s	25.21nm		5.3mb	Izm	64.02	51 eP	44 45.00	-0.3		0.9s	80.66nm		5.7mb
Z	20s	8.51um		5.9Msz	CMP	64.09	43 ePc	44 41.00	-4.6X	PEC	79.20	303 P	46 19.80	3.5X
TIR	59.30	46 eP	44 13.50	0.1	HFS	64.14	25 eP	44 44.20	-1.5		2.0s	103.70nm		5.5mb
PRU	59.32	35 Pc	44 12.50	-0.9		0.7s	18.00nm		5.4mb	RVR	79.38	303 eP	46 17.00	-0.1
	1.5s	55.80nm		5.5mb	Z	18s	5.37um		5.8Msz	CLC	79.51	305 eP	46 18.00	0.1
	Z	22s	4.70um	5.6Msz			LR	04 41.00		KER	79.62	56 eP	46 19.00	0.4
N	16s	6.90um			LWI	64.65	96 ePc	44 49.10	-0.9	SBB	79.73	304 eP	46 19.00	-0.1
E	16s	2.40um			RSON	64.67	323 P	44 46.00	-3.3X	KVN	79.83	308 P	46 18.80	-0.9
		S	52 15.00			1.9s	534.98nm		6.4mb	MWC	79.94	303 eP	46 21.00	0.6
BRG	59.41	34 iPc	44 13.20	-0.8	Z	21s	3.91um		5.6Msz	PAS	80.03	303 eP	46 23.00	2.3
	1.6s	100.00nm		5.7mb	MLR	64.76	43 ePd	44 51.00	0.8			eSKS	56 28.00	
Z	18s	4.50um		5.6Msz	EDC	64.88	49 eP	44 50.00	-0.8			eS	57 10.00	
		iS	52 32.00		BNT	64.92	49 iP	44 51.90	0.8			ePS	57 44.00	
AKU	59.45	8 eP	44 21.00	7.0X	VRI	65.39	43 ePd	44 54.00	-0.1			eSS	01 41.00	
	1.1s	45.57nm		5.5mb	CTT	65.47	48 iP	44 56.70	2.1			ePKKP	04 58.00	
LSK	59.46	47 iPd	44 15.50	0.8	UPP	65.68	26 iP	44 55.00	-0.5			eLg	07 14.00	
SOP	59.47	38 ePd	44 15.00	0.5			iS	53 38.00				eSKKP	08 05.00	
PUK	59.54	45 eP	44 15.70	0.6	KHL	65.75	51 eP	44 54.00	-2.6			RScS	09 50.00	
VKA	59.58	37 iPc	44 14.40	-0.8	ELL	65.79	53 eP	44 56.00	-0.9			ELR	11 04.00	
	1.9s	539.00nm		6.4mb	PSN	65.85	45 iPd	44 57.00	0.0	PNT	80.77	319 eP	46 24.00	-0.3
		iD	44 15.10	2kmX	ITU	65.89	48 iPd	44 56.50	-0.8		1.3s	54.00nm		5.4mb
		i	44 25.30		ISK	65.92	48 eP	44 53.00	-4.4X	FRI	81.17	306 ePd	46 25.90	-0.7
		i	44 35.00		TLB	65.96	44 eP	44 58.00	0.4	MBC	81.48	346 eP	46 26.50	-1.0
		i	44 39.70		YLV	66.05	49 iP	44 57.40	-1.0		1.5s	165.00nm		5.9mb
		i	44 46.90		HLW	66.11	61 eP	45 02.00	3.1X	SYP	81.51	304 eP	46 29.00	0.4
		LR	07 02.00				eS	53 51.00		BCH	81.56	304 P	46 30.50	1.7
ITM	59.63	51 eP	44 16.00	0.2	CFR	66.19	44 eP	44 57.00	-2.1	VGB	81.64	315 P	46 29.80	0.9
OHR	59.89	46 iP	44 17.50	-0.1	HRT	66.32	49 eP	45 01.00	0.9	CMB	81.66	307 ePd	46 29.60	0.4
	2.2s	375.00nm		6.1mb	BCK	66.44	52 eP	45 01.00	0.0	PHAM	81.78	305 P	46 30.60	0.7
		i	44 44.10	108kmX	BBTK	68.48	50 eP	45 14.00	0.1	PRI	81.98	305 ePd	46 31.30	0.3
ZST	60.02	38 iP	44 17.20	-1.1	KSR	68.79	121 eP	45 12.00	-4.1X	LLA	82.18	306 eP	46 32.60	0.7
FNA	60.21	47 eP	44 20.30	0.5		0.7s	7.50nm		5.0mb	IR7	82.43	55 iPc	46 34.00	0.6
VLI	60.29	52 eP	44 21.80	1.4	NUR	69.11	27 iP	45 16.70	-0.5	IR5	82.43	55 eP	46 33.50	0.1
AGG	60.42	49 eP	44 21.70	0.5	Z	20s	8.60um		6.0Msz	ORV	82.45	309 ePd	46 33.20	0.0
UYO	60.48	305 iPc	44 20.00	-1.7			e	54 24.00		MIN	82.48	310 eP	46 33.30	-0.3
SRO	60.60	39 iP	44 21.70	-0.5			LR	11 10.00		PRS	82.54	306 ePd	46 35.20	1.4
SKO	60.61	46 ePc	44 22.00	-0.5	MBH	69.17	61 eP	45 19.00	0.8	SAO	82.57	306 eP	46 34.30	0.4
	Z	20s	4.68um	5.6Msz	PRNI	69.31	60 iPd	45 20.00	0.9	ARN	82.61	307 P	46 35.50	1.4
	N	19s	3.08um		HVD	69.34	126 eP	45 33.50	14.2X	IR2	82.66	55 iPc	46 35.00	0.4
	E	20s	5.39um			1.0s	46.00nm			MHC	82.69	307 eP	46 35.80	1.1
		i	52 43.00		BLF	69.34	125 iPc	45 19.00	-0.4	GMW	82.93	317 P	46 34.20	-1.4
		i	55 18.00		KAS	69.47	49 eP	45 20.00	0.1	BKS	83.13	307 ePd	46 40.60	3.8X
		i	56 38.00		PRY	69.64	122 eP	45 22.50	1.3		0.7s	25.00nm		5.5mb
KSP	60.71	35 ePc	44 22.40	-0.5	RSSD	69.68	314 P	45 19.80	-1.5	Z	20s	2.10um		5.5Msz
	1.5s	103.00nm		5.7mb	DSI	69.72	59 eP	45 22.00	0.6	N	20s	2.00um		
		e	44 30.00	25kmX	GLD	69.91	310 P	45 22.40	-0.4	E	20s	1.10um		
LIT	60.83	48 eP	44 23.10	-0.9		Z	19s	7.05um	5.9Msz			eS	56 56.00	
BEO	60.87	42 iP	44 24.50	0.4	SLR	69.93	121 eP	45 23.00	0.0			ePPS	57 52.00	
BUD	60.92	39 eP	44 24.00	-0.4			0.9s	25.21nm	5.4mb			eSS	06 16.00	
FRB	61.12	344 eP	44 25.00	-0.5		Z	20s	11.35um	6.1Msz			eLQ	08 36.00	
	0.9s	68.00nm		5.8mb	GOL	70.02	309 P	45 22.50	-1.0			eLR	13 40.00	
NEO	61.16	49 eP	44 26.20	-0.1			1.6s	159.36nm	5.9mb	BRK	83.15	307 eP	46 37.60	0.8
VAY	61.23	47 iP	44 27.00	0.4		Z	19s	3.96um	5.7Msz	WDC	83.18	310 eP	46 35.60	-1.4
	1.4s	98.00nm		5.8mb	ALO	70.39	304 ePd	45 25.00	-0.8	PCC	83.27	307 ePd	46 39.10	1.6
		i	44 46.30	74kmX			1.0s	29.50nm	5.4mb	BMW	83.30	316 P	46 37.10	-0.5
PSZ	61.63	39 iP	44 28.70	-0.6		Z	22s	8.89um	6.0Msz	PGC	83.31	318 eP	46 38.00	0.6
TIM	61.69	42 iPd	44 33.00	3.3X	SUF	70.63	25 iP	45 26.10	-0.3	FHC	84.26	310 eP	46 44.00	1.5
KKB	61.75	46 iPc	44 31.00	0.8	FFC	70.64	326 ePd	45 25.40	-1.3	INK	86.25	338 eP	46 52.00	0.2
TUL	61.91	307 ePd	44 29.50	-1.9			0.7s	21.00nm	5.4mb		1.0s	39.00nm		5.5mb
	0.8s	94.00nm		6.0mb	NAI	72.41	94 iPd	45 38.00	-0.3	MAIO	89.52	54 iPc+	47 09.70	1.4
Z	19s	5.69um		5.8Msz	SOD	72.65	21 iP	45 38.30	-0.2			eS	57 38.00	
		eS	52 47.00		AAE	73.20	83 eP	45 45.50	2.5	BRW	92.66	344 eP	47 26.20	4.2X
		LR	02 00.00		CLK	73.24	109 iPd	45 48.20	5.3X	FBA	92.68	337 eP	47 23.80	1.6
SRS	61.91	47 eP	44 31.20	-0.1	BW06	73.49	312 P	45 42.70	-1.5	IMA	94.36	339 eP	47 32.20	2.0
OUR	61.99	48 eP	44 31.80	0.0			1.0s	65.00nm	5.6mb	QUE	96.79	58 eP	47 43.40	1.4
VTS	62.05	45 iPd	44 33.00	0.6	KEV	73.74	19 iP	45 44.80	0.0	SPA	97.32	180 eP	47 47.00	3.5X
MMB	62.14	47 iPd	44 34.00	1.1			1.2s	121.40nm	5.8mb		1.1s	5.95nm		5.1mb
SPC	62.33	38 eP	44 33.10	-1.0			i	45 49.40	15kmX			i	48 06.20	68kmX
PPM	62.47	288 eP	44 35.50	-0.4			e	55 16.00		HYB	110.17	68 ePKP	52 41.00	-2.8
KRA	62.48	37 eP	44 34.30	-0.6	DAU	74.58	310 P	45 51.00	0.3	LZH	122.20	39 ePKP	53 15.00	8.6X
	1.0s	74.00nm		5.8mb	SES	75.28	320 eP	45 53.20	-0.9		N	17s	1.50um	
Z	22s	3.90um		5.5Msz	AIA	75.54	192 e(P)	46 06.00	10.9X	E	18s	1.70um		
E	22s	4.50um			DUG	75.76	310 P	45 57.00	-0.2			i	04 33.00	
		i	44 45.30	37kmX			1.0s	25.50nm	5.3mb	BJI	125.97	27 ePKP	53 15.00	1.7
PGB	62.72	46 iPc	44 37.00	0.3	LRM	75.81	315 ePd	45 57.30	-0.2	Z	21s	4.55um		6.1Msz
DEV	62.85	42 ePc	44 38.00	0.6	MSL	76.37	54 ePd	46 01.50	1.0	N	18s	2.19um		
RZN	62.88	47 iPc	44 38.00	0.1	GLA	77.27	302 eP	46 06.00	0.3			ePP	55 04.00	
												eSKKS	01 56.00	

17d 11h

CHG 127.92 59 eSS 11 56.00	ZOBO 39.99 234 P 37 41.00 -0.1	AAI 16.56 280 P 00 46.50 5.3X
SSE 135.61 29 ePKP 53 21.10 3.4X	1.0s 13.00nm 4.6mb	KNA 17.76 239 eP 00 54.00 -2.3
MAT 135.90 8 ePKP 53 48.00 16.0X	Z 25s 0.54um 4.3mszX	0.3s 30.00nm 4.9mb
Z 20s 1.77um 5.8msz	LR 48 09.00	RMQ 19.90 169 eP 01 22.00 0.4
MUN 143.89 137 ePKP 53 50.00 3.1X	LPB 40.11 233 P 37 33.00 -9.0X	GUA 20.30 1 eP 01 24.70 -1.1
NWAO 144.00 139 ePKP 53 50.00 2.9X	CAF 49.48 35 eP 38 56.70 0.5	0.8s 71.64nm 5.1mb
BAL 145.04 135 ePKP 53 51.00 2.1	1.3s 18.05nm 4.9mb	GUMO 20.35 1 eP 01 24.20 -2.0
MRWA 145.31 132 ePKP 53 50.00 0.6	LPF 49.83 30 eP 38 59.10 0.3	0.7s 48.28nm 5.0mb
0.9s 68.00nm	SSF 51.57 33 eP 39 12.20 0.1	PJG 20.35 1 eP 01 24.50 -1.7
SVA 145.46 249 ePKP 53 46.80 -3.1X	1.3s 16.25nm 4.8mb	KUPT 20.93 260 eP 01 48.00 15.8X
MBU 145.47 251 ePKP 53 52.50 2.5	LBF 51.79 34 eP 39 13.60 -0.1	0.7s 127.80nm
VUN 145.48 249 ePKP 53 49.10 -0.9	1.3s 18.05nm 4.8mb	MNI 21.31 292 eP 01 36.50 0.4
SZP 145.54 44 iPKPd 53 55.00 5.0X	LOR 51.89 33 eP 39 14.40 -0.1	BRS 21.85 160 eP 01 42.00 0.5
BAG 146.40 45 ePKP 53 52.00 0.2	BNI 52.24 37 P 39 18.50 1.2	eS 05 47.00
COOL 147.85 140 ePKP 53 59.00 5.5X	VAI 53.92 37 P 39 36.00 6.5X	DZM 25.99 128 iPc 02 21.00 -0.6
KKM 148.60 66 ePKPd 53 59.50 4.2X	FVI 56.70 38 P 39 50.00 0.3	BWA 27.64 173 eP 02 37.80 1.3
TOO 149.93 181 ePKP 54 03.00 6.4X	RBL 57.12 39 P 39 53.50 0.7	ADE 28.45 190 e(P) 02 54.50 10.7X
CNB 151.86 188 ePKP 54 10.00 10.4X	KHC 58.37 36 P 40 01.30 -0.2	CAN 28.59 172 eP 02 46.00 0.9
CAN 151.90 187 ePKP 54 06.70 7.1X	PRU 59.33 35 eP 40 06.50 -1.6	IIDJ 42.60 352 P 04 43.30 -1.3
ADE 151.98 169 e(P) 54 05.10 5.3X	ZST 60.04 38 eP 40 12.60 -0.5	CHJJ 43.02 353 P 04 47.00 -1.0
1.1s 50.63nm	SRO 60.63 39 eP 40 15.60 -1.5	MAT 43.61 353 eP 04 51.00 -1.7
BWA 152.86 187 ePKP 54 09.80 8.8X	KSP 60.71 35 eP 40 18.00 0.4	1.4s 55.81nm 5.1mb
DZM 154.46 233 iPKPc 54 10.40 6.8X	KRA 62.50 37 eP 40 30.10 0.5	eS 11 20.00
GUMO 159.18 360 ePKP 54 04.50 -5.0X	e 40 41.70	MTMJ 43.70 352 eP 04 52.10 -1.5
WRA 163.95 142 PKP 54 18.00 3.7X	NB2 63.61 23 P 40 37.80 0.9	SSE 43.88 331 P 04 55.50 0.6
1.4s 10.30nm	0.7s 1.40nm 4.3mb	1.0s 19.00nm 4.8mb
WB5 164.02 142 ePKP 54 19.70 5.3X	MLR 64.82 43 ePc 40 46.00 0.9	NIJ 44.20 354 P 04 56.60 -0.9
e 55 12.80	FFC 70.36 326 eP 41 19.00 -0.5	IPM 44.88 284 ePd 05 04.90 1.5
CTA 167.27 187 iPKPc 54 13.00 -4.0X	0.9s 8.00nm 4.8mb	LOE 48.68 300 iPc 05 34.00 0.8
i 55 28.50	BW06 73.18 312 eP 41 37.00 0.0	KMI 51.62 310 eP 05 57.00 1.2
S.D. = 1.0 on 363 of 409 obs.	YKA 78.30 332 eP 42 03.20 -2.0	CHG 51.67 300 ePc 05 56.80 0.7
% APR 17, 1990 12h 59m 06.46 ± 0.93s	0.8s 1.00nm 3.9mb	1.1s 15.82nm 4.9mb
39.052 N ± 7.5km 27.641 E ± 9.7km	KVN 79.52 308 eP 42 13.40 0.7	BJI 53.52 333 eP 06 09.00 -0.4
DEPTH = 10.0km (geophysicist)	MBG 81.25 346 eP 42 15.00 -5.9X	1.0s 12.00nm 4.8mb
TURKEY (366)	CM8 81.35 307 e(P) 42 22.90 0.7	eS 13 41.00
IZM 0.72 205 iPg 59 20.60 0.0	ORV 82.14 309 e(P) 42 25.70 -0.5	LZH 57.31 321 eP 06 37.50 0.3
iSg 59 32.60	S.D. = 0.9 on 26 of 29 obs.	2.0s 33.00nm 5.0mb
DST 0.94 54 ePn 59 24.50 0.0	% APR 17, 1990 14h 46m 08.88 ± 0.70s	pP 06 50.00 44kmX
EZN 1.28 308 iPn 59 30.20 0.0	43.069 N ± 9.6km 0.403 W ± 5.2km	sP 06 55.30
EDC 1.30 7 iPn 59 30.00 -0.6	DEPTH = 10.0km (geophysicist)	GUN 66.31 304 Pc 07 38.40 0.4
BNT 1.32 9 iPn 59 31.40 0.6	PYRENEES (378)	PKI 66.57 304 Pc 07 39.70 0.1
S.D. = 0.6 on 5 of 5 obs.	MD 1.0 (STR)	KKN 66.75 304 Pc 07 41.00 0.3
APR 17, 1990 14h 11m 58.48 ± 0.63s	JAU 0.04 142 Pg 46 10.87 -0.2	DMN 66.83 304 Pc 07 41.60 0.4
34.017 N ± 8.8km 117.740 W ± 6.7km	OGE 0.11 332 Pg 46 11.50 -0.3	GKN 67.36 304 Pc 07 44.60 0.1
DEPTH = 10.0km (geophysicist)	ESCF 0.13 274 Pg 46 11.80 -0.2	KOD 68.90 284 eP 07 55.20 0.8
SOUTHERN CALIFORNIA (43)	Sg 46 14.36	HYB 69.47 291 eP 07 57.20 -0.3
ML 3.5 (NEIS)	BTH 0.15 69 iPg 46 12.50 0.0	GBA 69.63 287 Pc 07 58.20 -0.2
PEC 0.50 104 iPc 12 08.90 0.3	(S) 46 16.00	0.8s 6.10nm 4.7mb
PLM 0.99 132 eP 12 18.00 0.7	ATE 0.22 275 Pg 46 13.86 0.2	VNDA 71.18 176 eP 08 07.00 0.1
ABL 1.48 305 eP 12 25.20 -0.2	Sg 46 17.29	SVW 82.07 25 eP 09 09.00 0.9
BCH 2.26 302 eP 12 36.50 0.0	MADF 0.31 284 Pg 46 15.60 0.2	QUE 82.79 302 eP 09 13.70 1.0
BLP 2.27 285 eP 12 36.30 -0.3	Sg 46 21.04	TTA 82.83 23 eP 09 13.10 1.0
GLA 2.62 111 eP 12 40.50 -1.1	S.D. = 0.3 on 6 of 6 obs.	SPA 83.16 180 iPc 09 13.80 0.0
TNP 4.08 6 eP 13 02.40 0.0	APR 17, 1990 14h 56m 49.61 ± 0.77s	1.0s 8.50nm 4.8mb
CMB 4.55 333 eP 13 10.00 1.1	6.891 S ± 4.5km 144.516 E ± 5.6km	PMR 85.08 26 eP 09 23.50 0.2
KVN 5.03 357 eP 13 15.50 -0.5	DEPTH = 31.7 ± 5.9 km	0.8s 6.80nm 4.9mb
S.D. = 0.7 on 9 of 9 obs.	4.9mb (14 obs.)	IMA 85.26 21 ePc 09 24.70 0.3
APR 17, 1990 14h 19m 46.07 ± 0.64s	PAPUA NEW GUINEA (202)	1.2s 9.80nm 4.9mb
34.039 N ± 11.2km 117.703 W ± 7.5km	ML 4.5 (PMG)	TOA 86.57 26 eP 09 31.90 1.1
DEPTH = 10.0km (geophysicist)	MNDI 1.12 311 iP 57 12.00 2.6	BRW 86.94 16 eP 09 33.10 0.8
SOUTHERN CALIFORNIA (43)	LAT 2.48 85 eP 57 30.00 1.3	FBA 86.96 23 eP 09 31.00 -1.6
ML 2.9 (NEIS)	PMG 3.62 134 iPc 57 43.30 -1.5	MAIO 90.04 306 eP 09 49.00 1.1
PEC 0.47 108 iPc 19 55.80 0.1	eS 58 24.50	INK 93.38 22 eP 10 02.00 -0.5
PLM 0.98 134 eP 20 05.40 0.6	RAB 8.08 71 e(P) 58 48.00 0.3	MBC 98.11 14 eP 10 23.00 -0.9
ABL 1.49 303 eP 20 12.50 -0.6	CTA 13.23 173 iPc 59 59.50 1.6	YKA 101.10 28 ePd iff 10 36.90 -0.8
BCH 2.27 301 eP 20 24.80 0.5	0.9s 29.41nm 5.3mb	1.0s 1.60nm 4.5mb
BLP 2.29 284 eP 20 24.50 0.0	Z 21s 1.79um 4.3mszX	BCAO 126.21 270 iPKPd 15 51.60 -0.2
GLA 2.60 111 eP 20 28.00 -0.9	i 00 06.20	0.7s 8.00nm
TNP 4.05 5 e(P) 20 50.00 0.3	i 00 15.00	ZOBO 140.34 126 PKP 16 13.00 -6.0X
S.D. = 0.7 on 7 of 7 obs.	i 00 39.00	SIV 145.96 132 PKPc 16 28.20 0.2
* APR 17, 1990 14h 30m 03.63 ± 0.49s	e(S) 02 35.00	KIC 149.46 271 PKPc 16 38.40 4.8X
7.541 N ± 12.6km 35.549 W ± 10.1km	e(SSS) 03 06.50	LIC 149.74 271 PKPc 16 39.20 5.2X
DEPTH = 10.0km (geophysicist)	e 04 12.00	TIC 149.75 271 PKP 16 39.30 5.2X
4.8mb (8 obs.)	e 05 48.00	S.D. = 1.1 on 54 of 62 obs.
CENTRAL MID-ATLANTIC RIDGE (406)	QIS 14.40 199 eP 00 12.00 -1.2	? APR 17, 1990 15h 48m 02.99 ± 25.49s
LIC 30.33 91 P 36 17.10 -0.8	e 04 28.00	44.444 N ± 149.km 6.731 E ± 90.0km
SIV 34.43 227 Pc 36 52.60 -1.1	MTN 14.45 245 iPc 00 10.80 -3.1X	DEPTH = 10.0km (geophysicist)
CCH 39.08 230 (P) 37 35.00 1.7	eS 02 42.00	FRANCE (538)
	WB5 16.24 216 eP 00 35.20 -2.0	MD 1.0 (STR)
	eS 03 30.00	TOUF 0.57 139 Pg 48 14.03 -0.6
	WRA 16.31 216 Pd 00 35.80 -2.2	MVIF 0.63 151 Pg 48 16.07 0.4
	0.3s 2.90nm 3.9mb X	Sg 48 22.37
		AUTN 0.67 132 Pg 48 16.48 0.0
		CALN 0.70 171 Pg 48 16.65 -0.3
		SAOF 0.75 127 P 48 17.86 0.2

Sg 48 26.16 S.D. = 0.6 on 5 of 5 obs.					IPM 25.21 275 ePd 23 01.50 5.4X 1.0s 39.50nm 4.8mb					ALT 30.89 332 eP 04 37.40 0.6 OHR 37.22 325 eP 05 31.20 0.0 1.5s 76.00nm 5.3mb				
APR 17, 1990 16h 32m 22.66 ± 0.91s 6.950 S ± 6.1km 144.450 E ± 6.5km DEPTH = 33.7 ± 9.1 km 4.8mb (10 obs.)					MEKA 30.19 194 iPc 23 50.50 9.5X 0.3s 6.00nm 4.8mb					GKN 37.23 60 P 05 29.80 -1.7 DMN 37.51 61 P 05 33.90 -0.2 KKN 37.71 61 P 05 34.80 -0.9 PKI 37.76 61 P 05 34.40 -1.9 VRI 37.88 335 ePc 05 40.00 3.4X CMP 38.11 333 ePc 05 37.00 -1.6 GUN 38.26 61 P 05 38.90 -1.5 MGR 39.76 320 P 05 53.00 0.6 DUI 41.31 321 P 06 07.00 1.8 SDI 41.73 320 P 06 12.00 3.4X SLR 42.77 207 eP 06 12.00 -5.4X				
PAPUA NEW GUINEA (202)					BJI 38.16 347 eP 24 49.50 0.3 0.8s 9.00nm 4.7mb					Z 20s 3.55um 5.3msz				
MNDI 1.12 315 iP 32 44.00 1.8 eS 32 57.00					ADE 39.37 164 iPc 25 00.80 1.4 GUN 45.86 307 P 25 52.70 0.1					MNS 42.81 321 P 06 19.00 1.5 PTJ 43.02 327 eP 06 20.50 1.4 SRO 43.11 330 eP 06 20.50 0.8				
LAT 2.55 84 eP 33 03.00 0.5 PMG 3.62 133 eP 33 16.00 -1.8 eS 33 57.00					PKI 46.09 306 P 25 54.10 -0.4 KKN 46.29 307 P 25 55.70 -0.2 DMN 46.35 306 P 25 56.50 0.1 0.9s 45.00nm 5.4mb					VBY 43.15 326 e(P) 06 23.00 2.9X SPC 43.22 333 e(P) 06 21.50 0.7 ARV 43.27 322 P 06 22.00 0.8 CRE 43.94 322 P 06 30.00 3.3X KRA 43.99 334 eP 06 27.30 0.4 e 06 34.20 23km				
CTA 13.18 173 iPc 35 31.50 1.4 1.0s 22.50nm 5.1mb					GKN 46.90 306 P 26 00.20 -0.4 0.9s 38.00nm 5.3mb					PRY 44.17 207 eP 06 30.00 1.3 VOY 44.22 326 e(P) 06 24.80 -4.1X RBL 44.65 326 P 06 33.00 0.7 BDI 45.00 321 P 06 39.00 3.8X KBA 45.16 327 e(P) 06 35.50 -1.1 1.0s 10.70nm 4.7mb				
OIS 14.32 199 iPc 35 45.10 0.0 e 40 26.00					HYB 48.96 291 iPc 26 16.00 -0.6 GBA 49.37 285 Pd 26 18.90 -0.8 1.3s 12.90nm 4.8mb					FVI 45.18 326 P 06 36.50 0.1 SEK 45.31 206 eP 06 38.50 0.6 0.7s 6.85nm 4.7mb				
MTN 14.37 245 eP 35 43.00 -2.7 eS 38 12.00					SOD 91.11 338 eP 30 33.00 0.4 SUF 92.13 333 iP 30 37.60 0.3 0.4s 3.50nm 5.1mb					CTI 45.49 324 P 06 40.00 0.9 SAL 45.89 323 P 06 43.00 1.0 BOB 46.07 322 P 06 44.00 0.3 KSP 46.18 332 ePc 06 44.60 0.3 id 06 50.80 21km				
HNR 15.54 100 e(P) 35 56.00 -5.0X WB5 16.15 216 eP 36 08.70 -0.2 eS 39 02.00					HFS 98.59 332 ePKP 31 06.50 -0.3 0.4s 1.40nm 4.9mb					KHC 46.33 329 P 06 44.50 -1.1 PRU 46.42 330 eP 06 46.00 -0.2 e 07 03.50 70kmX				
WRA 16.22 216 Pd 36 09.50 -0.3 0.7s 8.20nm 4.0mb					NB2 99.38 333 P 31 09.90 -0.6 0.7s 1.90nm 4.8mb					BLF 46.61 207 iPc 06 55.00 6.8X SBF 46.86 320 eP 06 49.50 -0.4 1.0s 20.00nm 5.1mb				
KNA 17.68 239 eP 36 24.00 -4.1X RMO 19.86 169 ePd 36 55.30 1.4 GUMO 20.41 1 eP 37 06.80 7.1X 0.8s 42.46nm 4.9mb					S.D. = 0.7 on 21 of 23 obs.					VAI 47.06 323 P 06 51.20 -0.1 FRF 47.22 319 eP 06 52.10 -0.6 1.1s 26.85nm 5.2mb				
PJG 20.41 1 eP 37 06.80 7.1X MNI 21.27 292 eP 37 09.00 0.4 BRS 21.81 160 eP 37 17.00 3.0X					APR 17, 1990 17h 58m 19.60 ± 0.37s 12.583 N ± 5.8km 48.272 E ± 4.3km DEPTH = 23.0km (4 depth phases) 4.9mb (27 obs.) 4.6msz (3 obs.) EASTERN GULF OF ADEN (415)					BRG 47.29 331 eP 06 51.60 -1.5 i 06 59.00 25km GRF 47.88 328 eP 06 56.50 -1.3 Z 21s 0.30um 4.2msz				
BWA 27.59 173 eP 38 09.20 0.3 SSE 43.90 331 P 40 25.00 -2.9 LOE 48.65 300 iPc 41 06.00 0.2 CHG 51.65 301 ePc 41 29.40 0.7 1.1s 14.56nm 4.9mb					OBO 4.90 264 iPd 59 31.71 -2.1 MKL 5.08 261 iPd 59 36.65 0.3 TDD 5.30 262 iPd 59 37.98 -1.5 ARO 5.41 259 iPd 59 40.20 -0.8 SGH 5.63 259 ePd 59 44.00 -0.2 DAF 5.70 261 ePd 59 45.51 0.4 KMSA 8.55 335 eP 00 18.50 -6.6X AAE 9.98 250 eP 00 45.50 0.4 RYD 12.17 353 eP 01 11.70 -3.0X QASM 14.16 342 eP 01 41.00 0.0 ASW 18.52 310 eP 02 40.00 3.5X eS 06 15.00					BNi 47.92 321 P 07 00.00 1.7 CLL 48.02 331 eP 06 58.00 -0.8 2.3s 48.00nm 5.1mb				
BJI 53.54 333 eP 41 42.00 -0.4 1.0s 12.00nm 4.8mb					KMA 8.55 335 eP 00 18.50 -6.6X AAE 9.98 250 eP 00 45.50 0.4 RYD 12.17 353 eP 01 11.70 -3.0X QASM 14.16 342 eP 01 41.00 0.0 ASW 18.52 310 eP 02 40.00 3.5X eS 06 15.00					MOX 48.27 329 eP 07 02.00 1.2 CHG 49.04 76 eP 07 09.00 1.8 BSF 49.25 324 eP 07 07.20 -1.3 0.7s 4.40nm 4.6mb				
LZH 57.31 321 P 42 10.00 0.0 1.5s 33.00nm 5.2mb					AYN 19.83 327 eP 02 50.80 -0.9 BHD 20.90 351 iPd 03 03.00 0.1 eS 06 53.00 iLO 09 08.50					CDF 49.28 325 eP 07 07.60 -1.1 HAU 49.59 324 eP 07 09.80 -1.2 NST 50.29 80 eP 07 16.00 -0.7 LBF 50.49 322 eP 07 16.60 -1.3 0.7s 11.00nm 4.9mb				
GUN 66.29 304 Pc 43 11.00 0.4 PKI 66.55 304 Pc 43 12.30 0.0 KKN 66.73 304 Pc 43 13.70 0.4 DMN 66.81 304 Pc 43 14.50 0.6 GKN 67.34 304 Pc 43 17.30 0.2 HYB 69.43 291 eP 43 30.00 -0.1 GBA 69.58 287 Pc 43 30.80 -0.1 0.9s 7.10nm 4.7mb					MBH 21.14 326 e(P) 03 05.00 -0.3 PRNI 21.53 327 eP 03 11.00 1.7 KER 21.70 357 eP 03 10.00 -1.1 MDSJ 21.95 332 Pc 03 14.30 0.7 DSI 22.32 330 eP 03 19.00 1.9 IR5 22.63 5 eP 03 20.50 0.2 BURJ 22.67 332 Pc 03 21.20 0.5 IR4 22.68 6 eP 03 18.00 -2.9 SHMJ 23.09 332 Pc 03 28.90 4.1X IR2 23.10 5 iPc 03 25.00 0.0 IR7 23.12 5 iPc 03 25.50 0.4 TEH 23.22 6 eP 03 27.00 0.8 HLW 23.28 320 eP+ 03 29.20 2.6 e 03 54.00 119kmX eS 07 48.00					LOR 50.70 322 eP 07 18.20 -1.3 0.7s 5.50nm 4.6mb				
BJI 53.54 333 eP 41 42.00 -0.4 1.0s 12.00nm 4.8mb					HRI 23.56 333 eP 03 32.00 2.6 MSL 24.14 350 ePd 03 35.00 0.1 eS 07 45.50 eLO 11 11.50 eLR 12 09.50					CAF 50.78 319 eP 07 19.20 -0.9 1.0s 11.00nm 4.8mb				
LZH 57.31 321 P 42 10.00 0.0 1.5s 33.00nm 5.2mb					BOM 24.43 72 eP 03 36.00 -1.8 QUE 24.62 42 eP 03 40.50 0.7 eS 08 06.00					AVF 50.78 321 eP 07 18.50 -1.6 SSF 50.81 322 eP 07 18.90 -1.4 0.9s 9.85nm 4.8mb				
GUN 66.29 304 Pc 43 11.00 0.4 PKI 66.55 304 Pc 43 12.30 0.0 KKN 66.73 304 Pc 43 13.70 0.4 DMN 66.81 304 Pc 43 14.50 0.6 GKN 67.34 304 Pc 43 17.30 0.2 HYB 69.43 291 eP 43 30.00 -0.1 GBA 69.58 287 Pc 43 30.80 -0.1 0.9s 7.10nm 4.7mb					POO 25.33 73 iPc 03 51.00 4.5X TAB 25.44 356 eP 03 48.00 0.5 MAIO 25.69 21 iPc+ 03 50.00 0.2 1.5s 90.09nm 5.2mb					NUR 50.90 345 iP 07 20.40 -0.3 0.6s 15.40nm 5.1mb				
QUE 82.77 302 eP 44 46.40 1.1 SPA 83.10 180 eP 44 47.00 0.7 0.9s 3.18nm 4.4mb					GBA 28.42 85 Pc 04 17.10 2.3 0.9s 9.10nm 4.5mb					BGF 50.99 321 eP 07 20.80 -0.9 0.8s 10.75nm 4.8mb				
PMR 85.16 26 eP 44 56.00 -0.5 1.0s 10.00nm 5.0mb					ELL 29.17 329 eP 04 24.00 2.5 HYB 29.62 77 eP 04 26.50 0.8 BBTK 30.41 336 eP 04 34.00 1.4 BCAO 30.48 257 iPd 04 33.00 -0.3 0.6s 9.00nm 4.8mb					MAF 51.01 320 eP 07 20.70 -1.2 DOU 51.66 325 P 07 26.90 0.2 0.8s 15.00nm 5.0mb				
IMA 85.34 21 eP 44 58.00 0.5 BRW 87.02 16 eP 45 05.90 0.4 FBA 87.04 23 eP 45 04.00 -1.7 INK 93.46 22 eP 45 35.00 -0.7 YKA 101.18 28 ePd 46 11.10 0.3 0.9s 1.10nm 4.4mb					SIV 145.97 132 iPKP 52 01.20 0.4 KIC 149.40 271 PKP 52 11.10 4.8X LIC 149.67 270 PKP 52 11.90 5.2X TIC 149.69 271 PKP 52 11.90 5.2X S.D. = 1.1 on 33 of 41 obs.					UPP 52.35 341 iP 07 32.80 1.0 SUF 52.49 347 iP 07 32.20 -0.6 0.4s 3.30nm 4.6mb				
BCAO 126.15 270 ePKPc 51 24.10 -0.3 0.6s 5.00nm					* APR 17, 1990 17h 17m 36.63 ± 1.54s 2.819 N ± 8.9km 126.230 E ± 11.3km DEPTH = 86.2 ± 13.7 km 4.9mb (12 obs.) MOLUCCA PASSAGE (266)					KIC 52.58 268 P 07 34.60 0.4 KMI 52.72 68 eP 07 36.00 0.7 TIC 52.80 269 P 07 36.00 0.1				
MNI 1.95 226 iPc 18 07.60 -1.0 iS 18 18.00					TSM 8.26 280 iPd 19 37.10 1.3 0.3s 209.40nm 6.3mb X									
KKN 10.49 288 ePd 20 06.50 0.4 0.8s 70.90nm 5.7mb					WB5 23.93 161 eP 22 43.60 -0.3 WRA 23.98 161 Pd 22 44.30 -0.1 0.6s 7.30nm 4.3mb									

17d 18h

LIC 52.89 268 P 07 37.00 0.5
 TOL 53.31 311 eP 07 39.50 0.2
 HFS 53.86 339 eP 07 41.50 -1.4
 1.0s 16.20nm 5.0mb
 Z 17s 0.81um 4.9mszX
 LR 28 10.00
 FLN 53.97 322 eP 07 42.00 -1.9
 0.8s 10.75nm 4.9mb
 NB2 55.37 339 P 07 52.40 -1.6
 1.0s 10.60nm 4.8mb
 SOD 56.58 350 iP 08 02.50 -0.1
 EKA 58.30 328 P 08 13.00 -1.9
 0.7s 4.90nm 4.7mb
 KEV 58.69 352 eP 08 16.00 -1.4
 0.7s 38.70nm 5.6mb
 i 08 23.20 24km
 BJI 65.12 52 eP 09 01.50 0.5
 1.0s 6.00nm 4.7mb
 Z 20s 0.30um 4.5msz
 eS 17 44.00
 FRB 90.12 337 eP 11 21.00 2.1
 WRA 90.60 110 Pd 11 22.00 0.1
 1.5s 20.30nm 5.2mb
 WB5 90.61 110 eP 11 22.00 0.0
 MBC 91.04 357 eP 11 24.00 1.1
 1.1s 7.00nm 4.9mb
 YKA 103.97 352 ePdiff12 24.00 2.3
 0.9s 0.40nm 4.2mb
 S.D. = 1.2 on 101 of 114 obs.

* APR 17, 1990 18h 30m 31.29±0.73s
 42.788 N ± 9.0km 85.911 E ± 18.3km
 DEPTH = 33.0km (normal)
 4.3mb (5 obs.)
 NORTHERN XINJIANG, CHINA (332)

GKN 14.79 184 P 34 02.00 2.1
 GUN 14.84 180 P 34 00.30 -0.6
 KKN 14.97 182 P 34 01.30 -1.1
 DMN 15.16 183 P 34 06.40 1.5
 PKI 15.19 182 P 34 00.80 -4.5X
 MAIO 21.33 261 eP 35 16.00 -1.6
 CHTO 26.32 151 e(P) 36 09.20 3.3X
 SUF 39.51 321 iP 38 01.50 1.4
 0.4s 3.60nm 4.5mb
 NUR 40.24 318 iP 38 05.20 -0.9
 NB2 46.70 320 P 38 58.80 0.4
 0.6s 1.60nm 4.2mb
 YKA 73.78 10 eP 42 04.00 0.4
 0.6s 0.80nm 3.9mb
 WB5 76.66 134 eP 42 19.10 -1.5
 WRA 76.70 134 Pd 42 19.80 -1.0
 0.5s 1.90nm 4.4mb
 FFC 82.63 5 iPc 42 53.00 0.8
 0.8s 7.00nm 4.8mb
 S.D. = 1.4 on 12 of 14 obs.

* APR 17, 1990 18h 42m 10.03±0.72s
 15.100 N ± 9.0km 147.545 E ± 11.5km
 DEPTH = 33.0km (normal)
 4.3mb (3 obs.)
 MARIANA ISLANDS REGION (215)

GUA 2.99 239 eP 42 56.50 0.3
 eS 43 31.20
 GUMO 3.00 240 eP 42 56.10 -0.3
 PJG 3.00 240 eP 42 56.40 0.0
 MAT 22.92 340 iPd 47 11.40 -0.8
 WB5 37.10 201 eP 49 19.00 -0.3
 WRA 37.17 201 Pc 49 20.10 0.2
 1.0s 3.90nm 4.2mb
 LZH 44.16 307 P 50 19.00 1.3
 2.0s 33.00nm 4.8mb
 CHTO 46.53 282 e(P) 50 36.60 0.1
 GUN 58.25 294 P 52 03.80 -0.6
 GKN 59.34 294 P 52 11.50 -0.3
 MBC 76.18 14 eP 53 57.00 0.8
 YKA 80.33 28 eP 54 18.80 -0.3
 0.8s 0.90nm 3.8mb
 S.D. = 0.7 on 12 of 12 obs.

APR 17, 1990 18h 56m 48.52±0.48s
 43.625 N ± 5.2km 10.622 E ± 3.6km
 DEPTH = 10.0km (geophysicist)
 CENTRAL ITALY (381)
 ML 2.7 (KBA).

PII 0.12 323 P 56 52.00 0.5
 eSg 56 54.50
 BDI 0.44 358 P 56 57.20 -0.3
 eSg 57 03.70
 MME 0.57 6 P 56 59.90 -0.4
 eSg 57 07.80
 PGD 0.84 72 P 57 04.30 -0.5
 eSg 57 16.00
 SFI 0.94 71 P 57 07.00 0.6
 eSg 57 19.40
 CRE 0.97 89 P 57 07.50 0.5
 MAO 1.27 162 P 57 13.00 0.9
 BOB 1.42 324 P 57 15.50 1.1
 PGF 1.60 228 Pn 57 16.70 -0.4
 ARV 1.69 94 P 57 19.00 0.7
 PCP 1.75 302 P 57 18.50 -0.7
 FIN 1.84 289 P 57 19.42 -1.0
 CKI 1.87 296 P 57 21.70 0.9
 SAL 1.98 358 P 57 22.00 -0.4
 ROB 2.10 290 P 57 23.42 -0.8
 MDI 2.25 344 P 57 27.00 0.7
 SBF 2.32 277 Pn 57 27.40 0.0
 ENR 2.39 286 P 57 28.14 -0.3
 CTI 2.53 16 P 57 30.00 -0.4
 PZZ 2.69 290 P 57 31.63 -1.1
 ORX 2.75 318 P 57 35.42 1.8
 RSP 2.85 303 P 57 37.68 2.6
 FRF 2.89 270 Pn 57 34.00 -1.4
 LMR 3.01 266 Pn 57 36.20 -0.9
 RRL 3.04 296 P 57 39.42 1.6
 LSD 3.08 308 P 57 40.68 2.3
 LRG 3.10 268 Pn 57 36.60 -1.8
 VOY 3.35 43 e(Pn) 57 42.30 0.3
 eSn 58 20.80
 RBL 3.51 36 P 57 43.00 -1.2
 KBA 3.95 28 eP 57 48.50 -2.1
 iPg 57 51.90
 eSg 58 36.00
 HAU 5.30 327 Pn 58 09.40 -0.3
 CDF 5.32 335 Pn 58 09.10 -0.9
 S.D. = 1.2 on 32 of 32 obs.

* APR 17, 1990 19h 17m 46.54±0.69s
 17.203 S ± 16.2km 14.280 W ± 12.2km
 DEPTH = 10.0km (geophysicist)
 4.6mb (1 obs.) 4.6msz (3 obs.)
 SOUTH ATLANTIC RIDGE (410)

LIC 25.01 22 P 23 12.90 0.7
 Z 20s 0.22um 3.7msz
 KIC 25.24 23 P 23 15.00 0.6
 TIC 25.40 22 P 23 16.00 0.1
 WIN 29.95 105 eP 23 57.80 0.2
 BCAA 38.89 59 ePd 25 18.10 3.8X
 1.3s 20.00nm 4.6mb
 i 26 42.40
 SIV 44.78 264 P 26 04.20 1.7
 LPB 51.37 262 eP 26 53.00 -1.3
 Z 18s 1.37um 5.0msz
 LR 44 50.00
 ZOBO 51.43 263 P 26 54.00 -1.0
 Z 18s 0.66um 4.7msz
 S 32 52.00
 LR 42 52.00
 ARE 54.59 262 eP 27 19.00 0.9
 SKO 67.49 28 eP 28 44.50 -0.3
 KHC 70.52 19 eP 29 04.90 1.4
 ZST 70.88 22 eP 29 05.60 0.0
 SRO 70.99 23 iP 29 06.20 -0.1
 PRU 71.58 19 eP 29 08.50 -1.3
 BBTK 71.70 36 eP 29 10.00 -0.9
 SPC 72.85 23 eP 29 15.90 -1.7
 FRB 90.86 339 eP 30 59.00 7.9X
 QUE 91.20 59 eP 30 54.50 0.8
 MAT 148.98 46 (PKP) 37 27.00 -5.5X
 S.D. = 1.1 on 16 of 19 obs.

? APR 17, 1990 19h 41m 42.08±2.17s
 15.076 N ± 23.2km 147.621 E ± 21.7km
 DEPTH = 33.0km (normal)
 4.3mb (1 obs.)
 MARIANA ISLANDS REGION (215)

GUA 3.04 240 eP 42 28.80 -0.2
 GUMO 3.05 241 eP 42 29.20 0.0
 eS 42 57.80
 PJG 3.05 241 eP 42 29.30 0.1

WRA 37.17 201 P 48 52.00 0.0
 0.3s 1.30nm 4.3mb
 CHTO 46.60 282 e(P) 50 09.20 0.0
 S.D. = 0.2 on 5 of 5 obs.

* APR 17, 1990 19h 46m 25.28±0.78s
 36.846 N ± 13.3km 22.384 E ± 7.5km
 DEPTH = 96.3 ± 9.6 km
 SOUTHERN GREECE (368)
 MD 3.3 (ATH).

VLI 0.46 106 iPc 46 39.00 -1.6
 ITM 0.49 312 iPd 46 39.90 -1.0
 ATH 1.55 43 eP 46 52.40 0.1
 VAM 2.06 134 eP 47 00.70 1.7
 APE 2.53 84 eP 47 06.00 0.6
 NEO 2.54 15 eP 47 06.70 1.2
 KEK 3.51 325 eP 47 19.50 0.8
 VAY 4.47 2 eP 47 43.40 11.5X
 LCI 4.92 316 P 47 36.00 -2.1
 eSn 48 22.80
 ROI 5.33 302 P 47 43.50 -0.4
 CZI 5.47 298 P 47 46.00 0.2
 TDS 5.52 302 P 47 46.00 -0.6
 CSI 5.61 303 P 47 49.10 1.2
 BRT 5.70 316 Pd 47 48.70 -0.4
 eSn 48 45.10
 MMN 5.87 303 P 47 52.60 1.3
 MGR 6.28 304 P 47 57.30 0.3
 eSn 49 00.00
 SGO 6.66 306 P 48 02.80 0.6
 DMN 53.02 81 P 55 40.00 5.3X
 PKI 53.28 81 P 55 37.70 1.0
 GUN 53.50 80 P 55 35.50 -2.8
 S.D. = 1.4 on 18 of 20 obs.

APR 17, 1990 20h 31m 09.01±0.88s
 43.995 N ± 5.6km 7.192 E ± 7.3km
 DEPTH = 10.0km (geophysicist)
 NEAR SOUTH COAST OF FRANCE (379)
 ML 1.5 (GEN). MD 1.0 (STR).

TOUF 0.04 65 Pg 31 11.56 0.2
 Sg 31 12.75
 MVIF 0.10 196 Pg 31 11.99 0.1
 Sg 31 15.33
 AUTN 0.17 90 Pg 31 13.12 0.1
 Sg 31 16.13
 SAOF 0.26 92 Pg 31 14.07 -0.5
 STV 0.27 21 P 31 14.79 0.1
 S 31 17.97
 ENR 0.28 35 P 31 15.28 0.3
 S 31 18.73
 PZZ 0.51 353 P 31 19.16 -0.3
 S 31 25.62
 S.D. = 0.4 on 7 of 7 obs.

% APR 17, 1990 20h 52m 42.08±0.60s
 40.764 N ± 6.1km 29.090 E ± 4.5km
 DEPTH = 10.0km (geophysicist)
 TURKEY (366)

GBZT 0.27 85 ePg 52 48.00 0.2
 iSg 52 52.00
 YLV 0.29 132 iPg 52 48.40 0.2
 ISK 0.30 356 ePg 52 48.70 0.3
 eSg 52 53.60
 HRT 0.44 82 ePg 52 50.70 -0.4
 eSg 52 57.10
 CTT 0.63 308 iPg 52 54.30 -0.4
 iSg 53 03.30
 KCT 0.76 228 iPg 52 56.40 -0.5
 iSg 53 06.90
 BNT 0.98 246 iPn 53 01.40 0.7
 S.D. = 0.6 on 7 of 7 obs.

? APR 17, 1990 20h 54m 04.33±7.42s
 5.467 S ± 55.8km 147.715 E ± 60.6km
 DEPTH = 156.1 ± 10.6 km
 4.8mb (2 obs.)
 EAST PAPUA NEW GUINEA REGION (207)

LAT 1.38 211 iPc 54 33.50 0.1
 eS 54 48.00
 PMG 3.96 188 iPc 55 04.40 -0.4
 eS 55 46.00
 MNDI 4.09 260 eP 55 07.00 0.1

17d 20h

QIS 16.94 207 eS 55 50.00
 WB5 19.34 221 iPd 58 19.80 -0.3
 WRA 19.40 221 Pc 58 20.20 -0.5
 0.5s 44.10nm 5.1mb
 KNA 21.22 240 eP 58 38.00 -1.1
 NANU 35.42 238 iPc 00 48.30 1.0
 0.5s 6.00nm 4.6mb
 S.D. = 1.0 on 8 of 8 obs.

APR 17, 1990 21h 24m 08.87 ± 0.34s
 8.530 N ± 6.3km 124.214 E ± 7.0km
 DEPTH = 31.6km (3 depth phases)
 4.9mb (13 obs.)

MINDANAO, PHILIPPINE ISLANDS (259)

DAV 1.97 137 eP 24 42.00 1.4
 MNI 7.07 175 eP 25 51.50 -1.3
 TSM 7.45 235 eP 26 02.50 4.3X
 KKM 8.31 253 ePc 26 11.50 1.2
 BAG 8.60 336 eP 26 18.50 4.1X
 TRT 19.83 216 iPc 28 46.70 6.6X
 1.0s 124.70nm 5.2mb
 MTN 22.32 162 eP 29 05.00 -0.5
 SSE 22.63 353 P 29 09.50 1.1
 1.0s 38.00nm 4.8mb

pP 29 18.50 32km
 sP 29 23.00
 eS 33 14.00
 sS 33 27.00

IPM 23.36 262 ePd 29 17.50 1.8
 1.0s 43.60nm 4.9mb

LOE 23.60 294 eP 29 18.00 0.0
 NNT 24.40 282 eP 29 27.20 1.5
 NST 24.58 289 iPc 29 30.80 3.3X
 KMI 26.29 311 Pc 29 44.00 0.2
 CHG 26.56 295 eP 29 47.20 1.1
 1.1s 18.35nm 4.6mb

WB5 29.95 161 eP 30 13.10 -3.6X
 WRA 30.00 161 P 30 23.00 5.9X
 0.8s 4.10nm 4.3mb

BJI 32.19 348 eP 30 36.50 0.4
 1.0s 36.00nm 5.2mb
 LZH 33.13 329 eP 30 44.50 -0.1
 2.0s 42.00nm 5.0mb

N 14s 0.40um
 E 14s 0.60um

pP 30 52.50 28km
 CTA 35.77 143 iPc 31 10.00 2.8
 2.5s 161.11nm 5.5mb

GUN 40.96 303 P 31 50.60 -0.3
 PKI 41.23 302 P 31 52.10 -1.0
 GKN 42.02 303 P 31 58.20 -1.2
 HYB 45.27 286 eP 32 25.50 -0.2
 ADE 45.38 163 iPd 32 24.60 -1.7
 0.7s 20.55nm 5.2mb

GBA 46.13 281 Pc 32 32.10 -0.4
 0.9s 4.70nm 4.4mb

BWA 48.48 153 eP 32 50.80 0.0
 CAN 49.49 153 eP 32 57.40 -1.1
 QUE 57.53 300 eP 33 57.50 -0.7

MAIO 64.65 306 eP 34 45.00 -1.2
 TTA 77.80 27 eP 36 04.90 0.3
 SVW 77.83 29 eP 36 05.50 0.8

IMA 79.05 24 eP 36 12.00 0.5
 KDC 79.26 33 eP 36 09.00 -3.5X
 PMR 80.97 29 eP 36 21.40 -0.1

e 36 32.30 35km
 SOD 85.10 337 iP 36 42.20 -0.5
 SUF 86.17 333 iP 36 47.40 -0.6

0.8s 10.10nm 5.1mb
 NUR 87.32 331 iP 36 52.90 -0.8
 MBC 87.84 12 eP 36 56.00 0.1

NB2 93.40 333 P 37 21.10 -1.1
 0.8s 4.20nm 4.9mb

YKA 96.16 24 eP 37 34.40 -0.4
 0.8s 0.80nm 4.2mb

ZOBO 165.71 124 ePKP 44 17.00 4.0X
 S.D. = 1.1 on 33 of 41 obs.

? APR 17, 1990 22h 18m 10.55 ± 6.04s
 31.076 S ± 54.7km 69.709 W ± 93.3km
 DEPTH = 130.0km (geophysicist)

SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.88 118 eP 18 32.60 -0.2

RTRS 0.93 13 iPc 18 33.10 0.1
 iS 18 50.00
 RTLL 1.09 104 ePd 18 34.20 -0.5
 eS 18 52.00
 CFA 1.36 113 eP 18 38.10 0.6
 S 18 59.00
 S.D. = 0.8 on 4 of 4 obs.

& APR 17, 1990 22h 32m 27.20s
 34.110 N 117.720 W

DEPTH = 4.0km
 4.5mb (8 obs.)

SOUTHERN CALIFORNIA (43)

<PAS-P>. ML 4.6 (PAS), 4.7
 (BRK). Slight damage (VI) at
 Claremont. Felt (V) at Canoga
 Park, Glendora, Hacienda
 Heights, Mt. Baldy and Upland;
 (IV) at Alta Loma, Baldwin Park,
 Bell, Bellflower, Diamond Bar,
 Etiwanda, Garden Grove, George
 Air Force Base, Hesperia,
 Lakewood, Long Beach, Monrovia,
 Montclair, Redlands, Riverside,
 San Dimas, West Covina, Whittier
 and Wrightwood. Felt in Los
 Angeles, Orange, Riverside and
 San Bernardino Counties.

PCF 0.08 226 iP 32 28.98 -0.1

PEM 0.14 295 iP 32 30.23 0.2

VPD 0.30 187 iPd 32 33.47 0.3

MWC 0.30 292 iPc 32 33.20 -0.1

RVR 0.31 112 iPc 32 33.20 -0.2

PAS 0.38 276 iPc 32 34.40 -0.4

PEC 0.51 115 iPc 32 36.80 -0.7

SBB 0.58 351 iPd 32 38.30 -0.6

CIS 0.90 219 iPd 32 43.90 -1.2

PLM 1.04 136 iPd 32 46.10 -1.4

SCI 1.32 212 iPd 32 50.60 -1.6

CPE 1.33 157 ePd 32 50.60 -1.8

TPC 1.39 90 iPc 32 52.80 -0.6

GSC 1.41 32 iPd 32 53.50 -0.2

ABL 1.44 301 eP 32 53.00 -1.4

BAR 1.67 148 iPd 32 56.30 -1.1

CLC 1.71 3 iPd 32 57.50 -0.4

HAY 1.78 102 iPd 32 57.70 -1.2

BCH 2.22 299 eP 33 04.50 -1.0

BLP 2.26 282 eP 33 04.00 -1.9

GLA 2.64 113 eP 33 09.30 -2.0

PKEM 2.76 315 eP 33 12.20 -0.9

PHAM 2.79 309 eP 33 11.80 -1.8

PRI 3.15 311 eP 33 17.20 -1.5

FRI 3.30 331 ePd 33 20.20 -0.5

LLA 3.63 314 ePc 33 23.70 -1.7

PRS 3.72 308 ePc 33 23.70 -3.0

TNP 3.98 6 eP 33 30.50 -0.1

SAO 4.03 312 eP 33 29.00 -2.1

CMB 4.47 332 eP 33 35.80 -1.6

eSg 34 33.00

ARN 4.48 317 eP 33 34.50 -3.0

MHC 4.54 316 eP 33 36.40 -1.9

GCC 4.54 311 eP 33 34.80 -3.5

KVN 4.94 357 eP 33 44.30 0.1

PCC 5.08 313 ePc 33 43.40 -2.5

BKS 5.25 317 eP 33 45.70 -2.6

BRK 5.26 317 ePc 33 46.00 -2.5

eS 34 53.00

ZSP 5.31 317 eP 33 47.00 -2.1

ORV 6.22 332 ePc 34 01.00 -1.1

ALO 9.33 82 eP 34 43.00 -2.7

LRM 12.37 17 eP 35 31.00 3.8

PNT 15.26 355 eP 36 09.00 4.0

SES 17.00 15 ePd 36 28.40 1.1

TUL 18.05 78 ePd 36 41.50 1.0

0.9s 33.90nm 4.5mb

Z 19s 1.27um

LR 41 00.00

FFC 23.37 23 iPc 37 38.40 0.9

1.0s 33.00nm 4.8mb

RSON 24.20 39 eP 37 44.50 -1.1

1.1s 31.06nm 4.9mb

YKA 28.47 3 eP 38 23.20 -1.9

0.5s 0.70nm 3.7mb

PMR 34.02 334 eP 39 14.80 0.9

0.8s 8.28nm 4.7mb

INK 35.41 350 eP 39 26.00 0.2
 FBA 35.79 339 eP 39 29.20 0.1
 0.8s 6.90nm 4.6mb
 TTA 37.41 332 eP 39 43.40 0.5
 IMA 38.41 337 eP 39 51.20 -0.1
 1.0s 6.30nm 4.3mb
 FRB 42.17 30 eP 40 21.00 -1.1
 MBC 42.23 359 eP 40 23.50 1.0
 1.0s 6.00nm 4.3mb
 ZOBO 68.83 128 P 43 35.00 -0.8
 SIV 73.39 123 P 44 01.00 -1.5
 56 obs. associated

? APR 17, 1990 23h 16m 32.63 ± 0.89s
 16.131 N ± 40.4km 147.220 E ± 52.9km
 DEPTH = 33.0km (normal)
 4.3mb (1 obs.)

MARIANA ISLANDS REGION (215)

PJG 3.40 222 eP 17 25.00 0.3

eS 17 58.40

GUMO 3.40 222 eP 17 24.40 -0.3

GUA 3.41 221 eP 17 25.00 0.2

INK 71.16 23 eP 27 49.50 -0.2

MBC 75.26 14 eP 28 15.00 1.4

YKA 79.57 28 eP 28 36.90 -0.7

0.6s 2.20nm 4.3mb

KIC 144.37 307 PKP 36 07.00 -1.1

ZOBO 146.08 95 PKP 36 12.00 0.4

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

? APR 18, 1990 01h 30m 59.02 ± 3.81s
 35.732 S ± 17.2km 179.607 E ± 42.6km
 DEPTH = 33.0km (normal)

4.1mb (1 obs.)

OFF E. COAST OF N. ISLAND, N.Z. (160)

HBZ 2.14 209 P 31 33.90 0.8

PUZ 2.57 204 P 31 39.10 -0.2

eS 32 17.70

NOZ 3.14 203 P 31 46.80 -0.5

WLZ 3.85 236 P 31 57.20 -0.2

WRA 42.62 279 P 38 54.00 0.0

0.3s 1.30nm 4.1mb

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

? APR 18, 1990 02h 52m 37.85 ± 0.81s
 31.116 S ± 24.1km 68.862 W ± 35.4km
 DEPTH = 100.0km (geophysicist)

SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.37 172 iPd 52 52.80 -0.3

(S) 53 04.50

RTLL 0.40 122 iPc 52 53.00 -0.2

ZON 0.46 160 iPd 52 54.00 0.4

eS 53 07.00

CFA 0.72 133 ePd 52 55.90 0.1

eS 53 11.00

RTRS 1.07 331 ePd 52 59.40 0.1

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

APR 18, 1990 03h 11m 15.66 ± 0.54s
 15.337 N ± 6.5km 147.524 E ± 9.1km
 DEPTH = 33.0km (normal)

5.0mb (4 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.10 235 eP 12 03.70 0.3

eS 12 41.70

GUMO 3.11 236 eP 12 03.80 0.3

PJG 3.11 236 eP 12 03.80 0.3

KAKJ 21.79 344 eP 16 06.00 -0.7

IJDJ 21.83 339 P 16 08.40 1.3

CHJJ 21.99 341 P 16 07.80 -0.9

TSRJ 22.62 335 eP 16 16.70 1.9

MTMJ 22.87 340 P 16 16.00 -1.4

NIJJ 23.09 342 P 16 19.60 0.1

BAG 25.93 276 eP 16 47.00 -0.1

SSE 28.74 308 P 17 11.00 -1.3

1.0s 29.00nm 4.9mb

eS 22 19.00

BJI 36.77 318 eP 18 22.00 0.0

1.5s 47.00nm 5.1mb

WB5 37.31 201 eP 18 26.20 -0.6

WRA 37.38 201 Pd 18 26.70 -0.6

0.9s 9.90nm 4.7mb

KMI 42.97 290 Pc 19 15.50 1.6

18d 03h

LZH 44.00 306 Pd 1.8s 143.00nm			19 23.50 27kmX 19 22.50 0.5 5.5mb			39.297 N ± 7.2km 74.951 E ± 8.7km			1.0s 22.00nm 5.1mb		
						DEPTH = 33.0km (normal)			MAIO 79.58 305 eP 30 25.00 1.6		
						4.6mb (9 obs.)			WDC 80.28 51 ePc 30 27.30 0.3		
						SOUTHERN XINJIANG, CHINA (321)			YKA 80.29 28 eP 30 25.10 -1.4		
CHG 46.46 282 eP 19 42.70 1.0			SHL 52.80 291 eP 20 30.20 -0.3			NDI 10.75 169 eP 14 43.00 0.0			PNT 80.52 41 eP 30 28.00 -0.1		
SHL 52.80 291 eP 20 30.20 -0.3			GUN 58.14 294 P 21 09.20 0.0			QUE 11.21 218 eP 14 49.20 -0.3			MIN 81.03 51 eP 30 30.80 -0.3		
GUN 58.14 294 P 21 09.20 0.0			PKI 58.56 293 P 21 11.40 -0.8			GKN 13.84 142 P 15 23.30 -1.3			ORV 81.27 51 eP 30 32.30 0.1		
PKI 58.56 293 P 21 11.40 -0.8			KKN 58.67 293 P 21 12.30 -0.5			MAIO 12.59 261 eP 15 07.00 -0.9			PRS 82.08 55 ePc 30 36.90 0.4		
KKN 58.67 293 P 21 12.30 -0.5			DMN 58.83 293 P 21 13.20 -0.8			GKN 13.84 142 P 15 23.30 -1.3			CMB 82.46 53 ePc 30 38.80 0.3		
DMN 58.83 293 P 21 13.20 -0.8			GKN 59.23 294 P 21 16.40 -0.3			KKN 14.34 140 P 15 32.60 1.5			FRI 83.23 54 ePc 30 42.80 0.4		
GKN 59.23 294 P 21 16.40 -0.3			NDI 65.72 295 eP 21 59.50 -0.1			DMN 14.40 141 P 15 31.00 -1.0			KVN 83.96 51 ePd 30 46.90 0.5		
NDI 65.72 295 eP 21 59.50 -0.1			INK 71.78 23 eP 22 36.00 -0.4			KKN 14.34 140 P 15 32.60 1.5			SES 85.59 39 eP 30 53.50 -0.6		
INK 71.78 23 eP 22 36.00 -0.4			MBC 75.96 14 eP 23 02.00 1.4			DMN 14.40 141 P 15 31.00 -1.0			LRM 86.11 44 eP 30 57.00 0.0		
MBC 75.96 14 eP 23 02.00 1.4			YKA 80.13 28 eP 23 23.30 -0.3			GUN 14.54 138 P 15 32.90 -1.0			KIC 145.12 306 PKP 37 54.10 -0.4		
YKA 80.13 28 eP 23 23.30 -0.3			KIC 145.07 306 PKP 30 51.50 -0.8			PKI 14.58 140 P 15 34.20 -0.2			TIC 145.17 307 PKP 37 54.20 -0.3		
KIC 145.07 306 PKP 30 51.50 -0.8			TIC 145.11 307 PKP 30 51.70 -0.7			SHL 19.75 129 eP 16 47.40 8.9X			LIC 145.43 306 PKP 37 55.00 0.0		
TIC 145.11 307 PKP 30 51.70 -0.7			LIC 145.38 306 PKP 30 52.70 -0.1			POO 20.71 183 eP 16 54.00 5.6X			ZOB0 145.74 97 PKP 37 57.00 0.9		
LIC 145.38 306 PKP 30 52.70 -0.1			ZOB0 145.71 96 PKP 30 56.00 2.0			HYB 22.03 171 ePc 17 04.30 2.6			LPB 145.78 97 PKP 37 57.00 1.0		
ZOB0 145.71 96 PKP 30 56.00 2.0			LPB 145.75 97 ePKP 31 03.00 9.1X			LZH 23.05 89 eP 17 16.00 4.2X			CCH 147.68 99 PKP 38 01.00 2.1		
LPB 145.75 97 ePKP 31 03.00 9.1X			S.D. = 0.9 on 31 of 32 obs.			GBA 25.69 174 P 17 42.00 5.0X			S.D. = 0.9 on 47 of 47 obs.		
S.D. = 0.9 on 31 of 32 obs.						HFS 42.87 320 eP 20 04.50 -0.3					
* APR 18, 1990 03h 31m 55.44 ± 0.55s			3.221 S ± 6.6km 75.663 W ± 11.1km			KHC 43.96 304 eP 20 14.80 1.0			* APR 18, 1990 05h 26m 02.31 ± 0.48s		
3.221 S ± 6.6km 75.663 W ± 11.1km			DEPTH = 130.0km (geophysicist)			NB2 44.10 321 P 20 14.20 -0.6			14.995 N ± 8.7km 147.626 E ± 9.4km		
NORTHERN PERU (111)						MBC 64.37 4 eP 22 43.00 0.4			DEPTH = 33.0km (normal)		
						INK 70.61 11 eP 23 22.00 0.2			4.6mb (4 obs.) 4.6msz (1 obs.)		
						FBA 70.89 18 eP 23 23.40 -0.1			MARIANA ISLANDS REGION (215)		
						YKA 78.27 5 eP 24 05.60 -0.3					
						S.D. = 1.1 on 16 of 20 obs.					
						APR 18, 1990 05h 18m 16.83 ± 0.74s					
						15.182 N ± 6.5km 147.474 E ± 5.8km					
						5.0mb (7 obs.) 4.1msz (1 obs.)					
						MARIANA ISLANDS REGION (215)					
						GUA 2.97 237 eP 19 03.40 0.1					
						GUM0 2.98 238 eP 19 03.70 0.3					
						PJG 2.98 238 eP 19 03.80 0.4					
						KAKJ 21.93 344 P 23 09.80 -0.1					
						IIDJ 21.96 339 P 23 10.90 0.6					
						CHJJ 22.12 341 P 23 11.90 0.1					
						MAT 22.82 340 (P) 23 17.00 -1.8					
						1.0s 31.00nm 4.8mb					
						MTMJ 22.99 340 P 23 19.60 -1.0					
						NIIJ 23.22 343 P 23 22.50 -0.2					
						KDB 24.50 181 eP 23 33.00 -2.2					
						BAG 25.90 276 eP 23 49.00 0.3					
						BJI 36.86 318 eP 25 25.00 0.3					
						1.8s 98.00nm 5.4mb					
						Z 20s 0.30um 4.1msz					
						DZM 41.43 153 iPc 26 02.80 -0.2					
						KMI 42.97 291 Pc 26 17.50 1.6					
						sP 26 25.00					
						LOE 43.89 279 eP 26 23.00 -0.1					
						LZH 44.05 307 Pd 26 25.70 1.3					
						1.8s 127.00nm 5.4mb					
						E 12s 0.40um 26 51.00					
						sP 26 51.00					
						PP 28 03.00					
						NNT 46.35 273 eP 26 40.60 -2.2					
						CHG 46.44 282 iPd 26 44.00 0.5					
						0.9s 14.71nm 5.0mb					
						SHL 52.81 291 eP 27 32.00 -0.6					
						GUN 58.15 294 P 28 11.40 0.1					
						PKI 58.58 293 P 28 13.80 -0.5					
						KKN 58.69 293 P 28 14.60 -0.3					
						DMN 58.84 293 P 28 16.00 -0.1					
						GKN 59.25 294 P 28 18.60 -0.2					
						HYB 65.86 283 eP 29 02.50 -0.2					
						GBA 67.58 279 Pc 29 13.30 -0.3					
						0.9s 5.60nm 4.7mb					
						POO 70.09 285 eP 29 29.00 -0.2					
						INK 71.94 23 eP 29 39.00 -0.4					
						MBC 76.12 14 ePd 30 03.70 0.2					

YKA 80.41 28 eP 03 23.10 -0.3
0.8s 0.60nm 3.6mb
KIC 145.46 306 PKP 10 51.00 -0.2
S.D. = 0.4 on 12 of 12 obs.

* APR 18, 1990 06h 02m 08.19±0.92s
15.099 N ±18.4km 147.606 E ±17.2km
DEPTH = 33.0km (normol)
4.1mb (2 obs.)

MARIANA ISLANDS REGION (215)

GUMO 3.05 241 eP 02 55.30 0.0
eS 03 30.00
PJG 3.05 241 eP 02 55.00 -0.2
WRA 37.19 201 Pc 09 18.40 0.2
0.7s 7.50nm 4.7mb
GUN 58.30 294 P 12 03.20 0.3
YKA 80.30 28 eP 14 16.90 -0.2
0.8s 0.50nm 3.6mb
KIC 145.28 306 PKP 21 45.30 0.1
S.D. = 0.3 on 6 of 6 obs.

* APR 18, 1990 06h 15m 23.08±0.89s
6.430 S ± 8.4km 129.101 E ±13.2km
DEPTH = 234.7 ± 9.6 km
4.9mb (8 obs.)

BANDA SEA (280)

MTN 6.68 163 iPc 17 04.10 3.9X
KNA 9.27 182 iPc 17 35.40 1.9
0.3s 104.00nm 5.5mb X
eS 19 16.00

WB5 14.32 160 iPc 18 37.20 0.3
WRA 14.37 160 Pc 18 37.70 0.2
0.8s 140.60nm 5.4mb
MNDI 14.47 90 eP 18 47.00 8.0X
MBL 17.17 211 iPc 19 09.50 -0.9
eS 22 28.00

QIS 17.35 145 iPd 19 12.30 0.0
e 19 38.00
eS 22 12.00

KKM 17.86 314 ePc 19 19.50 1.7
1.0s 124.70nm 5.4mb
KDB 18.14 101 eP 19 25.00 4.5X
NANU 20.70 218 eP 19 46.20 -0.2
CTA 21.49 131 iPd 19 56.30 2.2
1.3s 221.15nm 5.5mb

iPP 20 05.00 32kmX
iPP 20 14.00
i 20 38.00
eS 23 23.00
e(SS) 24 03.00
i 25 21.00

FORR 24.31 182 eP 20 19.50 -1.4
RMQ 27.36 139 eP 20 47.00 -1.7
e 21 44.00

BRS 30.66 136 iPd 21 17.10 -0.9
i 27 15.50

COO 32.17 141 eP 21 31.00 0.0
BWA 33.09 150 eP 21 40.80 1.9
CAN 34.09 150 iPd 21 48.00 0.6
SSE 38.07 349 P 22 22.00 1.2
1.0s 27.00nm 4.8mb

CHG 38.90 311 iPc 22 29.00 1.2
1.0s 25.00nm 4.7mb
MAT 43.59 11 eP 23 05.00 -0.8
1.0s 30.00nm 4.6mb

8JI 47.75 347 eP 23 38.50 0.1
1.0s 24.00nm 4.5mb
SHL 48.16 313 iP 23 40.50 -1.5
LZH 48.49 333 P 23 44.50 0.2
1.5s 29.00nm 4.5mb

VNDA 73.11 173 e(P) 26 27.20 -1.8
YKA 107.63 26 ePKP 33 20.30 -2.9
0.6s 0.20nm

ALO 121.68 53 ePKP 33 50.30 -0.8
NNA 148.37 125 ePKP 34 40.70 0.4
0.8s 8.96nm

ARE 149.46 138 ePKP 34 47.00 4.7X
LPB 151.54 143 PKP 34 52.50 7.0X
ZOBO 151.73 143 PKP 34 45.00 -1.0
i 36 13.00

CCH 151.95 148 PKP 34 53.00 7.0X
S.D. = 1.4 on 25 of 31 obs.

APR 18, 1990 07h 21m 43.28±0.67s

26.969 N ± 4.5km 140.278 E ± 5.4km
DEPTH = 420.2 ± 7.4 km
4.7mb (14 obs.)

BONIN ISLANDS REGION (212)

TKSJ 8.82 324 P 23 50.30 1.6
MAT 9.70 350 (P) 23 58.00 -0.9
0.8s 41.04nm 4.9mb X
eS 25 46.00

SHK 9.98 321 eP 23 57.50 -4.5X
YONJ 10.06 326 P 24 02.00 -1.0
GUMO 13.99 161 eP 24 46.50 0.2
0.7s 109.28nm 5.4mb

PJG 13.99 161 eP 24 46.80 0.5
GUA 14.05 161 eP 24 47.00 0.1
0.8s 131.34nm 5.5mb
KMI 33.70 275 eP 27 51.00 1.8
CHG 38.80 267 ePd 28 32.90 1.6
0.9s 10.50nm 4.2mb

WB5 46.92 188 eP 29 35.00 -0.7
WRA 46.99 188 Pc 29 33.50 -2.7
0.5s 5.50nm 4.2mb

ANM 50.84 27 eP 30 05.50 0.7
SVW 54.29 33 eP 30 30.40 0.4
TTA 54.41 30 eP 30 30.70 -0.2
DZM 54.94 150 iPc 30 35.30 0.3
KDC 55.53 37 eP 30 38.00 -0.6
IMA 55.97 27 eP 30 41.70 -0.1
0.5s 4.10nm 4.0mb

BRW 56.10 20 eP 30 42.80 0.3
PMR 57.45 32 eP 30 51.00 -1.0
HYB 57.46 274 eP 30 50.70 -2.1
FBA 58.26 28 eP 30 56.40 -1.1
0.5s 12.30nm 4.6mb

TOA 58.87 32 eP 31 01.70 -0.1
GBA 59.90 271 Pd 31 09.10 -0.2
0.7s 8.70nm 4.3mb
KOD 61.25 267 eP 31 19.00 0.4
INK 63.85 24 ePd 31 32.90 -1.3
MBC 66.45 15 ePd 31 50.50 -0.1
0.5s 9.00nm 4.7mb

KEV 72.53 340 eP 32 27.00 0.0
YKA 73.06 28 eP 32 29.30 -0.8
0.5s 9.90nm 4.7mb
SOD 73.90 338 iP 32 35.10 0.2
PNT 76.20 42 eP 32 49.00 1.0
FHC 76.95 51 eP 32 53.40 1.0
WDC 78.04 51 eP 32 58.60 0.4
NUR 78.40 333 iP 32 59.80 0.1
0.5s 11.20nm 4.8mb

MIN 78.78 50 eP 33 02.00 -0.4
ORV 79.20 51 ePd 33 04.30 -0.1
BRK 79.40 53 eP 33 05.80 0.3
MNC 80.07 53 ePd 33 09.80 0.6
SES 80.58 38 iPd 33 11.40 -0.1
CMB 80.65 52 ePd 33 12.20 0.1
PRS 80.71 54 ePd 33 12.80 0.4
UPP 81.58 335 iP 33 15.90 -0.4
FRI 81.61 53 eP 33 17.00 0.0
KVN 81.78 50 ePc 33 18.30 0.2
LRM 82.12 42 ePd 33 20.40 0.6
FFC 82.74 31 iPd 33 22.60 0.3
0.8s 17.00nm 4.8mb

HFS 82.86 336 eP 33 22.10 -0.8
0.7s 24.40nm 5.0mb
ISA 83.11 54 eP 33 24.00 -0.7
NAO 83.38 338 P 33 24.60 -0.9
0.7s 17.90nm 4.9mb

CLC 83.66 53 eP 33 27.00 -0.4
SBB 84.03 54 eP 33 29.00 -0.4
MWC 84.09 55 eP 33 30.00 0.2
GSC 84.47 53 eP 33 32.00 0.4
RVR 84.69 55 eP 33 32.00 -0.5
PLM 85.38 55 eP 33 36.00 -0.2
8W06 85.49 44 eP 33 36.90 0.3
TPC 85.60 54 eP 33 37.00 0.0
BAR 85.85 55 eP 33 39.00 0.8
FRB 86.77 12 eP 33 42.00 0.0
GLA 87.01 54 eP 33 44.00 0.2
KSP 88.13 328 eP 33 48.00 -0.7
PRU 89.54 328 P 33 55.50 0.3
KHC 90.59 328 eP 34 00.00 -0.2
ANMO 91.86 49 eP 34 07.60 1.1
ALO 91.86 49 eP 34 06.90 0.4
0.9s 7.77nm 4.7mb

TIC 132.61 310 PKP 40 11.60 0.5
KIC 132.62 309 PKP 40 11.60 0.5

LIC 132.92 309 PKP 40 12.30 0.6
S.D. = 0.8 on 66 of 67 obs.

? APR 18, 1990 07h 22m 53.71±2.16s
30.786 N ±22.8km 131.393 E ±15.1km
DEPTH = 33.0km (normol)
4.8mb (4 obs.)

KYUSHU, JAPAN (235)

KAGJ 0.59 313 iPd 23 06.90 1.3
S 23 15.40
KUMJ 1.81 345 iP+ 23 21.90 -1.2
eS 23 42.00

SHNJ 3.34 356 eP 23 43.20 -1.6
TKSJ 3.90 34 P 23 53.20 0.4
YONJ 4.72 21 eP 24 06.70 2.2
BJI 15.45 311 eP 26 34.00 3.3X
1.5s 26.00nm 4.2mb
Z 16s 0.58um 4.6msz

LZH 23.55 290 P 28 02.50 0.4
1.0s 26.00nm 4.7mb
pP 28 06.50 14kmX
i 28 13.00

MBC 64.75 14 ePd 33 29.00 -1.5
0.9s 8.00nm 4.8mb
pP 33 39.00 32kmX

FFC 83.28 28 eP 35 18.00 -0.2
0.7s 6.00nm 4.8mb
S.D. = 1.6 on 8 of 9 obs.

% APR 18, 1990 07h 44m 51.62±0.95s
60.361 N ± 6.3km 5.264 E ±11.6km
DEPTH = 10.0km (geophysicist)

SOUTHERN NORWAY (535)

MD 1.4 (BER).

BER 0.04 57 ePc 44 52.68 -1.0
ASK 0.13 344 iPc 44 53.91 -0.8
iS 44 56.09

SUE 0.74 341 eP 45 06.09 0.0
eS 45 15.61
ODD1 0.82 123 eP 45 07.24 -0.2
eS 45 18.88

HYA 0.93 29 iP 45 08.72 -0.6
eS 45 22.27
KMY 1.15 180 iPc 45 13.42 0.3
iS 45 28.36
BLS1 1.25 140 iP 45 14.80 -0.2
iS 45 32.00

MOL 2.47 25 eP 45 35.03 2.5
eS 46 07.15
S.D. = 1.3 on 8 of 8 obs.

APR 18, 1990 07h 55m 56.68±0.41s
7.000 S ± 6.3km 144.478 E ± 7.4km
DEPTH = 24.6km (3 depth phases)
4.9mb (7 obs.)

NEAR S COAST OF PAPUA NEW GUINEA(206)

MNDI 1.17 316 iP 56 19.00 1.3
LAT 2.53 82 eP 56 38.00 1.0
CTA 13.12 173 iPc 59 09.00 4.7X
iPP 59 20.70
i 59 38.00
iS 00 10.00
e 01 25.50
e(SS) 01 45.00
e 02 07.50
e 02 41.00

QIS 14.28 199 eP 59 20.00 0.5
eS 03 39.00
MTN 14.37 245 eP 59 19.00 -1.7
e 01 50.00
e 03 51.00

WB5 16.13 216 eP 59 44.00 0.4
eS 02 38.00
WRA 16.20 216 Pc 59 45.70 1.3
0.7s 5.30nm 3.8mb X

KNA 17.68 239 eP 00 03.00 0.0
eS 03 04.00
RMQ 19.81 169 eP 00 29.00 0.5
GUMO 20.46 1 eP 00 37.00 1.7
PJG 20.46 1 eP 00 37.60 2.3
SSE 43.95 331 P 04 03.50 -0.1
1.0s 17.00nm 4.8mb

i 04 11.80 28km
KMI 51.66 310 eP 05 05.00 0.8

18d 08h

CHG 51.70 301 eP 05 04.80 0.5
1.0s 11.00nm 4.7mb
CHTO 51.70 301 ePc 05 04.60 0.3
pP 05 11.10 22km
BJI 53.60 333 eP 05 16.00 -2.1
1.0s 12.00nm 4.8mb
LZH 57.37 321 eP 05 45.00 -0.7
2.0s 37.00nm 5.1mb
pP 05 52.50 24km
HYB 69.48 291 eP 07 05.00 -0.6
GBA 69.62 287 Pc 07 06.10 -0.4
QUE 82.82 302 eP 08 21.70 0.8
TTA 82.95 23 eP 08 20.50 -0.3
PMR 85.19 26 eP 08 30.20 -1.8
IMA 85.38 21 eP 08 32.80 -0.3
1.4s 11.60nm 4.9mb
TOA 86.69 26 eP 08 39.70 0.2
BRW 87.06 16 eP 08 40.90 -0.1
FBA 87.08 23 eP 08 39.70 -1.6
1.4s 23.30nm 5.2mb
INK 93.50 22 eP 09 10.00 -1.2
YKA 101.22 28 ePdiff 09 45.70 -0.6
1.2s 1.70nm 4.5mb
BCAO 126.17 270 ePKPd 14 59.50 -0.4
0.4s 4.00nm
KIC 149.42 271 PKP 15 46.00 4.3X
LIC 149.70 270 PKP 15 47.00 4.9X
TIC 149.71 271 PKP 15 46.80 4.6X
S.D. = 1.1 on 28 of 32 obs.

* APR 18, 1990 08h 24m 54.12±1.14s
14.789 N ±22.4km 147.906 E ±10.3km
DEPTH = 33.0km (normal)
4.2mb (2 obs.)
MARIANA ISLANDS REGION (215)
GUA 3.16 247 eP 25 42.00 -0.7
eS 26 17.80
GUMO 3.18 248 eP 25 43.00 0.0
PJG 3.18 248 eP 25 42.70 -0.3
WRA 37.00 202 Pc 32 04.70 2.1
0.8s 6.60nm 4.5mb
VUN 44.38 136 iP 33 02.30 -1.2
SVA 44.45 136 iPd 33 03.80 -0.3
YKA 80.44 28 eP 37 04.20 0.4
0.7s 0.90nm 3.9mb
S.D. = 1.3 on 7 of 7 obs.

% APR 18, 1990 09h 01m 55.49±1.04s
39.111 N ±10.9km 27.494 E ±27.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
IZM 0.73 194 ePg 02 10.00 0.1
eSg 02 21.00
EDC 1.27 13 ePn 02 19.00 0.0
BNT 1.29 15 iPn 02 19.00 -0.3
KCT 1.32 30 ePn 02 20.60 0.8
YLV 2.05 44 ePn 02 30.00 -0.5
S.D. = 0.7 on 5 of 5 obs.

& APR 18, 1990 09h 16m 04.71s
62.638 N 143.518 W
DEPTH = 0.0km
CENTRAL ALASKA (1)
<AGS-P>.

TMW 0.73 19 eP 16 18.36 -0.9
SDG 0.94 264 eP 16 22.88 -0.6
eS 16 35.66
PAX 0.96 291 eP 16 22.55 -1.3
eS 16 35.31
DOT 1.04 347 eP 16 24.10 -1.3
eS 16 40.44
GLB 1.21 187 iP 16 27.73 -0.5
iS 16 44.58
TOA 1.35 248 iP 16 30.45 -0.1
eS 16 48.74
DDM 1.57 318 eP 16 34.03 0.1
KLU 1.61 226 iP 16 34.45 -0.1
eS 16 56.36
NCA 1.67 249 eP 16 35.71 0.3
DMW 1.74 326 eP 16 37.24 0.9
VZW 2.14 224 eP 16 42.42 0.2
DWY 2.33 51 P 16 42.50 -2.4
HDA 2.35 321 eP 16 44.45 -0.8
GLI 2.45 226 eP 16 47.55 0.9

RND 2.55 290 eP 16 48.86 0.7
GHO 2.68 253 eP 16 50.95 1.0
WRH 2.75 314 eP 16 52.32 1.4
PLRM 2.84 251 eP 16 53.65 1.5
PMS 3.18 247 eP 17 00.09 3.1
19 obs. associated

? APR 18, 1990 09h 39m 28.01±0.91s
15.080 N ±20.0km 147.589 E ±17.7km
DEPTH = 33.0km (normal)
3.9mb (2 obs.)
MARIANA ISLANDS REGION (215)

PJG 3.03 241 eP 40 14.50 -0.2
eS 40 49.20
GUMO 3.03 241 eP 40 14.80 0.1
WB5 37.09 201 eP 46 37.10 -0.2
WRA 37.16 201 Pc 46 38.00 0.1
1.0s 2.70nm 4.1mb
YKA 80.32 28 eP 51 36.50 -0.5
1.0s 0.80nm 3.7mb
KIC 145.27 306 PKP 59 05.80 0.8
S.D. = 0.6 on 6 of 6 obs.

APR 18, 1990 09h 44m 29.22±0.60s
35.389 N ±6.1km 4.031 W ±5.2km
DEPTH = 10.0km (geophysicist)
4.1mb (1 obs.)
STRAIT OF GIBRALTAR (385)
mbLg 3.9 (MDD).

EMEL 0.88 95 iPg 44 45.20 -0.9
eSg 44 56.60
MAL 1.37 347 iPn 44 53.70 -0.6
iSg 45 11.50
OJEN 1.42 300 iP 44 54.00 -1.1
TAF 1.44 113 iPg 44 57.00 1.5
i 44 58.00
iSg 45 19.00
45 20.00
EJIF 1.58 313 ePn 44 57.00 -0.3
eSn 45 18.00
ALJ 1.81 316 iP 45 00.00 -0.7
EPRU 1.85 329 iPn 45 03.40 2.1
eSn 45 25.20
AFC 1.90 12 ePn 45 03.20 1.1
CNIL 1.91 301 iP 45 03.00 0.9
GIBL 2.12 313 iP 45 06.00 0.9
ENIJ 2.16 42 ePn 45 05.00 -0.7
eSn 45 31.00
EHOR 2.62 338 ePn 45 13.30 1.1
eSn 45 45.20
RBA 2.69 240 ePg 45 24.50 11.1X
eSg 45 51.00
e 45 56.50
EBAN 2.78 4 ePn 45 15.50 0.9
eSn 45 50.00
EVAL 3.10 316 ePn 45 19.00 0.0
eSn 45 54.50
EALH 3.24 40 ePn 45 20.00 -1.0
AVE 3.49 234 iPn 45 25.50 0.9
i 45 30.50
i 45 34.50
i 46 01.00
iSn 46 04.50
i 46 28.00
i 46 32.50
i 46 34.50

TOL 4.48 360 iPnc 45 38.50 -0.3
0.7s 68.49nm
i(Pb) 45 54.00
ePg 45 59.00
iSn 46 30.50
eSb 46 41.00
iSg 46 56.00
EPLA 4.94 341 ePn 45 45.40 0.1
eSn 46 40.80
TIO 5.21 212 iPnd 45 47.50 -1.7
iSn 46 46.50
GUD 5.25 359 ePn 45 49.10 -0.6
ETOR 5.64 15 ePn 45 54.60 -0.6
PTO 6.77 329 iPnd 46 09.50 -1.5
iSn 46 22.70
CLL 20.09 32 e(P) 49 04.00 -1.5
1.5s 14.00nm 4.1mb
OHR 20.29 66 eP 49 10.50 2.7
KSP 21.31 37 eP 49 17.50 -0.7

S.D. = 1.2 on 25 of 26 obs.
? APR 18, 1990 10h 18m 02.95±4.89s
40.475 N ±22.0km 27.789 E ±29.3km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

EDC 0.14 156 iPg 18 06.00 -0.2
iSg 18 08.00
BNT 0.16 140 iPg 18 07.00 0.4
KCT 0.49 117 ePg 18 12.60 -0.3
YLV 1.21 85 iPn 18 25.60 0.0
S.D. = 0.6 on 4 of 4 obs.

APR 18, 1990 10h 33m 48.95±0.24s
57.968 S ±6.7km 10.316 W ±6.1km
DEPTH = 10.0km (geophysicist)
5.2mb (11 obs.) 5.2MsZ (5 obs.)
SOUTHWESTERN ATLANTIC OCEAN (156)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.8.: 11S, 20C
Centroid Location:
Origin Time 10:33:59.2 0.8
Lat 58.75S 0.06 Lon 10.58W 0.18
Dep 15.0 FIX Half-duration 2.0
Moment Tensor: Scale 10**17 Nm
Mrr=-0.22 0.06 Mtt= 0.33 0.07
Mff=-0.10 0.06 Mrt= 0.00 0.00
Mrf= 0.00 0.00 Mtf= 1.58 0.10
Principal Axes:
T Vol= 1.70 Plg= 0 Azm=139
N -0.22 90 180
P -1.48 0 49
Best Double Couple: Mo=1.6*10**17
NP1: Strike=184 Dip=90 Slip=-180
NP2: 274 90 0

SPA 32.21 180 iPd 40 17.40 -1.6
1.1s 266.67nm 6.1mb
Z 20s 5.81um 5.3MsZ
i 43 07.60
MAW 32.79 137 iPd 40 25.30 1.5
POF 35.44 49 eP 40 47.50 0.6
1.0s 20.00nm 4.9mb
HVD 36.75 57 eP 41 10.50 12.3X
BLF 38.34 57 iPc 41 12.00 0.4
SEK 39.65 58 iPc 41 23.50 0.9
1.0s 30.00nm 4.9mb
PRY 40.78 57 eP 41 32.50 0.6
0.8s 9.38nm 4.6mb
KSR 41.45 55 eP 41 35.00 -2.4
0.8s 25.00nm 5.0mb
SLR 42.18 57 eP 41 42.80 -0.5
0.9s 58.82nm 5.3mb
Z 20s 4.26um 5.3MsZ
i 41 48.00
SBA 44.42 179 P 42 01.30 0.5
VNDA 44.69 178 e(P) 42 02.20 -0.7
CHCH 46.41 274 eP 42 18.00 0.8
PCH 46.58 275 iPc 42 19.80 1.2
TACH 46.78 274 iP 42 20.50 0.4
SAN 46.79 275 iPc 42 19.80 -0.3
LNV 46.80 273 eP 42 20.00 -0.2
DRV 53.73 166 eP 43 13.00 0.4
SIV 56.22 296 P 43 30.00 -1.4
LPB 59.21 289 P 43 53.00 0.0
Z 22s 2.22um 5.2MsZ
LR 02 10.00
ZOBO 59.45 289 Pc 43 54.00 -0.8
1.0s 33.75nm 5.4mb
Z 20s 0.99um 4.9MsZ
S 52 12.00
LR 02 34.00
ARE 61.00 286 eP 44 04.00 -1.0
LIC 64.12 6 P 44 24.70 -0.7
Z 20s 1.20um 5.1MsZ
KIC 64.27 6 P 44 25.50 -0.8
TIC 64.54 6 P 44 27.40 -0.7
BCAO 66.39 32 iPd 44 39.30 -0.7
0.7s 18.00nm 5.4mb
i 45 08.00
LKO 67.39 5 P 44 47.74 1.4
NNA 67.52 284 iPc 44 47.80 0.5
1.0s 20.00nm 5.3mb
ADE 83.83 155 eP 46 18.20 -1.4
1.2s 50.00nm 5.6mb

CAN 85.45 163 eP 46 29.00 1.3
 BWA 86.24 163 eP 46 30.70 -1.0
 WRA 97.01 147 P 47 21.80 -0.2
 0.9s 5.70nm 5.2mb
 WB5 97.08 147 eP 47 22.00 -0.3
 DMN 115.77 79 PKP 52 33.20 0.1
 PKI 115.90 79 PKP 52 33.20 -0.3
 KKN 116.01 79 PKP 52 32.80 -0.7
 NB2 119.86 12 PKP 52 40.30 0.7
 1.0s 4.10nm
 NUR 121.28 19 ePKP 52 44.00 1.8
 ALO 121.96 286 ePKP 52 44.00 -0.6
 1.0s 2.75nm
 RSSD 127.73 295 ePKP 52 54.50 -1.0
 pP 53 05.00
 SOD 127.98 17 iPKP 52 55.50 0.6
 FRB 129.28 331 ePKP 52 58.00 0.6
 BW06 129.46 290 ePKP 52 57.70 -1.2
 pP 53 08.10
 PRI 130.31 276 e(PKP) 53 01.50 1.0
 FRI 130.44 277 ePKPd 53 02.00 1.5
 KVN 131.12 280 ePKP 53 02.30 0.2
 CMB 131.57 278 e(PKP) 53 03.40 0.6
 LRM 133.09 291 ePKP 53 06.80 1.1
 FFC 134.28 306 ePKP 53 08.00 0.7
 1.3s 21.00nm
 WDC 134.57 278 e(PKP) 53 07.50 -0.8
 BJI 141.77 94 ePKP 53 18.00 -3.6X
 YKA 144.14 310 ePKP 53 20.70 -4.2X
 0.9s 29.70nm
 MBC 149.67 333 ePKPc 53 39.50 5.9X
 1.3s 48.00nm
 MTMJ 150.04 122 PKP 53 40.50 5.1X
 CHJJ 150.13 124 PKP 53 40.50 5.0X
 MAT 150.19 122 ePKP 53 40.00 4.4X
 KAKJ 150.78 125 iPKP+ 53 43.00 6.6X
 NIJJ 151.12 123 PKP 53 44.10 7.2X
 INK 153.38 316 ePKP 53 47.00 7.9X
 S.D. = 1.0 on 48 of 58 obs.

% APR 18, 1990 11h 31m 41.49±0.75s
 40.451 N ± 6.1km 23.092 E ± 6.5km
 DEPTH = 5.0km (geophysicist)
 GREECE (364)
 THE 0.21 332 P 31 45.30 -0.4
 e 31 48.40
 LIT 0.58 233 P 31 53.30 0.2
 OUR 0.69 99 P 31 55.60 0.3
 e 32 06.40
 PAIG 0.69 139 P 31 54.90 -0.4
 KNT 0.73 348 P 31 56.20 0.2
 S.D. = 0.5 on 5 of 5 obs.

APR 18, 1990 11h 34m 39.94±0.72s
 35.302 N ± 7.3km 4.006 W ± 7.5km
 DEPTH = 10.0km (geophysicist)
 STRAIT OF GIBRALTAR (385)
 mbLg 3.2 (MDD).
 EMEL 0.86 90 iPg 34 56.20 -0.3
 eSg 35 07.80
 TAF 1.39 110 iPg 35 07.00 1.5
 i 35 10.00
 iSg 35 30.00
 MAL 1.46 347 ePn 35 07.00 0.7
 iSg 35 19.00
 EPRU 1.93 330 ePn 35 14.90 1.7
 eSn 35 39.00
 ENIJ 2.21 40 ePn 35 15.90 -1.3
 eSn 35 41.70
 EHOR 2.70 339 ePn 35 23.50 -0.7
 eSn 35 56.00
 AVE 3.46 236 eP 35 35.00 0.1
 i 35 41.00
 i 35 43.50
 eSn 36 10.50
 i 36 14.50
 i 36 19.50
 i 36 30.00
 TOL 4.57 360 ePn 35 50.00 -0.7
 eSn 36 50.00
 eSb 37 23.00
 iSg 37 43.00
 TIO 5.15 213 iPn 35 58.00 -1.0
 iSn 36 56.40
 S.D. = 1.3 on 9 of 9 obs.

APR 18, 1990 11h 37m 04.93±2.10s
 36.028 N ± 16.2km 21.925 E ± 15.5km
 DEPTH = 10.0km (geophysicist)
 SOUTHERN GREECE (368)
 VLI 1.07 50 ePb 37 25.30 0.3
 ITM 1.15 0 ePg 37 27.00 0.6
 VAM 1.95 108 ePn 37 38.50 0.1
 APE 3.08 69 ePb 38 00.60 6.0X
 NEO 3.43 17 ePn 37 59.30 -0.2
 KEK 4.04 336 ePn 38 07.90 -0.3
 OHR 5.15 350 eP 38 25.20 1.2
 VAY 5.31 5 eP 38 24.50 -1.6
 S.D. = 1.1 on 7 of 8 obs.

APR 18, 1990 13h 05m 43.50±0.64s
 30.768 N ± 5.5km 51.460 E ± 13.8km
 DEPTH = 60.9 ± 14.3 km
 IRAN (348)
 IR4 4.48 354 eP 06 51.00 0.4
 IR5 4.49 351 eP 06 54.00 3.3X
 BBU 4.62 191 ePn 06 52.50 0.2
 eSn 07 44.30
 BEE 4.81 190 iPn 06 55.10 0.1
 eSn 07 48.20
 BJA 4.82 189 ePn 06 54.90 -0.3
 IR7 4.97 352 eP 06 57.00 -0.5
 MAIO 8.68 48 eP 07 49.00 0.0
 OHR 26.76 301 eP 11 19.50 0.2
 KIC 57.86 257 P 15 31.40 -0.1
 S.D. = 0.4 on 8 of 9 obs.

APR 18, 1990 13h 22m 20.99±0.68s
 11.536 S ± 6.6km 114.844 E ± 12.8km
 DEPTH = 33.0km (normol)
 3.4mb (1 obs.)
 SOUTH OF BALI ISLAND (284)
 HKKI 3.24 14 eP 23 10.50 -0.2
 eS 23 44.20
 e 26 51.00
 TRT 4.39 330 ePd 23 27.20 0.2
 iS 24 17.10
 MBL 10.70 154 iPd 24 50.80 -4.3X
 iS 26 39.00
 NANU 10.98 177 eP 24 58.40 -0.6
 eS 26 52.00
 MRWA 17.63 177 eP 26 26.00 0.3
 eS 29 30.00
 WARB 18.34 144 eP 26 35.00 0.4
 WRA 20.53 116 P 26 59.00 -0.4
 0.7s 1.20nm 3.4mb
 WB5 20.53 116 eP 26 59.60 0.2
 S.D. = 0.5 on 7 of 8 obs.

% APR 18, 1990 13h 31m 59.03±0.84s
 60.299 N ± 6.5km 5.372 E ± 11.8km
 DEPTH = 10.0km (geophysicist)
 SOUTHERN NORWAY (535)
 MD 1.3 (BER).
 BER 0.09 347 iP 32 01.78 0.2
 eS 32 03.82
 ASK 0.20 335 iP 32 02.52 -1.0
 eS 32 05.34
 ODD1 0.74 121 eP 32 12.70 -0.9
 eS 32 22.87
 HYA 0.96 24 iPc 32 18.20 1.0
 iS 32 32.22
 KMY 1.09 183 eP 32 20.18 0.7
 eS 32 35.73
 BLS1 1.17 141 eP 32 20.90 -0.1
 eS 32 36.30
 S.D. = 1.0 on 6 of 6 obs.

APR 18, 1990 13h 37m 57.20s
 36.910 N 121.652 W
 DEPTH = 8.0km
 4.3mb (1 obs.)
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 4.4 (BRK).
 Mo=1.0*10**16 Nm (BRK). Felt in
 the Watsonville area.
 SAO 0.22 131 iPd 38 01.40 -0.4

GCC 0.30 294 iPc 38 03.00 -0.4
 MHC 0.43 1 iPd 38 06.05 0.1
 ARN 0.45 12 iPc 38 06.30 0.0
 PRS 0.62 158 iPd 38 08.80 -0.9
 LLA 0.64 117 iPd 38 09.60 -0.4
 PCC 0.83 316 iPc 38 12.20 -1.2
 BKS 1.07 334 iPc 38 15.90 -1.6
 BRK 1.08 333 ePc 38 15.80 -1.8
 PRI 1.10 134 iPd 38 17.60 -0.6
 ZSP 1.14 335 iPc 38 17.50 -1.2
 PHAM 1.47 136 eP 38 22.40 -1.7
 PKEM 1.50 124 eP 38 23.90 -0.6
 CMB 1.51 42 ePd 38 23.50 -1.1
 FRI 1.56 86 ePc 38 23.50 -1.7
 NWRM 1.83 328 e(P) 38 25.80 -3.3
 BCH 2.14 143 eP 38 31.30 -2.5
 ORV 2.64 3 ePc 38 39.20 -1.7
 ABL 2.85 135 eP 38 41.30 -2.7
 KVN 3.53 52 eP 38 52.00 -1.6
 TNP 3.72 70 eP 38 55.50 -0.8
 WDC 3.73 350 eP 38 53.30 -3.0
 LON 9.83 359 eP 40 23.00 1.1
 LRM 11.26 35 eP 40 49.40 7.7
 ALO 12.47 95 e(P) 41 00.00 1.9
 GOL 13.09 73 eP 41 14.50 8.2
 SES 15.49 26 eP 41 31.00 -6.5
 FFC 22.35 31 eP 43 06.00 9.2
 1.0s 13.00nm 4.3mb
 28 obs. associated

APR 18, 1990 13h 38m 12.00s
 36.910 N 121.652 W
 DEPTH = 8.0km
 4.1mb (3 obs.)
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 4.9 (BRK). Hypocenter
 held to location of previous
 event.
 MHC 0.43 1 iPd 38 18.65 -2.1
 BKS 1.07 334 eP 38 30.80 -1.5
 ZSP 1.14 335 iPc 38 32.70 -0.8
 PNT 12.49 6 eP 41 12.00 -0.8
 0.6s 3.00nm 4.7mb
 RSON 24.32 46 eP 43 30.00 -0.9
 0.8s 4.01nm 4.1mb
 YKA 25.98 7 eP 43 49.50 3.0
 1.2s 2.10nm 3.7mb
 MBC 39.44 1 eP 45 43.00 -0.7
 FRB 41.45 33 eP 46 01.00 0.7
 8 obs. associated

APR 18, 1990 13h 39m 19.01±0.12s
 1.186 N ± 3.1km 122.857 E ± 3.7km
 DEPTH = 25.7km (geophysicist)
 6.2mb (57 obs.) 7.4Msz (20 obs.)
 MINAHASSA PENINSULA (265)
 Ms 7.3 (BRK). Mo=2.0*10**20 Nm
 (PPT). At least 3 people killed
 and 25 people injured. More than
 1,140 houses damaged in the
 Bolaang-Gorontalo area. Felt
 strongly throughout the
 Minohossa Peninsula. Also felt
 in central Sulawesi. Two events
 about 4.5 seconds apart. Depth
 from broadband displacement
 seismograms, based on second
 event.
 FAULT PLANE SOLUTION: P-Waves
 NP1: Strike=255 Dip=70 Slip= 90
 NP2: 75 20 90
 Principal Axes:
 T P1g=65 Azm=165
 P 25 345
 Comment: The focal mechanism is
 poorly controlled and
 corresponds to reverse
 faulting. The preferred fault
 plane is NP2.
 RADIATED ENERGY
 No. of sto: 9 Focal mech. M
 Energy 1.4±0.4*10**15 Nm
 MOMENT TENSOR SOLUTION
 Dep 48 No. of sto: 11
 Moment Tensor: Scale 10**20 Nm
 Mrr= 0.62 Mtt= 0.06

18d 13h

Mff=-0.68	Mrt=-0.75	KDB	26.42 114 eP	44 55.00 -0.7	SAP	44.84 19 eP	47 33.00 0.1
Mrf= 0.20	Mtf=-1.03	QIS	27.13 144 iPd	45 00.10 -2.1		eS	54 14.00
Principal axes:		WARB	27.45 173 eP	45 04.30 -0.8	GKN	45.24 310 P	47 36.00 -0.5
T Val= 1.45	Plg=42	MEKA	27.95 188 eP	45 17.40 7.8X	KOD	45.99 283 eP	47 43.50 0.7
N 0.00	46 47	CHG	29.27 308 eP	45 22.40 0.8		iS	54 32.00
P -1.44	8 308	RAB	29.77 100 iPc+	45 26.00 -0.2	HYB	46.43 293 iPd	47 46.50 0.6
Best Double Couple:Mo=1.4*10**20			iS	50 24.00		1.0s 585.00nm	6.5mb
NP1:Strike=358 Dip=55 Slip= 27		SSE	29.79 357 P-	45 25.00 -1.0		eS	54 08.00
NP2: 252 68 141			2.0s 907.00nm	6.2mb	HIA	47.97 357 ePd	47 56.10 -1.4
CENTROID, MOMENT TENSOR (HRV)		N 19s	25.50um		DZM	48.39 121 iPc	48 01.30 0.0
Data Used: GDSN		E 15s	21.80um		PVC	48.53 115 iPd	48 03.50 1.2
L.P.B.: 14S, 35C M.W.: 13S, 34C			pP	45 35.00 35kmX	YSS	48.02 18 iPd	48 02.50 -1.6
Centroid Location:			sP	45 40.50		iS	55 06.30
Origin Time 13:39:35.8 0.2			PPP	46 25.00	TAU	49.11 156 eP	48 04.70 -1.6
Lat 1.31N 0.01 Lon 123.35E 0.02			S	50 14.00		ec	48 10.66 20kmX
Dep 33.2 0.9 Half-duration 20.0		KMI	30.72 322 P	45 35.50 0.9		ed	48 19.59
Moment Tensor: Scale 10**20 Nm		MRWA	30.94 192 eP	45 34.30 -1.9		ed	48 22.41
Mrr= 2.73 0.05 Mtt=-2.47 0.03		CTA	31.19 134 iP	45 39.00 0.4	POO	51.04 293 iPc	48 22.20 0.6
Mff=-0.25 0.03 Mrt=-1.76 0.12			1.6s 700.00nm	6.3mb		0.8s 135.82nm	5.9mb
Mrf=-1.10 0.12 Mtf= 0.32 0.02			i	45 46.00 24kmX		iS	55 40.00
Principal Axes:			i	46 08.00	NDI	51.39 306 eP	48 23.50 -0.6
T Val= 3.61	Plg=66		ePcP	48 59.00		eS	55 48.00
N -0.59	16 265		e(S)	50 09.00	WMQ	52.71 328 eP	48 34.45 0.6
P -3.02	17 0		e	55 25.00		eS	56 05.07
Best Double Couple:Mo=3.3*10**20			e	57 14.00	IRK	53.22 346 iPd	48 36.00 -1.4
NP1:Strike=112 Dip=31 Slip= 122		CTAO	31.19 134 ePc	45 38.66 0.1		eS	56 08.00
NP2: 257 64 73			ec	45 42.13 12kmX	NDF	56.92 112 eP	49 05.90 1.1
GEOSCOPE MOMENT TENSOR (PAR)			ed	45 50.41	SGE	57.32 112 eP	49 08.60 0.8
Dep 15.0 Half-duration 10.0			ed	45 52.89	VUN	57.92 112 eP	49 12.10 0.3
Best Double Couple:Mo=6.0*10**20		COOL	31.93 183 eP	45 43.00 -2.0	TLG	58.25 322 eP	49 15.30 1.5
NP1:Strike=121 Dip=16 Slip= 146		BAL	32.15 190 eP	45 45.00 -1.9		eS	57 31.00
NP2: 244 81 77		FORR	32.25 172 iPd	45 45.30 -2.3	PET	59.58 24 iPd	49 23.00 0.2
		KLB	32.96 188 eP	45 53.00 -0.8		eS	57 36.00
TSM	5.65 302 iPd	MUN	33.58 190 eP	45 57.00 -2.3	FRU	59.75 321 ePc	49 24.00 -0.2
0.2s 427.70nm	40 44.20 0.6	NWAO	34.34 188 eP	46 05.00 -0.8		iS	57 27.00
DAV	6.46 25 iP-	SHK	34.42 14 ePd	46 05.50 -1.0	QUE	60.30 304 iP-	49 28.00 -0.4
KKM	8.20 306 ePd	RMQ	37.16 140 iPc	46 29.60 -0.3		1.5s 550.00nm	6.5mb
0.7s 185.50nm	41 17.50 -1.9		e	46 36.00 22kmX		eS	58 06.80
	e 43 27.00	MAT	37.94 20 eP	46 33.00 -3.3X	MSZ	60.69 145 P	49 29.90 -0.6
KHKI	11.93 217 ePc		2.0s 1041.18nm	6.3mb	MMCZ	61.59 144 eP	49 36.10 -0.7
PGP	12.38 351 ePd		eS	52 27.00	TLC	61.66 145 P	49 37.10 -0.2
	eS 43 02.00	SHL	38.46 312 iP	46 40.80 -0.2	MHZ	61.71 144 P	49 37.00 -0.6
TRT	13.49 229 iPd		eS	52 22.00	DSH	61.80 314 iPc	49 38.00 -0.3
1.1s 658.90nm	42 30.70 -0.6	ADE	38.91 159 iPc+	46 44.30 -0.2		eS	58 00.00
	eS 44 36.60	LZH	38.95 335 Pd	46 44.30 -0.6	WLZ	62.17 135 P	49 42.10 1.4
MAN	13.50 353 P		2.5s 603.00nm	5.9mb	THZ	62.18 140 P	49 40.40 -0.4
BAG	15.29 352 iPd-	N 17s	625.00um		LTZ	62.29 141 P	49 41.70 0.3
	2.1s 3213.33nm		i	46 54.00 33kmX	CNZ	62.75 136 P	49 45.60 1.0
MTN	16.18 150 eP		sP	47 07.00	NGZ	62.77 136 P	49 46.00 1.2
SZP	16.43 352 eP		i	47 24.00	TCW	62.81 138 P	49 43.30 -1.5
	eS 44 31.00		PP	48 28.00	KHZ	62.92 140 P	49 45.20 -0.3
CVP	16.45 357 eP		PPP	48 52.00	MCO	62.97 157 eP	49 51.00 5.4X
	eS 43 47.00		iS	52 50.00	TAZ	63.00 135 P	49 47.40 1.3
PIP	17.17 353 eP		sS	53 20.00	MQZ	63.01 142 eP	49 46.90 0.8
0.7s 155.00nm	43 18.00 -0.9		SS	56 04.00	MRW	63.11 138 P	49 45.20 -1.5
	eS 44 02.50	CMS	39.13 148 eP	46 47.00 0.7	WEL	63.17 138 P	49 46.50 -0.7
KNA	17.81 161 eP		e	46 51.00 14kmX	WHH	63.27 135 eP	49 48.20 0.2
KGM	19.55 273 ePd	BJI	39.15 352 ePd	46 46.17 -0.1	CAW	63.29 138 P	49 47.30 -0.7
1.0s 776.10nm	43 50.10 0.2		1.5s 930.00nm	6.3mb	WDW	63.32 138 P	49 46.90 -1.3
	e 44 51.00	N 18s	260.60um		MNG	63.34 137 P	49 47.20 -1.2
KLM	21.28 275 ePc		eS	52 49.51		0.8s 305.00nm	6.5mb
MNDI	22.01 110 eP		eS	52 51.71	MOW	63.56 138 P	49 49.10 -0.7
IPM	22.06 279 ePd		eSS	55 16.14	MTW	63.60 138 P	49 49.40 -0.7
1.3s 347.20nm	44 15.90 2.1	BRS	40.44 137 iPd-	46 56.80 -0.4	BLW	63.68 138 P	49 49.90 -0.7
	e 44 25.10 33kmX		i	47 03.10 21kmX	TTT	63.79 136 P	49 52.10 0.8
	e 45 52.20		i	47 23.10	PGZ	63.88 137 P	49 50.60 -1.3
MBL	22.40 187 eP		i(PcP)	49 04.10		0.8s 249.00nm	6.4mb
HKC	22.63 339 iP		e	02 28.00	HBZ	64.03 133 eP	49 51.70 -1.2
	iS 47 24.00	COO	41.97 141 eP	47 11.00 1.2		0.9s 510.00nm	6.7mb
MCO	22.69 337 eP	BWA	42.78 148 eP	47 18.20 1.9	PUZ	64.19 134 P	49 53.90 -0.1
WB5	23.79 152 iPc	CAN	43.77 149 eP	47 24.90 0.6	NOZ	64.25 134 P	49 54.50 0.2
WRA	23.83 152 Pd	RIV	43.83 145 eP+	47 24.00 -0.8	AFI	66.44 106 eP	50 11.00 2.1
0.7s 239.00nm	44 32.20 1.1		e	47 32.00 27kmX		eS	59 00.00
ANP	23.89 357 iP		e	49 00.00	SMY	66.61 31 eP	50 11.70 2.4
NANU	24.66 196 iPd		eS	54 00.00		20s 205.00um	7.3MsZ
GUMO	25.03 59 eP	TOO	43.88 154 eP	47 26.00 0.8	MAIO	68.02 309 iPc+	50 19.00 0.3
1.1s 612.49nm	44 41.60 -1.1		e	47 31.00 17kmX		1.0s 147.50nm	6.1mb
	pP 44 47.50 21kmX		e	49 08.00		eS	59 20.00
	e 45 00.80	CNB	43.96 148 eP	47 27.00 1.1	DRV	68.79 173 iPd	50 23.40 0.7
PJG	25.03 59 eP		e	47 37.00 34kmX	TIK	70.45 2 eP	50 30.50 -2.2
GUA	25.04 60 eP		eS	54 04.00		eS	59 40.50
1.0s 1288.00nm	44 42.30 -0.6		e	57 28.00	ADK	71.24 35 eP	50 40.00 2.1
LAT	25.32 108 eP		eS	47 28.00 -0.7		20s 200.00um	7.4MsZ
NNT	25.57 297 eP	GUN	44.24 310 P	47 30.00 -0.2	BJA	73.54 297 iP	50 52.20 0.2
	e 59 45.00	PKI	44.43 310 P	47 31.60 -0.2		0.9s 828.00nm	6.8mb
LOE	26.30 309 eP	KKN	44.64 310 P	47 32.40 0.2	BEE	73.62 297 iP	50 52.30 -0.2
PMG	26.39 114 P	DMN	44.69 309 P			0.7s 317.00nm	6.5mb

BBU	73.70	297	iP	50	53.00	0.0	SIM	88.28	315	ePc	52	09.00	-0.6	DEV	96.09	316	ePc	52	49.00	3.2X
	0.6s	177.00nm				6.3mb				iS	02	50.00		UZH	96.09	319	iPd	52	47.00	1.3
DHR	74.00	297	eP	50	54.20	-0.5	TVO	88.35	108	iS	52	15.10	4.6X			eS	03	20.00		
TEH	74.31	307	eP	50	55.00	-1.5		1.3s	260.00nm				6.4mb	BLF	96.41	241	iPc	52	49.90	2.1
IR4	74.61	306	iPc	50	58.50	0.2	FAM	88.39	305	eP	52	16.50	6.1X	KKB	96.49	312	iPc	52	46.00	-1.7
IR2	74.69	307	iPd	50	58.50	-0.2	KAS	88.54	311	eP	52	12.00	0.9	VAY	96.95	312	iPDIF	52	47.50	-2.2
IR5	74.87	306	iP	51	00.20	0.4	COL	88.66	25	eP	52	11.98	0.9		1.7s	314.00nm			6.6mb	
IR7	74.93	307	iPc	51	00.00	-0.1			eHPP	55	29.83			TIM	97.27	316	iPd	52	58.00	6.9X
RYD	77.01	295	iPd	51	11.00	-1.0			ePP	55	31.49			SPC	97.34	320	e(P)	52	52.60	1.0
ILT	77.47	19	iPc	51	13.50	0.0			e	02	43.22			Z	16s	149.80um			7.6MszX	
			iS	01	02.00		FBA	88.66	25	eP	52	09.50	-1.6			i	53	05.70	43kmX	
KER	77.58	305	ePc	51	13.00	-2.0	APA	88.73	337	eP	52	09.20	-2.1			i	53	24.80		
RAR	78.66	112	P	51	24.00	3.0X	LFK	88.77	305	iP	52	12.20	-0.1	KRA	97.37	321	eP	52	50.70	-0.8
			S	00	24.00		CSS	88.94	305	eP	52	12.50	-0.6		1.5s	195.00nm			6.4mb	
TAB	78.67	308	iP+	51	21.00	0.0	ANTO	89.30	310	ePc	52	13.23	-1.5		Z	22s	133.00um			7.4Msz
KMSA	78.68	290	ePd	51	19.90	-1.3			ec	52	17.87	15kmX		E	22s	108.00um				
SLY	79.03	306	ePd	51	22.50	-0.3			ed	52	25.48					e	53	00.90	32kmX	
			iPcP	51	34.00		BBTK	89.32	310	eP	52	15.00	0.1			i	53	08.70		
			iPP	54	22.00		TOA	89.42	28	eP	52	14.50	-0.3	SKO	97.69	312	ePDIF	52	51.10	-2.0
			iPPP	55	54.00		PMO	89.57	105	iP	52	20.00	3.7X			i	53	04.30	44kmX	
			eS	01	06.00			1.3s	440.00nm				6.6mb			i	53	28.00		
			iScS	01	36.50		PPCY	89.75	305	eP	52	24.50	7.7X	PSZ	97.80	319	eP	52	53.00	-0.5
			iSS	06	29.00		VAH	89.84	105	iP	52	21.00	3.5X	BEO	97.95	315	eP	52	57.00	2.8X
KIP	79.45	69	ePd	51	29.24	4.0X		1.3s	440.00nm				6.5mb	OHR	98.30	312	ePDIF	52	55.00	-0.9
HON	79.45	69	eP	51	30.40	5.2X	TPT	89.84	105	iP	52	21.10	3.6X		0.7s	23.00nm			5.8mb	
			ed	51	37.85	24kmX		1.3s	550.00nm				6.6mb			e	53	10.50	53kmX	
OPA	79.46	68	P	51	27.00	1.7	RUV	90.07	105	iP	52	22.10	3.5X	HFS	98.42	331	eP	52	53.50	-2.5
BHD	79.71	303	iPd	51	27.50	1.0		1.3s	330.00nm				6.4mb		0.8s	8.40nm			5.3mb	
			ePcP	51	40.00		PUL	90.27	330	eP	52	18.00	-0.6		Z	20s	240.69um			7.7Msz
			ePP	54	32.00				eS	02	42.00					LR	36	58.00		
			eS	01	20.00		HLW	90.73	300	iP+	52	21.80	0.3	BUD	98.46	318	e(P)	52	58.00	1.6
			iScS	01	45.00		KEV	90.93	340	eP	52	24.39	2.8	SRO	98.86	319	eP	53	08.20	10.0X
			iSS	06	45.00				ed	52	32.01	24kmX				i	53	32.30	89kmX	
			iSSS	09	48.00				eS	03	15.99					e	09	51.70		
QASM	79.89	296	ePd	51	26.70	-1.0	BCK	91.09	307	eP	52	20.00	-3.1X	RGS	98.95	335	eP	53	09.00	10.7X
ARO	79.98	281	iP+	51	29.00	0.7	SPA	91.18	180	iPc	52	22.10	-0.9	TTG	99.22	313	eP	53	06.50	6.6X
MAW	80.06	200	iPd-	51	28.90	1.3		1.2s	284.51nm				6.5mb			eS	03	06.00		
MSL	Z	20s	219.00um			7.5Msz	GPA	91.19	310	eP	52	23.00	-0.4	NB2	99.29	333	P	52	58.00	-2.0
	81.01	306	ePd	51	32.50	-0.9	SOD	91.32	337	iP	52	21.80	-1.6		1.1s	77.50nm			6.1mb	
			iPcP	51	44.80	634kmX			i	52	33.00	35kmX	KSP	99.49	322	eP	53	00.00	-1.0	
			e	53	45.00		ALT	91.40	309	eP	52	23.00	-1.5		1.5s	177.00nm			6.4mb	
			eS	01	23.50		HRT	91.65	311	eP	52	26.00	0.5			id	53	19.20	68kmX	
			eScS	01	41.50		ELL	91.67	307	eP	52	25.50	-0.3			i	53	35.70		
			ePS	02	33.50		GBZT	91.82	311	eP	52	25.50	-0.8			e	57	12.00		
			e	03	45.50		YLV	91.89	310	eP	52	25.30	-1.4	ZST	99.58	319	eP	53	03.80	2.3
ANM	81.16	25	eP	51	34.00	0.4	KHL	91.89	308	eP	52	26.00	-0.8		Z	17s	105.70um			7.4MszX
SDN	81.44	34	eP	51	34.50	-0.6	ISK	92.10	311	eP	52	31.00	3.5X			i	53	14.50	33kmX	
SBA	82.39	171	iPc+	51	42.10	2.4	ITU	92.13	311	iPc	52	28.00	0.4			i	53	31.00		
			S	02	02.00		CFR	92.49	315	eP	52	28.00	-1.2			i	57	08.10		
TAIF	82.58	291	eP	51	42.70	0.6	CTT	92.57	311	eP	52	31.00	1.3			i	57	31.30		
AAE	83.98	279	iP	51	52.00	2.5	IAS	92.75	317	eP	52	36.00	5.7X			e	08	09.90		
NPA	84.13	255	iP	51	52.10	2.3	BIR	92.78	316	eP	52	40.00	9.5X	SOP	100.05	319	ePdiff	53	10.00	6.4X
	1.0s	570.00nm				6.8mb	PPE	92.79	316	eP	52	32.00	1.4	VKA	100.07	319	e(Pdiff	53	07.50	3.7X
			i	52	57.10	272kmX	KBS	92.81	350	eP	52	34.00	3.9X		Z	22s	69.00um			7.1Msz
			e	02	25.20		BNT	93.01	310	eP	52	32.00	0.2			iPp	53	17.30		
			e	07	28.10		NUR	93.02	331	eP	52	30.00	-1.3			i	56	57.20		
									e	52	40.00	31kmX			iPP	57	14.50			
SVW	84.86	29	eP	51	54.30	1.7			i	52	49.60				i	57	32.50			
TTA	84.91	27	eP	51	53.70	0.8	EDC	93.05	310	eP	52	35.00	3.1X			iPPP	59	21.20		
SHBJ	85.38	302	Pc	51	57.00	1.1	VRI	93.43	316	ePc	52	32.00	-1.6			i	02	52.00		
QTFJ	85.45	302	Pc	51	56.40	0.2	PTT	93.57	317	eP	52	35.00	0.8			i	03	27.90		
BRW	85.80	19	eP	51	58.60	1.5	ISR	93.63	315	eP	52	40.00	5.4X			i	03	45.00		
KDC	86.14	32	eP	51	59.20	0.2	IZM	93.66	308	iP	52	33.00	-1.3			i	04	04.00		
WAJH	86.15	296	eP	52	09.00	9.3X	TRO	93.73	340	eP	52	47.00	12.6X			LR	40	03.00		
IMA	86.26	24	eP	52	00.10	0.4	JMB	93.84	313	iPc	52	35.00	-0.5	KONO	100.53	332	ePdiff	53	08.03	2.5
MDSJ	86.49	301	Pc	52	01.90	0.5	INK	93.93	21	eP	52	35.00	-0.4			ed	53	15.48		
AYN	86.68	299	eP	52	02.70	0.5		1.2s	186.00nm				6.4mb	PRU	100.78	321	ePdiff	53	08.00	1.1
KVT	86.82	311	iP	52	03.50	0.7	BUC	94.01	314	ePd	52	38.00	1.8		Z	26s	132.20um			7.3MszX
BURJ	86.88	302	Pc	52	03.00	-0.3	MLR	94.02	316	ePc	52	35.50	-1.0		N	26s	103.40um			
OBN	86.89	325	iPc	52	02.00	-0.7	BUC1	94.07	314	ePc	52	36.00	-0.5		E	26s	179.70um			
	Z	30s	202.00um			7.3MszX	SLR	94.64	244	iPc+	52	39.00	-0.7			e	53	17.20		
			iS	02	20.00			1.1s	126.58nm				6.3mb	PTJ	100.85	317	e(Pdiff	53	03.90	-3.5X
SHMJ	86.92	303	Pd	52	04.90	1.5			i	53	01.00	80kmX		ZAG	100.85	317	e(Pdiff	53	05.50	-1.8
HRI	86.94	303	eP	52	04.00	0.4	DIM	94.66	312	eP	52	40.00	0.7			i	57	28.10		
LISJ	87.14	301	Pc	52	05.70	1.3	CMP	94.67	315	ePc	52	38.00	-1.4	BRG	100.92	322	ePdiff	53	09.40	2.0
DSI	87.23	301	eP	52	05.00	0.1	PVL	94.69	313	eP	52	39.00	-0.4		1.4s	29.00nm			5.6mb	
HOL	87.51	299	ePd	52	06.80	0.5	KDZ	94.79	312	eP	52	41.00	1.1			e	53	14.30		
MBH	87.66	300	eP	52	06.00	-1.0	SEK	95.17	242	iPd	52	42.60	0.5			i	53	25.50		
AFR	87.84	107	iP	52	12.80	4.8X		1.0s	90.00nm				6.2mb			i	53	41.60		
	1.3s	110.00nm				6.0mb			i	01	48.50				i	57	37.00			
PMR	88.01	29	eP	52	08.00	0.0	MBC	95.25	12	eP	52	41.50	0.1			i	57	59.20		
	Z	20s	110.00um	</																

18d 13h

BRN	100.94	324	ePdiff53	09.00	1.6	BOB	105.58	317	Pdiff 53	45.00	16.6X	Z	20s	159.57um	7.7Msz			
CLL	101.37	323	ePdiff53	09.00	-0.4	DBN	105.68	325	ePdiff53	24.00	-4.6X	ANMO	121.58	47	ePdiff54	47.55	7.5X	
	1.7s	21.00nm			5.4mb							Z	20s	159.57um		7.7Msz		
Z	20s	120.00um			7.4Msz				ePP	58	08.00				iHPP	59	43.84	
			e	53	17.00				ePKS	00	52.00				iPP	59	44.51	
			eSKS	03	51.00				eSKS	04	14.00				eSKS	05	13.09	
			eS	04	50.00				eSS	13	20.00				eSKKS	06	50.09	
KMR	101.54	320	ePdiff53	07.00	-3.3X	VAI	105.69	319	Pdiff 53	42.00	13.3X				eSDIF	07	42.61	
			i	53	17.30	ENN	105.77	324	ePdiff53	48.00	19.0X	ALO	121.58	47	e(PKP)	58	10.00	-2.8
			i	53	24.00				ePP	58	02.00	Z	22s	185.19um			7.7Msz	
			iPP	57	25.00				eSP	09	10.00	AVE	122.01	311	ePKP	58	21.00	7.6X
			iPPP	59	32.80	MEM	105.78	324	ePdiff53	43.80	14.8X				i	58	35.50	
			iPS	06	29.80	CDF	105.80	321	ePdiff53	35.40	6.0X				i	59	24.00	
KHC	101.61	321	ePdiff53	10.20	-0.5				1.6s	37.30nm	6.1mb	TEGH	122.54	277	ePKP	58	18.00	3.1X
Z	22s	96.40um			7.3Msz	ECH	105.94	321	Pdiff 53	42.00	12.1X	SHGH	122.55	278	ePKP	58	19.00	4.1X
N	22s	108.00um				LON	106.21	40	ePdiff53	40.04	8.8X	LEGH	122.72	277	ePKP	58	18.00	2.8X
E	22s	66.70um							eSKS	04	14.91	KUK	122.85	278	ePKP	58	11.00	-4.5X
			e	53	20.80				ePS	07	05.82	WIGH	123.17	277	ePKP	58	17.00	0.9
ROI	101.75	311	Pdiff 53	14.10	2.6	PNT	106.67	37	ePdiff53	41.00	7.9X	MZX	126.30	60	ePKP	58	21.00	-1.0
POF	101.83	240	iPdiff53	15.00	3.0X	UCC	106.67	324	Pdiff 53	43.00	10.0X	KIC	127.16	279	PKPc	58	23.30	-0.6
	1.0s	20.00nm			5.7mb				PP	58	13.00	TIC	127.40	279	PKPc	58	24.00	-0.4
TDS	101.91	311	Pdiff 53	15.00	2.9X				SKS	04	21.00	LIC	127.46	279	PKPc	58	24.00	-0.5
MMN	102.13	311	Pdiff 53	18.80	5.7X				IS	05	40.00	LKO	127.57	283	PKP	58	23.58	-1.1
CZI	102.15	310	Pdiff 53	11.60	-1.6	DOU	106.81	324	Pdiff+53	36.00	2.3	TUL	128.45	40	iPKPc	58	20.00	-5.7X
BER	102.22	333	ePdiff53	31.50	18.5X				e	53	52.80		1.2s	109.10nm			7.4Msz	
KBA	102.31	319	i(Pdiff53	19.20	5.2X				PP	58	07.10	Z	20s	75.00um				
	1.2s	28.40nm			5.8mb				SKS	04	21.00	CFTV	129.33	309	ePKP	58	32.00	4.3X
			i	53	22.30				S	05	36.00	UYO	130.38	41	iPKPc	58	29.30	-0.1
			i	53	32.80	LPG	107.15	319	ePdiff53	42.20	6.5X	FVM	130.38	35	PKP	58	28.80	-0.5
			i	53	45.00				1.4s	34.85nm	6.2mb	ELF	130.77	23	PKP	58	33.10	3.2X
			i	53	47.80	AKU	107.63	344	e(PKP)	57	53.00	DLA	130.95	24	PKP	58	33.20	3.0X
			e	54	49.00				1.3s	146.15nm	8.1X	LDN	130.95	23	PKP	58	33.20	2.9X
			iPP	57	40.20				Z	20s	104.96um	MRX	132.08	62	ePKP	58	35.00	2.0
			i	58	06.00							CLE	132.11	25	iPdiff53	55	24.50	-2.0
			i	58	39.30	LOR	108.36	321	ePdiff53	46.80	6.1X	WVLY	132.44	21	PKP	58	28.00	-5.2X
			i	59	48.80				1.4s	26.15nm	6.2mb	LIJ	133.35	61	iPKP	58	37.00	0.9
			i	09	27.80	LBF	108.40	321	ePdiff53	44.40	3.5X	CRX	133.52	62	iPKP	58	52.00	15.8X
			i	09	47.10	BRK	108.68	49	e(Pdiff53	50.00	7.7X	III	134.07	63	ePKP	58	43.00	5.9X
TRI	102.39	317	iPdiff53	18.00	3.9X				eS	06	34.00	ACX	134.22	65	ePKP	58	48.00	10.8X
			e	57	08.30				eSP	09	00.00	PPM	134.57	62	ePKP	58	41.00	2.5
			i	57	46.50				eSS	14	00.00	HRV	134.60	15	ePKP	58	30.31	-6.9X
			e	03	58.00				eSSS	17	30.00				iSKP	02	04.44	
			e	05	21.00	BKS	108.70	49	ePdiff53	46.80	4.4X	PNJ	135.33	18	iPKP	58	46.10	7.5X
			iLR	29	40.00				Z	20s	62.00um	LVVM	136.20	60	ePKP	58	50.50	9.6X
MOX	102.40	323	ePdiff53	16.00	1.9				N	20s	31.00um	MBO	137.31	293	ePKP	58	50.10	7.0X
	1.4s	29.00nm			5.8mb				E	20s	60.00um	TPX	141.75	64	iPKP	58	52.00	0.9
	Z	17s	131.10um		7.5Msz							LNV	144.77	159	iPKPd	58	55.50	-0.3
	N	18s	82.90um									LCCH	145.14	159	iPKP	58	58.00	1.5
	E	16s	47.10um									TACH	145.21	160	ePKPd	58	56.50	-0.1
			e	53	28.00										i	59	08.00	
			i	53	49.00	AVF	108.87	321	ePdiff53	48.90	6.0X	SAN	145.49	160	iPKP	58	57.40	0.3
			iSKS	03	55.00				1.5s	26.10nm	6.2mb				ipPKP	59	06.20	
MGR	102.40	311	Pdiff 53	33.00	18.7X	GDH	109.66	359	ePdiff53	57.80	11.9X				iPP	02	30.20	
FVI	102.81	318	Pdiff 53	29.00	13.1X				ePP	58	07.54				iSKS	06	09.00	
DUI	102.88	313	Pdiff 53	30.00	13.5X	TCF	109.79	321	ePdiff53	53.50	6.4X				eSKKS	08	56.00	
GRF	102.93	322	ePdiff53	21.00	4.5X	SES	111.18	34	ePdiff54	01.00	7.8X				iSPP	10	03.00	
	Z	19s	124.00um		7.5Msz	LRM	112.53	38	ePdiff54	01.50	1.9				iPcS	10	46.00	
			ic	53	34.80	CLC	112.88	50	ePdiff54	20.00	18.9X	IHA	145.52	158	ePKP	58	58.20	1.1
			ePP	57	46.80	EBR	113.13	316	ePdiff54	08.00	6.0X				i	59	07.00	
YKA	103.38	24	ePdiff53	17.50	-0.6				ePP	58	56.00	ROCH	145.80	159	ePKPd	58	58.50	0.6
	1.0s	3.00nm			5.0mb X				e	59	11.00				i	59	10.00	
ARV	103.52	315	Pdiff 53	32.70	13.5X	FFC	113.24	26	ePKP	58	01.00	BAA	146.74	178	PKP+	59	00.00	0.9
MNO	103.52	309	Pdiff 53	34.00	14.4X				1.0s	19.00nm	5.1X	ZON	147.89	161	ePKP	59	04.00	2.9X
AZI	103.54	314	Pdiff 53	37.00	17.7X	VAL	114.00	330	Pdiff 54	16.00	10.4X	RTL	148.16	161	ePKPc	59	03.80	2.3
RDP	104.12	314	Pdiff 53	33.00	11.0X				SKS	04	45.00	RTRS	148.89	159	ePKPc	59	04.20	1.6
SFI	104.17	316	Pdiff 53	40.00	18.0X	ETOR	114.89	317	e(PKP)	58	02.00	ANT	154.18	151	iPKP	59	14.00	3.5X
CRE	104.18	316	Pdiff 53	30.00	7.7X	BW06	115.79	40	PKP	58	00.00	UPA	155.51	65	ePKPc+59	12	00.00	-0.6
BCAO	104.18	275	ePdiff53	24.75	1.9				Z	20s	304.88um				Z	20s	235.29nm	
	1.5s	50.00nm			6.1mb	EVIA	116.13	315	e(PKP)	58	06.60						13.12um	6.8Msz
			i	54	58.00	GUD	116.40	317	e(PKP)	58	07.80	ITB7	156.03	187	e(PKP)	59	31.50	18.5X
			i	57	29.40	ASMO	117.55	314	iPKPd	58	03.50	IT8	156.36	187	e(PKP)	59	29.50	16.0X
			ePP	57	38.66	TAF	117.60	311	iPKP	58	06.00	PT10	157.56	120	e(PKP)	59	18.00	2.8X
			eHPP	57	40.32				i	58	24.00	PT02	157.60	122	ePKP	59	18.20	2.9X
PGD	104.27	316	Pdiff 53	37.00	14.2X	APHE	117.68	313	ePKP	58	03.50	NNA	157.71	120	iPKPc	59	16.50	1.1
TNS	104.46	323	ePdiff53	42.50	19.2X	AAPN	117.85	314	iPKPc	58	04.00		1.0s	30.00nm				
FAI	104.46	309	Pdiff 53	30.00	6.5X	ALOJ	117.92	314	ePKP	58	04.50	PT08	157.97	120	ePKP	59	20.60	4.4X
WIT	104.57	326	ePdiff53	34.00	10.4X	ATEJ	117.94	313	ePKP	58	04.00	ARE	159.26	138	ePKP	59	18.00	0.6
			ePP	57	51.00	EHOR	118.43	315	e(PKP)	58	06.00	PSO	159.68	83	ePKP	59	20.00	1.8
			e(SP)	09	20.00	PTO	119.11	320	ePdiff54	33.00	4.4X	BPA	161.30	14	ePKP	59	17.00	-2.2
SAL	104.60	318	Pdiff 53	43.00	19.1X				ePPP	58	17.00	LPB	161.32	145	PKPc	59	22.00	2.3
FIR	104.62	316	e(Pdiff53	30.00	5.9X				iLR	30	41.00	Z080	161.51	145	ePKPc	59	21.55	1.4
WTS	104.79	325	ePdiff53	43.00	18.4X	GLD	120.12	42	PKP	58	10.00				ec	59	25.19	
			ePP	57	55.00				Z	22s	289.69um				eHPP	03	50.86	
			eSP	09	12.00										iPP	03	52.85	
PII	105.15	316	Pdiff 53	32.00	5.6X	IFR	120.18	310	ePKP	58	08.00	MGH	161.52	16	ePKP	59	18.00	-1.4
						ANMO	121.58	47	PKP	58	20.00	CCH	161.63	152	PKP	59	20.	

BMG 162.11 62 iPKPd 59 21.00 0.8
 BOG 162.13 71 iPKPc 59 22.00 1.4
 FUQ 162.16 68 ePKP 59 15.50 -5.1X
 PAG 162.32 15 ePKP 59 19.00 -1.3
 BAO 163.04 212 ePKP 59 22.20 1.1
 SDV 163.24 53 ePKP 59 21.50 0.1
 FDF 163.69 14 ePKP 59 22.50 0.9
 SIV 164.79 165 PKP 59 23.00 0.4
 LLAV 164.94 39 ePKP 59 23.00 0.1
 SVB 165.07 16 ePKP 59 32.63 9.8X
 OLLA 165.29 41 ePKP 59 23.00 -0.2
 GUAN 166.06 37 ePKP 59 28.00 4.1X
 CUM 166.48 31 ePKP 59 32.00 8.0X
 i 04 34.00
 TCE 167.34 21 ePKP 59 22.89 -1.8
 TRN 167.50 20 ePKP 59 25.37 0.6
 TBH 167.77 19 ePKP 59 24.75 -0.2
 TPP 167.79 20 ePKP 59 26.03 1.1
 S.D. = 1.2 on 294 of 414 obs.

& APR 18, 1990 13h 41m 38.80s
 36.918 N 121.670 W
 DEPTH = 6.0km
 4.2mb (2 obs.)
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 5.0 (BRK).
 Mo=3.7+10**16 Nm (BRK). Felt in
 Monterey, San Benito, Santa
 Clara and Santa Cruz Counties.

SAO 0.24 130 iP 41 43.30 -0.4
 GCC 0.28 293 iPc 41 44.50 -0.1
 MHC 0.42 3 iPd 41 47.55 0.2
 iS 41 54.15
 ARN 0.44 14 iPc 41 47.90 0.2
 PRS 0.63 157 iP 41 50.70 -0.8
 LLA 0.66 117 iPd 41 51.40 -0.6
 PCC 0.81 316 iPc 41 53.60 -1.3
 BKS 1.06 335 eP 41 57.70 -1.4
 iS 42 13.50
 BRK 1.06 334 iPc 41 57.40 -1.8
 PRI 1.12 133 ePc 41 59.70 -0.6
 ZSP 1.13 336 iPc 41 58.90 -1.4
 CMB 1.51 42 iPc 42 05.60 -0.9
 PKEM 1.52 124 eP 42 05.30 -1.3
 FRI 1.57 87 iPc 42 05.70 -1.6
 NWRM 1.81 328 eP 42 07.80 -3.0
 BCH 2.15 143 eP 42 14.00 -1.8
 BLP 2.57 156 eP 42 18.00 -3.6
 ORV 2.64 3 eP 42 21.30 -1.3
 ABL 2.87 135 eP 42 23.60 -2.5
 MIN 3.42 1 eP 42 33.10 -0.8
 KVN 3.53 52 eP 42 35.00 -0.5
 WDC 3.72 350 eP 42 36.60 -1.4
 LON 9.83 359 eP 44 05.00 1.3
 PNT 12.48 6 eP 44 44.00 4.2
 0.6s 5.00nm 4.9mb X
 SES 15.49 26 eP 45 20.00 0.6
 FFC 22.35 31 eP 46 39.00 0.3
 0.8s 10.00nm 4.3mb
 RSON 24.32 46 eP 47 00.00 2.0
 0.8s 3.61nm 4.1mb
 INK 32.13 352 eP 48 09.00 0.3
 MBC 39.43 1 eP 49 13.00 2.3
 29 obs. associated

& APR 18, 1990 13h 53m 51.40s
 36.917 N 121.675 W
 DEPTH = 5.0km
 5.4mb (11 obs.)
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 5.4 (BRK).
 Mo=1.5+10**17 Nm (BRK). Slight
 damage (VI) in the Santa Cruz-
 Watsonville-San Juan Bautista
 area. Felt (V) at Aptos, Carmel
 Valley, Castroville, Dublin,
 Gilroy, Half Moon Bay, Moss
 Landing, Pleasonton, San Jose,
 San Pablo, Soquel and Tres
 Pinos. Felt in Alameda, Contra
 Costa, Marin, Merced, Monterey,
 San Benito, San Francisco, San
 Joaquin, San Mateo, Santa Clara,
 Santa Cruz, Sonoma and
 Stanislaus Counties. Landslides
 occurred in the Watsonville-San

Juan Bautista area.

SAO 0.24 129 iPd 53 56.00 -0.3
 GCC 0.28 294 iPc 53 57.20 0.1
 MHC 0.42 4 iPd 54 00.30 0.4
 PRS 0.63 157 iPd 54 03.50 -0.6
 LLA 0.66 117 iPd 54 04.20 -0.4
 PCC 0.81 316 ePc 54 06.40 -1.2
 BRK 1.06 334 iPc 54 10.20 -1.6
 iS 54 25.20
 PRI 1.12 133 iPd 54 12.10 -0.9
 ZSP 1.13 336 iPc 54 11.60 -1.3
 PHAM 1.49 136 iPd 54 17.00 -1.9
 CMB 1.52 42 iPd 54 17.80 -1.5
 PKEM 1.52 124 eP 54 17.50 -1.8
 FRI 1.58 87 iPc 54 18.20 -1.9
 NWRM 1.81 328 eP 54 21.00 -2.5
 BCH 2.16 143 iPd 54 26.00 -2.6
 BLP 2.57 156 eP 54 31.50 -2.9
 ORV 2.64 3 iPd 54 33.40 -2.0
 ABL 2.87 135 iPc 54 36.00 -2.9
 MIN 3.42 1 ePd 54 45.00 -1.7
 KVN 3.54 52 eP 54 46.40 -1.9
 WDC 3.72 350 iPc 54 47.80 -2.9
 TNP 3.73 70 eP 54 49.00 -2.1
 FHC 4.28 336 eP 54 56.80 -1.9
 PEC 4.76 128 eP 55 02.30 -3.3
 PLM 5.31 131 eP 55 09.00 -4.5
 GLA 6.82 122 eP 55 29.50 -5.1
 LON 9.83 359 eP 56 17.00 0.6
 LRM 11.27 35 eP 56 37.70 1.3
 PGC 11.80 354 eP 56 43.00 -0.2
 PNT 12.48 6 eP 56 53.00 0.5
 0.8s 43.00nm 5.8mb
 SIT 22.11 340 eP 58 48.00 -1.1
 1.0s 125.00nm 5.3mb
 FFC 22.35 31 eP 58 52.00 0.5
 1.2s 121.00nm 5.2mb
 RSON 24.33 46 eP 59 10.00 -0.8
 0.7s 60.55nm 5.3mb
 PMR 30.08 334 eP 00 04.00 0.5
 1.1s 103.13nm 5.6mb
 TTA 33.43 332 eP 00 32.40 -0.6
 1.1s 50.00nm 5.4mb
 IMA 34.58 338 eP 00 43.20 0.2
 1.3s 56.60nm 5.3mb
 MBC 39.43 1 eP 01 25.00 1.5
 1.5s 114.00nm 5.3mb
 KEV 71.20 11 eP 05 18.00 5.3
 SOD 73.29 12 iP 05 24.70 -0.5
 NB2 75.11 22 P 05 34.20 -1.7
 1.7s 37.70nm 5.2mb
 MAT 76.04 305 (P) 05 41.00 -0.6
 APO 76.30 21 eP 05 42.20 -0.4
 1.7s 61.10nm 5.4mb
 CLL 83.58 27 e(P) 06 21.00 -0.7
 2.1s 115.00nm 5.7mb
 GRF 84.23 29 eP 06 28.10 3.0
 KSP 85.12 25 eP 06 31.00 1.5
 PRU 85.22 27 eP 06 29.50 -0.5
 e 06 48.50
 46 abs. associated

* APR 18, 1990 13h 54m 19.03±1.00s
 0.368 N ±15.6km 123.131 E ±13.8km
 DEPTH = 33.0km (normal)
 5.6mb (3 obs.)

MINAHASSA PENINSULA (265)

PGP 13.23 351 eP 57 27.00 -0.1
 1.0s 69.00nm 5.6mb
 KGM 19.87 275 eP 58 51.00 0.4
 GUMO 25.22 58 eP 59 43.00 -0.6
 1.4s 253.85nm 5.6mb
 PJG 25.22 58 eP 59 43.00 -0.6
 BJI 39.99 352 eP 01 54.50 2.2
 e 02 20.00
 TOO 43.03 154 eP 02 18.00 0.6
 HYB 47.01 294 eP 02 47.50 -1.9
 GBA 47.11 288 Pd 02 57.10 6.9X
 1.2s 73.20nm 5.6mb
 PRU 101.59 321 Pd diff 08 17.50 8.1X
 S.D. = 1.6 on 7 of 9 abs.

* APR 18, 1990 14h 10m 25.28±0.74s
 8.988 S ±9.9km 125.609 E ±21.7km
 DEPTH = 33.0km (normal)

TIMOR

(289)

MRWA 22.06 203 eP 15 18.90 -0.1
 BAL 23.06 200 eP 15 29.00 0.1
 SZP 26.86 349 eP 16 04.00 -0.9
 PIP 27.58 350 ePd 16 12.50 0.9
 CAN 33.82 144 eP 17 07.20 0.5
 CNB 34.03 144 eP 17 08.00 -0.5
 S.D. = 0.9 on 6 of 6 obs.

* APR 18, 1990 14h 19m 02.09±0.55s
 1.212 N ±9.0km 122.999 E ±10.1km
 DEPTH = 33.0km (normal)
 5.3mb (4 obs.)

MINAHASSA PENINSULA (265)

SZP 16.43 351 eP 22 50.00 -1.9
 KGM 19.69 273 eP 23 33.00 1.3
 e 28 30.00
 MBL 22.45 188 iPd 23 59.40 -0.4
 NANU 24.73 197 eP 24 22.00 0.1
 GUMO 24.89 59 eP 24 24.10 0.5
 0.8s 96.63nm 5.4mb
 PJG 24.89 59 eP 24 24.20 0.6
 GUA 24.91 60 eP 24 23.80 0.1
 0.8s 155.22nm 5.6mb
 NNT 25.68 297 eP 24 32.00 1.0
 WARB 27.46 173 eP 24 47.00 -0.3
 0.3s 16.00nm 5.2mb
 BAL 32.20 190 eP 25 28.00 -1.4
 MUN 33.63 190 eP 25 40.00 -1.8
 BRS 40.36 137 i(P)c 26 36.20 -2.5
 0.6s 5.60nm 4.5mb
 BWA 42.72 148 eP 27 00.00 2.0
 CAN 43.72 149 eP 27 06.80 0.8
 TOO 43.85 154 eP 27 07.00 0.0
 CNB 43.90 148 ePd 27 08.70 1.1
 KOD 46.13 283 eP 27 26.00 0.1
 HYB 46.55 293 eP 27 27.00 -1.9
 NPA 84.27 255 eP 31 35.00 2.5
 S.D. = 1.5 on 19 of 19 obs.

APR 18, 1990 14h 23m 56.22±0.31s
 1.182 N ±5.3km 122.819 E ±7.6km
 DEPTH = 33.0km (normal)
 5.4mb (14 obs.)

MINAHASSA PENINSULA (265)

TSM 5.62 303 eP 25 21.00 1.3
 DAV 6.48 25 eP 25 34.00 2.2
 PGP 12.38 352 eP 26 52.50 -0.6
 0.8s 83.00nm 5.9mb X
 TRT 13.46 229 ePd 27 09.40 2.0
 BAG 15.29 352 eP 27 35.00 3.4X
 MTN 16.19 150 eP 27 43.00 0.0
 SZP 16.43 352 eP 27 50.20 4.2X
 CVP 16.45 357 ePd 27 48.00 1.8
 1.0s 132.00nm 5.0mb
 PIP 17.17 353 ePc 27 55.00 -0.4
 KNA 17.82 161 eP 28 04.00 0.6
 MBL 22.40 187 eP 28 53.60 0.2
 SNG 22.92 286 eP 29 02.50 3.9X
 NANU 24.65 196 eP 29 16.50 1.2
 GUMO 25.06 60 eP 29 19.00 -0.3
 1.2s 355.56nm 5.8mb
 GUA 25.08 60 eP 29 19.20 -0.3
 1.2s 437.50nm 5.9mb
 LAT 25.36 108 eP 29 26.00 3.9X
 NNT 25.53 297 eP 29 23.40 -0.4
 KDB 26.45 114 eP 29 30.00 -2.3
 WARB 27.45 173 eP 29 41.40 0.1
 MEKA 27.94 188 iPc 29 44.50 -1.2
 SSE 29.79 357 eP 30 01.30 -1.0
 CTA 31.22 134 iPc 30 14.00 -1.1
 1.1s 25.32nm 5.0mb
 BAL 32.14 190 eP 30 22.00 -1.0
 MUN 33.57 190 eP 30 34.00 -1.4
 NWA0 34.33 188 eP 30 41.00 -1.0
 RMQ 37.18 140 eP 31 05.00 -1.3
 MAT 37.96 20 eP 31 09.00 -3.7X
 1.0s 13.00nm 4.7mb
 ADE 38.92 159 ePc 31 21.10 0.3
 1.0s 200.00nm 5.8mb
 LZH 38.94 335 P 31 21.50 0.4
 2.0s 94.00nm 5.2mb
 pP 31 33.00 42kmX

BJI	39.15	352	eP	31	19.00	-3.5X	2.5s	174.00nm	5.4mb	0.8s	89.55nm	5.6mb	
CMS	39.15	148	eP	31	22.00	-0.7		pP	36	32.00	25kmX		
BRS	40.46	137	i(P)	31	32.10	-1.5	ADE	38.97	159	eP	36	27.20	0.8
	0.8s	8.00nm					BJI	39.04	352	eP	36	24.00	-2.8X
COO	41.99	141	eP	31	47.00	0.8		2.0s	280.00nm				
BWA	42.79	148	eP	31	55.20	2.5	CMS	39.15	148	eP	36	27.00	-0.8
CAN	43.79	149	eP	32	01.00	0.3	BRS	40.41	137	i(P)	36	36.10	-2.3
TOO	43.90	154	eP	32	03.00	1.4		e	37	24.00			
CNB	43.97	148	ePc	32	04.30	2.0		i	42	52.60			
KOD	45.96	283	eP	32	22.00	3.3X	BWA	42.80	149	eP	36	59.80	2.0
HYB	46.40	293	eP	32	22.50	0.7	TOO	43.92	154	iPd	37	08.50	1.6
NDI	51.36	307	eP	33	02.00	2.0	GUN	44.29	310	P	37	09.00	-1.5
MSZ	60.71	145	P	34	06.20	-0.6	PKI	44.49	309	P	37	10.20	-1.9
MHI	68.00	309	eP	34	54.00	-0.7	KKN	44.69	310	P	37	11.80	-1.8
IR4	74.59	306	eP	35	34.00	-0.3	DMN	44.74	309	P	37	12.40	-1.6
IR2	74.66	307	iPd	35	34.00	-0.7	GKN	45.29	309	P	37	16.60	-1.7
IR5	74.84	306	eP	35	35.50	-0.3	GBA	46.73	287	Pd	37	28.90	-0.7
IR7	74.90	307	iPd	35	35.50	-0.6		1.1s	12.50nm				
VNDA	81.43	172	P	36	11.20	0.3	DZM	48.30	121	iPc	37	40.40	-1.6
PMO	89.61	105	iP	36	54.90	2.3	NDI	51.46	306	eP	38	03.00	-2.9X
	0.9s	55.00nm					MHI	68.08	309	eP	40	04.00	3.6X
VAH	89.87	105	iP	36	55.80	2.0	IR4	74.68	306	eP	40	42.00	2.0
	0.9s	30.00nm					IR2	74.75	307	iPd	40	43.00	2.6
TPT	89.88	105	iP	36	56.10	2.3	IR5	74.94	306	eP	40	45.00	3.5X
	0.9s	35.00nm					IR7	74.99	307	iPd	40	44.50	2.7X
RUV	90.11	105	iP	36	57.00	2.1	KIC	127.32	279	PKP	48	05.20	-0.3
	0.9s	35.00nm					LKO	127.72	283	PKP	48	06.74	0.5
KEV	90.92	340	eP	36	54.00	-3.6X	LNV	144.83	159	ePKPd	48	38.00	0.9
SOD	91.31	337	eP	36	57.00	-2.5	TACH	145.27	159	ePKP	48	38.50	0.5
NUR	93.01	331	eP	37	16.00	0.6X	PCH	145.45	160	ePKPd	48	40.00	1.6
INK	93.94	21	eP	37	10.00	-1.6	SAN	145.55	160	ePKP	48	40.00	1.5
MBC	95.27	12	eP	37	26.00	8.4X	ROCH	145.86	159	ePKP	48	41.00	1.7
	1.0s	7.00nm					LPB	161.32	145	ePKP	49	06.00	5.0X
NB2	99.28	333	P	37	33.00	-3.1X	ZOBO	161.52	144	ePKP	49	11.00	9.6X
	1.0s	6.60nm						S.D. = 1.6	on 35 of 44 obs.				
FFC	113.26	26	ePKP	42	30.00	-2.1							
ANMO	121.61	47	ePKP	42	48.50	-0.4	& APR 18, 1990 14h 32m						
ALO	121.61	47	ePKP	42	48.00	-0.9		33.880 N		116.170 W			
	1.0s	9.00nm					DEPTH = 5.0km						
KIC	127.12	279	PKP	42	58.90	-1.0	SOUTHERN CALIFORNIA						
LNV	144.78	159	ePKP	43	31.00	-0.9	<PAS-P>. ML 3.0 (PAS). Felt in						
TACH	145.22	160	ePKP	43	36.50	3.8X	ot Hemet and La Quinta; (III) at						
PCH	145.39	160	ePKP	43	38.00	4.9X	Indio, Lakeview, Mecca and Palm						
BAO	163.02	212	e(PKP)	43	55.00	-2.2	Desert.						
	S.D. = 1.4	on 52 of 65 obs.											
& APR 18, 1990 14h 26m 05.80s							TPC	0.25	24	iPd	32	53.80	-0.3
33.880 N							HAY	0.47	111	iPd	32	58.10	-0.5
DEPTH = 5.0km							PLM	0.78	228	iPd	33	03.90	-1.0
SOUTHERN CALIFORNIA							PEC	0.82	271	iPc	33	04.70	-0.9
<PAS-P>. ML 3.0 (PAS). Felt in							RVR	1.01	277	iPc	33	07.70	-1.0
the Palm Springs area.							BAR	1.27	199	iPd	33	11.60	-1.5
							GLA	1.39	126	eP	33	13.00	-2.2
TPC	0.24	22	iPd	26	10.60	-0.2	GSC	1.51	340	ePc	33	15.90	-1.0
HAY	0.47	111	iPd	26	14.90	-0.3	SBB	1.59	301	ePc	33	16.90	-1.1
PLM	0.79	228	iPd	26	20.70	-1.0	MWC	1.60	283	iPc	33	18.20	-0.2
PEC	0.83	271	iPc	26	21.40	-1.0	ABL	2.70	292	eP	33	32.50	-1.7
RVR	1.02	277	ePc	26	24.50	-1.0	BCH	3.48	293	eP	33	44.30	-0.9
CPE	1.27	219	eP	26	28.60	-1.2	FRI	4.24	318	ePn	33	52.50	-3.3
GLA	1.39	126	iPc	26	31.70	-0.1			ePb	34	05.70		
MWC	1.61	283	ePc	26	34.90	-0.3			e(S)	34	59.00		
ABL	2.71	292	eP	26	49.60	-1.4	PRI	4.32	303	e(Pb)	34	04.30	7.2
BCH	3.49	293	eP	27	00.40	-1.6	PRS	4.91	301	e(P)	34	05.30	-0.1
	10 obs. associated						CMB	5.37	322	ePc	34	11.00	-0.9
									eS	35	34.80		
APR 18, 1990 14h 29m 01.38±0.43s							KVN	5.39	344	eP	34	10.90	-1.4
1.321 N ± 7.9km 123.039 E ± 9.2km							MHC	5.64	309	e(P)	34	12.50	-3.3
DEPTH = 33.0km (normal)							ALO	8.10	80	eP	34	55.00	4.7
5.3mb (3 obs.)								19 obs. associated					
MINAHASSA PENINSULA							APR 18, 1990 14h 35m 17.07±0.34s						
							1.129 N ± 7.2km 122.645 E ± 8.7km						
							DEPTH = 33.0km (normal)						
							5.6mb (9 obs.)						
							MINAHASSA PENINSULA						
PPR	9.43	333	iPd	31	16.00	-2.0							
TRT	13.71	229	ePd	32	15.50	-0.4	MBL	22.32	187	iPc	40	13.50	0.0
BAG	15.19	351	eP	32	37.90	2.5	NANU	24.55	196	eP	40	36.00	0.8
MTN	16.20	151	eP	32	47.00	-1.3		0.6s	68.00nm				
SZP	16.33	351	eP	32	54.00	4.1X	MEKA	27.86	188	iPc	41	05.10	-0.8
PIP	17.06	352	ePc	33	01.50	2.3	MRWA	30.84	191	eP	41	31.90	-0.5
KGM	19.72	272	eP	33	32.00	0.6		0.4s	18.00nm				
GUMO	24.80	60	eP	34	22.50	0.5	BAL	32.06	190	eP	41	47.50	4.3X
PJG	24.80	60	eP	34	22.00	0.0	NWAO	34.26	188	eP	42	02.00	-0.2
GUA	24.82	60	eP	34	21.30	-0.9	MAT	38.07	21 (P)	42	28.00	-6.5X	
NANU	24.84	197	eP	34	24.50	2.2	LZH	38.91	335	P	42	41.00	-0.7
LAT	25.19	109	eP	34	25.00	-0.7		2.5s	168.00nm				
NNT	25.67	297	eP	34	24.40	-5.7X	ADE	38.93	159	iPc	42	42.30	0.6
BAL	32.32	190	eP	35	29.00	-0.7							
RMO	37.15	140	eP	36	09.00	-2.1							
LZH	38.90	335	P	36	24.50	-1.5							

COO	42.06	141	ePc	43	07.20	-0.4	0.8s	49.25nm	5.3mb				
BWA	42.84	148	eP	43	14.80	0.9							
CAN	43.83	148	eP	43	21.20	-0.7	BJI	39.23	352	eP	57	47.50	-2.2
TOO	43.93	154	eP	43	23.00	0.3	BWA	42.75	148	eP	58	10.10	-8.7X
CNB	44.02	148	eP	43	23.00	-0.5	CAN	43.74	148	eP	58	27.20	0.4
GUN	44.12	310	P	43	24.50	-0.2	GUN	44.22	310	P	58	32.00	0.8
PKI	44.31	310	P	43	26.20	-0.1	PKI	44.41	310	P	58	32.40	-0.4
KKN	44.51	310	P	43	27.60	-0.2	KKN	44.62	310	P	58	34.50	0.2
DMN	44.56	310	P	43	28.00	-0.2		0.8s	16.00nm				
GKN	45.11	310	P	43	32.40	-0.1		0.8s	310	P	58	35.00	0.3
KOD	45.80	283	eP	43	40.00	1.7		45.22	310	P	58	39.40	0.4
HYB	46.26	293	eP	43	42.50	0.9		0.8s	21.00nm				
GBA	46.41	288	Pc	43	43.20	0.5		0.8s	21.00nm				
	0.6s	10.70nm						0.8s	21.00nm				
QUE	60.15	304	eP	45	23.30	-1.1							
MSZ	60.77	144	P	45	26.10	-1.9							
MHI	67.89	309	eP	46	14.00	-0.9							
PMO	89.76	105	iP	48	15.00	0.9							
	1.1s	90.00nm											
VAH	90.03	105	iP	48	15.90	0.5							
	1.1s	65.00nm											
TPT	90.03	105	iP	48	16.20	0.8							
	1.1s	70.00nm											
RUV	90.26	105	iP	48	17.10	0.6							
	1.1s	50.00nm											
INK	94.06	21	eP	48	29.00	-4.0X							
	S.D. = 0.8	on 27 of 30 obs.											
& APR 18, 1990 14h 39m 00.00s							SAO	0.22	129	iPd	39	04.30	-0.2
36.905 N							GCC	0.30	295	iPc	39	05.80	-0.3
DEPTH = 6.0km								iS	39	10.30			
CENTRAL CALIFORNIA							MHC	0.44	2	iPd	39	09.10	0.3
<BRK>. ML 2.8 (BRK).							PRS	0.62	158	iPd	39	11.70	-0.7
							LLA	0.64	116	ePd	39	12.40	-0.5
							PCC	0.83	316	ePd	39	15.40	

VNDA 81.35 172 eP 02 37.10 0.2
S.D. = 1.2 on 22 of 23 abs.

& APR 18, 1990 14h 52m 23.80s
36.912 N 121.663 W
DEPTH = 6.0km
4.3mb (1 obs.)
CENTRAL CALIFORNIA (39)
<BRK>. ML 4.3 (BRK).
Mo=3.2+10+15 Nm (BRK). Felt in
the Watsonville area.

SAO	0.23	130	iP	52	28.20	-0.3
GCC	0.29	294	iPc	52	29.60	-0.1
MHC	0.43	2	iPd	52	32.80	0.3
ARN	0.45	13	iPc	52	33.00	0.2
PRS	0.63	158	iPd	52	35.60	-0.7
LLA	0.65	117	iPd	52	36.30	-0.5
PCC	0.82	316	iPc	52	38.90	-1.2
BKS	1.07	335	iPc	52	41.90	-2.3

BRK	1.07	334	iPc	52	42.50	-1.8
PRI	1.11	133	iPd	52	44.00	-1.1
ZSP	1.13	336	iPc	52	43.80	-1.6
PHAM	1.48	136	eP	52	48.80	-2.2
CMB	1.51	42	iPd	52	50.10	-1.4
PKEM	1.51	124	eP	52	50.00	-1.4
FRI	1.57	87	iPd	52	50.20	-2.0
NWRM	1.82	328	eP	52	53.50	-2.4
BCH	2.15	143	eP	52	57.50	-3.2
BLP	2.56	156	eP	53	03.50	-3.0
ORV	2.64	3	ePc	53	05.70	-2.0
ABL	2.86	135	eP	53	07.50	-3.5
MIN	3.43	1	e(P)	53	17.00	-2.0
KVN	3.53	52	eP	53	18.20	-2.3
TNP	3.72	70	eP	53	22.50	-0.8
WDC	3.73	350	e(P)	53	20.70	-2.4
FHC	4.29	336	e(P)	53	30.00	-1.1
PLM	5.30	131	eP	53	41.30	-4.3
GLA	6.80	122	eP	54	02.00	-4.7
FFC	22.35	31	eP	57	23.00	-0.7

0.8s 10.00nm 4.3mb
29 obs. associated

& APR 18, 1990 14h 52m 24.62s
61.827 N 147.435 W
DEPTH = 36.1km
SOUTHERN ALASKA (2)
<AGS-P>.

NCA	0.33	60	iP	52	32.16	-0.9
SML	0.43	268	iP	52	33.24	-1.0
TOA	0.66	64	eP	52	40.46	-0.9
GHO	0.71	266	iP	52	37.11	-1.2
KLU	0.80	114	iP	52	38.43	-1.1
PLRM	0.84	254	eP	52	38.91	-1.1
VZW	0.88	151	eP	52	39.45	-1.2
GLI	0.96	170	iP	52	41.60	-0.2
PMS	1.17	241	iP	52	45.05	0.2
PWA	1.18	262	eP	52	44.36	-0.4
CUT	1.45	295	iP	52	48.25	-0.6
PAX	1.47	38	iP	52	47.97	-1.2
HUR	1.54	319	eP	52	49.30	-0.9
SUA	1.62	258	eP	52	51.37	-0.1
RND	1.72	338	eP	52	51.94	-0.8
GLB	1.77	101	iP	52	52.64	-0.9
SLKM	1.89	227	eP	52	55.61	0.4
SKT	1.94	276	eP	52	55.69	-0.2
SEW	1.99	210	P	52	57.04	0.5
MCK	2.03	341	eP	52	57.30	0.1
DDM	2.10	19	eP	52	58.25	0.1
CGLM	2.25	259	eP	53	00.56	0.3
NCG	2.30	261	eP	53	01.01	0.1
CRP	2.33	258	eP	53	00.95	-0.5

KTH	2.36	319	eP	53	01.24	-0.6
DOT	2.40	39	eP	53	01.89	-0.5
CKL	2.43	257	eP	53	02.54	-0.4
BGL	2.44	259	eP	53	03.08	0.1
TGL	2.47	114	eP	53	02.54	-0.9
HDA	2.60	5	eP	53	04.55	-0.6
WRH	2.67	354	eP	53	05.50	-0.7
RDT	2.72	245	eP	53	06.39	-0.5
CCB	2.84	357	eP	53	10.54	2.0
RED	2.95	244	eP	53	09.85	-0.4
CNPM	2.97	221	eP	53	10.27	-0.2
FBA	3.09	357	eP	53	11.90	-0.3
GLM	3.17	0	eP	53	12.41	-1.0

37 obs. associated

APR 18, 1990 14h 53m 13.52±0.40s
1.443 N ± 9.3km 123.016 E ± 11.6km
DEPTH = 33.0km (normal)
4.9mb (7 obs.)

MINAHASSA PENINSULA (265)

TSM	5.66	299	ePd	54	38.00	0.5
KKM	8.18	304	eP	55	16.50	3.5X
MTN	16.32	151	eP	57	02.00	0.1
KNA	18.00	162	eP	57	22.60	-0.4
	0.6s	38.00nm			4.7mb	
SNG	23.04	285	eP	58	18.20	1.1
	1.2s	162.50nm			5.4mb	
WB5	23.94	153	eP	58	25.20	-0.5
WRA	23.98	153	Pd	58	25.70	-0.5
	0.6s	11.80nm			4.6mb	
QIS	27.24	144	eP	58	55.00	-1.8
BAL	32.43	190	eP	59	40.00	-2.8
NWAO	34.62	189	eP	00	02.00	0.2
LZH	38.78	335	eP	00	35.00	-2.1
	2.0s	47.00nm			4.9mb	
BJI	38.92	352	eP	00	38.00	0.1
	1.5s	26.00nm			4.8mb	
BWA	42.91	149	eP	01	12.90	2.0
CAN	43.91	149	eP	01	19.80	0.8
TOO	44.04	154	eP	01	22.00	1.9
GUN	44.20	310	P	01	22.60	0.7
PKI	44.39	309	P	01	23.70	0.3
KKK	44.60	309	P	01	25.40	0.4
DMN	44.65	309	P	01	26.00	0.6
GKN	45.20	309	P	01	30.10	0.4
KOD	46.09	283	eP	01	37.00	-0.1
HYB	46.48	293	eP	01	40.00	0.2
GBA	46.67	287	Pc	01	41.10	-0.1
	0.8s	8.10nm			4.8mb	
NDI	51.37	306	eP	02	16.00	-1.4
QUE	60.28	304	eP	03	20.50	-1.3
MSZ	60.81	145	P	03	24.90	0.1
MAIO	67.99	309	iPc	04	12.20	0.3
IR4	74.59	306	iPc	04	51.50	-0.1
IR2	74.66	307	iPc	04	51.50	-0.5
IR5	74.85	306	iP	04	53.50	0.4
IR7	74.90	307	iPc	04	53.00	-0.4
VNDA	81.66	172	P	05	29.40	0.0
SPA	91.43	180	eP	06	18.20	0.6
	1.7s	50.00nm			5.6mb	
INK	93.63	21	eP	06	27.00	-0.4
ZOBO	161.63	144	PKP	13	15.00	1.4

S.D. = 1.1 on 34 of 35 abs.

* APR 18, 1990 15h 06m 19.78±0.99s
1.449 N ± 15.2km 123.128 E ± 20.8km
DEPTH = 33.0km (normal)
4.9mb (2 obs.)

MINAHASSA PENINSULA (265)

MTN	16.27	151	eP	10	07.00	-0.6
KNA	17.97	162	eP	10	29.30	0.4
IPM	22.29	279	ePd	11	16.80	0.9
MBL	22.70	188	iPc	11	18.30	-1.6
WB5	23.89	153	eP	11	32.00	0.4
BJI	38.93	351	eP	13	43.50	-0.8
ADE	39.06	160	ePc	13	40.90	-4.6X
	1.0s	36.00nm			5.1mb	
CAN	43.85	149	eP	14	26.10	1.3
HYB	46.58	293	eP	14	50.20	3.4X
GBA	46.78	287	Pc	14	53.80	5.5X
	0.8s	6.40nm			4.7mb	

S.D. = 1.3 on 7 of 10 obs.

? APR 18, 1990 15h 12m 55.67±1.25s
1.222 N ± 22.0km 122.768 E ± 24.8km

DEPTH = 33.0km (normal)
4.4mb (2 obs.)
MINAHASSA PENINSULA (265)

MTN	16.25	150	eP	16	43.00	-0.2
IPM	21.97	279	ePd	17	57.50	8.9X
WB5	23.86	152	eP	18	08.00	0.9
WRA	23.90	152	Pd	18	07.70	0.2
	0.7s	12.40nm			4.5mb	
QIS	27.21	144	eP	18	37.00	-1.6
MEKA	27.97	188	eP	18	45.90	0.4
BAL	32.17	190	eP	19	22.00	-0.7
CAN	43.85	149	eP	21	01.80	1.2
GUN	44.15	310	P	21	03.60	0.0
HYB	46.34	293	eP	21	30.00	9.2X
GBA	46.50	288	P	21	27.00	5.0X
	0.4s	1.50nm			4.3mb	

S.D. = 1.1 on 8 of 11 obs.

APR 18, 1990 15h 15m 22.56±0.29s
1.319 N ± 5.2km 122.973 E ± 6.8km
DEPTH = 33.0km (normal)
5.3mb (19 obs.)

MINAHASSA PENINSULA (265)

TSM	5.68	301	ePc	16	47.40	0.5
	1.0s	572.10nm			6.1mb	
DAV	6.29	24	eP	16	54.30	-1.2
KKM	8.22	305	eP	17	20.00	-2.5
PGP	12.27	351	eP	18	18.50	0.6
BAG	15.18	351	eP	18	56.00	-0.5
MTN	16.24	150	eP	19	09.00	-0.9
					20	13.00
CVP	16.32	356	eP	19	15.00	4.0X
	1.2s	378.00nm			5.4mb	
PIP	17.06	352	ePd	19	12.00	-8.3X
KNA	17.90	162	iPd	19	32.00	1.2
	0.6s	64.00nm			4.9mb	
IPM	22.15	279	ePd	20	18.90	1.5
MBL	22.55	188	iPc	20	20.70	-0.6
	0.8s	58.00nm			5.1mb	
SNG	23.03	285	eP	20	27.50	1.5
WB5	23.85	153	eP	20	33.50	-0.4
WRA	23.89	153	Pd	20	35.00	0.7
	0.8s	41.70nm			5.0mb	
NANU	24.82	197	iPd	20	43.10	-0.2
	0.5s	26.00nm			5.1mb	
NNT	25.61	297	eP	20	49.00	-1.8
KDB	26.37	114	eP	20	58.00	0.2
QIS	27.17	144	eP	21	04.00	-1.1
WARB	27.57	173	eP	21	08.80	0.1
SSE	29.66	357	P	21	27.00	-0.5
					21	33.50
					21	36.00
KMI	30.68	322	Pc	21	37.50	0.6
MRWA	31.09	192	eP	21	38.00	-2.1
	0.4s	16.00nm			5.2mb	
CTA	31.20	134	iPc	21	41.00	-0.3
	1.2s	35.16nm			5.1mb	
BAL	32.30	190	eP	21	49.00	-1.8
FORR	32.36	172	eP	21	49.50	-1.7
	0.4s	20.00nm			5.4mb	
MUN	33.73	190	eP	22	02.00	-1.2
RMO	37.19	140	eP	22	31.00	-1.7
MAT	37.78	20	(P)	22	34.00	-3.5X
ADE	38.99	159	eP	22	48.20	0.5
	0.9s	89.08nm			5.5mb	
BJI	39.03	352	eP	22	48.00	0.1
	1.0s	12.00nm			4.6mb	
BWA	42.83	149	eP	23	22.00	2.7
CAN	43.82	149	eP	23	29.00	1.7
TOO	43.95	154	eP	23	30.00	1.6
GUN	44.24	310	P	23	31.10	-0.2
PKI	44.44	309	P	23	33.20	0.4
KKK	44.64	310	P	23	34.80	0.4
	0.9s	38.00nm			5.3mb	
DMN	44.69	309	P	23	35.40	0.6
	0.9s	37.00nm			5.3mb	</

18d 15h

QUE 60.32 304 eP 25 29.60 -1.4
 MSZ 60.73 145 P 25 33.50 0.2
 MAIO 68.03 309 iPd 26 21.50 0.3
 IR4 74.63 306 iPd 27 01.00 0.1
 IR2 74.70 307 iPd 27 01.00 -0.3
 IR5 74.88 306 eP 27 02.00 -0.4
 IR7 74.94 307 iPd 27 02.20 -0.5
 MAW 80.22 200 iP 27 31.50 0.5
 VNDA 81.54 172 e(P) 27 37.80 0.0
 PMO 89.50 105 iP 28 22.50 4.1X
 1.0s 55.00nm 5.8mb
 VAH 89.76 105 iP 28 23.40 3.8X
 1.0s 40.00nm 5.7mb
 TPT 89.76 105 iP 28 23.80 4.2X
 1.0s 40.00nm 5.7mb
 RUV 90.00 105 iP 28 24.80 4.1X
 1.0s 25.00nm 5.4mb
 INK 93.76 21 eP 28 44.00 6.9X
 ANMO 121.41 47 ePKP 34 15.40 0.5
 LKO 127.66 283 PKP 34 27.18 -0.1
 ZOBO 161.55 144 PKP 35 24.00 1.4
 S.D. = 1.2 on 53 of 61 obs.

APR 18, 1990 15h 27m 08.22±0.25s
 1.290 N ± 4.5km 123.113 E ± 5.2km
 DEPTH = 28.6km (2 depth phases)
 5.4mb (19 obs.)

MINAHASSA PENINSULA

(265)

TSM 5.82 300 ePc 28 35.10 0.2
 DAV 6.26 23 eP 28 41.50 0.4
 KKM 8.35 305 eP 29 08.50 -1.9
 TRT 13.75 229 ePc 30 23.60 0.0
 BAG 15.23 351 eP 30 43.00 -0.3
 MTN 16.14 151 eP 30 54.00 -0.8
 CVP 16.36 356 eP 31 01.00 3.4X
 1.0s 264.00nm 5.3mb
 SZP 16.37 351 eP 31 01.00 3.3X
 PIP 17.11 352 ePd 31 09.00 2.0
 KNA 17.83 162 eP 31 16.70 0.7
 KGM 19.80 272 eP 31 40.00 0.5
 IPM 22.30 279 ePd 32 06.80 1.8
 MBL 22.54 188 eP 32 06.60 -0.8
 0.7s 12.00nm 4.5mb
 SNG 23.17 285 iPd 32 15.50 1.9
 1.0s 158.00nm 5.5mb
 e 46 16.00
 WB5 23.76 153 eP 32 19.10 -0.2
 WRA 23.80 153 P 32 21.10 1.4
 0.7s 28.60nm 4.9mb
 GUMO 24.75 59 eP 32 28.90 0.0
 0.9s 92.07nm 5.4mb
 PJG 24.75 59 eP 32 29.00 0.1
 GUA 24.77 60 eP 32 28.80 -0.3
 0.8s 83.58nm 5.4mb
 NNT 25.75 297 eP 32 31.00 -7.3X
 KDB 26.23 115 eP 32 42.00 -0.8
 LOE 26.43 309 eP 32 44.00 -0.6
 OIS 27.06 144 eP 32 49.00 -1.4
 CHG 29.41 308 eP 33 12.50 0.8
 SSE 29.70 357 P 33 06.00 -8.0X
 i 33 13.30 25km
 KMI 30.79 322 Pd 33 25.00 0.9
 CTA 31.08 134 iPd 33 28.00 1.6
 2.0s 176.47nm 5.5mb
 MRWA 31.09 192 eP 33 24.00 -2.4
 0.6s 21.00nm 5.1mb
 MUN 33.73 191 eP 33 48.00 -1.4
 NWAQ 34.48 189 eP 33 55.00 -0.9
 RMO 37.08 140 eP 34 17.00 -1.0
 MAT 37.76 20 eP 34 20.00 -3.6X
 1.7s 88.46nm 5.3mb
 SHL 38.58 311 iP 34 30.40 -0.4
 ADE 38.91 159 iPd 34 34.20 0.9
 0.9s 57.14nm 5.3mb
 LZH 38.96 335 Pd 34 34.50 0.6
 2.0s 145.00nm 5.4mb
 pP 34 44.00 32km
 BJI 39.08 352 eP 34 34.00 -0.6
 2.0s 139.00nm 5.4mb
 BRS 40.34 137 i(P)d 34 44.30 -0.9
 0.7s 8.20nm 4.6mb
 BWA 42.73 149 eP 35 07.50 2.8
 CAN 43.73 149 eP 35 13.20 0.4
 TOO 43.86 154 eP 35 15.00 1.1
 GUN 44.37 310 P 35 18.60 0.0
 PKI 44.56 309 P 35 19.00 -0.3

KNK 44.77 310 P 35 21.60 0.0
 DMN 44.82 309 P 35 22.00 -0.1
 0.8s 65.00nm 5.6mb
 GKN 45.37 309 P 35 26.00 -0.3
 KOD 46.22 283 eP 35 34.10 0.7
 HYB 46.63 293 eP 35 37.00 0.8
 1.0s 50.00nm 5.5mb
 GBA 46.81 287 P 35 37.00 -0.6
 0.9s 28.00nm 5.3mb
 DZM 48.23 121 iPd 35 47.80 -1.0
 NDI 51.54 306 iPd 36 13.00 -1.0
 QUE 60.45 304 eP 37 17.20 -1.0
 MSZ 60.63 145 P 37 18.90 0.0
 MAIO 68.16 309 eP 38 08.00 -0.3
 MAW 80.24 200 iPd 39 19.00 1.6
 VNDA 81.50 172 P 39 24.20 0.3
 PMO 89.35 105 iP 40 07.70 3.7X
 1.1s 55.00nm 5.8mb
 TPT 89.62 105 iP 40 09.10 3.8X
 1.1s 45.00nm 5.7mb
 SOD 91.32 337 iP 40 10.70 -1.5
 NUR 93.06 331 eP 40 19.00 -1.3
 INK 93.74 21 eP 40 22.00 -1.3
 MBC 95.10 12 eP 40 29.50 0.0
 NB2 99.32 333 P 40 46.80 -2.1
 0.9s 3.10nm 4.8mb
 ANMO 121.32 47 ePKP 46 02.30 1.2
 ALO 121.33 47 ePKP 46 01.50 0.4
 1.0s 5.00nm
 ZOBO 161.45 144 PKP 47 11.00 2.2
 S.D. = 1.1 on 58 of 65 obs.

& APR 18, 1990 15h 28m 16.50s
 36.928 N 121.680 W
 DEPTH = 6.0km

CENTRAL CALIFORNIA

(39)

<BRK>. ML 4.7 (BRK).

Mo=7.3+10**15 Nm (BRK). Felt in the Watsonville area.

SAO 0.25 131 iPd 28 21.30 -0.3
 GCC 0.27 292 iPd 28 21.90 -0.2
 MHC 0.41 4 iPd 28 25.10 0.2
 iS 28 31.30
 ARN 0.44 16 iPd 28 25.40 0.1
 PRS 0.65 157 iPd 28 28.70 -0.7
 LLA 0.67 117 iPd 28 29.40 -0.5
 PCC 0.80 316 iPd 28 30.90 -1.5
 BKS 1.05 335 iPd 28 34.40 -2.2
 iS 28 51.00
 BRK 1.05 334 iPd 28 34.80 -1.9
 ZSP 1.11 336 iPd 28 36.30 -1.4
 PRI 1.13 134 iPd 28 37.20 -1.0
 PHAM 1.50 136 eP 28 41.90 -2.1
 CMB 1.51 43 iPd 28 42.70 -1.5
 FRI 1.58 87 iPd 28 43.20 -1.9
 NWRM 1.80 328 eP 28 44.70 -3.6
 BCH 2.17 143 eP 28 51.10 -2.6
 BLP 2.58 156 eP 28 56.30 -3.2
 ORV 2.63 3 ePd 28 58.00 -2.2
 ABL 2.88 135 eP 29 00.90 -3.1
 MIN 3.41 1 e(P) 29 10.10 -1.4
 KVN 3.53 52 eP 29 11.50 -1.7
 WDC 3.71 350 ePd 29 12.80 -2.7
 TNP 3.73 71 eP 29 14.00 -2.1
 FHC 4.27 336 eP 29 21.00 -2.5
 PLM 5.32 131 eP 29 34.40 -4.2
 GLA 6.82 122 eP 29 55.00 -4.7
 LRM 11.26 35 eP 31 07.90 6.7
 SES 15.48 26 eP 32 00.00 3.0
 YKA 25.97 8 eP 34 02.00 10.8
 0.5s 0.30nm
 INK 32.12 352 eP 34 48.00 1.7
 30 obs. associated

& APR 18, 1990 15h 36m 51.50s
 36.932 N 121.688 W
 DEPTH = 9.0km

CENTRAL CALIFORNIA

(39)

<BRK>. ML 4.2 (BRK).

Mo=2.5+10**16 Nm (BRK). Felt in the Watsonville area.

SAO 0.26 130 iPd 36 56.40 -0.5
 GCC 0.27 292 iPd 36 56.80 -0.3
 MHC 0.41 5 iPd 36 59.90 0.0
 ARN 0.43 17 iPd 37 00.40 0.1

PRS 0.65 157 iPd 37 03.80 -0.8
 LLA 0.68 118 iPd 37 04.50 -0.5
 PCC 0.79 316 iPd 37 06.10 -0.9
 BKS 1.04 335 eP 37 09.90 -1.3
 iS 37 25.50
 BRK 1.04 334 ePd 37 09.60 -1.7
 ZSP 1.11 336 iPd 37 11.70 -0.7
 iS 37 25.90
 PRI 1.14 133 iPd 37 12.30 -0.7
 PHAM 1.51 136 eP 37 16.50 -2.2
 CMB 1.51 43 ePd 37 17.70 -1.1
 FRI 1.59 87 ePd 37 18.20 -1.6
 BCH 2.17 143 eP 37 26.10 -2.4
 BLP 2.59 156 eP 37 27.20 -7.0
 ORV 2.62 3 ePd 37 33.00 -1.8
 MIN 3.41 1 e(P) 37 44.70 -1.3
 KVN 3.54 52 eP 37 46.20 -1.7
 WDC 3.70 350 ePd 37 46.80 -3.3
 TNP 3.74 71 eP 37 50.00 -0.8
 FHC 4.26 336 e(P) 37 58.00 0.0
 22 obs. associated

& APR 18, 1990 15h 46m 03.70s
 36.932 N 121.695 W

DEPTH = 9.0km

4.6mb (11 obs.)

CENTRAL CALIFORNIA

(39)

<BRK>. ML 5.2 (BRK).

Mo=3.9+10**16 Nm (BRK). Felt strongly in the Sonto Cruz-Watsonville area. Felt in Monterey, San Benito, San Mateo, Sonto Cloro and Sonto Cruz Counties.

GCC 0.26 292 iPd 46 08.80 -0.4
 SAO 0.26 130 iPd 46 08.70 -0.5
 MHC 0.41 6 iPd 46 12.00 -0.1
 ARN 0.44 17 iPd 46 12.30 -0.3
 PRS 0.65 156 iPd 46 16.00 -0.8
 LLA 0.68 117 iPd 46 16.80 -0.5
 PCC 0.79 316 ePd 46 18.00 -1.1
 BKS 1.04 336 ePd 46 22.10 -1.3
 BRK 1.04 335 eP 46 21.60 -1.8
 ZSP 1.11 336 iPd 46 23.10 -1.4
 PRI 1.14 133 iPd 46 24.60 -0.7
 PHAM 1.51 136 eP 46 29.50 -1.5
 CMB 1.52 43 iPd 46 30.30 -0.8
 PKEM 1.55 124 eP 46 30.00 -1.4
 FRI 1.59 87 eP 46 30.50 -1.6
 NWRM 1.79 329 eP 46 33.00 -2.0
 BCH 2.18 143 eP 46 37.90 -2.8
 BLP 2.59 156 eP 46 44.00 -2.5
 ORV 2.62 3 ePd 46 45.60 -1.4
 ABL 2.89 135 eP 46 48.30 -2.6
 MIN 3.41 1 eP 46 56.70 -1.5
 KVN 3.54 52 eP 46 58.50 -1.7
 WDC 3.70 350 eP 46 59.60 -2.7
 TNP 3.74 71 eP 47 01.80 -1.3
 FHC 4.26 336 eP 47 10.20 0.0
 PLM 5.33 131 eP 47 22.00 -3.6
 GLA 6.84 122 eP 47 42.50 -4.1
 DUG 7.68 62 eP 48 01.50 2.9
 LON 9.81 360 eP 48 29.00 1.0
 LRM 11.27 35 eP 48 52.60 4.5
 PGC 11.78 354 eP 48 57.00 2.2
 NEW 11.81 15 eP 48 55.00 -0.3
 PNT 12.47 6 eP 49 09.00 4.9
 0.8s 22.00nm 5.5mb
 ALO 12.51 95 eP 49 03.00 -1.9
 SES 15.49 26 eP 49 44.50 0.7
 TUL 20.85 85 eP 50 49.00 0.7
 1.0s 11.00nm 4.2mb
 UYO 22.30 89 e(P) 51 01.80 -1.1
 FFC 22.35 31 eP 51 03.00 -0.1
 1.0s 40.00nm 4.8mb
 RSON 24.33 46 eP 51 21.00 -1.5
 1.0s 10.85nm 4.4mb
 YKA 25.96 8 eP 51 37.70 -0.2
 1.1s 4.10nm 4.0mb
 FBA 32.00 339 eP 52 33.50 1.4
 1.0s 10.00nm 4.7mb
 INK 32.12 352 eP 52 34.00 1.0
 pP 52 49.00 61kmX
 TTA 33.41 332 eP 52 44.60 0.2
 1.0s 14.50nm 4.9mb
 IMA 34.56 338 eP 52 54.30 -0.2

MBC	1.0s	8.75nm	4.6mb	
	39.42	1 eP	53 37.00	2.0
	1.2s	18.00nm	4.6mb	
FRB	41.45	33 eP	53 55.00	3.2
KEV	71.18	11 eP	57 38.00	13.7
ZOBO	73.12	126 P	57 37.00	-0.2
SOD	73.28	12 eP	57 47.00	10.3
NB2	75.10	22 P	57 50.50	3.0
	0.9s	2.20nm	4.2mb	
MAT	76.02	305 eP	57 50.00	-3.1
NUR	79.05	16 eP	58 13.00	3.7
BRG	84.27	26 eP	58 42.80	6.0
	1.3s	13.00nm	5.0mb	
PRU	85.22	27 eP	58 45.00	3.4
KHC	85.57	28 eP	58 47.90	4.4
	55 obs.	associated		

APR 18, 1990 15h 50m 46.31±0.28s
 1.337 N ± 5.4km 122.846 E ± 6.8km
 DEPTH = 33.0km (normal)
 5.1mb (9 obs.)
 MINAHASSA PENINSULA (265)

TSM	5.56	301 iPd	52 09.30	0.3
DAV	6.33	25 eP	52 19.00	-0.8
	1.5s	1800.00nm	6.6mb X	
KKM	8.10	305 ePd	52 44.50	-0.2
BAG	15.14	352 eP	54 18.80	-1.0
MTN	16.31	150 eP	54 35.00	0.4
PIP	17.02	353 ePd	54 45.00	1.4
KNA	17.96	161 eP	54 55.00	-0.2
IPM	22.03	279 ePc	55 40.90	1.0
SNG	22.91	285 eP	55 49.50	1.0
WB5	23.92	152 eP	55 58.10	-0.3
WRA	23.97	153 Pc	55 57.60	-1.2
	0.5s	8.80nm	4.5mb	
NNT	25.49	297 eP	56 10.00	-3.4X
		e	12 16.00	
LOE	26.19	309 eP	56 20.00	0.0
KDB	26.49	114 eP	56 22.00	-0.7
OIS	27.26	144 eP	56 29.00	-0.7
MEKA	28.10	188 eP	56 35.30	-1.9
CHG	29.17	308 eP	56 48.50	1.5
KMI	30.59	322 Pc	57 00.00	0.1
BAL	32.30	190 eP	57 13.00	-1.5
SHL	38.35	312 eP	58 06.50	0.1
LZH	38.81	335 Pc	58 10.50	0.4
	2.0s	61.00nm	5.0mb	
		pP	58 20.00	32kmX
		sP	58 23.50	
BJI	39.00	352 eP	58 10.00	-1.4
	1.5s	26.00nm	4.8mb	
ADE	39.05	159 eP	58 11.40	-0.6
	0.9s	42.02nm	5.2mb	
BWA	42.91	148 eP	58 45.20	1.5
CAN	43.90	149 eP	58 53.00	1.3
TOO	44.02	154 eP	58 55.00	2.3
GUN	44.14	310 P	58 53.20	-0.9
PKI	44.33	309 P	58 55.70	0.0
KKN	44.54	310 P	58 56.40	-0.8
	1.0s	42.00nm	5.2mb	
DMN	44.58	309 P	58 57.20	-0.5
	1.0s	62.00nm	5.4mb	
GKN	45.14	309 P	59 01.60	-0.4
	1.0s	62.00nm	5.5mb	
KOD	45.95	283 eP	59 13.00	4.3X
HYB	46.36	293 eP	59 11.50	-0.1
	1.0s	45.00nm	5.4mb	
G8A	46.54	287 Pc	59 12.30	-0.7
	1.0s	9.50nm	4.7mb	
POO	50.97	293 ePn	59 48.00	0.6
NDI	51.29	306 eP	59 48.00	-1.6
QUE	60.20	304 eP	00 53.30	-0.7
MAIO	67.92	309 eP	01 45.00	0.7
IR4	74.52	306 eP	02 24.00	0.0
IR2	74.59	307 iPd	02 24.50	0.1
IR5	74.77	306 eP	02 26.00	0.5
IR7	74.83	307 eP	02 25.50	-0.3
VNDA	81.58	172 e(P)	03 01.90	0.2
YKA	103.25	24 ePd	04 44.00	0.3
	0.5s	0.10nm	3.8mb X	
ANMO	121.49	47 ePKP	09 39.50	0.7
KIC	127.12	279 PKP	09 49.30	-0.7
ZOBO	161.64	145 PKP	10 49.00	2.6
	S.D. = 1.0	on 45 of 47 obs.		
& APR 18, 1990 16h 06m 28.50s				

36.923 N 121.687 W
 DEPTH = 9.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 3.9 (BRK).
 Mo=9.2+10+14 Nm (BRK). Felt in
 the Watsonville area.

SAO	0.25	129 iPd	06 33.20	-0.6
GCC	0.27	293 iPd	06 33.80	-0.3
MHC	0.42	5 iPd	06 37.10	0.0
ARN	0.44	16 iPd	06 37.40	-0.1
PRS	0.64	157 iPd	06 40.60	-0.8
LLA	0.67	117 iPd	06 41.30	-0.6
PCC	0.80	316 iPd	06 43.20	-0.9
BKS	1.05	336 ePd	06 46.00	-2.3
		eS	07 02.90	
BRK	1.05	334 ePd	06 46.80	-1.6
ZSP	1.12	336 iPd	06 48.20	-1.3
PRI	1.13	133 iPd	06 49.40	-0.5
PHAM	1.50	136 eP	06 53.70	-1.9
CMB	1.52	43 ePd	06 54.60	-1.3
PKEM	1.53	124 eP	06 54.50	-1.6
FRI	1.59	87 ePd	06 54.90	-1.9
NWRM	1.80	328 eP	07 02.00	2.1
BCH	2.17	143 eP	07 02.90	-2.5
ORV	2.63	3 eP	07 11.00	-0.9
ABL	2.88	135 eP	07 12.80	-2.8
MIN	3.42	1 eP	07 22.30	-0.9
KVN	3.54	52 eP	07 23.50	-1.5
FHC	4.27	336 e(P)	07 50.00	14.9
	22 obs.	associated		

* APR 18, 1990 16h 19m 00.77±0.72s
 1.226 N ±17.3km 123.168 E ±19.7km
 DEPTH = 33.0km (normal)
 4.8mb (6 obs.)
 MINAHASSA PENINSULA (265)

TSM	5.90	300 ePd	20 28.10	-0.1
IPM	22.36	279 ePd	24 06.80	9.2X
		e	28 03.50	
WB5	23.68	153 eP	24 10.20	-0.3
NANU	24.79	197 iPd	24 20.60	-0.6
	0.4s	13.00nm	4.9mb	
OIS	26.98	144 eP	24 40.00	-1.6
SHL	38.66	311 iPd	26 23.50	0.0
BWA	42.65	149 eP	26 58.20	2.2
CAN	43.64	149 eP	27 04.30	0.2
GUN	44.45	310 P	27 10.40	-0.8
	0.8s	20.00nm	5.0mb	
PKI	44.65	309 P	27 12.70	0.0
KKN	44.85	310 P	27 14.20	-0.1
	0.8s	11.00nm	4.8mb	
DMN	44.90	309 P	27 14.60	-0.1
	0.8s	11.00nm	4.8mb	
GKN	45.45	309 P	27 18.60	-0.3
	0.8s	15.00nm	5.0mb	
HYB	46.70	293 ePd	27 29.50	0.7
GBA	46.88	287 Pd	27 30.80	0.7
	0.6s	2.60nm	4.4mb	
	S.D. = 0.9	on 14 of 15 obs.		

& APR 18, 1990 16h 19m 13.20s
 36.920 N 121.678 W
 DEPTH = 9.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 4.2 (BRK).
 Mo=1.6+10+15 Nm (BRK). Felt in
 the Watsonville area.

SAO	0.24	130 iPd	19 17.90	-0.4
GCC	0.28	293 iPd	19 18.70	-0.3
MHC	0.42	4 iPd	19 21.80	0.0
ARN	0.44	15 iPd	19 22.20	0.0
PRS	0.64	157 iPd	19 25.20	-0.8
LLA	0.66	117 iPd	19 25.90	-0.6
PCC	0.81	316 iPd	19 27.70	-1.2
BKS	1.05	335 iPd	19 31.30	-1.8
		eS	19 47.90	
BRK	1.06	334 iPd	19 31.50	-1.7
ZSP	1.12	336 iPd	19 32.90	-1.4
PRI	1.13	133 ePd	19 33.70	-0.8
PHAM	1.50	136 eP	19 38.30	-1.9
CMB	1.52	42 iPd	19 39.40	-1.2
PKEM	1.53	124 eP	19 40.00	-0.7
FRI	1.58	87 ePd	19 39.80	-1.6
BCH	2.16	143 eP	19 47.90	-2.1

ORV	2.64	3 eP	19 54.80	-1.8
ABL	2.87	135 P	19 57.70	-2.5
MIN	3.42	1 eP	20 06.70	-1.2
KVN	3.54	52 eP	20 08.00	-1.6
FHC	4.27	336 e(P)	20 18.00	-1.9
	21 obs.	associated		

* APR 18, 1990 16h 21m 37.36±0.59s
 1.169 N ± 8.5km 123.690 E ±16.1km
 DEPTH = 33.0km (normal)
 4.8mb (3 obs.)
 MINAHASSA PENINSULA (265)

DAV	6.17	18 eP	23 07.90	-0.7
BAG	15.45	349 eP	25 15.00	0.2
MTN	15.76	152 eP	25 19.00	0.4
		e	26 40.00	
KNA	17.54	164 eP	25 41.00	-0.1
MBL	22.51	189 eP	26 34.00	-1.7
	0.5s	3.00nm	4.0mb	
WB5	23.39	154 eP	26 44.00	-0.3
WRA	23.44	154 Pc	26 43.70	-1.0
	0.6s	30.50nm	5.0mb	
KDB	25.65	115 eP	27 06.00	0.0
OIS	26.63	145 eP	27 14.00	-1.0
LOE	26.96	308 eP	27 17.00	-1.0
LZH	39.32	334 P	29 04.50	-0.9
	2.5s	94.00nm	5.1mb	
BWA	42.33	149 iPd	29 32.00	2.0
CAN	43.33	149 iPd	29 39.10	1.0
TOO	43.51	155 eP	29 40.00	0.5
MAIO	68.68	309 eP	32 43.00	2.9
		i	33 58.00	

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

* APR 18, 1990 16h 23m 31.25±0.99s
 1.948 S ±12.7km 126.050 E ±16.3km
 DEPTH = 33.0km (normal)
 5.2mb (4 obs.)
 MOLUCCA SEA (269)

WB5	19.59	156 eP	28 05.30	5.5X
LAT	21.40	103 eP	28 19.00	0.5
OIS	22.74	145 eP	28 33.00	1.2
GUMO	24.22	50 eP	28 45.80	-0.4
	1.2s	155.56nm	5.4mb	
PJG	24.22	50 eP	28 45.80	-0.4
CTA	26.73	134 iPd	29 11.50	1.6
	1.1s	41.14nm	5.0mb	
		e	29 21.00	
RMO	32.73	140 eP	30 03.00	-0.2
ADE	34.90	162 eP	30 19.30	-2.7
	0.9s	48.74nm	5.4mb	
BRS	35.99	137 iPd	30 30.10	-1.2
	0.7s	10.00nm	4.9mb	
BWA	38.46	150 eP	30 53.50	1.5
CAN	39.46	150 eP	31 00.00	-0.3
TOO	39.70	156 eP	31 02.00	-0.3
KOD	49.85	285 eP	32 24.80	0.7

S.D. = 1.3 on 12 of 13 obs.

? APR 18, 1990 16h 43m 55.10±0.83s
 1.489 N ±25.5km 123.611 E ±27.3km
 DEPTH = 33.0km (normal)
 4.3mb (2 obs.)
 MINAHASSA PENINSULA (265)

IPM	22.76	278 ePd	48 55.90	0.0
WB5	23.71	154 eP	49 05.10	0.0
WRA	23.76	154 Pd	49 05.80	0.2
	0.9s	9.70nm	4.3mb	
OIS	26.94	145 eP	49 35.00	-0.5
CAN	43.64	149 eP	52 00.00	1.6
GUN	44.63	310 P	52 07.10	0.2
PKI	44.83	309 P	52 10.50	2.0
KKN	45.03	309 P	52 09.60	-0.4
DMN	45.08	309 P	52 11.00	0.5
GKN	45.63	309 P	52 14.40	-0.3
GBA	47.23	287 Pd	52 26.10	-1.1
	0.9s	3.20nm	4.3mb	
MAIO	68.42	309 eP	54 56.00	-0.2
ZOBO	161.31	142 PKP	03 53.00	-1.9
	S.D. = 1.1	on 13 of 13 obs.		

APR 18, 1990 16h 54m 46.36±0.36s
 1.221 N ± 7.3km 123.039 E ± 9.5km
 DEPTH = 33.0km (normal)

18d 16h

5.0mb (8 obs.)
MINAHASSA PENINSULA (265)

TSM	5.79	301	eP	56	11.80	-0.4
PGP	12.37	350	eP	57	44.00	0.9
MTN	16.12	150	eP	58	34.00	1.8
CVP	16.42	356	eP	58	37.00	0.9
	1.0s	157.00nm			5.1mb	
KNA	17.79	162	eP	58	53.50	0.3
IPM	22.23	279	ePd	59	43.50	1.5
SNG	23.12	285	eP	59	55.30	4.6X
WB5	23.73	153	eP	59	55.00	-1.6
WRA	23.78	153	Pd	59	56.90	-0.1
	0.8s	16.70nm			4.6mb	
NANU	24.75	197	iPc	00	06.10	-0.3
	0.7s	57.00nm			5.3mb	
NNT	25.71	297	eP	00	17.00	1.4
KDB	26.27	114	eP	00	20.00	-0.7
LOE	26.41	309	eP	00	21.00	-1.1
		e		11	53.50	
				23	32.00	
QIS	27.05	144	iPc	00	26.10	-1.7
CHG	29.39	308	eP	00	57.00	7.9X
KMI	30.80	322	eP	01	01.50	-0.2
MAT	37.85	20	(P)	01	56.00	-5.9X
	1.8s	59.09nm			5.1mb	
ADE	38.88	159	e(P)	02	10.20	-0.4
	0.8s	37.31nm			5.2mb	
LZH	38.99	335	P	02	10.00	-1.7
	2.5s	70.00nm			5.0mb	
		i		02	36.50	
BWA	42.71	149	eP	02	43.10	1.0
CAN	43.71	149	iPc	02	50.70	0.5
TOO	43.84	154	eP	02	52.00	0.8
GUN	44.36	310	P	02	55.40	-0.6
PKI	44.55	309	P	02	58.40	0.9
KKN	44.76	310	P	02	58.60	-0.5
DMN	44.80	309	P	02	59.80	0.3
GKN	45.36	309	P	03	03.00	-0.8
KOD	46.16	283	eP	03	14.00	3.5X
HYB	46.59	293	eP	03	14.00	0.6
G8A	46.76	288	Pc	03	13.10	-1.7
	0.7s	3.40nm			4.4mb	
QUE	60.43	304	eP	05	03.00	7.4X
MAIO	68.14	309	eP	05	46.00	0.3
VNDA	81.44	172	P	07	00.80	-0.3
NB2	99.35	333	P	08	31.80	5.3X
	1.2s	4.30nm			4.9mb	
ZOBO	161.44	144	PKP	14	47.00	0.7

S.D. = 1.0 on 29 of 35 obs.

APR 18, 1990 17h 06m 18.49± 0.15s
1.263 N ± 3.2km 122.984 E ± 3.8km
DEPTH = 35.3km (3 depth phases)

5.7mb (45 obs.)
MINAHASSA PENINSULA (265)

TSM	5.72	301	iPc	07	45.00	1.7
	0.9s	918.30nm			6.3mb	
DAV	6.34	24	eP	07	51.00	-1.0
KHKI	12.06	217	eP	09	13.50	2.5
		e		30	40.00	
PGP	12.33	351	ePd	09	15.00	0.5
	1.2s	95.00nm			5.8mb	
TRT	13.63	229	iPc	09	31.50	-0.4
	1.1s	147.80nm			5.7mb	
MTN	16.18	150	eP	10	06.00	1.0
SZP	16.38	351	eP	10	09.00	1.5
PIP	17.11	352	ePd	10	19.00	2.2
KNA	17.84	162	eP	10	26.50	0.6
	0.8s	291.00nm			5.5mb	
KGM	19.67	272	ePd	10	48.90	1.2
KLM	21.40	275	eP	11	07.00	1.5
MNDI	21.92	110	eP	11	15.00	4.0X
IPM	22.17	279	ePc	11	15.20	1.9
	1.0s	117.70nm			5.3mb	
MBL	22.50	188	iPc	11	15.70	-0.7
SNG	23.06	285	eP	11	23.50	1.5
WB5	23.79	153	iP	11	28.00	-1.1
WRA	23.84	153	Pd	11	29.80	0.3
	0.9s	85.20nm			5.3mb	
NANU	24.77	197	eP	11	38.50	0.0
GUMO	24.88	59	eP	11	39.70	0.1
	1.3s	333.33nm			5.8mb	
PJG	24.88	59	eP	11	40.00	0.4
GUA	24.89	60	eP	11	40.20	0.4
	1.4s	465.12nm			5.9mb	

LAT	25.23	108	eP	11	45.00	2.1	BEE	73.70	297	iP	17	48.30	-2.8
NNT	25.64	297	iPd	11	49.00	2.2		1.5s	177.00nm				5.8mb
KDB	26.33	114	eP	11	53.00	-0.2	BBU	73.78	297	eP	17	48.80	-2.8
QIS	27.12	144	iPc	11	59.20	-1.1		0.8s	51.00nm				5.6mb
WARB	27.51	173	iPd	12	03.70	-0.2	DHR	74.08	297	ePc	17	53.20	-0.1
MEKA	28.05	188	eP	12	06.70	-2.0	IR4	74.67	306	iPc	17	57.30	0.5
CHG	29.32	308	ePc	12	21.00	0.6	IR2	74.75	307	iPc	17	57.50	0.3
	1.0s	19.50nm			4.8mb		IR5	74.93	306	iP	17	58.50	0.2
SSE	29.72	357	P	12	29.00	5.3X	IR7	74.98	307	iPc	17	58.80	0.2
	1.4s	103.00nm			5.4mb		RYD	77.10	295	ePc	18	09.50	-1.1
KMI	30.74	322	Pc	12	33.50	0.4	KER	77.64	305	eP	18	11.00	-2.5
	1.5s	0.13nm			2.5mb X		TAB	78.72	308	eP	18	20.00	0.6
Z	16s	10.90um			5.6mszX		KMSA	78.77	290	ePc	18	18.70	-1.1
N	14s	5.60um					SLY	79.09	306	ePd	18	20.00	-1.2
E	14s	4.20um							eS	28	09.00		
		pP	12	45.00	43km		BHD	79.77	303	ePd	18	25.50	0.5
		S	17	45.00					eS	28	24.00		
		e	17	58.00			QASM	79.97	296	ePc	18	26.00	-0.3
MRWA	31.04	192	iPc	12	34.20	-1.2	ARO	80.09	281	eP+	18	25.50	-1.6
	0.5s	45.00nm			5.5mb		MAW	80.17	200	iP	18	27.30	0.9
CTA	31.16	134	iPc	12	36.50	0.0		1.0s	138.00nm				5.9mb
	1.3s	173.08nm			5.7mb				e	23	51.00		
		e	12	44.00	26km		ANM	81.04	25	eP	18	31.60	0.5
		i	13	06.00			MSL	81.07	306	ePd	18	31.00	-0.8
COOL	32.02	183	eP	12	42.00	-2.0			ePcP	18	41.50		
BAL	32.25	190	iPc	12	44.00	-2.0			eS	28	33.00		
KLB	33.05	188	eP	12	52.00	-0.9	VNDA	81.49	172	eP	18	33.80	0.6
MUN	33.68	190	iPd	12	57.20	-1.2	SBA	82.44	171	P	18	40.00	1.9
RMQ	37.14	140	eP	13	27.00	-0.9	AAE	84.09	279	eP	18	50.00	1.8
CHJJ	37.66	21	P	13	31.30	-0.9	NPA	84.27	255	iP	18	51.90	3.3X
MTMJ	37.73	20	P	13	32.20	-0.7		1.0s	90.00nm				5.9mb
MAT	37.83	20	eP	13	30.00	-3.6X			i	19	20.90	112kmX	
	1.5s	166.67nm			5.7mb		SVW	84.73	29	eP	18	50.60	0.5
SHL	38.50	311	iP	13	39.60	0.0		1.2s	54.70nm				5.6mb
		eS	19	37.00			TTA	84.78	27	ePc	18	50.50	0.1
LZH	38.93	335	Pc	13	44.30	1.2		1.3s	75.50nm				5.7mb
	3.0s	410.00nm			5.7mb		BRW	85.69	19	eP	18	55.70	1.1
		pP	32	26.00			IMA	86.14	24	ePc	18	56.90	-0.3
		eS	38	17.00				1.2s	46.90nm				5.6mb
ADE	38.93	159	eP	13	43.40	0.5	KVT	86.66	311	iP	19	01.10	0.0
	1.1s	354.43nm			6.1mb		HRI	87.01	303	eP	19	03.00	0.9
BJI	39.09	352	eP	13	44.00	-0.1	DSI	87.30	301	eP	19	04.00	0.7
	1.4s	122.00nm			5.5mb		BADA	87.63	298	ePc	19	05.30	0.4
CMS	39.13	148	eP	13	45.00	0.5	MBH	87.73	300	eP	19	06.00	0.6
BRS	40.41	137	iP	13	55.20	0.0	PMR	87.89	29	P	19	05.30	-0.2
		i	14	24.00	127kmX			1.4s	51.14nm				5.6mb
		i	14	46.70			TVO	88.25	108	eP	19	15.00	6.8X
		i	15	29.10				1.3s	140.00nm				6.1mb
		i	18	24.20			FBA	88.53	25	eP	19	08.00	-0.6
COO	41.95	141	eP	14	09.00	1.2	TOA	89.29	28	eP	19	12.10	-0.2
BWA	42.78	148	iPc	14	16.80	2.3		1.2s	125.00nm				6.1mb
CAN	43.77	149	iPc	14	23.50	0.9	BBTK	89.37	310	eP	19	12.00	-1.2
TOO	43.90	154	eP	14	25.00	1.4	PMO	89.47	105	iP	19	17.60	3.7X
CNB	43.95	148	iPd	14	26.00	1.9		1.3s	330.00nm				6.5mb
MRRJ	44.08	19	P	14	24.60	-0.3			iP	19	47.20	113kmX	
GUN	44.29	310	P	14	28.20	0.9	VAH	89.73	105	iP	19	18.50	3.4X
PKI	44.48	309	P	14	29.40	0.5		1.3s	220.00nm				6.3mb
KKN	44.69	310	P	14	31.30	0.9			iP	19	48.30	113kmX	
DMN	44.73	309	P	14	31.70	0.9	TPT	89.74	105	iP	19	18.80	3.6X
HOOJ	44.81	21	P	14	31.80	1.0		1.3s	330.00nm				6.5mb
GKN	45.29	309	P	14	35.60	0.5			iP	19	48.40	113kmX	
KUSJ	45.96	22	P	14	39.70	-0.2	RUV	89.97	105	iP	19	19.70	3.5X
KOD	46.10	283	eP	14	42.90	1.1		1.3s	220.00nm				6.3mb
ASAJ	46.11	20	eP	14	40.90	-0.2			iP	19	49.40	113kmX	
HYB	46.52	293	iPc	14	45.60	0.8	KEV	90.90	340	eP	19	19.00	-0.6
	1.4s	300.00nm			6.1mb		SPA	91.25	180	iPc	19	22.50	1.1
GBA	46.70	287	Pd	14	45.90	-0.2		1.5s	147.73nm				6.1mb
	1.0s	85.50nm			5.7mb				i	19	51.50	110kmX	
DZM	48.32	121	iPc	14	58.10	-0.9	SOD	91.30	337	iP	19	19.90	-1.5
POO	51.13	293	iP	15	20.30	-0.2	ELL	91.72	307	eP	19	22.00	-0.2
NDI	51.45	306	iPc	15	22.00	-0.7	NUR	93.02	331	eP	19	28.00	-1.4
		eS	22	49.00			VR1	93.47	316	ePd	19	31.50	-0.4
SGE	57.23	112	eP	16	07.20	1.9	INK	93.81	21	eP	19	32.00	-1.0
SVA	57.85	112	eP	16	09.50	0.0	MLR	94.05	316	ePc	19	34.00	-0.7
QUE	60.36	304	iPc	16	26.50	-0.5	SLR	94.78	244	iP	19	38.00	-0.5
	0.9s	31.51nm			5.4mb			1.5s	180.56nm				6.3mb
		e(S)	24	44.50			MBC	95.15	12	eP	19	39.00	0.0
MSZ	60.68	145	P	16	28.70	0.1		1.2s	18.00nm				5.4mb
THZ	62.16	140	P	16	39.50	0.7	SEK	95.32	242	iPc	19	42.00	1.1
LTZ	62.27	141	P	16	38.80	-0.7		1.1s	16.46nm				5.4mb
KHZ	62.89	140	P	16	42.60	-0.9	PRY	95.48	243	eP	19	40.50	-1.2
WEL	63.15	138	P	16	45.00	-0.2		1.1s	13.51nm				5.3mb
MNG	63.31	137	P	16	45.10	-1.3	KSR	96.03	244	eP	19	42.20	-2.1
MAIO	68.07	309	iPc	17	17.20	0.0	VAY	96.99	312	eP	19	42.00	-6.0X
	1.2s	37.50nm			5.4mb		SPC	97.36	320	e(P)	19	48.70	-1.1
BJA	73.62	297	iP	17	48.50	-2.1			e	23	48.40		
	1.5s	222.00nm			5.9mb		KRA	97.40	321	eP	19	48.40	-1.3

												S.D. = 0.5 on 5 of 5 obs.				
HFS	98.41	331 eP	19 59.90 37km	1.0s	13.70nm	5.4mb		SHL	38.81	311 eP	25 15.00 -2.2	& APR 18, 1990 17h 47m 23.10s				
Z	17s	1.87um	5.6mszx					BJI	39.04	351 eP	25 20.00 1.4	37.880 N 121.975 W				
		LR	01 00.00					BWA	42.62	149 eP	25 52.00 3.8X	DEPTH = 2.0km				
SRO	98.89	319 eP	19 56.90 0.5					CAN	43.61	149 eP	25 57.20 0.9	CENTRAL CALIFORNIA (39)				
		e	23 36.30					GUN	44.61	310 P	26 04.80 -0.1	<BRK>. ML 2.3 (BRK).				
		e	24 15.80					PKI	44.80	309 P	26 07.10 0.6	Mo=4.3*10**13 Nm (BRK). Felt at				
NB2	99.28	333 P	19 55.90 -2.2					KKN	45.01	309 P	26 08.90 0.9	Walnut Creek.				
	1.2s	12.30nm	5.3mb					DMN	0.8s	26.00nm	5.2mb					
KSP	99.50	322 eP	19 57.80 -1.4						45.06	309 P	26 09.20 0.8	BKS 0.21 269 iPd 47 27.30 0.1				
		e	24 04.00					KOD	0.8s	52.00nm	5.5mb	iS 47 31.30				
PRU	100.80	321 ePd	20 05.50 0.4					HYB	46.58	283 eP	26 20.00 -0.6	BRK 0.23 268 iPd 47 27.70 0.1				
		e	20 33.50					GBA	46.95	293 eP	26 23.50 0.3	ZSP 0.23 286 iPc 47 28.00 0.3				
BRG	100.93	322 iPd	20 05.60 0.0						47.15	287 Pd	26 22.70 -2.1	PCC 0.50 221 ePd 47 32.60 -0.4				
	1.3s	24.00nm	5.6mb					NDI	0.9s	18.10nm	5.1mb	MHC 0.60 154 iPc 47 35.20 0.1				
		i	20 16.00					IR4	51.79	306 eP	27 01.50 1.2	eS 47 45.30				
		i	20 34.40					IR2	75.02	306 ePc	29 33.00 -0.8	ARN 0.64 146 eP 47 35.60 -0.2				
		e	20 47.00					IR5	75.27	306 eP	29 35.00 -0.3	GCC 0.85 181 ePd 47 39.70 -0.3				
		e	24 10.80					IR7	75.33	306 eP	29 35.50 0.0	SAO 1.19 159 e(P) 47 44.50 -1.5				
		e	26 36.00					KEV	90.96	340 eP	30 54.00 -0.8	CMB 1.27 82 e(P) 47 45.00 -2.4				
CLL	101.38	323 ePd	20 07.00 -0.6					SOD	91.38	337 eP	30 56.00 -0.8	9 obs. associated				
	1.6s	16.00nm	5.4mb					NUR	93.16	331 eP	31 05.00 -0.1	* APR 18, 1990 18h 12m 24.68±0.74s				
KHC	101.64	321 Pd	20 08.80 -0.1					NB2	99.41	333 P	31 32.20 -1.5	0.680 N ±15.8km 123.557 E ±18.5km				
		e	23 49.90						1.0s	3.80nm	4.9mb	DEPTH = 33.0km (normal)				
YKA	103.26	24 ePd	20 15.00 -0.7					ZOBO	161.30	143 PKP	37 54.00 1.0	4.7mb (2 obs.)				
	1.2s	3.50nm	5.0mb						S.D. = 1.1 on 29 of 32 obs.			MINAHASSA PENINSULA (265)				
LRM	112.40	39 ePKP	24 54.00 1.0						* APR 18, 1990 17h 26m 08.55±0.72s			WB5 23.02 153 eP 17 28.20 0.2				
FFC	113.11	26 ePKP	24 53.00 -0.8						1.224 N ±12.8km 122.994 E ±16.4km			QIS 26.31 144 eP 17 58.00 -1.4				
	1.1s	15.00nm							DEPTH = 33.0km (normal)			MAT 38.18 19 (P) 19 43.00 0.0				
FRB	114.59	6 ePKP	24 55.00 -1.3						5.0mb (1 obs.)			1.0s 12.00nm 4.7mb				
PV09	117.91	44 e(PKP)	25 04.20 0.3						MINAHASSA PENINSULA (265)			BWA 41.98 149 eP 20 15.50 1.0				
		e	35 24.40						IPM	22.19	279 ePd	31 05.10 1.4	CAN 42.98 149 eP 20 22.90 0.3			
RSON	119.42	26 PKP	25 05.00 -1.0						MBL	22.46	188 eP	31 05.70 -0.6	HYB 47.27 293 eP 20 58.00 0.8			
GOL	119.91	42 PKP	25 07.20 -0.4						WB5	23.75	153 eP	31 18.50 -0.5	GBA 47.42 288 Pd 20 57.40 -0.9			
ANMO	121.44	47 ePKP	25 10.80 0.2						BAL	32.21	190 eP	32 34.00 -2.0	0.7s 5.00nm 4.6mb			
ALO	121.44	47 ePKP	25 10.50 -0.1						BJI	39.13	352 eP	33 34.00 -0.7	S.D. = 1.1 on 7 of 7 obs.			
KIC	127.27	279 PKP	25 22.00 -0.2						BWA	42.74	148 eP	34 06.80 2.3	APR 18, 1990 18h 24m 50.93±0.19s			
TIC	127.52	279 PKP	25 22.20 -0.4						CAN	43.73	149 iPc	34 13.30 0.7	1.215 N ±4.1km 123.429 E ±4.5km			
LIC	127.57	279 PKP	25 22.40 -0.3						HYB	46.54	293 eP	34 35.50 0.2	DEPTH = 31.2km (3 depth phases)			
LKO	127.68	283 PKP	25 22.20 -0.8						GBA	46.72	288 Pd	34 37.00 0.4	5.4mb (15 obs.)			
	1.3s	66.50nm								1.1s	19.00nm	5.0mb	MINAHASSA PENINSULA (265)			
TUL	128.31	40 ePKP	25 23.80 0.3						MAIO	68.11	309 eP	37 07.00 -0.7	TSM 6.13 299 ePd 26 22.80 1.1			
	1.4s	50.50nm							INK	93.84	21 eP	39 23.00 -0.4	DAV 6.21 20 eP 26 23.20 0.2			
UYO	130.23	41 iPKPd	25 28.00 0.8							S.D. = 1.3 on 11 of 11 obs.		KHKI 12.30 219 eP 27 51.00 4.1X				
LNV	144.79	159 ePKPd	25 53.50 -0.4						& APR 18, 1990 17h 27m 41.80s			e 32 05.00				
CHCH	145.08	160 iPKPc	25 54.00 -0.5						36.942 N 121.692 W			TRT 13.94 230 ePd 28 08.50 -0.1				
TACH	145.24	159 ePKP	25 55.00 0.3						DEPTH = 4.0km			BAG 15.36 350 eP 28 29.80 2.4				
PCH	145.41	160 ePKP	25 56.00 0.9						CENTRAL CALIFORNIA (39)			MTN 15.92 152 eP 28 34.00 -0.5				
SAN	145.51	160 ePKP	25 56.00 0.8						<BRK>. ML 3.1 (BRK).			CVP 16.46 355 eP 28 49.00 7.7X				
IHA	145.54	158 ePKP	25 56.00 0.8						GCC	0.26	290 iPc	27 46.90 -0.1	SZP 16.50 350 eP 28 49.00 7.3X			
NNA	157.63	119 ePKP	26 26.00 12.6X						SAO	0.27	132 iPc	27 47.00 -0.2	PIP 17.23 351 ePd 28 52.00 1.1			
	1.1s	18.99nm							MHC	0.40	6 iPc	27 50.00 0.1	KNA 17.66 163 eP 28 56.70 0.3			
LP8	161.31	145 PKP	26 19.00 1.2						ARN	0.43	17 iPc	27 50.40 0.1	KGM 20.12 273 eP 29 26.00 0.8			
		i	27 05.00						PRS	0.66	157 iPd	27 54.40 -0.6	MNDI 21.48 110 eP 29 42.00 2.5			
ZOBO	161.50	144 PKPc	26 19.80 1.6						LLA	0.68	118 iPd	27 55.10 -0.4	MBL 22.51 189 iPc 29 49.20 -0.3			
	1.5s	37.63nm							PCC	0.78	316 iPd	27 56.20 -1.3	IPM 22.62 279 ePd 29 53.00 2.4			
CCH	161.64	151 ePKP	26 20.00 2.1						BKS	1.03	335 iPd	28 01.10 -0.7	1.5s 80.40nm 5.0mb			
		i	27 01.50						BRK	1.03	334 iPd	28 01.00 -0.9	SNG 23.50 285 eP 30 00.00 0.9			
BAO	163.17	211 ePKP	26 20.00 0.7										WB5 23.55 153 iP 29 58.90 -0.7			
		e	26 49.50						ZSP	1.10	336 iPc	28 01.30 -1.6	WRA 23.59 154 Pd 29 59.30 -0.8			
SIV	164.83	165 PKP	26 21.00 0.3										0.6s 62.20nm 5.3mb			
	S.D. = 1.1 on 157 of 168 obs.								PRI	1.15	134 iPc	28 03.20 -0.7	GUMO 24.52 59 eP 30 08.20 -0.9			
									CMB	1.51	43 eP	28 08.20 -1.5	1.1s 117.79nm 5.4mb			
* APR 18, 1990 17h 17m 53.23±0.37s									PHAM	1.52	136 eP	28 08.00 -1.8	PJG 24.52 59 eP 30 08.50 -0.6			
1.393 N ±10.3km 123.506 E ±10.1km									FRI	1.59	88 eP	28 08.70 -2.1	GUA 24.54 59 eP 30 08.80 -0.4			
DEPTH = 33.0km (normal)									ABL	2.89	135 eP	28 27.20 -2.6	LAT 24.79 109 eP 30 14.00 2.3			
5.1mb (8 obs.)										15 obs. associated			KDB 25.91 115 eP 30 22.00 -0.2			
MINAHASSA PENINSULA (265)									? APR 18, 1990 17h 40m 08.04±1.25s			LOE 26.72 308 eP 30 30.00 0.3				
MTN	16.04	152 eP	21 43.00 4.9X						31.381 S ±15.0km 68.430 W ±23.9km			OIS 26.82 145 eP 30 30.00 -0.5				
IPM	22.67	279 ePd	22 53.90 0.8						DEPTH = 100.0km (geophysicist)			27.41 174 eP 30 35.70 -0.2				
SNG	23.53	285 eP	23 02.20 0.7						SAN JUAN PROVINCE, ARGENTINA (137)			CHG 29.70 308 eP 30 57.00 0.3				
	1.0s	100.00nm	5.3mb						RTLL	0.06	326 iPc	40 22.10 -0.4	CTA 30.80 135 iPc 31 06.20 -0.2			
WB5	23.67	154 eP	23 02.50 -0.4						ZON	0.27	232 iPd	40 23.50 0.5	1.2s 93.75nm 5.5mb			
WRA	23.72	154 Pc	23 03.00 -0.3										i 31 16.00 35km			
	0.6s	9.40nm	4.5mb						RTCV	0.49	191 iPc	40 24.00 0.0	BAL 32.29 191 eP 31 18.00 -1.2			
KDB	25.91	115 eP	23 25.00 0.7						RTBS	0.92	252 eP	40 27.60 -0.2	MUN 33.71 191 eP 31 31.00 -0.6			
QIS	26.92	145 iPc	23 32.50 -1.0										NWA0 34.46 189 eP 31 37.00 -1.0			
CHG	29.66	307 eP	24 02.10 3.8X										RMO 36.82 140 iPc 31 57.20 -0.9			
CTA	30.87	135 iP	24 10.00 1.0						RTRS	1.50	323 ePc	40 34.70 0.1	MAT 37.72 20 eP 32 02.00 -3.6X			
	1.5s	48.61nm	5.1mb										1.0s 36.00nm 5.2mb			
		i	24 20.00													
		i	27 06.00													
KMI	30.96	321 eP	24 12.00 2.0													
MAT	37.53	20 eP	25 05.00 -1.1													

18d 18h

ADE 38.73 160 iPc 32 14.80 0.6
0.8s 89.55nm 5.6mb
CMS 38.85 149 eP 32 16.00 0.8
BJI 39.20 351 eP 32 17.00 -0.9
1.2s 49.00nm 5.1mb
BRS 40.07 137 iPc 32 25.00 -0.4
0.7s 24.00nm 5.1mb
COO 41.64 142 iPc 32 39.90 1.7
TOO 43.66 154 eP 32 56.00 1.4
e 33 04.00 27km
e 34 42.00
CNB 43.68 149 eP 32 56.00 1.1
GUN 44.66 310 P 33 03.40 0.1
PKI 44.86 309 P 33 04.90 0.1
KKN 45.06 309 P 33 06.80 0.5
0.8s 44.00nm 5.4mb
DMN 45.11 309 P 33 06.90 0.1
KOD 46.54 283 eP 33 19.00 0.7
HYB 46.95 293 iPd 33 21.80 0.7
1.0s 115.00nm 5.8mb
GBA 47.13 287 Pc 33 22.70 0.1
1.3s 48.50nm 5.4mb
DZM 47.92 122 iPd 33 28.90 0.1
POO 51.56 293 eP 33 56.50 -0.2
NDI 51.83 306 iPc 33 57.00 -1.6
MSZ 60.39 145 P 34 59.10 -0.5
QUE 60.75 304 iPd 35 02.30 -0.3
HBZ 63.63 134 eP 35 21.00 -0.4
MAIO 68.45 309 iPc 35 52.00 -0.5
1.1s 34.16nm 5.4mb
IR4 75.06 306 iPc 36 32.00 0.0
IR2 75.13 307 iPc 36 31.50 -0.9
IR5 75.31 306 iP 36 33.50 0.0
IR7 75.37 307 iPc 36 33.00 -0.8
BHD 80.17 303 ePd 37 07.50 7.4X
MAW 80.28 200 iPd 37 01.20 1.3
VNDA 81.38 172 e(P) 37 05.90 0.3
MSL 81.45 306 eP 37 05.00 -1.8
PRNI 88.04 300 ePd 37 40.00 0.0
MBH 88.14 300 eP 37 40.00 -0.4
SPA 91.21 180 iPc 37 55.10 0.9
1.2s 42.96nm 5.7mb
SOD 91.51 337 iP 37 53.40 -2.0
NUR 93.28 331 eP 38 13.00 9.4X
INK 93.69 21 eP 38 05.00 -0.4
MBC 95.10 12 eP 38 11.50 -0.3
KRA 97.71 321 eP 38 23.50 -0.6
NB2 99.53 333 P 38 29.60 -2.6
1.2s 8.10nm 5.1mb
KSP 99.82 322 eP 38 33.00 -0.7
BRG 101.24 322 iPd 38 39.70 -0.3
1.1s 21.00nm 5.6mb
e 38 48.20
CLL 101.69 323 ePd 38 42.00 0.0
ANMO 121.14 47 ePKP 43 42.30 -0.7
KIC 127.72 279 PKP 43 55.60 -0.4
LKO 128.12 283 PKP 43 55.80 -1.0
1.1s 35.00nm
LNV 144.59 158 ePKPd 44 25.60 -1.0
CHCH 144.88 159 ePKP 44 26.50 -0.7
TACH 145.03 159 ePKP 44 26.50 -0.9
PCH 145.21 159 iPKPd 44 28.20 0.4
SAN 145.31 159 ePKP 44 28.20 0.3
LPB 161.01 144 PKP 44 53.00 2.5
ZOBO 161.20 143 PKP 44 52.00 1.1
1.1s 19.14nm
SIV 164.66 163 PKP 44 53.40 -0.2
S.D. = 1.0 on 78 of 84 obs.

APR 18, 1990 18h 32m 59.98±0.12s
1.315 N ± 2.9km 123.018 E ± 3.3km
DEPTH = 19.1km (geophysicist)
5.9mb (52 obs.) 6.2Msz (12 obs.)
MINAHASSA PENINSULA (265)
Depth from broadband
displacement seismograms.
FAULT PLANE SOLUTION: P-Waves
NP1:Strike=280 Dip=72 Slip=143
NP2: 23 55 22
Principal Axes:
T P1g=39 Azm=236
P 11 335
Comment: The focal mechanism is
poorly controlled and
corresponds to strike-slip
faulting with a large reverse

component. The preferred fault
plane is not determined.

RADIATED ENERGY

No. of sta: 7 Focal mech. C

Energy 1.3±0.3+10+13 Nm

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN

L.P.B.: 12S, 25C

Centroid Location:

Origin Time 18:33:10.1 0.5

Lat 1.19N 0.07 Lon 122.95E 0.08

Dep 22.2 3.6 Half-duration 6.0

Moment Tensor: Scale 10+18 Nm

Mrr=-5.40 0.37 Mtt=-4.13 0.41

Mff=-1.27 0.49 Mrt=-4.46 1.02

Mrf=-0.45 0.65 Mtf=0.27 0.38

Principal Axes:

T Val= 7.19 P1g=68 Azm=171

N -1.30 4 270

P -5.89 22 1

Best Double Couple: Mo=6.5+10+18

NP1:Strike= 98 Dip=24 Slip= 99

NP2: 268 67 86

TSM 5.72 300 iPc 34 28.00 1.9
0.4s 698.10nm 6.7mb
DAV 6.27 24 eP 34 36.40 2.5
1.3s 5769.23nm 7.2mb X
KKM 8.25 305 ePc 35 02.00 0.2
0.5s 62.90nm 6.1mb
eS 35 54.00
KHKI 12.13 217 eP 35 56.00 1.3
PGP 12.28 351 ePc 35 59.00 2.2
eS 36 55.00
TRT 13.69 229 iPc 36 15.50 -0.1
1.3s 614.30nm 6.3mb
BAG 15.19 351 eP 36 34.00 -1.4
MTN 16.21 150 iPd 36 48.10 -0.3
PIP 17.07 352 ePc 37 02.50 3.3X
1.0s 194.00nm 5.2mb
KNA 17.88 162 iPd 37 11.00 1.6
0.6s 208.00nm 5.4mb
KGM 19.70 272 ePc 37 31.70 0.3
1.4s 1207.10nm 6.0mb
MNDI 21.90 110 eP 37 57.00 2.7
IPM 22.20 279 ePc 37 59.10 2.1
0.9s 167.10nm 5.5mb
e 38 41.40
MBL 22.55 188 iPc 37 59.90 -0.5
HKC 22.57 338 iP 38 06.00 5.5X
iS 42 04.00
SNG 23.08 285 eP 38 07.80 2.2
0.9s 541.18nm 6.1mb
TATO 23.57 357 ePd 38 11.05 0.8
ANP 23.77 357 iP 38 14.00 1.6
W85 23.82 153 iPc 38 12.20 -0.7
WRA 23.87 153 Pd 38 14.00 0.7
0.7s 125.30nm 5.6mb
GUMO 24.82 60 eP 38 22.31 -0.2
1.2s 444.44nm 6.0mb
PJG 24.82 60 eP 38 22.60 0.0
NANU 24.83 197 iPc 38 22.20 -0.4
GUA 24.84 60 eP 38 22.50 -0.2
0.8s 179.10nm 5.8mb
LAT 25.21 109 eP 38 28.00 1.7
KDB 26.32 115 eP 38 37.00 0.4
QIS 27.14 144 iPc 38 43.70 -0.4
WARB 27.56 173 eP 38 47.50 -0.4
0.4s 28.00nm 5.3mb
CHG 29.32 308 iPc 39 04.90 1.1
1.1s 75.32nm 5.4mb
eS 44 04.00
CHTO 29.32 308 ePc 39 04.66 0.8
ePd 39 11.44 24kmX
ePd 39 13.93
RAB 29.64 101 e(P) 39 08.00 1.2
iS 44 08.00
SSE 29.67 357 P 39 07.50 0.7
1.5s 196.00nm 5.7mb
Z 18s 20.60um 5.8Msz
N 14s 27.60um
pP 39 14.00 22kmX
sP 39 22.20
S 43 57.00
sS 44 08.00
MRWA 31.10 192 iPc 39 18.10 -1.3
0.3s 45.00nm 5.8mb

CTA 31.17 134 iPc+ 39 20.10 -0.1
1.5s 305.56nm 5.9mb
Z 18s 36.08um 6.1Msz
e 39 52.00
eS 44 12.00
CTAO 31.17 134 ePc 39 20.33 0.1
ePd 39 27.28 24kmX
COOL 32.07 183 eP 39 26.00 -2.0
BAL 32.31 190 iPc 39 29.50 -0.6
FORR 32.35 172 iPc 39 29.00 -1.4
0.4s 137.00nm 6.2mb
KL8 33.11 188 eP 39 35.00 -2.0
MUN 33.73 190 iPc 39 40.80 -1.7
NWA0 34.49 189 iPc 39 48.10 -0.9
TSRJ 36.12 18 P 40 02.70 -0.1
IIDJ 36.71 21 P 40 07.10 -0.7
RMQ 37.16 140 iPc 40 10.40 -1.3
CHJJ 37.60 21 P 40 13.30 -2.0
MTMJ 37.67 20 P 40 15.40 -0.5
MAT 37.77 20 iPc 40 14.90 -1.8
1.8s 395.45nm 5.9mb
eS 46 03.00
KAKJ 38.18 23 P 40 18.90 -1.2
SHL 38.49 311 iP 40 23.50 0.4
iS 46 20.00
NIIJ 38.67 21 P 40 22.80 -1.4
LZH 38.90 335 ePc 40 28.25 1.9
1.5s 332.00nm 5.8mb
e 40 30.07
ePd 40 34.05 20kmX
sP 40 44.50
eS 46 25.11
ADE 38.97 159 iPc 40 27.40 0.6
0.9s 319.33nm 6.0mb
BJI 39.04 352 ePc 40 27.73 0.4
N 16s 10.24um
E 16s 16.69um
e 40 29.55
ePd 40 33.36 19kmX
eS 46 27.79
eSS 49 14.65
CMS 39.15 148 eP 40 29.00 0.7
BRS 40.42 137 iPd 40 38.20 -0.8
i 41 54.60
i 41 46.00
e 42 12.50
COO 41.97 141 iPc 40 52.80 1.2
e 42 42.00
SWA 42.80 149 iPc 41 01.00 2.6
CAN 43.80 149 iPc 41 07.80 1.4
TOO 43.93 154 iPc 41 09.00 1.5
CNB 43.98 148 eP 41 10.00 2.0
MRRJ 44.02 19 P 41 08.30 0.3
GUN 44.28 310 P 41 11.70 0.8
PKI 44.48 309 P 41 13.00 0.6
SAP 44.67 19 eP 41 14.00 0.7
KKN 44.68 310 P 41 14.80 0.8
DMN 44.73 309 P 41 14.70 0.3
HOOJ 44.75 21 P 41 15.20 1.2
KUSJ 45.90 22 P 41 23.40 0.3
ASAJ 46.05 20 P 41 24.50 0.2
KOD 46.12 283 iP 41 26.40 0.7
1.0s 140.00nm 5.9mb
eS 48 24.00
HYB 46.53 293 iPc 41 29.50 1.0
1.0s 265.00nm 6.2mb
iS 48 20.00
GBA 46.71 287 Pc 41 29.30 -0.6
0.8s 108.50nm 5.9mb
HIA 47.85 357 ePc 41 38.44 0.0
e 41 41.26
eS 48 36.12
DZM 48.32 121 iPc 41 42.20 -0.4
PVC 48.44 115 iPc 41 46.80 3.3X
TAU 49.16 156 ePc 41 50.34 1.7
ePd 41 56.30 20kmX
ePd 41 58.95
POO 51.14 293 iPc 42 04.50 0.3
NDI 51.44 306 iPc 42 06.00 -0.3
eS 49 24.50
WMO 52.69 328 ePc 42 16.57 1.0
e 42 18.23
ePd 42 24.02
iS 49 46.74
eSS 53 37.42

NDF	56.82	112	eP	42	47.30	1.3	KAS	88.58	311	eP	45	53.00	-0.2				LR	26	18.00		
SGE	57.22	112	eP	42	49.90	1.0	LFK	88.83	305	iP	45	54.20	-0.3	SRO	98.87	319	eP	46	39.40	-0.8	
SV4	57.84	112	eP	42	52.10	-1.0	CSS	89.00	305	eP	45	55.20	-0.1				e	48	08.60		
QUE	60.36	304	iPc+	43	10.30	-0.4	TOA	89.23	28	ePc	45	56.10	0.2				e	50	19.60		
	1.0s	77.50nm			5.8mb			0.9s	170.80nm			6.3mb		NB2	99.25	333	P	46	39.80	-2.0	
		eS		51	26.30		ANTO	89.34	310	ePc	45	55.56	-1.3		1.0s	15.10nm			5.5mb		
MSZ	60.70	145	P	43	13.10	0.6			epPd	46	02.35	21kmX		KSP	99.48	322	ePc	46	42.80	-0.2	
WLZ	62.15	135	P	43	23.60	1.2	BBTK	89.37	310	eP	45	56.00	-1.0		1.3s	51.00nm			5.9mb		
THZ	62.17	140	P	43	22.30	-0.3	PMO	89.45	105	iP	46	01.40	3.8X				e	47	12.00		
LTZ	62.29	141	P	43	23.00	-0.3		1.4s	540.00nm			6.6mb					e	49	23.00		
TCW	62.80	139	P	43	26.20	-0.5	VAH	89.71	105	iP	46	02.30	3.4X				e	50	50.50		
KHZ	62.91	140	P	43	27.00	-0.4		1.4s	345.00nm			6.4mb		ZST	99.58	319	eP	46	43.00	-0.5	
WEL	63.16	138	P	43	27.60	-1.4	TPT	89.72	105	iP	46	02.50	3.6X	VKA	100.08	319	ePdiff	46	51.00	5.3X	
CAW	63.28	138	P	43	28.90	-1.0		1.4s	675.00nm			6.7mb		Z	16s	1.80um			5.7Msz		
WDW	63.30	138	P	43	28.90	-1.1	PPCY	89.81	305	eP	45	58.00	-1.0				e	51	02.00		
MNG	63.33	138	P	43	29.00	-1.2	RUV	89.95	105	iP	46	03.50	3.5X				LR	36	19.00		
MOW	63.55	138	P	43	30.70	-0.9		1.4s	405.00nm			6.5mb		PRU	100.78	321	Pdiff	46	48.20	-0.6	
MTW	63.59	138	P	43	31.00	-0.9	HLW	90.81	300	iP+	46	04.70	0.9	BRG	100.91	322	iPdiff	46	49.00	-0.4	
BLW	63.67	138	P	43	31.00	-1.4			ePP	49	30.70			1.4s	48.00nm			5.9mb			
HBZ	64.00	133	P	43	35.00	0.4			ePPP	51	15.70			Z	20s	11.50um			6.4Msz		
MAIO	68.07	309	iPc	44	01.10	0.2			eS	56	59.20			N	20s	8.00um					
	1.0s	40.50nm			5.5mb		KEV	90.86	340	eP	46	02.00	-1.2		E	20s	6.00um				
DRV	68.90	173	iPd	44	05.00	-0.3			e	19	01.00						i	47	03.00		
BJA	73.63	297	iP	44	35.00	0.6			e	47	36.00						eS	58	28.00		
	0.6s	129.00nm			6.1mb				e	56	28.00		CLL	101.36	323	iPdiff	46	50.30	-1.1		
BEE	73.71	297	iP	44	35.10	0.2			e	58	04.00			1.6s	35.00nm				5.7mb		
	0.7s	97.00nm			5.9mb				e	03	08.00						eSKS	57	27.00		
BBU	73.79	297	eP	44	35.10	-0.3	BCK	91.14	307	eP	46	04.00	-1.3				e(S)	58	20.00		
	0.8s	74.00nm			5.8mb		SOD	91.26	337	iP	46	04.10	-1.0				PKPK	03	02.00		
DHR	74.08	297	iPc	44	37.00	-0.1	SPA	91.31	180	iPc	46	05.00	-0.5	KMR	101.55	320	ePdiff	46	53.00	0.7	
TEH	74.36	307	eP	44	38.00	-0.8	HRT	91.69	311	eP	46	05.00	-2.7				ePP	51	06.00		
IR4	74.67	306	iPc	44	41.00	0.5	ELL	91.72	307	eP	46	06.00	-2.0				eSP	00	02.00		
IR2	74.74	307	iPc	44	41.00	0.1	YLV	91.93	310	iP	46	08.00	-0.8	KHC	101.62	321	iPdiff	46	52.20	-0.4	
IR5	74.92	306	iP	44	42.50	0.5	KHL	91.94	308	eP	46	07.00	-1.9		Z	18s	8.70um			6.3Msz	
IR7	74.98	307	iPc	44	42.80	0.5	CTT	92.61	311	eP	46	08.00	-3.8X		N	18s	5.30um				
RYD	77.11	295	iPc	44	54.00	-0.4	KBS	92.71	350	iPd	46	11.00	-0.6		E	17s	7.20um				
KER	77.64	305	ePc	44	55.00	-2.3	NUR	92.99	331	eP	46	12.00	-1.1				e	51	13.60		
TAB	78.72	308	eP+	45	04.00	0.8			e	47	50.00		KBA	102.32	319	e(Pdiff	46	56.00	0.0		
KMSA	78.78	290	iPc	45	03.00	-0.7			e	50	06.00			1.4s	35.40nm				5.8mb		
SLY	79.09	306	ePd	45	04.00	-1.0			e	56	44.00						e	47	03.50		
		eS		55	01.00				e	01	00.00						e	47	35.00		
BHD	79.77	303	ePd	45	09.50	0.7			e	03	40.00						i	51	15.70		
		iS		55	09.50		CLI	93.01	317	ePc	46	13.00	-0.6	MOX	102.40	323	ePdiff	46	56.00	0.0	
		ePS		55	36.00		BNT	93.05	310	eP	46	13.00	-0.9		Z	16s	10.20um			6.4Msz	
QASM	79.98	296	iPc	45	10.00	-0.1	VR1	93.45	316	ePc	46	15.00	-0.6		N	18s	3.70um				
ARO	80.11	281	iP+	45	12.50	1.5	IZM	93.71	308	eP	46	16.00	-1.0		E	18s	6.30um				
MAW	80.23	200	iPd-	45	11.10	0.6	INK	93.75	21	eP	46	16.00	-0.5				eS	58	44.00		
	1.4s	448.00nm			6.3mb			1.0s	57.00nm			5.9mb	GRF	102.93	322	ePdiff	46	58.40	0.0		
		e		57	33.00		MLR	94.04	316	ePc	46	18.00	-0.5		Z	22s	9.00um			6.3Msz	
ANM	80.98	25	eP	45	14.80	0.2	BUC	94.04	315	eP	46	20.00	1.7				ePP	51	18.50		
MSL	81.06	306	iPd	45	15.00	-0.6	BUC1	94.09	314	ePc	46	18.00	-0.6	YKA	103.20	24	ePdiff	46	58.50	-0.8	
		eS		55	20.00		CMP	94.70	315	ePc	46	20.00	-1.4		1.2s	4.60nm			5.1mb		
SDN	81.25	34	eP	45	16.20	0.1	SLR	94.84	244	iPd	46	22.30	-0.3	BCAO	104.33	275	ePdiff	47	03.84	-1.6	
SBA	82.49	172	iPc	45	24.00	1.8		1.4s	232.56nm			6.4mb		VAL	105.70	319	PKP	51	41.00	17.1X	
AAE	84.12	279	eP	45	33.50	1.4	Z	20s	21.28um			6.6Msz	MEM	105.77	324	ePKP	51	41.00	17.2X		
NPA	84.32	255	iP	45	35.10	2.4	MBC	95.09	12	ePc	46	23.00	0.4	BNI	107.36	318	PKP	51	40.00	12.7X	
	1.0s	290.00nm			6.5mb			1.0s	18.00nm			5.5mb	AKU	107.55	344	iPKP	51	42.90	16.1X		
SVW	84.67	29	ePc	45	34.50	0.9	SEK	95.37	242	iPc	46	27.00	2.0		1.6s	93.33nm					
TTA	84.72	27	ePc	45	34.70	0.8		1.5s	111.11nm			6.1mb	CMB	109.84	49	e(PKP)	51	31.90	-0.2		
	1.4s	127.90nm			6.0mb		PRY	95.54	243	iPd	46	27.60	1.8	KVN	111.20	47	PKP	51	35.30	0.5	
BRW	85.63	19	ePc	45	39.70	1.5		1.2s	60.00nm			5.9mb	CLC	112.67	50	ePKP	51	32.00	-5.5X		
KDC	85.94	32	eP	45	40.80	0.9	KSR	96.08	244	eP	46	25.70	-2.6	MWC	112.82	52	ePKP	51	42.00	4.0X	
IMA	86.08	24	eP	45	41.30	0.6	UPP	96.56	331	iP	46	27.80	-1.7	SBB	112.86	51	ePKP	51	36.00	-1.9	
	1.5s	152.80nm			6.0mb				i	50	25.60		FFC	113.05	26	iPKPd	51	37.10	-0.4		
CSTJ	86.19	301	Pc	45	42.20	0.3	VAY	96.98	312	eP	46	30.30	-1.5		0.7s	10.00nm					
WAJH	86.24	296	iPc	45	42.00	-0.1	SPC	97.34	320	eP	46	33.00	-0.6	GSC	113.45	50	ePKP	51	40.00	0.9	
HLBJ	86.52	302	Pc	45	44.20	0.7			e	50	37.20		PLM	114.04	52	ePKP	51	39.00	-1.5		
MDSJ	86.56	301	Pc	45	43.80	0.1	KRA	97.38	321	eP	46	33.40	0.0	BAR	114.41	53	ePKP	51	42.00	1.0	
AYN	86.76	299	iPc	45	46.00	1.4		0.8s	28.00nm			5.9mb	TPC	114.44	51	ePKP	51	38.00	-3.0X		
KVT	86.86	311	iP	45	45.60	0.7	Z	20s	8.40um			6.2Msz	FRB	114.53	6	ePKP	51	39.00	-1.1		
BURJ	86.95	302	Pc	45	45.00	-0.6	E	20s	9.30um				GLA	115.75	52	ePKP	51	44.00	0.5		
SHMJ	86.98	303	Pd	45	46.90	1.2			e	46	47.40		RSSD	118.34	37	PKP	51	47.00	-1.4		
HRI	87.01	303	ePc	45	46.50	0.6	SKO	97.73	313	eP	46	34.00	-1.2	RSON	119.36	26	PKP	51	48.70	-1.0	
MKRJ	87.08	301	Pc	45	46.00	-0.2		Z	18s	5.26um		6.1Msz	GOL	119.85	42	PKP	51	51.00	-0.4		
DSI	87.30	301	eP	45	47.00	-0.2		N	19s	4.70um				Z	18s	2.60um			5.9Msz		
HOL	87.59	299	iPc	45	49.20	0.6		E	19s	4.63um			IFR	120.22	311	iPKP	51	54.00	1.8		
BADA	87.63	298	iPc	45	49.00	0.2			iPP	50	39.00		ANMO	121.38	47	ePKP	51	53.70	-0.7		
MBH	87.74	300	ePc	45	50.00	0.7			i	54	38.00			Z	20s	32.66um			7.0Msz		
PMR	87.82	29	eP	45	48.50	-0.5			iSKS	57	10.50		KUK	122.99	278	ePKP	51	58.00	0.2		
TVO	88.23	108	eP	45	58.00	6.1X			iPS	59	45.00		SCH	123.48	7	ePKP	51	57.00	-0.5		
	1.4s	200.00nm			6.2mb				iSS	40	58.00										

18d 18h

UYO 130.17 41 e(PKP) 52 09.50 -1.5
 LNV 144.83 159 iPKPd 52 37.50 -0.4
 CHCH 145.12 160 iPKPc 52 38.50 0.0
 TACH 145.27 159 ePKPc 52 38.50 -0.2
 PCH 145.45 160 ePKPd 52 40.00 0.9
 SAN 145.55 160 ePKP 52 39.50 0.3
 IHA 145.58 158 ePKP 52 40.00 0.8
 BAA 146.87 178 PKP- 52 46.80 5.6X
 ZON 147.96 161 ePKP 52 47.00 3.8X
 RTLL 148.23 161 ePKPd 52 47.20 3.6X
 RTRS 148.95 159 ePKPc 52 46.20 1.5
 NNA 157.63 119 ePKP 52 57.50 0.2
 1.2s 31.25nm
 ARE 159.24 137 ePKP 53 03.00 3.6X
 LPB 161.33 145 PKPc 53 04.00 2.3
 Z 18s 8.25um
 PP 57 32.00
 LR 49 05.00

ZOBO 161.52 144 ePKPc 53 03.64 1.5
 ePKPpb 53 47.84
 CCH 161.67 151 PKP 53 04.00 2.1
 BAO 163.23 211 ePKP 53 04.30 1.0
 SIV 164.87 165 PKP 53 05.00 0.3
 i 54 02.20

S.D. = 1.1 on 230 of 252 obs.

APR 18, 1990 18h 36m 27.66 ± 0.87s
 34.315 N ± 9.3km 27.872 E ± 7.8km
 DEPTH = 10.0km (geophysicist)
 EASTERN MEDITERRANEAN SEA (371)

KSL 2.28 37 ePn 37 05.80 -0.1
 ELL 2.94 34 iPn 37 16.00 0.6
 VAM 3.21 291 ePn 37 21.00 1.9
 CIN 3.28 3 eP 37 19.00 -1.1
 BCK 3.84 34 iPn 37 28.50 0.4
 VLI 4.69 302 ePn 37 38.50 -1.6
 LFK 4.76 77 iPn 37 42.20 1.0
 DSI 6.88 111 eP 38 10.00 -1.0
 eS 39 24.00
 PRNI 7.21 121 eP 38 15.00 -0.7
 MBH 7.48 125 eP 38 20.00 0.6

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

APR 18, 1990 18h 45m 24.15 ± 0.45s
 1.244 N ± 8.2km 123.002 E ± 10.3km
 DEPTH = 33.0km (normal)
 5.1mb (10 obs.)

MINAHASSA PENINSULA (265)

TSM 5.75 301 eP 46 50.20 0.8
 MTN 16.16 150 eP 49 13.00 2.5
 KNA 17.82 162 eP 49 32.10 0.7
 0.7s 56.00nm 4.8mb
 IPM 22.19 279 ePd 50 21.20 1.8
 MBL 22.48 188 iPc 50 21.40 -0.8
 0.8s 56.00nm 5.1mb
 WB5 23.77 153 iPc 50 33.90 -0.8
 WRA 23.81 153 Pc 50 36.10 0.9
 0.5s 20.60nm 4.9mb
 NANU 24.76 197 iPc 50 43.50 -0.8
 0.5s 30.00nm 5.1mb
 NNT 25.67 297 eP 50 52.40 -0.5
 BAL 32.24 190 eP 51 50.00 -1.8
 FORR 32.28 172 eP 51 50.30 -1.8
 0.5s 43.00nm 5.6mb
 MUN 33.66 190 eP 52 02.00 -2.2
 MAT 37.84 20 (P) 52 38.00 -1.6
 1.3s 19.23nm 4.8mb
 BWA 42.75 148 eP 53 22.20 2.0
 CAN 43.74 149 iPc 53 29.10 0.8
 TOO 43.87 154 eP 53 30.00 0.7
 GUN 44.32 310 P 53 34.00 0.6
 PKI 44.51 309 P 53 35.20 0.2
 0.8s 26.00nm 5.1mb
 KKN 44.72 310 P 53 37.00 0.5
 0.9s 43.00nm 5.3mb
 DMN 44.76 309 P 53 37.30 0.4
 1.0s 71.00nm 5.5mb
 KOD 46.12 283 eP 53 47.90 0.0
 HYB 46.54 293 iPd 53 51.60 0.7
 GBA 46.72 288 Pc 53 52.50 0.3
 1.1s 24.70nm 5.1mb
 POO 51.15 293 eP 54 26.00 -0.6
 MSZ 60.65 145 P 55 34.20 -0.1
 MAIO 68.10 309 iPc 56 23.00 -0.3
 INK 93.82 21 eP 58 38.00 -1.0

MBC 95.17 12 eP 58 45.00 -0.1
 LIC 127.59 279 PKP 04 28.00 -0.7
 S.D. = 1.2 on 29 of 29 obs.

APR 18, 1990 18h 54m 38.56 ± 0.21s
 1.232 N ± 3.8km 123.358 E ± 4.9km
 DEPTH = 28.5km (2 depth phases)
 5.4mb (15 obs.)
 MINAHASSA PENINSULA (265)

TSM 6.06 299 eP 56 09.50 0.9
 0.4s 126.90nm 6.0mb
 DAV 6.22 21 eP 56 12.10 1.2
 PGP 12.42 349 eP 57 37.00 0.6
 TRT 13.90 230 iPc 57 55.40 -0.6
 BAG 15.33 350 eP 58 15.80 0.9
 MTN 15.97 151 eP 58 23.00 0.0
 CVP 16.44 355 eP 58 34.00 5.1X
 1.0s 413.00nm 5.5mb
 SZP 16.47 350 eP 58 28.00 -1.3
 PIP 17.20 351 ePd 58 40.00 1.5
 KNA 17.70 163 iPd 58 45.10 0.3
 KGM 20.05 272 ePd 59 13.80 1.4
 MBL 22.52 189 iPc 59 36.90 -0.6
 IPM 22.55 279 ePc 59 40.00 2.2
 1.1s 50.90nm 4.9mb
 WB5 23.60 153 eP 59 48.20 0.2
 WRA 23.64 153 Pc 59 47.90 -0.6
 0.5s 19.70nm 4.9mb
 GUMO 24.57 59 eP 59 58.50 1.0
 0.7s 58.45nm 5.3mb
 PJG 24.57 59 eP 59 58.20 0.7
 GUA 24.59 59 eP 59 59.20 1.5
 LAT 24.86 109 eP 00 04.00 3.7X
 KDB 25.98 115 eP 00 11.50 0.7
 NNT 25.99 297 eP 00 10.00 -0.9
 e 13 33.00
 e 20 50.40
 LOE 26.66 308 eP 00 17.00 -0.1
 e 13 38.00
 e 25 11.00
 e 28 18.00

WARB 27.44 174 iPc 00 24.00 -0.1
 CTA 30.87 135 iPc 00 55.00 0.1
 1.4s 186.05nm 5.7mb
 FORR 32.22 172 eP 01 05.00 -1.6
 0.5s 43.00nm 5.6mb
 BAL 32.29 191 eP 01 06.00 -1.2
 RMO 36.88 140 eP 01 46.00 -0.6
 CHJJ 37.56 21 P 01 49.90 -2.3
 MTMJ 37.63 19 P 01 52.00 -1.0
 MAT 37.73 20 eP 01 51.00 -2.7
 1.1s 37.97nm 5.2mb
 ADE 38.77 160 iPd 02 03.10 0.6
 0.8s 119.40nm 5.7mb
 BJI 39.18 351 eP 02 06.00 0.3
 1.5s 118.00nm 5.4mb

BRS 40.13 137 iP 02 13.10 -0.8
 OFUJ 41.22 22 eP 02 23.00 0.4
 COO 41.69 142 eP 02 25.00 -1.7
 BWA 42.55 149 eP 02 36.20 2.5
 CAN 43.55 149 eP 02 42.90 1.2
 TOO 43.71 154 eP 02 44.00 1.0
 CNB 43.73 149 eP 02 45.00 1.7
 MRRJ 43.99 19 eP 02 45.20 0.1
 GUN 44.59 310 Pc 02 51.60 0.9
 PKI 44.79 309 Pc 02 52.80 0.5
 KKN 45.00 309 Pc 02 54.40 0.6
 DMN 45.04 309 Pc 02 54.90 0.7
 KUSJ 45.85 22 eP 03 00.30 0.3
 ASAJ 46.01 19 eP 03 01.20 -0.1
 KOD 46.47 283 eP 03 06.80 1.1
 HYB 46.88 293 ePc 03 09.00 0.4
 1.4s 187.50nm 5.9mb
 GBA 47.06 287 Pc 03 10.40 0.4
 1.0s 68.90nm 5.6mb
 NDI 51.77 306 eP 03 45.00 -1.1
 MSZ 60.44 145 P 04 57.10 9.2X
 QUE 60.68 304 eP 04 49.50 -0.7
 MAIO 68.39 309 iPc 05 40.00 -0.1
 1.0s 23.00nm 5.2mb
 IR4 74.99 306 iPc 06 19.50 -0.1
 IR2 75.06 307 iPc 06 19.50 -0.5
 IR5 75.25 306 iP 06 21.00 -0.1
 IR7 75.30 307 iPc 06 21.00 -0.4
 MAW 80.27 200 iP 06 48.70 0.8
 e 20 12.00

SOD 91.47 337 iP 07 41.90 -1.3
 NUR 93.23 331 eP 07 57.00 5.6X
 INK 93.70 21 eP 08 02.00 8.5X
 KRA 97.66 321 eP 08 11.20 -0.7
 e 08 22.40 36km

NB2 99.48 333 P 08 17.70 -2.3
 1.1s 7.60nm 5.1mb
 KSP 99.76 322 eP 08 21.40 0.0
 e 08 28.30 22km
 BRG 101.19 322 iPd diff 08 27.70 -0.1
 1.1s 12.00nm 5.4mb
 i 08 35.00

CLL 101.63 323 e(Pdif) 08 28.00 -1.7
 ANMO 121.18 47 ePKP 13 31.50 0.4
 KIC 127.65 279 PKP 13 43.60 -0.3
 LIC 127.94 279 PKP 13 44.00 -0.5
 LKO 128.05 283 PKP 13 43.44 -1.3
 1.2s 38.50nm

LNv 144.63 159 ePKPd 14 12.50 -2.2
 CHCH 144.92 159 ePKPd 14 15.00 -0.3
 i 14 25.00
 TACH 145.07 159 ePKP 14 15.00 -0.5
 i 14 25.50

PCH 145.25 159 iPKPd 14 16.50 0.6
 i 14 26.50
 SAN 145.35 159 ePKP 14 16.50 0.5
 e 14 26.00
 IHA 145.37 158 ePKP 14 16.50 0.5
 ROCH 145.66 158 ePKP 14 18.50 1.7
 i 14 28.00

SIV 164.70 164 PKP 14 42.00 0.3
 i 15 38.50
 S.D. = 1.1 on 73 of 78 obs.

APR 18, 1990 19h 08m 00.81 ± 0.30s
 1.305 N ± 5.6km 123.359 E ± 7.8km
 DEPTH = 33.0km (normal)
 5.2mb (6 obs.)

MINAHASSA PENINSULA (265)

TSM 6.02 299 eP 09 30.00 0.0
 DAV 6.15 21 eP 09 29.00 -2.9
 PGP 12.35 349 eP 10 58.00 0.7
 BAG 15.26 350 eP 11 34.60 -1.2
 MTN 16.04 151 eP 11 45.00 -0.6
 SZP 16.40 350 eP 11 48.00 -2.2
 PIP 17.13 351 ePc 12 01.00 1.6
 KNA 17.77 163 eP 12 07.00 -0.4
 IPM 22.54 279 ePd 13 03.20 3.8X
 WB5 23.66 153 eP 13 07.90 -2.5
 WRA 23.71 154 Pd 13 08.30 -2.5
 0.7s 27.50nm 4.9mb

GUMO 24.53 59 eP 13 20.00 1.2
 PJG 24.53 59 eP 13 20.00 1.2
 GUA 24.55 59 eP 13 20.50 1.5
 LAT 24.89 109 eP 13 25.00 2.8X
 KDB 26.01 115 eP 13 32.50 -0.3
 QIS 26.93 145 eP 13 38.00 -3.2X
 WARB 27.51 174 eP 13 46.70 0.3
 SSE 29.70 356 P 14 07.50 1.4
 CTA 30.92 135 iPc 14 16.50 -0.5

1.2s 31.25nm 5.0mb
 BAL 32.36 191 eP 14 28.00 -1.5
 RMO 36.93 140 eP 15 08.00 -0.7
 MAT 37.66 20 eP 15 10.00 -4.7X
 1.5s 111.11nm 5.5mb

SHL 38.76 311 eP 15 24.00 -0.3
 CMS 38.97 149 eP 15 26.00 0.2
 BJI 39.10 351 eP 15 25.00 -1.8
 1.4s 71.00nm 5.2mb

BRS 40.19 137 iP 15 35.60 -0.4
 COO 41.75 142 eP 15 49.00 0.2
 BWA 42.62 149 eP 15 53.80 -2.0
 CAN 43.61 149 iPc 16 05.20 1.3
 TOO 43.77 154 iPd 16 06.70 1.6
 CNB 43.80 149 eP 16 07.00 1.6

GUN 44.55 310 P 16 12.00 0.0
 PKI 44.75 309 P 16 13.20 -0.4
 KKN 44.95 309 P 16 13.80 -1.3
 DMN 45.00 309 P 16 15.30 -0.2
 HYB 46.85 293 eP 16 31.00 1.0
 GBA 47.04 287 Pc 16 33.30 1.9
 1.0s 18.60nm 5.0mb

DZM 48.02 122 iPc 16 40.00 0.7
 MAIO 68.34 309 eP 19 03.00 1.6
 IR4 74.95 306 eP 19 40.50 -0.5
 IR2 75.02 307 ePd 19 41.50 0.1

IR7	75.26	307	eP	19	41.50	-1.2	SOD	91.49	337	eP	32	44.00	10.0X	1.2s	73.00nm	5.3mb				
VNDA	81.48	172	iP	20	17.30	1.6	NUR	93.26	331	eP	32	49.00	6.8X	BRS	40.07	137	iP	30	13.90	-0.2
SPA	91.30	180	eP	21	05.30	1.1	INK	93.64	21	eP	32	43.00	-0.9	COO	41.64	142	eP	30	27.00	0.1
	1.1s	31.55nm					HFS	98.65	332	eP	33	16.20	9.4X	BWA	42.51	149	iPc	30	36.90	2.9
INK	93.63	21	eP	21	15.00	0.2		0.8s	2.40nm				4.8mb	CAN	43.51	149	iPc	30	43.70	1.6
MBC	95.03	12	eP	21	29.00	7.9X	NB2	99.51	333	P	33	08.40	-2.4	TOO	43.67	154	eP	30	45.00	1.6
KIC	127.64	279	PKP	27	05.20	-0.3		1.2s	4.50nm				4.9mb	CNB	43.69	149	eP	30	45.70	2.1
LKO	128.03	283	PKP	27	04.94	-1.3	KSP	99.81	322	eP	33	20.80	8.5X	SAP	44.61	19	eP	30	51.00	0.1
	0.9s	25.00nm					BRG	101.24	322	i(Pdiff)	33	27.30	8.6X	GUN	44.66	310	P	30	52.70	0.7
LNVA	144.70	158	ePKPd	27	35.50	-0.9		1.0s	14.00nm				5.5mb	PKI	44.86	309	P	30	54.00	0.5
CHCH	144.99	159	ePKP	27	37.00	0.0	KIC	127.75	279	PKP	38	34.20	-0.6	KKN	45.06	309	P	30	55.60	0.6
TACH	145.14	159	ePKP	27	36.50	-0.7	LKO	128.15	283	PKP	38	34.40	-1.2	DMN	45.11	309	P	30	56.00	0.5
PCH	145.32	159	ePKP	27	38.50	0.9		1.0s	26.00nm					KOD	46.55	283	eP	31	08.00	0.9
SAN	145.42	159	ePKP	27	39.50	1.8	LPB	161.02	144	ePKP	39	31.00	1.8	HYB	46.95	293	eP	31	10.30	0.4
ZOBO	161.31	143	PKP	28	03.00	2.4			e		42	41.00			1.0s	100.00nm			5.8mb	
	S.D. = 1.3	on	50	of	55	obs.	ZOBO	161.21	143	PKP	39	31.00	1.4	GBA	47.14	287	Pc	31	11.80	0.5
								e		42	33.00			0.7s	20.90nm				5.2mb	
APR 18, 1990 19h 19m 29.89 ± 0.28s							SIV	164.69	163	PKP	39	33.00	0.7	DZM	47.91	122	iPc	31	18.30	0.8
1.257 N ± 5.8km 123.470 E ± 6.5km								S.D. = 1.0	on	54	of	63	obs.	POO	51.56	293	iPd	31	46.00	0.6
DEPTH = 33.0km (normol)													NDI	51.84	306	eP	31	46.00	-1.3	
5.1mb (13 obs.)							APR 18, 1990 19h 22m 40.28 ± 0.17s						MSZ	60.39	145	P	32	48.20	0.0	
MINAHASSA PENINSULA (265)							1.229 N ± 3.3km 123.441 E ± 4.2km						QUE	60.75	304	iPc	32	50.80	-0.5	
							DEPTH = 36.8km (4 depth phases)							1.3s	105.77nm				5.8mb	
							5.5mb (24 obs.)								eS		41	07.00		
							MINAHASSA PENINSULA (265)						MRW	62.75	139	P	33	04.00	-0.2	
TSM	6.14	299	eP	21	02.00	1.2							HBZ	63.63	134	eP	33	09.00	-1.1	
KKM	8.66	303	eP	21	35.00	-1.0							MAIO	68.45	309	iPc	33	41.00	-0.1	
TRT	14.00	230	iPd	22	47.00	-0.7	TSM	6.13	299	iPd	24	12.10	1.2		0.9s	40.92nm			5.5mb	
MTN	15.94	152	iPc	23	13.40	-0.1		0.3s	171.40nm				6.2mb	IR4	75.06	306	iPc	34	20.50	-0.2
KNA	17.69	163	eP	23	35.00	-0.5	DAV	6.20	20	eP	24	12.00	0.2	IR2	75.13	307	iPc	34	20.50	-0.5
KGM	20.16	272	eP	24	05.00	0.6	KKM	8.65	304	eP	24	46.00	-0.2	IR5	75.32	306	iP	34	22.00	-0.1
MBL	22.56	189	iPc	24	27.70	-1.0	PGP	12.44	349	eP	25	40.00	2.2	IR7	75.37	307	iPc	34	22.30	-0.1
	0.8s	30.00nm					TRT	13.96	230	P	25	57.80	-0.1	SLY	79.48	306	eP	34	44.00	-0.9
IPM	22.65	279	ePd	24	31.10	1.4	BAG	15.35	350	eP	26	17.20	1.0	BHD	80.17	303	ePd	34	45.50	-3.2X
		e		27	42.00		MTN	15.93	152	eP	26	24.00	0.5	MAW	80.30	200	iPd	34	50.40	1.7
WB5	23.57	154	eP	24	37.80	-0.7	CVP	16.45	355	eP	26	35.00	4.9X		0.9s	60.00nm			5.6mb	
WRA	23.61	154	Pc	24	39.30	0.3		1.8s	831.00nm				5.6mb	ANM	80.88	24	eP	34	52.20	0.3
	0.6s	55.10nm					SZP	16.48	350	eP	26	35.00	4.5X	VNDA	81.39	172	e(P)	34	53.90	-0.4
NANU	24.91	198	eP	24	51.00	-0.4	PIP	17.21	351	ePc	26	42.00	2.3	SVW	84.54	29	eP	35	11.30	0.5
	0.7s	48.00nm					KNA	17.67	163	eP	26	45.00	-0.4	TTA	84.60	27	eP	35	11.20	0.1
KDB	25.89	115	eP	25	01.50	0.8	KGM	20.13	272	ePd	27	15.80	1.6		1.6s	64.50nm			5.5mb	
NNT	26.08	297	eP	25	06.40	3.9X	KLM	21.86	275	eP	27	34.00	2.2	BRW	85.57	19	eP	35	16.40	0.7
OIS	26.83	145	iPc	25	09.10	-0.3	MBL	22.53	189	iPc	27	38.20	-0.2	IMA	85.99	24	eP	35	18.10	0.1
WARB	27.45	174	iPd	25	14.90	-0.1		0.8s	99.00nm				5.3mb	HRI	87.41	303	e(P)	35	26.00	0.4
MEKA	28.11	189	eP	25	19.20	-1.8	WB5	23.56	153	eP	27	49.00	0.5	DSI	87.71	301	eP	35	27.00	0.1
CHG	29.71	307	eP	25	36.20	0.7	GUMO	24.50	59	eP	27	57.80	0.1	MBH	88.15	300	eP	35	30.00	1.0
SSE	29.76	356	P	25	39.20	3.6X		1.3s	222.22nm				5.6mb	FBA	88.37	25	P	35	30.00	0.6
CTA	30.80	135	iPc	25	45.00	-0.1	PJG	24.50	59	eP	27	57.50	-0.2		0.8s	8.62nm			5.1mb	
	1.0s	20.00nm					GUA	24.52	59	eP	27	58.00	0.2	TOA	89.10	28	eP	35	33.80	0.7
		i		28	26.00			1.0s	104.00nm				5.3mb	TPT	89.29	105	eP	35	39.00	4.3X
FORR	32.23	173	eP	25	55.50	-1.9	LAT	24.78	109	eP	28	03.00	2.6		1.2s	75.00nm			5.9mb	
BAL	32.33	191	eP	25	57.00	-1.4	NANU	24.87	198	iPd	28	01.40	0.3	KEV	91.09	340	eP	35	41.00	-1.0
RMQ	36.82	140	iPc	26	36.00	-0.9	KDB	25.90	115	eP	28	11.50	0.6	SPA	91.22	180	iPc	35	43.80	0.9
MAT	37.67	20	eP	26	42.00	-1.9	NNT	26.07	297	eP	28	13.00	0.6		1.1s	59.52nm			5.9mb	
	1.0s	14.00nm					OIS	26.82	145	iPc	28	19.10	-0.2	SOD	91.50	337	iP	35	43.00	-1.0
ADE	38.76	160	iPc	26	53.50	0.4	WARB	27.43	174	eP	28	25.00	0.2	NUR	93.27	331	eP	35	51.00	-1.2
	0.8s	70.15nm					MEKA	28.08	189	iPd	28	29.30	-1.4	INK	93.67	21	eP	35	53.00	-0.9
CMS	38.87	149	eP	26	54.80	0.8	CHTO	29.70	308	eP	28	45.90	0.5	VR1	93.81	316	ePd	35	54.00	-1.1
BJI	39.17	351	eP	26	56.00	-0.4			e		28	56.90	40km	MLR	94.39	316	ePc	35	57.50	-0.4
BRS	40.08	137	iP	27	04.00	-0.1	SSE	29.78	356	P	28	45.00	-0.9	CMP	95.05	315	ePc	35	58.00	-2.8
COO	41.65	142	eP	27	18.00	1.0		1.5s	54.00nm				5.1mb	MBG	95.09	12	eP	36	01.00	0.6
BWA	42.52	149	iPc	27	26.30	2.2		N 12s	2.30um					SLR	95.18	244	eP	36	02.50	0.6
CAN	43.51	149	iPc	27	33.20	1.0		E 10s	1.00um					KSR	96.43	244	eP	36	05.00	-2.7
TOO	43.68	154	eP	27	34.50	1.0			pP		28	55.00	35km	KRA	97.71	321	eP	36	12.10	-0.6
CNB	43.70	149	P	27	35.00	1.3			S		33	43.00			e		36	17.50	17kmX	
GUN	44.66	310	P	27	42.30	0.3	CTA	30.81	135	iPc	28	55.20	0.1		e		36	22.70		
PKI	44.86	309	P	27	43.80	0.2		1.2s	78.13nm				5.4mb	HFS	98.66	332	eP	36	15.00	-1.8
KKN	45.07	309	P	27	45.50	0.4			i		29	06.00	40km		1.0s	10.20nm			5.3mb	
DMN	45.12	309	P	27	46.00	0.5	MRWA	31.10	193	eP	28	56.40	-1.2	NB2	99.52	333	P	36	18.80	-2.0
KOD	46.58	283	eP	27	57.90	0.6	FORR	32.21	172	eP	29	05.50	-1.7		0.9s	5.10nm			5.1mb	
HYB	46.97	293	eP	28	02.50	2.5		0.5s	93.00nm				5.9mb	KSP	99.81	322	eP	36	22.00	-0.3
	1.0s	75.00nm													e		40	12.80		
GBA	47.16	287	Pc	28	01.30	-0.2	BAL	32.30	191	eP	29	07.00	-1.1	PRU	101.11	322	ePd	36	28.50	0.4
	1.4s	20.90nm					KLB	33.08	189	eP	29	14.00	-0.9	BRG	101.24	322	iPd	36	28.50	-0.1
POO	51.58	293	iP	28	43.00	7.4X	MUN	33.73	191	eP	29	20.00	-0.5		1.0s	20.00nm			5.7mb	
NDI	51.84	306	eP	28	37.00	-0.4	NWAO	34.47	189	eP	29	26.00	-0.9			i		36	38.50	
MSZ	60.40	145	P	29	38.10	-0.2	YONJ	35.05	14	eP	29	31.20	-0.6	CLL	101.69	323	ePd	36	30.00	-0.6
QUE	60.76	304	eP	29	40.40	-1.0														

18d 19h

LIC 128.03 279 PKPd 41 44.80 -0.4
 LKO 128.13 283 PKP 41 44.60 -0.8
 0.8s 25.50nm
 LNV 144.60 158 ePKP 42 14.00 -1.2
 CHCH 144.89 159 ePKP 42 16.10 0.3
 TACH 145.04 159 ePKP 42 16.00 0.0
 PCH 145.22 159 ePKP 42 17.00 0.6
 SAN 145.32 159 ePKP 42 17.50 1.0
 ROCH 145.63 158 ePKP 42 19.00 1.7
 BAO 163.38 210 e(PKP) 42 41.00 -0.1
 S.D. = 1.1 on 116 of 120 obs.

APR 18, 1990 19h 38m 08.93± 0.77s
 31.107 N ± 5.0km 51.678 E ± 8.7km
 DEPTH = 47.1 ± 8.7 km
 4.7mb (9 obs.)

IRAN (348)
 Damage in the Honno area. Also
 felt at Esfahabad.

IR4 4.17 351 eP 39 11.50 -0.4
 IR5 4.20 348 eP 39 13.00 0.8
 IR2 4.59 352 iPc 39 17.50 -0.2
 TEH 4.63 357 eP 39 19.00 0.8
 IR7 4.67 349 eP 39 16.00 -2.8
 DHR 4.97 196 ePc 39 23.50 0.5
 BBU 4.99 193 ePn 39 23.70 0.5
 eSn 40 23.10
 BEE 5.17 192 iPn 39 26.50 0.7
 eSn 40 22.60
 BJA 5.18 191 iPn 39 26.20 0.3
 eSn 40 25.30
 BHD 6.55 291 ePn 39 48.00 2.9X
 eSn 40 56.50
 iSg 41 18.50
 i 41 35.50
 i 41 53.00
 SLY 6.84 313 eP 39 53.00 3.8X
 iS 41 06.00
 i 41 55.00
 TAB 8.22 329 e(P) 40 09.00 0.4
 MAIO 8.32 49 ePn 40 10.00 0.2
 eSn 41 43.00
 QASM 8.73 237 iPc 40 12.00 -3.5X
 KMSA 12.49 213 ePc 41 04.50 -2.1
 HRI 13.67 283 e(P) 41 30.00 7.8X
 PRNI 14.37 271 eP 41 31.00 -0.3
 MBH 14.55 269 eP 41 40.00 6.4X
 BBTk 17.68 305 eP 42 13.00 -0.4
 ELL 18.91 293 eP 42 29.00 0.5
 KHL 19.56 298 eP 42 36.00 0.3
 HRT 20.24 305 eP 42 45.00 2.2
 YLV 20.35 304 eP 42 46.00 2.0
 IZM 21.30 297 eP 42 53.00 -0.7
 BNT 21.33 302 eP 42 59.00 5.1X
 CLI 24.34 316 ePd 43 25.00 1.7
 MLR 24.65 313 ePc 43 30.00 3.5X
 VAY 25.50 302 eP 43 36.40 2.0
 SKO 26.48 303 eP 43 43.50 0.0
 OHR 26.75 300 eP 43 43.20 -2.8
 RBL 33.06 309 P 44 43.00 0.9
 KBA 33.37 310 eP 44 45.00 0.1
 0.8s 10.90nm 4.8mb
 id 44 45.40
 i 44 49.70
 FVI 33.63 309 P 44 44.00 -2.9X
 PGD 33.85 304 P 44 52.00 2.9X
 NUR 34.43 337 eP 44 53.00 -0.6
 BOB 35.59 305 P 45 05.00 1.1
 LPG 37.57 305 eP 45 21.70 0.9
 0.7s 12.15nm 4.9mb
 BNI 37.58 305 P 45 19.70 -1.0
 LPL 37.59 305 eP 45 21.00 0.1
 0.7s 12.15nm 4.9mb
 HFS 38.42 330 eP 45 26.70 -0.7
 0.6s 7.30nm 4.7mb
 SOD 39.22 345 iP 45 34.70 0.8
 LBF 39.65 307 eP 45 35.60 -2.3
 SMF 39.71 307 eP 45 36.30 -2.0
 0.5s 7.30nm 4.8mb
 LOR 39.76 308 eP 45 38.40 -0.3
 NB2 39.94 331 P 45 39.20 -0.8
 0.6s 1.30nm 3.9mb
 SSF 39.98 308 eP 45 39.30 -1.2
 0.7s 5.50nm 4.5mb
 KEV 41.13 347 eP 45 51.00 1.4
 FRB 74.43 336 eP 49 49.00 5.6X

YKA 86.08 354 eP 50 46.60 1.1
 0.7s 0.90nm 4.1mb
 WB5 94.07 111 eP 51 21.80 -1.9
 WRA 94.09 111 Pc 51 24.80 1.0
 0.4s 1.50nm 4.8mb
 S.D. = 1.3 on 41 of 51 obs.

* APR 18, 1990 19h 40m 11.70± 1.17s
 13.244 N ± 18.9km 146.875 E ± 12.1km
 DEPTH = 33.0km (normal)
 4.0mb (2 obs.)

SOUTH OF MARIANA ISLANDS (210)

GUA 1.93 279 eP 40 43.30 0.4
 eS 41 17.50
 GUMO 1.98 280 eP 40 43.50 -0.1
 PJG 1.98 280 eP 40 43.30 -0.3
 WB5 35.14 201 eP 47 15.20 10.7X
 WRA 35.21 201 Pd 47 05.10 0.0
 0.7s 1.50nm 4.0mb
 YKA 82.26 28 eP 52 30.90 0.0
 0.8s 1.20nm 4.0mb
 S.D. = 0.4 on 5 of 6 obs.

? APR 18, 1990 19h 41m 10.08± 1.12s
 66.419 N ± 13.5km 14.497 E ± 17.5km
 DEPTH = 5.0km (geophysicist)

NORTHERN NORWAY (646)

MD 3.1 (BER)
 LOF 1.76 348 iPc 41 41.09 -0.3
 iS 42 04.85
 TRO 3.63 25 eP 42 08.67 0.6
 eS 42 45.81
 KTK1 4.22 48 iP 42 16.11 -0.4
 eS 43 04.32
 MOL 4.89 221 eP 42 26.03 0.0
 eS 43 25.25
 NUR 7.47 138 eP 43 13.00 10.8X
 S.D. = 0.8 on 4 of 5 obs.

? APR 18, 1990 19h 55m 50.67± 8.91s
 34.342 S ± 53.2km 72.219 W ± 55.8km
 DEPTH = 21.4 ± 11.0 km

NEAR COAST OF CENTRAL CHILE (135)

LNV 0.77 60 iPd 56 05.30 0.0
 TACH 1.27 58 iPd 56 12.50 -0.7
 iS 56 28.00
 CHCH 1.36 73 iP 56 14.60 0.1
 i 56 33.50
 SAN 1.57 56 eP 56 18.00 0.5
 e 56 36.50
 i 56 38.00
 PCH 1.59 64 iPd 56 18.00 0.1
 i 56 40.00
 ROCH 1.70 37 eP 56 19.70 0.1
 S.D. = 0.6 on 6 of 6 obs.

* APR 18, 1990 20h 05m 28.31± 1.04s
 36.178 N ± 17.2km 27.204 E ± 7.8km
 DEPTH = 10.0km (geophysicist)
 3.6mb (1 obs.)

DODECANESE ISLANDS (369)

SMG 1.56 349 ePn 05 56.00 0.0
 APE 1.61 304 ePn 05 57.40 0.5
 KSL 1.93 91 ePn 06 00.90 -0.5
 IZM 2.22 1 eP 06 11.00 5.3X
 ELL 2.25 75 ePn 06 06.00 -0.3
 VAM 2.56 253 ePn 06 11.80 1.3
 BCK 3.00 64 eP 06 21.70 4.8X
 VLI 3.48 280 ePn 06 21.00 -2.6
 ITM 4.36 285 ePn 06 36.00 -0.1
 YKA 76.98 343 eP 17 24.20 1.8
 0.4s 0.20nm 3.6mb
 S.D. = 1.6 on 8 of 10 obs.

? APR 18, 1990 20h 11m 30.65± 2.54s
 51.166 N ± 25.7km 15.851 E ± 14.1km
 DEPTH = 10.0km (geophysicist)

POLAND (548)

KSP 0.43 139 iPc 11 39.30 -0.1
 0.2s 60.00nm
 iS 11 49.00
 i 11 52.50

BRG 1.24 257 iPg 11 53.40 -0.3
 iSg 12 13.00
 PRU 1.44 216 Pn 11 57.00 0.2
 Pg 11 59.00
 Sn 12 16.00
 Sg 12 22.60
 CLL 1.80 276 ePg 12 02.00 0.1
 eSg 12 27.00
 KHC 2.51 217 ePg 12 17.80 5.7X
 Sg 12 48.00
 MOX 2.73 261 ePg 12 21.00 5.7X
 eSg 13 00.00
 S.D. = 0.3 on 4 of 6 obs.

& APR 18, 1990 20h 29m 19.99s
 59.324 N 153.497 W
 DEPTH = 110.4km
 SOUTHERN ALASKA (2)
 <AGS-P>

AUL 0.07 29 iP 29 34.87 1.0
 AUE 0.07 61 iP 29 34.81 1.0
 eS 29 46.75
 OPT 0.36 22 iP 29 34.86 -1.5
 CDD 0.40 191 iP 29 35.63 -0.9
 eS 29 47.70
 PDB 0.58 323 iP 29 36.83 -0.9
 eS 29 49.47
 XLV 0.92 81 eP 29 39.92 -0.7
 iS 29 55.04
 RED 1.16 18 iP 29 42.37 -0.9
 eS 29 59.56
 CNPM 1.17 79 eP 29 42.84 -0.6
 eS 30 00.01
 >NNL 1.33 56 iP 29 45.44 0.3
 RDT 1.37 23 eP 29 44.72 -1.0
 eS 30 03.61
 KDC 1.67 161 eP 29 47.32 -1.9
 NKA 1.82 38 eP 29 52.79 1.7
 CKL 1.97 17 iP 29 52.28 -0.9
 eS 30 17.09
 SPU 2.00 20 eP 29 52.39 -1.1
 BGL 2.02 15 iP 29 53.20 -0.7
 SLKM 2.03 53 eP 29 52.97 -1.0
 SVW 2.08 330 eP 29 53.48 -1.1
 CGLM 2.12 20 eP 29 54.29 -0.9
 NCG 2.19 17 eP 29 55.15 -0.9
 SEW 2.20 67 eP 29 54.96 -1.0
 SUA 2.55 31 iP 30 00.08 -0.7
 PMS 2.75 44 iP 30 02.18 -1.2
 SKT 2.84 19 iP 30 03.21 -1.3
 PWA 2.94 36 eP 30 04.68 -1.2
 PLRM 3.14 42 iP 30 07.06 -1.5
 VZW 3.88 60 eP 30 17.30 -1.4
 KLU 4.34 57 eP 30 22.62 -2.4
 27 obs. associated

APR 18, 1990 20h 34m 07.69± 0.37s
 1.276 N ± 7.5km 123.070 E ± 8.9km
 DEPTH = 33.0km (normal)
 4.9mb (5 obs.)

MINAHASSA PENINSULA (265)

IPM 22.26 279 ePd 39 04.80 1.3
 MBL 22.52 188 eP 39 05.20 -0.9
 SNG 23.14 285 eP 39 12.00 -0.1
 e 02 45.80
 WB5 23.77 153 eP 39 18.10 -0.2
 WRA 23.81 153 Pc 39 19.70 1.0
 0.6s 6.70nm 4.3mb
 NNT 25.71 297 eP 39 36.20 -0.7
 e 03 10.00
 OIS 27.08 144 eP 39 49.00 -0.4
 CHG 29.38 308 eP 40 10.50 0.2
 SHL 38.56 311 iP 41 28.50 -1.0
 ADE 38.92 159 eP 41 32.40 0.2
 LZH 38.96 335 eP 41 33.70 1.0
 2.0s 28.00nm 4.7mb
 BJI 39.09 352 eP 41 33.00 -0.5
 GUN 44.35 310 P 42 17.50 0.3
 0.8s 47.00nm 5.4mb
 PKI 44.54 309 P 42 18.60 -0.2
 KKN 44.75 310 P 42 20.30 0.0
 DMN 44.79 309 P 42 20.90 0.2
 1.1s 54.00nm 5.3mb
 KOD 46.18 283 eP 42 31.80 -0.1
 HYB 46.59 293 ePc 42 35.00 0.2

18d 20h

GBA 46.77 287 Pc 42 36.00 -0.2
0.6s 4.40nm 4.6mb
INK 93.77 21 eP 47 22.00 -0.2
ZOBO 161.46 144 ePKP 54 08.00 0.4
i 54 54.00
S.D. = 0.6 on 21 of 21 obs.

* APR 18, 1990 20h 57m 37.20±0.54s
1.431 N ±10.7km 123.533 E ±13.8km
DEPTH = 33.0km (normal)
4.9mb (4 obs.)

MINAHASSA PENINSULA (265)

KKM 8.62 302 eP 59 42.00 -0.8
KNA 17.84 163 eP 01 43.00 -1.6
IPM 22.69 278 ePd 02 39.20 1.9
MBL 22.74 189 eP 02 36.40 -1.4
WB5 23.70 154 eP 02 46.00 -1.1
WRA 23.74 154 Pd 02 46.90 -0.6
0.8s 6.30nm 4.2mb
OIS 26.93 145 iPd 03 16.70 -0.9
1.0s 75.00nm 5.3mb
CHG 29.66 307 eP 03 48.00 5.7X
MAT 37.48 20 eP 04 48.00 -1.7
1.0s 14.00nm 4.8mb
SHL 38.80 311 eP 05 04.50 3.4X
ADE 38.90 160 eP 05 02.00 0.4
1.0s 34.00nm 5.1mb
BJI 39.01 351 eP 05 02.50 0.2
LZH 39.02 334 eP 05 03.00 0.3
N 16s 0.50um
E 15s 0.40um

pP 05 17.00 54kmX
sP 05 25.00
BWA 42.63 149 eP 05 35.00 2.7
CAN 43.63 149 eP 05 41.40 1.0
TOO 43.81 155 eP 05 43.00 1.2
KOD 46.60 283 eP 06 04.00 -0.7
HYB 46.96 293 eP 06 07.00 -0.3
MAIO 68.40 309 eP 08 38.00 -0.2
e 09 30.00
LKO 128.18 283 PKP 16 42.66 -0.3
ZOBO 161.31 143 PKP 17 39.00 2.0
i 18 23.80
S.D. = 1.3 on 19 of 21 obs.

* APR 18, 1990 21h 05m 51.23±0.76s
36.157 N ±10.2km 70.109 E ±9.9km
DEPTH = 33.0km (normal)
4.0mb (1 obs.)

HINDU KUSH REGION (718)

QUE 6.51 205 iPd 07 27.50 0.1
eS 08 35.70
NDI 9.57 139 iPc 08 10.00 0.3
0.5s 49.30nm 6.0mb X
eS 09 49.00
DMN 15.31 120 P 09 26.60 -0.2
KKK 15.33 119 P 09 27.50 0.5
PKI 15.55 119 P 09 29.20 -0.8
NB2 44.22 323 P 13 58.20 -0.5
0.8s 2.20nm 4.0mb
MBC 67.71 2 eP 16 47.50 0.7
S.D. = 0.7 on 7 of 7 obs.

? APR 18, 1990 21h 06m 10.82±1.00s
31.427 S ±15.1km 68.539 W ±21.5km
DEPTH = 100.0km (geophysicist)

SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.11 32 iPc 06 24.90 -0.4
ZON 0.17 225 iPc 06 26.00 0.6
eS 06 37.00
RTCV 0.43 180 eP 06 26.40 0.0
RTBS 0.81 253 iPc 06 29.30 -0.2
S 06 43.00
RTRS 1.48 327 iPc 06 37.30 0.1
(S) 06 57.00
S.D. = 0.5 on 5 of 5 obs.

* APR 18, 1990 21h 17m 27.00±2.53s
16.928 N ±14.0km 62.161 W ±16.5km
DEPTH = 10.0km (geophysicist)

LEEWARD ISLANDS (92)

ML 2.5 (FDF),
MGH 0.21 194 eP 17 31.70 0.0

S 17 35.90
BPA 0.31 68 eP 17 33.50 0.0
S 17 38.70
SEG 0.82 130 eP 17 43.00 0.2
PAG 1.01 153 eP 17 45.90 -0.2
S 18 00.80
MGG 1.29 141 eP 17 50.90 0.0
S 18 08.40
S.D. = 0.2 on 5 of 5 obs.

& APR 18, 1990 21h 28m 57.10s
36.897 N 121.665 W
DEPTH = 9.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.1 (BRK).

SAO 0.22 127 iP 29 01.30 -0.5
GCC 0.30 297 iPc 29 02.90 -0.3
iS 29 07.30
MHC 0.44 2 iPd 29 06.20 0.0
ARN 0.46 13 iPc 29 06.40 -0.1
PRS 0.61 157 iPd 29 08.70 -0.7
LLA 0.64 116 iPc 29 09.40 -0.6
PCC 0.83 317 iPc 29 12.30 -0.9
BRK 1.08 334 eP 29 15.90 -1.6
PRI 1.10 133 ePc 29 17.30 -0.7
ZSP 1.15 336 eP 29 17.20 -1.4
PHAM 1.47 136 eP 29 22.50 -1.3
CMB 1.53 41 eP 29 24.30 -0.3
FRI 1.57 86 iPd 29 24.90 -0.3
iS 29 45.20
13 obs. associated

* APR 18, 1990 21h 35m 13.44±0.47s
1.311 N ±10.5km 123.626 E ±12.8km
DEPTH = 33.0km (normal)
4.9mb (5 obs.)

MINAHASSA PENINSULA (265)

KGM 20.31 272 eP 39 50.00 0.5
MBL 22.64 189 eP 40 11.60 -1.4
IPM 22.80 279 ePd 40 15.90 1.3
WB5 23.55 154 eP 40 21.00 -0.9
i 40 29.90
WRA 23.59 154 Pd 40 21.80 -0.5
0.6s 14.00nm 4.7mb
OIS 26.78 145 iPc 40 51.60 -0.9
CHG 29.80 307 eP 41 19.50 -0.3
MAT 37.56 19 (P) 42 20.00 -6.6X
1.3s 25.00nm 4.9mb
ADE 38.76 160 iPc 42 36.60 0.0
0.8s 23.88nm 5.0mb
SHL 38.95 311 iP 42 37.70 -0.9
BJI 39.14 351 eP 42 39.00 -0.7
LZH 39.16 334 P 42 41.30 1.1
2.0s 61.00nm 5.0mb
E 13s 0.30um

pP 42 45.00 13kmX
i 42 54.00
BWA 42.48 149 eP 43 09.90 2.6
CAN 43.48 149 eP 43 16.10 0.7
TOO 43.66 155 eP 43 18.00 1.1
GUN 44.75 310 P 43 26.70 0.4
PKI 44.95 309 P 43 27.90 0.1
KKK 45.15 309 P 43 29.60 0.3
DMN 45.20 309 P 43 30.00 0.2
GBA 47.29 287 Pd 43 46.00 -0.1
0.9s 4.70nm 4.5mb
QUE 60.86 304 eP 45 24.20 -1.4
LKO 128.29 283 PKP 54 18.50 -0.9
1.0s 27.00nm
ZOBO 161.16 143 PKP 55 12.80 -0.3
S.D. = 1.0 on 22 of 23 obs.

? APR 18, 1990 22h 13m 14.46±18.84s
33.341 S ±23.1km 72.716 W ±153.1km
DEPTH = 33.0km (normal)

OFF COAST OF CENTRAL CHILE (134)

IHA 0.95 71 eP 13 31.50 0.0
e(S) 13 42.50
LNV 1.25 120 iPc 13 35.70 0.0
iS 13 53.50
TACH 1.52 102 iP 13 39.30 -0.3
iS 14 00.00
CHCH 1.82 109 iPd 13 44.00 0.0
iS 14 06.50

PCH 1.86 99 eP 13 45.00 0.3
iS 14 06.50
S.D. = 0.3 on 5 of 5 obs.

* APR 18, 1990 22h 27m 58.38±0.62s
1.342 N ±11.6km 123.084 E ±18.7km
DEPTH = 33.0km (normal)
4.5mb (4 obs.)

MINAHASSA PENINSULA (265)

MBL 22.59 188 eP 32 56.30 -1.1
WB5 23.82 153 eP 33 09.20 -0.2
WRA 23.86 153 P 33 11.00 1.1
0.6s 4.90nm 4.2mb
SHL 38.52 311 eP 35 19.50 -0.4
LZH 38.90 335 Pd 35 23.00 0.1
2.0s 47.00nm 4.9mb
BJI 39.03 352 eP 35 23.00 -0.7
1.5s 26.00nm 4.8mb
GUN 44.31 310 P 36 07.40 -0.3
PKI 44.51 309 P 36 09.30 0.1
KKK 44.72 309 P 36 10.70 -0.1
DMN 44.76 309 P 36 11.20 0.0
HYB 46.58 293 eP 36 26.50 1.1
GBA 46.77 287 Pc 36 33.00 6.2X
0.2s 0.30nm 3.9mb
MAIO 68.10 309 eP 38 58.00 0.5
S.D. = 0.7 on 12 of 13 obs.

APR 18, 1990 22h 47m 30.79±0.27s
1.390 N ±5.9km 122.907 E ±7.2km
DEPTH = 33.0km (normal)
5.0mb (11 obs.)

MINAHASSA PENINSULA (265)

TSM 5.59 300 eP 48 54.00 0.2
KKM 8.12 305 eP 49 28.00 -1.5
KNA 17.99 161 eP 51 40.00 -0.1
IPM 22.08 279 ePd 52 27.10 2.2
MBL 22.61 187 eP 52 29.30 -0.8
WB5 23.94 153 eP 52 43.50 0.4
WRA 23.99 153 Pc 52 43.80 0.3
1.0s 19.00nm 4.6mb
LOE 26.21 309 eP 53 04.00 -0.6
OIS 27.26 144 eP 53 14.00 -0.2
MEKA 28.16 188 eP 53 20.50 -1.8
CHG 29.18 308 eP 53 31.70 0.1
BAL 32.36 190 eP 53 58.00 -1.5
MAT 37.74 20 eP 54 37.00 -8.4X
1.5s 27.78nm 4.9mb
SHL 38.36 311 iP 54 50.50 -0.5
LZH 38.79 335 Pd 54 55.00 0.6
2.0s 61.00nm 5.0mb
pP 55 06.50 42kmX
sP 55 11.00

BJI 38.95 352 eP 54 55.50 0.0
1.0s 30.00nm 5.0mb
ADE 39.08 159 iPc 54 58.10 1.4
0.8s 28.36nm 5.1mb
BRS 40.55 137 eP 55 08.00 -1.0
CAN 43.92 149 eP 55 37.00 0.7
TOO 44.04 154 eP 55 39.00 1.7
GUN 44.15 310 P 55 39.40 0.7
PKI 44.34 309 P 55 40.70 0.4
0.9s 36.00nm 5.2mb

KKN 44.55 310 P 55 42.20 0.4
0.9s 52.00nm 5.4mb
DMN 44.59 309 P 55 42.90 0.7
1.0s 85.00nm 5.6mb
KOD 46.00 283 eP 55 54.10 0.5
HYB 46.40 293 ePd 55 57.20 0.8
GBA 46.58 287 Pc 55 58.20 0.4
1.0s 13.10nm 4.9mb

NDI 51.31 306 eP 56 32.00 -2.2
QUE 60.22 304 eP 57 38.20 -0.4
IR4 74.54 306 iPc 59 08.80 0.2
IR2 74.61 307 iPd 59 09.00 0.1
IR5 74.79 306 eP 59 10.00 0.0
IR7 74.85 307 iPc 59 10.00 -0.3
VNDA 81.62 172 e(P) 59 46.70 0.2
SVW 84.66 29 eP 00 03.10 0.8
TTA 84.70 27 eP 00 03.10 0.5
BRW 85.59 19 eP 00 07.70 1.0
IMA 86.06 24 eP 00 09.20 -0.2
0.8s 3.40nm 4.6mb
PRNI 87.50 300 ePd 00 18.00 1.0
TOA 89.21 28 eP 00 25.10 0.6

18d 23h

SOD	91.15	337	eP	00	32.00	-1.3	PEC	87.38	53	P	18	49.00	-0.8	FEL	147.06	336	ePKP	25	43.59	1.6
INK	93.72	21	eP	00	44.00	-1.1	PLM	87.38	54	eP	18	50.00	0.0	OSS	147.16	333	iPKPc	25	44.50	2.3
MBC	95.05	12	eP	00	50.50	-0.6	CLC	87.85	51	eP	18	52.00	-0.1	ZLA	147.24	336	ePKPc	25	43.90	1.7
	0.8s						TPC	88.31	53	eP	18	54.00	-0.3	LLS	147.49	334	ePKPc	25	45.10	2.3
YKA	103.18	24	ePdiff	01	27.30	-0.6	GLA	88.82	55	eP	18	57.00	0.3	BSF	147.55	338	iPKPc	25	44.90	2.2
	0.4s						BMW	88.84	40	P	18	56.00	-0.5		0.8s					
ANMO	121.41	47	ePKP	06	21.00	-2.1	KVN	88.84	48	P	18	56.30	-0.6	HAU	147.56	338	iPKPc	25	45.10	2.5
ZOBO	161.65	144	PKP	07	32.00	1.1	IMA	88.96	14	eP	18	56.30	-0.5		0.6s					
	S.D. = 1.0	on		45	of	46	TNP	89.07	49	P	18	57.50	-0.5	VDL	147.60	333	ePKPc	25	45.60	2.6
							FBA	89.52	17	eP	18	57.40	-1.8	SAL	147.82	331	PKP	25	53.00	10.0X
APR 18, 1990 23h 06m 29.21 ± 0.78s							GMW	89.62	39	P	19	00.00	0.0	BCAO	148.05	247	ePKPd	25	43.50	-0.9
18.649 S ± 6.5km 169.203 E ± 6.2km							LON	89.83	40	P	19	00.60	-0.5		0.5s					
DEPTH = 246.4 ± 7.4 km							MCW	90.13	38	P	19	02.20	-0.2							
4.9mb (15 obs.)							RMW	90.16	39	P	19	02.60	0.0							
VANUATU ISLANDS (186)							PNT	92.30	38	ePc	19	12.00	-0.3	TMA	148.15	334	iPKPc	25	46.70	2.8
							NEW	93.35	40	P	19	16.00	-1.2	ARV	148.17	326	PKP	25	47.00	3.3X
PVC	1.24	317	iPc	07	05.70	0.1		0.8s						VAI	148.39	333	PKP	25	46.70	2.8
			iS	07	34.50		LRM	95.35	43	eP	19	26.20	-0.6	SFI	148.43	328	PKP	25	49.00	4.9X
DZM	4.28	217	iPc	07	36.90	0.2	ANMO	95.99	55	eP	19	29.00	-0.8	MMK	148.57	335	ePKPc	25	48.60	4.0X
			iS	08	30.70			0.9s						CRE	148.59	327	PKP	25	48.00	3.5X
VUN	8.82	87	eP	08	33.90	0.1	INK	96.00	18	eP	19	28.00	-0.8	DIX	148.77	335	ePKPc	25	48.90	3.9X
COO	19.69	230	eP	10	43.00	1.4	YKA	100.16	27	ePdiff	19	47.20	-0.6	FLN	148.82	347	iPKPc	25	48.00	3.4X
RMQ	20.41	244	iPd	10	50.40	1.6		0.8s							0.7s					
	0.4s						MBC	103.67	14	ePdiff	20	02.50	-0.6	FIR	148.83	328	ePKP	25	47.00	2.3
CTA	21.70	262	iPc	11	01.50	0.2		0.7s						SDI	148.88	323	PKP	25	49.00	4.0X
	1.0s						FRB	120.64	26	ePKP	24	50.00	-2.5	LDF	148.90	346	iPKPc	25	48.10	3.4X
			iP	11	13.70	50kmX	KEV	123.97	345	ePKP	24	57.00	-1.7		0.7s					
			i	11	51.00		SOD	125.76	343	ePKP	25	05.00	2.7	ORO	148.91	334	PKP	25	48.50	3.5X
			e	12	36.00		NUR	131.18	338	ePKP	25	11.00	-1.8	BDI	148.95	329	PKP	25	47.70	2.7
			iS	14	47.00			0.6s						BOB	148.95	331	PKP	25	59.00	14.0X
MNG	22.55	167	P	11	09.00	-0.4	NB2	134.87	345	PKP	25	19.30	-0.6	EMS	148.97	336	ePKPc	25	49.20	4.0X
PGZ	22.72	166	P	11	10.70	-0.4		0.7s						LOR	149.03	340	iPKPc	25	48.80	3.8X
	0.6s						HFS	134.99	343	ePKP	25	18.90	-1.2		0.8s					
								0.7s						LBF	149.24	340	iPKPc	25	49.00	3.6X
TCW	22.91	170	P	11	13.30	0.5	BRG	142.32	334	ePKP	25	29.40	-4.4X		0.6s					
CAW	22.94	169	P	11	13.00	-0.2	CLL	142.37	335	ePKP	25	30.00	-3.8X	GRR	149.26	347	iPKPc	25	49.30	4.1X
MTW	23.08	168	P	11	13.70	-0.7	SRO	142.48	327	ePKP	25	31.00	-3.1X		0.8s					
WDW	23.08	169	P	11	14.00	-0.5	ZST	142.83	329	ePKP	25	31.70	-3.0X	SSF	149.33	341	iPKPc	25	49.70	4.3X
THZ	23.26	173	P	11	18.40	2.2	SRS	143.07	315	ePKPc	25	31.40	-4.0X		0.8s					
BLW	23.27	168	P	11	16.20	-0.1	OUR	143.15	313	ePKPd	25	31.90	-3.6X	LPL	149.51	335	iPKPc	25	50.60	4.6X
MOW	23.28	168	P	11	15.60	-0.8	SOH	143.37	314	ePKPc	25	32.00	-4.0X		0.7s					
QIS	27.93	261	eP	11	58.00	-1.0	MOX	143.43	336	ePKP	25	33.00	-2.7	LPG	149.52	335	iPKPc	25	50.80	4.7X
WB5	32.87	262	iPd	12	41.00	-1.2	KNT	143.52	315	ePKP	25	32.60	-3.5X		0.7s					
WRA	32.90	262	Pc	12	39.70	-2.7	HOF	143.59	335	iPKPd	25	33.50	-2.5	SMF	149.59	340	iPKPc	25	50.00	4.2X
	0.8s						VAY	143.66	316	ePKP	25	34.30	-2.0		0.8s					
KNA	38.68	268	iPd	13	30.30	-0.7	THE	143.71	314	ePKPd	25	32.80	-3.6X	AVF	149.61	341	iPKPc	25	49.90	4.1X
FORR	39.05	244	iPc	13	41.00	7.1X	KHC	143.80	333	iPKPc	25	34.00	-2.4		0.9s					
WARB	39.91	251	eP	13	41.70	0.6		1.0s						LPF	149.63	347	iPKPc	25	50.40	4.6X
	0.3s						SKO	144.08	317	iPKPc	25	35.50	-1.6		0.8s					
MBL	46.34	258	iPd	14	32.80	0.0		0.8s						BNI	149.91	335	PKP	25	51.50	5.0X
	0.4s						WET	144.09	333	iPKPc	25	35.10	-1.8	BGF	149.98	341	iPKPc	25	51.10	4.7X
MEKA	47.19	251	eP	14	38.80	-0.5	LIT	144.28	314	ePKPc	25	35.10	-2.4		0.7s					
	0.6s						GRF	144.34	335	iPKPc	25	36.20	-1.1	PLDF	150.25	340	PKP	25	51.99	5.1X
NANU	50.18	256	eP	15	02.30	0.2		1.2s						AGO	150.34	340	PKP	25	52.04	5.1X
	0.6s						FNA	144.71	316	ePKPc	25	36.40	-1.9	MAF	150.37	341	iPKPc	25	52.00	5.0X
SPA	71.47	180	iPc	17	23.70	-0.9	AGG	144.87	312	ePKPc	25	36.50	-2.0		0.7s					
	1.0s						OHR	144.93	316	ePKP	25	37.00	-1.6	TCF	150.42	342	iPKPc	25	52.10	5.0X
CHTO	78.38	294	eP	18	05.40	1.1		0.7s							0.8s					
KDC	82.49	20	eP	18	25.70	0.7	PTJ	144.96	327	ePKP	25	37.40	-1.1	SBF	150.56	333	ePKP	25	52.10	4.7X
SVW	84.34	16	eP	18	34.80	0.4	BHG	145.16	332	ePKP	25	38.20	-0.5		0.7s					
	1.2s						DCN	145.27	356	iPKPc	25	38.20	-0.5	PYM	150.65	340	PKP	25	52.98	5.4X
PCC	85.14	48	eP	18	39.00	0.2		0.8s						LSF	150.65	342	iPKPc	25	52.30	4.9X
GCC	85.19	48	ePc	18	40.20	1.1	TOD	145.33	337	ePKP	25	38.82	-0.2		0.9s					
ANM	85.23	11	eP	18	39.30	0.6	MEM	145.42	341	PKPc	25	38.70	-0.3	MFF	150.77	345	iPKPc	25	52.90	5.3X
PRS	85.32	49	ePc	18	40.50	0.7	KBA	145.42	330	ePKP	25	36.50	-2.9X		0.6s					
BRK	85.40	48	ePc	18	40.20	0.1		0.8s						PGF	150.85	329	ePKP	25	53.40	5.4X
BKS	85.42	48	eP	18	40.10	-0.1									0.7s					
	0.9s													LBL	151.03	339	PKP	25	54.08	6.1X
SAO	85.46	49	ePc	18	41.30	0.8								FRF	151.14	333	ePKP	25	53.50	5.3X
SYP	85.53	51	eP	18	41.00	0.0	FUR	145.52	334	ePKP	25	40.10	0.8	LMR	151.38	333	ePKP	25	54.10	5.5X
MHC	85.59	48	ePc	18	41.50	0.3	ABH	145.54	339	ePKP	25	39.55	0.2		0.7s					
FHC	85.61	44	ePc	18	42.10	1.0	RBL	145.78	330	PKP	25	39.00	-0.9	RJF	151.51	342	ePKP	25	54.70	6.0X
ARN	85.67	48	P	18	41.70	0.2	ETA	145.83	355	ePKP	25	39.80	0.2		0.7s					
BCH	85.74	51	P	18	42.00	0.0	RUP	145.86	339	ePKP	25	40.71	0.8	CAF	151.69	341	ePKP	25	55.10	6.0X
PRI	85.74	50	ePc	18	42.90	0.9	SNF	146.01	343	PKP	25	40.70	0.7	LFF	152.07	342	ePKP	25	56.00	6.5X
LLA	85.76	49	e(P)	18	42.50	0.6	FVI	146.04	330	PKP	25	40.40	0.2		0.7s					
TTA	85.78	15	eP	18	41.40	-0.1	ECB	146.21	356	ePKP	25	41.00	0.7	LPO	152.17	341	ePKP	25	56.20	6.5X
ABL	86.24	51	P	18	44.00	-0.6	DOU	146.29	342	iPKPd	25	42.00	1.5		0.7s					
WDC	86.47	45	iPc	18	45.60	0.3	ECF	146.36	355	iPKPc	25	41.20	0.7	LIC						

TURKEY (366)						Mff= 0.33 0.80 Mrt=-5.24 1.85 Mrf= 2.48 1.22 Mtf=-1.67 0.53						BAL 32.29 190 eP 11 35.00 -1.9 0.6s 76.00nm 5.8mb					
Principal Axes: T Val= 10.42 Pig=67 Azm=224 N -0.40 17 89 P -10.02 15 355 Best Double Couple: Mo=1.0*10**18 NP1: Strike= 62 Dip=33 Slip= 58 NP2: 278 62 109						FORR 32.34 172 iPd 11 34.80 -2.4 0.3s 38.00nm 5.8mb KLB 33.09 188 eP 11 42.00 -1.8 MUN 33.72 190 eP 11 47.00 -2.3 0.7s 50.00nm 5.5mb Z 20s 8.80um 5.5msz N 20s 5.90um E 20s 13.20um											
TSM 5.73 301 iPd 06 35.00 1.2 1.0s 1144.20nm 6.4mb						SHK 34.27 14 eP 11 54.50 0.5 NWA0 34.48 189 iPd 11 55.00 -0.8 0.6s 37.00nm 5.5mb											
DAV 6.29 24 eP 06 40.00 -1.7						RMO 37.14 140 eP 12 17.00 -1.5											
MKS 7.38 209 iPc 07 02.00 5.0X iS 08 32.00 K 07 10.00 0.6						MAT 37.78 20 (P) 12 22.00 -1.7 1.8s 295.45nm 5.8mb eS 18 02.00 LZH 38.91 335 Pc 12 33.50 0.1 2.0s 444.00nm 5.9mb Z 18s 15.50um 5.9msz N 13s 5.60um E 14s 8.60um											
K 07 39.50 5.8mb P 07 25.00 -0.6 iS 08 14.00 0.9 SLK 12.38 138 iPd 08 06.50 0.9 OCP 13.39 352 iP 08 20.00 1.0 BAG 15.21 351 eP- 08 43.00 0.0 eS 11 26.00 MTN 16.20 150 eP 08 54.00 -1.6 SZP 16.35 351 eP 09 02.00 4.5X PIP 17.08 352 ePc 09 08.80 2.0 1.0s 166.00nm 5.1mb KNA 17.87 162 eP 09 16.80 0.2 0.6s 191.00nm 5.4mb KGM 19.71 272 ePd 09 40.90 2.4 KLM 21.43 275 eP 09 59.70 3.3X MNDI 21.89 110 eP 10 04.00 2.8 IPM 22.20 279 ePd 10 05.90 1.8 1.2s 200.80nm 5.4mb MBL 22.54 188 eP 10 06.40 -0.9 0.7s 45.00nm 5.0mb HKC 22.58 338 iP 10 11.00 3.3X iS 14 20.00 SNG 23.08 285 eP 10 13.20 0.5 1.0s 626.00nm 6.1mb eS 14 24.00 ANP 23.79 357 iP 10 20.00 0.4 eS 14 34.00 WRA 23.85 153 Pd 10 22.90 2.7 1.0s 111.30nm 5.3mb NANU 24.82 197 eP 10 28.90 -0.5 GUMO 24.83 60 eP 10 29.40 -0.2 Z 24s 7.37um 5.1msz PJG 24.83 60 eP 10 29.30 -0.3 GUA 24.84 60 eP 10 29.50 -0.3 1.0s 288.00nm 5.8mb LAT 25.20 109 eP 10 35.00 1.8 NNT 25.66 297 iPc 10 39.00 1.5 PMG 26.29 114 eP 10 41.50 -1.8 1.0s 210.00nm 5.7mb LOE 26.35 309 eP 10 42.00 -1.9 NST 26.71 304 eP 10 50.00 2.8 OIS 27.12 144 iPc 10 49.10 -1.8 WARB 27.55 173 eP 10 54.00 -0.7 CHG 29.33 308 eP 11 10.80 -0.1 1.0s 26.75nm 4.9mb eS 16 06.00 RAB 29.63 101 e(P) 11 12.00 -1.7 iS 16 14.00 SSE 29.68 357 Pc 11 15.00 1.1 1.7s 254.00nm 5.7mb Z 18s 9.40um 5.5msz N 14s 7.50um E 13s 3.30um PPP 12 17.00 S 16 10.00 KMI 30.73 322 Pc+ 11 24.00 0.5 2.0s 0.22nm 2.6mb X N 15s 11.70um E 15s 5.90um S 16 29.00 CTA 31.16 134 iPd+ 11 27.20 0.2 1.7s 346.15nm 5.9mb Z 20s 10.99um 5.5msz i 11 32.50 epP 11 55.00 128kmX iSP 12 17.50 ePcP 14 16.50 eS 16 33.00 COOL 32.06 183 eP 11 35.00 0.2 0.4s 6.00nm 4.8mb						ADE 38.96 159 eP+ 12 33.50 -0.1 1.2s 500.00nm 6.2mb BJI 39.06 352 eP 12 33.00 -1.3 2.0s 343.00nm 5.8mb Z 16s 12.23um 5.8msz N 16s 24.10um E 14s 3.48um ePP 14 08.00 eS 18 28.00 eSS 21 00.00 eScS 22 43.00 CMS 39.14 148 eP 12 36.00 0.9 BRS 40.41 137 iP 12 45.10 -0.7 e 12 57.00 i 13 07.70 e 14 35.00 eS 18 52.00 COO 41.96 141 eP 13 00.00 1.6 BWA 42.79 149 eP 13 07.30 2.1 CAN 43.78 149 eP 13 13.80 0.6 RIV 43.83 145 eP 13 16.00 2.5 e 15 04.00 eS 19 44.00 e 23 04.00 TOO 43.91 154 eP 13 15.00 0.8 CNB 43.97 148 eP 13 16.00 1.3 GUN 44.29 310 Pd 13 18.20 0.3 PKI 44.49 309 Pd 13 19.60 0.2 KKN 44.69 310 Pd 13 21.20 0.2 DMN 44.74 309 Pd 13 21.80 0.4 KOD 46.13 283 eP 13 33.40 0.8 eS 20 20.00 HYB 46.54 293 iPd 13 36.30 0.8 1.4s 675.00nm 6.4mb eS 20 26.00 GBA 46.72 287 Pd 13 36.20 -0.7 1.7s 442.80nm 6.2mb DZM 48.31 121 iPc 13 48.80 -0.6 POO 51.15 293 eP 14 10.50 -0.6 iS 21 32.00 NDI 51.46 306 eP 14 12.50 -0.8 eS 21 31.00 QUE 60.37 304 iP+ 15 16.60 -1.0 1.0s 37.00nm 5.5mb eS 23 32.50 MSZ 60.69 145 P 15 18.80 -0.4 THZ 62.16 140 eP 15 28.10 -1.3 KHZ 62.90 140 eP 15 32.70 -1.4 SNZO 63.12 138 P 15 34.00 -1.5 PP 18 12.00 S 23 52.00 MNG 63.32 138 eP 15 34.50 -2.4 HBZ 63.99 133 eP 15 41.00 -0.3 MHI 68.08 309 eP 16 08.00 0.2 eS 25 16.00 DRV 68.89 173 eP 16 13.40 1.4 DHR 74.09 297 eP 16 45.00 1.1											
S.D. = 1.1 on 9 of 9 obs.																	
? APR 19, 1990 00h 01m 34.38± 5.27s 35.011 S ±50.7km 70.052 W ±22.3km DEPTH = 131.1 ± 13.5 km																	
CHILE-ARGENTINA BORDER REGION (127)																	
CHCH 1.18 335 iP 02 00.00 0.5 iS 02 18.00																	
PCH 1.44 344 iP 02 02.60 0.3 iS 02 24.00																	
LNv 1.54 313 iP 02 02.80 -0.5 iS 02 24.00																	
TACH 1.54 331 iPc 02 03.00 -0.4 iS 02 24.50																	
SAN 1.63 342 iPc 02 04.50 0.0 iS 02 20.60																	
ROCH 2.18 338 iP 02 11.50 0.1 IHA 2.38 326 eP 02 13.50 -0.1 e(S) 02 41.00																	
RTBS 3.38 9 e(P) 02 27.80 1.2 eS 03 07.40																	
ZON 3.64 19 iPd 02 30.50 0.3 eS 03 12.00																	
RTLL 3.90 20 iPc 02 32.60 -1.1 eS 03 15.80																	
RTRS 4.85 6 ePd 02 45.60 -0.8 (S) 03 40.00																	
ZOBO 18.74 6 P 05 46.70 0.3																	
S.D. = 0.7 on 12 of 12 obs.																	
* APR 19, 1990 01h 01m 48.23± 0.64s 1.487 N ± 9.5km 123.118 E ± 13.9km DEPTH = 33.0km (normal) 4.6mb (6 obs.)																	
MINAHASSA PENINSULA (265)																	
TSM 5.73 298 ePd 03 13.50 0.3 DAV 6.08 24 eP 03 19.00 0.8 PPR 9.32 332 ePd 04 02.00 -1.4 WB5 23.93 153 eP 06 59.40 -1.0 WRA 23.98 153 Pd 07 00.50 -0.3 0.8s 10.50nm 4.4mb NANU 25.02 197 iPd 07 09.40 -1.5 0.4s 3.00nm 4.2mb OIS 27.22 144 iPd 07 30.40 -0.8 1.0s 56.00nm 5.2mb BJI 38.89 351 eP 09 11.00 -1.4 1.5s 16.00nm 4.6mb ADE 39.09 160 eP 09 14.40 0.1 1.0s 46.00nm 5.2mb BWA 42.90 149 eP 09 47.70 2.2 CAN 43.89 149 eP 09 54.20 0.6 HYB 46.56 293 ePc 10 22.80 7.7X GBA 46.76 287 Pc 10 18.90 2.3 1.0s 6.50nm 4.6mb S.D. = 1.4 on 12 of 13 obs.																	
APR 19, 1990 01h 05m 08.76± 0.17s 1.300 N ± 4.0km 123.021 E ± 4.7km DEPTH = 33.0km (normal) 5.7mb (39 obs.) 5.7msz (15 obs.)																	
MINAHASSA PENINSULA (265) Ms 5.7 (PAS). CENTROID, MOMENT TENSOR (HRV) Data Used: GDSN L.P.B.: 15S, 40C Centroid Location: Origin Time 01:05:16.7 0.7 Lat 1.70N 0.07 Lon 123.36E 0.07 Dep 17.7 3.5 Half-duration 3.8 Moment Tensor: Scale 10**17 Nm Mrr= 8.09 0.59 Mtt=-8.42 0.55																	

19d 01h

IR4	74.68	306	iPc	16	47.00	-0.4	KRA	97.39	321	eP	18	38.40	-1.8	e	26	01.50				
IR2	74.75	307	iPc	16	47.00	-0.8	Z	18s	3.20um				5.9Msz	CAR	164.65	40	ePKP	25	12.00	0.7
IR5	74.93	306	eP	16	48.20	-0.6				e	18	41.20		SIV	164.85	165	PKP	25	13.00	1.7
IR7	74.99	307	iPc	16	48.50	-0.7				e	22	48.00					i	26	08.00	
RYD	77.11	295	eP	17	00.00	-1.2				e	29	18.00		S.D. = 1.3 on 158 of 175 obs.						
KER	77.65	305	eP	17	01.00	-3.1X	SKO	97.74	313	ePDIF	18	41.00	-1.0	? APR 19, 1990 01h 35m 27.73± 4.74s						
TAB	78.73	308	eP+	17	10.00	0.0	Z	19s	1.70um				5.6Msz	41.344 N ±31.8km 23.504 E ±14.6km						
KMSA	78.79	290	iPc	17	19.10	8.6X	N	18s	1.62um					DEPTH = 10.0km (geophysicist)						
SLY	79.10	306	eP	17	12.00	0.2	E	18s	1.81um					GREECE-BULGARIA BORDER REGION (363)						
			eS	27	06.50				iPP	22	45.00			SRS	0.24	164	ePg	35	32.30	-0.5
HON	79.25	69	P	17	20.00	7.1X			iSKS	29	16.00						eSg	35	36.60	
Z	20s	2.66um				5.6Msz			iPS	31	53.00			KNT	0.49	248	ePg	35	37.70	0.0
BHD	79.78	303	ePd	17	17.00	1.4			i	35	45.00						eSg	35	45.90	
			eS	27	12.00		HFS	98.40	331	eP	18	42.00	-2.5	SOH	0.53	192	ePg	35	38.70	0.1
ARO	80.11	281	eP+	17	19.00	1.2			iSS	36	38.00						eSg	35	47.80	
MAW	80.22	200	eP	17	18.00	0.8								THE	0.82	210	ePg	35	43.50	-0.1
ANM	80.99	25	eP	17	22.40	1.0	Z	16s	3.84um				6.0MszX				eSg	35	57.10	
MSL	81.07	306	ePd	17	21.50	-0.9			LR	01	19.00			OUR	1.07	160	ePg	35	48.30	0.4
			eS	27	22.50		SRO	98.88	319	eP	18	47.10	0.1	S.D. = 0.5 on 5 of 5 obs.						
SDN	81.26	34	eP	17	22.50	-0.4			e	19	08.50			* APR 19, 1990 02h 04m 45.64± 1.87s						
VNDA	81.52	172	e(P)	17	24.00	0.1			e	23	11.60			34.611 N ±15.4km 23.735 E ±18.6km						
SBA	82.47	172	eP	17	30.60	1.8			e	23	38.70			DEPTH = 10.0km (geophysicist)						
AAE	84.12	279	eP	17	40.00	1.1	NB2	99.27	333	P	18	46.00	-2.6	CRETE (370)						
NPA	84.32	255	iP	17	42.60	3.2X			1.0s	6.60nm			5.1mb	VAM	0.88	26	ePg	05	02.70	0.2
	1.0s	130.00nm				6.1mb	KSP	99.50	322	ePd	18	49.50	-0.3	VLI	2.20	343	ePb	05	24.30	1.6
SVW	84.68	29	eP	17	41.10	0.7			e	22	59.50			APE	2.85	30	ePg	05	32.90	0.8
TTA	84.73	27	eP	17	40.90	0.2	BRG	100.93	322	iPd iff	18	57.20	1.0	ITM	2.95	331	ePb	05	39.50	6.1X
	1.3s	47.20nm				5.5mb			1.6s	34.00nm			5.7mb	NEO	4.70	355	ePn	05	56.00	-2.4
BRW	85.64	19	eP	17	45.70	0.7	Z	18s	3.00um				5.8Msz	KSL	5.01	71	ePn	06	05.50	2.9X
IMA	86.09	24	eP	17	47.10	-0.4	N	18s	2.00um					DSI	10.23	104	eP	07	15.00	-0.5
	1.4s	46.50nm				5.5mb	E	18s	2.50um								eS	09	06.00	
NAI	86.25	269	iPc	17	42.50	-6.9X			eSKS	29	36.00			PRNI	10.42	111	eP	07	17.00	-1.1
KVT	86.87	311	iP	17	51.40	-0.3	CLL	101.38	323	ePd iff	18	58.00	-0.1	MBH	10.60	114	eP	07	22.00	1.4
HRI	87.02	303	eP	17	54.00	1.3			e	19	33.00						e(S)	09	18.00	
SALJ	87.06	302	Pc	17	52.90	0.1			eSKS	29	35.00			KHC	16.34	336	Pc	08	36.60	0.0
MKRJ	87.09	301	Pc	17	53.00	0.0	KHC	101.63	321	Pd iff	19	01.00	1.6	S.D. = 1.6 on 8 of 10 obs.						
DSI	87.31	301	eP	17	55.00	1.1	Z	18s	2.30um				5.7Msz	& APR 19, 1990 02h 15m 20.84s						
MBH	87.75	300	eP	17	57.00	1.0	N	18s	2.20um					62.571 N 151.348 W						
PMR	87.84	29	P	17	55.00	0.0	E	17s	1.80um					DEPTH = 93.8km						
	1.2s	15.15nm				5.2mb			e	22	58.90			3.1mb (1 obs.)						
Z	20s	1.00um				5.2Msz	TRI	102.41	317	ePd iff	18	56.00	-6.9X	CENTRAL ALASKA						
FBA	88.48	25	eP	17	59.80	0.9			e	22	48.00			<AGS-P>						
TOA	89.24	28	eP	18	03.30	0.7			i	23	22.00			CUT	0.53	108	iP	15	36.48	0.1
BBTK	89.38	310	iP	18	04.00	0.2			e	33	13.00			SKT	0.60	188	iP	15	37.00	0.0
PMO	89.45	105	iP	18	07.00	2.7			e	43	10.00			HUR	0.89	62	iP	15	39.70	-0.2
	1.2s	135.00nm				6.1mb	YKA	103.21	24	ePd iff	19	04.90	-1.1				iS	15	53.74	
VAH	89.71	105	iP	18	08.00	2.4			1.3s	2.00nm			4.7mb	KTH	1.00	11	iP	15	40.98	-0.3
	1.2s	95.00nm				6.0mb	KVN	111.21	47	e(PKP)	23	41.30	-0.2	SUA	1.15	165	iP	15	42.83	-0.1
TPT	89.71	105	iP	18	08.30	2.7			i	34	47.50						eS	15	59.63	
	1.2s	120.00nm				6.1mb	CLC	112.68	50	ePKP	23	54.00	9.8X	PWA	1.15	143	iP	15	43.13	0.3
RUV	89.95	105	iP	18	09.10	2.4	SBB	112.87	51	ePKP	23	56.00	11.4X	NCG	1.23	198	iP	15	43.73	-0.2
	1.2s	90.00nm				5.9mb	FFC	113.06	26	iPKPc	23	43.40	-0.8				iS	16	01.02	
HLW	90.82	300	eP+	18	10.50	0.0			1.2s	16.00nm				CGLM	1.31	194	iP	15	44.46	-0.4
			eS	28	42.00		FRB	114.55	6	ePKP	23	47.00	0.2	CRP	1.36	197	iP	15	45.54	-0.1
KEV	90.88	340	eP	18	05.00	-5.0X	RSSD	118.35	37	PKP	23	54.40	-0.6				iS	16	04.29	
Z	16s	4.40um				6.0MszX	RSON	119.37	26	PKP	23	54.30	-2.1	GHO	1.39	124	eP	15	45.97	0.1
			e	21	56.00				Z	20s	1.69um						eS	15	05.68	
			e	28	36.00		GOL	119.86	42	PKP	23	57.80	-0.3	BGL	1.40	201	eP	15	46.37	0.3
			e	30	12.00				Z	20s	1.00um			RND	1.41	53	eP	15	45.84	-0.3
			e	35	36.00		ANMO	121.38	47	PKP	24	01.60	0.6				iS	16	04.48	
			LR	04	08.00		ALO	121.39	47	ePKP	24	01.00	-0.1	PLRM	1.43	132	eP	15	45.83	-0.4
BCK	91.15	307	eP	18	10.60	-1.4			Z	20s	1.83um			PMR	1.43	132	eP	15	46.00	-0.3
SOD	91.28	337	iP	18	10.60	-1.3	KIC	127.30	279	PKP	24	11.40	-1.4	SPU	1.43	194	iP	15	46.11	-0.3
SPA	91.29	180	iPc	18	12.00	-0.2	LKO	127.71	283	PKP	24	12.46	-1.1				eS	16	05.20	
ELL	91.73	307	eP	18	12.00	-2.8			1.0s	27.50nm				CKL	1.46	199	iP	15	46.71	0.0
ITU	92.18	311	iPc	18	16.00	-0.5	TUL	128.26	40	ePKP	24	14.50	0.5	PMS	1.58	147	eP	15	47.80	-0.4
KBS	92.72	350	eP	18	17.20	-1.2			1.4s	22.50nm				MCK	1.60	42	eP	15	48.22	-0.3
NUR	93.00	331	eP	18	18.00	-1.9			Z	22s	2.64um			SML	1.61	117	eP	15	48.48	-0.1
Z	18s	3.40um				5.8Msz								NKA	1.84	178	iP	15	53.73	2.2
			e	22	08.00		UYO	130.18	41	ePKP	24	27.00	9.3X	RDT	2.07	195	eP	15	54.81	0.1
			e	35	44.00		CBN	136.42	23	ePKP	24	31.00	1.6							

19d 02h

GLI	2.64	128	eP	16 00.90	-1.5
RDS	2.68	31	eP	16 02.02	-0.8
SDG	2.69	88	eP	16 02.69	-0.3
HDA	2.70	45	eP	16 02.08	-1.0
PAX	2.73	79	eP	16 03.14	-0.6
VZW	2.73	122	eP	16 02.08	-1.6
DDM	2.77	61	eP	16 04.03	-0.1
KLU	2.78	111	iP	16 02.44	-1.8
FBA	2.82	32	eP	16 03.60	-1.2
DMW	2.94	57	eP	16 05.65	-0.8
GLM	3.00	34	eP	16 06.26	-1.0
CNPM	3.06	179	eP	16 08.22	0.2
PDB	3.11	208	iP	16 08.92	0.1
AUL	3.36	199	eP	16 13.26	1.1
DOT	3.48	69	eP	16 12.62	-1.3
IMA	3.66	345	eP	16 15.30	-1.1
GLB	3.73	104	iP	16 15.42	-1.9
SHU	3.99	188	eP	16 19.34	-1.4
TGL	4.45	110	eP	16 24.87	-2.5
GDC	4.87	187	e(P)	16 35.00	2.0
DWY	5.57	69	P	16 40.50	-2.3
INK	9.36	44	eP	17 33.00	-1.6
YKA	16.81	74	eP	19 08.20	-3.1
0.6s 0.80nm 3.1mb					
55 obs. associated					

? APR 19, 1990 02h 32m 21.25±5.02s
 31.260 S ±16.4km 68.528 W ±46.1km
 DEPTH = 118.5 ± 37.5 km
 SAN JUAN PROVINCE, ARGENTINA (137)

RTLL	0.09	144	iPc	32 37.30	-0.7
ZON	0.31	204	iPd	32 39.00	0.4
eS 32 51.00					
RTBS	0.89	243	ePd	32 42.30	0.0
eS 32 56.20					
RTRS	1.35	323	ePc	32 47.50	0.3
PCH	2.89	215	eP	33 08.70	1.9
eS 33 43.70					
TACH	3.14	220	eP	33 09.50	-0.5
iS 33 46.50					
CHCH	3.21	213	iP	33 11.80	0.7
iS 33 50.60					
LVN	3.63	221	eP	33 14.50	-2.1
S.D. = 1.5 on 8 of 8 obs.					

* APR 19, 1990 03h 36m 58.60±0.73s
 6.583 S ± 8.1km 128.901 E ±10.2km
 DEPTH = 193.5 ± 7.5 km
 4.6mb (6 obs.)
 BANDA SEA (280)

SLKI	2.75	120	iPc	37 46.60	1.2
iS 38 17.30					
MTN	6.60	161	iPd	38 34.60	0.2
KNA	9.11	181	iPd	39 07.20	-0.1
0.2s 255.00nm 6.2mb X					
eS 40 43.00					
WB5	14.24	159	eP	40 10.60	-2.4
i 40 15.30					
eS 42 41.00					
WRA	14.29	159	Pd	40 10.50	-3.1X
0.5s 6.60nm 4.3mb					
OIS	17.34	144	iPc	40 49.00	-1.5
eS 43 53.00					
PMG	18.29	100	eP	41 02.50	1.9
WARB	19.61	186	iPd	41 15.70	1.5
0.3s 12.00nm 4.9mb					
NANU	20.46	218	iPc	41 24.50	1.8
CTA	21.54	130	iPc	41 33.50	0.1
1.0s 25.00nm 4.7mb					
i 41 44.00					
i 44 42.50					
e(S) 45 38.00					
e(SS) 47 17.00					
FORR	24.15	182	eP	41 58.20	-0.2
COOL	25.25	196	eP	42 12.00	3.4X
MUN	27.91	204	eP	42 32.00	-0.6
NWAO	28.37	201	eP	42 37.00	0.2
0.4s 3.00nm 4.4mb					
ADE	29.66	164	e(P)	42 48.20	0.0
GUN	53.86	312	P	46 04.80	0.3
KOD	53.88	288	eP	46 05.00	0.3
PKI	54.03	311	P	46 05.70	0.0
KKN	54.24	311	P	46 07.40	0.3
DMN	54.28	311	P	46 07.80	0.4
GBA	54.89	292	Pc	46 10.90	-0.7

HYB	55.15	296	eP	46 13.30	-0.3
NDI	60.87	308	iPc	46 52.00	-1.1
0.7s 34.25nm 5.2mb					
YKA	107.86	26	ePKP	55 01.70	-2.3
0.7s 0.30nm					
KIC	133.95	272	PKP	55 56.30	1.0
LIC	134.23	272	PKP	55 56.80	0.9
TIC	134.24	273	PKP	55 56.80	0.9
LKO	134.87	277	PKP	55 56.86	-0.3
0.4s 9.50nm					
LPB	151.53	144	ePKP	56 24.00	-2.0
ZOBO	151.73	144	PKP	56 27.00	0.5
S.D. = 1.2 on 28 of 30 obs.					

% APR 19, 1990 03h 44m 27.64±0.62s
 38.031 N ± 8.3km 14.930 E ± 6.6km
 DEPTH = 10.0km (geophysicist)

SICILY (398)

MNO	0.21	242	P	44 32.40	0.0
eSg 44 34.50					
ATN	0.44	73	P	44 37.20	0.6
eSg 44 43.80					
GIB	0.72	267	P	44 41.90	0.1
eSg 44 51.70					
MEU	0.93	180	P	44 45.10	-0.3
eSg 44 58.30					
FAI	1.25	233	P	44 51.00	0.2
eSn 45 10.00					
CZI	1.51	38	P	44 53.60	-1.2
TDS	1.96	34	P	45 01.80	0.5
S.D. = 0.7 on 7 of 7 obs.					

APR 19, 1990 03h 44m 54.35±0.70s
 40.987 N ± 5.9km 22.376 E ± 5.6km
 DEPTH = 10.0km (geophysicist)

GREECE (364)

ML 2.5 (SKO).

VAY	0.36	24	iPg	45 02.00	0.2
iSg 45 07.20					
KNT	0.43	66	ePg	45 03.20	0.0
eSg 45 09.00					
THE	0.57	128	ePg	45 05.90	0.0
eSg 45 12.60					
SOH	0.76	102	ePg	45 09.00	-0.2
eSg 45 20.00					
FNA	0.78	255	ePg	45 09.50	-0.2
eSg 45 20.70					
LIT	0.89	174	ePg	45 11.70	0.3
SRS	0.93	82	ePg	45 12.00	-0.1
eSg 45 25.10					
S.D. = 0.2 on 7 of 7 obs.					

APR 19, 1990 03h 45m 39.69±0.45s
 36.778 N ± 9.8km 70.908 E ± 9.0km
 DEPTH = 10.0km (geophysicist)
 4.5mb (7 obs.)
 HINDU KUSH REGION (718)

QUE	7.36	208	eP	47 23.24	-6.7X
eS 48 53.50					
MHI	9.20	270	eP	47 54.00	-1.5
0.8s 110.45nm 6.3mb X					
eS 49 30.00					
NDI	9.66	145	eP	48 03.50	1.8
eS 49 45.00					
DMN	15.09	123	P	49 14.20	-0.6
KKN	15.09	122	P	49 13.70	-1.1
PKI	15.32	123	P	49 16.60	-1.3
GUN	15.42	121	P	49 19.20	-0.1
HYB	20.44	159	eP	50 20.20	0.3
GBA	23.81	164	Pd	50 55.00	1.5
0.5s 7.30nm 4.5mb					
MLR	34.58	299	ePc	52 32.50	1.8
SOD	39.45	335	eP	53 12.00	0.7
KEV	40.52	338	eP	53 20.00	0.0
HFS	42.80	322	eP	53 38.60	-0.3
0.4s 5.50nm 4.6mb					
N82	44.11	323	P	53 49.00	-0.6
0.5s 1.80nm 4.2mb					
BCAO	57.69	249	iPc	55 31.90	-1.0
0.4s 8.00nm 5.1mb					
MBC	67.06	3	eP	56 35.00	0.4
0.5s 2.00nm 4.6mb					
YKA	80.97	3	eP	57 55.70	0.4

WRA	0.8s	2.60nm	4.3mb
82.20 122 P 58 02.00 -0.5			
0.9s 1.60nm 4.1mb			
S.D. = 1.1 on 17 of 18 obs.			

APR 19, 1990 03h 57m 20.44±0.28s
 1.317 N ± 5.5km 123.692 E ± 6.3km
 DEPTH = 33.0km (normal)
 4.9mb (5 obs.)

MINAHASSA PENINSULA (265)

DAV	6.03	18	eP	58 51.90	2.1
TSM	6.31	297	iPd	58 54.50	0.8
e 00 55.00					
MKS	7.74	213	iPc	59 16.00	2.3
iS 00 46.00					
KKM	8.81	302	ePd	59 30.00	1.3
PPR	9.74	330	ePd	59 41.00	-0.4
MTN	15.89	153	eP	01 02.00	-1.4
CVP	16.39	354	eP	01 15.00	5.3X
KNA	17.68	164	eP	01 25.80	-0.2
e 03 27.00					
KGM	20.38	272	ePc	01 57.20	0.0
IPM	22.86	279	ePd	02 23.00	0.7
e 04 24.50					
WB5	23.52	154	eP	02 27.80	-0.9
WRA	23.57	154	Pd	02 28.70	-0.4
0.6s 29.90nm 5.0mb					
SNG	23.73	285	eP	02 31.20	0.6
NANU	25.03	198	eP	02 41.50	-1.7
PMG	25.68	115	iPc	02 49.90	0.5
1.0s 70.00nm 5.2mb					
OIS	26.75	145	iPc	02 58.50	-0.7
WARB	27.49	174	iPd	03 05.10	-0.8
CHTO	29.85	307	eP	03 25.40	-1.9
CTA	30.69	135	e(P)	03 34.00	-0.6
KMI	31.13	321	eP	03 40.00	1.3
RMQ	36.73	141	eP	04 26.00	-0.7
e 05 50.00					
MAT	37.54	19	(P)	04 32.00	-1.3
1.0s 10.00nm 4.6mb					
ADE	38.74	160	iPd	04 44.00	0.5
0.7s 31.51nm 5.2mb					
COO	41.56	142	eP	05 08.00	1.2
BWA	42.46	149	iP	05 16.30	2.2
CAN	43.45	149	iPc	05 23.60	1.4
CNB	43.63	149	iPd	05 25.70	2.0
e 07 28.00					
TOO	43.64	155	eP	05 24.00	0.3
e 07 27.00					
GUN	44.80	310	P	05 33.20	-0.4
PKI	45.00	309	P	05 34.80	-0.4
KKN	45.20	309	P	05 36.20	-0.5
DMN	45.25	309	P	05 36.80	-0.3
KOD	46.78	283	eP	05 49.00	-0.4
HYB	47.15	293	iPd	05 51.50	-0.5
GBA	47.36	287	Pd	05 53.00	-0.6
0.7s 4.20nm 4.6mb					
MAIO	68.59	309	eP	08 22.00	-0.6
MAW	80.46	200	iP	09 30.30	0.1
eS 21 43.00					
VNDA	81.44	172	e(P)	09 34.80	-0.4
FBA	88.18	25	eP	10 12.90	3.8X
INK	93.50	21	eP	10 28.00	-5.8X
KIC	127.96	279	PKP	16 25.00	-0.7
LKO	128.36	283	PKP	16 26.00	-0.5
1.0s 30.50nm					
LVN	144.59	158	ePKP	16 55.00	-0.8
CHCH	144.88	159	iPKPc	16 56.00	-0.4
TACH	145.03	158	ePKP	16 56.00	-0.6
PCH	145.21	159	ePKP	16 57.00	0.0
SAN	145.31	159	ePKP	16 57.00	-0.1
LPB	160.94	143	ePKP	17 21.00	1.3
ZOBO	161.12	143	PKP	17 19.00	-1.0
SIV	164.68	162	PKP	17 23.50	0.7
S.D. = 1.0 on 47 of 50 obs.					

APR 19, 1990 03h 59m 22.45±0.32s
 1.188 N ± 6.5km 123.463 E ± 6.5km
 DEPTH = 28.1km (2 depth phases)
 5.3mb (12 obs.) 4.2MsZ (1 obs.)

MINAHASSA PENINSULA (265)

KKM	8.69	304	ePc	01 28.50	-1.0
PPR	9.74	331	iPd	01 43.00	-0.9
BAG	15.39	350	eP	03 00.40	0.8
MTN	15.88	152	eP	03 05.00	-0.8

19d 04h

CVP	16.49	354	eP	03	18.50	5.0X	JCK	0.77	55	iPgc	35	30.70	-1.0	KGT	0.79	346	iPg	29	59.80	0.0
	1.0s	116.00nm				5.0mb				iSg	35	39.50				iSg	30	09.30		
SZP	16.53	350	eP	03	15.00	1.0	PLH	0.97	64	iPgc	35	34.60	-0.5	KCT	0.83	47	iPg	30	00.80	0.2
KGM	20.15	273	ePc	03	57.40	-0.1				eSg	35	45.80				iSg	30	10.80		
WB5	23.51	153	eP	04	31.30	0.1	WLF	1.04	154	iPc	35	37.58	1.2	EZN	0.96	279	iPg	30	03.50	0.8
SNG	23.54	285	iPd	04	32.60	1.2				iS	35	51.98		IZM	1.31	190	ePn	30	08.00	-0.7
	1.0s	340.00nm				5.8mb	BNS	1.16	71	iPgc	35	37.41	-1.0	YLV	1.65	57	ePn	30	15.30	1.6
GUMO	24.50	59	eP	04	41.20	0.4				0.3s	0.49nm			HRT	1.97	54	ePn	30	23.00	4.6X
PJG	24.50	59	eP	04	41.50	0.7					iSg	35	51.29		S.D. = 1.2 on 7 of 8 obs.					
LAT	24.75	109	eP	04	45.00	1.8	RUP	1.37	130	ePn	35	42.24	0.2	APR 19, 1990 07h 36m 15.33±0.36s						
NANU	24.84	198	iPd	04	43.50	-0.5	ABH	1.53	117	ePn	35	44.12	-0.1	44.280 N ± 2.8km 7.451 E ± 3.2km						
	0.5s	14.00nm				4.8mb	WTS	1.64	31	ePn	35	46.00	0.3	DEPTH = 10.0km (geophysicist)						
PMG	25.84	115	iPc	04	52.80	-0.7				0.8s	16.00nm			NORTHERN ITALY (545)						
	1.0s	80.00nm				5.3mb				eSn	36	06.50		ML 2.4 (LDG), 2.2 (GEN).						
NNT	26.10	297	eP	04	51.40	-4.5X	TNS	1.96	100	ePn	35	53.20	2.8	ENR	0.06	202	P	36	16.69	-1.0
QIS	26.78	145	iPc	05	01.10	-1.0				eSn	36	17.70				S	36	17.61		
NST	27.14	303	eP	05	08.00	2.6	CDF	2.49	151	Pg	36	04.40	6.3X	STV	0.10	249	P	36	17.50	-0.6
CHTO	29.75	308	ePd	05	28.90	-0.1				Sg	36	36.30				S	36	19.18		
SSE	29.82	356	P	05	39.50	10.1X	HAU	2.66	167	Pg	36	08.00	7.5X	AUTN	0.28	183	Pg	36	21.37	0.0
	1.8s	88.00nm								Sg	36	41.90				Sg	36	25.57		
Z	20s	0.60um				4.2Msz	BSF	2.91	162	Pg	36	12.10	8.1X	ROB	0.30	87	P	36	22.21	0.6
E	14s	0.40um								Sg	36	49.20				S	36	26.80		
		pP		05	51.50	46kmX	LOR	3.49	198	Pn	36	12.20	0.0	SAOF	0.30	166	Pg	36	21.54	-0.1
		eS		10	24.00					Sn	36	56.60				Sg	36	25.62		
KMI	31.09	322	Pd-	05	42.00	1.0	LBF	3.74	196	Pn	36	16.00	0.1	TOUF	0.30	209	Pg	36	21.65	-0.1
	N 15s	0.90um								Sg	37	09.40				Sg	36	26.42		
	E 15s	0.70um					SSF	3.76	201	Pn	36	15.70	-0.4	PZZ	0.34	312	P	36	22.18	-0.2
		pP		05	50.00	28km				Sn	36	56.60				S	36	27.26		
MAT	37.73	20	eP	06	35.00	-2.7	AVF	4.05	201	Pn	36	19.30	-0.8	AURF	0.40	193	Pg	36	23.65	0.1
	1.0s	6.00nm				4.4mb	SMF	4.09	196	Pn	36	20.00	-0.8			Sg	36	29.56		
		(S)		12	18.00					Sg	37	29.00		SBF	0.42	182	Pg	36	23.90	0.0
BRS	40.03	137	iP	06	56.10	-0.9	LDF	4.14	243	Pn	36	21.20	-0.1			Sg	36	30.40		
	0.7s	9.30nm				4.6mb	FLN	4.26	247	Pn	36	22.80	-0.4	MVIF	0.44	209	Pg	36	25.14	0.8
COO	41.60	142	eP	07	10.00	0.2				Sn	37	10.20				Sg	36	31.42		
BWA	42.46	149	iPc	07	19.00	2.1	BGF	4.39	204	Pn	36	24.40	-0.6	FIN	0.55	97	P	36	25.98	-0.5
GUN	44.70	310	P	07	35.60	0.0				Sg	37	37.10				S	36	33.86		
PKI	44.90	309	P	07	36.80	-0.3	GRR	4.66	244	Pn	36	28.20	-0.7	RRL	0.80	324	P	36	30.83	-0.2
KKN	45.11	309	P	07	38.60	0.0				Sn	37	18.60		PCP	0.83	71	P	36	31.24	-0.1
	1.1s	81.00nm				5.6mb	MAF	4.78	205	Pn	36	29.60	-0.9	RSP	0.88	351	P	36	32.85	0.5
DMN	45.15	309	P	07	39.20	0.1	TCF	4.82	208	Pn	36	30.00	-1.1	FRF	0.92	219	Pg	36	33.10	0.1
	1.0s	91.00nm				5.6mb	LPF	4.96	241	Pn	36	32.00	-1.0			Sg	36	46.30		
KOD	46.58	283	eP	07	50.20	-0.4	S.D. = 1.1 on 26 of 29 obs.						LMR	1.17	216	Pg	36	37.80	0.7	
HYB	46.99	293	iPc	07	54.00	0.6										Sg	36	54.20		
	1.2s	71.40nm				5.6mb	APR 19, 1990 05h 50m 03.72±0.66s						S.D. = 0.5 on 16 of 16 obs.							
GBA	47.18	287	Pd	07	54.50	-0.3	44.294 N ± 3.5km 6.515 E ± 5.3km						APR 19, 1990 08h 28m 33.25±0.27s							
	0.9s	50.10nm				5.5mb	DEPTH = 10.0km (geophysicist)						1.429 N ± 5.1km 123.576 E ± 6.6km							
QUE	60.80	304	eP	09	34.00	-0.9	FRANCE (538)						DEPTH = 33.0km (normal)							
MAIO	68.49	309	eP	10	25.00	0.3	MD 3.4 (STR).						5.1mb (14 obs.)							
IR4	75.10	306	ePd	11	03.00	-1.2	PZZ	0.47	63	P	50	13.81	0.5	MINAHASSA PENINSULA (265)						
IR2	75.17	307	iPc	11	04.50	-0.1				S	50	20.58		CENTROID, MOMENT TENSOR (HRV)						
IR5	75.36	306	eP	11	06.00	0.3	STV	0.58	95	P	50	15.14	-0.5	Data Used: GDSN						
IR7	75.41	307	eP	11	05.00	-1.0				S	50	23.17		L.P.B.: 11S, 22C						
NAI	86.69	269	iPc	12	07.00	1.0	TOUF	0.60	118	Pg	50	15.48	-0.5	Centroid Location:						
	1.0s	15.00nm				5.2mb				S	50	15.87	-0.2	Origin Time 08:28:39.7 1.1						
KEV	91.14	340	eP	12	22.00	-3.6X	MVIF	0.61	131	Pg	50	15.87	-0.2	Lat 1.90N 0.11 Lon 123.59E 0.14						
SOD	91.55	337	eP	12	26.00	-1.6	ENR	0.65	96	P	50	16.48	-0.3	Dep 31.8 7.7 Half-duration 1.9						
NUR	93.32	331	eP	12	44.00	8.2X				S	50	25.40		Moment Tensor: Scale 10**17 Nm						
INK	93.70	21	eP	12	45.00	7.5X	RRL	0.66	17	P	50	16.38	-0.6	Mrr= 0.83 0.20 Mtt=-1.04 0.13						
BRG	101.29	322	ePd	13	22.00	9.8X				S	50	24.97		Mff= 0.22 0.28 Mrt=-0.50 0.31						
	1.5s	18.00nm				5.4mb	AURF	0.71	124	Pg	50	18.27	0.4	Mrf= 0.62 0.28 Mtf=-0.08 0.17						
TUL	128.06	41	e(PK)18	38.00	9.9X		AUTN	0.72	114	Pg	50	18.83	0.8	Principal Axes:						
	1.2s	3.60nm					FRF	0.74	173	Pg	50	18.00	-0.2	T Val= 1.31 Plg=58 Azm=248						
S.D. = 1.1 on 36 of 44 obs.										Sg	50	28.00		N -0.13 28 102						
APR 19, 1990 05h 35m 16.78±0.42s							SBF	0.79	123	Pg	50	20.00	0.9	P -1.18 15 4						
50.597 N ± 5.2km 5.443 E ± 3.7km							SAOF	0.81	112	Pg	50	20.22	0.8	Best Double Couple: Mo=1.2*10**17						
DEPTH = 10.0km (geophysicist)							REVF	0.83	132	Pg	50	19.84	0.1	NP1: Strike= 60 Dip=38 Slip= 41						
BELGIUM (541)										Sg	50	34.69		NP2: 296 66 121						
MD 3.6 (UCC). ML 3.4 (LDG), 3.1							LRG	0.85	188	Pg	50	19.80	-0.2							
(BNS), 3.0 (DBN). Felt in the							LMR	0.96	180	Pg	50	22.00	0.0							
area north of Liege.										Sg	50	35.20								
ENN	0.35	61	iPgc	35	23.80	-0.2	ROB	0.97	89	P	50	21.94	-0.3	DAV	5.96	19	eP	30	03.40	1.8
	0.5s	75.00nm					LPG	1.22	8	Pg	50	27.40	0.9	TSM	6.16	297	ePd	30	04.00	-0.3
MEM	0.36	88	iPd	35	24.84	0.7				S	50	27.40				e	35	36.50		
		iS		35	29.39		FIN	1.22	93	P	50	25.73	-0.7	MKS	7.77	212	iPc	30	29.50	2.5
GSH	0.61	76	ePgd	35	28.60	-0.5				Sg	50	37.53				iS	31	58.40		
		iSg		35	36.00		PCP	1.48	80	P	50	29.71	-0.7	KKM	8.66	302	ePd	30	32.00	-7.4X
UCC	0.72	287	iP	35	31.80	0.9	S.D. = 0.6 on 18 of 18 obs.						PPR	9.59	330	iPd	30	51.00	-1.1	
		iS		35	44.20		% APR 19, 1990 07h 29m 44.52±0.88s						BAG	15.18	349	eP	32	07.00	-0.1	
DOU	0.74	228	iPc	35	33.70	2.4	39.688 N ± 7.8km 27.554 E ± 8.8km						MTN	16.04	152	iPd	32	18.20	0.1	
		iS		35	44.20		DEPTH = 10.0km (geophysicist)						KNA	17.82	163	eP	32	39.00	-1.5	
SNF	0.74	264	iPd	35	32.65	1.3	TURKEY (366)						HKC	22.68	337	eP	33	40.00	6.9X	
		iS		35	43.14		EDC	0.70	20	iPg	29	57.00	-1.3	IPM	22.73	278	ePd	33	34.10	0.3
										eSg	30	06.00		WBS	23.68	154	eP	33	42.60	-0.3
							BNT	0.72	23	iPg	29	58.30	-0.5	ANP	23.70	355	eP	33	44.00	0.8
														WRA	23.72	154	Pc	33	42.30	-1.1
															0.9s	38.40nm			4.9mb	

GUMO 24.28 59 e(P) 33 45.20 -3.7X
 NANU 25.10 198 eP 33 54.80 -1.9
 PMG 25.84 115 eP 34 04.00 0.4
 1.0s 40.00nm 5.0mb
 NNT 26.10 296 eP 34 06.60 0.6
 LOE 26.71 308 eP 34 13.00 1.4
 ASPA 26.89 159 eP 34 12.60 -0.7
 0.6s 39.00nm 5.2mb
 QIS 26.91 145 iPc 34 12.70 -0.7
 CHG 29.69 307 eP 34 40.00 1.3
 CTA 30.85 135 iPc 34 56.50 7.6X
 1.3s 38.46nm 5.0mb
 KMI 30.97 321 Pd 34 58.50 8.4X
 SP 35 20.00
 RMO 36.89 141 eP 35 40.00 -0.8
 MAT 37.47 20 eP 35 44.00 -1.6
 1.6s 50.00nm 5.1mb
 ADE 38.88 160 eP 35 57.60 0.1
 1.0s 36.00nm 5.1mb
 BJI 39.02 351 eP 35 58.00 -0.5
 1.2s 36.00nm 5.0mb
 Z 24s 0.96um 4.5MsZ
 N 16s 0.60um
 BRS 40.13 138 iP 36 07.40 -0.5
 0.7s 4.80nm 4.4mb
 BWA 42.61 149 eP 36 30.00 1.8
 CAN 43.61 149 iPc 36 37.20 0.9
 CNB 43.79 149 eP 36 39.00 1.2
 TOO 43.79 155 eP 36 38.00 0.3
 GUN 44.64 310 P 36 44.50 -0.7
 PKI 44.84 309 P 36 45.80 -0.9
 0.6s 11.00nm 4.9mb
 KKN 45.04 309 P 36 47.00 -1.2
 0.6s 16.00nm 5.1mb
 DMN 45.09 309 P 36 48.60 -0.1
 0.7s 34.00nm 5.4mb
 GKN 45.64 309 P 36 52.90 0.0
 0.6s 21.00nm 5.2mb
 KOD 46.64 283 eP 37 02.00 0.9
 HYB 47.00 293 eP 37 02.50 -1.1
 GBA 47.21 287 Pc 37 04.00 -1.2
 0.8s 7.70nm 4.8mb
 POO 51.61 293 eP 37 40.00 0.8
 NDI 51.83 306 iPd 37 42.00 1.4
 QUE 60.75 304 eP 38 45.00 0.3
 MAIO 68.43 309 iPd 39 34.80 0.4
 eS 48 38.00
 IR4 75.05 306 eP 40 13.50 -0.5
 IR2 75.12 306 iPd 40 13.50 -0.9
 IR7 75.36 306 eP 40 14.00 -1.8
 VNDA 81.57 172 e(P) 40 48.20 -0.4
 NAI 86.81 269 iPd 41 15.50 -1.2
 SPA 91.42 180 eP 41 37.30 0.1
 1.3s 17.50nm 5.3mb
 SUF 92.15 333 eP 41 40.00 -0.5
 INK 93.44 21 eP 41 46.00 -0.3
 ALO 120.89 47 e(PKP) 47 25.00 0.4
 KIC 127.83 279 PKP 47 41.00 2.7
 TACH 145.18 159 ePKPd 48 09.50 -0.2
 ZOBO 161.28 143 PKP 48 35.00 2.0
 Z 24s 0.09um
 SIV 164.82 163 PKP 48 35.40 -0.4
 S.D. = 1.1 on 52 of 57 obs.
 APR 19, 1990 08h 37m 34.84 ± 0.40s
 43.266 N ± 3.2km 111.163 W ± 3.3km
 DEPTH = 5.0km (geophysicist)
 EASTERN IDAHO (457)
 ML 3.1 (NEIS), 3.3 (BUT). Felt
 (IV) in the Palisades area and
 (III) at Irwin.
 CHOI 0.06 322 iPd 37 36.69 0.1
 ALPW 0.17 133 iPc 37 38.73 0.4
 REDW 0.25 67 iPc 37 40.33 0.4
 TPAW 0.27 35 iPc 37 40.55 0.1
 PINI 0.28 331 iPc 37 40.20 -0.3
 SNOW 0.36 56 ePc 37 42.34 0.3
 S 37 47.36
 MUDI 0.36 10 P 37 42.26 0.2
 AVOW 0.43 36 ePd 37 43.08 -0.4
 S 37 48.78
 LOHW 0.54 49 eP 37 45.27 -0.3
 MOOW 0.57 32 P 37 45.59 -0.7

S 37 53.08
 RAMW 0.64 14 P 37 47.07 -0.6
 IMW 0.65 14 eP 37 47.00 -0.9
 TRXW 0.65 42 eP 37 47.56 -0.4
 COLW 0.77 26 eP 37 49.31 -1.1
 PACW 0.80 38 eP 37 50.39 -0.7
 STEW 0.86 24 eP 37 50.89 -1.1
 PTI 0.97 246 eP 37 53.00 -0.8
 BW06 1.28 112 eP 37 59.40 0.3
 HPI 1.48 288 iPc 38 01.00 -1.4
 BGMT 2.07 343 iPnc 38 11.50 0.7
 iSn 38 38.40
 MEMT 2.34 3 ePnc 38 16.40 1.6
 LCCM 2.62 349 ePnc 38 20.40 1.7
 LRM 2.72 341 ePn 38 21.70 1.5
 DAU 2.85 181 eP 38 22.50 0.3
 SXM 2.88 359 ePn 38 24.10 1.6
 BUT 2.92 340 ePg 38 28.00 5.0X
 eSg 39 05.20
 HRY 3.48 352 ePn 38 31.80 1.0
 GOL 5.62 127 eP 39 01.30 -0.1
 NEW 6.51 322 eP 39 12.50 -1.1
 KVN 6.72 234 eP 39 16.50 -0.3
 YKA 19.37 355 eP 42 14.50 10.6X
 0.7s 0.10nm
 S.D. = 0.9 on 29 of 31 obs.
 % APR 19, 1990 09h 25m 22.21 ± 1.01s
 39.029 N ± 8.1km 27.577 E ± 12.9km
 DEPTH = 5.0km (geophysicist)
 TURKEY (366)
 IZM 0.68 201 iPg 25 35.50 -0.3
 iSg 25 48.50
 EZN 1.25 310 iPn 25 46.50 0.6
 EDC 1.33 9 iPn 25 46.00 -1.3
 BNT 1.35 11 iPn 25 47.70 0.1
 YLV 2.07 41 ePn 25 59.00 0.9
 S.D. = 1.2 on 5 of 5 obs.
 * APR 19, 1990 11h 10m 39.42 ± 1.05s
 39.501 N ± 13.7km 74.579 E ± 18.2km
 DEPTH = 33.0km (normal)
 3.9mb (3 obs.)
 SOUTHERN XINJIANG, CHINA (321)
 NDI 11.01 168 eP 13 18.00 0.3
 eS 15 11.50
 MAIO 12.34 260 eP 13 35.00 -0.7
 eS 15 52.00
 NB2 43.76 321 P 18 45.00 1.9
 0.7s 1.40nm 3.9mb
 MBC 64.19 4 eP 21 12.00 -0.5
 0.7s 1.00nm 4.0mb
 YKA 78.08 4 eP 22 35.00 -1.0
 0.7s 0.90nm 3.9mb
 S.D. = 1.6 on 5 of 5 obs.
 * APR 19, 1990 11h 28m 29.64 ± 0.56s
 1.355 N ± 8.7km 123.530 E ± 10.8km
 DEPTH = 33.0km (normal)
 4.6mb (6 obs.)
 MINAHASSA PENINSULA (265)
 TSM 6.15 298 eP 30 00.10 -0.5
 MKS 7.69 212 iPc 30 22.60 0.5
 iS 31 49.00
 IPM 22.70 279 eP 33 31.50 1.7
 WB5 23.63 154 eP 33 38.80 -0.1
 WRA 23.67 154 Pc 33 38.20 -1.1
 0.5s 3.90nm 4.2mb
 NANU 25.02 198 eP 33 50.10 -2.1
 ASPA 26.84 159 eP 34 12.10 2.9X
 0.7s 11.00nm 4.6mb
 Z 22s 0.15um 3.5MsZ
 LR 44 05.10
 QIS 26.87 145 iPc 34 08.80 -0.7
 MAT 37.56 20 eP 35 42.00 -0.7
 0.8s 5.22nm 4.4mb
 BJI 39.08 351 eP 35 55.50 0.1
 1.0s 12.00nm 4.6mb
 BWA 42.57 149 eP 36 26.90 2.6
 CAN 43.57 149 eP 36 33.10 0.8
 GUN 44.65 310 P 36 41.80 0.2
 0.8s 46.00nm 5.4mb
 KKN 45.05 309 P 36 44.80 0.1
 DMN 45.10 309 P 36 45.20 0.1

GBA 47.19 287 Pd 37 00.60 -0.8
 0.7s 10.40nm 4.9mb
 MAIO 68.44 309 eP 39 31.00 0.1
 S.D. = 1.2 on 16 of 17 obs.
 APR 19, 1990 12h 40m 38.69 ± 0.14s
 1.108 N ± 3.8km 123.429 E ± 4.1km
 DEPTH = 23.7km (geophysicist)
 5.8mb (44 obs.) 6.2MsZ (26 obs.)
 MINAHASSA PENINSULA (265)
 Ms 6.1 (BRK), 5.9 (PAS). Depth
 from broadband displacement
 seismograms.
 FAULT PLANE SOLUTION: P-Waves
 NP1: Strike=350 Dip=84 Slip=-45
 NP2: 86 45 -172
 Principal Axes:
 T P1g=25 Azm= 47
 P 35 298
 Comment: The focal mechanism is
 poorly controlled and
 corresponds to normal faulting
 with a large strike-slip
 component. The preferred fault
 plane is not determined.
 RADIATED ENERGY
 No. of sta: 7 Focal mech. F
 Energy 8.7 ± 2.9 × 10¹³ Nm
 MOMENT TENSOR SOLUTION
 Dep 27 No. of sta: 12
 Moment Tensor: Scale 10¹⁸ Nm
 Mrr=-3.16 Mtt= 1.31
 Mff= 1.86 Mrt= 2.86
 Mrf=-5.04 Mtf=-2.38
 Principal axes:
 T Vol= 7.15 P1g=29 Azm= 53
 N -0.66 7 147
 P -6.49 60 250
 Best Double Couple: Mo=6.8 × 10¹⁸ Nm
 NP1: Strike=123 Dip=17 Slip=-115
 NP2: 329 75 -82
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 14S, 35C
 Centroid Location:
 Origin Time 12:40:43.3 0.5
 Lat 1.34N 0.04 Lon 122.92E 0.04
 Dep 40.5 3.8 Half-duration 6.0
 Moment Tensor: Scale 10¹⁸ Nm
 Mrr=-0.69 0.08 Mtt= 1.18 0.09
 Mff=-0.48 0.12 Mrt= 0.04 0.12
 Mrf=-2.29 0.20 Mtf=-2.34 0.09
 Principal Axes:
 T Vol= 3.37 P1g=21 Azm= 43
 N 0.13 46 157
 P -3.50 36 296
 Best Double Couple: Mo=3.4 × 10¹⁸ Nm
 NP1: Strike= 85 Dip=48 Slip=-168
 NP2: 346 81 -43
 TSM 6.18 300 eP 42 12.00 1.1
 0.2s 457.10nm 6.9mb X
 DAV 6.31 20 iPc+ 42 12.00 -0.8
 MKS 7.42 212 iPc 42 31.60 3.3X
 iS 43 55.50
 KKM 8.71 304 ePc 42 45.50 -0.9
 0.5s 161.90nm 6.5mb
 e 43 41.00
 PPR 9.80 332 iP 43 00.00 -1.3
 iS 43 59.00
 SLKI 11.96 139 iPd 43 31.00 0.2
 BAG 15.46 350 eP 44 17.60 0.4
 1.7s 923.08nm 5.7mb
 eS 47 12.00
 MTN 15.83 151 eP 44 22.00 0.2
 e 44 27.00
 CVP 16.57 355 ePd 44 37.20 6.0X
 PIP 17.33 351 ePd 44 48.00 7.2X
 1.5s 1046.00nm 5.7mb
 KNA 17.56 163 iPd 44 44.30 0.6
 0.7s 561.00nm 5.8mb
 KGM 20.12 273 ePc 45 14.60 0.6
 1.1s 1203.40nm 6.2mb
 MNDI 21.45 110 eP 45 29.00 1.2
 KLM 21.86 276 ePc 45 34.00 2.3
 IPM 22.64 279 ePd 45 41.00 1.5
 1.5s 305.40nm 5.6mb

HKC	22.91	338	e	47 24.50	1.1	MAT	37.82	20	eP	47 53.00	-2.2	MRW	0.8s	44.00nm	5.6mb		
			iP	45 43.20			1.8s	500.00nm	6.0mb	62.67	139		eP	51 00.60	-3.2X		
MCO	22.99	336	eP	45 44.70	1.8	Z	20s	32.98um	53 33.00	6.1msz	WEL	62.74	139	P	51 03.00	-1.3	
			iS	49 55.00			eS	1.0s	*****nm	8.3mb X							
WB5	23.45	153	iPc	45 46.70	-0.7	HNR	37.84	107	eP	47 55.00	-0.7	WDW	62.88	138	P	51 03.90	-1.3
			eS	50 02.00			ADE	38.63	160	iPc	48 02.80		0.7	MNG	62.90	138	P
WRA	23.50	153	Pd	45 51.60	3.8X	CMS	1.0s	430.00nm	48 04.00	0.8	MTW	63.16	138	P	51 06.00	-1.1	
			e	46 00.50			9kmX	38.76	149	P		48 09.38	1.9	HBZ	63.56	133	eP
TATO	23.80	356	eP	45 46.89	-3.8X	LZH	39.26	335	iPd	48 16.83	25kmX	NOZ	63.79	135	eP	51 10.10	-1.2
			eS	50 04.00			epP	48 18.82	eS	54 09.10	AFI		65.87	106	e(P)	51 36.00	10.8X
ANP	24.01	356	iP	45 56.00	3.2X	BJI	39.31	351	ePd	48 08.96	1.4	SMY	66.39	31	P	51 39.00	11.2X
			eS	50 07.97			-0.3	Z	20s	20.10um	5.9msz		Z	20s	6.00um	5.8msz	
GUMO	24.58	59	eP	45 57.97	-0.3	N	17s	11.10um	48 14.76	20kmX	MAIO	68.52	309	iPd-	51 41.80	0.1	
			1.5s	1738.74nm			6.4mb	E	18s	11.60um		48 19.06	1.2s	59.03nm	5.6mb		
PJG	24.58	59	eP	45 58.40	0.1	COO	41.55	142	eP	48 20.00	1.7	BBU	74.25	297	eP	52 15.90	-0.2
			GUA	24.59			59	eP	45 58.80	0.3	BWA		42.41	149	eP	48 35.90	2.6
LAT	24.76	108	eP	46 02.00	1.9	CAN	43.41	149	iPc	48 42.70	1.3	IR4	75.12	306	iPd	52 19.00	-2.2
			PMG	25.84			114	iPc+	46 09.40	-0.8	TOO		43.56	154	eP	48 44.00	1.4
NNT	26.11	297	eP	46 14.80	2.0	CNB	43.59	149	eP	48 44.00	1.1	IR5	75.38	306	ePc	52 22.00	-0.7
			ASPA	26.65			158	iPd	46 17.90	0.2	KUN		44.73	310	P	48 52.50	-0.1
Z	22s	28.79um	eS	50 50.30	5.8mszX	PKI	44.92	309	P	48 53.00	30kmX	KJMA	78.84	296	ePc	52 42.30	0.3
			eScS	57 06.60			KKN	45.13	309	P	48 55.50		-0.1	TAB	79.17	308	iPd
QIS	26.73	145	iPc	46 17.60	-0.9	DMN	45.18	309	P	48 56.10	0.0	SLY	79.54	306	ePd	52 44.50	-1.0
			LOE	26.79			308	eP	46 20.00	1.0	KOD		46.57	283	iP	49 07.50	0.2
NST	27.16	303	eP	46 24.50	2.1	GKN	45.73	309	P	49 00.10	-0.2	ePP	55 53.50				
			WARB	27.31			174	iPd	46 24.00	0.3	KOD		46.57	283	iP	49 07.50	0.2
MEKA	27.96	189	eP	46 28.20	-1.4	CNB	43.59	149	eP	48 44.00	1.1	eS	02 41.00				
			RAB	29.20			101	iPc+	46 42.00	1.1	HYB						

PMO	89.00	105	iP	53	36.40	2.8	ZST	100.01	319	ePdiff54	33.50	10.1X	TPC	114.24	52	ePKP	59	21.00	2.3
	1.2s	80.00nm				5.9mb				e	58	36.50	FRB	114.69	6	ePKP	59	17.00	-1.4
APA	89.02	337	iPc	53	31.70	-1.0				e	08	11.60	8W06	115.48	41	ePKP	59	20.00	-1.0
			iS	04	15.50		VKA	100.50	319	ePdiff54	25.00	-0.7	GLA	115.55	52	ePKP	59	23.00	1.8
VAH	89.26	105	iP	53	37.40	2.6		5.5s	1026.00nm		6.6mb X	ASMO	118.02	314	ePKP	59	26.50	0.7	
	1.2s	45.00nm				5.6mb	Z	15s	2.80um		5.9mszX	APHE	118.15	314	ePKP	59	24.00	-2.1	
TPT	89.27	105	iP	53	37.80	3.0X				e	58	15.00	RSSD	118.26	37	PKP	59	25.00	-1.2
	1.2s	90.00nm				5.9mb				i	58	51.80	AAPN	118.31	314	iPKPc	59	25.50	-0.9
LFK	89.28	305	eP	53	35.00	0.3				i	00	43.60	ATEJ	118.40	314	ePKP	59	26.00	-0.6
RUV	89.50	105	iP	53	38.60	2.7	PRU	101.20	321	ePdiff54	29.50	0.8	RSON	119.36	26	ePKPd	59	26.90	-0.9
	1.2s	55.00nm				5.7mb	Z	18s	6.90um		6.2Msz		Z	20s	7.34um			6.3Msz	
SPA	91.10	180	iPd	53	42.00	-0.6	N	16s	2.40um			GOL	119.73	42	ePKPc	59	29.00	-0.2	
KEV	91.20	340	eP	53	41.00	-1.8	E	18s	5.00um				Z	20s	3.75um			6.0Msz	
	Z	18s				6.4Msz				e	54	56.50	ANMO	121.22	47	ePdiff56	06.34	7.9X	
			e	57	24.00					PP	58	39.50				eSKS	06	31.91	
			e	04	32.00					SKS	05	00.00				eSKKS	08	00.89	
			e	10	46.00					S	06	04.00				esSKKS08	24.48		
			e	14	20.00					ePS	07	33.00				esDIF	08	55.91	
			e	17	44.00					SS	13	18.00							
			LR	43	06.00		BRG	101.33	322	ePdiff54	29.60	0.4	ANMO	121.22	47	ePKPc	59	30.00	-2.1
HLW	91.27	300	eP	53	43.80	-0.1		1.0s	20.00nm		5.6mb		Z	20s	2.13um			5.8Msz	
			e	55	32.00	477kmX							ALO	121.22	47	ePKP	59	30.00	-2.1
			e	56	15.00		Z	18s	5.50um		6.1Msz		Z	19s	4.69um			6.2Msz	
BCK	91.59	307	eP	53	45.00	-0.4	N	18s	6.50um			TIO	123.39	309	iPKP	59	37.00	0.7	
SOD	91.61	337	iP	53	43.80	-0.9	E	18s	3.50um			KUK	123.43	278	ePKP	59	36.00	-0.6	
ALT	91.89	309	eP	53	47.50	0.8				e	54	39.50	SCH	123.63	7	ePKP	59	35.00	-0.9
HRT	92.14	311	eP	53	47.00	-0.7				i	58	15.60	MEQ	126.91	44	ePKP	59	42.00	-0.9
ELL	92.17	307	eP	53	47.00	-1.1				e	58	32.50	KIC	127.74	279	PKP	59	45.60	0.6
SUF	92.37	333	iP	53	45.80	-2.5				eSKS	04	04.00	TIC	127.98	279				

19d 12h

BRK 1.09 334 ePc 52 02.30 -0.9
 eS 52 16.70
 PRI 1.10 133 ePc 52 02.90 -0.7
 ZSP 1.15 336 ePc 52 04.20 -0.1
 eS 52 19.80
 PHAM 1.47 136 eP 52 07.50 -2.1
 CMB 1.52 41 ePc 52 08.70 -1.7
 eS 52 27.20
 FRI 1.56 86 ePd 52 10.00 -1.0
 eS 52 30.30
 BCH 2.13 143 eP 52 17.00 -2.3
 KVN 3.54 52 eP 52 45.00 5.6

16 obs. associated

* APR 19, 1990 12h 58m 42.44 ± 1.57s
 36.825 N ± 17.6km 71.139 E ± 13.0km
 DEPTH = 244.5 ± 19.9 km
 4.2mb (7 obs.)

AFGHANISTAN-USSR BORDER REGION (717)

MAIO 9.38 270 eP 00 54.00 -0.3
 KKN 14.96 123 P 02 03.30 -0.5
 PKI 15.18 123 P 02 06.60 -0.1
 0.7s 26.00nm 4.8mb
 GUN 15.29 121 P 02 08.00 0.1
 0.4s 18.00nm 4.9mb
 TAB 19.73 281 eP 02 46.00 -9.3X
 HYB 20.41 159 eP 03 04.00 1.9
 HFS 42.88 322 eP 06 17.80 -0.3
 0.4s 2.40nm 3.9mb
 NB2 44.19 323 P 06 28.40 -0.2
 0.7s 2.30nm 3.6mb
 MBC 67.01 3 ePc 09 11.60 1.2
 0.4s 5.00nm 4.6mb
 FBA 74.13 16 eP 09 54.00 0.9
 FRB 74.79 343 eP 09 56.00 -0.9
 YKA 80.92 3 eP 10 30.70 0.6
 0.4s 1.90nm 4.2mb
 WB5 82.04 122 eP 10 35.00 -1.7
 WRA 82.07 122 P 10 36.00 -0.8
 0.5s 0.90nm 3.8mb
 S.D. = 1.1 on 13 of 14 obs.

& APR 19, 1990 13h 22m 19.49s
 60.078 N 152.852 W
 DEPTH = 100.7km
 3.4mb (1 obs.)

SOUTHERN ALASKA (2)
<AGS-P>.

RED 0.34 7 iP 22 34.00 -0.7
 RDT 0.54 24 iP 22 35.29 -0.7
 iS 22 47.28
 PDB 0.74 247 iP 22 36.71 -0.8
 iS 22 49.72
 AUL 0.76 203 iP 22 37.03 -0.7
 eS 22 50.49
 AUE 0.77 200 iP 22 36.89 -0.9
 eS 22 49.20
 >NNL 0.78 92 iP 22 38.04 0.1
 XLV 0.85 137 eP 22 37.64 -1.0
 eS 22 52.07
 CNPM 0.99 123 iP 22 39.12 -1.0
 iS 22 55.06
 BRK 1.04 107 eP 22 39.84 -0.9
 eS 22 55.95
 NKA 1.04 50 iP 22 41.88 1.2
 CKL 1.15 12 iP 22 41.67 -0.4
 SPU 1.18 19 eP 22 41.58 -0.7
 BGL 1.21 11 iP 22 42.56 -0.2
 CDD 1.22 200 iP 22 41.50 -1.3
 CRP 1.24 16 iP 22 42.88 -0.3
 iS 22 59.97
 CGLM 1.30 18 iP 22 43.46 -0.4
 NCG 1.37 14 iP 22 44.34 -0.4
 SLKM 1.38 71 eP 22 43.68 -1.0
 SEW 1.71 88 eP 22 47.10 -1.6
 SVW 1.71 308 iPc 22 47.70 -1.2
 SUA 1.73 36 iP 22 48.97 -0.3
 PMS 2.00 53 iP 22 52.01 -0.6
 SKT 2.01 18 iP 22 52.11 -0.7
 PWA 2.15 41 eP 22 54.09 -0.4
 iS 23 21.39
 KDC 2.34 175 iPd 22 54.50 -2.6
 PLRM 2.37 49 eP 22 56.06 -1.4
 PMR 2.37 49 eP 22 55.90 -1.6
 GH0 2.56 47 eP 22 58.81 -1.4

MTU 2.61 90 eP 22 59.40 -1.4
 CUT 2.65 27 eP 23 00.73 -0.5
 SML 2.81 50 eP 23 01.97 -1.5
 GLI 2.96 72 eP 23 02.09 -3.4
 TTA 3.24 333 iPd 23 07.90 -1.4
 VZW 3.26 70 iP 23 06.67 -3.0
 HUR 3.29 26 eP 23 09.97 0.0
 MID 3.36 98 iP 23 09.45 -1.4
 NCA 3.51 54 iP 23 11.16 -1.8
 KTH 3.61 14 eP 23 13.38 -1.0
 KLU 3.68 64 iP 23 12.99 -2.4
 TOA 3.83 55 eP 23 15.70 -1.7
 RND 3.84 28 eP 23 16.47 -1.2
 MCK 4.11 25 eP 23 20.76 -0.5
 SDG 4.30 52 eP 23 22.57 -1.2
 PAX 4.57 47 eP 23 26.09 -1.6
 GLB 4.64 69 iP 23 25.64 -2.9
 NEA 4.85 20 eP 23 29.77 -1.6
 WRH 4.94 25 eP 23 30.60 -2.0
 DDM 4.97 39 eP 23 33.02 -0.2
 TGL 5.01 78 eP 23 31.67 -2.1
 HDA 5.14 30 eP 23 33.74 -1.7
 CCB 5.15 25 eP 23 34.84 -0.7
 DMW 5.21 37 eP 23 35.53 -0.8
 RDS 5.24 23 eP 23 35.03 -1.8
 FBA 5.38 24 eP 23 36.90 -1.8
 DOT 5.49 45 eP 23 38.64 -1.6
 GLM 5.54 25 eP 23 39.04 -1.9
 IMA 6.03 357 eP 23 46.10 -1.7
 PCA 6.30 84 eP 23 49.28 -2.2
 BCPM 6.63 85 eP 23 53.63 -2.3
 YKU 6.64 89 eP 23 55.50 -0.5
 HQN 7.09 89 eP 23 58.84 -3.3
 FYU 7.35 25 eP 24 03.41 -2.4
 DWY 7.45 52 P 24 05.10 -2.1
 HYT 7.63 78 P 24 07.70 -2.0
 SIT 9.64 101 eP 24 33.50 -3.3
 YKA 18.35 66 eP 26 25.80 -2.6
 0.5s 1.10nm 3.4mb
 66 obs. associated

& APR 19, 1990 13h 25m 34.45s
 41.707 N 112.374 W
 DEPTH = 8.4km

UTAH (478)

<SLC-P>. ML 2.7 (SLC). Felt at
the Thiokol Corporation Plant.

PTI 1.16 0 eP 25 55.80 -0.6
 DAU 1.55 146 eP 26 02.80 0.2
 DUG 1.55 193 eP 26 02.00 -0.4
 BW06 2.35 62 eP 26 15.80 1.6
 IMW 2.43 25 eP 26 15.50 0.2
 5 obs. associated

& APR 19, 1990 14h 07m 46.00s
 36.882 N 121.662 W
 DEPTH = 6.0km

CENTRAL CALIFORNIA (39)

<BRK>. ML 3.5 (BRK).

Mo=6.0x10**14 Nm (BRK). Felt at
Moss Landing, Prunedale and
Salinas.

SAO 0.21 124 iP 07 49.80 -0.5
 GCC 0.31 299 iPc 07 52.10 -0.1
 MHC 0.46 2 iPc 07 55.60 0.4
 ARN 0.48 12 iPd 07 55.40 -0.2
 PRS 0.60 157 iPc 07 57.60 -0.4
 LLA 0.64 114 iPc 07 58.40 -0.3
 PCC 0.84 317 iPc 08 01.40 -1.2
 PRI 1.09 132 ePc 08 06.40 -0.6
 BKS 1.09 335 ePc 08 05.40 -1.5
 BRK 1.10 334 iPd 08 05.40 -1.6
 ZSP 1.16 336 iPc 08 06.50 -1.6
 iS 08 25.60
 PHAM 1.46 135 eP 08 11.40 -1.5
 CMB 1.54 41 iPc 08 12.50 -1.5
 FRI 1.57 85 iPc 08 12.60 -1.8
 NWRM 1.85 329 eP 08 16.20 -2.3
 BCH 2.12 142 eP 08 20.60 -2.0
 BLP 2.53 156 eP 08 27.00 -1.3
 ORV 2.67 3 e(P) 08 27.80 -2.5
 ABL 2.84 135 eP 08 31.70 -1.2
 KVN 3.55 51 eP 08 41.30 -1.7
 TNP 3.73 70 eP 08 45.00 -0.6
 WDC 3.76 350 eP 08 52.50 6.8

FFC 22.38 31 iPd 12 46.10 -0.1
 0.9s 10.00nm 4.3mb
 23 obs. associated

& APR 19, 1990 14h 11m 36.50s
 63.342 N 151.326 W
 DEPTH = 7.1km
 CENTRAL ALASKA (1)
 <AGS-P>.

KTH 0.28 40 iP 11 42.03 -0.2
 eS 11 46.29
 HUR 0.85 115 eP 11 53.00 -0.2
 CUT 1.06 152 eP 11 56.18 -0.5
 RND 1.12 86 eP 11 56.56 -1.2
 MCK 1.14 69 eP 11 58.40 0.3
 SKT 1.37 184 eP 12 01.05 -0.9
 WRH 1.83 50 eP 12 09.55 1.0
 eS 12 32.91
 NCG 1.98 192 eP 12 09.97 -1.0
 CGLM 2.07 189 eP 12 12.52 0.4
 CRP 2.12 191 eP 12 12.42 -0.5
 BGL 2.14 194 eP 12 12.84 -0.4
 CKL 2.21 193 eP 12 12.59 -1.6
 12 obs. associated

& APR 19, 1990 14h 43m 04.93s
 60.805 N 151.179 W
 DEPTH = 64.5km
 KENAI PENINSULA, ALASKA (14)
 <AGS-P>.

NKA 0.07 205 eP 43 15.56 2.7
 SLKM 0.56 122 iP 43 17.45 -0.6
 iS 43 27.65
 SPU 0.57 312 eP 43 17.53 -0.7
 CGLM 0.65 322 iP 43 18.36 -0.8
 RDT 0.65 250 eP 43 18.37 -0.8
 CRP 0.66 315 iP 43 18.88 -0.5
 CKL 0.69 305 iP 43 18.88 -0.8
 SUA 0.69 18 iP 43 18.91 -0.8
 iS 43 30.81
 BGL 0.75 308 iP 43 19.70 -0.7
 iS 43 31.35
 NCG 0.77 322 iP 43 19.88 -0.7
 eS 43 31.31
 >NNL 0.77 184 eP 43 21.09 0.6
 eS 43 32.25
 RED 0.88 244 iP 43 21.31 -0.6
 eS 43 34.21
 PMS 0.90 60 iP 43 21.66 -0.6
 iS 43 34.74
 PWA 1.06 36 eP 43 23.74 -0.4
 SEW 1.11 129 eP 43 23.61 -1.2
 SKT 1.19 352 iP 43 25.37 -0.6
 PLRM 1.27 51 eP 43 25.80 -1.1
 CNPM 1.28 181 iP 43 26.81 -0.4
 eS 43 43.68
 GH0 1.46 47 eP 43 28.61 -1.0
 SML 1.70 53 eP 43 32.00 -1.0
 PDB 1.81 237 iP 43 33.42 -1.1
 iS 43 56.16
 AUL 1.82 219 eP 43 34.99 0.4
 GLI 2.00 86 eP 43 34.43 -2.7
 iS 43 58.39
 SVW 2.19 280 eP 43 37.77 -2.0
 CDD 2.25 215 eP 43 40.42 -0.2
 VZW 2.27 82 eP 43 38.73 -2.2
 NCA 2.41 58 eP 43 41.45 -1.4
 KLU 2.64 73 eP 43 43.99 -2.1
 TOA 2.73 59 eP 43 46.21 -1.2
 KTH 2.76 2 eP 43 46.90 -0.9
 RND 2.83 22 eP 43 46.61 -2.2
 GLB 3.63 77 eP 43 57.32 -2.7
 32 obs. associated

% APR 19, 1990 14h 46m 42.24 ± 0.87s
 37.024 N ± 8.7km 4.729 W ± 7.2km
 DEPTH = 10.0km (geophysicist)
 SPAIN (377)
 mbLg 2.6 (MDD).

MAL 0.39 139 iPgc 46 48.80 -1.4
 iSg 46 53.00
 EPRU 0.41 262 ePg 46 50.70 0.1
 eSg 46 56.60
 EJIF 0.82 226 ePg 46 59.00 0.8

EHOR 0.89 333 eSg 47 10.80
 ePg 46 58.70 -0.7
 eSg 47 10.50
 AFC 0.97 76 ePg 47 02.80 1.9
 eSg 47 17.80
 EBAN 1.36 33 ePn 47 06.50 -0.8
 eSn 47 24.50

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

APR 19, 1990 15h 00m 55.17±0.32s
 1.272 N ± 5.2km 123.033 E ± 6.9km
 DEPTH = 33.0km (normal)
 4.9mb (9 obs.) 4.1msz (1 obs.)
 MINAHASSA PENINSULA (265)

TSM 5.76 301 iPd 02 21.00 0.4
 0.2s 106.10nm 6.1mb X
 DAV 6.31 24 eP 02 30.10 1.7
 1.0s 1640.00nm 6.7mb X
 MKS 7.36 209 iPc 02 45.00 1.9
 iS 04 04.50

KKM 8.29 305 ePc 02 55.00 -1.2
 PPR 9.47 333 ePd 03 11.00 -1.4
 BAG 15.24 351 eP 04 31.00 1.2
 MTN 16.17 150 eP 04 42.00 0.4
 KNA 17.84 162 eP 05 03.10 0.5
 IPM 22.22 279 ePd 05 53.00 2.4
 SNG 23.10 285 eP 06 05.90 6.6X
 WB5 23.78 153 eP 06 04.90 -1.0
 WRA 23.82 153 Pd 06 06.40 0.1
 0.7s 27.10nm 4.9mb

NANU 24.79 197 eP 06 14.40 -1.2
 0.4s 15.00nm 4.9mb
 NNT 25.68 297 eP 06 23.00 -1.1
 PMG 26.26 114 eP 06 29.00 -0.5
 LOE 26.38 309 eP 06 31.00 0.5
 ASPA 26.95 158 eP 06 34.70 -1.0
 0.8s 16.00nm 4.7mb

OIS 27.09 144 eP 06 36.00 -1.1
 CHG 29.36 308 eP 06 59.00 1.4
 SSE 29.71 357 eP 07 00.80 0.3
 Z 20s 0.50um 4.1msz

KMI 30.76 322 eP 07 07.00 -3.2X
 NWA0 34.45 189 eP 07 40.00 -2.0
 1.0s 40.00nm 5.3mb

MAT 37.80 20 eP 08 09.00 -1.3
 1.1s 10.13nm 4.6mb
 BJI 39.09 352 eP 08 21.00 0.0
 1.0s 18.00nm 4.8mb

BRS 40.38 137 iP 08 31.80 -0.1
 BWA 42.76 149 eP 08 53.70 2.4
 CAN 43.75 149 eP 09 00.20 0.8
 GUN 44.32 310 P 09 04.70 0.2
 PKI 44.51 309 P 09 06.20 0.1

DMN 44.77 309 P 09 08.20 0.2
 GKN 45.32 309 P 09 07.80 -4.5X
 KOD 46.15 283 eP 09 18.80 -0.3
 HYB 46.56 293 eP 09 22.00 -0.1

1.4s 62.50nm 5.4mb
 GBA 46.74 287 Pc 09 23.10 -0.3
 0.8s 4.70nm 4.5mb

MHI 68.11 309 eP 11 55.00 0.7
 IR4 74.71 306 eP 12 33.00 -0.9
 IR7 75.02 307 eP 12 34.00 -1.7
 VNDA 81.49 172 eP 13 10.70 0.6

FBA 88.51 25 e(P) 13 51.90 6.5X
 SPA 91.26 180 iPc 13 59.00 0.6
 0.9s 19.55nm 5.5mb

SUF 92.04 333 eP 14 01.00 -0.9
 INK 93.78 21 eP 14 15.00 5.2X
 MBC 95.13 12 eP 14 20.50 4.6X

ZOBO 161.48 144 PKP 20 55.00 -0.1
 i 21 42.00
 S.D. = 1.1 on 38 of 44 obs.

* APR 19, 1990 15h 18m 10.94±0.51s
 1.254 N ± 8.9km 127.944 E ± 15.3km
 DEPTH = 33.0km (normal)
 4.3mb (5 obs.)
 HALMAHERA (267)

MTN 14.36 167 eP 21 34.00 0.0
 e 21 43.00
 WB5 21.93 164 eP 23 03.60 0.1
 WRA 21.98 164 Pd 23 03.90 -0.1

0.7s 6.90nm 4.2mb
 OIS 24.50 153 iPc 23 29.00 0.4
 ASPA 25.44 167 eP 23 37.00 -0.6
 0.9s 8.00nm 4.3mb
 MAT 36.38 14 eP 25 15.00 0.9
 BJI 40.06 346 eP 25 43.00 -1.8
 1.0s 10.00nm 4.5mb

LZH 41.24 330 P 25 55.40 0.6
 1.5s 33.00nm 4.8mb

GUN 48.17 307 P 26 51.00 0.2
 PKI 48.40 307 P 26 51.60 -0.9
 DMN 48.66 307 P 26 54.90 0.5
 GKN 49.20 307 P 26 53.40 -5.1X
 HYB 51.12 291 eP 27 13.50 0.4

GBA 51.44 286 Pd 27 15.70 0.2
 0.4s 1.20nm 4.2mb
 S.D. = 0.8 on 13 of 14 obs.

APR 19, 1990 15h 27m 23.05±1.19s
 45.631 N ± 9.6km 8.001 E ± 8.1km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)

ORO 0.02 246 Pd 27 24.60 -0.5
 eSg 27 25.60
 MMK 0.42 357 iPc 27 31.60 -0.1
 DIX 0.61 318 eP 27 34.60 -0.9

TMA 0.77 52 eP 27 38.50 0.3
 EMS 0.87 301 eP 27 40.80 0.9
 LPG 0.89 262 Pg 27 40.20 -0.1
 Sg 27 51.20

LPL 0.90 263 Pg 27 40.60 0.2
 Sg 27 51.50
 S.D. = 0.7 on 7 of 7 obs.

? APR 19, 1990 15h 31m 16.67±0.89s
 31.479 S ± 35.1km 68.860 W ± 21.0km
 DEPTH = 110.0km (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA (137)

RTCB 0.05 98 iPd 31 32.00 -0.4
 S 31 45.00
 ZON 0.17 113 iPd 31 33.00 0.5
 eS 31 45.00

RTLL 0.37 66 iPc 31 33.00 0.0
 RTCV 0.47 144 ePc 31 33.50 -0.1
 S 31 45.60

RTBS 0.54 250 iPd 31 34.00 0.0
 S 31 47.00
 S.D. = 0.4 on 5 of 5 obs.

& APR 19, 1990 15h 43m 21.36s
 61.772 N 151.072 W
 DEPTH = 72.1km
 SOUTHERN ALASKA (2)
 <AGS-P>

SKT 0.30 314 iP 43 32.11 -0.9
 SUA 0.35 153 iP 43 33.01 -0.4
 iS 43 42.97

PWA 0.58 102 iP 43 34.85 -0.5
 eS 43 45.69
 NCG 0.64 235 iP 43 35.31 -0.8
 iS 43 46.60

CGLM 0.65 224 iP 43 35.49 -0.6
 CRP 0.73 226 eP 43 36.49 -0.6
 iS 43 48.50

CUT 0.74 30 iP 43 36.49 -0.5
 eS 43 47.97
 SPU 0.76 219 eP 43 36.69 -0.7
 eS 43 48.79

BGL 0.81 232 eP 43 37.38 -0.7
 CKL 0.84 227 iP 43 37.47 -0.9
 PMS 0.90 125 eP 43 38.09 -0.9
 eS 43 52.22

PLRM 0.94 100 iP 43 38.35 -1.1
 GH0 1.02 89 eP 43 39.72 -0.9
 iS 43 55.39

NKA 1.04 185 eP 43 41.94 1.3
 SML 1.30 87 eP 43 43.30 -0.9
 SLKM 1.33 162 eP 43 43.73 -0.9
 RDT 1.37 209 iP 43 44.30 -0.8
 eS 44 03.79

HUR 1.38 28 eP 43 44.71 -0.5
 RED 1.59 212 eP 43 47.41 -0.7
 NNL 1.74 184 eP 43 50.91 0.9
 KTH 1.79 2 eP 43 50.14 -0.7

SEW 1.85 154 eP 43 51.50 0.0
 RND 1.94 31 eP 43 51.72 -1.1
 NCA 2.02 82 eP 43 52.80 -1.2
 GLI 2.12 113 iP 43 52.60 -2.6
 MCK 2.20 26 eP 43 56.11 -0.3

CNPM 2.26 182 eP 43 56.65 -0.5
 SVW 2.29 255 eP 43 56.09 -1.5
 VZW 2.29 106 eP 43 55.32 -2.3
 TOA 2.34 80 eP 43 57.53 -0.9

KLU 2.48 94 iP 43 58.07 -2.2
 PDB 2.51 219 eP 43 59.52 -1.2
 TTA 2.58 299 eP 44 00.21 -1.5
 PAX 2.87 63 eP 44 04.58 -1.3

WRH 3.03 25 eP 44 05.97 -2.0
 GLB 3.48 92 eP 44 11.81 -2.5
 36 obs. associated

APR 19, 1990 15h 48m 58.74±0.36s
 14.976 N ± 8.1km 147.447 E ± 8.4km
 DEPTH = 33.0km (normal)
 4.5mb (5 obs.)
 MARIANA ISLANDS REGION (215)

GUA 2.84 240 eP 49 43.00 0.2
 GUMO 2.86 241 eP 49 42.30 -0.7
 PJG 2.86 241 eP 49 42.40 -0.6
 eS 50 16.20

MAT 23.01 341 (P) 54 02.00 0.2
 1.1s 8.86nm 4.2mb
 PMG 24.23 181 eP 54 14.00 0.3
 WB5 36.95 201 eP 56 06.70 -0.1

WRA 37.02 201 Pd 56 06.80 -0.6
 0.4s 3.90nm 4.6mb
 ASPA 40.62 199 eP 56 37.50 0.1
 0.7s 7.00nm 4.5mb

CHTO 46.46 282 eP 57 26.20 1.5
 GBA 67.59 279 P 00 01.00 6.2X
 INK 72.14 23 eP 00 20.00 -1.6
 MBC 76.32 14 eP 00 45.50 -0.2

1.0s 6.00nm 4.6mb
 YKA 80.48 28 eP 01 07.00 -1.6
 1.0s 3.20nm 4.3mb

ORV 81.42 51 ePc 01 14.00 -0.1
 CMB 82.61 53 ePc 01 20.50 0.2
 FRI 83.37 54 ePc 01 24.50 0.3
 KVN 84.11 51 e(P) 01 28.60 0.4

KIC 145.22 306 PKP 08 35.80 0.2
 1.1s 21.00nm
 TIC 145.27 306 PKP 08 36.00 0.3
 1.0s 14.00nm

LIC 145.53 306 PKP 08 36.80 0.6
 1.1s 22.50nm
 ZOBO 145.74 97 PKP 08 38.50 1.3
 SIV 152.51 96 PKP 08 53.80 6.9X

S.D. = 0.8 on 20 of 22 obs.
 APR 19, 1990 15h 59m 21.30±0.54s
 15.138 N ± 6.5km 147.482 E ± 9.1km
 DEPTH = 33.0km (normal)
 4.7mb (7 obs.)
 MARIANA ISLANDS REGION (215)

GUA 2.96 238 eP 00 07.70 0.7
 GUMO 2.97 239 eP 00 06.80 -0.4
 PJG 2.97 239 eP 00 07.20 0.0
 eS 00 43.50

MAT 22.86 340 (P) 04 22.00 -0.9
 PMG 24.39 181 eP 04 37.50 -0.4
 SSE 28.83 308 eP 05 17.00 -1.7
 BJI 36.89 318 eP 06 29.00 0.3

1.5s 21.00nm 4.8mb
 WB5 37.11 201 eP 06 30.50 -0.2
 WRA 37.18 201 Pd 06 30.60 -0.7
 0.7s 5.80nm 4.6mb

ASPA 40.79 199 eP 07 01.30 0.0
 0.6s 9.00nm 4.7mb
 LZH 44.08 307 P 07 29.70 1.3
 2.0s 42.00nm 4.9mb

CHG 46.46 282 eP 07 48.30 1.0
 GUN 58.18 294 P 09 15.40 0.2
 PKI 58.60 293 P 09 17.60 -0.5
 KKN 58.71 293 P 09 18.60 -0.1

DMN 58.87 293 P 09 20.00 0.1
 0.4s 11.00nm 5.3mb
 MBC 76.16 14 eP 11 08.00 0.6
 0.8s 4.00nm 4.5mb

YKA 80.32 28 eP 11 29.80 -0.5

19d 16h

0.8s 1.40nm 4.0mb
 ZOBO 145.73 97 PKP 19 01.00 1.3
 S.D. = 0.8 on 19 of 19 obs.

% APR 19, 1990 16h 35m 27.05±0.54s
 44.843 N ± 4.3km 7.604 E ± 5.6km
 DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
 ML 2.3 (GEN).

RSP 0.39 322 P 35 35.54 0.4
 S 35 40.95
 PZZ 0.49 227 P 35 36.95 -0.1
 S 35 43.68
 ROB 0.58 161 P 35 39.37 0.5
 S 35 47.34
 RRL 0.59 278 P 35 39.14 0.0
 S 35 47.23
 ENR 0.63 192 P 35 39.43 -0.3
 S 35 47.57
 STV 0.63 199 P 35 39.02 -0.8
 S 35 47.13
 LSD 0.69 333 P 35 41.91 1.0
 PCP 0.74 114 P 35 41.90 0.4
 S 35 51.64
 FIN 0.77 145 P 35 42.51 0.5
 S 35 52.66
 ORX 0.83 19 P 35 41.79 -1.5
 S.D. = 0.8 on 10 of 10 obs.

& APR 19, 1990 16h 54m 01.40s
 38.658 N 119.558 W
 DEPTH = 7.0km
 CALIFORNIA-NEVADA BORDER REGION (40)
 <BRK>. ML 3.5 (BRK).

CMB 0.90 227 iPc 54 17.60 -1.4
 iS 54 27.50
 KVN 1.20 71 eP 54 23.00 -1.3
 FRI 1.67 184 iPd 54 32.00 0.9
 iS 54 52.80
 ORV 1.76 301 ePc 54 32.80 0.3
 eS 54 47.50
 TNP 1.93 107 eP 54 35.50 0.4
 ARN 2.03 231 eP 54 37.00 0.5
 MHC 2.11 232 eP 54 38.50 0.9
 BKS 2.25 251 eP 54 40.00 0.4
 BRK 2.27 251 eP 54 40.10 0.3
 MIN 2.31 317 ePc 54 43.50 2.9
 LLA 2.32 209 ePc 54 41.00 0.4
 SAO 2.41 219 iPc 54 42.20 0.3
 PCC 2.51 243 ePc 54 44.50 1.2
 LTCM 2.52 309 eP 54 46.00 2.6
 GCC 2.52 231 ePc 54 45.50 2.1
 NWRM 2.62 267 eP 54 45.00 0.2
 PRI 2.66 200 eP 54 47.50 1.9
 PRS 2.73 212 eP 54 46.50 0.0
 WDC 3.00 311 ePc 54 51.50 1.3
 19 obs. associated

APR 19, 1990 17h 10m 12.22±0.38s
 1.306 N ± 8.0km 123.509 E ± 9.2km
 DEPTH = 33.0km (normal)
 4.6mb (7 obs.) 4.0Msz (2 obs.)

MINAHASSA PENINSULA (265)

TSM 6.16 298 eP 11 43.50 0.2
 MKS 7.63 212 iPd 12 08.00 4.0X
 KKM 8.67 303 eP 12 18.00 -0.5
 PPR 9.66 331 ePd 12 31.00 -1.1
 MTN 15.97 152 iPc 13 56.30 0.2
 CVP 16.38 354 eP 14 02.00 0.6
 IPM 22.69 279 ePd 15 14.00 1.7
 SNG 23.55 285 eP 15 22.70 2.0
 WB5 23.60 154 eP 15 21.00 -0.1
 WRA 23.64 154 Pc 15 21.30 -0.3
 0.4s 15.90nm 4.9mb
 GUMO 24.40 59 e(P) 15 33.00 4.0X
 NANU 24.97 198 eP 15 34.40 0.1
 0.5s 6.00nm 4.4mb
 PMG 25.84 115 eP 15 42.50 -0.2
 ASPA 26.80 158 iPd 15 51.00 -0.4
 0.4s 8.00nm 4.7mb
 Z 20s 8.19um 3.6Msz
 LR 27 33.60
 OIS 26.85 145 iPc 15 52.00 0.2
 e 20 06.00

CHG 29.71 307 eP 16 23.00 5.2X
 CHTO 29.71 307 eP 16 17.00 -0.8
 CTA 30.81 135 iP 16 25.00 -2.5
 MAT 37.61 20 eP 17 28.00 2.3
 0.7s 5.40nm 4.5mb
 LZH 39.12 334 eP 17 37.50 -1.1
 Z 19s 0.50um 4.4Msz
 E 16s 0.60um
 BJI 39.13 351 eP 17 44.50 6.1X
 1.5s 21.00nm 4.7mb
 eS 23 32.00
 BRS 40.08 138 iPc 17 46.30 -0.2
 BWA 42.54 149 eP 18 09.90 3.3X
 CAN 43.54 149 eP 18 16.30 1.6
 GUN 44.66 310 P 18 24.10 -0.2
 0.6s 14.00nm 5.0mb
 PKI 44.86 309 P 18 25.40 -0.5
 KKN 45.07 309 P 18 26.80 -0.6
 DMN 45.12 309 P 18 27.60 -0.2
 GKN 45.67 309 P 18 31.60 -0.5
 HYB 46.99 293 eP 18 41.00 -1.5
 GBA 47.18 287 Pc 18 51.50 7.5X
 0.9s 3.50nm 4.4mb
 MHI 68.46 309 eP 21 14.00 0.4
 ZOBO 161.23 143 PKP 30 13.30 1.4
 S.D. = 1.1 on 27 of 33 obs.

* APR 19, 1990 18h 35m 32.66±0.64s
 1.567 N ± 10.2km 123.238 E ± 13.5km
 DEPTH = 33.0km (normal)
 4.6mb (6 obs.)

MINAHASSA PENINSULA (265)

TSM 5.80 297 Pd 36 57.90 -0.7
 MKS 7.72 209 iPc 37 26.50 0.9
 CVP 16.10 355 ePd 39 25.00 6.8X
 1.0s 50.00nm 4.6mb
 IPM 22.38 278 eP 40 37.90 8.2X
 WB5 23.95 153 eP 40 43.90 -1.1
 i 40 53.50
 WRA 23.99 154 P 40 46.00 0.6
 0.8s 5.70nm 4.2mb
 ASPA 27.14 158 eP 41 16.20 1.2
 0.8s 5.00nm 4.2mb
 Z 20s 0.13um 3.5Msz
 LR 47 10.40
 OIS 27.21 145 eP 41 14.00 -1.6
 BJI 38.83 351 eP 42 58.00 1.7
 1.5s 16.00nm 4.6mb
 GUN 44.29 310 P 43 41.80 0.0
 0.9s 20.00nm 4.9mb
 PKI 44.49 309 P 43 43.00 -0.3
 KKN 44.69 309 P 43 44.70 -0.2
 DMN 44.74 309 P 43 45.20 -0.1
 GKN 45.29 309 P 43 49.20 -0.4
 0.9s 15.00nm 4.9mb
 HYB 46.64 293 eP 44 04.00 3.9X
 S.D. = 1.1 on 12 of 15 obs.

APR 19, 1990 10h 55m 54.46±0.38s
 20.965 S ± 6.0km 68.857 W ± 8.9km
 DEPTH = 101.0km (4 depth phases)
 4.7mb (12 obs.)

CHILE-BOLIVIA BORDER REGION (124)

ANT 3.08 208 iPc+ 56 42.50 0.4
 iS 57 08.00
 LPB 4.47 9 P 57 04.20 2.7
 1.8s 2500.00nm
 ZOBO 4.72 9 iPc 57 06.90 1.7
 S 58 04.00
 SIV 8.89 57 iP 58 00.20 -1.7
 RTLL 10.33 178 eP 58 19.40 -1.8
 RTCB 10.48 180 e(P) 58 22.60 -0.7
 NNA 11.76 318 eP 58 38.20 -2.1
 0.8s 21.64nm 5.0mb
 eS 00 39.00
 ITB 14.03 109 Pd 59 17.90 8.0X
 ITB7 14.13 110 Pd 59 18.90 7.6X
 BAO 20.50 78 eP 00 27.00 0.3
 TKL 58.06 346 P 05 37.30 -1.9
 GBTN 58.17 345 P 05 37.90 -2.1
 RSCP 58.44 344 P 05 40.00 -2.0
 0.8s 119.19nm 6.0mb X
 PWLA 58.55 342 P 05 40.00 -2.7
 OLY 60.11 339 P 05 51.00 -2.4
 MBO 61.90 60 iP 06 06.60 0.8

FVM 62.04 341 P 06 04.50 -1.9
 TUL 62.05 335 e(P) 06 04.90 -1.6
 1.0s 11.30nm 4.8mb
 ALO 66.08 327 ePd 06 32.00 -0.9
 1.0s 10.00nm 4.7mb
 ANMO 66.08 327 P 06 32.20 -0.7
 0.9s 7.35nm 4.6mb
 SPA 69.16 180 iPd 06 54.30 2.5
 1.1s 23.21nm 4.9mb
 i 07 19.80 100km
 GOL 69.32 331 P 06 52.60 -0.6
 0.9s 19.89nm 4.9mb
 GLA 69.36 320 P 06 53.90 0.6
 BAR 70.24 318 eP 07 00.00 1.4
 TPC 70.82 320 eP 07 03.00 0.8
 PEC 71.35 319 P 07 05.90 0.5
 RVR 71.55 319 eP 07 07.00 0.5
 GSC 72.10 320 eP 07 10.00 0.2
 MWC 72.13 319 eP 07 11.00 0.8
 RSSD 72.34 334 P 07 10.00 -1.2
 DAU 72.70 327 P 07 13.90 0.3
 CLC 72.92 320 eP 07 15.00 0.4
 ABL 73.26 319 eP 07 17.40 0.6
 e 07 48.10 122kmX
 DUG 73.34 326 P 07 17.60 0.5
 0.8s 6.25nm 4.5mb
 ISA 73.34 320 eP 07 18.00 0.9
 BW06 73.68 330 P 07 18.50 -0.6
 1.2s 4.79nm 4.2mb
 BCH 74.02 318 eP 07 22.10 1.0
 e 07 48.10 101km
 TNP 74.24 322 P 07 22.60 0.2
 0.8s 8.70nm 4.6mb

FRI 74.97 320 ePd 07 25.80 -0.6
 PRI 75.00 319 ePd 07 27.50 0.8
 IMW 75.19 330 P 07 28.30 0.5
 KVN 75.41 322 P 07 29.00 -0.1
 pP 07 55.60 103km
 sP 08 07.90
 LLA 75.47 319 ePd 07 30.00 0.7
 SCH 75.49 1 eP 07 30.00 1.1
 PRS 75.55 319 eP 07 30.50 0.8
 CMB 76.06 320 ePd 07 33.00 0.4
 HPI 76.08 329 P 07 34.00 1.1
 ARN 76.31 319 P 07 35.10 1.1
 MHC 76.37 319 ePd 07 35.40 0.9
 GCC 76.39 319 e(P) 07 32.90 -1.5
 LRM 77.34 330 eP 07 40.50 0.7
 ORV 77.71 321 P 07 42.70 1.0
 pP 08 08.80 100km
 WDC 78.98 321 ePd 07 47.70 -0.9
 FHC 79.97 321 ePd 07 55.30 1.3
 FFC 80.54 341 iPd 07 56.30 -0.3
 1.0s 15.00nm 4.8mb
 NEW 81.31 330 P 08 00.50 -0.3
 1.2s 13.26nm 4.6mb

DPW 81.55 329 P 08 02.70 0.6
 LON 82.59 326 P 08 07.30 -0.2
 BMW 83.15 326 P 08 10.80 0.4
 PNT 83.23 329 eP 08 11.00 0.3
 MCW 84.38 327 P 08 16.90 0.4
 FRB 84.43 0 eP 08 16.00 -0.3
 YKA 90.70 341 eP 08 46.00 -0.5
 0.7s 5.90nm 4.9mb
 WRA 133.44 211 PKPd 15 01.60 0.4
 0.8s 2.00nm
 GBA 147.04 97 PKP 15 35.00 9.5X
 0.7s 2.90nm
 HYB 149.05 91 ePKP 15 36.40 7.6X
 e 15 50.00
 MAT 151.78 309 ePKP 15 39.00 6.7X
 S.D. = 1.2 on 62 of 67 obs.

% APR 19, 1990 19h 19m 22.11±0.90s
 36.877 N ± 9.0km 22.677 E ± 9.6km
 DEPTH = 10.0km (geophysicist)

SOUTHERN GREECE (368)
 ML 3.0 (ATH).

VLI 0.26 127 iPgD 19 27.00 -0.7
 ITM 0.67 297 ePg 19 35.30 -0.2
 ATH 1.37 37 ePb 19 47.30 0.1
 eSb 20 05.00
 VAM 1.92 140 ePb 19 55.80 0.7
 VLS 2.11 309 ePg 20 04.40 6.5X
 NEO 2.46 10 ePn 20 03.00 0.0
 S.D. = 0.7 on 5 of 6 obs.

APR 19, 1990 19h 49m 09.80 ± 0.87s
36.901 N ± 7.9km 22.711 E ± 9.1km
DEPTH = 10.0km (geophysicist)
SOUTHERN GREECE (368)
ML 3.0 (ATH).

VLI 0.26 135 iPg 49 15.00 -0.3
eSg 49 20.50
ITM 0.69 294 ePb 49 23.60 0.2
ATH 1.34 37 ePn 49 35.00 0.6
eSb 49 51.00
VAM 1.92 141 ePn 49 43.00 0.2
VLS 2.11 308 ePg 49 51.00 5.3X
NEO 2.44 9 ePn 49 49.50 -0.8
S.D. = 0.7 on 5 of 6 obs.

APR 19, 1990 21h 53m 10.10 ± 0.65s
1.530 N ± 10.9km 123.540 E ± 12.4km
DEPTH = 33.0km (normal)
4.5mb (2 obs.)
MINAHASSA PENINSULA (265)

TSM 6.08 296 eP 54 39.00 -1.1
MKS 7.84 211 ePd 55 06.50 1.7
PPR 9.49 330 iPd 55 27.00 -0.5
IPM 22.68 278 eP 58 13.10 2.9X
SNG 23.53 284 eP 58 17.90 -0.4
WB5 23.78 154 eP 58 19.80 -1.0
NANU 25.19 198 eP 58 31.50 -2.8
0.4s 9.00nm 4.7mb
PMG 25.91 115 eP 58 41.00 -0.1
ASPA 27.00 159 eP 58 51.10 0.0
0.8s 6.00nm 4.3mb
OIS 27.01 145 eP 58 50.00 -1.2
CHG 29.60 307 eP 59 16.00 1.3
BWA 42.71 149 eP 01 08.00 2.1
CAN 43.71 149 eP 01 14.80 0.8
GUN 44.55 310 P 01 21.30 0.0
DMN 45.00 309 P 01 25.80 1.0
GKN 45.55 309 P 01 28.80 -0.3
HYB 46.93 292 eP 01 44.00 4.1X
GBA 47.15 287 P 01 42.00 0.4
S.D. = 1.3 on 16 of 18 obs.

APR 19, 1990 22h 03m 08.13 ± 0.40s
1.093 N ± 7.0km 123.876 E ± 9.2km
DEPTH = 25.8km (2 depth phases)
5.1mb (13 obs.) 4.1msz (2 obs.)
MINAHASSA PENINSULA (265)

DAV 6.19 16 eP 04 40.20 -0.1
MKS 7.66 215 iPd 05 05.50 4.6X
iS 06 35.00
KKM 9.09 303 eP 05 18.00 -2.8
PPR 10.03 330 ePc 05 37.00 3.3X
BAG 15.56 348 eP 06 51.00 3.2X
MTN 15.61 153 eP 06 48.00 -0.1
KGM 20.57 273 eP 07 49.00 1.2
IPM 23.08 279 ePc 08 16.20 3.2X
1.0s 34.60nm 4.8mb
WB5 23.24 154 eP 08 13.80 -0.7
eS 12 22.50
SNG 23.96 285 eP 08 23.20 1.7
NANU 24.88 199 eP 08 30.20 -0.1
0.5s 27.00nm 5.1mb
PMG 25.42 115 eP 08 35.00 -0.6
OIS 26.46 145 iPc 08 44.70 -0.5
1.0s 149.00nm 5.6mb
ASPA 26.47 159 iPc 08 44.00 -1.3
0.9s 44.00nm 5.1mb
Z 22s 0.51um 4.0mszX
LR 18 59.30
NNT 26.51 297 eP 08 44.00 -1.7
LOE 27.15 308 eP 08 56.50 5.0X
MEKA 28.02 190 eP 08 58.30 -1.0
CHG 30.13 307 eP 09 21.10 2.7
1.1s 35.44nm 5.1mb
CTA 30.40 135 iPc 09 26.00 5.3X
KMI 31.42 321 Pc 09 31.00 1.1
sP 09 42.00
FORR 32.02 173 iPc 09 33.30 -1.5
0.4s 31.00nm 5.6mb
MUN 33.68 192 eP 09 48.00 -1.3
NWA0 34.41 190 eP 09 55.00 -0.6
0.4s 6.00nm 4.9mb
Z 20s 0.40um 4.2msz

N 20s 0.40um
E 20s 0.20um
MAT 37.69 19 (P) 10 21.00 -2.3
1.0s 15.00nm 4.8mb
ADE 38.47 160 iPd 10 30.80 0.9
0.8s 62.69nm 5.5mb
BJI 39.39 351 eP 10 37.00 -0.5
1.2s 13.00nm 4.5mb
Z 20s 0.30um 4.1msz
eP 10 45.00 27km
eS 16 32.00
LZH 39.47 334 P 10 39.20 0.8
1.0s 63.00nm 5.3mb
N 15s 0.70um
E 15s 0.90um
pP 10 46.50 25km
sP 10 50.00
eS 16 36.00

BWA 42.17 149 iPc 11 03.00 2.6
CAN 43.17 150 iPc 11 09.90 1.3
TOO 43.36 155 eP 11 12.00 1.9
GUN 45.08 310 P 11 25.40 0.8
PKI 45.28 309 P 11 26.30 0.2
KKN 45.49 309 P 11 28.20 0.6
DMN 45.53 309 P 11 28.60 0.6
GKN 46.09 309 P 11 32.40 0.1
1.2s 48.00nm 5.3mb
HYB 47.41 293 eP 11 42.80 0.1
GBA 47.60 287 Pc 11 43.20 -1.0
0.6s 4.20nm 4.6mb
QUE 61.19 304 eP 13 22.00 -1.6
VNDA 81.20 172 eP 15 22.60 0.0
ZOBO 160.84 143 PKP 23 09.00 0.5
SIV 164.41 162 PKP 23 11.80 0.4
S.D. = 1.3 on 35 of 41 obs.

APR 19, 1990 22h 30m 59.41 ± 0.69s
15.282 N ± 11.3km 147.643 E ± 14.7km
DEPTH = 33.0km (normal)
4.2mb (4 obs.)
MARIANA ISLANDS REGION (215)

GUMO 3.17 238 eP 31 48.50 0.3
PJG 3.17 238 eP 31 47.90 -0.3
eS 32 26.00
MAT 22.78 340 eP 36 00.00 -0.3
0.7s 5.48nm 4.1mb
WB5 37.30 201 eP 38 10.20 -0.2
WRA 37.37 201 Pc 38 11.00 0.0
0.7s 3.60nm 4.3mb
MBC 75.98 14 eP 42 45.00 0.5
1.0s 6.00nm 4.5mb
YKA 80.12 28 eP 43 06.80 -0.6
0.6s 0.40nm 3.6mb
KIC 145.20 306 PKP 50 36.80 0.5
S.D. = 0.5 on 8 of 8 obs.

APR 19, 1990 22h 41m 31.04 ± 0.23s
34.018 N ± 5.0km 69.742 E ± 3.9km
DEPTH = 33.1km (3 depth phases)
5.2mb (28 obs.) 5.1msz (5 obs.)
AFGHANISTAN (709)

CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 19C
Centroid Location:
Origin Time 22:41:34.5 0.5
Lat 34.16N 0.08 Lon 69.52E 0.07
Dep 33.0 FIX Half-duration 1.8
Moment Tensor: Scale 10**17 Nm
Mrr=-0.57 0.05 Mtt= 0.03 0.08
Mff= 0.54 0.06 Mrt= 0.28 0.15
Mrf=-0.43 0.19 Mtf=-1.05 0.06
Principal Axes:
T Val= 1.49 Plg=14 Azm= 52
N -0.68 64 172
P -0.81 22 316
Best Double Couple: Mo=1.1*10**17
NP1: Strike= 96 Dip=64 Slip=-174
NP2: 3 85 -26

QUE 4.49 213 iP+ 42 40.50 1.7
NDI 8.31 128 iPd 43 32.90 0.7
1.0s 940.00nm 6.9mb X
iS 45 09.50
MHI 8.69 288 eP 43 37.00 -0.6
eS 45 14.00

GKN 14.11 111 Pd 44 48.20 -2.5
DMN 14.66 112 Pd 44 55.60 -2.5
KKN 14.71 111 Pd 44 56.00 -2.7
PKI 14.91 111 Pd 44 58.80 -2.7
GUN 15.12 109 Pd 45 00.80 -3.4X
BOM 15.31 169 eP 45 07.50 1.2
eS 48 18.00
IR4 15.56 280 ePc 45 08.00 -1.7
IR7 15.80 282 eP 45 11.00 -1.7
IR5 15.82 280 eP 45 10.00 -3.1X
POO 15.85 166 iP 45 13.00 -0.4
HYB 18.32 152 eP 45 43.40 -1.0
1.4s 187.50nm 5.1mb
i 45 47.00

DHR 18.60 251 eP 45 49.00 1.4
KER 18.73 277 eP 45 47.00 -2.4
TAB 19.35 289 eP 45 56.00 -0.8
SLY 19.96 281 eP 46 04.00 0.8
eS 49 54.00
ILO 53 20.00

BHD 21.11 275 ePc 46 14.50 -0.6
eS 50 07.00
eS 50 46.00
eSSS 51 04.50
ELO 53 34.00

GBA 21.49 159 Pd 46 21.30 2.3
1.0s 192.80nm 5.5mb
MSL 21.84 284 ePc 46 22.00 -0.4
eS 50 21.00
ELO 53 47.00

KMSA 26.16 245 eP 47 03.80 -0.5
LZH 27.91 76 P 47 22.50 2.2
2.0s 94.00nm 5.1mb
N 11s 1.20um
E 13s 2.50um

sP 47 40.00
PPP 48 32.50
i 48 45.00
S 52 10.00
sS 52 28.00
i 53 00.00

HRI 28.24 278 e(P) 47 23.00 -0.2
KAS 29.24 295 eP 47 32.00 -0.1
PRNI 29.55 273 e(P) 47 31.00 -3.9X
MBH 29.81 272 eP 47 35.00 -2.2
KMI 29.93 98 Pc+ 47 40.00 1.4
Z 18s 4.30um 5.1msz
N 10s 1.90um
E 10s 1.20um

pP 47 54.50 59kmX
S 52 44.00

BBTK 29.98 292 eP 47 39.00 0.3
CHTO 30.08 113 ePd 47 40.50 0.8
ELL 32.43 286 eP 48 00.00 -0.3
NST 32.90 116 eP 48 08.50 4.2X
LOE 33.05 112 eP 48 16.50 10.8X
NNT 34.62 121 iPd 48 22.40 3.1X
VRI 34.64 303 ePc 48 20.00 0.8
MLR 35.16 302 ePd 48 25.00 1.2
CMP 35.79 302 ePc 48 28.00 -1.0
RZN 36.03 296 eP 48 30.00 -1.3
PCB 36.41 297 eP 48 36.00 1.7
BJI 37.22 67 eP 48 43.00 2.0
2.0s 83.00nm 5.3mb
Z 20s 3.29um 5.1msz
N 13s 1.62um
E 14s 1.99um

eS 54 34.00

KKB 37.24 296 eP 48 41.00 -0.3
VAY 37.67 295 eP 48 40.40 -4.4X
AAE 37.79 236 eP 48 48.50 2.1
SKO 38.46 296 eP 48 50.00 -1.5
SPC 39.27 308 eP 48 59.90 1.5
NUR 39.28 326 iP 48 57.00 -1.0
SUF 39.52 330 eP 48 57.00 -3.0X
KRA 39.53 309 eP 49 00.30 0.0

Z 16s 1.60um 5.0mszX
E 16s 1.90um

SRO 40.50 306 eP 49 08.80 29km
i 49 09.70 1.4
i 49 21.40 42km
IPM 41.26 128 ePd 49 19.90 5.1X
1.2s 75.00nm 5.3mb
ZST 41.31 306 eP 49 15.10 0.2
SOD 41.57 337 iP 49 17.30 0.5
KSP 41.90 310 eP 49 20.00 0.2
ec 49 28.50 29km

19d 22b

				e	50	47.50	
UPP	42.43	324	iP	49	23.20	-0.7	
KEV	42.74	340	eP	49	25.00	-1.4	
PRU	43.00	309	eP	49	29.50	0.7	
	Z	14s	1.00um			4.9Ms	sz
	N	12s	1.00um				
	E	12s	1.00um				
			e	49			99kmX
SSE	43.09	79	eP	49	52.80	2.8X	
	Z	20s	1.80um			5.0Ms	sz
	N	14s	2.20um				
	E	14s	1.30um				
			eS	55	56.00		
			sS	56	08.00		
			ScS	59	32.00		
SGO	43.22	295	P	49	30.00	-0.6	
BRG	43.39	310	eP	49	32.70	0.8	
	1.8s	35.00nm				4.8mb	
		i		49	55.60	97kmX	
		i		51	17.80		
KHC	43.64	308	P	49	34.50	0.5	
		e		51	17.00	573kmX	
DUI	43.68	297	P	49	40.00	5.5X	
TRI	43.70	303	P	49	38.50	4.0X	
RBL	43.78	304	P	49	38.00	2.8X	
KBA	43.89	305	i(P)	49	35.60	-0.6	
	1.9s	53.60nm				5.0mb	
		i		50	00.00	104kmX	
		e		51	12.50		
CLL	43.99	311	eP	49	37.00	0.3	
		i		51	36.90		
FVI	44.31	304	P	49	39.00	-0.4	
AZI	44.38	298	P	49	41.50	1.5	
HFS	44.42	324	eP	49	38.50	-1.6	
	1.0s	22.10nm				5.0mb	
	Z	17s	1.42um			5.0Ms	sz
			LR	06	24.00		
ARV	44.53	300	P	49	37.00	-4.2X	
KGM	44.68	128	ePd	49	46.90	4.2X	
ASS	44.79	299	P	49	48.00	4.6X	
MOX	44.87	310	eP	49	45.00	1.1	
MNS	44.88	298	P	49	44.00	-0.1	
CTI	45.14	303	P	49	36.00	-10.2X	
GRF	45.16	309	e(P)	49	49.50	3.3X	
	Z	17s	0.60um			4.6Ms	sz
SFI	45.25	300	P	49	43.00	-4.0X	
PGD	45.35	300	P	49	44.00	-4.0X	
FIR	45.70	300	eP	49	51.00	0.5	
NB2	45.77	325	P	49	49.20	-1.7	
	0.9s	18.10nm				5.0mb	
VAI	47.16	304	P	49	46.00	-16.0X	
BSF	48.24	306	eP	50	10.30	-0.3	
	0.9s	9.85nm				4.8mb	
LPL	48.62	303	eP	50	14.70	1.0	
	0.6s	6.30nm				4.8mb	
DOU	49.40	310	Pc	50	22.10	2.8X	
	1.0s	25.00nm				5.2mb	
SMF	50.41	305	eP	50	28.00	0.8	
	1.0s	19.00nm				5.1mb	
SSF	50.56	306	eP	50	28.30	0.0	
AVF	50.72	306	eP	50	30.40	1.0	
	1.0s	28.00nm				5.2mb	
KBS	50.81	348	iPd	50	29.80	0.1	
PPR	50.86	106	iPd	50	36.00	5.1X	
LWI	52.75	235	ePd	50	45.10	-0.3	
EKA	53.38	317	P	50	51.00	1.7	
	0.9s	7.90nm				4.7mb	
MAT	54.86	66	(P)	51	02.00	1.6	
	1.1s	25.32nm				5.2mb	
BCAO	55.83	250	iPc	51	07.90	0.2	
	1.0s	43.00nm				5.4mb	

KIC	73.61	267	P	53	03.30	0.0
TIC	73.69	267	P	53	03.80	0.1
LIC	73.92	267	P	53	05.00	0.0
Z	20s	0.88um			5.0msz	
IMA	74.79	17	eP	53	08.90	-0.5
	0.9s	29.20nm			5.3mb	
WIN	75.32	229	eP	53	22.00	8.9X
TTA	76.70	20	eP	53	20.30	0.1
FRB	77.12	342	eP	53	22.00	-0.3
FBA	77.13	15	eP	53	21.70	-0.8
	0.8s	54.80nm			5.6mb	
SVW	78.27	21	eP	53	29.70	0.9
PMR	79.64	18	eP	53	35.50	-0.7
WB5	81.56	121	eP	53	47.70	0.7
WRA	81.58	121	Pd	53	50.20	3.1X
	1.0s	26.30nm			5.2mb	
KDC	81.94	21	eP	53	48.80	0.5
ASPA	83.70	124	eP	53	59.40	1.4
	1.3s	50.00nm			5.5mb	
YKA	83.76	2	eP	53	56.40	-1.3
	1.1s	17.60nm			5.1mb	
SCH	83.96	336	eP	54	00.00	1.1
FFC	91.33	355	eP	54	35.00	0.6
	1.4s	53.00nm			5.7mb	
SIV	132.42	280	PKP	00	45.20	1.1
ZOBO	138.30	284	PKP	00	57.00	1.0
Z	20s	0.95um			5.5msz	
		LR		57	28.00	
LPB	138.42	284	(PKP)	01	05.00	9.0X
PCH	147.12	259	iPKP	01	15.00	4.8X
SAN	147.21	260	ePKP	01	14.00	3.8X
CHCH	147.30	259	ePKP	01	15.00	4.6X
TACH	147.47	259	ePKP	01	14.50	3.9X
LNV	147.92	259	ePKP	01	14.50	3.2X
S.D. = 1.2 on 92 of 127 obs.						
? APR 20, 1990 00h 11m 24.67±1.02s						
38.692 N ±10.7km 24.937 E ±10.7km						
DEPTH = 10.0km (geophysicist)						
AEGEAN SEA (365)						
ML 2.7 (ATH).						
ATH	1.20	234	ePb	11	46.10	-0.9
NEO	1.47	295	ePb	11	52.00	0.8
EZN	1.56	443	ePn	11	52.00	-0.5
APE	1.69	164	ePb	11	55.00	0.6
S.D. = 1.4 on 4 of 4 obs.						
? APR 20, 1990 00h 24m 59.45±17.00s						
30.253 S ±105.km 72.510 W ±101.km						
DEPTH = 33.0km (normal)						
OFF COAST OF CENTRAL CHILE (134)						
RTBS	2.98	119	eP	25	45.60	0.2
			eS	26	21.70	
RTCB	3.42	112	e(P)	25	52.80	1.0
ZON	3.54	112	eP	25	53.00	-0.5
RTLL	3.64	108	ePd	25	54.30	-0.6
			(S)	26	34.30	
TACH	3.64	159	eP	25	54.50	-0.4
			i	26	37.00	
PCH	3.76	154	eP	25	56.50	-0.1
			i	26	37.50	
LNV	3.81	166	eP	25	57.50	0.3
CHCH	3.99	157	eP	26	00.00	0.1
S.D. = 0.6 on 8 of 8 obs.						
* APR 20, 1990 00h 48m 10.16±1.18s						
28.654 S ± 8.3km 67.098						

YKA	98.44	340	eP	01	34.50	0.6
	0.5s		0.20nm			3.9mb
WRA	127.43	206	PKPc	07	02.00	0.4
	0.5s		1.40nm			
WB5	127.48	206	ePKP	07	02.00	0.3
	S.D. = 1.2	on	13 of	15	obs.	

* APR 20, 1990 03h 24m 22.58± 0.75s						
0.393 N ±23.0km 123.183 E ±24.6km						
DEPTH = 33.0km (normal)						
4.7mb (4 obs.)						
MINAHASSA PENINSULA (265)						
KKM	8.94	309	ePd	26	32.80	0.3
WB5	22.94	152	eP	29	25.00	-0.1
WRA	22.98	152	Pd	29	26.00	0.5
	0.7s		2.70nm			3.9mb
SNG	23.49	287	eP	29	30.00	-0.5
QNT	26.22	298	eP	29	57.30	0.8
QIS	26.30	143	iPd	29	57.00	-0.2
CHG	30.02	309	eP	30	31.80	0.9
GUN	45.00	311	P	32	37.20	-0.2
	0.8s		36.00nm			5.3mb
PKI	45.19	310	P	32	37.80	-1.1
KKN	45.40	310	P	32	40.20	-0.2
DMN	45.44	310	P	32	41.20	0.4
GKN	45.99	310	P	32	44.60	-0.4
	1.0s		36.00nm			5.3mb
HYB	47.04	294	eP	32	53.50	0.2
GBA	47.15	288	Pc	32	53.60	-0.5
	0.7s		2.00nm			4.2mb
	S.D. = 0.6	on	14 of	14	obs.	

& APR 20, 1990 03h 24m 46.20s						
34.120 N 117.720 W						
DEPTH = 4.0km						
SOUTHERN CALIFORNIA (43)						
<PAS-P>. ML 3.4 (PAS), 4.0(BRK).						
Slight domoge (VI) at Mt. Baldy.						
Felt (V) at Claremont and El						
Monte; (IV) at Covina and						
Uplond; (III) at Guosti.						
PCF	0.09	221	iPd	24	48.08	-0.1
PEM	0.13	291	iPc	24	49.10	0.2
TCC	0.27	243	eP	24	51.72	0.0
			S	24	55.48	
MWC	0.30	290	iPc	24	52.10	-0.1
VPD	0.31	187	iPd	24	52.56	0.2
RVR	0.31	114	iPd	24	52.20	-0.3
PAS	0.38	274	iPc	24	53.40	-0.3
PEC	0.52	116	iPd	24	55.80	-0.8
SBB	0.57	351	iPd	24	57.10	-0.6
SCY	0.61	269	iP	24	57.36	-1.0
PVPS	0.66	240	eP	24	58.62	-0.7
TWL	0.74	283	eP	25	00.43	-0.6
CIS	0.91	219	iPd	25	02.90	-1.3
PLM	1.05	137	ePd	25	05.10	-1.5
GSC	1.40	32	ePc	25	12.30	-0.3
ABL	1.44	301	eP	25	11.80	-1.5
BAR	1.68	148	ePd	25	15.30	-1.3
BCH	2.22	299	eP	25	23.50	-0.9
BLP	2.26	282	eP	25	22.80	-2.1
GLA	2.64	113	eP	25	28.20	-2.1
PRI	3.15	311	e(P)	25	39.20	1.6
FRI	3.29	331	eP	25	39.00	-0.5
			eSg	26	28.10	
TNP	3.97	6	eP	25	49.20	-0.3
CMB	4.46	332	eP	25	47.30	-8.9
			eS	26	59.40	
KVN	4.93	357	eP	26	02.50	-0.5
	25	obs.	associated			

& APR 20, 1990 03h 45m 46.45s						
57.380 N 143.085 W						
DEPTH = 10.0km (geophysicist)						
3.2mb (1 obs.)						
GULF OF ALASKA (15)						
<AGS-P>.						
PCA	3.10	27	eP	46	30.70	-5.6
			eS	47	03.80	
TGL	3.39	2	eP	46	34.94	-5.6
GLI	4.07	331	iP	46	43.84	-6.3
GLB	4.09	355	iP	46	44.52	-5.9
VZW	4.10	336	iP	46	44.32	

20d 03h

KLU	4.37	342	iP	46	48.12	-6.3
HYT	4.50	37	P	46	52.00	-4.2
CNPM	4.79	300	eP	46	53.92	-6.5
SLKM	4.85	313	eP	46	54.72	-6.4
TOA	4.99	343	eP	46	57.47	-5.7
NCA	5.00	339	eP	46	57.16	-6.2
PMS	5.10	322	eP	46	58.40	-6.3
PLRM	5.23	326	eP	47	00.76	-5.7
GHO	5.31	328	eP	47	01.36	-6.4
PWA	5.50	324	eP	47	05.64	-4.7
SUA	5.66	320	eP	47	05.91	-6.8
PAX	5.73	349	eP	47	07.42	-6.3
ROT	5.79	307	eP	47	08.00	-6.4
CDO	5.80	290	eP	47	08.96	-5.7
RED	5.87	305	eP	47	09.14	-6.5
SPU	5.97	313	eP	47	10.81	-6.2
CGLM	6.03	315	eP	47	12.10	-5.7
CRP	6.06	314	eP	47	12.31	-6.0
CKL	6.09	313	iP	47	12.53	-6.2
NCG	6.14	315	eP	47	13.64	-5.8
BGL	6.15	313	eP	47	13.80	-5.8
SKT	6.29	321	eP	47	14.67	-6.8
YKA	15.08	58	eP	49	15.30	-5.6
0.8s 0.90nm 3.2mb						
29 obs. associated						

* APR 20, 1990 04h 15m 34.99±0.73s
54.500 N ±13.7km 161.521 E ±10.2km
DEPTH = 33.0km (normal)
4.3mb (12 obs.)

NEAR EAST COAST OF KAMCHATKA (218)

IMA	24.43	44	eP	20	51.30	-0.2
1.0s 7.50nm 4.2mb						
BRW	24.60	31	eP	20	53.00	0.2
FBA	26.84	47	P	21	12.30	-1.5
0.6s 4.19nm 4.2mb						
YKA	41.56	44	eP	23	20.00	-0.5
0.5s 3.00nm 4.3mb						
KVN	54.16	71	P	24	59.80	0.6
TNP	55.33	72	P	25	08.30	0.5
0.7s 4.07nm 4.6mb						
BW06	56.10	62	P	25	13.00	-0.4
0.7s 1.46nm 4.1mb						
DUG	56.23	67	P	25	15.40	1.2
0.6s 1.85nm 4.3mb						
DAU	56.90	66	P	25	19.80	0.6
RSSD	57.93	58	P	25	25.80	-0.5
SUF	58.02	338	eP	25	27.00	0.7
0.5s 5.50nm 4.9mb						
NUR	60.32	337	eP	25	43.00	0.8
NB2	62.42	344	P	25	56.50	0.0
0.7s 2.50nm 4.5mb						
HFS	62.86	343	eP	25	58.60	-0.8
0.5s 3.50nm 4.7mb						
ALO	63.50	67	eP	26	04.00	-0.2
1.0s 2.00nm 4.2mb						
GBA	75.62	273	P	27	23.00	4.7X
0.4s 0.70nm 4.0mb						
ASPA	81.39	205	eP	27	48.90	-0.7
0.4s 3.00nm 4.7mb						

S.D. = 0.8 on 16 of 17 obs.

APR 20, 1990 04h 56m 49.36±0.82s
41.190 N ±8.1km 20.085 E ±9.7km
DEPTH = 10.0km (geophysicist)

ALBANIA (391)

ML 2.7 (SKO), 2.5 (TTG).

TIR	0.23	314	iPg	56	52.00	-2.2
BERA	0.50	192	ePg	56	58.00	-1.4
OHR	0.55	98	iPg	56	59.30	-1.1
iSg 57 09.20						
KBN	0.79	135	ePg	57	05.80	1.1
ULC	0.99	321	ePg	57	09.00	0.8
eSg 57 22.50						
TTG	1.38	334	ePg	57	15.00	0.4
eSg 57 33.50						
PVY	1.41	357	ePg	57	13.20	-1.9
eSg 57 32.00						
NKY	1.81	334	ePn	57	21.50	0.6
eSn 57 44.00						

S.D. = 1.6 on 8 of 8 obs.

% APR 20, 1990 05h 36m 05.66±0.90s
39.643 N ±7.6km 27.748 E ±9.1km
DEPTH = 10.0km (geophysicist)

TURKEY (366)						
EDC	0.71	7	iPg	36	18.00	-1.6
eSg 36 27.00						
BNT	0.72	10	iPg	36	19.50	-0.4
KCT	0.77	38	iPg	36	21.00	0.4
KGT	0.88	337	iPg	36	22.00	-0.5
iSg 36 32.00						
EZN	1.11	280	iPg	36	27.60	1.1
iSg 36 41.60						
IZM	1.30	197	ePn	36	29.00	-0.8
YLV	1.55	53	iPn	36	34.00	0.6
CTT	1.59	19	iPn	36	35.10	1.2

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

APR 20, 1990 06h 07m 26.68±1.00s
37.646 N ±9.0km 20.608 E ±7.6km
DEPTH = 26.8 ± 6.7 km
3.4mb (3 obs.)

IONIAN SEA (399)

ML 3.9 (THE), 3.8 (ATH).

VLS	0.53	358	ePg	07	35.70	-1.7
ITM	1.15	114	ePb	07	48.60	1.5
IGT	1.90	354	ePn	07	58.00	0.2
eSn 08 26.30						
AGG	1.93	44	ePn	07	58.10	-0.2
eSn 08 24.50						
VLI	2.08	116	ePb	08	05.00	4.6X
KEK	2.16	343	ePb	08	04.00	2.4
ATH	2.48	82	ePg	08	12.00	5.8X
NEO	2.64	50	ePn	08	08.00	-0.4
LIT	2.86	30	ePn	08	12.20	0.7
eSn 08 43.90						
KBN	2.98	3	ePn	08	16.60	3.5X
FNA	3.19	11	ePn	08	16.80	0.5
PAIG	3.31	46	ePn	08	17.10	-0.8
OHR	3.46	2	ePn	08	24.20	4.0X
eSg 09 17.00						
Lg 09 23.20						
LR 09 30.50						
VAM	3.65	127	ePn	08	23.00	0.2
TIR	3.74	351	ePn	08	25.20	1.2
CZI	3.85	295	P	08	28.40	2.9X
VAY	3.97	22	iPn	08	29.00	1.7
i 08 42.50						
MEU	4.56	265	P	08	33.30	-2.4
eSn 09 27.70						
MMB	4.62	30	iPd	08	36.00	-0.5
KKB	4.63	24	eP	08	35.00	-1.6
MGR	4.66	304	P	08	39.30	2.2
eSg 09 21.10						
SGO	5.04	307	P	08	44.00	1.5
eSg 09 24.50						
RZN	5.13	37	iPd	08	43.00	-0.9
VOY	9.76	331	e(P)	09	46.20	-2.2
eS 11 32.60						
HFS	22.94	351	eP	12	28.60	-0.8
0.4s 2.00nm 4.0mb						
NB2	24.15	349	P	12	41.60	0.3
0.6s 0.50nm 3.2mb						
YKA	73.91	340	eP	18	59.70	-1.0
0.4s 0.10nm 3.2mb						

S.D. = 1.5 on 22 of 27 obs.

* APR 20, 1990 07h 01m 22.55±0.92s
36.195 N ±10.9km 27.188 E ±7.7km
DEPTH = 10.0km (geophysicist)

4.7mb (1 obs.)

DODECANESE ISLANDS (369)

ML 4.1 (ATH).						
SMG	1.54	350	ePb	01	49.00	-1.0
CIN	1.58	27	eP	01	50.00	-0.6
APE	1.59	304	ePg	01	52.00	1.1
KSL	1.94	92	ePb	01	56.60	0.7
IZM	2.20	2	ePn	02	03.00	3.3X
ELL	2.26	75	ePn	02	02.00	1.3
VAM	2.55	253	ePn	02	04.10	-0.6
KHL	2.82	41	ePn	02	11.00	2.4
BCK	3.01	64	ePn	02	14.00	2.8X
ATH	3.29	304	ePg	02	24.50	9.3X
VLI	3.47	280	ePn	02	18.50	0.9
BNT	4.19	8	ePn	02	26.00	-2.0
ITM	4.34	285	ePn	02	31.40	1.3
YLV	4.69	21	ePn	02	33.00	-2.1
KHC	16.32	327	eP	05	14.00	0.8

BCAO	32.60	196	ePc	07	54.10	-2.3
0.5s 5.00nm 4.7mb						

S.D. = 1.7 on 13 of 16 obs.

* APR 20, 1990 07h 05m 56.41±2.67s
44.078 N ±15.6km 127.166 W ±16.3km
DEPTH = 10.0km (geophysicist)

2.5mb (1 obs.)

OFF COAST OF OREGON (30)

KMOR	3.04	58	P	06	44.96	-0.6
NLO	3.31	51	P	06	49.41	0.0
PGO	3.63	66	P	06	54.05	0.2
BMW	3.67	48	P	06	53.93	-0.6
ONR	3.68	39	P	06	54.16	-0.4
RVW	3.75	55	P	06	55.77	0.1
LVP	3.91	58	P	06	58.20	0.2
VLMM	3.93	66	P	06	58.13	0.0
FL2	4.01	56	P	06	59.81	0.5
MTMW	4.01	59	P	06	59.46	0.1
TDH	4.02	71	P	06	59.29	-0.2
CZM	4.05	53	P	06	59.39	-0.4
CPW	4.05	43	P	06	59.30	-0.5
ERK	4.07	55	P	07	00.04	-0.2
SHW	4.08	57	P	07	00.83	0.5
APW	4.09	49	P	07	00.21	-0.2
HSR	4.10	58	P	07	01.37	0.7
JLK	4.11	58	P	07	00.95	0.3
STD	4.11	57	P	07	01.00	0.3
REMW	4.11	57	P	07	02.20	1.3
ESD	4.13	57	P	07	01.91	0.8
VLL	4.15	69	P	07	01.38	0.2
COFW	4.16	59	P	07	01.67	0.3
SOSW	4.16	57	P	07	01.91	0.5
TDL	4.17	55	P	07	01.76	0.1
OOW	4.21	29	P	07	01.29	-0.7
APM	4.23	65	P	07	02.55	0.1
KOSW	4.24	54	P	07	02.72	0.1
VFP	4.25	71	P	07	02.66	-0

VGB	81.60	45 P	28 49.00	0.0
ORV	82.38	51 P	28 52.20	-0.9
ARN	82.85	53 P	28 55.20	-0.4
NEW	83.40	42 P	28 58.00	-0.2
BCH	84.49	55 P	29 04.50	0.5
KVN	85.06	51 P	29 06.90	0.0
ABL	85.26	55 P	29 08.50	0.5
ISA	85.65	54 eP	29 09.00	-0.7
KEV	85.82	342 iP	29 16.60	6.8X
TNP	85.99	52 P	29 10.40	-1.1
CLC	86.30	54 eP	29 13.00	0.1
MWC	86.35	56 eP	29 13.00	-0.3
SBB	86.42	55 eP	29 13.00	-0.5
SES	86.59	39 ePc	29 14.30	0.3
RVR	86.96	56 eP	29 16.00	0.0
GSC	87.06	54 eP	29 17.00	0.4
LRM	87.15	43 eP	29 17.60	0.5
PEC	87.16	56 P	29 17.20	0.2
SOD	87.23	340 iP	29 22.70	6.0X
PLM	87.55	56 P	29 20.00	0.9
BAR	87.88	57 eP	29 21.00	0.5
DUG	88.65	49 P	29 26.00	1.8
GLA	89.27	56 P	29 27.80	0.7
DAU	89.71	48 P	29 30.60	1.2
SUF	89.94	337 iP	29 35.80	6.2X
FFC	90.05	33 eP	29 31.00	0.8
NUR	91.78	335 eP	29 42.00	4.0X
RSSD	93.33	43 P	29 45.50	-0.4
NB2	96.43	340 P	30 05.20	5.7X
KIC	144.45	304 PKP	36 05.30	-2.1
TIC	144.50	305 PKP	36 05.30	-2.2
LIC	144.76	304 PKP	36 06.20	-1.7
ZOBO	146.79	97 PKP	36 08.30	-3.7X
LPB	146.82	98 PKP	36 09.00	-2.8
SIV	153.56	96 PKP	36 23.80	2.3
S.D. = 1.0 on 43 of 50 obs.				
APR 20, 1990 08h 51m 35.01 ± 0.19s 24.182 S ± 3.4km 179.655 W ± 4.4km DEPTH = 474.2km (4 depth phases) 5.2mb (28 obs.) SOUTH OF FIJI ISLANDS (171)				
RAO	5.28	163 iP	53 05.00	0.9
SVA	6.29	343 iPc	53 14.60	0.5
VUN	6.39	344 iP	53 14.90	-0.3
OVA	6.62	347 iP	53 18.20	0.6
KRO	6.89	352 iP	53 20.10	-0.3
SGE	6.94	341 iP	53 21.80	0.8
NDF	6.94	337 ePc	53 20.20	-0.6
TVI	7.23	357 iP	53 24.00	0.0
NDE	7.62	353 eP	53 27.50	-0.6
DZM	12.96	277 iPc	54 28.00	2.6
HBZ	13.49	187 P	54 28.30	-2.4
PUZ	13.96	187 P	54 34.90	-0.8
WLZ	14.21	196 P	54 39.90	1.7
PGZ	16.74	191 P	55 02.10	-1.7
MNG	16.89	193 P	55 03.90	-1.4
KIW	17.25	194 P	55 09.30	0.5
CAW	17.45	193 P	55 10.50	-0.3
BLW	17.62	192 P	55 13.00	0.6
WEL	17.68	194 P	55 12.60	-0.5
TCW	17.73	195 P	55 11.80	-1.7
MSZ	22.81	203 P	56 03.90	2.4
BRS	25.01	257 iPc	56 23.10	1.5
COO	26.01	250 eP	56 32.00	1.4
RMO	28.61	259 iPd	56 54.70	1.4
CAN	29.28	240 iPd	57 00.30	1.2
BWA	29.54	242 iPd	57 00.70	-0.8
CMS	31.28	249 iPd	57 17.60	1.2
CTA	31.79	271 iPd	57 21.80	1.0
TOO	32.56	238 iPd	57 28.70	1.5
PMG	34.89	289 iPd	57 46.70	-0.1
ADE	37.54	244 iPd	58 09.60	1.0
QIS	37.75	267 iPd	58 10.50	0.0
ASPA	42.30	261 iPd	58 47.70	0.3
WB5	42.69	266 iPd	58 50.20	-0.3
WRA	42.70	266 Pd	58 49.50	-1.0
MTN	47.79	274 iPd	59 29.00	-1.0
WARB	48.35	256 iPd	59 33.70	-0.5
KNA	48.97	270 iPd	59 38.40	-0.6
GUA	51.03	314 eP	59 52.50	-1.6
GUMO	51.09	314 eP	59 53.40	-1.2
PJG	51.09	314 eP	59 53.30	-1.3

20d 09h

PLRM 0.47 206 iP 19 47.58 -0.7
 PWA 0.66 238 iPd 19 50.70 -0.2
 CUT 0.84 299 iP 19 52.57 -0.7
 PMS 0.87 209 iPd 19 53.50 -0.3
 NCA 0.89 90 iP 19 53.14 -0.9
 HUR 1.07 336 iP 19 55.56 -0.9
 SUA 1.12 242 iP 19 57.11 -0.2
 TOA 1.19 84 iPc 19 58.20 -0.1
 SKT 1.34 270 iP 19 59.67 -0.6
 GLI 1.37 145 iP 20 00.23 -0.5
 VZW 1.40 132 iP 20 00.39 -0.9
 RND 1.40 357 iP 20 00.36 -0.9
 KLU 1.42 110 iP 20 00.59 -0.9
 SDG 1.57 69 eP 20 03.23 -0.3
 SLKM 1.68 207 iP 20 05.36 0.3
 CGLM 1.73 247 iP 20 06.26 0.4
 MCK 1.73 357 iP 20 05.47 -0.4
 NCG 1.75 251 eP 20 06.28 0.0
 NKA 1.76 225 eP 20 08.60 2.3
 PAX 1.78 56 iP 20 06.60 -0.1
 SPU 1.81 244 iP 20 07.28 0.3
 CRP 1.81 247 iP 20 07.73 0.6
 KTH 1.86 328 iP 20 07.03 -0.7
 BGL 1.91 249 iP 20 09.56 1.0
 CKL 1.92 246 iP 20 08.77 0.1
 SEW 1.95 191 iP 20 09.53 0.7
 DDM 2.21 35 iP 20 13.75 1.1
 RDT 2.30 233 iP 20 14.39 0.5
 >NNL 2.34 214 iP 20 16.91 2.4
 GLB 2.40 102 iP 20 14.54 -0.8
 DMW 2.46 32 eP 20 17.05 0.8
 WRH 2.49 6 iP 20 15.24 -1.4
 HDA 2.53 17 iP 20 16.31 -1.0
 RED 2.53 233 eP 20 17.66 0.3
 NEA 2.58 356 eP 20 16.28 -1.7
 CCB 2.68 8 iP 20 20.12 0.8
 DOT 2.69 50 eP 20 18.86 -0.7
 CNPM 2.78 208 iP 20 21.28 0.4
 RDS 2.84 5 iP 20 20.10 -1.6
 FBA 2.93 8 ePd 20 21.30 -1.7
 GLM 3.05 11 eP 20 23.10 -1.6
 TGL 3.09 111 iP 20 23.74 -1.6
 SVW 3.43 258 eP 20 28.50 -1.6
 PDB 3.49 233 eP 20 32.39 1.6
 TTA 3.52 288 eP 20 29.30 -2.0
 CDD 3.94 221 iP 20 36.58 -0.7
 IMA 4.62 334 eP 20 44.90 -2.1
 KDC 4.68 206 e(P) 20 49.20 1.6
 DWY 4.69 60 P 20 46.60 -1.2

52 obs. associated

? APR 20, 1990 11h 19m 39.88±1.32s
 39.096 N ± 8.3km 27.692 E ± 16.1km
 DEPTH = 10.0km (geophysicist)
 TURKEY (366)

IZM 0.77 206 ePg 19 55.00 0.0
 EDC 1.26 6 ePn 20 03.00 -0.2
 BNT 1.27 8 iPn 20 03.70 0.2
 EZN 1.29 305 iPn 20 03.70 0.0
 S.D. = 0.3 on 4 of 4 obs.

* APR 20, 1990 11h 51m 48.53±0.56s

1.058 N ± 7.2km 124.083 E ± 12.0km
 DEPTH = 33.0km (normal)
 4.8mb (8 obs.) 4.3msz (1 obs.)
 MINAHASSA PENINSULA (265)

DAV 6.17 14 eP 53 19.10 -0.7
 MKS 7.75 216 iPc 53 44.50 2.5
 MTN 15.48 153 eP 55 27.00 0.8
 BAG 15.64 347 eP 55 30.70 2.2
 KNA 17.33 165 eP 55 50.50 0.9
 MBL 22.47 190 eP 56 45.50 -0.9
 WB5 23.12 155 eP 56 52.90 0.0
 WRA 23.17 155 Pc 56 51.10 -2.2
 0.6s 43.60nm 5.1mb
 IPM 23.29 279 ePd 56 55.90 1.4
 PJG 24.05 58 eP 57 10.00 8.2X
 SNG 24.17 285 eP 57 05.70 2.7X
 NANU 24.91 199 eP 57 09.00 -1.1
 PMG 25.22 115 eP 57 14.00 0.9
 QIS 26.32 146 iPc 57 23.60 0.3
 ASPA 26.36 159 iPd 57 24.00 0.3
 0.6s 24.00nm 5.0mb
 WARB 27.19 175 eP 57 31.00 -0.3
 CHG 30.32 307 eP 58 05.50 6.0X
 MUN 33.69 192 eP 58 27.00 -1.8
 NWA0 34.41 190 eP 58 33.00 -2.0
 0.6s 7.00nm 4.8mb
 MAT 37.65 19 (P) 58 52.00 -10.4X
 ADE 38.36 160 ePc 59 09.30 0.9
 0.8s 40.30nm 5.3mb
 BJI 39.46 350 eP 59 16.50 -1.0
 1.4s 13.00nm 4.5mb
 LZH 39.59 334 Pd 59 18.00 -0.8
 1.5s 66.00nm 5.2mb
 Z 18s 0.40um 4.3msz
 E 12s 0.30um
 BWA 42.03 149 eP 59 41.90 3.2X
 CAN 43.03 150 eP 59 48.80 1.9
 HYB 47.61 293 eP 00 22.50 -1.2
 GBA 47.81 287 P 00 33.00 7.8X
 0.7s 2.40nm 4.3mb
 YKA 103.00 24 ePd iff 05 53.50 8.6X
 1.2s 0.70nm 4.3mb
 S.D. = 1.5 on 21 of 28 obs.

? APR 20, 1990 12h 26m 39.53±4.38s
 46.272 N ± 22.9km 2.002 W ± 34.0km
 DEPTH = 10.0km (geophysicist)
 BAY OF BISCAY (539)
 ML 2.9 (LDG).

MFF 1.33 75 Pg 27 05.60 1.6
 LPF 1.88 20 Pg 27 10.50 -1.4
 GRR 2.26 20 Pg 27 16.50 -0.9
 LFF 2.34 124 Pg 27 26.80 8.2X
 LSF 2.45 89 Pg 27 26.70 6.5X
 LOF 2.65 28 Pg 27 24.00 1.0
 FLN 2.70 22 Pg 27 25.60 1.9
 TCF 2.92 88 Pn 27 26.50 -0.4
 CAF 3.16 114 Pn 27 31.40 1.2
 MAF 3.17 89 Pn 27 30.40 0.0
 BGF 3.37 83 Pn 27 31.70 -1.5
 AVF 3.73 80 Pn 27 37.00 -1.4
 S.D. = 1.5 on 10 of 12 obs.

% APR 20, 1990 12h 34m 00.89±0.65s
 42.030 N ± 4.9km 12.853 E ± 6.0km
 DEPTH = 10.0km (geophysicist)
 CENTRAL ITALY (381)

RMP 0.25 207 P 34 06.30 0.2
 RDP 0.29 201 P 34 07.00 0.0
 eSg 34 12.60

MNS 0.38 340 P 34 08.90 0.3
 AZI 0.44 95 P 34 09.00 -0.8
 eSg 34 16.00
 AQU 0.52 51 P 34 12.30 0.8
 SDI 0.79 114 P 34 16.50 0.2
 ASS 1.05 352 P 34 20.00 -0.7
 S.D. = 0.7 on 7 of 7 obs.

% APR 20, 1990 12h 57m 19.55±0.82s
 42.124 N ± 8.2km 24.466 E ± 7.5km
 DEPTH = 10.0km (geophysicist)
 BULGARIA (359)

PLD 0.18 96 iPgc 57 24.00 0.5
 RZN 0.47 157 iPgc 57 29.00 -0.2
 PGB 0.48 333 iPgc 57 28.00 -1.3
 MMB 0.77 226 iPg 57 34.00 -0.6
 KDZ 0.85 123 iP 57 36.00 0.0
 VTS 1.04 297 ePg 57 41.00 1.7
 S.D. = 1.3 on 6 of 6 obs.

? APR 20, 1990 13h 05m 40.91±4.27s
 37.020 N ± 48.5km 49.116 E ± 10.7km
 DEPTH = 10.0km (geophysicist)
 CASPIAN SEA (338)

IR7 1.78 137 iPc 06 11.50 -0.6
 IR2 1.98 133 iPc 06 14.50 -0.4
 IR5 2.16 146 eP 06 16.70 -0.8
 TEH 2.23 124 eP 06 21.00 2.4
 IR4 2.29 140 iPc 06 19.00 -0.5
 KER 3.12 212 eP 06 33.00 1.8
 SLY 3.25 245 iP 06 32.00 -0.8
 iS 07 15.00
 S.D. = 1.6 on 7 of 7 obs.

APR 20, 1990 15h 07m 31.83±0.73s
 38.846 N ± 6.5km 22.012 E ± 7.2km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 ML 3.1 (ATH).

AGG 0.30 55 ePg 07 38.20 0.0
 eSg 17 45.30
 NEO 1.05 64 ePn 07 51.60 0.0
 LIT 1.31 16 ePb 07 55.40 -0.6
 eSb 08 14.90
 IGT 1.47 298 ePb 07 56.10 -2.3
 eSb 08 18.70
 ATH 1.60 123 ePb 08 02.00 1.8
 ITM 1.66 182 ePn 08 02.00 0.8
 LSK 1.70 320 iPn 08 00.40 -1.4
 KEK 1.92 297 ePn 08 06.10 1.2
 FNA 2.00 346 ePn 08 05.50 -0.5
 eSn 08 31.60
 OUR 2.13 45 ePn 08 07.00 -0.8
 eSn 08 35.30
 SOH 2.23 27 ePn 08 08.90 -0.5
 eSn 08 38.00
 VLI 2.25 161 ePn 08 08.00 -1.6
 BERA 2.44 320 ePn 08 17.60 5.3X
 OHR 2.45 338 ePn 08 14.30 1.8
 VAY 2.51 10 ePn 08 14.30 1.0
 SRS 2.57 28 ePn 08 13.00 -1.2
 eSn 08 43.60
 TIR 2.99 327 ePn 08 29.00 8.9X
 MMB 3.04 25 iPc 08 20.00 -0.8
 KKB 3.13 15 eP 08 21.00 -1.1
 SKO 3.15 352 ePn 08 25.00 2.6
 RZN 3.51 35 iPc 08 27.00 -0.7
 VTS 3.85 13 eP 08 35.00 2.5
 S.D. = 1.5 on 20 of 22 obs.

APR 20, 1990 15h 18m 50.94±0.97s
 44.388 N ± 6.8km 7.396 E ± 6.0km
 DEPTH = 5.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.0 (LDG), 1.9 (GEN).

STV 0.15 200 P 18 54.09 -0.1
 S 18 56.18
 ENR 0.16 174 P 18 54.09 -0.3
 S 18 56.35
 PZZ 0.24 299 P 18 55.73 -0.2
 S 18 59.42
 ROB 0.35 105 P 18 58.19 0.1
 S 19 03.22

20d 15h

SBF 0.53 177 Pg 19 01.40 -0.1
 FRF 0.99 213 Pg 19 09.20 -0.9
 Sg 19 25.40
 LRG 1.20 219 Pg 19 14.60 0.9
 Sg 19 31.00
 LMR 1.23 212 Pg 19 14.80 0.5
 Sg 19 32.00
 S.D. = 0.6 on 8 of 8 obs.

? APR 20, 1990 15h 34m 05.42±2.65s
 24.736 N ±18.0km 122.890 E ±39.9km
 DEPTH = 93.4 ± 33.5 km
 3.8mb (1 obs.)

TAIWAN REGION (243)

TWC 0.96 263 iPd 34 25.30 0.2
 eS 34 37.40
 TWZ 1.24 287 iPc 34 28.60 0.1
 eS 34 44.00
 ANP 1.32 290 eP 34 29.50 -0.1
 eS 34 46.00
 TWD 1.35 241 ePc 34 29.50 -0.3
 TWC 1.93 257 iPd 34 37.20 -0.1
 TWK 2.64 237 ePc 34 47.20 0.2
 WRA 45.79 165 Pc 42 19.50 0.0
 0.5s 0.70nm 3.8mb
 S.D. = 0.3 on 7 of 7 obs.

? APR 20, 1990 17h 50m 10.23±1.98s
 23.371 N ± 8.5km 120.900 E ±18.4km
 DEPTH = 10.0km (geophysicist)

TAIWAN (244)

TWF1 0.37 93 iPd 50 17.70 0.0
 eS 50 22.00
 TWG 0.57 164 iPd 50 21.80 0.0
 eS 50 29.20
 TWD 0.95 42 eP 50 28.50 0.2
 TWC 1.51 35 ePc 50 37.10 -0.2
 S.D. = 0.2 on 4 of 4 obs.

APR 20, 1990 17h 56m 50.81±0.39s
 1.365 N ± 5.9km 123.404 E ± 7.9km
 DEPTH = 33.0km (normal)
 4.8mb (6 obs.) 4.5msz (7 obs.)

MINAHASSA PENINSULA (265)

TSM 6.03 298 ePd 58 19.00 -1.2
 DAV 6.08 21 eP 58 20.00 -0.8
 MKS 7.63 211 ePc 58 44.00 1.5
 KKM 8.55 303 ePd 58 57.00 1.6
 PPR 9.56 331 iPd 59 08.00 -1.3
 BAG 15.21 350 eP 00 24.00 -1.1
 CVP 16.31 355 ePd 00 43.00 3.9X
 1.0s 116.00nm 5.0mb
 KNA 17.81 163 eP 00 57.00 -0.9
 IPM 22.57 279 ePd 01 51.90 2.1
 MBL 22.66 189 eP 01 48.30 -2.3
 HKC 22.67 337 iP 01 54.00 3.4X
 iS 05 57.00

WB5 23.69 154 eP 02 00.30 -0.4
 WRA 23.74 154 Pd 02 01.60 0.5
 0.7s 11.70nm 4.5mb
 ANP 23.75 356 eP 02 10.00 8.8X
 GUMO 24.46 59 eP 02 10.00 1.8

Z 22s 0.79um 4.2msz
 NANU 24.99 197 eP 02 11.00 -2.1
 PMG 25.96 115 eP 02 23.00 0.6
 LOE 26.61 308 eP 02 28.20 -0.1
 ASPA 26.89 158 eP 02 30.50 -0.4
 0.9s 11.00nm 4.5mb
 Z 18s 1.53um 4.6msz

eS 07 35.20
 LR 18 13.70
 QIS 26.95 145 iPc 02 31.00 -0.4
 CHG 29.59 307 eP 03 08.50 13.2X
 SSE 29.64 356 eP 03 00.00 4.4X

Z 20s 1.00um 4.4msz
 N 14s 0.70um
 S 07 50.00

KMI 30.92 321 Pc+ 03 07.00 -0.2
 2.5s 0.07nm 2.0mb X
 Z 16s 1.80um 4.8msz X
 N 15s 0.90um
 E 15s 0.80um

sP 03 27.00
 S 08 15.00

NWAO 34.60 189 eP 03 38.00 -0.9
 Z 20s 0.70um 4.4msz
 MAT 37.59 20 (P) 04 03.00 -1.1
 Z 20s 0.71um 4.5msz
 eS 09 52.00
 LZH 39.02 334 P 04 16.20 -0.1
 2.5s 80.00nm 5.0mb
 Z 18s 1.50um 4.9msz
 E 15s 0.90um

pP 04 22.50 21kmX
 i 04 34.50
 PP 05 49.00
 PPP 06 06.50
 S 10 14.00
 sS 10 27.00
 SS 13 07.00
 BJI 39.05 351 eP 04 16.00 -0.3
 1.5s 1.60nm 3.6mb X
 Z 20s 0.90um 4.6msz

eS 10 10.00
 BWA 42.64 149 eP 04 46.20 0.2
 CAN 43.64 149 eP 04 56.00 1.9
 GUN 44.55 310 P 05 00.00 -1.2
 0.8s 42.00nm 5.3mb

PKI 44.74 309 P 05 06.00 2.5
 KKN 44.95 309 P 05 05.60 0.5
 DMN 45.00 309 P 05 05.80 0.3
 HYB 46.87 293 eP 05 21.00 0.9
 GBA 47.07 287 Pc 05 19.30 -2.3

0.3s 2.80nm 4.7mb
 MAIO 68.34 309 eP 07 52.00 0.6
 PEL 145.73 159 ePKP 16 29.00 0.7
 1.2s 31.25nm

i 16 37.50
 ZOBO 161.34 143 ePKP 16 52.00 1.4
 S.D. = 1.3 on 33 of 38 obs.

APR 20, 1990 18h 23m 29.92±0.25s
 14.859 S ± 5.6km 71.374 W ± 7.4km
 DEPTH = 144.1km (11 depth phases)
 5.1mb (19 obs.)

PERU (116)
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 13S, 22C
 Centroid Location:
 Origin Time 18:23:35.5 0.7
 Lat 14.69S 0.10 Lon 71.33W 0.10
 Dep 152.1 3.9 Half-duration 1.6
 Moment Tensor: Scale 10**16 Nm
 Mrr=-6.55 0.70 Mtt=-2.15 0.90
 Mff= 8.70 0.93 Mrt= 2.89 0.60
 Mrf=-6.57 0.70 Mtf=-5.88 1.04

Principal Axes:
 T Vol= 13.81 Plg=19 Azm= 66
 N -4.72 0 336
 P -9.08 71 246
 Best Double Couple: Mo=1.1*10**17
 NP1: Strike=157 Dip=26 Slip= -90
 NP2: 336 64 -90

ARE 1.60 184 iPd 23 58.00 -2.0
 eS 24 23.00
 ZOBO 3.43 115 iPc 24 26.00 2.2
 LPB 3.57 118 iPc 24 28.00 2.5
 1.2s 1468.75nm

CCH 5.62 117 iPc 24 54.10 1.3
 ANT 8.85 174 eP 25 31.00 -4.8X
 SIV 10.00 98 iP 25 48.60 -2.6
 VCI 15.74 333 eP 27 06.90 1.2
 CAYA 16.22 336 eP 27 12.00 0.5
 GGP 16.24 333 eP 27 15.40 3.5X

COTA 16.59 335 eP 27 18.50 2.4
 RTCB 16.72 172 eP 27 16.00 -1.1
 PSD 17.00 339 eP 27 22.00 1.0
 PEL 18.21 178 iPd 27 32.50 -2.2
 i(S) 28 28.60

TACH 18.72 179 ePd 27 37.50 -2.5
 CHCH 19.00 178 eP 27 44.00 0.9
 LNV 19.01 180 eP 27 40.90 -2.2
 BMG 21.85 355 eP 28 12.00 0.0
 BAO 22.57 95 eP 28 19.00 0.0

UPA 25.03 341 eP 28 45.50 3.2X
 JSC 49.76 349 P 32 08.50 -1.1
 PRM 49.78 348 P 32 09.00 -0.7
 TKL 51.59 347 P 32 22.00 -1.5
 GBTN 51.70 347 P 32 22.60 -1.7

RSCP 51.95 345 P 32 25.00 -1.2
 pP 32 57.00 138km
 PWLA 52.04 343 P 32 25.00 -1.8
 BLA 52.49 351 P 32 29.60 -0.5
 0.5s 20.62nm 5.2mb
 CVL 52.98 353 P 32 32.60 -1.0
 UYO 53.48 336 iPc 32 36.50 -0.9
 OLY 53.58 340 P 32 35.40 -2.8
 FVM 55.52 342 P 32 50.60 -1.6
 pP 33 24.80 147km

TUL 55.53 336 eP 32 51.70 -0.6
 0.7s 26.90nm 5.3mb
 Z 21s 0.26um 4.3msz

MEO 55.73 333 e(P) 32 52.00 -1.8
 CLE 56.84 351 iP 33 01.00 -0.5
 RSNY 59.19 357 P 33 22.00 4.2X
 ALO 59.68 327 eP 33 20.30 -1.3
 0.8s 14.74nm 5.0mb

e 33 55.00 146km
 ANMO 59.68 327 P 33 20.60 -1.0
 0.7s 9.85nm 4.9mb
 GOL 62.85 331 P 33 42.20 -0.6
 0.7s 11.53nm 4.9mb

GLA 63.18 320 eP 33 45.00 0.1
 e 34 19.00 142km
 BAR 64.11 318 eP 33 51.00 0.1
 e 34 26.00 146km

TPC 64.64 320 eP 33 55.00 0.6
 e 34 29.00 141km
 PLM 64.66 319 eP 33 55.00 0.3
 RSSD 65.82 335 P 34 01.60 -0.4
 GSC 65.89 320 eP 34 03.00 0.6

e 34 38.00 145km
 MWC 65.98 319 eP 34 03.00 -0.2
 PAS 66.01 319 eP 34 03.00 -0.1
 SBB 66.13 319 eP 34 03.00 -0.9
 DAU 66.30 328 P 34 05.00 -0.2

CLC 66.72 320 eP 34 07.00 -0.6
 e 34 43.00 149km
 ABL 67.12 319 P 34 10.00 -0.4
 ISA 67.16 320 eP 34 12.00 1.5

BW06 67.22 330 P 34 09.60 -1.3
 BCH 67.88 318 P 34 16.00 1.0
 TNP 67.97 322 P 34 15.00 -0.6
 0.8s 13.24nm 4.8mb

RSON 68.30 345 P 34 15.70 -1.4
 0.8s 24.04nm 5.1mb
 pP 34 50.00 141km

IMW 68.73 330 P 34 20.00 -0.3
 FRI 68.78 320 e(P) 34 20.30 0.0
 PRI 68.85 319 eP 34 21.50 0.6
 KVN 69.13 323 P 34 22.00 -0.7
 pP 34 57.70 147km

LLA 69.32 319 ePd 34 23.60 -0.1
 KIC 69.32 77 P 34 21.60 -2.5
 PRS 69.41 319 eP 34 24.80 0.6
 SCH 69.51 3 eP 34 24.00 -0.4

CMB 69.85 321 ePd 34 27.00 0.1
 ARN 70.14 319 P 34 29.60 0.9
 MHC 70.20 319 eP 34 29.90 0.7
 GCC 70.24 319 ePd 34 29.30 0.1
 LRM 70.88 331 eP 34 34.00 0.7

BKS 70.90 319 eP 34 34.40 1.2
 0.9s 33.00nm 5.2mb
 BRK 70.91 319 e(P) 34 33.40 0.1
 ORV 71.48 321 ePd 34 37.10 0.4

eP 35 12.60 145km
 esP 35 27.10
 WDC 72.74 322 ePd 34 42.60 -1.5
 RUV 73.02 258 iP 34 47.70 1.6
 1.1s 45.00nm 5.1mb

VAH 73.24 258 iP 34 48.90 1.5
 1.1s 50.00nm 5.2mb
 TPT 73.28 259 iP 34 49.40 1.7
 1.1s 85.00nm 5.4mb

PMO 73.54 258 iP 34 51.10 1.9
 1.1s 55.00nm 5.2mb
 FHC 73.75 321 eP 34 51.50 1.5
 FFC 74.02 342 eP 34 51.00 -0.2

0.8s 9.00nm 4.6mb
 NEW 74.85 330 P 34 56.30 0.1
 SPA 75.24 180 iPd 34 58.00 0.5
 1.0s 59.00nm 5.3mb

e 35 29.10 120kmX
 LON 76.20 327 P 35 03.50 -0.4
 PNT 76.78 330 ePc 35 08.00 1.1
 0.7s 10.00nm 4.7mb

20d 18h

EDM 76.78 336 iPc 35 07.00 0.1
0.8s 32.00nm 5.1mb
FRB 78.39 1 eP 35 15.00 -0.4
YKA 84.18 341 eP 35 45.70 0.0
0.9s 16.00nm 4.9mb
INK 93.93 341 eP 36 33.00 1.2
MBC 95.31 350 eP 36 39.00 1.0
0.7s 1.00nm 4.3mb
FBA 97.68 335 P 36 49.00 0.1
0.8s 6.90nm 5.2mb
MAIO 131.40 55 ePKP 42 29.00 1.8
MBL 142.55 197 ePKP 42 43.00 -5.1X
MTN 144.59 220 iPKPc 42 50.90 -0.8
0.7s 110.00nm
KAKJ 144.72 313 PKP 42 46.80 -4.6X
GUA 144.82 273 ePKP 42 49.30 -2.8
0.8s 131.34nm
GUMO 144.87 273 ePKP 42 48.50 -3.7X
0.8s 163.98nm
PJG 144.87 273 ePKP 42 48.60 -3.6X
NIIJ 145.02 315 PKP 42 51.20 -0.7
CHJJ 145.63 313 PKP 42 54.10 1.1
MAT 145.92 315 iPKPd 42 53.90 0.4
MTMJ 146.18 315 PKP 42 55.50 1.5
POO 146.52 79 iPKP 42 57.30 2.4
IIDJ 146.68 313 PKP 42 56.60 1.9
KOD 149.26 95 ePKP 43 06.00 6.3X
GBA 149.75 88 PKPd 43 05.80 5.8X
0.6s 23.20nm
HYB 151.01 81 ePKP 43 03.00 1.1
1.0s 40.00nm
e 43 09.00
e 43 48.00
BJI 154.06 347 ePKP 43 14.00 8.4X
0.8s 15.00nm
e 43 54.00
DMN 154.73 56 PKP 43 08.80 1.6
KKN 154.79 56 PKP 43 08.20 1.0
PKI 154.99 56 PKP 43 09.40 1.8
GUN 155.21 55 PKP 43 09.20 1.2
S.D. = 1.3 on 97 of 108 obs.

* APR 20, 1990 18h 25m 38.61 ± 3.44s
20.341 S ± 11.1km 177.526 W ± 8.9km
DEPTH = 362.2 ± 36.5 km
4.9mb (10 obs.)

FIJI ISLANDS REGION (181)

DZM 15.05 261 iPd 28 57.00 1.2
PUZ 18.05 191 eP 29 24.70 -1.9
NOZ 18.61 191 eP 29 33.00 0.8
MNG 21.08 195 eP 29 55.90 -0.3
0.2s 6.00nm 4.6mb
THZ 22.84 199 eP 30 13.40 0.4
KHZ 23.27 197 eP 30 16.40 -0.3
LTZ 23.97 199 eP 30 22.80 -0.5
CAN 32.97 236 eP 31 43.80 1.2
BWA 33.16 238 eP 31 42.50 -1.8
CTA 33.95 264 iPc 31 51.80 0.8
1.0s 70.00nm 4.9mb
i 31 55.00
TOO 36.35 234 iPd 32 12.70 1.7
ASPA 44.99 257 iPc 33 21.60 0.4
0.4s 75.00nm 5.3mb
iS 39 33.00
WB5 45.05 262 eP 33 21.00 -0.7
WRA 45.06 262 Pc 33 21.30 -0.5
0.5s 9.70nm 4.3mb
MTN 49.61 270 iPd 33 55.80 -0.9
KNA 51.09 266 eP 34 07.20 -0.6
WARB 51.30 252 iPc 34 09.30 0.1
0.4s 49.00nm 5.2mb
COOL 55.70 246 eP 34 40.00 -1.0
0.5s 6.00nm 4.3mb
VNDA 58.11 185 e(P) 34 57.10 0.1
MBL 58.23 257 iPc 34 58.30 -0.3
0.4s 37.00nm 5.2mb
NWA0 58.84 243 eP 35 03.00 0.4
1.0s 50.00nm 4.9mb
SPA 69.79 180 iPc 36 13.90 1.7
0.9s 50.91nm 5.2mb
PRS 77.40 43 ePc 36 56.00 0.1
FRI 78.86 44 e(P) 37 03.50 -0.3
CMB 79.05 43 ePc 37 05.50 0.7
ORV 79.27 41 eP 37 05.50 -0.4
WDC 79.27 39 ePc 37 05.90 0.0
PNT 86.28 34 eP 37 41.00 -0.1

0.4s 4.00nm 4.7mb
KHC 149.93 345 ePKP 44 47.50 5.2X
S.D. = 0.9 on 28 of 29 obs.

APR 20, 1990 19h 25m 34.19 ± 0.54s
29.695 N ± 9.2km 57.427 E ± 5.7km
DEPTH = 10.0km (geophysicist)
4.6mb (7 obs.)

SOUTHERN IRAN (353)
Felt at Kerman.

MAIO 6.81 14 iPd 27 17.50 0.8
1.0s 39.50nm 5.4mb
eS 28 52.00
BBU 7.07 242 iPn 27 18.70 -1.5
eSn 28 35.90
BJA 7.07 240 iPn 27 19.30 -0.9
eSn 28 37.40
BEE 7.13 241 iPn 27 19.90 -1.1
eSn 28 37.50
IR4 7.81 317 eP 27 30.00 -0.7
IR5 7.98 315 eP 27 33.00 -0.1
IR2 8.10 319 iPd 27 35.80 1.0
QUE 8.28 84 eP 27 39.00 1.7
eS 30 03.20
IR7 8.30 318 eP 27 35.00 -2.6
KER 9.91 301 e(P) 28 14.00 14.1X
NDI 17.31 88 eP 29 37.00 -0.5
HRI 18.83 286 e(P) 29 56.00 -0.4
DSI 19.06 281 e(P) 29 59.00 -0.1
PRNI 19.43 278 eP 30 05.00 1.3
MBH 19.58 276 e(P) 30 07.00 1.7
BBTK 22.59 303 eP 30 37.00 0.9
HYB 22.85 118 eP 30 45.00 6.2X
DMN 24.36 88 P 30 56.40 2.7
KKN 24.47 88 P 30 53.00 -1.8
PKI 24.63 88 P 30 55.00 -1.4
0.8s 13.00nm 4.6mb
GUN 24.97 87 P 30 58.20 -1.5
0.8s 21.00nm 4.9mb
KHC 38.39 313 P 32 56.80 -0.5
HFS 42.15 329 eP 33 28.70 0.6
0.5s 1.50nm 4.0mb
NB2 43.65 329 P 33 39.40 -0.9
0.8s 1.50nm 3.8mb
BCAO 44.51 243 ePc 33 48.70 0.8
0.6s 8.00nm 4.8mb
ic 33 51.30
KIC 62.74 261 P 36 04.20 2.1
TIC 62.84 262 P 36 05.00 2.2
YKA 87.91 356 eP 38 23.50 -1.4
0.8s 1.90nm 4.5mb
S.D. = 1.5 on 26 of 28 obs.

APR 20, 1990 20h 23m 01.82 ± 0.54s
32.771 N ± 6.4km 85.887 E ± 9.0km
DEPTH = 33.0km (normal)
4.3mb (6 obs.)

TIBET (306)

GUN 4.84 180 P 24 15.00 0.4
KKN 4.99 186 P 24 17.40 0.8
DMN 5.19 188 P 24 19.40 -0.1
0.4s 17.00nm 4.9mb X
PKI 5.20 185 P 24 19.80 0.1
0.4s 18.00nm 4.9mb X
NDI 8.50 244 eP 25 07.00 1.4
SHL 8.89 142 eP 25 11.50 0.4
eS 26 42.00
LZH 15.18 72 eP 26 42.50 6.9X
1.0s 16.00nm 4.2mb
Z 12s 0.50um 3.5msz
N 12s 1.10um
Lg 31 35.00
HYB 16.66 205 eP 26 52.50 -2.0
CHG 18.18 137 eP 27 18.00 4.6X
MAIO 22.00 287 eP 27 54.00 -0.9
BJI 25.35 65 eP 28 26.50 -0.8
SUF 47.64 327 iP 31 37.60 1.2
HFS 53.46 324 eP 32 21.40 0.7
0.9s 4.30nm 4.4mb
NB2 54.62 325 P 32 27.60 -1.6
0.9s 4.30nm 4.5mb
BCAO 68.60 261 iPd 34 03.30 -0.7
0.7s 9.00nm 5.0mb
WB5 69.91 131 eP 34 11.20 -0.6
WRA 69.94 131 Pd 34 12.10 0.1

0.6s 1.10nm 4.1mb
YKA 83.64 9 eP 35 29.50 1.6
0.8s 1.60nm 4.2mb
S.D. = 1.1 on 16 of 18 obs.

APR 20, 1990 20h 33m 38.07 ± 0.67s
13.241 N ± 7.0km 90.079 W ± 5.0km
DEPTH = 77.2 ± 4.3 km
5.0mb (30 obs.)

NEAR COAST OF GUATEMALA (71)
CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN
L.P.B.: 9S, 17C
Centroid Location:
Origin Time 20:33:43.1 2.1
Lat 13.36N 0.15 Lon 90.27W 0.17
Dep 24.8 7.6 Half-duration 1.6
Moment Tensor: Scale 10**16 Nm
Mrr= 6.26 1.07 Mtt=-7.72 0.79
Mrf=-1.47 1.64 Mrt= 2.74 3.03
Mrf=-7.14 3.10 Mtf= 4.78 0.99
Principal Axes:
T Vol= 11.41 Plg=54 Azm= 93
N 0.14 30 311
P -11.55 18 210
Best Double Couple: Mo=1.1*10**17
NP1: Strike=262 Dip=38 Slip= 34
NP2: 144 70 122

CUSS 0.68 11 iPc 33 52.70 -0.8
VSS 0.95 58 iPd 33 57.30 0.5
YPE 0.96 24 iPc 33 57.30 0.4
SJAS 0.98 64 iPc 33 57.00 -0.1
TME 1.04 42 iPc 33 58.70 0.9
LFU 1.07 62 iPd 33 59.20 1.1
QZA 1.09 75 iPc 33 57.80 -0.5
PCG 1.26 334 iPc 33 58.40 -2.5
REC 1.27 340 iPc 33 59.00 -1.8
GCG 1.41 342 ePc 34 01.00 -1.6
S 35 48.00
MMG 1.42 336 ePc 34 01.50 -1.3
SLP 1.51 352 iPc 34 04.50 0.6
BVA 1.52 339 iPc 34 03.00 -1.2
QZG 1.54 26 iPc 34 07.00 2.5
JAT 1.85 305 iPc 34 03.00 -5.4X
SBG 2.68 315 iPc 34 16.00 -4.2X
UPA 11.18 111 eP 36 16.00 -1.0

Z 18s 3.44um
PSO 17.40 132 eP 37 39.50 1.7
BOG 17.98 117 eP 37 47.00 2.2
eS 41 20.00
UYO 21.21 350 iPc 38 19.00 -0.3
HBF 21.51 23 P 38 25.00 2.7
SGS 21.70 22 P 38 26.30 2.2
PRM 21.90 17 P 38 28.20 2.0
OLY 22.20 357 eP 38 30.00 0.9
e 38 40.40
JSC 22.42 19 P 38 33.00 1.7
RSCP 22.63 10 P 38 35.00 1.6
LHS 22.75 20 P 38 36.00 1.5
MEO 22.79 342 eP 38 33.40 -1.5
GBTN 22.95 12 P 38 38.00 1.6
TKL 23.03 13 P 38 38.00 0.7
TUL 23.15 348 eP- 38 37.40 -1.0
0.9s 17.90nm 4.5mb
Z 18s 1.75um 4.6msz
eS 43 10.00
LR 45 00.00

BLA 25.39 18 P 39 01.00 1.2
1.0s 22.50nm 4.6mb
ALO 26.20 328 eP 39 07.00 -0.5
1.1s 12.66nm 4.4mb
Z 18s 0.69um 4.2msz
ANMO 26.20 328 eP 39 07.70 0.1
e 39 17.00
CVL 26.72 21 P 39 12.60 0.5
GOL 29.60 336 P 39 37.70 -0.7
1.0s 26.25nm 4.9mb
GLA 29.98 315 eP 39 42.00 0.5
e 39 50.00
LVNJ 30.56 23 P 39 46.50 0.0
WVLY 30.79 17 P 39 48.30 -0.2
BAR 31.06 313 eP 39 51.00 0.0
TBR 31.06 24 P 39 50.00 -0.8
TPC 31.41 316 eP 39 54.00 -0.1
PLM 31.56 314 eP 39 56.00 0.5
RVR 32.26 314 eP 40 02.00 0.5

20d 20h

GSC	32.61	317	eP	40	05.00	0.4	SMF	83.16	44	eP	45	55.70	-1.3			iSg	09	43.50				
DAU	32.83	329	P	40	07.00	0.3	TIC	83.72	85	P	46	01.00	0.6			BNT	0.80	5	iPg	09	33.50	0.0
MWC	32.86	314	eP	40	07.00	0.1		0.8s		17.00nm			5.1mb					iSg	09	44.00		
PAS	32.90	314	eP	40	07.00	0.0	LIC	83.80	85	P	46	01.60	0.8			KGT	0.98	336	iPg	09	36.50	0.0
SBB	32.96	315	eP	40	08.00	0.4		0.7s		18.50nm			5.2mb			YLV	1.56	49	iPn	09	45.50	-0.2
CLC	33.44	317	eP	40	12.00	0.3	Z	20s		0.17um			4.4Msz			CTT	1.66	16	ePn	09	47.60	0.5
RSNY	33.91	20	P	40	15.00	-0.7	NB2	83.92	29	P	46	01.40	0.8			S.D. = 0.4 on 6 of 6 obs.						
WNY	34.00	21	P	40	16.00	-0.5		0.9s		7.70nm			4.7mb			? APR 20, 1990 21h 42m 44.13± 1.23s						
TNP	34.55	321	P	40	22.40	0.9	KIC	84.05	85	P	46	02.80	0.7			14.035 N ±22.9km 148.188 E ±14.1km						
	1.1s							0.7s		18.50nm			5.2mb			DEPTH = 33.0km (normol)						
BCH	34.79	314	P	40	24.00	0.6	HAU	84.52	42	eP	46	02.10	-1.8			4.1mb (2 obs.)						
PHAM	35.35	315	P	40	29.00	1.0		0.9s		9.85nm			4.8mb			MARIANA ISLANDS REGION (215)						
IMW	35.41	334	P	40	28.00	-0.8	ABH	84.84	40	eP	46	05.73	0.3			GUMO	3.26	263	eP	43	34.00	-0.1
FRI	35.51	317	ePc	40	30.00	0.7	BSF	84.86	42	eP	46	03.30	-2.4			PJG	3.26	263	eP	43	34.20	0.1
PR1	35.69	315	ePc	40	32.00	0.9	CDF	85.03	42	eP	46	04.80	-1.7					eS	44	09.00		
KVN	35.69	321	ePd	40	32.00	0.8		0.8s		6.70nm			4.7mb			WB5	36.34	202	eP	49	47.10	0.0
			pP	40	41.10	31kmX	HFS	85.35	29	eP	46	07.50	-0.2			WRA	36.41	202	Pd	49	57.50	9.8X
LLA	36.13	316	ePc	40	34.90	0.2		0.7s		10.00nm			4.9mb					0.7s	5.00nm			4.5mb
PRS	36.28	315	eP	40	36.50	0.7	Z	18s		0.32um			4.8Msz			YKA	80.97	28	eP	54	56.60	0.0
ZOBO	36.48	143	P	40	37.00	-1.4												0.7s	0.70nm			3.8mb
	Z	22s					LPG	85.39	44	eP	46	07.80	-0.8			S.D. = 0.1 on 4 of 5 obs.						
			S	46	22.00		BNI	85.45	45	P	46	08.00	-0.7			* APR 20, 1990 23h 19m 42.86± 0.87s						
			LR	52	04.00		FEL	85.64	42	eP	46	09.25	-0.4			6.255 S ±14.4km 146.977 E ±11.9km						
CMB	36.54	318	ePc	40	38.50	0.4	MOX	87.14	39	eP	46	17.00	0.3			DEPTH = 144.1 ± 8.6 km						
			ePcP	43	01.80		GRF	87.18	40	eP	46	17.50	0.5			4.3mb (6 obs.)						
SAO	36.55	315	e(P)	40	41.80	3.6X		1.0s		15.00nm			5.1mb			EAST PAPUA NEW GUINEA REGION (207)						
LPB	36.70	143	P	40	33.00	-7.0X	CLL	87.78	38	iP	46	19.90	0.2			LAT	0.40	177	iPc	20	02.80	-1.7
	Z	20s						0.9s		19.00nm			5.2mb			PMG	3.14	177	iPc	20	33.20	0.8
			LR	52	04.00													0.7s	212.33nm			
ARN	36.92	316	P	40	43.00	1.7	KHC	88.82	40	P	46	25.20	0.3			MNDI	3.30	272	eP	20	36.00	1.3
MHC	36.99	316	ePc	40	43.20	1.2	PRU	89.13	39	P	46	26.30	0.1			RAB	5.56	69	iPd	21	05.70	1.1
GCC	37.07	315	ePc	40	43.00	0.6	KBA	89.33	42	iPd	46	28.00	0.5					iS	21	16.00		
PCC	37.57	316	ePc	40	48.00	1.3		0.9s		6.90nm			4.9mb			CTA	13.77	183	iPd	23	00.20	7.0X
LRM	37.59	334	eP	40	47.20	0.1												0.8s	11.19nm			4.3mb
BKS	37.67	316	ePc	40	50.10	2.6	RBL	89.68	42	P	46	28.50	-0.5			MTN	16.94	246	eP	23	29.00	-3.7X
	0.9s		33.00nm			5.3mb	SUF	89.79	24	eP	46	29.00	-0.1			WB5	18.26	221	eP	23	47.00	-1.2
BRK	37.69	316	eP	40	48.30	0.7	KSP	89.89	37	eP	46	29.00	-0.8			WRA	18.33	221	Pd	23	48.70	-0.2
ORV	38.11	319	ePc	40	52.50	1.3	TRI	90.05	43	P	46	32.00	1.4					0.8s	11.40nm			4.2mb
CBM	38.31	24	P	40	52.40	-0.4	ZST	91.34	40	iP	46	36.90	0.4			ASPA	21.40	215	eP	24	19.30	-1.0
MLN	38.63	320	ePc	40	56.00	0.2	KRA	92.34	37	eP	46	41.50	0.4					0.5s	4.00nm			4.1mb
WDC	39.35	320	ePc	40	59.80	-1.7	LZH	129.21	345	ePKP	52	42.50	2.9			WARB	27.74	222	eP	25	21.00	1.1
			ePcP	43	09.50			2.0s		33.00nm						MBL	30.17	238	iPd	25	40.60	-1.0
FHC	40.39	319	ePc	41	11.80	1.7	WB5	136.99	255	ePKP	52	52.50	-2.1					0.5s	8.00nm			4.7mb
SES	40.81	339	ePc	41	13.50	0.0										NANU	34.39	239	eP	26	17.50	-0.7
SIV	40.82	134	P	41	12.80	-1.1										COOL	34.46	221	iPd	26	19.30	0.5
NEW	41.51	333	P	41	18.20	-1.0	WRA	137.01	255	ePKc	52	52.60	-2.1					0.4s	8.00nm			4.8mb
	1.0s		7.50nm			4.5mb		0.3s		0.40nm						NWAO	38.33	222	eP	26	53.00	1.7
FFC	42.43	350	iPc	41	26.70	0.1	GUN	138.91	5	PKP	52	52.20	-6.3X			MUN	38.47	224	eP	26	53.00	0.6
	0.6s		29.00nm			5.3mb		0.8s		16.00nm						YKA	99.41	28	eP	33	08.60	-1.2
LON	42.71	328	P	41	29.30	0.2	KKN	138.97	6	PKP	52	53.60	-4.8X					1.0s	0.80nm			4.2mb
BMW	43.29	327	P	41	33.70	-0.1		0.8s		17.00nm						ZOBO	138.68	123	PKP	38	50.00	-5.1X
PNT	43.41	332	ePc	41	35.00	0.4	DMN	139.13	7	PKP	52	53.20	-5.5X					LR	24	40.00		
	0.8s		40.00nm			5.3mb	PKI	139.20	6	PKP	52	53.20	-5.8X					i	39	49.00		
EDM	43.97	340	iP	41	40.00	0.8	CHG	146.93	344	ePKPd	53	14.00	1.9			S.D. = 1.3 on 14 of 17 obs.						
	0.8s		53.00nm			5.4mb		1.0s		30.00nm						APR 20, 1990 23h 20m 31.82± 1.52s						
MCW	44.50	329	P	41	43.50	-0.1	LOE	147.39	339	iPKPc	53	16.20	3.4X			6.270 S ± 5.3km 151.178 E ± 5.8km						
SCH	45.31	19	ePc	41	49.30	-0.6	HYB	147.54	21	ePKP	53	15.00	1.9			DEPTH = 51.9 ± 13.1 km						
	0.6s		38.00nm			5.4mb	MUN	149.53	228	ePKP	53	23.00	7.2X			5.4mb (21 obs.) 4.9Msz (3 obs.)						
BAO	50.56	123	eP	42	33.70	2.5	NST	149.55	340	iPKPd	53	25.00	8.8X			NEW BRITAIN REGION (192)						
YKA	52.20	346	eP	42	41.40	-1.5	GBA	150.60	25	PKP	53	20.00	2.2			CENTROID, MOMENT TENSOR (HRV)						
	0.8s		23.40nm			5.3mb		0.8s		7.00nm						Data Used: GDSN						
FRB	52.65	12	eP	42	44.00	-2.2	NNT	152.55	339	iPKPd	53	29.20	8.5X			L.P.B.: 10S, 18C						
INK	61.70	343	eP	43	49.00	-1.1	KOD	153.60	29	ePKP	53	32.50	9.9X			Centroid Location:						
	0.7s		22.00nm			5.4mb										Origin Time 23:20:30.8 1.6						
PMR	63.94	333	P	44	03.30	-1.6										Lat 6.075 0.12 Lon 151.79E 0.12						
	0.9s		12.50nm			4.8mb										Dep 48.9 8.9 Half-duration 2.1						
FBA	64.68	336	P	44	08.50	-1.2										Moment Tensor: Scale 10**17 Nm						
	0.9s		14.17nm			4.9mb										Mrr= 0.23 0.12 Mtt= 0.15 0.13						
MBC	64.90	353	ePc	44	10.10	-0.8										Mff=-0.39 0.12 Mrt= 1.16 0.13						
	0.8s		29.00nm			5.3mb										Mrr= 1.72 0.19 Mtf=-0.78 0.16						

		iPPP	24	20.00		KOD	75.21	282	eP	32	12.00	0.3	LMR	131.76	326	ePKP	39	40.90	-0.1	
		i	24	39.00		HYB	75.45	290	iP	32	11.00	-1.7	LRG	131.76	326	ePKP	39	41.20	0.2	
		iS	26	13.50			1.0s	40.00nm				5.3mb		0.7s	15.45nm					
		i(SSS)	26	39.00		GBA	75.80	286	Pd	32	15.20	0.5	TCF	131.98	331	ePKP	39	41.50	0.1	
QIS	18.10	217	eP	24	41.50	0.2	0.7s	9.20nm				4.8mb		1.0s	19.00nm					
RMQ	20.24	186	e(P)	25	05.00	-0.5	KDC	78.23	27	eP	32	27.00	-0.3	LSF	132.33	332	ePKP	39	42.00	-0.1
		e	25	11.00		SVW	78.79	23	eP	32	30.90	0.4	IFR	145.10	324	iPKPd	40	07.50	1.6	
		e	25	20.00		TTA	79.72	22	eP	32	35.40	-0.1	AVE	146.55	326	iPKP	40	09.50	1.4	
PVC	20.24	126	iPd	25	04.50	-1.0	POO	80.06	290	iPd	32	38.20	0.1							
GUA	20.64	342	eP	25	10.20	0.6	PMR	81.68	25	eP	32	44.70	-1.0	TIO	148.21	323	iPKP	40	14.00	3.0X
	1.3s	953.85nm				6.0mb	1.0s	42.50nm				5.4mb								
GUMO	20.70	342	eP	25	10.60	0.4	IMA	82.37	20	ePc	32	49.20	-0.3	BAO	151.12	139	ePKP	40	19.50	3.7X
	1.4s	646.15nm				5.8mb	0.8s	30.80nm				5.4mb		TEGH	151.33	270	ePKP	40	22.00	6.0X
PJG	20.70	342	eP	25	10.50	0.2	TOA	83.16	25	eP	32	53.30	-0.2	SHGH	151.38	271	ePKP	40	22.50	6.4X
MTN	20.81	250	iPc	25	12.10	0.7	FBA	83.84	22	eP	32	55.00	-1.8	LEGH	151.51	270	ePKP	40	22.00	5.7X
		e	29	10.00		BRW	84.59	15	eP	33	00.20	-0.2	KUK	151.72	271	ePKP	40	31.70	15.1X	
BRS	21.06	176	eP	25	12.00	-1.9	SIT	86.36	32	eP	33	11.10	1.6	WIGH	151.93	270	ePKP	40	24.00	7.1X
		i	25	31.10		FHC	90.16	49	eP	33	22.40	-5.6X								
		e	25	51.00		INK	90.40	21	eP	33	29.00	0.5								
		iS	29	08.00			1.0s	31.00nm				5.6mb								
WB5	21.21	229	iP	25	15.20	-0.2	WDC	91.22	49	eP	33	29.50	-3.4X							
		i	33	00.70		CMB	92.59	52	e(P)	33	39.50	0.2								
WRA	21.27	229	Pc	25	15.80	-0.2	FRI	93.02	53	e(P)	33	41.80	0.6							
	0.7s	76.00nm				5.2mb	MWC	94.11	56	eP	33	50.00	3.4X							
DZM	21.55	138	iPc	25	16.60	-2.3	PNT	94.19	41	eP	33	49.00	2.6							
KNA	23.91	245	eP	25	43.00	1.1		0.4s	3.00nm			5.1mb								
ASPA	23.98	222	iPd	25	43.20	0.5	SBB	94.34	56	eP	33	52.00	4.5X							
	0.7s	356.00nm				6.0mb	KVN	94.46	51	P	33	48.20	0.1							
		iPP	26	00.80			CLC	94.62	55	eP	33	49.00	0.3							
		iS	30	04.50								34	06.00							
		LR	34	37.10			TNP	95.08	52	P	33	51.20	0.2							
		iScS	36	58.20			GSC	95.22	55	eP	33	51.00	-0.5							
WARB	30.66	227	eP	26	43.90	0.1	MBC	95.92	14	eP	33	53.00	-0.8							
MKS	31.56	270	eP	26	53.00	1.2		0.8s	22.00nm			5.7mb								
MBL	33.76	241	iPc	27	10.50	-0.4	GLA	96.72	58	eP	34	04.00	5.6X							
KHKI	35.33	264	iPc	27	22.80	-1.7		e				34	12.00							
		e	31	48.50			YKA	97.47	28	eP	34	00.10	-0.9							
MEKA	37.09	233	iPc	27	39.30	0.2		0.7s	5.80nm			5.2mb								
COOL	37.31	225	eP	27	40.00	-1.0	EDM	98.26	37	eP	34	06.00	1.2							
	0.4s	10.00nm				5.1mb	SES	99.76	40	eP	34	14.00	2.3							
BAG	37.74	307	eP	27	44.00	-0.9	NUR	112.77	334	ePd	35	08.00	-1.3							
MRWA	40.27	231	eP	28	05.80	0.1	FRB	115.93	18	ePKP	39	08.00	-2.1							
MSZ	40.95	162	P	28	11.70	0.8	UPP	116.06	336	iPd	35	20.20	-3.8X							
NWAO	41.21	225	eP	28	12.00	-1.3	HFS	117.43	338	ePd	35	37.00	6.9X							
	Z 20s	1.70um				4.9Msz	0.6s	29.20nm												
	N 20s	1.10um					NB2	117.72	339	PKP	39	13.90	0.2							
	E 20s	1.10um						0.9s	5.90nm											
MUN	41.45	227	eP	28	15.00	-0.3	VAY	122.59	316	ePKP	39	21.70	-1.7							
MAT	44.29	345	(P)	28	37.00	-1.3	PRU	123.32	328	ePKP	39	24.50	-0.1							
		(S)	35	12.00								39	26.30							
SSE	46.93	324	P	28	59.30	0.0	CLL	123.33	330	e(PKP)	39	19.00	-5.6X							
	1.0s	38.00nm				5.3mb	KHC	124.33	328	PKP	39	28.00	1.3							
Z 20s	0.90um					4.7Msz	MOX	124.43	330	ePKP	39	28.00	1.2							
IPM	51.22	281	ePd	29	33.00	0.3	GRF	125.22	329	ePKP	39	29.70	1.3							
	0.8s	20.80nm				5.2mb	Z 22s	0.40um				5.0Msz								
		e	30	48.20			TRI	126.18	324	iPKPc	39	30.80	0.5							
LOE	54.21	297	eP	29	54.00	-0.8	EKA	126.94	342	PKP	39	30.00	-1.5							
BJI	56.25	328	eP	30	08.00	-1.2	MEM	127.12	333	PKP	39	33.30	1.4							
Z 28s	0.69um					4.6MszX	OSS	127.65	327	ePKPd	39	34.70	1.3							
	eS	37	56.00				SAX	127.73	328	ePKPc	39	34.40	0.8							
KMI	56.49	306	eP	30	11.50	-0.1	SLE	127.84	329	ePKPc	39	34.00	0.5							
Z 24s	1.40um					5.0MszX	CDF	128.03	330	ePKP	39	33.10	-0.8							
	S	38	16.00				DOU	128.13	333	PKP	39	34.50	0.6							
CHG	57.19	297	ePd	30	16.10	-0.2	LLS	128.15	328	ePKPd	39	35.50	1.2							
	0.9s	10.50nm				4.9mb	BSF	128.66	330	ePKP	39	34.60	-0.6							
LZH	61.18	317	P	30	42.70	-1.1		0.9s	18.00nm											
	1.5s	133.00nm				5.8mb	TMA	128.70	327	ePKPd	39	36.50	1.1							
Z 28s	1.10um					4.9MszX	HAU	128.76	330	ePKP	39	34.80	-0.4							
N 14s	0.70um							0.9s	16.40nm											
E 15s	0.80um						MMK	129.22	327	ePKPd	39	38.30	1.8							
	sS	31	14.00				DIX	129.50	328	ePKPd	39	38.80	1.8							
	i	31	26.00				EMS	129.76	328	ePKPd	39	39.70	2.3							
	pP	31	48.50	295kmX			LPG	130.23	328	ePKP	39	38.40	-0.1							
	eS	39	03.00					0.8s	12.10nm											
	PS	39	23.00				LOR	130.49	331	ePKP	39	38.40	-0.1							
	i	40	45.00				LBF	130.63	331	ePKP	39	38.50	-0.3			</				

APR 20, 1990 23h 30m 03.48 ± 0.24s
 40.002 N ± 4.5km 40.069 E ± 3.1km
 DEPTH = 14.0km (8 depth phases)
 5.0mb (40 obs.) 4.3Msz (4 obs.)

TURKEY (366)
 Twelve animals killed and slight damage to buildings in Erzincon Province. Felt in Erzurum, Giresun, Ordu and Trabzon Provinces.

CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 10S, 14C
 Centroid Location:
 Origin Time 23:30: 9.5 1.6
 Lat 39.92N 0.15 Lon 39.70E 0.10
 Dep 15.0 FLX Half-duration 2.0
 Moment Tensor: Scale 10**17 Nm
 Mrr= 0.07 0.08 Mtt=-1.32 0.11
 Mff= 1.25 0.10 Mrt= 0.00 0.00
 Mrf= 0.00 0.00 Mtf=-0.78 0.09
 Principal Axes:
 T Vol= 1.47 Plg= 0 Azm=254
 N 0.07 90 180
 P -1.54 0 164
 Best Double Couple: Mo=1.5*10**17
 NP1: Strike=299 Dip=90 Slip=-180
 NP2: 29 90 0

KVT	3.25
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20d 23h

IR7	9.37	114	eP	32	22.00	0.8	ASS	20.71	287	P	34	51.00	5.2X	FRF	25.08	289	eP	35	26.70	-2.1	
IR2	9.60	113	iPd	32	27.50	3.2X	MNS	20.72	286	P	34	51.00	5.1X	RUP	25.15	304	eP	35	33.24	3.8X	
PSN	9.60	296	eP	32	23.00	-1.2	RDP	20.73	284	P	34	52.30	6.3X	LMR	25.19	289	eP	35	25.40	-4.5X	
IR5	9.61	117	eP	32	25.00	0.5	FVI	20.86	297	Pd	34	49.00	1.8	HAU	25.38	300	eP	35	27.20	-4.4X	
IR4	9.82	116	eP	32	29.00	1.7	RSM	20.87	290	P	34	50.30	3.0X		1.0s	20.00nm			4.7mb		
IZM	10.07	265	eP	32	28.80	-1.9	KHC	20.87	305	iPc	34	45.60	-1.8	WTS	25.79	309	eP	35	35.00	-0.4	
CFR	10.20	304	eP	32	30.00	-2.3		Z	18s	1.20um			4.3msz		1.2s	125.00nm			5.5mb		
JMB	10.45	288	eP	32	41.00	5.1X		N	18s	1.70um								35	38.50	12km	
PRNI	10.49	205	eP	32	34.00	-2.4		E	18s	1.00um									39	31.00	
EZN	10.56	273	iP	32	37.80	0.4													35	38.90	
PPE	11.01	308	eP	32	40.00	-3.5X	BHG	20.99	301	eP	34	47.30	-1.3	MEM	25.98	305	P	35	38.90	1.8	
DIM	11.17	285	eP	32	46.00	0.3								ENN	26.06	306	eP	35	39.50	1.6	
ISR	11.21	302	eP	32	46.00	-0.3									1.2s	156.00nm			5.6mb		
KDZ	11.23	283	eP	32	47.00	0.5	CRE	21.22	289	P	34	51.10	14km						35	43.50	14km
BUCL	11.28	297	eP	32	52.00	4.8X	SFI	21.30	290	Pd	34	52.50	0.8						35	52.50	
CLI	11.38	309	eP	32	46.00	-2.6	WET	21.32	304	eP	34	50.70	-1.3	WIT	26.09	311	eP	35	40.00	1.9	
PVL	11.49	291	iPd	32	52.00	2.0	PGD	21.39	290	P	34	53.40	0.5	DOU	26.79	304	P	35	46.00	1.4	
IAS	11.56	313	eP	32	50.00	-1.0	CTI	21.57	296	P	34	54.50	-0.1						40	42.00	
MLR	11.74	302	ePc	32	51.50	-2.1	FIR	21.73	289	eP	34	54.00	-2.0	LBF	26.92	297	eP	35	43.60	-2.3	
RZN	11.75	283	eP	32	55.00	1.2	CLL	21.91	310	eP	34	58.00	0.2		1.0s	24.00nm			4.8mb		
CMP	12.25	300	ePc	33	02.00	1.6								SMF	27.00	296	eP	35	44.60	-2.0	
HLW	12.39	218	eP	33	04.20	2.0									1.0s	32.00nm			4.9mb		
MMB	12.49	283	eP	33	05.00	1.4	OGA	22.10	298	eP	35	00.20	0.2	LOR	27.01	298	eP	35	44.20	-2.5	
VTS	12.94	287	eP	33	10.00	0.3	MME	22.13	291	P	35	01.90	1.5		1.0s	21.00nm			4.8mb		
KKB	12.98	284	eP	33	10.00	-0.1	FUR	22.14	301	eP	35	01.40	1.3	SSF	27.24	297	eP	35	46.20	-2.6	
VAY	13.35	281	iP	33	15.70	0.7	BDI	22.21	290	P	35	03.20	2.3		1.0s	28.00nm			4.9mb		
OHK	14.69	281	eP	33	38.50	5.8X	PIL	22.26	289	P	35	04.60	3.3X	AVF	27.34	297	eP	35	46.40	-3.3X	
	1.1s	98.00nm			5.2mb		SAL	22.31	294	P	35	07.00	5.1X		1.0s	25.00nm			4.9mb		
BEO	15.26	295	e(PKP)	33	41.00	1.1	GRF	22.51	305	eP	35	02.60	-1.2	NB2	27.53	329	P	35	52.50	1.2	
															0.7s	9.00nm			4.6mb		
MAIO	15.72	97	iPd	33	47.00	0.9		Z	21s	0.70um			4.1msz	MAF	27.88	295	eP	35	52.80	-1.8	
							MOX								1.0s	24.00nm			4.9mb		
DHR	16.04	145	ePc	33	47.50	-2.6		Z	14s	1.50um			4.6msz	TCF	28.13	295	eP	35	54.90	-2.0	
RYD	16.20	158	ePc	33	46.50	-5.8X		N	15s	1.70um					1.0s	18.00nm			4.8mb		
BEE	16.45	145	iP	33	54.90	-0.5		E	15s	0.90um				SOD	28.42	349	iP	35	58.30	-0.9	
	0.6s	18.00nm			4.4mb													36	22.40	110kmX	
SPC	16.80	310	eP	34	00.80	0.9	NUR	22.66	340	eP	35	04.00	-1.1	KEY	30.61	351	iP	36	18.80	0.1	
BUD	16.91	303	e(P)	34	02.00	0.9							5.2mb	AAE	30.86	183	eP	36	22.30	0.5	
KRA	17.37	312	ePd	34	05.10	-1.7							54kmX	EKA	32.30	313	Pd	36	32.90	-0.8	
	Z	18s	1.50um												1.1s	25.90nm			5.1mb		
	E	18s	3.60um				OSS	22.68	297	ePd	35	06.90	1.2	GUD	33.46	286	eP	36	42.50	-1.6	
							BOB	23.04	292	P	35	12.30	3.2X	TOL	33.57	284	eP	36	43.90	-1.0	
SRO	17.48	304	iP	34	10.80	2.7	VDL	23.12	296	ePd	35	11.00	1.0	EBAN	33.84	281	eP	36	46.00	-1.3	
ZST	18.37	304	eP	34	20.70	1.5	SAX	23.28	298	ePc	35	12.00	0.3	ASMO	34.05	280	iPc	36	49.00	-0.3	
SOP	18.57	302	eP	34	24.00	2.3	LLS	23.48	297	ePd	35	13.70	0.2	APHE	34.14	279	eP	36	50.50	0.4	
PTJ	18.57	296	eP	34	21.90	0.0	VAI	23.56	295	Pd	35	19.00	5.0X	AAPN	34.35	280	eP	36	51.50	-0.4	
MGR	18.75	278	P	34	26.00	2.0	PCP	23.68	291	P	35	16.86	1.5	ATEJ	34.40	279	iPc	36	51.50	-0.8	
VKA	18.89	304	eP	34	27.00	1.4	CKI	23.87	291	P	35	19.00	1.9	ALOJ	34.40	280	eP	36	50.50	-1.9	
	2.6s	252.00nm			5.0mb		SLE	23.92	299	ePc	35	17.60	0.0	DCN	34.46	309	eP	36	54.50	2.0	
	Z	13s	1.90um		5.8msz		ZLA	23.96	299	ePc	35	18.20	0.2		1.0s	44.00nm			5.3mb		
							QUE	24.00	106	eP	35	19.50	0.8	EJIF	35.65	279	eP	37	07.50	4.6X	
SGO	18.89	280	P	34	28.00	2.4	ORO	24.10	294	P	35	24.00	4.6X	GKN	38.47	94	P	37	26.00	-0.9	
VBY	19.00	295	eP	34	27.00	0.1	ORX	24.10	294	P	35	20.76	1.3	DMN	39.03	94	P	37	32.80	1.1	
							ROB	24.17	291	P	35	20.14	0.1		1.0s	79.00nm			5.4mb		
ATN	19.18	272	P	34	26.00	-3.2X	SUF	24.24	344	iP	35	20.90	0.4	KKN	39.07	94	P	37	31.80	-0.2	
DUI	19.43	283	P	34	33.90	1.5							5.0mb		0.8s	28.00nm			5.0mb		
LJU	19.58	296	e(P)	34	37.50	3.6X	FEL	24.25	300	P	35	20.09	-0.9	PKI	39.28	94	P	37	34.00	0.2	
CEY	19.61	295	e(P)	34	37.40	3.2X	SAOF	24.40	290	P	35	21.68	-0.6		0.8s	26.00nm			5.0mb		
KSP	19.81	311	eP	34	34.00	-2.3	ENR	24.49	291	P	35	23.93	0.7	GUN	39.47	93	P	37	35.80	0.4	
	1.0s	27.00nm			4.5mb		SBF	24.49	290	eP	35	18.80	-4.4X	HYB	40.13	113	eP	37	40.00	-0.6	
													5.4mb	BCAO	40.40	214	ePc	37	40.80	-1.9	
							DIX	24.52	295	ePd	35	24.00	0.3		0.9s	23.00nm			4.9mb		
SDI	19.91	283	Pd	34	44.00	6.5X	REVF	24.55	290	P	35	23.68	-0.1						37	43.10	8kmX
VOY	20.02	296	eP	34	35.90	-2.7	BBS	24.55	298	P	35	22.74	-1.0						39	42.50	
TRI	20.06	295	iPd	34	41.60	2.6	STV	24.56	291	P	35	24.04	0.1						42	06.50	
							AURF	24.57	290	P	35	23.89	-0.1						43	09.60	
							RSP	24.60	293	P	35	25.27	1.0	GBA	41.99	118	P	37	56.00	0.2	
							DOI	24.61	291	Pd	35	24.50	0.1		0.6s	5.30nm			4.4mb		
AZI	20.18	284	P	34	45.00	4.8X	TOUF	24.62	290	P	35	23.74	-0.9	LZH	49.43	73	eP	38	55.00	0.0	
AQU	20.18	285	P	34	44.00	3.7X	GW	24.67	302	P	35	23.67	-1.2		1.2s	28.00nm			5.1mb		
KMR	20.24	302	eP	34	39.00	-1.9	LSD	24.67	294	P	35	25.27	0.1						38	59.00	13km
							MVIF	24.70	290	P	35	24.04	-1.2	TIC	52.24	243	P	39	12.20	-4.2X	
							PZZ	24.71	291	P	35	23.83	-1.6	KIC	52.26	242	P	39	12.50	-4.0X	
							WLS	24.76	301	P	35	24.20	-1.6	LIC	52.55	242	P	39	14.80	-3.9X	
RBL	20.30	297	P	34	43.30	1.7	CDF	24.81	301	P	35	25.00	-1.3		Z	20s	0.32um			4.4msz	
ARV	20.50	289	Pd	34	50.00	6.4X	MOF	24.84	299	P	35	25.70	-0.9	CHG	54.45	95	eP	39	20.10	-12.7X	
PRU	20.54	308	eP	34	42.00	-1.9	EMS	24.85	295	ePd	35	27.80	1.0	CHTO	54.45	95	eP	39	31.60	-1.1	
	Z	12s	1.80um		4.7msz		ECH	24.87	300	P	35	25.60	-1.1		56.50	63	eP	39	47.00	-0.3	
	N	18s	2.10um				ABH	24.87	304	eP	35	29.95	3.1X		1.2s	32.00nm</					

SLR 66.31 192 iPc 40 54.70 1.0
 1.1s 25.32nm 5.3mb
 KSR 66.67 193 eP 40 55.00 -1.0
 SCH 66.84 323 eP 40 58.00 1.3
 BRW 68.35 6 P 41 06.50 0.7
 INK 71.91 357 eP 41 23.00 -4.5X
 MAT 73.02 56 eP 41 38.00 3.3X
 IMA 73.73 6 P 41 38.00 0.4
 1.1s 7.81nm 4.7mb
 FBA 75.25 3 P 41 47.80 0.8
 1.0s 15.00nm 5.0mb
 YKA 75.84 348 eP 41 49.60 -0.8
 1.0s 4.40nm 4.5mb
 PMR 78.48 4 P 42 06.00 1.0
 FFC 80.20 339 eP 42 14.00 -0.5
 1.2s 30.00nm 5.2mb
 RSON 80.88 332 P 42 17.60 -0.6
 0.9s 12.78nm 4.9mb
 EDM 84.35 344 eP 42 35.50 -0.6
 SES 86.47 342 eP 42 46.00 -0.8
 S.D. = 1.4 on 170 of 213 obs.

% APR 21, 1990 00h 15m 23.15±0.70s
 44.232 N ± 6.8km 11.438 E ± 5.3km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)

PGD 0.41 150 P 15 31.40 -0.2
 eSg 15 37.30
 SFI 0.43 136 P 15 31.90 0.0
 eSg 15 39.10
 MME 0.53 266 P 15 34.40 0.4
 BDI 0.63 255 P 15 36.00 0.2
 eSg 15 45.00
 CRE 0.71 148 P 15 38.00 0.8
 PII 0.83 233 P 15 38.10 -1.2
 BOB 1.52 291 P 15 51.00 0.5
 FVI 2.54 21 P 16 04.60 -0.5
 S.D. = 0.7 on 8 of 8 obs.

% APR 21, 1990 00h 19m 31.52±3.65s
 0.262 S ± 10.1km 77.478 W ± 27.1km
 DEPTH = 10.0km (geophysicist)
 ECUADOR (107)

CAYA 0.61 304 iPd 19 43.50 -0.7
 VC1 1.00 248 iPd 19 50.20 -0.6
 S 20 04.80
 COTA 1.04 305 P 19 52.00 0.4
 QTO 1.05 273 P 19 52.20 0.5
 QUR 1.06 275 eP 19 51.80 0.1
 S 20 06.70
 GGP 1.12 274 iPd 19 53.00 0.0
 TUNG 1.50 220 eP 19 59.00 0.2
 S.D. = 0.6 on 7 of 7 obs.

& APR 21, 1990 00h 26m 28.41s
 62.799 N 148.334 W
 DEPTH = 61.7km
 4.5mb (17 obs.)

CENTRAL ALASKA (1)
 <AGS-P>. Felt at Anchorage,
 Contwell, Fairbanks, Palmer and
 Willow.

HUR 0.62 287 iP 26 42.00 0.0
 RND 0.65 339 iP 26 42.15 -0.3
 eS 26 53.33
 MCK 0.98 344 iP 26 46.37 0.0
 CUT 0.98 247 iP 26 46.39 0.0
 SML 0.99 180 iP 26 46.36 -0.3
 GHO 1.07 195 iP 26 47.49 -0.1
 NCA 1.07 138 iP 26 47.49 -0.2
 eS 27 02.18
 TOA 1.22 124 iP 26 50.00 0.3
 PLRM 1.27 197 iP 26 50.15 -0.1
 eS 27 07.25
 PMR 1.27 197 iPc 26 50.20 0.0
 SDG 1.32 101 iP 26 50.95 0.0
 PAX 1.32 81 iP 26 50.61 -0.5
 PWA 1.36 213 iPd 26 52.30 0.8
 KNK 1.39 182 iP 26 52.34 0.3
 KTH 1.40 304 iP 26 52.38 0.3
 DDM 1.49 47 iP 26 54.17 0.7
 PMS 1.66 201 iPc 26 56.40 0.6
 WRH 1.68 4 iP 26 54.94 -1.0
 SKT 1.70 243 iP 26 56.32 0.1

eS 27 18.32
 DMW 1.72 42 eP 26 56.82 0.3
 HDA 1.73 20 iP 26 55.95 -0.7
 KLU 1.73 138 iP 26 56.66 -0.1
 SUA 1.75 221 iP 26 57.93 0.8
 eS 27 21.27
 NEA 1.82 350 iP 26 56.59 -1.2
 CCB 1.87 7 iP 26 57.33 -1.2
 VZW 1.94 153 iP 26 59.07 -0.5
 GLI 2.01 162 iP 27 00.12 -0.5
 RDS 2.04 2 iP 26 59.83 -1.1
 DOT 2.11 64 iP 27 01.45 -0.6
 FBA 2.12 6 iPc 27 01.00 -1.1
 GLM 2.24 10 iP 27 02.54 -1.2
 eS 27 32.68
 NCG 2.28 234 eP 27 04.32 -0.1
 CGLM 2.29 231 eP 27 04.75 0.2
 CRP 2.37 231 eP 27 06.09 0.4
 BGL 2.46 233 eP 27 07.25 0.4
 SLKM 2.47 202 eP 27 07.12 0.1
 CKL 2.48 231 eP 27 07.51 0.3
 NKA 2.48 215 eP 27 09.18 2.1
 TMW 2.49 75 eP 27 06.43 -0.8
 GLB 2.52 121 iP 27 07.47 -0.3
 SEW 2.76 192 eP 27 11.56 0.5
 RDT 2.96 223 eP 27 13.74 -0.3
 NNL 3.11 209 eP 27 17.15 1.1
 RED 3.19 224 eP 27 17.38 0.1
 TGL 3.32 126 eP 27 17.50 -1.7
 MID 3.52 163 eP 27 20.83 -0.9
 TTA 3.52 276 iPd 27 20.60 -1.3
 CNPM 3.57 204 eP 27 22.44 -0.1
 XLV 3.74 208 eP 27 24.91 0.1
 SVW 3.84 247 iPd 27 25.40 -0.9
 FYU 4.01 18 iP 27 27.41 -1.2
 IMA 4.02 327 iPc 27 27.20 -1.7
 PDB 4.14 226 eP 27 30.01 -0.4
 DWY 4.19 69 Pd 27 29.60 -1.6
 AUL 4.23 218 eP 27 31.75 0.0
 AUE 4.23 218 iP 27 31.73 0.0
 CDD 4.67 216 iP 27 37.52 -0.4
 YKU 5.28 124 e(P) 27 46.00 -0.5
 HYT 5.50 106 P 27 47.80 -2.0
 ANM 7.77 291 eP 28 19.60 -1.6
 INK 8.25 42 P 28 25.00 -2.6
 SIT 8.70 126 eP 28 30.20 -3.6
 BRW 9.14 343 ePd 28 37.30 -2.6
 SDN 9.74 225 eP 28 51.30 3.2
 YKA 15.41 76 eP 30 00.40 -2.6
 0.7s 7.80nm 4.0mb
 MBC 16.55 24 eP 30 14.50 -2.9
 0.6s 8.00nm 4.1mb
 ADK 18.62 247 ePc 30 41.20 -1.8
 EDM 20.60 102 eP 31 02.50 -1.8
 PNT 20.72 117 eP 31 07.00 1.4
 0.7s 8.00nm 4.2mb
 RMW 21.35 124 eP 31 11.50 -0.5
 LON 21.94 125 eP 31 18.00 0.2
 NEW 22.57 116 eP 31 23.50 -0.6
 0.9s 10.42nm 4.3mb
 SES 23.59 104 eP 31 32.00 -2.0
 FFC 24.85 87 eP 31 44.00 -1.9
 0.8s 15.00nm 4.5mb
 WDC 27.05 133 e(P) 32 04.70 -1.7
 e 32 18.50
 MIN 27.57 132 eP 32 10.20 -1.1
 e 32 26.20
 e 32 34.70
 IMW 28.65 114 eP 32 20.00 -1.2
 KVN 29.95 128 eP 32 31.90 -0.9
 eP 32 47.50 64kmX
 BW06 30.14 113 eP 32 33.50 -1.0
 TNP 31.13 128 eP 32 41.70 -1.4
 0.8s 10.29nm 4.6mb
 eP 32 57.60 66kmX
 RSON 31.18 87 eP 32 40.60 -2.6
 0.7s 4.33nm 4.3mb
 RSSD 31.46 105 eP 32 44.00 -2.0
 CLC 33.02 130 eP 33 01.00 1.5
 e 33 15.00
 FRB 33.72 52 eP 33 03.00 -2.2
 GSC 33.76 130 eP 33 21.00 15.1
 e 33 29.00
 GOL 34.46 112 eP 33 11.00 -1.1
 0.8s 4.76nm 4.5mb
 TPC 35.11 130 eP 33 33.00 15.6
 PLM 35.50 131 eP 33 36.00 15.0

GLA 36.49 129 eP 33 44.00 14.9
 e 33 53.00
 ALQ 38.05 117 eP 33 42.00 -0.3
 1.2s 4.69nm 4.3mb
 epP 34 05.00 99kmX
 TKL 47.45 93 P 35 18.00 19.6
 KEV 47.69 2 eP 34 56.00 -3.8
 SOD 50.07 3 iP 35 15.00 -3.1
 SUF 54.73 3 iP 35 49.80 -3.1
 0.4s 6.20nm 5.0mb
 NB2 55.51 12 P 35 54.70 -4.0
 0.8s 6.40nm 4.7mb
 HFS 56.62 11 eP 36 01.80 -4.9
 0.6s 4.30nm 4.7mb
 NUR 56.90 4 iP 36 04.60 -4.0
 0.7s 13.30nm 5.1mb
 EKA 59.11 22 P 36 21.00 -3.1
 0.9s 7.00nm 4.8mb
 CLL 65.28 13 eP 37 02.00 -3.2
 MOX 65.79 14 eP 37 06.00 -2.5
 KSP 66.05 11 eP 37 06.00 -4.2
 GRF 66.69 14 eP 37 13.00 -1.3
 PRU 66.74 12 P 37 11.80 -2.8
 KHC 67.50 13 P 37 17.00 -2.4
 1.0s 4.50nm 4.4mb
 SPC 67.99 8 eP 37 19.60 -3.1
 ZST 68.75 10 iP 37 24.60 -2.5
 i 37 30.70
 KBA 69.50 13 iPd 37 30.80 -1.2
 0.9s 25.40nm 5.2mb
 i 37 37.40
 e 37 50.00
 e 37 54.00
 GUN 79.88 313 P 38 34.80 2.8
 KKN 80.19 314 P 38 36.40 3.0
 GKN 80.21 314 P 38 36.30 2.9
 PKI 80.35 313 P 38 37.10 2.7
 DMN 80.42 314 P 38 37.70 3.0
 0.5s 10.00nm 5.0mb
 112 obs. associated

APR 21, 1990 01h 27m 00.53±0.15s
 15.491 N ± 3.3km 147.668 E ± 3.4km
 DEPTH = 38.2km (9 depth phases)
 5.2mb (25 obs.) 4.7Msz (6 obs.)
 MARIANA ISLANDS REGION (215)

GUA 3.30 234 eP 27 51.00 0.0
 eS 28 28.80
 GUMO 3.31 235 eP 27 50.80 -0.3
 PJG 3.31 235 eP 27 50.60 -0.5
 KAKJ 21.69 343 P 31 50.00 0.0
 CHJJ 21.89 341 P 31 52.40 0.4
 TSRJ 22.54 334 P 32 00.60 2.1
 MAT 22.60 340 eP 31 58.00 -1.1
 1.0s 70.00nm 5.1mb
 eS 36 00.00
 MTMJ 22.77 339 P 32 00.40 -0.5
 NIJJ 22.99 342 P 32 03.50 0.7
 PMG 24.74 181 eP 32 19.50 -0.5
 1.1s 88.61nm 5.2mb
 QCP 25.69 272 eP 32 42.00 13.1X
 BAG 26.06 276 eP 32 33.00 0.4
 HOOJ 27.06 353 eP 32 42.30 1.0
 SSE 28.75 307 P 32 55.00 -1.8
 0.6s 11.00nm 4.7mb
 Z 20s 1.80um 4.7Msz
 N 13s 1.00um
 E 12s 0.40um
 PP 33 51.00
 eS 37 42.00
 sS 38 08.00
 eSS 39 22.00
 ASAJ 28.85 352 P 32 58.80 1.3
 MTN 32.57 211 eP 33 31.00 0.5
 CTA 35.38 182 i(P)d 33 58.00 3.2X
 QIS 36.69 193 iPd 34 05.30 -0.5
 BJI 36.75 318 eP 34 06.50 0.3
 1.7s 106.00nm 5.5mb
 Z 24s 1.27um 4.6MszX
 N 14s 0.43um
 ePP 35 30.00
 eS 39 48.00
 WB5 37.50 201 eP 34 12.20 -0.5
 WRA 37.57 201 P 34 13.30 0.0
 0.8s 35.70nm 5.3mb
 KHKI 39.63 235 ePd 34 31.30 0.7

YLV	0.61	356	iPg	47	07.30	-1.2
GPA	0.75	63	ePg	47	12.00	1.2
KCT	0.88	290	iPg	47	12.50	-0.4
HRT	0.88	12	ePg	47	13.10	0.0
ALT	1.04	150	iPg	47	14.30	-1.5
			iSg	47	27.30	
BNT	1.23	290	iPn	47	19.80	0.9
KHL	1.63	177	ePn	47	26.00	1.0
	S.D. = 1.3	on		7 of	7 obs.	

APR 21, 1990	01h	57m	14.65 ± 0.66 s			
39.561 N ± 5.8 km			29.124 E ± 6.3 km			
DEPTH = 10.0 km			(geophysicist)			
TURKEY						(366)
KCT	0.91	320	iPg	57	32.80	0.8
ALT	0.92	123	iPg	57	32.30	0.0
YLV	1.02	11	iPn	57	33.30	-0.7
GPA	1.17	51	ePn	57	37.00	0.5
BNT	1.22	311	iPn	57	37.80	0.5
EDC	1.25	309	ePn	57	37.00	-0.8
KHL	1.27	166	ePn	57	38.20	-0.2
HRT	1.33	18	ePn	57	39.00	-0.2
BBTK	2.82	83	eP	58	46.00	45.3 X
	S.D. = 0.7	on		8 of	9 obs.	

APR 21, 1990	02h	06m	24.95 ± 1.52 s			
36.289 N ± 9.5 km			70.927 E ± 6.7 km			
DEPTH = 79.0 ± 17.2 km						
4.6 mb (13 obs.)						
HINDU KUSH REGION						(718)
Felt (II) at Khorog, USSR.						
QUE	6.94	210	iP	08	06.00	-0.1
			eS	09	20.00	
MAIO	9.23	273	iPc	08	36.50	-1.0
	0.8 s	7.32 nm				4.6 mb
			eS	10	11.00	
NDI	9.26	143	iPd	08	39.00	1.2
	0.6 s	53.33 nm				5.6 mb X
			eS	10	17.50	
GKN	14.24	122	P	09	44.20	0.0
DMN	14.81	122	P	09	51.00	-0.7
KKN	14.82	121	P	09	51.30	-0.5
PKI	15.04	121	P	09	54.00	-0.8
GUN	15.16	119	P	09	55.60	-0.7
POO	17.87	171	eP	10	31.00	1.1
HYB	19.98	158	iPd	10	53.50	0.0
	1.0 s	80.00 nm				5.0 mb
			e	11	34.50	
			eS	14	22.00	
GBA	23.33	164	P	11	29.00	2.2
LZH	26.50	81	P	12	01.00	4.2 X
			i	12	36.50	
			i	13	48.50	
MLR	34.83	299	ePd	13	13.00	2.8 X
NUR	37.96	324	eP	13	36.00	-0.2
SUF	38.07	328	eP	13	38.00	0.9
KRA	38.89	307	eP	13	45.80	1.7
SOD	39.90	335	iP	13	53.70	1.5
KEV	40.98	338	eP	14	01.00	0.0
UPP	41.20	322	iP	14	03.60	0.7
HFS	43.20	322	eP	14	18.60	-0.7
	0.6 s	7.20 nm				4.7 mb
NB2	44.51	323	P	14	28.80	-1.2
	0.7 s	4.20 nm				4.4 mb
BSF	47.71	305	eP	14	56.00	0.5
	0.7 s	4.40 nm				4.5 mb
HAU	47.97	305	eP	14	58.00	0.6
	0.6 s	3.60 nm				4.5 mb
LPG	48.21	302	eP	15	00.50	0.9
	0.7 s	4.40 nm				4.5 mb
SMF	49.92	304	eP	15	12.70	0.3
	0.7 s	4.40 nm				4.6 mb
AVF						

PWA 76.94 19 eP 18 09.50 -0.4
YKA 81.46 3 eP 18 33.00 -1.2
0.6s 2.80nm 4.4mb
S.D. = 1.1 on 32 of 34 obs.

APR 21, 1990 03h 35m 06.68±0.87s
38.770 N ± 7.6km 20.816 E ± 8.0km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 3.2 (THE). MD 3.2 (ATH).

VLS 0.62 197 ePg 35 19.00 -0.1
AGG 1.21 77 eP 35 27.80 -1.4
eS 35 46.90
KEK 1.23 320 ePg 35 30.20 0.7
ITM 1.81 151 eP 35 43.50 5.3X
LIT 1.86 44 eP 35 39.20 0.4
eS 36 04.70
NEO 1.95 73 ePn 35 41.60 1.4
FNA 2.06 12 ePn 35 42.60 0.8
eSn 36 11.80
OHR 2.34 360 ePn 35 43.70 -2.1
eSn 36 18.50
VLI 2.65 140 ePb 35 57.00 6.8X
SOH 2.83 43 eP 35 53.10 0.3
iS 36 30.00
VAY 2.88 27 ePn 35 54.60 1.1
OUR 2.90 56 eP 35 54.20 0.4
SRS 3.17 41 eP 35 56.50 -1.1
SKO 3.23 8 ePn 35 58.00 -0.5
i 36 16.50
i 36 33.50
i 36 55.00
S.D. = 1.2 on 12 of 14 obs.

& APR 21, 1990 04h 24m 40.59s
62.657 N 143.505 W
DEPTH = 0.0km
3.6mb (1 obs.)
CENTRAL ALASKA (1)
<AGS-P>.

TMW 0.71 19 eP 24 54.18 -0.6
SDG 0.95 263 eP 24 58.77 -0.8
eS 25 11.56
PAX 0.96 290 eP 24 58.33 -1.4
eS 25 11.28
DOT 1.03 346 eP 25 00.01 -1.0
eS 25 14.67
GLB 1.23 187 iP 25 03.43 -1.0
TOA 1.36 247 eP 25 06.27 -0.4
eS 25 24.68
DDM 1.56 318 eP 25 09.63 -0.1
KLU 1.63 225 iP 25 10.33 -0.4
eS 25 31.43
NCA 1.69 248 eP 25 11.51 0.0
TGL 1.94 170 eP 25 14.99 -0.2
VZW 2.16 223 eP 25 18.13 -0.2
DWY 2.31 51 P 25 18.00 -2.5
HDA 2.34 320 eP 25 19.94 -1.0
GLI 2.47 225 eP 25 22.44 -0.3
RND 2.55 290 eP 25 25.40 1.4
GHO 2.69 253 eP 25 26.17 0.2
WRH 2.74 314 eP 25 26.32 -0.3
CCB 2.77 318 eP 25 25.26 -1.8
PLRM 2.85 250 eP 25 30.23 2.0
GLM 2.90 325 eP 25 26.92 -2.1
FBA 2.95 322 eP 25 27.82 -1.8
CUT 3.15 268 eP 25 31.38 -0.9
PMS 3.19 246 eP 25 33.31 0.3
YKA 13.27 78 eP 27 49.20 -3.5
0.6s 0.30nm 3.6mb
24 obs. associated

* APR 21, 1990 04h 27m 22.02±0.74s
1.278 N ± 11.9km 123.106 E ± 20.6km
DEPTH = 33.0km (normol)
4.6mb (2 obs.)
MINAHASSA PENINSULA (265)

PPR 9.50 333 iPd 29 40.00 -0.4
MBL 22.53 188 eP 32 20.90 -0.4
WB5 23.75 153 eP 32 33.20 0.0
WRA 23.80 153 Pd 32 34.30 0.6
0.7s 6.80nm 4.3mb
NANU 24.82 197 iPd 32 43.50 0.0
ASPA 26.93 158 eP 33 15.50 12.3X

0.5s 5.00nm
QIS 27.06 144 eP 33 04.00 -0.4
GUN 44.37 310 P 35 33.20 0.6
GBA 46.81 287 P 35 56.00 4.4X
0.2s 3.40nm 5.0mb
S.D. = 0.6 on 7 of 9 obs.

? APR 21, 1990 04h 59m 47.24±3.14s
36.698 N ± 18.1km 70.545 E ± 23.3km
DEPTH = 170.4 ± 37.2 km
3.4mb (2 obs.)
HINDU KUSH REGION (718)

NDI 9.77 143 iPc 02 04.50 -0.3
0.7s 20.55nm 4.7mb X
iS 03 45.00
DMN 15.29 122 P 03 16.00 0.3
KKN 15.29 121 P 03 15.00 -0.7
PKI 15.52 122 P 03 19.20 0.6
MSL 21.99 277 eP 04 35.00 7.0X
GBA 23.81 163 P 04 46.00 0.3
SUF 37.56 328 iP 06 46.90 0.8
SOD 39.40 335 eP 07 02.00 0.7
NB2 44.00 323 P 07 37.80 -1.2
0.8s 1.40nm 3.6mb
YKA 81.06 2 eP 11 43.40 -0.5
0.5s 0.30nm 3.3mb
S.D. = 0.9 on 9 of 10 obs.

APR 21, 1990 05h 14m 03.93±0.25s
1.234 N ± 4.4km 123.254 E ± 5.8km
DEPTH = 32.9km (4 depth phases)
5.1mb (18 obs.) 4.7MsZ (5 obs.)
MINAHASSA PENINSULA (265)

CENTROID, MOMENT TENSOR
Data Used: GDSN
L.P.B.: 12S, 29C
Centroid Location:
Origin Time 05:14: 9.5 0.6
Lat 1.92N 0.05 Lon 123.77E 0.06
Dep 38.1 4.0 Half-duration 2.1
Moment Tensor: Scale 10**17 Nm
Mrr= 1.24 0.10 Mtt=-1.96 0.09
Mff= 0.72 0.14 Mrt=-1.08 0.19
Mrf= 0.15 0.13 Mtf=-0.40 0.10
Principal Axes:
T Val= 1.64 Plg=66 Azm=223
N 0.68 17 89
P -2.33 17 354
Best Double Couple: Mo=2.0*10**17
NP1: Strike= 59 Dip=32 Slip= 56
NP2: 278 64 110

TSM 5.97 300 iPc 15 33.00 0.7
DAV 6.26 22 eP 15 36.00 -0.4
KKM 8.49 304 ePd 16 06.00 -1.8
PPR 9.60 332 iPd 16 22.00 -1.0
KHKI 12.21 219 ePd 17 33.30 34.8X
e 19 20.00
OCP 13.49 351 eP 17 20.00 4.5X
TRT 13.82 230 iPc 17 18.00 -1.9
BAG 15.31 350 eP 17 40.00 0.4
eS 20 26.00
MTN 16.02 151 eP 17 49.00 0.4
CVP 16.43 355 eP 17 59.00 5.3X
KNA 17.73 162 eP 18 11.20 1.1
KGM 19.94 272 eP 18 38.00 2.6
IPM 22.44 279 ePc 19 03.10 1.5
e 19 22.30 88kmX
MBL 22.51 188 eP 19 01.50 -0.7
HKC 22.73 338 iP 19 12.00 7.6X
iS 23 12.00
SNG 23.33 285 eP 19 11.70 1.5
1.0s 118.00nm 5.4mb
eS 23 27.20

WB5 23.65 153 eP 19 13.30 0.0
WRA 23.69 153 Pc 19 13.90 0.1
0.8s 31.00nm 4.9mb
ANP 23.87 356 eP 19 16.00 0.5
GUMO 24.66 59 eP 19 27.50 4.3X
NANU 24.82 197 eP 19 24.10 -0.6
0.5s 52.00nm 5.4mb
NNT 25.90 297 eP 19 34.00 -0.9
PMG 26.05 114 eP 19 36.50 0.2
LOE 26.57 308 eP 19 41.00 -0.1
ASPA 26.83 158 eP 19 43.00 -0.4
0.7s 14.00nm 4.7mb

eS 24 32.10
QIS 26.94 144 eP 19 43.70 -0.7
WARB 27.45 173 eP 19 49.00 -0.1
MEKA 28.06 189 eP 19 53.70 -0.8
0.3s 8.00nm 4.9mb
RAB 29.39 101 e(P) 20 08.00 1.3
CHG 29.55 308 eP 20 08.90 0.8
SSE 29.76 356 P 20 10.00 0.2

Z 20s 1.10um 4.5MsZ
pP 20 20.00 35km
sP 20 24.50
S 25 04.00
esS 25 12.00

KMI 30.92 322 Pc 20 21.50 1.1
2.0s 0.10nm 2.3mb X
Z 15s 2.70um 5.0MsZ X
N 10s 0.60um
E 14s 1.20um

pP 20 31.50 36km
sP 20 35.00
iS 25 30.00
CTA 30.94 134 eP 20 20.00 -0.4
1.5s 69.44nm 5.2mb
ePcP 23 17.00
eS 25 15.00
e 25 36.00

MRWA 31.07 192 eP 20 20.00 -1.3
COOL 32.00 183 eP 20 30.00 0.5
FORR 32.24 172 iPd 20 30.20 -1.3
0.5s 44.00nm 5.6mb
MUN 33.70 191 eP 20 41.00 -3.3X
NWA0 34.45 189 eP 20 49.00 -1.7

0.5s 8.00nm 4.9mb
Z 20s 1.20um 4.6MsZ
N 20s 0.70um
E 20s 1.20um

RMO 36.94 140 P 21 11.00 -1.0
MAT 37.76 20 iP 21 17.50 -1.2
0.8s 6.72nm 4.6mb
Z 20s 1.77um 4.9MsZ

ADE 38.81 160 iPc 21 30.00 2.4
0.7s 38.36nm 5.3mb
LZH 39.07 335 Pc 21 30.00 0.1
3.0s 76.00nm 4.9mb
N 13s 1.00um
E 13s 1.20um

pP 21 40.50 37km
sP 21 43.50
i 22 06.50
PP 23 05.00
PPP 23 28.00
S 27 31.00
sS 27 46.00
SS 30 25.00

BJI 39.16 351 eP 21 30.50 0.2
1.2s 34.00nm 5.0mb
Z 20s 0.96um 4.6MsZ
N 15s 0.81um

esP 21 42.00
ePP 23 04.00
eS 27 24.00
eSS 30 06.00
BRS 40.20 137 eP 21 40.00 0.7
i 21 47.20 24km

BWA 42.61 149 eP 22 02.50 3.6X
CAN 43.61 149 eP 22 09.00 2.0
TOD 43.75 154 eP 22 07.00 -1.1
GUN 44.51 310 P 22 15.60 0.7
PKI 44.71 309 P 22 16.70 0.3
KKN 44.92 309 P 22 18.60 0.7
DMN 44.96 309 P 22 18.80 0.4
KOD 46.37 283 eP 22 30.50 0.8
HYB 46.78 293 eP 22 33.50 0.9

1.2s 57.10nm 5.4mb
GBA 46.96 287 Pc 22 33.40 -0.6
0.8s 27.10nm 5.3mb
DZM 48.08 121 iPc 22 38.00 -4.8X
POO 51.39 293 eP 23 08.50 0.3
NDI 51.68 306 eP 23 09.50 -0.7
MAIO 68.30 309 eP 25 04.00 -0.3

eS 34 08.00
BBTK 89.60 310 eP 27 00.00 0.0
SPA 91.23 180 iPc 27 08.40 1.4
1.1s 11.90nm 5.2mb
SOD 91.43 337 eP 27 08.00 0.2
SUF 92.18 333 iP 27 10.20 -1.1

21d 05h

NUR 93.18 331 eP 27 14.00 -1.9
 HFS 98.57 332 eP 27 38.30 -2.2
 Z 0.8s 7.70nm 5.3mb
 16s 0.64um 5.2mszX
 LR 15 03.00
 NB2 99.43 333 P 27 42.00 -2.5
 0.8s 3.80nm 5.0mb
 GRF 103.14 322 e(Pdif 28 07.00 5.8X
 Z 22s 0.30um 4.8msz
 e(PP) 32 21.00
 YKA 103.18 24 ePdiff 28 01.70 0.6X
 0.8s 0.40nm 4.2mb
 ALO 121.26 47 ePKP 32 56.00 0.0
 LNV 144.67 159 ePKP 33 39.00 -0.4
 TACH 145.11 159 ePKP 33 40.00 -0.3
 PEL 145.66 159 ePKP 33 41.00 -0.3
 1.0s 30.00nm
 ZOBO 161.32 144 PKP 34 06.00 2.3
 Z 22s 0.25um
 i 34 50.00
 LR 31 44.00
 SIV 164.73 164 PKP 34 07.00 1.4
 i 35 03.00
 S.D. = 1.1 on 63 of 73 obs.

APR 21, 1990 05h 43m 21.64 ± 0.41s
 44.486 N ± 3.4km 7.292 E ± 4.0km
 DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
 ML 2.2 (GEN), 2.0 (LDG).

DOI 0.04 298 P 43 24.40 0.6
 eSg 43 26.20
 PZZ 0.14 278 Pc 43 25.21 0.2
 S 43 27.18
 STV 0.24 174 Pd 43 26.68 -0.2
 S 43 29.62
 ENR 0.28 160 Pc 43 27.33 -0.1
 S 43 30.83
 ROB 0.46 115 P 43 31.26 0.3
 S 43 37.79
 RRL 0.56 320 P 43 32.67 -0.6
 S 43 40.05
 SBF 0.63 171 Pg 43 34.10 -0.3
 Sg 43 41.30
 RSP 0.67 358 P 43 34.78 -0.2
 PCP 0.90 86 P 43 39.03 0.1
 FRF 1.04 207 Pg 43 41.00 -0.2
 Sg 43 53.20
 LRG 1.23 213 Pg 43 44.90 0.4
 Sg 43 59.80
 LMR 1.28 206 Pg 43 45.40 0.0
 Sg 44 00.80
 S.D. = 0.4 on 12 of 12 obs.

? APR 21, 1990 05h 49m 08.92 ± 2.38s
 41.683 N ± 25.1km 12.827 E ± 13.8km
 DEPTH = 10.0km (geophysicist)

SOUTHERN ITALY (390)

RDP 0.11 313 P 49 11.80 -0.1
 eSg 49 13.90
 RMP 0.16 324 P 49 12.70 0.1
 eSg 49 15.10
 MNS 0.71 351 P 49 22.90 0.0
 SDI 0.74 88 P 49 23.50 0.0
 S.D. = 0.1 on 4 of 4 obs.

* APR 21, 1990 08h 25m 05.89 ± 0.61s
 60.534 S ± 13.3km 47.071 W ± 14.9km
 DEPTH = 10.0km (geophysicist)
 4.8mb (5 obs.)

SCOTIA SEA (150)

SPA 29.63 180 eP 31 15.20 1.9
 1.2s 14.79nm 4.7mb
 LNV 30.94 318 eP 31 24.00 -0.8
 PCH 30.96 320 iPd 31 25.00 -0.1
 TACH 31.06 319 iPc 31 25.10 -0.8
 PEL 31.45 320 iPc 31 29.00 -0.4
 1.0s 35.00nm 5.2mb
 BAO 44.84 359 eP 33 23.10 1.2
 CCH 45.23 334 P 33 26.80 1.6
 SIV 45.62 341 iP 33 27.60 -0.4
 LPB 46.49 332 P 33 36.00 0.7
 ZOBO 46.75 332 P 33 38.10 0.6
 1.0s 7.50nm 4.7mb

ARE 47.41 327 eP 33 44.00 1.6
 BLF 56.95 91 eP 35 28.00 34.3X
 LIC 74.25 44 P 36 44.80 0.2
 KIC 74.48 44 Pc 36 45.80 -0.1
 0.9s 11.50nm 4.9mb
 TIC 74.65 44 Pc 36 46.90 0.0
 BCAA 82.13 66 ePc 37 28.30 0.4
 0.4s 4.00nm 4.9mb
 FRB 125.02 349 ePKP 44 05.00 -1.1
 NB2 129.26 32 PKP 44 13.40 -1.1
 1.3s 5.90nm
 YKA 133.01 324 ePKP 44 05.20 -16.3X
 0.9s 0.40nm
 MBC 143.90 337 ePKPd 44 39.10 -1.9
 0.5s 7.00nm
 PMR 144.37 307 ePKP 44 40.60 -1.6
 FBA 145.63 312 ePKP 44 44.30 0.0
 TTA 147.82 306 PKP 44 51.30 3.3X
 IMA 148.35 312 ePKP 44 52.80 4.0X
 0.8s 7.70nm
 LZH 149.28 130 PKPc 44 54.50 3.2X
 2.0s 33.00nm
 pP 44 58.50
 i 45 09.50
 BRW 151.22 321 ePKP 44 59.10 6.3X
 ADK 151.34 275 PKP 45 00.70 7.1X
 S.D. = 1.1 on 20 of 27 obs.

APR 21, 1990 09h 00m 45.60 ± 0.47s
 15.679 N ± 6.9km 147.204 E ± 9.9km
 DEPTH = 33.0km (normal)
 4.1mb (5 obs.) 4.1msz (1 obs.)

MARIANA ISLANDS REGION (215)

GUMO 3.07 228 eP 01 32.70 -0.3
 eS 02 07.00
 PJG 3.07 228 eP 01 32.30 -0.7
 GUA 3.07 226 eP 01 32.70 -0.3
 KAKJ 21.38 344 eP 05 31.60 -0.9
 CHJJ 21.57 342 P 05 34.50 0.1
 MAT 22.27 341 (P) 05 44.00 2.6
 0.8s 7.46nm 4.2mb
 (S) 09 44.00
 MTMJ 22.44 340 eP 05 42.10 -1.1
 NIJJ 22.67 343 eP 05 45.40 0.1
 PMG 24.93 180 eP 06 06.00 -1.3
 SSE 28.28 307 eP 06 50.00 11.9X
 E 14s 0.50um
 eS 11 48.00
 BJI 36.31 318 eP 07 52.50 4.4X
 Z 20s 0.30um 4.1msz
 WB5 37.52 200 eP 08 00.20 1.7
 WRA 37.59 200 P 08 00.00 1.0
 0.6s 1.50nm 4.0mb
 LZH 43.55 306 Pc 08 47.50 -0.8
 2.0s 33.00nm 4.8mb
 pP 08 58.50 39kmX
 sP 09 03.50
 PP 10 09.50
 CHTO 46.09 281 eP 09 11.00 2.3
 0.8s 1.46nm 4.0mb
 GUN 57.72 293 P 10 36.20 -0.1
 PKI 58.14 293 P 10 38.40 -0.8
 GKN 58.81 293 P 10 43.20 -0.5
 INK 71.58 23 eP 12 05.00 -0.2
 MBC 75.70 14 eP 12 29.00 -0.1
 YKA 79.97 28 eP 12 51.70 -1.0
 0.8s 1.70nm 4.1mb
 CMB 82.37 53 eP 13 05.90 -0.1
 SES 85.37 39 eP 13 21.00 0.1
 LRM 85.93 44 eP 13 23.90 -0.2
 FFC 88.84 33 eP 13 38.00 0.4
 1.5s 23.00nm 5.3mb X
 KIC 144.62 306 PKP 20 20.00 -1.5
 ZOBO 146.06 96 PKP 20 26.00 1.5
 LPB 146.10 96 ePKP 20 18.00 -6.4X
 S.D. = 1.1 on 25 of 28 obs.

APR 21, 1990 09h 17m 42.77 ± 0.29s
 44.502 N ± 2.6km 8.787 E ± 2.5km
 DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
 ML 2.9 (GEN), 3.2 (LDG). MD 2.8 (STR).

PCP 0.18 283 P 17 46.67 -0.1

CKI 0.37 258 Pd 17 49.02
 eSg 17 50.20 -0.2
 BOB 0.54 60 Pc 17 55.30
 eSg 17 53.20 -0.5
 18 02.00
 ROB 0.69 253 P 17 55.59 -0.9
 S 18 05.23
 ENR 1.02 255 P 18 01.84 -0.3
 S 18 14.76
 SAOF 1.02 240 Pg 18 02.66 0.5
 Sg 18 17.28
 STV 1.08 257 P 18 03.28 0.1
 S 18 17.23
 AUTN 1.10 243 Pg 18 03.91 0.3
 DOI 1.10 271 P 18 02.80 -0.7
 eSg 18 18.80
 SBF 1.16 237 Pg 18 05.00 0.4
 Sg 18 19.80
 PZZ 1.21 271 P 18 04.51 -0.8
 S 18 18.97
 TOUF 1.21 247 Pg 18 06.06 0.6
 Sg 18 23.31
 AURF 1.22 240 Pg 18 06.01 0.5
 Sg 18 23.76
 ORO 1.26 333 Pc 18 06.90 0.6
 eSg 18 23.20
 ORX 1.27 334 P 18 05.60 -0.8
 S 18 20.40
 RSP 1.27 301 P 18 05.53 -0.9
 S 18 21.02
 REVf 1.27 234 Pg 18 07.94 1.5
 Sg 18 25.52
 MVIF 1.32 243 Pg 18 08.04 0.7
 VAI 1.36 360 P 18 08.00 0.2
 BDI 1.37 108 Pc 18 07.90 -0.1
 eSn 18 24.50
 MME 1.41 102 Pc 18 08.80 0.1
 PII 1.47 121 P 18 10.00 0.7
 eSn 18 28.30
 RRL 1.49 287 P 18 09.74 0.0
 LSD 1.50 310 P 18 09.43 -0.6
 CALN 1.56 242 Pg 18 12.34 1.6
 BNI 1.60 291 P 18 11.00 -0.3
 eSn 18 32.00
 TMA 1.61 2 ePd 18 11.10 -0.3
 MMK 1.66 340 ePc 18 12.10 -0.1
 SAL 1.66 48 P 18 12.00 0.1
 LPG 1.75 305 Pn 18 14.30 0.6
 Sn 18 36.40
 LPL 1.78 306 Pn 18 15.00 1.1
 Sn 18 38.00
 FRF 1.81 239 Pn 18 14.20 0.0
 Sg 18 39.60
 DIX 1.85 329 ePd 18 16.20 1.1
 PGF 1.96 175 Pn 18 14.20 -2.3
 LMR 2.02 235 Pn 18 16.50 -0.7
 Sg 18 46.40
 LRG 2.04 240 Pn 18 16.70 -0.8
 Sg 18 46.90
 VDL 2.04 13 ePd 18 18.40 0.6
 EMS 2.04 321 ePc 18 19.30 1.5
 OSS 2.38 23 ePc 18 23.90 1.2
 HAU 3.89 335 Pn 18 43.20 -0.7
 Sn 19 28.20
 CDF 4.05 346 Pn 18 44.90 -1.3
 SMF 4.08 303 Pn 18 46.60 0.0
 LBF 4.18 308 Pn 18 46.90 -1.2
 Sn 19 35.00
 LOR 4.42 311 Pn 18 51.00 -0.3
 Sn 19 41.40
 AVF 4.45 303 Pn 18 51.60 -0.1
 SSF 4.49 307 Pn 18 52.20 -0.2
 BGF 4.65 298 Pn 18 54.90 0.2
 TCF 4.96 293 Pn 18 58.80 -0.3
 S.D. = 0.8 on 48 of 48 obs.

APR 21, 1990 09h 24m 49.40 ± 0.54s
 58.145 N ± 5.8km 154.669 W ± 5.3km
 DEPTH = 107.0 ± 6.4 km
 4.3mb (2 obs.)

ALASKA PENINSULA (12)

CDD 0.95 34 iP 25 09.61 -0.6
 KDC 1.23 108 iPc 25 13.00 -0.1
 AUE 1.39 28 iP 25 15.44 0.4
 AUL 1.40 27 iP 25 15.38 0.2
 PDB 1.67 8 iP 25 18.09 -0.4

		eS	25 38.87	
XLV	2.02	48 eP	25 23.34	0.3
CNPM	2.26	51 eP	25 26.44	0.3
RED	2.48	22 iP	25 29.63	0.5
		eS	25 59.52	
NNL	2.58	41 eP	25 31.62	1.2
RDT	2.70	24 eP	25 32.21	0.2
		eS	26 04.60	
SVW	3.01	351 iPc	25 35.70	-0.6
NKA	3.14	32 eP	25 39.71	1.8
CKL	3.28	20 eP	25 40.37	0.4
		eS	26 19.02	
SLKM	3.29	42 eP	25 39.65	-0.3
SPU	3.32	22 eP	25 40.97	0.5
SEW	3.33	52 eP	25 39.75	-0.7
BGL	3.33	19 eP	25 41.33	0.6
CGLM	3.45	22 eP	25 42.73	0.5
NCG	3.51	20 eP	25 43.75	0.7
SUA	3.87	29 eP	25 48.34	0.3
PMS	4.05	38 eP	25 50.10	-0.2
MTU	4.07	60 eP	25 51.21	0.6
SKT	4.16	21 eP	25 51.68	-0.1
PWA	4.26	32 iP	25 53.00	-0.2
SDN	4.26	231 eP	25 52.70	-0.5
PLRM	4.44	37 eP	25 54.57	-1.1
PMR	4.44	37 iP	25 55.30	-0.4
MID	4.52	70 eP	25 56.90	0.1
GHO	4.64	36 eP	25 57.47	-1.1
GLI	4.73	51 eP	25 58.43	-1.3
CUT	4.80	25 eP	26 00.82	0.2
TTA	4.85	353 eP	26 01.50	0.2
VZW	5.05	51 eP	26 02.98	-1.2
TOA	5.81	43 eP	26 14.30	-0.3
FBA	7.53	23 eP	26 36.00	-2.0
IMA	7.97	3 eP	26 44.30	0.2
HYT	9.13	66 P	27 00.00	0.0
DWY	9.44	45 P	27 04.20	0.2
ADK	14.06	253 eP	28 05.40	0.7
YKA	20.06	61 eP	29 16.50	0.6
	0.8s	7.70nm	4.1mb	
FRB	39.17	45 eP	32 10.00	2.4
HFS	61.71	7 eP	34 55.70	-2.1
	1.1s	7.10nm	4.6mb	
Z	19s	0.06um	3.8msz	
		LR	57 40.00	
S.D. = 0.9 on 42 of 42 obs.				

APR 21, 1990 09h 42m 27.87±0.62s
 46.175 N ± 6.7km 13.603 E ± 7.0km
 DEPTH = 10.0km (geophysicist)

AUSTRIA (546)

MD 2.8 (LJU). ML 2.5 (KBA). Felt

at Koborid, Yugoslavia.

VOY 0.25 125 iPg 42 33.30 0.1

RBL 0.27 355 Pc 42 33.00 -0.5

TRI 0.48 166 iPg 42 36.30 -1.3

LJU 0.66 101 ePg 42 40.70 -0.3

FVI 0.71 307 P 42 41.00 -0.8

CEY 0.72 127 ePg 42 43.50 1.4

KBA 0.92 349 iPg 42 45.30 -0.3

VBY 1.34 120 ePg 42 55.50 3.0X

CTI 1.36 265 P 42 53.20 0.2

SCE 1.56 304 eP 42 57.50 1.6

OGA 1.91 292 iPnc 43 03.70 2.7X

KHC 2.96 360 eP 43 20.50 4.7X

Sg 44 05.30

S.D. = 1.1 on 9 of 12 obs.

APR 21, 1990 09h 42m 56.72±0.78s

44.549 N ± 5.3km 8.759 E ± 6.3km

DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)

ML 2.8 (GEN). 3.0 (LDG). MD 2.7

(STR).

PCP 0.15 267 P 42 59.66 -0.7

S 43 02.63

CKI 0.36 250 P 43 03.20 -1.0

BOB 0.54 66 P 43 08.00

ROB 0.69 248 P 43 07.74 -2.6X

ENR 1.01 252 P 43 15.14 -0.8

SAOF 1.03 237 Pg 43 16.13 -0.1

STV 1.07 254 P 43 16.37 -0.6

DOI 1.08 268 P 43 16.10 -1.1

AUTN 1.10 240 Pg 43 17.25 -0.4

SBF 1.17 235 Pg 43 17.80 -0.9

PZZ 1.19 268 P 43 17.91 -1.0

ORO 1.21 333 P 43 20.00 0.7

TOUF 1.21 244 Pg 43 19.03 -0.4

ORX 1.21 333 P 43 19.92 0.5

AURF 1.22 238 Pg 43 19.16 -0.4

RSP 1.23 300 P 43 18.32 -1.3

REVF 1.29 232 Pg 43 21.65 1.0

MVIF 1.33 241 Pg 43 21.16 -0.1

LSD 1.46 309 P 43 19.96 -3.3X

RRL 1.45 285 P 43 23.24 0.0

CALN 1.56 240 Pg 43 26.51 1.8

BNI 1.57 289 P 43 25.40 0.6

LPG 1.71 304 Pn 43 28.30 1.3

LPL 1.73 305 Pn 43 28.10 0.9

FRF 1.82 238 Pg 43 29.70 1.5

PGF 2.01 175 Pn 43 28.20 -2.9X

LMR 2.03 234 Pg 43 33.40 2.1

LRG 2.05 239 Pg 43 34.40 2.8X

BGF 4.61 298 Pn 44 07.80 -0.3

S.D. = 1.0 on 25 of 29 obs.

APR 21, 1990 09h 45m 33.18±4.33s

51.747 N ± 25.6km 16.482 E ± 26.5km

DEPTH = 10.6 ± 3.9 km

POLAND (548)

ML 3.8 (VKA). 3.8 (GRF). 3.5

(KBA).

KSP 0.91 188 iPd 45 51.00 0.4

0.5s 159.00nm

iS 45 58.70

i 46 00.50

iLR 46 08.00

PRU 2.15 216 Pn 46 09.30 -0.1

Pg 46 12.00

eSn 46 26.50

eSg 46 33.00

iPn 46 10.20

CLL 2.22 260 iPg 46 14.20 -0.2

iSg 46 40.00

KRA 2.77 126 eP 46 32.20 13.9X

eS 47 08.70

KHC 3.21 216 iPn 46 24.50 -0.1

iPg 46 30.70

Sn 47 00.60

Sg 47 10.30

HOF 3.24 246 iPnc 46 24.70 -0.3

MOX 3.25 252 ePn 46 26.00 0.8

iPg 46 34.00

iSg 47 12.00

WET 3.48 223 iPnc 46 28.40 0.1

VKA 3.49 182 ePn 46 28.50 0.0

Z 18s 2.00um

iPg 46 39.10

iSg 47 23.00

LR 04 25.00

SPC 3.51 135 eP 46 42.80 13.8X

e 47 30.60

i 47 37.30

ZST 3.58 173 eP 47 01.70 31.9X

e 47 17.30

i 47 27.60

GRF 3.92 240 ePnc 46 34.70 0.0

ePg 46 46.30

e(Sn) 47 25.40

eSg 47 33.00

KBA 5.10 205 iPnc 46 51.50 0.0

iSg 48 11.80

i 48 13.90

OGA 6.05 218 iPd 47 05.10 0.2

DOU 7.69 262 iP 47 27.90 0.1

S.D. = 0.4 on 12 of 15 obs.

* APR 21, 1990 11h 22m 05.56±1.03s

23.959 N ± 8.5km 121.769 E ± 15.1km

DEPTH = 13.0 ± 9.6 km

3.5mb (1 obs.)

TAIWAN (244)

TWD 0.20 307 iPd 22 08.60 -1.6

eS 22 10.60

TWC 0.65 6 ePd 22 18.00 -0.2

eS 22 27.20

TWF1 0.74 216 ePc 22 20.90 1.0

TWQ 0.91 290 ePc 22 22.70 0.0

TATO 1.04 346 iP 22 26.20 1.3

TWZ 1.15 351 ePc 22 27.30 0.6

LAT 39.14 138 eP 29 34.00 -0.7

YKA 82.97 23 eP 34 31.00 -0.3

0.8s 0.30nm 3.5mb

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

* APR 21, 1990 11h 53m 32.37±1.19s

44.598 N ± 8.6km 8.487 E ± 8.9km

DEPTH = 5.0km (geophysicist)

NORTHERN ITALY (545)

ML 2.5 (GEN).

PCP 0.07 144 P 53 33.63 -0.5

S 53 36.61

ROB 0.54 236 P 53 42.85 -0.3

S 53 51.99

ENR 0.85 244 P 53 48.40 -0.9

S 54 03.17

STV 0.91 247 P 53 48.81 -1.4

S 54 04.19

PZZ 1.00 265 P 53 51.68 -0.1

S 54 07.78

SBF 1.05 226 Pg 53 54.00 1.2

Sg 54 08.00

ORX 1.09 341 P 53 53.69 0.2

S 54 11.02

FRF 1.68 233 Pg 54 04.40 1.8

Sg 54 28.50

LMR 1.91 229 Pg 54 09.80 4.0X

Sg 54 34.60

LRG 1.91 234 Pg 54 09.40 3.5X

Sg 54 33.20

S.D. = 1.3 on 8 of 10 obs.

& APR 21, 1990 11h 55m 00.58s

62.271 N 147.280 W

DEPTH = 45.5km

CENTRAL ALASKA (1)

<AGS-P>.

NCA 0.35 142 iP 55 09.31 -0.6

eS 55 17.27

TOA 0.55 107 iP 55 11.82 -0.5

eS 55 20.15

SML 0.68 227 iP 55 13.23 -0.8

SDG 0.85 72 eP 55 15.32 -1.0

GHO 0.92 238 eP 55 16.55 -0.9

KLK 1.01 140 iP 55 17.66 -1.0

PAX 1.09 49 eP 55 18.72 -1.1

eS 55 33.06

PLRM 1.11 233 eP 55 19.15 -0.7

VZW 1.26 164 eP 55 20.89 -1.3

HUR 1.30 304 eP 55 23.08 0.4

RND 1.35 328 eP 55 23.84 0.5

PWA 1.38 244 iP 55 24.09 0.4

GLI 1.40 176 eP 55 23.84 -0.2

CUT 1.40 277 eP 55 23.77 -0.3

PMS 1.50 227 eP 55 25.66 0.2

21d 11h

MCK	1.65	333	eP	55	45.07	
DDM	1.65	22	eP	55	27.81	0.2
			eS	55	28.60	0.9
SUA	1.83	245	eP	55	48.31	
GLB	1.84	115	eP	55	30.83	0.6
SKT	2.02	264	eP	55	30.08	-0.3
HDA	2.15	4	eP	55	33.15	0.3
SLKM	2.27	220	eP	55	35.05	0.4
CCB	2.40	355	eP	55	37.05	0.7
CGLM	2.44	249	eP	55	37.74	-0.4
NCG	2.47	252	eP	55	38.58	-0.4
SPU	2.52	246	eP	55	39.22	-0.1
CRP	2.53	249	eP	55	39.70	-0.3
BGL	2.63	250	eP	55	41.04	0.8
CKL	2.64	248	eP	55	39.47	-2.2
			eS	55	42.12	0.4

29 obs. associated

* APR 21, 1990 11h 56m 16.28±0.97s
7.077 S ±10.2km 130.044 E ±14.5km
DEPTH = 62.8 ± 9.8 km
4.6mb (5 obs.)

TANIMBAR ISLANDS REGION (281)

MTN	5.83	170	eP	57	44.30	2.0
			eS	58	46.00	
KNA	8.71	188	eP	58	21.40	-0.7
	0.2s	130.00nm		59	53.00	6.5mb X
WB5	13.40	162	eP	59	23.50	-1.8
			eS	01	45.00	
QIS	16.29	146	eP	00	03.00	0.4
			eS	02	51.00	
PMG	17.09	99	eP	00	17.00	4.4X
MBL	17.13	214	eP	00	11.50	-1.6
			eS	03	10.00	
WARB	19.28	189	eP	00	39.10	0.2
	0.3s	7.00nm		00	49.50	4.4mb
CTA	20.36	131	eP	00	58.50	-0.8
			i	05	04.00	
			e(S)	07	45.00	
NANU	20.80	221	iPd	00	55.10	0.4
	0.3s	9.00nm		01	25.00	4.6mb
FORR	23.72	184	eP	01	25.00	1.6
CHG	40.03	310	eP	03	46.80	-0.3
	0.9s	12.60nm		03	46.80	4.8mb
CHTO	40.03	310	iP	03	46.80	-0.2
	0.8s	4.03nm		05	53.00	4.4mb
GBA	56.12	291	P	05	53.00	1.0
	0.2s	8.80nm				5.4mb
YKA	107.80	26	ePKP	14	37.40	-0.3
	0.6s	0.20nm				

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

* APR 21, 1990 12h 24m 04.83±1.34s
29.649 N ±11.6km 138.096 E ±11.6km
DEPTH = 486.7 ± 16.4 km
4.0mb (5 obs.)

SOUTH OF HONSHU, JAPAN (211)

MAT	6.87	1	iPc	25	50.50	0.1
	0.9s	16.81nm		27	13.00	4.2mb
			eS	28	10.50	-0.8
BJI	20.71	306	eP	30	35.00	0.6
CHTO	37.14	262	iP	29	57.00	-59.1X
	0.9s	12.36nm		31	41.90	0.4
PMG	39.80	166	eP	31	45.30	0.0
GUN	45.48	281	P	31	45.80	0.3
PKI	45.97	281	P	31	47.20	0.1
KKN	46.02	281	P	32	10.30	-0.3
DMN	46.22	281	P	32	10.80	-0.3
WB5	49.37	185	iPc	32	10.80	-0.3
WRA	49.44	185	Pc	32	10.80	-0.3
	0.6s	4.60nm		34	36.40	-0.7
YKA	71.60	28	eP	35	22.00	-0.8
	0.4s	0.60nm		35	32.80	1.4
NB2	79.88	337	P			
	0.7s	1.60nm				
LRM	81.43	42	eP			

S.D. = 0.8 on 12 of 13 obs.

APR 21, 1990 13h 01m 07.81±0.40s
28.174 N ± 6.7km 55.551 E ± 4.7km
DEPTH = 33.0km (normal)
4.4mb (15 obs.)

SOUTHERN IRAN (353)

BRF	4.90	246	ePn	02	20.80	-0.2
BJA	4.91	245	iPn	02	22.80	1.5
			eSn	03	21.80	
BEE	4.97	246	ePn	02	22.50	0.4
DHR	5.17	250	eP	02	26.00	1.1
IR4	8.08	332	iPc	03	06.00	0.1
IR5	8.19	330	eP	03	07.50	0.0
IR2	8.45	333	eP	03	11.00	0.0
IR7	8.60	332	ePd	03	13.00	-0.1
RYD	8.72	249	eP	03	13.00	-1.7
MAIO	8.76	21	eP	03	17.00	1.7
			eS	05	40.00	
KER	9.49	313	eP	03	41.00	15.6X
BHD	10.87	301	ePc	03	43.00	-1.1
			eS	05	42.00	
			eLQ	07	29.00	
QASM	10.90	262	ePc	03	41.10	-3.6X
SLY	11.30	313	eP	03	48.50	-1.5
			eS	06	02.50	
			e	07	40.00	
KMSA	12.72	235	eP	04	05.70	-3.5X
MSL	13.30	311	ePc	04	03.00	-13.7X
			eS	06	40.00	
			e	08	09.00	
HRI	17.77	291	eP	05	12.00	-2.3
DSI	17.82	286	eP	05	15.00	0.2
PRNI	18.07	282	eP	05	19.50	1.6
MBH	18.16	280	eP	05	19.00	0.0
NDI	19.06	83	eP	05	27.50	-2.6
BBTK	22.12	308	eP	06	03.00	0.8
			e	06	12.00	
HYB	23.71	112	eP	06	19.00	1.2
ALT	23.73	304	eP	06	19.50	1.6
KHL	23.93	302	eP	06	21.00	1.2
GBA	25.00	121	Pd	06	32.50	2.3
	0.8s	3.40nm		06	39.90	-0.8
DMN	26.10	84	P	06	42.20	-1.1
PKI	26.37	84	P	06	45.40	-1.3
GUN	26.74	83	P	07	10.00	2.3
MLR	29.10	314	eP	08	18.00	
			e	07	53.90	-3.8X
SRO	34.84	314	eP	08	08.00	2.6
ZST	35.74	315	eP	08	21.00	0.5
RBL	37.52	311	P	08	26.20	-0.3
KHC	38.25	315	iP	08	26.20	-0.3
	1.0s	11.00nm		08	34.50	4.6mb
			i	08	29.00	0.9
NUR	38.47	336	eP	08	10.00	-20.7X
CTI	38.73	309	P	08	36.00	0.8
CLL	39.30	318	e(P)	08	39.00	-1.1
GRF	39.89	315	e(P)	08	45.00	3.6X
BOB	40.03	307	P	08	47.00	0.0
CHTO	40.69	94	eP	08	57.00	-0.8
	1.0s	5.00nm		08	59.50	1.5
BNI	42.02	307	P	08	57.70	-2.6
LPG	42.02	308	eP	08	57.70	-2.6
	0.6s	3.60nm		09	00.10	-0.7
BSF	42.34	311	eP	09	00.10	-0.7
	0.8s	5.35nm		09	03.50	4.8mb
BCAO	42.36	243	ePc	09	03.50	-0.4
	0.2s	4.00nm		09	05.00	0.2
		i		09	19.00	13.4X
HFS	42.63	330	ePKP	09	11.50	0.1
	0.6s	5.10nm		09	13.40	-1.3
SOD	42.94	344	iP	09	13.40	-1.3
NST	42.96	97	eP	09	16.20	-1.1
LOE	43.67	94	eP	09	17.70	-0.2
NB2	44.14	331	P	09	20.00	0.6
	0.8s	2.50nm		09	19.40	-1.2
DOU	44.16	314	P	09	22.90	-1.0
SMF	44.17	309	eP	09	22.90	-1.0
	0.8s	8.05nm		09	45.10	2.9
SSF	44.44	310	eP	09	45.10	2.9
	0.7s	6.05nm		10	08.00	1.8
AVF	44.52	309	eP	10	08.00	1.8
KEV	44.74	346	iP	11	18.40	-1.5
BGF	44.84	309	eP	11	19.20	-1.5
	0.6s	6.75nm		12	51.00	-0.6
TCF	45.26	308	eP	12	51.00	-0.6
	0.7s	4.40nm		13	33.00	-0.5
LPF	47.59	311	eP			
BJI	50.70	60	eP			
KIC	60.89	261	P			
TIC	60.99	262	P			
MBC	75.79	359	eP			
	0.9s	4.00nm				
INK	83.58	3	eP			

YKA 89.31 355 eP 14 01.30 -0.4
1.3s 3.40nm 4.5mb
WRA 89.87 113 P 14 06.00 1.0
1.1s 2.20nm 4.3mb
S.D. = 1.3 on 55 of 64 obs.

* APR 21, 1990 13h 27m 32.75±1.40s
16.019 N ±13.1km 95.223 E ±12.4km
DEPTH = 33.0km (normal)
4.1mb (1 obs.)

SOUTH BURMA (298)

CHG 4.51 51 eP 28 40.00 -0.6
CHTO 4.51 51 eP 28 41.00 0.4
NST 4.74 94 eP 28 44.00 0.3
NNT 5.54 127 eP 28 55.00 -0.1
LOE 6.39 77 eP 29 16.00 8.9X
GUN 14.66 325 P 31 00.00 0.0
WRA 52.49 132 Pc 36 37.80 -7.3X
0.7s 1.80nm 4.1mb
S.D. = 0.6 on 5 of 7 obs.

% APR 21, 1990 13h 30m 20.52±0.84s
40.272 N ±14.5km 28.061 E ± 4.9km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

BNT 0.14 308 iPg 30 23.70 -0.1
EDC 0.17 296 iPg 30 24.00 -0.4
iSg 30 26.00
KCT 0.23 96 iPg 30 24.70 -0.7
YLV 1.04 73 iPn 30 40.70 0.4
HRT 1.34 65 iPn 30 45.60 0.3
EZN 1.40 252 ePn 30 46.50 0.4
S.D. = 0.6 on 6 of 6 obs.

& APR 21, 1990 13h 33m 01.44s
48.830 N 122.158 W
DEPTH = 3.7km
3.1mb (1 obs.)
WASHINGTON (29)
<SEA> CL 3.3 (SEA).

MBW	0.18	105	P	33	05.24	0.2
VDB	0.20	10	Pd	33	05.69	0.2
			S	33	09.89	
CMW	0.41	176	Pd	33	08.72	-0.9
MCW	0.47	252	Pc	33	09.90	-1.0
HNB	0.52	328	Pd	33	10.75	-1.2
			S	33	18.14	
OHW	0.56	206	P	33	11.95	-0.8
RPW	0.57	132	Pd	33	11.96	-0.9
JCW	0.65	166	Pd	33	13.25	-1.3
SNB	0.67	266	Pc	33	13.71	-1.2
PGC	0.87	259	Pc	33	16.56	-2.2
			S	33	28.24	
VGZ	0.88	242	Pc	33	16.73	-2.1
BIB	0.95	308	P	33	18.02	-2.1
			S	33	31.06	
BLN	0.99	214	Pc	33	19.21	-1.5
BLH	1.00	175	ePd	33	19.98	-0.9
PGW	1.05	196	P	33	20.86	-1.0
HTW	1.06	166	Pd	33	20.49	-1.5
WPB	1.08	321	P	33	20.15	-2.1
			S	33	33.92	
STW	1.21	236	P	33	22.34	-2.3
NAB	1.28	289	Pc	33	23.30	-2.4
			S	33	40.02	
SPW	1.28	183	P	33	25.20	-0.5
HDW	1.33	207	Pc	33	24.52	-2.1
GMW	1.35	198	Pd	33	25.04	-2.0
SHB	1.36	305	P	33	24.96	-2.3
			S	33	42.74	
RMW	1.39	170	P	33	26.19	-1.6
WHB	1.40	338	P	33	25.77	-2.1
NLW	1.43	121	P	33	27.32	-1.0

DHW2	1.80	117	P	33	33.64	0.0
WTV	1.86	127	P	33	34.10	-0.3
OBH	1.89	218	P	33	34.43	-0.4
RVC	1.89	176	P	33	34.32	-0.6
TWW	1.90	152	P	33	35.85	0.8
FMW	1.93	170	Pd	33	34.72	-0.8
CPW	1.97	200	P	33	35.16	-0.9
SAW	2.16	120	P	33	40.36	1.6
LMW	2.17	182	P	33	38.61	-0.3
WPW	2.17	169	P	33	39.03	0.0
EBG	2.20	150	P	33	40.98	1.6
APW	2.20	189	P	33	38.96	-0.4
ONR	2.24	210	P	33	39.37	-0.5
EPH	2.27	130	P	33	42.28	2.0
NAC	2.28	156	P	33	40.92	0.4
GLK	2.30	171	P	33	41.24	0.4
BTB	2.30	287	P	33	39.80	-1.1
KOSW	2.37	181	P	33	41.86	0.0
VTG	2.38	141	P	33	43.61	1.8
CZM	2.41	186	P	33	42.25	-0.1
BMW	2.46	197	P	33	42.74	-0.4
TDL	2.48	181	P	33	43.31	-0.2
ERK	2.53	183	P	33	43.87	-0.3
BVW	2.54	142	P	33	46.70	2.5
MXC	2.58	150	P	33	44.87	0.1
SOSW	2.59	180	P	33	45.44	0.4
PRW	3.11	146	P	33	52.12	-0.1
KMOR	3.32	196	P	33	54.68	-0.7
YKA	14.33	14	eP	36	26.60	-0.3

0.5s 0.20nm 3.1mb
65 obs. associated

? APR 21, 1990 13h 35m 18.72±1.41s
2.697 N ±31.1km 79.879 W ±65.2km
DEPTH = 10.0km (geophysicist)
3.5mb (1 obs.)

SOUTH OF PANAMA (83)

COTA	2.81	147	P	36	03.80	-1.2
GGP	3.13	156	P+	36	08.90	-0.6
			eS	36	44.20	
OUR	3.15	155	P	36	09.20	-0.6
			S	36	44.30	
OTO	3.18	155	eP	36	10.00	-0.1
			eS	36	44.90	
CAYA	3.22	144	P	36	11.00	0.2
VC1	3.63	156	P	36	17.30	0.7
ZOBO	22.14	149	P	40	19.00	2.0
YKA	65.00	343	eP	46	00.50	-0.4

0.8s 0.30nm 3.5mb
S.D. = 1.2 on 8 of 8 obs.

? APR 21, 1990 13h 37m 46.03±2.33s
39.340 N ±14.3km 27.249 E ±47.6km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

IZM	0.94	179	ePg	38	04.00	0.0
			eSg	38	19.00	
EDC	1.11	25	ePn	38	07.00	0.1
BNT	1.14	27	iPn	38	07.20	-0.1
KCT	1.25	43	iPn	38	09.20	0.0

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

& APR 21, 1990 14h 39m 46.67s
59.042 N 152.915 W
DEPTH = 71.7km

SOUTHERN ALASKA (2)

<AGS-P>.

CDD	0.39	254	eP	39	58.20	-0.7
			eS	40	08.07	
AUE	0.40	324	iP	39	58.38	-0.5
AUL	0.43	322	eP	39	58.62	-0.6
XLV	0.74	55	eP	40	01.51	-0.8
			eS	40	12.98	
CNPM	0.99	60	eP	40	04.88	-0.5
PDB	0.99	319	eP	40	04.44	-1.0
			eS	40	17.43	
NNL	1.30	39	eP	40	09.70	0.3
KDC	1.32	170	eP	40	09.49	-0.1
RED	1.38	3	iP	40	09.50	-1.1
			eS	40	26.53	
RDT	1.56	9	eP	40	11.86	-1.1
			eS	40	31.49	
NKA	1.90	26	eP	40	18.37	0.8
SLKM	2.00	42	eP	40	17.92	-1.1

SEW	2.06	57	eP	40	18.38	-1.3
CKL	2.18	7	iP	40	20.80	-0.7
			eS	40	46.84	
SPU	2.19	11	iP	40	20.88	-0.7
BGL	2.24	6	eP	40	21.68	-0.7
CRP	2.26	9	eP	40	22.11	-0.6
CGLM	2.32	11	eP	40	22.74	-0.7
NCG	2.40	9	iP	40	23.88	-0.7
SUA	2.66	23	eP	40	27.77	-0.4
PMS	2.77	36	eP	40	28.49	-1.2
PWA	3.02	29	eP	40	32.06	-1.0
SKT	3.03	12	eP	40	31.90	-1.3
PLRM	3.18	35	eP	40	33.11	-2.1
GHO	3.38	34	eP	40	36.76	-1.4
GLI	3.46	55	eP	40	35.92	-3.3
SML	3.59	37	eP	40	39.86	-1.2
CUT	3.62	20	eP	40	39.81	-1.6
VZW	3.78	55	eP	40	40.62	-3.1
KLU	4.26	52	eP	40	46.65	-4.0
TOA	4.53	44	eP	40	51.88	-2.4

31 obs. associated

? APR 21, 1990 15h 01m 11.70±6.92s
16.266 N ±21.0km 60.989 W ±59.3km
DEPTH = 33.0km (normal)
LEEWARD ISLANDS (92)
ML 2.1 (FDF).

SFG	0.20	266	eP	01	18.33	0.1
MGG	0.47	222	eP	01	21.74	-0.1
			S	01	29.00	
SEG	0.51	285	eP	01	22.41	-0.1
			S	01	31.50	
PAG	0.70	251	eP	01	25.40	0.1
			S	01	35.30	

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

& APR 21, 1990 15h 01m 17.86s
63.740 N 149.766 W
DEPTH = 135.6km
3.1mb (1 obs.)
CENTRAL ALASKA (1)
<AGS-P>.

MCK	0.37	91	iP	01	37.14	1.7
			eS	01	52.18	
RND	0.53	129	iP	01	37.44	-0.6
			eS	01	52.76	
KTH	0.55	251	iP	01	37.88	-0.3
			eS	01	52.89	
HUR	0.77	176	iP	01	38.94	-0.7
			eS	01	55.72	
NEA	0.89	19	iP	01	40.11	-0.5
			eS	01	57.12	
WRH	1.04	44	iP	01	41.51	-0.4
CCB	1.25	42	iP	01	43.51	-0.5
			eS	02	03.26	
RDS	1.30	32	iP	01	44.16	-0.4
			eS	02	04.24	
CUT	1.36	190	iP	01	43.94	-1.2
			eS	02	05.69	
HDA	1.41	60	iP	01	44.95	-0.7
FBA	1.45	36	iP	01	45.58	-0.5
			eS	02	07.10	
GLM	1.62	38	iP	01	47.52	-0.6
			eS	02	10.45	
DDM	1.74	87	eP	01	48.84	-0.6
			eS	02	12.12	
DMW	1.81	78	eP	01	49.57	-0.7
SKT	1.94	205	iP	01	50.00	-1.9
GHO	2.01	169	iP	01	51.30	-1.5
SML	2.05	161	eP	01	51.57	-1.6
PAX	2.09	110	eP	01	52.54	-1.2
PWA	2.10	181	eP	01	52.29	-1.4
PLRM	2.18	172	eP	01	52.65	-2.0
NCA	2.21	141	eP	01	53.82	-1.4
SDG	2.27	121	eP	01	54.98	-1.0
TOA	2.32	133	eP	01	55.46	-1.2
SUA	2.33	192	eP	01	55.30	-1.5
PMS	2.51	178	iP	01	57.16	-1.8
DOT	2.54	90	iP	01	57.86	-1.5
NCG	2.59	206	eP	01	58.23	-1.9
CGLM	2.65	204	eP	01	59.15	-1.7
CRP	2.72	205	eP	01	59.94	-1.8
SPU	2.78	204	eP	02	00.59	-1.9
CKL	2.82	206	eP	02	01.42	-1.6
KLU	2.87	140	iP	02	01.40	-2.3

IMA	2.87	326	iP	02	02.56	-1.2
TTA	2.93	257	eP	02	02.68	-1.8
VZW	3.08	150	eP	02	03.60	-2.7
NKA	3.09	194	eP	02	06.43	0.1
GLI	3.13	155	eP	02	04.29	-2.7
SLKM	3.25	184	eP	02	06.38	-2.2
RDT	3.41	202	eP	02	08.91	-1.8
RED	3.62	204	eP	02	11.34	-2.2
SEW	3.65	178	eP	02	11.24	-2.6
HIN	3.69	154	iP	02	11.84	-2.6
CVA	3.72	148	eP	02	12.41	-2.3
NNL	3.78	192	eP	02	14.44	-1.1
SVW	3.79	229	eP	02	13.28	-2.5
SGAM	3.89	145	eP	02	14.15	-2.9
RAGM	4.13	142	eP	02	17.90	-2.4
CNPM	4.29	190	eP	02	19.54	-2.8
TGL	4.41	130	iP	02	21.48	-2.7
PDB	4.49	210	eP	02	22.55	-2.5
WAX	4.63	132	eP	02	24.48	-2.6
CDD	5.17	203	eP	02	31.07	-3.2
YKA	15.83	79	eP	04	53.40	-0.6

0.6s 0.60nm 3.1mb
53 obs. associated

APR 21, 1990 15h 12m 29.97±0.56s
40.187 N ±5.5km 28.920 E ±4.6km
DEPTH = 11.2 ±4.4 km

TURKEY (366)

Felt at Bursa.

KCT	0.44	278	iPg	12	39.50	0.6
YLV	0.51	42	iPg	12	40.50	0.1
GBZT	0.72	33	iPg	12	45.60	1.5
			iSg	12	55.80	
BNT	0.78	283	iPg	12	46.50	1.4
EDC	0.82	281	iPg	12	46.00	0.2
			iSg	12	58.00	
HRT	0.85	42	iPg	12	45.80	-0.5
ISK	0.88	7	ePg	12	47.00	0.2
			eSg	12	58.80	
ITU	0.92	4	iPg	12	47.80	0.4
			iSg	13	00.00	
CTT	1.03	339	iPg	12	48.90	-0.4
			eSg	13	00.90	
GPA	1.07	84	ePn	12	50.50	0.5
KGT	1.26	283	iPn	12	54.50	1.2
ALT	1.46	141	iPn	12	57.60	1.3
KHL	1.92	166	iPn	13	03.80	0.9
EZN	2.03	261	iPn	13	06.00	1.6
IZM	2.20	216	ePn	13	05.10	-1.9
JMB	2.88	323	eP	13	19.00	2.5
BBTK	2.97	95	eP	13	22.00	4.0X
			eS	14	07.00	
BCK	3.02	154	ePn	13	23.00	4.4X
KDZ	3.03	300	eP	13	17.00	-1.7
RZN	3.52	297	eP	13	25.00	-0.8
KAS	3.87	71	ePn	13	42.50	11.8X
			iSg	14	32.50	
PVL	4.05	320	eP	13	35.00	1.9
MM8	4.18	291	eP	13	43.00	8.0X
KKB	4.72	293	eP	13	52.00	9.2X
			eS	15	00.00	
VTS	4.92	301	eP	13	46.00	0.3
MLR	5.73	339	eP	14	15.00	17.8X

S.D. = 1.3 on 20 of 26 obs.

* APR 21, 1990 15h 48m 20.32±0.87s
31.826 S

21d 15h

			i	49 30.50	
S.D. = 1.3			on 9 of 10 obs.		
?	APR 21, 1990	16h	14m	38.17± 1.91s	
44.481 N ±14.2km			6.981 E ±21.1km		
DEPTH = 10.0km			(geophysicist)		
FRANCE			(538)		
ML 1.7 (GEN).					
PZZ	0.09	74	P	14 40.93	0.0
			S	14 42.37	
STV	0.34	134	P	14 45.45	0.2
			S	14 50.27	
ENR	0.40	129	P	14 46.27	-0.2
			S	14 51.91	
RRL	0.46	342	P	14 47.60	0.0
			S	14 54.78	
S.D. = 0.3			on 4 of 4 obs.		
APR 21, 1990	16h	28m	55.18± 0.37s		
40.091 N ± 4.0km		21.763 E ± 3.0km			
DEPTH = 8.5 ± 2.7 km					
3.8mb (2 obs.)					
GREECE		(364)			
ML 3.3 (THE), 3.7 (ATH).					
LIT	0.56	89	e(Pg)	29 06.30	-0.1
FNA	0.75	337	ePg	29 09.10	-1.0
			eSg	29 19.80	
LSK	0.89	274	iPg	29 11.50	-1.0
KBN	0.90	307	iPg	29 12.30	-0.2
THE	1.07	59	ePg	29 16.00	0.6
			eSg	29 32.20	
AGG	1.15	157	ePb	29 17.50	0.6
			eSb	29 34.20	
IGT	1.23	244	ePb	29 18.10	-0.2
			eSb	29 38.70	
OHR	1.26	325	iPnd	29 18.60	-0.1
			iSg	29 37.40	
			Lg	29 39.70	
NEO	1.37	124	ePn	29 20.20	-0.4
VAY	1.37	26	iPn	29 21.00	0.5
			i	29 22.80	
			iSn	29 40.70	
			iSg	29 42.00	
			Lg	29 46.30	
			LR	29 48.80	
PAIG	1.48	96	ePb	29 21.40	-0.6
			eSb	29 43.20	
KEK	1.56	257	ePn	29 26.60	3.5X
OUR	1.72	81	ePb	29 25.40	0.0
			eSb	29 47.30	
SRS	1.73	53	e(Pb)	29 25.40	-0.3
SKO	1.89	353	iPn	29 28.00	0.0
			iPb	29 31.50	
			iSg	29 58.50	
			i	30 01.00	
			Lg	30 02.00	
TIR	1.91	312	ePn	29 30.70	2.4
KKB	2.04	29	iP	29 30.00	-0.1
			iS	29 55.00	
MMB	2.11	44	iPd	29 32.00	0.8
			iS	29 59.00	
LACI	2.19	315	ePn	29 33.50	1.2
ATH	2.61	144	ePn	29 42.60	4.4X
BCI	2.61	331	ePn	29 44.20	6.0X
VTS	2.73	23	iP	29 40.00	-0.1
RZN	2.75	54	iP	29 40.00	-0.5
ITM	2.91	177	ePb	29 51.70	9.1X
PGB	3.05	36	iP	29 45.00	0.4
RDO	3.06	69	ePn	29 51.00	6.4X
KDZ	3.18	59	eP	29 47.00	0.6
VLI	3.49	164	ePn	29 52.10	1.3
EZN	3.52	93	eP	29 50.50	-0.6
JMB	4.34	55	eP	30 10.00	7.1X
SDI	6.23	288	P	30 29.00	-0.7
			eSn	31 40.00	
HFS	20.69	349	eP	33 32.70	-5.2X
	1.2s		10.00nm		4.0mb
NB2	21.96	346	P	33 46.70	-4.2X
	0.8s		1.70nm		3.5mb
S.D. = 0.8			on 25 of 33 obs.		
* APR 21, 1990	16h	30m	57.39± 0.81s		
1.222 N ±21.0km		122.842 E ±23.0km			
DEPTH = 33.0km		(normal)			
4.4mb (1 obs.)					

MINAHASSA PENINSULA										(265)
TSM	5.62	302	ePd	32	22.10	1.2				
KKM	8.17	306	ePd	32	56.00	-0.7				
MTN	16.22	150	eP	34	44.00	-0.5				
IPM	22.04	279	ePc	35	54.60	3.5X				
WB5	23.82	152	eP	36	07.00	-1.5				
BJI	39.11	352	eP	38	23.00	-0.4				
BWA	42.82	148	eP	38	56.00	2.0				
CAN	43.81	149	eP	39	02.60	0.5				
GBA	46.57	288	Pc	39	23.40	-0.9				
	0.6s		2.50nm					4.4mb		
MAIO	67.99	309	eP	41	56.00	0.2				
S.D. = 1.3 on 9 of 10 obs.										
? APR 21, 1990 16h 42m 15.38±3.04s										
31.339 S ±11.4km 68.822 W ±23.2km										
DEPTH = 126.9 ± 29.1 km										
SAN JUAN PROVINCE, ARGENTINA (137)										
RTLL	0.30	88	iPd	42	33.10	-0.6				
RTCV	0.57	155	ePd	42	35.30	0.4				
			S	42	47.20					
RTBS	0.63	239	iPd	42	35.00	-0.1				
RTRS	1.29	335	iPc	42	41.50	0.3				
PEL	2.39	221	iPd	42	55.00	0.3				
			iS	43	24.20					
ROCH	2.47	228	eP	42	56.00	0.2				
			eS	43	26.00					
PCH	2.69	212	eP	42	59.00	0.5				
			e	43	33.80					
TACH	2.92	217	eP	43	01.10	-0.4				
			iS	43	36.00					
CHCH	3.01	210	iPd	43	03.50	0.7				
			iS	43	38.00					
LVN	3.40	219	iPc	43	06.50	-1.3				
			iS	43	40.20					
S.D. = 0.8 on 10 of 10 obs.										
? APR 21, 1990 16h 55m 31.08±2.49s										
17.697 S ±57.3km 69.463 W ±13.5km										
DEPTH = 222.7 ± 37.9 km										
PERU-BOLIVIA BORDER REGION (118)										
LPB	1.74	49	P	56	09.50	-0.2				
ZOBO	1.91	42	iPd	56	11.70	0.2				
			S	56	38.00					
ARE	2.30	302	iPc	56	15.00	0.0				
			iS	56	45.50					
CCH	3.18	85	P	56	24.90	0.1				
SIV	8.21	79	P	57	28.00	0.0				
			e	58	48.00					
S.D. = 0.3 on 5 of 5 obs.										
* APR 21, 1990 17h 02m 35.96±1.68s										
1.340 N ±10.5km 122.830 E ±16.7km										
DEPTH = 46.5 ± 20.1 km										
4.4mb (3 obs.)										
MINAHASSA PENINSULA (265)										
TSM	5.55	303	iPc	03	59.00	0.8				
KKM	8.09	305	ePd	04	33.30	-0.5				
PPR	9.32	334	iPc	04	50.00	-0.7				
MTN	16.32	150	eP	06	24.00	0.4				
IPM	22.01	279	ePd	07	41.50	13.4X				
WB5	23.93	152	eP	07	46.60	-0.3				
WRA	23.98	152	Pd	07	47.10	-0.2				
	0.6s		7.60nm					4.4mb		
NANU	24.80	196	eP	07	54.80	-0.4				
BJI	38.99	352	eP	10	00.00	0.4				
	1.0s		6.00nm					4.4mb		
GBA	46.53	287	P	11	08.00	6.9X				
	0.5s		2.90nm					4.5mb		
VNDA	81.58	172	e(P)	14	50.00	0.2				
S.D. = 0.6 on 9 of 11 obs.										
APR 21, 1990 17h 03m 11.98±0.37s										
36.425 N ±5.3km 26.647 E ±3.8km										
DEPTH = 141.3 ± 6.4 km										
4.1mb (16 obs.)										
DODECANESE ISLANDS (369)										
MD 4.4 (HLW).										
SMG	1.29	7	iPbd	03	39.10	0.2				
CIN	1.64	44	eP	03	43.00	0.2				
IZM	2.03	14	iPn	03	46.20	-1.2				
VAM	2.23	244	ePn	03	51.10	1.3				

			eSn	04 19.00	
KSL	2.39	96	iPnc	03 53.20	1.4
			eSn	04 21.00	
ELL	2.65	82	iPn	03 56.80	1.7
KHL	2.97	50	iPn	04 00.00	0.7
BCK	3.32	71	iPn	04 05.20	1.3
EZN	3.40	356	iPn	04 04.50	-0.3
ALT	3.80	45	iPn	04 11.00	0.8
EDC	4.03	13	iPn	04 12.00	-1.1
BNT	4.05	14	iPn	04 13.40	0.0
YLV	4.66	27	iPn	04 21.40	-0.2
PPCY	4.89	107	eP	04 24.50	-0.1
CTT	4.92	16	iPn	04 24.20	-0.8
CSS	5.63	103	eP	04 34.00	-0.7
LFK	5.71	100	iPn	04 35.30	-0.4
BBTK	5.90	53	iPd	04 40.00	1.6
HLW	7.64	148	ePn	05 52.25	50.5X
			eSn	06 23.50	
LCI	7.86	302	P	05 02.50	-2.3
ROI	8.55	295	P	05 13.90	-0.2
BRT	8.62	304	P	05 13.80	-1.1
BURJ	8.65	116	Pc	05 14.20	-1.2
SALJ	8.68	118	Pc	05 14.70	-1.1
TDS	8.75	295	P	05 16.10	-0.5
KFNJ	8.76	119	Pc	05 15.90	-0.8
CSI	8.82	295	P	05 18.10	0.5
MASJ	8.86	119	Pc	05 17.10	-1.1
MKRJ	8.91	120	Pd	05 18.30	-0.5
ATN	9.08	284	P	05 19.30	-1.7
MEU	9.43	278	P	05 25.60	-0.1
			eSn	06 57.60	
MGR	9.47	296	P	05 24.80	-1.5
			eSn	06 57.10	
SDI	11.28	302	P	05 49.00	-1.1
KBA	14.53	321	eP	06 34.00	1.9
	0.5s		7.80nm		4.3mb
			i	06 35.90	
			i	06 36.80	
PGF	14.93	300	eP	06 39.20	2.2
KHC	15.88	327	iP	06 50.00	1.2
VDL	16.30	313	ePd	06 57.20	3.0X
VAI	16.41	311	P	06 59.50	4.3X
SBF	16.44	303	eP	06 55.50	-0.2
	0.8s		18.80nm		4.5mb
TMA	16.46	311	ePc	06 57.40	1.3
SAX	16.79	315	ePd	07 01.10	0.9
FRF	16.88	301	eP	07 02.50	1.5
	0.8s		10.75nm		4.2mb
LRG	17.05	301	eP	07 02.50	-0.5
DIX	17.35	310	ePc	07 07.60	0.6
LPG	17.51	307	eP	07 09.40	0.4
	0.5s		8.00nm		4.3mb
LPL	17.53	307	eP	07 09.70	0.5
	0.5s		5.10nm		4.1mb
SLE	17.56	316	ePd	07 08.00	-1.3
EMS	17.64	309	ePd	07 10.10	-0.3
BSF	18.56	314	eP	07 19.30	-1.3
	0.5s		2.20nm		3.7mb
CDF	18.59	316	eP	07 21.10	0.2
	0.8s		6.70nm		4.0mb
HAU	18.91	314	eP	07 24.00	-0.1
	0.4s		3.45nm		4.0mb
SMF	19.83	308	eP	07 33.20	-0.4
	0.6s		8.10nm		4.3mb
LBF	19.88	309	eP	07 33.20	-0.9
	0.5s		9.50nm		4.5mb
AVF	20.19	308	eP	07 37.10	-0.2
	0.5s		5.85nm		4.3mb
SSF	20.20	309	eP	07 36.90	-0.5
RJF	20.91	303	eP	07 45.90	1.4
	0.5s		2.90nm		3.9mb
LPO	20.97	301	eP	07 45.40	0.3
	0.7s		5.50nm		4.1mb
LDF	23.05	310	eP	08 06.00	0.6
FLN	23.33	310	eP	08 09.00	0.9
GRR	23.43	309	eP	08 09.70	0.6
	0.3s		1.70nm		4.0mb
HFS	25.15	345	eP	08 23.50	-1.7
	0.4s		1.40nm		3.8mb
NB2	26.51	343	P	08 36.50	-1.3
	0.5s		0.50nm		3.4mb
KIC	41.46	231	P	10 48.60	2.2
S.D. = 1.1 on 60 of 63 obs.					

%	APR 21, 1990 17h			20m	30.62±1.66s
	31.877 N ±5.3km			35.500 E ±14.1km	
	DEPTH = 10.0km (geophysicist)				

DEAD SEA REGION (373)

KFNJ 0.15 96 Pc 20 34.40 0.3
 SALJ 0.21 50 P 20 35.70 0.6
 MASJ 0.24 128 Pc 20 35.90 0.2
 MKRJ 0.35 160 P 20 37.70 -0.1
 BURJ 0.45 35 Pc 20 39.80 0.1
 HLBJ 0.71 73 Pd 20 43.80 -0.9
 SHMJ 0.88 15 Pd 20 47.30 -0.2
 S.D. = 0.6 on 7 of 7 obs.

? APR 21, 1990 17h 25m 36.78±9.80s
 44.628 N ±42.4km 8.642 E ±55.8km
 DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
ML 2.5 (GEN).

PCP 0.11 219 P 25 39.56 -0.1
 S 25 42.54
 ROB 0.64 239 P 25 49.00 -0.7
 S 25 58.23
 ENR 0.96 246 P 25 55.15 0.0
 S 26 08.38
 STV 1.02 248 P 25 56.17 0.1
 S 26 10.43
 PZZ 1.11 264 P 25 57.82 0.1
 S 26 12.27
 SBF 1.16 229 Pg 25 59.10 0.7
 Sg 26 14.20
 LPL 1.62 304 Pn 26 11.00 5.3X
 Sn 26 30.80
 S.D. = 0.6 on 6 of 7 obs.

* APR 21, 1990 17h 44m 21.19±1.15s
 6.961 S ±9.6km 155.445 E ±7.9km
 DEPTH = 77.0 ±10.9 km
 4.5mb (6 obs.)

SOLOMON ISLANDS (193)

RAB 4.27 310 e(P) 45 27.00 1.8
 iS 46 28.00
 HNR 5.09 119 eP 45 36.00 -0.6
 eS 46 43.00
 PMG 8.56 253 eP 46 22.50 -2.1
 CTA 15.80 213 iP 48 04.50 3.9X
 1.0s 13.50nm 4.1mb
 DZM 18.39 146 iPc 48 33.00 0.2
 RMO 20.44 197 eP 48 55.00 0.3
 WB5 24.15 236 eP 49 32.00 0.6
 WRA 24.20 236 Pd 49 32.60 0.7
 0.5s 4.00nm 4.1mb
 MTN 24.65 254 P 49 36.00 -0.2
 e 49 45.00
 LOE 58.32 295 eP 54 10.00 -0.9
 KMI 60.37 304 Pc 54 35.00 9.8X
 CHG 61.29 296 eP 54 31.00 -0.3
 GBA 80.07 285 Pd 56 25.00 0.4
 0.8s 5.60nm 4.5mb
 SPA 83.08 180 iPc 56 40.80 1.2
 0.7s 6.64nm 4.7mb
 INK 89.53 21 eP 57 11.00 0.2
 MBC 95.57 14 eP 57 38.00 -0.5
 0.7s 2.00nm 4.7mb
 YKA 96.10 28 eP 57 40.70 -0.4
 0.5s 1.00nm 4.6mb
 HFS 119.63 339 ePKP 03 02.20 -1.2
 1.4s 9.80nm
 NB2 119.82 341 PKP 03 03.20 -0.7
 0.7s 1.60nm
 BAO 147.70 134 ePKP 03 58.30 1.6
 S.D. = 1.1 on 18 of 20 obs.

* APR 21, 1990 18h 27m 54.25±1.14s
 44.450 N ±13.0km 8.832 E ±8.1km
 DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
ML 2.2 (GEN).

PCP 0.22 294 P 27 58.24 -0.9
 S 28 01.21
 BOB 0.54 54 P 28 04.90 -0.3
 eSg 28 12.00
 ROB 0.71 258 P 28 07.77 -0.5
 S 28 16.80
 ENR 1.04 258 P 28 13.93 0.0
 S 28 27.26
 STV 1.10 260 P 28 14.85 -0.1

DOI 1.14 273 P 28 28.90
 SBF 1.16 240 Pg 28 15.50 -0.1
 Sg 28 16.80 0.7
 PZZ 1.24 273 P 28 32.20
 S 28 16.80 -0.6
 S 28 31.05
 FRF 1.81 241 Pg 28 29.40 3.7X
 Sg 28 51.80
 LPG 1.81 306 Pn 28 27.80 1.8
 Sn 28 49.60
 LMR 2.02 237 Pg 28 33.40 4.7X
 Sg 28 58.80
 S.D. = 0.9 on 9 of 11 obs.

% APR 21, 1990 18h 42m 52.13±0.61s
 45.132 N ±4.5km 7.036 E ±5.6km
 DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)
ML 1.7 (GEN).

RSP 0.16 83 P 42 56.23 0.4
 S 43 58.59
 BNI 0.27 253 P 42 58.10 0.3
 eSg 43 01.50
 RRL 0.28 220 P 42 58.28 0.2
 S 43 02.69
 LSD 0.34 14 P 42 59.10 -0.1
 S 43 03.51
 LPG 0.42 331 Pg 43 00.70 0.0
 Sg 43 06.30
 LPL 0.44 331 Pg 43 01.00 -0.2
 Sg 43 07.00
 PZZ 0.63 176 P 43 04.33 -0.5
 S 43 12.43
 S.D. = 0.4 on 7 of 7 obs.

APR 21, 1990 18h 54m 52.46±0.17s
 36.985 S ±3.6km 73.303 W ±4.6km
 DEPTH = 11.9km (geophysicist)

NEAR COAST OF CENTRAL CHILE (135)
Ms 5.7 (PAS). Felt (IV) in the

Talcahuano area. Felt at
 Concepcion. Depth from broadband
 displacement seismograms.

FAULT PLANE SOLUTION: P-Waves

NP1: Strike=170 Dip=84 Slip= 70
 NP2: 64 21 163

Principal Axes:
 T P1g=47 Azm= 59
 P 36 277

Comment: The focal mechanism is
 moderately well controlled and
 corresponds to reverse
 faulting with a moderate left-
 lateral strike-slip component.
 The preferred fault plane is
 NP2.

RADIATED ENERGY

No. of sta: 5 Focal mech. C
 Energy 8.9±2.1*10**12 Nm

MOMENT TENSOR SOLUTION

Dep 5 No. of sta: 5
 Moment Tensor; Scale 10**18 Nm

Mrr= 0.72 Mtt=-0.09
 Mff=-0.63 Mrt= 0.34
 Mrf=-2.86 Mtf= 0.66

Principal axes:
 T Vol= 3.00 P1g=51 Azm= 94
 N 0.08 11 351
 P -3.08 37 253

Best Double Couple: Mo=3.0*10**18
 NP1: Strike=296 Dip=13 Slip= 35
 NP2: 172 83 101

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN
 L.P.B.: 15S, 31C

Centroid Location:
 Origin Time 18:54:56.5 0.3

Lat 37.28S 0.04 Lon 73.79W 0.05
 Dep 19.9 2.4 Half-duration 3.2

Moment Tensor; Scale 10**17 Nm
 Mrr= 3.56 0.15 Mtt= 0.25 0.18
 Mff=-3.80 0.24 Mrt=-0.40 0.30
 Mrf=-5.43 0.77 Mtf= 0.13 0.16

Principal Axes:
 T Vol= 6.47 P1g=62 Azm= 98

N 0.22 3 2
 P -6.69 28 271
 Best Double Couple: Mo=6.6*10**17
 NP1: Strike=352 Dip=17 Slip= 80
 NP2: 183 73 93

LNJ 3.39 28 iPc 55 46.10 -0.2
 iS 56 45.70
 CHCH 3.74 36 iPc 55 52.10 0.9
 iS 56 51.00
 TACH 3.85 31 iPc 55 52.90 0.2
 PCH 4.06 35 iPc 55 56.50 0.7
 SAN 4.13 32 iPc 55 57.10 0.3
 iS 56 52.00
 iS 56 58.00
 IHA 4.18 20 iPd 55 57.20 -0.2
 i(S) 57 07.70
 PEL 4.39 30 iPc 56 00.50 0.0
 ROCH 4.42 26 iPc 56 01.00 -0.1
 RTBS 6.19 32 ePc 56 27.20 1.4
 RTCV 6.45 39 e(P) 56 30.20 0.6
 RTLL 6.92 37 ePd 56 35.20 -1.0
 RTRS 7.51 26 ePc 56 44.10 -0.3
 BAA 12.27 83 iP+ 57 52.00 2.2
 S 01 26.00
 ANT 13.47 11 iPc+ 58 04.50 -1.3
 iS 00 40.00
 ITB7 20.17 60 Pc 59 29.40 -0.1
 ITB1 20.33 58 e(P) 59 31.00 -0.1
 ITB 20.36 59 Pd 59 30.70 -0.8
 ARE 20.51 5 iPc 59 34.20 0.8
 CCH 20.53 20 iPc 59 33.80 0.1
 LPB 20.89 14 P 59 38.90 1.4
 Z 16s 39.73um 5.9MsZx
 S 03 35.00
 LR 07 44.00

ZOBO 21.14 14 ePc 59 40.76 0.5
 Z 16s 39.73um 5.9MsZx

e 59 43.41
 e 59 47.38
 S 03 36.00
 LR 07 44.00

SIV 23.56 31 iP 00 03.20 -0.4
 AIA 28.80 172 eP 00 53.70 1.7
 BAO 30.92 53 eP 01 09.50 -2.0
 PSO 38.17 353 eP 02 15.00 1.0
 BOG 41.40 359 eP 02 42.50 1.9
 iS 09 59.00

SDV 45.70 4 eP 03 22.00 6.7X
 UPA 46.09 351 iPc 03 19.00 0.8
 1.0s 80.00nm 5.7mb
 Z 20s 3.90um 5.4MsZx

PLAV 46.93 8 iP 03 42.40 17.4X
 GUAC 47.27 8 iP 03 27.70 0.1
 LLAV 47.60 9 iP 03 29.00 -1.2
 CAR 47.62 9 eP 03 30.00 -0.4
 iS 10 24.00

CUM 47.97 12 iP 03 32.00 -1.0
 i 05 30.00

TCE 48.65 15 eP 03 38.99 0.7
 TRN 48.68 16 eP 03 38.01 -0.5
 BOT 49.34 16 eP 03 41.80 -1.7
 TPR 49.34 16 eP 03 43.39 -0.2
 SVB 51.26 15 eP 03 57.70 -0.5
 SLB 51.84 15 eP 04 01.49 -1.2
 SPA 53.20 180 iPc 04 10.30 -2.3
 1.0s 208.50nm 6.0mb
 Z 20s 1.76um 5.1MsZx

SBA 59.95 192 e(P) 05 01.10 0.8
 VNDA 60.98 192 e(P) 05 05.10 -2.3
 HBF 69.87 354 P 06 05.00 0.1
 MAW 70.61 164 iP 06 09.30 0.2
 JSC 71.29 353 P 06 12.20 -1.3
 CER 72.69 119 iPc 06 22.00 -0.2
 0.9s 184.62nm 6.2mb

PWLA 72.90 347 P 06 22.00 -1.1
 TKL 72.93 351 P 06 21.80 -1.4
 RSCP 73.11 350 P 06 23.40 -1.0
 1.4s 618.86nm 6.5mb

DRV 73.57 193 eP 06 27.40 0.7
 MBO 73.62 57 iPc 06 29.10 1.5
 OLY 74.07 345 P 06 28.40 -1.5
 BLA 74.12 354 P 06 28.60 -1.6
 CVL 74.75 356 P 06 32.90 -0.8
 CBN 74.91 357 eP 06 34.00 -0.6
 MEO 75.18 339 iPc 06 35.10 -1.3
 TUL 75.47 341 ePc 06 36.80 -1.2

21d 19h

	1.0s	46.70nm	5.5mb	DAU	84.53	332	P	07 27.00	0.3	KHC	115.03	46	PKP	13 34.90	0.3		
Z	19s	1.83um	5.4MsZ	DUG	84.94	331	P	07 29.00	0.4	Z	17s	3.20um			6.0MsZ		
		LR	30 00.00	PR1	84.99	323	ePd	07 31.00	2.1	N	17s	1.20um					
FVM	76.26	346	P	06 40.80	-1.6	TNP	84.99	327	P	07 29.70	0.7	E	17s	3.00um			
LIC	76.69	72	Pc	06 45.60	0.3		1.2s	346.77nm	6.5mb			e	14 36.20				
Z	18s	6.50um	6.0MsZ	FRI	85.23	324	eP	07 30.40	0.6			S	24 18.00				
		S	16 34.00	RSSD	85.40	338	P	07 30.00	-0.9	PMR	115.62	329	PKP	13 40.00	4.8X		
TIC	76.97	71	Pc	06 47.00	0.1	PRS	85.48	323	ePd	07 32.70	1.5	Z	20s	1.00um	5.4MsZ		
KIC	77.00	72	Pc	06 47.20	0.2	LLA	85.51	323	eP	07 32.70	1.4	CLL	115.72	44	ePKP	13 35.00	-0.8
	0.8s	156.00nm	6.1mb	BW06	85.98	334	P	07 32.80	-1.0			2.1s	50.00nm				
SCP	77.52	356	ePc	06 47.92	-1.4	KVN	86.18	327	P	07 34.70	-0.1	Z	20s	3.00um		5.9MsZ	
		ePd	06 51.23	11kmX	GCC	86.34	323	eP	07 36.50	1.1			PKKP	24 11.60			
TBR	77.75	359	P	06 49.00	-1.5	ARN	86.38	323	P	07 37.40	1.8	PRU	115.98	46	ePKP	13 37.50	1.2
ALO	77.92	333	ePc	06 52.00	0.1	CMB	86.39	325	eP	07 35.84	0.2	Z	17s	4.30um		6.1MsZ	
	1.2s	214.84nm	6.1mb					ePd	07 39.32	11kmX	N	17s	2.10um				
Z	19s	3.30um	5.7MsZ					eSKS	18 03.14		E	17s	2.60um				
ANMO	77.93	333	ePc	06 52.58	0.6			iS	18 15.77				e	14 38.50			
Z	20s	4.04um	5.7MsZ	MHC	86.42	323	ePd	07 37.80	1.8			S	24 34.00				
		e	06 54.90	BKS	87.13	323	ePd	07 42.00	2.8X	SOP	116.12	49	ePKP	13 36.00	-0.7		
CLE	78.46	354	iP	06 54.30	-0.2		1.4s	192.00nm	6.2mb	MBC	116.66	349	ePKP	13 35.50	-1.4		
HVD	78.59	120	iPc	07 12.50	16.6X	BRK	87.14	323	eP	07 40.70	1.5		0.7s	5.00nm			
	0.9s	100.84nm				IMW	87.45	334	P	07 40.00	-1.0	ZST	116.68	48	ePKP	13 41.60	3.9X
HRV	79.13	1	iPc	06 58.59	0.5	ORV	88.13	325	ePd	07 45.70	1.7			e	14 38.70		
Z	18s	2.56um	5.6MsZ	MIN	88.81	325	ePd	07 47.60	0.2	FBA	116.77	333	PKP	13 36.00	-1.4		
		ePd	07 02.23	RSON	89.29	347	P	07 47.90	-1.4	SRO	117.24	49	e(PKP)	13 38.10	-0.7		
		ePPS	21 00.00				0.9s	146.38nm	6.2mb			e	14 33.80				
		ePKKP	23 04.00				Z	21s	2.17um			e	14 46.10				
		eSS	26 19.00	WDC	89.42	325	ePd	07 50.40	0.3	KSP	117.37	46	ePKP	13 40.30	1.4		
		eSSS	29 48.00	LRM	89.65	334	eP	07 52.40	1.0			e	14 36.00				
		eLg	34 12.00	FHC	90.27	324	eP	07 56.20	2.1	BUD	117.53	50	e(PKP)	13 38.00	-1.3		
WVLY	79.22	356	P	06 57.20	-1.5	TIO	91.54	52	iP	08 01.50	1.2	WRA	117.66	210	PKPc	13 39.80	-0.6
WIGH	79.53	75	eP	07 01.50	0.6	SCH	91.61	4	eP	07 59.00	-0.9		0.6s	3.20nm			
GLA	79.73	326	eP	07 03.00	1.4	AVE	93.06	50	iP	08 08.00	0.9	WB5	117.71	210	ePKP	13 40.00	-0.5
		e	07 43.00			SES	93.15	337	eP	08 06.00	-1.2			e	13 44.50		
BLF	79.96	119	iPc	07 03.50	0.2	NEW	93.42	332	P	08 06.70	-1.7			e	14 53.50		
LEGH	80.05	75	eP	07 04.50	0.8		1.5s	87.46nm	5.9mb	SPC	118.98	48	ePKP	13 37.50	-4.8X		
TEGH	80.18	75	eP	07 06.50	2.1	LON	94.02	329	P	08 11.00	-0.3			i	13 45.80		
KUK	80.24	75	eP	07 04.80	0.0	BCAO	94.11	88	iPc	08 13.07	0.7			e	15 00.20		
BAR	80.27	324	eP	07 06.00	1.5		0.8s	23.00nm	5.6mb	NB2	119.08	34	PKP	13 41.00	-0.9		
SNZO	80.33	225	eP	07 12.00	7.2X			ePd	08 17.21	13kmX			1.2s	13.80nm			
		S	17 20.00					ePd	08 20.03		IMA	119.49	332	ePKP	13 42.70	0.0	
		SS	22 16.00					ic	11 56.50			1.6s	48.40nm				
PUZ	80.33	229	P	07 10.40	5.4X	BMW	94.40	328	P	08 13.60	0.6	HFS	119.84	35	ePKP	13 41.70	-1.6
SHGH	80.33	75	eP	07 06.00	0.8	FFC	94.61	344	iPc	08 12.70	-1.0		0.8s	8.40nm			
MNG	80.34	226	P	07 08.20	3.3X		1.6s	88.00nm	5.9mb			Z	17s	2.94um		6.0MsZ	
HBZ	80.61	230	P	07 12.00	5.7X	IFR	94.62	51	iPc	08 15.00	0.5			LR	01 48.00		
MMCZ	80.83	220	P	07 11.60	4.0X	PNT	95.22	332	eP	08 18.00	1.3	CTT	121.04	60	iPKP	13 45.60	-0.6
PLM	80.92	324	P	07 09.60	1.5	EDM	96.32	337	ePd	08 19.00	-1.8	MLR	121.08	54	ePKP	13 46.00	-0.4
HBVT	80.97	0	P	07 07.00	-0.9	TOL	99.46	47	eP	08 41.00	4.9X	VR1	121.73	54	ePKP	13 47.50	0.1
WNY	81.00	360	P	07 07.00	-1.1			ePP	12 38.00		BBTK	123.56	63	ePKP	13 51.00	-0.3	
THZ	81.04	224	P	07 12.80	4.1X			eSKS	19 21.00		ANTO	123.60	63	ePKPc	13 51.14	-0.2	
RSNY	81.16	359	P	07 07.50	-1.4			eS	20 13.00		NUR	125.13	37	iPKP	13 53.00	-0.4	
	1.2s	136.05nm	5.9mb					iPS	21 35.00			1.0s	44.00nm				
Z	20s	2.82um	5.6MsZ					eSS	26 55.00				e	15 40.00			
TPC	81.17	325	eP	07 08.00	-1.2	FRB	100.46	2	ePd	08 39.00	-1.1	MTN	125.36	210	ePKP	13 54.00	-1.3
BNH	81.22	1	P	07 09.50	0.3	EBR	102.74	48	ePd	08 52.00	1.2	SUF	126.32	34	iPKP	13 55.50	-0.3
PEC	81.50	324	P	07 11.40	0.4			ePP	13 04.00			0.5s	3.30nm				
MSZ	81.68	219	P	07 11.80	-0.1	YKA	104.55	342	ePd	08 56.90	-1.5	SOD	127.29	29	iPKP	13 57.30	-0.2
RVR	81.68	324	eP	07 13.00	1.1		1.4s	4.60nm	5.2mb		BHD	129.70	75	ePKPd	14 03.50	0.4	
BFS	81.70	117	iPc	06 58.00	-14.5X	NAI	105.19	103	ePKP	13 11.00	-6.2X			iSKP	17 25.00		
	1.5s	500.00nm				BNI	108.89	48	PKP	13 30.00	6.8X			eSKS	20 45.00		
VPD	81.72	324	eP	07 17.10	5.1X	DOI	108.93	48	PKP	13 31.00	7.8X			eSKKS	23 10.00		
GLD	81.81	336	P	07 13.00	0.4	CKI	109.50	49	PKP	13 29.00	4.9X	SLY	131.42	72	ePKPd	14 06.00	-0.3
	1.2s	242.42nm	6.1mb			VAI	110.57	48	PKP	13 30.00	3.9X			ePP	16 24.50		
Z	20s	3.80um	5.8MsZ			BDI	110.72	50	PKP	13 31.00	4.4X			iSKP	17 31.00		
GOL	81.81	336	P	07 12.30	-0.5	UCC	110.75	42	Pd	09 15.00	-11.2X			eSKKS	23 19.50		
	0.9s	79.55nm	5.8mb			SFI	111.42	51	PKP	13 34.00	6.3X	KER	132.21	74	ePKP	14 10.00	1.9
Z	18s	2.56um	5.6MsZ			SAL	111.48	49	PKP	13 33.00	5.2X	TAB	132.86	69	ePKP	14 06.00	-3.2X
PAS	82.19	324	eP	07 16.57	2.1	SDI	111.52	54	PKP	13 36.00	7.9X			e	16 27.00		
		ePd	07 19.72	10kmX		CTI	112.38	49	PKP	13 34.00	4.3X	IR7	135.37	74	ePKP	14 13.50	-0.5
MWC	82.19	324	eP	07 16.00	1.2	TRI	113.49	50	ePd	09 46.00	7.4X	IR4	135.44	75	ePKPd	14 15.00	0.8
KSR	82.41	117	iPc	07 13.00	-3.2X			e	14 24.00		IR2	135.58	74	iPKPd	14 15.00	0.6	
	0.7s	35.00nm	5.6mb					e	16 46.00		MAIO	142.42	76	iPKPd	14 21.20	-5.7X	
SBB	82.47	324	eP	07 17.00	1.0			i	24 18.00			1.0s	23.50nm				
GSC	82.50	325	eP	07 10.00	-6.2X			e	29 56.00				e	17 33.00			
		e	07 17.00			RBL	113.73	49	PKP	13 37.00	4.7X	KOD	142.52	128	ePKP	14 23.00	-4.9X
		e	09 31.00			GRF	113.95	45	ePd	09 43.00	2.5X	GBA	145.01	124	PKPd	14 30.90	-0.7
ABL	83.26	323	P	07 21.70	1.4		Z	20s	3.00um	5.9MsZ			0.8s	254.20nm			
CLC	83.29	325	eP	07 21.00	0.8			e(PP)	14 20.50		KGM	145.06	174	ePKPd	14 31.10	-0.8	
		e	10 35.00					e	16 56.10		BOM	145.31	112	ePKP	14 26.50	-5.6X	
SYP	83.36	323	eP	07 26.00	5.3X	INK	114.09	339	ePKP	13 28.00	-4.2X			eS	24 42.50		
SLR	83.47	117	iPc	07 21.00	-0.7	MOX	114.63	44	ePKP	13 35.00	1.2	POO	145.84	114	iPKP	14 32.00	-1.1
	0.6s	90.00nm	6.2mb				1.5s	22.00nm			KLM	145.96	171	ePKPd	14 33.00	-0.4	
Z	17s	13.06um	6.4MsZ				Z	18s	2.20um	5.8MsZ		QUE	146.38	90	iPKP+	14 35.00	1.1
ISA	83.57	324	eP	07 23.00	1.3		N	18s	2.10um				(S)	23 06.50			
CBM	83.67	4	P	07 21.00	-0.8		E	18s	2.20um		IPM	147.33	169	ePKPd	14 36.00	0.4	
BCH	83.94	323	P	07 25.70	2.1				ePKKP	24 22.50			1.4s	158.80nm			

e 16 28.40
 KKM 148.00 198 ePKPd 14 40.00 3.2X
 HYB 148.46 121 ePKP 14 37.00 -0.3
 1.0s 41.00nm
 PPR 150.81 205 ePKPc 14 50.00 9.1X
 1.0s 97.00nm
 KAKJ 153.19 279 ePKP 14 49.00 5.3X
 NDI 153.96 100 ePKP 14 46.00 0.9
 ePP 18 41.00
 CHJJ 154.09 278 ePKP 14 53.30 8.3X
 NIIJ 154.30 280 ePKP 14 48.90 3.6X
 MAT 154.81 279 (PKP) 14 46.00 0.0
 Z 20s 1.42um 5.8Msz
 IIDJ 154.83 276 ePKP 14 52.10 6.0X
 MTMJ 155.13 279 ePKP 14 52.80 6.3X
 TSRJ 156.38 275 ePKP 14 51.90 3.8X
 SZP 157.15 216 ePKPd 14 38.00 -11.5X
 GKN 159.39 109 PKP 14 51.40 -0.7
 DMN 159.53 111 PKP 14 52.50 0.1
 PKI 159.74 111 PKP 14 53.40 0.7
 KKN 159.76 111 PKP 14 51.70 -0.9
 LOE 160.01 166 ePKP 14 54.00 1.2
 GUN 160.27 111 PKP 14 52.80 -0.5
 CHTO 160.66 157 iPKPc 14 53.51 0.1
 iPKPpb15 34.23
 WMO 164.01 59 ePKPc 14 56.60 0.4
 ePKPpb15 49.73
 ePKPpb15 50.23
 eHP'pb15 50.89
 eHPP 19 36.06
 ePP 19 36.89
 HIA 164.49 326 ePKPc 14 53.94 -2.5
 ePKPpb15 52.05
 ePKPpb15 55.85
 ePP 19 40.41
 eHPP 19 41.52
 KMI 167.70 163 iPKPc 15 00.21 0.3
 eHP'pb16 05.59
 ePKPpb16 06.70
 BJL 171.97 295 ePKP 15 01.00 -0.4
 6.0s 0.81nm
 LZH 177.53 110 PKPd 15 03.00 -0.4
 2.5s 188.00nm
 i 15 09.00
 sPKP 15 25.00
 S.D. = 1.1 on 182 of 229 obs.

% APR 21, 1990 19h 11m 00.23±0.97s
 47.064 N ± 7.2km 9.541 E ± 8.9km
 DEPTH = 10.0km (geophysicist)
 GERMANY (543)

SAX 0.23 325 ePc 11 05.20 -0.1
 LLS 0.42 243 ePc 11 08.30 -0.6
 OSS 0.56 132 ePc 11 11.50 -0.2
 SLE 1.00 315 ePc 11 19.50 0.3
 TMA 1.06 206 ePd 11 21.00 0.6
 S.D. = 0.7 on 5 of 5 obs.

* APR 21, 1990 19h 11m 06.14±2.47s
 11.214 N ± 12.2km 125.932 E ± 18.9km
 DEPTH = 131.8 ± 22.4 km
 4.4mb (5 obs.)

SAMAR, PHILIPPINE ISLANDS (251)

DAV 4.11 185 eP 12 09.00 0.7
 PPR 7.22 259 ePc 12 52.00 1.5
 BAG 7.33 315 eP 12 43.00 -9.1X
 KKM 10.89 243 ePd 13 43.50 3.9X
 HKC 15.75 316 iP 15 02.00 20.1X
 iS 20 06.00
 SSE 20.27 348 PKPc 15 31.00 -2.2
 1.0s 31.00nm 4.7mb
 pPKP 15 41.60
 MTN 24.45 168 eP 16 14.00 -0.2
 KMI 25.96 305 PKP 16 10.00 -18.4X
 7.0s 0.90nm
 Z 20s 1.50um 4.5Msz
 N 18s 0.60um
 E 18s 1.30um
 PP 19 59.00
 SKKS 26 42.00
 SS 40 42.00
 WB5 31.99 165 eP 17 19.70 -2.3
 WRA 32.05 165 Pd 17 20.20 -2.3
 0.8s 4.00nm 4.3mb
 OIS 34.32 157 iPd 17 40.40 -1.6

e 17 51.70
 GUN 41.01 300 P 18 37.10 -1.2
 PKI 41.32 299 P 18 39.00 -1.9
 KKN 41.49 299 P 18 40.50 -1.6
 DMN 41.59 299 P 18 41.30 -1.7
 GKN 42.09 299 P 18 44.10 -2.9X
 COOL 42.11 186 eP 18 48.00 1.2
 MUN 43.94 192 eP 19 02.00 0.3
 Z 20s 3.20um 5.2Msz
 NWA0 44.67 190 eP 19 08.00 0.6
 Z 20s 1.80um 5.0Msz
 N 20s 1.20um
 E 20s 0.70um
 ADE 47.50 166 eP 19 31.60 1.8
 1.0s 34.00nm 5.0mb
 SOD 83.29 337 eP 23 21.00 2.0
 i 23 34.60
 INK 83.54 22 eP 23 21.00 0.8
 SUF 84.57 333 eP 23 27.00 1.6
 MBC 84.87 13 eP 23 27.50 0.8
 0.7s 3.00nm 4.3mb
 BBTk 85.33 310 eP 23 31.00 1.1
 NUR 85.82 331 eP 23 33.00 1.3
 Z 20s 5.00um 5.9Msz
 e 23 44.00
 e 28 20.00
 e 32 40.00
 e 35 44.00
 LR 07 26.00
 HFS 91.06 332 eP 23 53.70 -2.9X
 1.3s 53.60nm 5.6mb X
 Z 17s 2.94um 5.8MszX
 LR 05 46.00
 KRA 91.52 322 eP 23 48.30 -10.6X
 e 24 01.30
 YKA 93.04 24 eP 24 06.00 0.4
 1.3s 1.00nm 3.9mb
 KSP 93.42 323 eP 24 03.50 -4.1X
 e 28 01.50
 PRU 94.78 323 eP 24 12.30 -1.6
 e 28 04.50
 WET 96.12 323 eP 24 23.00 2.9X
 RUP 99.25 325 eP 24 35.43 1.2
 FEL 99.58 323 eP 24 37.26 1.3
 FRB 104.45 7 ePdiff24 54.00 -2.9X
 KIC 127.90 287 PKP 30 01.20 2.4X
 S.D. = 1.6 on 25 of 36 obs.

* APR 21, 1990 19h 26m 41.70±0.66s
 2.990 S ± 10.2km 77.673 W ± 14.1km
 DEPTH = 33.0km (normal)
 4.5mb (8 obs.)

PERU-ECUADOR BORDER REGION (110)

TUNG 1.74 334 P 27 09.30 -1.1
 eS 27 30.60
 VC1 2.45 343 P 27 19.40 -1.3
 QTO 2.90 343 P 27 28.50 1.5
 S 28 13.00
 QUR 2.93 343 P 27 29.00 1.6
 GGP 2.95 342 eP 27 27.50 -0.3
 CAYA 3.07 354 P 27 27.40 -2.1
 COTA 3.37 349 P 27 34.20 0.4
 eS 28 24.40
 PSD 4.17 5 eP 27 49.00 4.0X
 BOG 8.38 25 eP 28 46.00 1.8
 eS 30 53.00
 ARE 14.70 156 i(PKP) 30 22.40 12.9X
 ZOBO 16.20 145 P 30 29.00 -0.1
 LPB 16.42 146 P 30 37.00 5.2X
 1.0s 74.00nm 4.8mb
 CCH 18.24 142 eP 31 00.00 5.6X
 SIV 20.83 129 P 31 23.80 0.6
 BAO 31.81 115 eP 33 06.10 0.2
 OLY 40.42 343 eP 34 16.00 -2.6
 MEO 42.40 334 eP 34 34.60 -0.3
 ANMO 46.41 327 eP 35 09.00 1.7
 1.0s 4.50nm 4.4mb
 GOL 49.52 332 eP 35 34.50 2.9X
 1.1s 5.77nm 4.5mb
 RSSD 52.52 336 eP 35 54.00 -0.3
 BW06 53.89 331 eP 36 04.50 0.1
 1.2s 3.77nm 4.3mb
 TNP 54.84 322 eP 36 12.00 0.6
 1.0s 2.50nm 4.2mb
 KVN 55.98 322 eP 36 20.00 0.3
 ORV 58.39 321 eP 36 38.00 1.6

YKA 71.05 343 eP 37 56.10 -2.1
 0.9s 1.00nm 3.9mb
 LIC 73.11 83 Pc 38 10.80 -0.5
 TIC 73.15 82 Pc 38 11.00 -0.6
 KIC 73.40 83 Pc 38 12.50 -0.6
 0.7s 8.50nm 4.9mb
 INK 80.77 342 eP 38 54.00 1.0
 MBC 82.64 351 eP 39 03.00 0.4
 SPA 87.03 180 iPc 39 29.10 4.1X
 1.0s 10.00nm 5.0mb
 KHZ 101.73 226 ePdiff40 16.20 -16.6X
 LTZ 102.54 225 Pdiff 40 21.10 -15.4X
 LZH 147.04 358 ePKP 46 25.00 3.7X
 2.0s 47.00nm
 pP 46 28.00
 i 46 42.00

MTN 147.36 241 ePKP 46 27.00 4.9X
 S.D. = 1.3 on 25 of 35 obs.

& APR 21, 1990 19h 51m 17.74s
 62.731 N 150.613 W
 DEPTH = 86.5km
 CENTRAL ALASKA (1)
 <AGS-P>.

CUT 0.36 154 iP 51 31.26 0.0
 eS 51 41.56
 HUR 0.51 61 iP 51 32.22 -0.2
 eS 51 43.45
 KTH 0.84 350 eP 51 35.54 -0.1
 eS 51 49.50
 SKT 0.87 210 eP 51 35.62 -0.3
 RND 1.05 49 iP 51 37.76 -0.4
 eS 51 53.12
 PWA 1.14 162 eP 51 39.26 0.2
 eS 51 55.68
 GHO 1.25 140 eP 51 40.60 0.1
 MCK 1.26 36 eP 51 39.89 -0.8
 SUA 1.27 183 eP 51 40.98 0.0
 PLRM 1.34 148 eP 51 41.21 -0.4
 SML 1.41 130 eP 51 42.61 0.0
 NCG 1.52 209 iP 51 43.76 -0.3
 PMS 1.57 161 eP 51 44.76 0.1
 eS 52 04.58
 CGLM 1.57 205 eP 51 44.93 0.2
 CRP 1.64 207 eP 51 45.56 -0.2
 KNK 1.67 142 eP 51 45.52 -0.4
 BGL 1.70 210 eP 51 46.46 0.1
 SPU 1.70 204 eP 51 46.08 -0.3
 CKL 1.74 209 eP 51 46.90 -0.1
 NCA 1.92 111 eP 51 48.71 -0.6
 NEA 1.98 20 eP 51 48.94 -1.1
 NKA 2.02 189 eP 51 52.70 2.1
 WRH 2.08 32 iP 51 50.35 -1.1
 TOA 2.16 105 eP 51 52.06 -0.5
 SLKM 2.24 175 eP 51 54.14 0.5
 CCB 2.29 32 eP 51 53.06 -1.3
 RDT 2.33 202 eP 51 54.06 -0.8
 HDA 2.35 43 eP 51 54.05 -1.0
 SDG 2.35 93 eP 51 56.85 1.7
 PAX 2.37 82 eP 51 56.17 0.7
 RDS 2.37 26 eP 51 54.37 -1.1
 GLI 2.50 136 eP 51 55.77 -1.4
 KLU 2.53 117 eP 51 55.92 -1.8
 33 obs. associated

APR 21, 1990 21h 11m 15.19±0.64s
 43.980 N ± 3.8km 7.616 E ± 4.1km
 DEPTH = 10.1 ± 5.3 km
 NEAR SOUTH COAST OF FRANCE (379)
 ML 2.7 (LDG), 2.3 (GEN).

SAOF 0.04 278 Pg 11 16.39 -1.0
 AUTN 0.14 276 Pg 11 18.06 -0.6
 SBF 0.18 228 Pg 11 19.20 0.0
 Sg 11 22.50
 AURF 0.23 246 Pg 11 20.27 0.1
 Sg 11 23.93
 TOUF 0.27 277 Pg 11 20.72 -0.2
 ENR 0.28 330 P 11 20.55 -0.6
 S 11 24.65
 REVF 0.30 217 Pg 11 22.13 0.6
 Sg 11 27.53
 STV 0.34 322 P 11 21.47 -0.7
 S 11 25.78
 MVIF 0.35 256 Pg 11 22.65 0.3
 ROB 0.36 30 P 11 22.50 -0.2

21d 21h

DOI 0.59 333 S 11 28.14
P 11 26.50 -0.6
eSg 11 33.80
PZZ 0.64 325 P 11 27.63 -0.5
S 11 35.62
CKI 0.65 47 P 11 28.00 -0.2
eSg 11 37.00
FRF 0.82 239 Pg 11 31.10 0.1
Sg 11 42.10
PCP 0.87 50 P 11 32.96 1.0
S 11 44.24
LMR 1.03 232 Pg 11 35.10 0.5
Sg 11 49.60
LRG 1.05 240 Pg 11 35.50 0.5
Sg 11 50.20
BNI 1.27 328 P 11 40.00 1.2
LPG 1.64 338 Pg 11 45.20 0.8
LPL 1.66 338 Pg 11 45.80 1.1
Sg 12 06.20
PGF 1.75 144 Pn 11 44.60 -1.3
Sn 12 05.80
S.D. = 0.8 on 21 of 21 obs.

* APR 21, 1990 21h 26m 53.31±1.63s
35.384 N ±25.3km 31.284 E ±19.1km
DEPTH = 10.0km (geophysicist)
CYPRUS (372)
ML 3.1 (CSS).

PPCY 1.00 120 eP 27 13.00 0.7
eS 27 28.50
CSS 1.73 104 eP 27 22.70 -0.9
ELL 1.76 321 ePn 27 26.00 1.9
LFK 1.84 93 iPn 27 25.30 0.0
BCK 2.15 345 ePn 27 30.00 0.3
KHL 3.26 335 ePn 27 44.80 -0.7
CIN 3.39 312 eP 27 46.00 -1.4
BBTK 4.60 14 eP 28 18.00 13.4X
S.D. = 1.3 on 7 of 8 obs.

* APR 21, 1990 21h 57m 52.40±1.01s
36.104 N ±22.8km 53.112 E ±9.4km
DEPTH = 28.5 ± 9.1 km
4.5mb (1 obs.)
IRAN (348)

TEH 1.45 256 ePc 58 16.00 -1.0
IR2 1.85 257 iPd 58 23.50 0.7
IR4 2.00 245 iPd 58 25.00 0.0
IR7 2.07 260 ePc 58 27.00 1.0
IR5 2.24 247 eP 58 28.00 -0.5
MAIO 5.17 86 ePn 59 10.00 0.1
eSn 00 31.00
KER 5.22 252 eP 59 18.00 7.3X
HFS 34.81 326 eP 04 42.20 -0.2
1.4s 9.30nm 4.5mb
S.D. = 0.9 on 7 of 8 obs.

? APR 21, 1990 22h 13m 53.33±1.32s
6.385 S ±12.2km 132.196 E ±39.7km
DEPTH = 33.0km (normal)
4.4mb (1 obs.)

TANIMBAR ISLANDS REGION (281)

MTN 6.51 189 eP 15 31.00 1.7
eS 16 43.00
KNA 9.90 200 eP 16 15.30 -1.1
eS 17 58.00
WB5 13.58 171 eP 17 05.80 -0.3
eS 19 32.50
WRA 13.64 171 Pd 17 06.50 -0.4
0.6s 3.50nm 4.4mb
OIS 15.82 154 eP 17 39.00 3.7X
eS 20 25.00
CTA 19.28 136 eP 18 26.00 7.6X
MAT 43.07 7 eP 21 52.00 0.1
S.D. = 1.5 on 5 of 7 obs.

& APR 21, 1990 22h 53m 18.00s
63.147 N 150.462 W
DEPTH = 112.3km
CENTRAL ALASKA (1)
<AGS-P>.

HUR 0.41 114 eP 53 34.42 -0.4
eS 53 47.22
KTH 0.46 333 eP 53 34.96 -0.2

CUT 0.75 173 iP 53 37.04 -0.2
RND 0.77 70 iP 53 37.02 -0.5
eS 53 52.11
SKT 1.27 203 eP 53 41.93 -0.7
GHO 1.55 152 eP 53 45.80 -0.3
SML 1.67 143 eP 53 46.90 -0.5
PLRM 1.68 158 eP 53 47.15 -0.3
SUA 1.69 185 eP 53 47.96 0.1
CCB 1.91 37 eP 53 49.17 -1.2
NCG 1.92 205 eP 53 49.86 -0.8
KNK 1.98 151 eP 53 51.00 -0.3
PAX 2.28 92 eP 53 54.76 -0.5
13 obs. associated

? APR 21, 1990 22h 56m 50.03±14.38s
43.887 N ±67.2km 7.462 E ±68.5km
DEPTH = 5.0km (geophysicist)
NEAR SOUTH COAST OF FRANCE (379)
ML 2.1 (LDG).

SBF 0.03 219 Pg 56 51.20 -0.1
Sg 56 54.30
FRF 0.68 241 Pg 57 03.50 0.0
Sg 57 15.00
LMR 0.89 232 Pg 57 07.60 0.1
Sg 57 22.20
LRG 0.91 242 Pg 57 07.80 -0.1
Sg 57 23.70
S.D. = 0.2 on 4 of 4 obs.

APR 21, 1990 22h 56m 55.34±0.09s
47.488 N ±2.2km 138.956 E ±2.2km
DEPTH = 505.2km (30 depth phases)
5.1mb (100 obs.)
NEAR E. COAST OF EASTERN USSR (661)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 24C
Centroid Location:
Origin Time 22:57: 1.7 0.7
Lat 47.35N 0.05 Lon 138.35E 0.08
Dep 520.3 3.1 Half-duration 2.3
Moment Tensor; Scale 10¹⁷ Nm
Mrr=-1.22 0.07 Mtt=1.48 0.11
Mff=-2.70 0.12 Mrt=0.22 0.13
Mrf=-0.16 0.12 Mtf=-0.33 0.11
Principal Axes:
T Vol= 1.64 Plg=29 Azm= 6
N 1.10 61 181
P -2.73 2 274
Best Double Couple: Mo=2.2×10¹⁷
NP1: Strike= 46 Dip=68 Slip= 160
NP2: 144 72 23

YSS 2.60 99 P 58 07.00 2.2
MAT 10.95 183 iPc 59 22.50 -1.4
1.0s 900.00nm 6.1mb X
eS 01 23.00
SHK 13.78 202 ePc 59 52.90 -0.3
1.0s 320.00nm 5.8mb
BJI 18.02 254 Pd 00 35.00 -0.2
1.0s 472.00nm 6.1mb
ePp 02 38.00
eS 03 32.00
eScS 11 11.00
SSE 21.30 226 iPd 01 06.90 0.6
0.8s 103.00nm 5.5mb
Z 10s 0.60um 4.3MsZx
N 10s 1.00um
E 10s 0.60um
sP 03 22.00
S 04 28.00
PcP 04 42.00
SMY 22.99 64 eP 01 21.00 -0.5
LZH 28.32 259 Pd 02 09.00 -0.1
1.5s 750.00nm 6.0mb
Z 13s 0.60um 4.4MsZx
N 10s 0.80um
E 10s 0.70um
pP 03 31.00
sP 04 33.00
PcP 05 08.00
S 06 20.00
PcS 08 47.00
ScS 11 52.50

ADK 28.69 65 iPc 02 10.40 -1.6
1.1s 206.30nm 5.6mb

PIP 32.73 214 iPd 02 46.70 0.0
SZP 33.50 213 eP 02 54.00 0.8
1.0s 333.00nm 5.8mb
GUMO 34.16 170 eP 02 55.20 -3.5X
0.7s 68.61nm 5.3mb
pP 04 29.70
PJG 34.15 170 eP 02 55.70 -3.0X
GUA 34.21 170 eP 02 58.40 -0.8
0.8s 89.55nm 5.4mb
BAG 34.51 212 eP 03 01.00 -0.9
KMI 36.26 245 iPd- 03 17.00 0.5
1.0s 0.40nm 2.9mb X

pP 04 50.00 505km
PP 04 54.50
sP 05 43.00
ScP 08 13.00
iS 08 20.50
i 10 00.00
SS 11 29.00
SDN 37.47 55 eP 03 23.90 -1.8
BRW 37.77 28 iPc 03 28.00 0.0
KDC 41.13 49 eP 03 54.00 -1.4
LOE 42.77 238 eP 04 09.00 0.1
e 05 48.00 547kmX
e 07 42.00

CHG 43.31 243 iPd 04 13.80 0.6
0.9s 52.52nm 5.1mb
CHTO 43.31 243 iPd 04 13.90 0.7
0.8s 25.62nm 4.8mb
NST 45.07 239 eP 04 30.50 3.6X
GUN 45.35 264 Pd 04 29.10 -0.3
KKM 45.66 213 ePc 04 32.20 0.7
0.7s 103.50nm 5.5mb
KKN 45.83 264 Pd 04 32.80 -0.2
PKI 45.89 264 Pd 04 33.10 -0.5
DMN 46.07 264 Pd 04 34.70 -0.2
GKN 46.13 265 Pd 04 35.10 -0.1
MBC 47.11 19 iPc 04 41.20 -0.6
0.9s 141.00nm 5.5mb

pP 06 18.00 514km
NNT 47.77 236 eP 04 42.00 -5.6X
SIT 49.97 45 eP 05 04.20 0.6
1.0s 80.00nm 5.1mb
NDI 50.73 271 iPd 05 09.20 -0.3
0.6s 226.67nm 5.8mb
iS 11 44.00
SNG 51.75 232 eP 05 11.80 -5.3X
KEY 53.08 336 iP 05 25.30 -0.8
0.8s 45.50nm 4.9mb
IPM 53.73 229 ePc 05 32.20 0.8
1.1s 82.70nm 5.0mb

e 06 30.80 268kmX
SOD 54.70 334 iP 05 36.50 -1.1
YKA 55.82 33 eP 05 43.70 -1.8
0.5s 24.40nm 4.8mb
OPA 56.22 94 P 05 49.60 0.9
QUE 56.70 280 iPd+ 05 51.40 -0.8
eS 13 06.00
PMG 57.11 170 iPc 05 53.70 -1.1
HYB 57.42 260 iPd 05 55.50 -1.6
1.0s 45.00nm 4.8mb

e 06 43.00 209kmX
MAIO 57.77 290 iPd 05 59.40 0.1
0.9s 23.44nm 4.5mb
e 07 40.00 499km
eS 13 06.00
SUF 57.92 330 eP 05 59.00 -0.9
KHKI 59.34 207 ePc 06 08.10 -1.8
e 09 57.00
HNR 59.66 156 eP 06 07.00 -5.0X
TRT 59.69 211 iPc 06 07.00 -5.2X
0.6s 93.20nm 5.4mb

POO 59.80 265 iPd 06 12.00 -1.1
1.0s 66.00nm 5.0mb
NUR 59.97 329 iP 06 12.20 -1.4
0.5s 74.40nm 5.4mb
MTN 60.47 189 iPc 06 17.00 -0.3
PGC 60.62 49 ePc 06 17.80 -0.3
0.6s 53.00nm 5.1mb
GBA 60.91 258 Pd 06 19.40 -0.9
0.5s 8.20nm 4.4mb
MCW 60.92 49 P 06 20.00 -0.2
PNT 62.11 47 iPc 06 27.40 -0.5
0.6s 42.00nm 5.1mb
BMW 62.14 51 P 06 28.50 0.3
RMW 62.23 49 P 06 28.90 0.1
EDM 62.41 40 iPc 06 28.30 -1.5

	0.6s	36.00nm	5.1mb	BW06	71.68	46 P	07 27.10	0.2		e	09 33.00	498km		
LON	62.70	50 P	06 31.70	0.0		0.8s	178.57nm	5.6mb	VAY	75.15	316 eP	07 47.00	0.8	
UPP	62.84	331 iP	06 31.10	-1.2	PRU	71.71	326 iPc	07 27.00	0.4	FVI	75.16	325 Pd	07 46.00	-0.2
		i	07 03.60	135kmX		0.5s	39.70nm	5.2mb	SKO	75.17	317 iP	07 47.00	0.6	
		i	08 14.60					09 14.00	502km	VOY	75.18	324 eP	07 45.70	-0.8
TEH	63.21	294 ePc	06 36.00	0.7	BUD	71.91	322 eP	07 28.00	0.2	CEY	75.21	323 eP	07 46.40	-0.1
KOD	63.36	255 eP	06 35.40	-1.2	DUG	71.95	50 P	07 29.20	0.8	YRH	75.34	338 eP	07 47.00	-0.1
IR2	63.56	295 iPd	06 38.00	0.5		0.8s	19.44nm	4.7mb	BAR	75.35	58 eP	07 48.00	0.4	
KNA	63.61	191 iPc	06 36.70	-0.9	SRO	71.95	322 iPc	07 28.60	0.6	STR	75.35	329 P	07 47.42	0.2
		e	07 13.00	152kmX				09 16.00	504km	TRI	75.50	324 iPc	07 47.20	-0.9
IR7	63.71	295 iPd	06 38.50	0.0	RSON	72.08	32 P	07 27.00	-1.7			i	07 52.40	17kmX
DPW	63.78	47 P	06 38.60	-0.1		0.6s	75.48nm	5.4mb	DCN	75.52	340 eP	07 48.10	0.0	
IR4	63.84	294 ePc	06 39.50	0.2			pP	09 14.00	501km	BRS	75.56	167 iPd	07 49.10	0.5
HFS	63.88	333 eP	06 37.20	-1.8	WIT	72.12	332 iPc	07 29.80	0.9		0.9s	15.50nm		4.5mb
	0.4s	68.40nm		5.6mb			e	09 17.50	505km			i	10 03.90	664kmX
NB2	63.90	335 P	06 37.70	-1.5	ZST	72.14	323 iP	07 29.80	0.7			e	10 13.00	
	0.6s	30.70nm		5.1mb			e	09 17.70	506km	OGA	75.61	326 iPc	07 49.50	0.5
NEW	64.05	46 P	06 39.80	-0.5	ISA	72.16	57 eP	07 29.00	-0.6		0.8s	51.00nm		5.1mb
	0.8s	36.46nm		5.0mb	MOX	72.26	328 iPc	07 30.00	0.2	WLS	75.64	329 P	07 48.82	-0.1
		pP	08 25.00	509km		1.3s	36.00nm	4.7mb	CDF	75.67	329 iPc	07 49.20	0.1	
VGB	64.05	50 P	06 40.80	0.4	JMB	72.34	314 iPc	07 31.00	0.6		0.7s	30.85nm		4.9mb
SES	65.41	41 iPc	06 48.20	-0.7	HOF	72.43	328 iPc	07 30.70	-0.1	SCH	75.78	15 eP	07 50.00	0.5
	0.6s	63.00nm		5.4mb		0.7s	21.00nm	4.8mb	SLE	75.79	328 ePc	07 49.50	-0.2	
FHC	65.48	56 ePc	06 50.50	1.1	CLC	72.55	56 iP+	07 31.00	-0.8	ETA	75.86	339 iPc	07 49.90	0.0
AKU	65.78	350 iP	06 51.80	1.0			e	09 20.00	512km		0.6s	34.00nm		5.0mb
	1.0s	28.00nm		4.8mb	EKA	72.71	338 P	07 31.70	-0.6	FEL	75.87	328 eP	07 50.02	-0.2
FFC	65.96	34 iPc	06 51.00	-1.1		0.5s	12.80nm	4.7mb	ECH	75.88	329 P	07 50.07	-0.1	
	0.7s	79.00nm		5.4mb	KHC	72.77	326 iPc	07 33.40	0.6	SAX	75.91	327 ePc	07 50.80	0.1
WDC	66.44	55 ePc	06 55.50	0.2		0.5s	29.00nm	5.1mb	MEKA	76.02	199 eP	07 50.70	-0.4	
		e(pP)	08 41.90	510km			e	07 38.90	18kmX		0.3s	21.00nm		5.1mb
KER	66.76	296 ePd	06 57.50	0.0			i	09 21.00		CTI	76.05	325 P	07 50.30	-1.0
FRB	67.01	13 ePc	06 56.70	-1.7	SOP	72.77	323 eP	07 33.60	0.8	GOL	76.06	46 P	07 52.40	0.7
	0.7s	128.00nm		5.7mb	WTS	72.77	331 iPc	07 32.60	-0.1		0.9s	37.88nm		4.9mb
MIN	67.12	55 e(P)	07 00.10	0.4		0.8s	44.00nm	5.0mb			pP	09 43.50	516kmX	
WB5	67.18	185 iPc	06 59.20	-0.7			e	09 20.00	502km	ZLA	76.07	328 ePc	07 51.30	0.0
WRA	67.24	185 P	06 59.70	-0.6	NANU	72.85	203 iPc	07 33.80	0.4	OSS	76.09	326 ePc	07 52.00	0.4
	0.4s	64.00nm		5.6mb		0.4s	45.00nm	5.4mb	GLA	76.12	56 iP+	07 52.00	0.2	
CTA	67.58	173 iPc	07 01.50	-0.8	WET	73.02	326 iPc	07 34.90	0.6	OHR	76.14	317 eP	07 51.50	-0.3
	1.3s	163.46nm		5.5mb		0.7s	44.00nm	5.1mb	MOF	76.20	329 P	07 51.77	-0.3	
		i	07 42.50	172kmX	GRF	73.19	328 iPc	07 35.80	0.6	VITF	76.28	330 P	07 52.17	-0.1
		i	08 45.00			0.6s	67.00nm	5.3mb	ECB	76.30	339 iPc	07 52.60	0.2	
ORV	67.72	55 iPc	07 02.70	-0.5	SBB	73.23	57 eP	07 36.00	0.3		0.7s	102.00nm		5.4mb
		epP	08 48.10	501km			e	09 24.00	504km	BSF	76.33	329 iPc	07 52.60	-0.2
QIS	67.73	179 iP	07 02.40	-0.8	RSSD	73.26	42 P	07 35.70	-0.3		0.7s	22.05nm		4.8mb
		e	08 19.00	342kmX			pP	09 24.40	508km	HAU	76.34	329 iPc	07 52.60	-0.1
LRM	68.03	46 iPc	07 05.40	0.1	GSC	73.36	56 iP+	07 36.00	-0.5		0.7s	19.85nm		4.7mb
BRK	68.45	57 ePc	07 07.50	-0.1	BEO	73.39	319 i(P)	07 36.00	-0.3	LLS	76.36	327 ePc	07 53.30	0.2
		epP	08 54.80	511km	PAS	73.42	58 eP	07 36.00	-0.8	ECP	76.37	339 iPc	07 52.90	0.2
BKS	68.46	57 e(P)	07 08.20	0.5	MWC	73.43	57 eP	07 37.00	-0.1		0.6s	99.00nm		5.5mb
	0.9s	62.00nm		5.2mb			e	09 26.00	510km	BBS	76.40	328 P	07 53.06	0.0
PCC	68.64	58 ePc	07 08.50	-0.3	PGB	73.44	316 iPc	07 37.00	0.2	VDL	76.51	327 ePc	07 54.40	0.5
CLI	68.97	317 iPc	07 10.50	-0.1	DZM	73.53	153 iPc	07 38.00	1.4	LOMF	76.73	329 P	07 54.83	-0.1
MHC	69.17	57 ePc	07 12.00	-0.2	KDZ	73.53	314 eP	07 34.00	-3.2X	SAL	76.85	326 P	07 55.10	-0.4
GCC	69.19	58 ePc	07 12.00	0.0	RZN	73.84	315 eP	07 49.00	9.8X	TMA	77.06	327 ePc	07 56.60	-0.3
CMB	69.40	56 iPc	07 13.60	0.2	VTS	73.86	316 iP	07 40.00	0.7	VAL	77.30	327 P	07 57.50	-0.4
		epP	09 00.80	508km	RVR	73.99	57 eP	07 40.00	0.0	MMK	77.44	327 ePc	07 59.30	0.3
KRA	69.53	323 iPc	07 13.90	0.1			e	09 28.00	503km	DIX	77.61	328 ePc	08 00.30	0.3
	0.5s	90.00nm		5.6mb	TOD	74.12	329 eP	07 40.38	-0.1	ARV	77.65	323 P	08 00.20	0.3
		e	07 17.40	11kmX	RMQ	74.16	171 iPc	07 41.20	0.4	SFI	77.74	324 P	08 01.70	1.4
VR1	69.73	316 ePc	07 15.00	-0.2	WARB	74.16	191 iPc	07 41.60	0.8	EMS	77.79	328 eP	08 00.90	0.1
KVN	69.95	54 P	07 17.40	0.6		0.3s	19.00nm	5.1mb	LOR	77.82	331 iPc	08 00.60	-0.1	
		pP	09 04.70	507km	BHG	74.19	325 iPc	07 41.60	0.7		0.7s	60.30nm		5.1mb
PRS	70.04	50 iPc	07 17.30	0.2		0.6s	67.00nm	5.3mb	PGD	77.83	324 P	08 02.50	1.4	
SPC	70.07	322 iP	07 16.50	-0.9	ABH	74.32	330 eP	07 41.41	-0.2	FLN	77.87	334 iPc	08 00.90	-0.1
		i	09 03.50	505km	MMB	74.39	315 iPc	07 43.00	0.9		0.5s	32.05nm		5.0mb
LLA	70.08	57 iPc	07 17.80	0.4	FUR	74.43	327 iPc	07 42.60	0.4	LDF	77.92	334 iPc	08 01.20	0.0
		epP	09 05.70	511km		1.0s	61.00nm	5.1mb		0.6s	27.95nm		4.9mb	
IMW	70.17	46 P	07 19.10	0.9	PTJ	74.45	323 eP	07 42.00	-0.4	CRE	77.95	324 P	08 03.00	1.4
KSP	70.35	325 iPc	07 18.50	-0.2	KBA	74.54	325 iPc	07 43.40	0.4	MME	77.97	325 P	08 02.80	0.9
	0.7s	33.00nm		5.0mb		0.6s	53.80nm	5.2mb	BOB	77.97	326 P	08 01.90	0.2	
		ic	09 05.20	503km			id	07 44.00	2kmX	LBF	78.03	330 iPc	08 01.60	-0.3
MLR	70.38	317 iPc	07 19.00	-0.1			i	07 47.60			0.8s	49.70nm		5.0mb
MBL	70.46	199 iPc	07 19.30	-0.3			e	09 30.00		GRC	78.06	331 P	08 02.08	0.1
FRI	70.52	56 eP	07 20.10	0.2			i	09 32.20		FIR	78.10	324 eP	08 00.00	-2.2
		epP	09 07.60	507km			e	16 37.00		SSF	78.12	331 iPc	08 02.20	-0.1
PR1	70.57	58 eP	07 20.80	0.4	KTD	74.62	329 eP	07 43.02	-0.2		0.8s	43.00nm		4.9mb
PSN	70.66	314 iPd	07 20.00	-0.										

PII	78.44	325	P	08	03.20	-0.8
RSP	78.46	327	P	08	03.17	-1.1
PCP	78.51	326	P	08	03.79	-0.7
DUI	78.53	321	P	08	05.00	0.3
COO	78.57	169	eP	08	03.00	-1.8
MNS	78.68	322	P	08	04.90	-0.5
AZI	78.70	322	P	08	06.00	0.6
LPF	78.70	334	iPc	08	06.00	0.7
	0.6s	54.10nm				5.2mb
CKI	78.70	326	P	08	04.80	-0.6
BNI	78.76	328	P	08	06.00	0.1
SDI	78.77	321	Pc	08	05.70	-0.2
BGF	78.78	331	iPc	08	05.90	0.1
RRL	78.83	328	P	08	06.66	0.2
CMS	78.85	174	eP	08	07.00	0.8
FIN	78.91	326	P	08	06.46	-0.1
ORI	78.97	319	P	08	07.90	1.0
ROB	78.97	327	P	08	06.56	-0.4
DOI	79.02	327	P	08	05.40	-1.8
PLDF	79.04	330	P	08	07.43	0.2
PZZ	79.07	327	P	08	06.15	-1.4
MRWA	79.10	200	eP	08	08.00	0.4
	0.3s	6.00nm				4.6mb
AGO	79.13	330	P	08	08.08	0.4
RMP	79.15	322	P	08	08.50	0.7
MAF	79.17	331	iPc	08	08.70	0.8
RDP	79.19	322	P	08	08.10	0.0
ENR	79.19	327	P	08	06.15	-2.0
ANMO	79.21	50	P	08	09.80	1.3
	1.0s	27.50nm				4.6mb
ALO	79.21	50	ePc	08	09.50	0.9
	0.9s	28.57nm				4.7mb
		e		09	55.00	479kx
STV	79.22	327	P	08	06.35	-1.9
TCF	79.23	331	iPc	08	08.50	0.3
	0.8s	37.60nm				4.9mb
CSI	79.27	319	P	08	10.10	1.6
MGR	79.30	319	P	08	08.40	-0.2
ROI	79.31	318	P	08	10.90	2.1
TDS	79.34	319	P	08	09.90	1.0
SAOF	79.35	327	P	08	08.35	-0.5
AUTN	79.39	327	P	08	08.54	-0.8
PYM	79.43	330	P	08	09.45	0.1
TOUF	79.44	327	P	08	09.15	-0.4
LSF	79.48	331	iPc	08	09.70	0.2
SBF	79.50	327	iPc	08	09.50	-0.2
	0.8s	37.60nm				4.9mb
AURF	79.52	327	P	08	09.32	-0.5
MVIF	79.58	327	P	08	09.86	-0.3
REVf	79.63	327	P	08	09.93	-0.4
COOL	79.64	196	iPc	08	10.30	-0.1
	0.4s	33.00nm				5.1mb
MFF	79.70	333	iPc	08	11.40	0.8
	0.7s	61.75nm				5.1mb
CZI	79.79	318	P	08	11.70	0.5
CALN	79.80	327	P	08	11.08	-0.3
LBL	79.81	330	P	08	11.89	0.8
GRI	79.99	318	P	08	12.89	0.6
	0.7s	60.10nm				5.1mb
PGF	80.02	325	iPc	08	12.70	0.2
	0.7s	16.55nm				4.6mb
FRF	80.05	327	iPc	08	12.30	-0.2
	1.0s	18.00nm				4.5mb
LRG	80.25	327	iPc	08	13.70	0.2
	0.8s	37.60nm				4.9mb
LMR	80.30	327	iPc	08	14.00	0.3
	1.0s	52.00nm				4.9mb
RJF	80.32	331	iPc	08	14.20	0.3
	0.9s	34.40nm				4.8mb
CAF	80.48	331	iPc	08	15.70	1.0
	0.8s	39.65nm				

CAN	82.93	172	iPc	08	28.20	1.2
MEO	83.24	44	iPc	08	29.30	0.4
RKG	83.54	198	eP	08	33.20	3.1X
TUL	83.61	42	iPc	08	31.20	0.5
	0.9s	70.90nm				5.3mb
		e		10	22.50	504km
RSNY	83.73	23	P	08	30.70	-0.4
	0.7s	27.68nm				5.0mb
		pP		10	21.30	500km
HBVT	84.29	22	P	08	34.10	0.2
CLE	84.41	29	iP	08	35.10	0.5
WVLY	84.47	27	P	08	34.60	-0.3
BNH	84.53	21	P	08	35.60	0.5
EBR	84.65	330	eP	08	36.00	0.3
ESEL	84.73	328	eP	08	37.00	0.8
TOO	84.88	175	iPc	08	37.90	1.2
		e		10	46.00	598kmX
ETOR	85.50	331	eP	08	41.00	1.0
UYO	85.66	42	iPd	08	41.00	0.2
OLY	85.85	39	P	08	42.10	0.4
GUD	86.33	333	eP	08	44.80	0.7
TBR	86.97	24	P	08	46.90	0.0
TOL	86.99	332	iPc	08	48.00	0.9
	1.8s	409.09nm				5.9mb
EPLA	87.44	334	eP	08	50.00	0.7
PWLA	87.73	37	P	08	50.80	0.2
RSCP	88.18	35	P	08	52.50	-0.3
	0.8s	248.40nm				6.1mb
		pP		10	44.20	499km
NAV	88.40	31	P	08	54.00	0.2
BLA	88.63	30	P	08	54.80	0.0
	0.8s	57.05nm				5.5mb
GBTN	88.64	34	P	08	55.10	0.2
CBN	88.73	28	eP	08	56.00	0.8
TKL	88.81	34	P	08	55.90	0.3
AAPN	89.36	331	iPc	08	58.40	0.1
ALOJ	89.54	331	iPc	08	58.50	-0.6
PRM	90.74	33	P	09	05.20	0.7
JSC	90.97	32	P	09	05.90	0.3
SGS	92.21	32	P	09	11.80	0.5
BCAO	106.62	296	ePKPc	14	20.40	-3.6X
	0.6s	3.00nm				
		ic		14	27.00	
		ic		14	42.10	
TIC	117.41	319	PKP	14	43.80	-0.7
KIC	117.54	318	PKP	14	44.00	-0.7
LIC	117.79	319	PKP	14	44.40	-0.8
BFS	124.00	266	iPKPd	14	43.00	-14.0X
	0.5s	21.13nm				
VNDA	125.54	174	e(PKP)	14	49.20	-9.1X
SPA	137.30	180	ePKP	15	08.80	-12.3X
	0.9s	5.45nm				
		e		18	03.00	
ZOBO	141.68	45	PKP	15	24.30	-6.7X
Z	24s	0.76um				5.4MsZX
		LR		23	16.00	
LPB	141.92	45	PKP	15	29.00	-2.2
CCH	143.58	43	iPKPc	15	32.40	-1.4
SIV	144.49	35	iPKP	15	34.60	-0.5
BAO	147.72	13	ePKP	15	40.00	-0.5
S.D. = 0.7 on 314 of 329 obs.						
APR 21, 1990 23h 02m 24.29± 0.58s						
62.279 N ± 5.7km 147.788 W ± 5.3km						
DEPTH = 78.2 ± 16.6 km						
CENTRAL ALASKA (1)						
TOA	0.78	102	iPc	02	40.80	-0.1
PMR	0.94	223	iPd	02	41.80	-0.9
PWA	1.17	238	iP	02	45.90	0.3
PMS	1.34	220	iPc	02	48.30	0.5</

ENR	0.15	128	P	S	11	45.16	
				S	11	44.55	-0.1
PZZ	0.21	330	P	S	11	47.11	
				S	11	45.78	0.0
ROB	0.45	93	P	S	11	48.75	
				S	11	50.39	0.0
				S	11	56.44	
S.D. = 0.1 on 4 of 4 obs.							
? APR 21, 1990 23h 14m 46.43±10.8s							
61.956 N ±74.1km 4.359 E ±38.4km							
DEPTH = 10.0km (geophysicist)							
SOUTHERN NORWAY (535)							
MD 1.9 (BER).							
SUE	0.92	168	iPd	S	15	03.92	-0.1
				eS	15	14.32	
HYA	1.18	131	eP	S	15	08.58	0.2
				iS	15	23.07	
ASK	1.53	164	eP	S	15	13.90	0.1
				eS	15	31.07	
BER	1.65	163	iP	S	15	15.83	0.4
				iS	15	35.87	
ODD1	2.33	151	eP	S	15	24.91	-0.5
				eS	15	50.61	
S.D. = 0.5 on 5 of 5 obs.							
* APR 21, 1990 23h 18m 31.91± 2.66s							
37.066 N ±21.8km 28.194 E ±19.5km							
DEPTH = 10.0km (geophysicist)							
TURKEY (366)							
CIN	0.54	351	iPgc	S	18	43.00	0.2
				iSg	18	49.00	
ELL	1.41	102	ePn	S	18	57.00	-0.7
I2M	1.52	331	ePn	S	18	59.30	0.1
KHL	1.64	40	ePn	S	18	59.90	-1.0
BCK	1.95	78	iPn	S	19	07.00	1.5
ALT	2.50	37	iPn	S	19	15.70	2.4X
S.D. = 1.4 on 5 of 6 obs.							
APR 21, 1990 23h 20m 20.98± 1.20s							
22.524 S ± 7.3km 70.269 W ± 9.6km							
DEPTH = 46.8 ± 11.4 km							
5.1mb (11 obs.)							
NEAR COAST OF NORTHERN CHILE (122)							
Felt (III) at Antofagasta.							
ANT	1.18	187	iPc	S	20	40.40	-1.0
				iS	20	54.80	
ARE	6.14	349	iP	S	22	49.50	57.7X
				iS	23	54.00	
LPB	6.30	19	P	S	21	58.00	3.8X
	1.1s	759.49nm					6.2mb X
CCH	6.42	38	P	S	22	02.00	6.3X
ZOBO	6.54	18	iPc	S	21	59.60	1.9
RTRS	7.65	175	e(P)	S	22	02.20	-10.3X
				e	22	17.10	
SIV	10.84	55	P	S	22	55.40	-1.2
BAO	22.13	76	eP	S	25	16.20	1.9
HBF	55.98	350	P	S	29	56.30	-0.7
SGS	56.26	350	P	S	29	58.40	-0.6
JSC	57.45	349	P	S	30	06.40	-1.0
PRM	57.46	348	P	S	30	06.30	-1

RSNY	66.86 357 P	31 09.30	-0.8	GRF	3.61 241 ePn	58 17.60	-0.1	TDH	1.91 230 P	32 35.26	0.5
SPA	67.61 180 iPc	31 15.80	0.9		ePg	58 31.20		CZM	1.92 268 P	32 34.56	-0.2
	1.0s 12.00nm		4.9mb	KBA	4.81 203 e(Pn)	58 34.50	-0.4	VIPM	2.13 197 Pd	32 37.55	-0.4
GLA	69.72 321 eP	31 29.00	0.8		eSg	59 52.00		JCW	2.23 319 P	32 38.92	-0.3
KIC	70.20 74 P	31 32.00	0.6		S.D. = 0.4 on 8 of 10 obs.			RPW	2.26 328 P	32 42.17	2.5
BAR	70.55 320 eP	31 34.00	0.8		% APR 22, 1990 00h 09m 15.08± 2.31s				49 obs. associated		
PLM	71.13 320 P	31 37.70	0.7		61.818 N ±14.2km 5.058 E ±20.1km				APR 22, 1990 00h 36m 45.71± 1.26s		
TPC	71.19 321 eP	31 38.00	0.9		DEPTH = 10.0km (geophysicist)				15.097 N ± 6.6km 147.436 E ± 6.6km		
PEC	71.69 320 P	31 40.50	0.4		SOUTHERN NORWAY (535)				DEPTH = 37.7 ± 11.4 km		
RVR	71.88 320 eP	31 42.00	0.8		MD 2.7 (BER).				4.8mb (13 obs.)		
MWC	72.45 320 eP	31 46.00	1.2						MARIANA ISLANDS REGION (215)		
GSC	72.47 321 eP	31 46.00	1.2	SUE	0.78 191 iPd	09 30.02	-0.2	GUA	2.90 238 e(P)	37 31.60	1.1
SBB	72.64 320 eP	31 46.00	0.3		iS	09 41.97			eS	38 03.20	
CLC	73.29 321 eP	31 50.00	0.5		iPc	09 33.17	1.7	PJG	2.91 239 eP	37 30.70	0.0
ABL	73.58 320 P	31 52.30	0.9		eS	09 48.33		GUMO	2.91 239 eP	37 30.30	-0.4
KUK	74.03 76 eP	31 55.00	0.8	ASK	1.34 177 iPd	09 40.35	0.6	KAKJ	22.00 344 P	41 38.70	0.4
BCH	74.32 319 P	31 56.30	0.7		eS	09 55.61		CHJJ	22.19 342 P	41 39.10	-1.2
TNP	74.68 323 P	31 58.70	1.0	MOL	1.39 56 eP	09 41.03	0.6	TSRJ	22.00 335 P	41 47.10	0.9
	0.8s 12.01nm		4.9mb		eS	10 02.17		MTMJ	23.06 340 P	41 48.00	-0.9
PRI	75.32 320 e(P)	32 00.50	-0.8	BER	1.45 175 eP	09 41.70	0.4	NIIJ	23.29 343 P	41 51.50	0.5
LLA	75.80 320 eP	32 05.30	1.4		iS	09 58.40		SSE	28.82 308 P	42 41.50	-1.1
KVN	75.86 323 P	32 04.90	0.5	ODD1	2.06 157 eP	09 49.39	-0.8		0.8s 13.00nm		4.7mb
PRS	75.87 320 ePc	32 05.40	1.1		ePn	09 49.43		MTN	32.11 211 eP	43 10.00	-1.9
RSON	75.93 345 P	32 03.30	-1.0		eS	10 15.10		BJI	36.89 318 eP	43 52.00	-0.6
	0.8s 25.04nm		5.2mb	8LS1	2.59 160 iP	09 56.57	-1.2		1.5s 26.00nm		4.9mb
CMB	76.44 321 ePc	32 07.30	-0.2		iS	10 27.98		WB5	37.06 201 eP	43 53.10	-1.1
ARN	76.64 320 P	32 09.20	0.5	KMY	2.62 178 iP	09 55.02	-3.0X	KMI	42.97 291 eP	44 45.50	2.0
MHC	76.70 320 ePc	32 10.60	1.5		iS	10 25.63		LZH	44.07 307 Pd	44 53.50	1.3
SCH	77.08 2 eP	32 11.00	0.4	RGS	2.78 62 eP	10 09.00	8.6X		1.5s 42.00nm		5.0mb
LRM	78.06 331 ePc	32 17.70	1.1		eS	10 45.00			pP	44 57.00	12kmX
ORV	78.11 322 ePc	32 18.00	1.3	NRA0	3.31 106 Pn	10 06.60	-1.4	CHG	46.42 282 eP	45 11.80	0.9
WDC	79.39 322 iPc	32 23.20	-0.4		Lg	11 06.20		GUN	58.15 294 P	46 38.90	0.0
FHC	80.36 322 ePc	32 29.20	0.3		S.D. = 1.3 on 8 of 10 obs.				0.8s 36.00nm		5.5mb
FFC	81.60 342 iPc	32 35.10	0.1	& APR 22, 1990 00h 32m 02.90s				PKI	58.58 293 P	46 41.40	-0.4
	1.0s 18.00nm		5.0mb	46.544 N 119.733 W				KKN	58.69 294 P	46 41.90	-0.6
PNT	83.90 330 ePc	32 48.00	1.0	DEPTH = 21.9km				DMN	58.84 293 P	46 43.20	-0.4
	0.8s 14.00nm		5.1mb	WASHINGTON (29)					0.4s 14.00nm		5.4mb
EDM	84.16 336 iPc	32 48.00	-0.2	<SEA>. CL 3.3 (SEA).				GKN	59.25 294 P	46 46.20	-0.1
	0.6s 18.00nm		5.3mb					IMA	63.90 23 P	47 16.70	-0.2
YKA	91.73 341 eP	33 24.50	0.2	MDW	0.07 345 Pd	32 06.90	-0.1		0.8s 2.59nm		4.4mb
	0.8s 6.00nm		5.1mb	RSW	0.18 147 P	32 08.09	-0.1	PMR	64.28 28 P	47 17.80	-1.5
WRA	131.43 212 PKPc	39 30.60	-0.1	BRVW	0.19 252 Pc	32 08.21	0.0	BRW	65.16 17 P	47 24.90	0.1
	0.6s 2.50nm			GBL	0.20 74 Pd	32 08.38	0.2	FBA	65.81 25 P	47 27.80	-1.3
WB5	131.47 212 ePKP	39 30.80	0.1	WAH2	0.24 29 Pd	32 09.03	0.2		0.6s 4.31nm		4.7mb
GUMO	145.51 261 ePKP	39 53.70	-2.7	BVW	0.29 339 Pd	32 09.52	0.0	GBA	67.56 279 Pd	47 40.50	-0.5
	0.7s 48.28nm			WIV	0.33 110 Pc	32 10.23	0.1		0.5s 1.70nm		4.4mb
PJG	145.51 261 ePKP	39 54.00	-2.4	PRW	0.33 174 Pd	32 10.36	0.1	MAIO	79.60 305 eP	48 53.00	2.0
KOD	146.80 106 ePKP	40 02.50	3.6X	CRF	0.37 40 Pd	32 10.83	0.0	WDC	80.36 51 eP	48 55.40	0.5
GBA	148.10 101 PKPc	40 04.70	4.2X		S	32 16.68		YKA	80.38 28 eP	48 53.70	-0.8
	0.7s 10.90nm			MXC	0.39 275 Pd	32 11.26	0.1		0.7s 6.20nm		4.7mb
NDI	150.10 71 iPKPd	40 10.50	7.2X	VTG	0.45 337 Pd	32 11.79	-0.3	PNT	80.61 41 eP	48 56.00	0.0
	0.7s 23.97nm			YAKW	0.55 268 P	32 14.05	0.2		0.8s 13.00nm		5.0mb
MAT	151.68 306 ePKP	40 12.00	6.5X	PATW	0.66 182 Pd	32 15.81	0.1	ORV	81.36 51 ePd	49 00.20	0.1
	0.6s 14.67nm			EBG	0.68 303 P	32 16.30	0.2	ARN	81.81 54 P	49 02.80	0.2
GKN	156.68 71 PKP	40 00.00	-12.8X	WG2	0.80 130 Pd	32 17.16	-0.8	PRS	82.16 55 eP	49 04.90	0.5
	S.D. = 1.1 on 65 of 74 obs.			EPH	0.82 7 Pd	32 18.06	-0.2	CMB	82.54 53 ePd	49 06.80	0.4
? APR 21, 1990 23h 57m 20.58± 4.41s				GL2	0.96 233 Pd	32 20.16	-0.6	PRI	82.76 55 eP	49 08.50	0.9
51.529 N ±28.7km 16.099 E ±26.3km				TWW	0.98 308 Pc	32 21.32	0.2	FRI	83.31 54 ePd	49 10.60	0.3
DEPTH = 10.0km (geophysicist)				JBO	1.09 184 Pd	32 22.40	-0.4	BCH	83.44 55 P	49 11.20	0.0
POLAND (548)				ETW	1.14 339 P	32 22.48	-1.2	KVN	84.04 51 P	49 14.50	0.3
ML 2.8 (KRA), 3.1 (GRF).				WTV	1.16 353 P	32 23.59	-0.4	TNP	84.95 52 P	49 19.20	0.4
KSP	0.70 170 iPc	57 34.50	0.1	SAW	1.18 11 Pc	32 23.11	-1.1		0.7s 4.26nm		4.7mb
	0.5s 43.00nm			LNOR	1.21 123 P	32 24.40	-0.2	SES	85.68 39 ePd	49 22.20	0.2
	iS	57 44.00		VGB	1.26 216 P	32 25.30	0.0	PEC	86.10 56 P	49 24.00	-0.4
	i	57 47.50		WPW	1.26 278 P	32 25.03	-0.3	LRM	86.19 44 eP	49 25.10	0.2
PRU	1.83 213 Pn	57 52.30	0.0	GLK	1.29 272 Pd	32 25.85	0.0	SOD	87.29 341 iP	49 29.40	-0.1
	Pg	57 54.40		ASR	1.35 254 Pd	32 26.91	0.3	GLA	88.21 56 P	49 35.00	0.4
	Sn	58 11.50		FMW	1.39 287 P	32 27.08	-0.2	SUF	90.08 337 iP	49 44.00	1.2
	Sg	58 18.00		GULW	1.43 245 P	32 28.02	0.2	NUR	91.94 335 eP	49 51.00	-0.4
CLL	1.95 265 iPn	57 53.70	-0.3	DHW2	1.44 359 P	32 28.55	-1.3	HFS	96.33 339 ePKP	50 09.60	-2.0
	iPg	57 56.40		VTHM	1.48 203 P	32 28.56	0.1		1.0s 4.00nm		4.9mb
	eSg	58 23.00		GSM	1.56 296 P	32 29.39	-0.3	NB2	96.51 340 P	50 11.40	-1.1
KRA	2.85 120 eP	58 15.50	8.6X	RVC	1.59 285 P	32 30.12	0.1		0.9s 1.50nm		4.5mb
	eS	58 55.00		CDFW	1.66 256 P	32 31.69	0.6	KIC	145.14 306 PKPd	56 21.80	-0.1
KHC	2.89 215 Pn	58 07.50	-0.1	DPW	1.69 38 P	32 30.50	-1.0	TIC	145.19 306 PKPd	56 22.00	0.0
	Pg	58 13.70		RMW	1.69 304 P	32 31.32	-0.2	LIC	145.45 306 PKPd	56 22.80	0.4
	Sn	58 43.50		ESD	1.71 259 P	32 32.73	0.9	ZOBO	145.77 97 PKPc	56 24.00	0.4
	Sg	58 54.00		VFP	1.72 225 P	32 32.54	0.5	LPB	145.81 97 ePKP	56 25.00	1.6
MOX	2.96 254 ePn	58 09.00	0.5	TDL	1.73 264 P	32 31.94	-0.2	SIV	152.53 96 PKP	56 40.00	6.7X
	iSg	58 16.00		VLL	1.73 232 P	32 32.80	0.6		S.D. = 0.9 on 52 of 53 obs.		
	ePn	58 55.00		STD	1.75 261 P	32 33.32	0.9		APR 22, 1990 00h 48m 53.80± 0.44s		
WET	3.15 222 ePn	58 11.50	0.3	CROR	1.79 210 P	32 31.83	-1.2		15.118 N ± 6.0km 147.380 E ± 5.8km		
ZST	3.40 169 eP	59 11.70	57.0X	ERK	1.82 263 P	32 33.28	-0.1		DEPTH = 45.5 ± 3.6 km		
	e	59 32.60		HTW	1.88 313 P	32 34.01	-0.2		4.8mb (15 obs.)		

22d 00h

MARIANA ISLANDS REGION (215)

GUA	2.86	237	eP	49	38.00	-0.1
			eS	50	12.50	
PJG	2.87	238	eP	49	37.70	-0.5
GUMO	2.87	238	eP	49	37.40	-0.8
KAKJ	21.97	344	P	53	45.50	0.1
KAGJ	21.99	319	eP	53	48.60	2.9X
CHJJ	22.15	342	P	53	46.20	-1.1
TSRJ	22.76	335	P	53	54.30	1.1
KUMJ	22.96	322	eP	53	57.60	2.4
MTMJ	23.02	340	P	53	54.30	-1.6
NIJJ	23.26	343	P	53	58.10	0.1
SHNJ	23.96	325	eP	54	05.50	0.7
PMG	24.37	181	eP	54	02.50	-6.5X
SSE	28.76	308	P	54	48.50	-0.9
	0.8s	19.00nm			4.8mb	
BJI	36.84	318	eP	55	59.50	0.0
	1.5s	39.00nm			5.1mb	
WB5	37.06	201	eP	56	02.80	1.3
WRA	37.13	201	Pd	56	01.30	-0.7
	0.7s	8.30nm			4.8mb	
LZH	44.02	307	Pd	57	00.00	1.0
	2.5s	127.00nm			5.2mb	
		pP	57	05.00	17kmX	
CHTO	46.37	282	iP	57	18.20	0.5
	0.8s	5.86nm			4.6mb	
GUN	58.09	294	P	58	46.40	0.7
	0.7s	32.00nm			5.5mb	
PKI	58.52	293	P	58	48.70	0.1
	0.6s	10.00nm			5.1mb	
KKN	58.63	294	P	58	49.60	0.3
DMN	58.79	293	P	58	50.90	0.5
GKN	59.19	294	P	58	53.40	0.3
	1.1s	71.00nm			5.7mb	
GBA	67.50	279	Pd	59	47.60	-0.2
	0.5s	1.60nm			4.3mb	
YKA	80.39	28	eP	01	00.80	-0.9
	0.8s	4.70nm			4.5mb	
PNT	80.63	41	eP	01	03.00	-0.3
	0.8s	8.00nm			4.7mb	
MIN	81.14	51	ePc	01	07.00	0.7
BRK	81.16	53	ePc	01	01.80	-4.5X
ORV	81.39	51	ePc	01	07.50	0.1
NEW	82.48	42	eP	01	13.20	0.2
	1.0s	5.00nm			4.5mb	
CMB	82.57	53	ePc	01	13.90	0.2
FRI	83.34	54	ePc	01	17.80	0.2
KVN	84.07	51	eP	01	22.00	0.5
TNP	84.98	52	iP	01	27.00	0.9
	0.8s	1.18nm			4.1mb	
SES	85.70	39	eP	01	29.00	-0.2
KEV	85.82	342	eP	01	36.00	6.6X
LRM	86.21	44	eP	01	32.00	-0.2
SOD	87.26	341	iP	01	36.50	0.0
SUF	90.04	337	iP	01	49.00	-0.8
NUR	91.90	335	eP	01	56.00	-2.4
RSSD	92.40	43	eP	02	01.00	-0.3
HFS	96.29	339	eP	02	17.20	-1.4
	0.9s	3.70nm			4.9mb	
NB2	96.47	340	P	02	18.60	-0.9
	0.8s	1.70nm			4.6mb	
CDF	107.48	333	ePKP	07	17.20	-0.1
	0.5s	2.20nm				
BSF	108.14	333	ePKP	07	19.90	1.3
	0.5s	1.45nm				
HAU	108.19	334	ePKP	07	19.70	1.1
	0.5s	2.20nm				
LPG	109.93	332	ePKP	07	31.00	8.7X
	0.8s	4.05nm				
SSF	110.13	335	ePKP	07	25.20	3.0X
	0.7s	4.40nm				
SMF	110.32	334	ePKP	07	26.80	4.2X
	0.8s	6.70nm				
AVF	110.41	334	ePKP	07	26.30	3.5X
MAF	111.19	335	ePKP	07	29.40	5.1X
	0.5s	2.55nm				
TCF	111.29	335	ePKP	07	28.90	4.4X
LSF	111.60	335	ePKP	07	29.00	4.0X
	0.6s	2.70nm				
LFF	112.98	335	ePKP	07	35.00	7.3X
LPO	113.01	334	ePKP	07	36.10	8.3X
KIC	145.09	306	PKPd	08	29.00	0.1
TIC	145.13	306	PKPd	08	29.00	0.0
LIC	145.40	306	PKPd	08	30.00	0.6
ZOBO	145.83	97	PKP	08	27.00	-3.8X
LPB	145.86	97	PKP	08	31.00	0.4

S.D. = 0.9 on 46 of 60 obs.

* APR 22, 1990 00h 49m 14.33±0.82s
 40.320 N ±13.6km 39.470 E ±15.0km
 DEPTH = 10.0km (geophysicist)
 4.1mb (1 obs.)

TURKEY (366)

Felt at Erzincon.

KAS	4.45	286	eP	50	23.50	0.0
MSL	4.88	143	eP	50	29.50	0.0
			e	51	37.00	
BBTK	5.17	267	ePn	50	29.00	-4.7X
BHD	8.06	149	ePnd	51	40.00	25.8X
			eSn	53	31.00	
NUR	22.21	340	eP	54	12.00	-0.1
SUF	23.82	345	eP	54	28.00	0.2
HFS	25.50	330	eP	54	44.00	0.0
	0.6s	2.90nm			4.1mb	
NB2	27.02	330	P	55	14.60	16.4X
	0.7s	0.80nm				
MAW	109.05	171	iPKP	07	36.00	-8.6X
			e	11	51.50	
			e	12	41.00	
			e	14	53.00	

S.D. = 0.1 on 5 of 9 obs.

? APR 22, 1990 01h 34m 06.85±11.37s
 34.486 N ±73.9km 51.338 E ±33.8km
 DEPTH = 10.0km (geophysicist)

IRAN (348)

IR4	0.83	335	eP	34	23.00	0.0
IR5	0.96	320	eP	34	25.00	-0.1
IR2	1.23	343	eP	34	30.00	0.2
TEH	1.25	2	ePc	34	30.00	-0.2
IR7	1.35	334	eP	34	32.00	0.1

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

& APR 22, 1990 01h 42m 05.11s
 61.236 N 150.661 W

SOUTHERN ALASKA (2)

<AGS-P>.

SUA	0.23	350	iP	42	10.89	0.6
			eS	42	14.91	
PMS	0.53	89	iP	42	15.63	-0.3
PWA	0.56	42	iP	42	16.28	-0.1
			iS	42	24.05	
NKA	0.57	210	iP	42	18.06	1.5
CGLM	0.65	277	iP	42	17.42	-0.6
CRP	0.72	273	iP	42	18.65	-0.6
NCG	0.74	284	iP	42	18.84	-0.7
SLKM	0.76	163	iP	42	19.01	-0.8
			eS	42	29.06	
CKL	0.81	268	iP	42	19.83	-0.9
PLRM	0.82	63	iP	42	19.62	-1.1
			eS	42	30.39	
BGL	0.84	273	iP	42	20.21	-1.0
SKT	0.85	331	iP	42	20.88	-0.5
			eS	42	32.18	
GHO	0.99	56	iP	42	22.79	-1.0
			eS	42	36.31	
RDT	1.08	233	iP	42	24.07	-1.3
			eS	42	38.60	
CUT	1.19	9	eP	42	26.61	-0.5
			eS	42	41.21	
NNL	1.24	195	iP	42	27.96	0.0
SML	1.25	62	eP	42	27.42	-0.9
SEW	1.28	152	eP	42	27.09	-1.6
RED	1.32	233	iP	42	28.02	-1.4
			eS	42	45.02	
CNPM	1.74	190	eP	42	34.32	-1.0
			eS	42	56.73	
GLI	1.77	100	eP	42	35.68	-0.1
HUR	1.81	15	eP	42	36.96	0.6
XLV	1.86	197	eP	42	36.88	-0.2
NCA	1.98	66	eP	42	39.07	0.2
			eS	43	06.59	
VZW	2.00	93	eP	42	39.43	0.3
			eS	43	05.35	
PDB	2.27	232	eP	42	42.26	-0.8
			eS	43	09.79	
KLU	2.30	81	iP	42	43.72	0.2
TOA	2.31	66	eP	42	45.10	1.4
AUL	2.32	218	eP	42	44.93	1.3

AUE	2.32	217	eP	42	44.01	0.4
KTH	2.33	357	eP	42	44.57	0.7
RND	2.34	20	eP	42	44.49	0.5
MCK	2.63	17	eP	42	49.59	1.4
CDD	2.75	214	eP	42	49.32	-0.6
PAX	3.00	52	eP	42	55.24	1.9
GLB	3.31	83	eP	42	57.95	0.2
DDM	3.39	39	eP	43	01.90	2.9
NEA	3.43	11	eP	43	00.13	0.7
WRH	3.45	19	eP	43	00.11	0.3
HDA	3.61	27	eP	43	02.34	0.4
CCB	3.66	20	eP	43	02.65	-0.1
FBA	3.90	18	eP	43	02.24	-3.9
DOT	3.91	49	eP	43	08.55	2.3
GLM	4.05	20	eP	43	05.02	-3.2
DWY	5.90	56	P	43	38.00	3.7

45 obs. associated

APR 22, 1990 01h 44m 12.91±0.62s
 15.135 N ±8.6km 147.419 E ±9.8km
 DEPTH = 33.0km (normol)
 4.9mb (5 obs.)

MARIANA ISLANDS REGION (215)

GUA	2.90	237	eP	44	57.80	-0.1
			eS	45	33.20	
GUMO	2.91	238	eP	44	57.50	-0.5
PJG	2.91	238	eP	44	57.50	-0.5
CHJJ	22.15	342	eP	49	07.00	-0.5
MTMJ	23.02	340	eP	49	15.50	-0.7
NIJJ	23.25	343	eP	49	18.90	0.6
SSE	28.78	308	P	50	09.00	-0.9
	1.0s	23.00nm			4.8mb	
BJI	36.86	318	eP	51	19.00	-1.0
	1.5s	26.00nm			4.9mb	
LZH	44.04	307	Pd	52	21.00	1.4
	1.6s	34.00nm			4.9mb	
		pP	52	24.50	12kmX	
BAL	54.24	213	eP	53	26.00	-11.9X
GUN	58.12	294	P	54	07.00	0.6
	0.6s	14.00nm			5.2mb	
PKI	58.55	293	P	54	09.40	0.0
KKN	58.66	293	P	54	10.30	0.3
DMN	58.82	293	P	54	12.40	1.3
GKN	59.22	294	P	54	14.10	0.3
YKA	80.35	28	eP	56	20.70	-1.4
	0.9s	2.10nm			4.1mb	
SES	85.66	39	eP	56	50.00	0.3
KIC	145.11	306	PKP	03	49.40	-0.2
TIC	145.15	306	PKP	03	49.60	-0.1
LIC	145.42	306	PKP	03	50.50	0.4
ZOBO	145.79	97	PKP	03	52.00	0.6

S.D. = 0.8 on 20 of 21 obs.

APR 22, 1990 01h 45m 43.20±1.76s
 5.258 S ±6.6km 152.117 E ±5.7km
 DEPTH = 79.8 ±16.0 km
 4.

DMN 72.35 301 P 57 03.00 -0.1
0.8s 46.00nm 5.4mb
GKN 72.86 301 P 57 05.70 -0.2
0.8s 38.00nm 5.4mb
HYB 76.00 289 eP 57 23.50 -0.5
GBA 76.44 285 Pc 57 26.10 -0.3
0.9s 5.30nm 4.5mb
TTA 78.44 22 P 57 37.00 0.3
0.5s 4.13nm 4.6mb
PMS 80.03 25 eP 57 45.20 0.0
PMR 80.38 24 P 57 46.50 -0.5
0.5s 4.13nm 4.6mb
IMA 81.11 20 P 57 51.00 0.0
0.7s 1.82nm 4.1mb
FBA 82.56 22 eP 57 57.70 -0.7
KVN 93.11 51 iP 58 51.00 1.1
TNP 93.73 52 iP 58 54.00 1.2
0.8s 1.47nm 4.5mb
S.D. = 0.5 on 29 of 30 obs.

APR 22, 1990 01h 56m 05.63±0.26s
15.097 N ± 5.9km 147.482 E ± 5.2km
DEPTH = 33.0km (normal)
4.9mb (20 obs.) 4.1Msz (2 obs.)
MARIANA ISLANDS REGION (215)

GUA 2.93 238 eP 56 50.80 -0.2
eS 57 25.70
PJG 2.95 240 eP 56 50.40 -0.8
GUMO 2.95 240 eP 56 50.50 -0.7
CHJJ 22.20 342 P 00 59.90 -0.8
MTMJ 23.08 340 P 01 08.00 -1.4
NIJJ 23.31 343 P 01 11.00 0.3
PMG 24.35 181 eP 01 23.50 1.7
BAG 25.92 277 eP 01 39.60 2.7
SSE 28.85 308 P 02 04.20 0.9
0.5s 13.00nm 4.9mb
Z 20s 0.50um 4.1Msz
MTN 32.14 211 eP 02 31.00 -1.5
e 03 26.00
BJI 36.92 318 eP 03 14.00 0.7
1.5s 39.00nm 5.1mb
e 04 07.00
WB5 37.07 201 eP 03 13.90 -0.8
WRA 37.14 201 Pd 03 14.40 -0.9
0.8s 13.80nm 4.9mb
LZH 44.11 307 Pc 04 14.00 1.1
2.5s 60.00nm 5.0mb
Z 22s 0.30um 4.2Msz
pP 04 17.50 12kmX
PP 05 10.50
(PPP) 05 33.50
CHG 46.47 282 eP 04 35.00 3.3X
GUN 58.19 294 P 06 01.20 1.6
0.5s 17.00nm 5.4mb
PKI 58.62 293 P 06 02.00 -0.6
0.6s 19.00nm 5.4mb
KKN 58.73 294 P 06 03.50 0.3
DMN 58.89 293 P 06 04.60 0.2
0.5s 12.00nm 5.3mb
GKN 59.29 294 P 06 07.50 0.5
0.4s 9.00nm 5.3mb
TTA 61.70 26 P 06 22.00 -0.8
1.0s 11.25nm 5.0mb
IMA 63.88 23 P 06 36.80 -0.5
0.9s 3.13nm 4.4mb
PMR 64.26 28 P 06 38.00 -1.6
0.8s 6.03nm 4.7mb
FBA 65.79 25 P 06 48.50 -0.9
0.6s 6.16nm 4.9mb
GBA 67.60 279 Pc 07 02.10 0.4
0.5s 1.80nm 4.4mb
FHC 79.21 51 eP 08 13.40 4.2X
MAIO 79.63 305 eP 08 12.00 0.3
WDC 80.33 51 eP 08 15.70 0.5
YKA 80.36 28 eP 08 14.30 -0.5
0.8s 8.10nm 4.8mb
PNT 80.58 41 ePd 08 16.00 -0.3
0.8s 18.00nm 5.1mb
PCC 81.08 54 eP 08 19.30 0.1
ORV 81.32 51 eP 08 20.70 0.3
ARN 81.77 54 P 08 23.30 0.4
PRS 82.12 55 ePd 08 25.30 0.6
NEW 82.42 42 iP 08 26.00 0.0
1.0s 15.57nm 5.0mb
CMB 82.51 53 ePd 08 27.20 0.5
PRI 82.72 55 eP 08 29.00 1.1

FRI 83.27 54 ePd 08 31.00 0.4
BCH 83.40 55 P 08 32.40 0.9
KVN 84.00 51 P 08 34.80 0.3
ABL 84.17 56 P 08 36.20 0.7
TNP 84.92 52 P 08 39.70 0.5
0.7s 4.44nm 4.8mb
SES 85.65 39 ePd 08 42.60 0.3
KEV 85.87 342 eP 08 44.00 1.0
PEC 86.06 56 P 08 44.50 -0.2
LRM 86.16 44 eP 08 45.80 0.5
e 09 40.50
SOD 87.31 341 iP 08 49.80 -0.3
FFC 89.19 33 eP 08 59.00 -0.3
1.0s 15.00nm 5.3mb
SUF 90.10 337 iP 09 02.00 -1.4
NUR 91.96 335 eP 09 11.00 -1.0
ALO 94.13 52 eP 09 22.50 -0.3
SLL 96.23 339 eP 09 30.00 -1.7
0.9s 4.40nm 4.9mb
NB2 96.52 340 P 09 31.60 -1.5
0.8s 1.60nm 4.6mb
KIC 145.18 306 PKPd 15 42.40 -0.1
TIC 145.22 306 PKPd 15 42.50 -0.1
LIC 145.49 306 PKPd 15 43.40 0.4
S.D. = 0.9 on 54 of 56 obs.

& APR 22, 1990 02h 00m 15.50s
36.880 N 121.647 W
DEPTH = 5.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 4.0 (BRK).
Mo=1.5+10+15 Nm (BRK). Felt in
the Watsonville area.

SAO 0.20 125 iPd 00 19.35 -0.2
GCC 0.32 298 iPd 00 21.80 -0.1
MHC 0.46 1 iPd 00 24.90 0.1
ARN 0.48 11 iPd 00 25.00 -0.1
PRS 0.59 158 iPd 00 26.90 -0.4
LLA 0.62 115 iPd 00 27.80 -0.2
PCC 0.85 317 iPd 00 31.10 -1.3
PRI 1.08 133 ePd 00 35.65 -0.7
BKS 1.10 335 iPd 00 34.60 -2.0
iS 00 51.80
BRK 1.11 334 ePd 00 34.90 -1.8
iS 00 51.10
ZSP 1.17 336 ePd 00 36.00 -1.8
i 00 38.00
eS 00 54.20
PHAM 1.45 136 eP 00 40.70 -1.7
CMB 1.53 41 ePd 00 42.00 -1.5
FRI 1.56 85 eP 00 41.70 -2.2
BCH 2.11 143 eP 00 50.00 -2.1
ORV 2.67 2 eP 00 58.00 -2.0
ABL 2.83 135 eP 01 00.00 -2.4
KVN 3.54 51 e(P) 01 10.00 -2.5
YKA 26.01 7 eP 05 51.70 0.9
0.4s 0.10nm 2.9mb
19 obs. associated

APR 22, 1990 02h 00m 43.88±0.29s
15.058 N ± 8.2km 147.496 E ± 7.9km
DEPTH = 33.0km (normal)
4.9mb (11 obs.) 4.4Msz (2 obs.)
MARIANA ISLANDS REGION (215)

GUA 2.93 239 e(P) 01 20.50 -8.7X
eS 02 04.20
PMG 24.31 181 eP 05 59.00 -0.7
SSE 28.89 308 eP 06 48.00 6.2X
BJI 36.96 318 eP 07 51.50 -0.3
1.5s 26.00nm 4.9mb
WB5 37.04 201 eP 07 52.00 -0.7
WRA 37.11 201 Pd 07 52.40 -0.9
0.8s 16.80nm 5.0mb
LZH 44.14 307 Pd 08 52.00 0.6
2.5s 121.00nm 5.3mb
Z 20s 0.40um 4.3Msz
pP 09 09.00 68kmX
eS 14 50.00
CHG 46.49 282 eP 09 11.60 1.5
IMA 63.91 23 P 11 14.00 -1.7
0.9s 4.17nm 4.5mb
PMR 64.29 28 P 11 15.00 -3.0X
1.1s 10.94nm 4.9mb
HYB 65.91 283 eP 11 30.50 1.3
FHC 79.22 51 eP 12 48.20 0.7

WDC 80.34 51 ePd 12 53.80 0.3
YKA 80.39 28 eP 12 52.00 -1.2
0.8s 7.70nm 4.8mb
PNT 80.60 41 eP 12 55.00 0.3
0.8s 16.00nm 5.1mb
PCC 81.09 54 eP 12 57.00 -0.5
ORV 81.33 51 eP 12 58.50 -0.3
ARN 81.78 54 P 13 01.50 0.3
PRS 82.13 55 eP 13 03.00 0.0
NEW 82.44 42 iP 13 05.00 0.6
1.0s 21.25nm 5.2mb
CMB 82.52 53 ePd 13 05.30 0.3
FRI 83.28 54 ePd 13 08.70 -0.2
BCH 83.41 55 P 13 10.50 0.7
EDM 83.46 37 eP 13 09.50 0.0
KVN 84.02 51 P 13 12.80 -0.1
ABL 84.18 56 P 13 14.00 0.2
TNP 84.93 52 P 13 17.30 -0.2
0.8s 6.62nm 4.9mb
CLC 85.23 54 eP 13 19.00 0.2
SBB 85.34 55 eP 13 19.00 -0.4
SES 85.67 39 ePd 13 21.10 0.4
GSC 85.98 55 eP 13 23.00 0.4
PEC 86.07 56 P 13 22.70 -0.3
LRM 86.18 44 ePd 13 23.70 0.1
GLA 88.18 56 P 13 34.00 0.8
ALO 94.14 52 eP 14 01.00 -0.1
HFS 96.38 339 ePKP 14 08.30 -2.3
1.3s 14.60nm 5.3mb
NB2 96.56 340 P 14 09.60 -1.9
0.8s 1.20nm 4.4mb
KIC 145.21 306 PKP 20 20.70 -0.1
TIC 145.26 306 PKP 20 20.80 -0.1
LIC 145.52 306 PKP 20 21.60 0.3
ZOBO 145.71 97 PKP 20 23.00 0.7
1.2s 27.03nm 4.4Msz
Z 22s 0.08um LR 04 32.00
LPB 145.74 97 PKP 20 24.00 1.9
CCH 147.64 99 ePKP 20 29.00 4.0X
SIV 152.47 96 PKP 20 32.60 0.6
S.D. = 0.9 on 40 of 44 obs.

? APR 22, 1990 02h 11m 52.33±3.80s
30.120 S ± 24.5km 178.191 W ± 41.9km
DEPTH = 446.7 ± 31.5 km
3.8mb (1 obs.)
KERMADEC ISLANDS (178)

HBZ 8.01 200 eP 13 49.50 0.5
PUZ 8.46 199 P 13 55.20 1.1
S 15 25.80
NOZ 9.03 199 P 14 01.40 1.0
WLZ 9.27 212 P 14 04.80 1.8
PGZ 11.40 202 eP 14 25.10 -1.4
MNG 11.67 204 eP 14 27.10 -2.4
eS 16 29.70
MTW 12.15 203 P 14 31.40 -3.1X
CAW 12.25 205 P 14 35.00 -0.7
WDW 12.42 205 eP 14 35.10 -2.4
WEL 12.52 205 eP 14 40.00 1.5
S 16 51.00
TCW 12.64 207 P 14 38.80 -1.1
eS 16 51.60
THZ 13.67 209 eP 14 50.50 -0.3
eS 17 13.80
KHZ 13.96 206 eP 14 54.90 1.1
LTZ 14.77 209 eP 15 02.70 0.3
DZM 15.95 297 iPd 15 12.30 -2.3
WRA 43.92 272 Pc 19 21.00 1.5
0.6s 2.40nm 3.8mb
WB5 43.92 272 eP 19 21.00 1.5
GBA 109.01 275 PKPd 29 58.10 26.1X
0.6s 2.10nm
SUF 143.79 341 ePKP 30 42.00 5.9X
NUR 145.99 340 ePKP 30 40.00 0.2
NB2 148.45 351 PKP 30 57.60 13.8X
0.8s 3.80nm
HFS 148.94 348 ePKP 30 57.40 12.9X
0.8s 5.90nm
S.D. = 1.6 on 17 of 22 obs.

? APR 22, 1990 03h 38m 58.94±0.80s
26.825 N ± 15.0km 127.884 E ± 22.9km
DEPTH = 33.0km (normal)
4.2mb (6 obs.)
RYUKYU ISLANDS (238)

22d 03h

BJI 16.39 326 eP 42 49.00 1.1
 GUN 37.19 282 P 46 00.00 -9.4X
 WRA 46.91 172 P 47 29.00 0.8
 0.3s 0.50nm 4.0mb
 GBA 48.84 265 P 47 44.00 0.6
 0.6s 2.20nm 4.4mb
 CTA 49.92 157 e(P) 47 51.00 -0.6
 51 34.00
 INK 68.47 23 eP 50 00.00 0.5
 YKA 78.12 25 eP 50 48.50 -7.4X
 0.8s 1.40nm 4.0mb
 HFS 78.15 332 eP 50 54.30 -1.8
 1.0s 3.50nm 4.3mb
 NB2 78.65 334 P 50 57.20 -1.7
 0.9s 1.90nm 4.1mb
 FFC 88.20 26 eP 51 49.00 1.2
 0.9s 10.00nm 5.1mb
 S.D. = 1.4 on 8 of 10 obs.

? APR 22, 1990 04h 46m 08.36 \pm 2.72s
 18.139 S \pm 42.2km 178.492 W \pm 25.3km
 DEPTH = 620.7 \pm 32.6 km
 4.6mb (7 obs.)

FIJI ISLANDS REGION (181)

DZM 14.68 252 iPd 49 14.40 1.3
 BRS 27.99 246 i(P) 51 09.00 -4.6X
 RMO 31.35 249 ePd 51 42.40 0.3
 CTA 33.33 261 iPc 51 58.50 -0.3
 0.6s 20.00nm 4.9mb
 PMG 34.42 280 eP 52 08.50 0.7
 WB5 44.49 260 eP 53 27.90 -0.5
 WRA 44.51 260 Pc 53 28.00 -0.6
 0.6s 7.70nm 4.4mb
 KNA 50.37 264 eP 54 11.80 -0.7
 WARB 51.13 251 iPd 54 17.80 -0.2
 0.3s 12.00nm 4.8mb
 COOL 55.78 245 iPd 54 49.60 -1.1
 0.4s 9.00nm 4.4mb
 MBL 57.85 256 iPd 55 04.20 -0.6
 0.4s 11.00nm 4.4mb
 NANU 61.58 254 iPd 55 29.50 0.2
 0.5s 56.00nm 5.1mb
 GCC 76.44 43 ePc 56 57.10 0.0
 PRS 76.45 44 ePc 56 57.60 0.4
 SAO 76.65 44 ePc 56 58.60 0.3
 FRI 77.92 44 eP 57 05.80 0.8
 CMB 78.06 43 ePc 57 05.80 0.0
 WDC 78.17 40 eP 57 05.30 -1.0
 ORV 78.22 41 eP 57 04.50 -2.1
 MIN 78.61 41 ePc 57 09.10 0.3
 YKA 94.57 25 eP 58 23.60 -0.9
 0.7s 0.30nm 3.6mb
 NB2 136.59 353 PKP 04 14.30 -8.1X
 1.1s 1.20nm
 KSP 145.31 343 iPKP 04 39.50 1.6
 CLL 145.67 347 iPKP 04 40.70 2.2
 1.0s 14.00nm
 KBA 149.54 344 e(PKP) 04 49.00 4.1X
 S.D. = 1.0 on 22 of 25 obs.

APR 22, 1990 04h 54m 43.26 \pm 0.88s
 19.034 N \pm 11.6km 64.603 W \pm 5.6km
 DEPTH = 33.0km (normal)
 3.3mb (1 obs.)

VIRGIN ISLANDS (91)

LPR 1.40 239 P 55 06.70 -0.1
 CPD 1.59 232 P 55 09.20 -0.3
 SJG 1.73 238 iP 55 11.60 0.1
 PORP 2.16 244 P 55 17.90 0.2
 NEV 2.70 134 eP 55 26.00 0.7
 BPA 3.28 127 eP 55 33.00 -0.5
 S 56 08.00
 PAG 4.09 137 eP 55 45.00 -0.1
 S 56 28.00
 YKA 55.29 334 eP 04 15.60 0.0
 0.7s 0.20nm 3.3mb
 S.D. = 0.4 on 8 of 8 obs.

? APR 22, 1990 05h 39m 17.17 \pm 0.88s
 41.109 N \pm 18.3km 14.705 E \pm 25.3km
 DEPTH = 10.0km (geophysicist)

SOUTHERN ITALY (390)

DUI 0.58 341 P 39 29.00 0.0
 SGO 0.72 140 P 39 31.30 0.1

SDI 0.90 312 P 39 34.40 0.0
 eSg 39 48.60
 MGR 1.17 146 P 39 38.90 -0.1
 S.D. = 0.1 on 4 of 4 obs.

% APR 22, 1990 05h 45m 25.99 \pm 0.72s
 41.260 N \pm 10.6km 14.930 E \pm 10.8km
 DEPTH = 10.0km (geophysicist)

SOUTHERN ITALY (390)

DUI 0.54 319 P 45 36.10 -0.7
 SGO 0.76 158 P 45 40.60 -0.2
 eSg 45 51.80
 SDI 0.95 298 P 45 44.50 0.4
 eSg 45 57.70
 MGR 1.22 157 P 45 48.50 -0.1
 AZI 1.34 304 P 45 51.00 0.4
 BRT 1.76 102 P 45 57.00 0.3
 S.D. = 0.6 on 6 of 6 obs.

APR 22, 1990 05h 54m 24.91 \pm 0.20s
 6.734 N \pm 3.2km 73.122 W \pm 3.7km
 DEPTH = 168.4km (3 depth phases)
 5.0mb (25 obs.)

NORTHERN COLOMBIA (99)

FUO 1.40 206 iP 54 54.50 -1.1
 BOG 2.30 204 iPd 55 07.00 1.6
 iS 55 36.00
 UPA 6.73 290 iPc 55 59.50 -2.9X
 0.5s 211.27nm 5.7mb X
 iS 57 15.00
 PSO 6.92 217 eP 56 06.50 1.2
 CAYA 8.20 216 P 56 23.50 1.1
 COTA 8.21 220 eP 56 22.70 0.1
 GGP 8.77 219 eP 56 30.00 -0.1
 VCI 9.02 216 eP 56 33.50 0.2
 CUM 9.60 67 iP 56 36.00 -4.3X
 TCE 11.91 70 eP 57 16.91 6.4X
 TPP 12.08 72 eP 57 20.34 7.6X
 TRN 12.22 71 eP 57 19.81 5.3X
 SVB 13.37 60 eP 57 30.67 1.4
 SLB 13.81 58 eP 57 36.72 1.8
 BIM 14.14 56 eP 57 40.40 1.4
 FDF 14.19 55 eP 57 39.10 -0.6
 MVM 14.30 56 eP 57 43.40 2.3
 CRM 14.39 55 eP 57 42.51 0.3
 ARE 23.10 176 eP 59 18.00 0.7
 ZOBO 23.38 168 P 59 15.00 -5.3X
 Z 24s 0.12um 3.3MsZ X
 i 59 33.00 80kmX
 LR 32 08.00
 LPB 23.65 168 P 59 24.00 1.3
 1.0s 60.00nm 5.1mb
 i 03 26.00
 CCH 24.93 164 P 59 34.30 -0.3
 SIV 25.54 152 P 59 38.20 -1.7
 i 00 13.50 176km
 SGS 27.21 346 P 59 55.80 1.0
 JSC 28.42 346 P 00 06.10 0.3
 LHS 28.51 347 P 00 06.60 0.1
 PRM 28.53 344 P 00 07.30 0.6
 TKL 30.40 343 P 00 23.40 0.1
 GBTN 30.54 342 P 00 24.80 0.3
 RSCP 30.92 340 P 00 28.30 0.4
 0.7s 115.92nm 5.7mb
 BLA 31.06 349 P 00 29.60 0.5
 1.0s 30.00nm 5.0mb
 PWLA 31.30 336 P 00 31.20 0.1
 CVL 31.48 352 P 00 32.50 -0.2
 OLY 33.22 332 P 00 47.30 -0.5
 UYO 33.68 327 iPd 00 51.50 -0.2
 LVNJ 33.96 358 P 00 54.50 0.4
 TBR 34.28 359 P 00 57.00 0.2
 CLE 35.41 349 iP 01 07.90 1.5
 TUL 35.71 328 iP 01 08.50 -0.4
 0.8s 27.70nm 5.0mb
 i 01 13.40 17kmX
 WVLY 35.91 353 P 01 11.50 0.9
 MEO 36.46 323 iPd 01 14.40 -0.9
 HBVT 37.48 0 P 01 24.10 0.4
 WNY 37.51 359 P 01 24.40 0.4
 RSNY 37.69 358 P 01 25.90 0.4
 ALO 41.57 317 eP 01 57.30 -0.6
 0.9s 7.98nm 4.3mb
 ANMO 41.57 317 P 01 58.00 0.1

GLD 1.0s 7.81nm 4.3mb
 43.71 324 P 02 16.00 0.8
 0.9s 63.16nm 5.2mb
 GOL 43.77 323 P 02 16.00 0.3
 0.7s 57.65nm 5.3mb
 pP 02 53.00 168km
 RSSD 46.01 329 P 02 33.00 -0.4
 GLA 46.69 310 eP 02 39.00 0.3
 RSON 47.20 342 P 02 41.20 -1.2
 0.8s 89.14nm 5.4mb
 DAU 47.80 320 P 02 48.00 0.5
 BAR 47.96 309 eP 02 49.00 0.5
 TPC 48.05 311 eP 02 50.00 0.8
 BW06 48.15 324 P 02 49.70 -0.4
 SCH 48.22 5 ePc 02 50.00 -0.1
 0.5s 27.00nm 5.1mb
 PLM 48.37 309 eP 02 52.00 0.2
 PEC 48.81 310 P 02 55.30 0.2
 RVR 49.01 310 eP 02 57.00 0.4
 GSC 49.12 312 eP 02 58.00 0.5
 SBB 49.63 310 eP 03 01.00 -0.4
 IMW 49.63 324 P 03 01.00 -0.5
 CLC 49.92 312 eP 03 03.00 -0.5
 TNP 50.62 315 P 03 09.00 0.0
 0.7s 7.96nm 4.5mb
 BCH 51.53 310 P 03 16.50 0.7
 LRM 51.65 326 iPd 03 16.70 0.0
 KVN 51.67 315 P 03 16.60 -0.3
 FRI 51.95 312 eP 03 17.80 -1.0
 LLA 52.72 311 eP 03 24.10 -0.4
 CMB 52.86 313 ePd 03 25.20 -0.3
 PRS 52.93 311 ePd 03 25.70 -0.3
 FFC 53.17 340 iPd 03 26.50 -0.9
 0.5s 14.00nm 5.0mb
 ARN 53.43 312 P 03 30.50 0.8
 MHC 53.51 312 ePd 03 31.00 0.6
 GCC 53.66 312 eP 03 29.80 -1.5
 SES 53.77 331 iPd 03 31.80 -0.2
 pP 04 09.00 162km
 BKS 54.15 312 e(P) 03 35.60 0.7
 1.0s 61.00nm 5.3mb
 ORV 54.27 315 eP 03 36.00 0.2
 MIN 54.67 315 ePd 03 37.80 -1.1
 WDC 55.42 315 eP 03 40.80 -3.2X
 NEW 55.66 326 P 03 44.40 -1.3
 0.9s 13.71nm 4.8mb
 FHC 56.51 315 ePd 03 52.40 0.5
 EDM 56.70 332 iPd 03 51.80 -1.2
 0.6s 37.00nm 5.4mb
 FRB 57.00 2 eP 03 53.00 -1.8
 PNT 57.62 326 eP 03 59.00 -0.5
 0.9s 29.00nm 5.1mb
 LON 57.63 322 P 03 59.00 -0.6
 YKA 63.34 340 eP 04 36.50 -1.4
 0.6s 26.90nm 5.3mb
 TIC 67.58 86 P 05 04.00 -1.9
 LIC 67.61 86 P 05 04.10 -1.9
 KIC 67.88 86 P 05 05.90 -1.8
 0.7s 44.00nm 5.4mb
 DCN 70.31 36 eP 05 20.80 -1.0
 INK 73.11 340 ePd 05 39.60 1.5
 EKA 73.14 34 P 05 43.00 4.5X
 2.6s 98.90nm 5.1mb
 FBA 77.45 335 eP 06 03.00 0.3
 PMR 77.46 332 eP 06 03.30 0.5
 0.8s 12.00nm 4.7mb
 WTS 78.53 38 eP 06 09.00 0.2
 0.9s 12.00nm 4.6mb
 IMA 80.05 336 eP 06 17.60 0.6
 0.7s 3.90nm 4.2mb
 SVW 80.51 331 eP 06 19.40 0.0
 NB2 81.40 29 P 06 23.60 -0.4
 0.8s 8.20nm 4.5mb
 BRW 81.62 341 eP 06 25.70 0.9
 HFS 82.62 30 ePKP 06 29.00 -1.2
 1.1s 8.10nm 4.4mb
 BCAA 91.13 85 iPd 07 11.90 -0.5
 0.7s 23.00nm 5.4mb
 GKN 139.33 31 PKP 13 34.90 0.3
 KKN 139.83 30 PKP 13 35.90 0.3
 GUN 140.03 30 PKP 13 36.30 0.2
 GBA 144.46 55 PKPc 13 41.40 -2.2
 0.8s 4.90nm
 SHL 144.74 24 iPKP 13 42.00 -2.1
 iS 17 08.00
 QIS 145.45 243 iPKPd 13 45.60 0.4
 e 14 26.00

WRA	150.29	241	PKPc	13	55.60	2.7X	UYO	37.23	314	iPd	25	05.40	0.4	BGF	65.48	44	iPc	28	36.10	0.2
	0.5s		3.30nm				TUL	39.07	315	iPc	25	20.30	-0.1	AVF	65.87	43	iPc	28	38.30	0.0
WB5	150.29	241	ePKP	13	53.80	0.9		1.0s	78.30nm			5.5mb		SSF	66.02	43	iPc	28	39.00	-0.3
CHG	153.44	17	ePKP	14	05.90	8.4X			e		25	41.00	87kmX		0.6s		5.40nm		4.7mb	
KHKI	171.19	259	ePKPd	14	31.50	16.9X	MEO	40.50	312	iPc	25	31.30	-0.9	SMF	66.17	44	iPc	28	40.30	0.0
	S.D. = 0.9	on 101 of 112 obs.					SCH	44.08	357	ePc	26	02.00	0.9		0.9s		13.10nm		4.9mb	
								0.4s	24.00nm			5.3mb		LOR	66.29	43	iPc	28	40.80	-0.3
APR 22, 1990 06h 18m 03.13±0.21s							ALQ	46.48	308	ePc	26	21.00	0.3		0.7s		8.80nm		4.8mb	
10.748 N ± 3.3km 62.685 W ± 3.0km								0.9s	16.60nm			4.8mb		LBF	66.32	43	iPc	28	40.80	-0.5
DEPTH = 116.3km (8 depth phases)							ANMO	46.48	308	P	26	21.50	0.9		0.6s		3.60nm		4.5mb	
4.9mb (49 obs.)								0.8s	11.66nm			4.7mb		DOU	67.28	40	P	28	47.00	-0.2
NEAR COAST OF VENEZUELA (97)								pP		26	47.50	111km		LPL	68.00	45	iPc	28	52.90	0.8
MD 4.8 (TRN). Felt (III) on							RSON	47.38	334	P	26	26.20	-1.1		0.9s		18.00nm		5.0mb	
Trinidad.								0.8s	48.08nm			5.3mb		LPG	68.01	45	iPc	28	53.20	0.9
TCE	0.92	93	iP	18	22.55	-1.8		pP		26	53.30	116km		HAU	68.07	43	iPc	28	52.00	-0.3
			eS	18	30.06		GLD	47.45	315	P	26	28.00	-0.2		0.9s		6.55nm		4.5mb	
TRN	1.26	94	iP	18	26.37	-1.6		1.0s	25.00nm			4.9mb		EMS	68.20	45	ePc	28	53.90	0.6
			eS	18	37.94		GOL	47.53	315	P	26	28.00	-0.9	DOI	68.24	46	P	28	55.50	2.0
TPP	1.29	109	eP	18	27.19	-1.0		0.6s	11.83nm			4.8mb		BSF	68.34	43	iPc	28	53.60	-0.5
			eS	18	44.75		RSSD	48.71	321	P	26	36.70	-1.2		0.6s		9.00nm		4.8mb	
TBH	1.61	99	eP	18	31.36	-0.7	BW06	51.68	317	P	26	59.00	-1.6	DIX	68.54	45	ePc	28	56.30	0.8
GRW	1.73	35	eP	18	34.32	0.8		pP		27	27.50	121km		CDF	68.75	42	iPc	28	56.20	-0.3
TPR	1.92	77	iP	18	34.34	-1.6	DAU	51.97	313	P	27	02.00	-0.8		0.6s		5.40nm		4.6mb	
BOT	1.98	78	eP	18	34.79	-1.8	GLA	52.62	303	P	27	07.00	-0.5	WTS	68.99	38	eP	28	58.00	0.2
			eS	19	00.04		IMW	53.06	318	P	27	10.00	-0.8		0.8s		32.00nm		5.2mb	
FCV	2.78	30	iP	18	46.08	-1.0	FRB	53.08	357	eP	27	08.50	-1.7	ABH	69.13	41	eP	28	58.99	0.3
SVB	2.87	29	eP	18	47.45	-0.9	FFC	53.69	333	iPc	27	13.30	-1.6	FEL	69.16	43	eP	28	58.66	-0.4
SOA	3.01	30	eP	18	49.48	-0.7		0.5s	11.00nm			5.1mb		VAI	69.46	45	P	29	01.00	0.3
SLB	3.46	28	eP	18	55.37	-0.8	PLM	54.35	303	P	27	20.00	-0.4	SLE	69.47	43	ePd	29	01.00	0.1
BIM	4.06	23	iPc	19	03.70	-0.7		pP		27	49.00	122km		TMA	69.55	45	ePd	29	01.80	0.2
MVM	4.17	25	iPc	19	05.31	-0.5	LRM	54.81	319	eP	27	23.20	-0.4	LLS	69.71	44	ePd	29	03.40	0.8
FDF	4.23	21	iPc	19	06.22	-0.6	TNP	55.68	309	P	27	29.20	-0.7	BOB	69.83	46	P	29	03.00	-0.2
	0.2s		4.80nm					0.9s	4.88nm			4.5mb		SAX	69.99	44	ePd	29	05.10	0.7
CRM	4.34	23	iPc	19	07.72	-0.5	SES	55.92	325	eP	27	30.00	-1.3	OSS	70.48	44	ePd	29	07.80	0.6
DPMT	4.66	16	eP	19	15.52	3.0X		0.4s	60.00nm			5.9mb X		PII	70.52	47	P	29	08.00	0.7
			eS	20	05.43		KVN	56.59	310	P	27	35.00	-1.4	PGD	71.40	47	P	29	12.00	-0.8
DBCT	4.68	16	iP	19	12.73	-0.1	FRI	57.37	307	eP	27	40.70	-0.9	GRF	71.47	41	eP	29	13.40	0.5
			S	20	04.12		KIC	57.40	89	P	27	42.40	0.2	CTI	71.47	45	Pc	29	13.00	-0.1
MDN	4.71	15	eP	19	13.23	0.0	CMB	58.11	308	e(P)	27	45.80	-1.1	SFI	71.49	47	P	29	09.00	-4.1X
BBL	4.89	14	eP	19	15.50	-0.2	EDM	58.49	327	iPc	27	48.00	-1.3	MNS	72.04	49	P	29	17.50	1.1
			eTT	23	30.00			0.8s	165.00nm			6.1mb X		ASS	72.05	48	P	29	14.00	-2.5
PAG	5.34	10	eP	19	22.70	0.8	PRS	58.55	306	ePc	27	48.90	-1.0	FVI	72.29	44	P	29	19.50	1.8
			S	20	20.00		NEW	58.68	320	P	27	48.80	-1.9	AZI	72.59	49	P	29	20.00	0.4
SFG	5.66	15	eP	19	26.30	0.1		0.6s	12.30nm			5.1mb		KBA	72.70	44	iPc	29	21.30	0.9
SEG	5.74	11	eP	19	28.80	1.5	VAL	58.91	35	iP	27	53.70	1.6		0.9s		19.20nm		4.9mb	
MGH	5.95	4	eP	19	31.20	0.9	MHC	58.95	307	eP	27	52.30	-0.5	CLL	72.74	40	iPc	29	20.40	0.1
			S	20	33.00		MIN	59.52	311	eP	27	55.10	-1.6		1.1s		16.00nm		4.7mb	
			eTT	24	30.00		WDC	60.27	311	eP	28	03.90	2.3	RBL	72.82	45	P	29	21.20	0.2
MBET	5.98	5	eP	19	31.94	1.3	PNT	60.60	321	eP	28	03.00	-0.7	SDI	72.87	50	P	29	21.50	0.2
BPA	6.31	7	eP	19	36.00	0.8		0.5s	4.00nm			4.7mb		NB2	72.87	29	P	29	21.40	0.4
NEV	6.35	1	eP	19	36.60	0.8	ECB	61.04	35	eP	28	06.40	-0.2		0.9s		10.00nm		4.6mb	
SKI	6.55	360	eP	19	39.33	0.9	DCN	61.13	34	eP	28	07.20	0.0	KHC	72.96	42	iPd	29	22.50	0.8
			eS	20	54.33			0.9s	81.00nm			5.7mb			1.1s		8.50nm		4.5mb	
BSK	6.56	359	eP	19	39.75	1.1	ECP	61.21	36	eP	28	04.70	-3.1X	INK	73.03	338	ePc	29	19.60	-2.0
CPB	6.90	7	eP	19	44.91	1.7	FHC	61.39	311	ePc	28	09.00	-0.3	DUI	73.35	50	P	29	24.00	-0.2
CPD	7.09	337	P	19	56.80	0.0	ETA	61.49	35	eP	28	07.80	-1.8	PRU	73.63	41	Pc	29	26.20	0.7
SJG	8.05	336	iP	19	58.60	-0.3	EPF	63.07	47	iPc	28	21.40	1.0		1.0s		18.80nm		4.8mb	
LPR	8.12	338	P	20	00.50	0.6		0.6s	9.90nm			4.9mb		HFS	73.97	30	eP	29	27.00	-0.2
PORP	8.21	333	P	20	01.00	0.0	LPF	63.22	41	iPc	28	21.60	0.4		0.6s		10.40nm		4.8mb	
SIV	26.61	177	iP	23	33.20	0.6		0.6s	16.25nm			5.1mb		SGO	73.99	51	P	29	29.00	1.2
ZOBO	27.38	191	P	23	41.90	1.7	GRR	63.42	41	iPc	28	22.80	0.3	MGR	74.19	51	P	29	29.00	0.1
			i	24	06.80	115km		0.8s	29.55nm			5.3mb		KSP	74.79	40	iPc	29	32.50	0.3
HBF	27.43	326	P	23	40.80	0.9	MFF	63.47	43	iPc	28	23.50	0.6	TDS	74.80	52	P	29	31.00	-1.5
LPB	27.63	191	P	23	44.50	2.2		0.6s	5.40nm			4.7mb		ZST	75.27	43	iPc	29	35.70	0.7
SGS	27.70	326	P	23	43.40	1.1	YKA	63.54	336	eP	28	20.30	-2.8	SRO	76.08	43	eP	29	38.30	-1.3
CCH	28.16	187	P	23	48.30	1.4		0.4s	10.10nm			5.1mb		KRA	77.12	41	eP	29	45.90	0.6
LHS	28.84	328	P	23	53.20	0.6	LFF	63.73	45	iPc	28	24.80	0.2		0.6s		37.00nm		5.4mb	
JSC	28.93	327	P	23	54.00	0.6		0.5s	4.35nm			4.6mb			e			30	14.80	113km
PRM	29.39	325	P	23	58.00	0.5	FLN	63.76	41	iPc	28	25.20	0.5	SPC	77.34	42	eP	29	34.70	-12.1X
BAO	29.98	151	eP	24	04.00	1.0		0.8s	48.35nm			5.5mb		FBA	78.27	334	P	29	50.00	-1.3
NA2	30.42	336	P	24	07.00	0.5	LDF	63.95	41	iPc	28	26.20	0.2		0.6s		8.62nm		4.7mb	
CVL	30.59	335	P	24	08.30	0.3		0.9s	16.40nm			5.0mb		PMR	78.94	331	P	29	55.00	0.0
BLA	30.82	332	P	24	11.00	0.9	LPO	63.99	45	iPc	28	26.50	0.2		0.6s		6.16nm		4.6mb	
	0.6s		31.82nm					0.6s	12.65nm			5.0mb		NUR	79.42	30	iP	29	58.00	0.4
NAV	31.07	331	P	24	13.30	1.0	EKA	64.10	33	Pc	28	26.00	-0.8	KEV	79.89	21	eP	29	58.00	-2.0
TKL	31.33	326	P	24	15.20	0.6		0.7s	4.10nm			4.5mb		SOD	79.90	23	iP	30	00.00	-0.1
GBTN	31.58	325	P	24	17.50	0.8	RJF	64.34	45	eP	28	28.60	0.0	IMA	80.67	336	P	30	03.70	-0.7
TBR	31																			

22d 06h

RMO 146.47 238 ePKP 37 32.00 0.6
 CTA 150.64 248 iPKPc 37 43.20 5.2X
 0.8s 27.99nm
 NNT 150.98 37 ePKP 37 42.00 3.4X
 WRA 161.22 239 PKPd 37 51.40 0.0
 0.8s 2.60nm
 S.D. = 1.0 on 167 of 176 obs.

& APR 22, 1990 07h 14m 58.99s
 60.067 N 152.743 W
 DEPTH = 100.8km
 2.7mb (1 obs.)
 SOUTHERN ALASKA (2)
 <AGS-P>.

RED 0.35 358 iP 15 13.61 -0.7
 15 25.32
 OPT 0.48 211 eP 15 16.90 1.9
 RDT 0.54 18 iP 15 14.67 -0.8
 NNL 0.73 91 iP 15 16.90 -0.1
 AUL 0.77 207 eP 15 16.70 -0.7
 AUE 0.78 204 eP 15 16.56 -0.9
 PDB 0.78 250 iP 15 16.89 -0.6
 15 29.83
 XLV 0.80 139 eP 15 16.54 -1.2
 15 31.32
 CNPM 0.94 125 iP 15 18.11 -1.0
 15 33.15
 NKA 1.01 47 eP 15 20.82 1.0
 CKL 1.15 10 iP 15 20.99 -0.6
 15 37.89
 SPU 1.17 17 iP 15 21.02 -0.7
 15 38.27
 BGL 1.21 8 iP 15 21.85 -0.4
 CDD 1.23 202 eP 15 21.08 -1.3
 CRP 1.24 13 iP 15 22.16 -0.5
 15 40.13
 CGLM 1.30 16 iP 15 22.73 -0.5
 SLKM 1.33 70 eP 15 22.21 -1.4
 NCG 1.37 12 iP 15 23.59 -0.6
 SEW 1.65 87 eP 15 25.62 -1.9
 SUA 1.71 34 iP 15 27.88 -0.6
 15 50.65
 SVW 1.76 308 eP 15 28.01 -1.1
 PMS 1.96 52 eP 15 30.61 -1.0
 15 54.27
 SKT 2.01 17 iP 15 31.19 -1.0
 15 55.42
 PWA 2.12 40 eP 15 32.65 -1.0
 KDC 2.33 177 eP 15 33.70 -2.7
 PLRM 2.34 48 eP 15 34.51 -2.0
 GHO 2.53 46 eP 15 37.23 -2.0
 MTU 2.56 90 eP 15 37.87 -1.7
 CUT 2.63 26 eP 15 39.17 -1.3
 SML 2.77 49 eP 15 40.50 -2.0
 GLI 2.91 71 eP 15 42.27 -2.1
 VZW 3.21 69 eP 15 46.64 -1.8
 HUR 3.28 26 eP 15 48.69 -0.6
 MID 3.30 98 eP 15 47.89 -1.7
 NCA 3.47 54 eP 15 49.10 -2.9
 KTH 3.60 13 eP 15 52.50 -1.3
 KLU 3.64 64 eP 15 51.39 -2.9
 16 32.06
 TOA 3.79 55 eP 15 54.05 -2.3
 RND 3.83 27 eP 15 55.45 -1.5
 MCK 4.10 24 eP 15 59.40 -1.1
 PAX 4.54 47 eP 16 05.13 -1.6
 NEA 4.84 19 eP 16 08.43 -2.3
 WRH 4.92 24 eP 16 09.51 -2.4
 HDA 5.13 29 eP 16 12.01 -2.7
 RDS 5.23 22 eP 16 13.89 -2.3
 GLM 5.52 24 eP 16 17.73 -2.6
 PCA 6.25 84 eP 16 27.87 -2.4
 YKA 18.31 66 eP 19 04.00 -3.4
 0.4s 0.20nm 2.7mb
 48 obs. associated

% APR 22, 1990 07h 21m 36.46±0.76s
 41.023 N ±11.5km 14.734 E ±18.1km
 DEPTH = 10.0km (geophysicist)
 SOUTHERN ITALY (390)

BSS 0.24 167 P 21 41.60 0.0
 SGO 0.64 137 P 21 48.80 -0.4
 21 59.40
 DUL 0.67 342 P 21 50.00 0.2
 SDI 0.97 315 P 21 54.80 -0.2

eSn 22 07.00
 MGR 1.08 144 P 21 57.20 0.4
 S.D. = 0.4 on 5 of 5 obs.

? APR 22, 1990 07h 41m 37.52±1.64s
 20.879 S ±27.7km 178.791 W ±17.2km
 DEPTH = 587.8 ± 14.3 km
 4.5mb (10 obs.)

FIJI ISLANDS REGION (181)

SGE 4.51 316 iPd 43 06.00 -0.5
 43 28.30
 NDF 4.72 311 eP 43 08.00 0.1
 DZM 13.80 262 iPc 44 38.50 4.4X
 BRS 26.71 250 i(P) 46 33.60 0.5
 CTA 32.72 265 iPd 47 25.30 0.9
 0.7s 27.40nm 5.0mb
 PMG 34.71 284 eP 47 41.50 0.4
 ASPA 43.71 257 iPd 48 53.60 0.1
 0.7s 18.00nm 4.7mb
 WB5 43.80 263 eP 48 53.50 -0.7
 WRA 43.81 263 Pc 48 54.10 -0.2
 0.6s 3.90nm 4.1mb
 MTN 48.43 271 iPc 49 29.10 -0.4
 0.8s 57.00nm 5.2mb
 MBL 56.96 258 iPd 50 29.40 -0.8
 NANU 60.58 255 iPd 50 54.40 0.0
 0.5s 13.00nm 4.5mb
 KVN 82.29 43 iP 53 01.00 1.4
 TNP 82.32 44 iP 53 00.50 0.7
 0.8s 4.41nm 4.0mb
 PNT 87.38 34 eP 53 25.00 1.2
 ALO 88.22 52 eP 53 28.00 -0.3
 FBA 88.77 13 iP 53 30.10 0.2
 0.8s 8.62nm 4.7mb
 CHTO 89.68 290 iP 53 37.40 2.4
 0.8s 3.84nm 4.4mb
 BW06 89.75 44 eP 53 35.10 -0.1
 0.8s 3.57nm 4.3mb
 INK 94.83 15 eP 53 57.00 -0.6
 YKA 97.17 25 eP 54 07.20 -1.0
 0.7s 0.50nm 4.0mb
 SUF 134.84 344 ePKP 59 49.00 -2.1
 NUR 137.09 343 ePKP 59 55.00 -0.4
 NB2 139.26 353 PKP 59 50.30 -9.2X
 0.7s 1.60nm
 HFS 139.79 350 ePKP 59 52.70 -7.7X
 0.4s 3.30nm
 EKA 145.44 4 PKPd 00 08.40 -1.8
 0.9s 8.10nm
 KSP 147.83 342 iPKPd 00 18.50 4.3X
 SPC 147.93 336 e(PKP) 00 18.20 3.5X
 CLL 148.25 346 iPKP 00 19.60 4.7X
 0.9s 21.00nm
 WTS 148.64 353 ePKP 00 20.00 4.6X
 0.9s 18.00nm
 PRU 149.09 343 PKP 00 21.50 5.3X
 ZST 149.89 339 ePKP 00 23.60 6.2X
 KHC 150.13 344 PKP 00 24.50 6.7X
 DOU 150.72 356 PKP 00 25.60 7.0X
 CDF 152.10 351 ePKP 00 28.50 7.7X
 0.6s 3.60nm
 FLN 152.15 2 ePKP 00 27.90 7.2X
 LDF 152.33 2 ePKP 00 28.40 7.4X
 GRR 152.50 3 ePKP 00 28.90 7.7X
 BSF 152.74 352 ePKP 00 29.60 7.9X
 0.6s 2.70nm
 LPF 152.85 3 ePKP 00 29.50 7.8X
 LOR 153.59 356 ePKP 00 30.60 7.8X
 0.6s 8.10nm
 SSF 153.82 356 ePKP 00 32.20 9.1X
 MFF 154.32 2 ePKP 00 32.20 8.5X
 BCAA 156.53 228 ePKPd 00 28.10 0.4
 0.5s 3.00nm
 KIC 164.46 157 PKP 00 36.20 0.3
 TIC 164.62 156 PKP 00 36.40 0.4
 S.D. = 1.0 on 26 of 46 obs.

* APR 22, 1990 07h 47m 59.24±1.27s
 4.716 S ±12.7km 152.399 E ±22.1km
 DEPTH = 75.5 ± 10.9 km
 4.4mb (7 obs.)

NEW BRITAIN REGION (192)

RAB 0.57 336 iPd 48 13.70 0.3
 PMG 6.99 228 eP 49 40.00 -1.0

BRS 22.55 179 iP 52 54.30 0.3
 WB5 23.14 228 eP 53 00.30 0.5
 WRA 23.20 228 Pc 53 01.00 0.6
 0.6s 4.60nm 4.1mb

ASPA 25.95 222 eP 53 30.00 3.5X
 0.5s 4.00nm 4.2mb
 TTA 77.84 22 P 59 50.00 0.1
 0.8s 4.31nm 4.4mb

PMR 79.77 24 P 00 00.00 -0.3
 0.5s 4.13nm 4.6mb
 IMA 80.51 20 P 00 05.00 0.6
 0.6s 1.54nm 4.1mb

FBA 81.96 22 P 00 11.30 -0.5
 0.5s 6.20nm 4.8mb
 INK 88.52 21 eP 00 44.00 -0.3
 YKA 95.54 28 eP 01 16.60 -0.2
 0.7s 1.10nm 4.5mb

HFS 116.45 338 ePKP 06 34.20 -1.5X
 1.0s 2.40nm
 S.D. = 0.6 on 11 of 13 obs.

* APR 22, 1990 08h 08m 05.03±0.75s
 10.262 S ±11.2km 161.706 E ±12.8km
 DEPTH = 33.0km (normal)
 4.3mb (6 obs.)

SOLOMON ISLANDS (193)

HNR 1.92 295 iP 08 38.00 2.0
 09 02.00
 DZM 12.59 159 iPc 11 06.50 1.7
 13 22.00

CTA 17.81 235 iPd 12 13.50 1.3
 1.0s 10.00nm 3.9mb
 12 24.00

BRS 19.00 205 e(P) 12 26.00 -0.8
 WB5 28.04 247 eP 13 54.00 -1.5
 WRA 28.08 247 Pd 13 53.90 -2.0
 0.8s 4.00nm 4.2mb

TTA 79.88 18 P 20 12.00 0.2
 0.8s 6.03nm 4.6mb
 IMA 82.87 17 P 20 27.00 0.3
 0.8s 3.02nm 4.4mb

FBA 83.86 19 P 20 31.80 -0.6
 0.8s 9.91nm 5.0mb
 BRW 85.98 12 P 20 43.30 0.5
 YKA 96.12 28 eP 21 29.10 -1.2
 1.1s 0.80nm 4.1mb

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

APR 22, 1990 08h 23m 20.08±0.38s
 36.972 S ± 5.6km 73.334 W ± 6.7km
 DEPTH = 33.0km (normal)
 5.2mb (14 obs.) 4.2Msz (1 obs.)

NEAR COAST OF CENTRAL CHILE (135)

LNK 3.39 28 iPd 24 12.00 0.0
 25 11.00
 CHCH 3.74 37 iPd 24 17.10 0.2
 25 16.00

TACH 3.85 31 iPd 24 18.20 -0.2
 25 20.50
 PCH 4.06 35 iP 24 22.00 0.4
 SAN 4.14 33 iPd 24 22.40 -0.2
 25 29.50

IHA 4.17 20 eP 24 22.50 -0.5
 25 32.50
 PEL 4.39 30 iPc 24 25.70 -0.6
 ROCH 4.42 26 iPd 24 26.20 -0.7

RTBS 6.19 32 eP 24 52.60 1.0
 RTCV 6.46 39 eP 24 55.30 -0.1
 RTLL 6.92 37 ePc 25 00.20 -1.7
 ITB7 20.18 60 e(P) 27 57.00 2.4

ITB1 20.34 58 e(P) 27 56.00 -0.2
 ITB 20.37 59 e(P) 27 55.30 -1.3
 ARE 20.49 5 eP 28 03.00 4.7X
 CCH 20.52 20 P 27 58.70 0.1
 LPB 20.88 14 P 28 03.50 1.1
 32 04.00

ZOBO 21.13 14 Pc 28 05.50 0.4
 1.2s 57.43nm 4.9mb
 Z 18s 0.99um 4.2Msz
 32 08.00

BAO 30.94 53 eP 29 41.40 5.0X
 SPA 53.21 180 iPc 32 36.10 -1.2
 0.9s 35.91nm 5.3mb

CER	72.72	119	iPd	34	47.00	0.1	BSS	0.39	169	P	45	12.06	-1.0	IMA	28.15	4	e(P)	48	49.40	1.3	
	1.0s		46.00nm			5.4mb	DUI	0.52	339	Pc	45	15.30	-0.2	FBA	29.34	359	eP	48	59.40	0.8	
RSCP	73.09	350	P	34	47.80	-0.9			eSg	45	23.90				0.9s		9.46nm			4.6mb	
	0.8s		72.12nm			5.7mb	SGO	0.77	144	P	45	20.00	0.1	YKA	31.12	330	eP	49	12.80	-1.7	
UYO	73.46	342	iPc	34	50.60	-0.3			eSg	45	30.80				1.2s		2.60nm			4.0mb	
MEO	75.16	339	eP	35	04.30	3.6X	SDI	0.85	308	P	45	22.10	0.7	PWA	32.60	1	eP	49	27.10	-0.3	
TUL	75.45	341	iP	35	01.80	-0.5			eSg	45	35.10			KSP	35.41	196	eP	49	52.00	0.3	
	1.3s		6.10nm			4.4mb	MGR	1.22	148	P	45	26.70	-0.9	MOX	35.71	201	eP	49	57.00	2.7X	
			i	35	06.00				eSg	45	44.60			KRA	36.13	192	eP	49	59.00	1.2	
LIC	76.71	72	P	35	10.00	0.1	AZI	1.25	311	P	45	29.30	1.1		1.4s		89.00nm			5.4mb	
TIC	76.99	71	P	35	11.60	0.1	AQU	1.53	321	P	45	32.80	0.5				e	50	05.50		
KIC	77.02	72	P	35	11.80	0.2	RDP	1.61	292	P	45	33.70	0.3				e	50	14.80		
	1.0s		29.50nm			5.3mb	BAI	1.63	91	P	45	34.00	0.3	PRU	36.30	198	eP	50	04.00	4.7X	
ALQ	77.90	333	eP	35	16.00	-0.3			eSg	45	56.00			Z	18s		0.50um			4.3Msz	
	0.9s		11.76nm			4.9mb	RMP	1.64	293	P	45	34.20	0.4	SPC	36.99	192	eP	50	06.60	1.3	
ANMO	77.90	333	P	35	17.00	0.7	CSI	1.85	139	P	45	37.50	0.6	KHC	37.18	199	eP	50	10.40	3.7X	
	0.8s		9.33nm			4.9mb	BRT	1.91	98	P	45	37.00	-0.8	ZST	38.04	195	eP	50	21.80	7.9X	
BFS	81.73	117	eP	35	24.00	-13.1X			eSn	46	00.00			SRO	38.40	194	eP	50	18.50	1.6	
	0.5s		12.68nm				MNS	1.94	309	P	45	38.60	0.4	EDM	40.35	327	ePc	50	33.50	0.4	
GOL	81.79	336	P	35	37.00	-0.1	TDS	1.96	140	P	45	39.40	0.9	MLR	40.63	186	eP	50	44.00	8.4X	
	0.8s		10.42nm			4.9mb	ROI	2.14	138	P	45	43.40	2.2	SES	43.08	325	eP	50	56.00	0.4	
SLR	83.50	117	iPc	35	45.50	-0.8	CZI	2.24	150	P	45	39.80	-2.7	NEW	45.45	330	P	51	15.00	0.4	
	1.1s		56.96nm			5.6mb	HVAR	2.38	32	ePn	45	22.50	-22.0X		1.3s		19.46nm			4.9mb	
DAU	84.51	332	P	35	52.00	0.9			iSg	45	53.80			LON	47.11	335	P	51	28.00	0.2	
TNP	84.97	327	P	35	54.30	1.0	ASS	2.43	322	P	45	45.00	-0.3	LRM	47.71	326	eP	51	32.90	0.1	
	0.9s		7.16nm			4.9mb	LCI	2.60	108	P	45	50.00	2.3	RSSD	49.04	318	P	51	42.40	-0.6	
RSSD	85.38	338	P	35	55.00	-0.2	ARV	2.66	331	P	45	50.30	1.7	MAIO	50.31	150	eP	51	53.00	0.3	
BW06	85.96	334	P	35	57.50	-0.6	MAO	2.93	296	P	45	52.40	0.0				eS	59	16.00		
KVN	86.16	327	P	35	59.70	0.6	ATN	3.07	169	P	45	54.50	0.2	BW06	50.63	323	P	51	54.00	-1.2	
KMZ	89.18	106	iP	36	21.00	6.8X	HCY	3.10	65	ePn	45	58.00	3.2X	LZH	52.98	104	Pc	52	13.50	0.5	
RSON	89.28	347	P	36	13.00	-0.6			eSn	46	30.00			Z	1.5s		47.00nm			5.2mb	
	0.8s		18.53nm			5.4mb	CRE	3.19	321	P	45	56.00	-0.1		Z	22s		0.50um			4.5Msz
LSZ	89.86	109	iPc	36	18.90	1.5	NKY	3.59	62	ePn	46	01.00	-0.8				pP	52	32.00	73kmX	
	1.2s		27.80nm			5.4mb			eSn	46	40.00						sP	52	41.50		
			i	36	24.00		TTG	3.62	68	ePn	46	02.50	0.3	WDC	53.30	335	ePc	52	13.60	-1.4	
PTZ	92.88	110	eP	36	31.00	-0.3			eSn	46	42.50		MIN	53.50	334	e(P)	52	18.90	2.2		
			i	36	37.80		BLY	4.00	26	eP	46	33.20	25.7X	GOL	53.51	319	P	52	16.00	-0.9	
BCAO	94.13	88	ePc	36	42.00	5.1X	RIY	4.17	357	e(Pn)	46	08.90	-1.0		1.4s		29.37nm			5.1mb	
	0.8s		7.00nm			5.1mb	PVY	4.18	68	ePn	46	10.30	0.1	KVN	54.68	331	P	52	25.80	0.4	
WRA	117.66	210	PKPc	42	08.20	3.5X			eSn	46	56.50		TNP	55.61	330	P	52	32.10	-0.2		
	0.6s		1.40nm				IVA	4.22	65	ePn	46	11.20	0.5		0.7s		2.87nm			4.4mb	
SLL	119.81	35	ePKP	42	10.50	2.9X			eSn	46	55.00		CLC	57.89	330	eP	52	48.00	-0.3		
	1.1s		5.50nm				VBY	4.34	5	ePn	46	14.40	2.0	ANMO	58.30	319	P	52	50.50	-0.8	
MAIO	142.45	76	ePKP	42	46.00	-5.2X			eSn	47	00.00		ALQ	58.30	319	eP	52	50.30	-1.1		
GBA	145.03	124	PKPc	43	00.10	4.1X	CEY	4.56	357	eP	46	28.00	12.5X		1.4s		11.63nm			4.7mb	
	0.8s		33.80nm						eSn	47	08.00		Z	18s		0.64um			4.8Msz		
HYB	148.49	121	iPKPc	43	04.90	3.3X	TRI	4.58	352	eP	46	16.30	0.6	GSC	58.37	329	eP	52	53.00	1.3	
	1.0s		50.00nm						i	47	06.40		MWC	59.49	330	eP	53	01.00	1.4		
SNG	149.83	168	ePKP	43	06.00	2.2X	OHR	4.60	89	ePn	46	16.00	-0.1	TPC	59.54	329	eP	53	01.00	1.2	
	S.D. = 0.8 on 37 of 49 obs.						PTJ	4.81	10	eP	46	18.20	-0.9	BAR	60.98	329	eP	53	21.00	11.4X	
	APR 22, 1990 09h 20m 54.43±0.97s						LJU	4.87	359	e(Pn)	46	20.50	0.7	KMI	63.80	107	Pc	53	28.00	-0.7	
	37.378 N ± 8.8km 20.391 E ± 6.8km								eSn	47	15.00			2.5s		0.10nm			2.6mb X		
	DEPTH = 53.1 ± 12.4 km						VOY	4.89	353	ePn	46	19.40	-0.8	CHG	69.80	111	eP	54	05.50	-1.0	
	3.5mb (2 obs.)								eSn	47	14.00		CHTO	69.80	111	eP	54	05.00	-1.5		
IONIAN SEA						(399)	SKQ	5.11	79	ePn	46	22.60	-0.7		1.2s		9.72nm			4.8mb	
MD 3.7 (ATH).							RBL	5.33	351	P	46	25.90	-0.5	HYB	69.95	132	eP	54	07.00	-0.4	
									eSn	47	25.10		GBA	73.68	133	Pd	54	28.70	-0.8		
							CTI	5.35	336	P	46	24.50	-2.3		1.1s		4.80nm			4.5mb	
VLI	2.14	107	ePb	21	28.90	0.5			eSn	47	23.90		BCAO	81.61	193	iPc	55	16.50	3.1X		
IGT	2.15	359	eP	21	29.60	1.1	FVI	5.59	346	P	46	28.30	-1.7		0.7s		6.00nm			4.8mb	
AGG	2.24	42	eP	21	30.80	1.0			eSn	47	28.60					id	55	19.80			
ATH	2.70	76	ePn	21	43.20	6.9X	VAY	5.93	86	ePn	46	21.30	-13.5X	DRV	157.53	80	ePKP	02	53.00	3.4X	
LIT	3.18	30	eP	21	43.00	-0.1	KBA	5.98	351	ePn	46	35.50	-0.2		S.D. = 1.0 on 41 of 51 obs.						
			eS	22	21.20				iSg	47	36.70										
FNA	3.49	12	ePn	21	47.90	0.4		S.D. = 1.1 on 38 of 43 obs.													
PAIG	3.62	44	eP	21	49.00	-0.3															
VAM	3.65	121	ePg	21	08.50	-41.2X		APR 22, 1990 10h 42m 54.36±0.29s													
OHR	3.74	5	ePn	21	52.00	0.9		85.939 N ± 4.5km 31.134 E ± 7.6km													
THE	3.82	31	eP	21	51.60	-0.5		DEPTH = 10.0km (geophysicist)													
ATN	3.98	283	P	21	54.00	-0.5		4.7mb (12 obs.) 4.5Msz (3 obs.)													
			eSn	22	38.00			NORTH OF SVALBARD													
SOH	4.14	33	eP	21	56.60	-0.1															
VAY	4.28	23	ePn	21	58.40	-0.2	KBS	7.42	210	eP	44	40.00	-5.1X	BRT	1.19	134	P	43	23.00	10.2X	
SRS	4.49	33	eP	22	00.50	-1.0	DAG	11.12	246	iPc	45	34.60	-1.6	DUI	1.22	268	P	43	14.00	0.7	
SKO	4.66	10	iPn	22	03.50	-0.4		0.8s 14.18nm						SGQ	1.29	207	P	43	14.20	-0.4	
HFS	23.17	351	eP	25	56.80	0.0	KEV	16.30	185	iP	46	48.80	4.5X				eSg	43	29.90		
	0.4s		1.30nm			3.7mb			i	46	54.60		BSS	1.33	227	P	43	15.70	0.5		
NB2	24.38	349	P	26	09.00	0.4	SOD	18.69	185	iP	47	12.60	-1.6				eSg	43	29.00		
	0.7s		0.80nm			3.3mb			i	47	19.80		HVAR	1.49	10	i(Pn)	43	06.30	-11.1X		
	S.D. = 0.7 on 15 of 17 obs.																iSn	43	30.30		
	APR 22, 1990 09h 45m 05.00±0.36s						BRW	22.87	7	eP	47	58.00	-0.3	MGR	1.63	194	P	43	19.10	-0.3	
	41.178 N ± 4.2km 14.711 E ± 4.3km						SUF	23.37	186	eP	48	04.00	0.8				eSg	43	40.00		
	DEPTH = 11.0 ± 2.8 km						NB2	25.32	203	P	48										

22d 12h

& APR 22, 1990 12h 06m 19.83s
62.367 N 150.641 W
DEPTH = 71.7km
CENTRAL ALASKA (1)
<AGS-P>.

CUT	0.18	78	iP	06 30.10	1.2
			eS	06 38.61	
SKT	0.57	227	iP	06 32.97	-0.7
HUR	0.77	37	iP	06 35.05	-0.8
			eS	06 46.68	
PWA	0.80	153	eP	06 35.80	-0.4
			eS	06 48.24	
SUA	0.91	183	eP	06 37.29	-0.4
			eS	06 52.06	
GHO	1.00	126	eP	06 38.64	-0.2
PLRM	1.06	137	eP	06 39.24	-0.1
KTH	1.20	354	iP	06 40.51	-0.8
			eS	06 56.86	
NCG	1.20	217	eP	06 40.55	-0.9
SML	1.22	116	eP	06 41.72	0.1
PMS	1.24	155	eP	06 41.55	-0.2
			eS	06 59.80	
CGLM	1.25	212	iP	06 41.32	-0.6
CRP	1.32	214	eP	06 41.98	-1.0
			eS	07 00.26	
RND	1.33	37	eP	06 41.73	-1.3
SPU	1.37	210	eP	06 42.71	-0.8
			eS	07 01.38	
BGL	1.38	218	eP	06 43.54	-0.3
CKL	1.42	215	eP	06 43.70	-0.7
			eS	07 03.23	
MCK	1.58	29	eP	06 46.11	-0.2
NCA	1.83	100	eP	06 49.76	0.0
SLKM	1.88	174	eP	06 50.02	-0.4
RDT	1.99	206	eP	06 51.44	-0.6
TOA	2.11	95	eP	06 53.64	0.0
RED	2.21	209	eP	06 54.99	-0.1
GLI	2.26	130	eP	06 54.58	-1.1
VZW	2.35	122	eP	06 56.73	-0.2
NNL	2.35	188	eP	06 58.94	1.9
KLU	2.40	109	eP	06 56.12	-1.6
WRH	2.40	27	eP	06 56.02	-1.6
PAX	2.46	73	eP	06 58.58	0.0
DDM	2.60	55	eP	07 01.02	0.5
CCB	2.62	28	eP	07 00.27	-0.4
HDA	2.64	37	eP	07 00.09	-0.8
CNPM	2.87	186	eP	07 04.97	0.8
GLM	3.00	27	eP	07 04.37	-1.7
PDB	3.11	215	eP	07 06.72	-0.8

35 obs. associated

? APR 22, 1990 12h 40m 53.24± 2.80s
19.787 N ±22.5km 99.002 W ±16.7km
DEPTH = 33.0km (normal)

CENTRAL MEXICO (523)

TAC	0.42	205	iP	41 03.00	0.1
			iS	41 05.00	
UNM	0.48	201	iP	41 04.00	0.1
			iS	41 06.50	
IJJ	0.69	266	eP	41 07.00	0.0
IIA	0.71	153	eP	41 06.90	0.1
TPM	0.80	184	eP	41 08.00	-0.3
			(S)	41 17.50	

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

? APR 22, 1990 13h 19m 58.13± 1.75s
44.470 N ±35.1km 148.947 E ±26.3km
DEPTH = 33.0km (normal)

KURIL ISLANDS (221)

KUSJ	3.36	247	P	20 48.40	-1.1
			S	21 26.00	
ASAJ	4.54	268	P	21 11.20	4.9X
HOJ	4.62	245	eP	21 07.90	0.5
			S	22 00.30	
MRRJ	6.09	253	P	21 28.40	0.3
INK	45.13	31	eP	28 13.00	0.4
GUN	52.26	274	P	29 18.80	10.0X
KKN	52.76	274	P	29 15.40	3.0X
PKI	52.80	274	P	29 13.00	0.2
DMN	52.99	274	P	29 14.60	0.4
GKN	53.09	275	P	29 15.00	0.2
YKA	54.48	35	eP	29 24.00	-0.3
	0.6s		0.40nm		3.6mb

NB2 69.39 340 P 31 03.70 -0.6
0.9s 4.30nm 4.5mb
HFS 69.52 338 eP 31 05.00 0.0
0.6s 3.30nm 4.6mb
S.D. = 0.6 on 10 of 13 obs.

& APR 22, 1990 14h 02m 04.40s
36.575 N 121.218 W
DEPTH = 10.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 3.1 (BRK).

LLA	0.22	79	iPc	02 09.00	-0.3
SAO	0.26	316	iPc	02 08.90	-1.1
PRS	0.27	207	iPd	02 09.90	-0.2
PRI	0.62	134	ePd	02 16.50	-0.5
GCC	0.77	306	ePc	02 17.80	-1.7
ARN	0.81	342	iPc	02 19.80	-0.4
MHC	0.84	336	iPd	02 20.20	-0.5
			iS	02 32.10	
PHAM	0.99	138	eP	02 22.70	-0.5
PKEM	1.03	119	eP	02 24.50	0.6
FRI	1.28	71	ePc	02 26.50	-1.7
			iS	02 43.00	
PCC	1.31	315	ePd	02 26.50	-2.1
BKS	1.53	328	eP	02 29.70	-2.1
BRK	1.54	328	e(P)	02 29.20	-2.7
ZSP	1.60	329	ePd	02 30.70	-2.0
			i	02 34.80	
CMB	1.60	24	ePc	02 31.70	-1.2
BCH	1.66	146	eP	02 32.00	-1.8
ORV	2.98	356	ePc	02 51.80	-0.8
KVN	3.49	44	eP	03 01.50	1.5
TNP	3.53	64	eP	03 00.50	0.0

19 obs. associated

* APR 22, 1990 14h 36m 40.00± 0.90s
7.211 S ±11.7km 146.113 E ±11.5km
DEPTH = 175.7 ± 10.5 km
4.1mb (4 obs.)

EAST PAPUA NEW GUINEA REGION (207)

LAT	1.04	58	iPc	37 07.00	-0.8
			eS	37 24.00	
PMG	2.41	155	iPd	37 21.00	-0.9
			eS	38 19.00	
MNDI	2.65	293	eP	37 27.00	2.0
CTA	12.80	179	iPd	39 39.00	2.1
	1.0s		20.00nm		4.5mb
			i	39 43.30	
QIS	14.69	205	eP	40 00.00	-0.7
			e	40 04.00	
MTN	15.78	248	eP	40 13.70	-0.4
WB5	16.98	221	eP	40 27.20	-1.6
WRA	17.05	221	Pd	40 28.30	-1.3
	0.4s		3.50nm		4.1mb
RMO	19.34	173	eP	40 55.00	0.8
			e	41 10.00	
ASPA	20.13	214	iPc	41 02.20	-0.1
	0.3s		34.00nm		5.3mb X
			iS	44 41.10	
BRS	21.04	163	iPc	41 12.50	1.2
	0.6s		4.00nm		4.1mb
WARB	26.46	222	eP	42 03.00	0.4
YKA	100.65	28	ePd	50 08.10	-0.8
	0.6s		0.30nm		4.0mb
LIC	151.32	270	PKP	56 15.90	7.1X
TIC	151.34	271	PKP	56 16.00	7.2X

S.D. = 1.4 on 13 of 15 obs.

* APR 22, 1990 14h 42m 28.38± 1.50s
5.215 S ±16.4km 146.912 E ±12.9km
DEPTH = 229.9 ± 9.6 km
4.5mb (3 obs.)

EAST PAPUA NEW GUINEA REGION (207)

LAT	1.43	176	iPd	43 05.00	0.5
			eS	43 27.00	
MNDI	3.37	254	iP	43 26.00	1.4
PMG	4.17	177	iPd	43 31.30	-2.6
			eS	43 55.00	
CTA	14.80	182	iP	45 48.90	0.6
	1.3s		43.27nm		4.7mb
			e	45 53.00	
			i	46 17.00	
QIS	16.82	204	iPc	46 11.70	-0.5
			e	49 14.00	

MTN 17.32 243 iPc 46 17.50 -0.1
0.2s 106.00nm 5.9mb X
WB5 19.01 219 eP 46 35.00 -0.2
WRA 19.08 219 Pc 46 35.80 -0.1
0.7s 7.30nm 4.3mb
KNA 20.66 238 eP 46 52.50 0.8
RMO 21.23 175 eP 46 58.00 0.8
ASPA 22.22 213 eP 47 05.60 -1.3
0.9s 16.00nm 4.6mb

iS 50 55.00
BRS 22.75 166 iPd 47 13.80 1.8
DZM 25.26 133 iPd 47 35.40 -0.1
GUN 67.37 303 P 53 00.00 -1.6
SIV 145.20 128 PKP 01 41.60 0.6
S.D. = 1.3 on 15 of 15 obs.

* APR 22, 1990 14h 53m 29.16± 1.58s
31.683 S ± 8.6km 72.112 W ±14.9km
DEPTH = 10.0km (geophysicist)

OFF COAST OF CENTRAL CHILE (134)

ROCH	1.59	144	iPd	53 56.50	-1.1
			i	54 16.00	
			iS	54 18.50	
LCCH	1.84	166	iPd	54 03.10	2.0
			iS	54 26.00	
PEL	1.89	141	iP	54 01.00	-0.8
			iS	54 23.30	
SAN	2.15	146	iP	54 05.90	0.4
			iS	54 32.70	
TACH	2.20	154	ePc	54 06.20	-0.1
			iS	54 35.00	
LNK	2.34	166	iPc	54 08.00	-0.3
			i	54 43.50	
PCH	2.36	146	eP	54 08.10	-0.5
			iS	54 37.50	
CHCH	2.56	152	iPd	54 11.50	0.1
			i	54 41.00	
RTRS	2.73	57	iPc	54 14.00	0.2
			iS	54 48.00	
RTCV	3.05	94	eP	54 19.00	0.6
			eS	54 59.50	
RTLL	3.13	84	ePd	54 19.70	0.2
			iS	54 59.90	
CFA	3.30	90	iPd	54 21.90	-0.1
			eS	55 02.00	
GBA	146.80	116	PKPd	13 11.20	-0.6
	0.6s		2.20nm		

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

& APR 22, 1990 15h 02m 01.52s
62.243 N 150.889 W
DEPTH = 70.2km
CENTRAL ALASKA (1)
<AGS-P>.

CUT	0.33	60	iP	02 12.49	-0.6
			eS	02 21.17	
SKT	0.40	229	iP	02 12.92	-0.7
PWA	0.76	141	iP	02 16.75	-0.6
			eS	02 29.61	
SUA	0.79	175	eP	02 17.44	-0.3
			iS	02 30.84	
HUR	0.94	38	eP	02 18.67	-0.8
			eS	02 31.83	
NCG	1.04	216	eP	02 20.10	-0.8
			eS	02 35.12	
GHO	1.04	116	iP	02 20.32	-0.6
			eS	02 34.65	
PLRM	1.06	127	eP	02 20.15	-0.8
CGLM	1.08	210	eP	02 20.71	-0.7
CRP	1.15	212	eP	02 21.82	-0.6
			eS	02 37.77	
PMS	1.18	147	eP	02 22.20	-0.5
			eS	02 39.16	
SPU	1.20	208	eP	02 22.22	-0.7
			eS	02 38.37	
BGL	1.22	217	eP	02 23.10	-0.1
CKL	1.26	214	eP	02 23.29	-0.5
SML	1.28	109	eP	02 23.71	-0.3
KTH	1.32	359	iP	02 23.72	-0.8
RND	1.50	38	eP	02 25.93	-1.0
MCK	1.74	30	eP	02 30.09	-0.1
SLKM	1.77	169	eP	02 29.95	-0.7
RDT	1.83	204	eP	02 30.70	-0.7
NCA	1.93	96	eP	02 31.69	-1.1
RED	2.04	207	eP	02 33.66	-0.8

TOA 2.22 92 eP 02 35.99 -0.8
 >NNL 2.22 185 eP 02 37.81 1.1
 SEW 2.26 161 eP 02 38.01 0.7
 GLI 2.27 125 eP 02 35.50 -2.0
 VZW 2.39 118 eP 02 37.45 -1.7
 KLU 2.47 106 eP 02 38.28 -2.1
 WRH 2.57 28 eP 02 39.78 -1.8
 PAX 2.61 71 eP 02 41.35 -1.0
 PDB 2.94 215 iP 02 45.97 -0.9
 31 obs. associated

* APR 22, 1990 15h 29m 30.92±1.45s
 35.083 N ± 7.8km 22.865 E ±11.5km
 DEPTH = 32.0 ± 11.1 km
 4.1mb (6 obs.)

MEDITERRANEAN SEA (400)

VAM 1.14 73 ePb 29 50.70 0.0
 VLI 1.63 2 ePb 30 00.60 2.8X
 ITM 2.23 340 ePb 30 14.30 8.0X
 ELL 5.95 72 eP 30 59.00 -0.3
 VAY 6.23 358 ePn 31 03.50 0.5
 OHR 6.23 345 ePn 31 02.50 -0.7
 MMB 6.53 6 iPc 31 07.00 -0.3
 RZN 6.75 12 iP 31 11.00 0.5
 KDZ 6.86 16 iP 31 12.00 0.2
 SKO 6.97 351 ePn 31 12.50 -0.9
 KHC 15.62 337 iP 33 15.60 5.4X
 1.0s 7.00nm 3.8mb
 PRU 16.09 340 eP 33 19.50 3.3X
 GRF 16.91 333 eP 33 29.70 3.1X
 CLL 17.71 339 e(P) 33 38.00 1.4
 DOU 20.07 324 P 34 04.00 -0.2
 0.9s 30.00nm 4.6mb
 HFS 25.77 349 eP 34 59.70 -0.5
 1.2s 9.00nm 4.2mb
 NB2 27.03 348 P 35 10.40 -1.5
 0.9s 1.90nm 3.7mb
 BCOA 30.76 188 ePd 35 45.60 -0.1
 0.6s 5.00nm 4.5mb
 FRB 59.77 329 eP 39 35.00 0.3
 YKA 76.93 341 eP 41 22.10 0.7
 0.6s 0.30nm 3.5mb
 S.D. = 0.8 on 15 of 20 obs.

? APR 22, 1990 15h 30m 22.00±7.20s
 41.732 N ±42.5km 15.795 E ±49.4km
 DEPTH = 10.0km (geophysicist)

SOUTHERN ITALY (390)

DUI 1.00 266 P 30 42.00 0.9
 SGO 1.23 198 P 30 44.20 -0.6
 eSg 30 56.10
 SDI 1.48 270 P 30 47.80 -1.0
 eSg 31 05.00
 MGR 1.60 187 P 30 51.10 0.7
 eSg 31 08.30
 S.D. = 1.6 on 4 of 4 obs.

* APR 22, 1990 15h 55m 23.12±0.65s
 29.781 N ±13.0km 130.987 E ±11.3km
 DEPTH = 33.0km (normol)
 4.3mb (6 obs.)

RYUKYU ISLANDS (238)

SSE 8.56 281 eP 57 28.00 0.3
 Z 20s 0.60um
 N 12s 0.60um
 E 12s 1.00um
 eS 59 56.00
 BJI 15.87 314 eP 59 13.50 8.0X
 1.1s 22.00nm 4.2mb
 Z 16s 1.11um 3.7msz
 N 13s 0.74um
 E 12s 0.45um
 LZH 23.59 293 eP 00 35.50 3.6X
 Z 16s 1.10um 4.4mszX
 E 14s 0.80um
 pP 00 50.00 61kmX
 sP 01 01.00
 KMI 25.46 266 eP 00 52.50 2.4
 0.60um 4.2mszX
 Z 16s
 GUN 39.37 279 P 02 51.40 -0.4
 PKI 39.85 278 P 02 54.10 -1.7
 KKN 39.91 279 P 02 55.40 -0.7
 WB5 49.48 176 eP 04 11.80 -0.6
 WRA 49.54 176 Pc 04 12.30 -0.5

0.7s 2.60nm 4.4mb
 GBA 51.85 264 Pd 04 39.10 8.5X
 0.6s 3.60nm 4.5mb
 ASPA 53.21 177 eP 04 41.20 0.7
 0.5s 6.00nm 4.8mb
 INK 64.67 24 eP 06 09.00 9.5X
 YKA 74.28 26 eP 06 58.00 -0.5
 0.9s 0.80nm 3.7mb
 NB2 77.20 334 P 07 14.60 -0.5
 0.9s 1.50nm 4.0mb
 CMB 85.19 49 ePc 07 58.70 1.1
 FRB 85.51 9 eP 07 59.00 0.4
 S.D. = 1.2 on 12 of 16 obs.

APR 22, 1990 15h 59m 38.60±0.62s
 36.033 N ± 7.2km 137.563 E ± 6.5km
 DEPTH = 10.0km (geophysicist)

HONSHU, JAPAN (227)

MTMJ 0.58 19 iP+ 59 50.00 -0.5
 S 59 57.50
 IIDJ 0.62 153 iPd 59 50.90 -0.2
 S 59 59.50
 CHJJ 1.16 89 iPd 00 00.50 0.2
 S 00 16.00
 TSRJ 1.38 249 iPd 00 04.20 0.4
 S 00 22.80
 NIJJ 1.67 43 iP+ 00 08.80 0.8
 S 00 30.90
 SHK 4.27 251 eP 00 45.00 -0.1
 BJI 17.31 290 eP 03 45.00 3.2X
 MIN 74.86 51 ePc 11 36.90 15.6X
 CMB 76.96 52 eP 11 32.50 -0.6
 S.D. = 0.6 on 7 of 9 obs.

& APR 22, 1990 16h 16m 39.00s
 38.828 N 122.790 W

NORTHERN CALIFORNIA (36)

<BRK>. ML 3.4 (BRK).
 Ma=2.7*10**14 Nm (BRK). Felt.

NWRM 0.38 192 eP 16 46.70 0.1
 ZSP 0.98 154 ePd 16 57.60 -0.6
 iS 17 13.10
 BRK 1.04 156 ePd 16 57.90 -1.4
 BKS 1.05 155 ePd 16 58.10 -1.3
 iS 17 14.00
 ORV 1.24 54 ePc 17 00.30 -2.4
 PCC 1.36 166 eP 17 02.90 -1.9
 MHC 1.74 148 eP 17 07.60 -2.8
 WDC 1.76 6 e(P) 17 09.00 -1.6
 MIN 1.77 31 iPd 17 09.80 -1.1
 ARN 1.78 146 eP 17 09.10 -1.8
 GCC 1.90 160 ePc 17 10.80 -1.8
 CMB 2.05 112 iPc 17 13.40 -1.4
 FHC 2.18 335 e(P) 17 23.20 6.6
 SAO 2.32 152 eP 17 16.60 -2.1
 PRS 2.74 155 eP 17 22.50 -2.1
 FRI 3.05 126 eP 17 28.60 -0.4
 KVN 3.66 85 eP 17 36.00 -2.0
 17 obs. associated

APR 22, 1990 16h 35m 43.37±0.25s
 36.502 N ± 3.3km 26.854 E ± 2.2km
 DEPTH = 149.1 ± 3.5 km
 4.7mb (37 obs.)

DODECANESE ISLANDS (369)

MD 4.5 (HLW).

SMG 1.20 359 eP 36 09.40 -0.7
 CIN 1.47 42 eP 36 12.00 -0.9
 IZM 1.92 10 iPn 36 17.00 -0.9
 KSL 2.24 99 eP 36 22.00 0.3
 VAM 2.41 244 eP 36 25.00 1.2
 ELL 2.47 83 iPn 36 25.80 1.1
 KHL 2.80 49 iPn 36 29.00 0.3
 ATH 2.90 301 eP 36 31.60 1.6
 BCK 3.14 71 iPn 36 33.50 0.4
 VLI 3.16 275 eP 36 34.00 0.7
 EZN 3.34 353 iP 36 35.10 -0.5
 ALT 3.63 44 iPn 36 39.90 0.4
 EDC 3.92 11 iP 36 42.50 -0.7
 BNT 3.94 12 iP 36 43.10 -0.4
 KGT 3.96 5 iP 36 41.00 -2.7
 ITM 4.01 281 eP 36 46.50 2.1
 NEO 4.01 315 eP 36 45.40 1.0

PAIG 4.24 325 eP 36 48.00 0.6
 AGG 4.38 306 e(P) 36 51.00 1.7
 OUR 4.44 330 eP 36 51.00 0.9
 GPA 4.65 35 iPn 36 53.30 0.3
 GBZT 4.74 25 iPd 36 55.60 1.6
 RDO 4.75 348 eP 36 53.90 -0.3
 PPCY 4.75 108 ePn 36 54.00 -0.2
 eSn 37 47.80
 CTT 4.80 14 iP 36 53.50 -1.4
 HRT 4.84 26 iP 36 55.50 0.0
 ISK 4.87 20 eP 36 55.00 -0.8
 LIT 4.97 318 eP 36 58.40 1.2
 SOH 5.11 329 eP 37 00.20 1.1
 THE 5.13 325 eP 37 00.70 1.5
 KDZ 5.26 348 iPd 37 01.00 -0.1
 SRS 5.27 332 e(P) 37 01.70 0.6
 RZN 5.44 343 iPd 37 04.00 0.4
 CSS 5.49 104 eP 37 03.00 -1.1
 eSn 38 03.50
 LFK 5.56 101 iPg 37 04.00 -1.1
 MMB 5.63 335 iPd 37 07.00 0.9
 DIM 5.63 350 iP 37 07.00 1.0
 BBTK 5.72 53 iPc 37 08.00 0.6
 VAY 5.86 327 ePn 37 10.30 1.3
 IGT 5.97 302 eP 37 11.70 1.1
 FAM 6.00 102 eP 37 12.20 1.2
 FNA 6.05 317 eP 37 13.70 1.9
 KEK 6.42 302 eP 37 16.70 0.0
 OHR 6.60 316 iPd 37 21.00 1.9
 1.1s 135.00nm 5.2mb
 SKO 6.89 324 iP 37 24.50 1.4
 KAS 7.26 46 iPc 37 27.60 -0.4
 TIR 7.28 314 ePn 37 28.50 0.2
 LACI 7.56 315 ePn 37 33.00 1.0
 HLW 7.62 149 ePn 37 33.25 0.5
 ePb 37 48.25
 KOT 7.77 146 ePn 37 34.50 -0.3
 eSn 38 54.00
 ATZ 7.84 115 eP 37 34.70 -1.2
 eS 38 55.80
 SDA 7.93 316 ePn 37 36.80 -0.1
 LCI 7.96 301 P 37 35.10 -2.3
 eSn 38 54.30
 HRI 7.98 111 iPc 37 36.90 -0.9
 SHMJ 8.25 115 P 37 40.60 -0.7
 TTG 8.34 318 ePn 37 41.90 -0.4
 eSn 39 10.00
 SALJ 8.57 119 Pd 37 44.40 -1.2
 GRI 8.59 289 P 37 44.38 -1.4
 KFNJ 8.65 120 Pd 37 45.90 -0.6
 ROI 8.67 294 P 37 45.50 -1.4
 BRT 8.72 303 Pd 37 46.40 -1.1
 eSn 39 13.70
 MASJ 8.75 120 Pd 37 47.20 -0.8
 MKRJ 8.80 122 Pc 37 48.00 -0.7
 CMP 8.86 352 iPd 37 51.00 1.6
 TDS 8.87 294 P 37 47.80 -1.7
 eSn 39 19.00
 CZI 8.90 291 P 37 50.40 0.5
 eS 39 13.60
 NOH 8.91 128 iPc 37 49.80 -0.2
 GMB 8.91 284 P 37 49.02 -1.2
 ORI 8.92 297 P 37 49.00 -1.2
 eSn 39 20.00
 CSI 8.94 295 P 37 50.70 0.2
 MLR 9.01 356 ePd 37 51.00 -0.4
 BAI 9.05 304 P 37 50.00 -1.9
 MSI 9.16 284 P 37 51.20 -2.1
 eSn 39 30.70
 PRNI 9.16 130 eP 37 53.20 -0.2
 MMN 9.20 295 P 37 53.80 0.0
 eS 39 23.80
 ATN 9.22 284 P 37 52.40 -1.8
 VRI 9.36 359 eP 37 53.00 -2.9X
 MEU 9.58 277 P 37 56.80 -2.2
 eSn 39 33.90
 MGR 9.59 296 P 37 57.20 -1.8
 eSn 39 30.80
 PZI 9.59 277 P 37 55.86 -3.3X
 SHBJ 9.80 112 Pd 37 53.90 -7.9X
 MNO 9.80 282 P 38 00.90 -1.1
 SGO 9.91 298 P 38 02.30 -0.9
 GIB 10.33 282 P 38 07.50 -1.4
 FG2 10.50 304 P 38 10.22 -0.8
 FAI 10.59 278 P 38 12.30 0.2
 MCT 10.63 280 P 38 16.30 3.5X
 DUI 10.92 302 P 38 18.02 1.4

22d 16h

DUI	10.92	302	P	38	15.00	-1.6	BNI	17.47	305	P	39	38.70	-0.7	GKN	48.97	83	P	44	17.40	0.7
RFI	11.11	299	P	38	19.10	0.1	ZLA	17.53	314	ePd	39	39.80	-0.1		0.4s	9.00nm			4.9mb	
SDI	11.38	301	P	38	22.70	0.1	LPG	17.60	307	eP	39	41.00	0.0	KKN	49.58	83	P	44	21.90	0.5
ERC	11.47	282	P	38	23.60	-0.2		0.6s	28.20nm				4.8mb		0.5s	7.00nm			4.7mb	
AZI	11.75	302	P	38	28.00	0.7	SLE	17.62	315	ePd	39	39.70	-1.2	KMZ	49.69	181	iP	44	25.00	2.9X
AQU	11.92	303	P	38	32.00	2.3	EMS	17.72	309	ePd	39	41.40	-0.9	GUN	50.00	82	P	44	25.30	0.5
RDP	12.16	300	P	38	32.80	0.0	CLL	17.81	331	iPc	39	41.60	-1.4		0.4s	6.00nm			4.7mb	
MNS	12.43	303	P	38	36.80	0.6		0.7s	14.00nm				4.4mb	PTZ	50.65	174	iPc	44	33.00	3.6X
VBV	12.54	319	ePd	38	39.00	1.4								0.5s	10.60nm			4.8mb		
ASS	12.73	305	P	38	40.70	0.6	MOX	17.89	327	eP	39	45.00	1.1					45	24.70	
ARV	12.74	308	P	38	41.60	1.4		1.2s	28.00nm				4.5mb	LSZ	51.51	178	iP	44	39.50	3.6X
RIY	12.91	317	eP	38	41.90	-0.4	FEL	17.95	315	eP	39	42.87	-1.9					45	51.40	
SRO	12.95	333	eP	38	45.40	2.6X	BBS	18.03	313	P	39	43.75	-1.8	FRB	60.22	329	eP	45	35.00	-2.3X
CEY	13.14	318	eP	38	46.80	1.5	LOMF	18.37	312	P	39	48.01	-1.3	YKA	76.59	343	eP	47	17.20	-1.2
LJU	13.28	320	e(P)	38	46.00	-1.1	MOF	18.44	314	P	39	48.15	-1.9		0.3s	0.10nm			3.0mb	X
							TOD	18.52	321	eP	39	49.76	-1.1							
							WLS	18.61	316	P	39	49.69	-2.1							
							ECH	18.62	315	P	39	49.91	-1.9							
							BSF	18.63	314	eP	39	51.10	-1.0							
								0.5s	12.40nm				4.5mb							
CRE	13.44	307	P	38	52.00	2.7X	CDF	18.65	316	eP	39	51.70	-0.6							
TRI	13.48	317	eP	38	50.00	0.4		0.8s	29.55nm				4.7mb							
							GWf	18.78	318	P	39	50.73	-2.7X							
SPC	13.57	341	eP	38	52.20	1.3	HAU	18.98	314	eP	39	55.60	0.0	DUI	0.50	327	P	47	20.50	1.7
VOY	13.61	318	eP	38	50.20	-1.2		0.6s	28.85nm				4.8mb	SGO	0.77	152	P	47	22.00	-1.7
SFI	13.64	308	P	38	53.70	2.0	IR7	19.21	85	iPc	39	58.50	0.3							
PGD	13.70	307	P	38	53.50	0.8	VITF	19.29	314	P	39	58.45	-0.3	SDI	0.89	302	P	47	26.50	0.8
ZST	13.72	331	eP	38	56.90	4.3X	ABH	19.34	320	eP	39	59.18	-0.2	MGR	1.23	153	P	47	30.30	-1.2
FIR	13.96	306	eP	38	55.00	-0.7	IR2	19.44	85	iPc	40	01.00	0.3	AZI	1.28	306	P	47	32.50	0.1
RBL	14.05	319	P	38	58.00	1.1	IR4	19.52	87	iPc	40	02.00	0.5							
KRA	14.44	342	eP	39	05.30	3.5X	PLDF	19.81	306	P	40	03.39	-0.8	AQU	1.54	317	P	47	39.30	3.1X
							LBL	19.82	303	P	40	04.39	0.2	BAI	1.54	94	P	47	36.00	-0.2
BDI	14.51	306	P	39	02.40	-0.4	SMF	19.91	308	iPc	40	04.60	-0.6	MMN	1.61	146	P	47	38.80	1.6
FVI	14.56	318	P	39	04.00	0.7		0.8s	43.00nm				4.9mb	RDP	1.67	289	P	47	38.90	0.9
KBA	14.58	321	iPc	39	03.00	-0.7	LBF	19.96	309	eP	40	04.90	-0.8	RMP	1.69	290	P	47	37.00	-1.4
	0.8s	32.80nm				4.7mb		0.6s	12.65nm			4.5mb	BRT	1.83	101	P	47	41.20	0.8	
							PYM	20.14	305	P	40	07.99	0.4							
							LOR	20.15	309	iPc	40	07.00	-0.6	CSI	1.84	142	P	47	41.50	1.0
								0.8s	16.10nm			4.5mb	TDS	1.96	143	P	47	41.50	-0.7	
BHD	14.75	97	ePc	39	09.00	3.3X	AGO	20.16	306	P	40	07.26	-0.5	MNS	1.97	306	P	47	42.50	0.1
							AVF	20.28	308	iPc	40	08.40	-0.5	ROI	2.13	141	P	47	45.40	0.6
								0.8s	37.60nm			4.9mb	CZI	2.25	153	P	47	46.40	-0.1	
CTI	14.86	315	P	39	06.70	-0.5	SSF	20.28	309	iPc	40	08.80	-0.2	HVAR	2.28	31	iPn	47	27.70	-19.1X
PGF	15.03	299	eP	39	09.00	-0.4	CAF	20.53	302	eP	40	11.60	0.1	ARV	2.65	329	P	47	55.00	2.8X
	0.5s	20.40nm				4.7mb		0.9s	36.05nm			4.8mb	OHR	4.51	90	e(P)	48	19.50	1.0	
SLY	15.11	88	ePd	39	12.00	1.7	MAF	20.58	306	eP	40	13.40	1.4	TRI	4.53	351	eP	49	09.70	50.9X
SAL	15.29	312	P	39	13.00	0.6		1.1s	26.85nm			4.6mb	PTJ	4.73	10	eP	48	21.70	0.0	
BOB	15.56	307	P	39	17.00	1.1	GRC	20.65	309	P	40	12.68	0.1	LJU	4.81	358	e(Pn)	48	20.50	-2.2
MDI	15.87	311	P	39	21.60	2.1	TCF	20.84	306	eP	40	16.20	1.6							
KHC	15.91	327	iP	39	21.20	1.1		1.0s	14.00nm			4.3mb	VOY	4.84	352	ePn	48	22.90	-0.3	
							EBR	21.00	290	eP	40	15.00	-1.1							
PCP	16.05	306	P	39	20.38	-1.5	DOU	21.04	317	Pc	40	16.30	-0.1	RBL	5.28	350	P	48	29.00	-0.4
OSS	16.09	314	ePd	39	24.30	1.8		0.6s	25.40nm			4.8mb								
FIN	16.14	304	P	39	27.15	4.1X	LPO	21.07	301	eP	40	17.80	0.9	CTI	5.33	335	P	48	29.80	-0.4
PRU	16.16	330	eP	39	23.50	0.4		0.8s	18.80nm			4.6mb								
CKI	16.18	305	P	39	24.00	0.6	EPF	21.35	296	eP	40	19.70	0.0							
KSP	16.22	335	ePc	39	24.70	0.8		0.5s	5.45nm			4.2mb								
WET	16.24	325	eP	39	25.00	0.9	LFF	21.44	301	eP	40	22.30	1.8							
VDL	16.37	313	ePd	39	28.80	2.8X		0.6s	16.25nm			4.6mb								
ROB	16.40	304	P	39	26.33	0.1	MFF	22.49	305	eP	40	31.70	1.1							
VAI	16.49	310	P	39	27.50	0.3		0.7s	9.90nm			4.3mb								
SAOF	16.50	303	P	39	28.50	1.1	LDF	23.13	310	eP	40	37.60	0.7							
TMA	16.54	311	ePd	39	29.10	1.1		0.3s	8.50nm			4.7mb								
SBF	16.54	302	eP	39	27.90	-0.1	FLN	23.41	310	eP	40	39.80	0.2							
	0.7s	62.85nm				5.1mb		0.3s	14.50nm			4.9mb								
AUTN	16.59	303	P	39	28.61	-0.1	LPF	23.51	308	eP	40	41.20	0.7							
ENR	16.68	304	P	39	29.61	0.0		0.6s	19.85nm			4.8mb								
TOUF	16.72	303	P	39	30.30	0.0	GRR	23.51	309	eP	40	40.90	0.3							
MVIF	16.74	302	P	39	29.67	-0.9		0.3s	12.80nm			4.9mb								
STV	16.75	304	P	39	30.53	0.0	NUR	24.07	357	iP	40	46.40	0.6							
LLS	16.85	313	ePd	39	32.70	0.9						41	13.00							
SAX	16.85	315	ePd	39	32.50	0.5	TOL	24.46	287	eP	40	50.50	0.8							
CALN	16.88	302	P	39	31.04	-1.1	HFS	25.12	344	eP	40	55.00	-0.6							
FRF	16.98	301	eP	39	32.80	-0.5		0.3s	3.80nm			4.4mb								
	0.7s	40.80nm				4.9mb	Z	18s	0.09um			3.3MsZ								
PZZ	16.99	304	P	39	32.17	-1.3						45	05.00							
LMR	17.01	300	eP	39	33.00	-0.6	SUF	26.25	359	eP	41	05.00	-0.9	CAW	20.66	193	P	51	25.60	-1.0
	0.6s	9.00nm				4.3mb	NB2	26.49	343	P	41	06.60	-1.6	BLW	20.82	192	P	51	28.00	-0.1
MMK	17.07	310	ePd	39	34.00	-0.6		0.7s	2.50nm			4.0mb	MRW	20.86	194	P	51	27.80	-0.6	
RSP	17.13	306	P	39	32.48	-2.7	EKA	27.78	322	Pd	41	22.00	2.1	WEL	20.89	194	P	51	28.30	-0.4
LRG	17.15	300	eP	39	35.00	-0.3		0.4s	3.00nm			4.4mb	TCW	20.94	195	P	51	29.10	0.0	
	0.8s	40.30nm				4.8mb		32.82	195	iPd	42	07.10	2.5	THZ	21.81	197	P	51	37.30	0.2
LSD	17.32	307	P	39	35.56	-2.1	BCAO	0.4s	56.00nm			5.7mb	KHZ	22.						

	1.0s	42.00nm	5.0mb	CLL	148.43	346	ePKP	06 02.00	-1.4	PDB	2.05	351	iP	45 37.86	-1.5		
		iP	54 26.00		1.1s	43.00nm							eS	46 03.06			
		iPcP	55 41.00				i	06 07.30		CNPM	2.15	34	iP	45 39.43	-1.4		
		e(S)	57 50.00				pPKP	08 27.00					eS	46 05.69			
PMG	34.76	284	iPd	53 29.20	-0.1	MBH	148.47	293	ePKP	06 08.00	3.9X	NNL	2.57	27	eP	45 45.83	-0.8
	0.9s	159.66nm	5.6mb			WTS	148.82	353	ePKP	06 04.00	0.1	RED	2.69	9	eP	45 46.99	-1.5
ASPA	43.68	257	iPd	54 41.40	0.3		0.9s	48.00nm				RDT	2.87	12	eP	45 49.27	-1.8
	1.0s	38.00nm	4.9mb									SEW	3.17	41	eP	45 52.08	-3.0
		iPcP	56 15.40					e	06 08.50			SLKM	3.25	31	eP	45 53.81	-2.4
		iS	00 27.10		CMP	148.91	326	ePKPc	06 11.00	6.7X	CKL	3.49	10	eP	45 57.81	-2.0	
		iScS	03 36.50		PRU	149.26	343	PKPd	06 09.30	4.6X	BGL	3.55	9	eP	45 59.38	-1.2	
WB5	43.79	263	iPd	54 41.20	-0.7		1.0s	24.60nm				CGLM	3.64	12	eP	46 00.32	-1.4
		eS	00 27.80					e	06 16.50		NCG	3.71	11	eP	46 01.58	-1.3	
WRA	43.80	263	Pd	54 41.00	-1.0	MOX	149.36	347	ePKP	06 04.50	-0.3	SUA	3.97	20	eP	46 05.04	-1.5
	0.7s	10.60nm	4.5mb				1.3s	36.00nm				PMS	4.04	29	eP	46 04.58	-2.8
FORR	48.37	247	eP	55 16.40	-0.3				i	06 10.00		PLRM	4.45	29	eP	46 09.62	-3.4
	0.4s	14.00nm	4.8mb					e	06 17.00		GLI	4.56	44	eP	46 10.34	-4.3	
MTN	48.44	271	eP	55 16.00	-1.5	ALT	149.41	312	ePKP	06 09.00	3.6X	GHO	4.65	28	eP	46 12.86	-3.2
GUA	49.54	311	eP	55 24.70	-0.8	SRO	149.95	337	ePKP	06 11.50	5.7X	VZW	4.87	45	eP	46 15.33	-3.8
	0.9s	154.62nm	5.5mb					i	06 20.20		KLU	5.39	43	eP	46 22.82	-3.5	
GUMO	49.60	311	eP	55 25.70	-0.2	ZST	150.06	338	ePKP	06 12.10	6.2X	YKA	19.75	60	eP	49 42.70	9.5
	1.0s	144.00nm	5.5mb					e	06 20.20			0.9s	0.40nm			2.7mb	
MBL	56.93	258	iPd	56 17.10	-0.9	KHL	150.16	311	ePKP	06 12.00	5.5X	24 obs. associated					
	0.5s	13.00nm	4.5mb		BNT	150.23	316	iPKP	06 11.50	5.0X	APR 22, 1990 17h 49m 43.64 ± 0.69s						
GCC	78.74	43	eP	58 35.00	5.8X	KHC	150.30	344	PKP	06 06.50	0.2	49.210 N ± 7.2km 147.726 E ± 9.8km					
PCC	78.78	42	ePd	58 35.80	6.4X				i	06 12.30		DEPTH = 528.2 ± 9.3 km					
FRI	80.19	44	ePd	58 37.50	0.7				i	06 21.40		4.3mb (23 obs.)					
CMB	80.37	43	eP	58 38.70	0.9	GRF	150.34	347	iPKPc	06 12.70	6.4X	SEA OF OKHOTSK (663)					
WDC	80.57	40	eP	58 39.70	1.0				e	06 21.60		ASAJ	6.18	216	eP	51 25.70	2.1
MIN	80.99	41	ePd	58 41.10	0.1	ABH	150.80	352	ePKP	06 13.05	6.0X			eS	52 45.80		
KVN	82.42	43	iP	58 49.50	1.2	TOD	150.88	350	ePKP	06 12.94	5.8X	KUSJ	6.46	200	P	51 25.00	-1.3
TNP	82.44	44	iP	58 49.20	0.7	DOU	150.90	356	PKPc	06 13.50	6.4X			S	52 43.60		
	1.0s	7.75nm	4.2mb		RUP	151.04	352	ePKP	06 13.64	6.2X	HOIJ	7.50	206	P	51 35.60	-0.9	
IPM	82.51	278	ePd	58 51.00	1.9	KBA	152.24	342	iPKPc	06 15.80	6.4X			S	53 01.40		
	0.8s	41.20nm	5.0mb				0.9s	9.80nm			MRRJ	8.22	217	eP	51 44.80	1.0	
TTA	85.62	10	P	59 03.40	0.1				i	06 29.50				eS	53 20.00		
PMR	85.73	14	P	59 02.40	-1.3	CDF	152.28	351	ePKP	06 16.20	6.9X	LZH	34.35	264	eP	55 46.50	-0.8
	1.2s	18.94nm	4.7mb				0.7s	6.60nm				2.0s	47.00nm		4.7mb		
BJI	85.77	316	eP	59 04.50	0.1	FLN	152.32	2	ePKP	06 15.40	6.2X	INK	41.55	33	iPd	56 46.20	0.8
	1.7s	35.00nm	4.8mb				0.6s	7.20nm				CHG	49.36	250	eP	57 46.50	0.3
PNT	87.52	34	eP	59 13.00	0.4	PTJ	152.43	337	ePKP	06 10.60	1.0	YKA	51.10	36	eP	57 58.00	-0.4
	0.9s	16.00nm	4.8mb		LDF	152.51	2	ePKP	06 16.40	6.9X		0.5s	1.40nm		3.6mb		
ALO	88.32	52	eP	59 17.00	0.1		0.6s	3.60nm				GUN	51.29	269	P	58 00.40	-0.4
	1.1s	5.70nm	4.3mb		GRR	152.68	3	ePKP	06 18.00	8.3X		0.6s	21.00nm		4.7mb		
IMA	88.92	10	P	59 17.60	-1.2	FEL	152.69	350	ePKP	06 16.78	6.8X	KKN	51.77	270	P	58 04.00	0.0
	1.0s	8.75nm	4.6mb		RBL	152.75	341	PKPc	06 30.60	20.6X	PKI	51.83	269	P	58 04.30	-0.3	
FBA	88.94	13	P	59 17.50	-1.3	LJU	152.80	339	ePKP	06 17.00	7.0X		0.8s	20.00nm		4.6mb	
	1.0s	30.00nm	5.2mb		HAU	152.80	352	ePKP	06 17.40	7.4X	DMN	52.00	270	P	58 05.90	0.1	
KMI	88.95	297	Pd	59 21.00	1.0		0.7s	4.40nm				0.8s	40.00nm		4.9mb		
	2.0s	0.10nm	2.4mb X		VAY	152.90	323	ePKP	06 17.40	7.2X	GKN	52.04	270	P	58 06.00	0.0	
CHG	89.75	290	iPd	59 25.00	1.5	BSF	152.91	352	ePKP	06 17.40	7.2X	KEV	53.77	338	eP	58 17.00	-0.5
	1.0s	20.00nm	5.0mb				0.7s	6.60nm				SOD	55.60	336	iP	58 29.00	-0.6
BW06	89.87	44	iP	59 24.00	0.1	VOY	153.01	340	ePKP	06 17.20	6.8X	SUF	59.22	333	iP	58 54.30	-0.8
	1.0s	5.25nm	4.4mb		VBY	153.02	338	ePKP	06 18.40	8.1X	FFC	61.12	38	iPd	59 18.10	10.3X	
LZH	92.53	308	eP	59 34.00	-2.1	LPF	153.03	3	ePKP	06 18.80	8.6X		0.6s	5.00nm			
	1.0s	16.00nm	5.0mb				0.6s	9.00nm			NUR	61.38	332	iP	59 08.20	-1.2	
INK	95.00	15	eP	59 45.00	-1.4	CEY	153.10	339	e(PKP)	06 18.00	7.5X		0.6s	9.10nm	4.4mb		
YKA	97.32	25	eP	59 55.60	-1.4	CTI	153.65	343	PKP	06 32.00	20.7X	HYB	63.44	266	eP	59 22.60	-0.6
	0.8s	0.70nm	4.0mb		LOR	153.77	356	ePKP	06 19.20	7.9X	FRB	63.83	17	eP	59 23.00	-2.0	
KEV	128.87	349	ePKP	05 28.00	0.2		0.9s	8.20nm			NB2	64.67	338	P	59 29.70	-0.8	
SOD	130.98	347	ePKP	05 31.00	-0.9	SSF	153.99	356	ePKP	06 20.00	8.5X		0.7s	7.00nm	4.3mb		
PTZ	134.11	223	iPKP	05 41.00	1.5		0.9s	6.55nm			HFS	64.82	337	eP	59 30.00	-1.4	
SUF	135.02	344	ePKP	05 37.00	-2.7X	OHR	154.02	325	ePKP	06 20.20	8.3X		0.7s	9.90nm	4.5mb		
LSZ	135.22	218	iPKP	05 41.80	0.1	LBF	154.04	356	ePKP	06 20.60	8.9X	CTA	68.99	181	e(P)	59 57.00	-0.3
NUR	137.26	343	iPKP	05 43.00	-1.0	VAI	154.49	348	PKP	06 24.00	11.8X	WB5	69.80	193	eP	00 01.50	-0.6
	0.7s	13.30nm			BCAO	156.42	228	iPKPc	06 15.50	-0.3		69.87	193	Pc	00 02.20	-0.3	
NB2	139.44	353	PKP	05 38.00	-10.0X		0.3s	15.00nm				0.5s	3.80nm		4.2mb		
	0.8s	4.40nm			LIC	164.06	157	PKP	06 24.00	0.2	KSP	72.02	330	eP	00 14.50	-0.2	
HFS	139.97	350	ePKP	05 41.40	-7.5X	KIC	164.29	158	PKP	06 24.10	0.1	SPC	72.07	327	eP	00 13.00	-2.2
	0.4s	5.50nm			TIC	164.45	156	PKP	06 24.40	0.2	CLL	72.66	332	iPd	00 18.00	-0.4	
LWI	144.43	233	iPKPd	05 59.30	1.0	S.D. = 1.0 on 68 of 116 obs.							0.9s	19.00nm	4.6mb		
EKA	145.62	4	PKPc	05 59.40	0.6	& APR 22, 1990 17h 45m 06.60s				PRU	73.33	331	P	00 22.50	0.3		
	0.9s	17.70nm			57.77												

22d 18h

BSF 77.60 334 eP 00 45.50 -0.4
0.7s 2.20nm 3.7mb
LDF 78.70 339 eP 00 52.20 0.6
LOR 78.93 336 eP 00 52.80 0.0
0.8s 9.40nm 4.3mb
GRR 79.07 339 eP 00 54.00 0.5
0.6s 5.40nm 4.2mb
SSF 79.21 336 eP 00 54.40 0.1
0.8s 5.35nm 4.0mb
LPF 79.44 339 eP 00 56.30 0.9
0.9s 16.40nm 4.5mb
AVF 79.50 336 eP 00 55.90 0.1
0.7s 3.30nm 3.9mb
SMF 79.50 336 eP 00 56.00 0.2
0.7s 4.95nm 4.0mb
LPL 79.72 333 eP 00 57.80 0.6
0.8s 4.05nm 3.9mb
MAF 80.24 336 eP 01 00.70 1.1
0.8s 8.05nm 4.2mb
TCF 80.27 337 eP 01 00.20 0.4
LSF 80.48 337 eP 01 02.00 1.1
MFF 80.57 338 eP 01 02.20 0.9
CAF 81.57 336 eP 01 07.60 1.0
LPO 82.03 337 eP 01 09.20 0.4
EPF 83.79 337 eP 01 18.70 1.0
S.D. = 0.8 on 52 of 53 obs.

* APR 22, 1990 19h 01m 42.86 ± 1.52s
15.066 N ± 9.8km 147.546 E ± 10.3km
DEPTH = 45.6 ± 12.5 km
4.6mb (4 obs.)

MARIANA ISLANDS REGION (215)

GUA 2.97 240 eP 02 29.30 0.6
eS 03 04.30
PJG 2.98 241 eP 02 28.80 -0.1
GUMO 2.98 241 eP 02 28.70 -0.2
SSE 28.92 308 eP 07 34.00 -5.9X
WRA 37.13 201 Pd 08 51.10 -0.1
0.9s 7.00nm 4.6mb
ASPA 40.74 199 eP 09 20.40 -0.8
0.4s 6.00nm 4.7mb
LZH 44.18 307 eP 09 49.50 0.2
2.0s 28.00nm 4.7mb
pP 09 55.00 18kmX
GUN 58.26 294 P 11 36.30 0.4
PKI 58.69 293 P 11 37.60 -1.3
KKK 58.80 294 P 11 39.60 0.1
DMN 58.95 293 P 11 40.80 0.2
GKN 59.36 294 P 11 43.60 0.3
HYB 65.95 283 eP 12 33.00 6.0X
POO 70.19 285 eP 12 53.00 -0.5
INK 72.02 23 eP 13 03.00 -0.6
YKA 80.36 28 eP 13 49.70 -0.9
0.9s 1.20nm 3.8mb
SES 85.63 39 eP 14 18.00 0.0
LRM 86.14 44 eP 14 21.40 0.5
KIC 145.25 306 PKPd 21 18.50 0.3
TIC 145.29 307 PKP 21 18.90 0.6
LIC 145.56 306 PKPd 21 19.50 0.8
ZOBO 145.66 97 PKP 21 20.00 0.5
S.D. = 0.6 on 20 of 22 obs.

* APR 22, 1990 19h 23m 57.78 ± 1.65s
37.502 N ± 16.1km 141.705 E ± 23.8km
DEPTH = 80.7 ± 21.3 km
3.1mb (1 obs.)

NEAR EAST COAST OF HONSHU, JAPAN(228)

KAKJ 1.78 224 P 24 27.20 -0.1
S 24 46.80
NIIJ 2.17 264 P 24 32.50 0.0
CHJJ 2.61 237 P 24 38.40 -0.3
S 25 06.10
MTMJ 3.25 255 P 24 48.10 0.5
HOJJ 5.02 14 P 25 13.10 0.9
S 26 07.00
ASAJ 6.65 6 P 25 33.70 -1.0
YKA 63.29 30 eP 34 19.80 0.1
0.5s 0.10nm 3.1mb
S.D. = 0.9 on 7 of 7 obs.

? APR 22, 1990 19h 53m 18.09 ± 8.03s
41.700 N ± 53.8km 15.518 E ± 51.7km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

DUI 0.79 268 P 53 34.10 0.5
eSg 53 40.40
SGO 1.15 188 P 53 39.50 -0.1
eSg 53 51.00
SDI 1.27 271 P 53 41.30 -0.5
eSg 53 53.30
MGR 1.56 179 P 53 46.00 0.1
S.D. = 0.7 on 4 of 4 obs.

? APR 22, 1990 20h 09m 56.74 ± 1.86s
41.254 N ± 26.4km 14.924 E ± 34.4km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

DUI 0.54 319 P 10 07.60 0.0
eSg 10 15.50
SGO 0.75 157 P 10 11.90 0.4
eSg 10 22.40
SDI 0.95 299 P 10 14.70 -0.1
eSg 10 27.70
MGR 1.21 157 P 10 18.90 -0.4
eSg 10 34.30
AZI 1.34 304 P 10 21.50 0.2
S.D. = 0.5 on 5 of 5 obs.

? APR 22, 1990 20h 23m 47.02 ± 0.91s
41.117 N ± 18.8km 14.698 E ± 26.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

DUI 0.57 342 P 23 58.60 -0.1
SGO 0.72 140 P 24 01.80 0.6
eSg 24 13.90
SDI 0.89 312 P 24 04.20 0.1
eSn 24 20.00
MGR 1.18 146 P 24 08.40 -0.6
eSg 24 27.00
S.D. = 0.8 on 4 of 4 obs.

APR 22, 1990 20h 25m 24.85 ± 0.19s
37.977 S ± 3.8km 73.300 W ± 5.1km
DEPTH = 26.1km (15 depth phases)
5.4mb (22 obs.) 5.6Msz (10 obs.)

NEAR COAST OF CENTRAL CHILE (135)

CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 30C

Centroid Location:
Origin Time 20:25:27.7 0.3
Lat 38.07S 0.04 Lon 73.60W 0.05
Dep 31.0 2.6 Half-duration 2.2
Moment Tensor: Scale 10¹⁷ Nm
Mrr = 1.84 0.08 Mtt = 0.08 0.09
Mff = -1.92 0.12 Mrt = 0.13 0.14
Mrf = -2.98 0.27 Mtf = 0.28 0.10

Principal Axes:
T Vol = 3.48 Plg = 61 Azm = 91
N 0.11 3 356
P -3.59 29 264

Best Double Couple: Mo = 3.5 × 10¹⁷

NP1: Strike = 347 Dip = 16 Slip = 81

NP2: 177 74 93

LNJ 4.30 21 iPd 26 30.00 -0.1
CHCH 4.57 29 iPd 26 34.10 0.0
LCCH 4.71 18 iPd 26 36.50 0.5
TACH 4.72 25 iPd 26 36.00 -0.2
PCH 4.90 28 eP 26 38.60 -0.2
SAN 5.00 26 iPd 26 40.10 0.0
iS 26 50.00
IHA 5.12 16 iPd 26 41.00 0.0
iS 28 10.50
PEL 5.27 25 iPd 26 24.00 -20.0X
ROCH 5.33 21 iPd 26 44.80 -0.2
RTCV 7.25 34 e(P) 27 11.20 -0.6
CFA 7.60 35 ePd 27 15.50 -1.2
eS 28 39.20
RTLL 7.73 32 ePd 27 16.90 -1.7
eS 28 44.20
RTRS 8.41 23 iPd 27 27.60 -0.4
BAA 12.42 79 P+ 28 24.00 1.2
S 30 46.00
ANT 14.44 11 eP 28 49.50 0.0
ITB7 20.68 57 P+ 30 05.30 -0.1
ITB1 20.87 56 Pd 30 07.00 -0.3
ITB 20.88 57 Pd 30 07.50 0.0
CCH 21.46 19 iPd 30 19.90 6.2X

ARE 21.49 5 iPd 30 15.60 1.6
LPB 21.85 14 P 30 20.00 2.2
1.0s 270.00nm 5.6mb
Z 20s 93.62um 6.2Msz

S 34 18.00
LR 37 16.00

ZOBO 22.10 13 iPd 30 21.90 1.5
1.1s 89.91nm 5.1mb
Z 24s 4.33um 4.8MszX

S 34 24.00
LR 37 00.00

SIV 24.41 30 (P) 30 45.00 2.6X
BAO 31.52 52 eP 31 45.80 -1.4
BOG 42.39 359 eP 33 21.00 1.9
eS 39 44.00

SDV 46.68 4 eP 34 02.00 8.6X
UPA 47.07 352 eP+ 33 56.00 -0.3
Z 20s 1.42um 4.9Msz

OLLA 48.13 9 iPd 34 04.00 -0.7
LLAV 48.58 9 iPd 34 07.00 -1.2
CAR 48.59 8 eP 34 18.00 9.7X
eS 41 12.00

SPA 52.21 180 iPd 34 34.50 -1.0
0.9s 29.09nm 5.2mb

SBA 58.98 192 eP 35 23.80 -0.2
VNDA 60.01 192 e(P) 35 30.00 -1.1
MAW 69.66 164 iPd 36 33.80 0.2
PRM 72.19 352 P 36 48.00 -1.1
CER 72.21 119 eP 36 59.00 9.4X
0.4s 22.73nm 5.6mb

JSC 72.27 353 P 36 48.00 -1.6
PWLA 73.87 347 P 36 57.50 -1.4
TKL 73.91 351 P 36 57.40 -1.8
GBTN 73.97 351 P 36 58.00 -1.5
RSCP 74.08 350 P 36 59.40 -0.8
1.0s 216.92nm 6.1mb

MBO 74.15 57 iPd 37 02.90 1.9
UYO 74.42 342 iPd 37 01.80 -0.4
BLA 75.10 354 P 37 05.20 -0.9
1.0s 25.00nm 5.2mb

MEO 76.10 339 iPd 37 11.30 -0.5
TUL 76.41 341 ePd 37 18.20 4.7X
1.0s 46.70nm 5.5mb
Z 20s 0.51um 4.8Msz

e 37 20.20 6kmX
LR 55 00.00

LIC 77.01 71 P+ 37 18.40 1.1
Z 18s 1.75um 5.4Msz

FVM 77.22 346 P 37 16.60 -1.3
TIC 77.29 71 P+ 37 20.00 1.1
KIC 77.31 71 P+ 37 20.00 1.0
1.0s 300.00nm 6.3mb

HVD 78.10 119 iPd 37 40.00 16.6X
1.0s 70.00nm
TBR 78.74 359 P 37 26.40 0.2
ALO 78.81 333 ePd 37 27.00 0.0
1.0s 47.50nm 5.5mb
Z 20s 1.77um 5.4Msz

ANMO 78.81 333 P 37 27.70 0.7
1.0s 41.25nm 5.4mb

CLE 79.44 354 iPd 37 29.90 -0.1
BLF 79.48 119 iPd 37 30.00 -1.0
0.9s 53.85nm 5.6mb

WVLY 80.21 356 P 37 34.00 -0.2
LEGH 80.30 75 eP 37 35.00 -0.3
TEGH 80.43 75 eP 37 37.00 1.1
KUK 80.50 75 eP 37 36.00 0.2
GLA 80.55 326 eP 37 37.00 0.8
e 37 45.00 25km

SHGH 80.59 75 eP 37 37.00 0.2
BAR 81.07 324 eP 37 48.00 9.0X
BFS 81.25 117 iPd 37 27.00 -13.3X
0.9s 75.63nm

PLM 81.72 324 eP 37 44.00 1.5
e 37 53.00 29km

HBVT 81.96 0 P 37 43.00 -0.2
TPC 81.98 325 eP 37 45.00 1.3
WNY 81.99 360 P 37 43.00 -0.4
RSNY 82.15 359 P 37 44.60 0.4
0.8s 26.71nm 5.3mb

GLD 82.71 336 P 37 48.00 0.5
GOL 82.72 336 P 37 47.00 -0.7
0.9s 22.73nm 5.3mb

MWC 83.00 324 eP 37 51.00 1.9
SLR 83.02 117 iPd 37 48.50 -1.1
1.0s 40.00nm 5.5mb
Z 16s 5.39um 6.0MszX

22d 20h

GSC	83.32	325	eP	37	52.00	1.4	Z	18s	1.70um	5.7msz	DUI	0.57	330	P	01	26.50	0.0			
CLC	84.10	325	eP	37	53.00	-1.6	N	17s	1.00um		SGO	0.70	150	P	01	29.00	0.2			
			e	38	03.00	32km	E	18s	1.00um					eSg	01	39.00				
			e	38	41.00		WRA	116.80	209	PKPd	44	07.80	-1.1	SDI	0.94	305	P	01	32.90	0.0
CBM	84.66	4	P	37	57.30	0.4		0.7s	2.10nm		MGR	1.16	152	P	01	36.40	-0.2			
DAU	85.41	332	P	38	02.00	0.7	WB5	116.84	209	ePKP	44	07.50	-1.5	S.D. = 0.3 on 4 of 4 obs.						
PR1	85.79	323	ePc	38	04.80	1.8	ZST	117.33	49	ePKP	44	08.30	-0.8	? APR 22, 1990 21h 10m 11.82±14.58s						
			e	38	11.90	22km	VAY	117.64	58	ePKP	44	10.40	0.5	17.161 N ±86.7km 61.320 W ±64.3km						
			e	38	31.70		KSP	118.05	46	ePKP	44	10.00	-0.4	DEPTH = 10.0km (geophysicist)						
DUG	85.81	331	P	38	04.00	0.9						44	18.30	LEEWARD ISLANDS (92)						
TNP	85.82	327	P	38	03.80	0.5						45	17.50	ML 2.7 (FDF).						
	1.0s	25.00nm			5.4mb		SPC	119.64	49	ePKP	44	21.40	7.7X							
FR1	86.03	324	e(P)	38	04.40	0.3	KRA	119.82	48	ePKP	44	21.90	8.2X							
			e	38	11.70	23km	NB2	119.90	34	PKP	44	13.10	-0.5							
PRS	86.27	323	ePc	38	06.60	1.3		0.9s	8.70nm		BPA	0.53	258	eP	10	22.49	0.0			
			e	38	14.40	25km	TTA	119.93	328	PKP	44	21.00	7.3X							
LLA	86.30	323	e(P)	38	07.10	1.6	IMA	120.37	332	PKP	44	14.00	-0.5	SEG	0.77	193	eP	10	27.43	0.5
			e	38	14.60	24km	HFS	120.65	36	ePKP	44	13.20	-1.8							
RSSD	86.32	338	P	38	04.40	-1.3		0.7s	11.30nm		PAG	1.18	197	eP	10	33.40	-0.4			
BW06	86.87	334	P	38	07.70	-0.7		Z	18s	1.31um	5.6msz									
KVN	87.01	327	P	38	09.00	-0.1			LR	30	50.00			MGG	1.24	180	eP	10	34.70	-0.1
GCC	87.13	323	e(P)	38	11.20	1.8	MLR	121.66	55	ePKPc	44	17.00	-0.6	S.D. = 0.7 on 4 of 4 obs.						
			e	38	18.60	23km	VR1	122.31	54	ePKPd	44	18.00	-0.6	? APR 22, 1990 21h 28m 56.34±3.20s						
CMB	87.19	325	ePc	38	10.70	0.9	UPP	122.37	37	iPKP	44	17.30	-0.9	6.167 S ±17.3km 130.754 E ±20.2km						
			e	38	18.20	24km	KAS	125.31	62	iPKPd	44	25.20	0.5	DEPTH = 115.3 ± 34.9 km						
MHC	87.22	323	ePc	38	11.90	1.9	NUR	125.92	37	iPKP	44	25.20	0.1	4.4mb (4 obs.)						
			e	38	19.50	24km		0.8s	26.40nm					BANDA SEA (280)						
IMW	88.34	334	P	38	15.30	-0.2	SUF	127.13	35	iPKP	44	26.00	-1.4							
KMZ	88.88	106	iPd	38	19.80	1.3		0.7s	10.00nm		MTN	6.65	177	iPd	30	33.60	0.6			
			i	38	29.00	29km	SOD	128.15	29	iPKP	44	29.00	-0.2							
			i	38	57.00		BHD	129.96	75	ePKPd	44	35.00	1.3							
			i	39	15.00				eSKP	44	57.00			KNA	9.72	191	iPc	31	14.60	0.0
ORV	88.94	325	ePc	38	19.30	1.2			ePKS	48	01.00			0.3s 143.00nm 6.3mb X						
			e	38	26.80	23km	SLY	131.71	73	ePKP	44	37.00	0.0							
LSZ	89.51	109	iP	38	22.80	1.3			ePKS	48	02.50			WB5	14.08	166	eP	32	09.50	-2.4
	1.0s	58.40nm			5.8mb		GUMO	138.35	245	ePKP	44	50.00	-0.1							
			i	38	33.80	35km	MA10	142.64	78	ePKP	44	52.00	-5.3X							
			i	38	46.50				e	48	05.00			WRA	14.13	166	Pd	32	12.70	0.1
			i	39	39.30		GBA	144.44	125	PKPd	44	59.10	-1.7	0.5s 4.60nm 4.0mb						
			i	40	33.20			0.8s	56.30nm					QIS	16.68	150	eP	32	45.00	0.4
			i	41	52.20		KLM	144.98	171	ePKP	45	00.40	-1.4							
WDC	90.23	325	eP	38	24.00	-0.1	POO	145.44	115	iPKPc	45	00.70	-1.8							
			e	38	31.60	24km	IPM	146.36	170	ePKPd	45	06.00	1.8							
RSON	90.26	347	P	38	23.00	-1.0	QUE	146.37	91	iPKP+	45	05.00	1.0							
	1.0s	40.67nm			5.6mb		KKM	147.06	198	ePKPc	45	05.00	-0.4							
LRM	90.54	334	eP	38	26.00	0.3	HYB	147.95	122	iPKPd	45	06.80	0.2							
PTZ	92.51	110	iPd	38	37.80	2.4		1.0s	75.00nm					CTA	20.45	134	e(P)	33	36.00	9.2X
	1.0s	17.40nm			5.4mb		SNG	148.85	168	PKP	45	09.40	1.3							
			i	38	48.00	32km	PPR	149.91	204	ePKPc	45	15.00	5.4X							
			i	39	52.00		NDI	153.77	102	ePKP	45	15.00	0.1							
			i	40	16.60		GKN	159.04	112	PKP	45	21.80	0.0							
			i	42	16.00		DMN	159.15	113	PKP	45	22.30	0.2							
SES	94.06	337	eP	38	41.00	-0.5	PKI	159.35	114	PKP	45	22.40	0.0							
BCAO	94.15	88	iPc	38	44.00	1.2	KKN	159.38	113	PKP	45	22.40	0.1							
	0.4s	12.00nm			5.7mb		CHG	159.74	158	ePKP	45	23.00	0.4							
			ic	42	27.20		CHTO	159.74	158	ePKP	45	23.00	0.4	S.D. = 1.2 on 12 of 13 obs.						
NEW	94.29	332	P	38	42.00	-0.6		1.5s	8.45nm											
	1.0s	7.25nm			5.1mb		KMI	166.75	164	PKPc	45	28.50	-0.8							
FFC	95.56	344	eP	38	47.00	-1.3	BJI	172.34	289	ePKP	45	31.00	-0.7							
	1.1s	12.00nm			5.2mb			1.5s	24.00nm											
EDM	97.23	337	eP	38	55.00	-0.9	LZH	177.04	129	PKP+	45	32.00	-1.4							
TOL	100.13	47	ePd	39	13.00	3.5X		2.5s	97.00nm											
			ePP	43	16.00				pPKP	45	42.00									
			eSKS	49	49.00				i	46	13.00									
			ePS	52	10.00		S.D. = 1.0 on 132 of 152 obs.													
YKA	105.49	341	ePd	39	39.20	6.5X	? APR 22, 1990 20h 55m 13.18±2.37s													
	1.0s	0.60nm			4.5mb		41.261 N ±31.1km 14.978 E ±41.3km													
YKA	105.49	341	ePKP	43	53.60	7.5X	DEPTH = 10.0km (geophysicist)													
	1.1s	0.70nm					SOUTHERN ITALY (390)													
GRF	114.64	45	ePd	40	27.00	13.2X	DUI	0.56	316	P	55	24.20	-0.4							
	Z	19s	2.00um		5.7msz				eSg	55	32.00									
			e(P)	45	05.00		SGO	0.75	160	P	55	27.40	-0.4							
			e	47	44.00				eSg	55	39.50									
			e	54	40.00		SDI	0.98	297	P	55	31.50	-0.3							
INK	115.02	339	ePKP	44	11.00	7.0X			eSg	55	45.40									
MOX	115.34	45	ePKP	44	06.00	0.8	MGR	1.20	158	P	55	35.90	0.3							
	Z	20s	1.90um		5.7msz				eSg	55	50.60									
	N	20s	1.40um				AZI	1.37	303	P	55	39.00	0.8							
	E	20s	1.20um				S.D. = 0.7 on 5 of 5 obs.													
			e	44	14.00		? APR 22, 1990 21h 01m 14.89±1.11s													
			e	54	45.00		41.169 N ±22.6km 14.845 E ±31.0km													
KHC	115.71	47	PKPd	44	06.20	0.2	DEPTH = 10.0km (geophysicist)													
CLL	116.43	44	iPKP	44	07.60	0.4	SOUTHERN ITALY (390)													
	1.2s	10.00nm																		
	Z	18s	1.50um		5.7msz															
			i	44	15.70															
PRU	116.67	46	ePKP	44	07.50	-0.2														

22d 23h

L.P.B.: 9S, 15C					PKI 42.46 312 P 59 46.80 0.1					MCW 0.82 300 P 43 20.47 -1.9				
Centroid Location:					0.7s 23.00nm 5.0mb					BLN 0.85 252 P 43 21.25 -1.7				
Origin Time 23:51:58.4 0.9					KKN 42.67 312 P 59 48.60 0.3					NLW 0.97 101 Pd 43 23.65 -1.7				
Lot 1.45N 0.12 Lon 120.41E 0.16					DMN 42.71 311 P 59 49.00 0.3					GMW 1.00 224 P 43 23.54 -2.1				
Dep 33.0 FIX Half-duration 1.7					0.8s 36.00nm 5.2mb					HDW 1.07 235 Pc 43 24.53 -2.3				
Moment Tensor; Scale 10**16 Nm					GKN 43.27 312 P 59 53.20 0.1					GSM 1.07 181 Pd 43 24.97 -2.0				
Mrr= 1.68 0.90 Mlt=-2.46 0.64					HYB 43.97 294 iPd 59 59.30 0.6					ETW 1.17 124 Pd 43 26.70 -2.0				
Mff= 0.77 1.26 Mrl=-8.00 1.18					1.0s 50.00nm 5.3mb					GHW 1.28 196 P 43 28.69 -1.7				
Mrf=-0.83 0.89 Mlf=-3.31 0.84					GBA 44.01 289 Pd 59 59.40 0.3					STW 1.28 265 P 43 28.16 -2.3				
Principal Axes:					0.9s 8.00nm 4.5mb					TWW 1.29 152 P 43 29.15 -1.5				
T Val= 8.15 Plg=49 Azm=197					BWA 44.11 146 eP 00 03.20 3.5X					RVC 1.34 186 P 43 29.24 -2.2				
N 1.45 19 84					TOO 44.97 151 eP 00 08.00 1.4					FMW 1.34 177 Pd 43 29.31 -2.3				
P -9.60 35 340					CAN 45.09 146 iPc 00 08.40 0.9					WTV 1.35 115 P 43 30.20 -1.4				
Best Double Couple:Mo=8.9*10**16					CNB 45.29 146 eP 00 10.00 0.9					DHW2 1.37 101 P 43 30.66 -1.4				
NP1:Strike= 16 Dip=21 Slip= 21					POO 48.57 294 iP 00 34.40 -0.8					OSD 1.37 252 P 43 30.41 -1.8				
NP2: 266 83 110					NDI 49.31 308 eP 00 40.00 -0.7					SMW 1.43 229 P 43 30.54 -2.4				
					DZM 50.68 120 iPc 00 51.20 -0.2					WPW 1.58 175 P 43 33.27 -1.9				
					QUE 58.14 305 eP 01 44.80 -1.1					EBG 1.59 149 P 43 34.63 -0.5				
					PRNI 85.26 300 eP 04 29.00 1.3					CPW 1.59 216 P 43 33.43 -1.9				
					MBH 85.34 300 eP 04 30.00 1.9					LMW 1.64 193 P 43 34.45 -1.6				
					KAS 86.59 311 eP 04 45.00 10.9X					NAC 1.66 157 ePd 43 35.83 -0.5				
					LFK 86.62 305 eP 04 36.00 1.6					SAW 1.69 109 P 43 36.46 -0.2				
					BBTK 87.32 310 eP 04 41.00 3.2X					GLK 1.71 176 ePd 43 35.86 -1.2				
					IMA 87.61 24 e(P) 04 39.30 0.6					APW 1.73 201 P 43 35.52 -1.7				
					0.9s 4.17nm 4.7mb					CZM 1.90 196 P 43 38.68 -1.1				
					PTZ 89.00 256 iP 04 57.00 10.8X					YAKW 1.94 154 P 43 40.49 0.2				
					FBA 90.06 25 e(P) 04 36.50 -13.6X					MXC 1.97 149 P 43 40.43 -0.3				
					1.0s 20.00nm					ERK 2.01 191 P 43 40.25 -1.1				
					KEV 90.17 340 eP 04 46.00 -4.6X					SOSW 2.05 187 P 43 41.09 -0.9				
					SOD 90.45 337 iP 04 51.20 -0.7					BMW 2.05 209 P 43 40.70 -1.3				
					i 05 02.00					ASR 2.12 177 P 43 43.24 0.2				
					SPA 90.95 180 iPc 04 54.00 -0.4					MDW 2.15 140 P 43 43.25 0.0				
					0.8s 9.58nm 5.2mb					CDFW 2.16 185 P 43 43.28 -0.3				
					SUF 90.96 333 eP 04 56.00 1.7					RSW 2.39 141 P 43 48.42 1.5				
					NUR 91.85 330 eP 04 58.00 -0.4					44 obs. associated				
					LSZ 92.06 255 iP 05 00.60 0.2									
					i 05 11.40									
					INK 95.15 21 eP 05 22.00 8.5X					* APR 23, 1990 02h 09m 13.63±1.16s				
					MBC 96.07 12 eP 05 28.00 10.4X					40.301 N ±13.9km 25.783 E ±10.8km				
					HFS 97.28 331 ePKP 05 32.50 9.2X					DEPTH = 10.0km (geophysicist)				
					1.2s 15.10nm 5.4mb					AEGEAN SEA (365)				
					NB2 98.21 332 P 05 25.30 -2.2					EZN 0.63 139 iPn 09 26.20 -0.1				
					1.1s 6.10nm 5.0mb					KGT 1.17 82 iPn 09 34.30 -1.2				
					YKA 104.70 23 ePd iff 06 07.50 11.1X					KDZ 1.38 348 iP 09 38.00 -0.8				
					0.8s 0.20nm					EDC 1.59 88 ePn 09 42.50 0.6				
					ZOBO 162.78 152 PKP 11 56.00 2.2					RZN 1.60 330 iP 09 44.00 1.8				
					0.9s 6.49nm					BNT 1.63 87 iPn 09 43.30 0.8				
					eLR 11 16.00					IZM 2.22 148 ePn 10 11.00 19.9X				
					S.D. = 1.1 on 53 of 70 obs.					JMB 2.25 15 iP 10 11.00 19.6X				
										KKB 2.57 308 iP 09 55.00 -1.0				
					? APR 23, 1990 00h 21m 40.86±3.10s					VAY 2.64 294 ePn 10 03.70 6.7X				
					48.404 N ±13.0km 1.131 W ±25.2km					S.D. = 1.3 on 7 of 10 obs.				
					DEPTH = 10.0km (geophysicist)					APR 23, 1990 02h 19m 43.40±0.74s				
					FRANCE (538)					40.338 N ±9.0km 25.944 E ±6.7km				
					ML 2.3 (LDG).					DEPTH = 10.0km (geophysicist)				
										AEGEAN SEA (365)				
					GRR 0.18 95 Pg 21 44.90 0.0					ALN 0.56 8 eP 19 53.50 -1.3				
					Sg 21 47.10					EZN 0.59 150 iPg 19 54.20 -1.1				
					LPF 0.38 171 Pg 21 48.60 0.0					iSg 20 08.20				
					Sg 21 53.30					KDZ 1.37 343 iP 20 07.00 -1.5				
					FLN 0.56 50 Pg 21 52.20 0.0					EDC 1.47 89 iPn 20 11.00 1.1				
					Sg 21 59.20					OUR 1.50 271 eP 20 09.20 -1.1				
					LDF 0.70 74 Pg 21 54.70 0.1					BNT 1.51 89 iPn 20 10.80 0.3				
					Sg 22 03.20					RZN 1.64 326 iP 20 12.00 -0.5				
					S.D. = 0.1 on 4 of 4 obs.					SRS 1.95 294 P 20 17.40 0.5				
					& APR 23, 1990 01h 43m 06.07s					PLD 2.00 332 eP 20 23.00 5.5X				
					48.271 N 121.766 W					SOH 2.03 285 eP 20 24.20 6.1X				
					DEPTH = 3.0km					CTT 2.05 66 ePn 20 19.00 0.6				
					WASHINGTON (29)					MMB 2.09 307 iPc 20 21.00 2.0				
					<SEA> CL 2.9 (SEA).					IZM 2.19 152 ePn 20 26.00 5.6X				
					JCW 0.13 235 Pc 43 08.90 0.1					THE 2.29 278 eP 20 29.40 7.6X				
					RPW 0.24 43 Pc 43 10.92 -0.1					ISK 2.48 72 ePn 20 32.00 7.6X				
					S 43 14.82					KKB 2.65 306 iP 20 28.00 1.1				
					CMW 0.28 303 Pd 43 11.29 -0.4					VAY 2.74 292 ePn 20 36.70 8.5X				
					S 43 15.72					MLR 5.15 360 eP 21 08.00 5.5X				
					HTW 0.47 180 Pd 43 14.48 -1.0					S.D. = 1.3 on 11 of 18 obs.				
					S 43 20.69					APR 23, 1990 02h 59m 46.09±0.24s				
					BLH 0.47 202 Pd 43 14.89 -0.6					52.743 N ±4.5km 167.771 W ±3.0km				
					S 43 21.52					DEPTH = 33.0km (normol)				
					OHW 0.51 276 Pd 43 15.38 -1.0					4.9mb (45 obs.) 4.6msz (1 obs.)				
					S 43 22.58					FOX ISLANDS, ALEUTIAN ISLANDS (9)				
					MBW 0.52 350 P 43 15.58 -0.9					SDN 5.01 56 ePc 01 01.60 0.7				
					PGW 0.72 232 P 43 19.62 -0.8					ADK 5.54 265 eP 01 07.60 -0.7				
					SPW 0.79 204 P 43 21.20 -0.6									
					RMW 0.81 182 P 43 20.66 -1.6									

KDC	10.05	54	eP	02 08.80	-2.3	TPC	40.92	96	eP	07 36.00	9.2X	0.8s	9.40nm	4.8mb		
CDD	10.07	46	eP	02 11.33	0.0	PLM	40.95	98	eP	07 28.00	0.8	LBF	80.40	6 iPc	11 55.60	0.3
PDB	10.32	42	eP	02 16.27	1.4	RSSD	41.88	75	eP	07 33.80	-0.9	0.8s	0.05nm	2.6mb	X	
AUE	10.41	45	eP	02 17.22	1.1	GLA	42.38	96	eP	07 39.00	0.2	MFF	80.47	9 eP	11 56.60	1.0
SVW	10.68	33	eP	02 24.30	4.6X					07 58.00		1.0s	16.00nm	5.0mb		
SMY	10.99	277	e(P)	02 25.00	1.0	GOL	43.74	81	eP	07 50.00	-0.1	KBA	80.55	359 iPc	11 57.60	1.3
RED	11.27	41	eP	02 28.30	0.4		0.9s	27.46nm			5.0mb	0.8s	28.80nm		5.3mb	
CNPM	11.44	47	eP	02 28.83	-1.2	GLD	43.80	81	eP	07 51.00	0.6		e	13 12.00		
RDT	11.51	41	eP	02 31.38	0.3		0.9s	35.79nm			5.2mb	AVF	80.56	6 iPc	11 56.60	0.5
NNL	11.67	45	eP	02 34.24	1.1	ALQ	46.18	87	eP	08 09.00	-0.5		0.7s	6.05nm		4.7mb
CKL	11.91	39	eP	02 37.92	1.4		1.3s	13.46nm			4.7mb	SMF	80.73	6 iPc	11 57.50	0.5
BGL	11.94	38	eP	02 38.98	2.1	FRB	48.11	36	eP	08 24.00	0.0		0.7s	5.50nm		4.7mb
TTA	11.96	27	eP	02 37.40	0.3	MEQ	51.05	82	iPc	08 46.30	-0.7	BGF	80.75	7 eP	11 57.70	0.5
CRP	12.03	39	eP	02 40.32	2.2	BJI	51.59	288	eP	08 50.00	-1.0		1.0s	16.00nm		5.0mb
CGLM	12.11	39	eP	02 41.01	1.9		1.0s	24.00nm			5.1mb	LSF	80.96	7 iPc	11 58.70	0.4
NGC	12.11	38	eP	02 41.69	2.5	TUL	51.95	79	eP	08 52.30	-1.5		0.8s	10.75nm		4.9mb
SLKM	12.37	44	eP	02 42.23	-0.4		1.0s	6.00nm			4.5mb	TCF	80.98	7 iPc	11 58.80	0.4
SUA	12.69	40	eP	02 46.41	-0.5	SCH	54.52	44	eP	09 13.00	0.4		0.8s	2.70nm		4.3mb
SKT	12.71	37	eP	02 48.44	1.4	SSE	54.73	276	Pc	09 13.80	-0.5	FVI	81.04	360 P	12 04.00	5.4X
PMS	13.04	42	eP	02 50.09	-1.3		1.2s	69.00nm			5.6mb	MAF	81.07	7 eP	11 59.60	0.8
PLRM	13.40	41	eP	02 54.58	-1.5	WVLY	57.29	62	eP	09 31.00	-1.7		1.0s	16.00nm		5.0mb
PMR	13.40	41	eP	02 54.10	-2.0	KEV	57.34	354	eP	09 30.00	-2.6	CTI	81.59	0 P	12 00.00	-1.6
Z	20s		0.90um		4.2Msz	RSNY	57.96	57	eP	09 37.50	0.2	VAI	81.73	2 Pd	12 03.40	1.2
KNK	13.58	43	eP	02 56.34	-2.2		0.6s	10.47nm			5.1mb	SAL	82.02	1 P	12 05.00	1.3
SML	13.84	41	eP	03 01.31	-0.6	WNY	58.42	57	eP	09 39.00	-1.5	LFF	82.20	8 eP	12 05.60	0.9
GLI	13.90	46	eP	02 59.89	-2.8	HBVT	58.84	57	eP	09 41.70	-1.8		1.0s	16.00nm		5.0mb
KTH	13.96	33	eP	03 05.20	1.6	CBM	59.45	52	eP	09 45.50	-2.1	MAIO	82.26	323 eP	12 06.00	0.7
VZW	14.21	46	eP	03 04.63	-2.3	BNH	59.59	55	eP	09 46.80	-1.9	BNI	82.47	4 P	12 08.00	1.7
NCA	14.54	42	eP	03 08.92	-2.3	SOD	59.72	354	iP	09 48.20	-1.0	CTA	82.76	223 iP	12 08.00	12.2X
KLU	14.68	45	eP	03 10.21	-2.8	TBR	60.53	60	eP	09 54.00	-1.1	BOB	82.84	2 Pd	12 09.90	1.8
TOA	14.87	42	eP	03 14.00	-1.4	LZH	61.35	293	Pc	10 00.00	-1.0	DOI	83.04	4 P	12 12.00	2.8
IMA	15.11	22	ePc	03 23.30	4.7X		2.0s	47.00nm			5.3mb	BDI	83.56	1 P	12 13.00	1.1
PAX	15.58	40	eP	03 23.87	-0.9	Z	20s	0.40um			4.6Msz	PGD	83.76	0 Pd	12 15.20	2.2
RDS	15.72	32	eP	03 27.97	1.6	SUF	64.36	353	iP	10 19.90	-0.4	FIR	83.86	1 eP	12 14.00	0.8
TGL	15.77	50	eP	03 26.39	-0.8		0.4s	9.50nm			5.2mb	CRE	84.01	0 P	12 19.00	4.8X
FBA	15.88	32	eP	03 27.10	-1.3	N82	66.56	1 P		10 33.40	-1.1	ARV	84.14	359 P	12 16.00	1.3
GLM	16.07	32	eP	03 29.89	-1.0		0.7s	4.70nm			4.7mb	MNS	85.25	360 Pd	12 21.00	0.7
SIT	19.04	64	eP	04 07.50	-0.2	NUR	66.66	353	iP	10 34.00	-1.0	AZI	85.64	359 P	12 23.00	0.8
	1.0s	60.00nm		4.8mb			0.7s	32.00nm			5.5mb	SDI	85.92	359 Pd	12 24.40	0.7
INK	22.50	33	eP	04 42.00	-1.5	HFS	67.47	359	eP	10 38.80	-1.3	DUI	85.95	358 P	12 25.50	1.6
	0.7s	30.00nm		4.9mb			0.4s	20.90nm			5.6mb	BBTK	86.09	344 eP	12 26.00	1.3
MBC	29.83	21	ePd	05 52.20	0.4	Z	15s	0.05um			3.9MszX	MGR	87.45	357 P	12 30.00	-1.1
	0.6s	7.00nm		4.6mb				LR	36 12.00		WB5	87.94	233 eP	12 31.30	-2.3	
PNT	30.03	77	eP	05 54.00	0.2	KMI	70.11	285	Pc	10 56.50	-0.8	WRA	88.00	233 Pc	12 32.00	-1.9
NEW	31.98	77	eP	06 10.30	-0.7		1.5s	0.10nm			2.7mb X		0.7s	1.60nm		4.4mb
	0.9s	14.25nm		4.9mb				sP	11 15.00		HYB	89.82	299 eP	12 40.90	-1.9	
EDM	32.10	67	iPc	06 12.50	0.5	EKA	71.54	9 Pd		11 05.40	0.3	GBA	93.57	298 Pd	12 59.30	-0.7
	0.7s	55.00nm		5.6mb			0.7s	4.90nm			4.6mb		0.3s	1.40nm		4.9mb
WDC	32.80	93	ePd	06 19.00	0.9	DCN	73.04	12	eP	11 14.20	0.2	SLR	150.44	330 iPKPc	19 35.90	5.8X
MIN	33.51	93	ePd	06 24.70	0.2	ETA	73.80	12	eP	11 18.90	0.5		1.1s	24.05nm		
ORV	34.06	94	eP	06 28.90	-0.2	ECB	74.06	12	eP	11 20.40	0.5	BLF	154.23	331 ePKP	19 47.00	11.6X
SES	34.56	71	ePd	06 33.20	-0.2	ECP	74.29	12	eP	11 20.80	-0.5		S.D. = 1.1	on 162 of 170 obs.		
BRK	34.66	97	eP	06 34.40	0.1	SHL	75.99	294	iP	11 30.00	-1.7		?	APR 23, 1990 03h 13m 08.65± 0.90s		
BKS	34.67	97	eP	06 34.80	0.4	CLL	76.32	359	iPc	11 32.80	-0.1			45.959 N ± 8.9km 14.579 E ± 7.3km		
	1.0s	52.00nm		5.4mb			0.8s	8.00nm			4.8mb			DEPTH = 10.0km (geophysicist)		
MHC	35.38	97	eP	06 40.80	0.2	KSP	76.73	357	ePc	11 35.30	0.1			YUGOSLAVIA (383)		
ARN	35.44	97	eP	06 41.30	0.3	MOX	76.99	0	iP	11 37.50	0.9			MD 2.2 (LJU).		
CMB	35.69	95	ePd	06 43.80	0.7	CHG	77.20	284	eP	11 37.80	-0.5	LJU	0.09	339 iPg	13 11.10	-0.2
SAO	35.88	98	eP	06 44.70	0.1	CHTO	77.20	284	eP	11 37.50	-0.8			iSg	13 12.90	
LRM	35.96	78	eP	06 45.40	-0.2		1.2s	12.15nm			4.8mb			iSg	13 13.40	
PRS	36.21	98	ePd	06 47.70	0.3	DOU	77.33	5 P		11 39.10	0.6	CEY	0.24	206 ePg	13 13.80	-0.1
LLA	36.28	97	ePd	06 48.90	0.9	KRA	77.37	355	eP	11 39.00	0.3			eSg	13 17.00	
KVN	36.43	92	eP	06 49.90	0.3		0.8s	38.00nm			5.5mb	VOY	0.48	279 ePg	13 18.60	0.1
FRI	36.77	96	ePd	06 52.80	0.6	GUN	77.39	300 P		11 39.20	-0.5			eSg	13 27.30	
TNP	37.58	92	eP	06 59.30	0.1	PRU	77.63	358 P		11 41.00	0.9	PTJ	0.96	93 e(Pg)	13 27.10	0.0
	1.0s	12.33nm		4.7mb		KKK	77.81	300 P		11 41.30	-0.5			S.D. = 0.2	on 4 of 4 obs.	
PTI	37.63	82	eP	07 00.70	1.2	PKI	77.92	300 P		11 41.80	-0.8			% APR 23, 1990 05h 06m 45.65± 1.99s		
FFC	37.69	60	iPd	06 59.90	0.2	GRF	77.94	1 eP		11 43.00	1.1			15.175 N ± 6.6km 60.674 W ± 24.0km		
	0.9s	15.00nm		4.9mb			0.7s	11.00nm			5.0mb			DEPTH = 33.0km (normal)		
BCH	37.75	98	eP	07 01.30	0.8	GKN	77.98	300 P		11 42.00	-0.7			LEEWARD ISLANDS (92)		
IMW	37.91	80	eP	07 02.00	0.0	DMN	78.04	300 P		11 42.80	-0.4	CRM	0.48	209 iPd	06 56.00	0.0
BLP	37.99	99	eP	07 03.00	0.6	SPC	78.22	355 iP		11 43.10	-0.6			S	07 04.20	
ISA	38.40	96	eP	07 06.00	0.1	LDF	78.50	8 eP		11 45.00	0.0	FDF	0.64	226 iPd	06 58.40	0.2
CLC	38.83	95	eP	07 10.00	0.5	KHC	78.50	359 iPc		11 46.00	1.0			0.1s	0.95nm	
				07 29.00			1.0s	8.00nm			4.7mb			S	07 07.70	
DUG	38.94	86	eP	07 11.00	0.5	CDF	79.14	3 iPc		11 49.10	0.5			S	06 58.42	0.0
	0.6s	3.70nm		4.3mb			0.6s	2.70nm			4.4mb			S	07 07.90	
BW06	39.37	81	eP	07 13.80	-0.4	ZST	79.35	357 eP		11 50.60	1.0			S	07 00.02	0.1
	0.9s	10.17nm		4.6mb				e	44 12.40					S	07 10.90	
SBB	39.45	97	eP	07 15.00	0.3	HAU	79.51	4 iPc		11 51.20	0.7			S	07 01.00	-0.2
MWC	39.63	98	eP	07 17.00	0.7		0.6s	3.60nm			4.5mb			S	07 07.48	0.0
GSC	39.65	95	eP	07 17.00	0.6	SRO	79.69	356 eP		11 51.90	0.5			S	07 22.70	
DAU	39.75	85	eP	07 18.00	0.5	BSF	79.70	4 iPc		11 51.90	0.3			S		
CHJJ	40.53	267 P		07 23.00	-0.5		0.6s	3.60nm			4.5mb			S		
MAT	40.68	269 iPc		07 24.20	-0.6	LOR	80.11	6 iPc		11 54.20	0.4			S		
	0.9s	57.98nm		5.3mb			0.8s	5.35nm			4.6mb			S		
MTMJ	40.90	269 P		07 27.80	1.1	SSF	80.30	6 iPc		11 55.40	0.7			S		

23d 05h

SLB 1.39 195 eP 07 08.74 -0.2
eS 07 26.03
SEG 1.46 327 eP 07 10.10 0.2
S.D. = 0.2 on 8 of 8 obs.

% APR 23, 1990 05h 44m 52.73±2.08s
35.253 N ±14.1km 51.059 E ±12.9km
DEPTH = 10.0km (geophysicist)

IRAN (348)

IR4 0.13 264 eP 44 56.00 0.0
IR5 0.39 264 eP 45 01.00 0.2
IR2 0.43 342 eP 45 02.00 0.5
TEH 0.55 29 eP 45 04.00 0.0
IR7 0.58 321 eP 45 04.00 -0.6
S.D. = 0.5 on 5 of 5 obs.

* APR 23, 1990 05h 50m 38.68±1.70s
36.637 N ±5.2km 12.557 W ±16.9km
DEPTH = 33.0km (normol)

NORTH ATLANTIC OCEAN (402)
MD 4.2 (RBA). mblg 4.0 (MDD).

EVAL 4.74 77 ePn 51 50.00 0.3
eSn 52 39.00

AVE 5.38 127 ePn 51 59.00 0.3
iSn 52 55.00
52 56.50

PTO 5.45 33 iPnc 52 01.30 1.6X
iSn 52 56.80

EHOR 5.95 76 ePn 52 08.00 1.2X
eSn 53 10.00

EPLA 6.13 54 ePn 52 10.00 0.6
eSn 53 14.00

EZAM 6.26 27 ePn 52 11.20 0.0
eSn 53 17.00

IFR 6.84 115 iPn 52 19.00 -0.4
iSn 53 28.50
53 29.50

STS 6.96 25 ePn 52 21.20 0.3
EBAN 7.15 75 ePn 52 24.00 0.4
eSn 53 38.00

TIO 7.20 141 iPn 52 24.40 -0.1
iSn 53 32.50

TOL 7.44 62 e(Pg) 52 51.00 23.4X
eSn 53 46.00

GUD 7.70 56 ePn 52 31.00 -0.4
eSn 53 50.00

ETOR 9.21 60 ePn 52 52.00 -0.3
eSn 54 27.20

EPF 11.79 53 Pn 53 27.80 0.3
Sn 55 24.40

LFF 13.04 46 Pn 53 44.00 -0.1
LPO 13.16 48 Pn 53 45.30 -0.4

RJF 13.70 46 Pn 53 51.80 -1.0
CAF 13.82 49 Pn 53 53.60 -0.8

TCF 14.66 44 Pn 54 05.80 0.4
AVF 15.59 44 Pn 54 17.80 0.3

SSF 15.84 44 Pn 54 21.20 0.6
S.D. = 0.5 on 18 of 21 obs.

* APR 23, 1990 06h 12m 24.19±1.31s
45.320 N ±8.1km 16.243 E ±13.7km
DEPTH = 10.0km (geophysicist)

YUGOSLAVIA (383)
ML 1.7 (LJU).

ZAG 0.53 340 iPg 12 34.70 -0.2
iSg 12 44.70

PTJ 0.61 341 ePg 12 36.40 -0.2
eSg 12 46.90

VBY 0.72 285 ePg 12 37.20 -1.1
iSg 12 46.00

CEY 1.34 289 ePn 12 49.70 0.7
eSg 13 07.40

HVAR 2.15 176 iPn 13 00.40 -0.1
iSn 13 26.80

RBL 2.18 302 P 13 02.00 0.9
eSn 13 34.00

CTI 3.30 284 P 13 36.00 19.0X
eSn 14 14.00

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

APR 23, 1990 06h 44m 59.80±0.63s
42.092 N ±6.3km 20.223 E ±5.7km
DEPTH = 10.0km (geophysicist)

YUGOSLAVIA (383)

ML 2.7 (TTG).

PVY 0.54 340 ePg 45 10.00 -0.7
eSg 45 19.00

ULC 0.74 260 ePg 45 14.00 -0.3
eSg 45 26.00

TTG 0.79 296 ePg 45 13.90 -1.2
eSg 45 26.30

IVA 0.82 343 ePg 45 15.50 -0.2
eSg 45 27.50

SKO 0.91 97 iPg 45 16.80 -0.5
iSg 45 31.20

BDV 1.05 281 iPg 45 19.10 -0.6
eSg 45 37.00

OHR 1.07 156 ePg 45 20.00 0.0
iSg 45 35.50
Lg 45 37.70

HCY 1.33 286 ePg 45 24.30 0.0
eSg 45 44.00

PLE 1.38 334 ePg 45 25.50 0.3
eSg 45 45.50

BRY 1.48 304 ePg 45 28.10 1.5
eSg 45 50.00

VAY 1.92 113 ePn 45 35.50 2.7X
S.D. = 0.8 on 10 of 11 obs.

APR 23, 1990 08h 17m 30.29±1.17s
30.610 N ±5.1km 138.762 E ±7.0km
DEPTH = 387.3 ±12.7 km
4.5mb (25 obs.)

SOUTH OF HONSHU, JAPAN (211)

MAT 5.93 356 iPd 19 01.90 -0.4
0.8s 152.24nm 5.0mb

GUMO 17.85 160 eP 21 16.00 1.2
0.8s 316.25nm 5.7mb X

GUA 17.91 160 eP 21 17.00 1.6
0.8s 465.67nm 5.9mb X

CHG 37.85 261 ePd 24 12.00 -1.1
0.9s 24.79nm 4.5mb

ADK 38.89 44 e(P) 24 20.70 -0.5
0.6s 12.20nm 4.4mb

MTN 43.82 191 eP 25 00.30 -1.0
0.5s 39.00nm 5.0mb

KHKI 44.67 214 ePd 25 07.20 -0.8
e 26 30.00

GUN 45.87 281 P 25 20.30 2.5
PKI 46.36 280 P 25 23.60 2.0

KKN 46.41 281 P 25 24.00 2.2
DMN 46.61 280 P 25 26.00 2.6

GKN 46.89 281 P 25 27.70 2.2
KNA 47.08 193 eP 25 26.00 -0.7

WB5 50.38 185 iPd 25 50.40 -1.3
e 30 20.00

WRA 50.44 185 Pd 25 50.90 -1.3
0.5s 33.70nm 4.9mb

OIS 50.88 179 iPd 25 54.10 -1.2
CTA 50.92 171 iPc 25 55.20 -0.5

1.1s 15.82nm 4.3mb

TTA 51.99 32 eP 26 03.00 -0.2
SVW 51.99 34 ePc 26 03.50 0.3

BRW 53.18 21 ePc 26 11.60 0.0
IMA 53.36 28 ePc 26 12.80 -0.4

0.7s 5.00nm 4.0mb

KDC 53.47 38 ePc 26 12.90 -1.0
ASPA 54.17 185 iPd 26 21.10 1.8

0.6s 65.00nm 5.1mb

MBL 54.59 202 iPd 26 21.10 -1.2
0.5s 26.00nm 4.8mb

PMR 55.14 34 ePc 26 24.40 -1.4
1.0s 32.50nm 4.6mb

FBA 55.73 30 eP 26 29.10 -0.8
TOA 56.52 33 ePc 26 35.50 -0.1

NANU 57.38 206 eP 26 41.00 -0.8
WARB 57.65 193 iPd 26 43.30 -0.4

0.4s 16.00nm 4.8mb

GBA 58.62 268 Pd 26 48.30 -2.3
0.9s 6.10nm 4.0mb

DZM 58.74 150 iPc 26 51.50 0.3
BRS 59.21 165 iP 26 54.10 -0.2

INK 61.11 25 eP 27 05.00 -1.5
FORR 61.95 190 iPc 27 11.40 -1.0

0.4s 30.00nm 5.2mb

MBC 63.29 15 ePc 27 19.80 -0.8
0.6s 7.00nm 4.5mb

CAN 66.28 171 eP 27 40.50 0.4

KEV 68.67 340 eP 27 50.00 -4.3X
SOD 70.03 338 eP 28 01.00 -1.6

YKA 70.48 28 eP 28 03.60 -1.7
0.9s 3.50nm 4.0mb

SUF 72.73 334 iP 28 17.40 -1.0
0.5s 4.40nm 4.4mb

NUR 74.57 332 eP 28 28.00 -0.9
FHC 75.69 51 eP 28 36.90 1.3

NEW 76.33 42 P 28 39.00 0.0
0.9s 13.71nm 4.7mb

WDC 76.76 51 ePc 28 42.00 0.5
MIN 77.50 51 ePc 28 45.50 -0.2

ORV 77.96 51 ePc 28 48.00 0.0
BRK 78.27 53 ePc 28 50.20 0.5

BKS 78.29 53 e(P) 28 50.70 0.9
0.8s 25.00nm 5.0mb

SES 78.53 38 ePc 28 50.50 -0.5
MHC 78.96 53 ePc 28 54.20 0.6

HFS 79.01 335 ePKP 28 51.00 -2.2
0.6s 4.00nm 4.3mb

ARN 79.03 53 P 28 54.00 0.1
NB2 79.23 337 P 28 53.30 -1.1

0.8s 3.20nm 4.1mb

CMB 79.47 52 ePc 28 56.70 0.5
PRS 79.66 54 ePc 28 57.80 0.7

PRI 80.24 54 eP 29 02.30 2.0
LRM 80.33 42 ePc 29 01.60 0.9

FRI 80.47 53 eP 29 01.90 0.6
KVN 80.49 50 P 29 02.00 0.4

PHAM 80.59 54 P 29 03.00 1.0
TNP 81.58 51 P 29 07.40 0.0

1.0s 7.50nm 4.4mb

DUG 83.28 47 P 29 16.40 0.6
0.6s 4.28nm 4.4mb

FRB 83.51 12 eP 29 16.00 -0.3
BW06 83.78 43 P 29 18.30 -0.1

0.7s 1.75nm 3.9mb

PEC 83.87 54 P 29 18.70 -0.1
DAU 84.13 46 P 29 20.80 0.5

PLM 84.37 55 P 29 21.40 -0.1
GLA 85.96 54 P 29 30.00 0.9

RSSD 86.12 40 P 29 30.00 0.1
ANMO 90.46 48 P 29 51.40 1.0

1.0s 6.00nm 4.4mb

ALO 90.46 48 eP 29 51.00 0.6
0.9s 4.83nm 4.4mb

S.D. = 1.1 on 70 of 71 obs.

* APR 23, 1990 08h 34m 20.84±3.33s
51.326 N ±24.9km 15.932 E ±18.6km
DEPTH = 10.0km (geophysicist)

POLAND (548)
ML 3.1 (GRF).

KSP 0.53 155 iPd 34 31.50 -0.2
0.4s 64.00nm

iS 34 40.90
eLR 34 47.00

BRG 1.33 251 iPg 34 55.60 10.2X
iSg 35 05.20

PRU 1.61 214 Pn 34 49.50 0.2
Pg 34 51.30

Sn 35 08.30
Sg 35 15.80

CLL 1.84 271 i(Pg) 34 53.30 0.6
eSg 35 19.00

KHC 2.67 215 Pn 35 05.20 0.6
Pg 35 11.50

Sg 35 41.10
HOF 2.76 250 ePn 35 05.00 -1.0

MOX 2.81 258 ePg 35 13.00 6.3X
iSg 35 53.00

WET 2.93 223 iPnc 35 08.50 0.1
GRF 3.42 243 e(Pn) 35 15.00 -0.3

eSg 35 28.40
eSg 36 12.20

S.D. = 0.7 on 7 of 9 obs.

? APR 23, 1990 09h 00m 27.77±9.86s
41.771 N ±68.2km 27.470 E ±44.3km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

KGT 1.32 186 iPn 00 52.40 0.2
ITU 1.34 119 ePn 00 53.00 0.6

iSg 01 12.00
ISK 1.39 120 ePn 00 53.00 -0.1

23d 09h

BNT 1.45 166 iPn 00 54.40 0.3
 KCT 1.66 156 iPg 00 56.90 -0.2
 GBZT 1.78 123 ePn 01 01.30 2.5X
 iSg 01 28.20
 YLV 1.87 129 iPn 00 59.90 -0.3
 HRT 1.91 119 ePn 01 00.60 -0.1
 S.D. = 0.4 on 7 of 8 obs.

? APR 23, 1990 09h 18m 26.30±5.59s
 48.381 N ±12.1km 8.703 E ±41.8km
 DEPTH = 10.0km (geophysicist)
 GERMANY (543)
 MD 1.0 (STR).

FEL 0.69 223 Pg 18 39.97 0.0
 WLS 0.90 273 Pg 18 43.85 0.3
 Sg 18 58.48
 GWF 0.93 310 Pg 18 44.12 0.0
 Sg 18 57.54
 CDF 0.95 272 Pg 18 44.22 -0.3
 S.D. = 0.4 on 4 of 4 obs.

APR 23, 1990 09h 19m 22.91±0.44s
 1.016 N ±7.7km 123.842 E ±10.5km
 DEPTH = 33.0km (normal)
 4.8mb (3 obs.) 4.2Msz (2 obs.)
 MINAHASSA PENINSULA (265)

PCI 4.44 245 i(P)c 20 45.30 15.6X
 DAV 6.27 16 eP 20 54.50 -1.1
 MTN 15.56 153 eP 23 02.00 0.5
 BAG 15.63 348 eP 23 05.00 2.3
 WB5 23.19 154 eP 24 28.20 0.3
 SNG 23.95 285 eP 24 34.40 -0.9
 PMG 25.42 115 eP 24 49.00 -0.4
 ASPA 26.41 159 eP 25 01.60 3.0X
 1.3s 21.00nm 4.6mb
 OIS 26.42 145 eP 24 58.00 -0.6
 LOE 27.17 308 eP 25 05.00 -0.5
 CHG 30.15 307 eP 25 32.70 0.3
 KMI 31.46 321 Pc 25 45.00 0.9
 2.0s 0.10nm 2.3mb X
 Z 20s 0.50um 4.2Msz
 S 25 59.50
 S 30 56.00

SHL 39.31 311 eP 26 44.50 -6.5X
 BJI 39.46 351 eP 26 51.00 -0.8
 1.5s 26.00nm 4.8mb
 LZH 39.52 334 Pc 26 52.50 -0.1
 2.0s 117.00nm 5.3mb
 Z 18s 0.40um 4.3Msz
 pP 27 00.00 25kmX
 i 27 14.50
 PPP 28 29.50
 eS 32 16.00
 CAN 43.12 149 eP 27 22.00 0.8
 HYB 47.40 293 eP 27 56.00 -0.5
 ZOBO 160.80 143 PKP 39 22.00 -0.2
 S.D. = 1.0 on 15 of 18 obs.

& APR 23, 1990 09h 30m 16.40s
 34.060 N 116.390 W
 DEPTH = 4.0km
 SOUTHERN CALIFORNIA (43)
 <PAS-P>. ML 3.0 (PAS).

TPC 0.29 81 iPc 30 22.10 -0.1
 PEC 0.66 256 iPc 30 29.00 -0.6
 HAY 0.72 119 ePd 30 30.40 -0.3
 PLM 0.81 209 ePd 30 31.80 -0.7
 RVR 0.82 266 iPc 30 31.60 -1.2
 GSC 1.28 345 eP 30 40.10 -0.7
 CPE 1.32 207 eP 30 40.10 -1.2
 SBB 1.34 298 iP 30 41.10 -0.7
 GLA 1.65 127 eP 30 45.00 -1.3
 ABL 2.47 289 eP 30 57.50 -0.8
 TNP 4.07 351 eP 31 19.00 -2.0
 KVN 5.17 345 eP 31 35.00 -1.6
 12 obs. associated

& APR 23, 1990 09h 32m 32.47s
 62.645 N 143.534 W
 DEPTH = 0.1km
 3.4mb (1 obs.)
 CENTRAL ALASKA (1)
 <AGS-P>.

TMW 0.72 20 eP 32 46.12 -0.8
 eS 32 56.47
 SDG 0.94 264 eP 32 50.52 -0.6
 eS 33 03.08
 PAX 0.95 291 eP 32 50.10 -1.2
 eS 33 03.25
 DOT 1.04 347 eP 32 51.82 -1.2
 eS 33 06.56
 GLB 1.21 186 iP 32 55.28 -0.8
 TOA 1.34 247 eP 32 58.05 -0.2
 eS 33 16.48
 DDM 1.56 318 eP 33 01.35 -0.2
 eS 33 24.00
 KLU 1.61 225 iP 33 02.08 -0.3
 iS 33 23.86
 NCA 1.67 248 eP 33 03.42 0.3
 DMW 1.73 326 eP 33 03.60 -0.3
 TGL 1.93 170 eP 33 06.92 0.0
 VZW 2.14 223 eP 33 09.83 -0.1
 DWY 2.33 51 P 33 10.30 -2.3
 HDA 2.34 321 eP 33 11.65 -1.2
 SML 2.40 252 eP 33 14.40 0.7
 GLI 2.45 225 eP 33 14.99 0.6
 RND 2.54 290 eP 33 16.36 0.6
 CHO 2.67 253 eP 33 18.72 1.1
 MCK 2.68 296 eP 33 19.39 1.7
 PLRM 2.83 251 eP 33 20.54 0.7
 GLM 2.91 326 eP 33 18.77 -2.2
 FBA 2.95 322 eP 33 19.35 -2.1
 PMS 3.18 246 eP 33 25.28 0.6
 HYT 3.40 120 P 33 22.80 -5.2
 SUA 3.60 254 eP 33 31.77 1.1
 INK 7.04 32 eP 34 18.00 -1.2
 YKA 13.29 78 eP 35 41.00 -3.8
 0.6s 0.20nm 3.4mb
 27 obs. associated

APR 23, 1990 09h 44m 09.65±0.45s
 31.110 N ±4.5km 51.515 E ±7.0km
 DEPTH = 33.0km (normal)
 4.6mb (7 obs.)

IRAN (348)
 IR4 4.15 353 eP 45 12.50 0.1
 IR5 4.17 349 eP 45 15.50 2.9X
 IR2 4.57 354 eP 45 17.00 -1.4
 TEH 4.62 359 eP 45 20.00 0.9
 IR7 4.64 351 eP 45 20.00 0.6
 KER 4.92 312 eP 45 41.50 18.1X
 DHR 4.94 194 ePd 45 25.00 1.5
 BBU 4.96 191 (Pn) 45 24.10 0.3
 (Sn) 46 21.60
 BEE 5.15 190 ePn 45 27.00 0.6
 BJA 5.16 189 iPn 45 25.10 -1.5
 (Sn) 46 21.00
 BHD 6.42 292 ePn 45 50.00 5.7X
 i 46 21.00
 i 46 55.00
 SLY 6.74 313 ePn 46 01.50 12.8X
 eP+ 46 13.00
 iSn 47 07.50
 i 47 16.00
 i 47 56.00
 RYD 7.70 215 iPd 46 02.20 -0.2
 iS 47 26.50
 TAB 8.15 330 e(P) 46 32.00 23.3X
 MAIO 8.42 50 eP 46 10.00 -2.5
 eS 47 46.00
 QASM 8.61 236 eP 46 12.70 -2.3
 MSL 8.73 309 ePn 46 11.00 -5.5X
 e 46 56.50
 eSn 47 51.00
 e 48 46.50
 QUE 13.32 90 eP 47 21.00 1.9
 eS 51 26.50
 PRNI 14.23 271 e(P) 47 39.00 8.1X
 MBH 14.41 269 e(P) 47 41.00 7.8X
 BBTK 17.56 305 eP 48 15.00 1.5
 e 48 32.00
 ELL 18.78 293 eP 48 28.00 -0.6
 ALT 19.20 300 eP 48 33.00 -0.6
 KHL 19.43 298 eP 48 36.00 -0.3
 IZM 21.18 297 eP 48 55.00 0.6
 TLB 22.81 313 eP 49 16.00 5.5X
 MLR 24.54 313 eP 49 30.00 2.5X
 CMP 25.02 312 ePc 49 36.00 4.0X
 KBA 33.26 310 iPc 50 47.40 1.3

0.6s 5.40nm 4.6mb
 KHC 33.69 313 P 50 50.30 0.6
 PGD 33.73 304 P 50 54.00 3.8X
 NUR 34.37 337 eP 50 55.00 -0.3
 BDI 34.56 304 P 51 06.00 8.7X
 BOB 35.47 305 P 51 06.00 1.0
 SUF 35.57 340 iP 51 06.00 0.5
 VAI 36.11 306 P 51 10.00 -0.2
 LPG 37.46 305 eP 51 22.60 0.6
 0.7s 9.35nm 4.8mb
 BNI 37.46 305 P 51 22.00 0.1
 LPL 37.47 306 eP 51 22.60 0.5
 0.7s 8.80nm 4.7mb
 HFS 38.35 330 eP 51 27.50 -1.4
 0.4s 4.30nm 4.6mb
 Z 17s 0.13um 3.8MszX
 LR 06 07.00
 SOD 39.18 345 eP 51 37.00 1.2
 SMF 39.60 307 eP 51 39.70 0.1
 0.6s 6.30nm 4.6mb
 SSF 39.87 308 eP 51 42.10 0.3
 NB2 39.87 331 P 51 39.60 -2.0
 0.8s 2.10nm 4.0mb
 TCF 40.69 306 eP 51 49.00 0.4
 FRB 74.37 336 eP 55 45.00 -0.5
 INK 80.82 2 eP 56 22.00 1.1
 YKA 86.06 354 eP 56 46.10 -1.8
 0.8s 0.90nm 4.1mb
 WB5 94.21 111 eP 57 30.00 3.2X
 S.D. = 1.2 on 35 of 49 obs.

* APR 23, 1990 10h 49m 55.01±2.61s
 24.336 N ±13.0km 122.434 E ±20.8km
 DEPTH = 13.3 ±9.6 km
 3.4mb (1 obs.)
 TAIWAN REGION (243)

TWC 0.60 297 iPd 50 06.30 -0.5
 eS 50 10.70
 TWD 0.81 252 iPd 50 09.60 -0.8
 TATO 1.07 307 iP 50 15.00 0.2
 TWZ 1.09 314 iPc 50 16.20 1.1
 eS 50 27.80
 ANP 1.19 315 eP 50 18.50 1.6X
 eS 50 32.00
 TWQ 1.46 268 ePd 50 20.60 -0.4
 TWK 2.08 240 ePc 50 30.90 0.9
 TWM1 2.38 231 eP 50 36.70 2.4X
 SSE 6.82 351 eP 51 36.50 -0.6
 0.5s 13.00nm 5.2mb X
 eS 52 47.50
 eLg 53 37.80
 YKA 82.39 23 eP 02 17.80 0.1
 0.9s 0.30nm 3.4mb
 S.D. = 0.9 on 8 of 10 obs.

& APR 23, 1990 11h 07m 28.49s
 62.207 N 150.221 W
 DEPTH = 15.4km
 2.6mb (1 obs.)
 CENTRAL ALASKA (1)
 <AGS-P>. ML 2.9 (PMR).

CUT 0.20 354 iP 07 33.43 0.1
 eS 07 37.08
 PWA 0.58 164 iPd 07 39.50 -0.3
 SKT 0.66 250 iP 07 40.62 -0.5
 iS 07 50.47
 GHO 0.75 125 iP 07 41.80 -1.0
 eS 07 52.67
 SUA 0.79 199 iP 07 43.07 -0.3
 iS 07 55.00
 PMR 0.80 140 iPd 07 42.80 -0.8
 PLRM 0.80 140 iP 07 42.78 -0.8
 eS 07 54.12
 HUR 0.82 19 eP 07 42.85 -1.0
 eS 07 53.76
 SML 0.98 113 iP 07 45.58 -1.0
 eS 07 58.92
 PMS 1.02 162 eP 07 46.40 -0.9
 NCG 1.22 230 eP 07 49.11 -1.7
 eS 08 07.37
 CGLM 1.24 224 eP 07 49.52 -1.6
 eS 08 07.54
 CRP 1.32 225 eP 07 51.27 -1.1
 SPU 1.35 221 eP 07 50.87 -1.9
 eS 08 10.82

23d 11h

RND	1.36	27	eP	07 51.12	-1.7
			eS	08 09.44	
KTH	1.39	347	eP	07 52.26	-1.0
			eS	08 11.31	
BGL	1.40	228	eP	07 52.51	-1.0
CKL	1.43	226	eP	07 52.78	-1.1
NKA	1.55	199	eP	07 57.01	1.6
NCA	1.61	96	eP	07 55.46	-1.0
MCK	1.64	20	eP	07 56.96	0.1
SLKM	1.71	180	eP	07 57.01	-0.8
			eS	08 20.02	
TOA	1.90	91	ePd	08 00.20	-0.5
RDT	1.95	214	eP	07 59.78	-1.6
GLI	2.00	130	eP	08 02.37	0.3
			eS	08 26.37	
VZW	2.10	122	eP	08 03.28	-0.2
			iS	08 32.18	
SEW	2.14	170	eP	08 05.21	1.1
KLU	2.16	107	eP	08 03.46	-1.0
RED	2.18	216	eP	08 03.38	-1.3
NNL	2.23	194	eP	08 06.95	1.5
PAX	2.33	69	eP	08 06.08	-0.8
WRH	2.47	22	eP	08 09.90	1.2
DDM	2.54	50	eP	08 10.98	1.1
HDA	2.65	32	eP	08 10.70	-0.7
CNPM	2.74	191	eP	08 12.56	0.0
TTA	2.78	288	eP	08 11.50	-1.7
SVW	2.80	249	eP	08 12.50	-1.0
FBA	2.91	21	eP	08 12.90	-2.1
PDB	3.10	220	eP	08 17.22	-0.5
CDD	3.70	209	eP	08 25.73	-0.5
TGL	3.83	109	eP	08 27.27	-0.9
IMA	4.16	340	eP	08 30.50	-2.4
DWY	5.23	65	P	08 46.20	-1.7
YKA	16.41	73	eP	11 18.50	-0.8
	0.6s		0.30nm		2.6mb
	44 obs.				

* APR 23, 1990 12h 04m 49.64±3.25s
23.954 N ±11.4km 122.261 E ±24.8km
DEPTH = 10.0km (geophysicist)

TAIWAN REGION (243)

TWD	0.62	282	iPc	05 02.30	0.2
			eS	05 13.30	
TWC	0.75	330	iPd	05 04.00	-0.3
			eS	05 16.90	
TWF1	1.07	236	ePd	05 09.50	-0.2
TATO	1.24	325	iP	05 12.10	-0.5
TWZ	1.30	332	ePc	05 13.50	-0.1
TWQ	1.34	284	eP	05 14.60	0.2
ANP	1.40	331	eP	05 16.10	0.9
			eS	05 30.00	
	S.D. = 0.6	on	7 of	7 obs.	

APR 23, 1990 13h 29m 21.82±2.74s
15.205 N ±5.9km 147.610 E ±7.3km
DEPTH = 23.2 ±19.7 km
4.5mb (6 obs.)

MARIANA ISLANDS REGION (215)

GUA	3.10	238	eP	30 11.20	0.8
			eS	30 46.80	
PJG	3.11	239	eP	30 10.40	-0.1
GUMO	3.11	239	eP	30 10.30	-0.2
CHJJ	22.14	341	P	34 17.50	0.0
MAT	22.84	340 (P)		34 23.00	-1.5
MTMJ	23.02	339	P	34 26.60	0.3
NIJJ	23.24	342	P	34 28.90	0.6
BJI	36.93	318	eP	36 31.00	0.2
WB5	37.22	201	eP	36 32.50	-0.9
WRA	37.29	201	Pc	36 33.40	-0.6
	0.8s		4.80nm		4.4mb
LZH	44.14	306	eP	37 32.00	1.3
			pP	37 38.00	20kmX
			i	37 44.50	
			i	37 51.50	
GUN	58.26	294	P	39 17.70	0.0
PKI	58.69	293	P	39 20.40	-0.2
KKN	58.80	293	P	39 21.10	-0.2
DMN	58.96	293	P	39 22.40	0.0
GKN	59.36	294	P	39 25.10	0.0
PMR	64.11	28	P	39 54.50	-1.7
BRW	65.01	17	P	40 02.00	0.1
FBA	65.65	25	P	40 05.00	-1.1
	0.6s		2.46nm		4.5mb
INK	71.87	23	eP	40 44.00	-0.5

MBC	76.06	14	ePc	41 09.30	0.5
	0.9s		6.00nm		4.6mb
WDC	80.17	51	ePc	41 32.50	0.6
YKA	80.21	28	eP	41 30.30	-1.4
	0.7s		1.80nm		4.2mb
ORV	81.16	51	eP	41 36.60	-0.6
ARN	81.61	54	P	41 40.00	0.3
PRS	81.96	55	ePc	41 42.20	0.7
NEW	82.26	42	P	41 43.00	0.2
	0.6s		5.91nm		4.8mb
CMB	82.34	53	ePc	41 44.20	0.7
FRI	83.11	54	iPc	41 47.80	0.4
KVN	83.84	51	P	41 52.50	1.2
TNP	84.76	52	P	41 56.00	0.0
	0.7s		2.44nm		4.5mb
SES	85.49	39	ePc	41 59.00	-0.2
LRM	86.00	44	eP	42 01.80	-0.3
DUG	87.45	49	P	42 09.80	0.7
IMW	87.62	45	P	42 11.00	0.9
RSSD	92.19	43	P	42 31.00	-0.3
EBR	116.46	333	ePd	44 10.00	-9.9X
KIC	145.22	306	PKP	49 00.04	-0.2
	0.9s		27.50nm		
TIC	145.26	307	PKP	48 59.98	-0.3
LIC	145.52	306	PKP	49 00.90	0.2
	0.8s		17.50nm		
ZOBO	145.61	97	PKP	49 02.00	0.5
SIV	152.37	95	PKP	49 17.40	6.1X
	S.D. = 0.7	on	40 of	42 obs.	

? APR 23, 1990 13h 35m 46.32±1.23s
39.111 N ±7.9km 27.641 E ±15.4km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

IZM	0.77	203	ePg	36 01.40	0.0
			eSg	36 12.60	
EZN	1.24	305	iPn	36 09.40	0.0
EDC	1.25	8	iPn	36 09.50	0.0
BNT	1.26	10	iPn	36 09.70	-0.1
	S.D. = 0.1	on	4 of	4 obs.	

APR 23, 1990 14h 40m 29.14±0.62s
31.899 S ±9.6km 69.008 W ±9.8km
DEPTH = 28.5 ±8.3 km

SAN JUAN PROVINCE, ARGENTINA (137)

RTCV	0.40	85	iPc	40 38.50	0.5
RTCB	0.45	23	iPd	40 38.00	-0.8
CFA	0.72	66	iPd	40 43.00	-0.1
			eS	40 55.00	
RTLL	0.73	39	iPc	40 42.40	-0.9
RTRS	1.77	347	e(P)	41 00.00	1.8
FCH	1.79	217	iPd	41 00.10	1.2
			i	41 20.60	
PEL	1.88	228	iPc	40 59.00	-1.0
			iS	41 22.80	
ROCH	2.00	237	iPc	41 01.00	-0.9
			iS	41 27.00	
PCH	2.13	216	eP	41 04.70	1.1
			iS	41 32.10	
TACH	2.39	222	iP	41 07.00	-0.2
			iS	41 37.50	
CHCH	2.45	214	iPc	41 09.50	1.3
			iS	41 41.00	
LNV	2.88	224	eP	41 12.00	-2.0
			i	41 46.50	
	S.D. = 1.4	on	12 of	12 obs.	

* APR 23, 1990 15h 41m 08.20±1.46s
50.336 N ±25.6km 19.050 E ±10.9km
DEPTH = 10.0km (geophysicist)

POLAND (548)

KRA	0.64	116	ePg	41 20.90	-0.1
			iSg	41 30.80	
SPC	1.39	146	iPn	41 33.80	0.1
			i(Sg)	41 52.90	
KSP	1.83	287	ePn	41 40.30	0.4
			iPg	41 43.00	
			iS	42 07.50	
ZST	2.49	212	e(P)	41 58.00	8.6X
SRO	2.57	191	eP	41 55.40	4.8X
			e	42 36.70	
			e	43 12.70	
PRU	2.92	265	ePn	41 54.50	-1.0
			Pg	42 02.70	

BRG	3.30	281	ePg	42 38.90	
			iSg	42 10.00	9.1X
KHC	3.75	253	ePg	42 54.00	
			eSg	42 08.00	0.6
				43 02.30	
	S.D. = 0.9	on	5 of	8 obs.	

% APR 23, 1990 16h 09m 03.40±0.79s
39.678 N ±8.6km 29.126 E ±10.6km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

KCT	0.82	314	iPg	09 18.50	-0.8
YLV	0.91	12	iPn	09 21.00	0.2
ALT	0.98	129	ePg	09 22.00	-0.2
			eSg	09 35.90	
BNT	1.15	307	iPn	09 25.50	0.6
KHL	1.39	167	ePn	09 29.00	0.1
	S.D. = 0.8	on	5 of	5 obs.	

* APR 23, 1990 16h 35m 26.12±1.05s
24.057 S ±8.9km 66.791 W ±16.3km
DEPTH = 190.5 ±12.1 km
4.5mb (4 obs.)

SALTA PROVINCE, ARGENTINA (129)

ANT	3.34	275	iPc	36 20.00	0.2
			iS	36 57.00	
CCH	6.67	5	P	37 03.60	0.5
LPB	7.59	350	P	37 16.00	0.6
			i	38 37.00	
ZOBO	7.85	351	P	37 20.00	0.9
			i	38 46.00	
SIV	9.66	35	iPd	37 40.20	-1.8
PEL	9.68	200	eP	37 41.00	-1.2
PCH	10.07	198	eP	37 48.00	0.6
SPA	66.09	180	iPc	45 53.70	-0.8
	0.7s		11.72nm		4.8mb
KIC	67.59	72	P	46 02.30	-2.2
ALQ	69.70	326	eP	46 16.20	-1.1
	0.9s		5.46nm		4.3mb
MAW	81.33	163	eP	47 23.00	1.0
KMZ	86.96	103	iP	47 53.00	1.6
BCAO	87.53	84	iPd	47 54.40	0.4
LSZ	88.31	106	iPd	48 00.00	2.2
	1.2s		71.30nm		5.4mb
PTZ	91.50	106	iPd	48 15.50	2.9X
YKA	94.24	340	eP	48 23.10	-0.9
	0.6s		0.80nm		4.1mb
WRA	131.66	207	PKPd	54 17.90	-0.5
	0.3s		1.30nm		
WB5	131.71	207	ePKP	54 18.10	-0.4
GBA	144.68	101	PKPc	54 40.60	-1.6
	0.6s		13.70nm		
HYB	146.98	95	ePKP	54 48.50	2.5
	1.0s		25.00nm		
NDI	147.50	74	iPKPd	54 49.70	3.1X
	0.6s		16.67nm		
	S.D. = 1.5	on	19 of	21 obs.	

% APR 23, 1990 17h 59m 22.46±1.42s
31.431 S ±19.7km 68.868 W ±10.4km
DEPTH = 33.0km (normal)

SAN JUAN PROVINCE, ARGENTINA (137)

RTCB	0.08	133	iPc	59 30.00	1.7
			S	59 41.00	
RTLL	0.36	74	iPd	59 30.80	-0.2
RTCV	0.51	147	ePd	59 33.50	0.2
			S	59 47.80	
RTBS	0.55	245	ePd	59 33.00	-0.8
			S	59 46.00	
CFA	0.57	108	eP	59 33.00	-1.1
			S	59 47.20	
	S.D. = 1.5	on	5 of	5 obs.	

APR 23, 1990 18h 09m 51.08±0.35s
46.465 N ±4.3km 10.781 E ±3.0km
DEPTH = 5.0km (geophysicist)

NORTHERN ITALY (545)

ML 3.1 (KBA), 3.0 (LDG).						
OGA	0.44	23	iPg	09	58.90	-1.0
OSS	0.49	29	iPd	10	00.20	-0.8
CTI	0.73	124	Pd	10	05.10	-0.6
			eSg	10	14.90	
SCE	0.86	48	iPg	10	06.20	-2.0

SAL	0.88	192	P	10 08.60	-0.2	Lg	34 36.60	APR 23, 1990 20h 04m 25.19±0.56s
VDL	0.91	272	iPd	10 20.00	-1.4	S.D. = 0.4	on 11 of 11 obs.	39.487 N ± 4.9km 28.248 E ± 6.3km
MDI	1.01	228	Pc	10 07.60	-0.6	DEPTH = 10.0km (geophysicist)		
SAX	1.26	309	ePd	10 24.90	-0.2	TURKEY (366)		
LLS	1.29	289	ePc	10 14.40	-1.2	KCT 0.77 6 iPg 04 38.90 -1.2		
TMA	1.37	256	ePc	10 16.50	-0.5	BNT 0.90 344 iPg 04 43.40 0.9		
FVI	1.39	84	Pc	10 16.40	-0.6	EDC 0.91 341 iPg 04 42.50 -0.1		
VAI	1.52	248	P	10 20.00	1.1	KGT 1.21 323 iPn 04 47.40 -0.2		
FUR	1.73	11	iPc	10 24.70	2.6X	IZM 1.33 216 ePn 04 48.70 -1.1		
KBA	1.87	70	iPgC	10 24.90	0.8	YLV 1.38 38 iPn 04 48.90 -1.6		
BHG	1.91	48	iPnc	10 27.50	3.0X	ALT 1.51 106 iPn 04 51.30 -1.1		
RBL	1.93	90	Pc	10 25.80	0.9	EZN 1.52 283 iPn 04 52.40 0.0		
ZLA	1.93	303	ePd	10 27.40	2.5X	KHL 1.53 139 ePn 04 53.00 0.3		
MMK	2.00	259	eP+	10 26.70	0.6	GBZT 1.59 35 ePn 04 56.50 3.1X		
SLE	2.03	311	ePd	10 27.00	0.6	CTT 1.66 5 ePn 04 55.60 1.1		
VOY	2.20	100	ePn	10 31.00	2.1	HRT 1.72 39 ePn 04 56.30 0.9		
DIX	2.37	262	ePc	10 33.80	2.3X	GPA 1.78 63 ePn 04 57.00 0.8		
BDI	2.41	183	P	10 30.00	-1.8	CIN 1.89 184 P 04 59.00 1.2		
LJU	2.64	98	ePn	10 40.50	5.5X	KDZ 3.05 316 iP 05 21.00 6.6X		
CEY	2.64	105	eP	10 51.50	16.4X	DIM 3.29 322 eP 05 27.00 9.3X		
EMS	2.70	263	ePc	10 40.30	4.2X	RZN 3.47 310 eP 05 29.00 8.5X		
LPG	2.97	252	Pn	10 42.90	2.9X	BBTK 3.50 83 eP 05 30.00 9.1X		
LPL	2.98	253	Pn	10 43.50	3.4X	S.D. = 1.1 on 13 of 18 obs.		
WET	3.03	27	iPnc	10 40.20	-0.4	APR 23, 1990 20h 16m 36.74±0.73s		
BSF	3.05	298	Pn	10 42.20	1.3	39.568 N ± 6.4km 28.294 E ± 7.5km		
CDF	3.07	311	Pn	10 41.50	0.2	DEPTH = 10.0km (geophysicist)		
GRF	3.24	5	e(Pn)	10 50.70	7.1X	TURKEY (366)		
VBV	3.26	105	ePn	10 57.40	13.5X	KCT 0.68 4 iPg 16 47.90 -2.4		
KHC	3.27	34	Pn	10 45.00	1.0	BNT 0.84 340 iPn 16 52.90 0.0		
HAU	3.39	299	Pn	10 46.60	0.8	EDC 0.85 337 iPn 16 52.50 -0.5		
PTJ	3.64	97	e(P)	10 58.50	9.2X	KGT 1.17 320 iPn 16 59.90 1.4		
LBF	4.71	279	Pn	11 04.50	0.0	YLV 1.30 39 iPn 17 00.40 -0.4		
SMF	4.79	275	Pn	11 06.70	1.0	IZM 1.42 215 ePn 17 01.70 -0.9		
LOR	4.82	282	Pn	11 06.20	0.2	ALT 1.50 109 ePn 17 02.50 -1.3		
AVF	5.13	276	Pn	11 10.70	0.3	GBZT 1.50 35 ePn 17 09.90 6.2X		
BGF	5.48	274	Pn	11 15.60	0.2	EZN 1.54 280 iPn 17 04.40 0.2		
TCF	5.93	271	Pn	11 21.60	-0.1	KHL 1.57 142 iPn 17 06.00 1.2		
S.D. = 1.0 on 29 of 41 obs.						CTT 1.58 4 ePn 17 05.10 0.3		
% APR 23, 1990 18h 32m 58.85±0.65s						ISK 1.61 21 ePn 17 06.00 0.8		
60 554 N ± 3.9km 5.060 E ± 8.4km						ITU 1.63 19 iPnd 17 10.00 4.4X		
DEPTH = 10.0km (geophysicist)						HRT 1.64 40 ePn 17 07.40 1.7		
SOUTHERN NORWAY (535)						GPA 1.71 64 ePn 17 09.80 3.0X		
MD 1.8 (BER).						KDZ 3.02 314 iP 17 35.00 9.5X		
ASK	0.10	137	iPc	33 01.53	0.0	DIM 3.25 321 eP 17 38.00 9.3X		
BER	0.22	142	iPc	33 03.48	-0.1	BBTK 3.46 84 eP 17 42.00 10.2X		
SUE	0.53	344	iP	33 08.91	-0.6	PVL 4.27 330 eP 17 47.00 3.8X		
HYA	0.83	41	iPd	33 14.57	-0.2	S.D. = 1.3 on 12 of 19 obs.		
ODD1	1.01	129	iP	33 18.24	0.2	APR 23, 1990 20h 45m 57.11±0.55s		
FOO	1.05	360	iPd	33 19.19	0.6	39.331 N ± 4.3km 23.628 E ± 6.1km		
FRO	1.21	356	iP	33 21.68	0.3	DEPTH = 10.0km (geophysicist)		
KMY	1.35	176	iP	33 23.24	-0.4	AEGEAN SEA (365)		
BLS1	1.47	142	iPc	33 25.98	0.6	ML 3.0 (ATH), 2.8 (THE).		
MOL	2.35	29	iPc	33 38.03	0.0	NEO 0.31 266 ePg 46 03.00 -0.7		
NRA0	3.20	84	Pn	33 49.60	-0.5	OUR 1.04 15 ePg 46 17.60 0.9		
Lg 34 36.60						AGG 1.05 253 ePg 46 17.40 0.4		
S.D. = 0.4 on 11 of 11 obs.						LIT 1.17 312 ePb 46 19.00 0.1		
* APR 23, 1990 19h 04m 53.86±1.61s						ATH 1.36 177 ePb 46 22.50 0.5		
40.054 N ±15.9km 24.366 E ± 7.8km						THE 1.40 339 ePb 46 22.70 0.1		
DEPTH = 10.0km (geophysicist)						SOH 1.50 352 ePb 46 24.40 0.2		
AEGEAN SEA (365)						SRS 1.78 359 ePb 46 28.50 0.3		
OUR	0.41	314	ePg	05 04.00	1.8	VAY 2.15 338 ePn 46 34.00 0.6		
SOH	1.09	315	ePb	05 14.70	0.3	FNA 2.26 311 ePn 46 40.90 5.8X		
SRS	1.21	331	ePb	05 16.40	-0.1	MMB 2.26 2 ePd 46 34.00 -1.1		
LIT	1.44	272	ePb	05 18.50	-1.5	RZN 2.50 19 iP 46 39.00 0.4		
ALN	1.53	56	ePb	05 19.70	-1.6	KKB 2.57 351 eP 46 39.00 -0.4		
MMB	1.61	343	iPc	05 22.00	-0.4	VLI 2.67 192 ePn 46 40.60 -0.3		
RZN	1.65	9	iPc	05 23.00	-0.2	KDZ 2.69 30 iP 46 40.00 -1.2		
KDZ	1.78	26	iP	05 24.00	-0.9	OHR 2.80 310 ePn 46 49.00 6.1X		
VAY	1.86	313	ePn	05 31.20	5.2X	PGB 3.24 7 eP 46 58.00 8.9X		
KKB	2.06	332	iPd	05 29.00	0.1			
BNT	2.74	83	ePn	05 41.00	2.3			
S.D. = 1.5 on 10 of 11 obs.								
? APR 23, 1990 19h 27m 35.36±9.76s								
34.135 S ±49.9km 72.224 W ±63.2km								
DEPTH = 27.6 ± 8.6 km								
NEAR COAST OF CENTRAL CHILE (135)								
LNv	0.70	75	iPd	27 48.80	-0.1			
LCCH	0.85	40	iPd	27 51.40	0.0			
TACH	1.17	66	iPc	27 55.60	-0.4			
CHCH	1.32	82	iPd	27 58.20	0.1			
SAN	1.47	63	ePc	28 00.40	0.2			
PCH	1.51	71	iPc	28 01.00	0.1			
ROCH	1.54	41	iPd	28 01.40	-0.1			
PEL	1.62	53	iPc	28 02.60	0.1			
FCH	1.80	64	iPd	28 05.60	0.2			
S.D. = 0.2 on 9 of 9 obs.								
* APR 23, 1990 20h 02m 26.86±2.03s								
27.175 S ± 5.2km 70.617 W ±18.4km								
DEPTH = 22.7 ± 16.3 km								
NEAR COAST OF NORTHERN CHILE (122)								
RTRS	3.15	161	eP	03 16.70	0.5			
ANT	3.46	3	iPc	03 20.80	0.2			
RTLL	4.55	156	ePc	03 35.80	-0.3			
RTCB	4.58	160	eP	03 36.20	-0.4			
CFA	4.88	155	e(P)	03 40.10	-0.6			
ROCH	5.79	183	eP	03 06.00	-47.7X			
IHA	5.90	188	eP	04 02.00	6.9X			
PEL	5.95	181	iPd	03 55.60	-0.3			
FCH	6.14	177	eP	04 00.00	1.2			
TACH	6.46	182	iP	03 55.00	-8.1X			
LNv	6.79	186	eP	03 59.00	-8.7X			
ZOBO	11.10	13	P	05 08.20	0.4			
Z 20s 0.32um								
SIV	14.23	40	P	09 12.00	-1.1			
LIC	71.51	73	P	13 49.00	0.7			
KIC	71.83	73	P	13 50.90	0.7			
LKO	72.77	69	P	13 56.10	0.3			
WRA	127.29	210	PKP	21 30.00	-1.9			
GBA	147.26	108	PKP	22 08.80	0.5			
HYB	149.94	102	ePKP	22 17.00	4.5X			
S.D. = 0.9 on 14 of 19 obs.								

23d 20h

S.D. = 0.7 on 14 of 17 obs.

& APR 23, 1990 21h 04m 53.69s
61.827 N 151.823 W
DEPTH = 99.5km
SOUTHERN ALASKA (2)
<AGS-P>.

SKT	0.21	42	iP	05 07.17	0.8
NCG	0.45	201	iP	05 08.73	-0.7
CGLM	0.53	190	iP	05 09.10	-0.9
CRP	0.58	196	iP	05 09.82	-0.7
			eS	05 24.39	
BGL	0.63	206	iP	05 10.15	-0.6
SUA	0.63	125	iP	05 10.53	-0.3
			eS	05 24.94	
CKL	0.68	202	iP	05 10.50	-0.8
			eS	05 24.66	
CUT	0.93	51	iP	05 12.65	-0.9
			iS	05 27.73	
PWA	0.94	100	eP	05 13.28	-0.4
			eS	05 29.30	
NKA	1.12	165	eP	05 17.01	1.3
PMS	1.23	117	iP	05 16.03	-1.0
			eS	05 34.67	
RDT	1.29	193	eP	05 17.05	-0.7
PLRM	1.30	99	eP	05 16.08	-1.8
GHO	1.38	91	eP	05 17.08	-1.8
			eS	05 37.31	
RED	1.49	198	iP	05 19.52	-0.7
SLKM	1.53	149	eP	05 19.55	-1.2
HUR	1.54	40	eP	05 19.06	-1.8
			eS	05 39.42	
SML	1.66	89	eP	05 20.50	-1.8
KNK	1.66	103	iP	05 20.64	-1.7
KTH	1.78	13	iP	05 22.04	-1.9
NNL	1.81	172	eP	05 24.08	-0.2
SEW	2.08	145	eP	05 27.03	-0.7
RND	2.10	40	eP	05 25.85	-2.3
CNPM	2.33	173	eP	05 29.26	-1.9
MCK	2.33	33	eP	05 29.14	-2.0
PDB	2.35	211	iP	05 30.63	-0.8
NCA	2.37	84	eP	05 29.98	-1.8
GLI	2.47	111	iP	05 29.96	-3.0
			eS	06 00.36	
VZW	2.65	105	eP	05 32.85	-2.6
TOA	2.68	82	eP	05 34.56	-1.4
MTU	2.75	130	eP	05 34.68	-2.1
KLU	2.84	94	eP	05 35.28	-2.8
NEA	3.03	23	eP	05 37.49	-3.1
CDD	3.04	198	eP	05 39.42	-1.4
WRH	3.15	31	eP	05 39.05	-3.2
PAX	3.17	66	eP	05 40.51	-2.1
CCB	3.36	31	eP	05 43.22	-1.9
DDM	3.37	52	eP	05 44.27	-1.0
HDA	3.40	38	eP	05 42.53	-3.2
RDS	3.44	27	eP	05 43.14	-3.0
FBA	3.58	29	eP	05 45.37	-2.7
GLM	3.75	30	eP	05 47.78	-2.7
GLB	3.84	92	eP	05 49.07	-2.7
TGL	4.47	100	eP	05 58.94	-1.5

44 obs. associated

* APR 23, 1990 21h 47m 15.21±1.31s
43.227 N ±19.4km 17.260 E ±16.9km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.6 (TTG).

HVAR	0.60	266	iPgc	47 08.20	-19.1X
			iSg	47 19.70	
BRY	1.00	109	ePg	47 32.80	-1.4
			eSg	47 48.50	
HCY	1.20	130	ePg	47 37.00	-0.5
			eSg	47 56.50	
BDV	1.49	129	ePg	47 42.50	0.5
			eSg	48 05.50	
PLE	1.56	86	ePg	47 43.70	0.5
			eSg	48 04.50	
TTG	1.67	118	ePn	47 45.80	1.2
			eSn	48 10.00	
VBY	2.69	328	ePn	48 09.00	9.7X
			eSn	48 33.50	
CEY	3.23	322	eP	48 52.00	45.1X
VOY	3.69	321	ePn	48 13.40	-0.2
			e(Sn)	48 46.50	

S.D. = 1.2 on 6 of 9 obs.

APR 23, 1990 22h 19m 35.69±0.73s
47.979 N ±5.8km 7.691 E ±5.9km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
ML 2.4 (LDG).

FEL	0.24	115	ePg	19 40.87	0.0
ECH	0.43	304	Pg	19 44.39	-0.1
			Sg	19 50.16	
WLS	0.49	333	Pg	19 45.65	0.0
CDF	0.51	327	Pg	19 46.20	0.1
			Sg	19 52.90	
BSF	0.62	257	Pg	19 48.50	0.2
			Sg	19 55.60	
LOMF	0.86	223	Pg	19 52.27	0.0
			Sg	20 04.46	
HAU	0.90	272	Pg	19 52.80	-0.2
			Sg	20 04.40	
LOR	2.69	256	Pg	20 26.00	6.2X
			Sg	20 59.60	

S.D. = 0.1 on 7 of 8 obs.

% APR 23, 1990 22h 37m 45.71±0.60s
43.065 N ±7.0km 0.816 W ±5.8km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
MD 1.0 (STR).

ISSF	0.04	158	Pg	37 47.42	-0.5
			Sg	37 48.54	
MADF	0.08	358	Pg	37 48.09	-0.1
			Sg	37 49.82	
ATE	0.09	76	Pg	37 48.35	0.1
			Sg	37 50.21	
BOH	0.15	285	Pg	37 49.67	0.4
			Sg	37 50.93	
ELYF	0.17	309	Pg	37 49.28	-0.3
			Sg	37 51.73	
ESCF	0.18	86	Pg	37 49.84	0.1
			Sg	37 52.84	
LHE	0.21	137	Pg	37 50.49	0.2
			Sg	37 53.94	

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

% APR 23, 1990 23h 08m 45.19±0.94s
59.649 N ±5.8km 6.698 E ±12.0km
DEPTH = 10.0km (geophysicist)
SOUTHERN NORWAY (535)
MD 1.7 (BER).

ODD1	0.27	352	iPc	08 50.50	-0.3
			iS	08 54.00	
BLS1	0.27	166	iPd	08 51.00	0.1
			iS	08 55.44	
KMY	0.86	240	iP	09 01.47	-0.3
			eS	09 12.44	
BER	1.01	318	eP	09 04.68	0.5
HYA	1.54	351	iP	09 12.72	0.0
			iS	09 32.50	

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

& APR 24, 1990 01h 11m 35.60s
36.918 N 121.698 W
DEPTH = 6.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.6 (BRK).

SAO	0.25	127	iPd	11 40.60	-0.2
GCC	0.26	295	iPc	11 40.60	-0.4
			iS	11 46.00	
MHC	0.43	6	iPd	11 44.30	0.1
PRS	0.64	156	iPd	11 48.00	-0.5
LLA	0.68	116	iPd	11 48.70	-0.5
PCC	0.80	317	iPc	11 50.45	-1.0
			eS	12 03.60	
BKS	1.05	336	eP	11 54.40	-1.3
BRK	1.05	335	eP	11 55.00	-0.8
			eS	12 09.60	
ZSP	1.12	337	eP	11 55.10	-1.8
			i	11 56.60	
PRI	1.14	133	ePc	11 56.90	-0.4
CMB	1.53	43	ePc	12 02.00	-1.5
			eS	12 21.60	
FRI	1.60	87	eP	12 03.50	-0.9
			eS	12 22.80	
			i	12 25.20	

12 obs. associated

& APR 24, 1990 01h 24m 10.40s
58.497 N 142.645 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>.

YKU	1.84	54	iP	24 38.23	-4.0
			eS	24 59.87	
YAH	1.93	13	eP	24 38.68	-5.1
			eS	25 02.56	
PCA	2.02	36	eP	24 39.78	-5.2
			eS	25 03.49	
BCPM	2.13	45	eP	24 41.20	-5.3
			eS	25 04.44	
MID	2.13	298	eP	24 40.78	-5.6
HON	2.17	62	iP	24 41.53	-5.6
			eS	25 04.72	
TGL	2.27	358	eP	24 43.41	-5.2
			eS	25 09.61	
GLB	3.01	349	eP	24 53.62	-5.4
VZW	3.24	324	eP	24 56.01	-6.3
GLI	3.29	319	eP	24 56.24	-6.7
KLU	3.43	333	eP	24 59.20	-5.8
KNK	4.13	317	eP	25 09.35	-5.6
SML	4.37	322	eP	25 12.03	-6.3

13 obs. associated

& APR 24, 1990 01h 34m 43.07s
60.216 N 151.099 W
DEPTH = 57.9km
KENAI PENINSULA, ALASKA (14)
<AGS-P>.

NNL	0.20	210	iP	34 53.25	0.9
SLKM	0.53	56	iP	34 54.81	-0.5
			eS	35 04.43	
NKA	0.53	353	eP	34 56.56	1.3
CNPM	0.70	186	iP	34 56.94	-0.3
			eS	35 07.46	
RDT	0.74	300	iP	34 57.17	-0.7
			iS	35 08.47	
SEW	0.83	97	eP	34 58.05	-0.9
			eS	35 09.96	
RED	0.86	284	iP	34 58.58	-0.8
			eS	35 10.76	
SPU	1.08	335	eP	35 01.93	-0.3
CKL	1.16	329	iP	35 02.84	-0.6
			iS	35 18.63	
CRP	1.18	334	iP	35 03.31	-0.4
			eS	35 18.35	
CGLM	1.18	338	iP	35 03.27	-0.5
			iS	35 19.21	
BGL	1.23	329	iP	35 03.96	-0.4
			iS	35 21.19	
SUA	1.26	8	eP	35 04.56	-0.3
PMS	1.28	36	eP	35 04.52	-0.5
			eS	35 20.65	
NCG	1.30	337	iP	35 05.01	-0.4
			iS	35 22.63	
AUE	1.44	234	eP	35 06.45	-0.7
AUL	1.45	236	eP	35 06.84	-0.5
PWA	1.56	22	eP	35 08.80	0.0
PDB	1.61	256	iP	35 08.61	-1.0
PLRM	1.68	34	eP	35 09.38	-1.2
MTU	1.74	96	eP	35 10.27	-1.2
KNK	1.77	46	iP	35 10.65	-1.1
SKT	1.78	353	eP	35 11.54	-0.5
CDD	1.83	226	eP	35 11.97	-0.7
GHO	1.89	33	eP	35 12.47	-1.1
GLI	2.09	70	iP	35 13.52	-2.7
SML	2.09	39	eP	35 15.10	-1.2
CUT	2.23	10	eP	35 18.23	0.0
VZW	2.39	67	eP	35 18.21	-2.4
NCA	2.74	47	eP	35 24.02	-1.4
KLU	2.84	61	iP	35 24.97	-2.0
TOA	3.05	49	eP	35 28.75	-1.2

32 obs. associated

? APR 24, 1990 02h 15m 02.47±5.05s
31.226 S ±23.3km 68.703 W ±34.2km
DEPTH = 95.6 ±52.2 km
SAN JUAN PROVINCE, ARGENTINA (137)
RTLL 0.23 117 ePc 15 16.40 -0.3
eS 15 27.40

RTCB	0.27	198	iPd	15	17.00	0.3	RDT	2.88	32	eP	43	12.06	-0.3	0.8s	4.00nm	4.5mb	
			S	15	27.50		SVW	2.93	359	eP	43	12.00	-1.1	YKA	80.25	28 eP 07 23.40 -1.6	
CFA	0.55	134	eP	15	18.80	0.4	CKL	3.43	27	eP	43	20.27	0.1		0.9s	1.30nm 3.9mb	
			S	15	32.10		BGL	3.47	26	eP	43	21.85	1.0	SES	85.53	39 eP 07 52.00 -0.5	
RTCV	0.65	167	ePc	15	19.00	-0.3	SPU	3.48	29	eP	43	20.44	-0.5	LRM	86.04	44 eP 07 55.50 0.1	
			S	15	32.20		CRP	3.53	28	eP	43	21.95	0.2	KIC	145.20	306 PKP 14 54.00 0.8	
RTRS	1.24	328	iPc	15	25.60	0.0	SLKM	3.58	47	eP	43	22.96	0.7	TIC	145.24	307 PKP 14 54.10 0.8	
			eS	15	44.70		CGLM	3.60	28	eP	43	22.55	-0.1	LIC	145.50	306 PKP 14 55.00 1.2	
	S.D. = 0.6	on	5 of	5 obs.			NGC	3.65	26	eP	43	23.52	0.2	ZOBO	145.65	97 PKP 14 55.00 0.3	
							SDN	3.95	226	eP	43	28.60	1.2	LPB	145.69	97 PKP 14 55.00 0.5	
* APR 24, 1990	03h	03m	41.34±1.32s				SUA	4.08	34	eP	43	30.76	1.3		S.D. = 0.7	on 23 of 24 obs.	
	2.922 S	±10.6km	120.023 E	±17.9km			SKT	4.30	26	eP	43	33.53	1.1				
	DEPTH = 24.0 ± 11.5 km						PMS	4.31	42	eP	43	33.70	1.1	? APR 24, 1990	05h	39m 29.17±0.92s	
	4.3mb (3 obs.)	3.6Msz (1 obs.)					PWA	4.49	37	eP	43	35.40	0.3		41.687 N	±17.9km 14.192 E ± 8.5km	
SULAWESI			(268)				PMR	4.70	41	e(P)	43	34.50	-3.5X		DEPTH = 10.0km	(geophysicist)	
							TTA	4.76	357	e(P)	43	37.40	-1.7		SOUTHERN ITALY	(390)	
PCI	2.01	355	iPc	04	15.50	1.1	TOA	6.10	46	eP	43	59.80	1.8				
			iS	04	41.50		FBA	7.68	25	eP	44	18.10	-1.8	DUI	0.20	97 Pc 39 33.90 0.3	
MKS	2.35	194	iPd	04	19.30	0.2	YKA	20.44	61	eP	47	02.00	-2.5	SDI	0.28	274 Pc 39 35.50 0.4	
TSM	7.36	345	ePc	05	27.50	-2.6X		0.8s	1.50nm						eSg	39 40.00	
KKM	9.68	337	ePc	06	01.00	-1.4		S.D. = 1.2	on 26 of 27 obs.					MNS	1.32	302 P 39 53.30 -0.3	
WB5	21.92	141	eP	08	34.80	-0.1								SGO	1.41	143 P 39 54.50 -0.3	
WRA	21.95	141	Pc	08	34.90	-0.3									S.D. = 0.7	on 4 of 4 obs.	
	0.8s	5.70nm															
ASPA	24.61	148	eP	09	04.20	3.0X	APR 24, 1990	04h	51m	24.51±0.59s				? APR 24, 1990	08h	51m 07.80±4.51s	
	Z 18s	0.18um						40.831 N	± 5.3km	23.899 E	± 5.5km				43.125 N	±25.3km 0.565 W ±27.9km	
	LR	19 09.40						DEPTH = 5.0km	(geophysicist)						DEPTH = 10.0km	(geophysicist)	
BJI	42.90	356	eP	11	37.00	-2.7X	GREECE								PYRENEES	(378)	
	1.2s	10.00nm						ML 3.1 (THE).							MD 1.0 (STR).		
GBA	45.32	292	Pc	11	59.60	0.0	SRS	0.37	321	iPgc	51	31.70	-0.2		ESCF	0.05	189 Pg 51 10.09 0.1
	0.9s	3.50nm						eSg	51	36.50				ATE	0.11	249 Pg 51 10.37 -0.3	
HYB	45.62	298	eP	12	02.50	0.5	SOH	0.41	269	ePg	51	32.60	-0.2			Sg	51 11.76
	S.D. = 1.1	on	7 of	10 obs.			OUR	0.50	173	eP	51	34.60	0.1		MADF	0.19	276 Pg 51 11.63 -0.4
								eS	51	41.60						Sg	51 15.01
							THE	0.74	255	eP	51	38.70	-0.5		ISSF	0.20	240 Pg 51 12.28 0.1
								eS	51	48.60						Sg	51 15.23
							MMB	0.77	350	iPgc	51	38.00	-1.9		ELYF	0.32	278 Pg 51 14.88 0.5
							PAIG	0.92	191	eP	51	42.50	0.0			S.D. = 0.5	on 5 of 5 obs.
							VAY	1.12	296	iPn	51	46.00	0.1	* APR 24, 1990	08h	59m 19.05±0.78s	
								iSn	52	01.30					48.013 N	± 6.0km 7.092 E ± 7.5km	
							KKB	1.20	330	iPg	51	37.00	-10.4X		DEPTH = 10.0km	(geophysicist)	
							LIT	1.30	236	eP	51	48.00	-1.0		FRANCE	(538)	
								eS	52	07.10					MD 1.6 (STR).		
							KDZ	1.41	54	iPd	51	50.00	-0.8		MOF	0.16	170 Pg 59 22.82 -0.1
							PLD	1.41	25	iPd	51	53.00	2.2X			Sg	59 25.53
							ALN	1.63	87	eP	51	54.10	0.2		CDF	0.42	17 Pg 59 27.54 -0.1
								eS	52	16.60				FEL	0.63	102 Pg 59 31.93 0.1	
							PGB	1.73	7	iP	51	56.00	0.6		VITF	0.77	286 Pg 59 34.08 0.0
							FNA	1.92	269	Pn	51	57.90	-0.3		GWf	1.03	20 Pg 59 38.51 0.0
							EZN	2.11	118	ePn	52	02.00	1.1			Sg	59 53.88
							AGG	2.17	214	eP	52	01.30	-0.6			S.D. = 0.1	on 5 of 5 obs.
							SKO	2.17	302	ePn	52	06.00	4.2	? APR 24, 1990	09h	17m 31.85±2.17s	
							CTT	3.44	83	ePn	52	28.00	8.1X		18.335 N	±50.7km 65.056 W ± 8.9km	
							MLR	4.89	17	eP	52	40.00	-0.6		DEPTH = 10.0km	(geophysicist)	
	S.D. = 1.4	on	16 of	19 obs.				S.D. = 1.4	on 16 of 19 obs.						PUERTO RICO REGION	(90)	
* APR 24, 1990	04h	55m	16.72±1.60s				* APR 24, 1990	04h	55m	16.72±1.60s				? APR 24, 1990	09h	36m 34.38±0.88s	
	15.181 N	± 7.0km	147.567 E	±11.3km				15.181 N	± 7.0km	147.567 E	±11.3km				60.193 N	± 4.4km 4.607 E ± 8.4km	
	DEPTH = 35.7 ± 13.0 km							DEPTH = 35.7 ± 13.0 km							DEPTH = 10.0km	(geophysicist)	
	4.7mb (8 obs.)							4.7mb (8 obs.)									
MARIANA ISLANDS REGION			(215)														
GUA	3.05	238	eP	56	04.00	0.3	GUA	3.05	238	eP	56	04.00	0.3	LPR	0.77	268 P 17 46.80 -0.2	
GUMO	3.06	239	eP	56	03.70	-0.2	GUMO	3.06	239	eP	56	03.70	-0.2	CPD	0.87	250 P 17 50.00 1.4	
			eS	56	40.30				eS	56	40.30			SJG	1.06	258 iP 17 50.60 -1.3	
PJG	3.06	239	eP	56	03.60	-0.3			eP	56	03.60	-0.3	PORP	1.53	260 P 17 57.70 -1.5		
MAT	22.85	340	(P)	00	19.00	1.0			(P)	00	19.00	1.0	LRS	1.70	269 P 18 03.30 1.6		
PMG	24.43	181	eP	00	33.50	0.0			eP	00	33.50	0.0	BSK	2.33	115 eP 18 10.68 -0.1		
SSE	28.86	308	eP	01	01.50	-12.7X			eP	01	01.50	-12.7X			eS	18 41.71	
			i	01	12.90				i	01	12.90			SKI	2.42	114 eP 18 12.24 0.1	
BJI	36.92	318	eP	02	23.50	-0.5			eP	02	23.50	-0.5			eS	18 43.31	
	1.2s	13.00nm													S.D. = 1.5	on 7 of 7 obs.	
WB5	37.18	201	eP	02	25.90	-0.5			eP	02	25.90	-0.5		% APR 24, 1990	09h	36m 34.38±0.88s	
WRA	37.25	201	Pc	02	26.00	-1.0			Pc	02	26.00	-1.0			60.193 N	± 4.4km 4.607 E ± 8.4km	
	0.8s	7.70nm													DEPTH = 10.0km	(geophysicist)	
ASPA	40.86	199	eP	02	57.60	0.6			eP	02	57.60	0.6					
	0.6s	5.00nm													SOUTHERN NORWAY	(535)	
LZH	44.12	306	eP	03	24.00	0.2			eP	03	24.00	0.2			MD 2.2 (BER).		
	3.0s	94.00nm															
		pP	03	32.00	27kmX				pP	03	32.00	27kmX					
		i	04	06.50					i	04	06.50						
GUN	58.24	294	P	05	10.40	-0.3			P	05	10.40	-0.3		ASK	0.41	45 iPc 36 42.72 -0.1	
	0.8s	19.00nm												SUE	0.87	5 iPd 36 51.05 0.0	
KKN	58.77	293	P	05	13.80	-0.5			P	05	13.80	-0.5			iS	37 04.45	
	0.8s	11.00nm												KMY	1.04	161 iPd 36 53.74 -0.2	
															iS	37 08.86	
DMN	58.93	293	P	05	15.00	-0.4			P	05	15.00	-0.4		ODD1	1.05	105 iPc 36 54.37 0.1	
GKN	59.33	294	P	05	17.70	-0.4			P	05	17.70	-0.4			eS	37 09.27	
MBG	76.10	14	eP	07	02.00	-0.1			eP	07	02.00	-0.1		HYA	1.25	38 iPd 36 57.60 0.1	

24d 09h

BLS1 1.38 125 iS 37 15.01
 eS 37 59.94 0.2
 FOO 1.43 8 eP 37 00.08 -0.2
 eS 37 20.74
 FRO 1.57 5 iPd 37 02.93 0.6
 eS 37 23.35
 MOL 2.77 29 iPd 37 19.09 -0.5
 iS 37 53.07
 S.D. = 0.3 on 10 of 10 obs.

* APR 24, 1990 09h 41m 24.30 ± 0.91s
 39.556 N ± 13.5km 88.230 W ± 9.1km
 DEPTH = 10.0km (geophysicist)

ILLINOIS (467)
 mbLg 3.0 (NEIS). Felt (III) at
 Mortinsville.

IN2 1.18 71 P 41 47.00 0.7
 BLO 1.38 106 P 41 48.00 -1.5
 MOKY 2.09 173 P 42 01.00 1.2
 SMKY 2.26 160 P 42 04.90 2.7X
 FVM 2.33 228 P 42 03.00 -0.2
 IN4 2.57 89 P 42 06.20 -0.5
 CCM 2.79 238 P 42 09.50 -0.3
 AN11 2.90 69 P 42 11.70 0.3
 AN10 3.03 71 P 42 13.50 0.3
 AN9 3.09 67 P 42 14.00 0.1
 AN8 3.11 76 P 42 17.00 2.7X
 AN1 3.28 72 P 42 21.00 4.2X
 AN3 3.53 72 P 42 24.50 4.2X
 ACM 3.57 29 P 42 25.30 4.4X
 S.D. = 0.9 on 9 of 14 obs.

% APR 24, 1990 09h 49m 03.22 ± 0.89s
 60.195 N ± 4.5km 4.643 E ± 8.6km
 DEPTH = 10.0km (geophysicist)

SOUTHERN NORWAY (535)
 MD 2.4 (BER).

BER 0.39 61 iPd 49 11.24 0.0
 iS 49 17.47
 ASK 0.40 43 iPd 49 11.29 -0.1
 eS 49 15.29
 SUE 0.87 4 iPd 49 19.57 -0.3
 iS 49 33.55
 KMY 1.03 162 iPd 49 22.49 -0.2
 eS 49 37.34
 ODD1 1.04 105 iPd 49 22.97 0.2
 eS 49 38.20
 HYA 1.24 37 iPd 49 26.31 0.2
 iS 49 41.90
 BLS1 1.37 125 iPd 49 28.53 0.1
 iS 49 47.32
 FOO 1.42 8 iPd 49 28.95 -0.1
 eS 49 49.86
 FRO 1.57 4 eP 49 31.97 0.8
 MOL 2.76 29 iPd 49 47.72 -0.6
 iS 50 21.93
 S.D. = 0.4 on 10 of 10 obs.

APR 24, 1990 10h 00m 39.88 ± 1.82s
 1.404 N ± 4.9km 123.486 E ± 5.5km
 DEPTH = 32.4 ± 13.4 km
 5.1mb (22 obs.) 4.2Msz (3 obs.)
 MINAHASSA PENINSULA (265)

PCI 4.31 238 ePd 01 44.60 -0.3
 eS 02 41.00
 DAV 6.02 20 eP 02 08.00 -1.0
 TSM 6.09 297 iPd 02 11.00 1.0
 AAI 6.91 137 eP 02 23.00 1.5
 MKS 7.70 211 ePd 02 35.60 2.9X
 KKM 8.59 303 ePd 02 44.00 -1.2
 OCP 13.36 350 eP 03 54.60 4.8X
 BAG 15.18 349 eP 04 12.00 -1.9
 MTN 16.06 152 eP 04 23.00 -2.1
 KNA 17.83 163 eP 04 46.00 -1.2
 KGM 20.17 272 ePc 05 16.00 1.4
 HKC 22.66 337 iPd 05 54.00 14.3X
 iS 09 52.00
 MBL 22.71 189 eP 05 38.80 -1.4
 SNG 23.51 285 iPd 05 48.90 0.9
 1.2s 171.88nm 5.4mb
 WB5 23.69 154 eP 05 48.50 -1.3
 eS 09 56.20

WRA 23.74 154 Pc 05 48.90 -1.3
 0.5s 33.40nm 5.1mb
 GUMO 24.37 59 eP 05 58.00 1.6
 eS 10 02.50
 PJG 24.37 59 eP 05 58.50 2.1
 GUA 24.39 59 eP 05 58.50 1.9
 NANU 25.05 198 eP 06 02.20 -0.7
 0.4s 8.00nm 4.7mb
 PMG 25.91 115 iPd 06 10.20 -0.8
 1.0s 46.00nm 5.0mb
 LOE 26.65 308 eP 06 17.80 0.0
 ASPA 26.90 159 iPd 06 21.80 1.7
 0.9s 16.00nm 4.6mb
 Z 20s 0.60um 4.1Msz

iS 11 03.70
 LR 20 59.50
 QIS 26.94 145 iPd 06 19.90 -0.5
 0.8s 74.00nm 5.4mb
 NST 27.04 303 eP 06 24.00 2.6
 SSE 29.61 356 eP 06 44.80 0.4
 Z 20s 0.60um 4.2Msz
 N 10s 0.30um
 CHG 29.63 307 iPd 06 45.90 1.1
 0.9s 21.85nm 4.9mb
 CTA 30.90 135 iPd 06 55.00 -1.0
 1.3s 57.69nm 5.2mb
 iPd 07 10.00 61kmX
 e(S) 11 30.00
 e 12 09.00
 KMI 30.94 321 Pd- 06 58.50 2.0
 2.5s 0.10nm 2.2mb X
 Z 15s 0.90um 4.6MszX
 E 14s 0.50um

pP 07 06.00 26kmX
 i 07 52.50
 S 12 04.00
 RMO 36.93 140 iPd 07 47.00 -0.8
 MAT 37.52 20 eP 07 51.00 -1.8
 1.1s 31.65nm 5.1mb
 Z 20s 0.71um 4.5Msz
 eS 13 22.00
 SHL 38.79 311 iPd 08 04.00 0.3
 eS 14 02.00
 ADE 38.89 160 iPd 08 06.00 1.7
 0.9s 45.38nm 5.2mb
 LZH 39.02 334 Pd 08 07.00 1.5
 2.5s 161.00nm 5.3mb
 Z 16s 1.60um 4.9MszX
 E 13s 1.60um
 pP 08 25.00 74kmX
 sP 08 35.00
 PP 09 24.00
 i 09 39.50
 i 09 54.00
 eS 13 44.00
 BJI 39.03 351 eP 08 06.00 0.7
 1.0s 24.00nm 4.9mb
 Z 16s 0.58um 4.5MszX
 PcP 10 15.00
 eS 14 00.00
 i 08 14.30 -0.7
 i 08 16.10
 i 09 47.70
 BWA 42.64 149 eP 08 36.80 1.7
 CAN 43.63 149 eP 08 43.80 0.6
 e 10 31.00
 TOO 43.81 155 eP 08 46.00 1.4
 CNB 43.81 149 eP 08 46.00 1.3
 GUN 44.58 310 P 08 52.00 0.6
 PKI 44.78 309 P 08 53.40 0.4
 0.8s 30.00nm 5.2mb
 KKN 44.99 309 P 08 55.10 0.6
 0.8s 43.00nm 5.4mb
 DMN 45.04 309 P 08 55.80 0.8
 0.8s 58.00nm 5.5mb
 GKN 45.59 309 P 08 59.60 0.4
 HYB 46.93 293 ePc 09 10.00 0.3
 1.2s 57.10nm 5.4mb
 GBA 47.13 287 Pc 09 11.40 0.1
 0.5s 8.50nm 5.0mb
 NDI 51.77 306 eP 09 46.00 -0.9
 QUE 60.69 304 eP 10 49.00 -2.0
 e(S) 19 09.00

IR4 74.99 306 iPd 12 20.50 0.1
 IR2 75.06 306 iPd 12 20.50 -0.8
 IR5 75.25 306 ePd 12 21.50 -0.4

IR7 75.30 306 iPd 12 21.50 -0.6
 SLY 79.42 306 eP 12 53.00 8.3X
 BHD 80.12 303 ePd 12 49.00 0.4
 MSL 81.39 306 ePd 12 54.00 -1.2
 KEV 90.94 340 eP 13 42.00 0.5
 SOD 91.36 337 iPd 13 42.50 -1.0
 SPA 91.39 180 iPd 13 44.80 1.0
 1.2s 30.99nm 5.6mb
 SUF 92.13 333 iPd 13 45.70 -1.4
 0.6s 6.70nm 5.2mb
 PTZ 92.42 256 iPd 13 48.00 -1.5
 NUR 93.14 331 eP 13 50.00 -1.7
 INK 93.50 21 eP 13 52.00 -1.3
 MBC 94.91 12 eP 13 59.00 -0.7
 1.0s 2.00nm 4.5mb

LSZ 95.48 255 iPd 14 04.00 0.5
 NB2 99.39 333 P 14 18.20 -2.1
 0.9s 3.10nm 4.8mb
 BRG 101.13 323 e(Pdiff) 14 27.00 -1.3
 YKA 102.93 24 e(Pdiff) 14 35.40 -0.6
 0.6s 0.40nm 4.3mb
 ALO 120.97 47 e(PKP) 19 30.00 -1.5
 KIC 127.75 279 PKP 19 44.10 -0.8
 TIC 127.99 279 PKP 19 45.00 -0.3
 LIC 128.04 279 PKP 19 45.00 -0.4
 LKO 128.14 283 PKP 19 45.02 -0.6
 1.0s 29.50nm
 TACH 145.19 159 iPKPd 20 16.10 -0.3
 PCH 145.37 159 iPKPd 20 17.50 0.7
 SAN 145.47 159 ePKP 20 17.00 0.1
 FCH 145.71 159 ePKP 20 19.00 1.2
 PEL 145.74 159 iPKPd 20 18.50 1.1
 1.0s 50.00nm
 LPB 161.13 143 ePKP 20 42.00 2.6X
 ZOBO 161.32 143 PKP 20 42.00 2.2
 Z 20s 0.12um
 eLR 20 40.00
 SIV 164.83 163 PKP 20 43.40 0.9
 S.D. = 1.2 on 76 of 81 obs.

* APR 24, 1990 11h 00m 25.81 ± 1.15s
 18.447 S ± 9.2km 168.357 E ± 9.4km
 DEPTH = 55.9 ± 9.5 km
 4.8mb (6 obs.)
 VANUATU ISLANDS (186)

PVC 0.70 357 iPd 00 40.00 0.0
 iS 00 50.50
 DZM 4.03 206 iPd 01 24.10 -2.4
 iS 02 09.00
 SGE 9.14 86 eP 02 39.80 1.9
 HNR 12.12 317 eP 03 18.00 -0.1
 BRS 16.88 235 eP 04 20.00 0.2
 RMO 19.79 243 eP 04 58.00 3.6X
 CTA 20.93 262 eP 05 07.00 0.9
 e 05 19.00
 PMG 22.43 291 eP 05 20.50 -0.7
 CN8 23.79 221 iPd 05 35.90 1.6
 BWA 23.84 224 eP 05 34.30 -0.6
 CAN 24.02 222 eP 05 38.30 1.7
 WB5 32.11 262 eP 06 58.20 8.1X
 WRA 32.13 262 Pd 06 48.70 -1.6
 0.5s 1.10nm 3.9mb
 ASPA 32.52 255 iPd 06 55.40 1.7
 0.5s 21.00nm 5.2mb
 Z 23s 0.26um 3.9MszX
 LR 19 03.90
 SBA 59.44 180 eP 10 24.60 -0.1
 SPA 71.67 180 iPd 11 43.00 -0.5
 1.0s 35.50nm 5.3mb
 BJI 75.80 321 eP 12 07.00 -0.6
 KMI 77.15 302 eP 12 16.50 0.7
 CHG 77.56 295 eP 12 18.90 1.0
 CHTO 77.56 295 iPd 12 19.10 1.2
 0.8s 7.32nm 4.7mb
 SHL 86.24 298 eP 13 16.50 13.3X
 ORV 87.15 47 eP 13 07.00 -0.1
 CM8 87.26 48 eP 13 07.50 -0.2
 e 13 29.10
 PNT 92.64 39 eP 13 33.00 0.4
 GBA 95.07 283 Pc 13 45.10 0.7
 0.6s 3.20nm 4.9mb
 YKA 100.35 27 e(Pdiff) 14 05.40 -2.0
 0.6s 0.40nm 4.2mb
 OHR 144.23 316 ePKP 19 54.20 -3.1X
 TOD 144.84 337 ePKP 19 56.13 -1.9
 KBA 144.85 330 iPKPc 19 55.90 -2.5

0.6s	12.30nm			33.880 N	116.160 W	PLD	0.14	338	iPgc	54	00.00	0.2
				DEPTH = 5.0km					iSg	54	02.00	
				SOUTHERN CALIFORNIA	(43)	RZN	0.29	189	iPg	54	03.00	0.4
				<PAS->. ML 3.3 (PAS). Felt (IV)		KDZ	0.58	124	iPc	54	08.00	-0.2
				at Mecca and (III) at India.		MMB	0.87	244	iPgc	54	13.00	-0.3
				Also felt at Palm Springs.		KKB	1.27	266	iP	54	20.00	-0.1
	0.6s	40.00nm				VAY	1.78	249	ePn	54	29.00	1.5X
							S.D. = 0.4	on	5 of	6 obs.		
ABH	145.06	338	ePKP	19 56.87	-1.6	TPC	0.24	22	iPd	27	24.30	-0.2
RBL	145.19	329	PKP	19 55.00	-3.8X	HAY	0.47	111	iPd	27	28.50	-0.4
CEY	145.25	327	ePKP	19 57.50	-1.4	PLM	0.79	228	iPd	27	34.40	-1.0
VOY	145.32	328	iPKP	19 57.50	-1.6	PEC	0.83	271	iPc	27	35.10	-1.0
RUP	145.39	338	ePKP	19 58.01	-1.0	RVR	1.02	277	iPc	27	38.10	-1.1
FVI	145.47	330	PKP	19 57.40	-1.7	BAR	1.27	200	iPd	27	42.00	-1.6
ETA	145.56	354	ePKP	19 57.80	-1.3	VPD	1.33	268	eP	27	43.88	-0.7
DOU	145.85	341	PKP	19 59.10	-0.6			S	28	00.96		
ECP	146.08	354	ePKP	19 59.30	-0.7	PCF	1.37	278	eP	27	44.25	-0.9
CDF	146.39	337	iPKPc	20 01.10	0.3	GLA	1.39	126	eP	27	43.40	-2.1
	0.8s	20.15nm				PEM	1.45	282	eP	27	45.41	-1.0
CTI	146.40	330	PKP	20 00.00	-0.9			S	28	04.80		
BSF	147.05	337	iPKPc	20 02.90	1.0	SBB	1.60	301	iPc	27	47.30	-1.2
	0.8s	10.75nm				MWC	1.61	283	eP	27	48.65	-0.2
HAU	147.07	338	iPKPc	20 03.00	1.2	PAS	1.69	280	eP	27	49.78	-0.1
	0.8s	10.75nm						S	28	11.84		
BCAO	147.39	248	iPKPd	20 04.60	1.3	PVPS	1.87	268	eP	27	52.81	0.4
	0.7s	22.00nm				SCY	1.92	277	eP	27	53.39	0.2
MDI	147.50	332	PKP	20 04.00	1.6	CIS	1.93	256	eP	27	54.10	0.8
ARV	147.55	326	PKP	20 04.00	1.3	CIW	2.04	259	eP	27	55.50	0.7
ORI	147.60	318	PKP	20 07.50	4.6X	TWL	2.06	282	eP	27	56.77	1.6
SFI	147.83	327	PKP	19 57.00	-6.0X	ABL	2.71	292	eP	28	03.00	-1.7
VAI	147.85	333	PKP	20 04.40	1.4	BCH	3.49	293	eP	28	14.80	-0.9
DUI	147.89	322	PKP	20 05.00	1.6	BLP	3.58	282	eP	28	15.00	-1.8
TDS	147.89	317	PKP	20 05.00	1.7	TNP	4.28	349	eP	28	23.50	-3.5
PGD	147.93	327	PKP	20 04.30	0.8	CMB	5.38	322	eP	28	41.50	-0.9
SGO	148.04	319	PKP	20 05.50	2.0	ALO	8.09	80	e(P)	29	25.00	4.4
MGR	148.13	318	PKP	20 02.00	-1.7		24 obs. associated					
SDI	148.24	322	PKP	20 02.00	-1.9		* APR 24, 1990 13h 06m 30.35±0.64s					
AZI	148.28	323	PKP	20 06.00	2.2		1.428 N ±11.0km 123.525 E ±12.6km					
BOB	148.39	331	PKP	20 07.00	2.9X		DEPTH = 33.0km (normal)					
FLN	148.44	346	iPKPc	20 06.20	2.3		4.5mb (5 obs.)					
	0.6s	10.80nm					MINAHASSA PENINSULA	(265)				
MNS	148.44	324	PKP	20 05.50	1.3	PCI	4.36	238	ePd	07	36.50	0.6
LDF	148.51	345	iPKPc	20 06.30	2.3	WB5	23.70	154	eP	11	38.90	-1.3
	0.6s	5.40nm				NANU	25.09	198	eP	11	52.40	-1.2
LOR	148.57	340	iPKPc	20 07.00	2.8X		0.5s	6.00nm		4.4mb		
	0.8s	18.80nm				ASPA	26.91	159	eP	12	12.00	1.5
LBF	148.78	339	iPKPc	20 07.30	2.7X		0.6s	4.00nm		4.2mb		
SSF	148.87	340	iPKPc	20 07.80	3.2X	QIS	26.94	145	iPc	12	09.50	-1.3
	0.8s	25.50nm				BWA	42.63	149	eP	14	27.10	1.6
GRR	148.87	346	iPKPc	20 07.60	3.0X	CAN	43.63	149	eP	14	34.20	0.6
	0.6s	9.00nm				GUN	44.60	310	P	14	42.50	0.6
LPG	148.99	334	iPKPc	20 08.80	3.5X		0.6s	14.00nm		5.0mb		
	0.7s	13.25nm				PKI	44.80	309	P	14	43.40	-0.1
SMF	149.12	339	iPKPc	20 08.10	3.0X	KKN	45.00	309	P	14	45.40	0.4
	0.8s	6.05nm				DMN	45.05	309	P	14	45.60	0.1
AVF	149.15	340	iPKPc	20 08.10	3.0X	GKN	45.60	309	P	14	50.00	0.3
	0.8s	4.05nm					0.6s	7.00nm		4.8mb		
LPF	149.25	346	iPKPc	20 08.70	3.5X	HYB	46.96	293	eP	15	17.00	16.6X
	0.8s	21.50nm				GBA	47.16	287	Pc	15	01.60	-0.4
ATN	149.27	315	PKP	20 04.50	-1.1		0.7s	2.70nm		4.4mb		
BNI	149.39	334	PKP	20 09.00	3.3X	MAIO	68.39	309	eP	17	30.00	-1.3
BGF	149.52	340	iPKPc	20 09.20	3.5X		S.D. = 1.1	on	14 of	15 obs.		
	0.7s	15.45nm					APR 24, 1990 13h 42m 15.27±0.70s					
TCF	149.97	341	iPKPc	20 10.30	3.9X		44.264 N ± 4.9km 7.486 E ± 7.0km					
	0.8s	8.05nm					DEPTH = 10.0km (geophysicist)					
LSF	150.21	341	iPKPc	20 10.40	3.7X		NORTHERN ITALY	(545)				
	0.8s	8.05nm					MD 1.5 (STR).					
PGF	150.27	328	ePKP	20 11.50	4.5X	AUTN	0.27	189	Pg	42	20.96	-0.1
	0.7s	30.85nm						Sg	42	26.42		
MFF	150.36	344	iPKPc	20 11.20	4.3X	DOI	0.29	324	P	42	21.40	-0.1
	0.8s	13.45nm						eSg	42	26.20		
FRF	150.60	332	ePKP	20 11.90	4.5X	TOUF	0.30	214	Pg	42	21.80	0.1
	0.7s	11.00nm				AURF	0.39	197	Pg	42	23.30	-0.1
LRG	150.81	333	ePKP	20 12.60	5.0X			Sg	42	29.82		
	0.7s	14.35nm				REVF	0.53	189	Pg	42	26.03	0.0
LMR	150.84	332	ePKP	20 12.60	4.9X	CKI	0.59	74	P	42	27.30	0.1
	0.7s	13.25nm				CALN	0.67	220	Pg	42	28.80	0.1
RJF	151.06	341	iPKPc	20 12.80	4.8X			Sg	42	39.44		
	0.8s	8.05nm					S.D. = 0.1	on	7 of	7 obs.		
CAF	151.22	340	iPKPc	20 13.40	5.1X		* APR 24, 1990 13h 53m 56.50±0.92s					
LFF	151.63	341	iPKPc	20 14.30	5.4X		41.974 N ± 7.9km 24.776 E ± 7.6km					
	0.8s	10.75nm					DEPTH = 10.0km (geophysicist)					
LPO	151.72	340	iPKPc	20 14.60	5.6X		GREECE-BULGARIA BORDER REGION	(363)				
	0.5s	5.10nm										
LKO	169.38	214	PKP	20 27.16	-1.4							
	S.D. = 1.4	on	56 of	85 obs.								
& APR 24, 1990 11h 27m 19.50s												

OHR	1.57	129	iPn	20 28.30	0.4	BLY	2.93 226 P	21 28.20	1.1			22 55.60
			iSn	20 52.00			2.99 331 Pn	21 37.50	9.6X			23 17.20
SKO	1.68	94	iPnc	20 29.50	0.0	CSI	3.23 224 P	21 31.80	0.5			23 23.60
			i	20 30.60		ROI	3.25 219 P	21 32.50	0.9			23 37.20
			iSn	20 52.70		TDS	3.29 222 P	21 32.00	-0.2			23 54.80
			iSg	20 54.20		MMN	3.31 228 P	21 33.50	1.1	BDI	6.58 290 P	22 19.00 0.1
BRT	1.94	231	P	20 40.00	6.8X	SGO	3.32 243 P	21 33.00	0.4	VRI	6.59 53 ePc	22 19.00 0.2
BAI	2.01	241	P	20 33.00	-1.2	MGR	3.40 235 P	21 34.00	0.3	CTI	6.69 308 P	22 19.30 -1.1
FNA	2.12	128	eP	20 37.50	1.7	BSS	3.56 249 P	21 37.10	1.0	TLB	6.89 66 eP	22 23.50 0.4
LSK	2.24	151	ePn	20 36.10	-1.5	DUI	3.57 264 P	21 38.00	1.7	CTT	6.99 95 eP	22 24.00 -0.4
VAY	2.65	106	iPn	20 44.40	1.0	CZI	3.73 220 P	21 39.60	1.2	SPC	7.09 6 eP	22 27.30 1.3
ORI	2.92	226	P	20 50.00	2.8X	TIM	3.88 21 eP	21 59.00	18.5X	BHG	7.16 323 iPc	22 27.20 0.4
VTS	3.01	80	eP	20 50.00	1.3	SDI	4.04 266 Pc	21 44.00	1.2	SAL	7.16 302 P	22 26.00 -0.8
LIT	3.21	128	eP	20 56.50	5.2X		eSn	22 29.50		SCE	7.25 315 eP	22 27.50 -0.8
MGR	3.39	235	P	20 54.00	0.2	NEO	4.17 131 ePn	21 45.00	0.3	OGA	7.51 312 eP	22 30.00 -2.0
MMB	3.43	97	eP	21 01.00	6.5X	AZI	4.29 270 P	21 49.00	2.6X	BOB	7.56 294 P	22 33.30 0.7
SRS	3.45	105	eP	20 55.50	0.8	AQU	4.31 275 P	21 48.70	2.0		eSn	23 55.20
PCB	3.71	82	iP	20 58.00	-0.6		eSn	22 33.60		PGF	7.57 277 Pn	22 27.10 -5.6X
BZS	3.91	26	ePc	21 04.50	3.3X	ZAG	4.35 329 ePn	21 48.30	1.2	MDI	7.75 301 P	22 33.20 -1.9
OUR	4.03	115	eP	21 05.00	2.1		eSb	22 54.00			eSn	23 55.60
RZN	4.15	94	iP	21 06.00	1.2	VBY	4.41 321 iPn	21 49.50	1.4	OSS	7.92 308 eP	22 37.40 -0.2
VBY	4.42	321	e(Pn)	21 09.60	1.1		iPg	23 06.90		KRA	7.94 3 eP	22 39.70 2.0
PTJ	4.44	329	eP	21 01.50	-7.3X		iSb	23 58.00			e	23 00.80
ARV	4.80	289	P	21 14.50	0.6		iSg	24 06.00			i	23 05.30
CEY	4.99	318	e(Pn)	21 17.40	0.8	PTJ	4.43 329 iPn	21 49.00	0.6	KHC	8.02 333 Pn	22 38.00 -0.9
TRI	5.31	314	P	21 23.00	1.9		iSb	22 58.00			e	23 01.10
VOY	5.46	318	ePn	21 22.80	-0.6		iSg	23 06.00		VDL	8.22 305 eP	22 42.20 0.4
SOP	5.87	342	eP	21 37.80	8.9X	DRA	4.48 54 eP	22 00.00	11.0X	WET	8.29 330 eP	22 42.10 -0.5
RBL	5.91	319	P	21 30.00	0.4	DEV	4.60 34 ePc	21 51.00	0.2	CKI	8.29 290 P	22 44.60 2.0
MLR	5.94	53	eP	21 30.00	0.0	RIY	4.73 314 iPn	21 53.30	0.6	VAI	8.39 300 P	22 41.40 -2.6
FVI	6.41	316	P	21 37.00	0.4		iSn	22 48.30			eSn	24 11.90
CTI	6.70	308	P	21 39.00	-1.8	ARV	4.80 289 P	21 54.00	0.4	TMA	8.42 302 eP	22 43.40 -1.2
	S.D.	= 1.1	on	36 of 43 obs.			eSn	22 47.00		PRU	8.49 339 ePn	22 46.00 0.6
						MNS	4.84 275 P	21 55.20	0.9		e	23 16.50
							eSn	22 48.00			Sg	24 35.20
						RDP	4.85 268 P	21 53.50	-0.8	SAX	8.68 309 eP	22 47.70 -0.6
						RDO	4.85 100 ePn	21 55.40	1.1	LLS	8.69 306 eP	22 49.40 1.0
						ATN	4.89 217 P	21 52.00	-2.9X	SBF	8.79 285 Pn	22 43.60 -6.1X
						ASS	4.91 283 P	21 56.30	1.0	KSP	8.93 348 eP	22 55.80 4.3X
							eSn	22 49.80			e	23 19.00
						CEY	4.98 318 ePn	21 57.00	0.8		e	23 58.50
							eSn	22 56.50			eS	24 40.00
ULC	0.18	167	iPg	20 45.00	-1.1	LJU	5.15 321 ePn	21 57.30	-1.2	MMK	8.98 300 eP	22 51.50 -0.9
			iSg	20 49.60			eSn	23 00.50		DOI	9.03 289 P	22 55.00 2.1
SDA	0.26	118	iPg	20 46.50	-0.5		eSg	23 37.60		FRF	9.33 283 Pn	22 50.40 -6.6X
TTG	0.30	9	iPg	20 47.00	-0.6	RSM	5.26 292 P	22 02.10	2.0	DIX	9.35 299 eP	22 57.00 -0.5
			iSg	20 52.30		CMP	5.27 52 ePc	22 02.00	1.8	ZLA	9.35 309 eP	22 56.30 -1.1
BDV	0.31	298	iPg	20 48.00	0.1	TRI	5.30 314 iPnc	22 00.50	-0.2	GRF	9.37 326 e(Pn)	22 56.00 -1.6
			iSg	20 54.00			iSn	23 01.70			e(S)	25 15.00
PUK	0.53	100	iPg	20 50.60	-0.8		iSg	23 34.20		LMR	9.41 282 Pn	22 52.50 -5.7X
HCY	0.60	301	iPg	20 52.60	-0.1	BUD	5.35 359 e(P)	22 01.00	-0.3	SLE	9.44 310 eP	22 57.00 -1.6
			iSg	21 03.00		ITM	5.38 156 ePn	22 00.10	-1.8	BRG	9.46 339 ePn	22 59.00 0.3
LACI	0.63	142	iPg	20 52.00	-1.1	VOY	5.45 317 ePn	22 03.10	0.2		e	24 28.00
BCI	0.69	70	iPg	20 53.70	-0.3		e	22 09.90			e	25 08.00
NKY	0.69	348	iPg	20 55.00	0.8		eSn	23 07.80			eSg	25 17.00
			iSg	21 06.00		CRE	5.53 288 P	22 04.40	0.4	LRG	9.53 282 Pn	22 52.90 -6.9X
PVY	0.74	51	ePg	20 54.50	-0.5	SFI	5.67 291 P	22 07.00	1.1	BNI	9.54 292 P	23 00.60 0.5
			iSg	21 05.70		SRO	5.71 354 iPn	22 07.60	1.2	LPG	9.60 295 Pn	22 57.40 -3.7X
IVA	0.90	35	ePg	20 57.50	-0.2		0.9s 0.14nm	2.7mb X		LPL	9.62 295 Pn	22 58.00 -3.3X
			eSg	21 11.20			i	22 10.50		EMS	9.66 298 eP	23 00.70 -1.0
BRY	0.90	328	ePg	20 58.50	0.7		i	22 25.70		FEL	9.78 310 ePg	23 59.34 56.1X
			iSg	21 13.50			i	22 32.80		MOX	9.99 331 ePn	23 05.00 -1.0
TIR	0.94	147	ePg	20 57.50	-0.8		i(Sn)	23 13.60		CLL	10.11 337 ePn	23 06.00 -1.7
PLE	1.20	7	ePg	21 02.00	-0.4		i	23 23.20			e	25 48.00
			eSg	21 20.60			i	23 30.70			e	26 11.00
OHR	1.58	130	ePn	21 09.50	1.7		Lg	23 40.00		BSF	10.46 307 Pn	23 11.20 -1.5
			iSn	21 32.70		PGD	5.75 290 P	22 07.90	0.7	CDF	10.48 311 Pn	23 10.40 -2.5
SKO	1.68	95	ePn	21 11.30	2.1	PSZ	5.80 5 iP	22 07.80	0.0	HAU	10.81 307 Pn	23 15.80 -1.6
			iPg	21 12.20		RBL	5.90 319 P	22 09.00	-0.2	SMF	11.87 298 Pn	23 27.90 -3.9X
			iSn	21 33.80		MLR	5.92 53 eP	22 11.50	1.9		Sn	25 33.30
			iSg	21 35.20		MAO	5.97 275 P	22 10.14	0.0	LBF	11.88 299 Pn	23 28.50 -3.5X
			Lg	21 36.50		MEU	6.01 215 P	22 06.20	-4.6X		Sn	25 34.00
			LR	21 45.50			eSn	23 12.90		AVF	12.23 298 Pn	23 34.30 -2.3
BRT	1.96	231	P	21 15.00	1.8	FIR	6.05 288 e(Pn)	22 23.00	11.8X	MEM	12.42 317 P	23 45.30 6.2X
BAI	2.02	241	P	21 14.20	0.1		e	23 17.00		DOU	12.87 313 P	23 52.70 7.7X
LCI	2.03	208	P	21 14.50	0.2	ZST	6.24 347 ePn	22 15.70	1.9		0.7s 13.30nm	5.2mb X
HVAR	2.28	298	ePn	21 18.50	0.7		i	22 21.60		NUR	18.70 8 eP	25 06.00 6.5X
VAY	2.65	107	ePn	21 18.50	-4.7X		i	22 27.60		NB2	19.54 348 P	25 06.80 -2.9X
			i	21 23.00			i(Sn)	23 25.80			0.7s 2.40nm	3.6mb
			i	21 26.40		FVI	6.40 316 P	22 15.80	-0.4	ETA	20.07 310 eP	25 14.30 -1.0
			i(Sn)	21 49.20			eSn	23 27.00		SUF	21.02 9 iP	25 27.00 2.0
			i	21 53.60		VKA	6.46 343 e(Pn)	22 23.00	6.0X	SOD	25.61 7 eP	26 19.00 9.2X
			i	22 05.70			iSn	23 28.60		KEV	27.98 6 eP	26 23.00 -8.4X
			Lg	22 07.40		KBA	6.47 322 iPnc	22 17.40	0.1	GUN	55.13 82 P	30 00.00 -14.2X
BEO	2.84	18	iPg	21 40.30	14.6X		0.6s 46.70nm	5.6mb X			S.D. = 1.2 on 102 of 130 obs.	
			iSg	22 12.80			i	22 25.40				

& APR 24, 1990 16h 24m 44.96s
58.257 N 138.581 W
DEPTH = 0.0km
SOUTHEASTERN ALASKA (19)
<AGS-P>.

BCPM	1.79	343	eP	25	15.34	-2.0
			eS	25	41.32	
PCA	2.04	336	eP	25	19.01	-2.0
HYT	2.63	12	P	25	26.00	-3.6
YAH	2.66	324	eP	25	28.85	-1.3
			eS	26	04.88	

4 obs. associated

? APR 24, 1990 16h 31m 46.89±2.35s
42.126 N ±41.4km 132.246 E ±22.7km
DEPTH = 555.2 ± 55.4 km
4.1mb (10 obs.)
NEAR E. COAST OF EASTERN USSR (661)

MTMJ	7.01	140	P	33	36.30	0.3
NIJ	7.14	131	P	33	36.90	-0.2
TSRJ	7.20	155	P	33	39.30	1.7
MAT	7.24	138	iPd	33	38.00	-0.1
	0.8s	17.16nm			4.2mb	
CHJJ	8.02	137	P	33	45.40	-0.3
			S	35	20.10	
KAKJ	8.53	131	P	33	49.30	-1.5
			S	35	27.70	
GUN	40.05	264	P	38	36.40	0.3
	0.6s	25.00nm			5.0mb	
KKN	40.56	265	P	38	40.40	0.4
PKI	40.59	264	P	38	40.40	0.1
DMN	40.79	265	P	38	42.20	0.3
GKN	40.92	266	P	38	42.80	0.0
	0.6s	8.00nm			4.4mb	
INK	53.13	28	eP	40	15.00	0.6
GBA	55.04	256	Pc	40	26.70	-1.7
	0.6s	2.90nm			3.8mb	
NUR	62.00	328	iP	41	13.40	-1.2
	0.5s	8.40nm			4.4mb	
YKA	62.86	29	eP	41	20.40	0.3
	0.5s	0.70nm			3.3mb	
HFS	66.38	331	eP	41	41.00	-1.2
	0.5s	4.60nm			4.3mb	
NB2	66.60	333	P	41	42.80	-0.8
	0.6s	1.60nm			3.7mb	
LPG	80.14	324	iPc	43	01.80	1.2
	0.5s	3.65nm			4.1mb	
AVF	80.53	327	eP	43	05.20	3.1X
	0.7s	2.20nm			3.7mb	
MAF	81.31	327	eP	43	08.00	1.8

S.D. = 1.1 on 19 of 20 obs.

? APR 24, 1990 16h 52m 25.11±9.40s
47.642 N ±23.0km 8.274 E ±65.0km
DEPTH = 10.0km (geophysicist)
SWITZERLAND (544)
MD 1.0 (STR).

FEL	0.29	323	Pg	52	30.92	-0.4
ECH	0.94	308	Pg	52	43.28	0.1
WLS	0.99	322	Pg	52	43.83	-0.1
BSF	1.02	281	Pg	52	44.45	0.0
			Sg	53	00.40	
CDF	1.02	319	Pg	52	44.83	0.4
LOMF	1.02	254	Pg	52	44.43	-0.1

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

* APR 24, 1990 16h 58m 21.15±1.33s
42.352 N ±12.1km 14.726 E ±11.8km
DEPTH = 10.0km (geophysicist)
CENTRAL ITALY (381)

DUI	0.72	196	Pd	58	33.50	-1.9
SDI	0.94	227	Pc	58	35.00	-4.1X
AQU	0.98	271	P	58	45.30	5.5X
			eSg	58	59.80	
AZI	1.03	250	P	58	41.20	0.7
			eSg	58	50.30	
HVAR	1.51	56	ePn	58	47.80	-0.5
MNS	1.52	272	P	58	55.10	6.7X
BSS	1.56	178	P	58	48.40	-0.6
			eSg	59	04.00	
ASS	1.68	296	P	59	00.00	9.2X
ARV	1.74	312	P	59	03.00	11.4X
SGO	1.84	166	P	58	54.00	0.9

MGR 2.30 164 P 59 01.00 1.3
S.D. = 1.5 on 6 of 11 obs.

? APR 24, 1990 17h 25m 23.70±5.00s
16.679 N ±14.9km 60.708 W ±36.9km
DEPTH = 10.0km (geophysicist)
LEEWARD ISLANDS (92)
ML 2.8 (FDF).

SFG	0.63	228	ePd	25	37.27	0.9
			S	25	43.10	
SEG	0.81	250	eP	25	39.29	-0.2
			S	25	45.70	
MGG	0.96	218	ePd	25	42.25	0.4
			S	25	50.20	
PAG	1.14	235	eP	25	44.00	-1.0
			S	25	55.50	
BPA	1.16	289	eP	25	44.80	-0.6
			S	25	57.00	
BBL	1.37	213	eP	25	48.20	-0.6
			S	26	02.50	
MBET	1.40	273	eP	25	50.64	1.4
			eS	26	04.57	
MGH	1.45	272	eP	25	49.50	-0.4
			S	26	04.10	

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

& APR 24, 1990 18h 09m 25.20s
37.530 N 121.387 W
DEPTH = 9.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.5 (BRK).

MHC	0.28	227	iPd	09	30.50	-0.5
			iS	09	35.20	
BKS	0.76	297	iPd	09	39.50	-0.6
			eS	09	50.80	
SAO	0.76	183	iPc	09	39.70	-0.5
ZSP	0.80	301	iPc	09	40.00	-0.9
			eS	09	53.30	
CMB	0.94	57	iPd	09	42.40	-0.9
			iS	09	55.50	

5 obs. associated

* APR 24, 1990 18h 50m 02.67±2.20s
31.363 S ±10.0km 68.892 W ±16.0km
DEPTH = 115.1 ± 22.1 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTCB	0.15	147	iPd	50	19.00	-0.2
ZON	0.26	135	iPd	50	19.00	-0.4
			eS	50	31.00	
RTLL	0.36	85	iPc	50	19.00	-0.6
RTBS	0.56	238	ePc	50	21.00	0.3
RTCV	0.58	149	ePc	50	21.10	0.2
CFA	0.61	114	iPd	50	21.50	0.4
			eS	50	34.80	
RTRS	1.29	338	iPc	50	28.00	0.4
FCH	2.29	211	iPd	50	42.10	1.7
			iS	51	11.90	
PEL	2.34	220	eP	50	40.50	-0.3
			iS	51	11.00	
ROCH	2.41	228	iPd	50	41.70	-0.2
			iS	51	11.00	
PCH	2.64	211	ePc	50	45.50	0.7
			iS	51	20.50	
TACH	2.86	217	iPd	50	46.90	-0.8
			iS	51	22.60	
CHCH	2.96	210	iPc	50	49.10	0.0
			i	51	25.00	
LNV	3.35	219	iP	50	52.90	-1.2

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

* APR 24, 1990 19h 13m 25.78±0.96s
6.368 S ± 8.9km 130.547 E ±12.7km
DEPTH = 136.5 ± 10.0 km
4.4mb (5 obs.)
BANDA SEA (280)

SLKI	1.77	155	iPc	13	58.00	0.3
			e	14	22.00	
AAI	3.55	319	ePc	14	21.40	1.0
MTN	6.46	175	eP	14	59.00	-0.8
			eS	16	09.00	
KNA	9.49	190	iPc	15	38.60	-1.8
	0.3s	44.00nm			5.7mb X	
			eS	17	18.00	

PCI 11.98 296 ePd 16 18.00 4.7X
W85 13.94 165 eP 16 35.00 -3.6X
e 16 37.50
eS 19 01.00

QIS 16.62 149 eP 17 11.00 -1.1
eS 20 04.00
ASPA 17.50 170 eP 17 25.90 3.0X
0.5s 53.00nm 5.1mb

MBL 18.00 214 eP 17 29.00 0.2
eS 20 36.00
WARB 20.06 190 eP 17 52.00 1.6
CTA 20.46 133 iPd 17 56.00 1.5
1.0s 16.00nm 4.4mb

e 18 11.00
e(S) 21 32.00
NANU 21.66 220 eP 18 08.30 1.9
BRS 29.72 137 iPd 19 21.40 0.2
CHG 39.96 309 eP 20 49.30 0.8
CHTO 39.96 309 iP 20 49.00 0.5

0.8s 2.75nm 4.1mb
GUN 54.95 311 P 22 45.00 -0.5
0.4s 6.00nm 4.8mb
PKI 55.13 310 P 22 45.80 -1.0
KKN 55.34 310 P 22 47.60 -0.5
DMN 55.38 310 P 22 47.80 -0.7
GKN 55.94 310 P 22 52.00 -0.4
GBA 56.33 291 Pd 22 54.00 -1.1

0.6s 1.50nm 4.1mb
MAW 75.73 201 iPd 25 09.00 11.4X
UPP 106.89 331 iPKP 31 24.00 -12.3X
S.D. = 1.1 on 18 of 23 obs.

APR 24, 1990 19h 30m 40.02±0.24s
42.129 N ± 2.0km 19.131 E ± 1.5km
DEPTH = 21.2 ± 2.7 km
5.1mb (9 obs.)

YUGOSLAVIA (383)
MD 4.6 (TTG), 4.9 (TRI). ML 4.7
(ROM). Felt (VI) at Bar and
Ulcinj; (V) at Titograd and
Budva. Felt (V) at Shkodra; (IV)
at Lezha and Puka, Albania.

ULC	0.19	152	iPgc	30	44.00	-1.2
			iSg	30	47.50	
BDV	0.27	305	iPgc	30	47.40	1.0
			iSg	30	53.40	
SDA	0.30	112	iPgc	30	45.10	-1.6
TTG	0.32	18	iPgc	30	46.30	-0.7
			iSg	30	52.00	
HCY	0.57	304	iPgc	30	52.10	0.9
			iSg	31	02.80	

LACI	0.65	139	iPgc	30	51.00	-1.6
NKY	0.69	352	iPgc	30	53.10	-0.3
			iSg	31	05.50	
BCI	0.73	71	iPgc	30	52.70	-1.3
PVY	0.78	53	iPgc	30	53.20	-1.7
			iSg	31	05.00	

BRY	0.89	331	iPgc	30	56.90	0.2
			iSg	31	13.60	
IVA	0.93	37	iPgc	30	56.40	-1.1
			iSg	31	10.50	

TIR	0.96	145	iPgc	30	56.00	-1.8
PLE	1.22	9	iPgc	31	02.20	0.3
			iSg	31	20.80	
OHR	1.61	129	iPnc	31	07.30	-0.2
			iSn	31	32.00	
			Lg	31	34.20	

SKO	1.73	94	ePn	31	09.50	0.4
			iPgc	31	10.70	
			iSn	31	33.00	
			i	31	33.80	
			LR	31	40.00	

BRT	1.91	230	Pd	31	13.20	1.4
KBN	1.97	139	iPnc	30	14.30	-58.3X
BAI	1.97	240	Pd	31	13.00	0.3
LCI	2.00	207	Pd	31	12.40	-0.7
			eSn	31	37.00	

24d 19h

BEO	2.86	19	Lg iPn eSg	32 07.00 31 26.00 31 33.80 32 00.30	0.7	EZN MAO MLR MEU	5.91 111 iP 5.93 275 P 5.97 53 iPc 5.98 214 P	32 08.60 32 09.90 32 10.50 32 05.10	0.1 1.1 1.1 -4.5X	ROB GPA SAX LLS	8.51 289 P 8.63 99 eP 8.65 310 ePc 8.65 307 ePc	33 07.30 34 39.00 32 43.74 32 49.00	-1.2 2.4 -0.7 0.3
ORI	2.89	225	Pd	31 26.40	0.6	FIR	6.01 289 ePn	32 11.00	1.1	SBF	8.75 285 Pn	32 47.80	-0.5
KKB	2.96	94	iPc	31 28.00	1.3	VLJ	6.15 150 ePn	32 08.70	-3.3X				
BLV	2.98	332	iPn Sn	31 08.50 31 45.50	-18.5X	MCT	6.17 225 P	32 13.60	1.3				
CSI	3.19	223	P	31 31.10	1.1	ZST	6.23 347 i(Pb)	32 20.50	7.5X	KHL	8.81 112 eP	32 49.00	-0.2
ROI	3.21	218	P	31 31.80	1.4		i(Pg)	32 32.60		ENR	8.81 288 P	32 48.97	-0.3
LIT	3.25	127	eP	31 31.20	0.3		i	33 04.20		STV	8.88 288 P	32 49.38	-0.8
THE	3.25	116	ePc eS	31 31.50 32 10.60	0.6		i(Sg)	33 16.00		ALT	8.90 107 eP	32 50.70	0.3
TDS	3.25	222	P	31 31.00	0.1		Lg	33 30.00		KSP	8.93 348 eP	32 50.00	-0.8
MMN	3.26	228	P	31 31.50	0.5	ZST	6.23 347 ePn	32 13.10	0.1	MMK	8.94 300 ePc	32 48.90	-2.3
SGO	3.28	243	P	31 33.00	1.8		0.7s 0.11nm	2.8mb X		DOI	8.98 289 P	32 54.20	2.6X
MGR	3.35	235	Pd	31 33.50	1.2		i	32 15.20		PZZ	9.09 289 P	32 51.43	-1.6
SOH	3.43	111	eP	31 34.20	0.7	FVI	6.37 317 P	32 15.10	0.1	RSP	9.12 293 P	32 49.58	-4.0X
SRS	3.49	105	eP eS	31 35.20 32 15.80	0.8	KGT	6.38 103 iP	32 15.70	0.5	CALN	9.13 284 P	32 53.50	-0.1
BSS	3.51	249	Pd	31 35.90	1.2	KBA	6.44 322 iPnc	32 16.90	0.7	LSD	9.28 295 P	32 52.76	-3.1X
DUI	3.52	264	Pd	31 36.60	1.8		0.6s 112.00nm	5.9mb X		FRF	9.28 283 Pn	32 55.40	-0.3
CZI	3.69	219	P	31 37.20	0.0		i	32 19.80		DIX	9.31 299 ePc	32 55.40	-0.9
GRI	3.90	213	P	31 39.50	-0.6		i	32 21.20		ZLA	9.32 309 ePc	32 55.40	-0.8
TIM	3.91	22	eP	31 41.00	0.8		i	33 23.60		GRF	9.35 327 e(Pn)	32 50.00	-6.6X
BZS	3.92	26	iPc	31 41.00	0.7		iSn	33 30.20					
RFI	3.94	260	P	31 42.75	2.1		i	33 35.10		LMR	9.37 282 Pn	32 57.20	0.4
AGG	3.95	141	eP eS	31 40.60 32 27.60	-0.1	VKA	6.45 343 ePn	32 18.00	1.9	RRL	9.39 291 P	32 55.53	-1.9
AGG	3.95	141	eP	31 42.40	1.7		iPc	32 49.00		SLE	9.41 310 ePc	32 55.50	-1.9
SDI	3.99	266	Pd	31 43.00	1.6		iSn	33 30.00		BRG	9.45 340 iPn	32 58.00	0.2
OUR	4.07	114	eP eS	31 42.80 32 30.70	0.3	MME	6.50 291 P	32 19.21	2.1				
PAIG	4.08	121	ePn	31 42.40	-0.3	BDI	6.54 290 P	32 17.90	0.4	LRG	9.48 282 Pn	32 58.60	0.2
PLD	4.14	88	iPgc	31 51.00	7.4X	VRI	6.63 53 iPc	32 17.50	-1.2	BNI	9.50 292 P	32 58.20	-0.6
GZR	4.20	38	iPc	31 46.50	2.1	CTI	6.66 309 P	32 18.60	-0.6	LPG	9.56 295 Pn	32 58.10	-1.7
NEO	4.20	131	ePn	31 43.30	-1.1	EDC	6.82 102 iP	32 22.50	1.2	LPL	9.58 295 Pn	32 58.20	-1.8
AZI	4.24	270	P	31 47.00	2.0	BNT	6.86 102 eP	32 22.00	0.1	HOF	9.60 331 eP	33 01.10	1.1
AQU	4.26	275	P	31 47.60	2.3	KMR	6.90 331 iPn+	32 23.60	1.1	EMS	9.62 298 ePc	33 00.00	-0.5
ZAG	4.33	329	iPnc iSn iSg	31 48.00 32 39.50 33 02.50	1.8		iPgPg	32 58.50		STU	9.63 317 ePc	33 01.00	0.6
VBV	4.39	322	iPnc iSb	31 48.90 32 57.80	1.9	TLB	6.94 66 ePc	32 23.00	0.0	FEL	9.74 310 P	33 00.13	-2.0
PTJ	4.41	330	iPnc e(Sn)	31 48.70 32 35.30	1.3	CTT	7.03 95 iP	32 24.10	-0.3	BBS	9.83 307 P	33 00.48	-2.7X
DRA	4.52	54	ePc	31 51.00	2.1	SPC	7.10 6 ePn	32 25.80	0.3	ELL	9.91 119 eP	33 06.00	1.5
DEV	4.64	35	iPc	31 51.00	0.4		1.6s 0.30nm	3.1mb X		BCK	9.97 114 eP	33 06.00	0.8
GMB	4.68	213	P	31 50.68	-0.7		i	32 34.30		MOX	9.97 331 iPn	33 04.80	-0.3
RIY	4.71	315	iPnc iSn	31 52.70 32 48.70	1.2	SAL	7.12 302 P	32 25.30	-0.3		0.9s 21.00nm	5.5mb X	
ARV	4.75	289	P	31 53.20	0.9	BHG	7.14 324 iPc	32 26.60	0.8	Z	10s 1.30um		
DIM	4.76	89	iP	31 54.00	1.6	CFR	7.22 62 eP	32 25.00	-1.9	N	11s 1.40um		
MNS	4.80	275	P	31 54.30	1.4	SCE	7.22 315 iPc	32 27.00	-0.1	KSL	10.09 123 ePn	33 07.00	0.2
RDP	4.80	268	P	31 54.80	1.9	IZM	7.25 118 eP	32 27.10	-0.3	CLL	10.10 338 iPnd	33 07.20	0.4
RMP	4.80	268	P	31 54.80	1.9	CLI	7.33 50 iPc	32 28.50	0.1		1.3s 24.00nm	5.4mb X	
ATN	4.86	217	P	31 52.20	-1.5	SMG	7.38 124 ePn	32 28.20	-1.0				
ASS	4.87	283	P	31 55.60	1.7	ITU	7.48 95 ePn	32 35.00	4.5X	LOMF	10.19 305 P	33 06.38	-1.8
RDO	4.90	99	ePn	31 54.20	-0.1		iSg	34 15.50		MOF	10.24 308 P	33 07.73	-1.2
CEY	4.96	318	iPnc eSn eSg	31 56.60 32 55.50 32 38.60	1.5	OGA	7.48 312 iPc	32 30.50	-0.3	WLS	10.40 311 P	33 08.83	-2.3
LJU	5.13	321	ePn eSn eSg	31 58.70 32 01.40 32 38.60	1.2	ISK	7.52 95 eP	32 33.00	1.9	ECH	10.41 310 P	33 09.00	-2.2
RSM	5.22	292	P	31 59.90	1.2	PGF	7.52 277 Pn	32 32.60	1.3	BSF	10.43 307 Pn	33 10.30	-1.2
TRI	5.28	315	P	32 00.00	0.4	BOB	7.52 294 P	32 32.80	1.5		Sn	34 59.80	
CMP	5.31	52	iPc	32 02.00	1.9	MDI	7.71 301 P	32 32.50	-1.3	CDF	10.45 311 Pn	33 09.60	-2.1
ALN	5.33	101	ePn	32 00.80	0.4	VAM	7.79 148 ePn	32 31.20	-3.8X	BBTK	10.56 98 eP	33 12.00	-1.3
BUD	5.35	359	e(P)	32 01.00	0.3	YLV	7.86 98 iP	32 34.00	-2.0	GW	10.58 314 P	33 11.90	-1.5
ITM	5.39	156	ePn	32 01.40	-1.9	OSS	7.88 308 ePc	32 36.30	-0.1	HAU	10.78 307 Pn	33 15.00	-1.2
MNO	5.40	221	P	32 00.80	-0.8	KRA	7.95 4 iPc	32 38.50	1.4	TNS	10.96 321 ePn	33 17.70	-1.0
VOY	5.43	318	iPnc eSn i(Pg)	32 03.00 33 03.50 32 29.60	1.2		0.7s 51.00nm	5.9mb X					
ATH	5.44	138	ePn	32 00.80	-1.1	Z	14s 1.40um	6.1mszX		VITF	11.09 308 P	33 19.40	-1.0
CRE	5.48	288	P	32 04.30	1.6	E	18s 5.30um			SMF	11.83 298 Pn	33 27.80	-2.7X
BUCI	5.51	64	eP	32 04.00	1.2	KHC	8.01 333 iPc	32 38.40	0.4	LBF	11.85 299 Pn	33 28.20	-2.5X
SFI	5.63	291	P	32 06.60	2.0		i	34 28.50			Sn	35 32.70	
GIB	5.69	225	P	32 03.80	-1.8	HRT	8.02 96 eP	32 38.20	0.0	LOR	12.02 300 Pn	33 30.70	-2.3
PGD	5.71	290	P	32 07.40	1.5	PCP	8.09 291 P	32 38.41	-0.7		Sn	35 39.20	
SRO	5.71	354	ePn i(Sg) Lg	32 05.70 32 29.60 33 15.50	0.0	VDL	8.18 305 ePc	32 41.30	0.7	SSF	12.18 299 Pn	33 32.80	-2.3
PSZ	5.82	5	iPn	32 07.10	-0.1	CKI	8.24 290 P	32 40.10	-1.2		Sn	35 42.00	
SOP	5.85	343	iPd	32 09.00	1.4	FIN	8.25 288 P	32 40.66	-0.8	AVF	12.20 298 Pn	33 33.80	-1.6
RBL	5.88	319	P	32 08.40	0.3	WET	8.27 330 iPc	32 41.30	-0.3	MEM	12.40 318 P	33 38.70	0.7
						VAI	8.35 300 P	32 40.20	-2.5	BGF	12.47 296 Pn	33 37.40	-1.6
							eSn	34 11.60			Sn	35 48.40	
						TMA	8.38 302 ePc	32 41.70	-1.7	ENN	12.54 318 ePnd	33 40.50	0.6
						PRU	8.48 340 ePnc	32 45.50	1.0		0.9s 34.00nm	5.5mb X	
							1.0s 28.90nm	5.5mb X					
							Z 10s 1.00um						
							N 12s 1.80um						

MAF 12.57 295 Pn 33 39.40 -1.1
CAF 12.70 288 Pn 33 42.90 0.7
TCF 12.83 295 Pn 33 43.30 -0.6
DOU 12.84 313 Pc 33 44.10 0.2

0.9s 92.50nm 5.9mb X
WTS 12.94 324 ePn 33 45.00 -0.2
0.9s 38.00nm 5.5mb X

LDF 14.98 302 Pn 34 12.00 -0.1
FLN 15.26 302 Pn 34 15.50 -0.2
GRR 15.39 301 Pn 34 17.60 0.3
LPP 15.41 299 Pn 34 17.30 -0.3
UPP 17.78 358 iP 34 47.60 0.1
ASMO 18.21 262 iPd 34 57.50 4.3X
APHE 18.32 261 eP 34 58.00 3.4X
HFS 18.34 351 eP 34 53.70 -0.7
0.6s 18.70nm 4.4mb

Z 15s 0.20um
AAPN 18.51 263 iPd 35 00.00 3.2X
ALJO 18.57 262 eP 35 00.00 2.4X
ATEJ 18.58 261 eP 35 00.00 2.2X
NUR 18.71 9 eP 34 59.00 0.0
MSL 19.44 99 ePd 35 11.00 3.1X
NB2 19.54 348 P 35 06.20 -2.8X
0.7s 13.00nm 4.3mb

EKA 19.65 320 P 35 09.00 -1.2
0.8s 3.70nm 3.7mb X
DCN 20.88 312 eP 35 23.00 0.1
SUF 21.04 9 eP 35 23.00 -1.5
TAB 21.16 92 eP 35 27.00 0.9
SLY 21.49 99 eP 35 32.00 2.7X
BHD 21.79 106 ePd 35 39.00 6.7X
SOD 25.62 7 iP 36 08.20 -1.0
KEV 27.99 6 eP 36 35.00 4.1X

MAIO 31.59 87 eP 37 05.00 1.6
BCAO 37.54 181 ePc 37 53.80 -0.6
DAG 38.23 347 eP 37 58.50 -1.1
LKO 39.05 221 Pd 38 07.38 0.2
0.8s 18.00nm 4.9mb
KIC 41.44 217 P 38 34.46 7.7X
LIC 41.69 218 P 38 36.78 8.0X
GKN 54.21 83 P 40 04.20 -2.3
0.8s 31.00nm 5.4mb

DMN 54.77 83 P 40 11.80 1.0
1.2s 84.00nm 5.6mb
KKN 54.80 83 P 40 11.00 0.0
0.8s 19.00nm 5.2mb
SCH 54.85 315 eP 40 10.00 -0.8
PKI 55.02 83 P 40 12.60 -0.1
1.2s 43.00nm 5.4mb

GUN 55.17 82 P 40 13.60 -0.3
1.0s 44.00nm 5.4mb
HYB 55.94 97 eP 40 19.00 0.0
PTZ 57.21 166 iP 40 28.00 -0.1
i 40 35.00
LSZ 57.72 170 iP 40 32.00 0.3
i 40 37.00

MBC 58.97 349 eP 40 39.00 -0.7
LZH 63.42 64 eP 41 08.50 -2.0
pP 41 15.00 21kmX
KMI 69.07 75 eP 41 50.00 3.3X
YKA 69.32 339 eP 41 46.00 -1.4
0.7s 0.90nm 4.0mb
CHG 70.19 82 eP 41 55.80 2.4
BAO 84.28 243 eP 43 19.90 8.2X

S.D. = 1.2 on 214 of 244 obs.

? APR 24, 1990 19h 42m 20.12 ± 7.68s
0.379 N ± 53.5km 78.394 W ± 27.2km
DEPTH = 10.0km (geophysicist)
COLOMBIA-ECUADOR BORDER REGION (106)
COTA 0.07 128 iPd 42 23.00 0.0
eS 42 30.50
CAYA 0.51 126 iPd 42 25.60 -4.9X
OUR 0.56 194 eP 42 31.80 0.0
eS 42 42.30
OTO 0.59 193 eP 42 32.00 -0.4
GECU 0.72 164 eP 42 34.20 -0.5
VC1 1.01 180 eP 42 40.50 0.9
S.D. = 0.8 on 5 of 6 obs.

% APR 24, 1990 19h 52m 55.17 ± 0.78s
42.134 N ± 5.6km 19.272 E ± 6.7km

DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.4 (TTG).

ULC 0.17 186 iPg 52 59.10 0.0
iSg 53 02.20
TTG 0.30 358 iPg 53 01.60 0.3
eSg 53 07.20
BDV 0.36 294 ePg 53 03.20 0.6
eSg 53 10.00
HCY 0.65 299 ePg 53 07.70 -0.5
eSg 53 18.10
PVY 0.69 48 ePg 53 09.00 0.0
eSg 53 20.00
NKY 0.71 343 ePg 53 09.00 -0.2
eSg 53 20.00
BRY 0.94 325 ePg 53 13.00 -0.1
eSg 53 28.00

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

APR 24, 1990 19h 56m 10.84 ± 0.46s
40.835 N ± 3.8km 23.873 E ± 4.2km
DEPTH = 10.0km (geophysicist)
GREECE (364)
ML 2.6 (THE), 2.2 (SKO).

SRS 0.35 323 ePg 56 17.80 -0.3
eSg 56 22.50
SOH 0.39 268 ePg 56 18.80 -0.1
eSg 56 24.70
OUR 0.51 171 e(Pg) 56 20.70 -0.4
eSg 56 28.00
THE 0.72 254 ePg 56 25.20 0.2
eSg 56 35.10

PAIG 0.92 189 ePg 56 28.70 0.3
VAY 1.10 297 ePn 56 31.70 0.2
eSn 56 47.30
KKB 1.19 330 iP 56 33.00 0.0
LIT 1.29 236 ePb 56 34.50 -0.2
eSb 56 53.30
KDZ 1.42 55 iPc 56 36.00 -0.7
ALN 1.65 87 ePb 56 40.60 0.7
eSb 57 02.60

VTS 1.82 344 iPd 56 43.00 0.4
SKO 2.15 303 ePn 56 54.00 6.7X

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

? APR 24, 1990 20h 06m 15.97 ± 1.17s
42.129 N ± 7.6km 19.231 E ± 12.1km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.2 (TTG).

ULC 0.17 175 ePg 06 19.80 0.0
eSg 06 23.00
TTG 0.30 4 ePg 06 22.30 0.1
eSg 06 27.50
BDV 0.34 297 ePg 06 23.50 0.5
eSg 06 30.00
HCY 0.63 301 ePg 06 28.00 -0.6
eSg 06 39.00

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

* APR 24, 1990 20h 24m 27.90 ± 0.58s
1.339 N ± 10.6km 123.531 E ± 10.7km
DEPTH = 33.0km (normal)
4.3mb (2 obs.)
MINAHASSA PENINSULA (265)

PCI 4.31 239 ePc 25 33.00 0.1
WB5 23.62 154 eP 29 37.00 0.0
NANU 25.00 198 eP 29 50.30 -0.1
PMG 25.84 115 eP 29 58.50 0.2
ASPA 26.82 159 eP 30 12.10 4.8X
0.5s 4.00nm 4.3mb
QIS 26.86 145 iPc 30 06.10 -1.6
BWA 42.56 149 eP 32 25.20 2.8X
CAN 43.55 149 eP 32 32.10 1.6

GUN 44.66 310 PKP 32 39.80 -0.2
PKI 44.86 309 PKP 32 43.40 1.8
KKN 45.06 309 PKP 32 43.00 -0.1
DMN 45.11 309 PKP 32 43.40 -0.1
GKN 45.66 309 PKP 32 47.40 -0.3
GBA 47.19 287 Pd 32 59.40 -0.4
0.8s 2.80nm 4.3mb
MAIO 68.45 309 eP 35 28.00 -1.2

S.D. = 1.0 on 13 of 15 obs.

* APR 24, 1990 20h 35m 00.84 ± 1.78s
36.540 N ± 11.8km 71.473 E ± 7.8km
DEPTH = 45.5 ± 20.5 km
4.8mb (11 obs.)

AFGHANISTAN-USSR BORDER REGION (717)
Felt (ii) at Khorog, USSR.

QUE 7.38 212 eP 36 49.50 0.6
eS 38 11.00
NDI 9.21 147 eP 37 16.00 2.0
eS 38 50.00
MAIO 9.66 272 iPnd 37 18.60 -1.7
eSn 38 48.00

GKN 14.01 124 P 38 18.20 -0.4
DMN 14.58 124 P 38 25.80 -0.4
0.6s 46.00nm 5.1mb
KKN 14.58 123 P 38 25.00 -1.1
0.6s 29.00nm 4.9mb
PKI 14.80 123 P 38 29.20 0.0
0.6s 23.00nm 4.7mb

GUN 14.91 121 P 38 30.40 -0.2
HYB 20.05 160 eP 39 32.00 -1.0
SHL 20.58 116 iP 39 39.40 0.8
iS 43 16.00
GBA 23.46 165 Pc 40 06.90 -0.1
0.5s 0.90nm 3.5mb X

NUR 38.02 324 eP 42 16.00 0.0
SUF 38.09 328 eP 42 16.00 -0.5
SOD 39.86 335 iP 42 32.00 0.7
KEV 40.91 338 eP 42 42.00 2.2
0.5s 8.40nm 4.7mb
HFS 43.27 322 eP 42 58.90 -0.3
0.5s 14.60nm 5.0mb

KHC 43.27 306 eP 43 01.60 2.1
NB2 44.58 323 P 43 09.50 -0.4
0.8s 15.30nm 4.9mb
EKA 52.52 316 P 44 11.00 -0.4
0.9s 3.90nm 4.4mb
DAG 54.83 344 iPd 44 27.70 -0.4
0.5s 12.68nm 5.2mb

MBC 67.28 3 eP 45 52.50 0.2
0.7s 3.00nm 4.4mb
FRB 75.14 343 eP 46 39.00 -0.5
YKA 81.19 3 eP 47 11.60 -1.0
0.6s 1.70nm 4.2mb
FFC 88.93 356 eP 47 51.00 -0.5
0.7s 7.00nm 5.1mb

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

* APR 24, 1990 20h 56m 54.08 ± 0.85s
42.131 N ± 6.5km 19.252 E ± 7.5km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
ML 2.2 (TTG).

ULC 0.17 181 iPg 56 58.00 0.1
eSg 57 01.00
TTG 0.30 1 ePg 57 00.50 0.2
eSg 57 05.80
BDV 0.35 296 ePg 57 01.60 0.3
eSg 57 08.20
HCY 0.64 300 ePg 57 06.50 -0.5
eSg 57 17.00

PVY 0.71 49 ePg 57 08.00 -0.1
eSg 57 20.00
SKO 1.64 95 e(Pn) 57 33.00 10.0X

S.D. = 0.4 on 5 of 6 obs.

% APR 24, 1990 21h 02m 42.61 ± 0.82s
41.190 N ± 9.9km 14.769 E ± 15.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)
BSS 0.40 176 P 02 50.70 -0.1
DUI 0.53 334 P 02 53.20 -0.1
SGO 0.75 147 P 02 57.50 0.2
eSg 03 09.00
SDI 0.88 306 P 03 00.00 0.4
MGR 1.21 150 P 03 05.00 -0.1
AZI 1.28 309 P 03 06.00 -0.3

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

APR 24, 1990 21h 05m 17.43 ± 1.01s
1.370 N ± 6.4km 123.547 E ± 7.0km
DEPTH = 42.0 ± 10.5 km
4.8mb (8 obs.) 4.0msz (2 obs.)

24d 21h

MINAHASSA PENINSULA (265)			
PCI	4.34 239 ePd	06 22.00	-0.8
DAV	6.03 20 eP	06 46.00	-0.5
TSM	6.16 298 ePd	06 48.50	0.2
AAI	6.84 137 eP	06 59.50	1.6
MKS	7.71 212 iPc	07 14.00	4.0X
MTN	16.00 152 eP	09 01.00	-0.3
MBL	22.68 189 eP	10 15.50	-1.1
IPM	22.71 279 ePc	10 17.90	0.9
SNG	23.57 285 eP	10 26.00	0.7
WBS	23.64 154 eP	10 25.00	-0.9
GUMO	24.34 59 eP	10 42.00	9.3X
		14 53.00	
PMG	25.84 115 eP	10 41.00	-5.9X
ASPA	26.85 159 eP	10 53.20	-3.0X
	0.6s 7.00nm	4.5mb	
Z	19s 0.26um	3.8msz	
		15 50.10	
		25 36.00	
QIS	26.88 145 iPc	10 55.80	-0.6
CHG	29.70 307 eP	11 22.50	0.5
CHTO	29.70 307 eP	11 20.90	-1.1
	1.1s 7.36nm	4.3mb	
CTA	30.83 135 iP	11 31.50	-0.4
KMI	31.00 321 eP	11 35.00	1.3
MAT	37.54 20 eP	12 28.00	-1.4
SHL	38.86 311 iP	12 40.60	-0.2
BJI	39.07 351 eP	12 35.00	-7.2X
LZH	39.08 334 eP	12 44.00	1.5
	3.0s 94.00nm	5.1mb	
Z	20s 0.40um	4.2msz	
		pP 13 02.00	74kmX
		sP 13 10.00	
		PP 14 21.00	
		eS 18 43.00	
BWA	42.57 149 eP	13 14.00	2.9X
CAN	43.57 149 iPc	13 20.40	1.2
GUN	44.65 310 P	13 28.80	0.3
	0.6s 19.00nm	5.1mb	
PKI	44.85 309 P	13 29.60	-0.5
KKN	45.06 309 P	13 31.60	0.0
	0.8s 12.00nm	4.8mb	
DMN	45.11 309 P	13 32.20	0.2
GKN	45.66 309 P	13 36.20	-0.1
	0.8s 13.00nm	4.9mb	
GBA	47.20 287 Pc	13 47.90	-0.5
	0.9s 8.30nm	4.7mb	
MAIO	68.45 309 eP	16 17.00	-0.7
SUF	92.19 333 iP	18 22.20	-1.5
	0.5s 2.30nm	4.9mb	
ZOBO	161.25 143 PKP	25 18.00	2.0
	S.D. = 1.0 on 27 of 33 obs.		
? APR 24, 1990 21h 05m 43.08 ± 1.49s			
41.253 N ± 11.1km 15.018 E ± 18.0km			
DEPTH = 10.0km (geophysicist)			
SOUTHERN ITALY (390)			
BSS	0.49 199 P	05 53.00	0.0
DUI	0.59 314 P	05 55.00	0.0
SGO	0.73 162 P	05 57.60	0.2
		eSg 06 08.60	
MGR	1.19 160 P	06 05.00	-0.2
	S.D. = 0.3 on 4 of 4 obs.		
? APR 24, 1990 21h 25m 09.18 ± 1.42s			
42.116 N ± 7.2km 19.286 E ± 13.8km			
DEPTH = 10.0km (geophysicist)			
YUGOSLAVIA (383)			
ML 2.1 (TTG).			
ULC	0.15 190 ePg	25 12.80	0.0
		eSg 25 16.20	
TTG	0.31 357 ePg	25 15.70	0.0
		eSg 25 21.40	
BDV	0.38 296 ePg	25 17.00	0.0
		eSg 25 24.00	
HCY	0.67 300 ePg	25 22.50	0.0
		eSg 25 32.20	
	S.D. = 0.0 on 4 of 4 obs.		
? APR 24, 1990 21h 39m 10.81 ± 0.95s			
41.182 N ± 10.4km 14.821 E ± 15.9km			
DEPTH = 10.0km (geophysicist)			
SOUTHERN ITALY (390)			

BSS	0.39 182 P	39 18.30	-0.5
DUI	0.55 330 P	39 21.30	-0.8
		eSg 39 30.10	
SGO	0.72 149 Pc	39 25.00	0.0
SDI	0.92 305 P	39 28.80	0.4
		eSg 39 43.30	
MGR	1.18 152 P	39 33.40	0.5
		eSn 39 50.40	
AZI	1.31 308 P	39 35.50	0.4
	S.D. = 0.7 on 6 of 6 obs.		
? APR 24, 1990 21h 45m 42.09 ± 4.31s			
31.551 S ± 20.1km 68.811 W ± 14.6km			
DEPTH = 92.7 ± 39.7 km			
SAN JUAN PROVINCE, ARGENTINA (137)			
RTCB	0.07 9 iPd	45 56.00	0.4
ZON	0.11 87 iPd	45 55.30	-0.4
		eS 46 06.00	
RTLL	0.37 53 iPc	45 56.50	0.0
RTCV	0.39 143 iPc	45 56.90	0.3
		eS 46 09.00	
CFA	0.49 97 ePd	45 57.10	-0.2
		eS 46 10.00	
RTBS	0.56 258 iPd	45 57.60	-0.1
		eS 46 10.00	
RTRS	1.49 338 iPc	46 08.20	0.1
		eS 46 28.80	
	S.D. = 0.4 on 7 of 7 obs.		
% APR 24, 1990 21h 46m 57.67 ± 0.70s			
41.170 N ± 9.5km 14.786 E ± 13.5km			
DEPTH = 10.0km (geophysicist)			
SOUTHERN ITALY (390)			
BSS	0.38 178 P	47 04.90	-0.5
		eSg 47 10.20	
DUI	0.55 333 P	47 08.00	-0.8
		eSg 47 17.20	
SGO	0.73 147 P	47 11.80	-0.2
SDI	0.91 307 P	47 15.50	0.5
		eSg 47 30.40	
MGR	1.19 150 P	47 19.50	-0.3
		eSg 47 37.00	
AZI	1.30 309 P	47 22.00	0.3
MMN	1.57 144 P	47 26.60	1.0
MNS	1.99 308 P	47 31.80	0.1
	S.D. = 0.7 on 8 of 8 obs.		
* APR 24, 1990 22h 24m 25.02 ± 1.40s			
35.920 N ± 17.3km 27.114 E ± 7.4km			
DEPTH = 10.0km (geophysicist)			
DODECANESE ISLANDS (369)			
SMG	1.80 353 ePn	24 55.00	-1.3
CIN	1.85 25 ePn	24 53.00	-4.0X
		iSg 25 13.00	
KSL	2.01 84 ePn	24 59.00	-0.4
ELL	2.40 69 ePn	25 04.10	-1.0
VAM	2.43 259 ePn	25 10.00	4.6X
IZM	2.48 3 ePn	25 06.00	-0.1
KHL	3.08 38 ePn	25 16.00	1.4
BCK	3.19 60 eP	25 17.00	0.8
VLI	3.47 285 ePn	25 19.00	-1.1
ALT	3.93 36 eP	25 34.00	7.2X
ITM	4.36 288 ePn	25 34.40	1.5
	S.D. = 1.3 on 8 of 11 obs.		
* APR 24, 1990 22h 47m 35.96 ± 0.98s			
22.384 S ± 10.6km 69.020 W ± 10.4km			
DEPTH = 88.7 ± 15.4 km			
4.3mb (1 obs.)			
NORTHERN CHILE (123)			
ANT	1.84 224 iPc	48 06.50	0.0
		iS 48 26.70	
LPB	5.89 9 P	49 09.00	6.2X
ZOBO	6.14 8 P	49 11.00	4.6X
ARE	6.34 338 eP	49 09.00	0.1
		iS 50 17.50	
SIV	9.84 51 P	49 56.60	0.0
PT02	11.75 322 iPc	50 21.90	-0.2
		e(S) 52 20.80	
NNA	12.75 323 eP	51 04.80	29.5X
	0.8s 7.46nm		
		eS 52 51.00	
BAO	20.97 75 eP	52 13.90	-0.1

YKA	91.98 341 eP	00 35.50	0.1
	0.7s 1.10nm	4.3mb	
	S.D. = 0.2 on 6 of 9 obs.		
? APR 24, 1990 23h 15m 04.84 ± 6.15s			
43.383 N ± 43.5km 6.186 E ± 23.6km			
DEPTH = 10.0km (geophysicist)			
NEAR SOUTH COAST OF FRANCE (379)			
STV	1.19 43 P	15 27.49	0.4
		S 15 47.65	
ENR	1.23 46 P	15 27.33	-0.4
		S 15 47.48	
PZZ	1.30 30 P	15 29.16	0.1
		S 15 50.32	
ROB	1.52 53 P	15 32.32	0.2
RRL	1.60 15 P	15 33.82	0.4
RSP	1.93 23 P	15 37.65	-0.5
LSD	2.19 18 P	15 41.82	-0.2
	S.D. = 0.4 on 7 of 7 obs.		
% APR 24, 1990 23h 16m 38.18 ± 1.43s			
40.658 N ± 10.6km 27.237 E ± 8.8km			
DEPTH = 10.0km (geophysicist)			
TURKEY (366)			
KGT	0.21 166 iPg	16 42.50	-0.3
EDC	0.57 123 iPg	16 49.50	-0.2
		iSg 16 57.50	
BNT	0.60 120 iPg	16 50.00	-0.3
		iSg 16 57.50	
KCT	0.95 115 iPg	16 57.00	0.8
		iSg 17 08.50	
CTT	1.03 61 ePn	16 57.40	-0.2
EZN	1.09 220 iPn	16 58.60	0.0
	S.D. = 0.5 on 6 of 6 obs.		
% APR 24, 1990 23h 24m 06.71 ± 1.20s			
41.223 N ± 10.4km 14.928 E ± 16.2km			
DEPTH = 10.0km (geophysicist)			
SOUTHERN ITALY (390)			
BSS	0.44 192 P	24 15.60	-0.1
DUI	0.56 321 P	24 18.00	-0.2
SGO	0.72 156 Pc	24 21.40	0.5
		eSg 24 32.70	
SDI	0.97 300 P	24 25.30	0.2
MGR	1.18 156 P	24 28.40	-0.4
	S.D. = 0.5 on 5 of 5 obs.		
APR 24, 1990 23h 49m 49.46 ± 0.29s			
26.359 N ± 6.7km 128.818 E ± 5.4km			
DEPTH = 12.2km (6 depth phases)			
5.1mb (26 obs.) 4.8msz (1 obs.)			
RYUKYU ISLANDS (238)			
SSE	8.19 307 Pc	51 51.20	0.3
	1.2s 72.00nm	5.8mb X	
Z	12s 7.20um	5.3msz	
N	11s 4.10um		
E	11s 4.60um		
		sP 52 03.00	
		eS 53 27.00	
		eS 53 36.00	
		i 53 46.00	
MAT	12.93 36 eP	53 06.00	10.4X
	1.5s 55.56nm		
		eS 55 30.00	
BJI	17.24 325 eP	53 51.00	-0.5
	1.0s 73.00nm	4.8mb	
Z	18s 0.88um	4.6msz	
N	15s 2.58um		
E	12s 1.86um		
		eS 57 58.00	
GUMO	19.69 127 eP	54 22.00	0.4
		eS 58 08.00	
LZH	23.40 301 Pc	54 57.00	-2.1
	3.0s 260.00nm	5.3mb	
Z	12s 1.40um	4.6msz X	
N	11s 1.20um		
E	11s 0.90um		
		pP 55 13.00	69kmX
		S 59 16.00	
KMI	23.51 273 Pd-	55 01.50	1.1
	1.5s 0.10nm	2.2mb X	
Z	17s 4.90um	5.0msz X	
N	14s 0.70um		

E	11s	1.80um			
		sP	55	22.00	
		eS	59	16.00	
		iS	59	17.00	
CHG	28.54	261 ePc	55	47.90	0.7
	0.9s	10.50nm			4.6mb
SHL	33.15	277 iP	56	26.90	-1.1
		iS	01	43.00	
GUN	38.10	282 P	57	10.60	0.2
PKI	38.56	282 P	57	13.60	-0.5
KKN	38.64	282 P	57	14.60	-0.2
DMN	38.82	282 P	57	16.20	-0.2
GKN	39.18	283 P	57	18.80	-0.4
NDI	45.53	285 iPd	58	10.00	-0.8
WB5	46.28	173 eP	58	16.20	-0.5
WRA	46.34	173 Pd	58	16.70	-0.5
	0.9s	6.50nm			4.6mb
HYB	47.24	270 ePc	58	25.00	0.5
	1.0s	25.00nm			5.2mb
CTA	49.17	158 iP	58	38.20	-1.1
	1.0s	15.00nm			5.0mb
		e	58	43.00	16km
G8A	49.63	266 Pc	58	43.20	0.2
	1.4s	30.20nm			5.1mb
ASPA	49.97	174 iPd	58	48.30	2.8X
	1.1s	10.00nm			4.7mb
QUE	54.04	289 eP	59	15.00	-1.2
MAIO	58.92	298 eP	59	51.00	0.1
IMA	61.16	27 eP	00	05.60	-0.3
	1.2s	15.60nm			5.0mb
PMR	63.44	32 eP	00	20.00	-1.0
	1.3s	47.20nm			5.5mb
F8A	63.67	28 eP	00	21.80	-0.7
TOA	64.76	31 eP	00	29.60	-0.1
INK	68.56	23 eP	00	53.00	-0.7
KEV	69.51	339 eP	00	59.00	-0.4
MBC	69.58	14 eP	00	59.20	-0.6
	0.9s	27.00nm			5.4mb
SOD	70.50	336 iP	01	05.20	-0.3
SUF	72.47	332 iP	01	16.60	-0.8
	0.8s	15.20nm			5.1mb
NUR	74.03	330 iP	01	25.80	-0.7
DAG	75.21	353 iPc	01	31.60	-1.5
	1.0s	14.00nm			5.0mb
UPP	77.43	331 iP	01	41.90	-3.9X
		i	01	45.10	10km
BBTK	77.94	308 iPd	01	49.50	0.3
YKA	78.19	25 eP	01	48.90	-1.0
	1.3s	4.90nm			4.4mb
HFS	78.95	333 eP	01	52.80	-1.3
	1.0s	14.60nm			5.0mb
Z	15s	0.49um			5.0MsZ
		LR	38	12.00	
LFK	79.26	304 eP	01	57.00	0.5
DSI	79.39	300 eP	01	57.00	-0.1
NB2	79.43	334 P	01	55.90	-0.9
	1.2s	28.00nm			5.1mb
MLR	80.02	316 eP	02	02.00	1.6
ALT	80.13	309 eP	02	01.30	0.2
PRNI	80.20	299 eP	02	02.00	0.5
BNT	81.07	311 iP	02	05.90	0.0
ELL	81.29	307 eP	02	06.90	-0.4
KRA	81.34	322 eP	02	09.40	2.3
	0.7s	34.00nm			5.5mb
Z	16s	1.40um			5.4MsZ
E	16s	1.90um			
		e	02	12.90	11km
SPC	81.62	321 eP	02	09.50	0.7
KSP	82.90	324 eP	02	15.00	-0.2
		i	02	16.50	5km
PNT	83.22	38 eP	02	18.00	1.1
ZST	83.91	321 eP	02	21.50	1.1
BRG	84.11	325 iP	02	20.20	-1.2
	1.2s	22.00nm			5.3mb
		i	02	25.60	17km
		e	02	31.10	
VAY	84.18	313 iP	02	22.00	0.1
EDM	84.21	32 ePd	02	22.70	0.8
PRU	84.31	324 ePc	02	23.00	0.6
	1.5s	29.00nm			5.3mb
Z	15s	0.80um			5.2MsZ
N	15s	0.50um			
E	15s	0.50um			
		e	02	27.50	14km
CLL	84.34	325 iPc	02	23.00	0.5
	1.3s	38.00nm			5.5mb
		e	02	32.00	28kmX

SKO	84.58	314 ePc	02	24.30	0.3
GDH	84.66	1 iPc	02	28.00	4.3X
	0.8s	11.94nm			5.2mb
KHC	85.32	323 iPd	02	28.50	1.0
	1.2s	10.00nm			4.9mb
Z	15s	1.00um			5.3MsZ
E	14s	0.80um			
		e	02	37.40	28kmX
OHR	85.44	314 eP	02	27.50	-0.8
MOX	85.45	325 eP	02	29.00	0.9
	0.9s	23.00nm			5.4mb
HOF	85.51	325 eP	02	29.40	0.9
GRF	86.22	325 ePc	02	33.30	1.3
Z	21s	0.40um			4.8MsZ
		e	02	57.90	92kmX
VBY	86.46	320 e(P)	02	34.00	0.8
BHG	86.52	323 iPd	02	34.90	1.4
	0.9s	20.00nm			5.3mb
LJU	86.57	321 e(P)	02	34.00	0.2
CEY	86.81	320 e(P)	02	35.50	0.5
RBL	86.89	321 P	02	38.00	2.6
VOY	86.94	321 e(P)	02	35.80	0.1
SES	87.08	34 eP	02	37.00	0.8
FVI	87.24	322 P	02	38.00	1.1
CTI	88.19	322 P	02	43.00	1.3
FFC	88.24	27 iPc	02	41.70	0.1
	1.2s	41.00nm			5.6mb
EKA	88.88	335 Pd	02	44.30	-0.4
	1.1s	9.10nm			5.0mb
DUI	89.13	317 P	02	46.00	-0.3
FRB	89.16	8 eP	02	50.00	4.2X
LRM	89.19	38 eP	02	47.80	1.1
SFI	89.36	320 P	02	45.00	-2.1
ASS	89.39	319 P	02	47.00	-0.4
PGD	89.46	320 P	02	46.00	-1.9
SDI	89.50	317 P	02	47.00	-1.0
MNS	89.79	318 P	02	49.50	0.2
					S.D. = 0.9 on 76 of 81 obs.
* APR 24, 1990 23h 54m 40.03±0.80s					
42.132 N ± 7.1km 19.231 E ± 9.1km					
DEPTH = 10.0km (geophysicist)					
YUGOSLAVIA (383)					
ML 2.2 (TTG).					
ULC	0.17	175 eP	54	43.50	-0.4
		eSg	54	46.80	
TTG	0.30	4 iPg	54	46.00	-0.2
		iSg	54	51.80	
BDV	0.34	297 ePg	54	47.50	0.5
		eSg	54	54.50	
HCV	0.63	300 ePg	54	52.30	-0.4
		eSg	55	02.50	
OHR	1.56	130 ePn	55	08.30	0.5
					S.D. = 0.6 on 5 of 5 obs.
? APR 25, 1990 01h 08m 32.54±7.14s					
31.783 S ± 38.3km 69.345 W ± 23.2km					
DEPTH = 105.2 ± 54.9 km					
SAN JUAN PROVINCE, ARGENTINA (137)					
RTBS	0.15	323 iPd	08	47.40	-0.2
		eS	08	57.50	
RTCB	0.55	58 eP	08	50.00	0.4
		(S)	09	03.50	
ZON	0.62	68 eP	08	50.00	0.0
		eS	09	04.00	
RTCV	0.69	97 ePc	08	51.00	0.3
		S	09	05.30	
RTLL	0.87	59 ePc	08	52.10	-0.3
		eS	09	08.40	
CFA	0.96	80 eP	08	53.00	-0.3
		S	09	10.50	
RTRS	1.61	356 ePc	09	00.90	0.1
					S.D. = 0.4 on 7 of 7 obs.
APR 25, 1990 01h 48m 22.51±0.50s					
41.161 N ± 5.6km 14.809 E ± 7.5km					
DEPTH = 10.0km (geophysicist)					
SOUTHERN ITALY (390)					
BSS	0.37	180 P	48	29.50	-0.6
		eSg	48	36.60	
DUI	0.57	332 P	48	33.40	-0.6
SGO	0.71	148 P	48	35.20	-1.3
		eSg	48	47.10	
SDI	0.92	306 P	48	41.40	1.2

MGR	1.17	151 P	48	44.00	-0.3
BAI	1.55	91 P	48	51.00	0.8
MMN	1.56	144 P	48	53.20	3.0X
		eSn	49	17.50	
ORI	1.66	131 P	48	52.00	0.2
CSI	1.79	140 P	48	55.60	2.0
BRT	1.83	98 P	48	53.00	-1.3
TDS	1.90	142 P	48	54.00	-1.3
ROI	2.08	139 P	48	58.10	0.2
CZI	2.19	152 P	49	00.90	1.5
ASS	2.49	321 P	49	03.00	-0.8
ARV	2.72	330 P	49	07.50	0.5
OHR	4.52	89 ePn	49	33.20	0.5
PTJ	4.81	10 eP	49	41.50	4.7X
VOY	4.91	353 ePn	49	39.00	0.8
		eSn	50	34.10	
RBL	5.35	351 P	49	43.00	-1.4
		eSn	50	41.50	
S.D. = 1.1 on 17 of 19 obs.					

% APR 25, 1990 02h 01m 44.54±1.03s					
41.198 N ±10.3km 14.857 E ±16.2km					
DEPTH = 10.0km (geophysicist)					
SOUTHERN ITALY (390)					
BSS	0.41	185 P	01	52.70	-0.2
		eSg	01	58.20	
DUI	0.55	327 P	01	55.50	-0.3
SGO	0.73	152 P	01	58.90	0.1
		(Sn)	02	12.40	
SDI	0.93	303 P	02	02.70	0.3
MGR	1.19	153 P	02	06.70	0.1
		eSn	02	23.20	
S.D. = 0.4 on 5 of 5 obs.					

* APR 25, 1990 02h 07m 39.12±1.67s					
17.263 N ±11.9km 145.183 E ±21.4km					
DEPTH = 137.4 ± 15.4 km					
4.7mb (5 obs.)					
MARIANA ISLANDS (216)					
GUMO	3.67	185 eP	08	36.10	0.7
GUA	3.71	184 eP	08	35.50	-0.5
		e	08	49.70	
		e(S)	09	16.80	
PMG	26.57	176 eP	13	04.50	-1.7
CTA	37.13	178 iPc	14	27.00	-11.2X
WB5	38.41	197 eP	14	49.30	0.4
WRA	38.48	197 Pd	14	49.90	0.4
	0.9s	9.00nm			4.5mb
ASPA	42.15	196 eP	15	24.30	4.7X
	0.4s	6.00nm			4.6mb
RMQ	43.63	175 eP	15	30.00	-1.5
WARB	46.80	203 iPd	15	58.80	2.0
FORR	50.58	199 eP	16	26.20	0.5
	0.3s	7.00nm			4.9mb
GUN	55.32	292 P	17	00.00	-1.4
INK	70.88	23 eP	18	42.50	-0.1
MBC	74.66	14 eP	19	05.00	0.4
YKA	79.48	28 eP	19	30.90	-0.5
	0.7s	4.60nm			4.3mb
KVN	84.37	51 iPd	19	58.00	0.5
LRM	86.12	43 ePd	20	06.50	0.4
FFC	88.56	32 iPd	20	17.80	0.4
	0.8s	10.00nm			4.9mb
S.D. = 1.1 on 15 of 17 obs.					

APR 25, 1990 02h 13m 32.07±0.33s					
15.358 S ± 4.3km 179.055 W ± 4.7km					
DEPTH = 441.4 ± 3.5 km					
5.4mb (31 obs.)					
FIJI ISLANDS REGION (181)					
CENTROID, MOMENT TENSOR (HRV)					
Data Used: GDSN					
L.P.B.: 10S, 13C					
Centroid Location:					
Origin Time 02:13:43.5 0.9					
Lat 14.74S 0.11 Lon 179.52W 0.10					
Dep 428.1 4.5 Half-duration 1.7					
Moment Tensor; Scale 10**17 Nm					
Mrr=-0.27 0.07 Mtt= 0.38 0.10					
Mff=-0.11 0.12 Mrt=-1.17 0.12					
Mrf= 0.30 0.12 Mtf= 0.11 0.11					
Principal Axes:					
T Val= 1.27 Plg=38 Azm=185					
N -0.03 10 282					
P -1.24 51 24					

25d 02h

Best Double Couple: Mo=1.3*10**17
 NP1: Strike=227 Dip=12 Slip=-145
 NP2: 103 83 -80

UDU	1.20	229	iPd	14	28.40	-1.2	CHJJ	64.71	323	P	23	26.30	-0.8	IMW	85.52	42	P	25	24.00	0.5
TVI	1.82	211	iPd	14	32.00	0.5	IIDJ	64.95	322	P	23	27.40	-1.3				pP	26	59.30	417kmX
NDE	1.98	232	iPd	14	32.40	0.0	MAT	65.50	323	iPd	23	29.80	-2.4	BW06	85.95	44	iPc	25	25.00	-0.5
KRO	2.45	217	iPd	14	35.40	0.2		1.0s	59.00nm				5.2mb		0.9s	42.37nm			5.2mb	
OVA	3.11	221	iPd	14	40.70	0.8			(S)	25	47.00					eP	27	00.80	419kmX	
VUN	3.55	222	iP	14	45.20	1.8	MTMJ	65.77	323	P	23	32.70	-1.2				ePP	28	49.80	
SAV	3.63	221	iPd	14	46.00	1.9	TSRJ	66.14	321	P	23	33.80	-2.3	MAW	86.04	200	iPc	25	27.30	2.1
			eS	14	46.80		ADK	66.99	2	eP	23	39.00	-2.0				e	29	22.00	
SGE	3.65	232	iPd	14	45.60	1.2	TRT	67.14	268	ePd	23	39.50	-3.3X	KMI	86.12	297	Pd	25	28.50	1.8
PVC	12.34	257	iPc	16	19.50	2.8X	SMY	68.06	356	eP	23	45.80	-1.7	CHG	87.55	290	eP	25	35.00	1.7
DZM	15.27	242	iPc	16	47.80	0.1	SDN	72.15	11	eP	24	09.60	-2.2				e	29	33.80	
			iS	19	31.20			0.7s	231.40nm				5.9mb	GOL	87.61	48	P	25	33.50	-0.1
HBZ	22.28	186	P	17	55.00	-0.7	BLP	74.60	47	P	24	26.00	-0.2		0.8s	40.18nm			5.3mb	
PUZ	22.75	185	P	17	58.90	-1.3	SPA	74.74	180	iPc	24	29.60	2.8	GLD	87.74	48	P	25	34.20	0.2
WLZ	22.89	191	P	18	03.40	2.0		1.3s	285.83nm				5.8mb		1.0s	85.00nm			5.5mb	
TAZ	23.12	189	P	18	03.60	0.1	NWRM	75.01	42	P	24	28.00	-0.4	BRW	87.78	7	eP	25	32.30	-1.0
NOZ	23.31	186	P	18	03.60	-1.6	SAO	75.04	45	ePd	24	29.00	0.3	SES	88.34	36	iPd	25	36.40	0.0
PGZ	25.49	188	P	18	23.30	-1.6	BKS	75.11	43	iPd	24	29.60	0.5		1.3s	280.00nm			5.9mb	
MNG	25.61	190	P	18	24.20	-1.8	ZSP	75.14	43	eP	24	29.00	-0.2	EDM	88.37	33	iPd	25	36.70	0.2
MTW	26.14	189	P	18	28.40	-2.3	BCH	75.15	47	P	24	30.10	0.7	INK	89.60	15	eP	25	40.00	-1.8
CAW	26.16	190	P	18	29.10	-1.8	MHC	75.22	44	iPd	24	31.10	1.3		0.9s	29.00nm			5.2mb	
BLW	26.35	189	P	18	31.30	-1.3	PRI	75.24	45	ePd	24	30.90	0.9	RSSD	90.17	44	iPc	25	44.90	-0.3
WEL	26.38	191	P	18	32.20	-0.7	ARN	75.30	44	P	24	30.30	0.2				e	26	10.00	
THZ	27.22	193	P	18	39.00	-1.3	ABL	75.58	47	P	24	32.00	0.0	YKA	92.29	25	eP	25	53.00	-1.2
KHZ	27.71	192	P	18	43.70	-0.8	FHC	75.64	40	ePd	24	32.70	0.8		0.8s	9.30nm			4.9mb	
LTZ	28.33	194	P	18	47.90	-2.1	PAS	75.98	48	eP	24	35.00	1.1	TUL	93.54	54	eP	26	01.10	0.5
COO	30.62	235	iPc	19	10.90	0.8	KDC	76.08	14	eP	24	33.30	-0.6		1.3s	77.60nm			5.6mb	
MHZ	31.21	196	P	19	13.30	-1.7		1.0s	395.00nm				6.0mb	FFC	95.12	35	eP	26	07.00	-0.4
MSZ	31.23	198	P	19	15.00	-0.1	MWC	76.10	48	iPd	24	35.00	0.2		1.2s	18.00nm			5.1mb	
RMO	31.95	244	iPc	19	21.50	0.0	BAR	76.37	50	eP	24	36.00	-0.1	MBC	97.99	12	eP	26	19.00	-1.0
	0.5s	109.00nm				5.5mb	WDC	76.42	41	ePd	24	36.30	0.1		0.7s	9.00nm			5.2mb	
		e				19						26		RSON	98.86	40	P	26	22.40	-2.0
		i				20						0.9s			8.13nm			5.1mb		
CTA	33.34	257	iPc	19	33.00	-0.2	CMB	76.43	44	iPd	24	36.50	0.1	ZOBO	104.94	112	Pd iff	27	13.00	20.0X
	1.0s	200.00nm				5.5mb						26			0.9s	6.92nm				
		i				19						24		FRB	112.71	27	ePKP	31	18.00	-0.2
		iS				24						24		DAG	117.73	5	iPKPd	31	25.80	-1.7
		iScP				25						24			0.5s	6.34nm				
		iScS				29						24		KEV	123.26	349	iPKP	31	38.20	0.0
PMG	33.50	276	iPc	19	35.20	0.6	PEC	76.59	49	P	24	37.00	-0.3		0.7s	14.70nm				
	0.9s	67.23nm				5.1mb	CLC	77.21	47	iPd	24	41.00	0.3	MAIO	124.18	304	ePKP	31	41.00	-0.2
CNB	34.55	229	iPd	19	44.20	0.8	TPC	77.50	49	iPd	24	42.00	-0.3	SOD	125.39	348	iPKP	31	41.00	-0.7
		e				19						26		SUF	129.48	345	ePKP	31	38.00	-12.4X
TOO	38.35	228	iPc	20	15.70	1.0	GSC	77.53	48	iPd	24	42.00	-0.5	NUR	131.74	345	iPKP	31	43.00	-11.7X
QIS	39.59	256	iPc	20	24.80	-0.2						26			0.7s	24.00nm				
ADE	42.54	235	iPc	20	50.00	1.3	GLA	77.91	51	eP	24	45.00	0.4	NB2	133.78	353	PKP	31	58.20	-0.5
	0.6s	106.67nm				5.4mb	SVW	78.47	11	eP	24	46.10	-0.9		0.8s	8.20nm				
WB5	44.51	257	iPc	21	03.80	-0.6	KVN	78.49	44	P	24	47.50	-0.2	HFS	134.33	351	ePKP	31	46.50	-13.2X
		e				27						26			0.5s	2.50nm				
		i				27						24		Z	17s	0.49um			5.3mszX	
WRA	44.54	257	Pd	21	04.30	-0.3	TNP	78.60	45	P	24	48.00	-0.3				LR	13	08.00	
	1.1s	98.60nm				5.1mb						26		LSZ	139.37	223	iPKP	32	04.60	-6.0X
ASPA	44.94	252	iPc	21	10.60	2.8X	BMW	79.38	36	P	24	52.00	-0.1	EKA	139.98	4	PKPc	32	02.50	-7.8X
	0.4s	1318.00nm				6.7mb X	SHW	79.78	36	P	24	54.00	-0.2		0.6s	4.00nm				
		iScP				25	TIA	80.09	10	P	24	52.20	-3.2X	DCN	141.55	8	ePKP	32	07.40	-5.8X
		iS				27	VGB	80.24	37	P	24	56.00	-0.5	KRA	142.11	340	ePKP	32	06.50	-7.8X
		iScS				30	GMW	80.25	35	P	24	56.00	-0.5				e	32	10.00	
GUA	45.77	307	eP	20	48.00	-26.2X	PMR	80.29	14	eP	24	55.30	-1.0				e	32	14.20	
GUMO	45.83	307	eP	20	48.30	-26.3X	LON	80.34	36	P	24	56.70	-0.3	KMZ	142.24	222	iPKP	32	13.40	-2.3X
	20s	0.54um				4.5msz	ANM	80.36	6	eP	24	56.90	0.2	ETA	142.32	7	ePKP	32	10.50	-4.0X
MTN	48.30	266	eP	21	33.00	-0.6	RMW	80.74	35	P	24	59.00	-0.2	WIT	142.36	354	ePKP	32	12.50	-2.1X
	0.9s	227.00nm				5.6mb	SIT	80.77	22	eP	24	58.90	0.0	KSP	142.50	344	iPKPc	32	11.50	-3.4X
KNA	50.16	262	eP	21	46.90	-0.7	MCW	80.89	34	P	24	59.00	0.0	ECB	142.57	8	ePKP	32	10.60	-4.4X
FORR	50.55	243	eP	21	50.00	-0.2	TOA	81.44	15	eP	25	02.30	-0.2	SPC	142.75	339	ePKP	32	12.00	-3.7X
	0.4s	226.00nm				5.9mb	BJI	81.54	315	eP	25	04.00	0.7				e	35	16.00	
WARB	51.59	249	iPc	21	58.10	0.1		1.2s	0.81nm				3.2mb X	ECP	142.81	7	ePKP	32	11.50	-3.8X
	0.3s	40.00nm				5.3mb	N	12s	0.97um					CLL	142.85	347	ePKP	32	12.00	-3.5X
COOL	56.52	243	iPc	22	32.00	-1.1	DUG	82.62	45	P	25	09.00	0.0		1.0s	19.00nm				
MBL	58.03	254	iPc	22	43.00	-0.6		0.8s	40.56nm				5.2mb				i	32	19.60	
	0.3s	7.00nm				4.6mb	PNT	82.99	35	iPd	25	11.00	0.5	BBTK	143.05	318	iPKPc	32	15.00	-1.4
MEKA	58.85	248	eP	22	49.20	0.1		0.8s	126.00nm				5.7mb	BRG	143.05	346	iPKP	32	12.60	-3.3X
KLB	59.43	242	eP	22	52.00	-1.0	IMA	83.38	10	eP	25	12.00	-0.2		1.0s	32.00nm				
NWAO	59.88	241	eP	22	55.00	-1.0		0.7s	68.60nm				5.5mb				i	32	18.60	
RKG	60.09	239	eP	22	57.30	0.0	FBA	83.47	13	eP	25	11.70	-0.8				i	35	16.40	
BAL	60.34	243	eP	22	58.00	-1.0	DAU	83.78	45	P	25	15.50	0.5	WTS	143.15	354	ePKP	32	13.00	-2.9X
MUN	60.75	242	eP	23	01.00	-0.7	NEW	83.83	36	P	25	13.90	-0.8		0.9s	29.00nm				
MRWA	60.99	245	iPc	23	02.70	-0.7	PTI	84.13	43	P	25	17.00	0.5	MLR	143.33	330	ePKP	32	15.00	-1.7
	0.4s	8.00nm				4.6mb	ALQ	85.01	52	ePc	25	20.30	-0.8	PRU	143.74	345	PKPd	32	15.30	-1.7
NANU	61.87	252	iPc	23	09.40	0.2		0.9s	57.14nm				5.3mb		1.1s	68.80nm				
	0.5s	54.00																		

HOF	144.03	348	iPKPd	32	16.40	-1.2	BBS	147.53	352	PKP	32	27.60	0.0	ROB	150.56	350	PKP	32	33.39	5.2X
	0.7s	14.00nm												FIN	150.59	349	PKP	32	33.18	5.0X
DEV	144.42	333	ePKPd	32	18.00	-0.3	VOY	147.55	343	ePKP	32	23.50	-0.1	ASS	150.61	342	PKP	32	34.00	5.7X
ENN	144.45	355	iPKPd	32	17.60	-0.6			e	32	26.10			STV	150.70	351	PKP	32	33.28	4.8X
	0.8s	121.00nm					VBY	147.62	341	ePKP	32	24.40	0.8	ENR	150.70	350	PKP	32	33.28	4.8X
		e	32	23.50					i	32	27.40		LPO	150.77	360	ePKP	32	28.70	0.3	
UCC	144.54	356	PKP	32	18.00	-0.4	CEY	147.66	342	ePKP	32	24.00	0.3		0.8s	5.35nm				
SRO	144.59	340	iPKP	32	18.10	-0.5			e	32	27.00		BRT	150.91	334	PKP	32	35.10	6.3X	
	1.2s	355.00nm					SRS	147.69	327	ePKP	32	26.80	2.9X	AUTN	150.93	350	PKP	32	27.73	-1.3
		e	35	20.50			LOMF	147.73	352	PKP	32	24.00	0.3	TOUF	150.94	351	PKP	32	28.16	-0.8
		e	00	09.00			OSS	147.83	348	ePKPc	32	24.80	0.7	LCI	151.03	333	PKP	32	35.10	6.2X
MEM	144.60	354	PKP	32	18.00	-0.4	LLS	147.87	350	ePKPc	32	24.60	0.4	AQU	151.04	341	PKP	32	26.40	-2.6X
BUD	144.63	339	iPKP	32	17.80	-0.8	TRI	147.88	343	ePKP	32	24.30	0.3	AURF	151.05	350	PKP	32	28.40	-0.6
ZST	144.65	341	iPKPd	32	19.20	0.6			i	32	27.10		VLI	151.10	321	ePKP	32	35.00	5.8X	
	0.7s	85.00nm					OUR	148.03	326	ePKP	32	28.00	3.6X	VAM	151.15	318	ePKP	32	36.60	7.3X
TNS	144.70	352	iPKPd	32	18.70	-0.1	VAY	148.06	328	iPKP	32	27.60	3.2X	MNS	151.23	342	PKP	32	29.50	0.2
DSI	144.72	303	iPKPd	32	20.00	0.7			i	36	38.80		CALN	151.25	351	PKP	32	28.10	-1.3	
LFK	144.73	310	iPKP	32	19.90	0.6	SMG	148.07	319	ePKP	32	28.20	3.7X	DUI	151.30	339	PKP	32	35.00	5.6X
GRF	144.75	348	iPKPd	32	19.20	0.4	LOR	148.09	356	ePKP	32	24.30	0.0	AZI	151.36	348	PKP	32	36.50	7.2X
	1.0s	275.00nm						0.8s	9.40nm				ITM	151.38	323	ePKP	32	36.00	6.4X	
Z	20s	0.10um		4.6MsZ			CTI	148.11	346	PKP	32	23.40	-1.1	STS	151.38	15	ePKP	32	36.50	7.1X
KHC	144.77	346	iPKPd	32	19.00	0.1	SKO	148.13	330	iPKP	32	24.80	0.3	SDI	151.48	340	PKPd	32	36.00	6.3X
	1.0s	128.50nm						0.7s	83.00nm				RMP	151.75	341	PKP	32	37.00	7.0X	
VKA	144.82	342	iPKPd	32	19.70	0.7			i	32	28.80		RDP	151.79	341	PKP	32	37.00	6.9X	
	1.4s	313.00nm							i	36	42.00		ORI	151.91	334	PKP	32	37.60	7.3X	
		e	32	41.00			VDL	148.16	349	ePKPc	32	25.40	0.7	BSS	151.94	337	PKP	32	37.20	6.9X
SNF	144.83	356	iPKPd	32	18.97	0.1	THE	148.36	327	ePKP	32	28.00	3.1X	SGO	151.95	336	PKP	32	37.10	6.9X
WET	144.92	346	iPKPd	32	19.60	0.5	LBF	148.37	356	ePKP	32	24.70	-0.1	PGF	152.03	347	ePKP	32	30.60	0.1
	1.2s	177.00nm						1.0s	10.00nm					0.8s	13.45nm					
AYN	144.99	299	ePKPd	32	20.90	1.1	AVF	148.60	357	ePKP	32	24.80	-0.3	MGR	152.21	335	PKP	32	37.20	6.5X
ABH	145.15	353	ePKP	32	20.67	1.2	TMA	148.63	349	ePKPc	32	25.90	0.5	TDS	152.29	334	PKP	32	38.40	7.6X
BZS	145.18	334	ePKP	32	21.00	1.4	SMF	148.71	356	ePKP	32	25.00	-0.3	BTH	152.31	2	PKP	32	37.30	6.6X
ALT	145.19	318	ePKP	32	20.00	0.0	SAL	148.78	347	PKP	32	29.50	4.1X	EPF	152.42	1	ePKP	32	31.50	0.5
DOU	145.23	356	iPKPd	32	20.30	0.7	MDI	148.79	348	PKP	32	29.50	4.1X		0.8s	6.70nm				
TOD	145.25	351	ePKP	32	20.91	1.2	PHP	148.82	331	iPKPd	32	29.20	3.7X	ECRI	152.68	6	ePKP	32	40.00	8.7X
RUP	145.39	353	ePKP	32	21.55	1.6	MFF	148.84	1	ePKP	32	25.70	0.2	ETER	153.10	357	ePKP	32	51.00	19.2X
PRNI	145.42	301	ePKP	32	22.00	1.4		0.8s	6.70nm				GUD	154.42	9	ePKP	32	43.50	9.6X	
KMR	145.62	344	iPKP-	32	22.30	2.0	MMK	148.84	351	ePKPc	32	27.20	1.4	ETOR	154.50	5	ePKP	32	44.00	10.1X
KTD	145.63	352	ePKP	32	21.70	1.4	BGF	148.85	357	ePKP	32	25.60	0.1	TOL	155.18	9	ePKP	32	45.00	10.2X
HQL	145.69	300	ePKPd	32	21.70	0.7		0.7s	4.95nm					iPKKc	33	02.50				
BCK	145.75	316	ePKP	32	21.00	0.0	VAI	148.88	349	PKP	32	25.70	0.2	BCAO	159.57	240	ePKPc	32	42.00	1.2
BADA	145.93	298	ePKPd	32	22.00	0.6	DIX	148.90	351	ePKPc	32	27.20	1.3		0.7s	4.00nm				
KHL	145.99	318	ePKP	32	22.00	0.7	EMS	148.97	352	ePKPc	32	27.00	1.0		id	33	23.50			
STU	146.00	350	ePKP	32	21.40	0.5	LIT	149.00	327	ePKP	32	30.00	4.0X	LKO	171.39	131	PKP	32	50.66	0.5
	0.6s	66.67nm					OHR	149.10	330	ePKP	32	24.00	-2.1		1.0s	32.00nm				
FUR	146.19	348	iPKPd	32	23.50	2.2		1.2s	244.00nm					S.D. = 1.0 on 246 of 329 obs.						
	1.0s	245.00nm						i	32	31.00				% APR 25, 1990 02h 22m 17.17± 0.67s						
BHG	146.25	345	iPKPd	32	23.60	2.2			i	36	36.40			41.161 N ± 8.7km 14.799 E ± 11.8km						
	0.7s	121.00nm						e	36	45.80			DEPTH = 10.0km (geophysicist)							
ALN	146.50	324	ePKP	32	23.90	2.0	TCF	149.15	358	ePKP	32	26.10	0.1	SOUTHERN ITALY			(390)			
ELL	146.59	315	ePKP	32	22.00	-0.4		1.0s	8.00nm					BSS	0.37	179	P	22	24.60	-0.2
RDO	146.62	325	ePKP	32	24.20	2.1	NEO	149.17	325	ePKP	32	30.10	3.9X	DUI	0.56	333	P	22	28.10	-0.5
CDF	146.63	352	ePKP	32	21.80	-0.2	LACI	149.20	332	ePKPd	32	30.60	4.5X	SGO	0.72	147	P	22	30.80	-0.4
	1.0s	8.00nm					LSF	149.20	359	ePKP	32	25.80	-0.2		eSg			22	44.10	
FLN	146.67	2	ePKP	32	21.60	-0.3	MAF	149.20	358	ePKP	32	26.70	0.6	SDI	0.92	307	Pd	22	34.70	-0.1
	0.8s	8.05nm					ORO	149.25	350	PKP	32	33.00	6.7X		eSg			22	51.20	
KBA	146.73	344	iPKPc	32	21.90	-0.5	HVAR	149.26	338	iPKPd	32	10.60	-15.6X	MGR	1.17	150	P	22	39.30	0.2
	0.6s	44.10nm					AGO	149.35	357	PKP	32	26.69	0.4		eSg			22	54.90	
		i	32	24.20			TIR	149.35	331	ePKP	32	31.00	4.6X	AZI	1.31	309	P	22	42.00	0.6
		i	32	28.10			PLDF	149.40	356	PKP	32	27.14	0.7	ORI	1.67	131	P	22	47.00	0.4
		e	35	53.00			LSD	149.54	351	PKP	32	32.87	6.0X		S.D. = 0.5 on 7 of 7 obs.					
ECH	146.84	352	PKP	32	21.84	-0.4	LPL	149.54	352	ePKP	32	27.30	0.4		APR 25, 1990 02h 24m 21.94± 0.81s					
LDF	146.85	1	ePKP	32	22.10	-0.1	LPG	149.56	352	ePKP	32	27.60	0.6		24.285 N ± 4.2km 123.488 E ± 4.8km					
	0.7s	4.40nm						0.8s	4.05nm					DEPTH = 39.8 ± 6.9 km						
VITF	146.97	354	PKP	32	22.69	0.3	PYM	149.65	357	PKP	32	27.63	0.8		5.2mb (52 obs.)					
GRR	147.03	2	ePKP	32	22.25	-0.3	ATH	149.80	323	ePKP	32	32.40	5.2X		SOUTHWESTERN RYUKYU ISLANDS			(246)		
	0.7s	6.60nm					BOB	149.81	348	PKP	32	32.70	5.6X		Felt (111 JMA) on					
PTJ	147.05	341	ePKP	32	22.00	-0.8	RSP	149.83	351	PKP	32	31.74	4.6X		Ishigaki-shima.					
FEL	147.05	351	ePKP	32	23.54	0.8	AGG	149.86	326	ePKP	32	32.00	4.7X							
SLE	147.09	351	ePKPc	32	23.10	0.4	LSK	149.93	329	iPKPd	32	32.70	5.3X							
HAU	147.14	353	ePKP	32	22.70	-0.1	BNI	150.01	352	PKP	32	29.00	1.5							
	0.8s	8.05nm					SFI	150.05	344	PKP	32	27.40	0.1							
KSL	147.14	314	ePKP	32	25.70	2.6	RRL	150.12	352	PKP	32	34.10	6.3X							
MOF	147.20	352	PKP	32	22.78	-0.2	PGD	150.13	344	PKP	32	33.80	6.1X	TWC	1.53	283	ePd	24	47.40	0.2
BSF	147.26	353	ePKP	32	22.70	-0.4	ARV	150.14	342	PKP	32	32.50	5.0X	TWZ	1.92	295	ePc	24	53.40	0.6
	0.8s	8.05nm					RJF	150.14	359	ePKP	32	27.60	0.1	TATO	1.95	291	eP	24	54.00	0.8
		e	32	26.00				0.8s	6.70nm				ANP	2.00	297	eP	25	00.00	5.9X	
RBL	147.26	344	PKPc	32	25.10	2.0	LBL	150.16	357	PKP	32	28.81	1.4	TWF1	2.21	246	ePc	24	56.60	-0.4
FVI	147.33	345	PKP	32	22.40	-0.6	PCP	150.20	349	PKP	32	32.46	4.8X		eS			25	25.10	
LJU	147.35	342	ePKP	32	23.50	0.3	BDI													

25d 02h

N	10s	2.40um	CLL	83.23	324	i(P)	36	45.30	-0.1	SES	91.41	31	ePd	37	25.80	0.6				
E	10s	1.40um		0.9s	17.00nm				5.1mb	AGO	91.59	323	P	37	25.55	-0.5				
		Lg	28	15.00		KHC	84.02	322	iP	36	50.20	0.6	DCN	91.72	333	eP	37	25.90	-0.5	
SZP	7.27	203 ePc	26	08.00	-0.5		1.0s	10.50nm	4.9mb	FR8	91.75	5	eP	37	26.00	-0.4				
	1.2s	169.00nm	5.8mb	X		KMR	84.24	320	eP	36	52.00	1.3	MAF	91.79	323	eP	37	26.70	-0.2	
BAG	8.30	200 eP	26	21.00	-1.9	HOF	84.35	323	eP	36	51.70	0.5		0.9s	10.65nm	5.3mb				
HKC	8.79	259 eP	26	31.00	1.5		0.8s	14.00nm	5.1mb	PYM	91.84	323	P	37	27.23	0.0				
QCP	9.86	194 eP	26	52.00	7.7X	WET	84.40	322	iPc	36	52.20	0.7	TCF	91.94	324	eP	37	27.90	0.2	
PPR	15.13	198 ePc	28	02.00	7.4X	VBV	84.84	318	e(P)	36	54.30	0.6		0.8s	4.05nm	4.9mb				
BJI	16.87	340 eP	28	19.00	2.3X	LJU	85.01	319	eP	36	49.50	-5.1X	LBL	92.03	322	P	37	28.15	0.2	
	1.0s	1.80nm	3.2mb	X	GRF	85.04	323	ePKPd	36	55.40	0.7	FFC	92.18	24	iPd	37	28.70	0.1		
MAT	17.59	43 (P)	28	16.00	-9.7X			e	36	58.60			0.6s	27.00nm	5.9mb					
		eS	31	48.00		BHG	85.14	321	iPc	36	55.90	0.7	LPF	92.52	326	iPc	37	29.90	-0.3	
KMI	18.87	277 Pc	28	44.00	2.2		0.8s	28.00nm	5.5mb		0.9s	9.85nm	5.2mb							
	3.0s	0.10nm	1.5mb	X	KBA	85.19	320	iPd	36	55.10	-0.6	CAF	92.87	323	eP	37	31.70	-0.3		
Z	13s	4.30um	4.2msz				0.9s	14.90nm	5.2mb		0.9s	14.75nm	5.4mb							
E	10s	2.00um			CEY	85.23	318	e(P)	36	56.00	0.3	RJF	92.94	323	eP	37	32.30	0.1		
		S	32	22.00		VOY	85.40	319	eP	36	55.80	-0.8		0.8s	17.45nm	5.5mb				
KKM	19.44	202 eP	28	48.00	-0.3	WIT	85.69	327	eP	37	00.00	2.2	LPO	93.51	323	eP	37	34.90	0.0	
CHTO	23.45	261 eP	29	31.00	2.3	WTS	86.09	326	eP	37	00.50	0.7	LFF	93.59	323	eP	37	35.60	0.4	
	1.3s	22.47nm	4.5mb				0.8s	16.00nm	5.3mb		0.9s	10.03nm	5.2mb							
NNT	25.31	247 eP	29	45.20	-1.4	TOD	86.41	324	eP	37	01.79	0.3	KVN	94.67	43	P	37	41.30	0.7	
KHKI	33.35	194 ePc	31	00.50	2.0	OGA	86.66	321	iPc	37	03.00	0.0	TNP	95.81	44	P	37	46.40	0.6	
		e	31	56.00			0.8s	13.00nm	5.2mb		0.7s	5.26nm	5.1mb							
GUN	33.88	284 P	31	03.60	0.0	ABH	86.93	324	eP	37	04.42	0.4	RSON	98.30	23	P	37	55.00	-1.6	
PKI	34.31	284 P	31	07.10	-0.2	KTD	86.96	324	eP	37	04.53	0.4		0.5s	3.38nm	5.1mb				
KKN	34.42	284 P	31	08.00	0.0	GMW	87.01	38	P	37	05.30	0.9	ZOBO	166.50	56	PKP	44	28.00	2.7	
DMN	34.58	284 P	31	09.40	-0.1	ENN	87.26	326	eP	37	05.50	0.0	LPB	166.68	57	PKP	44	27.00	1.7	
GKN	34.97	285 P	31	12.60	-0.1		1.0s	27.00nm	5.4mb				SIV	170.70	28	PKP	44	28.60	1.3	
KNA	40.12	172 eP	31	55.00	-0.7	RUP	87.29	324	eP	37	06.29	0.5			i	45	54.40			
PMG	40.69	143 eP	32	01.00	0.6	MEM	87.31	326	P	37	06.20	0.5		S.D. = 0.9 on 132 of 145 obs.						
NDI	41.45	286 iPc	32	07.00	0.4	BMW	87.35	39	P	37	06.90	0.8		% APR 25, 1990 02h 24m 58.75±0.97s						
HYB	42.40	270 eP	32	15.00	0.4	GWf	87.40	324	P	37	06.20	-0.1		41.216 N ± 9.3km 15.000 E ± 10.9km						
WB5	45.16	165 eP	32	36.70	0.0	RMW	87.62	38	P	37	08.10	0.7		DEPTH = 10.0km (geophysicist)						
WRA	45.21	166 Pd	32	42.20	5.0X	PNT	87.76	36	eP	37	09.00	1.0		SOUTHERN ITALY (390)						
	0.8s	44.20nm	5.4mb			FEL	87.81	323	eP	37	05.10	-3.3X	BSS	0.45	199	P	25	06.40	-1.5	
ASPA	48.73	167 eP	33	07.60	2.9X	WLS	87.87	323	P	37	08.54	0.0			eSg	25	12.10			
	0.6s	30.00nm	5.5mb			CDF	87.91	323	eP	37	08.20	-0.6	DUI	0.60	318	P	25	11.80	0.8	
CTA	49.36	151 iPd	33	10.20	0.5		0.9s	26.20nm	5.5mb		0.7s	11.00nm	5.3mb	SGO	0.70	160	P	25	12.70	0.2
	1.0s	12.50nm	4.9mb			ECH	88.09	323	P	37	09.04	-0.6			eSg	25	24.50			
WARB	50.26	176 eP	33	17.20	0.8	MOF	88.31	323	P	37	10.33	-0.5	SDI	1.02	299	Pd	25	17.60	-0.4	
	0.6s	44.00nm	5.7mb			BBS	88.33	322	P	37	10.30	-0.5			eSg	25	32.20			
COOL	54.90	182 eP	33	50.10	-0.9	DOU	88.34	326	P	37	11.00	0.3	MGR	1.16	158	P	25	21.30	0.9	
BRW	63.93	21 P	34	52.30	-0.5		0.8s	21.70nm	5.5mb						eSg	25	37.50			
TTA	64.37	30 P	34	55.30	-0.6	EDM	88.47	30	iPd	37	12.10	0.7	BRT	1.70	101	P	25	27.00	-1.6	
IMA	65.18	26 P	35	00.40	-0.7	BSF	88.51	323	eP	37	10.60	-1.2	CSI	1.74	145	P	25	34.40	5.2X	
	1.1s	7.03nm	4.6mb				0.7s	11.00nm	5.3mb		0.7s	11.00nm	5.3mb	CZI	2.18	156	P	25	37.10	1.6
KDC	66.66	36 P	35	09.30	-1.2	EKA	88.60	333	Pc	37	11.70	-0.2		S.D. = 1.5 on 7 of 8 obs.						
	0.6s	12.32nm	5.2mb			HAU	88.65	323	eP	37	11.20	-1.1		% APR 25, 1990 03h 00m 09.18±0.89s						
PMR	67.72	31 P	35	15.40	-1.7	VITF	88.73	324	P	37	12.07	-0.5		41.167 N ± 9.3km 14.846 E ± 14.3km						
	0.9s	18.75nm	5.2mb			VGB	89.30	39	P	37	16.70	1.2		DEPTH = 10.0km (geophysicist)						
FBA	67.75	27 P	35	18.50	1.2	DPW	89.37	36	P	37	16.80	1.0		SOUTHERN ITALY (390)						
	0.9s	10.42nm	4.9mb			PCP	89.39	320	P	37	15.87	-0.1	BSS	0.38	185	P	00	16.90	0.0	
KEV	69.66	338 eP	35	40.00	11.0X	LSD	89.68	321	P	37	17.82	0.3	DUI	0.57	330	P	00	20.80	-0.1	
SOD	70.43	336 iP	35	33.00	-0.7	NEW	89.71	36	P	37	17.90	0.5	SGO	0.70	150	P	00	23.10	0.1	
SUF	71.98	331 iP	35	43.00	-0.1		0.7s	39.00nm	5.8mb						eSg	00	34.60			
	0.5s	4.80nm	4.7mb			FIN	89.77	319	P	37	16.18	-1.5	SDI	0.94	305	P	00	27.10	-0.1	
INK	72.34	22 iPc	35	45.00	-0.2	RSP	89.80	321	P	37	15.87	-2.0			eSg	00	40.10			
MBC	72.70	13 eP	35	46.50	-0.7	LPG	89.89	321	iPc	37	18.10	-0.5	MGR	1.16	152	P	00	30.80	-0.1	
	0.4s	4.00nm	4.7mb				0.8s	41.65nm	5.8mb		0.8s	35.60nm	5.7mb	AZI	1.34	308	P	00	34.00	0.2
NUR	73.38	329 iP	35	51.20	-0.1	LPL	89.89	321	eP	37	18.00	-0.5		S.D. = 0.1 on 6 of 6 obs.						
	0.7s	12.00nm	5.0mb				0.8s	35.60nm	5.7mb					% APR 25, 1990 03h 06m 48.50±1.42s						
HRI	75.32	300 e(P)	36	02.00	-1.3	ROB	89.93	320	P	37	17.31	-1.1		47.021 N ± 13.5km 0.477 W ± 20.1km						
SIT	75.77	34 P	36	05.50	0.3	RRL	90.20	321	P	37	19.46	-0.5		DEPTH = 10.0km (geophysicist)						
	0.8s	28.97nm	5.3mb			PGF	90.23	318	eP	37	19.50	-0.4		FRANCE (538)						
DSI	76.19	299 eP	36	09.00	1.0		0.8s	13.45nm	5.3mb					ML 2.5 (LDG).						
UPP	76.87	330 iP	36	10.60	-0.6	PZZ	90.26	320	P	37	18.44	-1.7	MFF	0.48	151	Pg	06	58.40	0.2	
PRNI	76.92	297 eP	36	13.00	0.8	SBF	9													

S.D. = 1.3 on 5 of 6 obs.
 & APR 25, 1990 03h 57m 33.80s
 62.037 N 150.890 W
 DEPTH = 68.8km
 CENTRAL ALASKA
 <AGS-P>.

CUT	0.47	38	iP	57 45.81	-0.6
			eS	57 55.34	
SUA	0.58	173	iP	57 47.16	-0.5
			iS	57 58.39	
PWA	0.62	128	iP	57 47.59	-0.3
			iS	57 58.29	
NCG	0.88	224	iP	57 50.02	-1.0
			eS	58 03.32	
CGLM	0.91	217	eP	57 50.39	-1.0
PLRM	0.95	117	eP	57 50.94	-0.8
			iS	58 05.38	
PMR	0.95	117	eP	57 50.90	-0.9
GHO	0.97	105	iP	57 51.74	-0.4
			eS	58 06.05	
CRP	0.98	219	iP	57 51.55	-0.9
			iS	58 05.84	
PMS	1.02	141	eP	57 52.05	-0.7
			iS	58 07.34	
SPU	1.02	213	iP	57 51.78	-1.1
			eS	58 06.71	
BGL	1.06	223	eP	57 52.67	-0.7
CKL	1.09	220	iP	57 52.87	-0.9
			iS	58 08.47	
HUR	1.11	31	iP	57 53.06	-0.9
			eS	58 08.32	
SML	1.23	100	iP	57 54.79	-0.8
NKA	1.31	188	eP	57 57.73	1.2
KTH	1.52	359	iP	57 58.64	-0.9
			eS	58 17.42	
SLKM	1.57	168	eP	57 58.57	-1.5
RDT	1.64	207	eP	58 00.11	-1.0
			eS	58 21.25	
RND	1.66	33	eP	58 00.04	-1.4
RED	1.86	210	eP	58 03.58	-0.6
NCA	1.92	90	eP	58 03.91	-1.0
MCK	1.92	27	eP	58 04.57	-0.4
NNL	2.01	186	eP	58 06.92	0.8
SEW	2.06	160	eP	58 07.84	1.0
GLI	2.16	121	eP	58 05.89	-2.4
			eS	58 31.78	
TOA	2.22	86	eP	58 08.50	-0.6
VZW	2.30	113	eP	58 08.16	-2.0
VLZ	2.36	111	eP	58 08.63	-2.3
KLU	2.43	101	iP	58 10.20	-1.8
SVW	2.45	250	eP	58 10.00	-2.3
CNPM	2.53	184	eP	58 13.54	0.2
TTA	2.54	293	eP	58 11.40	-2.2
NEA	2.68	17	eP	58 12.69	-2.7
PAX	2.68	67	eP	58 14.54	-1.1
WRH	2.75	26	eP	58 14.61	-1.9
PDB	2.77	217	eP	58 15.23	-1.5
DDM	2.89	50	eP	58 18.18	-0.4
HDA	2.97	35	eP	58 17.94	-1.6
FBA	3.19	24	eP	58 20.80	-1.8
GLM	3.35	26	eP	58 23.08	-1.8
CDD	3.40	205	eP	58 25.58	0.0
IMA	4.23	344	eP	58 34.60	-2.7

43 obs. associated

* APR 25, 1990 04h 20m 04.07 ± 1.48s
 51.026 N ± 17.0km 15.809 E ± 5.7km
 DEPTH = 10.0km (geophysicist)
 POLAND (548)
 ML 2.8 (KRA), 3.0 (KBA), 3.3
 (VKA), 3.5 (GRF).

KSP	0.36	121	iPd	20 10.10	-1.3
	0.6s	94.00nm			
			iS	20 19.20	
			eLR	20 25.00	
BRG	1.19	263	iPg	20 25.60	-0.6
			iSg	20 45.40	
PRU	1.32	218	Pn	20 28.70	0.3
			Pg	20 30.70	
			Sn	20 47.60	
			Sg	20 55.70	
CLL	1.79	280	iPn	20 30.30	-4.9X
			ePg	20 34.00	

KHC	2.38	218	iSg	20 59.60	
			iPn	20 44.20	0.4
			Pg	20 50.00	
			Sg	21 31.40	
HOF	2.60	256	ePn	20 53.50	6.6X
WET	2.67	226	ePn	20 47.80	0.0
MOX	2.69	263	ePg	20 53.00	4.9X
			iSg	21 32.00	
VKA	2.78	173	e(Pg)	20 57.50	8.0X
			eSg	21 39.50	
KRA	2.81	109	eP	20 51.00	1.2
			iS	21 29.20	
ZST	2.95	163	eP	21 32.00	40.1X
			i	21 50.80	
GRF	3.23	247	ePn	20 55.60	-0.2
			ePg	21 06.20	
			eSg	21 52.90	
SPC	3.40	121	eP	21 06.00	7.7X
KBA	4.27	203	iPnc	21 10.90	0.2
			i	21 19.70	
			i	22 17.70	
			i	22 32.60	
			iSg	22 33.80	

S.D. = 0.9 on 8 of 14 obs.

* APR 25, 1990 04h 39m 27.17 ± 0.61s
 40.441 N ± 6.9km 28.867 E ± 4.5km
 DEPTH = 10.0km (geophysicist)

YLV	0.41	72	iPg	39 35.20	-0.3
			iSg	39 39.20	
ISK	0.64	13	iPg	39 40.60	0.6
HRT	0.72	58	iPg	39 41.00	-0.3
BNT	0.73	264	iPg	39 41.20	-0.3
			iSg	39 51.70	
EDC	0.77	263	iPg	39 41.50	-0.7
			eSg	39 52.50	
CTT	0.78	335	ePg	39 42.20	-0.2
KGT	1.19	271	iPn	39 50.20	0.8
ALT	1.68	145	ePn	39 57.30	0.4

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

* APR 25, 1990 04h 56m 49.11 ± 1.24s
 33.040 S ± 8.7km 70.258 W ± 7.4km
 DEPTH = 108.1 ± 16.1 km

FCH	0.29	185	iPd	57 05.00	-0.4
			iS	57 16.50	
PEL	0.37	254	iPc	57 05.40	0.1
			i(S)	57 16.00	
SAN	0.53	219	iPc	57 06.20	0.0
			iS	57 19.40	
PCH	0.62	200	iPc	57 07.20	0.2
			iS	57 20.50	
ROCH	0.64	276	iPc	57 06.90	-0.4
			iS	57 20.50	
CHCH	0.95	200	iPc	57 10.50	0.5
			iS	57 27.00	
IHA	1.16	270	eP	57 12.00	-0.2
			iS	57 29.30	
LCCH	1.18	248	iPc	57 12.50	0.1
			iS	57 29.50	
LVN	1.33	226	iPc	57 13.90	-0.2
			iS	57 33.00	
RTBS	1.53	27	ePc	57 17.50	0.9
			eS	57 36.60	
RTCV	1.87	52	ePd	57 20.80	-0.1
			S	57 44.50	
RTCB	1.98	39	iPc	57 23.00	0.6
ZON	2.00	42	eP	57 22.00	-0.6
			eS	57 47.00	
CFA	2.23	51	iPc	57 25.00	-0.5
			eS	57 52.00	
RTLL	2.28	42	iPc	57 26.00	-0.2
			iS	57 53.70	
RTRS	2.94	14	ePd	57 35.00	0.0
			eS	58 11.20	

S.D. = 0.5 on 16 of 16 obs.

* APR 25, 1990 04h 58m 30.10 ± 0.37s
 17.912 S ± 10.4km 178.605 W ± 7.4km
 DEPTH = 605.1 ± 3.7 km
 4.8mb (27 obs.)

FIJI ISLANDS REGION (181)

TVI	1.68	305	iP	59 44.40	-0.7
KRO	2.00	287	iP	59 45.90	-0.3
NDE	2.38	303	iP	59 47.50	0.5
OVA	2.50	275	iP	59 47.80	0.3
VUN	2.79	268	iP	59 48.60	-0.3
SVA	2.80	265	ePc	59 48.70	-0.3
SGE	3.32	275	iP	59 53.00	0.9
DZM	14.65	251	iPc	01 35.60	0.9
			iS	04 08.60	
BRS	27.99	245	iPc	03 35.00	-1.1
	0.6s	12.00nm			4.7mb
		e		03 50.00	
COO	29.61	239	iPc	03 50.70	0.7
RMO	31.33	248	iPd	04 05.00	0.6
	0.6s	75.00nm			5.5mb
CTA	33.26	261	iPd	04 21.00	0.3
	1.0s	70.00nm			5.2mb
		i		04 31.90	
		e(Pp)		05 11.00	247kmX
		e(PP)		05 58.00	
		i(S)		09 37.00	
CNB	33.28	232	iPd	04 21.70	0.9
CAN	33.55	232	iPd	04 23.20	0.1
BWA	33.67	234	eP	04 22.40	-1.6
PMG	34.28	280	iPd	04 30.80	1.6
	0.9s	319.33nm			5.9mb X
TOO	37.02	231	iPd	04 52.40	0.8
	1.0s	147.00nm			5.6mb
QIS	39.47	259	eP	05 11.00	-0.6
WB5	44.43	260	iPd	05 50.10	-0.5
WRA	44.45	260	Pd	05 49.70	-1.0
	0.7s	43.50nm			5.1mb
ASPA	44.61	254	iPd	05 54.40	2.4
	0.9s	385.00nm			5.9mb X
		iS		11 47.60	
MTN	48.61	268	iPd	06 22.00	-0.4
	0.7s	157.00nm			5.6mb
FORR	49.80	245	eP	06 30.10	-0.8
	0.3s	43.00nm			5.4mb
KNA	50.29	264	iPd	06 34.00	-0.6
WARB	51.10	251	iPd	06 40.00	-0.6
	0.3s	17.00nm			5.0mb
M8L	57.80	256	iPd	07 26.40	-0.9
	0.3s	14.00nm			4.7mb
NWAO	59.04	242	eP	07 34.00	-1.5
MRWA	60.33	246	iPc	07 43.20	-0.9
NANU	61.54	254	iPd	07 52.00	0.0
	0.3s	12.00nm			4.7mb
TRT	67.51	269	ePc	08 25.50	-3.9X
ADK	69.51	1	P	08 39.30	-1.3
	0.9s	50.00nm			5.0mb
SPA	72.20	180	iPc	08 56.10	-0.3
	0.9s	20.00nm			4.6mb
SAO	76.56	44	eP	09 20.80	0.0
BCH	76.59	46	P	09 21.20	0.1
PRI	76.73	45	eP	09 22.20	0.3
MHC	76.76	43	ePc	09 23.00	1.0
ARN	76.83	43	P	09 22.50	0.2
ABL	77.00	47	P	09 22.80	-0.7
PAS	77.36	48	eP	09 26.00	0.9
MWC	77.48	48	eP	09 26.00	0.0
BAR	77.67	50	eP	09 27.00	0.1
RVR	77.84	48	eP	09 27.00	-0.7
PLM	77.88	49	eP	09 28.00	-0.2
SBB	77.89	47	eP	09 28.00	0.0
PEC	77.94	48	P	09 27.80	-0.5
ISA	77.95	46	eP	09 29.00	0.6
CMB	77.97	43	ePc	09 28.40	0.0
WDC	78.07	40	ePc	09 28.90	0.1
ORV	78.12	42	P	09 28.70	-0.4
KDC	78.44	14	P	09 30.20	-0.1
	0.8s	21.38nm			4.6mb
CLC	78.64	46	eP	09 32.00	0.1
TPC	78.84	49	eP	09 33.00	0.0
GSC	78.92	47	eP	09 33.00	-0.5
GLA	79.20	50	eP	09 36.00	1.1
KVN	80.02	43	P	09 39.00	-0.3
TNP	80.09	45	P	09 39.80	0.1
	1.0s	22.50nm			4.6mb
GMW	82.09	34	P	09 49.80	0.5
LON	82.15	36	P	09 49.90	0.2
TTA	82.51	10	P	09 51.00	-0.2
	1.0s	26.25nm			4.7mb
RMW	82.57	35	P	09 51.70	-0.1
PMR	82.65	14	P	09 50.80	-0.9
	1.0s	22.50nm			4.7mb

25d 05h

MCW	82.76	34 P	09 53.80	1.1	KMI	37.68	252 Pd	23 08.50	0.3	KHC	76.27	328 iPc	27 38.40	1.1	
DUG	84.11	45 P	10 00.80	1.1		1.5s	0.10nm		2.1mb X	SCH	77.51	17 eP	27 45.00	1.0	
	0.8s	3.06nm		4.0mb	TTA	38.58	40 eP	23 15.50	0.5	DMU	78.14	342 eP	27 48.60	1.2	
PNT	84.84	34 eP	10 03.00	0.1	BRW	38.85	27 eP	23 16.00	-1.0	DCN	78.73	342 eP	27 52.00	1.4	
	0.8s	32.00nm		5.0mb	SVW	38.86	43 eP	23 17.90	0.6	ALQ	78.87	51 eP	27 53.00	1.0	
NEW	85.62	36 P	10 06.10	-0.6	IMA	39.54	35 eP	23 21.60	-1.3		1.0s	9.25nm		4.5mb	
	0.9s	16.67nm		4.7mb		0.4s	23.40nm		5.0mb	ETA	79.10	341 eP	27 53.30	0.7	
IMA	85.81	10 P	10 06.50	-0.8	KDC	40.90	48 eP	23 33.60	-0.3	CDF	79.12	332 eP	27 52.80	-0.1	
	0.9s	3.96nm		4.1mb	PMR	41.91	42 eP	23 41.80	-0.3	ECB	79.53	341 eP	27 55.80	0.9	
FBA	85.85	13 P	10 06.00	-1.4	FBA	42.06	37 eP	23 42.80	-0.5	ECP	79.61	341 eP	27 56.30	1.0	
	0.8s	18.97nm		4.9mb		0.7s	42.90nm		5.0mb	FLN	81.23	336 eP	28 04.20	0.3	
ALQ	86.24	52 eP	10 09.90	-0.3	TOA	43.20	41 eP	23 53.30	0.6	LDF	81.28	336 eP	28 04.50	0.4	
	1.0s	13.25nm		4.6mb	CHG	44.58	249 eP	24 04.80	0.8	LBF	81.46	333 eP	28 04.80	-0.4	
LRM	87.10	40 eP	10 14.60	0.6		1.0s	13.00nm		4.2mb		0.5s	2.20nm		4.1mb	
		e	13 46.90		INK	47.01	30 eP	24 21.50	-1.0	GRR	81.68	336 eP	28 06.90	0.7	
BW06	87.49	43 P	10 15.00	-0.9		0.5s	49.00nm		5.1mb		0.7s	8.80nm		4.6mb	
	0.8s	7.86nm		4.5mb	MBC	48.70	18 eP	24 34.60	-0.8	SMF	81.80	333 eP	28 07.10	0.2	
CHTO	88.83	290 iP	10 24.20	2.0		0.4s	10.00nm		4.6mb		0.6s	4.50nm		4.4mb	
	1.0s	11.25nm		4.7mb	SIT	49.96	45 eP	24 46.60	1.4	LPL	81.81	330 eP	28 07.10	-0.1	
GOL	89.00	48 P	10 22.80	-0.2	NDI	53.41	276 iPd	25 11.20	0.0		0.6s	2.25nm		4.1mb	
	1.1s	30.45nm		5.1mb	KEV	56.40	338 iP	25 31.00	-1.1	LPG	81.82	330 eP	28 07.20	-0.2	
GLD	89.13	48 P	10 24.00	0.5		0.6s	13.00nm		4.7mb		0.5s	2.90nm		4.3mb	
	1.1s	40.98nm		5.3mb	YKA	56.59	33 eP	25 32.50	-1.0	AVF	81.83	333 eP	28 07.20	0.2	
SES	90.13	36 ePc	10 27.50	-0.1		0.7s	32.30nm		5.0mb		0.5s	2.55nm		4.2mb	
EDM	90.26	33 iPc	10 27.80	-0.4	DAG	57.97	355 iPc	25 40.60	-2.4	LPF	82.05	336 eP	28 09.20	1.1	
RSSD	91.70	44 P	10 34.00	-1.2		0.6s	8.00nm		4.5mb		0.5s	3.65nm		4.4mb	
INK	91.94	15 iPd	10 35.00	-0.5	SOD	58.06	336 iP	25 42.50	-1.2	BGF	82.20	333 eP	28 09.80	0.8	
YKA	94.41	25 eP	10 43.50	-3.4X	GMW	61.36	50 P	26 06.80	0.4		0.4s	1.70nm		4.1mb	
	0.8s	2.50nm		4.5mb	BMW	61.75	51 P	26 09.80	0.7	MAF	82.59	333 eP	28 11.80	0.8	
MBC	100.38	12 ePdiff	11 13.50	0.0X	RMW	61.95	50 P	26 10.30	-0.1		0.5s	4.35nm		4.4mb	
EKA	142.48	4 PKPd	16 52.40	-3.8X	PNT	62.00	47 eP	26 10.00	-0.6	TCF	82.64	334 eP	28 11.40	0.1	
	1.7s	14.20nm			LON	62.37	51 P	26 13.00	-0.2	LSF	82.89	334 eP	28 12.60	0.1	
ETA	144.78	8 ePKP	17 00.60	0.4	EDM	62.68	41 ePc	26 14.30	-0.7		0.7s	4.95nm		4.3mb	
YRH	144.83	6 ePKP	17 00.40	0.1	GBA	62.96	262 Pd	26 16.40	-0.8	MFF	83.08	335 eP	28 14.10	0.6	
ECB	145.02	9 ePKP	17 01.40	0.8		0.7s	11.30nm		4.7mb		0.5s	3.65nm		4.4mb	
ECP	145.26	8 ePKP	17 02.20	1.2	NUR	63.43	331 iP	26 18.00	-1.7	TUL	83.74	44 eP	28 17.60	0.7	
CLL	145.42	347 iPcPc	17 02.30	1.0		0.6s	10.40nm		4.7mb		1.0s	12.70nm		4.7mb	
	1.0s	14.00nm					i	26 27.80		CAF	83.90	333 eP	28 18.60	1.0	
BRG	145.62	346 iPcP	17 04.30	2.7X	NEW	63.95	47 P	26 22.80	-0.6		0.5s	2.90nm		4.4mb	
	1.3s	16.00nm				0.9s	18.64nm		4.8mb	CBM	84.57	21 P	28 21.00	0.1	
PRU	146.30	345 ePKP	17 05.50	2.7X	WB5	64.96	189 eP	26 29.00	-0.9	RSNY	84.98	26 P	28 23.00	0.0	
LWI	146.39	236 ePKPd	17 07.90	3.6X	WRA	65.03	189 Pc	26 29.10	-1.3		0.5s	5.77nm		4.7mb	
PRNI	147.06	298 iPcPc	17 09.00	4.4X		0.5s	1.50nm		4.0mb	WVLY	85.51	29 P	28 25.70	0.0	
KHC	147.33	345 PKP	17 08.90	4.4X	SES	65.60	42 ePc	26 33.50	-0.4	BNH	85.91	24 P	28 27.90	0.3	
FLN	149.19	2 ePKP	17 12.30	5.0X	WDC	65.77	56 ePc	26 35.40	0.4	OLY	86.15	41 P	28 28.30	-0.6	
	0.9s	14.75nm			FFC	66.62	35 iPc	26 39.80	-0.4	PWLA	88.15	39 P	28 38.00	-0.5	
CDP	149.20	352 ePKP	17 12.70	5.2X		0.7s	19.00nm		4.9mb	TBR	88.15	27 P	28 38.20	-0.2	
LDF	149.37	2 ePKP	17 12.70	5.1X	ORV	67.03	57 P	26 42.70	-0.3	RSCP	88.73	37 P	28 41.70	0.4	
	0.8s	8.05nm			NB2	67.25	337 P	26 42.80	-1.3	NAV	89.21	33 P	28 43.90	0.4	
GRR	149.55	3 ePKP	17 13.40	5.5X		0.7s	5.80nm		4.4mb	GBTN	89.25	36 P	28 43.80	0.1	
HAU	149.71	353 ePKP	17 14.00	5.8X	HFS	67.26	335 eP	26 42.60	-1.5	TKL	89.44	36 P	28 44.90	0.3	
BSF	149.83	353 ePKP	17 14.20	5.7X		0.5s	14.80nm		5.0mb	CVL	89.51	31 P	28 45.30	0.5	
LPF	149.89	3 ePKP	17 14.30	5.9X	Z	16s	0.03um		3.6mszX	NA2	89.64	31 P	28 45.80	0.4	
	0.8s	14.80nm					LR	55 57.00		SIV	144.91	42 PKPc	35 23.40	-0.4	
LOR	150.65	357 ePKP	17 16.10	6.5X	LRM	67.96	47 iPc	26 49.30	0.3	S.D. = 0.8 on 100 of 100 obs.					
	0.7s	5.50nm			CMB	68.68	57 ePc	26 53.70	0.5	% APR 25, 1990 05h 30m 24.24 ± 2.51s					
SSF	150.88	357 ePKP	17 16.60	6.7X	ASPA	68.75	189 eP	26 54.40	0.8	18.371 N ± 20.9km 65.953 W ± 9.8km					
	0.7s	4.95nm				0.6s	6.00nm		4.5mb	DEPTH = 10.0km (geophysicist)					
LBF	150.93	356 ePKP	17 16.50	6.4X	FRB	68.87	14 ePc	26 52.60	-1.3	PUERTO RICO REGION (90)					
	0.9s	4.90nm				0.6s	49.00nm		5.4mb	LPR	0.10	128 P	30 27.50	0.5	
MFF	151.36	2 ePKP	17 17.50	6.9X	HPI	69.04	49 P	26 55.80	0.1	SJG	0.32	216 iP	30 32.10	1.2	
BGF	151.41	358 ePKP	17 17.70	7.0X	KVN	69.36	55 P	26 57.50	-0.1	CPD	0.33	174 P	30 30.00	-1.1	
TCF	151.70	359 ePKP	17 18.20	7.0X	PTI	70.00	49 P	27 02.20	0.8	PORP	0.72	244 P	30 38.90	0.4	
	0.8s	3.35nm			TNP	70.52	55 P	27 05.00	0.4	MGP	1.14	252 P	30 44.50	-1.1	
LSF	151.74	360 ePKP	17 18.00	6.8X		0.7s	11.48nm		4.7mb	S.D. = 1.5 on 5 of 5 obs.					
	0.7s	4.40nm			BW06	71.56	48 P	27 10.70	0.0	? APR 25, 1990 05h 54m 45.56 ± 0.99s					
MAF	151.75	358 ePKP	17 18.60	7.4X		0.8s	14.14nm		4.7mb	37.729 N ± 7.9km 15.001 E ± 8.7km					
LPG	152.13	352 ePKP	17 20.20	8.0X	DUG	71.60	51 P	27 11.00	0.1	DEPTH = 10.0km (geophysicist)					
	1.0s	6.00nm				0.7s	9.49nm		4.6mb	SICILY (398)					
S.D. = 0.8 on 81 of 106 obs.					DAU	72.30	50 P	27 15.80	0.6	MNO	0.32	310 Pc	54 52.30	0.1	
APR 25, 1990 05h 16m 14.94 ± 0.59s					RSON	72.84	33 P	27 16.00	-1.7	ATN	0.56	40 P	54 57.00	0.0	
44.960 N ± 5.9km 142.596 E ± 4.4km						0.6s	17.81nm		5.0mb			eSg	55 06.90		
DEPTH = 249.4 ± 6.4 km					KRA	73.05	325 eP	27 18.00	-1.0	MEU	0.63	185 P	54 58.30	0.0	
4.6mb (44 obs.)					RSSD	73.40	44 P	27 20.90	-0.5			eSg	55 08.20		
HOKKAIDO, JAPAN REGION (224)					KSP	73.85	328 eP	27 23.70	0.1	GIB	0.81	289 P	55 01.30	-0.1	
					CLL	74.68	330 iPd	27 28.70	0.4			eSg	55 13.60		
ASAJ	0.84	178 P	16 50.90	1.6		0.9s	19.00nm		4.8mb	S.D. = 0.1 on 4 of 4 obs.				? APR 25, 1990 06h 15m 58.03 ± 0.92s	
		S	17 18.20		PRU	75.20	328 Pd	27 32.40	1.1	40.814 N ± 8.6km 23.815 E ± 8.5km					
MAT	9.04	203 iPc+	18 20.10	-2.2		1.0s	8.70nm		4.4mb	DEPTH = 10.0km (geophysicist)					
	0.8s	140.30nm		5.1mb	GLA	75.38	58 P	27 33.20	0.5	GREECE (364)					
		(S)	19 59.00		EKA	75.96	341 P	27 36.00	0.6	ML 2.1 (THE).					
SHK	12.90	220 iPd	19 11.00	0.3		0.5s	3.30nm		4.3mb						
	1.0s	120.00nm		5.1mb	GOL	75.96	47 P	27 36.00	-0.1						

SRS 0.35 331 ePg 16 04.70 -0.5
 SOH 0.35 271 eP 16 05.70 0.4
 OUR 0.50 165 ePg 16 07.70 -0.4
 ALN 1.69 86 ePb 16 28.20 0.4
 S.D. = 0.9 on 4 of 4 obs.

APR 25, 1990 06h 25m 29.42±1.57s
 16.977 N ± 8.1km 61.787 W ± 8.9km
 DEPTH = 77.7 ± 17.8 km
 LEEWARD ISLANDS (92)
 MD 3.2 (TRN).

BPA 0.10 316 iPd 25 41.22 -0.5
 MBET 0.43 237 eP 25 42.63 0.1
 MGH 0.48 238 iPc 25 43.19 0.2
 SEG 0.63 155 ePc 25 44.80 0.4
 CPB 0.66 357 eP 25 44.98 0.3
 NEV 0.77 282 iPc 25 45.73 -0.1
 SFG 0.92 142 eP 25 47.21 -0.3
 PAG 0.95 174 eP 25 48.26 0.2
 SKI 0.98 291 eP 25 48.02 -0.3
 BSK 1.07 290 eP 25 49.64 0.2
 BBL 1.48 168 eP 25 54.50 -0.3
 S.D. = 0.4 on 11 of 11 obs.

? APR 25, 1990 06h 26m 03.14±0.95s
 37.728 N ± 7.6km 14.962 E ± 10.1km
 DEPTH = 10.0km (geophysicist)
 SICILY (398)

MNO 0.29 314 P 26 09.40 0.1
 ATN 0.59 42 P 26 15.30 0.3
 MEU 0.63 182 P 26 15.80 0.0
 CZI 1.75 31 P 26 33.30 -0.4
 S.D. = 0.5 on 4 of 4 obs.

% APR 25, 1990 06h 27m 18.26±0.85s
 37.715 N ± 7.2km 14.979 E ± 7.7km
 DEPTH = 10.0km (geophysicist)
 SICILY (398)

MNO 0.31 314 P 27 24.80 0.0
 ATN 0.59 41 P 27 30.60 0.5
 MEU 0.61 184 P 27 30.70 0.0
 GIB 0.80 290 P 27 34.00 0.1
 CZI 1.75 31 P 27 48.30 -0.5
 S.D. = 0.5 on 5 of 5 obs.

APR 25, 1990 07h 10m 53.93±0.15s
 48.261 N ± 3.5km 154.364 E ± 2.7km
 DEPTH = 38.3km (13 depth phases)
 5.5mb (81 obs.) 5.0Msz (8 obs.)

KURIL ISLANDS (221)
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 10S, 24C
 Centroid Location:
 Origin Time 07:10:57.8 0.6
 Lat 48.40N 0.07 Lon 153.95E 0.08
 Dep 68.7 5.7 Half-duration 2.0
 Moment Tensor: Scale 10**16 Nm
 Mrr= 3.83 0.43 Mtt=-7.84 1.01
 Mff= 4.01 0.89 Mrt= 6.41 0.57
 Mrf= 8.75 0.52 Mtf= 0.14 0.90
 Principal Axes:
 T Val= 13.70 Ptg=46 Azm=288
 N -2.07 29 54
 P -11.63 30 162
 Best Double Couple: Mo=1.3*10**17
 NP1: Strike=303 Dip=31 Slip= 161
 NP2: 49 81 61

MAT 16.68 231 iPd 14 42.90 -3.4X
 0.8s 73.13nm 4.9mb
 SHK 21.18 238 eP 15 38.00 -0.1
 ANM 26.97 38 eP 16 34.70 1.2
 SSE 30.44 248 P 17 05.00 0.1

1.0s 19.00nm 4.8mb
 Z 20s 0.90um 4.4Msz
 E 16s 0.90um
 i 17 20.00 61kmX
 S 22 02.00
 sS 22 06.00

TTA 30.73 43 eP 17 07.60 0.3
 SVW 30.81 47 eP 17 08.60 0.6
 IMA 32.09 37 eP 17 19.80 0.6
 BRW 32.23 27 eP 17 20.10 -0.1
 PMR 33.93 46 P 17 34.00 -1.1

1.0s 25.00nm 5.1mb
 FBA 34.45 40 eP 17 40.00 0.4
 1.0s 85.00nm 5.6mb
 TOA 35.29 45 eP 17 47.80 0.9
 INK 39.92 33 eP 18 22.00 -3.4X
 0.5s 13.00nm 5.0mb

MBC 42.89 21 eP 18 50.50 0.8
 1.0s 14.00nm 4.6mb
 KMI 46.36 259 Pd 19 19.50 1.2
 1.5s 0.20nm 2.8mb X
 Z 20s 0.80um 4.7Msz

eS 26 00.00
 sS 26 17.00
 YKA 49.21 38 eP 19 39.90 0.1
 0.8s 10.80nm 4.9mb
 GMW 52.87 57 P 20 08.00 0.1
 pP 20 19.70 41km

CHTO 53.29 257 iP 20 10.80 -0.4
 0.6s 61.87nm 5.8mb
 PNT 53.64 54 eP 20 13.00 -0.5
 1.0s 43.00nm 5.4mb
 EDM 54.66 47 eP 20 20.00 -1.0
 NST 54.83 253 eP 20 26.00 3.5X

NEW 55.59 54 P 20 27.00 -0.8
 1.0s 23.75nm 5.2mb
 pP 20 38.70 40km
 GUN 55.72 275 P 20 27.40 -1.9
 KKN 56.19 275 P 20 32.40 -0.2
 KEV 56.20 341 eP 20 40.00 8.2X

PKI 56.25 275 P 20 32.20 -1.0
 DMN 56.43 275 P 20 33.60 -0.8
 GKN 56.48 276 P 20 32.90 -1.7
 WDC 57.10 64 eP 20 38.10 -0.5
 e 20 50.10 42km

NNT 57.40 251 eP 20 41.00 0.0
 SES 57.50 49 eP 20 41.00 -0.4
 pP 20 53.00 42km
 SOD 58.15 339 iP 20 44.00 -1.6
 ORV 58.36 65 P 20 46.90 -0.6
 FFC 59.04 41 eP 20 51.00 -1.0

0.9s 25.00nm 5.3mb
 LRM 59.61 54 eP 20 56.20 -0.2
 CMB 59.99 65 ePd 20 58.00 -0.9
 e 21 05.20 24kmX
 e 21 11.30

HPI 60.61 56 P 21 03.80 0.5
 pP 21 15.00 38km
 KVN 60.71 63 P 21 03.00 -1.0
 GDH 61.01 11 eP 21 03.00 -2.3
 i 31 06.00
 i 31 14.00

PTI 61.56 57 P 21 10.80 1.2
 pP 21 22.20 39km
 TNP 61.87 63 P 21 10.90 -0.9
 0.8s 19.61nm 5.3mb
 SUF 61.98 336 eP 21 10.00 -1.9

BCH 62.02 68 P 21 12.00 -0.7
 ISA 62.69 66 eP 21 15.00 -2.1
 DUG 63.06 59 P 21 20.00 0.4
 0.9s 18.42nm 5.2mb
 pP 21 31.30 38km

CLC 63.13 66 eP 21 18.00 -2.0
 BW06 63.17 55 P 21 20.70 0.3
 pP 21 32.00 38km
 FRB 63.34 20 eP 21 19.00 -1.9
 SBB 63.74 67 eP 21 24.00 0.0
 GSC 63.95 66 eP 21 25.00 -0.4

NUR 64.20 335 iP 21 25.00 -1.5
 0.7s 18.70nm 5.3mb
 i 21 35.80 35km

MTN 64.25 205 iPc 21 26.90 -0.4
 RVR 64.48 67 eP 21 28.00 -0.8
 PEC 64.68 67 P 21 29.80 -0.3
 RSSD 65.21 51 eP 21 32.80 -0.8
 ipP 21 44.80 41km
 e 21 54.30

TPC 65.22 66 eP 21 33.00 -0.6
 PLM 65.22 67 eP 21 33.00 -0.8
 RSON 65.34 40 P 21 33.10 -1.0
 BAR 65.80 68 eP 21 36.00 -1.3
 QUE 66.53 289 eP 21 43.50 1.3

UPP 66.63 338 iP 21 40.50 -1.6
 GLA 66.68 66 eP 21 43.00 0.1
 TRT 66.72 226 ePd 21 38.70 -4.5X
 MAIO 66.88 299 eP 21 46.00 1.8
 NB2 67.07 342 P 21 43.20 -1.8

1.1s 22.20nm 5.2mb
 HFS 67.33 340 eP 21 45.60 -1.0
 0.5s 10.50nm 5.2mb
 GOL 67.58 55 P 21 49.70 0.9
 1.0s 26.25nm 5.3mb

GLD 67.62 55 P 21 49.80 0.8
 1.1s 47.25nm 5.5mb
 HYB 67.81 272 iPd 21 49.50 -0.7
 1.0s 70.00nm 5.7mb
 CTA 68.42 188 iPd 21 52.50 -1.3

1.5s 104.17nm 5.7mb
 POO 70.15 276 iPc 22 04.50 -0.1
 WB5 70.15 200 iPd 22 03.30 -1.1
 WRA 70.22 200 Pd 22 03.70 -1.1
 1.1s 46.60nm 5.4mb

ALO 70.33 59 eP 22 06.00 0.2
 1.2s 17.58nm 5.0mb
 Z 20s 0.35um 4.6Msz
 e 22 17.00 36km

DZM 70.84 168 iPc 22 08.90 0.2
 GBA 71.29 270 Pd 22 08.70 -2.8
 1.1s 26.60nm 5.2mb
 SCH 71.61 24 eP 22 13.00 0.1
 IR7 72.37 304 eP 22 18.00 0.1

IR4 72.54 303 eP 22 20.00 1.1
 ASPA 73.91 199 iPd 22 31.80 5.1X
 1.4s 63.00nm 5.4mb
 KRA 74.50 331 iPc 22 29.60 -0.2
 0.8s 47.00nm 5.5mb

Z 24s 1.60um 5.2MszX
 E 24s 2.10um
 RMO 74.57 185 eP 22 30.00 -0.4
 KSP 74.92 334 iP 22 31.90 -0.4
 1.0s 62.00nm 5.5mb

EKA 75.07 347 Pd 22 32.70 -0.3
 0.5s 22.40nm 5.4mb
 SPC 75.15 331 eP 22 33.90 0.0
 SLY 75.22 307 ePc 22 35.00 0.8
 BRS 75.32 181 iPc 22 34.50 -0.2

1.0s 6.50nm 4.6mb
 CLL 75.43 336 iPd 22 34.80 -0.4
 1.2s 88.00nm 5.6mb
 i 22 52.10 63kmX
 TUL 75.51 52 e(P) 22 37.60 1.7

1.1s 17.90nm 5.0mb
 e 22 47.50 32km
 BRG 75.57 335 iP 22 35.30 -0.7
 1.0s 32.00nm 5.3mb
 i 22 42.40 23kmX

VRI 75.69 325 ePd 22 40.00 3.2X
 MSL 75.87 309 ePc 22 28.50 -9.4X
 PRU 76.19 335 iPd 22 39.90 0.4
 1.1s 30.60nm 5.2mb
 Z 22s 0.90um 5.0Msz

N 22s 0.90um
 E 18s 0.30um
 MLR 76.31 325 iP 22 40.00 -0.4
 MOX 76.41 337 iP 22 41.00 0.3
 1.1s 42.00nm 5.4mb

Z 21s 0.90um 5.1Msz
 KAS 76.48 318 iPd 22 42.50 1.1
 HOF 76.64 336 eP 22 41.90 -0.1
 1.0s 35.00nm 5.3mb
 FVM 76.64 47 P 22 42.20 0.0

PSN 76.95 323 iPd 22 44.00 0.2
 SRO 76.98 331 iP 22 44.70 0.8
 DMU 76.99 349 eP 22 43.50 -0.4
 0.8s 87.00nm 5.8mb
 ZST 77.03 332 eP 22 44.70 0.5

1.2s 53.00nm 5.4mb
 BUD 77.04 331 iP 22 45.00 0.8

25d 07h

KHC	77.24	335	iP	22	45.50	0.1	CTI	80.59	335	P	23	02.90	-0.8	MFF	82.94	343	eP	23	16.10	0.3
	1.0s	57.00nm				5.6mb	LOMF	80.67	338	P	23	04.09	0.0		0.9s	44.20nm				5.5mb
Z	22s	1.10um				5.1msz	VDL	80.79	336	ePd	23	05.60	0.7	RRL	82.95	337	P	23	16.60	0.4
N	22s	0.80um					KHL	80.84	319	eP	23	04.00	-1.2	ASS	83.00	333	P	23	17.00	0.7
E	20s	0.50um					RSCP	80.89	46	P	23	05.40	0.0	CKI	83.01	336	P	23	16.00	-0.3
		e		22	54.00	27kmX	FLN	80.93	343	iPc	23	05.10	-0.2	PYM	83.08	340	P	23	17.74	1.1
GRF	77.38	336	ePc	22	46.40	0.3		0.9s	50.80nm			5.5mb	SALJ	83.11	311	Pc	23	16.90	-0.1	
Z	21s	1.00um				5.1msz	SKO	81.01	326	eP	23	06.00	0.2	MDSJ	83.13	311	Pc	23	17.00	-0.2
WET	77.42	335	iPd	22	47.10	0.7		1.0s	68.00nm			5.6mb	DOI	83.22	337	P	23	16.90	-0.5	
	1.0s	100.00nm				5.8mb		Z	22s	1.13um		5.2msz	KFNJ	83.23	311	Pd	23	17.60	0.1	
UYO	77.54	52	eP	22	47.50	0.2		N	22s	0.84um			FIN	83.23	336	P	23	16.29	-1.1	
DCN	77.58	349	eP	22	47.10	0.0		E	22s	0.68um			ROB	83.25	336	P	23	16.29	-1.2	
	1.0s	104.00nm				5.8mb							PZZ	83.25	337	P	23	16.19	-1.5	
BHD	77.59	306	ePc	22	49.00	1.5							CAN	83.35	184	eP	23	18.30	0.5	
TNS	77.60	338	ePd	22	47.80	0.4	LDF	81.03	343	eP	23	05.70	-0.1	AQU	83.42	332	P	23	19.70	1.3
SOP	77.65	332	eP	22	49.10	1.5		0.9s	31.10nm			5.3mb	ENR	83.43	337	P	23	17.52	-1.0	
BZS	77.79	328	eP	22	47.50	-0.9	BCK	81.09	318	iP	23	07.00	0.6	STV	83.44	337	P	23	17.11	-1.4
MEM	77.82	340	P	22	48.50	0.0	VAY	81.15	325	iPc	23	06.50	-0.1	BRT	83.49	329	P	23	19.00	0.3
OLY	78.06	50	P	22	50.00	-0.1	BCI	81.16	328	eP	23	06.70	0.1	LBL	83.51	340	P	23	20.25	1.5
ETA	78.07	348	eP	22	49.70	-0.1	PMO	81.18	124	iP	23	07.90	0.9	MNS	83.62	332	P	23	19.00	-0.4
	1.0s	81.00nm				5.7mb		1.2s	50.00nm			5.4mb	PRM	83.64	44	P	23	21.40	1.8	
TOD	78.09	338	eP	22	49.97	-0.1	TMA	81.30	336	ePd	23	07.60	0.1	DUI	83.71	331	P	23	20.50	0.6
RSNY	78.11	33	P	22	50.00	-0.2	SAL	81.31	335	P	23	12.00	4.7X	AZI	83.74	332	P	23	21.00	1.1
	0.9s	19.52nm				5.1mb	TPT	81.32	124	iP	23	08.60	0.9	SBF	83.76	337	iPc	23	19.60	-0.6
		pP		23	01.50	38km		1.2s	85.00nm			5.6mb		1.0s	90.00nm				5.8mb	
ABH	78.14	339	eP	22	50.39	0.1	GRR	81.37	344	eP	23	07.80	0.2	RJF	83.83	341	eP	23	20.50	0.1
WARB	78.17	205	eP	22	51.60	1.0		1.1s	95.25nm			5.7mb		1.0s	32.00nm				5.4mb	
CBM	78.23	28	P	23	02.20	11.4X	LOR	81.45	340	iPc	23	07.90	-0.2	SDI	83.87	331	P	23	20.00	-0.7
SNF	78.30	341	P	22	51.40	0.3		0.9s	64.00nm			5.6mb	JSC	83.99	43	P	23	22.00	0.6	
WVLY	78.32	37	P	23	03.00	11.6X	LFK	81.52	315	iP	23	09.50	0.8	LHS	84.03	43	P	23	22.40	0.8
RUP	78.42	339	eP	22	51.03	-0.9	VAH	81.52	124	iP	23	09.60	0.9	CAF	84.07	341	eP	23	22.20	0.5
PVL	78.47	325	eP	22	54.00	1.9		1.2s	55.00nm			5.4mb		1.2s	50.60nm				5.5mb	
ECB	78.47	348	eP	22	51.90	-0.1	VAI	81.55	336	Pd	23	08.50	-0.1	RDP	84.17	332	P	23	23.00	0.7
	1.0s	93.00nm				5.7mb	MMK	81.59	337	ePd	23	10.20	1.1	FRF	84.25	337	eP	23	21.90	-0.6
WNY	78.49	33	P	23	04.00	11.6X	RUV	81.62	124	iP	23	10.10	0.9		1.1s	39.05nm			5.5mb	
COO	78.51	182	eP	22	53.00	0.6		1.2s	90.00nm			5.7mb	LFF	84.35	342	eP	23	23.70	0.7	
KTD	78.53	338	eP	22	51.22	-1.3	PHP	81.62	327	iPc	23	08.00	-1.0		1.2s	65.45nm			5.6mb	
ECF	78.59	348	eP	22	52.80	0.1	SDA	81.67	328	eP	23	09.80	0.5	BSS	84.38	330	P	23	23.50	0.3
	1.1s	174.00nm				6.0mb	LBF	81.69	340	eP	23	08.90	-0.5	SGO	84.42	330	P	23	23.50	0.1
DOU	78.62	341	P	22	53.00	0.1		0.9s	26.20nm			5.2mb	LRG	84.42	337	eP	23	22.90	-0.5	
BHG	78.71	335	iPd	22	54.10	0.6	DIX	81.71	337	ePd	23	10.70	0.9		1.0s	70.00nm			5.8mb	
	1.1s	68.00nm				5.6mb	SSF	81.73	340	eP	23	09.40	-0.1	ORI	84.47	329	P	23	25.10	1.4
FUR	78.76	336	iPc	22	54.60	0.8		0.9s	54.05nm			5.6mb	LPO	84.49	341	eP	23	24.30	0.5	
	1.0s	77.00nm				5.6mb	LPF	81.74	344	eP	23	09.90	0.3		0.9s	29.50nm			5.4mb	
HBVT	78.81	33	P	23	05.80	11.8X		0.9s	52.40nm			5.6mb	LMR	84.50	337	eP	23	23.60	-0.2	
BEO	78.88	328	eP	22	54.00	-0.4	IZM	81.75	321	eP	23	09.00	-0.9		1.0s	84.00nm			5.8mb	
CTT	78.96	321	iP	22	55.40	0.5	EMS	81.84	338	ePd	23	11.10	0.7	PGF	84.55	335	eP	23	24.00	-0.2
GWF	78.96	338	P	22	54.43	-0.4	SHBJ	81.92	310	Pc	23	11.40	0.5		0.7s	9.90nm			5.1mb	
KBA	79.16	334	iPc	22	56.60	0.4	LACI	81.93	327	eP	23	10.00	-0.6	MGR	84.71	330	P	23	25.00	0.1
	1.2s	239.00nm				6.0mb	ELL	81.98	318	eP	23	10.00	-1.2	PRNI	84.80	311	iPd	23	26.00	0.5
		i		23	14.70	66kmX	OHF	81.99	326	iP	23	10.10	-1.0	TDS	84.87	329	P	23	27.00	1.3
		i		23	20.40			0.9s	111.00nm			5.9mb	GRI	85.59	328	P	23	29.76	0.4	
BNH	79.25	31	P	23	08.70	12.3X	AVF	82.02	340	iPc	23	11.10	0.1		0.2s	11.60nm			5.7mb	
VAL	79.32	350	eP	22	57.00	0.4		0.9s	51.60nm			5.6mb	EPF	86.25	341	eP	23	32.20	-0.4	
PTJ	79.43	332	eP	22	57.20	-0.3	SMF	82.04	340	iPc	23	11.20	0.0		0.5s	5.45nm			5.0mb	
ZAG	79.49	332	iP	22	56.00	-1.7	HRI	82.07	312	e(P)	23	08.00	-3.7X	MNO	86.99	329	P	23	43.00	6.5X
WLS	79.55	338	P	22	57.93	-0.2	TIR	82.13	327	eP	23	11.50	-0.2	TOL	90.17	344	eP	23	50.00	-1.4
CDF	79.57	338	eP	22	58.00	-0.2	CVL	82.14	39	P	23	13.70	1.9	TIC	122.40	336	PKP	29	47.00	0.3
	0.9s	52.40nm				5.5mb	FORR	82.20	203	eP	23	11.80	-0.1	KIC	122.59	335	PKP	29	47.60	0.5
								0.4s	24.00nm			5.6mb	LIC	122.80	335	PKP	29	47.00	-0.5	
RBL	79.67	334	Pc	22	58.10	-0.7							ZOBO	132.88	62	PKP	30	07.50	0.1	
LJU	79.74	333	eP	22	58.50	-0.6	NA2	82.31	39	P	23	13.80	1.1			LR		15	20.00	
FVI	79.76	334	Pd	22	59.30	0.2	BGF	82.35	341	iPc	23	12.80	0.0	BLF	136.18	277	ePKP	30	09.00	-3.9X
ECH	79.78	338	P	22	58.92	-0.4		1.0s	37.00nm			5.4mb	SIV	136.66	54	PKP	30	14.30	0.3	
VTS	79.81	326	iPc	23	00.00	0.3	LSO	82.35	337	P	23	14.13	1.0	WIN	137.52	292	ePKP	30	04.00	-11.7X
BNT	79.83	321	iP	22	59.40	-0.3	CBN	82.40	39	eP	23	14.00	0.8	BAO	142.63	37	ePKP	30	20.50	-4.4X
EDC	79.87	321	iP	23	00.50	0.7	LPL	82.40	338	iPc	23	14.00	0.6	CER	143.43	277	ePKP	30	18.00	-7.7X
SLE	79.86	337	ePd	22	59.70	0.0	LPG	82.42	338	iPc	23	14.20	0.7							
FEL	79.89	338	eP	22	59.70	-0.3		1.0s	93.75nm			5.8mb								
VOY	79.94	333	eP	22	59.50	-0.8	PPN	82.42	127	iP	23	14.30	0.9							
ALT	79.98	319	eP	23	00.00	-0.6		1.2s	60.00nm			5.5mb								
VBY	80.00	332	eP	23	00.70	0.3	SFI	82.47	334	Pd	23	15.30	1.9							
RZN	80.01	324	eP	23	01.00	0.2	BWA	82.49	185	eP	23	14.80	1.4							
OGA	80.01	335	iPc	23	01.10	0.3	ARV	82.52	333	P	23	14.30	0.6							
	1.0s	135.00nm				5.9mb	PGD	82.55	334	P	23	15.50	1.4							
CEY	80.05	333	eP	23	00.50	-0.2	RSP	82.61	337	P	23	14.13	-0.2	MNO	0.29	314	P	31	32.90	-0.1
VITF	80.07	339	P	23	00.79	0.1	BDI	82.70	335	P	23	15.70	0.9	ATN	0.59	42	Pd	31	38.70	0.0
SAX	80.12	337	ePd	23	02.00	0.6	CRE	82.71	333	P	23									

Felt at Tapachula and Tuxtla Chico.

TPX	0.22	53	iPd	48 16.38	0.0
			iSd	48 27.37	
SCX	1.96	355	eP	48 32.26	0.0
			iS	48 55.68	
OXX	4.72	300	iP	49 09.50	0.1
			(S)	49 57.00	
PPM	7.30	307	eP	49 44.58	-0.5
			eS	51 04.81	
IIJ	8.54	306	eP	50 02.20	0.4
OLY	20.66	2	eP	53 04.00	32.6X
TUL	21.26	352	eP	53 10.00	32.6X
	1.0s		6.00nm		
YKA	50.18	347	eP	56 44.50	0.0
	0.5s		0.30nm		3.5mb
	S.D. = 0.4	on	6 of	8 obs.	

& APR 25, 1990 08h 02m 39.40s
36.957 N 121.672 W
DEPTH = 3.0km
CENTRAL CALIFORNIA (39)
<BRK>. ML 2.9 (BRK).

SAO	0.26	136	iPd	02 43.50	-1.2
MHC	0.38	4	iPd	02 47.60	0.5
BKS	1.02	334	iPc	02 58.50	-0.9
			eS	03 13.80	
ZSP	1.09	335	iPc	03 00.00	-0.5
			eS	03 13.70	
PRI	1.15	135	ePc	03 01.40	-0.2
			eS	03 20.30	
CMB	1.49	43	ePc	03 05.30	-1.8
			eS	03 25.50	
	6 obs.	associated			

? APR 25, 1990 08h 37m 18.05±0.91s
45.940 N ± 0.9km 14.293 E ± 6.6km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (303)
MD 2.4 (LJU).

LJU	0.20	58	ePg	37 22.30	-0.1
			iSg	37 25.60	
			eRg	37 27.00	
CEY	0.22	155	ePg	37 23.00	0.1
			eSg	37 26.50	
			eRg	37 28.00	
VOY	0.29	288	iPg	37 24.40	0.2
			eSg	37 29.50	
TRI	0.44	238	ePg	37 26.70	-0.2
			iSg	37 34.40	
RBL	0.71	315	P	37 35.40	3.3X
			eSg	37 44.00	
VBY	0.80	122	eP	37 45.00	11.4X
			e	37 54.80	
FVI	1.24	302	P	37 58.00	17.0X
			eSg	38 06.00	
	S.D. = 0.3	on	4 of	7 obs.	

? APR 25, 1990 08h 43m 48.45±12.64s
48.807 N ± 34.5km 9.226 E ± 06.6km
DEPTH = 10.0km (geophysicist)
GERMANY (543)
MD 1.0 (STR).

GWF	1.07	280	Pg	44 08.49	-0.2
			Sg	44 21.42	
FEL	1.23	221	Pg	44 11.38	-0.1
			Sg	44 26.12	
WLS	1.30	253	Pg	44 12.64	0.0
CDF	1.35	254	Pg	44 13.74	0.3
			Sg	44 29.60	
	S.D. = 0.4	on	4 of	4 obs.	

? APR 25, 1990 09h 27m 56.68±6.17s
30.084 S ± 55.7km 69.189 W ± 17.0km
DEPTH = 10.0km (geophysicist)
CHILE-ARGENTINA BORDER REGION (127)

RTRS	0.25	250	iP	28 02.00	0.0
RTLL	1.39	154	iPc	28 21.50	-0.6
RTCB	1.44	167	eP	28 22.50	-0.4
RTBS	1.59	188	ePc	28 24.80	-0.1
			eS	28 45.20	
CFA	1.72	152	ePd	28 27.20	0.3

RTCV 1.86 163 eS 28 50.50
ePc 28 29.60 0.7
S 28 54.70
S.D. = 0.6 on 6 of 6 obs.

? APR 25, 1990 10h 46m 10.90±6.95s
26.067 N ± 155.km 128.915 E ± 59.8km
DEPTH = 33.0km (normal)
3.8mb (2 obs.)

RYUKYU ISLANDS (238)

GUN	38.25	283	P	53 30.80	0.5
PKI	38.71	282	P	53 33.80	-0.3
KKN	38.79	283	P	53 34.60	0.0
GKN	39.33	283	P	53 39.20	0.2
MBC	69.84	14	eP	57 21.00	1.2
YKA	78.41	25	eP	58 09.00	-0.5
	0.7s		0.40nm		3.5mb
NB2	79.73	334	P	58 15.60	-1.2
	0.7s		1.10nm		4.0mb
	S.D. = 0.9	on	7 of	7 obs.	

APR 25, 1990 11h 31m 58.23±0.34s
40.814 N ± 3.8km 23.961 E ± 3.1km
DEPTH = 5.0km (geophysicist)

GREECE (364)
ML 3.8 (THE), 3.4 (SKO).

SRS	0.41	317	iPg	32 05.90	-0.6
			eSg	32 10.60	
SOH	0.46	271	ePg	32 06.80	-0.7
			eSg	32 13.00	
OUR	0.48	178	iPg	32 08.90	1.1
			eSg	32 17.30	
THE	0.78	257	ePg	32 12.90	-0.9
			eSg	32 22.80	
MMB	0.79	347	iPg	32 13.00	-1.1
PAIG	0.91	194	iPg	32 16.20	0.1
			eSg	32 29.00	
RZN	1.04	33	iPg	32 18.00	-0.5
VAY	1.17	296	iPg	32 19.70	-0.8
			iSg	32 34.60	
			i	32 37.40	
RDO	1.24	74	ePb	32 21.90	0.2
KKB	1.24	328	iPg	32 21.00	-0.8
KDZ	1.38	52	iPc	32 24.00	-0.1
PLD	1.40	23	iPc	32 26.00	1.5
ALN	1.58	86	ePb	32 27.60	0.6
			eSb	32 50.50	
NEO	1.61	201	ePb	32 26.40	-1.0
			eSb	32 51.20	
DIM	1.71	43	iP	32 32.00	3.2X
PG8	1.74	5	eP	32 29.00	-0.3
FNA	1.96	270	ePn	32 31.60	-1.0
			eSn	32 56.40	
EZN	2.06	118	ePn	32 35.00	1.1
AGG	2.19	216	ePn	32 35.80	0.0
SKO	2.22	302	ePn	32 36.00	-0.3
OHR	2.41	278	ePg	32 40.30	1.2
			eSn	33 07.80	
JMB	2.57	49	eP	32 47.00	5.9X
KGT	2.57	97	iPn	32 42.10	0.9
PVL	2.61	23	iPc	32 42.00	0.3
PHP	2.79	289	iPnd	32 46.10	1.7
EDC	3.01	98	ePn	32 48.00	0.6
BNT	3.05	97	iPn	32 48.60	0.6
TIR	3.14	281	ePn	32 48.50	-0.8
BCI	3.31	299	ePn	32 53.70	2.0
LACI	3.31	286	ePn	32 55.50	3.8X
KEK	3.37	252	ePn	32 52.70	0.1
CTT	3.40	83	iPn	32 52.10	-0.9
IZM	3.51	132	ePn	32 52.00	-2.6
SDA	3.56	291	ePn	32 57.80	2.5
BUC1	3.85	23	eP	34 00.00	60.7X
DRA	3.87	3	eP	33 07.00	7.4X
ISK	3.87	85	ePn	33 04.00	24.3X
YLV	4.12	92	ePn	33 21.00	-2.3
PSN	4.25	46	eP	33 02.00	-3.0X
HRT	4.33	88	ePn	33 23.00	16.7X
CMP	4.52	10	ePc	33 13.00	4.1X
TLB	4.82	37	eP	33 27.00	13.9X
			e	05 35.50	
MLR	4.89	17	iPd	33 14.00	-0.3
ALT	5.04	108	ePn	33 17.00	0.6
BZS	5.10	341	ePc	33 15.50	-1.5
DEV	5.13	352	ePd	33 41.00	23.6X
VRI	5.44	21	ePd	33 23.50	1.6

S.D. = 1.2 on 36 of 47 obs.

* APR 25, 1990 11h 33m 53.70±0.52s
32.331 N ± 0.3km 141.632 E ± 16.6km
DEPTH = 33.0km (normal)
4.6mb (5 obs.)

SOUTH OF HONSHU, JAPAN (211)

MAT	5.06	327	iPc	35 09.40	0.1
			(S)	36 07.00	
WB5	52.38	189	eP	43 04.80	-0.1
WRA	52.44	189	Pc	43 05.10	-0.3
	0.5s		5.10nm		4.7mb
ASPA	56.17	189	eP	43 33.00	0.4
	0.5s		5.00nm		4.8mb
MBC	60.99	16	eP	44 05.50	-0.1
YKA	67.80	29	eP	44 49.00	-1.1
	0.6s		0.40nm		3.7mb
LRM	77.40	44	eP	45 48.20	0.9
FFC	77.57	32	eP	45 48.00	0.3
	0.7s		6.00nm		4.7mb
NB2	78.59	338	P	45 53.40	0.1
	0.9s		2.30nm		4.2mb
	S.D. = 0.6	on	9 of	9 obs.	

? APR 25, 1990 11h 45m 52.41±0.04s
41.232 N ± 55.9km 14.197 E ± 19.6km
DEPTH = 10.0km (geophysicist)

SOUTHERN ITALY (390)

DUI	0.47	25	P	46 02.10	0.1
			eSg	46 04.90	
SDI	0.55	329	Pc	46 03.90	0.2
			eSg	46 08.50	
AZI	0.95	323	P	46 11.00	0.6
			eSg	46 18.40	
AQU	1.27	332	P	46 15.00	-1.0
MNS	1.62	316	P	46 21.00	-0.1
	S.D. = 0.8	on	5 of	5 obs.	

APR 25, 1990 12h 49m 57.12±0.52s
12.194 N ± 3.7km 61.463 W ± 17.2km
DEPTH = 140.8 ± 7.8 km
4.1mb (1 obs.)

WINDWARD ISLANDS (95)

MD 3.8 (TRN).					
GRW	0.20	260	eP	50 16.66	-1.0
			eS	50 30.24	
FCV	0.98	13	eP	50 20.53	-0.6
			eS	50 35.19	
SVB	1.09	11	eP	50 21.81	-0.3
			eS	50 36.44	
BOT	1.25	144	eP	50 23.22	-0.5
			eS	50 41.85	
TCE	1.51	191	eP	50 26.81	0.3
			eS	50 47.79	
TRN	1.54	178	eP	50 27.02	0.3
			eS	50 47.79	
SLB	1.67	14	eP	50 28.17	-0.2
			eS	50 50.64	
TBH	1.74	167	eP	50 29.51	0.4
			eS	50 58.79	
TPP	1.86	180	eP	50 30.94	0.5
			eS	50 57.03	
BIM	2.34	9	eP	50 36.09	-0.2
MVM	2.41	13	eP	50 37.49	0.3
FDF	2.54	7	iPc	50 39.17	0.3
	0.1s		0.75nm		
			S	51 09.00	
CRM	2.60	12	iPc	50 39.90	0.3
BBL	3.31	360	eP	50 48.50	-0.3
PAG	3.82	357	eP	50 56.00	0.4
MGH	4.56	351	eP	51 06.00	0.6
BPA	4.84	356	eP	51 10.00	0.8
YKA	62.73	335	eP	00 07.90	-1.1
	0.4s		1.00nm		4.1mb
	S.D. = 0.6	on	18 of	18 obs.	

% APR 25, 1990 12h 54m 02.71±0.84s
40.837 N ± 6.6km 23.916 E ± 6.3km
DEPTH = 10.0km (geophysicist)

GREECE (364)

SRS	0.37	319	Pg	54 10.00	-0.4
			eSg	54 14.70	
SOH	0.43	268	ePg	54 11.30	-0.1

25d 12h

OUR 0.51 174 eSg 54 16.80
 ePg 54 12.90 0.0
 eSg 54 22.70
 THE 0.75 254 ePg 54 18.60 1.2
 eSg 54 27.40
 PAIG 0.93 191 ePg 54 20.20 -0.2
 LIT 1.31 236 ePb 54 26.30 -0.7
 eSb 54 45.50
 ALN 1.62 87 ePb 54 31.50 0.2
 eSb 54 54.90

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

? APR 25, 1990 13h 17m 08.57±3.05s
 31.259 S ±11.2km 67.765 W ±24.0km
 DEPTH = 10.0km (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA (137)

CFA 0.53 229 eP 17 18.90 -0.5
 eS 17 29.90
 RTLL 0.61 263 ePc 17 20.20 -0.7
 ZON 0.83 250 iPd 17 25.00 0.3
 eS 17 41.00
 RTCV 0.89 228 ePd 17 25.00 -0.7
 RTCB 0.91 255 iP 17 26.80 0.7
 eS 17 42.80
 RTBS 1.50 254 ePc 17 36.50 1.0
 S 17 57.20
 RTRS 1.82 306 iPc 17 39.70 -0.4
 eS 18 04.80
 FCH 2.97 225 eP 17 58.00 1.1
 i 18 45.00
 PEL 3.11 232 eP 17 59.00 0.4
 iS 18 50.50
 PCH 3.31 224 eP 18 03.00 1.5
 CHCH 3.61 222 eP 18 05.50 -0.3
 LNV 4.09 228 eP 18 10.00 -2.4

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

% APR 25, 1990 13h 28m 42.77±1.76s
 44.636 N ±14.8km 8.370 E ±6.8km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 1.9 (GEN).

PCP 0.16 127 P 28 46.40 -0.1
 FIN 0.44 195 P 28 52.00 0.2
 S 28 58.68
 ROB 0.49 226 P 28 52.50 -0.3
 S 28 59.81
 ENR 0.79 239 P 28 58.27 0.0
 S 29 08.22
 STV 0.85 243 P 28 59.30 0.2
 S 29 10.17
 PZZ 0.92 262 P 29 00.42 0.0
 S 29 11.19

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

% APR 25, 1990 13h 29m 33.86±2.03s
 44.611 N ±18.7km 8.346 E ±6.7km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.0 (GEN).

PCP 0.16 116 P 29 37.54 0.0
 S 29 40.15
 FIN 0.41 194 P 29 42.45 0.1
 S 29 49.20
 ROB 0.46 227 P 29 43.13 -0.2
 S 29 50.80
 ENR 0.77 240 P 29 48.80 -0.1
 S 29 59.00
 STV 0.82 244 P 29 50.00 0.2

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

APR 25, 1990 15h 32m 21.73±2.50s
 7.077 S ±5.0km 150.112 E ±6.1km
 DEPTH = 23.4 ±17.3 km
 5.4mb (13 obs.)
 NEW BRITAIN REGION (192)

LAT 3.12 278 eP 33 12.00 1.4
 eS 33 44.00
 PMG 3.73 231 iPc+ 33 21.10 1.8
 eS 34 07.00
 HNR 10.01 104 eP 34 38.00 -9.3X
 CTA 13.46 196 iPc 35 34.80 0.9
 1.9s 157.89nm 5.6mb

i 35 44.50
 e(S) 38 15.00
 OIS 16.83 216 eP 36 17.00 -0.6
 0.9s 94.00nm 4.9mb
 RMO 19.35 184 iPd 36 47.50 -1.2
 MTN 19.55 251 eP 36 51.00 0.0
 WB5 19.88 229 iPc 36 53.20 -1.3
 eS 40 52.10
 WRA 19.94 229 Pd 36 54.70 -0.4
 0.6s 139.80nm 5.5mb
 BRS 20.36 173 iP 36 58.10 -1.4
 0.8s 14.00nm 4.4mb X
 i 37 10.00
 GUMO 21.18 346 e(P) 37 12.00 4.1X
 DZM 21.69 135 iPd 37 13.00 -0.2
 KNA 22.61 246 eP 37 22.00 -0.2
 ASPA 22.68 222 iPc 37 23.10 0.2
 0.9s 122.00nm 5.4mb
 Z 23s 0.83um 4.1mszX

iS 41 27.30
 LR 44 58.90
 iScS 48 37.90
 COO 23.44 176 eP 37 30.00 -0.3
 WARB 29.34 227 eP 38 25.20 0.0
 PCI 30.80 280 ePc 38 40.00 1.8
 FORR 31.37 218 eP 38 42.20 -0.8
 COOL 36.00 225 eP 39 22.80 -0.3
 NANU 36.68 241 eP 39 29.30 0.5
 MSZ 40.54 160 P 40 00.10 -0.6
 IIDJ 43.86 346 eP 40 27.90 -0.2
 KAKJ 44.05 348 eP 40 26.30 -3.2X
 CHJJ 44.15 347 eP 40 28.80 -1.6
 TSRJ 44.43 343 eP 40 31.90 -0.7
 MAT 44.80 346 iPd 40 32.70 -3.0X
 1.4s 104.65nm 5.6mb
 (S) 47 12.00

MTMJ 44.94 346 eP 40 35.40 -1.5
 NIJJ 45.29 348 eP 40 37.90 -1.6
 IPM 50.34 282 ePc 41 20.90 1.6
 1.0s 56.10nm 5.5mb
 SNG 51.36 285 eP 41 26.20 -0.8
 LOE 53.63 298 eP 41 43.00 -0.9
 NST 54.41 295 eP 41 52.10 2.5X
 CHG 56.62 298 eP 42 05.00 -0.7
 1.1s 24.68nm 5.2mb
 GUN 71.04 303 P 43 39.80 -0.9
 PKI 71.33 302 P 43 41.50 -0.9
 DMN 71.60 302 P 43 43.50 -0.4
 GKN 72.11 302 P 43 46.50 -0.4
 HYB 74.73 290 eP 44 01.20 -0.9
 1.0s 60.00nm 5.6mb
 GBA 75.00 286 Pd 44 03.40 -0.2
 1.1s 34.40nm 5.3mb
 NDI 78.58 301 iPc 44 23.20 -0.3
 POO 79.34 290 iPc 44 27.30 -0.5
 SVW 79.95 24 eP 44 31.50 1.2
 TTA 80.86 22 eP 44 36.70 1.6
 PMR 82.86 25 eP 44 45.50 0.1
 SPA 82.97 180 eP 44 47.50 1.3
 0.8s 9.58nm 5.0mb

IMA 83.49 20 eP 44 49.60 0.8
 TOA 84.34 25 eP 44 54.20 1.2
 FBA 84.98 22 eP 44 56.10 0.0
 1.1s 56.30nm 5.7mb
 SIT 87.60 32 eP 45 08.40 -0.7
 QUE 87.65 301 eP 45 10.00 -0.2
 INK 91.53 21 eP 45 27.50 0.2
 1.0s 31.00nm 5.6mb
 MAIO 94.63 306 iPc 45 42.30 -0.1
 KVN 95.79 51 P 45 48.20 0.4
 YKA 98.67 28 eP 45 59.70 -0.3
 1.1s 5.00nm 5.0mb
 ZST 122.95 324 ePKP 51 18.20 0.5
 SKO 122.96 316 ePKP 51 17.50 -0.5
 BRG 123.25 328 e(PKP) 51 18.40 0.2
 CLL 123.48 329 ePKP 51 18.00 -0.7
 1.8s 20.00nm

KHC 124.43 327 PKP 51 27.90 7.2X
 RBL 125.92 324 PKP 51 24.00 0.3
 FVI 126.29 325 PKP 51 21.00 -3.3X
 CTI 127.25 325 PKP 51 19.00 -7.3X
 SDI 128.20 319 PKP 51 30.00 1.8
 PGD 128.40 322 PKP 51 21.00 -7.7X
 MNS 128.59 320 PKP 51 25.50 -3.4X
 BSF 128.81 329 ePKP 51 29.10 -0.1
 HAU 128.92 329 ePKP 51 29.40 0.1
 VAI 128.98 326 PKP 51 09.60 -19.8X

BOB 129.25 324 PKP 51 12.00 -18.1X
 LPL 130.32 327 ePKP 51 32.80 0.5
 1.2s 7.45nm
 LPG 130.33 327 ePKP 51 32.50 0.1
 LOR 130.67 330 ePKP 51 32.90 0.2
 SSF 130.98 330 ePKP 51 33.70 0.5
 1.2s 10.40nm
 SMF 131.10 329 ePKP 51 33.70 0.2
 LDF 131.57 334 ePKP 51 34.70 0.4
 FRF 131.59 325 ePKP 51 35.90 1.4
 1.1s 17.10nm
 FLN 131.60 334 ePKP 51 34.60 0.3
 GRR 132.04 334 ePKP 51 35.60 0.4
 LPF 132.39 334 ePKP 51 36.40 0.6
 1.1s 14.65nm
 ZOBO 135.62 122 PKP 51 27.00 -16.6X
 SIV 141.55 127 PKP 51 50.00 -3.9X
 LKO 155.83 278 PKP 52 26.04 9.9X

S.D. = 0.9 on 67 of 82 obs.

? APR 25, 1990 16h 23m 47.40±8.93s
 39.783 N ±54.3km 24.075 E ±42.4km
 DEPTH = 10.0km (geophysicist)
 AEGEAN SEA (365)

OUR 0.56 353 iPg 23 58.30 -0.3
 eSg 24 05.10
 THE 1.20 315 ePg 24 10.00 0.2
 eSg 24 24.50
 LIT 1.26 285 ePb 24 10.50 -0.3
 eSb 24 26.10
 SRS 1.38 345 ePb 24 13.00 0.3
 eSb 24 28.80
 VAY 1.92 324 ePn 24 23.00 2.6X
 HVAR 6.66 303 iPg 25 09.10 -18.5X
 iSg 25 22.40

S.D. = 0.6 on 4 of 6 obs.

& APR 25, 1990 17h 05m 27.70s
 48.820 N 122.177 W
 DEPTH = 1.4km
 WASHINGTON (29)
 <SEA>. CL 3.1 (SEA). Felt at
 Deming.

MBW 0.19 101 P 05 31.69 0.2
 VDB 0.21 13 Pd 05 32.17 0.2
 S 05 36.42
 CMW 0.40 174 P 05 34.98 -0.7
 MCW 0.46 252 P 05 36.29 -0.5
 HNB 0.53 330 P 05 37.18 -1.0
 S 05 44.81
 OHW 0.55 206 P 05 38.64 0.0
 RPW 0.58 130 Pd 05 38.26 -0.9
 S 05 47.25
 JCW 0.65 165 Pd 05 39.53 -1.1
 SNB 0.66 266 P 05 40.08 -0.8
 PGC 0.86 259 P 05 42.96 -1.9
 S 05 54.30
 VGZ 0.86 242 P 05 43.15 -1.8
 BIB 0.95 309 P 05 44.43 -2.1
 BLN 0.97 213 P 05 45.55 -1.4
 BLH 0.99 174 P 05 46.29 -1.0
 HTW 1.05 165 P 05 46.77 -1.6
 WPB 1.08 321 P 05 46.52 -2.2
 S 06 01.20
 STW 1.20 237 P 05 48.82 -2.0
 NAB 1.27 289 Pc 05 49.69 -2.3
 S 06 06.41
 SPW 1.27 182 P 05 51.89 -0.1
 HDW 1.31 207 P 05 50.82 -2.0
 GMW 1.34 198 Pd 05 51.36 -1.8
 SHB 1.36 306 Pc 05 51.38 -2.3
 S 06 09.43
 RMW 1.38 169 P 05 52.81 -1.3
 WHB 1.40 339 P 05 53.26 -1.1
 OSD 1.43 226 P 05 53.04 -1.8
 NLW 1.43 121 P 05 53.72 -1.1
 GSM 1.64 171 P 05 57.06 -0.8
 ETW 1.73 134 P 05 58.00 -1.2
 DHW2 1.81 117 P 06 01.58 1.3
 RVC 1.88 176 P 06 00.61 -0.7
 FMW 1.92 170 Pd 06 01.04 -1.0
 TBM 1.96 147 P 06 03.02 0.5
 BTB 2.29 288 P 06 06.03 -1.3
 CZM 2.40 185 P 06 08.47 -0.3

34 obs. associated

? APR 25, 1990 17h 33m 17.85 ± 3.54s
34.129 S ± 19.4km 179.342 W ± 50.6km
DEPTH = 357.0 ± 16.9 km
4.3mb (3 obs.)

SOUTH OF KERMADEC ISLANDS (179)

HBZ	3.96	208	P	34	27.00	-0.2
			S	35	18.00	
PUZ	4.39	206	P	34	31.50	-0.3
			eS	35	31.90	
NOZ	4.95	205	P	34	38.30	0.6
WLZ	5.53	227	eP	34	44.00	-0.2
MOH	5.74	208	eP	34	48.00	1.5
TUTZ	5.92	218	eP	34	50.20	1.6
HITZ	6.04	219	eP	34	50.20	0.3
TTH	6.21	209	eP	34	52.10	0.2
NGZ	6.47	217	eP	34	54.20	-0.9
PGZ	7.36	207	eP	35	05.30	0.1
MNG	7.68	211	eP	35	08.20	-0.8
			eS	36	37.40	
MTW	8.12	209	eP	35	12.90	-1.3
KIW	8.13	213	eP	35	13.60	-0.7
CAW	8.26	211	eP	35	14.70	-1.1
BLW	8.31	208	eP	35	16.70	0.2
WDW	8.42	211	P	35	16.80	-1.0
MRW	8.52	212	P	35	17.60	-1.3
			eS	36	56.00	
WEL	8.53	211	P	35	20.00	0.9
			S	37	00.00	
TCW	8.69	214	eP	35	20.00	-1.0
THZ	9.77	216	eP	35	35.60	1.6
			eS	37	23.20	
KHZ	9.99	212	eP	35	37.10	0.7
LTZ	10.85	215	eP	35	46.10	-0.9
			eS	37	45.10	
MOZ	11.41	211	eP	35	55.10	1.6
DZM	17.34	310	iPd	36	49.50	-9.6X
CTA	33.49	286	iPc	39	25.50	-1.2
	0.5s	7.75nm			4.3mb	
ASPA	41.93	272	iPc	40	37.80	1.4
	0.3s	15.00nm			4.7mb	
WRA	43.25	277	Pc	40	46.80	-0.2
	0.3s	3.80nm			4.1mb	
WB5	43.26	277	iPc	40	47.10	0.0
	S.D. = 1.0	on 27 of 28 obs.				

& APR 25, 1990 17h 50m 16.64s
58.527 N 143.553 W
DEPTH = 10.0km (geophysicist)
GULF OF ALASKA (15)
<AGS-P>

MID	1.70	303	iP	50	41.76	-4.7
YAH	2.06	26	eP	50	46.87	-5.1
YKU	2.23	61	eP	50	50.28	-3.8
TGL	2.27	9	iP	50	49.63	-5.2
			eS	51	16.02	
PCA	2.31	46	eP	50	50.29	-5.1
BCPM	2.47	53	eP	50	52.81	-4.7
HON	2.59	67	eP	50	53.88	-5.4
			eS	51	22.98	
GLB	2.93	358	iP	50	58.70	-5.4
VZW	2.96	330	iP	50	58.98	-5.6
GLI	2.96	324	iP	50	58.85	-5.7
VLZ	2.97	333	eP	50	58.88	-5.7
KLU	3.20	339	eP	51	01.76	-6.3
SEW	3.41	300	eP	51	05.53	-5.4
SLKM	3.94	303	eP	51	12.17	-6.2
SML	4.07	326	eP	51	14.64	-5.6
PMS	4.07	315	eP	51	16.00	-4.3
CNPM	4.10	287	eP	51	16.12	-4.5
PLRM	4.16	320	eP	51	17.16	-4.3
GHO	4.22	323	eP	51	17.36	-5.1
RDY	4.95	298	eP	51	27.19	-5.6
SPU	5.04	305	eP	51	27.57	-6.6
RED	5.07	296	eP	51	27.91	-6.6
CUT	5.11	322	eP	51	30.95	-4.1

23 obs. associated

APR 25, 1990 18h 30m 54.67 ± 0.39s
9.411 S ± 8.3km 107.634 E ± 7.0km
DEPTH = 31.0km (5 depth phases)
4.8mb (7 obs.) 4.4Msz (1 obs.)
SOUTH OF JAVA (282)

KHKI	7.95	83	eP	32	51.00	0.0
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NANU	15.11	151	eP	34	20.50	-7.2X
			iS	36	57.00	
IPM	15.38	334	ePc	34	35.00	3.8X
MBL	16.57	136	eP	34	41.00	-5.4X
			eS	37	29.00	
KKM	17.57	29	eP	35	11.00	11.8X
SNG	17.90	337	eP	35	10.90	7.8X
			e	43	30.10	
AAI	21.19	76	eP	35	41.00	0.9
KNA	21.56	109	eP	35	42.00	-1.7
NNT	23.22	340	eP	35	58.00	-2.2
MTN	23.30	101	eP	36	04.00	3.0X
			e	36	17.00	53kmX
DAV	24.25	48	eP	36	12.00	1.8
WARB	24.55	135	eP	36	14.00	0.9
			eS	40	40.00	
NST	26.01	343	eP	36	29.10	2.3
LOE	27.28	348	eP	36	38.00	-0.5
WRA	27.83	115	Pd	36	41.70	-1.9
	1.2s	12.20nm			4.5mb	
WB5	27.84	115	eP	36	42.80	-0.8
BAG	28.68	27	eP	36	50.00	-1.3
ASPA	28.82	123	eP	36	51.80	-0.7
CHG	29.33	343	eP	36	56.40	-0.6
	1.2s	27.34nm			4.9mb	
			e	44	36.00	
KMI	34.65	352	Pd	37	45.50	1.7
	2.0s	0.10nm			2.4mb X	
Z	15s	3.20um			5.2MszX	
			pP	37	54.50	31km
			eS	43	11.00	
			iS	43	22.00	
GBA	37.70	307	Pd	38	10.30	0.9
	0.9s	7.90nm			4.6mb	
CTA	38.73	110	iPc	38	19.00	0.9
	1.0s	12.50nm			4.6mb	
			iP	38	30.00	39km
			ePcP	40	24.00	
			e(S)	44	21.00	
HYB	39.20	313	eP	38	22.50	0.5
			e	38	31.50	30km
SSE	42.32	17	P	38	48.00	0.6
	1.5s	54.00nm			5.1mb	
Z	20s	0.50um			4.4Msz	
N	18s	0.70um				
E	18s	0.60um				
			pP	38	57.00	30km
			S	45	10.00	
PKI	42.60	330	P	38	50.80	0.6
GUN	42.66	331	P	38	51.00	0.3
DMN	42.78	330	P	38	51.00	-0.6
GKN	43.34	330	P	38	56.80	0.8
BWA	44.85	130	eP	39	11.00	2.9X
CAN	45.65	131	eP	39	15.00	0.6
BRS	46.12	119	iPc	39	19.00	0.8
NDI	47.93	323	eP	39	31.50	-0.9
			eS	46	32.00	
BJI	49.83	9	eP	39	46.00	-0.8
	1.7s	53.00nm			5.3mb	
HNR	51.56	95	eP	40	02.00	1.5
MAT	53.99	30	(P)	40	16.00	-2.2
QUE	55.49	317	eP	40	29.00	-0.4
			e(S)	48	44.00	
MAIO	64.14	318	iPd	41	28.00	-0.7
			eS	50	04.00	
IR4	69.53	313	iPd	42	03.50	0.6
IR5	69.75	313	eP	42	04.00	-0.2
IR7	69.96	313	iPd	42	06.00	0.5
TAB	74.09	314	eP	42	28.00	-2.0
PTZ	74.55	258	iP	42	31.00	-2.0
SLR	76.43	246	eP	42	44.00	0.3
LSZ	77.47	256	iP	42	50.20	0.7
BBTK	84.57	312	eP	43	28.00	1.4
BCAO	89.83	274	ePd	43	55.10	2.6X
	0.4s	3.00nm			4.9mb	
			id	44	03.00	25km
VRI	90.42	316	ePd	44	04.00	9.5X
MLR	90.87	316	eP	44	00.00	3.3X
BAO	145.33	224	ePKP	50	32.50	0.3
SIV	152.40	204	PKP	50	44.00	0.9
	S.D. = 1.2	on 40 of 50 obs.				

* APR 25, 1990 18h 38m 48.89 ± 1.33s
9.700 N ± 11.6km 124.663 E ± 25.8km
DEPTH = 55.3 ± 13.0 km
4.6mb (8 obs.)

MINDANAO, PHILIPPINE ISLANDS (259)

DAV	2.75	161	eP	39	32.00	0.6
BAG	7.77	330	eP	40	41.80	-0.3
SSE	21.53	352	P	43	35.70	0.4
	0.8s	9.00nm			4.2mb	
WB5	30.91	162	eP	45	01.70	-1.0
WRA	30.96	162	Pd	45	01.90	-1.3
	0.8s	4.50nm			4.3mb	
BJI	31.14	347	eP	45	04.00	-0.5
	1.0s	8.00nm			4.4mb	
QIS	33.47	154	ePc	45	23.80	-1.2
	0.9s	59.00nm			5.5mb	
ASPA	34.37	165	iPc	45	32.30	-0.5
	0.9s	10.00nm			4.7mb	
CTA	36.44	144	iPd	45	50.00	-0.4
	1.0s	10.00nm			4.7mb	
BWA	49.33	154	eP	47	37.00	2.3
CAN	50.34	154	eP	47	43.40	1.0
MAIO	64.33	306	P	49	22.00	0.6
KEV	83.62	340	eP	50	55.00	-17.3X
SOD	84.20	337	eP	51	15.00	-0.3
SUF	85.34	333	iP	51	20.80	-0.2
	0.8s	8.00nm			4.9mb	
INK	85.39	21	eP	51	21.00	-0.2
NUR	86.52	331	eP	51	27.00	0.1
MBC	86.61	12	eP	51	27.00	-0.1
	0.9s	3.00nm			4.5mb	
ZOBO	165.94	119	PKP	58	51.00	0.9
	S.D. = 1.0	on 18 of 19 obs.				

* APR 25, 1990 18h 48m 53.45 ± 1.10s
38.660 N ± 8.1km 28.300 E ± 13.5km
DEPTH = 10.0km (geophysicist)

TURKEY (

25d 19h

ASPA 33.09 246 eP 31 49.10 -2.8X
0.8s 21.00nm 4.8mb
iS 36 52.10
KMI 72.62 301 Pc 36 41.00 1.4
SPA 77.72 180 iPc 37 09.20 1.7
0.1s 3600.00nm 8.0mb X
TTA 80.41 16 eP 37 22.10 0.3
PMR 81.46 20 eP 37 27.30 0.2
TOA 82.82 20 eP 37 35.10 0.9
IMA 83.52 15 eP 37 38.10 0.4
FBA 84.27 18 eP 37 40.90 -0.5
0.7s 20.00nm 5.1mb
GUN 87.79 299 P 38 00.00 0.3
PKI 88.10 299 P 38 01.70 0.5
DMN 88.37 299 P 38 03.10 0.7
0.7s 21.00nm 5.1mb
GKN 88.87 299 P 38 04.60 0.0
0.8s 17.00nm 5.0mb
NUR 124.49 338 ePKP 44 08.00 0.7
NB2 128.22 345 PKP 44 15.10 0.6
0.9s 3.40nm
LPL 142.83 337 ePKP 44 41.50 -0.9
0.8s 3.35nm
LPG 142.83 336 ePKP 44 41.50 -1.0
0.8s 4.05nm
LPF 143.00 346 ePKP 44 40.40 -1.9
0.7s 6.60nm
BGF 143.29 341 ePKP 44 41.20 -1.7
0.8s 6.05nm
MAF 143.68 341 ePKP 44 42.80 -0.7
TCF 143.73 342 ePKP 44 42.70 -0.9
0.7s 3.85nm
SBF 143.90 334 iPKPc 44 43.00 -1.1
0.8s 26.85nm
LSF 143.97 342 ePKP 44 43.10 -0.9
0.7s 8.80nm
MFF 144.11 344 ePKP 44 43.80 -0.4
0.8s 17.45nm
PGF 144.24 331 iPKPc 44 44.60 -0.1
0.9s 27.85nm
FRF 144.48 335 iPKPc 44 45.00 0.1
0.8s 28.20nm
LRG 144.68 335 iPKPc 44 45.80 0.5
0.9s 34.40nm
LMR 144.72 335 iPKPc 44 46.00 0.6
0.9s 31.10nm
RJF 144.83 342 iPKPc 44 46.40 0.9
CAF 145.00 341 iPKPc 44 47.20 1.4
0.9s 18.00nm
LFF 145.39 342 ePKP 44 48.20 1.8
0.7s 9.90nm
LPO 145.49 342 ePKP 44 48.60 2.0X
0.8s 13.45nm
EPF 147.25 341 ePKP 44 54.00 4.4X
0.7s 2.75nm
TOL 151.40 345 ePKP 45 04.00 8.0X
S.D. = 1.0 on 48 of 52 obs.

APR 25, 1990 19h 29m 24.21 ± 0.52s
42.138 N ± 4.7km 19.198 E ± 5.2km
DEPTH = 10.0km (geophysicist)
YUGOSLAVIA (383)
MD 2.5 (TTG).

ULC 0.18 168 iPg 29 27.90 -0.3
iSg 29 31.50
SDA 0.25 118 iPg 29 30.40 0.8
TTG 0.30 9 iPg 29 30.30 -0.1
iSg 29 36.00
BDV 0.31 298 iPg 29 31.40 0.7
iSg 29 37.10
PUK 0.53 100 iPg 29 42.30 7.5X
HCY 0.60 301 ePg 29 36.10 -0.3
iSg 29 46.40
LACI 0.63 143 iPg 29 35.10 -1.7
BCI 0.68 70 iPg 29 36.80 -0.9
PVY 0.73 51 ePg 29 37.90 -0.8
iSg 29 49.40
BRY 0.90 328 ePg 29 41.50 -0.1
iSg 29 57.50
TIR 0.94 147 ePg 29 41.50 -0.5
PLE 1.20 7 ePg 29 46.60 0.0
eSg 30 04.20
OHR 1.58 130 ePg 29 53.50 1.2
iSg 30 16.30
SKO 1.68 95 ePn 29 55.00 1.3
eSn 30 15.50

iSg 30 17.70
VAY 2.65 107 ePn 30 08.70 0.9
S.D. = 1.0 on 14 of 15 obs.

& APR 25, 1990 19h 30m 12.82s
59.968 N 153.531 W
DEPTH = 143.1km
SOUTHERN ALASKA (2)
<AGS-P>.

AUL 0.59 175 eP 30 33.70 -0.4
eS 30 49.50
AUE 0.62 172 eP 30 33.52 -0.7
CDD 1.04 183 iP 30 36.91 -0.7
eS 30 56.02
CNPM 1.24 110 iP 30 38.21 -1.3
eS 30 57.37
CRP 1.47 27 iP 30 40.82 -1.2
eS 31 02.64
CGLM 1.54 29 eP 30 41.58 -1.2
eS 31 04.51
KNK 2.89 58 eP 30 58.29 -0.7
CUT 2.91 31 eP 30 57.50 -1.8
GLI 3.32 71 eP 31 02.69 -1.9
KLU 4.04 64 eP 31 11.07 -3.1
10 obs. associated

APR 25, 1990 19h 54m 29.72 ± 0.47s
1.398 N ± 6.9km 123.378 E ± 9.0km
DEPTH = 33.0km (normol)
4.6mb (7 obs.) 3.9Msz (2 obs.)
MINAHASSA PENINSULA (265)

TSM 6.00 298 ePc 55 57.90 -0.6
DAV 6.06 21 eP 56 00.10 0.6
MKS 7.64 211 ePd 56 24.00 2.4
KKM 8.51 303 eP 56 54.00 20.3X
BAG 15.17 350 eP 58 02.00 -1.5
CVP 16.28 355 iPd 58 21.70 4.1X
1.5s 335.00nm 5.2mb
IPM 22.54 279 ePd 59 30.00 1.6
MBL 22.69 189 eP 59 28.30 -1.4
SNG 23.40 285 eP 59 35.00 -1.8
WB5 23.74 154 eP 59 39.00 -1.0
WRA 23.78 154 Pc 59 39.80 -0.6
0.6s 7.40nm 4.4mb
GUMO 24.47 59 eP 59 49.00 1.9
Z 19s 0.35um 3.9Msz
eS 04 10.00
NANU 25.01 197 iPd 59 50.60 -1.7
0.4s 17.00nm 5.0mb
NNT 25.93 296 eP 00 04.20 3.2X
PMG 26.00 115 eP 59 57.00 -4.6X
ASPA 26.93 158 eP 00 11.40 1.2
0.5s 5.00nm 4.4mb
Z 21s 0.41um 4.0Msz
eS 04 58.60
LR 15 38.90
OIS 27.00 145 eP 00 10.00 -0.7
CHG 29.55 307 eP 00 36.00 2.1
CHTO 29.55 307 eP 00 36.10 2.2
1.0s 5.00nm 4.2mb
KMI 30.87 321 Pc 00 47.00 1.3
Z 14s 0.60um 4.4MszX
eS 05 43.00
MAT 37.57 20 iPd 01 41.60 -1.3
(S) 07 30.00
BJI 39.02 351 eP 01 54.00 -0.9
1.4s 22.00nm 4.7mb
BWA 42.69 149 eP 02 27.80 2.5X
CAN 43.68 149 eP 02 34.00 0.6
GUN 44.50 310 P 02 40.00 -0.6
PKI 44.70 309 P 02 42.70 0.6
DMN 44.96 309 P 02 44.10 0.0
GKN 45.51 309 P 02 47.50 -0.8
HYB 46.83 293 eP 03 05.00 6.3X
GBA 47.03 287 Pc 02 59.00 -1.3
0.6s 3.10nm 4.5mb
MAIO 68.30 309 eP 05 29.00 -1.1
LSZ 95.37 255 iP 07 52.00 -0.8
ZOBO 161.38 143 PKP 14 31.00 1.4
S.D. = 1.4 on 27 of 33 obs.

APR 25, 1990 21h 10m 28.23 ± 0.71s
41.712 N ± 12.3km 14.207 E ± 7.5km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

DUI 0.20 105 P 10 32.90 0.3
SDI 0.29 269 Pd 10 34.70 0.3
eSg 10 40.30
AZI 0.64 296 P 10 40.60 -0.4
eSg 10 49.40
AQU 0.88 317 P 10 44.90 -0.2
MNS 1.32 301 P 10 53.00 0.3
SGO 1.42 144 P 10 53.70 -0.4
S.D. = 0.5 on 6 of 6 obs.

% APR 25, 1990 22h 00m 42.56 ± 1.37s
32.050 N ± 6.3km 36.213 E ± 10.4km
DEPTH = 10.0km (geophysicist)
DEAD SEA REGION (373)

BURJ 0.40 299 Pd 00 50.70 0.0
MDSJ 0.42 175 Pd 00 51.10 0.0
SALJ 0.45 265 Pd 00 51.70 -0.1
KFNJ 0.49 248 Pd 00 52.60 0.0
MKRJ 0.70 225 P 00 56.40 0.0
SHMJ 0.78 331 P 00 57.70 0.0
S.D. = 0.1 on 6 of 6 obs.

APR 25, 1990 22h 17m 35.16 ± 0.84s
37.117 N ± 8.5km 26.665 E ± 7.2km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)
ML 3.7 (ATH).

SMG 0.61 13 ePg 17 47.30 -0.1
APE 0.91 267 ePb 17 53.50 0.9
CIN 1.23 67 iPg 17 46.00 -12.0X
iSg 18 04.00
ATH 2.49 291 ePg 18 25.00 8.6X
KSL 2.55 112 ePn 18 15.60 -1.6
KHL 2.57 61 ePn 18 23.00 5.5X
ELL 2.62 97 ePn 18 20.10 1.7
EZN 2.72 354 iP 18 19.30 -0.3
VLI 3.01 264 ePn 18 23.20 -0.6
ALT 3.34 54 ePn 18 32.00 3.5X
EDC 3.36 16 ePn 18 30.00 1.3
KGT 3.37 8 iPn 18 28.00 -0.8
BNT 3.38 16 ePn 18 32.00 3.0X
YLV 4.04 31 iPn 18 53.00 14.6X
RDO 4.12 348 ePn 18 38.90 -0.5
CTT 4.25 18 eP 18 56.00 14.6X
BBTK 5.50 59 eP 19 27.00 27.7X
S.D. = 1.2 on 9 of 17 obs.

* APR 25, 1990 22h 41m 32.67 ± 0.91s
36.134 N ± 13.2km 27.263 E ± 6.8km
DEPTH = 33.0km (normol)
DODECANESE ISLANDS (369)

CIN 1.61 24 eP 41 49.00 -10.0X
SMG 1.61 348 eP 41 58.90 -0.2
APE 1.68 304 eP 42 00.30 0.1
KSL 1.88 90 eP 42 02.80 -0.2
ELL 2.22 73 eP 42 08.30 0.3
IZM 2.26 360 eP 42 14.00 5.5X
VAM 2.59 255 eP 42 13.20 0.0
VLI 3.54 281 eP 42 23.10 -3.5X
S.D. = 0.3 on 5 of 8 obs.

% APR 25, 1990 23h 00m 50.28 ± 1.40s
40.677 N ± 10.4km 27.232 E ± 8.9km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

KGT 0.23 166 iPg 00 55.50 0.3
EDC 0.58 124 iPg 01 01.50 -0.6
iSg 01 09.50
BNT 0.62 121 iPg 01 02.00 -0.7
iSg 01 09.50
KCT 0.96 116 iPg 01 09.50 1.0
CTT 1.02 62 iPn 01 09.50 -0.1
EZN 1.10 219 iPn 01 10.80 -0.1
YLV 1.63 93 iPn 01 19.50 0.3
S.D. = 0.7 on 7 of 7 obs.

? APR 25, 1990 23h 06m 52.54 ± 5.09s
0.815 N ± 35.0km 122.862 E ± 29.6km
DEPTH = 86.0 ± 37.2 km
4.1mb (2 obs.)
MINAHASSA PENINSULA (265)
PCI 3.47 241 ePc 07 45.40 0.0

e(S) 08 36.00
 WB5 23.46 152 eP 11 55.10 -0.1
 WRA 23.50 152 Pd 11 55.70 0.1
 0.5s 5.10nm 4.2mb
 NANU 24.31 197 eP 12 03.40 0.0
 GBA 46.72 288 P 15 15.00 0.0
 0.6s 1.50nm 4.1mb
 S.D. = 0.1 on 5 of 5 obs.

& APR 25, 1990 23h 22m 49.83s
 60.019 N 147.930 W
 DEPTH = 0.0km
 SOUTHERN ALASKA (2)
 <AGS-P>.

SEW 0.77 277 eP 23 04.15 -1.0
 GLI 0.96 25 iP 23 07.87 -1.1
 MID 1.00 126 iP 23 09.74 0.0
 SLKM 1.24 294 iP 23 12.46 -1.4
 0.5s 23 29.68
 VLZ 1.37 35 iP 23 14.51 -1.4
 KNK 1.42 350 iP 23 15.50 -1.4
 0.5s 23 35.30
 PMS 1.47 328 eP 23 16.14 -1.5
 0.5s 23 35.41
 PLRM 1.68 340 eP 23 19.51 -1.1
 0.5s 23 42.53
 >NNL 1.69 272 iP 23 19.14 -1.6
 CNPM 1.74 255 eP 23 20.35 -1.2
 0.5s 23 44.23
 KLU 1.78 33 iP 23 20.93 -1.2
 NKA 1.80 295 eP 23 23.24 1.0
 SML 1.81 354 iP 23 21.28 -1.2
 GHO 1.83 345 iP 23 21.61 -1.2
 PWA 1.90 331 iP 23 23.54 -0.2
 SUA 2.00 318 eP 23 24.40 -1.0
 NCA 2.05 15 iP 23 25.57 -0.5
 TOA 2.26 21 iP 23 29.39 0.3
 RDT 2.30 286 iP 23 27.61 -2.0
 SPU 2.35 302 eP 23 27.96 -2.4
 CGLM 2.39 305 eP 23 29.34 -1.6
 CRP 2.43 303 eP 23 30.76 -0.9
 RED 2.45 282 iP 23 29.44 -2.4
 CKL 2.47 300 eP 23 30.30 -1.9
 GLB 2.48 53 eP 23 30.21 -2.0
 NCG 2.50 306 eP 23 30.49 -2.1
 BGL 2.53 302 iP 23 31.72 -1.2
 27 obs. associated

% APR 25, 1990 23h 27m 22.57 ± 3.51s
 13.684 N ± 16.3km 89.950 W ± 22.3km
 DEPTH = 10.0km (geophysicist)
 EL SALVADOR (73)

CUSS 0.22 1 iPc 27 27.60 0.2
 YPE 0.51 31 iPd 27 32.50 -0.4
 TME 0.67 60 iPd 27 35.80 0.0
 VSS 0.69 85 iPd 27 37.00 0.7
 SSS 0.73 90 eP 27 37.20 0.2
 0.5s 27 56.00
 SJAS 0.76 91 iPd 27 37.60 0.1
 LFU 0.81 85 iPc 27 38.60 0.2
 OZA 0.94 100 iPd 27 39.60 -0.9
 S.D. = 0.6 on 8 of 8 obs.

APR 25, 1990 23h 37m 43.44 ± 0.85s
 37.723 N ± 6.5km 30.101 E ± 9.5km
 DEPTH = 10.0km (geophysicist)
 TURKEY (366)

KHL 0.75 323 iPg 37 57.50 -0.7
 0.5s 38 08.50
 ELL 0.99 189 ePn 38 02.10 -0.1
 ALT 1.33 0 ePn 38 08.20 0.2
 CIN 1.60 266 eP 38 03.00 -8.9X
 IZM 2.34 288 eP 38 23.00 0.4
 BBTk 2.97 44 eP 38 31.50 0.0
 BNT 3.13 328 ePn 38 34.00 0.3
 S.D. = 0.5 on 6 of 7 obs.

* APR 25, 1990 23h 48m 16.07 ± 1.80s
 35.971 N ± 18.2km 27.143 E ± 8.1km
 DEPTH = 98.6 ± 41.5 km
 DODECANESE ISLANDS (369)

APE 1.70 311 eP 48 45.50 0.3
 SMG 1.75 352 eP 48 44.50 -1.3

CIN 1.79 25 ePg 48 13.00 -33.4X
 0.5s 48 28.00
 KSL 1.98 85 eP 48 48.60 -0.3
 ELL 2.36 70 iPn 48 54.60 0.5
 IZM 2.42 2 ePn 48 56.00 1.2
 VAM 2.46 258 eP 49 00.00 4.7X
 KHL 3.02 38 ePn 49 08.00 5.1X
 VLI 3.48 284 eP 49 09.00 -0.1
 BBTk 5.89 47 eP 49 42.00 -0.5
 S.D. = 1.1 on 7 of 10 obs.

? APR 26, 1990 00h 48m 06.66 ± 8.55s
 29.942 S ± 62.9km 68.523 W ± 48.4km
 DEPTH = 33.0km (normal)
 SAN JUAN PROVINCE, ARGENTINA (137)

RTRS 0.84 254 iPd 48 22.10 0.0
 RTLL 1.38 178 ePd 48 30.00 0.1
 0.5s 48 51.30
 RTCB 1.56 189 eP 48 32.90 0.4
 0.5s 48 53.00
 RTBS 1.89 205 eP 48 37.00 -0.2
 0.5s 49 03.00
 RTCV 1.91 180 ePc 48 37.20 -0.4
 0.5s 49 04.00
 S.D. = 0.4 on 5 of 5 obs.

* APR 26, 1990 00h 49m 40.64 ± 1.89s
 18.199 N ± 12.1km 100.985 W ± 18.3km
 DEPTH = 33.0km (normal)
 3.4mb (1 obs.)
 GUERRERO, MEXICO (59)

III 1.45 83 iP 50 05.50 0.5
 0.5s 50 35.00
 ACX 1.70 141 iP 50 08.00 -0.5
 0.5s 50 35.00
 CRX 1.72 46 (P) 50 10.50 1.4
 0.5s 50 37.00
 IJJ 1.93 38 iP 50 10.00 -2.2
 UNM 2.04 56 (P) 50 18.00 4.3X
 PPM 2.40 69 eP 50 19.00 0.1
 IIT 2.67 72 (P) 50 18.00 -4.5X
 OXX 4.21 105 eP 50 44.50 0.1
 0.5s 51 38.00
 YKA 45.26 351 eP 57 57.10 0.6
 0.8s 0.40nm 3.4mb
 S.D. = 1.4 on 7 of 9 obs.

APR 26, 1990 01h 09m 03.82 ± 0.56s
 46.274 N ± 4.8km 7.325 E ± 5.8km
 DEPTH = 10.0km (geophysicist)
 SWITZERLAND (544)
 ML 2.2 (LDG).

DIX 0.20 163 iPd 09 08.60 0.2
 EMS 0.34 233 iPc 09 10.70 -0.3
 MMK 0.50 116 iPc 09 13.60 -0.4
 LPL 0.86 209 Pg 09 20.60 0.0
 LPG 0.87 207 Pg 09 20.80 0.0
 VDL 1.50 81 ePd 09 31.90 0.9
 BSF 1.60 347 Pg 09 31.80 -0.5
 0.5s 09 53.50
 SLE 1.69 28 ePc 09 32.50 -1.1
 HAU 1.86 339 Pg 09 37.10 1.2
 0.5s 10 01.60
 S.D. = 0.8 on 9 of 9 obs.

APR 26, 1990 01h 14m 48.86 ± 0.19s
 24.018 N ± 4.5km 94.626 E ± 4.7km
 DEPTH = 102.4km (3 depth phases)
 4.6mb (36 obs.)
 BURMA-INDIA BORDER REGION (294)

CHG 6.56 141 iPd 16 23.10 -1.3
 0.9s 29.41nm 4.7mb
 CHTO 6.56 141 iP 16 23.20 -1.2
 KMI 7.47 80 Pg+ 16 41.00 3.9X
 0.5s 17 39.00
 GUN 8.77 298 P 16 50.80 -4.2X
 PKI 9.03 295 P 16 53.80 -4.6X
 DMN 9.29 295 P 16 59.00 -2.9X
 NST 9.78 147 eP 17 10.00 1.7
 GKN 9.82 296 P 17 04.40 -4.6X
 LZH 14.42 31 eP 18 14.00 4.6X
 1.0s 23.00nm 4.4mb
 pP 18 20.00

i 18 40.00
 i 19 02.00
 i 21 02.50
 NDI 16.28 290 iPd 18 30.80 -1.9
 0.8s 89.55nm 5.1mb
 eS 21 16.00
 HYB 16.40 249 eP 18 33.00 -1.3
 0.5s 21 23.50
 GBA 19.27 241 Pd 19 08.10 0.0
 0.6s 2.50nm 3.7mb
 POO 20.11 258 eP 19 16.50 -0.3
 IPM 20.29 161 ePc 19 20.40 1.7
 0.9s 32.80nm 4.7mb
 SSE 24.54 67 Pc 20 00.00 -0.3
 1.0s 39.00nm 4.8mb
 E 15s 0.20um
 i 20 26.00 124kmX
 esS 25 04.00
 MAIO 32.57 300 eP 21 13.00 0.5
 MAT 39.34 61 eP 22 09.00 -0.7
 0.8s 17.91nm 4.9mb
 NANU 50.56 155 eP 23 39.20 0.2
 MBL 51.17 149 eP 23 43.00 -0.6
 BBTk 53.82 303 eP 24 04.00 0.6
 ELL 56.30 299 eP 24 21.60 0.2
 WB5 58.34 135 iPc 24 34.90 -0.7
 WRA 58.37 135 Pd 24 35.50 -0.3
 0.7s 20.60nm 5.3mb
 WARB 58.73 146 eP 24 38.20 -0.1
 SUF 59.08 330 iP 24 40.70 0.4
 0.6s 10.00nm 5.1mb
 NUR 59.56 327 iP 24 42.00 -1.6
 0.6s 6.50nm 4.9mb
 SOD 59.62 335 iP 24 44.40 0.5
 KEV 59.96 338 eP 24 47.00 0.8
 ASPA 60.82 138 iPc 24 51.00 -1.7
 0.7s 29.00nm 5.4mb
 UPP 63.05 327 iP 25 16.60 103km
 HFS 65.01 327 eP 25 19.00 -0.8
 0.8s 11.90nm 4.9mb
 PRU 65.75 316 eP 25 24.80 0.1
 e 25 52.50 111km
 BRG 65.99 317 eP 25 26.50 0.3
 NB2 66.13 328 P 25 26.40 -0.6
 0.8s 7.10nm 4.6mb
 KHC 66.51 315 eP 25 27.00 -2.6
 CDF 70.73 315 eP 25 55.50 -0.3
 PGF 71.08 309 eP 25 57.90 -0.1
 0.7s 6.60nm 4.6mb
 BSF 71.19 315 eP 25 58.30 -0.3
 HAU 71.44 315 eP 25 59.70 -0.3
 LPG 71.85 312 eP 26 03.00 0.2
 0.8s 6.70nm 4.5mb
 LPL 71.85 312 eP 26 03.00 0.2
 0.6s 4.50nm 4.5mb
 DAG 71.93 347 eP 26 02.10 -0.2
 FRF 72.46 310 eP 26 05.80 -0.3
 RMO 72.50 130 iPd 26 07.20 0.7
 PTZ 72.57 245 iP 26 07.00 -0.2
 LMR 72.62 310 eP 26 07.00 0.0
 LRG 72.69 310 eP 26 07.40 0.0
 0.7s 6.60nm 4.6mb
 LOR 73.26 315 eP 26 10.20 -0.5
 0.7s 2.75nm 4.2mb
 LBF 73.27 314 eP 26 10.30 -0.5
 SMF 73.46 314 eP 26 11.70 -0.1
 0.7s 6.60nm 4.6mb
 SSF 73.55 315 eP 26 12.30 0.0
 0.7s 7.70nm 4.6mb
 AVF 73.73 314 eP 26 13.30 -0.1
 0.7s 3.85nm 4.3mb
 BGF 74.14 314 eP 26 15.80 0.0
 0.6s 2.25nm 4.2mb
 MAF 74.43 314 eP 26 18.00 0.5
 0.9s 4.90nm 4.3mb
 TCF 74.64 314 eP 26 19.00 0.3
 0.6s 4.50nm 4.5mb
 EKA 74.85 324 P 26 21.00 1.4
 0.8s 7.80nm 4.6mb
 CAF 75.18 313 eP 26 22.20 0.4
 0.6s 2.70nm 4.2mb
 LDF 75.38 317 eP 26 23.00 0.2
 0.6s 4.50nm 4.5mb
 RJF 75.42 313 eP 26 23.90 0.8
 BAO 75.51 268 iPc 26 24.00 -0.2
 0.8s 16.00nm 4.9mb

? APR 26, 1990 03h 29m 44.15 ± 3.22s
17.369 S ± 16.6km 178.891 W ± 21.0km
DEPTH = 583.6 ± 34.0 km
4.9mb (11 obs.)
FIJI ISLANDS REGION (181)

DZM	14.58	249	iPc	32	48.10	-0.4	VLI	2.38	159	ePn	29	11.20	-0.1	HAU	4.24	328	Pn	41	21.60	0.2
COO	29.66	238	iPc	35	06.40	0.9	VAY	2.44	13	ePn	29	12.00	0.0				Sn	42	09.00	
RMO	31.28	247	ePd	35	19.70	0.5	SRS	2.55	31	ePn	29	13.50	-0.1	CDF	4.29	338	Pn	41	21.60	-0.6
	0.7s	71.00nm			5.4mb					eSn	29	43.40		LBF	4.75	304	Pn	41	29.00	0.3
CTA	33.09	260	iPc	35	34.00	-0.4	LCI	3.32	296	P	29	24.00	-0.2	BGF	5.27	296	Pn	41	36.40	0.4
	0.9s	31.51nm			4.9mb		RDO	3.58	51	ePn	29	27.30	-0.5		S.D. = 0.6	on	30	of	31	obs.
TDO	37.16	230	iPc	36	09.00	1.1	BRT	4.07	300	P	29	34.70	0.1							
WB5	44.26	259	eP	37	14.00	9.4X				eSn	30	15.60		? APR 26, 1990 04h 53m 23.06± 5.81s						
WRA	44.28	259	Pc	37	04.80	0.0	ORI	4.33	287	P	29	39.00	0.7	11.173 N ± 32.5km				61.684 W ± 36.3km		
	0.6s	16.00nm			4.7mb		CZI	4.46	275	P	29	40.80	0.7	DEPTH = 10.0km				(geophysicist)		
ASPA	44.50	254	iPc	37	07.30	0.8	MGR	5.02	286	P	29	47.30	-0.5	WINDWARD ISLANDS				(95)		
	0.6s	21.00nm			4.8mb					eSn	30	36.50		MD 3.1 (TRN).						
MTN	48.36	268	eP	37	36.00	0.1	MEU	5.77	254	P	29	56.50	-1.9							
KNA	50.07	264	eP	37	48.80	0.3				eSn	30	54.70		TCE	0.48	188	eP	53	32.59	-0.2
	0.3s	26.00nm			5.2mb		SDI	6.73	297	P	30	12.00	0.3				eS	53	40.86	
WARB	51.03	250	iPd	37	55.60	0.1		S.D. = 0.7	on	21	of	21	obs.	TRN	0.59	152	eP	53	34.76	-0.2
	0.5s	35.00nm			5.0mb											eS	53	45.35		
COOL	55.77	244	iPc	38	28.00	-1.0	* APR 26, 1990 04h 34m 34.20± 1.13s							TPP	0.88	165	eP	53	40.40	0.4
MBL	57.67	256	iPd	38	42.10	0.1	38.074 N ± 9.7km										eS	53	51.83	
	0.3s	14.00nm			4.7mb		DEPTH = 29.8 ± 9.3 km							TPR	0.89	89	eP	53	40.54	0.4
KLB	58.65	243	eP	38	48.00	-0.6	TURKEY										eS	53	54.12	
NWAO	59.06	242	eP	38	49.00	-2.2								BOT	0.95	90	eP	53	40.69	-0.4
BAL	59.60	244	eP	38	54.00	-0.8	CIN	0.48	171	iPgc	34	44.00	-0.3		S.D. = 0.6	on	5	of	5	obs.
MUN	59.96	243	eP	38	57.00	-0.2				iSg	34	56.00								
MRWA	60.30	246	iPc	38	59.30	-0.2	IZM	0.66	300	iPn	34	51.20	3.9X							
	0.5s	13.00nm			4.5mb		KHL	1.23	78	iPn	34	56.10	0.6	? APR 26, 1990 05h 58m 36.77± 0.99s						
NANU	61.44	253	iPd	39	07.70	0.8	ALT	1.93	59	ePn	35	04.40	-1.2	14.833 S ± 17.8km				71.937 W ± 13.9km		
	0.5s	57.00nm			5.2mb		ELL	2.02	130	ePn	35	16.00	9.0X	DEPTH = 33.0km				(normal)		
MAT	67.20	324	eP	39	43.00	0.2	EZN	2.18	324	iPn	35	10.00	0.9	PERU				(116)		
	0.7s	5.48nm			4.2mb		KCT	2.19	7	iPn	35	07.70	-1.6							
SPA	72.74	180	iPc	40	15.30	0.1	EDC	2.27	358	iPn	35	09.50	-0.9	ARE	1.68	165	iPd	59	04.50	0.0
	0.9s	11.82nm			4.4mb		BNT	2.28	359	ePn	35	09.70	-0.8				iS	59	48.60	
YKA	94.04	25	eP	41	59.90	-1.3	KGT	2.43	348	iPn	35	13.70	1.0	ZOBO	3.94	112	P	59	37.00	0.0
	0.8s	0.50nm			3.8mb X		YLV	2.71	23	iPn	35	16.70	0.0	PT02	4.76	293	iP	59	47.90	-0.2
CLL	144.84	347	iPKPd	48	17.10	0.6	GPA	2.85	38	ePn	35	20.00	1.3				eS	00	40.30	
	1.3s	17.00nm					CTT	3.09	6	ePn	35	19.70	-2.3	PT08	5.32	302	iP	59	56.50	0.2
BRG	145.03	346	iPKP	48	18.20	1.4	ISK	3.10	15	ePn	35	24.00	1.8	NNA	5.55	300	eP	00	04.00	4.7X
PRNI	146.56	299	iPKPd	48	24.00	4.0X	BBTK	4.12	63	eP	35	44.00	7.2X		0.7s	4.79nm		4.1mb		
MBH	146.80	298	ePKP	48	24.00	3.7X		S.D. = 1.5	on	12	of	15	obs.				eS	01	00.70	
DOU	147.23	356	PKP	48	24.10	3.7X									S.D. = 0.2	on	4	of	5	obs.
CDF	148.63	352	ePKP	48	27.60	4.8X	* APR 26, 1990 04h 40m 15.34± 0.28s							* APR 26, 1990 07h 41m 30.91± 0.86s						
	0.7s	4.40nm					44.473 N ± 3.1km							1.522 N ± 11.3km				123.238 E ± 13.9km		
FLN	148.66	2	ePKP	48	27.10	4.4X	DEPTH = 10.0km							DEPTH = 33.0km				(normal)		
	0.7s	6.60nm					NORTHERN ITALY							4.4mb (3 obs.)						
LDF	148.84	2	ePKP	48	27.40	4.4X	ML 2.7 (GEN).							MINAHASSA PENINSULA				(265)		
GRR	149.02	3	ePKP	48	28.20	5.0X	BOB	0.36	326	Pc	40	22.50	-0.2	PCI	4.17	235	ePc	42	32.50	-1.3
	0.5s	4.35nm								eSg	40	28.00		MKS	7.68	209	ePd	43	25.00	1.7
HAU	149.15	353	ePKP	48	28.80	5.3X	BDI	0.75	123	P	40	30.30	0.3				eP	45	40.00	-0.5
BSF	149.26	352	ePKP	48	29.00	5.2X				eSg	40	41.90		KNA	18.01	163		46	42.20	-0.6
LPF	149.37	3	ePKP	48	29.10	5.4X	MME	0.75	112	P	40	30.80	0.6	WB5	23.91	153	eP	46	42.20	-0.6
	0.8s	8.05nm					PCP	0.85	275	P	40	31.73	0.0	WRA	23.95	153	Pc	46	43.70	0.4
LOR	150.10	356	ePKP	48	30.90	6.0X				S	40	43.62			0.7s	5.60nm		4.2mb		
	0.5s	4.35nm					CKI	1.04	268	P	40	35.40	0.4	ASPA	27.10	158	eP	47	12.10	-0.8
SSF	150.32	357	ePKP	48	31.50	6.3X				eSn	40	50.10			0.4s	5.00nm		4.5mb		
LBF	150.37	356	ePKP	48	31.40	6.0X	FIN	1.12	257	P	40	36.34	-0.1	SHL	38.52	311	eP	48	52.00	-0.5
	0.7s	4.40nm								S	40	51.21		BWA	42.86	149	eP	49	40.50	12.6X
MFF	150.83	2	ePKP	48	32.20	6.2X	SAL	1.27	26	P	40	40.00	1.2	CAN	43.86	149	eP	49	36.80	0.8
BGF	150.86	358	ePKP	48	32.50	6.4X	MDI	1.30	359	P	40	40.00	0.6	GUN	44.32	310	P	49	40.00	-0.2
	0.5s	3.65nm								eSn	40	58.80		DMN	44.77	309	P	49	46.20	2.4
OHR	150.90	328	ePKP	48	33.00	6.6X	ROB	1.34	263	P	40	39.63	-0.5	GKN	45.32	309	P	49	46.60	-1.4
TCF	151.15	358	ePKP	48	33.10	6.6X				S	40	57.57		GBA	46.86	287	Pc	50	04.20	4.1X
LSF	151.20	359	ePKP	48	32.80	6.2X	VAI	1.55	334	P	40	43.00	0.0		0.6s	2.80nm		4.4mb		
MAF	151.21	358	ePKP	48	33.80	7.2X	PGD	1.55	112	P	40	43.00	-0.2		S.D. = 1.4	on	11	of	13	obs.
	0.5s	1.80nm					ENR	1.68	262	P	40	44.65	-0.3	% APR 26, 1990 08h 23m 16.48± 3.02s						
LPG	151.56	352	ePKP	48	35.20	7.7X				S	41	04.39		44.502 N ± 21.5km				6.889 E ± 31.8km		
	0.7s	2.20nm					STV	1.74	263	P	40	45.57	-0.3	DEPTH = 10.0km				(geophysicist)		
S.D. = 0.9	on	23	of	44	obs.		SBF	1.76	251	Pn	40	46.40	0.3	FRANCE				(538)		
APR 26, 1990 04h 28m 33.52± 0.55s										Sn	41	09.00		ML 2.1 (GEN).						
38.945 N ± 4.6km							DOI	1.78	272	P	40	45.00	-1.4							
DEPTH = 85.2 ± 13.5 km							RSP	1.89	292	P	40	48.11	0.1	STV	0.41	129	P	23	24.99	0.2
GREECE							PGF	2.00	196	Pn	40	50.30	0.7				S	23	30.53	
MD 3.2 (ATH).							LSO	2.08	299	P	40	51.83	1.0	RRL	0.42	350	P	23	25.20	0.0
							CTI	2.08	40	P	40	50.00	-0.8				S	23	30.84	
AGG	0.38	78	ePg	28	46.50	-0.6				eSn	41	16.00		ENR	0.47	126	P	23	25.81	-0.3
NEO	1.12	71	ePn	28	54.50	-0.2	RRL	2.15	283	P	40	54.80	2.9X				S	23	32.17	
VLS	1.25	233	ePn	28	56.00	-0.3	BNI	2.25	286	P	40	53.00	-0.3	ROB	0.73	106	P	23	30.84	-0.1
ITM	1.76	178	ePb	29	04.50	1.6	LPG	2.35	297	Pn	40	56.00	1.1				S	23	40.68	
KEK	1.77	296	ePn	29	03.10	0.1	FRF	2.40	249	Pn	40	55.40	0.1	FIN	0.99	107	P	23	35.45	0.2
FNA	1.87	349	ePb	29	05.00	0.5				Sn	41	23.60					S	23	48.27	
			eSb	29	27.80		LMR	2.59	245	Pn	40	57.60	-0.4		S.D. = 0.3	on	5	of	5	obs.
THE	1.89	27	ePb	29	04.20	-0.4				Sn	41	27.80		* APR 26, 1990 08h 28m 15.25± 2.07s						
OUR	2.15	49	ePb	29	08.10	0.0	LRG	2.64	248	Pn	40	58.40	-0.2	45.631 N ± 14.8km				26.397 E ±		

26d 08h

VRI 0.33 44 iPc 28 35.00 0.3
 MLR 0.35 247 iPc 28 36.00 1.1
 ISR 0.50 168 ePc 28 36.50 0.3
 CMP 1.02 250 ePc 28 38.00 -1.9
 PPE 1.03 55 iPc 28 58.50 18.5X
 CLI 1.11 34 iPd 28 36.00 -4.7X
 PTT 1.30 360 iPc 28 42.00 -0.6
 DRA 1.79 239 iPc 29 14.00 26.1X
 BZS 3.35 271 ePc 29 08.50 1.0
 CTT 4.72 161 ePn 29 25.50 -0.2
 S.D. = 1.5 on 7 of 10 obs.

& APR 26, 1990 09h 11m 25.99s
 61.045 N 152.172 W
 DEPTH = 105.4km
 SOUTHERN ALASKA (2)
 <AGS-P>.

SPU 0.15 23 iP 11 40.32 1.0
 CRP 0.22 2 iP 11 40.85 1.2
 CGLM 0.28 17 iP 11 40.73 0.9
 NCG 0.36 1 iP 11 41.13 -0.7
 RDT 0.49 194 iP 11 41.77 -0.8
 NKA 0.55 123 eP 11 44.25 1.4
 RED 0.69 205 iP 11 43.38 -0.8
 SUA 0.81 58 eP 11 45.05 -0.2
 NNL 1.10 156 eP 11 48.73 0.6
 SLKM 1.10 119 eP 11 47.74 -0.5
 PWA 1.26 60 eP 11 49.94 -0.1
 PMS 1.28 80 eP 11 49.99 -0.3
 PLRM 1.57 68 eP 11 52.78 -0.9
 CNPM 1.59 163 eP 11 53.98 -0.1
 CUT 1.64 33 eP 11 53.80 -0.8
 SEW 1.64 124 iP 11 53.80 -0.8
 GHO 1.72 64 eP 11 54.49 -1.3
 SML 2.00 66 eP 11 57.55 -1.7
 CDD 2.25 200 eP 12 01.52 -1.0
 GLI 2.48 92 iP 12 02.76 -2.9
 VZW 2.73 87 eP 12 06.65 -2.4
 RND 2.83 32 eP 12 08.55 -1.9
 VLZ 2.84 86 iP 12 08.20 -2.2
 KLU 3.05 79 eP 12 11.17 -2.2
 TOA 3.06 67 eP 12 08.69 -4.8
 25 obs. associated

& APR 26, 1990 09h 29m 19.70s
 37.862 N 122.000 W
 DEPTH = 6.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.7 (BRK). Felt (IV)
 at Alamo. Also felt at Concord,
 Danville and Walnut Creek.

BKS 0.19 275 e(P) 29 23.00 -0.6
 BRK 0.21 273 iPc 29 24.00 0.0
 ZSP 0.22 292 iPc 29 24.40 0.2
 PCC 0.47 220 ePd 29 28.90 -0.3
 MHC 0.59 151 iPd 29 32.20 0.6
 ARN 0.63 144 eP 29 32.20 -0.2
 GCC 0.83 180 ePc 29 35.10 -1.0
 NWRM 0.92 311 eP 29 36.50 -1.1
 SAO 1.18 158 eP 29 40.60 -1.5
 CMB 1.29 82 ePc 29 42.10 -1.9
 LLA 1.50 146 e(P) 29 47.80 0.6
 PRS 1.61 162 e(P) 29 47.40 -1.3
 ORV 1.74 13 e(P) 29 49.80 -0.8
 FRI 2.02 115 eP 29 52.90 -1.8
 PRI 2.02 148 e(P) 29 59.80 5.0
 PHAM 2.40 147 e(P) 29 58.00 -2.1
 KVN 3.28 68 eP 30 11.00 -1.9

TNP 3.79 85 e(P) 30 18.00 -2.1
 18 obs. associated

APR 26, 1990 09h 37m 10.94 ± 0.10s
 36.040 N ± 2.5km 100.274 E ± 2.2km
 DEPTH = 10.0km (geophysicist)
 5.7mb (17 obs.)

QINGHAI PROVINCE, CHINA (325)

Foreshock.

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN

L.P.B.: 10S, 18C

Centroid Location:

Origin Time 09:37:22.8 0.6

Lot 36.01N FIX; Lon 100.27E FIX

Dep 15.0 FIX Half-duration 5.2

Moment Tensor; Scale 10**18 Nm

Mrr= 0.89 0.11 Mlt= -1.09 0.12

Mff= 0.20 0.16 Mrt= 0.26 0.27

Mrf= 2.32 0.31 Mtf= 1.57 0.11

Principal Axes:

T Vol= 3.25 Plg=43 Azm=293

N -0.63 37 157

P -2.63 24 47

Best Double Couple: Mo=2.9*10**18

NP1: Strike= 90 Dip=40 Slip= 19

NP2: 346 78 128

LZH 2.89 88 Pn 38 00.00 1.9

Pg 38 05.00

Sn 38 38.00

Sg 38 44.00

KMI 11.09 168 Pd 39 52.00 -0.8

N 13s 926.70um

PP 40 02.00

PPP 40 10.00

S 41 57.00

SHL 12.68 217 iP 40 10.80 -3.5X

iS 42 50.00

BJI 13.15 68 eP 40 18.10 -2.2

1.0s 1020.00nm

iS 43 00.00

IRK 16.48 9 ePd 41 05.00 1.4

eS 44 09.00

CHG 17.20 184 ePd 41 13.60 0.7

1.0s 250.00nm

eS 44 32.00

CHTO 17.20 184 iP 41 13.80 0.9

1.5s 225.23nm

MCO 18.06 137 iP 41 23.10 -0.5

SSE 18.10 100 iPc 41 22.50 -1.5

2.0s 92.00nm

Z 20s 137.10um

N 14s 476.20um

E 14s 234.90um

pP 41 26.00

PP 41 34.00

PPP 42 00.00

S 44 52.00

sS 45 06.00

HKC 18.26 135 iP 41 24.80 -1.3

iS 44 58.00

LOE 18.60 176 eP 41 31.00 0.7

TLG 19.01 299 iP 41 33.90 -1.3

iS 45 18.00

HIA 19.41 41 ePd 41 39.59 -0.5

NDI 20.78 256 iPc 41 53.60 -1.1

1.1s 1151.90nm

ePPP 42 22.00

iS 45 47.50

FRU 20.90 297 iPc 41 56.20 0.4

iS 45 58.00

ANP 21.20 115 iP 42 00.00 1.0

iS 46 08.00

TATO 21.30 115 eP 42 00.00 0.1

DSH 25.12 285 iPc 42 38.00 0.6

eS 47 10.00

CVP 26.41 128 ePc 42 49.60 0.1

1.0s 413.00nm

SHK 26.43 84 iP 42 49.10 -0.5

0.8s 164.18nm

BAG 26.62 132 eP+ 42 52.00 0.4

1.8s 900.00nm

HYB 26.73 232 iPc 42 52.00 -0.5

1.0s 730.00nm

e 42 57.00

e 43 30.00

SNG 28.73 179 eP 43 10.00 -0.5
 1.8s 818.18nm 6.2mb X

P00 29.11 240 iP 43 13.50 -0.6
 BOM 29.60 242 eP 43 19.20 0.8

GBA 30.33 228 Pc 43 24.70 -0.2
 1.0s 77.40nm 5.5mb

MAT 30.45 78 eP 43 23.00 -2.9X
 1.5s 194.44nm 5.7mb

PPR 31.06 143 ePd 43 33.00 1.7
 1.5s 320.00nm 6.0mb

IPM 31.31 179 ePd 43 34.20 0.6
 1.3s 204.30nm 5.9mb

MAIO 32.75 283 iPc 43 48.00 1.9
 1.6s 393.70nm 6.1mb X

KLM 32.80 177 eP 43 48.00 1.5
 KKM 33.25 150 ePd 43 49.50 -1.1

KGM 33.97 175 ePd 43 56.80 0.1
 e 44 01.80

e 44 30.60
 e 46 38.50

DAV 36.96 135 eP 44 23.20 1.0
 IR2 39.67 285 iPc 44 46.50 1.6

IR4 39.79 284 iPc 44 47.70 1.8
 IR7 39.89 285 iPc 44 48.70 2.0

IR5 40.04 284 ePd 44 49.50 1.5
 TAB 42.60 289 ePc 45 11.00 2.1

KER 43.03 284 ePc 45 14.50 2.0
 BBU 43.35 271 iPn 45 15.50 0.5

DHR 43.57 272 iPc 45 17.00 0.2
 PET 43.65 48 iPc 45 17.00 -0.1

SLY 43.91 286 iPd 45 21.30 1.9
 iPP 45 26.00 16kmX

iPPP 47 02.50
 iS 51 55.00

iS 52 03.00
 MKS 44.82 152 ePd 45 25.60 -1.3

MSL 45.50 288 iPd 45 33.80 1.6
 iPP 45 38.50 16kmX

iPP 46 53.50
 ePPP 47 46.00

eS 52 14.50
 BHD 45.52 284 ePd 45 34.00 1.6

iPP 47 12.00 529kmX
 iPP 47 26.00

eS 52 14.50
 GUMO 45.74 108 eP 45 32.50 -1.8

1.3s 1568.63nm 6.8mb X
 pP 45 38.50 20kmX

PJG 45.74 108 eP 45 32.30 -2.0
 e 45 33.90

GUA 45.80 108 e(P) 45 34.00 -0.8
 0.7s 263.01nm 6.3mb X

eS 52 30.00
 OBN 46.69 315 iPc 45 41.20 -0.1

Z 14s 150.00um 7.1msz X
 iS 52 32.00

RYD 47.13 272 iPc 45 45.00 -0.3
 AAI 47.37 141 eP 45 47.30 0.2

MJMA 47.69 274 iPc 45 49.10 -0.6
 APA 48.49 332 iPd 45 54.00 -1.3

QASM 49.01 275 iPc 45 59.70 -0.2
 PUL 49.78 321 iPc 46 05.00 -0.3

SIM 49.83 302 iPc 46 06.00 0.1
 eS 53 17.00

AFIF 50.19 273 iPc 46 11.50 2.4
 KMSA 50.92 268 ePc 46 12.20 -2.4

KEV 50.92 335 ePc 46 13.67 -0.2
 1.3s 925.40nm 6.6mb

i 46 17.60
 i 46 50.00

e 48 14.00
 e 53 48.00

e 57 30.00
 KAS 51.03 297 iPc 46 15.30 0.1

SOD 51.07 331 iP 46 14.60 -0.4
 SHBJ 51.22 285 Pd 46 17.90 1.1

QTFJ	51.48	285	Pd	46	19.40	0.7			e	58	54.00		TIR	60.84	302	eP	47	24.00	-1.6	
SUF	51.54	326	iP	46	18.00	-0.6	DEV	57.12	306	ePd	47	02.00	2.2	NKY	60.85	304	iPd	47	25.80	0.0
BBTK	52.23	296	iPc	46	24.50	0.1	PLD	57.21	301	eP	47	01.00	0.5	PRU	60.90	313	iPc	47	25.80	-0.1
KTK1	52.27	334	iP	46	24.06	-0.1	SMG	57.32	295	eP	47	01.30	0.1		1.5s		848.20nm		6.7mb X	
HBLJ	52.30	285	Pd	46	25.30	0.3	RZN	57.35	301	iP	47	01.00	-0.7	Z	15s		274.00um		7.5MsZx	
CSTJ	52.39	284	Pd	46	25.78	0.2	PGB	57.42	302	iP	47	03.00	1.0				e	48	01.50	
SHMJ	52.47	286	P	46	27.00	0.9	KRA	57.62	311	eP	47	02.50	-0.7				eS	55	44.00	
NUR	52.51	323	iP	46	26.00	0.0	SPC	57.72	310	iP	47	04.70	0.5	BRG	60.92	314	iP	47	25.80	-0.2
	1.3s	1224.60nm			6.7mb X		Z	10s	68.70um		7.0MsZx			1.5s	1000.00nm				6.7mb X	
		i		46	29.80				i		47	08.60					i	47	28.00	
		i		46	59.40				i		47	39.10					i	47	29.80	
		i		47	42.00		HFS	57.91	324	eP	47	04.10	-1.0				i	47	59.70	
		e		48	30.00			1.4s	1560.00nm		6.8mb X						i	49	23.00	
		e		53	52.00		Z	16s	85.28um		7.0MsZx						iS	55	44.00	
		e		57	44.00				LR	11	40.00						i	56	16.00	
MDSJ	52.52	285	Pc	46	26.60	0.0	BZS	58.05	306	eP	47	06.00	-0.3	ULC	61.02	303	iPd	47	26.30	-0.6
BURJ	52.63	286	Pd	46	27.30	-0.1	VTS	58.07	302	iPc	47	08.00	1.3	HYA	61.03	326	eP	47	26.00	-0.6
SALJ	52.81	286	Pd	46	28.60	-0.2	MMB	58.08	301	iPc	47	06.00	-0.6	ITM	61.10	297	eP	47	25.20	-2.3
KFNJ	52.88	285	Pc	46	29.00	-0.1	KNA	58.14	147	iPd	47	06.00	-1.1	BRY	61.12	304	eP	47	28.00	0.3
MASJ	52.90	285	Pc	46	29.20	-0.2		0.8s	374.00nm		6.5mb X		BDV	61.18	303	eP	47	28.00	0.1	
SMY	52.97	47	iPd	46	30.20	0.7	TIM	58.27	306	iPc	47	08.00	0.2	IGT	61.26	300	eP	47	26.90	-1.6
Z	18s	33.00um			6.4MsZx		SRS	58.35	300	eP	47	08.00	-0.5	CLL	61.30	314	iPc	47	27.30	-1.3
FAM	52.97	290	eP	46	30.00	0.2	PSZ	58.36	309	iP	47	07.90	-0.7		1.5s	1000.00nm			6.7mb X	
MKRJ	53.03	285	Pd	46	30.60	0.2	OUR	58.37	299	eP	47	08.40	-0.2				i(PcP)	48	02.00	
LFK	53.23	290	iP	46	30.70	-1.1	KK8	58.42	301	iPc	47	08.00	-1.0				eS	55	50.00	
LISJ	53.28	285	Pc	46	32.20	0.2	MNDI	58.45	127	eP	47	12.00	2.3	ODD1	61.32	325	eP	47	28.90	0.2
CSS	53.50	290	eP	46	33.50	-0.2	RGS	58.51	328	iP	47	11.10	1.8	HCY	61.33	303	iPd	47	28.50	-0.5
IAS	53.65	306	eP	46	33.00	-1.6	APE	58.52	295	eP	47	08.50	-1.3	DAG	61.36	347	iPc	47	26.50	-2.2
TRO	53.75	335	iP	46	34.69	-0.3	SOH	58.63	300	eP	47	09.70	-0.8		1.1s		297.47nm		6.4mb X	
TAIF	53.82	271	eP	46	36.70	0.2	ADK	58.63	46	eP	47	11.30	1.0	FRO	61.38	327	eP	47	25.02	-4.0X
ILT	53.84	28	iPd	46	35.00	-0.7	Z	22s	24.00um		6.3MsZx		BLS1	61.42	324	iPd	47	29.40	-0.1	
		iS		54	10.00		NB2	58.79	325	P	47	10.00	-1.4	VLO	61.46	301	iP	47	28.90	-0.9
AYN	53.85	282	iPc	46	36.30	0.0		1.5s	1427.70nm		6.9mb X		KEK	61.56	300	eP	47	28.60	-2.0	
GPA	53.87	297	eP	46	35.90	-0.4	THE	58.97	300	eP	47	11.60	-1.2	PTJ	61.62	308	iPc	47	30.10	-0.9
PPE	53.89	305	eP	46	21.50	-14.9X			eS		54	42.00		ZAG	61.64	308	iPc	47	30.90	-0.1
CLI	54.02	305	ePc	46	37.50	0.1	VAY	58.98	301	iPc	47	11.70	-1.2	BER	61.72	326	iPd	47	30.20	-1.2
TLB	54.10	303	ePc	46	46.00	8.1X		1.3s	527.00nm		6.5mb		ASK	61.75	326	iPd	47	31.90	0.4	
HRT	54.15	298	eP	46	37.90	-0.5			i		47	15.70		AAE	61.76	260	eP	47	33.20	0.6
PSN	54.27	302	eP	46	39.00	-0.2	8UD	59.07	309	eP	47	13.00	-0.4	KHC	61.81	312	iPc	47	32.00	-0.2
PPCY	54.28	290	eP	46	38.80	-0.6	BE0	59.11	305	iP	47	14.20	0.5	KMR	61.90	311	iP+	47	33.30	0.5
GBZT	54.32	298	iPd	46	41.20	1.6			i		47	17.40		WET	62.23	312	iPc	47	35.00	0.0
ALT	54.43	296	eP	46	40.10	-0.5	NEO	59.30	298	eP	47	14.40	-0.8	V8Y	62.23	308	ePc	47	35.10	0.1
HQL	54.43	283	ePc	46	40.30	-0.3	SRO	59.40	309	iP	47	15.10	-0.5	HOF	62.35	314	iPc	47	35.70	-0.1
YLV	54.45	298	iP	46	39.40	-1.3	ATH	59.48	297	eP	47	16.00	-0.4				i	47	40.00	
BRD	54.48	304	ePc	46	42.00	1.2			eS		55	28.00		MOX	62.37	314	iPc+	47	35.50	-0.4
PTT	54.50	306	eP	46	41.00	0.1	LIT	59.51	300	eP	47	15.20	-1.4		1.6s	1235.00nm			6.8mb X	
ISK	54.50	298	eP	46	41.90	0.9	SKO	59.52	302	iPc	47	16.30	-0.3	Z	13s		71.40um		7.0MsZx	
ITU	54.52	299	iPc	46	40.00	-1.1	KSP	59.54	313	iPc	47	16.70	0.0	N	16s		68.40um			
WAJH	54.58	279	ePc	46	41.70	0.0	MBL	59.82	159	iPc	47	18.00	-0.8	E	11s		48.80um			
VRI	54.59	305	ePc	46	52.00	10.4X		0.9s	139.00nm		6.1mb X					i	48	11.00		
KBS	54.61	346	iP	46	41.00	-0.3	ANM	59.88	30	P	47	18.70	-0.1				i	49	32.00	
BCK	54.64	294	iP	46	40.50	-1.7	MOL	59.91	328	iP	47	18.70	-0.3	LJU	62.47	308	ePc	47	36.00	-0.6
BADA	54.79	282	iPc	46	42.70	-0.5	COP	60.00	319	iPc+	47	19.80	0.1				i	47	40.00	
CTT	54.92	299	eP	46	43.40	-0.7		0.9s	605.04nm		6.7mb X					eS	56	04.00		
ISR	54.93	304	eP	46	46.00	1.8	Z	21s	80.29um		6.8MsZx		LCI	62.58	301	P	47	36.10	-1.3	
KHL	55.12	295	eP	46	45.00	-0.7	ZST	60.01	310	iP	47	20.20	0.3	CEY	62.66	308	ePc	47	37.40	-0.5
MLR	55.23	304	ePc	46	46.50	0.1			i		47	24.00		KBA	62.79	310	iPc	47	38.30	-0.6
ELL	55.41	293	iP	46	47.10	-0.7			i		47	52.40		BHG	62.81	311	eP	47	39.00	0.2
BUC	55.47	303	ePc	46	50.00	2.1			i		48	10.60			1.9s	1000.00nm			6.7mb X	
BUC1	55.53	303	iPc	46	48.00	-0.4	KONO	60.02	324	ePc	47	18.55	-1.2	RAB	62.85	118	iPc	47	39.50	0.0
BNT	55.56	298	iP	46	58.40	9.7X	FNA	60.02	301	eP	47	18.80	-1.3				iS	56	30.00	
JMB	55.78	301	iP	46	51.00	0.8	NANU	60.04	164	eP	47	20.50	0.2	RIY	62.85	308	eP	47	38.30	-0.8
KSL	55.89	293	eP	46	49.30	-1.8	AGG	60.05	298	eP	47	19.00	-1.4	BRT	62.87	302	P	47	39.10	-0.2
CMP	55.90	304	iPc	46	52.00	0.9	VAM	60.19	294	eP	47	20.00	-1.2	VOY	62.88	309	eP	47	38.30	-1.1
LOF	55.92	333	iP	46	49.74	-1.1	IVA	60.22	303	iPd	47	22.50	1.0	RBL	62.91	309	P	47	36.60	-3.0X
KGT	55.97	298	iP	46	51.90	0.3	BRW	60.28	21	eP	47	22.00	0.6	GRF	62.99	313	iPc	47	40.60	0.6
UPP	56.08	323	iP	46	51.60	-0.5	OHR	60.29	301	iP	47	20.00	-2.0	GRFO	63.00	313	ePc	47	38.47	-1.5
		i		47	22.90			1.0s	336.00nm		6.4mb X		BAI	63.00	303	P	47	41.00	0.9	
PVL	56.38	302	iPc	46	55.00	0.4			i		47	25.20		TRI	63.10	308	P	47	40.10	-0.6
CIN	56.44	295	eP	46	44.00	-11.0X			i		47	51.50		PMG	63.16	126	eP	47	40.50	-0.9
UZH	56.61	309	iPc	46	58.00	1.9	BCI	60.30	303	iP	47	21.80	-0.1		1.3s	500.00nm			6.5mb X	
		eS		54	48.00		PHP	60.31	302	iPd	47	22.20	0.2	FVI	63.34	310	P	47	41.50	-0.8
DRA	56.62	304	eP	46	57.00	0.7	PLE	60.38	304	eP	47	23.20	0.6	FUR	63.60	312	eP	47	44.30	0.2
DIM	56.65	301	iP	46	57.00	0.5	VKA	60.47	310	iPc	47	24.40	1.3		1.5s	3176.00nm			7.3mb X	
KOT	56.68	285	eP	46	56.00	-0.9		5.7s	9996.00nm		7.1mb X		Z	16s		218.00um			7.4MsZx	
MTN	56.69	143	iPd	46	55.10	-1.9			i		47	58.70		IMA	63.68	26	iPd	47	44.00	-0.5
ALN	56.70	299	eP	46	56.50	-0.4			iPP		49	39.40			1.3s	792.50nm			6.7mb X	
IZM	56.74	296	iP	46	56.30	-1.0			i		49	43.90		ORI	63.74	302	P	47	45.90	0.8
KDZ	56.87	300	iPd	46	59.00	0.9			e		51	56.00		CSJ	63.98	301	P	47	47.	

26d 09h

SGO	64.31	303 P	47 48.40	-0.3	BSF	66.44	313 iPc	48 02.00	-0.5	DWY	69.75	24 P	48 22.10	-0.6
GRI	64.31	300 P	47 48.59	-0.3	MMK	66.57	311 ePc	48 03.20	-0.4	MAF	69.75	313 iPc	48 23.30	0.2
	1.3s	1022.30nm		6.9mb X	MRWA	66.58	165 eP	48 03.50	0.2	LBL	69.85	312 P	48 22.03	-1.6
OGA	64.32	310 iPc	47 48.10	-0.9	HAU	66.62	313 iPc	48 03.10	-0.5	ZGN	69.88	301 iPc	48 23.00	-1.1
MGR	64.32	302 Pd	47 48.00	-0.9		1.3s	620.50nm		6.6mb X	TCF	69.93	313 iPc	48 23.40	-0.8
CZI	64.33	301 P	47 49.80	0.9	DOU	66.64	316 iPc-	48 03.90	0.3	LDF	70.07	316 iPc	48 24.60	-0.3
WRA	64.34	144 Pc	47 47.60	-1.5						YRH	70.17	321 eP	48 25.60	0.1
	1.4s	291.00nm		6.3mb X							1.0s	186.00nm		6.2mb X
TTA	64.35	30 ePd	47 48.30	-0.5						FLN	70.18	316 eP	48 25.20	-0.4
TNS	64.38	315 ePc	47 49.20	0.0							1.3s	761.55nm		6.7mb X
DUI	64.39	304 P	47 50.00	0.6	LOMF	66.65	312 P	48 03.69	-0.1	MID	70.18	30 P	48 23.60	-1.8
TOD	64.45	314 eP	47 49.35	-0.2	WARB	66.71	154 eP	48 04.20	0.0	REY	70.30	337 eP	48 27.40	1.3
WTS	64.53	317 ePc	47 50.00	0.0		0.4s	58.00nm		6.1mb X	LSF	70.35	313 eP	48 26.00	-0.7
	1.1s	811.00nm		6.8mb X	MCT	66.81	300 P	48 06.20	1.1	NWAO	70.42	165 iPd	48 27.00	-0.1
					DIX	66.90	311 ePc	48 05.70	0.0	GRR	70.59	316 iPc	48 27.90	-0.2
BSS	64.54	303 P	47 50.60	0.3	PCP	66.92	309 P	48 04.23	-1.4	CAF	70.73	312 iPc	48 29.20	0.1
ARV	64.58	306 P	47 50.50	0.0	FAI	66.95	300 P	48 06.70	1.0	CTA	70.77	134 iPc	48 28.50	-1.0
MEKA	64.66	162 iPd	47 49.90	-1.1	CKI	67.15	309 P	48 07.20	0.3		1.5s	583.33nm		6.5mb X
	0.5s	63.00nm		6.1mb X	EMS	67.20	311 ePc	48 07.10	-0.4	Z	24s	12.79um		6.1msz X
RSM	64.71	307 P	47 51.77	0.5	FIN	67.29	309 P	48 08.08	-1.8					
	1.5s	684.00nm		6.6mb X	LSD	67.35	310 P	48 08.44	-0.1					
AQU	64.79	305 P	47 48.60	-3.3X	ASPA	67.36	147 iPc	48 07.60	-0.8					
SDI	64.80	304 P	47 50.90	-1.1		1.1s	329.00nm		6.4mb X					
RFI	64.87	304 P	47 53.40	1.0		Z	23s	18.77um	6.2msz X					
OSS	64.94	311 ePc	47 52.60	-0.4										
ASS	64.96	306 P	47 53.60	0.6										
PLH	64.96	316 ePc	47 52.80	0.0										
GMB	65.00	300 P	47 53.59	0.1	EDU	67.38	324 iPd	48 07.90	-0.3					
	1.4s	913.00nm		6.8mb X	RSP	67.44	310 P	48 06.28	-2.6	RJF	70.86	312 iPc	48 30.10	0.3
KTD	65.00	314 eP	47 53.37	0.2	ROB	67.47	309 P	48 07.72	-1.3	DLE	70.87	323 iPc	48 29.90	0.2
ABH	65.06	315 eP	47 53.46	-0.1	QIS	67.48	140 iPc	48 07.70	-1.5		1.2s	1020.00nm		6.8mb X
SFI	65.10	307 P	47 54.80	1.0	ESY	67.52	324 eP	48 08.40	-0.7	LPF	70.89	316 eP	48 29.70	-0.2
SAX	65.18	311 ePc	47 54.00	-0.7	LPG	67.58	311 iPc	48 10.10	0.0	ETA	71.05	322 eP	48 31.30	0.5
SAL	65.19	309 P	47 54.00	-0.3		1.3s	1410.25nm		7.0mb X		1.0s	203.00nm		6.2mb X
MSI	65.20	300 P	47 53.70	-0.8	LPL	67.58	311 iPc	48 10.20	0.2	MFF	71.14	314 iPc	48 31.40	-0.1
PGD	65.21	307 P	47 55.60	0.9	PGF	67.58	307 iPc	48 10.00	0.1	DCN	71.20	323 iPc	48 32.30	0.6
MBC	65.21	10 ePd	47 53.70	-0.4	ELO	67.75	324 ePd	48 10.20	-0.4		1.3s	1600.00nm		7.0mb X
	1.3s	550.00nm		6.6mb X		1.3s	1297.00nm		7.0mb X	LPO	71.39	312 iPc	48 33.20	0.2
MNS	65.25	305 P	47 53.90	-1.0	DOI	67.76	309 P	48 09.80	-1.1	ECP	71.42	322 eP	48 33.40	0.4
ATN	65.28	300 Pd	47 54.80	-0.3	ENR	67.78	309 P	48 09.77	-1.3		1.0s	250.00nm		6.3mb X
DBN	65.38	317 iP+	47 57.00	1.5	PMR	67.79	29 ePd	48 09.80	-0.8	LFF	71.52	312 iPc	48 34.10	0.3
	Z	14s	181.00um	7.4msz X		1.0s	80.00nm		5.9mb	ECB	71.52	322 eP	48 34.30	0.6
					EDI	67.79	324 iPc	48 10.60	-0.2		1.0s	290.00nm		6.3mb X
					EBL	67.80	324 eP	48 10.20	-0.7	ETER	71.63	309 iPd	48 34.30	-0.2
					STV	67.83	309 P	48 09.15	-2.2	HNR	72.04	116 eP	48 48.00	10.7X
					RRL	67.84	310 P	48 10.69	-0.9					
					BNI	67.85	310 P	48 11.30	-0.2	HYT	72.61	26 P	48 40.80	0.6
SVW	65.41	31 ePd	47 55.90	0.3	AUTN	67.89	309 P	48 11.94	0.0	YKU	72.68	28 P	48 41.70	1.3
RUP	65.42	315 eP	47 55.90	0.0	SBF	67.95	309 iPc	48 11.80	-0.3	EPF	72.80	311 iPc	48 40.90	-0.6
GWF	65.42	314 P	47 55.88	0.0	EAU	67.96	324 eP	48 11.20	-0.7		1.4s	612.65nm		6.5mb X
VDL	65.44	311 ePc	47 56.00	-0.3		1.3s	1556.00nm		7.0mb X	ESEL	72.96	307 iPc	48 43.30	0.8
SLE	65.46	312 ePc	47 55.70	-0.4	TOUF	67.99	309 P	48 12.74	0.2	BTH	73.08	311 P	48 43.50	0.4
RMP	65.50	305 P	47 56.70	0.3	AURF	68.01	309 P	48 12.55	0.1					
RDP	65.51	305 P	47 56.40	-0.2	REVF	68.05	309 P	48 12.74	0.0					
FIR	65.55	307 eP	47 57.00	0.3	AKU	68.06	337 iP	48 13.90	1.6					
					BAL	68.07	165 eP	48 13.00	0.3	OGE	73.22	311 P	48 44.64	0.7
LLS	65.56	311 ePc	47 56.20	-0.8	EKA	68.09	323 Pc	48 12.70	0.0	JAU	73.23	311 P	48 45.11	0.9
ENN	65.58	316 eP	47 57.00	0.2		1.1s	204.30nm		6.2mb X	GDH	73.26	351 iPd	48 33.30	-10.3X
	1.2s	914.00nm		6.8mb X	EAB	68.20	324 ePc	48 13.50	0.2		1.0s	56.00nm		
						1.4s	1000.00nm		6.8mb X					
MEM	65.60	316 iPd	47 58.20	1.3	CALN	68.35	309 P	48 14.67	0.0					
MDI	65.62	310 P	47 56.00	-1.1	LOR	68.45	313 iPc	48 14.20	-0.9					
ZLA	65.65	312 ePc	47 56.90	-0.5		1.2s	395.15nm		6.5mb X	ESCF	73.33	311 P	48 45.18	0.6
FEL	65.69	312 eP	47 57.14	-0.6	LBF	68.53	313 iPc	48 14.60	-1.0	ATE	73.40	311 P	48 45.76	0.8
WLS	65.84	313 P	47 58.52	-0.1	INK	68.55	19 eP	48 15.00	-0.3	MADF	73.44	311 P	48 46.00	0.8
BDI	65.84	308 P	47 58.40	-0.3		1.0s	514.00nm		6.7mb X	LHE	73.45	311 P	48 46.11	0.7
CDF	65.89	313 iPc	47 58.50	-0.4	KDC	68.55	33 eP	48 14.60	-0.9	VAL	73.49	323 iP	48 47.10	1.8
MNO	65.92	300 P	47 58.70	-0.8	FRF	68.60	309 iPc	48 15.60	-0.4	ISSF	73.49	311 P	48 46.11	0.5
WLF	65.96	315 Pc	48 01.30	2.1	TOA	68.62	28 ePd	48 16.30	0.4	ELYF	73.53	312 P	48 46.57	0.8
TMA	65.99	310 ePc	47 58.80	-0.9	SSF	68.77	313 iPc	48 16.30	-0.7	BOH	73.58	312 P	48 47.11	1.0
ECH	66.05	313 P	47 59.76	-0.1	SMF	68.78	313 iPc	48 16.60	-0.5	EBR	73.92	309 eP	48 49.00	1.0
PII	66.05	308 P	48 01.90	2.0	LMR	68.80	309 iPc	48 17.00	-0.2					
VAI	66.16	310 P	47 59.60	-1.0	LRG	68.83	309 iPc	48 17.30	-0.1					
BBS	66.19	312 P	48 01.43	0.6		1.3s	1043.60nm		6.9mb X	ECRI	74.77	312 iPc	48 54.60	1.6
PZI	66.19	299 P	48 00.66	-0.3	CGL	68.94	304 P	48 18.04	-0.3	ETOR	75.52	310 iPc	48 57.20	-0.1
	1.1s	512.00nm		6.6mb X		1.4s	279.10nm		6.3mb X	ECHE	75.54	308 iPd	48 58.20	0.8
MOF	66.23	313 P	48 01.15	0.0	AVF	68.99	313 iPc	48 17.90	-0.5	ACU	75.80	307 iPd	49 00.10	1.2
MAO	66.24	306 P	48 00.60	-0.6	KLB	69.25	164 eP	48 20.00	0.0	SIT	76.09	28 ePd	49 01.20	1.1
BOB	66.25	309 P	48 01.70	0.4	PLDF	69.25	312 P	48 19.11	-1.0		Z	20s	38.00um	6.7msz X
GIB	66.36	301 P	48 01.30	-0.9	MUN	69.29	166 iPd	48 20.00	-0.2	LWI	76.43	257 ePc	49 02.80	-0.2
COL	66.38	26 eP	48 01.82	0.1	MBZ	69.34	301 iPd	48 21.30	0.6	EALH	76.83	307 iPc	49 05.90	1.3
FBA	66.38	26 iPd	48 01.50	-0.2	COOL	69.40	161 iPd	48 20.70	-0.3	NPA	76.83	240 eP	49 05.60	0.7
	1.0s	120.00nm		6.0mb	BGF	69.41	313 eP	48 20.60	-0.4					
UCC	66.44	316 iPd-	48 02.00	-0.3	AGO	69.50	312 P	48 21.40	-0.2	GUD	76.92	311 iPd	49 06.20	0.9
					KCHT	69.62	301 iPd	48 22.00	-0.4	EVIA	77.07	308 iPd	49 07.80	1.7
					PYM	69.73	312 P	48 22.77	-0.3	RMO	77.19	137 iPc	49 07.30	0.6
										TOL	77.30	310 ePc	49 07.37	0.1

1.0s	3437.00nm	7.4mb X	KUK	94.94	281	eP	50	35.00	-0.1	faulting. The preferred fault plane is not determined.	
	iPP	49 42.00	138kmX			e	53	51.00		RADIATED ENERGY	
	iPP	52 05.00		LEGH	95.11	281	eP	50	37.00	1.2	No. of sta: 5 Focal mech. M
	ePPP	53 54.00				e	54	17.00		Energy 2.1±0.9×10 ¹⁴ Nm	
	iS	59 02.00		ORV	95.50	31	eP	50	38.00	0.7	MOMENT TENSOR SOLUTION
	iSS	59 38.00		BW06	96.97	22	ePc	50	44.00	-0.3	Dep 10 No. of sta: 11
	iPS	00 45.00			0.9s	4.24nm	5.0mb			Moment Tensor; Scale 10 ¹⁸ Nm	
	iSS	04 04.00		LKO	97.01	287	P	50	43.34	-1.2	Mrr= 1.52 Mtt=-0.62
ENIJ	77.86	307	iPd	49	11.10	0.7	RSSD	97.22	17	iPd	Mff=-0.90 Mrt=-0.07
YKA	77.87	16	eP	49	09.10	-0.8	CMB	97.25	31	eP	Mrf= 0.93 Mtf= 0.85
	1.1s	222.00nm	6.2mb X	MHC	97.29	32	eP	50	47.70	2.1	Principal axes:
STK	77.88	145	P	49	11.20	0.9	KVN	97.31	29	ePc	T Vol= 1.85 Plg=69 Azm=285
EBAN	78.16	309	iPc	49	13.30	1.3	KIC	98.29	284	P	N -0.05 16 147
STS	78.17	315	iPc	49	13.40	1.5	TIC	98.34	284	P	P -1.80 13 54
EPLA	78.44	311	iPc	49	15.60	2.1	FRI	98.41	31	eP	Best Double Couple: Mo=1.8×10 ¹⁸
AFC	78.54	308	iPd	49	14.80	0.5	TNP	98.49	29	P	NP1: Strike=123 Dip=35 Slip= 61
ASMO	78.61	308	iPc	49	14.60	0.0	LIC	98.60	284	P	NP2: 337 60 108
APHE	78.82	308	iPc	49	15.00	-0.8		Z	18s	25.60um	6.8MsZ X
AAPN	78.88	308	iPc	49	15.50	-0.6	GLD	101.01	20	Pdiff	51 02.00 -0.3
ALQJ	78.99	308	eP	49	17.00	0.3	GOL	101.01	20	Pdiff	51 02.00 -0.4
ATEJ	79.05	308	iPc	49	17.00	-0.1	HRV	101.47	354	ePdiff	51 06.54 2.5X
CMS	79.61	142	eP	49	20.00	0.2				eSKS	02 19.78
EPRU	79.79	308	iPd	49	22.10	1.1				ePS	04 57.37
LIJA	79.95	308	iP	49	24.00	2.1	WVLY	101.86	359	Pdiff	51 05.50 -0.3
BRS	80.18	134	iPc	49	22.80	-0.2	PFO	102.67	31	iPdiff	51 15.94 6.2X
	1.2s	12.20nm	4.8mb	PLM	102.73	31	ePdiff	51	12.00	1.9	
		iPcP	49	31.10						e	51 55.00
		i	49	55.50						ePP	55 09.00
		e	50	54.00			SNZO	102.79	132	ePdiff	51 12.00 2.2
ALJ	80.21	308	iP	49	24.00	0.7				PP	55 32.00
EJIF	80.26	308	iPd	49	24.00	0.6				SKS	02 00.00
EVAL	80.37	310	iPd	49	25.60	1.6				SP	04 32.00
OJEN	80.52	308	iP	49	25.00	0.1	SCP	103.52	359	ePdiff	51 13.13 0.0X
BCAO	80.73	269	ePc	49	26.06	-0.2	ALO	105.11	23	ePdiff	51 22.00 1.3
PTZ	82.00	246	iPd	49	33.00	0.2	SBA	120.26	167	e(PKP)	56 04.10 1.6
	0.9s	42.10nm	5.5mb	CPD	124.65	344	(PKP)	56	15.00	2.3	
		i	49	39.20			PORP	124.79	345	(PKP)	56 12.00 -0.9
		i	49	49.50			SPA	125.86	180	ePKP	56 11.00 -2.8
		i	50	05.00						1.3s	139.17nm
		i	50	34.00						Z	19s
		i	52	32.00			TRN	130.45	336	ePKP	56 24.82 0.9
COO	82.10	137	eP	49	32.00	-1.0	SDV	134.50	347	ePKP	56 30.00 -1.9
		e	49	34.00			UPA	135.22	360	ePKPc+56	30.00 -3.0X
BFD	82.73	147	eP	49	36.00	0.0				Z	20s
BWA	83.26	142	iP	49	40.80	1.9	BMG	136.67	350	ePKP	56 34.00 -1.9
CAN	84.26	142	eP	49	44.80	0.8	BOG	139.21	351	ePKP	56 37.00 -3.9X
		iPP	50	21.80						iS	00 26.00
TOO	84.38	145	eP	49	44.00	-0.5	PSO	142.89	356	ePKP	56 44.00 -3.5X
		e	49	46.00			COTA	143.79	358	ePKP	56 50.00 0.8
		e	49	53.00			CAYA	144.03	357	ePKP	56 48.00 -1.6
		e	50	20.00			OUR	144.30	358	ePKP	56 48.50 -1.5
CNB	84.43	142	eP	49	46.00	1.1	GGP	144.30	358	ePKP	56 49.20 -1.0
		e	49	54.00			VC1	144.76	358	ePKP	56 50.50 -0.4
		e	50	20.00			BAO	145.19	297	ePKP	56 49.70 -1.3
DZM	85.13	122	iPc	49	50.00	1.3	SIV	154.02	315	PKP	57 04.40 0.0
KMZ	85.64	250	iP	49	53.00	1.6	ZOBO	157.76	329	ePKPc	57 10.03 0.1
		i	49	57.50						eLR	49 36.00
		i	50	29.00			LPB	157.99	329	PKPc	57 12.00 2.0
		i	51	33.40						eLR	49 36.00
		i	53	22.00			ANT	165.30	324	e(PKP)	57 14.20 -2.4
		i	56	50.00			ZON	169.77	293	e(PKP)	57 21.00 1.3
FFC	87.59	13	iPc	50	00.30	0.0	PCH	172.05	285	ePKP	57 26.50 5.8X
	0.6s	30.00nm	5.8mb	LNV	172.87	285	ePKP	57	21.00	0.2	
PNT	87.94	25	eP	50	03.00	0.9				S.D. = 1.0	on 500 of 521 obs.
		pP	50	37.00	132kmX						
GMW	88.30	28	P	50	05.60	1.8				APR 26, 1990 09h 37m 15.04± 0.21s	
SCH	88.83	353	iPc	50	06.00	-0.2				35.986 N ± 5.3km 100.245 E ± 5.6km	
	1.0s	146.00nm	6.2mb X							DEPTH = 8.1km (geophysicist)	
LON	89.33	27	iPc	50	14.60	5.8X				6.5mb (23 obs.) 6.9MsZ (13 obs.)	
		eHPP	53	45.37						QINGHAI PROVINCE, CHINA (325)	
		ePP	53	45.65						Ms 6.7 (BRK), 6.4 (PAS).	
SES	89.61	19	eP	50	10.00	0.0				Mo=8.0×10 ¹⁸ Nm (PPT). At least	
	1.7s	1453.00nm	6.9mb X							126 people killed, many injured,	
		pP	50	45.00	136kmX					extensive damage and landslides	
DPW	89.66	25	P	50	12.60	2.2				in the Gonghe-Xinghai area. Also	
BFT	90.29	238	iPd	50	14.00	0.3				felt in Gansu Province. Depth	
	1.3s	326.92nm	6.4mb X							from broadband displacement	
SLR	91.54	239	iPd	50	19.00	-0.3				seismograms.	
	1.7s	480.77nm	6.6mb X							FAULT PLANE SOLUTION: P-Waves	
	Z	17s	45.58um							NP1: Strike=135 Dip=45 Slip= 90	
RSON	92.60	9	iPd	50	23.10	-0.7				NP2: 315 45 90	
	1.0s	31.45nm	5.7mb							Principal Axes:	
LRM	93.33	22	eP	50	28.50	0.9				T	Plg=90 Azm= 0
FHC	93.40	32	eP	50	29.90	2.2				P	0 45
WDC	94.20	31	ePc	50	32.50	1.2				Comment: The focal mechanism is	
MIN	94.79	31	ePc	50	35.00	0.8				poorly controlled and	
										corresponds to reverse	

			e	03	10.00	
			ePS	04	20.00	
			eSS	09	34.00	
			eSSS	10	28.00	
			eSSS	13	24.00	
			eLg	19	09.00	
RVR	102.02	31	ePdiff51	11.00		-0.1
			ePP	55	23.00	
PEC	102.19	31	Pdiff	51	12.90	1.0
TPC	102.47	30	ePdiff51	15.00		1.8
			e	51	48.00	
			ePP	55	08.00	
CLE	102.88	1	iPdiff51	14.00		-0.8
BAR	103.44	31	ePdiff51	20.00		2.5X
			ePP	55	30.00	
SCP	103.57	359	ePdiff51	18.10		0.3
			eSPd	51	22.40	
			iHPP	55	30.36	
			iPP	55	31.74	
GLA	103.88	30	ePdiff51	21.00		1.5
			e	51	54.00	
			ePP	55	23.00	
ANMO	105.17	22	ePdiff51	27.42		2.1
Z	20s					6.7Msz
			ePP	55	49.17	
			eHPP	55	49.45	
			ePP	55	50.55	
ALQ	105.17	22	ePdiff51	27.00		1.6
Z	18s					6.7Msz
						21.48um
CBN	106.15	358	e(Pdif51	29.00		-0.3
			e	55	49.00	
TUL	106.93	14	ePdiff51	33.50		0.6
						13.20nm
						5.8mb
						39.05um
						7.0Msz
RSCP	108.58	5	Pdiff	51	45.00	4.7X
Z	20s					6.8Msz
						24.86um
UYO	108.87	13	iPdiff51	42.70		1.1
PMO	116.25	90	ePKP	56	03.00	1.9
						25.00nm
						85.00nm
TVO	116.63	93	ePKP	56	00.00	-1.9
						85.00nm
SPA	125.80	180	ePKP	56	18.00	-0.1
TCE	130.56	336	ePKP	56	29.25	0.7
TPP	130.82	336	ePKP	56	30.11	1.1
CAR	132.20	343	ePKP	56	30.00	-1.8
AIA	149.28	193	ePKP	57	02.50	2.1
NNA	155.96	353	iPKP	57	12.00	0.5
						85.94nm
PT10	156.06	353	ePKP	57	12.60	1.0
PT02	156.86	352	ePKP	57	10.00	-2.6X
ZOBO	157.80	329	iPKPc	57	15.03	0.6
			iHPP	01	22.05	
			iPP	01	23.43	
CCH	157.88	323	PKP	57	15.20	1.0
ARE	159.21	337	ePKP	57	14.00	-1.6
BAA	162.58	268	PKP-	57	22.00	3.8X
			eS	01	56.00	
RTLL	169.51	293	e(PKP)	57	23.00	-0.9
RTRS	169.60	301	e(PKP)	57	22.80	-1.1
RTCB	169.84	293	e(PKP)	57	26.00	1.8
FCH	171.76	286	ePKP	57	25.50	0.2
			e	58	49.50	
PEL	172.00	288	iPKP	57	24.40	-0.7
						327.27nm
SAN	172.10	286	ePKP	57	27.20	2.1
			i	57	49.50	
ROCH	172.18	290	ePKP	57	23.50	-1.9
CHCH	172.25	283	ePKP	57	26.00	0.9
S.D. = 1.2 on 127 of 141 obs.						
* APR 26, 1990 09h 37m 45.38±0.51s						
36.239 N ±12.8km 100.2						

BHD	45.46	283	iPd	46 07.00	0.6	RSNY	99.45	356	P	51 31.50	1.9X	BDV	1.46	331	iPgd	28 08.90	1.9
KEV	50.74	335	iPc	46 47.10	0.1	GLD	100.83	20	Pdiff	51 45.50	9.5X	TTG	1.47	345	iPgc	28 10.00	2.9X
			ec	46 49.25			1.5s	74.22nm			6.0mb				iSg	28 31.30	
			ed	46 51.74		PV09	100.83	23	Pdiff	51 44.50	8.3X	IGT	1.54	164	eP	28 09.70	1.6
			eHPP	48 44.41		GOL	100.83	20	Pdiff	51 38.00	1.9X				eS	28 29.80	
			ePP	48 45.79		PAS	101.33	32	ePdiff	51 38.62	0.5	LCI	1.54	245	P	28 07.90	-0.3
SMY	52.84	47	P	47 02.90	-0.2				ec	51 40.94		SKO	1.58	52	iPgd	27 10.60	-58.1X
HFS	57.74	324	eP	47 37.80	-0.6				ed	51 46.24			Z	10s	18.59um		
	1.2s	844.00nm			6.6mb				eHPP	55 49.39			N	10s	11.19um		
NB2	58.62	325	P	47 43.90	-0.8				iPP	55 49.94			E	10s	15.98um		
	0.9s	271.60nm			6.3mb	CER	102.46	238	ePdiff	51 44.40	1.2				i	27 13.70	
KONO	59.85	324	iPc	47 51.88	-1.2	SCP	103.32	359	ePdiff	51 45.96	-0.8				iSg	27 29.60	
			ic	47 53.37					ic	51 47.78					i	27 31.70	
			ed	47 56.02					ed	51 53.08					LR	27 46.50	
WIT	64.08	318	eP	48 19.50	-2.1				ePP	55 57.67		PVY	1.59	5	ePn	28 12.00	3.0X
PGD	65.07	307	P	48 25.00	-3.4X	ANMO	104.93	22	ePdiff	51 55.93	1.6				eSn	28 36.00	
ATN	65.17	300	P	48 26.50	-2.4				ic	51 58.08		HCY	1.73	327	iPnd	28 12.00	1.2
MME	65.58	308	P	48 27.50	-4.3X				ed	52 03.38					iSn	28 35.50	
COL	66.21	26	iPc	48 35.43	0.3				eHPP	56 15.41		IVA	1.86	3	iPnc	28 16.50	3.6X
			ic	48 37.25					ePP	56 17.62					iSn	28 43.00	
			ed	48 42.72					eSKS	02 39.41		NKY	1.89	342	ePn	28 15.40	2.0
FBA	66.21	26	P	48 35.00	-0.1	ALO	104.93	22	ePdiff	51 55.00	0.6				eSn	28 41.50	
BSF	66.30	313	P	48 39.16	3.1X	DRV	106.99	165	iPKP	56 00.00	-12.0X	BRT	1.95	267	Pd	28 15.50	1.4
PMR	67.62	29	P	48 42.00	-2.1	ZOBO	157.58	330	iPKPc	57 43.72	-0.5	BRY	2.10	334	ePn	28 18.00	1.7
YRH	70.01	321	iPd	48 59.30	0.3				i	57 45.87					eSn	28 45.60	
DLE	70.71	322	iPd	49 03.60	0.4				ePKPpb	58 16.82		VAY	2.13	81	iPnd	27 16.80	-59.9X
ETA	70.88	322	eP	49 04.70	0.4				eHPP	01 50.57					eSn	27 43.00	
DCN	71.03	323	iPd	49 05.80	0.6				ePP	01 51.40		BAI	2.20	274	Pd	28 18.00	0.4
	0.9s	269.00nm			6.4mb							LIT	2.26	113	ePc	28 19.30	0.8
ECP	71.26	321	eP	49 07.00	0.4										eS	28 48.20	
ECB	71.36	322	eP	49 07.90	0.7							PLE	2.34	353	iPnc	28 22.50	2.9X
SIT	75.92	28	P	49 35.20	1.5										eSn	28 54.00	
TOL	77.16	310	iPc	49 41.37	0.4							THE	2.45	98	eP	28 21.30	0.1
			ic	49 43.03											iS	28 51.80	
			ec	49 45.01								ORI	2.71	251	P	28 25.30	0.4
			e	49 46.83								SOH	2.72	93	eP	28 26.10	1.0
BCAO	80.72	269	iPc	50 00.24	-0.5										eS	28 57.10	
			ic	50 02.06		LZH	3.21	89	Pn	16 29.50	0.9	AGG	2.79	135	eP	28 27.60	1.5
			ed	50 05.21					Pg	16 35.40					eS	29 01.60	
			ed	50 07.36					Sg	17 14.00		ROI	2.84	241	P	28 28.00	1.2
BFD	82.90	147	eP	50 10.00	-1.5	KEV	50.76	335	eP	24 38.00	-0.8	SRS	2.89	87	eP	28 28.20	0.8
KRI	84.99	245	iPd	50 31.50	8.9X	SUF	51.33	325	iP	24 44.00	0.8				eS	29 02.90	
			i	51 06.00			0.5s	3.00nm			4.5mb	CSI	2.93	246	P	28 29.10	1.0
			iS	01 05.00		NUR	52.30	323	eP	24 51.00	0.5	TDS	2.95	244	P	28 28.70	0.4
BUL	87.83	243	iPc	50 45.00	8.5X	HFS	57.69	324	eP	25 29.20	-0.6	MMN	3.10	250	P	28 30.80	0.5
	1.0s	76.00nm			6.0mb		0.6s	5.40nm			4.8mb	NEO	3.14	122	ePn	28 31.20	0.2
			i	51 17.40		NB2	58.59	325	P	25 35.40	-0.7	PAIG	3.17	109	eP	28 31.20	-0.1
			iPP	54 51.20			0.6s	2.20nm			4.4mb				eS	29 09.20	
			iS	01 24.10		WB5	64.51	144	eP	26 15.00	-1.3	FG4	3.22	274	P	28 33.70	1.6
LON	89.16	27	ePc	50 42.78	0.3	WRA	64.55	144	Pc	26 20.60	4.0X	OUR	3.27	101	ePc	28 33.30	0.5
			ec	50 44.77			0.7s	3.20nm			4.6mb	HVAR	3.29	312	iPnd	29 13.10	40.0X
			ePP	54 12.06		YKA	77.93	16	eP	27 35.50	-0.8				iPb	29 19.00	
			eHPP	54 13.16			0.7s	1.50nm			4.2mb				iSn	29 51.70	
TAU	89.70	147	ePc	50 44.66	0.0	BCAO	80.42	269	ePd	27 52.40	1.7	HVAR	3.29	312	iPnd	28 13.10	-20.0X
			ic	50 45.82			0.5s	5.00nm			4.8mb				iPb	28 19.00	
RSON	92.41	9	P	50 56.50	-0.9	FFC	87.63	12	eP	28 27.00	0.4				iSn	28 51.70	
	2.2s	885.09nm			6.8mb		0.8s	6.00nm			4.9mb	CZI	3.32	239	P	28 35.30	1.8
FHC	93.24	32	eP	51 05.30	3.8X	BAO	144.89	297	ePKP	35 16.50	-0.1	MGR	3.33	256	P	28 33.00	-0.7
BFS	93.41	239	iPd	51 30.00	27.6X							GRI	3.39	231	P	28 34.10	-0.4
	1.3s	192.31nm										SGO	3.42	264	P	28 35.00	0.0
			i	52 02.50								FG2	3.55	284	P	28 37.52	0.7
WDC	94.04	31	ePc	51 07.90	2.8X							BSS	3.77	268	P	28 41.40	1.4
MIN	94.63	31	eP	51 11.60	3.6X							BEO	3.84	7	ePn	28 42.30	1.4
ORV	95.33	31	eP	51 13.30	2.2X										e(Pg)	28 56.00	
NWRM	95.66	33	P	51 10.60	-1.9	ALBANIA									i(Sg)	29 46.80	
PTI	95.83	23	P	51 18.00	4.5X							DUI	4.06	281	P	28 45.10	1.0
BRK	96.42	33	eP	51 18.20	2.2X							GMB	4.15	228	P	28 44.96	-0.5
BKS	96.43	33	eP	51 18.80	2.7X							ITM	4.18	156	ePn	28 45.40	-0.3
	1.2s	125.00nm			6.3mb							BLY	4.19	334	eP	28 55.60	9.7X
			ePP	55 15.00		BERA	0.33	157	iPgd	27 47.80	-3.5X	MSI	4.30	231	P	28 47.30	-0.1
			eS	02 05.00		TIR	0.34	11	iPgd	27 50.00	-1.4	ATH	4.30	134	ePn	28 48.40	1.0
CBM	96.55	352	P	51 16.50	0.0	VLO	0.58	202	iPgc	27 53.70	-0.9	RDO	4.36	86	ePn	28 48.00	-0.2
BW06	96.79	22	P	51 19.00	1.0	LACI	0.63	355	iPgd	27 55.00	-0.2	ATN	4.38	231	P	28 46.40	-2.2
RSSD	97.03	17	P	51 20.00	1.0	TPE	0.74	166	iPgd	27 53.00	-3.8X	SDI	4.54	281	P	28 52.00	1.1
CMB	97.08	31	iPDIFc	51 19.56	0.5	OHR	0.78	82	iPgd	27 55.90	-1.5	ALN	4.75	89	ePc	28 53.70	-0.1
			ic	51 21.71					eSg	28 07.70		BZS	4.80	16	ePc	28 55.50	1.1
			ed	51 27.01					ePg	27 57.00	-1.2	TIM	4.84	12	eP	29 05.00	10.0X
			ePP	55 09.97		KBN	0.88	116	iPgd	27 56.50	-2.2	VLI	4.94	149	ePn	28 55.20	-1.4
			eHPP	55 11.07		SDA	1.03	348	iPnc	28 03.40	2.6X	AQU	4.96	288	P	28 57.60	0.8
KVN	97.14	29	P	51 20.00	0.5	ULC	1.03	338	ePg	28 02.30	1.4	MNO	4.99	234	P	28 57.00	-0.4
DUG	98.08	25	P	51 23.90	0.2				eSg	28 18.00		EZN	5.14	101	iP	28 59.00	-0.2
FRI	98.25	31	eP	51 27.00	2.7X	PUK	1.03	5	iPnc	28 01.90	1.0	RDP	5.36	280	P	29 03.00	0.5
TNP	98.33	29	P	51 25.50	0.6	LSK	1.06	144	iPgc	28 00.30	-1.2	GIB	5.37	238	P	29 01.90	-0.8
	0.7s	30.56nm			6.1mb	SRN	1.14	171	iPnd	28 03.40	0.9	DEV	5.38	24	ePc	29 06.00	3.4X
DAU	98.41	24	P	51 33.50	8.1X	FNA	1.23	100	iPbd	28 03.60	-0.3	RMP	5.38	281	P	29 03.90	1.2
BNH	99.18	354	P	51 30.70	2.3X	KEK	1.30	179	ePn	28 05.20	0.5	MEU	5.43	226	P	29 02.20	-1.2

26d 11h

MNS	5.49	287	P	eSn	30 01.40		SCE	8.37	319	eP	29 43.60	-1.1	BRW	67.97	359	iPd	38 44.20	5.0X	
PZI	5.49	225	P		29 04.70	0.5	BOB	8.46	300	P	29 44.80	-1.1	INK	69.18	350	eP	38 47.00	0.2	
ZAG	5.54	331	iPn		28 59.50	-4.7X			eSn	31 14.00		BJI	69.26	55	eP	38 48.00	0.3		
			i(Sn)		30 02.20		OGA	8.61	316	iPc	29 46.60	-1.4		1.6s	30.00nm		5.1mb		
			iSg		30 34.00		MDI	8.74	306	P	29 47.40	-2.2	CHG	69.86	82	eP	38 50.10	-1.6	
VBV	5.57	325	iPnc		29 05.90	0.5	ELL	8.97	115	eP	29 55.50	2.5X	FFC	72.46	329	eP	39 08.00	1.2	
			iSn		30 01.60		KRA	9.05	1	eP	29 54.50	0.7		0.7s	5.00nm		4.6mb		
PTJ	5.62	332	ePn		29 05.20	-0.9			i	29 55.70		IMA	73.14	357	ePd	39 12.20	1.5		
			e(Sn)		29 56.20				e	30 04.00			0.9s	8.30nm		4.7mb			
ARV	5.65	298	P		29 05.50	-1.0	KSL	9.10	119	ePn	29 56.00	1.4	FBA	73.98	355	ePd	39 16.80	1.3	
			eSn		30 08.00		BCK	9.11	109	iP	29 57.00	2.2	TTA	76.35	358	ePd	39 31.40	2.2	
ASS	5.68	294	Pd		29 07.00	0.0	CKI	9.12	296	P	29 53.30	-1.6	PMR	77.35	355	ePd	39 36.10	1.5	
			eSn		30 09.40		KHC	9.22	334	eP	29 56.50	0.2		0.9s	6.20nm		4.6mb		
BUC1	5.69	52	ePc		29 10.00	3.0X			e	29 59.50		SSE	78.02	59	eP	39 38.50	-0.3		
CMP	5.74	40	ePd		29 14.00	6.3X	VAI	9.36	305	P	29 55.80	-2.3	SVW	78.17	358	ePd	39 41.20	2.0	
KGT	5.75	93	iP		29 07.30	-0.5			eSn	31 34.00		KDC	81.39	356	ePd	39 58.40	2.0		
RIY	5.85	319	ePn		29 09.10	-0.2	SBF	9.56	291	Pn	30 04.00	3.0X	PNT	83.21	335	eP	40 09.00	2.9X	
			iSn		30 14.30				Sn	31 40.00			S.D. = 1.2 on 162 of 200 obs.						
APE	5.96	129	ePn		29 10.00	-1.0	PRU	9.70	340	eP	29 59.00	-3.8X		? APR 26, 1990 12h 33m 16.33±14.15s					
CEY	6.13	322	ePn		29 12.50	-0.7			e	30 06.50			22.247 N ±98.6km 121.705 E ±66.4km						
			eSn		30 21.90		BBTK	9.97	92	eP	30 07.00	0.3		DEPTH = 33.0km (normol)					
RSM	6.15	301	P		29 13.00	-0.5	FRF	10.06	289	Pn	30 06.00	-1.8		TAIWAN REGION (243)					
EDC	6.18	94	iP		29 13.50	-0.5	KSP	10.13	347	eP	30 10.40	1.7	TWG	0.82	314	iPd	33 32.60	1.2	
BNT	6.23	93	iP		29 14.30	-0.3			ic	30 33.60				eS		33 46.50			
LJU	6.31	325	ePnc		29 15.50	-0.3			e	33 03.00		TWF1	1.16	341	ePc	33 37.30	1.0		
			eSn		30 24.00		LRG	10.25	288	Pn	30 10.40	0.1	TWM1	1.32	296	iPd	33 38.60	0.0	
IZM	6.33	112	iP		29 16.30	0.1	BNI	10.41	297	P	30 12.00	-0.7	TWK	1.51	312	iPd	33 40.40	-1.1	
MLR	6.35	43	ePc		29 17.50	1.0	LPG	10.50	300	Pn	30 10.60	-3.6X			eS		34 00.90		
CVT	6.35	241	Pd		29 17.00	0.6	KAS	10.55	83	eP	30 16.00	1.4	TWD	1.83	357	eP	33 45.90	0.0	
CRE	6.36	297	P		29 16.00	-0.6	GRF	10.56	328	eP	30 27.00	12.5X	TWO	2.17	339	ePc	33 49.80	-1.1	
SMG	6.39	119	ePn		29 17.70	0.9			e(S)	32 43.00			S.D. = 1.2 on 6 of 6 obs.						
TRI	6.42	319	P		29 16.50	-0.8	BRG	10.66	340	ePn	30 22.00	6.0X		APR 26, 1990 12h 56m 59.22±0.55s					
			eSn		30 26.00				e	32 54.00			63.290 N ± 3.5km 136.285 W ± 5.2km						
ISR	6.45	48	eP		29 18.50	0.7	MOX	11.18	332	eP	30 27.00	3.9X		DEPTH = 10.0km (geophysicist)					
BUD	6.49	355	eP		29 18.30	0.0			i	33 54.00			4.4mb (1 obs.)						
CTT	6.54	86	eP		29 08.20	-10.8X	CLL	11.31	338	ePn	30 30.00	5.2X		SOUTHERN YUKON TERRITORY, CANADA (18)					
SFI	6.54	299	P		29 19.50	0.5			1.6s	22.00nm		5.1mb	DWY	1.60	300	Pc	57 28.70	1.1	
VAM	6.59	147	ePn		29 16.80	-2.9X	BSF	11.51	311	Pn	30 25.60	-2.0	HYT	2.54	194	P	57 40.20	-1.1	
VOY	6.59	322	ePn		29 18.80	-1.0			Sn	32 26.00			DOT	3.51	279	eP	57 54.33	-0.6	
			eSn		30 33.50				Sn	32 34.40		BCEPM	3.71	207	eP	57 58.18	0.4		
MAO	6.60	285	P		29 19.40	-0.5	CDF	11.56	314	Pn	30 27.20	-1.1			eS		58 42.11		
PGD	6.61	298	P		29 20.50	0.3	HAU	11.86	311	Pn	30 29.70	-2.5	PCA	3.72	212	eP	57 58.23	0.2	
SRO	6.88	352	ePn		29 24.00	0.3			Sn	32 34.70				eS		58 40.10			
			i		30 05.00		TNS	12.14	323	eP	30 38.60	2.6	YAH	3.91	224	eP	58 01.44	0.6	
			i		30 34.80		LFK	12.24	113	eP	30 37.70	0.2	TGL	4.00	233	eP	58 02.54	0.6	
FIR	6.89	296	ePn		29 24.00	0.2	SMF	12.80	301	Pn	30 42.00	-2.8			eS		58 47.37		
			iSn		30 37.00		LBF	12.84	303	Pn	30 42.00	-3.3X	HQN	4.05	199	eP	58 02.71	0.2	
PSZ	6.91	1	iP		29 24.70	0.5			Sn	32 56.00		PAX	4.18	270	eP	58 04.01	-0.5		
ITU	6.98	86	iPd		29 25.50	0.3	LOR	13.02	304	Pn	30 45.60	-2.1	DDM	4.32	281	eP	58 06.72	0.3	
VRI	7.01	44	ePc		29 26.50	0.9	ENN	13.70	320	ePn	31 03.50	7.0X	TOA	4.71	260	eP	58 12.29	0.3	
RBL	7.05	322	P		29 25.60	-0.5			0.5s	9.00nm		4.8mb	KLU	4.83	252	eP	58 13.40	-0.4	
TLB	7.05	57	eP		29 30.00	3.9X	DOU	13.97	316	P	31 03.10	3.0X	HDA	4.85	288	eP	58 13.07	-0.9	
SOP	7.06	342	eP		29 29.00	2.8X	HLW	14.57	136	(P)	31 05.00	-3.0	RAGM	4.93	238	eP	58 15.38	0.3	
CIN	7.29	115	eP		29 20.00	-9.5X			(S)	33 30.00		NCA	5.03	260	eP	58 16.99	0.4		
YLV	7.30	90	iP		29 28.30	-1.4	TOL	18.16	274	eP	31 56.00	2.4	SGAM	5.06	240	eP	58 16.87	0.0	
PII	7.37	295	P		29 29.90	-0.7	ASMO	18.58	266	iPc	32 00.50	1.7	GLM	5.15	294	eP	58 17.73	-0.5	
BDI	7.43	297	P		29 29.80	-1.8	APHE	18.67	265	eP	32 02.00	2.0	INK	5.16	11	P	58 19.00	0.7	
			eSn		30 49.00		AAPN	18.88	266	iPc	32 03.00	0.5	VLZ	5.18	250	eP	58 18.70	0.2	
ZST	7.43	346	ePn		29 32.00	0.6	ATEJ	18.93	265	iPc	32 03.80	0.7	CVA	5.25	243	eP	58 19.73	0.2	
			e		29 45.10		ALOJ	18.93	266	iPc	32 03.60	0.4	FBA	5.30	293	eP	58 20.08	-0.2	
			i		30 12.50		TAB	20.66	89	eP	32 21.00	-0.8	VZW	5.31	250	eP	58 20.01	-0.4	
			e		30 54.50		NB2	20.73	348	P	32 20.90	-1.3	GLI	5.62	249	eP	58 24.04	-0.8	
			e		40 35.40				0.8s	5.90nm		4.0mb	HIN	5.64	244	eP	58 24.44	-0.7	
HRT	7.49	88	eP		29 30.70	-1.7	EKA	20.82	321	P	32 24.00	0.9	RND	5.66	277	eP	58 25.79	0.3	
FVI	7.53	320	P		29 32.00	-0.8			1.1s	17.60nm		4.3mb	SML	5.77	260	eP	58 27.26	0.3	
			eSn		30 50.20		MAIO	31.18	86	eP	34 00.00	-0.4	GHO	6.04	261	eP	58 31.16	0.3	
KBA	7.63	325	i(Pn)		29 34.40	0.0	BCAO	36.43	182	ePc	34 45.40	-0.3	MBC	14.16	17	eP	00 21.00	-0.6	
			i		29 38.80				0.6s	8.00nm		4.8mb		0.6s	5.00nm		4.4mb		
			i(Sn)		29 42.40		LKO	38.54	223	Pc	35 03.76	0.3		S.D. = 0.6 on 28 of 28 obs.					
VKA	7.66	342	eP		31 04.40				0.6s	19.50nm		5.1mb		APR 26, 1990 15h 03m 54.39±0.79s					
			i		30 06.10		TIC	40.75	220	P	35 22.16	0.5		40.819 N ± 6.3km 23.873 E ± 7.6km					
			i		30 27.30		KIC	40.86	219	Pc									

ALN	1.65	87	ePb	04	23.90	0.4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Station	Lat	Long	Depth (km)	Station	Lat	Long	Depth (km)
RJF	134.70	333	ePKP	58	33.80	-1.1	
LFF	135.33	334	ePKP	58	35.00	-1.0	
LPO	135.33	333	ePKP	58	34.90	-1.2	
BCAO	136.38	270	iPKPc	58	20.30	-18.7X	
	0.3s	8.00nm					
		id	58	30.20			
		id	01	25.10			
		ic	02	05.90			
GUD	140.92	334	ePKP	58	47.00	0.3	
MGH	142.38	71	ePKP	58	45.00	-4.8X	
BPA	142.65	70	ePKP	58	44.00	-6.2X	
PAG	143.02	72	ePKP	58	45.00	-5.9X	
ASMO	143.38	331	iPKPc	58	47.40	-3.7X	
MGG	143.39	72	ePKP	58	46.00	-5.4X	
AAPN	143.60	331	iPKPc	58	48.60	-2.8X	
TCE	143.64	81	ePKP	58	47.56	-4.4X	
APHE	143.67	330	iPKPc	58	47.00	-4.6X	
ALJO	143.75	331	iPKPc	58	45.70	-6.0X	
ATEJ	143.86	331	iPKPc	58	47.20	-4.8X	
SVB	143.88	76	ePKP	58	48.12	-4.2X	
TRN	143.99	81	ePKP	58	48.93	-3.6X	
SLB	144.00	75	ePKP	58	50.14	-2.5X	
EPRU	144.40	332	ePKP	58	51.00	-1.7	
EJIF	144.93	332	ePKP	58	53.00	-0.6	
BAO	148.67	134	ePKP	59	00.00	-0.4	
WEGH	155.21	270	ePKP	59	21.00	11.3X	
WIGH	155.48	269	ePKP	59	23.00	12.9X	
KIC	159.62	271	PKP	59	15.58	0.5	
TIC	159.90	272	PKP	59	15.64	0.3	
LIC	159.90	271	PKP	59	15.80	0.4	
LKO	160.26	281	PKP	59	15.78	0.0	

S.D. = 1.1 on 171 of 213 obs.

APR 26, 1990 15h 40m 34.40±0.15s
 1.059 N ± 3.4km 122.825 E ± 4.0km
 DEPTH = 24.4km (geophysicist)
 5.8mb (32 obs.) 5.8Msz (13 obs.)
 MINAHASSA PENINSULA (265)
 Depth from broadband
 displacement seismograms.
 FAULT PLANE SOLUTION: P-Waves
 NP1:Strike=243 Dip=67 Slip= 90
 NP2: 63 23 90
 Principal Axes:
 T Plg=68 Azm=153
 P 22 333
 Comment: The focal mechanism is
 poorly controlled and
 corresponds to reverse
 faulting. The preferred fault
 plane is NP2.
 RADIATED ENERGY
 No. of sto: 7 Focal mech. M
 Energy 1.3±0.3*10**13 Nm
 MOMENT TENSOR SOLUTION
 Dep 9 No. of sto: 11
 Moment Tensor; Scale 10**18 Nm
 Mrr= 1.10 Mtt=-0.36
 Mff=-0.75 Mrt=-1.44
 Mrf=-0.83 Mtf=-0.75
 Principal axes:
 T Val= 2.03 Plg=60 Azm=165
 N 0.08 13 52
 P -2.10 27 316
 Best Double Couple:Mo=2.1*10**18
 NP1:Strike= 18 Dip=22 Slip= 54
 NP2: 236 73 103
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 12S, 28C
 Centroid Location:
 Origin Time 15:40:42.3 1.1
 Lat 1.58N 0.08 Lon 122.86E 0.06
 Dep 15.0 FIX Half-duration 3.7
 Moment Tensor; Scale 10**17 Nm
 Mrr= 8.27 0.40 Mtt=-6.23 0.41
 Mff=-2.04 0.59 Mrt=-4.79 1.57
 Mrf= 2.73 1.25 Mtf= 2.51 0.39
 Principal Axes:
 T Val= 10.02 Plg=72 Azm=212
 N -0.88 2 117
 P -9.14 18 26
 Best Double Couple:Mo=9.6*10**17
 NP1:Strike=113 Dip=27 Slip= 86
 NP2: 298 63 92

PCI 3.57 237 iPc 41 35.00 5.55

DAV	6.59	25	iPd-	42	11.90	-0.4
MKS	7.08	208	iPd	42	23.80	4.7X
			iS	43	51.00	
AAI	7.14	131	ePc	42	22.70	2.7
			eS	43	09.50	
KKM	8.25	307	ePd	42	36.00	0.4
	0.5s	218.80nm				6.6mb
PPR	9.57	335	iPd	42	50.00	-3.8X
			iS	43	37.00	
KUPT	11.16	176	eP	43	32.00	16.4X
	1.0s	277.40nm				
QCP	13.60	353	eP	44	05.10	16.8X
BAG	15.41	352	ePd-	44	12.00	-0.2
	2.7s	5428.57nm				6.3mb
SZP	16.55	352	ePd	44	27.00	0.4
	1.5s	258.00nm				5.1mb
CVP	16.57	357	eP	44	28.00	1.1
	1.0s	1726.00nm				6.1mb
PIP	17.30	353	ePd	44	36.50	0.5
	1.0s	333.00nm				5.4mb
KGM	19.52	273	ePd	45	05.00	1.8
IPM	22.05	280	ePc	45	31.60	2.4
	1.3s	224.30nm				5.4mb
		e	45	39.90	30kmX	
		e	48	48.00		
MBL	22.27	187	iPc	45	31.30	-0.1
	1.0s	456.00nm				5.9mb
HKC	22.73	339	iP	45	36.50	0.6
TATO	23.81	357	iPd	45	45.53	-0.9
	1.3s	718.95nm				6.0mb
NANU	24.53	196	iPc	45	53.70	0.3
GUMO	25.12	59	iPd	45	58.25	-0.9
	1.4s	613.36nm				6.0mb
		i	46	04.88	24kmX	
PJG	25.12	59	e(P)	46	07.50	8.4X
GUA	25.13	59	e(P)	46	07.30	8.0X
	1.2s	387.50nm				5.9mb
Z	19s	16.07um				5.6MsZ
LAT	25.32	108	eP	46	15.00	14.0X
NNT	25.59	298	eP	46	02.40	-1.2
LOE	26.35	309	eP	46	11.50	0.9
		e	49	07.00		
PMG	26.37	114	eP	46	10.50	-0.3
NST	26.68	304	eP	46	19.00	5.3X
ASPA	26.83	157	iPc	46	15.00	0.0
	1.1s	133.00nm				5.5mb
		eS	51	04.30		
		iScS	55	45.20		
MEKA	27.82	188	eP	46	22.90	-1.1
CHG	29.32	308	ePd	46	39.00	1.4
	0.9s	18.28nm				4.8mb
		eS	51	44.00		
CHTO	29.32	308	eP	46	39.57	2.0
	1.5s	101.35nm				5.4mb
		iPd	46	45.36	20kmX	
		eSP	46	49.50		
SSE	29.91	357	iPd-	46	42.00	-0.7
	2.0s	551.00nm				6.0mb
Z	20s	13.80um				5.6MsZ
N	16s	7.30um				
E	16s	2.70um				
		sP	47	42.00		
		S	51	29.00		
		sS	52	34.00		
		SS	53	26.00		
KMI	30.80	323	iPd	46	52.21	1.3
	18s	10.70um				5.5MsZ
Z	15s	2.90um				
E	15s	5.20um				
		iPd	46	58.99	24kmX	
		sP	47	07.00		
		eS	51	54.69		
MRWA	30.81	192	iPc	46	49.50	-1.1
	0.8s	219.00nm				6.0mb
CTA	31.13	134	iPc+	46	54.00	0.4
	1.0					

26d 16h

eHP'pb01 22.22
ePP 05 01.26
iHPP 05 01.81
LR 57 52.00
BMG 162.20 63 ePKP 00 35.00 -0.9
BOG 162.21 71 ePKP 00 38.00 1.8
CAR 164.96 40 iPKP 00 39.00 0.5
S.D. = 1.0 on 132 of 178 obs.

* APR 26, 1990 16h 05m 27.59±1.10s
24.781 N ± 6.3km 122.241 E ± 20.9km
DEPTH = 70.0 ± 13.6 km
4.0mb (2 obs.)

TAIWAN REGION (243)

TWC 0.40 244 iPc 05 39.30 -0.3
eS 05 45.60
TWZ 0.68 298 iPd 05 42.60 0.1
eS 05 52.00
TATO 0.71 286 iP 05 42.80 0.0
ANP 0.77 301 eP 05 43.30 -0.3
eS 05 53.30
TWO 1.38 249 iPd 05 50.80 -0.5
TWG 2.23 209 eP 06 03.70 0.7
TWM1 2.56 221 eP 06 08.00 0.4
SSE 6.36 352 P 07 01.00 0.3
Lg 09 01.60
WB5 45.93 164 eP 13 44.70 -0.6
WRA 45.99 164 Pd 13 45.60 -0.1
0.5s 2.70nm 4.4mb
YKA 82.05 23 eP 17 41.40 0.2
0.6s 0.40nm 3.5mb
S.D. = 0.5 on 11 of 11 obs.

* APR 26, 1990 17h 21m 16.18±1.10s
36.050 N ± 26.9km 100.062 E ± 11.7km
DEPTH = 10.0km (geophysicist)
4.1mb (2 obs.)

QINGHAI PROVINCE, CHINA (325)

LZH 3.06 88 Pn 22 07.40 1.7
Pg 22 12.00
Sg 22 48.50
GUN 14.51 240 P 24 45.10 1.3
PKI 15.04 240 P 24 49.40 -1.4
DMN 15.23 241 P 24 52.80 -0.4
GKN 15.33 243 P 24 56.10 1.7
CHG 17.20 184 eP 25 23.00 4.9X
GBA 30.20 228 Pc 27 33.70 4.7X
WB5 64.41 144 eP 31 53.70 -1.1
WRA 64.45 144 Pd 31 54.00 -1.1
0.7s 1.50nm 4.3mb
YKA 77.91 16 eP 33 14.50 -0.9
0.8s 1.00nm 4.0mb
S.D. = 1.6 on 8 of 10 obs.

? APR 26, 1990 18h 11m 00.95±0.92s
14.599 N ± 8.2km 60.944 W ± 9.0km
DEPTH = 10.0km (geophysicist)
WINDWARD ISLANDS (95)
ML 1.8 (FDF).

MVM 0.06 133 iPc 11 03.19 -0.1
S 11 05.10
BIM 0.15 237 iPc 11 04.48 0.1
S 11 07.10
CRM 0.16 10 iPc 11 04.66 0.1
S 11 07.60
FDF 0.24 304 iPc 11 05.99 -0.1
0.1s 0.70nm
S 11 09.30
S.D. = 0.2 on 4 of 4 obs.

* APR 26, 1990 18h 11m 57.33±2.24s
15.776 N ± 7.9km 147.967 E ± 17.6km
DEPTH = 41.0 ± 16.6 km
4.5mb (3 obs.)

MARIANA ISLANDS REGION (215)

GUA 3.70 233 eP 12 54.30 0.7
GUMO 3.71 234 eP 12 53.00 -0.6
PJG 3.71 234 eP 12 53.50 -0.1
eS 13 35.10
MAT 22.43 339 eP 16 54.00 0.0
1.2s 17.19nm 4.4mb
WB5 37.87 201 eP 19 12.20 -0.1
WRA 37.94 201 Pc 19 12.80 -0.1

0.8s 5.30nm 4.5mb
ASPA 41.54 200 eP 19 42.90 0.2
0.6s 6.00nm 4.5mb
GUN 58.35 293 P 21 51.40 -0.1
PKI 58.78 293 P 21 54.40 -0.1
GKN 59.45 293 P 21 59.20 0.3
YKA 79.54 28 eP 24 01.20 0.0
0.6s 0.20nm 3.3mb X
KIC 145.15 307 PKP 31 33.36 0.3
TIC 145.19 308 PKP 31 33.22 0.1
LIC 145.46 307 PKP 31 33.24 -0.4
S.D. = 0.4 on 14 of 14 obs.

APR 26, 1990 18h 54m 16.29±1.12s
13.451 N ± 7.1km 91.268 W ± 8.7km
DEPTH = 51.5 ± 9.2 km
4.9mb (10 obs.) 4.3Msz (1 obs.)
NEAR COAST OF GUATEMALA (71)
Felt (II) at Son Salvador, El Salvador.

TER 1.02 34 iPc 54 33.70 -0.8
S 54 50.00
PCG 1.10 33 iPc 54 35.70 -0.3
REC 1.22 36 P 54 36.70 -0.7
MMG 1.22 28 iPc 54 37.50 -0.1
GCG 1.34 32 iPd 54 39.40 0.3
S 54 56.50
SOG 1.35 347 P 54 38.40 -1.1
BVA 1.35 27 iPd 54 39.75 0.3
S 54 57.50
CUSS 1.36 70 iPd 54 39.20 -0.1
SLP 1.60 37 iPd 54 43.50 0.7
YUP 1.61 62 iPd 54 42.90 0.0
YPE 1.68 66 iPd 54 44.60 0.7
SBG 1.84 336 iPc 54 45.00 -1.3
CMG2 1.87 50 iPd 54 47.50 0.8
TME 1.94 73 iPd 54 48.50 1.0
VSS 1.99 81 iPd 54 49.00 0.7
SSS 2.03 83 iPd 54 49.10 0.4
S 55 14.60
SJAS 2.06 84 iPd 54 49.50 0.3
LFU 2.12 82 iPd 54 50.60 0.6
QZG 2.18 57 iPc 54 51.30 0.4
QZA 2.21 88 iPd 54 51.00 -0.2
UPA 12.34 110 iPc 57 10.20 -1.5
1.0s 60.00nm 5.5mb
Z 19s 0.52um 5.6Msz
BOG 19.11 116 eP 58 22.00 -16.3X
eS 02 20.00
UYO 20.83 353 eP 58 57.00 1.9
OLY 21.96 360 P 59 06.50 -0.8
MEO 22.25 344 eP 59 09.00 -1.2
TUL 22.73 350 e(P) 59 15.10 0.2
1.2s 5.00nm 3.8mb X
ALQ 25.42 330 eP 59 42.50 1.4
0.9s 6.30nm 4.1mb
ANMO 25.43 330 P 59 44.20 3.1X
KVN 34.81 322 P 01 06.20 1.7
CMB 35.61 319 eP 01 12.70 1.6
LRM 36.91 335 eP 01 23.70 1.5
ZOBO 37.36 142 iPc 01 26.20 -0.4
1.0s 22.50nm 5.1mb
Z 20s 0.50um 4.3Msz
LR 15 16.00
RSON 37.36 357 P 01 23.00 -2.5
LPB 37.57 142 P 01 28.20 0.0
LR 15 22.00
CCH 39.42 140 P 01 43.80 0.3
NEW 40.80 334 P 01 55.00 0.8
0.8s 7.29nm 4.5mb
SIV 41.80 133 iP 02 02.20 -0.6
FFC 42.03 351 eP 02 04.00 -0.2
1.2s 16.00nm 4.6mb
PNT 42.68 333 eP 02 10.00 0.3
SCH 45.50 20 eP 02 31.00 -1.2
1.0s 34.00nm 5.2mb
PEL 50.33 157 iPc 03 09.50 -0.6
0.7s 10.27nm 5.0mb
SAN 50.61 158 eP 03 12.50 0.2
FCH 50.64 157 eP 03 13.00 0.2
LNV 50.79 159 eP 03 13.00 -0.5
CHCH 51.05 158 eP 03 15.50 -0.1
BAO 51.64 123 eP 03 19.00 -1.5
YKA 51.72 346 eP 03 18.50 -1.8
0.8s 4.00nm 4.5mb
FRB 52.69 12 eP 03 24.00 -3.5X

INK 61.16 343 eP 04 25.00 -2.5
PMR 63.22 333 P 04 42.00 0.7
1.0s 22.00nm 5.2mb
MBC 64.54 353 eP 04 49.00 -0.8
LKO 83.66 82 P 06 42.00 0.6
0.9s 38.50nm 5.4mb
KIC 85.18 85 P 06 48.54 -0.5
BRG 89.02 38 e(P) 07 17.00 10.0X
PTZ 124.40 98 iPKP 13 13.80 1.5
WB5 135.92 255 ePKP 13 34.20 0.1
WRA 135.94 255 PKPc 13 34.50 0.4
0.6s 2.80nm
ASPA 136.15 250 ePKP 13 29.00 -5.5X
0.3s 3.00nm
GKN 138.60 5 PKP 13 38.30 -0.8
GUN 138.79 4 PKP 13 36.20 -3.5X
DMN 139.03 5 PKP 13 40.70 0.7
PKI 139.10 5 PKP 13 38.80 -1.4
CHG 146.40 342 ePKPd 13 54.50 1.8
1.0s 37.50nm
LOE 146.76 337 ePKP 13 55.00 1.7
HYB 147.72 18 iPKPd 13 58.50 3.6X
1.0s 50.00nm
MUN 148.80 229 ePKP 14 01.00 4.8X
GBA 150.88 23 PKPc 13 59.70 0.0
1.3s 14.10nm
NNT 151.92 337 ePKP 14 05.20 3.9X
S.D. = 1.1 on 59 of 68 obs.

& APR 26, 1990 19h 18m 04.73s
58.069 N 151.476 W
DEPTH = 10.0km
3.3mb (1 obs.)
KODIAK ISLAND REGION (13)
<AGS-P>. ML 4.1 (PMR).

KDC 0.63 240 iPc 18 17.00 -0.4
XLV 1.40 355 iP 18 28.55 -1.7
eS 18 47.78
CDD 1.43 308 eP 18 28.07 -2.6
CNPM 1.47 5 iP 18 29.50 -1.7
eS 18 51.24
AUE 1.63 323 eP 18 31.74 -1.8
eS 18 54.19
AUL 1.67 323 eP 18 32.20 -1.9
NNL 1.98 3 eP 18 36.51 -2.1
SEW 2.29 26 iP 18 40.04 -3.1
RED 2.45 345 eP 18 42.24 -3.2
eS 19 13.67
SLKM 2.53 14 iP 18 43.50 -3.0
RDT 2.56 350 iP 18 43.43 -3.5
NKA 2.69 2 iP 18 47.00 -1.7
MID 3.00 61 eP 18 50.06 -3.1
SPU 3.14 355 eP 18 51.31 -3.8
CRP 3.23 354 eP 18 52.96 -3.6
CGLM 3.26 355 eP 18 53.30 -3.7
PMS 3.33 16 iPc 18 54.60 -3.3
NCG 3.36 354 eP 18 54.88 -3.6
SUA 3.43 6 eP 18 55.55 -3.8
GLI 3.60 37 iP 18 57.80 -3.9
PWA 3.68 12 iPc 18 59.30 -3.6
KNK 3.69 23 iP 18 59.27 -3.7
SVW 3.71 327 iPc 18 59.50 -3.8
PLRM 3.73 18 eP 18 59.61 -3.9
PMR 3.73 18 iPc 18 59.70 -3.8
VZW 3.91 38 eP 19 02.56 -3.5
GHO 3.93 18 eP 19 02.65 -3.8
VLZ 4.03 38 eP 19 04.58 -3.2
SML 4.07 22 iP 19 04.67 -3.7
KLU 4.44 37 iP 19 10.09 -3.5
NCA 4.58 29 eP 19 12.03 -3.6
TOA 4.84 31 iPc 19 16.60 -2.8
GLB 5.14 46 eP 19 19.73 -3.9
TGL 5.17 55 eP 19 20.47 -3.6
TTA 5.37 337 eP 19 22.30 -4.5
SDN 5.67 245 eP 19 28.80 -2.2
PCA 6.13 66 eP 19 34.36 -3.2
BCPM 6.40 68 eP 19 37.59 -3.8
HQN 6.70 73 eP 19 41.22 -4.3
FBA 7.08 13 iPc 19 46.10 -4.7
YKA 18.62 61 eP 22 22.70 -1.2
0.8s 1.70nm 3.3mb
MBC 21.53 20 eP 22 54.50 -1.0
42 obs. associated

% APR 26, 1990 19h 43m 20.63±4.05s
51.641 N ± 34.9km 1.771 E ± 8.4km

DEPTH = 10.0km (geophysicist)
UNITED KINGDOM (533)
ML 2.4 (LDG).

FLN	3.23	208	Pn	44	12.40	0.1
LDF	3.29	202	Pn	44	13.60	0.4
			Pg	44	26.00	
GRR	3.67	209	Pn	44	18.00	-0.6
LPF	4.05	208	Pn	44	24.60	0.7
CDP	4.80	130	Pn	44	34.50	-0.2
AVF	4.96	167	Pn	44	37.60	0.7
BSF	5.01	138	Pn	44	38.00	0.3
BGF	5.14	172	Pn	44	40.00	0.6
SMF	5.18	164	Pn	44	40.00	-0.1
MFF	5.20	195	Pn	44	39.50	-0.8
MAF	5.45	174	Pn	44	44.00	0.1
CAF	6.72	178	Pn	45	00.80	-1.1
LPG	6.98	150	Pn	45	05.40	-0.2

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

* APR 26, 1990 20h 00m 52.07±1.26s
35.493 N ±13.1km 31.122 E ±16.5km
DEPTH = 33.0km (normal)

CYPRUS (372)

PPCY	1.17	121	eP	01	14.50	2.3
ELL	1.59	322	ePn	01	21.60	3.2X
CSS	1.88	106	eP	01	23.00	0.5
LFK	1.98	95	ePn	01	22.80	-1.2
BCK	2.01	348	ePn	01	28.00	3.6X
KHL	3.10	336	ePn	01	40.00	0.1
CIN	3.22	312	eP	01	31.00	-10.5X
HRI	4.42	119	eP	01	58.00	-0.6
DSI	5.29	137	eP	02	10.00	-0.8
PRNI	6.08	147	e(P)	02	22.00	0.0
			eS	03	26.00	
MBH	6.53	150	eP	02	28.00	-0.3
			eS	03	38.00	

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

APR 26, 1990 20h 36m 33.52±0.33s
45.747 N ±7.1km 151.289 E ±5.2km
DEPTH = 33.0km (normal)
5.1mb (51 obs.)

KURIL ISLANDS (221)

MAT	13.46	232	eP	39	42.00	-2.6X
	1.5s		55.56nm			5.2mb
BJI	26.21	270	Pd	42	08.50	1.7
	0.8s		34.00nm			5.0mb
E	20s		0.30um			
IMA	35.36	35	ePc	43	28.00	0.3
	0.8s		6.80nm			4.6mb
BRW	35.42	26	ePc	43	28.80	0.9
FBA	37.73	38	eP	43	48.70	1.3
KMI	43.81	259	Pc	44	38.50	0.3
MBC	45.97	19	eP	44	55.00	0.4
CHG	50.65	256	iPc	45	32.20	0.6
	0.9s		39.92nm			5.4mb
SHL	51.07	268	iP	45	34.40	-0.6
YKA	52.48	36	eP	45	44.50	-0.4
	0.7s		3.90nm			4.5mb
GUN	53.82	274	P	45	55.40	-0.3
PKI	54.36	274	P	45	59.50	-0.2
DMN	54.55	275	P	46	01.00	0.0
GKN	54.63	275	P	46	01.50	0.0
KEV	57.86	340	eP	46	33.00	9.2X
NEW	58.79	51	P	46	30.00	-0.7
	1.0s		8.00nm			4.8mb
NDI	59.35	281	iPc	46	34.50	-0.2
SOD	59.72	338	eP	46	36.00	-0.8
FFC	62.32	39	iPc	46	54.50	0.0
	0.6s		9.00nm			5.1mb
LRM	62.81	51	eP	46	59.00	0.8
CMB	62.99	62	eP	47	00.40	1.1
			e	47	11.00	
SUF	63.39	335	eP	47	00.00	-1.5
KVN	63.76	60	P	47	04.70	0.2
NUR	65.57	334	iP	47	13.00	-2.6
	0.5s		8.40nm			5.1mb
HYB	65.75	270	iPd	47	16.00	-0.6
BW06	66.36	53	P	47	21.00	-0.3
	0.8s		4.46nm			4.6mb
FRB	66.40	18	eP	47	19.00	-1.9
WB5	67.10	197	eP	47	25.20	-0.6
WRA	67.16	197	Pc	47	26.10	-0.1
	0.5s		11.50nm			5.2mb

UPP	68.14	337	iP	47	30.60	-1.3
RSSD	68.44	49	P	47	33.80	-0.5
RSON	68.62	38	P	47	33.50	-1.5
	0.8s		8.01nm			4.8mb
NB2	68.76	340	P	47	34.60	-1.2
	0.6s		13.00nm			5.2mb
HFS	68.94	339	eP	47	35.00	-1.9
	0.7s		29.10nm			5.5mb
Z	16s		0.25um			4.5MsZ
			LR	15	47.00	
GBA	69.13	268	Pc	47	36.10	-2.5
	0.9s		6.60nm			4.7mb
ASPA	70.87	197	iPd	47	30.90	-18.1X
	0.6s		4.00nm			
Z	22s		0.41um			4.6MsZ
			LR	00	58.40	
KRA	75.66	330	iPd	48	17.00	0.2
KSP	76.22	333	iP	48	19.70	-0.2
CLL	76.84	335	iPc	48	22.80	-0.6
	1.0s		28.00nm			5.2mb
BRG	76.94	334	iP	48	23.50	-0.4
	0.8s		12.00nm			5.0mb
EKA	77.00	345	P	48	24.00	-0.2
	0.5s		6.90nm			4.9mb
MLR	77.15	324	ePc	48	26.50	1.2
PRU	77.52	333	Pc	48	27.50	0.3
MOX	77.84	335	eP	48	29.00	0.1
WTS	77.95	338	eP	48	29.50	0.1
	0.9s		34.00nm			5.4mb
HOF	78.06	335	eP	48	30.10	0.0
SRO	78.13	330	iP	48	30.80	0.3
BUD	78.16	329	eP	48	31.00	0.3
ZST	78.23	331	eP	48	31.60	0.6
KHC	78.58	333	iPc	48	33.40	0.4
	1.0s		17.00nm			5.0mb
WET	78.78	334	iPc	48	34.50	0.3
	0.8s		19.00nm			5.2mb
GRF	78.80	335	iPc	48	35.00	0.8
	0.8s		30.00nm			5.3mb
ENN	79.30	338	eP	48	37.00	0.1
	1.0s		48.00nm			5.4mb
MEM	79.43	338	P	48	38.00	0.5
TOD	79.58	336	eP	48	38.29	-0.2
ABH	79.68	337	eP	48	38.95	-0.1
BHG	80.04	333	iPd	48	41.90	1.0
	0.9s		18.00nm			5.1mb
DOU	80.26	339	P	48	42.50	0.5
KBA	80.46	332	iPd	48	44.40	1.0
	1.0s		51.20nm			5.5mb
VTS	80.65	324	iPd	48	45.00	0.5
RBL	80.94	332	P	48	55.30	9.5X
FVI	81.07	332	P	48	56.00	9.7X
CDF	81.09	337	eP	48	46.30	-0.3
	0.7s		13.25nm			5.0mb
OLY	81.30	47	P	48	47.00	-0.8
FEL	81.37	336	eP	48	47.87	-0.2
OGA	81.38	334	iPc	48	48.80	0.5
	0.8s		17.00nm			5.1mb
HAU	81.72	337	eP	48	49.40	-0.4
	0.7s		8.80nm			4.9mb
BSF	81.75	337	eP	48	49.60	-0.5
	0.8s		8.05nm			4.8mb
SKO	81.89	325	eP	48	51.00	0.3
CTI	81.91	333	P	48	56.00	5.1X
VAY	81.97	324	eP	48	51.60	0.5
HRI	82.14	310	eP	48	53.00	0.7
FLN	82.70	342	eP	48	54.70	-0.1
	0.8s		20.15nm			5.2mb
LDF	82.78	341	eP	48	55.00	-0.3
	0.8s		8.05nm			4.9mb
VAI	82.97	335	P	48	55.50	-0.7
LOR	83.06	338	eP	48	56.50	-0.2
	0.7s		16.00nm			5.2mb
GRR	83.14	342	eP	48	57.20	0.1
	0.9s		29.50nm			5.4mb
LBF	83.29	338	eP	48	57.60	-0.4
	0.7s		6.60nm			4.9mb
SSF	83.34	338	eP	48	58.20	0.0
	0.8s		13.45nm			5.1mb
LPF	83.52	342	eP	48	59.50	0.5
	0.9s		24.55nm			5.3mb
AVF	83.63	338	eP	48	59.80	0.2
	0.7s		12.15nm			5.2mb
SMF	83.64	338	eP	49	00.00	0.3
	0.8s		22.85nm			5.4mb
ARV	83.75	331	P	49	01.00	0.7
BOB	83.75	334	P	48	57.00	-3.4X

LSO	83.82	335	P	49	01.52	0.6
PGD	83.82	332	P	49	01.80	0.9
LPL	83.88	336	eP	49	01.80	0.5
	0.9s		13.10nm			5.1mb
LPG	83.90	336	eP	49	01.90	0.5
	0.9s		13.90nm			5.1mb
BGF	83.98	339	eP	49	02.00	0.6
	0.6s		7.65nm			5.0mb
RSP	84.06	335	P	49	01.21	-0.8
PCP	84.23	334	P	49	02.44	-0.4
BNI	84.32	336	P	49	02.00	-1.4
MAF	84.36	339	eP	49	04.20	0.8
	0.9s		42.60nm			5.6mb
TCF	84.39	339	eP	49	03.80	0.3
	0.9s		14.75nm			5.2mb
RRL	84.41	336	P	49	04.29	0.4
CKI	84.42	334	P	49	04.00	0.3
LSF	84.59	339	eP	49	04.90	0.4
	0.9s		26.20nm			5.4mb
FIN	84.64	334	P	49	03.88	-0.9
MFF	84.66	341	eP	49	05.30	0.5
	0.9s		13.10nm			5.1mb
ROB	84.66	335	P	49	04.00	-0.9
PRNI	84.79	309	iPd	49	07.00	1.2
MNS	84.82	331	P	49	06.00	0.3
DUI	84.83	329	P	49	06.00	0.1
ENR	84.86	335	P	49	05.11	-0.9
SDI	85.02	329	P	49	06.00	-0.8
MBH	85.30	309	eP	49	09.00	0.7
RJF	85.48	339	eP	49	09.50	0.5
	0.9s		13.10nm			5.1mb
CAF	85.70	339	eP	49	11.00	0.9
	0.9s		19.65nm			5.3mb
LRG	85.88	335	eP	49	11.20	0.3
	0.9s		19.65nm			5.3mb
TDS	85.88	327	P	48	52.00	-19.0X
LMR	85.94	335	eP	49	11.50	0.2
	0.8s		13.45nm			5.2mb
LFF	86.01	340	eP	49	11.30	-0.3
	1.0s		12.00nm			5.1mb
LPO	86.14	339	eP	49	13.20	0.9
	1.1s		17.10nm			5.2mb
EPF	87.91	339	eP	49	21.30	0.4
	0.9s		4.90nm			4.8mb
KIC	123.88	331	PKP	55	29.80	-0.2
BAO	145.90	35	ePKP	56	11.50	0.7

S.D. = 0.8 on 108 of 116 obs.

* APR 26, 1990 20h 44m 42.45±1.71s
32.254 S ±11.2km 71.265 W ±13.1km
DEPTH = 20.3 ± 8.2 km
NEAR COAST OF CENTRAL CHILE (135)

26d 22h

MEM 0.94 200 iP 12 55.70 -0.3
 TNS 1.77 135 ePn 13 09.00 0.0
 DOU 1.85 222 P 13 09.00 -0.3
 S.D. = 0.5 on 5 of 5 obs.

? APR 26, 1990 23h 10m 21.84±14.40s
 36.654 N ±74.0km 27.879 E ±99.4km
 DEPTH = 10.0km (geophysicist)
 DODECANESE ISLANDS (369)

CIN 0.96 10 iPg 10 40.00 -0.1
 ELL 1.63 86 ePn 10 50.00 0.1
 KHL 2.12 38 ePn 10 50.00 0.2
 BCK 2.31 69 eP 11 00.50 -0.1
 S.D. = 0.2 on 4 of 4 obs.

* APR 26, 1990 23h 26m 13.78±0.87s
 22.121 S ±10.3km 67.643 W ±10.9km
 DEPTH = 193.8 ± 16.0 km
 3.9mb (1 obs.)
 CHILE-BOLIVIA BORDER REGION (124)

ANT 3.00 238 iPd 27 03.80 0.2
 CCH 4.92 17 P 27 27.50 -0.5
 LPB 5.58 356 P 27 38.00 1.4
 ZOBO 5.84 355 Pc 27 40.20 0.0
 ARE 6.70 326 eP 28 48.00 -1.2
 SIV 8.70 47 P 28 09.60 -7.6X
 ITB1 12.43 104 Pc 29 06.40 1.1
 ITB 12.61 105 Pd 29 06.40 -1.3
 BAO 19.67 74 eP 30 24.80 -5.3X
 YKA 92.16 340 eP 39 02.00 0.2
 0.7s 0.90nm 3.9mb
 S.D. = 1.3 on 8 of 10 obs.

APR 26, 1990 23h 28m 40.09±0.37s
 1.313 N ± 6.0km 122.987 E ± 7.7km
 DEPTH = 33.0km (normal)
 4.8mb (6 obs.) 3.7msz (1 obs.)
 MINAHASSA PENINSULA (265)

DAV 6.29 24 eP 30 13.00 0.0
 AAI 7.19 134 eP 30 31.00 5.3X
 MKS 7.38 208 iPd 30 31.00 2.8
 KKM 8.23 305 eP 30 37.50 -2.8
 BAG 15.19 351 eP 32 16.20 2.1
 KNA 17.89 162 eP 32 48.60 0.4
 0.7s 51.00nm 4.8mb

MBL 22.55 188 eP 33 36.00 -2.7X
 SNG 23.05 285 eP 33 53.20 9.5X
 WBS 23.84 153 eP 33 51.00 -0.3
 WRA 23.88 153 Pc 33 50.80 -1.0
 0.6s 22.80nm 4.9mb
 NANU 24.82 197 iPd 33 59.00 -1.8
 0.5s 14.00nm 4.8mb
 GUMO 24.85 60 eP 34 00.80 -0.4
 Z 22s 0.24um 3.7msz

PJG 24.85 60 eP 34 01.00 -0.2
 GUA 24.87 60 eP 34 00.20 -1.1
 LOE 26.32 309 eP 34 17.00 2.1
 QIS 27.15 144 iPc 34 21.20 -1.3
 WARB 27.56 173 eP 34 25.10 -1.1
 CHG 29.29 308 eP 34 46.40 4.5X
 MRWA 31.09 192 iPd 34 55.10 -2.5X
 SHL 38.47 311 eP 36 02.50 1.3
 ADE 38.98 159 iPc 36 05.40 0.2
 0.8s 37.31nm 5.2mb
 BJI 39.04 352 eP 36 04.50 -1.0
 0.9s 16.00nm 4.8mb

BRS 40.44 137 iPc 36 17.10 -0.3
 BWA 42.82 149 eP 36 38.80 2.1
 CAN 43.81 149 eP 36 45.30 0.5
 GUN 44.26 310 P 36 48.60 -0.3
 PKI 44.45 309 P 36 50.20 -0.3
 DMN 44.71 309 P 36 53.00 0.6
 GKN 45.26 309 P 36 56.20 -0.5

HYB 46.50 293 eP 37 06.00 -0.5
 GBA 46.68 287 Pc 37 06.50 -1.4
 0.5s 2.10nm 4.4mb
 DZM 48.34 121 iPc 37 21.20 0.2
 MAIO 68.05 309 eP 39 43.00 4.1X
 VNDA 81.54 172 iPc 40 55.40 0.1
 TTA 84.73 27 e(P) 41 14.20 2.2
 IMA 86.09 24 e(P) 41 19.20 0.3
 LNV 144.84 159 ePKP 48 15.00 -0.9
 PEL 145.83 159 iPKPc 48 18.00 0.3
 0.5s 14.00nm
 S.D. = 1.3 on 32 of 38 obs.

* APR 27, 1990 00h 20m 41.80s
 61.773 N 150.896 W
 DEPTH = 65.9km
 SOUTHERN ALASKA (2)
 <AGS-P>.

SUA 0.32 167 iP 20 53.13 0.2
 PWA 0.50 104 iP 20 54.03 -0.4
 CUT 0.70 25 iP 20 55.96 -0.6
 NCG 0.71 239 eP 20 56.23 -0.6
 CRP 0.79 230 iP 20 57.45 -0.4
 SPU 0.81 224 iP 20 57.49 -0.6
 PMS 0.83 129 eP 20 57.30 -1.0
 PLRM 0.86 101 iP 20 57.46 -1.1
 GH0 0.94 89 eP 20 58.86 -0.8
 SML 1.22 87 eP 21 01.89 -1.4
 KNK 1.22 106 iP 21 02.31 -1.0
 SLKM 1.31 165 eP 21 03.29 -1.2
 RDT 1.41 212 iP 21 04.96 -0.9
 RED 1.64 215 eP 21 08.08 -0.9
 >NNL 1.75 187 eP 21 10.95 0.5
 KTH 1.79 360 eP 21 09.78 -1.3
 SEW 1.82 157 eP 21 10.39 -1.0
 RND 1.89 29 eP 21 10.93 -1.6
 TOA 2.26 79 eP 21 16.80 -0.8
 CNPM 2.26 184 eP 21 16.03 -1.6
 KLU 2.39 95 eP 21 17.02 -2.5
 CCB 3.21 25 eP 21 27.89 -2.9
 22 obs. associated

% APR 27, 1990 00h 52m 47.13±1.06s
 40.734 N ±11.8km 15.735 E ± 6.1km
 DEPTH = 10.0km (geophysicist)
 SOUTHERN ITALY (390)

SGO 0.37 242 P 52 54.00 -0.7
 MGR 0.61 193 P 52 56.20 -3.3X
 BSS 0.71 275 P 53 01.70 0.6
 ORI 0.86 141 P 53 04.20 0.4
 BRT 1.12 82 P 53 07.80 -0.4
 TDS 1.17 157 P 53 09.00 0.0
 S.D. = 0.8 on 5 of 6 obs.

APR 27, 1990 01h 49m 30.51±0.49s
 46.221 N ± 5.4km 7.888 E ± 4.6km
 DEPTH = 10.0km (geophysicist)
 SWITZERLAND (544)
 ML 2.4 (LDG).

MMK 0.18 162 iPc 49 34.80 0.2
 DIX 0.36 247 iPc 49 38.20 0.2
 TMA 0.69 99 ePc 49 43.50 -0.9
 LLS 1.00 49 ePd 49 48.40 -1.3
 LPL 1.07 229 Pg 49 51.60 0.8
 LPG 1.07 228 Pg 49 51.20 0.3
 VDL 1.13 76 iPd 49 50.80 -1.0
 ZLA 1.31 15 ePc 49 55.30 0.6
 SAX 1.44 44 ePd 49 59.00 2.1
 SLE 1.60 15 ePc 49 58.80 -0.1
 OSS 1.63 73 ePd 50 00.50 1.0
 BSF 1.78 335 Pg 50 04.50 2.9X
 HAU 2.07 330 Pn 50 06.00 0.2

Pg 50 10.20
 Sg 50 36.20
 CDF 2.23 349 Pn 50 08.00 -0.2
 Pg 50 13.00
 SBF 2.38 188 Pg 50 15.80 5.6X
 LBF 2.80 287 Pg 50 24.80 8.6X
 Sg 51 00.00
 SMF 2.83 280 Pg 50 24.00 7.4X
 Sg 50 59.90
 LOR 2.96 292 Pg 50 27.60 9.2X
 Sg 51 04.00
 SSF 3.13 287 Pg 50 30.90 10.1X
 AVF 3.18 282 Pn 50 21.80 0.2
 BGF 3.51 277 Pn 50 24.00 -2.1
 S.D. = 1.1 on 15 of 21 obs.

APR 27, 1990 01h 52m 39.03±0.68s
 39.662 N ± 6.9km 20.453 E ± 4.3km
 DEPTH = 5.0km (geophysicist)
 GREECE-ALBANIA BORDER REGION (392)

TPE 0.72 332 iPg 52 51.50 -1.9
 KBN 1.00 16 ePg 53 00.00 1.6
 VLO 1.09 318 ePg 53 02.40 2.4X
 BERA 1.11 340 ePg 53 00.90 0.6
 FNA 1.32 32 ePb 53 03.40 -0.6
 eSb 53 24.10
 OHR 1.47 10 ePn 53 07.20 0.9
 iSn 53 29.40
 LR 53 32.60
 AGG 1.59 113 ePb 53 08.70 0.8
 eSb 53 30.10
 LIT 1.63 74 ePb 53 07.60 -0.9
 eSb 53 32.40
 TIR 1.74 345 ePn 53 14.20 4.1X
 PHP 2.02 360 ePn 53 14.30 0.2
 LCI 2.03 290 P 53 13.10 -1.2
 eSn 53 42.40
 LACI 2.05 344 ePn 53 20.00 5.4X
 THE 2.16 62 ePn 53 15.70 -0.4
 eSn 53 43.80
 VAY 2.31 44 ePn 53 18.00 -0.4
 SKO 2.43 18 ePn 53 20.50 0.5
 SOH 2.50 62 ePn 53 21.10 0.0
 eSn 53 53.90
 BRT 2.77 297 P 53 26.00 1.1
 eSn 54 08.10
 OUR 2.79 75 ePn 53 24.60 -0.6
 CZI 3.37 264 P 53 33.80 0.4
 SGO 4.05 284 P 53 42.80 -0.1
 S.D. = 1.0 on 17 of 20 obs.

& APR 27, 1990 02h 45m 30.08s
 62.681 N 149.043 W
 DEPTH = 66.8km
 3.0mb (1 obs.)
 CENTRAL ALASKA (1)
 <AGS-P>.

HUR 0.40 318 iP 45 41.78 -0.1
 eS 45 50.98
 CUT 0.63 245 iP 45 44.15 0.0
 RND 0.73 7 iP 45 44.96 -0.5
 GH0 0.91 176 iP 45 47.47 -0.2
 eS 46 01.89
 SML 0.94 159 iP 45 47.56 -0.4
 MCK 1.06 3 iP 45 49.10 -0.3
 eS 46 03.64
 PLRM 1.09 182 iP 45 49.64 -0.2
 eS 46 05.22
 PMR 1.09 182 iPc 45 49.70 -0.2
 iS 46 05.30
 PWA 1.11 201 iPc 45 50.30 0.3
 KTH 1.22 317 iP 45 51.51 -0.2
 eS 46 08.63
 NCA 1.24 123 iP 45 51.90 0.0
 eS 46 09.82
 SKT 1.36 240 iP 45 53.43 0.0
 eS 46 11.73
 TOA 1.46 112 iPd 45 55.40 0.6
 SUA 1.46 214 eP 45 55.21 0.3
 eS 46 15.96
 PMS 1.46 190 iPc 45 54.80 -0.1
 SDG 1.63 94 iP 45 57.36 0.2
 iS 46 18.42
 PAX 1.67 78 eP 45 57.37 -0.4
 eS 46 18.83

DDM	1.82	51	iP	46 00.48	0.7
			eS	46 23.38	
WRH	1.85	13	iP	45 58.94	-1.2
			eS	46 21.30	
KLU	1.89	128	iP	45 59.86	-1.0
NEA	1.90	360	iP	45 59.59	-1.3
			eS	46 22.44	
NCG	1.95	230	eP	46 01.05	-0.6
CGLM	1.96	227	eP	46 01.74	-0.1
HDA	1.97	27	iP	46 00.79	-1.0
VZV	2.01	143	iP	46 01.19	-1.2
VLZ	2.02	139	iP	46 01.06	-1.4
GLI	2.03	152	iP	46 01.45	-1.2
DMW	2.03	46	eP	46 02.46	-0.2
CRP	2.04	227	eP	46 02.93	-0.1
CCB	2.05	15	iP	46 01.59	-1.3
			eS	46 25.74	
SPU	2.07	225	eP	46 03.09	-0.2
			eS	46 30.65	
NKA	2.21	209	eP	46 08.37	3.3
SLKM	2.25	195	eP	46 06.00	0.2
			eS	46 35.80	
FBA	2.30	13	iPc	46 05.30	-1.1
GLM	2.43	17	iP	46 06.93	-1.3
DOT	2.46	65	eP	46 07.69	-1.0
SEW	2.59	185	eP	46 10.62	0.1
			eS	46 40.30	
RDT	2.66	219	iP	46 11.28	-0.2
GLB	2.76	114	iP	46 11.72	-1.2
MTU	2.78	165	eP	46 13.23	0.0
NNL	2.86	203	eP	46 15.17	0.9
RED	2.89	220	iP	46 14.47	-0.3
			eS	46 47.61	
TTA	3.21	278	iPd	46 17.80	-1.4
CNPM	3.34	200	eP	46 20.57	-0.4
SVW	3.49	246	iPd	46 21.60	-1.5
MID	3.52	157	eP	46 22.70	-0.8
TGL	3.53	120	eP	46 22.00	-1.8
AUL	3.94	215	eP	46 29.96	0.6
AUE	3.94	214	eP	46 28.90	-0.5
IMA	3.95	331	iPc	46 27.90	-1.8
FYU	4.23	21	eP	46 31.83	-1.6
COD	4.39	213	eP	46 34.56	-1.2
DWY	4.54	68	P	46 35.60	-2.2
KDC	5.24	201	eP	46 44.90	-2.7
HYT	5.79	104	P	46 54.10	-1.3
INK	8.55	42	P	47 21.00	-12.5
SIT	8.90	123	eP	47 35.20	-3.0
BRW	9.16	344	e(P)	47 37.20	-4.6
YKA	15.75	75	eP	49 05.70	-3.1
	0.5s		0.60nm		3.0mb
	59 obs.		associated		
APR	27, 1990	02h 50m	02.87 ± 1.22s		
	13.708 S ± 5.5km	166.762 E ± 6.0km			
	DEPTH = 56.2 ± 10.3 km				
	5.5mb (21 obs.)				
VANUATU ISLANDS	(186)				
CENTROID, MOMENT TENSOR	(HRV)				
Date Used:	GDSN				
L.P.B.: 10S, 16C					
Centroid Location:					
Origin Time	02:50:15.9	1.5			
Lat 12.80S	Lon 166.19E	0.10			
Dep 73.3	5.2 Half-duration	1.7			
Moment Tensor:	Scale 10**17 Nm				
Mrr=0.41	0.06 Mtt=0.61	0.13			
Mtf=-1.03	0.12 Mrt=0.33	0.07			
Mrf=0.26	0.07 Mtf=-0.19	0.07			
Principal Axes:					
T Vol=0.86	Plg=37 Azm=0				
N	0.25	51	203		
P	-1.11	11	99		
Best Double Couple:Mo=1.0*10**17					
NP1:Strike=146 Dip=56 Slip=20					
NP2:	44	74	144		
PVC	4.28	160	iP	51 08.00	1.0
			iS	52 05.00	
HNR	7.91	302	iP	51 57.00	-0.9
			iS	52 02.00	
DZM	8.32	182	iPc	52 01.30	-2.3
			iS	53 32.70	
PMG	19.68	280	eP	54 29.00	-1.3
CTA	20.61	249	iPc	54 41.00	1.0
	0.8s				

27d 03h

0.9s 22.95nm
LRG 145.91 334 ePKP 09 37.40 0.3
0.9s 32.75nm
LMR 145.94 334 ePKP 09 37.60 0.4
0.8s 22.85nm
CAF 146.27 340 ePKP 09 39.00 1.3
0.8s 6.70nm
LFF 146.68 342 ePKP 09 39.80 1.5
0.5s 11.65nm
BCAO 147.34 257 iPKPd 09 39.60 -0.7
0.7s 75.00nm
ic 09 43.00
ic 09 56.40
ic 11 10.30
ECRI 149.74 344 ePKP 09 49.00 5.7X
STS 150.65 353 ePKP 09 50.50 5.9X
ETOR 151.27 342 ePKP 09 52.50 6.8X
GUD 152.01 345 ePKP 09 54.20 7.3X
TOL 152.70 344 ePKP 09 55.00 7.3X
KIC 168.90 230 PKP 10 05.20 -0.2
LIC 169.02 228 PKP 10 05.30 -0.1
TIC 169.29 230 PKP 10 05.50 -0.1
LKO 171.44 242 PKP 10 06.00 -0.7
0.9s 26.50nm
S.D. = 1.0 on 89 of 132 obs.

APR 27, 1990 03h 01m 36.01±0.37s
34.110 N ± 6.8km 69.665 E ± 7.9km
DEPTH = 33.0km (normal)
4.7mb (8 obs.)

AFGHANISTAN (709)

QUE 4.54 211 eP 02 45.30 0.9
eS 04 31.50
NDI 8.42 128 iPd 03 37.00 -1.7
1.0s 125.00nm 6.0mb X
iS 05 09.50
MAIO 8.61 288 eP 03 41.00 -0.3
eS 05 49.00
GKN 14.20 111 P 04 52.80 -4.1X
DMN 14.75 112 P 05 00.10 -4.2X
PKI 15.01 112 P 05 03.00 -4.7X
GUN 15.21 110 P 05 05.20 -5.1X
POO 15.96 165 eP 05 24.00 4.3X
HYB 18.43 152 ePc 05 51.00 0.3
GBA 21.60 159 Pd 06 25.20 0.1
0.9s 38.70nm 4.8mb
KOD 24.82 161 eP 06 58.00 1.1
CHTO 30.18 113 eP 07 44.40 -1.1
1.0s 5.00nm 4.3mb
SOD 41.46 336 iP 09 15.00 -5.9X
HFS 44.30 324 eP 09 43.80 -0.3
1.1s 22.10nm 4.9mb
NB2 45.66 325 P 09 54.10 -0.9
0.5s 2.30nm 4.4mb
PTZ 60.36 224 iP 11 44.00 -0.4
MBC 69.77 2 eP 12 44.50 0.2
1.0s 15.00nm 5.0mb
LIC 73.87 267 P 13 07.60 -2.1
IMA 74.72 17 eP 13 14.10 0.1
0.8s 5.10nm 4.6mb
INK 76.43 9 eP 13 24.00 0.5
FRB 77.01 342 eP 13 28.00 1.3
FBA 77.06 15 eP 13 27.50 0.4
PWA 79.33 18 eP 13 39.50 0.0
TOA 79.85 16 eP 13 43.20 0.8
WB5 81.66 121 eP 13 52.30 -0.2
WRA 81.69 121 Pd 13 52.30 -0.4
0.9s 2.90nm 4.3mb
YKA 83.67 2 eP 13 45.20 -17.0X
0.8s 0.30nm
ASPA 83.81 124 eP 14 05.30 1.7
0.4s 8.00nm 5.2mb
S.D. = 1.0 on 21 of 28 obs.

% APR 27, 1990 04h 08m 53.27±1.85s
0.794 S ± 7.0km 78.793 W ± 17.1km
DEPTH = 10.0km (geophysicist)
ECUADOR (107)

VC1 0.42 69 iPd 09 02.50 0.5
eS 09 10.30
GGP 0.65 18 eP 09 07.10 0.5
S 09 17.70
QUR 0.67 23 eP 09 06.90 0.0
S 09 16.80
TUNG 0.71 151 eP 09 07.50 0.0

S 09 16.50
GECU 0.77 52 eP 09 08.60 0.0
CAYA 1.19 43 eP 09 14.90 -0.9
S.D. = 0.6 on 6 of 6 obs.

APR 27, 1990 04h 22m 43.94±0.46s
46.741 N ± 5.8km 12.226 E ± 4.0km
DEPTH = 10.0km (geophysicist)
NORTHERN ITALY (545)
MD 2.6 (TRI). ML 2.6 (KBA).

FVI 0.41 111 P 22 51.90 -0.4
eSg 22 58.50
SCE 0.46 310 iPg 22 52.80 -0.6
CTI 0.80 210 Pc 22 59.20 -0.3
eSg 23 10.20
OGA 0.83 279 iPg 22 59.60 -0.6
KBA 0.84 66 iPg 22 59.60 -0.6
iSg 23 10.30
RBL 0.97 107 P 23 02.20 -0.3
eSg 23 15.00
BHG 1.08 24 eP 23 04.30 0.1
VOY 1.35 121 ePnc 23 10.80 1.9
eSn 23 30.80
TRI 1.48 133 iPg 23 12.40 1.7
iSg 23 33.00
LJU 1.74 113 eP 23 12.00 -2.4
e 23 16.50
eSn 23 42.00
MDI 1.99 242 P 23 21.00 3.0X
eSn 23 44.10
KHC 2.56 20 iPn 23 27.00 0.8
Pg 23 38.30
Sn 23 59.00
Sg 24 05.50
PRU 3.60 25 Pg 24 11.00 30.1X
e 24 25.00
Sg 24 36.00
CDF 3.74 298 Pn 23 44.20 1.1
Pg 23 58.20
BSF 3.86 288 Pn 23 45.50 0.8
Sn 24 30.10
MOX 3.93 354 ePn 23 45.00 -0.6
eSn 24 30.00
eSg 24 48.00
LPG 4.01 254 Pn 23 46.00 -0.9
HAU 4.19 290 Pn 23 50.00 0.7
Sn 24 38.40
SBF 4.44 231 Pn 23 50.00 -2.9X
BGF 6.46 272 Pn 24 21.00 -0.4
Sn 25 34.00
S.D. = 1.1 on 17 of 20 obs.

* APR 27, 1990 04h 45m 38.94±0.94s
5.595 N ± 14.7km 82.469 W ± 12.7km
DEPTH = 33.0km (normal)
4.5mb (8 obs.) 3.8Msz (1 obs.)
SOUTH OF PANAMA (83)

UPA 4.45 41 eP 46 47.80 1.9
ZOBO 25.95 147 eP 51 11.00 0.0
Z 22s 0.29um 3.8Msz
LR 59 08.00
OLY 30.90 346 P 51 53.90 -0.9
MEQ 32.64 335 eP 52 09.50 -0.6
FVM 33.04 348 P 52 12.00 -1.5
1.0s 20.00nm 5.0mb
ALO 36.65 326 eP 52 45.70 1.0
1.0s 5.25nm 4.4mb
ANMO 36.65 326 P 52 45.60 0.9
GOL 39.74 332 P 53 11.00 0.5
GLA 40.65 316 eP 53 19.00 1.1
TPC 42.09 317 eP 53 31.00 1.3
PLM 42.23 315 eP 53 32.00 1.0
RSSD 42.79 337 P 53 36.50 1.0
GSC 43.28 318 eP 53 41.00 1.6
SBB 43.63 316 eP 53 43.00 0.8
CLC 44.11 318 eP 53 44.00 -2.1
BW06 44.11 331 P 53 45.00 -1.2
1.0s 6.00nm 4.4mb
TNP 45.18 321 P 53 53.90 -1.0
0.6s 2.41nm 4.3mb
RSON 46.08 350 P 54 00.50 -1.0
0.8s 6.41nm 4.6mb
KVN 46.32 321 P 54 03.50 -0.3
CMB 47.20 319 eP 54 09.00 -1.6
ORV 48.76 320 P 54 23.50 0.8

SES 50.66 337 eP 54 37.00 -0.2
SCH 50.68 12 eP 54 37.00 -0.2
FFC 51.46 346 eP 54 43.00 -0.1
1.0s 10.00nm 4.7mb
PNT 53.67 331 eP 55 02.00 2.3
FRB 58.91 7 eP 55 35.00 -1.9
YKA 61.50 344 eP 55 53.00 -1.7
0.9s 3.00nm 4.4mb
MBC 73.47 351 eP 57 09.50 0.0
0.9s 6.00nm 4.6mb
S.D. = 1.3 on 28 of 28 obs.

% APR 27, 1990 05h 03m 52.12±1.55s
39.294 N ± 14.4km 23.096 E ± 12.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

AGG 0.65 246 ePg 04 05.20 0.0
eSg 04 15.90
PAIG 0.78 35 ePg 04 07.70 0.5
eSg 04 18.70
LIT 0.93 330 ePb 04 10.20 0.3
eSb 04 25.10
OUR 1.24 33 ePb 04 15.10 -0.1
eSb 04 31.50
SOH 1.54 7 ePb 04 19.00 -0.7
S.D. = 0.6 on 5 of 5 obs.

APR 27, 1990 05h 09m 02.85±0.97s
1.245 N ± 6.8km 122.881 E ± 8.0km
DEPTH = 45.8 ± 10.2 km
5.0mb (9 obs.) 3.7Msz (1 obs.)
MINAHASSA PENINSULA (265)

TSM 5.64 302 eP 10 26.50 0.1
DAV 6.39 25 eP 10 35.80 -1.2
AAI 7.23 133 eP 10 51.00 2.4
MKS 7.27 208 iPc 10 54.50 5.3X
KKM 8.18 306 eP 11 01.00 -1.0
KNA 17.86 161 eP 13 10.20 0.4
MBL 22.47 187 eP 13 58.70 -0.8
SNG 22.96 285 eP 14 05.50 1.1
WB5 23.83 152 eP 14 11.80 -1.0
WRA 23.87 152 Pd 14 13.20 0.0
0.8s 21.30nm 4.7mb
NANU 24.72 196 eP 14 21.00 -0.4
PMG 26.39 114 eP 14 20.50 -16.6X
ASPA 26.98 157 eP 14 40.70 -1.8
1.1s 12.00nm 4.4mb
Z 20s 0.22um 3.7Msz
LR 27 11.70

OIS 27.16 144 eP 14 43.00 -1.1
CHG 29.25 308 eP 15 03.50 0.5
MRWA 31.00 192 iPd 15 17.20 -1.1
0.6s 14.00nm 4.9mb
ADE 38.95 159 iPc 16 27.10 0.7
BJI 39.09 352 eP 16 32.50 5.1X
CAN 43.81 149 eP 17 06.90 0.7
GUN 44.22 310 P 17 10.40 0.4
0.8s 38.00nm 5.2mb
PKI 44.41 309 P 17 11.40 -0.2
0.6s 10.00nm 4.8mb
DMN 44.67 309 P 17 13.80 0.3
1.0s 40.00nm 5.2mb
GKN 45.22 310 P 17 18.00 0.2
0.8s 30.00nm 5.2mb
KOD 46.00 283 eP 17 25.00 0.7
HYB 46.43 293 eP 17 23.00 -4.3X
1.0s 25.00nm 5.1mb
GBA 46.60 288 Pc 17 24.00 -4.6X
0.6s 8.10nm 4.8mb
INK 93.86 21 eP 22 16.00 -0.3
LNV 144.82 159 ePKP 28 36.50 -0.5
TACH 145.26 160 ePKP 28 38.00 0.2
PEL 145.81 160 iPKPc 28 39.80 1.0
0.9s 13.45nm
ZOBO 161.55 145 PKP 29 02.00 0.8
S.D. = 1.0 on 26 of 31 obs.

APR 27, 1990 05h 29m 25.90±0.28s
28.696 N ± 6.5km 66.177 E ± 4.9km
DEPTH = 16.8km (7 depth phases)
5.3mb (53 obs.) 5.3Msz (8 obs.)
PAKISTAN (710)
CENTROID, MOMENT TENSOR (HRV)
Data Used: GDSN
L.P.B.: 13S, 23C

Centroid Location:
Origin Time 05:29:30.0 1.1
Lat 28.70N Lon 66.46E 0.07
Dep 15.0 FIX Half-duration 2.0
Moment Tensor: Scale 10**17 Nm
Mrr=-0.01 0.09 Mtt= 0.38 0.14
Mff=-0.38 0.11 Mrt=-1.33 0.44
Mrf= 0.43 0.35 Mtf=-1.81 0.10
Principal Axes:
T Val= 2.53 Plg=28 Azm=216
N -0.52 56 74
P -2.01 18 315
Best Double Couple: Mo=2.3*10**17
NP1: Strike=358 Dip=57 Slip= 8
NP2: 264 84 147

QUE	1.63	24	eP	29	55.50	1.3	PSN	33.79	307	iPd	36	09.00	0.0	BOB	47.27	306	P	38	01.00	0.8
MA10	9.45	325	iPc	31	45.00	0.7	NST	33.88	105	eP	36	12.00	2.0	VDL	47.27	308	ePc	38	00.30	0.0
	1.2s	114.58nm					DIM	35.39	303	eP	36	24.00	1.3	SSE	47.34	73	P	38	02.00	1.2
							PVL	35.73	305	eP	36	28.00	2.4		1.0s	19.00nm			5.1mb	
							MLR	35.78	309	ePc	36	27.50	1.4	Z	16s	1.30um			5.0MszX	
							RZN	35.94	302	iP	36	28.00	0.4	N	16s	5.20um				
							CMP	36.35	308	ePc	36	34.00	3.2X	E	16s	0.90um				
							PGB	36.47	304	iP	36	33.00	1.1			S	44	53.00		
							MMB	36.66	302	eP	36	34.00	0.5			sS	45	08.00		
							VTs	37.17	304	iP	36	39.00	1.1	SAX	47.38	309	ePc	38	00.80	-0.5
							KKB	37.17	302	eP	36	38.00	0.2	LLS	47.61	309	ePc	38	02.10	-0.9
							BZS	38.78	308	eP	36	55.10	4.0X	TMA	47.68	308	ePc	38	03.30	-0.2
							OHR	38.81	301	eP	36	50.00	-1.6	VAI	47.75	307	P	38	03.90	0.1
								1.3s	68.00nm					PCP	47.91	306	P	38	03.37	-1.9
							SNG	38.90	117	eP	36	52.80	0.3	SLE	47.98	310	ePc	38	05.50	-0.1
							PSZ	40.37	311	eP	37	05.60	1.1	FIN	48.16	305	P	38	06.04	-1.1
							KRA	40.81	315	eP	37	09.40	1.5	MMK	48.31	308	ePc	38	07.60	-0.9
								1.5s	104.00nm					ROB	48.40	305	P	38	09.42	0.4
							SRO	41.40	311	eP	37	14.60	1.9	NB2	48.49	328	P	38	09.10	-0.3
							ORI	42.09	299	P	37	21.00	2.4		1.2s	43.20nm			5.4mb	
							TDS	42.18	299	P	37	22.00	2.7X	ABH	48.69	313	eP	38	09.91	-1.2
							NUR	42.22	331	iP	37	21.00	1.7	DIX	48.70	308	ePc	38	11.20	-0.3
								0.8s	24.90nm				ENR	48.73	305	P	38	10.86	-0.7	
							ZST	42.26	311	eP	37	20.70	0.8	SBF	48.73	305	eP	38	09.70	-1.9
							8JI	42.30	61	eP	37	22.00	1.8		0.8s	79.25nm			5.8mb	
								1.2s	41.00nm				STV	48.80	305	P	38	10.96	-1.1	
							Z	19s	6.20um				CDF	48.81	311	eP	38	10.00	-2.1	
							N	15s	4.27um					1.0s	14.00nm			5.0mb		
									eS	43	40.00		RSP	48.82	306	P	38	08.91	-3.4X	
									eSS	46	44.00		DOI	48.84	306	P	38	11.40	-1.1	
							MGR	42.78	299	P	37	26.00	1.8	LSD	48.88	307	P	38	12.29	-0.7
							SUF	42.78	334	eP	37	24.00	0.1	RUP	49.00	312	eP	38	12.02	-1.5
							VBY	43.19	307	eP	37	30.00	2.5	EMS	49.03	308	ePc	38	14.10	0.1
							KSP	43.26	315	ePc	37	29.30	1.4	BSF	49.12	310	eP	38	12.30	-2.3
								1.5s	59.00nm					1.0s	14.00nm			4.9mb		
									e	37	31.70	8km	RRL	49.16	306	P	38	13.83	-1.2	
							LJU	43.74	308	eP	37	31.50	-0.4	LPG	49.17	307	eP	38	13.10	-2.1
							CEY	43.79	307	eP	37	32.80	0.4		0.9s	49.15nm			5.5mb	
							SDI	44.08	302	P	37	37.00	2.2	LPL	49.18	307	eP	38	13.10	-2.1
							VOY	44.18	308	eP	37	32.10	-3.6X		1.1s	48.85nm			5.4mb	
									e	37	36.20	14km	BNI	49.23	306	P	38	14.90	-0.6	
							TRI	44.25	307	eP	37	36.20	0.2	WTS	49.29	315	eP	38	20.00	4.4X
							RBL	44.44	308	P	37	38.50	0.8		1.2s	57.00nm			5.5mb	
							KBA	44.65	309	iP	37	40.80	1.3			e	38	27.00	23km	
								1.2s	97.90nm				HAU	49.42	310	eP	38	14.90	-1.9	
							KHC	44.71	312	iP	37	39.60	-0.2	MEM	49.71	314	Pc	38	23.30	4.4X
								Z	16s	1.10um			ENN	49.77	314	eP	38	23.00	3.6X	
								N	18s	1.60um					e	38	30.00	23km		
								E	18s	1.10um			DOU	50.60	313	P	38	27.80	2.1	
										e	37	59.80	83kmX	NPA	50.72	214	eP	38	28.20	1.3
							BRG	44.73	315	iP	37	41.10	1.3	LBF	51.05	309	eP	38	27.00	-2.2
								1.5s	110.00nm					1.2s	53.55nm			5.3mb		
							ARV	44.74	304	P	37	40.80	0.7	LOR	51.12	309	eP	38	27.50	-2.2
							MNS	44.93	303	P	37	41.00	-0.6		0.9s	21.30nm			5.1mb	
							ASS	44.94	303	P	37	43.00	1.2	SMF	51.15	308	eP	38	28.10	-1.9
							FVI	44.99	308	P	37	42.10	0.1	BCAO	51.18	251	iPd	38	31.20	0.6
							BHG	45.02	310	iPd	37	43.40	1.1		0.7s	14.00nm			5.0mb	
								1.6s	123.00nm				SSF	51.37	309	eP	38	29.70	-1.9	
							UPP	45.10	328	iP	37	42.70	0.1	AVF	51.48	309	eP	38	30.50	-1.9
							SOD	45.36	340	eP	37	39.00	-5.7X		0.9s	24.55nm			5.1mb	
									i	37	46.80	26km	BGF	51.84	308	eP	38	33.10	-2.1	
							CLL	45.38	315	eP	37	45.00	0.0		0.9s	25.40nm			5.2mb	
								1.7s	26.00nm				MAF	52.06	308	eP	38	35.20	-1.6	
							SFI	45.54	305	P	37	47.00	0.6		0.9s	17.20nm			5.0mb	
							PGD	45.63	305	P	37	49.20	1.8	TCF	52.30	308	eP	38	36.70	-2.0
							CTI	45.74	308	P	37	48.90	0.7		0.9s	25.40nm			5.2mb	
							MOX	46.16	314	eP	37	52.50	1.3	KKM	52.33	106	eP	38	34.00	-5.3X
								1.4s	83.00nm				CAF	52.51	306	eP	38	38.50	-1.8	
								Z	19s	1.70um				1.1s	67.15nm			5.5mb		
								N	17s	3.30um			LSF	52.77	308	eP	38	40.00	-2.2	
								E	19s	1.20um			RJF	52.86	307	eP	38	41.20	-1.6	
							OGA	46.22	309	iPc	37	51.70	-0.3		1.0s	40.00nm			5.3mb	
								0.8s	18.00nm				LPO	53.15	306	eP	38	43.20	-1.8	
							GRF	46.30	313	eP	37	53.00	0.6	LFF	53.44	306	eP	38	45.40	-1.7
								Z	19s	1.30um				1.0s	52.00nm			5.5mb		
									e	37	57.00	13km	LDF	53.72	311	eP	38	47.20	-1.9	
							BDI	46.45	305	P	37	55.60	1.9		0.8s	20.15nm			5.2mb	
							PII	46.50												

27d 05h

KMZ	57.25	228	iP	39	21.00	5.9X	46.217 N ± 6.1km	7.929 E ± 6.3km	NP2:	272	76	99					
GUD	57.66	302	eP	39	20.00	2.2	DEPTH = 10.0km	(geophysicist)									
TOL	57.74	301	eP	39	21.00	2.8X	SWITZERLAND	(544)	PCI	4.41	238	ePc	43	34.50	-2.8		
EBAN	57.91	299	eP	39	22.00	2.6X			DAV	5.94	20	eP	44	00.00	1.1		
ASMO	58.06	298	eP	39	20.00	-0.6	MMK	0.17 171 iP	35 25.60 0.3	1.3s	4000.00nm			6.8mb	X		
APHE	58.12	298	iPc	39	20.50	-0.5	DIX	0.39 249 iP	35 29.00 -0.3	TSM	6.13	297	ePc	44	01.00	-0.7	
ATEJ	58.38	298	iPc	39	19.00	-3.9X	TMA	0.67 99 iP	35 34.90 0.2			e	49	23.00			
ALOJ	58.40	298	eP	39	21.00	-2.0	LLS	0.98 48 iP	35 39.30 -0.9	AAI	6.90	138	ePc	44	14.00	1.6	
EPLA	59.22	302	eP	39	31.50	3.0X	VDL	1.10 75 iP	35 42.00 -0.2	MKS	7.80	212	iPc	44	27.00	2.0	
MAT	59.91	62	(P)	39	32.00	-1.2	ZLA	1.30 14 iP	35 46.40 0.9	KKM	8.63	302	eP	44	38.50	1.8	
	1.2s	10.94nm				4.9mb	SLE	1.60 14 iP	35 49.70 0.0	PPR	9.56	330	ePc	44	47.00	-2.3	
Z	20s	1.42um				5.1Msz	S.D. = 0.7	on 7 of 7 obs.	KHKI	12.58	219	eP	45	38.80	8.4X		
	(S)					47 44.00				e			49	32.20			
SLR	65.23	218	eP	40	08.00	-0.9	APR 27, 1990 09h 03m 49.81 ± 0.40s		BAG	15.14	349	eP	46	04.00	-0.3		
	1.0s	25.00nm				5.3mb	39.312 N ± 3.9km	23.315 E ± 4.0km	MTN	16.08	152	iPd	46	15.10	-1.0		
Z	20s	2.48um				5.4Msz	DEPTH = 10.0km	(geophysicist)	CVP	16.23	354	eP	46	09.00	-9.1X		
KUK	66.50	264	eP	40	17.50	0.3	AEGEAN SEA	(365)		1.5s	575.00nm			5.5mb			
BLF	69.03	217	eP	40	34.00	1.1	ML 3.5 (THE), 3.3 (ATH).		SZP	16.28	349	iPd	46	23.00	4.3X		
	1.0s	30.00nm				5.4mb			KNA	17.86	163	iPd	46	37.80	-0.7		
LKO	69.52	270	P	40	36.48	0.3	NEO	0.07 266 iPgd	03 51.20 -1.0	KGM	20.25	272	ePc	47	06.40	0.3	
	0.8s	31.00nm				5.5mb	PAIG	0.68 25 eP	04 04.70 1.5	HKC	22.64	337	eP	47	31.00	0.7	
KIC	70.24	266	P	40	41.14	0.6		eS	04 15.50			iS	51	42.00			
TIC	70.35	267	P	40	41.76	0.5	AGG	0.82 250 eP	04 01.90 -3.8X	MBL	22.78	189	iPd	47	30.30	-1.3	
LIC	70.56	266	P	40	42.94	0.5		eS	04 12.70			0.6s	13.00nm		4.6mb		
HVD	70.58	217	eP	41	00.90	18.5X	LIT	1.01 321 eP	04 07.10 -1.9	SNG	23.57	285	eP	47	40.10	0.8	
GDH	73.07	341	eP	40	53.00	-3.5X		eS	04 21.60			1.2s	140.63nm		5.3mb		
MBC	75.26	1	eP	41	08.50	-0.5	OUR	1.14 26 eP	04 12.10 0.9			eS	51	23.20			
	1.0s	18.00nm				5.1mb		eS	04 26.80		ANP	23.67	355	eP	47	38.80	-1.5
FRB	81.21	341	eP	41	41.00	-0.8	THE	1.35 349 eP	04 13.60 -1.0			eS	51	55.20			
WB5	81.62	118	eP	41	44.20	-0.5		eS	04 30.40		WB5	23.71	154	eP	47	39.20	-1.5
WRA	81.64	118	Pc	41	44.70	-0.1	ATH	1.37 167 ePg	04 14.70 -0.3	WRA	23.75	154	Pd	47	41.50	0.4	
	0.9s	12.10nm				4.9mb	SOH	1.51 1 eP	04 17.20 0.3		0.6s	60.10nm		5.3mb			
INK	82.19	7	eP	41	47.00	0.2		eS	04 36.40		GUMO	24.28	59	eP	47	44.20	-2.0
FBA	83.04	14	eP	41	51.80	0.5	SRS	1.82 7 eP	04 21.60 0.3		Z	21s	0.77um		4.2Msz		
	1.0s	25.00nm				5.3mb		eS	04 44.00			eS	52	03.50			
ASPA	83.42	121	eP	41	53.00	-1.0	KBN	2.33 305 ePn	04 30.00 1.3	PJG	24.28	59	eP	47	44.30	-1.9	
	0.9s	19.00nm				5.3mb	EZN	2.38 77 iP	04 29.00 -0.5	NANU	25.13	198	eP	47	53.00	-1.4	
		eS				47 43.00	ITM	2.39 208 ePn	04 30.50 0.8		0.5s	33.00nm		5.2mb			
PMR	85.60	16	eP	42	05.90	1.6	VLS	2.41 243 ePn	04 30.00 0.0	PMG	25.86	115	eP	48	02.00	0.8	
	0.8s	17.24nm				5.3mb	RDO	2.50 42 ePn	04 30.70 -0.4	LOE	26.68	308	eP	48	08.00	-0.8	
SCH	87.54	335	eP	42	17.00	3.0X	KKB	2.56 356 iPc	04 32.00 0.0	ASPA	26.92	159	eP	48	08.80	-2.2	
YKA	89.13	0	eP	42	21.00	-0.4	RZN	2.60 24 iPd	04 33.00 0.2		1.4s	44.00nm		4.9mb			
	0.7s	4.90nm				4.9mb	VLI	2.61 187 ePn	04 31.20 -1.5		Z	17s	2.41um		4.8Msz	X	
CTA	91.19	112	eP	42	23.50	-8.1X	ALN	2.63 52 eP	04 32.40 -0.6			eS	52	55.20			
FFC	96.30	353	eP	42	58.00	3.4X		eS	05 05.60			iScS	58	59.20			
	1.0s	12.00nm				5.3mb	TPE	2.73 292 ePn	04 34.00 -0.5		LR	04	05.60				
DZM	108.89	105	iPd	43	47.00	-4.6X	KEK	2.75 279 ePb	04 39.00 4.2X	OIS	26.94	145	eP	48	10.00	-1.2	
SIV	129.96	273	PKP	48	40.20	3.2X	KDZ	2.83 34 iP	04 35.00 -0.9		1.0s	183.00nm		5.7mb			
CCH	134.96	274	ePKP	48	56.00	9.2X	APE	2.84 141 ePn	04 35.70 -0.4	NST	27.08	303	eP	48	15.50	3.0X	
ZOBO	136.25	276	PKP	48	53.00	3.4X	IJM	3.21 105 eP	04 43.00 1.6	WARB	27.64	174	iPd	48	16.90	-0.6	
	Z	18s	1.50um			5.8Msz	PHP	3.23 318 ePn	04 40.10 -1.4	SSE	29.56	356	P	48	35.00	0.3	
		LR				35 32.00	VTS	3.28 359 iP	04 43.00 0.6		2.0s	74.00nm		5.1mb			
LPB	136.33	276	ePKP	48	47.00	-2.6X		iS	05 22.00		Z	20s	1.80um		4.7Msz		
	Z	18s	2.06um			5.9Msz	PGB	3.30 11 eP	04 41.00 -1.6		N	12s	1.10um				
		eLR				36 24.00	TIR	3.33 309 ePn	04 50.00 7.1X			S	53	20.00			
TPT	145.93	74	ePKP	49	15.00	9.0X	LACI	3.60 311 ePn	04 49.00 2.3			sS	53	30.00			
	1.2s	70.00nm					EDC	3.65 72 eP	04 48.00 0.4	CHG	29.66	307	ePd	48	36.20	0.4	
	S.D. = 1.3	on 144 of 189 obs.					BNT	3.70 72 ePn	04 48.10 -0.1		1.1s	18.99nm		4.8mb			
?	APR 27, 1990 07h 31m 01.66 ± 4.93s						SDA	3.96 314 ePn	05 02.80 10.9X	CTA	30.88	135	iPc	48	46.50	0.0	
	45.095 N ± 39.5km						CIN	4.12 113 eP	04 45.00 -9.1X		1.3s	48.08nm		5.1mb			
	DEPTH = 10.0km (geophysicist)						PVL	4.19 21 eP	04 55.00 -0.1			i	48	56.50	36km		
	YUGOSLAVIA (383)						ROI	5.23 275 P	05 12.70 2.7X			ePcP	51	00.00			
	MD 2.7 (TRI), ML 2.1 (LJU).						CZI	5.57 271 P	05 16.60 1.8			eS	53	51.00			
							S.D. = 1.1	on 29 of 35 obs.				e(ScP)	54	00.00			
RIY	0.42	307	iPg	31	08.70	-1.5			KMI	30.94	321	Pd-	48	48.00	0.7		
		iSg				31 18.90	APR 27, 1990 09h 42m 31.05 ± 0.23s			2.0s	0.14nm			2.4mb	X		
VBY	0.49	34	ePg	31	09.80	-1.9	1.462 N ± 4.2km	123.566 E ± 5.3km	Z	18s	1.90um			4.8Msz			
		iSg				31 19.50	DEPTH = 36.8km (4 depth phases)		N	14s	1.10um						
CEY	0.71	335	ePg	31	16.80	1.0	5.3mb (19 obs.)	4.8Msz (6 obs.)	E	14s	1.10um						
		eSg				31 30.00	MINAHASSA PENINSULA (265)				pP	48	59.00	41km			
LJU	0.98	346	e(Pn)	31	20.90	0.7	CENTROID, MOMENT TENSOR (HRV)				PPP	50	09.00				
		eSg				31 39.00	Data Used: GDSN				S	53	54.00				
TRI	0.99	309	iPg	31	19.70	-0.7	L.P.B.: 11S, 18C				sS	54	10.00				
		iSg				31 42.70	Centroid Location:		FORR	32.42	173	eP	48	57.30	-2.5		
PTJ	1.11	43	ePg	31	23.50	0.9	Origin Time	09:42:34.5 1.2		RMQ	36.92	141	eP	49	38.00	-0.5	
		eSg				31 38.20	Lot 2.12N 0.10 Lon 123.97E 0.12		CHJJ	37.27	21	eP	49	39.60	-1.7		
VOY	1.16	324	ePn	31													

N 14s 0.43um
 ePP 51 28.00
 eS 55 52.00
 eSS 58 31.00
 LZH 39.00 334 P 49 58.00 1.9
 2.5s 134.00nm 5.3mb
 Z 14s 2.80um 5.2mszX
 E 15s 1.30um
 pP 50 04.50 22kmX
 sP 50 07.00
 PP 51 27.50
 eS 55 57.00
 SS 58 54.00
 BRS 40.16 138 iPc 50 05.30 -0.3
 0.7s 0.90nm 3.6mb X
 e 50 50.00 210kmX
 e 51 36.00
 BWA 42.64 149 eP 50 28.30 2.4
 CAN 43.64 149 eP 50 35.20 1.3
 CNB 43.82 149 eP 50 37.00 1.5
 e 50 46.00 30km
 TOO 43.82 155 eP 50 33.50 -1.9
 e 50 45.00 41km
 GUN 44.61 310 P 50 42.70 0.4
 PKI 44.81 309 P 50 44.00 0.1
 DMN 45.06 309 P 50 46.00 0.1
 1.2s 109.00nm 5.6mb
 GKN 45.62 309 P 50 50.20 0.1
 1.0s 60.00nm 5.5mb
 KOD 46.62 283 eP 50 58.00 -0.4
 HYB 46.98 293 eP 51 01.00 0.2
 i 51 17.50 65kmX
 GBA 47.19 287 Pd 51 00.40 -2.1
 0.8s 4.80nm 4.5mb
 DZM 47.93 122 iPc 51 08.40 0.1
 POO 51.59 293 eP 51 36.00 -0.4
 NDI 51.80 306 eP 51 31.00 -6.8X
 eS 58 58.00
 QUE 60.73 304 eP 52 41.50 -0.4
 MAIO 68.41 309 eP 53 32.00 0.4
 eS 02 39.00
 IR4 75.03 306 iPc 54 10.00 -1.2
 IR2 75.10 306 iPd 54 11.50 -0.1
 IR5 75.28 306 ePc 54 12.50 -0.2
 IR7 75.33 306 iPc 54 12.70 -0.3
 TAB 79.06 308 eP 54 34.00 0.4
 MAW 80.56 200 eP 54 41.00 0.2
 VNDA 81.60 172 e(P) 54 46.60 0.4
 TTA 84.34 27 eP 55 01.70 1.1
 BRW 85.31 19 eP 55 07.10 1.9
 IMA 85.72 24 eP 55 08.40 0.9
 1.3s 7.10nm 4.7mb
 PRNI 88.03 300 eP 55 20.00 0.7
 SPA 91.45 180 eP 55 35.90 1.2
 1.0s 30.50nm 5.7mb
 PTZ 92.51 256 eP 55 34.00 -6.5X
 INK 93.41 21 eP 55 44.00 0.5
 MEU 103.90 309 Pdif 56 45.40 13.7X
 eSg 56 52.30
 ALO 120.88 47 e(PKP) 01 21.00 -0.9
 KIC 127.82 279 PKP 01 36.00 0.4
 TIC 128.06 280 PKP 01 36.40 0.3
 LIC 128.12 279 PKP 01 36.20 0.1
 Z 20s 0.32um 5.0msz
 LKO 128.20 283 PKP 01 35.94 -0.4
 LNV 144.77 158 ePKP 02 05.50 -0.7
 CHCH 145.06 159 ePKP 02 07.00 0.1
 TACH 145.21 159 iPKPd 02 07.20 0.1
 PCH 145.39 159 iPKPd 02 08.50 1.0
 SAN 145.49 159 ePKPd 02 08.20 0.6
 FCH 145.74 159 ePKP 02 10.60 2.2
 PEL 145.76 158 iPKPd 02 09.50 1.4
 1.5s 166.67nm
 LPB 161.13 143 PKP 02 33.00 3.0X
 ZOBO 161.31 143 PKP 02 32.80 2.4
 1.5s 37.63nm
 Z 20s 0.22um
 LR 34 34.00
 CCH 161.52 149 (PKP) 02 32.00 1.8
 BAO 163.64 210 ePKP 02 33.50 1.4
 SIV 164.86 163 PKP 02 34.00 0.9
 S.D. = 1.2 on 83 of 91 obs.

? APR 27, 1990 09h 57m 39.40±3.41s
 18.203 N ±69.9km 64.687 W ±21.6km
 DEPTH = 10.0km (geophysicist)
 VIRGIN ISLANDS (91)

LPR 1.13 276 iP 58 00.00 -0.6
 CPD 1.18 262 iP 58 00.80 -0.6
 SJG 1.39 266 iP 58 04.60 -0.3
 PORP 1.86 266 iP 58 12.10 0.5
 NEV 2.28 117 eP 58 24.50 6.8X
 MGP 2.29 266 iP 58 19.00 1.1
 PAG 3.60 126 eP 58 36.30 -0.1
 S.D. = 0.9 on 6 of 7 obs.

* APR 27, 1990 10h 13m 01.74±0.86s
 31.530 S ±12.5km 69.329 W ±7.2km
 DEPTH = 12.8 ±10.0 km
 SAN JUAN PROVINCE, ARGENTINA (137)

RTBS 0.17 219 eP 13 05.80 0.0
 RTCB 0.45 85 iPd 13 11.00 -0.1
 ZON 0.56 92 iPd 13 13.70 0.8
 eS 13 22.00
 RTCV 0.75 116 ePd 13 16.10 -0.1
 RTLL 0.76 75 iPc 13 16.00 -0.4
 CFA 0.93 95 iPd 13 19.10 -0.2
 eS 13 32.50
 RTRS 1.36 355 ePd 13 26.40 0.1
 S.D. = 0.6 on 7 of 7 obs.

? APR 27, 1990 10h 40m 51.27±4.42s
 58.986 N ±37.7km 5.706 E ±10.1km
 DEPTH = 10.0km (geophysicist)
 SOUTHERN NORWAY (535)
 MD 1.6 (BER).

KMY 0.33 314 iPd 40 57.74 -0.3
 BLS2 0.70 63 iPc 41 05.27 0.1
 BLS1 0.71 54 iPd 41 05.08 -0.2
 ODD1 1.04 26 iP 41 10.39 -0.6
 HYA 2.20 6 iPc 41 29.33 1.0
 S.D. = 0.8 on 5 of 5 obs.

APR 27, 1990 12h 06m 53.05±0.91s
 46.836 N ±5.4km 7.552 E ±13.6km
 DEPTH = 10.0km (geophysicist)
 SWITZERLAND (544)
 ML 2.6 (LDG). MD 2.3 (STR).

BBS 0.63 357 Pg 07 04.76 -1.0
 LOMF 0.71 316 Pg 07 06.32 -0.9
 MOF 1.06 344 Pg 07 13.00 0.0
 Sg 07 27.44
 FEL 1.09 17 ePn 07 12.49 -1.1
 BSF 1.12 333 Pg 07 14.20 0.0
 Sg 07 28.60
 ECH 1.41 349 Pg 07 18.84 0.1
 HAU 1.43 326 Pg 07 19.30 0.3
 Sg 07 37.80
 LPL 1.44 204 Pg 07 19.30 -0.1
 Sg 07 39.40
 LPG 1.45 203 Pg 07 19.50 -0.1
 Sg 07 39.50
 WLS 1.58 355 Pg 07 22.92 1.7
 CDF 1.59 353 Pg 07 22.30 0.9
 Sg 07 43.30
 S.D. = 0.9 on 11 of 11 obs.

? APR 27, 1990 13h 11m 38.03±1.08s
 37.704 N ±9.3km 1.621 W ±9.9km
 DEPTH = 10.0km (geophysicist)
 SPAIN (377)
 mbLg 3.0 (MDD).

EALH 0.22 46 ePg 11 42.80 0.0
 eSg 11 46.40
 ENIJ 0.87 213 ePg 11 54.80 0.0
 eSg 12 07.70
 EVIA 1.16 323 iPnc 11 59.80 0.0
 eSn 12 15.50
 EBAN 1.77 286 ePn 12 09.00 0.0
 eSn 12 31.60
 S.D. = 0.1 on 4 of 4 obs.

? APR 27, 1990 13h 18m 26.34±1.58s
 39.285 N ±15.2km 23.073 E ±12.6km
 DEPTH = 10.0km (geophysicist)
 AEGEAN SEA (365)

AGG 0.63 246 ePg 18 39.10 0.0
 eSg 18 49.60
 PAIG 0.79 36 ePg 18 41.50 -0.3

LIT 0.93 331 ePg 18 44.10 0.0
 eSg 18 59.10
 OUR 1.26 33 ePb 18 50.00 0.3
 eSb 19 05.90
 S.D. = 0.4 on 4 of 4 obs.

* APR 27, 1990 14h 19m 13.13±2.33s
 37.030 N ±9.7km 7.038 W ±20.7km
 DEPTH = 33.0km (normal)
 PORTUGAL (376)
 mbLg 3.3 (MDD).

EVAL 0.60 23 iPgc 19 26.00 0.8
 eSg 19 36.00
 CNIL 1.03 129 iP 19 30.50 -0.8
 ALJ 1.20 107 iP 19 35.50 1.7
 LIJA 1.31 95 iP 19 35.50 0.2
 EJIF 1.39 114 ePn 19 35.90 -0.5
 eSn 19 54.50
 EPRU 1.45 92 ePn 19 37.40 0.1
 EHOR 1.63 61 ePn 19 40.00 0.1
 eSn 20 03.50
 AFC 2.80 84 ePn 19 56.60 -0.1
 eSn 20 30.20
 EBAN 2.82 65 ePn 19 56.40 -0.5
 eSn 20 31.00
 EPLA 3.12 14 ePn 20 01.40 0.2
 eSn 20 37.00
 GUD 4.25 31 ePn 20 16.90 -0.4
 eSn 21 05.50
 ETOR 5.42 44 ePn 20 33.00 -0.9
 S.D. = 0.8 on 12 of 12 obs.

APR 27, 1990 15h 40m 06.18±0.77s
 34.165 N ±7.0km 117.331 W ±4.3km
 DEPTH = 10.0km (geophysicist)
 SOUTHERN CALIFORNIA (43)
 ML 3.0 (NEIS).

PEC 0.31 152 eP 40 13.10 0.5
 PCF 0.40 254 iP 40 14.53 0.2
 S 40 20.56
 PEM 0.45 270 iPc 40 15.39 0.1
 VPD 0.50 226 eP 40 16.53 0.2
 MWC 0.60 276 eP 40 18.18 -0.3
 S 40 27.22
 PAS 0.70 269 eP 40 19.65 -0.3
 PLM 0.90 154 eP 40 23.20 -0.3
 PVPS 0.97 247 eP 40 24.30 -0.2
 CIS 1.17 230 eP 40 28.04 0.0
 CIW 1.23 236 eP 40 28.87 -0.2
 S 40 46.14
 GLA 2.37 117 eP 40 45.50 -0.2
 BCH 2.49 295 eP 40 48.00 0.6
 S.D. = 0.4 on 12 of 12 obs.

* APR 27, 1990 16h 02m 04.42±0.72s
 8.872 S ±11.7km 108.786 W ±14.3km
 DEPTH = 33.0km (normal)
 5.1mb (15 obs.) 4.8msz (1 obs.)
 NORTHERN EASTER I. CORDILLERA (694)

ZOBO 40.30 105 P 09 42.00 0.7
 Z 24s 0.58um 4.3mszX
 S 15 56.00
 LR 21 04.00
 LPB 40.35 105 P 09 43.00 1.5
 Z 18s 1.37um 4.8msz
 LR 21 30.00
 GLA 42.08 352 P 09 56.60 1.6
 CCH 42.30 106 P 09 59.00 1.6
 PLM 42.69 350 P 10 02.40 2.3
 ALO 43.63 3 eP 10 08.80 1.0
 2.0s 41.18nm 4.9mb
 ANMO 43.63 3 P 10 08.80 1.0
 2.3s 56.82nm 4.9mb
 TUL 46.19 15 eP 10 28.00 0.0
 1.6s 39.50nm 5.1mb
 FRI 46.76 348 eP 10 32.30 -0.1
 SIV 47.04 104 P 10 34.00 -1.1
 TNP 47.37 351 P 10 39.00 1.4
 CMB 47.90 348 eP 10 42.20 0.6
 GOL 48.43 4 P 10 46.00 0.2
 1.8s 74.40nm 5.4mb
 KVN 48.46 350 P 10 46.00 0.0
 DUG 48.96 356 P 10 51.00 1.2

27d 16h

DAU	0.9s	3.76nm	4.4mb	
RSCP	49.09 358 P	10 51.80	0.8	
	49.36 25 P	10 52.20	-0.6	
	1.6s	182.41nm	5.9mb	
PRM	49.53 29 P	10 56.30	2.2	
ORV	49.60 347 P	10 56.00	1.4	
FVM	49.67 19 P	10 54.00	-1.1	
GBTN	50.00 26 P	10 57.00	-0.7	
TKL	50.18 27 P	10 57.00	-2.1	
JSC	50.23 30 P	10 58.80	-0.6	
BW06	51.40 359 P	11 07.70	-0.8	
	1.8s	15.63nm	4.7mb	
IMW	52.55 358 P	11 16.60	-0.7	
RSSD	52.92 4 P	11 19.00	-0.9	
NEW	57.36 353 P	11 51.00	-0.8	
	1.8s	59.21nm	5.3mb	
PNT	58.71 352 eP	12 02.00	0.8	
SES	59.05 358 eP	12 04.00	0.4	
RSON	60.91 11 P	12 14.00	-2.2	
	1.8s	100.89nm	5.6mb	
EDM	61.97 357 ePd	12 22.00	-1.4	
BNH	63.08 29 P	12 30.00	-0.9	
FFC	63.61 4 eP	12 33.00	-1.2	
	1.1s	22.00nm	5.2mb	
YKA	71.29 357 eP	13 20.80	-1.5	
	1.1s	4.20nm	4.4mb	
SCH	72.54 24 eP	13 30.00	0.1	
PMR	76.96 341 P	13 54.50	-0.6	
	1.0s	17.50nm	5.0mb	
FRB	78.56 17 eP	14 03.00	-0.9	
INK	78.96 351 eP	14 06.00	0.0	
TTA	80.17 340 P	14 12.00	-0.7	
	1.8s	55.56nm	5.3mb	
SPA	81.19 180 eP	14 16.70	-1.5	
	1.5s	30.68nm	5.1mb	
IMA	81.62 343 P	14 19.30	-1.1	
MBC	85.20 357 eP	14 39.00	0.8	
	1.4s	37.00nm	5.4mb	
KMI	145.92 302 PKPc+	21 43.00	0.4	
MAIO	150.69 20 ePKP	21 51.00	1.4	
CHG	151.36 293 ePKP	21 57.00	6.1X	
CHTO	151.36 293 ePKP	21 56.80	5.9X	
	1.5s	23.09nm		

S.D. = 1.2 on 44 of 46 obs.

* APR 27, 1990 16h 31m 10.25± 1.87s
 13.046 N ± 21.9km 89.234 W ± 7.4km
 DEPTH = 79.7 ± 5.7 km
 4.6mb (1 obs.)

EL SALVADOR (73)
 Felt (11) at Son Salvador.

OZA	0.53 26 iPd	31 24.00	-0.4	
SJAS	0.62 6 iPd	31 25.50	0.1	
SSS	0.63 3 iPd	31 25.20	-0.3	
	eS	31 34.30		
VSS	0.69 359 iPd	31 26.60	0.4	
LFU	0.71 9 iPd	31 26.80	0.5	
TME	0.97 353 iPd	31 29.90	0.7	
CUSS	1.10 321 iPd	31 30.90	0.0	
YPE	1.15 338 iPd	31 32.20	0.5	
YUP	1.27 334 iPd	31 32.40	-0.8	
QZG	1.59 355 iPd	31 37.20	-0.1	
CMG2	1.69 342 iPd	31 38.40	-0.3	
	S	31 49.00		
TER	1.88 312 P	31 40.60	-0.6	
PCG	1.91 314 ePd	31 41.30	-0.5	
MMG	2.04 317 eP	31 38.70	-4.9X	
BVA	2.11 320 iPd	31 44.40	-0.1	
	S	31 59.10		
JAT	2.66 299 eP	31 51.40	-0.3	
TPX	3.47 303 eP	32 04.00	0.9	
	iS	32 37.00		
SCX	4.93 319 (P)	32 46.00	22.6X	
OXX	8.27 300 (P)	32 52.50	-17.4X	
PPM	10.83 305 (P)	33 49.00	4.0X	
III	11.19 300 (P)	33 52.50	3.0X	
SES	41.29 339 eP	38 51.00	1.7	
YKA	52.59 345 eP	40 17.00	-0.7	
	0.8s	4.60nm	4.6mb	
FRB	52.67 11 eP	40 17.00	-1.3	
INK	62.12 343 eP	41 25.00	0.2	
MBC	65.20 352 eP	41 45.00	0.3	

S.D. = 0.7 on 21 of 26 obs.

? APR 27, 1990 16h 45m 53.81± 8.77s
 33.156 S ± 38.2km 70.241 W ± 49.4km

DEPTH = 10.0km (geophysicist)
 CHILE-ARGENTINA BORDER REGION (127)

FCH	0.18 194 iP	45 57.80	-0.2	
PEL	0.37 272 eP	46 01.50	0.0	
	iS	46 06.60		
PCH	0.52 206 iPd	46 04.30	0.0	
TACH	0.76 229 iP	46 08.60	-0.2	
CHCH	0.85 204 eP	46 10.50	0.3	

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

& APR 27, 1990 17h 15m 15.60s
 36.697 N 121.187 W
 DEPTH = 7.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.6 (BRK).

LLA	0.21 112 iPd	15 19.80	-0.2	
SAO	0.22 288 iPd	15 19.90	-0.2	
PRS	0.39 202 iPd	15 23.20	-0.4	
PR1	0.70 143 eP	15 29.30	-0.3	
GCC	0.73 297 eP	15 28.10	-2.1	
MHC	0.74 331 eP	15 30.20	-0.2	
	eS	15 40.70		
FRI	1.22 76 eP	15 37.10	-1.5	
	eS	15 53.00		
CMB	1.48 25 eP	15 40.90	-1.8	
	eS	15 59.90		

8 obs. associated

APR 27, 1990 17h 34m 25.70± 0.42s
 1.309 N ± 9.1km 123.672 E ± 10.1km
 DEPTH = 33.0km (normol)
 4.4mb (1 obs.)

MINAHASSA PENINSULA (265)

WB5	23.53 154 eP	39 34.20	0.3	
WRA	23.57 154 Pd	39 34.50	0.1	
	0.5s	6.90nm	4.4mb	
NANU	25.02 198 eP	39 47.80	-0.5	
PMG	25.70 115 eP	39 55.50	0.7	
OIS	26.75 145 eP	40 04.00	-0.5	
CHG	29.84 307 eP	40 37.00	4.6X	
MAT	37.55 19 eP	41 38.00	-0.7	
GUN	44.79 310 P	42 38.90	0.1	
PKI	44.99 309 P	42 41.60	1.2	
DMN	45.24 309 P	42 42.40	0.1	
GKN	45.79 309 P	42 46.50	0.0	
HYB	47.14 293 eP	42 57.50	0.4	
GBA	47.34 287 Pd	42 58.40	-0.3	
MAIO	68.58 309 eP	45 27.00	-0.8	

S.D. = 0.6 on 13 of 14 obs.

APR 27, 1990 17h 53m 23.33± 0.49s
 18.041 S ± 7.6km 35.289 E ± 10.6km
 DEPTH = 10.0km (geophysicist)
 4.8mb (10 obs.)

MOZAMBIQUE (581)

SONG	3.41 315 ePg	54 53.50	35.7X	
	e	55 28.00		
	eSg	55 37.00		
NPA	4.80 53 iP	54 36.50	-1.0	
	0.4s	340.00nm		
	i	55 16.00		
KRI	5.55 282 iPg	55 29.00	40.8X	
	iSg	56 26.00		
BUL	6.65 251 iSn	55 44.20	40.5X	
	iSg	56 56.10		
	iSg	57 28.80		
SLR	10.04 219 eP	55 49.00	-1.9	
	S	57 39.00		
BFS	11.81 220 iPd	56 14.00	-0.9	
	0.9s	584.87nm	6.9mb X	
	S	58 20.00		
BLF	13.81 215 eP	56 43.00	1.3	
	S	58 47.00		
SUR	19.34 220 eP	57 53.50	1.5	
	0.5s	98.59nm	5.3mb	
KIC	46.35 298 P	01 50.40	-1.4	
GBA	52.12 56 P	02 37.00	0.8	
	0.7s	2.50nm	4.3mb	
SBF	66.68 338 eP	04 16.60	0.1	
	0.8s	10.75nm	5.1mb	
LPG	68.34 339 eP	04 26.90	-0.4	
	0.8s	4.05nm	4.7mb	
LPL	68.36 339 eP	04 26.90	-0.4	

EPF	68.74 333 eP	04 30.10	0.6	
	0.9s	8.20nm	4.9mb	
CAF	69.59 335 eP	04 35.00	0.4	
	1.1s	7.35nm	4.7mb	
LFF	70.13 335 eP	04 38.30	0.5	
SMF	70.36 338 eP	04 39.20	-0.1	
BSF	70.37 340 eP	04 39.30	-0.1	
MAF	70.47 337 eP	04 40.90	0.9	
	1.0s	9.00nm	4.9mb	
AVF	70.66 337 eP	04 41.20	0.2	
HAU	70.67 340 eP	04 41.10	0.0	
	0.7s	6.60nm	4.9mb	
TCF	70.67 336 eP	04 41.60	0.4	
	1.0s	8.00nm	4.8mb	
CDF	70.72 341 eP	04 41.20	-0.4	
LPF	73.36 335 eP	04 57.20	0.1	
NUR	78.74 355 eP	05 31.00	3.8X	
SUF	80.81 356 eP	05 38.00	-0.2	
NB2	81.15 348 P	05 40.20	0.0	
	0.8s	4.10nm	4.5mb	
YKA	130.90 342 ePKP	12 36.00	-0.2	
	0.7s	0.40nm		

S.D. = 0.8 on 24 of 28 obs.

? APR 27, 1990 18h 52m 06.54± 4.73s
 51.083 N ± 69.3km 177.517 E ± 23.3km
 DEPTH = 33.0km (normol)
 4.0mb (2 obs.)

RAT ISLANDS, ALEUTIAN ISLANDS (6)

ADK	3.71 75 eP	53 03.00	0.1	
	e(S)	53 45.00		
IMA	20.94 33 eP	56 48.70	0.1	
YKA	37.10 45 eP	59 14.80	-0.3	
	0.4s	0.50nm	3.7mb	
NB2	67.69 353 P	03 02.20	0.1	
	0.8s	2.50nm	4.4mb	
GUN	69.80 290 P	03 00.00	-15.9X	

S.D. = 0.4 on 4 of 5 obs.

* APR 27, 1990 19h 03m 03.86± 0.82s
 20.145 S ± 8.4km 68.979 W ± 11.7km
 DEPTH = 131.6 ± 7.7 km
 4.7mb (11 obs.)

CHILE-BOLIVIA BORDER REGION (124)

LPB	3.69 13 iPd	04 01.10	0.4	
ANT	3.79 200 eP	04 01.30	-0.3	
	iS	04 58.50		
CCH	3.84 45 iPd	04 03.50	0.8	
	i	04 41.60		
ZOBO	3.94 12 iPd	04 03.60	-0.6	
ARE	4.37 327 iPd	04 04.50	-5.3X	
	iS	04 50.70		
SIV	8.58 62 iPd	05 03.00	-3.5X	
BAO	20.47 81 eP	07 33.00	-0.2	
SLB	34.65 14 iPd	09 40.60	-2.0	
LIC	68.08 74 P	13 51.70	0.0	
KIC	68.39 74 P	13 53.80	0.1	
LKO	68.98 71 P	13 57.24	-0.1	
SCH	74.68 1 eP	14 31.00	0.8	
SES	79.43 334 ePd	14 57.40	0.6	
EDM	82.51 335 iPd	15 13.00	0.2	
YKA	89.89 341 eP	15 49.00	0.4	
	0.6s	5.50nm	4.8mb	
LFF	90.56 42 eP	16 02.20	10.1X	
	0.5s	2.90nm		
MFF	90.80 40 eP	16 03.00	9.8X	
	0.5s	2.90nm	4.7mb	
LPF	90.97 38 eP	16 03.30	9.4X	
GRR	91.25 38 eP	16 04.60	9.4X	
	0.5s	4.35nm	4.9mb	
CAF	91.38 42 eP	16 05.30	9.4X	
	0.4s	1.45nm	4.5mb	
LDF	91.78 38 eP	16 07.30	9.7X	
TCF	92.10 41 eP	16 08.50	9.3X	
	0.5s	1.45nm	4.4mb	
MAF	92.29 41 eP	16 09.80	9.8X	
	0.5s	2.55nm	4.7mb	
BGF	92.61 41 eP	16 11.20	9.7X	
	0.5s	2.90nm	4.8mb	
AVF	93.03 41 eP	16 13.10	9.7X	
SSF	93.24 41 eP	16 13.60	9.2X	
	0.5s	2.90nm	4.8mb	
SMF	93.26 41 eP	16 14.30	9.8X	
	0.5s	2.90nm	4.8mb	
LBF	93.50 41 eP	16 14.90	9.3X	

LOR 0.5s 1.80nm 4.6mb
93.55 41 eP 16 15.20 9.4X
0.5s 2.55nm 4.8mb
WRA 134.08 211 PKPc 22 10.10 2.1X
0.5s 1.40nm
MAT 151.17 310 ePKP 22 44.00 7.0X
0.8s 7.46nm
S.D. = 0.9 on 13 of 31 obs.

% APR 27, 1990 19h 41m 15.66±1.37s
36.220 N ±15.3km 30.786 E ±13.7km
DEPTH = 10.0km (geophysicist)
TURKEY (366)

ELL 0.88 307 iPn 41 32.60 -0.1
BCK 1.25 353 iPn 41 39.00 0.1
KHL 2.33 335 ePn 41 55.00 0.3
LFK 2.42 112 ePn 41 56.00 0.0
ALT 2.88 349 ePn 42 02.20 -0.3
S.D. = 0.3 on 5 of 5 obs.

& APR 27, 1990 20h 34m 48.00s
61.734 N 149.592 W
DEPTH = 37.3km
SOUTHERN ALASKA (2)
<AGS-P>.

PWA 0.16 239 iP 34 54.90 0.2
eS 35 00.66
PLRM 0.26 123 iP 34 55.04 -0.6
eS 35 01.69
GHO 0.32 83 iP 34 55.87 -0.5
eS 35 02.53
PMS 0.49 178 iP 34 58.20 -0.4
eS 35 06.28
SML 0.60 82 iP 34 59.03 -1.1
eS 35 08.28
SUA 0.61 244 eP 34 59.64 -0.7
iS 35 10.08
KNK 0.63 120 iP 34 59.80 -0.7
eS 35 09.60
CUT 0.74 335 iP 35 01.24 -0.8
iS 35 11.63
SKT 0.95 286 iP 35 04.16 -0.9
eS 35 17.17
CGLM 1.23 251 iP 35 09.12 0.0
HUR 1.25 359 eP 35 08.83 -0.4
SLKM 1.27 194 eP 35 08.87 -0.7
NCG 1.27 256 iP 35 09.56 -0.1
NKA 1.27 219 eP 35 11.25 1.7
SPU 1.31 246 eP 35 09.96 -0.2
iS 35 27.86
CRP 1.32 250 eP 35 10.52 0.2
NCA 1.34 78 eP 35 09.87 -0.7
GLI 1.48 124 eP 35 11.83 -0.7
eS 35 31.78
VZW 1.61 114 eP 35 13.97 -0.6
SEW 1.64 177 eP 35 13.99 -0.8
TOA 1.66 76 iP 35 15.43 0.2
VLZ 1.68 110 eP 35 14.59 -0.8
RND 1.71 11 eP 35 15.35 -0.7
KLU 1.77 96 eP 35 15.97 -0.9
eS 35 38.13
RDT 1.79 231 eP 35 16.44 -0.7
eS 35 40.29
NNL 1.89 207 eP 35 19.52 1.0
KTH 1.93 342 eP 35 18.58 -0.5
RED 2.03 231 eP 35 19.86 -0.7
PAX 2.29 55 eP 35 24.34 0.1
CNPM 2.36 201 eP 35 24.99 -0.2
GLB 2.78 94 eP 35 29.71 -1.5
CCB 3.03 15 eP 35 33.32 -1.4
FBA 3.28 14 eP 35 36.89 -1.3
33 obs. associated

? APR 27, 1990 20h 42m 20.14±1.26s
9.767 N ±21.4km 125.980 E ±19.3km
DEPTH = 198.1 ±14.7 km
4.3mb (3 obs.)
MINDANAO, PHILIPPINE ISLANDS (259)

CGP 1.82 224 ePc 42 57.00 0.0
eS 43 25.00
SSE 21.69 349 P 46 56.00 0.2
BJI 31.39 345 eP 48 24.00 -0.3
MUN 42.55 192 eP 49 49.00 -8.9X
HYB 46.62 285 eP 50 31.00 0.3

GBA 47.63 279 Pc 50 38.10 -0.3
0.6s 4.70nm 4.1mb
INK 84.86 22 eP 54 33.00 -0.2
MBC 86.26 13 eP 54 41.00 0.9
0.6s 5.00nm 4.5mb
YKA 94.33 24 eP 55 17.50 -0.5
0.6s 1.20nm 4.2mb
S.D. = 0.6 on 8 of 9 obs.

? APR 27, 1990 20h 54m 51.92±1.77s
46.533 N ±17.2km 150.727 E ±17.7km
DEPTH = 153.3 ±17.8 km
4.3mb (18 obs.)
KURIL ISLANDS (221)

KUSJ 5.49 233 P 56 12.40 -0.2
S 57 09.80
ASAJ 6.19 250 eP 56 25.90 3.8X
HOOJ 6.75 235 P 56 30.10 0.5
S 57 40.80
MRRJ 8.03 243 eP 56 46.60 -0.2
eS 58 13.10
FBA 37.35 38 iP 01 52.00 1.4
0.8s 7.24nm 4.5mb
MBC 45.36 20 eP 02 55.00 -0.7
0.5s 2.00nm 4.0mb
YKA 52.07 36 eP 03 46.50 -1.0
0.5s 1.00nm 3.8mb
WRA 67.80 197 Pd 05 34.50 -0.6
0.6s 0.90nm 3.8mb
NB2 67.89 340 P 05 32.40 -2.8
0.5s 1.10nm 3.9mb
HFS 68.07 338 eP 05 32.70 -3.6X
0.4s 1.80nm 4.2mb
FLN 81.83 341 eP 06 54.20 -0.4
LOR 82.18 338 eP 06 56.20 -0.3
GRR 82.27 341 eP 06 56.80 -0.1
0.3s 2.15nm 4.4mb
LPF 82.65 341 eP 06 58.90 0.1
0.3s 0.17nm 3.3mb
SMF 82.76 338 eP 07 00.20 0.7
0.6s 2.70nm 4.2mb
LPG 83.02 335 eP 07 02.50 1.3
0.7s 4.40nm 4.4mb
MAF 83.49 338 eP 07 03.60 0.4
0.3s 1.70nm 4.3mb
TCF 83.51 339 eP 07 03.50 0.1
0.8s 2.70nm 4.1mb
LSF 83.72 339 eP 07 04.40 0.0
0.7s 5.50nm 4.5mb
MFF 83.79 340 eP 07 04.80 0.1
0.5s 2.90nm 4.4mb
RJF 84.61 339 eP 07 08.90 0.1
0.7s 5.50nm 4.5mb
CAF 84.82 338 eP 07 10.60 0.6
0.5s 2.20nm 4.2mb
LFF 85.14 339 eP 07 12.00 0.5
0.5s 3.65nm 4.5mb
LPO 85.27 339 eP 07 12.60 0.4
0.5s 2.20nm 4.2mb
S.D. = 0.9 on 22 of 24 obs.

? APR 27, 1990 21h 59m 55.80±4.78s
31.232 S ±14.7km 68.645 W ±22.4km
DEPTH = 81.1 ±53.9 km
SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.18 123 iPc 00 08.10 0.0
eS 00 19.70
CFA 0.51 137 ePd 00 10.10 0.1
eS 00 22.10
RTCV 0.63 172 ePc 00 11.00 -0.1
S 00 24.00
RTBS 0.81 238 ePd 00 13.00 0.1
S 00 27.20
RTRS 1.27 326 ePc 00 18.50 0.0
eS 00 38.00
S.D. = 0.2 on 5 of 5 obs.

? APR 27, 1990 22h 11m 48.55±10.90s
7.355 S ±97.0km 128.176 E ±27.3km
DEPTH = 153.3 ±47.8 km
4.4mb (2 obs.)
BANDA SEA (280)

MTN 6.18 152 eP 13 19.00 0.3
eS 14 25.00

KNA 8.36 176 iPd 13 47.80 -0.1
eS 15 15.00
WB5 13.82 155 eP 14 59.30 0.0
eS 17 21.60
WRA 13.87 155 Pc 14 58.80 -1.0
0.2s 1.20nm 3.9mb
ASPA 17.13 162 iPd 15 41.10 0.9
0.4s 20.00nm 4.8mb
eS 18 41.10
NANU 19.41 218 eP 16 05.20 0.0
S.D. = 1.0 on 6 of 6 obs.

? APR 27, 1990 23h 15m 32.91±2.30s
5.728 S ±33.1km 151.934 E ±34.0km
DEPTH = 98.4 ±26.7 km
4.2mb (3 obs.)
NEW BRITAIN REGION (192)

RAB 1.54 9 e(P) 16 00.00 0.0
LAT 4.99 259 eP 16 47.00 0.2
PMG 5.99 232 eP 17 00.50 -0.1
BRS 21.56 178 iPd 20 22.50 6.6X
0.7s 7.50nm 4.1mb
WB5 22.13 229 eP 20 21.10 -0.4
WRA 22.19 229 Pc 20 21.70 -0.4
0.4s 3.70nm 4.1mb
ASPA 24.89 222 eP 20 49.00 0.8
0.4s 9.00nm 4.6mb
S.D. = 0.7 on 6 of 7 obs.

APR 27, 1990 23h 22m 27.38±0.67s
45.391 N ±5.3km 6.633 E ±6.8km
DEPTH = 10.0km (geophysicist)
FRANCE (538)
ML 2.7 (GEN), 2.6 (LDG).

LPG 0.14 38 Pg 22 31.20 0.3
Sg 22 34.30
LPL 0.14 29 Pg 22 31.30 0.3
BNI 0.34 175 P 22 33.00 -1.5
eSg 22 37.00
LSD 0.37 80 P 22 35.05 -0.1
S 22 41.17
RRL 0.48 167 P 22 35.62 -1.6
S 22 42.18
RSP 0.50 118 P 22 37.25 -0.3
S 22 44.22
DOI 0.99 154 P 22 45.00 -1.2
eSg 22 58.00
STV 1.25 157 P 22 49.71 -0.9
S 23 05.66
ENR 1.29 154 P 22 50.21 -1.2
S 23 06.38
ROB 1.41 141 P 22 52.42 -0.7
S 23 09.34
PCP 1.60 121 P 22 56.90 1.1
S 23 16.76
FIN 1.63 136 P 22 56.26 0.0
S 23 15.70
SBF 1.63 159 Pg 22 58.00 1.7
Sg 23 19.10
FRF 1.83 180 Pg 23 01.00 1.9
Sg 23 24.50
LRG 1.95 186 Pg 23 02.60 1.8
LMR 2.06 183 Pg 23 04.60 2.2
SMF 2.31 304 Pn 23 05.30 -0.9
Pg 23 10.20
Sn 23 32.60
Sg 23 39.70
HAU 2.62 356 Pg 23 17.20 6.7X
Sg 23 51.40
SSF 2.74 309 Pg 23 18.60 6.4X
Sn 23 43.10
Sg 23 53.00
BGF 2.89 295 Pn 23 13.20 -1.0
Pg 23 21.10
Sg 23 57.90
MAF 2.96 288 Pg 23 22.40 7.1X
Sg 23 59.30
S.D. = 1.3 on 18 of 21 obs.

APR 28, 1990 00h 47m 19.20±0.46s
3.967 S ±7.3km 151.562 E ±8.4km
DEPTH = 10.0km (geophysicist)
4.6mb (7 obs.)
NEW IRELAND REGION (190)

28d 00h

RAB 0.65 110 iPc+ 47 32.00 -0.1
 PMG 6.96 219 eP 49 05.50 1.8
 HNR 9.94 124 eP 50 16.00 30.8X
 CTA 16.84 197 iPc 51 15.50 -1.2
 1.2s 82.03nm 4.7mb

i 51 26.60
 e(S) 54 25.00
 e 55 40.00

GUMO 18.66 339 e(P) 51 36.00 -3.5X
 eS 55 10.00

OIS 20.18 214 iPc 51 55.90 -1.0
 RMO 22.56 187 iPc 52 21.80 0.8
 WB5 23.05 225 eP 52 25.00 -0.9
 eS 56 39.00

DZM 23.07 143 iPc 52 27.40 1.3
 WRA 23.11 225 Pc 52 25.10 -1.3
 1.5s 22.90nm 4.5mb

BRS 23.32 177 iPd 52 29.80 1.3
 e 52 34.80
 e 53 04.00
 eS 56 51.00

ASPA 25.97 219 iPc 52 52.80 -1.1
 1.0s 15.00nm 4.6mb

eS 57 17.40
 BJI 54.52 327 eP 56 51.50 1.9
 CHG 56.52 296 eP 57 06.00 1.6
 CHTD 56.52 296 eP 57 05.80 1.4
 1.3s 8.58nm 4.6mb

LZH 59.78 316 eP 57 33.50 6.3X
 1.5s 21.00nm 5.0mb

GUN 70.64 301 P 58 37.20 -0.6
 DMN 71.22 301 P 58 40.30 -0.9
 GKN 71.72 301 P 58 43.60 -0.5
 KOD 75.11 282 eP 59 09.00 4.7X

TTA 77.45 22 eP 59 16.50 0.2
 PMR 79.45 25 e(P) 59 26.40 -0.6
 IMA 80.09 20 e(P) 59 30.30 -0.4
 1.2s 7.80nm 4.6mb

MBC 93.61 14 eP 00 36.00 -0.4
 YKA 95.27 28 eP 00 42.90 -1.4
 1.1s 1.00nm 4.2mb

BAO 152.54 136 ePKP 07 17.90 6.6X
 S.D. = 1.2 on 21 of 26 obs.

APR 28, 1990 01h 23m 11.51 ± 0.13s
 8.887 N ± 2.5km 83.500 W ± 2.4km
 DEPTH = 22.7km (geophysicist)
 5.9mb (82 obs.) 6.3Msz (35 obs.)
 COSTA RICA (78)

Ms 6.1 (BRK), 5.8 (PAS).
 Ma=5.0*10**18 Nm (PPT). Felt (V)
 at Puerto Cortes; (IV) at Puerto
 Jimenez and Perez Zeledon; (III)
 at San Jose; (II) at Atenas and
 Orotina. Felt in most of Costa
 Rica. Slight damage (V) at
 Puerto Armuelles, Panama. Felt
 (IV) at David and Bojo, Panama.
 Depth from broadband
 displacement seismograms.
 FAULT PLANE SOLUTION: P-Waves
 NP1:Strike=103 Dip=65 Slip= 78
 NP2: 310 28 114
 Principal Axes:
 T Plg=68 Azm=350
 P 19 202

Comment: The focal mechanism is
 moderately well controlled and
 corresponds to normal faulting
 with a small right-lateral
 strike-slip component. The
 preferred fault plane is NP2.

RADIATED ENERGY
 No. of sta: 7 Focal mech. F
 Energy 2.5 ± 0.9*10**13 Nm
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 16S, 43C M.W.: 11S, 18C
 Centroid Location:
 Origin Time 01:23:19.7 0.3
 Lat 8.95N 0.02 Lon 83.48W 0.03
 Dep 15.0 FIX Half-duration 6.0
 Moment Tensor: Scale 10**18 Nm
 Mrr= 3.36 0.05 Mtt=-2.35 0.05
 Mff=-1.01 0.06 Mrt= 2.56 0.24
 Mtr=-0.09 0.20 Mtf= 1.49 0.05
 Principal Axes:

T Val= 4.38 Plg=68 Azm=347
 N -0.37 14 113
 P -4.01 17 207
 Best Double Couple: Ma=4.2*10**18
 NP1:Strike=317 Dip=30 Slip= 118
 NP2: 106 64 75

PBC 0.65 135 iPd 23 22.30 -1.9
 S 23 31.50
 CDM 0.71 338 iPd 23 26.80 1.3
 S 23 40.10

CTCR 0.73 89 iPd 23 26.70 1.1
 OPS 0.81 309 iPd 23 26.40 -0.4
 S 23 39.40
 IRZ2 1.14 340 iP 23 33.80 1.3
 S 23 52.50

PTCR 1.28 315 iPd 23 34.30 0.1
 S 23 54.10
 HDC2 1.29 331 iP 23 35.30 1.0
 S 23 54.70

POA2 1.48 330 eP 23 38.60 1.4
 EPA 1.54 315 iPd 23 38.00 0.2
 CAO 1.78 297 iP+ 23 39.90 -1.4
 JTS 2.00 314 iP+ 23 44.60 0.1
 JUD 2.38 302 ePd 23 49.40 -0.6
 UPA 3.92 88 iPc 24 12.50 0.8
 0.5s 28.17nm

iS 24 58.00
 ANCC 8.48 129 ePc 25 16.73 0.7
 CLMC 8.50 125 eP 25 16.95 0.5
 HOBC 8.59 121 eP 25 16.26 -1.4
 HOQC 8.69 128 eP 25 19.39 0.2
 SALC 8.96 131 ePd 25 22.36 -0.4
 DIAC 9.14 127 ePc 25 26.15 0.8
 PURC 9.64 132 ePd 25 32.88 0.4
 CUMC 9.66 144 eP 25 31.33 -1.5
 PSO 9.81 141 eP 25 34.50 -0.2
 COTA 9.93 149 eP 25 36.30 -0.2
 GGP 10.24 151 eP 25 39.60 -1.3
 QUR 10.27 151 eP 25 40.50 -0.6
 BOG 10.28 114 iPc 25 44.00 2.8X
 QTO 10.30 151 eP 25 41.10 -0.4
 S 26 12.00

CAYA 10.33 148 eP 25 41.00 -1.0
 TPX 10.45 306 (P) 25 43.50 0.3
 BMG 10.48 99 eP 25 44.00 0.3
 GECU 10.56 150 eP 25 47.80 2.5
 VC1 10.74 152 eP 25 47.50 -0.1
 TUNG 11.41 154 eP 26 00.00 3.4X
 SCX 11.84 312 (P) 26 12.00 10.0X
 SDV 12.71 89 eP 26 25.00 11.0X
 OXX 15.24 304 (P) 26 48.50 1.3
 GUAC 16.06 84 eP 26 58.50 0.7
 LLAV 16.53 83 iP 27 04.50 0.7
 LVVM 16.53 312 (P) 27 04.00 0.4
 IIT 17.54 307 (P) 27 21.00 4.4X
 GUAN 17.64 85 iPd 27 17.50 -0.3
 ACX 17.80 298 (P) 27 27.50 7.9X
 PPM 17.81 306 (P) 27 28.50 0.2
 ILL 18.15 303 (P) 27 25.50 1.4
 MGP 18.34 59 eP 27 27.50 1.2
 MEX 18.40 306 (P) 27 30.00 2.7X
 PORP 18.75 59 eP 27 32.00 0.8
 CRX 18.84 305 (P) 27 36.00 3.3X
 ILL 19.05 306 (P) 27 36.00 0.5
 CUM 19.12 84 iP 27 35.00 -0.8
 SJG 19.19 60 eP 27 37.00 0.4
 CPD 19.35 60 eP 27 38.50 -0.1
 TCE 21.50 83 eP 28 04.84 3.7X
 NNA 21.77 162 iPd 28 03.30 -0.5
 1.0s 110.00nm 5.2mb

iS 32 02.00
 TPP 21.79 84 eP 28 04.62 0.7
 PT10 21.81 163 eP 28 06.50 2.3
 e(S) 32 14.00

PT08 21.83 161 iPc 28 06.60 1.8
 TRN 21.85 84 eP 28 04.67 0.2
 1.0s 926.00nm 6.2mb

NEV 21.96 66 eP 28 06.50 0.8
 MGH 22.15 67 eP 28 08.00 0.4
 AGX 22.22 308 (P) 28 14.50 6.3X
 FCV 22.25 77 eP 28 09.98 1.4
 SVB 22.26 77 eP 28 10.70 2.0
 eTT 48 55.31

SVV 22.30 77 eP 28 11.11 2.0
 eTT 48 56.53
 PAG 22.44 69 eP 28 10.50 0.8

BBL 22.50 71 eP 28 11.00 -0.1
 BOT 22.55 82 eP 28 14.03 2.6X
 SLB 22.55 75 eP 28 12.57 1.0
 BPA 22.58 67 eP 28 10.00 -1.8
 FDF 22.62 73 ePc 28 13.00 0.7
 S 32 20.00

PT02 22.79 162 iPc 28 17.80 3.8X
 PT03 23.98 161 e(P) 28 27.20 1.7
 HBF 24.10 6 P 28 28.60 2.1
 SGS 24.35 6 P 28 30.80 2.0
 JSC 25.36 4 P 28 40.00 1.5
 LHS 25.59 5 P 28 28.60 -12.1X
 MZX 26.17 306 (P) 28 48.00 1.8
 PWLA 26.31 352 P 28 46.60 -0.7
 TKL 26.65 360 P 28 50.80 0.3
 GBTN 26.66 359 P 28 50.90 0.3
 ARE 27.85 155 eP 29 03.00 1.1
 BLA 28.34 5 P 29 06.90 1.0
 2.0s 1012.66nm 6.2mb
 TUL 29.14 339 eP+ 29 10.20 -2.9X
 1.2s 7.70nm 4.3mb X

Z 22s 44.52um 6.0Msz
 e 29 12.50 8kmX
 eS 34 51.00
 LR 38 00.00
 ZOBO 29.26 149 ePc 29 13.05 -2.0
 1.3s 79.65nm 5.3mb
 i 29 16.00 10kmX
 CVL 29.32 8 P 29 15.00 0.3
 LPB 29.50 149 P 29 19.00 2.0
 1.1s 139.24nm 5.7mb
 Z 20s 56.74um 6.2Msz
 S 34 22.00
 LR 38 46.00
 NA2 29.57 9 P 29 17.40 0.5
 FVM 29.64 349 P 29 15.50 -2.0
 CCM 29.87 348 iPc 29 18.44 -1.2
 e 29 20.59 7kmX
 e 30 12.79
 eS 34 14.13
 SCP 32.17 8 iPc 29 40.19 0.4
 e 29 42.51 8kmX
 e 29 44.83
 e 29 46.82
 eS 35 07.59

CLE 32.52 3 iP 29 42.70 -0.1
 LVNJ 32.72 12 P 29 45.70 1.1
 GMTN 32.92 13 iP 29 46.90 0.6
 PNJ 32.95 13 iP 29 47.70 1.1
 TBR 33.16 13 P 29 49.20 0.8
 SIV 33.23 138 P 29 46.80 -2.5X
 i 29 50.40 12kmX
 ANMO 33.39 324 iPc 29 49.43 -1.3
 epPd 29 58.20 30kmX
 eS 35 10.11
 WVLY 33.73 7 P 29 52.60 -0.8
 HRV 35.09 15 iPc 30 05.91 0.8
 e 30 07.89
 epPd 30 12.53 22kmX
 iHPP 31 28.28
 eHPP 31 29.66
 GLD 36.34 331 P 30 16.20 0.2
 Z 18s 33.12um 6.2Msz
 WNY 36.35 12 P 30 15.60 -0.1
 RSNY 36.37 11 P 30 15.50 -0.4
 2.2s 1345.76nm 6.4mb
 Z 20s 112.99um 6.6Msz
 GOL 36.38 331 P 30 14.80 -1.5
 Z 18s 22.53um 6.0Msz
 HBVT 36.49 13 P 30 16.20 -0.7
 BNH 37.12 15 P 30 23.20 1.0
 GLA 37.61 314 eP 30 27.00 0.5
 e 36 38.00
 BAR 38.74 312 eP 30 37.00 1.0
 e 36 39.00
 TPC 39.03 315 eP 30 40.00 1.6
 e 36 45.00
 PFO 39.06 314 iPc 30 39.94 1.2
 CPE 39.15 312 eP 30 43.10 3.7X
 PLM 39.22 313 eP 30 41.00 0.8
 RSSD 39.38 337 P 30 40.30 -1.1
 PEC 39.71 314 P 30 45.30 1.3
 RVR 39.91 314 eP 30 46.00 0.3
 CBM 40.12 16 P 30 47.50 0.3
 GSC 40.20 316 eP 30 49.00 0.9
 MWC 40.52 314 eP 30 52.00 1.1
 PAS 40.56 313 iPc 30 52.27 1.3

		e	30	54.75		RKT	59.55	237	iP	33	22.40	6.4X	ACHM	76.48	54	iPc	35	04.00	2.3	
		epPd	30	59.22	23kmX		1.6s	305.00nm				6.2mb	EBAN	76.50	53	e(P)	35	02.80	1.1	
		ePP	32	11.00		SIT	62.47	331	P	33	40.00	4.8X	ASMO	76.54	54	iPd	35	03.00	0.9	
		ePcP	32	40.00		Z	20s	20.00um				6.3Msz	APHE	76.59	54	iPc	35	04.00	1.6	
		eHPP	33	05.11		GDH	63.35	11	ePd	33	38.50	-2.4	AFC	76.70	54	eP	35	03.40	0.3	
		ePPP	33	40.00			0.9s	52.10nm				5.7mb	LKO	76.74	82	Pc	35	03.02	-0.5	
		eS	37	07.36				i		33	46.00	24kmX		1.0s	127.50nm			5.9mb		
		eLg	40	20.00				i		37	40.00		EKA	77.25	35	P	35	04.00	-1.5	
		eLR	42	08.00		CHIE	64.30	64	iPc	33	49.00	1.2		1.0s	112.70nm			5.9mb		
SBB	40.59	314	eP	30	52.00	0.7		i		33	57.70	28kmX	ECRI	77.42	48	e(P)	35	09.00	2.2	
		e	37	03.00		MBO	65.23	78	iPKPc	33	54.50	0.6	TIC	77.66	85	Pc	35	08.12	-0.5	
BW06	40.76	330	P	30	51.20	-1.6	CTFE	65.83	63	iPc	34	00.00	2.3		1.1s	208.00nm			6.1mb	
CLC	41.02	316	eP	30	55.00	0.2		i		34	08.40	27kmX	LIC	77.71	86	Pc	35	08.44	-0.4	
		e	36	21.00		GGC	66.37	63	iP	34	12.00	10.8X		1.0s	273.50nm			6.2mb		
RTRS	41.11	161	ePc	30	57.10	1.6	RUV	67.67	250	iP	34	16.20	6.7X	Z	20s	5.00um			5.8Msz	
ISA	41.55	315	eP	31	01.00	1.9		1.6s	205.00nm			6.0mb	ETOR	77.97	50	eP	35	10.00	1.1	
TNP	42.02	319	P	31	03.40	0.2	CFTV	67.75	63	iPc	34	11.20	1.2	KIC	77.97	85	Pc	35	09.98	-0.3
SYN	42.05	313	eP	31	04.00	0.6		i		34	20.10	29kmX		0.9s	113.00nm			5.9mb		
BCH	42.44	314	P	31	08.40	1.8	TPT	67.83	250	iP	34	17.30	6.8X	EALH	78.37	53	eP	35	13.60	1.5
RTLL	42.50	161	ePc	31	06.00	-1.0		1.6s	215.00nm			6.0mb	LPF	78.42	43	iPc	35	11.40	-0.7	
RTCB	42.54	161	e(P)	31	10.00	2.7X	VAH	67.91	250	iP	34	17.60	6.6X		1.2s	139.85nm			5.9mb	
ZON	42.63	161	eP	31	10.00	2.0		1.6s	150.00nm			5.9mb	BOH	78.52	48	P	35	12.65	-0.2	
RSON	42.69	350	P	31	06.30	-1.9	PMO	68.09	250	iP	34	19.10	7.0X	GRR	78.54	42	iPc	35	12.20	-0.5
Z	20s	22.60um			6.1Msz		1.6s	240.00nm				6.1mb		1.2s	184.45nm			6.0mb		
BAO	42.79	125	eP	31	09.20	-0.4	TOA	69.59	334	eP	34	20.60	-0.1	ECHE	78.66	51	eP	35	16.00	2.3
CFA	42.83	161	e(P)	31	10.00	0.3	Z	20s	15.00um			6.2Msz	ISSF	78.68	48	P	35	14.15	0.4	
FRI	43.09	316	eP	31	11.10	-0.5	REY	69.87	24	iP	34	23.00	0.7	ATE	78.74	48	P	35	13.30	-0.7
KVN	43.14	320	P	31	11.40	-1.0	MBC	70.08	351	iPc	34	22.40	-1.0	FLN	78.78	42	iPc	35	13.50	-0.6
ROCH	43.29	165	eP	31	20.00	6.4X		1.6s	900.00nm			6.7mb		1.2s	172.55nm			6.0mb		
PRI	43.32	315	eP	31	14.00	0.3	PPN	70.21	248	iP	34	30.20	5.1X	LHE	78.81	48	P	35	14.77	0.3
PEL	43.54	164	iPc	31	17.20	1.8		1.6s	175.00nm			5.9mb	ESCF	78.84	48	P	35	14.23	-0.3	
	2.0s	505.88nm			6.0mb	PAE	70.38	248	iP	34	31.40	5.2X	LDF	79.02	42	iPc	35	14.70	-0.7	
		i	31	21.50	14kmX		1.6s	255.00nm				6.1mb		1.2s	172.55nm			6.0mb		
LLA	43.75	315	eP	31	16.90	-0.2	PMR	70.75	333	ePc	34	26.80	-0.8	MFF	79.05	44	iPc	35	15.00	-0.6
FCH	43.82	164	eP	31	19.20	1.2		1.3s	160.40nm			6.0mb		1.2s	101.15nm			5.7mb		
SAN	43.84	164	eP	31	18.00	0.2	Z	20s	22.00um			6.4Msz	BTH	79.10	48	(P)	35	16.00	0.0	
PRS	43.91	314	eP	31	18.80	0.4	COL	71.24	336	ePc	34	29.12	-1.5		(pP)	35	26.00	32kmX		
TACH	43.96	165	eP	31	19.00	0.3		epPd	34	36.57	24kmX		EPF	79.51	48	iPc	35	18.00	-0.2	
CMB	44.09	317	iPc	31	20.27	0.4		eS	43	50.16			1.2s	107.10nm			5.7mb			
		e	31	22.59		F8A	71.24	336	eP	34	29.60	-1.0	LFF	79.72	46	iPc	35	18.70	-0.5	
		epPd	31	27.22	23kmX	KDC	71.37	328	eP	34	31.10	-0.4		1.2s	92.25nm			5.7mb		
		ePP	33	05.93		AKU	71.94	23	iP	34	34.10	-0.7	EBR	79.72	50	eP	35	20.00	0.7	
		eS	37	57.58			1.2s	168.75nm				6.0mb		eS	45	28.00				
		eSS	41	28.64		LIS	72.29	52	iPd	34	38.50	1.1	LPO	80.05	46	iPc	35	20.50	-0.5	
LNV	44.12	166	eP	31	18.00	-2.0	HON	72.45	290	P	34	44.00	5.4X		1.2s	116.05nm			5.8mb	
CHCH	44.30	165	iP	31	26.60	5.1X	VAL	72.74	38	iP	34	40.20	0.5	LSF	80.22	45	iPc	35	20.90	-1.0
ARN	44.52	316	P	31	24.80	1.4		S	44	11.00			1.2s	65.45nm			5.5mb			
MHC	44.59	315	eP	31	24.80	0.7	PTO	72.84	50	iPc	34	40.50	-0.1	RJF	80.25	46	iPc	35	21.30	-0.8
BKS	45.27	316	iPc	31	30.10	0.8		eS	44	08.00			1.2s	95.20nm			5.7mb			
	1.7s	65.00nm			5.3mb	STS	72.98	48	eP	34	42.80	1.4	RAR	80.59	247	P	35	28.00	3.8X	
	Z	20s	18.00um		6.0Msz	IMA	73.93	336	ePc	34	45.70	-0.9		S	45	36.00				
	N	20s	20.00um				2.2s	772.70nm				6.3mb	CAF	80.66	46	iPc	35	23.70	-0.6	
	E	20s	27.00um			EVAL	74.15	54	eP	34	49.80	1.5		1.2s	87.75nm			5.7mb		
		i	32	06.00	161kmX	TTA	74.20	333	eP	34	46.90	-1.3	TCF	80.69	44	iPc	35	23.60	-0.8	
		ePcP	32	46.00		DCN	74.70	37	eP	34	50.60	-0.5		1.2s	62.50nm			5.5mb		
		e	33	09.00			1.0s	209.00nm				6.1mb	MAF	80.94	45	iPc	35	25.00	-0.7	
		ePP	33	10.00		EPLA	74.72	51	eP	34	51.80	0.2		1.2s	90.75nm			5.7mb		
		e	33	20.00		ECF	75.14	38	eP	34	52.70	-1.0	BGF	81.11	44	iPc	35	25.80	-0.8	
		e	38	10.00			1.0s	209.00nm				6.1mb		1.2s	95.20nm			5.7mb		
		i	38	18.00		EJIF	75.17	55	eP	34	56.40	2.2	AVF	81.44	44	iPc	35	27.10	-1.2	
		iS	38	22.00		ETA	75.28	38	eP	34	53.70	-0.8		1.2s	68.45nm			5.6mb		
		eScS	41	10.00			1.0s	104.00nm				5.8mb	SSF	81.53	44	iPc	35	27.70	-1.1	
		e	41	32.00		AIA	75.31	172	eP	35	00.50	6.2X		1.2s	68.45nm			5.6mb		
		eLQ	43	00.00		EHOR	75.34	53	eP	34	55.50	0.3	ASK	81.69	30	iP	35	31.00	1.7	
		eLR	45	00.00		SDN	75.35	325	eP	34	54.90	0.1	LOR	81.76	43	iPc	35	29.10	-0.9	
BRK	45.28	316	e(P)	31	29.70	0.3	DAG	75.73	12	iPc	34	54.80	-1.8		1.2s	72.90nm			5.6mb	
Z	20s	27.00um			6.2Msz		0.8s	31.34nm				5.4mb	BER	81.77	30	iPc	35	31.40	1.8	
		e	33	12.00	564kmX	Z	18s	64.60um				7.0Msz	SMF	81.79	44	iPc	35	29.00	-1.1	
		eLR	45	08.00		N	20s	24.11um						1.2s	59.50nm			5.5mb		
ORV	45.63	318	eP	31	32.30	0.2	E	18s	42.61um				SNF	81.81	40	P	35	29.10	-1.0	
WDC	46.84	319	eP	31	38.80	-2.9X	MAL	76.02	54	iPc	35	00.30	1.3	UCC	81.83	40	iP+	35	30.00	-0.2
SES	47.26	336	ePc	31	43.00	-1.9		iS	44	56.00				e	35	33.00	10kmX			
	2.5s	930.00nm			6.4mb		iPS	45	44.00					PP	38	42.00				
		pP	31	53.00	33kmX	GUD	76.20	50	eP	35	00.20	0.1		S	45	48.00				
SCH	47.71	13	eP	31	47.00	-1.3	AAPN	76.24	54	iPc	35	01.50	1.1	LBF	81.86	44	iPc	35	29.20	-1.3
	1.0s	261.00nm			6.2mb	YRH	76.25	38	eP	34	59.20	-0.8		1.2s	32.75nm			5.2mb		
FHC	47.90	318	eP	31	50.00	-0.1		1.0s	174.00nm			6.0mb	DOU	82.04	41	P+	35	31.40	0.1	
FFC	48.03	346	iPc	31	49.10	-1.7	ALOJ	76.26	54	iPd	35	01.60	1.0	Z	22s	26.40um			6.6Msz	
LON	49.86	326	ePc	32	02.74	-2.4	TOL	76.28	51	iPc	35	00.55	0.1		PP	38	38.00			
		ePcP	33	26.22			e	35	02.70					SKS	45	49.00				
PNT	50.33	330	ePc	32	08.00	-0.6		epPd	35	06.67	20kmX		WIGH	82.17	86	eP	35	32.00	-0.7	
	1.1s	142.00nm			5.9mb		eS	44	49.64					S	45	54.00				
EDM	50.36	337	iPc																	

28d 01h

			eSPP	47	10.00				BOB	85.90	45	Pc	35	50.70	-0.5				PS	49	40.00						
			eSS	51	10.00				HFS	85.93	30	eP	35	49.90	-1.0				SS	52	56.00						
			eSSS	54	33.00					0.9s		86.30nm			6.0mb			RBL	88.47	43	P	36	03.30	-0.3			
KUK	82.30	85	eP	35	33.00	-0.4			Z	19s		10.84um			6.3Msz			KMR	88.52	42	iP+	36	03.20	-0.5			
			S	45	50.00							LR	01	56.00						iP	36	13.40	32kmX				
KBS	82.39	11	eP	35	34.00	1.3			MDI	85.94	44	Pc	35	50.00	-1.2					iPP	39	37.00					
WEGH	82.43	86	eP	35	33.60	-0.5			TRO	86.03	20	eP	35	52.50	1.3				MNS	88.61	47	P	36	03.50	-0.8		
			S	45	55.50				COP	86.06	34	iPc+	35	53.00	1.4				KEV	88.66	19	eP	36	04.00	0.1		
LEGH	82.56	85	eP	35	33.50	-1.3				0.7s		153.42nm			6.3mb					0.8s		17.60nm		5.4mb			
BLS1	82.59	31	eP	35	35.20	1.1			OSS	86.10	44	iPc	35	52.00	-0.2					Z	18s		10.30um		6.3Msz		
SHGH	82.66	85	eP	35	34.70	-0.6			GRFO	86.33	40	ePc	35	50.83	-2.3										36	12.70	
			S	45	55.00							e	35	53.48	8kmX										39	34.00	
TEGH	82.74	85	eP	35	35.00	-0.7			GRF	86.34	40	iPc	35	53.00	-0.1											46	40.00
			S	45	54.60					1.0s		118.00nm			6.1mb											48	04.00
ENN	82.83	40	iPc	35	35.00	-0.4			Z	20s		30.00um			6.7Msz				RMP	88.73	48	P	36	04.70	-0.1		
	1.0s		111.00nm			5.9mb						e	36	02.90	31kmX				TRI	88.74	44	i(P)c	36	04.70	-0.1		
			e	35	41.50	21kmX						eS	46	20.00													
			ePP	38	52.00				MOX	86.43	39	ePc+	35	53.00	-0.6												
MEM	82.89	40	P	35	32.40	-3.3X				2.1s		194.00nm			6.0mb												
WIT	83.10	38	ePc	35	37.00	0.3			Z	20s		14.00um			6.4Msz												
			e	35	44.50	24kmX			N	20s		10.00um															
VITF	83.10	42	P	35	36.21	-0.7			E	20s		9.60um															
WTS	83.26	39	ePc	35	37.00	-0.6						i	36	03.00	31kmX				RDP	88.75	48	P	36	06.70	1.7		
	1.0s		231.00nm			6.3mb						eS	46	24.00					VOY	88.77	44	eP	36	05.00	0.0		
			ePP	38	53.00				SAL	86.53	45	P	35	53.80	-0.3												
HAU	83.37	43	iPc	35	37.40	-0.9			FUR	86.62	42	iPc	35	54.30	-0.3												
	1.2s		74.40nm			5.7mb			Z	20s		13.00um			6.3Msz												
BSF	83.68	43	iPc	35	38.80	-1.2			HOF	86.65	40	eP	35	54.00	-0.7												
	1.2s		74.40nm			5.8mb			Z	19s		17.00um			6.5Msz												
LOMF	83.76	43	P	35	39.78	-0.6			OGA	86.67	43	iPc	35	54.90	-0.2												
LRG	83.86	47	eP	35	40.40	-0.4			BDI	86.82	46	P	35	54.00	-1.7												
	1.1s		53.70nm			5.7mb			PII	86.82	46	P	35	54.60	-1.0												
ECH	83.89	42	P	35	40.33	-0.6			BRN	87.10	38	eP	35	57.00	0.3												
MOF	83.91	43	P	35	40.29	-0.9						iP	36	07.50	33kmX												
LPG	83.91	45	iPc	35	41.50	0.0			CLL	87.18	39	iP	35	56.10	-1.0												
	1.2s		35.70nm			5.5mb			Z	18s		145.00nm			6.2mb												
RGS	83.94	27	eP	35	44.90	4.1X						iP	36	06.20	32kmX												
CDF	83.94	42	iPc	35	40.40	-0.9						eSKS	46	31.00													
	1.2s		71.40nm			5.8mb						eS	46	48.00													
EMS	83.97	44	iPc	35	41.20	-0.4			CTI	87.23	44	P	35	56.90	-0.8												
LMR	83.98	47	eP	35	41.20	-0.3			FIR	87.34	46	eP	35	57.00	-1.0												
	1.1s		39.05nm			5.5mb						i	36	15.00	64kmX												
WLS	83.99	42	P	35	40.51	-1.0						eS	46	35.00													
RRL	84.00	46	P	35	41.90	0.0			MAO	87.49	48	P	35	59.30	0.4												
FRF	84.06	47	eP	35	41.30	-0.6			WET	87.50	41	iPc	35	58.90	0.1												
	1.1s		43.95nm			5.6mb			Z	22s		31.00um			6.7Msz												
GWF	84.11	41	P	35	41.59	-0.4						iP	36	08.00	25kmX												
LSD	84.20	45	P	35	42.83	-0.1			PGD	87.65	46	Pc	35	58.60	-1.2												
BBS	84.21	43	P	35	41.70	-0.9			SFI	87.74	46	P	35	59.50	-0.5												
CALN	84.21	47	P	35	42.72	-0.1			BHG	87.76	42	eP	36	00.40	0.3												
STR	84.25	42	P	35	42.10	-0.6			BRG	87.85	39	iPc	36	00.00	-0.4												
DIX	84.30	44	iPc	35	43.40	0.0				2.0s		800.00nm			6.7mb												
RSP	84.31	45	P	35	43.24	0.0			Z	18s		8.00um			6.2Msz												
DOI	84.38	46	P	35	43.50	-0.1			N	20s		7.00um															
TOUF	84.44	46	P	35	43.65	-0.4			E	20s		4.00um															
STV	84.46	46	P	35	43.54	-0.5						iP	36	08.00	25kmX												
INS	84.49	40	ePc	35	43.80	-0.2						iS	46	40.00													
FEL	84.50	43	P	35	43.29	-0.9						i	51	04.00													
AURF	84.51	47	P	35	43.52	-0.7						e	57	04.00													
ENR	84.53	46	P	35	44.47	0.1			CRE	87.86	46	P	36	00.00	-0.7												
REV	84.56	47	P	35	43.91	-0.5			FVI	87.90	43	Pc	36	00.20	-0.5												
AUTN	84.57	46	P	35	44.30	-0.4			UPP	87.92	30	iP	36	00.00	-0.5												
NB2	84.58	29	P	35	43.90	-0.2						i	36	01.30	4kmX												
	1.6s		682.30nm			6.6mb						iS	46	25.00													
SBF	84.59	47	eP	35	44.30	-0.3			KHC	87.95	41	iPc	36	01.00	0.0												
	1.1s		97.70nm			5.9mb			Z	22s		24.40um			6.6Msz												
MMK	84.69	44	iPc	35	46.00	0.7			N	20s		4.30um															
ZLA	84.80	43	iPc	35	45.00	-0.6			E	21s		18.70um															
SLE	84.83	43	iPc	35	44.60	-1.1						e	36	08.50	23kmX												
ROB	84.85	46	P	35	45.08	-0.8						S	46	36.00													
ADK	85.04	322	iPc	35	47.40	0.8			RSM	88.16	46	P	36	02.00	0.0												
	1.3s		1132.10nm			6.9mb X			KBA	88.19	43	iPc	36	01.30	-1.1												
			e	37	10.10	356kmX				1.2s		92.90nm			6.0mb												
FIN	85.10	46	P	35	46.00	-1.1						i	36	08.90	24kmX												
CKI	85.12	46	Pc	35	46.90	-0.3						i	36	49.90													
STU	85.16	42	iPc+	35	46.50	-0.8						i	37	41.70													
	1.0s		230.00nm			6.4mb						e	39	28.00													
	Z	20s	25.53um			6.6Msz						e															

SPC	92.19	40 eP	36 21.00	0.0				esPKP	42 28.00			WB5	23.45 153 eP	28 25.00	0.6
		e	39 40.70					ePP	44 12.00			WRA	23.50 153 Pc	28 25.60	0.8
		e	40 08.30					PKS	45 36.00				0.6 s	8.10nm	4.4mb
BRT	92.24	48 P	36 23.00	1.8				eSS	57 12.00			PMG	25.97 114 eP	28 47.00	-1.4
PSZ	92.32	41 iP	36 22.00	0.6			QUE	131.88 35 ePKP	42 25.00	-0.6		ASPA	26.63 158 eP	28 54.40	-0.1
LCL	92.93	49 P	36 23.00	-1.3				eS	45 59.00				0.4 s	6.00nm	4.6mb
BEO	93.54	44 eP	36 28.00	1.0			SSE	133.74 330 PKP	42 28.00	-0.8		OIS	26.76 144 iPc	28 55.50	-0.2
		i	36 36.50	27kmX				1.5 s	74.00nm				1.0 s	43.00nm	5.0mb
SDA	93.63	47 eP	36 28.00	0.5				PP	44 52.00			BRS	40.05 137 iPc	30 50.30	-0.6
TIM	93.80	43 iPc	36 32.00	3.8X			LZH	134.74 352 PKP	42 31.50	0.7		CAN	43.42 149 eP	31 19.80	1.4
LACI	93.88	47 iPd	36 29.50	0.9			Z	20 s	12.70um	6.6Msz		GUN	44.65 310 P	31 28.90	0.1
TIR	94.07	47 eP	36 29.50	0.0			N	16 s	6.20um				0.7 s	18.00nm	5.0mb
BZS	94.10	43 eP	36 30.00	0.4				PP	45 00.00			PKI	44.84 309 P	31 28.90	-1.4
BERA	94.30	48 eP	36 32.90	2.3				PKS	46 05.00			DMN	45.09 309 P	31 32.80	0.5
PHP	94.39	47 iPc	36 30.90	-0.1				PPP	47 59.00			GKN	45.65 310 P	31 36.80	-0.5
KEK	94.45	49 eP	36 33.00	1.6				i	55 30.00			HYB	46.85 293 eP	31 48.00	2.0
OHR	94.81	47 eP	36 33.50	0.5				SS	02 41.00			GBA	47.02 288 Pd	31 45.70	-1.6
	1.1 s	81.00nm		6.1mb			NDI	138.27 26 ePKP	42 36.00	-1.5			S.D. = 1.2	on 15 of 16 obs.	
		i	36 42.20	27kmX				eS	45 22.00						
KBN	94.96	48 eP	36 34.40	0.4			ANP	138.28 325 IPKP	42 34.00	-3.7X		* APR 28, 1990 03h 21m 32.63±1.34s			
VTS	96.10	45 iP	36 39.00	-0.1			ASPA	141.35 243 ePKP	42 29.50	-13.7X			38.164 N ± 8.5km	27.991 E ± 14.9km	
KKB	96.24	46 eP	36 41.00	1.5				1.3 s	75.00nm				DEPTH = 10.0km	(geophysicist)	
PGB	96.79	45 eP	36 47.00	5.0X			Z	19 s	9.94um	6.6Msz		TURKEY		(366)	
MLR	97.02	42 ePc	36 55.00	11.9X				i	42 47.90						
PVL	97.38	44 eP	36 47.00	2.4				LR	40 56.40			CIN	0.57 172 ePg	21 44.00	-0.1
RZN	97.45	46 iP	36 45.00	-0.2			GKN	141.57 17 PKP	42 36.90	-6.8X			iSg	21 57.00	
BUC	97.50	43 eP	36 50.00	4.9X				0.9 s	28.00nm			IzM	0.62 292 iPg	21 51.50	6.4X
ATH	97.88	50 P	36 48.00	1.1			WB5	141.82 249 ePKP	42 38.70	-5.4X			iSg	22 00.50	
		e	40 48.00				WRA	141.83 249 PKPd	42 35.80	-8.3X		KHL	1.22 82 ePn	21 56.00	0.7
		e	47 28.00					1.2 s	15.80nm			ALT	1.88 61 ePn	22 05.00	-0.2
DIM	97.91	45 eP	36 47.00	0.0			GUN	142.00 15 PKP	42 38.40	-6.3X		BNT	2.19 359 iPn	22 10.60	1.0
KDZ	97.96	46 iP	36 47.00	-0.3			DMN	142.08 17 PKP	42 38.20	-6.5X		YLV	2.63 24 ePn	22 14.60	-1.3
RDO	98.21	46 eP	36 58.00	9.6X				1.0 s	82.00nm				S.D. = 1.3	on 5 of 6 obs.	
JMB	98.50	45 eP	36 50.00	0.4			PKI	142.20 16 PKP	42 38.20	-6.8X					
SPA	98.83	180 eP	36 59.80	9.1X				1.0 s	30.00nm			? APR 28, 1990 03h 25m 50.29±8.43s			
	2.0 s	245.00nm		6.4mb			PIP	143.97 319 ePKPd	42 54.00	6.2X			30.308 S ±35.7km	67.874 W ±67.3km	
	Z 20 s	7.61um		6.2Msz			KHC	144.49 331 IPKP	42 47.30	-1.3			DEPTH = 10.0km	(geophysicist)	
PSN	99.16	43 eP	36 53.00	0.4				iS	46 05.00				SAN JUAN PROVINCE, ARGENTINA	(137)	
ITU	100.69	45 iPdiff37	00.00	0.5			SZP	144.64 318 ePKPd	42 50.00	1.1					
BCAO	101.17	84 ePdiff37	01.90	-0.5X			POO	144.76 39 IPKPd	42 47.00	-2.2		RTLL	1.14 207 iPc	26 10.90	-0.8
	1.6 s	85.00nm		6.0mb				eS	46 06.00				eS	26 26.30	
		ePpd	37 08.52				BAG	145.36 316 ePKPc+	42 48.00	-2.4		CFA	1.33 194 e(P)	26 19.00	4.1X
		id	37 12.10					1.5 s	555.56nm				S	26 32.00	
		ic	40 33.70				KMI	145.65 350 IPKPc	42 50.06	-0.8		RTRS	1.38 275 ePd	26 15.20	-0.3
		id	41 19.10					Z 19 s	12.50um	6.7Msz			eS	26 35.00	
ANTO	103.82	45 iPdiff37	12.90	-0.8X				N 17 s	5.70um			RTCB	1.42 214 eP	26 16.10	-0.1
		ePpd	37 19.36					E 17 s	5.30um				S	26 36.90	
		eSpd	37 21.34						pPKP	44 16.00		RTCV	1.65 200 ePc	26 19.60	0.2
SNZO	104.66	230 ePdiff37	24.00	6.8X					PP	46 06.00			S	26 43.00	
		PP	41 44.00						PKS	46 24.00		RTBS	1.91 225 ePc	26 24.20	1.0
		SKS	48 08.00						PPP	49 30.00			S	26 51.00	
		PS	50 44.00						i	53 04.00			S.D. = 0.9	on 5 of 6 obs.	
		(SS)	56 04.00				QCP	146.23 314 ePKP	42 41.50	-10.2X					
HLW	106.54	55 ePdiff37	27.50	1.6			DAV	146.96 298 ePKP+	42 53.00	0.1			APR 28, 1990 03h 56m 46.76±0.31s		
		eS	48 06.00				KNA	147.78 255 ePKP	42 55.00	0.9			36.225 N ± 4.5km	99.999 E ± 5.8km	
KMZ	110.72	101 ePKP	41 47.00	1.6			HYB	148.41 34 ePKP	42 53.80	-1.4			DEPTH = 10.0km	(geophysicist)	
		e	42 16.00					1.4 s	550.00nm				4.8mb (28 obs.)		
		e	42 28.00					i	42 58.00				QINGHAI PROVINCE, CHINA	(325)	
LWI	112.37	89 IPKpc	41 49.80	1.1			RKG	148.63 214 ePKP	42 58.00	2.9X		LZH	3.11 91 Pn	57 36.00	-1.0
SLR	113.39	114 ePKP	41 45.00	-5.3X			NWAO	149.35 216 ePKP	42 58.00	1.8			Pg	57 41.00	
SLR	113.39	114 iPdiff38	00.00	3.3X			KLB	149.98 218 ePKP	42 53.00	-4.2X			Sg	58 17.50	
	Z 18 s	29.55um		6.9Msz			MUN	150.63 216 ePKP	42 57.00	-1.1		KMI	11.31 167 eP	59 33.00	1.3
TAB	113.91	42 ePdiff38	06.00	7.3X			GBA	150.72 40 PKPc	42 57.90	-0.8		GUN	14.55 239 P	00 13.30	-1.6
		e	42 23.00					1.0 s	17.40nm				0.5 s	6.00nm	4.5mb
PTZ	116.11	102 IPKpc	41 54.00	-1.7			PPR	151.13 309 ePKPd	43 07.00	7.7X		PKI	15.09 239 P	00 21.10	-0.8
		e	42 48.00					1.0 s	83.00nm				0.6 s	7.00nm	4.3mb
		i	43 04.00				BAL	151.32 218 ePKP	43 03.00	3.8X		DMN	15.27 240 P	00 22.60	-1.7
HIA	118.61	343 ePdiff38	23.49	4.3X			CHG	152.37 355 ePKPc	43 00.40	-0.7		GKN	15.37 242 P	00 23.60	-1.9
		eSKS	48 53.19					0.9 s	14.50nm			CHG	17.37 183 eP	00 52.80	1.9
		ePS	52 55.70				LOE	153.37 349 ePKP	43 02.00	-0.5		CHTO	17.37 183 eP	00 51.50	0.6
MAT	120.21	322 ePdiff38	27.00	0.4			NST	155.34 352 ePKP	43 08.50	3.4X			1.0 s	17.50nm	4.1mb
	Z 20 s	3.55um		6.0Msz				e	47 09.00			NDI	20.61 255 eP	01 29.00	0.3
MAIO	123.16	36 ePKP	42 05.00	-3.5X			KKM	155.38 306 ePKP	43 07.50	2.1		HYB	26.68 231 eP	02 32.50	4.7X
		i	43 47.00				SNG	163.52 345 ePKP	43 13.20	-1.2		GBA	30.28 228 Pc	02 59.50	-0.8
SHK	124.88	324 ePKP	42 11.00	-0.8				eS	58 30.40				0.8 s	2.90nm	4.2mb
CAN	125.47	233 ePKP	42 13.20	0.2				S.D. = 1.0	on 398 of 468 obs.			KEV	50.66 335 eP	05 48.00	0.3
WMO	126.94	8 ePdiff39	06.50	10.0X			* APR 28, 1990 02h 23m 16.82±0.60s					SOD	50.80 331 iP	05 49.20	0.4
		ePP	44 12.88					1.012 N ±12.8km	123.243 E ±11.6km			SUF	51.26 325 iP	05 53.00	0.7
		e	45 27.71					DEPTH = 33.0km (normol)					0.5 s	3.00nm	4.5mb
		eSKS	49 22.25					4.8mb (4 obs.)				NUR	52.23 323 eP	06 01.00	1.3
RMO	127.60	243 ePKP	42 16.00	-1.3			MINAHASSA PENINSULA	(265)				PRNI	53.76 284 eP	06 13.00	1.5
BJI	128.02	341 ePdiff38	56.00	-5.3X								MBH	54.09 283 eP	06 15.00	1.1
BJI	128.02	341 ePKP	42 16.00	-1.7			PCI	3.90 241 i(P)d	24 15.00	-0.9		HFS	57.62 324 eP	06 38.10	-0.9
	1.0 s	36.00nm						i(S)	24 35.50				0.6 s	4.60nm	4.7mb
	Z 20 s	4.97um		6.2Msz			MKS	7.25 211 Pc	25 11.00	7.9X		NB2	58.51 325 P	06 44.40	-0.8
	N 18 s	3.20um					KKM	8.61 306 eP	25 23.50	1.2			0.7 s	4.50nm	4.7mb

28d 04h

PRU 60.61 312 eP 07 00.00 0.2
 CLL 61.01 314 eP 07 02.00 -0.5
 KHC 61.52 312 eP 07 04.90 -1.2
 GRF 62.70 313 eP 07 14.20 0.3
 WRA 64.62 144 Pd 07 23.20 -3.6X
 OSS 64.65 310 ePd 07 27.20 0.2
 MBC 65.06 10 eP 07 27.50 -1.5
 VDL 65.16 310 ePd 07 30.40 0.1
 SLE 65.17 312 ePd 07 30.30 0.2
 ZLA 65.36 312 ePd 07 31.50 0.1
 CDF 65.60 313 eP 07 33.10 0.2
 TMA 65.70 310 ePd 07 33.20 -0.5
 BSF 66.15 313 eP 07 36.40 -0.1
 MMK 66.28 311 ePd 07 38.00 0.5
 HAU 66.34 313 eP 07 37.80 0.2
 DIX 66.61 311 ePd 07 40.40 0.7
 LPG 67.29 310 iPc 07 44.80 0.8
 LPL 67.30 310 iPc 07 44.60 0.6
 PGF 67.30 307 eP 07 44.60 0.7
 SBF 67.66 309 eP 07 46.40 0.3
 INK 68.44 19 eP 07 49.00 -1.5
 SMF 68.49 313 eP 07 51.00 -0.2
 LMR 68.51 308 eP 07 51.60 0.3
 AVF 68.71 313 eP 07 52.40 0.0
 BGF 69.12 313 eP 07 54.80 -0.3
 MAF 69.46 313 iPc 07 57.70 0.6
 TCF 69.64 313 iPc 07 58.40 0.2
 LDF 69.78 316 eP 07 59.00 0.0
 FLN 69.89 316 eP 07 59.70 0.0
 GRR 70.30 316 eP 08 02.20 0.0
 CAF 70.44 312 eP 08 04.00 0.8
 RJF 70.57 312 eP 08 04.50 0.6
 MFF 70.86 314 eP 08 05.90 0.3
 LPO 71.10 312 eP 08 07.70 0.6
 LFF 71.23 312 eP 08 08.60 0.7
 EPF 72.51 311 eP 08 15.50 -0.1
 YKA 77.76 16 eP 08 43.70 -1.4
 FFC 87.46 13 iPc 09 34.40 -1.1
 BAO 144.90 297 ePKP 16 25.50 -0.8
 S.D. = 0.9 on 56 of 58 obs.

& APR 28, 1990 04h 41m 08.00s
 37.873 N 121.978 W
 DEPTH = 5.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.5 (BRK).
 Mo=8.4*10**13 Nm (BRK).

BKS 0.20 271 iPc 41 12.10 -0.1
 BRK 0.22 270 iPc 41 12.50 0.0
 PCC 0.49 221 ePd 41 17.40 -0.4
 MHC 0.59 153 iPc 41 20.00 0.1
 GCC 0.84 181 eP 41 23.60 -1.1
 SAO 1.18 159 eP 41 29.20 -1.4
 CMB 1.27 82 ePc 41 30.20 -1.9
 PRS 1.61 162 e(P) 41 36.70 -0.5
 FRI 2.01 115 e(P) 41 41.80 -1.1
 9 obs. associated

& APR 28, 1990 04h 41m 48.00s
 37.885 N 121.983 W
 DEPTH = 6.0km
 4.3mb (5 obs.)
 CENTRAL CALIFORNIA (39)

<BRK>. ML 4.6 (BRK). At least 40
 houses damaged at Alama. Felt
 (V) at Concord, Danville, Dublin
 and Livermore; (IV) at Alameda,
 Berkeley, Half Moon Bay,
 Hayward, Hercules, Lafayette,
 Mount Herman, Pleasanton, Port
 Costa, Richmond, San Carlos, San
 Lorenzo, San Mateo and
 Watsonville. Also felt strongly
 at Walnut Creek.

BKS 0.20 268 iP 41 52.00 -0.1
 BRK 0.22 267 iPc 41 52.00 -0.5
 ZSP 0.22 286 iPc 41 52.60 0.0
 PCC 0.50 220 iPd 41 57.20 -0.8
 MHC 0.61 153 iPd 41 59.80 -0.4
 ARN 0.64 146 iPd 42 00.40 -0.5
 GCC 0.85 181 iPd 42 03.60 -1.2
 NWRM 0.91 309 iPc 42 04.50 -1.3
 SAO 1.20 159 iP 42 09.10 -1.6
 CMB 1.27 83 iPd 42 09.90 -2.1
 LLA 1.51 146 iPd 42 13.50 -2.2
 PRS 1.63 162 ePd 42 15.30 -2.0
 ORV 1.71 13 eP 42 16.00 -2.5
 FRI 2.02 116 iPc 42 20.50 -2.4
 PRI 2.03 148 e(P) 42 20.80 -2.5
 PKEM 2.36 140 eP 42 25.50 -2.4
 WDC 2.73 351 ePc 42 28.70 -4.4
 BCH 3.10 150 eP 42 35.50 -2.9
 KVN 3.26 68 eP 42 38.00 -2.9
 ABL 3.76 143 eP 42 44.50 -3.5
 TNP 3.77 86 eP 42 45.50 -2.7
 LRM 10.64 39 eP 44 30.50 6.2
 SES 14.75 29 eP 45 28.00 9.1
 EDM 16.47 19 eP 45 41.50 0.4
 TUL 21.02 87 eP 46 33.00 -1.7
 UYO 22.53 91 eP 46 49.30 -0.6
 PMR 29.10 333 eP 47 54.30 3.1
 FBA 31.03 339 eP 48 09.90 1.6
 INK 31.14 352 eP 48 09.00 -0.2
 TTA 32.46 332 eP 48 23.50 2.5
 MBC 38.47 1 eP 49 11.50 -0.4
 FRB 40.77 33 eP 49 35.00 3.9
 32 obs. associated

& APR 28, 1990 04h 47m 41.80s
 37.863 N 122.003 W
 DEPTH = 5.0km
 4.2mb (5 obs.)
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 3.9 (BRK).
 Mo=8.8*10**15 Nm (BRK). Felt
 throughout the northeastern San
 Francisco Bay area.

BKS 0.18 274 iPc 47 45.70 0.1
 BRK 0.20 273 iPc 47 46.00 0.0
 ZSP 0.22 292 iPc 47 46.20 0.0
 PCC 0.47 220 iPd 47 50.70 -0.5
 MHC 0.59 151 iPd 47 53.50 -0.2
 ARN 0.63 144 iPd 47 54.00 -0.5
 GCC 0.83 180 iPd 47 57.40 -1.0
 NWRM 0.92 311 iPc 47 58.30 -1.4
 SAO 1.18 158 iPd 48 02.60 -1.7
 CMB 1.29 82 iPd 48 04.50 -1.7
 LLA 1.50 145 iPd 48 07.10 -2.4
 PRS 1.61 161 iPd 48 09.00 -2.0
 ORV 1.74 13 ePc 48 08.80 -4.0
 FRI 2.02 115 iPc 48 14.80 -2.1
 PRI 2.02 148 ePd 48 15.00 -2.1
 LTCM 2.34 358 eP 48 15.00 -6.6
 PKEM 2.35 139 eP 48 19.50 -2.2
 PHAM 2.40 147 eP 48 20.00 -2.4
 MIN 2.50 7 e(P) 48 21.90 -2.0
 WDC 2.75 351 iPc 48 22.80 -4.5
 BCH 3.09 149 eP 48 28.70 -3.5
 KVN 3.29 68 eP 48 32.40 -2.8
 TNP 3.79 85 eP 48 40.00 -2.3

LRM 10.67 39 eP 50 27.50 8.9
 EDM 16.49 19 eP 51 35.00 -0.3
 TUL 21.04 87 eP 52 31.10 2.2
 FFC 21.69 33 eP 52 31.00 -4.2
 UYO 22.55 91 eP 52 43.50 -0.6
 YKA 25.08 8 eP 53 13.10 4.8
 PMR 29.12 333 eP 53 34.40 -10.9
 FBA 31.04 339 eP 53 53.50 -8.9
 MBC 38.49 1 eP 55 05.50 -0.6
 32 obs. associated

& APR 28, 1990 05h 43m 31.34s
 60.981 N 148.010 W
 DEPTH = 8.8km
 KENAI PENINSULA, ALASKA (14)
 <AGS-P>.

GLI 0.46 102 iP 43 40.66 0.0
 VZW 0.71 83 eP 43 44.49 -1.1
 PMS 0.80 290 iP 43 46.18 -0.8
 PLRM 0.82 319 iP 43 46.42 -0.8
 VLZ 0.83 79 eP 43 46.32 -1.1
 SML 0.84 350 iP 43 47.20 -0.6
 GH0 0.91 331 iP 43 48.03 -0.9
 MTU 1.01 170 eP 43 49.78 -0.8
 PWA 1.12 308 iP 43 51.18 -1.3
 SEW 1.13 220 iP 43 50.76 -1.9
 KLU 1.13 62 iP 43 51.23 -1.5
 NCA 1.16 29 iP 43 51.94 -1.3
 SLKM 1.19 247 iP 43 52.12 -1.5
 SUA 1.41 291 iP 43 55.44 -1.8
 TOA 1.43 37 eP 43 56.44 -1.1
 NKA 1.60 263 eP 43 59.60 -0.2
 MID 1.77 151 eP 44 02.05 -0.2
 CUT 1.79 324 iP 44 01.65 -0.9
 >NNL 1.88 241 eP 44 02.43 -1.5
 SKT 1.96 302 iP 44 03.23 -2.0
 CGLM 1.97 281 eP 44 03.65 -1.6
 SPU 1.98 278 eP 44 03.22 -2.2
 CRP 2.03 280 eP 44 03.94 -2.4
 NCG 2.05 284 eP 44 04.64 -1.9
 HUR 2.15 340 eP 44 07.56 -0.3
 CNPM 2.17 229 eP 44 05.41 -2.8
 RDT 2.20 261 eP 44 05.58 -3.0
 PAX 2.33 30 eP 44 09.64 -0.9
 RED 2.41 259 eP 44 08.64 -3.0
 RND 2.47 351 eP 44 12.17 -0.3
 TGL 2.54 93 eP 44 11.29 -2.3
 KTH 2.92 333 eP 44 18.25 -0.6
 32 obs. associated

& APR 28, 1990 05h 45m 04.20s
 37.870 N 122.018 W
 DEPTH = 7.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 3.4 (BRK).
 Mo=9.2*10**14 Nm (BRK). Felt at
 Alama, Danville and Walnut
 Creek.

BKS 0.17 272 iPc 45 07.60 -0.3
 BRK 0.19 271 iPc 45 08.10 -0.1
 ZSP 0.20 292 iPc 45 08.50 0.1
 PCC 0.47 218 iPd 45 12.90 -0.7
 MHC 0.61 150 iPc 45 16.00 -0.4
 ARN 0.65 143 iPd 45 16.60 -0.6
 GCC 0.84 179 iPd 45 19.70 -1.0
 NWRM 0.90 311 eP 45 20.70 -1.0
 SAO 1.19 157 iPc 45 24.60 -2.1
 CMB 1.30 82 iPc 45 26.70 -1.9
 LLA 1.52 145 iPd 45 29.50 -2.3
 PRS 1.62 161 iPd 45 31.40 -1.9

ORV 1.73 13 ePd 45 32.70 -2.2
 FRI 2.04 115 iPc 45 37.30 -2.0
 PRI 2.04 147 e(P) 45 37.80 -1.6
 MIN 2.49 7 e(P) 45 44.40 -1.6
 WDC 2.74 352 ePc 45 45.80 -3.5
 BCH 3.10 149 eP 45 51.70 -2.8
 KVN 3.29 68 eP 45 55.50 -1.9
 TNP 3.80 85 eP 46 03.00 -1.6

20 obs. associated

* APR 28, 1990 06h 33m 44.51±1.84s
 36.922 N ±11.9km 71.300 E ±10.6km
 DEPTH = 45.8 ± 18.9 km
 4.7mb (14 obs.)

AFGHANISTAN-USSR BORDER REGION (717)
 Felt (III) at Khorog, USSR.

MAIO 9.51 270 eP 36 00.00 -1.9
 0.6s 8.42nm 5.0mb
 eS 37 36.00
 NDI 9.60 147 eP 36 05.50 2.4
 0.6s 16.67nm 5.3mb
 eS 37 45.50
 GKN 14.34 125 P 37 05.60 -1.0
 DMN 14.91 125 P 37 14.00 -0.1
 0.4s 20.00nm 4.8mb
 PKI 15.13 124 P 37 16.60 -0.5
 0.6s 24.00nm 4.6mb
 GUN 15.23 122 P 37 17.10 -1.3
 POO 18.46 172 eP 38 03.00 4.3X
 1s 41 19.00
 HYB 20.46 160 eP 38 22.50 1.6
 GBA 23.86 165 Pd 38 56.30 1.7
 0.6s 5.00nm 4.2mb
 KOD 27.15 167 eP 39 26.50 0.7
 NUR 37.63 324 iP 40 57.00 0.7
 SUF 37.69 328 iP 40 58.40 1.6
 0.6s 3.40nm 4.4mb
 SOD 39.46 335 eP 41 13.00 1.5
 KEV 40.50 338 eP 41 15.00 -5.1X
 HFS 42.88 322 eP 41 39.30 -0.4
 0.5s 4.00nm 4.4mb
 NB2 44.19 323 P 41 50.20 -0.2
 0.5s 3.50nm 4.4mb
 BCAA 58.03 249 ePd 43 34.20 -1.2
 0.7s 5.00nm 4.7mb
 id 44 55.40
 MBC 66.91 3 eP 44 34.00 0.5
 0.5s 6.00nm 4.9mb
 INK 73.45 9 eP 45 14.00 0.7
 YKA 80.81 3 eP 45 53.90 -0.4
 0.6s 4.10nm 4.6mb
 WB5 81.99 122 eP 45 59.80 -1.3
 WRA 82.01 122 Pc 45 59.80 -1.4
 0.5s 2.10nm 4.4mb
 ASPA 84.30 125 eP 46 11.00 -1.9
 0.6s 12.00nm 5.2mb
 FFC 88.54 356 iPc 46 33.60 0.4
 0.7s 7.00nm 5.1mb
 S.D. = 1.4 on 22 of 24 obs.

* APR 28, 1990 07h 34m 40.28±0.99s
 10.369 S ±11.2km 116.422 E ±20.4km
 DEPTH = 33.0km (normal)

SOUTH OF SUMBAWA ISLAND (291)

KHKI 2.15 338 iPd 35 14.20 -0.3
 1s 35 39.80
 e 39 14.00
 MBL 11.22 163 eP 37 20.20 -1.3
 1s 39 19.00
 eS 39 44.00
 NANU 12.15 184 eP 37 35.00 0.9
 eS 39 44.00
 WARB 18.46 150 eP 38 58.00 2.6X
 eS 42 10.00
 MRWA 18.76 181 eP 39 02.10 3.1X
 eS 42 14.00
 WB5 19.72 121 eP 39 10.00 -0.2
 DZM 49.22 110 iPc 43 28.80 0.9
 S.D. = 1.3 on 5 of 7 obs.

? APR 28, 1990 08h 35m 54.81±8.41s
 0.695 S ±11.4km 77.646 W ±64.4km
 DEPTH = 10.0km (geophysicist)

ECUADOR (107)

GECU 0.66 305 iPd 36 07.80 -0.6

VC1 0.76 274 iPd 36 09.80 -0.2
 1s 36 19.50
 QTO 1.01 299 iPd 36 14.60 0.4
 QUR 1.02 300 iPd 36 14.80 0.3
 1s 36 28.00
 TUNG 1.07 228 iP 36 15.30 0.0
 1s 36 29.50

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

APR 28, 1990 08h 52m 47.08±0.41s
 39.844 N ±7.8km 29.832 W ±5.6km
 DEPTH = 10.0km (geophysicist)

4.5mb (12 obs.)

AZORES ISLANDS (405)

CALA 1.54 145 iPc 53 13.90 -0.7
 eS 53 32.30
 PICO 1.73 140 iPd 53 16.10 -1.3
 1s 53 36.10
 EPF 22.78 72 eP 57 52.10 1.3
 LDF 22.90 58 eP 57 56.90 5.0X
 1.0s 8.00nm 4.2mb
 LSF 23.69 64 eP 58 00.30 0.7
 1.2s 17.85nm 4.5mb
 CAF 24.01 67 eP 58 02.80 0.1
 TCF 24.17 64 eP 58 04.80 0.6
 MAF 24.41 64 eP 58 06.70 0.1
 1.0s 8.00nm 4.3mb
 BGF 24.63 63 eP 58 08.80 0.2
 1.0s 17.00nm 4.7mb
 SSF 25.11 62 eP 58 13.60 0.3
 1.2s 14.90nm 4.6mb
 SMF 25.32 63 eP 58 14.10 -1.1
 LOR 25.37 62 eP 58 16.60 0.8
 1.2s 8.95nm 4.3mb
 LBF 25.43 63 eP 58 17.00 0.6
 SUF 40.11 36 iP 00 24.30 0.2
 0.6s 3.80nm 4.2mb
 SOD 41.15 29 eP 00 33.00 0.5
 KEV 41.86 26 eP 00 36.00 -2.3
 FFC 48.95 313 eP 01 36.00 0.9
 0.8s 7.00nm 4.7mb
 MBC 51.60 342 eP 01 54.00 -1.1
 1.3s 10.00nm 4.6mb
 YKA 53.29 325 eP 02 06.50 -1.4
 1.3s 1.80nm 3.9mb
 EDM 55.79 314 ePc 02 26.00 -0.4
 BW06 57.79 301 P 02 40.00 -1.0
 ANMO 59.32 292 P 02 53.00 1.3
 NEW 60.06 310 P 02 56.60 0.2
 1.0s 7.50nm 4.8mb
 TNP 65.19 300 P 03 31.00 0.1
 1.0s 6.67nm 4.8mb
 KVN 65.26 301 P 03 31.00 -0.3
 IMA 65.94 338 P 03 34.70 -0.5
 GLA 66.25 294 P 03 38.50 1.0
 ZOBO 66.25 221 P 03 40.00 1.8
 Z 24s 0.05um 3.6mszx
 LR 25 06.00
 PMR 67.65 333 P 03 45.50 -0.4
 S.D. = 1.0 on 28 of 29 obs.

APR 28, 1990 09h 11m 44.72±0.39s
 39.818 N ±8.1km 29.837 W ±5.5km
 DEPTH = 10.0km (geophysicist)

4.5mb (14 obs.)

AZORES ISLANDS (405)

CALA 1.52 144 iPc 12 10.90 -1.1
 eS 12 28.70
 PICO 1.71 140 iPc 12 13.40 -1.4
 1s 12 33.00
 LPF 22.21 59 eP 16 45.60 3.0X
 MFF 22.59 63 eP 16 51.00 4.5X
 0.9s 9.85nm 4.3mb
 FLN 22.72 57 eP 16 48.70 1.0
 LFF 23.08 67 eP 16 53.40 2.1
 LSF 23.71 64 eP 16 57.40 0.0
 CAF 24.02 67 eP 17 00.00 -0.5
 0.8s 5.35nm 4.2mb
 TCF 24.18 64 eP 17 02.20 0.2
 1.2s 13.40nm 4.4mb
 MAF 24.43 64 eP 17 04.60 0.2
 0.9s 9.85nm 4.4mb
 BGF 24.64 63 eP 17 06.20 -0.2
 0.9s 17.20nm 4.7mb

SSF 25.13 62 eP 17 11.20 0.1
 1.2s 14.90nm 4.6mb
 SMF 25.33 63 eP 17 10.80 -2.2
 0.9s 6.55nm 4.3mb
 ZST 34.32 60 eP 18 33.10 -0.2
 e 48 27.60
 TIC 39.85 139 P 19 21.60 1.5
 SUF 40.13 36 iP 19 23.30 1.4
 0.7s 8.40nm 4.5mb
 FFC 48.96 313 ePd 20 33.50 0.7
 1.1s 13.00nm 4.9mb
 TUL 51.16 288 eP 20 50.10 0.2
 1.2s 5.90nm 4.4mb
 MBC 51.63 342 eP 20 53.00 0.1
 1.5s 16.00nm 4.7mb
 YKA 53.31 325 eP 21 04.00 -1.7
 1.1s 1.40nm 3.8mb
 EDM 55.81 314 eP 21 23.50 -0.6
 GOL 56.34 296 P 21 28.00 -0.4
 BW06 57.80 301 P 21 37.50 -1.2
 LRM 58.32 305 eP 21 41.90 -0.4
 DAU 60.03 299 P 21 54.50 0.2
 NEW 60.07 310 P 21 54.30 0.1
 1.0s 9.38nm 4.9mb
 TNP 65.20 300 P 22 28.50 -0.1
 1.0s 7.29nm 4.8mb
 KVN 65.27 301 P 22 28.50 -0.5
 IMA 65.96 338 P 22 31.70 -1.3
 ZOBO 66.23 221 P 22 38.00 2.3
 LR 44 24.00
 GLA 66.25 294 P 22 36.50 1.3
 CMB 67.32 301 eP 22 42.60 0.6
 PMR 67.67 333 P 22 43.50 -0.1
 S.D. = 1.1 on 31 of 33 obs.

* APR 28, 1990 09h 44m 48.02±0.66s
 5.547 S ±8.4km 79.405 W ±18.0km
 DEPTH = 33.0km (normal)

4.8mb (5 obs.)

NORTHERN PERU (111)

TUNG 4.21 13 P 45 53.20 1.3
 VC1 4.98 12 eP 46 02.50 -0.5
 QTO 5.38 9 eP 46 09.50 1.0
 NNA 6.88 159 iPd 46 31.30 2.0
 0.6s 46.67nm 5.6mb
 eS 47 44.00
 PT10 6.92 160 e(P) 46 38.00 8.2X
 e(S) 48 06.00
 PT08 6.97 156 iPc 46 29.40 -1.4
 1s 47 44.00
 ZOBO 15.36 135 P 48 25.00 0.3
 Z 18s 0.43um
 LR 53 46.00
 LPB 15.56 135 P 48 28.00 0.9
 SIV 20.76 121 P 49 26.00 -2.9
 TUL 44.01 341 eP 52 54.30 0.0
 1.0s 10.00nm 4.6mb
 EDM 65.18 338 eP 55 26.50 -1.6
 YKA 72.99 344 eP 56 14.00 -2.0
 0.8s 1.30nm 4.0mb
 INK 82.66 342 eP 57 09.00 -0.2
 SPA 84.49 180 eP 57 19.80 1.0
 1.1s 10.71nm 4.9mb
 MBC 84.87 351 eP 57 20.50 0.3
 0.6s 4.00nm 4.8mb
 WRA 138.25 232 PKPd 04 12.30 -0.4
 0.7s 1.30nm
 MTN 144.58 239 iPKPd 04 23.50 -0.4
 i 04 29.00
 SSE 148.07 325 PKPd 04 31.50 2.3
 0.8s 8.00nm
 pP 04 38.50
 S.D. = 1.5 on 17 of 18 obs.

& APR 28, 1990 11h 41m 20.06s
 59.037 N 152.325 W
 DEPTH = 67.7km

SOUTHERN ALASKA (2)

<AGS-P>.

XLV 0.52 36 iP 41 32.43 -0.6
 eS 41 42.24
 AUE 0.63 301 iP 41 33.61 -0.6
 AUL 0.67 302 iP 41 33.93 -0.7
 CDD 0.69 262 iP 41 33.94 -1.0
 eS 41 45.08

28d 11h

CNPM	0.74	48	iP	41 35.03	-0.5	PPN	1.6s	305.00nm	5.8mb	GSC	84.13	46	eP	54 56.00	0.7	
			eS	41 46.93			27.83	78 eP	48 13.00	-1.3	MIN	84.39	40	eP	54 59.20	2.7
NNL	1.14	27	iP	41 40.65	0.2		1.6s	205.00nm	5.6mb	KVN	85.63	43	P	55 00.00	-2.8X	
KDC	1.30	184	eP	41 41.69	-0.9	TVO	27.89	79 eP	48 14.00	-1.0	KDC	86.24	13	e(P)	55 03.10	-2.0
RED	1.40	351	iP	41 43.21	-0.9		1.6s	205.00nm	5.6mb				e	55 08.40	17km	
			eS	42 00.89		CNB	29.39	244 P	48 29.00	0.6	III	88.15	69	(P)	55 18.50	3.0X
RDT	1.54	359	iP	41 45.03	-1.0	CAN	29.69	244 eP	48 31.80	0.8	LNV	88.30	127	eP	55 17.00	1.2
NKA	1.80	17	eP	41 50.27	0.9	RMO	29.74	262 iPd	48 32.90	1.3	IIJ	88.57	67	(P)	55 20.50	2.6
SEW	1.81	53	eP	41 48.16	-1.5			e	48 38.00	18km	NNT	88.65	285	eP	55 17.00	-0.7
SLKM	1.82	35	iP	41 48.63	-1.2	BWA	30.04	246 iPd	48 33.30	-0.9	PGC	88.97	33	eP	55 22.00	3.5X
			iS	42 10.81				e	51 34.70		SAN	89.09	127	eP	55 21.50	1.8
SPU	2.16	3	iP	41 53.68	-0.8	PMO	30.22	74 iP	48 35.20	-0.6	LOE	89.13	290	eP	55 22.00	2.1
			eS	42 19.69			1.6s	90.00nm	5.4mb	PPM	89.18	68	(P)	55 24.00	3.2X	
CRP	2.24	2	iP	41 55.27	-0.5	VAH	30.35	75 iP	48 36.10	-0.8	PEL	89.23	127	iPd	55 22.00	1.6
CGLM	2.28	4	eP	41 55.71	-0.6		1.6s	150.00nm	5.6mb		1.0s	26.00nm			5.5mb	
NCG	2.38	2	eP	41 56.92	-0.7	TPT	30.47	75 iP	48 37.60	-0.4	NST	89.70	288	eP	55 27.30	4.7X
SUA	2.56	17	eP	41 59.16	-1.0		1.6s	65.00nm	5.2mb	BJI	89.86	316	eP	55 25.00	2.1	
PMS	2.61	31	iP	41 59.71	-1.1	RUV	30.58	75 iP	48 38.50	-0.5		1.5s	31.00nm		5.3mb	
SVW	2.65	323	eP	41 59.36	-2.1		1.6s	140.00nm	5.6mb	Z	36s	2.10um		eSKS	05 56.00	5.3MsZ
PWA	2.89	24	eP	42 03.09	-1.6	TOO	32.84	241 eP	49 00.60	1.9				eS	06 24.00	
SKT	2.98	7	eP	42 04.63	-1.3	CTA	33.33	273 iPc	49 03.50	0.4				eSS	12 28.00	
PLRM	3.02	30	iP	42 04.66	-1.7		1.6s	250.00nm	5.9mb							
MID	3.10	80	eP	42 06.59	-1.0			i	49 08.50	17km	PMR	90.46	13	e(P)	55 23.80	-1.4
GLI	3.21	53	eP	42 06.47	-2.8			e(PP)	50 18.00			1.7s	203.70nm		6.1mb	
GHO	3.22	30	eP	42 07.66	-1.7			eS	54 27.00					e	55 28.00	13km
SML	3.41	34	eP	42 10.07	-2.0			eSS	56 48.00		ANMO	90.92	51	P	55 25.50	-2.7
CUT	3.53	16	eP	42 12.31	-1.2			e	58 20.00			1.5s	114.58nm		6.0mb	
VZW	3.53	53	eP	42 11.36	-2.4			e	01 01.00		PNT	91.30	34	eP	55 27.00	-2.4
VLZ	3.66	52	eP	42 13.34	-2.1	PMG	36.93	290 eP	49 34.00	0.2	KMI	91.87	297	Pd	55 35.50	2.7X
NCA	4.02	40	eP	42 18.76	-1.8	ADE	38.06	246 iPc	49 43.50	0.3		1.2s	0.05nm		2.8mb X	
KLU	4.03	50	eP	42 18.62	-2.1	QIS	39.17	269 iPd	49 52.80	0.1	Z	20s	1.20um		5.3MsZ	
TOA	4.32	42	eP	42 23.31	-1.5			e	49 57.00	14km				pP	56 22.00	186kmX
KTH	4.58	8	eP	42 27.38	-1.1	ASPA	43.49	262 iPd	50 27.90	-0.2				S	06 16.00	
RND	4.69	19	eP	42 28.08	-2.0		1.3s	179.00nm	5.7mb		CHG	92.12	290	eP	55 36.00	2.2
GLB	4.88	57	eP	42 30.03	-2.6	Z	16s	0.32um	4.3MsZ		CHTO	92.12	290	eP	55 36.00	2.2
MCK	4.99	18	eP	42 32.88	-1.2			iS	56 59.50			1.1s	17.67nm		5.4mb	
PAX	5.17	37	eP	42 34.37	-2.3	WB5	44.08	268 eP	50 32.20	-0.6	LRM	93.03	40	eP	55 36.80	-0.9
37 obs. associated								i	50 38.20	20km	BW06	93.05	43	P	55 34.00	-3.9X
APR 28, 1990 11h 42m 23.83±0.27s						WRA	44.08	268 Pc	50 32.70	-0.2	FBA	93.70	12	P	55 40.00	-0.1
26.113 S ± 9.2km 178.021 W ± 5.8km							0.8s	14.40nm	4.9mb		IMA	93.76	10	e(P)	55 40.30	-0.2
DEPTH = 17.4km (7 depth phases)						FORR	47.22	251 eP	50 55.00	-2.7		1.7s	39.40nm		5.5mb	
5.6mb (26 obs.) 5.4MsZ (6 obs.)						WARB	49.34	257 eP	51 12.20	-2.1	GOL	94.11	48	P	55 40.00	-2.8
SOUTH OF FIJI ISLANDS (171)						GUA	53.42	313 eP	51 43.60	-1.5	GLD	94.23	48	P	55 40.00	-3.3X
Ms 5.2 (BRK).							0.9s	121.01nm	5.9mb			1.5s	156.25nm		6.2mb	
CENTROID, MOMENT TENSOR (HRV)						GUMO	53.49	313 eP	51 44.00	-1.6	NNA	94.60	106	iP	55 31.50	-13.9X
Data Used: GDSN								eS	59 53.00			1.2s	31.25nm			
L.P.B.: 16S, 35C						NANU	60.06	258 iPc	52 30.50	-1.9	LZH	96.14	307	eP	56 03.00	-10.9X
Centroid Location:						SPA	64.04	180 iPc	52 55.00	-3.7X	Z	24s	2.80um		5.7MsZ	
Origin Time 11:42:32.0 0.6							1.2s	14.79nm	5.0mb				eS	07 10.00		
Lat 25.93S 0.06 Lon 178.09W 0.04						KKM	71.26	287 eP	53 50.50	5.9X			PS	08 32.00		
Dep 15.0 FIX Half-duration 2.2						MAT	74.73	325 (P)	54 00.00	-4.5X			eSS	13 00.00		
Moment Tensor: Scale 10 ¹⁷ Nm						Z	20s	1.77um	5.4MsZ		SES	96.39	36	eP	55 55.00	2.2
Mrr=-0.60 0.09 Mlt=-0.75 0.12								eS	03 44.00		MEQ	96.48	55	eP	55 50.50	-3.0X
Mff=1.35 0.13 Mrt=0.52 0.28						ADK	77.67	1 eP	54 20.00	-0.5	EDM	96.80	33	eP	55 52.00	-2.5X
Mrf=-0.29 0.35 Mtf=3.26 0.09						SYF	81.61	45 eP	54 45.00	2.6X	RSSD	97.18	44	P	55 51.50	-5.2X
Principal Axes:						PRS	81.90	43 eP	54 47.00	3.3X	TUL	99.03	55	eP	56 07.50	2.6X
T Val= 3.73 Plg= 1 Azm=306						BCH	81.96	45 P	54 45.50	1.3		1.5s	13.50nm		5.3mb	
N -0.47 77 41						GCC	81.98	42 eP	54 47.40	3.4X	INK	99.67	15	eP	56 08.00	0.9
P -3.25 13 216						PRI	82.21	43 eP	54 48.80	3.3X	LPB	99.79	114	P	56 13.00	3.6X
Best Double Couple:Ma=3.5*10 ¹⁷						BRK	82.37	41 eP	54 49.10	3.0X			LR	29 07.00		
NP1:Strike=352 Dip=80 Slip=-172						BKS	82.39	41 ePd	54 49.50	3.3X	ZOBO	99.90	114	P	56 13.00	2.8X
NP2: 260 82 -10							1.5s	152.00nm	5.9mb			1.1s	6.38nm		5.1mb	
						Z	20s	1.10um	5.2MsZ				SKS	06 44.00		
						N	20s	0.90um					LR	29 02.00		
						E	20s	0.70um			YKA	101.59	25	ePd	56 17.10	1.2
								eS	05 02.00			0.6s	0.60nm		4.4mb X	
								ePPS	05 50.00		FRB	121.69	30	ePKP	01 13.00	-4.5
								eSS	10 18.00		SCH	123.06	40	ePKP	01 22.00	1.6
								e	16 30.00		QUE	123.26	290	ePKP	01 20.00	-1.8
								eLR	19 30.00		MAIO	130.40	297	ePKP	01 39.00	3.7X
RAO	3.13	178	eP	43 09.00	-4.3X						PTZ	130.75	219	iPKP	01 34.10	-2.4
SVA	8.60	337	eP	44 31.00	0.6	MHC	82.39	42 eP	54 49.70	3.3X	KMZ	134.33	213	ePKP	01 46.00	2.7X
			eS	47 07.20		BAR	82.63	48 eP	54 51.00	3.4X	SOD	136.04	347	ePKP	01 31.00	-13.9X
VUN	8.70	337	eP	44 31.30	-0.5	MWC	82.66	46 eP	54 50.00	2.1	SLY	141.72	295	ePKPd	01 44.00	-12.3X
DZM	14.75	283	iPc	45 56.30	2.9X	PLM	82.91	48 eP	54 49.00	-0.2	NUR	142.27	342	ePKP	01 52.00	-4.4X
PVC	15.16	301	iPc	46 07.50	8.7X	RVR	82.96	47 eP	54 51.00	1.8		0.7s	13.30nm			
SNZO	16.31	200	eP	46 12.00	-1.5	PEC	83.04	47 P	54 50.00	0.3				i	01 58.20	
RAR	17.41	78	P	46 31.00	3.5X	SBB	83.09	46 eP	54 47.00	-3.0X	BHD	142.67	291	ePKPd	01 45.00	-13.0X
			S	49 23.00		ISA	83.28	45 eP	54 53.00	2.0	NB2	144.52	352	PKP	01 55.00	-4.7X
TBI	26.07	90	eP	48 00.00	1.9	FRI	83.35	43 eP	54 54.10	3.0X		1.0s	101.40nm			
	1.6s	430.00nm				CMB	83.60	42 P	54 50.00	-2.5X	UPP	144.57	346	iPKP	01 54.50	-5.8X
BRS	26.09	261	iP	48 00.80	2.4X		1.5s	115.47nm	5.9mb					i	01 58.10	
			e	48 07.40	23km									i	02 02.50	
			i	48 31.50							HFS	145.04	350	ePKP	01 56.30	-4.9X
			eS	52 36.00								0.8s	44.30nm			
HNR	26.67	304	e(P)	48 04.00	0.2						Z	20s	0.77um		5.5MsZ	
COO	26.81	253	eP	48 08.00	3.0X	CMB	83.60	42 eP	54 55.30	2.8X				LR	53 58.00	
AFR	27.53	78														

28d 12h

KAS	149.70	308	iPKPc	02	13.20	3.8X	SMF	159.46	356	ePKP	02	22.00	-0.2	LSD	0.50	109	P	12	34.53	0.1	
HRI	149.91	292	iPKP	02	16.30	6.3X		1.7s	29.40nm						S			12	40.58		
BURJ	149.92	290	PKPc	02	15.90	5.9X	MFF	159.48	4	ePKP	02	22.30	0.1	RSP	0.73	131	P	12	38.51	0.0	
SALJ	150.04	289	PKPc	02	16.00	5.8X		1.7s	58.80nm						S			12	47.35		
KFNJ	150.05	289	PKPd	02	15.90	5.9X	TIC	159.52	160	PKP	02	24.28	1.1	RRL	0.74	163	P	12	39.24	0.4	
DSI	150.31	288	ePKP	02	14.00	3.6X	VAI	159.55	346	PKPc	02	24.80	2.6X			S		12	48.51		
MBH	150.76	285	ePKP	02	13.50	2.3	BGF	159.58	358	ePKP	02	22.20	-0.1	DOI	1.25	154	P	12	47.00	-0.4	
BBTK	150.93	306	ePKP	02	12.00	0.7		1.7s	73.50nm					STV	1.51	156	P	12	50.94	-0.4	
DCN	151.94	12	ePKP	02	15.00	2.8X	TCF	159.87	360	ePKP	02	22.80	0.1	ENR	1.55	154	P	12	52.10	0.2	
TLB	152.06	318	ePKP	02	30.00	17.4X		1.6s	43.55nm					S.D. = 0.4 on 6 of 6 obs.							
VRI	152.09	321	ePKP	02	31.00	18.3X	LSF	159.90	1	ePKP	02	22.40	-0.3	% APR 28, 1990 15h 10m 41.43± 0.69s							
KRA	152.37	335	ePKP	02	14.00	1.1		1.6s	24.90nm					40.597 N ± 6.6km 15.599 E ± 5.7km							
			e	02	16.30		MAF	159.93	359	ePKP	02	23.00	0.3	DEPTH = 10.0km (geophysicist)							
			e	02	19.80			1.7s	36.75nm					SOUTHERN ITALY (390)							
KSP	152.98	340	ePKPc	02	17.70	3.9X	LPG	160.28	350	ePKP	02	24.20	0.7	SGO	0.22	260	Pc	10	45.40	-0.8	
	1.3s	92.00nm						1.7s	36.75nm						eSg			10	49.50		
YLV	153.09	309	ePKP	02	22.00	7.6X	ARV	160.49	336	PKP	02	25.00	1.6	MGR	0.46	184	Pc	10	49.30	-1.5	
BCAO	153.24	219	iPKPc	02	13.00	-2.3	SFI	160.51	338	PKP	02	26.00	2.7X			eSg			10	54.00	
	0.8s	18.00nm					PGD	160.59	338	PKP	02	30.00	6.4X	BSS	0.63	288	P	10	55.50	1.4	
			ic	02	18.90		BNI	160.73	350	PKP	02	27.90	4.2X	MMN	0.77	157	P	10	55.60	-0.8	
			ic	03	45.10		BDI	160.77	341	PKP	02	27.00	3.3X	ORI	0.84	129	P	10	57.70	0.0	
CLL	153.47	344	iPKPc	02	18.00	3.6X	FIR	160.83	339	ePKP	02	27.00	3.4X	CSI	0.98	147	P	11	01.90	1.9	
	1.8s	96.00nm					RJF	160.85	1	ePKP	02	23.40	-0.2	BAI	1.09	61	P	11	00.50	-1.5	
			i	02	27.00		LFF	161.19	3	ePKP	02	24.40	0.4	TDS	1.10	149	P	11	03.00	1.0	
WTS	153.89	353	ePKP	02	19.00	4.0X	CAF	161.23	360	ePKP	02	24.40	0.3	BRT	1.25	77	P	11	05.00	0.3	
	1.5s	137.00nm						1.7s	44.10nm						eSn			11	21.70		
PRU	154.26	341	ePKP	02	18.50	2.9X	LPO	161.46	2	ePKP	02	24.70	0.4	ROI	1.27	144	P	11	08.60	3.6X	
	Z 21s	1.50um			5.8msz			1.7s	72.05nm					CZI	1.44	163	P	11	07.40	-0.1	
	N 20s	0.90um					MNS	161.54	334	PKP	02	27.00	2.5X	SDI	1.74	310	P	11	12.00	0.0	
	E 21s	0.70um					SDI	161.63	331	PKP	02	27.00	2.4	S.D. = 1.2 on 11 of 12 obs.							
			e	02	28.50		SBF	161.74	347	ePKP	02	24.40	-0.3	APR 28, 1990 15h 18m 39.27± 7.87s							
MOX	154.41	346	ePKP	02	19.00	3.2X	TDS	161.93	322	PKPc	02	28.40	3.5X	12.283 N ±15.4km 60.197 W ±88.7km							
			e	02	43.00		LKO	162.03	155	PKP	02	25.68	-0.1	DEPTH = 10.0km (geophysicist)							
BUD	154.78	332	e(PKP)	02	11.00	-5.3X	EPF	163.07	4	ePKP	02	26.50	0.5	WINDWARD ISLANDS (95)							
SRO	154.81	334	ePKP	02	20.00	3.7X		1.7s	44.10nm					FCV	1.34	310	eP	19	04.11	0.1	
ZST	154.97	336	ePKP	02	18.50	2.0	S.D. = 1.5 on 103 of 188 obs.								eS			19	21.47		
BZS	154.98	326	ePKP	02	12.50	-4.1	APR 28, 1990 11h 51m 03.35± 0.87s							SVB	1.42	314	eP	19	04.47	-0.7	
VKA	155.19	337	ePKP	02	15.00	-1.9	35.136 N ±12.5km 47.715 E ± 7.9km								eS			19	25.24		
ENN	155.20	354	ePKP	02	21.00	4.3X	DEPTH = 33.0km (normal)							SVV	1.43	316	eP	19	05.85	0.6	
	1.8s	59.00nm					WESTERN IRAN (347)								eS			19	25.30		
			e	02	28.00		KER	0.93	213	eP	51	21.00	0.8	TRN	2.01	216	eP	19	13.62	0.0	
			e	02	41.00		SLY	1.87	285	eP	51	32.00	-1.5	TCE	2.19	224	eP	18	59.63	-16.7X	
			e	06	24.00				eS	51	59.50		S.D. = 0.9 on 4 of 5 obs.								
KHC	155.31	342	ePKP	02	15.50	-1.6	IR5	2.35	87	eP	51	40.00	-0.6	APR 28, 1990 16h 50m 48.77± 2.90s							
	Z 20s	0.90um			5.6msz		IR7	2.43	76	eP	51	41.00	-0.7	44.347 N ±18.6km 6.976 E ±22.9km							
	N 20s	0.60um					IR4	2.61	87	eP	51	45.00	0.7	DEPTH = 10.3 ± 8.0 km							
	E 20s	0.50um					IR2	2.65	78	eP	51	46.50	1.7X	FRANCE (538)							
			e	02	46.20		TAB	3.13	340	eP	51	53.00	1.3	ML 2.5 (GEN.)							
MEM	155.35	354	PKP	02	21.50	4.6X	S.D. = 1.4 on 6 of 7 obs.							STV	0.27	112	P	50	54.51	0.0	
			e	02	31.30		APR 28, 1990 13h 10m 44.36± 1.35s								S			50	57.79		
WET	155.49	343	iPKPc	02	21.00	3.7X	2.960 S ±14.8km 129.867 E ±16.7km							ENR	0.34	110	P	50	55.84	0.0	
SOP	155.60	336	ePKP	02	19.70	2.3	DEPTH = 33.0km (normal)								S			50	59.74		
DOU	155.97	356	PKP	02	22.80	4.9X	4.5mb (3 obs.)							RRL	0.59	347	P	51	00.87	0.0	
			e	02	32.50		CERAM (272)								S			51	08.30		
BHG	156.78	341	ePKP	02	22.40	3.3X	AAI	1.82	247	eP	11	15.90	2.0	ROB	0.64	94	P	51	01.79	0.1	
FLN	157.31	4	ePKP	02	19.20	-0.4	MTN	9.90	173	eP	13	07.00	-0.5			S			51	09.69	
	1.7s	66.15nm							eS	14	57.00		RSP	0.83	14	P	51	04.46	-0.4		
CDF	157.36	351	ePKP	02	19.50	-0.4	PCI	10.23	281	ePd	13	09.50	-2.5			S			51	15.12	
LDF	157.50	4	ePKP	02	19.70	-0.2	KNA	12.75	185	eP	13	45.00	-1.2	FIN	0.90	98	P	51	05.79	-0.2	
	1.7s	58.80nm							eS	16	05.00				S			51	16.97		
GRR	157.65	5	ePKP	02	20.30	0.2	WB5	17.38	166	eP	14	45.20	-0.9	LSD	1.12	7	P	51	10.20	0.3	
	1.7s	58.80nm							eS	17	51.10				S			51	23.73		
RBL	157.71	339	PKPc	02	27.00	6.7X	WRA	17.44	166	P	14	47.00	0.2	PCP	1.14	80	P	51	10.30	0.2	
LJU	157.73	336	e(PKP)	02	20.50	0.3		0.3s	2.50nm			3.8mb				S			51	23.84	
FVI	157.83	340	PKP	02	24.00	3.7X	QIS	19.90	152	eP	15	16.60	0.4	S.D. = 0.3 on 8 of 8 obs.							
HAU	157.88	352	ePKP	02	20.00	-0.4	ASPA	20.95	170	iPd	15	27.50	0.4	APR 28, 1990 17h 41m 29.77± 0.66s							
	1.7s	29.40nm						0.8s	75.00nm			5.1mb		31.548 S ± 6.9km 68.087 W ± 6.7km							
VBY	157.91	335	e(PKP)	02	24.60	4.1X	Z	16s	0.14um			3.4mszX		DEPTH = 9.1 ± 4.4 km							
VOY	157.96	337	ePKP	02	19.80	-0.8			iS	19	17.70		SAN JUAN PROVINCE, ARGENTINA (137)								
			e	02	24.00		WARB	23.30	187	eP	15	51.50	1.2	CFA	0.14	246	iP	41	33.10	0.0	
CEY	158.02	336	e(PKP)	02	24.30	3.7X	CHG	37.34	307	eP	17	56.50	0.7			eS			42	13.00	
CTI	158.66	341	PKP	02	24.00	2.6X	CHTO	37.34	307	iP	17	56.10	0.3	RTLL	0.39	304	iPd	41	38.90	1.1	
LOR	158.83	356	ePKP	02	21.60	0.1		0.8s	5.86nm			4.5mb		RTCV	0.49	231	iPd	41	36.30	-3.5X	
	1.6s	46.65nm					SUF	98.90	333	iP	24	39.50	17.2X	ZON	0.50	270	iPd	41	39.00	-1.0	
SSF	159.06	357	ePKP	02	21.70	0.0	S.D. = 1.4 on 11 of 12 obs.							RTCB	0.61	276	iPd	41	41.20	-0.9	
	1.6s	43.55nm					APR 28, 1990 13h 12m 24.14± 9.05s							RTBSBS							

28d 17h

PEL	2.71	233	iPd	42 15.10	0.7
			iS	42 49.50	
ROCH	2.86	239	ePd	42 17.50	1.0
			iS	42 55.00	
SAN	2.89	228	iP	42 17.90	1.1
			iS	42 53.50	
PCH	2.91	224	iPd	42 17.60	0.4
			iS	42 55.50	
TACH	3.19	228	eP	42 21.00	-0.1
			iS	43 03.00	
CHCH	3.21	222	iPc	42 22.30	0.9
			iS	43 05.00	
IHA	3.35	243	eP	42 22.70	-0.6
			iS	43 08.90	
LCCH	3.51	236	iPd	42 26.70	1.1
LNV	3.69	229	iPc	42 26.70	-1.4
			iS	43 11.00	
ZOBO	15.21	360	P	45 09.50	2.5
SIV	16.76	24	P	45 25.40	-0.9
BAO	24.22	54	eP	46 47.50	-0.5
LIC	70.82	70	P	52 48.50	-0.6
TIC	71.08	69	P	52 50.70	0.1
KIC	71.13	70	P	52 50.40	-0.6
LKO	72.36	67	P	52 57.84	-0.5
YKA	100.86	340	ePd	54 52.00	-27.9X
	0.9s		1.20nm		
S.D. = 1.1 on 22 of 25 obs.					

& APR 28, 1990 18h 17m 13.50s
 37.867 N 122.010 W
 DEPTH = 7.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.5 (BRK).
 Mo=8.6*10**13 Nm (BRK).

BKS	0.18	273	iPc	17 17.10	-0.2
BRK	0.20	272	iPc	17 17.50	-0.1
ZSP	0.21	292	iPc	17 17.90	0.0
			iS	17 21.80	
PCC	0.47	219	iPd	17 22.40	-0.6
MHC	0.60	151	ePc	17 25.30	-0.3
GCC	0.84	179	ePd	17 29.10	-0.8
SAO	1.19	158	eP	17 34.80	-1.2
CMB	1.30	82	ePc	17 35.80	-2.0
			eS	17 53.10	
LLA	1.51	145	e(P)	17 41.00	0.0
PRS	1.62	161	e(P)	17 42.10	-0.4
10 obs. associated					

* APR 28, 1990 19h 03m 11.72±1.00s
 40.614 N ± 9.7km 33.060 E ± 10.3km
 DEPTH = 10.0km (geophysicist)
 TURKEY (366)

BBTK	0.80	197	ePn	03 27.00	-0.4
			iS	03 41.00	
KAS	0.93	35	ePg	03 29.50	0.0
			iSg	03 45.00	
GPA	2.12	262	ePn	03 47.00	-0.8
HRT	2.59	276	ePn	03 54.70	0.3
ALT	2.75	237	ePn	03 58.00	1.2
YLV	2.81	270	ePn	03 57.20	-0.4
S.D. = 0.9 on 6 of 6 obs.					

APR 28, 1990 19h 29m 04.84±0.36s
 18.457 N ± 8.5km 72.901 W ± 4.1km
 DEPTH = 10.0km (geophysicist)
 4.7mb (8 obs.) 4.8Msz (2 obs.)
 HAITI REGION (87)

YHJ	3.46	261	P	30 00.49	0.6
STH	3.74	265	P	30 03.69	-0.2
			S	30 44.09	
PCJ	4.12	261	P	30 09.70	0.5
MGP	5.54	94	eP	30 30.10	0.7
PORP	5.97	93	iP	30 35.40	0.0
CPD	6.65	92	iP	30 46.10	1.0
MGH	10.34	98	eP	31 37.00	0.7
PAG	10.99	101	eP	31 44.00	-1.3
UYO	24.78	313	iPc	34 29.50	1.3
TUL	26.67	315	eP	34 46.50	0.7
	0.8s		15.40nm		4.7mb
	Z 18s		2.27um		4.8Msz
			LR	41 14.00	
MEO	28.02	311	iPd	34 58.40	0.2
ALO	33.98	306	eP	35 51.00	0.0
	1.3s		13.94nm		4.7mb

ZOBO	34.83	172	eP	36 05.00	4.2X
	Z 24s		0.99um		4.5MszX
			S	41 36.00	
			LR	46 16.00	
LPB	35.09	172	eP	36 20.00	19.1X
			LR	46 22.00	
SIV	36.16	160	P	36 24.20	14.7X
BAO	41.83	143	e(P)	36 56.00	-0.8
FFC	42.48	335	eP	37 01.00	-0.6
	1.1s		12.00nm		4.5mb
FRB	45.35	3	eP	37 25.00	0.3
CMB	45.60	305	eP	37 30.30	3.1X
EDM	46.70	328	ePc	37 35.30	-0.3
YKA	52.57	337	eP	38 18.70	-1.9
	1.0s		4.10nm		4.3mb
EPF	65.50	50	eP	39 56.10	5.4X
CAF	66.65	48	eP	39 57.80	-0.1
	1.4s		13.05nm		4.9mb
TCF	66.68	47	eP	40 02.60	4.5X
	1.3s		9.05nm		4.8mb
PMR	67.39	330	eP	40 02.00	-0.2
	1.1s		7.80nm		4.8mb
SSF	67.53	46	eP	40 07.70	4.2X
LOR	67.76	46	eP	40 05.10	0.2
SMF	67.79	46	eP	40 09.50	4.4X
LBF	67.86	46	eP	40 09.70	4.1X
IMA	69.55	335	eP	40 14.50	-1.3
LPG	69.90	47	eP	40 17.40	-1.1
	1.2s		7.45nm		4.7mb
KHC	74.00	43	P	40 43.60	1.1
	Z 20s		0.50um		4.8Msz
	E 20s		0.30um		
ZST	76.48	43	e(P)	40 57.60	1.0
KRA	77.86	41	eP	41 11.30	7.1X
MAW	123.46	161	iPd	44 34.90	-0.5
	0.9s		212.00nm		
ASPA	154.48	254	ePKP	49 19.40	20.2X
	0.8s		4.00nm		
	Z 16s		0.14um		4.9MszX
S.D. = 0.9 on 25 of 36 obs.					

? APR 28, 1990 20h 10m 50.97±4.45s
 17.417 N ± 25.5km 61.060 W ± 26.2km
 DEPTH = 10.0km (geophysicist)
 LEEWARD ISLANDS (92)
 ML 3.2 (FDF).

BPA	0.85	244	eP	11 07.01	-0.3
			eS	11 19.00	
SEG	1.09	203	eP	11 12.35	0.8
MGH	1.30	238	eP	11 14.80	-0.3
			S	11 32.40	
MGG	1.51	189	eP	11 17.50	-0.6
SKI	1.61	267	eP	11 19.84	0.4
			eS	11 40.44	
FDF	2.67	182	eP	11 18.90	-15.9X
			S	11 41.00	
S.D. = 0.8 on 5 of 6 obs.					

* APR 28, 1990 20h 20m 52.55±0.67s
 10.098 N ± 9.3km 122.237 E ± 10.9km
 DEPTH = 33.0km (normal)
 4.7mb (5 obs.) 3.8Msz (4 obs.)
 PANAY, PHILIPPINE ISLANDS (254)

PPR	3.47	265	iPd	21 45.00	-0.6
			iS	22 39.00	
DAV	4.45	132	eP	22 06.00	6.4X
TSM	7.15	216	iPc	22 38.20	0.7
SSE	20.92	357	eP	25 39.50	4.7X
	1.2s		69.00nm		4.9mb
	Z 20s		0.50um		3.9Msz
	E 14s		0.40um		
			S	29 30.00	
LOE	21.19	292	eP	25 36.00	-1.7
			eS	48 40.00	
SNG	21.57	264	eP	25 51.90	10.4X
GUMO	22.41	79	eP	25 32.00	-17.9X
	Z 21s		0.33um		3.7Msz
PJG	22.41	79	eP	25 31.50	-18.4X
GUA	22.45	79	eP	25 32.00	-18.3X
KMI	23.80	311	Pc	26 05.50	1.9
	2.0s		0.05nm		1.7mb X
	E 15s		0.60um		
			pP	26 14.50	32kmX
			S	30 29.00	
CHG	24.14	294	eP	26 07.20	0.4

CHTO	24.14	294	iP	26 07.00	0.3
	1.2s		32.99nm		4.7mb
BJI	30.30	351	eP	27 02.00	-1.1
	Z 20s		0.36um		4.0Msz
			eS	27 12.00	
LZH	30.79	330	eP	27 17.00	9.3X
	Z 16s		1.20um		4.6MszX
			eS	32 12.00	
WB5	32.09	158	eP	27 17.50	-1.5
WRA	32.14	158	P	27 20.00	0.5
	0.5s		1.40nm		4.1mb
ASPA	35.44	161	iPd	27 47.50	-0.5
	0.5s		7.00nm		4.8mb
	Z 18s		0.10um		3.6Msz
WARB	36.32	173	eP	27 56.10	0.8
GUN	38.47	303	P	28 13.60	-0.3
MAIO	62.16	306	eP	31 18.00	4.7X
INK	85.89	21	eP	33 31.00	0.9
MBC	86.73	12	eP	33 38.00	3.9X
	0.9s		3.00nm		4.5mb
S.D. = 1.1 on 13 of 22 obs.					

APR 28, 1990 20h 44m 48.50±0.45s
 33.128 N ± 7.1km 96.644 E ± 6.6km
 DEPTH = 10.0km (geophysicist)
 4.6mb (13 obs.)

QINGHAI PROVINCE, CHINA (325)

LZH	6.63	62	eP	46 27.50	-1.0
	Z 10s		1.30um		
			i	48 08.00	
			Lg	48 12.00	
			e	48 23.00	
SHL	8.60	210	iP	46 55.50	-0.6
			eS	48 31.50	
KMI	9.59	145	Pgd	47 10.00	0.2
			eSg	48 09.00	
GUN	10.64	244	P	47 23.80	-0.5
PKI	11.17	243	P	47 30.70	-0.9
	0.6s		19.00nm		5.6mb
DMN	11.38	244	P	47 33.40	-1.0
	0.5s		21.00nm		5.7mb X
GKN	11.54	247	P	47 34.70	-1.7
	0.6s		14.00nm		5.5mb
CHG	14.40	171	eP	48 16.30	1.8
CHTO	14.40	171	iP	48 16.30	1.8
	1.0s		7.50nm		4.3mb
BJI	17.12	61	eP	48 50.00	0.7
			eS	53 40.00	
SSE	20.88	89	P	49 33.00	-0.2
HYB	22.58	231	eP	49 52.00	1.6
GBA	26.16	227	Pc	50 24.70	0.0
	0.8s		5.50nm		4.3mb
SOD	52.23	333	eP	54 02.00	0.6
HFS	58.50	324	eP	54 47.50	0.6
	0.5s		1.80nm		4.4mb
	Z 17s		0.11um		4.0MszX
			LR	14 36.00	
NB2	59.49	326	P	54 53.40	-0.4
	0.7s		2.90nm		4.5mb
WB5	63.85	140	eP	55 21.70	-1.8
WRA	63.88	140	Pd	55 21.90	-1.8
	0.6s		1.70nm		4.4mb
LPL	67.19	310	eP	55 45.60	0.5
	0.6s		3.60nm		4.7mb
SBF	67.42	308	eP	55 47.80	1.4
	0.7s		3.30nm		4.6mb
SMF	68.53	312	eP	55 53.30	0.1
AVF	68.77	313	eP	55 56.00	1.4
	1.2s		5.95nm		4.7mb
TCF	69.70	313	eP	56 02.00	1.6
	1.2s		8.95nm		4.8mb
BCAO	77.63	267	ePc	56 50.60	3.5X
	0.4s		3.00nm		4.7mb
YKA	81.45	14	eP	57 04.30	-2.5
	0.8s		0.70nm		3.8mb
S.D. = 1.3 on 24 of 25 obs.					

? APR 28, 1990 20h 52m 36.92±1.60s
 51.32

IMA 19.88 32 eP 57 07.00 -1.0
 MBC 33.93 22 eP 59 19.00 0.5
 0.5s 2.00nm 4.3mb
 YKA 35.80 46 eP 59 32.90 -1.6
 0.5s 1.80nm 4.3mb
 FRB 53.45 31 eP 01 54.00 -1.4
 SUF 64.45 347 eP 03 11.00 -0.7
 NUR 66.78 347 iP 03 26.00 -0.6
 NB2 67.64 354 P 03 31.40 -0.7
 0.9s 4.00nm 4.5mb
 PKI 71.73 291 P 03 58.60 0.6
 0.6s 5.00nm 4.7mb
 GKN 71.86 292 P 03 58.80 0.2
 DMN 71.88 292 P 03 59.60 0.8
 KBA 81.32 351 iPc 04 52.00 0.8
 0.7s 9.80nm 4.9mb
 id 04 52.40

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

% APR 28, 1990 20h 58m 32.04 ± 1.21s
 46.644 N ± 17.4km 0.499 E ± 6.6km
 DEPTH = 10.0km (geophysicist)
 FRANCE (538)
 ML 2.2 (LDG).

MFF 0.45 265 Pg 58 40.90 -0.2
 Sg 58 46.70
 LSF 0.81 119 Pg 58 46.70 -1.1
 Sg 58 56.00
 TCF 1.23 106 Pg 58 54.50 -0.5
 Sg 59 09.50
 MAF 1.49 106 Pg 58 59.00 0.1
 Sg 59 16.90
 RJF 1.52 152 Pg 58 58.80 -0.4
 Sg 59 16.60
 BGF 1.62 92 Pg 59 01.50 0.8
 Sg 59 21.50
 CAF 2.04 147 Pg 59 08.20 1.4
 Sg 59 33.30
 S.D. = 1.0 on 7 of 7 obs.

? APR 28, 1990 21h 08m 30.60 ± 10.05s
 39.018 N ± 76.4km 24.038 E ± 49.4km
 DEPTH = 10.0km (geophysicist)
 AEGEAN SEA (365)

EZN 1.95 65 iPg 09 04.20 0.2
 iSg 09 14.20
 MMB 2.58 355 iPc 09 13.00 -0.1
 RZN 2.72 11 eP 09 19.00 3.7X
 KDZ 2.83 21 iP 09 17.00 0.3
 KGT 2.90 59 iPn 09 16.60 -1.0
 EDC 3.24 65 ePn 09 22.50 0.1
 BNT 3.28 65 iPn 09 23.60 0.5
 S.D. = 0.7 on 6 of 7 obs.

APR 28, 1990 21h 22m 45.71 ± 0.46s
 18.424 N ± 9.8km 72.856 W ± 5.4km
 DEPTH = 10.0km (geophysicist)
 4.7mb (12 obs.) 4.0msz (1 obs.)
 HAITI REGION (87)

YHJ 3.50 262 P 23 41.36 0.1
 S 24 23.25
 STH 3.78 265 P 23 44.16 -1.1
 S 24 30.43
 PCJ 4.16 261 P 24 04.11 13.5X
 MGP 5.50 93 iP 24 09.60 0.0
 PORP 5.92 93 iP 24 15.90 0.3
 CPD 6.61 92 iP 24 26.00 0.6
 MGH 10.29 98 eP 25 17.00 0.5
 BPA 10.57 96 eP 25 19.00 -1.4
 PAG 10.94 101 eP 25 25.00 -0.5
 e 27 20.00
 MGG 11.31 101 eP 25 29.00 -1.4
 TUL 26.72 315 eP 28 29.00 1.8
 1.0s 7.70nm 4.3mb
 Z 19s 0.38um 4.0msz
 LR 36 00.00
 ZOBO 34.79 172 P 29 41.00 1.6
 Z 24s 0.26um 3.9mszX
 LR 40 50.00
 LPB 35.05 172 eP 29 57.00 15.6X
 BAO 41.77 143 eP 30 36.90 -0.4
 SES 44.03 325 eP 30 55.00 -0.2
 FRB 45.38 3 eP 31 07.00 1.2
 YKA 52.62 337 eP 31 59.50 -2.3

0.9s 1.70nm 4.0mb
 MBC 62.52 349 eP 33 10.00 -1.5
 MFF 65.03 47 eP 33 30.00 1.6
 1.1s 9.75nm 4.9mb
 EPF 65.49 50 eP 33 32.30 0.8
 0.9s 6.55nm 4.8mb
 LFF 65.70 48 eP 33 33.20 0.5
 0.9s 8.20nm 4.9mb
 LPO 66.03 49 eP 33 35.00 0.2
 0.9s 6.55nm 4.8mb
 RJF 66.23 48 eP 33 36.10 0.0
 0.9s 3.30nm 4.5mb
 CAF 66.64 48 eP 33 38.80 0.1
 0.9s 4.10nm 4.6mb
 TCF 66.67 47 eP 33 37.40 -1.5
 0.9s 4.10nm 4.6mb
 AVF 67.43 46 eP 33 44.90 1.2
 1.7s 14.70nm 4.9mb
 SSF 67.52 46 eP 33 45.30 1.0
 LOR 67.75 46 eP 33 43.90 -1.8
 0.9s 4.90nm 4.7mb
 SMF 67.78 46 eP 33 45.00 -0.9
 LBF 67.85 46 eP 33 46.10 -0.3
 LPL 69.88 47 eP 34 00.00 0.8
 0.7s 2.20nm 4.4mb
 KHC 74.00 43 eP 34 24.00 0.6
 S.D. = 1.1 on 30 of 32 obs.

% APR 28, 1990 21h 56m 04.26 ± 2.30s
 44.262 N ± 20.7km 8.373 E ± 16.6km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.3 (GEN).

FIN 0.13 246 P 56 07.48 0.0
 S 56 12.40
 PCP 0.31 24 P 56 10.65 0.0
 S 56 17.52
 ROB 0.36 275 P 56 11.88 0.1
 S 56 19.06
 ENR 0.69 267 P 56 18.14 0.2
 S 56 29.63
 STV 0.75 269 P 56 18.65 -0.4
 S 56 31.06
 S.D. = 0.4 on 5 of 5 obs.

? APR 28, 1990 22h 04m 52.19 ± 1.05s
 35.278 N ± 24.8km 49.772 E ± 11.3km
 DEPTH = 10.0km (geophysicist)
 WESTERN IRAN (347)

IR5 0.67 95 eP 05 12.00 6.5X
 IR7 0.80 58 eP 05 08.00 0.1
 IR4 0.92 92 eP 05 10.00 0.0
 IR2 1.00 67 eP 05 11.00 -0.1
 KER 2.38 248 eP 05 32.00 0.0
 S.D. = 0.2 on 4 of 5 obs.

APR 28, 1990 22h 09m 59.92 ± 0.37s
 36.314 N ± 7.2km 100.045 E ± 8.7km
 DEPTH = 10.0km (geophysicist)
 4.5mb (16 obs.)
 QINGHAI PROVINCE, CHINA (325)

LZH 3.08 93 Pn 10 49.50 -0.2
 Pg 10 53.00
 Sg 11 32.50
 CHG 17.46 183 eP 14 04.60 -0.6
 CHTO 17.46 183 iP 14 04.50 -0.6
 0.8s 7.32nm 3.9mb
 NUR 52.18 323 eP 19 25.00 12.5X
 HFS 57.58 324 eP 19 50.90 -0.9
 0.7s 3.10nm 4.4mb
 NB2 58.46 325 P 19 57.30 -0.7
 0.7s 2.50nm 4.4mb
 WRA 64.67 144 P 20 42.00 1.8
 0.3s 0.30nm 4.0mb
 LPL 67.27 310 eP 20 57.50 0.5
 0.6s 2.70nm 4.6mb
 PGF 67.27 307 eP 20 57.30 0.4
 0.5s 3.65nm 4.8mb
 SMF 68.46 313 eP 21 03.70 -0.4
 0.7s 2.75nm 4.6mb
 AVF 68.67 313 eP 21 05.10 -0.3
 0.7s 2.20nm 4.5mb
 BGF 69.09 313 eP 21 08.30 0.3
 0.6s 2.70nm 4.6mb

MAF 69.43 313 eP 21 10.50 0.4
 0.6s 1.80nm 4.4mb
 TCF 69.61 313 eP 21 11.30 0.1
 0.8s 4.05nm 4.6mb
 GRR 70.26 316 eP 21 15.20 0.1
 0.7s 4.40nm 4.7mb
 CAF 70.41 312 eP 21 16.60 0.5
 0.7s 3.30nm 4.6mb
 MFF 70.82 314 eP 21 18.90 0.3
 0.7s 4.40nm 4.7mb
 LFF 71.20 312 eP 21 21.20 0.4
 0.7s 4.40nm 4.7mb
 YKA 77.66 16 eP 21 56.70 -1.0
 0.7s 0.80nm 3.9mb
 BAO 144.90 298 ePKP 29 36.00 -3.5X
 S.D. = 0.7 on 18 of 20 obs.

& APR 28, 1990 22h 12m 00.14s
 59.770 N 150.904 W
 DEPTH = 47.4km
 KENAI PENINSULA, ALASKA (14)
 <AGS-P>.

BRK 0.01 122 eP 12 07.16 1.2
 eS 12 12.77
 CNPM 0.30 215 iP 12 08.57 -0.5
 eS 12 15.24
 NNL 0.34 324 iP 12 09.94 0.5
 XLV 0.52 233 iP 12 10.73 -0.9
 eS 12 19.05
 SEW 0.81 65 iP 12 14.24 -1.0
 eS 12 26.70
 SLKM 0.82 24 eP 12 15.20 -0.3
 eS 12 26.70
 NKA 0.99 350 eP 12 19.26 1.4
 RDT 1.10 318 iP 12 18.80 -0.7
 eS 12 33.92
 RED 1.14 306 iP 12 19.29 -0.8
 eS 12 34.91
 AUE 1.32 253 eP 12 22.25 -0.2
 AUL 1.35 254 eP 12 22.84 0.0
 SPU 1.53 339 eP 12 25.20 -0.3
 eS 12 45.09
 PMS 1.62 24 iP 12 26.55 -0.2
 CRP 1.62 338 eP 12 26.75 -0.2
 CDD 1.64 240 eP 12 26.37 -0.6
 NCG 1.75 340 eP 12 28.40 -0.3
 PWA 1.95 15 eP 12 31.50 0.1
 PLRM 2.03 25 eP 12 31.46 -1.0
 KNK 2.04 35 iP 12 31.79 -0.9
 GLI 2.20 58 eP 12 32.65 -2.3
 SKT 2.24 352 eP 12 36.64 1.1
 eS 13 03.72
 SML 2.40 31 eP 12 38.19 0.4
 VZW 2.52 57 eP 12 37.36 -2.1
 VLZ 2.65 57 eP 12 39.50 -1.8
 NCA 2.99 40 eP 12 45.48 -0.8
 KLU 3.00 53 eP 12 44.80 -1.6
 TOA 3.29 43 eP 12 49.93 -0.5
 RND 3.78 14 eP 12 57.29 -0.2
 GLB 3.88 61 eP 12 56.14 -2.7
 PAX 4.14 37 eP 13 01.29 -1.3
 TGL 4.14 73 eP 12 59.47 -3.1
 31 obs. associated

APR 28, 1990 22h 24m 56.99 ± 0.28s
 46.343 N ± 2.5km 7.473 E ± 3.4km
 DEPTH = 6.7 ± 2.5 km
 SWITZERLAND (544)
 ML 2.9 (LDG). MD 2.5 (STR).

DIX 0.27 189 iP 25 02.30 -0.2
 MMK 0.45 130 iP 25 05.00 -1.1
 EMS 0.47 234 iP 25 06.30 -0.1
 LSD 0.91 194 P 25 13.62 -1.3
 S 25 24.60
 LPL 0.97 212 Pg 25 15.40 -0.6
 Sg 25 29.20
 LPG 0.98 211 Pg 25 15.50 -0.7
 Sg 25 30.00
 TMA 1.00 103 iP 25 15.30 -1.1
 VAI 1.02 117 P 25 21.00 4.4X
 eSn 25 35.20
 LOMF 1.10 337 Pg 25 18.98 1.0
 Sg 25 34.42
 BBS 1.12 1 Pg 25 18.99 0.6
 Sg 25 33.80

28d 22h

LLS	1.17	63	iP	25	18.30	-1.1
RSP	1.20	187	P	25	19.37	-0.4
			S	25	34.13	
ZLA	1.30	29	iP	25	21.30	-0.1
VDL	1.39	83	iP	25	22.50	-0.5
BNI	1.41	204	P	25	23.00	-0.2
			eSn	25	39.00	
RRL	1.50	199	P	25	24.60	0.0
			S	25	41.68	
MOF	1.53	351	Pg	25	26.33	1.5
			Sg	25	46.29	
BSF	1.56	343	Pn	25	25.30	0.0
			Pg	25	26.80	
			Sg	25	47.50	
SAX	1.57	54	iP	25	26.20	0.5
FEL	1.58	13	Pg	25	26.67	1.1
			Sg	25	48.02	
SLE	1.59	26	iP	25	24.60	-1.0
HAU	1.83	336	Pn	25	29.00	-0.2
			Pg	25	31.90	
			Sg	25	55.60	
DOI	1.85	185	P	25	30.00	0.5
OSS	1.88	78	iP	25	30.60	0.6
ECH	1.89	354	Pn	25	29.03	-0.9
			Pg	25	32.46	
			Sg	25	58.85	
PCP	1.95	157	P	25	32.90	1.9
ROB	2.07	172	P	25	34.34	1.7
WLS	2.07	358	Pn	25	31.69	-1.0
			Pg	25	37.33	
CDF	2.07	356	Pn	25	31.60	-1.2
			Sg	26	01.50	
STV	2.10	183	P	25	33.72	0.6
ENR	2.12	181	P	25	31.77	-1.6
FIN	2.20	166	P	25	36.49	2.0
LBF	2.49	286	Pn	25	38.30	-0.4
			Pg	25	45.20	
			Sn	26	07.80	
			Sg	26	18.40	
SMF	2.53	278	Pn	25	40.10	0.9
			Sn	26	09.50	
			Sg	26	17.70	
LOR	2.65	292	Pn	25	40.70	-0.2
FRF	2.84	192	Pg	25	49.40	5.7X
AVF	2.88	280	Pn	25	43.90	-0.2
LRG	2.99	196	Pg	25	52.80	7.1X
BGF	3.21	276	Pn	25	48.20	-0.6
			Sg	26	25.50	
			Sg	26	41.60	
CAF	4.05	251	Pn	26	00.00	-0.8
			Sn	26	46.80	
			Sg	27	06.10	
KHC	4.97	54	ePg	26	28.00	14.1X
			eSg	27	27.20	

S.D. = 1.0 on 37 of 41 obs.

? APR 29, 1990 00h 21m 49.18±4.49s
 31.587 S ±10.4km 68.165 W ±33.4km
 DEPTH = 10.0km (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA (137)

RTLL	0.37	315	iPc	21	56.00	-0.7
RTCV	0.42	229	iPc	21	57.40	-0.3
			(S)	22	05.30	
RTCB	0.55	280	e(P)	22	01.00	0.5
RTBS	1.10	266	eP	22	10.00	0.2
			S	22	28.80	
RTRS	1.80	321	ePc	22	20.80	0.4
			eS	22	47.80	

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

? APR 29, 1990 00h 57m 09.53±4.37s
 46.907 N ±25.7km 1.573 E ±23.5km
 DEPTH = 10.0km (geophysicist)
 FRANCE (538)

LSF	0.66	183	Pg	57	22.60	-0.1
			Sg	57	32.20	
TCF	0.76	144	Pg	57	24.30	-0.1
			Sg	57	36.40	
BGF	0.94	111	Pg	57	27.20	-0.3
			Sg	57	41.80	
MAF	0.97	135	Pg	57	28.30	0.3
			Sg	57	43.50	
SMF	1.58	99	Pg	57	37.80	0.1
			Sg	58	00.80	

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

? APR 29, 1990 01h 23m 09.77±20.59s
 30.017 S ±82.8km 67.076 W ±151.km
 DEPTH = 10.0km (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA (137)

RTLL	1.78	222	iPc	23	40.90	0.1
			eS	24	05.00	
RTRS	2.07	265	iPd	23	45.00	0.0
			eS	24	10.50	
RTCB	2.09	225	eP	23	45.50	0.2
			S	24	11.20	
RTCV	2.23	214	ePd	23	47.20	-0.1
			S	24	15.20	
RTBS	2.62	231	eP	23	52.60	-0.2
			S	24	24.60	

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

* APR 29, 1990 04h 06m 39.46±0.74s
 15.227 N ±15.4km 93.065 W ±9.1km
 DEPTH = 102.3 ±11.7 km
 3.9mb (2 obs.)
 NEAR COAST OF CHIAPAS, MEXICO (69)

TPX	0.84	112	iP	06	57.50	-1.2
			iS	07	10.00	
SCX	1.56	15	iP	07	07.50	0.6
			iS	07	27.00	
PSM	2.40	308	eP	07	17.50	-0.5
			iS	07	46.00	
MMG	2.40	106	ePc	07	18.30	0.0
BVA	2.41	103	ePd	07	18.15	-0.2
TER	2.48	111	eP	07	18.80	-0.3
PCG	2.48	109	eP	07	20.15	0.8
REC	2.58	107	iPd	07	22.00	1.4
SLP	2.73	100	ePc	07	22.40	-0.2
YUP	3.32	107	ePd	07	30.00	-0.6
OXX	3.97	298	eP	07	38.50	-1.0
			iS	08	26.50	
LVMM	5.39	324	eP	07	57.50	-1.4
			(S)	08	53.00	
PPM	6.54	306	(P)	08	17.69	2.4X
III	6.88	298	eP	08	21.00	1.3
CRX	7.56	304	(P)	08	53.50	24.5X
IIJ	7.78	306	eP	08	34.00	1.8
TUL	20.74	354	eP	11	14.50	0.7
			0.6s	5.00nm	4.0mb	
YKA	49.60	347	eP	15	20.50	-1.4
			0.8s	0.80nm	3.7mb	

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

? APR 29, 1990 04h 27m 07.39±7.98s
 18.898 N ±52.6km 65.957 W ±29.2km
 DEPTH = 10.0km (geophysicist)
 PUERTO RICO REGION (90)

LPR	0.59	172	iP	27	19.80	0.4
SJG	0.80	193	iP	27	23.20	0.2
CPD	0.86	177	iP	27	23.10	-0.8
PORP	1.06	218	iP	27	27.30	-0.1
MGP	1.39	231	iP	27	32.80	0.0

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

* APR 29, 1990 04h 37m 38.74±0.85s
 32.520 S ±11.4km 70.330 W ±18.0km
 DEPTH = 31.1 ±11.4 km
 CHILE-ARGENTINA BORDER REGION (127)

PEL	0.69	206	iPc	37	53.10	0.9
			iS	38	07.00	
ROCH	0.73	232	iP	37	54.30	1.3
			iS	38	08.00	
FCH	0.81	178	iPd	37	55.60	1.5
			iS	38	10.00	
SAN	0.97	197	eP	37	56.50	0.3
			iS	38	12.20	
PCH	1.11	188	iP	37	58.50	0.2
			iS	38	15.00	
RTBS	1.13	41	eP	38	00.10	1.6
			(S)	38	13.00	
TACH	1.24	204	iP	37	58.50	-1.5
			iS	38	17.00	
RTCV	1.66	67	ePd	38	05.70	-0.4
			S	38	28.20	
RTCB	1.66	52	iPc	38	06.10	-0.1
			eS	38	28.90	

LNK	1.69	212	iPc	38	04.20	-2.4
			iS	38	26.10	
RTLL	1.98	54	iPc	38	09.50	-1.3
			eS	38	34.00	
RTRS	2.46	18	eP	38	17.40	-0.1
			eS	38	49.20	

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

APR 29, 1990 05h 14m 34.73±0.24s
 18.121 N ±4.7km 145.353 E ±6.0km
 DEPTH = 319.3km (2 depth phases)
 4.6mb (23 obs.)
 MARIANA ISLANDS (216)

PJG	4.53	186	eP	15	47.20	-1.1
GUMO	4.53	186	eP	15	47.00	-1.3
GUA	4.58	185	e(P)	15	44.80	-4.0X
	0.5s	118.31nm				
		eS		16	43.00	
CHJJ	18.72	344	P	18	30.80	-1.4
MAT	19.40	342	eP	18	37.00	-2.0
	1.1s	22.78nm			4.4mb	
		eS		22	07.00	
MTMJ	19.56	342	P	18	39.40	-1.3
NIJJ	19.85	345	P	18	42.70	-0.6
SSE	25.42	305	Pd	19	38.50	2.6
	0.5s	15.00nm			4.6mb	
		sP		20	00.60	
MTN	33.82	206	iPc	20	49.10	-0.4
QIS	38.85	189	iPd	21	31.70	0.3
WRA	39.34	196	Pd	21	35.30	-0.2
	0.3s	7.10nm			4.4mb	
KMI	40.10	288	eP	21	43.50	1.6
LZH	40.70	305	P	21	48.00	1.3
	1.5s	42.00nm			4.5mb	
SMY	41.20	26	e(P)	21	51.70	1.5
LOE	41.48	276	eP	21	53.50	0.5
ASPA	43.01	195	iPd	22	05.40	0.1
	0.4s	24.00nm			4.8mb	
		eS		28	05.50	
NST	43.26	274	eP	22	11.60	4.3X
CHG	43.93	279	ePd	22	14.00	1.3
	0.8s	20.52nm			4.5mb	
CHTO	43.93	279	iPd	22	13.90	1.3
	0.8s	21.96nm			4.5mb	
SNG	44.87	262	eP	22	21.80	1.7
DZM	44.96	152	iPc	22	20.80	0.0
MBL	46.36	214	iPd	22	31.70	0.0
	0.4s	12.00nm			4.5mb	
WARB	47.65	203	iPd	22	42.30	0.8
	0.3s	9.00nm			4.5mb	
NANU	49.85	217	iPd	22	38.60	-19.8X
FORR	51.44	199	eP	23	00.00	-10.0X
	0.4s	65.00nm				
MRWA	54.94	212	iPd	23	34.90	-0.7
	0.3s	3.00nm			4.2mb	
GUN	55.15	292	P	23	37.80	0.1
	0.6s	23.00nm			4.8mb	
PKI	55.59	291	P	23	40.20	-0.6
	0.4s	16.00nm			4.8mb	
BAL	55.74	210	eP	23	40.50	-0.7
DMN	55.85	291	P	23	42.40	-0.1
	0.4s	19.00nm			4.9mb	
MUN	57.11	210	eP	23	50.10	-0.7
TTA	59.91	27	eP	24	09.70	0.0
KDC	60.06	33	eP	24	10.50	-0.1
IMA	61.93	24	eP	24	23.10	-0.1
	0.8s	11.10nm			4.5mb	
PMR	62.61	29	ePd	24	26.60	-0.9
	0.5s	21.50nm			5.0mb	
NDI	62.69	293	eP	24	28.00	-0.6
BRW	62.90	18	eP	24	29.60	0.4
FBA	63.96	26	eP	24	35.30	-0.9
TOA	64.09	29	eP	24	37.30	0.1
GBA	65.17	277	Pd	24	43.90	-0.8
	0.7s	8.30nm			4.6mb	
INK	70.03	23	eP	25	13.50	-0.3
	0.9s	28.00nm			5.0mb	
MBC	73.79	14	ePd	25	35.40	-0.3
	0.5s	12.00nm			4.9mb	
PGC	77.40	43	ePc	25	57.60	1.3
YKA	78.65	28	eP	26	01.70	-1.1
	0.5s	2.70nm			4.3mb	
PNT	79.68	41	eP	26	09.00	0.4
	0.8s	8.00nm			4.6mb	
WDC	80.00	51	eP	26	11.40	1.0
MIN	80.75	51	eP	26	14.80	0.3

29d 05h

ORV	81.04	51	eP	26	16.50	0.6	ASPA	26.06	220	eP	49	12.60	-1.2	SPA	85.93	180	eP	56	18.50	-1.0
PRS	82.04	54	eP	26	22.30	1.2		0.8s	141.00nm				5.6mb		1.0s	20.50nm			5.3mb	
EDM	82.24	37	eP	26	22.00	0.2			eS	53	40.10			QUE	87.64	300	eP	56	28.60	0.0
CMB	82.31	53	eP	26	23.40	0.9			eScS	00	16.30			KVN	92.59	51	P	56	56.00	4.5X
KEV	82.38	342	eP	26	21.00	-1.2	COO	26.34	180	iPd	49	17.30	1.0	MBC	93.66	14	eP	56	56.50	1.0
FRI	83.13	53	eP	26	27.30	0.7	DAV	28.49	293	eP	49	42.10	6.1X		1.2s	11.00nm			5.2mb	
KVN	83.71	51	P	26	30.70	0.9	BWA	30.34	186	eP	49	51.80	-0.6	YKA	95.25	28	eP	57	03.50	0.5
			pP	27	46.00	321km	CNB	31.15	184	eP	49	59.00	-0.5		0.8s	1.40nm			4.4mb	
SOD	83.79	340	iP	26	28.70	-0.6	CAN	31.18	185	eP	49	59.50	-0.3	EDM	96.13	37	eP	57	13.00	5.7X
SES	84.59	39	ePd	26	33.90	0.2	PCI	32.14	275	ePc	50	07.00	-1.5	SES	97.67	40	eP	57	19.00	4.7X
TNP	84.67	52	P	26	35.40	0.8	WARB	32.64	225	eP	50	11.00	-1.7	KHC	122.86	329	ePKP	02	40.10	4.1X
	0.7s	9.81nm				4.7mb	ADE	33.04	200	eP	50	15.00	-1.1			e		04	08.20	
		pP		27	50.00	317km	TOO	33.82	189	eP	50	26.50	3.7X	BSF	127.12	331	ePKP	02	49.30	4.9X
LRM	85.38	43	ePd	26	38.50	0.5	BFD	34.01	193	eP	50	23.00	-1.4		1.0s	8.00nm				
SUF	86.53	336	eP	26	41.00	-1.9	TSM	34.75	283	ePc	50	35.50	4.4X	HAU	127.21	331	ePKP	02	49.30	4.8X
FFC	87.75	32	iPd	26	48.80	-0.1	KKM	36.99	286	eP	50	52.70	2.6	SMF	129.37	332	ePKP	02	53.80	5.2X
	0.7s	10.00nm				4.9mb		1.0s	115.00nm			5.7mb	TCF	130.40	333	ePKP	02	55.60	5.0X	
UPP	91.54	336	eP	27	03.00	-3.3X	KAGJ	40.39	332	eP	51	17.80	-0.3	BCAO	133.46	272	ePKPd	02	58.50	1.2
HFS	92.79	338	eP	27	09.80	-2.4	HBZ	41.19	148	P	51	37.00	12.4X		0.5s	5.00nm				
	0.5s	0.70nm				3.9mb	PUZ	41.52	148	P	51	28.30	0.9			ic		03	07.00	
ZOBO	147.99	92	PKP	33	42.00	0.0	KUMJ	41.54	333	eP	51	27.30	-0.3	LPB	135.50	118	PKP	03	00.00	-1.6
LPB	148.05	92	PKP	33	47.00	5.1X	CHJJ	41.71	344	P	51	26.60	-2.4	ZOBO	135.59	118	PKP	03	00.00	-2.0
CCH	150.01	94	PKP	33	51.70	7.0X	MNG	42.12	153	eP	51	33.00	0.7			LR		48	30.00	
	S.D. = 1.0	on 58	of 65	obs.			MAT	42.39	344	eP	51	31.00	-3.6X	CCH	136.84	121	PKP	03	07.90	3.9X
								1.3s	38.46nm			5.0mb		SIV	141.79	122	PKP	03	06.20	-6.5X
	APR 29, 1990	05h 43m	40.62±	1.12s			Z	20s	1.42um			4.9msz		SVB	146.07	72	ePKP	03	20.53	0.6
	4.100 S ± 4.5km	151.857 E ± 6.4km						eS	57	50.00			TRN	146.40	77	ePKP	03	20.67	0.2	
DEPTH = 26.8 ± 8.5 km							PGZ	42.49	152	eP	51	35.50	0.3		1.0s	64.00nm				
5.5mb (16 obs.)	4.8msz (4 obs.)						MTMJ	42.55	343	P	51	33.90	-2.0	BAO	152.24	135	ePKP	03	36.80	7.2X
NEW BRITAIN REGION	(192)						SHNJ	42.76	334	eP	51	36.60	-1.0		S.D. = 1.2	on 59	of 85	obs.		
Felt (IV) at Raboul.							NIJJ	42.84	345	P	51	36.30	-1.8							
CENTROID, MOMENT TENSOR	(HRV)						MUN	43.43	226	eP	51	45.00	2.0							
Data Used: GDSN							SSE	45.61	322	P	51	56.00	-4.6X							
L.P.B.: 13S, 25C							Z	22s	1.00um			4.7msz								
Centroid Location:							N	16s	1.60um											
Origin Time	05:43:43.8	0.4					E	16s	0.60um											
Lot 4.07S 0.06 Lon 151.63E 0.08																				
Dep 15.0 FIX Half-duration 2.3																				
Moment Tensor: Scale 10**17 Nm																				
Mrr=-0.22 0.12 Mtt= 2.29 0.10							KGM	48.89	276	ePd	52	31.90	5.3X							
Mff=-2.07 0.13 Mrt= 1.11 0.35							SNG	52.35	282	eP	52	53.80	0.9							
Mrf= 0.98 0.24 Mtf= 0.51 0.12																				
Principal Axes:							LOE	53.88	295	eP	53	06.00	1.8							
T Vol= 2.86 Plg=23 Azm=349							NNT	54.37	289	eP	53	08.10	0.3							
N -0.36 57 220							BJI	54.79	327	eP	53	08.50	-2.0							
P -2.49 23 90								2.0s	305.00nm			6.0mb								
Best Double Couple: Mo=2.7*10**17							Z	36s	1.67um			4.9mszX								
NP1:Strike=129 Dip=57 Slip=-1							N	20s	1.15um											
NP2: 220 90 -147																				
							NST	54.82	292	eP	53	17.50	6.4X							
RAB	0.32	106	iPd-	43	48.00	-0.2	KMI	55.82	304	Pc+	53	22.00	3.5X							
LAT	5.46	242	eP	45	03.00	0.6		2.5s	0.14nm			2.5mb X								
PMG	7.04	221	iPc	45	25.00	0.3		Z	22s	1.40um		5.0msz								
	0.8s	238.81nm				6.3mb X		N	15s	1.00um										
		eS		46	47.00			E	15s	0.80um										
HNR	9.62	124	eP	46	04.00	3.5X														
		eS		48	06.00															
CTA	16.80	199	iPc	47	35.80	0.0														
	1.7s	1042.31nm				5.7mb	CHG	56.84	295	eP	53	28.00	2.3							
		i		47	39.00			1.2s	34.38nm			5.3mb								
		i		47	56.50		LZH	60.08	316	P	53	49.00	0.8							
		e		48	17.00			2.0s	126.00nm			5.7mb								
		iS		50	46.00			Z	20s	0.70um		4.8msz								
GUA	18.83	339	eP	48	01.20	0.2														
	0.8s	208.96nm				5.4mb														
GUMO	18.89	339	eP	48	02.00	0.3														
PJG	18.89	339	eP	48	02.00	0.3														
QIS	20.24	215	iPc	48	15.50	-1.3														
		e		48	18.00															
PVC	21.06	131	iP	48	26.50	1.3														
MTN	22.25	246	eP	48	39.00	1.9														
RMQ	22.46	187	iPc	48	39.40	0.2														
	0.9s	246.00nm				5.7mb	GUN	70.96	301	P	55	00.20	1.6							
DZM	22.79	143	iPc	48	43.40	0.9	PKI	71.27	301	P	55	00.40	-0.1							
BRS	23.18	178	iPd-	48	46.80	0.6	DMN	71.54	301	P	55	01.80	-0.2							
	0.																			

29d 07h

ATN	0.43	119	P	16	47.10	0.0	CLC	26.51	113	eP	05	42.00	0.5	APR 29, 1990 08h 20m 16.76±0.31s							
			eSg	16	54.50		DUG	26.58	100	eP	05	42.30	0.2	47.899 N ± 7.9km 153.993 E ± 3.0km							
MSI	0.48	110	P	16	48.30	0.3		1.1s	36.18nm				4.9mb	DEPTH = 33.0km (normal)							
			eSn	16	57.90		SBB	27.19	115	eP	05	48.00	0.4	5.0mb (48 obs.) 4.1Msz (2 obs.)							
MNO	0.50	207	P	16	48.10	-0.2	BW06	27.19	93	eP	05	47.40	-0.4	KURIL ISLANDS (221)							
GIB	0.84	243	P	16	54.70	0.1		1.3s	27.87nm				4.7mb								
			eSg	17	04.70		GSC	27.33	113	eP	05	49.00	0.0	MAT	16.26	231 (P)	24	03.00	-1.1X		
CZI	1.23	47	P	17	00.60	-0.5	PAS	27.38	117	eP	05	50.00	0.7		0.8s	10.45nm		4.0mb			
MGR	1.82	14	P	17	10.10	0.4	MWC	27.39	116	eP	05	49.00	-0.6	BJI	28.10	268	eP	26	23.50	16.2X	
S.D. = 0.4 on 6 of 6 obs.							DAU	27.42	99	eP	05	50.00	0.0	Z	20s	0.36um		4.0Msz			
APR 29, 1990 08h 00m 05.26±0.26s							FFC	27.53	64	iPd	05	50.00	-0.5	TTA	31.17	43	P	26	34.80	0.3	
51.083 N ± 2.9km 147.871 W ± 3.4km								1.0s	16.00nm				4.6mb		1.2s	26.52nm		4.9mb			
DEPTH = 33.0km (normal)							MBC	27.61	14	eP	05	52.00	1.0	SVW	31.24	46	eP	26	35.80	0.7	
4.9mb (26 obs.) 4.5Msz (2 obs.)								1.0s	32.00nm				4.9mb		IMA	32.53	37	ePd	26	46.60	0.2
SOUTH OF ALASKA (17)							RVR	27.94	116	eP	05	53.00	-1.4		1.0s	31.30nm		5.2mb			
Ms 4.4 (BRK).							PEC	28.14	116	e(P)	05	55.50	-0.7	BRW	32.67	27	eP	26	47.70	0.3	
KDC	7.20	340	iPd	01	50.40	-0.4	TPC	28.62	114	eP	06	01.00	0.4	KDC	32.97	52	eP	26	49.00	-1.2	
CDD	8.53	339	eP	02	09.48	0.1	PLM	28.70	116	eP	06	00.50	-1.0	PMR	34.36	45	eP	27	01.60	-0.6	
CNPM	8.68	349	eP	02	10.46	-0.9	BAR	29.31	117	eP	06	07.00	0.2		1.1s	21.90nm		5.0mb			
SDN	8.69	304	eP	02	10.10	-1.5	RSSD	30.00	86	eP	06	11.80	-1.3	FBA	34.89	39	iPd	27	07.40	0.7	
AUE	8.87	341	eP	02	13.11	-0.9	GLA	30.09	114	eP	06	13.00	-0.7	TOA	35.73	44	eP	27	14.80	0.9	
AUL	8.90	341	eP	02	14.99	0.5	GOL	31.52	94	eP	06	26.00	-0.5	LZH	38.46	271	P	27	39.50	2.2	
SEW	9.09	355	eP	02	15.73	-1.3		1.1s	44.87nm				5.2mb	INK	40.36	33	iPd	27	58.00	5.6X	
NNL	9.19	349	eP	02	18.85	0.4	GLD	31.58	94	eP	06	27.00	0.0		0.8s	25.00nm		5.0mb			
HIN	9.37	4	eP	02	20.46	-0.5		1.2s	75.76nm				5.4mb	MBC	43.31	20	eP	28	17.50	1.0	
SIT	9.49	46	eP	02	20.40	-2.1	ANMO	33.79	102	eP	06	45.70	-0.6	YKA	49.65	38	eP	29	06.10	-0.5	
RAGM	9.50	10	eP	02	22.88	0.1		1.0s	16.25nm				4.9mb		0.9s	4.70nm		4.5mb			
CYK	9.52	17	eP	02	23.89	0.9	ALQ	33.79	102	eP	06	45.50	-0.8	MCW	52.63	56	eP	29	29.70	0.1	
SGAM	9.56	8	eP	02	23.76	0.2		1.0s	17.50nm				4.9mb	CHG	52.97	257	eP	29	33.20	0.9	
CVA	9.56	6	eP	02	23.20	-0.3	TUL	39.84	92	eP	07	37.30	0.3		1.0s	12.00nm		4.8mb			
YKU	9.67	25	eP	02	26.00	1.0	Z	22s	28.60nm				4.9mb	GMW	53.28	57	eP	29	34.70	0.4	
RED	9.75	346	eP	02	24.99	-1.3			0.95um				4.6Msz	BMW	53.62	58	P	29	36.80	-0.1	
WAX	9.80	15	eP	02	27.35	0.4			e		07	43.80		RMW	53.88	57	e(P)	29	38.60	-0.2	
GLI	9.83	2	eP	02	26.82	-0.5	FRB	41.67	41	eP	07	52.00	0.3	PNT	54.05	54	ePd	29	40.00	0.1	
PCA	10.00	22	iP	02	30.12	0.4	UYO	41.80	93	iPc	07	52.60	-0.5	LON	54.28	57	e(P)	29	41.50	-0.2	
VZW	10.03	4	eP	02	29.66	-0.4	CLE	45.39	75	iP	08	20.10	6.0X	EDM	55.09	47	iPd	29	47.40	-0.2	
TGL	10.10	14	eP	02	31.48	0.4	SCH	46.42	52	eP	08	30.00	-0.1		0.7s	27.00nm		5.4mb			
VLZ	10.11	4	eP	02	30.67	-0.4	DAG	48.43	14	iPc	08	51.80	6.2X	GUN	55.50	275	P	29	50.80	-0.4	
PMS	10.23	355	eP	02	32.50	-0.3		0.7s	15.75nm				5.2mb		0.4s	5.00nm		4.9mb			
PMR	10.56	357	eP	02	36.70	-0.5	TBR	50.01	71	eP	09	03.00	4.9X	NEW	56.01	54	P	29	54.00	-0.2	
SVW	10.93	340	eP	02	41.30	-1.1	CBM	50.06	62	eP	09	03.50	5.1X		1.2s	20.83nm		5.0mb			
TOA	11.09	4	eP	02	45.20	0.7	MAT	53.08	285 (P)	09	21.00	-0.4	PKI	56.04	275	P	29	54.60	-0.4		
HYT	11.34	27	P	02	49.00	0.9	KEV	59.42	2	eP	10	05.00	-1.3	DMN	56.21	275	P	29	56.20	0.0	
TTA	12.66	343	eP	03	05.80	0.1	SOD	61.80	2	eP	10	22.00	-0.5		0.6s	15.00nm		5.2mb			
FBA	13.86	0	eP	03	22.30	1.0	BJI	63.45	301	eP	10	33.00	-0.8	GKN	56.27	276	P	29	56.40	-0.1	
IMA	15.32	351	eP	03	40.80	0.3		2.0s	55.00nm				5.3mb		0.6s	13.00nm		5.1mb			
	0.8s	35.10nm				0.3	SUF	66.45	3	eP	10	53.00	0.2	WDC	57.48	64	eP	30	05.30	0.6	
		e		03	47.00		LZH	72.86	306	eP	11	33.00	0.3	SES	57.92	49	ePd	30	07.50	-0.3	
MCW	16.29	89	eP	03	53.80	0.8		2.0s	33.00nm				5.0mb	MIN	58.19	64	eP	30	09.50	-0.4	
GMW	16.71	92	eP	03	58.40	0.2	MOX	77.16	13	eP	11	57.00	0.2	ORV	58.74	64	eP	30	13.20	-0.4	
BMW	16.85	96	eP	04	00.00	-0.1			e		12	04.00		FFC	59.48	41	iPd	30	18.60	0.1	
RMW	17.36	92	eP	04	07.00	0.6	KSP	77.56	10	eP	11	59.00	0.0		0.9s	25.00nm		5.3mb			
LON	17.63	94	eP	04	10.00	0.2			e		12	06.00		LRM	60.03	54	eP	30	22.90	0.2	
PNT	18.13	85	ePd	04	16.00	0.1	CDF	78.62	17	eP	12	05.30	0.3	CMB	60.37	65	eP	30	25.00	0.1	
	1.1s	61.00nm				1.1	KHC	78.91	12	iP	12	08.40	1.9	HPI	61.01	56	eP	30	29.70	0.2	
INK	18.64	17	iPc	04	23.00	1.1			e		12	14.50		KVN	61.10	63	P	30	30.50	0.5	
	1.0s	37.00nm				4.5mb	LOR	79.05	19	eP	12	07.40	0.1	FRI	61.45	65	e(P)	30	31.50	-0.6	
VGB	18.81	97	eP	04	24.00	-0.3	SSF	79.18	19	eP	12	08.00	0.1	PTI	61.96	56	eP	30	37.00	1.2	
NEW	20.03	86	eP	04	37.40	-0.6		0.8s	2.70nm				4.3mb	TNP	62.25	63	P	30	38.30	0.5	
	1.1s	86.42nm				5.0mb	AVF	79.40	20	eP	12	09.10	0.0		0.8s	17.16nm		5.2mb			
WDC	20.44	111	eP	04	41.80	-0.5		0.6s	1.80nm				4.2mb	ISA	63.07	66	eP	30	42.00	-1.0	
BRW	20.69	352	eP	04	44.70	0.2	SMF	79.64	19	eP	12	10.30	-0.2	DUG	63.46	59	eP	30	46.00	0.3	
MIN	21.14	110	eP	04	49.10	-0.5		0.6s	1.80nm				4.2mb		0.9s	13.16nm		5.1mb			
EDM	21.17	71	iPd	04	48.80	-0.9	ZST	80.26	10	eP	12	20.70	7.0X	CLC	63.50	65	eP	30	45.00	-0.9	
YKA	21.23	45	eP	04	48.70	-1.4	LPL	81													

29d 08h

ANMO 70.73 59 P 31 32.60 1.0
1.0s 10.00nm 4.8mb
ALO 70.73 59 eP 31 32.00 0.4
1.0s 11.25nm 4.9mb
GBA 71.03 269 Pd 31 32.40 -1.0
ASPA 73.49 199 eP 31 59.00 11.3X
1.0s 6.00nm
KRA 74.70 331 eP 31 58.90 4.5X
e 32 14.00
KSP 75.14 334 ePc 31 56.60 -0.4
EKA 75.36 347 Pc 31 57.90 -0.3
0.6s 3.30nm 4.5mb
CLL 75.66 336 iPd 31 59.10 -0.8
1.0s 19.00nm 5.0mb
TUL 75.93 52 iP 32 01.90 0.2
1.0s 21.70nm 5.1mb
PRU 76.41 334 P 32 04.00 -0.2
WTS 76.60 340 iPc 32 05.20 0.0
0.6s 14.00nm 5.2mb
MOX 76.64 336 eP 32 05.50 0.0
KHC 77.46 335 Pd 32 10.20 0.1
1.0s 8.00nm 4.7mb
GRF 77.61 336 eP 32 10.70 -0.2
1.0s 30.00nm 5.3mb
ENN 77.95 340 eP 32 12.50 -0.2
1.0s 16.00nm 5.0mb
MEM 78.08 340 iP 32 13.40 0.0
CDF 79.82 338 eP 32 23.00 0.0
0.8s 6.70nm 4.7mb
RBL 79.88 333 P 32 22.60 -0.8
FVI 79.98 334 P 32 24.00 0.2
HAU 80.42 339 iPd 32 26.10 -0.1
0.8s 5.35nm 4.6mb
BSF 80.48 338 iPd 32 26.30 -0.3
0.8s 5.35nm 4.6mb
CTI 80.81 334 P 32 27.00 -1.4
LDF 81.30 343 eP 32 30.60 -0.1
0.8s 5.35nm 4.6mb
GRR 81.64 343 eP 32 32.80 0.3
0.6s 7.20nm 4.9mb
LOR 81.71 340 iPd 32 32.80 -0.1
0.8s 9.40nm 4.9mb
LBF 81.95 340 iPd 32 33.90 -0.3
0.7s 4.40nm 4.6mb
SSF 81.98 340 iPd 32 34.30 0.0
0.8s 6.70nm 4.7mb
AVF 82.27 340 iPd 32 36.00 0.2
0.6s 4.50nm 4.7mb
SMF 82.30 340 iPd 32 36.00 0.0
1.0s 12.00nm 4.9mb
BGF 82.61 340 eP 32 37.90 0.3
0.8s 5.35nm 4.7mb
LPL 82.64 337 iPd 32 39.10 1.0
0.6s 9.00nm 5.0mb
LPG 82.66 337 iPd 32 39.20 0.9
0.7s 13.25nm 5.1mb
SFI 82.68 333 P 32 38.00 0.0
PGD 82.76 334 P 32 39.00 0.3
MAF 82.99 340 iPd 32 40.40 0.8
1.0s 22.00nm 5.2mb
TCF 83.01 341 iPd 32 40.00 0.3
1.0s 11.00nm 4.9mb
BNI 83.09 337 P 32 42.00 1.7
LSF 83.19 341 iPd 32 40.90 0.3
0.8s 12.75nm 5.1mb
MFF 83.21 342 eP 32 40.90 0.2
0.8s 8.05nm 4.9mb
MNS 83.82 332 P 32 44.00 0.1
AZI 83.94 332 P 32 45.00 0.6
SBF 84.00 336 iPd 32 44.90 0.1
0.6s 7.20nm 5.0mb
SDI 84.07 331 P 32 45.00 -0.2
LRG 84.66 337 iPd 32 48.60 0.5
0.8s 16.10nm 5.3mb
LMR 84.73 337 iPd 32 48.90 0.5
0.8s 16.10nm 5.3mb
MGR 84.90 329 P 32 50.00 0.7
TDS 85.05 329 P 32 54.00 3.9X
TIC 122.62 335 PKP 39 10.30 -0.4
KIC 122.81 335 PKP 39 10.00 -1.0
LIC 123.02 335 PKP 39 10.90 -0.5
S.D. = 0.7 on 103 of 109 obs.
APR 29, 1990 08h 31m 58.06 ± 0.85s
15.193 N ± 9.9km 147.524 E ± 8.6km
DEPTH = 20.5 ± 6.9 km
4.7mb (7 obs.)

MARIANA ISLANDS REGION (215)
GUA 3.02 237 eP 32 46.20 0.5
eS 33 21.00
GUMO 3.03 239 eP 32 45.50 -0.3
PJG 3.03 239 eP 32 45.50 -0.3
MAT 22.83 340 (P) 37 00.00 -0.9
SSE 28.82 308 eP 37 51.50 -5.6X
BJI 36.88 318 eP 39 07.00 0.0
WRA 37.25 201 Pc 39 08.50 -1.8
0.8s 7.90nm 4.6mb
ASPA 40.85 199 eP 39 36.30 -4.0X
0.9s 10.00nm 4.5mb
LZH 44.08 306 eP 40 08.50 1.7
2.0s 33.00nm 4.8mb
i 40 19.00
GUN 58.19 294 P 41 54.00 0.2
PKI 58.62 293 P 41 56.40 -0.4
GKN 59.29 294 P 42 01.00 -0.2
IMA 63.78 23 P 42 30.50 -0.3
PMR 64.16 28 P 42 31.00 -2.1
MBC 76.10 14 ePc 43 46.20 0.6
0.9s 13.00nm 5.0mb
YKA 80.25 28 eP 44 07.60 -1.0
0.9s 3.70nm 4.4mb
PNT 80.48 42 eP 44 10.00 -0.1
0.7s 6.00nm 4.7mb
ORV 81.23 51 eP 44 14.40 0.2
CMB 82.42 53 P 44 30.50 10.0X
0.9s 7.37nm
CMB 82.42 53 eP 44 21.10 0.6
FRI 83.18 54 eP 44 24.80 0.4
EDM 83.34 37 eP 44 25.00 0.1
KVN 83.91 51 P 44 28.30 0.0
TNP 84.83 52 P 44 33.00 0.0
0.8s 19.12nm 5.4mb
SES 85.55 39 eP 44 36.00 -0.1
LRM 86.06 44 eP 44 39.40 0.4
ALO 94.04 52 eP 45 17.00 0.3
KIC 145.16 306 PKPc 51 36.54 -0.2
TIC 145.20 307 PKPc 51 36.52 -0.3
LIC 145.46 306 PKPc 51 37.46 0.2
ZOBO 145.70 97 PKP 51 39.20 0.9
LPB 145.73 97 PKP 51 39.00 0.8
CCH 147.63 99 ePKP 51 42.00 0.9
S.D. = 0.8 on 30 of 33 obs.
% APR 29, 1990 09h 53m 33.12 ± 1.04s
39.125 N ± 7.9km 27.598 E ± 12.8km
DEPTH = 10.0km (geophysicist)
TURKEY (366)
IZM 0.77 200 ePg 53 48.10 -0.1
eSg 54 00.10
EZN 1.21 306 iPn 53 55.90 0.3
EDC 1.24 9 iPn 53 55.50 -0.6
BNT 1.25 11 iPn 53 56.00 -0.4
KCT 1.27 27 iPn 53 57.00 0.9
S.D. = 0.8 on 5 of 5 obs.
* APR 29, 1990 09h 56m 45.21 ± 0.71s
1.746 N ± 10.8km 123.864 E ± 14.0km
DEPTH = 33.0km (normol)
4.2mb (3 obs.)
MINAHASSA PENINSULA (265)
PCI 4.81 237 ePd 57 58.00 0.8
WRA 23.88 155 Pc 01 55.30 -1.6
0.6s 3.60nm 4.1mb
ASPA 27.08 159 eP 02 25.40 -1.6
0.6s 3.00nm 4.1mb
MAT 37.08 19 eP 03 55.00 0.7
0.9s 10.92nm 4.7mb
BJI 38.75 351 eP 04 08.00 -0.2
BWA 42.73 150 eP 04 42.70 1.5
CAN 43.73 150 eP 04 50.60 1.3
DMN 45.12 308 P 05 00.40 -0.5
GKN 45.67 309 P 05 04.50 -0.6
S.D. = 1.4 on 9 of 9 obs.
? APR 29, 1990 10h 24m 28.86 ± 1.08s
20.160 S ± 12.8km 69.523 W ± 22.9km
DEPTH = 137.2 ± 17.2 km
3.2mb (1 obs.)
NORTHERN CHILE (123)
ANT 3.62 193 eP 25 24.50 0.0

LPB 3.85 21 P 25 29.00 1.0
ZOBO 4.09 19 P 25 30.40 -1.0
CCH 4.23 50 Pc 25 36.60 3.6X
SIV 9.04 64 P 26 37.60 0.0
YKA 89.74 341 eP 37 12.30 0.0
0.4s 0.10nm 3.2mb
S.D. = 1.4 on 5 of 6 obs.
APR 29, 1990 10h 39m 37.54s
63.084 N 150.675 W
DEPTH = 120.9km
4.2mb (7 obs.)
CENTRAL ALASKA (1)
<AGS-P>
KTH 0.48 347 iP 39 55.49 -0.3
eS 40 08.43
HUR 0.49 102 iP 39 55.30 -0.5
eS 40 09.59
CUT 0.71 165 iP 39 57.06 -0.2
MCK 1.02 49 iP 39 59.73 -0.4
eS 40 16.06
PWA 1.49 165 iPc 40 05.20 0.0
GHO 1.55 147 eP 40 05.80 -0.3
eS 40 27.87
NEA 1.66 25 iP 40 06.18 -1.1
eS 40 26.72
PLRM 1.66 154 iP 40 06.49 -0.8
eS 40 29.13
PMR 1.66 154 iPc 40 06.50 -0.8
NCG 1.82 203 eP 40 08.72 -0.7
CGLM 1.89 200 eP 40 09.44 -0.8
eS 40 33.62
PMS 1.92 164 iPc 40 10.00 -0.5
CRP 1.95 202 eP 40 10.54 -0.5
CCB 2.02 38 iP 40 11.48 -0.2
eS 40 37.20
NCA 2.09 120 iP 40 12.11 -0.6
eS 40 40.11
HDA 2.12 50 iP 40 12.01 -1.0
eS 40 37.50
FBA 2.22 34 iPc 40 13.40 -0.9
DDM 2.28 70 eP 40 14.47 -0.6
eS 40 42.86
TOA 2.30 113 iPd 40 15.20 -0.2
NKA 2.36 187 eP 40 18.16 2.0
PAX 2.38 90 eP 40 15.91 -0.5
eS 40 45.72
GLM 2.40 36 iP 40 15.69 -0.9
eS 40 44.56
DMW 2.42 64 eP 40 15.87 -1.0
TTA 2.44 269 iP 40 16.30 -0.9
KLU 2.74 124 eP 40 19.50 -1.6
GLI 2.78 141 iP 40 20.15 -1.5
eS 40 54.58
DOT 3.03 76 iP 40 23.83 -1.2
eS 40 57.85
SVW 3.06 232 iPc 40 24.50 -0.8
NNL 3.07 186 eP 40 26.03 0.6
IMA 3.26 338 iPc 40 26.80 -1.4
HIN 3.35 142 eP 40 27.72 -1.5
MTU 3.43 154 eP 40 28.69 -1.5
CVA 3.46 135 eP 40 29.38 -1.2
CNPM 3.58 185 eP 40 31.61 -0.7
SGAM 3.67 133 eP 40 31.93 -1.5
RAGM 3.93 131 eP 40 35.80 -1.3
AUL 3.95 201 eP 40 38.70 1.5
AUE 3.96 200 eP 40 37.78 0.4
FYU 4.19 31 iP 40 39.27 -1.3
CDD 4.41 200 eP 40 42.96 -0.6
WAX 4.56 122 eP 40 43.66 -1.9
DWY 5.12 74 Pd 40 51.30 -1.8
KDC 5.43 190 eP 40 54.80 -2.5
HYT 6.61 104 P 41 11.60 -2.1
BRW 8.58 347 eP 41 36.90 -3.3
INK 8.78 46 eP 41 41.00 -1.8
SIT 9.75 121 eP 41 53.50 -2.3
YKA 16.37 76 eP 43 19.50 -1.7
0.6s 2.00nm 3.6mb
MBC 16.74 26 eP 43 23.50 -2.1
0.5s 2.00nm 3.6mb
EDM 21.71 100 iPd 44 19.50 0.1
0.7s 45.00nm 4.9mb
PNT 21.81 115 ePc 44 21.00 0.6
0.8s 6.90nm 4.1mb
SES 24.70 102 eP 44 49.00 0.6
KVN 30.98 125 eP 45 44.50 -0.7

29d 10h

TNP 32.16 125 eP 45 55.00 -0.5
 RSSD 32.56 103 eP 45 58.40 -0.6
 FRB 34.39 51 eP 46 12.00 -2.2
 DAG 37.20 16 iPd 46 36.30 -1.5
 0.3s 25.97nm 5.6mb X
 SUF 54.49 2 iP 48 52.00 -2.0
 0.5s 2.80nm 4.5mb
 NB2 55.44 11 P 48 58.30 -2.6
 0.5s 0.90nm 4.0mb
 HFS 56.53 9 eP 49 05.20 -3.5
 0.3s 1.60nm 4.5mb
 60 obs. associated

& APR 29, 1990 13h 17m 29.93s
 63.095 N 150.772 W
 DEPTH = 118.0km
 CENTRAL ALASKA (1)
 <AGS-P>.

KTH 0.46 352 iP 17 47.53 -0.3
 HUR 0.53 102 eP 17 47.62 -0.5
 eS 18 00.96
 CUT 0.73 161 iP 17 49.27 -0.3
 eS 18 03.87
 RND 0.92 69 iP 17 50.93 -0.5
 eS 18 06.98
 MCK 1.05 51 eP 17 52.21 -0.4
 SKT 1.17 198 iP 17 53.34 -0.6
 PWA 1.51 164 eP 17 57.81 0.1
 eS 18 18.74
 GHO 1.58 146 iP 17 58.70 0.0
 iS 18 21.23
 SUA 1.64 180 eP 17 59.56 0.2
 PLRM 1.69 152 eP 17 59.32 -0.5
 SML 1.72 138 iP 17 59.81 -0.5
 NCG 1.82 202 eP 18 00.98 -0.6
 WRH 1.82 40 iP 18 00.80 -0.7
 CGLM 1.89 198 eP 18 02.21 -0.2
 PMS 1.94 162 iP 18 03.09 0.0
 SPU 2.01 198 eP 18 03.23 -0.7
 TOA 2.35 113 iP 18 08.24 -0.1
 PAX 2.42 91 iP 18 09.13 -0.1
 SLKM 2.61 174 eP 18 11.11 -0.6
 KLU 2.78 123 iP 18 12.48 -1.5
 20 obs. associated

& APR 29, 1990 13h 27m 33.90s
 63.039 N 150.670 W
 DEPTH = 116.2km
 CENTRAL ALASKA (1)
 <AGS-P>.

KTH 0.53 348 iP 27 51.62 -0.3
 iS 28 04.89
 CUT 0.66 164 iP 27 52.77 0.0
 SKT 1.14 201 iP 27 56.84 -0.5
 PWA 1.44 165 iP 28 00.49 -0.2
 GHO 1.51 147 iP 28 01.32 -0.3
 iS 28 23.50
 PLRM 1.62 153 eP 28 01.93 -0.9
 SML 1.65 138 iP 28 02.49 -0.8
 NCG 1.78 204 iP 28 03.94 -1.1
 CGLM 1.85 200 iP 28 06.33 0.5
 PMS 1.87 163 iP 28 05.43 -0.7
 SPU 1.97 200 iP 28 06.61 -0.8
 SLKM 2.55 175 iP 28 14.15 -0.7
 12 obs. associated

APR 29, 1990 15h 37m 29.95±0.60s
 40.211 N ± 6.8km 25.249 E ± 4.2km
 DEPTH = 10.0km (geophysicist)
 AEGEAN SEA (365)

EZN 0.91 115 iPg 37 47.20 -0.2
 ALN 0.92 41 ePb 37 46.50 -0.9
 eSb 37 58.60
 OUR 0.98 278 ePb 37 49.00 0.5
 PAIG 1.24 257 ePb 37 52.30 -0.6
 KDZ 1.44 5 iPg 37 56.00 -0.1
 RZN 1.53 345 eP 37 58.00 0.5
 SRS 1.55 306 ePb 37 58.20 0.5
 eSb 38 20.30
 SOH 1.57 293 ePb 37 57.50 -0.4
 eSb 38 22.30
 MMB 1.80 321 ePd 38 01.00 -0.2
 DIM 1.85 7 eP 38 02.00 0.1
 BNT 2.05 85 iPn 38 05.70 0.8

KKB 2.33 316 eP 38 14.00 5.1X
 VTS 2.83 328 eP 38 23.00 6.8X
 S.D. = 0.6 on 11 of 13 obs.

% APR 29, 1990 16h 49m 50.18±0.76s
 44.377 N ± 4.6km 7.060 E ± 13.3km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.5 (LDG).

SBF 0.58 152 Pg 50 02.00 0.0
 Sg 50 09.00
 FRF 0.87 200 Pg 50 06.70 -0.2
 Sg 50 17.70
 LRG 1.05 209 Pg 50 10.00 0.0
 Sg 50 24.80
 LMR 1.12 201 Pg 50 11.30 0.2
 Sg 50 25.60
 LPG 1.14 349 Pg 50 11.80 0.1
 Sg 50 25.70
 LPL 1.16 349 Pg 50 12.00 -0.1
 S.D. = 0.2 on 6 of 6 obs.

APR 29, 1990 16h 50m 49.99±0.38s
 44.385 N ± 2.6km 7.100 E ± 5.5km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.5 (LDG).

DOI 0.16 41 P 50 53.70 0.0
 eSg 50 56.70
 TOUF 0.39 164 Pg 50 57.73 -0.2
 AUTN 0.46 149 Pg 50 59.23 -0.1
 Sg 51 05.81
 AURF 0.52 162 Pg 51 00.35 -0.3
 Sg 51 07.85
 SBF 0.57 155 Pg 51 02.00 0.3
 Sg 51 09.00
 CALN 0.65 194 Pg 51 03.80 0.7
 REVf 0.67 163 Pg 51 03.39 0.0
 Sg 51 13.25
 BNI 0.73 336 P 51 04.00 -0.5
 eSn 51 13.00
 FRF 0.89 202 Pg 51 06.70 -0.3
 Sg 51 17.70
 LRG 1.07 210 Pg 51 10.00 -0.2
 Sg 51 24.80
 LMR 1.13 202 Pg 51 11.30 0.1
 Sg 51 25.60
 LPG 1.14 348 Pg 51 11.80 0.3
 Sg 51 25.70
 LPL 1.16 347 Pg 51 12.00 0.2
 S.D. = 0.3 on 13 of 13 obs.

* APR 29, 1990 17h 45m 13.07±1.57s
 35.922 N ± 19.7km 27.012 E ± 7.6km
 DEPTH = 10.0km (geophysicist)
 DODECANESE ISLANDS (369)

APE 1.65 314 eP 45 42.00 -0.3
 CIN 1.88 27 eP 45 31.00 -14.6X
 KSL 2.09 84 eP 45 47.50 -1.1
 VAM 2.35 258 eP 45 59.00 6.7X
 ELL 2.48 70 ePn 45 53.80 -0.5
 IZM 2.48 5 ePn 45 53.20 -1.0
 KHL 3.13 39 ePn 46 04.00 0.6
 BCK 3.26 61 ePn 46 07.00 1.7
 VLI 3.39 285 eP 46 07.50 0.5
 ALT 3.98 37 ePn 46 12.00 -3.5X
 S.D. = 1.2 on 7 of 10 obs.

APR 29, 1990 17h 46m 21.75±0.75s
 31.820 S ± 9.6km 69.189 W ± 7.3km
 DEPTH = 10.0km (geophysicist)
 SAN JUAN PROVINCE, ARGENTINA (137)

RT8S 0.27 305 ePd 46 27.80 0.3
 (S) 46 43.60
 RTCB 0.47 45 iP 46 26.00 -5.3X
 RTCV 0.56 94 ePc 46 33.00 -0.1
 S 46 52.70
 RTLL 0.78 52 iPc 46 25.00 -12.1X
 FCH 1.77 211 eP 46 56.00 3.1X
 PEL 1.83 223 iPc 46 54.00 0.5
 iS 47 37.50
 ROCH 1.92 233 eP 46 54.30 -0.7
 PCH 2.12 212 eP 47 00.00 2.3

TACH 2.35 218 eP 47 00.20 -0.8
 LNV 2.83 221 eP 47 06.50 -1.4
 LIC 71.80 70 PKP 57 49.30 2.5X
 TIC 72.05 70 PKP 57 48.40 0.1
 KIC 72.11 70 PKP 57 48.40 -0.2
 S.D. = 1.2 on 9 of 13 obs.

APR 29, 1990 18h 12m 04.22±0.31s
 19.885 N ± 5.1km 73.783 W ± 4.9km
 DEPTH = 10.0km (geophysicist)
 4.7mb (18 obs.)
 HAITI REGION (87)

YHJ 3.24 233 P 12 57.16 1.0
 S 13 35.19
 STH 3.38 238 P 12 57.86 -0.4
 S 13 31.77
 PCJ 3.85 237 P 13 04.58 -0.2
 S 13 42.06
 SPJ 4.04 243 P 13 07.91 0.4
 S 13 46.36
 MGP 6.60 105 eP 13 44.10 0.3
 PORP 7.00 104 eP 13 48.00 -1.4
 SJG 7.43 102 eP 13 54.00 -1.4
 PAG 12.14 106 eP 15 00.00 -0.3
 UPA 12.18 208 eP 15 00.00 -0.8
 HBF 14.27 337 P 15 36.00 7.7X
 SGS 14.55 337 P 15 39.00 7.0X
 JSC 15.80 337 P 15 53.00 4.7X
 PRM 16.07 333 P 15 48.00 -3.8X
 TKL 18.01 333 P 16 15.00 -1.3
 GBTN 18.21 332 P 16 17.00 -1.7
 BLA 18.21 343 P 16 17.00 -1.8
 1.0s 40.00nm 4.5mb
 CVL 18.49 348 P 16 18.00 -4.1X
 RSCP 18.79 329 P 16 25.00 -0.9
 UYO 23.21 312 eP 17 13.70 1.4
 TUL 25.08 314 eP 17 31.10 0.7
 1.2s 36.40nm 4.9mb
 MEO 26.47 309 iPd 17 47.30 3.9X
 GOL 33.53 313 P 18 46.60 0.1
 0.7s 3.64nm 4.4mb
 RSON 34.68 338 P 18 54.70 -1.3
 0.6s 16.61nm 5.1mb
 SCH 35.28 7 eP 19 02.00 0.9
 ARE 36.19 176 eP 19 07.00 -2.4
 ZOBO 36.35 171 P 19 13.00 1.8
 LR 30 28.00
 LPB 36.62 171 P 19 14.00 0.8
 BW06 37.72 315 P 19 21.80 -0.3
 SIV 37.78 160 P 19 22.00 -0.5
 CCH 37.79 168 P 19 24.60 1.7
 IMW 39.12 316 P 19 34.00 0.1
 PLM 40.50 298 P 20 02.60 17.3X
 FFC 40.84 335 eP 19 47.00 -0.5
 0.9s 10.00nm 4.5mb
 TNP 41.67 305 P 19 56.00 1.1
 0.8s 2.21nm 3.9mb
 SES 42.34 325 ePc 20 01.40 1.4
 KVN 42.57 306 P 20 02.70 0.5
 BAO 43.46 142 eP 20 07.00 -2.5
 FRB 43.98 3 eP 20 13.00 0.0
 NEW 44.85 319 P 20 20.00 -0.4
 0.8s 5.21nm 4.5mb
 YKA 50.94 337 eP 21 06.40 -1.2
 0.8s 3.00nm 4.3mb
 MBC 60.93 349 eP 22 18.00 -1.2
 EKA 62.88 37 P 22 33.00 0.4
 0.9s 5.10nm 4.7mb
 DAG 63.04 12 iPd 22 32.10 -1.3
 0.4s 4.24nm 5.0mb
 FLN 64.38 45 eP 22 44.80 2.2
 0.6s 4.50nm 4.8mb
 LDF 64.62 45 eP 22 46.20 2.0
 0.7s 6.60nm 4.9mb
 CAF 66.33 49 eP 22 56.80 1.5
 1.0s 8.00nm 4.9mb
 LKO 66.39 88 P 22 55.58 -0.5
 0.7s 17.50nm 5.4mb
 SSF 67.15 46 eP 23 02.20 1.8
 1.0s 6.00nm 4.7mb
 LOR 67.37 46 eP 23 03.10 1.2
 0.8s 4.05nm 4.7mb
 SMF 67.42 47 eP 23 03.70 1.6
 1.0s 4.00nm 4.6mb
 LIC 67.95 91 P 23 05.30 -0.7
 KIC 68.17 91 P 23 06.70 -0.7

NB2 70.41 31 P 23 20.10 -0.2
0.9s 4.90nm 4.6mb
KHC 73.54 43 P 23 40.10 0.9
ASPA 154.03 257 ePKP 32 15.40 17.5X
1.3s 9.00nm
S.D. = 1.2 on 47 of 55 obs.

% APR 29, 1990 18h 38m 02.60±1.80s
39.245 N ±16.2km 23.126 E ±13.3km
DEPTH = 10.0km (geophysicist)
AEGEAN SEA (365)

AGG 0.66 250 ePg 38 15.70 0.0
eSg 38 26.30
PAIG 0.80 32 ePg 38 18.30 0.1
eSg 38 29.40
LIT 0.99 330 ePg 38 21.00 -0.3
eSg 38 35.40
OUR 1.27 31 ePb 38 25.60 -0.6
eSb 38 42.80
SOH 1.58 6 ePb 38 31.60 0.8
S.D. = 0.7 on 5 of 5 obs.

% APR 29, 1990 18h 49m 07.56±0.77s
41.104 N ±11.0km 14.725 E ±17.6km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

BSS 0.32 169 P 49 14.00 -0.2
eSg 49 21.70
DUI 0.59 340 P 49 19.40 -0.2
SGO 0.70 141 P 49 21.50 0.1
eSg 49 34.70
SDI 0.91 312 P 49 25.20 0.2
MGR 1.15 147 P 49 29.20 0.1
eSg 49 48.20
S.D. = 0.2 on 5 of 5 obs.

* APR 29, 1990 18h 58m 35.88±1.07s
36.116 N ±15.4km 27.133 E ±6.7km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)

APE 1.60 307 ePn 59 04.00 -0.3
CIN 1.67 27 eP 58 51.00 -14.2X
KSL 1.98 89 ePn 59 09.50 -0.3
IZM 2.28 3 ePn 59 16.20 2.0
ELL 2.33 73 iPn 59 15.00 0.1
VAM 2.49 254 ePn 59 18.00 0.9
KHL 2.91 40 ePn 59 23.00 -0.2
BCK 3.08 63 ePn 59 27.00 1.5
VLI 3.44 281 ePn 59 28.50 -2.0
ALT 3.77 38 ePn 59 33.00 -2.4
ITM 4.32 286 ePn 59 44.00 0.9
BBTK 5.80 48 eP 00 04.00 -0.1
S.D. = 1.5 on 11 of 12 obs.

& APR 29, 1990 19h 05m 11.12s
61.915 N 151.535 W
DEPTH = 79.1km
SOUTHERN ALASKA (2)
<AGS-P>.

SKT 0.07 2 iP 05 22.13 1.2
SUA 0.59 140 iP 05 25.76 -0.2
iS 05 38.51
NCG 0.59 210 iP 05 25.52 -0.4
iS 05 37.49
CGLM 0.65 201 iP 05 25.89 -0.6
CRP 0.71 205 iP 05 26.81 -0.5
CUT 0.77 50 iP 05 26.85 -0.8
SPU 0.78 199 iP 05 27.07 -0.8
iS 05 39.91
PWA 0.83 108 iPc 05 28.10 -0.2
PMS 1.16 125 iPc 05 31.50 -0.9
NKA 1.18 173 eP 05 34.07 1.4
eS 05 53.33
PLRM 1.19 105 eP 05 31.19 -1.5
PMR 1.19 105 iPc 05 31.30 -1.4
GHO 1.25 95 eP 05 32.31 -1.3
eS 05 50.63
HUR 1.38 39 iP 05 34.18 -1.1
iS 05 52.33
RDT 1.41 198 iP 05 34.97 -0.7
eS 05 54.47
SML 1.52 93 iP 05 35.47 -1.7
SLKM 1.55 155 iP 05 36.75 -0.7

eS 05 58.68
RED 1.62 202 iP 05 38.00 -0.4
iS 05 59.43
KTH 1.67 9 iP 05 37.92 -1.2
iS 05 58.29
NNL 1.88 176 iP 05 42.70 0.8
RND 1.94 38 eP 05 41.39 -1.4
SVW 2.12 249 iPd 05 43.90 -1.3
MCK 2.18 32 iP 05 45.28 -0.8
NCA 2.23 86 iP 05 45.05 -1.7
iS 06 12.48
TTA 2.32 298 ePc 05 46.10 -1.9
GLI 2.38 114 iP 05 45.62 -3.1
CNPM 2.40 176 eP 05 49.19 0.1
TOA 2.54 83 iPc 05 50.10 -0.9
VZW 2.54 108 eP 05 48.57 -2.4
VLZ 2.61 105 iP 05 49.04 -2.9
KLU 2.71 97 iP 05 50.56 -2.8
NEA 2.89 22 eP 05 53.39 -2.5
WRH 3.00 30 eP 05 55.06 -2.3
PAX 3.01 67 iP 05 59.52 1.9
CDD 3.17 200 iP 06 00.12 0.4
HDA 3.25 38 iP 05 58.28 -2.5
FBA 3.44 28 eP 06 00.80 -2.6
GLM 3.60 29 iP 06 04.03 -1.7
KDC 4.21 187 eP 06 13.50 -0.7
IMA 4.28 348 eP 06 12.50 -2.8
TGL 4.35 102 iP 06 15.17 -1.1
41 obs. associated

& APR 29, 1990 19h 25m 19.60s
61.426 N 151.025 W
DEPTH = 59.7km
SOUTHERN ALASKA (2)
<AGS-P>.

SUA 0.14 74 iP 25 29.17 1.8
iS 25 36.90
CGLM 0.49 256 iP 25 31.46 -0.2
NCG 0.54 268 iP 25 32.03 -0.2
SPU 0.55 244 iP 25 31.92 -0.4
CRP 0.57 254 iP 25 32.41 -0.1
PWA 0.59 67 iPc 25 32.50 -0.1
SKT 0.61 337 iP 25 32.17 -0.7
eS 25 42.67
NKA 0.69 189 iP 25 35.36 1.5
PMS 0.73 104 iPc 25 34.10 -0.2
PLRM 0.92 79 iP 25 35.84 -0.9
iS 25 49.74
PMR 0.92 79 iPc 25 35.80 -0.9
SLKM 1.00 157 iP 25 37.03 -0.8
eS 25 51.63
CUT 1.05 20 iP 25 37.63 -0.7
GHO 1.06 70 iP 25 37.76 -0.9
iS 25 52.83
RDT 1.09 219 iP 25 38.42 -0.6
iS 25 53.87
RED 1.32 221 iP 25 41.86 -0.4
iS 25 59.49
SML 1.34 72 iP 25 41.17 -1.3
eS 25 59.15
HUR 1.69 22 iP 25 46.95 -0.3
iS 26 08.17
CNPM 1.91 183 iP 25 49.16 -1.2
eS 26 13.23
GLI 1.98 104 iP 25 48.71 -2.6
iS 26 13.13
NCA 2.08 72 iP 25 51.29 -1.4
iS 26 16.75
KTH 2.14 1 iP 25 52.94 -0.6
VZW 2.19 98 iP 25 51.87 -2.5
eS 26 18.68
MTU 2.20 130 iP 25 52.31 -2.0
RND 2.23 26 eP 25 54.42 -0.4
SVW 2.24 264 iPc 25 53.40 -1.6
VLZ 2.29 95 iP 25 53.01 -2.5
AUL 2.37 211 iP 25 56.94 0.1
AUE 2.38 210 iP 25 56.42 -0.4
TOA 2.41 71 iPc 25 56.30 -1.0
KLU 2.45 86 iP 25 55.41 -2.6
MCK 2.51 22 eP 25 59.13 0.4
TTA 2.78 305 iPc 26 00.70 -2.0
CDD 2.83 209 iP 26 02.35 -0.9
PAX 3.03 57 eP 26 04.72 -1.5
WRH 3.34 22 iP 26 09.31 -1.2
DDM 3.36 43 iP 26 11.20 0.3
GLB 3.47 87 iP 26 09.09 -3.2

HDA 3.52 30 eP 26 10.98 -2.1
CCB 3.55 23 eP 26 13.73 0.3
KDC 3.76 192 eP 26 13.50 -2.9
DOT 3.92 52 eP 26 16.68 -2.0
TGL 4.04 96 eP 26 17.03 -3.3
43 obs. associated

* APR 29, 1990 19h 32m 30.29±0.56s
16.524 N ±7.5km 145.964 E ±13.3km
DEPTH = 33.0km (normal)
4.6mb (2 obs.)
MARIANA ISLANDS (216)

PJG 3.11 200 eP 33 17.50 -0.6
GUMO 3.11 200 eP 33 17.80 -0.3
GUA 3.14 199 eP 33 18.30 -0.3
eS 33 54.50
MAT 21.09 342 (P) 37 13.00 -1.3
SSE 26.83 307 eP 38 16.50 6.9X
Z 16s 0.40um 4.1mszX
BJI 34.89 318 eP 39 20.00 -0.8
1.0s 12.00nm 4.8mb
LZH 42.09 306 eP 40 22.50 1.4
pP 40 30.50 27kmX
CHG 44.76 280 eP 40 44.20 1.3
GUN 56.29 293 P 42 10.80 0.0
GKN 57.39 293 P 42 18.00 -0.4
HYB 64.16 282 eP 43 09.50 5.1X
FBA 65.13 25 eP 43 10.00 0.1
INK 71.27 23 eP 43 47.00 -1.0
YKA 79.78 28 eP 44 34.80 -1.6
0.7s 2.90nm 4.4mb
SES 85.46 39 eP 45 07.00 1.0
LRM 86.14 43 ePd 45 10.60 0.8
ZOBO 147.32 94 PKP 52 13.00 1.8
S.D. = 1.1 on 15 of 17 obs.

* APR 29, 1990 19h 37m 18.24±1.12s
36.373 N ±14.6km 27.041 E ±8.7km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)

APE 1.40 300 ePb 37 43.50 -0.3
CIN 1.48 34 eP 37 31.00 -13.9X
IZM 2.03 5 ePn 37 53.00 0.1
KSL 2.07 96 ePn 37 58.50 5.1X
ELL 2.34 80 ePn 37 53.00 -4.5X
VAM 2.50 248 ePn 37 59.80 0.2
KHL 2.78 45 ePn 38 04.00 0.4
BCK 3.04 68 ePn 38 07.00 -0.4
S.D. = 0.5 on 5 of 8 obs.

% APR 29, 1990 20h 00m 28.29±0.80s
41.116 N ±10.7km 14.752 E ±17.2km
DEPTH = 10.0km (geophysicist)
SOUTHERN ITALY (390)

BSS 0.33 173 P 00 34.90 -0.2
eSg 00 42.80
DUI 0.59 338 P 00 40.00 -0.2
SGO 0.70 143 P 00 42.30 0.2
eSg 00 52.00
SDI 0.92 310 P 00 46.10 0.2
eSg 00 59.30
MGR 1.15 148 P 00 49.80 0.0
eSg 01 05.10
S.D. = 0.3 on 5 of 5 obs.

% APR 29, 1990 20h 12m 43.28±1.53s
33.622 S ±7.4km 71.395 W ±12.2km
DEPTH = 10.0km (geophysicist)
NEAR COAST OF CENTRAL CHILE (135)

LNV 0.33 182 iPc 12 50.20 0.0
iS 12 57.00
TACH 0.38 95 iPc 12 52.20 1.1
iS 13 00.00
CHCH 0.69 117 iPd 12 56.40 -0.6
iS 13 07.00
ROCH 0.72 26 iPc 12 58.30 0.6
PCH 0.74 90 iPc 12 58.30 0.5
iS 13 09.00
PEL 0.76 51 iPd 12 57.60 -0.6
iS 13 10.20
FCH 0.97 73 iPd 13 00.90 -1.0
iS 13 15.90
S.D. = 0.9 on 7 of 7 obs.

? APR 29, 1990 21h 50m 05.82± 7.34s
34.019 S ± 41.0km 71.921 W ± 48.0km
DEPTH = 33.0km (normol)
NEAR COAST OF CENTRAL CHILE (135)

LNV	0.43	82	iP	50	15.50	0.2
TACH	0.90	66	iP	50	22.00	-0.1
			iS	50	37.50	
IHA	1.02	13	eP	50	23.70	-0.1
			iS	50	41.60	
CHCH	1.06	86	iPc	50	25.00	0.6
			iS	50	43.50	
SAN	1.19	62	iPc	50	26.70	0.4
			iS	50	45.00	
PCH	1.24	72	iPc	50	25.00	-2.0
			iS	50	43.50	
ROCH	1.29	36	eP	50	27.70	-0.2
			iS	50	45.70	
PEL	1.35	50	iPc	50	29.10	0.5
			iS	50	31.90	
FCH	1.52	64	iPc	50	31.00	0.5
			iS	50	55.50	

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

* APR 29, 1990 22h 21m 22.23± 1.03s
36.496 N ± 15.0km 27.180 E ± 8.4km
DEPTH = 10.0km (geophysicist)
DODECANESE ISLANDS (369)

CIN	1.32	33	ePn	21	46.00	-0.6
			iSg	22	09.00	
APE	1.44	294	ePn	21	50.00	1.6
KSL	1.98	100	ePn	21	56.50	0.4
ELL	2.21	83	ePn	22	04.00	4.4X
VAM	2.65	247	ePn	22	05.50	-0.3
VLI	3.42	275	ePn	22	15.50	-1.2

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

* APR 29, 1990 23h 33m 17.66± 0.77s
40.434 N ± 12.1km 142.278 E ± 14.0km
DEPTH = 33.0km (normol)
4.7mb (23 obs.) 4.2Msz (1 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

MAT	5.03	221	iPc	34	32.50	-0.3
	0.9s	84.03nm			5.2mb	
			eS	35	32.00	
BJI	19.91	277	eP	37	48.00	-1.3
	2.0s	28.00nm			4.2mb	
Z	20s	0.42um			3.7Msz	
KMI	36.26	257	eP	40	20.00	0.1
CHG	42.86	253	eP	41	14.40	-0.1
CHTO	42.86	253	iP	41	14.20	-0.3
	0.8s	3.84nm			4.2mb	
PMR	45.52	39	eP	41	44.50	9.1X
FBA	45.89	34	iP	41	45.60	7.3X
	1.0s	7.50nm			4.6mb	
GUN	47.57	273	P	41	53.00	0.5
	0.4s	16.00nm			5.4mb	
PKI	48.10	273	P	41	57.20	0.5
INK	51.07	28	eP	42	24.00	5.7X
MBC	53.08	17	eP	42	32.00	-1.4
	0.6s	2.00nm			4.3mb	
KEV	60.51	339	eP	43	23.00	-3.3X
SOD	62.11	337	eP	43	37.00	-0.2
GBA	62.19	264	Pd	43	37.50	-0.9
	0.6s	3.00nm			4.6mb	
DAG	62.46	355	iPd	43	38.40	-1.0
	0.6s	6.67nm			4.9mb	
SUF	65.26	333	eP	43	57.80	0.0
	0.4s	2.70nm			4.7mb	
NUR	67.28	332	eP	44	10.00	-0.7
FFC	70.49	34	eP	44	28.00	-2.6X
	0.6s	5.00nm			4.8mb	
HFS	71.27	336	eP	44	34.50	-0.8
	0.7s	7.20nm			4.8mb	
Z	18s	0.11um			4.2Msz	
		LR		14	29.00	
NB2	71.32	337	P	44	35.60	0.0
	0.8s	6.20nm			4.7mb	
KVN	72.18	54	eP	44	50.00	8.7X
FRB	73.32	14	eP	44	45.50	-1.7
KRA	76.66	326	eP	45	22.30	15.7X
KSP	77.57	328	eP	45	12.00	0.3
LOR	85.17	333	eP	45	51.90	0.3
	0.6s	3.60nm			4.8mb	

LBF	85.37	333	eP	45	52.80	0.1
	0.6s	3.15nm			4.7mb	
SSF	85.47	333	eP	45	53.60	0.5
	0.8s	4.05nm			4.7mb	
LPL	85.62	330	eP	45	55.00	0.8
	0.6s	1.80nm			4.5mb	
LPG	85.63	330	eP	45	55.10	0.7
	0.6s	2.70nm			4.6mb	
SMF	85.71	333	eP	45	55.00	0.6
	0.8s	2.70nm			4.5mb	
AVF	85.76	333	eP	45	55.30	0.8
	0.6s	6.30nm			5.0mb	
MAF	86.52	333	eP	45	59.40	1.0
	0.8s	5.35nm			4.8mb	
TCF	86.59	334	eP	45	59.40	0.7
	0.8s	4.05nm			4.7mb	
LSF	86.85	334	eP	46	00.60	0.6
	0.8s	5.35nm			4.8mb	
MFF	87.09	335	eP	46	01.80	0.7
	0.8s	5.35nm			4.8mb	
SIV	148.31	47	(PKP)	52	59.20	0.3
	S.D. = 0.8	on 29 of		36	obs.	

* APR 29, 1990 23h 34m 30.14± 0.84s
43.102 N ± 13.2km 0.548 W ± 6.9km
DEPTH = 10.0km (geophysicist)
PYRENEES (378)
MD 1.0 (STR). Felt (III) at Agos
Vidolos, France.

ESCF	0.03	220	Pg	34	31.51	-0.7
OGE	0.09	39	Pg	34	31.92	-0.8
			Sg	34	33.44	
ATE	0.11	262	Pg	34	32.96	-0.1
			Sg	34	36.28	
MADF	0.20	283	Pg	34	35.39	0.8
			Sg	34	38.76	
BTH	0.25	85	iPg	34	36.10	0.6
			Sg	34	39.70	

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

? APR 30, 1990 00h 23m 24.57± 1.50s
40.449 N ± 18.6km 142.352 E ± 27.0km
DEPTH = 33.0km (normol)
4.2mb (3 obs.)
NEAR EAST COAST OF HONSHU, JAPAN(228)

MAT	5.08	221	iPc	24	40.60	0.2
			eS	25	34.00	
BJI	19.97	277	eP	27	56.00	-0.7
YKA	60.50	31	eP	33	43.20	10.0X
	0.6s	0.20nm			3.4mb	
SOD	62.11	337	eP	33	51.00	6.9X
SUF	65.27	333	eP	34	06.00	1.2
NUR	67.29	332	iP	34	18.00	0.3
HFS	71.28	336	eP	34	42.30	0.1
	0.4s	1.50nm			4.4mb	
NB2	71.33	337	P	34	42.50	-0.1
	0.7s	2.10nm			4.3mb	
FRB	73.29	14	eP	34	53.00	-1.0

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

? APR 30, 1990 01h 15m 43.22± 1.07s
16.179 N ± 8.6km 61.438 W ± 10.3km
DEPTH = 23.1 ± 12.9 km
LEEWARD ISLANDS (92)
ML 1.9 (FDF).

SEG	0.23	344	eP	15	49.21	0.1
			S	15	52.80	
SFG	0.24	72	eP	15	49.10	-0.1
PAG	0.28	238	eP	15	49.70	-0.1
			S	15	53.70	
MGG	0.28	156	eP	15	50.00	0.1
			S	15	54.70	
BPA	0.95	335	eP	16	01.00	0.0
			S	16	13.70	

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

APR 30, 1990 01h 38m 59.14± 1.85s
17.260 S ± 6.0km 72.781 W ± 6.9km
DEPTH = 30.7 ± 13.6 km
5.1mb (36 obs.) 4.7Msz (3 obs.)
NEAR COAST OF PERU (115)

ARE	1.47	57	iPc	39	16.00	-8.0X
			i(S)	39	48.40	

PT03	4.36	318	iPc	40	06.10	1.1
			eS	40	53.20	
LPB	4.54	82	iPc	40	10.40	2.4
	1.0s	464.00nm				
ZOBO	4.57	78	iPc	40	10.50	2.0
PT02	5.56	320	eP	40	21.90	-0.1
			eS	12	24.90	
CCH	6.34	92	P	40	34.00	0.7
			i	40	41.00	
PT08	6.41	325	eP	40	35.00	0.7
			eS	41	45.60	
NNA	6.55	323	eP	40	39.30	3.3X
	0.8s	100.75nm			5.7mb	
			i	40	49.70	
			eS	41	48.00	
PT10	6.56	321	eP	40	40.00	4.0X
			iP	40	50.00	
			iS	42	02.00	
ANT	6.78	161	iPc	40	32.20	-7.0X
			iS	41	40.30	
SIV	11.29	85	P	41	37.40	-4.2X
			i	41	44.00	
RTRS	13.20	167	e(P)	42	04.80	-2.3
RTLL	14.55	165	ePc	42	20.80	-4.0X
RTCB	14.62	166	e(P)	42	26.00	0.2
PEL	15.93	174	eP	42	40.00	-2.8
	1.0s	30.00nm			4.4mb	
FCH	16.16	172	eP	42	46.00	0.1
TACH	16.41	175	eP	42	51.00	2.2
PSO	18.87	346	eP	43	26.00	6.0X
BOG	21.78	357	eP	43	56.00	5.1X
			eS	48	02.00	
BAO	23.83	90	eP	44	08.90	-1.8
SDV	26.06	5	eP	44	41.70	9.6X
UPA	26.91	345	(P)	44	38.00	-1.6
Z	20s	1.95um			4.7Msz	
OLLA	27.74	13	iP	44	46.40	-0.9
GUAC	27.81	12	eP	44	47.60	-0.4
LLAV	28.18	13	iP	44	50.00	-1.3
CAR	28.19	12	eP	44	50.00	-1.3
SVB	32.40	21	eP	45	26.79	-1.8
SLB	32.99	21	eP	45	32.37	-1.4
RSCP	53.95	347	P	48	20.00	-2.3
BLA	54.65	353	P	48	27.00	-0.5
	1.0s	19.00nm			5.1mb	
UYO	55.15	338	e(P)	48	31.00	-0.1
CBN	55.34	356	eP	48	32.00	-0.3
OLY	55.39	341	P	48	30.00	-2.8
TUL	57.19	338	eP	48	45.80	0.1

30d 02h

1.0s 16.00nm 5.2mb
 LBF 86.05 333 eP 43 33.50 -0.3
 0.8s 10.75nm 5.1mb
 SSF 86.14 334 eP 43 34.40 0.2
 0.8s 9.40nm 5.1mb
 LPL 86.31 331 eP 43 35.60 0.3
 0.8s 9.40nm 5.1mb
 LPG 86.32 331 eP 43 35.80 0.4
 0.8s 12.75nm 5.2mb
 GRR 86.39 337 eP 43 35.80 0.5
 0.8s 13.45nm 5.2mb
 SMF 86.39 333 eP 43 35.70 0.3
 1.0s 36.00nm 5.6mb
 AVF 86.43 333 eP 43 36.00 0.4
 1.0s 36.00nm 5.6mb
 SDI 86.53 324 P 43 40.00 3.8X
 BNI 86.72 331 P 43 36.00 -1.2
 LPF 86.76 337 eP 43 37.90 0.8
 1.0s 20.00nm 5.3mb
 BGF 86.81 334 eP 43 37.70 0.3
 0.8s 8.05nm 5.0mb
 MAF 87.19 334 eP 43 40.10 0.8
 0.8s 13.45nm 5.2mb
 TCF 87.26 334 eP 43 40.10 0.5
 1.0s 9.00nm 5.0mb
 LSF 87.52 334 eP 43 41.20 0.3
 0.9s 21.30nm 5.4mb
 MFF 87.75 336 eP 43 42.60 0.6
 0.9s 16.40nm 5.3mb
 RJF 88.35 334 eP 43 45.40 0.5
 1.0s 10.00nm 5.0mb
 CAF 88.50 333 eP 43 46.70 1.1
 1.0s 12.00nm 5.1mb
 LFF 88.94 334 eP 43 48.60 0.9
 0.8s 8.05nm 5.1mb
 ZOBO 144.16 58 PKP 50 29.00 -1.3
 SIV 148.28 48 PKP 50 37.40 1.0
 S.D. = 0.8 on 111 of 121 obs.

? APR 30, 1990 02h 40m 04.02±2.96s
 6.487 S ±15.9km 130.180 E ±19.0km
 DEPTH = 153.6 ±34.0 km
 4.6mb (4 obs.)

BANDA SEA (280)

MTN 6.39 172 eP 41 37.00 0.1
 eS 42 36.00
 WB5 13.92 163 eP 43 14.30 -1.6
 i 43 17.00
 eS 45 41.00
 WRA 13.97 164 Pd 43 17.20 0.6
 0.2s 1.70nm 4.0mb
 QIS 16.71 148 eP 43 51.00 0.4
 eS 46 42.00
 ASPA 17.45 169 eP 44 00.50 0.8
 0.5s 7.00nm 4.3mb
 eS 46 59.20
 MBL 17.69 213 eP 44 02.70 0.3
 WARB 19.88 189 eP 44 25.00 -0.5
 eS 48 01.00
 GUN 54.75 311 P 49 20.40 -0.1
 PKI 54.93 310 P 49 21.50 -0.2
 0.5s 9.00nm 4.8mb
 DMN 55.18 310 P 49 23.70 0.2
 0.5s 11.00nm 5.0mb
 GKN 55.74 310 P 49 27.40 0.1
 S.D. = 0.8 on 11 of 11 obs.

* APR 30, 1990 02h 49m 16.19±0.89s
 3.233 S ±11.2km 129.331 E ±14.7km
 DEPTH = 96.9 ±8.2 km
 4.7mb (3 obs.)

CERAM (272)

MTN 9.72 170 eP 51 36.00 1.1
 eS 53 25.00
 TRT 17.20 254 Pd 53 11.60 -0.3
 WB5 17.26 164 eP 53 12.00 -0.6
 eS 56 26.00
 WRA 17.31 164 Pd 53 13.80 0.5
 0.5s 5.20nm 4.0mb
 QIS 19.92 151 iPc 53 41.90 -0.8
 e 53 45.00
 ASPA 20.79 168 iPc 53 51.00 -0.6
 1.0s 70.00nm 4.9mb
 Z 23s 0.25um 3.5mszX
 eS 57 41.20

LR 05 26.50
 NANU 23.42 214 eP 54 20.20 2.8X
 CTA 23.52 137 eP 54 18.50 0.0
 e 54 25.50
 CHG 37.07 307 ePc 56 19.20 0.3
 1.0s 13.25nm 4.8mb
 KMI 38.22 319 Pd 56 29.00 0.3
 GUN 52.02 309 P 58 17.70 -0.9
 PKI 52.22 309 P 58 20.90 0.9
 DMN 52.48 309 P 58 21.20 -0.6
 AIA 110.96 174 ePKP 07 41.00 1.8
 S.D. = 1.0 on 13 of 14 obs.

APR 30, 1990 02h 50m 49.49±0.66s
 40.557 N ±5.6km 23.568 E ±6.3km
 DEPTH = 10.0km (geophysicist)

GREECE (364)

SOH 0.31 328 ePg 50 56.00 0.0
 eSg 50 59.50
 OUR 0.39 125 ePg 50 57.70 0.3
 eSg 51 03.00
 THE 0.47 280 ePg 50 58.70 -0.3
 eSg 51 05.40
 SRS 0.56 2 ePg 51 00.20 -0.7
 eSg 51 07.70
 PAIG 0.63 172 ePg 51 02.00 -0.2
 LIT 0.94 241 ePg 51 07.30 -0.2
 VAY 1.07 316 ePn 51 10.60 0.9
 S.D. = 0.6 on 7 of 7 obs.

& APR 30, 1990 03h 44m 23.30s
 62.023 N 124.260 W
 DEPTH = 10.0km (geophysicist)

NORTHWEST TERRITORIES, CANADA (679)
 <PGC-P>. ML 3.9 (PGC).

DLB 4.62 221 ePn 45 34.70 -0.2
 HYT 6.47 265 P 46 00.10 -0.9
 DWY 7.19 293 P 46 08.60 -2.3
 INK 7.41 332 P 46 11.00 -2.9
 MNB 10.35 159 ePn 46 51.90 -3.1
 EDM 10.57 142 P 46 53.60 -4.2
 FCC 13.73 112 eP 47 34.00 -6.2
 0.4s 4.00nm 4.7mb X
 SES 13.74 142 P 47 36.00 -4.4
 MBC 14.39 5 P 47 42.50 -6.1
 FRB 24.78 61 eP 49 44.00 -1.9
 10 obs. associated

? APR 30, 1990 03h 54m 25.00±1.69s
 41.220 N ±15.2km 14.872 E ±18.8km
 DEPTH = 10.0km (geophysicist)

SOUTHERN ITALY (390)

BSS 0.43 187 P 54 33.80 0.0
 eSg 54 37.50
 SGO 0.74 153 P 54 39.70 0.2
 eSg 54 50.30
 SDI 0.93 302 P 54 42.80 0.0
 MGR 1.20 154 P 54 47.10 -0.2
 S.D. = 0.3 on 4 of 4 obs.

? APR 30, 1990 03h 57m 47.43±2.82s
 17.846 N ±13.3km 101.098 W ±34.3km
 DEPTH = 98.6 ±27.9 km
 3.3mb (1 obs.)

NEAR COAST OF GUERRERO, MEXICO (58)

ACX 1.53 129 eP 58 14.55 0.1
 iS 58 40.16
 III 1.64 71 eP 58 14.38 -1.6
 iS 58 44.72
 CRX 2.05 41 eP 58 21.86 0.4
 eS 58 48.50
 IJJ 2.28 34 iP 58 20.54 -4.1X
 (S) 58 55.00
 UNM 2.34 51 eP 58 26.50 1.2
 IIC 2.59 42 eP 58 29.10 0.5
 PPM 2.64 62 iP 58 28.45 -1.1
 (S) 59 02.97
 IIT 2.90 66 (P) 58 26.64 -6.1X
 OXX 4.24 100 iP 58 52.00 0.8
 YKA 45.59 351 eP 05 58.70 -0.3
 0.4s 0.20nm 3.3mb
 S.D. = 1.2 on 8 of 10 obs.

% APR 30, 1990 04h 19m 29.58±1.04s
 30.555 S ±9.1km 116.813 E ±11.5km
 DEPTH = 10.0km (geophysicist)

WESTERN AUSTRALIA (590)

BAL 0.10 241 iPd 19 32.20 -0.2
 KLB 1.32 142 eP 19 54.00 0.1
 iS 20 11.00
 MRWA 1.51 332 iPd 19 56.70 0.0
 iS 20 15.20
 MUN 1.51 200 eP 19 57.10 0.4
 iS 20 16.60
 NWA0 2.39 171 eP 20 09.00 -0.4
 eS 20 43.00
 S.D. = 0.4 on 5 of 5 obs.

? APR 30, 1990 04h 21m 44.94±8.69s
 31.174 S ±18.1km 67.957 W ±63.1km
 DEPTH = 102.6 ±57.0 km

SAN JUAN PROVINCE, ARGENTINA (137)

RTLL 0.47 250 iPc 22 01.00 0.0
 ZON 0.72 239 iPd 22 03.00 -0.1
 eS 22 15.00
 RTCB 0.79 246 iPd 22 03.90 0.2
 (S) 22 16.00
 RTCV 0.84 216 eP 22 04.30 0.0
 S 22 16.40
 RTBS 1.37 249 ePc 22 10.00 -0.1
 S 22 26.50
 RTRS 1.64 307 eP 22 13.40 0.0
 eS 22 33.70
 S.D. = 0.1 on 6 of 6 obs.

? APR 30, 1990 04h 24m 26.03±2.83s
 30.254 S ±22.8km 116.819 E ±24.8km
 DEPTH = 10.0km (geophysicist)

WESTERN AUSTRALIA (590)

BAL 0.36 195 iPd 24 32.80 -0.7
 MRWA 1.26 325 iPd 24 57.10 7.7X
 eS 25 15.00
 KLB 1.56 149 eP 24 55.00 1.2
 iS 25 12.00
 MUN 1.80 197 iPc 24 57.60 0.3
 eS 25 17.00
 WARB 9.57 67 eP 26 47.30 0.5
 eS 28 30.00
 FORR 9.75 96 eP 26 48.00 -1.2
 eS 28 30.00
 S.D. = 1.4 on 5 of 6 obs.

* APR 30, 1990 04h 54m 13.52±2.01s
 39.970 N ±10.3km 142.735 E ±9.7km
 DEPTH = 60.6 ±18.1 km
 4.7mb (27 obs.) 4.1msz (1 obs.)

NEAR EAST COAST OF HONSHU, JAPAN(228)

MAT 4.94 228 iPc 55 27.50 0.5
 (S) 56 29.00
 SSE 19.61 250 Pd 58 40.00 0.5
 1.0s 10.00nm 4.1mb
 Z 14s 0.40um 3.7msz
 N 12s 0.30um
 pP 58 50.00 43kmX
 eS 02 32.00
 BJI 20.33 279 eP 58 43.50 -3.5X
 1.4s 22.00nm 4.3mb
 Z 16s 0.47um 3.9mszX
 LZH 30.71 275 eP 00 25.60 0.7
 1.5s 19.00nm 4.6mb
 KMI 36.50 258 Pc 01 14.50 -0.5
 1.5s 0.07nm 2.4mb X
 SVW 42.56 39 ePc 02 16.10 11.5X
 1.0s 12.50nm
 CHG 43.06 254 eP 02 09.90 0.8
 CHTO 43.06 254 eP 02 09.30 0.2
 0.8s 5.12nm 4.3mb
 IMA 43.64 32 eP 02 17.00 3.6X
 SHL 44.53 267 eP 02 20.00 -1.2
 FBA 46.08 34 eP 02 41.00 8.3X
 GUN 47.95 274 P 02 48.40 0.1
 PKI 48.48 274 P 02 52.00 -0.4
 DMN 48.69 274 P 02 54.30 0.3
 GKN 48.86 275 P 02 55.10 0.0
 INK 51.31 28 eP 03 12.00 -1.0
 MBC 53.42 17 eP 03 28.00 -0.7

1.0s 4.00nm 4.4mb
 WB5 60.05 189 eP 04 15.20 -1.2
 e 04 26.50
 WRA 60.11 189 Pc 04 15.40 -1.4
 0.6s 2.00nm 4.4mb
 YKA 60.76 31 eP 04 23.50 2.7
 0.7s 0.70nm 3.9mb
 KEV 61.07 339 eP 04 20.00 -2.9
 GBA 62.50 265 Pc 04 32.40 -0.7
 0.6s 4.50nm 4.8mb
 SOD 62.67 337 iP 04 32.80 -0.8
 DAG 62.95 355 iPd 04 34.00 -1.3
 0.7s 6.16nm 4.8mb
 ASPA 63.84 189 eP 04 49.00 7.3X
 1.0s 9.00nm 4.7mb
 SUF 65.83 333 iP 04 53.40 -0.8
 NUR 67.85 332 iP 05 06.00 -1.0
 FFC 70.69 34 eP 05 24.00 -0.5
 0.8s 6.00nm 4.6mb
 HFS 71.84 336 eP 05 29.80 -1.5
 1.0s 14.60nm 4.9mb
 Z 17s 0.14um 4.3MszX
 LR 35 49.00
 NB2 71.88 337 P 05 30.80 -0.8
 0.9s 8.60nm 4.7mb
 KVN 72.17 54 e(P) 05 35.00 1.1
 FRB 73.68 14 eP 05 40.50 -1.5
 KSP 78.15 329 eP 06 08.00 0.6
 CLL 79.06 331 eP 06 12.00 -0.4
 PRU 79.52 329 eP 06 15.00 0.1
 KHC 80.58 329 P 06 21.20 0.6
 EKA 80.71 341 Pd 06 21.60 0.5
 1.0s 4.90nm 4.4mb
 GRF 81.04 331 iPc 06 23.80 0.8
 0.9s 9.00nm 4.7mb
 Z 22s 0.10um 4.1Msz
 LOR 85.74 333 eP 06 47.40 0.4
 0.8s 8.05nm 4.9mb
 LBF 85.94 333 eP 06 48.20 0.1
 0.8s 6.70nm 4.8mb
 SSF 86.04 333 eP 06 48.90 0.4
 0.8s 5.35nm 4.7mb
 LPL 86.20 331 eP 06 50.30 0.7
 0.8s 5.35nm 4.7mb
 LPG 86.21 331 eP 06 50.30 0.6
 0.8s 5.35nm 4.7mb
 SMF 86.28 333 eP 06 50.30 0.6
 0.8s 10.75nm 5.1mb
 AVF 86.33 333 eP 06 50.60 0.7
 0.8s 12.10nm 5.1mb
 MAF 87.09 334 eP 06 54.70 1.0
 0.8s 7.40nm 4.9mb
 TCF 87.16 334 eP 06 54.70 0.7
 0.8s 2.70nm 4.5mb
 LSF 87.42 334 eP 06 55.80 0.6
 0.8s 6.70nm 4.9mb
 MFF 87.66 335 eP 06 57.50 1.2
 0.8s 5.35nm 4.8mb
 LFF 88.83 334 eP 07 03.10 1.1
 0.8s 6.70nm 5.0mb
 SIV 148.37 48 PKP 13 52.00 0.7
 S.D. = 1.0 on 46 of 51 obs.
 APR 30, 1990 04h 55m 11.19 ± 0.46s
 40.395 N ± 6.9km 27.421 E ± 4.0km
 DEPTH = 10.0km (geophysicist)
 TURKEY (366)

KCT 0.73 101 iPg 55 25.40 -0.1
 ITU 1.40 59 ePg 55 35.00 -1.8
 iSg 55 53.00
 YLV 1.50 83 iPn 55 37.90 -0.3
 GBZT 1.59 75 ePn 55 39.90 0.5
 iSg 56 01.60
 HRT 1.76 75 ePn 55 42.10 0.1
 KDZ 1.97 310 iPd 55 45.00 0.1
 IZM 2.00 184 ePn 55 45.40 0.0
 JMB 2.16 343 eP 55 51.00 3.3X
 DIM 2.18 320 iPd 55 48.00 0.0
 GPA 2.21 92 ePn 55 51.00 2.5
 RZN 2.42 303 iPd 55 52.00 0.4
 ALT 2.47 122 ePn 55 51.00 -1.2
 KHL 2.63 141 ePn 55 59.00 4.4X
 PLD 2.67 311 eP 55 55.00 0.0
 MMB 3.04 294 iPc 56 00.00 -0.2
 PVL 3.22 332 iPc 56 02.00 -0.8
 PGB 3.26 312 eP 56 03.00 -0.4

PSN 3.33 10 iPd 56 19.00 14.6X
 KKB 3.59 296 iP 56 08.00 -0.1
 VAY 3.79 286 ePn 56 11.30 0.4
 VTS 3.85 306 eP 56 12.00 0.1
 BBTk 4.13 96 eP 56 29.00 13.2X
 iS 57 25.00
 MLR 5.21 348 eP 56 32.00 0.9
 e 56 43.50
 S.D. = 0.9 on 19 of 23 obs.
 ? APR 30, 1990 05h 15m 00.26 ± 3.67s
 17.317 S ± 46.9km 72.761 W ± 16.5km
 DEPTH = 33.0km (normol)
 4.8mb (1 obs.)
 NEAR COAST OF PERU (115)

ARE 1.48 55 iPc 15 25.00 -0.2
 iS 15 45.60
 PT03 4.41 318 iP 16 06.10 -0.6
 eS 17 03.10
 LPB 4.53 81 P 16 09.00 0.2
 ZOBO 4.56 77 P 16 09.20 -0.1
 S 17 42.00
 CCH 6.32 92 P 16 48.90 15.0X
 PT08 6.46 325 eP 16 36.70 0.7
 iS 17 48.30
 NNA 6.61 323 eP 16 45.00 7.3X
 0.8s 11.94nm 4.8mb
 eS 18 04.50
 ANT 6.72 161 iPc 16 54.00 14.8X
 S.D. = 0.7 on 5 of 8 obs.
 ? APR 30, 1990 05h 15m 13.15 ± 5.63s
 31.541 S ± 37.3km 70.323 W ± 29.9km
 DEPTH = 146.0 ± 45.5 km
 CHILE-ARGENTINA BORDER REGION (127)

RTBS 0.75 99 ePd 15 35.70 -0.1
 (S) 15 48.00
 RTCB 1.30 88 eP 15 41.00 0.2
 ROCH 1.54 202 iP 15 43.50 0.1
 iS 16 03.50
 RTCV 1.55 102 ePd 15 43.00 -0.4
 S 16 02.50
 RTRS 1.55 29 iPd 15 48.00 4.7X
 eS 16 10.50
 RTLL 1.60 83 iP 15 44.00 0.1
 eS 16 03.80
 PEL 1.63 191 iPc 15 44.10 -0.1
 iS 16 04.50
 FCH 1.78 179 eP 15 46.50 0.3
 iS 16 09.50
 PCH 2.08 184 iP 15 49.70 0.2
 iS 16 15.10
 TACH 2.17 194 iP 15 50.00 -0.5
 iS 16 16.50
 CHCH 2.40 187 iPc 15 53.50 0.1
 iS 16 21.50
 S.D. = 0.3 on 10 of 11 obs.
 APR 30, 1990 05h 54m 41.49 ± 0.20s
 54.279 S ± 6.0km 1.271 E ± 5.9km
 DEPTH = 10.0km (geophysicist)
 5.9mb (18 obs.) 5.4Msz (9 obs.)
 BOUVET ISLAND REGION (412)

MOMENT TENSOR SOLUTION
 Dep 11 No. of sto: 6
 Moment Tensor: Scale 10¹⁷ Nm
 Mrr=-7.75 Mtt= 6.35
 Mff= 1.40 Mtr= 0.38
 Mrf= 3.46 Mtf= 4.64
 Principal axes:
 T Val= 9.40 Plg= 7 Azm=327
 N -0.40 19 235
 P -9.00 69 77
 Best Double Couple: Mo=9.2*10¹⁷
 NP1: Strike= 78 Dip=41 Slip= -60
 NP2: 220 55 -114
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 155, 33C
 Centroid Location:
 Origin Time 05:54:49.8 0.2
 Lat 54.40S 0.02 Lon 1.75E 0.06
 Dep 15.0 FIX Half-duration 3.8
 Moment Tensor: Scale 10¹⁸ Nm
 Mrr=-1.12 0.02 Mtt= 1.11 0.03

Mff= 0.00 0.03 Mtr= 0.26 0.11
 Mrf= 0.06 0.08 Mtf= 0.37 0.03
 Principal Axes:
 T Val= 1.26 Plg= 6 Azm=343
 N -0.11 1 73
 P -1.15 84 170
 Best Double Couple: Mo=1.2*10¹⁸
 NP1: Strike= 72 Dip=39 Slip= -91
 NP2: 254 51 -89

HVD 29.38 46 iPc 01 02.00 15.1X
 1.0s 46.00nm
 BLF 30.97 46 iPc 01 00.00 -1.0
 0.9s 110.77nm 5.7mb
 MAW 31.24 139 iPc 01 03.50 0.8
 0.9s 30.00nm 5.2mb
 BFS 33.16 45 iPd 01 17.00 -3.2X
 0.7s 246.58nm 6.2mb
 AIA 33.18 224 eP 01 20.10 0.4
 WIN 33.84 27 iPd 01 25.50 -0.7
 SLR 34.81 46 iPc 01 31.50 -2.9X
 0.9s 88.24nm 5.6mb
 Z 18s 15.12um 5.8Msz
 SPA 35.90 180 eP 01 42.50 -1.0
 1.1s 88.69nm 5.5mb
 PTZ 46.35 42 iPd 03 08.00 -1.5
 0.7s 9.10nm 4.9mb
 i 04 47.00
 i 05 07.50
 SBA 47.83 176 eP 03 20.00 -0.4
 VNDA 47.91 174 eP 03 19.70 -1.4
 CHCH 53.03 262 ePc 04 01.10 0.4
 PCH 53.18 262 eP 04 02.50 0.7
 FCH 53.26 262 eP 04 02.00 -0.7
 SAN 53.38 262 eP 04 02.50 -0.7
 TACH 53.40 262 eP 04 01.00 -2.3
 LNV 53.46 261 eP 03 53.00 -10.6X
 PEL 53.62 262 iPc 04 03.10 -1.9
 1.0s 60.00nm 5.5mb
 RTLL 53.64 265 eP 04 02.00 -3.1X
 RTCB 53.72 265 e(P) 04 06.00 0.2
 ROCH 53.93 262 eP 04 07.00 -0.5
 BAO 54.15 296 eP 04 07.30 -1.8
 RTRS 55.07 266 ePc 04 14.90 -0.6
 DRV 55.44 161 eP 04 18.20 0.5
 WEGH 59.67 358 eP 04 47.90 -0.2
 TEGH 59.70 359 eP 04 48.50 0.2
 SHGH 59.99 358 eP 04 50.50 0.2
 BCAA 60.25 20 iPd 04 50.25 -1.9
 ePc 04 54.05 12kmX
 eSpc 04 56.04
 ePP 06 59.42
 KUK 60.26 358 eP 04 51.40 -0.8
 NAI 60.33 42 eP 04 55.00 2.0
 LIC 60.51 353 P 04 52.38 -1.5
 1.1s 151.00nm 6.0mb
 Z 20s 2.50um 5.4Msz
 KIC 60.62 353 P 04 52.96 -1.7
 TIC 60.93 353 P 04 55.84 -0.9
 SIV 61.08 283 P 04 55.50 -2.4
 CCH 62.90 278 P 05 09.70 -0.7
 LKO 63.84 352 P 05 14.32 -1.8
 1.4s 173.50nm 6.1mb
 LPB 64.71 277 P 05 21.00 -1.4
 1.5s 555.56nm 6.5mb
 Z 18s 2.06um 5.4Msz
 ScS 14 04.00
 LR 19 46.00
 ZOBO 64.93 277 ePd 05 23.48 -0.5
 1.2s 199.32nm 6.2mb
 Z 22s 1.32um 5.1Msz
 ePc 05 26.79 11kmX
 eSpc 05 27.95
 LR 21 12.00
 MBO 70.14 341 eP 05 58.10 2.2
 PT03 71.22 272 e(P) 06 04.40 1.8
 NNA 73.42 273 iP 06 16.50 0.8
 1.5s 125.00nm 5.8mb
 ASW 82.66 29 iPc 07 08.00 2.0
 eS 18 12.00
 BFD 83.00 150 ePd 07 08.70 0.9
 TPP 83.09 298 eP 07 12.71 4.2X
 TRN 83.34 298 eP 07 12.77 3.0X
 1.5s 200.20nm 6.1mb
 TCE 83.56 298 eP 07 14.92 3.9X
 ADE 83.84 146 iPd 07 12.70 0.5
 1.6s 286.67nm 6.2mb

PMR	162.79	307	ePKP	14	40.50	-2.5X						
			epP	15	34.00							
IMA	162.99	324	ePKP	14	40.40	-3.0X						
	2.3s	212.50nm										
			epP	15	34.30							
TTA	165.41	315	ePKP	14	43.40	-2.2						
	S.D. = 1.2 on 114 of 152 obs.											
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* APR 30, 1990 06h 58m 20.54 ± 1.06s												
1.211 N ± 11.3km 123.338 E ± 16.4km												
DEPTH = 33.0km (normal)												
4.3mb (2 obs.)												
MINAHASSA PENINSULA						(265)						
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MNI	1.52	81	iPd	58	45.00	-0.7						
			eS	59	05.40							
CVP	16.46	355	ePd	02	11.00	0.3						
WB5	23.59	153	eP	03	29.70	0.3						
WRA	23.63	153	P	03	31.00	1.2						
	0.6s	2.70nm				3.9mb						
NANU	24.82	197	eP	03	40.10	-1.2						
	0.5s	10.00nm				4.7mb						
SHL	38.80	311	eP	05	41.50	-2.9X						
GBA	47.05	287	Pd	06	57.80	6.6X						
	S.D. = 1.3 on 5 of 7 obs.											
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APR 30, 1990 07h 19m 35.09 ± 0.84s												
38.465 N ± 6.2km 12.511 E ± 7.2km												
DEPTH = 10.0km (geophysicist)												
SICILY						(398)						
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ERC	0.43	172	Pd	19	43.30	-0.6						
LVI	0.50	196	Pc	19	44.50	-0.7						
			eSg	19	52.70							
USI	0.58	65	P	19	47.40	0.7						
CVT	0.82	164	P	19	52.00	1.1						
			eSg	20	04.20							
MCT	1.22	133	P	19	58.00	0.2						
GIB	1.28	111	P	19	57.80	-1.2						
PTS	1.70	194	P	20	06.00	1.0						
MNO	1.80	107	P	20	05.60	-1.0						
ATN	2.34	97	P	20	15.20	1.0						
PGF	4.88	328	Pn	20	49.90	-0.4						
			Sn	21	41.40							
SBF	6.61	326	Pn	21	12.10	-2.7X						
			Sn	22	21.40							
LMR	6.66	319	Pn	21	12.20	-3.1X						
FRF	6.75	321	Pn	21	12.70	-3.9X						
	S.D. = 1.0 on 10 of 13 obs.											
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APR 30, 1990 12h 28m 39.72 ± 0.40s												
36.201 N ± 6.6km 99.864 E ± 7.3km												
DEPTH = 33.0km (normal)												
4.8mb (19 obs.)												
QINGHAI PROVINCE, CHINA						(325)						
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LZH	3.22	91	Pn	29	28.50	-0.8						
			Pg	29	34.50							
			Sg	30	13.00							
SHL	12.62	215	eP	31	43.50	3.7X						
			eS	36	30.00							
BJI	13.40	68	eP	31	46.00	-4.0X						
	Z											

30d 12h

MBC 65.10 10 eP 39 19.00 0.2
 CDF 65.53 313 eP 39 22.60 0.6
 BSF 66.09 313 eP 39 26.10 0.5
 0.8s 5.35nm 4.7mb
 LPG 67.23 310 eP 39 34.30 1.1
 0.6s 7.20nm 4.9mb
 LPL 67.23 310 eP 39 34.20 1.1
 0.8s 8.05nm 4.9mb
 ASPA 67.68 146 eP 39 30.00 -5.8X
 0.6s 11.00nm 5.1mb
 SMF 68.42 313 eP 39 40.70 0.4
 0.6s 4.95nm 4.8mb
 INK 68.50 19 ePc 39 39.50 -0.8
 AVF 68.64 313 eP 39 42.10 0.5
 0.6s 2.25nm 4.4mb
 MAF 69.40 313 eP 39 47.40 1.1
 1.0s 10.00nm 4.8mb
 TCF 69.58 313 eP 39 48.20 0.8
 0.8s 5.35nm 4.7mb
 MFF 70.79 314 eP 39 55.70 1.0
 0.8s 8.05nm 4.8mb
 YKA 77.81 16 eP 40 34.00 -0.9
 0.8s 2.10nm 4.2mb
 BCAA 80.40 268 ePc 40 56.50 6.7X
 0.5s 7.00nm 4.9mb
 FFC 87.51 12 eP 41 25.00 -0.1
 0.6s 6.00nm 5.0mb
 PNT 87.93 25 eP 41 28.00 0.7
 SIV 153.67 315 ePKP 48 33.00 4.0X
 S.D. = 1.2 on 31 of 37 obs.

& APR 30, 1990 12h 29m 42.78s
 61.701 N 150.128 W
 DEPTH = 44.4km
 SOUTHERN ALASKA (2)
 <AGS-P>.

PWA 0.13 113 iP 29 49.94 1.6
 0.8s 29 56.19
 SUA 0.38 231 iP 29 51.95 -0.5
 0.8s 30 00.11
 PLRM 0.49 102 iP 29 52.61 -1.0
 0.8s 30 01.06
 PMS 0.53 149 iP 29 53.38 -0.8
 0.8s 30 02.69
 GH0 0.58 82 eP 29 54.26 -0.6
 0.8s 30 04.21
 CUT 0.71 355 iP 29 56.01 -0.5
 0.8s 29 55.76 -1.0
 SKT 0.72 293 iP 29 57.80 -0.9
 0.8s 29 59.75 -0.7
 SML 0.86 82 iP 29 59.75 -0.7
 0.8s 30 00.20 -0.7
 CGLM 0.98 247 iP 29 59.75 -0.7
 0.8s 30 00.69 -0.8
 NCG 1.02 254 iP 29 59.75 -0.7
 0.8s 30 15.57
 SPU 1.06 241 eP 30 00.69 -0.8
 0.8s 30 15.57
 CRP 1.07 247 eP 30 01.18 -0.5
 0.8s 30 03.01 1.0
 NKA 1.10 210 eP 30 03.01 1.0
 0.8s 30 01.88 -1.5
 SLKM 1.20 182 eP 30 04.42 -0.4
 0.8s 30 21.29
 HUR 1.30 10 eP 30 04.42 -0.4
 0.8s 30 21.29
 RDT 1.58 225 eP 30 07.85 -1.0
 0.8s 30 08.77 -0.2
 NCA 1.59 78 iP 30 08.77 -0.2
 0.8s 30 08.48 -1.1
 SEW 1.64 168 eP 30 08.48 -1.1
 0.8s 30 08.53 -1.7
 GLI 1.68 118 eP 30 08.53 -1.7
 0.8s 30 11.12 -0.2
 NNL 1.76 199 eP 30 11.12 -0.2
 0.8s 30 11.90 -0.2
 RND 1.81 18 eP 30 11.90 -0.2
 0.8s 30 11.45 -0.8
 RED 1.82 226 eP 30 11.45 -0.8
 0.8s 30 11.75 -0.7
 VZW 1.84 109 eP 30 11.75 -0.7
 0.8s 30 13.10 -0.2
 KTH 1.90 349 eP 30 13.10 -0.2
 0.8s 30 12.14 -1.3
 VLZ 1.91 106 eP 30 12.14 -1.3
 0.8s 30 12.62 -1.0
 TOA 1.92 76 eP 30 12.62 -1.0
 0.8s 30 14.03 -1.1
 KLU 2.02 94 eP 30 14.03 -1.1
 0.8s 30 17.49 -0.8
 CNPM 2.25 195 eP 30 17.49 -0.8
 28 obs. associated

APR 30, 1990 14h 26m 27.04 ± 0.17s
 8.802 N ± 3.5km 126.054 E ± 4.2km
 DEPTH = 116.6km (10 depth phases)
 5.4mb (33 obs.)
 MINDANAO, PHILIPPINE ISLANDS (259)
 CENTROID, MOMENT TENSOR (HRV)
 Data Used: GDSN
 L.P.B.: 8S, 12C
 Centroid Location:
 Origin Time 14:26:31.0 1.3
 Lat 9.62N 0.25 Lon 126.34E 0.21
 Dep 128.3 6.8 Half-duration 1.6
 Moment Tensor; Scale 10**16 Nm

Mrr=-0.59 0.93 Mtt=-0.09 1.05
 Mff= 0.67 1.29 Mrt=-1.58 0.78
 Mrf=-4.75 0.80 Mtr= 6.68 1.40
 Principal Axes:
 T Val= 9.16 Plg=26 Azm=130
 N -1.91 55 356
 P -7.25 22 231
 Best Double Couple: Mo=8.2*10**16
 NP1:Strike=271 Dip=55 Slip= 3
 NP2: 180 88 145
 DAV 1.77 196 iPc+ 27 00.60 2.7
 PPR 7.29 278 iPc 28 14.00 1.5
 0.8s 28 42.00
 OCP 7.57 320 eP 28 16.00 -0.3
 TSM 9.14 241 ePc 28 42.50 5.0X
 BAG 9.26 325 eP 28 38.00 -1.3
 CVP 9.76 335 eP 28 45.00 -0.8
 0.8s 29 19.00
 KKM 10.13 255 ePc 28 54.20 3.3X
 1.1s 272.30nm 6.0mb X
 PIP 10.84 331 ePd 29 10.00 9.9X
 HKC 17.62 321 iP 30 28.80 2.1
 GUMO 19.05 74 eP 30 43.60 0.7
 0.8s 307.47nm 5.7mb
 PJP 19.05 74 eP 30 47.20 14kmX
 GUA 19.09 74 eP 30 43.50 0.6
 0.8s 30 43.70 0.4
 0.8s 244.78nm 5.6mb
 TRT 21.16 220 iPd 31 04.00 -0.4
 1.0s 169.00nm 5.4mb
 MTN 22.09 167 iPc 31 14.80 1.1
 0.8s 35 07.00
 SSE 22.64 349 eP 31 15.50 -3.4X
 0.8s 31 43.50 139kmX
 P 35 14.00
 S 35 58.00
 S 35 58.00
 KGM 23.60 255 ePc 31 30.40 2.0
 KLM 24.92 258 eP 31 41.50 0.6
 LOE 25.16 292 eP 31 43.50 0.3
 SNG 25.24 268 eP 31 44.90 1.0
 1.0s 172.00nm 5.5mb
 LAT 25.92 126 eP 31 51.00 0.9
 NST 26.22 288 eP 31 56.40 3.5X
 KMI 27.50 309 Pd 32 05.50 0.7
 0.8s 32 18.00
 CHG 28.10 294 iPd 32 10.90 0.9
 1.1s 44.30nm 5.0mb
 WB5 29.65 164 eP 32 21.60 -2.2
 0.8s 35 25.00
 0.8s 37 03.70
 WRA 29.71 164 Pd 32 21.60 -2.7X
 0.9s 9.40nm 4.5mb
 MAT 29.74 20 (P) 32 25.00 0.5
 MBL 30.39 192 iPd 32 28.60 -1.7
 0.8s 25.00nm 5.0mb
 OIS 32.08 156 ePd 32 43.20 -1.8
 0.8s 50.00nm 5.3mb
 0.8s 37 43.00
 BJI 32.33 346 eP 32 45.50 -1.6
 0.8s 15.00nm 4.8mb
 0.8s 33 12.50 123km
 NANU 32.83 198 eP 32 50.20 -1.4
 0.5s 22.00nm 5.2mb
 ASPA 33.17 167 iPd 32 52.70 -1.9
 0.5s 14.00nm 5.0mb
 0.5s 35 33.70
 0.5s 37 59.20
 0.5s 39 06.10
 0.5s 39 17.70
 0.5s 43 04.60
 LZH 33.87 327 eP 33 00.00 -0.6
 1.0s 33.00nm 5.1mb
 20s 0.20um 3.8msz
 0.8s 33 39.00 185kmX
 0.8s 33 55.00
 CTA 34.92 145 iPd 33 09.80 0.2
 0.9s 58.82nm 5.4mb
 MEKA 35.95 192 iPc 33 17.80 -0.4
 SHL 36.50 301 iP 33 23.20 0.1
 0.8s 38 55.20
 MRWA 39.02 194 iPd 33 43.30 -0.6
 0.5s 69.00nm 5.7mb
 FORR 39.47 177 iPd 33 46.70 -0.8
 0.4s 35.00nm 5.5mb
 BAL 40.20 193 eP 33 53.00 -0.5
 RMO 41.43 148 eP 34 02.00 -1.7

MUN 41.63 193 iPc 34 05.10 -0.2
 0.9s 161.00nm 5.8mb
 NWA0 42.34 191 eP 34 11.00 -0.1
 0.5s 29.00nm 5.3mb
 GUN 42.34 302 P 34 12.50 0.8
 PKI 42.63 301 P 34 18.40 4.4X
 DMN 42.90 301 P 34 16.70 0.6
 GKN 43.42 302 P 34 20.40 0.3
 RKG 43.49 191 eP 34 25.00 4.6X
 ADE 45.15 165 iPc 34 35.20 1.5
 0.9s 218.49nm 5.9mb
 COO 46.35 149 iPc 34 53.50 10.2X
 GBA 47.87 280 Pd 34 55.00 -0.4
 1.0s 26.40nm 5.0mb
 KOD 47.91 276 eP 34 56.00 -0.1
 BWA 47.93 155 iPd 34 57.10 1.5
 CAN 48.94 155 iPd 35 03.80 0.4
 0.8s 36 26.50 413kmX
 CNB 49.09 155 iPd 35 05.50 0.9
 1.0s 120.00nm 5.7mb
 TOO 49.59 160 iPd 35 09.20 0.9
 0.7s 86.00nm 5.8mb
 NDI 49.90 300 iPd 35 10.00 -0.8
 DZM 50.10 128 iPd 35 12.30 -0.2
 POO 51.48 287 eP 35 23.50 0.5
 MAIO 65.97 306 iPd 37 03.30 0.1
 0.8s 31.48nm 5.3mb
 0.8s 45 41.00
 THZ 66.12 143 P 37 03.40 -0.5
 LTZ 66.38 145 P 37 05.30 -0.3
 KHZ 66.89 144 P 37 07.70 -1.0
 MNG 67.00 141 P 37 08.40 -1.1
 MQZ 67.18 145 P 37 10.30 -0.2
 PUZ 67.37 137 P 37 13.80 1.9
 PGZ 67.49 141 P 37 11.70 -0.8
 IR4 72.86 304 iPd 37 45.80 0.4
 IR2 72.88 305 iPd 37 45.80 0.3
 IR7 73.11 305 iPd 37 47.00 0.1
 IR5 73.13 304 ePd 37 47.00 0.0
 SDN 73.40 35 eP 37 48.40 0.5
 TTA 76.72 27 ePd 38 07.70 0.9
 RYD 76.83 293 ePd 38 07.00 -1.1
 BRW 77.61 19 ePd 38 12.70 1.2
 0.8s 38 42.20 116km
 KDC 78.05 33 eP 38 15.00 0.9
 IMA 78.06 24 ePd 38 15.20 1.0
 0.9s 13.50nm 4.7mb
 0.9s 38 44.40 114km
 BHD 78.29 302 iPc 38 16.00 0.1
 0.8s 38 47.00 122km
 KMSA 79.12 289 ePd 38 19.50 -1.3
 MSL 79.15 305 iPc 38 20.50 -0.1
 0.8s 38 50.50 117km
 PMR 79.85 29 ePd 38 23.80 0.0
 FBA 80.46 26 ePd 38 26.60 -0.4
 TOA 81.24 28 ePd 38 32.70 1.5
 KEV 84.93 340 eP 38 45.00 -4.8X
 HRI 85.50 303 ePd 38 54.00 0.5
 SOD 85.55 337 eP 38 48.00 -5.0X
 INK 85.72 22 eP 38 53.50 -0.3
 0.8s 39 23.50 115km
 KAS 85.96 311 eP 38 56.00 0.4
 DSI 86.03 301 iPd 38 56.50 0.5
 PRNI 86.52 300 iPd 38 59.00 0.5
 SUF 86.76 333 eP 38 58.00 -0.9
 BBTK 86.95 310 iPd 39 00.00 -0.5
 MBC 87.18 13 iPd 39 01.30 0.5
 0.8s 49.00nm 5.6mb
 0.8s 39 31.50 116km
 NUR 87.97 331 iP 39 04.00 -0.8
 0.6s 24.80nm 5.4mb
 MAW 88.25 200 iPc 39 06.00 0.1
 VNDA 88.51 173 iPd 39 07.40 0.4
 ALT 89.10 309 eP 39 09.60 -1.2
 SBA 89.42 172 e(P) 39 12.20 0.9
 ELL 89.68 307 eP 39 12.00 -1.6
 KHL 89.69 309 eP 39 12.00 -1.5
 MLR 90.80 316 ePc 39 30.00 11.4X
 UPP 91.51 331 iP 39 20.40 -0.9
 0.8s 40 06.80 186kmX
 DAG 92.19 352 iPd 39 23.10 -1.1
 0.3s 18.18nm 5.8mb
 0.3s 39 53.00 113km
 0.3s 40 08.70
 HFS 93.24 332 eP 39 27.50 -1.8
 0.7s 15.50nm 5.4mb
 KRA 93.47 322 eP 39 30.20 -0.4

30d 14h

NB2 93.97 334 P 39 31.70 -1.1
0.6s 2.90nm 4.8mb
VAY 94.22 313 eP 39 32.70 -1.5
YKA 95.18 24 eP 39 38.00 -0.2
0.6s 5.80nm 5.2mb
KSP 95.41 323 iPc 39 39.60 0.1
OHR 95.56 313 eP 39 32.00 -8.5X
PRU 96.77 323 P 39 45.00 -0.6
e 40 16.00 118km

BRG 96.78 324 iP 39 46.00 0.3
1.4s 24.00nm 5.5mb
e 40 15.40 111km
CLL 97.16 324 iPc 39 47.20 -0.2
KHC 97.68 322 iP 39 50.50 0.7
1.0s 5.00nm 5.0mb

MOX 98.23 324 ePc 39 52.50 0.3
SPA 98.74 180 iPc 39 55.90 1.6
0.7s 10.94nm 5.5mb

GRF 98.86 323 eP 39 54.90 -0.2
1.1s 13.00nm 5.4mb

BCAO 106.56 277 ePKPd 44 46.20 5.3X
0.6s 7.00nm

KIC 128.69 285 PKP 45 22.76 -0.4
0.7s 31.50nm

TIC 128.87 286 PKP 45 23.00 -0.5
0.7s 21.00nm

LIC 129.00 285 PKP 45 23.32 -0.4
0.7s 28.50nm

UPA 148.99 56 iPKPd 46 03.00 3.5X
0.8s 71.64nm

LNv 150.25 150 ePKP 46 07.00 6.1X
CHCH 150.64 151 iPKP 46 08.50 6.9X
TACH 150.73 150 iPKP 46 07.60 5.9X
PEL 151.26 150 iPKPc 46 09.00 6.5X
0.5s 38.73nm

ZOBO 164.30 120 PKP 46 20.60 1.4
SIV 170.03 136 PKP 46 24.20 1.6
S.D. = 1.0 on 107 of 126 obs.

% APR 30, 1990 15h 18m 06.20 ± 1.38s
41.253 N ± 12.8km 14.873 E ± 19.9km
DEPTH = 10.0km (geophysicist)

SOUTHERN ITALY (390)

BSS 0.46 186 P 18 15.80 0.1
DUI 0.51 323 P 18 16.80 0.2

SGO 0.77 154 P 18 22.40 1.2
SDI 0.91 300 P 18 23.50 -0.2
MGR 1.23 155 P 18 27.70 -1.4
S.D. = 1.3 on 5 of 5 obs.

? APR 30, 1990 15h 23m 09.56 ± 5.86s
43.810 N ± 40.4km 7.782 E ± 8.7km
DEPTH = 10.0km (geophysicist)

NEAR SOUTH COAST OF FRANCE (379)

ROB 0.49 7 P 23 19.38 -0.1
S 23 23.78

ENR 0.49 328 P 23 19.79 0.2
S 23 24.80

FIN 0.50 37 P 23 19.89 0.1
S 23 25.22

PCP 0.91 37 P 23 27.08 0.0
RRL 1.32 328 P 23 33.94 -0.2
S.D. = 0.2 on 5 of 5 obs.

APR 30, 1990 15h 50m 32.98 ± 0.46s
36.340 N ± 7.5km 100.265 E ± 9.3km
DEPTH = 10.0km (geophysicist)

4.4mb (7 obs.)

QINGHAI PROVINCE, CHINA (325)

LZH 2.91 94 Pn 51 20.70 0.4
Pg 51 25.00
Sg 52 01.50

GUN 14.79 239 P 54 00.00 -4.3X
PKI 15.33 239 P 54 06.80 -4.5X
DMN 15.52 240 P 54 09.30 -4.4X
CHG 17.50 184 eP 54 38.60 -0.1
CHTO 17.50 184 eP 54 38.50 -0.2
0.8s 11.16nm 4.0mb

NB2 58.54 325 P 00 31.00 -0.7
0.6s 1.10nm 4.1mb

LPG 67.38 310 eP 01 31.40 0.6
0.6s 3.60nm 4.7mb

LPL 67.38 311 eP 01 31.60 0.8
0.6s 2.70nm 4.6mb

INK 68.26 19 eP 01 35.00 -0.6
SMF 68.57 313 eP 01 37.90 0.0
0.6s 2.70nm 4.6mb

MAF 69.54 313 eP 01 43.90 0.0
0.8s 3.35nm 4.5mb

YKA 77.59 16 eP 02 30.00 -0.4
0.7s 1.10nm 4.1mb

S.D. = 0.6 on 10 of 13 obs.

% APR 30, 1990 16h 11m 47.31 ± 0.84s
59.352 N ± 8.2km 6.067 E ± 5.4km
DEPTH = 10.0km (geophysicist)

SOUTHERN NORWAY (535)
MD 1.9 (BER).

BLS1 0.39 84 iPc 11 55.40 0.0
eS 11 58.71

KMY 0.44 252 iPc 11 56.25 -0.1
iS 12 02.24

BLS2 0.45 97 iPc 11 56.44 0.0
eS 12 02.45

ODD1 0.63 27 eP 11 59.44 -0.6
ASK 1.22 339 iPd 12 09.74 -0.2
iS 12 25.54

HYA 1.82 2 eP 12 19.64 0.8
S.D. = 0.6 on 6 of 6 obs.

* APR 30, 1990 16h 39m 19.11 ± 1.42s
7.359 N ± 21.2km 94.425 E ± 11.1km
DEPTH = 33.0km (normal)

4.2mb (3 obs.)

NICOBAR ISLANDS REGION (704)

SNG 6.14 91 eP 40 50.00 0.0
CHTO 12.20 21 eP 42 14.20 0.6
0.8s 1.46nm 4.2mb

HYB 18.43 304 eP 43 35.00 1.1
KMI 19.37 23 eP 43 38.50 -6.9X
2.0s 0.70nm 2.6mb X

Z 16s 12.20um 4.3MsZ X
N 11s 7.40um
E 11s 6.80um

pP 04 55.00
sP 04 56.00
S 08 28.00

PKI 21.84 338 P 44 11.10 0.0
GUN 21.98 339 P 44 11.10 -1.4
DMN 21.99 337 P 44 16.50 4.0X
GKN 22.53 337 P 44 17.70 0.0
MAT 49.30 47 iPc 48 07.40 0.3
iS 48 08.40

SUF 73.61 334 eP 50 40.00 -10.8X
HFS 79.04 330 eP 51 19.90 -1.4
0.4s 0.90nm 4.1mb

NB2 80.32 331 P 51 29.20 1.0
0.9s 3.70nm 4.4mb

S.D. = 1.1 on 9 of 12 obs.

? APR 30, 1990 17h 29m 31.25 ± 1.60s
37.028 S ± 26.2km 73.339 W ± 44.7km
DEPTH = 33.0km (normal)

NEAR COAST OF CENTRAL CHILE (135)

LNv 3.45 28 iPc 30 23.90 0.0
iS 31 17.50

CHCH 3.79 36 iPc 30 29.50 0.8
iS 31 14.70

TACH 3.90 31 iP 30 30.20 -0.1
SAN 4.19 32 eP 30 32.50 -1.9
i 31 34.70

PEL 4.44 30 iPd 30 39.00 0.8
iS 31 50.60

FCH 4.46 35 iPc 30 39.00 0.4
ZOBO 21.19 14 P 34 17.00 0.2
SIV 23.61 31 P 34 40.00 -0.2
GBA 145.01 124 PKPc 49 07.10 0.0
0.8s 5.40nm

HYB 148.47 121 ePKP 49 18.00 5.2X
S.D. = 0.9 on 9 of 10 obs.

APR 30, 1990 18h 00m 16.97 ± 0.15s
7.329 N ± 4.3km 94.308 E ± 3.6km
DEPTH = 20.8km (32 depth phases)

5.3mb (70 obs.) 5.2MsZ (8 obs.)

NICOBAR ISLANDS REGION (704)

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN

L.P.B.: 11S, 17C

Centroid Location:
Origin Time 18:00:25.6 1.0
Lot 8.05N 0.09 Lon 94.50E 0.07
Dep 15.0 FIX Half-duration 2.3

Moment Tensor: Scale 10**17 Nm
Mrr= 0.28 0.09 Mtt=-2.20 0.11
Mff= 1.92 0.13 Mrt= 0.77 0.31
Mrf= 0.16 0.37 Mtf= 1.30 0.09

Principal Axes:
T Vol= 2.36 Plg=10 Azm=288
N 0.37 73 55
P -2.74 13 195

Best Double Couple: Mo=2.5*10**17
NP1: Strike=332 Dip=73 Slip=-178
NP2: 241 88 -17

SNG 6.26 91 eP 01 49.00 -1.5
1.7s 4023.08nm 7.0mb X

KLM 8.43 120 eP 02 18.00 -2.9
NST 10.06 34 eP 02 45.00 1.5
KGM 10.41 120 ePd 02 52.50 4.2X
CHG 12.27 21 ePd 03 14.00 0.4
1.0s 49.50nm 5.7mb X

eS 04 08.10
CHTO 12.27 21 iP 03 14.00 0.4
1.0s 75.00nm 5.9mb X

eS 05 36.00
LOE 12.36 35 iPc 03 15.00 0.3
KOD 16.89 281 eP 04 14.40 0.2
eS 07 32.00

GBA 17.72 292 Pc 04 24.30 0.1
1.0s 101.20nm 4.9mb

SHL 18.28 353 iP 04 28.20 -3.2X
HYB 18.35 305 iPc 04 32.00 -0.1
1.0s 165.00nm 5.2mb

eS 07 51.00
eS 08 06.00

KKM 21.79 92 eP 05 08.50 -1.3
1.6s 246.20nm 5.4mb

POO 22.81 301 iP 05 20.00 0.2
TRT 23.60 129 ePc 05 28.20 0.8
0.6s 68.10nm 5.4mb

TSM 23.84 96 eP 05 34.00 4.2X
BOM 23.85 301 eP 05 32.10 2.3
eS 09 49.80

HKC 24.25 50 eP 05 37.20 3.5X
iS 10 06.00

PPR 24.27 83 ePd 05 41.00 7.0X
NDI 26.67 325 iPc 05 56.50 0.0
0.9s 75.63nm 5.3mb

eS 10 48.00
BAG 27.22 68 eP 06 03.20 1.4
eS 10 44.00

QCP 27.24 72 eP 06 11.00 9.2X
LZH 29.92 16 eP 06 26.00 0.0
2.5s 101.00nm 5.2mb

Z 15s 5.80um 5.3MsZ X
N 12s 3.00um
E 12s 4.60um

pP 06 33.00 24km
i 06 51.50
PP 07 23.00

PPP 07 32.00
eS 11 15.00
sS 11 29.00

SS 12 58.00
MNI 30.98 99 eP 06 37.00 1.6
DAV 31.02 88 eP 06 41.00 5.3X
QUE 34.29 315 eP 07 03.00 -1.3
eS 12 30.00

SSE 34.50 43 P 07 12.50 6.7X
Z 15s 6.30um 5.5MsZ X
N 14s 9.00um
E 13s 6.10um

i 07 42.00 134kmX
i 12 40.00
i 12 48.00

SS 14 54.00
NANU 36.25 146 eP 07 20.50 -0.3
MBL 37.81 139 eP 07 34.60 0.7
BJI 38.01 28 eP 07 37.50 2.2
1.0s 30.00nm 5.1mb

Z 14s 4.40um 5.4MsZ X
N 11s 1.75um
E 11s 3.15um

eS 13 32.00

MTN	41.72	119	iPc	08 06.10	-0.3		Z	20s	1.08um	5.1Msz		Z	19s	1.44um	5.3Msz
			e	08 14.00	27km		N	18s	0.85um					LR	42 06.00
MRWA	41.91	151	eP	08 08.70	0.9		E	19s	0.64um			SFI	79.53	313 P	12 25.00 1.1
MAIO	42.90	317	iPc	08 16.00	0.0				i	11 47.70	20km	PGD	79.63	313 P	12 25.20 0.5
			i	10 07.00	657kmX	OHR			iP	11 43.80	-2.4	CTI	79.68	315 P	12 25.00 0.1
			eS	14 40.00				1.0s	68.00nm		5.6mb	MOX	79.74	320 eP	12 25.00 0.0
BAL	43.41	151	eP	08 20.00	0.0				i	11 50.00	20km		1.1s	16.00nm	5.0mb
MUN	44.33	153	eP	08 28.00	0.6				i	11 57.50				i	12 32.00 22km
NWAO	45.59	153	eP	08 36.00	-1.5	SUF			iP	11 50.20	0.0			e	23 22.00
	0.6s		23.00nm		5.3mb			0.8s	38.00nm		5.5mb	FIR	79.96	313 eP	12 16.00 -10.3X
Z	20s		2.50um		5.2Msz	NUR			iP	11 50.00	-0.9	GRF	79.99	319 iPc	12 26.60 0.3
WARB	45.77	138	eP	08 39.30	0.2			1.0s	84.00nm		5.7mb		2.2s	111.00nm	5.5mb
WB5	47.80	125	eP	08 54.10	-1.1				i	11 56.20	20km		Z	22s	0.50um
WRA	47.81	125	Pd	08 54.00	-1.3	SPC			eP	11 52.70	-0.9			e	12 32.50 19km
	0.6s		8.40nm		5.0mb	KRA			iPd	11 55.00	-0.1	OGA	80.11	316 eP	12 26.80 -0.5
IR4	48.49	311	iPd	09 01.00	0.4				e	12 01.40	21km			0.8s	27.00nm
IR2	48.67	312	ePc	09 01.50	-0.4	SOD			iP	11 57.20	0.1	NB2	80.28	331 P	12 27.10 -0.6
RYD	48.71	296	ePc	09 03.30	1.0				i	12 03.20	19km			1.0s	62.60nm
IR5	48.72	311	ePd	09 02.00	-0.4	BLF			iPc	12 00.00	1.9	MME	80.36	314 P	12 29.70 1.0
IR7	48.90	312	iPc	09 03.50	-0.2			0.9s	30.77nm		5.3mb	BDI	80.44	313 P	12 27.90 -1.0
MAT	49.40	47	(P)	09 07.00	-0.4				i	12 07.00	22km	SAL	80.46	315 P	12 30.20 1.3
	1.5s		97.22nm		5.6mb	SRO			iP	12 01.60	1.7	OSS	80.72	316 ePc	12 30.70 0.2
Z	20s		1.77um		5.1Msz	BCAO			iPc	12 01.60	0.1	MDI	81.03	315 P	12 32.00 0.1
			eS	16 17.00				0.5s	31.00nm		5.6mb	WIN	81.10	246 iPc	12 36.00 3.0X
ASPA	49.44	130	iPd	09 06.60	-1.3				ic	12 08.50	22km		0.9s	37.82nm	5.4mb
	0.8s		25.00nm		5.3mb	KEV			eP	12 01.00	0.4	VDL	81.18	316 ePc	12 32.60 -0.4
Z	20s		3.80um		5.4Msz			1.0s	54.00nm		5.5mb	BOB	81.24	314 P	12 33.60 0.4
			eS	16 14.40		ZST			i	12 06.70	18km	SAX	81.25	317 ePc	12 33.20 -0.2
			iScS	18 55.40					e	12 09.30	16km	KBS	81.39	349 eP	12 33.80 0.6
			LR	31 46.10		TDS			e	12 06.00	0.8	LLS	81.50	316 ePc	12 34.30 -0.3
KMSA	49.88	290	ePc	09 08.30	-3.1X	SOP			iPc	12 07.30	0.8	TOD	81.56	319 eP	12 36.37 1.7
FORR	49.89	141	eP	09 10.80	-0.3	DZM			iPc	12 07.50	0.2	TMA	81.61	315 ePc	12 34.50 -0.7
	0.4s		41.00nm		5.8mb	VKA			eP	12 07.50	-0.2	PGF	81.64	312 eP	12 35.70 0.4
GUMD	50.03	78	eP	09 22.00	9.5X			2.5s	243.00nm		5.8mb		1.2s	47.60nm	5.4mb
KER	51.04	309	eP	09 19.00	-1.1				id	12 08.10	2kmX	VAI	81.69	315 P	12 34.80 -0.5
OIS	52.44	123	iPc	09 29.20	-1.5				i	12 14.30		SLE	81.81	317 ePc	12 35.60 -0.4
BHD	52.83	306	ePd	09 33.00	-0.4				i	12 21.40		ZLA	81.89	317 ePc	12 36.30 -0.2
TAB	53.00	313	eP	09 35.00	0.2	ZAG			iPc	12 07.80	-0.3	FEL	82.13	317 eP	12 36.67 -1.1
MSL	54.77	310	ePd	09 45.00	-2.7	PTJ			eP	12 07.40	-0.9	ABH	82.36	319 eP	12 38.87 0.0
PMG	55.21	107	eP	09 51.00	-0.2	KSP			iP	12 08.70	-0.1	CDF	82.60	318 eP	12 39.90 -0.3
CTA	57.90	119	iPc	10 19.90	9.6X			1.1s	43.00nm		5.4mb		1.0s	8.00nm	4.8mb
	1.3s		61.54nm		5.5mb				i	12 14.30	18km	DIX	82.63	316 ePc	12 41.10 0.5
			eS	18 36.00		UPP			iP	12 09.20	-0.6	RUP	82.69	319 eP	12 40.67 0.1
CTA	57.90	119	iPc	10 16.00	5.7X				i	12 15.50	20km	SBF	82.72	313 eP	12 41.10 0.2
	1.3s		61.54nm		5.5mb				i	12 11.10	0.3		0.8s	13.45nm	5.1mb
			i	10 19.90	13km	VBY			i	12 17.60	21km	WTS	82.74	321 ePKP	12 41.50 0.9
			e	10 26.00					i	12 14.00	0.2		1.0s	33.00nm	5.4mb
			eS	18 36.00		LJU			eP	12 20.40	20km			e	12 48.00 21km
NAI	58.00	264	iP	10 15.00	3.7X				i	12 11.50	-2.6	WIT	82.79	322 ePKP	12 42.50 1.6
NPA	58.93	248	eP	10 20.00	2.5	CEY			eP	12 11.50	-2.6			e	12 49.00 21km
MDSJ	59.08	302	Pd	10 18.30	-0.2				e	12 20.00	27km			eP	12 42.00 0.6
ADE	59.35	138	eP	10 20.00	-0.2	PRU			P	12 14.50	-0.1	DOI	82.83	314 P	12 42.00 0.6
	1.2s		93.75nm		5.8mb			Z	17s	0.50um	4.9MszX	BSF	82.96	317 eP	12 41.40 -0.7
BURJ	59.57	303	Pc	10 21.50	-0.4			N	16s	0.50um			0.8s	5.35nm	4.7mb
KFNJ	59.61	303	Pd	10 21.80	-0.2			E	20s	0.60um		EMS	82.96	316 ePc	12 42.30 0.1
DSI	59.80	302	ePc	10 23.50	0.2				e	12 21.50	22km	LPG	83.12	315 eP	12 43.30 0.1
HRI	59.83	304	eP	10 24.00	0.3	MAW			iP	12 17.80	2.5		1.0s	30.00nm	5.4mb
PRNI	59.91	301	ePc	10 24.50	0.3	TRO			eP	12 22.90	7.3X	LPL	83.13	315 eP	12 43.20 0.1
RMQ	62.57	125	eP	10 41.00	-1.1	VOY			eP	12 15.70	-0.6		0.8s	20.15nm	5.3mb
HLW	62.97	300	ePc	10 45.00	0.2				i	12 22.00	20km	BNI	83.20	314 P	12 43.20 -0.2
BBTk	63.59	311	iPd	10 47.00	-1.9	BRG			iPc	12 16.80	-0.2	HAU	83.25	317 eP	12 43.20 -0.2
BCK	64.77	308	eP	10 55.00	-1.6			1.6s	180.00nm		5.9mb		0.8s	18.80nm	5.3mb
ELL	65.18	307	eP	10 57.00	-2.3			Z	18s	1.00um	5.2Msz	FRF	83.31	313 eP	12 44.10 0.3
TOO	65.35	137	iPc	11 01.10	0.9			N	18s	1.00um			0.8s	10.75nm	5.1mb
ALT	65.44	310	eP	10 59.00	-1.8			E	18s	1.00um		MEM	83.32	320 Pc	12 43.60 0.0
BWA	65.83	133	eP	11 04.10	0.8				i	12 22.80	19km			e	12 50.30 21km
			e	11 14.10	32kmX				e	13 04.50		ENN	83.36	320 ePKP	12 44.00 0.1
LWI	66.05	264	eP-	11 07.50	2.2	RBL			iP	12 17.30	-0.3		1.0s	14.00nm	5.1mb
BRS	66.22	124	iPd	11 05.50	-0.4	KHC			iPc	12 17.70	-0.3			e	12 51.00 22km
COO	66.77	128	eP	11 10.00	0.6				i	12 23.80	19km	LMR	83.43	313 eP	12 44.80 0.4
CNB	66.94	133	eP	11 10.00	-0.4	KBA			iPc	12 17.70	-1.0		1.0s	8.00nm	4.9mb
EDC	67.38	311	iP	11 12.20	-0.9			1.0s	21.40nm		5.1mb	LRG	83.53	313 eP	12 45.40 0.5
ALN	68.83	311	eP	11 21.00	-1.1				i	12 24.40	21km		1.0s	24.00nm	5.3mb
CLI	68.97	317	eP	11 34.00	11.1X				i	12 39.10		DOU	84.25	320 Pc	12 49.20 0.8
VRI	69.21	316	ePc	11 35.50	11.1X	ARV			iP	12 19.80	0.1			s	23 04.00
MLR	69.68	316	ePc	11 30.90	3.5X	BHG			iPc	12 19.90	-0.4	LBF	84.93	317 eP	12 51.60 -0.3
PAIG	70.49	310	eP	11 31.30	-1.0			1.0s	41.00nm		5.4mb		1.0s	20.00nm	5.3mb
SRS	70.70	311	eP	11 32.10	-1.5	CLL			iPc	12 19.80	-0.5	LOR	84.98	317 eP	12 52.00 -0.2
LIT	71.41	310	eP	11 35.40	-2.5			1.3s	17.00nm		4.9mb		0.8s	13.45nm	5.2mb
VAY	71.49	311	iP	11 36.80	-1.5				e	12 27.00	23km	SMF	85.05	316 eP	12 52.30 -0.2
			i	11 43.00	20km	WET			iP	12 20.60	0.1		1.2s	26.80nm	5.3mb
GRG	71.57	311	eP	11 37.40	-1.5			1.0s	26.00nm		5.2mb	SSF	85.24	317 eP	12 53.40 0.0
SLR	72.01	240	iPd	11 44.00	2.1	FVI			iP	12 20.30	-0.1		1.0s	12.00nm	5.1mb
	1.0s		50.00nm		5.5mb	MNS			P	12 24.00	3.2X	AVF	85.37	316 eP	12 54.00 -0.1
Z	17s		3.81um		5.7MszX	ASS			P	12 24.00	3.1X		1.0s	11.00nm	5.0mb
FNA	72.33	310	eP	11 41.30	-2.1	HFS			eP	12 20.20	-0.6	BGF	85.74	316 eP	12 56.20 0.2
SKO	72.40	312	iP	11 41.40	-2.4			0.4s	23.70nm		5.6mb		1.0s	16.00nm	5.2mb

30d 18h

MAF 85.97 316 eP 12 57.50 0.4
0.9s 9.85nm 5.0mb
TCF 86.21 316 eP 12 58.50 0.2
1.0s 6.00nm 4.8mb
CAF 86.47 315 eP 13 00.30 0.7
0.8s 7.95nm 5.0mb
LSF 86.68 316 eP 13 00.60 0.0
1.2s 17.85nm 5.2mb
RJF 86.81 315 eP 13 01.90 0.6
1.0s 12.00nm 5.1mb
LPO 87.12 315 eP 13 03.60 0.8
0.8s 16.10nm 5.3mb
LFF 87.40 315 eP 13 05.00 0.9
0.9s 6.55nm 4.9mb
LDF 87.48 319 eP 13 04.60 0.2
0.8s 10.75nm 5.2mb
FLN 87.70 319 eP 13 05.50 0.1
0.8s 13.45nm 5.3mb
MFF 87.78 317 eP 13 05.90 0.0
1.0s 10.00nm 5.1mb
GRR 88.00 318 eP 13 07.20 0.3
1.0s 12.00nm 5.2mb
DAG 88.07 348 iPd 13 06.00 -0.7
0.7s 17.12nm 5.5mb
LPF 88.17 318 eP 13 08.30 0.6
1.0s 16.00nm 5.3mb
EKA 88.26 325 Pd 13 09.00 1.0
0.6s 14.10nm 5.5mb
BRW 89.08 18 ePc 13 12.60 1.0
ETA 90.55 323 eP 13 26.80 8.0X
ECP 90.76 323 eP 13 27.60 7.8X
TOL 91.72 310 eP 13 26.00 1.5
ePP 17 10.00
eS 24 26.00
ePS 25 36.00

IMA 92.06 22 ePc 13 26.70 0.9
1.0s 18.80nm 5.5mb
TTA 92.30 26 ePc 13 29.00 2.2
AKU 92.36 337 e(P) 13 27.20 0.3
1.0s 36.00nm 5.7mb
i 13 36.20 28km

SVW 93.13 27 eP 13 32.80 2.2
MBC 94.28 8 eP 13 36.00 0.4
PMR 95.79 25 eP 13 43.70 0.9
1.0s 12.50nm 5.3mb
Z 19s 1.00um 5.3MsZ

INK 97.47 16 eP 13 51.00 0.8
KIC 98.11 277 P 13 56.40 2.2
YKA 106.91 14 ePd 14 42.70 10.2X
1.0s 1.20nm

SCH 116.09 348 ePKP 19 01.00 0.9
FFC 116.69 10 ePKP 19 01.00 -0.2
0.9s 8.00nm

PAE 117.03 106 iPd 15 28.20 9.7X
1.2s 125.00nm
PPT 117.04 106 iPd 15 28.70 10.1X
1.2s 125.00nm

TVO 117.34 106 iPd 15 25.60 5.6X
1.2s 80.00nm

SES 118.45 18 ePKP 19 05.00 0.2
RTLL 151.21 212 e(PKP) 20 11.60 6.7X
RTCB 151.25 211 e(PKP) 20 13.00 8.0X
RTRS 152.64 212 ePKPc 20 14.30 7.4X

S.D. = 1.0 on 186 of 216 obs.

* APR 30, 1990 18h 08m 30.04 ± 0.59s
25.140 S ± 11.5km 112.481 W ± 9.1km
DEPTH = 10.8km (geophysicist)
5.1mb (15 obs.) 5.5MsZ (3 obs.)

EASTER ISLAND REGION (685)

Mo=8.0*10**17 Nm (PPT).

CENTROID, MOMENT TENSOR (HRV)

Data Used: GDSN

L.P.B.: 12S, 24C

Centroid Location:

Origin Time 18:08:38.2 0.7

Dep 25.00S 0.07 Lon 112.42W 0.05

Dep 15.0 FIX Half-duration 2.5

Moment Tensor: Scale 10**17 Nm

Mrr=-0.29 0.12 Mtt=-2.01 0.16

Mff= 2.30 0.12 Mty= 0.00 0.00

Mrf= 0.00 0.00 Mtf= 1.88 0.14

Principal Axes:

T Vol= 3.00 Plg= 0 Azm=111

N -0.29 90 180

P -2.71 0 21

Best Double Couple: Mo=2.9*10**17

NP1: Strike=156 Dip=90 Slip=-180
NP2: 246 90 0

RKT 20.62 271 iP 13 12.20 0.0
1.2s 90.00nm 5.0mb

PT10 35.95 75 e(P) 15 47.00 14.0X

NNA 36.10 75 eP 15 47.00 12.7X

1.1s 18.99nm

PT03 36.19 79 i(P) 15 22.80 -12.2X

PT08 36.37 76 iPc 15 37.30 0.4

LNv 36.60 114 eP 15 32.50 -5.7X

PEL 37.17 112 eP 15 43.50 0.4

1.2s 39.06nm 5.1mb

ZON 38.88 110 e(P) 15 56.00 -1.5

ARE 39.15 85 eP 16 00.00 -0.2

LPB 42.20 87 P 16 27.00 1.6

Z 17s 2.72um 5.2MsZ

LR 26 16.00

ZOBO 42.26 87 Pc 16 26.00 -0.1

1.0s 35.00nm 5.0mb

Z 24s 2.74um 5.1MsZ

S 21 00.00

LR 26 28.00

PSO 42.93 58 eP 16 33.00 1.6

CCH 43.70 89 P 16 39.70 2.2

UPA 46.70 48 iPc 17 02.00 1.0

1.0s 56.00nm 5.6mb

Z 18s 2.41um 5.2MsZ

BOG 47.62 57 e(P) 17 10.00 1.2

e(S) 24 14.00

SIV 48.74 90 P 17 16.00 -1.2

BMG 49.95 55 eP 17 26.00 -0.6

BAR 57.64 356 eP 18 33.00 10.3X

GLA 57.91 358 eP 18 25.00 0.4

PLM 58.32 356 P 18 27.00 -0.7

RVR 58.99 355 eP 18 31.00 -1.1

TPC 59.02 357 eP 18 37.00 4.6X

MWC 59.27 355 eP 18 37.00 2.7

SBB 59.72 355 eP 18 39.00 1.8

ALO 60.03 6 eP 18 39.00 -0.5

1.4s 17.44nm 5.0mb

Z 18s 3.23um 5.5MsZ

ANMO 60.03 6 P 18 40.00 0.5

GSC 60.25 356 eP 18 42.03 1.1

BAO 60.71 94 eP 18 43.00 -1.5

ISA 60.74 354 eP 18 45.00 0.8

CLC 60.82 355 eP 18 47.00 2.3

MEO 61.03 13 eP 18 45.00 -1.2

TRN 61.17 61 eP 18 43.60 -3.8X

1.1s 32.20nm 5.4mb

e 20 10.00

UYO 61.41 17 e(P) 18 47.50 -1.2

TUL 62.74 15 eP 18 56.40 -1.1

1.0s 10.00nm 5.0mb

Z 18s 3.86um 5.6MsZ

e 19 06.20

LR 39 00.00

TNP 63.04 356 P 19 00.00 0.2

1.0s 20.00nm 5.3mb

CMB 63.28 353 P 19 00.00 -1.1

1.2s 21.99nm 5.2mb

OLY 63.51 19 P 19 01.50 -1.1

KVN 64.07 355 P 19 06.00 -0.5

GOL 64.84 6 P 19 10.00 -1.6

1.0s 15.00nm 5.1mb

DAU 65.22 1 P 19 14.00 -0.1

JSC 66.11 28 P 19 18.00 -0.7

BW06 67.63 2 P 19 18.50 -10.8X

NEW 73.18 357 P 20 02.00 -0.7

1.0s 33.75nm 5.4mb

DZM 73.25 253 iPc 20 09.60 5.9X

PNT 74.39 355 eP 20 10.00 0.4

SES 75.21 1 eP 20 15.00 0.7

RSON 77.46 12 P 20 26.00 -1.0

1.0s 48.81nm 5.5mb

RSNY 77.55 27 P 20 22.00 -5.6X

1.0s 14.46nm 5.0mb

WNY 77.69 27 P 20 27.00 -1.4

HBVT 78.00 28 P 20 30.00 -0.1

CBM 82.16 29 P 20 52.00 -0.2

YKA 87.34 359 eP 21 17.50 -0.3

1.0s 4.90nm 4.7mb

PMR 91.33 343 P 21 36.00 -0.7

1.0s 15.00nm 5.3mb

INK 94.46 352 eP 21 51.00 0.1

BCAO 128.72 105 ePKPd 27 40.20 0.1

0.7s 6.00nm
CLL 131.23 43 ePKP 27 53.00 9.3X
KHC 131.99 46 ePKP 27 56.70 11.4X
BJI 136.92 302 ePKP 27 50.00 -4.9X
ALT 145.66 57 ePKP 28 09.00 -1.6
ELL 145.93 61 ePKP 28 12.00 0.9
LZH 147.06 298 ePKP 28 14.20 1.2
2.0s 47.00nm

sP 28 27.00
i 28 49.00

BBTK 147.45 55 ePKP 28 16.00 2.6X

CHG 150.23 264 ePKPd 28 23.60 5.4X

1.3s 33.65nm

PRNI 150.81 72 ePKP 28 25.00 6.2X

HRI 151.19 66 e(PKP) 28 26.00 6.6X

MAIO 166.92 30 ePKP 28 38.00 0.9

S.D. = 1.1 on 49 of 66 obs.

% APR 30, 1990 18h 16m 00.18 ± 1.33s

15.944 N ± 7.2km 60.824 W ± 14.1km

DEPTH = 33.0km (normal)

LEEWARD ISLANDS (92)

ML 2.9 (FDF).

SFG 0.47 311 iPc 16 17.89 -0.5

S 16 23.80

MGG 0.47 267 ePd 16 18.60 0.2

S 16 25.80

BBL 0.76 236 ePd 16 22.03 -0.4

SEG 0.80 305 eP 16 22.98 0.0

S 16 33.20

PAG 0.83 276 ePd 16 23.63 0.2

S 16 34.90

FDF 1.24 195 eP 16 29.18 -0.2

0.1s 0.60nm

S 16 44.50

MVM 1.38 183 eP 16 31.45 0.1

S 16 49.20

BIM 1.44 190 eP 16 32.30 0.1

S 16 50.80

BPA 1.48 318 eP 16 32.90 0.1

S 16 50.00

MGH 1.54 300 eP 16 30.10 -3.6X

S.D. = 0.3 on 9 of 10 obs.

APR 30, 1990 18h 33m 57.45 ± 0.56s

44.530 N ± 6.2km 8.788 E ± 4.2km

DEPTH = 10.0km (geophysicist)

NORTHERN ITALY (545)

ML 2.5 (GEN), 2.7 (LDG).

PCP 0.17 274 P 34 01.36 -0.1

S 34 04.29

CKI 0.38 254 Pd 34 04.90 -0.3

eSg 34 10.40

FIN 0.52 233 P 34 07.55 -0.5

S 34 14.68

BOB 0.53 63 Pd 34 07.80 -0.4

eSg 34 16.20

ROB 0.70 251 P 34 10.36 -0.9

S 34 19.60

ENR 1.03 253 P 34 16.64 -0.3

S 34 29.59

STV 1.09 255 P 34 17.95 0.0

S 34 32.01

DOI 1.10 269 P 34 17.70 -0.5

eSn 34 34.90

SBF 1.18 236 Pg 34 20.00 0.5

Sg 34 35.50

RSP 1.25 300 P 34 19.88 -1.0

S 34 35.57

BDI 1.38 109 P 34 22.70 -0.1

eSn 34 38.50

RRL 1.48 286 P 34 24.64 0.3

LSO 1.48 309 P 34 23.92 -0.5

LPG 1.74 305 Pg 34 29.50 1.4

Sg 34 51.80

LPL 1.76 305 Pg 34 29.10 0.7

Sg 34 52.40

FRF 1.82 239 Pg 34 30.70 1.6

Sg 34 55.10

LMR 2.03 235 Pg 34 35.70 3.6X

Sg 35 01.50

LRG 2.06 239 Pg 34 35.60 3.2X

S.D. = 0.8 on 16 of 18 obs.

APR 30, 1990 19h 13m 44.79 ± 0.87s

44.478 N \pm 7.5km 8.801 E \pm 6.2km
 DEPTH = 10.0km (geophysicist)
 NORTHERN ITALY (545)
 ML 2.4 (LDG), 2.2 (GEN).

PCP	0.19	289	P	13	48.71	-0.4
			S	14	51.54	
CKI	0.38	262	P	13	52.00	-0.5
			eSg	13	58.00	
FIN	0.50	238	P	13	55.03	0.0
			S	14	02.00	
BOB	0.55	58	P	13	55.50	-0.3
			eSg	14	03.50	
ROB	0.69	255	P	13	57.74	-0.8
			S	14	06.72	
ENR	1.02	256	P	14	04.17	0.0
			S	14	17.39	
STV	1.08	258	P	14	05.17	-0.1
			S	14	19.33	
SBF	1.16	238	Pg	14	07.40	0.9
			Sg	14	23.10	
RSP	1.29	302	P	14	07.66	-1.1
RRL	1.50	288	P	14	12.21	0.2
LSD	1.52	311	P	14	12.04	-0.3
LPG	1.78	306	Pg	14	16.80	0.8
			Sg	14	39.00	
LPL	1.80	306	Pg	14	17.60	1.3
			Sg	14	39.60	
FRF	1.80	240	Pg	14	19.10	3.0X
			Sg	14	42.80	
LMR	2.01	236	Pg	14	23.00	3.8X
			Sg	14	48.60	
LRG	2.04	241	Pg	14	24.20	4.7X
S.D. = 0.8 on 13 of 16 obs.						

& APR 30, 1990 19h 35m 31.80s
 37.068 N 121.910 W
 DEPTH = 14.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.7 (BRK).

GCC	0.08	241	iPc	35	34.20	-0.6
			eS	35	35.60	
MHC	0.35	38	iPd	35	39.00	-0.2
			iS	35	44.30	
ARN	0.41	47	iP	35	40.00	-0.4
SAO	0.48	129	iPc	35	40.00	-1.5
PCC	0.57	319	ePc	35	42.40	-0.7
BKS	0.85	342	iPc	35	47.50	-0.3
			iS	35	59.50	
BRK	0.85	341	ePc	35	47.30	-0.5
			eS	35	59.10	
PRS	0.85	149	eP	35	47.20	-0.7
			eS	35	58.80	
LLA	0.90	120	ePc	35	47.20	-1.4
ZSP	0.92	343	iPc	35	48.60	-0.4
CMB	1.55	51	eP	35	57.80	-1.2
PHAM	1.73	135	eP	36	01.50	-0.1
12 obs. associated						

* APR 30, 1990 19h 35m 32.19 \pm 0.93s
 46.149 N \pm 7.6km 14.046 E \pm 7.1km
 DEPTH = 10.0km (geophysicist)
 YUGOSLAVIA (383)
 ML 1.8 (LJU).

VOY	0.16	222	iPg	35	36.40	0.5
			eSg	35	39.10	
LJU	0.36	107	ePg	35	39.60	0.1
			iSg	35	45.00	
RBL	0.44	312	P	35	40.60	-0.6
			eSg	35	47.70	
TRI	0.48	204	ePg	35	41.40	-0.6
			iSg	35	48.90	
FVI	0.98	297	P	35	51.40	0.6
			eSg	36	05.00	
S.D. = 0.8 on 5 of 5 obs.						

& APR 30, 1990 19h 39m 26.10s
 37.062 N 121.908 W
 DEPTH = 14.0km
 CENTRAL CALIFORNIA (39)
 <BRK>. ML 2.6 (BRK).

GCC	0.08	246	iPd	39	28.60	-0.5
			iS	39	30.50	
MHC	0.35	37	iPc	39	33.40	-0.2

ARN	0.41	46	eP	39	34.30	-0.4
SAO	0.47	128	iPc	39	34.40	-1.3
PCC	0.58	319	ePc	39	36.90	-0.6
PRS	0.85	149	ePc	39	41.00	-1.1
			eS	39	53.20	
BKS	0.85	342	iPd	39	42.10	-0.1
			iS	39	53.80	
BRK	0.86	341	ePc	39	41.80	-0.4
			eS	39	53.60	
LLA	0.89	120	ePc	39	42.10	-0.8
9 obs. associated						

APR 30, 1990 19h 51m 57.44 \pm 0.76s
 38.805 N \pm 6.3km 22.106 E \pm 7.0km
 DEPTH = 10.0km (geophysicist)
 GREECE (364)
 ML 2.9 (THE).

AGG	0.28	39	ePg	52	04.60	1.3
			eSg	52	11.50	
NEO	1.00	60	eP	52	20.00	3.5X
LIT	1.33	13	ePb	52	21.40	-0.5
			eSb	52	42.90	
ITM	1.63	185	eP	52	30.50	4.2X
PAIG	1.66	47	ePb	52	26.60	0.0
THE	1.94	20	ePn	52	31.10	0.4
KEK	2.01	298	eP	52	32.80	1.0
FNA	2.05	344	ePn	52	31.50	-1.0
OUR	2.11	43	ePn	52	33.20	0.1
			eSn	53	02.50	
GRG	2.16	6	ePn	52	33.80	-0.2
VLI	2.19	162	eP	52	34.00	-0.3
SOH	2.23	25	ePn	52	35.10	0.1
			eSn	53	04.50	
OHR	2.51	337	ePn	52	40.00	1.0
VAY	2.54	8	ePn	52	39.00	-0.3
SRS	2.58	26	ePn	52	39.70	-0.2
SKO	3.20	351	iPn	52	47.50	-1.3
S.D. = 0.8 on 14 of 16 obs.						

APR 30, 1990 21h 00m 26.83 \pm 1.01s
 36.882 N \pm 8.1km 71.484 E \pm 5.1km
 DEPTH = 159.1 \pm 12.2 km
 4.2mb (17 obs.)
 AFGHANISTAN-USSR BORDER REGION (717)

QUE	7.67	211	eP	02	16.50	-0.6
			eS	03	40.00	
NDI	9.49	148	eP	02	42.00	1.0
			eS	04	20.80	
MAIO	9.66	270	iPc	02	43.00	-0.3
			eS	04	20.00	
GKN	14.19	125	P	03	41.50	-0.5
DMN	14.76	125	P	03	49.80	0.6
PKI	14.99	124	P	03	52.00	-0.1
GUN	15.08	122	P	03	52.80	-0.5
HYB	20.37	160	eP	04	53.00	0.3
SHL	20.73	117	eP	04	56.00	-0.4
			eS	08	39.50	
GBA	23.78	166	Pc	05	26.10	0.1
			0.6s	12.80nm	4.6mb	
NUR	37.75	324	eP	07	29.00	0.6
SUF	37.81	328	eP	07	30.00	1.2
SOD	39.56	335	iP	07	43.00	-0.3
HFS	43.01	322	eP	08	11.70	0.1
			0.5s	13.50nm	4.8mb	
NB2	44.31	323	P	08	21.90	-0.2
			0.7s	6.90nm	4.4mb	
BSF	47.74	305	eP	08	49.40	0.1
			0.6s	3.60nm	4.2mb	
HAU	48.00	305	eP	08	51.30	0.1
LPG	48.28	302	eP	08	54.60	0.8
			1.0s	4.00nm	4.0mb	
LPL	48.29	302	eP	08	54.40	0.7
			0.9s	4.10nm	4.1mb	
SMF	49.97	304	eP	09	06.20	-0.1
			0.6s	2.70nm	4.1mb	
SSF	50.09	304	eP	09	07.80	0.6
			0.8s	2.70nm	4.0mb	
AVF	50.25	304	eP	09	08.40	0.0
			0.6s	2.70nm	4.1mb	
TCF	51.15	304	eP	09	15.30	0.0
			0.8s	4.05nm	4.2mb	
LSF	51.61	304	eP	09	18.20	-0.6
			0.8s	3.35nm	4.1mb	
LDF	52.06	307	eP	09	22.00	0.0

FLN	0.6s	3.60nm	4.3mb			
	52.24	307	eP	09	22.80	-0.6
			0.6s	5.40nm	4.5mb	
EKA	52.28	316	P	09	23.00	-0.6
			0.9s	2.70nm	4.0mb	
GRR	52.59	307	eP	09	25.40	-0.5
			0.6s	5.40nm	4.5mb	
MBC	66.94	3	ePc	11	03.40	0.0
			0.8s	7.00nm	4.5mb	
			pP	11	48.50	191kmX
YKA	80.85	3	eP	12	22.70	-0.9
			0.6s	2.90nm	4.2mb	
MAW	104.37	183	iPd	13	57.70	-15.8X
S.D. = 0.6 on 30 of 31 obs.						

? APR 30, 1990 21h 03m 39.82 \pm 1.90s
 10.426 N \pm 21.4km 61.085 W \pm 15.8km
 DEPTH = 33.0km (normal)

TRINIDAD (98)						
MD 2.8 (TRN).						
TBH	0.06	17	eP	03	45.43	0.0
			iS	03	51.19	
TPP	0.38	253	eP	03	48.55	0.0
			eS	03	56.74	
TRN	0.38	305	iP	03	48.56	-0.1
			eS	03	57.35	
TCE	0.71	292	eP	03	53.53	0.1
			eS	04	03.09	
S.D. = 0.2 on 4 of 4 obs.						

& APR 30, 1990 21h 15m 33.65s
 61.709 N 150.788 W
 DEPTH = 61.7km
 SOUTHERN ALASKA (2)
 <AGS-P>. Felt (III) at Palmer.

SUA	0.25	175	iP	15	43.77	-0.1
			iS	15	52.38	
PWA	0.44	97	iPc	15	45.10	-0.1
SKT	0.44	308	iP	15	44.59	-0.7
CGLM	0.71	236	iP	15	47.91	-0.4
NCG	0.72	246	iP	15	47.79	-0.7
CUT	0.74	19	iP	15	48.13	-0.4
PMS	0.75	128	iPc	15	48.30	-0.5
CRP	0.79	237	eP	15	49.09	-0.3
PLRM	0.80	98	iP	15	48.49	-0.8
PMR	0.80	98	iPc	15	48.60	-0.7
SPU	0.81	230	iP	15	48.90	-0.6
			eS	16	00.91	
GHO	0.89	85	iP	15	50.10	-0.4
			eS	16	03.75	
NKA	0.99	193	eP	15	53.07	1.3
SML	1.17	84	iP	15	53.48	-0.8
SLKM	1.24	167	eP	15	54.03	-1.1
HUR	1.38	22	eP	15	56.92	-0.2
			iS	16	15.09	
RDT	1.38	215	iP	15	56.51	-0.7
RED	1.61	218	iP	15	59.87	-0.5
			iS	16	20.98	
NNL	1.69	189	eP	16	01.97	0.6
SEW	1.74	157	eP	16	01.56	-0.4
KTH	1.85	358	eP	16	02.99	-0.7
			eS	16	26.05	
NCA	1.90	80	eP	16	03.50	-0.8
RND	1.93	27	eP	16	03.85	-0.8
GLI	1.97	113	iP	16	03.03	-2.2
VZW	2.14	106	eP	16	05.56	-2.1
CNPM	2.20	186	eP	16	08.06	-0.4
			iS	16	35.99	</

30d 21h

CCB 3.24 23 eP 16 21.66 -1.5
GLB 3.35 92 eP 16 22.38 -2.3
FBA 3.48 22 ePc 16 25.70 -0.7
GLM 3.63 23 eP 16 27.36 -1.3
TGL 3.96 100 eP 16 32.60 -0.8
KDC 4.07 193 eP 16 33.80 -0.9
IMA 4.56 345 eP 16 39.40 -2.3
50 obs. associated

? APR 30, 1990 21h 17m 21.69±1.37s
39.245 N ± 8.0km 29.532 E ± 15.2km
DEPTH = 10.0km (geophysicist)

TURKEY (366)

ALT 0.49 113 ePg 17 32.10 0.5
KHL 0.92 180 iPg 17 39.00 -0.3
eSg 17 51.00
GPA 1.20 30 ePn 17 43.00 -1.1
HRT 1.58 4 ePn 17 50.80 1.0
S.D. = 1.6 on 4 of 4 obs.

* APR 30, 1990 21h 39m 01.60±0.87s
41.574 N ± 12.5km 20.301 E ± 8.0km
DEPTH = 10.0km (geophysicist)

ALBANIA (391)
ML 2.4 (TTG), 2.1 (SKO).

OHR 0.59 141 iPg 39 13.10 -0.6
iSg 39 22.10
ULC 0.88 297 ePg 39 18.00 -0.5
eSg 39 31.60
SKO 0.94 65 ePg 39 18.50 -1.0
iSg 39 32.10
Lg 39 33.50
TTG 1.15 318 ePg 39 23.50 0.3
eSg 39 41.00
BDV 1.31 303 ePg 39 26.00 0.2
eSg 39 44.10
VAY 1.72 98 ePn 39 33.30 1.5
S.D. = 1.2 on 6 of 6 obs.

* APR 30, 1990 22h 18m 20.88±1.53s
13.327 S ± 16.6km 76.602 W ± 18.7km
DEPTH = 52.1 ± 8.8 km
4.5mb (8 obs.) 4.3MsZ (1 obs.)
NEAR COAST OF PERU (115)
Felt (III) at Pisco.

PT02 0.41 23 iPc 18 31.60 0.2
PT03 1.02 130 iPc 18 38.50 -0.7
PT10 1.29 344 iPd 18 43.00 0.1
NNA 1.35 350 iPc 18 43.50 -0.3
eS 19 02.00
PT08 1.36 2 iP 18 45.10 0.9
ZOB0 8.70 111 P 20 28.80 1.3
Z 20s 1.02um

LPB 8.81 112 P 23 20.00
1.0s 150.00nm 5.9mb X

CCH 10.86 113 P 21 01.00 4.2X
SIV 15.26 102 P 21 52.00 -2.7
PEL 20.45 166 iPd 22 56.30 -0.4X
1.0s 18.00nm 4.4mb

LNv 21.07 168 eP 22 51.00 -11.9X
RSCP 49.39 350 eP 27 05.50 -1.9
OLY 50.56 344 eP 27 15.00 -1.3
FVM 52.66 346 eP 27 31.00 -1.1
1.0s 18.00nm 5.1mb

ANMO 55.74 330 eP 27 55.50 0.6
1.0s 2.25nm 4.2mb

RSSD 62.40 338 eP 28 40.50 -0.4
BW06 63.49 333 eP 28 48.00 -0.1
0.9s 1.69nm 4.1mb

RSON 65.64 348 iP 29 01.00 -0.6
1.0s 6.51nm 4.6mb

SCH 68.38 6 eP 29 20.00 1.1
SES 70.25 337 eP 29 31.00 0.5
FFC 71.12 345 eP 29 35.00 -0.6
1.0s 11.00nm 4.7mb

PNT 72.99 332 eP 29 48.00 1.2
LIC 73.67 79 P 29 52.20 0.8
Z 20s 0.16um 4.3MsZ
KIC 73.98 79 Pd 29 54.10 0.9
0.8s 17.00nm 5.0mb

FRB 77.08 4 eP 30 10.00 0.2
INK 90.86 342 eP 31 20.00 0.4

MBC 92.94 351 eP 31 30.00 1.0
0.7s 1.00nm 4.4mb
BJI 151.11 339 ePKP 38 10.00 6.1X
0.9s 11.00nm
S.D. = 1.1 on 24 of 28 obs.

& APR 30, 1990 22h 20m 40.70s
69.204 N 145.559 W

DEPTH = 11.7km
4.2mb (1 obs.)
ALASKA (676)
<AGS-P>.

GLM 4.30 190 eP 21 47.13 -0.3
eS 22 37.56
BRW 4.34 304 eP 21 45.50 -2.4
FBA 4.41 192 eP 21 48.80 -0.2
IMA 4.42 228 eP 21 48.70 -0.5
INK 4.47 96 P 21 49.00 -0.7
CCB 4.66 192 eP 21 51.88 -0.7
eS 22 46.33

NEA 4.85 198 eP 21 54.73 -0.5
HDA 4.85 187 eP 21 55.22 0.0
WRH 4.86 193 eP 21 54.87 -0.4
DDM 5.44 181 eP 22 03.34 -0.3
MCK 5.66 195 eP 22 06.19 -0.5
DWY 5.72 152 P 22 07.00 -0.4

RND 5.97 194 eP 22 11.21 0.1
KTH 6.07 203 eP 22 11.81 -0.6
PAX 6.26 180 eP 22 15.01 -0.2
TOA 7.14 182 eP 22 29.40 2.0
SML 7.52 190 eP 22 32.14 -0.6
GHO 7.59 192 eP 22 33.53 -0.3

SKT 7.66 202 eP 22 33.79 -0.9
PMR 7.79 193 eP 22 34.80 -1.6
MBC 10.39 36 P 23 07.50 -4.9
YKA 14.19 103 eP 23 57.80 -5.5
0.5s 2.70nm 4.2mb

22 obs. associated

APR 30, 1990 23h 07m 02.39±0.73s
39.184 N ± 10.3km 20.305 E ± 4.4km
DEPTH = 10.0km (geophysicist)

GREECE-ALBANIA BORDER REGION (392)
ML 2.9 (THE).

KEK 0.66 324 ePb 07 15.50 0.0
eSb 07 24.00
AGG 1.58 95 ePb 07 31.40 0.8
eSb 07 52.30
FNA 1.80 27 ePb 07 34.40 0.7
eSb 07 56.40
LIT 1.92 61 ePb 07 35.00 -0.4
eSb 07 57.30
OHR 1.96 11 ePn 07 34.50 -1.6
0.5s 0.07nm

iSg 08 02.20
Lg 08 04.00

LCI 2.15 303 P 07 42.00 3.3X
eSn 08 08.00

NEO 2.27 86 ePn 07 41.50 1.0
GRG 2.39 42 ePn 07 42.90 0.6
VAY 2.75 38 ePn 07 48.30 1.0
SOH 2.86 54 ePn 07 47.50 -1.4
eSn 08 18.50

SKO 2.92 17 ePn 07 46.00 -3.6X
i 07 55.00

BRT 2.92 306 P 07 55.40 5.7X
OUR 3.06 67 ePn 07 50.40 -1.2
CSI 3.16 282 P 07 54.10 0.9

SRS 3.17 51 ePn 07 53.00 -0.3
CZI 3.24 272 P 07 53.50 -0.8
MMN 3.41 283 P 07 58.50 1.9

MGR 3.79 286 P 08 01.70 -0.4
ATN 3.93 256 P 08 02.00 -2.0
eSn 08 41.80

SGO 4.08 291 P 08 06.30 0.1
S.D. = 1.2 on 17 of 20 obs.

* APR 30, 1990 23h 32m 45.83±0.49s
36.191 N ± 9.6km 100.167 E ± 11.4km
DEPTH = 10.0km (geophysicist)

4.5mb (15 obs.)
QINGHAI PROVINCE, CHINA (325)

LZH 2.98 91 Pn 33 35.00 0.9
Pg 33 41.50

Sn 34 13.00
Sg 34 18.50
GUN 14.65 240 P 36 04.80 -10.5X
PKI 15.19 240 P 36 08.10 -14.2X
DMN 15.38 240 P 36 10.50 -14.2X
GKN 15.47 243 P 36 13.40 -12.5X
CHG 17.34 184 eP 36 48.00 -1.6
CHTO 17.34 184 iP 36 52.00 2.4
1.0s 16.25nm 4.1mb

G8A 30.36 228 P 39 07.00 6.9X
SOD 50.89 331 eP 41 53.00 4.4X
SUF 51.36 325 eP 41 57.00 4.8X
NUR 52.34 323 eP 42 04.00 4.4X
HFS 57.73 324 eP 42 37.70 -1.1
0.4s 0.60nm 4.0mb

NB2 58.62 325 P 42 44.20 -0.9
0.7s 1.50nm 4.2mb

ZST 59.85 310 eP 42 51.70 -2.0
WRA 64.51 144 Pc 43 22.90 -2.2
0.6s 1.10nm 4.2mb

LPG 67.42 311 eP 43 44.40 0.5
0.6s 3.15nm 4.7mb

LPL 67.42 311 eP 43 44.60 0.8
0.5s 1.45nm 4.4mb

PGF 67.42 307 eP 43 44.30 0.5
0.6s 5.40nm 4.9mb

SBF 67.79 309 eP 43 46.00 0.0
0.4s 2.85nm 4.8mb

EKA 67.92 323 P 43 51.00 4.5X
3.0s 71.80nm 5.3mb

SMF 68.61 313 eP 43 50.80 -0.2
0.6s 2.25nm 4.5mb

AVF 68.83 313 eP 43 52.10 -0.2
MAF 69.59 313 eP 43 57.40 0.4
0.8s 5.35nm 4.8mb

TCF 69.76 313 eP 43 58.40 0.3
0.6s 1.80nm 4.4mb

CAF 70.56 312 eP 44 03.70 0.7
0.6s 2.25nm 4.5mb

MFF 70.98 314 eP 44 05.60 0.2
0.5s 2.20nm 4.5mb

LPO 71.22 312 eP 44 07.60 0.7
LFF 71.35 312 eP 44 08.50 0.8
YKA 77.75 16 eP 44 44.00 -0.1
0.6s 0.80nm 4.0mb

S.D. = 1.2 on 20 of 29 obs.

APR 30, 1990 23h 35m 55.62±0.48s
49.151 N ± 3.6km 2.049 W ± 4.0km
DEPTH = 21.7 ± 6.2 km

FRANCE (538)
ML 4.2 (LDG), MD 3.7 (STR). Felt (IV) on Jersey.

JRS 0.05 326 iPg 35 59.40 -0.1
eSg 36 01.00

GRR 1.10 134 Pg 36 18.20 2.5X
Sg 36 32.30

FLN 1.10 110 Pg 36 18.50 2.7X
Sg 36 33.20

LPF 1.30 149 Pn 36 20.70 2.1
Pg 36 21.40

LDF 1.39 113 Pn 36 22.40 2.6X
Pg 36 23.70

BST 1.58 238 Pg 36 24.13 1.6
Sg 36 44.36

MFF 2.85 153 Pn 36 41.00 0.2
Pg 36 49.60

LSF 3.78 139 Pn 36 54.60 0.7
Pg 37 09.00

TCF 4.06 133 Pn 36 57.90 0.0
Pg 37 13.60
Sn 37 42.20
Sg 38 05.40

ECP 4.09 319 eP 36 58.40 0.1
BGF 4.19 126 Pn 37 00.00 0.2
Pg 37 15.80

				Pg	37	17.60	
				Sn	37	47.60	
				Sg	38	12.20	
AVF	4.33	121		Pn	37	02.00	0.3
				Pg	37	18.60	
				Sg	38	13.40	
LOR	4.38	113		Pn	37	02.60	0.2
				Pg	37	19.60	
				Sn	37	50.50	
				Sg	38	14.40	
ETA	4.42	325		eP	37	02.90	-0.1
DOU	4.42	75		P	37	04.40	1.4
				i	37	22.00	
				iS	37	55.30	
UCC	4.45	66		eP	37	15.00	11.5X
RJF	4.55	146		Pn	37	04.50	-0.4
				Pg	37	21.20	
				Sn	37	53.00	
				Sg	38	20.20	
LBF	4.58	116		Pg	37	23.90	18.4X
				Sn	37	55.40	
				Sg	38	21.10	
LFF	4.62	155		Pn	37	05.80	-0.2
				Sn	37	54.90	
				Sg	38	23.10	
SMF	4.69	120		Pn	37	06.50	-0.4
				Pg	37	24.20	
				Sg	38	25.10	
LPO	4.99	152		Pn	37	10.80	-0.3
				Sn	38	04.20	
				Sg	38	34.00	
DLE	5.01	327		eP	37	11.30	-0.1
				eS	38	07.00	
CAF	5.08	145		Pn	37	11.60	-0.7
				Sn	38	05.20	
				Sg	38	37.00	
DCN	5.33	324		eP	37	15.60	-0.3
				eS	38	16.00	
ENN	5.39	70		iPnc	37	18.00	1.2
	0.6s	26.00nm					5.0mb
				ePg	37	40.00	
				eSn	38	18.00	
				eSg	38	49.50	
MEM	5.41	71		iPd	37	17.84	0.9
				S	38	18.90	
HAU	5.69	98		Pn	37	20.00	-1.0
				Pg	37	44.20	
				Sn	38	21.80	
				Sg	38	57.90	
RUP	5.97	81		ePg	37	24.69	-0.2
BSF	6.02	99		Pn	37	24.80	-1.0
				Pg	37	49.40	
				Sn	38	29.00	
				Sg	39	07.50	
BTH	6.16	167		e(P)	37	53.00	25.4X
				e	38	12.00	
				e	38	46.00	
				e(S)	39	16.00	
				i(Sg)	39	24.50	
LOMF	6.20	104		Pg	37	54.00	25.8X
CDF	6.21	93		Pn	37	27.40	-0.9
				Sn	38	33.60	
				Sg	39	13.10	
WLS	6.26	93		Pn	37	28.00	-1.0
ABH	6.29	80		ePg	37	29.08	-0.4
WTS	6.32	60		ePn	37	29.00	-0.8
	0.7s	3.00nm					4.2mb
EPF	6.34	164		Pn	37	28.40	-1.9
				Sn	38	36.00	
				Sg	39	16.00	
GWf	6.36	88		Pn	37	29.00	-1.4
KTD	6.64	85		ePg	37	33.88	-0.5
FEL	6.81	97		ePg	37	35.79	-1.0
EMS	6.81	114		eP	37	37.00	0.1

STATION DATA REPORT FOR APRIL, 1990

1385 stations reported 73846 reading arrival groups

X = data received for this 6-hour time period

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
AAE						X	X										XX	X	XXX	XX	X	X				XX					
AAI	XX		XXXXXXXX		X		XX			XXXXXX	XXX	X			X	XX	X	XXX						X	X	X	XXXXXXXXXXXX	XXX	X		
AAPN	X		X	XXX		X		X			X	X			X	X	X	X	X	X	X	X		XX	XX		X			XX	
ABH	X	XX	X	XX	XX	X	XXX	X	X	X	XX	X	XXX	XXXX	XX	X	XX	XXX	XXX		X	XX	X	X	XX	XXX				X	X
ABL	X	X	X	XXX	X	X	XXXX	X	X	X	X		X	X		X	X	XXX	XX	XXXX	X	XX		X	X			X			
ACHM			XX		X				X	X		X				X	X														
ACX			XX	X				XXX			X	XX	X	X	X	X	X	X	X	X	X					X		X	X	X	
ADE	X		XX	XXXX	XXXXX	X	X	X	X	X	X	XXX		X	XXX		X	XXXXX	XXXXXXX	X	X	X	X		X	XXX	XXX	X	X	XXX	
ADK	X	X	X	XXX		X	XX	X	X	X	X	XX	XX				XX	X	X		XX	X	XX		X	X	XX	XXX	X	X	
AFC	X	X		XX				X	X				X	X	X		XX	X	X							X	X	X	X	X	
AFI		X	X	X	XX	XXXXXXXX	X	X		X	X	X			XX	XX	X	X	X	X	X	X	X		X	XX	X	XX	X	X	
AFIF										XXXXX	X		XXX	X	X	X	X	XXX	XX	X	X		X		X	X	X				
AFR			X	X		X	X		X		X						X														
AGG	X	XX	X			XX		XX		X	X	X	X	X	X	XX	X			XX	X	XX	XX	XX	XXX	XXX	XXX			X	X
AGO		XX				XX	X		X	X	X	X	XX	X	X	X	XX			X		X	X		XX	X					
AIA	XX	XXX	X	XXXX	X	X	XXXX	XX	XXXXXX	XX	XXXXXX	XX	XX	XX	XXXXXX	XX		X		X	X	XX	X	XX	X	XXX	XXXXXX	X	XXX		
AKU			X		X		X							X			XX								X	X					
ALJ		X	X	XX		X			X					X												X	X				
ALN	X		X			XX				X	X		X				XX							X	XX	XX	XX		X	X	
ALOJ			XX		X		X		X	XX		X	X				X	X	X		X	X		X	XX	XX	XX		X	X	
ALQ	XX	XX	X	XXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXX	XX							XXXXXX	XXXX	XXXXXX	XXXX	XXXXXX	XXXX	XXXXXX	XXXX	X	XX	XXXXXXXX	XXX	XX	XX	XX	XX	
ALT																	XXX	X	XXX	X	X	XX	XX	XX	XXXX	XXXX	XXXX	X	XXX	X	XXXXXX
ANM	X			XXX	X		X				X	XX						XXXX	XX		X				XX	X					
ANMO	XX	XX	X	XXXXXX	X	XXX	XXXX	X	X	X		XX	XXXX		X	XXXXX	XXXX	XXXX	XX	XX	X	XX	X	X	X	X	XX	X	X	X	X
ANP	X	X		X	X	XXXX	XX	XXX	XX	X	X		X	X	X	X	X	XXXX	XXXX		XX	X	XX	XX	XX	XX	XX	XX		XX	
ANT	X		X	XXX	XX	X	XX	X	X	X	X		XX	X	XXXXX	XXXXXX	XXXXXX	XXXX	X	XX	X	XX	X	XX	X	XXX	XXX	X	XX	XXXX	
APE			X	X	XXX	XXXX	X	X	X	X	X		XX	XXX	XX	X	X	XX							XXX	X	XXXX	XX			
APHE	X		X	XXX		X			XX	X	X				X	X	X	X	X						XX	XX	X	X		XX	X
APO	X					XX											X	X													
APW		X	X		X	X							XXX	X	X					X	X	X									
AQU			X	XX	X		X			X	XX				X	X	XX				XX	X	XX		XXXX	X	X			X	
ARE	X	X	XXXX	X	X	X	X	XX	X	X	XX		XXXXXX	XXX	XXXXXXXXXXXXXX	XXX	XXXXXXXXXX	XX	XXXXXX	XX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XX		XXXX	X		
ARN	XX	X	X	XXXXXX	XX	XXXX	XXX	X	X	XX	X	XXXX	X		XXX	X	X	X	X	XX	XX	X	XXXX	XXX	X	X	X		X		
ARO					X	X									X			XXX	X						XX	X					
ARV	X	X	XXXX	XXX	XX	X	XXX	XX	X	XX	XX		X	X	X	XX	XXX	XX	XX	XX	X	X	XX	XX	X	XXXX	XXXXXX	X	X	XXX	
ASAJ	X	XX	XX		X	XXXX	X	X					X					XXX	XX	X		XX		X	X	X		X			
ASK			X		X	XX		X	X	X								XX				XX		X	X	X		X			
ASMO	X		X	XXX		X		X	X	X	X				X	X	X	X	X	X				X	XX	XX	X	X		X	
ASPA	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
ASR	X	X			X	X								X	X	X	X				X	X									
ASS	X	X	XXXX	XXXX	X	X	XX								X			XX	XXX	X	XX	X	XXXX	XX	X	X		X	XX		
ASW					X		X					X					X	XX							XX	XX		X	X	X	
ATE	XXX	X	X			X	XX							X										X	X		X		X		
ATEJ	X		X	XXX		X		X	XX		X				X	X	X	X	X	X	X			XX	XX	X	X		XX	X	
ATH	X		X		XXX	XXXXXXXX	XX	XXX		X	X		XX	XXXX	X	XX	X		XXXX	XX	XX		X	XX	XXX	X	X	X			
ATN	X	X		XX	XX	XXX	X	X	X	XX	XX		X	X	X	X	X		XX		XX	XX	XX	XXXX	X	X	X	X	X	X	
AUE					X	X	XX	XX	XX				XX	X	X	X			X	X	XXX	XXX	X	X	X	XX	X	X	X	X	
AUL					X	X	XX	XX	XX				XX	X	X	X			XX	X	XXXX	XXX		X	X	XX	X	X	X	X	
AURF		X		X	X	X		X			XX	X	X	X	X	XXX			XX		X	X		X	X	X		X			
AUTN		X	X	X	X	XX		X			XX	X	X	X	X	XXXX			XX		X	X	X		X	X	X		X		
AVE			XXXX	X		X	X			X	X	XX			XXXX	XX		XXX	XX	X	XXX	XX	X	XXXXXX	XXXXXX	XX	XX	X	XX	XX	
AVF	XXXX	XXX	XXXX	X	XXXXXXXXXX	XXXX	XXX	X	XXXX	XXX	X	X	XX	X	X	XXX	X	XXX	X	XXXXXXXXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
AYN			X		XXX		X	X	X	XX				X	X	X	XX	XX					X	X	X	X					
AZI		X	XXXX	X	XX	XXXX	XX	X	XXX	X	X	XX	X		X	XXXX	XXX		XX	X	XX	XXXXXX	XXXXXX	XXXXXX	X						
BAA			X		X													XX	X						XX						
BADA					X	X	X				XX			XX	X	X	X	XX	XX	X				X	X	X	X				
BAG	X	X	X	X	XXXX	X	XXXXXX	X	XXX	X	XX	XXX	X	XX	X	XXX	XXX	XX	XXXXXX	X	XX	XX	X	X	X	X	XX	X		XX	
BAI	X			X	XX		XX	X	X	X														XXX	X		X				
BAL	XX		X	XXX		X	XXX	X	X	X	X	X	XXX	X	XXX	XX	XX	XXX		XXXX	X	XX	XX	X	X	X	XX	X	X	X	
BALA					X			X	X		X	X		X					XX	X	XX	XXX	X	XX	XXX	X		X			
BAO	XX	XXX	XXXX	XXXXXXXXXXXX	XXXX	XXXX	XX	X	XX	XX	XX	X	X	XXXX				XXXXXX	XXXX	X	X			XXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
BAR	X	XXX	X	XXXX	XXXX																										

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DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			
CLC		X	XX	X	XXXX		XXXXXX	X	XXX	XXXX	X	XXX	X	X	XX		XXXX	X	XXXX	XX	X	XX	XXX	XX		XX	XX	X	XX	X	X		
CLE					XX							XX					X			X	X	X	XX				X		X		X		
CLI			X	XX	X	X		X	XX	X	XX		X	X	X	X	X	X	XX	X	X	X			X	X					X		
CLL		XXXX	XX	XXXX	XX	XXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	XXX		X	X	XXXX	X	XXXXXXXXXX	X	XXXXXXXXXXXXXX	X	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX		
CMB		XX	XX	X	XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXX	XXXX	XXXXXX	XX	XX	XXXX					XXXX	XXXXXX	XXXX	XXXX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX		
CMG2					XX	X										X																	
CMP		X		XX	XX	X	XXX	XX	XXXX		X	XX	X	XX		XXXX	X	XXX	XX	X	X	XX	X	XXXX	XX	XX					X	XX	
CMS			X		X		X	X				XX				X		XXX	X	X		X				XXX	XX	X			X	XX	
CMW		X		X	X	X		X	X					XXX	X	X	X						X		X								
CNB		X	X	X	X	X	X	XXXXX	X	X		X	XX	X	X		X	X	XX	XX				XX	X	X	XXX	X	X	X		XX	
CNIL				X	X		X			X			X	X		XX		X										X			X		
CNPM																																	
COL				X	X		X	X		XX	X	XX	XX	X	XX		XX		XXX	X	XX	XXX	XX	XX		X	XX	X	XX	X	X	XX	
COO				X	X	X	X		X	XX	X		X	XX	X	XX	X		XXXX	X	X	X	X			XXX	XXX	X		X	X	XX	
COOL		XX	X	X	X	X	XXX	X	XX	XX	X	X	XX	XX	X	XX	XX		XXX	X	X	XXX	XX	X		X	XXX	XXX					
COP			X		X		X	X			X		X	X			XX																
COTA		X	X		XX	X								X												X	X					X	
CPB					X	XXX												X	XX			XXXXXX				X	X						
CPD			X	X	XXX	XX			X	X																							
CPE					XXX	X	X					XX					X	X	X	X													
CPW			X	X			X	X																									
CRE			X		XXX	XX	X	XX			X	X	XX		XXXX		X	X	XXX	X	XXX	X	XX	XX	XX		XX	X	X	XX	X		
CRM									X		XX	X		X	X	XX	X	X	X								X	X	X	X			
CRP						X		XX	X	XXXX		XXX		XX		XX	XX		X	X	X	XX	XXXXXX	XX	XX		X	X	XX	XXX	X	X	XX
CRX							X		X				X	X	X		X	X	X									X	XX	X	X		
CSI		X		X	X	X	XX	X		X			XX	X	X		X	XX	XX	X		X	XX	XX			XXX	X	X	X	X	X	
CSS		X	X				XX						X			X	X		XX			X	XX	X				X	X			X	
CSTJ					X		X	XX	X										XX								XXXX						
CTA		XXX	XXXXXXXXXXXXXX		XXXXXXXXXXXXXX	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	
CTAO			X	X		X	X		X			X							XX	X													
CTI			X	XXX	X	XXXX	XXXX	X	XXXXX	XXXX	XX	XXXXX	XXX	XXX		XX	X	XXX	X	XXX	XX	XX	XXX	XX	XX	X	XXXXXX	XXXXXX	X	X	X		
CTT																XX	XXX	XXX	XXX	X	XX	X	XX	X	XXXXX	XXXX	XXXX					X	
CUM			XXX	X	XXX		XX	X	X					X	XXX	X	X		X									X				X	
CUSS					XX																												
CUT							X	X		X	X	XXXX	X	XXX	X	XX	XX		X	X	X	X	XXXXXXXXXX	X	XX		X	XX	X	X	XXX	XX	
CVL				XX	X												XX									XX			X				
CVP		X	XX	XXXXXX	XX	XX	XX	XX	XXXXX	XX	X	X	XXX	X	XX	X	XXXX	XXXXXX	XXXXXX	XXXXXX	XX	X	XXX			XX	XXXX	XXX	X			XXX	
CZI		X	X	X	X	XX	XXXX	XXXXX	XX	X			XX	X	XXX	XX	X	XX	XXXXXX	X		X	XX			X	XXXXXXXXXXXXXX	X	X	XXX		XX	
CZM				X	X		X	X									X	X															
DAG		X	XXXXXXXXXXXXXX	XX	XXXXXXXXXXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	X	X	XX		X	XXXX											XXXX	XXX		X	X	XXXXXXXXXX		
DAU		X	X		XXXX	X	XXXX	X	X	X	XXX		X		XX		XX	X	XX			XXXXX	X	X	X	XXX		X	X	X	X	X	
DAV		X	X		X	XXXX	XXXXX	X		X		X	X	X		XX	X		XXXXXX	XX	X	X		X		X	X	X	XXXXX	X	XX	XX	
DBN							X	X		X	X								X								X						
DCN		X		X	XXXX		X	XXXX	X	X	X	X		X	X		X		X	X	X	X	X	X		X	XXX	X		X	X	X	
DDM						X				X	X	X		XX					XX	X	X	XX	X	X	X		X	X	X			X	
DEV		X			X	X	XXX			X									XX													X	
DHR							X												XX														
DHW2		X		X	X	X		X											XX														
DIM		X			X		X	X	XX	X	XX								XX	X							X		X	X		X	X
DIX		X		XX		XX		X	X				XX	X	X	X	X	XXX		X	X		X	XXX	XX		X	XXXX	XX	XXX	X	X	X
DLA					XX												X		X	X													
DLE		X		X	XXXX		X	XXXX	X	X	X	X		X	X		X																
DMN		XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	
DMW																																	
DOI			XX	XX	X	XX		XXX		X		XXXXX	X	X	X	X	X	XXX								XXXX	XX	X	XX	XX	X	X	
DOT																																	
DOU		XX	X	XX	X	XXX	X	XXXXX	X	X	X	XXXX	X	XXX	XXXXXXXXXX	XXXX	X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	X	X	X	XX	X
DPW		X	X	X	X	X	X	XX																									
DRA																																	
DRV		XX		X	X	X	X	X	XXXX		X	XX	XX	X	X	XX	X	X		XXXX	X	X		X	X	X	X	X	XX	XX		X	X
DSI					XX		XX	X	X	X	XXX	XX	XX	XX	XX	X	XXXX	X	XXXX	X	XXX	X					X	X	XX		X		XX
DST																																	
DUG		X		X	XXX	X	XXXXX	X	X		XX		X	X		X		X	XXXX		X	XXXX		X	XXXX		XX	X		X		X	
DUI			X	XXXX	X	XXXXXXXXXX				XXXXXXXXXX	X	XXXXX	X	X	XXXX	XXX	XX	X	XX	X	XXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
DWY		X	X	X		X		XX																									
DZM																																	
EBAN		X	XX			X		X																									
EBG		X		X	X	X		X																									
EBR			X	X		XXX		XX		XX	X	X		X	XXX		XXX	XX		X	XX	X				X	X	X				X	
ECB					X	X		X	X	X	X		X			XX		X									XX	X					
ECH			X	X	X			X	X		X	X	X	X		XX					X	X	X	X	XXXX	X	X	X	X				
ECP				X	X		X	X	X	X		X	X			XX		X		X		X	X	X	X	XX	X		X			X	X
ECR1			X	X			X	X					X	X			XXX																
EDC																																	
EDM</																																	

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DATE		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
KLU				X	X	X		X	X	XXXX	X	XXX	X	XX	X	XX	X	XXXX	X	XX	XXXXXXXX	XX	XX		X	XX	XXXX	XXX	X	XXX	XX	
KMI	X	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	
KMR		X	X			X	XX			X							XX	XX	X	X	X				XX	X		X				
KMSA			X			X					X	X	X		X	X			X	XXX	X		X				XX	X				
KMY		X	X					X		X	X							XX	X				X				XX	X	X			XX
KMZ																																
KNA	XX	X	XX	XXXX	X	XX	XX	XXXXXX	XXXX	XXXXXXXXXX	XX	X	XXXX	XXXXXXXXXX	XX	XXXXXXXXXX	XX	XXXXXXXXXX	XXXX	XXXXXX	XXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	
KNK									XX		X												X	X	X	XX		X	XX	X	X	
KNT	X		XX	X																X	XX											
KOD	X	X	XXXXXXXXXX	XX	XXXXX	X	XXXXX	X		X	X	X	X		X		X	XXXXXXXX	X	XX	XXXXXX	X	XX	XX	X		X	XXXX	XXX	X	XXXXX	
KOT			X									X					X	X		XXX		X				XXX						
KRA	XX	XX	XXXXXX	XXXXXXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	
KRI																																
KSL		X	X	X		XX	X				X	X	X	X	XXX		XXX	X	XXXXXX	X	XXX	XXXX	X	X	XXXXXX	X	X	XXXXXX	X	X	X	XX
KSP	XX	XXX	XXXXX	XXXXXXXXXX	XX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
KSR																																
KTD		XX		X		X	X	X			X	X	X	X	X		XX	XXXX	XX	X	X											
KTH																																
KTK1	X	X	X		X	X	X			X	X		X						X	X	X	XX	X		X	X	X	XX	X			
KUK				XX	X	XXXX		X			XX	X	X				X	XX	X	X	X	X	X				X	X	X			XX
KUMJ		X		X	X	XXXXX		X								X	X	X						X	X							
KUPT																																
KUSJ	X	XX	XX	XX		X	XXXX	X	X		X	XX	X		X		X	X			XXX	XX		X	X			X	XX	X	X	
KVN	XX	XX	XX	XXXXXXXXXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
KZN	XXX	XX																														
LAC1																																
LAT	XXX	XX	XX	X	XX	XXX	XXXX	XXXX	XXXXXX	XXXXXXXXXX	XXXX	X	XXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX		
LBF	XX	X	XXX	X	XXX	X	XXXXXXXXXX	X	XXXXXXXXXX	X	XXXX	XX	X	X	X	X	X	XXXX	XXX		X	XXXX	XXX	X	XXXXXX	XXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	
LBL			XX				XX	X		X	X	X	X	X	X		X	XX		X				X	XX	X		XX	X			
LCCH	XX	X	XXX	XXX	XXX	X	XXX	X	XX	X		X	X	XX				X	X	X				XX	XX	X	X		X			
LCI	X		X	X		XX	X	XXX	X	XX	XX		X	X	X		X	X	X	X			X	XX		XXXX	XXX	X	X		X	X
LDF	XX	X	XXX	X	XXX	X	XX	XXX	X	XXX	X	XXX	X	X	X	X	XXX	X	XXX		X	XX	XXXX	XX	XXXX	XXXXXX	XXXX	XXXX	XXXX	X	XX	X
LDN		X			XX		X										X	X														
LEGH			X	XX		X	X			X			X				XX	X		X	X	X					XX	X				
LFF	X	X		XXX		X	X	XXX	XXX	X	XXX	XXXX	XXX	XXX	XX	X	XXX	X	X		X	XXX	X		X	XX	XXXXXX	XXXXXX	XXXXXX	X	X	
LFK			X	XX	XX	XXXXXXXXXX	X	XX	XXX	XXX		X	XXX				X	X	XX	XXXXXX	XX	X	X		X	XX	XXXXXX	X	X	X	XX	
LHE	XX		X			X	XX										X															
LHS				XX													X	X														
LIC	X	X	X	XXXXXX	X	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	X	X	XXXXXX	X	XXXXXXXXXXXXX	X	XXXXXXXXXXXXX	XX	X	XXX	XXXXXX	XXXX	X	XXXXXX	XXXX	X	XXXXXX	XXXX	X	XXXXXX	XXXX	X	XXXXXX	
LIT	X		XX	X			XX	XX		XX		X	X		X	XXXX	X	XX		XX	X	X	XX	XX	XXX	X	XX	XXX			XX	X
LJU	X		XX	X	XXX	XXXXX	XXX	X	XXX	X	X	X	XXXX	XXXX	X		XXXXX		X	X	X	X	XX	X	X	XXXXXX	XXXXXX	X	X			X
LKO	X	X	XXXX	XX	X	XXX				XXXXXX	XXXX	XXXXXX	XXXX				XXXX	X		XXXX	X				X	X	XX	X	XXXXXX	XX	X	XXX
LLA	XX	XX	X	XXX		XX	XXX	XXXX	X	XX	XX		XX				X	XX	X	XX	XX	X		XXXXXX	X	XX	X	X	X	X	X	
LLAV			X	XX		X					X	X					X							X	X		X					XX
LLS	X		XX	XX	X		X		X	X	X	XX	X	X	X	X	XXX	X		X	XXX	X		X	XX	X	XXXX	X	XXX	X	X	X
LMR		X	X		XX	X	XX		X	X	X	X	XX	XX	X	XXX	X	XXX	X	XXX	X	XXX	XXXX	X	X	XXXX	XXXXXX	XX	X	XX	X	X
LMW			X	X		X							XXX	X			X						X	X	X							
LNV	XX	X	XXXXXXXX	XXX	X	XXX	X	XX	X	X	X		X	XX			XX	X	XXXXXXXX	XXXXXXXXXX	XX		XX	X	XXXX	XXXX	XXXX	XXXX	X	XX	XXX	
LOE	X	X	XXXX	XX	XXXXXXXXXXXXXXXXXXXXX	XX	X	XXXX	X	XX	XX	X	XXX	X	XX	X	XXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
LOF		X		X							X	X	X					X	X	X							X	X	X			
LOMF			X	X	X	X	X	X	X		X	X	X				XX					X	X	X	X	XXXX	X	X	X	X		X
LON		X	X	X	XXXXXXXXXX	XXXXXX	X	XX	X		X	X	XX		XX	X	XX	X	XX	X	X	XX	XX		X	X		X	X	X	X	
LOR	XX	X	XXX	X	XXX	X	XX	XXXXXX	XXX	XXXXXX	X	XXXXXX	XXX	X	X	XXXXXX	XXX		X	XXXXXX	XXXX	X	X	XXXX	XXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
LPB	XXX	XXX	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	
LPF	XX	X	XXX	X	XXX	XX	XXXXXX	XXX	X	XXX	X	XXX	XXX	XXX	X	X	XXXXXX	XXX		XX	XXXX	XXX	XX	XX	XXXX	XX	XXXXXXXXXXXXX	XXX			X	X
LPG	X	XXXXXX	X	XX	X	XXXXXXXXXX	XXXXXXXXXX	XXXX	XXXX	X	XXX	XX	X	X	XXX	X	XXX	XXX	X	XXXXXX	X	XXXXXXXXXXXXX	XXXX	XXXX	XXXXXX	XXXX	XXXXXX	XXXX	XXXXXX	XXXX	XXXXXX	XXXX
LPL	X	XXXX	X	XX	X	XXXXXXXXXX	XXXXXXXXXX	XXXX	XXXX	X	XX	XX	X	X	X	X	XXX	X	XX		XXX	X	X	XXXX	X	X	XXXXXXXXXXXXX	XXXX	XX	XXXXXX	XXXX	
LPO	X	X	XX	XXX	X	X	XXX	XXXXXX	XXX	XXXX	X	X	X	XX	X	XXX	X		X		X	XXXXXX	X	XXXX	XXXXXX	XXXX	XXXXXX	XXXX	XXXXXX	XXXX	X	X
LPR		X	X	XXX		X	X																									
LRG	XX	X		XX	X	XX		X	X	X		X	XX	XX	X	X	XXX	X	X		XXXXXX	X		XXXXXX	X	XXXXXX	XXXXXX	XX	XX	XX	X	X
LRM	XX	XX	XXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	
LSD	X	X	XX		XX	X	XXXXXX	X	XXX	X	XX	X	X	XXX	X	X	XXX	X		X	XXX	X	X	X	X	X	XXXX	XX	XX	XX	XX	X
LSF	XX	X	XXX	XXXXXX	X	XXXXXX	XXX	X	XXX	X	XXXX	XX	XXX	X	X	XXX		X			XX	XXX	XX	XX	XXXX	XX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
LSK																																
LSZ																																
LTCM		X		X		X	X			X	X																					
LTZ			X	X	X	XXX	X	X	X	XX	X	X		X	XX	X	X		X	XX		X	XX	XX		X	XX	XX	X		X	X
LVVM				XX	X																											
LWI			X	X	X	XXXXXX	XX		X	X	X	XX	X				XXX	XXXX	XX	XX	X		X			X	X	XX			XX	X
LZH	X	X	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	
MADF		XXX</																														

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
MBL	X	XX	XXXXXX	XX	XXXXX	XXXXXX	XX	X	XXXXXX	XXX	XXXXXX	XX	XX	XXX				XXXX	XX	XX	XXXXXXXXXX	X	XX	XXXXXX	X	X	XXXXX				
MBU		X	XX		XXX								XX	X				XXX	XX		X	X				X		X			
MBU		X	XX		XX	XX	X	X			X	X	X					XXX													
MBW		X	X	X		X								XXX	X	X	X				X	X									
MCK					X	X		X	X	X	X	X	XX						X	X	X	XXXXXX	X	X		X	X	X	XXX	X	
MCO			XX	X	XX		X	X	X	X		X	X	XX		X	XX		XXX	X	X	X		X	X	X	XX	X			
MCO			X	XX		X		X	X	X			X	XX	X				XX	X			X			XX	XXX	X	XX	X	
MCT		X		X	X		X			X												X			X		X			X	
MCW		X	X	X	X	XX	X	XXXXX		X		X	X		XXX	X	X	X		X	X	XX	X		X	X	X			X	
MDI		XXX	X	XXXX	XX	X	XX		XXX	X	XX	X	XXX	X		X		X	X	X			X		XXXXX	XX	X	X			
MDSJ					XXXXX	X												X	XX						X	X	X			XX	
MDW	X	X	X		X									X	X	X					X	X									
MEKA	X		XX	X		X								XX	X	X			XXX	XX	X	X	X		X	X	XX	X		X	
MEM	XX	X	XX	X	XXX	X	XXX		XXX	XXXXX	X	XX	X	XX	X		XX	X	XXX				X	XXXXXX	XXXXX	X	X	XX	X	X	
MEO																					XX	X	X	XXX		XX	X	XX	XXX	X	
MEU	X	X		X	XX	XX		XXX		XX				X				X	XX		X	XX	X	XXXXX	XX	X	X				
MFF	XX	X	XXX	XXX		X	XXXXX	XXX	X	XX	XXXXX	XXX	XXX	X	X	XXX	X		X	XX	X	XXXX	XX	XXX	XXXXXX	XXXXX	X	XX	XX	XX	
MGB			X	X	X		X						XXX	X	X	X															
MGG	X	X			X						X	XX	X	X	X	X															
MGH			X	XXXXX	X		X		XX		X	XX			XX		X		XX				X	X		X	XX	X	X	X	X
MGP																															
MGR	X	X	XXXXXX	XXXX	XXXXX	XXX	X	XXX	XX		X	XX	X	X	XXX	X	XXXXXX	XX		X	X	XXXXXX		XXXXXX	XXX	X	X	XXXXX	XX		
MHC	XX	XX	XXXXX	X		XXXX	XXX	X	XXXX	X		XX	X		XXX	X	XXX	XX	X	XX	XXXXXX	X	XXX	XX	X	XX	X				
MHI					X						X				X				X	X	XX										
MHZ			XX	X		X	X		X				X	X								XX			X						
MID	X				X					X				X					X		XX	X	X		X	XX	X	XX			
MIN	XX	XX	XXXXX		XXXX	XX			X	XXXX	XXX	XX	X	XX	X			XXXX	X	XX	XXXX	XX				X		XX	XX		
MJMA			X		X	X		X		XX			XX	X	X	X		X	X	XX	X	X				XX					
MKRJ				X		XXX			X	X	X		X	X					XX		X	X				XXX	X			X	
MKS	XX		X	XX	X					XX	X	X			X	XXX			XXXXXX						XX	X	XXXXXX	X	X		
MLR	XX	XXXXXX	XXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
MMB	X	XXXXXX	X		XXXXXX	XXXXXX	XX	XXX	XX	X	X	XXXX			XX				XXX	XX	XX	XXXXXX	XXXXXX	XXXXXX	X	X	X	X	X	X	
MMCZ			XX	X		X	X		X			X	X					X			X	XX									
MME											X			X	X	X	XXX	X				XXX	X			X	XX	X		X	
MMG			XX										X	X	X											X	X		X		
MMK	X	XX	XX								X	X	X	X	X	XXX			X	X	X	X	X		X	XXXX	XX	XXX	X	X	
MMN	X		X	X	X	XX	X				X	X	X	X	X	XX	X	XX				X		XXX	X					X	
MNDI	X		XXXXX	XX	X		X	XXXX	X			X	X	X	XX	XX	XXXX	X	XXXX	X	X	XX	X			XX	X	XX			
MNG	XXX	X	X	XX	X	X	XXXXX	X	X	X	XXX	XX	X	X	XXXX				XXX	X	X	XX	X			X	XXXXX	X	X	XX	X
MNI	X	XX		XX	X	XX		XXXX	XXXXXXXXXXXXXXXXXXXX	X		XXXXXXXXXX	XXX																	XXXX	
MNO		X		XX	XXX		XXX	XX	X					X		X	X		X	X		X	X	X	X	XXXX	X	X		X	
MNS	XX	XXXXX	XXX	XX	XXXXX	X	XXXX	X	XXXXXX	XX		X	XXXX	XXX	XX			XX	X		X	XXXX	X	XX	XXXXXX	XXXX	X	X		X	
MOF		X	X	X		XX		X		X	X	XX		X							X	X	X		X	XXX	X	X	X		
MOL		X	X	XX	X		X		X	X									X	X		X	X	X		X					
MOW			X		X	X	XX	X		X	X	X	X	X					XX							X				XX	
MOX	XX	XXX	XXXXX	XX	XXXXX	XX	X	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XXXXX	XX	X	X	XXX	X	XXX	XX	X	XXXX	XXXXX	XXXXX	XXXXX	XXXXX	X	X	XXXX		
MOZ			X		X	X		X				X	X						X			X				X				X	
MRRJ	X	X	XX			XXXX	XX					X							XX		X	X								X	
MRW			X	X	X	X	X		X	X	XX	X	X	X					XX	X					XX	X				XX	
MRWA	X	X	XX	XXX		XXXXX	X	XX							XX	X	XX		XXXX	X	X	XXX	X		X	X	XXXXX	XX	X	XXXX	
MRX				X	X			XXX	X				X	X	X	X	X		X												
MSL	X	X	XX	XXXX		XX	X	X	XXXX		XXXXX	X	X	XXXX		XX	XX	XXX	XX	XXX	XXX	X	X	X	XXX	XX	XX	X	X	XXX	
MSU		X		XXXX	X	XXXXX	X	XX	X	XXXX																					
MSZ		X	X	XXXX	X	XXXX	X	X	X		X	XX		X					XXX	X	X	X			X	XX	X	X	X	XX	
MTMJ	XX	XX	X	X	X	XXXXXXXXXXXXXXXXXXXX												XXXX	X	XXXX	X	XXXX	X	X	X	X	XX	XX	X		
MTN	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
MTU					X								X	X					X		X	X	XX			X	X	X			
MTW		X	XX	X	X	XXX	X		X	X	XX	X	X	X					XX	X					X	XX	X	X		X	
MUN	XX	X	X	XXX		X	XXX	X	XXXX	XX	X	X	XXX	XX	XX	X	XXX		XXXX	XX	X	XXX	X		X	X	XXXXXX	XX	X	XX	
MVIF		X	X		XX		X				X	X	X	X	X		XXXXX		XX		X	X	X								
MVM		X		X	X			X	X	X			X	X	XX	X	X		X			XX	X			X	X	X		X	
MWC		X	XX	X	XXXXXX		XXXXXX	X	XXX	X	X	XXXX	X	X	XX	XX	X	X	XXX	XXXX	XX	X	XX		X	X	XX	X	XX	X	
MXC	X		X	X		X	X						X	X	X							X	X	X							
NA2				XX	X		X																		XX						
NAB			X		X								XXX	X	X																
NAC			X		X								XX	X																	
NAI	XXXXXXXX	XXXXXXXX	XXX				XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXXXX	
NANU	X	X	XXXXXX	X	XXXXXX	XXXXXXXXXX	X	XXXXXX	X	XXXXXX	X	XXXXXX	XXX	X	X	X	X	XXXXXXXX	XX	XXXXXXXX	XXXX	XXXXXXXX	XXXX	XXXXXXXX	XXXX	XXXXXXXX	XXXX	XXXXXXXX	XXXX	XXXXXXXX	
NAV			XX	X		X																									
NB2	XXXXXXXXXXXXXXXXXXXX	XX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
NCA				X	X	X		X	X	XXXX	X	X	XX	X					XX	X	XX	XXXXXX	XX	XX		X	X	XXX	XXX	X	XX
NCG					X	X		X	XXXXX	X	XXX	X	XX	X		XX			XXX	X	XX	XXXXXX	XX	XX		X	X	XX	XXX	X	XX
NDF			XXX		XXXXX	X	X	X	XXXX	X	X								XX	X											
NDI	X	X	XXXXXX	XX	XX	XXXXXX	XXXXXX	X	XX	XX	X	X	X	XXXX	X	X	XXX	XXX	XXXXXXXXXXXX	XX	XXX	XX	X	XXXXXXXXXXXX	XXX	XX	XXX	XX			
NEA					X	X		X	X	X	X	X		X					X	X	X	XXXX		X		X				X	
NEO	XXXX	XX	X		XX	X	XXXX	XXXXXX	X			X	XXXX	X	X	X	X	X	X	XXXX	X	XX									

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NKY	X	X		XX	X	X		X	X	XXX		X	X	X		X	X	X	X		X		X		XX	X				
NLW	X		X	X		X								XXX	X	X	X					X		X		X				
NNA																														
NNL																														
NNT		XX		XXXXXX	X	XXXX	XXX	XXX	XXX	X	XXXX	XXX	XXX	XXX	XXX	XXXXXX	XXXX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
NOZ		X	X	X	XX	X	X	X	X	XX		X	X	X	XXXX	X	X	X	X	X	X	X	X		XXX	X	X	X	X	X
NPA		X	X		X	X	XXX	X	X		XX				X	X	X	X	XXX	XX					XX	XX	X	X		X
NRA0	X		X			XX	X		X		XX	X	X	X		X				XX		X	X	X				X		
NST		X		X	XXX		XXX	X	XX	XXXX	XXX	X	XXXX	X	XX		XX	XX	XX	X	XX	X	XX	XX	X	XXXXXX	XX	XXX	X	XX
NUR	XXXXXXXXXXXX	X		XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXX	X	XXXXXXXXXX	XXXX	XXXXXXXXXX	XXXX	XXXXXXXXXX	XXXX	XXXXXXXXXX	XXXX	XXXXXXXXXX	XXXX	XXXX	XX	XXXXXXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
NWAO		X	X	X	XXX		XX	XXX	XXXX	X	X	XX	X	X	XXX	XX	X	XXX		XXX	XXXX	XX	X	X	X	X	XXX	XX	X	XX
NWRM		X		X	X	X	XXX	XXX		X		X			XX	X		X	X	X		X		X		X	X			
OBH			X	X		X								XX	X							X								
ODD1		X	X	X	XX		X		X	X	XXX					X	XX	X		XX		XX		X	X	XX	X			X
OGA	X	XX	X	XX	X	X	XX	X	X	X	XX	X	X	X	X	X	X	X		X	X	X		X	XXXX	X	XX	X		X
OGE		XXX	X	X		X	XX							X			X	X							X				X	X
OHR	XXXXXXXX	X	XXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	X	XXX	XXXX	XX	XXX	X	XXX	X	XXX	X	XXXX	XX	XX	X	XXXX	XX	XX	X	X	XXXXXXXXXXXX	X			X	XX
OHW		X	X	X		X								XXX	X	X	X					X			X					
OLLA		X	X	XX						X	X		X				X	X				X	X			X				XX
OLY	X			XX	X		X		X	X	X	X				XX	X			X	X	X	X		XX		XX			X
ONR			X	X		X	X							XX	X					X	X									
ODW			X	X		X								XX	X					X	X									
ORI	X		XX	X	X	X	XXXX	XXXX	XX	XX	X	XX	X	X	X	X	XXX	X	X		X	XX		XXXX	XX	X	X	X		
ORO		X	X	X	XX		X	XXX	X	XX		XXX	X	XX	X	X	XXX	XX	XX	X	XX	X	X		X					
ORV	X	XX	XXXX	XX	XXXXXXXX	XXXX	XXXX	XXXX	XX	XXX	XXXX	XX	XX	XXXX	XXXXXX	XX	X	XX	XXXXXX	XX	X	XX	XXXXXX	X	XX	XX	X	XX	XX	XX
ORX	X	XX	XX	X		X	X	X	X	XX	X	XX	X	X	X	X	XXX	X		X	X	X								
OSD		X	X	X		X	X							XXX	X	X	X					X			X					
OSS	X	XX	XX	X		X			X			X	X	X	X	X	XXX	X		X	X	XX	X	X	XXXX	X	X	X	X	X
OTR		X	X		X	X								XX	X							X								
OUR	X		X	X			XX	XX		XX		X	X	X		XX	XX	X	XX		X	X	X	XX	XXXX	XXX	XXX			XXX
OXX				XX	X			XXXX	X					XXX	X	X	XXX								X	X	XXX	XX	X	
PAE			X	X	X		X	X	X	X	X	X	X			X		X												
PAG	X	XX	X	XXXX		X	X	X	XX	X	X	X	XX	XX	X	XX	XX	XX		XXXX	XX		XXXX	XX	X	XX	X	XX	X	X
PAIG	X		X	X		XX	XX			X						X		X	X	X	X	X	X	X	X	XX	XXX		XXX	X
PAS		X	XX	X	XXXX		XXXXXX	X	X	X	XXX	X	X	XX		X	X	X	XX	X	XX	X		X	X	XX	X	X		
PAX					X	X	X	X	XXXX		X	X	X	XX	X		X	X	X	XX	XXXX	XX	X	X	X	X	XX	X	XX	X
PCA					X					XX	X			X	X		X	X	X		X		X	X	X	XX	X			
PCC	XX		X	XXX		XXXXXX	XXX	X	XXXX	X	XX	X		XX	X	X	X	XX	X	X	XX	X		X	XX	X	X	X		X
PCH	XX	X	XXXXXX	XXX		X	XXX	X	XX	X	X	XX					XX	X	XXXXXX		XXXXXX	XX	X	XX	X	XXX	XXX	X	X	XXXX
PCI		X	XXXX			XXXX	X	X	XXXX							XX								XXXXXXXX	XXXX	XXX	XXXXXXXX			
PCP	X		X	XX	X	XXXX	X	X	X	X	X	XX	X	X	X	XXX	X		XXX	XXXX	X		XXXX	XX	XX	XX	XX			XX
PDA				X	X											XXX	XX	X				X			X					X
PDB						X	X	XX	X	XXXX		XXX	X	XX	X	XX		XX	X	X	XX	XX	XX	XX	X					
PDCR																														
PEC	XX	X	X	X	XXX	X	XX	XXXX	X	X	X	XXXX	X	X	XX		XXXX	XXX	XX	XXX	X	XXX	X	X	XX	XX	X	XX	X	X
PEL																														
PGB	X	XXX	X	X		XXX	XX	X	XX	X				XX	X		XX			X	X	XX		XX	X	X	XX	X		X
PGC		X	X	X	XX	X	XXXX				X	X	XX	X	X	XXX	X			XX				X	X	X	X	X		X
PGD	X	X	XX	X	XX	X	XX	XX		XXX		X	XX	X	X	XX	XX	XX	XX	XXX	X	XX	XX	XXXX	XX	XXX	X	X	X	X
PGF	X		X	XXX	X	X		X			X	XX	XX	X	X	XXX	X			X	XXX	X			XXXX	XXXX	X	X	XX	X
PGP	XXXX	XXXXXXXX	X		X	X	X	XX		X		XXXX	XXX	X					XXX											
PGW		X	X			X								XX	X	X						X		X						
PGZ		X	X	X	X	X	X	X	XX	X		XX	X	XX	X		X	XX	X		X	XX	X		X	XXX	X	X	X	XX
PHAM	XX		X	XXX	X	X	XXXX	X	X	XX	X	XX				X	X	X	X	X	XX	X		X		X				X
PHP																														
PII		XX	XX		X	X		X	X	X	X			X	X	X		XXX	X	X		XXX	X	X	X	X	X			
PIP	XXX	X	XX	XX	XX	X	XXXXXXXXXXXX	XXX	X	XX	XXXX	XXXX	XXXX	XXXX	X	XXX	X	X	X	XXX		X	X	XXX	X	XXXX	XXX	X	XX	X
PJG	X	X	X	XX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXX	X	XXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
PKEM																														
PKI	XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
PLAV		X	X	XX		X				X	X											X								
PLD	X			X				X	X			X	XX	X		XX				X		X	X	XX	X	X				X
PLDF			X			XX		X	X	X	X	XX	X	X		X	X			X		X	X		XX	X				
PLE	X			XX	X	X		XXXX	X	X	X	X				XX								X	X	XX	X	X		
PLG	XXXX	XX																												
PLM	XX	XXX	X	XXXX		XXXXXX	X	X	XXXX		XXXX	XXXX	XX		XXXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	X	XX	XX	X	XX	X	X
PLRM						X	X	X	XXXX	X	XX	X	XX	X	XX	XX	XXXX	X	XX	XXXX	XX	XX	XXXX	X	XX	X	XX	X	XX	XX
PMG	X	XXXX	XXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
PMO		X		XXXX		XXXX					X	X				X				XXX	X	X		X	X	XX				
PMR	XXX	XX	XX	XXXX	XXXXXXXX	X	X	XXXX	X	XXXX	XX	XX	X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
PMS	X					X	X	X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
PNT	XXXX	XX	XXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
POO	X	X	XXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
PORP		X	X	XXX	XX		X	X	X			X				X	XX	X	X	X	XX		X	X	X	XX	XX	X	X	X
PPCY																														

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
PR1	XX	XX	X	XXX	X	XXXXXXXX	X	XX	X	XX	X	XXX	X	XX	X	XX	X	XXX	XXXX	XX	XX	XX	X	X	XX	XX	X	XX			
PRM			X	XX	X		X				X						X				X	X	X		X		X				
PRNI	X	X	X		XX		XX	XXX	XX	XXXX	XXX	X	X	XX		X	XXX	X	XX	XX	XX	XX	X	XX	XXX	XXXXXX	X			XXXX	
PRS	XX	XX	X	XXXX	X	XXXXXXXXXXXX	XXXX	XX	XXXX	XX	X	XX			XXXX	X	XXXX	XX	X	XX	XXXXXX	X			XX	X	XX	XX		X	
PRU	XXXX	XXX	XXXXXXXXXX	XXXX	XXXXXXXXXXXX	XXXXXXXX	XXXXXXXX	XXXXXX	XXXX	X	XX	XXXX	XXXX	X	XX	XXXX	XXXX	XX	X	XX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	X	XX	X	XXXX	
PRY	X	X	X	X	XX	XXXX	X	X			XX	X				X	XXXX	XX							XXXX	XXXX	X	XX	X	XXXX	
PSN	X			X		X						X				XX				X	X				X	X	X		X		
PSO			XX	X	XX	X	X					X				X	X	X	X	X	XX				X	X	X		X		
PSZ			XX	X	X	XX	XX	X	X	XX		XX	X	X	X		XX			XX		X			XXX	X	XX	XX		XX	
PT02								X	X	X	X	X	X	X	X		X	X	XX	XX					XX	XX	X			XX	
PT03			X	X	XX	X	XX		X	X	X	X		X	X	XX	XXX	X	X	X	X						X	X		XX	
PT08						X	X	X	XX	X	X		XX	XX		XXX	XX	X	X	X					X	XXXX	XX		X	XX	
PT10									X	X	X	XX	X			X	X	X	X	XXX					X	X	XX		X	X	
PT1	X			X	X	X		X	X	XX		X				X			XX				X	XX	X			X	X		
PTJ	X	X	XX	X	XXX	XXXX	XX	XXXX	XX	XXX	XX	XX	XX	X	XXX	XXX	X	XX	X	XX	X	XX	X	XXXX	XXX	XX	XX			X	
PTO				X		X										XX	XX							X	X	X					
PTT			XX	X		X	X				XX	X	X	X			X			X						X	X				
PTZ																							XXXX	X	XX	XXXX	X	X		X	
PUK									X	XXXX	X		X			X	XX								X	X	X				
PUZ	XXX	X	X	X	XX		XXXX	X	X	XX	X	X	X	XXXX		X		X	X		X	X	XX	X		XXX	X	X	X	XX	X
PV09	XX	XX	XX			X	X	X	XX	X	X	XXX				X			XX	X	X					X	X				
PVC				XX	XXX	XXXX	XXXX	X	X	XX	XX	XXXX	X	XXX		X	XXX	XXX	X	X	XXXXXXXX	X	XX	X	XXXXXXXX	XX	XX	X	X		
PVL	X	X		X		XXX	XX	X	XX	X	X	X	XXXX		XX		X	X	X	X	X	X	X	X	X	X	XX	X		X	
PVY	X		X	X	XX	X	X	XXXX	X	X	XX					XX			X	X	X	X	XX	X	X	X					
PWA					XX	X	X	XXX	X	X	X	XX	X	XX		XX			XXX	X	XX	XXXXXX	X	XX	X	X	XX	XXX	X	XXX	
PWLA			X	X	X	X	X		X		X					X			X	X	X	X	X	X	X	X	X	X	X	XX	
PYM			XX			XX	X		X	X	X	XX	X	X		X	XX			X	X	X	X	XX	X						
PZZ	X	X	XXX	XX	XX	XXXX	X	XX	X	XX	X	XX	X	XXX	X	XXX	X		XXX	XXXXXX	X	X	X	XXXX	XX	X					
QASM						X	X				X		XX	X		X		X	XX	X	X	X	X			XX	X				
QCP			X	X	X	XX	X				XX	X	XX	X		XX	X	XXX	X	XX	X	X	X	X	X	X	X			XX	
QIS	XXX	XXX	XXXXXXXXXX	XXXXXX	XXXX	XXXX	XX	X	XXXX	XXXXXXXXXX	XX	XXXXXXXX				XXXXXXXXXX	XXXXXXXXXX	XXXXXXXX	X	XXXX	XX	XXXXXX	XXX	X	X	XX					
QTFJ			X		X	XX				X						X	X	X			X				X	X					
QTO																X	X								X	X				X	
QUE	X	XX		XXXX	X	XX	XXXXXX	XX	X	X	X	XX	XXX	XXX	X	X	XXXXXXXXXXXXXXXXXX	XXX	X	XXXX	X	X	XXXXXX	XX	XXXX	X				X	
QUR	X	X		XX	X								X	X		X	X	X	XX				X	X	XX	X			X	X	
QZA				XX												X									X	X	X				
RAB	X	XXX	XX	X		XXXXXXXX		XX	XX	X		X	X	X	XX	X	XX	X	XXX	XX	XXX	X	XX	XX	XX	X	XX	XXXX	XX	X	
RAR				XX		X	XX	X			X						X										XX				
RBL	XX	XXX	X	XXXX	XXXX	XXXX	XXXX	XX	XXXX	XX	XX	XX	XX	XX	X	XXXX	XXXXXX	X	XXX	XXXX	XXXXXXXX	XXXXXXXX	XXXXXX	X	X	X	X	X	X	X	
RDO	X	XX	X	X	XX	XX	XXX	X	XX	XX		XX		XXXX	X	XX			XXXXXX	X	XXX	XXXX	XXXXXX	XXXXXX	XXXX	XXX	X	X	X	X	
RDP	X	X	X	XX	X	XXXX	XX	X	X	X	X	XXXX	X	X	X	X	XXX		XXX	X	XXX	XX	X	XXXXXX	X		X			X	
RDS						X	X		X	X	X	X	X			X			X	X	X	X	X	X	X	X	X				
RDT						X	X	XX	X	XXXX	XXX	X	XX	X	XX	XX			XXX	X	XX	XXXXXX	XX	XX	X	XX	XX	XX	X	XX	
RED						X	X	XX	X	XXXX	XXX	X	XX		XX	XX			XXX	X	XX	XXXX	XX	XX	X	XX	XX	X	X	XX	
REVF			X		X	X		X			X	X	X	X	X	XX			X	X	X	X	X	X	X	X	X			X	
RIV	X		X			X					X					X			X	X	X				XX	X					
RIY			X	XX	XXXX			X	XX		X					XX					XX			XX	X	X					
RJF	X	X	XX	XXX	X	X	X	XX	XXX	X	XX	XXXX	X	X	XXX	XX	X	XXX	X			XX	X	X	X	XX	XXXX	XX	XX	X	
RKG	X			X	X											X			XXX	X	X		X	X	X	XX				XX	
RKT			X	X		X	XX	X			X	X	X													X				X	
RMP			X	X	XX	X	XX	X	XX	X	X	XX	XXX	XXXX	X	XXX			XX	X	X	X	XX	X	XX	X	X	X		X	
RMO	X	X	X	XXXXXX	XXXXXX	XXXX	X	X	XXXX	X	XX	XXXX	X	XX	XX	X	XXXXXX	X	XX	XXXX	XX	XXXXXX	XX	XXXXXX	XXX	XX	X			XX	
RMW	X	X	X	XXX	XX	XXXX	X	X	X		X	XXX	X	X	XX			XX	X	X	XXX	X		X	X	X			X		
RND					X	X	X	XXXX	X	X	X	XX	X	X	XX			XX	X	X	XXXXXX	X	X	X	XX	X	XX	XX	XX	XX	
ROB	X		XX	XX	XX	XXXX	X	X	X		X	XX	X	X	X	X	XXX	X	XXX	XXXXXX	X		XXXX	XX	XX	XX	XX	XX		XX	
ROCH	X	X	XXXXXXXX	XXX	XX	X	X	X		X	XX					X	XXX	X	X	XX	XX	XX	XX	XX	XX	X	X	X	X	XXXX	
ROI	X		X	X	X	XX	X	X	X	X	XX				X	X	XX	XX	XX	X	XX	XX	XXX	XX	XX	X	X	X	X	XX	
RPW	X		X	X	X	X	X						XXX	X	X	X				X	X	X	X		X						
RRL	X	X	XXX	XX	XX	XXXX	X	XXX	X		X	XX	X	X	XXX	X	XXX	X	XXX	XXXX	X	X	XXXX	XX	XX	XX	XX	XX		XX	
RSCP			X	X	XX	X	X				X	X				X	XX			XX	X	X	X		XX	XX	X	X		XX	
RSM				XX	X	X							X	X		XX	X							XX	XX	X					
RSNY			X	X	XX	X					X	X	X			X	XX			X	X	X	XX	XX	XX	X				X	
RSO	X	XX	X	XX	XXX	X	XXX	X	X	XXX	X	XXXX	X	X	XX	XXXX	X	XXX	X	XX	X	XX	X	XX	XXXX	X				XX	
RSP	X	X		XX	X	XXXX	X	XXX	X	XX	X	XXX	X	X	XXX	X	XXX	X		XXX	X	XXX	X	XXX	XX	XX	XX	XX		X	
RSSD	XX	XX	XXXXXX	XXXXXX	XXXX	X	XXX	XXX	XXX	XXXX	XXXX	X	XXXXXX			XXXXXX	X	XX	XXXX	XX	XXXX	XXXX	XXXX	XX	X	XX	X	XX	X	XX	
RTBS	XXXX	XX	XXXXXX	XX			XX	XX	X	XXXXXX	XXXX	X	XXXXXX	XXXX	X	XXXXXX	XXXXXXXXXX	X	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
RTCB	XX	XX	XX	XX	XXXX	XXXXXXXX	XXXX	XX	XXXX	XX	XXXX	X	XX	X	XXXX	XXXX	X	XXXX	XXXX	X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
RTCV	XXXXXXXXXX	XX	XX	XXXX	X	XX			XXXX	XXXXXXXXXX	XXXX	X	XXXX			XX	X	XXXX	XXXX	XXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
RTLL	XXXXXXXX	XXXXXX	XX	XX	XXXXXXXX	X		XXXXXXXXXXXXXXXXXXXX	XXXX	X	XXXX	X	XXXX	X	XXXX	X	XXXX	X	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
RTRS	XXXXXXXX		X	XX	XXX	XXXX	X		XXXXXXXX	X	XXXX	X	XX	X	XXXXXX	X			XX	XX	XXX	XXXXXXXXXXXX	XXXX	X	XXXXXX	XXXX	X	XXXX		XXXX	
RUP	XX		XX	X	XX	XX	X	XXX	X	X	XX	X	XX	XX	X	XX	XXX		XXX	X	X	X	X	XX	XX	XX	X			X	
RUV			X		X	XXX		X			X	X	X					XXX	X				X	X	X	XX					
RVC			X		X	X						XXX	X	X	X					X	X	X	X	X							
RVR	X	XX	X	XXXXXX	XXXXXX	X	XX	XX			XXXX	X	XX	XXXX	X	XXXX	X	XXX	XXXX	XX	X	X	X	X	XX	XX	XX	X	X	X	
RYD																															

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
SAOF		X	X		X	X					X	X	X		X		XXXXX		XX		X	X	X								
SAW	X		X	X							X	X	X		X	X	X					X	X	X							
SAX	X		XX		XX	X		X				X		X	X	X	XXX		X		X	XX	XX		X	XXXX	X	X	X	X	
SBA			XXX	X	XXXX	X		X	XXXX		X		XXX	X	X		XX	XX	X	XXXXX	X		X	X		X	XX	XX	X	XX	
SBB		X	XX	X	XXXX	X	XXXXXX		X	XXX	XXXX	X	XXXX	X	XX	XX	XXXXX	X	XXXX	XXXX	XX	XX	XX		X	XX	XX	X	XX	XX	
SBF	X	X	X		XX	X	XX		X	X	X	X	X	X	X	X	XX	XXX	X	XXX	XXXXXX	X				XXXX	XXX	X	XX	XX	X
SCE					X				X	X						X									X	XX	XX	X			
SCH			XX	XXXX			X	XX	XXX	XXX	XXXX		X	X		XXXX		X	XX		XX	X	X	X		XX	XXXX	XXX	X	X	XX
SCX				XX				X		X		X	XXX	X	X		XX									X		X	X	X	
SDA	X								XX	XX	X	XX			XX	X	XX								X	XX	X	X	X	X	
SDG							X		X	X	X	X						X	X	X	X	XXXX	X				X				X
SDI	X	XX	XXXX	XXX	XXXXXX			X	XX	XXXX	X	XX	X	X	XX	XXXX		X	X	XX		XXXXXX			XXXXXXXXXXXXXX			X	X	X	XXXX
SDN		X		X	XX		X	X	X	X	X	X		XX	X					XXX	X	XXX	X	X	X	X	XX	X	X	X	
SDV				X	XX		X				X	X		X				X	X		X	X				XX		X		XX	
SEG		XX		X	XX				XX				XX	X			X	XX			X	XX			X	X	X		X	X	
SEK			X	XX	X	XXXX						X	X				X	XXXX	X												
SES	X	X	XX	X	XXXX		XXXXXXXXXXXX	X	XXXXXXXXXXXX	XXXXXX	XXXX	XX				XXXX	XXXX	X	X	XX	XXXXXXXX	X	X	XX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	
SEW						X	X	X	XXXXXX	XXX	X	XX	X		XX	XX	XXX	X	XX	XXX	XXX	X	XX	X	XX	X	XX	XX	X	XX	XX
SFG		XX		X				X				X			X		X				X	X	X		X	X	X			X	X
SFI		X		XX	X	X	XX	X	X	X	X	X	XXXX		X	X	XXX	X	XX	XX	XXX	X	XX	X	XXXX	XX	X		X	X	X
SGE				X	XXXX		XXXX	X	X	XX	X	XXX	XXXX			XX		XXX	X	X			X			X	X				
SGO	X	X	XXXX	X	X	XXXX	XX	X	XXX	XX	XXX		X	X	XXX	X	XXXX	XX	X	X	X	XXXXXX		XXXXXXXXXXXX			X	X	XXXXXX		
SGS				XX	X																X	XXX						X		X	
SHB		X	X	X		X							XXX	X	X	X						X				X					
SHGH				X	XX				XX			X				XX		X			X	X									

DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						
TAZ					XX					X		X	X		X			X				X			XX		X	X								
TBH										X					XX			X	X			X					X				X					
TBI			X	X		XX	X			X		X						X				X														
TBM	X		X		X									XXX	X	X	X																			
TBR				XX								X	X				XX				X	X	XX			X		X		X						
TCE	XX	XX	XXX		XX	X	XX	XX	XX	X	X	X			X	XX	X		XXXXXX	X	X	X	XXXX		X	X	XXX		X	X	XX	XXX				
TCF	XXXX	XXX	XXXXXXXXXX	XX	XXXXXX	XXXXX	XXXX	X	XXXXX		XXXXX		XXX	X	X	X	X	XX	X	XXX		XX	XXXXXXXXXX	XXX	XXX	XXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXX	XX	XX	XX				
TCW		X	X	XX	X	XX		X	XX	X		X	X	X	X		X	XX	X	XX	X		X			XX	X				XX	XX				
TDS	X		XX	X	XX	X	XX	XX	XXX	X	XXX	XX		X	X	XXX	X	XXX	X	XXX	X		XX	XX		XXXXXX	X	X	XX	X	X	X				
TEGH			X	XX		X	X			X					X		XX		X		X	X	X			XX		X			X		X			
TEH			X	X		X	XX		X		XX	XX		X	XX		X	X	XX	XX	XX	XX	XX		X		X	X		X						
TGL					X	X	X		X		XX	X	X		XX	X		X	X	XX	X	X	XX	XX		X	XXX		X	X	X	X	X			
THE	X		X	X				XX		XX			X	X	X		X	X	XX		X	XX	X	XX	XXXX	XX	XX					X	XX			
THZ		X		X	X		XXX	X	X	X	X		X	X	X		X		XXX	X	X	XX	XX		X	X	XX	XX				XX	X			
TIC	X	X	XX	XXXX	X	XXXXXXXXXXXXXXX	X	XXXXXXXXXX	XXX	XXXXXXXX		XXXXXX	X	XXXXXXXXXXXXXXX	XXX	X	XXXXXXXXXXXXXXX	XXX	X	XXXX	X	X	XX	XX		X	X	XX	XX				XX	X		
TIO			X	XXXXX	X	XXXXXX	XX	XX	X	XX	X	X	XXXXXXXXXX	XXXXX	XXX	X		XXXXXXXXXX	XXX	XXX	XXXXX	XX														
TIR	X					X		XX	XXXX	XXX		X	XX	X		X	XX			XXX	X	X			XXXX	X	XX	XX	X							
TKL		X		X	X	X																														
TKSJ	XX		X			XX	X		X					X				X		XX	XX	XX	X	X	X		X		X	X		X				
TLB						X			X	X			X	X			XX							X	X	XX	X	X	X	X	X	X	X	X		
TLC				XX		X	X		X	X			X	X			X					XX														
TMA	X		XX		XX	X		X	X	X		X	X	X	X	XXX		X	X		X	XXX	XX	X	XXXX		X	XX	X	X	X	X	X	X		
TME					X	X									X		X				X					X	X	X								
TNP	XX	XX	X	XXXXXXXXXX	XXXXXXXX	XXX	X	XXXXX		XXX	X	X	XXX	XX		XXXXXXXXXX	XXX	XXX	XXXX	XX	XXXXXXXXXX		X	XX	X	XX	X	X	XX	XX	XX	XX	XX	XX		
TNS			X	X	X	XXX	X	X	X	X		X	XX	X		XX		XX			X	X	X		XXX	XXX		X								
TOA	X	X		XXXXXXXXXX	XXXXX	X	XXXXX	XXXXXXXXXXXXXXX	XXXX	XX		XXXX	XX	XXXX		XXXX	XXXX	XXXX	X	XX	XXXXXXXXXX	XX	XX	X	XXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXX	XXXX		
TOD	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	XX	XXX				XX		X	X		X	XXX	X	XX					X		
TOL	X	X	XX	X	XXXXX	X	XX	XXX		XXX	X	XXX	X	X	X		XXXXXXXXXX	XX	XXX	XXX	XXX	XXX	X	XXXX	X	XXXXXXXXXXXXXX	XXXX	X	X					XX	XX	
TOO	XX	XX	X	XXX	X	XXXXX	XX	X	X		X	XX	X	X	X		X	X	XXXXXXXX	X	XX	X	XXX		X	X	XXX	XX	X	X				XX	XX	
TOUF		X	X	X	X	XX					X	X	X	X	X		XXXXXX		XX		X	X	X	X		X	X	X		X	X		X	X		
TPC		X	XX	X	XXXXXX	XXXXXX	X	X	X	XXXX		XXXX	X	XX	XX		XXXX	X	X	XXX	XX	X	XX	X	X	XXX	X	XX		XX	X	XX	X	X	X	
TPE										X	XXX	XXXX		X			X	XX									XX	XX								
TPP	X	XX	XXX	XX	X	X	X		X		X				X	XX		X	X			XX			X	X	XXX	X					X	X		
TPR				X	X			X				X		X	X			X		X		X	X											X		
TPT		X	X	X	XXX		XXXX		X			X	X	X			X		XXX	X		X			X	X	X	XX								
TPX				XX	X			X			X	XX	X	X			XX	X	X						X		X	X	X							
TRI	XX	X	XXX	XXXXXX	XXXX	XX	XXXXXXXXXX	XXX	XX		XXXX	XX	X	X	X		X	XXX	XXXX	XX	X	X	X	XXX	XX	XXXXXX	XX	XX	X	X			XXX	X	XXX	
TRN	XX	XX	XXX	XXX	XX	X	XX	XX	XX	X	X	X		X	XX	X		XXXXXXXX	X	XX	X	XXXX		X	X	XXX		X	X	XXX	XX	XXX	XXXX	XXXX		
TRO	X			X	X	X	X				X	X	X	X			X	X	XX	X	XX	X			X	X	X	X	XXX	X						
TRT			X	XXXXXX	X	XXXX		XXX		X	XXX	X		XX			XXXXXX		XXXXXX							XXX	XX	X	XXXX	X	XX	XX				
TSM				X	XXX		XX	XX	XXXX		X	X	XX		XXX	X	XX		X	XX	XXXXXXXX	X	X	X	X	XX	XXXXXX		XX	X	XX	X		XX	XX	
TSRJ	XX	XX	X	X		XX	XXX	XX	X				X		X		X	X	X	X	X	X	XX	X	X	X	X	X		X						
TTA	X	X	XX	X	XXXXXX	XXXXXXXXXX	X	XXX	XXXX	X	XXXXX		XXXX	X		X	XXXXXXXXXXXXXX	XX	X	XXXXXXXXXXXXXX	XX	X	XXXXXXXXXXXXXX	XX	X	XXXXXXXXXXXXXX	XX	XXXXXXXXXXXXXX	X	XXX	XXXXXX					
TTG	X	X	X	XX	X	XX	X	XXXXXX	X	XXXX	XXX		XXXX		X		XXX		X			XX	X	X	XX	X	XXX									
TUL	X	X	XXX	X	XXXX	X	X	XX	XXX	XXX		XXX	XX	X	XX	XX		X	XXX	XXXXXXXX	XX		X	X	X	XXXX	X	XX	XXXX	XX	XXXXXXXX	XXX	XXXX	XXXX	XXXX	
TUNG	X				X												X	X	X	X		XX	X				X	XX	X							
TVO			X	X	XX		XXXX	X				X		X			X				XX				X			XX		X						
TWC	X				X				XX	X	X	X	X	X	XX	X	X					X	X	X	XX		X									
TWD		X	X		X				X	X		X	X																							
TWF1	XX		X		X				XX	X	X				XX	X																				
TWG	XX		X		X				XX	XX	X	X			X	X						X	X			X		X								
TWK	X		X		X				XX		XX	X	X			X	X					X														
TWQ					X				X		XX	XX	X			X						X														
TWW			X	X		X									XX	X						X	X	X												
TWZ					X				XX		X	X			X	X						X	X		XX		X									
UCC			X	X		X	XX	X	X	X		X	X	X	X		X	XXX		X	X		X			XX		X								
ULC	X		X	X	X	XX	X	X	X	XXXX	X	X		X			X					X				XX	X	X	X							
UNM					X	X							X	X	X	X		X	X	X																
UPA	XX		X	XX	XXXX	X	XXXXXX	XX	X	X	XX		X	X	X	X		XX	X		X	XX	X			XXXX	XXXX	X	X					XXXXXX	XXXXXX	
UPP	X	X	X	X	X		XX	X	XX	XXXX	XX		XXXX	X	X	XX		X	X	XXX	X	XX	XX		XX	X	X	XXXX	XXXXXXXXXXXXXX	X	X	X				
UYO										X	X	X	X		X		X	X	X	XXX		X	X	X	X		X	XXX		X	X	X	XX	X	XX	
VAH		X		X	XXX		X	XX		X			X		X		X		XXX	X		X			X	X	X		XX							
VAI	X	X	XXX	X	XXX		X	XX	X	XXXXXX		XXXX	XXX	X	X	X	XXXXX		XXX	XX		X	XXX	XX	XX	X	XXXXXX	XX	XXX		X	XX	X	X	X	X
VAL			X	X		X	X	X	X	X	X		X		X		X					X														
VAM			XX	X	X	XXX	X	X	X	XXXX		X	X	XX	X	XXX		X	XX	X	X	X	XX	XX		XX	XXX		X						XX	
VAY	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
VBY	XX	XXX	X	XXX	XXX		XXX		X	X	XXX	XXX		X	X	XX	X	XXXX		X	X	X	XX	XXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
VC1	X	X		XX	X								X				X	X			XXXXXX					X	X	X	XX							
VDB			X	X	X		X						XXX		X	X	X																			
VDL	X		XX		XX	X		X	X	X																										

[illegible]

The following stations each reported less than 10 readings:

ACM	ACU	ADH	ADI	AGAL	AGMR	AGX	AHA	AIN	AKSR	ALB	ALG	ALPW	AMO	AMRP	AN1	AN10	AN11
AN12	AN3	AN8	AN9	ANCC	ANMR	ANTO	APA	APM	ARG	ATZ	AVOW	BALM	BDH	BERF	BGM	BGMT	BHM
B1R	BK2	BKN	BKR	BLO	BLS2	BNS	BRF	BRL	BRLK	BRN	BRVW	BSK	BST	BUT	BUW	BUWY	BVT
BVW	CAO	CBB	CCM	CCW	CDM	CEI	CER	CFTV	CGL	CGP	CHIE	CHOI	CIW	CLK	CLMC	CNZ	COLW
COR	COY	CPH	CPK	CRF	CROR	CRT	CTCR	CTFE	CUMC	CVA	CVT	CWF	CYK	DAF	DAH	DBCT	DES
DHLJ	DIAC	DLB	DMK	DMU	DNZ	DOG	DPMT	DSH	EAB	EALH	EAU	EBH	EBI	EBL	ECHE	EDB	EDI
EDR	EDU	EEO	ELO	EMEL	EMM	EMON	EPA	EPH	ERC	EROO	ERUA	ESD	ESK	ESR	ESY	ETER	EVR
EZAM	FAM	FAR	FCV	FG2	FG4	FIG	FISA	FL2	FOUF	FRU	FYU	GANF	GBL	GCG	GDR	GECU	GELF
GEN	GGC	GHW	GIBL	GL2	GMB	GMTN	GRFO	GRG	GROR	GSH	GULW	GVR	GZR	HBF	HBH	HCG	HDC2
HEA	HIL	HIN	HITZ	HLP	HMH	HOBC	HOM	HOOC	HOR	HPK	HPU	HQN	HRV	HRY	HSR	HTC	HUG
HUH	HUL	HYF	IAS	I1A	I1C	IKP	ILT	IM1	IN1	IN2	IN3	IN4	IR1	IRK	IR22	JARJ	JAT
JBO	JCK	JLK	JMI	JRS	JTS	JUD	KAE	KBR	KCHT	KEF	KFH	KHU	KIH	KIP	KIR	KJN	KKS
KKU	KMA	KMOR	KNH	KOH	KONO	KOSW	KPO	KRO	KRW	KUH	KVT	LBFM	LCCM	LFU	LIJA	LIS	LISJ
LLW	LNOR	LOHW	LPI	LPW	LRS	LTMT	LVI	LVMM	LVNJ	LVP	MAJO	MAN	MASJ	MBZ	MCMT	MDN	MEMT
MEW	MEX	MIM	MKA	MKL	MLS	MLS	MLX	MMY	MNB	MOE	MOH	MOKY	MOMI	MOOW	MSI	MTE	MTH
MTMW	MTUR	MUDI	MVH	MWH	MZX	NAH	NAO	NDE	NGH	NGZ	NKM	NLO	NOH	NPH	NPS	NSS	OBC
OBN	OBO	OFK	OFUJ	OJEN	OPA	OPT	OSG	OSP	OUL	OUT	OKA	OZB	PACW	PATW	PBC	PCF	PCG
PCJ	PEM	PET	PFB	PFH	PFO	PGO	PHC	PICO	PIG	PINI	PVL	PLAT	PLH	PLL	PNJ	POA2	POF
POH	POW	PPL	PRAF	PRK	PRW	PSM	PTCR	PTS	PUH	PUL	PURC	PUYF	PVPS	PWH	PZI	QLP	OPS
QTRJ	OZG	RAGM	RAO	RATZ	RBA	REC	REDW	REMW	REY	RFI	RGS	RIM	RIN3	RMN	ROSA	RSW	
RVW	SALC	SAP	SBG	SCI	SCK	SCP	SCY	SGAM	SGH	SHBJ	SHE	SHU	SILC	SIM	SIO	SLL	SLM
SLN	SLP	SMKY	SNOW	SOA	SOG	SONG	SPJ	SPT	SRN	SSB	SSS	SSV	STD	STEW	STH	STK	STR
SUR	SVV	SWH	SXM	TAC	TAIF	TAU	TAVF	TBT	TCC	TDD	TDH	TDL	TER	THI	TIK	TIM	TLG
TMP	TMW	TNR	TPAW	TPM	TREF	TRH	TRXW	TTH	TUTZ	TVI	TWL	TWM1	UDU	USI	UTU	UWE	UZH
VACR	VBEM	VCT	VEA	VFP	VIE	VILF	VIPM	VLL	VLMM	VLO	VTG	VTMH	WAH2	WAX	WES	WG2	WHA
WHC	WHH	WIH	W1W	WKH	W1F	WOR	WOH	W1W	W1D	YAH	YAKW	YFI	YHJ	YUP	ZGN	ZNT	