APRIL 1 14 H 7 M 19 S EPICENTRE 38.59 141.50 DEPTH= 85.KM

DEPTH OF FOCUS= 0.008R

A=-0.61329 B= 0.48782 C= 0.62121 D= 0.6225 E= 0.7826
G=-0.4862 H= 0 3867 K=-0.7836 HT= -1.2

SE= 2.74

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ISINOMAKI	0.22	221.1	0 10A	-3	0 17	-7		
SENDAI	0.57	235.8	0 13A	-3	0 23	-6		
MIZUSAWA	0.61	331.7	0 13	-4	0 23	-6		
MIYAKO	1.12	18.9	0 21	0	0 34	-3		
MORIOKA	1.13	347.0	0 20A	-1	0 35	-3		
HUKUSIMA	1.17	224.3	0 21	-1	0 35	-3		
SAKATA	1.34	283.7	0 24	0	0 42	0		
AKITA	1.57	316.4	0 28	1	0 47	0		
ONAHAMA	1.71	196.4	0 28A	-1	0 48	-2		
SHIRAKAWA	1.79	215.0	0 28	-2	0 49	-3		
HATINOHE	1.93	0.7	0 31	-1	0 49	-6		
NIIGATA	2.04	251.6	0 40	7	1 0	2		
AOMORI	2.29	346.2	0 38	1	1 3	-1		
MITO	2.36	200.7	0 36	-1	1 3	-3		
UTINOMIYA	2.42	212.9	0 38	0	1 5	-2	0 54	
KAKIOKA	2.58	204.4	0 39	-2			0 56	
TUKUBASAN	2.62	205.6	0 39	-2	1 9	-3		
AIKAWA	2 62	258.4	0 41	0	1 12	0		
TYOSI	2.91	190.5	0 44	-1	1 31	12	1 18	
MAEBASI	2.92	222.2	0 45	0	1 20	0		
KUMAGAYA	2.97	215.4	0 46	0	1 20	-1		
TAKADA	2.97	240.9	0 47	1	1 22	1		
TOKYO C.M.O.	3.23	206.2	0 47	-3	1 24	-3		
HAKODATE	3.24	349.6	0 51K	1	1 31	4	1 10	
TITIBU	3.24	217.2	0 45	-5	1 29	1		
NAGANO	3.25	234.8	0 51	1	1 23	-5		
OIWAKE	3.26	227.0	0 51	1	1 30	2		
MATUSIRO	3.31	233.0	0 51K	0	1 29	0		
YOKOHAMA	3.49	205.7	0 53	0	1 35	1	1 9	
MORI	3.57	348.8	0 58	4	1 40	4	1 23	
MATUMOTO	3.66	231.3	0 56	1	1 40	2		
URAKAWA	3.68	15.0	0 54	-2	1 37	-1		
MURORAN	3.75	354.0	0 58	1				
KOHU	3.77	219.3	0 58	1	1 43	2		
HUNATU	3.78	216.1	0 57	0	1 41	0	2 4	
WAZIMA	3.83	253.0	1 3	5				
TOYAMA	3.90	242.4	0 59	0	1 41	-3		
MERA	3.90	200.6	1 1	2			1 23	
TOMAKOMAI	3.92	0.9	1 21	22			1 45	
MISIMA	4.02	211.3	1 2	1	1 47	0		
AJIRO	4.03	209.3			1 44	-3		
TAKAYAMA	4.17	235.5	1 4	1				
IIDA	4.25	224.9	1 4	0	1 55	3		
SIITSU	4.31	347.5	1 11	6	1 48	-6		
SHIZUOKA	4.39	215.5	1 7	1	1 58	2		
SAPPORO	4.47	358.6	1 11	4	2 3	5	1 26	
OBIHIRO	4.51	16.1	1 6	-1	1 56	-3		
OMAESAKI	4.78	214.5	1 17	6	2 24	18	2 3	
HUKUI	4.88	240.3	1 14	2				
KUSIRO	4.90	25.7	1 9	-4	2 1	-8		
HAMAMATU	4.92	219.3	1 41	28				
GIHU	4.95	231.4	1 13	0	2 24	14	2 10	
NAGOYA	4.99	228.1	1 13	-1	2 14	3		
IBUKISAN	5.20	233.5	1 18	1	2 23	7		
ASAHIGAWA	5.22	6.9	1 17	0	2 23	6		
HIKONE	5.36	233.3	1 21	2	2 24	4		
KAMEYAMA	5.50	228.8	1 25	4	2 28	5		
HATIDYOZIMA	5.65	194.4	2 20	57				
NEMURO	5.65	31.8	1 23	0	2 19	-8		
MAIZURU	5.74	239.0	1 24	0	2 33	4		
ABASHIRI	5.81	20.2			2 27	-4	1 50	
NARA	6.00	231.1	1 29	1	2 44	8		
TOYOOKA	6.15	242.3	1 30K	0	2 41	1		
OWASE	6.22	225.1	1 41	10				
KOBE	6.41	234.4			3 6	20		
TOTTORI	6.58	244.3	1 34	-2				
SUMOTO	6.81	233.6	1 38	-1	3 20	24		
SIOMISAKI	6.92	223.9	1 44	4	3 5	7		

TOKUSIMA	7.18	233.2	1	43	-1						
TAKAMATU	7.36	236.9	1	55	8						
KOTI	8.18	234.5	2	0	2	3	6	-23			
MATUYAMA	8.52	238.8	2	1	-1	3	35	-3			
VLADIVOSTOK	8.56	304.9	2	3	0						
OOITA	9.63	239.3	2	13	-4	3	22	-43			4 56
ZO-SE	18.26	252.0	4	4	-5						
PETROPAVLOVK	18.74	33.6	4	14	0						
NANKING	19.62	257.5	4	21	-3						
MAGADAN	21.80	12.8	4	45	-1	8	41	4			
ULAN-BATOR	26.68	301.7	5	31	-2						
MANILA	30.01	222.7	5	56	-7						
KUNMING	35.38	259.1	6	48K	-1						
LHASA	42.27	273.5	7	47K	1						
SHILLONG	43.52	267.8	7	55K	-2						
COLLEGE	47.74	33.0	8	30	0						8 56
LEMBANG	55.07	222.5	9	23	-2						
WARSAK DAM	55.32	288.4	9	26K	-1						
CHARTERS TS.	58.46	174.7	10	6	17						
NORD	59.50	356.4	9	54	-2						
QUETTA	60.56	286.6	10	2K	-2	18	14	3			
RESOLUTE	61.08	14.7	10	5A	-2						
APATITY	61.30	335.4	10	6	-3						
SODANKYLA	63.56	336.9	10	22	-2						
KIRUNA	65.09	339.0	10	33	-1				10	50	
VICTORIA	65.30	46.8	10	35A	0						
MOSCOW	66.05	323.1	10	37	-3						
BANFF	68.16	41.4	10	52A	-1						
SHASTA	70.12	53.5	11	5	0						
SKALSTUGAN	70.49	338.4	11	6	-1				11	24	
HUNGRY HORSE	70.60	43.2	11	8	0						
MINERAL	70.81	53.5	11	9	0						
UPPSALA	71.59	333.8	11	13	-1				11	30	
RENO	72.40	53.3	11	20	1						
BUTTE	72.80	44.5	11	21	0						
BOZEMAN	73.85	44.1	11	28	1						
PASADENA	76.67	57.0	11	47	4						
RAPID CITY	79.09	41.6	11	57	1						12 24
PRUHONICE	80.20	328.4	12	3	1						12 21 PCP
JENA	80.63	330.5	12	22	17						
TUCSON	82.63	54.5	12	16	1						
STUTTGART	83.29	330.5	12	37	19						
PARIS	85.69	334.2	12	49	19	23	38	44			
OTTAWA	89.93	25.2	12	51	0						
BREBEUF	90.53	23.9	12	53K	0						
TAMANRASSET	106.32	318.1	14	2	777						18 27 PP
SOUTH POLE	128.40	180.0	18	56	-1						21 2
BYRD STATION	129.27	167.1	18	59	1				19	8	
HUANCAYO	137.94	61.1	19	0	-15						
HALLEY BAY	142.58	184.9	19	17	-6						22 53 PP
LA PAZ	145.98	58.0	19	33	4						23 9 PP

APRIL 3 2.H 23.M 42.S EPICENTRE 41.14 19.85 DEPTH= 0.KM

A= 0.71042 B= 0.25650 C= 0.65537 D= 0.3396 E=-0.9406
G= 0.6164 H= 0.2226 K=-0.7553 HT= -2.1

SE= 2.99

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SKOPJE	1.43	53.6									0	30	PG
TARANTO	2.09	252.2	0	36	-1	1	7	3					
SOFIA	3.03	57.8	0	54	4	1	31	3			1	42	SG
BELGRADE	3.71	6.6	1	2	2						1	12	P*
ATHENS	4.35	135.4	1	13A	4						2	24	SG
MESSINA	4.43	229.9	1	10K	0	1	57	-7			1	26	PG
REGGIO CALA.	4.44	228.3	1	11	1	1	58	-6					
TIMISOARA	4.72	11.7	0	18	-56	1	12	-59			0	34	PG
SZEGED	5.11	2.2	1	25	5	2	29	8			1	41	P*
KALOCSA	5.43	353.6	1	26	2	2	34	6			2	51	S*
ZAGREB	5.46	330.2	1	23K	-2	2	52	23			1	53	PG
ROME	5.59	280.2	1	26K	-1	2	20	-12			1	39	P*
CAMPULUNG	5.60	40.8	1	39	12	2	58	25			2	3	
BUCHAREST	5.65	52.4	1	31A	4	3	13	39			2	15	PG
KECSKEMET	5.78	359.0	1	31	2	2	51	14			2	7	PG

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

TRIESTE	6.33	317.4	1	35A	-2	2	42	-9	1 59	PGPG
BUDAPEST	6.36	355.2	1	38	0	3	9	17	1 57	P*
HURBANOVO	6.83	350.6	1	54	10	3	2	-2	2 21	PG
FLORENCE X.	6.89	295.4	1	41K	-4	3	3	-2		
ISTANBUL KA.	6.96	87.5	1	47	1	3	11	4		
FOCSANI	7.03	47.1	2	10	23				3 20	
BOLOGNA	7.11	301.0	1	48	0	3	4	-7		
TOLMEZZO	7.22	319.1	1	47	-3					
BRATISLAVA	7.30	345.3	1	51K	0	3	10	-5	2 21	PG
BACAU	7.44	40.8	1	57	4				3 48	
VIENNA-H.	7.53	342.0	1	54	0	3	26	5	2 36	PG
SKALNATE PL.	8.05	1.9	2	3	2	3	28	-6	4 11	SG
IASI	8.21	39.9	2	6	3	3	32	-6	4 26	
CUGLIERI	8.63	267.3	2	20	11	4	38	49	2 35	P*
KISHINEV	8.73	44.7	2	13	2	3	46	-5		
PAVIA	8.79	300.9	2	24	12	4	23	31		
KRAKOW	8.91	0.3	2	15	2	4	6	10	2 29	PP
RACIBORZ	9.02	353.2	2	16	1	4	45	47	5 12	SG
LWOW	9.17	17.2	2	19	2	4	6	4		
CHUR	9.37	311.0	2	19K	-1	3	54	-13	2 31	
MONACO	9.54	289.9	2	30	8				2 36	PP
PRUHONICE	9.59	339.0	2	22	-1	4	10	-2	3 8	PG
PRAGUE	9.70	338.8	2	26	2	4	4	-11	3 18	PG
OROPA	9.74	301.3	2	33	8	4	30	14		
RAVENSBURG	9.87	315.7	2	25	-2	4	21	2	5 19	
ZURICH	10.20	311.4	2	30	-1	4	24	-3		
EBINGEN	10.46	315.9	2	26	-9	4	27	-7	3 18	
TUBINGEN	10.63	317.6	2	34	-3	4	26	-12	3 29	
STUTTGART	10.72	318.9	2	34	-4	4	27	-13	4 43	SS
PLAUEN	10.79	332.8	2	35	-4	4	44	2	2 55	
BASLE	10.86	310.1	2	38A	-2	4	31	-13	6 14	
NEUCHATEL	10.97	306.6	2	40	-2	4	48	2		
WARSAW	11.12	3.7	2	44A	0				2 59	PPP
COLLMBERG	11.21	337.3	2	44	-1				5 19	PCP
KARLSRUHE	11.28	318.1	2	50	4	5	4	10	4 51	
STRASBOURG	11.34	315.0	2	43	-4	4	45	-10		
JENA	11.35	332.4	2	43	-4	5	2	7	3 38	PG
HALLE	11.71	334.9	2	51	-1	5	6	2	3 0	PP
POTSDAM	12.16	339.9	2	58	0				6 40	SG
CLERMONT-FD.	13.00	296.4	3	16	7	5	42	6		
BENSBERG	13.17	322.5	3	11	0	5	46	6		
BARCELONA	13.34	277.0	3	33	20	6	47	63		
MUNSTER	13.70	326.4	3	12	-6				3 23	
ALGIERS UNI.	13.78	257.0	3	18	-1	6	2	8	4 8	PP
PARIS	14.46	307.8	3	27A	-1	6	14	4		
HELWAN	14.61	136.7	3	21	-9	5	54	-20		
TORTOSA	14.63	275.1	3	41	11				5 37	
KSARA	14.66	114.7	3	33	2	6	17	2	8 41	PCP
WITTEVEEN	14.72	327.0	3	33	1					
DE BILT	14.86	322.5				6	48	28		
SOTCHI	14.89	74.0	3	26	-8					
COPENHAGEN	15.34	344.0	3	38	-2	6	41	10	3 44	PP
JERUSALEM	15.48	122.2	3	41	0	6	26	-8		
ALICANTE	15.88	266.5	3	50	3	6	56	12	4 4	PP
RELIZANE	16.04	256.7	3	53K	4				4 8	PP
KEW	17.29	313.5	4	6	1	7	24	8	4 29	
JERSEY	17.40	304.9							9 18	
ALMERIA	17.86	263.4	4	15	3	7	31	2	4 24	PP
TOLEDO	18.21	273.9	4	15	-1	7	45	8	4 30	PP
GRANADA	18.60	265.4	4	14A	-7	7	47	1	4 51	PP
MOSCOW	18.68	32.6	4	20	-2	7	49	1		
TIFLIS	18.70	80.0	4	24	2					
UPPSALA	18.79	356.5	4	20A	-3	7	50	0		
HELSINKI	19.32	7.7	4	27	-2					
MALAGA	19.36	264.7	4	27A	-3	8	3	0	4 42	PP
DURHAM	19.69	321.1	4	38A	4	7	56	-14	8 7	
PULKOVO	19.76	15.8	4	32	-3	8	10	-2		
BERGEN	21.27	339.9				8	30	-13		
ABERDEEN	21.38	326.0				8	49	4	10 16	
RATHFARNHAM	21.38	313.5	4	50K	-1	8	42	-3		
SERRA PILAR	21.40	279.4	5	6K	14					
COIMBRA	21.44	276.8				8	42	-4		
TAMANRASSET	21.92	217.7	4	58K	1	9	4	9	5 26	PP
LISBON	22.33	273.3	5	15K	14				10 56	
SKALSTUGAN	22.92	351.3	5	5A	-2					
SODANKYLA	26.55	5.9	5	40	-1					
KIRUNA	26.75	0.5	5	41	-2	10	8	-10		
APATITY	27.49	11.3	5	49	-1					
SVERDLOVSK	30.47	45.1	6	17	0					

SCORESBY SD.	36.24	337.7	7	6K	-1	12	46	-2			
NAMANGAN	38.59	72.6	7	27	0	13	25	2			
QUETTA	39.37	90.8	7	32A	-1	13	32	-3	9	5	PP
WARSAK DAM	41.09	82.7	7	46A	-1						
MBOUR	41.61	241.0	7	49	-3	14	26	17			
SEMIPALATNSK	42.07	56.2	7	57	2						
LWIRO	43.95	167.1	8	11	0	14	44	1			
LAHORE	44.28	84.4	8	13	0				9	58	PCP
THULE	50.02	342.0	8	57	-1						
BOMBAY	50.08	99.8							10	58	PP
IRKUTSK	55.82	47.7	9	40	-2						
CHATRA	56.33	82.2	9	40	-5						
RESOLUTE	56.79	343.2	9	46A	-3				17	38	
TIKSI	57.08	20.9	9	49	-2	17	40	-5			
ULAN-BATOR	59.26	51.4				18	33	20			
SHILLONG	60.53	80.6	10	12A	-3						
CHITTAGONG	62.33	83.7	10	26	-1	18	51	-2	12	46	PP
SHAWINIGAN	63.23	309.4	10	32K	-1						
WESTON	64.62	304.9	10	57K	15						
TANANARIVE	65.05	151.0	10	46	1						
OTTAWA	65.58	309.6	10	42	-6						
MAGADAN	71.83	23.9	11	27	0						
COLLEGE	73.89	354.6	11	39	0						
SAN JUAN	75.18	281.5	11	47	1						
COLUMBIA	75.74	302.7	11	49	0						
HUNGRY HORSE	82.01	331.0	12	23	-1						
BOZEMAN	83.08	327.7	12	31	2						
BUTTE	83.40	328.8	12	31	0						
HORSESHOE B.	84.20	336.8	12	33	-2						
MATUSIRO	84.28	45.4	12	35A	0	22	59	-1			
VICTORIA	85.01	336.5	12	38	-1						
MINERAL	91.65	331.5	13	10	-1						
TUCSON TELE.	93.84	319.9	13	22	1						
TUCSON	93.97	319.9	13	23	2						
HALLEY BAY	120.22	192.2	19	2	9				20	31	PP
SOUTH POLE	130.95	180.0	19	13	-1				21	30	PP
BYRD STATION	138.19	189.8	19	31	4						

APRIL 3 7.H 18.M 33.S EPICENTRE 34.87 27.45 DEPTH= 0.KM

A= 0.72965 B= 0.37903 C= 0.56916 D= 0.4610 E=-0.8874
G= 0.5051 H= 0.2624 K=-0.8222 HT= 0.2

SE= 2.24

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	4.31	316.9	1	10	2	2	8	7					
HELWAN	5.97	145.6	1	31	-1	2	41	-1					
ISTANBUL KA.	6.32	11.2	1	37	0	3	1	11					
KSARA	7.05	96.2	1	49	2	3	7	-2					
JERUSALEM	7.20	113.2	1	47	-2	3	9	-3					
SOFIA	8.45	338.9	2	9	3						3	52	
SKOPJE	8.53	328.0	2	25A	17	4	15	29			2	31	
BUCHAREST	9.59	354.2	2	5	-17	3	55	-17			2	44	
TARANTO	9.82	307.6	2	20	-6	4	10	-8					
REGGIO CALA.	10.03	292.1				4	12	-11					
MESSINA	10.13	292.6	2	33	3	4	26	1			2	57	P*
SIMFEROPOL	11.29	24.9	2	47	1								
BELGRADE	11.29	333.7	2	43A	-3						5	12	PGSG
TIMISOARA	11.85	338.3	3	21	28								
KISHINEV	12.18	4.5	2	58	0								
IASI	12.32	0.4	3	1	2								
SZEGED	12.65	336.2									3	54	PPP
SOTCHI	12.88	43.9	3	5	-2								
ROME	13.67	305.3	3	39	22	5	57	6			8	7	
ZAGREB	13.98	324.9	3	20K	-2						7	49	
BUDAPEST	14.07	336.0									3	42	PPP
TRIESTE	14.99	320.0	3	35K	0	6	25	3			4	23	
LWOW	15.16	351.5	3	39	2						4	18	PP
TIFLIS	15.23	58.2	3	45	7								
SKALNATE PL.	15.25	341.8	4	3	25								
FLORENCE X.	15.35	310.2	3	38	-1	6	35	4					
BRATISLAVA	15.36	333.0	3	42	2	6	30	-1					
BOLOGNA	15.67	312.7	3	45	1	7	1	22					
TOLMEZZO	15.86	320.9	3	44	-2						4	15	

KRAKOW	16.14	342.3	3	53	3	6	48	-1			4 2 PP
RACIBORZ	16.64	338.8	3	57	1						
MONACO	17.81	305.8	4	9	-2						
PRUHONICE	17.81	331.9	4	10	-1	7	30	2	4	28	
PRAGUE	17.93	331.9	4	13	1						6 14
WARSAW	17.95	347.1	4	11	-2	7	36	5			
CHUR	18.03	317.0	4	14K	0	7	54	21			
RAVENSBURG	18.53	319.5	4	31	11						
ZURICH	18.86	317.1	4	23	-1	7	58	6			
EBINGEN	19.12	319.6	4	27K	0						4 39
PLAUEN	19.18	329.1	4	24	-4						4 34 PP
TUBINGEN	19.28	320.6	4	29K	0						
STUTTGART	19.37	321.3	4	29K	-1						4 52 PP
COLLMBERG	19.46	331.9	4	31	0						
BASLE	19.51	316.4	4	30K	-1						5 50
NFUCHATEL	19.59	314.4	4	31	-1						
JFNA	19.75	329.2	4	32	-2	8	21	10			4 42 PP
ALGIERS UNI.	19.87	282.6	4	34K	-1	7	44	-30			4 46 PP
STRASBOURG	20.00	319.2	4	37	0						
CLERMONT-FD.	21.43	307.9	4	51	-1						
BENSBERG	21.78	323.8	4	55	0						5 13
RELIZANE	21.95	280.1	5	3K	6						5 18 PP
MOSCOW	22.01	15.5	4	58	1	8	57	1			
TORTOSA	22.05	293.6	5	2	4						
MUNSTER	22.23	326.3	4	59	-1						
TAMANRASSET	22.62	243.6	5	4	0	9	14	7			5 31 PP
ALICANTE	22.65	287.0	5	3	-1	9	6	-2			5 31 PP
PARIS	23.10	314.7	5	9	1						
WITTEVEEN	23.23	326.9	5	8	-2						
COPENHAGEN	23.23	338.2	5	10	0	9	45	27			
ALMERIA	24.29	283.4	5	26K	6						5 58 PP
PULKOVO	24.98	3.4	5	27	0	9	48	-1			
GRANADA	25.16	284.3	6	9K	41						
TOLEDO	25.45	290.7	5	32	1						
UPPSALA	25.80	348.6	5	33A	-1	10	4	2			9 4 PCP
MALAGA	25.84	283.4	5	34K	-1						5 44
KEW	25.95	318.2	5	35A	-1						
DURHAM	28.30	323.6									7 57
ABERDEEN	29.90	327.4									11 57
RATHFARNHAM	30.04	318.3									7 48
SKALSTUGAN	30.23	346.6	6	12A	-2						
SVERDLOVSK	31.38	35.3	6	25	0	11	33	1			
SODANKYLA	32.54	359.4	6	34	-1						
APATITY	32.90	4.2	6	38	0						
KIRUNA	33.25	355.1	6	39A	-2	12	2	1			
OUETTA	33.48	86.8	6	44	1	12	4	-1			13 8 PCS
NAMANGAN	35.12	66.6	6	59	2	12	28	-2			
LWIRO	36.95	177.8	7	9	-4						
LAHORE	39.09	81.2	7	32	2						
SCORESBY SD.	44.28	338.6	8	12	-1						9 15
KHEYS	46.34	5.8	9	14	45	16	19	62			
NORD	49.48	352.3	8	52	-2						
SHILLONG	55.60	80.9	9	39	-1						
IRKUTSK	55.68	46.4	9	40	0						
CHITTAGONG	57.01	84.3	9	39	-11						
THULE	57.75	343.9	9	52	-3						
ULAN-BATOR	58.51	50.9	10	2	2	18	7	4			
TIKSI	60.78	20.9	10	14	-2						
RESOLUTE	64.42	345.6	10	38A	-2						
SHAWINIGAN	71.87	314.4	11	27	0						
BREBEUF	72.93	313.8	11	33K	0						
WESTON	73.18	310.1	11	35K	1						
OTTAWA	74.22	314.5	11	41K	1						
COLLEGE	80.52	358.0	12	15	0						15 16 PP
CHAPEL HILL	81.79	308.2	12	42	20						
SAN JUAN	82.54	287.1	12	28	2						
MATUSIRO	84.11	49.2	12	33K	-1	22	49	-9			
COLUMBIA	84.24	307.6	12	35	0						
TIKUBASAN	85.48	48.5	12	35	-6						15 59
HUNGRY HORSE	90.29	335.5	13	4	0						
BOZEMAN	91.49	332.3	13	11	2						
BUTTE	91.77	333.4	13	11	0						
PERTH	106.26	117.7				25	13	17			
SOUTH POLE	124.69	180.0	19	3	1						20 52 PP
BYRD STATION	132.90	187.5	19	20	3						21 47 PP

APRIL 3 8.H 25.M 44.S EPICENTRE 1.38 -79.50 DEPTH= 0.KM

A= 0.18221 B=-0.98297 C= 0.02389 D=-0.9833 E=-0.1823
G= 0.0044 H=-0.0235 K=-0.9997 HT= 7.2

SE= 1.73

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
CHINCHINA	5.27	47.3	1 18	-4	2 24	0		
BOGOTA	6.31	59.2	1 38	1	2 52	2		
BALBOA HTS.	7.53	359.5	1 56	2	3 31	10		
GALERAZAMBA	10.24	24.0	2 31	-1	4 35	7		
HUANCAYO	13.97	162.9	3 21	-1	6 3	4		
TRINIDAD	20.10	62.0	4 37	-1				
LA PAZ	21.01	148.2	4 49K	1	8 46	8		5 9 PP
SAN JUAN	21.40	37.0	4 52	0				
ST. VINCENT	21.52	56.2	4 52	-1				
FORT FRANCE	22.46	52.9	5 2	0	9 9	4		
ST. CLAUDE	22.80	49.3	5 9	3	9 59	48		
VERA CRUZ	24.07	318.4	5 18	0				
TACUBAYA	26.32	314.1	5 43	4	10 29	18		6 41 PPP
COLUMBIA	32.48	357.6	6 34	-1				
TALA POZO	32.52	154.3			11 46	-4		
CHAPEL HILL	34.37	0.6	7 10	19				
FAYETTEVILLE	37.13	340.1	7 12K	-2				
WASHINGTON	37.41	3.1	6 58	-19				
LUBBOCK	38.28	329.2	7 23	-1				
WESTON	41.47	9.2	7 53K	3				
HARVARD	41.56	8.9	7 52	1				
TUCSON TELE.	42.57	319.6	8 0	1				
TUCSON	42.59	319.4	8 1	1				9 56 PCP
OTTAWA	43.96	3.8	8 10	-1				
BREBEUF	44.24	5.9	8 13A	0				
SHAWINIGAN	45.37	6.5	8 22	0				
LARAMIE	46.20	332.7	8 28	-1				
BOULDER CITY	47.51	320.5	8 39	0				8 58
PASADENA	48.65	316.3	8 48	0				
SALT LAKE C.	48.93	327.4	8 50	0				
EUREKA	50.41	323.3	9 3	2				
FRESNO	51.21	318.2	9 11	4				
BOZEMAN	52.09	332.3	9 15	1				11 33 PP
LICK	52.75	317.8	9 20	1				
RENO	52.80	321.1	9 20	1				
BUTTE	53.07	331.6	9 21	0				10 19 PCP
MINERAL	54.39	320.9	9 31	0				
HUNGRY HORSE	55.45	332.7	9 38	-1				
BANFF	58.16	334.2	9 56	-2				
VICTORIA	60.22	327.9	10 8	-4				
HORSESHOE B.	60.67	328.8	10 14	-2				
MBOUR	63.08	74.6	10 37	5				
RESOLUTE	73.78	355.8	11 35A	-3				
THULE	75.23	2.7	11 45	-2				
MALAGA	77.24	52.8	11 57A	-1				
GRANADA	77.94	52.4	11 48K	-14				
SCORESBY SD.	78.30	16.8	12 1	-3				
RATHFARNHAM	78.91	35.8	11 34	-33				
COLLEGE	79.67	336.2	12 11	0				14 56 PP
KEW	82.18	38.3	12 24	0				
HALLEY BAY	82.61	168.3	12 25	-2	22 40	-4		
ALGIERS UNI.	83.20	53.3	12 29	-1				
BYRD STATION	83.68	186.5	12 31	-1				
NORD	84.79	7.5	12 36	-2				
TAMANRASSET	84.88	67.4	12 39K	1	23 6	0		15 53 PP
WITTEVEEN	86.59	37.3	12 48	1				
BENSBERG	86.83	39.2	12 48	0				
MUNSTER	87.14	38.2	12 51	2				
ERINGEN	87.96	42.0	12 54	1				
TUBINGEN	88.03	41.7	12 54	0				
STUTTGART	88.11	41.4	12 54A	0				
SKALSTUGAN	89.57	26.6	13 0	-1				
TOLMEZZO	90.75	43.7	13 8	2				
TRIESTE	91.30	44.5	13 11	2				13 44
SOUTH POLE	91.37	180.0	13 9	0				
PRUHONICE	91.57	40.1	13 10	0				13 38
MATUSIRO	128.51	321.0	19 10	1				
QUETTA	135.19	42.8	19 24	2				21 56 PP
KOROR	145.01	284.8	19 37	-2				
POONA	147.16	51.7	19 49	6				

CHATRA	149.15	23.7	19 47	1								
CHITTAGONG	154.93	19.3	19 47	-8								

APRIL 4 7.H 17.M 3.S EPICENTRE -5.38 151.69 DEPTH= 45.KM

DEPTH OF FOCUS= 0.002R

A=-0.87660 B= 0.47212 C=-0.09318 D= 0.4742 E= 0.8804
G= 0.0820 H=-0.0442 K=-0.9956 HT= 7.0

SE= 2.26

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RABAUL	1.27	22.0	0 21K	-1				
PORT MORESBY	6.02	228.2	1 30	2	2 21	-16		
TRUK	12.77	0.7	2 58	-3	5 19	-4		
CHARTERS TS.	15.47	199.5	3 36	0	6 45	18		
GUAM	19.96	339.8	4 32	1	8 16	8		
KOROR	21.32	306.2	4 46	1				5 3
BRISBANE	22.01	176.8	4 49	-3	8 47	0		
NOUMEA	22.06	141.1	4 57	5	8 51	3		
RIVERVIEW	28.31	181.0			10 39	6		12 7 SS
SUVA	29.03	118.2	6 3	5	10 42	-2		
MELBOURNE	32.87	189.8	6 30	-2				
MANILA	36.34	303.4	7 3	2				8 29
FORT NELSON	37.59	185.2	7 5	-7			7 16	
BAGUIO CITY	37.64	305.7	7 14	2	13 4	6		
ROXBURGH	42.86	161.8			14 12	-4		
MATUSIRO	43.58	344.2	7 59K	-2	14 22	-5		9 48 PP
LEMBANG	43.84	265.8	8 4	1				13 36
MAGADAN	64.73	359.5	11 6	30				
SHILLONG	65.67	301.0	10 41A	-1				
ULAN-BATOR	66.03	328.8	10 47	3				
LAHORE	82.10	302.7	12 16	-1				
COLLEGE	82.81	22.0	12 18	-3				13 16
BYRD STATION	84.52	169.9	12 29	0				
SOUTH POLE	84.65	180.0	12 28	-2				
WARSAK DAM	84.85	304.7	12 32	1				
SITKA	85.34	31.6	12 34	1				
NAMANGAN	86.00	311.6	12 37	1				
QUETTA	88.15	300.4	12 47	0	23 31	5		24 37 PS
HORSESHOE B.	90.81	40.6	12 58K	-1				
PASADENA	93.10	56.2	13 11	1				
BANFF	95.89	39.2	13 23	0				
BOULDER CITY	95.94	54.5	13 24	1				
HUNGRY HORSE	96.83	42.1	13 26	-1				
BOZEMAN	98.89	44.8	13 36	0				
RESOLUTE	101.24	14.4	13 45K	-2				18 10 PP
HELWAN	118.90	301.1	18 45	2				
LWIRO	122.46	263.9	18 52	2				
OTTAWA	122.74	38.1	18 51	0				
PRUHONICE	122.85	328.5	18 52	1				
SHAWINIGAN	123.91	35.6	18 53	0				
BREBEUF	123.96	37.1	18 53A	0				
SEVEN FALLS	124.69	34.2	18 55	0				
STUTTGART	126.33	330.0	18 59	1				
PARIS	129.44	334.0	15 43	777				21 7 PP
HUANCAYO	130.14	110.6	19 9	4				22 46 PKS
SAN JUAN	140.91	67.4	19 27	2				
TAMANRASSET	143.06	301.3	19 28K	-1				
ST. CLAUDE	145.58	69.4	19 33	0				
FORT FRANCE	146.40	71.5	19 39	5				
ST. VINCENT	146.59	74.3	19 37	2				
TRINIDAD	146.71	78.8	19 37	2				

APRIL 4 7.H 30.M 3.S EPICENTRE -5.33 151.91 DEPTH= 51.KM

DEPTH OF FOCUS= 0.003R

A=-0.87846 B= 0.46881 C=-0.09235 D= 0.4708 E= 0.8822
G= 0.0815 H=-0.0435 K=-0.9957 HT= 7.0

SE= 2.07

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RABAUL	1.16	12.8	0	21K	1								
PORT MORESBY	6.21	229.2	1	32	1	2	44	2			1	59	
TRUK	12.72	359.7	2	58	-2	5	22	1					
CHARTERS TS	15.59	200.2	3	36	-1	6	44	15					
GUAM	19.99	339.2	4	31	1	8	32	25					
KOROR	21.47	305.7	4	47	1								
BRISBANE	22.05	177.4	4	50A	-1	8	51	5					
RIVERVIEW	28.36	181.3	5	54	3	10	43	10					
SUVA	28.86	118.4				10	48	7					
MELBOURNE	32.96	190.1	6	30	-2								
MANILA	36.50	303.2	7	1	-1						10	13	
FORT NELSON	37.66	185.5	7	6	-5				7	15			
BAGUIO CITY	37.78	305.5	7	14	1	13	10	11					
KYOTO	42.94	340.4	7	54	-1								
NAGASAKI	43.26	332.5	6	57	-61								
MATUSIRO	43.59	344.0	8	OK	0	14	44	18					
LEMBANG	44.06	265.7	8	4	0								
SHILLONG	65.83	300.9	8	35A	-127								
CAPE HALLETT	67.85	174.0	11	1	6	19	52	4			21	7	SCS
OASIS-BUNG.	70.25	199.7									26	9	
COLLEGE	82.68	22.0	12	17	-2						13	17	
BYRD STATION	84.53	169.9	12	30	2	22	50	0					
SOUTH POLE	84.70	180.0	12	27	-2								
WARSAK DAM	85.00	304.7	12	31	0								
SITKA	85.19	31.6	12	32	0								
QUETTA	88.31	300.4	12	47	0	23	32	6					
HORSESHOE B.	90.63	40.6	12	57	-1								
BANFF	95.72	39.2	13	21	0								
BOULDER CITY	95.73	54.5	13	23	2								
HUNGRY HORSE	96.65	42.1	13	26	1								
BOZEMAN	98.71	44.8	13	36	1								
RESOLUTE	101.14	14.4	13	44	-2								
KSARA	114.52	304.7	18	40	6						19	39	PP
SCORESBY SD.	114.82	357.7									29	26	PS
BREBEUF	123.79	37.2	18	58	6								
STUTTGART	126.40	330.1	18	57	0						19	22	
PARIS	129.49	334.2	18	43	-20								
HUANCAYO	129.95	110.5	19	14	10						22	39	PKS
LA PAZ	134.85	119.5	19	19	6						22	47	PKS
TAMANRASSET	143.22	301.4	19	27	-1						22	38	PP
MBOUR	165.84	310.2	20	7	9								

APRIL 4 9.H 18.M 50.S EPICENTRE 41.20 19.42 DEPTH= 0.KM

A= 0.71165 B= 0.25091 C= 0.65620 D= 0.3325 E=-0.9431
G= 0.6189 H= 0.2182 K=-0.7546 HT= -2.1

SE= 4.33

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SKOPJE	1.68	61.7	0	30	-1	0	51	-2					
TARANTO	1.80	246.8	0	39	6	1	14	17					
SOFIA	3.28	61.5	0	53	-1	1	43	9					
BELGRADE	3.69	11.4	1	OK	0						1	51	SG
MESSINA	4.23	226.1	1	7	0	2	8	9					
REGGIO CALA.	4.25	224.4	0	51	-17	1	34	-25					
ATHENS	4.63	132.8	1	13	0	2	3	-6			1	21	P*
TIMISOARA	4.73	15.5	1	42	28						3	41	
SZEGED	5.07	5.6	1	16	-3						2	41	S*
ZAGREB	5.25	332.7	1	24	2						2	28	PS
ROME	5.25	279.9				3	8	44			2	45	
KALOCSA	5.34	356.7				3	2	36			2	11	P*
CAMPULUNG	5.77	43.3	1	45	16								
BUCHAREST	5.87	54.6	1	41	10	2	49	9			2	3	
TRIESTE	6.07	319.0	1	28	-5	2	36	-8			1	51	PG
BUDAPEST	6.28	357.8									1	53	P*
FLORENCE X.	6.57	295.8				2	58	1			2	37	
HURBANOVO	6.72	353.0									3	34	
TOLMEZZO	6.96	320.4	1	45	-1	3	5	-2			2	23	
BRATISLAVA	7.16	347.4	1	40	-9	3	18	6			2	2	
ISTANBUL KA.	7.29	87.9	1	47	-4	3	32	17					
IASI	8.38	41.6	0	31	-95	2	21	-81					

PAVIA	8.48	301.4							4	57	
KRAKOW	8.86	2.1	2	21	9	4	0	6	2	25	PP
RACIBORZ	8.92	354.9	2	11	-2				5	0	
KISHINEV	8.92	46.2	2	24	11						
LWOW	9.21	18.9	2	19	2						
PRUHONICE	9.42	340.4	2	20	0	4	9	1	3	10	PG
PRAGUE	9.53	340.2	2	24	2	4	23	12	3	17	PG
RAVENSBURG	9.60	316.5				4	25	12			
EBINGEN	10.19	316.7	2	30	-1	4	22	-5			
TUBINGEN	10.37	318.4	2	32	-1	4	25	-6			
STUTTGART	10.46	319.7	2	34	-1	4	26	-8	4	46	
BASLE	10.57	310.7				4	46	10	7	5	
PLAUEN	10.59	333.9				4	34	-3	5	48	
COLLMBERG	11.03	338.5	4	6	84				6	21	
STRASBOURG	11.07	315.7	2	48	5				5	19	
WARSAW	11.09	5.1							4	13	PPP
HALLE	11.51	336.0				4	42	-17	7	38	
HELWAN	14.88	135.7	3	27	-7				3	51	
KSARA	14.98	114.2	3	47	12						
KEW	17.01	313.8				7	10	0			
MOSCOW	18.81	33.2	4	22	-1						
DURHAM	19.44	321.4	4	27	-4	7	8	-57			
PULKOVO	19.79	16.4	4	32	-3				12	13	
TAMANRASSET	21.77	216.7	4	58	3				5	20	PP
SKALSTUGAN	22.81	351.8	5	3	-3						
SODANKYLA	26.52	6.2	5	38	-3						
KIRUNA	26.69	0.9	5	56	13						
SVERDLOVSK	30.66	45.3	6	15	-3						
THULE	49.86	342.0	8	54	-3						
RESOLUTE	56.64	343.1	9	45A	-2						
SHILLONG	60.84	80.4	10	10K	-7						
COLLEGE	73.79	354.4	11	37	-1				13	47	
HUNGRY HORSE	81.80	330.7	12	22	0						
LARAMIE	83.95	321.6	12	34	1						

APRIL 4 15.H 38.M 8.S EPICENTRE -5.42 151.82 DEPTH= 37.KM

DEPTH OF FOCUS= 0.001R

A=-0.87756 B= 0.47021 C=-0.09377 D= 0.4723 E= 0.8814
G= 0.0827 H=-0.0443 K=-0.9956 HT= 7.0

SE= 2.70

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RABAUL	1.26	16.2	0	23	1	0	43	5					
PORT MORESBY	6.09	229.2	1	32	2	2	44	4					
TRUK	12.80	0.1	3	1	-2	4	16	-69					
CHARTERS TS.	15.48	199.9	3	34	-4	6	35	7					
GUAM	20.03	339.5	4	34	1	8	30	19			5	1	
KOROR	21.44	306.0	4	50	3								
NOUMEA	21.95	141.3	4	52A	-1								
BRISBANE	21.97	177.1	4	49A	-4	8	51	3					
RIVERVIEW	28.28	181.2	5	57	5	10	35	0					
SUVA	28.91	118.2	5	58	0	10	42	-3					
MELBOURNE	32.86	190.0	6	32	-1	11	47	0			18	15	
MANILA	36.47	303.4	6	55	-9						9	17	
FORT NELSON	37.57	185.1	7	14	1				7	22			
BAGUIO CITY	37.75	305.6	7	16	1	13	5	3					
WELLINGTON	41.18	153.5				13	49	-5			17	22	SCS
GEBBIES PASS	42.32	157.5	7	51	-1								
ROXBURGH	42.79	161.9				14	14	-3			15	30	
TUKUBASAN	42.85	346.0	7	54A	-3	14	31	13			9	52	PCP
KYOTO	42.98	340.5	7	56A	-2	14	44	24					
NAGASAKI	43.29	332.7	7	42	-18	14	24	-1					
MATUSIRO	43.64	344.1	8	8A	5	14	34	4			9	50	PP
LEMBANG	43.96	265.8	8	4	-2						13	44	
ZO-SE	46.64	323.0	8	28	1								
CANTON	47.11	308.5	8	33	2								
NANKING	48.75	322.0	8	45	1	15	49	6					
VLADIVOSTOK	51.57	341.4	9	7	2	16	35	13					
CHANGCHUN	54.54	336.6	9	26	-1								
PEKING	55.87	327.3	9	36	-1						11	44	PP
KUNMING	56.54	304.7	9	43	1	17	36	7			11	49	PP
PETROPAVLOVK	58.61	4.8	9	50	-6	17	55	-1					

LANCHOW	61.01	316.5	10	13	0	18	32	5				
MAGADAN	64.77	359.4	10	57	20							
SHILLONG	65.79	301.0	10	43K	-1	19	24	-2				
ULAN-BATOR	66.12	328.7	10	42	-4	19	42	12				
WILKES	67.10	196.9				19	41	-1		27	1	SS
CAPE HALLETT	67.78	174.0	11	7	10	19	55	5		14	55	PPP
LHASA	67.85	304.9	11	0	3							
OASIS-BUNG.	70.14	199.6	11	6	-5							
IRKUTSK	70.16	331.2	11	11	0							
CHATRA	70.19	300.9	11	10	-1	20	32	13				
MIRNY	73.01	201.0	11	28	0	20	48	-3				
AGRA	78.17	299.0	11	55K	-3	21	55	7		22	17	SKS
TIKSI	78.36	352.7	11	59	0	21	53	3				
DEHRA DUN	78.84	302.2	12	17	16							
POONA	80.37	289.7	12	9	-1							
BOMBAY	81.39	290.0	11	20	-55					16	8	
LAHORE	82.22	302.7	12	20	1							
SEMIPALATNSK	82.56	322.2	12	22	1							
COLLEGE	82.79	22.0	12	20	-2							
BYRD STATION	84.47	169.9	12	35	4	22	23	-30		22	48	
SOUTH POLE	84.62	180.0	12	30	-1							
SITKA	85.31	31.6	12	36	1							
NAMANGAN	86.12	311.6	12	40	1							
QUETTA	88.27	300.4	12	49	0	23	30	1		23	12	SKS
RENO	92.15	50.7	13	3	-4							
PASADENA	93.01	56.1	13	13	2				13 25			
EUREKA	95.11	50.9	13	23	2							
SVERDLOVSK	95.14	326.5								17	15	PP
BANFF	95.84	39.2	13	24	0							
BOULDER CITY	95.86	54.5	12	16	-68							
HUNGRY HORSE	96.77	42.1	13	29	1							
KHEYS	96.98	350.1	14	9	40							
BOZEMAN	98.83	44.8	13	41	3							
RESOLUTE	101.25	14.4	13	48K	-1							
TIFLIS	106.28	311.8								18	33	PP
MOSCOW	107.94	327.2								18	47	PP
KIRUNA	109.67	342.4				25	15	14				
SOTCHI	109.67	314.4								19	1	PP
PULKOVO	110.13	332.6	18	9	-19					28	15	PS
SIMFEROPOL	113.24	316.8								19	27	PP
LCO. MARQUES	113.37	238.9								15	1	PP
KSARA	114.49	304.6	18	37	0					19	40	PP
SCORESBY SD.	114.90	357.7								26	46	SKKS
ISTANBUL KA.	117.94	314.0								27	8	
COPENHAGEN	120.35	334.7								30	16	PS
PRUHONICE	122.94	328.5	18	55	2					20	19	
BREBEUF	123.92	37.1	18	57	2							
STUTTGART	126.42	330.1	19	0	0					43	12	SSS
STRASBOURG	127.25	330.7								21	10	PP
PAVIA	128.76	326.6								23	24	
PARIS	129.53	334.1	18	56	-10	25	56	-13				
HUANCAYO	130.01	110.6	19	10	3					22	36	PKS
CHINCHINA	132.76	88.2	19	13	1					22	43	SKP
LA PAZ	134.89	119.6	19	24	8					22	58	PKS
BERMUDA	136.65	47.2								23	5	
TAMANRASSET	143.18	301.3	19	30	-1					22	39	PP
ST. CLAUDE	145.48	69.5	19	32	-3							
FORT FRANCE	146.25	71.6	19	41	5							
ST. VINCENT	146.48	74.4	19	37	1							
TRINIDAD	146.60	78.9	19	39	2							
MBOUR	165.82	309.7	20	1	0					21	7	PKP2

APRIL 7 15.H 30.M 40.S EPICENTRE 66.03-156.59 DEPTH= 0.KM

A=-0.37495 B=-0.16233 C= 0.91272 D=-0.3973 E= 0.9177
G=-0.8376 H=-0.3626 K=-0.4086 HT=-10.7

SE= 2.71

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	3.84	103.6	0	56A	-5							
SITKA	13.48	121.7	3	9K	-6	5	45	-2				
RESOLUTE	21.35	40.0	4	45	-6							
KLYUCHI	22.27	264.7	5	1	1	9	14	13			6	41
ALBERNI	23.48	120.1	5	12A	0	9	31	8				

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

HORSESHOE B.	23.94	117.8	5	15K	-1	9	47	16		
MAGADAN	24.24	279.7	5	20	1	9	36	0		
VICTORIA	24.61	119.1	5	21	-2	9	50	8		
PETROPAVLOVK	25.42	261.4	5	31	1	10	7	11	6 11	PP
BANFF	25.43	105.7	5	29K	-2	10	7	11		
SEATTLE	25.75	118.7	5	34A	0	10	11	10		
TIKSI	25.82	315.4	5	33	-1	10	5	3		
HUNGRY HORSE	28.27	107.7	5	55A	-2	11	49	67	6 47	PP
SASKATOON	28.27	94.9	5	54	-3	10	49	7		
BUTTE	30.75	108.7	6	17A	-2					
YAKUTSK	30.80	297.9	6	18	-1	11	21	-2		
ARCATA	31.09	127.9	6	28	6	11	33	6		
BOZEMAN	31.64	107.4	6	25A	-2					
SHASTA	31.81	125.8	6	45A	17					
MINERAL	32.39	125.1	6	32K	-1					
UKIAH	32.96	128.2	6	37K	-1	11	56	0	8 8	PP
KHEYS	33.23	351.2	6	34	-7	11	50	-11	9 21	PCP
RENO	33.72	123.5	6	43	-2					
BERKELEY	34.42	127.8	6	49A	-2	12	20	1	6 56	
BRANNER	34.85	128.1	6	53A	-2					
LICK	35.10	127.4	6	55	-2	12	29	0	15 20	
EUREKA	35.11	118.8	6	55K	-2					
UGLEGORSK	35.26	272.0	6	58	0	12	26	-6	8 26	PP
SALT LAKE C.	35.50	113.0	6	59A	-1				8 55	PCP
RAPID CITY	36.07	100.7	7	3A	-2	12	46	2	8 27	PP
FRESNO	36.22	125.5	7	4	-2					
LARAMIE	37.45	105.6	7	15	-2					
WAKKANAI	38.35	268.7	7	59	35				17 2	
ABASHIRI	38.44	264.9	7	30	5				16 14	
NEMURO	38.48	263.1	7	25	0	13	17	-4		
BOULDER CITY	38.64	120.1	7	25K	-2				12 21	
PASADENA	39.15	125.3	7	25	-6	13	24	-7	8 58	PP
KUSIRO	39.25	263.9	7	31	-1	13	30	-3	9 25	PP
ASAHIGAWA	39.41	266.5	7	28	-5					
OBIHIRO	39.79	265.0	7	36	0					
SCORESBY SD.	40.26	21.7	7	38	-2	13	49	1	7 43	
SAPPORO	40.42	266.9	7	36	-5	13	35	-15	9 30	PP
URAKAWA	40.60	264.7	7	44	1	13	52	-1		
TOMAKOMAI	40.78	266.2	8	4	20					
SUTTSU	41.10	267.7	7	46	-1				17 27	
MURORAN	41.19	266.6	7	46	-2					
MORI	41.54	266.8	7	40	-11				13 18	
HAKODATE	41.75	266.4	7	51	-1	14	18	8		
HATINOHE	42.47	264.6	7	57	-1	14	15	-6		
AOMORI	42.53	265.6	8	0	1	14	11	-11		
MIYAKO	43.04	263.5	7	56	-7	14	28	-1		
MORIOKA	43.32	264.3	8	5	0	14	36	3		
SUIHWA	43.33	282.5	8	4	-1	15	2	29		
TUCSON TELE.	43.39	117.8	8	3K	-3					
TUCSON	43.43	118.0				14	23	-12	8 36	
AKITA	43.74	265.3	8	11	3	14	43	4	10 2	PP
MIZUSAWA	43.82	263.9	8	15	6	14	45	4		
VLADIVOSTOK	44.23	275.5	8	12	0					
ISINOMAKI	44.34	263.2	8	13	0	14	54	6		
SAKATA	44.55	265.0	8	24	9					
KIPAPA	44.61	181.9	8	15A	0					
SENDAI	44.65	263.5	8	16	0	14	50	-3	18 21	SS
HONOLULU	44.73	182.0	8	17	1	14	58	4	10 48	PPP
YAMAGATA	44.89	264.0	8	16	-2					
AKUREYRI	45.26	22.7	8	26	5	15	14	13		
HUKUSIMA	45.27	263.5	8	20	-1	15	13	11		
LUBBOCK	45.62	107.5	8	24	0	15	5	-2		
NIIGATA	45.70	265.0	8	28	4	15	9	1	12 41	
FLORISSANT	45.71	92.6	8	23	-1	15	3	-5	10 0	PCP
ONAHAMA	45.78	262.5	8	36	11	15	18	9	10 34	PP
ST. LOUIS 1	45.90	92.6	8	23	-3	15	5	-6		
AIKAWA	45.94	265.8	8	28	2	15	26	15		
REYKJAVIK	46.04	25.7	8	32K	5	15	21	8	10 25	PP
OTTAWA	46.10	74.9	8	26K	-1	15	13	0	10 17	PP
SHAWINIGAN	46.30	71.6	8	26	-3	15	15	-1	10 14	PP
CHANGCHUN	46.30	281.6	8	30K	1	15	16	0	10 22	PP
KIRUNA	46.40	1.6	8	29K	-1	15	15	-3	9 57	PCP
MITO	46.45	262.6	8	28	-2				17 30	
FAYETTEVILLE	46.48	98.2	8	28K	-2	15	18	-1	11 16	PPP
APATITY	46.51	354.7	8	30	-1	15	20	1		
UTUNOMIYA	46.55	263.3	8	32	1	15	18	-2	10 20	PP
SEVEN FALLS	46.58	69.7	8	31	0	15	21	1	10 17	PP
HAWAII V.OB.	46.58	178.3	8	33	2	15	23	3		
KAKIOKA	46.70	262.7	8	33	1	15	22	0	12 11	

TAKADA	46.73	265.2	8	24	-8					
TUKUBASAN	46.74	262.8	8	29A	-3	15	21	-2		
BREBEUF	46.84	73.1	8	30K	-3	15	23	-1		
SODANKYLA	46.86	358.3	8	33	0					
MAEBASI	47.00	263.9	8	37	3				18	30 SS
CLEVELAND	47.05	82.7	8	32K	-3	15	25	-2		
KUMAGAYA	47.09	263.5	8	41	6	15	35	7		
NAGANO	47.12	264.9	8	37	2	15	31	3	10	32 PP
IRKUTSK	47.13	304.1	8	36	1	15	31	3	10	28 PP
VIK	47.20	24.4	8	47	11	16	0	31	19	30
MATUSIRO	47.22	264.8	8	35A	-1	15	31	2	10	32 PP
OIWAKE	47.27	264.4	8	39	2	15	11	-19		
TOKYO C.M.O.	47.35	262.8	8	41	4	15	32	1		
TOYAMA	47.50	265.9	8	40	2	15	19	-14	11	0 PP
MATUMOTO	47.58	264.9	8	37	-2				14	27
YOKOHAMA	47.60	262.7	8	41	2	15	43	8	10	48 PP
KOHU	47.87	263.9	8	44	3	15	26	-13		
KANAZAWA	47.87	266.3	9	19	38					
HUNATU	47.90	263.6	8	41	-1	15	35	-4		
KYAKHTA	47.99	301.2	8	43	1	15	44	4	10	37 PP
MISIMA	48.16	263.2	8	43	-1	15	50	7		
IIDA	48.26	264.5	8	47	3	15	48	4		
OSIMA	48.28	262.5				15	38	-6		
LITTLE ROCK	48.36	97.3	8	42	-3					
CHIHUAHUA	48.43	114.9	9	0K	14	16	3	17	10	19 PCP
SHIZUOKA	48.51	263.6	8	48	2					
PITTSBURGH	48.56	82.1	8	43	-4	15	52	4		
GIHU	48.80	265.4	8	50	1	15	50	-2		
OMAESAKI	48.90	263.5	9	12	23	16	8	15		
NAGOYA	48.92	265.1	8	41	-8					
HIKONE	49.12	265.8	8	52	1	15	48	-8		
KAMEYAMA	49.40	265.3	8	56	3	16	4	4		
TU	49.48	265.2	9	0	6					
TOYOOKA	49.48	267.3	8	53	-1	16	1	0		
KYOTO	49.55	266.2	8	55A	1	16	8	6		
TOTTORI	49.75	267.9	8	57	1					
ULAN-BATOR	49.89	299.1	9	0	3	16	6	-1		
OSAKA	49.95	266.1	9	0	3				11	27
KOBE	50.07	266.4	8	56	-2	16	7	-2		
HARVARD	50.16	73.6	8	59	0					
YONAGO	50.17	268.6	9	2	3	16	25	14		
OWASE	50.18	265.1	9	0	1	16	22	11		
MATSUE	50.27	268.9	8	58	-2					
WESTON	50.36	73.5	8	58K	-3	16	9	-4	11	5 PP
SKALSTUGAN	50.43	6.4	9	1	0					
SUMOTO	50.48	266.5	9	0	-1	16	11	-4	10	58 PP
PALISADES	50.50	76.6	9	0	-2	16	10	-5	11	2 PP
TAKAMATU	50.84	267.3	9	6	2	16	19	-1		
GEORGETOWN	51.04	80.7	9	4	-2	16	8	-15	16	22 PS
WASHINGTON	51.04	80.7	9	5	-1	16	26	3	20	19 SS
HAMADA	51.15	269.5				16	22	-2	20	25
HALIFAX	51.41	65.8	9	6A	-3	16	23	-5	11	15 PP
HIROSIMA	51.46	268.8	9	9	0	16	26	-3		
MUROTO	51.72	266.5				15	55	-37		
KOTI	51.72	267.3	9	11	0	16	24	-8	11	10 PP
MATUYAMA	51.80	268.2	9	10	-1	16	35	2		
DAIREN	51.95	281.3	9	15	2					
UWAZIMA	52.40	268.0	9	17	1	16	59	18	11	22 PP
SIMONOSEKI	52.44	269.9	9	16	0					
SIMIDU	52.62	267.3	9	14	-4	16	26	-18	11	26 PP
OOITA	52.78	268.8	9	20	1	16	42	-5		
CHAPEL HILL	52.80	84.3	9	18	-1					
ITUHARA	52.90	271.6	9	21	1					
PEKING	53.14	286.6	9	21K	-1	16	53	2	11	25 PP
BERGEN	53.17	11.1	9	14K	-8	16	50	-2	11	13 PP
KWANTING	53.19	287.2	10	24	62					
MAZATLAN	53.28	118.1	9	35	13	17	15	22	19	40 SCS
COLUMBIA	53.65	87.3	9	19K	-6					
UNZENDAKE	53.78	269.8	9	28	2	17	5	5		
NAGASAKI	53.93	270.1	9	29	2	17	5	3		
MIYAZAKI	54.01	268.2	9	34	6	17	16	13		
HELSINKI	54.11	359.0	9	28	-1				16	35
TATUNG	54.21	289.0	9	34	5	17	16	10		
SVERDLOVSK	54.30	335.8	9	27	-3	17	7	0	11	43 PP
UPPSALA	54.36	3.6	9	30K	0	17	8	0	39	39 PKPPKP
PULKOVO	54.41	355.7	9	30	-1	17	9	0	11	23 PP
TOMIE	54.48	271.1	9	33	2	17	14	4		
KAGOSIMA	54.67	268.8	9	38	5	17	15	3	12	41

ABERDEEN	55.63	16.5	8	45A	-55	16	43	-42	18	2	
YAKUSIMA	55.67	268.2	9	37	-3	17	25	-1			
SEMIPALATNSK	56.06	319.8	9	40	-3	17	21	-10	13	1	PPP
TAIYUAN	56.48	288.1	9	46	0						
GUADALAJARA	56.69	116.1	9	56K	9	17	48	9	13	20	PPP
EDINBURGH	56.72	17.5	9	41	-7	17	28	-12	11	47	PP
DURHAM	58.04	16.8	9	55A	-2	17	56	-1	12	14	PP
MOSCOW	58.09	350.6	9	58	1						
COPENHAGEN	58.33	7.3	9	58	-1	17	58	-3			
RATHFARNHAM	58.87	20.3	10	3K	0	18	12	4	10	34	PCP
ZO-SE	58.90	277.0	10	1A	-2	18	6	-2	12	12	PP
NANKING	59.03	279.6	10	3K	-1	18	9	-1	12	19	PP
TACUBAYA	59.39	112.5	10	9K	3	18	9	-5	13	30	PPP
PUEBLA	60.11	111.7	10	14	3	18	20	-4	31	24	
VERA CRUZ	60.74	109.5	10	20	4	18	34	2	22	40	SS
WITTEVEEN	60.79	11.6	10	17	1						
SIAN	61.00	289.2	10	21	4	18	41	6			
LANCHOW	61.31	294.4	10	19A	0	18	39	0	12	39	PP
DE BILT	61.38	12.7	10	20	0	18	48	8	25	26	SSS
KEW	61.43	16.7	10	20K	0	18	43	2	12	40	PP
SINING	61.59	296.4	10	24	3						
POTSDAM	61.66	7.2	10	21	-1	18	50	6	11	28	
MUNSTER	61.71	11.0	10	22	0						
MERIDA	61.72	102.4	10	26K	4	18	41	-3	20	20	SCS
TIENSHUI	61.92	292.0	10	22	-2						
WARSAW	62.06	1.7	10	29K	5				12	35	PP
HALLE	62.48	8.1	10	27	0	18	57	3	11	18	PCP
OAXACA	62.48	111.2	10	30	3	18	56	2	20	20	SCS
BENSBERG	62.68	11.5	10	28	-1	19	2	6			
COLLMBERG	62.73	7.3	10	28	-1	19	0	3	25	20	SSS
JENA	63.02	8.4	10	29	-2	19	3	2	13	7	PP
JERSEY	63.46	18.4	10	49	15						
PLAUEN	63.48	8.0	10	32	-2	19	3	-4	11	35	
SONNEBERG	63.55	8.7	10	34	0	19	5	-2	23	24	SS
FABRICHNAYA	63.74	319.4	10	35	-1						
PRAGUE	64.03	6.4	10	37K	0	19	19	6	10	53	PCP
RACIBORZ	64.16	3.7	10	38	0	19	20	5	12	49	PP
KRAKOW	64.23	2.5	10	40	1	19	18	2	12	59	PP
PARIS	64.37	15.2	10	41K	1	19	20	2			
LWOW	64.48	359.6	10	40	0	19	21	2	12	55	PP
RYBACHE	64.51	319.3	10	40	-1	19	19	0	14	41	PPP
KARLSRUHE	64.72	10.9	10	42K	0	19	27	5	13	18	PP
COMITAN	64.97	107.0	10	50	6	19	27	2	23	50	SS
STUTTGART	65.02	10.3	10	44	0	19	31	6	13	20	PP
STRASBOURG	65.09	11.4	10	44K	0	19	32	6	13	20	PP
SKALNATE PL	65.10	2.3	10	45	1	19	30	3	12	51	PP
TUBINGEN	65.24	10.4	10	45K	0	19	33	5			
GUAM	65.29	246.2	10	40	-6				11	12	PCP
EBINGEN	65.59	10.6	10	48	0	19	34	2	10	56	
UZHGOROD	65.67	0.8	10	49	1				13	21	PP
VIENNA-H.	65.93	5.1	10	50	0	19	42	5	13	22	PP
CERNAUTI	66.01	358.2	10	50	0	19	40	2			
RAVENSBURG	66.03	10.1	10	52	2						
BRATISLAVA	66.03	4.6	10	52K	2	19	43	5			
BASLE	66.12	11.7	10	53A	2	19	43	4			
TCHIMKENT	66.29	324.2	10	51	-1	19	47	6	13	8	PP
ZURICH	66.36	10.9	10	54	2	19	38	-4			
HURBANOVO	66.37	3.8	11	4	11	19	54	12	13	34	PP
RAKHOV	66.38	359.5	10	52	-1				21	19	SCS
NEUCHATEL	66.59	12.2	10	56	2	19	49	4			
BUDAPEST	66.78	3.2	11	2	7	19	24	-23	12	32	PP
IASI	67.06	356.9	10	59	2	19	53	3	11	23	
ANDIJAN	67.07	321.5	10	57	0	19	54	4	20	15	PS
KECSKEMET	67.35	2.8	11	4	5	20	4	10	11	38	PCP
CLERMONT-FD.	67.44	15.2	11	0	1	20	1	6			
FERGANA	67.56	321.8	10	59	-1	20	5	9			
KALOCSA	67.72	3.3	11	13	11				20	42	
TOLMEZZO	67.62	7.8	11	2	2	20	17	20	11	16	PCP
SZEGED	68.03	2.5	11	6	3	19	48	-14	11	16	PCP
OROPA	68.05	11.6	11	3	0	20	5	3	11	39	
ZAGREB	68.34	5.6	11	3	-2	20	9	3	21	43	
SAN SALVADOR	68.40	105.3	11	2	-3	20	30	24			
TRIESTE	68.41	7.3	11	4	-1				13	46	PP
AYAGUALO	68.47	105.4	11	0	-6	20	25	18			
TIMISOARA	68.55	1.6	11	20	14	20	12	4	13	46	PP
PAVIA	68.58	10.8	11	7K	1				20	41	PS
DZHERGETAL	68.80	321.9	11	8	0						
SANTIAGO MA.	68.92	104.7	11	13	4	21	0	47			

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

CAMPULUNG	69.03	358.8	11	10	1	20	22	8			
CANTON	69.21	279.9	11	12	2	20	20	4	13	50	PP
BOLOGNA	69.41	9.2	11	17	5	20	25	7			
BELGRADE	69.47	2.2	11	12A	0	20	26	7	15	30	PPP
HONG KONG	69.55	278.8	11	12	0	20	21	1	13	18	PP
BUCHAREST	69.87	357.9	11	14A	0	20	38	14	13	48	PP
MONACO	69.88	12.3	11	15	1				11	38	PCP
SOTCHI	70.00	347.5	11	14	-1	20	27	2	13	54	PP
FLORENCE X.	70.12	9.3	11	13	-3				14	6	PP
SERRA PILAR	70.35	25.2	11	14K	-3	20	24	-5	13	51	PP
KHOROG	70.35	321.0	11	18	1	20	34	5	13	51	PP
KULYAB	70.41	322.6	11	17	-1				15	22	PPP
COIMBRA	71.28	25.3	11	21A	-2	20	31	-9	13	48	PP
TIFLIS	71.32	343.2	11	23	0	20	44	3	15	32	PPP
SOFIA	71.61	0.1	11	27	2	20	46	2	21	21	PS
KUNMING	71.62	290.1	11	24K	-1	20	41	-3	12	41	
BARCELONA	71.63	16.7	11	26	1	20	48	4			
LHASA	71.72	302.0	11	28	2	20	52	7	14	8	PP
CIUD. TRUJL.	71.96	85.3	11	29	2						
TORTOSA	72.02	18.1	16	27	300	20	52	3			
ROME	72.07	8.6	11	27	-1	20	55	6	16	13	PPP
BAGUIO CITY	72.22	270.3	11	28	-1	20	53	2			
KIZYL-ARVAT	72.24	333.7	11	29	0	20	56	5			
TOLEDO	72.31	21.9	11	29K	0	20	43	-9	13	19	PP
SKOPJE	72.32	1.6	11	9A	-20				11	59	PCP
LENINAKAN	72.36	343.8	11	34	5						
LISBON	72.59	26.2	11	29K	-2	20	56	1	14	18	PP
EREVAN	72.87	343.2	11	34	2	21	13	14	11	51	PCP
ASHKABAD	72.89	331.7	11	34	1	21	3	4	14	10	PP
TOCKLAI	73.03	297.6	11	37	4	21	6	6			
ISTANBUL KA	73.15	355.5	11	33	-1	21	5	3			
GORIS	73.32	341.7	11	36	1	21	8	4	14	30	PP
CUGLIERI	73.50	11.8	11	57	21	21	30	24			
SAN JUAN	73.57	81.9	11	34K	-2				39	52	PKPPKP
WARSAK DAM	73.65	319.8	11	33	-4						
MANILA	73.71	269.2	11	33	-4	21	9	1			
TARANTO	73.73	4.9	11	17	-20				21	19	PS
ALICANTE	74.32	19.3	11	38	-3	21	10	-5	11	52	PCP
KOROR	74.85	253.5	11	42K	-2				12	11	PCP
GRANADA	75.02	22.1	11	48A	3	21	28	5	14	42	PP
SHILLONG	75.15	299.6	11	42K	-4	21	24	0	14	42	PP
LAHORE	75.21	316.7	11	45K	-1				14	34	PP
DEHRA DUN	75.29	313.2	11	44	-2	21	25	-1	14	36	PP
MALAGA	75.35	22.8	11	46A	-1	21	34	8	14	36	PP
ALMERIA	75.51	21.2	11	49	1	21	31	3	14	38	PP
CHATRA	75.62	304.2	11	47	-1	22	5	36			
MESSINA	75.92	6.4	11	53	3				12	42	
REGGIO CALA.	76.03	6.3	12	11	20	21	38	4			
ALGIERS UNI.	76.33	16.7	11	53	1	21	41	4	12	0	PCP
ATHENS	76.33	359.7	11	52K	0	21	35	-2			
BALBOA HTS.	76.60	98.2	11	50K	-4	21	40	0			
GALERAZAMBA	76.69	93.5	12	5	11	21	49	8	14	55	PP
RELIZANE	77.02	18.9	11	56	0	21	50	6	14	53	PP
ST. CLAUDE	77.47	79.0	12	8	9	21	43	-6			
CHITTAGONG	78.11	298.4	12	3A	1	22	0	4	12	13	PCP
AGRA	78.28	312.1	12	3K	0	21	57	-1	14	59	PP
QUETTA	78.46	322.5	12	4K	0	22	1	1	15	5	PP
BOKARO	78.86	304.2	12	7	1	22	5	1			
FORT FRANCE	78.86	79.0	12	7	1	22	4	0			
RABAUL	79.12	232.4	12	6	-2				15	7	
CALCUTTA	79.18	301.5	12	14A	6	22	13	5	15	15	PP
KSARA	80.01	349.5	12	13	0	22	23	7	15	19	PP
ST. VINCENT	80.23	79.8	12	19	5						
APIA	80.40	195.0	12	26	11						
CHINCHINA	81.81	96.2	12	24	2	22	35	0			
JERUSALEM	82.08	349.9	12	20	-3				15	36	PP
FUQUENE	82.13	94.3	12	23	-1						
KARACHI	82.59	321.2	12	42	16						
BOGOTA	82.76	95.0	12	27	0	22	40	-5			
HELWAN	84.22	353.1	12	34	0	22	56	-3			
VIZIANAGRAM	84.95	304.2	12	24	-14						
PORT MORESBY	85.65	235.4	12	31	-11				16	34	
SIWA	86.01	203.7	12	46A	3	23	28	11	28	28	SS
HYDERABAD	87.24	308.4	12	48K	-1	23	18	-11	16	18	PP
BOMBAY	87.58	314.0	12	49	-2	23	49	17	16	18	PP
PORT BLAIR	87.59	293.5	12	52	1	23	21	-11	28	43	SS
POONA	87.63	312.9	12	52	1	23	26	-6	16	6	PP
TAMANRASSET	90.43	16.5	13	5	1	24	4	6	16	38	PP
MADRAS	90.82	305.4	13	5	-1	24	3	1	16	52	PP

MEDAN	92.70	284.9	13	15	0	24	10	-8			
KODAIKANAL	94.30	306.9	13	28	6	24	0	-32	29	30	
MBOUR	94.38	39.0	13	36	13	24	56	23			
CHARTERS TS.	95.86	232.6	13	29	0				14	39	
HUANCAYO	97.39	102.8	13	36K	0	24	15	-43	17	6	PP
DJAKARTA	98.29	273.5	17	41A	777				23	8	
BANDUNG	98.60	272.4	13	58	15						
BRISBANE	100.80	224.2	17	41	777				18	20	
BRISBANE	100.80	224.2	17	41	229				18	20	
LA PAZ	104.31	98.2	14	4	-3	24	46	-70	18	30	PP
LOME	106.23	23.0				26	32	0	18	56	PP
RIVERVIEW	107.31	223.6	14	43	777	26	31	0			
WELLINGTON	109.24	202.5							28	25	
MELBOURNE	112.84	227.1							19	33	PP
ROXBURGH	114.31	205.6							27	32	PS
LWIRO	116.24	354.0	18	48	3				19	54	PP
PERTH	117.77	253.7							20	6	
SANTA LUCIA	118.43	108.5	19	7	18				23	29	
WINDHOEK	136.36	8.5	19	26	2						
LCO. MARQUES	139.52	347.2							22	29	PP
PRETORIA	139.60	353.4	19	20	-10						
CAPE HALLETT	139.84	195.0	18	5	-85				18	25	PKP?
KIMBERLEY	142.69	358.0	19	32	-3						
PIETERMZBURG	143.32	349.8	19	34	-2						
SCOTT BASE	145.34	192.9	19	40	0						
GRAHAMSTOWN	147.20	355.1	19	46A	3						
BYRD STATION	147.34	168.8	19	52K	9				25	6	PKS
WILKES	147.42	228.8	19	49	6				30	26	SKKS
HERMANUS	148.26	6.6	19	56	12				28	6	PCPPKP
SOUTH POLE	155.88	180.0	19	53	-2				20	30	
HALLEY BAY	161.70	142.1	20	54	52				25	11	PP

APRIL 7 18.H 5.M 3.S EPICENTRE 38.41 143.15 DEPTH= 0.KM

A=-0.62861 B= 0.47114 C= 0.61877 D= 0.5997 E= 0.8002
G=-0.4951 H= 0.3711 K=-0.7856 HT= -1.1

SE= 2.81

	DELTA DEG.	AZ. DEG.	P M	P S	D-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ISINOMAKI	1.44	271.2	0	27A	0	0	51	4				
MIYAKO	1.54	323.7	0	28	0	0	51	2				
MIZUSAWA	1.73	295.0	0	34	3	0	54	0				
SENDAI	1.77	266.0	0	33A	1	1	1	6			0	44
MORIOKA	2.01	310.4	0	35A	0	1	9	8				
YAMAGATA	2.21	266.6	0	40	2	1	12	6			1	29
HUKUSIMA	2.22	253.4	0	39	1	1	8	1				
ONAHAMA	2.31	231.4	0	39A	0	1	9	0			0	53
HATINOHE	2.46	329.8	0	41	-1	1	16	3				
SAKATA	2.64	281.6	0	47	3	1	28	10				
SHIRAKAWA	2.66	241.8	1	11	27							
AKITA	2.71	299.7	0	46	1	1	30	11				
MITO	2.95	227.2	0	49	0	1	42	17				
AOMORI	3.02	323.5	0	50	0	1	32	5				
UTUNOMIYA	3.20	235.5	0	51A	-1	4	46	194			1	17
KAKIOKA	3.22	228.2	0	51	-1						1	14
TYOSI	3.26	215.1	0	52	-1	1	40	7			2	0
NIIGATA	3.27	262.6	0	57	4	1	43	9				
TUKUBASAN	3.27	228.9	0	50A	-3							
URAKAWA	3.74	355.8	1	2	2	1	47	1				
KUMAGAYA	3.76	234.2	1	2	2	1	38	-8				
MAEBASI	3.82	239.5	1	1A	0	1	50	2			1	20
HAKODATE	3.84	331.8	1	1A	0	1	54	5				
TOKYO C.M.O.	3.85	225.9	0	59	-2	1	47	-2			1	15
AIKAWA	3.88	265.7	1	5	3	2	8	19				
TITIBU	4.06	234.4	1	3	-1	2	6	12				
YOKOHAMA	4.09	224.3	1	5	0	1	56	1				
TAKADA	4.10	252.8	1	6	1	2	5	10				
MORI	4.18	332.6	1	8	2	2	13	16				
OIWAKE	4.21	241.8	1	8	1	2	19	21				
MURORAN	4.25	337.6	1	6	-1	1	57	-2				
TOMAKOMAI	4.27	344.2	1	15	8	2	14	15				
NAGANO	4.30	247.6	1	11	3	2	5	5			2	21
MATUSIRO	4.34	246.1	1	9A	1	2	11	10				
OBIHIRO	4.50	0.5	1	9	-2	2	16	11			1	36

HUNATU	4.56	231.7	1	12	1	2	14	8			
KOHU	4.60	234.2	1	13	1	2	27	20			
MATUMOTO	4.66	244.0	1	15	2	2	30	21			
KUSIRO	4.66	11.4	1	12	-1	2	3	-6			
AJIRO	4.67	225.3	1	12	-1	2	7	-2			
MISIMA	4.71	227.0	1	14	0	2	20	10			
OSIMA	4.74	221.0	1	16	2				2	13	
SAPPORO	4.85	344.2	1	13	-3	2	14	1			
SUTTSU	4.91	334.0	1	15	-2	2	22	7			
TOYAMA	5.03	251.9	1	20	2	2	36	18			
WAZIMA	5.05	260.1	1	21	3	2	25	7			
SHIZUOKA	5.14	229.4	1	20	0	2	32	11			
IIDA	5.15	237.5	1	21	1	2	35	14			
TAKAYAMA	5.22	246.1	1	25	4						
NEMURO	5.24	19.8	1	18	-3	2	12	-11			
ASAHIGAWA	5.39	354.0	1	24	1				2	6	
OMAESAKI	5.50	227.7	1	29	4				1	58	
NAGOYA	5.92	238.7	1	36	5	3	2	22			
GIHU	5.93	241.5	1	31	0	2	58	17	2	39	
HATIDYOZIMA	5.95	208.0	1	55	24				2	15	
HUKUI	5.97	248.8	1	34	2						
IBUKISAN	6.21	242.9	1	37	2	3	14	26			
TSURUGA	6.30	246.2	1	35	-1	3	10	20			
HIKONE	6.36	242.5	1	37	0	3	15	24			
KAMEYAMA	6.44	238.5	1	39	1	3	3	10			
TU	6.48	237.4	1	42	3						
MAIZURU	6.81	246.8				3	22	19	2	2	
KYOTO	6.85	242.6	1	45A	1	3	1	-3			
NARA	6.97	239.9	1	49	3	3	27	20			
WAKKANAI	7.09	351.6	1	49	2				2	39	
OSAKA	7.19	240.8	1	53	4	3	25	13	2	51	
TOYOOKA	7.26	249.2	1	50	0	3	21	7	4	17	
KOBE	7.42	242.3	1	52	0	3	17	-1	3	38	
KURILSK	7.67	25.8	1	51K	-4						
TOTTORI	7.71	250.6	2	4	8				3	13	
SUMOTO	7.80	241.2	2	OK	3	3	51	24	2	20	
HIMEJI	8.06	243.7	1	54	-7	3	35	1			
SAIGO	8.13	257.2	2	4	2				5	23	
TOKUSIMA	8.17	240.5	2	7	5				4	37	
YONAGO	8.39	252.2	2	6	1	3	43	1	4	49	
TAKAMATU	8.40	243.7	2	3	-3	3	53	11	4	23	
Y.-SAKHLINSK	8.54	358.0	2	5A	-2				3	44	
MATSUE	8.60	252.9	2	8	0	3	52	5			
MUROTO	8.92	237.4	2	15	2				4	44	
KOTI	9.18	241.0	2	17	1				3	30	
HIROSIMA	9.54	248.2	2	22	1	4	29	19			
HAMADA	9.57	251.9	2	21	-1	4	12	1			
MATUYAMA	9.57	244.6	2	18	-4	4	6	-5	4	35	
VLADIVOSTOK	9.74	302.4	2	24	0						
OOITA	10.69	244.6	2	35	-2				5	32	
SIMONOSEKI	10.83	249.4	2	40	1	4	59	17			
ASOSAN	11.26	244.4	2	45	0				6	17	
MIYAZAKI	11.57	239.5	2	54	5	5	27	27			
SAGA	11.63	247.6	2	48	-2				3	12	
UNZENDAKE	11.93	245.5	3	6	12	5	20	11			
ITUHARA	11.95	253.6	2	51	-3						
NAGASAKI	12.20	246.3	2	55	-3	5	21	5			
KAGOSIMA	12.38	240.3	3	4	4				3	26	
TOMIE	13.06	248.1	3	14	5				6	24	
YAKUSIMA	13.11	236.5	3	10	0	5	32	-6			
SUIHWA	14.45	309.7	3	27	0						
CHANGCHUN	14.49	297.6	3	31	3						
DAIREN	16.82	278.4	3	57	-1						
PETROPAVLOVK	18.20	31.0	4	17	2	7	42	5	4	33	PP
ZO-SE	19.44	254.6	4	27	-3	8	32	28			
NANKING	20.85	259.7	4	41	-5	8	47	13			
PEKING	20.94	282.9	4	42	-4						
KWANTING	21.36	283.6	4	47	-4						
MAGADAN	21.71	10.6	4	53A	-1						
TAIPEI	22.66	240.2	5	3	-1	9	21	13			
ILAN	22.67	239.4	5	2	-2						
FUTZELING	23.10	260.2	5	9	1						
TATUNG	23.14	283.6	5	9	1						
TAICHUNG	23.81	239.9	5	6	-9						
TAIYUAN	24.01	278.1	5	19	2	9	51	19			
HSINKONG	24.06	236.9	5	13	-4	9	39	6			
ALISHAN	24.15	238.5	5	19	1						
GUAM	24.88	176.3	5	23	-2	9	15	-32			

TAINAN	24.90	238.5	5	17	-9	9	37	-10				
TAWU	24.90	236.4	5	26	0	9	59	12				
KAOHSIUNG	25.13	237.8	5	34	6							
LINFEN	25.22	274.6	5	30	1							
HENGCHUN	25.24	236.0	5	31	2	10	0	7				
PAOTOW	25.57	285.4	5	29	-3	9	57	-1				
SIAN	27.79	272.0	5	53	1							
ULAN-BATOR	27.87	301.7	5	52	-1							
YINCHUAN	28.76	281.8	6	5	4	11	0	10				
BAGUIO CITY	29.54	228.3	6	6	-2	11	6	3				
HONG KONG	29.56	245.5	6	10	2	11	4	1			7	12 PP
CANTON	29.71	247.7	6	13	3							
IRKUTSK	30.21	310.0	6	13A	-1						7	11 PP
MANILA	30.78	225.6	6	13	-6	11	38	16				
LANCHOW	31.23	278.1	6	23	0							
WUWEI	31.67	282.0	6	28	1							
TRUK	31.80	163.5	6	28	0							
KOROR	31.92	196.4	6	27	-2							
SINING	32.67	279.9	6	35	-1							
YUMEN	35.41	287.9	7	0	1							
KUNMING	36.62	260.7	7	8A	-2							
TOCKLAI	41.96	268.6	7	58	4	14	22	9				
RABAUL	43.22	166.8	8	1	-3						14	30
LHASA	43.57	274.6	8	8	1							
SHILLONG	44.81	269.0	8	13A	-4	14	49	-6				
SEMIPALATNSK	45.21	306.6	8	27	7							
CHITTAGONG	46.49	265.2	8	31A	1	15	17	-2			10	9 PCP
PORT MORESBY	47.71	174.7	8	31	-9						9	37
CHATRA	47.89	273.3	8	40	-1	15	42	3				
CALCUTTA	49.13	267.7	8	56	5	16	7	11				
BOKARO	50.45	270.7	8	58	-3	16	28	13				
PORT BLAIR	52.08	253.2	9	11	-2	16	40	3			10	21 PCP
KIPAPA	52.88	90.9	9	19	0							
MEDAN	53.28	240.7	9	18	-4	16	47	-6				
DEHRA DUN	53.36	282.2	9	24	1	16	56	2			11	22 PP
SITKA	54.45	41.6				17	16	7	11	4	19	21 SCS
AGRA	54.89	278.7	9	37	3							
SVERDLOVSK	55.03	318.3	9	30	-5							
TASHKENT	55.15	298.2	9	33	-3						16	56
VIZIANAGRAM	55.37	266.2	9	38A	0							
LAHORE	55.63	285.3	9	38A	-2						11	45 PP
DJAKARTA	55.73	225.4	9	40	0	17	26	0				
LEMBANG	55.82	224.2	9	40	-1	17	18	-10				
BANDUNG	55.87	224.2	9	44	2	17	32	3				
WARSAK DAM	56.60	289.2	9	44	-3							
CHARTERS TS.	58.19	1[illegible].6	9	56	-2						10	31
HYDERABAD	59.69	268.8	10	10A	2	18	22	4			11	22 PP
NORD	59.76	356.6	10	6A	-3	18	21	2				
MADRAS	60.90	263.5	10	19A	2	18	38	4			12	34 PP
RESOLUTE	60.92	15.0	10	13A	-4	18	29	-5			20	5 SCS
QUETTA	61.85	287.5	10	21A	-2	18	46	0			12	42 PP
APATITY	62.00	335.8	10	21	-3							
POONA	62.68	272.6	10	28	0	18	54	-2			12	56 PP
BOMBAY	63.28	273.6	10	31	-1	19	10	6			13	1 PP
THULE	63.71	7.9	10	25	-10	18	56	-13				
KARACHI	64.02	283.3	10	51	14							
HORSESHOE B.	64.13	46.5	10	37	-1							
ASHKABAD	64.20	299.0	10	40	2							
SODANKYLA	64.23	337.4	10	36	-3							
VICTORIA	64.47	47.3	10	41	1							
SUVA	65.28	142.8				19	50	21				
SEATTLE	65.56	47.8	10	51A	4							
KIRUNA	65.71	339.5	10	46A	-2	19	33	-1			13	17 PP
BRISBANE	66.20	170.4	10	51K	0	19	38	-2				
MOSCOW	66.96	323.7	10	55	-1	19	48	-1				
BANFF	67.43	42.0	10	56	-3							
PULKOVO	67.70	329.7	10	58	-3	19	54	-4			13	26 PP
SHASTA	69.18	54.2	11	18	8							
HELSINKI	69.49	331.9	11	12	0						13	51
UKIAH	69.50	56.0	11	15	3							
HUNGRY HORSE	69.84	43.9	11	13	1							
MINERAL	69.87	54.1	11	13	-1							
BERKELEY	70.82	56.6	11	22	2							
SCORESBY SD.	70.88	354.8	11	18	-2						11	30 PCP
TIFLIS	71.04	308.4	11	21	0							
SKALSTUGAN	71.13	339.1	11	20	-2						13	55 PP
SASKATOON	71.35	37.6	11	34	11	20	38	-3				
RENO	71.47	54.0	11	28A	4							

LICK	71.53	56.8	11	27A	3						
BUTTE	72.01	45.2	11	27	0						
RIVERVIEW	72.26	173.0	11	34	5	20	52	1			
UPPSALA	72.32	334.5	11	26A	-3	20	53	1	14	7	PP
FRESNO	73.06	56.4	11	31	-2						
BOZEMAN	73.07	44.9	11	35	1				12	13	
EUREKA	73.91	52.3	11	38	0						
SALT LAKE C.	75.64	49.2	11	49	1				12	36	
BERGEN	75.64	339.9	11	39A	-9				11	53	PCP
PASADENA	75.68	57.8	11	52	3						
WARSAW	76.65	327.6	11	58K	4	21	40	0	12	7	PCP
BOULDER CITY	76.75	54.6	11	53	-2						
LWOW	77.06	324.5	11	56	0				16	45	
REYKJAVIK	77.11	353.3	12	0	3						
IASI	77.21	320.9	11	58	1	21	44	-3	15	6	
COPENHAGEN	77.30	333.9	11	56A	-2	21	51	4			
BACAU	77.98	320.8	12	6	5						
RAPID CITY	78.36	42.4	12	3	0						
FOCSANI	78.43	320.0	12	13	9						
KRAKOW	78.72	326.6	12	5	0	22	1	-2	12	17	PCP
SKALNATE PL.	79.23	325.9	12	20	12	22	23	15			
RACIBORZ	79.44	327.5	12	9	0				16	20	
POTSDAM	79.70	331.5	12	11	0				12	30	
CAMPULUNG	79.82	320.7	12	17	6	22	15	1			
BUCHAREST	79.89	319.6	12	10A	-2	22	18	3	12	36	
ABERDEEN	80.37	341.6							20	12	
COLLMBERG	80.58	330.9	13	14	59	22	23	1			
ISTANBUL KA.	80.64	315.6	12	14	-2	22	23	0			
HALLE	80.82	331.5	12	15	-2	22	23	-2	15	13	PP
PRAGUE	80.99	329.4	12	17A	-1	22	24	-3	15	23	PP
BUDAPEST	81.02	325.3	12	20	2	22	31	4	15	20	PP
HURBANOVO	81.11	326.0	12	36	18	22	35	7	13	27	
TIMISOARA	81.32	323.0	12	29	10	22	39	9			
BRATISLAVA	81.36	326.8	12	20A	0	22	32	2			
JENA	81.42	331.4	12	18	-2	22	33	2	15	33	PP
KSARA	81.45	306.5	12	21	1						
SZEGED	81.46	324.0	12	26	6				15	14	PP
PLAUEN	81.55	330.8	12	17	-4	22	32	0	12	29	
WITTEVEEN	81.60	335.0	12	21	0						
VIENNA-H.	81.61	327.2	12	21	0	22	34	1	15	37	PP
TUCSON	81.67	55.4	12	26	5						
EDINBURGH	81.76	341.6				22	39	5	15	32	PP
KALOCSA	81.78	324.7	12	25	3				12	33	PCP
MUNSTER	81.99	334.0	12	23	0						
SONNEBERG	82.00	331.3	12	21	-2	22	33	-4	12	32	
DURHAM	82.38	340.3	12	28K	3	22	53	12	12	36	PCP
BELGRADE	82.38	322.8	12	23A	-2	22	49	8	15	40	PP
SOFIA	82.52	319.8	12	28	2	22	47	5			
DE BILT	82.70	335.4	12	26	-1	22	45	1	12	30	
BENSBERG	82.99	333.7	12	27	-1				15	35	PP
JERUSALEM	83.20	305.3	12	25	-4	22	59	10			
ZAGREB	83.66	325.9	12	34	3	23	7	13	15	51	PP
SKOPJE	84.02	320.4	12	35K	2	23	0	3	12	48	PCP
STUTTGART	84.07	331.4	12	33A	-1	22	57	-1	12	43	
KARLSRUHE	84.17	332.0	12	33A	-1	23	0	1	12	48	
TUBINGEN	84.32	331.3	12	34	-1	23	15	15	12	47	
WELLINGTON	84.40	156.6				22	52	-9	28	32	
TOLMEZZO	84.48	327.9	12	35	-1	23	19	17	15	58	PP
EBINGEN	84.64	331.2	12	35	-1	23	4	1	12	48	
STRASBOURG	84.76	332.1	12	37A	0				15	55	PP
TRIESTE	84.76	327.0	12	30A	-7	22	57	-8	15	56	PP
RATHFARNHAM	84.90	342.2	12	36A	-2				15	56	PP
KEW	84.95	338.1	12	37A	-1				15	59	PP
ZURICH	85.46	330.9	12	40	-1						
BASLE	85.71	331.6	12	42A	0				22	11	
ATHENS	85.75	316.3	12	39	-3	23	4	-10			
LUBBOCK	86.36	49.3	12	47	2	23	21	1			
NEUCHATEL	86.39	331.7	12	44	-1	23	19	-1			
PARIS	86.41	335.2	12	45	0	23	21	0			
BOLOGNA	86.71	327.7	12	58	11	23	27	3			
ROXBURGH	86.84	161.9				23	11	-14	25	21	
HELWAN	86.96	306.1	12	47	-1	23	22	-4			
PAVIA	87.04	329.4	12	48	0				22	31	
OROPA	87.15	330.3	12	51	2				22	29	
TARANTO	87.21	321.8	12	26	-23	23	26	-2			
FLORENCE X.	87.33	327.3	12	48	-2	23	36	7	15	47	PP
JERSEY	87.51	338.0							24	27	
ROME	88.31	325.5	12	55	1	23	42	3	16	27	PP
CLERMONT-FD.	88.82	333.3	12	58	1	23	27	-16			

FAYETIE, .E	88.88	43.0	12	57	0						
MONACO	88.94	329.6	13	8A	11						
SHAWINIGAN	89.50	23.9	13	2K	2						
OTTAWA	89.53	26.2	13	2	2						
SEVEN FALLS	89.59	22.4	13	10	10	23	43	-7			
BREBEUF	90.16	24.9	13	5	2						
ALICANTE	96.60	332.0	13	31	-2	24	50	-2	24	9	SKS
GRANADA	98.76	333.7	13	56A	14				17	22	PP
MALAGA	99.46	334.1	13	53A	7	25	37	21	17	53	PP
BERMUDA	104.95	24.1				26	5	4	33	33	SS
TAMANRASSET	107.30	319.3	14	24	777	26	10	4	18	44	PP
LWIRO	110.35	283.8							19	11	PP
SOUTH POLE	128.23	180.0	19	5	-3				21	14	PP
BYRD STATION	128.81	167.2	19	15	6				21	28	PP
HERMANUS	135.28	257.1							22	59	PKS
HUANCAYO	136.88	62.9	19	23	-1				22	12	PP
LA PAZ	144.96	60.2	19	41	2	26	47	0	22	57	PP

APRIL 7 18.H 30.M 14.S EPICENTRE 38.43 143.30 DEPTH= 0.KM

A=-0.62971 B= 0.46935 C= 0.61901 D= 0.5976 E= 0.8018
G=-0.4963 H= 0.3699 K=-0.7854 HT= -1.1

SE= 2.94

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ISINOMAKI	1.56	270.5	0	27A	-2	0	52	2				
MIYAKO	1.60	320.0	0	29A	0	0	55	4				
MIZUSAWA	1.83	293.0	0	35	2	1	2	5				
SENDAI	1.89	265.8	0	33A	-1	1	3	4			0	45
MORIOKA	2.09	308.0	0	35	-1	1	6	2				
YAMAGATA	2.33	266.4	0	40	0	1	10	0			1	29
HUKUSIMA	2.34	253.9	0	40A	0	1	16	6				
ONAHAMA	2.41	232.9	0	39	-2	1	14	2			0	55
HATINOHE	2.50	327.4	0	40A	-2	1	17	3				
SAKATA	2.76	280.8	0	46	0							
SHIRAKAWA	2.77	242.7	0	46	0	1	15	-6				
AKITA	2.80	298.3	0	47A	0							
MITO	3.05	228.6	0	51	1	1	41	13				
AOMORI	3.08	321.6	0	50A	-1	1	41	12				
UTUNOMIYA	3.31	236.5	0	51A	-3	1	40	5			1	14
KAKIOKA	3.32	229.5	0	52	-2						1	21
TYOSI	3.34	216.7	0	54	0							
TUKUBASAN	3.37	230.1	0	52A	-3							
NIIGATA	3.39	262.6	0	58	3	1	42	5				
URAKAWA	3.74	354.0	1	4	4	1	47	1				
KUMAGAYA	3.87	235.1				1	49	0			1	26
HAKODATE	3.89	330.2	1	2	0	1	52	2				
TOKYO C.M.O.	3.95	227.0	1	0	-3	1	47	-4				
AIKAWA	4.00	265.7	1	2	-2	1	58	5				
TITIBU	4.16	235.3	1	5	-1	1	56	-1				
YOKOHAMA	4.19	225.4	1	6	0	2	3	6			1	36
MORI	4.22	331.2	1	8	1	2	14	16			1	39
TAKADA	4.22	253.2	1	5	-2	2	4	6				
MURORAN	4.28	336.2	1	7	-1	2	7	7				
TOMAKOMAI	4.29	342.7	1	19	11	2	14	14				
OIWAKE	4.33	242.4	1	7	-1	2	24	23				
NAGANO	4.42	248.1	1	11A	1	2	8	5				
MATUSIRO	4.46	246.6	1	10A	0	2	14	10			2	30
OBIHIRO	4.48	359.1	1	11	0							
KUSIRO	4.62	10.1	1	14	1	2	2	-6				
HUNATU	4.66	232.5	1	13	0	2	17	8				
KOHU	4.71	235.0	1	17	3	2	31	21			2	9
AJIRO	4.77	226.3	1	28	13	2	24	12				
MATUMOTO	4.77	244.5	1	14	-1	2	27	15				
MISIMA	4.81	227.9	1	14	-1	2	18	5				
OSIMA	4.83	222.0	1	20	5						2	50
SAPPORO	4.86	342.9	1	22	6	2	22	8				
SUTTSU	4.95	332.8	1	25	8	2	31	15				
TOYAMA	5.15	252.2	1	17	-3	2	37	16				
WAZIMA	5.17	260.3	1	21	1							
NEMURO	5.19	18.7	1	19	-2	2	14	-8				
SHIZUOKA	5.24	230.2	2	35	74							
IIDA	5.26	238.1	1	23	1	2	34	10				
TAKAYAMA	5.33	246.6	1	24	1							

ASAHIGAWA	5.39	352.8	1	23	0			2	3
OMAESAKI	5.60	228.5	1	47	21			2	26
ARASHIRI	5.63	7.2	1	27	0	2	30 -3		
RUMOE	5.66	347.6	1	37	10			3	25
HATIOYOZIMA	6.02	209.0	2	2	30				
NAGOYA	6.03	239.3	1	32	0	2	48 5		
GIHU	6.04	242.0	1	32	-1	2	52 8	3	15
HUKUI	6.09	249.2	1	35	2	3	1 16		
IBUKISAN	6.33	243.3	1	39	2	3	16 25		
TSURUGA	6.42	246.6	1	34	-4	3	9 16		
HIKONE	6.47	243.0	1	44	5	3	5 11		
KAMEYAMA	6.55	239.0	1	42	2	3	8 12	2	50
MAIZURU	6.93	247.2	1	51	6	3	12 6		
KYOTO	6.97	243.1	1	46K	0	3	38 31		
NARA	7.08	240.4	1	56	9	3	29 20		
OWASE	7.20	235.0	1	48	-1	3	30 18		
OSAKA	7.30	241.3	1	56	6	3	36 21		
TOYOOKA	7.38	249.5	1	52	1	3	22 5	4	11
KOBE	7.53	242.7	2	2	8	3	45 24		
SUMOTO	7.92	241.6	2	8K	9	4	1 31	3	14
HIMEJI	8.17	244.0	2	2	-1			4	13
SAIGO	8.25	257.4	2	4	0			5	22
TAKAMATU	8.51	244.0	2	12	5	4	22 37		
MATSUE	8.71	253.2	2	11	1	3	55 5		
MUROTO	9.03	237.8	2	53	39			4	38
KOTI	9.29	241.4				3	54 -11	2	44
HIROSIMA	9.65	248.5	2	31	8	4	25 12		
MATUYAMA	9.69	244.9	2	25	1	4	10 -4	4	43
SIMIDU	10.12	239.3	2	34	5	4	27 2		
UWAZIMA	10.15	242.5	2	38	8			5	16
OOITA	10.81	244.8	2	39	0			5	26
HUKUOKA	11.50	249.0	2	53	5	5	9 10		
MIYAZAKI	11.69	239.8	3	8	17	6	4 61		
SAGA	11.75	247.8	2	53	1			6	18
ITUHARA	12.07	253.8	3	6	10				
KAGOSIMA	12.49	240.6	2	59	-3			6	38
YAKUSIMA	13.22	236.8	3	9	-2				
CHANGCHUN	14.58	297.4	3	38	9				
DAIREN	16.93	278.4	3	57	-3				
PETROPAVLOVK	18.12	30.8	4	16	1	7	32 -3	15	47 SCS
ZO-SE	19.56	254.7	4	28	-4				
NANKING	20.97	259.8	4	45	-2				
MAGADAN	21.67	10.4	4	54	0				
TATUNG	23.26	283.6	5	9	-1				
TAIYUAN	24.12	278.1	5	18	0				
GUAM	24.89	176.6	5	23	-3				
SIAN	27.91	272.1	6	3	10				
YINCHUAN	28.88	281.8	6	7	5				
BAGUIO CITY	29.64	228.6	6	7	-2				
BAYANDAI	29.75	311.8	6	8A	-2				
MANILA	30.88	225.8	6	12	-8			14	19
WUWEI	31.79	282.0	6	30	2				
SINING	32.78	280.0	6	33	-4				
YUMEN	35.52	287.9	6	58	-2				
RABAUL	43.21	167.0	8	2	-2				
LICK	34.81	128.7	6	53K	-2				
SALT LAKE C.	35.15	114.1	6	58	0			8	27
SHILLONG	44.93	269.1	8	13A	-5				
CHITTAGONG	46.61	265.3	8	33	2	15	26 5		
PORT MORESBY	47.72	174.9	9	6	26				
CHATRA	48.01	273.4	8	39	-3				
KIPAPA	52.76	91.1	9	11	-8				
SITKA	54.36	41.7	9	35	5				
SVERDLOVSK	55.10	318.3	9	31	-5				
LAHORE	55.74	285.4	9	39A	-2			11	43 PP
DJAKARTA	55.82	225.6	9	43	2			17	19
LEMBANG	55.92	224.4	9	38	-4	17	46 17		
WARSAK DAM	56.71	289.3	9	45A	-3				
NORD	59.75	356.7	10	7	-2				
RESOLUTE	60.88	15.0	10	14A	-2				
QUETTA	61.96	287.6	10	21A	-3			12	38 PP
APATITY	62.03	335.9	8	50	-94				
POONA	62.80	272.7	10	29	0				
BOMBAY	63.40	273.7	10	35	2	18	41 -25	12	56 PP
THULE	63.68	7.9	10	26	-9				
SODANKYLA	64.26	337.4	10	37	-2				
SEATTLE	65.46	47.8	10	53	6				
KIRUNA	65.74	339.5	10	46	-3				

BRISBANE	66.20	170.6	10	50	-1	19	38	-2			
MOSCOW	67.02	323.7	10	56	-1						
PULKOVO	67.74	329.8	10	59	-2				19	16	PS
HELSINKI	69.53	332.0	11	11	-1						
HUNGRY HORSE	69.74	43.9	11	13	-1						
MINERAL	69.77	54.2	11	18	4						
BERKELEY	70.71	56.7	11	36	16						
SCORESBY SD.	70.87	354.8	11	18	-3						
TIFLIS	71.13	308.5	11	21A	-1						
SKALSTUGAN	71.15	339.1	11	20	-2						
RENO	71.36	54.1	11	27	4						
LICK	71.42	56.9	11	45	21						
BUTTE	71.92	45.3	11	31	4						
UPPSALA	72.35	334.5	11	27A	-2				14	29	
BOZEMAN	72.98	44.9	11	34	1						
EUREKA	73.81	52.4	11	39	1						
SALT LAKE C.	75.53	49.3	11	50	2						
YALTA	75.65	315.7	11	48	-1						
WARSAW	76.70	327.7	11	58	4						
LWOW	77.12	324.6	11	55	-2				14	46	PP
IASI	77.28	321.0	11	57	-1						
COPENHAGEN	77.34	334.0	11	57	-1						
BACAU	78.04	320.8	11	59	-3						
RAPID CITY	78.26	42.5	12	3	0						
KRAKOW	78.77	326.7	12	6	0				20	10	
RACIBORZ	79.49	327.6	12	8	-2				15	12	
POTSDAM	79.74	331.6	12	11	0				15	11	
BUCHAREST	79.95	319.7	12	12A	0	22	4	-12	15	16	PP
COLLMBERG	80.62	331.0	12	14	-2				18	44	
ISTANBUL KA.	80.71	315.7	12	14	-2						
HALLE	80.86	331.6	12	14	-3				13	15	
PRAGUE	81.04	329.5	12	17	-1	22	24	-3	15	23	PP
HURBANOVO	81.16	326.1	12	20	1	22	20	-8			
BRATISLAVA	81.41	326.9	12	21	1						
JENA	81.46	331.5	12	19	-1						
KSARA	81.54	306.6	12	21	0				15	26	PP
TUCSON	81.56	55.5	12	24	3						
PLAUEN	81.59	330.9	12	18	-3				20	23	
WITTEVEEN	81.64	335.1	12	22	1						
MUNSTER	82.03	334.1	12	23	0				12	32	
SONNEBERG	82.05	331.3	12	22	-1				12	31	
DURHAM	82.40	340.3	12	25	0						
BELGRADE	82.44	322.9	12	25A	0				15	37	PP
BENSBERG	83.03	333.8	12	28	0						
JERUSALEM	83.29	305.4	12	26	-4						
ZAGREB	83.71	326.0	12	33	1						
SKOPJE	84.09	320.5	12	48K	14						
STUTTGART	84.11	331.5	12	33A	-1						
KARLSRUHE	84.21	332.0	12	35A	1						
TUBINGEN	84.36	331.4	12	34	-1				12	44	
TOLMEZZO	84.52	328.0	12	35	-1						
EBINGEN	84.69	331.3	12	36	-1						
STRASBOURG	84.80	332.2	12	38	1						
TRIESTE	84.81	327.1	12	37	0						
RATHFARNHAM	84.92	342.2	12	38A	0						
KFW	84.98	338.1	12	37A	-1				12	47	
BASLE	85.75	331.7	12	42A	0						
PARIS	86.44	335.3	12	46	1				12	56	
HELWAN	87.05	306.2	12	46	-2				16	10	
FLORENCE X.	87.38	327.4	12	50	0						
CLERMONT-FD.	88.86	333.4	12	57	0						
GRANADA	98.80	333.8							17	45	PP
MALAGA	99.49	334.2				25	52	36	17	42	PP
TAMANRASSET	107.37	319.5							18	49	PP
SOUTH POLE	128.24	180.0	19	7	-1						
BYRD STATION	128.80	167.2	19	18	8						

APRIL 7 18.H 38.M 19.S EPICENTRE 38.50 143.28 DEPTH= 0.KM

A=-0.62902 B= 0.46914 C= 0.61987 D= 0.5979 E= 0.8016
G=-0.4969 H= 0.3706 K=-0.7847 HT= -1.1

SE= 3.10

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S

MIYAKO	1.54	318.9	0	28	-1	0	50	0			
ISINOMAKI	1.54	268.2	0	25	-4						
SENDAI	1.89	263.9	0	31	-3	0	46	-13			
MORIOKA	2.04	306.9	0	35	-1						
YAMAGATA	2.32	264.8	0	41	1	1	12	2			
HUKUSIMA	2.34	252.3	0	40	-1						
ONAHAMA	2.44	231.5	0	45	3	1	8	-5			
HATINOHE	2.44	326.8	0	42	0	1	18	5			
SAKATA	2.73	279.6	0	47	1	1	23	3			
AKITA	2.76	297.3	0	49	2						
SHIRAKAWA	2.79	241.4	0	46	-1						
AOMORI	3.02	321.0	0	49	-1	1	22	-5			
KAKIOKA	3.35	228.5	1	38	43						
NIIGATA	3.38	261.5	1	31	36						
URAKAWA	3.67	354.1	2	5	65						
HAKODATE	3.82	329.9	1	52	50	3	18	89			
MAEBASI	3.95	239.3	1	3	0						
TOKYO C.M.O.	3.98	226.2	1	7	3	1	55	2			
AIKAWA	3.99	264.7	1	10	6						
MURORAN	4.22	336.0	2	4	57						
TOMAKOMAI	4.22	342.6	2	11	64						
OBIHIRO	4.42	359.2	1	26	16						
NAGANO	4.43	247.3	1	43	33						
MATUSIRO	4.47	245.8	1	21	10	2	17	12			
KUSIRO	4.56	10.4	1	9	-3	1	59	-8			
HUNATU	4.69	231.8	1	8	-6	2	12	2			
MATUMOTO	4.79	243.7	1	19	4	2	27	14			
SAPPORO	4.80	342.8				2	6	-7			
AJIRO	4.81	225.6	1	17	1	2	14	1			
SUTTSU	4.89	332.6	1	23	6	2	31	16			
NEMURO	5.13	19.1				2	14	-7	1	22	
SHIZUOKA	5.27	229.6							2	35	S*
ASAHIGAWA	5.32	352.9	1	22	-1	2	41	15			
TAKAYAMA	5.35	245.9	1	27	4						
ABASHIRI	5.57	7.4				2	31	-1	1	35	
OMAESAKI	5.63	227.9							1	57	PG
NAGOYA	6.05	238.7	1	35	2	2	50	6			
GIHU	6.06	241.4	1	35	2	2	58	14			
HATIDYOZIMA	6.07	208.6	1	51	18	3	10	25			
IBUKISAN	6.34	242.8	1	29	-8	3	7	16			
TSURUGA	6.43	246.0				2	53	-1			
HIKONE	6.49	242.4				3	6	11			
KAMEYAMA	6.57	238.5	1	33	-8	2	57	0			
MAIZURU	6.94	246.6	1	43	-3	3	1	-5			
NARA	7.10	239.9	1	51	3	3	26	16			
OWASE	7.23	234.5				3	0	-14			
OSAKA	7.32	240.8	1	57	6	3	36	20			
TOYOOKA	7.39	249.0	1	50	-2	3	19	1	4	19	
KOBE	7.55	242.2	1	59	5	3	46	24			
SUMOTO	7.94	241.1	1	57	-3	3	52	21	4	10	
HIMEJI	8.19	243.6				4	11	33			
SAIGO	8.25	256.9	2	4	0				5	23	
TAKAMATU	8.53	243.6	2	11	3				3	6	
MATSUE	8.72	252.7	2	11	0	3	59	8			
MUROTO	9.05	237.4	2	41	26	4	29	30			
KOTI	9.31	241.0	2	13	-6				3	29	
HIROSIMA	9.66	248.1	2	22	-2	4	19	5			
HAMADA	9.69	251.7	2	26	2						
MATUYAMA	9.70	244.5	2	14	-10				5	20	
SIMIDU	10.14	238.9	2	25	-5				5	25	
UWAZIMA	10.17	242.1				5	17	50			
ASOSAN	11.39	244.3	2	54	7						
HUKUOKA	11.51	248.7	2	39	-10						
MIYAZAKI	11.71	239.5	3	8	16						
SAGA	11.76	247.5	3	1	9						
ITUHARA	12.08	253.5	3	3	6						
KAGOSIMA	12.51	240.3	2	59	-3				6	6	
YAKUSIMA	13.24	236.5	3	2	-10						
SUIHWA	14.48	309.3	3	29	1						
CHANGCHUN	14.54	297.2	3	31	2						
DAIREN	16.91	278.1	3	57	-3						
PETROPAVLOVK	18.08	31.0	4	18	4						
ZO-SE	19.57	254.5	4	29	-3						
NANKING	20.97	259.6	4	46	-1						
KWANTING	21.44	283.4	4	47	-5						
FUTZELING	23.21	260.2	5	43	33						
TATUNG	23.23	283.4	5	10	0						
TAIYUAN	24.10	278.0	5	18	0						
GUAM	24.96	176.6	5	20	-7						

LINFEN	25.32	274.5	7	28	118					
PAOTOW	25.65	285.2	5	30	-3					
SIAN	27.89	271.9	5	56	2					
LANCHOW	31.33	278.0	6	23	-1					
WUWEI	31.76	281.9	6	26	-2					
YUMEN	35.49	287.8	6	59	-1					
RABAUL	43.27	167.0	8	2	-3					
CHITTAGONG	46.61	265.2	8	31	-1	15	34	13		
PORT MORESBY	47.78	174.8	8	33	-8				9	17
KIPAPA	52.78	91.1	9	18	-1					
SITKA	54.32	41.7	9	31	0					
SVERDLOVSK	55.04	318.3	10	47A	71					
LAHORE	55.71	285.3	9	39	-2				11	44 PP
CHARTERS TS.	58.26	176.7	9	56A	-3					
NORD	59.69	356.7	10	7A	-2					
RESOLUTE	60.82	15.0	10	15A	-2					
QUETTA	61.93	287.5	10	21	-3				12	36 PP
APATITY	61.97	335.8	9	41	-43					
POONA	62.78	272.7	10	29	-1					
THULE	63.62	7.9	10	10	-25					
SODANKYLA	64.19	337.4	10	37	-2					
KIRUNA	65.67	339.5	10	47A	-2					
BRISBANE	66.26	170.5	10	51	-1				10	56
MOSCOW	66.96	323.7	11	8	11				19	48
PULKOVO	67.68	329.8	11	11	10					
HELSINKI	69.47	332.0	11	11	-1					
HUNGRY HORSE	69.71	43.9	11	13	-1					
MINERAL	69.74	54.2	11	15	1					
BERKELEY	70.69	56.7	11	22	2					
TIFLIS	71.08	308.5	11	22	0					
SKALSTUGAN	71.09	339.1	11	18	-4					
RENO	71.33	54.1	11	29	5					
LICK	71.40	56.9	11	27K	3					
BUTTE	71.88	45.3	11	28	1					
UPPSALA	72.29	334.5	11	27A	-2					
FRESNO	72.93	56.5	11	36	3					
BOZEMAN	72.94	44.9	11	36	3				11	57
EUREKA	73.78	52.4	11	42	4					
SALT LAKE C.	75.50	49.3	11	54	6					
BOULDER CITY	76.62	54.7	11	56	2					
WARSAW	76.64	327.7	11	58	3	21	42	1		
LWOW	77.06	324.6	11	56	-1					
COPENHAGEN	77.28	333.9	11	56	-2					
RAPID CITY	78.23	42.5	12	4	1					
RACIBORZ	79.43	327.6	12	10	0					
POTSDAM	79.68	331.6	12	9	-2					
ISTANBUL KA.	80.66	315.7	12	15	-1					
HALLE	80.80	331.6	12	16	-1				14	35
BRATISLAVA	81.35	326.9	12	20A	0					
JENA	81.40	331.5	12	18	-2				12	27
TUCSON	81.54	55.5	12	25	4					
WITTEVEEN	81.57	335.1	12	21	0					
MUNSTER	81.96	334.1	12	23	0					
SONNEBERG	81.98	331.3	12	12	-11				12	22
DURHAM	82.34	340.3	12	26K	1					
BELGRADE	82.38	322.9	12	24K	-1					
SOFIA	82.53	319.9	12	27	1					
BENSBERG	82.96	333.8	12	27	-1					
ZAGREB	83.65	326.0	12	34	2					
SKOPJE	84.03	320.5	12	41A	7					
KARLSRUHE	84.15	332.0	12	34A	-1				13	3
TUBINGEN	84.30	331.4	12	35A	0				13	1
TOLMEZZO	84.46	328.0	12	41	5				24	0
EBINGEN	84.62	331.2	12	37	0					
STRASBOURG	84.74	332.1	12	33	-4				13	28
TRIESTE	84.75	327.1	12	36	-2	23	0	-5	22	41
RATHFARNHAM	84.85	342.2	12	38K	0					
KEW	84.92	338.1	12	37A	-1				12	47
BASLE	85.69	331.7	12	32A	-10					
LUBBOCK	86.23	49.4	12	48	3	23	20	1		
PARIS	86.38	335.2	12	46A	0					
TARANTO	87.21	321.9	14	11	81	22	41	-48		
FLORENCE X.	87.32	327.4	12	48	-2	23	30	0	16	32 PP
ROME	88.30	325.6	12	55	0	23	34	-5	16	25 PP
CLERMONT-FD.	88.80	333.4	12	57	0					
BREBEUF	90.04	25.0	13	3	0					
CUGLIERI	91.41	327.0	13	27	18				24	13
GRANADA	98.74	333.8							17	48 PP

TAMANRASSET	107.31	319.5								18	50 PP
LWIRO	110.43	284.0								19	10
SOUTH POLE	128.31	180.0	19	5	-4						
BYRD STATION	128.87	167.2	19	16	6						
LA PAZ	144.83	60.2	19	45	6						

APRIL 7 19.H 13.M 21.S EPICENTRE 45.14 98.37 DEPTH= 0.KM

A=-0.10296 B= 0.70018 C= 0.70650 D= 0.9894 E= 0.1455
G=-0.1028 H= 0.6990 K=-0.7077 HT= -3.6

SE= 2.63

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
YUMEN	4.94	192.0	1	20	2	2	37	21			1	36	PG
ULAN-BATOR	6.51	61.7	1	41	1								
KYAKHTA	7.55	43.3	1	53	-1						3	42	SG
WUWEI	7.89	154.6	1	58	-1	3	29	-1					
IRKUTSK	8.14	26.7	2	13	10						3	51	SG
SINING	8.90	162.0	2	14	1	3	55	0					
YINCHUAN	8.90	135.8	2	15	2	3	58	3					
BAYANDAI	9.21	28.0	2	22	5						4	48	SG
PAOTOW	9.70	114.0	2	21	-3	4	13	-2					
LANCHOW	9.96	153.6	2	24A	-4	4	19	-2					
TIENSHUI	11.97	149.3	2	56	1	5	13	2					
TATUNG	12.08	109.4	2	56	-1	5	14	0					
TAIYUAN	12.94	119.6	3	5	-3	5	33	-1					
LINFEN	13.46	127.6	3	13	-2								
SIAN	13.57	139.7	3	14	-3	5	46	-3					
KWANTING	13.59	105.1	3	14	-3								
PEKING	14.07	105.0	3	21A	-2								
CHILIK	14.36	270.8	3	30	3						3	42	PP
KURMENTY	14.58	268.9	3	29	-1								
PRZHEVALSK	14.66	266.6	3	29	-2						7	55	
ALMATA	15.47	270.6	3	45	4						6	55	
LHASA	16.52	203.0	3	56K	1								
FRUNSE	17.25	270.9	4	6	2								
DAIREN	18.35	101.7	4	15	-3								
TOCKLAI	18.58	190.1	4	23A	2	7	59	13			9	48	
TSINGTAU	18.93	111.0	4	25	0								
CHANGCHUN	19.24	84.3	4	29	0	8	8	7					
ANDIJAN	19.50	266.2	4	33	1						8	19	
FUTZELING	19.68	128.5	4	33	-1	8	11	1					
NAMANGAN	19.91	267.4	4	37	1								
FERGANA	20.05	265.7	4	38	0						8	28	
SHILLONG	20.22	197.2	4	36K	-4	8	20	-2.			5	0	PP
KUNMING	20.35	168.7	4	40A	-1								
CHATRA	20.36	209.9	4	41	0	8	32	7					
NANKING	20.57	122.4	4	42	-1	8	32	3					
DZHERGETAL	20.91	263.1	4	49	2								
TCHIMKENT	20.94	272.4	4	49	2						5	13	PP
TASHKENT	21.48	270.1	4	51	-2						8	56	PCP
DEHRA DUN	21.76	234.1	4	54	-1	8	58	6			5	19	PP
KULYAB	22.51	261.3	5	4	1								
ZO-SE	22.67	120.4	5	5	0	9	13	4					
STALINABAD	22.93	263.7	5	10	3						9	23	
LAHORE	23.12	242.3	5	11	2	9	29	12					
CHITTAGONG	23.35	195.4	5	14	3	9	29	8					
WARSAK DAM	23.37	250.9	5	7A	-4								
BOKARO	23.59	209.8	5	18K	4	9	34	9			5	48	PP
SAMARKAND	23.72	267.8	5	16	1						9	39	
CALCUTTA	24.01	203.3	5	22K	4	9	42	10					
VLADIVOSTOK	24.06	82.8	5	18	0								
AGRA	24.24	229.0	5	25	5								
CANTON	25.16	146.1	5	29A	0								
HONG KONG	26.21	145.2	5	35	-4	10	22	13			6	25	PP
TOMIE	26.60	107.5	5	41	-1	10	19	3					
HUKUOKA	27.17	104.0	5	50	3	10	35	10					
SAGA	27.27	104.7	5	45	-3								
NAGASAKI	27.29	106.1	5	48	0						7	59	
SIMONOSEKI	27.31	102.8	5	44	-5								
HSINCHU	27.32	130.4	7	33	104								
TAIPEI	27.43	129.3	5	42	-8								
UNZENDAKE	27.54	105.7				10	23	-8			13	31	
HAMADA	27.59	100.0				10	31	-1					

TAICHUNG	27.69	131.7	6	42	50				
ILAN	27.76	129.2	7	4	71				
SAIGO	27.80	96.4				10	53	18	
HIROSIMA	28.12	100.6	5	54	-2				
OOITA	28.19	103.4	5	55	-2	10	41	-1	
ALISHAN	28.26	132.3	5	58	1				
TAINAN	28.39	133.8							10 44
KAGOSIMA	28.44	107.3	5	58	-1				8 58
MATUYAMA	28.64	101.2				11	13	24	13 49
QUETTA	28.79	249.6	6	2A	0	10	43	-8	6 56 PP
MIYAZAKI	28.82	105.8	6	29	27				12 30
HSINKONG	28.90	131.9	6	17	14				
YAKUSIMA	29.10	109.2				11	13	17	13 28
TOYOOKA	29.19	96.4				11	4	6	13 48
TAKAMATU	29.28	99.2	6	8	2				12 23
TAWU	29.28	133.5	6	10	4				
KOTI	29.33	100.9	6	9	2	10	59	-1	
HIMEJI	29.43	98.5							13 39
HENGCHUN	29.49	134.1	7	7	59				
VIZIANAGRAM	29.68	209.6	6	12	2				
SUMOTO	29.84	98.4	6	11	0	11	18	10	
KOBE	29.88	97.5				11	22	13	
MUROTO	29.95	100.8	6	9	-3				13 15
KYOTO	30.09	96.5	6	13K	-1				
TOYAMA	30.29	92.4	6	17	2	11	19	4	
GIHU	30.63	95.0	6	18	0				
SAPPORO	30.67	78.4	6	19	0				13 24
NAGOYA	30.88	95.2	6	23	2				
NAGANO	31.01	91.7	6	49	27	11	59	32	
AKITA	31.02	85.1	6	18	-4				12 38
NIIGATA	31.04	89.0				10	14	-73	
MATUMOTO	31.05	92.6	6	45	23				
MATUSIRO	31.09	91.9	6	19	-3				7 16
ASAHIGAWA	31.15	76.6	6	22	-1				
OIWAKE	31.42	92.0	6	37	12				14 36
KARACHI	31.68	243.1	7	34	66				
MORIOKA	31.78	84.5	6	31	2				7 35
YAMAGATA	31.81	87.5				11	3	-36	
URAKAWA	31.98	79.3	6	30	0				
HUKUSIMA	32.12	88.3	6	41	9				9 56
SENDAI	32.19	87.1	6	51	19				13 52
UTUNOMIYA	32.25	90.7	7	20	47				10 53
HYDERABAD	32.27	217.5	6	25K	-8	11	49	3	7 24 PP
MISIMA	32.31	93.7	7	9	36	11	44	-3	
ABASHIRI	32.39	75.4							14 47
ISINOMAKI	32.42	86.6	6	41	7				
TUKUBASAN	32.57	91.1	6	32	-3				
TOKYO C.M.O.	32.59	92.2							7 47
KAKIOKA	32.63	91.0	6	35	-1				10 33
ONAHAMA	32.79	89.3				12	19	25	7 36
POONA	33.48	225.5	6	46	3	12	10	5	8 11 PP
BOMBAY	33.70	227.4	6	46	1	12	14	6	8 19 PPP
PORT BLAIR	33.71	190.0	6	47	2	12	14	5	8 11 PP
MAGADAN	34.13	46.0	6	50	1				
BAGUIO CITY	34.18	139.8	6	49	0				
MADRAS	35.58	211.5	7	4K	3	12	45	7	8 31 PP
MANILA	35.98	140.7	6	59	-6	12	27	-17	
KIROVOBAD	37.78	282.2	7	22	2				13 20 SCP
GORIS	38.33	280.4	7	26	1				
TIFLIS	38.46	284.4	7	27	1				16 9 SS
MOSCOW	38.89	308.2	7	29	0	13	27	-1	
PETROPAVLOVK	39.18	55.9	7	33	1				12 34
APATITY	39.87	327.1	7	38	1				
SOTCHI	41.16	289.4	7	47	-1				
MEDAN	41.40	179.5	7	53A	3				13 54
PULKOVO	41.99	315.5	7	54	-1	14	15	1	9 38 PP
SODANKYLA	42.50	327.0	8	0	1				
SIMFEROPOL	44.29	293.7	8	14	0				9 59 PP
YALTA	44.46	293.0	8	15	0				
HELSINKI	44.52	316.9	8	15	0				9 59
KIRUNA	44.78	328.2	8	18	0	14	58	3	10 5 PP
IASI	47.51	299.2	8	39	0				
UPPSALA	48.13	318.0	8	43A	-1	15	43	0	10 36 PP
BACAU	48.19	298.6	8	45	1				
KSARA	48.43	279.3	8	49	3	15	48	1	10 44 PP
LWOW	48.55	303.7	8	43	-4				19 29 SSS
KOROR	48.96	129.2	8	48	-2				
NORD	49.10	349.8	8	50	-1	15	51	-5	
SKALSTUGAN	49.20	323.9	8	51	-1				

WARSAW	49.28	307.6	8	54	1				19	48 SCS
ISTANBUL KA.	49.34	291.2	8	53	0	15	45	-15		
BUCHAREST	49.66	296.4	8	57	1	17	28	84		
CAMPULUNG	49.94	297.9	9	1	3					
JERUSALEM	50.02	277.4	8	55	-4	16	9	0		
GUAM	50.32	113.8	8	59A	-2					
KRAKOW	50.83	305.5	8	59	-6				11	59 PPP
SKALNATE PL.	51.04	304.3	9	2	-4				21	39
DJAKARTA	51.65	169.2	9	28	17	16	34	2		
RACIBORZ	51.81	306.1	9	13	1				9	39
TIMISOARA	52.07	300.1	9	20	6	16	42	4		
SOFIA	52.26	295.8	8	56	-20	16	43	3	16	54 PS
COPENHAGEN	52.35	314.5	9	15	-1	16	47	6	20	40 SS
LEMBANG	52.40	168.4	9	15	-2	16	39	-3		
BANDUNG	52.48	168.7	9	50	33	16	43	4		
SZEGED	52.49	301.1	9	21	4	15	48	-55	11	5 PP
HURBANOVO	52.86	303.7	9	29	9	16	59	11	20	55
BELGRADE	53.00	299.4	9	21A	0				19	17 SCS
BRATISLAVA	53.36	304.5	9	24	0					
BERGEN	53.52	321.9	9	20K	-5	17	9	12	9	30
POTSDAM	53.57	310.6	9	28	3				23	22
VIENNA-H.	53.74	304.8	9	27	0				19	21 SCS
HELWAN	53.85	277.9	9	26A	-1				17	3
PRAGUE	53.95	307.6	9	27K	-1	17	9	6	11	24 PP
COLLMBERG	54.14	309.5	9	29	0				11	0 PP
ATHENS	54.48	290.6	9	32K	0				17	15 PS
HALLE	54.61	310.1	9	33	0	17	26	14	11	24 PP
PLAUEN	55.01	308.9	9	39	3					
JENA	55.10	309.6	9	36	0				11	28 PP
ZAGREB	55.21	302.4	9	39	2				12	56 PPP
SONNEBERG	55.59	309.2	9	39	-1				12	55
TRIESTE	56.62	303.3	9	46	-1	17	48	9	18	15 PS
TOLMEZZO	56.65	304.3	9	46	-2	17	41	2	11	52 PP
MUNSTER	56.68	312.2	9	48	0				9	50
WITTEVEEN	56.72	313.5	9	49	1					
SCORESBY SD.	56.95	339.7	9	49	-1					
TARANTO	57.31	296.4	9	48	-4					
BENSBERG	57.46	311.4	9	53	0				12	13 PP
STUTTGART	57.55	308.4	9	53A	-1				13	17 PPP
TUBINGEN	57.75	308.2	9	55	0				10	21
KARLSRUHE	57.85	309.0	9	56A	0				10	4
RAVENSBURG	57.85	307.2	9	57	1					
EBINGEN	58.00	307.9	9	56	-1					
THULE	58.41	356.3	9	53A	-7	17	54	-8		
STRASBOURG	58.44	308.8	10	1	1				10	39 PCP
ZURICH	58.67	307.3	10	0	-2					
BASLE	59.14	307.9	10	4A	-1				19	11
FLORENCE X.	59.14	302.6	10	3A	-2	18	29	17	12	23 PP
TRUK	59.41	112.2	10	5A	-2					
ROME	59.47	300.2	10	6	-1				13	55 PPP
PAVIA	59.57	304.9	10	5	-3				19	58
DURHAM	59.67	318.6	10	8K	-1	18	16	-3		
REGGIO CALA.	59.67	295.0	10	8	-1					
NEUCHATEL	59.79	307.7	10	10	0					
OROPA	60.01	305.9	10	6	-5					
RESOLUTE	60.14	4.0	10	10A	-2	18	23	-2	25	35 SSS
KEW	61.03	315.0	10	17A	-1				18	49
PARIS	61.17	311.4	10	19A	0	18	42	4		
REYKJAVIK	61.42	334.4	10	24K	3					
CLERMONT-FD.	62.66	308.3	10	29	0					
RATHFARNHAM	62.76	319.2	10	29A	-1				10	43
CUGLIERI	62.87	300.6							14	19
TORTOSA	67.26	305.4	10	54	-5	19	59	6		
ALGIERS UNI.	68.38	300.7	11	4	-2	20	8	1	11	29 PCP
RABAUL	68.57	120.2	11	7	0					
SITKA	68.74	28.2	11	8	0					
ALICANTE	69.45	303.9	11	12	0	20	19	-1	13	46 PP
PORT MORESBY	69.79	127.7	11	5	-9					
TOLEDO	70.48	307.1	11	18A	-1					
RELIZANE	70.57	301.3	11	17	-2				13	57 PP
ALMERIA	71.63	303.9	11	24	-2	20	47	2	15	51 PPP
GRANADA	72.06	304.8	11	31K	3	21	34	44	15	4 PP
SERRA PILAR	72.13	310.6	11	29A	0				14	10 PP
COIMBRA	72.69	309.8	11	29	-3					
MALAGA	72.85	304.9	11	33A	0	20	59	0		
LISBON	74.13	309.1	11	38	-2				11	51 PPP
TAMANRASSET	76.14	288.3	11	53	1	21	40	5	14	46 PP
LWIRO	77.33	253.7	11	59	1				14	37

CHARTERS TS.	78.12	134.5	12	12A	9				14	28
HORSESHOE B.	79.10	26.2	12	8	0					
BANFF	79.68	20.9	12	10	-1					
VICTORIA	79.81	26.8	12	14	2					
HUNGRY HORSE	82.66	21.1	12	27	0				13	40
KIPAPA	84.19	65.5	12	35	0					
BUTTE	85.20	21.1	12	41	1				15	59 PP
BOZEMAN	85.90	20.2	12	44	1					
MINERAL	87.64	29.4	12	53	1					
BRISBANE	87.74	133.5	12	52	0				13	43
RENO	88.98	28.6	13	2	4					
RAPID CITY	89.12	15.4	13	0	1					
EUREKA	90.28	25.9	13	6	2					
SALT LAKE C.	90.28	22.5	13	6	2					
BOULDER	92.58	18.0	13	20	5					
BOULDER CITY	93.85	26.4	13	26	5					
SOUTH POLE	134.95	180.0	19	19	-3				21	52 PP
BYRD STATION	142.48	169.9	19	37	2					
HUANCAYO	146.58	348.8	19	45	3				20	53
LA PAZ	149.27	334.0	20	23	36					

APRIL 8 0.H 14.M 16.S EPICENTRE 66.06-155.62 DEPTH= 0.KM

A=-0.37171 B=-0.16844 C= 0.91294 D=-0.4128 E= 0.9108
G=-0.8315 H=-0.3768 K=-0.4081 HT=-10.8

SE= 2.51

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	3.47	106.5	0	56	-1	1	38	-1				
SITKA	13.16	123.6	3	10	-1	5	35	-5				
RESOLUTE	21.07	40.2	4	47A	-2						8	44
KLYUCHI	22.67	265.6	5	3	-2	9	14	5				
ALBERNI	23.16	121.5	5	13	4							
HORSESHOE B.	23.61	119.2	5	13	-1							
VICTORIA	24.28	120.5	5	24A	4	9	51	14				
MAGADAN	24.62	280.4	5	24	0	9	46	3				
BANFF	25.06	106.8	5	28	0							
SEATTLE	25.42	120.1	5	37K	6							
PETROPAVLOVK	25.81	262.3	5	34	-1	10	8	5			11	32 SSS
TIKSI	26.08	315.7	5	35	-2	10	6	-1			6	25 PP
THULE	26.93	31.4	5	39	-6	10	16	-5				
HUNGRY HORSE	27.90	108.9	5	54	0							
BUTTE	30.39	109.9	6	16	0						7	13
NORD	30.93	10.8	6	24	3							
YAKUTSK	31.14	298.4	6	19	-4							
BOZEMAN	31.27	108.5	6	27	3						7	22
MINERAL	32.08	126.4	6	31K	0							
KHEYS	33.26	351.5	6	34	-7	11	47	-15			7	44 PP
RENO	33.41	124.7	6	47K	4							
BERKELEY	34.12	129.1	6	49	0							
EUREKA	34.78	120.0	6	55	0							
SALT LAKE C.	35.15	114.1	6	58	0						8	27
UGLEGORSK	35.66	272.8				12	38	-1				
RAPID CITY	35.68	101.7	7	2	0							
FRESNO	35.92	126.8	7	7	3							
BOULDER	38.29	107.5	7	25	1							
BOULDER CITY	38.32	121.3	7	25	1							
PASADENA	38.85	126.5	7	31	2							
SCORESBY SD.	40.09	22.2	7	43	4	13	43	-3			9	8 PP
TUCSON	43.10	119.1	R	4	0						11	13
VLADIVOSTOK	44.62	276.3									13	6
SENDAI	45.05	264.4	8	25	5						9	48
LUBBOCK	45.26	108.5	8	24	3							
OTTAWA	45.71	75.7	8	24	-1							
SHAWINIGAN	45.92	72.4	8	27K	0							
TERRE HAUTE	45.95	90.3	9	44	77						25	14
FAYETTEVILLE	46.09	99.1	8	27	-1						23	25
KIRUNA	46.36	2.1	8	30	0	15	19	1				
BREBEUF	46.45	73.9	8	30K	1							
APATITY	46.52	355.2	8	30	-1							
TUKUBASAN	47.13	263.7	8	35	-1							
IRKUTSK	47.44	304.8	8	37	-2	15	32	-1			10	25 PP
MATUSIRO	47.61	265.7	8	38A	-2						10	7 PCP
KYAKHTA	48.31	301.9	8	44	-1						10	41 PP

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
WESTON	49.98	74.3	9	1A	3							
PALISADES	50.11	77.4	9	2	3						20	3 SS
ULAN-BATOR	50.22	299.8	9	1	1						16	17
SKALSTUGAN	50.36	7.0	9	1	0							
CHAPEL HILL	52.40	85.2	9	15	-2							
COLUMBIA	53.26	88.2	9	24	1							
UPPSALA	54.30	4.2	9	28	-3							
NAGASAKI	54.32	271.0	9	27	-4	17	9	1				
PULKOVO	54.41	356.3	9	31	0	17	12	3			10	17
SVERDLOVSK	54.43	336.4	9	27	-5	17	7	-3				
SEMIPALATNSK	56.29	320.4	9	42	-3							
DURHAM	57.90	17.4	10	0A	3	18	3	7				
MOSCOW	58.12	351.2	9	57	-1	18	0	1				
COPENHAGEN	58.25	7.9	9	58	-1	18	5	5				
RATHFARNHAM	58.70	21.0	10	5	3							
WITTEVEEN	60.68	12.2	10	20	4							
DE BILT	61.26	13.4				18	44	5				
KEW	61.29	17.3	10	24	4	18	41	2			22	33 SS
POTSDAM	61.58	7.9	10	21	-1							
MUNSTER	61.61	11.7	10	22	0							
HALLE	62.39	8.7	10	28	1						12	58 PP
BENSBERG	62.57	12.2	10	32	4							
COLLMBERG	62.65	8.0	10	28	-1							
JENA	62.93	9.1	10	30	-1						11	6
PLAUEN	63.40	8.7	10	31	-3							
SONNEBERG	63.46	9.4	10	34	0							
KRAKOW	64.18	3.2	10	43	4						10	55
PARIS	64.24	15.9	10	40	1	19	15	-2				
LWOW	64.45	0.3	10	41	0							
RYBACHE	64.74	320.0	10	42	-1	19	24	1				
STUTTGART	64.91	11.0	10	45	1							
STRASBOURG	64.98	12.1	10	46A	2	19	32	6			23	27 SS
UZHGOROD	65.64	1.5	10	49	1						11	32
BRATISLAVA	65.97	5.3	10	52	1						13	19
TCHIMKENT	66.49	324.9	10	52	-2	19	45	1				
ANDIJAN	67.29	322.3	10	58	-1	19	54	0			27	20 SSS
CLERMONT-FD.	67.31	16.0	11	2	3							
FERGANA	67.78	322.6	11	0	-2							
TRIESTE	68.33	8.0	10	56	-10						19	51
MONACO	69.77	13.0	11	17	3							
SOTCHI	70.06	348.2	11	16	0	20	22	-5				
KHOROG	70.57	321.7	11	20	1							
TIFLIS	71.40	344.0	11	24	0	20	44	2				
KIZYL-ARVAT	72.38	334.4				20	51	-3				
BAGUIO CITY	72.62	271.2	10	44	-48							
EREVAN	72.96	344.0	11	40	6							
ASHKABAD	73.05	332.5	11	34	0							
ISTANBUL KA.	73.14	356.3	11	33	-2						14	19 PP
GORIS	73.41	342.4	11	36	0							
WARSAK DAM	73.88	320.6	11	35K	-4							
GRANADA	74.84	22.8	11	51A	7							
MALAGA	75.16	23.6	11	52A	6							
LAHORE	75.45	317.5	11	47	-1							
SHILLONG	75.48	300.5	11	45K	-3							
ALGIERS UNI.	76.18	17.5	11	52	0	21	44	8				
ATHENS	76.30	0.5	11	52K	-1							
RELIZANE	76.86	19.7	11	56	0							
CHITTAGONG	78.44	299.2	12	5	0	22	0	0				
QUETTA	78.67	323.3	12	5	-1	21	57	-6			15	6 PP
KSARA	80.05	350.3	12	14	1						15	21 PP
HELWAN	84.23	353.9	12	35	0						15	53
TAMANRASSET	90.28	17.4	13	6	2						15	12
BYRD STATION	147.29	169.0	19	51	8							
SOUTH POLE	155.91	180.0	19	53	-3							

APRIL 8 7.H 10.M 39.S EPICENTRE 38.27 143.36 DEPTH= 0.KM

A=-0.6315/ B= 0.46976 C= 0.61680 D= 0.5968 E= 0.8024
G=-0.4949 H= 0.3681 K=-0.7871 HT= -1.0

SE= 3.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ISINOMAKI	1.61	276.3	0	30A	0	0	55	3				
MIYAKO	1.75	322.3	0	32A	0	0	55	-1				

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

SENDAI	1.93	270.7	0	35	0	0	58	-2			
MIZUSAWA	1.94	296.9	0	35	0	0	58	-2			
MORIOKA	2.22	310.6	0	39	0	1	9	1			
HUKUSIMA	2.34	258.0	0	41A	0	1	16	5			
ONAHAMA	2.36	236.7	0	40A	-1	1	15	4			
YAMAGATA	2.37	270.4	0	41	0	1	20	9			
HATINOHE	2.66	328.5	0	49	4	1	24	5			
SHIRAKAWA	2.74	246.2	0	47	1	1	16	-5			
SAKATA	2.84	283.9	0	49	1	1	30	7			
AKITA	2.92	300.7	0	50	1	1	36	11			
MITO	2.98	231.5	0	53	3	1	46	19			
AOMORI	3.23	322.8	0	59	6	1	44	11			1 20
TYOSI	3.24	219.0	0	53	-1						
KAKIOKA	3.25	232.2	0	53	-1						1 14
UTUNOMIYA	3.27	239.3	0	53	-1	1	42	8			1 16
TUKUBASAN	3.31	232.8	0	52A	-2						1 31
NIIGATA	3.42	265.4	1	5	9	1	51	13			
TOKYO C.M.O.	3.88	229.3	1	1	-2	1	54	4			1 19
MAEBASI	3.89	242.7	1	1A	-2	1	49	-2			1 18
URAKAWA	3.90	353.7	1	1	-2	1	49	-2			2 15
AIKAWA	4.03	268.0	1	12	7	2	4	10			
HAKODATE	4.05	330.8	1	9	4	2	8	14			1 50
YOKOHAMA	4.11	227.5	1	13	7	2	15	19			
IITIBU	4.11	237.5	1	5	-1						
TAKADA	4.22	255.5	1	19	12						
OIWAKE	4.29	244.7	1	12	4						
MORI	4.38	331.7	1	16	6	2	9	6			
NAGANO	4.40	250.3	1	13	3	2	15	12			2 31
MATUSIRO	4.44	248.8	1	11A	1	2	1	-3			1 31
MURORAN	4.45	336.5	1	12	1						
TOMAKOMAI	4.46	342.8	1	33	22						
HUNATU	4.60	234.5	1	21	8	2	23	15			
OBIHIRO	4.65	358.6	1	19	6						
KOHU	4.65	237.0	1	13	-1	2	24	15			
MISIMA	4.74	229.7	1	14	-1	2	21	10			
OSIMA	4.74	223.7	1	13	-2						1 27
MATUMOTO	4.75	246.5	1	15	0	2	19	7			
KUSIRO	4.77	9.2	1	14	-1	2	6	-6			
SAPPORO	5.03	343.0	1	34	15	2	40	21			
SUTTSU	5.11	333.2	1	34	14						2 23
TOYAMA	5.14	254.1	1	27	7	2	43	22			
SHIZUOKA	5.17	231.9	1	41	20						
WAZIMA	5.19	262.1	1	17	-4						
NEMURO	5.33	17.7	1	34	11						2 18
OMAESAKI	5.53	230.1	1	38	12	2	41	10			
ASAHIGAWA	5.55	352.6	1	20	-6						
ABASHIRI	5.79	6.6	1	29	-1	2	33	-5			
NAGOYA	5.99	240.8	1	34	2	2	53	10			3 27
GIHU	6.01	243.5	1	40	7	3	3	20			2 33
HUKUI	6.08	250.8	1	36	2						
IBUKISAN	6.30	244.9	1	34	-3	3	14	24			
TSURUGA	6.39	248.1	1	36	-2	3	11	18			
KAMEYAMA	6.51	240.5	1	35	-5	3	22	26			
TU	6.54	239.4	1	51	11						
OSAKA	7.27	242.6	2	26	36	3	48	33			
TOYOOKA	7.37	250.8	1	52	0	3	21	4			
SUMOTO	7.88	242.8	2	11	12						
Y.-SAKHLINSK	8.69	357.1	2	9	-1						4 14
KOTI	9.26	242.4				2	53	-71			
VLADIVOSTOK	9.96	302.7	2	26	-2	4	24	3			
OOITA	10.78	245.7				2	43	-119			
CHANGCHUN	14.70	297.9	3	26	-5						
ZO-SE	19.57	255.2	4	30	-2						
NANKING	20.98	260.2	4	43	-5						
PEKING	21.13	283.3	4	45	-4						
MAGADAN	21.82	10.2	4	56	0						
ULAN-BATOR	28.09	301.9	5	55	-1						
CANTON	29.81	248.2	6	11	0						
LANCHOW	31.42	278.4	6	26	1						
KUNMING	36.76	261.1	7	10	-1						
LHASA	43.75	274.9	8	10	1						
SHILLONG	44.97	269.3	8	15	-4						
CHATRA	48.06	273.6	8	41	-2						
FRUNSE	51.12	298.3	9	6	-1						
NAMANGAN	53.83	297.1	9	27	0						
WARSAK DAM	56.81	289.4	9	48A	-1						
NORD	59.91	356.7	10	8	-2						
RESOLUTE	61.02	15.0	9	39	-39						13 8 *PPP

QUETTA	62.05	287.7	10 23A	-2				12 39 PP
APATITY	62.20	335.9	10 24	-2				
SODANKYLA	64.42	337.5	10 39	-2				
KIRUNA	65.90	339.6	10 48	-2				
MOSCOW	67.17	323.8	10 55	-3				
HELSINKI	69.69	332.0	11 12	-2				
HUNGRY HORSE	69.83	43.9	10 47	-28				11 16
TIFLIS	71.26	308.6	11 23	0				
SKALSTUGAN	71.32	339.1	11 22	-2				
BUTTE	72.00	45.3	11 36	8				
UPPSALA	72.52	334.6	11 29	-2				14 21 PP
EUREKA	73.87	52.3	11 39	0				
SIMFEROPOL	75.52	316.2	11 47	-1				
LWOW	77.28	324.6	11 58	0				12 26
RAPID CITY	78.35	42.5	12 22	18				
JENA	81.62	331.5	12 21	-1				12 56
JERUSALEM	83.42	305.4	12 26	-5				
STUTTGART	84.28	331.5	12 35	0				
BYRD STATION	128.64	167.2	19 17	7				
LA PAZ	144.89	60.6	19 53	14				

APRIL 8 9.H 59.M 17.S EPICENTRE 33.00 68.13 DEPTH= 0.KM

A= 0.31305 B= 0.77982 C= 0.54210 D= 0.9280 E=-0.3725
G= 0.2020 H= 0.5031 K=-0.8403 HT= 0.8

SE= 2.33

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
QUETTA	2.99	200.0	0 52A	2	1 33	6		1 2 PG
WARSAK DAM	3.03	69.9	0 52K	2				
KULYAB	5.07	15.0	1 19	0				1 34
KHOROG	5.29	31.5	1 25	3				1 40
LAHORE	5.45	103.8	1 24K	-1	2 58	29		1 43 PG
STALINABAD	5.56	5.2	1 27	1	2 33	1		
GARM	6.24	15.8	1 37	1				
SAMARKAND	6.72	352.4	1 46	3	3 2	1		
BAIRAM-ALI	6.72	314.7	1 43	0				2 16
KARACHI	7.21	187.8	2 8	19				
TASHKENT	8.35	6.0	2 6	1				
ANDIJAN	8.44	22.5	2 7	0	3 44	0		4 35
DEHRA DUN	8.87	104.9	2 13	0	4 14	20		
TCHIMKENT	9.35	6.7	2 15	-4				
ASHKABAD	9.38	304.5	2 21	1				3 0
AGRA	10.37	121.8	2 30K	-3	4 26	-6		
FRUNSE	11.09	25.4	2 41	-2	4 42	-7		3 1
KIZYL-ARVAT	11.32	305.4	2 45	-1				3 50
BOMBAY	14.66	162.2	3 31	0	6 33	18		7 6
POONA	15.30	159.0	3 34	-5	6 46	16		3 55 PPP
CHATRA	17.61	105.5	4 7	-1				9 55
BOKARO	18.01	116.0	4 14	0				9 15
HYDERABAD	18.08	146.6	4 12K	-2	7 24	-10		
GORIS	18.72	296.4	4 24	2	7 52	3		
SEMIPALATNSK	19.55	23.7	4 31	-1	8 1	-6		
LHASA	19.85	93.6	4 36	1	8 18	4		
TIFLIS	20.44	301.9	4 43	1				
HOWRAH	20.64	115.2	4 46	2	8 48	18		
SHILLONG	21.96	103.5	4 56K	-1	9 7	11		
MADRAS	22.75	148.3	5 11	6	9 5	-5		5 32 PP
CHITTAGONG	23.46	110.9	5 14	2				5 48 PP
TOCKLAI	23.89	98.1	5 16	0				
KODAIKANAL	24.24	157.1			9 41	5		
SVERDLOVSK	24.38	350.0	5 24	3				10 37 SS
KSARA	26.88	280.7	5 48	4	10 20	0		11 35 SS
SIMFEROPOL	28.80	304.5	6 1	-1				12 31 SSS
LANCHOW	29.46	73.9	6 8K	0	11 0	-2		
PORT BLAIR	30.97	127.6						13 51
MOSCOW	31.06	326.2	6 22	0				
KUNMING	31.13	95.7	6 23K	0	11 29	1		
HELWAN	31.45	274.3	6 25	0				7 32 PP
ISTANBUL KA.	31.99	295.9	6 28	-2				
IRKUTSK	32.39	42.6	6 33	-1				7 39 PP
BUCHAREST	34.37	301.8	10 16	205				
LWOW	36.50	310.7	7 10	1				
PULKOVO	36.53	328.6	7 9	0	12 47	-5		

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PEKING	38.86	65.5	7	35	6							
HELSINKI	39.11	327.2	7	32	1							
KRAKOW	39.15	310.4	7	32	1						9	11 PP
HONG KONG	41.87	92.7	7	44	-10	13	23	-49			9	37 PP
SODANKYLA	41.98	337.5	7	53	-1							
UPPSALA	42.46	324.8	7	59	1						9	36 PP
PRUHONICE	42.60	309.9	8	0	0						9	42 PP
PRAGUE	42.68	310.0	8	1	1						9	46 PP
POTSDAM	43.67	313.3	8	6	-2							
KIRUNA	44.26	336.3	8	12	-1						9	57 PP
HALLE	44.31	312.0	8	15	1						10	1 PP
COPENHAGEN	44.35	318.0				14	54	5				
JENA	44.53	311.2	8	13	-2						9	54 PP
SONNEBERG	44.76	310.4	8	20	3							
SKALSTUGAN	45.90	329.0	8	25	-1						10	12 PP
STUTTGART	46.10	308.1	8	26	-2							
BENSBERG	47.32	311.2	8	38	1							
VLADIVOSTOK	50.12	58.9	8	58	-1							
PARIS	50.51	308.7	9	3	1	16	21	5				
LWIRO	51.07	234.5	9	9	3							
KEW	51.97	312.4	9	13	0	16	35	-1				
RATHFARNHAM	55.31	315.3	10	51	73							
TAMANRASSET	55.56	276.5	9	38	-2						11	41 PP
MATUSIRO	56.51	65.2	9	44	-2							
NORD	56.81	349.9	9	45	-4							
THULE	67.49	349.8	10	50	-10							
RESOLUTE	72.01	355.3	11	24	-4						25	48 SS
COLLEGE	78.48	14.8	9	59	-126						10	45
BANFF	96.13	2.3									25	58
HUNGRY HORSE	98.99	1.5	13	17	-27							
RAPID CITY	102.88	353.6	14	13	12							
EUREKA	107.78	3.3	13	43	777							
SOUTH POLE	122.83	180.0	18	56	-2							
BYRD STATION	132.77	178.2	19	24	7							

APRIL 8 13.H 21.M 34.S EPICENTRE -18.76-175.69 DEPTH= 215.KM

DEPTH OF FOCUS= 0.029R

A=-0.94486 B=-0.07120 C=-0.31965 D=-0.0751 E= 0.9972
G= 0.3187 H= 0.0240 K=-0.9475 HT= 5.0

SE= 1.48

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
APIA	6.20	37.9	1	30	-1							
NOUMEA	17.09	255.1	3	49A	2						3	58
ONERAHI	19.09	205.4	4	9	1							
TUAI	20.92	195.8	4	38	12	8	4	2				
WELLINGTON	23.89	198.0	4	56	1	8	52	-1				
COBB RIVER	24.36	201.6	5	0	1	8	59	-2				
KAIMATA	26.09	202.0	5	14	-1	9	28	-1				
GEBBIES PASS	26.73	199.0	5	20	-1	9	36	-3			5	33
BRISBANE	29.98	247.4	5	49	-1						6	43
CHARTERS TS.	35.87	261.6	6	40K	-1	11	59	-3				
PORT MORESBY	37.16	279.3	6	53	1						7	48
MELBOURNE	39.15	232.7	7	5K	-3							
FORT NELSON	39.37	224.1	7	10K	0						7	22
TRUK	41.28	306.2	7	25	-1							
GUAM	50.45	306.5	8	37	0				9	35		
KOROR	55.54	293.2	9	14	-1							
SCOTT BASE	59.75	184.2	9	44K	0							
BYRD STATION	66.00	170.9	10	28	3				11	25		
MATUSIRO	70.14	321.9	10	50K	-1							
SOUTH POLE	71.36	180.0	10	57	-1							
BAGUIO CITY	71.78	295.0	11	0	-1							
LEMBANG	75.26	267.7	11	19	-2							
BERKELEY	75.44	41.0	11	22	0							
LICK	75.50	41.8	11	22	0						11	33
PASADENA	75.91	46.2	11	23	-1							
MINERAL	77.37	39.4	11	33	1							
RENO	77.98	40.9	11	36	0							
BOULDER CITY	79.21	46.2	11	42	0							
TUCSON	80.13	51.1	11	50	3							
EUREKA	80.37	42.7	11	48	0				12	46		

NANKING	80.52	308.4	11 51	2							
CHANGCHUN	82.38	321.3	12 0	1							
SALT LAKE C.	83.72	43.3	12 6	0				13 6			
HALLEY BAY	83.98	172.5	12 5	-2	22	3	-8				
BUTTE	86.03	38.5	12 16	-1							
COLLEGE	86.06	11.5	12 16	-1				13 17			
PEKING	86.21	314.4	12 20	2							
HUNGRY HORSE	86.45	36.0	10 54	-85						12 18	
BOULDER	87.74	46.4	12 25	0							
KUNMING	90.54	296.2	12 40K	2							
RAPID CITY	90.92	43.4	10 3	-157							
LANCHOW	93.47	306.8	12 53	1							
RESOLUTE	105.53	15.8	12 33	777							
BREBEUF	111.51	47.7								17 59	
QUETTA	122.48	294.3	18 31	1							
UPPSALA	137.85	350.0	18 47	-12							
IASI	145.83	331.3	19 26	13							
KRAKOW	146.37	341.7	19 16	2						19 37	
HALLE	146.78	351.3	19 17	3						19 30	
COLLMBERG	146.81	350.0	19 17	2							
JENA	147.38	351.5	19 18	3				20 18		20 40	
PRUHONICE	147.79	347.6	19 20	4				20 24		20 58	*SPKP
LWIRO	148.12	231.7	19 23	6							
STUTTGART	149.80	353.6	19 26	7				20 26		19 31	PKP2
PARIS	149.99	2.4	19 26A	7				20 28			
STRASBOURG	150.12	355.4	19 26	6				20 37			
HELWAN	153.07	299.4	19 33	9						19 46	
TAMANRASSET	175.84	344.4	19 55	12						21 24	PKP2

APRIL 9 4.H 36.M 30.S EPICENTRE 29.05 52.01 DEPTH= 0.KM

A= 0.53901 B= 0.69005 C= 0.48301 D= 0.7881 E=-0.6156
G= 0.2973 H= 0.3806 K=-0.8756 HT= 2.1

SE= 2.06

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
GORIS	11.43	337.3	2 47	0				
QUETTA	13.05	81.4	3 10	1	5 45	9		
TIFLIS	13.94	337.1	3 22	1	6 2	5		
MAKHACH-KALA	14.36	346.6	3 27	1	6 9	2		
KSARA	14.56	293.1	3 34	5	6 21	9		
JERUSALEM	14.74	284.8	2 32	-59				
STALINABAD	16.83	51.4	4 0	2				
WARSAK DAM	17.37	68.5	4 6A	1				
HELWAN	18.03	277.7	4 13	0	7 42	9		
LAHORE	19.43	77.1	4 29	-1	8 5	1		
NAMANGAN	19.98	48.2	4 37	1	8 17	1		
SIMFEROPOL	21.28	323.1	4 47	-3	8 41	-1		
BOMBAY	21.50	113.4	4 51	-1	8 51	4		9 32 SS
ISTANBUL KA.	22.21	308.8	4 59	0	9 2	2		
POONA	22.53	112.9	5 2	0				
FRUNSE	22.81	46.7	5 7	2				
AGRA	23.02	88.5	5 9K	2	9 16	2		
ATHENS	25.13	298.1	5 32	4				6 12 PP
KISHINEV	25.44	321.2	5 31	0				
FOCSANI	25.63	317.2			10 4	5		
BUCHAREST	25.67	313.7	5 36A	3	10 10	10		9 3
IASI	26.25	320.4	5 39	1	10 9	0		
BACAU	26.28	318.6	5 41	3				
CAMPULUNG	26.74	314.6	5 46	3				
SVERDLOVSK	28.43	10.0	6 1	3	10 46	1		
MOSCOW	28.58	342.9	5 58	-1	10 44	-3		
LWOW	29.68	322.1	6 8	-1	11 8	3		
SEMIPALATNSK	30.14	37.1	6 15	2				
CHATRA	31.08	85.5	6 18	-4				13 42
KRAKOW	32.05	319.8	6 28	-2				8 2
BRATISLAVA	32.91	315.2	6 37	-1				8 1
RACIBORZ	33.05	318.9	6 42	3				
LHASA	33.92	79.2	6 49	2	12 13	2		
PULKOVO	34.07	340.5	6 47	-1	12 7	-7		
PRUHONICE	35.15	317.0	6 56	-1	12 29	-1		8 22 PP
PRAGUE	35.26	317.1	6 57	-1				9 47
SHILLONG	35.48	85.9	6 57	-3				
HELSINKI	36.08	337.3	7 4	-1				
HALLE	37.25	318.4	7 18	3				8 14

JENA	37.27	317.3	7	13	-2				8	39 PP
SONNEBERG	37.31	316.3	7	13	-2				8	45
STUTTGART	38.08	313.2	7	20	-2				8	53 PP
ZURICH	38.14	310.8	7	21	-1					
LWIRO	38.25	219.5	7	24	1				16	33
UPPSALA	38.58	332.8	7	24A	-2	13	23	0		
STRASBOURG	38.95	312.5	7	30	1				8	44
NEUCHATEL	39.15	309.9	7	29	-2					
BENSBERG	39.93	316.0	7	39	2					
MUNSTER	39.95	317.6	7	36	-1					
APATITY	40.12	349.1	7	38	-1					
WITTEVEEN	40.76	318.6	7	46	2					
SODANKYLA	41.28	345.4	7	48	0					
TAMANRASSET	42.07	272.6	7	55A	0	14	17	2	9	39 PP
PARIS	42.42	311.8	7	52	-6	14	18	-2		
SKALSTUGAN	42.84	335.1	7	59	-2					
KIRUNA	43.11	343.1	8	2A	-1					
LANCHOW	43.80	66.9	8	10	1	14	40	0		
KEW	44.64	315.2	8	15A	-1					
KUNMING	45.03	82.6	8	19A	0	14	55	-3		
ULAN-BATOR	45.88	50.0	8	26	0	15	11	1		
MALAGA	47.40	294.6	8	37K	-1					
TANANARIVE	47.88	185.7	8	43A	2					
RATHFARNHAM	48.50	317.0	8	45A	-1				9	28
PEKING	52.96	60.0	9	22	2	16	51	2		
NANKING	56.77	68.9	9	47A	-1					
NORD	58.36	350.7	9	57A	-2					
TIKSI	58.59	21.2	10	0	-1	18	2	-2		
CHANGCHUN	58.98	54.0	10	58	55					
PRETORIA	59.09	205.1							9	44 PCP
PIETERMZBURG	61.88	201.3	10	23K	0					
KIMBERLEY	63.09	206.8	10	30K	-1					
VLADIVOSTOK	63.80	53.5	10	33	-3					
THULE	68.60	347.3	11	3	-4					
RESOLUTE	74.30	351.3	11	40A	-1				12	39
COLLEGE	85.12	8.4	12	26	-13					
SHAWINIGAN	89.72	325.5	13	3	2					
SITKA	94.02	4.0	13	26	5					
EUREKA	110.91	350.1	19	2	27					
HALLEY BAY	115.08	195.8	18	42	-1				19	28 PP
SOUTH POLE	118.88	180.0	18	49	-1					
HUANCAYO	128.29	277.7	19	12	4				21	6 PP

APRIL 9 6.H 15.M 12.S EPICENTRE 56.21-139.12 DEPTH= 0.KM

A=-0.42249 B=-0.36574 C= 0.82930 D=-0.6545 E= 0.7561
G=-0.6270 H=-0.5428 K=-0.5588 HT= -7.6

SE= 1.48

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SITKA	2.26	66.5	0	38	-1	1	2	-6				
COLLEGE	9.68	337.4	2	22	-1	4	6	-8				
ALBERNI	11.09	122.8	2	42	-1							
HORSESHOE B.	11.76	118.9	2	50A	-2	5	55	50				
VICTORIA	12.28	122.2	2	59	0	6	3	46				
BANFF	14.82	100.0	3	31A	-1							
HUNGRY HORSE	17.17	106.7	4	3	1						4	31
ARCATA	18.22	141.0	4	17	2							
SHASTA	18.99	137.7	4	26	1							
SASKATOON	19.34	88.5	4	25	-4	8	1	-1				
BUTTE	19.41	110.5	4	30	0						5	22
MINERAL	19.59	136.7	4	32A	0							
UKIAH	20.08	141.6	4	37	0							
BOZEMAN	20.44	109.2	4	41	0						6	31
RENO	20.99	134.5	4	47A	0							
BERKELEY	21.54	141.3	4	52A	0	9	0	13				
LICK	22.23	140.7	4	59A	0						5	55
EUREKA	22.66	127.8	5	3	-1							
FRESNO	23.41	138.0	5	12A	1							
SALT LAKE C.	23.55	119.4	5	13	1						6	0 PP
RESOLUTE	25.05	26.0	5	28K	1	9	56	7				
RAPID CITY	25.70	102.9	5	32	-1	12	6	126				
BOULDER CITY	26.08	130.6	5	37	0						5	57
PASADENA	26.34	138.1	5	38	-1						6	0

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

BOULDER	27.41	111.8	5	49	0					
TUCSON TELE.	30.95	128.5	6	21	1				7	27 PP
TUCSON	30.98	128.7	6	21	0					
LUBBOCK	34.13	115.7	6	48	0					
PETROPAVLOVK	35.04	291.8	6	54	-2					
MAGADAN	35.84	305.1	7	3	0					
FAYETTEVILLE	36.22	104.5	7	4	-2				19	43
DALLAS	37.31	110.7	7	17	2					
TIKSI	38.71	329.6	7	27	0	13	25	0		
NORD	39.09	11.4	7	30	0				9	9 PPP
CLEVELAND	39.44	86.9	7	33K	0	13	37	1		
OTTAWA	40.11	77.9	7	39K	0					
SHAWINIGAN	40.99	74.5	7	46K	0					
BREBEUF	41.19	76.4	7	47	0	14	15	13		
SEVEN FALLS	41.67	72.6	7	52K	1	14	13	4	17	20 SS
PALISADES	43.99	81.5	8	9	-1	14	39	-4	17	53 SS
WESTON	44.49	78.2	8	15K	1	18	8	198		
COLUMBIA	45.01	94.3	8	17	-2				10	12 PP
SCORESBY SD.	45.95	24.6	8	25	-1	15	12	1	10	27 PP
Y.-SAKHLINSK	46.95	293.4	8	33	-1	15	25	0		
HALIFAX	47.13	70.6				15	25	-3	11	50
TACUBAYA	47.28	124.5	8	46	9	15	13	-17	11	8
REYKJAVIK	50.72	30.3	9	5K	2					
VLADIVOSTOK	55.10	296.8	9	35	-1					
BERMUDA	55.33	82.3				17	24	3	22	14
KIRUNA	55.35	9.3	9	36	-2				39	55 PKPPKP
SODANKYLA	56.28	6.6	9	43	-1					
APATITY	56.44	3.4	9	43	-2					
MATUSIRO	56.69	287.1	9	46A	-1	17	40	1	14	42
CHANGCHUN	57.79	301.6	9	53A	-2	17	54	1		
SKALSTUGAN	58.52	14.5	9	59	-1					
IRKUTSK	59.96	320.6	10	9	-1	18	23	1		
ULAN-BATOR	62.56	316.2	10	28	0	18	58	3		
UPPSALA	62.83	12.9	10	28A	-1				39	35 PKPPKP
HELSINKI	63.29	8.8	10	31	-1					
PULKOVO	64.07	5.9	10	37	-1					
DURHAM	64.09	25.8	10	38K	0	19	5	-9		
RATHFARNHAM	64.20	29.3	10	37	-1	19	29	14		
PEKING	65.02	305.0	10	43	-1	19	27	2		
SAN JUAN	65.48	93.5	10	55	8					
SVERDLOVSK	66.19	348.3	10	52	1					
KEW	67.41	26.5	11	0	1	19	59	5	24	18 SS
DE BILT	68.11	22.8				20	33	30		
MOSCOW	68.39	2.0	11	3	-2					
MUNSTER	68.75	21.4	11	9	2					
POTSDAM	69.38	17.8	11	11	0					
BENSBERG	69.61	22.0	11	14	1					
ZO-SE	69.79	295.7	11	13A	-1	20	24	1	24	54 SS
HALLE	70.03	18.8	11	16	1				13	50 PP
NANKING	70.21	298.1	11	15A	-1	20	24	-4	24	56
JENA	70.50	19.2	11	17	-1				15	9
PARIS	70.57	25.8	11	20	2	20	42	10		
SONNEBERG	70.96	19.6	11	22	1					
STRASBOURG	71.99	22.4	11	28A	1	20	54	6	25	42 SS
STUTTGART	72.11	21.4	11	28	0					
RACIBORZ	72.42	15.1	11	31	1					
BOGOTA	72.46	108.6	11	30	0	20	53	-1	21	27 PS
KRAKOW	72.69	14.0	11	31	0				11	42 PCP
LWOW	73.41	11.3	11	35	0				11	58
CLERMONT-FD.	73.56	26.5	11	37	1					
LANCHOW	73.72	311.3	11	36	-1	21	6	-2		
BRATISLAVA	74.11	16.3	11	40	1					
TRIESTE	75.98	19.3	12	2	12				14	48
LISBON	76.36	38.1	11	52K	0					
FRUNSE	77.26	335.3	11	58	1	21	48	1		
BELGRADE	77.88	14.7	12	4K	3				23	4
SIMFEROPOL	79.06	4.9	12	8	1	22	15	9		
ALICANTE	79.48	31.9	12	8	-1	22	8	-3		
GRANADA	79.60	34.7	12	12A	2					
NAMANGAN	79.73	336.8	12	12	1					
MALAGA	79.76	35.5	12	15A	4					
HONG KONG	80.56	296.0	12	18	3				19	9 PPP
ALGIERS UNI.	81.96	29.8	12	23K	0					
TIFLIS	82.39	357.0	12	26	1					
LHASA	84.47	317.8	12	37	2	24	5	63		
ATHENS	85.06	13.5	12	38K	0					
HUANCAYO	86.02	118.4	12	44	1					
SHILLONG	87.81	315.4	12	51K	-1					

LAHORE	88.07	331.9	12 52	-1					
KSARA	90.23	4.2	13 5	2					
QUETTA	91.14	337.6	13 8	0	24	3	-1		23 38 SKS
LA PAZ	93.41	114.7	13 18	0					
HELWAN	93.88	8.3	13 21	1					
TAMANRASSET	95.82	32.5	13 29	0					17 16 PP
LWIRO	125.33	14.9	19 4	1					20 53 PP
BYRD STATION	136.45	175.1	19 26	2					
SOUTH POLE	146.03	180.0	19 6	-35					
KIMBERLEY	150.26	29.4	19 53	6					

APRIL 9 17.H 58.M 3.S EPICENTRE 1.71 126.54 DEPTH= 0.KM

A=-0.59506 B= 0.80314 C= 0.02959 D= 0.8035 E= 0.5953
G=-0.0176 H= 0.0238 K=-0.9996 HT= 7.2

SE= 2.32

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KOROR	9.69	54.5	2 19	-5	4 10	-5		
MANILA	13.92	337.1	3 25	4	5 11	-47		
BAGUIO CITY	15.75	338.5	3 50	5	6 52	11		
BANDUNG	20.70	245.4	4 45	0	8 33	1		
LEMBANG	20.70	245.6	4 41	-4	8 29	-3		
DJAKARTA	21.18	248.1	5 12	22				
GUAM	21.48	56.1	4 52	-1	8 52	5		5 21
PORT MORESBY	23.31	118.6	5 13	2	9 23	3		7 15
HONG KONG	23.74	330.5	5 15	0	9 28	0		6 33 PP
CANTON	24.84	329.8	5 26K	0	9 41	-6		
KABAUL	26.28	103.0	5 30	-9				6 43
MEDAN	27.89	274.4	5 53	-1	10 25	-12		
CHARTERS TS.	28.99	139.1	6 4A	0				
ZO-SE	29.67	350.7	6 11	1				
KUNMING	32.69	317.2	6 37K	0				
MATUSIRO	36.32	16.0	7 6K	-2				
BRISBANE	38.63	140.6	7 27A	0	13 16	-8		
SHILLONG	40.95	308.4	7 44	-2	13 52	-7		
VLADIVOSTOK	41.51	5.9	7 52	1				
RIVERVIEW	42.26	149.0	7 58	1	14 17	-2		
LHASA	43.69	313.0	8 10	1	14 31	-8		
CHATRA	45.27	307.1	8 17	-5				
ULAN-BATOR	49.07	342.6	8 52	1	15 49	-7		
IRKUTSK	53.70	343.2	9 26	0	16 54	-6		
LAHORE	57.43	306.8	9 52	-1	17 43	-7		
WARSAK DAM	60.47	308.6	10 13	-1				
MAGADAN	60.69	13.9	10 16	0				
NAMANGAN	62.94	316.0	10 32	1				
QUETTA	63.07	303.1	10 30	-2	19 3	1		
TIKSI	69.83	0.8	11 13	-2	20 16	-8		
SVERDLOVSK	75.58	328.8	11 45	-4				
TANANARIVE	80.14	250.6	12 15	1				
SCOTT BASE	82.37	172.1	12 26	0				
COLLEGE	86.61	25.2	12 52	5				
MOSCOW	87.98	325.5	12 52	-2				
APATITY	89.63	337.4	13 2	1				
SOUTH POLE	91.70	180.0	13 11	0				16 34 PP
KIRUNA	94.47	338.5	13 24	0				
NORD	95.07	354.9	13 28	1				
BYRD STATION	95.73	170.8	13 34	4				17 26 PP
UPPSALA	97.93	331.2	13 42	3				
RESOLUTE	99.83	10.3	13 47A	-1				32 12 SS
HUNGRY HORSE	107.80	37.6	18 6	777				
EUREKA	109.78	46.9	18 36	3				
PARIS	110.35	324.3						17 19
TAMANRASSET	117.64	296.8	18 50	1				19 13
HUANCAYO	156.01	116.4	20 0	4				20 27 PKP2
LA PAZ	159.39	136.4	20 8	7				

APRIL 10 1.H 44.M 39.S EPICENTRE 52.91 160.57 DEPTH= 53.KM

DEPTH OF FOCUS= 0.003R

A=-0.57119 B= 0.20148 C= 0.79570 D= 0.3326 E= 0.9431

G=-0.7504 H= 0.2647 K=-0.6057 HT= -6.5

SE= 2.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	1.18	281.6	0	23A	2	0	42	5			0	34	*SP
KLYUCHI	3.42	1.9	0	52A	0	1	35	3			1	4	*SP
MAGADAN	8.59	324.6	2	6	2	3	52	11					
KURILSK	11.32	232.3									2	59	
UGLEGORSK	12.26	259.2	2	58	4								
Y.-SAKHLINSK	12.94	249.7	3	2A	-1						4	56	
YAKUTSK	18.76	311.2	4	14	-3								
MATUSIRO	22.65	232.7	4	57A	0	9	9	12					
TIKSI	23.36	335.2	5	4	0						5	39	PP
COLLEGE	28.34	44.8	5	49	-2						6	36	PP
ULAN-BATOR	33.89	283.6	6	36	-3								
RESOLUTE	43.39	22.0	7	58A	-1	14	30	8			9	46	PP
NORD	45.73	359.4	8	17	0								
THULE	47.23	14.0	8	25	-4								
HUNGRY HORSE	51.30	58.4	8	59	-2								
SHASTA	51.67	70.8	8	57	-6								
MINERAL	52.36	70.6	9	7K	-1								
APATITY	53.54	337.6	9	18	1								
RENO	53.92	70.2	9	24	4								
LICK	54.36	73.4	9	27K	4								
SODANKYLA	55.18	340.2	9	29	0								
FRUNSE	55.21	296.8	9	28	-1								
FRESNO	55.82	72.7	9	36	2								
KIRUNA	55.96	342.9	9	34A	-1						9	47	
EUREKA	56.13	67.8	9	34	-2								
SHILLONG	57.30	269.9	9	44A	0								
SALT LAKE C.	57.52	64.1	9	47	1								
PASADENA	58.60	73.8	9	55	1								
BOULDER CITY	59.23	70.0	9	57	-1								
RAPID CITY	59.72	56.1	10	0	-1								
PULKOVO	60.77	333.7	10	8	0								
SKALSTUGAN	61.24	344.4	10	11	-1						10	23	
HELSINKI	61.79	336.6	10	17	2								
MOSCOW	61.98	327.5	10	16	-1								
WARSAK DAM	63.16	291.4	10	25	1								
LAHORE	63.37	287.6	10	24	-2								
UPPSALA	63.71	340.2	10	27A	-1						10	39	
TUCSON TELE.	64.20	70.0	10	30	-1								
TUCSON	64.21	70.2	10	30	-1								
ASHKABAD	67.30	303.1	10	52	1								
QUETTA	68.60	291.8	10	59A	0								
FAYETTEVILLE	70.26	56.1	11	8	-1								
TIFLIS	70.71	314.4	11	13A	1								
BREBEUF	71.55	37.0	11	15	-2								
POTSDAM	71.61	339.7	11	17	0								
KRAKOW	72.16	334.6	11	26	5						11	41	PCP
SIMFEROPOL	72.26	323.2	11	22	1								
IASI	72.52	328.5	11	24	1								
COLLMBERG	72.64	339.3	11	25	2								
HALLE	72.67	340.1	11	24	0						11	36	
MUNSTER	73.06	342.9	11	26	0								
JENA	73.29	340.1	11	28	1						11	40	
PRUHONICE	73.54	337.9	11	30	1						11	42	PCP
BRATISLAVA	74.61	335.6	11	37	2								
STUTTGART	75.82	340.9	11	42	0								
STRASBOURG	76.28	341.8	11	47	2								
PARIS	76.96	345.3	11	49A	1	21	34	3					
NEUCHATEL	77.95	341.9	11	55	1								
KSARA	81.15	316.1	12	15	4								
ATHENS	82.05	326.9	12	15K	-1								
TAMANRASSET	101.57	336.6									17	54	PP
BYRD STATION	139.91	164.5	19	28	6								
SOUTH POLE	142.72	180.0	19	21	-6								
HALLEY BAY	157.12	175.4	19	25	-24	26	47	-1					

APRIL 10 10.H 55.M 31.5 EPICENTRE 52.11 99.43 DEPTH= 0.KM

A=-0.10101 B= 0.60835 C= 0.78721 D= 0.9865 E= 0.1638
G=-0.1289 H= 0.7766 K=-0.6167 HT= -6.2

SE= 2.40

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
IRKUTSK	3.02	85.1									0	47	PG
BAYANDAI	3.84	73.1									1	1	PG
KABANSK	4.46	88.0									1	16	PG
KYAKHTA	4.74	108.8									1	20	PG
ULAN-BATOR	6.39	128.1	1	35	-2						3	8	SG
SEMIPALATNSK	12.14	269.5	2	59	2						3	43	
PAOTOW	13.64	143.6	3	16	-1								
YINCHUAN	14.46	158.0	3	28	0								
LANCHOW	16.33	167.3	3	50	-2	6	51	-3					
PEKING	16.71	129.7	3	54	-3	6	58	-5					
KURMENTY	16.85	245.8	4	0	1								
PRZHEVALSK	17.16	244.1	4	3	1						9	1	
ALMATA-2	17.23	247.8	4	4	1						8	53	
ALMATA	17.47	248.5	4	7	1						7	29	SS
RYBACHE	18.48	247.7	4	19	0						4	31	PP
YAKUTSK	19.04	46.8	4	22	-4	7	39	-17			9	37	
FRUNSE	19.08	250.9	4	17	-9						8	7	
SIAN	19.12	155.3				7	56	-1					
CHANGCHUN	19.13	105.4				7	40	-18					
NARYN	19.19	245.4	4	28	1						4	50	PP
ANDIJAN	21.70	249.1	4	56	2						9	3	
NAMANGAN	21.96	250.5	4	58	1						9	5	
FERGANA	22.29	249.2	5	1	1						9	15	
SVERDLOVSK	22.81	297.3									9	21	
TASHKENT	23.15	254.2	5	11	2						9	25	
LHASA	23.30	198.7	5	13	3	9	28	9					
VLADIVOSTOK	23.50	99.6									9	31	
TIKSI	23.53	23.0	5	12	0						5	42	PP
KHOROG	24.38	244.1	5	24	3						9	55	
NANKING	24.53	137.3	5	21	-1	9	45	4					
KULYAB	25.11	247.3	5	29	1						9	56	
STALINABAD	25.24	249.7	5	31	2						10	3	
SAMARKAND	25.55	253.8	5	34	2						13	29	SS
ZO-SE	26.37	134.3	5	37	-2								
DEHRA DUN	26.88	224.2	5	48	4						10	40	
WARSAK DAM	27.00	238.8	5	48	3								
SHILLONG	27.12	195.1	5	42	-4						5	47	
KUNMING	27.14	173.5	5	45	-1	10	24	0					
LAHORE	27.54	231.5	5	53	3								
Y.-SAKHLINSK	28.24	83.1				10	44	2					
MAGADAN	29.13	54.8	6	7	3						15	4	
AGRA	29.69	221.1	6	13	4						11	29	
BAIRAM-ALI	29.79	255.7	6	13	3	11	11	4			14	45	
CANTON	30.88	154.6	6	20	0								
MATUSIRO	31.37	104.3									13	15	
ASHKABAD	31.83	260.0	6	32	4						14	1	
HONG-KONG	32.86	153.5				11	26	-13					
QUETTA	32.41	240.2	6	33	0	11	48	0			7	38	PP
KIZYL-ARVAT	32.42	263.5	6	37	3						13	51	
APATITY	34.60	321.8	6	50	-2								
MOSCOW	35.51	300.9	6	59	-1						8	19	PP
MAKHACH-KALA	35.53	276.2									15	11	SS
SODANKYLA	37.21	322.3	7	16	2								
KIROVOBAD	37.50	273.9	7	20	3								
PULKOVO	37.79	309.5	7	20	1						8	49	PP
TIFLIS	37.89	276.3	7	23	3						9	3	
GORIS	38.26	272.3									8	54	PP
BAGUIO CITY	39.37	146.9	7	30	-3								
KIRUNA	39.38	324.0	7	34A	1						9	3	PP
SOTCHI	39.93	282.1	7	38	1						16	47	
HELSINKI	40.15	311.7	7	38	-1								
NORD	42.37	348.7	7	58A	1								
UPPSALA	43.62	313.6	8	13	6								
SKALSTUGAN	44.13	320.1	8	10	-2								
LWOW	45.54	298.6	8	24	1								
BUCHAREST	47.48	291.3									19	6	
KRAKOW	47.60	300.9	8	39	0						11	10	PPP
ISTANBUL KA.	47.78	285.9	8	45	4								
KSARA	48.33	273.8	8	49	4						10	43	PP
RACIBORZ	48.50	301.8									22	34	
BRATISLAVA	50.21	300.3	9	3	4								
COLLMBERG	50.44	305.6	9	3	2								
PRUHONICE	50.45	303.5	9	2	1	16	6	-9			11	5	PP
HALLE	50.84	306.4	9	4	0						22	16	
JENA	51.38	306.0	9	8	0	16	48	21			11	6	PP

THULE	51.50	356.3	9	6	-3						
COLLEGE	52.41	29.8	9	16	0						
RESOLUTE	53.13	4.7	9	20A	-1	16	55	4			
HELWAN	53.85	273.6	9	26	-1					9	37
STUTTGART	53.94	305.1	9	26	-1						
EBINGEN	54.44	304.6	9	31	0						
PARIS	57.22	308.7	9	53	2	17	49	3			
RATHFARNHAM	58.03	317.1	9	52	-5						
CLERMONT-FD.	59.02	305.8	10	11	7						
TAMANRASSET	74.68	287.3	11	42A	-1					14	25 PP
HUNGRY HORSE	75.92	22.3	11	50	0						
BOZEMAN	79.13	21.2	12	7	-1						
LWIRO	80.00	253.2	12	13	1					13	19
SEVEN FALLS	80.79	353.3	12	16	-1						
MINERAL	81.25	30.5	12	19	0						
SHAWINIGAN	81.49	354.6	12	20	0						
RAPID CITY	82.21	16.3	12	24	0						
EUREKA	83.72	26.8	12	37	5						
LARAMIE	84.45	18.7	12	36	0						
SOUTH POLE	141.93	180.0	19	27	-7						
HALLEY BAY	148.56	203.0	19	46	1					23	2 PP

APRIL 10 11.H 50.M 11.S EPICENTRE 38.50 143.01 DEPTH= 46.KM

DEPTH OF FOCUS= 0.002R

A=-0.62673 B= 0.47206 C= 0.61997 D= 0.6016 E= 0.7988
G=-0.4952 H= 0.3730 K=-0.7846 HT= -1.1

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ISINOMAKI	1.33	267.4	0	22A	-1	0	41	1				
MIYAKO	1.40	325.0	0	23A	-1	0	43	2				
MIZUSAWA	1.60	293.7	0	27	1	0	42	-4				
SENDAI	1.68	262.7	0	27A	0	0	49	1				
MORIOKA	1.87	310.4	0	31A	1	1	1	8				
YAMAGATA	2.11	264.0	0	33	0	1	6	7				
HUKUSIMA	2.14	250.3	0	32A	-2	1	1	1				
ONAHAMA	2.28	227.9	0	33	-3	1	0	-3			0	49
HATINOHE	2.33	330.9	0	35A	-2	1	2	-2				
SAKATA	2.52	280.1	0	40	1	1	14	5				
AKITA	2.57	299.1	0	40	0							
SHIRAKAWA	2.61	238.9	0	37	-3	1	7	-4				
AOMORI	2.89	324.0	0	48A	4	1	28	10				
NIIGATA	3.17	260.7	0	50	1	1	36	10				
KAKIOKA	3.20	225.7	0	46A	-3	1	29	3			1	11
TUKUBASAN	3.25	226.4	0	46A	-4	1	24	-4				
TYOSI	3.27	212.6	0	48	-2	1	44	16				
URAKAWA	3.65	357.3	0	58	3	1	39	1			1	56
HAKODATE	3.72	332.5	0	57	1	1	46	7			2	29
KUMAGAYA	3.73	232.1	0	55	-1	1	49	9				
MAEBASI	3.77	237.4	0	57	0	1	49	8				
TOKYO C.M.O.	3.84	223.8	0	55A	-3	1	40	-2				
TITIBU	4.02	232.5	0	58	-2	1	41	-6				
TAKADA	4.02	251.1	0	59	-1	1	50	3				
MORI	4.05	333.3	1	7	6	1	58	10				
YOKOHAMA	4.08	222.3	1	4	3	2	9	20				
MURORAN	4.13	338.5	1	6	4	1	58	8				
TOMAKOMAI	4.16	345.2	1	10	8	2	3	13				
OIWAKE	4.16	240.0	1	3	1	2	28	37				
NAGANO	4.24	245.9	1	4A	0	1	52	0				
MATUSIRO	4.28	244.4	1	4A	0	1	53	0			1	22
MERA	4.39	216.5	1	4	-2	2	6	10			1	28
OBIHIRO	4.42	1.8	1	4	-2	1	57	0			1	22
HUNATU	4.53	229.9	1	4	-4	2	7	7				
KOHU	4.56	232.5	1	7	-1	2	12	11				
KUSIRO	4.60	12.8	1	5	-4	1	55	-6			2	39
MATUMOTO	4.60	242.3	1	8	-1	2	19	17				
AJIRO	4.66	223.5	1	11	2	1	58	-5				
MISIMA	4.69	225.2	1	7	-3	2	15	11				
OSIMA	4.73	219.2	1	8	-3	2	21	16				
SAPPORO	4.73	345.1	1	8	-3	2	13	8				
SUTTSU	4.79	334.6	1	14	3	2	27	21				
TOYAMA	4.95	250.5	1	15	1	2	38	28				
WAZIMA	4.96	258.8	1	15	1							

IIDA	5.10	235.9	1	14	-2	2	28	14				
SHIZUOKA	5.11	227.8	1	14	-2	2	31	17				
TAKAYAMA	5.16	244.7	1	18	2							
NEMURO	5.20	21.1	1	12	-5	2	6	-11				
ASAHIGAWA	5.30	355.0	1	19	1						2	1
OMAESAKI	5.48	226.2	1	27	6	2	46	22			3	1
HAMAMATU	5.69	230.0	1	32	8	2	47	18				
NAGOYA	5.88	237.4	1	31	5	2	51	17				
GIHU	5.88	240.1	1	26	-1	2	39	5				
HUKUI	5.91	247.6	1	28	1							
IRUKISAN	6.16	241.6	1	30	0	2	57	17				
TSURUGA	6.24	245.0	1	31	-1	2	56	14				
HIKONE	6.31	241.3	1	32	0	2	55	11				
KAMEYAMA	6.40	237.3	1	34	0	3	24	38				
TU	6.44	236.2	1	41	7							
MAIZURU	6.75	245.7	1	39	0	2	59	4				
KYOTO	6.80	241.5	1	39A	0							
NARA	6.92	238.8	1	49	8	3	31	32				
WAKKANAI	6.98	352.3									3	14
OWASE	7.06	233.3	1	41	-2	3	30	27				
OSAKA	7.14	239.7	1	57	13	3	48	6			3	11
TOYOOKA	7.19	248.2	1	43	-2	3	3	-3				
KOBE	7.36	241.2	1	50	3	3	48	38				
KURILSK	7.64	26.8	1	47	-4						2	7
SIOMISAKI	7.74	231.5	1	50	-2	3	28	8			3	45
SUMOTO	7.75	240.2	1	54	1	3	54	34			2	27
SAIGO	8.05	256.4	2	18	21							
TOKUSIMA	8.12	239.6	1	58	0							
YONAGO	8.32	251.3	2	1	1							
Y.-SAKHLINSK	8.45	358.6	1	58	-4	3	35	-2				
MATSUE	8.52	252.1	2	3	0	3	47	8				
KOTI	9.13	240.1	2	15	3						4	48
VLADIVOSTOK	9.60	302.2	2	17A	-1	4	11	5				
SIMIDU	9.97	238.1	2	17	-6						4	50
UWAZIMA	9.98	241.4	2	48	25						5	18
OOITA	10.63	243.8	2	31	-1						5	15
KUMAMOTO	11.50	244.2	2	49	5						3	5
MIYAZAKI	11.53	238.8	2	53	9						5	56
SAGA	11.56	246.9	2	40	-5						5	41
ITUHARA	11.87	253.0	2	53	4							
NAGASAKI	12.13	245.6	2	51	-2						3	13
KAGOSIMA	12.33	239.6	3	0	5						7	9
CHANGCHUN	14.35	297.4	3	20A	-2	6	4	4				
PETROPAVLOVK	18.18	31.4	4	8A	-2						4	34 PPP
ZO-SE	19.36	254.2	4	22A	-2	7	58	3				
NANKING	20.76	259.3	4	35A	-4	8	23	0				
PEKING	20.82	282.7	4	36A	-4	8	24	0				
MAGADAN	21.65	10.8	4	47	-1							
YAKUTSK	24.93	345.1	5	18	-2	9	40	-8			10	37 SS
GUAM	24.98	176.0	5	20	0							
SIAN	27.68	271.8	5	45	0							
ULAN-BATOR	27.73	301.6	5	45	-1	10	31	8				
HONG KONG	29.49	245.1	6	0	-2	11	25	33			6	57 PP
BAGUIO CITY	29.52	228.0	5	59	-3							
CANTON	29.65	247.4	6	2	-1						7	26 PP
IRKUTSK	30.07	309.9	6	5A	-2	11	3	2				
MANILA	30.76	225.2	6	10	-3							
LANCHOW	31.12	277.9	6	16A	0	11	25	8			7	18 PP
KOROR	31.98	196.1	6	26	2							
TIKSI	33.98	352.0	6	40	-1	12	4	2			7	59 PP
KUNMING	36.53	260.5	7	1A	-2	12	43	2				
TOCKLAI	41.86	268.5	7	50	3							
LHASA	43.46	274.5	8	2A	2	14	32	7			8	21
SHILLONG	44.71	268.8	8	9A	-1	14	59	16				
SEMIPALATNSK	45.07	306.5	8	12	-1	14	50	2				
COLLEGE	47.18	33.0	8	29	-1	15	24	6				
PORT MORESBY	47.81	174.5	8	41	6	15	27	0				
AGRA	54.77	278.6	9	27A	0							
SVERDLOVSK	54.90	318.2	9	28	0	17	9	5				
TASHKENT	55.02	298.0	9	27	-2	.					17	26 PS
LEMBANG	55.81	224.0	9	30A	-5	17	11	-6				
WARSAK DAM	56.47	289.1	9	39A	0							
STALINABAD	56.51	295.2	9	42	2	17	33	7				
NORD	59.67	356.6	10	0A	-2							
RESOLUTE	60.87	14.9	10	8A	-2	18	25	3			20	1 SCS
QUETTA	61.72	287.4	10	15A	-1	18	37	4	10	25	12	31 PP
POONA	62.57	272.5	10	20	-1							
THULE	63.64	7.9	10	25	-3							

ASHKABAD	64.06	298.9								19	9 PS
SODANKYLA	64.10	337.3	10	30	-1						
KIRUNA	65.59	339.4	10	40	-1	19	26	5	10 51	12	59 PP
MOSCOW	66.83	323.6	10	48	-1	19	40	4			
PULKOVO	67.57	329.7	10	52	-1						
SHASTA	69.21	54.2	11	5	1						
HELSINKI	69.36	331.9	11	3	-2						
HUNGRY HORSE	69.85	43.8	11	8	0						
MINERAL	69.91	54.1	11	8	0						
SCORESBY SD.	70.78	354.7	11	15	2	20	19	-4			
BERKELEY	70.86	56.6	11	23	9						
TIFLIS	70.91	308.4	11	15A	1	20	30	5			
SKALSTUGAN	71.01	339.0	11	13A	-2				11 23	13	36 PP
GORIS	71.21	305.7	11	15	-1						
RENO	71.50	54.0	11	21	4						
BUTTE	72.03	45.2	11	20	-1						
UPPSALA	72.19	334.4	11	21A	-1				11 31	14	1 PP
BOZEMAN	73.09	44.8	11	29	2						
EUREKA	73.95	52.2	11	33	1						
SIMFEROPOL	75.16	316.0	11	39A	0					11	50 PCP
SALT LAKE C.	75.66	49.2	11	45	3						
PASADENA	75.72	57.7	11	42	0	21	26	7			
WARSAW	76.52	327.6	11	46A	-1					16	28 PPP
BOULDER CITY	76.79	54.5	11	49	1						
IASI	77.08	320.8	11	51	1						
COPENHAGEN	77.18	333.8	11	50	0						
RAPID CITY	78.36	42.3	11	57	0						
KRAKOW	78.59	326.6	11	58	0					15	0 PP
LARAMIE	78.93	45.6	12	2	2						
RACIBORZ	79.31	327.4	11	55	-7					12	13 PCP
POTSDAM	79.57	331.5	12	3	0						
BUCHAREST	79.75	319.5	12	42	38						
ISTANBUL KA.	80.50	315.5	12	8	0					15	23 PP
HALLE	80.69	331.5	12	9	0	22	15	3		15	22 PP
PRAGUE	80.86	329.3	12	13	3					12	57
PRUHONICE	80.89	329.2	12	11	1	22	7	-7		15	27 PP
BRATISLAVA	81.23	326.7	12	14	2					15	5
JENA	81.29	331.3	12	12	-1	22	8	-10		15	18 PP
KSARA	81.31	306.4	12	15	2	22	11	-7		15	19 PP
WITTEVEEN	81.48	334.9	12	25	11						
TUCSON	81.71	55.3	12	16	1						
TUCSON TELE.	81.72	55.2	12	16	1						
MUNSTER	81.86	334.0	12	16	0						
BELGRADE	82.24	322.7	12	19A	1						
DURHAM	82.26	340.2	12	3A	-15					12	40
JERUSALEM	83.07	305.2	13	52	90						
STUTTGART	83.94	331.3	12	26A	0						
EBINGEN	84.52	331.1	12	29	0						
TRIESTE	84.63	326.9	12	29	-1						
STRASBOURG	84.63	332.0	12	31A	1	22	55	3			
RATHFARNHAM	84.78	342.1	12	31A	1				12 44	19	57
KEW	84.83	338.0	12	31	0						
PARIS	86.28	335.1	12	39A	1	23	10	2			
HELWAN	86.82	306.1	12	40	0						
CLERMONT-FD.	88.70	333.2								16	26 PP
FAYETTEVILLE	88.89	42.9	12	51	1						
SHAWINIGAN	89.46	23.8	12	54	1						
OTTAWA	89.50	26.2	12	53	0						
WESTON	93.65	24.8	12	31A	-41						
TAMANRASSET	107.17	319.3								18	20 PP
SOUTH POLE	128.31	180.0	18	55	-6					21	10 PP
BYRD STATION	128.92	167.2	19	4	1						
HUANCAYO	136.94	62.7	19	16	-2						
HALLEY BAY	142.58	184.3	19	22	-6					22	49 PP
LA PAZ	145.01	59.9	19	37	5					22	11 PP

APRIL 10 13.H 18.M 47.S EPICENTRE -23.44 -67.67 DEPTH= 129.KM

DEPTH OF FOCUS= 0.015R

A= 0.34895 B=-0.84956 C=-0.39558 D=-0.9250 E=-0.3799
G=-0.1503 H= 0.3659 K=-0.9184 HT= 3.8

SE= 2.14

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S

TALA POZO	5.34	145.4	1	19A	0	2	13	-7				
LA PAZ	6.92	356.3	1	43A	3	3	0	2			1	55 PP
HUANCAYO	13.47	326.0	3	4	-3	5	38	4				
BOGOTA	28.58	346.6	5	48	2	10	28	5			11	21 *SS
ST. VINCENT	36.92	10.4	6	56	-2							
FORT FRANCE	38.47	10.2	7	9	-2							
ST.CLAUDE	39.66	9.0									10	30
TACUBAYA	52.53	321.5	9	36	34						11	3
BERMUDA	55.58	3.1									17	1
HALLEY BAY	56.15	168.5	9	26	-3						11	36 PP
COLUMBIA	58.52	347.0	9	43	-2							
CHAPEL HILL	60.01	349.3	9	55	-1							
BYRD STATION	60.76	189.0	10	4	3				10	37	10	50 *SP
MBOUR	62.22	58.0	10	11	1				10	28		
WASHINGTON	62.64	351.7	10	14	1							
FAYETTEVILLE	64.30	336.3	10	23A	-1				10	55	11	16
PALISADES	64.38	354.8	10	22	-3	18	48	-3			21	58
LUBBOCK	65.38	328.9	10	29	-2							
WESTON	65.58	357.0	10	32A	0							
SOUTH POLE	66.70	180.0	10	37	-2						10	58 PCP
HALIFAX	67.83	3.1	10	46A	0						11	18 *SP
OTTAWA	68.90	353.9	10	52A	-1						11	25
TUCSON	69.05	321.6	10	53	-1				11	26	39	11 PKPPKP
TUCSON TELE.	69.05	321.8	10	53	-1				11	25	39	2 PKPPKP
SHAWINIGAN	69.81	356.3	10	58A	-1							
SEVEN FALLS	70.29	357.7	11	0A	-1						11	17
LARAMIE	73.40	331.1	11	22	2							
BOULDER CITY	74.03	321.8	11	24	0				11	56		
SCOTT BASE	74.13	190.3	11	23	-1							
RAPID CITY	74.67	334.3	11	26	-1				11	59	13	51 PP
PASADENA	74.73	318.4	11	28	0	20	56	4				
SALT LAKE C.	75.94	326.9	11	45	11				12	17		
CAPE HALLETT	76.84	195.4	11	38A	-1				12	37	14	12 PP
EUREKA	77.15	323.7	11	41	0				12	15		
FRESNO	77.47	319.5							12	12		
LICK	78.95	318.9	11	52	1				12	25	12	42 *SP
BOZEMAN	79.28	330.6	11	52	-1				12	26	12	39 *SP
RENO	79.34	321.6	11	57	4				12	27		
BERKELEY	79.67	319.0							12	28	12	46 *SP
BUTTE	80.24	330.1	12	0	2				12	31	12	17 PCP
MINERAL	80.90	321.3	12	4	3				12	34	12	50 *SP
SHASTA	81.58	321.1	12	7	2							
HUNGRY HORSE	82.64	330.9	12	10	0				12	44	13	2 *SP
TAMANRASSET	84.67	62.5	12	21A	0	22	39	3	12	56	15	39 PP
TOLEDO	86.48	43.7	12	30	0							
LWIRO	95.05	94.6	13	13	4							
STUTTGART	99.13	40.7									17	28
RESOLUTE	99.45	352.9	13	28	-1						17	26
PRUHONICE	102.82	41.0									17	54 PP
BRATISLAVA	103.76	43.3	17	20	777						18	5 PP
KRAKOW	106.12	42.1	18	20	777						18	26
UPPSALA	107.67	31.9									18	33 PP
CHARTERS TS.	125.59	220.2	18	47K	1							
RABAUL	132.42	239.9									19	1 PP
QUETTA	139.15	70.5	19	8	-4						22	5 PP
WARSAK DAM	142.93	64.2	19	17	-2							
GUAM	147.76	257.9	19	27	0				20	7		
LEMBANG	149.56	170.7	19	30K	0						23	20 PP
KOROR	153.37	236.6	19	44	9							
MATUSIRO	154.14	306.3	19	46A	10						20	35
SHILLONG	161.26	79.3	20	6K	21							

APRIL 10 19.H 10.M 18.S EPICENTRE -17.84-174.85 DEPTH= 206.KM

DEPTH OF FOCUS= 0.027R

A=-0.94864 B=-0.08556 C=-0.30457 D=-0.0898 E= 0.9960
G= 0.3033 H= 0.0274 K=-0.9525 HT= 5.2

SE= 1.76

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
APIA	4.99	36.7	1	12	-3	2	4	-9			1	41
SUVA	6.41	266.3	1	37	4						2	35
NOUMEA	18.12	252.8	3	58	-1						4	15

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

ONERAHI	20.26	206.1	4 21	0						
GEBBIES PASS	27.86	199.6	5 37	5						
BRISBANE	31.08	246.2	5 58	-3	12 5	75				
RABAUL	35.01	288.9	6 33	-2	12 52	61				
CHARTERS TS.	36.80	260.3	6 48A	-2					6 54	
PORT MORESBY	37.81	277.7	6 58	0	13 32	59				
MELBOURNE	40.34	232.1	7 15A	-4						
TRUK	41.40	304.6	7 28	0					8 33	*SP
GUAM	50.57	305.3	8 40	1					9 55	PCP
KOROR	55.93	292.1	9 21	2						
SCOTT BASE	60.72	184.4	9 51	-1						
BYRD STATION	66.77	171.0	10 34	3						
MATUSIRO	69.93	321.2	10 51A	0						
SOUTH POLE	72.27	180.0	11 2	-2				11 50		
BERKELEY	74.23	40.8	11 16A	0						
LICK	74.29	41.5	11 17A	1						
UKIAH	74.43	39.3	11 18	1						
PASADENA	74.71	45.9	11 19	0						
FRESNO	75.13	42.9	11 21A	0						
SHASTA	75.91	38.4	11 27	2						
LEMBANG	76.10	267.2	11 26A	0	20 54	3				
MINERAL	76.16	39.1	11 27A	0						
RENO	76.76	40.6	11 32A	2						
TUCSON	78.94	50.9	11 43	1				12 29		
TUCSON TELE.	79.06	50.9	11 44	1				12 30		
EUREKA	79.15	42.4	11 42	-1						
SALT LAKE C.	82.51	43.0	12 0	-1						
HALLEY BAY	84.78	172.4	12 10	-2	22 22	1				
BUTTE	84.82	38.3	12 13	1						
COLLEGE	85.01	11.2	12 13	0				13 3		
HUNGRY HORSE	85.24	35.8	12 14	0						
BOZEMAN	85.54	39.1	12 15	-1						
RAPID CITY	89.71	43.2	12 36	0						
CHITTAGONG	99.58	290.4							17 40	PP
SHILLONG	100.37	293.6	13 23	-1						
QUETTA	122.83	294.7	18 33A	2						
HELSINKI	135.38	346.0	18 55	0						
SIMFEROPOL	143.73	324.5	19 10	-1						
LWOW	144.66	338.8	19 13	1						
POTSDAM	144.98	351.5	19 12	-1						
KRAKOW	145.75	343.0	19 14	0					19 54	
MUNSTER	145.89	357.3	19 16	2						
HALLE	145.99	352.4	19 16	2					20 7	
KEW	146.17	6.2	19 17	2				20 8		
JENA	146.60	352.6	19 16	1					20 3	
BENSBERG	146.92	357.7	19 20	4						
PRAGUE	147.00	349.0	19 21	5					19 50	
PRUHONICE	147.06	348.8	19 28	4				21 23	19 44	PKP2
BRATISLAVA	148.22	344.7	19 22	4						
KSARA	148.25	306.1	19 24	6						
BUDAPEST	148.31	341.9							30 16	
STUTTGART	148.98	354.8	19 20	1				20 15		
PARIS	149.04	3.4	19 26A	7						
ISTANBUL KA.	149.06	323.4	19 23	4						
TUBINGEN	149.23	354.9	19 25	6						
STRASBOURG	149.27	356.6	19 26	7				20 18		
LWIRO	149.31	231.8	19 27A	7				20 19		
JERUSALEM	149.50	302.8							20 52	
EBINGEN	149.58	355.0	19 20	0						
ZAGREB	150.69	344.4	19 28A	6						
TOLMEZZO	150.79	348.8	19 24	2						
TRIESTE	151.36	347.4	19 24	1				20 17	23 6	SKP
CLERMONT-FD.	152.10	3.0	19 33	9					19 44	
HELWAN	153.30	301.5	19 35	10					19 48	
TOLEDO	156.64	18.1	20 3	33						
TAMANRASSET	175.08	356.1	19 45A	1				20 36	25 25	PP

APRIL 10 23.H 12.M 57.S EPICENTRE -4.25-105.99 DEPTH= 0.KM

A=-0.27480 B=-0.95868 C=-0.07362 D=-0.9613 E= 0.2756
G= 0.0203 H= 0.0708 K=-0.9973 HT= 7.1

SE= 3.14

DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S

PUEBLA	24.37	18.1							11	3	SS
SAN SALVADOR	24.41	42.7	5	23	2						
TACUBAYA	24.43	15.7	5	33	12	10	3	24	11	7	SS
SANTIAGO MA.	24.76	44.4	5	23	-1						
GUADALAJARA	24.91	6.0							11	43	
VERA CRUZ	25.24	22.3							9	6	
MAZATLAN	27.27	359.2							9	19	
BALBOA HTS	29.44	63.5	6	5	-2	11	0	-1	7	5	PP
MERIDA	29.75	32.1							7	36	PPP
HUANCAYO	31.30	106.2	6	34	10	11	35	4	7	27	PCP
CHINCHINA	31.69	73.5	6	27	0	11	40	3	13	53	SS
CHIHUAHUA	32.69	359.9	6	43	7				8	18	PPP
BOGOTA	33.09	74.9	6	40	1	12	5	7	14	16	SS
GALERAZAMBA	34.04	63.8				12	28	15			
TUCSON	36.59	353.1	7	11	2	13	7	14	8	39	PP
TUCSON TELE.	36.66	353.3	7	11	1						
LUBBOCK	37.83	5.6	7	19	-1	13	19	7			
LA PAZ	39.10	111.0	7	28	-3	13	33	2	9	3	PP
PASADENA	39.88	344.2	7	38	1	13	54	11			
BOULDER CITY	40.87	349.0	7	44	-1						
FAYETTEVILLE	41.62	14.4	7	51K	0						
FRESNO	42.80	343.6	8	2	1						
LICK	43.87	341.9	8	10	0						
EUREKA	44.47	349.0	8	8	-7				8	29	
BERKELEY	44.55	341.6	8	14	-1	15	1	10			
COLUMBIA	44.75	29.9	8	17	0						
SALT LAKE C.	45.12	353.7	8	20	0						
SAN JUAN	45.27	59.0	8	18	-3						
RENO	45.40	345.0	8	25	3						
MINERAL	46.64	343.6	8	31	-1						
SHASTA	47.19	343.0	8	28	-8						
RAPID CITY	48.17	2.7	8	43	-1						
FORT FRANCE	48.28	66.1							15	3	
MORGANTOWN	49.82	26.3	8	55A	-2						
BOZEMAN	49.90	355.4	9	0	3						
BUTTE	50.39	354.1	9	1	0				9	30	
HUNGRY HORSE	52.85	353.3	9	16	-3						
BERMUDA	53.52	44.0	9	24	0	17	3	6	11	43	PP
SEATTLE	53.63	346.4	9	32A	7						
PALISADES	53.75	29.9	9	25	-1	16	53	-7	11	29	PP
WESTON	56.06	30.5	9	48A	5	17	31	0			
COLLEGE	75.48	342.9	11	44	-4	21	29	1	24	33	
BYRD STATION	76.02	182.4	11	51	0				15	32	
KARAPIRO	78.31	232.3	12	7K	4						
THULE	83.40	8.4	12	29	-1						
SOUTH POLE	85.78	180.0	12	38	-4						
SCORESBY SD.	91.98	19.5							30	18	SS
PARIS	105.32	40.5	13	25	777				17	23	PP
STRASBOURG	108.78	39.9							33	33	SS
TAMANRASSET	111.46	67.3							19	15	PP
MATUSIRO	113.14	308.0							29	4	PS
KIMBERLEY	122.46	128.0							17	38	
KSARA	133.94	45.5	19	11	-8				21	47	PP
LWIRO	134.37	97.3							22	44	PKS
LEMBANG	144.69	252.0							19	44	
TANANARIVE	145.23	132.3	19	42A	3						
WARSAK DAM	150.31	4.1	19	48	0						
LAHORE	152.84	359.4	19	53	2						
QUETTA	153.36	13.7	19	53	1				23	47	

APRIL 11 0.H 58.M 18.S EPICENTRE 38.62 143.02 DEPTH= 36.KM
DEPTH OF FOCUS= 0.000R

A=-0.62574 B= 0.47118 C= 0.62165 D= 0.6015 E= 0.7989
G=-0.4966 H= 0.3739 K=-0.7833 HT= -1.2

SE= 2.43

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MIYAKO	1.31	321.7	0	23	1	0	43	4				
ISINOMAKI	1.35	262.2	0	24A	1	0	42	2				
MIZUSAWA	1.56	289.5	0	29	3	1	2	17				
SENDAI	1.70	258.6	0	30A	2	0	52	3				
MORIOKA	1.79	307.3	0	32A	3	1	2	11				
YAMAGATA	2.13	260.7	0	35A	1	1	10	11			0	57

HUKUSIMA	2.19	247.3	0	35A	0	1	9	8		
HATINOHE	2.22	329.3	0	34A	-1	1	11	9		
ONAHAMA	2.37	225.8	0	36A	-1	1	8	2	0	57
SAKATA	2.51	277.3	0	40	1	1	20	11		
AKITA	2.52	296.6	0	42A	3					
SHIRAKAWA	2.68	236.7	0	42A	0	1	16	3		
AOMORI	2.79	322.5	0	43A	0	1	22	6	1	35
MITO	3.02	222.9	0	46	-1	1	34	12		
NIIGATA	3.20	258.5	0	48	-1	1	35	8		
UTUNOMIYA	3.25	231.4	0	49	-1	1	45	17	1	20
TUKUBASAN	3.34	225.0	0	49A	-2				7	46 PCP
TYOSI	3.38	211.5	0	50	-2	1	54	23		
URAKAWA	3.53	357.1	0	52	-2	1	33	-2		
HAKODATE	3.61	331.5	0	55	0	1	45	8		
AIKAWA	3.80	262.3	0	59	1	2	6	24		
KUMAGAYA	3.81	230.7	0	59	1	1	40	-2		
MAEBASI	3.85	235.9	0	59A	1	1	44	1		
TOKYO C.M.O.	3.93	222.6	0	58	-2	1	43	-2	1	17
MORI	3.94	332.4	0	59	-1	1	56	11		
MURORAN	4.02	337.7	1	0	-1	1	54	7		
TOMAKOMAI	4.04	344.7	1	8	7	2	0	12		
TAKADA	4.07	249.5	1	3	2	1	57	8		
TITIBU	4.10	231.2	1	1	-1	1	57	8		
YOKOHAMA	4.18	221.2	1	4	1	2	8	17		
OIWAKE	4.23	238.6	1	4	0	2	29	36	1	52
ORIHIRO	4.29	1.8	1	4	-1	1	57	3	1	23
NAGANO	4.29	244.5	1	7	2	2	9	15		
MATUSIRO	4.34	243.0	1	6A	1	2	5	10		
KUSIRO	4.47	13.1	1	3	-4	1	53	-6	2	38
MERA	4.50	215.7	1	3	-5	2	18	19	1	33
HUNATU	4.61	228.8	1	9A	0	2	13	11		
SAPPORO	4.62	344.6	1	6	-3	2	5	3		
KOHU	4.65	231.3	1	11	1	2	24	21		
MATUMOTO	4.67	241.0	1	13	3	2	25	21	1	51
SUTTSU	4.68	333.9	1	18	8	2	29	25		
AJIRO	4.76	222.6	1	13	2	2	14	8		
MISIMA	4.78	224.3	1	10	-2	2	1	-6		
OSIMA	4.83	218.4	1	12	0	2	24	16		
TOYAMA	5.00	249.2	1	16	1	2	48	36		
NEMURO	5.08	21.6	1	11	-5	2	4	-10		
ASAHIGAWA	5.17	354.8	1	15	-2	2	6	-10	2	38
IIDA	5.18	234.8	1	19	2	2	35	18		
SHIZUOKA	5.20	226.9	1	20	3	2	25	8		
TAKAYAMA	5.22	243.5	1	25	7					
RUMOE	5.42	349.2	1	49	28	3	14	51		
ABASHIRI	5.47	9.6	1	22	1	2	16	-8	2	56
KANAZAWA	5.47	249.5	1	25	4					
OMAESAKI	5.57	225.3	1	26	3	2	34	8		
HAMAMATU	5.77	229.2	1	29	4	2	40	9		
GIHU	5.95	239.1	1	28	0	2	47	11	2	2
NAGOYA	5.95	236.4	1	28	0	2	51	15		
HUKUI	5.96	246.5	1	30	2					
HATIOYOZIMA	6.09	206.1	2	1	31	2	38	-2		
IBUKISAN	6.22	240.7	1	35	3	2	54	11		
HIKONE	6.37	240.4	1	37	3	3	7	21		
KAMEYAMA	6.47	236.4	1	32	-3	2	46	-3		
TU	6.51	235.3	1	46	10	3	22	32		
MAIZURU	6.81	244.8	1	42	2	3	12	15		
KYOTO	6.86	240.6	1	41A	0	2	58	-1		
OWASE	7.14	232.5	1	47	2	3	17	12		
OSAKA	7.21	238.9	1	46	0	3	32	25	3	8
TOYOOKA	7.25	247.3	1	47	1	3	21	13		
KOBE	7.43	240.4	1	49	0	3	24	11	3	45
KURILSK	7.52	27.1	1	46	-4					
SIOMISAKI	7.82	230.9	1	53	-1	3	39	17		
SUMOTO	7.82	239.4	1	55	1	4	6	44	3	40
HIMEJI	8.06	241.9	1	47	-11	3	48	20		
SAIGO	8.08	255.6	1	59	1					
TOKUSIMA	8.19	238.8	2	2	3				4	17
Y.-SAKHLINSK	8.32	358.6	1	58	-3					
YONAGO	8.36	250.6	2	3	1	3	37	1		
TAKAMATU	8.40	242.0	2	2	0	3	57	20	2	24
MATSUE	8.56	251.3	2	4	0	3	40	-1		
MUROTO	8.95	235.9	2	12	2	4	9	18		
KOTI	9.20	239.5	2	11	-2				3	32
HIROSIMA	9.52	246.8	2	24	6	4	32	27	4	1
HAMADA	9.54	250.4	2	17	-1	4	22	17		
VLADIVOSTOK	9.54	301.6	2	9	-9					
MATUYAMA	9.58	243.2	2	14	-4	4	16	10	4	44

SIMIDU	10.04	237.5	2	22	-3	5	8	51	3	52
UGLEGORSK	10.47	356.6	2	28	-3					
OOITA	10.69	243.2	2	22	-12	5	8	35	4	12
ASOSAN	11.26	243.1	2	42	0					
HUKUOKA	11.36	247.5	2	44	1	5	17	27		
KUMAMOTO	11.56	243.7	2	46	0	5	13	19	5	50
MIYAZAKI	11.60	238.3	2	38	-8				5	40
SAGA	11.62	246.4	2	50	4				5	31
ITUHARA	11.92	252.5	2	48	-2					
NAGASAKI	12.19	245.1	2	53	-1	5	52	42		
TOMIE	13.04	247.0	3	7	2				7	0
CHANGCHUN	14.30	297.0	3	21A	-1					
PETROPAVLOVK	18.07	31.6	4	20	10	7	36	9	4	48 PPP
ZO-SE	19.40	253.9	4	22A	-4	7	53	-4		
NANKING	20.79	259.0	4	38A	-2					
PEKING	20.79	282.4	4	38A	-2					
MAGADAN	21.53	10.8	4	46	-2				8	48 PCP
HSINKONG	24.10	236.3	5	10	-3	9	36	11		
YAKUTSK	24.81	345.0	5	18	-2	9	42	4		
TAINAN	24.92	237.9	5	20	-1					
TAWU	24.93	235.8	5	21	0	9	52	12		
GUAM	25.10	176.0	5	23	0					
HENGCHUN	25.28	235.5	5	31	6					
ULAN-BATOR	27.67	301.4	5	46	-1	10	31	6		
SIAN	27.68	271.5	5	48	1					
HONG KONG	29.55	245.0	6	2A	-1	11	19	24	6	57 PP
BAGUIO CITY	29.60	227.9	5	53	-11	11	0	5		
CANTON	29.70	247.2	6	5A	0	10	59	2		
IRKUTSK	29.99	309.8	6	7A	0	11	4	2		
MANILA	30.85	225.1	6	18	3				7	40 PP
LANCHOW	31.11	277.7	6	17A	0	11	22	3	7	20 PP
KOROR	32.10	196.1	6	45	19					
TIKSI	33.86	352.0	6	41	0	12	1	-1	7	58 PP
KUNMING	36.55	260.3	7	3A	-1	12	44	0	8	27 PP
TOCKLAI	41.87	268.3	7	53A	5					
RABAUL	43.44	166.7	8	OK	-1	14	33	6		
LHASA	43.46	274.3	8	4A	3	14	35	8	18	2 SCS
SHILLONG	44.71	268.7	8	11A	0	14	49	4	11	14 PPP
SEMIPALATNSK	45.01	306.4	8	15	1	14	52	3		
CHITTAGONG	46.41	264.9	8	3	-22	14	51	-18		
COLLEGE	47.07	33.0	8	30	0	15	20	1	18	23 SCS
CHATRA	47.78	273.1	8	31	-5	15	38	9		
PORT MORESBY	47.93	174.5	8	37	0	15	30	-1	9	17
CALCUTTA	49.04	267.4	8	58A	13	15	57	11		
HOWRAH	49.05	267.5	8	49	4	15	52	6		
FRUNSE	50.72	298.0	8	59	1	16	16	6	10	58 PP
DEHRA DUN	53.22	282.0	9	21	4	17	1	17	20	41
AGRA	54.76	278.5	9	29A	1	17	5	0	11	33 PP
SVERDLOVSK	54.81	318.2	9	28	-1				11	35 PP
TASHKENT	54.96	298.0	9	29	-1	17	8	1	17	23 PS
LAHORE	55.48	285.1	9	33	-1				11	40 PP
LEMBANG	55.90	224.0	9	31A	-6	17	15	-5		
WARSAK DAM	56.44	289.0	9	40	0					
STALINABAD	56.46	295.1	9	41	0					
CHARTERS TS.	58.40	176.4	9	54	0					
NORD	59.54	356.6	10	0	-2					
HYDERABAD	59.59	268.6	10	3A	0	18	24	16	12	16
RESOLUTE	60.75	15.0	10	9A	-1	18	20	-3	14	0 PPP
MADRAS	60.83	263.3	10	12A	1	18	34	10	12	21 PP
QUETTA	61.69	287.3	10	16	-1	18	43	8	12	34 PP
APATITY	61.76	335.7	10	16	-1					
POONA	62.57	272.4	10	22	-1				16	56
BOMBAY	63.17	273.4	10	26	-1	18	59	5	12	47 PP
THULE	63.52	7.9	10	24	-5	18	52	-6		
SODANKYLA	63.99	337.3	10	31	-1					
ASHKABAD	64.01	298.9	10	33	1	19	6	2	12	54 PP
HORSESHOE B.	64.06	46.5	10	30	-2					
KIRUNA	65.48	339.4	10	41	-1	19	24	2	11	13 PCP
SEATTLE	65.49	47.8	10	42	0					
SUVA	65.51	142.7	10	37	-5	19	33	10		
BRISBANE	66.42	170.3				19	32	-2		
MOSCOW	66.73	323.6	10	50	0	19	40	3	11	22 PCP
PULKOVO	67.47	329.6	10	53A	-1	19	44	-2	11	16 PCP
SHASTA	69.14	54.2	11	8	3					
HELSINKI	69.25	331.8	11	4	-1					
HUNGRY HORSE	69.76	13.9	11	8	0					
MINERAL	69.83	54.2	11	9	0					
SCORESBY SD.	70.66	354.7	11	11	-3	20	28	4		

BERKELEY	70.79	56.6	11	14	-1	20	29	3			
OTIFLIS	70.83	308.3	11	15	0	20	26	0	13	48	PP
SKALSTUGAN	70.90	339.0	11	14	-1						
GORIS	71.14	305.7	11	18	1	20	36	6	21	11	SCS
RENO	71.42	54.0	11	21	3						
LICK	71.50	56.8	11	25	6						
BUTTE	71.94	45.2	11	22	1				11	59	PCP
UPPSALA	72.08	334.4	11	21A	-1	20	40	-1	15	39	
RIVERVIEW	72.48	172.9				20	47	2			
BOZEMAN	72.99	44.8	11	30	2				11	52	PCP
FRESNO	73.03	56.4	11	29	1						
EUREKA	73.87	52.3	11	33	0						
SIMFEROPOL	75.08	316.0	11	40A	0				11	58	PCP
SALT LAKE C.	75.58	49.2	11	44	1						
PASADENA	75.65	57.8	11	44	1	21	22	1			
WARSAW	76.42	327.5	11	47A	-1	21	34	5	16	28	PPP
BOULDER CITY	76.71	54.6	11	50	1						
LWOW	76.83	324.4	11	50	0				22	8	PS
IASI	76.99	320.8	11	51	0						
COPENHAGEN	77.07	333.8	11	51A	0	21	39	3	14	45	PP
RAPID CITY	78.27	42.3	11	58	0						
KRAKOW	78.49	326.6	11	59	0	21	54	3	15	6	PP
RACIBORZ	79.21	327.4	12	3	0	22	4	5	15	9	PP
POTSDAM	79.47	331.4	12	5	1	22	4	2	15	2	PP
CAMPULUNG	79.60	320.7	12	8	3						
BUCHAREST	79.66	319.5	12	8	3	22	11	7			
ABERDEEN	80.14	341.6	12	56	48				21	38	
COLLMBERG	80.35	330.8	12	9	0	22	13	2	15	12	PP
ISTANBUL KA.	80.42	315.5	12	10	1	22	16	4			
HALLE	80.59	331.5	12	11	1	22	17	4	15	13	PP
PRAGUE	80.76	329.3	12	13	2	22	19	4	12	23	PCP
PRUHONICE	80.78	329.2	12	12	1	22	20	5	15	27	PP
BUDAPEST	80.79	325.2	12	12	1				22	23	SCS
HURBANOVO	80.88	326.0	12	6	-6				22	28	PS
TIMISOARA	81.09	323.0	12	18	5	22	26	7	23	23	
BRATISLAVA	81.13	326.7	12	16	3	22	25	6			
JENA	81.18	331.3	12	13	0	22	20	1	15	24	PP
KSARA	81.25	306.4	12	16	2	22	32	12	15	22	PP
WITTEVEEN	81.37	334.9	12	17	3						
TUCSON	81.63	55.4	12	19	3						
TUCSON TELE.	81.65	55.2	12	17	1						
MUNSTER	81.76	334.0	12	15	-1						
DURHAM	82.14	340.2	12	11K	-7	22	33	4			
BELGRADE	82.15	322.7	12	20A	1	22	50	21	15	49	PP
SOFIA	82.30	319.7	12	22	3	22	44	13	15	26	PP
DE BILT	82.47	335.3	12	19	-1	22	42	9			
BENSBERG	82.76	333.6	12	22	0						
JERUSALEM	83.00	305.2							13	47	
ZAGREB	83.43	325.8	12	26A	1						
SKOPJE	83.80	320.3	12	29A	2	22	53	7	17	51	PPP
STUTTGART	83.84	331.3	12	26	-1	22	30	-16	15	30	PP
KARLSRUHE	83.93	331.9	12	30K	2	22	54	7	14	20	
TUBINGEN	84.09	331.2	12	29	1						
TOLMEZZO	84.24	327.8	12	28	-1	23	17	27	12	30	PCP
EBINGEN	84.41	331.1	12	30	0						
RAVENSBURG	84.49	330.5	12	32	2						
STRASBOURG	84.53	332.0	12	32A	1	22	58	5	15	51	PP
TRIESTE	84.53	326.9	12	30A	-1	22	53	0	15	58	PP
RATHFARNHAM	84.67	342.1	12	33A	2				12	44	
KEW	84.72	338.0	12	32A	0	22	55	0	15	54	PP
NEUCHATEL	86.15	331.6	12	39	0	23	4	-5			
PARIS	86.18	335.1	12	39A	0	23	15	6			
LUBBOCK	86.30	49.2	12	42	3						
HELWAN	86.76	306.1	12	41	-1				12	58	
PAVIA	86.81	329.3							24	34	PS
FLORENCE X.	87.10	327.3	12	43	0	23	10	-8	16	15	PP
JERSEY	87.28	337.9							23	21	
ROME	88.08	325.4	12	47A	-1	23	10	-17	16	16	PP
CLERMONT-FD.	88.59	333.2	12	52A	2	23	42	10			
FAYETTEVILLE	88.80	42.9	12	46K	-5						
SHAWINIGAN	89.35	23.8	12	55	1						
OTTAWA	89.39	26.2	12	54A	0						
SEVEN FALLS	89.44	22.4	12	54	0	23	38	-2			
WESTON	93.54	24.8	13	32A	19						
HALIFAX	93.72	18.7				24	24	6	30	49	SS
PALISADES	93.87	27.1				23	58	-21			
TOLEDO	96.25	335.1	13	27	1				17	19	PP
BERMUDA	104.80	24.0				25	5?	4	27	48	PS

TAMANRASSET	107.08	319.3	14 14	777	24 56	0		18 42	PP	
LWIRO	110.20	283.8	18 37	9						
MBOUR	124.04	336.4						20 39	PP	
BYRD STATION	129.04	167.1	19 10	6						
LA PAZ	144.94	59.8	19 36	3	27 12	35				

APRIL 11 23.H 11.M 34.S EPICENTRE 47.83 152.71 DEPTH= 137.KM

DEPTH OF FOCUS= 0.016R

A=-0.59886 B= 0.30896 C= 0.73886 D= 0.4585 E= 0.8887
G=-0.6566 H= 0.3388 K=-0.6739 HT= -4.6

SE= 2.30

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KURILSK	4.23	233.9	1 4A	0				2 11
PETROPAVLOVK	6.52	33.3	1 33	-2	2 44	-4		2 6
NEMURO	6.73	230.7	1 33	-4	2 43	-10		
Y.-SAKHLINSK	6.84	266.3	1 40A	1	2 59	3		
ABASHIRI	7.00	240.2	1 50	9	2 50	-10		
UGLEGORSK	7.19	284.0			3 15	11		
KUSIRO	7.59	233.4	1 49	0	3 5	-9		
WAKKANAI	7.97	256.5	1 53	-1	3 6	-17		
ASAHIGAWA	8.28	244.5	1 56	-2				2 26
OBIHIRO	8.30	237.2	1 58	0				
URAKAWA	9.04	234.7	2 7	-1	3 41	-8		
SAPPORO	9.29	243.4	2 10	-2	4 4	9		2 33
TOMAKOMAI	9.48	240.1	2 29	15	4 3	4		
KLYUCHI	9.84	27.2	2 20	1				
MURORAN	9.95	240.8	2 20	0	4 4	-6		
SUTTSU	10.12	244.8	2 22	-1				4 38
MORI	10.33	240.8	2 24	-1	4 3	-16		3 12
HAKODATE	10.44	239.0	2 24	-3	4 10	-12		2 52
AOMORI	11.04	235.0	2 33	-2	4 27	-9		
MIYAKO	11.27	227.4	2 41	3	4 20	-22		
MORIOKA	11.63	229.9	2 37	-6	4 35	-15		
MAGADAN	11.80	355.2	2 46A	1				5 8
MIZUSAWA	12.08	228.2	2 49	1	4 47	-14		
AKITA	12.18	232.9	2 59	9	4 53	-10		
ISINOMAKI	12.53	225.6	2 54	0	4 59	-12		
SENDAI	12.86	226.4	2 54	-5	5 15	-4		3 14
SAKATA	12.92	231.1	3 0	1	5 17	-3		
HUKUSIMA	13.48	226.1	3 6	-1	5 42	9		
ONAHAMA	13.92	223.0	3 33	21				4 1
SHIRAKAWA	14.10	225.2	3 13	-1				
AIKAWA	14.41	232.4	3 21	3	6 3	8		
MITO	14.59	222.8	3 20	-1	6 8	9		
UTUNOMIYA	14.73	224.7	3 22	0	6 10	8		15 20 SCS
KAKIOKA	14.84	223.2	3 22	-2	5 59	-6		
TUKUBASAN	14.89	223.4	3 19A	-5	5 54	-12		3 33 PP
TAKADA	15.10	230.0	3 22	-5				
MAEBASI	15.23	226.4	3 30	1	6 23	9		7 44
KUMAGAYA	15.28	225.1	3 33	4	6 24	9		
VLADIVOSTOK	15.33	259.8	3 28A	-2	6 16	0		3 52
NAGANO	15.45	229.1	3 34	2	6 27	8		
TOKYO C.M.O.	15.49	223.1	3 39	7	6 11	-9		
MATUSIRO	15.54	228.8	3 30A	-3	6 28	7		15 23 SCS
OIWAKE	15.54	227.5	3 36	3	6 30	9		
TITIBU	15.56	225.4	3 29	-4				
WAZIMA	15.61	233.8	3 37	4	6 30	8		
YOKOHAMA	15.74	222.9	3 34	-1	6 23	-2		
MATUMOTO	15.90	228.7	3 36	-1	6 38	9		15 26 SCS
TOYAMA	15.95	231.5	3 47	9	6 37	7		
MERA	16.09	221.4	3 41	2	6 40	7		
KOHI	16.09	225.9	3 39	0	6 38	5		15 27 SCS
HUNATU	16.10	225.1	3 39	-1	6 41	7		
AJIRO	16.31	223.4	3 42	0	6 43	4		
MISIMA	16.32	223.9	3 42	0	6 43	3		
OSIMA	16.41	222.2	3 50	7	6 43	1		
SHIZUOKA	16.70	224.9	3 48	1	6 50	0		
HUKUI	16.93	232.0	3 47	-3				
OMAESAKI	17.09	224.6	4 3	11	7 1	2		
GIHU	17.17	229.5	3 51	-2	7 0	-1		
NAGOYA	17.25	228.6	3 53	-1	7 3	1		
IBUKISAN	17.38	230.3	3 55	0	7 9	5		

HIKONE	17.54	230.3	3	56	-1	7	12	5	15 33	SCS
KAMEYAMA	17.75	229.0	3	58	-2	7	28	17	4 43	
TU	17.82	228.6	4	10	10					
KYOTO	18.00	230.9	4	1	-1	7	19	3		
OSAKA	18.39	230.5	4	3	-4	7	27	3	15 29	SCS
TOTTORI	18.44	234.8	4	34	27					
KOBE	18.55	231.3	4	24	16	7	46	19		
SUMOTO	18.96	231.2	4	10	-3	7	35	-1	15 34	SCS
YONAGO	18.99	236.3	4	12	-1	7	43	7		
HIMEJI	19.10	232.5	4	10	-4	7	32	-6		
SIOMISAKI	19.21	227.8	4	16	1	7	42	1		
YAKUTSK	19.25	326.0	4	15	-1	7	43	2		
TOKUSIMA	19.34	231.3	4	15	-2	7	45	2		
TAKAMATU	19.43	232.8	4	15	-3	7	44	-1		
CHANGCHUN	19.46	268.3	4	15A	-3	7	45	0		
HAMADA	20.09	237.5	4	24	-1	8	0	3		
HIROSIMA	20.27	235.8	4	25	-1					
KOTI	20.29	232.3	4	25	-2	8	2	1	15 39	SCS
MATUYAMA	20.50	234.2	4	28	-1	8	0	-5		
SIMIDU	21.18	231.9	4	36	0	8	22	4	5 14	
OOITA	21.57	235.1	4	41	2	8	30	5		
ASOSAN	22.12	235.5	4	48	3	8	41	6		
SAGA	22.30	237.4	4	49	3	8	38	0		
KUMAMOTO	22.39	235.9	4	48	1					
MIYAZAKI	22.68	233.2	4	54	4	8	50	6		
NAGASAKI	22.92	237.1	4	54	2	8	55	7		
KAGOSIMA	23.42	234.1	5	0	3	9	12	15		
YAKUSIMA	24.31	232.5	5	6	0					
TIKSI	26.34	343.2	5	23	-2	9	45	-1	6 11	PP
PEKING	27.25	267.0	5	31A	-2	9	48	-12	5 57 6 20	PP
ZO-SE	29.25	246.6	5	50A	-1	10	32	0	6 22 6 41	*SP
NANKING	30.11	250.8	5	58A	-1	10	44	-2	6 27 7 28	PPP
ULAN-BATOR	30.38	287.5	5	29	-32					
IRKUTSK	30.92	296.6	6	4A	-2					
PAOTOW	31.12	272.5	6	7	-1					
GUAM	34.89	193.6	6	39	-1					
HSINKONG	35.10	236.4	6	40	-2	12	2	-1		
SIAN	35.23	263.6	6	43	0					
COLLEGE	35.48	39.3	6	46	1	12	12	3	13 6	
TAITUNG	35.50	236.3	6	46	1					
HENGCHUN	36.32	236.0	7	3	11					
LANCHOW	37.62	270.1	7	2A	-1	12	38	-4	8 35	PP
CANTON	39.89	245.8	7	22	0	13	18	2	7 51 8 8	*SP
TRUK	40.22	181.3	7	22	-2	13	17	-4		
BAGUIO CITY	40.95	231.1	7	31	1	13	30	-2		
MANILA	42.29	229.2	7	42	1	13	50	-1		
SITKA	42.88	49.8	7	50	4	14	6	6	8 46	
KUNMING	45.27	258.1	8	5A	0	14	31	-3	8 35 10 31	PPP
SEMIPALATNSK	45.76	301.6	8	7	-2					
KIPAPA	47.32	106.2	8	22	1					
HONOLULU	47.35	106.3	8	21	-1	15	15	11		
TOCKLAI	49.41	266.3	8	42A	4					
RESOLUTE	49.91	18.7	8	40A	-1	15	42	3	10 41	PP
LHASA	50.06	272.0	8	43A	0	15	41	-1	9 22 16 36	*SS
HAWAII V.OB.	50.53	105.5	8	45	-1	15	50	2		
NORD	50.70	358.0	8	45	-2					
RABAUL	51.81	180.7	8	53	-3					
ALBERNI	51.97	55.5	8	57	0					
SHILLONG	52.14	267.4	8	57A	-1	16	8	-2	10 59	PP
HORSESHOE B.	52.76	54.7	9	2K	-1					
SVERDLOVSK	52.86	316.4	9	2	-2				11 4	PP
FRUNSE	52.93	295.6	9	3A	-1				21 14	SSS
THULE	53.29	11.2	9	4	-3	16	20	-6	17 15	*SS
SEATTLE	54.26	56.1	9	13	-1					
CHITTAGONG	54.34	264.5	9	14K	0	16	41	1	11 14	PP
CHATRA	54.48	272.1	9	8	-7	16	34	-8		
BANFF	55.87	49.5	9	25K	0					
APATITY	56.25	336.2	9	26	-2					
HOWRAH	56.57	267.4	9	30	0	17	12	3		
TASHKENT	57.04	296.9	9	32	-2				17 40	PS
PORT MORESBY	57.19	186.5	9	33K	-2	17	17	0	11 29	PP
SODANKYLA	58.15	338.4	9	40	-1					
SHASTA	58.30	62.9	9	43K	1				10 18	
DEHRA DUN	58.31	281.5	9	44	1	17	33	1	21 16	SS
HUNGRY HORSE	58.34	51.5	9	43	0				38 23	PKPPKP
UKIAH	58.77	64.8	9	46	0				41 54	SKPPKP
MINERAL	58.99	62.8	9	47K	0					
STALINABAD	59.05	294.6	9	47	-1	17	43	1		

KIRUNA	59.24	340.9	9	47A	-2	17	50	6			13	38
LAHORE	59.96	285.0	9	53	-1	17	59	6				
BERKELEY	60.14	65.4	9	55K	0	18	2	6	10	28		
WARSAK DAM	60.18	288.9	9	54	-1							
AGRA	60.42	278.7	9	55A	-2	17	55	-4			12	9 PP
RENO	60.57	62.5	9	59	1							
BUTTE	60.57	52.9	9	59	1				10	31		
LICK	60.86	65.5	10	0K	0				10	34		
PORT BLAIR	61.40	255.0	10	6	2	18	13	1			19	40 SCS
BOZEMAN	61.61	52.4	10	5	0	18	21	7	10	41	39	0 PKPPKP
SCORESBY SD.	61.94	358.0	10	6A	-1	18	24	5			25	26 SSS
FRESNO	62.35	64.9	10	9	-1				10	45		
EUREKA	62.88	60.4	10	14	0				10	48	38	59 PKPPKP
VIZIANAGRAM	62.91	267.4	10	14A	0						18	32
PULKOVO	62.96	331.3	10	13	-1	18	33	2			19	18 *SS
MOSCOW	63.40	325.0	10	16	-1	18	32	-5	10	43	12	41 PP
HELSINKI	64.30	334.0	10	20	-3							
SALT LAKE C.	64.40	57.0	10	25	2						11	42
PASADENA	65.07	66.1	10	27	-1	19	1	4	10	48	39	9 PKPPKP
QUETTA	65.63	288.5	10	31A	0	19	8	4			12	52 PP
ASHKABAD	65.67	300.1	10	31A	-1				10	57	12	57 PP
BOULDER CITY	65.88	62.6	10	32	-1				11	7		
UPPSALA	66.61	337.1	10	35A	-3	19	17	1	10	53	39	5 PKPPKP
AKUREYRI	66.62	355.9	10	39	1							
HYDERABAD	66.77	270.6	10	37A	-2	19	17	-1			13	18 PP
RAPID CITY	66.80	49.5	10	39	0	19	23	5	11	13	39	0 PKPPKP
DJAKARTA	67.21	230.7	10	39K	-2	19	25	2				
LEMBANG	67.35	229.6	10	37A	-5	19	22	-3				
BANDUNG	67.40	229.6							11	12		
LARAMIE	67.49	53.0									16	38
CHARTERS TS.	67.77	186.6	10	42K	-3						11	15
REYKJAVIK	68.31	357.5	10	52	4							
MADRAS	68.76	266.0	10	51A	0	19	44	2			13	16 PP
BERGEN	68.93	343.3	10	51A	-1	19	46	2				
APIA	69.04	142.8	10	49	-4							
POONA	69.09	274.8	10	55	2	19	48	2			13	33 PP
BOMBAY	69.52	275.8	10	55	-1	19	51	0			11	27 PCP
SUVA	69.60	153.9	10	55K	-1	19	54	2			11	13 PCP
TIFLIS	70.44	310.9	11	1	0						20	50 PS
TUCSON	70.84	63.0	11	4	0	20	15	9			13	47 PP
TUCSON TELE.	70.85	62.9	11	4	0						13	44 PP
GORIS	71.27	308.4	11	6	0						20	59 PS
COPENHAGEN	71.61	337.6	11	8A	0	20	24	9			21	17 SCS
WARSAW	72.13	331.1	11	9A	-2						13	59 PP
SIMFEROPOL	73.07	319.3	11	16A	-1	20	30	-1	11	49	13	57 PP
LWOW	73.13	328.1	11	17	0	20	33	1	11	41	14	2 PP
ABERDEEN	73.29	346.0	11	13A	-5	20	38	4			16	15
IASI	73.98	324.5	11	22	0	20	47	6	11	32		
KRAKOW	74.35	330.6	11	23	-1	21	27	42			11	39 PCP
POTSDAM	74.40	335.7	11	24	0	20	38	-8			11	49
BACAU	74.76	324.6	11	28	2	20	50	0	11	47		
RACIBORZ	74.89	331.6	11	27	0	20	59	8			11	46 PCP
BRISBANE	74.96	179.7	11	27K	-1	20	55	3				
SKALNATE PL.	74.99	329.9	11	27	-1						21	26 PS
LUBBOCK	75.11	56.4	11	29	1	20	58	4			12	4
FOCSANI	75.36	323.9	11	35	5							
COLLMBERG	75.38	335.2	11	29	-1	21	3	6				
HALLE	75.49	335.9	11	31	0	20	59	1			14	20 PP
DURHAM	75.50	345.0	11	30	-1	21	0	2			14	10 PP
WITTEVEEN	75.64	339.5	11	33	2							
PRAGUE	76.06	333.8	11	37	3	21	7	3	12	7	14	31 PP
PRUHONICE	76.11	333.7	11	32	-2	21	8	3	12	1	14	25 PP
JENA	76.11	335.9	11	33	-1	21	4	-1	12	0	14	37 PP
MUNSTER	76.19	338.6	11	33	-2							
CAMPULUNG	76.57	324.9	11	39	2	21	18	8				
DE BILT	76.65	340.1	11	37A	0	21	17	6				
SONNEBERG	76.71	335.8	11	35	-2	21	23	12	11	52		
HURBANOVO	76.81	330.5	11	42	4	20	50	-22			14	28 PP
BUDAPEST	76.85	329.7	11	39	1	21	11	-2			14	34 PP
BUCHAREST	76.86	323.8	11	39K	1	21	17	4			14	19 PP
BRATISLAVA	76.91	331.3	11	39A	0	21	18	5			14	29 PP
BENSBERG	77.23	338.5	11	40	0	21	19	2				
ST. LOUIS 1	77.33	45.6	11	41A	0	21	19	1	12	14		
FAYETTEVILLE	77.34	49.8	11	41K	0	21	16	-2			12	17
TIMISOARA	77.59	327.5	11	46	4	21	26	5			21	53 PS
RATHFARNHAM	77.68	347.3	11	42K	-1	20	30	-52			14	32 PP
OTTAWA	77.92	32.6	11	44K	0	21	26	2			14	28 PP
SHAWINIGAN	77.96	30.2	11	45K	1	21	26	1			14	32 PP

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

SEVEN FALLS	78.10	28.7	11 47	2	21 27	1			22 26	PPS
ISTANBUL KA.	78.39	320.0	11 46	-1	21 33	4				
KEW	78.41	343.2	11 47A	0	21 33	3			14 43	PP
BREBEUF	78.58	31.3	11 47A	-1						
BELGRADE	78.67	327.5	11 47K	-1	21 35	3			12 42	
KARLSRUHE	78.71	336.9	11 48A	0	21 48	15			14 52	PP
STUTTGART	78.72	336.3	11 48	0	21 32	-1			14 50	PP
TUBINGEN	78.97	336.3	11 50A	0						
STRASBOURG	79.28	337.2	11 52A	0	21 42	3			14 58	PP
LITTLE ROCK	79.30	49.4	11 54	2	21 41	2				
EBINGEN	79.32	336.2	11 51	-1						
ZAGREB	79.34	330.8	11 52A	0	21 40	1			15 2	PP
SOFIA	79.39	324.6	11 52	0	21 31	-9			14 37	PP
RAVENSBURG	79.51	335.7	11 52	-1						
TOLMEZZO	79.76	332.9	11 54	0	21 56	12	12 28		15 54	PP
ZURICH	80.17	336.2	11 56	0	21 51	3				
TRIESTE	80.21	332.1	11 56	0	21 49	1			22 4	SCS
SKOPJE	80.75	325.4	12 1A	2	22 5	11			12 41	PCP
JERSEY	80.94	343.6	11 47	-13	21 59	3				
NEUCHATEL	80.95	337.0	12 1	1	22 0	4				
KSARA	81.02	311.2	12 3	2	22 4	7	12 23		15 8	PP
MORGANTOWN	81.16	38.4	12 2	1					14 55	PP
RIVERVIEW	81.30	181.3	11 59	-3	22 3	3				
UROPA	81.94	335.8	12 9	3					23 29	PS
BOLOGNA	81.99	333.2	12 11	5	21 50	-17			23 16	PS
PAVIA	82.01	334.9	12 6A	0	22 20	13			15 21	PP
PALISADES	82.37	33.7	12 7	-1	22 10	-1			15 16	PP
HALIFAX	82.56	25.2	12 12K	3	22 14	1			15 24	PP
PRATO	82.62	333.1	12 10	1	22 10	-3				
FLORENCE X.	82.67	332.9	12 10A	1	22 17	3	12 44		15 15	PP
JERUSALEM	82.97	310.4							17 4	PP
CLERMONT-FD.	83.06	339.1	12 12A	1	22 26	8				
ATHENS	83.25	321.8	12 11A	-1	22 13	-6	12 32			
TARANTO	83.61	327.4	12 38	24	23 28	65				
MONACO	83.83	335.5	12 16	1						
ROME	83.98	331.3	12 16A	0	22 25	-2	12 59		15 31	PP
CHAPEL HILL	84.66	39.8	12 22	3					12 57	
COLUMBIA	85.40	42.2	12 25	2			12 58			
MELBOURNE	85.56	186.1	12 24K	0					13 0	
MESSINA	86.23	327.5	12 27A	0						
REGGIO CALA.	86.28	327.4	12 26	-1						
HELWAN	86.48	312.0	12 28	0	22 54	3				
KARAPIRO	87.76	162.1	12 34	0					13 10	
TOLEDO	90.26	342.3	12 46	0	23 6	-20			16 19	PP
FORT NELSON	90.50	183.9	12 53	6			13 5			
ALICANTE	90.94	339.2	12 50	1	23 45	13			24 53	PS
ALGIERS UNI.	91.53	336.1	12 50	-2	23 42	5			16 26	PP
GRANADA	92.77	341.3	12 51A	-7	23 21	-27			16 19	PP
ALMERIA	92.83	340.3	13 2	4						
MALAGA	93.38	341.8	13 0K	-1	24 2	9			16 46	PP
BERMUDA	93.40	31.0	13 6	5	23 59	6			16 49	PP
TAMANRASSET	103.78	329.0	13 49	2	25 22	1			18 6	PP
CHINCHINA	112.50	53.7							19 12	PP
BOGOTA	113.63	52.5							19 21	PP
LWIRO	113.86	294.9	18 25	3			19 15			
TANANARIVE	113.89	267.9	18 26	4					19 23	PP
MBOUR	117.39	348.7							19 45	PP
CAPE HALLETT	120.46	173.8			26 57	98			24 24	PPP
HUANCAYO	126.44	64.7	18 49	2					21 55	PP
LA PAZ	134.24	61.1	19 6K	5					22 18	PP
BYRD STATION	136.30	165.4	18 50	-15			19 44		22 21	PP
WINDHOEK	136.64	289.7	18 56	-10						
GRAHAMSTOWN	137.45	269.7	19 1	-6						
SOUTH POLE	137.63	180.0	18 53	-15					21 48	PP
HALLEY BAY	152.21	180.4	19 38	6	26 44	20				

APRIL 11 23.H 24.M 16.S EPICENTRE 0.54 125.31 DEPTH= 22.KM

A=-0.57796 B= 0.81601 C= 0.00931 D= 0.8160 E= 0.5780
G=-0.0054 H= 0.0076 K=-1.0000 HT= 7.2

SE= 2.79

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KOROR	11.36	53.4	2 43	-1	4 37	-14		

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

BAGUIO CITY	16.46	343.8	3	56	6	6	42	-10					
BANDUNG	19.10	246.9	4	28	5						16	3	SCS
LEMBANG	19.11	247.2	4	22K	-1						7	22	
DJAKARTA	19.62	249.8	4	19	-10						7	59	
GUAM	23.15	55.5	5	0	-5	9	4	-7					
PORT MORESBY	23.88	114.9	5	11K	-1	9	18	-6	5	47			
CANTON	25.27	333.3	5	29	4				5	51			
TRUK	27.34	74.7	5	42	-3								
CHARTERS TS.	28.96	136.0	5	59K	0						12	43	SS
KUNMING	32.74	319.8	6	9	-24								
MATUSIRO	37.78	17.1	7	15A	0	12	56	-8			8	43	*PPP
BRISBANE	38.54	138.4	7	22K	0				8	50			
PEKING	40.18	349.1	7	37	2								
LANCHOW	40.61	332.9	7	40	1								
SHILLONG	40.74	310.3	6	53A	-47								
RIVERVIEW	41.93	147.1	7	51	1						9	28	
MELBOURNE	42.27	156.7	7	57K	4						10	7	PP
LHASA	43.61	314.7	8	6	2								
FORT NELSON	47.59	158.1	8	42	7								
LAHORE	57.16	307.9	9	46	-1								
KARAPIRO	59.98	135.4	10	7	1								
ROXBURGH	60.09	145.7	10	39	32						11	26	
WARSAK DAM	60.24	309.5	10	8	0								
WELLINGTON	61.07	139.1	10	12	-2								
QUETTA	62.68	303.9	10	24A	-1	18	46	-4			11	1	PCP
HONOLULU	77.31	68.4	11	54	0								
KIPAPA	77.40	68.3	11	55	1								
TANANARIVE	78.60	250.7	12	5K	4								
SCOTT BASE	81.39	171.8	12	18A	2								
TIFLIS	82.55	311.9	12	24	2								
KSARA	89.23	303.6	12	52	-3	23	17	-23			24	40	PS
SIMFEROPOL	90.47	314.8	13	1	1								
SOUTH POLE	90.53	180.0	12	59	-2								
SODANKYLA	92.86	337.5	13	13	2								
HELSINKI	94.68	330.4	13	19	-1								
BYRD STATION	94.78	170.9	13	23	3								
KIRUNA	95.10	338.[illegible]	13	20	-2								
LWIRO	96.52	267.8									16	33	PP
UPPSALA	98.35	330.9	13	35	-1								
RESOLUTE	101.19	10.1	13	49K	0								
EUREKA	111.47	46.8	18	35	3								
TAMANRASSET	117.06	295.9									19	49	PP
SHAWINIGAN	130.49	16.4	19	20	12								
HUANCAYO	156.54	120.0	19	33	-19						20	26	PKP2
LA PAZ	159.33	140.8	19	56	0	26	44	-12			24	14	PP

APRIL 12 11.H 47.M 5.S EPICENTRE 26.95-110.78 DEPTH= 0.KM

A=-0.31662 B=-0.83457 C= 0.45082 D=-0.9350 E= 0.3547
G=-0.1599 H=-0.4215 K=-0.8926 HT= 2.8

SE= 3.31

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CHIHUAHUA	4.48	67.0	1	5A	-6								
TUCSON	5.28	359.5	1	20	-2	2	13	-11					
TUCSON TELE.	5.37	0.5	1	20	-3								
MAZATLAN	5.46	132.5	1	19	-5	2	23	-6					
GUADALAJARA	9.25	130.9	2	39	22								
PASADENA	9.59	320.2	2	19A	-3								
BOULDER CITY	9.64	340.0	2	23	0	5	3	50			2	46	
LUBBOCK	10.16	47.2	2	29	-1								
FRESNO	12.43	324.2	2	59K	-2								
TACUBAYA	13.03	122.8	3	10K	1	5	42	6			3	16	PP
EUREKA	13.22	342.2	3	12	1								
SALT LAKE C.	13.81	356.6	3	21	2						5	11	
LICK	13.84	321.1	3	19A	-1						6	43	
PUEBLA	14.00	121.6	3	31	9								
BERKELEY	14.57	321.2	3	28K	-1	6	19	7					
RENO	14.64	331.3	3	31K	1								
LARAMIE	14.95	15.3	4	6	32								
VERA CRUZ	15.52	116.7	3	39	-3	6	41	6			4	37	
UKIAH	15.99	322.5	3	51	3	7	9	23					
MINERAL	16.10	328.8	3	49K	0								
FAYETTEVILLE	16.80	53.1	3	55	-3	7	16	11					

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

LITTLE ROCK	17.62	59.2	4	7	-1					
ARCATA	17.71	325.0	4	14	5					
RAPID CITY	18.15	17.8	4	14	-1	7	54	18		
BUTTE	19.08	356.2	4	26	0				5	7
MERIDA	20.23	102.6	4	38K	-1	8	20	-2	4	56 PP
COMITAN	20.32	117.8	4	36	-4	8	27	4	5	7 PP
ST. LOUIS 1	20.79	50.8	4	42A	-3	8	40	7	5	12
HUNGRY HORSE	21.51	354.1	4	50	-2	8	54	7	5	17 PP
SEATTLE	22.55	339.4	5	2	-1	9	33	27		
TERRE HAUTE	23.11	51.4	5	5	-3					
VICTORIA	23.68	338.8	5	12K	-2	9	37	11		
SAN SALVADOR	24.06	118.9	5	24	7					
HORSESHOE B.	24.39	340.0	5	18	-3	9	45	7		
BANFF	24.45	352.7	5	25	4					
ALBERNI	24.79	337.7	5	23	-2					
SASKATOON	25.34	6.0	5	26	-4	10	1	7		
COLUMBIA	26.52	67.4	5	40	-1	10	36	22		
CLEVELAND	28.03	51.4	5	55K	0					
CHAPEL HILL	28.41	63.8	6	2	4					
MORGANTOWN	28.55	55.9	5	58A	-1				15	4 SS
GEORGETOWN	30.53	58.5	6	16	-1				7	0 PP
WASHINGTON	30.53	58.5	6	34	17					
PALISADES	33.37	55.6	6	40	-2	12	1	-2	7	41 PP
OTTAWA	33.41	47.3	6	40	-2	12	7	4		
BALBOA HTS.	34.52	115.4	6	47	-5	13	7	46	8	7 PP
BREBEUF	34.83	48.0	6	57	3	12	45	20		
HARVARD	35.42	53.8	8	5	65					
SHAWINIGAN	35.74	46.7	7	8	6					
SEVEN FALLS	37.19	46.5	7	19	5	13	9	7	8	42 PP
CHINCHINA	40.01	116.8	7	37	-1				9	35 PP
BERMUDA	40.18	70.9	7	41	2	13	56	9	9	16 PP
BOGOTA	41.46	115.9	7	52	2	14	13	7	17	25 SSS
HALIFAX	41.51	52.2				14	5	-2	9	32 PP
SAN JUAN	41.90	92.1	7	51	-3				9	47 PCP
HONOLULU	43.36	273.1	8	2	-3	14	38	4		
COLLEGE	44.61	338.5	8	12	-4	14	49	-3	9	59 PCP
FORT FRANCE	47.67	94.4	8	26	-14	15	31	-5		
RESOLUTE	48.48	5.6	8	41	-5	15	51	4	10	37 PP
HUANCAYO	51.84	133.8	9	7	-5	16	38	4		
THULE	53.59	11.4	9	17	-8	16	59	1		
LA PAZ	59.83	131.3	10	7	-2	18	17	-3	24	25 SSS
NORD	64.12	9.4	10	35	-3	19	14	0		
SCORESBY SD.	64.49	21.9	10	41	1	19	21	2		
PETROPAVLOVK	69.24	319.9							11	7 PCP
MAGADAN	71.25	327.9							11	23 PCP
TIKSI	73.47	343.4							11	31 PCP
RATHFARNHAM	76.91	36.6	11	53K	-3					
ABERDEEN	77.15	32.0				21	47	1	29	39 SSS
DURHAM	78.62	33.9	12	7A	2	22	0	-2		
BERGEN	78.66	27.1				22	5	3		
KIRUNA	78.82	16.9	12	9	3	22	5	1		
YAKUTSK	79.04	335.3							12	4 PCP
SODANKYLA	80.71	15.4	12	18	2					
KEW	80.99	36.4	12	24	6	22	28	1	22	43 SCS
Y.-SAKHLINSK	81.10	318.3							12	13 PCP
JERSEY	81.22	39.0				22	30	1		
SUVA	81.97	245.1							24	0 PPS
APATITY	82.06	13.1	11	58	-25					
DE BILT	83.46	33.9	12	29	-2	22	55	3		
UPPSALA	83.73	23.5	12	33	1	22	55	0	15	45 PP
WITTEVEEN	83.76	32.8	12	37	5					
PARIS	83.96	37.6	12	38	5	22	58	1		
COPENHAGEN	84.58	28.4				23	12	9	23	7 SKS
MUNSTER	84.75	33.1	12	40	3					
TOLEDO	84.82	47.7	12	12	-25	23	14	9		
BENSBERG	85.14	34.1	12	45	6					
HELSINKI	85.94	20.5	12	47	4					
CLERMONT-FD.	86.05	39.9	12	45	1	23	27	10		
MALAGA	86.21	50.6	12	44K	0	23	24	5	16	2 PP
GRANADA	86.52	49.9	13	0K	14	23	30	8	28	39 SS
SENDAI	86.72	311.5	12	45	-2					
MBOUR	86.91	75.5	12	53	5	23	35	9		
STRASBOURG	86.92	35.7	12	49	1	23	32	6	16	31 PP
KARLSRUHE	86.98	35.1	12	59	11	23	41	15	23	17 SKS
HALLE	87.12	31.8	12	53	4	23	34	6	23	18 SKS
JENA	87.32	32.4	12	52	2	23	28	-1	16	20 PP
ALMERIA	87.46	49.7	12	50	0	23	29	-2		
SONNEBERG	87.50	32.9	13	2	11					
STUTTGART	87.54	35.0	12	50	-1	23	34	3	13	20

COLLMBERG	87.74	31.5	12	57	5	23	39	6	16	21	PP
PULKOVO	87.86	18.5							23	20	SCS
PLAUEN	87.88	32.4	12	51	-1						
ALICANTE	87.99	47.6	12	47	-6	23	21	-15	16	16	PP
TUKUBASAN	88.35	310.2	12	22K	-33	23	35	-4	29	30	
PRAGUE	89.25	31.8	14	22	83				16	26	
PRUHONICE	89.37	31.8	12	58	-2	23	49	1	23	28	SKS
MATUSIRO	89.45	311.3	13	2	2	23	50	1	23	44	SKS
VLADIVOSTOK	89.60	319.4							16	25	PP
KRAKOW	91.76	29.3				24	11	1	24	16	SCS
FLORENCE X.	91.84	37.9	13	42	31				17	15	PP
TRIESTE	91.92	35.3				24	21	10	23	52	SKKS
KYOTO	91.98	311.1	13	10	-2						
MOSCOW	93.34	17.3							23	51	SKKS
ROME	93.75	38.7				24	29	2	25	59	PS
IRKUTSK	95.35	339.2							24	2	SKKS
BELGRADE	95.85	32.6							20	8	PPP
SVERDLOVSK	96.23	4.7							24	4	SKKS
NAGASAKI	97.25	312.2	12	55	-41				17	25	
TARANTO	97.36	37.3							16	55	
ULAN-BATOR	98.14	335.5				24	21	-44			
BUCHAREST	98.77	29.7				24	26	-44			
TAMANRASSET	101.03	57.5				25	38	9	18	2	PP
SIMFEROPOL	101.60	24.6							24	34	SKKS
SEMIPALATNSK	102.37	352.8				24	32	-68			
ISTANBUL KA.	102.76	30.0							18	12	PP
TIFLIS	108.03	19.0							18	51	PP
FRUNSE	110.34	355.8							19	11	PP
KSARA	111.78	29.5	19	28	51						
SAMARKAND	113.69	1.9							19	40	PP
QUETTA	123.15	2.4	18	58	-1	27	35	95	38	8	SS
LWIRO	134.15	64.6	19	22	2						
TANANARIVE	158.52	72.7	20	2	3				20	39	

APRIL 12 13.H 25.M 29.S EPICENTRE 24.81 125.95 DEPTH= 56.KM

DEPTH OF FOCUS= 0.004R

A=-0.53360 B= 0.73567 C= 0.41721 D= 0.8095 E= 0.5871
G=-0.2450 H= 0.3377 K=-0.9088 HT= 3.4

SE= 2.97

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ILAN	3.82	270.4	1	0	2	1	13	-29				
TAIPEI	4.03	274.1	1	2	1	1	50	2				
HWALIEN	4.04	259.0	1	3	2	1	21	-27				
HSINKONG	4.52	248.9	1	3	-5	1	53	-7				
HSINCHU	4.53	271.0	1	34	26							
TAICHUNG	4.85	263.4	1	15	3	1	59	-9				
TAITUNG	4.85	246.0	1	10	-2	2	10	2				
ALISHAN	4.88	255.9	1	10	-3	2	4	-5				
TAWU	5.24	243.2	1	15	-3	2	11	-7				
HENGCHUN	5.54	240.8	1	18	-4	1	23	-62				
TAINAN	5.55	252.3	1	25	3	1	34	-51				
KAOHSIUNG	5.65	248.5	1	28	5							
YAKUSIMA	6.92	34.6	1	37	-4	3	23	24			2	57
ZO-SE	7.56	327.1	1	49	-1	3	14	-1				
KAGOSIMA	7.86	30.0	1	51	-3	3	50	27				
TOMIE	8.17	17.0	2	0	2							
MIYAZAKI	8.57	32.9	1	58	-6	4	6	26			3	33
NAGASAKI	8.61	22.7	2	1	-4						4	21
UNZENDAKE	8.75	24.5	1	56	-10	3	51	6				
KUMAMOTO	9.00	26.4	2	7	-3	3	50	-1			4	23
ASOSAN	9.23	27.9	2	12	-1							
SAGA	9.23	23.3	2	16	3	4	51	54				
HUKUOKA	9.57	23.0	2	18	0	4	25	20				
NANKING	9.58	320.5	2	18A	0							
BAGUIO CITY	9.74	212.1									2	17 P**
ODITA	9.75	29.3	2	27	7	4	56	47				
ITUHARA	9.80	16.4	2	26	5							
SIMIDU	10.05	36.1	2	23	-1	4	57	40				
FUTZELING	10.70	309.4	2	35	2							
MATUYAMA	10.77	31.8	2	33	-1	5	4	30			5	32
KOTI	10.94	35.5	2	31	-5	5	14	36			4	31

HONG KONG	11.09	259.4	2	48	10	4	36	-6			
MANILA	11.20	205.6	2	37	-3	5	33	49			
CANTON	11.72	264.2	2	44	-3						
TAKAMATU	11.81	34.7	2	52	4				4	53	
TOKUSIMA	11.90	37.1	2	44	-5	4	54	-7			
MATSUE	12.26	28.4	2	48	-6						
SUMOTO	12.27	37.1	2	49	-5	5	37	27	3	31	
YONAGO	12.37	29.4	3	17	21	6	10	57			
OWASE	12.83	41.7	2	56	-6						
OSAKA	12.86	38.1	3	12	10	5	51	27	3	33	
TOYOOKA	13.15	33.6	3	10	4	5	51	20			
KYOTO	13.24	37.5	2	58A	-9	5	25	-8			
KAMEYAMA	13.54	39.9	3	1	-10	5	41	1	3	37	
HIKONE	13.71	38.1	3	13	0	6	19	34			
IBUKISAN	13.86	38.1	3	15	0						
NAGOYA	14.05	40.1	3	23	5	6	14	21			
GIHU	14.10	39.0	3	25	7				5	54	
HUKUI	14.30	36.0	3	14	-7						
OMAESAKI	14.44	44.7	3	21	-2	6	24	22			
SHIZUOKA	14.79	43.9	3	34	7	6	28	18			
MISIMA	15.23	44.6	3	33	0	6	39	19			
TOYAMA	15.28	36.5	3	46	12				6	41	
OSIMA	15.30	46.4	3	33	-1	6	39	17	6	56	
KOHU	15.32	42.3	3	40	6	6	40	17			
HUNATU	15.36	43.1	3	36	1	6	43	20			
MATUMOTO	15.39	39.4	3	36	1	6	46	22			
MERA	15.68	46.8	3	39	0	6	39	8	4	51	
MATUSIRO	15.74	39.1	3	35A	-5	6	47	15	5	33	
OIWAKE	15.78	40.4	3	49	9						
NAGANO	15.82	38.7	3	47	7	6	48	14	4	25	
TITIBU	15.87	42.4	3	43	2						
YOKOHAMA	15.87	45.0	3	40	-1	6	53	18			
TOKYO C.M.O.	16.09	44.5	3	43	-1	6	48	8	4	10	
MAEBASI	16.14	41.2	3	46	1	6	58	17	4	29	
TAKADA	16.15	37.7	3	51	6						
KUMAGAYA	16.16	42.5	3	45	0	7	1	19			
TUKUBASAN	16.65	43.6	3	47K	-4	6	58	5	8	34	PCP
KAKIOKA	16.71	43.7	3	52	0	7	5	11			
UTUNOMIYA	16.72	42.3	3	49	-3	7	2	7	4	17	
LINFEN	16.76	315.6	3	58	6						
AIKAWA	16.82	35.5	4	13	20						
MITO	16.98	43.8	3	58	3	7	7	6	4	33	
PEKING	17.26	333.9	3	59A	0	7	14	7			
SHIRAKAWA	17.31	41.5	3	57	-2	7	14	6			
SIAN	17.54	306.4	4	4	2						
ONAHAMA	17.61	43.1	4	0	-3	7	19	4			
HUKUSIMA	17.87	40.3	3	59	-7	7	24	3			
YAMAGATA	18.14	39.0	4	9	0	7	28	1			
SAKATA	18.31	36.6	4	34	23						
SENDAI	18.47	39.8	4	11	-2	7	34	0			
VLADIVOSTOK	18.91	13.5	4	17	-2						
CHANGCHUN	18.99	358.6	4	18A	-2	7	47	1			
AKITA	19.05	35.3	4	24	4	8	4	17			
MIZUSAWA	19.19	38.3	4	22	0						
KOROR	19.20	153.4	4	21	-1	7	22	-28			
MORIOKA	19.61	37.1	4	25	-1	7	56	-3			
MIYAKO	20.02	38.5				8	1	-7			4 47
AOMORI	20.21	34.2	4	41	8	8	23	12			
GUAM	21.00	119.0	4	38	-3	8	32	5			
MORI	21.07	31.5	4	37	-5	8	39	11			
KUNMING	21.11	275.6	4	43A	1	8	36	7			
SUTTSU	21.46	29.7				8	38	3			
TOMAKOMAI	21.88	32.3	5	13	23	8	52	9			
LANCHOW	22.09	305.8	4	51A	-1	8	49	2			
SAPPORO	22.18	31.0	4	53	0	8	53	5			
URAKAWA	22.21	34.7	4	53	0	9	1	12			
OBIHIRO	22.98	33.9	5	2	2						
KUSIRO	23.64	35.4	5	7	0	9	19	5			
NEMURO	24.51	36.2	5	18	3				9	39	
Y.-SAKHLINSK	25.83	27.0	5	26	-2	9	48	-3			
UGLEGORSK	27.32	23.4	5	45	3						
ULAN-BATOR	27.56	331.7	5	42	-2						
TRUK	30.16	120.5	6	6	-1						
SHILLONG	30.81	278.8	6	13A	0	11	6	-5	7	18	PP
CHITTAGONG	31.33	272.7	6	20	3	11	22	3	7	21	PP
LHASA	31.34	286.7	6	18A	1	11	23	4	7	21	PP
IRKUTSK	31.98	334.7	6	20	-3						
MEDAN	33.69	235.6	6	38K	0	12	1	5			
PORT BLAIR	34.05	253.5	6	46	5	12	3	1	8	12	PPP

CALCUTTA	34.46	274.1	6	46	2	12	10	2	8	13	PPP
CHATRA	34.88	281.8	6	47	-1	12	11	-3			
DJAKARTA	35.99	213.7	6	59	2	12	36	5			
LEMBANG	36.16	212.0	7	1A	2	12	41	7			
BANDUNG	36.22	211.8	7	1	2	12	39	2			
BOKARO	36.51	277.1	7	1A	-1				14	40	SS
PETROPAVLOVK	37.46	32.4	6	59	-11	12	40	-14			
RABAUL	38.48	134.9	7	18	0				9	8	
MAGADAN	38.82	20.0	7	19	-2						
PORT MORESBY	39.79	146.1	7	27	-2	13	25	-4			
DEHRA DUN	42.58	288.5	7	55	3	14	10	0			
AGRA	42.96	283.8	7	53A	-2	14	10	-6	9	37	PP
SEMIPALATNSK	43.38	318.2	7	58	-1						
ALMATA-2	43.61	307.4	8	0	0						
MADRAS	44.68	263.4	8	10K	1	14	45	4	9	52	PP
HYDERABAD	44.74	270.1	8	8A	-2	14	41	-1	18	14	SS
LAHORE	45.66	290.6	8	17	0	14	51	-4			
TIKSI	46.89	1.3	8	24	-3						
NAMANGAN	47.61	303.7	8	33	1						
WARSAK DAM	47.80	294.2	8	33A	-1						
KODAIKANAL	48.20	261.4	8	36	-1						
POONA	48.59	273.4	8	42	2	15	42	6	10	39	PP
CHARTERS TS.	48.73	154.3	8	40A	-1						
BOMBAY	49.42	274.2	8	45	-1	15	49	1	9	57	PCP
QUETTA	52.12	289.9	9	6A	-1	16	28	3	10	24	PCP
SVERDLOVSK	56.15	323.0	9	37	1						
BRISBANE	58.17	151.6	10	0	10	17	32	-14			
MELBOURNE	64.81	163.4	10	35	0				10	50	*SP
MAKHACH-KALA	65.36	307.7	10	35	-4						
COLLEGE	66.25	27.7	10	44	0	19	25	-3	23	59	SS
SUVA	66.60	124.7				20	0	28			
TIFLIS	67.59	306.9	10	53	0	19	51	7			
APATITY	68.29	335.6	10	33	-24						
MOSCOW	68.96	322.7	11	0	-1						
FORT NELSON	70.22	163.5	11	11K	2				11	27	PCP
SOTCHI	70.73	309.8	11	11	-1	20	22	1			
SODANKYLA	70.87	336.2	11	12	-1						
PULKOVO	71.66	328.0	11	15	-3						
NORD	72.15	354.6	11	19	-2						
KIRUNA	72.92	337.5	11	24A	-1				11	51	
HELSINKI	74.05	329.3	11	31	-1						
SITKA	74.09	34.2	11	40	8						
SIMFEROPOL	74.15	312.5	11	32	0						
KSARA	76.69	301.2	11	48	1	21	47	19	14	43	PP
KISHINEV	76.87	315.8	11	47	-1						
RESOLUTE	77.32	10.3	11	49A	-1	21	34	-1			
UPPSALA	77.53	330.6	11	50A	-1						
IASI	77.60	316.3	11	50	-2						
KARAPIRO	77.83	142.0	11	52	-1						
SKALSTUGAN	77.88	335.2	11	52A	-1						
JERUSALEM	77.95	299.5	13	15	81				13	30	
LWOW	78.69	319.7	12	7	9						
THULE	78.62	3.4	11	55	-2	21	44	-5			
ISTANBUL KA.	79.01	310.1	11	57	-3	21	52	-1			
WARSAW	79.34	322.8	11	59A	-2	22	4	8			
BUCHAREST	79.66	314.1	12	3A	0	22	47	48	22	33	SKS
KRAKOW	80.95	321.1	12	9	-1				12	17	PCP
HELWAN	81.77	299.0	12	14A	0	22	23	2			
RACIBORZ	81.92	321.7	12	14	-1						
COPENHAGEN	82.04	328.4	12	15	-1	22	43	19			
TIMISOARA	82.18	316.9	11	26	-50						
SOFIA	82.21	313.4	12	18	1	22	41	15	12	30	PP
SCORESBY SD.	82.29	349.6	12	17	0						
BELGRADE	83.10	316.3	12	20K	-1	22	59	24	12	48	
BRATISLAVA	83.49	320.4	12	24	1				12	44	
POTSDAM	83.51	325.4	12	25	2						
PRUHONICE	84.00	322.8	12	25	-1	22	47	3	15	51	PP
PRAGUE	84.02	322.9				22	43	-1	13	40	
COLLMBERG	84.13	324.5	12	26	0				15	40	PP
HALLE	84.57	325.0	12	28	0	22	57	7	16	3	PP
PLAUEN	85.02	324.1	12	28	-3				13	3	
JENA	85.08	324.7	12	30	-1	22	56	1	15	49	PP
SONNEBERG	85.59	324.3	12	34	0						
WITTEVEEN	86.46	328.0	12	40	2						
MUNSTER	86.51	326.9	12	30	-8						
TRIESTE	86.76	319.4	12	38	-1	23	16	5	23	43	PS
BENSBERG	87.34	326.3	12	43	1						
STUTTGART	87.58	323.8	12	42	-1	23	7	-11	12	58	PCP

DE BILT	87.62	328.0	12	43	0	23	31	12	16	11 PP
TUBINGEN	87.79	323.6	12	44	0					
IANANARIVE	87.80	248.1	12	45A	1					
KARLSRUHE	87.86	324.3	12	53	8				16	11
EBINGEN	88.05	323.4	12	44	-1					
STRASBOURG	88.46	324.2	12	47A	0	23	37	10	16	13 PP
DURHAM	88.90	332.6	12	39	-10	23	32	1		
FLORENCE X.	89.28	318.8	12	49A	-2	23	49	15	16	26 PP
HUNGRY HORSE	89.57	35.3	12	55	2				13	32
ROME	89.58	316.8	12	52A	-1	23	47	10	16	25 PP
PAVIA	89.70	320.8	12	59	6	23	38	0		
MINERAL	89.78	44.9	12	54A	0					
KEW	90.62	329.7	12	56	-2	23	52	6	16	31 PP
BERKELEY	90.68	47.3	12	58A	0				13	15
PARIS	91.05	326.5	12	59	-1	23	54	4		
RENO	91.37	44.9	13	2	1					
LICK	91.38	47.5	13	2A	1					
BUTTE	91.80	36.5	13	5	2					
RATHFARNHAM	91.89	333.6	13	3A	0					
FRESNO	92.92	47.1	13	10	2					
EUREKA	93.83	43.2	13	14	2					
MIRNY	94.42	192.6	13	16	1				30	53 PKKP
PASADENA	95.50	48.6	13	19	-1					
BOULDER CITY	96.65	45.5	13	27	2					
LWIRO	97.43	271.0	13	30	1					
RAPID CITY	98.00	33.4	13	33	2					
TUCSON	101.55	46.3	14	8	21				17	57 PP
TAMANRASSET	105.32	304.4	17	9	777	25	14	42	18	27 PP
SOUTH POLE	114.66	180.0	18	34	0				19	38 PP
BYRD STATION	118.46	169.6	18	43	2				19	42 PP
HALLEY BAY	127.35	188.4	18	59	0				21	0 PP
HUANCAYO	156.20	61.6	19	52	4				20	34 PKP2
LA PAZ	164.45	60.6	20	3A	6				24	54 PP

APRIL 13 4.H 8.M 50.S EPICENTRE 45.16 98.48 DEPTH= 0.KM

A=-0.10436 B= 0.69976 C= 0.70672 D= 0.9891 E= 0.1475
G=-0.1042 H= 0.6990 K=-0.7075 HT= -3.6

SE= 2.71

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
YUMEN	4.98	193.0	1	19	1	2	11	-6			1	34	PG
ULAN-BATOR	6.43	61.6	1	37	-1						3	19	SG
KYAKHTA	7.48	43.0	1	52	-1						3	54	SG
WUWEI	7.87	155.2	1	58	0	3	53	24-					
IRKUTSK	8.09	26.4	2	9	7						4	9	SG
KABANSK	8.76	35.2	2	17	6						4	35	SG
BAYANDAI	9.16	27.7									2	46	PG
LANCHOW	9.93	154.1	2	24	-3								
SEMIPALATNSK	13.32	299.7	3	9	-4								
SIAN	13.52	140.1	3	20	4								
PEKING	14.00	105.3	3	20	-2								
CHILIK	14.44	270.8	3	34	6								
KURMENTY	14.67	268.9	3	28	-3								
PRZHEVALSK	14.74	266.6	3	32	0								
ALMATA	15.55	270.6	3	43	1						6	40	SS
RYBACHE	16.39	268.4	3	53	0						7	4	SS
LHASA	16.57	203.3	3	57	2	7	6	6					
NARYN	16.77	265.1	4	3	5						8	53	PCP
FRUNSE	17.33	270.9	4	7A	2						7	23	
CHANGCHUN	19.16	84.4	4	25	-2	7	56	-2					
ANDIJAN	19.58	266.2	4	34	2						8	18	
NAMANGAN	19.99	267.4	4	40	3	8	18	1					
FERGANA	20.14	265.7	4	38	0						8	28	SS
SHILLONG	20.26	197.5	4	38K	-2	8	25	3					
KUNMING	20.35	169.0	4	38A	-3	8	19	-5					
CHATRA	20.42	210.2	4	41	0	8	32	6					
NANKING	20.51	122.7	4	41A	-1	8	27	0					
OZHERGETAL	21.00	263.2	4	47	0								
TCHIMKENT	21.02	272.4	4	50	2	8	46	8			12	29	SCP
KHOROG	21.53	258.6	4	53	0						8	55	PCP
TASHKENT	21.56	270.1	4	55	2						8	58	PCP
KULYAB	22.60	261.4	5	5	2	9	13	6					
ZO-SE	22.61	120.6	5	5	1	9	12	5					

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

STALINABAD	23.01	263.8	5	10	3	9	19	4				
WARSAK DAM	23.45	251.0	5	12A	0							
SAMARKAND	23.80	267.8	5	16	1	9	34	6	11	16		
VLADIVOSTOK	23.98	82.9	5	17	0				12	10		
HOWRAH	24.04	203.6	5	12	-5	9	31	-2				
AGRA	24.31	229.2	5	19	-1	9	39	2				
YAKUTSK	24.70	35.8	5	26	2							
CANTON	25.12	146.4	5	28	0	9	55	4				
SVERDLOVSK	26.18	310.1	5	37	-1				10	16		
BAIRAM-ALI	28.13	267.3	6	3	7	10	49	9	11	42		
QUETTA	28.88	249.7	6	2	0				6	54	PP	
Y.-SAKHLINSK	30.45	70.6							13	16	SS	
ASHKABAD	30.64	270.7	6	20	2				13	22	SSS	
KIZYL-ARVAT	31.64	273.9	6	41	14				13	3	PCS	
BOMBAY	33.77	227.5							12	12		
MAKHACH-KALA	36.21	285.1							9	12		
KIROVOBAD	37.86	282.2	7	20	0							
TIFLIS	38.53	284.5							15	52	SS	
MOSCOW	38.95	308.2	7	28	-1							
APATITY	39.90	327.1	7	37	0							
PULKOVO	42.04	315.5	8	10	15				9	46	PCP	
SODANKYLA	42.53	327.0	7	58	-1							
HELSINKI	44.57	316.9	8	14	-1							
KIRUNA	44.81	328.2	8	16	-1				18	33		
LWOW	48.61	303.7	8	56	9							
NORD	49.09	349.9	8	50	-1							
SKALSTUGAN	49.23	323.9	8	49	-3							
ISTANBUL KA.	49.41	291.2	8	51	-2							
BUCHAREST	49.73	296.5							21	58		
RACIBORZ	51.87	306.2							24	26		
COPENHAGEN	52.40	314.5	9	14	-2							
PRUHONICE	53.99	307.5	9	26	-2				12	46	PPP	
HALLE	54.66	310.1	9	32	-1							
JENA	55.15	309.6	9	34	-2				11	13		
MUNSTER	56.73	312.3	9	45	-3							
STUTTGART	57.60	308.4	9	51	-3							
THULE	58.40	356.4	9	56	-4							
COLLEGE	58.83	27.2	10	2	-1							
RESOLUTE	60.11	4.1	10	9	-2	18	20	-4				
PARIS	61.22	311.4	10	17A	-2				11	3	PCP	
RATHFARNHAM	62.80	319.3	10	26	-4							
TAMANRASSET	76.21	288.4	11	50	-2							
LWIRO	77.41	253.8	12	1	2							
HUNGRY HORSE	82.62	21.2	12	27	1							
MINERAL	87.59	29.5	12	52	1							
RAPID CITY	89.08	15.4	13	2	4							
EUREKA	90.23	26.0	13	4	0							
SOUTH POLE	134.97	180.0	19	20	-1							
HUANCAYO	146.58	349.0	19	46	4							

APRIL 13 9.H 7.M 24.S EPICENTRE 65.82-155.65 DEPTH= 0.KM

A=-0.37527 B=-0.16982 C= 0.91123 D=-0.4123 E= 0.9111
G=-0.8302 H=-0.3757 K=-0.4119 HT=-10.7

SE= 1.98

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	3.42	102.6	0	52K	-4							
SITKA	13.04	122.7	3	11A	2	5	44	8				
RESOLUTE	21.26	39.8	4	47A	-3	8	42	0				
KLYUCHI	22.64	266.2	5	6	2	9	22	14				
LILLOOET	22.92	114.9	4	36A	-30							
HORSESHOE B.	23.50	118.7	5	12	0	9	30	7				
VICTORIA	24.17	120.0	5	19	0	9	38	3				
MAGADAN	24.66	280.9	5	25	2	9	48	5				
BANFF	25.00	106.3	5	26A	-1							
SEATTLE	25.31	119.6	5	31	1							
PETROPAVLOVK	25.77	262.8	5	37	3				8	58	PCP	
TIKSI	26.24	316.0	5	39	1	10	5	-4	6	23	PP	
THULE	27.14	31.2	5	44	-3	10	19	-5				
HUNGRY HORSE	27.84	108.4	5	53A	0				6	39	PP	
SASKATOON	27.87	95.4	5	52	-1	10	55	19				
BUTTE	30.32	109.5	6	16A	1				6	48		
NORD	31.17	10.7	6	23	0	11	30	1	7	20	PP	

BOZEMAN	31.21	108.1	6	24A	1				8	3
YAKUTSK	31.24	298.7	6	24	1					
SHASTA	31.38	126.8	6	24A	-1					
MINERAL	31.95	126.0	6	30A	0					
UKIAH	32.53	129.1	6	35K	0					
KHEYS	33.49	351.6	6	36	-7	11	52	-13	8	8 PPP
BERKELEY	33.98	128.8	6	47A	0	12	16	4		
LICK	34.67	128.4	6	53A	0					
EUREKA	34.68	119.7	6	53A	0					
SALT LAKE C.	35.06	113.8	6	57	0				8	41 PP
RAPID CITY	35.65	101.3	7	1A	-1					
UGLEGORSK	35.66	273.1	7	2	0	12	34	-4	8	30
FRESNO	35.79	126.5	7	2A	-1					
KURILSK	36.34	263.8	7	6	-1					
Y.-SAKHLINSK	37.07	270.3	7	14	0	13	2	2	8	46 PP
BOULDER CITY	38.20	121.0	7	23A	0				9	13 PCP
PASADENA	38.72	126.2	7	27	0	13	25	0	7	43
TUCSON TELE.	42.95	118.7	8	3A	1	14	39	11		
TUCSON	42.99	118.8	8	3A	0				18	2 SCS
SENDAI	45.01	264.6	8	20	1					
LUBBOCK	45.19	108.3	8	11	-9					
ST. LOUIS 1	45.51	93.3	8	21A	-2	14	56	-9	10	5 PP
OTTAWA	45.78	75.4	8	25A	0	14	56	-13	10	6 PCP
SHAWINIGAN	46.00	72.2	8	26A	-1				10	18 PP
FAYETTEVILLE	46.07	98.9	8	25	-2				22	50
SEVEN FALLS	46.29	70.2	8	27	-2	15	17	1	10	9 PCP
HAWAII V.OB.	46.37	179.5	8	32	2					
BREBEUF	46.53	73.7	8	29A	-2	15	18	-2		
KIRUNA	46.60	2.0	8	31	0	15	20	-1		
CLEVELAND	46.69	83.3	8	32A	0					
CHANGCHUN	46.72	282.6	8	31K	-1	15	21	-1	10	23 PP
APATITY	46.76	355.2	8	32	-1	15	23	0	10	10 PCP
KABANSK	46.95	303.1	8	36	2	15	30	4	10	26 PP
SODANKYLA	47.08	358.8	8	36	1					
IRKUTSK	47.56	304.9	8	39	0	15	32	-2	10	28 PP
MATUSIRO	47.58	265.9	8	40K	1	15	34	-1	10	40 PP
LITTLE ROCK	47.95	98.0	8	41	-1					
CHIHUAHUA	48.00	115.8	9	36	53				11	14
KYAKHTA	48.42	302.0	8	47	1	15	48	2	10	41 PP
MORGANTOWN	48.90	83.3	8	47A	-2				17	22
KYOTO	49.92	267.2	8	59K	2	16	13	6		
WESTON	50.05	74.1	8	48A	-10					
PALISADES	50.18	77.2	8	57	-2	16	8	-3	10	52 PP
ULAN-BATOR	50.33	299.9	9	4	4	16	14	1		
SKALSTUGAN	50.60	7.0	9	2	0				9	15
GEORGETOWN	50.69	81.3	9	1	-2	16	16	-2		
WASHINGTON	50.69	81.3	9	3K	0	16	18	0	20	17 SS
HALIFAX	51.15	66.4				16	34	10	20	6 SS
CHAPEL HILL	52.43	85.0	9	16	0				9	49
COLUMBIA	53.28	88.0	9	19A	-4				27	39 PKKP
NAGASAKI	54.32	271.1	9	31	1	17	9	1		
HELSINKI	54.32	359.6	9	29	-1					
UPPSALA	54.54	4.2				17	9	-2		
SVERDLOVSK	54.64	336.5	9	34	1	17	14	2	21	6 SS
PULKOVO	54.64	356.3	9	33	0	17	11	-1	11	44 PP
ABERDEEN	55.72	17.1				17	24	-2	17	36
DURHAM	58.13	17.4	10	4	6	17	56	-2		
MOSCOW	58.36	351.2	9	59	0	18	2	1		
COPENHAGEN	58.49	7.9	10	1	1	18	2	-1	19	42 SCS
TACUBAYA	58.95	113.3	10	23	20	18	8	-1	12	11 PP
ZO-SE	59.31	277.9	10	5K	-1	18	12	-2		
NANKING	59.45	280.5	10	6K	-1	18	14	-1		
VERA CRUZ	60.31	110.4							24	8
WITTEVEEN	60.92	12.2	10	21	4					
MERIDA	61.30	103.2				18	15	-24		
BERMUDA	61.33	74.6	10	21	1	18	47	7	20	25 SCS
DE BILT	61.50	13.3				18	45	3		
KEW	61.52	17.3	10	23	2	18	45	3	10	58 PCP
LANCHOW	61.75	295.3	10	22K	-1	18	47	2	12	39 PP
MUNSTER	61.84	11.7	10	22	-1					
WARSAW	62.25	2.3	10	33	7	18	53	2		
HALLE	62.63	8.7	10	29	1	18	57	1	10	53 PCP
BENSBERG	62.81	12.1	10	30	0				11	1
COLLMBERG	62.89	8.0	10	29	-1				13	42
JENA	63.17	9.0	10	31	-1	19	2	-1	12	48 PP
JERSEY	63.54	19.1				19	4	-3		
PLAUEN	63.64	8.7	10	31	-4				10	50
SONNEBERG	63.69	9.3	10	37	2					

FABRICHNAYA	64.15	320.1	10	39	1					
PRAGUE	64.19	7.1	10	45	6	19	16	1		
PRUHONICE	64.29	7.0	10	39	0	19	18	1	13	2 PP
RACIBORZ	64.34	4.4	10	40	0				11	4
PARIS	64.47	15.8	10	41A	1	19	24	5		
LWOW	64.68	0.2	10	42	0	19	24	2		
KARLSRUHE	64.85	11.5	10	43	0				11	33
FRUNSE	64.90	321.4	10	44	1	19	27	3	14	40 PPP
STUTTGART	65.15	11.0	10	45	0	19	31	4	20	36 SCS
STRASBOURG	65.22	12.0	10	47	2	19	33	5	13	48 PP
TUBINGEN	65.38	11.1	10	49	3					
EBINGEN	65.72	11.2	10	49	0					
UZHGOROD	65.88	1.5	10	50	0					
BRATISLAVA	66.21	5.3	10	53	1				11	41
CERNAUTI	66.23	358.8	10	51	-1	19	42	1	13	19 PP
HURBANOVO	66.55	4.5				19	52	8	20	16
RAKHOV	66.59	0.2	10	53	-1					
TCHIMKENT	66.68	325.0	10	54	-1	19	46	0	13	16 PP
NEUCHATEL	66.72	12.9	10	55	0					
IASI	67.29	357.6	10	59	0	19	55	2		
ANDIJAN	67.47	322.3	11	0	0	19	59	4	20	56 SCS
CLERMONT-FD.	67.54	15.9				20	3	7		
TASHKENT	67.68	324.9	11	0	-1	19	58	0		
FERGANA	67.96	322.6	11	4	1	20	2	1		
TRUK	68.51	237.7	11	7	1					
CAMPULUNG	69.25	359.5				20	25	8		
SIMFEROPOL	69.31	352.6	11	12	1	20	20	3		
PIATIGORSK	69.53	345.7	11	12	0	20	20	0		
CANTON	69.63	280.8	11	13	0					
MAKHACH-KALA	70.07	342.1	11	15	-1	20	14	-12		
BUCHAREST	70.09	358.7				20	29	2		
SOTCHI	70.29	348.2	11	17	0	20	29	0	13	54 PP
STALINABAD	70.44	324.4	11	17	-1	20	31	0		
KHOROG	70.75	321.8	11	22	2	20	35	1		
KULYAB	70.81	323.4	11	20	0	20	16	-19	15	38 PPP
TIFLIS	71.63	344.0	11	25	0	20	46	2		
KUNMING	72.05	291.0	11	27K	-1					
LHASA	72.15	302.9	11	31	3	20	55	5	14	15 PP
KIROVOBAD	72.42	342.6	11	30	0					
KIZYL-ARVAT	72.59	334.4	11	32	1	20	59	4	12	43 PCP
BAGUIO CITY	72.61	271.2	11	31	0	21	1	5		
SAN JUAN	73.22	82.7	11	32A	-3				11	50 PCP
ASHKABAD	73.26	332.5	11	33	-2	21	4	1	14	20 PP
ISTANBUL KA.	73.38	356.3	11	34	-2	21	7	3		
GORIS	73.64	342.4	11	36	-1	21	9	2		
WARSAK DAM	74.06	320.7	11	37K	-2					
KOROR	75.16	254.5	11	47	1					
SHILLONG	75.59	300.5	11	47K	-1	21	28	-1		
LAHORE	75.62	317.5	11	47K	-1					
DEHRA DUN	75.71	314.0	11	51	2	21	30	0		
CHATRA	76.06	305.0	11	51	0	21	42	8		
ATHENS	76.54	0.5	11	54A	0				12	42
CHITTAGONG	78.55	299.3	12	7A	2	22	4	3	15	7 PP
AGRA	78.71	312.9	12	4K	-2	22	0	-3	15	0 PP
QUETTA	78.86	323.3	12	7	1	22	4	0	15	6 PP
RABAUL	79.30	233.3	12	5	-4	22	6	-3		
KSARA	80.28	350.3	12	15	1				15	19 PP
CHINCHINA	81.41	97.1	12	19	-1	22	27	-4		
BOGOTA	82.36	95.8	12	25	0	22	38	-3		
HELWAN	84.47	353.9	12	34	-2	23	0	-2		
PORT MORESBY	85.85	236.3	12	35	-8	23	33	18	13	9
BOMBAY	88.00	314.8	12	52	-1	23	32	-4	16	17 PP
PORT BLAIR	88.03	294.3							23	27
POONA	88.05	313.8	12	56	3					
TAMANRASSET	90.52	17.3	13	7	2	24	6	7	16	37 PP
HUANCAYO	96.97	103.7	13	36	1				14	47
BRISBANE	100.92	224.9				24	41	-47		
BRISBANE	100.92	224.9							24	41
LA PAZ	103.89	99.1				24	49	-64	18	18 PP
LWIRO	116.48	355.0							19	56 PP
TANANARIVE	130.70	330.5							22	39 PKS
SCOTT BASE	145.23	193.1	19	40	0					
BYRD STATION	147.06	169.1	19	45	2					
GRAHAMSTOWN	147.44	356.5	19	47K	4					
SOUTH POLE	155.68	180.0	19	53	-2					
HALLEY BAY	161.30	142.4	20	47	45	26	59	-7		

APRIL 13 12.H 29.M 12.S EPICENTRE 52.95 160.71 DEPTH= 36.KM

DEPTH OF FOCUS= 0.001R

A=-0.57116 B= 0.19996 C= 0.79611 D= 0.3304 E= 0.9438
G=-0.7514 H= 0.2631 K=-0.6051 HT= -6.5

SE= 2.66

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	1.25	279.2	0	23	2	0	43	6			1	8	
KLYUCHI	3.38	0.6	0	55	3	1	42	11			1	2	*SP
MAGADAN	8.61	324.2	2	7	2						4	2	
KURILSK	11.41	232.5	2	39	-4	4	54	3					
UGLEGORSK	12.35	259.2	2	58	2	5	27	14			6	56	
Y.-SAKHLINSK	13.03	249.8	3	3	-2	5	28	-2					
NEMURO	13.92	232.3	3	14	-3	6	29	38					
ABASHIRI	14.06	237.1	3	14	-5						6	40	
WAKKANAI	14.51	246.4	3	29	4	6	25	20					
KUSIRO	14.75	234.0	3	28	0	6	39	28					
ASAHIGAWA	15.21	240.3	3	30	-4								
OBIHIRO	15.39	236.3	3	38	2								
URAKAWA	16.17	235.3	3	41	-5	6	56	12					
SAPPORO	16.24	240.3	3	43	-4	7	1	16			4	6	
TOMAKOMAI	16.51	238.5	3	58	8								
MURORAN	16.96	239.1	4	2	6								
SUTTSU	17.02	241.6	3	54	-3	7	19	16			4	12	
MORI	17.33	239.3	3	56	-5						7	34	
HAKODATE	17.49	238.3	3	59	-4								
AOMORI	18.16	236.1	4	14	3	7	50	21			8	48	
MIYAKO	18.48	231.5	4	14	-1	7	41	5					
YAKUTSK	18.79	311.1	4	17A	-2						8	5	
MORIOKA	18.83	233.1	4	15	-4	7	50	6					
MIZUSAWA	19.29	232.1	4	23	-1	8	1	6					
AKITA	19.33	235.1	4	24	-1	8	9	14			4	48	
ISINOMAKI	19.76	230.5	4	29	-1								
SENDAI	20.08	231.0	4	31	-2	8	15	3			5	2	
SAKATA	20.10	234.0	4	31	-2	8	29	17					
YAMAGATA	20.36	231.9	4	34	-2	8	24	7					
HUKUSIMA	20.70	230.9	4	38	-1	8	31	7					
ONAHAMA	21.16	228.8	4	45	1	8	36	4			5	14	
NIIGATA	21.25	233.6	4	48	3	8	58	24			5	16	
SHIRAKAWA	21.33	230.3	4	50	4	8	42	6			5	22	
VLADIVOSTOK	21.49	254.4	4	42	-5						5	21	PPP
AIKAWA	21.56	235.2	4	47	-1	8	48	8					
MITO	21.82	228.7	4	52	1	8	52	7			9	35	
UTUNOMIYA	21.96	230.0	4	51	-1	8	51	4			5	30	
KAKIOKA	22.08	229.0	4	53	0						5	18	
TUKUBASAN	22.12	229.1	4	50A	-4	8	53	3			9	12	PCP
TAKADA	22.28	233.6	4	55	0	9	3	10					
MAEBASI	22.45	231.2	4	58	1	9	2	6			5	19	
KUMAGAYA	22.51	230.2	4	58	0	9	9	12					
NAGANO	22.65	233.0	5	1	2	9	10	10			5	56	
TOKYO C.M.O.	22.73	228.9	5	2K	2	9	12	11			5	30	
WAZIMA	22.73	236.3	5	3	3	9	11	10					
MATUSIRO	22.74	232.8	4	58A	-2	9	4	3			7	23	
OIWAKE	22.75	231.9	5	1	1								
TITIBU	22.79	230.5	5	1	1								
YOKOHAMA	22.98	228.7	5	0	-2	9	15	9			8	1?	
MATUMOTO	23.10	232.8	5	16	13	9	21	13					
TOYAMA	23.12	234.7	5	3	-1	9	18	10			5	35	
KOHU	23.31	230.9	5	8	3	9	22	10					
MERA	23.32	227.7	4	56	-10	9	0	-12			9	25	
HUNATU	23.33	230.3	4	57	-9	9	27	15					
TIKSI	23.36	335.0	5	5	-1	9	16	4			5	45	PP
KANAZAWA	23.52	235.4	5	12	4								
AJIRO	23.54	229.1	5	6	-2	9	30	14					
MISIMA	23.55	229.5	5	7	-1	9	21	5					
OSIMA	23.65	228.3	5	5	-4	9	18	0					
IIDA	23.75	231.9	5	9	-1	9	27	8					
SHIZUOKA	23.93	230.2	5	11A	-1	9	35	12					
HUKUI	24.09	235.2	5	10	-3								
OMAESAKI	24.32	230.0	5	14	-1	9	41	12					
GIHU	24.36	233.5	5	14	-2	9	35	5			6	19	
NAGOYA	24.45	232.8	5	18	2	9	43	12					
HAMAMATU	24.46	231.0	5	22	5								
IBUKISAN	24.57	234.1	5	17	-1								

HIKONE	24.72	234.1	5	20	1	9	52	16		
KAMEYAMA	24.95	233.2	5	21	0	9	53	13	6	1
CHANGCHUN	24.99	262.9	5	18A	-4	9	38	-2	6	5 PP
TU	25.02	232.9	5	27	5					
KYOTO	25.17	234.6	5	24A	1	9	49	5		
TOYOOKA	25.22	236.7	5	26	2	9	50	6		
TOTTORI	25.55	237.5	5	27	0					
OSAKA	25.57	234.4	5	28	1	9	52	2	6	6
OWASE	25.71	232.5	5	29	0	10	8	16		
KOBE	25.72	234.9	5	27	-2	10	14	22	6	29
SUMOTO	26.13	234.9	5	35	3	10	0	1	6	57
MATSUE	26.18	239.1	5	37	4	9	56	-4		
SIOMISAKI	26.42	232.4	5	34	-1	10	4	0		
TOKUSIMA	26.50	235.0	5	36	0					
TAKAMATU	26.57	236.1	5	35	-1	10	8	2		
HAMADA	27.13	239.8	5	40	-2	10	18	2		
HIROSIMA	27.35	238.5	5	43	-1	10	18	-1		
KOTI	27.44	235.9	5	36	-8	10	28	7	6	12
MATUYAMA	27.61	237.3	5	46	0	10	22	-1		
COLLEGE	28.26	44.9	5	50	-2	10	35	1		
SIMIDU	28.34	235.7	5	55	2	10	38	3	8	26
OOITA	28.66	238.2	5	56	1				8	28
HUKUOKA	29.01	240.2	6	4	5	10	56	10		
ITUHARA	29.14	242.5							6	38
SAGA	29.33	240.0	6	7	6					
KUMAMOTO	29.46	238.9	6	10	7					
MIYAZAKI	29.80	236.8	6	12	6	11	8	10		
NAGASAKI	29.96	239.9	6	7	0	11	7	6		
KAGOSIMA	30.53	237.6	6	15	3				10	49
TOMIE	30.63	241.2	6	20	7				15	44
YAKUSIMA	31.45	236.4	6	13	-7	11	18	-6		
PEKING	32.73	264.9	6	28A	-3	11	44	0	7	38 PP
IRKUTSK	33.50	292.0	6	36A	-2				7	48 PP
ULAN-BATOR	33.96	283.6	6	41	-1	12	22	19		
SITKA	35.73	57.2	7	4	7				17	18 SCS
ZO-SE	35.94	248.4	6	57	-2	12	33	-1		
NANKING	36.59	252.1	7	1A	-3	12	40	-4		
TAIPEI	40.49	242.0				13	57	14		
SIAN	40.88	264.0	8	1	21					
HSINKONG	42.14	240.4	7	52	2	14	7	0		
WUWEI	42.23	273.2	7	57	6					
LANCHOW	42.73	270.2	7	54A	-1				9	36 PP
TAWU	43.00	240.3	7	31	-27					
RESOLUTE	43.33	22.0	7	59A	-1	14	28	3	9	48 PP
YUMEN	44.10	279.9	8	7	1					
HONOLULU	44.59	119.0	8	12	2	14	50	7	10	8 PCP
ALBERNI	44.96	63.3	8	13	0					
NORD	45.69	359.5	8	19	0	15	2	3	18	14 SCS
HORSESHOE B.	45.72	62.3	8	18	-1	15	8	9		
VICTORIA	46.14	63.4	8	25	2	15	7	2		
THULE	47.18	14.1	8	28K	-3	15	19	-1	18	20 SCS
SEATTLE	47.26	63.8	8	32	1					
HAWAII V.OB.	47.63	117.4	8	37	3	15	31	4		
BAGUIO CITY	48.11	236.2	8	38	0	15	40	7		
BANFF	48.70	56.4	8	42	-1					
MANILA	49.48	234.5	8	49	0	14	57	-55		
KOROR	50.25	214.8	8	52A	-3	16	8	5	10	11 PCP
HUNGRY HORSE	51.21	58.5	9	0	-2				39	45 PKPPKP
KUNMING	51.25	260.6	9	0A	-2	16	17	0	10	16 PCP
SHASTA	51.58	70.9	9	5	0					
UKIAH	52.15	73.0	9	9	0				10	22 PCP
MINERAL	52.27	70.8	9	8K	-2					
SASKATOON	52.45	51.0				16	37	4	18	54
SVERDLOVSK	52.64	317.1	9	11	-2				17	1 PS
BUTTE	53.48	60.0	9	18	-1				10	35 PCP
APATITY	53.54	337.7	9	18	-1					
BERKELEY	53.55	73.5	9	19	0	16	51	3		
LICK	54.27	73.6	9	24K	-1					
BOZEMAN	54.51	59.4	9	26	0				10	9
TOCKLAI	54.76	268.6	9	40	12					
LHASA	54.92	274.0	9	30A	1	17	14	7	11	40 PP
SODANKYLA	55.17	340.2	9	30	-1					
FRUNSE	55.26	296.8	9	30A	-2				17	35 PS
FRESNO	55.73	72.8	9	36	1					
KIRUNA	55.95	343.0	9	35A	-2	17	23	2	12	54
EUREKA	56.04	67.9	9	36	-2				39	12 PKPPKP
SHILLONG	57.38	270.0	9	44A	-3	17	38	-1	11	48 PP
RABAUL	57.39	190.1	9	44	-3					

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

SALT LAKE C.	57.43	64.2	9	47	0				12	13 PP
PASADENA	58.52	73.9	9	54	-1	17	55	1	22	6 SS
BOULDER CITY	59.14	70.1	9	59	0				39	30 PKPPKP
TASHKENT	59.18	298.7	9	58	-2				18	16 PS
CHATRA	59.29	274.7	9	57	-3	18	14	10		
RAPID CITY	59.63	56.2	10	2	-1				39	35 PKPPKP
CHITTAGONG	59.81	267.6	10	5A	1	18	18	7	12	20 PP
PULKOVO	60.77	333.8	10	10A	-1	18	21	-2	12	26 PP
SKALSTUGAN	61.23	344.5	10	12	-2					
STALINABAD	61.44	296.8	10	14	-1					
HELSINKI	61.78	336.7	10	16	-1					
CALCUTTA	61.78	270.5	10	18K	1	18	34	-2		
MOSCOW	61.99	327.5	10	17	-2	18	42	3	12	30 PP
DEHRA DUN	62.17	284.1	10	20	0	18	46	5	12	37 PP
BOKARO	62.34	273.4	10	20K	-1	18	46	3	10	48 PCP
PORT MORESBY	63.17	195.0	10	8	-19	18	38	-16	20	1 SCS
WARSAK DAM	63.22	291.5	10	24	-3					
REYKJAVIK	63.24	1.3	10	29	2					
LAHORE	63.44	287.7	10	24	-4	18	54	-3		
UPPSALA	63.70	340.2	10	29A	-1	19	1	1	14	35
TUCSON	64.12	70.3	10	32	-1	19	7	2	39	21 PKPPKP
AGRA	64.55	281.8	10	34A	-2	19	16	5	13	2 PP
BERGEN	65.30	346.9	10	40A	0	19	27	7		
ASHKABAD	67.35	303.2	10	52	-1				19	51 PS
PORT BLAIR	67.53	259.4	10	53	-2	19	35	-12		
LUBBOCK	68.11	63.1	10	56	-2	20	0	6		
COPENHAGEN	68.62	341.3	11	1A	0	20	5	5	20	57 SKS
QUETTA	68.66	291.9	11	0A	-2				13	29 PP
ABERDEEN	69.35	350.1	11	6	0	20	14	5	27	33 SSS
CHIHUAHUA	69.53	69.5							16	48
WARSAW	69.89	334.9	11	9A	0	20	59	44	11	30 PCP
ST. LOUIS 1	70.11	51.9	11	8	-2	20	19	1		
FAYETTEVILLE	70.17	56.2	11	9	-2	20	20	2		
MEDAN	70.57	249.2	11	14K	1	20	27	4		
TIFLIS	70.74	314.5	11	14	0	20	29	4	15	34 PPP
OTTAWA	70.78	38.4	11	12	-3	20	26	1	20	58 PS
SHAWINIGAN	70.88	35.9	11	15	0					
SEVEN FALLS	71.07	34.4	11	15	-1	20	28	-1	21	22 PPS
LWOW	71.25	332.0	11	17	0	20	35	4	21	3 PS
BREBEUF	71.47	37.1	11	16K	-3	20	25	-8		
POTSDAM	71.60	339.8	11	19	0	20	42	7	13	21
HYDERABAD	71.65	274.7	11	18A	-2	20	36	1	13	57 PP
DURHAM	71.65	349.3	11	17K	-3	20	39	4	21	9 SKS
CLEVELAND	71.73	44.4	11	20A	0					
GORIS	71.87	312.1	11	22	1	20	46	8	14	12 PP
LITTLE ROCK	72.13	55.8	11	24	1					
SIMFEROPOL	72.28	323.2	11	22A	-1	20	46	3	14	10 PP
WITTEVEEN	72.39	343.8	11	26	2					
SUVA	72.45	162.3	11	25K	1	20	52	7	14	6 PP
IASI	72.53	328.6	11	25	0	20	47	1		
RACIBORZ	72.57	335.7	11	28	3				14	6 PP
COLLMBERG	72.63	339.4	11	24	-2	20	49	2		
SKALNATE PL.	72.87	334.1	11	36	9				21	39 PS
MUNSTER	73.04	343.0	11	27	-1					
JENA	73.28	340.2	11	28	-1	20	58	4	21	28 PS
DE BILT	73.33	344.5	11	30A	0	21	1	6	14	6 PP
PRAGUE	73.47	338.1	11	36	5	21	1	5	16	3 PPP
PRUHONICE	73.53	338.0	11	31	0	21	3	6	14	2 PP
POONA	73.56	279.0	11	33	2	21	18	21	25	49 SS
PLAUEN	73.57	339.7	11	28	-3	20	59	2	12	16
RATHFARNHAM	73.57	351.9	11	28	-3	21	19	22		
CHARTERS TS.	73.72	194.1	11	30K	-2				11	43
SONNEBERG	73.88	340.2	11	33	0	21	6	5	21	20
BOMBAY	73.89	280.0	11	31	-2	21	2	1	14	13 PP
MORGANTOWN	73.94	44.5	11	31	-2				11	53
FOCSANI	73.98	328.1	11	36	3					
MADRAS	74.04	270.4	11	35	1	21	7	5	14	23 PP
BENSBERG	74.09	343.0	11	35	1	21	52	49		
DJAKARTA	74.36	236.5	11	23	-13	20	47	-19		
LEMBANG	74.52	235.5	11	38A	1	21	10	2		
BANDUNG	74.57	235.4	11	30	-7	21	6	-2		
HURBANOVO	74.61	334.8	11	51	14	21	18	9	14	24 PP
BRATISLAVA	74.61	335.7	11	38A	1	21	16	7	13	1
KEW	74.74	347.8	11	38A	0	21	20	10	21	50 SCS
BUDAPEST	74.75	334.1	11	40	2	21	19	9	11	52 PCP
HARVARD	74.80	37.3	12	39	61					
WESTON	75.00	37.2	11	42A	3	21	7	-6		
CAMPULUNG	75.05	329.3	11	42	2	21	25	11		
NOUMEA	75.09	174.5	11	45	5	21	22	8		

PALISADES	75.21	39.7	11	38	-3	21	10	-6		14	4 PP
BUCHAREST	75.48	328.2	11	40A	-2	21	19	0		21	43 PS
SZEGED	75.59	332.9	11	31	-12	21	19	-1		13	56 PP
HALIFAX	75.64	31.0	11	53	10	21	23	3			
KARLSRUHE	75.74	341.6	11	44	0	21	35	14		13	6
TIMISOARA	75.74	332.0	11	48	4					21	30
GEORGETOWN	75.75	42.9	11	41	-3	21	22	0		14	44 PP
WASHINGTON	75.75	42.9	11	44	0						
STUTTGART	75.81	341.0	11	43	-1	21	29	7		11	59 PCP
TUBINGEN	76.07	341.0	11	45	0						
STRASBOURG	76.27	341.9	11	48A	1	21	34	7		14	34 PP
EBINGEN	76.42	341.0	11	48	1						
RAVENSBURG	76.67	340.4	11	50	1						
BELGRADE	76.81	332.1	11	50A	0	21	48	15		14	49 PP
PARIS	76.95	345.4	11	52A	2	21	41	6			
ZAGREB	77.08	335.5	11	48	-3						
JERSEY	77.21	348.5	12	50	58	22	16	39			
TOLMEZZO	77.25	337.7	11	54	2	21	50	12		15	1 PP
ZURICH	77.27	341.0	11	53	1	21	55	17			
CHAPEL HILL	77.43	45.9	11	53	0					12	2
ISTANBUL KA.	77.47	324.6	11	52	-1	21	45	5			
CHUR	77.58	340.2	11	54	0	21	42	1			
TRIESTE	77.78	337.0	11	48	-7	21	48	4			
KODAIKANAL	77.84	270.8	11	54A	-1	21	57	13			
SOFIA	77.90	329.3	10	55	-61					14	19
NEUCHATEL	77.94	342.0	11	56	0	21	50	5			
COLUMBIA	78.17	48.4	12	6	9						
OROPA	79.07	340.9	12	7	5	22	13	16			
SKOPJE	79.14	330.3	12	3	0	22	3	5		12	39 PCP
PAVIA	79.25	339.9	12	5A	2	22	13	14		15	15 PP
CLERMONT-FD.	79.80	344.3	12	8A	2	22	10	5			
FLORENCE X.	80.13	338.1	12	10K	2	22	21	13	12 33	15	25 PP
BRISBANE	80.36	186.9	12	13	4	22	13	2			
TACUBAYA	80.63	70.4				21	51	-23		12	24 PCP
KSARA	81.18	316.2	12	14	1	22	25	6		15	25 PP
ROMF	81.63	336.6	12	15A	-1	22	23	-1	12 38	15	25 PP
TARANTO	81.73	332.7	12	34	18	22	14	-11		34	4
ATHENS	82.06	327.0	12	17K	-1					12	28
VERA CRUZ	82.53	68.1								17	34 PP
JERUSALEM	83.22	315.7	12	23	-1	22	42	2			
BARCELONA	84.20	344.0				22	44	-6			
MERIDA	84.69	62.1				22	58	3		23	18 SCS
TORTOSA	85.05	345.0				22	32	-26			
SERRA PILAR	85.84	351.9	12	38K	1						
BERMUDA	86.29	37.1	12	44	5	23	20	10		16	2 PP
HELWAN	86.50	317.7	12	40	0	23	18	6			
TOLEDO	86.61	348.3	12	42	1	23	13	0		13	22
COIMBRA	86.75	351.7	12	46	5						
RIVERVIEW	86.81	188.0	12	45	3	23	19	4			
COMITAN	87.14	66.8				23	16	-2			
ALICANTE	87.62	345.3	12	46	0	23	31	8		18	15 PPP
ALGIERS UNI.	88.56	342.2	12	52	2	23	32	0		16	22 PP
GRANADA	89.21	347.5	12	58	5	23	46	8			
MALAGA	89.77	348.1	12	55	-1						
KARAPIRO	91.41	168.3	13	3	-1					13	51
MELBOURNE	91.43	192.4	13	5	1	24	5	7			
WELLINGTON	94.63	169.4				24	30	5		23	46 SKS
ROXBURGH	98.40	173.9				25	8	11		24	6 SKS
TAMANRASSET	101.56	336.7	13	50	0	24	34	-50		17	56 PP
FORT FRANCE	103.59	41.6								25	35
CHINCHINA	105.41	59.3				24	52	0		33	30 SS
BOGOTA	106.51	58.1				26	7	0		24	52 SKS
MBOUR	112.92	357.6	14	46	777					19	24 PP
LWIRO	115.78	304.3	14	57	777					19	44 PP
HUANCAYO	119.73	69.1								30	6 PS
CAPE HALLETT	125.13	176.4								30	55 SKSP
LA PAZ	127.36	65.3	18	59	-2	26	19	16		21	7 PP
MIRNY	129.62	208.7	19	1	-4					38	18 SS
BYRD STATION	139.92	164.5	19	18	-7					23	6
SOUTH POLE	142.76	180.0	19	23	-7					23	6 SKP

APRIL 14 2.H 49.M 42.S EPICENTRE 46.94 152.44 DEPTH= 0.KM

A=-0.60744 B= 0.31697 C= 0.72839 D= 0.4626 E= 0.8866
G=-0.6458 H= 0.3370 K=-0.6852 HT= -4.3

SE= 2.94

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KURILSK	3.61	243.3	1	1K	3	1	39	-4				
NEMURO	6.05	235.8	1	32	-1	2	37	-7			1	54
ABASHIRI	6.44	246.0	1	43	5	2	56	3				
Y.-SAKHLINSK	6.66	273.6	1	46	5	3	2	3				
KUSIRO	6.95	238.1	1	47	2	3	0	-6				
UGLEGORSK	7.28	290.9	1	58	8	3	21	7				
PETROPAVLOVK	7.37	30.5	1	59	8	3	26	10				
OBIHIRO	7.69	241.8	1	58	2	3	27	2			3	52
ASAHIGAWA	7.77	249.6	2	0	3	3	40	14				
URAKAWA	8.40	238.7	2	8	2	3	44	2				
SAPPORO	8.76	247.8	2	12	1	3	48	-3				
TOMAKOMAI	8.91	244.2	2	24	11	4	16	21				
MURORAN	9.39	244.7	2	21	2	4	0	-7				
SUTTSU	9.61	248.9									4	22
MORI	9.76	244.6	2	28	4	4	20	4				
HAKODATE	9.85	242.6	2	24	-2	4	30	12			3	44
HATINOHE	10.17	234.8	2	36	6	4	15	-11				
AOMORI	10.40	238.2	2	21	-12	4	48	16			4	28
MIYAKO	10.55	230.1	2	20	-15						4	50
KLYUCHI	10.71	25.7									5	4
MORIOKA	10.94	232.6	2	38	-3	4	31	-14				
MIZUSAWA	11.37	230.7	2	41	-5	5	1	6				
AKITA	11.52	235.6				4	57	-2				
ISINOMAKI	11.80	227.8				5	9	3			4	51
SENDAI	12.13	228.5				5	24	10			4	57
SAKATA	12.24	233.5				6	16	59			7	4
MAGADAN	12.67	356.2	3	10	6	5	40	13				
HUKUSIMA	12.75	228.2	3	5	0	5	28	-1				
ONAHAMA	13.16	224.8				6	25	46				
MITO	13.82	224.5				5	38	-17				
UTUNOMIYA	13.98	226.5				5	44	-14				
KAKIOKA	14.08	224.9				5	55	-6				
TUKUBASAN	14.13	225.1	3	18	-5						5	49
MAEBASI	14.50	228.2				5	24	-47			6	25
KUMAGAYA	14.54	226.8				6	13	1			5	39
TOKYO C.M.O.	14.73	224.7				6	4	-12			6	28
OIWAKE	14.82	229.3									3	51
TITIBU	14.82	227.1				6	5	-13				
MATUSIRO	14.83	230.6	3	29A	-3	6	42	24			5	46
YOKOHAMA	14.98	224.4				6	10	-12			6	38
VLADIVOSTOK	15.01	262.7	3	35	0	6	18	-5				
MERA	15.31	222.8				6	21	-9				
KOHU	15.35	227.5				5	50	-41			6	41
CHANGCHUN	19.27	270.6	4	26	-2							
YAKUTSK	19.89	327.6	4	38	3	8	20	6			5	0 PP
PEKING	27.03	268.5	5	45	0							
TIKSI	27.14	343.9									6	29 PP
ZO-SE	28.75	247.8	6	1	0							
NANKING	29.65	252.0	6	9	0	10	58	-6				
ULAN-BATOR	30.49	288.8	6	24	8						13	29 SSS
COLLEGE	36.28	38.6	7	7	0							
LANCHOW	37.44	271.1	7	16A	0	12	57	-8				
MANILA	41.58	229.6	7	48	-3							
KOROR	42.37	207.0	7	55	-2							
KUNMING	44.92	258.7	8	18A	0	14	51	-5				
LHASA	49.92	272.5	8	59A	2							
RESOLUTE	50.80	18.5	9	3A	-1	16	21	2			19	58 SS
FRUNSE	53.15	296.1	9	23	2							
CHITTAGONG	54.08	264.9	9	29	1							
THULE	54.19	11.0	9	27	-2	15	53	-73				
CHATRA	54.33	272.5	9	28	-2							
APATITY	56.98	336.4	9	48	-1							
SHASTA	58.87	62.3	9	58	-5							
SODANKYLA	58.90	338.5	10	1	-2							
HUNGRY HORSE	59.03	50.9	10	1	-3						10	54 PCP
MINERAL	59.56	62.2	10	20	13							
KIRUNA	60.01	341.0	10	10	0							
LAHORE	60.02	285.3	10	6A	-4							
WARSAK DAM	60.30	289.2	10	10	-2							
BUTTE	61.25	52.4	10	19	0						11	0
LICK	61.39	64.9	10	28	8							
BOZEMAN	62.30	51.9	10	28	2							
EUREKA	63.48	59.8	10	32	-2							
MOSCOW	64.02	325.2	10	34	-3							
SALT LAKE C.	65.03	56.5	10	46	2							

PASADENA	65.60	65.6	10	50	2					
QUETTA	65.74	288.8	10	48A	0	19	32	-2	20 29	SCS
ASHKABAD	65.96	300.3	10	50	0					
BOULDER CITY	66.45	62.1	10	52	-1					
UPPSALA	67.36	337.2	10	47A	-12					
RAPID CITY	67.51	49.1	10	59	-1				29 41	PKKP
POONA	68.98	274.9	11	11	2					
TIFLIS	70.89	311.0	11	21	1				21 15	SCS
TUCSON	71.41	62.6	11	24	0					
TUCSON TELE.	71.41	62.5	11	24	0					
COPENHAGEN	72.36	337.5	11	28A	-1					
IASI	74.60	324.5	11	42	0					
POTSDAM	75.13	335.6	11	45	0					
HALLE	76.23	335.8	11	51	-1					
WITTEVEEN	76.40	339.4	11	53A	0					
PRUHONICE	76.82	333.6	11	54	-1				12 58	
JENA	76.84	335.8	11	54	-1				12 37	
MUNSTER	76.95	338.5	11	55	-1					
PLAUEN	77.06	335.3	11	54	-2					
BENSBERG	77.99	338.4	12	1A	0					
FAYETTEVILLE	78.05	49.5	12	0A	-2					
RATHFARNHAM	78.50	347.2	12	4A	0					
ISTANBUL KA.	78.95	320.0	12	6	-1					
KEW	79.21	343.1	12	8A	0					
STUTTGART	79.46	336.3	12	7	-2					
TUBINGEN	79.71	336.2	12	9	-2					
STRASBOURG	80.02	337.1	12	13A	1					
EBINGEN	80.06	336.1	12	13	0					
BASLE	81.03	336.7	12	9A	-9					
PARIS	81.12	340.4	12	19A	1	22	30	2		
KSARA	81.46	311.2	12	21	1	22	32	1	15 25	PP
NEUCHATEL	81.69	336.9	12	21	0					
MORGANTOWN	81.96	38.2	12	22	-1					
WESTON	82.96	31.1	12	27A	-1					
PALISADES	83.21	33.5	12	28	-1					
JERUSALEM	83.41	310.3	12	29	-1					
ATHENS	83.83	321.7	12	31A	-1					
HELWAN	86.94	311.9	12	48	0					
KARAPIRO	86.98	161.9	13	1	13					
LWIRO	114.06	294.4	18	41A	0					
BYRD STATION	135.49	165.6	19	19	-3					
SOUTH POLE	136.75	180.0	19	23	-1					
HALLEY BAY	151.32	180.5	19	53	4	26	55	0		

APRIL 14 18.H 8.M 38.S EPICENTRE 52.85 160.93 DEPTH= 0.KM

A=-0.57319 B= 0.19817 C= 0.79510 D= 0.3268 E= 0.9451
G=-0.7515 H= 0.2598 K=-0.6065 HT= -6.5

SE= 1.42

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	1.41	282.4	0	30	3	0	50	4			0	44	*SP
KLYUCHI	3.48	358.5	1	0	3	1	47	8					
MAGADAN	8.76	324.0	2	14	3	4	0	8					
KURILSK	11.46	233.5	2	51	3	5	4	6					
UGLEGORSK	12.47	259.9	3	5	3								
Y.-SAKHLINSK	13.12	250.5	3	11	1	5	39	1			3	23	*SP
YAKUTSK	18.96	311.2	4	23	-2								
MATUSIRO	22.79	233.4	5	5A	0	9	17	6					
TIKSI	23.50	335.0	5	12	0						6	3	PPP
CHANGCHUN	25.11	263.3	5	26	-2	9	48	-3			6	4	PP
COLLEGE	28.23	44.8	5	56	-1								
PEKING	32.85	265.2	6	35	-3								
IRKUTSK	33.66	292.2	6	43	-2						7	53	PP
ULAN-BATOR	34.11	283.9	6	49	0								
ZO-SE	36.03	248.8	7	6	1	12	44	0					
NANKING	36.69	252.4	7	12	1								
LANCHOW	42.86	270.5	8	1	-1								
RESOLUTE	43.36	22.1	8	6A	0	14	32	-2			17	59	SCS
NORD	45.79	359.5	8	25	0								
THULE	47.24	14.1	8	35	-2								
SEMIPALATNSK	47.64	301.3	8	38	-2								
KOROR	50.25	215.1	9	0	0								
HUNGRY HORSE	51.15	58.6	9	6	-1								

KUNMING	51.37	260.9	9 7	-2			
SHASTA	51.49	71.0	9 10	1			
MINERAL	52.17	70.8	9 15	0			
SVERDLOVSK	52.80	317.2	9 18	-1			
APATITY	53.68	337.8	9 24	-2			
RENO	53.74	70.4	9 28	2			
LHASA	55.06	274.2	9 37	1			
SODANKYLA	55.30	340.3	9 37	-1			
FRUNSE	55.43	297.0	9 38A	-1			
EUREKA	55.95	68.0	9 43	1			
KIRUNA	56.08	343.1	9 43	0			
SALT LAKE C.	57.35	64.3	9 53	1			
SHILLONG	57.51	270.2	9 51A	-3			
PASADENA	58.41	74.0	9 59	-1			
CHATRA	59.44	274.9	10 3	-4			
RAPID CITY	59.57	56.2	10 9	1			
CHITTAGONG	59.94	267.8	10 10	0			
PULKOVO	60.92	333.9	10 17	0	18 34	0	
SKALSTUGAN	61.35	344.6	10 19	-1			
STALINABAD	61.60	297.0	10 20	-2			
HELSINKI	61.92	336.8	10 23	-1			
MOSCOW	62.14	327.7	10 25	0			
LAHORE	63.59	287.9	10 34	-1			
UPPSALA	63.84	340.4	10 36	-1			
TUCSON	64.02	70.4	10 39	1			
ASHKABAD	67.51	303.4	11 1	1			
COPENHAGEN	68.75	341.5	11 9K	1			
QUETTA	68.82	292.1	11 7A	-1	20 13	1	
WARSAW	70.03	335.1	11 18	2			
TIFLIS	70.90	314.7	11 22	1			
LWOW	71.40	332.2	11 23	-1			
BREBEUF	71.47	37.2	11 23	-1			
POTSDAM	71.74	339.9	11 26	0			
SIMFEROPOL	72.43	323.4	11 30A	0			
IASI	72.68	328.7	11 32	0			
COLLMBERG	72.77	339.6	11 32	0			
HALLE	72.80	340.3	11 32	0			12 15
MUNSTER	73.17	343.1	11 35	0			
JENA	73.41	340.3	11 36	0			12 27
PRUHONICE	73.67	338.1	11 38	1			14 6 PP
PLAUEN	73.70	339.8	11 36	-2			
POONA	73.71	279.2	11 37	-1			
MORGANTOWN	73.91	44.6	11 39	0			
BRATISLAVA	74.76	335.8	11 44	0			
STUTTGART	75.95	341.2	11 50	0			
STRASBOURG	76.40	342.0	11 54A	1			
PARIS	77.07	345.6	11 59	2	21 48	3	
ISTANBUL KA.	77.62	324.8	12 0	0			
KSARA	81.34	316.4	12 21	1			
HELWAN	86.66	317.9	12 47	0			
TAMANRASSET	101.70	336.9					17 54 PP
SOUTH POLE	142.66	180.0	19 31	-4			

APRIL 14 21.H 32.M 34.S EPICENTRE 0.98 -79.50 DEPTH= 25.KM

A= 0.18225 B=-0.98311 C= 0.01698 D=-0.9832 E=-0.1823
G= 0.0031 H=-0.0167 K=-0.9999 HT= 7.2

SE= 2.62

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
CHINCHINA	5.54	44.2	1 21	-2				
BOGOTA	6.52	56.2	1 35	-1	2 53	2		
BALBOA HTS.	7.93	359.6	1 58K	2				
GALERAZAMBA	10.60	23.2	2 38	5	4 38	6		
HUANCAYO	13.59	162.4	3 11K	-2	5 46	2		
SANTIAGO MA.	15.28	324.8	3 35	0	6 23	-1		
SAN SALVADOR	15.91	323.2	3 44	1	6 45	6		
PORT-PRINCE	18.82	21.5	3 49	-31	6 59	-46		
COMITAN	19.63	321.3	4 26K	-3	8 10	7		4 58 PPP
CIUD. TRUJL.	19.74	27.9	4 26	-4	8 33	27		
TRINIDAD	20.29	61.0	4 35	-1	8 24	7		
LA PAZ	20.68	147.6	4 40A	0	8 20	-5		5 2 PP
SAN JUAN	21.71	36.4	4 52A	1	8 54	10		
ST. VINCENT	21.74	55.3	4 51	0				

MERIDA	22.17	334.2	4 53K	-2	8 56	3	10 2	
FORT FRANCE	22.70	52.1	5 0	0	9 7	5		
ST. CLAUDE	23.06	48.6	5 6	2	9 20	11		
BARBADOS	23.11	57.7	5 2K	-2			9 30	
PUEBLA	25.65	315.5	5 32	3	10 0	7	11 36	
TACUBAYA	26.60	314.7	5 33K	-5	10 15	6	9 14	
GUADALAJARA	30.41	311.7	6 22	10	11 18	8	13 26	
TALA POZO	32.16	154.1	6 26	-1	11 26	-11	7 26	PP
COLUMBIA	32.88	357.7	6 33A	-1	11 51	3	7 49	PP
MAZATLAN	34.19	312.2			12 9	0	17 9	SCS
BERMUDA	34.21	22.6	6 49A	4	12 5	-4	7 58	PP
SANTA LUCIA	35.22	167.2	6 54	0	11 40	-45	13 6	
CHIHUAHUA	37.43	319.7	7 14	2	12 58	0	15 26	SS
FAYETTEVILLE	37.50	340.3	7 11	-2	12 57	-3		
GEORGETOWN	37.80	3.1	7 15	-1	13 4	0	15 57	SS
WASHINGTON	37.80	3.1	7 15K	-1	12 15	-49	8 42	
CONCEPCION	38.25	170.3	7 33	14	12 59	-12	9 12	PP
MORGANTOWN	38.47	359.4	7 21K	0	13 18	4		
LUBBOCK	38.62	329.4	7 21	-1	13 25	8		
ST. LOUIS 1	38.75	346.5	7 20A	-3	13 16	-3	9 18	PPP
PITTSBURGH	39.28	359.5	7 28K	0	13 31	4	9 5	PP
PALISADES	40.17	6.6	7 35A	0	13 32	-8	9 12	PP
CLEVELAND	40.36	357.6	7 37K	0	13 23	-20		
WESTON	41.87	9.1	7 50A	1	13 40	-25		
HARVARD	41.96	8.8	7 58	8				
TUCSON	42.89	319.7	7 57K	-1	14 15	-5	9 45	PCP
OTTAWA	44.36	3.8	8 8A	-1	14 43	2	9 58	PP
BREBEUF	44.64	5.9	8 11A	-1	15 39	54		
HALIFAX	45.68	15.9	8 22	2	15 6	5	18 13	SCS
SHAWINIGAN	45.77	6.5	8 19A	-2				
SEVEN FALLS	46.57	8.1	8 26	-1	15 16	3	10 25	PP
RAPID CITY	47.81	337.0	8 36A	-1	15 32	1		
BOULDER CITY	47.81	320.7	8 37K	0			10 39	PP
PASADENA	48.94	316.6	8 45K	-1	15 50	3	10 44	PP
SALT LAKE C.	49.26	327.6	8 49K	1			11 34	
EUREKA	50.73	323.5	8 58A	-1			9 39	
FRESNO	51.51	318.4	9 11	6	16 29	7		
BOZEMAN	52.44	332.4	9 13K	1			9 49	
LICK	53.05	318.0	9 17A	0				
RENO	53.11	321.3	9 18K	1				
BUTTE	53.41	331.7	9 19K	0			10 43	PCP
BRANNER	53.45	317.8	9 19K	-1				
BERKELEY	53.75	318.2	9 21K	-1	16 59	6	10 34	PCP
MINERAL	54.70	321.1	9 28K	-1				
UKIAH	55.06	319.0	9 32K	1				
SHASTA	55.39	321.0	9 31	-3				
HUNGRY HORSE	55.80	332.8	9 35A	-2			15 24	
SASKATOON	55.81	340.1	8 36	-61	17 24	4		
ARCATA	56.56	320.4	9 52	10				
BANFF	58.52	334.3	9 55	-1				
SEATTLE	59.43	327.8	10 3	1	18 17	9		
VICTORIA	60.56	328.0	10 10A	0	18 28	6	19 48	
HORSESHOE B.	61.01	328.9	10 12A	-1				
ALBERNI	61.75	328.1			18 44	6		
MBOUR	63.18	74.5	10 28	0	18 59	3		
LISBON	74.12	50.0	11 36A	1	21 44	39	14 16	PP
RESOLUTE	74.18	355.8	11 32A	-4	21 2	-4	16 11	PPP
SERRA PILAR	75.03	47.6	11 39A	-2			14 29	PP
REYKJAVIK	75.50	22.5	11 44	1				
THULE	75.62	2.7	11 42	-2	21 19	-3	38 52	PKPPKP
HAWAII V.OB.	76.26	289.7	11 52	4	21 37	8		
MALAGA	77.48	52.7	11 56A	1	22 6	24	14 49	PP
GRANADA	78.18	52.3	11 59A	1	22 23	33	14 53	PP
TOLEDO	78.22	49.5	11 58A	-1	21 56	6	14 45	PP
KIPAPA	78.96	291.5	12 11	8				
HONOLULU	79.02	291.4	12 12	9	22 2	3	27 12	SS
ALMERIA	79.04	52.8	12 4K	1	22 5	6	14 57	PP
RATHFARNHAM	79.23	35.8	12 14K	10	22 14	13	15 10	PP
COLLEGE	80.03	336.2	12 5K	-3	22 5	-4	15 13	PP
ALICANTE	80.78	51.4	12 12	0	22 22	5		
EDINBURGH	81.54	33.6			22 27	2	22 42	SCS
TORTOSA	81.79	49.0	12 25	7	22 32	5		
HALLEY BAY	82.22	168.3	12 17	-3			15 40	PP
DURHAM	82.23	34.9	12 18A	-2	22 35	3	19 23	
ABERDEEN	82.35	32.4	12 23	2	22 38	5	23 32	
KEW	82.49	38.3	12 21A	0	22 38	3	15 30	PP
BARCELONA	83.07	48.6	12 28	4	22 48	8		
BYRD STATION	83.29	186.5	12 24	-1			38 50	PKPPKP

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

ALGIERS UNI.	83.44	53.3	12	24A	-2					15	30 PP
PARIS	83.98	41.2	12	29A	0	22	54	4			
CLERMONT-FD.	84.14	44.3	12	30A	0	22	57	6			
TAMANRASSET	85.03	67.4	12	35A	1	22	59	-1		15	47 PP
NORD	85.19	7.5	12	33	-2	23	2	1		15	53 PP
DE BILT	85.95	38.0	12	38A	-1	23	16	7			
NEUCHATEL	86.86	43.2	12	43	0	23	22	4			
WITTEVEEN	86.90	37.3	12	45	2						
MONACO	87.10	46.5	12	46	2						
BENSBERG	87.14	39.2	12	44	0	23	27	7			
BASLE	87.30	42.7	12	45A	0	23	26	4			
MUNSTER	87.45	38.2	12	46	0						
STRASBOURG	87.46	41.6	12	46A	0	23	27	4		16	14 PP
OROPA	87.53	44.6	12	48	2	23	5	-19		25	1 PS
KARLSRUHE	87.89	41.2	12	48A	0	23	34	7		16	18 PP
ZURICH	87.98	42.8	12	50	2	23	32	4			
EBINGEN	88.25	42.0	12	49	-1					16	16 PP
TUBINGEN	88.32	41.7	12	49	-1					16	18 PP
PAVIA	88.37	45.0	12	50	0	23	20	-12		16	2 PP
STUTTGART	88.41	41.4	12	50	-1	23	36	4		16	19 PP
CHUR	88.63	43.4	12	51A	-1	23	41	7		23	15
FLORENCE X.	89.87	46.4	13	0	3	23	44	-2	14 12	16	41 PP
BOLOGNA	89.91	45.7	12	49	-9	24	32	46		13	59
SKALSTUGAN	89.92	26.6	12	57	-1						
JENA	89.93	39.3	12	57	-1	23	48	2		16	32 PP
HALLE	90.15	38.7	12	58	-1	23	52	4		16	33 PP
COPENHAGEN	90.30	34.5	13	1K	2	23	55	6		16	33 PP
PLAUEN	90.30	39.7	12	56	-3	23	49	-1		16	34 PP
POTSDAM	90.80	37.8	12	56	-6	24	1	7		20	48
COLLMBERG	90.81	38.8	13	1	-1	23	4	-50		16	38 PP
ROME	90.83	48.3	13	3	1	24	1	7		16	43 PP
SOUTH POLE	90.97	180.0	13	1	-2					38	34 PKPPKP
TOLMEZZO	91.04	43.7	13	4	1	24	26	30		16	42 PP
PRAGUE	91.78	40.0	13	9	3	23	59	-4		16	48 PP
PRUHONICE	91.87	40.1	13	7	0	24	0	-3		16	46 PP
UPPSALA	92.75	30.1	13	10	-1	23	40	-31		16	50 PP
KIRUNA	92.85	22.0	13	11	0	23	44	-28		17	6 PP
ZAGREB	93.13	44.2	13	13A	0	24	45	31		17	5 PP
MESSINA	93.37	51.8				24	15	-2			
BRATISLAVA	93.69	41.8	13	15	0	24	3	-16		16	54 PP
RACIBORZ	94.20	39.8	13	18	1	23	46	-38		24	47
HURBANOVO	94.45	42.0				23	52	-34		17	23
TARANTO	94.51	49.5	12	53	-26					23	33 SKKS
BUDAPEST	95.08	42.3	13	26	5	24	40	9		23	56 SKKS
SODANKYLA	95.27	21.9	13	21	-1						
KRAKOW	95.31	39.7	13	22	0	24	28	-5		17	14 PP
SKALNATE PL.	95.64	40.5				23	44	-52		14	29
WARSAW	95.67	37.4	13	23A	-1	24	44	8		17	6 PP
SZEGED	95.96	43.5	13	28	3	24	48	9		24	0 SKS
HELSINKI	96.33	29.1	13	26	-1						
BELGRADE	96.37	44.9	13	28A	1	24	7	-35		17	24 PP
WINDHOEK	96.47	112.5	13	29	1						
TIMISOARA	96.78	43.9	13	36	7	25	10	24		17	34 PP
CAPE HALLETT	97.00	196.8	12	51	-39	24	18	-29		26	56 PP
SKOPJE	97.45	47.6	14	15A	43					24	29 PS
APATITY	97.70	20.9	13	35	2						
HERMANUS	97.76	124.4	13	41	7	25	17	23		17	33 PP
LWOW	97.96	39.5	13	34	0					17	35 PP
SOFIA	98.75	46.7	13	39	1	24	52	-10		17	35 PP
PULKOVO	99.03	28.8	13	34	-5						
BUCHAREST	100.42	44.6	13	52	6	24	42	-34		17	19 PP
IASI	100.82	41.6				24	23	-56			
SUVA	101.78	251.8	17	44	777	24	26	-61		27	8 PS
KARAPIRO	102.40	231.5								29	52 PKKP
WELLINGTON	102.44	228.0				25	43	10		24	36 SKS
ISTANBUL KA.	103.27	47.4	14	2	4	25	49	9			
MOSCOW	104.12	31.3	14	2	0					18	18 PP
TIKSI	105.24	351.0	14	5	777					20	43 PPP
ROXBURGH	105.42	222.8				26	6	4		24	47 SKS
SIMFEROPOL	105.81	42.5	14	14K	777					27	50 PS
HELWAN	107.48	58.3	14	20	777	24	58	6			
PETROPAVLOVK	107.72	327.5				24	44	-9		18	47 PP
MAGADAN	108.10	335.7								18	49 PP
LWIRO	108.32	92.0	14	21	777	25	6	10			
JERUSALEM	110.31	55.6	17	48	-41					19	4 PP
NOUMEA	112.57	246.3								29	0
SVERDLOVSK	114.06	22.7								19	33 PP
TIFLIS	114.24	42.7	14	50	777					29	12 PS

	DELTA	AZ.	P	O-C	S	O-C	*PP	SUPP.
	DEG.	DEG.	M S	S	M S	S	M S	M S
WILKES	114.52	184.4			25 27	5		29 10 PS
GORIS	116.24	44.4	18 32	-9	25 19	-10		14 55 P
Y.-SAKHLINSK	119.67	328.0						20 10 PP
RIVERVIEW	122.49	229.7			25 2	-48		33 1 SS
BRISBANE	123.25	237.5			25 56	3		20 14 PP
MELBOURNE	125.13	222.7						31 0 PS
ASHKABAD	125.14	40.5	19 0	2				30 41 PS
TANANARIVE	125.15	112.5	19 0	2				20 46 PP
SEMIPALATNSK	125.96	15.9	19 0	0				20 44 PP
SENDAI	126.08	320.9						38 5 SS
IRKUTSK	126.85	357.1	19 0	-1				15 49 P
TUKUBASAN	127.81	319.3	19 4	1				
VLADIVOSTOK	127.83	331.1						21 12 PP
RABAUL	128.30	265.5	19 5	1				
MATUSIRO	128.82	320.8	19 4A	-1				21 22 PP
TASHKENT	129.26	30.3	19 7	1				16 2 P
CHANGCHUN	130.18	336.6	19 7	-1				21 25 PP
FRUNSE	130.50	25.0	19 10	2				21 22 PP
ULAN-BATOR	130.98	354.3	19 9	0				
KYOTO	131.35	320.9	18 59A	-11	28 25	130		28 25 SKKS
CHARTERS TS.	131.44	244.0	19 10K	0				22 45
PORT MORESBY	132.85	258.1	18 38	-35	25 51	-28		22 0 PKS
GUAM	133.86	289.7	19 21	6				
QUETTA	135.48	43.0	19 14	-4	26 34	10		21 56 PP
PEKING	136.75	342.4	19 19	-1				21 53 PP
LAHORE	139.22	35.2	19 20	-4				
DEHRA DUN	142.23	32.6	19 34	4				22 44
ZO-SE	142.53	330.1	19 26	-4				22 42 PP
NANKING	142.86	333.8	19 24	-7				22 41 PP
LANCHOW	143.00	355.5	19 26A	-5				22 35 PP
AGRA	144.65	36.1	19 32A	-2				29 40
KOROR	145.11	284.2	19 34	-1				29 20 SKKS
PERTH	145.96	203.7	19 37	1				23 44
BOMBAY	146.39	52.6	19 40	3	27 15	34		21 33 PP
POONA	147.40	52.2	19 40	1				26 26
LHASA	148.24	15.8	19 42A	2				23 21 PP
CHATRA	149.51	24.0	19 44	2				
BOKARO	151.50	29.1	19 55	10				23 45 PP
HYDERABAD	151.60	48.9	20 1	16				23 1 PP
TOCKLAI	151.88	10.9	19 55	9				
SHILLONG	152.32	17.0	19 46A	0	27 0	11		23 38 PP
CANTON	153.04	333.3	19 47	0				23 34 PP
HONG KONG	153.30	330.9	20 7	20				23 16 PP
BAGUIO CITY	153.70	312.0	19 58	10				
CALCUTTA	153.80	26.2	20 4K	16	27 1	11		24 5 PP
KUNMING	154.04	355.5	19 50A	1				23 47 PP
MANILA	154.51	308.1	19 58	9				24 25
KODAIKANAL	154.52	63.5	20 16	27				
CHITTAGONG	155.31	19.5	19 52	2				24 8 PP
MADRAS	155.52	54.8	19 57	7				
PORT BLAIR	165.24	31.4	20 2	1	27 13	12		25 47 PPP
BANDUNG	170.75	230.3	20 17	12				
LEMBANG	170.83	230.5	20 3K	-2				21 25 PKP2
DJAKARTA	171.84	230.6						25 23 PP
MEDAN	175.12	21.9	20 8	1				25 46 PP

APRIL 14 22.H 48.M 32.S EPICENTRE 0.82 -79.82 DEPTH= 0.KM

A= 0.17678 B=-0.98415 C= 0.01413 D=-0.9842 E=-0.1768
G= 0.0025 H=-0.0139 K=-0.9999 HT= 7.2
SE= 2.50

	DELTA	AZ.	P	O-C	S	O-C	*PP	SUPP.
	DEG.	DEG.	M S	S	M S	S	M S	M S
CHINCHINA	5.88	45.4	1 35	5	2 43	3		
BOGOTA	6.87	56.5	1 49	5				
GALERAZAMBA	10.88	24.4	2 45	5				
HUANCAYO	13.54	160.9	3 18A	2	5 57	9		
COMITAN	19.56	322.3	4 34	2	8 16	9		
TRINIDAD	20.65	61.0	4 42	-2				
LA PAZ	20.71	146.7	4 46	2				
SAN JUAN	22.04	36.8	4 56	-2	9 23	26		
ST VINCENT	22.10	55.5	4 56	-2				
MERIDA	22.18	335.1	5 1	2	9 1	2		9 58 SS

FORT FRANCE	23.05	52.3	5	6	-2	9	16	1			
ST. CLAUDE	23.40	48.8	5	12	1	9	36	15			
BARBADOS	23.46	57.7	5	11	-1						
TACUBAYA	26.49	315.4	6	12	31					7	41
COLUMBIA	33.03	358.2	6	37	-2						
BERMUDA	34.49	23.0	6	42	-10						
CHAPEL HILL	34.93	1.1	6	55	0						
CHIHUAHUA	37.35	320.1								11	0
FAYETTEVILLE	37.55	340.7	7	16	-1					9	41 PCP
GEORGETOWN	37.99	3.5	7	20	-1						
WASHINGTON	37.99	3.5	7	22	1						
LUBBOCK	38.60	329.9	7	28	2						
MORGANTOWN	38.63	359.8	7	27	0						
ST. LOUIS 1	38.84	347.0	7	25	-3					8	55
PALISADES	40.37	6.9	7	40	-1						
CLEVELAND	40.51	358.0	7	40K	-2	13	46	-6			
WESTON	42.08	9.4	7	56K	1						
TUCSON	42.81	320.0	8	2	1						
OTTAWA	44.54	4.1	8	13A	-2					10	0 PP
BREBEUF	44.83	6.2	8	16A	-1						
SHAWINIGAN	45.96	6.8	8	23	-3						
SEVEN FALLS	46.78	8.4	8	31A	-2	15	22	-1			
BOULDER CITY	47.74	321.0	8	44	4						
RAPID CITY	47.84	337.3	8	41	0						
PASADENA	48.84	316.9	8	49	0						
SALT LAKE C.	49.23	327.9	8	54	2					9	29
EUREKA	50.67	323.8	9	4	1					9	50
LICK	52.96	318.3	9	21K	1						
RENO	53.03	321.5	9	24	3						
BUTTE	53.41	332.0	9	27	3						
BERKELEY	53.66	318.5	9	27	2						
MINERAL	54.62	321.4	9	34	1						
SHASTA	55.32	321.3	9	34	-4						
HUNGRY HORSE	55.80	333.0	9	40	-1					10	10
MBOUR	63.53	74.4	10	34	0						
RESOLUTE	74.32	355.9	11	36	-5						
THULE	75.80	2.8	11	47	-2	21	19	-12			
MALAGA	77.84	52.7	12	2A	1						
GRANADA	78.53	52.3	12	4K	-1						
RATHFARNHAM	79.55	35.8	12	59K	49						
COLLEGE	80.05	336.3	12	13	0					12	56
HALLEY BAY	82.13	168.3	12	22	-2					15	47 PP
DURHAM	82.55	34.9	12	24A	-2						
KFW	82.82	38.3	12	28	1	22	44	-1		23	0 SCS
BYRD STATION	83.09	186.4	12	25	-4						
PARIS	84.31	41.2	12	42	7						
TAMANRASSET	85.38	67.3	12	41	1					15	58 PP
NORD	85.39	7.6	12	39	-1						
NEUCHATEL	87.20	43.2	12	49	0						
BENSBERG	87.47	39.2	12	50	-1						
BASLE	87.64	42.7	12	59	8						
MUNSTER	87.78	38.2	12	49	-3						
EBINGEN	88.59	42.0	12	55	-1						
STUTTGART	88.74	41.4	12	55	-2						
SKALSTUGAN	90.21	26.6	13	4	0						
FLORENCE X.	90.21	46.4	13	7	3	23	51	-5			
JENA	90.26	39.2	13	1	-3					13	33
HALLE	90.47	38.7	13	2	-3					16	35 PP
COPENHAGEN	90.62	34.5	13	9	4						
PLAUEN	90.63	39.7	13	2	-3						
SOUTH POLE	90.81	180.0	13	7	1						
POTSDAM	91.13	37.8	13	7	-1						
PRUHONICE	92.20	40.1	13	14	1					16	58 PP
UPPSALA	93.05	30.1	13	16	-1						
KIRUNA	93.12	22.0	13	16	-1						
BRATISLAVA	94.02	41.8	13	23	2						
MATUSIRO	128.74	320.5	19	20	11						
QUETTA	135.82	42.9	19	27	4					21	59 PP
KOROR	144.84	283.9	19	46	7						
CHITTAGONG	155.56	19.0	20	6	11					24	18 PP

APRIL 15 1.H 30.M 47.S EPICENTRE 0.94 -79.62 DEPTH= 0.KM

A= 0.18019 B=-0.98350 C= 0.01632 D=-0.9836 E=-0.1802
G= 0.0029 H=-0.0161 K=-0.9999 HT= 7.2

SE= 2.32

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CHINCHINA	5.65	44.8	1	23	-2	2	33	2					
BOGOTA	6.64	56.5	1	38	-1								
BALBOA HTS.	7.97	0.4	2	0	2								
GALERAZAMBA	10.69	23.7	2	45	9	4	42	6					
HUANCAYO	13.59	161.9	3	14	-1	5	39	-7					
SAN SALVADOR	15.87	323.6	3	37	-7	6	39	-1					
PORT-PRINCE	18.90	21.8	3	50	-32								
COMITAN	19.58	321.6	4	29K	-1	8	9	4					
TRINIDAD	20.42	61.1	4	39	0								
LA PAZ	20.71	147.3	4	41A	-1	8	31	3			5	5	PP
SAN JUAN	21.82	36.6	4	54	1	9	9	20					
ST. VINCENT	21.86	55.4	4	52	-2								
MERIDA	22.16	334.5	4	58	1	9	1	6			12	34	
FORT FRANCE	22.82	52.2	5	1	-2	9	9	2					
ST. CLAUDE	23.17	48.7	5	9	2	9	37	23					
BARBADOS	23.23	57.7	5	6	-1								
TACUBAYA	26.54	314.9	5	36K	-3	10	12	1					
GUADALAJARA	30.35	311.8	6	25	12	11	41	29					
TALA POZO	32.18	153.9	6	29A	0	11	50	10			7	48	PP
COLUMBIA	32.91	357.8	6	35	-1								
MAZATLAN	34.13	312.3									17	20	SCS
BERMUDA	34.30	22.8	6	50	2	12	13	0			7	58	PP
SANTA LUCIA	35.21	167.0	6	57	2	12	33	6			9	23	PCP
CHIHUAHUA	37.38	319.8	7	13	-1	12	53	-8			15	43	SSS
FAYETTEVILLE	37.50	340.4	7	13	-2	12	48	-15			8	56	PPP
GEORGETOWN	37.85	3.2	7	17	-1	13	20	12					
WASHINGTON	37.85	3.2	7	17	-1						8	52	PP
MORGANTOWN	38.51	359.6	7	23A	0	12	29	-49					
LUBBOCK	38.59	329.6	7	24	0	13	21	2					
ST. LOUIS I	38.76	346.7	7	23A	-2	13	19	-3					
PITTSBURGH	39.32	359.6	7	30	0	13	31	1					
C.C.N.Y.	40.03	6.7	7	40	4	13	47	6					
PALISADES	40.22	6.7	7	36	-1	13	39	-5			9	7	PP
CLEVELAND	40.39	357.8	7	37A	-2	13	43	-3					
WESTON	41.92	9.2	7	51A	0	14	11	2					
HARVARD	42.01	8.9	7	51	-1								
TUCSON	42.84	319.8	7	59	0	14	24	2			9	58	PCP
OTTAWA	44.41	3.9	8	10A	-2	14	45	0			9	53	PP
BREBEUF	44.69	6.0	8	13A	-1	15	43	54					
BOULDER	45.38	332.1	8	19	0								
HALIFAX	45.75	16.0	8	22A	0	15	10	5			15	18	PS
SHAWINIGAN	45.82	6.6	8	22A	-1								
LARAMIE	46.53	333.0	8	29	0								
SEVEN FALLS	46.63	8.3	8	28A	-1	15	17	0			15	32	PS
BOULDER CITY	47.77	320.8	8	39	1						9	11	
RAPID CITY	47.80	337.1	8	38	0								
PASADENA	48.88	316.7	8	46	-1	15	51	2			10	47	PP
SALT LAKE C.	49.23	327.7	8	49	-1						9	14	
EUREKA	50.69	323.6	9	1	0								
FRESNO	51.46	318.5	9	10	3								
BOZEMAN	52.42	332.5	9	16	2						11	21	PP
LICK	53.00	318.1	9	18A	0								
RENO	53.06	321.4	9	18	-1								
BUTTE	53.39	331.8	9	19	-2						11	27	PP
BERKELEY	53.70	318.3	9	27A	4	17	0	5			10	30	PCP
MINERAL	54.65	321.2	9	29	-1								
UKIAH	55.01	319.1	9	38	5								
SHASTA	55.34	321.1	9	33	-2								
HUNGRY HORSE	55.78	332.9	9	37	-1								
ARCATA	56.51	320.4	9	52	8								
SEATTLE	59.40	327.8	10	11	7								
MBOUR	63.31	74.5	10	30	0	18	36	-24					
RESOLUTE	74.21	355.8	11	34A	-4	21	3	-6			16	13	PPP
LISBON	74.24	50.0	11	37A	-1						14	23	PP
COIMBRA	75.08	48.6	11	41K	-2								
SFRRA PILAR	75.14	47.6	11	42A	-1						14	31	PP
THULE	75.67	2.7	11	44	-2	21	21	-5					
HAWAII V OB.	76.16	289.7	11	47	-2	21	37	6					
MALAGA	77.60	52.7	11	57A	0						14	53	PP
GRANADA	78.30	52.3	12	6K	5	22	9	15					
TOLEDO	78.34	49.5	12	2K	1	22	0	5					
RATHFARNHAM	79.33	35.8	12	7	1						14	19	
COLLEGE	80.02	336.3	12	8	-2	22	6	-6			27	31	SS
ALICANTE	80.90	51.4	12	14	-1	22	24	3					
HALLEY BAY	82.21	168.3	12	20	-2						15	44	PP

DURHAM	82.33	34.9	12	21	-1	22	35	-1			22	50 SKS
ABERDEEN	82.45	32.4	12	25	2	22	42	5			25	35
KEW	82.60	38.3	12	23A	-1	22	41	2			15	45 PP
BYRD STATION	83.24	186.5	12	27	0	22	35	-10				
ALGIERS UNI.	83.56	53.3	12	27	-2							
PARIS	84.09	41.2	12	32A	1	22	55	1				
CLERMONT-FD.	84.25	44.3	12	33	1							
TAMANRASSET	85.15	67.4	12	37A	0	23	5	1			15	52 PP
NORD	85.24	7.6	12	36A	-1							
DE BILT	86.06	38.0	12	43A	2	23	17	4				
NEUCHATEL	86.97	43.2	12	46	0	23	14	-8				
WITTEVEEN	87.00	37.3	12	47	1							
RENSBERG	87.24	39.2	12	47	0	23	27	2				
BASLE	87.41	42.7	12	49A	1						24	54 PPS
MUNSTER	87.56	38.2	12	45	-3							
STRASBOURG	87.57	41.6	12	49A	1	23	33	5			29	31 SS
KARLSRUHE	88.00	41.2	12	51A	1	23	39	7			24	57
EBINGEN	88.36	42.0	12	52	0						16	18 PP
TUBINGEN	88.43	41.7	12	51	-2							
PAVIA	88.48	45.0	12	56	3	23	21	-15			15	59
STUTTGART	88.52	41.4	12	53	0	23	39	3			16	20 PP
CHUR	88.74	43.4	12	53A	-1	23	21	-17				
FLORENCE X.	89.98	46.4	13	5	5	23	40	-10	13	17	16	31 PP
SKALSTUGAN	90.01	26.6	12	59	-1							
JENA	90.03	39.2	12	58	-2	23	53	3			16	43 PP
HALLE	90.25	38.7	13	1	0	23	57	5			16	36 PP
COPENHAGEN	90.40	34.5	13	2A	0	24	2	8			23	36 SKS
PLAUEN	90.41	39.7	13	0	-2						13	33
POTSDAM	90.91	37.8	13	1	-3							
COLLMBERG	90.92	38.8	13	4	0						16	45
SOUTH POLE	90.94	180.0	13	4	0						16	43 PP
ROME	90.94	48.3	13	3A	-1	24	3	4	13	19	16	31 PP
TOLMEZZO	91.15	43.7	13	7	2	24	24	24	13	17	23	37 SKS
TRIESTE	91.69	44.5	13	6K	-2	23	39	-26			23	56 SKKS
PRAGUE	91.89	40.0	13	13	4	23	58	-9			16	28 PP
PRUHONICE	91.97	40.1	13	9	0	23	58	-10			16	48 PP
UPPSALA	92.84	30.1	13	11	-2	24	15	0			16	51 PP
KIRUNA	92.93	22.0	13	15	1	24	21	5			23	50 SKS
ZAGREB	93.24	44.2	13	13	-2	24	34	15			17	7 PP
BRATISLAVA	93.79	41.8	13	17	0						16	50 PP
WARSAW	95.78	37.4	13	27A	0	24	49	9			17	10 PP
CAPE HALLETT	96.92	196.8				24	25	-25			26	24 PPS
APATITY	97.77	20.9									17	34 PP
HERMANUS	97.83	124.5				24	35	-23			26	41 PS
LWOW	98.06	39.5	13	47	10						16	46
PULKOVO	99.12	28.8									17	39 PP
BUCHAREST	100.53	44.6				24	28	-52				
KISHINEV	101.80	41.5	14	0	6	24	28	-63				
ISTANBUL KA.	103.39	47.4									18	15 PP
MOSCOW	104.21	31.3									18	19 PP
SIMFEROPOL	105.92	42.5	14	12	777	24	50	0				
HELWAN	107.60	58.3	14	34	777	25	1	5				
PETROPAVLOVK	107.69	327.5									18	53 PP
LWIRO	108.44	92.0									18	52 PP
JERUSALEM	110.43	55.6	19	5	34							
TIFLIS	114.35	42.7									19	26 PP
UGLEGORSK	118.60	330.1									20	9 PP
BRISBANE	123.12	237.5									25	21
VLADIVOSTOK	127.81	331.0									21	16 PP
RABAUL	128.17	265.4	19	7	1							
MATUSIRO	128.77	320.7	19	5	-2							
NAMANGAN	130.79	28.7	19	13	2							
ULAN-BATOR	131.01	354.2	19	19	8							
CHARTERS TS.	131.31	244.0	19	13	1							
QUETTA	135.59	43.0	19	21	1						21	56 PP
WARSAK DAM	135.94	35.2	19	17	-3							
NAGASAKI	136.45	323.0									21	59
PEKING	136.75	342.2	19	21	-1						22	55 PKS
LAHORE	139.32	35.1	19	26	-1							
ZO-SE	142.51	330.0	19	32	0						22	45 PP
NANKING	142.84	333.6	19	34	1						22	50 PP
LANCHOW	143.03	355.4	19	29	-4						22	39 PP
AGRA	144.75	36.0	19	35K	-1							
KOROR	145.01	284.1	19	37	0						20	37
BOMBAY	146.51	52.5	19	43	4						21	35
POONA	147.52	52.1	19	44	3							
LHASA	148.31	15.6	19	45A	3						23	20 PP
TOCKLAI	151.94	10.7	19	59	11							

SHILLONG	152.39	16.8	19	48A	0							
CANTON	153.02	333.1	19	53	4						23	46 PP
KUNMING	154.07	355.2	19	51A	0						23	47 PP
MANILA	154.44	307.9	19	55	4						23	55
CHITTAGONG	155.38	19.3	19	51	-1							
PORT BLAIR	165.34	31.1	20	8	5	25	53	-71			39	23
BANDUNG	170.65	230.6	20	15	8						20	15 PKP2
LEMBANG	170.71	230.8	20	5A	-2						25	20 PP
DJAKARTA	171.73	230.9	21	36A	89						23	39
MEDAN	175.20	20.7	20	23	14						26	25

APRIL 15 3.H 52.M 35.S EPICENTRE 8.02 -84.52 DEPTH= 0.KM

A= 0.09454 B=-0.98584 C= 0.13852 D=-0.9954 E=-0.0955
G= 0.0132 H=-0.1379 K=-0.9904 HT= 6.8

SE= 2.37

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTIAGO MA.	6.68	324.9	1	42	1	2	57	-2					
SAN SALVADOR	7.32	321.3	1	50	0								
CHINCHINA	9.35	108.3	2	17	-2	3	59	-7					
GALERAZAMBA	9.53	72.5	2	27	6	4	0	-10					
BOGOTA	10.92	107.4	2	40	0								
COMITAN	11.06	318.5	2	41	-1	4	57	9			6	9	
MERIDA	13.77	339.6	3	16A	-2	5	35	-18			7	25	
PORT-PRINCE	15.81	47.3	3	17	-28						3	27	PP
TACUBAYA	18.19	310.0	4	17A	2	7	55	19					
SAN JUAN	20.64	58.2	4	40K	-3	8	41	11					
HUANCAYO	21.93	155.3	4	55A	-1	9	1	7					
GUADALAJARA	22.11	306.7	5	5A	7	9	21	23			10	57	
ST. VINCENT	23.41	75.4	5	13	2								
ST. CLAUDE	23.68	68.2	5	15	1	9	25	-1					
FORT FRANCE	23.85	71.7	5	15	0	9	34	5					
BARBADOS	25.01	76.2	5	26	0								
MAZATLAN	25.85	308.1	5	36	2	10	12	9			13	18	
COLUMBIA	26.06	6.6	5	36K	0	10	4	-2			6	52	PP
CHIHUAHUA	28.87	318.0	6	5	3	11	1	9			14	51	
LA PAZ	29.26	146.4	6	4A	-1	11	4	6			7	1	PP
FAYETTEVILLE	29.31	343.9	5	50	-16	10	51	-8			6	11	
LUBBOCK	30.06	330.2	6	13	0	11	15	4			11	39	
BERMUDA	30.45	34.5	6	21	5	11	25	8			7	30	PPP
ST. LOUIS 1	30.92	351.3	6	19K	-1	11	21	-3			6	48	
GEORGETOWN	31.47	11.2	6	25	0	11	33	0					
WASHINGTON	31.47	11.2	6	26K	1	12	0	27					
PITTSBURGH	32.54	6.5	6	27	-7	11	52	2			7	53	
CLEVELAND	33.43	4.1	6	40K	-2	12	1	-2					
PALISADES	34.19	14.4	6	47	-2	12	3	-12			12	51	PCS
TUCSON	34.33	318.2	6	50A	0	12	30	13			8	11	PP
WESTON	36.15	16.7	7	5K	0	12	47	1					
OTTAWA	38.02	10.1	7	19	-2	13	3	-11			8	44	PP
BREBEUF	38.52	12.3	7	24K	-1	13	21	-1					
BOULDER CITY	39.24	319.7	7	33K	2						8	9	
RAPID CITY	39.45	338.7	7	32A	-1	13	41	5			26	59	PKKP
SHAWINIGAN	39.70	12.7	7	33K	-2	13	35	-5			9	3	PP
PASADENA	40.44	314.9	7	41K	0	13	59	8			17	19	SS
TALA POZO	40.66	151.9	7	42A	-1	13	47	-7			9	15	PP
SALT LAKE C.	40.68	327.7	7	45A	2						8	25	
SEVEN FALLS	40.68	14.4	7	42K	-1	13	55	1			16	59	SS
HALIFAX	40.75	23.0	7	45A	1	13	58	3			9	32	PP
EUREKA	42.13	323.0	7	56A	1						39	35	PKPPKP
FRESNO	42.97	317.1	8	0	-2								
SANTA LUCIA	43.26	163.0	8	6	2	14	40	8			18	13	SCS
BOZEMAN	43.94	333.2	8	11A	1						8	55	
LICK	44.51	316.7	8	15A	0								
RENO	44.53	320.4	8	15A	0								
BUTTE	44.89	332.3	8	17A	-1						10	8	PCP
BERKELEY	45.21	317.0	8	21A	1	15	9	8			18	49	SS
CONCEPCION	46.12	166.1	8	53	26	15	45	32			10	26	
MINERAL	46.12	320.3	8	27A	0								
UKIAH	46.51	317.9	8	33K	3						9	53	PCP
SHASTA	46.81	320.2	8	31	-2								
HUNGRY HORSE	47.30	333.4	8	36A	-1	16	11	41			9	50	PCP
ARCATA	47.99	319.5	8	47	5								
BANFF	50.06	335.0	8	56	-2								

SEATTLE	50.85	327.7	8	58	-6					
VICTORIA	51.98	328.0	9	13K	0	16	42	6		
HORSESHOE B.	52.44	328.9	9	15	-1					
MBOUR	66.38	77.8	10	54	2	19	49	7		
RESOLUTE	66.89	357.0	10	52K	-4	19	46	-2	13	25 PP
THULE	68.94	4.1	11	5	-4	20	11	-2	39	17 PKPPKP
COLLEGE	71.62	336.3	11	23A	-2	20	47	3	13	58 PP
LISBON	73.62	52.1	11	37K	0	21	4	-3	11	56 PCP
SFRRA PILAR	74.17	49.6	11	39K	-1				12	5 PCP
COIMBRA	74.25	50.6	11	39	-1					
RATHFARNHAM	76.59	37.2	11	54K	0	21	46	6	15	9
MALAGA	77.35	54.2	12	0A	2	22	1	13		
TOLEDO	77.61	51.0	12	1A	2	21	56	5		
GRANADA	77.99	53.7	12	8A	7	21	56	1	22	48 PS
NORD	78.94	8.0	12	5	-2	22	4	-1		
ABERDEEN	79.20	33.3				22	2	-6	22	42 PS
DURHAM	79.43	35.8	12	8A	-1	22	5	-5		
KEW	80.17	39.2	12	13K	0	22	17	-1	15	6 PP
ALICANTE	80.42	52.5	12	14	-1	22	16	-4	15	16 PP
PARIS	82.06	41.8	12	17	-6	22	23	-14		
CLERMONT-FD.	82.68	44.8	12	27	1					
DE BILT	83.56	38.4	12	31	0	22	54	1	31	49 SSS
WITTEVEEN	84.40	37.6	12	36	1					
BENSBERG	84.91	39.4	12	39	1				13	23
MUNSTER	85.07	38.4	12	38	0					
NEUCHATEL	85.21	43.4	12	40	1					
STRASBOURG	85.57	41.7	12	42	1	23	10	-2	16	0 PP
BASLE	85.57	42.8	12	41	0	23	10	-2		
SKALSTUGAN	85.90	26.4	12	41	-2					
KARLSRUHE	85.93	41.2	12	43	0	23	9	-7	14	3
EBINGEN	86.41	42.0	12	45	0					
TUBINGEN	86.43	41.7	12	44	-1					
STUTTGART	86.48	41.4	12	45	0	23	13	-8	16	8 PP
PAVIA	86.97	45.0	12	54	6				32	41
CHUR	86.98	43.3	12	46	-2	23	12	-14		
TAMANRASSET	86.98	67.5	12	48	0	23	19	-7	16	11 PP
COPENHAGEN	87.36	34.3	12	49	-1	23	30	0	24	6 PS
JENA	87.67	39.0	12	50	-1	23	28	-4	23	2 SKS
HALLE	87.80	38.4	12	52	0	23	33	-1	16	11 PP
PLAUEN	88.10	39.4	12	50	-3				13	30
KIRUNA	88.21	21.5	12	59	5	23	36	-2		
POTSDAM	88.32	37.4	12	55	1					
COLLMBERG	88.49	38.5	12	55	0					
FLORENCE X.	88.66	46.1	12	55	-1	23	43	1	16	22 PP
UPPSALA	89.18	29.6	12	56	-2	23	42	-5		
TOLMEZZO	89.43	43.3	13	1	1	23	48	-1	16	34
PRAGUE	89.62	39.5				24	5	14	16	35 PP
BYRD STATION	89.71	185.7	12	58	-3	23	43	-8	16	9 PP
PRUHONICE	89.72	39.6	13	1	0	23	50	-1	16	42 PP
ROME	89.88	47.8	13	28	26	24	0	7	24	29 PS
TRIESTE	90.07	44.0	13	1	-2	23	54	-1	23	33 SKS
SODANKYLA	90.61	21.2	13	13	8					
BRATISLAVA	91.76	41.0	13	12	2				16	48 PP
RACIBORZ	91.98	39.0	13	13	2					
APATITY	92.89	19.9	13	17	1					
KRAKOW	93.06	38.7	13	57	41				16	56 PP
WARSAW	93.10	36.4				23	52	-29	25	25 PS
LWOW	95.65	38.1							16	57 PP
TIKSI	97.52	349.9				25	1	2	19	43 PPP
SOUTH POLE	97.96	180.0	13	36	-3				17	29 PP
SUVA	99.12	252.9							26	45 PS
PETROPAVLOVK	99.14	327.0				24	25	-48		
CAPE HALLETT	102.19	197.6							29	3 PPS
SIMFEROPOL	103.86	39.9				24	45	-67	18	43 PP
YAKUTSK	105.31	344.0							18	29
HERMANUS	105.82	123.4				26	9	0	28	50 PPS
JERUSALEM	110.23	52.0	18	12	-21					
TIFLIS	112.21	38.7							28	58 PS
LWIRO	113.40	89.0	18	38	-1				19	35 PP
GORIS	114.42	40.0							19	38 PP
IRKUTSK	119.48	353.8				25	51	3	27	23 SKKS
MATUSIRO	120.24	320.8	16	7K	777				16	55
WILKES	120.97	187.1							37	10 SS
TASHKENT	125.33	24.1	19	16	13	25	47	-19		
FRUNSE	125.89	18.9	19	13	9					
STALINABAD	127.43	26.3	19	17	10					
PEKING	128.51	339.7	19	11	2				21	14 PP
WARSAK DAM	132.45	27.2	19	15	-1					
QUETTA	133.17	34.5	19	18	0				21	41 PP

ZO-SE	133.97	328.9	19	25	6					
LANCHOW	135.44	350.4	19	30	8					
LAHORE	135.76	26.2	19	26	4					
KOROR	138.23	290.4	19	54	27					
DEHRA DUN	138.37	22.9							23	38
AGRA	141.18	25.2	19	43	11					
LHASA	142.32	6.3	19	37	3				22	38 PP
CHATRA	144.44	12.8	19	34	-4					
CANTON	144.53	331.0	19	40A	2	26	51	5	20	21
BOMBAY	145.15	39.7	19	40	1				39	29
POONA	146.07	38.8	19	43	2				21	53
KUNMING	146.39	348.1	19	45K	4					
SHILLONG	146.43	5.9	19	40K	-1				21	24
PHU-LIEN	149.34	339.2							18	21
MADRAS	154.18	36.2	20	10	17				22	58

APRIL 15 9.H 59.M 57.5 EPICENTRE 14.90 120.32 DEPTH= 94.KM
DEPTH OF FOCUS= 0.010R

A=-0.48803 B= 0.83458 C= 0.25554 D= 0.8632 E= 0.5048
G=-0.1290 H= 0.2206 K=-0.9668 HT= 5.8

SE= 2.36

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MANILA	0.72	116.4	0	19	1	0	45	13				
BAGUIO CITY	1.53	9.5	0	26	-1	0	47	0				
CANTON	10.51	321.8	2	25	-4						4	51
PHU-LIEN	14.29	296.2	3	17	-2	5	59	4				
KOROR	15.80	116.9	3	36	-2							
ZO-SE	16.14	2.7	3	43K	1	6	48	10			4	4 *SP
NANKING	17.13	355.6	3	59A	4	7	13	13			4	11 PP
KUNMING	19.39	304.1	4	21A	0	8	1	11			4	34 PP
SIAN	21.84	333.9	4	49	3							
GUAM	23.73	90.4	5	4	0						8	43 PCP
MEDAN	24.11	244.3	5	10	2	8	35	-41				
LEMBANG	24.99	211.1	5	40	24						9	36
MATUSIRO	26.83	33.3	5	33	0	10	17	16				
CHITTAGONG	27.97	289.7	6	10	26							
SHILLONG	28.66	296.2	5	47A	-3							
VLADIVOSTOK	29.83	17.2	6	0	0	9	43	-66				
ULAN-BATOR	34.75	344.1	6	44	1							
RABAUL	36.83	118.6	7	3K	2							
CHARTERS TS.	43.06	143.0	6	52K	-60						9	19
POONA	44.56	281.4	8	6	2						14	31
LAHORE	45.04	299.8	8	7	-1							
NAMANGAN	49.42	311.6	8	46	4							
MAGADAN	49.89	19.7	8	46	0							
QUETTA	51.15	296.8	8	55	0	16	4	-1			10	56 PP
BRISBANE	52.74	142.9	9	5K	-2	15	38	-48				
SVERDLOVSK	61.20	327.2	10	9	2							
KARAPIRO	73.75	137.4	11	25	-1							
APATITY	75.16	336.6	11	33	-1							
COLLEGE	77.43	25.9	11	47	1						12	23
SODANKYLA	77.79	336.7	11	49	1							
KIRUNA	80.01	337.7	12	0	-1				12	29		
ISTANBUL KA.	81.30	310.1	12	7	0							
NORD	81.44	354.2	12	8	0							
HELWAN	81.87	298.7	12	11	1							
UPPSALA	83.49	330.3	12	18	-1							
SKALSTUGAN	84.57	334.7	12	23	-1							
KRAKOW	85.24	320.5	12	27	0						12	55 PCP
RESOLUTE	87.92	8.8	12	40K	0	23	51	37				
PRUHONICE	88.54	321.6	12	43	0				13	9	13	23 *SP
THULE	88.72	2.0	12	43	-1							
PARIS	96.12	324.0	13	13	-5							
HUNGRY HORSE	100.69	33.5	19	9	777							
EUREKA	104.68	41.7									20	1 PP
TAMANRASSET	106.01	299.3	18	17	777						26	9
BYRD STATION	109.66	170.8	19	12	777							

APRIL 16 12.H 36.M 27.S EPICENTRE 13.96 121.01 DEPTH= 161.KM

DEPTH OF FOCUS= 0.020R

A=-0.50021 B= 0.83208 C= 0.23966 D= 0.8571 E= 0.5152
G=-0.1235 H= 0.2054 K=-0.9709 HT= 5.9

SE= 2.04

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MANILA	0.62	357.1	0	4	-21	0	23	-20					
BAGUIO CITY	2.48	350.4	0	42	0						1	12	S*
HONG KONG	10.54	322.9	2	24	-4						3	7	
CANTON	11.66	322.2	2	42K	-1	5	11	21					
KOROR	14.78	115.1	3	24	2	6	11	9			3	40	
PHU-LIEN	15.32	298.4	3	29	0	6	20	6					
ZO-SE	17.06	0.5	3	53A	3	7	3	4					
NANKING	18.12	354.0	4	4	1	7	27	11					
KUNMING	20.48	305.4	4	27K	0								
SIAN	22.98	333.6	4	56	5								
GUAM	23.07	88.3	4	49	-3				5	31			
MEDAN	24.33	247.0	5	11K	7	8	53	-16					
LEMBANG	24.56	213.6	5	4	-2	9	15	2					
LANCHOW	26.89	328.0	5	29A	1	9	55	4					
MATUSIRO	27.27	31.3	5	31A	0	10	18	21					
SHILLONG	29.69	297.4	6	20	27	10	31	-5					
TRUK	30.96	98.8	6	5	1				6	49			
LHASA	31.78	304.3	6	12	1	11	9	1					
RABAUL	35.79	118.1	6	48	2								
WARSAK DAM	48.88	303.1	8	31K	0								
BRISBANE	51.59	143.0	8	50	-2								
QUETTA	52.17	297.4	8	55A	-1	16	6	-1					
KARAPIRO	72.60	137.6	11	11	-1								
COLLEGE	77.98	25.9	11	43	1				12	22			
SODANKYLA	78.91	336.8	11	47	0								
TANANARIVE	79.38	247.4	11	49A	-1								
KIRUNA	81.14	337.8	11	58K	-1								
NORD	82.44	354.3	12	5	-1								
HELWAN	82.91	298.9	12	8	0						12	52	
UPPSALA	84.64	330.4	12	15	-2						12	34	
SKALSTUGAN	85.71	334.9	12	20	-2								
RESOLUTE	88.74	9.0	12	36A	-1								
THULE	89.63	2.2	11	40	-61								
PRUHONICE	89.69	321.7	12	41	0						13	23	
PARIS	97.28	324.2									13	35	
RATHFARNHAM	99.29	331.1	12	49A	-36						13	47	
HUNGRY HORSE	101.10	33.9	13	35	2								
EUREKA	104.93	42.2									17	22	PP
RAPID CITY	109.60	32.2									18	46	PP
SHAWINIGAN	118.51	10.8	18	29	0								
SAN JUAN	147.11	12.5	19	25	3								
HUANCAYO	163.96	85.1									20	44	PKP2

APRIL 17 6.H 21.M 43.S EPICENTRE -6.45 154.78 DEPTH= 0.KM

A=-0.89906 B= 0.42336 C=-0.11157 D= 0.4260 E= 0.9047
G= 0.1009 H=-0.0475 K=-0.9938 HT= 6.9

SE= 2.42

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RABAUL	3.43	310.5	0	59	3	1	41	3					
PORT MORESBY	8.11	248.3	2	4	2	2	28	-67					
TRUK	14.13	348.0	3	25	1	5	56	-6					
NOUMEA	19.37	145.6	4	30	0						5	6	
BRISBANE	20.98	184.4	4	46	-1	8	45	8					
GUAM	22.16	333.3	5	3	4								
KOROR	24.45	303.7	5	19	-2	9	42	2					
RIVERVIEW	27.45	186.6	5	50	0	10	39	10					
KARAPIRO	36.56	151.9	7	9	0								
MANILA	39.50	302.1	7	32	-2								
GEBBIES PASS	40.29	159.9	7	46	6								
BAGUIO CITY	40.76	304.3	7	44	0	13	53	-3					
PERTH	44.30	229.9									17	56	SS
MATUSIRO	45.50	341.2				14	56	-9					

BANDUNG	46.80	266.6	8	41	8	15	25	1			
LEMBANG	46.84	266.7	8	31	-2	15	21	-3			
DJAKARTA	47.65	267.5							15	25	
HONG KONG	48.96	306.9	8	51	1	16	7	13	10	49	
ZO-SE	49.26	321.2	8	51	-1						
CANTON	50.07	307.3	8	59K	0	16	11	1			
Y.-SAKHLINSK	54.23	349.8	10	15	45						
CHANGCHUN	56.69	334.8	9	45	-3						
PETROPAVLOVK	59.44	2.7	10	5	-2				18	5	
KUNMING	59.56	303.9	10	7A	-1	18	18	1			
LANCHOW	63.79	315.5	10	35K	-1	19	4	-7			
SHILLONG	68.85	300.4	11	7A	-1						
LHASA	70.86	304.3	11	20A	-1	20	35	-1			
SCOTT BASE	71.64	177.3	11	26	1						
AGRA	81.25	298.6	12	15	-4	22	22	-7			
COLLEGE	82.66	21.3	12	24	-3				13	39	
BYRD STATION	82.94	169.9	12	23	-5						
POONA	83.49	289.4	12	30	-1						
LAHORE	85.26	302.3	12	44	4						
SHASTA	88.75	49.0	12	58	1						
LICK	88.78	52.4	12	58	1						
NAMANGAN	89.01	311.3	13	5	7				23	46	
MINERAL	89.28	49.4	12	58	-1						
RENO	90.53	50.4	13	7	2						
PASADENA	91.14	55.9	13	8	0	23	53	-12	13	22	
QUETTA	91.28	300.1	13	8A	-1	24	2	-4	25	22	PS
EUREKA	93.47	50.8	13	19	0						
BOULDER CITY	94.05	54.4	13	23	2						
HUNGRY HORSE	95.56	42.1	13	27	-1						
RESOLUTE	101.50	14.7	13	54	-1				27	5	FS
PULKOVO	112.38	333.2							18	54	
KSARA	117.50	304.8							20	12	PP
PARIS	131.71	335.7	19	23	8				21	0	PP
LA PAZ	131.81	118.8							22	41	PKS
TAMANRASSET	146.23	301.9	19	44K	3				22	58	PP

APRIL 17 10.H 4.M 46.S EPICENTRE -5.62 151.82 DEPTH= 0.KM

A=-0.87729 B= 0.47000 C=-0.09730 D= 0.4722 E= 0.8815
G= 0.0858 H=-0.0459 K=-0.9953 HT= 7.0
SE= 2.26

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RABAUL	1.45	13.9	0	30A	2								
PORT MORESBY	5.96	230.7	1	34	2	2	47	5			6	39	
TRUK	13.00	0.1	3	9	0	5	52	16					
GUAM	20.22	339.7	4	40	1	8	24	2					
KOROR	21.56	306.4	4	55	2	8	48	0					
BRISBANE	21.77	177.1	4	55	0	8	56	4					
NOUMEA	21.79	140.9	4	58	2	8	54	2					
RIVERVIEW	28.07	181.2	4	59	-56	10	42	2					
SUVA	28.81	117.9	6	5	3	10	53	2					
BAGUIO CITY	37.88	305.8	7	21	0	13	17	4					
KARAPIRO	38.72	149.4	7	23	-5						9	39	
PERTH	42.62	227.5									9	49	PP
MATUSIRO	43.84	344.1	8	8	-2	14	41	0			9	56	
LEMBANG	43.95	266.0	8	8K	-3	14	38	-5					
DJAKARTA	44.75	266.9	8	18	1						13	5	
HONG KONG	46.13	308.3	8	30	2						9	49	
ZO-SE	46.80	323.2	8	34A	1	15	31	7			10	21	PP
CANTON	47.24	308.6	8	40A	3								
NANKING	48.91	322.1	8	51A	1								
PHU-LIEN	51.54	302.0	9	3	-7						10	10	
VLADIVOSTOK	51.77	341.5	9	9	-3								
Y.-SAKHLINSK	52.96	352.2	9	19	-2						10	23	PCP
CHANGCHUN	54.73	336.7	9	33	-1								
HONOLULU	55.91	59.7	10	1	19	18	23	54					
PEKING	56.04	327.3	9	42A	-1	17	35	4			10	50	PP
KUNMING	56.66	304.8	9	52A	5								
PETROPAVLOVK	58.81	4.8	10	1	-2	18	12	5					
LANCHOW	61.16	316.6	10	20K	1	18	41	3			11	6	PCP
MAGADAN	64.97	359.4	10	42	-2								
SHILLONG	65.90	301.1	10	49	-1	20	0	23					
ULAN-BATOR	66.29	328.8	10	52	0	19	46	4					

LHASA	67.97	305.0	10	29A	-34							
OASIS-BUNG.	69.95	199.7	11	16	1							
IRKUTSK	70.34	331.2	11	18	0	20	37	7				
SCOTT BASE	72.61	176.7	11	32	1						27	18 PKKP
MIRNY	72.82	201.0	11	33	1	20	44	-14				
AGRA	78.27	299.1	11	59K	-4							
DEHRA DUN	78.95	302.2	12	22	15							
BOMBAY	81.46	290.0	12	21	0	22	29	-3				
LAHORE	82.33	302.8	12	26	1							
COLLEGE	82.98	22.0	12	26	-2	22	38	-9				
BYRD STATION	84.27	169.9	12	30	-5	22	38	-22				
WARSAK DAM	85.09	304.7	12	40	1							
SITKA	85.48	31.6	12	43	2							
NAMANGAN	86.25	311.6	12	47	2							
QUETTA	88.37	300.4	12	55	0	23	42	2			23	27 SKS
PASADENA	93.12	56.2	13	18	1	24	10	-12				
EUREKA	95.24	51.0	13	28	1							
BOULDER CITY	95.97	54.5	13	32	2							
HUNGRY HORSE	96.92	42.1	13	36	1							
RESOLUTE	101.44	14.4	13	52K	-3						18	14 PP
APATITY	105.76	339.4				25	2	-7				
TIFLIS	106.42	311.7									18	45 PP
KIRUNA	109.86	342.4									28	19 PS
PULKOVO	110.31	332.6									19	0 PP
SIMFEROPOL	113.39	316.8									19	40 PP
KSARA	114.60	304.6	18	44	2						19	48 PP
SCORESBY SD.	115.10	357.7									29	27 PS
WARSAW	118.47	328.0									20	16 PP
HERMANUS	120.14	224.7									34	55
SHAWINIGAN	124.03	35.8	19	2	1							
PALISADES	126.11	42.1				26	12	3			20	56 PP
DURHAM	126.51	341.2									16	43
STUTTGART	126.60	330.0	19	14	8							
STRASBOURG	127.43	330.6									21	2 PP
KEW	128.78	338.0									22	34 PKS
PARIS	129.71	334.0	19	16	5	26	20	1			21	10 PP
HUANCAYO	129.94	110.7	19	17	5							
CHINCHINA	132.77	88.4	19	21	4						21	51 PP
BOGOTA	134.29	89.0									21	54 PP
LA PAZ	134.79	119.8	19	26	5						22	40 PKS
TAMANRASSET	143.29	301.1	19	36	0						22	58 PP
MBOUR	165.95	309.1	20	9	2						24	58 PP

APRIL 17 11.H 32.M 55.S EPICENTRE 37.15 141.04 DEPTH= 67.KM

DEPTH OF FOCUS= 0.005R

A=-0.62134 B= 0.50236 C= 0.60130 D= 0.6287 E= 0.7776
G=-0.4676 H= 0.3781 K=-0.7990 HT= -0.6

SE= 2.34

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ONAHAMA	0.23	210.2	0	9A	-3	0	15	-6				
SHIRAKAWA	0.66	267.7	0	14	-2	0	25	-3				
HUKUSIMA	0.75	322.9	0	16K	-1	0	27	-2				
MITO	0.90	211.2	0	16K	-2	0	27	-5				
UTUNOMIYA	1.12	237.9	0	19K	-2	0	34	-2				
SENDAI	1.12	354.2	0	19K	-2	0	33	-3				
KAKIOKA	1.15	217.4	0	19K	-2	0	31	-6				
TUKUBASAN	1.20	219.6	0	19K	-3	0	31	-7				
YAMAGATA	1.23	333.6	0	22	0	0	38	-1				
ISINOMAKI	1.30	9.6	0	21K	-2	0	37	-3				
KUMAGAYA	1.67	233.8	0	27K	-1	0	45	-4				
MAEBASI	1.75	245.3	0	28K	-1	0	52	1				
NIIGATA	1.76	296.5	0	30K	1	0	52	1				
TOKYO C.M.O.	1.80	215.8	0	27	-3	0	49	-3				
TITIBU	1.97	234.2	0	31	-1	0	50	-6				
MIZUSAWA	1.98	1.9	0	31	-1	0	53	-3				
SAKATA	1.99	331.6	0	35	3	0	59	3				
YOKOHAMA	2.05	213.7	0	32	-1	0	57	-1				
OIWAKE	2.16	248.5	0	36	1	1	17	16				
TAKADA	2.23	269.6	0	37	1	1	8	6				
NAGANO	2.33	259.0	0	39K	2	1	21	16				
MATUSIRO	2.34	256.1	0	38K	1						1	7
AIKAWA	2.38	292.2	0	40	2						0	56

MERA	2.43	204.2	0	38	0	1	6	-1		
HUNATU	2.47	228.8	0	39	0	1	8	0		
KOHU	2.51	233.5	0	39	0	1	15	6		
MORIOKA	2.55	2.2	0	38	-2	1	7	-3		
MIYAKO	2.60	16.0	0	38	-3	1	7	-5		
AJIRO	2.62	217.5	0	42	1	1	12	0		
MATUMOTO	2.63	251.0	0	42	1	1	18	6		
MISIMA	2.64	220.6	0	40	-1	1	12	-1		
AKITA	2.67	344.2	0	42	0	1	19	6		
OSIMA	2.73	210.1	1	17	34				1	46
SHIZUOKA	3.05	225.4	0	44	-3	1	30	7		
IIDA	3.06	238.9	0	48	1	1	25	2		
TOYAMA	3.11	262.9	0	49	1	1	27	3		
TAKAYAMA	3.21	253.0	0	51	2					
WAZIMA	3.31	275.2	0	49	-2					
HATINOHE	3.40	6.3	0	53	1	1	36	5		
OMAESAKI	3.42	222.9	0	57	5	1	36	4	1	18
KANAZAWA	3.58	261.4	0	57	3				2	4
HAMAMATU	3.63	229.0	1	4	9	1	46	9		
AOMORI	3.67	356.9	1	OK	4	1	41	3		
NAGOYA	3.84	240.3	1	0	2	1	44	1		
GIHU	3.87	244.5	1	OK	2	1	49	6	1	20
HUKUI	4.00	255.5	1	3	3					
HATIDYOZIMA	4.16	194.2	1	4	1					
IBUKISAN	4.16	246.3	1	5	2	1	52	1		
TSURUGA	4.28	251.0	1	30	26	2	22	28		
HIKONE	4.31	245.6	1	8	3	1	55	1		
KAMEYAMA	4.36	239.6	1	6	1	2	12	17		
TU	4.39	238.0	1	20	14	2	18	22		
HAKODATE	4.63	357.0	1	11	2	2	8	6	1	33
MAIZURU	4.80	251.2	1	14	3	2	12	5		
NARA	4.90	241.3	1	23	10	2	34	25		
MORI	4.96	355.9	1	19	5	2	14	4		
OWASE	5.00	233.5	1	17	3	2	22	11		
OSAKA	5.12	242.5	1	14	-2	2	33	19		
URAKAWA	5.17	14.5	1	17	0	2	18	2		
MURORAN	5.17	359.4	1	16	-1	2	25	9		
TOYOOKA	5.28	254.0	1	19	1	2	19	1		
KOBE	5.36	244.4	1	19	0	2	26	6		
TOMAKOMAI	5.38	4.2	1	32	13	2	29	8		
SIOMISAKI	5.68	231.0	1	26	2	2	44	16		
SUTTSU	5.68	353.9	1	26	2	2	33	5		
SUMOTO	5.74	242.7	1	24	0	2	37	7	2	59
TOTTORI	5.74	255.4	1	32	8				3	16
SAPPORO	5.92	2.2	1	26	-1	2	37	3		
OBIHIRO	6.00	15.3	1	27	-1	2	41	5		
HIMEJI	6.01	245.9	1	24	-4	2	39	3		
TAKAMATU	6.35	245.7	1	40	7	3	7	22	2	27
KUSIRO	6.37	22.8	1	29	-4	2	39	-6	3	16
YONAGO	6.45	25 9	1	37	3	3	4	17		
MATSUE	6.66	257.6	1	38	1	2	55	2		
ASAHIGAWA	6.70	8.3	1	37	-1	2	55	1		
MUROTO	6.83	237.3	1	42	2	3	1	4		
NEMURO	7.08	27.9	1	40	-3	2	52	-11		
KOTI	7.11	241.9	1	45	1	3	3	-1	3	25
ABASHIRI	7.29	18.7	1	49	3	3	4	-4		
SIMIDU	7.93	239.0	1	53	-2	3	37	13		
OOITA	8.65	245.9	2	4	-1				3	49
VLADIVOSTOK	9.19	313.3	2	13	1	4	3	8	2	26
MIYAZAKI	9.50	239.5	2	30	14				5	8
KUMAMOTO	9.52	246.1	2	17	0				4	59
KURILSK	9.57	30.3	2	15	-2				3	55
SAGA	9.61	249.3				3	14	-51	5	19
Y.-SAKHLINSK	9.87	6.7	2	19	-2	4	6	-6		
NAGASAKI	10.17	247.6	2	23	-2				5	23
KAGOSIMA	10.30	240.4	2	41	14				5	41
CHANGCHUN	13.70	304.0	3	12	0	5	47	4	3	22 PP
ZO-SE	17.51	255.7	4	2	1	7	20	9	4	18 PP
NANKING	18.99	261.0	4	16A	-3	7	42	-2		
PEKING	19.64	286.1	4	22	-4	7	55	-3	4	37 PP
PETROPAVLOVK	20.15	31.9	4	30	-1	8	7	-1	4	57 PP
MAGADAN	23.29	12.6	5	2	0	9	12	6		
GUAM	23.81	171.0	5	6	-1	9	34	19		
YAKUTSK	25.88	347.7	5	25	-2	9	49	-1	6	9 PP
ULAN-BATOR	27.16	304.2	5	39	0					
HONG KONG	27.51	245.0	5	37	-5	11	9	53		
CANTON	27.69	247.4	5	42	-2	10	21	2	6	34 PP
MANILA	28.71	223.8	5	50	-3					

LANCHOW	29.78	279.3	6	1K	-1	10	54	1			7	1 PP
IRKUTSK	29.78	312.3	6	1	-1	10	56	3				
KOROR	30.28	193.0	6	5	-2							
TRUK	31.14	158.9	6	22	8							
PHU-LIEN	34.00	251.0	6	30	-9						11	53
KUNMING	34.77	260.8	6	44	-2	12	11	1				
TIKSI	35.12	353.3	6	47	-2	12	19	3			8	27 PPP
TOCKLAI	40.27	268.8	7	37A	5							
LHASA	42.02	274.9	7	48A	2	14	3	3				
RABAUL	42.42	163.4	8	2	13							
SHILLONG	43.12	269.0	7	54A	-1							
PORT MORESBY	46.65	171.7	8	18	-5							
COLLEGE	49.15	32.3	8	43	0							
FRUNSE	50.04	298.5	8	50	0							
DEHRA DUN	51.99	282.1	9	7	3							
AGRA	53.43	278.5	9	14A	-1							
LEMBANG	53.76	222.7	9	15A	-3	16	43	-2				
LAHORE	54.36	285.2	9	21A	-1							
SVERDLOVSK	54.87	318.5	9	24	-2							
WARSAK DAM	55.44	289.1	9	29	-1							
STALINABAD	55.67	295.3	9	30	-1	17	15	4				
QUETTA	60.63	287.1	10	6A	0	18	20	5			12	22 PP
NORD	60.92	356.3	10	6A	-2							
POONA	61.07	272.0	10	9	0						10	33
RESOLUTE	62.57	14.4	10	17A	-2						22	35 SS
ASHKABAD	63.35	298.7	10	24	0							
SODANKYLA	64.75	337.1	10	32	-1							
THULE	65.18	7.3	10	33	-3							
KIRUNA	66.30	339.1	10	42A	-1	19	30	4	11	1	11	13 PCP
MOSCOW	66.98	323.3	10	47	-1							
TIFLIS	70.51	307.9	11	9	0							
SHASTA	71.27	52.9	11	15	1							
SKALSTUGAN	71.70	338.4	11	16	0						11	35
HUNGRY HORSE	71.90	42.7	11	18	0						12	38
MINERAL	71.96	52.9	11	20A	2				11	33		
UPPSALA	72.73	333.8	11	22	0						11	38
BERKELEY	72.91	55.3							11	39		
RENO	73.58	52.8	11	29	2				11	42		
LICK	73.62	55.5							11	43		
BUTTE	74.09	44.0	11	31	1							
SIMFEROPOL	75.04	315.3	11	35A	-1							
BOZEMAN	75.14	43.7	11	37	1							
FRESNO	75.15	55.1	11	38	1				11	51		
EUREKA	76.01	51.0	11	42	1							
LWOW	77.11	323.7	11	48	0							
COPENHAGEN	77.69	333.1	11	51A	0				12	9		
SALT LAKE C.	77.72	48.0	11	53	2							
PASADENA	77.76	56.5	11	52	1							
BOULDER CITY	78.84	53.3	11	59	2						12	24
KRAKOW	78.84	325.8	11	56	-1				12	11	15	13 PP
RACIBORZ	79.59	326.6	12	2	1							
ISTANBUL KA.	80.36	314.7	12	5	0							
RAPID CITY	80.41	41.2	12	6	0							
KSARA	80.84	305.5	12	11	3							
COLLMBERG	80.86	329.9	12	8	0							
LARAMIE	80.99	44.4	12	11	2							
HALLE	81.12	330.6	12	9	0						12	35
KARAPIRO	81.21	153.1	12	11K	1							
PRAGUE	81.22	328.4	12	14	4						13	20
PRUHONICE	81.23	328.3	12	10	0						15	12 PP
JENA	81.71	330.4	12	12	0						13	0
PLAUEN	81.82	329.9	12	12	-1						12	28
WITTEVEEN	82.02	334.0	12	13	-1							
SONNEBERG	82.29	330.3	12	15	0						12	30
MUNSTER	82.38	333.0	12	16	0						12	31
BENSBERG	83.36	332.7	12	21	0						12	40
TUCSON	83.76	54.1	12	25	2						15	51 PP
TUCSON TELE.	83.77	54.0	12	24	1							
STUTTGART	84.36	330.3	12	27	1						13	33
TUBINGEN	84.61	330.2	12	28	1						12	43
TRIESTE	84.90	325.9	12	29	0							
ERINGEN	84.93	330.1	12	29	0						12	49
STRASBOURG	85.08	331.0	12	30A	1							
KEW	85.48	336.9	12	32A	1						12	49
ATHENS	85.50	315.2	12	31K	-1							
RATHFARNHAM	85.57	341.0	12	50	18							
PARIS	86.83	334.0	12	38A	0						12	53
SHAWINIGAN	91.32	22.6	13	0	1							
SEVEN FALLS	91.38	21.1	13	0	0							

OTTAWA	91.39	24.9	13	OK	0						
BREBEUF	91.99	23.6	13	3A	1						
TAMANRASSET	107.14	317.4	17	39	777					18	5 PP
BYRD STATION	127.95	167.4	18	57	-1						
HUANCAYO	138.94	62.0	19	22	3						
LA PAZ	147.04	59.3	19	37K	4					19	55

APRIL 18 . 3.H 11.M 54.S EPICENTRE 48.45 154.99 DEPTH= 0.KM

A=-0.60336 B= 0.28151 C= 0.74613 D= 0.4228 E= 0.9062
G=-0.6762 H= 0.3155 K=-0.6658 HT= -4.8

SE= 2.10

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	5.23	25.0	1	22	1	2	18	-5				
Y.-SAKHLINSK	8.41	264.3	2	11	5	3	46	3				
MAGADAN	11.39	349.1	2	50	3							
TUKUBASAN	16.41	227.3	3	51K	-2	6	44	-12				
MATUSIRO	17.11	232.2	4	2A	0							
COLLEGE	34.03	39.9	6	47	0							
RESOLUTE	48.82	19.4	8	49K	0							
THULE	52.38	11.8	9	15	-1							
SHILLONG	53.69	268.7	9	35	10							
SHASTA	56.66	64.5	9	47	0							
HUNGRY HORSE	56.75	52.9	9	48	0							
MINERAL	57.35	64.4	9	51	-1							
RENO	58.93	64.1	10	3	0							
BUTTE	58.98	54.3	10	4	1							
KIRUNA	59.14	341.6	10	2	-2							
BOZEMAN	60.02	53.9	10	12	1							
EUREKA	61.24	62.0	10	19	0							
PASADENA	63.43	67.8	10	32	-1							
BOULDER CITY	64.23	64.2	10	38	-1							
SKALSTUGAN	64.51	342.5	10	38	-3							
RAPID CITY	65.23	51.0	10	45	0							
UPPSALA	66.62	338.1	10	52	-2							
TUCSON	69.20	64.7	11	10	0							
TUCSON TELE.	69.20	64.6	11	10	0							
LWOW	73.39	329.3	11	35	0							
KRAKOW	74.54	331.8	11	41	-1					11	55 PCP	
COLLMBERG	75.44	336.5	11	46	-1							
JENA	76.15	337.1	11	51	0					12	3	
MUNSTER	76.15	339.9	11	50	-1							
PLAUEN	76.39	336.6	11	.	-3							
BREBEUF	77.24	32.7	12	0	3							
RATHFARNHAM	77.39	348.6	11	58A	0							
KEW	78.24	344.5	12	2	-1							
STUTTGART	78.74	337.7	12	6	0							
ISTANBUL KA.	78.87	321.4	12	5	-1							
STRASBOURG	79.27	338.5	12	9	1							
EBINGEN	79.35	337.6	12	7	-2							
PARIS	80.24	342.0	12	15	1	22	18	-1				
ATHENS	83.68	323.3	12	30K	-2							
BYRD STATION	136.52	165.4	19	26	2							
SOUTH POLE	138.26	180.0	19	27	0							

APRIL 18 7.H 32.M 12.S EPICENTRE -20.28-178.29 DEPTH= 637.KM

DEPTH OF FOCUS= 0.095R

A=-0.93832 B=-0.02809 C=-0.34463 D=-0.0299 E= 0.9996
G= 0.3445 H= 0.0103 K=-0.9387 HT= 4.6

SE= 1.66

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	3.76	303.8	1	28	1	2	25	-12				
AFIAMALU	8.89	45.5	1	37	-32							
ONERAHI	16.72	201.2	3	27	3							
KARAPIRO	18.38	195.7	3	40A	1							
TONGARIRO	19.59	194.5	3	48	-2							

WELLINGTON	21.75	194.2	4	8	-2					7	33
COBB RIVER	22.10	198.3	4	11	-2					7	38
GEBBIES PASS	24.55	196.0	4	33	-2						
BRISBANE	27.15	249.2	4	58K	1						
PORT MORESBY	35.04	282.9	6	5	1	10	59	4			
MELBOURNE	36.28	233.2	6	15	1						
TRUK	40.29	310.2	6	40	-6						
KOROR	53.94	295.7	8	29	1						
SCOTT BASE	58.07	183.7	8	59	2					10	55 PCP
BYRD STATION	64.90	170.5	9	39	-2				11	39	37 55 PKPPKP
SOUTH POLE	69.84	180.0	10	11	1				12	8	37 47 PKPPKP
MATUSIRO	69.88	323.8	10	10K	-1						
Y.-SAKHLINSK	75.59	333.6	10	43	0						
BERKELEY	78.20	42.1	10	59A	2						
LICK	78.27	42.8	10	58A	1					11	10
PASADENA	78.74	47.2	10	59	-1						
FRESNO	79.13	44.2	11	2	0						
SHASTA	79.84	39.8	11	5	-1						
MINERAL	80.11	40.4	11	7A	0						
RENO	80.73	41.9	11	9	-1						
BOULDER CITY	82.03	47.1	11	17	0						
TUCSON	82.99	52.0	11	22	0					29	42 PKKP
EUREKA	83.15	43.7	11	22	0					29	42 PKKP
COLLEGE	88.06	12.5	11	43K	-3				13	50	12 4
BUTTE	88.75	39.4	11	50	1						
HUNGRY HORSE	89.13	36.9	11	50	-1					29	28 PKKP
BOZEMAN	89.48	40.3	11	55	3						
CHITTAGONG	97.40	291.0								15	44
SHILLONG	98.37	294.1	12	34	1						
RESOLUTE	107.67	16.1	17	17A	777						
OTTAWA	112.86	48.3	17	28	2						
SEVEN FALLS	116.36	46.6	17	33	0						
QUETTA	120.86	293.7	17	45	3						
APATITY	128.68	345.0								21	20
KIRUNA	131.02	350.7	18	3	2					20	34 SKP
SKALSTUGAN	136.14	353.2	18	0	-11					18	12
UPPSALA	138.87	347.9	18	8	-8						
SIMFEROPOL	143.65	320.1	18	26	1						
LWIRO	145.26	233.0	18	32	5					18	40
LWOW	145.59	334.2	18	32	4					18	53
RATHFARNHAM	146.47	8.7	18	33A	4					18	44
KSARA	146.88	301.2	18	24	-6					25	35
KRAKOW	146.96	338.3	18	30	0					19	24
WITTEVEEN	147.30	354.4	18	35	5						
RACIBORZ	147.51	340.1	18	38	7						
COLLMBERG	147.80	346.7	18	37	6						
HALLE	147.83	348.0	18	34	3				21	8	18 42 PKP2
MUNSTER	148.04	353.1	18	26	-6						18 35
PLAUEN	148.74	347.1	18	31	-1						
KEW	148.84	2.5	18	39	6						
ISTANBUL KA.	148.87	317.8	18	40	7						
SONNEBERG	149.04	348.2	18	36	3						
BENSBERG	149.09	353.3	18	40	7						18 47
STUTTGART	150.95	349.8	18	39	3						
TUBINGEN	151.20	349.8	18	46	10						
STRASBOURG	151.35	351.6	18	46	10						
EBINGEN	151.56	349.8	18	46	9						
HELWAN	151.60	295.5	18	47	10						19 0
ATHENS	154.03	317.4	18	51K	11						19 8
TAMANRASSET	175.67	305.7	19	0	2				21	21	24 39 PP

APRIL 19 4.H 3.M 25.S EPICENTRE 26.36-110.34 DEPTH= 0.KM

A=-0.31191 B=-0.84128 C= 0.44154 D=-0.9376 E= 0.3476
G=-0.1535 H=-0.4140 K=-0.8972 HT= 3.0

SE= 2.68

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
CHIHUAHUA	4.41	58.1	1	9	-1						1	28
MAZATLAN	4.78	130.6	0	55	-20	1	55	-17				
TUCSON	5.89	356.0	1	29	-2	2	46	6			1	57
TUCSON TELE.	5.97	356.9	1	29	-3						1	46
LUBBOCK	10.29	43.6	2	34	2							

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

PASADENA	10.30	320.8	2 30	-2			
BOULDER -	10.33	339.3	2 34	1			2 58
TACUBAYA	12.38	121.7	3 OK	-1	5 45	24	3 6 PP
FRESNO	13.14	324.5	3 10	-1			
EUREKA	13.91	341.6	3 22	1			
SALT LAKE C.	14.43	355.4	3 31	3			
LICK	14.55	321.6	3 33	4			
VERA CRUZ	14.91	115.6	3 35	1	6 43	22	8 3
BERKELEY	15.27	321.7	3 42	3	6 39	9	
RENO	15.35	331.3	3 41K	1			4 24
UKIAH	16.70	322.9	3 48	-9			
MINERAL	16.81	328.9	3 59A	0			
FAYETTEVILLE	16.86	51.0	3 59	0			
SHASTA	17.45	328.1	4 6	-1			
RAPID CITY	18.61	16.3	4 21	0			
BOZEMAN	19.28	358.5	4 30	1			6 2
COMITAN	19.70	117.1	4 31	-3			
BUTTE	19.71	355.4	4 35	1			5 23
MERIDA	19.72	101.5	4 35	1	8 20	9	12 44
HUNGRY HORSE	22.15	353.5	4 59	0			
TERRE HAUTE	23.19	50.0	5 25	15			
SEATTLE	23.25	339.2	5 21K	11	10 25	66	13 9
VICTORIA	24.37	338.6	5 22	1			
HORSESHOE B.	25.08	339.8	5 25	-3			
SASKATOON	25.89	5.2			10 27	23	
COLUMBIA	26.40	66.2	5 41	1			
CLEVELAND	28.11	50.2	6 1	5	10 45	5	
MORGANTOWN	28.57	54.8	5 57	-3			
PITTSBURGH	28.84	53.2					15 30
PALISADES	33.39	54.7	6 43	0	12 10	6	14 4 SS
OTTAWA	33.54	46.4	6 43K	-1			17 3 SCS
BREBEUF	34.95	47.2	6 55A	-1	12 33	5	
HARVARD	35.47	53.0	6 57	-3			18 53
SITKA	35.49	336.6	7 2	1			
WESTON	35.61	53.2	6 59A	-3			
SHAWINIGAN	35.87	45.9	7 4K	0			
SEVEN FALLS	37.32	45.8	7 18	2			
CHINCHINA	39.40	116.6	7 35	2			9 13 PP
BERMUDA	40.01	70.3					9 29 PP
BOGOTA	40.85	115.6	7 49	4	14 10	12	
SAN JUAN	41.50	91.7	7 54	3			
HALIFAX	41.57	51.6			14 10	2	16 13
COLLEGE	45.31	338.6	8 19	-3	15 9	6	18 18 SCS
RESOLUTE	49.04	5.4	8 48A	-3	15 50	-5	19 31 SS
HUANCAYO	51.15	133.9	9 4	-3			
THULE	54.09	11.3	9 24	-5			
LA PAZ	59.14	131.3	10 3	-2			
NORD	64.64	9.3	10 38	-4			
RATHFARNHAM	77.16	36.7	11 55	-2			
DURHAM	78.89	34.0			22 25	20	
KIRUNA	79.27	17.0	11 58	-11	22 10	1	
SKALSTUGAN	79.72	22.5	12 10	-1			
SODANKYLA	81.18	15.5	12 20	1			
KEW	81.24	36.5	12 22	2	22 42	12	
SERRA PILAR	81.29	48.4	12 21K	1			
DE BILT	83.74	34.1	12 35	3	23 5	10	
WITTEVEEN	84.05	32.9	12 39	5			
UPPSALA	84.12	23.6	12 37	3	23 6	7	
PARIS	84.20	37.8	12 33	-2	22 55	-5	
COPENHAGEN	84.91	28.6			23 18	11	23 10 SKS
MALAGA	86.28	50.7	12 52	7			
GRANADA	86.60	50.0	12 41A	-6	23 34	11	
STRASBOURG	87.17	35.9	12 49	-1	23 39	10	
JENA	87.61	32.5	12 50	-2			
STUTTGART	87.80	35.2	12 53	0			
ALICANTE	88.10	47.7	12 56	2	23 39	2	
PRUHONICE	89.67	32.0	13 4	3			
ROME	93.97	39.0			24 21	-9	17 57
TARANTO	97.59	37.6					21 35
TAMANRASSET	101.03	57.8					18 0 PP
LWIRO	134.05	65.4	19 10	-10			

APRIL 19 14.H 14.M 42.S EPICENTRE 22.12 143.27 DEPTH= 205.KM

DEPTH OF FOCUS= 0.027R

A=-0.74321 B= 0.55454 C= 0.37434 D= 0.5980 E= 0.8015
G=-0.3000 H= 0.2239 K=-0.9273 HT= 4.1

SE= 1.26

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
GUAM	8.72	170.5	2	2	-1							
TUKUBASAN	14.32	349.6	3	14	0							
MATUSIRO	15.04	344.1	3	23A	0	6	9	5				
TRUK	16.75	149.1	4	16	32	7	40	57				
KOROR	16.97	211.3	3	48	2							
BAGUIO CITY	22.15	259.2	4	41	2							
MANILA	22.43	254.3	4	44	2							
CHARTERS TS.	41.97	175.8	7	30A	-2							
SHILLONG	46.91	284.8	8	11A	0							
WARSAK DAM	63.26	298.0	10	8A	0							
KARAPIRO	66.98	152.7	10	30A	-2							
RESOLUTE	76.65	13.4	11	29A	0							
SHASTA	79.06	50.5	11	43	0							
SODANKYLA	79.38	339.4	11	43	-1							
MINERAL	79.74	50.7	11	46A	0						12	31
THULE	79.80	7.2	11	45	-2							
BERKELEY	80.12	53.2	11	49A	1							
LICK	80.76	53.5	11	52A	0							
KIRUNA	81.06	341.2	11	52	-1							
RENO	81.32	50.9	11	56K	2							
HUNGRY HORSE	81.78	41.1	11	58	1							
BUTTE	83.66	42.8	12	7	1				12	51		
EUREKA	84.08	49.9	12	9	0				12	53		
PASADENA	84.56	55.5	12	11	0							
BOZEMAN	84.77	42.7	12	13	1							
BOULDER CITY	86.34	52.7	12	20	0				13	4		
SKALSTUGAN	86.41	340.2	12	18A	-2							
UPPSALA	87.11	335.7	12	21	-2							
RAPID CITY	90.42	41.4	12	40	1				13	30		
TUCSON	90.94	54.6	12	43	2							
TUCSON TELE.	90.98	54.5	12	43	1							
PRUHONICE	95.08	329.6	13	0	0							
SOUTH POLE	111.98	180.0	18	10	0							
BYRD STATION	112.89	169.2	18	12	0							
TAMANRASSET	119.30	314.6	18	27	3						19	39
LA PAZ	149.88	84.9	19	28	8							

APRIL 20 21.H 14.M 58.S EPICENTRE -59.62 -26.17 DEPTH= 0.KM

A= 0.45623 B=-0.22420 C=-0.86116 D=-0.4411 E=-0.8975
G=-0.7729 H= 0.3798 K=-0.5083 HT= -8.8

SE= 1.52

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SOUTH POLE	30.55	180.0	6	19	1						7	32	PP
BYRD STATION	32.57	198.9	6	36	0						7	40	PP
HERMANUS	38.78	70.0									13	26	
SCOTT BASE	42.55	184.0	8	0	0	13	35	-48			9	51	PCP
KIMBERLEY	46.11	71.1	8	29K	1								
MIRNY	46.37	151.1	8	31	1						9	21	
WINDHOEK	47.88	58.7	8	14	-28								
WILKES	50.43	158.8									26	58	
LA PAZ	52.72	306.3	9	19A	0	17	20	34					
HUANCAYO	59.75	301.0	10	10A	1						12	22	PP
TANANARIVE	65.64	85.9	10	50	1						11	3	
LWIRO	71.03	59.9	11	25A	3	20	38	0					
GEBBIES PASS	75.88	194.0	11	50	-1								
WELLINGTON	77.99	196.0	12	2	0								
COBB RIVER	78.46	194.5	12	4	-1								
KARAPIRO	81.17	197.2	12	19A	0								
MELBOURNE	82.63	172.9	12	25A	-2								
ONERAHI	83.45	196.7	12	30	-1								
SAN JUAN	84.25	322.2	12	31	-4								
TAMANRASSET	86.12	29.1	12	46A	1	23	24	5			16	4	PP
STUTTGART	111.81	24.4	19	24	47								
OTTAWA	112.26	324.6	19	23	45								
SHAWINIGAN	112.46	327.1	19	24	45								
PRUHONICE	114.14	27.5	18	38	-4						19	33	PP

TUCSON	114.66	291.8	18	43	0						
TUCSON TELE.	114.68	292.0	18	43	0						
QUETTA	117.05	76.1	18	48A	1	25	35	-5			
PASADENA	119.73	287.4	18	53	0						
RAPID CITY	120.98	305.0	18	54	-1				19	16	
LAHORE	121.84	81.2	19	55	5P						
WARSAK DAM	122.42	77.2	18	57	-1						
FUREKA	122.95	292.7	18	58	-1				19	36	
UPPSALA	123.93	24.9	18	58A	-3				19	22	
LICK	123.97	286.9	19	1K	0						
CHATRA	124.51	95.3	19	1	-1						
BERKELEY	*124.69	286.9	19	2K	0						
RENO	124.82	289.9	19	3	0						
BOZEMAN	125.60	300.8	19	2	-2				20	57	
MOSCOW	125.67	38.7	19	3	-1						
SHILLONG	125.84	100.5	19	3A	-1						
SKALSTUGAN	126.31	20.2	19	3	-2						
MINERAL	126.31	289.2	19	4K	-1						
BUTTE	126.54	300.0	19	6	0						
PULKOVO	126.92	31.9							31	26	
SHASTA	126.96	288.9	19	5	-2						
NAMANGAN	127.96	72.0	19	9	0						
LHASA	128.76	96.8	19	11A	1				22	24	PP
HUNGRY HORSE	128.97	301.0	19	9	-2						
KUNMING	130.68	111.3	19	15K	1				22	32	PP
KIRUNA	131.62	21.6	19	13	-3						
CANTON	133.74	124.0	19	21	1				22	42	PP
APATITY	134.13	27.5	19	0	-20						
THULE	138.39	346.2	19	15	-13				22	54	SKP
NORD	141.08	2.2	19	24	-9				22	32	PP
RESOLUTE	141.36	336.6	19	24K	-9				23	2	PKS
NANKING	143.93	124.1	19	36A	-2						
ZO-SE	144.07	127.9	19	36A	-2						
ULAN-BATOR	150.54	92.3	19	46	-3						
IRKUTSK	151.91	83.0	19	51	0						
COLLEGE	153.20	306.3	19	47	-6				20	58	
MATUSIRO	154.80	149.4	19	54A	-1				23	53	
MAGADAN	178.46	91.1	20	11	-2						

APRIL 21 S.H 32.M 0.S EPICENTRE 24.12 121.80 DEPTH= 0.KM

A=-0.48157 B= 0.77654 C= 0.40630 D= 0.8498 E= 0.5270
G=-0.2141 H= 0.3453 K=-0.9137 HT= 3.6

SE= 2.73

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HWALIEN	0.22	229.2	0	9	-1	0	11	-5				
ILAN	0.65	355.6	0	19	3	0	29	2				
TAIPEI	0.95	344.1	0	24	4	0	38	4				
HSINCHU	1.02	312.0	0	24	3	0	35	-1				
TAICHUNG	1.03	272.1	0	20	-1	0	31	-6				
HSINKONG	1.09	201.6	0	21	-1	0	33	-5				
ALISHAN	1.10	237.4	0	22	0	0	33	-5				
TAITUNG	1.49	204.0	0	28	0	0	58	10				
TAINAN	1.83	232.9	0	35	2	0	56	-1				
TAWU	1.95	205.5	0	38	4	1	0	0				
PENGHU	2.15	254.7	0	13	-24	0	38	-27				
HENGCHUN	2.32	205.0	0	44	4	1	14	5				
ZO-SE	6.98	355.6	1	34K	-12	3	0	-7				
HONG KONG	7.25	257.1	1	50	0	3	11	-3			2	13
BAGUIO CITY	7.74	188.8	1	59	3							
CANTON	7.89	264.2	1	53	-5	3	16	-13			3	38 SS
NANKING	8.34	342.1	2	3K	-2	3	32	-9			2	11 PP
MANILA	9.52	184.8	2	18	-3	3	11	-59				
PHU-LIEN	14.41	259.7				6	51	42			7	31
SIAN	15.10	314.9	3	46	10							
PEKING	16.56	344.7	3	56	1	6	59	0				
KUNMING	17.42	277.0	4	8	2						4	19 PP
TATUNG	17.48	337.8	4	16	10							
MATUSIRO	18.79	45.0	4	23	0							
LANCHOW	19.57	311.7	4	32A	0	8	2	-5			4	49 PP
KOROR	20.65	141.9	4	44	1							
VLADIVOSTOK	20.70	21.3	4	44	0							
GUAM	24.13	111.9	5	19	1						5	40

ULAN-BATOR	26.5	337.2	5	40	-1						
SHILLONG	27.18	279.4	5	45A	-2						
CHITTAGONG	27.59	272.5	5	49K	-1						
LHASA	27.94	288.1	5	54	0	10	34	-3			
CHATRA	31.33	282.4	6	22	-2						
TRUK	33.20	114.9	6	42	2						
RABAUL	40.82	129.5	7	47	:						
MAGADAN	40.82	22.2								24	39
PORT MORESBY	41.50	140.4	7	51	1						
WARSAK DAM	44.64	294.6	8	16	0						
NAMANGAN	44.86	304.5	8	18	1						
QUETTA	48.80	289.8	8	47A	-1					10	42 PP
CHARTERS TS.	49.91	149.4	8	57A	0						
SVERDLOVSK	54.44	323.7	9	28	-3						
KHEYS	62.92	349.4	11	9	39						
COLLEGE	68.60	27.3	11	5	-2						
SODANKYLA	69.96	335.8	11	13	-2						
KIRUNA	72.09	337.0	11	26	-2						
DPPBJC1	76=24	329=7	11								
SITKA	76.76	33.2	11	54	-1						
RESOLUTE	78.64	9.3	12	2A	-3						
HELWAN	78.77	297.7	12	4	-2						
KRAKOW	79.08	320.0	12	1	-6					13	40
TANANARIVE	84.04	246.4	12	32A	-1						
SHASTA	92.21	43.2	13	5	-8						
HUNGRY HORSE	92.27	33.5	13	14	1						
MINERAL	92.90	43.2	13	15A	-1						
RENO	94.49	43.0	13	24	1						
BUTTE	94.56	34.6	13	24	1						
LICK	94.60	45.7	13	25A	1						
EUREKA	96.88	41.3	13	18	-16						
TAMANRASSET	102.53	302.0								18	9 PP
SOUTH POLE	113.97	180.0	18	39	-2					19	33 PP
HUANCAYO	159.80	56.6								20	43 PKP2
LA PAZ	167.99	52.7	20	11	3					21	16 PKP2

APRIL 21 20.H 14.M 50.S EPICENTRE -15.07-175.16 DEPTH= 0.KM

A=-0.96262 B=-0.08148 C=-0.25833 D=-0.0843 E= 0.9964
G= 0.2574 H= 0.0218 K=-0.9661 HT= 5.7

SE= 3.10

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
AFIAMALU	3.48	71.0	0	43A	-14								
SUVA	6.87	242.6	1	45K	0	3	8	4					
NOUMEA	18.84	244.8	4	24	0	8	14	23					
ONERAHI	22.65	202.6	5	31	27						10	22	
KARAPIRO	24.21	198.2	5	20A	1								
BRISBANE	32.01	242.1	6	31K	1						6	56	
ROXBURGH	33.08	200.1				11	40	-19					
RABAUL	33.91	285.2	6	45	-2	12	10	-2					
RIVERVIEW	35.68	232.3	7	4	2	12	45	6					
CHARTERS TS.	37.06	256.7	7	12	-2								
PORT MORESBY	37.22	274.3	7	14	-1	13	19	16			9	8	PCP
TRUK	39.63	302.2	7	34	-1	13	48	9					
HONOLULU	39.83	25.3	7	37	0	13	46	4			16	8	
KIPAPA	39.97	25.3	7	32	-6								
MELBOURNE	41.85	229.5	7	50	-3						9	46	
CAPE HALLETT	57.86	185.2	10	1	5								
SCOTT BASE	63.45	184.2	10	31	-3								
TUKUBASAN	66.24	321.5	10	50	-2	19	39	-2			27	8	SSS
SENDAI	67.16	323.7	11	2	4						19	50	
MATUSIRO	67.60	320.7	11	0	-1	20	1	4					
BYRD STATION	69.54	171.2	11	10	-3								
MANILA	69.67	292.0	10	36	-38								
BAGUIO CITY	70.72	293.7	11	19	-1	20	49	15					
NAGASAKI	70.82	313.1	11	25	4	20	41	6					
PETROPAVLOVK	71.57	343.7	11	25	0	20	45	1					
BERKELEY	72.35	41.5	11	32A	2	20	58	5					
Y.-SAKHLINSK	72.38	331.2	11	24	-6	20	56	3					
LICK	72.44	42.2	11	29K	-1								
UKIAH	72.49	40.0	11	34	3								
PASADENA	73.02	46.7	11	36	2	20	59	-2			21	35	
FRESNO	73.32	43.6	11	23K	-12								

SHASTA	73.94	39.0	11	37	-2					
OASIS-BUNG.	73.96	204.9	11	40	1					
MINFRAL	74.22	39.7	11	36K	-5					
RENO	74.88	41.2	11	48K	4					
SOUTH POLE	75.03	180.0	11	41	-4					
VLADIVOSTOK	75.50	322.9	11	43	-5					
BOULDER CITY	76.30	46.5	11	55	2				15	58 PP
ZO-SE	76.41	307.7	11	55	2					
MIRNY	77.04	204.2	11	54	-3					
EUREKA	77.33	42.9	11	53	-5				29	42 PKKP
TUCSON	77.44	51.5	11	59	0					
TUCSON TELE.	77.57	51.4	11	59	-1					
VICTORIA	78.18	32.2	12	2	-1					
HONG KONG	78.54	296.9	12	13	8	21	58	-3	14	1 PP
NANKING	78.65	307.7	12	1	-5					
HORSESHOE B.	78.80	31.6	12	6	0					
SITKA	79.10	20.9	12	12	4	22	43	36	28	42 SS
MAGADAN	79.31	343.1	12	4	-5	22	10	1		
CANTON	79.59	297.3	12	14	3					
CHANGCHUN	79.85	320.7	12	9	-3					
SALT LAKE C.	80.71	43.4	12	18	1				12	49
TACUBAYA	82.19	67.6							23	15 PPS
COLLEGE	82.37	11.4	12	20	-5	22	35	-6		
BUTTE	82.84	38.6	12	30	2				15	37 PP
HUNGRY HORSE	83.18	36.0	12	26	-4				15	39
BOZEMAN	83.59	39.4	12	35	3				15	44 PP
PEKING	84.01	314.0	12	33	-1	23	1	3	12	41 PCP
PHU-LIEN	84.63	293.1	13	21	44				18	13
BOULDER	84.84	46.4	12	40	2					
LUBBOCK	84.87	53.4	12	40	2					
SIAN	87.14	306.4	13	11	22					
MEDAN	87.22	274.4	12	49	-1				14	21
RAPID CITY	87.91	43.3	12	57	4				16	20 PP
KUNMING	89.38	296.0	13	1	1					
LANCHOW	91.68	306.8	13	11	0					
ULAN-BATOR	93.17	318.8	13	18	1	24	3	-20		
PORT BLAIR	94.99	280.7				23	55	-6		
IRKUTSK	96.08	322.4	13	29	-2					
HUANCAYO	96.19	104.2							17	35 PP
LHASA	100.53	297.9	13	58	7					
LA PAZ	101.45	110.6				24	32	-2	18	40 PP
RESOLUTE	101.86	15.5	13	58	1	24	32	-4	18	10 PP
PALISADES	108.15	51.4				25	17	12	34	17 SS
KHEYS	111.61	352.1							26	4 SKKS
FRUNSE	114.90	310.5							29	22 PS
BERMUDA	115.07	61.1				24	30	-62	27	57 SKKS
BOMBAY	115.22	284.0	20	5	81				27	40
HALIFAX	115.75	47.5							36	16 SS
WARSAK DAM	117.46	300.7	18	45	-3					
TASHKENT	118.94	309.1							20	6 PP
SVERDLOVSK	120.95	328.0	18	59	4					
QUETTA	121.37	296.3	18	53	-3				30	26 PS
APATITY	124.35	347.1	18	59	-2					
TANANARIVE	126.07	232.6	19	14	9					
KIRUNA	126.31	352.7	19	5	0					
ASHKABAD	127.76	306.5	19	13	5					
HERMANUS	128.92	195.3							38	46 SS
SKALSTUGAN	131.27	355.6	19	20	5					
PULKOVO	131.61	343.1							21	25 PP
UPPSALA	134.31	351.0	19	26	6				22	51 PKS
TIFLIS	136.52	315.7	19	29	5					
DURHAM	140.07	5.8	19	32	1					
RATHFARNHAM	140.86	10.6	19	41	9					
SIMFEROPOL	141.28	326.3	19	36	3				22	43 PP
LWOW	141.97	339.8	19	29	-5				22	52 SKP
POTSDAM	142.20	351.8	19	34	-1					
WITTEVEEN	142.31	358.2	19	47	12					
KRAKOW	143.01	343.8	19	36	0				22	0
DE BILT	143.06	359.6	19	40	4				41	28 SS
MUNSTER	143.12	357.1	19	33	-3				20	23
HALLE	143.21	352.6	19	40	4				22	43 PI
COLLMBERG	143.27	351.4	19	38	2					
RACIBORZ	143.43	345.5	19	40	3					
KEW	143.45	5.4	19	47	10				41	31 SS
JENA	143.82	352.8	19	36	-1				22	17 PP
BENSBERG	144.15	357.5	19	33	-5					
PLAUEN	144.17	352.0	19	37	-1					
PRAGUE	144.23	349.4	19	33	-5				24	36
PRUHONICE	144.29	349.2	19	32	-6				21	48

SONNEBERG	144.40	353.0	19 34	-4			22 35	
CAMPULUNG	145.40	334.6	19 48	8				
HURBANOVO	145.47	344.1	19 50	10			23 10	PP
BRATISLAVA	145.47	345.5	19 37	-3			19 43	PKP2
BUDAPEST	145.59	342.8	19 41	1				
BUCHAREST	145.62	332.6	19 40	0				
KARLSRUHE	146.03	355.8	19 42	1			20 59	
STUTTGART	146.20	354.8	19 39	-2			29 58	SKKS
PARIS	146.30	2.8	19 40	-2			23 10	PP
KSARA	146.33	309.3	19 49A	7			23 20	PP
SZEGED	146.37	340.7	19 49	7				
TIMISOARA	146.45	339.1	19 56	14				
TUBINGEN	146.45	354.9	19 40	-2				
KALOCSA	146.47	342.2					19 53	PKP2
STRASBOURG	146.50	356.5	19 40	-2			23 20	PP
EBINGEN	146.81	354.9	19 39	-3				
RAVENSBURG	147.14	354.1	19 42	-1				
BELGRADE	147.53	339.1	19 46A	2			22 25	
BASLE	147.55	356.5	20 1	17				
ZURICH	147.64	355.2	19 51	7				
ZAGREB	147.94	345.3	19 44	0				
TOLMEZZO	148.02	349.3					20 43	PKP2
CHUR	148.07	353.9	19 47	3				
NEUCHATEL	148.11	357.3	19 48	3			23 44	PP
SOFIA	148.21	333.7	19 47	2			20 54	PKP2
TRIESTE	148.60	348.0	19 46	1			20 3	PKP2
CLERMONT-FD.	149.36	2.4	19 46	-1			20 9	PKP2
OROPA	149.43	355.7	20 4	17				
PAVIA	149.76	353.9	19 54	7			22 28	PP
BOLOGNA	150.15	350.6	20 3	15			21 16	
LWIRO	150.70	236.0	19 55	6				
PRATO	150.79	350.7	19 54	5				
FLORENCE X.	150.86	350.4	19 54	5			20 42	
MONACO	151.35	356.1	19 53	3				
HELWAN	151.52	305.6	19 54	4			23 30	
SERRA PILAR	151.53	21.6	19 47K	-3			20 2	PKP2
ATHENS	151.73	327.3	20 1	11				
ROME	152.46	347.6	20 0	9	26 0	-57	30 20	SKKS
TOLEDO	154.08	15.8	20 18	25				
GRANADA	156.73	17.3					20 46	PKP2
MALAGA	156.92	19.2					24 25	PP
ALGIERS UNI.	158.33	3.9	20 4	5			21 4	PKP2
MBOUR	158.90	89.0	20 9	9			27 38	PP
TAMANRASSET	172.30	355.3	20 15	4			25 24	PP

APRIL 21 22.H 37.M 38.S EPICENTRE -4.40 104.24 DEPTH= 161.KM

DEPTH OF FOCUS= 0.020R

A=-0.24529 B= 0.96645 C=-0.07615 D= 0.9693 E= 0.2460
G= 0.0187 H=-0.0738 K=-0.9971 HT= 7.1

SE= 2.23

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
DJAKARTA	3.13	124.6	0	50	0	1	22	-6					
BANDUNG	4.25	126.5	1	5	0	1	45	-9					
MEDAN	9.68	324.9	2	16A	0								
PORT BLAIR	19.65	324.4	4	18	0	7	49	3			4	49	PPP
MANILA	25.12	41.1	5	13	2	9	33	11					
BAGUIO CITY	26.25	37.6	5	23	1								
HONG KONG	28.25	19.7	5	41A	1	9	51	-21			6	20	PP
CANTON	28.70	17.5	5	47A	3				6	32	6	52	*SP
CHITTAGONG	29.24	335.9	5	48	-1	10	32	4					
KUNMING	29.31	357.1	5	52A	3	10	39	10	6	34	6	58	PP
PERTH	29.49	159.7	6	23	32						10	52	
MADRAS	29.49	306.2	5	51A	0	10	32	0			6	42	PP
VIZIANAGRAM	30.35	318.1	5	59A	1								
KODAIKANAL	30.37	298.7	6	1K	2	10	46	0			6	58	PP
CALCUTTA	30.95	330.5	6	3A	-1	10	54	-1			7	3	PP
HOWRAH	30.98	330.5	6	4	0								
SHILLONG	32.12	338.7	6	12A	-2	11	10	-3	7	29	8	41	PCP
TOCKLAI	32.29	344.0	6	16	1	11	9	-7					
KOROR	32.35	69.0	6	10	-6	11	20	3	6	57	7	38	PP
HYDERABAD	33.45	311.1	6	24A	-1	11	26	-8			7	20	PP

CHATRA	35.16	332.9	6	36	-4	11	59	-1				
LHASA	36.13	340.3	6	48A	0	12	14	-1			8	18 PP
POONA	37.63	308.2	7	0	-1	12	30	-8			13	31
BOMBAY	38.64	307.8	7	10	1	12	55	2	8	7	8	40 PP
SIAN	38.69	6.2	7	14	5						8	11 *SP
NANKING	38.80	19.9	7	13A	3	13	3	8			8	52 PP
ZO-SE	38.82	23.5	7	4A	-7	12	57	1	7	56	8	50 PP
LANCHOW	40.27	359.5	7	23A	1	13	23	6	8	7	9	5 PP
AGRA	40.30	322.5	7	21A	-2	13	9	-9			9	51 PCP
WUWEI	42.14	358.1	7	42	4							
DEHRA DUN	42.66	325.7	7	43	1	13	47	-5			9	11 PP
PORT MORESBY	42.86	99.0	7	46	2						8	40
CHARTERS TS.	43.74	114.4	7	49	-2	14	4	-4				
GUAM	43.95	65.6	7	51	-1	14	8	-3			8	49
NAGASAKI	44.22	31.5	7	57	3							
PEKING	45.55	12.8	8	6	1	14	37	3	8	49	9	54 PP
LAHORE	45.71	323.5	8	4A	-2	14	43	7	8	48		
RABAUL	47.79	91.7	8	22	-1						11	4
TRUK	48.95	76.2	8	31	0	15	23	1			9	34 PCP
WARSAK DAM	49.10	323.6	8	31A	-2							
QUETTA	49.55	316.4	8	34A	-2	15	27	-3	9	11	16	46 *SS
MELBOURNE	49.85	137.5	8	38	0	15	38	4	9	18	16	35
CHANGCHUN	51.62	19.4	8	51A	-1	15	56	-3	9	36	9	49 *SP
MATUSIRO	51.64	35.0	8	50A	-2	16	11	12			11	49 PPP
BRISBANE	51.79	121.7	8	52	-1	15	56	-5				
ULAN-BATOR	52.15	2.3	8	58	2	16	12	6				
RIVERVIEW	52.47	130.0	8	58	0	16	11	1				
TUKUBASAN	52.51	36.7	8	56K	-2	16	4	-7			10	5 PCP
VLADIVOSTOK	53.50	25.0	9	7	1				9	50	11	13 PP
STALINABAD	53.88	325.7	9	1	-7	16	21	-8				
FRUNSE	54.18	333.3	9	8A	-3	16	30	-3	9	50	13	25
SENDAI	54.36	35.3	9	12	0						17	30
MIZUSAWA	55.08	34.7	9	19	2						11	13
TASHKENT	55.57	328.4	9	18	-3	16	46	-6	9	59	10	14 PCP
IRKUTSK	56.45	0.1	9	27A	0				10	10		
TANANARIVE	57.12	250.4	9	32	0	17	22	10	10	11	11	29 PP
SEMIPALATNSK	58.37	342.2	9	38	-2							
ASHKABAD	59.87	319.0	9	51A	0				10	33	19	14 SCS
Y.-SAKHLINSK	61.36	29.1	10	0	-1				10	44	18	58 SS
OASIS-BUNG.	61.71	181.6	10	3	0				10	42		
MIRNY	62.54	185.0	10	8	-1	18	17	-4	10	51	19	36 *SS
GORIS	68.80	315.3	10	47	-1	19	35	-2	11	29	13	21 PP
YAKUTSK	69.06	12.5	10	48	-2						20	23 SCS
ROXBURGH	69.56	137.1				19	44	-2			24	34 SS
KAIMATA	70.29	133.6	10	56	-2							
SVERDLOVSK	70.53	336.3	10	57	-2	19	55	-3			15	16 PPP
TIFLIS	70.79	316.9	10	59	-2	19	59	-2	11	42	11	56 *SP
COBB RIVER	70.96	131.9	11	2	0	20	1	-1			11	46
WELLINGTON	72.51	131.8	11	16	5	20	17	-3			25	2 SS
KARAPIRO	72.57	128.3	11	11	0						11	54
PETROPAVLOVK	73.21	30.8	11	13	-2				11	58		
MAGADAN	73.52	22.7	11	18A	1				12	1	21	33 PS
SUVA	73.63	107.5	11	16	-1	20	28	-5			15	2
PIETERMZBURG	73.80	240.6	11	18	0							
KSARA	74.70	306.7	11	24	1	20	52	7	12	7	14	18 PP
LWIRO	75.32	268.8	11	29	2	20	55	4				
PRETORIA	75.55	244.7	10	56	-32							
GRAHAMSTOWN	77.30	237.0	11	38A	0							
HELWAN	77.48	301.7	11	37	-2	21	7	-8				
KIMBERLEY	78.66	241.7	11	44A	-1							
CAPE HALLETT	78.68	163.4	12	6	21							
SIMFEROPOL	79.21	317.2	11	47	-1	21	29	-4	12	30	14	50 PP
SCOTT BASE	80.10	169.0	11	52	-1							
MOSCOW	80.73	328.3	11	56	0	21	42	-7	12	38	15	0 PP
HERMANUS	83.42	236.0	12	51	41	22	21	5			23	13 PS
IASI	84.20	318.2	12	16	2	22	19	-5				
BACAU	84.51	317.4	12	19	3	22	27	0			23	41 *SS
ATHENS	85.23	308.5	12	18K	-1	22	29	-5				
CAMPULUNG	85.53	315.9	12	26	5	22	36	-1				
SOUTH POLE	85.63	180.0	12	20	-1	22	19	-19	13	3	38	15 PKPPKP
WINDHOEK	85.70	247.8	12	22	0							
PULKOVO	85.75	330.8	12	22	0	22	38	-1	13	5	23	55 *SS
SOFIA	86.29	313.2	12	24	0	22	42	-2			22	32 SKS
APATITY	86.81	338.7	12	26	-1	22	44	-5	13	10	24	6 *SS
LWOW	87.04	320.3	12	28	0	22	50	-1	13	11	15	54 PP
TIMISOARA	88.25	315.9	12	39	5	23	4	1			22	45 SKS
BELGRADE	88.67	315.0	12	36A	0	22	48	-18			23	7 SKS
SZEGED	89.07	316.3	12	47	9	23	4	-6			17	52 PPP
SODANKYLA	89.28	337.8	12	37	-2							

WARSAW	89.29	322.4	12	38A	-1	23	8	-4	13	18	16	7 PP
KRAKOW	89.68	320.1	12	40	-1	23	16	0			12	48 PCP
KALOCSA	89.90	316.5	12	45	3							
BUDAPEST	89.94	317.5	12	42	0						23	20 SCS
TARANTO	90.53	310.4	12	49	4							
HURBANOVO	90.57	317.8	12	50	5	23	29	5	13	38	24	44 *SS
RACIBORZ	90.80	320.0	12	47	1						12	56 PCP
BRATISLAVA	91.33	318.0	12	48	0	23	33	3	13	36	24	51 PS
REGGIO CALA.	91.57	307.9	12	52	3	23	35	3				
MESSINA	91.66	308.0	12	53	3	23	38	5			16	25 PP
KIRUNA	91.70	337.8	12	48A	-2	23	29	-5	13	33	16	32 PP
ZAGREB	91.91	315.6	12	50	-1	23	5	-30			13	3 PCP
UPPSALA	92.06	329.7	12	50	-2	23	35	-2	13	35	23	5 SKS
BYRD STATION	92.90	173.1	12	56	0				13	41	14	5 *SP
PRUHONICE	93.13	319.7	12	56	-1	23	46	0	13	37	16	40 PP
PRAGUE	93.22	319.8	12	58	1	23	49	2	13	37	16	37 PP
TRIESTE	93.46	315.4	12	57	-1	23	47	-2	13	41	16	46 PP
TOLMEZZO	94.00	316.1	13	57	57	24	32	38			17	16 PP
POTSDAM	94.17	322.1	12	58	-3	23	56	1	13	46	17	45 *PPP
COLLMBERG	94.18	321.0	13	1	0				13	47	17	48
ROME	94.22	311.6	12	58	-3	23	57	2			16	52 PP
COPENHAGEN	94.61	325.4	13	8K	5	24	21	22			23	56 SKKS
PLAUEN	94.69	320.2	13	1	-3	23	17	-42	13	46	16	54 PP
SKALSTUGAN	94.78	333.3	13	2	-2				13	47	16	58 PP
HALLE	94.84	321.2	13	4	0	24	2	1	13	50	16	35 PP
JENA	95.06	320.6	13	5	0	24	0	-3	13	49	16	51 PP
BOLOGNA	95.13	314.1				24	10	7			17	14 PP
FLORENCE X.	95.17	313.4	13	3	-3	24	13	9			16	45 PP
HALLEY BAY	95.19	191.0	13	6	0	23	19	-45				
PRATO	95.28	313.5				24	42	38			14	53
SONNEBERG	95.30	320.1	13	6	0				13	51	17	0 PP
CHUR	96.41	316.5	13	12	1	23	25	-49				
STUTTGART	96.61	318.4	13	11	-1	24	8	-8	13	58	16	57 PP
PAVIA	96.67	314.8	13	14A	1	24	40	24			17	11 PP
TUBINGEN	96.70	318.2	13	13	0							
EBINGEN	96.77	317.8	13	11	-2							
OROPA	97.51	315.3	13	0	-16	24	52	29			17	21 PP
MUNSTER	97.52	321.7	13	17	0						17	1
STRASBOURG	97.56	318.3	13	16	-1	24	28	4	14	2	17	10 PP
BASLE	97.72	317.2	13	54	37							
BENSBERG	97.85	320.7	13	16	-2	25	16	50				
MONACO	97.94	313.4	13	19	1							
NEUCHATEL	98.17	316.7	13	20	1	23	39	-50				
DE BILT	99.02	321.9				24	34	-2			25	52 PS
TAMANRASSET	99.72	292.2	13	29	2	24	44	2			17	33 PP
CLERMONT-FD.	100.89	315.6	13	34	2	24	55	3				
PARIS	101.03	318.7	13	34	2						17	45 PP
COLLEGE	101.54	24.5	13	36	1						17	40 PP
ALGIERS UNI.	101.58	306.5	13	36K	1	25	10	13			17	42 PP
KEW	102.49	321.7	13	41	2	25	3	-2			17	48 PP
DURHAM	102.68	325.1	14	12	32	25	49	42			25	6 SKS
JERSEY	103.98	319.5	13	39	-6	25	27	10				
ALICANTE	104.26	308.3	13	48	1	25	37	17			24	28 SKS
RATHFARNHAM	105.71	324.3	12	51	777						18	7 PP
GRANADA	106.85	307.4				25	16	55			15	10
MALAGA	107.54	307.0				25	15	51			18	31 PP
THULE	107.92	358.2	14	4	777						18	39 PKP
RESOLUTE	108.90	5.3	14	6	777						18	44 PP
HORSESHOE B.	119.85	33.8	18	32	1							
VICTORIA	120.22	34.7	18	7	-25						19	21
MBOUR	121.30	284.1									20	17 PP
SHASTA	124.75	42.3	18	46	6							
UKIAH	124.90	44.3	18	45	4							
HUNGRY HORSE	125.37	30.4	18	42A	0				19	31	22	1 PKS
MINERAL	125.45	42.3	18	42K	0							
BERKELEY	126.14	45.3	18	46A	3							
LICK	126.81	45.6	18	45A	1						22	6 PP
RENO	127.05	42.3	18	48K	3							
BUTTE	127.65	31.8	18	47	1						19	22
FRESNO	128.38	45.4	18	49	2							
BOZEMAN	128.68	31.3	18	49	1						20	31 PP
EUREKA	129.61	40.4	18	51	1						21	6 PP
PASADENA	130.77	47.6	18	49	-3						20	50 PP
SALT LAKE C.	131.41	36.6	18	56	3						22	1 PP
BOULDER CITY	132.25	43.7	18	58	3						22	4 PKS
RAPID CITY	133.67	27.3	19	0	3						22	15 PP
BOULDER	135.63	32.8	19	3	2							
TUCSON	137.05	45.6	19	8	4				21	49	22	51 PKS

TUCSON TELE.	137.08	45.4	18 56	-8			21 50	23 44	PKS		
SEVEN FALLS	137.23	355.0	18 54	-10				22 1y	PKS		
SHAWINIGAN	137.93	356.9	18 57	-8				22 19	PKS		
HALIFAX	138.54	346.9	19 7K	1				22 25	PKS		
BREBEUF	139.02	357.7	19 1	-6				21 52	PP		
OTTAWA	139.16	360.0	18 59	-8				22 25	PKS		
LUBBOCK	142.14	36.7	19 11	-2							
CHIHUAHUA	142.46	46.7						23 46			
CLEVELAND	142.72	7.2	19 10A	-4							
ST. LOUIS	143.46	19.2	19 12	-3				22 29	PP		
PALISADES	143.51	357.6	19 13	-2				22 36	PP		
FAYETTEVILLE	144.18	25.9	19 16	0				22 35	PP		
MORGANTOWN	144.72	5.6	19 17A	0				20 1			
GEORGETOWN	145.64	1.8	19 21	2				21 48			
WASHINGTON	145.64	1.8	19 21	2				20 3			
LITTLE ROCK	146.08	24.9	19 22	2							
CHAPEL HILL	148.48	5.1	19 27	3							
COLUMBIA	150.14	8.8	19 27	1							
BERMUDA	150.29	340.8	19 27	1				23 12	PP		
TACUBAYA	152.70	55.0	19 44	14				23 55	PP		
LA PAZ	157.91	199.8	19 44	7				23 30	PP		
FORT FRANCE	162.33	306.5	19 44	3				20 30			
SAN JUAN	163.21	326.6	19 46	4				24 22	PP		
HUANCAYO	163.66	181.5	19 46	3				25 5	PP		
BOGOTA	178.30	277.6	19 53	3	27 7	32		25 35	PP		
CHINCHINA	179.41	346.3	19 51	1	26 27	-8		25 39	PP		

APRIL 21 23.H 57.M 5.S EPICENTRE -6.56 131.49 DEPTH= 0.KM

A=-0.65825 B= 0.74419 C=-0.11357 D= 0.7490 E= 0.6625
G= 0.0752 H=-0.0851 K=-0.9935 HT= 6.9

SE= 1.83

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
CHARTERS TS.	19.60	134.4	4 34A	1	8 38	30		
RABAUL	20.72	84.5	4 46	1	8 37	5		
MANILA	23.45	333.6	5 13	1				7 16
BANDUNG	23.70	267.8	5 14	0	9 23	-4		
GUAM	23.86	33.5	5 14	-2	9 27	-3		
DJAKARTA	24.51	269.5	5 23	1	9 33	-8		
TRUK	24.63	55.9	5 23	0	9 36	-7		
BAGUIO CITY	25.26	334.8	5 30	1	9 47	-6		
BRISBANE	29.17	138.0	6 5	0	10 50	-7		
RIVERVIEW	32.67	148.8	6 35	-1	11 48	-4		
MELBOURNE	33.45	160.4	6 43A	0	12 3	-1		8 37
MEDAN	34.27	286.2	6 48	-2	12 12	-5		
CANTON	34.43	329.4	6 53	2	12 12	-8		
NOUMEA	37.16	118.5	7 14K	-1				8 49
ZO-SE	38.73	345.8	7 29	1	13 16	-10		
NAGASAKI	39.11	357.8	7 33	2	13 22	-9		
NANKING	40.26	343.2	7 41	1	13 41	-8		
KUNMING	42.12	319.3	7 58A	2	14 9	-7		
MATUSIRO	43.35	7.9	8 4K	-2	14 23	-11		18 29 SCS
SENDAI	45.45	10.4	8 27	4				9 34
CHITTAGONG	48.32	307.7	8 47	2	15 37	-8		
PEKING	48.47	344.3	8 47	1	15 38	-9		
TOCKLAI	48.61	314.5	8 49	2				
TATUNG	49.38	341.6	9 0	7				
VLADIVOSTOK	49.45	0.4	8 53	-1				
LANCHOW	49.75	330.5	8 57	1	15 58	-7		
SHILLONG	50.03	311.3	8 57A	-1	16 0	-9		
COBB RIVER	50.27	139.6	9 17	17				
KARAPIRO	50.63	134.7	9 4K	1				10 3
HOWRAH	51.21	305.8	9 9	2	16 18	-7		
WELLINGTON	51.70	138.8	9 30	19	18 0	88		
LHASA	52.97	315.0	9 20A	-1	16 42	-8		
Y.-SAKHLINSK	54.20	9.5	9 26	-4	16 56	-10		
CHATRA	54.26	309.7	9 26	-4				
MADRAS	54.56	290.9	9 30A	-2	17 3	-8		
AFIAMALU	56.20	102.3	9 45A	1				
HYDERABAD	57.56	295.3	9 53	-1	17 41	-10		
AGRA	61.61	305.5	10 19	-3	18 33	-10		
POONA	62.05	294.9	10 24	-1				
DEHRA DUN	62.96	308.8	10 33	2	18 54	-6		

IRKUTSK	63.03	341.6	10	30	-1	18	57	-4			
BOMBAY	63.10	294.9	10	32	0	18	51	-11			
PETROPAVLOVK	63.76	17.9	10	34	-2	19	5	-5			
MIRNY	65.46	195.9	10	49	1						
LAHORE	66.37	308.5	10	51	-2	19	35	-8			
MAGADAN	67.68	10.5	11	0	-1						
WARSAK DAM	69.50	309.9	11	13A	0						
CAPE HALLETT	69.82	168.2	11	14	-1						
QUETTA	71.76	304.6	11	26A	0	20	40	-6	11	46	PCP
SEMIPALATNSK	71.89	328.3	11	27	0						
NAMANGAN	72.31	316.6	11	31	1	20	49	-4			
SCOTT BASE	73.57	172.7	11	39	2						
HONOLULU	74.35	65.8	11	42	1						
TANANARIVE	82.19	251.8	12	26	2						
SOUTH POLE	83.48	180.0	12	29	-2	22	41	-11	13	0	
BYRD STATION	86.82	170.5	12	47	-1	23	21	-4			
TIFLIS	91.86	311.6	13	12	1	24	8	-3			
COLLEGE	91.95	24.9	13	9	-3				17	12	PP
SODANKYLA	101.73	337.5	13	55	-1						
KIRUNA	103.92	338.6	14	5	-1						
RESOLUTE	106.96	11.6	13	55	777				23	29	
UPPSALA	107.51	331.0	14	20	777						
SKALSTUGAN	108.57	335.7							18	33	PP
EUREKA	111.51	50.2	14	49	777				18	5	PP
EUREKA	111.51	50.2	14	49	-227				18	5	PP
PRUHONICE	112.17	321.6	18	39	1				19	11	PP
HALLE	113.26	323.7	19	32	52				20	9	
JENA	113.67	323.2	19	22	41				20	4	
STUTTGART	115.87	321.6	18	45	0						
TUCSON	116. 3	57.2	18	50	3						
TUCSON TELE.	116.91	57.1	18	50	3						
BOULDER	119.38	47.5	18	55	3						
P RIS	119.91	323.7	18	26	-27						
R THFARNHAM	2.17	331.5	18	57	0						
TAMANRASSET	125.62	293.3	19	7	3				21	12	PP
OTTAWA	134.68	26.9	19	21	0						
SHAWINIGAN	135.02	23.7	19	22K	0						
SEVEN FALLS	135.29	21.6	19	23	1						
HUANCAYO	147.54	124.7	19	50	6						
MBOUR	148.06	286.6	19	42	-3				20	22	
LA PAZ	149.96	139.9	19	55	7						
CHINCHINA	152.98	91.9	19	56	4				20	29	PKP2
SAN JUAN	159.20	54.0	20	29	29						

APRIL 22 10.H 2.M 48.S EPICENTRE 36.63 30.53 DEPTH= 76.KM

DEPTH OF FOCUS= 0.007R

A= 0.69293 B= 0.40869 C= 0.59399 D= 0.5080 E=-0.8613
G= 0.5116 H= 0.3018 K=-0.8045 HT= -0.5

SE= 2.91

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ISTANBUL KA.	4.58	346.0	1	0	-9						2	15	SG
KSARA	5.20	121.0	1	16	-1	2	20	4					
ATHENS	5.59	285.9	1	20K	-3						1	55	SG
HELWAN	6.77	174.1	1	38	-1	2	53	-2					
SOFIA	8.22	319.7	2	34	35						4	17	
BUCHAREST	8.48	338.0	2	51	49	4	29	52			3	41	
SKOPJE	8.87	309.9									5	0	
SKOPJE	8.87	309.9	5	0A	172	8	35	288			5	54	
IASI	10.79	349.2	2	33	-1								
BELGRADE	11.20	320.1				4	50	6			5	58	
MESSINA	12.02	282.0	3	13	23						5	18	
TIFLIS	12.18	61.0	3	8	16								
LWOW	14.02	342.3	3	11	-5								
MAKHACH-KALA	14.49	58.9	3	26	4	6	9	7					
ROME	14.94	296.2	3	24	-4	6	14	2					
KRAKOW	15.45	333.6	3	37	2						4	45	
TRIESTE	15.50	310.7	3	35	0						8	31	SGSGSG
RACIBORZ	16.13	330.3	3	48	5						8	53	
FLORENCE X.	16.35	301.8	3	44	-2								
PRUHONICE	17.65	324.1	4	4	2								
PLAUEN	19.16	322.1	4	20	0								
SONNEBERG	19.56	320.7	4	23	-1								

EBINGEN	19.60	312.8	4 21	-4						
TUBINGEN	19.71	313.8	4 22	-4						
MOSCOW	19.71	12.0	4 20	-6						
STUTTGART	19.75	314.6	4 24	-2	8 8	9				
HALLE	19.90	324.2	4 29	1	8 1	-1			4 47	PP
STRASBOURG	20.49	312.8	4 33A	-1	8 24	10				
BENSBERG	22.00	318.0	4 54	5						
MUNSTER	22.32	320.6	4 55	3						
CLERMONT-FD.	22.47	302.5							6 59	
PULKOVO	23.16	359.7	5 2	2	9 9	7				
PARIS	23.79	309.6	5 7	1					15 12	
UPPSALA	24.69	344.3	5 17	2	9 40	11				
TAMANRASSET	25.64	244.4	5 27K	3	10 7	22			6 17	PP
KEW	26.44	313.9							9 12	
JERSEY	26.77	308.2							7 30	
DURHAM	28.48	319.8	5 49	-1						
SVERDLOVSK	28.50	35.3	5 48	-2						
SKALSTUGAN	29.19	343.3	6 1	5					6 46	PP
SODANKYLA	30.87	357.1	6 10	-1						
QUETTA	30.94	91.3	6 13	1						
KIRUNA	31.77	352.7	6 18	-1						
LAHORE	36.39	84.9	7 0	1						
NORD	48.09	351.7	8 32	-2						
THULE	56.77	343.8	9 42	3						
RESOLUTE	63.35	346.0	10 22A	-1					22 32	SS
COLLEGE	78.83	359.3	11 56	0						
HUNGRY HORSE	89.70	337.2	12 41	-10			13 48			
SOUTH POLE	126.44	180.0	18 55	1						
KARAPIRO	152.21	103.3	19 51	11						

APRIL 23 2.H 57.M 49.S EPICENTRE 45.62 151.69 DEPTH= 33.KM

A=-0.61789 B= 0.33287 C= 0.71233 D= 0.4743 E= 0.8804
G=-0.6271 H= 0.3378 K=-0.7018 HT= -3.8

SE= 3.13

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KURILSK	2.72	263.2	0 43	1				2 0
NEMURO	4.93	244.5	1 11	-3	2 4	-6		
ABASHIRI	5.51	255.8	1 19	-3				
KUSIRO	5.86	245.8	1 25	-2	2 28	-6		
Y.-SAKHLINSK	6.36	285.3	1 36	2				3 5
OBIHIRO	6.66	249.1	1 39	1				
ASAHIGAWA	6.89	257.8	1 43	2				
WAKKANAI	7.03	272.0	1 59	16				
URAKAWA	7.31	244.8	1 45	-2	3 5	-5		3 38
UGLEGORSK	7.39	301.4	1 53	5				3 31
SAPPORO	7.84	254.7	1 54	0	3 21	-2		2 52
TOMAKOMAI	7.91	250.5	2 29	34	4 4	39		
MURORAN	8.40	250.8	2 5	3				
SUTTSU	8.70	255.2	2 2	-4	3 57	13		
MORI	8.77	250.3	2 7	0				4 23
HAKODATE	8.82	248.1	2 5	-3	3 39	-8		4 16
HATINOHE	9.00	239.2	2 6	-5				4 39
AOMORI	9.29	242.8	2 33	18	4 27	28		
MIYAKO	9.32	233.6	2 6	-9	3 42	-18		
MORIOKA	9.74	236.3	2 20	-1	3 57	-13		
MIZUSAWA	10.15	234.0	2 21	-5	4 5	-15		
AKITA	10.37	239.4	2 25	-4	3 56	-30		5 27
ISINOMAKI	10.53	230.6	2 25	-7	4 11	-19		
SENDAI	10.88	231.3	2 43	7	4 32	-6		
SAKATA	11.05	236.8	3 24	45				6 4
YAMAGATA	11.19	232.9	2 47	6				
HUKUSIMA	11.49	230.8	2 45	0	4 43	-10		
ONAHAMA	11.86	226.9			4 45	-17		5 46
KLYUCHI	12.13	24.7	2 57	4				5 35
NIIGATA	12.16	235.2	3 47	53				6 29
MITO	12.52	226.4	3 2	3				6 15
UTUNOMIYA	12.70	228.6	2 53	-8				
TUKUBASAN	12.83	227.0	2 54	-9				
MAEBASI	13.24	230.3	3 22	14	5 25	-10		7 9
KUMAGAYA	13.26	228.8	3 15	7				
TOKYO C.M.O.	13.43	226.5	2 57	-14				5 3
NAGANO	13.52	233.3	3 26	14				6 9

TITIBU	13.54	2[illegible]	3	21	9						
OIWAKE	13.57	231.5	3	25	13						
MATUSIRO	13.59	232.9	3	6	-7	5	43	-1		5	3
YOKOHAMA	13.67	226.1	3	57	43					6	45
MATUMOTO	13.95	232.7	3	39	22						
MAGADAN	13.97	358.1	3	19	1					6	7
TOYAMA	14.07	235.8	3	19	0						
KOHU	14.08	229.5	3	27	8						
MISIMA	14.27	227.2	3	44	22						
VLADIVOSTOK	14.37	267.0	3	21	-2					3	39
SHIZUOKA	14.67	228.2	3	21	-6						
OMAESAKI	15.05	227.7				6	41	23			
GIHU	15.24	233.2	3	31	-3					3	53
IBUKISAN	15.47	234.0	3	33	-4						
HIKONE	15.62	234.0	3	36	-3						
KAMEYAMA	15.81	232.4	3	46	4						
TOYOOKA	16.27	237.6	3	44	-4						
OSAKA	16.48	234.0	3	53	3						
KOBE	16.66	234.8				7	4	9			
SUMOTO	17.07	234.6	4	0	2	7	13	8		4	26
TAKAMATU	17.57	236.2	3	35	-29						
HAMADA	18.36	241.2	4	12	-2	7	43	9			
KOTI	18.42	235.5	4	15	1	7	45	10		5	5
HIROSIMA	18.49	239.3	4	14A	-1	6	46	-51			
CHANGCHUN	18.80	274.0	4	15	-4	7	29	-15			
SIMIDU	19.30	234.9				6	53	-62			
OOITA	19.77	238.2	4	52	22	8	8	2			
HUKUOKA	20.25	241.0	4	38	3						
KUMAMOTO	20.61	239.0	4	41	2						
YAKUTSK	20.75	330.1	4	39	-1	8	32	7		5	4 PP
PEKING	26.49	270.6	5	37	1						
ZO-SE	27.77	249.2	5	47A	-1	10	19	-8			
NANKING	28.76	253.4	5	56A	-1	10	36	-6		6	45 PP
ULAN-BATOR	30.44	290.7	6	13	1	11	14	5			
IRKUTSK	31.34	299.6	6	16	-4	11	22	-1		7	19 PP
LANCHOW	36.96	272.3	7	8A	0	12	42	-8		8	23 PP
COLLEGE	37.65	37.5	7	13	-1	13	3	2			
HONG KONG	38.35	245.4	7	19A	0	13	10	-1		8	45 PP
CANTON	38.36	247.2	7	20	0	12	42	-30		8	53 PP
BAGUIO CITY	39.03	231.9	7	24	-1	13	20	-2			
MANILA	40.32	229.8	7	35	-1	14	35	54			
SITKA	44.87	47.8	8	13	0						
SEMIPALATNSK	46.34	303.0	8	19	-6						
LHASA	49.46	273.1	8	51	2						
RABAUL	49.60	179.4	8	53	3						
SHILLONG	51.36	268.4	9	2A	-1	16	21	2		11	2 PP
RESOLUTE	52.23	18.0	9	8A	-2	16	33	2		18	59 SCS
FRUNSE	53.27	296.6	9	17A	-1	16	46	1		11	19 PP
CHATRA	53.87	272.9	9	23	1						
SVERDLOVSK	53.99	317.2	9	21	-2					11	30 PP
PORT MORESBY	54.91	185.5				17	7	0		11	8 PP
THULE	55.59	10.6	9	39	4						
BOKARO	56.72	271.1	9	43A	0	17	37	6			
TASHKENT	57.43	297.6	9	46	-2					19	33 SCS
APATITY	57.99	336.5	9	48	-4	17	49	1		13	13 PP
DEHRA DUN	58.08	282.2	9	58	6	17	56	7			
STALINABAD	59.34	295.2	9	59	-2					18	13 PS
LAHORE	59.86	285.6	10	3	-2						
SHASTA	59.96	61.2	10	5	0						
AGRA	60.07	279.3	10	5A	-1	18	18	3		12	15 PP
PORT BLAIR	60.16	255.4	10	6	-1	17	22	-54		19	50
WARSAK DAM	60.24	289.5	10	6	-1						
HUNGRY HORSE	60.28	50.0	10	6	-2						
MINERAL	60.65	61.1	10	10A	0						
KIRUNA	61.09	341.0	10	12	-1	18	35	7	10	27	
BERKELEY	61.73	63.7				18	43	7			
RENO	62.24	60.9	10	21	0						
LICK	62.44	63.8	10	22A	0						
BUTTE	62.49	51.4	10	22	0					10	59 PCP
BOZEMAN	63.53	51.0	10	30	1						
FRESNO	63.95	63.3	10	31	-1						
SCORESBY SD.	64.13	357.6	10	33	0	19	22	16		20	23 SCS
PULKOVO	64.56	331.4	10	34	-2					15	16 PCS
EUREKA	64.60	58.9	10	35	-1						
MOSCOW	64.81	325.2	10	36	-2						
DJAKARTA	65.26	230.5	10	52	11	19	20	0			
CHARTERS TS.	65.50	185.6	10	39	-3						
QUETTA	65.67	288.9	10	43	0	19	31	6		11	15 PCP

HYDERABAD	66.09	270.8	10	45	-1	19	31	1			13 19 PP
ASHKABAD	66.18	300.4	10	46	0	19	35	4			
SKALSTUGAN	66.51	341.5	10	48	-1						10 58
PASADENA	66.64	64.6	10	46	-3	19	35	-2			
BOULDER CITY	67.54	61.2	10	54	-1						
SUVA	67.95	152.5	10	54	-4	20	3	10			13 42 PP
UPPSALA	68.37	337.6	10	59	-1	20	0	2	11	13	
POONA	68.57	274.9	11	0	-1	19	43	-17			20 16 PPS
RAPID CITY	68.78	48.3	11	3	0						
BOMBAY	69.04	275.9	11	0	-4	20	9	3			13 41 PP
BERGEN	70.84	343.1									41 58
TIFLIS	71.36	310.9	11	19	1						11 35 PCP
GORIS	72.09	308.4	11	25	2						14 15 PP
TUCSON	72.49	61.8	11	25	0						
TUCSON TELE.	72.50	61.6	11	25	0						
COPENHAGEN	73.38	337.3	11	30A	0	21	10	14			11 41 PCP
WARSAW	73.72	330.9	11	27A	-5	21	9	9			
SIMFEROPOL	74.28	319.2	11	35A	-1						14 25 PP
LWOW	74.63	327.9	11	37	-1						25 59 SS
IASI	75.37	324.3	11	52	10						
KRAKOW	75.92	330.3	11	39	-6						13 39 PP
RACIBORZ	76.49	331.3	11	48	0						
LUBBOCK	76.93	55.3	11	50	-1						
COLLMBERG	77.09	334.8	11	51	-1						
HALLE	77.22	335.5	11	52	0	21	43	5			12 4 PCP
DURHAM	77.45	344.5	12	7A	13	22	0	19			
WITTEVEEN	77.46	339.1	11	56	2						
PRAGUE	77.73	333.4	11	55	0	21	48	4			29 17
PRUHONICE	77.77	333.3	11	55	0	21	53	9			14 47 PP
JENA	77.83	335.5	11	51	-5	21	47	2			14 51 PP
CAMPULUNG	77.97	324.6	12	1	4						
MUNSTER	77.99	338.2	11	49	-8						11 57
PLAUEN	78.05	334.9	11	55	-2						12 17
BUCHAREST	78.22	323.5	12	11	13	21	51	2			
SONNEBERG	78.43	335.4	11	59	0						12 23
DE BILT	78.49	339.7				22	5	13			
BRATISLAVA	78.50	330.9	11	59	0	22	2	10			
BENSBERG	79.03	338.0	12	3	1						
TIMISOARA	79.07	327.1	12	11	8						
FAYETTEVILLE	79.31	48.8	12	4	0						
ISTANBUL KA.	79.62	319.7	12	6	0	22	6	2			
RATHFARNHAM	79.67	346.8	12	4K	-2				12	18	14 52 PP
BELGRADE	80.15	327.1	12	10A	2	22	24	15			
KEW	80.32	342.7	12	12	3	22	16	5			22 28 SCS
STUTTGART	80.46	335.9	12	9	-1	22	23	10			12 24
TUBINGEN	80.71	335.9	12	12	1						12 26
SOFIA	80.78	324.2	12	14	2	22	17	1			
STRASBOURG	81.03	336.7	12	15K	2	22	23	4			32 53
EBINGEN	81.05	335.8	12	16	3						
RAVENSBURG	81.23	335.2	12	18	4						
TOLMEZZO	81.40	332.5	12	17	2						
TRIESTE	81.83	331.7	12	18	1	22	30	3			
KSARA	81.94	310.8	12	19	1	22	33	5			17 21 PPP
BASLE	82.04	336.3	12	24	6						
SKOPJE	82.17	325.0	12	16K	-3	21	51	-39			16 30
PARIS	82.19	340.0	12	19	0	22	37	7			
NEUCHATEL	82.70	336.5	12	23	1						
MELBOURNE	83.29	185.4	12	37	12						
MORGANTOWN	83.33	37.6	12	22	-3						
OROPA	83.66	335.3	12	27	0	23	18	33			
PAVIA	83.70	334.3	12	30	3	23	10	24			
FLORENCE X.	84.31	332.4	12	31K	1	23	39	47			15 57 PP
PALISADES	84.61	32.9	12	28	-3	22	52	-3			15 58 PP
CLERMONT-FD.	84.86	338.5	12	35	2	23	17	20			
HALIFAX	84.87	24.5				22	59	2			28 0 SS
TARANTO	85.09	326.9	12	37	3	22	1	-58			
ROME	85.57	330.7	12	19	-17	23	15	11			16 9 PP
KARAPIRO	85.88	161.3	12	49	11						
HELWAN	87.43	311.4	12	47	2	23	27	5			
WELLINGTON	88.94	162.8									24 47
ROXBURGH	92.11	167.7									24 13
ALICANTE	92.74	338.4	13	9	-1	24	13	3			
BERMUDA	95.66	30.3	13	31	8	24	39	4			16 55 PP
TAMANRASSET	105.30	327.8	13	48	777	24	42	2			17 56 PP
LWIRO	114.12	293.2	19	36	60						29 23 SP
BYRD STATION	134.33	165.9	19	15	0						
SOUTH POLE	135.42	180.0	19	11	-6						
LA PAZ	135.91	62.0	19	19	1	26	21	-2			23 3 PKS

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

APRIL 23 15.H 11.M 41.S EPICENTRE -14.98-176.60 DEPTH= 0.KM

A=-0.96475 B=-0.05736 C=-0.25686 D=-0.0594 E= 0.9982
G= 0.2564 H= 0.0152 K=-0.9664 HT= 5.8

SE= 2.12

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AFIAMALU	4.80	77.7	1 6	-9				
SUVA	5.72	235.9	1 26	-2				
NOUMEA	17.63	243.1	4 8K	-1				4 21
ONERAHI	22.23	199.7	5 16	16				7 20
KARAPIRO	23.89	195.5	5 15	-1				
WELLINGTON	27.26	194.3						16 19 SCS
BRISBANE	30.83	241.2	6 23	3	11 35	12		
RIVERVIEW	34.64	231.4	6 55	2	12 35	12		
CHARTERS TS.	35.73	256.5	7 0K	-2				
PORT MORESBY	35.83	274.7	7 5	2				
MELBOURNE	40.86	228.8	7 43	-3				
KOROR	53.32	291.2	8 23	-60				
MATUSIRO	66.66	321.5			19 49	3		25 21
BYRD STATION	69.85	171.0	11 10	-5				
LICK	73.31	42.9	11 38	3				
FRESNO	74.22	44.3	11 42	1				
LEMBANG	74.57	266.9	11 41	-2	21 15	-3		
SHASTA	74.76	39.7	11 46	2				
MINERAL	75.05	40.4	11 45A	0				
SOUTH POLE	75.12	180.0	11 43	-3				
RENO	75.73	41.9	12 8	19				
EURFKA	78.22	43.5	12 2	-1				
TUCSON	78.48	52.1	12 5	0				
TUCSON TELE.	78.60	52.0	12 5	0				
COLLEGE	82.56	12.0	12 24	-2				
BUTTE	83.64	39.1	12 32	0				
HUNGRY HORSE	83.93	36.5	12 33	0				
BOZEMAN	84.41	39.9	12 35	-1				
RESOLUTE	102.15	15.6	13 57	-1				32 39 SS
PALISADES	109.18	51.4						34 32
PRUHONICE	143.93	347.8	19 36	-1				22 54 PP
BENSBERG	143.98	355.9	19 49	12				
BRATISLAVA	145.02	343.9	19 40	1				
KSARA	145.19	308.5	19 39	-1				23 19 PP
ISTANBUL KA.	145.76	324.4	19 41	0				
STUTTGART	145.97	353.1	19 40	-1				
TUBINGEN	146.22	353.2	19 43	2				
STRASBOURG	146.30	354.8	19 45	3				
EBINGEN	146.58	353.2	19 44	2				
SOFIA	147.50	332.1	19 48	5				
CLERMONT-FD.	149.31	0.4	19 52	6				
LWIRO	149.58	237.8	19 54	7				
HELWAN	150.34	304.7	19 53	5				20 43
TAMANRASSET	171.99	345.8	20 14	4				25 25 PP

APRIL 24 13.H 9.M 44.S EPICENTRE -21.85 170.03 DEPTH= 0.KM

A=-0.91500 B= 0.16082 C=-0.37001 D= 0.1731 E= 0.9849
G= 0.3644 H=-0.0641 K=-0.9290 HT= 4.2

SE= 2.56

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
NOUMEA	3.35	261.7	0 53K	-1	1 30	-6		
SUVA	8.71	66.5	2 13A	3	4 14	24		
ONERAHI	14.38	165.7	3 36	10	7 19	71		
BRISBANE	16.43	246.7	3 54	1	7 10	14		
KARAPIRO	16.70	164.7	3 56K	0				
WELLINGTON	19.78	169.4	4 35A	1	8 10	-2		5 43
RIVERVIEW	20.48	230.3	4 43	1	8 35	9		
GEBBIES PASS	21.90	174.9	5 0	4				
CHARTERS TS.	22.28	270.4	5 1K	1	9 8	7		
ROXBURGH	23.65	181.2			9 24	-1		
RABAUL	24.66	312.8	5 24	1	9 55	12		6 1 PP

PORT MORESBY	25.23	295.8	5	31	3	9	53	1		
MELBOURNE	26.83	228.0	5	44	1	10	19	0	6	2
TRUK	34.16	326.6	7	2	14					
KOROR	45.34	305.8	8	22	1					
CAPE HALLETT	50.47	179.9	8	58	-3	16	13	-2	10	56 PP
SCOTT BASE	56.08	180.8	9	40	-3					
MANILA	60.20	302.6							11	16
LEMBANG	61.90	273.9	10	6K	-17	18	28	-18		
MIRNY	65.01	205.5	10	37	-7	19	18	-7		
BYRD STATION	65.26	169.6	10	42	-3	19	24	-4		
MATUSIRO	65.40	332.2	10	45	-1	19	27	-3		
SOUTH POLE	68.28	180.0	11	1	-3				39	12 PKPPKP
HONG KONG	69.93	305.3	11	14A	0	20	4	-20	14	40 PP
CANTON	71.04	305.5	11	21	0	20	39	2		
NANKING	72.63	316.1				20	59	4		
Y.-SAKHLINSK	72.78	340.8	11	30	-2					
VLADIVOSTOK	73.56	331.9	11	36	0				21	9
PEKING	79.42	320.9	12	9	0	22	10	0		
KUNMING	80.29	301.9	12	15A	1	22	24	5		
LANCHOW	85.03	311.9	12	38	0					
CHITTAGONG	87.95	294.9	12	55A	3	23	52	17		
FRESNO	88.14	49.1	12	53	0					
MINERAL	88.68	45.3	12	55	-1					
SHILLONG	89.24	297.9	12	59	0	23	23	-24	15	41
ULAN-BATOR	89.51	323.1	13	0	0					
EUREKA	92.07	48.1	13	11	-1					
COLLEGE	92.32	16.7	13	10	-3					
TUCSON	92.76	56.4	13	40	25					
QUETTA	111.54	294.9	18	51	15				26	51
RESOLUTE	112.24	16.6	18	34	-3				28	54 PS
PALISADES	123.42	54.5							20	33 PP
TIFLIS	130.28	306.7	19	14	2				23	9
PULKOVO	132.67	333.6							22	59
LWIRO	135.18	242.6	19	16	-5				22	44 PP
KSARA	138.05	296.7	19	43	17					
KRAKOW	143.33	327.4							20	26
RACIBORZ	144.16	328.7	19	22	-15					
POTSDAM	144.73	335.5	19	35	-3				20	21
SOFIA	145.33	314.6	19	50	11					
COLLMBERG	145.59	334.3							29	40
HALLE	145.85	335.4	19	41	1				20	34
PRAGUE	145.91	331.6	19	38	-2				20	51
PRUHONICE	145.92	331.4	19	41	1				23	25 PKS
BRATISLAVA	145.96	327.0	19	40A	0				19	52 PKP2
JENA	146.44	335.1	19	42	1				20	30
DURHAM	146.53	351.2	19	42K	1				29	8
PLAUEN	146.55	334.1	19	40	-1				20	29
ATHENS	146.89	306.6	19	45	3					
MUNSTER	146.99	339.9	19	41	-1				19	55
SONNEBERG	147.02	334.9	19	44	2				20	2
BENSBERG	148.00	339.4	19	47	3					
STUTTGART	149.10	335.0	19	50	5				20	48
TUBINGEN	149.34	334.8	19	49	3				20	8
TRIESTE	149.35	326.4	20	10	24				29	55 SKKS
EBINGEN	149.66	334.5	19	51	5					
STRASBOURG	149.80	336.3	19	52	5					
PARIS	151.32	342.7	19	52	3					
NEUCHATEL	151.42	335.4	19	53	4					
TAMANRASSET	165.63	276.6	20	7	1				24	53 PP

APRIL 24 18.H 9.M 15.S EPICENTRE 4.78 -82.64 DEPTH= 0.KM

A= 0.12771 B=-0.98835 C= 0.08279 D=-0.9918 E=-0.1281
G= 0.0106 H=-0.0821 K=-0.9966 HT= 7.0

SE= 1.69

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
BALBOA HTS.	5.15	36.2	1	20	0	2	21	0				
CHINCHINA	6.99	88.2	1	46	0	3	27	19				
BOGOTA	8.54	90.7	2	9	1	3	53	7			2	16
GALERAZAMBA	9.42	50.3	2	20	0						2	35
SAN SALVADOR	11.02	324.3	2	45	3							
COMITAN	14.72	321.4									6	35 SS
MERIDA	17.45	337.7	4	6	0							

HUANCAYO	18.23	156.6	4 16	0	7 43	5		5 59		
VERA CRUZ	19.46	318.6	4 35	4						
PUEBLA	20.77	314.3	4 41	-4				4 49		
SAN JUAN	21.05	48.7	4 48	0						
TACUBAYA	21.72	313.4	4 59	4				5 14	PP	
GRENADA	21.89	69.4	4 59	2						
ST. VINCENT	22.67	67.0	5 4	0						
ST. LUCIA	23.22	65.2	5 11	1						
FORT FRANCE	23.35	63.4	5 13	2				9 30		
ST. CLAUDE	23.40	59.9	5 13	2						
BARBADOS	24.20	68.5	5 20	1						
LA PAZ	25.55	146.1	5 33	1	10 14	16		6 16	PP	
COLUMBIA	29.11	2.7	6 3	-2						
BERMUDA	32.19	29.3			11 57	12				
FAYETTEVILLE	32.92	342.6	6 37A	-1				7 55		
LUBBOCK	33.78	330.4	6 45	-1						
MORGANTOWN	34.78	3.6	6 53A	-1						
PALISADES	36.91	11.0	7 11	-1	12 56	-2		15 26	SS	
WESTON	38.77	13.4	7 28A	0						
BOULDER	40.61	333.0	7 45	2						
OTTAWA	40.91	7.4	7 45	-1						
BREBEUF	41.32	9.6	7 48A	-1						
SHAWINIGAN	42.48	10.1	7 59K	0						
BOULDER CITY	42.91	320.6	8 3	1				8 24		
RAPID CITY	43.12	338.3	8 4	0						
SEVEN FALLS	43.39	11.7	8 6A	0	14 44	9		17 52	SS	
PASADENA	44.04	316.1	8 12	1	14 41	-3		18 17	SS	
SALT LAKE C.	44.40	328.0	8 13	-1				8 46		
EUREKA	45.83	323.6	8 26	0				8 59		
FRESNO	46.60	318.1	8 31	-1						
BOZEMAN	47.65	333.2	8 40	0				9 29		
LICK	48.14	317.7	8 44A	0						
RENO	48.20	321.2	8 45A	1						
BUTTE	48.61	332.4	8 48	1						
BERKELEY	48.84	317.9	8 49	0						
MINERAL	49.79	321.0	8 56A	0						
SHASTA	50.48	320.9	9 0	-2						
HUNGRY HORSE	51.01	333.4	9 6	0						
SEATTLE	54.57	328.0	9 34K	2						
RESOLUTE	70.20	356.6	11 14A	-3	20 21	-7				
THULE	72.02	3.5	11 28	0						
COLLEGE	75.32	336.4	11 46	-1				13 40		
RATHFARNHAM	78.04	36.6	12 33	31						
KEW	81.49	38.8	12 18	-3						
NORD	81.86	7.8	12 21	-2						
PARIS	83.22	41.6	12 58	28						
BENSBERG	86.20	39.3	12 45	0						
MUNSTER	86.43	38.3	12 43	-3						
TAMANRASSET	86.48	67.5	12 46	0				16 6	PP	
STRASBOURG	86.72	41.7	12 51A	4						
STUTTGART	87.65	41.4	12 51	-1						
HALLE	89.15	38.5	12 55	-4				13 25		
PRUHONICE	90.99	39.8	13 3	1						
UPPSALA	91.04	29.8	13 5	-3						
SOUTH POLE	94.75	180.0	13 24	-1						
QUETTA	134.65	38.0	19 19	-2						
CHATRA	147.06	16.9	19 48	5						
SHILLONG	149.36	9.8	19 48K	2						
CHITTAGONG	152.49	11.2	19 58	7						

APRIL 26 9.H 26.M 9.S EPICENTRE -15.19 167.32 DEPTH= 180.KM
DEPTH OF FOCUS= 0.023R

A=-0.94197 B= 0.21191 C=-0.26034 D= 0.2195 E= 0.9756
G= 0.2540 H=-0.0571 K=-0.9655 HT= 5.7

SE= 1.73

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
NOUMEA	7.12	186.5	1 38	-4	2 59	-3		
SUVA	11.04	107.0	2 40A	6	4 44	10		
BRISBANE	18.06	225.0	4 1	1	7 23	11		
RABAUL	18.48	304.7	4 4	0				7 35
PORT MORESBY	20.52	283.9	4 26	1	8 24	25		4 56 PP

CHARTERS TS.	20.63	253.5	4	28A	2	8	13	11				
ONERAHI	21.45	164.2	4	36	2							
RIVERVIEW	23.63	215.3	4	58	2	9	5	11				
KARAPIRO	23.78	163.7	4	56A	-1							
TONGARIRO	24.98	164.8	5	8	0							
WELLINGTON	26.79	167.5	5	27	2							
TRUK	27.24	324.7	5	57	28							
MELBOURNE	29.99	217.0	5	53	-1							
MANILA	54.53	300.7	10	9	58							
BAGUIO CITY	55.81	302.3	9	21	1	17	0	9				
CAPE HALLETT	57.12	178.9	9	29K	-1							
MATUSIRO	58.33	332.6	9	35	-3	17	19	-5			10	4
SCOTT BASE	62.68	180.1	10	7	0							
HONG KONG	64.02	304.5	10	16A	0	18	40	4			10	43 PCP
CANTON	65.13	304.8	10	23A	0						10	52
MIRNY	69.94	204.2	10	52	-1							
BYRD STATION	72.23	169.9	11	6	-1							
KUNMING	74.51	301.8	11	21A	0	20	49	9			11	52
SOUTH POLE	74.91	180.0	11	21	-1							
LANCHOW	78.68	312.3	11	45	2	21	33	9				
SHILLONG	83.84	298.4	12	10	0	22	25	8				
LICK	84.67	49.2	12	14	0						12	37
SHASTA	85.50	45.9	12	18	0							
FRESNO	85.81	50.3	12	35	15							
MINERAL	85.91	46.5	12	20	0							
LHASA	85.91	302.0	12	23A	2							
PASADENA	86.08	53.2	12	21	0						12	57
COLLEGE	86.74	17.6	12	24	0				12	59		
RENO	86.86	47.7	12	25	0							
BOULDER CITY	89.28	52.5	12	36	-1				13	12		
EUREKA	89.60	48.9	12	38	0				13	13		
TUCSON	91.28	57.0	12	46	0				13	16		
TUCSON TELE.	91.39	57.0	12	26	-20				13	16		
HUNGRY HORSE	93.85	41.0	12	57	-1				13	28		
RESOLUTE	106.60	16.0	18	4	777							
SODANKYLA	121.95	343.2	18	32	-1							
KIRUNA	123.22	345.7	18	35	0							
SKALSTUGAN	128.64	346.0	18	46	0							
UPPSALA	130.20	340.5	18	43	-6							
LWIRO	135.45	250.6	19	3	5						20	1
PRUHONICE	138.86	333.3	19	7	2							
STUTTGART	142.00	336.4	18	9	-62						20	7
EBINGEN	142.57	336.0	18	21	-50						20	23
STRASBOURG	142.70	337.5	19	12	0							
CHUR	143.40	334.2	19	11K	-2							
BASLE	143.64	336.7	19	6	-7							
PARIS	144.23	342.8	19	15	1						22	16 PP
NEUCHATEL	144.32	336.8	19	15	1						22	18
FLORENCE X.	144.96	329.2	19	15	-1						29	11
ROME	145.65	325.8	19	18	1						29	51
MESSINA	146.16	318.0	19	20	2						20	2
CLERMONT-FD.	146.74	339.7	19	22	3						19	45
ALGIERS UNI.	154.35	329.8	19	31	1						19	55 PKP2
TAMANRASSET	161.22	296.5	19	40	2						24	10 PP

APRIL 27 17.H 17.M 40.S EPICENTRE 42.44 143.60 DEPTH= 99.KM

DEPTH OF FOCUS= 0.010R

A=-0.59584 B= 0.43926 C= 0.67232 D= 0.5934 E= 0.8049
G=-0.5412 H= 0.3990 K=-0.7403 HT= -2.6

SE= 1.85

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
OBIHIRO	0.56	328.5	0	18K	0	0	30	-1				
URAKAWA	0.67	244.9	0	19A	1	0	32	0				
KUSIRO	0.80	47.1	0	19A	0	0	32	-2				
TOMAKOMAI	1.50	273.8	0	28	1	0	48	1				
ASAHIGAWA	1.62	326.5	0	29	1	0	50	1				
ABASHIRI	1.66	17.2	0	30	1	0	51	1				
NEMURO	1.70	57.8	0	29	0	0	49	-2				
SAPPORO	1.77	291.6	0	32K	2	0	54	1				
MURORAN	1.95	267.7	0	34	1	0	57	0				
HAKODATE	2.24	253.9	0	37A	1	1	3	-1				
MORI	2.28	262.5	0	39	2	1	6	2				

HATINOHE	2.46	219.9	0 40A	1	1 8	-1		
SUTTSU	2.51	279.4	0 42	2	1 10	0		
AOMORI	2.66	233.5	0 42	0	1 12	-2		
MIYAKO	3.05	204.4	0 46A	-1	1 20	-3		
WAKKANAI	3.29	335.7	0 46	-5				1 50
MORIOKA	3.30	214.7	0 50A	-1	1 27	-2		
AKITA	3.79	225.4	0 58	0	1 42	1		
MIZUSAWA	3.80	210.4	0 57	-1	1 39	-3		
KURILSK	4.16	46.4	1 3	0	1 49	-2		
ISINOMAKI	4.37	204.3	1 4	-1	1 51	-5		1 26
SAKATA	4.55	220.3	1 9	1	2 1	1		
Y.-SAKHLINSK	4.55	352.4	1 6A	-2	1 56	-4		
SENDAI	4.65	207.3	1 9	0	2 0	-2		
YAMAGATA	4.87	211.8	1 13	1	2 5	-3		
HUKUSIMA	5.26	208.2	1 17	-1	2 14	-4		
NIIGATA	5.70	219.2	1 55	31				
ONAHAMA	5.86	201.7	1 24	-2	2 27	-5		3 41
SHIRAKAWA	5.92	207.2	1 27	0	2 30	-4		
AIKAWA	6.02	224.6	1 28	0	2 34	-2		
MITO	6.52	202.9	1 34	-1	2 44	-4		
UTUNOMIYA	6.55	207.4	1 34A	-1	2 45	-4		2 9
UGLEGORSK	6.73	351.4			2 56	2		
TAKADA	6.74	219.5	1 36	-2	2 55	1		
KAKIOKA	6.74	204.3	1 37	-1	2 48	-6		
TUKUBASAN	6.78	204.7	1 35A	-4	2 47	-8		
MAEBASI	6.98	211.7	1 40	-1	2 58	-2		4 4
TYOSI	7.04	198.6	1 39	-3	2 58	-3		
KUMAGAYA	7.08	208.9	1 43	0	2 59	-3		
NAGANO	7.11	217.7	1 46	3	3 8	5		
MATUSIRO	7.20	217.0	1 44A	0	3 4	-1		
WAZIMA	7.21	227.8	1 47	2	3 6	1		
OIWAKE	7.25	214.3	1 48	3				
TITIBU	7.34	210.0	1 42	-4				
TOKYO C.M.O.	7.38	205.2	1 45	-2	3 4	-6		
MATUMOTO	7.56	217.1	1 50	1				
TOYAMA	7.57	222.9	1 53	4				
YOKOHAMA	7.65	205.0	1 52	2	3 14	-2		
KOHU	7.84	211.6	1 52	-1	3 17	-4		
MERA	8.07	202.7	1 54	-2	3 20	-6		
MISIMA	8.16	207.9	1 58	1	3 22	-7		
AJIRO	8.17	206.9	1 56	-2	3 20	-9		
IIDA	8.24	214.9			3 17	-14		
SHIZUOKA	8.49	210.3			3 36	-1		3 19
HUKUI	8.54	224.1	2 8	5				
VLADIVOSTOK	8.64	278.5	2 5K	1				3 53
GIHU	8.81	219.4	2 2	-4				2 42
NAGOYA	8.91	217.6	2 14	7				3 19
IBUKISAN	9.02	221.0	2 11	2	3 50	1		
HIKONE	9.17	221.1	2 31	20	3 52	-1		
KAMEYAMA	9.41	218.7	2 17	3	3 57	-2		
CHANGCHUN	13.43	282.1	3 9	1	5 36	1		
MAGADAN	17.70	12.1	4 0A	-1				7 50 SS
PEKING	20.74	272.6	4 35	1	8 12	-3		
ZO-SE	21.16	245.0	5 2	23				
YAKUTSK	21.29	341.8	4 36	-4	8 23	-2		5 0
ULAN-BATOR	26.27	294.7	5 27	-1				
IRKUTSK	28.05	304.2	5 44A	0	10 22	2		
TIKSI	30.16	350.8	6 1	-2				7 2 PP
LANCHOW	31.24	271.7	6 14	2	11 11	1		
COLLEGE	43.66	35.2	7 57	1			8 20	
LHASA	43.73	270.7	8 0A	3	14 23	4		
SHILLONG	45.36	265.3	8 11K	1				
RABAUL	47.07	168.3	8 25	2				10 12 PP
FRUNSE	49.41	295.3	8 42	0				
SITKA	51.26	43.8	8 58	2				
SVERDLOVSK	52.31	316.4	9 2	-2	16 19	0		
LAHORE	54.99	282.9	9 21	-2	16 54	-2	9 56	
WARSAK DAM	55.69	286.9	9 28A	0				
NORD	55.77	356.6	9 27	-2				
RESOLUTE	56.96	15.7	9 36A	-1	17 31	9	9 59	24 20 SSS
APATITY	58.49	335.0	9 45	-3				
THULE	59.68	8.3	9 54	-2				
SODANKYLA	60.66	336.7	10 2	-1				
QUETTA	61.04	285.6	10 5A	0	18 9	-6		
KIRUNA	62.08	338.9	10 11	-1				
MOSCOW	63.95	322.7	10 24	-1	18 48	-3		
HELSINKI	66.11	331.3	10 37	-2				
SHASTA	66.59	55.7	10 43	1				
HUNGRY HORSE	66.73	45.2	10 43	0			11 14	13 16

MINERAL	67.28	55.7	10	46	0							
SKALSTUGAN	67.50	338.7	10	46A	-1							
TIFLIS	68.84	307.5	10	57	1	19	53	3				
UPPSALA	68.85	334.0	10	54A	-2							
RENO	68.86	55.4	10	57	1							
BUTTE	68.97	46.5	10	57	1							
BOZEMAN	70.00	46.0	11	4	1							
EUREKA	71.21	53.5	12	11	61				12	41		
SIMFEROPOL	72.66	315.5	11	18	-1							
LWOW	74.00	324.1	11	27	0							
RAPID CITY	75.17	43.3	11	35	2							
KRAKOW	75.56	326.4	11	35	0						12	24
RACIBORZ	76.24	327.3	11	41	2							
COLLMBERG	77.24	330.7	11	44	-1							
HALLE	77.45	331.4	11	46	0						12	11
PRAGUE	77.71	329.3	11	52	5							
PRUHONICE	77.74	329.1	11	49	1						14	38 PP
JENA	78.05	331.3	11	49	0						12	16
PLAUEN	78.21	330.7	11	48	-2							
MUNSTER	78.53	334.0	11	51	-1							
SONNEBERG	78.65	331.2	11	52	-1							
TUCSON	79.12	56.2	11	58	3							
STUTTGART	80.71	331.4	12	3	-1							
TUBINGEN	80.96	331.3	12	5	0							
RATHFARNHAM	81.17	342.3	12	7	1				12	37		
EBINGEN	81.29	331.2	12	6	-1							
KEW	81.35	338.1	12	9	2				12	38		
STRASBOURG	81.37	332.1	12	8	1				12	38	12	49 *SP
BASLE	82.33	331.7	12	12	0							
PARIS	82.90	335.3	12	42	27						16	16 PP
SHAWINIGAN	85.69	24.2	12	29K	0							
FAYETTEVILLE	85.72	43.4	12	30A	1							
SEVEN FALLS	85.75	22.8	12	30	1							
OTTAWA	85.78	26.6	12	31	2							
BREBEUF	86.37	25.2	12	32A	0							
MORGANTOWN	89.27	32.2	12	48K	2							
TAMANRASSET	104.45	320.5									17	49 PP
SOUTH POLE	132.25	180.0	19	4	1							
BYRD STATION	132.65	166.4	19	8	5							

APRIL 27 18.H 38.M 17.S EPICENTRE -23.25 -66.84 DEPTH= 217.KM

DEPTH OF FOCUS= 0.029R

A= 0.36169 B=-0.84564 C=-0.39253 D=-0.9194 E=-0.3933
G=-0.1544 H= 0.3609 K=-0.9197 HT= 3.8

SE= 1.90

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
ANTOFAGASTA	3.31	262.4	0	54	-1	1	30	-7				
TALA POZO	5.12	153.3	1	16A	-1	2	3	-14				
LA PAZ	6.82	349.6	1	39A	0	2	49	-7			1	50 PP
HUANCAYO	13.76	322.6	3	9	2	5	52	17				
BOGOTA	28.59	344.8	5	37	-1	10	31	22			15	55 SCS
GRENADA	35.44	8.6	6	38	1							
SANTA LUCIA	37.50	9.3	6	53	-2	12	25	-1				
FORT FRANCE	38.16	8.9	7	0	0						11	36
SAN JUAN	41.38	1.0	7	22	-4						9	5 PCP
COLUMBIA	58.51	346.2	9	33	-3							
BYRD STATION	61.07	189.1	9	54	1	18	1	8	10	46		
MORGANTOWN	63.74	348.7	10	10A	-1							
FAYETTEVILLE	64.44	335.6	10	13K	-2						11	8 *SP
LUBBOCK	65.62	328.3	10	22	-1							
SOUTH POLE	66.89	180.0	10	31	0	19	3	-2				
BREBEUF	68.70	354.9	10	40K	-2				11	34		
OTTAWA	68.80	353.3	10	42	0	19	29	2				
TUCSON	69.37	321.0	10	47	1							
TUCSON TELE.	69.38	321.2	10	47	1				11	13	11	41
SHAWINIGAN	69.68	355.6	10	46A	-2							
SEVEN FALLS	70.13	357.1	10	50	-1	19	44	1	11	40		
BOULDER CITY	74.35	321.3	11	16	1							
RAPID CITY	74.83	333.7	11	18	0						14	1 PP
PASADENA	75.09	317.9	11	21	1							
SALT LAKE C.	76.20	326.4	11	26	0							

EUREKA	77.45	323.2	11	34	1				12	9	
FRESNO	77.82	319.0	11	29	-6						
LICK	79.31	318.5	11	44K	1						
BOZEMAN	79.49	330.2	11	45	1				12	19	14 34 PP
RENO	79.66	321.1	11	47K	2						
BERKELEY	80.03	318.6	11	47	0						
MINERAL	81.23	320.8	11	53K	0						
SHASTA	81.92	320.7	11	56K	0						
HUNGRY HORSE	82.85	330.4	12	1	0	22	3	3			13 3
TAMANRASSET	83.91	62.2	12	6A	-1				12	57	15 20 PP
SEATTLE	86.36	326.1	12	20A	1						
VICTORIA	87.50	326.3	12	24K	0						
HORSESHOE B.	87.98	327.0	12	26	0						
LWIRO	94.30	94.3	12	57	1	23	17	-28			
PARIS	94.58	38.4	13	10	13						13 32
RESOLUTE	99.36	352.7	13	18	-1	24	30	2			26 3 *SS
COLLEGE	107.06	333.8	13	52	777						
CHARTERS TS.	126.23	219.5	18	39A	2						
DUFTTA	138.37	70.2	19	58	58						
LAHORE	144.70	67.9	19	11	0						
GUAM	148.54	257.6	19	21	4						
MATUSIRO	154.64	307.2	19	37	11						19 53 PKP2
SHILLONG	160.48	78.9	19	33	0						

APRIL 27 19.H 3.M 53.S EPICENTRE 52.94-169.50 DEPTH= 0.KM

A=-0.59510 B=-0.11029 C= 0.79605 D=-0.1822 E= 0.9833
G=-0.7827 H=-0.1451 K=-0.6052 HT= -6.5

SE= 2.89

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	16.26	34.3	3	51	2	7	3	14			4	25	
PETROPAVLOVK	19.08	283.4	4	25	1						8	13	
SITKA	19.90	64.4	4	33	0	8	17	6			5	15	
MAGADAN	22.74	302.7	5	0	-2						8	24	
VICTORIA	29.10	79.9	5	58	-4								
SEATTLE	30.17	80.8	6	14	3								
TIKSI	32.20	328.4	6	32	3						12	3	
KIPAPA	32.68	159.9	6	32	-1						7	30	PP
HONOLULU	32.78	160.1	6	33	-1	11	41	-9			8	11	
SHASTA	33.87	91.9	6	41	-3						7	5	
MINERAL	34.56	91.8	6	48	-2								
HUNGRY HORSE	34.72	74.7	6	48	-3								
BERKELEY	35.73	95.7	7	7	7						12	32	
RESOLUTE	35.89	25.9	6	58	-3	12	43	5			8	27	PP
RENO	36.15	91.4	7	10	7								
LICK	36.45	95.8	7	14	8						7	37	
BUTTE	36.77	77.3	7	8	0						7	33	
BOZEMAN	37.85	76.9	7	18	1						8	2	
FRESNO	37.93	94.9	7	28	10								
EUREKA	38.51	88.4	7	20	-3	13	20	2			7	41	
VLADIVOSTOK	39.37	279.8	7	30	0						13	44	
MATUSIRO	39.63	267.0	7	29	-3	13	49	14			8	34	
SALT LAKE C.	40.20	83.8	7	35	-2						9	26	PCP
PASADENA	40.67	96.5	7	50	9	13	47	-3			13	23	SCP
BOULDER CITY	41.45	91.7	7	45	-2						8	26	
THULE	41.78	20.4	7	53	3								
CHANGCHUN	42.85	285.0	7	56	-3								
RAPID CITY	43.35	74.0	8	1	-2						8	21	
NORD	44.91	5.5	8	16	1								
TUCSON	46.42	92.3	8	24	-3								
TUCSON TELE.	46.42	92.1	8	24	-3								
IRKUTSK	49.25	306.0	8	48	-1						16	12	
PEKING	50.54	286.8	8	58	-1	16	12	0					
ULAN-BATOR	50.62	300.1	9	2	2								
LUBBOCK	50.92	84.0	8	13	-49								
TATUNG	52.16	288.7	9	51	39								
TO-SF	53.67	275.0	9	21	-2	16	58	4					
FAYETTEVILLE	53.76	76.3	9	18	-5						10	14	
NANKING	54.43	277.6	9	28	0								
SCORESBY SD.	54.69	12.8				17	21	13					
OTTAWA	57.53	56.4	9	48	-3	17	45	-1					
SHAWINIGAN	58.19	53.8	9	51	-4								
BREBEUF	58.51	55.1	9	54K	-4								
APATITY	58.61	349.9	9	57	-1						18	7	

SEVEN FALLS	58.72	52.2	9	59	0	17	57	-5				
KIRUNA	59.32	355.6	10	1	-2				10	14		
MORGANTOWN	59.38	63.8	10	2	-2							
SODANKYLA	59.40	352.8	10	3	-1							
LANCHOW	60.32	291.4	10	10	0							
WASHINGTON	61.46	62.6	10	24	6							
SEMIPALATNSK	61.47	316.9	10	15	-3							
PALISADES	61.59	58.9	10	16	-3	18	34	-4			14	8 PPP
WESTON	61.91	56.2	10	21K	0							
CHAPEL HILL	62.54	66.2	10	23	-2							
COLUMBIA	62.84	69.0	10	24	-3							
SVERDLOVSK	63.15	331.8	10	31	2							
SKALSTUGAN	63.81	359.1	10	32	-1				10	48		
HALIFAX	63.97	49.8	10	35	1	19	4	-4				
PULKOVO	66.52	349.2	10	49	-2							
HELSINKI	66.64	352.2	10	52	0							
UPPSALA	67.42	356.1	10	56	0							
KUNMING	69.14	284.1	11	5	-2	20	9	-2				
MOSCOW	69.41	344.0	11	10	1							
COPENHAGEN	71.73	358.8	11	25	2						11	38 PCP
DURHAM	72.19	7.3	11	46A	20						11	57
PORT MORESBY	72.23	225.3				20	40	-7				
LHASA	72.24	295.6	11	27	1	20	52	5			11	43 PCP
NAMANGAN	72.60	316.0	11	31	3							
BERMUDA	72.95	58.8	11	33	3	20	32	-23				
RATHFARNHAM	73.21	10.4	11	34K	2				11	48		
WARSAW	74.83	353.3	11	39A	-2							
SHILLONG	74.95	292.4	11	40A	-2							
MUNSTER	75.44	1.8	11	46	1							
KEW	75.57	7.0									22	6
HALLE	75.93	359.1	11	47	0						12	2 PCP
COLLMBERG	76.11	358.4	11	49	1							
BENSBERG	76.44	2.2	11	51	1							
JENA	76.50	359.3	11	49	-2						12	8
PLAUEN	76.93	358.9	11	52	-1							
LWOW	76.97	351.1	11	53	0							
KRAKOW	77.08	353.8	11	55	1						12	13 PCP
RACIBORZ	77.15	354.9	11	50	-4							
PRAGUE	77.31	357.4	12	0	5						15	9
PRUHONICE	77.40	357.3	11	56	0				12	12		
CHITTAGONG	77.49	290.4	11	58	2							
PARIS	78.40	5.4	12	0	-1	22	13	18				
KARLSRUHE	78.41	1.4	12	2	1						12	32
DEHRA DUN	78.46	305.3	11	58	-3							
JARSAK DAM	78.48	312.1	12	0	-2							
STUTTGART	78.66	0.9	12	3	0						12	17
STRASBOURG	78.83	1.8	12	5	2						31	25
TUBINGEN	78.90	1.0	12	4	0						12	18
BRATISLAVA	79.11	355.5	12	7	2							
LAHORE	79.25	308.7	12	4A	-2						12	13 PCP
EBINGEN	79.25	1.0	12	5	-1							
MAKHACH-KALA	79.29	333.3	12	7	1							
BOKARO	79.68	295.8									25	26
BASLE	79.88	2.0	12	12	3						18	32
NEUCHATEL	80.39	2.5	12	13	1							
SOTCHI	80.62	338.9	12	13	0	22	23	5				
TOLMEZZO	81.02	358.2	12	7	-8							
TIFLIS	81.17	334.7	12	18	2	22	36	12				
BUCHAREST	82.10	348.8									43	27
CHARTERS TS.	82.13	221.5	12	33	12							
FLORENCE X.	83.66	359.5	12	31	2	23	13	24			15	50 PP
QUETTA	83.77	313.5	12	29A	0	22	52	2			15	42 PP
ROME	85.52	358.5	12	41	3	23	16	8				
BRISBANE	86.48	212.8									23	6
MEDAN	88.27	273.6	12	49	-3	23	30	-4				
GRANADA	89.42	11.2	13	12K	15	23	9	-35			29	35
MALAGA	89.77	11.9	13	2	3							
POONA	90.35	302.0	12	4	-57						13	19
BOMBAY	90.57	303.0	13	33	31						21	16
KSARA	90.82	339.1	13	5	2						25	15 PS
RELIZANE	91.25	8.1	13	9	3						14	21
LWIRO	127.25	336.8	19	5	1							
BYRD STATION	135.72	169.0	19	18	-2							
SOUTH POLE	142.75	180.0	19	22	-10						19	39
PIETERMZBURG	152.50	320.1	19	55	7							
HALLEY BAY	153.11	160.4	19	43	-6	26	18	-35				

APRIL 28 11.H 47.M 42.S EPICENTRE -11.47 -74.67 DEPTH= 0.KM

A= 0.25916 B=-0.94541 C=-0.19759 D=-0.9644 E=-0.2644
G=-0.0522 H= 0.1906 K=-0.9803 HT= 6.3

SE= 2.91

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
HUANCAYO	0.86	228.3	0 19K	2				
LA PAZ	8.08	129.0	1 54K	-5	3 24	-8		2 7 PP
BOGOTA	16.00	2.2	3 42K	-4	6 46	3		
TALA POZO	18.98	150.5			8 48	57		5 18 PP
BALBOA HTS	20.87	346.3	4 48	4				8 38 PCP
GALERAZAMBA	22.11	358.4	5 11	15	9 1	7		
SANTA LUCIA	22.16	171.1	4 56	-1	9 8	13		5 33 PP
GRENADA	26.67	29.2	5 33	-7				
ST. VINCENT	27.86	28.9	5 55	4				
BARBADOS	28.64	31.9	6 2	4				
FORT FRANCE	29.28	27.6	6 6	2				11 23
CIUD. TRUJL.	30.10	9.0	6 8	-3				7 24 PP
ST. CLAUDE	30.19	25.4	6 7	-5				12 43
SAN JUAN	30.84	16.0	6 13	-4				
COMITAN	32.51	327.6						17 10
MERIDA	35.41	335.4	7 0	3	12 42	11		
TACUBAYA	39.05	321.5	7 41	13	13 21	-5		13 2
BERMUDA	44.64	12.1	8 20	7	14 51	2		10 18 PP
COLUMBIA	45.62	352.6	8 20	-1				
LITTLE ROCK	48.96	340.6	8 45	-2	15 46	-4		
CHIHUAHUA	50.11	323.3						11 18
GEORGETOWN	50.16	357.6	8 55	-2	16 6	-1		10 2 PCP
WASHINGTON	50.16	357.6	8 56	-1	16 5	-2		
FAYETTEVILLE	50.77	339.5	8 59A	-2	16 8	-7	9 4	11 0 PP
MORGANTOWN	51.07	354.8	9 6	2	16 16	-3		
LUBBOCK	51.74	330.9	9 6	-3	16 29	1		
ST. LOUIS 1	51.93	344.5	9 6A	-4	16 25	-6	9 24	18 57 SCS
TERRE HAUTE	52.05	347.5	9 18	7				
PALISADES	52.22	0.7	9 13	1	16 29	-6		11 15 PP
CLEVELAND	53.06	353.6	9 20A	1	16 41	-5		
WESTON	53.67	3.1	9 26K	3	16 54	-1		
TUCSON TELE.	55.55	322.8	9 36	-1				40 26 PKPPKP
TUCSON	55.55	322.7	9 36	-1	17 24	4		19 28 SCS
OTTAWA	56.61	359.1	9 42	-2	17 26	-8		19 23 SCS
BREBEUF	56.71	0.9	9 42A	-3	17 34	-1		
HALIFAX	56.72	9.4	9 47K	2	17 29	-7		19 28 SCS
SEVEN FALLS	58.42	3.1	9 56	-1	17 55	-3		
BOULDER CITY	60.52	323.1	10 11	-1				10 47
RAPID CITY	61.07	336.8	10 14	-1				
PASADENA	61.36	319.4	10 17A	0	18 41	5		19 58 SCS
SALT LAKE C.	62.31	328.8	10 23	-1				11 30
MBOUR	62.69	67.2	10 23	-3	18 50	-2		
EUREKA	63.59	325.2	10 32	0				39 30 PKPPKP
FRESNO	64.05	320.7	10 33	-2				
LICK	65.56	320.2	10 45A	0				14 53
BOZEMAN	65.64	332.8	10 45	0				12 57 PP
RENO	65.83	323.1	10 47A	0				
BERKELEY	66.27	320.3	10 49A	0	19 43	6		
BUTTE	66.59	332.2	10 50	-2				11 32
MINERAL	67.41	322.8	10 55A	-2				
UKIAH	67.63	320.9	11 2	4				39 22 PKPPKP
SHASTA	68.10	322.7	10 58A	-3				
HUNGRY HORSE	69.00	333.1	11 4	-3				39 22 PKPPKP
HALLEY BAY	69.14	168.4	11 4	-3				24 51 SS
CORVALLIS	71.05	325.5	11 19A	0				11 50
BYRD STATION	71.59	187.4	11 23	1	20 47	7		38 56 PKPPKP
SEATTLE	72.48	328.4	11 28A	0				
VICTORIA	73.61	328.6	11 33A	-1	21 6	3		
HORSESHOE B.	74.09	329.3	11 35	-2	21 12	4		
SOUTH POLE	78.60	180.0	12 1	-1				38 39 PKPPKP
LISBON	78.77	46.5	12 0K	-3	21 58	-1		
COIMBRA	79.89	45.4	12 0	-9				
MALAGA	81.47	49.9	12 16K	-2	22 26	-1		15 22 PP
GRANADA	82.24	49.7	12 25K	3	22 36	1		15 45 PP
TOLEDO	82.87	47.0	12 24	-1	22 42	0		13 56
ALMERIA	82.97	50.3	12 23	-3	22 40	-3		12 28 PCP
SITKA	84.43	331.4	12 32	-1	23 2	5		29 3 SS
SCOTT BASE	84.62	190.8	12 34	0	23 6	7		15 58 PP

RELIZANE	84.92	52.2	12	34K	-1	23	6	4	14	50		
ALICANTE	84.96	49.4	12	32	-4	22	58	-4				
REYKJAVIK	85.26	20.5	12	34	-3							
TAMANRASSET	85.52	65.8	12	38K	0	23	4	-4	15	54	PP	
CAPE HALLETT	86.49	196.1	12	44	1	23	13	-4	16	4	PP	
RATHFARNHAM	86.64	34.0	12	26	-18	22	58	-21	13	27		
HERMANUS	86.79	124.3				23	17	-3	23	33	SCS	
RESOLUTE	86.90	354.7	12	43A	-2	23	6	-15	16	16	PP	
ALGIERS UNI.	87.15	51.8	12	42	-4	23	21	-3	16	1	PP	
WINDHOEK	87.28	112.3	12	51	4							
JERSEY	87.50	38.8	12	51	3	23	11	-16				
THULE	87.81	1.5	12	50	0	23	42	12	16	20	PP	
BARCELONA	87.82	47.1				23	17	-13				
HONOLULU	88.10	292.0	12	55	4	23	46	14	25	18		
SCORESBY SD.	89.23	15.5	13	0K	4	23	26	-17	24	38	PS	
KEW	89.36	37.0	12	59K	2	23	40	-4	23	22	SKS	
DURHAM	89.76	33.7	13	0K	1	23	44	-4	23	25	SKS	
CLERMONT-FD.	89.77	43.2	13	2	3	23	58	10				
PARIS	90.24	40.1	13	4A	3	24	0	8				
ABERDEEN	90.33	31.3				23	50	-3	23	0		
NEUCHATEL	92.65	42.7	13	14	2	23	44	-30				
KIMBERLEY	92.68	119.9	13	13	1							
DE BILT	92.81	37.4	13	18	5	23	44	-31				
GRAHAMSTOWN	92.98	124.7	13	16	2							
BASLE	93.19	42.3	12	42	-33				21	2		
COLLEGE	93.29	335.8	13	13	-2	24	5	-14	17	1	PP	
STRASBOURG	93.56	41.3	13	20	4	24	16	-5	23	49	SKS	
BENSBERG	93.73	38.9	12	20	-57				12	58		
PAVIA	93.74	44.8							25	38	PS	
WITTEVEEN	93.87	37.0	13	14	-4							
BANGUI	94.08	86.4	13	18	-1				23	45		
MUNSTER	94.24	37.9	13	18	-1							
ERINGEN	94.25	41.8	13	16	-4							
TUBINGEN	94.39	41.5	13	16	-4							
STUTTGART	94.53	41.3	13	18	-3	23	48	-42	25	48	PS	
FLORENCE X.	94.92	46.5	13	27A	4	24	47	14	17	14	PP	
ROMF	95.46	48.5	13	29K	4	24	37	-1	31	18	SS	
JBNA	96.46	39.5	13	27	-3	24	43	-3	17	15	PP	
TOLMEZZO	96.62	44.1	13	32	2				21	26		
PLAUEN	96.74	39.9	13	27	-4				18	4		
HALLE	96.78	38.9	13	34	3	24	7	-42	17	27	PP	
NORD	96.84	7.2	13	29	-2							
TRIESTE	97.00	44.9	13	36	4	24	49	-2	24	6	SKKS	
MESSINA	97.16	52.6	13	25	-8	24	48	-4	17	19	PP	
PIETERMZBURG	97.17	122.1	13	31	-2							
COLLMBERG	97.40	39.2	13	37	3							
COPENHAGEN	97.76	34.8	13	40	5	24	58	1	24	16	SKS	
PRAGUE	98.12	40.6	13	41	4	24	15	-45	22	51		
PRUHONICE	98.18	40.7	13	39	2	24	50	-11	17	26	PP	
TARANTO	98.79	50.5							14	46		
SKALSTUGAN	98.82	26.9	13	42	2							
ROXBURGH	99.29	219.8				24	22	-48	32	18	SS	
BRATISLAVA	99.62	42.7	13	46	2							
UPPSALA	100.98	30.9	13	53	3	25	22	-2	24	23	SKS	
BELGRADE	101.60	46.4	13	56A	3	24	29	-60	27	32		
KRAKOW	101.64	41.0	13	55	2	24	29	-61	16	42		
MIRNY	101.67	175.0				25	21	-9	27	6	PS	
WARSAW	102.45	38.8							19	0		
KIRUNA	102.47	22.8	13	59	2	25	34	-3	18	5	PP	
LWIRO	102.74	95.0	13	59	1	24	42	-57				
LWOW	104.27	41.3	18	21	777	25	56	4	24	41	SKS	
BUCHAREST	105.61	47.0							18	31		
PULKOVO	107.38	30.8				24	55	-2	18	45	PP	
APATITY	107.42	22.5	18	38	777	24	54	-3				
ISTANBUL KA	107.78	50.5				24	57	-2	18	40	PP	
HELWAN	109.43	62.3				25	6	0	19	3	PP	
SIMFEROPOL	111.31	46.2							19	14	PP	
MOSCOW	111.92	34.3							19	18	PP	
KSARA	113.32	58.1	18	44	7	25	38	17	19	51		
TANANARIVE	115.54	117.4							29	31		
RIVERVIEW	117.34	222.2	19	44	59				36	15	SS	
TIKSI	118.19	351.7							20	5	PP	
TIFLIS	119.48	48.5	18	54	5							
BRISBANE	119.70	229.2	20	1	72				30	11	PS	
PETROPAVLOVK	120.70	325.8							30	22	PS	
GORIS	121.05	50.7				25	51	2	30	16	SKSP	
MAGADAN	121.34	334.8							20	28	PP	
YAKUTSK	126.53	346.0	18	57	-6							

ASHKABAD	130.52	49.5	19 9	-1		22 42	PKS
Y.-SAKHLINSK	132.65	325.6	19 17	3		22 42	SKP
PORT MORESBY	133.54	245.2	19 24	8		22 50	
TASHKENT	136.63	40.2				28 32	SKKS
STALINABAD	137.73	44.0	19 25	1			
FRUNSE	138.87	34.8	19 31	5		22 22	
IRKUTSK	139.31	1.0	19 27	1		22 22	PP
OIETTA	139.84	56.5	19 25	-2	26 12 -22	22 20	PP
TUKUBASAN	140.12	314.0	19 21K	-7		22 49	
VLADIVOSTOK	140.95	328.7	19 30	1		22 29	PP
MATUSIRO	141.26	315.7	19 24K	-6		19 34	PKP2
GUAM	141.49	277.2	19 40	10			
WARSAK DAM	141.90	48.5	19 27	-4			
CHANGCHUN	143.43	335.5	19 32	-2			
ULAN-BATOR	143.64	358.2	19 33	-1			
LAHORE	145.11	50.2	19 34	-3		23 3	PKS
BOMBAY	147.81	72.8	19 49	8		42 11	SS
POONA	148.83	73.2	19 44	1		23 8	PP
NAGASAKI	149.08	317.0	19 44	1			
PEKING	149.98	343.2	19 45	0		23 27	PP
KOROR	150.96	264.5	19 54	8			
KODAIKANAL	152.61	89.9	20 13	25			
HYDERABAD	153.32	74.0				30 33	
MADRAS	155.38	83.8	20 23	31		23 59	
LANCHOW	155.46	2.9	19 54	2		24 1	PP
ZO-SE	155.57	325.5	20 0	8			
NANKING	156.05	330.8	19 53	0		23 59	PP
CHATRA	157.08	45.6	20 0	5			
LHASA	157.55	34.2	19 58	3			
CHENGTU	160.87	3.5	20 1	2		24 29	PP
SHILLONG	161.06	40.4	19 58A	-1		20 46	PKP2
LFMBANG	161.68	187.3	20 0A	0		24 28	PP
CHITTAGONG	163.15	48.3	20 9	8			
MANILA	164.44	283.1	19 54	-8			
KUNMING	166.26	10.2	20 6	2		24 55	PP
HONG KONG	166.31	323.0	20 2	-2	27 16 11	24 58	PP
MFDAN	169.76	139.5	20 12	6		20 22	PKP2

APRIL 30 8.H 16.M 48.S EPICENTRE 36.53 70.95 DEPTH= 186.KM
DEPTH OF FOCUS= 0.024R

A= 0.26290 B= 0.76130 C= 0.59271 D= 0.9452 E=-0.3264
G= 0.1935 H= 0.5602 K=-0.8054 HT= -0.4

SE= 1.95

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KHOROG	1.08	28.7	0 31	2	0 53	1		
KULYAB	1.65	326.0	0 35	0	1 0	-1		
OBI-GARM	2.38	335.7	0 42	0	1 12	-3		
KARA-SU	2.49	321.7	0 44	0	1 18	1		
GARM	2.51	348.4	0 44	0	1 16	-2		
WARSAK DAM	2.58	168.8	0 42	-3				
OZHERGETAL	2.69	4.5	0 47	1	1 21	0		
ZIMCHURUD	2.81	323.3	0 47	0	1 21	-3		
MURGAB	3.00	51.4	0 51	1	1 29	1		
FERGANA	3.89	9.4	1 0	-1	1 45	-3		
ANDIJAN	4.35	14.4	1 7	0	1 55	-3		
SAMARKAND	4.43	316.2	1 5	-3	1 54	-6		
NAMANGAN	4.47	7.0	1 8	0	1 59	-2		
LUNACHARSKOE	4.95	345.7	1 14	0	2 8	-4		
TASHKENT	4.95	345.3	1 14	0	2 8	-4		
LAHORE	5.71	149.6	1 23K	-1			2 10	
TCHIMKENT	5.85	350.1	1 26	0	2 29	-4		
NARYN	6.27	37.3	1 31	-1	2 40	-3	3 14	
FRUNSE	6.93	22.7	1 40	0	3 1	3	2 26	
RYBACHE	7.12	32.3	1 43	0	2 59	-4	2 30	
BAIRAM-ALI	7.14	281.2	1 41	-2	2 57	-6	3 57	
QUETTA	7.16	209.0	1 42K	-1	3 0	-4	2 25	*SP
FABRICHNAYA	7.85	30.6	1 52	0				
ALMATA	8.15	32.6	1 57	1			2 43	
PRZHEVALSK	8.27	41.8	1 58	0				
ALMATA-2	8.34	34.3	2 0	1				
DEHRA DUN	8.58	134.2	2 1	-1	3 32	-5	3 43	SS
KURMENTY	8.61	38.7	2 2	0				

ILI	8.76	30.4	2	5	1						
CHILIK	9.06	36.9	2	9	1					2	30
ASHKABAD	10.15	281.8	2	20	-2	4	5	-9			
AGRA	11.13	145.4	2	32K	-3	4	26	-11		4	49 SS
KARACHI	11.18	198.5	2	44	8	4	53	15			
KIZYL-ARVAT	11.88	286.5	2	41	-4	4	21	-33		3	16
CHATRA	16.84	120.5	3	43	-3	6	48	-1			
BAKU	16.92	289.5	3	51	4						
BOMBAY	17.64	174.1	3	56	1	7	9	5		4	44
BOKARO	18.00	130.6	4	0	1	7	12	1			
POONA	18.12	171.1	4	1	1	7	17	4		4	24 PPP
MAKHACH-KALA	19.11	296.9	4	11	0					5	1
GORIS	19.61	286.2	4	17	1					5	9
KIROVOBAD	19.63	289.8	4	16	0					7	48
HOWRAH	20.51	128.0	4	44	19						
TIFLIS	20.90	292.4	4	30	1					5	24
SHILLONG	20.95	115.6	4	30K	1	8	13	6		5	28
SVERDLOVSK	21.45	344.4	4	36	2					5	30
SOTCHI	24.82	296.1	5	10	4				5 47	9	32
ULAN-BATOR	28.70	55.3	6	43	61						
SIMFEROPOL	28.94	298.4	5	43	-1					6	26
MOSCOW	29.60	321.0	5	50	0						
PULKOVO	34.86	324.8	6	36	1					8	18
APATITY	37.57	337.4	6	58	0						
SODANKYLA	39.69	335.0	7	15	0	14	34	89			
UPPSALA	41.02	321.9	7	26A	0				8 6		
KIRUNA	42.04	334.1	7	35A	0						
PRUHONICE	42.23	306.9	7	37	1				8 16	9	18 PP
COLLMBERG	43.14	308.9	7	44	0						
PLAIFN	43.73	307.8	7	46	-2					8	25
HALLE	43.78	309.3	7	49	0				8 49	9	38 PP
JENA	44.06	308.5	7	50	-1				8 48	9	36 PP
SKALSTUGAN	44.16	326.7	7	52	0						
SONNEBERG	44.35	307.7	7	55	2						
TIKSI	45.75	22.0	8	5	1				8 38	9	2
STUTTGART	45.84	305.7	8	6	1					11	4 PPP
KEW	51.37	310.7	8	48	1						
MATUSIRO	52.99	68.5	9	42	43					10	12
NORD	53.76	349.5	9	5	0						
RATHFARNHAM	54.48	314.0	9	5	-5					9	53
LWIRO	55.00	234.9	9	18	4						
TAMANRASSET	57.50	275.6	9	28	-4					10	16
THULE	64.42	350.2	10	14	-4						
RESOLUTE	68.67	356.0	10	44	-1	19	29	-2			
SOUTH POLE	126.35	180.0	19	30	49						

APRIL 30 13.H 54.M 46.S EPICENTRE 38.52 103.99 DEPTH= 0.KM

A=-0.18962 B= 0.76121 C= 0.62017 D= 0.9703 E= 0.2417
G=-0.1499 H= 0.6018 K=-0.7845 HT= -1.1

SE= 1.59

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
WUWEI	1.21	241.5									0	25	PG
YINCHUAN	1.79	90.8									0	36	PG
LANCHOW	2.44	183.2	0	43K	2						0	46	PG
TIENSHUI	4.18	159.6									1	11	PG
PAOTOW	5.10	64.3									1	26	PG
YUMEN	5.68	290.4									1	48	PG
SIAN	5.83	135.4									1	45	PG
CHENGTU	7.84	179.9	1	57	-1								
PEKING	9.57	77.1				4	10	-1					
ULAN-BATOR	9.64	11.8	2	23	0								
KYAKHTA	11.98	7.6	2	55	0								
KABANSK	13.66	7.0	3	18	1								
NANKING	13.70	113.6	3	20	2								
IRKUTSK	13.76	0.9	3	20	2								
LHASA	13.90	234.3	3	20	0								
ZO-SE	15.93	112.5	3	48	1	6	49	5					
SHILLONG	16.48	222.0	3	49K	-5	7	5	8					
CHANGCHUN	16.89	64.9	3	58	-1								
CANTON	17.32	150.0	4	5	1								
PRZHEVALSK	19.83	289.6	4	36	1								
ALMATA	20.94	291.7	4	46	0						9	38	SSS

RYRACHE	21.55	289.4	4 53	0			9 26 SS
FRUNSE	22.66	290.5	5 6	2			
ANDIJAN	24.39	285.3	5 22	2			
LAHORE	25.19	263.0	5 28	0			
KHOROG	25.48	277.8	5 35	4			
WARSAK DAM	26.46	270.2	5 42	2			
TASHKENT	26.66	287.1	5 45	3			
KULYAB	26.80	279.5	5 44	1			
MATUSIRO	27.13	83.4	5 43A	-3			10 48
QUETTA	31.52	266.0	6 26	0	11 35	1	
SVERDLOVSK	33.74	317.2	6 45	0			
TIKSI	35.53	13.3	6 59	-1			
ASHKABAD	35.57	283.7	7 3	2			17 21 SCS
MOSCOW	46.42	314.3	8 30	0			
SODANKYLA	50.34	330.6	9 0	0			
HELSINKI	52.28	321.6	9 14	-1			
KIRUNA	52.61	331.7	9 17A	0			
TRUK	52.99	112.9	9 18	-2			
UPPSALA	55.91	322.5	9 40	-2			
NORD	56.32	351.3	9 43	-1			
HELWAN	59.31	285.4	10 4	-2			
PRUHONICE	61.41	312.7	10 20	0			
RABAUL	61.54	122.3	10 21	0			
HALLE	62.18	315.1	10 23	-2			
JENA	62.66	314.6	10 27	-1			10 50
COLLEGE	62.86	27.1	10 29	-1			
SONNEBERG	63.13	314.2	10 31	0			
THULE	65.23	358.0	9 39	-66			
RESOLUTE	66.39	5.4	10 51A	-1			
TAMANRASSET	82.41	292.9	12 25	0			15 38 PP
HUNGRY HORSE	87.15	24.3	12 48	-1			
SHASTA	90.50	33.4	13 4	-1			
MINERAL	91.12	33.1	13 7	0			
EUREKA	94.17	29.9	13 23	2			
RAPID CITY	94.19	19.3	13 22	0			
BYRD STATION	135.23	170.2	19 19	-2			

APRIL 30 14.H 7.M 59.S EPICENTRE 37.23 -14.11 DEPTH= 0.KM

A= 0.77410 B=-0.19453 C= 0.60243 D=-0.2437 E=-0.9698
G= 0.5843 H=-0.1468 K=-0.7982 HT= -0.7

SE= 2.97

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
LISBON	4.19	67.7	1 5A	-2	1 49	-9		1 54	S*
COIMBRA	5.34	54.5	1 21K	-2	2 19	-7			
MALAGA	7.79	90.8	2 22K	24	3 44	16			
TOLEDO	8.31	68.4	2 1	-4	3 31	-10		2 37	P*
GRANADA	8.38	87.2	2 0A	-6	3 46	3		2 22	PP
ALMERIA	9.31	88.8	2 16A	-3	3 54	-12		2 26	PP
ALICANTE	10.84	79.9	2 37	-3	4 28	-15			
BELIZANE	11.89	92.7	2 51	-3				3 0	PP
BARCELONA	13.25	66.6	2 55	-17					
ALGIERS UNI.	13.72	86.7	3 7	-12	5 38	-15		3 18	PP
CLERMONT-FD.	15.45	51.1	3 37	-4					
PARIS	16.73	41.0	3 55	-3	7 11	7			
RATHFARNHAM	16.97	16.3	3 59K	-2	7 9	0		4 18	PP
KEW	17.27	30.1	4 6	2	7 23	7		4 24	PP
MONACO	17.60	61.7	4 7	-2				4 21	PP
NEUCHATEL	18.37	51.3	4 16	-2				9 38	
OROPA	18.51	56.2	4 19	-1	8 7	23		11 17	
BASLE	18.98	50.3	4 16	-10				10 23	
PAVIA	19.19	58.3	4 29A	1	8 16	17			
DURHAM	19.53	22.1	4 31K	-1	8 8	1			
STRASBOURG	19.56	47.7	4 33K	1	8 4	-4			
EBINGEN	20.10	49.7	4 37	-1	8 32	12			
KARLSRUHE	20.13	47.1	4 41A	2	8 33	13			
DE BILT	20.13	36.3	4 38	-1	8 23	3			
TUBINGEN	20.31	48.9	4 37	-4	8 31	7			
FLORENCE X.	20.32	63.3	4 44A	3	8 55	31		5 11	PP
BENSBERG	20.44	41.1	4 42	0	8 20	-6			
STUTTGART	20.49	48.4	4 40	-2	8 34	7		5 26	PP
BOLOGNA	20.51	61.3	4 49	6	8 30	2		11 46	
ROME	20.98	68.9	4 47A	-1	8 38	1		5 8	PP

MUNSTER	21.25	39.2	4	49	-1				8	51	
WITTEVEEN	21.30	36.4	4	51	0						
ABERDEEN	21.49	18.0							7	8	
TOLMEZZO	22.11	57.0	4	59	0				5	18	PP
TAMANRASSET	22.21	124.9	4	59K	-1	9	7	7	5	19	PP
SONNEBERG	22.37	46.0	5	4	3						
TRIESTE	22.43	59.2	5	1	-1	9	7	3	5	36	PP
JENA	22.83	45.0	5	5	-1	9	19	7	8	9	
MBOUR	22.90	187.1	5	7	0	9	4	-9			
PLAUEN	22.97	46.4	5	6	-1				5	38	PP
HALLE	23.30	44.0	5	12	1	9	23	3	8	24	
MESSINA	23.44	78.5	5	11	-1	9	27	5	5	55	PPP
COLLMBERG	23.80	45.1	5	17	2	9	40	11	7	25	
ZAGREB	23.99	59.6	5	19A	2	9	40	8			
PRAGUE	24.14	48.8	5	20	1				6	31	PP
PRUHONICE	24.18	49.1	5	19	0	9	45	10	6	21	PP
POTSDAM	24.32	42.8	5	21	0	9	47	9	6	31	
BRATISLAVA	25.24	54.4	5	30	1	9	54	1	8	26	
COPENHAGEN	25.73	35.7	5	40A	6	10	6	5			
KALOCSA	26.17	58.7	5	41	3				6	13	PPP
BERGEN	26.27	21.9				10	43	33	12	18	
BUDAPEST	26.39	56.6				10	15	3	6	42	PPP
RACIBORZ	26.44	50.6	5	47	6						
SZEGED	26.92	59.6	6	32	47						
BELGRADE	27.00	62.8	5	46A	0				6	38	PPP
KRAKOW	27.51	51.4	5	48	-2				6	33	PP
TIMISOARA	27.62	60.9	5	32	-19						
WARSAW	28.77	47.3	6	4	2				11	55	
UPPSALA	30.38	31.7	6	15	-1						
SKALSTUGAN	30.83	22.8	6	26	6						
BUCHAREST	31.02	63.9	6	30	8				15	27	
ISTANBUL KA.	33.45	69.8	6	41	-2	12	0	-5			
SCORESBY SD.	33.57	355.2				12	13	7	14	7	
HELSINKI	33.74	34.6	6	47	1						
PULKOVO	36.09	37.0	7	15	9	12	36	-9			
KIRUNA	36.21	21.4	7	6	-1	12	43	-4			
SIMFEROPOL	36.70	62.4	7	11	0	12	54	-1			
HALIFAX	37.63	297.2				13	8	-1			
SODANKYLA	37.86	24.3	7	20	-1						
HELWAN	38.28	87.4	7	25	1	13	19	0			
MOSCOW	39.07	44.8	7	35	4						
APATITY	40.25	26.0	7	46	5						
KSARA	40.45	79.4	7	44	2	13	51	-1	9	18	PP
SOTCHI	40.87	63.7	7	44	-2						
BERMUDA	41.41	278.8	7	51	1	14	7	1	17	16	SS
SHAWINIGAN	43.74	301.5	8	13	4						
NORD	44.51	359.5	8	13	-2						
BREBEUF	44.52	300.2	8	16K	1						
TIFLIS	44.93	65.2	8	19	0						
THULE	45.92	344.5	8	21	-5	15	8	-3			
OTTAWA	45.98	300.5	8	43	16						
MAKHACH-KALA	46.55	62.8	8	36	5						
SAN JUAN	49.06	262.2	8	49	-2						
RESOLUTE	52.07	340.6	9	10K	-4	16	33	-4	19	5	SCS
LWIRO	55.90	124.8	9	48	6						
FAYETTEVILLE	62.31	295.7	10	22A	-5						
NAMANGAN	64.02	57.1	10	43	5						
RAPID CITY	64.74	307.2	10	40	-3				11	32	
QUETTA	65.87	69.6	10	48	-2	19	31	-6	20	41	SCS
WARSAK DAM	67.32	63.9	10	57A	-2						
LARAMIE	67.62	305.5	11	2	1						
HUNGRY HORSE	69.08	315.3	11	7	-3						
BUTTE	69.50	312.6	11	12	-1						
LAHORE	70.59	64.8	11	15	-4						
SALT LAKE C.	71.93	307.7	11	25	-2				11	48	
COLLEGE	71.99	341.1	11	27	-1						
LA PAZ	73.75	234.0	11	37	-1	21	10	1			
EUREKA	75.26	308.4	11	46	-1						
HUANCAYO	75.47	242.3	11	49A	1						
TUCSON TELE.	75.94	299.9	11	50	-1				12	32	
IRKUTSK	76.01	33.8	11	57	6						
TUCSON	76.07	299.9	11	51	0						
CORVALLIS	76.47	316.0	11	53	-1						
BOULDER CITY	76.59	305.0	11	53	-1						
RENO	77.59	310.3	12	4	4						
MINERAL	78.16	311.9	12	2	-1						
SHASTA	78.41	312.5	12	2	-2						
PASADENA	79.88	305.2	12	11	-1	22	14	-2			
LICK	80.08	309.5	12	14	1						

ULAN-BATOR 80.26 35.8 12 22 8

SOUTH POLE 127.04 180.0 19 5 -2
PORT MORESBY 147.52 36.2 19 57 13
CHARTERS TS. 155.76 50.3 20 17 21

APRIL 30 19.H 27.M 34.S EPICENTRE -21.15 -68.26 DEPTH= 119.KM

DEPTH OF FOCUS= 0.014R

A= 0.34573 B=-0.86707 C=-0.35869 D=-0.9289 E=-0.3704
G=-0.1328 H= 0.3332 K=-0.9335 HT= 4.4

SE= 1.98

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
LA PAZ	4.63	1.6	1 12	3	2 5	3		
TALA POZO	7.58	152.0	1 46	-3				1 51 PP
HUANCAYO	11.30	322.1	2 38	0	5 17	34		
BOGOTA	26.23	346.8	5 26	1	9 50	3		5 54 PP
CHINCHINA	26.94	343.6	5 30	-2	9 59	1		5 56 PP
GRENADA	33.61	11.6	6 32	2				
ST. VINCENT	34.79	12.0	6 39	-2				
BARBADOS	35.10	14.8	6 45	2				
FORT FRANCE	36.33	11.7	6 52	-2				
SAN JUAN	39.34	3.2	7 15	-4			7 41	
TACUBAYA	50.41	321.0	8 41	-6				
BERMUDA	53.34	3.8	9 38	29				16 26
MORGANTOWN	61.44	349.7	10 7	1			10 35	
FAYETTEVILLE	61.99	336.3	10 6K	-3	18 22	0		10 35 *SP
BYRD STATION	62.93	188.8	10 16	0			10 46	12 32 PP
LUBBOCK	63.15	328.8	10 16	-1				
WESTON	63.27	357.5	10 17K	-1				
øREBEUF	66.51	355.9	10 38K	-1				11 7 PCP
OTTAWA	66.57	354.3	10 38K	-1				11 6 PCP
TUCSON	66.92	321.5	10 41	0			11 8	
TUCSON TELE.	66.92	321.6	10 41	0			11 10	11 23 *SP
SEVEN FALLS	67.99	358.1	10 48	0	19 41	5		11 6 PCP
SOUTH POLE	68.98	180.0	10 54	0				39 0 PKPPKP
BOULDER	69.98	330.5	10 59	-1				
LARAMIE	71.13	331.1	11 10	3				
BOULDER CITY	71.90	321.7	11 12	0			11 41	
RAPID CITY	72.37	334.3	11 14	0			11 44	11 58 *SP
PASADENA	72.65	318.3	11 16K	0	20 38	8	11 46	11 36 PCP
SALT LAKE C.	73.73	326.9	11 22	0			11 52	
EUREKA	74.99	323.6	11 30	1			12 0	12 15 *SP
FRESNO	75.38	319.5	11 31	-1				
SCOTT BASE	76.28	190.3	11 38	1				
LICK	76.87	318.9	11 41K	1			12 10	
RENO	77.21	321.6	11 43K	1				
BERKELEY	77.59	319.0	11 46K	2			12 15	
BUTTE	77.98	330.2	11 47	1			12 16	
MINERAL	78.78	321.3	11 50K	-1			12 20	
CAPE HALLETT	78.90	195.4	11 52K	1				
UKIAH	78.96	319.5	11 51	-1			12 21	
SHASTA	79.46	321.2	11 53K	-1			12 23	
HUNGRY HORSE	80.38	331.0	12 6	7			12 29	
CORVALLIS	82.45	323.8	12 11K	1			12 42	
IAMANRASSET	84.11	63.0	12 20K	2	22 28	-3	12 51	15 40 PP
VICTORIA	85.03	326.8	12 22K	-1			12 44	
HORSESHOE B.	85.51	327.5	12 25K	0				
ALGIERS UNI.	88.49	49.5			23 1	-12		
RATHFARNHAM	91.36	32.0	12 52	-1				
MIRNY	91.44	172.6	12 54	1				
KEW	93.47	35.5			23 28	-29		
LWIRO	95.78	94.6	13 17	4				
RESOLUTE	97.12	353.1	13 19A	0	24 36	7		30 55 SS
STUTTGART	97.75	40.7	13 18	-4				
PRUHONICE	101.45	40.8						17 49 PP
COLLEGE	104.60	334.3	13 52	-1				
PULKOVO	112.32	32.7						28 26 PS
CHARTERS TS.	126.96	221.8	18 52	3				
ASHKABAD	131.28	57.6						22 18 PKS
YAKUTSK	137.31	347.6						22 39 PKS
QUETTA	138.86	68.0	19 10	-2			19 46	22 1
TRUK	138.96	256.7	19 15	3				

WARSAK DAM	142.38	61.4	19	16	-2							
LAHORE	145.06	64.9	19	25	2			19	55			
GUAM	147.62	261.8	19	28	1			20	3			
IRKUTSK	148.41	8.7	19	33	5			20	5			
SENDAI	149.64	310.6	19	39	9					20	10	
TUKUBASAN	151.07	307.4	19	40A	8							
LEMBANG	151.90	171.3	19	34K	0					23	20	PP
MATUSIRO	152.31	309.4	19	37A	3					20	24	
ULAN-BATOR	153.01	7.2	19	38	3							
SHILLONG	161.24	72.6	19	48K	3					20	33	

MAY 1 0.H 29.M 22.S EPICENTRE -13.83 167.24 DEPTH= 243.KM

DEPTH OF FOCUS= 0.033R

A=-0.94740 B= 0.21450 C=-0.23752 D= 0.2208 E= 0.9753
G= 0.2317 H=-0.0524 K=-0.9714 HT= 6.0

SE= 2.02

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
NOUMEA	8.44	195.0	1	59	-1	3	35	1					
SUVA	11.58	113.2	2	41A	2	5	0	15			3	29	
RABAUL	17.68	301.4	3	52	0	7	7	9			8	46	
BRISBANE	18.98	222.1	4	6K	1	7	32	9					
PORT MORESBY	20.16	280.4	4	17	0	8	0	15	5	2	9	17	*SS
AFIAMALU	20.38	92.7	3	26	-53	7	56	8	3	56	4	25	PP
CHARTERS TS.	20.98	250.1	4	27K	2	8	5	6					
ONERAHI	22.77	164.3	4	45	3								
AUCKLAND	23.92	164.9	4	54	1						10	12	
RIVERVIEW	24.70	213.5	5	1	1	9	9	7					
KARAPIRO	25.10	164.4	5	5A	1				5	51	8	33	PCP
TRUK	26.10	323.3	5	14	1	9	33	8			8	37	PCP
TONGARIRO	26.31	165.4	5	15A	0				5	59			
TUAI	26.37	162.4	5	9	-7	9	28	-1					
COBB RIVER	27.57	171.0	5	30	3								
WELLINGTON	28.12	167.9	5	30	-2	9	59	2					
GEBBIES PASS	30.13	172.2	5	48	-1	10	31	2			8	46	PCP
MELBOURNE	31.04	215.6	5	58A	1	10	47	4	6	41	7	4	PP
ROXBURGH	31.67	177.2	6	1A	-2	10	55	2					
FORT NELSON	33.69	206.8	6	21	1	11	32	8					
KOROR	38.72	300.9	7	3	1				7	46	9	12	PP
HONOLULU	48.75	44.9	8	20	-2	15	8	3	9	12	16	30	*SS
KIPAPA	48.89	44.8	8	22	-1				9	13	13	21	PCS
TORISIMA	51.12	329.8	8	37	-3	15	37	0					
BAGUIO CITY	55.04	301.6	9	8	0	16	35	5					
MISIMA	55.59	331.9	9	9	-3								
TOKYO C.M.O.	55.69	332.9	9	28	15						14	17	
DUMONT	55.81	192.7	9	14	0						10	3	PP
KAKIOKA	55.97	333.6	9	18	3								
HUNATU	55.98	332.0	9	14	-1								
KOHU	56.18	331.9	9	17	0								
KUMAGAYA	56.25	332.9	9	16	-1								
UTUNOMIYA	56.37	333.6	9	16	-2								
YAKUSIMA	56.47	321.7	9	4	-15								
NAGOYA	56.56	330.3	9	17	-2								
MAEBASI	56.60	332.9	9	22	3						9	42	
SHIRAKAWA	56.70	334.2	9	18	-2								
OIWAKE	56.77	332.4	9	26	5								
GIHU	56.84	330.3	9	20	-1						10	0	
TOKUSIMA	56.88	327.7	9	21A	0								
SUMOTO	56.94	328.1	9	22	0				10	11	11	2	PP
MATUMOTO	56.97	331.9	9	22	0								
HIKONE	56.99	329.8	9	24	2								
MIYAZAKI	56.99	323.6	9	23	1								
IBUKISAN	57.01	330.0	9	21	-1								
KOTI	57.03	326.5	9	23	0								
KYOTO	57.04	329.3	9	21	-2	17	1	4					
KOBE	57.05	328.6	9	21	-2	17	2	5					
MATUSIRO	57.10	332.3	9	22A	-1	16	54	-3	10	8	13	56	SCP
HIKUSIMA	57.14	334.8	9	23	0								
ISINOMAKI	57.37	335.9	9	25	0								
SENDAI	57.41	335.5	9	25	0						10	22	
HIKUI	57.60	330.4	9	28	1								
TOYAMA	57.69	331.6	9	29	2								
OOITA	57.84	324.8	9	28	0								

NIIGATA	57.88	333.8	9	36	8						
TOYOOKA	57.90	328.9	9	28K	-1	17	12	4			
MIZUSAWA	58.05	336.2	9	28	-2						
KUMAMOTO	58.06	323.8	9	28	-2						
HIROSIMA	58.25	326.3	9	28	-3						
SAKATA	58.38	335.0	9	34	2					9	54
NAGASAKI	58.47	323.1	9	33	0						
CAPE HALLETT	58.48	178.9	9	34A	1	17	22	7		11	7 PP
BANDUNG	58.90	270.2	9	30	-6	17	19	-2			
LEMBANG	58.95	270.3	9	35A	-1	17	26	5			
AKITA	58.97	335.8	9	36	0						
AOMORI	59.65	336.9	9	42	1						
DJAKARTA	59.85	270.8	9	38	-4	17	35	2			
URAKAWA	60.09	339.2	9	44	0						
OBIHIRO	60.63	339.9	9	47	0						
TOMAKOMAI	60.83	338.5	9	51	2						
MORI	60.83	337.5	9	50	1	17	46	1			
KURILSK	61.35	344.5	9	52	0	17	56	4	10	45	
SAPPORO	61.40	338.6	9	52	0					11	44 PP
70-SE	62.87	316.0	10	0A	-2	18	13	2	10	46	12 27 PP
HONG KONG	63.20	304.0	10	5A	1	18	22	7	10	55	19 31 *SS
SCOTT BASE	64.03	180.1	10	10K	0	18	40	15			13 51 PP
CANTON	64.30	304.3	10	13A	2	18	45	17	10	54	11 19 *SP
WILKES	64.32	202.1	10	32	20	18	29	0	11	4	19 42 *SS
Y.-SAKHLINSK	64.38	341.6	10	12	0	18	34	5			
NANKING	65.05	315.5	10	17A	1	18	42	4	11	3	12 43 PP
VLADIVOSTOK	65.27	332.2	10	18	0	18	47	7	11	9	10 53 PCP
PETROPAVLOVK	67.09	354.4	10	28	-1	19	4	2	11	17	12 59 PP
OASIS-BUNG.	68.02	203.7	10	35	0	19	18	5	11	24	20 8 SCS
MEDAN	70.15	279.0	10	48A	0	19	42	4			
MIRNY	71.14	204.0	10	54	0	19	57	8	11	43	11 12 PCP
PEKING	71.55	321.0	10	48A	-8	19	59	5	11	47	12 6 *SP
SIAN	73.17	312.6	11	10	4	20	20	8	11	54	21 40 *SS
BYRD STATION	73.58	170.0	11	7	-1	20	19	2	12	3	11 23 PCP
KUNMING	73.83	301.5	11	11A	1	20	27	7	11	58	12 19 *SP
MAGADAN	74.33	351.4	11	12	0	20	28	3			22 15
CHENGTU	75.14	307.3	11	18	1	20	38	4	12	4	21 43 PS
SOUTH POLE	76.26	180.0	11	24	1						
PORT BLAIR	78.10	285.2	11	12	-21	20	52	-14			
YAKUTSK	81.15	343.1	11	49	-1	21	40	3	12	38	23 3 PS
CHITTAGONG	82.16	295.3	11	57	2	21	54	6			
MAWSON	82.69	202.0	11	59	1						
SHILLONG	83.13	298.3	11	51A	-9	22	4	7			14 48 PP
UKIAH	83.41	47.2	12	2	1				12	53	13 18 *SP
BERKELEY	83.60	48.6	12	2A	0	21	54	-8	12	52	15 18 PP
LICK	83.85	49.3	12	4A	1				12	55	38 20 PKPPKP
SHASTA	84.61	46.0	12	7A	0				12	58	38 20 PKPPKP
FRESNO	85.01	50.4	12	9A	0				13	1	38 19 PKPPKP
SITKA	85.02	27.5	12	10	1	22	12	-4	13	0	28 58 PKKP
MINERAL	85.03	46.6							12	59	38 18 PKPPKP
LHASA	85.14	301.9	12	12A	2				13	2	13 24 *SP
IRKUTSK	85.16	326.7	12	9A	-1	22	20	3	12	56	
CALCUTTA	85.27	294.4	12	13	3	22	29	11			
PASADENA	85.33	53.3	12	11A	0	22	5	-14	13	0	15 31 PP
COLLEGE	85.48	17.6	12	10	-1	22	15	-5	12	59	29 22 PKKP
CORVALLIS	85.56	42.2	12	12A	0				13	6	
RENO	86.00	47.8	12	15A	1				13	5	
VICTORIA	87.11	38.5	12	19A	0						
CHATRA	87.54	298.2	12	19	-2	22	30	-10			
BOKARO	87.88	295.0	12	23	0	22	30	-13			
BOULDER CITY	88.52	52.5	12	26	0				13	17	30 8 PKKP
EUREKA	88.77	48.9	12	28	1				13	18	15 59 PP
TIKSI	89.07	348.6	12	28	-1	22	57	3	13	19	15 52 PP
COLOMBO	89.09	277.3	12	26	-3	22	44	-10			
MADRAS	90.26	283.2	12	40	6	22	56	-9			15 56 PP
TUCSON	90.60	57.0	12	36	0	23	17	9	13	27	30 2 PKKP
TUCSON TELE.	90.72	57.0	12	37	1				13	28	30 23 PKKP
SALT LAKE C.	92.17	48.6	12	43	0				13	35	38 12 PKPPKP
KODAIKANAL	92.18	279.9	12	42A	-1	22	51	-30			17 36 PPP
HUNGRY HORSE	92.88	40.9	13	45	59				14	36	30 56 PKKP
HYDERABAD	92.93	287.1	12	49	2	23	6	-22			24 31 PPS
BUTTE	93.15	43.4	12	47	-1				13	38	14 57
LARAMIE	96.90	49.3	13	19	14						
POONA	97.45	287.2	13	8	1	24	6	0			16 8 PP
TACUBAYA	97.78	72.0									17 38 PP
LUBBOCK	98.26	57.5				23	30	-43			17 11 PP
BOMBAY	98.48	287.4	13	13	1	23	40	-35			16 25 PP
RAPID CITY	99.16	46.9	13	15	0				14	7	29 36 PKKP

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

LAHORE	99.54	300.2	13	16	-1						
VERA CRUZ	100.58	72.7								17	48 PP
FRUNSE	101.20	311.5	13	24A	0	23	45	8	14 14	17	33 PP
WARSAK DAM	102.25	302.2	13	28	-1						
TASHKENT	104.93	309.5	13	40	0	23	57	6		18	2 PP
STALINABAD	105.05	306.6	13	42	777	23	58	2			
RESOLUTE	105.32	15.8	13	41A	777	25	10	4		18	16 PP
QUETTA	105.61	297.8	13	44A	777	25	26	18	14 31	17	54 PP
KHEYS	107.79	350.5	13	47	777	25	7	8		18	20 PP
THULE	111.14	12.1	14	6	777					18	55 PP
NORD	112.18	0.6	14	5	777					18	53 PP
TANANARIVE	112.27	242.7	18	10K	4					18	56 PP
HUANCAYO	112.86	109.6	18	12	4					19	13 PP
ASHKABAD	113.21	305.5	18	5A	-3					28	26 PS
COLUMBIA	115.53	58.8	18	15	2						
CHINCHINA	117.51	91.6	18	18	1					21	24
LA PAZ	117.55	117.1	18	20	3					28	50 PS
APATITY	118.53	341.6	18	19	0	24	53	4			
OTTAWA	118.66	45.7	18	20A	1					21	37 PKS
BOGOTA	118.93	92.4	18	23	4					19	44
GRAHAMSTOWN	119.95	217.8	18	6	-15						
BREBEUF	120.10	45.2	18	22A	0					21	39
SHAWINIGAN	120.46	43.9	18	23A	1					21	37 PKS
SODANKYLA	120.63	343.4	18	23	0						
PALISADES	120.66	50.4	14	46	777					19	50 PP
SEVEN FALLS	121.62	42.9	18	25	0	26	28	88		29	38 SKKS
KIRUNA	121.89	345.8	18	26A	1					19	58 PP
HARVARD	122.14	48.3	17	46	-40						
WESTON	122.34	48.4	18	28K	2	23	53	-69			
GORIS	122.45	308.1	18	29	3					20	14 PP
SCORESBY SD.	123.10	3.7	18	29	1					20	8 PP
MOSCOW	123.11	328.7	18	29	1					20	12 PP
TIFLIS	123.20	311.0	18	30	2						
PRETORIA	124.00	225.5	18	10	-19						
KIMBERLEY	124.24	220.3	18	0	-30						
PULKOVO	124.33	335.3	18	32	2	25	20	12	19 25	20	17 PP
HELSINKI	126.14	337.7	18	34	1						
HALIFAX	127.18	44.0								21	39
SKALSTUGAN	127.31	346.2	18	37A	1						
SAN JUAN	128.68	77.4	18	40	2				20 0	21	40 PP
UPPSALA	128.91	340.8	18	38A	-1					21	58 PKS
BERMUDA	129.31	59.4	18	40	0	26	6	43		20	50 PP
REYKJAVIK	129.36	5.2	18	42A	2					22	5 PKS
SIMFEROPOL	129.70	317.7							19 33	20	53 PP
KSARA	131.76	303.1	18	41	-3	25	33	4	19 35	21	6 PP
IASI	132.74	323.1	18	48	2					21	10
WARSAW	133.15	332.0	18	49A	2				19 10	21	17 PP
FORT FRANCE	133.16	82.7	18	42	-5					21	58
LWOW	133.22	327.9	18	41	-6					22	11 PKS
WINDHOEK	133.48	219.4	18	32	-15					18	51
COPENHAGEN	133.91	340.4	18	49	1					21	33 PP
ISTANBUL KA.	134.65	314.9	18	50	0					23	15 *SPP
ASTRIDA	134.82	252.0	18	40	-10					22	6
UVIRA	135.04	250.6	18	44	-6					22	9
BUCHAREST	135.05	320.5	18	52	2				19 54	21	12
KRAKOW	135.12	330.4	18	46	-4				19 7	21	29 PP
CAMPULUNG	135.26	322.1	18	54	3						
RUMANGABO	135.66	253.5	17	58	-53					31	35
LWIRO	135.81	252.0	18	43	-9					34	55 *SPP
RACIBORZ	135.92	331.6	18	53	1					21	36 PP
ABERDEEN	135.99	351.7	19	42K	50	26	20	43		21	35 PP
HELWAN	136.36	298.9	18	55	2					22	5 PP
TIMISOARA	137.19	324.8	18	59	5					22	40
HALLE	137.48	326.1	18	59	-10				19 48	21	42 PP
SZEGED	137.48	326.1	18	59	4						
PRAGUE	137.60	334.1	18	51	-4					22	8 SKP
PRUHONICE	137.61	333.9	18	44	-11				19 23	21	45 PP
SOFIA	137.66	319.9	18	47	-8					22	46
BRATISLAVA	137.77	330.3	18	57	2				19 58	22	13 PP
JENA	138.07	337.0	18	47	-9				19 42	21	43 PP
WITTEVEEN	138.14	342.4	18	59A	3					21	50 PP
PLAUEN	138.20	336.2	18	46	-10					21	43 PP
DURHAM	138.23	350.3	18	57A	1				19 55	22	14 PP
MUNSTER	138.59	341.0	18	49	-8					18	59
SONNEBERG	138.66	336.8	18	50	-7				19 42	21	49 PP
DE BILT	139.20	343.1	18	58A	0				19 52	21	52 PP
BENSBERG	139.60	340.6	18	52A	-7					20	26 *SPKP
ATHENS	139.72	313.4	18	52K	-7					21	56

ZAGREB	139.95	328.5	19	0	1					22	38 PKS
RATHFARNHAM	140.29	353.9	18	55K	-5			19	53	22	1 SKP
STUTTGART	140.73	337.0	18	55	-6			19	45	22	2 PP
KARLSRUHE	140.82	337.9	19	2	1					22	12 PP
TUBINGEN	140.97	336.9	18	56	-6					22	9 PP
KEW	141.14	347.6	18	58A	-4			19	56	22	8 SKP
TRIESTE	141.17	330.0	18	58	-4			20	4	21	57 PP
EBINGEN	141.30	336.7	18	56	-6						
RAVENSBURG	141.37	335.7	18	57	-5						
STRASBOURG	141.42	338.1	18	58	-4			19	51	22	10 PP
ZURICH	142.11	336.3	19	1	-2						
CHUR	142.15	334.9	19	0K	-4					22	10 PP
BASLE	142.36	337.3	19	3K	-1					24	45
PARIS	142.92	343.2	19	3	-2	25	48 0				
NEUCHATEL	143.04	337.4	19	4	-1					22	13 PP
PAVIA	143.63	333.5	19	6A	0					22	20 PKS
JERSEY	143.67	348.2	19	12	6					22	43
FLORENCE X.	143.76	330.1	19	3	-3			19	25	22	21 SKP
OROPA	143.79	335.1	19	4	-2					21	55
ROME	144.49	326.8	19	8A	0			19	47	21	55 PKS
REGGIO CALA.	145.09	319.0	19	10A	1						
MESSINA	145.09	319.2	19	9	0			19	51	22	33 PP
CLERMONT-FD.	145.45	340.3	19	11A	2					22	35 PP
MONACO	145.54	333.8	19	10	1					19	20
LUANDA	145.78	230.3	19	12A	2						
BARCELONA	149.61	337.5	19	25	10						
TORTOSA	150.72	339.2	18	56	-21					24	11 PP
SERRA PILAR	152.56	353.2	19	23A	3						
TOLEDO	152.94	345.2	19	24A	4			20	18	23	19 PP
ALGIERS UNI.	153.13	331.1	19	19	-2			20	12	23	16 PP
ALICANTE	153.26	338.2	19	13	-8	25	59 -3			19	37 PKP2
LISBON	155.00	353.3	19	25K	2					23	24 PP
RELIZANE	155.11	333.6	19	23A	0					23	25 PP
ALMERIA	155.30	340.0	19	27	3	26	11 7	20	14	23	29 PP
GRANADA	155.35	342.3	19	29A	5	25	45 -19			22	47 PP
MALAGA	156.01	343.3	19	24A	-1					23	34 PP
TAMANRASSET	160.51	299.8	19	33A	3			20	30	23	55 PP
MBOUR	175.88	81.9	19	44	4	26	33 16				

MAY 1 9.H 31.M 44.S EPICENTRE -0.14 120.02 DEPTH= 0.KM

A=-0.50032 B= 0.86583 C=-0.00244 D= 0.8658 E= 0.5003
G= 0.0012 H=-0.0021 K=-1.0000 HT= 7.2

SE= 2.31

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LEMBANG	14.04	241.5	3	23	1						8	26	
BANDUNG	14.05	241.2	3	23	1	6	7	7					
DJAKARTA	14.47	245.3				5	58	-12			4	35	
MANILA	14.66	3.7	3	33	3	6	8	-6					
KOROR	16.22	62.5	3	53	3								
MEDAN	21.65	280.0	4	54	0	8	55	6					
HONG KONG	23.02	346.0	5	9	2	9	20	6					
CANTON	23.99	344.6	5	20	3	9	32	1					
PHU-LIEN	24.59	328.6	5	27	4								
KUNMING	30.14	327.4	6	14	1								
ZO-SE	31.09	1.9	6	21	-1	11	28	1					
NANKING	32.04	358.0	6	33	3	11	45	3					
CHENGTU	34.20	335.0	6	48	-1								
CHITTAGING	35.42	311.0									8	28	PP
SHILLONG	37.32	315.3	7	14A	-1								
LANCHOW	39.06	339.0	7	30	0								
PEKING	40.13	355.4	7	39	0	13	49	3					
LHASA	40.50	319.5	7	42	0								
BRISBANE	41.74	133.4	7	54K	2						14	10	
CHANGCHUN	44.03	5.5	8	8	-3								
VLADIVOSTOK	44.37	12.4	8	12	-1								
ULAN-BATOR	49.21	348.4	8	50	-2								
BOMBAY	50.02	295.0				16	12	3			18	56	SS
LAHORE	53.48	310.5	9	32	8								
WARSAK DAM	56.67	311.9	9	46K	-1								
QUETTA	58.73	305.9	9	59	-3	18	2	-4			19	49	SCS
NAMANGAN	59.90	319.2	10	8	-2								
KARAPIRO	63.30	133.1	10	33	0								
TIKSI	71.88	2.9	11	23	-3	20	41	-6					

SVERDLOVSK	73.87	330.5	11	36	-2	21	7	-3			
TIFLIS	79.09	312.5	12	7	0	22	8	1			
MOSCOW	85.82	325.8	12	40	-2						
SOUTH POLE	89.86	180.0	13	1	-1						
PULKOVO	89.97	329.6							25	0	PS
COLLEGE	91.05	25.3	13	4	-3				16	30	PP
SODANKYLA	91.44	337.3	13	7	-2						
BYRD STATION	94.93	171.3	13	27	2						
UPPSALA	96.34	330.3							17	48	PP
RESOLUTE	102.73	9.0	13	58	-2				33	32	SS
HUNGRY HORSE	113.17	36.0	19	5	26						
EUREKA	115.75	45.4	18	45	1						
RAPID CITY	121.79	35.5							20	47	

MAY 1 12.H 33.M 41.S EPICENTRE 26.48 140.51 DEPTH= 441.KM

DEPTH OF FOCUS= 0,064R
A=-0.69165 B= 0.56999 C= 0.44354 D= 0.6360 E= 0.7717
G=-0.3423 H= 0.2821 K=-0.8963 HT= 2.9

SE= 1.80

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HATIDYOZIMA	6.62	355.1				2	55	-7				
OSIMA	8.32	353.6	2	0	-1	3	30	-6				
MERA	8.43	356.2	2	4	2	3	32	-6				
MISIMA	8.71	351.5	2	1	-4	3	37	-6				
YOKOHAMA	8.95	355.5	2	21	13	3	48	0				
KAMEYAMA	9.03	338.4	2	9	0	3	49	-1				
HUNATU	9.11	351.0	2	50	41	3	47	-4				
TOKUSIMA	9.13	327.3	2	13	3	3	56	4				
NAGOYA	9.18	341.5	2	9	-1	3	51	-2				
TOKYO C.M.O.	9.19	356.1	2	5	-5	3	48	-5				
OSAKA	9.20	333.4	2	12	2	3	53	0				
TYOSI	9.21	1.7				3	52	-2				
SIMOTO	9.22	329.6	2	11	0	3	54	0				
KOHU	9.27	350.1	2	12	1	3	51	-4				
KOTI	9.28	321.0	2	11	0	3	56	1				
IIDA	9.30	346.3				3	51	-4				
KYOTO	9.45	335.4	2	12	-1	3	57	-1				
GIHU	9.45	341.1	2	13	0	3	56	-2				
HIKONE	9.49	338.4	2	16	2	4	2	3				
TITIBU	9.54	353.0	2	40	26							
IBUKISAN	9.55	339.2	2	15	1	3	59	-1				
KUMAGAYA	9.68	354.6	2	13	-3	4	3	0			4	50
KAKIOKA	9.72	358.4	2	15	-1	3	59	-5				
MITO	9.87	359.8				3	54	-13				
OIWAKE	9.96	350.8	2	20	1							
MAEBASI	9.96	353.3				4	14	5			4	0
MATUMOTO	9.97	348.1	2	19	0	4	7	-2				
UTUNOMIYA	10.05	357.1	2	16	-4	4	3	-8				
HUKUI	10.20	340.2				4	13	-1				
MATUSIRO	10.22	349.6	2	18	-4	4	7	-7			4	20
ODITA	10.23	313.2	2	24	2	4	19	5				
TOYOOKA	10.25	333.0	2	23	1	4	15	0				
NAGANO	10.34	349.6	2	24	1	4	13	-4				
ONAHAMA	10.44	1.7				4	15	-3				
HIROSIMA	10.50	320.4	2	23	-2	4	19	-1				
TOYAMA	10.57	345.3				4	19	-2			3	48
SHIRAKAWA	10.61	358.7				4	23	1				
SAGA	11.13	309.7	2	35	3	4	38	5				
NAGASAKI	11.14	306.5	2	33	1	4	38	5				
HUKUSIMA	11.23	359.8	2	31	-2	4	31	-4				
HUKUOKA	11.24	311.4	2	36	3	4	42	7				
YAMAGATA	11.73	359.4	2	38	-1	4	42	-3				
SENDAI	11.76	1.5	2	36	-3	4	43	-2				
ISINOMAKI	11.93	3.1	2	51	10	4	57	8				
SAKATA	12.39	357.5				5	3	5				
MIZUSAWA	12.62	2.2				5	4	2				
MIYAKO	13.19	5.0	2	54	0	5	15	1				
MORIOKA	13.19	2.2	2	53	-1	5	14	0				
AKITA	13.20	358.6				5	16	2				
AOMORI	14.30	0.8	3	6	0	5	41	6				
URAKAWA	15.74	6.2	3	21	0	6	19	17				

SAPPORO	16.56	2.2	3 32	3	6 21	3				
ZO-SE	17.55	289.7	3 37	-2	6 36	0				
VLADIVOSTOK	18.02	339.3	3 43	-1	6 51	7			6 51	
Y.-SAKHLINSK	20.50	4.3	4 6	-2	7 33	7			7 33	
CHANGCHUN	21.25	328.4	4 14	-1	7 48	9				
TRUK	21.77	148.3	4 18	-1	8 22	34				
HONG KONG	24.33	265.8	4 43	0	8 34	4				
CHENGTU	32.23	286.1	5 52	0						
LANCHOW	32.62	296.1	5 55	0						
ULAN-BATOR	33.87	318.1	6 5	-1						
KUNMING	34.02	276.1	6 8	1						
SHILLONG	43.51	280.0	7 24K	-1						
LHASA	43.51	286.0	7 26	1						
BRISBANE	54.99	166.4	8 50K	-1						
LAHORE	57.32	291.9	9 6	-1						
NAMANGAN	57.68	303.3	9 10	1						
COLLEGE	58.57	28.4	9 14	-1			10 48		11 24	*SP
WARSAK DAM	59.05	295.3	9 16K	-2						
SVERDLOVSK	62.80	322.5	9 42	-1						
QUETTA	63.80	292.2	9 49K	-1						
KARAPIRO	72.00	151.5	10 40	0					12 6	
APATITY	72.04	337.3	10 39	-1						
RESOLUTE	73.00	13.2	10 44K	-1						
TONGARIRO	73.07	152.2	10 43	-3						
SODANKYLA	74.42	338.4	10 53	0						
THULE	75.79	6.7	11 0	-1						
CORVALLIS	76.04	47.1	11 5	3						
KIRUNA	76.12	340.2	11 2	-1						
SHASTA	78.24	50.4	11 15	1						
MINERAL	78.93	50.5	11 18	0						
HELSINKI	78.99	332.6	11 17	-1						
BERKELEY	79.52	53.0	11 23	2						
HUNGRY HORSE	80.15	40.7	11 25	1						
LICK	80.19	53.2	11 26	1						
RENO	80.52	50.6	11 28	2						
SKALSTUGAN	81.46	339.2	11 29	-2						
UPPSALA	82.11	334.7	11 33	-2						
EUREKA	83.18	49.3	11 41	1			13 19			
PASADENA	84.15	54.8	11 46	1						
SALT LAKE C.	85.28	46.6	11 51	1						
BOULDER CITY	85.67	51.9	11 54	2						
RAPID CITY	88.78	40.3	12 8	1						
PRUHONICE	90.06	328.5	12 13	0						15 53 PP
TUCSON	90.43	53.4	12 16	1						
TUCSON TELE.	90.46	53.3	12 16	1						
JENA	90.74	330.5	12 14	-2						
MUNSTER	91.65	333.0	12 21	1						
STUTTGART	93.37	330.1	12 28	0						
STRASBOURG	94.15	330.7	12 32	0						
PARIS	96.18	333.6	12 41	0						
SOUTH POLE	116.33	180.0	17 53	0						28 24 PKKP
BYRD STATION	117.63	168.8	17 58	3						28 20 PKKP
HUANCAYO	143.40	73.9	18 44	0						

MAY 2 20.H 29.M 20.S EPICENTRE 16.68 -99.34 DEPTH= 0.KM

A=-0.15546 B=-0.94574 C= 0.28533 D=-0.9868 E= 0.1622
G=-0.0463 H=-0.2816 K=-0.9584 HT= 5.4

SE= 2.47

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
OAXACA	2.48	81.9	0 38	-4				
PUEBLA	2.57	24.7	0 45	2				
TACUBAYA	2.70	2.7	0 45K	0	1 25	6		
VERA CRUZ	3.95	50.2	1 4	1				1 52
GUADALAJARA	5.48	317.1	1 28	3				1 52
COMITAN	6.93	92.6	1 44	-1				
MAZATLAN	9.27	315.3	2 19	1				
MERIDA	10.13	63.7			4 40	15		6 55
CHIHUAHUA	13.41	333.6	3 14	0				
DALLAS	16.26	7.7	3 52	1	7 11	19		
LUBBOCK	16.98	352.8	4 5	5	7 26	17		
TUCSON	18.67	328.2	4 20	-1	8 1	14		
TUCSON TELE.	18.69	328.6	4 20	-2				
LITTLE ROCK	19.08	17.8	4 25	-1				

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
FAYETTEVILLE	19.86	12.3	4 34A	-1				
ST. LOUIS 1	23.28	18.3	5 10	0	9 30	11		
BOULDER CITY	23.65	327.3	5 13	-1				6 18
COLUMBIA	23.83	40.2	5 16	1	9 46	17		
PASADENA	24.26	319.3	5 18A	-1	9 45	9		8 56 PCP
LARAMIE	25.12	348.9	4 46	-42				
CHINCHINA	26.00	113.9	5 34	-2	10 34	29		
SALT LAKE C.	26.33	338.2	5 40	1				6 5
EUREKA	26.95	330.7	5 45	0				
FRESNO	26.99	321.8	5 43	-2				
FUQUENE	27.45	111.0	5 56	7				6 30 PP
RAPID CITY	27.50	354.0	5 50	0				
BOGOTA	27.53	113.0	5 53	3	10 41	11		6 24 PP
LICK	28.47	320.6	5 58K	-1				
RENO	28.93	326.0	6 4K	1				
BERKELEY	29.19	320.8	6 5	0	11 3	6		
PENNSYLVANIA	30.36	33.3			11 24	8		
BOZEMAN	30.52	343.7	6 18	1				7 4 PP
SHASTA	31.15	324.9	6 29	7				
BUTTE	31.27	342.1	6 23	0				7 9 PP
PALISADES	32.69	37.0	6 34	-2	11 59	7		17 5 SCS
HUNGRY HORSE	33.80	342.3	6 45	-1				
CORVALLIS	34.36	329.1	6 49	-1				
OTTAWA	34.79	29.6	6 55	1	12 28	3		
BERMUDA	35.00	57.0	7 7	11	12 40	12		
HARVARD	35.00	36.9	6 54	-2				
SASKATOON	35.83	352.3	7 24	21				19 11
BREBEUF	35.89	31.4	7 3	-1				10 46
BANFF	36.76	342.9	7 10	-1				
SHAWINIGAN	37.05	30.8	7 10	-3				
HUANCAYO	37.13	138.7	7 13	-1				
VICTORIA	37.36	333.4	7 14	-2	13 9	5		
HORSESHOE B.	37.96	334.5	7 20	-1	13 19	5		
HALIFAX	40.95	39.5			14 17	19		17 16 SS
LA PAZ	45.10	135.4	8 18K	-2	15 4	5		
COLLEGE	58.04	337.9	9 52	-5				
RESOLUTE	58.05	1.4	9 54A	-3	17 56	-1		19 45 SCS
NORD	72.53	8.8	11 29	-1				
RATHFARNHAM	78.61	37.7	12 6	1				
KEW	82.61	38.5			22 46	3		
PARIS	85.17	40.5	12 41	2	23 15	6		
DE BILT	85.62	36.8	13 20	39	23 24	11		
STRASBOURG	88.50	39.4			23 47	6		29 28 SS
TAMANRASSET	96.71	63.9	13 34	1				
MATUSIRO	104.17	315.5			24 50	3		27 32 PS
QUETTA	131.57	15.9	19 25	10				22 44 PKS

MAY 3 20.H 18.M 20.S EPICENTRE 36.15 21.74 DEPTH= 27.KM

A= 0.75179 B= 0.29979 C= 0.58732 D= 0.3704 E=-0.9289
G= 0.5455 H= 0.2175 K=-0.8094 HT= -0.3

SE= 2.88

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ATHENS	2.41	40.5	0 38A	0	1 9	2		
REGGIO CALA.	5.24	293.6	1 16	-3	2 14	-5		
MESSINA	5.35	294.3	1 17	-3	2 10	-12		1 34 PG
TARANTO	5.55	322.2	1 12	-10	2 4	-22		
SKOPJE	5.83	357.5	1 30A	3				2 42
SOFIA	6.66	10.2	1 38	-1				2 58
ISTANBUL KA.	7.55	47.2	1 52	1				3 44 SG
BELGRADE	8.72	353.9	2 4A	-3				2 45 PG
BUCHAREST	8.90	20.6	2 11	1	4 10	20		2 53
ROME	9.21	311.4	2 11	-3	3 55	-3		
CAMPULUNG	9.44	14.3	2 18	1				
TIMISOARA	9.60	357.8	2 39	20	4 20	13		4 52
SZEGED	10.16	353.7	2 35	8	4 12	-9		3 5 PG
HELWAN	10.20	125.2	2 27	-1	4 16	-6		
FOCSANI	10.39	21.7	1 57	-33				
KALOCSA	10.57	349.6	2 39	6	4 24	-7		
ZAGREB	10.59	337.5	2 37	4	4 16	-16		
FLORENCE X.	11.08	316.7	2 42	2	4 44	0		
PRATO	11.22	316.7	2 53	11	5 24	37		
BUDAPEST	11.49	350.9	3 27	42	4 27	-27		5 55 SG

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

BOLOGNA	11.51	319.6	3	4	18							
KSARA	11.83	97.2	2	47	-3	4	55	-7				
IASI	11.86	19.7	3	13	23	4	13	-50				
HURBANOVO	12.00	348.5				5	8	2				
KISHINEV	12.08	23.8	2	54	1							
BRATISLAVA	12.49	345.5	2	53	-6	5	15	-3	3	59		
SIMFEROPOL	12.87	43.1	3	2	-2							
MONACO	13.33	309.0	3	20	10				6	13		
LWOW	13.77	6.2	3	4	-12	3	40	-129				
KRAKOW	13.95	355.2	3	18	0	5	45	-8	3	29	PP	
CHUR	14.05	323.3	3	18	-1	5	49	-6				
RACIBORZ	14.16	350.6	3	19	-2				6	27	SSS	
RAVENSBURG	14.69	326.0	3	33	5	6	12	2				
PRUHONICE	14.78	341.5	3	25	-4	6	7	-5				
ZURICH	14.88	322.9	3	35	5	6	17	2				
PRAGUE	14.89	341.4	3	29	-1	6	29	14	5	3		
ALGIERS UNI.	15.06	277.9	3	32	-1	6	22	3	3	47	PP	
EBINGEN	15.28	325.8	3	33	-2	6	18	-6	3	53	PP	
NEUCHATEL	15.46	319.1	3	38	0	6	29	0				
BASLE	15.48	321.6	3	30	-8				3	29		
TUBINGEN	15.49	326.9	3	36	-2	6	17	-12				
STUTTGART	15.61	327.7	3	38	-2	6	20	-12	3	43	PP	
PLAUEN	15.93	337.2	3	44	0				5	27		
WARSAW	16.08	358.4	3	48A	2				6	47	SS	
STRASBOURG	16.12	324.7	3	44	-2				6	13		
SONNEBERG	16.14	335.1	3	48	2				4	51		
KARLSRUHE	16.14	326.9	3	49	3				4	54		
COLLMBERG	16.39	340.2	3	49	-1				9	27		
JENA	16.48	336.8	3	52	1	7	13	21	7	44		
HALLE	16.87	338.5	3	55	-1	7	12	11	4	11	PP	
CLERMONT-FD.	17.00	310.1	3	55	-2							
RELIZANE	17.17	274.9	3	54	-5				4	7	PP	
TORTOSA	17.26	292.1	4	8	7							
POTSDAM	17.35	341.9	4	15	13							
ALICANTE	17.82	283.7	4	1	-7	7	10	-13	14	16	PP	
BENSBERG	18.13	329.3	4	11	0				4	30	PP	
MUNSTER	18.73	332.0	4	17	-2				11	9		
TIFLIS	18.76	65.8	4	20	1	7	54	10				
PARIS	18.95	317.8	4	20	-2	7	47	-1				
TAMANRASSET	19.38	231.0	4	26	0	8	8	10	4	45	PP	
GORIS	19.69	72.8	4	29	-1	8	13	8				
WITTEVEEN	19.76	332.2	4	41	10							
DE BILT	19.81	328.7	4	37	6	8	10	3				
GRANADA	20.34	280.5	4	35K	-2	8	29	11	4	58	PP	
COPENHAGEN	20.54	344.9	4	42	3	8	28	6				
TOLEDO	20.63	288.2	4	39K	-1	8	27	3				
MAKHACH-KALA	20.95	63.2	4	42	-1	8	38	8				
MALAGA	21.02	279.3	4	43A	-1	8	36	5	5	3	PP	
JERSEY	21.73	314.2	5	22	31							
KEW	21.96	321.1	4	52	-1				5	16	PP	
MOSCOW	22.38	24.0	4	56	-1							
UPPSALA	23.86	354.9	5	10	-2	9	25	2				
HELSINKI	24.13	4.0	5	13	-1							
SERRA PILAR	24.15	291.1	5	14K	-1				5	46	PP	
PULKOVO	24.28	10.6	5	16	0	9	36	6				
DURHAM	24.59	326.5	5	16A	-3				6	1	PP	
LISBON	24.61	285.3	5	19K	0				5	28		
RATHFARNHAM	26.03	320.0	5	31A	-2				5	53	PP	
ABERDEEN	26.39	330.3				10	23	18	12	33		
BERGEN	26.46	341.6							7	24		
SKALSTUGAN	28.06	351.0	5	49	-2							
SODANKYLA	31.39	3.6	6	19	-2							
KIRUNA	31.74	359.1	6	22	-2							
APATITY	32.15	8.4	6	28	1							
SVERDLOVSK	33.18	39.1	6	35	-1							
QUETTA	38.05	85.7	7	18A	0	13	10	2				
LWIRO	38.77	168.7	7	26	2				7	36		
NAMANGAN	38.91	67.3	7	25	0							
ASTRIDA	39.27	167.3	7	30	2						7	39
UVIRA	40.02	168.5	7	37	3							
WARSAK DAM	40.46	77.9	7	7A	-31							
FRUNSE	40.75	63.8	7	41	1							
MBOUR	40.80	248.0				13	31	-18				
SCORESBY SD.	41.42	339.5	7	44A	-2							
LAHORE	43.48	80.2	8	4A	2							
THULE	55.21	343.3	9	33	0							
LHASA	57.45	75.0	9	50	1							
SHILLONG	59.96	78.9	9	35	-31							

ULAN-BATOR	61.28	49.8	10 16	1			
RESOLUTE	61.99	344.4	10 18	-2	18 20 -21		12 40 PP
HALIFAX	62.74	306.8	10 20A	-5			10 29 PCP
LANCHOW	64.23	63.0	10 31	-4			
SEVEN FALLS	66.16	311.8	10 47	0			
SHAWINIGAN	67.60	311.9	10 55	-1			
BREBEUF	68.63	311.2	11 2A	-1			
WESTON	68.75	307.5	11 4	1			
GRAHAMSTOWN	69.26	175.7	11 8	2			
OTTAWA	69.96	312.0	11 11A	0			
MORGANTOWN	75.73	308.7	11 46	1			
SAN JUAN	77.72	283.8	11 57	1			
COLLEGE	78.98	355.5	12 3	0			
SITKA	85.15	347.7	12 37	2			
RAPID CITY	85.81	323.7	12 39	1			
MATUSIRO	86.70	46.2	12 43K	1			12 54
HUNGRY HORSE	87.10	332.2	12 45	1			
BOZEMAN	88.10	329.0	12 50	1			
BUTTE	88.44	330.1	12 52	1			
EUREKA	95.25	328.5	13 23	1			
SOUTH POLE	125.97	180.0	19 1	1			
BYRD STATION	133.51	138.7	19 18	4			

MAY 4 10.H 52.M 48.S EPICENTRE 44.36 7.00 DEPTH= 0.KM

A= 0.71193 B= 0.08743 C= 0.69679 D= 0.1219 E=-0.9925
F= 0.6916 H= 0.0849 K=-0.7173 HT= -3.3

SE= 4.31

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MONACO	0.70	153.8						0 12 PG
OROPA	1.43	28.3						0 19 PG
PAVIA	1.75	61.4						0 30 PG
NEUCHATEL	2.64	359.2	0 42	-2	1 14	-3		
PRATO	2.99	97.9	0 50	1	1 42	16		
CHUR	3.05	34.6	0 46	-4				
CLERMONT-FD.	3.09	298.4	0 52	1				2 24 SG
BOLOGNA	3.10	86.0	0 56	5	1 45	16		
FLORENCE	3.10	99.3	0 44	-7	1 17	-12		
BASLE	3.19	7.1	0 47A	-5	1 28	-4		
ZURICH	3.20	19.6	0 49	-3				
RAVENSBURG	3.87	27.1	1 2	0	1 38	-11		2 13 SG
GARCHY	4.01	318.1	1 4	0	1 52	-1		
EBINGEN	4.05	19.0	1 0	-4				2 14 SG
STRASBOURG	4.25	6.9	1 3	-4	1 56	-3		2 12 SG
TUBINGEN	4.41	18.2	1 14	5	1 46	-17		2 20 SG
STUTTGART	4.66	18.2	1 4	-9	1 46	-23		1 24 PG
ROME	4.70	119.7	1 18	4	2 14	4		
KARLSRUHE	4.75	11.3	1 39	25	2 33	22		
TRIESTE	4.96	72.6	1 12	-5	2 31	15		1 30 PG
PARIS	5.43	326.6	1 23	-1	2 24	-4		
ZAGREB	6.52	74.0	1 52	13	3 9	14		2 32
BENSBERG	6.60	0.9	1 42	2				3 34 SG
SONNEBERG	6.66	23.8						2 5 PG
PLAUEN	7.06	27.8	1 42	-5	2 52	-17		2 22
JENA	7.26	23.6	1 53	3				2 26 PG
PRUHONICE	7.61	39.8	1 47	-8	3 10	-13		2 30 PG
MUNSTER	7.62	2.9	2 1	6	2 51	-32		
PRAGUE	7.62	38.9	2 1	6	3 7	-16		3 58 SG
DE BILT	7.84	351.7						3 42
HALLE	7.87	23.2	2 5	7	3 19	-10		2 38 PG
JERSEY	7.89	310.8						4 27
BRATISLAVA	7.96	57.9	1 48	-11				2 26 PG
COLLMBERG	8.03	28.0	2 1	1	2 38	-55		3 35
ALICANTE	8.23	225.7	2 1	-2	3 31	-7		
KEW	8.64	328.0			4 2	14		2 55 P*
RACIBORZ	9.52	49.1			4 6	-4		5 4 SG
KRAKOW	10.47	52.5						5 32 SG
GRANADA	10.77	231.9						6 14
RATHFARNHAM	12.49	320.4	3 10	8	5 34	11		4 58
TAMANRASSET	21.56	183.7	4 49	-4				
KIRUNA	24.57	12.2	5 17	-5				
HUNGRY HORSE	74.19	323.6	11 38	-2				

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

MAY 5 5.H 21.M 30.S EPICENTRE 35.57 44.71 DEPTH= 0.KM

A= 0.57943 B= 0.57351 C= 0.57909 D= 0.7035 E=-0.7107
G= 0.4116 H= 0.4074 K=-0.8153 HT= -0.1

SE= 2.60

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NAKHICHEVAN	3.67	8.5	0	58	-1	1	49	5			1	26	
GORIS	4.13	17.7	1	7	2						2	11	SG
LENKORAN	4.58	44.6	1	18	6								
TIFLIS	6.14	0.7	1	35	1						1	54	
BAKU	6.32	39.0	1	38	2								
KSARA	7.48	259.0	1	55	2	3	28	9			4	24	
MAKHACH-KALA	7.70	15.5	1	59	3	3	22	-3					
GROZNY	7.78	5.6	2	2	5						3	37	
PIATIGORSK	8.54	352.0	2	12	5								
KIZYL-ARVAT	9.84	66.0	2	25	0						3	34	
ASHKABAD	11.20	73.7	2	44	0	4	45	-6					
SIMFEROPOL	12.36	322.5	3	1	1								
HELWAN	12.61	247.0	3	8	5								
ISTANBUL KA.	13.44	298.8	3	16	2	5	53	8					
RAIRAM-ALI	14.14	76.6	3	25	2						4	49	
BUCHAREST	16.75	307.5	3	30	-27	7	30	27					
STALINABAD	19.42	74.1	4	30	0						8	18	SS
QUETTA	19.43	99.8	4	31A	1	8	16	12					
TASHKENT	20.06	66.0	4	37	0						8	25	SS
TIMISOARA	20.45	307.0	5	31	50	8	40	14					
BELGRADE	20.64	304.0	4	50A	7	8	40	10					
MOSCOW	20.74	348.7	4	42	-2						8	29	SS
LWOW	20.74	319.8	4	43	-1						9	6	SSS
WARSAK DAM	22.08	86.3	5	6	8								
BUDAPEST	22.47	309.8	5	3	1						8	47	PCP
KRAKOW	23.09	316.5	5	6	-2	9	18	2			5	48	PP
MESSINA	23.43	285.1	5	12	1	9	24	3			5	43	PP
WARSAW	23.68	322.0	5	13A	-1	9	28	2					
SVERDLOVSK	23.84	21.9	5	15	0								
BRATISLAVA	23.96	310.2	5	19	3	9	35	4			5	37	
RACIBORZ	24.09	315.2	5	19	1						5	30	
FRUNSE	24.18	63.4	5	19A	1						6	17	
LAHORE	24.96	90.7	5	25A	-1								
TRIESTE	25.43	302.8	5	33	3	10	5	9			8	54	PCP
ROME	25.82	293.9	5	35	1	10	17	15					
PULKOVO	25.96	343.3	5	34	-1						11	24	SSS
PRUHONICE	26.19	312.7	5	37	-1	10	8	0					
PRAGUE	26.30	312.8	5	40	2						6	42	
FLORENCE X.	26.88	298.0	5	42	-2	10	20	0					
PRATO	27.00	298.2	5	46	1						10	24	
COLLMBERG	27.60	314.6	5	50	0								
HELSINKI	27.73	338.7	5	49	-3								
PLAUEN	27.82	312.6	5	48	-4								
HALLE	28.29	314.5	5	55	-2						6	44	PP
JENA	28.30	313.2	5	55	-2	10	43	0			7	9	
SONNEBERG	28.35	311.9	5	55	-2						6	40	
DEHRA DUN	28.38	91.1				10	52	8					
PAVIA	28.53	300.6				10	58	12					
STUTTGART	29.15	307.9	6	2	-2	11	18	22			12	36	SS
SEMIPALATNSK	29.60	48.9	6	6	-2								
COPENHAGEN	29.80	322.5	6	9	-1	11	8	1			12	30	SS
BOMBAY	29.86	116.4				12	18	70			12	52	SS
BASLE	29.96	305.0	6	11A	-1								
UPPSALA	29.96	332.6	6	9	-3						11	48	
STRASBOURG	30.04	307.1	6	28	16	11	14	4			7	38	
NEUCHATEL	30.30	303.8	6	13	-2								
MUNSTER	30.98	313.6	6	19	-2								
WITTEVEEN	31.79	314.8	6	18	-10								
APATITY	32.67	352.0	6	33	-3								
CLERMONT-FD.	32.82	301.0	6	34	-3	11	54	0					
ALGIERS UNI.	33.46	284.5	6	45	3								
SKALSTUGAN	34.33	334.8	6	47	-3						6	57	
TORTOSA	34.85	292.2	7	4	10								
KIRUNA	35.13	344.3	6	55A	-2						14	32	
RELIZANE	35.65	283.5	7	1	0								
KEW	35.68	310.7	7	1	0								
TAMANRASSET	36.28	260.2	7	9A	2	12	57	9			8	35	PP

DURHAM	37.02	315.9	7	11K	-2	13	9	10			
CHATRA	37.12	91.5	7	9	-5	13	4	4			
ABERDEEN	37.85	319.7				13	14	2			
GRANADA	38.60	287.1	7	27K	1						
LHASA	39.20	85.2	7	32	1						
MALAGA	39.32	286.6	7	34	2				9	10	PP
RATHFARNHAM	39.54	312.9	7	33	-1						
LWIRO	40.46	205.0	8	3	22						
SHILLONG	41.48	90.5	7	48A	-2						
LISBON	42.53	290.9	7	59A	1						
KHEYS	44.69	1.8	8	22	6				18	16	SCS
ULAN-BATOR	46.82	54.7	8	33	0						
LANCHOW	47.27	71.2	8	37	1	15	33	3			
SCORESBY SD.	49.16	335.9	8	50	-1				10	45	PP
TIKSI	54.87	22.7	9	31	-3				17	13	PS
MBOUR	58.82	265.6	9	44	-18						
THULE	60.83	345.6	10	15	-1						
RESOLUTE	66.85	349.2	10	53A	-2	19	50	2	20	58	SCS
MATUSIRO	72.35	57.5	11	24	-5						
HALIFAX	77.14	315.9	11	56	-1						
COLLEGE	79.41	5.4	12	7	-2						
SEVEN FALLS	79.46	321.2	12	9	0						
SHAWINIGAN	80.82	321.7	12	15K	-2						
ARFRFUF	81.08	321.3	12	22	-1						
OTTAWA	83.10	322.3	12	28	-1						
HUNGRY HORSE	94.32	346.0	13	21	-1				17	5	PP
FUREKA	103.22	344.7							17	25	PP
TUCSON	108.74	338.3	18	58	777						
SOUTH POLE	125.39	180.0	19	2	-1						
BYRD STATION	135.00	183.8	19	23	2						

MAY 5 6.H 31.M 41.S EPICENTRE -9.55 27.81 DEPTH= 0.KM

A= 0.87240 B= 0.46015 C=-0.16490 D= 0.4665 E=-0.8845
G=-0.1459 H=-0.0769 K=-0.9863 HT= 6.6

SE= 1.98

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
UVIRA	6.17	12.3	1	34	1	2	57	12					
LWIRO	7.32	7.8	1	48	-1	3	3	-10					
LUANDA	14.42	271.7	3	23	-3	5	57	-10			6	24	SS
PRETORIA	16.11	178.8	4	15	27								
WINDHOEK	16.52	217.2	3	51	-2								
KIMBERLEY	19.31	188.1	4	23K	-4								
PIETERMARITZBURG	20.11	173.4	4	33A	-3								
TANANARIVE	21.26	118.1	4	44A	-2	8	49	10			5	13	PP
GRAHAMSTOWN	23.68	182.6	5	9A	-3								
HERMANUS	25.97	196.4	5	37	3	10	11	9			10	54	
TAMANRASSET	38.85	326.1	7	29K	2	13	26	2			8	52	PP
HELWAN	39.34	4.8	7	31	0	13	34	3					
KSARA	43.81	9.7	8	9	2	14	47	10			9	53	PP
ATHENS	47.43	355.6	8	35K	-1								
MESSINA	48.87	347.2	8	49	2	16	9	20			10	47	PP
MBOUR	50.38	297.6	9	0	1	16	17	7					
ISTANBUL KA.	50.38	1.2	8	58	-1	20	12	242					
ALGIERS UNI.	51.62	334.6	9	9	1	16	30	3			11	8	PP
GORIS	51.75	18.2	9	10	1	16	46	17					
RELIZANE	51.88	331.7	9	10	0	16	21	-10			11	19	PP
BOMBAY	52.62	57.4	9	17	1	16	44	3			11	8	
ROME	53.10	345.7	9	20	1	16	50	2			12	13	PP
POONA	53.31	58.4	9	19	-2								
TIFLIS	53.36	15.8	9	21	0	16	57	6					
BUCHAREST	53.74	358.5	9	25K	1	17	1	5					
SOTCHI	53.98	10.7	9	25	-1								
ALMERIA	54.21	330.1	9	28	0								
ALICANTE	54.48	332.8	9	27	-3	17	2	-4					
BELGRADE	54.53	353.6	9	31	1	17	13	6			17	26	PS
SIMFEROPOL	54.55	5.5	9	29	-1								
QUETTA	54.55	42.1	9	31K	1	17	21	14					
CAMPULUNG	54.63	357.6	9	31	0								
GRANADA	55.03	329.5	9	34K	0	17	46	32			13	26	PPP
MALAGA	55.08	328.5	9	37A	3	17	29	15			11	49	PP
FLORENCE X.	55.17	345.4	9	30	-5	17	5	-10					
MAKHACH-KALA	55.28	17.5	9	36	1								

TIMISOARA	55.37	354.4	9	36	0	17	27	9				
SZEGED	55.97	353.6	9	44	4							
TORTOSA	56.10	335.2	9	52	11	17	57	29				
MONACO	56.17	342.3	9	41	-1						9	54 PP
KALOCSA	56.39	352.7	9	44	1							
TRIESTE	56.39	348.2	9	43K	0	17	24	-8			11	42 PP
TOLEDO	57.36	331.2	9	50K	0	17	43	-2			12	7 PP
BRATISLAVA	58.25	351.6	9	57	1						10	12
CHUR	58.47	345.4	9	57K	-1							
LISBON	59.08	326.8	10	3K	1				10	17		
LWOW	59.22	357.1	10	1	-2						12	19
NEUCHATEL	59.29	343.5	10	3	-1							
CLERMONT-FD.	59.37	340.1	9	54K	-10	18	39	28				
BASLE	59.61	344.2	9	45	-21						21	29
KRAKOW	59.75	354.1	10	5	-2						12	25 PP
ERINGEN	59.85	345.5	10	8K	0						10	21
RACIBORZ	59.97	352.9	10	8	0							
WARSAK DAM	59.99	41.6	10	10K	1							
TIPINGEN	60.15	345.7	10	9K	-1							
STUTTGART	60.35	345.9	10	10K	-1						12	38 PP
PRIHONICE	60.41	350.2	10	9	-2	18	35	11	10	23	12	44 PP
LAHORE	60.42	45.4	10	10K	-2							
PRAGUE	60.51	350.1	10	13	1						10	30
STRASBOURG	60.52	344.8	10	12K	0	18	26	0	10	25	12	33 PP
SERRA PILAR	60.56	329.0	10	11K	-1						12	26 PP
KARLSRUHE	60.76	345.5	10	15A	1	18	33	4			12	49 PP
AGRA	60.81	51.7	10	12K	-2							
PLAUEN	61.34	348.7	10	15	-3				10	29	10	52
SONNEBERG	61.41	348.0	10	18	0				10	31	12	28
WARSAW	61.81	355.3	10	20A	-1	18	42	0			12	49 PP
JENA	61.86	348.4	10	21	0	18	36	-7	10	35	12	10
COLLMBERG	61.95	349.5	10	21	-1				10	35		
PARIS	62.25	341.4	10	24K	0	18	47	-1				
HALLE	62.33	348.9	10	25	1	18	51	2	10	39	12	37 PP
DEHRA DUN	62.44	48.6	10	30	5							
BENSBERG	62.87	345.5	10	28	0						10	47
UCCLE	63.47	343.6	10	31	-1						19	31 PS
MUNSTER	63.70	346.2	10	33	0						10	47
JERSEY	64.11	338.7	11	6	30	19	1	-10				
DE BILT	64.42	344.7	10	39K	1	19	19	4				
NAMANGAN	64.49	35.5	10	38	-1							
WITTEVEEN	64.71	346.0	10	40	0							
KEW	65.46	341.1	10	45	0				10	59		
MOSCOW	65.56	6.1	10	45	0							
COPENHAGEN	66.25	350.6	10	50K	0	19	42	5			13	17 PP
FRIINSE	67.37	35.5	10	56	-1							
CHATRA	67.97	56.0	11	1	0							
DURHAM	68.68	342.2	11	4A	-1	20	31	25			11	19
RATHFARNHAM	69.00	338.9	11	7A	0				11	21	13	53 PP
PULKOVO	69.12	1.4	11	7	-1							
HELSINKI	69.53	358.5	11	10	0							
UPPSALA	69.65	354.5	11	10K	-1	20	11	-7	11	24	20	51
CHITTAGONG	70.26	62.1	11	7K	-8							
SHILLONG	71.40	59.0	11	23	1	20	40	1				
SVERDLOVSK	71.46	18.3	11	20	-2	20	54	15				
MIRNY	71.53	157.5	11	30	7							
MEDAN	71.80	83.0	11	25	1							
LHASA	72.21	54.7	11	28K	1	20	50	3				
SKALSTUGAN	73.88	352.8	11	35K	-1				11	49		
OASIS-BUNG.	74.43	156.2	11	32	-8						13	19
SODANKYLA	76.73	359.5	11	53	0							
APATITY	77.01	2.2	11	54	0							
KIRUNA	77.37	357.1	11	56K	0	22	2	17	12	10		
LEMBANG	78.89	95.1	12	4	-1							
SOUTH POLE	80.51	180.0	12	14	1						12	23
KUNMING	80.56	62.6	12	15K	1	22	23	5				
REYKJAVIK	82.44	340.3	12	26A	3							
PHU-LIEN	83.07	67.6				22	44	1				
CHENGTU	83.16	57.4	12	28K	1							
LANCHOW	84.46	52.2	12	36	2							
SCORESBY SD.	86.62	345.1	12	46	2							
BYRD STATION	89.00	185.4	12	58	2						13	8
SCOTT BASE	89.79	172.0	13	1	1							
ULAN-BATOR	89.80	41.3	12	59	-1							
ST. VINCENT	91.25	283.1	13	9	3							
LA PAZ	92.94	252.8	13	16K	2	24	28	11				
HALIFAX	97.63	313.9									17	32 PP
THULE	100.66	346.2	13	51	2							
HUANCAYO	100.67	255.8	13	52	3						17	54 PP

RESOLUTE	107.50	346.4	18 26	777	24 38	0			33 35	SS
MORGANTOWN	109.70	308.6							19 3	PP
MATUSIRO	112.01	54.5	18 37	2						
RAPID CITY	125.50	318.1	19 2	1						
TACUBAYA	127.94	287.1	19 17	11						
HUNGRY HORSE	129.81	327.6	19 11	2					22 52	PKS
BUTTE	130.37	324.3	19 13	3					22 54	PKS
SALT LAKE C.	132.71	318.0	19 18	3					23 3	PKS
HORSESHOE B.	133.56	334.2	19 18K	2						
TUCSON TELE.	135.51	306.9	19 8	-12					23 13	PKS
TUCSON	135.63	306.8	19 10	-10						
EUREKA	136.08	318.8	19 14	-7					15 31	P
BOULDER CITY	137.08	313.7	19 31	8						
CORVALLIS	137.09	329.5	19 26	3						
RENO	138.47	321.3	19 29	3						
MINERAL	139.05	323.6	19 18	-9					19 29	
SHASTA	139.27	324.6	19 20	-7						
FRESNO	140.09	317.9	19 31	3						
PASADENA	140.36	313.3	19 32	3						
LICK	140.95	320.0	19 32	2					21 52	PP
BERKELEY	141.01	321.1	19 33	3						
AFIAMALU	149.66	139.9	19 45A	0						

MAY 6 4.H 15.M 45.S EPICENTRE 43.13 47.77 DEPTH= 0.KM

A= 0.49205 B= 0.54206 C= 0.68122 D= 0.7404 E=-0.6721
G= 0.4579 H= 0.5044 K=-0.7321 HT= -2.8

SE= 2.86

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
MAKHACH-KALA	0.25	230.8						0 5	PG
GROZNY	1.49	278.0						0 30	PG
DUZHETI	2.50	246.2	0 45	2				1 22	SG
SHEMAKHA	2.58	165.3	0 44	0				1 17	S*
TIFLIS	2.61	238.3	0 46	1				1 27	SG
GORI	2.93	248.1	0 50	1				1 37	SG
BAKU	3.18	149.2	0 55	2				1 38	S*
STEPANAVAN	3.30	231.0	0 56	2				1 44	SG
BAKURIANA	3.44	247.4	0 57	1				1 52	SG
PIATIGORSK	3.53	286.3	1 1	3				2 0	SG
BOGDANOVKA	3.61	240.4	0 59	0					
AKHALKALAK	3.62	242.9	0 59	0				1 51	S*
LENINAKAN	3.75	232.5	1 3	2	1 46	-1			
GORIS	3.79	197.1	1 1	0	1 44	-4			
EREVAN	3.83	220.8	1 3	1	1 45	-4			
NAKHICHEVAN	4.32	205.3	1 12	3				2 15	SG
ZUGDIDI	4.37	264.0						2 23	SG
LENKORAN	4.43	169.3						1 17	PG
KIZYL-ARVAT	7.62	119.7	1 56	1				2 39	
ASHKABAD	9.57	119.2	2 23	0	4 4	-8		4 51	
SIMFEROPOL	10.00	285.2	2 24	-4					
BAIRAM-ALI	12.26	112.0	2 58	-1				4 14	
KSARA	13.15	228.9	3 8	-3				3 17	PP
MOSCOW	14.21	336.1	3 33	8	6 5	0			
TASHKENT	16.04	89.1	3 47	-2				6 57	SS
STALINABAD	16.53	99.0	3 57	2				7 6	SS
KULYAB	17.52	99.9	4 8	0	7 27	5			
LWOW	17.63	300.6	4 14	5				7 39	SS
NAMANGAN	17.87	88.7	4 11	-1	7 29	-1			
FERGANA	18.11	90.5	4 13	-2				7 57	SS
ANDIJAN	18.44	89.0	4 17	-2	7 45	2			
KHOROG	19.00	99.2	4 24	-2	7 57	2			
FRUNSE	19.59	81.5	4 36	3	8 13	5			
PULKOVO	19.79	333.4	4 36	1	8 13	0		4 49	PP
QUETTA	20.04	123.9	4 35	-3	8 20	2			
KRAKOW	20.27	299.6	4 37	-3				10 43	
WARSAK DAM	20.65	108.2	4 31A	-13					
NARYN	20.92	85.0			8 17	-19		4 50	
ILI	21.22	77.7	4 47	-3					
ALMATA	21.23	79.6	4 49	-1	8 49	7		12 0	
RACIBORZ	21.37	299.3			8 52	8			
HELSINKI	21.97	328.8	4 56	-2					
SEMIPALATNSK	23.27	60.5	5 15	5	9 25	5			
PRUHONICE	23.71	298.4	5 13	-2	9 46	19			

PRAGUE	23.79	298.6			9 43	14				
UPPSALA	24.82	322.9	5 24	-2	9 48	2				
APATITY	25.66	347.3	5 32	-1						
SODANKYLA	26.83	342.0	5 42	-2						
DEHRA DUN	27.27	107.9			10 40	13				
KIRUNA	28.71	338.7	5 59	-2					11 35	
SKALSTUGAN	28.85	327.4	6 11	8					12 8	
BOKARO	36.70	109.3	6 56	-15						
KHEYS	37.08	1.3	7 21	7						
TAMANRASSET	40.32	253.5	7 39	-2						
SCORESBY SD.	43.37	332.7							18 3	SS
TIKSI	47.00	25.4	8 34	-1					15 29	PS
UGLEGORSK	61.50	48.3							23 21	
HUNGRY HORSE	87.50	348.0	12 50	-1						
EUREKA	96.46	347.4	13 30	-3						

MAY 7 14.H 47.M 36.S EPICENTRE 34.72 70.98 DEPTH= 0.KM
A= 0.26849 B= 0.77872 C= 0.56702 D= 0.9454 E=-0.3259
G= 0.1848 H= 0.5361 K=-0.8237 HT= 0.2

SE= 2.27

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
WARSAK DAM	0.86	146.5	0	18K	-2								
KHOROG	2.80	10.2	0	50	3	1	25	3					
KULYAB	3.31	343.4	0	58	3								
STALINABAD	4.21	335.7	1	9	2								
LAHORE	4.23	137.4	1	11K	3	2	1	2					
GARM	4.30	353.0	1	11	2								
MURGAB	4.35	32.3	1	13	4	2	4	2					
QUETTA	5.67	218.0	1	32K	4	2	40	5					
FERGANA	5.68	6.2	1	30	2	2	35	0					
SAMARKAND	5.88	328.3	1	33	2						3	4	
ANDIJAN	6.12	10.0	1	36	2	2	50	4			1	54	
NAMANGAN	6.27	4.8	1	38	2	2	46	-4			3	17	
TASHKENT	6.72	349.0	1	44	1	2	58	-3			3	44	
LUNACHARSKOE	6.72	349.3	1	46	3	2	59	-2					
DEHRA DUN	7.41	124.4	1	55	3	3	17	-1			3	37	SSS
TCHIMKENT	7.64	352.3	1	56	0	3	22	-2					
NARYN	7.78	29.1	1	57	-1	3	21	-6			2	13	
FRUNSE	8.62	18.0	2	10	1	3	44	-4			2	32	
RYBACHE	8.69	25.8	2	11	1	3	48	-2			2	29	
FABRICHNAYA	9.44	24.9	2	19	-2								
PRZHEVALSK	9.68	34.7	2	24	0								
AGRA	9.69	139.5	2	22	-2	4	6	-9			3	14	
ALMATA	9.71	26.8	2	24	0						5	8	
ALMATA-2	9.87	28.3	2	26	-1	4	15	-4			5	22	
KURMENTY	10.07	32.2	2	29	0								
ILI	10.35	25.3									3	16	
KIZYL-ARVAT	12.53	294.3	3	1	-2						4	18	
BOMBAY	15.85	173.6				7	4	21			8	46	
CHATRA	15.97	115.1	3	47	-1						10	1	
POONA	16.33	170.3	3	56	3						8	44	
SEMIPALATNSK	17.07	20.6	3	57	-5						7	18	SS
LHASA	17.72	101.1	4	10	0	7	18	-8					
HYDERABAD	18.47	156.9				8	7	24			9	54	
CALCUTTA	19.46	124.1									7	48	
GORIS	20.20	290.9	4	40	1								
SHILLONG	20.21	111.2	4	37K	-3	8	8	-14			4	51	PP
TIFLIS	21.67	296.6	4	56	1						5	22	PP
TOCKLAI	21.91	104.8									7	59	
CHITTAGONG	22.02	118.5	3	57	-61								
MADRAS	23.18	156.7				9	32	14			11	51	
SVERDLOVSK	23.21	345.5	5	10	0						5	42	PP
KODAIKANAL	25.09	164.8									12	26	
LANCHOW	26.74	77.5	5	47	4								
KSARA	28.93	278.3	6	9	6								
KUNMING	29.03	100.8	6	19	15	10	57	2					
ULAN-BATOR	29.74	52.7	6	9	-2								
MOSCOW	31.04	322.9	6	20	-2						12	36	SS
ISTANBUL KA.	33.43	293.5	6	43	0								
ATHENS	37.89	289.1	7	20A	-1								
HELSINKI	39.00	325.1	7	29	-1								
KRAKOW	39.89	308.6	7	36	-2						10	4	

SODANKYLA	41.34	335.8	7	48	-1						
UPPSALA	42.46	323.1	7	57	-2					9	34 PP
KIRUNA	43.68	334.9	8	7	-2					9	53 PP
REGGIO CALA.	44.10	291.2	8	41	29						
MESSINA	44.16	291.4	8	7	-5						
COLLMBERG	44.31	310.4	8	13	-1						
HALLE	44.96	310.7	8	17	-2						
JENA	45.22	309.9	8	20	-1					10	51
SKALSTUGAN	45.69	327.7	8	23	-2					10	16 PP
STUTTGART	46.93	307.1	8	34	-1						
PARIS	51.31	308.0	9	9	1						
MATUSIRO	53.65	67.2	9	24K	-2						
NORD	55.54	349.7	9	37	-3						
RELIZANE	56.34	293.0	10	15	30						
TAMANRASSET	57.72	276.8	9	55	0					10	27
THULE	66.21	350.3	10	48	-4						
RESOLUTE	70.47	356.1	11	16A	-3						
COLLEGE	76.20	16.0	11	49	-3						
CHARTERS TS.	89.78	114.6	13	2K	0						
SHAWINIGAN	92.76	335.9	13	16K	0						
SOUTH POLE	124.54	180.0	19	2	0						
HALLEY BAY	125.18	197.8	19	4	1					30	10 PS
BYRD STATION	134.40	177.5	19	27	6						

MAY 8 2.H 47.M 14.S EPICENTRE 45.59 -28.19 DEPTH= 0.KM

A= 0.61896 B=-0.33168 C= 0.71195 D=-0.4723 E=-0.8814
G= 0.6275 H=-0.3363 K=-0.7022 HT= -3.8

SE= 2.88

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
LISBON	15.68	109.2	3	41K	-3						3	59
RATHFARNHAM	16.16	53.6	3	57A	7						8	3
TOLEDO	18.59	99.3	4	20	-1							
REYKJAVIK	18.91	8.5	4	19	-6							
DURHAM	19.25	51.9	4	31	2							
KEW	19.30	62.2	4	23	-6	8	12	10				
MALAGA	19.92	108.0	4	38A	1	8	28	12			8	54 PCP
GRANADA	20.21	105.9	4	40K	0	8	30	8			4	59 PP
PARIS	21.02	70.1	4	48	0	8	38	0				
TORTOSA	21.39	92.6	4	50	-2	8	53	8				
ALICANTE	21.76	99.6	4	53	-2	8	48	-4			5	17 PP
CLERMONT-FD.	21.81	78.2	4	56	0	9	2	9				
UCCLE	22.19	64.6	5	0	0							
DE BILT	22.76	61.3				9	16	6				
WITTEVEEN	23.71	59.6	5	16	1							
RELIZANE	23.80	104.3	5	14	-2						6	30
BENSBERG	23.98	64.2	5	19	2							
MUNSTER	24.26	61.8	5	18	-2							
STRASBOURG	24.52	69.9	5	39	16							
KARLSRUHE	24.90	68.8	5	36K	10	10	22	34			5	58
ALGIERS UNI.	24.98	99.6	5	26	-1	9	58	9			6	19 PP
SCORESBY SD.	25.15	4.9	5	26	-3	10	5	13				
MONACO	25.28	81.4	5	32	2							
EBINGEN	25.37	70.6	5	33	2							
TUBINGEN	25.39	69.8	5	34	3							
STUTTGART	25.44	69.2	5	29	-2	10	7	10				
JENA	26.77	64.0	5	49	5						6	34 PP
COPENHAGEN	27.30	53.5				10	44	17			11	32 SS
SEVEN FALLS	29.21	288.6	6	5	-1							
BERMUDA	31.01	257.7				11	54	27				
BREBEUF	31.50	286.4	6	27K	1							
OTTAWA	32.94	287.1	6	38	-1							
KIRUNA	33.40	31.2	6	40	-3							
THULE	35.05	344.6	6	56	-1							
TAMANRASSET	35.59	118.3	7	1	0	12	42	4			8	11 PP
NORD	36.35	2.8	7	6	-2							
RESOLUTE	40.52	337.9	7	41A	-2	13	56	3				
ISTANBUL KA.	41.14	75.2	7	48	0							
SAN JUAN	41.49	241.8	7	53	2						10	1 PCP
KSARA	49.45	80.2	8	47	-7							
RAPID CITY	51.36	297.0	9	9	0							
BOULDER	54.81	293.7	9	34	0							
BOZEMAN	55.34	302.2	9	38	0							
BUTTE	56.05	303.3	9	43	0							

COLLEGE	60.30	334.7	10 11	-2	12 25 PP
EUREKA	61.85	298.7	10 24	0	
TUCSON TELE.	62.85	289.4	10 31	1	
TUCSON	62.98	289.4	10 32	1	
RENO	64.15	300.8	10 19	-20	
MINERAL	64.71	302.5	10 42	-1	
SHASTA	64.96	303.2	10 43	-1	
FRESNO	65.89	298.4	10 50	0	
LICK	66.66	299.9	10 57	2	
LWIRO	69.23	116.3	11 12	1	
UVIRA	70.38	116.9	11 9	-9	
HUANCAYO	71.36	229.2	11 29	5	

MAY 8 12.H 40.M 49.S EPICENTRE -24.23 -67.16 DEPTH= 178.KM

DEPTH OF FOCUS= 0.023R

A= 0.35440 B=-0.84134 C=-0.40810 D=-0.9216 E=-0.3882
G=-0.1584 H= 0.3761 K=-0.9129 HT= 3.6

SE= 2.02

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TALA POZO	4.43	144.4	1	8	1	1	46	-13			3	1	
LA PAZ	7.74	353.1	1	51K	0	3	17	0			15	1	SCS
SANTA LUCIA	9.67	197.8	2	12	-4	4	5	2			3	38	
BUENOS AIRES	12.80	145.8	2	53	-3						3	13	PP
CONCEPCION	13.24	197.4	3	11	9	5	36	10					
HUANCAYO	14.38	326.0	3	17	1	6	6	15					
BOGOTA	29.45	345.9	5	50A	1	10	32	3	6	26			
CHINCHINA	30.17	343.0	5	54A	-1	10	39	-1	6	32	11	53	SS
FUQUENE	30.21	346.9	5	55	-1	10	34	-6	6	31			
TRINIDAD	35.12	9.7	6	37	-1								
BALBOA HTS.	35.14	338.4	6	40	2	12	4	7					
GALERAZAMBA	35.69	346.2	6	44	1	12	8	3			12	28	SCP
GRENADA	36.44	9.0	6	48	-1								
ST. VINCENT	37.61	9.4	6	56	-3	12	37	2					
BARBADOS	37.85	12.1	7	4K	3								
ST. LUCIA	38.50	9.6	7	5	-1								
FORT FRANCE	39.16	9.2	7	10	-2	13	0	2					
SAN JUAN	42.36	1.5	7	33	-5						9	21	PCP
COMITAN	47.04	326.4									16	27	
MERIDA	49.95	332.2									10	41	PP
VERA CRUZ	51.58	324.2							9	39	17	23	*SS
TACUBAYA	53.44	321.4	9	8	5	16	28	8			12	23	PPP
BERMUDA	56.34	2.5	9	27	3	17	2	3			10	7	PCP
GUADALAJARA	56.85	318.7	10	15	47								
COLUMBIA	59.39	346.6	9	46	0								
BYRD STATION	60.06	189.2	9	50	0	19	6	79	10	35	10	55	*SP
HBOUR	62.24	57.3	10	4	-1				10	46			
LITTLE ROCK	63.37	336.9	10	11	-1								
GEORGETOWN	63.48	351.4	10	12	-1				10	55			
WASHINGTON	63.48	351.4	10	56	43						11	18	
MORGANTOWN	64.64	349.1	10	20	0	18	50	6					
PALISADES	65.21	354.4	10	24	0	18	51	0	11	8	19	41	SCS
FAYETTEVILLE	65.21	336.1	10	22A	-2	18	53	2			19	59	
PENNSYLVANIA	65.46	351.1	11	7	41	20	15	81			18	52	
SOUTH POLE	65.91	180.0	10	26	-3	18	57	-3	11	10	12	52	PP
ST. LOUIS 1	66.17	340.4	10	2C	-1	18	59	-4	11	9	19	55	PS
LUBBOCK	66.30	328.7	10	30	-1				11	14	20	14	
WESTON	66.38	356.6	10	31A	-1	18	55	-10					
HALIFAX	68.59	2.7				19	31	-1			20	29	SCS
BREBEUF	69.64	355.2	10	51K	-1	18	45	-59					
OTTAWA	69.73	353.6	10	51K	-1	19	49	4	11	36	20	35	PS
TUCSON	69.95	321.5	10	54	0	19	55	7	11	38	20	39	SCS
TUCSON TELE.	69.96	321.6	10	53	-1				11	39	38	50	PKPPKP
SHAWINIGAN	70.63	355.9	10	57	-1				11	42	3	22	PP
SEVEN FALLS	71.09	357.3	11	0	0	20	4	3	11	45	20	32	SCS
BOULDER	73.15	330.3	11	11	-2								
SCOTT BASE	73.45	190.3	11	14	0	20	36	9			13	31	PP
HERMANUS	73.91	120.8				20	33	0			20	56	SKS
BOULDER CITY	74.93	321.6	11	2	-21	20	32	-12			21	49	SCS
RAPID CITY	75.58	334.0	11	26	0						38	45	PKPPKP
PASADENA	75.62	318.3	11	28	1	20	58	7	12	12	21	37	SP
WINDHOEK	76.10	108.7	11	29	0								

CAPE HALLETT	76.21	195.4	11	30K	0	21	2	4	13	33	26	26 SS
SALT LAKE C.	76.85	326.7	11	35	1				12	14	13	24
EUREKA	78.06	323.5	11	41	1				12	30	29	27 PKKP
FRESNO	78.37	319.3	11	41K	-1				12	29		
LICK	79.85	318.8	11	51K	1							
GRAHAMSTOWN	80.01	122.0	11	50K	-1							
BOZEMAN	80.19	330.4	11	53	1	21	32	-8	12	39	13	36
RENO	80.24	321.4	11	53A	1							
KIMBERLEY	80.32	117.1	11	50A	-2							
BERKELEY	80.57	318.9	11	54A	0	21	49	5	12	37	23	3 *SS
BUTTE	81.15	329.9	11	57	0				12	43		
MINERAL	81.80	321.1	11	59A	-1							
SHASTA	82.49	321.0	12	2	-2				12	48		
LISBON	82.87	42.0	12	7A	1	22	13	6	12	52		
HUNGRY HORSE	83.55	330.7	12	9	0				12	56		
PIETERMZBURG	84.48	119.9	12	16	2							
TAMANRASSET	84.62	62.2	12	14	0	22	27	2	12	59	22	32 SCS
MALAGA	84.67	45.8	12	17A	2	22	29	4	13	3	15	59 PP
SERRA PILAR	84.70	40.3	12	7K	-8				13	1	15	27 PP
GRANADA	85.46	45.8	12	20K	1	22	31	-2	13	7	23	46 PS
CORVALLIS	85.53	323.5	12	20K	1							
ALMERIA	86.02	46.6	12	21	0	22	30	-8	13	5		
TOLEDO	86.72	43.4	12	25A	0	22	38	-7	13	11	23	42 *PS
DUMONT	87.08	100.5	12	26	0	22	33	-15				
RELIZANE	87.48	48.9	12	30A	2	22	15	-37	13	17	15	43 PP
VICTORIA	88.15	326.4	12	31A	0	23	3	5				
ALICANTE	88.16	46.3	12	21	-11	22	43	-15			28	42 SS
MIRNY	88.26	172.2	12	30	-2	22	58	-1			12	31 PCP
HORSESHOE B.	88.64	327.1	12	32	-2	23	6	3	13	16	22	47 SKS
OASIS-BUNG.	89.41	175.1	12	32	-5							
ALGIERS UNI.	89.71	49.1	12	39	0	22	54	-18	13	26	16	10 PP
TORTOSA	90.13	44.6	13	35	54	22	57	-19				
BARCELONA	91.50	44.7				23	33	4				
GEBBIES PASS	92.98	218.9	12	54	0							
JERSEY	93.17	36.6									23	11
RATHFARNHAM	93.42	31.7	12	56A	0				13	43		
TONGARIRO	93.93	223.8	12	58	0				13	47		
UVIRA	94.30	95.7	13	1	1						13	46
CLERMONT-FD.	94.35	41.4	13	2	2	23	24	-29				
LWIRO	94.52	94.5	13	3	2	24	11	17				
KARAPIRO	94.68	224.8	13	3A	1				13	49		
ASTRIDA	95.22	95.2	13	7	3						17	55
KEW	95.38	35.3	13	4	-1	24	2	0	13	50	23	22 SKS
PARIS	95.53	38.5	13	4	-2	24	4	1				
MONACO	96.04	44.6	13	9	1							
DURHAM	96.54	32.1				23	33	-39			17	35 PP
OROPA	97.25	43.1									22	57
PAVIA	97.81	43.9				24	19	-3				
STRASBOURG	98.48	40.4				23	44	-44			17	18 PP
FLORENCE X.	98.54	45.8	13	24	5	24	35	7	14	10	17	7 PP
ROME	98.56	48.0	13	22	3	23	44	-45	14	8	17	20 PP
EBINGEN	99.02	41.1	13	21	0							
MESSINA	99.21	52.3				23	38	-56			17	12 PP
TUBINGEN	99.23	40.9							14	7		
STUTTGART	99.41	40.7	13	23	0	23	48	-48	14	10	17	25 PP
SCORESBY SD.	99.68	14.0				25	9	31	14	10	23	49 SKS
WITTEVEEN	99.79	36.3	13	26	1				14	12		
MUNSTER	99.92	37.3	13	26	1							
RESOLUTE	100.29	352.8	13	25	-2	24	46	3	14	13	17	29 PP
THULE	100.42	359.7	13	29	1	24	50	6	14	15	23	50 SKS
TRIESTE	100.93	44.9	13	59	29						17	35 PP
TARANTO	101.30	50.7	13	52	20	23	57	-55				
JENA	101.72	39.3	13	34	0	24	58	3	14	19	17	41 PP
HALLE	102.16	38.9	13	35	0	24	0	-59	14	22	17	35 PP
COLLMBERG	102.69	39.4									16	37
PRAGUE	103.06	40.9				24	6	-60			26	39 PS
PRUHONICE	103.10	41.0	13	40	0	24	3	-64	14	26	17	45 PP
POTSDAM	103.15	38.3									14	26
BRATISLAVA	104.01	43.4	13	44	0						18	2 PP
BELGRADE	105.04	47.4									18	7 PP
KRAKOW	106.38	42.2	18	7	777	24	20	0			18	19 PP
SKALSTUGAN	106.87	27.4									18	22 PP
WARSAW	107.69	40.2				24	25	0			18	32 PP
COLLEGE	107.80	333.7	13	59	777	25	43	-2	14	48	24	23 SKS
UPPSALA	108.08	31.9				25	51	0			24	24 SKS
NORD	108.56	6.9	18	11	777	24	27	0				
HELWAN	108.62	65.0	14	35	777	25	21	-33				
BUCHAREST	108.77	49.1				24	33	0			21	4

ISTANBUL KA.	110.00	53.1	18	39	777	24	34	17				
IASI	110.48	46.5				24	34	1			20	53
MELBOURNE	111.28	206.9									18	53 PP
KIRUNA	111.28	24.0	18	10	-2	26	21	105			18	55 PP
RIVERVIEW	111.73	213.7	18	58K	45						28	32 PPS
KSARA	113.42	62.1	14	32	-777	24	57	12	15	16	19	12 PP
SODANKYLA	113.56	24.9	18	17	0							
SIMFEROPOL	114.46	49.9									19	18 PP
BRISBANE	115.61	219.5	18	21	0	27	27	154				
MOSCOW	117.93	38.2	18	29	4	25	5	4	19	15	19	41 PP
KHEYS	118.66	10.0	18	28	1				19	17		
TIFLIS	121.74	54.7	18	33	0						20	5 PP
GORIS	122.69	57.5									20	12 PP
SVERDLOVSK	130.42	34.8	18	52	3						21	5 PP
TIKSI	131.70	353.3	18	51	-1				19	40	22	18 PKS
ASHKABAD	132.00	60.0	18	54	2				19	43	21	15 PP
RABAUL	132.43	238.9	18	40	-13						21	23 PP
PORT MORESBY	132.68	229.2	18	57	3							
PETROPAVLOVK	135.17	322.2	19	1	3						22	16 PKS
QUETTA	138.97	71.3	18	57	-8				19	56	21	59 PP
TRUK	139.13	252.5	19	0	-5						22	29 PP
TASHKENT	140.06	54.0	19	10	3				19	50	22	8 PP
STALINABAD	140.14	58.3	19	5	-2							
YAKUTSK	140.52	347.6	19	0	-8						22	30 PKS
BOMBAY	142.49	90.2	19	32	20						22	54 PP
WARSAK DAM	142.85	65.2	19	7	-5							
POONA	143.34	91.2	19	13	0						22	32 PP
FRUNSE	143.48	49.9	19	13	0				20	0	22	27 PP
SEMIPALATNSK	143.69	35.6	19	14	0				20	3		
COLOMBO	144.01	113.1	19	43	29						29	8
Y.-SAKHLINSK	147.10	321.1	19	20	1				20	9	41	47 SS
HYDERABAD	147.21	95.3	19	27	7							
GUAM	148.04	256.3	19	22	1				20	12	22	58 PP
AGRA	148.54	77.2	19	22A	0						23	7 PP
DEHRA DUN	148.57	71.1	19	24	2						29	34
BANDUNG	148.65	170.1	19	11	-11						22	48 PP
DJAKARTA	149.21	168.3	19	28	5	25	59	-12				
IRKUTSK	151.26	10.9	19	28	2				20	11	33	11 SKSP
SENDAI	152.36	307.1	19	36	9							
KOROR	153.31	234.5	19	25	-4							
MATUSIRO	154.98	305.3	19	33	2				20	25	19	57 PKP2
VLADIVOSTOK	155.47	324.8	19	31	0							
ULAN-BATOR	155.89	9.8	19	36	4				20	24		
CHATRA	156.70	78.2	19	34	1						30	17
PORT BLAIR	157.18	119.7									20	44
KYOTO	157.44	303.7	19	36	2							
CALCUTTA	157.45	89.3	19	29	-5						21	26
CHANGCHUN	157.94	335.4	19	36K	1				20	25	24	44 PP
LHASA	159.84	69.7	19	40K	3				20	31	25	7 PP
SHILLONG	160.93	81.6	19	38A	0						20	24
NAGASAKI	162.81	303.3	19	41	1						24	16 PP
LANCHOW	165.85	31.3	19	46K	3				20	36	24	28 PP
BAGUIO CITY	169.37	224.5	19	49	4	25	2	-87				
CHENGTU	169.88	48.8	19	48K	3						24	56 PP
ZO-SE	169.93	314.6	19	46K	1				20	37	24	52 PP
NANKING	170.60	327.3	19	49K	3				20	33	21	53 PKP2
KUNMING	170.72	82.9	19	48	2				20	38	21	2 PKP2
PHU-LIEN	173.32	119.5	21	13	86	26	46	15				
HONG KONG	177.72	212.7	19	45	-3						21	39 PKP2
CANTON	178.79	199.4	19	51	3				20	41	21	44 PKP2

MAY 9 0.H 44.M 12.S EPICENTRE 1.14 -94.49 DEPTH= 0.KM
A=-0.07823 B=-0.99674 C= 0.01981 D=-0.9969 E= 0.0782
G=-0.0016 H=-0.0197 K=-0.9998 HT= 7.2

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SAN SALVADOR	13.55	22.3	3	16	1							
SANTIAGO MA.	13.64	25.6	3	40	23						6	52 SS
COMITAN	15.19	8.7	3	40	3						6	52 SS
BALBOA HTS.	16.77	61.9	3	58	1	7	18	14				
VERA CRUZ	18.02	355.0	4	15	2	7	42	10				
PUEBLA	18.14	348.7				7	56	21				

TACUBAYA	18.72	346.0	4	26	4	8	2	14	6	20	
CHINCHINA	19.22	78.2	4	26A	-2	8	8	9	4	46	PP
MERIDA	20.25	13.2	4	35	-4	8	30	8	6	9	PP
BOGOTA	20.68	80.0	4	43A	-1	8	38	8	5	4	PP
FLAGUENE	21.16	77.8	4	56	7	8	58	18			
GUADALAJARA	21.25	336.6	4	54K	5				10	20	
GALERAZAMBA	21.36	62.6	4	51	0	8	50	6	5	11	PP
HUANCAYO	23.11	125.1	5	8A	0	9	33	17			
CHIHUAHUA	29.49	339.0				11	3	1	9	24	
LA PAZ	31.37	125.1	6	23A	-1	11	36	5	7	32	PP
SAN JUAN	32.69	56.7	6	34	-2				7	42	
LUBBOCK	33.00	348.7	6	36	-2				7	48	PP
TUCSON	34.57	335.2	6	52	0	12	30	9			
TUCSON TELE.	34.60	335.4	6	52	0						
FAYETTEVILLE	34.77	0.4	6	52K	-2						
ST. VINCENT	35.00	68.5	6	56	0						
COLUMBIA	35.03	19.7	6	55	-1				7	57	PP
ST. LUCIA	35.51	67.2	7	0	0						
FORT FRANCE	35.59	66.0	7	4	3				15	20	
CHAPEL HILL	37.45	20.8	7	15	-1				8	42	
PASADENA	39.61	328.5	7	37	3	13	37	-1	9	7	PP
MORGANTOWN	40.54	17.4	7	44A	2				9	19	PP
WASHINGTON	40.82	20.9	7	43	-1				9	19	PCP
TALA POZO	40.90	137.1				13	58	1	9	23	PP
LARAMIE	41.22	347.3	7	42	-6						
BERMUDA	41.87	39.1	8	8	15	14	16	4	9	33	PP
SALT LAKE C.	42.47	340.4	7	59	1				8	20	
FRESNO	42.48	329.4	7	59	1						
EUREKA	42.90	335.4	8	2	1						
RAPID CITY	43.45	350.9	8	5	-1						
PALISADES	43.84	22.6	8	8	-1	14	38	-3	18	2	SCS
LICK	43.86	328.3	8	9A	0						
BERKELEY	44.58	328.3	8	15	0	14	57	6			
RENO	44.65	331.9	8	16A	0						
WESTON	46.02	23.9	8	26A	-1	15	2	-10			
BOZEMAN	46.68	344.1	8	32	0						
SHASTA	46.79	330.8	8	34	1						
OTTAWA	47.08	18.0	8	33K	-2	15	30	3			
BUTTE	47.43	342.9	8	37	-1				10	6	PCP
BREBEUF	47.85	19.8	8	38K	-3						
SHAWINIGAN	49.05	19.8	8	49	-1						
CORVALLIS	50.22	333.4	8	59	0						
SEVEN FALLS	50.22	20.9	8	57	-2	16	13	2			
HALIFAX	51.20	28.1							16	31	PS
RESOLUTE	73.45	359.9	11	32K	-4	21	0	-5	25	33	SS
COLLEGE	74.16	339.1	11	37	-3				12	11	
THULE	76.63	6.2	11	53	-1						
MBOUR	77.63	75.6	12	16	17	21	58	7			
BYRD STATION	82.04	184.3	12	26	3						
MALAGA	89.39	53.5	13	0K	1				16	34	PP
GRANADA	90.03	53.0	13	21K	19				16	48	PP
SOUTH POLE	91.14	180.0	13	6	-1						
TAMANRASSET	98.78	66.9	13	42	0				17	36	PP
KSARA	121.88	48.3	19	1	5	26	8	12	20	42	PP
ASTRIDA	124.23	92.4	19	12	12				20	44	
HONG KONG	143.61	311.5	20	6	30						
QUETTA	144.17	28.1	19	35	-2						
SHILLONG	152.74	347.4	19	55	4						

MAY 9 2.H 40.M 45.S EPICENTRE 36.44 27.69 DEPTH= 0.KM

A= 0.71409 B= 0.37470 C= 0.59134 D= 0.4646 E=-0.8855
G= 0.5236 H= 0.2748 K=-0.8064 HT= -0.4

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	3.52	297.0	0	58K	1						1	57	SG
ISTANBUL KA.	4.75	12.7	1	12	-3						2	35	SG
SOFIA	7.10	333.1	1	51	3						4	17	
KSARA	7.20	108.9	1	51	1	3	14	1			2	23	PG
HELWAN	7.22	154.0	1	50	0	3	8	-6					
SKOPJE	7.38	320.5	1	54A	2	3	21	3					
BUCHAREST	8.07	351.9	2	3	1	3	19	-16			2	49	
CAMPULUNG	9.05	348.0	2	23	8								
TARANTO	9.12	299.3	2	25	9	4	17	16					

REGGIO CALA.	9.74	283.4	2 23	-2	4 9	-7		
SIMFEROPOL	9.80	27.9	2 25A	-1	4 15	-3		2 35
MESSINA	9.83	283.9	2 22	-4	4 9	-9		
BELGRADE	10.01	329.0	2 38A	9	4 57	34		3 35 PG
TIMISOARA	10.50	334.4	2 46	11	4 41	6		
IASI	10.76	359.6	2 35	-4	3 25	-76		
SZEGED	11.32	332.3	2 55	8	4 38	-17		3 5 PPP
BUDAPEST	12.75	332.6	3 7	1				
ZAGREB	12.86	320.4	3 7	0				6 53 PS
ROME	13.00	299.4	3 12	3	5 39	3		
HURBANOVO	13.40	331.4			6 1	16		6 45
SKALNATE PL.	13.85	339.2	3 30	10	6 6	10		3 51
TRIESTE	13.96	315.5	3 23	1	6 5	6		6 57
BRATISLAVA	14.08	329.6	3 25	2	6 0	-2		
TIFLIS	14.30	63.1	3 29	3	6 16	9		4 8
VIENNA-H.	14.45	328.3	3 28	0	6 30	20		3 41 PP
FLORENCE X.	14.55	305.3	3 27A	-3	6 29	16		
KRAKOW	14.72	340.0	3 31	-1	5 34	-43		3 42 PP
GORIS	15.02	72.6	3 41	5				6 41
RACIBORZ	15.27	336.2	3 44	5				3 57 PP
WARSAW	16.48	345.4	3 57	2	6 55	-3		
PAVIA	16.49	307.7	3 57	2				7 34
PRUHONICE	16.55	329.0	3 56	1	7 4	5		
PRAGUE	16.66	329.0	3 55	-2	7 3	1		
CHUR	17.06	313.2	4 2K	0				
MONACO	17.10	301.4	4 2	0			5 15	
OROPA	17.44	307.8	4 12	5				11 55
RAVENSBURG	17.51	315.9	4 9	2				7 2
ZURICH	17.88	313.6	4 13	1				
PLAUEN	17.97	326.3	4 13	0				4 22 PP
ERINGEN	18.09	316.2	4 14	-1	7 40	5		4 41 PP
COLLMBERG	18.19	329.3	4 18	2	7 32	-5		
TUBINGEN	18.23	317.3	4 15	-2				4 44 PP
STUTTGART	18.30	318.1	4 17	0	7 42	2		4 43 PP
SONNEBERG	18.32	324.7	4 18	0	7 43	3		4 27 PP
JENA	18.53	326.5	4 20	0	7 52	7		4 29 PP
BASLE	18.55	312.9	4 22A	2	7 27	-18		
NEUCHATEL	18.68	310.8	4 23	1				
HALLE	18.78	328.2	4 23	0	7 55	5		4 36 PP
KARLSRUHE	18.87	317.8	4 25A	1	8 9	17		5 15
STRASBOURG	18.98	315.9	4 25K	-1	8 3	8		
POTSDAM	19.00	331.6	4 26	0	7 57	2		
ALGIERS UNI.	19.77	278.3	4 32	-3	8 6	-7		5 11 PP
MOSCOW	20.45	16.2	4 40	-2	8 24	-3		5 20 PPP
BENSBERG	20.66	321.1	4 42	-2	8 8	-23		
CLERMONT-FD.	20.66	304.4	4 42	-2	8 42	11		
MUNSTER	21.06	323.8	4 47	-1	8 50	11		
COPENHAGEN	21.87	336.4	4 56	-1	9 0	6		
RELIZANE	21.92	276.3	4 59K	2	8 52	-3		7 5
UCCLE	22.04	317.9	4 32	-26	9 15	18		
WITTEVEEN	22.05	324.6	4 57	-1				
PARIS	22.17	311.8	4 59A	-1				5 27 PP
ALICANTE	22.43	283.4	5 2	0	9 7	3		5 31 PP
PULKOVO	23.41	3.4	5 11	-1				9 41
TAMANRASSET	23.52	240.8	5 14	1	9 29	5		
HELSINKI	23.82	356.6	5 15	-1				
ALMERIA	24.16	280.0	5 19	0	9 37	2		
UPPSALA	24.32	347.6	5 18	-3	9 40	2		
ASHKABAD	24.42	77.2	5 24K	2	9 40	0		11 15 SSS
KEW	24.94	315.9	5 25	-2	10 8	20		6 11 PP
GRANADA	25.01	281.1	5 29A	2	10 4	15		6 5 PP
TOLEDO	25.12	287.5	5 28K	0	10 4	13	5 36	11 27 SS
MALAGA	25.71	280.3	5 31	-3	9 57	-4		6 13 PP
DURHAM	27.18	321.7	5 59K	12				
SERRA PILAR	28.54	290.6	5 59K	-1				6 52 PP
SKALSTUGAN	28.76	345.7	5 59	-3				
RATHFARNHAM	29.03	316.3	6 14	10				
LISBON	29.16	285.7	6 11K	6				7 2 PP
SVERDLOVSK	30.00	36.7	6 11	-2	11 7	-4		
APATITY	31.33	4.2	6 23	-2	14 48	196		
KIRUNA	31.71	354.8	6 25K	-3	11 38	0		12 54
STALINABAD	32.48	73.7	6 35	0				
QUETTA	33.23	89.3	6 41K	0	12 0	-1		
WARSAK DAM	35.69	80.7	7 2K	0				
FRUNSE	36.29	65.0	7 9K	1				
LWIRO	38.50	178.2	7 28	2	14 23	61		
ASTRIDA	38.88	176.7	7 31	2				9 51 PP
SCORESBY SD.	42.90	337.9	8 0A	-2	14 23	-5		

BOMBAY	43.20	101.4	8	8	3				9	55
KHEYS	44.76	5.9	8	19	2				10	7 PP
MBOUR	45.43	253.0	8	23	0					
NORD	47.96	352.0	8	40	-3					
CHATRA	50.85	83.1	9	4	-1					
LHASA	52.71	78.0	9	20	1	16	47	1	11	32 PP
IRKUTSK	54.47	47.3	9	30K	-2					
SHILLONG	55.18	82.0	9	34K	-3					
THULE	56.31	343.6	9	42	-3					
ULAN-BATOR	57.38	51.7	9	52	-1					
TANANARIVE	58.17	157.8	9	58A	0					
TIKSI	59.25	21.2	10	4	-2					
WINDHOEK	59.53	191.4	10	9	1					
LANCHOW	59.78	65.5	10	10	0					
CHENGTU	62.33	71.0	10	24	-3					
RESOLUTE	62.96	345.4	10	27K	-4	18	57	-4	20	21 SCS
YAKUTSK	63.76	30.9	10	33	-3					
KUNMING	64.00	77.1	10	38	0					
KIMBERLEY	64.90	182.8	10	43A	-1					
PIETERMZBURG	65.76	177.4	10	52	3					
GRAHAMSTOWN	69.40	181.0	11	14	2					
CHANGCHUN	70.69	49.5	11	20	0					
SHAWINIGAN	70.92	314.1	11	20	-1					
BREBEUF	71.99	313.5	11	26A	-2	21	12	23		
WESTON	72.33	309.8	11	29A	-1					
HARVARD	72.40	310.0	11	28	-2					
MEDAN	72.61	98.6	11	34	2					
OTTAWA	73.27	314.3	11	34A	-1					
BERMUDA	73.32	298.0	11	35	-1	17	43	-201	13	0 PP
MAGADAN	73.47	26.4	11	34	-3					
PALISADES	74.70	309.8	11	42	-2				26	25 SS
VLADIVOSTOK	75.06	47.3	11	44	-2					
Y -SAKHLINSK	78.64	39.3	12	4	-2				13	16
COLLEGE	78.97	358.0	12	6	-2					
MORGANTOWN	79.22	311.5	12	10A	1					
CHAPEL HILL	80.97	308.1	12	17	-1					
SAN JUAN	82.27	287.0	12	25	0					
MATUSIRO	82.94	49.5	12	28K	-1				32	25 SSS
RAPID CITY	88.31	327.0	12	53	-2					
HUNGRY HORSE	88.95	335.6							15	16
FAYETTEVILLE	89.89	316.5	13	6	3					
BOZEMAN	90.20	332.5	13	3	-1				14	4
BUTTE	90.46	333.5	13	4	-1					
LARAMIE	91.58	326.7	13	8	-2					
EUREKA	97.37	332.5	13	35	-2				17	25 PP
TUCSON TELE.	101.29	325.0	14	1	6					
TUCSON	101.41	325.1	13	55	0					
CHARTERS TS.	124.32	90.6	19	3	1					
SOUTH POLE	126.25	180.0	19	4	-1				20	58 PP
BYRD STATION	134.47	187.6	19	25	4					
AFIAMALU	151.59	42.8	18	23	-87				18	58 PKP2
KARAPIRO	154.40	103.1	20	3	9				20	20 PKP2

MAY 9 4.H 40.M 32.S EPICENTRE -30.82 -65.32 DEPTH= 174.KM

DEPTH OF FOCUS= 0.022R

A= 0.35920 B=-0.78168 C=-0.50985 D=-0.9087 E=-0.4176
G=-0.2129 H= 0.4633 K=-0.8603 HT= 1.6

SE= 1.78

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TALA POZO	3.14	17.6	0	53	3							
SANTA LUCIA	5.24	238.9	1	16	-1	2	12	-6				
BUENOS AIRES	6.88	125.0	1	38	-1	2	54	-2				
LA PAZ	14.49	349.2	3	16	-1	6	1	7			3	30 PP
HUANCAYO	20.85	331.5	4	32K	3	8	17	11				
BOGOTA	36.22	345.1	6	47K	0	12	12	-2			7	49 *SP
CHINCHINA	36.93	342.8	6	51K	-2	12	19	-6			7	51 *SP
FUQUENE	36.97	346.0	6	57	3						7	55 PP
TRINIDAD	41.42	5.7	7	30	0						9	16 PP
BALBOA HTS.	41.85	338.6	7	34A	0	13	42	4				
GALERAZAMBA	42.45	345.4	7	36	-3	13	46	-1			8	46 *SP
GRENADA	42.76	5.2	7	41A	0						9	30 PP
ST. VINCENT	43.91	5.7	7	48	-2						9	32 PP

BARBADOS	44.03	8.0	7	52	1							
ST. LUCIA	44.79	6.0	7	56A	-1	14	7	-13			9	36 PP
FORT FRANCE	45.47	5.7	8	0	-3	14	23	-7				
ST. CLAUDE	46.71	4.8	9	11	58							
SAN JUAN	48.92	359.0	8	27K	-3	15	22	3	8	58		
SANTIAGO MA.	49.36	329.7	8	35	2							
SAN SALVADOR	49.91	329.0	8	37	0							
BYRD STATION	53.86	190.1	9	9K	2	16	39	13			10	11 PCP
MERIDA	56.52	332.5				16	53	-9				
VERA CRUZ	57.89	325.1									15	38
SOUTH POLE	59.35	180.0	9	46A	1	17	37	-1			10	46 PCP
TACUBAYA	59.62	322.4	9	51	4	17	43	1			13	23 PP
BERMUDA	62.86	0.6	10	20	11	18	24	1			11	14 PCP
MBOUR	64.65	53.3	10	20	-1	19	33	48				
COLUMBIA	66.16	345.8	10	29A	-1				11	13		
SCOTT BASE	67.28	190.4	10	29A	-8						11	44 PCP
CHAPEL HILL	67.63	348.0	10	38	-2							
LITTLE ROCK	70.05	336.5	10	53	-1	19	45	-4				
GEORGETOWN	70.22	350.3	10	55	0	19	52	1				
CAPE HALLETT	70.32	195.6	10	57K	1						12	51 PP
CHIHUAHUA	70.74	322.6									18	8
MORGANTOWN	71.40	348.1	11	4K	2	20	4	-1				
FAYETTEVILLE	71.87	335.7	11	4	-1	20	9	-1			11	48
PALISADES	71.91	353.2	11	4	-1	20	10	-1			21	8 SCS
WINDHOEK	72.58	106.2	11	9	0							
LUBBOCK	72.76	328.6	11	10	0				11	27		
ST. LOUIS 1	72.90	339.8	11	8K	-3	20	15	-7			21	19 *SS
WESTON	73.05	355.4	11	12K	0	20	22	-1				
CLEVELAND	73.48	347.4	11	14K	-1	20	25	-3				
HALIFAX	75.10	1.3				20	48	2			25	40 SS
GRAHAMSTOWN	75.23	120.1	11	24K	-1							
KIMBERLEY	75.96	115.2	11	26A	-3							
BREBEUF	76.33	354.0	11	30	-1	20	59	-1				
OTTAWA	76.45	352.5	11	31K	0	21	0	-1			14	39 PP
SHAWINIGAN	77.31	354.7	11	37K	1							
SEVEN FALLS	77.74	356.2	11	38K	-1	21	18	3			12	18 *SP
PIETERMZBURG	79.86	118.3	11	50K	0							
LARAMIE	80.84	330.5	11	55	0							
BOULDER CITY	81.09	321.4	11	36	-21	21	31	-19			12	33
MIRNY	81.53	171.4									26	52 SS
PASADENA	81.61	318.1	12	0K	1	21	56	1	12	30	15	11 PP
RAPID CITY	82.19	333.5	12	2K	0							
SALT LAKE C.	83.23	326.3	12	8K	0				12	39	14	9
EUREKA	84.30	323.0	12	14K	1						29	20 PKKP
FRESNO	84.41	319.0	12	13K	0							
LICK	85.85	318.3	12	22K	1							
TAMANRASSET	86.31	60.9	12	23	0	22	32	-9	13	8	15	33 PP
RENO	86.38	320.9	12	24K	1							
BERKELEY	86.58	318.4	12	25K	1	22	41	-3			14	28
BOZEMAN	86.70	329.8	12	25K	0				12	57	13	12 *SP
LISBON	86.73	40.6	12	26A	1							
BUTTE	87.64	329.2	12	30K	1						13	57
MALAGA	88.14	44.6	12	32K	0	22	50	-9	13	17	16	0 PP
SHASTA	88.60	320.3	12	33K	-1							
GRANADA	88.93	44.7	12	36A	1	24	0	54	13	23	17	9 PP
HUNGRY HORSE	90.07	329.9	12	38	-3							
RELIZANE	90.60	47.9	12	44	1				13	29		
KARAPIRO	91.11	223.7	12	46	1				13	33	38	15 PKPPKP
CORVALLIS	91.76	322.7	12	50K	2							
LWIRO	92.40	94.0	12	54	3						13	40
ALGIERS UNI.	92.82	48.4	12	54A	1	23	41	1	13	40	16	31 PP
ASTRIDA	93.02	94.8	12	57	3						13	44
SEATTLE	93.36	325.4	12	57	1							
VICTORIA	94.51	325.5	13	1A	0							
HORSESHOE B.	95.03	326.2	13	1K	-2							
KEW	99.81	35.1				23	44	-56				
ROME	101.74	48.2				23	53	-2				
MESSINA	101.91	52.7				25	0	3			23	51 SKS
STUTTGART	103.32	40.9	13	42	1						17	53 PP
TARANTO	104.17	51.3									23	10
TRIESTE	104.42	45.3	18	48	303	24	8	-1			30	51 SS
SCORESBY SD.	105.66	13.9				24	16	-3			25	29 SKKS
JENA	105.75	39.8									18	11 PP
PRUHONICE	106.96	41.6				24	21	2			18	20 PP
THULE	107.00	359.3	13	57	777	24	36	17			18	10 PKP
RESOLUTE	107.01	352.1	13	56A	777	25	38	-3			18	18 PP
BRATISLAVA	107.63	44.1	18	22	777							
BUCHAREST	111.77	50.5									24	40

SKALSTUGAN	111.92	28.1	18 14	0				
ISTANBUL KA.	112.55	54.7					20 32	
UPPSALA	112.76	32.9	18 15	0				
COLLEGE	114.40	332.3	18 17	-1		15 14	14 29	P
NORD	114.88	7.0	18 19	0				
KSARA	114.93	64.2			24 49 -2		19 23	PP
HELSINKI	116.34	33.9	18 22	0				
KIRUNA	116.58	25.0	18 23	0	24 57 6		27 3	
SIMFEROPOL	117.33	52.0	18 26	2			29 8	SKSP
CHARTERS TS.	121.05	215.1	18 32K	1				
APATITY	121.40	26.4	18 32	0	24 58 -15			
MOSCOW	121.97	40.5	18 34	1				
TIFLIS	124.03	58.0	18 39	2				
KHEYS	124.82	10.8	18 41	2			23 30	PPP
PORT MORESBY	129.30	223.2	18 49	2				
RABAUL	130.07	232.5	18 54	5			21 56	
ASHKABAD	133.57	65.2	18 59	4				
SVERDLOVSK	134.71	38.8	18 52	-5				
TRUK	138.21	244.0	18 59	-5				
TIKSI	138.42	353.3	18 52	-12				
OUETTA	139.12	78.2	18 58	-7			22 25	PKS
BOMBAY	140.42	97.4					23 37	
POONA	141.14	98.6	19 12	3				
STALINABAD	141.79	65.6	19 4	-7				
LEMBANG	141.96	168.6	19 8	-3				
TASHKENT	142.22	61.1	19 5	-6			28 48	SKKS
MAGADAN	142.44	330.5	19 6	-6				
WARSAK DAM	143.65	73.4	19 9	-5				
LAHORE	145.61	78.1	19 20	3				
FRUNSE	146.03	57.9	19 20	2			29 15	SKKS
YAKUTSK	147.29	346.9	19 20	0			22 46	PP
GUAM	147.38	244.7	19 21K	1		20 11	20 39	*SP
SEMIPALATNSK	147.77	42.7	19 20	-1				
AGRA	147.81	87.2	19 21A	0			19 25	PKP2
DEHRA DUN	148.55	81.4	19 29	7				
MEDAN	148.98	147.7	19 29	6			22 53	
KOROR	150.17	222.5	19 32K	8				
Y.-SAKHLINSK	153.07	314.7	19 28	0			23 23	
CHATRA	155.60	92.5	19 34	2				
SENDAI	157.21	296.1	20 9	35				
IRKUTSK	157.26	16.6	19 36	2			30 19	SKKS
SHILLONG	159.24	99.0	19 39K	3			24 45	
LHASA	159.54	87.3	19 40K	3		20 19	24 7	PP
MATUSIRO	159.62	292.6	19 38	1			24 0	PP
VLADIVOSTOK	161.61	316.6	19 39	0			20 26	PKP2
KYOTO	161.84	288.9	19 41	2				
ULAN-BATOR	161.92	17.1	19 41	2			20 28	PKP2
CHANGCHUN	164.53	330.0	19 43K	1			24 30	PP
NAGASAKI	166.93	282.3	19 42	-2			24 24	
KUNMING	167.94	115.5	19 47	3			20 36	*SPKP
LANCHOW	169.53	57.1	19 49	4			21 4	PKP2
PEKING	170.73	352.9	19 48	2			24 54	PP
CHENGTU	170.82	88.3	19 48K	2			20 37	PKP2
CANTON	172.19	170.5	19 50	3			20 39	*SPKP
ZO-SE	174.41	274.5	19 49	1			25 16	PP
NANKING	176.27	290.2	19 50K	2			24 33	PP

MAY 10 22.H 54.M 39.5 EPICENTRE 65.23-152.01 DEPTH= 0.KM

A=-0.37210 B=-0.19776 C= 0.90688 D=-0.4693 E= 0.8830
G=-0.8008 H=-0.4256 K=-0.4214 HT=-10.5

SE= 2.44

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	1.81	99.4	0 33	0	0 53	-4		
SITKA	11.46	127.8	2 45	-3	4 47	-11		3 41
RESOLUTE	20.76	39.0	4 45A	0	8 31	-2		
ALBERNI	21.45	125.1	4 51K	-1	8 51	5		
HORSESHOE B.	21.89	122.6	4 57K	0	9 1	6		
VICTORIA	22.57	124.0	5 2A	-2	9 12	5		
SEATTLE	23.70	123.5	5 18K	3				
KLYUCHI	24.14	270.9	5 19	0	9 44	9		
CORVALLIS	26.04	128.6	5 38K	1				
HUNGRY HORSE	26.21	111.6	4 37	-62				

MAGADAN	26.27	284.7	5	37	-2	10	12	1		11	15 SS
SASKATOON	26.29	97.9	6	1	22	10	10	-1			
PETROPAVLOVK	27.23	267.5	5	45	-3						
TIKSI	27.71	318.0	5	50	-2	10	35	1		8	57 PCP
BUTTE	28.69	112.8	6	8	7	11	27	37		8	58 PCP
BOZEMAN	29.58	111.4	6	9	0	11	8	4		6	38
SHASTA	29.82	130.9	6	11	0						
MINERAL	30.39	130.1	6	7K	-9						
NORD	31.47	11.4	6	26	0						
RENO	31.71	128.4	6	28K	0						
BERKELEY	32.45	132.9	6	34K	0	11	49	0		8	59 PCP
EUREKA	33.07	123.4	6	40	0					7	25 PP
LICK	33.12	132.5	6	40K	0						
SALT LAKE C.	33.43	117.3	6	43	0					7	42 PP
RAPID CITY	34.04	104.3	6	48	0					8	39 PCP
FRESNO	34.23	130.5	6	49K	-1						
KHEYS	34.29	352.7	6	43	-8	12	7	-11		9	17 PCP
BOULDER CITY	36.61	124.7	7	8	-2						
PASADENA	37.16	130.1	7	14K	-1	13	1	-1		13	37 PCS
Y.-SAKHLINSK	38.61	274.3	7	25	-2						
SCORESBY SD.	40.28	23.5	7	42	1	13	54	5			
TUCSON	41.38	122.4	7	51	1					26	29 PKKP
LUBBOCK	43.56	111.5	8	8	0	14	40	2			
ST. LOUIS 1	43.95	96.1	8	10	-1	14	37	-6		17	41 SS
OTTAWA	44.44	77.8	8	14	-1					10	4 PP
FAYETTEVILLE	44.47	101.9	8	13K	-2					10	12
SHAWINIGAN	44.72	74.5	8	18	1						
SEVEN FALLS	45.04	72.5	8	20	0	14	58	-1		10	3 PP
BREBEUF	45.22	76.0	8	21K	0	15	3	1			
CLEVELAND	45.24	85.9	8	22	1	14	58	-4			
VLADIVOSTOK	46.23	280.2	8	31	2					18	22 SCS
LITTLE ROCK	46.36	101.0	8	27	-3						
KIRUNA	47.12	3.9	8	36	0						
APATITY	47.45	357.2	8	34	-5	15	2	-31			
SODANKYLA	47.69	0.7	8	41	0						
KABANSK	48.54	306.1	8	47	0	15	50	1		19	39 SS
WESTON	48.74	76.6	8	49A	0						
PALISADES	48.81	79.7	8	48	-1	15	42	-11		10	45 PP
MATUSIRO	49.08	269.8	8	50A	-1	15	58	2		20	2 SS
IRKUTSK	49.14	307.9	8	53A	1	15	58	1		10	48 PP
GEORGETOWN	49.26	84.0	8	55	2						
WASHINGTON	49.26	84.0	8	54	1						
HALIFAX	49.97	68.8								16	8 PS
KYAKHTA	50.02	305.0	9	0	1	16	15	6		10	57 PP
CHAPEL HILL	50.96	87.8	9	5	-1						
SKALSTUGAN	50.98	9.0	9	5	-1						
COLUMBIA	51.77	90.8	9	12	0	16	31	-2			
ULAN-BATOR	51.94	303.0	9	16	3	16	40	4			
HELSINKI	54.90	1.8	9	34	-1						
UPPSALA	55.00	6.4	9	35	-1						
PEKING	55.20	290.8	9	36	-1	17	20	0			
PULKOVO	55.31	358.6				17	18	-3		17	29 PS
SVERDLOVSK	55.77	339.0	9	42	1	17	32	4		11	58 PP
ABERDEEN	55.81	19.3								21	24 SS
NAGASAKI	55.86	274.8	9	42	0	17	30	1			
DURHAM	58.21	19.7	9	56	-3	18	4	4			
VERA CRUZ	58.68	113.7								25	29
COPENHAGEN	58.84	10.2	10	2A	-1						
MOSCOW	59.15	353.7	10	6	1						
BERMUDA	60.00	77.4				18	25	2		13	48 PPP
WITTEVEEN	61.15	14.6	10	27	8						
KEW	61.61	19.7				18	48	4		22	46 SS
DE BILT	61.69	15.8	10	21	-2	18	51	6			
MUNSTER	62.09	14.1	10	26	1					12	42
POTSDAM	62.17	10.3	10	26	0						
HALLE	62.95	11.2	10	30	-1					12	46 PP
BENSBERG	63.04	14.6	10	31	-1						
COLLMBERG	63.23	10.5	10	33	0						
LANCHOW	63.37	298.5				19	6	0			
JENA	63.49	11.5	10	34	-1	19	9	2		12	58 PP
DOURBES	63.59	16.6	10	30	-5						
PLAUEN	63.96	11.2	10	36	-2						
PARIS	64.59	18.4	10	43A	1	19	25	4			
PRUHONICE	64.66	9.6	10	39	-3	19	30	8		13	9 PP
RACIBORZ	64.78	7.0	10	44	1						
KARLSRUHE	65.09	14.1	10	46	1					11	6
ALMATA-2	65.23	322.4	10	53	7						
ALMATA	65.34	322.7	10	50	3						
STUTTGART	65.41	13.6	10	47	0	19	36	5		23	27 SS

STRASBOURG	65.45	14.6	10	48	1	19	39	7	23	54 SS
TUBINGEN	65.64	13.7	10	48	-1					
PRZHEVALSK	65.70	321.3	10	56	7					
EBINGEN	65.97	13.8	10	51	0					
RYBACHE	66.33	323.0	10	57	4					
BRATISLAVA	66.63	7.9	10	55	0				13	26
CERNAUTI	66.82	1.5	10	56	0	19	53	5	13	26 PP
RAKHOV	67.14	2.8	10	55	-3					
CLERMONT-FD.	67.66	18.6	11	2	1	20	15	17		
TCHIMKENT	68.02	327.9	11	2	-2					
KISHINEV	68.09	359.4	11	4	0	20	10	6		
NAMANGAN	68.80	325.9	11	6	-3					
ANDIJAN	68.85	325.3	11	8	-1	20	24	12	28	27 SSS
TRIESTE	68.91	10.7	11	8	-1	20	13	0	20	29
TASHKENT	69.02	327.8	11	13	3				20	39 PS
THEODOSIA	69.94	354.4	11	7	-9				15	33 PPP
SIMFEROPOL	70.06	355.4	11	19	3	20	34	7	11	39 PCP
MONACO	70.20	15.7	11	18	1					
ALUSHTA	70.30	355.1	11	18	0					
YALTA	70.53	355.3	11	12	-7					
FLORENCE X.	70.55	12.8	11	59	40	20	38	5	21	23 PS
BUCHAREST	70.69	1.4	10	45	-35					
GROZNY	70.91	346.4	11	21	0				21	13 SCS
MAKHACH-KALA	71.07	345.0	11	21	-1	20	42	3		
SOTCHI	71.15	351.0							11	26
HONG KONG	71.57	283.1	10	55	-30	20	47	3		
STALINABAD	71.78	327.4	11	25	-2	20	47	0		
TORTOSA	72.13	21.6							21	49
KHOROG	72.14	324.8	11	28	-1					
KULYAB	72.17	326.4	11	28	-1	20	52	1		
TOLEDO	72.28	25.4	11	31	1	20	46	-7		
LISBON	72.41	29.7	11	31A	1					
ROME	72.53	12.1	11	35	4	21	7	12		
TIFLIS	72.59	346.9	11	32	1	20	57	1	24	36
BAKU	73.35	342.7				21	13	8		
KUNMING	73.68	294.3	11	38	0					
LHASA	73.74	306.1	11	41	3	21	12	3		
KIZYL-ARVAT	73.76	337.4	11	41	3				21	29 PS
ISTANBUL KA.	74.04	359.2	11	39	-1	21	18	6		
EREVAN	74.14	346.9	11	40	-1	21	10	-3		
ALICANTE	74.39	22.9							21	17
ASHKABAD	74.46	335.5	11	43	1	21	24	7		
GORIS	74.63	345.4	11	43	0	21	27	8		
GRANADA	74.99	25.7	11	51A	6	21	37	14		
NAKHICHEVAN	75.02	346.1	11	49	3	21	27	4		
MALAGA	75.29	26.4	11	47K	0	21	27	1	14	35 PP
MESSINA	76.45	10.1	11	37	-17	21	41	2	22	33 PPS
ALGIERS UNI.	76.49	20.4	11	54	0	21	45	6		
LAHORE	77.07	320.7	11	55	-2					
ATHENS	77.09	3.5	11	57	0					
RELIZANE	77.10	22.6	12	2	5				15	4 PP
SHILLONG	77.19	303.7	11	56A	-2	21	45	-2	14	48 PP
DEHRA DUN	77.20	317.2	12	1	3	21	45	-2		
CHATRA	77.63	308.2	12	0	0	21	58	6		
FUQUENE	80.15	98.4	12	18	4					
QUETTA	80.22	326.5	12	14	0	22	14	-5	12	21 PCP
BOGOTA	80.77	99.0	12	25	8	22	23	-2	23	11 PS
KSARA	81.09	353.4	12	21	2				15	29 PP
CALCUTTA	81.21	305.6				22	39	9		
HELWAN	85.18	357.1	12	41	1	23	13	3		
BOMBAY	89.48	318.1							23	59
PORT BLAIR	89.65	297.6							23	54
TAMANRASSET	90.59	20.7	13	7	1				14	4
MBOUR	93.74	43.3				24	38	10		
LA PAZ	102.29	102.5							16	21
LWIRO	117.15	359.1	19	59	71					
ASTRIDA	117.49	358.0	20	7	79					
KIMBERLEY	143.45	4.7	19	34	-3					
PIETERMZBURG	144.34	356.4	19	38	-1					
SCOTT BASE	145.00	194.1	19	38K	-2					
BYRD STATION	146.20	170.3	19	38	-4					
GRAHAMSTOWN	148.05	2.2	19	52A	7					
OASIS-BUNG.	151.58	234.6	19	56	6					
SOUTH POLE	155.08	180.0	19	51	-4					

MAY 11 5.H 23.M 55.S EPICENTRE 65.10-151.94 DEPTH= 0.KM

A=-0.37367 B=-0.19919 C= 0.90592 D=-0.4704 E= 0.8825
G=-0.7994 H=-0.4261 K=-0.4234 HT=-10.5

SE= 2.35

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	1.77	95.5	0 30	-2	0 55	-1		
SITKA	11.36	127.5	2 47	0	4 49	-7		
RESOLUTE	20.84	38.8	4 43A	-3	8 31	-4		
ALBERNI	21.35	124.9	4 52	1	9 1	17		
HORSESHOE B.	21.80	122.4	4 55K	-1	9 5	12		
VICTORIA	22.47	123.9	5 4K	1	9 7	2		
SEATTLE	23.61	123.4	5 17A	3				
KLYUCHI	24.17	271.3	5 18	-1	9 42	7		
CORVALLIS	25.94	128.5	5 38A	2				
HUNGRY HORSE	26.13	111.5	5 42	4				
SASKATOON	26.25	97.7	5 44	5	10 24	14		6 6
MAGADAN	26.33	285.0	5 37	-3	10 11	0		6 17 PP
PETROPAVLOVK	27.25	267.8	5 47	-1	10 27	0		6 34 PP
TIKSI	27.83	318.2	5 50	-3	10 34	-2		6 38 PP
BUTTE	28.61	112.6	6 0	0	11 26	37		7 55 PP
BOZEMAN	29.50	111.2	6 9	1	11 11	8		7 39
SHASTA	29.71	130.8	6 11A	1				
MINERAL	30.28	130.0	6 15A	0				
UKIAH	30.88	133.3	6 21	0				
NORD	31.59	11.4	6 25	-2				
RENO	31.60	128.3	6 28K	1				
BERKELEY	32.34	132.9	6 33A	0	11 50	3		
YAKUTSK	32.94	301.9	6 36	-3	11 57	0		13 47 SS
EUREKA	32.97	123.4	6 37	-2				
LICK	33.01	132.4	6 39A	0				
SALT LAKE C.	33.35	117.2	6 43	1				7 13
RAPID CITY	33.98	104.2	6 46	-2				
FRESNO	34.12	130.4	6 47	-2				
KHEYS	34.42	352.8	6 42	-10	11 59	-21		7 56 PP
LARAMIE	35.32	109.5	6 59	0				
BOULDER CITY	36.51	124.7	7 11	2	13 13	21		
PASADENA	37.05	130.1	7 13	-1	12 52	-8		13 23 PCS
UGLEGORSK	37.27	277.3	7 12	-4	13 2	-1		15 56
Y.-SAKHLINSK	38.65	274.5	7 24	-3	13 22	-3		
SCORESBY SD.	40.38	23.4	7 46K	4	13 55	4		9 8 PP
TUCSON	41.29	122.4	7 49	0				
LUBBOCK	43.49	111.5	8 6	-1	14 31	-5		
ST. LOUIS 1	43.90	96.0	8 8	-2	14 38	-4		17 40 SS
FAYETTEVILLE	44.41	101.8	8 12K	-3				21 15
OTTAWA	44.44	77.8	8 12	-3	14 50	0		10 0 PP
SHAWINIGAN	44.73	74.4	8 15K	-2				10 7 PP
SEVEN FALLS	45.05	72.4	8 18	-2	15 2	3		18 13 SCS
CLEVELAND	45.21	85.9	8 25	4	14 59	-2		
BREBEUF	45.23	76.0	8 18K	-3	14 58	-4		
VLADIVOSTOK	46.28	280.3			15 3	-14		
CHIHUAHUA	46.29	119.2						24 35
LITTLE ROCK	46.30	100.9	8 27	-3				
KIRUNA	47.25	3.9	8 37	0	15 35	5		
APATITY	47.58	357.2	8 41	1	15 34	-1		
KABANSK	48.64	306.2	8 47	-1	15 54	4		10 54 PP
WESTON	48.74	76.5	8 46A	-3				
PALISADES	48.80	79.7	8 49	0	15 44	-8		10 40 PP
MATUSIRO	49.11	270.0	8 51K	-1	15 58	1		10 17 PCP
IRKUTSK	49.24	308.0	8 53	0	16 3	5		10 47 PP
GEORGETOWN	49.25	83.9	8 49	-4				
WASHINGTON	49.25	83.9						10 57 PP
HALIFAX	49.99	68.7						16 12 PS
KYAKHTA	50.12	305.2	9 0	1				18 53 SCS
CHAPEL HILL	50.93	87.7	9 2	-4				
SKALSTUGAN	51.10	9.0	9 8K	1				
KYOTO	51.46	271.2	9 11	1	16 40	11		
COLUMBIA	51.74	90.8	9 9	-3	16 35	2		9 39
ULAN-BATOR	52.03	303.2	9 15	1				
HELSINKI	55.03	1.9	9 35	-1				
UPPSALA	55.12	6.4	9 36	-1	17 22	3		
PEKING	55.27	291.0	9 37	-1	17 21	0		
PULKOVO	55.44	358.6	9 40	1				11 48 PP
NAGASAKI	55.90	274.9			17 35	6		
ABERDEEN	55.93	19.3						21 16 SS
TACUBAYA	57.24	116.7	10 4	12	17 56	9		18 39

SEMIPALATNSK	58.00	323.4	9	53	-4				17	54
DURHAM	58.33	19.7	10	3	3	18	7	6		
VERA CRUZ	58.60	113.7	11	25	84					
COPENHAGEN	58.96	10.2	10	5	1	18	20	10		
MOSCOW	59.28	353.7	10	7	1					
BERMUDA	60.00	77.4				18	25	2	13	45 PPP
WITTEVEEN	61.27	14.6	10	22	2					
KEW	61.72	19.7				18	50	5		
DE BILT	61.81	15.8	10	21	-2	18	55	9		
MUNSTER	62.21	14.1	10	27	1				11	5
POTSDAM	62.29	10.3	10	27	0					
WARSAW	62.88	4.9	10	34	3	19	1	1		
HALLE	63.07	11.2	10	32	0				11	0 PCP
BENSBERG	63.16	14.6	10	31	-1					
COLLMBERG	63.36	10.5	10	34	0					
LANCHOW	63.46	298.6	10	34	0	19	7	0		
JENA	63.61	11.6	10	35	0	19	12	3	12	45 PP
JERSEY	63.68	21.6	10	50	14				17	8
DOURBES	63.71	16.6	10	27	-9					
PLAUEN	64.08	11.2	10	36	-2					
PARIS	64.71	18.4	10	43	0	19	27	5		
PRUHONICE	64.78	9.6	10	52	9	19	33	10		
RACIBORZ	64.91	7.0	10	43	-1					
KRAKOW	65.02	5.8	10	45	0				11	25 PCP
KARLSRUHE	65.21	14.1	10	40	-6				12	21
STUTTGART	65.53	13.6	10	46	-2	19	35	3	11	13 PCP
STRASBOURG	65.57	14.7	10	50	2	19	39	6	23	47 SS
TUBINGEN	65.76	13.7	10	49	0					
PRZHEVALSK	65.82	321.4	10	55	5					
EBINGEN	66.09	13.9	10	51	0					
RYBACHE	66.45	323.1	10	57	3	19	45	1	13	19 PP
BRATISLAVA	66.75	8.0	10	57	1				11	42
RAKHOV	67.27	2.9	10	58	-1					
NARYN	67.43	322.8	10	59	-1				20	4
CLERMONT-FD.	67.77	18.6	11	3	1	20	11	11		
IASI	68.04	0.4	11	3	-1					
TCHIMKENT	68.14	328.0	11	6	2					
NAMANGAN	68.92	326.0	11	9	0					
ANDIJAN	68.97	325.3	11	10	0	20	19	5		
TRIESTE	69.03	10.7	11	11	1	20	26	11	21	5 PS
LUNACHARSKOE	69.13	327.9	11	12	1	20	16	0		
TASHKENT	69.15	327.9	11	11K	0	20	18	2	21	12 SCS
FERGANA	69.46	325.7	11	13	0	20	20	0		
FLORENCE X.	70.67	12.8	11	31	11	20	37	3	21	21 PS
GROZNY	71.04	346.4	11	22	0	20	42	4		
SOTCHI	71.28	351.1	11	23	-1	20	44	3		
CANTON	71.30	284.3				20	47	6		
HONG KONG	71.63	283.2	11	29	3	20	53	8		
SAN JUAN	71.75	85.8	11	30	4				11	58
STALINABAD	71.91	327.5	11	28	1	20	50	2		
KHOROG	72.26	324.9	11	31	2					
KULYAB	72.29	326.5	11	29	-1	20	51	-2		
TOLEDO	72.39	25.4	11	33	3	20	54	0		
LISBON	72.51	29.7	11	32A	1					
ROME	72.65	12.1	11	34	2	21	13	16		
TIFLIS	72.72	346.9	11	33	1	20	59	2	21	40 SCS
BAKU	73.48	342.8	11	39	2	21	16	10		
KIROVOBAD	73.54	345.6	11	38	1	21	11	4		
KUNMING	73.76	294.4	11	38	0	21	7	-2		
LHASA	73.84	306.2	11	41	2	21	16	6		
KIZYL-ARVAT	73.89	337.5	11	43	4	21	14	3		
ISTANBUL KA.	74.17	359.2	11	40	-1	21	17	3		
BAGUIO CITY	74.20	274.8	11	42	1					
EREVAN	74.27	347.0	11	42	1	21	20	5		
TARANTO	74.43	8.5				21	21	4		
ALICANTE	74.50	22.9							21	15
ASHKABAD	74.59	335.6	11	43	0	21	16	-2	21	55 PS
GORIS	74.76	345.4	11	40	-4	21	25	5		
GRANADA	75.09	25.7	11	45A	-1	21	33	9		
KOROR	76.49	258.1	11	56	2					
MESSINA	76.57	10.1				20	51	-49		
ALGIERS UNI.	76.60	20.4	11	52	-12	21	44	3		
RELIZANE	77.21	22.7	11	59	1					
ATHENS	77.21	3.5	11	59K	1					
SHILLONG	77.29	303.8	11	49A	-9	22	8	20	15	10 PP
DEHRA DUN	77.31	317.2	11	58	0	21	46	-2		
CHATRA	77.74	308.3	12	2	1	22	1	8		
FUQUENE	80.10	98.4	12	13	-1					
CHITTAGONG	80.25	302.6	11	49	-25					

QUETTA	80.34	326.5	12	14	-1	22	22	1			
BOGOTA	80.72	99.1	12	15	-2	22	29	5	23	8	PS
KSARA	81.22	353.4	12	21	1	22	34	4	15	29	PP
HELWAN	85.31	357.2	12	43	3				16	0	PP
PORT MORESBY	86.78	239.7	12	50	2	23	22	-3	24	34	PS
BOMBAY	89.60	318.2							23	56	
TAMANRASSET	90.70	20.7	13	8	2	23	29	-32	16	49	PP
MBOUR	93.81	43.4				24	1	-27			
LA PAZ	102.23	102.6							18	11	PP
LWIRO	117.29	359.2							20	2	PP
UVIRA	118.50	358.8							20	11	PP
KIMBERLEY	143.58	4.9	19	32	-5						
PIETERMZBURG	144.48	356.5	19	35	-4						
SCOTT BASE	144.88	194.1	19	35	-4						
BYRD STATION	146.07	170.4	19	37	-4				21	22	
GRAHAMSTOWN	148.18	2.4	19	46	1						
OASIS-BUNG.	151.52	234.4	19	54	4						
SOUTH POLE	154.95	180.0	19	50	-5						

MAY 12 5.H 38.M 18.S EPICENTRE 52.21-169.54 DEPTH= 0.KM

A=-0.60519 B=-0.11167 C= 0.78821 D=-0.1815 E= 0.9834
G=-0.7751 H=-0.1430 K=-0.6154 HT= -6.2

SE= 2.53

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	16.89	33.0	3	56	-1	7	17	13			4	12	
PETROPAVLOVK	19.23	285.4	4	25	-1								
SITKA	20.25	62.6	4	49	12	8	35	16			5	17	
MAGADAN	23.13	304.2	5	7	1								
Y.-SAKHLINSK	30.94	279.5	6	15	-3								
TIKSI	32.82	329.0	6	37	2								
SHASTA	33.88	90.8	6	47	3								
MINERAL	34.58	90.7	6	57	7								
BERKELEY	35.69	94.6									15	30	
RESOLUTE	36.57	25.5	7	5K	-2	12	58	10			9	29	PCP
BUTTE	36.96	76.3	7	10	0								
FRESNO	37.90	93.9	7	15	-3								
BOZEMAN	38.05	75.9	7	19	0								
EUREKA	38.56	87.5	7	24	1								
VLADIVOSTOK	39.48	280.7	7	30	-1								
MATUSIRO	39.57	267.9	7	32A	0						9	34	PCP
PASADENA	40.62	95.7	7	10	-31								
BOULDER CITY	41.46	90.8	7	51	4								
THULE	42.48	20.1	7	54	-2								
CHANGCHUN	43.02	285.7	7	59A	-1								
RAPID CITY	43.58	73.2	8	4	-1								
LARAMIE	43.79	78.0	8	5	-2								
NORD	45.65	5.4	8	20	-1						10	9	PCP
TUCSON	46.42	91.6	8	27	0								
TUCSON TELE.	46.43	91.4	8	27	-1								
PEKING	50.73	287.3	9	0	-1								
ULAN-BATOR	50.97	300.6	9	2	-1								
FAYETTEVILLE	53.96	75.7	9	22K	-3						10	30	PCP
TRUK	54.64	229.3	9	29	-1								
SCORESBY SD.	55.41	12.6	9	33	-3								
OTTAWA	57.97	56.0	9	51A	-3								
SHAWINIGAN	58.65	53.4	9	57	-2								
BREBEUF	58.96	54.7	9	58	-3								
APATITY	59.33	350.0	10	1	-2								
MORGANTOWN	59.73	63.4	10	4K	-2								
KIRUNA	60.05	355.6	10	7A	-1				10	18			
LANCHOW	60.57	291.8	10	12A	0								
PALISADES	62.00	58.5	10	26	4	18	39	-5			23	5	SS
CHAPEL HILL	62.87	65.8	10	29	2								
SKALSTUGAN	64.55	359.1	10	47	9								
UPPSALA	68.15	356.1	10	59	-2				11	11			
KUNMING	69.29	284.3	11	9	1								
MOSCOW	70.11	344.1	11	12	-1								
FRUNSE	70.31	315.4	11	15	1								
LHASA	72.53	295.8	11	29A	1								
DURHAM	72.92	7.3				21	6	11					
BERMUDA	73.35	58.6				21	0	0			25	49	SS
RATHFARNHAM	73.94	10.4	11	46	10								

SHILLONG	75.20	292.5	13	5A	82						
POTSDAM	75.77	358.3	11	46	-1						
MUNSTER	76.17	1.8	11	42	-7						
HALLE	76.66	359.0	11	52	0					12	24
BENSBERG	77.17	2.1	11	54	0						
JENA	77.24	359.3	11	55	0						
SONNEBERG	77.79	359.5	11	58	0						
KRAKOW	77.80	353.8	11	58	0					12	13 PCP
PRUHONICE	78.13	357.3	11	59	-1					12	39
JERSEY	78.43	8.4								14	1
PARIS	79.13	5.4	12	12K	7	22	17	14			
STUTTGART	79.40	0.8	12	6	-1					12	18 PCP
STRASBOURG	79.57	1.8	12	9	1	22	25	18		12	46
TUBINGEN	79.64	0.9	12	8	0					12	19 PCP
LAHORE	79.69	308.8	12	8A	0						
EBINGEN	79.99	1.0	12	10	0					12	22 PCP
SIMFEROPOL	81.10	343.2	12	16	0						
CHARTERS TS.	81.56	221.5	12	17A	-1						
TIFLIS	81.83	334.7	12	21	1						
TRIESTE	82.48	357.7	12	23	0	22	30	-8		12	34 PCP
SAN JUAN	83.61	68.3	12	42	13						
QUETTA	84.26	313.5	12	33A	1	22	58	3	12 46	12	39 PCP
FLORENCE X.	84.39	359.4	12	33A	0	23	12	15			
ISTANBUL KA.	85.71	346.0	12	39	0						
TOLEDO	87.43	11.1	12	48	0	23	37	11			
MALAGA	90.50	11.9	13	10K	8						
KSARA	91.49	339.1	13	8	1					16	48 PP
BYRD STATION	135.00	169.1	19	15	-4						
SOUTH POLE	142.02	180.0	19	25	-6						
MAWSON	150.67	218.3	20	2	16						
HALLEY BAY	152.43	160.9	20	1	13					28	6 PP

MAY 12 16.H 50.M 2.S EPICENTRE 31.44 140.98 DEPTH= 85.KM

DEPTH OF FOCUS= 0.008R

A=-0.66415 B= 0.53811 C= 0.51899 D= 0.6295 E= 0.7770
G=-0.4032 H= 0.3267 K=-0.8548 HT= 1.3

SE= 2.14

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
TORISIMA	1.12	211.9	0	18A	-3	0	32	-5				
HATIDYOZIMA	1.93	329.8	0	32	0						0	53
OSIMA	3.59	338.4	0	55	0	1	32	-4				
MERA	3.61	344.7	0	53	-2	1	32	-5				
OMAESAKI	3.92	324.4	1	2	3	1	44	0				
MISIMA	4.05	335.7	1	1K	0	1	45	-3				
YOKOHAMA	4.14	344.7	1	0	-2	1	49	-1				
SHIZUOKA	4.14	329.1	1	5	3	1	49	-1			2	35
TYOSI	4.27	358.5	1	3	-1	1	52	-1				
TOKYO C.M.O.	4.36	346.6	1	4	-1	1	51	-4				
HUNATU	4.46	336.1	1	8	2	2	4	6				
KOHU	4.64	334.9	1	11	2	2	5	3				
TITIBU	4.80	341.2	1	11	0							
OWASE	4.81	304.4	1	11	0	2	8	2				
KAKIOKA	4.83	352.2	1	10	-2	2	14	7			1	31
SIOMISAKI	4.84	295.9	1	10	-2	2	11	4				
IIDA	4.85	327.9	1	17	5	2	12	5				
KUMAGAYA	4.89	344.6	1	13	1	2	4	-4				
MITO	4.95	355.2	1	12	-1	2	23	13				
TU	4.98	312.4	1	11	-3							
NAGOYA	5.02	319.0	1	15	1	2	15	4				
KAMEYAMA	5.09	313.2	1	15	0	2	16	3			1	48
UTUNOMIYA	5.18	350.0	1	16	-1	2	8	-8				
MAEBASI	5.20	342.7	1	20	3	2	21	5			1	52
OIWAKE	5.28	338.1	1	22	4	2	28	10				
GIHU	5.30	319.4	1	19	1	2	20	2				
NARA	5.40	308.1	1	17	-3							
MATUMOTO	5.42	333.2	1	21	1	2	32	11				
ONAHAMA	5.50	359.3	1	18	-3	2	22	-1				
IBUKISAN	5.50	316.8	1	19	-2	2	24	0				
HIKONE	5.51	315.3	1	22	1	2	28	4				
OSAKA	5.59	306.4	1	24	2	2	25	-1				
MATUSIRO	5.59	336.5	1	21K	-1	2	24	-2				
WAKAYAMA	5.63	301.2	1	22	-1							

TAKAYAMA	5.64	327.5	1	19	-4							
KYOTO	5.67	310.5	1	24K	1	2	26	-2				
SHIRAKAWA	5.71	353.8	1	23	-1	2	24	-4				
NAGANO	5.71	336.9	1	26	2	2	52	23				
KOBE	5.85	305.1	1	26	0	2	30	-2				
SUMOTO	5.90	301.1	1	26K	0	2	34	1			3	5
TOKUSIMA	6.00	297.7	1	29	1							
HUKUI	6.05	320.8	1	30	2							
TAKADA	6.09	338.9	1	34	5							
TOYAMA	6.12	330.1	1	32	3	1	50	-49				
KANAZAWA	6.23	325.9	1	35	4							
HUKUSIMA	6.31	356.3	1	30	-2	2	36	-7				
TAKAMATU	6.50	298.1	1	35	0	2	52	4			1	58
TOYOOKA	6.57	310.1	1	35	-1	2	45	-5				
KOTI	6.64	290.5	1	36	-1	2	56	4			3	36
NIIGATA	6.66	346.7				2	58	6			2	15
YAMAGATA	6.82	355.8	1	39	0	2	52	-4				
SENDAI	6.82	359.4	1	36	-3	2	46	-10			2	9
WAZIMA	6.82	331.5	1	42	3	2	57	1				
TOTTORI	6.95	307.5	1	40	-1							
ISINOMAKI	6.98	2.2	1	37	-4	2	50	-10			3	34
MATUYAMA	7.34	291.1	1	45	-1	3	0	-9				
SAKATA	7.51	353.1				2	57	-16			2	11
MIZUSAWA	7.68	0.8	1	48	-3	3	8	-9				
MATSUE	7.73	303.3	1	52	0	3	23	5				
HIROSIMA	7.77	294.4	1	50	-2						5	6
SAIGO	7.94	308.8	1	56	1							
OOITA	8.12	285.2	1	59A	2						4	38
MIYAZAKI	8.17	275.9	2	1	3	3	38	9				
HAMADA	8.23	297.2	2	2	4	3	39	8				
MIYAKO	8.24	5.3				3	16	-15				
MORIOKA	8.25	1.0	1	56	-3	3	21	-10				
AKITA	8.30	355.3	1	57	-2	3	26	-6			3	44
KUMAMOTO	8.83	281.7	2	9	2							
KAGOSIMA	8.91	273.6	2	11	3						2	41
HATINOHE	9.09	2.6	2	8	-2	3	39	-12			4	29
HUKUOKA	9.17	286.3	2	15	4							
SAGA	9.22	284.1	2	14K	2							
AOMORI	9.37	359.0				3	54	-4				
NAGASAKI	9.51	280.7	2	17	1						4	36
MORI	10.65	358.3				4	54	25				
URAKAWA	10.79	7.1	2	31	-2	4	26	-7				
TOMAKOMAI	11.07	2.3				5	34	55				
OBIHIRO	11.60	8.1	2	38	-6	4	43	-9				
SAPPORO	11.62	1.3				4	30	-22			5	15
KUSIRO	11.84	12.3	2	42	-5	4	42	-16				
NEMURO	12.42	15.8	2	48	-7	4	56	-16				
VLADIVOSTOK	13.71	330.8	3	10	-2							
Y.-SAKHLINSK	15.55	4.4	3	30	-5							
ZO-SE	16.94	274.0	3	51K	-2							
CHANGCHUN	17.49	319.4	3	58A	-1	7	13	4				
UGLEGORSK	17.66	2.3	4	2	1							
GUAM	18.21	168.2	4	8	0	7	28	3			11	53 SCP
SUIHWA	18.61	328.5	4	12	-1	7	32	-2				
NANKING	18.88	277.7	4	14K	-2							
PEKING	21.84	300.0	4	42K	-4	8	40	3	5	9	5	17 *SP
BAGUIO CITY	23.84	235.9	5	5	-1	9	3	-9				
KOROR	24.74	195.6	5	13	-2							
MANILA	24.84	232.0	5	12	-4	8	32	-57				
PETROPAVLOVK	25.18	25.5	5	18	-1	9	38	3				
TRUK	25.91	154.7	5	26	0							
MAGADAN	28.88	10.4	5	52	-1							
ULAN-BATOR	30.66	312.3	6	5	-3	11	2	-1				
LANCHOW	31.12	288.8	6	10	-2	11	12	2				
CHENGTU	31.59	278.4	6	13	-4							
IRKUTSK	33.82	318.8	6	35	-1						13	56 SSS
RABAUL	37.01	161.3	7	0	-3							
PORT MORESBY	41.03	170.7	7	38	2							
LHASA	42.76	281.0	7	49	-1							
CHATRA	46.85	278.7	8	22	-1							
SEMIPALATNSK	48.22	311.5	8	31	-3							
LEMBANG	49.64	225.8	8	39	-6							
CHARTERS TS.	51.40	173.6	8	57	-1							
FRUNSE	52.89	302.4	9	8	-1							
COLLEGE	54.06	30.0	9	17	-1							
LAHORE	55.98	289.0	9	29K	-3	17	13	2				
WARSAK DAM	57.43	292.6	9	41	-1							
SVERDLOVSK	59.19	320.9	9	54	0							

BRISBANE	59.70	167.6	9	58	0	18	22	22			
SITKA	60.93	38.4	10	7	1						
QUETTA	62.41	290.1	10	14K	-2	18	35	1	10	56	12 38 PP
RIVERVIEW	65.62	170.7	10	38A	1						
APATITY	67.66	336.7	10	49	-1	19	41	2			
RESOLUTE	68.11	13.7	10	51A	-2	19	48	4			23 58 SS
MELBOURNE	69.01	176.6	11	0	2						11 15 PCP
SODANKYLA	69.99	338.0	11	4	0						
VICTORIA	70.59	44.6	11	9A	1						11 39
THULE	70.85	7.0	11	9	0	20	15	-1			
MOSCOW	71.56	324.5	11	14	0	20	27	3			
KIRUNA	71.63	339.9	11	14	0	20	28	3			13 55 PP
MAKHACH-KALA	71.68	309.5	11	14	0	20	27	1			
CORVALLIS	72.41	48.2	11	20	1						
PULKOVO	72.84	330.3	11	21	0	20	42	3			
TIFLIS	74.03	309.3	11	29	1	20	57	5			
SHASTA	74.80	51.5	11	34A	1						
HELSINKI	74.81	332.3	11	32	-1						
MINERAL	75.50	51.5	11	38A	2						
HUNGRY HORSE	76.16	41.6	11	42	2						
BERKELEY	76.25	54.0	11	42A	1						
SOTCHI	76.40	312.8	11	42	0						
LICK	76.94	54.2	11	46A	1						
SKALSTUGAN	76.99	339.0	11	45K	0						14 37
RENO	77.10	51.5	11	47A	2						
SCORESBY SD.	77.64	354.2	11	49K	1	21	38	6			22 12 *SS
UPPSALA	77.83	334.4	11	49K	-1	21	34	0			14 45 PP
BUTTE	78.25	43.0	12	5	13						
FRESNO	78.50	54.0	11	54A	1						
SIMFEROPOL	79.09	316.2	11	57	1	21	52	5			
BOZEMAN	79.33	42.7	12	0	2						
EUREKA	79.67	50.0	12	1	1						15 1 PP
PASADENA	80.99	55.6	12	8	1						
WARSAW	81.57	327.4	12	10	0	22	18	5			15 20 PP
SALT LAKE C.	81.61	47.2	12	11	1						
LWOW	81.69	324.3	13	11	61						
BOULDER CITY	82.32	52.5	12	15	2						
COPENHAGEN	82.76	333.5	12	16K	0	22	27	2			
KRAKOW	83.54	326.2	12	20	0	22	37	4			15 26 PP
REYKJAVIK	83.80	352.5	12	23	2						
KSARA	84.14	306.1	12	24	1	22	43	4	13	7	
RACIBORZ	84.33	327.0	12	25	1						
ISTANBUL KA.	84.35	315.2	12	23	-1	22	10	-31			
RAPID CITY	84.75	40.7	12	27	1						
POTSDAM	84.95	331.0	12	30	3						15 46 PP
LARAMIE	85.11	43.9	12	29	1						
COLLMBERG	85.77	330.3	12	32	1						
PRUHONICE	86.07	328.6	12	32	0	23	1	3	13	8	15 54 PP
HALLE	86.07	330.9	12	32	0	22	53	-5			15 59 PP
JENA	86.65	330.7	12	35	0	23	7	4			16 4 PP
PLAUEN	86.73	330.1	12	34	-1						
BELGRADE	86.82	322.1	12	38	2						
WITTEVEEN	87.13	334.2	12	39A	2						
TUCSON TELE.	87.18	53.6	12	40	2						
SONNEBERG	87.22	330.5	12	39	1	23	12	3			16 3 PP
MUNSTER	87.44	333.2	12	39	0						13 32
BENSBERG	88.41	332.8	12	44	1						
STUTTGART	89.29	330.4	12	47	-1	23	34	6			16 12 PP
ATHENS	89.51	315.4	12	49K	0						
TUBINGEN	89.53	330.4	12	48	-1						
HELWAN	89.57	305.1	12	48	-1						
TRIESTE	89.59	326.0	12	48	-1						16 24 PP
EBINGEN	89.85	330.2	12	51	1						
STRASBOURG	90.04	331.1	12	52	1				13	41	14 4 *SP
KEW	90.71	337.0	12	55	1						
RATHFARNHAM	90.94	341.1	12	48	-7						
PARIS	91.94	334.0	13	4	4						
JERSEY	93.26	336.7	13	10	4						
CLERMONT-FD.	94.19	331.9	13	12	2						
FAYETTEVILLE	95.22	41.9	13	16	1						14 16
OTTAWA	96.58	25.1	13	22K	1						
BREBEUF	97.23	23.7	13	23	-1						
ALGIERS UNI.	101.55	326.7									17 57 PP
TAMANRASSET	111.26	316.0									18 50 PP
SOUTH POLE	121.26	180.0	18	44	1						
BYRD STATION	122.39	168.2	18	47	2						
LA PAZ	149.64	67.5	19	42A	7						

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

MAY 12 21.H 12.M 27.S EPICENTRE -6.59 -76.19 DEPTH= 121.KM

DEPTH OF FOCUS= 0.014R

A= 0.23712 B=-0.96476 C=-0.11408 D=-0.9711 E=-0.2387
G=-0.0272 H= 0.1108 K=-0.9935 HT= 6.9

SE= 0.96

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
HUANCAYO	5.49	171.1	1 21K	1	2 43	20		1 56
BOGOTA	11.34	10.8	2 40	1	4 40	-4		
FUQUENE	12.23	11.6	2 51	0	5 9	4		
LA PAZ	12.62	142.0	2 53	-3	5 33	19		5 57 SS
GALERAZAMBA	17.28	3.0			7 15	12		
TRINIDAD	22.53	40.5	4 51	1			5 18	
GRENADA	23.45	37.9	4 59A	0			5 27	
ST. VINCENT	24.60	37.0	5 9	-1				5 46
BARBADOS	25.60	40.1	5 20	1				
SAN JUAN	26.73	21.7	5 28	-2			5 56	
BERMUDA	40.28	15.1			13 41	17		
COLUMBIA	40.63	353.8	7 28	-1				
MORGANTOWN	46.12	356.0	8 15A	2				
LUBBOCK	46.78	330.3	8 18	-1	15 2	4		
PALISADES	47.42	2.3	8 23	0	15 15	8		13 25 SCP
HARVARD	49.05	4.5	8 36	0				
TUCSON TELE.	50.79	321.7	8 50	1				
TUCSON	50.80	321.6	8 50	1				
OTTAWA	51.76	0.4	8 56K	-1			9 25	
BREBEUF	51.91	2.3	8 57K	-1	16 17	7		
SHAWINIGAN	53.00	3.0	9 5K	-1			9 34	10 11 PCP
SEVEN FALLS	53.69	4.5	9 11K	0			9 40	
LARAMIE	54.75	333.1	9 18	-1				
BOULDER CITY	55.76	322.2	9 27	1			9 55	
RAPID CITY	56.02	336.8	9 28	0				
PASADENA	56.72	318.4	9 33	0				10 26
EUREKA	58.76	324.6	9 47	0				39 23 PKPPKP
FRESNO	59.36	319.9	9 50	-1				
BOZEMAN	60.64	332.6	9 59	-1				
LICK	60.88	319.4	10 2K	0				
RENO	61.06	322.4	10 3K	0				
BERKELEY	61.59	319.6	10 7K	1				
BUTTE	61.61	332.0	10 5	-1				
MBOUR	62.32	70.1	10 12	1				
MINERAL	62.65	322.2	10 13K	0				
SHASTA	63.34	322.1	10 19K	1				
BYRD STATION	76.21	187.1	11 37	1			12 8	
TOLEDO	80.70	47.9	12 2	1				
RESOLUTE	81.94	355.1	12 6K	-1			12 30	23 13 PS
THULE	83.01	1.9	12 14	1			12 44	
SOUTH POLE	83.45	180.0	12 16	1			12 47	
RATHFARNHAM	83.48	34.6	12 14	-1				
TAMANRASSET	84.94	66.5	12 24K	2			12 53	15 22
KEW	86.41	37.4	12 29	0				
PARIS	87.52	40.5	12 35	0				
COLLEGE	88.25	336.1	12 39	1			13 11	
BENSBERG	90.90	38.9	12 51	0				
STUTTGART	91.88	41.3	12 54	-1				
NORD	92.22	7.3	12 56	-1				
UPPSALA	97.58	30.5	13 21	0				
KRAKOW	98.95	40.5	14 28	61				15 27
CHARTERS TS.	130.58	236.7	18 57	1				
QUETTA	138.19	51.2	19 13	3				
LAHORE	142.92	44.2	19 16	-3				
DEHRA DUN	146.20	42.5	19 29	4				
KOROR	149.55	273.2	19 36	6				
CHATRA	154.39	36.3	19 39	2				

MAY 14 12.H 35.M 43.S EPICENTRE 12.03 94.86 DEPTH= 0.KM

A=-0.08282 B= 0.97481 C= 0.20710 D= 0.9964 E= 0.0847
G=-0.0175 H= 0.2064 K=-0.9783 HT= 6.3

SE= 3.82

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT BLAIR	2.12	260.5	0	39	2								
MEDAN	9.21	155.4	2	38	21						3	13	
CHITTAGONG	10.67	344.6	2	45	8								
HOWRAH	12.18	330.1	3	23	25								
SHILLONG	13.76	348.6	3	17	-2								
MADRAS	14.36	275.4	3	27	0						4	14	
KUNMING	14.92	28.7	3	37	3	6	33	12					
CHATRA	16.40	335.0	3	59	6						8	24	
LHASA	17.88	349.1	4	14K	2	7	37	7			4	31	PP
CHENGTU	20.38	23.2	4	39K	-2								
HONG KONG	21.07	58.4	4	53	5	9	0	21					
DJAKARTA	21.66	146.0	4	55	1								
AGRA	21.80	316.0	5	5	9	9	0	7					
BOMBAY	22.30	290.6	5	15	14	9	12	10			9	45	SS
LEMBANG	22.63	145.2	5	17	13								
BANDUNG	22.70	145.3	5	38	34								
DEHRA DUN	23.96	322.0	5	20	3						9	44	
LANCHOW	25.28	17.2	5	29K	-1								
BAGUIO CITY	25.30	77.1	5	32	2	10	22	28					
MANILA	25.54	81.4	5	34	2								
LAHORE	27.12	319.0	5	46	-1								
QUETTA	31.55	309.2	6	26	0								
PEKING	33.64	30.2	6	43	-2								
ULAN-BATOR	37.17	13.4	7	15	0								
KOROR	39.31	93.1	7	29	-4								
CHANGCHUN	41.13	33.9	7	45K	-2								
MATUSIRO	45.93	50.3	8	23A	-3								
SVERDLOVSK	51.85	336.8	9	11	-1								
TIFLIS	52.59	313.7									10	27	
CHARTERS TS.	59.77	121.7	10	8A	-1								
SIMFEROPOL	60.96	314.9									11	10	
HELWAN	61.22	297.5	10	24	5								
MOSCOW	61.94	327.4	10	47	23								
TIKSI	63.03	11.5	10	27	-4								
APATITY	68.23	338.7	11	9	4								
LWOW	68.54	318.9	11	1	-6								
BRISBANE	68.70	125.9	11	8K	0								
SODANKYLA	70.65	337.6	11	17	-2								
KRAKOW	71.20	318.9	11	20	-3						11	44	PCP
BRATISLAVA	72.98	316.8	11	31	-2						11	58	
KIRUNA	73.06	337.5	11	32	-2								
UPPSALA	73.26	329.1	11	32	-3								
PRUHONICE	74.66	318.7	11	41	-2						14	35	PP
COLLMBERG	75.63	320.1	11	46	-3								
SKALSTUGAN	76.01	332.8	11	59	8								
HALLE	76.28	320.3	11	50	-2								
JENA	76.54	319.7	11	50	-4								
STUTTGART	78.21	317.6	12	1	-2								
MUNSTER	78.94	321.0	11	5	-62						11	20	
DOURBES	81.05	319.3	12	11	-7								
NORD	81.25	352.0	12	16	-3								
TAMANRASSET	84.8	292.1	12	36	-2						15	52	PP
COLLEGE	90.26	22.3	13	0	-4								
THULE	91.15	356.1	13	5	-3								
RESOLUTE	93.25	2.6	13	15A	-3								
HUNGRY HORSE	114.65	20.8	18	48	6						29	2	
EUREKA	121.27	27.6	18	53	-2								
TUCSON TELE.	129.55	28.3	19	10	-1								
TUCSON	129.57	28.5	19	10	-1								
SAN JUAN	144.43	327.9	19	35	-3								
TACUBAYA	145.84	24.1									26	30	

MAY 15 4.H 24.M 50.S EPICENTRE 51.86-173.64 DEPTH= 0.KM

A=-0.61635 B=-0.06867 C= 0.78447 D=-0.1107 E= 0.9939
G=-0.7796 H=-0.0869 K=-0.6202 HT= -6.1

SE= 1.75

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	18.61	35.7	4	21	1							
MAGADAN	21.24	305.2	4	51	1							

SITKA	22.65	61.6	5 4	0			5 34
Y.-SAKHLINSK	28.49	277.6	5 58	-1			
TIKSI	31.82	329.5	6 29	1			
KIPAPA	32.72	152.3	6 34	-2			
CORVALLIS	33.74	82.1	6 50	5			
SHASTA	36.42	87.1	7 9	1			
UKIAH	36.83	89.9	7 17	6			7 22
MATUSIRO	37.02	264.9	7 12A	-1			9 32 PCP
VLADIVOSTOK	37.04	278.4	7 13	0			
MINERAL	37.11	87.0	7 14K	0			
HUNGRY HORSE	37.47	71.1	7 17	0			9 48 PCP
RESOLUTE	37.96	25.1	7 20A	-1	13 26 12		9 35 PCP
BERKELEY	38.20	90.8	7 26	3			
RENO	38.70	86.8	7 29	2			
LICK	38.91	90.9	7 32K	3			9 51
BUTTE	39.49	73.5	7 34	0			8 20
FRESNO	40.42	90.2	7 46	5			
BOZEMAN	40.58	73.1	7 42	-1			8 17
CHANGCHUN	40.66	283.6	7 42	-1			
EUREKA	41.11	84.1	7 47	0			
PASADENA	43.13	91.9	8 6	2			8 28
THULE	43.66	19.3	8 7	-1			9 51 PP
BOULDER CITY	44.00	87.3	8 10	-1			
RAPID CITY	46.10	70.5	8 27	0	15 20 7		
NORD	46.21	4.6	8 28	0			
LARAMIE	46.34	75.0	8 27	-2			
ULAN-BATOR	48.94	298.7	8 46	-4			
TUCSON	48.95	88.1	8 49	-1			
TUCSON TELE.	48.96	87.9	8 49	-1			
ZO-SE	51.21	272.7	9 8K	1			
NANKING	52.03	275.3	9 11	-2			
LANCHOW	58.32	289.3	9 59K	0			
APATITY	59.19	348.3	10 52	47			
KIRUNA	60.17	353.9	10 11	-1			10 55 PCP
OTTAWA	60.23	53.5	10 11A	-1			
SHAWINIGAN	60.86	50.9	10 15A	-1			
BREBEUF	61.20	52.2	10 16	-3			13 35 PP
SEVEN FALLS	61.37	49.3	10 19A	-1			
HONG KONG	61.86	270.8	10 26	3			
MORGANTOWN	62.13	60.7	10 25K	0			
SVERDLOVSK	62.85	329.9	10 30	0			
PALISADES	64.31	55.9	10 38	-1	19 19 2		10 52 PCP
SKALSTUGAN	64.81	357.1	10 41	-2			11 14 PCP
CHAPEL HILL	65.30	62.9	10 45	-1			11 9
COLUMBIA	65.60	65.7	10 47	-1			11 7
KUNMING	66.90	281.5	10 54K	-2			
HELSINKI	67.32	350.0	10 58	-1			
UPPSALA	68.27	353.9	11 3	-2			11 29 PCP
MOSCOW	69.69	341.8	11 13	0			
LHASA	70.37	293.0	11 19	2			
SHILLONG	72.97	289.7	11 33A	0			
DURHAM	73.53	4.8	12 47	71			
CHATRA	74.71	293.9	11 44	1			
CHITTAGONG	75.45	287.6	11 47	0	21 25 -2		14 37 PP
HALLE	76.91	356.4	11 56	0			
JENA	77.49	356.6	11 59	0			
LWOW	77.58	348.4	12 13	14			
KRAKOW	77.81	351.1					15 32
LAHORE	77.88	306.0	12 1A	0			12 14 PCP
PRUHONICE	78.30	354.6	12 3	0			
PARIS	79.66	2.6	12 12A	1			15 13 PP
CHARTERS TS.	79.67	218.0	12 8	-3			12 21
STUTTGART	79.72	358.1	12 11	0			12 34
BRATISLAVA	79.93	352.7	12 14	2			
STRASBOURG	79.93	359.0	12 13	1			
TUBINGEN	79.96	358.2	12 12	0			
EBINGEN	80.32	358.2	12 16	2			
SIMFEROPOL	80.64	340.4	13 3	47			
QUETTA	82.61	310.5	12 27A	1	22 43 0		12 33 PCP
CLERMONT-FD.	82.71	2.3	12 46	19			
SAN JUAN	86.07	65.2	12 46	2			
ATHENS	89.27	346.4	12 59K	0			
KARAPIRO	89.91	188.5	12 59	-3			13 25
HELWAN	95.72	338.4	13 29	0			
SOUTH POLE	141.67	180.0	19 22	-11			22 19 PP
MAWSON	148.83	218.2	19 47	2			
WINDHOEK	149.60	340.1	19 52	5			
PIETERMZBURG	151.51	312.0	19 55	6			

KIMBERLEY 153.13 322.1 19 59A 7

MAY 16 9.H 19.M 1.S EPICENTRE 41.16 43.82 DEPTH= 19.KM

A= 0.54479 B= 0.52273 C= 0.65571 D= 0.6923 E=-0.7216
G= 0.4731 H= 0.4540 K=-0.7550 HT= -2.1

SE= 2.48

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BOGDANOVKA	0.19	302.9											
AKHALKALAKI	0.35	313.0									0	2	PG
LENINAKAN	0.39	176.2									0	5	PG
STEPANAVAN	0.46	110.9									0	6	PG
BAKURIANA	0.61	338.6									0	7	PG
BORZHOMI	0.74	333.9									0	11	PG
GORI	0.85	15.5									0	12	PG
TIFLIS	0.92	52.8									0	14	PG
EREVAN	1.11	151.9									0	16	PG
DUZHETI	1.13	35.6									0	18	PG
ZUGDIDI	1.98	313.8									0	31	PG
KIROVOBAD	1.98	101.8	0	31	-1	0	57	0					
NAKHICHEVAN	2.31	147.8	0	36A	-1	1	5	0					
GORIS	2.54	130.1	0	41	!						1	17	
GROZNY	2.59	33.0	0	41	0						1	16	
PIATIGORSK	2.92	349.4	0	43K	-3	1	18	-2			1	35	
MAKHACH-KALA	3.28	55.4	0	51	0	1	40	10			1	26	
SHEMAKHA	3.69	96.8	0	57	0						1	45	
SOTCHI	3.88	309.9	0	59	0	1	43	-2			1	58	
BAKU	4.69	97.6									1	24	
SIMFEROPOL	8.04	301.3	1	56	-2						3	22	
KSARA	9.67	223.2	2	23	3	4	15	6			8	56	PCP
KIZYL-ARVAT	9.78	98.5									2	37	
ISTANBUL KA.	11.13	274.4	2	38	-2								
ASHKABAD	11.67	101.2	2	42	-6						4	53	
IASI	13.12	302.8	3	35	28								
BUCHAREST	13.41	289.9				5	33	-6					
BAIRAM-ALI	14.60	98.2									3	35	
MOSCOW	15.13	346.5									4	4	
LWOW	16.32	308.7	34	8	0								
KRAKOW	18.86	306.1	4	16	-4						5	0	
WARSAW	19.07	313.2	5	21	58	7	59	8					
SVERDLOVSK	19.08	29.1				7	43	-8					
TASHKENT	19.13	81.1	4	21	-3						4	59	PPP
STALINABAD	19.32	89.6	4	25	-1						8	5	SS
BRATISLAVA	20.19	299.3	4	32	-3								
KULYAB	20.27	90.7	4	35	-1						8	22	
NAMANGAN	20.97	81.3	4	42	-1	8	33	2					
FERGANA	21.16	82.9	4	46	1						8	47	
ANDIJAN	21.3	81.6	4	48	-1						5	18	PP
QUETTA	21.69	113.0	4	51	0	8	56	12					
KHOROG	21.77	90.6	4	52	1								
PRUHONICE	22.19	303.3	4	56	0						5	15	
FRUNSE	22.86	75.4	5	7	5						9	15	
WARSAK DAM	23.05	99.1	5	2	-2								
NARYN	24.11	78.7	5	19	5						9	40	
HALLE	24.13	306.2	5	20	5								
UPPSALA	24.76	327.9	5	20	-1	9	46	7					
STUTTGART	25.47	299.1	5	29	2						6	39	
SEMIPALATNSK	26.80	57.5									8	40	
APATITY	27.05	351.2	5	46	4								
SKALSTUGAN	29.04	331.2	5	36	-24								
KIRUNA	29.58	342.2	6	5	0	11	18	21					
TAMANRASSET	36.94	252.1	7	9	0						7	46	
KHEYS	39.14	2.3	7	32	5						8	57	
SHILLONG	42.50	96.1	7	54A	-1								
ULAN-BATOR	44.35	59.1	8	10	0								
COLLEGE	73.91	5.1	11	33	-1								
HUNGRY HORSE	88.74	345.4	12	28	-24								

MAY 17 5.H 25.M 33.S EPICENTRE 31.81 11.28 DEPTH= 0.KM

A= 0.83499 B= 0.16649 C= 0.52447 D= 0.1955 E=-0.9807

G= 0.5143 H= 0.1026 K=-0.8514 HT= 1.2

SE= 3.14

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
REGGIO CALA.	7.23	28.5	1	55	5						4	53	
MESSINA	7.28	27.6	1	48K	-3	3	16	1			2	36	
ALGIERS UNI.	8.42	308.3	2	8	2	3	44	1			4	50	SG
RELIZANE	9.75	296.7	2	25	0	4	14	-3			4	55	SG
TAMANRASSET	10.34	211.0	2	30	-3	4	23	-8			5	24	SG
CLERMONT-FD.	15.31	337.9	3	50	11	6	11	-20					
RAVENSBURG	16.01	355.9	3	59	11								
FRINGEN	16.45	354.5	3	52	-2								
BRATISLAVA	16.93	13.5	3	59	-1								
STRASBOURG	16.96	352.0	4	1	0								
ISTANBUL KA.	17.02	52.1	4	0	-1								
STUTTGART	17.02	355.3	3	59	-2						4	46	
HELWAN	17.33	91.2	4	12	7	7	42	25					
PARIS	18.24	341.2	4	18	1	7	40	2			4	33	PP
PRUHONICE	18.32	6.7	4	15	-3						6	43	
SONNEBERG	18.56	359.8	4	21	1						5	43	
RACIBORZ	18.98	13.8	4	25	-1								
JENA	19.11	0.6	4	26	-1						4	35	
KRAKOW	19.34	17.0	4	28	-2						4	53	
BENSBERG	19.38	352.2	4	29	-1								
COLLMBERG	19.52	3.2	4	32	0								
HALLE	19.69	1.3	4	28	-6						4	40	PP
MUNSTER	20.33	353.5	4	39	-2								
LWOW	20.37	24.2	4	42	1								
POTSDAM	20.60	3.1	4	42	-2								
KSARA	20.77	77.8	4	45	0						5	15	PPP
RATHFARNHAM	24.94	334.6	7	34	127						9	23	
UPPSALA	28.37	6.8	5	57	-1								
SKALSTUGAN	31.80	0.9	6	27	-2								
KIRUNA	36.46	5.8	7	7	-2								
LWIRO	37.74	150.6	7	19	-1								
NORD	51.00	354.9	9	4	-2								
THULE	56.91	343.9	9	50	0								
SEVEN FALLS	62.42	310.3	10	55	28								
RESOLUTE	63.73	343.5	10	34	-2								
SHAWINIGAN	63.87	310.1	10	39	2								
BREBEUF	64.78	309.3	10	45	2								
OTTAWA	66.20	309.7	10	55	3								

MAY 17 7.H 2.M 27.S EPICENTRE -3.18 147.14 DEPTH= 0.KM

A=-0.83874 B= 0.54173 C=-0.05519 D= 0.5426 E= 0.8400
G= 0.0464 H=-0.0299 K=-0.9985 HT= 7.1

SE= 3.51

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RABAUL	5.12	101.5	1	21	1								
PORT MORESBY	6.17	179.9	1	34	-1						2	41	
TRUK	11.58	23.9	2	43	-7								
KOROR	16.39	309.6	3	52	-1								
GUAM	16.72	351.9	3	57	-1								
CHARTERS TS.	16.74	182.9	4	OA	2	7	16	12					
BRISBANE	24.81	167.5	5	23	-2	9	46	0					
RIVERVIEW	30.72	173.5				10	52	-30			11	15	
MANILA	31.36	304.9	6	21	-4						14	19	
BAGUIO CITY	32.69	307.4	6	41	4	12	1	8					
SUVA	34.06	118.2	6	46	-2	12	6	-8			8	4	PP
BANDUNG	39.50	263.1	7	49	15								
LEMBANG	39.53	263.2	7	32	-3	13	38	0					
DJAKARTA	40.28	264.2	8	7	26						8	44	
MATUSIRO	40.40	348.9	7	39	-3	13	27	-24			9	2	PP
HONG KONG	40.98	309.8	7	54	7	14	5	5					
PERTH	41.04	222.3									16	57	
CANTON	42.10	310.1	7	57	1	14	21	5					
ZO-SE	42.12	326.0	7	54	-2	14	15	-1					
KARAPIRO	43.24	146.7	8	14	9								
NANKING	44.18	324.7	8	12K	-1	14	48	1			10	6	PCP
WELLINGTON	45.33	150.6				15	9	6					
PHU-LIEN	46.31	302.8									12	11	

VLADIVOSTOK	48.10	345.0	8	46	2	15	48	6		
MEDAN	48.90	277.5				16	16	22	9	12
Y.-SAKHLINSK	50.07	356.1	9	2	3					
CHANGCHUN	50.75	339.7	9	2	-2	16	12	-7	10	58 PP
KUNMING	51.45	305.7	9	8	-2	16	27	-2		
PEKING	51.54	329.7	9	12K	2	16	29	-1		
SIAN	51.77	319.3	9	19	7					
YINCHUAN	56.05	321.7	10	0	17					
LANCHOW	56.21	318.0	9	44	-1	17	33	0	11	55 PP
SHILLONG	60.66	301.6	10	13A	-3					
ULAN-BATOR	61.85	330.5	10	25	1	18	52	5		
MAGADAN	62.61	2.1	10	31	2					
LHASA	62.76	305.6	10	28	-2					
CHATRA	65.06	301.4	10	43	-2					
IRKUTSK	66.01	332.8	10	46	-5					
CAPE HALLETT	70.53	172.7	11	17	-2					
AGRA	73.02	299.5				20	58	-3		
MIRNY	73.46	199.8	11	37	0					
DEHRA DUN	73.72	302.7	12	1	23	21	10	1		
TIKSI	75.62	354.1	11	47	-2	21	28	-2		
BOMBAY	76.25	290.2	12	8	15	21	39	2	14	48 PP
FRUNSE	79.48	314.5				22	15	3	12	10 PCP
WARSAK DAM	79.88	305.2	12	9	-4					
NAMANGAN	81.17	312.1							12	18 PCP
COLLEGE	82.53	23.0	12	24	-2	22	42	-1		
QUETTA	83.13	300.7	12	28	-1	22	49	0		
MAWSON	84.87	202.5	12	39	1					
SOUTH POLE	86.84	180.0	12	45	-3					
BYRD STATION	87.47	170.0	12	49	-2	23	46	15		
LICK	92.88	52.9	13	20	4					
FRESNO	94.34	53.5	13	26	3					
PASADENA	95.65	56.2				24	15	-29	26	3
EUREKA	97.33	50.8	13	41	4					
HUNGRY HORSE	98.24	41.8	13	42	1					
RESOLUTE	100.23	13.8	13	51	1	25	31	8	32	23 SS
TIFLIS	101.32	311.8				24	38	-54	18	10 PP
APATITY	101.84	338.9							18	16 PP
TUCSON	101.87	57.9							18	44
TUCSON TELE.	101.95	57.8	18	7	249					
MOSCOW	103.54	326.7							18	26 PP
SOTCHI	104.78	314.2							18	35 PP
PULKOVO	106.00	332.0	19	45	777					
RAPID CITY	106.28	45.0	18	48	777					
SIMFEROPOL	108.43	316.5				25	58	53	19	4 PP
KSARA	109.39	304.7							19	5 PP
ISTANBUL KA.	113.04	313.5	19	31	51					
PALISADES	127.29	38.7							21	2 PP
TAMANRASSET	138.04	301.0							20	23
BERMUDA	138.35	42.2							24	5 PKS
BOGOTA	138.86	86.6							40	52 SS
MBOUR	160.78	306.3	19	34	-28				51	23 SSS

MAY 17 15.H 38.M 22.S EPICENTRE 51.59-179.29 DEPTH= 0.KM

A=-0.62383 B=-0.00774 C= 0.78152 D=-0.0124 E= 0.9999
G=-0.7815 H=-0.0097 K=-0.6239 HT= -6.0

SE= 2.39

55	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	13.56	285.2	3	26	10							
MAGADAN	18.56	307.1	4	23	3							
COLLEGE	20.95	38.6	4	49	2	8	47	11				
Y.-SAKHLINSK	25.02	274.4	5	26	-1	9	52	3				
TIKSI	30.30	330.4	6	24	9							
MATUSIRO	33.51	260.2	6	42A	-1							
VLADIVOSTOK	33.58	275.0	6	43	-1							
CORVALLIS	37.24	78.2	7	18	3							
CHANGCHUN	37.28	280.4	7	14A	-1							
RESOLUTE	39.68	24.5	7	35	0	13	43	4			16	44
SHASTA	39.94	82.8	7	39	2							
MINERAL	40.63	82.7	7	44	1							
HUNGRY HORSE	40.85	67.9	7	45	0							
BERKELEY	41.72	86.1	8	3	11							
RENO	42.22	82.4	7	57	1							

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

LICK	42.43	86.3	8	0	2					
BUTTE	42.92	70.1	8	1	-1					
FRESNO	43.93	85.6	8	10	0					
BOZEMAN	44.00	69.6	8	11	1				8	58
EUREKA	44.63	79.9	8	16	0					
PEKING	45.04	281.6	8	19A	0					
THULE	45.04	18.2	8	19	0					
ULAN-BATOR	45.95	296.0	8	21	-5					
PASADENA	46.64	87.2	8	35	3					
NORD	46.73	3.5	7	14	-78					
ZO-SE	47.70	268.5	8	50A	10					
NANKING	48.54	271.3	8	45A	-1					
RAPID CITY	49.47	67.0	8	54	0					
TUCSON	52.47	83.6	9	20	4				9	44
TUCSON TELE.	52.48	83.5	9	16	0					
LANCHOW	55.05	285.7	9	35A	0					
CHENGTU	58.65	280.9	10	0A	-1					
SODANKYLA	59.77	348.7	10	7	-2					
FAYETTEVILLE	59.90	68.9	10	8	-2					
KIRUNA	59.99	351.5	10	9	-1	18	20	-2		
MANILA	60.00	254.9	10	4	-6					
SVERDLOVSK	61.25	327.1	10	17	-2					
OTTAWA	63.16	50.1	10	29	-3					
KUNMING	63.49	277.4	10	32A	-2					
SHAWINIGAN	63.70	47.6	10	33	-2					
BREBEUF	64.08	48.8	10	13	-25					
SKALSTUGAN	64.82	354.3	10	43	1					
FRUNSE	66.27	309.5	10	52	0					
PULKOVO	66.45	344.2	11	58	65					
LHASA	67.19	289.2	10	59A	1					
PALISADES	67.32	52.3	10	56	-2	19	55	2	25	7
UPPSALA	68.08	350.9	11	3	0					
MOSCOW	68.76	338.6	11	7	0					
COLUMBIA	68.87	61.8	11	7	-1					
NAMANGAN	69.12	310.0	11	8	-2					
SHILLONG	69.70	285.7	11	12A	-1					
CHATRA	71.55	289.9	11	24	-1					
DEHRA DUN	74.08	298.7	11	39	0					
LAHORE	75.13	302.1	11	50	5					
CHARTERS TS.	77.41	213.0	11	56A	-2					
KRAKOW	77.43	347.4	11	58	0				12	2 PCP
JENA	77.44	353.0	11	58	0				12	22
PRUHONICE	78.13	350.9	12	0	-2				13	20
TIFLIS	79.47	328.0	12	10	0					
SIMFEROPOL	79.60	336.6	12	9	-1					
STUTTGART	79.76	354.3	12	10	-1					
PARIS	79.97	358.8	12	11	-1					
QUETTA	80.02	306.4	12	13A	0	22	17	1	15	31 PP
SAN JUAN	89.32	60.8	12	59	0					
BYRD STATION	135.62	167.6	19	16	-6					
SOUTH POLE	141.40	180.0	19	27	-6					
MAWSON	146.45	217.8	19	51	10					
WINDHOEK	148.37	330.2	19	49	5					
KIMBERLEY	150.94	312.5	19	41A	-8					

MAY 18 2.H 32.M 53.S EPICENTRE -13.15 166.46 DEPTH= 0.KM

A=-0.94703 B= 0.22810 C=-0.22606 D= 0.2342 E= 0.9722
G= 0.2198 H=-0.0529 K=-0.9741 HT= 6.1

SE= 2.00

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
NOUMEA	9.10	180.0	2	17	1	3	53	-7				
SUVA	12.55	114.8	3	8K	5	5	35	10				
RABAUL	16.68	301.0	3	59	2	7	9	7			4	9 PP
BRISBANE	19.00	219.3	4	27K	1	8	1	6				
PORT MORESBY	19.30	279.1	4	30	1	6	51	-71				
CHARTERS TS.	20.51	247.9	4	42	0	8	34	6				
APIA	21.17	94.3	4	49	0						5	41 PPP
RIVERVIEW	24.85	211.5	5	27K	1	9	51	4				
TRUK	25.10	323.9	5	30	2	9	49	-2				
KARAPIRO	25.96	163.4	5	11	-25							
WELLINGTON	28.95	167.0	6	1A	-2	10	52	-2			6	59 PP
KAIMATA	29.58	172.6	6	13	4							
GEBBIES PASS	30.90	171.2	6	20	-1							

MELBOURNE	31.15	214.1	6	23A	0							
GUAM	34.09	320.1	6	51	3							
KOROR	37.72	300.8	7	22	3	13	2	-8			8	22
HONOLULU	48.82	45.9	8	53	4	16	11	19			11	15 PP
HAWAII V.OB.	49.69	50.1	9	0	4	15	59	-5				
PERTH	49.88	239.2	9	7	10	16	26	19			19	43 SS
MANILA	52.79	299.9	9	18	-1	16	51	4				
BAGUIO CITY	54.03	301.7	9	30	2	17	7	3				
ABUYAMA	56.03	329.4	9	42A	-1	17	29	-2				
MATUSIRO	56.15	332.7	9	42A	-2	17	26	-6			10	50 PCP
DUMONT	56.31	192.3	9	43	-2	17	31	-3			10	33 PCP
SENDAI	56.48	336.0	9	45	-1	17	38	1				
NAGASAKI	57.47	323.4	9	53	0	17	48	-2				
BANDUNG	58.14	270.0	9	58	0	18	0	1				
LEMBANG	58.18	270.1	9	58A	0	18	1	2				
DJAKARTA	59.08	270.6	10	2	-2	18	7	-4				
CAPE HALLETT	59.17	178.6	10	4	-1	18	13	1			12	34 PP
ZO-SE	61.85	316.3	10	23A	0	18	45	-1			12	46 PP
HONG KONG	62.19	304.1	10	27A	1	18	55	4			23	17 SS
CANTON	63.29	304.4	10	33A	0	19	9	5			12	54
Y.-SAKHLINSK	63.50	342.1	10	33K	-1						12	51 PP
NANKING	64.04	315.7	10	39A	1	19	15	1			13	4
VLADIVOSTOK	64.31	332.6	10	39A	-1	19	18	1			13	3 PP
WILKES	64.66	201.8	10	41A	-1	19	19	-2			23	20 SS
SCOTT BASE	64.71	179.9	10	41	-1	19	27	5			16	57 PCS
PETROPAVLOVK	66.35	354.9	10	50	-3	19	40	-2			11	23 PCP
PHU-LIEN	67.77	299.1	10	2	-60	19	0	-59				
CHANGCHUN	67.98	329.1	11	3A	0	20	1	-1				
OASIS-BUNG.	68.33	203.5	11	5	0							
MEDAN	69.29	279.0	11	12	1	20	19	2				
PEKING	70.54	321.2	11	18A	-1	20	33	1			13	51 PP
MIRNY	71.45	203.9	11	22	-2							
SIAN	72.15	312.8	11	31	2							
KUNMING	72.83	301.6	11	33A	0	21	1	3			21	34 PS
MAGADAN	73.55	351.8	11	35	-2							
BYRD STATION	74.37	170.0	11	40	-1	21	12	-4				
LANCHOW	76.69	312.3	11	56A	1	21	45	4			12	5 PCP
SOUTH POLE	76.93	180.0	11	54	-2						38	51 PKPPKP
YAKUTSK	80.28	343.4	12	13	-1	22	17	-3				
ULAN-BATOR	80.52	324.0	12	3	-13	22	9	-13				
SHILLONG	82.14	298.5	12	25	1							
UKIAH	83.51	47.5	12	32	1							
BERKELEY	83.73	48.9	12	34	2						23	31
LICK	83.99	49.6	12	33	-1							
LHASA	84.13	302.1	12	37A	3	23	2	3			12	46 PCP
IRKUTSK	84.18	326.9	12	34A	-1	22	59	0			23	55 PS
SHASTA	84.70	46.3	12	37	0							
COLLEGE	85.07	17.9	12	35	-4	22	56	-12			15	33 PP
MINERAL	85.13	46.8	12	39	0							
FRESNO	85.17	50.7	12	38	-1							
PASADENA	85.54	53.6	12	41A	0	23	5	-8			15	47 PP
CORVALLIS	85.57	42.4	12	44	3							
RENO	86.12	48.1	12	44	0							
ALBERNI	86.52	37.7	12	47	1							
HORSESHOE B.	87.48	38.0	12	51	0							
COLOMBO	88.25	277.5	12	58	3	24	0	22				
TIKSI	88.26	348.8	12	52	-3	23	15	-24			16	29 PP
BOULDER CITY	88.71	52.7	12	57	0						13	13
EUREKA	88.91	49.1	12	55	-3							
TUCSON	90.88	57.2	13	10	3						13	35
TUCSON TELE.	90.99	57.1	13	10	3						30	34 PKKP
HALLEY BAY	91.15	176.7	13	7	-1						16	56
KODAIKANAL	91.32	280.1									22	41
HYDERABAD	92.00	287.3	13	10	-2				24	16	16	25 PP
HUNGRY HORSE	92.87	41.1	13	15	-1							
BUTTE	93.19	43.6	13	14	-4							
AGRA	94.52	296.7	13	24K	0							
BOMBAY	97.54	287.6				25	5	5			24	15 SKS
SEMIPALATNSK	97.61	319.9	13	32	-6							
FRUNSE	100.18	311.7	13	49	0	24	29	-53			26	42 PS
WARSAK DAM	101.25	302.4	13	53	-1							
TASHKENT	103.91	309.7	14	7	1	24	45	-68			27	39 PS
QUETTA	104.62	298.0				24	55	-64				
RESOLUTE	104.88	15.8	14	8	-2	26	25	24			18	24 PP
KHEYS	107.00	350.5				24	51	2				
ST. LOUIS 1	108.44	53.4	14	32	777	25	0	-5			18	57 PP
ASHKABAD	112.20	305.8	18	38	0	25	8	-13			26	25 SKKS
HUANCAYO	113.80	109.6									19	38 PP

BALBOA HTS.	115.22	86.2	19	50	66				29	28	
TALA POZO	116.20	130.2							20	12	PP
APATITY	117.65	341.5	18	51	3				20	0	PP
CHINCHINA	118.29	91.4							29	58	PS
LA PAZ	118.53	117.1							20	23	PP
OTTAWA	118.73	45.3	18	50	0						
GALERAZAMBA	119.69	85.0							29	40	PS
BOGOTA	119.72	92.2				25	24	-25	20	9	PP
BREBEUF	120.16	44.8	19	13	20						
FUQUENE	120.23	91.3							20	20	PP
SHAWINIGAN	120.50	43.5	18	56	2						
PALISADES	120.81	50.0	15	22	-777	25	50	-3	20	20	PP
KIRUNA	121.05	345.7	18	54	-1				20	30	PP
GORIS	121.43	308.3	15	36	777	25	52	-3	20	33	PP
MOSCOW	122.13	328.6	18	56	-1				27	19	SKKS
TIFLIS	122.18	311.2	19	0	3				27	33	SKKS
SCORESBY SD.	122.47	3.3							20	37	PP
PULKOVO	123.39	335.2							30	26	SKSP
SKALSTUGAN	126.47	346.0	19	5	0						
HALIFAX	127.22	43.4							21	5	PP
UPPSALA	128.02	340.6	19	14	6				21	12	PP
SIMFEROPOL	128.69	317.7	19	8	-2				22	34	SKP
SAN JUAN	129.27	76.9	19	32	21						
BERMUDA	129.62	58.8							21	28	PP
KSARA	130.75	303.4	19	12	-2				21	33	PP
WARSAW	132.19	331.9	19	17A	1	26	26	1	21	38	PP
LWOW	132.25	327.8	19	19	3				22	46	SKP
COPENHAGEN	133.02	340.2	19	20K	2				21	45	PP
ISTANBUL KA.	133.63	315.0	19	17	-2				22	50	PKS
BUCHAREST	134.04	320.5	19	13	-7				22	55	PP
BUCHAREST	134.04	320.5	19	13	-7	22	55	-214	22	29	SKS
KRAKOW	134.16	330.3	19	20	0				21	54	
ASTRIDA	134.29	253.1	19	22	2				21	56	PP
ABERDEEN	135.21	351.2							22	6	PP
LWIRO	135.29	253.1	19	25	3				21	56	PP
HELWAN	135.37	299.3	19	22	0				22	1	PP
POTSDAM	135.44	337.0	19	26	4				21	56	
PRUHONICE	136.67	333.7	19	26	1				22	9	PP
BRATISLAVA	136.80	330.1	19	26	1				22	8	PP
JENA	137.15	336.7	19	24	-1	23	12	-203	22	11	PP
DURHAM	137.43	349.8							22	59	
DE BILT	138.33	342.7	19	39	11	25	7	-90	22	19	PP
BENSBERG	138.71	340.2							22	23	PP
RATHFARNHAM	139.53	353.3	19	30K	0				20	46	
STUTTGART	139.81	336.7	19	24	-6	27	13	34	22	24	PP
TUBINGEN	140.05	336.5	19	30	-1				22	29	PP
TRIESTE	140.21	329.8	19	31	0				22	30	PP
KEW	140.31	347.1	19	29	-2				23	5	PKS
EBINGEN	140.38	336.3	19	25	-6				22	29	PP
STRASBOURG	140.50	337.7	19	31	-1				22	34	PP
TARANTO	141.68	321.0	19	35	1						
PARIS	142.05	342.7	19	32	-2	26	29	-14	22	41	PP
PAVIA	142.69	333.2	19	31A	-4				22	47	PP
FLORENCE X.	142.79	329.9	19	30A	-5				22	38	PP
ROME	143.50	326.6	19	34A	-3				41	43	SS
MESSINA	144.08	319.2	19	37	-1						
CLERMONT-FD.	144.55	339.8	19	39	0				22	41	PP
MONACO	144.60	333.4	19	39	0				19	45	
LUANDA	145.61	232.0	19	13K	-27				19	23	
TORTOSA	149.81	338.5	20	23	36						
SERRA PILAR	151.79	352.1	19	49K	-1				20	7	PKP2
TOLEDO	152.09	344.3	20	2	11				33	19	SS
ALGIERS UNI.	152.17	330.6	19	53	2				20	8	PKP2
ALICANTE	152.35	337.5	19	50	-1	26	56	-1	23	43	PP
RELIZANE	154.16	333.0	19	55	1				20	17	PKP2
LISBON	154.24	352.1	20	37A	43						
ALMERIA	154.40	339.1	19	54	0				20	19	PKP2
GRANADA	154.47	341.3	20	5K	11	28	48	109	24	1	PP
MALAGA	155.14	342.3	19	56K	1				23	50	PP
TAMANRASSET	159.52	300.5	20	3	3				24	20	PP
MBOUR	176.45	69.5	20	13A	1				25	49	PP

MAY 18 12.H 21.M 18.S EPICENTRE -13.24 166.30 DEPTH= 0.KM

A=-0.94606 B= 0.23054 C=-0.22766 D= 0.2368 E= 0.9716
G= 0.2212 H=-0.0539 K=-0.9737 HT= 6.1

SE= 2.64

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NOUMEA	9.01	179.1	2	14	-1	3	51	-7					
SUVA	12.65	114.2	3	8A	4	5	38	11					
RABAUL	16.60	301.5	4	1	5	7	10	9			4	15	PP
BRISBANE	18.83	219.2	4	23K	-1	7	58	7					
PORT MORESBY	19.16	279.5	4	29	1								
CHARTERS TS.	20.34	248.0	4	41K	0						5	3	
APIA	21.32	94.0	4	48	-3						5	4	PP
RIVERVIEW	24.70	211.4	5	32A	8	9	49	5					
TRUK	25.09	324.3	5	26	-2	9	53	2					
KARAPIRO	25.91	163.1	5	38	2								
WELLINGTON	28.89	166.7	6	3K	0	11	9	16					
KAIMATA	29.50	172.3	6	12	4								
GEBBIES PASS	30.84	171.0	6	16	-4								
MELBOURNE	30.99	214.0	6	23K	1								
KOROR	37.64	301.1	7	21	2	13	14	5					
HONOLULU	48.99	46.0	8	59	8	16	2	7					
PERTH	49.71	239.3				16	30	25			19	57	SS
MANILA	52.71	300.1	9	17	-2	17	19	33					
BAGUIO CITY	53.95	301.8	9	26	-2	16	58	-5					
ABUYAMA	56.04	329.6	9	42A	-1	17	21	-10					
MATUSIRO	56.17	332.8	9	42A	-2	17	27	-6			10	48	PCP
DUMONT	56.18	192.3	9	41	-3	17	34	1					
SENDAI	56.50	336.1	9	47	0	17	40	3					
MIZUSAWA	57.16	336.8	9	51	0								
NAGASAKI	57.46	323.6	9	52	-1	17	48	-2					
BANDUNG	57.99	270.1	9	59	2	18	0	3					
LEMBANG	58.03	270.2	9	59K	2	18	1	4					
DJAKARTA	58.93	270.7	10	1	-3	18	8	-1					
CAPE HALLETT	59.08	178.6	10	3A	-2	18	15	4			19	48	SCS
ZO-SE	61.81	316.4	10	22A	-1						12	44	PP
HONG KONG	62.12	304.2	10	26A	1	18	54	4			23	18	SS
CANTON	63.22	304.5	10	33	0	19	8	4			20	12	SCS
Y.-SAKHLINSK	63.54	342.2	10	34	-1						10	56	PCP
NANKING	64.00	315.8	10	38A	0	19	14	0			12	58	PP
VLADIVOSTOK	64.33	332.7	10	39	-1						13	10	
WILKES	64.52	201.8	10	38	-3	19	19	-1			23	25	SS
SCOTT BASE	64.61	179.9	10	41A	-1								
PETROPAVLOVK	66.43	355.0	10	49	-4	19	38	-5			20	39	SCS
PHU-LIEN	67.69	299.2				20	1	2			12	27	
CHANGCHUN	67.99	329.2	11	3A	0	20	6	4			11	24	PCP
MEDAN	69.16	279.0	11	12	1	20	18	2					
PEKING	70.52	321.3				20	33	1			21	22	SCS
MIRNY	71.30	203.9	11	22	-2	20	39	-2			14	2	PP
KUNMING	72.75	301.7				21	1	3					
CHENGTU	74.06	307.5	11	41A	1	21	13	1			26	1	SS
BYRD STATION	74.31	170.0	11	37	-4	21	5	-10					
LANCHOW	76.65	312.4	11	55A	0	21	43	2			22	20	PS
SOUTH POLE	76.84	180.0	11	54	-2	21	42	-1			14	53	PP
YAKUTSK	80.33	343.4	12	14	-1								
ULAN-BATOR	80.51	324.1	12	12	-4	22	20	-2					
SHILLONG	82.05	298.5	12	24A	0								
BERKELEY	83.90	49.0	12	36	3						23	39	
LHASA	84.05	302.2	12	36A	2	23	1	3			23	52	PS
IRKUTSK	84.18	327.0	12	33A	-2	22	59	0					
SHASTA	84.87	46.3	12	41	3								
COLLEGE	85.20	17.9	12	37	-3	23	0	-10			14	26	PP
FRESNO	85.34	50.7	12	41	0								
PASADENA	85.72	53.6	12	42	0	23	4	-11			16	0	PP
RENO	86.29	48.1	12	51	6								
CHATRA	86.46	298.5	12	47	1								
VICTORIA	87.22	38.8	12	48K	-2								
COLOMBO	88.11	277.5	13	1	7	23	13	-24					
TIKSI	88.32	348.9	12	53	-2						16	26	PP
BOULDER CITY	88.89	52.7	13	0	2								
EUREKA	89.08	49.1	12	57	-2						30	0	PKKP
TUCSON	91.06	57.2	13	10	2						14	14	
TUCSON TELE.	91.17	57.2	13	11	3								
HUNGRY HORSE	93.04	41.1	13	13	-4								
AGRA	94.43	296.7	13	26K	3						17	12	
DEHRA DUN	95.09	299.8									18	3	
FRUNSE	100.13	311.7	13	50	1						17	54	PP
TASHKENT	103.85	309.6	14	3	-3	24	40	-73			27	36	PS
STALINABAD	103.97	306.8									18	31	PP
QUETTA	104.53	298.0				24	53	-66			33	26	SS

RESOLUTE	105.01	15.8	14	10	777	26	2	0	18 26 PP
KHEYS	107.07	350.4	14	10	777				18 38 PP
THULE	110.76	11.9	18	33	-2				
ASHKABAD	112.13	305.7	18	40	2				26 25 SKKS
TALA POZO	116.25	130.3				25	32	-5	29 32 PS
APATITY	117.69	341.5							20 1 PP
LA PAZ	118.62	117.2				25	45	-1	29 55 PS
OTTAWA	118.91	45.3	18	50	-1				
PALISADES	120.99	50.0	15	21	777	25	56	2	30 7 PS
KIRUNA	121.10	345.6	18	57	2				20 31 PP
GORIS	121.38	308.3	15	25	777	25	42	-13	30 6 SKSP
TIFLIS	122.13	311.1	18	58	1				30 11 SKSP
MOSCOW	122.14	328.6	18	56	-1				20 29 PP
KIMBERLEY	124.09	221.3	18	52	-9				
SKALSTUGAN	126.53	345.9	19	9	3				
HALIFAX	127.39	43.4							22 23 *PP
UPPSALA	128.05	340.5							21 10 PP
SIMFEROPOL	128.65	317.6	19	10	0				22 32 SKSP
BERMUDA	129.79	58.8							21 30 PP
KSARA	130.68	303.3	19	16	2				
WARSAW	132.21	331.8	19	22	5				21 40 PP
LWOW	132.25	327.6							21 40 PP
COPENHAGEN	133.06	340.0	19	23	5				21 52 PP
ISTANBUL KA.	133.59	314.9	19	17	-2				22 47 PKS
BUCHAREST	134.02	320.4							21 52
ASTRIDA	134.12	253.1	19	21	1				22 53 PP
KRAKOW	134.17	330.2							21 57 PP
LWIRO	135.12	253.1	19	22	0				22 2 PP
ABERDEEN	135.28	351.0							22 44 SKP
HELWAN	135.28	299.2	19	22	0				22 2 PP
HALLE	136.59	336.8	19	24	-1				22 6 PP
PRUHONICE	136.69	333.6	19	37	12				22 4 PP
BRATISLAVA	136.81	330.0	19	24	-1				22 8 PP
JENA	137.18	336.6	19	20	-6	26	52	17	22 9 PP
BENSBERG	138.74	340.0							23 22 PP
STUTTGART	139.83	336.5	19	22	-9	27	6	27	22 22 PP
TRIESTE	140.21	329.7	19	26	-5				22 28 PP
STRASBOURG	140.53	337.5	19	30	-2				22 29 PP
PARIS	142.09	342.5	19	36A	2	27	8	25	22 50 PP
BOLOGNA	142.22	330.4	19	39	4				23 9 PP
PAVIA	142.70	333.0	19	33	-3				22 51 PP
FLORENCE X.	142.79	329.7	19	30A	-6				41 32 SS
ROME	143.50	326.4	19	34A	-3				41 32 SS
MESSINA	144.06	319.0	19	36	-2				22 51 PP
CLERMONT-FD.	144.59	339.5	19	39	0				22 56 PP
MONACO	144.61	333.2	19	38	-1				19 47
LUANDA	145.43	232.0	19	40	0				20 32
TORTOSA	149.85	338.3	19	53	6				23 5 PP
SERRA PILAR	151.87	351.8	19	50K	-1				20 8 PKP2
TOLEDO	152.14	344.0	19	59	8				20 10 PP
ALGIERS UNI.	152.18	330.3	19	52	1	26	53	-4	20 8 PKP2
ALICANTE	152.38	337.2	19	51	0	26	57	0	20 9 PKP2
RELIZANE	154.18	332.6	19	55	1				20 18 PKP2
LISBON	154.31	351.8	19	56K	2				
ALMERIA	154.43	338.8	19	51	-3				23 55 PP
GRANADA	154.51	341.0	19	42K	-12				24 3 PP
MALAGA	155.18	342.0	19	56K	1	26	6	-54	20 23 PKP2
TAMANRASSET	159.43	300.2	20	1	0				20 40 PKP2
MBOUR	176.62	70.1	20	12	0				25 48 PP

MAY 19 0.H 6.M 1.S EPICENTRE -13.35 166.56 DEPTH= 0.KM
A=-0.94665 B= 0.22630 C=-0.22942 D= 0.2325 E= 0.9726
G= 0.2231 H=-0.0533 K=-0.9733 HT= 6.0

SE= 1.54

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
NOUMEA	8.90	180.6	2	11	-2	3	54	-1				
SUVA	12.39	114.2	3	17	17	5	42	22				
BRISBANE	18.90	219.9	4	25A	1	7	54	1				
CHARTERS TS.	20.53	248.5	4	41K	-1	8	32	4				
RIVERVIEW	24.74	211.9	5	26A	2	9	53	9				
TRUK	25.32	323.9	5	31	1							
KARAPIRO	25.74	163.5	5	34	0							

GEBBIES PASS	30.69	171.3	6	22	3					
MATUSIRO	56.37	332.7	9	43	-2	17	32	-3	21	38 SS
BANDUNG	58.23	270.1				18	0	0		
LEMBANG	58.28	270.2	9	58	-1	18	0	0		
CAPE HALLETT	58.97	178.7	10	4K	0					
ZO-SE	62.06	316.3	10	23	-2	18	48	-1	20	17 SCS
HONG KONG	62.38	304.1	10	27	0	18	53	0		
CANTON	63.48	304.4	10	35	1	19	9	2		
NANKING	64.25	315.7				19	13	-3		
SCOTT BASE	64.51	180.0	10	40	-1					
VLADIVOSTOK	64.53	332.5	10	39	-2					
UGLEGORSK	65.82	342.6	10	51	2					
PHU-LIEN	67.95	299.1				19	40	-21	20	3
OASIS-BUNG.	68.19	203.5	12	16A	72	22	24	140		
CHANGCHUN	68.20	329.1	11	4A	0					
PEKING	70.76	321.2	11	19	-1	20	34	0	21	26 SCS
MIRNY	71.31	203.9	11	22	-1					
KUNMING	73.01	301.6	11	34A	1	21	4	4		
MAGADAN	73.76	351.7							19	35
BYRD STATION	74.16	170.0	11	38	-2					
CHENGTU	74.32	307.4	11	42	1	21	14	-1		
SOUTH POLE	76.74	180.0	11	54	-1					
LANCHOW	76.90	312.3	11	57A	1	21	47	4	22	24 PS
SHILLONG	82.32	298.5	10	25K	-120					
LHASA	84.32	302.1	12	38	3	23	3	3	22	57 SKS
IRKUTSK	84.40	326.9	12	34	-1					
COLLEGE	85.23	17.8	12	37	-3					
TIKSI	88.47	348.8							13	15 PCP
BOULDER CITY	88.76	52.7	13	21	24					
EUREKA	88.96	49.1	12	58	0				13	22
TUCSON	90.91	57.2							13	49
TUCSON TELE.	91.02	57.1	13	33	26					
HUNGRY HORSE	92.96	41.0	13	17	1					
QUETTA	104.80	298.0				24	48	-2	33	26 SS
RESOLUTE	105.05	15.8							20	29 PP
APATITY	117.86	341.5	17	49	-59					
PALISADES	120.87	50.1							20	18 PP
MOSCOW	122.35	328.6							20	26 PP
TIFLIS	122.38	311.1	18	59	2					
SIMFEROPOL	128.90	317.7	19	15	5				22	51 PKS
BERMUDA	129.64	59.0							22	43
ASTRIDA	134.33	252.8	19	22	2				21	53
LWIRO	135.32	252.8	19	7	-15					
HALLE	136.78	337.0	19	26	1				22	11 PP
BRATISLAVA	137.02	330.1	19	26	1					
JENA	137.37	336.7							22	6 PP
STUTTGART	140.03	336.6	19	31	0				22	26 PP
STRASBOURG	140.72	337.7							22	34 PP
PARIS	142.27	342.7							22	40 PP
FLORENCE X.	143.01	329.8	19	33	-3					
ROME	143.72	326.5	19	35	-2					
CLERMONT-FD.	144.77	339.8	19	39	0					
TOLEDO	152.31	344.3	20	2	11					
ALGIERS UNI.	152.39	330.5	19	47	-4				23	45 PP
MALAGA	155.36	342.4	19	59K	4					
TAMANRASSET	159.70	300.2	20	2	2				24	23 PP
MBOUR	176.43	72.9							25	49 PP

MAY 20 5.H 44.M 48.S EPICENTRE -24.79 179.85 DEPTH= 505.KM

DEPTH OF FOCUS= 0.074R

A=-0.90891 B= 0.00231 C=-0.41698 D= 0.0025 E= 1.0000
G= 0.4170 H=-0.0011 K=-0.9089 HT= 3.4

SE= 1.79

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	6.74	348.4	1	44	-1	3	8	0				
ONERAHI	11.92	202.1	2	41	2	4	54	8				
NOUMEA	12.54	278.7	2	46A	1	5	5	7			2	58 PP
APIA	13.48	37.3	2	52	-3	5	8	-8				
KARAPIRO	13.60	194.7	2	56A	0	5	24	6				
TUAI	14.15	188.7	3	0	-2	5	27	-1				
WELLINGTON	16.98	193.2	3	29	-1	6	20	0				
COBB RIVER	17.30	198.4	3	33	0	6	24	-1				

KAIMATA	19.01	199.4	3	50	0	6	52	-3				
GEBBIES PASS	19.76	195.6	3	54	-3	7	2	-5				
BRISBANE	24.21	257.8	4	37K	-1						6	0
CHARTERS TS.	31.37	271.9	5	38A	-2	10	11	-1				
RABAUL	33.58	303.1	5	58	-1							
PORT MORESBY	34.68	290.4	6	8	0						11	28
TRUK	42.10	316.0	7	17	9							
KIPAPA	50.72	27.0	8	14	0							
SCOTT BASE	53.48	183.4	8	34	0							
KOROR	54.51	299.9	8	39	-3							
BYRD STATION	60.77	170.0	9	24	0							
SOUTH POLE	65.36	180.0	9	52	2				11	43		
BAGUIO CITY	70.82	299.1	10	26	-1							
LEMBANG	71.06	271.1	10	29	1							
MATUSIRO	72.55	325.9	10	36	-1	19	19	-1	12	18	20	3
HALLEY BAY	78.53	173.4	11	8	-2						21	32 PS
HONG KONG	79.09	300.7	11	14K	1	20	31	1				
PASADENA	83.04	47.5	11	33	0							
BOULDER CITY	86.33	47.6	11	50	1							
TUCSON	87.10	52.5	11	54	2				13	50		
TUCSON TELE.	87.23	52.5	11	54	1				13	51	15	27 PP
EUREKA	87.57	44.2	11	55	0				13	50	15	28 PP
SALT LAKE C.	90.91	44.9	12	11	1							
COLLEGE	92.81	13.2	12	17	-2				14	12		
HUNGRY HORSE	93.74	37.7	12	25	2						16	26 PP
RESOLUTE	112.45	16.7	17	37	-2						33	36 SS
PALISADES	117.70	55.2									28	13
KIRUNA	135.13	349.1									21	6 SKP
UPPSALA	142.83	345.2	18	32	-4							
RATHFARNHAM	151.16	7.6	18	38	-11							
TAMANRASSET	174.44	250.1	19	15	5				21	25	24	43 PP

MAY 22 11.H 32.M 51.S EPICENTRE 50.69-175.02 DEPTH= 0.KM

A=-0.63372 B=-0.05521 C= 0.77159 D=-0.0868 E= 0.9962
G=-0.7687 H=-0.0670 K=-0.6361 HT= -5.7

SE= 1.47

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	16.40	288.8	3	53	0							
COLLEGE	20.07	34.7	4	36	-2	8	21	3			5	56
SITKA	23.99	59.2	5	22	5	9	47	15				
Y.-SAKHLINSK	27.80	278.9	4	51	-62	9	39	-56				
TIKSI	32.41	330.6	6	32	-2							
CORVALLIS	34.78	79.6	7	7	13							
MATUSIRO	36.06	265.3	7	4	-1	12	35	-10				
SHASTA	37.37	84.6	7	16K	0							
HUNGRY HORSE	38.68	69.0	7	27	0							
BERKELEY	39.08	88.2	7	31K	1							
RESOLUTE	39.39	24.4	7	33	0	13	29	-6			9	15 PP
RENO	39.66	84.3	7	37K	2							
LICK	39.79	88.4	7	37K	1							
FRESNO	41.30	87.8	7	48	-1							
BOZEMAN	41.77	71.1	7	52	-1						8	15
EUREKA	42.11	81.8	7	56	1							
PASADENA	43.98	89.5	8	9	-2						8	47
BOULDER CITY	44.94	85.0	8	19	1							
THULE	45.05	18.6	8	22	3							
NORD	47.45	4.2	8	35	-3							
ULAN-BATOR	48.75	298.9	8	48	0							
TUCSON	49.88	86.0	8	57	0							
TRUK	51.10	224.1	8	15	-51							
KIRUNA	61.24	353.4	10	17	-2							
OTTAWA	61.63	52.2	10	21K	-1							
SHAWINIGAN	62.28	49.6	10	25	-1							
BREBEUF	62.61	50.9	10	27K	-1							
SEVEN FALLS	62.80	48.1	10	28	-2							
SVERDLOVSK	63.43	329.5	10	15	-19							
HARVARD	65.80	52.0	10	48	-1							
SKALSTUGAN	65.93	356.4	10	50	0							
WESTON	66.01	52.0	10	49A	-1							
CHAPEL HILL	66.61	61.6	10	52	-2							
COLUMBIA	66.88	64.3	10	54	-2							
FRUNSE	68.89	312.4	11	9	0							

UPPSALA	69.34	353.2	11 11	G						
SHILLONG	72.54	289.0	11 29	-2						
BERMUDA	77.05	54.5	11 55	-2	21 53	8				
POTSDAM	77.08	354.9	11 58	1						
MUNSTER	77.70	358.3	12 1	1				12 12		
HALLE	78.02	355.6	12 3	1				12 15	PCP	
COLLMBERG	78.16	354.9	12 4	1						
CHARTERS TS.	78.21	216.9	12 4K	1						
JENA	78.61	355.7	12 5	0				12 17		
BENSBERG	78.72	358.6	12 7	1						
IASI	80.57	344.6	12 56	40						
STUTTGART	80.86	357.2	12 19	2						
PARIS	80.86	1.7	12 19	2						
STRASBOURG	81.09	358.1	12 19	1						
TUBINGEN	81.10	357.2	12 19	1						
TIFLIS	81.62	331.0	12 22	1				22 34		
QUETTA	82.70	309.6	12 27	0	22 42	-2		15 37	PP	
TRIESTE	83.75	353.8	12 32	0	22 56	1		28 26	SS	
CLERMONT-FD.	83.91	1.3	12 35	2						
KARAPIRO	88.62	187.5	12 56	0						
BYRD STATION	134.18	168.4	19 17	-3						
SOUTH POLE	140.50	180.0	19 25	-6						
MAWSON	147.37	217.0	19 45	2						
HALLEY BAY	152.02	163.7	19 54	4				23 48	PP	

MAY 22 15.H 8.M 4.S EPICENTRE -3.40 146.21 DEPTH= 0.KM

A=-0.82967 B= 0.55514 C=-0.05890 D= 0.5561 E= 0.8311
G= 0.0490 H=-0.0328 K=-0.9983 HT= 7.1

SE= 2.67

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
RABAUL	6.00	97.8	1 30	-2				1 40	PP
PORT MORESBY	6.03	171.2	1 30	-2				2 53	
TRUK	12.17	27.5	2 42	-15					
KOROR	15.83	312.3	3 42	-3				5 58	
CHARTERS TS.	16.51	179.8	3 57A	3	6 59	1			
GUAM	16.82	355.1	3 59	1					
BRISBANE	24.82	165.4	5 23	-2	9 47	2			
RIVERVIEW	30.62	171.9	6 16	-2	11 24	4			
MANILA	30.73	306.1	6 17	-1					
BAGUIO CITY	32.09	308.6	6 29	-1	11 44	2			
SUVA	34.78	117.3			12 20	-4		8 18	PP
BANDUNG	38.55	263.2	6 56	-30					
LEMBANG	38.58	263.3	7 27	1					
NAGASAKI	39.13	337.9	7 37	7					
ABUYAMA	39.36	346.1	7 29	-3	13 17	-17			
PERTH	40.26	221.7	7 46	6				15 42	
MATUSIRO	40.44	350.1	7 38K	-3	13 46	-5		16 2	
CANTON	41.53	311.0	7 53	3	14 11	4		17 13	SS
SENDAI	41.75	353.7	8 27	35					
ZO-SE	41.79	327.0	7 51	-1	14 11	0			
KARAPIRO	43.58	145.8	8 5	-2					
NANKING	43.83	325.6	8 11	2	14 47	7			
PHU-LIEN	45.65	303.5						10 36	PP
MEDAN	48.01	277.9	8 47	5				9 22	
VLADIVOSTOK	48.08	345.9	8 46	3					
Y.-SAKHLINSK	50.23	356.9	8 58	-1					
CHANGCHUN	50.63	340.5	9 2	0	16 18	1			
KUNMING	50.83	306.3	9 3	-1	16 23	3			
PEKING	51.26	330.5	9 6	-1					
LANCHOW	55.76	318.6	9 37	-3	17 25	-1			
PETROPAVLOVK	57.29	8.9	9 54	3					
HONOLULU	59.77	63.1			18 44	25			
KIPAPA	59.88	63.0	10 12	3					
SHILLONG	59.98	302.1	10 7	-3					
ULAN-BATOR	61.58	331.0	10 21	0	18 44	2			
LHASA	62.14	306.1	10 26	1	18 54	5			
MAGADAN	62.86	2.6						13 36	PP
CHATRA	64.38	301.8	10 39	0					
YAKUTSK	66.45	351.6	10 54	1					
OASIS-BUNG.	70.23	197.9	11 16	0					
CAPE HALLETT	70.44	172.4	10 16	-62					
DEHRA DUN	73.05	303.0	12 31	58				21 28	
TIKSI	75.74	354.4	11 46	-3	21 16	-14			

LAHORE	76.45	303.4	11	53	0					
FRUNSE	78.97	314.7	12	7	0	22	0	-5		
QUETTA	82.44	300.9	12	23	-2	22	41	0	15 35	PP
COLLEGE	83.09	23.1	12	24	-4					
SOUTH POLE	86.62	180.0	12	45	-1					
BYRD STATION	87.42	170.0	12	54	4					
SVERDLOVSK	90.40	326.8	13	22	18					
SHASTA	93.25	49.6	13	28	11					
LICK	93.75	53.0	13	20	1					
FRESNO	95.21	53.5	13	32	6					
PASADENA	96.54	56.2							26 23	
EUREKA	98.19	50.8	13	38	-2					
HUNGRY HORSE	99.02	41.7	13	42	-1					
RESOLUTE	100.66	13.7				25	22	-3		
PULKOVO	105.75	331.8							22 10	
KSARA	108.75	304.5							19 8	PP
SCORESBY SD.	112.58	355.7							35 8	SS
STRASBOURG	122.69	328.4							42 14	SSS
PALISADES	128.04	38.3							32 45	PPS
TAMANRASSET	137.35	300.3	19	23	-2					
SAN JUAN	145.03	62.4	19	44	5					

MAY 24 23.H 53.M 39.S EPICENTRE 12.15 43.52 DEPTH= 0.KM

A= 0.70909 B= 0.67338 C= 0.20918 D= 0.6886 E=-0.7251
G= 0.1517 H= 0.1440 K=-0.9779 HT= 6.2

SE= 2.71

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ASTRIDA	20.07	224.0	4	40	-3								
LWIRO	20.46	226.6	4	44	3	8	47	21					
HELWAN	20.95	329.1	4	45	-1	8	51	15					
KSARA	22.67	343.3	5	7	3	9	36	28			5	48	PP
GORIS	27.35	4.7	5	54	6	10	45	18					
QUETTA	28.17	46.8	5	30	-26	10	48	8					
BOMBAY	28.99	72.9	6	2	-1	10	58	4			14	32	
TIFLIS	29.48	1.9	6	5	-2								
ISTANBUL KA.	31.47	338.8	6	27	2								
SOTCHI	31.48	354.7	6	27	2								
SIMFEROPOL	33.66	347.9	6	42	-2	12	13	6					
BUCHAREST	35.46	338.3	7	1	1	12	53	18			8	31	
MESSINA	35.98	321.0	7	3	-1								
DEHRA DUN	36.71	55.1	7	12	2	13	2	8					
KISHINEV	36.89	343.2	7	12	0	13	13	16					
TAMANRASSET	37.65	291.5	7	14	-4	13	14	5			8	46	PP
ROME	40.12	323.3	7	40	1	13	58	12			9	15	PP
FRUNSE	40.75	35.5	7	44	0								
LWOW	40.86	340.7	7	48	3								
TRIESTE	41.88	328.6	7	51	-2	14	17	5			9	30	PP
KRAKOW	42.47	337.5	8	0	2						8	41	
MOSCOW	43.72	355.2	8	4	-4								
ALGIERS UNI.	43.78	311.1	8	6	-3	14	50	10			9	54	PP
PRUHONICE	44.60	333.6	8	19	4						9	7	
STUTTGART	46.28	328.9	8	31	2						10	0	
SVERDLOVSK	46.49	12.9	8	31	1	15	27	8					
JENA	46.60	332.6	8	32	1						10	24	PP
HALLE	46.84	333.3	8	35	2								
STRASBOURG	46.89	327.9	8	31	-2	15	27	3			10	29	PP
POTSDAM	47.00	334.9	8	35	1								
TORTOSA	47.25	315.2	8	40	4								
LHASA	47.32	60.8	8	35	-2	15	32	1					
CLERMONT-FD.	47.88	322.3	8	42	1								
SEMIPALATNSK	48.52	30.7	8	49	3								
PULKOVO	48.53	351.1	8	48	2								
GRANADA	48.90	309.0	9	4A	15						19	54	SS
MALAGA	49.38	308.2	8	53A	0						10	49	PP
DOURBES	49.46	327.8	8	55	2								
TOLEDO	50.11	312.2	8	53	-5								
UPPSALA	51.34	343.6	9	3A	-5								
HERMANUS	51.75	205.7									27	37	
JERSEY	52.65	323.8	8	39	-39	15	38	-67					
KEW	52.82	327.1									16	54	
APATITY	55.74	355.3	9	36	-4	17	31	5					
SKALSTUGAN	55.87	343.7	9	36	-5								

SODANKYLA	56.29	352.2	9	39	-5					
RATHFARNHAM	56.90	326.8							13	59
KIRUNA	57.66	349.9	9	54	0	18	0	8	13	24
LANCHOW	58.99	55.2	10	2	-1	18	12	3	10	59 PCP
ULAN-BATOR	63.29	42.3	10	32	0	19	9	5		
PEKING	69.03	51.7	11	9	0	20	19	5		
NANKING	71.25	60.2	11	23	0					
ZO-SE	73.33	61.0	11	35	0	21	5	2		
CHANGCHUN	75.79	47.6	11	48	-1					
TIKSI	77.09	18.9	11	51	-6					
THULE	83.26	347.2	12	35	6					

MAY 25 0.H 35.M 23.S EPICENTRE 51.48-177.42 DEPTH= 0.KM

A=-0.62476 B=-0.02810 C= 0.78031 D=-0.0449 E= 0.9990
G=-0.7795 H=-0.0351 K=-0.6254 HT= -6.0

SE= 2.19

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	14.71	285.8	3	37	5	6	32	16				
MAGADAN	19.56	306.8	5	36	64	7	37	-31				
COLLEGE	20.32	37.4	4	42	1	8	36	12			5	1
SITKA	24.90	60.5	5	30	4	9	47	0				
Y.-SAKHLINSK	26.19	275.9	5	38	0	10	9	0				
TIKSI	30.99	330.2	6	23	2							
ALBERNI	33.03	72.7	6	39	0							
HORSESHOE B.	33.90	71.8	6	46	-1	12	13	2				
VICTORIA	34.18	73.2	6	49A	0	12	16	0				
MATUSIRO	34.64	262.1	6	53A	0						8	1
VLADIVOSTOK	34.75	276.4	6	52	-2							
CORVALLIS	36.12	79.2	7	7	1							
BANFF	37.65	65.4	7	18	-1							
CHANGCHUN	38.44	281.7	7	25	0	13	22	1				
SHASTA	38.80	83.9	7	28	0							
UKIAH	39.20	86.5	7	30	-2							
RESOLUTE	39.30	24.6	7	33	0						9	40
HUNGRY HORSE	39.81	68.7	7	37	0	13	38	-4				
BERKELEY	40.56	87.4	7	50	7	13	46	-7				
RENO	41.08	83.6	7	50	3							
LICK	41.27	87.6	7	50	1							
BUTTE	41.85	71.0	7	53	-1							
FRESNO	42.78	86.9	8	3	2						12	10 SCP
BOZEMAN	42.94	70.6										
SALT LAKE C.	45.25	76.8	8	27	6						9	1
PASADENA	45.48	88.5	8	29	6	15	0	-5			9	54 PCP
PEKING	46.20	282.9	8	29	0	15	17	2				
BOULDER CITY	46.38	84.1	8	44	14							
NORD	46.76	3.8	8	31	-2							
ULAN-BATOR	47.04	297.1	8	36	1	15	42	15				
RAPID CITY	48.43	68.0	8	45	-1							
ZO-SE	48.86	270.1	8	49A	0							
NANKING	49.70	272.8	8	55	-1							
TUCSON	51.33	84.9	9	6	-2							
TUCSON TELE.	51.33	84.7	9	6	-2							
LUBBOCK	55.97	77.3	9	44	1							
LANCHOW	56.20	287.0	9	44	0	17	36	3			11	50 PP
FAYETTEVILLE	58.85	70.0	10	OK	-3							
APATITY	59.05	346.7	10	4	0							
SEMIPALATNSK	59.06	313.2									19	52
CANTON	59.48	269.3	10	6	-1							
SODANKYLA	60.10	349.5	10	11	-1							
KIRUNA	60.26	352.3	10	12	-1							
SVERDLOVSK	61.97	328.1	10	26	2							
CLEVELAND	62.18	57.7	10	26	0							
OTTAWA	62.33	51.2	10	25K	-2							
BREBEUF	63.27	49.9	10	30K	-3							
MORGANTOWN	64.35	58.2	10	39K	-1						11	51
PENNSYLVANIA	64.59	56.0				19	25	4				
KUNMING	64.65	278.9	10	40	-2							
SKALSTUGAN	65.03	355.2	10	45	1							
WASHINGTON	66.40	56.9	10	52	-1							
PALISADES	66.46	53.4	10	52	-2	19	34	-10			20	46 SCS
HARVARD	66.49	50.9	10	52	-2							
WESTON	66.70	50.8	10	55K	0							

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

COLUMBIA	67.89	63.0	11	2	-1							
LHASA	68.32	290.5	11	8	3	20	12	6				
UPPSALA	68.36	351.9	11	5K	-1					12	15	
MOSCOW	69.28	339.7	11	0	-11							
SUVA	69.42	184.2				20	50	31		30	12	PKKP
SHILLONG	70.85	287.1	11	12	-9							
CHITTAGONG	73.29	284.9	11	29	-6	20	56	-8				
RATHFARNHAM	75.33	5.5	12	7	20							
POTSDAM	76.14	353.4	11	51	-1							
MUNSTER	76.84	356.8	11	56	0							
HALLE	77.09	354.0	11	57	0					13	7	PCP
COLLMBERG	77.22	353.3	11	58	0							
LWOW	77.43	346.0	12	0	1							
AGRA	77.65	298.0	12	2A	2							
JENA	77.68	354.2	12	0	0					13	10	
BERMUDA	77.80	53.0				22	11	18				
PRUHONICE	78.41	352.1	12	3	-1					13	7	
DOURBES	78.79	358.7	12	7	1							
KISHINEV	79.32	342.1	12	10	1							
IASI	79.38	343.0	12	11	1							
STUTTGART	79.97	355.6	12	13	0					12	24	PCP
PARIS	80.09	0.1	12	15A	2					15	12	PP
SIMFEROPOL	80.16	337.8	12	14	0							
TIFLIS	80.17	329.3	12	35	21							
STRASBOURG	80.22	356.5	12	15	1	22	31	12		27	31	SS
QUETTA	81.02	307.8	12	16A	-2	22	25	-2		15	22	PP
GORIS	81.67	327.3	12	23	1	22	43	9				
BUCHAREST	82.34	343.2				22	45	4				
TRIESTE	82.77	352.1	12	26	-1					17	43	PP
BELGRADE	82.84	347.3	12	30A	2					13	39	
CLERMONT-FD.	83.13	359.6	12	31	2							
ISTANBUL KA.	84.98	340.2	12	39	0	23	4	-3				
ROME	86.60	352.6	12	47	0	23	25	2		29	36	SS
SAN JUAN	88.35	62.3	12	56	1							
KSARA	90.16	332.8	13	3	-1	23	59	3		25	4	PS
MBOUR	112.24	20.5								29	0	PS
BYRD STATION	135.27	167.9	19	9	-13							
SOUTH POLE	141.29	180.0	19	24	-9							
MAWSON	147.08	217.8	19	43	0							
PRETORIA	147.75	313.1	19	35	-9							
PIETERMZBURG	149.92	305.8	19	53	5							
KIMBERLEY	151.86	315.3	19	57	7							

MAY 25 2.H 53.M 48.S EPICENTRE 12.10 43.73 DEPTH= 0.KM

A= 0.70680 B= 0.67608 C= 0.20819 D= 0.6912 E=-0.7226
G= 0.1504 H= 0.1439 K=-0.9781 HT= 6.2

SE= 1.87

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ASTRIDA	20.17	224.5	4	39	0						10	15	
LWIRO	20.57	227.1	4	45	2	8	47	18					
HELWAN	21.11	328.8	4	48	-1	8	54	14					
KSARA	22.78	342.9	5	10	5	9	33	22			5	53	PP
QUETTA	28.06	46.5	5	55	0	10	48	9					
TIFLIS	29.53	1.6	6	9	1	11	14	11					
MAKHACH-KALA	30.93	5.4	6	22	1								
SOTCHI	31.56	354.4	6	27	1								
ISTANBUL KA.	31.60	338.6	6	26	-1	11	35	-1					
SIMFEROPOL	33.76	347.7	6	46	0	12	15	6					
LAHORE	34.19	50.7	6	56	7								
BUCHAREST	35.59	338.1	7	2	1						8	30	
MESSINA	36.15	320.9	7	8	2						8	32	
KISHINEV	37.01	343.0	7	12	-1	13	0	1					
TAMANRASSET	37.86	291.6	7	20K	0	13	19	7			8	49	PP
ROME	40.29	323.2	7	42A	1	13	58	9			16	59	SS
FRUNSE	40.68	35.3	7	44	0	14	2	7					
TRIESTE	42.04	328.4	7	56	1	14	24	9			9	36	PP
KRAKOW	42.60	337.4	7	58	-2						8	36	
MOSCOW	43.79	355.0	8	10	1								
ALGIERS UNI.	43.97	311.1	8	12	1								
PRUHONICE	44.74	333.4	8	17	0						10	24	
STUTTGART	46.43	328.8	8	28	-2								
JENA	46.74	332.5	8	32	-1						10	27	PP
STRASBOURG	47.05	327.8	8	39	4								

POTSDAM	47.14	334.8	8 33	-3						
LHASA	47.18	60.8	8 36	0						
CLERMONT-FD.	48.05	322.2	8 42	-1						
SEMIPALATNSK	48.47	30.6	8 47	1						
PULKOVO	48.62	351.0	8 47	-1						
MUNSTER	49.27	331.2	8 51	-2						
MALAGA	49.57	308.2	8 53A	-2					10 54	PP
TOLEDO	50.30	312.2	9 0	0						
UPPSALA	51.46	343.5	9 8	-1						
APATITY	55.82	355.2	9 40	-1						
SKALSTUGAN	55.98	343.6	9 41	-2						
KUNMING	56.96	68.0	9 48	-2						
KIRUNA	57.75	349.8	9 53	-2	17 57	3			13 22	
LANCHOW	58.86	55.1	10 3	0						
ULAN-BATOR	63.19	42.3	10 31	-1						
PEKING	68.90	51.7	11 8	-1						
NANKING	71.10	60.1	11 20	-2						
ZO-SE	73.19	61.0	11 33	-2						
NORD	73.92	352.4	11 38	-1						
CHANGCHUN	75.68	47.6	11 49K	0						
TIKSI	77.07	18.9	11 55	-2						
YAKUTSK	77.54	28.8	12 3	4						
THULE	83.36	347.3	12 33	3						

MAY 25 14.H 54.M 30.S EPICENTRE 51.27-177.11 DEPTH= 0.KM

A=-0.62740 B=-0.03165 C= 0.77806 D=-0.0504 E= 0.9987
G=-0.7771 H=-0.0392 K=-0.6282 HT= -5.9

SE= 1.99

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PETROPAVLOVK	14.96	286.6	3 41	7	6 41	19		
MAGADAN	19.84	307.1	4 35	0				
COLLEGE	20.36	36.9	4 39	-1	8 30	6		
SITKA	24.83	60.1	5 27	2	10 2	16		
Y.-SAKHLINSK	26.41	276.5	5 40	0	10 16	4		
YAKUTSK	30.27	311.5	6 10	-4	11 11	-3		
TIKSI	31.26	330.4	6 23	0				
KIPAPA	33.32	146.3	6 39	-2				
HORSESHOE B.	33.78	71.6	6 46	1				
VICTORIA	34.06	73.1	6 48K	0	12 8	-5		
MATUSIRO	34.81	262.6	6 54A	0	12 25	0	8 4	PP
VLADIVOSTOK	34.97	276.9	6 55	0				
SEATTLE	35.11	73.9	7 4	7				
CORVALLIS	35.97	79.1	7 16	12				
BANFF	37.55	65.3	7 17	0				
SHASTA	38.63	83.9	7 28	2				
CHANGCHUN	38.68	282.2	7 26	-1			8 56	PP
UKIAH	39.02	86.5	7 38	8			8 48	PP
RESOLUTE	39.40	24.5	7 32A	-1	13 33	-2	9 6	PP
HUNGRY HORSE	39.70	68.6	7 37	2			10 40	
BERKELEY	40.37	87.4	7 41	0	13 47	-3		
RENO	40.91	83.6	7 46	1				
LICK	41.09	87.6	7 48K	1			8 21	
BUTTE	41.74	70.9	7 53	1			9 51	PCP
FRESNO	42.60	86.9	7 59	0				
BOZEMAN	42.82	70.5	8 2	1			8 51	
THULE	44.92	18.5	8 20	2			10 0	PP
SALT LAKE C.	45.11	76.8	8 21	2			9 5	
PASADENA	45.29	88.5	8 20	-1	15 3	1	17 54	SS
PEKING	46.44	283.3	8 29A	-1	15 19	1		
NORD	46.96	3.9	8 33	-1				
ULAN-BATOR	47.31	297.4	8 37	0	15 49	19		
RAPID CITY	48.33	68.0	8 45	0				
ZO-SE	49.06	270.5	8 50A	0	15 55	0		
NANKING	49.91	273.2	8 56	-1	16 5	-2	10 52	PP
TUCSON	51.15	85.0	9 7	1			10 16	PCP
LUBBOCK	55.82	77.4	9 35	-6				
LANCHOW	56.45	287.4	9 46	1	17 38	2	11 53	PP
FAYETTEVILLE	58.73	70.1	10 1	-1	18 3	-3		
KOROR	59.19	239.7	11 1	56				
APATITY	59.30	346.9	9 43	-22				
SEMIPALATNSK	59.34	313.5	10 3	-3				
CANTON	59.68	269.7	10 7	-1				

HONG KONG	59.69	268.4	10	8	0					
CHENGTU	60.05	282.6	10	10	-1					
SODANKYLA	60.34	349.7	10	11	-2					
KIRUNA	60.50	352.4	10	11	-3				10	57 PCP
RABAUL	61.18	215.6	10	15	-3					
CLEVELAND	62.13	57.8	10	25K	0	18	46	-3		
SVERDLOVSK	62.25	328.3	10	24	-2	18	54	3		
OTTAWA	62.31	51.3	10	24A	-2					
SHAWINIGAN	62.89	48.7	10	28A	-2					
BREBEUF	63.25	50.0	10	30K	-2				11	8
SEVEN FALLS	63.38	47.2	10	31	-2					
MORGANTOWN	64.29	58.3	10	39A	0					
KUNMING	64.88	279.2	10	42K	-1	19	22	-2	13	7 PP
SKALSTUGAN	65.25	355.4	10	45	0				11	17 PCP
WASHINGTON	66.35	57.0	10	51	-1					
PALISADES	66.42	53.5	10	52	-1	19	39	-3	24	30 SS
WESTON	66.68	50.9	10	53A	-1					
PULKOVO	67.11	345.3	10	30	-27					
FRUNSE	67.51	311.0	11	0	0					
COLUMBIA	67.80	63.2	11	1	0					
HALIFAX	68.55	44.7	11	6	0					
LHASA	68.58	290.8	11	8	2	20	12	4	20	27 PS
UPPSALA	68.59	352.1	11	4	-2				39	15 PKPPKP
SUVA	69.23	184.5	11	20	10	20	50	34	24	43 SS
MOSCOW	69.54	339.9	11	10	-2					
SHILLONG	71.10	287.4	11	21A	-1					
ARERDEEN	71.85	2.9							27	56
CHATRA	72.94	291.6	11	37	4					
COPENHAGEN	73.12	354.4	11	34	0					
CHITTAGONG	73.53	285.2	11	39	3	21	10	4	14	27 PP
DURHAM	74.26	2.7	11	46A	6					
DEHRA DUN	75.42	300.3	11	47	0	21	44	17		
RATHFARNHAM	75.52	5.7	11	40	-8					
WARSAW	75.74	348.6	11	48	-1					
WARSAK DAM	75.93	307.1	11	49A	-1					
WITTEVEEN	76.23	357.6	11	54	2					
LAHORE	76.44	303.6	11	52	-1					
DE BILT	76.99	358.5	11	55	-1				26	30 SS
MUNSTER	77.06	357.0	11	56	0					
HALLE	77.32	354.2	11	58	0					
COLLMBERG	77.45	353.5	11	58	0					
KEW	77.60	2.1	11	59	0					
LWOW	77.68	346.2	12	1	1					
BERMUDA	77.77	53.2	12	19	19	22	10	18	27	0 SS
JENA	77.91	354.4	12	1	0				12	21
CHARTERS TS.	77.91	215.0	11	59A	-2				12	22
AGRA	77.92	298.3	12	1	0					
KRAKOW	78.02	348.9	12	1	0				12	6 PCP
BENSBERG	78.08	357.2	12	2K	0					
PRUHONICE	78.64	352.4	12	5	0				12	50
DOURBES	79.00	358.9	12	7	0					
KISHINEV	79.58	342.3							13	10
IASI	79.64	343.2	12	12	2					
STUTTGART	80.19	355.8	12	12	-1				15	10 PP
SOTCHI	80.27	333.8	12	14	0					
PARIS	80.30	0.3	12	15	1	22	21	2	15	23 PP
SIMFEROPOL	80.42	338.1	12	15	0	22	23	3		
TUBINGEN	80.44	355.8	12	15	0					
STRASBOURG	80.44	356.7	12	15A	0				27	36 SS
TIFLIS	80.45	329.5	12	16	1					
EBINGEN	80.79	355.9	12	16	0					
RAVENSBURG	81.16	355.4	12	19	1					
QUETTA	81.30	308.0	12	20A	1	22	29	-1	22	44 SCS
CAMPULUNG	81.95	344.4	12	37	14					
BUCHAREST	82.59	343.5	12	27A	1					
BRISBANE	82.71	206.5	12	25	-1					
TRIESTE	83.00	352.3	12	30	2	22	58	11		
BELGRADE	83.09	347.5	12	30A	2	22	50	2		
CLERMONT-FD.	83.34	359.8	12	31	1					
MEDAN	83.60	267.7	12	31	0					
FLORENCE X.	85.05	353.9	12	37	-1					
ISTANBUL KA.	85.24	340.4	12	38	-1	22	45	-24		
ROME	86.83	352.8	12	46	-1	23	30	5	23	17 SKS
SAN JUAN	88.27	62.5	12	54	0					
KARAPIRO	89.05	185.8	12	57	-1				13	27
KSARA	90.44	333.0	13	5	1	24	1	3		
HELWAN	95.41	335.4	13	27	0	24	0	-41		
LWIRO	126.51	327.1	19	0	-5					

ASTRIDA	126.51	325.9	18 56	-9		
BYRD STATION	135.02	168.0	19 19	-2		
SOUTH POLE	141.08	180.0	19 24	-8		22 50
MAWSON	147.03	217.6	19 44	2		
PRETORIA	148.04	313.3	19 23	-21		
PIETERMZBURG	150.20	306.0	19 53	6		
HALLEY BAY	152.95	164.2	19 52	1		
GRAHAMSTOWN	155.11	307.0	20 21	27		22 48 PKS

MAY 25 17.H 40.M 49.S EPICENTRE 31.35 129.36 DEPTH= 0.KM

A=-0.54255 B= 0.66155 C= 0.51767 D= 0.7732 E= 0.6341
G=-0.3283 H= 0.4003 K=-0.8556 HT= 1.4

SE= 3.65

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KAGOSIMA	1.04	77.4	0 14K	-8	0 30	-7		
YAKUSIMA	1.33	132.0	0 22A	-4	0 37	-7		
TOMIE	1.36	338.7	0 29	3	0 46	1		
NAGASAKI	1.45	17.8	0 24	-3	0 39	-8		
UNZENDAKE	1.57	28.6	0 24	-5	0 38	-13		
MIYAZAKI	1.85	71.5	0 28K	-5	0 52	-6		
KUMAMOTO	1.86	37.5	0 30K	-3	0 55	-3		
SAGA	2.06	22.6	0 38	2	1 13	10		
ASOSAN	2.12	42.8	0 36	-1	0 59	-5		
HUKUOKA	2.40	21.7	0 39	-2	1 10	-2		
OOITA	2.68	45.0	0 41K	-4	1 9	-10		
ITUHARA	2.84	358.7	0 45	-2	1 17	-6		
SIMONOSEKI	2.91	26.7	0 49	1	1 22	-3		
SIMIDU	3.38	64.1	0 51	-4	1 28	-9		
MATUYAMA	3.79	48.3	0 58	-3	1 39	-8		
HIROSIMA	3.97	39.8	1 2	-1	1 49	-3		
KOTI	4.16	57.0	1 4	-2	1 49	-8		1 34
HAMADA	4.21	32.0	1 5	-2	2 5	7		
MUROTO	4.50	63.8	1 20	9	2 16	11		
TAKAMATU	4.94	51.9	1 23	6	2 25	9		
OKAYAMA	5.07	47.9	1 25	6				
MATSUE	5.14	36.2	1 29	9	2 39	18		
TOKUSIMA	5.17	57.0	1 18	-2	2 11	-11		2 35
YONAGO	5.27	38.3	1 29	7	2 40	16		
HIMEJI	5.28	52.1	1 45	23	3 1	37		
SUMOTO	5.53	55.8	1 27	2	2 35	4		3 5
TOTTORI	5.81	43.2	1 38	9	2 59	21		
SIOMISAKI	5.82	67.2	2 6	37	3 9	31		
SAIGO	5.86	33.3	2 0	30	3 1	22		
KOBE	5.91	54.3	1 28	-3	2 57	17		
OSAKA	6.14	55.9	1 54	20	3 11	25		
TOYOOKA	6.18	46.1	1 54	19				2 17
ARUYAMA	6.29	54.4	1 31	-5	2 55	5		
NARA	6.37	56.9	1 45	8	3 18	26		
OWASE	6.37	63.0	1 34	-3	3 16	24		
MAIZURU	6.56	49.6	2 5	25	3 21	25		
KAMEYAMA	6.92	57.8	1 46	1	3 28	23		
HIKONE	6.97	54.0	1 46	0	3 41	34		
ZO-SE	7.01	270.1	1 48K	2	3 16	8		
TSURUGA	7.06	50.8	2 14	27	3 31	22		
IBUKISAN	7.12	53.7	1 47	-1	3 4	-6		3 48
GIHU	7.40	54.9	1 49	-3				
HUKUI	7.43	49.0	1 54	2				
NAGOYA	7.43	57.1	1 50	-2	3 53	35		
HAMAMATU	7.79	62.2	3 24	87				4 6
KANAZAWA	7.96	47.6			3 51	19		
OMAESAKI	8.12	64.1			3 41	5		4 23
TAKAYAMA	8.13	51.8	1 56	-6				
IIDA	8.21	57.3	2 1	-2	4 8	30		
SHIZUOKA	8.40	62.1	3 36	90				4 28
TOYAMA	8.42	48.5	2 17	11				4 12
MATUMOTO	8.68	53.4	2 12	2	3 52	3		
KOHU	8.80	58.5	2 18	7	4 42	50		
MISIMA	8.87	62.4	2 8	-4				4 41
HUNATU	8.89	59.7	2 11	-2				4 34
MATUSIRO	9.01	52.4	2 10K	-4	4 4	7		5 31
NANKING	9.02	277.2	2 16	2				
NAGANO	9.06	51.7	2 26	11	4 23	24		
OSIMA	9.08	65.3	2 28	13				4 48

TITIBU	9.33	57.7	4	8	109	4	8	2		
TAKADA	9.33	49.7	2	31	12					
TAIPEI	9.35	229.6	2	29	10				5	54
ILAN	9.38	227.6	2	38	19				5	57
MERA	9.48	65.1	3	16	55					
MAEBASI	9.52	55.4				4	16	6	5	54
YOKOHAMA	9.52	61.9				4	56	46	5	54
KUMAGAYA	9.62	57.5	2	31	8	5	9	56		
TOKYO C.M.O.	9.69	60.8	4	22	118	4	22	7	5	41
HWALIEN	10.05	224.9	2	36	8					
UTUNOMIYA	10.15	56.5	2	31	1	5	22	56		
KAKIOKA	10.24	58.7	2	31	0				5	26
VLADIVOSTOK	11.92	9.1	2	56	2	5	15	6		
CHANGCHUN	12.86	346.7	3	8A	1	5	36	4		
PEKING	13.77	312.6	3	22K	3	6	5	12		
MORI	13.99	36.8	3	8	-14					
SAPPORO	15.09	35.8							5	28
HONG KONG	16.26	240.0	3	55A	4	7	16	24		
CANTON	16.49	244.0	3	57K	3					
BAGUIO CITY	16.88	210.3	3	41	-18	7	33	27		
MANILA	18.37	206.6	4	17	-1	7	50	9		
Y.-SAKHLINSK	18.67	29.6	4	17	-4					
CHENGTU	21.73	274.8	4	56	1	8	59	8		
LANCHOW	21.74	289.4	4	57	2	9	0	9		
GUAM	22.74	138.1	4	22	-43					
PHU-LIEN	22.91	248.2	5	10	4				9	17
ULAN-BATOR	23.80	320.5	5	17	2	9	43	15		
KUNMING	24.30	261.7	5	21	1	9	42	5	6	9 PPP
KOROR	24.37	167.6	5	19	-2	9	38	0		
IRKUTSK	27.78	326.1	5	52A	0					
LHASA	32.95	277.1	6	40	2					
SHILLONG	33.34	269.6	6	41	-1					
TIKSI	40.34	359.8	7	38	-3				13	30 PCS
RABAUL	41.51	144.3	7	48	-2					
FRUNSE	44.46	301.0	8	15A	1					
WARSAK DAM	48.18	289.4	8	45	1					
STALINABAD	49.40	295.9	8	53	0					
SVERDLOVSK	52.91	320.0	9	19	-1					
QUETTA	52.98	286.0	9	20	0	16	50	1	11	24 PP
CHARTERS TS.	53.58	160.1	9	23A	-2					
KHEYS	57.13	348.3	9	42	-9				10	39 PCP
ASHKABAD	57.51	297.6	9	53	0					
COLLEGE	59.09	29.6	10	1	-3					
BRISBANE	62.71	156.3	10	26	-3				11	6
APATITY	63.64	334.8	10	33	-2					
MOSCOW	65.65	321.6	10	47	-1					
NORD	65.94	354.8	10	46	-4					
SODANKYLA	66.15	335.6	10	48	-3					
TIFLIS	66.17	305.4	10	51	0					
SITKA	67.04	36.2	10	55	-2					
PULKOVO	67.76	327.3	11	0	-1				11	26 PCP
KIRUNA	68.06	337.2	11	1	-2					
RESOLUTE	70.36	11.4	11	14	-3	20	25	-5		
SIMFEROPOL	72.00	312.0	11	26	-1					
SKALSTUGAN	73.22	335.4	11	32	-2					
UPPSALA	73.32	330.7	11	32	-3					
WARSAW	75.96	323.0	11	48	-2					
ISTANBUL KA.	77.10	310.3	11	54	-3					
KRAKOW	77.74	321.5	11	59	-1				12	20 PCP
COPENHAGEN	78.03	328.9	12	2	0					
RACIBORZ	78.64	322.2	12	5	0				13	1
BRATISLAVA	80.35	321.1	12	20	6					
PRUHONICE	80.58	323.6	12	30	14				13	33
HALLE	80.91	325.8	12	17	0					
PLAUEN	81.46	324.9	12	17	-3					
JENA	81.46	325.5	12	18	-2				12	59
SHASTA	82.39	46.8	12	23K	-2					
HUNGRY HORSE	82.53	37.0	12	24	-2					
BENSBERG	83.52	327.4	12	31	0					
TRIESTE	83.71	320.5	12	31A	-1				16	21 PP
STUTTGART	84.04	324.9	12	33	-1				12	57
BERKELEY	84.09	49.0	12	32K	-2					
TUBINGEN	84.27	324.8	12	34	-1					
DURHAM	84.43	333.9	12	33K	-2					
EBINGEN	84.55	324.6	12	34	-2					
BUTTE	84.80	38.1	12	41	4					
LICK	84.80	49.2	12	36K	-1					
STRASBOURG	84.87	325.4	12	37	-1					

DOURBES	85.30	327.9	12	29	-11							
BOZEMAN	85.82	37.7	12	43	1							
FRESNO	86.33	48.8	12	41	-4							
ROME	86.81	318.2	12	47	0							
PARIS	87.19	328.0	12	49	0							
SALT LAKE C.	88.64	41.7	12	54	-2							
RAPID CITY	90.92	34.9	13	6	-1							
LARAMIE	91.71	38.1	13	9	-1							
TUCSON	94.91	47.6	13	24	-1							
SOUTH POLE	121.18	180.0	18	53	-2							
BYRD STATION	124.30	168.6	19	1	0							
HUANCAYO	150.21	55.3	19	54	6							20 46 PP

MAY 25 21.H 11.M 42.S EPICENTRE -3.12 -78.09 DEPTH= 29.KM

A= 0.20613 B=-0.97703 C=-0.05405 D=-0.9785 E=-0.2064
G=-0.0112 H= 0.0529 K=-0.9985 HT= 7.1

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CHINCHINA	8.40	17.1	2	8	5	3	51	13					
BOGOTA	8.67	27.6	2	10	3	3	51	6					
HUANCAYO	9.28	163.0	2	12	-3	3	53	-7					
BALBOA HTS.	12.09	353.0	2	32	-21	5	15	7					
GALERAZAMBA	14.09	11.4	3	23	3	6	11	15					
LA PAZ	16.51	144.3	3	46K	-5	7	6	13	3	58	4	8	PP
TRINIDAD	21.44	50.1	4	47	-1						8	51	
GRENADA	22.17	46.9	4	52	-3								
ST. VINCENT	23.25	45.5	5	5	-1								
COMITAN	23.73	324.6	4	18	-53	9	32	11					
SAN JUAN	24.40	28.5	5	15	-2				5	37			
FORT FRANCE	24.41	43.0	5	16	-1	9	37	5					
BARBADOS	24.44	48.3	5	17	0						5	28	
MERIDA	26.46	335.2	5	23	-14	10	0	-6			12	3	SCP
TALA POZO	27.89	153.1	5	48	-2	10	33	4			6	38	PP
VERA CRUZ	28.41	322.0	5	48	-6				6	9	16	18	SCS
PUEBLA	29.60	318.8	6	10	5						7	27	
TACUBAYA	30.52	318.0	6	5K	-8	11	15	4			11	52	*SS
SANTA LUCIA	30.94	167.9	6	22	5	11	11	-7	6	28	6	48	*SP
CONCEPCION	34.00	171.3									9	14	PCP
GUADALAJARA	34.23	314.8	6	42	-3						8	18	
COLUMBIA	37.02	355.9	7	9	0								
BERMUDA	37.53	18.8	7	13	0	13	1	1			8	21	PP
DALLAS	39.91	335.1	7	35	2								
LITTLE ROCK	40.01	341.6	7	34	0								
CHIHUAHUA	41.47	321.5	7	36	-10	13	58	-1			9	32	
FAYETTEVILLE	41.81	340.3	7	48K	-1	13	48	-16					
GEORGETOWN	41.82	1.2	7	49	0	14	7	3			17	54	SSS
WASHINGTON	41.82	1.2	7	48	-1						9	51	PCP
MORGANTOWN	42.57	357.9	7	56K	1								
ST. LOUIS 1	43.04	346.0	7	56K	-3	14	19	-3			9	45	PP
FLORISSANT	43.23	346.0	7	59	-1	14	25	0	8	14			
PENNSYLVANIA	43.71	0.2	8	8	4	14	32	0			9	57	PP
PALISADES	44.08	4.5	8	7	0	14	40	3	8	30	13	52	PCS
CLEVELAND	44.50	356.3	8	10K	-1	14	43	0					
WESTON	45.70	7.0	8	20K	0	15	6	5			18	6	SS
HARVARD	45.80	6.7	8	21	0								
TUCSON TELE.	46.92	321.3	8	31	1						10	30	PP
TUCSON	46.92	321.1	8	30	0								
OTTAWA	48.35	2.2	8	39	-2	15	38	0			10	8	PCP
BREBEUF	48.57	4.2	8	41K	-2	15	41	0					
HALIFAX	49.26	13.6	8	48	0	15	50	-1			10	12	PCP
BOULDER	49.67	332.6	8	52	1								
SHAWINIGAN	49.68	4.8	8	50	-1								
SEVEN FALLS	50.43	6.4	8	57	0	16	8	1			18	45	SCS
LARAMIE	50.82	333.3									17	0	
BOULDER CITY	51.87	321.9	9	9	1								
RAPID CITY	52.11	337.2	9	9	-1								
PASADENA	52.89	318.0	9	15A	-1	16	51	10	9	26	11	18	PP
SALT LAKE C.	53.46	328.3	9	21	1				9	45	10	38	PCP
FRESNO	55.51	319.6	9	33K	-2								
BOZEMAN	56.71	332.8	9	44	1								
LICK	57.03	319.1	9	46A	0				10	10	39	29	PKPPKP
RENO	57.18	322.2	9	47	0								
BUTTE	57.67	332.2	9	50	0				10	11	13	18	PPP

BERKELEY	57.74	319.3	9	51A	0	17	54	8			12	4	
MINERAL	58.76	322.0	10	1	3								
UKIAH	59.07	320.0	10	1	1						39	43	PKPPKP
SHASTA	59.46	321.9	10	2K	-1								
HUNGRY HORSE	60.07	333.1	10	6	-1						39	29	PKPPKP
ARCATA	60.61	321.2	10	12	1								
CORVALLIS	62.30	325.0	10	23K	1								
MBOUR	63.00	72.2	10	31	4	18	57	4			22	41	SS
SEATTLE	63.64	328.2	10	31A	0								
VICTORIA	64.77	328.5	10	39A	1	19	23	8					
HORSESHOE B.	65.23	329.3	10	41	0				10	59			
SITKA	75.52	331.7	11	45	1						21	31	PS
LISBON	75.70	48.9	11	46K	1	21	23	0	12	5	12	40	
SERRA PILAR	76.77	46.6	11	42K	-9				12	7	14	36	PP
HALLEY BAY	77.95	168.4	11	55	-2						14	55	PP
RESOLUTE	78.34	355.5	11	58K	-1	21	48	-3	12	25	15	3	PP
REYKJAVIK	78.74	21.8	12	2K	0						13	13	
MALAGA	78.86	51.8	12	1A	-1	22	1	4	12	19	15	9	PP
RYRD STATION	79.41	186.7	12	5	0	22	11	8			15	21	PP
GRANADA	79.58	51.5	12	9K	3	22	8	4					
TOLEDO	79.82	48.7	12	9	2	22	11	4					
ALMERIA	80.40	52.0	12	11	0	22	20	7					
RATHFARNHAM	81.73	35.2	12	5	-12				12	51			
KIPAPA	81.78	292.0	12	21	3								
HONOLULU	81.84	291.9	12	21	3	22	38	10			28	3	SS
SCORESBY SD.	82.18	16.4	12	18	-2	22	30	-1			22	36	SKS
ALICANTE	82.24	50.8	12	5	-15	22	7	-25			15	15	PP
RELIZANE	82.61	53.5	12	23	1						15	30	PP
JERSEY	83.23	39.9	12	21	-4	23	45	63					
TORTOSA	83.41	48.5	12	36	10	22	47	3					
COLLEGE	84.33	336.3	12	28	-3	22	52	-1	15	46	16	24	PP
ALGIERS UNI.	84.76	52.8	12	33	0	23	2	5					
DURHAM	84.78	34.5	12	32K	-1	22	59	2			24	28	SKS
KEW	84.83	37.9	12	32A	-1	22	56	-2	13	2	22	47	SKS
ABERDEEN	85.04	32.0				23	7	7			22	59	
TAMANRASSET	85.31	67.0	12	35	-1	23	4	2			15	51	PP
CLERMONT-FD.	86.09	43.9	12	39	0	23	16	6					
PARIS	86.13	40.8	12	38A	-2	23	14	4	13	0	16	7	PP
SOUTH POLE	86.90	180.0	12	43	0	22	59	-19			38	38	PKPPKP
DOURBES	87.68	39.7	12	45	-2	23	11	-14					
DE BILT	88.30	37.8	12	56	6	23	33	2					
NEUCHATEL	88.87	43.0	12	53	0	23	19	-17					
NORD	89.04	7.4	12	52	-2	23	40	2			23	24	SKS
WITTFVEEN	89.29	37.2	12	56K	1								
BASLE	89.35	42.5	12	54	-1	23	43	2					
RFNSBERG	89.41	39.1	12	56	1	23	44	3					
STRASBOURG	89.57	41.5	12	56	0	23	44	1			16	27	PP
MUNSTER	89.78	38.1	12	57	0						13	8	
ZURICH	90.01	42.7	12	46	-12	23	47	0					
KARLSRUHE	90.03	41.1	13	0	2	23	56	9			23	34	SKS
PAVIA	90.25	44.9	13	0	1	24	8	19			17	12	PPP
EBINGEN	90.34	41.9	12	59	-1								
TUBINGEN	90.43	41.6	12	59	-1								
STUTTGART	90.53	41.4	12	59	-2	23	33	-18	13	4	24	52	PS
CHUR	90.62	43.3	12	51K	-10								
RAVENSBURG	90.74	42.4	13	8	6								
FLORENCE X.	91.66	46.4	13	5K	-1	24	8	7			23	52	SKS
SCOTT BASE	92.13	191.1	13	10	2						22	13	
JENA	92.19	39.3	13	5	-3	24	8	2			16	48	PP
HALLE	92.44	38.7	13	11	1	23	45	-23			16	51	PP
ROME	92.48	48.3	13	13A	3	24	12	3			16	56	PP
PLAUEN	92.54	39.7	13	9	-1								
CHEB	92.67	40.2	13	26	15	23	49	-21			16	58	
COPENHAGEN	92.86	34.5	13	14	3	24	23	11			23	50	SKS
SKALSTUGAN	92.94	26.6	13	11	-1						30	22	PKKP
COLLMBERG	93.09	38.9	13	13	1								
POTSDAM	93.16	37.9	12	57	-16	24	19	4			23	49	SKS
TRIESTE	93.50	44.6	13	15K	1	24	24	7			17	4	PP
CAPE HALLETT	93.50	196.6	13	17	3	24	41	23			17	12	PP
PRAGUE	93.99	40.2	13	22	5	24	28	6			23	55	SKS
PRIHONICE	94.07	40.3	13	18	1	24	22	0			25	40	SP
HFRMANUS	94.28	124.7				23	54	-30			25	41	
MESSINA	94.77	52.1	13	30	10	23	40	-48			13	52	
UPPSALA	95.56	30.3	13	22	-2	24	34	-1			23	54	SKS
BRATISLAVA	95.77	42.1	13	27	2	24	33	-4			24	1	SKS
TARANTO	96.07	49.8				23	59	-40					
KIRUNA	96.09	22.2	13	26	0	24	42	2			17	19	PP
RACIBORZ	96.42	40.1	13	28	0						24	9	SKKS

KRAKOW	97.53	40.1	13	34	1	24	47	-5		17	16 PP
WARSAW	98.04	37.8	13	21	-14				13 56	24	16 SKKS
BELGRADE	98.25	45.3	13	39A	3	24	16	-42		25	7
SODANKYLA	98.51	22.2	13	36	-1						
KHEYS	99.52	7.7	13	43	1	25	10	2		17	49
GRAHAMSTOWN	100.49	124.5	13	46	0						
KARAPIRO	100.93	230.6	13	54	6					29	59 PKKP
APATITY	100.99	21.3	13	49	1						
ATHENS	101.22	52.1								18	0 PP
SUVA	101.81	250.8								28	2 PPS
PULKOVO	101.90	29.4	13	52	0	25	32	4		27	12 PS
BUCHAREST	102.30	45.3	17	59	777	24	37	-55		19	34
IASI	102.90	42.3	18	21	777	24	37	-60			
ISTANBUL KA.	104.96	48.4	17	34	777	25	55	1			
LWIRO	106.72	93.3	14	29	777					18	41
MOSCOW	106.84	32.2	14	18	777					27	58 PS
ASTRIDA	107.62	93.7	16	0	777					18	42 PP
SIMFEROPOL	107.82	43.7								18	54 PP
HELWAN	108.37	59.7	18	4	777					18	54 PP
TIKSI	109.48	351.2								18	55 PP
MIRNY	110.20	176.2	18	40	11				19 12		
WILKES	110.56	183.7								28	40 PSP
OASIS-BUNG.	110.87	179.5	18	34	4						
KSARA	111.57	54.9				24	58	-13		19	19 PP
PETROPAVLOVK	111.91	327.1								19	24 PP
TIFLIS	116.21	44.5	18	42	1					25	36 SKKS
GORIS	118.09	46.3								22	28 PPP
Y.-SAKHLINSK	123.86	327.4	18	55	-1					20	46 PP
ASHKABAD	127.24	43.2	19	3	1					21	2 PP
RABAUL	129.26	262.0	19	7	1	25	44	-26		21	34 PP
IRKUTSK	130.97	358.0	19	11	2					21	27 PP
TASHKENT	131.99	33.1	19	12	1						
VLADIVOSTOK	132.07	330.5	19	15	4						
MATUSIRO	132.85	319.4	18	59	-14					21	39 PP
PORT MORESBY	133.24	254.1	19	16	2	26	29	9		22	53 PKS
FRUNSE	133.53	27.7	19	17	3					22	52 PKS
STALINABAD	133.56	36.3	19	15	1					22	45 PKS
CHANGCHUN	134.47	336.3	19	17	1					21	51 PP
ULAN-BATOR	135.16	355.2	19	20	3					21	51 PP
ABUYAMA	135.58	319.4	19	9K	-9						
GUAM	136.46	286.2	19	21	2						
QUETTA	137.36	47.1	19	13	-8				19 40	22	5 PP
WARSAK DAM	138.23	39.1	19	16	-7						
NAGASAKI	140.57	321.5	19	22	-5					22	21 PP
PEKING	141.05	342.5	19	27	-1					22	31 PP
DEHRA DUN	144.76	37.3	19	36	2						
ZO-SE	146.76	328.9	19	40	2				19 58	23	9 PP
AGRA	146.95	41.4	19	42	4						
NANKING	147.13	333.0	19	40	2	26	50	8		23	7 PP
LANCHOW	147.15	357.2	19	42	4				20 1	22	11 PP
KOROR	147.31	278.7	19	43	4						
BOMBAY	147.51	59.0	19	50	11					42	10 SS
SIAN	148.35	348.9	19	50	10						
LHASA	151.68	20.3	19	46	1					23	37 PP
CHATRA	152.52	29.5	19	50	3					25	48
SHILLONG	155.68	22.5	18	54	-57						
MADRAS	156.37	64.2	19	58	6					24	39
CANTON	157.31	331.9	19	56	3					24	10 PP
BAGUIO CITY	157.38	307.0	18	56	-57						
HONG KONG	157.53	329.0	19	57	4	26	53	-1		24	9 PP
MANILA	158.01	302.3	20	0	6					24	11 PP
KUNMING	158.18	358.1	19	46	-8				20 8	24	11 PP
PHU-LIEN	161.84	345.7	20	3	5					21	49
BANDUNG	168.52	209.9	20	21	17					25	15 PP
LEMBANG	168.59	209.9	20	20	16					25	14 PP
MEDAN	176.74	81.8	20	10	3					26	2

MAY 26 8.H 49.M 43.S EPICENTRE -3.24 -78.06 DEPTH= 27.KM

A= 0.20658 B=-0.97682 C=-0.05609 D=-0.9784 E=-0.2069
G=-0.0116 H= 0.0549 K=-0.9984 HT= 7.1

SE= 2.22

	DELTA	AZ.	P		O-C	S		O-C	*PP		SUPP.	
	DEG.	DEG.	M	S	S	M	S	S	M	S	M	S

CHINCHINA	8.51	16.7	2	8	4	3	52	12			2	51
BOGOTA	8.76	27.1	2	10	2						2	55
HUANCAYO	9.16	163.0	2	12	-1	3	47	-10				
BALBOA HTS.	12.21	353.0	2	11	-44	4	29	-42				
GALERAZAMBA	14.20	11.2	4	7	46	6	3	4				
LA PAZ	16.40	144.1	3	46	-4	7	8	18			7	32 SS
SAN SALVADOR	20.17	326.9	4	36	1							
TRINIDAD	21.49	49.8	4	49	0	8	49	9				
GRENADA	22.23	46.6	4	52	-4							
ST. VINCENT	23.31	45.3	5	19	12							
FORT FRANCE	24.48	42.8	5	17	-1							
SAN JUAN	24.49	28.3	5	15	-3							
TALA POZO	27.77	153.0	5	52	3	10	27	-1				
TACUBAYA	30.63	318.1	6	10	-4				6	33	7	23 PP
COLUMBIA	37.14	355.9	7	9	-1							
BERMUDA	37.63	18.7	7	5	-9	12	39	-23				
CHAPEL HILL	38.96	358.7	7	25	0							
DALLAS	40.03	335.2	7	38	4							
FAYETTEVILLE	41.93	340.3	7	50A	0						10	33 PCP
MORGANTOWN	42.69	357.8	7	57K	1							
PALISADES	44.20	4.5	8	8	0	14	37	-2	8	27	10	7 PP
CLEVELAND	44.62	356.3	8	11K	-1						18	6 SS
WESTON	45.81	7.0	8	21K	0							
HARVARD	45.91	6.7	7	21	-61							
TUCSON	47.03	321.2	8	32	1							
OTTAWA	48.47	2.2	8	41A	-1						10	5 PCP
BREBEUF	48.68	4.2	8	42A	-2	15	45	2				
BOULDER	49.78	332.6	8	53	1							
SHAWINIGAN	49.79	4.8	8	50A	-2							
SEVEN FALLS	50.55	6.4	9	57	59							
LARAMIE	50.94	333.4	8	31	-30							
BOULDER CITY	51.98	322.0	9	10	1							
RAPID CITY	52.23	337.2	9	10	-1							
PASADENA	52.99	318.0	9	18	2	16	47	5				
SALT LAKE C.	53.58	328.3	9	21	0						10	26 PCP
FRESNO	55.61	319.6	9	34A	-2							
BOZEMAN	56.82	332.9	9	45	1							
LICK	57.14	319.1	9	48A	1							
RENO	57.29	322.3	9	48A	0							
BUTTE	57.79	332.2	9	50	-1						10	39 PCP
BERKELEY	57.85	319.3	9	52A	1						10	52
UKIAH	59.18	320.0	10	2	1							
SHASTA	59.56	322.0	10	2A	-1							
HUNGRY HORSE	60.18	333.2	10	8	0						39	25 PKPPKP
CORVALLIS	62.41	325.1	10	23A	0							
MBOUR	63.00	72.2	10	27	0							
SEATTLE	63.75	328.3	10	33K	1							
VICTORIA	64.88	328.5	10	39A	0							
HORSESHOE B.	65.34	329.3	10	41	-1							
ALBERNI	66.07	328.5	10	46	0							
SERRA PILAR	76.83	46.6	11	33K	-18				12	8		
HALLEY BAY	77.83	168.4	11	56	-1						14	55 PP
RESOLUTE	78.46	355.5	11	59A	-1	21	49	-4			26	44 SS
REYKJAVIK	78.84	21.8	12	1	-1							
MALAGA	78.91	51.8	12	2A	0							
BYRD STATION	79.29	186.8	12	6	1							
GRANADA	79.64	51.5	12	14K	8							
TOLEDO	79.87	48.7	12	8	0							
RATHFARNHAM	81.81	35.2	12	17	-1							
SCORESBY SD.	82.28	16.4	12	19	-1	22	29	-3				
COLLEGE	84.45	336.3	12	30	-1						15	46 *PPP
DURHAM	84.86	34.4	12	33K	0	23	0	2				
KEW	84.90	37.9	12	33	-1							
TAMANRASSET	85.33	67.0	12	37A	1	23	8	5			15	57 PP
CLERMONT-FD.	86.15	43.9	12	39K	-1							
PARIS	86.20	40.8	12	40A	0							
SOUTH POLE	86.78	180.0	12	43	0	23	21	4				
NFUCHATEL	88.94	43.0	12	53	0							
NORD	89.15	7.4	12	54A	0							
WITTEVEEN	89.36	37.2	12	57	2							
BASLE	89.42	42.5	13	0	5							
BENSBERG	89.48	39.1	12	57	1							
STRASBOURG	89.64	41.5	12	57	1	23	29	-14			13	46
MUNSTER	89.86	38.1	13	5	8							
EBINGEN	90.40	41.9	12	55	-5							
STUTTGART	90.60	41.4	12	59	-4							
FLORENCE X.	91.72	46.4	13	31	25							
SCOTT BASE	92.02	191.1	13	9K	1							

JENA	92.26	39.3	13 8	-1			
HALLE	92.51	38.7	13 11	1			
SKALSTUGAN	93.03	26.6	13 12	0			
TRIESTE	93.56	44.6	13 22	7			
PRUHONICE	94.14	40.3	13 18	1		17	3 PP
UPPSALA	95.65	30.3	13 23	-1			
BRATISLAVA	95.84	42.1	13 26	1			
KIRUNA	96.19	22.2	13 26	-1			
RABAUL	129.27	261.9	19 8	2			
MATUSIRO	132.95	319.4	19 9	-4			
QUETTA	137.42	47.2	19 16	-5		22	1 PP
WARSAK DAM	138.31	39.2	19 16	-7			
PEKING	141.17	342.5	19 30	2			
DEHRA DUN	144.84	37.5	19 37	3			
ZO-SE	146.87	328.9	19 41	3			
NANKING	147.25	332.9	19 40	2			
LANCHOW	147.27	357.2	19 41	3			
KOROR	147.35	278.5	19 37	-2			
LHASA	151.78	20.4	19 50	5			
CHATRA	152.61	29.7	19 50	3			
CHENGTU	152.65	356.1	19 50A	3			
HONG KONG	157.64	329.0	19 57	4			
KUNMING	158.30	358.2	19 57	3			

MAY 26 10.H 56.M 45.S EPICENTRE 53.26-169.61 DEPTH= 130.KM

DEPTH OF FOCUS= 0.015R

A=-0.59095 B=-0.10831 C= 0.79941 D=-0.1803 E= 0.9836
G=-0.7863 H=-0.1441 K=-0.6008 HT= -6.6

SE= 1.72

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	16.04	35.0	3 38	-1	6 35	2		4 19
KLYUCHI	17.29	292.1	3 55	1				
PETROPAVLOVK	18.94	282.4	4 13	0				15 37 SCS
SITKA	19.83	65.2	4 25	3	8 12	19		5 26
MAGADAN	22.52	302.1	4 51	2				
ALBERNI	27.96	79.9	5 42	2				
HORSESHOE B.	28.82	78.8	5 47	-1				
VICTORIA	29.12	80.4	5 51K	0				
SEATTLE	30.19	81.3	6 3A	3				
Y.-SAKHLINSK	30.74	277.7	6 3	-2	10 59	2		7 11 PP
CORVALLIS	31.16	87.2	6 10	1				
TIKSI	31.90	328.2	6 15	0	11 18	3		7 28 PP
ARCATA	32.83	93.5	6 26	3				
KIPAPA	33.01	159.9	6 24	-1				
HONOLULU	33.11	160.1	6 24	-1				
SHASTA	33.95	92.3	6 34K	1				9 9 PCP
UKIAH	34.44	95.2	6 39	2				7 19
MINERAL	34.64	92.1	6 41	2				
HUNGRY HORSE	34.71	75.1	6 41	2	12 45	46		9 11 PCP
RESOLUTE	35.63	26.1	6 46	-1	12 13	0		9 14 PCP
BERKELEY	35.83	96.0	6 49K	0	12 21	5		9 14 PCP
RENO	36.22	91.7	6 52K	0				
LICK	36.55	96.1	6 55K	0				9 17 PCP
BUTTE	36.76	77.7	6 57	1				7 36
BOZEMAN	37.85	77.2	7 8	2				9 24 PCP
FRESNO	38.02	95.2	7 7K	0			7 28	
VLADIVOSTOK	39.25	279.4	7 15	-2	13 8	0		8 54 PP
MATUSIRO	39.58	266.5	7 18A	-2	13 1	-12	8 6	9 3 PP
SALT LAKE C.	40.23	84.1	7 26	1				8 7
PASADENA	40.78	96.8	7 29K	-1	13 36	6	7 48	9 6 PP
BOULDER CITY	41.53	91.9	7 37	1				8 26
CHANGCHUN	42.70	284.6	7 44A	-1	13 57	-2	8 13	8 27 *SP
RAPID CITY	43.33	74.3	7 52	1				
LARAMIE	43.62	79.0	7 53	0				
BOULDER	44.60	80.3	8 2	1				
NORD	44.60	5.5	8 1	0				
KHEYS	44.83	350.5	7 55	-8	14 15	-14	8 26	9 39 PP
TUCSON	46.50	92.5	8 17	1				9 48 PCP
TUCSON TELE.	46.50	92.4	8 18	2	14 57	4		10 9 PP
IRKUTSK	49.01	305.7	8 35A	0			9 5	
PEKING	50.39	286.4	8 45	-1	15 46	-1	9 14	9 28 *SP

ULAN-BATOR	50.40	299.9	8	46	0			9	16	
ZO-SE	53.57	274.7	9	9	-1	16	31	0		
FAYETTEVILLE	53.75	76.4	9	9K	-2					
NANKING	54.32	277.3	9	14	-1	16	42	1	9	42
SCORESBY SD.	54.39	12.8	9	15	-1	16	39	-3	9	48
DALLAS	54.49	81.1	9	18	2					
TRUK	55.30	228.7	9	22	0					
CLEVELAND	57.14	63.4	9	35K	0					
OTTAWA	57.41	56.5	9	36K	-1					
SHAWINIGAN	58.06	53.9	9	40	-2				10	10
APATITY	58.28	349.8	9	42	-1	17	36	3		
BREBEUF	58.39	55.2	9	42A	-2					
SEVEN FALLS	58.58	52.3	9	45	0					
KIRUNA	59.00	355.6	9	47	-1	17	43	1	10	21
SODANKYLA	59.08	352.8	9	48	-1					
MORGANTOWN	59.30	63.9	9	50A	0					
LANCHOW	60.14	291.2	9	56	0	17	57	0	10	25
PALISADES	61.49	59.0	10	5A	0	18	20	6		
HARVARD	61.58	56.4	10	6	0					
WESTON	61.79	56.3	10	7A	0					
CHAPEL HILL	62.48	66.2	10	12	0					
COLUMBIA	62.79	69.0	10	13	-1					
SVERDLOVSK	62.83	331.6	10	15	1	18	35	4		
TACUBAYA	63.00	93.5	10	8	-7					
SKALSTUGAN	63.49	359.1	10	18	0				10	51
HALIFAX	63.82	49.9	10	21K	1	18	44	1		
CHENGTU	64.00	286.9	10	22	0	18	47	1	10	52
HONG KONG	64.27	273.2	10	23	0	19	59	70		
BAGUIO CITY	64.94	263.9	10	26	-2					
HELSINKI	66.32	352.1	10	36	-1					
UPPSALA	67.03	274.0	10	40A	0	19	26	3	11	13
KUNMING	69.00	283.9	10	53	0	19	47	1	11	23
MOSCOW	69.08	343.9	10	54	0				11	23
FRUNSE	69.53	315.1	10	56	0	19	55	3		
SUVA	71.86	192.0	11	10	0					
DURHAM	71.88	7.3				20	51	32		
LHASA	72.04	295.4	11	13	2	20	25	4		
PORT MORESBY	72.41	225.2	11	14	0					
BERMUDA	72.84	58.8	11	20	4	20	37	7		
TASHKENT	73.02	317.6	11	15	-2	20	32	0	11	46
MUNSTER	75.12	1.8	11	26	-3					
STALINABAD	75.57	316.4	11	32	0	21	5	5		
HALLE	75.61	359.0	11	34	2					
BENSBERG	76.12	2.1	11	36	1	20	8	-58		
JENA	76.18	359.2	11	36	1					
CHATRA	76.34	296.5	11	39	3					
KRAKOW	76.75	353.7	11	39	0					
DOURBES	76.90	3.8	11	40	1					
PRUHONICE	77.08	357.2	11	41	1				12	13
CHITTAGONG	77.32	290.2	11	41	-1	21	20	1		
JERSEY	77.39	8.4								
NOUMEA	78.06	202.6	11	45K	-1				12	13
PARIS	78.09	5.3	11	48	2					
STUTTGART	78.34	0.8	11	47	0					
STRASBOURG	78.51	1.8	11	50	2	21	34	2		
BRATISLAVA	78.79	355.4	11	52	2	21	41	6	12	25
LAHORE	78.99	308.6	11	50A	-1				12	27
BASLE	79.56	1.9	11	54	0					
NEUCHATEL	80.08	2.4	11	57	0					
SIMFEROPOL	80.08	343.1	11	57	0	21	52	3	12	28
ASHKABAD	80.12	323.4	11	58	1	21	53	4	12	27
TIFLIS	80.85	334.6	12	3	2	22	3	6		
TRIESTE	81.43	357.6	12	1	-3					
CHARTERS TS.	82.32	221.3	12	9	1					
SAN JUAN	83.26	68.4	12	14	1				12	46
FLORENCE X.	83.34	359.4	12	18	4					
QUETTA	83.50	313.3	12	15	1	22	26	3	12	52
ISTANBUL KA.	84.67	345.9	12	20	0					
ROME	85.20	358.4				22	41	1		
CHINCHINA	88.45	83.8	12	39	0					
BOGOTA	89.65	82.8	12	45	1					
KSARA	90.49	339.0	12	42	-6					
KARAPIRO	91.72	191.7	12	53	-1					
TAMANRASSET	104.17	4.6								
LWIRO	126.93	336.7	18	51	3					
ASTRIDA	127.04	335.5	18	55	6					
SCOTT BASE	131.66	186.5	19	0	2					
BYRD STATION	136.05	168.9	18	55	-11				19	37
SOUTH POLE	143.07	180.0	19	14	-4				19	53

ULAN-BATOR										
ZO-SE										
FAYETTEVILLE										
NANKING										
SCORESBY SD.									18	48 SCS
DALLAS										
TRUK										
CLEVELAND										
OTTAWA									10	6
SHAWINIGAN										
APATITY										
BREBEUF									11	56 PP
SEVEN FALLS										
KIRUNA									18	37 *SS
SODANKYLA										
MORGANTOWN										
LANCHOW										
PALISADES									12	15 PP
HARVARD										
WESTON										
CHAPEL HILL										
COLUMBIA										
SVERDLOVSK										
TACUBAYA									12	33 PP
SKALSTUGAN									39	11 PKPPKP
HALIFAX									19	37 PPS
CHENGTU										
HONG KONG										
BAGUIO CITY										
HELSINKI										
UPPSALA									20	21 *SS
KUNMING										
MOSCOW										
FRUNSE									20	45 SCS
SUVA										
DURHAM										
LHASA									21	8 SCS
PORT MORESBY										
BERMUDA									12	4 PP
TASHKENT									21	12 SCS
MUNSTER										
STALINABAD										
HALLE									12	36
BENSBERG										
JENA									12	45
CHATRA										
KRAKOW									12	0 PCP
DOURBES										
PRUHONICE									15	4 PP
CHITTAGONG										
JERSEY									19	36
NOUMEA										
PARIS									14	47 PP
STUTTGART									12	21
STRASBOURG										
BRATISLAVA										
LAHORE										
BASLE										
NEUCHATEL										
SIMFEROPOL									22	47 PS
ASHKABAD										
TIFLIS										
TRIESTE										
CHARTERS TS.									12	41
SAN JUAN										
FLORENCE X.										
QUETTA									15	28 PP
ISTANBUL KA.										
ROME										
CHINCHINA									23	17 SKKS
BOGOTA									23	26 SKKS
KSARA									16	26 PP
KARAPIRO										
TAMANRASSET									18	35 PP
LWIRO										
ASTRIDA										
SCOTT BASE									22	10 PKS
BYRD STATION									22	25 SKP
SOUTH POLE									22	46 SKP

PRETORIA	149.46	327.2	19	52	23							
MAWSON	151.46	219.5	19	39	7							
HALLEY BAY	153.44	160.2	19	42	7	26	52	25				

MAY 26 16.H 18.M 14.S EPICENTRE -18.01-178.50 DEPTH= 593.KM

DEPTH OF FOCUS= 0.088R

A=-0.95130 B=-0.02490 C=-0.30725 D=-0.0262 E= 0.9997
G= 0.3071 H= 0.0080 K=-0.9516 HT= 5.1

SE= 1.14

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	2.92	266.7	1	19A	1	2	25	4				
APIA	7.70	58.1	1	56	0	3	27	-3				
NOUMEA	14.76	250.7	3	5K	0						6	8
BRISBANE	27.84	245.1	5	3K	-1							
RABAUL	31.81	292.1	5	37	-1						14	49 SCS
CHARTERS TS.	33.34	260.8	5	51K	0						7	28
PORT MORESBY	34.40	279.8	6	0	0							
BYRD STATION	67.16	170.7	9	57	0				11	57		
SOUTH POLE	72.11	180.0	10	26	0				12	29		
ZO-SE	75.74	309.7	10	46	-1	19	43	2				
BERKELEY	76.66	42.5	10	51A	-1							
LICK	76.76	43.3	10	52A	0							
HONG KONG	77.07	298.7	10	54	0							
PASADENA	77.35	47.6	10	54	-1							
FRESNO	77.65	44.6	10	55A	-2							
NANKING	77.97	309.5	11	0	1	20	8	3				
SHASTA	78.24	40.1	11	0A	0							
RENO	79.19	42.3	11	5	0							
CORVALLIS	80.03	36.6	10	48	-21							
CHANGCHUN	80.14	322.4	11	11	1	20	32	5				
BOULDER CITY	80.64	47.5	11	13	1							
EUREKA	81.65	44.0	11	18	0							
TUCSON	81.77	52.4	11	20	2							
SEATTLE	82.44	34.5	11	23K	1							
PEKING	83.79	315.4	11	28	0	21	5	3				
HALLEY BAY	85.06	173.2	11	35	0						15	19 PP
COLLEGE	85.89	12.6	11	35	-4							
HUNGRY HORSE	87.44	37.1	11	45	-1							
BOZEMAN	87.89	40.4	11	49	1							
BOULDER	89.18	47.3	11	55	1							
LANCHOW	90.90	307.7	12	4	2	22	18	11				
KIRUNA	128.75	350.9	18	0	0							
DURHAM	143.23	3.0	18	30K	2							
RATHFARNHAM	144.26	8.0	18	27	-2							
KRAKOW	144.78	339.3	18	30	0						19	5
WITTEVEEN	145.02	354.5	18	32	2							
RACIBORZ	145.31	341.0	18	33	2							
ASTRIDA	145.46	236.5	18	37	6						24	44 PP
KSARA	145.49	303.9	18	36	5				20	53	21	49 *SPKP
COLLMBERG	145.55	347.2	18	31	0							
HALLE	145.57	348.4	18	33	2							
MUNSTER	145.77	353.3	18	31	-1							
JFNA	146.18	348.5	18	32	0						22	22
LWIRO	146.41	235.9	18	38	5							
PRUHONICE	146.42	344.7	18	36	3				20	52		
KEW	146.58	2.1	18	35	2							
BENSBERG	146.81	353.4	18	36A	3							
ISTANBUL KA.	147.02	320.0	18	32	-1							
BRATISLAVA	147.33	340.5	18	39	5							
DOURBES	147.89	356.2	18	39	4							
STUTTGART	148.68	350.2	18	36	0							
TUBINGEN	148.94	350.2	18	36	0							
STRASBOURG	149.08	351.9	18	42A	6							
PARIS	149.26	358.7	18	43	6							
EBINGEN	149.29	350.2	18	38	1							
TRIESTE	150.61	342.3	18	40	1						18	54 PKP2
TAMANRASSET	173.94	322.2	19	3A	2						24	32 PP

MAY 27 18.H 27.M 45.S EPICENTRE 36.84 26.75 DEPTH= 166.KM

DEPTH OF FOCUS= 0.021R

A= 0.71642 B= 0.36113 C= 0.59693 D= 0.4501 E=-0.8930
G= 0.5330 H= 0.2687 K=-0.8023 HT= -0.5

SE= 1.38

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	2.67	296.0	0	46	1	1	18	-1					
ISTANBUL KA.	4.60	22.4	1	9	-1	1	55	-8					
SOFIA	6.42	336.8	1	34	0	2	50	4			1	43	PP
SKOPJE	6.60	322.8	1	37A	1	2	39	-11			2	10	PP
BUCHAREST	7.59	356.5	1	50	1	3	17	3					
HELWAN	7.93	149.8	1	51	-3	3	13	-9					
KSARA	8.04	109.3	1	54	-1	3	18	-7					
TARANTO	8.27	298.9	2	0	2	3	25	-5					
REGGIO CALA.	8.92	281.5	2	6A	-1	3	35	-11					
MESSINA	9.00	282.1	2	5A	-3	4	2	14					
BELGRADE	9.29	331.1	2	13K	1						3	2	PG
SIMFEROPOL	9.84	32.2	2	19	0	4	10	3					
KISHINEV	10.29	8.0	2	24	-1								
IASI	10.37	3.1	2	26	0								
SOTCHI	11.98	51.8	2	47	0								
ROME	12.14	299.0	2	47A	-2	5	3	2					
HURBANOVO	12.70	332.9				5	21	7					
LWOW	13.14	352.2	3	10	8	5	44	20					
TRIESTE	13.15	316.1	3	0	-2	5	38	14					
BRATISLAVA	13.36	331.0	3	4	0	5	30	1			3	31	
FLORENCE X.	13.70	305.2	3	5	-4	5	25	-12					
PRATO	13.84	305.4	3	11	1	5	55	15					
BOLOGNA	13.97	308.0	3	59	47	5	57	14					
KRAKOW	14.10	341.7	3	15	1	6	0	14					
RACIBORZ	14.61	337.7	3	22	2	6	9	11					
TIFLIS	14.80	65.2	3	24	2								
PAVIA	15.65	307.6	3	33	0	7	5	44					
PRUHONICE	15.82	330.0	3	36	1	6	30	5			11	20	
PRAGUE	15.94	330.0	3	36K	-1	6	33	5					
CHUR	16.24	313.4	3	41A	1	6	46	10					
MONACO	16.25	301.0	3	40A	0						3	49	
OROPA	16.60	307.7	3	47	2	7	8	22					
RAVENSBURG	16.70	316.3	3	47	1	6	49	0			4	7	
CHEB	16.81	326.4	3	46	-1	6	54	2			5	18	
MAKHACH-KALA	17.04	62.5	3	49	-1								
ZURICH	17.07	313.8	3	51K	1	6	53	-5			4	52	
PLAUEN	17.22	327.1	3	50	-2	7	10	9			3	58	
EBINGEN	17.29	316.5	3	52	-1	6	58	-4			4	3	
TUBINGEN	17.43	317.6	3	53	-1	7	1	-3			4	13	
COLLMBERG	17.47	330.2	3	54	-1								
STUTTGART	17.50	318.4	3	55A	0	7	1	-4	4	20	4	55	PPP
BASLE	17.73	313.0	3	57K	-1	7	8	-1					
JENA	17.78	327.2	3	58	-1	7	19	9			4	23	
NEUCHATEL	17.85	310.9	3	58	-1	7	13	2					
HALLE	18.05	329.0	4	0	-1	7	18	4	4	26	4	16	PP
KARLSRUHE	18.07	318.1	4	2A	0	7	16	1			4	10	
STRASBOURG	18.17	316.2	4	3A	0	7	19	2			4	43	*SP
POTSDAM	18.29	332.5	4	3	-1	7	20	1			4	29	
ALGIERS UNI.	18.97	276.9	4	9A	-2	7	38	5			4	27	PP
CLERMONT-FD.	19.81	304.1	4	18A	-12	8	3	14			4	34	PP
BENSBERG	19.87	321.4	4	20	0	8	1	11					
MOSCOW	20.29	17.9	4	25	0	8	1	3					
MUNSTER	20.30	324.2	4	25	0						8	39	
DOURBES	20.74	316.7	4	29	0	8	9	3					
TORTOSA	20.81	289.1	4	29	-1								
COPENHAGEN	21.21	337.2	4	33	-1	8	17	3			15	37	SCS
WITTEVEEN	21.29	325.0	4	35A	0								
PARIS	21.34	311.7	4	35A	0	8	25	8			4	59	PP
DE BILT	21.55	321.9	4	37	0	8	27	6					
ALICANTE	21.61	282.3	4	40	2	8	43	21			5	8	PP
PULKOVO	23.07	4.6	4	53	1	8	48	1					
TAMANRASSET	23.07	238.5	4	54A	2	8	56	9			5	21	PP
ALMERIA	23.35	278.9	4	55K	0	8	57	5					
HELSINKI	23.38	357.8	4	55	0								
UPPSALA	23.77	348.5	4	58A	-1	9	0	1	5	26	15	42	SCS
KEW	24.13	315.9	5	1A	-1	9	18	13	5	17	10	2	
GRANADA	24.19	280.0	5	55K	52								
JERSEY	24.28	309.6	5	3	0	9	17	10					
TOLEDO	24.28	286.6	5	5A	2	9	17	10	5	34	5	44	PP

MALAGA	24.90	279.2	5 10	1				5 40		8 34	PCP
DURHAM	26.40	321.8	5 23K	0							
SERRA PILAR	27.69	289.9	5 34A	-1							
SKALSTUGAN	28.19	346.3	5 38A	-1	10 10	-1					
RATHFARNHAM	28.22	316.2	5 54A	14	10 25	13		6 21			
LISBON	28.33	284.8	5 38K	-3				6 3			
SVERDLOVSK	30.14	37.6	5 57	0							
SODANKYLA	30.58	359.9	6 0	-1							
APATITY	31.00	5.0	6 3	-1	10 54	-1					
KIRUNA	31.25	355.4	6 5	-1	10 57	-2				12 21	SCP
QUETTA	33.98	89.3	6 30K	0	11 33	-9				7 45	PP
WARSAK DAM	36.37	80.8	6 50K	0							
LWIRO	38.93	176.7	7 13	2						18 7	
ASTRIDA	39.33	175.3	7 16	1						7 57	
LAHORE	39.39	83.3	7 17K	2							
REYKJAVIK	39.74	329.0	7 22A	4							
SEMIPALATNSK	40.17	52.9	7 23	1							
SCORESBY SD.	42.25	337.9	7 37	-2						9 19	PCP
DEHRA DUN	42.81	83.2	7 41	-2							
MBOUR	44.83	251.8	8 1	2				8 39		9 48	PP
NORD	47.46	352.1	8 19A	-1							
CHATRA	51.55	82.9	8 52	1							
LHASA	53.36	77.8	9 6K	1	16 26	4					
IRKUTSK	54.76	47.3	9 14	-1	16 43	3					
THULE	55.71	343.4	9 22	0							
ULAN-BATOR	57.72	51.6	9 36	0	17 24	4					
TIKSI	59.15	21.2	9 45	-1	17 41	3					
LANCHOW	60.30	65.4	9 54	0	17 57	4		10 30		19 0	*SS
ABSOLUTE	62.39	345.2	10 5	-3	18 18	-1					
CHEMULU	62.91	70.7	10 10K	-1	18 28	2				19 45	SCS
YAKUTSK	63.80	30.8	10 15	-2							
KUNMING	64.64	76.8	10 23	1	18 51	4				12 49	PP
KIMBERLEY	65.26	181.9	10 27	1							
HALIFAX	65.52	308.3	10 27A	-1							
PEKING	67.13	56.4	10 38	0	19 20	3		11 14			
SEVEN FALLS	68.67	313.4	10 48A	0							
SHAWINIGAN	70.10	313.6	10 55A	-1							
CHANGCHUN	71.00	49.2	11 1	-1				11 39			
BREBEUF	71.17	313.0	11 3A	0	20 24	20					
WESTON	71.49	309.3	11 5A	0							
HARVARD	71.57	309.5	11 6	1							
OTTAWA	72.45	313.8	11 11A	1							
COLLEGE	78.54	357.6	11 45	0						12 36	
ST. VINCENT	80.67	279.4	11 56	0							
SAN JUAN	81.44	286.4	12 1	1							
MATUSIRO	83.25	49.0	12 10	1						12 54	
LEMBANG	86.79	100.9	12 27	0							
RAPID CITY	87.56	326.4	12 30	-1							
HUNGRY HORSE	88.28	335.0	12 34	0							
FAYETTEVILLE	89.09	316.0	12 38A	0							
BOZEMAN	89.49	331.9	12 42	2							
HORSESHOE B.	90.14	340.9			25 31	13					
LARAMIE	90.83	326.2	12 46	0							
VICTORIA	90.97	340.7			25 29	2					
EUREKA	96.67	331.8	13 13	0							
HALLEY BAY	117.21	193.1	18 26	0	25 16	14					
CHARTERS TS.	125.08	89.7	18 43A	2							
SOUTH POLE	126.65	180.0	18 44	0							
BYRD STATION	134.76	187.8	18 59	0							

MAY 27 23.H 32.M 44.S EPICENTRE -5.84 146.65 DEPTH= 0.KM

A=-0.83108 B= 0.54690 C=-0.10105 D= 0.5497 E= 0.8354
G= 0.0844 H=-0.0555 K=-0.9949 HT= 7.0

SE= 2.14

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	3.57	172.1	1	1	3								
RABAUL	5.73	73.8	1	30	1	3	42	66			1	38	PP
CHARTERS TS.	14.09	181.5	3	26	3	6	9	7					
TRUK	14.20	21.5	3	26	1								
KOROR	17.85	317.0	4	14	3	7	44	15					
GUAM	19.27	354.4	3	29	-60								
BRISBANE	22.36	165.0	5	1K	0	9	5	2					

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

MELBOURNE	31.88	182.5	6	48K	19					
SUVA	33.33	114.3	6	43A	1	12	2	-1	12	52 PCS
PERTH	38.78	224.1				13	29	3	9	7 PP
LEMBANG	38.80	266.4	7	29A	1					
KARAPIRO	41.34	144.7	7	50A	1				8	18
MATUSIRO	42.90	350.0	8	1	-1	14	20	-8	9	27 PP
ZO-SE	44.07	328.0	8	9	-3	14	41	-4		
NANKING	46.08	326.6	8	28	0	15	15	1		
MEDAN	48.81	279.9	8	50	1	15	52	0		
VLADIVOSTOK	50.53	346.0	9	3	1	16	15	-1		
KUNMING	52.64	307.6	9	18	0	16	47	2		
Y.-SAKHLINSK	52.67	356.6	9	19	1	16	44	-1		
PEKING	53.59	331.1	9	24	-1	16	56	-2		
LANCHOW	57.87	319.4	9	55	-1	17	56	1		
PETROPAVLOVK	59.62	8.3							10	30 PCP
CHITTAGONG	60.51	299.6	10	25	11					
DUMONT	60.90	183.0	10	15	-2	18	31	-3		
ULAN-BATOR	63.91	331.4	10	36	-1	19	13	1		
LHASA	63.93	306.9	10	38	1	19	15	3		
MAGADAN	65.26	2.3							11	46
CAPE HALLETT	67.98	172.4	11	3A	0				11	23 PCP
OASIS-BUNG.	68.07	198.3	11	2	-2					
IRKUTSK	68.15	333.5	11	4	0	20	2	-2		
LAHORE	78.15	303.8	12	2	-1				12	15 PCP
TIKSI	78.20	354.3	12	2	-1					
WARSAK DAM	81.01	305.6	12	16A	-2					
MAWSON	82.25	202.6	12	24	-1					
QUETTA	84.06	301.1	12	33A	-1	22	59	1	15	16
SOUTH POLE	84.20	180.0	12	33	-2	23	0	0		
BYRD STATION	84.96	169.9	12	37	-1	22	52	-15	12	51
COLLEGE	85.15	23.0	12	39	0					
SVERDLOVSK	92.66	326.7	13	42	27					
BERKELEY	94.40	52.5	13	22	-1					
SHASTA	94.49	49.7	13	25	1					
PASADENA	97.52	56.4	13	38	1					
HALLEY BAY	98.67	181.7	13	37	-5				17	44
EUREKA	99.37	51.1	13	45	-1				30	40 PKKP
HUNGRY HORSE	100.53	42.0	13	50	-1					
RESOLUTE	102.91	13.9				24	34	-71	32	56 SS
KSARA	110.47	303.8	14	22	-777				18	15 PKP
ASTRIDA	116.45	264.2	19	51	65				20	6
STRASBOURG	124.98	327.8							20	52 PP
DOURBES	125.63	330.8	19	36	32					
OTTAWA	126.13	36.0	19	5K	0					
SHAWINIGAN	127.12	33.3	19	6K	-1					
BREBEUF	127.28	34.8	19	4	-3					
PALISADES	129.65	39.7							22	33 PP
HUANCAYO	134.63	113.2	19	25	4					
TAMANRASSET	138.92	298.2	19	26	-3				22	23 PP
SAN JUAN	145.69	65.8	19	41	0					
FORT FRANCE	151.28	69.9	19	56	7					
ST. VINCENT	151.54	73.1	19	57	7					
ST. LUCIA	151.60	71.3	19	56	6					
TRINIDAD	151.72	78.4	19	55	5					

MAY 29 3.H 15.M 59.S EPICENTRE 37.66 72.19 DEPTH= 121.KM

DEPTH OF FOCUS= 0.014R

A= 0.24278 B= 0.75563 C= 0.60835 D= 0.9521 E=-0.3059
G= 0.1861 H= 0.5792 K=-0.7937 HT= -0.8

SE= 1.72

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KHOROG	0.50	249.5	0	22	2	0	36	2				
MURGAB	1.55	62.1	0	33	4	0	54	3				
DZHERGETAL	1.74	334.3	0	31	0	0	54	-1				
KULYAB	1.92	278.0	0	34	1	0	59	1				
GARM	2.00	312.7	0	35	1	1	0	0				
OBI-GARM	2.22	298.7	0	37	0	1	4	-1				
KARA-SU	2.66	289.0	0	43	0	1	13	-2				
FERGANA	2.74	353.5	0	44	0							
STALINABAD	2.84	289.3	0	46	1	1	20	0				
ANDIJAN	3.09	2.6				1	27	1				

NAMANGAN	3.34	353.3	0	51	-1	1	31	-1	1	43
WARSAK DAM	3.69	188.3	0	58K	1					
LUNACHARSKOE	4.28	329.8	1	3	-2	1	51	-3		
SAMARKAND	4.54	297.8	1	4	-4					
NARYN	4.78	36.8							1	23
TCHIMKENT	5.05	337.6	1	14	-1	2	8	-5	1	34
FRUNSE	5.53	18.6	1	22	1	2	21	-3		
RYBACHE	5.64	30.7	1	23	0	2	33	6	1	35
LAHORE	6.34	163.2	1	32K	-1	2	40	-4	1	44 *SP
FABRICHNAYA	6.38	28.9	1	33	0					
PRZHEVALSK	6.77	42.7	1	39	1	2	52	-3		
ALMATA-2	6.86	33.5	1	40	0				2	30
KURMENTY	7.12	38.9	1	42	-1					
ILI	7.30	29.0	1	45	-1				2	48
QUETTA	8.63	211.8	2	3	0	3	37	-3	2	15 *SP
DEHRA DUN	8.79	144.7	2	6	0	3	35	-8	3	47 SS
ASHKABAD	10.96	275.8	2	32	-2					
AGRA	11.59	153.2	2	40	-3	4	40	-10		
KIZYL-ARVAT	12.58	281.1	2	53	-3				5	23
SEMIPALATNSK	13.98	21.8	3	12	-2	5	57	11		
CHATRA	16.63	126.2	3	44	-3	6	59	11		
BOMBAY	18.70	178.1				7	50	18	9	8
MAKHACH-KALA	19.53	293.5	4	20	0	7	53	4		
KIROVORAD	20.22	286.8	4	27	-1	8	3	0		
SHILLONG	20.60	120.1	4	18A	-13	8	2	-8	4	43 PP
SVERDLOVSK	20.67	341.8	4	31	-1	8	17	6		
TIFLIS	21.43	289.5	4	42	2	8	36	11	5	21
VIZIANAGRAM	21.83	150.0				8	54	22		
CHITTAGONG	22.77	126.5	4	56	3	8	55	6		
MADRAS	25.57	161.7				10	11	35	12	19
HELSINKI	37.22	322.6	7	2	1					
ATHENS	37.94	285.8	7	10A	3					
KRAKOW	38.90	305.7	7	17	2				9	41
SODANKYLA	39.10	334.0	7	18	1					
UPPSALA	40.76	321.0	7	31	0				9	6 PP
KIRUNA	41.47	333.2	7	37	0					
PRUHONICE	42.37	306.0	7	47	3				9	22 PP
COPENHAGEN	43.29	314.5	7	52A	1					
SKALSTUGAN	43.77	326.0	7	56A	1				9	38 PP
HALLE	43.85	308.4	7	57	1					
JENA	44.15	307.7	7	58	0				9	27 PP
TIKSI	44.34	22.3	8	0	0	14	24	0	9	46 PP
STUTTGART	46.00	305.0	8	14	1					
PAVIA	46.78	300.1							13	54
STRASBOURG	46.97	305.0	8	21K	0					
KEW	51.40	310.2	8	54	-1					
MATUSIRO	51.66	69.7	8	56	-1				9	28
TAMANRASSET	58.38	275.6	9	46	1				11	54 PP
RESOLUTE	67.62	356.3	10	45A	-1					
COLLEGE	73.11	16.7	11	18	-1			11 52		
SUVA	113.54	95.3				25	56	58		
SOUTH POLE	127.47	180.0	19	9	18					

MAY 29 5.H 21.M 33.S EPICENTRE 27.74 139.83 DEPTH= 441.KM

DEPTH OF FOCUS= 0.064R

A=-0.67729 B= 0.57173 C= 0.46303 D= 0.6450 E= 0.7641
G=-0.3538 H= 0.2987 K=-0.8863 HT= 2.5

SE= 1.84

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	2.76	8.4	1	4	-1	1	51	-5				
OMAESAKI	6.97	349.0	1	45	0	3	5	-3				
OSIMA	7.02	357.0	1	44	-2	3	3	-6				
SHIZUOKA	7.31	350.7	2	56	67							
AJIRO	7.31	355.3	1	47	-2	3	11	-4				
MISIMA	7.39	354.4	1	48	-2	3	11	-6				
TU	7.52	338.7	1	53	2							
KAMEYAMA	7.65	338.8	1	54	2	3	22	0				
YOKOHAMA	7.67	358.9	1	53	0	3	17	-5				
TOKUSIMA	7.75	325.7	1	55	1	3	26	2				
HUNATU	7.79	353.6	1	52	-2	3	22	-2				
NAGOYA	7.80	342.5	1	55	1	3	25	0				
OSAKA	7.81	332.9	1	57	3	3	28	3				
TOKYO C.M.O.	7.91	359.5	1	53	-2	3	21	-6				
KOTI	7.93	318.4	1	57	1	3	29	2				
KOHU	7.94	352.5	1	54	-2	3	25	-2				

ABUYAMA	7.98	333.9	1	57K	1	3	31	3		
TYOSI	8.00	6.0	2	57	61					
GIHU	8.07	341.9	1	58	1	3	29	-1		
HIKONE	8.10	338.7	1	59	2	3	34	3		
IBUKISAN	8.16	339.7	1	59	1	3	33	1		
TAKAMATU	8.22	324.3	2	0	1	3	38	5		
KUMAGAYA	8.39	357.5	2	0	-1	3	32	-4		
MIYAZAKI	8.41	301.7	2	3	2	3	45	8		
KAKIOKA	8.47	1.9	1	59	-3	3	31	-7		
YAKUSIMA	8.60	290.5	2	4	1					
MATUMOTO	8.63	349.9	2	3	0	3	36	-5		
MITO	8.63	3.4	2	3	0	3	37	-4		
OIWAKE	8.63	353.1	2	7	4					
MAEBASI	8.66	355.9	2	4	0	3	36	-6	4	24
UTUNOMIYA	8.78	0.2	2	2	-3	3	37	-7		
HUKUI	8.82	340.8	2	58	53				3	48
TOYOOKA	8.86	332.4	2	7	1	3	47	1		
MATUSIRO	8.89	351.6	2	3A	-3	3	37	-9	14	6 SCS
KAGOSIMA	8.93	297.5	2	8	1	3	56	9		
OOITA	8.95	309.7	2	10	3	3	54	6		
NAGANO	9.01	351.6	2	7	-1	3	44	-5		
HIROSIMA	9.16	318.0	2	11	2	3	57	5		
TOYAMA	9.20	346.7	2	6	-4	3	41	-12		
ONAHAMA	9.23	5.3	2	8	-2	3	47	-6	2	36
SHIRAKAWA	9.36	1.9	2	11	0	3	52	-4		
KUMAMOTO	9.37	304.9				5	3	67	3	13
HAMADA	9.74	319.0	2	16	0	4	10	6		
SAGA	9.88	306.1	2	22	5					
NAGASAKI	9.94	302.4	2	17	-1	4	11	3		
HUKUOKA	9.97	308.0	2	15	-3	3	59	-9		
HUKUSIMA	9.99	2.9	2	18	-1	4	5	-4		
NIIGATA	10.17	356.5							3	56
YAMAGATA	10.49	2.2	2	22	-2	4	16	-3		
SENDAI	10.54	4.6	2	23A	-2	4	16	-4		
ISINOMAKI	10.73	6.3	2	26	-1	4	21	-3		
MIZUSAWA	11.41	5.1	2	35	1	4	35	-3		
AKITA	11.95	1.0	2	43	3	4	49	0		
AOMORI	13.07	3.2				5	17	6		
HAKODATE	14.02	2.7	3	3K	1	5	32	3		
MORI	14.34	2.2	3	7	1	5	38	3		
URAKAWA	14.57	8.7	3	11	3	5	46	6		
TOMAKOMAI	14.81	5.1				5	51	7		
SAPPORO	15.34	4.2	3	16	0	5	55	1		
OBIHIRO	15.39	9.4	3	17	1	6	0	5		
KUSIRO	15.65	12.5				6	4	4		
NEMURO	16.23	15.2				6	36	25		
70-SF	16.59	286.1	3	24	-5	6	15	-3		
VLADIVOSTOK	16.64	339.3	3	30	1				6	30
NANKING	18.73	288.3	3	50K	0	7	2	6		
CHANGCHUN	19.86	327.7	4	2A	1	7	24	9		
KOROR	20.93	195.0	4	10	-1	7	40	7		
BAGUIO CITY	21.07	241.7	4	13	1					
UGLEGORSK	21.38	4.0				7	43	2		
PEKING	23.07	308.2	4	29	-2					
TRUK	23.15	148.3	4	31	-1	8	50	40	5	41
CHENGTU	31.32	284.0	5	43K	-1	10	20	1		
LANCHOW	31.54	294.4	5	46K	1					
ULAN-BATOR	32.54	317.2	5	54	0					
MAGADAN	32.68	10.3				10	33	-7		
KUNMING	33.31	274.0	6	1K	1					
IRKUTSK	36.04	322.6	6	24	1					
LHASA	42.59	284.6	7	18K	1	13	15	8		
SHILLONG	42.71	278.5	7	17K	-1					
TIKSI	44.35	355.1	7	30	-1					
CHARTERS TS.	47.88	171.8	7	55	-3				9	20
COLLEGE	57.76	28.8	9	7	-2					
WARSAK DAM	57.98	294.5	9	11K	0					
SVERDLOVSK	61.44	322.1	9	33	-1					
QUETTA	62.77	291.5	9	42K	0					
NORD	70.22	356.4	10	28K	0					
APATITY	70.65	337.0	10	30	-1					
RESOLUTE	71.92	13.2	10	37K	-1	19	24	1		
ALBERNI	72.80	43.1	10	54	10					
SODANKYLA	73.03	338.2	10	44	-1					
KARAPIRO	73.39	151.2	10	48	1					
HORSESHOE B.	73.68	42.5	10	48	-1					
VICTORIA	73.94	43.4	10	51K	1					
KIRUNA	74.74	340.0	10	54K	-1				13	46 PP
CORVALLIS	75.63	47.1	11	2K	2					

BANFF	77.36	38.6	11 19	10			
HELSINKI	77.60	332.3	11 10	0			
SHASTA	77.90	50.4	11 13K	1			
BERKELEY	79.25	52.9	11 20K	1			
HUNGRY HORSE	79.60	40.7	11 22	1			
LICK	79.93	53.2	11 23K	0			
SKALSTUGAN	80.07	338.9	11 22K	-1			14 30 PP
UPPSALA	80.72	334.4	11 26K	-1			
SIMFEROPOL	81.05	316.2	11 29	0			
SCORESBY SD.	81.19	353.9	11 29	0			
BUTTE	81.64	42.2	11 33	1			12 31
EUREKA	82.82	49.1	11 38	0			
PASADENA	83.92	54.7	11 44	1			
SALT LAKE C.	84.86	46.4	11 48	0			
COPENHAGEN	85.59	333.2	11 50	-1			
REYKJAVIK	87.32	352.1	12 0A	1			
RAPID CITY	88.21	40.0	12 5	1			
LARAMIE	88.47	43.3	11 6	-59			
PRUHONICE	88.68	328.2	12 5	-1			15 44 PP
HALLE	88.78	330.4	12 5	-1			
JENA	89.35	330.2	12 7	-2			
TUCSON	90.16	53.1	12 14	1			
TUCSON TELE.	90.19	53.0	12 14	1		13 51	
MUNSTER	90.26	332.7	12 9	-4			
STUTTGART	91.99	329.8	12 19	-2			
STRASBOURG	92.76	330.4	12 24	-1			
PARIS	94.79	333.3	12 34	0			
TAMANRASSET	113.15	314.1	17 48	2			18 35 PP
SOUTH POLE	117.58	180.0	17 54	0			20 47
BYRD STATION	118.98	168.7	17 58	1		19 45	20 51
HALLEY BAY	131.68	184.5	18 22	0			21 5 PP
HUANCAYO	143.60	71.7	18 43	-1			21 44 SKP
LA PAZ	151.85	72.5	19 8	12			

MAY 29 6.H 59.M 11.S EPICENTRE 16.22 -97.37 DEPTH= 0.KM

A=-0.12325 B=-0.95276 C= 0.27759 D=-0.9917 E= 0.1283
G=-0.0356 H=-0.2753 K=-0.9607 HT= 5.5

SE= 2.53

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
OAXACA	0.98	35.8	0 22K	2				
PUEBLA	2.90	344.3	0 47	-1	1 27	3		1 11
VERA CRUZ	3.19	21.6	0 53	1				
TACUBAYA	3.61	331.4	0 55K	-3				
GUADALAJARA	7.18	309.1	1 53	5				2 37
SAN SALVADOR	8.25	106.4	2 2	-1				5 8
MERIDA	8.73	56.2	2 11	1	4 0	10		
SANTIAGO MA.	9.02	106.3	2 12	-2				4 49
MAZATLAN	10.96	310.6	2 40	-1				5 18 SS
DALLAS	16.57	1.7	3 56	1				
LUBBOCK	17.75	347.7	4 9	-1	7 36	10		4 56 PPP
BALBOA HTS.	18.81	110.4	4 21	-2	8 19	29		
FAYETTEVILLE	19.99	7.6	4 34K	-2	8 30	14		
TUCSON	20.10	325.0	4 38	0	8 24	5		5 3
TUCSON TELE.	20.11	325.4	4 38	0				
GALERAZAMBA	22.15	101.3	5 3	4	9 15	17		
COLUMBIA	23.02	36.7	5 6	-1	9 15	1		
CHINCHINA	24.09	115.3	5 15	-3	9 52	19		
BOULDER	24.71	345.3	5 24	0				
CHAPEL HILL	25.52	36.3	5 25	-6				6 39
BOGOTA	25.61	114.2	5 34	2	10 17	18		
PASADENA	25.85	317.5	5 33	-1	10 13	10		
LARAMIE	25.99	345.8	5 36	0				
SALT LAKE C.	27.49	335.7	5 50	1				6 54 PP
RAPID CITY	28.21	351.1	5 56	0				
EUREKA	28.30	328.6	5 58	1				
SAN JUAN	29.90	81.3	6 9	-2				
LICK	30.04	319.1	6 12K	0				
BOZEMAN	31.52	341.5	6 26	1				7 8
PALISADES	31.96	34.7	6 29	0	11 22	-19		13 28 SS

BUTTE	32.31	340.0	6 32	0					7	13
SHASTA	32.63	323.4	6 33A	-2						
HARVARD	34.27	34.9	6 48	-1						
WESTON	34.32	35.3	6 59A	9						
HUNGRY HORSE	34.84	340.4	6 53	-1					38	45 PKPPKP
ST. VINCENT	35.02	90.1	6 58	2						
ST. LUCIA	35.15	88.6	6 53	-4						
BREBEUF	35.34	29.3	6 57	-1					8	40 PPP
HUANCAYO	35.56	140.9	6 59A	-1					9	2 PCP
CORVALLIS	35.75	327.7	7 1K	-1						
SHAWINIGAN	36.51	28.9	7 7K	-1						
SEATTLE	37.48	332.1	7 17	0						
BANFF	37.78	341.3	7 18	-1						
SEVEN FALLS	37.84	29.8	7 20	0						
VICTORIA	38.63	332.1	7 25K	-1					18	34
HORSESHOE B.	39.21	333.1	7 30A	-1						
RESOLUTE	58.48	0.8	9 57K	-3	18	3	1		22	7 SS
COLLEGE	59.19	337.5	10 2	-3						
MALAGA	82.80	54.0	12 32	5						
GRANADA	83.31	53.4	12 34	5						
SKALSTUGAN	84.05	25.1	12 39	6						
KIRUNA	85.02	19.7	12 43	5						
DOURBES	85.18	39.2	12 36	-3						
SODANKYLA	87.25	18.7	12 53	4						
TAMANRASSET	95.22	64.6	13 26	0					14	50
TANANARIVE	146.48	99.9	19 42	1						

MAY 30 5.H 16.M 17.S EPICENTRE 41.27 43.90 DEPTH= 36.KM

DEPTH OF FOCUS= 0.001R

A= 0.54314 B= 0.52267 C= 0.65712 D= 0.6934 E=-0.7206
G= 0.4735 H= 0.4556 K=-0.7538 HT= -2.2

SE= 2.46

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
BOGDANOVKA	0.23	269.5									0	1	PG
AKHALKALAKI	0.34	292.1									0	3	PG
STEPANAVAN	0.45	126.7									0	5	PG
LENINAKAN	0.49	184.4									0	4	PG
BAKURIANA	0.54	328.2									0	7	PG
BORZHOMI	0.68	325.2									0	10	PG
GORI	0.73	13.1									0	10	PG
TIFLIS	0.81	56.2									0	12	PG
DUZHETI	1.01	36.3									0	17	PG
EREVAN	1.18	157.1									0	19	PG
GEGECHKORI	1.57	314.0									0	26	PG
KIROVOBAD	1.95	105.3									0	30	PG
NAKHICHEVAN	2.37	150.5	0 36		-1						1	8	S*
GROZNY	2.46	33.2	0 39		0	1	9	1					
GORIS	2.56	132.9	0 41		1						1	16	S*
PIATIGORSK	2.82	347.8	0 21		-23						1	7	SG
MAKHACH-KALA	3.17	56.5	0 48		-1						1	38	SG
SHEMAKHA	3.64	98.6	0 55		0						1	54	SG
SOTCHI	3.86	308.1	0 57		-1	1	41	-2			1	7	
LENKORAN	4.53	121.9	1 10		2						2	24	
SIMFEROPOL	8.04	300.4	1 57		0								
KIZYL-ARVAT	9.73	99.3									2	27	
KSARA	9.79	223.1	2 22		1	4	18	7			5	28	SG
ISTANBUL KA.	11.18	273.9	2 39		-1								
ASHKABAD	11.63	101.9	2 43		-3						4	59	
MOSCOW	15.04	346.2	3 36		5								
KRAKOW	18.85	305.8	4 16		-3						5	32	
SVERDLOVSK	18.96	29.1	4 17		-4	7	44	-3			4	47	
STALINABAD	19.25	89.9	4 24		0						8	6	
BRATISLAVA	20.19	299.0	4 30		-4								
KULYAB	20.20	91.1	4 32		-2						8	27	
PULKOVO	20.36	340.0	4 39		3								
NAMANGAN	20.89	81.6	4 41		0						8	39	
ANDIJAN	21.46	81.9	4 45		-2						8	50	
QUETTA	21.68	113.4	4 54		5	8	53	11					
KHOROG	21.71	91.0	4 51		1						7	24	
PRUHONICE	22.18	303.0	4 58		4								
HELSINKI	22.24	334.6	4 56		1								

FRUNSE	22.77	75.7	4 59	-1								
WARSAK DAM	23.01	99.4	5 2	0								
COLLMBERG	23.43	305.8	5 7	0								
ROME	23.45	282.0			9 43	29						
HALLE	24.12	305.9	5 13	0							5 37	
JENA	24.23	304.5	5 21	7								
UPPSALA	24.71	327.7	5 19	0								
STUTTGART	25.48	298.9	5 26	0								
SODANKYLA	27.81	345.7	5 49	1								
KIRUNA	29.50	342.1	6 3	0								
TAMANRASSET	37.03	252.1	7 8	0							7 40	
MATUSIRO	69.89	58.8	11 14	5					12 5			
COLLEGE	73.80	5.2	11 32	0							11 55	
HUNGRY HORSE	88.65	345.5	12 50	-1								
BOZEMAN	90.59	342.7	13 1	1								
SALT LAKE C.	95.42	341.7	13 15	-7								
SHASTA	97.47	349.5	12 37	-54								
EUREKA	97.56	344.4	12 57	-35								
RENO	98.21	347.3	12 42	-52								
LICK	100.65	348.3	12 27	-79								
FRESNO	100.91	346.7	12 31	-76								
TUCSON TELE.	103.10	338.1	12 53	-63								
TUCSON	103.22	338.2	13 1	-56								
SOUTH POLE	131.08	180.0	19 7	-1								

MAY 30 16.H 11.M 44.S EPICENTRE 24.84 121.95 DEPTH= 111.KM

DEPTH OF FOCUS= 0.012R

A=-0.48083 B= 0.77094 C= 0.41768 D= 0.8485 E= 0.5292
G=-0.2210 H= 0.3544 K=-0.9086 HT= 3.4

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
ILAN	0.19	250.5	0 4	-12	0 14	-15			
TAIPEI	0.44	296.4	0 20	2	0 31	0			
HSINCHU	0.89	268.0	0 21	0	0 32	-5			
HWALIEN	0.91	199.4	0 17	-4	0 31	-6			
TAICHUNG	1.34	239.8	0 24	-1	0 41	-4			
YUSHAN	1.63	214.3	1 16	47	1 35	44			
ALISHAN	1.68	219.0	0 27	-3	0 49	-3			
HSINKONG	1.81	197.2	0 28	-3	0 50	-4			
TAINAN	2.42	221.3	0 37	-2	1 4	-4			
PENGHU	2.55	239.8	0 39	-2	1 7	-5			
TAWU	2.66	201.5	0 42	0	1 14	0			
KAOHSIUNG	2.69	215.3	0 48	5	1 15	0			
HENGCHUN	3.03	201.6	0 50	3	1 25	2			
ZO-SE	6.28	353.9	1 29	-2	2 41	-1			
HONG KONG	7.57	252.1	1 47	-2				3 14	
NANKING	7.70	339.6	1 48	-3	3 14	-3			
CANTON	8.12	259.4	1 59	3	3 35	8			
BAGUIO CITY	8.47	189.0	2 0	-1					
YAKUSIMA	9.42	51.7	2 16K	2					
MANILA	10.24	185.3	2 28	3	4 17	-1			
MIYAZAKI	10.92	47.6	2 37	3	4 46	12			
HUKUOKA	11.42	38.4	2 43	2	5 8	22			
SIAN	14.71	312.6	3 28	5					
PEKING	15.91	343.6	3 41A	3	6 37	6			
NAGOYA	16.57	48.1	3 54	7					
CHENGTU	16.90	294.1	3 49K	-2	6 53	-2			
KUNMING	17.48	274.8	4 0	2	7 19	12		4 32	*SP
MATUSIRO	18.19	46.3	4 3A	-3	7 28	6		6 55	
CHANGCHUN	19.15	7.4	4 16A	-1	7 51	9		4 46	*SP
LANCHOW	19.20	310.0	4 19K	2	7 49	6		4 38	PP
VLADIVOSTOK	19.99	21.7	4 26	0			4 46	4 54	PP
KOROR	21.13	143.4	4 36	-1	8 38	17	4 54	5 11	*SP
GUAM	24.28	113.5	5 8	0					
TOCKLAI	24.53	280.3	5 21	11					
ULAN-BATOR	25.94	336.5	5 24	1	9 46	3			
SHILLONG	27.20	278.0	5 34K	-1	10 5	1		6 13	PP
Y.-SAKHLINSK	27.59	31.6	5 34	-4			6 2	9 51	
CHITTAGONG	27.70	271.1	5 40	1	10 16	4	6 2	11 1	*SS
LHASA	27.85	286.8	5 42K	1	10 18	4		6 34	PP
IRKUTSK	30.50	338.5	6 4A	0					

MEDAN	30.80	230.4	6 7	0						
CHATRA	31.31	281.2	6 12	0	11 12	3				
TRUK	33.38	116.1	6 29	0	11 45	4	6 47	9	8	PCP
LEMBANG	34.43	205.8	6 40	2				7	1	
BANDUNG	34.48	205.7			12 8	10				
DEHRA DUN	39.11	288.1	7 22	4	13 11	2				
PETROPAVLOVK	39.44	34.5	7 18	-2				9	26	PPP
SEMIPALATNSK	40.97	319.5	7 34	1	13 37	1				
RABAUL	41.18	130.3	7 35	0						
PORT MORESBY	41.97	141.1	7 42	1	13 53	2	8 10	15	55	
LAHORE	42.24	290.3	7 44	1						
FRUNSE	42.65	307.0	7 47	0	13 37	-24	8 10	14	48	*SS
WARSAK DAM	44.47	294.0	8 2	1						
TASHKENT	46.39	304.2	8 16	-1	14 58	3	8 41			
STALINABAD	46.67	300.4	8 30	11	15 5	6				
TIKSI	46.99	3.0	8 25	4	15 3	0		18	1	SCS
QUETTA	48.69	289.2	8 35	0	15 30	3	8 58	16	11	*SS
KARACHI	49.33	283.5					9 6			
CHARTERS TS.	50.46	149.9	8 48A	0				9	14	
SVERDLOVSK	53.94	323.4	9 14	0	16 39	0	9 37	20	28	SS
ASHKABAD	54.89	300.0	9 20	-1			9 44			
BRISBANE	60.02	148.0	9 56A	-1				10	8	
KHEYS	62.24	349.4	10 5	-7	18 12	-15				
TIFLIS	64.65	306.1	10 28	0						
MELBOURNE	65.98	160.2	10 36K	0						
COLLEGE	67.91	27.4	10 47	-1						
SODANKYLA	69.36	335.7	10 56	-1						
PULKOVO	69.69	327.4	10 27	-32						
SIMFEROPOL	71.43	311.5	11 9A	-1	20 19	1	11 34	20	55	PS
KIRUNA	71.49	336.9	11 9A	-1	20 18	0	11 33	11	43	*SP
HELSINKI	72.15	328.6	11 13	-1						
HONOLULU	72.62	74.2	11 17	0						
KIPAPA	72.65	74.0	11 18	1						
KSARA	73.55	300.0	11 23	1	20 45	3	11 48	21	27	PS
UPPSALA	75.69	329.7	11 33A	-2	21 0	-5	11 58	20	38	
SITKA	76.09	33.3	11 37	0						
ISTANBUL KA.	76.18	309.0	11 36	-1						
SKALSTUGAN	76.31	334.3	11 37	-1			12 1	12	28	*SP
RESOLUTE	77.92	9.4	11 45	-2	21 32	3		17	22	*PPPP
HELWAN	78.56	297.6	11 51	1	21 40	4				
KRAKOW	78.62	320.0	11 50	-1				12	23	
COPENHAGEN	80.07	327.2	11 55	-4	21 53	1	12 42	22	41	PS
PRUHONICE	81.75	321.5	12 8	1			12 33	22	54	PS
HALLE	82.43	323.7	12 10	-1			12 36	16	48	
JENA	82.92	323.3	12 13	0			12 48			
TANANARIVE	84.45	246.4	12 23	2			12 48			
ALBERNI	85.36	37.1	12 25	-1						
STUTTGART	85.37	322.3	12 24	-2			12 52	15	44	PP
HORSESHOE B.	86.14	36.5	12 32	3						
VICTORIA	86.55	37.3	12 32A	1						
SEATTLE	87.66	37.6	12 40K	3						
CORVALLIS	88.83	40.5	12 44A	2						
RATHFARNHAM	90.20	331.9								
SHASTA	91.59	43.3	12 56A	1				16	21	
HUNGRY HORSE	91.60	33.6	12 56	1						
UKIAH	91.96	44.9	12 56	-1						
BERKELEY	93.30	45.5	13 3A	0						
RENO	93.88	43.1	13 7A	1						
BUTTE	93.89	34.7	13 6	0						
LICK	94.00	45.7	13 6A	0						
BOZEMAN	94.91	34.2	13 5	-5						
FRESNO	95.53	45.3	13 11A	-2						
EUREKA	96.26	41.3	13 17	0						
MAWSON	101.93	199.6	12 54	-48						
TAMANRASSET	102.27	302.2						17	59	PP
SOUTH POLE	114.69	180.0	18 27	0				29	5	PKKP
BYRD STATION	119.14	169.9	18 36	0						
HALLEY BAY	126.82	189.4	18 49	-1				31	0	PS
SAN JUAN	136.33	11.1	19 8	0						
ST. LUCIA	141.27	4.6	19 15	-3						
ST. VINCENT	142.10	5.1	19 18	-1						
TRINIDAD	144.55	5.9	19 22A	-1						
HUANCAYO	159.28	55.2	19 49	4				20	26	*SPKP
LA PAZ	167.44	50.6	19 57	5						

MAY 30 18.H 4.M 53.S EPICENTRE 52.73-168.62 DEPTH= 0.KM

A=-0.59614 B=-0.11997 C= 0.79387 D=-0.1973 E= 0.9803
G=-0.7783 H=-0.1566 K=-0.6081 HT= -6.4

SE= 3.33

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	16.14	33.1	3	47	-1	7	7	21					
SITKA	19.51	64.0	4	29	0	8	15	12			5	2	
PETROPAVLOVK	19.64	284.3	4	27	-4								
ALBERNI	27.46	79.5	5	50	3	10	32	6					
HORSESHOE B.	28.33	78.4	6	0	5	10	51	11			9	11	PCP
VICTORIA	28.61	80.1	5	57	-1	10	40	-4			9	1	PCP
SEATTLE	29.67	81.0	6	8A	1								
CORVALLIS	30.59	87.0	6	15	0								
UGLEGORSK	30.82	283.3	6	18	1								
Y.-SAKHLINSK	31.41	279.2	6	17	-5	11	26	-2					
NEMURO	31.55	271.3	6	16	-8								
KIPAPA	32.31	161.3	6	27	-3								
HONOLULU	32.41	161.5	6	28	-3	11	35	-9			12	57	
KUSIRO	32.46	271.7	6	31	-1								
TIKSI	32.66	328.6	6	36	3	11	56	8					
WAKKANAI	32.80	277.4									14	40	
YAKUTSK	33.26	310.8	6	38	-1	12	0	3					
SHASTA	33.33	92.3	o	40A	1								
UKIAH	33.79	95.3	6	41	-2						24	16	PKKP
URAKAWA	33.92	271.7	6	41	-3	12	11	4					
HUNGRY HORSE	34.26	75.0	6	45	-2								
SAPPORO	34.27	274.1	6	43	-4	12	11	-2					
HAWAII V.OB.	34.83	157.6	6	51	-1	12	14	-8					
MURORAN	34.92	273.3	6	44	-9								
BERKELEY	35.18	96.2	6	52	-3	12	28	1			15	7	SS
MORI	35.29	273.3	6	58	2								
HAKODATE	35.39	272.7	6	53	-4								
RENO	35.61	91.8	6	59	0								
RESOLUTE	35.84	25.8	6	58A	-3	12	42	5			8	19	PP
LICK	35.89	96.3	6	58A	-3						7	47	
AOMORI	35.92	271.3	7	8	7								
BUTTE	36.29	77.6	7	3	-2						7	33	
MORIOKA	36.36	269.5	6	57	-8								
MIZUSAWA	36.74	268.8	7	8	0	12	47	-4					
SASKATOON	36.76	65.4	7	10	1	12	54	3					
AKITA	37.00	270.4	7	12	1	12	59	4					
BOZEMAN	37.38	77.1	7	12	-2						9	15	PCP
FRESNO	37.38	95.4	7	13A	-1								
SENDAI	37.42	267.9	7	17	3						8	57	PP
YAMAGATA	37.76	268.3									10	25	
EUREKA	37.98	88.9	7	17	-2								
ONAHAMA	38.27	266.2	7	30	9						8	59	PP
SHIRAKAWA	38.57	267.0	7	41	17								
NIIGATA	38.76	268.9	7	35	10						8	19	
MITO	38.90	265.9	7	26	0								
UTUNOMIYA	39.15	266.6	7	35	6								
KAKIOKA	39.17	266.0	7	32	3								
SALT LAKE C.	39.69	84.1	7	32	-1						9	14	PP
MAEBASI	39.74	267.1	7	55	22						8	16	
TAKADA	39.78	268.6	7	44	10								
TOKYO C.M.O.	39.80	265.7	7	27	-7	13	43	6			7	55	
VLADIVOSTOK	39.93	280.7	7	24	-11								
YOKOHAMA	40.03	265.5	7	51	15	13	58	17					
NAGANO	40.09	268.1	7	39	3	13	46	4			17	45	SCS
PASADENA	40.12	97.1	7	37K	0	13	30	-12					
MATUSIRO	40.15	268.0	7	33K	-4	13	46	3			9	7	PP
MERA	40.26	264.7	7	37	-1								
MATUMOTO	40.50	267.8	7	36	-4								
HUNATU	40.51	266.3	7	51	11								
KOHU	40.55	266.6	7	43	3	13	54	5					
OSIMA	40.63	265.0	7	59	18	14	9	19					
MISIMA	40.66	265.7									17	42	
TOYAMA	40.68	269.0	7	37	-4								
BOULDER CITY	40.91	92.2	7	42	-1						8	41	
SHIZUOKA	41.09	266.0	7	43	-2								
GIHU	41.80	267.9	7	49	-1						8	16	
NAGOYA	41.83	267.4	7	50	-1						8	34	
HIKONE	42.20	268.1	7	59	5								
TOYOOKA	42.89	269.6	7	55	-4						14	25	
OSAKA	43.05	268.0	8	6	5	14	29	3			11	13	
LARAMIE	43.14	79.1	7	59	-2								

CHANGCHUN	43.42	285.8	8	0A	-4	14	29	-2		
TOKUSIMA	44.02	268.2	8	11	2					
BOULDER	44.09	80.4							18	8
HAMADA	44.99	271.1	8	11	-5	14	55	1		
NORD	45.06	5.6	8	15	-2					
TUCSON	45.88	92.8	8	21	-2				10	45
TUCSON TELE.	45.88	92.7	8	22	-1	15	11	5	8	43
OOITA	46.39	269.7	8	26	-1	15	16	2		
SAGA	47.18	270.8							9	45
KUMAMOTO	47.24	270.1	8	38	4					
MIYAZAKI	47.42	268.6	8	38	2					
NAGASAKI	47.80	270.6	8	35	-3					
KAGOSIMA	48.20	269.0	8	48	6	15	43	4	10	43
IRKUTSK	49.80	306.5	8	56	2	16	10	8		
LUBBOCK	50.41	84.5	9	2	3	16	12	2	18	52 SCS
PEKING	51.11	287.5	9	1	-3					
ULAN-BATOR	51.19	300.8	9	6	1	16	30	9		
CHIHUAHUA	51.33	92.3							15	37
FAYETTEVILLE	53.29	76.7	9	17	-3	16	47	-3		
DALLAS	53.98	81.5	9	24	-1					
ZO-SE	54.22	275.8	9	23	-4	16	59	-3		
SCORESBY SD.	54.77	13.1	9	27	-4	16	58	-12	19	24 SCS
NANKING	54.98	278.4	9	29	-4					
TRUK	55.42	230.0	9	29	-7					
CLEVELAND	56.84	63.7	9	46A	0	17	33	-4		
SHAWINIGAN	57.88	54.2	9	50K	-3	17	36	-15		
BREBEUF	58.19	55.5	9	52K	-4				12	11 PP
SEVEN FALLS	58.43	57.6	10	0	3	18	3	5	22	16 SS
APATITY	58.90	350.3	9	58	-3					
PENNSYLVANIA	59.29	62.0	10	15	11	18	11	1		
KIRUNA	59.57	356.0	10	2	-3	18	19	6	39	43 PKPPKP
SODANKYLA	59.67	353.2	10	4	-2					
REYKJAVIK	60.64	16.0	10	15K	3					
LANCHOW	60.89	292.1	10	12	-2				10	52 PCP
WASHINGTON	61.08	63.0	10	16	1	18	49	17	13	23 PP
PALISADES	61.24	59.4	10	18	1	18	36	2	11	40 PCP
HARVARD	61.37	56.7	10	19	2					
WESTON	61.58	56.7	10	17A	-2	18	41	2	20	9 SCS
SEMIPALATNSK	61.98	317.5	10	20	-2					
CHAPEL HILL	62.14	66.7	10	19	-4					
TACUBAYA	62.36	94.1	10	32	8	18	49	1		
COLUMBIA	62.41	69.5	10	21	-3	18	49	0		
SVERDLOVSK	63.58	332.3	10	31	-1					
HALIFAX	63.69	50.3	10	37A	4	19	9	4	23	23 SS
SKALSTUGAN	64.02	359.6	10	33	-2				39	27 PKPPKP
KOROR	64.53	247.0	10	37	-1				39	27 PKPPKP
CHENGTU	64.73	287.8	10	37	-3	19	17	-1		
HONG KONG	64.90	274.2	10	58	17	19	7	-13		
BAGUIO CITY	65.48	265.0	10	55	11	20	31	64		
RABAUL	65.66	223.8	10	42	-4					
MANILA	66.67	263.4	10	51	-1				12	24
PULKOVO	66.82	349.7	10	50	-3	19	48	5		
HELSINKI	66.92	352.7	10	52	-2					
MERIDA	67.01	85.4	10	52	-2	19	46	0	12	37
UPPSALA	67.66	356.6	10	56A	-2	19	57	3	20	58 SCS
COMITAN	69.07	90.6				20	9	-1		
KUNMING	69.71	284.8	11	11	0	20	23	5		
MOSCOW	69.75	344.5	11	7	-4					
ARERDFEN	69.90	7.8							20	49 PS
FRUNSE	70.32	315.8	11	13	-2					
SUVA	71.48	193.0	11	28A	6	20	43	5	16	9 PCS
COPENHAGEN	71.95	359.4	11	24	0	21	0	16	21	37
DURHAM	72.33	7.8	11	30K	3	21	6	-18	12	20
PORT MORESBY	72.47	226.2	11	27	-1	20	46	-4	22	46
BERMUDA	72.59	59.4	11	35	7	20	57	6	13	15 PP
LHASA	72.81	296.3	11	28	-2	20	59	5	11	48 PCP
TOCKLAI	72.97	291.7	11	46	15					
RATHFARNHAM	73.31	11.0	11	31	-2				38	48 PKPPKP
WITTEVEEN	74.74	3.0	11	46	5					
WARSAW	75.10	353.9	11	48	5	21	41	22	22	13 PPS
POTSDAM	75.25	358.9	11	49	5	21	31	10	12	19
DE BILT	75.41	3.9	11	50	5	21	45	22		
SHILLONG	75.52	293.1	11	43	-2	21	23	-1	14	36 PP
MUNSTER	75.62	2.4	11	46	0				21	57
KEW	75.70	7.5	11	45	-1	21	36	10	22	22 PS
HALLE	76.14	359.6	11	47	-2	21	40	9	12 16	22 48 PS
COLLMBERG	76.33	359.0	11	47	-3	20	37	-56	11	53
BENSBERG	76.62	2.7	11	51	-1				12	25
JENA	76.71	359.9	11	50	-2	21	43	6	13	29

CHATRA	77.11	297.3	11	51	-3	21	56	15				
PLAUEN	77.14	359.5	11	57	3					12	13	
LWOW	77.25	351.6	11	53	-2	21	48	5				
SONNEBERG	77.26	0.1	11	55	0							
KRAKOW	77.34	354.4	11	54	-2	21	46	2		12	3	PCP
DOURBES	77.38	4.5	11	53	-3	21	49	5				
RACIBORZ	77.40	355.5	11	55	-1					22	8	SCS
PRAGUE	77.54	358.0	11	59	2	22	2	16		12	38	
CHEB	77.56	359.3	11	56	-1	21	56	10		23	8	PPS
PRUHONICE	77.63	357.9	11	56	-1	21	57	10	12 21	15	11	PP
CHITTAGONG	78.07	291.1	11	59	-1	21	57	5		15	5	PP
SKALNATE PL.	78.18	354.1	12	5	5	22	12	19				
PARIS	78.55	6.0	12	3	1	22	1	4		14	58	PP
KARLSRUHE	78.60	2.0	12	1A	-2	22	3	6		22	23	SCS
STUTTGART	78.86	1.5	12	3	-1	22	7	7		14	55	PP
WARSAK DAM	79.01	312.8	12	2	-3							
DEHRA DUN	79.02	306.0	12	3	-2	22	5	3				
STRASBOURG	79.02	2.4	12	5	0	22	7	5		22	23	SCS
TUBINGEN	79.09	1.6	12	4	-1							
BRATISLAVA	79.36	356.1	12	5	-2	22	15	10		14	55	
EBINGEN	79.44	1.6	12	6	-1							
IASI	79.49	348.8	12	6	-1	22	26	19		12	14	
HURBANOVO	79.61	355.3	12	14	6	22	29	21		14	43	
MAKHACH-KALA	79.71	333.9	12	10	1	22	37	28				
LAHORE	79.79	309.4	12	8A	-1	22	19	9				
RAVENSBURG	79.85	1.2	12	10	1							
BUDAPEST	79.95	354.7	12	14	4					22	30	SCS
BASLE	80.06	2.6	12	12	2	22	27	14				
ZURICH	80.25	1.9	12	12	1							
NEUCHATEL	80.57	3.1	12	13	0							
SIMFEROPOL	80.75	343.9	12	13	-1	22	27	7				
CHUR	80.78	1.3	12	14K	0							
SOTCHI	81.00	339.6	12	15	0							
TIFLIS	81.58	335.4	12	18	0							
CLERMONT-FD.	81.62	5.8	12	18	-1	22	42	13				
AGRA	81.65	304.2	12	16	-3	22	30	1		12	20	PCP
TRIESTE	81.97	358.3	12	20	0	22	44	11		12	26	PCP
OROPA	81.98	2.4	12	30	10	22	34	1				
CHARTERS TS.	82.33	222.2	12	20	-2							
BUCHAREST	82.40	349.4	12	27	4	23	0	23		22	47	SKS
PAVIA	82.45	1.6	12	28K	5	22	41	4		23	40	PS
BELGRADE	82.51	353.5	12	23A	0	22	48	10		15	43	PP
SAN JUAN	82.89	69.1	12	23	-2							
BOLOGNA	83.14	0.0	12	32	6					14	27	
GORIS	83.26	333.5	12	28	1							
GALERAZAMBA	83.54	80.8				22	58	10				
PRATO	83.76	0.2	12	33	3	22	55	4				
FLORENCE X.	83.86	0.1	12	29A	-1					23	34	PS
MONACO	84.17	2.9	12	29	-2							
QUETTA	84.30	314.1	12	31A	-1	23	0	4		15	48	PP
SOFIA	84.39	351.2	12	36	3					14	15	
SERRA PILAR	84.92	15.0	12	36K	1					15	56	PP
ISTANBUL KA.	85.32	346.7	12	36	-1	23	9	3				
ROME	85.74	359.2	12	44A	4	23	16	6		29	7	SS
COIMBRA	85.86	15.1	12	42	2							
TORTOSA	86.35	8.3	12	48	6	23	33	17				
BRISBANE	86.60	213.5	12	57	13	23	8	-10				
TOLEDO	86.79	11.8	12	45A	0	23	25	5				
LISBON	87.19	15.9	12	51K	4							
CHINCHINA	87.90	84.6	12	53	3	23	30	-1				
KARACHI	88.00	311.9	12	59A	8							
FORT FRANCE	88.63	67.4				23	40	3				
MEDAN	88.82	274.3	12	56	2							
ATHENS	89.03	350.3	12	50	-5							
BOGOTA	89.12	83.6	13	0	4	23	46	4		24	46	PS
ST. LUCIA	89.28	67.7	12	59	2							
MESSINA	89.37	356.7	12	54	-3	23	44	0		16	29	PP
HYDERABAD	89.42	298.4	12	59	2	23	38	-7		24	41	PPS
GRANADA	89.51	11.9	13	16K	18	24	2	16		30	38	SS
ST. VINCENT	89.82	68.4	13	0	1							
MALAGA	89.86	12.6	12	57K	-2	23	53	4		16	34	PP
ALGIERS UNI.	90.57	6.7	13	2	-1	24	15	20		16	41	PP
BOMBAY	91.12	303.7	13	7	2	24	5	5		16	46	PP
KSARA	91.20	339.8	13	4	-2	24	9	8		16	49	PP
LEMBANG	91.61	260.9	13	6	-1					16	48	
RIVERVIEW	93.06	212.6	13	16K	2	24	20	3				
HELWAN	95.92	342.7	13	26	-1	24	7	-35				
COLOMBO	97.27	291.4								34	15	

HUANCAYO	101.47	94.8								18	11 PP
TAMANRASSET	104.64	5.6	14	5	-1	25	55	0		18	29 PP
MBOUR	108.83	29.1								28	29 PPS
LA PAZ	109.29	92.0	19	7	777					28	27 SKKS
CAPE HALLETT	125.61	187.8	19	5	4						
ASTRIDA	127.76	336.6	19	5	0						
SCOTT BASE	131.20	186.7	19	13	1					22	34 PKS
BYRD STATION	135.42	169.2	19	12	-7					22	52 PP
TANANARIVE	136.10	306.3								22	13 PP
MIRNY	139.73	217.8	19	43	16						
SOUTH POLE	142.55	180.0	19	22	-10						
WINDHOEK	149.57	349.5	19	53	9						
PRETORIA	150.23	328.3	19	52	-7						
MAWSON	151.43	218.9	19	50	3						
HALLEY BAY	152.74	160.2	19	47	-2	26	53	0			
PIETERMZBURG	152.99	321.3	20	0	11						
KIMBERLEY	154.06	332.3	19	54	3						

MAY 31 3.H 50.M 9.S EPICENTRE 41.49 44.07 DEPTH= 0.KM

A= 0.53984 B= 0.52252 C= 0.65996 D= 0.6955 E=-0.7185
G= 0.4742 H= 0.4590 K=-0.7513 HT= -2.2

SE= 2.78

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BOGDANOVKA	0.41	238.3									0	3	PG
AKHALKALAKI	0.45	258.8									0	6	PG
BAKURIANA	0.48	300.7									0	12	PG
GORI	0.49	4.7									0	12	PG
STEPANAVAN	0.54	154.0									0	9	PG
TIFLIS	0.60	67.0									0	13	PG
BORZHOMI	0.62	303.8									0	12	PG
LENINAKAN	0.73	193.1									0	10	PG
DUZHETI	0.76	38.5									0	18	PG
EREVAN	1.35	165.7									0	22	PG
GEGECHKORI	1.52	304.9									0	29	PG
KIROVOBAD	1.90	112.8	0	32	-2						0	56	
ZUGDIDI	1.93	303.0	0	35	1								
GROZNY	2.21	33.7	0	41	3						1	16	S*
NAKHICHEVAN	2.50	155.5	0	41	-1								
GORIS	2.63	138.3	0	45	1						1	23	S*
MAKHACH-KALA	2.95	58.7	0	53	4								
SHEMAKHA	3.56	102.5	0	57	0								
SOTCHI	3.83	304.5	1	1	0	1	45	-3			1	13	
LENKORAN	4.54	125.1	1	17	6						2	30	S*
BAKU	4.56	102.1									1	22	
SIMFEROPOL	8.04	298.8									1	59	
KIZYL-ARVAT	9.65	100.7									2	33	
KSARA	10.03	222.9	2	29	1	5	3	40			5	28	SG
ISTANBUL KA.	11.30	272.8	2	41	-4								
ASHKABAD	11.55	103.1	2	44K	-5						5	15	
IASI	13.11	301.4	3	11	1								
BUCHAREST	13.48	288.6	3	10	-5						4	3	
MOSCOW	14.86	345.7	3	33	0						6	35	
HELWAN	15.52	225.7	3	47	6								
SVERDLOVSK	18.71	29.2	4	19	-3	7	51	3					
KRAKOW	18.82	305.2	4	21	-2	8	11	20			5	26	
TASHKENT	18.90	82.1	4	22	-2								
WARSAW	18.99	312.3				8	2	8					
STALINABAD	19.13	90.7	4	25	-2						8	10	
RACIBORZ	19.90	304.3	4	32	-4								
KULYAB	20.08	91.8	4	35	-3	8	25	6					
BRATISLAVA	20.19	298.4	4	37	-2						6	28	
PULKOVO	20.20	339.6	4	37	-2	8	25	4					
NAMANGAN	20.74	82.2	4	43	-1	8	29	-3			5	5	
FERGANA	20.94	83.8	4	44	-2						8	42	
ANDIJAN	21.30	82.6	4	49	-1								
KHOROG	21.59	91.6	4	53	0						9	0	
QUETTA	21.65	114.1	4	52A	-2	9	5	16					
MESSINA	22.10	270.9	4	59	1								
HELSINKI	22.10	334.2	4	58	0								
PRUHONICE	22.19	302.6	4	58	-2	8	43	-17					
PRAGUE	22.26	302.7	5	4	4								
TRIESTE	22.29	291.0	5	1	1	9	6	5			6	23	

FRUNSE	22.60	76.2	5	3	0						
ROME	23.53	281.6	5	12	0	9	31	8			
NARYN	23.87	79.4	5	17	1				9	45	
HALLE	24.09	305.5	5	19	1	9	44	11	6	6	PP
FLORENCE X.	24.17	286.5	5	23	5	9	43	9	6	19	
JENA	24.21	304.0	5	21	2	9	35	0	6	59	
UPPSALA	24.59	327.3	5	21	-2	9	46	4			
RAVENSBURG	25.16	296.2	5	41	13						
PRZHEVALSK	25.44	76.2	5	37	6						
STUTTGART	25.48	298.5	5	29	-2	10	11	14			
TUBINGEN	25.56	297.9	5	32	0						
EBINGEN	25.61	297.1	5	32	0						
STRASBOURG	26.42	297.9	5	41	1	10	19	7	6	29	PP
SEMIPALATNSK	26.47	58.0	5	40	0						
APATITY	26.75	350.9	5	42	-1						
MUNSTER	26.82	305.5	5	45	2						
MONACO	26.92	287.2	5	40	-4						
SODANKYLA	27.63	345.5	5	50	-1						
DOURBES	28.55	301.1	6	1	2						
SKALSTUGAN	28.84	330.8	6	20	18						
KIRUNA	29.33	341.9	6	4	-2						
DURHAM	32.63	309.8	6	45K	10						
TAMANRASSET	37.21	252.0	7	11	-4				8	23	
CHATRA	38.15	98.7	7	23	1						
KHEYS	38.81	2.2	7	34	6				9	3	PCP
TIKSI	49.65	24.5	8	55	0				9	30	
RESOLUTE	60.95	348.5							19	3	PS
COLLEGE	73.57	5.3	11	35	-1						
SOUTH POLE	131.30	180.0	19	11	-3						

MAY 31 19.H 32.M 34.S EPICENTRE -15.37 168.53 DEPTH= 0.KM

A=-0.94543 B= 0.19189 C=-0.26332 D= 0.1989 E= 0.9800
G= 0.2581 H=-0.0524 K=-0.9647 HT= 5.7

SE= 3.30

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NOUMEA	7.17	195.6	1	44	-3								
SUVA	9.88	107.7	2	28	3	4	28	11					
BRISBANE	18.78	227.5	4	19K	-2	7	53	6					
APIA	19.12	87.9	4	25	0	7	28	-27			4	42	PP
RABAUL	19.55	302.9	4	24	-6						4	38	PP
ONERAHI	20.98	166.6	4	51	6	8	50	17					
PORT MORESBY	21.70	283.4	4	52	0	8	53	6					
CHARTERS TS.	21.70	254.5	4	50K	-2	8	52	5					
RIVERVIEW	24.17	217.4	5	18K	1	9	36	5					
TUAI	24.55	163.6	5	20	0								
COBB RIVER	25.88	172.7	5	38	5	10	7	7					
WELLINGTON	26.38	169.4	5	36	-1	10	16	8					
TRUK	28.07	322.8	5	50	-3	10	43	8					
ROXBURGH	30.10	178.9	6	8K	-3	11	9	1			11	36	
MELBOURNE	30.57	218.5	6	12	-3	11	28	13	6	22	7	15	PP
FORT NELSON	32.92	209.2	6	36	0	11	55	3					
GUAM	37.07	319.4	7	13K	2								
KOROR	40.58	301.4	7	40A	0								
HONOLULU	48.99	42.8	8	48	0	15	54	3			19	56	SS
KIPAPA	49.13	42.8	8	49K	0						10	1	
HAWAII V.OB.	49.64	47.0	8	54	1								
PERTH	50.53	241.2	9	1	1	16	16	4			20	20	SS
TORISIMA	53.07	329.3	9	17	-2	16	46	-1			19	46	
DUMONT	54.61	193.5	9	36	6	17	7	0					
MANILA	55.63	300.1	9	35	-2	17	28	7					
BAGUIO CITY	56.89	301.7	9	44	-3	17	37	-1					
CAPE HALLETT	56.93	179.4	9	44A	-3	17	52	14			11	55	PP
MERA	56.95	331.9	9	45	-2	17	38	-1			14	35	
OSIMA	57.03	331.5	9	45	-3	17	25	-15			13	41	
AJIRO	57.39	331.4	9	47	-3						12	31	
OMAESAKI	57.44	330.4	9	56	6						12	3	
YOKOHAMA	57.46	332.1	9	49	-2						13	24	
MISIMA	57.52	331.3	9	50	-1						15	36	
TOKYO C.M.O.	57.62	332.3	9	46	-6	17	49	1	10	5	11	49	PP
SHIZUOKA	57.65	330.8	9	50	-2	17	36	-12					
SIOMISAKI	57.73	327.7	9	51	-1	17	56	7					
KAKIOKA	57.89	333.0	9	54	0	17	58	7			19	59	

MITO	57.89	333.4	9	58	4	17	56	5		
OWASE	58.00	328.4	9	53	-1	17	58	5		
KOHU	58.12	331.4	9	55	0				16	12
TITIBU	58.17	332.0	9	56	0					
KUMAGAYA	58.18	332.4	9	56	0				15	37
ONAHAMA	58.19	334.1	9	56	0	18	3	8	11	12
UTUNOMIYA	58.29	333.0	9	55	-1				10	39
TU	58.37	329.2	9	56	-1					
IIDA	58.37	330.7	10	20	23					
MUROTO	58.42	326.3	9	56	-1					
YAKUSIMA	58.44	321.4	9	54	-3	17	59	1	13	24
KAMEYAMA	58.49	329.2	10	2	4				15	21
NAGOYA	58.50	329.8	9	58	0	18	7	8		
MAEBASI	58.52	332.3	10	3	5	18	9	10	12	47 PP
SHIRAKAWA	58.62	333.6	9	57	-2	18	7	6	11	13
GIHU	58.78	329.8	9	59	-1	18	7	4	12	17 PP
OSAKA	58.80	328.3	9	59	-1	18	7	4	12	3 PP
TOKUSIMA	58.84	327.2	9	58	-2					
SUMOTO	58.90	327.6	9	58	-3	18	11	7	12	10 PP
MATUMOTO	58.90	331.3	10	4	3	17	52	-12	25	32
HIKONE	58.93	329.3	10	0	-1				16	33
MIYAZAKI	58.96	323.2	10	2	1	18	19	14		
IBUKISAN	58.96	329.5	10	2	1					
KOTI	58.99	326.0	10	6	5	18	9	3	13	13
KOBE	59.00	328.1	10	1	0	18	13	7	13	26 PP
MATUSIRO	59.03	331.7	9	58A	-4	18	12	6	12	6 PP
HUKUSIMA	59.05	334.2	10	0	-2	18	13	7		
NAGANO	59.14	331.8	10	2	0	18	14	7	13	24
KAGOSIMA	59.21	322.3	10	3	0	18	9	1		
ISINOMAKI	59.28	335.3	10	2	-1	18	17	8		
TAKAMATU	59.31	327.0	10	5	2	17	59	-11		
SENDAI	59.31	334.9	10	3	0	18	17	7		
TAKADA	59.47	332.1	9	59	-6				12	52 PP
YAMAGATA	59.52	334.4	10	4	-1					
TOYAMA	59.63	331.0	9	58	-8					
MATUYAMA	59.63	325.7	10	6	0	18	11	-3	12	44 PP
KANAZAWA	59.75	330.5	10	15	8					
HENGCHUN	59.76	307.3	10	7	0					
NIIGATA	59.80	333.2	10	18	11	18	17	1	11	3
ODITA	59.81	324.4	9	57	-10	18	20	4	10	18
TAWU	59.84	307.7	10	13	6	18	18	2		
TOYOOKA	59.85	328.4	10	4	-3	18	17	0	12	41 PP
HSINKONG	59.91	308.7	10	21	13	18	26	9		
MIZUSAWA	59.95	335.6	10	8	0	18	21	3		
KUMAMOTO	60.03	323.4	10	17	9					
MIYAKO	60.07	336.5	10	7	-2	18	19	0		
BANDUNG	60.16	270.8	10	19	10	18	28	7		
LEMBANG	60.21	270.9	10	4	-6	18	18	-3		
HIROSIMA	60.21	325.8	10	11	1	18	15	-6	21	50 SS
HWALIEN	60.23	309.7	10	16	6					
AIKAWA	60.23	332.7	10	11	1	18	32	11		
SAKATA	60.29	334.4	10	10	0					
WAZIMA	60.32	331.3	10	10	0	18	24	1		
MORIOKA	60.43	335.9	10	12	1	18	32	8		
NAGASAKI	60.44	322.8	10	10	-1	17	42	-42		
YONAGO	60.53	327.3	10	8	-4					
SAGA	60.57	323.5	10	12	0				10	48
MATSUE	60.69	327.1	10	21	8	18	29	2		
HUKUOKA	60.74	323.8	10	18	5	18	26	-2		
HAMADA	60.80	326.0	10	12	-2	18	21	-8	12	41 PP
AKITA	60.87	335.1	10	13	-1	18	36	6	13	55 PPP
TAIPEI	60.92	310.6	10	21	6	18	33	3		
HATINOHE	61.00	336.7	10	29	14	18	52	21		
TOMIE	61.01	321.9	10	19	4	18	33	2		
AOMORI	61.54	336.3	10	19	0	18	46	8		
ITUHARA	61.84	323.5	10	20	-1					
URAKAWA	61.96	338.5	10	24	2	18	53	10		
NEMURO	62.08	341.2	10	26	4	18	46	1		
KUSIRO	62.14	340.2	10	21	-2	18	50	4	22	29 SS
HAKODATE	62.39	336.8	10	22	-2					
OBIHIRO	62.49	339.2	10	19	-6					
SCOTT BASE	62.51	180.4	10	23K	-2	19	6	16	12	51 PP
TOMAKOMAI	62.71	337.9	10	36	9					
MORI	62.72	336.9	10	28	1	18	58	5	12	48 PP
MURORAN	62.77	337.3	10	26	-1					
SAPPORO	63.27	338.0	10	28	-2	19	7	7	10 38	14 30 PPP
WILKES	63.38	202.6	10	28A	-3	18	46	-15		23 7 SS
SUTTSU	63.45	337.0	10	31	0	19	4	2		12 55 PP

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

ZO-SE	64.83	315.8	10	37A	-3	19	14	-5			12	57 PP
HONG KONG	65.08	303.9	10	42K	0	19	2	-20				
WAKKANAI	65.21	339.5	10	59	16							
CANTON	66.18	304.2	10	52	3							
Y.-SAKHLINSK	66.22	341.0	10	47	-2						21	4 PS
NANKING	67.01	315.3	10	52A	-2	19	46	0			13	11 PP
OASIS-BUNG.	67.12	204.1	10	53	-2	19	45	-2			11	21 PCP
VLADIVOSTOK	67.20	331.7	10	54	-1	19	55	7			11	10 PCP
PETROPAVLOVK	68.74	353.6	11	2	-3							
MIRNY	70.26	204.3	11	12	-2	20	24	0				
PHU-LIEN	70.60	299.0	11	17	1	20	26	-2				
CHANGCHUN	70.91	328.4	11	15A	-3	20	28	-4			13	45 PP
MEDAN	71.61	279.1	11	33	10							
BYRD STATION	71.86	169.9	11	22K	-2	20	44	1			14	12 PP
PEKING	73.52	320.7	11	32A	-2	20	59	-3				
SOUTH POLE	74.73	180.0	11	38K	-3	21	18	3			14	30 PP
SIAN	75.12	312.3	11	50	7							
MAGADAN	76.03	350.8	11	43	-5						21	33
CHENGTU	77.05	307.0	11	53A	-1	21	42	1				
LANCHOW	79.66	311.9	12	8A	0	22	12	3				
PORT BLAIR	79.70	285.1	12	9	0	22	9	0			12	17 PCP
MAWSON	81.74	201.9	12	14	-5	22	26	-4				
TOCKLAI	82.91	300.1	12	28	3							
ULAN-BATOR	83.48	323.4	12	27	-1	22	50	2				
UKIAH	83.54	46.6	12	28A	-1	23	12	23			15	53 PP
BERKELEY	83.69	48.1	12	29A	0	23	2	12			15	43 PP
ARCATA	83.71	44.8	12	30	1							
KERGUELEN I.	83.89	220.6	12	34	4	22	49	-3			15	55
LICK	83.91	48.8	12	31A	0						15	50 PP
CHITTAGONG	83.93	295.0	12	28	-3	22	54	2			15	45 PP
SHASTA	84.79	45.5	12	35A	0						16	6 PP
SHILLONG	84.95	298.1	12	35A	-1	23	10	7	13	7	22	55 SKS
FRESNO	85.03	49.9	12	35A	-1							
PASADENA	85.25	52.9	12	37A	0	23	10	5			15	53 PP
SITKA	85.81	27.1	12	41	1	23	21	10			15	49 PP
CORVALLIS	85.86	41.7	12	40A	0							
RENO	86.12	47.4	12	42A	1							
COLLEGE	86.56	17.2	12	40A	-4	23	17	-1			38	33 PKPPKP
LHASA	87.00	301.7	12	45	-1	23	26	4			23	12 SKS
CALCUTTA	87.04	294.2	12	53K	7	23	24	1			15	47 PP
ALBERNI	87.05	37.0	12	46K	0	23	30	7			24	40 PS
IRKUTSK	87.12	326.4	12	44A	-2	23	21	-2				
VICTORIA	87.53	38.1	12	48A	0	23	29	2			16	23 PP
SEATTLE	87.83	39.2	12	51	1							
HORSESHOE B.	88.00	37.4	12	55A	4	23	45	13			25	1 PS
BOULDER CITY	88.47	52.1	12	52A	-1						19	7
HALLEY BAY	88.82	176.2	13	3	8	23	51	12				
EUREKA	88.85	48.5	12	55A	0						38	53 PKPPKP
CHATRA	89.35	297.9	12	57	0	23	33	-11				
VIZIANAGRAM	90.15	288.6	13	41	40							
TUCSON	90.40	56.7	13	3	1	24	9	15			23	51 SKS
TUCSON TELE.	90.51	56.7	13	3A	1						18	29 PPP
COLOMBO	90.51	277.0	13	9	7	23	35	-20				
MAZATLAN	91.54	66.5				23	54	-10			30	18 SS
MADRAS	91.82	282.9	13	12	3							
SALT LAKE C.	92.25	48.4	13	7A	-4						16	38 PP
HUNGRY HORSE	93.23	40.7	13	14A	-1						30	12 PKKP
CHIHUAHUA	93.29	61.4	13	7	-8	24	16	-3			16	52 PP
BUTTE	93.41	43.2	13	15A	-1						13	49
GUADALAJARA	93.63	69.7	13	34	17	24	8	-14			24	50 PS
KODAIKANAL	93.67	279.5	13	22A	5	23	55	-27			16	40 PP
BOZEMAN	94.31	43.9	13	20K	0						18	0 PP
HYDERABAD	94.57	286.7	13	35	14	25	14	44			16	38 PP
LARAMIE	96.96	49.2	13	32	0							
TACUBAYA	97.07	71.9	13	41	8						17	34 PP
AGRA	97.30	296.0	13	34	0	24	8	-45			17	34 PPP
DEHRA DUN	98.00	299.2	13	46	9	25	6	7			19	19 PPP
LUBBOCK	98.03	57.5	13	36	-1	24	22	-38			17	32 PP
SASKATOON	98.85	38.4				25	25	19			24	30 SKS
VERA CRUZ	99.84	72.7	13	42	-3	24	6	-69			17	50 PP
BOMBAY	100.11	286.9	14	0	14	24	23	-54			17	46 PP
SEMIPALATNSK	100.59	319.4	13	54	6						18	4 PP
COMITAN	102.92	76.5	13	48	-11	25	26	-15			15	26
FRUNSE	103.14	311.1	14	0	0						18	19 PP
WARSAK DAM	104.12	301.8	14	10	6							
FAYETTEVILLE	104.68	56.2	14	6	-1	24	52	-3				
MERIDA	106.19	72.3				25	45	0			18	26 PP
RESOLUTE	106.45	16.0	14	14K	777	26	14	4			18	27 PP
TASHKENT	106.86	309.0	14	20	777						17	50 PP

STALINABAD	106.95	306.1	14	20	777				
QUETTA	107.42	297.2	14	18	777			18	35
FLORISSANT	108.03	53.7	14	24A	777	26	39 13	18	44 PP
ST.LOUIS 1	108.12	53.9	14	21A	777	26	39 10	18	43 PP
KHEYS	109.51	350.5	14	19	777			25	42 SKKS
HUANCAYO	111.17	109.7	18	39	6	25	31 18	19	20 PP
SVERDLOVSK	112.52	325.5	14	47	-777			19	11 PP
TANANARIVE	112.65	241.6	18	48	12			19	33 PP
BALBOA HTS.	113.36	86.7						15	53 PP
NORD	113.69	0.8	18	36	-2	27	22 119	19	41 PP
CLEVELAND	114.90	51.1				25	34 7	19	40 PP
ASHKABAD	115.11	305.0						19	46 PP
COLUMBIA	115.25	59.4	18	41A	0			19	50
LA PAZ	115.75	117.2				24	58 -32	19	50 PP
CHINCHINA	116.22	92.0	18	44	1			19	52 PP
CHAPEL HILL	116.90	57.3	18	31	-13				
BOGOTA	117.62	92.8	18	39	-6			20	5 PP
PENNSYLVANIA	117.69	51.8				25	44 7	20	0
GEORGETOWN	118.40	53.9	18	46	-1	25	42 2	19	53 PP
WASHINGTON	118.40	53.9	18	49	2			29	54 PS
OTTAWA	118.83	46.4	18	46	-2	25	46 5	20	6 PP
BREBEUF	120.28	46.1	18	50K	-1	25	45 -1		
APATITY	120.37	341.7	18	49	-2				
PALISADES	120.66	51.3	15	15	-777	25	51 3	20	19 PP
SHAWINIGAN	120.69	44.7	18	51K	0			20	19 PP
FORDHAM	120.70	51.4	18	53	2			20	57 PP
SEVEN FALLS	121.88	43.8	18	53	-1	25	58 6	20	18 PP
HARVARD	122.21	49.2	18	51	-3				
SODANKYLA	122.45	343.6	18	59	4				
HERMANUS	122.52	210.0	18	26	-29				
KIRUNA	123.67	346.1	18	56	-1			20	34 PP
KIMBERLEY	123.86	218.7	18	57	-1				
GORIS	124.37	307.5	19	4	5			20	45 PP
TIFLIS	125.14	310.4	19	0	0			21	2 PP
PULKOVO	126.23	335.3	19	1	-1			22	28 PKS
HALIFAX	127.39	45.2	19	5A	1			20	57 PP
SAN JUAN	127.78	78.5	19	5K	0			22	41 PKS
HELSINKI	128.03	337.9	19	5	-1				
BERMUDA	128.99	60.7	19	11	4			21	19 PP
SKALSTUGAN	129.09	346.6	19	6	-2			32	8 PKKS
AKUREYRI	129.54	3.6	19	20	12				
UPPSALA	130.75	341.1	19	8	-3			21	23 PP
REYKJAVIK	130.76	6.0	19	12	1			22	44
TRINIDAD	131.10	89.1	19	12	1			22	41
GRENADA	131.15	87.3	19	10	-2				
SIMFEROPOL	131.66	317.2	19	14	1			21	44 PP
FORT FRANCE	132.11	83.9	19	15	2			21	35 PP
BARBADOS	133.37	86.3	19	21	5				
BERGEN	133.40	348.6	19	21	5			22	52
KSARA	133.63	302.2	19	19	3			20	45 PP
IASI	134.71	322.8	19	27	9			23	5
WARSAW	135.08	332.1	19	13	-6	26	28 2	22	3 PP
ASTRIDA	135.50	249.9	18	58	-22			21	59 PP
FOCSANI	135.70	321.2						23	0
COPENHAGEN	135.77	340.8	19	12	-8			22	8 PP
LWIRO	136.49	249.7	19	13	-8			39	21 SS
ISTANBUL KA.	136.60	314.3	19	17	-5			22	5 PP
BUCHAREST	137.02	320.1	19	24K	2	30	2 212	26	34 PPP
KRAKOW	137.06	330.5	19	31	9			22	14 PP
SKALNATE PL.	137.49	329.3	19	31	8			22	7 PP
ABERDEEN	137.67	352.4	19	21	-3	26	11 -20	22	2 PP
POTSDAM	138.24	337.5	19	26	1			23	4 SKP
EDINBURGH	139.03	352.9						40	41 SS
COLLMBERG	139.13	336.6	19	20	-6	28	39 126	33	26 SS
TIMISOARA	139.15	324.7	19	34	8			23	11 PP
BUDAPEST	139.21	328.2	19	27	1	26	31 -2	22	26 PP
HALLE	139.36	337.6	19	26	-1			22	37 PP
HURBANOVO	139.38	329.2	19	32	5	26	41 7	22	38 PP
SZEGED	139.44	326.0	19	47	20	27	40 66	23	5 PP
PRAGUE	139.51	334.3	19	36	9	26	7 -27	22	29 PP
PRIHONICE	139.53	334.1	19	23	-4	26	8 -26	22	22 PP
SOFIA	139.63	319.5	19	28	1			22	29 PP
BRATISLAVA	139.71	330.3	19	22	-5			22	29 PP
KALOCSA	139.88	327.1	19	37	9	26	45 11	23	8 PKS
DURHAM	139.93	351.1	19	28	0			22	23 PP
JENA	139.96	337.3	19	17	-11			22	28 PP
VIENNA-H.	140.00	330.9	19	25	-3			22	39 PP
PLAUEN	140.09	336.5	19	55	27			22	32 PP

BELGRADE	140.15	324.0	19	32	4					22	35 PP
CHEB	140.34	335.9	19	26	-2	26	36	1		22	41 PP
MUNSTER	140.43	341.5	19	22	-7						
SONNEBERG	140.55	337.1	19	30	1					22	33 PP
DE BILT	141.02	343.7	19	26	-4					19	36 PP
SKOPJE	141.22	319.7	19	43	13					27	11 PPP
BENSBERG	141.45	341.1	19	28	-2					41	19 SS
ATHENS	141.67	312.7	19	29K	-2					22	40 PP
ZAGREB	141.90	328.5	19	28	-3					22	42 PP
RATHFARNHAM	141.93	354.9	19	30A	-1	26	34	-4		22	32 PP
STUTTGART	142.62	337.4	19	29	-3					22	53 PP
KARLSRUHE	142.70	338.3	19	29A	-4	26	36	-3		22	56 PP
TUBINGEN	142.87	337.3	19	30	-3					22	56 PP
KEW	142.89	348.4	19	31	-2	26	32	-7		22	34 PP
DOURBES	142.98	342.8	19	30	-3						
TRIESTE	143.12	330.1	19	27	-6					22	51 PP
EBINGEN	143.19	337.0	19	30	-3					22	49 PP
RAVENSBURG	143.27	336.1	19	31	-3					22	56 PP
STRASBOURG	143.30	338.5	19	32A	-2					22	39 PP
ZURICH	144.01	336.6	19	32	-3					21	44
CHUR	144.06	335.2	19	34K	-1						
BASLE	144.25	337.7	19	34	-1					22	50 PP
PARIS	144.73	344.0	19	36A	0	26	41	-1		23	0 PP
NEUCHATEL	144.93	337.9	19	35	-1						
BOLOGNA	145.12	331.0	19	41	4					22	50 PP
PAVIA	145.55	333.8	19	38A	0					23	11 SKP
OROPA	145.69	335.5	19	38	0					23	2 PP
PRATO	145.69	330.5	19	1	-37	26	47	4			
FLORENCE X.	145.70	330.2	19	38	0				20 30	22	46 PP
LUANDA	145.71	227.1	17	29K	-129	24	32	-131	17 37	22	54 PP
ROME	146.45	326.7	19	39	0					33	28 PS
REGGIO CALA.	147.06	318.6	19	42	2						
MESSINA	147.06	318.8	19	40	0					23	12 PP
CLERMONT-FD.	147.30	340.9	19	41	1					41	49 SS
MONACO	147.46	334.1	19	40	-1					23	17 PP
BARCELONA	151.49	338.2	20	24	37						
SERRA PILAR	154.21	355.0	19	49A	-2	26	55	1		23	54 PP
TOLEDO	154.73	346.5	19	52	1	26	57	2		23	57 PP
ALGIERS UNI.	155.07	331.5	19	53	1					23	53 PP
COIMBRA	155.12	354.5	19	49	-3						
ALICANTE	155.14	339.1	19	50	-2	26	55	0		23	54 PP
LISBON	156.65	355.4	19	56K	2					23	42 PP
ALMERIA	157.15	341.1	19	55K	0	27	9	12		24	0 PP
GRANADA	157.18	343.6	20	3K	8	26	21	-36		24	15 PP
MALAGA	157.82	344.8	19	54K	-2	26	38	-20		24	15 PP
TAMANRASSET	162.34	297.3	20	3	3					24	38 PP
MBOUR	174.60	99.7	20	9A	0					21	48 PKP2

JUNE 1 18.H 21.M 17.S EPICENTRE 60.65-143.49 DEPTH= 0.KM

A=-0.39596 B=-0.29311 C= 0.87023 D=-0.5950 E= 0.8037
G=-0.6994 H=-0.5178 K=-0.4926 HT= -9.1

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	4.68	336.7	1	16	2	2	16	6				
SITKA	5.57	126.8	1	23	-3	2	24	-8			1	42
ALBERNI	15.58	128.7	3	46	3							
HORSESHOE B.	16.09	125.5	3	53	4							
VICTORIA	16.73	127.6	4	OK	3							
BANFF	18.18	108.9	4	14	-1							
CORVALLIS	20.09	134.1	4	37	-1							
HUNGRY HORSE	20.86	112.9	4	46	0							
RESOLUTE	22.25	31.8	5	0A	0	9	5	4			7	7
BUTTE	23.27	115.0	5	11	1							
SHASTA	23.83	137.4	5	16	0							
BOZEMAN	24.22	113.5	5	28	9						6	36
RENO	25.76	134.4	5	34	0							
BERKELEY	26.44	139.9	5	40	0							
LICK	27.12	139.4	5	46K	-1							
EUREKA	27.23	128.6	5	47	-1							
SALT LAKE C.	27.79	121.3	5	52	-1							
FRESNO	28.25	137.0	5	49	-8							
RAPID CITY	29.06	106.4	6	10	6							
LARAMIE	30.11	112.7	6	14	0							

BOULDER CITY	30.72	130.4	6	20	1					
PASADENA	31.18	136.8	6	32	9					
MAGADAN	31.56	297.5							10	36
TIKSI	33.72	325.2	6	46	1					
TUCSON TELE.	35.52	127.9	7	1	0					
TUCSON	35.55	128.2	7	2	1					
KHEYS	39.24	355.8	7	27	-5	13	24	-9		
FAYETTEVILLE	39.60	105.5	7	37K	2					
OTTAWA	41.51	79.8	7	50	-1					
SHAWINIGAN	42.10	76.4	7	55	0					
BREBEUF	42.45	78.1	7	58K	0	14	30	9		
SEVEN FALLS	42.61	74.3	7	59	-1					
SCORESBY SD.	42.86	24.9	8	4	2					
Y.-SAKHLINSK	43.27	286.3	8	3	-2					
PALISADES	45.66	82.6				15	6	-1	18	40 SS
WESTON	45.88	79.3	8	26K	0					
KIRUNA	51.28	7.7	9	8	0					
SODANKYLA	52.08	4.8	9	13	-1					
APATITY	52.08	1.5	9	14	0					
MATUSIRO	53.38	280.8	9	23	-1	16	46	-9	10	2
SKALSTUGAN	54.74	13.0	9	33A	-1					
UPPSALA	58.94	11.0	10	3	-1					
PULKOVO	59.82	3.6	10	9	-1					
DURHAM	61.02	24.1	10	18K	0					
RATHFARNHAM	61.38	27.7	10	21	1					
COPENHAGEN	62.46	15.1	10	28K	1					
MOSCOW	63.96	359.3	10	38	1					
KEW	64.38	24.6	10	40	0					
HALLE	66.47	16.5	10	53	-1	21	6	82	15	26
DOURBES	66.64	21.8	10	54	-1					
COLLMBERG	66.81	15.8	10	56	0					
JENA	66.98	16.8	10	56	-1				11	34
PARIS	67.48	23.6	11	1	1					
PRAGUE	68.21	15.1	11	7	3				12	24
PRUHONICE	68.31	15.1	11	4	-1					
RACIBORZ	68.64	12.6	11	8	1					
STRASBOURG	68.67	20.0	11	8	1					
STUTTGART	68.72	19.0	11	8	0					
CLERMONT-FD.	70.51	24.1	11	19	0					
FRUNSE	72.25	331.6	11	29	0					
NAMANGAN	74.72	333.1	11	45	2					
SIMFEROPOL	74.74	1.8	11	43	-1					
WARSAK DAM	81.42	331.2	12	20	0					
LAHORE	83.06	328.2	12	29	0					
SHILLONG	83.07	311.5	12	28A	-1					
CHITTAGONG	86.01	310.3	12	19	-25					
QUETTA	86.13	333.9	12	45A	1					
TAMANRASSET	93.14	28.4	13	17	0				17	2 PP
LA PAZ	97.25	110.7	13	27	-9				15	51
BYRD STATION	141.11	173.5	19	35	2					
KIMBERLEY	147.14	19.2	19	46A	3					
SOUTH POLE	150.49	180.0	19	52	4					

JUNE 3 19.H 31.M 52.S EPICENTRE -15.60 168.17 DEPTH= 0.KM

A=-0.94315 B= 0.19763 C=-0.26722 D= 0.2051 E= 0.9787
G= 0.2615 H=-0.0548 K=-0.9636 HT= 5.6

SE= 1.91

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
NOUMEA	6.86	193.4	1	42A	-2	3	25	21			1	46 PP
SUVA	10.15	105.9	2	30K	0	4	51	25				
BRISBANE	18.36	227.4	4	20A	2	7	52	11				
APIA	19.48	87.3	4	32	1	7	58	-8			4	39 PP
ONERAHI	20.84	165.7	4	50	4	8	48	14			6	8
CHARTERS TS.	21.31	254.9	4	51A	0	8	51	8				
PORT MORESBY	21.41	284.2	4	54	2	9	0	15				
RIVERVIEW	23.78	217.2	5	16A	1	9	33	5				
WELLINGTON	26.22	168.7	5	36A	-2	10	35	26				
TRUK	28.05	323.7	5	55	0							
ROXBURGH	29.87	178.4	6	8A	-4	11	6	-2				
MELBOURNE	30.17	218.4	6	13A	-1	11	11	-2			7	13 PP
FORT NELSON	32.55	209.0	6	35A	0	11	46	-4				
GUAM	37.02	320.1	7	9	-4							

KOROR	40.40	301.9	7	42A	0	13	54	3	9	26	PCP
MAMBAJAO	48.86	297.5							11	28	PPP
HONOLULU	49.40	43.0	8	52	-2	16	7	7	11	13	PP
KIPAPA	49.54	43.0	9	0	5						
HAWAII V.OB.	50.05	47.2	8	58	-1	16	7	-2			
PERTH	50.11	241.3	9	2	3	16	28	18	20	0	SS
DUMONT	54.30	193.4	9	28	-2						
CAPE HALLETT	56.70	179.2	9	48A	0	17	44	4	15	1	
BAGUIO CITY	56.72	302.1	9	47	-1	17	39	-1			
ARUYAMA	58.97	328.9	10	2A	-2	18	7	-2			
MATUSIRO	59.07	332.1	10	2A	-2	18	6	-5	13	32	PPP
SENDAI	59.38	335.2	10	8	1	18	13	-2			
BANDUNG	59.82	271.0	10	11	1	18	23	3			
LEMBANG	59.86	271.1	10	9A	-1	18	26	5			
NAGASAKI	60.41	323.1	10	12	-2	18	26	-2			
DJAKARTA	60.78	271.6	10	32	16	19	1	28			
SCOTT BASE	62.28	180.3	10	25K	-1	19	1	9	13	31	PPP
WILKES	63.03	202.6	10	31	0	19	13	12	23	18	SS
ZO-SE	64.75	316.1	10	41	-2	18	23	-60			
HONG KONG	64.93	304.2	10	44A	0	19	28	3			
CANTON	66.03	304.5	10	51	0	19	38	0			
Y.-SAKHLINSK	66.33	341.3	10	52A	-1				13	18	PP
OASIS-BUNG.	66.77	204.1	11	0	5						
NANKING	66.93	315.5	10	56A	-1	19	51	2	21	0	
VLADIVOSTOK	67.24	332.0	10	58A	0				24	14	SS
PETROPAVLOVK	68.93	353.9	11	10	1				20	33	SCS
MIRNY	69.90	204.3	11	13	-2				15	34	SCP
PHU-LIEN	70.40	299.2	11	16	-2	20	30	0			
CHANGCHUN	70.92	328.6	11	20A	-1						
MEDAN	71.31	279.3	11	23A	0				19	44	
BYRD STATION	71.69	169.9	11	25K	-1	20	53	8	13	58	PP
PEKING	73.48	320.9	11	36A	0	21	4	-2			
SOUTH POLE	74.50	180.0	11	40A	-2	21	19	2	14	18	PP
SIAN	75.02	312.5	11	47	2						
KUNMING	75.51	301.5	11	49A	1	21	31	3			
CHENGTU	76.91	307.2	11	56A	0	21	44	0			
PORT BLAIR	79.43	285.3	12	13	3	22	13	2	22	52	PS
LANCHOW	79.56	312.1	12	11	1	22	12	0			
MAWSON	81.40	202.0	12	22	2						
TOCKLAI	82.73	300.2	12	32	5						
ULAN-BATOR	83.46	323.6	12	31	0	22	53	1			
CHITTAGONG	83.71	295.2	12	33	1	22	54	-1	15	48	PP
UKIAH	83.95	46.7	12	33	0						
BERKELEY	84.10	48.2	12	34	0	23	0	1	28	38	SS
LICK	84.33	48.9	12	35A	0						
SHILLONG	84.75	298.2	12	38A	1	23	1	-4			
SHASTA	85.20	45.6	12	42A	2						
FRESNO	85.45	50.0	12	40A	-1						
PASADENA	85.67	53.0	12	42A	0	23	8	-6	16	2	PP
SITKA	86.17	27.2	12	44	0						
CORVALLIS	86.27	41.8	12	45	0						
RENO	86.53	47.5	12	47A	1						
CALCUTTA	86.81	294.3				23	14	-11	16	15	PP
LHASA	86.82	301.8	12	49	1	23	28	3	23	14	SKS
COLLEGE	86.89	17.3	12	46	-2	23	14	-12	16	8	PP
IRKUTSK	87.12	326.5	12	47A	-2	23	15	-13	23	4	SKS
VICTORIA	87.93	38.2	12	52	-1	23	46	11	16	26	PP
SEATTLE	88.23	39.3	12	56	2	23	27	-11			
HORSESHOE B.	88.39	37.5	12	55A	0						
HALLEY BAY	88.62	176.3	12	55	-1	23	50	8			
BOULDER CITY	88.88	52.2	12	58	0				14	38	
CHATRA	89.15	298.0	12	59	0	23	23	-24			
EUREKA	89.26	48.6	13	0	1						
TUCSON	90.82	56.8	13	7	0	23	42	-20	16	45	PP
TUCSON TELE.	90.93	56.8	13	7	0				16	51	PP
TIKSI	90.97	348.4							24	2	SCS
MADRAS	91.53	283.0	13	9	-1	23	54	-14	16	50	PP
SALT LAKE C.	92.67	48.5	13	24	9						
KODAIKANAL	93.36	279.6	13	18	0	23	57	-27			
HUNGRY HORSE	93.63	40.8	13	18	-2						
BANFF	93.66	37.8	13	17	-3						
BUTTE	93.82	43.3	13	20	0						
BOZEMAN	94.72	44.0	13	25	0						
AGRA	97.09	296.1	13	33A	-2	24	9	-47	17	33	PP
TACUBAYA	97.47	72.0	15	59	777	24	41	-18	19	24	PPP
DEHRA DUN	97.81	299.2	13	51	12						
LUBBOCK	98.45	57.6							17	41	PP
RAPID CITY	99.71	47.0	17	14	777				17	47	

BOMBAY	99.85	286.9	16	48	777	25	33	14	17	58	PP
FRUNSE	103.03	311.1	14	1	-1				18	14	PP
COMITAN	103.32	76.6				25	52	4	32	32	SS
WARSAK DAM	103.94	301.8	17	13	777						
MERIDA	106.59	72.4							20	23	PPP
TASHKENT	106.73	309.0	14	19	777				18	44	PP
RESOLUTE	106.77	16.0	14	17K	777	26	20	0	18	25	PP
OIETTA	107.21	297.2	17	57	777	25	6	0	18	42	PP
FLORISSANT	108.45	53.8	14	26	777	26	44	0	18	54	PP
ST. LOUIS 1	108.54	54.0	14	26A	777	26	39	0	18	59	PP
HUANCAYO	111.42	109.9	19	15	39				20	12	PP
SVERDLOVSK	112.51	325.4	14	43	-777				21	57	SKP
TALA POZO	113.36	130.1							29	3	
BALBOA HTS.	113.72	86.9	16	48	777				19	47	PP
ASHKABAD	114.95	304.9							19	17	PP
CLEVELAND	115.31	51.2							19	47	PP
LA PAZ	115.95	117.4							19	56	PP
CHINCHINA	116.56	92.2	18	47	1				25	57	PP
BOGOTA	117.96	93.0				24	29	-74	20	8	PP
GALERAZAMBA	118.24	86.0	20	3	74				29	56	PS
GEORGETOWN	118.82	54.0	18	49	-2	25	33	-13	20	14	PP
WASHINGTON	118.82	54.0	19	9	18				30	9	PP
OTTAWA	119.24	46.5	18	50K	-1						
APATITY	120.48	341.5	18	55	1						
BREBEUF	120.69	46.1	18	54	0						
PALISADES	121.08	51.3	18	52	-3	25	56	2	15	24	P
SHAWINIGAN	121.10	44.8	18	53	-2						
FORDHAM	121.12	51.5							30	2	SP
HERMANUS	122.14	210.3				26	15	18	20	23	PP
SEVEN FALLS	122.29	43.8	18	56	-1	25	52	-6	20	33	PP
SODANKYLA	122.57	343.4	18	57	-1						
KIMBERLEY	123.46	218.9	18	59	-1						
KIRUNA	123.81	345.9	18	59	-1				20	38	PP
GORIS	124.23	307.3							22	35	PKS
TIFLIS	125.02	310.2	19	3	0				27	38	SKKS
MOSCOW	125.07	328.3	19	3	0	25	53	-13	20	52	PP
PULKOVO	126.30	335.1							20	48	PP
HALIFAX	127.80	45.2	19	2A	-6	25	56	-18	21	11	PP
HELSINKI	128.11	337.6	19	9	0						
SAN JUAN	128.17	78.7	19	7	-2				21	20	
SKALSTUGAN	129.23	346.4	19	10	-1				22	35	PKS
BERMUDA	129.41	60.8	19	10	-1				21	20	PP
UPPSALA	130.86	340.8	19	12	-2				21	28	PP
REYKJAVIK	131.03	5.8	19	15	1						
SIMFEROPOL	131.60	317.0	19	14	-1	26	18	-6	21	34	PP
FORT FRANCE	132.48	84.2							21	42	PP
KSARA	133.46	302.0	19	18	-1	26	28	0	21	50	PP
ASTRIDA	135.09	249.9	19	23	1				22	4	PP
WARSAW	135.12	331.8				26	19	-12	22	55	PKS
LWOW	135.19	327.4	19	25	3				22	56	PKS
COPENHAGEN	135.87	340.5	19	20	-3				22	4	PP
RUMANGABO	135.98	251.3							22	9	PP
LWIRO	136.08	249.7	19	25A	2				34	18	
ISTANBUL KA.	136.52	314.0							22	4	PP
BUCHAREST	136.97	319.8	19	26K	1				23	2	PKS
KRAKOW	137.09	330.1							22	12	PP
ABERDEEN	137.86	352.1	19	42	15				22	48	
RACIBORZ	137.89	331.3							22	12	PP
HELWAN	137.98	297.4	19	26	-1				23	4	PKS
POTSDAM	138.32	337.2							23	4	
COLLMBERG	139.20	336.2	19	21	-8						
HALLE	139.44	337.2	19	25	-5				22	23	PP
PRAGUE	139.57	333.9				25	59	-40	22	26	
PRUHONICE	139.59	333.7	19	28	-2	26	32	-7	22	29	
BRATISLAVA	139.74	329.9	19	28	-2				22	26	PP
JENA	140.04	336.9	19	30	-1				22	26	PP
DURHAM	140.11	350.7	19	31K	0	26	34	-5	22	30	PP
BELGRADE	140.13	323.6	19	32A	1				22	30	PP
PLAUEN	140.17	336.1							22	35	PP
CHEB	140.41	335.5							22	26	PP
DE BILT	141.15	343.3	19	28	-5				22	41	PP
SKOPJE	141.17	319.3	19	34A	1				22	56	PP
BENSBERG	141.56	340.7	19	34	1				22	38	
RATHFARNHAM	142.13	354.6	19	38K	4				23	17	
UCCLE	142.54	343.1	19	30	-5				22	32	PP
STUTTGART	142.70	336.9	19	28	-7				22	43	PP
KARLSRUHE	142.79	337.9	19	40	5				32	36	
TUBINGEN	142.94	336.8	19	31	-5				22	45	PP

KEW	143.05	348.0	19 34	-2	26 47	3		22 49	PKS
DOURBES	143.10	342.3	19 30	-6					
TRIESTE	143.14	329.7	19 27	-9				22 45	PP
STRASBOURG	143.38	338.1	19 33A	-3				22 48	PP
ZURICH	144.08	336.2	19 32	-6					
CHUR	144.12	334.7	19 36A	-2					
BASLE	144.33	337.3	19 36	-2				22 42	PP
PARIS	144.86	343.5	19 37	-2				22 54	PP
NEUCHATEL	145.01	337.4	19 39	0				22 42	
BOLOGNA	145.15	330.5	19 43	3				23 49	
PAVIA	145.61	333.3	19 41A	1				20 45	
PRATO	145.72	330.0	19 43	2			19 56		
OROPA	145.76	335.0	19 39	-2				20 44	
ROME	146.45	326.2	19 57A	15				23 8	PP
REGGIO CALA.	147.00	318.0	19 50	7					
MESSINA	147.00	318.3	19 42	-1				23 12	PP
CLERMONT-FD.	147.41	340.4	19 43A	0				20 18	PKS
MONACO	147.51	333.6	19 44	0				19 53	
TORTOSA	152.68	339.3	20 9	18				24 36	PP
SERRA PILAR	154.41	354.3	19 54A	0				20 18	PKP2
TOLEDO	154.87	345.8	19 56	2	26 28	-32		23 53	PP
ALGIERS UNI.	155.10	330.7	19 53	-2				23 57	PP
ALICANTE	155.22	338.3	19 54	-1				23 49	PP
COIMBRA	155.31	353.7	19 54	-1					
LISBON	156.85	354.7	19 58K	1				20 28	PKP2
ALMERIA	157.26	340.3	19 58	0				24 12	PP
GRANADA	157.30	342.8	20 10K	12	27 15	13		24 10	PP
MALAGA	157.95	343.9	19 58K	-1	26 48	-15		24 14	PP
TAMANRASSET	162.13	296.2	20 2	-1				24 38	PP
MBOUR	174.89	103.1	20 13	1	27 13	0		25 37	

JUNE 4 14.H 29.M 54.S EPICENTRE 52.69-167.22 DEPTH= 19.KM

A=-0.59360 B=-0.13467 C= 0.79341 D=-0.2213 E= 0.9752
G=-0.7738 H=-0.1755 K=-0.6087 HT= -6.4

SE= 2.26

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
COLLEGE	15.72	31.6	3 38	-3	6 40	5			
SITKA	18.76	63.9	4 20	0	7 53	8	4 52		
KLYUCHI	18.84	293.9	4 19	-2			4 40	PP	
PETROPAVLOVK	20.48	284.9	4 36A	-3	8 16	-6	8 42	SS	
MAGADAN	24.04	303.3	5 14A	0					
ALBERNI	26.63	80.2	5 38	0					
HORSESHOE B.	27.50	79.1	5 49	2					
VICTORIA	27.78	80.9	5 46	-3	10 33	4	6 38	PP	
SEATTLE	28.84	81.8	5 59	1					
CORVALLIS	29.74	88.0	6 6K	-1					
BANFF	31.34	71.7	6 16K	-5					
KIPAPA	32.01	163.7	6 24	-3			7 32	PP	
HONOLULU	32.12	163.9	6 23	-5	11 42	5			
Y.-SAKHLINSK	32.26	280.2	6 26A	-3			7 38	PP	
UKIAH	32.94	96.5	6 33	-2					
TIKSI	33.14	328.6	6 34	-2			13 2	PCS	
HUNGRY HORSE	33.45	75.7	6 37	-2	13 2	64	8 0	PP	
BERKELEY	34.32	97.4	6 45K	-2	12 10	-2	14 48		
HAWAII V.OB.	34.48	159.8	6 46	-2	12 18	4			
RENO	34.75	92.9	6 50K	0					
LICK	35.04	97.5	6 52	-1					
BUTTE	35.46	78.4	7 5	9					
RESOLUTE	35.51	25.9	6 54A	-3	12 29	-1	9 21	PCP	
SASKATOON	36.00	66.0	6 54	-7	12 36	-2			
FRESNO	36.52	96.6	7 4	-1					
BOZEMAN	36.55	78.0	7 5	-1			7 27		
EUREKA	37.13	89.9	7 9	-1					
SENDAI	38.27	269.1	7 19	-1	12 58	-14			
SALT LAKE C.	38.85	85.1	7 33	8			8 43		
PASADENA	39.27	98.3	7 28K	0	13 27	0	9 22	PCP	
BOULDER CITY	40.06	93.3	7 34	-1					
VLADIVOSTOK	40.78	281.6	7 39A	-2			9 15	PP	
MATUSIRO	41.01	269.2	7 42A	-1	13 55	2	17 48	SCS	
RAPID CITY	42.08	75.2	7 51	-1			9 50	PP	
LARAMIE	42.30	80.0	7 52	-1					
BOULDER	43.26	81.3	8 1	0					

ABUYAMA	43.73	269.4	8	5A	0	14	36	3		
CHANGCHUN	44.25	286.7	8	7A	-2	14	39	-2		
TUCSON	45.02	94.0	8	15	0	14	56	4	18	12 SCS
NORD	45.02	5.9	8	13	-2					
TUCSON TELE.	45.03	93.8	8	15	0					
NAGASAKI	48.65	271.7	8	43	-1	15	46	3		
LUBBOCK	49.57	85.6	8	51	0	15	59	3	18	53
CHIHUAHUA	50.47	93.5							11	42 PP
IRKUTSK	50.51	307.2	8	56A	-2				10	56 PP
PEKING	51.94	288.4	9	7A	-2	16	28	-1		
ULAN-BATOR	51.94	301.6	9	8	-1	16	42	13		
FAYETTEVILLE	52.47	77.7	9	9A	-4	16	32	-4		
GUAM	54.58	242.6	9	27	-2					
ZO-SE	55.07	276.9	9	31A	-1	17	13	2		
NANKING	55.83	279.4	9	35	-3					
TRUK	56.05	231.6	9	37	-2					
OTTAWA	56.51	57.6	9	40	-2	17	30	-1	10	35 PCP
SHAWINIGAN	57.21	54.9	9	47	0					
BREBEUF	57.51	56.3	9	47	-3	17	43	-1		
SEVEN FALLS	57.77	53.4	9	46	-5	17	44	-3	11	59 PP
PENNSYLVANIA	58.55	62.8	10	0	3	17	55	-2		
APATITY	59.08	350.9	9	58	-3					
KIRUNA	59.66	356.6	10	2	-3	18	13	1		
SODANKYLA	59.81	353.8	10	3	-3					
SIAN	60.11	288.2	10	11	3					
WASHINGTON	60.33	63.9	10	9	0					
PALISADES	60.52	60.2	10	9	-1	18	24	1	12	22 PP
HARVARD	60.67	57.6	10	10	-2					
WESTON	60.89	57.5	10	10K	-3	18	28	0		
TACUBAYA	61.51	95.2	10	13	-4	19	21	46	11	25
COLUMBIA	61.63	70.4	10	19	1					
LANCHOW	61.70	293.1	10	18A	0	18	38	0		
SEMIPALATNSK	62.59	318.2	10	23	-1					
HALIFAX	63.06	51.1	10	27	-1	18	53	-2	20	17 SCS
SVERDLOVSK	64.01	333.0							14	31 PPP
SKALSTUGAN	64.07	0.2	10	32	-2				11	10 PCP
KOROR	65.30	248.3	10	44	2	19	26	3		
CHENGTU	65.56	288.9	10	43A	-1	19	26	0		
CANTON	65.71	276.6	10	45	0	19	32	4		
HONG KONG	65.76	275.3	10	55	10	19	32	4		
MERIDA	66.16	86.4	10	46	-2	19	30	-3	20	12
BAGUIO CITY	66.33	266.1	10	46	-3	19	40	5		
PULKOVO	67.00	350.5	10	51	-2	19	41	-2	13	19 PP
HELSINKI	67.07	353.4	10	51	-2					
UPPSALA	67.74	357.4	10	55A	-3	19	43	-9	20	52 SCS
ABERDEEN	69.82	8.6	11	13	3	20	21	4	20	50 PS
MOSCOW	70.01	345.3	11	9	-3				20	55 PS
KUNMING	70.54	285.9	11	14	-1	20	29	4		
FRUNSE	70.94	316.7	11	17A	0	20	34	4	13	55 PP
PHU-LIEN	71.44	280.0				20	37	2	20	18
SUVA	71.64	194.4				20	45	7	21	25 SCS
BERMUDA	71.88	60.4	11	22	-1	20	38	-3	16	18 PPP
COPENHAGEN	71.99	0.2	11	22A	-1	20	58	16	15	51 PPP
DURHAM	72.24	8.7	11	23A	-2	20	49	4		
RATHFARNHAM	73.18	11.8	11	29K	-2	20	9	-47	16	35 PPP
LHASA	73.59	297.3				21	2	2	21	41 SCS
TASHKENT	74.41	319.3	11	36	-2	21	11	2	25	54 SS
WITTEVEEN	74.74	3.8	11	39	-1					
WARSAW	75.22	354.8	11	41A	-1				22	11 PPS
POTSDAM	75.30	359.8	11	41	-2					
DE BILT	75.39	4.8				21	25	5		
KEW	75.63	8.4	11	43A	-2	21	27	4	14	35 PP
HALLE	76.18	0.5	11	46	-2	21	42	13	22	3 SCS
SHILLONG	76.32	294.1	11	45A	-4	21	27	-4	22	46
COLLMBERG	76.38	359.9	11	47	-2					
BENSBERG	76.61	3.6	11	50	0				12	8
UCCLE	76.64	5.5	11	50A	0	21	36	2		
JENA	76.75	0.8	11	49	-2	21	36	1	12	42
STALINABAD	76.97	318.2	11	52	0	21	52	14		
LWOW	77.41	352.6	11	57	2	21	44	2	14	59 PP
KRAKOW	77.46	355.3	11	54	-1	21	42	-1	13	19
RACIBORZ	77.50	356.4	11	27	-28				11	55
PRAGUE	77.61	358.9	11	53	-3	21	41	-3	14	28 PP
PRUHONICE	77.69	358.8	11	56	0	21	46	1	14	41 PP
CHATRA	77.89	298.3	11	54	-3					
PARIS	78.50	6.9	12	1A	0	22	2	8	15	3 PP
KARLSRUHE	78.61	2.9				22	14	19		
STUTTGART	78.87	2.4	12	1	-2	22	0	2	12	9 PCP
CHITTAGONG	78.88	292.1	11	53	-10	21	41	-17	22	4 SCS

STRASBOURG	79.02	3.4	12	4A	0	21	15	-45		27	44 SS
TUBINGEN	79.11	2.5	12	3	-1						
BRATISLAVA	79.45	357.1	12	2	-4	22	1	-3			
EBINGEN	79.45	2.6	12	6	0						
WARSAK DAM	79.66	313.8	12	5A	-2						
IASI	79.69	349.8	12	7	0					22	12
DEHRA DUN	79.73	307.0	12	6	-1	22	7	0			
BASLE	80.06	3.6	12	12	3	22	25	15			
ZURICH	80.25	2.9	12	10	0	22	25	13			
LAHORE	80.47	310.4	12	10A	-1						
NEUCHATEL	80.56	4.0	12	12	0	22	29	13			
CALCUTTA	80.68	294.9				24	39	142		21	44
SIMFEROPOL	81.02	344.8	12	14A	0					22	31 SCS
ASHKABAD	81.43	325.2	12	17	1					27	24 SS
BALBOA HTS.	81.53	86.4	12	15	-2	22	24	-2			
CLERMONT-FD.	81.57	6.8	12	19	2	22	34	8		23	24 PS
TIMISOARA	81.67	354.0	12	20	2	22	38	11			
TIFLIS	81.97	336.4	12	19	0	22	33	3			
OROPA	81.98	3.4	12	20	1	23	17	47			
TRIESTE	82.03	359.3	12	18A	-2	22	37	6		28	27 SSS
SAN JUAN	82.10	70.2	12	20	0						
AGRA	82.38	305.3	12	22A	1	22	34	0		15	36 PP
PAVIA	82.46	2.6	12	23	1	23	15	40			
BUCHAREST	82.59	350.4	12	21A	-1	22	42	5		23	36 PS
BELGRADE	82.64	354.5	12	24	1	22	42	5		23	13 SKKS
GALERAZAMBA	82.70	81.9	12	23	0	22	43	5		23	12 PS
CHARTERS TS.	82.88	223.4	12	23K	-1						
BOLOGNA	83.18	1.0	12	34	9	22	48	6			
GORIS	83.68	334.5	12	28	0					22	52 SCS
PRATO	83.80	1.2	12	27	-2	22	39	-10			
MONACO	83.85	3.9	12	29A	0						
SOFIA	84.55	352.2	12	33	1	22	54	-2		16	23
SERRA PILAR	84.74	16.1	12	34	1						
QUETTA	84.93	315.2	12	34A	0	23	0	0		15	48 PP
SKOPJE	85.41	353.6	12	38K	1					22	2
ISTANBUL KA.	85.55	347.7	12	36	-1	23	1	-5			
COIMBRA	85.67	16.1	12	39	1						
ROME	85.79	0.2	12	40A	2	23	4	-4		24	24
TORTOSA	86.26	9.3	12	42	1	23	7	-6			
TOLEDO	86.65	12.9	12	43	0	23	13	-4			
LISBON	86.99	17.0	12	47K	3	23	10	-10			
BRISBANE	87.04	214.7	12	44	-1	23	15	-5			
CHINCHINA	87.06	85.7	12	45	0	23	23	3			
FORT FRANCE	87.85	68.5								23	42
BOGOTA	88.27	84.7	12	41	-9	23	11	-21		24	10 PS
ST. LUCIA	88.50	68.8	12	52	0						
ALICANTE	88.60	10.4	12	51	-1	23	26	-9			
KARACHI	88.66	313.0	12	57	5						
ST. VINCENT	89.04	69.5	12	56	2						
GRANADA	89.37	13.0	12	59A	3	23	54	12		29	46 SS
MESSINA	89.45	357.8	12	55	-1	23	43	0		18	23 PPP
MALAGA	89.71	13.7	12	57K	0	23	43	-2		16	31 PP
ALMERIA	89.84	12.2	12	54	-4						
HYDERABAD	90.18	299.6	12	58	-2	23	27	-22		24	26 PS
ALGIERS UNI.	90.51	7.8	13	0	-1	23	57	5		16	33 PP
RELIZANE	91.28	9.9	13	3	-2	24	25	26		16	42 PP
KSARA	91.52	340.9	13	7	1	24	7	6		16	44 PP
BOMBAY	91.85	304.9	13	6	-1	24	6	2		16	47 PP
RIVERVIEW	93.49	213.6	13	19	4	24	25	6			
HELWAN	96.21	343.9	13	28	1	24	18	-24			
KODAIKANAL	96.67	296.4								24	3
COLOMBO	98.08	292.5				24	12	-45		16	19
ROXBURGH	99.91	196.5				24	24	-49			
TAMANRASSET	104.59	6.9	14	5	0	26	1	9		18	12 PP
LA PAZ	108.43	93.1				25	6	0		19	6 PP
MBOUR	108.44	30.5				25	9	0		19	14 PP
CAPE HALLETT	125.69	188.3								27	17 SKKS
LWIRO	127.99	339.5	18	57	-7					31	23
ASTRIDA	128.13	338.3	19	4	0						
SCOTT BASE	131.27	187.1	19	17	7					22	32 PKS
BYRD STATION	135.22	169.4	19	29	11					22	46
MAWSON	151.94	218.7	20	2	16						
HALLEY BAY	152.41	159.8	19	50	3	26	54	4			
PIETERMZBURG	153.55	323.7	19	58K	10						
KIMBERLEY	154.48	334.9	20	9	19						

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

JUNE 5 13.H 29.M 46.S EPICENTRE 36.99 20.66 DEPTH= 16.KM

A= 0.74918 B= 0.28245 C= 0.59912 D= 0.3528 E=-0.9357
G= 0.5606 H= 0.2114 K=-0.8007 HT= -0.6

SE= 3.81

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	2.62	67.3	0	42K	0	1	17	4					
REGGIO CALA.	4.13	287.0	1	0	-3	1	43	-9			2	25	
MESSINA	4.23	288.1	1	1	-4	1	46	-8			1	13	PG
TARANTO	4.38	323.5	1	9	2	2	16	18					
SKOPJE	5.01	6.4	1	13K	-3	2	32	18			2	16	
SOFIA	6.06	19.0	1	26	-4	2	59	19			1	46	
ISTANBUL KA.	7.71	55.6	1	51	-3	3	12	-9					
BELGRADE	7.82	358.9	1	58K	3						2	32	PG
ROME	8.00	310.3	2	59	61	4	5	36			4	34	
BUCHAREST	8.49	27.4	2	1	-3	3	44	3			4	53	SG
TIMISOARA	8.76	2.6	2	22	14	3	57	10			4	57	
CAMPULUNG	8.90	20.4	2	29	19						4	51	
KALOCSA	9.61	353.0	2	44	24						5	14	SG
CUGLIERI	9.98	292.3									5	4	
PRATO	10.01	316.3	3	2	36	4	6	-12					
TRIESTE	10.08	331.2	2	24	-3	4	4	-16			3	33	
BOLOGNA	10.30	319.6									6	2	
BUDAPEST	10.55	354.1	3	13	40	5	26	55					
HELWAN	11.39	125.5	2	41	-3						3	19	
IASI	11.41	24.5	3	6	21						3	41	
BRATISLAVA	11.47	347.9	2	37	-8	4	56	2			3	30	
KISHINEV	11.71	28.6	3	3	14	5	28	28					
PAVIA	11.91	316.9									5	20	
MONACO	12.12	307.8	2	49K	-5								
KSARA	12.82	99.8	3	2	-2	5	17	-10					
OROPA	12.84	316.1									5	21	
CHUR	12.86	323.5	3	2	-2	5	12	-16					
SIMFEROPOL	12.90	47.8	3	9	4				3	40			
LWOW	13.06	9.7	3	16	9						5	54	
KRAKOW	13.06	357.9	3	13	6						3	22	PP
KACIBORZ	13.20	353.1	3	14	5						3	28	PP
RAVENSBURG	13.50	326.4	3	16	3								
ZURICH	13.68	323.0	3	15	0								
PRAGUE	13.82	343.0	3	21	4	6	29	38					
EBINGEN	14.09	326.2	3	17	-3								
ALGIERS UNI.	14.10	274.4	3	18	-2						3	35	PPP
NEUCHATEL	14.26	318.8	3	15	-7						8	20	
BASLE	14.28	321.6	3	23	0						6	59	
TUBINGEN	14.31	327.3	3	18	-5								
STUTTGART	14.44	328.2	3	19	-6	6	14	9			3	46	
PLAUEN	14.82	338.3	3	30	0	7	7	53			3	43	PP
STRASBOURG	14.93	324.9	3	26	-5	6	10	-7			3	55	
KARLSRUHE	14.96	327.2	3	28	-4	6	25	7			5	28	
WARSAW	15.24	0.8									6	27	SS
COLLMBERG	15.31	341.5	3	39	3						9	2	
JENA	15.37	337.9	3	40	3	6	35	8			3	51	PP
HALLE	15.77	339.6	3	39	-3	6	39	3			3	57	PP
TORTOSA	16.15	289.9	4	13	26								
MELIZANE	16.25	271.7	3	49	1	7	3	15			4	11	PPP
POTSDAM	16.29	343.2	3	50	1	7	7	18			3	59	PP
ALICANTE	16.79	281.0	3	38	-17	6	44	-16			3	54	PP
BENSBERG	16.96	329.6	4	3	6	6	46	-18					
UCCLE	18.07	324.9	4	10	-1	7	28	-1					
ALMERIA	18.49	276.5	4	13	-3						4	26	PP
WITTEVEEN	18.62	332.6	3	30	-48								
DE BILT	18.64	329.0	4	18	0	7	48	6					
TIFLIS	19.23	68.4	4	24	-1								
TAMANRASSET	19.27	226.9	4	28	2	8	7	11			4	49	PP
COPENHAGEN	19.51	346.0	4	26A	-2	7	59	-2			4	40	PP
TOLEDO	19.55	286.0	4	28	-1								
MALAGA	20.04	276.8	4	40K	6	7	29	-44			8	31	PCP
MOSCOW	21.99	26.2	4	52	-2	8	46	-5					
UPPSALA	22.96	356.1	5	0	-4	9	0	-8					
HELSINKI	23.36	5.4	5	6	-2								
DURHAM	23.40	326.5	5	5	-3	9	17	1			5	48	
PULKOVO	23.63	12.2	5	11	1				6	6			
RATHFARNHAM	24.82	319.6	5	21A	-1						5	45	
SKALSTUGAN	27.10	351.8	5	38	-5								
SODANKYLA	30.62	4.5	6	10	-4								

KIRUNA	30.89	359.8	6	13	-4					
APATITY	31.45	9.4	6	19	-3					
SVERDLOVSK	33.09	40.3	6	35	-1					
REYKJAVIK	37.14	330.6	7	9	-2					
QUETTA	38.86	86.2	7	24	-1					
NAMANGAN	39.40	68.0	7	29	-1					
LWIRO	39.77	167.2	7	36A	3					
ASTRIDA	40.28	165.9	7	49	12	8	12			
KHEYS	44.87	7.4	8	21	7					
RESOLUTE	60.94	344.1	10	14	1					
SEVEN FALLS	64.95	311.1	10	44	4				17	14
SHAWINIGAN	66.39	311.2	10	56	7					
OTTAWA	68.75	311.3	11	3	-1					
COLLEGE	78.07	355.0	11	58	0					
RAPID CITY	84.61	323.0	12	40	7					
HUNGRY HORSE	85.94	331.6	12	38	-1					
MATUSIRO	86.74	45.6	12	42	-1					
BUTTE	87.27	329.4	13	2	16					
EUREKA	94.07	327.8	13	29	11					
SOUTH POLE	126.81	180.0	19	10	8					

JUNE 6 9.H 11.M 18.S EPICENTRE 7.91 -84.53 DEPTH= 0.KM

A= 0.09443 B=-0.98609 C= 0.13677 D=-0.9954 E=-0.0953
G= 0.0130 H=-0.1361 K=-0.9906 HT= 6.8

SE= 2.92

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTIAGO MA.	6.76	325.4	1	40	-2	3	5	6					
SAN SALVADOR	7.40	321.8	1	48	-2	3	15	0					
CHINCHINA	9.32	107.7	2	14	-3	3	49	-14					
GALERAZAMBA	9.57	72.0	2	21	0	4	15	6			2	17	PP
BOGOTA	10.90	106.9	2	39	0	4	39	-3			2	45	PP
COMITAN	11.13	318.8	2	42	0	4	54	7			5	2	SS
MERIDA	13.86	339.7	3	15A	-4	5	48	-5			6	15	SS
OAXACA	14.98	308.3	3	39	6	6	33	13			3	49	PP
VERA CRUZ	15.89	316.1	3	51K	6	6	51	10			7	30	SS
PUEBLA	17.27	311.1	4	4	2	7	30	17			4	24	
TACUBAYA	18.25	310.2	4	12A	-3	7	40	5			4	28	PP
SAN JUAN	20.70	58.0	4	38	-4	8	47	19					
HUANCAYO	21.84	155.1	4	52A	-2	9	9	19					
GUADALAJARA	22.16	306.9	5	2A	5	9	22	26			5	22	PP
MANZANILLO	22.18	301.9	4	57	0	9	0	4			5	24	PP
GRENADA	22.82	77.8	5	1	-3	9	30	22					
TRINIDAD	22.87	81.3	5	2	-2								
FORT FRANCE	23.89	71.5	5	12	-2	9	43	16			5	56	PP
BARBADOS	25.04	76.0	5	26	1								
MAZATLAN	25.91	308.3	5	33	0	10	6	5					
COLUMBIA	26.16	6.6	5	34	-2	10	14	9			6	0	
DALLAS	27.29	337.1	5	56	10								
CHAPEL HILL	28.32	9.4	5	53	-3								
CHIHUAHUA	28.94	318.1	6	3	2	10	57	7			7	0	PP
LA PAZ	29.18	146.3	6	0A	-3	11	2	8			6	56	PP
FAYETTEVILLE	29.40	343.9	6	2A	-3	10	56	-1			7	8	PP
LUBBOCK	30.14	330.3	6	9	-3	11	9	0					
BERMUDA	30.54	34.4	6	6	-9	11	0	-15			9	8	PCP
ST. LOUIS 1	31.02	351.3	6	16A	-4	11	15	-8			7	25	PP
FLORISSANT	31.20	351.2	6	20A	-1	11	23	-3			7	28	PP
TERRE HAUTE	31.53	355.7	6	39	15								
GEORGETOWN	31.57	11.2	6	22	-2	11	33	2					
WASHINGTON	31.57	11.2	6	26	2	11	44	13			7	50	PP
MORGANTOWN	31.85	6.7	6	26	-1								
PITTSBURGH	32.65	6.5	6	32A	-2						7	40	
PENNSYLVANIA	33.28	9.2	6	42	3	12	5	7					
FORDHAM	34.14	14.5	6	44	-3	12	13	2					
PALISADES	34.29	14.3	6	45A	-3	12	15	1			8	2	PP
TUCSON TELE.	34.38	318.6	6	49	0						8	56	PCP
TUCSON	34.40	318.4	6	49	0	12	28	13			8	59	PCP
WESTON	36.25	16.6	7	6A	1	12	54	10					
HARVARD	36.31	16.3	7	6	1								
BOULDER	36.98	333.1	7	10	-1								
OTTAWA	38.12	10.1	7	17A	-3	13	12	-1			8	48	PP
LARAMIE	38.15	334.0	7	20	-1								
BREBEUF	38.62	12.3	7	22K	-3	13	22	2					

BOULDER CITY	39.31	319.8	7 31	1					8 23	
RAPID CITY	39.54	338.8	7 31	-1					9 11	PP
SHAWINIGAN	39.80	12.7	7 31A	-3	13	50	12		9 14	PP
PASADENA	40.50	315.0	7 40A	0	13	54	6	7 56	9 17	PP
TALA POZO	40.58	151.8	7 37	-4	13	44	-6		9 17	PP
SALT LAKE C.	40.76	327.7	7 42	0	14	8	16		11 20	
SEVEN FALLS	40.78	14.3	7 40	-3	13	34	-19		9 20	PP
HALIFAX	40.84	23.0	7 47K	4	13	57	3		9 18	PP
EUREKA	42.21	323.1	7 55	1						
FRESNO	43.04	317.2	8 0	-1						
BOZEMAN	44.03	333.2	8 8	-1	14	52	12		9 47	PP
LICK	44.58	316.8	8 13A	-1						
RENO	44.60	320.5	8 13A	-1						
BUTTE	44.98	332.4	8 15	-2	15	4	10		11 58	
BERKELEY	45.28	317.0	8 19A	0	15	9	11			
MINERAL	46.19	320.3	8 24A	-2						
UKIAH	46.58	318.0	8 29	0					10 28	PP
SHASTA	46.88	320.3	8 31	-1						
HUNGRY HORSE	47.39	333.5	8 34	-2	15	53	25		10 30	PPP
SASKATOON	47.66	341.7	8 37	-1	15	34	2		10 37	
ARCATA	48.06	319.5	8 41	0						
CORVALLIS	49.64	324.0	8 52	-1						
BANFF	50.15	335.0	8 52A	-5						
SEATTLE	50.93	327.8	9 4K	1						
VICTORIA	52.06	328.0	9 9A	-3						
HORSESHOE B.	52.52	329.0	9 12	-3	16	47	7			
ALBERNI	53.25	328.1	9 23	3						
SITKA	62.82	331.6	10 25	-3					12 45	PP
MBOUR	66.41	77.8	10 51A	0	19	48	9		13 28	PP
RESOLUTE	66.99	357.0	10 51A	-4	19	42	-4		13 22	PP
REYKJAVIK	71.17	24.3	11 17	-3					14 6	
COLLEGE	71.71	336.3	11 21	-3	20	44	2		13 48	PP
KIPAPA	71.82	289.9	11 34	10						
LISBON	73.69	52.1	11 36	1						
SERRA PILAR	74.24	49.6	11 36A	-2					14 30	PP
COIMBRA	74.32	50.6	11 40	1	21	8	-3			
RATHFARNHAM	76.67	37.1	12 2	10						
MALAGA	77.42	54.2	12 3A	7	21	54	9		16 59	PPP
TOLEDO	77.68	51.0	11 59	1	21	54	6		15 0	PP
GRANADA	78.05	53.7	12 16	16	22	16	24		27 28	SS
EDINBURGH	78.64	34.6			22	6	8		22 49	PS
ALMERIA	78.96	54.0	12 1	-4	22	17	15		15 11	PP
NORD	79.04	8.0	12 31	26	22	1	-2			
ABERDEEN	79.29	33.3	12 31	24	22	14	9		14 53	PP
DURHAM	79.52	35.8	12 9	1	22	6	-2		15 13	PP
KEW	80.26	39.2	12 12A	0	22	15	0		15 15	PP
ALICANTE	80.49	52.5	12 16	3	22	28	10		15 26	PP
TORTOSA	81.13	49.9	12 28	11	22	24	0			
RELIZANE	81.45	55.0	12 19	1	22	38	10		15 25	PP
PARIS	82.14	41.8	12 26	4	22	41	6		15 34	PP
BARCELONA	82.33	49.3	12 38	15	23	38	61			
CLERMONT-FD.	82.75	44.8	12 28	3					15 18	PP
BERGEN	83.10	30.0	12 32	5	22	49	5			
UCCLE	83.22	39.7	12 29	2	22	45	-1			
ALGIERS UNI.	83.39	53.9	12 29	1	22	54	7		15 41	PP
DE BILT	83.64	38.4	12 32	3	22	48	-2		15 42	PP
WITTEVEEN	84.48	37.6	12 22	-12						
BENSBERG	84.99	39.4	12 37	1	22	54	-9			
NEUCHATEL	85.28	43.4	12 34	-4	23	5	-1		15 45	PP
BASLE	85.65	42.8	12 39	-1	23	10	0			
STRASBOURG	85.65	41.7	12 40A	0	23	0	-10		16 0	PP
SKALSTUGAN	86.00	26.4	12 39	-2						
MONACO	86.01	46.6	12 42	1						
KARLSRUHE	86.02	41.2	12 46K	5	23	20	7		16 4	PP
OROPA	86.15	44.6	13 1	19					24 39	
ZURICH	86.34	42.9	12 10	-33						
EBINGEN	86.49	42.0	12 42	-2						
TUBINGEN	86.51	41.7	12 41	-3					16 10	PP
STUTTGART	86.56	41.4	12 42	-2	23	16	-3		16 16	PP
TAMANRASSET	87.03	67.5	12 45	-1	23	31	8		16 12	PP
PAVIA	87.05	45.0	13 2	16	24	41	78		22 29	
COPENHAGEN	87.45	34.2	12 50A	2	23	35	8		16 20	PP
JENA	87.75	39.0	12 46	-4	23	18	-12		16 26	PP
HALLE	87.89	38.4	12 49	-1	23	37	6		16 26	PP
PLAUEN	88.19	39.4	12 49	-3					16 19	PP
KIRUNA	88.31	21.5	12 55	3	23	38	3		16 29	PP
CHEB	88.41	39.8	13 0	7	23	44	8		25 0	PS
POTSDAM	88.41	37.4	12 55	2	23	42	6			
COLLMBERG	88.57	38.5	12 52	-2	23	40	3		16 27	PP

PRATO	88.61	46.0	12	56	2	23	46	8				
BOLOGNA	88.67	45.4	13	10	16	24	8	30	24	42		
UPPSALA	89.27	29.6	12	58	1	23	42	-2	16	29	PP	
BYRD STATION	89.60	185.7	12	56	-3	23	31	-16	16	24	PP	
PRAGUE	89.70	39.5	13	2	3	23	54	6	16	32	PP	
PRUHONICE	89.80	39.6	13	0	0	23	53	4	16	41	PP	
ROME	89.96	47.8	13	3K	3	23	28	-22	28	42	SS	
HALLEY BAY	90.00	167.7	12	57	-3							
TRIESTE	90.15	44.0	13	0	-1	23	59	7	16	32	PP	
SODANKYLA	90.70	21.2	13	3	-1							
BRATISLAVA	91.84	41.0	13	10	1	24	9	2	16	54	PP	
HURBANOVO	92.63	41.1	13	18	5	24	14	0	16	58	PP	
HELSINKI	92.69	28.2	13	14	1							
APATITY	92.99	19.9	13	16	2	24	15	-2				
MESSINA	93.00	51.0	13	33	19	24	13	-4	16	57	PP	
KRAKOW	93.15	38.7	13	16	1				17	13	PP	
WARSAW	93.18	36.4	13	52	37	24	17	-2	23	55	SKS	
BUDAPEST	93.30	41.3	13	45	29				16	55	PP	
SKALNATE PL.	93.59	39.5	13	18	1	24	21	-1	17	7	PP	
BELGRADE	94.94	43.6	13	32	9				31	17	SS	
TIMISOARA	95.20	42.6	13	43	19	24	53	17	24	13	SKS	
PULKOVO	95.32	27.5	13	24	-1							
LWOW	95.73	38.1	13	29	2	23	54	-46				
SKOPJE	96.41	46.2	14	23	53				16	22		
TIKSI	97.61	349.9	13	37	2	24	52	-4	19	38	PPP	
SOUTH POLE	97.86	180.0	13	34	-2				17	45	PP	
BUCHAREST	98.90	42.8	13	40	-1	23	54	-73	24	23	PS	
SUVA	99.08	252.9	13	45	3				17	50	PP	
PETROPAVLOVK	99.22	327.0				24	7	-63	17	43	PP	
MAGADAN	99.75	334.8							17	52	PP	
MOSCOW	100.69	29.2	13	51	2				26	57	PS	
SCOTT BASE	101.60	191.8	18	12	777							
CAPE HALLETT	102.09	197.6	18	12	777							
ISTANBUL KA.	102.14	45.1				32	43	429	22	42	PP	
WELLINGTON	103.21	229.5							18	3	PP	
									33	7	SS	
SIMFEROPOL	103.94	39.9	14	4	0				27	34	PS	
HERMANUS	105.77	123.5				25	1	-9	27	55	PS	
KOXBURGH	106.91	224.9							26	36		
HELWAN	107.91	55.2	18	12	777				18	47	PP	
KSARA	109.98	49.8	14	31	777				19	8	PP	
Y.-SAKHLINSK	111.16	327.4							19	33	PP	
TIFLIS	112.29	38.7							19	23	PP	
LWIRO	113.41	89.0	18	37	-1				28	54		
ASTRIDA	114.38	89.3	18	38	-2							
GORIS	114.51	40.0							19	39	PP	
MAWSON	116.51	166.7							19	54	PP	
VLADIVOSTOK	119.37	330.1				25	50	6	20	20	PP	
IRKUTSK	119.58	353.8							20	16	PP	
MATUSIRO	120.31	320.7	18	50	-1				20	31	PP	
WILKES	120.97	187.0							32	36	PPS	
OASIS-BUNG.	121.72	182.5	18	59	5							
BRISBANE	122.34	242.5	18	52	-3				37	42		
ASHKABAD	122.73	34.6	19	9	13							
ABUYAMA	123.04	320.8							20	40		
RABAUL	123.53	270.2	19	11	14							
TASHKENT	125.42	24.1	19	6	5				20	58	PP	
FRUNSE	125.98	18.9	19	5	3				30	51	PS	
GUAM	126.66	293.2	19	16	13							
STALINABAD	127.52	26.4	19	4	-1							
PORT MORESBY	128.92	264.3	19	3	-5				29	39	PKKP	
CHARTERS TS.	129.45	250.7	19	11	2				22	45		
TANANARIVE	132.26	108.3	19	21	7				21	45	PP	
NARSAK DAM	132.54	27.2	19	17	2							
QUETTA	133.26	34.6	19	14	-2				22	45	PKS	
LAHORE	135.86	26.2	19	24	3							
DEHRA DUN	138.47	23.0	19	37	12				23	26		
AGRA	141.28	25.3	19	28	-3							
LHASA	142.42	6.3	19	34	2				23	2	PP	
CHATRA	144.54	12.8	19	32	-4				23	21	PP	
CANTON	144.61	330.9	19	37	1				23	10	PP	
HONG KONG	144.82	329.0	19	40K	3				23	50	PKS	
BOMBAY	145.23	39.7	19	50	13				23	45	PP	
BAGUIO CITY	145.33	314.3	19	37	-1							
TOCKLAI	145.54	1.1	19	41	3							
KUNMING	146.49	348.1	19	40	0				23	35	PP	
SHILLONG	146.54	5.9	19	38	-2				19	53	PKP2	
CALCUTTA	148.95	12.9	20	11	28				21	8		
MADRAS	154.26	36.3	20	17	26				20	59	PP	

KODAIKANAL 154.58 45.1 20 18 26

JUNE 6 19.H 15.M 31.S EPICENTRE 5.39 -82.65 DEPTH= 0.KM

A= 0.12731 B=-0.98747 C= 0.09324 D=-0.9918 E=-0.1279
G= 0.0119 H=-0.0925 K=-0.9956 HT= 7.0

SE= 3.31

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
BALBOA HTS.	4.69	40.7	1 9	-3				
CHINCHINA	7.02	93.1	1 39	-6	2 55	-10		
BOGOTA	8.59	94.7	2 5	-2	3 37	-7		
GALERAZAMBA	9.06	53.3	2 8	-5	3 51	-5		
SANTIAGO MA.	9.88	325.0	2 25	0				
SAN SALVADOR	10.52	322.5	2 31	-2				5 18
COMITAN	14.25	320.0	3 29	6	6 33	31		8 49
MERIDA	16.88	337.0	3 54K	-3	7 29	25		4 6 PP
OAXACA	18.02	311.0	4 13	1	7 45	15		
HUANCAYO	18.79	157.2	4 17A	-4	7 57	10		5 53
VERA CRUZ	19.00	317.4	4 26	2	8 4	12		4 44 PP
PUEBLA	20.34	313.2	4 45	7				
SAN JUAN	20.67	50.0	4 38	-4	8 57	30		
TACUBAYA	21.30	312.3	4 49K	1	8 34	-5		5 17 PP
TRINIDAD	21.57	74.6	4 48	-3				
ST. VINCENT	22.46	68.4	4 58	-2				
FORT FRANCE	23.10	64.7	5 5	-1	9 28	16		5 25
BARBADOS	24.00	69.7	5 13	-2				
GUADALAJARA	25.17	309.0	5 29	3				6 47
LA PAZ	26.06	146.8	5 34	-1	10 5	2		6 3 PP
COLUMBIA	28.51	2.8	5 54	-3				8 13
CHAPEL HILL	30.57	5.8	6 12	-3				
BERMUDA	31.68	29.8	6 29	4	11 29	-4		7 53 PP
CHIHUAHUA	32.05	318.8	6 29	1				12 29
FAYETTEVILLE	32.35	342.4	6 27	-4	11 51	8	6 34	7 22 PP
LUBBOCK	33.25	330.0	6 37	-2				
WASHINGTON	33.74	7.9	6 45	2	12 29	24		7 43
MORGANTOWN	34.18	3.7	6 43A	-4	12 29	17		
TERRE HAUTE	34.20	353.4	7 54	67				
PENNSYLVANIA	35.52	6.3	7 5	7	12 46	14		8 18 PP
CLEVELAND	35.95	1.4	7 4	2	12 46	7		8 27
PALISADES	36.32	11.2	7 7	2	12 55	10		8 29 PP
TALA POZO	37.49	152.6	7 13	-2	13 4	1		8 24
TUCSON TELE.	37.50	319.1	7 13	-2				8 49 PP
TUCSON	37.51	318.9	7 14	-1	13 21	18		8 51 PP
WESTON	38.19	13.6	7 24K	3	13 23	10		
BOULDER	40.07	332.7	7 35	-1				
OTTAWA	40.31	7.6	7 35K	-3	13 53	8		9 19 PP
BREBEUF	40.73	9.7	7 39A	-3	14 2	11		
LARAMIE	41.22	333.6	7 42	-4				
SHAWINIGAN	41.89	10.2	7 51A	0				9 34
BOULDER CITY	42.43	320.2	7 55	-1				
HALIFAX	42.49	20.2	7 57	1	14 26	8		17 38 SS
RAPID CITY	42.56	338.0	7 55	-2				9 59 PP
SEVEN FALLS	42.81	11.9	7 55	-4	14 22	0	8 49	16 46 SS
PASADENA	43.60	315.7	8 4A	-1	14 48	14		9 53 PP
SALT LAKE C.	43.88	327.7	8 7	-1				9 41 PP
EUREKA	45.33	323.3	8 18	-1				
FRESNO	46.15	317.7	8 23	-3				
BOZEMAN	47.11	332.9	8 31	-2				10 26 PP
LICK	47.69	317.3	8 36A	-2				
RENO	47.72	320.9	8 37	-1				
BUTTE	48.07	332.2						9 56
BERKELEY	48.39	317.6	8 41A	-2	15 57	15		
UKIAH	49.69	318.4	8 51	-2				9 47
SHASTA	50.01	320.6	8 52	-4				
HUNGRY HORSE	50.47	333.2	8 57	-2				
CORVALLIS	52.76	324.2	9 16	-1				
SEATTLE	54.05	327.8	9 13	-13				
VICTORIA	55.18	328.1	9 36A	2				
HORSESHOE B.	55.64	329.0	9 34	-4				
MBOUR	65.15	76.7	10 48	6	19 33	10		11 7 PCP
RESOLUTE	69.60	356.6	11 6	-4	20 14	-3		
REYKJAVIK	72.71	23.6	11 36	7				
LISBON	73.78	51.4	11 37A	2				

SERRA PILAR	74.47	48.9	11 37K	-2				14 24 PP
COLLEGE	74.76	336.3	11 38	-3	21	20	4	
MALAGA	77.39	53.7	11 50A	-6				14 44 PP
RATHFARNHAM	77.56	36.7	11 57K	0				
TOLEDO	77.82	50.5	12 3	5	21	59	10	
GRANADA	78.05	53.3	12 1A	1	22	24	32	
ABERDEEN	80.37	33.0	14 9	117				23 9 PS
DURHAM	80.47	35.5	12 18A	5	22	10	-7	15 26 PP
ALICANTE	80.55	52.2	12 13	0	22	21	3	
KEW	81.04	38.9	12 16	0	22	28	5	
TORTOSA	81.33	49.7	12 23	6				
RELIZANE	81.37	54.8	12 18	1				15 33 PP
PARIS	82.78	41.6	12 27	2	22	48	7	22 45 SKS
CLERMONT-FD.	83.23	44.7	12 29	2	22	55	10	23 44 PS
ALGIERS UNI.	83.37	53.7	12 29	1	22	49	2	15 49 PP
UCCLE	83.97	39.6	12 33	2	23	1	8	
DE BILT	84.46	38.3	12 41	8	23	5	7	
WITTEVEEN	85.34	37.5	12 40	2				
BENSBERG	85.75	39.4	12 45	5				12 55
NEUCHATEL	85.83	43.3	12 41	1				
TAMANRASSET	86.26	67.6	12 41	-1	23	21	6	16 6 PP
STRASBOURG	86.28	41.7	12 43	1	23	25	10	16 11 PP
MONACO	86.38	46.6	12 45	2				
KARLSRUHE	86.67	41.3	12 37	-7	23	25	6	
EBINGEN	87.11	42.1	12 45	-1				
TUBINGEN	87.15	41.7	12 47	0				
HALLEY BAY	87.15	167.9	12 47	0				16 13 PP
STUTTGART	87.21	41.5	12 45	-2	23	29	5	29 35 SS
BYRD STATION	87.30	186.0	12 48	1	23	17	-8	16 17
SKALSTUGAN	87.42	26.5	12 49	1				
CUGLIERI	87.50	50.1						25 19
PAVIA	87.51	45.0	13 17	29				29 41 SS
COPENHAGEN	88.47	34.4	12 57	4	23	45	9	23 33 SKS
JENA	88.53	39.1	12 47	-6	23	34	-3	16 29 PP
HALLE	88.69	38.6	12 56	2	23	47	9	24 49 PS
PLAUEN	88.94	39.5	12 55	0				13 3
POTSDAM	89.27	37.6	12 59	2				
COLLMBERG	89.37	38.7	12 59	2				
KIRUNA	89.96	21.7	13 10	10	23	57	7	23 34 SKS
ROME	90.26	48.0	13 13	12	23	42	-11	29 45 SS
PRAGUE	90.45	39.8	12 47	-15	23	32	-22	24 8 PS
UPPSALA	90.53	29.8	13 6	3	24	1	6	16 42 PP
PRUHONICE	90.54	39.8	13 5	2	23	53	-2	16 42 PP
TRIESTE	90.66	44.2	13 9	6	24	5	9	23 43 PPP
MESSINA	93.12	51.4	12 50	-25				
KRAKOW	93.93	39.1	13 28	10				17 9 PP
WARSAW	94.09	36.8			23	52	-34	29 41 SS
SOUTH POLE	95.35	180.0	13 22	-3				17 8 PP
LWOW	96.54	38.6			25	14	27	18 45
PULKOVO	96.67	28.0	13 56	25	24	1	-47	
BUCHAREST	99.46	43.5	13 9	-34	24	29	-43	
SUVA	100.11	252.6						26 40 PS
CAPE HALLETT	100.26	197.3	14 13	26	24	6	-72	17 55 PP
TIKSI	100.41	350.3	13 44	-4				
KISHINEV	100.46	40.3						19 6
MOSCOW	101.95	30.0	13 58	3	24	39	-53	
ISTANBUL KA.	102.57	46.0						18 10 PP
HERMANUS	102.82	123.9						27 22 PS
SIMFEROPOL	104.65	40.9			24	53	-62	18 33
HELWAN	107.78	56.5						18 49 PP
YAKUTSK	108.32	344.6						17 59
KSARA	110.14	51.2	14 29	-242				19 11 PP
SVERDLOVSK	111.15	20.6						19 14 PP
LWIRO	111.56	90.3						19 16 PP
ASTRIDA	112.52	90.6						19 16 PP
TIFLIS	113.05	40.2						19 23
MAKHACH-KALA	114.07	37.9						19 37
WILKES	118.59	186.0						36 50 SS
IRKUTSK	122.26	354.9						20 31
VLADIVOSTOK	122.47	330.5						20 40
SEMIPALATNSK	122.51	12.9						20 41
MATUSIRO	123.43	320.8	19 3	6				20 50 PP
ULAN-BATOR	126.26	352.0						19 10
NAMANGAN	128.20	24.7						19 10
CHARTERS TS.	130.32	248.4	19 16A	6				
WARSAK DAM	133.85	30.1	19 16	-1				
QUETTA	134.19	37.7	19 19	2				22 53 PKS
LAHORE	137.21	29.4						22 9 PP
LANCHOW	138.31	352.1						23 3 PP

DEHRA DUN	139.97	26.4	19 56	28		23 16
LHASA	144.65	9.5	19 37	1		23 20 PP
BOMBAY	145.85	44.4				20 8
CHATRA	146.49	16.6	19 36	-3		
HONG KONG	147.93	329.7	19 50	8		43 51 SS
TOCKLAI	147.96	4.3				20 3
BAGUIO CITY	148.41	313.7	19 48	6		
SHILLONG	148.77	9.6	19 42	-1		
KUNMING	149.31	350.5				22 43 PP
CHITTAGONG	151.90	10.9	19 39	-9		

JUNE 6 22.H 44.M 7.S EPICENTRE 7.98 -84.27 DEPTH= 0.KM

A= 0.09881 B=-0.98551 C= 0.13788 D=-0.9950 E=-0.0998
G= 0.0138 H=-0.1372 K=-0.9904 HT= 6.8

SE= 3.70

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
BALBOA HTS.	4.76	77.8	1 13	-1				
SANTIAGO MA.	6.85	323.4	1 42	-2	2 55	-9		
SAN SALVADOR	7.51	320.0	1 49	-4	3 10	-10		
CHINCHINA	9.10	108.6	2 13	-2	4 6	6		
GALERAZAMBA	9.31	71.9	2 13	-5	4 3	-2		
BOGOTA	10.68	107.6	2 39	2	4 50	11		
COMITAN	11.25	317.7	2 49	4				6 53
MERIDA	13.89	338.7	3 20	0				7 53
VERA CRUZ	16.03	315.3	3 53	5				7 38 SS
TACUBAYA	18.40	309.6	4 19K	1	7 49	8		8 2
SAN JUAN	20.46	57.8	4 40	-1				6 12
HUANCAYO	21.79	155.8	4 54A	-1	9 8	16		5 58
GUADALAJARA	22.33	306.4	4 53	-7				5 21 PP
MANZANILLO	22.36	301.5	5 3	2				5 55
ST. VINCENT	23.19	75.2	5 10	1				
FORT FRANCE	23.63	71.4	5 16	3	9 33	8		
MAZATLAN	26.07	307.9			9 53	-13		6 53 PPP
COLUMBIA	26.07	6.1	5 36	-1				
DALLAS	27.33	336.6	5 46	-2	11 17	50		
CHAPEL HILL	28.22	9.0	5 56	0				
CHIHUAHUA	29.06	317.8	6 8	4	10 23	-32		8 20
LA PAZ	29.10	146.7	6 1	-3	11 17	21		12 33 SS
FAYETTEVILLE	29.41	343.5	6 3	-4	10 49	-12		6 53 PP
LUBBOCK	30.21	329.9	5 47	-27				10 10
BERMUDA	30.34	34.2	6 25	10	11 18	3		13 5 PCS
MORGANTOWN	31.75	6.4	6 25	-3				
CLEVELAND	33.45	3.7						9 3
PALISADES	34.16	14.0	6 47	-2	12 15	0		12 45 PCS
OTTAWA	38.01	9.8	7 18	-3	13 13	-1		
BREBEUF	38.50	12.1	7 23K	-2				
BOULDER CITY	39.43	319.5	7 36	3				
SHAWINIGAN	39.68	12.4	7 33	-2				
TALA POZO	40.52	152.2						13 43 PCS
PASADENA	40.64	314.8	7 52	9	13 22	-32		
SEVEN FALLS	40.66	14.1	7 42	-1	13 47	-7		17 5 SS
SALT LAKE C.	40.84	327.5	7 42	-3				
EUREKA	42.31	322.8	8 6	9				
BOZEMAN	44.08	333.0	8 10	-1				
BUTTE	45.04	332.2	8 19	0				10 10 PP
HUNGRY HORSE	47.44	333.3	8 36	-2				
RESOLUTE	66.94	356.9	10 55	-1	19 43	-6		23 13
MALAGA	77.17	54.2						14 50 PP
DURHAM	79.32	35.8	12 8A	-1	22 9	0		22 28 SKS
KEW	80.05	39.2	12 16	3	22 18	1		
STRASBOURG	85.43	41.7	13 3	23	23 5	-6		
SKALSTUGAN	85.83	26.5	12 51	9				
STUTTGART	86.35	41.4	12 36	-9				13 8
TAMANRASSET	86.77	67.6	12 48	1	23 31	7		16 10 PP
COPENHAGEN	87.25	34.3			23 31	2		
JENA	87.55	39.1	12 48	-3				13 3
HALLE	87.68	38.5	13 1	10				
PLAUEN	87.98	39.4	13 0	7				
KIRUNA	88.16	21.5			23 31	-6		23 23 SKS
BYRD STATION	89.69	185.8	12 58	-3				
TRIESTE	89.93	44.0	13 8	6	24 2	8		26 1 SPP
SHILLONG	146.44	6.3	19 42K	1				

JUNE 7 12.H 55.M 4.S EPICENTRE -52.82 140.34 DEPTH= 0.KM

A=-0.46721 B= 0.38734 C=-0.79478 D= 0.6382 E= 0.7698
G= 0.6119 H=-0.5073 K=-0.6069 HT= -6.4

SE= 1.99

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
FORT NELSON	10.95	28.2	2 42	1	5 7	22		
MELBOURNE	15.34	14.0	3 37K	-2	6 37	6		
WILKES	19.94	216.3	4 36	0	8 15	-1		
ROXBURGH	20.20	80.5			8 28	7		
RIVERVIEW	20.50	26.5	4 45	3	8 35	8		
CAPE HALLETT	23.43	157.4	5 14	3	9 31	9		10 34 SS
OASIS-BUNG.	23.62	220.3	5 15	2	9 35	10		
WELLINGTON	25.89	77.4			10 6	2		10 39
MIRNY	26.75	220.8	5 32	-11	10 24	6		
SCOTT BASE	26.89	168.0	5 46	2	11 14	54		7 4 PPP
BRISBANE	27.02	25.4	5 45	0	10 28	6		
PERTH	27.38	309.9						11 37
CHARTERS TS.	33.07	10.2	6 38	-1				18 56
SOUTH POLE	37.37	180.0	7 12	-4				
MAWSON	38.31	217.1	7 25	1	13 21	2		
BYRD STATION	40.19	164.6	7 38	-1	13 53	6		9 18 PCP
PORT MORESBY	43.65	9.8	8 9	1	14 46	8		15 6
SUVA	45.55	55.3	8 20	-3	15 3	-3		10 50 PPP
HALLEY BAY	51.65	184.2	9 8	-2				11 8 PP
MATUSIRO	89.02	358.3	12 57K	-1	23 39	-6		25 52 PPS
KSARA	124.50	282.0	19 12	11				
EUREKA	127.91	72.4	19 11	3				
COLLEGE	129.64	31.8	19 12	1				
HUNGRY HORSE	134.52	64.3	19 27	7				
TRIESTE	145.11	280.1	19 40	1				
SODANKYLA	145.82	320.9	19 41	1				
ALGIERS UNI.	146.28	258.9	20 15	34				
PRUHONICE	146.73	287.3	19 42	0				19 48 PKP2
RELIZANE	147.07	255.0	19 38	-4				23 27 PP
MONACO	147.89	272.8	19 49	5				
COLLMBERG	148.18	288.8	19 54	10				
KIRUNA	148.23	321.3	19 49	5				
UPPSALA	148.39	305.9	19 56	11				
JENA	148.85	287.4	19 55	10				21 18
HALLE	148.87	288.6	19 50	5				20 28
RESOLUTE	149.11	25.2	19 49	3				42 33 SS
STUTTGART	149.33	282.4	19 52	6				20 16
ALICANTE	149.43	257.6	19 43	-3	26 50	-3		23 17 PKS
MORGANTOWN	149.59	99.4	19 57	11				
COPENHAGEN	150.01	296.6						23 19 PP
STRASBOURG	150.10	281.2	19 56	9				20 47
GRANADA	150.47	252.5	20 10A	22				
MALAGA	150.61	251.0	19 50	2				20 8 PKP2
SKALSTUGAN	151.42	312.6	19 55	6				
PARIS	153.35	278.4						23 59 PP

JUNE 8 0.H 38.M 53.S EPICENTRE 53.20-166.79 DEPTH= 0.KM

A=-0.58573 B=-0.13749 C= 0.79876 D=-0.2285 E= 0.9735
G=-0.7776 H=-0.1825 K=-0.6017 HT= -6.6

SE= 2.26

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	15.15	32.1	3 35	0	6 17	-7		
SITKA	18.31	65.2	4 18	3				
PETROPAVLOVK	20.61	283.8	4 41	0				
MAGADAN	23.99	302.3	5 14	-1				
ALBERNI	26.29	81.5	5 38	1				
HORSESHOE B.	27.16	80.3	5 45	0				
SEATTLE	28.51	83.0	5 49	-8				
CORVALLIS	29.46	89.2	6 7	1				

SHASTA	32.26	94.6	6 31	1					9 18	
KIPAPA	32.43	164.6	6 40	8						
HONOLULU	32.53	164.8	6 59	26						
UKIAH	32.75	97.6	6 35	1					9 19	PCP
TIKSI	32.84	328.2	6 34	-1	11	48	-3			
MINERAL	32.95	94.5	6 36	0						
HUNGRY HORSE	33.08	76.7	6 38	1					9 20	PCP
YAKUTSK	33.80	310.7	6 41	-3	11	49	-17			
BERKELEY	34.14	98.5	6 43	-4	12	45	34		9 22	
RENO	34.53	94.0	6 51	1						
LICK	34.85	98.6	6 52	-1					9 25	
RESOLUTE	34.94	26.2	6 53	0	12	19	-5		9 25	PCP
BUTTE	35.11	79.4	6 55	0					9 26	PCP
BOZEMAN	36.20	78.9	7 4	0					9 29	PCP
FRESNO	36.33	97.7	7 5	0						
EUREKA	36.87	90.9	7 10	0					9 30	PCP
SENDAI	38.54	268.8	7 25	1					8 26	
SALT LAKE C.	38.55	86.1	7 25	1					9 35	PCP
PASADENA	39.09	99.3	7 28K	0	13	37	10		9 27	PCP
BOULDER CITY	39.83	94.2	7 35	0					8 51	PP
VLADIVOSTOK	40.93	281.4	7 42	-2						
MATUSIRO	41.27	268.9	7 45A	-1	13	51	-9		9 51	PCP
BOULDER	42.93	82.2	8 1	1						
ABUYAMA	44.00	269.2	8 9A	0	14	37	-3			
CHANGCHUN	44.35	286.4	8 9	-2	14	38	-7			
TUCSON	44.80	94.8	8 15	0					9 57	PCP
TUCSON TELE.	44.80	94.6	8 15	0					9 57	PCP
IRKUTSK	50.41	307.1	8 59	0	16	8	-2			
ULAN-BATOR	51.90	301.5	9 11	1						
PEKING	52.02	288.3	9 12	1	16	28	-5			
FAYETTEVILLE	52.11	78.3	9 10K	-2				9 19	10 22	PCP
FLORISSANT	52.49	73.2	9 13	-2	16	39	0			
ST. LOUIS 1	52.68	73.3	9 14K	-2	16	41	-1			
DALLAS	52.82	83.2	9 15	-2						
ZO-SE	55.27	276.8	9 34	-1						
NANKING	56.00	279.4	9 39	-1						
OTTAWA	56.02	58.2	9 39K	-1	17	27	0		11 42	PP
TRUK	56.57	231.7	9 43	-1						
SHAWINIGAN	56.71	55.5	9 43K	-2						
BREBEUF	57.01	56.8	9 45K	-3	17	41	1			
SEVEN FALLS	57.26	53.9	9 47K	-2						
MORGANTOWN	57.79	65.7	9 38K	-15						
GUADALAJARA	57.86	98.3							22 13	SS
PENNSYLVANIA	58.10	63.4	9 54	-1	17	50	-4			
APATITY	58.62	351.1	9 58	-1	17	58	-3			
KIRUNA	59.17	356.8	10 3	0	18	9	1		39 38	PKPP<P
SODANKYLA	59.33	354.0	10 4	0						
GEORGETOWN	59.88	64.4	10 7	-1					12 20	PP
WASHINGTON	59.88	64.4	10 6	-2					12 19	PP
PALISADES	60.05	60.7	10 7	-2	18	21	2		12 23	PP
FORDHAM	60.18	60.8	10 9	-1	18	22	1			
HARVARD	60.19	58.1	10 9	-1						
WESTON	60.40	58.0	10 10K	-1						
CHAPEL HILL	60.94	68.1	10 14	-1						
COLUMBIA	61.21	71.0	10 15	-2						
LANCHOW	61.74	293.1	10 19	-1						
HALIFAX	62.54	51.6	10 19	-7	18	46	-5		20 56	SCS
SKALSTUGAN	63.56	0.5	10 32	0						
SVERDLOVSK	63.67	333.2	10 33	0	19	6	1			
CHENGTU	65.64	288.9	10 45	-1						
CANTON	65.91	276.7	10 47	0						
HONG KONG	65.97	275.4	10 48A	0	19	18	-15		12 58	PP
PULKOVO	66.55	350.7	10 50	-2	19	30	-10			
BAGUIO CITY	66.62	266.3	10 51	-1	18	13	-88			
UPPSALA	67.25	357.6	10 54	-2	19	42	-7		39 13	PKPPKP
ABERDEEN	69.28	8.8			20	14	1		30 47	
KUNMING	70.65	286.0	11 16	-1						
BERMUDA	71.40	60.8	11 21	-1	20	37	-1		25 17	SS
COPENHAGEN	71.49	0.5	11 22	0	20	43	4		21 28	SCS
PHU-LIEN	71.61	280.2	11 49	26					15 11	
DURHAM	71.71	9.0	11 32K	9	20	44	3		14 26	PP
RATHFARNHAM	72.64	12.1	11 33K	4						
NAMANGAN	73.53	317.7	11 34	0						
LHASA	73.58	297.5	11 36	2						
WITTEVEEN	74.21	4.1	11 52	14						
WARSAW	74.74	355.0	11 42	1	21	18	2			
KEW	75.09	8.7			21	20	0			
HALLE	75.67	0.8	11 50	4					12 5	PCP

UCCLE	76.11	5.8	12	23	34						
JENA	76.24	1.1	11	49	-1					12	15
PLAUEN	76.67	0.7	11	51	-1						
DOURBES	76.82	5.7	11	53	0	21	38	-1			
LWOW	76.94	352.8	11	54	0	21	43	3			
KRAKOW	76.97	355.6	11	51	-3					12	14 PCP
PRUHONICE	77.19	359.1	11	55	0					13	11
PARIS	77.96	7.2	12	1A	2	21	56	5			
STUTTGART	78.35	2.7	12	1	0	22	1	6		22	13 SKS
STRASBOURG	78.50	3.7	12	4	2	21	59	2		26	31 SS
BRATISLAVA	78.96	357.3	12	6	1						
IASI	79.23	350.1				22	1	-3			
KISHINEV	79.28	349.2	12	3	-3	21	57	-8			
WARSAK DAM	79.50	314.0	12	6K	-2						
MAKHACH-KALA	79.77	335.2	12	10	1	22	6	-4			
NEUCHATEL	80.04	4.3	12	11	0						
SIMFEROPOL	80.60	345.1	12	15	1	22	18	-1			
CLERMONT-FD.	81.03	7.1	12	17A	1	22	29	6			
TRIESTE	81.53	359.6	12	20	2	22	27	-1			
TIFLIS	81.61	336.6	12	20	1	22	30	1			
SAN JUAN	81.69	70.6	12	19	0						
PAVIA	81.94	2.9	12	27	6						
BUCHAREST	82.13	350.7				22	42	7			
BELGRADE	82.16	354.8	12	24A	2					22	41 PPS
MONACO	83.32	4.2	12	29	1						
GORIS	83.33	334.8	12	33	5	22	53	6			
OLIFTTA	84.76	315.5	12	36K	1	22	57	-4		24	21 PPS
ISTANBUL KA.	85.11	348.0				22	58	-6			
ROME	85.28	0.5	12	40	2	22	59	-7			
TOLEDO	86.10	13.2	12	37	-5	23	7	-7			
ALICANTE	88.06	10.7	12	55	4	23	39	7			
ATHENS	88.75	351.7	12	53	-1						
GRANADA	88.82	13.4	13	5A	10	23	47	7			
MESSINA	88.95	358.2				23	43	2		16	28 PP
MALAGA	89.16	14.1	13	0	4	23	47	4		24	51 PS
ALGIERS UNI.	89.97	8.1				23	57	7		24	21
KSARA	91.13	341.3	13	5	-1	23	57	-3		16	39 PP
DJAKARTA	92.73	263.4	14	7	54					22	43
BANDUNG	92.81	262.3	12	46	-27						
HELWAN	95.79	344.2	13	5	-22	23	47	-54			
TAMANRASSET	104.05	7.3	14	17	13					18	43 PP
CAPE HALLETT	126.22	188.5	19	1	-1					27	57 SKKS
RUMANGABO	126.60	339.8	18	24	-39						
LWIRO	127.61	340.2	19	7	2					18	28
ASTRIDA	127.75	338.9	18	20	-45						
SCOTT BASE	131.80	187.3	19	7	-6					22	39 PKS
BYRD STATION	135.67	169.4	19	9	-11						
TANANARIVE	136.69	308.9	16	57	-145					17	36
MAWSON	152.49	219.3	19	55	6						
HALLEY BAY	152.79	159.4	19	55	6	26	55	2			

JUNE 9 21.H 9.M 24.S EPICENTRE 7.22 -34.31 DEPTH= 0.KM

A= 0.81956 B=-0.55921 C= 0.12492 D=-0.5636 E=-0.8260
G= 0.1032 H=-0.0704 K=-0.9922 HT= 6.8

SE= 2.55

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
MBOUR	18.45	65.9	4	19	1	7	44	2					
SAN JUAN	32.88	292.8	6	41	4						6	52	
BERMUDA	37.73	315.6									8	46	PCP
BOGOTA	39.63	268.5				13	42	3					
MALAGA	40.06	38.5	7	40	2	13	45	0			9	50	PP
GRANADA	40.84	38.6				14	7	10					
LA PAZ	40.93	234.6	7	46K	1	14	4	6			17	20	SS
TAMANRASSET	41.29	63.6	7	50A	2	14	6	3			9	26	PP
TOLEDO	42.33	35.2				14	22	3					
ALGIERS UNI.	44.95	43.6				15	5	8					
HUANCAYO	45.06	245.1	8	17	-2						10	7	PP
TALA POZO	45.29	218.5				15	1	-1					
HARVARD	48.08	323.0	8	43	0								
PALISADES	48.69	320.0	8	47	-1	15	49	-1			10	51	PP
CLERMONT-FD.	50.15	33.6				16	17	7			19	32	SS
ARERETF	51.05	325.0	9	4K	-2								

SHAWINIGAN	51.20	326.6	9	15K	8						
RATHFARNHAM	51.27	21.2	9	4A	-3					9	19
MONACO	51.48	38.1	8	42	-27						
PARIS	51.76	30.3	9	11	0	16	34	1		16	43 PS
OTTAWA	52.20	323.9	9	13	-1						
NEW	52.26	26.2	9	10	-5	16	40	1			
ROME	53.82	42.4				17	12	11		13	9
UCCLE	53.97	29.4				17	7	4		11	40 PP
DURHAM	54.16	22.7				17	12	7		21	49 SS
STRASBOURG	54.38	33.2	9	28	-2	17	6	-2		12	46 PP
MESSINA	54.49	47.7	8	55	-36						
STUTTGART	55.27	33.7	9	36	-1	17	24	4			
TRIESTE	56.34	38.8	9	45	0						
JENA	57.74	32.5	9	51	-4					10	7
PRUHONICE	58.88	34.6	10	3	0					10	36
COPENHAGEN	60.79	28.7				18	38	6		25	12 SSS
FAYETTEVILLE	61.54	307.2	10	18	-3						
KRAKOW	62.01	36.3	10	28	4						
LWIRO	63.67	96.1	10	35	0						
RUMANGABO	64.05	95.0	10	50	13						
ASTRIDA	64.64	96.3	10	43	2					11	4
ISTANBUL KA.	65.30	48.1				19	26	-3			
HELWAN	65.33	60.5	10	44	-2					11	6
SKALSTUGAN	65.37	20.9	10	45	-1						
UPPSALA	65.38	25.9	10	48	2	19	26	-4			
KIMBERLEY	67.18	125.2	10	56	-2						
KSARA	69.56	56.7	11	11	-1						
SIMFEROPOL	67.70	44.8	11	26	13	20	23	1		13	42 PP
KIRUNA	70.55	19.2	11	17	-1	20	34	2			
BOULDER	70.84	309.8	11	20	0						
SODANKYLA	72.44	20.8	11	37	7						
TUCSON TELE.	74.70	301.5	11	43	0						
TUCSON	74.80	301.4	11	46	3						
APATITY	74.95	21.6	11	54	10	21	25	2			
RESOLUTE	75.53	346.2	11	45A	-3	21	23	-5		26	4 SS
BUTTE	76.69	315.5	11	54	0						
TIFLIS	77.10	49.0	11	57	0	21	55	9			
HUNGRY HORSE	77.81	317.8	12	0	0						
BOULDER CITY	78.14	305.2	12	2	0						
EUREKA	79.02	308.7	12	7	0						
LICK	83.56	306.8	12	31	0						
SVERDLOVSK	86.71	33.3	12	51	4						
SOUTH POLE	97.18	180.0	13	33	-2					23	33
SCOTT BASE	108.56	184.6								33	32 SS
SHILLONG	118.38	56.0								20	34 PP
TOCKLAI	120.22	53.5								20	7 PP

JUNE 9 15.H 59.M 6.S EPICENTRE 52.95-167.22 DEPTH= 0.KM

A=-0.59017 B=-0.13386 C= 0.79610 D=-0.2212 E= 0.9752
G=-0.7764 H=-0.1761 K=-0.6052 HT= -6.5

SE= 1.36

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	15.50	32.1	3	43	2	6	44	10				
PETROPAVLOVK	20.42	284.2	4	44	3	8	37	12				
SHASTA	32.50	93.9	6	34	0							
TIKSI	32.92	328.4	6	37	-1							
MINERAL	33.19	93.7	6	39	-1							
HUNGRY HORSE	33.39	76.1	6	41	-1						9	23 PCP
RENO	34.77	93.3	6	55	1							
LICK	35.08	97.9	6	56	0							
RESOLUTE	35.28	26.0	6	57K	-1						9	27 PCP
BOZEMAN	36.50	78.3	7	7	-1							
FRESNO	36.56	96.9	7	10	1							
EUREKA	37.13	90.2	7	13	-1						7	40
PASADENA	39.31	98.6	7	30	-2	13	26	-8				
BOULDER CITY	40.08	93.6	7	38	0							
VLADIVOSTOK	40.73	281.4	7	43	-1							
MATUSIRO	41.01	268.9	7	46A	0	13	59	0			9	47 PCP
BOULDER	43.22	81.6	8	5	1							
CHANGCHUN	44.18	286.4	8	11	-1							
TUCSON	45.04	94.2	8	18	-1							
TUCSON TELE.	45.04	94.0	8	18	-1							

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PEKING	51.86	288.2	9 12	0	16 36	2		
ZO-SE	55.04	276.7	9 35A	0	17 21	4		
NANKING	55.79	279.3	9 41	0				
OTTAWA	56.37	57.8	9 43	-2				
SHAWINIGAN	57.06	55.1	9 47K	-3				
RPFBEUF	57.37	56.5	9 39	-13				
SEVEN FALLS	57.62	53.5	9 50	-4				
KIRUNA	59.41	356.6	10 6	0				
SODANKYLA	59.56	353.8	10 6	-1				
WESTON	60.76	57.6	10 14K	-2				
LANCHOW	61.60	293.0	10 22A	1				
SVERDLOVSK	63.78	333.0	10 36	0				
SKALSTUGAN	63.81	0.2	10 35K	-1				11 12 PCP
CHENGTU	65.47	288.7	10 47A	0	19 34	3		
HELSINKI	66.81	353.4	10 56	1				
UPPSALA	67.49	357.4	10 59	-1				
MOSCOW	69.77	345.3	11 12	-2				
KUNMING	70.47	285.8	11 19	1	20 33	2		
FRUNSE	70.76	316.7	11 21	1				
LHASA	73.47	297.2	11 38	2				
NAMANGAN	73.54	317.5	11 38	2				
HALLE	75.93	0.5	11 51	1				
COLLMBERG	76.13	359.9	11 52	1				
SHILLONG	76.21	294.1	11 51	-1				
JENA	76.49	0.8	11 54	1				
PRUHONICE	77.44	358.8	11 58	0				
CHATRA	77.77	298.3	12 1	1				
STUTTGART	78.62	2.4	12 5	0				
WARSAK DAM	79.49	313.7	12 9	-1				
LAHORE	80.31	310.4	12 15	1				
NFUCHATEL	80.31	4.0	12 15	1				
SIMFEROPOL	80.78	344.8	12 17	1				
TIFLIS	81.74	336.4	12 24	2				
TRIESTE	81.78	359.3	12 23	1				
SAN JUAN	82.02	70.2	12 23	0				
QUETTA	84.75	315.2	12 38A	1	23 4	-1		15 54
BYRD STATION	135.47	169.4	19 14	-8				
SOUTH POLE	142.76	180.0	19 30	-5				
MAWSON	152.13	219.0	20 6	16				
HALLEY BAY	152.65	159.7	19 55	4				24 0 PP
KIMBERLEY	154.25	335.1	19 55	2				

JUNE 10 0.H 10.M 30.S EPICENTRE 52.95-167.25 DEPTH= 0.KM

A=-0.59018 B=-0.13359 C= 0.79614 D=-0.2208 E= 0.9753
G=-0.7765 H=-0.1758 K=-0.6051 HT= -6.5

SE= 2.01

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	15.51	32.1	3 43	2	6 44	10		
SITKA	18.67	64.6	4 32	11				
PETROPAVLOVK	20.40	284.2	4 40	-1	8 24	-1		
MAGADAN	23.89	302.8						8 43
CORVALLIS	29.74	88.4	6 14	4				
SHASTA	32.51	93.8	6 33	-1				
TIKSI	32.91	328.4	6 38	0				
MINERAL	33.20	93.7	6 39	-1				
HUNGRY HORSE	33.40	76.0	6 41	-1				9 21 PCP
YAKUTSK	33.75	310.8	7 0	15				
RENO	34.78	93.3	6 52	-2				
LICK	35.09	97.8	6 55	-1				
RESOLUTE	35.29	26.0	6 57	-1	12 34	2		
BUTTE	35.43	78.7	7 2	3				
BOZEMAN	36.52	78.3	7 8	-1				7 40
FRESNO	36.57	96.9	7 9	0				
EUREKA	37.14	90.2	7 12	-2				
SALT LAKE C.	38.84	85.4	7 31	3				9 19 PP
PASADENA	39.32	98.6	7 34	2	13 33	-1		
BOULDER CITY	40.09	93.6	7 42	4				
VLADIVOSTOK	40.71	281.3	7 42	-2				
MATUSIRO	40.99	268.8	7 45A	-1				
LARAMIE	42.28	80.3	7 26	-30				
BOULDER	43.23	81.6	8 3	-1				
ULAN-BATOR	51.79	301.4	9 11	0				

PEKING	51.84	288.2	10	11	59	16	34	0			
70-SE	55.02	276.7	9	35A	0	17	21	4			
OTTAWA	56.38	57.8	9	47	2						
SHAWINIGAN	57.08	55.1	9	51	1						
BREBEUF	57.38	56.4	9	49K	-3						
SEVEN FALLS	57.63	53.5	9	54	0						
KIRUNA	59.41	356.6	10	5	-1						
SODANKYLA	59.55	353.8	10	6	-1						
PALISADES	60.41	60.3				18	23	-4		22	37 SS
WESTON	60.77	57.6	10	13K	-3						
LANCHOW	61.58	292.9	10	21A	0	18	28	-14			
SVERDLOVSK	63.77	333.0	9	35	-61						
SKALSTUGAN	63.81	0.2	10	30	-6						
CHENGTU	65.46	288.7	10	46A	-1						
PULKOVO	66.75	350.4	10	53	-2	19	45	-1			
HELSINKI	66.81	353.4	10	54	-1						
MOSCOW	69.76	345.3	11	16	2						
KUNMING	70.46	285.7	11	17A	-1						
FRUNSE	70.75	316.7	11	20	0						
BERMUDA	71.77	60.4				20	42	-4		25	6 SS
DURHAM	71.99	8.7	11	31	4						
LHASA	73.45	297.2	11	37	1						
NAMANGAN	73.53	317.5	11	37	1						
KEW	75.38	8.4	11	47	0						
HALLE	75.92	0.5	11	50	0					12	36
SHILLONG	76.20	294.0	10	49A	-62						
JENA	76.49	0.8	11	53	0						
PLAUEN	76.93	0.4	11	56	1						
DOURBES	77.10	5.4	11	56	0						
LWOW	77.15	352.5	11	58	1						
PRUHONICE	77.44	358.8	12	2	4					12	44
SKALNATE PL.	78.05	355.0	12	3	1					14	30
PARIS	78.24	6.9	12	4	1					12	12 PCP
STUTTGART	78.61	2.4	12	5	0						
STRASBOURG	78.76	3.4	12	0	-6						
CHITTAGONG	78.76	292.1	12	7	1	22	7	4			
KISHINEV	79.47	348.9	11	57	-12						
WARSAK DAM	79.47	313.7	12	7	-2						
LAHORE	80.29	310.4	12	16	2						
SIMFEROPOL	80.77	344.8	12	16	0						
TIFLIS	81.73	336.3	12	23	2	20	41	-113			
TRIESTE	81.78	359.3	12	22	0						
SAN JUAN	82.03	70.2	12	22	-1						
QUETTA	84.74	315.2	12	37	0	23	3	-1			
KSARA	91.27	340.9	12	56	-12						
BYRD STATION	135.47	169.4	19	31	9						
SOUTH POLE	142.76	180.0	19	29	-6						
HALLEY BAY	152.66	159.7	19	55	4					24	1 PP

JUNE 10 4.H 0.M 5.S EPICENTRE -30.42-177.50 DEPTH= 0.KM

A=-0.86299 P=-0.03771 C=-0.50380 D=-0.0437 E= 0.9990
G= 0.5033 H= 0.0220 K=-0.8638 HT= 1.7

SE= 3.08

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ONERAHI	8.66	229.8	2	13	3								
WELLINGTON	12.51	207.9	3	12	9	5	6	-18					
SUVA	12.77	342.2	3	9	3	5	36	6					
KAIMATA	14.99	213.3				6	7	-16					
GEBBIES PASS	15.39	207.9	3	39	-1	6	11	-27					
NOUMEA	16.49	295.6	4	7	12						4	39	
APIA	17.36	18.9	4	1	-5	7	4	-14			4	42	
BRISBANE	25.92	269.1	5	36	0	10	26	21					
RIVERVIEW	26.72	254.4	5	40K	-3	10	24	6					
MELBOURNE	31.78	246.4	6	26A	-2								
CHARTERS TS.	34.26	279.0	6	48A	-2	12	15	-2					
PORT MORESBY	39.02	294.9	7	28	-2	13	40	10			16	38	SS
CAPE HALLETT	42.45	185.5	8	1K	3								
SCOTT BASE	48.05	184.4	8	44	1								
BYRD STATION	54.83	169.6	9	33	-1						11	32	
OASIS-BUNG.	59.30	207.9	10	2	-4								
SOUTH POLE	59.75	180.0	10	8	-1	18	31	11			39	24	PKPPKP
MAWSON	72.44	200.5	11	28	-2								
HALLEY BAY	72.68	172.6	11	31	-1	21	21	24					

LEMBANG	73.55	271.7	11	34	-3					
MATUSIRO	78.51	325.0	12	3K	-2	21	58	-3	27 1	SS
PASADENA	85.19	45.7	12	38	-2	23	15	6		
LICK	85.29	41.4	12	42	2					
FRESNO	85.96	42.9	12	45	1					
VLADIVOSTOK	86.66	325.5	12	42	-5					
SHASTA	87.22	38.6	12	51	1					
MINERAL	87.41	39.3	12	52	1					
RENO	87.84	40.8	12	54	1					
BOULDER CITY	88.45	46.1	12	56	0					
TUCSON	88.72	51.1	12	59	2					
TUCSON TELE.	88.85	51.1	13	0	2					
EUREKA	90.02	42.9	13	3	0				30 17	PKKP
TACUBAYA	90.06	67.6	13	20	17					
HUANCAYO	94.22	106.5	13	34	12					
COLLEGE	97.76	12.3	13	37	-2				14 4	
RESOLUTE	117.13	17.2	18	45K	-3	28	11	151	29 55	PS
OTTAWA	118.80	51.9	18	50	-1					
PALISADES	118.88	57.1							30 2	PS
BREBEUF	120.26	52.2	19	7	13					
NAMANGAN	124.17	301.2	19	0	-1					
QUETTA	125.07	287.3	19	2	-1					
SVERDLOVSK	132.19	320.9							22 39	
ASTRIDA	138.13	223.2	19	28	1					
LWIRO	138.95	222.4	19	30	1				23 11	
KIRUNA	141.08	349.3	19	25	-8					
MOSCOW	144.60	325.8	19	33	-6					
PULKOVO	145.20	335.6	19	37	-3					
SKALSTUGAN	146.24	352.1	19	40	-2				23 32	PKS
HELSINKI	146.66	339.7	19	43	1					
UPPSALA	148.85	345.2	19	45	-1					
SIMFEROPOL	151.29	309.2	19	59	9					
KSARA	151.60	285.6	19	54	4					
JERUSALEM	152.01	281.3	19	55	4					
WARSAW	154.29	333.2	19	58	4					
LWOW	154.73	326.2	19	53	-1					
DURHAM	155.49	5.7	20	9	14					
MBOUR	156.00	127.4	20	41	45					
RATHFARNHAM	156.26	13.2	21	29	92				22 58	
KRAKOW	156.41	331.2	20	49	52				22 15	
COLLMBERG	157.73	342.4	19	58	0				20 30	
JENA	158.42	344.2	19	58	-1				20 29	
PRUHONICE	158.46	338.5	20	36	37				21 11	
PLAUEN	158.68	342.9	19	58	-2				20 33	
KEW	158.87	4.9							20 35	PKP2
DOURBES	160.28	356.0	20	41	40					
STUTTGART	160.98	346.3	20	1	-1				20 43	
STRASBOURG	161.42	349.0	20	8	5				20 47	PKP2
PARIS	161.63	0.0	20	21	18					
TRIESTE	162.43	333.0	20	1	-3					
MONACO	166.15	344.9	21	7	60					
TAMANRASSET	171.93	200.2	20	11	0				21 27	PKP2

JUNE 10 4.H 53.M 40.S EPICENTRE 27.74 139.87 DEPTH= 495.KM

DEPTH OF FOCUS= 0.073R

A=-0.67767 B= 0.57130 C= 0.46301 D= 0.6446 E= 0.7646
G=-0.3540 H= 0.2984 K=-0.8864 HT= 2.5

SE= 1.70

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
TORISIMA	2.76	7.8	1	8	-1	1	59	-5				
HATIDYOZIMA	5.34	359.7	2	39	69							
OMAESAKI	6.98	348.7	2	0	14	3	36	25				
OSIMA	7.02	356.7	1	51	5	3	8	-4				
OWASE	7.05	334.4	1	48	1	3	16	3				
MERA	7.16	359.7	1	50	2							
SHIZUOKA	7.32	350.5				3	9	-7				
MISIMA	7.40	354.1	1	49	-2	3	18	-1				
TU	7.53	338.5	1	52	0							
WAKAYAMA	7.62	329.2	1	56	3	3	29	6				
KAMEYAMA	7.66	338.5	1	55A	2	3	29	5				
TOKUSIMA	7.77	325.6	1	58	3	3	31	5				

HUNATU	7.79	353.4	1	54	-1	3	28	2			
NAGOYA	7.81	342.2	1	56	1	3	32	5			
OSAKA	7.82	332.7	1	56	1	3	32	5			
SUMOTO	7.85	328.2	1	50	-5	3	30	2			
TOKYO C.M.O.	7.92	359.3	1	59	3	3	25	-4			
IIDA	7.95	347.9	1	55	-1	3	32	3			
KOBE	8.00	331.0	1	57	0	3	35	5			
KOBE	8.00	331.0	1	55	-2	3	31	1			
TYOSI	8.00	5.8									3 14
ABUYAMA	8.00	333.7	1	58A	1	3	34	4			
GIHU	8.08	341.7	1	58	0	3	32	0			
HIKONE	8.12	338.5	1	56	-2	3	27	-6			
TAKAMATU	8.24	324.2	2	2	2	3	40	5			
KUMAGAYA	8.39	357.3	2	1	0	3	36	-2			
MIYAZAKI	8.44	301.6	2	4	2	3	46	7			
KAKIOKA	8.47	1.7	2	0	-2	3	36	-3			
TSURUGA	8.52	338.7	2	4	1	3	45	5			
MAIZURU	8.57	335.2	2	5	2	3	45	4			
MATUYAMA	8.62	316.5	1	56	-8	3	41	-1			
YAKUSIMA	8.63	290.5	2	4	0	3	45	3			
MITO	8.63	3.2	2	2	-2	3	40	-2			
MATUMOTO	8.64	349.7	2	3	-1	3	44	2			
OIWAKE	8.64	352.9	2	4	0	3	48	6			
MAEBASI	8.66	355.7	2	4	0	3	47	4			
UTUNOMIYA	8.78	0.0	2	4	-1	3	41	-4			2 47
TOYOOKA	8.88	332.3	2	4	-2	3	49	2			
MATUSIRO	8.89	351.4	2	4	-2	3	37	-10			13 55 SCS
OOITA	8.97	309.6	2	9K	2	3	56	7			
NAGANO	9.01	351.4	2	7	-1	3	50	0			
HIROSIMA	9.18	317.9				3	58	5			
TOYAMA	9.21	346.5	2	8	-2						
ONAHAMA	9.22	5.2	2	6	-4						2 45
SHIRAKAWA	9.36	1.7	2	10	-1	3	54	-2			
TAKADA	9.43	352.1				3	50	-8			
MATSUE	9.62	324.7				4	4	3			
HAMADA	9.76	318.9	2	16	0	4	8	4			
SAGA	9.91	306.0	2	20	3	4	14	7			
WAZIMA	9.93	346.2	2	18	1	4	8	1			
NAGASAKI	9.97	302.3	2	17	-1						
HUKUSIMA	9.99	2.8	2	18A	0	4	10	1			
HUKUOKA	10.00	307.9	2	19	1	4	14	5			
NIIGATA	10.17	356.3				3	40	-32			
YAMAGATA	10.49	2.1	2	24	1	4	18	0			
SENDAI	10.54	4.4	2	23A	-1	4	18	-1			
SAKATA	11.13	359.8	2	32	2	4	36	5			
MIZUSAWA	11.41	5.0	2	34	1	4	40	4			
AKITA	11.95	0.9	2	39	0	4	50	4			
MORIOKA	11.98	4.8	2	39A	0	4	48	1			
MIYAKO	12.01	7.8	2	39	0	4	50	2			
AOMORI	13.07	3.1	2	52	2	5	15	7			
HAKODATE	14.02	2.6	3	0A	0	5	31	5			
MORI	14.34	2.1	3	7	4	5	39	7			
URAKAWA	14.57	8.6	3	8	2	5	41	5			6 0
TOMAKOMAI	14.81	5.0				5	51	10			
SUTTSU	15.03	1.0				5	49	4			
SAPPORO	15.34	4.1	3	14	0	5	54	4			
OBIHIRO	15.39	9.3	3	14	0	5	59	8			6 25
KUSIRO	15.64	12.4				6	39	43			
ASAHIGAWA	16.13	6.5				6	16	11			
NEMURO	16.23	15.1				5	57	-9			
ZO-SE	16.62	286.1	3	25	-1	6	15	1			
VLADIVOSTOK	16.65	339.3	3	28	1	6	20	6			
NANKING	18.76	288.3	3	47K	0	6	54	3			5 51 *SP
CHANGCHUN	19.88	327.7	3	58K	0	7	20	10			6 6 *SP
BAGUIO CITY	21.10	241.7	4	9	0	7	39	9			
PEKING	23.10	308.1	4	26	-2	8	7	4			6 41 *SP
HONG KONG	23.89	262.6	4	34	-1	8	33	17			
CANTON	24.44	265.0	4	43	3						
CHENGTU	31.36	284.1	5	39	-1	10	10	-2			
LANCHOW	31.57	294.4	5	42K	0						
KUNMING	33.34	274.0	5	56K	-1	10	42	-1			
LHASA	42.62	284.6	7	15K	2	13	2	2	7	33	
SHILLONG	42.74	278.5	7	12K	-2						
CHITTAGONG	43.64	274.0	7	54	33						
TIKSI	44.36	355.0	7	26	0	13	24	0			
MEDAN	46.02	246.0	7	38K	-1						8 59
LEMBANG	46.40	227.0	7	41K	-1						
CHATRA	46.54	281.7	7	44	1						

CHARTERS TS.	47.87	171.9	7	51K	-2						9	12
SEMIPALATNSK	50.01	313.9	8	9	0							
DEHRA DUN	53.52	288.6	8	37	2							
FRUNSE	54.11	304.5	8	39	0							
LAHORE	56.33	291.0	8	53	-2							
NAMANGAN	56.52	302.6	8	57	1	16	11	2				
COLLEGE	57.75	28.8	9	2	-2				10	39		
WARSAK DAM	58.01	294.5	9	6K	0							
SVERDLOVSK	61.46	322.1	9	26	-3	17	13	2				
QUETTA	62.80	291.5	9	38K	0						11	55 PP
KARACHI	64.12	286.9	9	50K	5							
RESOLUTE	71.92	13.2	10	32A	-1				11	55		
MOSCOW	74.01	324.9	10	45	0	19	35	-2				
KIRUNA	74.75	340.0	10	49K	0	19	44	-1				
PULKOVO	75.56	330.5				19	52	-2				
CORVALLIS	75.61	47.1	10	56	2							
HELSINKI	77.62	332.3	11	4	-1							
SHASTA	77.88	50.4	11	6A	-1				12	53		
MINERAL	78.57	50.5	11	10	0				12	50		
BERKELEY	79.22	52.9	11	14	0				12	52		
HUNGRY HORSE	79.57	40.7	11	16	1				12	59		
LICK	79.90	53.5	11	17A	0				13	2		
SKALSTUGAN	80.08	338.9	11	17K	-1							
RENO	80.17	50.5	11	18A	-1				13	1		
UPPSALA	80.73	334.4				20	43	-5				
SIMFEROPOL	81.07	316.2	11	23	0							
FRESNO	81.47	53.0	11	26	1				13	7		
BUTTE	81.62	42.2	11	27	1				13	12		
BOZEMAN	82.71	41.9	11	33	1				13	16		
EUREKA	82.80	49.1	11	31	-1				13	13		
PASADENA	83.89	54.7	11	37	0							
SALT LAKE C.	84.84	46.4	11	43	1				13	27		
BOULDER CITY	85.35	51.7	11	45	0				13	30		
KRAKOW	86.06	325.9	11	46	-2				12	31	15	14 PP
COLLMBERG	88.48	329.8	11	58	-1							
PRUHONICE	88.69	328.2	11	59	-1							
BOULDER	89.38	44.2	12	4	0							
TUCSON	90.14	53.1	12	8	1				13	58		
TUCSON TELE.	90.16	53.0	12	8	1				13	58		
STRASBOURG	92.78	330.4	12	19	0							
TAMANRASSET	113.18	314.1	17	42	2						18	37 PP
SOUTH POLE	117.58	180.0	17	47	-1						19	9 PP
BYRD STATION	118.97	168.7	17	51	0				20	29	19	51 SKP
HUANCAYO	143.57	71.7	18	37	-1				20	26	21	32 SKP

JUNE 10 7.H 4.M 2.S EPICENTRE 30.27 51.11 DEPTH= 0.KM

A= 0.54317 B= 0.67337 C= 0.50154 D= 0.7783 E=-0.6278
G= 0.3149 H= 0.3904 K=-0.8651 HT= 1.7

SE= 2.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
GORIS	10.01	338.2	2	32	4							
TIFLIS	12.51	337.7	3	5	3	5	33	9				
MAKHACH-KALA	13.00	348.1	3	12	3							
KSARA	13.39	289.3	3	18	4	5	47	2			3	30 PP
QUETTA	13.70	86.4	3	18	0	5	54	2				
JERUSALEM	13.71	280.4	3	18	0						4	25
KARACHI	14.74	103.6	3	44	12							
SOTCHI	16.08	328.8	3	53	4	6	59	10				
HELWAN	17.13	273.6	4	3	0						4	48
WARSAK DAM	17.70	72.6	4	9	-1							
NAMANGAN	19.79	51.7	4	35	0							
SIMFEROPOL	19.84	322.3	4	34	-1							
LAHORE	19.96	80.4	4	34	-3	8	19	2				
ISTANBUL KA.	20.84	307.1	4	44	-2	8	31	-4				
FRUNSE	22.58	49.7	5	6	2	9	12	5				
BOMBAY	22.71	114.9	5	6	1	9	8	-2			9	54 SS
DEHRA DUN	23.25	83.0	5	15	5	9	26	7			10	27 SS
AGRA	23.79	90.9	5	14A	-1	9	29	0				
ATHENS	23.88	296.1	5	19A	3							
KISHINEV	24.01	320.4	5	17	0	9	33	1				
FOCSANI	24.21	316.2	5	28	9							
BACAU	24.85	317.7	5	33	7							
MOSCOW	27.19	343.2	5	47	0							

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SVERDLOVSK	27.38	11.4	5	52	3								
LWOW	28.24	321.4	5	58	1						11	2	
SEMIPALATNSK	29.66	39.0	6	12	2						11	13	
KRAKOW	30.62	319.1	6	16	-2						7	18	PP
BRATISLAVA	31.50	314.2	6	6	-20								
CHATRA	31.78	87.2	6	27	-1	12	2	24					
PULKOVO	32.66	340.6	6	35	-1								
TRIESTE	32.88	308.4	6	38	0								
PRUHONICE	33.73	316.2	6	46	0						8	4	PP
HOWRAH	34.09	94.0									14	57	
LHASA	34.48	80.8	6	53	1	12	23	3					
HELSINKI	34.65	337.2	6	52	-1								
PLAUEN	35.36	316.1	6	58	-1								
POTSDAM	35.52	319.4	6	59	-2								
JENA	35.84	316.5	7	0	-4								
SHILLONG	36.18	87.3	7	2A	-4								
STUTTGART	36.67	312.3	7	9	-2								
ZURICH	36.75	309.8	7	11	0								
UPPSALA	37.14	332.5	7	12	-2								
COPENHAGEN	37.25	324.2	7	15	0	13	10	7					
STRASBOURG	37.55	311.6	7	16	-2	13	4	-4			16	8	SS
RUMANGABO	37.66	217.4	7	33	14						7	59	
ASTRIDA	38.54	215.8	7	27	1						9	55	PCP
LWIRO	38.72	217.3	7	30	2								
APATITY	38.77	349.3	7	27	-1	13	23	-3					
SODANKYLA	39.90	345.5	7	42	4								
TAMANRASSET	41.25	270.8	7	46	-3						9	25	PP
SKALSTUGAN	41.40	334.9	7	49	-1								
KIRUNA	41.72	343.1	7	51	-2	14	14	4			9	26	PP
KEW	43.22	314.4	8	5	0								
LANCHOW	44.06	67.9	8	12	0								
KUNMING	45.66	83.5	8	24	0	15	9	1					
RATHFARNHAM	47.08	316.3	8	34K	-2						10	14	PP
TANANARIVE	49.02	184.5	8	50	-1								
NANKING	57.06	69.4	9	49	-2								
TIKSI	57.74	21.5	9	54	-1	17	54	1					
CHANGCHUN	58.90	54.4	10	2	-1								
PRETORIA	59.88	204.0	10	14	4								
VLADIVOSTOK	63.71	53.7	10	33	-3								
MBOUR	64.10	272.0	10	37	-2								
MAGADAN	69.06	32.5	10	38	-32								
MATUSIRO	70.58	58.5	11	17A	-2								
RESOLUTE	72.98	351.1	11	32A	-2	21	5	5			25	28	SS
COLLEGE	84.03	8.0	12	34	0								
SEVEN FALLS	86.92	324.5	12	46K	-2								
SHAWINIGAN	88.27	325.0	12	53A	-2								
BREBEUF	89.43	324.7	13	0K	0								
OTTAWA	90.54	325.7	13	5K	-1								
HUNGRY HORSE	100.61	350.0	13	50	-2								
EUREKA	109.57	349.4	14	28	777								
HALLEY BAY	116.04	195.9	18	44	-1	25	26	-10					
SOUTH POLE	120.10	180.0	18	53	0						20	15	PP
CAPE HALLETT	127.34	160.4									33	1	PKPPKP
HUANCAYO	127.35	278.1	19	10	3								
BYRD STATION	130.00	182.1	19	11	-1						22	32	

JUNE 10 8.H 28.M 51.S EPICENTRE 41.00 19.42 DEPTH= 0.KM

A= 0.71378 B= 0.25169 C= 0.65358 D= 0.3326 E=-0.9431
G= 0.6164 H= 0.2174 K=-0.7569 HT= -2.1

SE= 4.85

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TARANTO	1.74	252.8	0	23	-8	0	59	4					
SKOPJE	1.78	56.0	0	23A	-9						0	53	
SOFIA	3.37	58.6	0	51	-4						1	47	SG
BELGRADE	3.89	10.8	1	1A	-1						1	12	PG
MESSINA	4.10	228.2	1	9	4	2	8	13			1	18	P*
REGGIO CALA.	4.11	226.4	1	7	2	2	16	21			2	54	
ATHENS	4.50	131.0									1	31	PG
TIMISOARA	4.92	14.8	1	6	-11	2	17	2			1	46	
SZEGED	5.27	5.3	1	40	18	2	40	16			2	18	
ROME	5.29	282.0	1	48	26	2	31	6					
ZAGREB	5.43	333.6	1	18A	-6						2	50	SG

KALOCSA	5.53	356.8	1	35	10	2	31	0	2 56	SG
CAMPULUNG	5.92	42.0	1	56	25				3 29	
BUCHAREST	5.99	53.0	1	45	13	2	50	8	3 13	S*
TRIESTE	6.22	320.2	1	27	-8	2	34	-14	1 50	PG
BUDAPEST	6.48	357.9							2 14	PG
PRATO	6.79	297.8	2	1	18	3	26	24		
ISTANBUL KA.	7.29	86.3	1	49	-1				3 48	SG
BRATISLAVA	7.35	347.8	1	52	1	3	14	-2	2 24	PG
FOCSANI	7.36	47.8							3 15	S*
SKALNATE PL.	8.20	3.8	2	0	-3	3	33	-4	4 24	SG
IASI	8.52	40.7	2	15	8				4 58	
PAVIA	8.58	302.5							3 39	
KRAKOW	9.05	2.1	2	12	-3	4	13	14	5 16	
KISHINEV	9.06	45.3							3 25	
RACIBORZ	9.12	355.0	2	13	-3	4	21	21	5 9	
CHUR	9.22	312.6	2	3	-14	3	53	-10		
MONACO	9.29	291.0	2	24	6					
PRUHONICE	9.60	340.8	2	21	-1					
RAVENSBURG	9.75	317.3				6	7	111	5 25	
ZURICH	10.05	312.9	2	41	13				4 26	
EBINGEN	10.34	317.4	2	33	1	6	9	99	4 33	
TUBINGEN	10.52	319.1	2	32	-3	5	56	81	6 30	
STUTTGART	10.62	320.4	2	31	-5	5	55	78	4 46	
PLAUEN	10.76	334.3	3	3	25	6	22	101	5 15	
NEUCHATEL	10.80	307.9	2	40	1	6	23	102	4 25	
KARLSRUHE	11.16	319.5	2	47	3	6	13	83	6 53	SS
STRASBOURG	11.21	316.4	2	50	6	6	3	71	6 44	
JENA	11.32	333.9	2	49	3	5	17	23	3 56	PG
SIMFEROPOL	11.46	65.0	2	57	9				6 4	
HALLE	11.70	336.4				5	12	9	5 43	
POTSDAM	12.18	341.2				6	18	63	7 29	
BENSBERG	13.09	323.6	3	55	45	6	39	62		
PARIS	14.29	308.8	3	15	-10				4 3	
HELWAN	14.73	135.2	3	27	-4	6	18	2		
KEW	17.15	314.2	4	9	7					
UPPSALA	18.90	357.2	4	18	-6					
MOSCOW	18.97	32.9	4	22	-3					
HELSINKI	19.50	8.3	4	27	-4					
RATHFARNHAM	21.24	314.1	3	40	-70					
ABERDEEN	21.31	326.6							13 39	
TAMANRASSET	21.62	217.0	4	55	2				6 4	PP
SKALSTUGAN	23.00	351.8	5	2	-5					
KIRUNA	26.89	0.8	5	56	12					
SVERDLOVSK	30.80	45.0	6	15	-4					
RESOLUTE	56.83	343.2	9	45	-3					
COLLEGE	73.99	354.4	11	35	-4					
HUNGRY HORSE	81.97	330.7	12	21	-2					

JUNE 12 11.H 54.M 17.S EPICENTRE 7.68 -84.46 DEPTH= 83.KM

DEPTH OF FOCUS= 0.008R

A= 0.09574 B=-0.98651 C= 0.13276 D=-0.9953 E=-0.0966
G= 0.0128 H=-0.1321 K=-0.9911 HT= 6.8

SE= 3.92

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BALBOA HTS.	5.01	75.0	1	6	-8	2	26	15					
SANTIAGO MA.	6.99	326.0	1	37	-5	2	55	-5					
SAN SALVADOR	7.62	322.4	1	45	-5						2	6	
CHINCHINA	9.19	106.5	2	4	-8	3	54	0					
GALERAZAMBA	9.58	70.5				4	25	21					
BOGOTA	10.76	105.8	2	29	-4	4	33	1					
MERIDA	14.10	339.8	3	13	-4	5	59	7			5	4	
OAXACA	15.18	308.8	3	33	2						7	21	
VERA CRUZ	16.11	316.4	3	43	0						8	47	
TACUBAYA	18.45	310.6	4	8	-3	7	23	-8			4	31	PPP
SAN JUAN	20.77	57.4	4	33	-3								
HUANCAYO	21.60	155.1	4	41A	-3	8	41	8					
GRENADA	22.80	77.2	4	54	-2								
ST. VINCENT	23.44	74.6	5	1	-1								
ST. LUCIA	23.87	72.7	5	1	-5								
FORT FRANCE	23.90	70.9	5	5	-2	9	36	22					
COLUMBIA	26.38	6.4	5	28	-2						6	14	
CHAPEL HILL	28.54	9.2	5	43	-7								

LA PAZ	28.95	146.1	5	50	-3	10	53	16			27 SSS
FAYETTEVILLE	29.64	343.9	5	56K	-4						
LUBBOCK	30.38	330.4	6	1	-5	10	51	-8			
BERMUDA	30.69	34.1				11	14	10			
MORGANTOWN	32.07	6.6	6	19A	-2						
PALISADES	34.49	14.2	6	40	-2	12	8	5		14	20 SS
TUCSON TELE.	34.60	318.7	6	41	-2						
TUCSON	34.62	318.5	6	41	-2					8	0 PP
WESTON	36.45	16.5	6	57K	-1						
HARVARD	36.51	16.1	6	58	-1						
BOULDER	37.22	333.2	7	3	-2						
OTTAWA	38.33	9.9	7	11K	-3						
LARAMIE	38.39	334.1	7	13	-2						
BREBEUF	38.83	12.2	7	16K	-2						
BOULDER CITY	39.53	319.9	7	23	-1						
RAPID CITY	39.78	338.8	7	24	-2				9	0	
SHAWINIGAN	40.01	12.6	7	25	-3						
PASADENA	40.72	315.1	7	33	-1	13	51	13		9	23 PP
SEVEN FALLS	40.99	14.2	7	32K	-4						
SALT LAKE C.	41.00	327.8	7	35	-1					8	14
HALIFAX	41.03	22.8								16	54 SS
EUREKA	42.44	323.2	7	48	0						
FRESNO	43.25	317.3	7	53	-2						
LICK	44.80	316.9	8	9K	2						
RENO	44.82	320.6	8	5	-2						
BUTTE	45.22	332.4	8	8	-2						
BERKELEY	45.50	317.1	8	17K	4	14	59	12		8	58
MINERAL	46.41	320.4	8	19A	-1						
SHASTA	47.11	320.4	8	25	0						
HUNGRY HORSE	47.63	333.5	8	28	-1						
CORVALLIS	49.87	324.1	8	46	-1						
BANFF	50.39	335.0	8	46A	-5						
SEATTLE	51.17	327.8	8	48	-9						
VICTORIA	52.30	328.1	9	2A	-3						
HORSESHOE B.	52.76	329.0	9	6	-3						
RESOLUTE	67.22	357.0	10	44	-3	19	39	5		23	53 SS
COLLEGE	71.95	336.3	11	7	-9						
RATHFARNHAM	76.82	37.1	11	55	11						
GRANADA	78.13	53.7	12	20A	28	21	43	5			
PARIS	82.27	41.8	12	22	8						
STRASBOURG	85.77	41.7	12	40	9					12	51
STUTTGART	86.69	41.4	12	31	-5					12	54
TAMANRASSET	87.05	67.5	12	36	-1					15	57 PP
COPENHAGEN	87.60	34.2				23	23	10		24	11 PS
JENA	87.89	39.0	12	46	5						
HALLE	88.02	38.4	12	53	11					13	19
KIRUNA	88.50	21.5	12	49	5	23	21	0			
BYRD STATION	89.38	185.8	12	47	-1						
UPPSALA	89.44	29.6	12	48	-1						
HALLEY BAY	89.76	167.7	12	46	-4					13	8 SS
PRUHONICE	89.93	39.6	12	59	8						
SOUTH POLE	97.63	180.0	13	23	-3						
MATUSIRO	120.53	320.7								30	4 PS
QUETTA	133.41	34.8	19	5	-2						
CHATRA	144.75	13.0	19	26	-1						
HONG KONG	145.06	328.9	19	36	8						
SHILLONG	146.76	6.1	19	32	1						

JUNE 12 20.H 53.M 1.S EPICENTRE 52.98-166.97 DEPTH= 0.KM

A=-0.58909 B=-0.13629 C= 0.79649 D=-0.2254 E= 0.9743
G=-0.7760 H=-0.1795 K=-0.6047 HT= -6.5

SE= 2.81

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	15.39	31.9	3	37	-1	6	41	12					
SITKA	18.50	64.7	4	19	1								
KLYUCHI	18.86	293.1	4	20A	-2						8	42	PCP
PETROPAVLOVK	20.55	284.3	4	38A	-3						8	53	SS
MAGADAN	24.01	302.7	5	15	0						8	38	
ALBERNI	26.43	80.9	5	40	2								
HORSESHOE B.	27.31	79.8	5	49	3	10	34	11					
VICTORIA	27.59	81.6	5	48	-1	10	37	9					
SEATTLE	28.65	82.5	6	2	4								

CORVALLIS	29.58	88.7	6	6	-1				
KURILSK	30.13	273.5	6	11	-1				
BANFF	31.11	72.3	6	18K	-2				
KIPAPA	32.25	164.2	6	0	-30			7	3
SHASTA	32.35	94.1	6	30	-1			13	3
Y.-SAKHLINSK	32.35	279.9	6	29	-2	11	52 9		
HONOLULU	32.36	164.4	6	26	-5	11	23 -20		
NEMURO	32.54	272.2	6	30	-3				
UKIAH	32.83	97.1	6	35	0				
TIKSI	32.97	328.4	6	34	-2			13	5 PCS
MINERAL	33.04	94.0	6	35A	-2				
HUNGRY HORSE	33.23	76.2	6	38	-1			9	20 PCP
KUSIRO	33.45	272.5	6	29	-12	11	43 -18		
WAKKANAI	33.76	278.2	6	26	-17				
OBIHIRO	34.21	273.3	6	51	4				
BERKELEY	34.21	98.0	6	48A	1	12	16 4	24	43 SS
RENO	34.62	93.6	6	49	-2				
HAWAII V.OB.	34.70	160.4	6	46	-5	12	3 -17		
URAKAWA	34.91	272.6	6	49	-4	12	27 4		
LICK	34.93	98.1	6	55A	2				
RESOLUTE	35.18	26.0	6	53	-3	12	29 2	9	23 PCP
SAPPORO	35.24	274.9	6	53	-3	12	22 -6	16	37
BUTTE	35.26	79.0	7	1	5			9	29 PCP
SASKATOON	35.75	66.5				12	36 0		
MORI	36.27	274.1	7	5	0	12	59 15	17	24
HAKODATE	36.37	273.6	7	3	-3				
FRESNO	36.41	97.2	7	6A	0				
AOMORI	36.91	272.3	7	9	-1				
EUREKA	36.98	90.5	7	10	-1			13	42 SCP
MORIOKA	37.36	270.5	7	15	1				
MIZUSAWA	37.74	269.8	7	22	5	13	11 4		
AKITA	37.99	271.4	7	14	-5	13	14 4		
SENDAI	38.42	268.9	7	42	19				
SALT LAKE C.	38.67	85.6	7	24	-1				
YAMAGATA	38.77	269.3	7	25	-1				
PASADENA	39.16	98.9	7	28	-1	13	17 -11		
ONAHAMA	39.28	267.3	7	42	12	13	33 3	17	22
SHIRAKAWA	39.58	268.1	7	33	1	13	21 -13		
NIIGATA	39.77	270.0	7	24	-10	13	41 4		
MITO	39.91	267.0	7	40	5				
BOULDER CITY	39.93	93.8	7	34	-1			7	58
UTUNOMIYA	40.16	267.7	7	34	-3				
KAKIOKA	40.19	267.1	7	39	2	13	41 -3		
KUMAGAYA	40.72	267.6	7	42	0				
MAEBASI	40.74	268.2	7	43	1			8	23
TAKADA	40.78	269.6	7	34	-8				
TOKYO C.M.O.	40.81	266.8	7	46	3	13	53 0	8	21
VLADIVOSTOK	40.87	281.5	7	41	-2			9	21 PP
TITIBU	41.02	267.7	7	42	-2				
YOKOHAMA	41.04	266.6	7	59	15				
NAGANO	41.09	269.2	7	44	-1	14	0 3	17	44
OIWAKE	41.11	268.5	7	50	5				
MATUSIRO	41.16	269.0	7	43A	-2	13	53 -5	9	46 PCP
MERA	41.28	265.9	7	48	2	13	59 -1		
WAZIMA	41.41	271.0	7	54	6				
MATUMOTO	41.51	268.9	7	59	11	14	5 2		
HUNATU	41.53	267.4	8	4	16				
KOHU	41.56	267.7	7	59	10	14	3 -1		
OSIMA	41.65	266.1	7	51	2	14	9 4		
TOYAMA	41.68	270.0	7	45	-5				
RAPID CITY	41.86	75.6	7	50	-1				
SHIZUOKA	42.11	267.1	7	50	-3	13	47 -25		
LARAMIE	42.11	80.5	7	53	0				
OMAESAKI	42.47	266.9	8	24	28	14	22 5		
NAGOYA	42.84	268.5	8	1	2			8	25
BOULDER	43.07	81.8	8	1	0				
KAMEYAMA	43.35	268.6	8	3	0	14	32 2	9	29
ABUYAMA	43.88	269.3	8	5A	-3	14	39 1		
TOYOOKA	43.89	270.6	8	6	-2	14	39 1	18	55
OWASE	44.05	268.0	8	5	-4	14	43 3		
OSAKA	44.06	269.1	8	11	2			11	13
KOBE	44.25	269.4	8	10	-1	14	43 0	20	0
CHANGCHUN	44.31	286.5	8	8A	-3				
SUMOTO	44.65	269.3	8	12	-2	14	51 2		
NORD	44.72	5.9	8	13	-1			8	40
TUCSON	44.89	94.5	8	15	-1	15	7 14	10	15 PP
TUCSON TELE.	44.90	94.3	8	16	0				
TOKUSIMA	45.03	269.3	8	23	6				

TAKAMATU	45.18	270.0	8	17	-1	15	59	62		
HAMADA	45.98	272.1	8	8	-16	14	57	-11		
KOTI	46.02	269.6	8	23	-2	15	12	3		
OOITA	47.39	270.8	8	35	-1	15	33	5		
HUKUOKA	47.88	272.1	8	45	6	15	41	6		
SAGA	48.18	271.9	8	48	6					
KUMAMOTO	48.23	271.1	8	41	-1					
MIYAZAKI	48.43	269.7	8	47	3	15	45	2		
NAGASAKI	48.79	271.7	8	44	-2					
KAGOSIMA	49.20	270.1	8	48	-2					
LUBBOCK	49.40	86.0	8	51	0				10	20 PCP
CHIHUAHUA	50.34	93.9	9	5	7				12	23 PPP
IRKUTSK	50.45	307.2	8	57A	-2				10	55 PP
ULAN-BATOR	51.91	301.5	9	13	3					
PEKING	51.99	288.4	9	8A	-3	16	33	1		
FAYETTEVILLE	52.26	78.1	9	15K	2	16	38	2	9	26
FLORISSANT	52.66	72.9	9	13	-3	16	39	-2		
ST. LOUIS 1	52.85	73.0	9	14	-3	16	39	-5	11	57
PAOTOW	55.09	292.8	9	34	0					
ZO-SE	55.18	276.8	9	32A	-2	17	18	3		
CLEVELAND	55.83	64.9	9	37	-2	17	25	1		
NANKING	55.93	279.4	9	36A	-4	17	27	2		
OTTAWA	56.23	57.9	9	40K	-2	17	35	6	12	6 PP
TRUK	56.35	231.7	9	43	0					
SHAWINIGAN	56.92	55.2	9	44	-3					
BREBEUF	57.23	56.6	9	46K	-3	17	45	2		
SEVEN FALLS	57.48	53.6	9	47K	-4	17	49	3	19	39 SCS
MORGANTOWN	57.98	65.5	9	52K	-2				19	42 SCS
PENNSYLVANIA	58.29	63.2	9	57	0	17	59	2		
APATITY	58.82	351.0	9	59	-1					
KIRUNA	59.38	356.7	10	1	-3	18	16	5	39	35 PKPPKP
SODANKYLA	59.54	353.9	10	2	-3					
GEORGETOWN	60.07	64.2	10	7	-2	18	24	4		
WASHINGTON	60.07	64.2	10	11	2					
SIAN	60.16	288.2	10	14	4					
PALISADES	60.25	60.5	10	7	-3	18	22	0	20	2 SCS
C.C.N.Y.	60.37	60.7	10	0	-11					
FORDHAM	60.38	60.6	10	9	-2	18	30	6		
HARVARD	60.39	57.9	10	10	-1					
WESTON	60.61	57.8	10	11K	-2	18	32	5	19	57 SCS
TACUBAYA	61.39	95.5	10	22	4	18	34	-2	12	22 PP
COLUMBIA	61.39	70.7	10	16	-2					
LANCHOW	61.72	293.1	10	18A	-2	18	39	-2		
SEMIPALATNSK	62.47	318.3	10	27	2				19	5 PS
HALIFAX	62.76	51.4	10	29K	2	18	58	4	12	51 PP
VERA CRUZ	63.39	93.2	10	35	4	19	15	13		
SKALSTUGAN	63.78	0.4	10	33	-1				11	9 PCP
SVERDLOVSK	63.82	333.1	10	33	-1				19	26 PS
CHENGTU	65.60	288.9	10	43A	-3	19	29	0		
CANTON	65.82	276.6	10	45	-2	19	30	-2		
HONG KONG	65.88	275.4	10	49	2	19	36	4		
MERIDA	65.99	86.7	10	50	2	19	38	4	13	54 PP
BAGUIO CITY	66.50	266.2	10	52	1	19	45	5		
PULKOVO	66.74	350.6	10	52	-1	19	46	3	20	33 SCS
HELSINKI	66.79	353.5	10	50	-3					
BERGEN	66.80	4.2							20	28
UPPSALA	67.46	357.5	10	54A	-3	19	45	-6	39	20 PKPPKP
ABERDEEN	69.51	8.7	11	7	-3	20	22	6	20	55 PS
MOSCOW	69.77	345.5	11	10	-2				20	50 SCS
KUNMING	70.61	285.9	11	15A	-2	20	31	2		
EDINBURGH	70.64	9.6	11	11	-6	20	22	-7	13	48 PP
BERMUDA	71.61	60.6	11	22	-1	20	44	4	14	1 PP
COPENHAGEN	71.70	0.3	11	23K	0	20	43	2	25	5 SS
DURHAM	71.94	8.8	11	28K	3	20	52	8	21	25 SKS
RATHFARNHAM	72.87	12.0	11	29A	-1	21	11	16	14	14 PP
PORT MORESBY	73.37	227.7	11	30	-3				20	59 SKKS
LHASA	73.59	297.4	11	35A	1	21	7	4		
TOCKLAI	73.80	292.9	11	39	3					
TASHKENT	74.28	319.4	11	37	-1				16	7 PPP
WITTEVEEN	74.44	4.0	11	39	0					
WARSAW	74.95	354.9	11	41A	-1	21	21	3	14	33 PP
DE BILT	75.08	5.0	11	49K	6	21	30	10		
KEW	75.32	8.6	11	44	0	21	30	8	14	44 PP
HALLE	75.89	0.7	11	49	1	21	36	8	11	52 PCP
COLLMBERG	76.09	0.0	11	50	1					
BENSBERG	76.32	3.8	11	50	0	22	11	38		
UCCLE	76.33	5.7	11	50	0	21	45	12		
SHILLONG	76.34	294.2	11	48A	-2	21	33	0	14	42 PP

JENA	76.46	0.9	11	50	-1	21	39	4	15	8	PP
STALINABAD	76.85	318.3	11	54	1				21	52	SCS
PLAUEN	76.89	0.6	11	51	-2				13	2	
DOURBES	77.05	5.6	11	53	-1	21	45	4			
LWOW	77.14	352.7	11	56	1				21	58	SCS
KRAKOW	77.18	355.4	11	54	-1	21	46	4	12	8	PCP
RACIBORZ	77.22	356.6	11	55	0				22	8	SCS
CHEB	77.31	0.4	11	56	0	21	47	3	27	20	SS
PRAGUE	77.32	359.1	12	0	4	22	5	21	15	4	PP
PRUHONICE	77.41	359.0	11	58	2	21	59	14	15	2	PP
CHATRA	77.88	298.5	11	59	0	22	1	11			
SKALNATE PL.	78.03	355.2	12	1	1	22	1	9	15	9	PP
PARIS	78.19	7.1	12	1	0	22	3	10	15	4	PP
KARLSRUHE	78.31	3.1	12	4A	3	22	7	12	22	46	PS
STUTTGART	78.57	2.6	11	59	-4	21	47	-10	14	53	PP
STRASBOURG	78.72	3.6	12	2	-1	22	9	10	14	59	PP
TUBINGEN	78.81	2.7	12	2	-2						
CHITTAGONG	78.90	292.3	11	59	-5	21	58	-3	15	1	PP
EBINGEN	79.16	2.8	12	4	-2						
BRATISLAVA	79.17	357.2	12	7	1	22	7	3	15	18	PP
IASI	79.43	350.0	12	8	1	22	37	31	12	52	
HURBANOVO	79.43	356.5	12	14	7	22	16	10	23	45	
WARSAK DAM	79.57	313.9	12	6	-2						
RAVENSBURG	79.57	2.3	12	13	5						
DEHRA DUN	79.67	307.2	12	10	1	22	12	3	30	25	SSS
BASLE	79.76	3.7	12	9	0	22	24	14			
BUDAPEST	79.78	355.8	12	11	2	22	16	6	27	13	SS
ZURICH	79.95	3.1	12	11	1						
NEUCHATEL	80.26	4.2	12	12	0	22	13	-2			
CHUR	80.50	2.4	12	14K	1						
CALCUTTA	80.69	295.0	12	12	-2	22	21	1	15	32	PP
SIMFEROPOL	80.78	345.0	12	13A	-2				22	33	SCS
CLERMONT-FD.	81.26	7.0	12	19K	2						
ASHKABAD	81.28	325.3	12	16	-1				22	32	SCS
BALBOA HTS.	81.36	86.6				22	26	-1			
TIMISOARA	81.40	354.2	12	25	7	22	42	15	24	11	
ZAGREB	81.54	357.9	12	24	5	22	53	25			
TRIESTE	81.75	359.5	12	19	-1	22	41	10	23	43	PS
TIFLIS	81.76	336.5	12	19	-1	22	34	3	27	35	SS
SAN JUAN	81.86	70.4	12	19	-1						
PAVIA	82.16	2.8	12	27K	5	23	14	39	29	28	
BUCHAREST	82.33	350.6	12	22	-1	22	45	8			
AGRA	82.33	305.4	12	22A	-1	22	39	2	15	36	PP
BELGRADE	82.37	354.7	12	24A	1	22	46	9	15	47	PP
GALERAZAMBA	82.51	82.1				22	48	10			
CHARTERS TS.	83.19	223.6	12	27A	0						
GORIS	83.48	334.7	12	28	0				22	48	SCS
PRATO	83.50	1.4	12	29	0	23	7	19			
MONACO	83.55	4.1	12	29	0						
PONTA DELGDA	83.61	29.9	12	32	3				15	43	PP
SOFIA	84.28	352.4	12	32	-1	22	58	2	17	13	
SERRA PILAR	84.42	16.2	12	33A	0						
QUETTA	84.83	315.4	12	34A	-1	23	2	0	15	57	PP
SKOPJE	85.14	353.7	12	39A	2	23	25	20	13	56	PCP
ISTANBUL KA.	85.30	347.9	12	36	-2	23	6	0			
COIMBRA	85.35	16.3				22	53	-14			
ROME	85.49	0.4	12	43	4	23	20	12	29	6	SS
TORTOSA	85.95	9.5	12	45	4	23	11	-1			
TOLEDO	86.34	13.1	12	45	2	23	18	2	16	1	PP
LISBON	86.67	17.2	12	55K	11	23	27	8			
CHINCHINA	86.89	85.9	12	48	3	23	16	-5			
PORT BLAIR	86.90	285.2				23	28	6			
BRISBANE	87.37	214.9	12	50	2	23	18	-8			
FORT FRANCE	87.61	68.7				23	27	0			
BOGOTA	88.10	84.9	12	56	5	23	32	-1			
ALICANTE	88.29	10.6	12	52	0	23	36	1	16	22	PP
KARACHI	88.57	313.2	12	57	3						
ST. VINCENT	88.80	69.7	12	54	-1						
ATHENS	88.95	351.6	13	8K	13						
GRANADA	89.05	13.2	12	57K	1	23	55	13	16	23	PP
MALAGA	89.39	13.9	13	0	3	23	54	9	16	34	PP
ALMERIA	89.53	12.4	12	56	-2	23	53	7	16	32	PP
MEDAN	89.79	275.6	12	59	0	23	54	6			
HYDERABAD	90.17	299.8	13	5A	4	23	50	-2	16	38	PP
ALGIERS UNI.	90.20	8.0	12	59	-2	23	59	7	16	35	PP
RELIZANE	90.97	10.1	13	9	4				14	58	
KSARA	91.30	341.1	13	7	1	24	8	6	16	47	PP
BOMBAY	91.81	305.1	13	13	4	24	10	4	16	48	PP
LEMBANG	92.64	262.2	13	3	-9						

JERUSALEM	93.40	341.2	13	10	-6					
RIVERVIEW	93.82	213.8	13	19	1	24	25	1		
HELWAN	95.97	344.1	13	29	1				16	47
COLOMBO	98.11	292.8				24	19	-41		
ROXBURGH	100.23	196.7				25	23	5	24	22 SKS
HUANCAYO	100.50	96.0				24	20	-60	18	2 PP
TAMANRASSET	104.28	7.1	14	10	5	26	6	14	18	29 PP
MBOUR	108.11	30.6				26	44	0	19	1 PP
LA PAZ	108.30	93.2				25	3	0	18	51 PP
DUMONT	125.85	203.1	18	58	-4					
RUMANGABO	126.77	339.5	18	54	-9				20	58 PP
LWIRO	127.77	339.9	19	8	3					
ASTRIDA	127.91	338.7	19	8	2				21	9 PP
BYRD STATION	135.48	169.4	19	12	-8				21	20 PP
SOUTH POLE	142.80	180.0	19	25	-8				23	15 PKS
WINDHOEK	149.48	352.6	19	49	5					
PRETORIA	150.51	331.4	19	32	-14					
MAWSON	152.25	219.0	19	53	5					
HALLEY BAY	152.63	159.6	19	54	5	27	3	10		
PIETERMZBURG	153.40	324.5	19	59	9					
KIMBERLEY	154.28	335.7	20	2	11					
GRAHAMSTOWN	158.07	328.3	20	34	38					

JUNE 12 21.H 34.M 12.S EPICENTRE 53.56-166.34 DEPTH= 401.KM

DEPTH OF FOCUS= 0.058R

A=-0.57974 B=-0.14090 C= 0.80253 D=-0.2362 E= 0.9717
G=-0.7798 H=-0.1895 K=-0.5966 HT= -6.7

SE= 4.67

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	14.70	32.3	2	53	-19							
SITKA	17.92	66.3	3	33	-11							
PETROPAVLOVK	20.79	283.0	3	58	-14						7	54
CORVALLIS	29.19	90.2	5	22	-6							
SHASTA	32.02	95.6	5	48	-5							
MINERAL	32.71	95.4	5	53	-6							
HUNGRY HORSE	32.73	77.5	5	52	-7				7	20	8	34 PCP
RENO	34.28	95.0	6	7	-5							
RESOLUTE	34.50	26.4	6	9A	-5						8	40 PCP
LICK	34.65	99.6	6	21	6							
FRESNO	36.11	98.6	6	19	-8							
EUREKA	36.61	91.8	6	24	-7							
PASADENA	38.88	100.1	6	45	-5							
BOULDER CITY	39.59	95.1	6	44	-12							
RAPID CITY	41.36	76.7	7	5	-5							
MATUSIRO	41.55	268.9	6	59A	-13	13	9	11				
BOULDER	42.61	82.9	7	25	5							
TUCSON	44.57	95.6	7	30	-6							
TUCSON TELE.	44.57	95.4	7	30	-6							
OTTAWA	55.60	58.6	8	56	-2							
BREBEUF	56.59	57.3	9	0	-5							
SEVEN FALLS	56.83	54.3	9	1	-6							
KIRUNA	58.83	357.0	9	17	-3							
SODANKYLA	59.00	354.2	9	19	-2							
PALISADES	59.64	61.2	9	35	9							
WESTON	59.98	58.5	9	26K	-2							
SKALSTUGAN	63.20	0.7	9	47	-2							
HONG KONG	66.20	275.6	10	1	-7							
PULKOVO	66.24	350.9	10	7	-1							
HELSINKI	66.26	353.9	10	5	-3							
UPPSALA	66.90	357.8	10	11A	-1						10	35 PCP
COPENHAGEN	71.12	0.7	10	39	1							
RATHFARNHAM	72.23	12.4	10	44A	0						11	8
KEW	74.69	9.0	11	0	2							
HALLE	75.31	1.1	11	1	-1							
COLLMBERG	75.51	0.4	11	4	1							
BENSBERG	75.71	4.2	11	5	1							
JENA	75.87	1.4	11	6	1							
DOURBES	76.44	6.0	11	8	0							
SHILLONG	76.45	294.6	11	3A	-5							
LWOW	76.62	353.1	11	10	1							
KRAKOW	76.63	355.9	11	10	1						11	24 PCP

PRAGUE	76.75	359.5	11	14	4					
PRUHONICE	76.84	359.4	11	12	2				13	28
PARIS	77.57	7.5	11	15	1					
CHATRA	77.94	298.8	11	13	-3					
STRASBOURG	78.12	4.0	11	19A	2				12	24
BRATISLAVA	78.61	357.7	11	20	0	21	17	35		
CHITTAGONG	79.03	292.7	11	13A	-9					
WARSAK DAM	79.44	314.3	11	21A	-3					
NEUCHATEL	79.66	4.7	11	27	2					
SIMFEROPOL	80.32	345.4	11	30	1					
SAN JUAN	81.32	71.0	11	34	0					
TIFLIS	81.39	336.9	11	35	1					
QUETTA	84.69	315.8	11	50A	-1	22	20	37		
HUANCAYO	100.18	96.4							30	25 SS
BYRD STATION	135.97	169.5	18	31	-3					
SOUTH POLE	143.37	180.0	18	41	-7					

JUNE 13 10.H 58.M 45.S EPICENTRE -49.72 125.88 DEPTH= 0.KM
A=-0.38042 B= 0.52588 C=-0.76075 D= 0.8102 E= 0.5861
G= 0.4459 H=-0.6164 K=-0.6490 HT= -5.3

SE= 1.22

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MELBOURNE	18.14	56.3	4	12K	-1	9	9	97			4	37	
DUMONT	18.47	162.1	4	15	-2						7	52	
PERTH	19.28	333.3	4	26	0	8	0	2			5	44	
RIVERVIEW	24.47	59.1	5	21	2	9	49	13					
CAPE HALLETT	29.99	154.6	6	11K	1	12	28	82			7	19	PP
BRISBANE	30.43	53.2	6	13A	-1	11	12	-1					
SCOTT BASE	32.06	164.9	6	29	1	10	20	-78					
CHARTERS TS.	33.81	36.1	6	41K	-2						18	25	
MAWSON	35.35	216.2	6	55	-1				7	2			
SOUTH POLE	40.47	180.0	7	40	1	13	46	-1			9	15	PP
PORT MORESBY	43.92	31.1	8	8	0	14	41	3			9	53	PCP
BYRD STATION	45.42	167.1	8	20	0	15	58	58			10	6	PP
LEMBANG	45.42	334.1	8	22	2	15	8	8					
SUVA	52.35	72.4				16	40	3					
MEDAN	58.06	327.5	9	54K	-1								
SHILLONG	80.83	329.2	12	14A	0								
MATUSIRO	86.59	9.9	12	44	0	23	18	0			29	0	SS
TAMANRASSET	126.56	262.5	19	5	2						21	2	PP
COLLEGE	132.07	35.0	19	13	0						21	34	PP
BOULDER CITY	134.63	83.7	19	31	13								
TUCSON	134.90	90.7	19	43	25								
EUREKA	135.95	79.0	19	23	3								
KIRUNA	140.31	325.1	19	29	1								
BUTTE	141.47	72.4	19	34	4								
HUNGRY HORSE	141.61	68.3	19	30	-1								
BOZEMAN	142.25	73.7	19	32	0								
SKALSTUGAN	142.81	317.3	19	33	0								
NORD	145.92	350.8	19	38	0								
RAPID CITY	146.49	80.5	19	44	5								
SAN JUAN	147.28	158.6	19	45	5								
FAYETTEVILLE	148.04	99.9	19	45	4						22	36	
RESOLUTE	149.77	20.2	19	48	4						29	25	
RATHFARNHAM	150.45	295.5	19	58	13						20	35	
SEVEN FALLS	168.59	96.8	20	13	8								

JUNE 15 2.H 41.M 9.S EPICENTRE -20.20-177.87 DEPTH= 511.KM
DEPTH OF FOCUS= 0.075R

A=-0.93862 B=-0.03495 C=-0.34319 D=-0.0372 E= 0.9993
G= 0.3430 H= 0.0128 K=-0.9393 HT= 4.6

SE= 1.34

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	4.05	299.6				2	33	9				
APIA	8.62	43.4	2	5	1	3	40	-3				
TUAI	19.03	192.0	3	49	-1	6	49	-6				

WELLINGTON	21.93	195.0	4	16	-1							
COBB RIVER	22.30	199.0	4	19	-1							
KAIMATA	24.02	199.7	4	34	-1	8	8	-8				
GEBBIES PASS	24.74	196.6	4	41	-1	8	23	-5				
BRISBANE	27.54	249.1	5	7	0						5	22
CHARTERS TS.	33.65	264.0	5	59K	0	10	42	-4				
PORT MORESBY	35.41	282.5	6	14	1	11	10	-3				
MELBOURNE	36.65	233.3	6	24A	0							
TRUK	40.54	309.7	6	56	1							
KIPAPA	45.69	26.2	7	35	-1							
CAPE HALLETT	52.56	184.5	8	31	4							
KOROR	54.26	295.4	8	39	0							
SOUTH POLE	69.93	180.0	10	21	0				12	12	12	51
MATUSIRO	70.04	323.5	10	20K	-1						12	22
LEMBANG	73.17	268.8	10	38	-2							
BERKELEY	77.87	41.9	11	5A	0							
LICK	77.94	42.6	11	6A	0						13	39
PASADENA	78.39	47.0	11	8	0							
HONG KONG	78.64	298.9	11	10K	0	20	24	0				
FRESNO	78.79	44.0	11	10A	0							
SHASTA	79.53	39.6	11	14A	0							
MINERAL	79.79	40.2	11	15A	-1							
RENO	80.41	41.7	11	19A	0							
BOULDER CITY	81.68	46.9	11	26	1							
TUCSON	82.63	51.9	11	31	1							
TUCSON TELE.	82.76	51.8	11	31	0							
EUREKA	82.81	43.5	11	30	-1						14	50 PP
VICTORIA	83.87	33.0	11	36A	0							
TACUBAYA	86.51	68.0									25	12
COLLEGE	87.89	12.4	11	54	-2						13	52
BUTTE	88.43	39.3	11	59	1						15	34 PP
HUNGRY HORSE	88.82	36.8	11	59	-1						15	35 PP
BOZEMAN	89.16	40.1	12	3	1						15	39 PP
BOULDER	90.22	47.1	12	7	1							
LARAMIE	90.60	45.9	12	7	-1							
RAPID CITY	93.38	44.1	12	21	0						16	11 PP
SHILLONG	98.70	294.0	12	57	12							
RESOLUTE	107.47	16.1	17	26	777							
QUETTA	121.18	293.7	17	55	1							
KIRUNA	130.99	350.9	18	12	-1						20	46 SKP
SKALSTUGAN	136.10	353.5	18	13	-10						21	3 SKP
UPPSALA	138.86	348.2	18	17	-11						21	11 SKP
COPENHAGEN	143.73	350.1	18	35K	-2							
LWIRO	145.62	232.6	18	43K	3							
RUMANGABO	145.82	234.4	18	45	5							
RATHFARNHAM	146.32	9.1	18	42	1							
KRAKOW	147.02	338.8	18	53	11						19	36
WITTEVEEN	147.25	354.9	18	44	2							
COLLMBERG	147.80	347.2	18	47	4							
JERUSALEM	148.22	298.0	18	47	3						19	16
JENA	148.44	348.6	18	43	-1						21	27
PRUHONICE	148.68	344.5	18	51	7				20	59	18	57 PKP2
BENSBERG	149.04	353.8	18	50	5							
DOURBES	150.10	356.8	18	52	6							
STUTTGART	150.93	350.4	18	47	-1						19	3
STRASBOURG	151.32	352.2	18	55	7							
PARIS	151.45	359.5	18	54	6							
TAMANRASSET	175.93	309.8	19	11	1						24	44 PP

JUNE 15 11.H 32.M 40.S EPICENTRE -9.31 149.72 DEPTH= 0.KM

A=-0.85238 B= 0.49760 C=-0.16072 D= 0.5042 E= 0.8636
G= 0.1388 H=-0.0810 K=-0.9870 HT= 6.6

SE= 3.05

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT MORESBY	2.54	267.8	0	47	4							
RABAUL	5.63	25.7	1	26	-1							
CHARTERS TS.	11.15	197.1	2	42	-2	4	54	4				
TRUK	16.80	7.3	3	55	-3							
BRISBANE	18.34	170.6	4	16K	-1	7	24	-16				
NOUMEA	20.60	130.8	4	49	6						10	24
KOROR	22.45	316.9	4	54	-8							
GUAM	23.16	347.6	5	9	0							

RIVERVIEW	24.44	177.1	5	27	6	9	49	10		
MELBOURNE	28.72	187.9	6	2	1					
BAGUIO CITY	38.54	311.4	7	28	2	13	20	-2		
ROXBURGH	39.85	158.4				13	48	6		
LEMBANG	41.74	270.2	7	53	1	14	13	3		
MATUSIRO	46.88	347.3	8	33	-1	15	15	-10		
HONG KONG	46.92	312.5	8	37K	3	15	30	5	8	54
ZO-SE	48.61	326.9	8	48	1					
DUMONT	57.66	184.6	9	51	-3					
CHENGTU	59.18	314.1	10	6	1	18	14	2		
LANCHOW	62.47	319.0	10	32	5					
CAPE HALLETT	64.17	173.1	10	37A	-2					
CHITTAGONG	64.87	300.0	10	15	-28					
OASIS-BUNG.	65.80	199.6	10	46	-3					
SHILLONG	66.09	303.2	10	50A	-1					
SCOTT BASE	69.08	176.2	11	7	-3					
MAWSON	80.25	202.8	12	14	0					
SOUTH POLE	80.75	180.0	12	13	-4				15	24 PP
BYRD STATION	81.03	169.8	12	14	-4	22	32	5		
COLLEGE	87.16	22.3	12	45	-4				18	14 PPP
QUETTA	88.45	300.8	12	57	2	23	25	-15		
SHASTA	94.40	49.6	13	24	1					
LICK	94.49	53.1	13	23	0					
MINERAL	94.95	50.1	13	31	6					
RENO	96.21	51.1	13	31	0					
PASADENA	96.89	56.6	13	38	4					
EUREKA	99.16	51.4	13	44	0					
HUNGRY HORSE	101.03	42.5	13	53	0					
RESOLUTE	105.51	14.4				26	4	-2	18	32 PP
OTTAWA	127.01	39.0	19	6	0					
PALISADES	130.22	43.1							22	39 PKS
LA PAZ	134.61	124.2	19	27	6					
TAMANRASSET	143.20	295.7	19	37	1				23	2 PP

JUNE 15 14.H 54.M 39.S EPICENTRE -17.99-178.61 DEPTH= 546.KM

DEPTH OF FOCUS= 0.081R

A=-0.95146 B=-0.02309 C=-0.30691 D=-0.0243 E= 0.9997
G= 0.3068 H= 0.0074 K=-0.9517 HT= 5.1
SE= 2.03

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SUVA	2.82	266.2	1	17A	3	2	19	6					
APIA	7.78	58.6	1	54	-2	3	21	-8					
NOUMEA	14.67	250.5	3	4K	-2	5	35	0			3	28	
ONERAHI	18.78	198.0	3	49	4	6	55	8			7	3	
TUAI	21.07	189.2	4	6	-1	7	19	-6			14	16	SCS
WELLINGTON	23.90	192.4	4	32K	0	8	7	-4			14	29	SCS
COBB RIVER	24.19	196.1	4	35	0	8	13	-2					
KAIMATA	25.89	197.0	4	49	-1	8	37	-5					
GEBBIES PASS	26.68	194.2	4	55	-2	8	50	-5			9	15	
BRISBANE	27.75	245.0	5	6K	0	9	11	0					
ROXBURGH	29.26	197.5	5	17	-2	9	25	-10			6	49	
CHARTERS TS.	33.24	260.8	5	52	-1	10	32	-4					
PORT MORESBY	34.29	279.8	6	2	0	10	51	-1			7	7	PPP
MELBOURNE	37.45	230.6	6	28	0						15	7	SS
FORT NELSON	38.05	221.8	6	33A	0						8	13	
TRUK	38.61	308.4	6	36	-1	11	55	-1					
HAWAII V.OB.	43.68	32.8	7	17	-1	13	11	2					
HONOLULU	43.91	28.1	7	19	0	13	12	0	9	1	15	46	SCS
KIPAPA	44.05	28.1	7	19	-2						40	1	PKPPKP
GUAM	47.79	308.4	7	43	-6				9	46			
KOROR	52.70	294.4	8	26	1	15	15	3					
CAPE HALLETT	54.70	184.1	8	41K	2	15	48	10	10	28	9	35	PCP
DUMONT	55.53	198.6	8	45	0	15	48	-1			11	34	
SCOTT BASE	60.33	183.5	9	19A	1	16	58	8			11	9	PP
WILKES	65.98	204.8	9	53K	-1	17	57	-2			12	26	PP
YOKOHAMA	66.24	323.6				18	3	1			19	9	SCS
TOKYO C.M.O.	66.37	323.8	9	59	3	17	58	-5			11	14	
MISIMA	66.42	322.9	9	55	-1	18	3	-1					
OMAESAKI	66.48	322.0				18	5	1					
SHIZUOKA	66.63	322.4				18	7	1					
ONAHAMA	66.66	325.5	10	10	12	18	6	-1			26	14	

HUNATU	66.79	323.0	10	0	1	18	9	1				
UTUNOMIYA	66.93	324.5	9	58	-2						19	8 SCS
KOHU	67.00	323.0	10	4	4	18	14	3			19	15 SCS
SIOMISAKI	67.16	319.6				18	14	2				
BYRD STATION	67.20	170.7	9	59	-2	18	14	1	11	51	12	32 PP
MAEBASI	67.27	323.9	9	49	-13						10	13
IIDA	67.35	322.5				18	13	-2			11	57 PP
OIWAKE	67.51	323.5	10	5	2	18	4	-12				
NAGOYA	67.61	321.7	10	3	-1	18	17	-1				
SENDAI	67.64	326.5	10	4	-2	18	14	-4			12	0 *SP
MANILA	67.77	294.6	10	2	-3	18	16	-4				
MATUMOTO	67.78	323.1	10	5	0	18	19	-1				
MATUSIRO	67.85	323.5	10	3A	-2	18	17	-3			12	36 PP
NAGANO	67.95	323.6	10	7	1	18	23	1			12	13 PP
OSAKA	68.12	320.4	10	13	6	18	21	-3				
ABUYAMA	68.24	320.6	10	6A	-1	18	25	0				
SUMOTO	68.31	319.8				17	37	-49			18	27
NIIGATA	68.37	325.0				17	49	-37			18	41
KOTI	68.63	318.3	10	11	1	18	33	4			19	19 SCS
BAGUIO CITY	68.95	296.1	10	13	1	18	34	1				
MIYAZAKI	68.96	315.8	10	12	0	18	8	-25				
AKITA	69.13	327.0	10	13	0	18	35	0			12	22 PP
TOYOOKA	69.14	320.7				18	34	-1			13	21
KUSIRO	69.55	331.9	9	57	-18							
AOMORI	69.60	328.2	10	12	-4							
URAKAWA	69.64	330.3	10	16	0	18	43	2			12	21 PP
OASIS-BUNG.	69.93	205.3	10	17	-1	18	44	0	12	13	20	45 PCP
SAGA	70.52	316.2	9	59	-22						18	55 SCS
MORI	70.67	329.0	10	14	-8	18	52	-1				
SAPPORO	71.03	330.1	10	24A	0	18	50	-7			11	36 *SP
SOUTH POLE	72.13	180.0	10	31	1	19	7	-2	12	26	38	4 PKPPKP
BANDUNG	72.47	268.3	10	27	-5	19	7	-6				
LEMBANG	72.52	268.4	10	32K	-1	19	13	0				
Y.-SAKHLINSK	73.41	333.5	10	36	-2	19	23	0	12	31	13	22
DJAKARTA	73.46	268.8	10	20	-18	19	2	-21				
PETROPAVLOVK	73.50	345.9	10	36	-2	19	21	-3	12	31	19	51 SCS
ZO-SE	75.65	309.8	10	50A	0	19	48	1	12	48	20	10 SCS
VLADIVOSTOK	75.90	325.0	10	51	0	19	53	3	12	55		
BERKELEY	76.72	42.6	10	57A	1	20	1	3	12	52	14	0 PP
LICK	76.81	43.3	10	57A	1				12	54		
UKIAH	76.85	41.1	10	57	0				12	54		
HONG KONG	76.97	298.8	10	58	1	20	3	2	12	57	25	13 SS
PASADENA	77.41	47.7	11	0A	0	20	9	3	12	57	11	10 PCP
FRESNO	77.71	44.7	11	2	1	20	13	4	12	58		
NANKING	77.88	309.6	11	3A	1	20	14	3	13	0	20	25 SKS
CANTON	78.05	299.1	11	5K	2	20	15	3	13	2		
SHASTA	78.29	40.2	11	5A	1	20	11	-4	13	5		
MINERAL	78.57	40.8	11	6A	0				13	5	38	5 PKPPKP
RENO	79.24	42.3	11	10A	1				13	11	38	3 PKPPKP
CHANGCHUN	80.06	322.4	11	14A	0	20	37	4	13	12	14	30 PP
CORVALLIS	80.07	36.6	11	14K	0				13	8		
BOULDER CITY	80.70	47.5	11	18	1				13	16	13	42
MAGADAN	81.19	344.8	11	18	-1	20	42	-2	13	15		
EUREKA	81.71	44.0	11	23	1				13	18	29	18 PKKP
TUCSON	81.84	52.4	11	24	1				13	22	14	18 *SP
TUCSON TELE.	81.96	52.4	11	25	2	20	56	4	13	22	37	40 PKPPKP
ALBERNI	82.16	32.2	11	24	0							
VICTORIA	82.42	33.4	11	25	-1							
SEATTLE	82.48	34.6	11	28A	2						13	27 PP
PHU-LIEN	82.78	294.5									21	48
SITKA	83.02	22.2	11	30	1				13	30		
PEKING	83.70	315.5	11	32A	0	21	9	0	13	33	15	7 PP
MAWSON	83.72	199.8	11	32	0	21	3	-6	13	34	14	34 PP
CHIHUAHUA	83.98	57.5									21	57 SP
MEDAN	84.17	275.6	11	36A	2						21	1
SALT LAKE C.	85.09	44.5	11	41	2				13	38		
HALLEY BAY	85.09	173.2	11	38	-1						15	7 PP
COLLEGE	85.89	12.7	11	40	-3	21	28	-2	13	41	21	11 SKS
SIAN	86.24	307.7	11	48	4	21	39	6			21	18 SKS
TACUBAYA	86.34	68.4	11	46	1	21	4	-30	13	58	13	56 PP
BUTTE	87.18	39.6	11	49	0				13	48	17	0 *PPP
HUNGRY HORSE	87.48	37.1	11	49	-1	21	27	-17	13	53	15	24 PP
KUNMING	87.72	297.1	10	53K	-58				12	55	13	43 *SP
BOZEMAN	87.94	40.4	11	55	3				13	55	17	0 *PPP
BANFF	88.11	34.2	11	54	1							
CHENGTU	88.66	302.7	11	58K	2	22	0	5	13	59	21	32 SKS
BOULDER	89.24	47.4	11	57	-1							
LARAMIE	89.57	46.1	11	58	-2						13	59
LANCHOW	90.80	307.7	12	9K	3	22	22	8	14	11	15	59 PP

RAPID CITY	92.29	44.3	12	12	0				14	14	16 2 PP
ULAN-BATOR	93.20	319.5	12	17	0				14	19	
FAYETTEVILLE	96.03	54.2	12	24A	-5				14	29	
TIKSI	96.17	345.3	12	27	-3	22	30	-30			22 57 SKKS
IRKUTSK	96.39	322.9				22	15	-47			16 21 PP
SHILLONG	97.15	294.5	12	35	0						
LHASA	98.98	298.2	12	46	3	23	30	7			22 28 SKS
LA PAZ	103.46	112.5									17 41 PP
BOGOTA	105.23	90.0									26 7 SS
RESOLUTE	105.55	15.9	13	11	777	24	19	12	15	13	17 23 PP
SEMIPALATNSK	110.70	317.8									18 12 PP
OTTAWA	111.55	47.6	17	26	-8						28 41 PKKP
PALISADES	112.54	52.4				23	30	3	15	44	21 16 PPP
FRUNSE	114.23	309.5	17	37	0	23	34	0			18 35 PP
WARSAK DAM	116.05	299.6	17	40	-1						
TASHKENT	118.14	307.7	17	45	0	25	7	79			19 3 PP
STALINABAD	118.52	304.5	17	47	2						25 16 SKKS
QUETTA	119.64	294.9	17	49	2				19	58	19 18 PP
HALIFAX	120.14	48.5				26	26	151			35 8 SS
SVERDLOVSK	121.60	326.3	17	44	-7						19 32 PP
TANANARIVE	121.68	233.4	17	55	4						19 37 PP
PIETERMZBURG	125.02	211.0									19 48 PP
SCORESBY SD.	125.65	9.4	19	57	118	24	18	6			20 25 SKP
APATITY	126.39	345.3				24	15	1	20	1	
ASHKABAD	126.74	304.2	18	3	2						20 6 PP
SODANKYLA	128.04	347.9	18	3	-1						
KIMBERLEY	128.33	206.4									20 16 PP
KIRUNA	128.71	350.9	17	55	-10						20 36 SKP
PRETORIA	129.31	211.7									20 50 PP
REYKJAVIK	131.25	13.3									20 47 SKP
PULKOVO	133.33	340.3	18	14	0	24	27	-5			20 45 PP
MOSCOW	133.42	332.6	18	14	0						23 48 PPP
SKALSTUGAN	133.84	353.3	18	3	-12				20	25	20 54 SKP
GORIS	135.70	308.5	18	20	2						20 59 PP
TIFLIS	136.14	312.1	18	20	1						21 2 PP
UPPSALA	136.57	348.2	18	8	-12						21 2 SKP
WINDHOEK	136.86	201.5									21 6 PP
ABERDEEN	140.79	3.0									27 21
COPENHAGEN	141.44	350.0	18	18	-12	24	20	-25	20	40	21 39 PP
SIMFEROPOL	141.69	321.7	18	27	-3						
WARSAW	142.50	340.2	18	29K	-2						27 44 SKKS
DURHAM	143.21	2.9	18	29K	-3						27 42 SKKS
LWOW	143.39	335.3	18	29	-4						27 46 SKKS
IASI	143.79	329.4	18	33	0						27 52 SKKS
RATHFARNHAM	144.25	7.9	18	34K	0						21 13
POTSDAM	144.47	347.7	18	34	0				20	44	21 24 SKP
BACAU	144.56	329.2	18	37	3						19 4
KRAKOW	144.72	339.2	18	35	0						21 10
WITTEVEEN	144.99	354.4	18	39	4						
FOCSANI	145.02	327.8	18	42	7						
RACIBORZ	145.25	340.9	18	57	21						19 57 PP
SKALNATE PL.	145.35	338.1	18	37	1				20	49	22 19
KSARA	145.40	303.9	18	40	4				20	45	21 47 *SPKP
COLLMBERG	145.50	347.1	18	37	1						20 45
HALLE	145.53	348.3	18	37	1				20	48	22 10 PP
DE BILT	145.83	355.8	18	37	1				20	43	40 21 SS
JENA	146.14	348.4	18	38	1				20	44	22 49 PP
PRAGUE	146.32	344.8	18	41K	4	25	6	14	20	53	22 2 PP
LWIRO	146.33	236.1	18	38K	1				20	51	
PRUHONICE	146.38	344.6	18	41	4				20	50	22 2 PP
CAMPULUNG	146.41	329.2	18	41	4						
PLAUEN	146.44	347.5	18	39	2						21 10
RUMANGABO	146.46	238.0	18	41	4						
BUCHAREST	146.47	327.2	18	40	3				20	49	28 8
JERUSALEM	146.53	300.7	18	36	-1				20	49	
KEW	146.56	1.9	18	38	1				20	46	22 8 PP
BENSBERG	146.78	353.3	18	39	1						28 8 SKKS
CHEB	146.79	347.0	18	41	3	25	25	32	20	45	22 8 PP
ISTANBUL KA.	146.94	319.9	18	41	3						31 25 SS
HURBANOVO	147.18	338.9	18	44	6				20	53	27 59
UCCLE	147.18	356.5	18	40K	2						28 10
BRATISLAVA	147.28	340.4	18	39	1				20	51	28 10
TIMISOARA	147.78	333.5	18	44	5						28 16
DOURBES	147.86	356.1	18	39	0						28 14
KARLSRUHE	148.53	351.1	18	43	3				20	55	28 19 SKKS
STUTTGART	148.65	350.1	18	41	1				20	54	28 17 SKKS
BELGRADE	148.85	333.3	18	46K	5						28 21
TUBINGEN	148.90	350.1	18	42	1						20 55

STRASBOURG	149.05	351.8	18 43	2			20 56	22 46	PP	
SOFIA	149.11	327.6	18 43	2				21 56	PP	
PONTA DELGDA	149.20	44.8	18 46	5			20 55			
PARIS	149.24	358.6	18 49	8			19 1	22 21	PKS	
EBINGEN	149.26	350.1	18 42	1			20 56			
RAVENSBURG	149.53	349.0	18 49	7						
BASLE	150.10	351.6	18 44	1			20 58			
ZURICH	150.11	350.2	18 50K	7				21 30		
HELWAN	150.28	299.0	18 43	0			21 2			
CHUR	150.44	348.6	18 45K	2			20 56			
TRIESTE	150.56	342.2	18 40	-3			20 55	28 29	SKKS	
NEUCHATEL	150.70	352.2	18 46	2			20 56			
ATHENS	152.11	320.1	18 54A	8			21 4			
PAVIA	152.12	348.2					20 58	22 28	PP	
CLERMONT-FD.	152.26	357.4	18 49	3			21 2	22 42	PP	
PRATO	152.92	344.5	18 58	11			21 49			
MONACO	153.83	350.0	18 49	1				20 54		
ROME	154.35	340.6	18 52	3			22 0	22 54		
SERRA PILAR	155.39	18.3	18 43K	-7				19 11	PKP2	
MESSINA	156.36	331.3	18 52	1	24 58	-6	21 12	23 1	PP	
TORTOSA	157.23	1.7						29 7	SKKS	
LISBON	157.39	21.9	19 29A	36			21 32	19 58	PKP2	
TOLEDO	157.68	11.1	18 56	3			21 17	42 19	SS	
GRANADA	160.38	11.9	19 44K	48			21 46	25 25	PP	
MALAGA	160.65	14.2	19 2A	6				25 28		
ALGIERS UNI.	161.23	355.9	18 58	1			21 9	23 29	PP	
MBOUR	162.01	98.8	19 2A	4			21 54	25 36	*PPP	
TAMANRASSET	173.86	321.6	19 11K	5			21 16	24 37	PP	

JUNE 15 17.H 20.M 59.S EPICENTRE -9.51 149.74 DEPTH= 0.KM

A=-0.85200 B= 0.49712 C=-0.16421 D= 0.5040 E= 0.8637
G= 0.1418 H=-0.0828 K=-0.9864 HT= 6.6

SE= 3.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT MORESBY	2.56	272.3	0	46	3							
CHARTERS TS.	10.96	197.5	1	39	-62	4	56	10				
TRUK	17.00	7.2	4	4	3							
BRISBANE	18.14	170.6	4	15	0	7	37	2				
KOROR	22.61	317.2	5	4	1							
GUAM	23.36	347.7	5	11	0							
RIVERVIEW	24.24	177.1	5	29A	10	9	48	12				
MELBOURNE	28.52	187.9	5	57	-2							
MANILA	37.23	309.7	5	20	-115	13	44	41				
BAGUIO CITY	38.68	311.6	7	40	13	13	28	3				
ROXBURGH	39.66	158.3				13	47	8			16	43
LEMBANG	41.76	270.4	7	53	1	14	14	3				
HONG KONG	47.07	312.6	8	41	6	15	34	7				
MATUSIKO	47.08	347.3	8	34	-1	15	14	-14			9	3
ZO-SE	48.79	327.0	8	48	-1							
VLADIVOSTOK	54.85	344.1	9	30	-4							
DUMONT	57.46	184.6	9	56	3							
PEKING	58.27	330.1	10	0	1							
CHENGTU	59.33	314.2	10	2	-4	18	6	-8				
LANCHOW	62.64	319.1	10	30	2							
PETROPAVLOVK	62.86	6.0	10	35	5							
CAPE HALLETT	63.97	173.1	10	30	-7						13	16 PP
CHITTAGONG	64.98	300.1	10	7	-37							
OASIS-BUNG.	65.61	199.7	10	48	0							
SHILLONG	66.21	303.3	10	49	-3							
LHASA	68.57	307.0	11	7	0	20	13	4				
MAGADAN	68.84	0.6	10	49	-19							
SCOTT BASE	68.88	176.2	11	10	1							
MAWSON	80.07	202.9	12	16	3							
SOUTH POLE	80.55	180.0	12	11	-5						14	46
BYRD STATION	80.82	169.8	12	14	-3	22	17	-8				
TIKSI	82.15	353.5	12	18	-6	22	38	-1				
NAMANGAN	87.30	312.1	12	50	0							
COLLEGE	87.34	22.3	12	44	-6							
QUETTA	88.56	300.8	12	53	-3	23	41	0			23	14 SKS
BERKELEY	94.20	52.5	13	23	1							
LICK	94.60	53.1	13	28	4							
MINERAL	95.07	50.1	13	25	-1							

EUREKA	99.27	51.4	13	47	2						
HUNGRY HORSE	101.17	42.5	13	57	3						
RESOLUTE	105.70	14.5				26	17	-3		18	26 PP
PULKOVO	112.76	331.4								38	31
SIMFEROPOL	114.74	315.2								20	40
OTTAWA	127.16	39.1	19	8	2						
HUANCAYO	130.35	114.7	19	17	4						
PALISADES	130.35	43.3								22	38 PKS
TAMANRASSET	143.30	295.4	19	38	2					22	44 PP
SAN JUAN	144.16	71.8	19	38	0						

JUNE 16 8.H 13.M 10.S EPICENTRE -15.09-177.35 DEPTH= 0.KM

A=-0.96490 B=-0.04463 C=-0.25878 D=-0.0462 E= 0.9989
G= 0.2585 H= 0.0120 K=-0.9659 HT= 5.7

SE= 3.37

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
SUVA	5.06	232.5	1	18K	-1	2	28	9				
APIA	5.55	77.3	1	20	-6	3	19	47				
NOUMEA	16.93	242.5	4	3K	3						7	29
ONERAHI	21.88	198.3	5	1	4	9	10	16				
KARAPIRO	23.59	194.2	5	14	0							
WELLINGTON	26.97	193.2				10	19	-3				
BRISBANE	30.14	241.0	6	11	-3	11	14	1				
ROXBURGH	32.37	197.6				11	52	4				
RIVERVIEW	34.00	231.0	6	28A	-20	12	17	4				
CHARTERS TS.	34.99	256.6	6	54	-2							
PORT MORESBY	35.12	275.1	6	58	1							
HONOLULU	40.81	28.1	7	45	0	14	4	7				
KOROR	52.68	291.7	9	20	1	16	52	6				
CAPE HALLETT	57.65	184.4	9	55	0	18	3	11			20	10 SCS
DUMONT	58.64	198.4	9	58	-4							
MATUSIRO	66.29	322.0	10	47	-6	19	33	-9			13	42
BAGUIO CITY	68.80	294.6	11	9	1							
BYRD STATION	69.85	171.0	11	13	-2	20	58	34				
PETROPAVLOVK	71.02	345.0	11	22	0						21	9
Y.-SAKHLINSK	71.40	332.4	11	14	-10						20	42
BERKELEY	73.78	42.5	11	47	9	21	16	7				
LICK	73.89	43.3	11	44	5							
VLADIVOSTOK	74.26	323.9	11	52	11							
PASADENA	74.59	47.6	11	31	-12	21	22	4				
FRESNO	74.82	44.6	11	42	-2							
SOUTH POLE	75.00	180.0	11	43	-2							
SHASTA	75.31	40.1									12	26
MINERAL	75.61	40.7	11	56	7							
RENO	76.30	42.2	11	52	-1							
NANKING	77.00	308.5	11	58	1							
BOULDER CITY	77.87	47.4	12	4	3							
CHANGCHUN	78.54	321.6	12	5	0							
MAGADAN	78.74	344.1	12	3	-3							
EUREKA	78.80	43.8	12	3	-4							
TUCSON	79.13	52.3	12	6	-2							
TUCSON TELE.	79.25	52.3	12	7	-2							
SALT LAKE C.	82.19	44.2	12	24	-1							
PEKING	82.52	314.8	12	24	-2							
COLLEGE	82.83	12.2	12	22	-6	22	41	-5			23	24 SCS
HUNGRY HORSE	84.46	36.8	12	31	-5							
BOZEMAN	84.97	40.1	12	38	-1							
YAKUTSK	87.34	337.9	12	49	-1							
HALLEY BAY	87.80	172.9	12	57	4						16	36 PP
CHENGTU	88.13	302.3	12	57	3	23	48	10			23	26 SKS
RAPID CITY	89.39	43.9	13	2	2							
ULAN-BATOR	91.81	319.3	13	12	1							
RESOLUTE	102.46	15.7									27	15 PS
NAMANGAN	115.52	308.4									20	6 PP
SVERDLOVSK	119.85	327.5	19	3	10							
KIRUNA	126.05	351.8	19	0	-5							
MOSCOW	131.38	334.4									22	17
SIMFEROPOL	140.10	324.7	19	47	16						22	31
JENA	143.54	350.5	19	34	-3							
PRUHONICE	143.88	346.9	19	40	2							
KSARA	144.69	307.9	19	44	5						23	16 PKS
BRATISLAVA	144.92	343.1	19	41	2						23	13 PP

DOURBES	145.05	357.8	19 43	3			
JERUSALEM	145.98	305.0	19 44	3			
STUTTGART	145.99	352.2	19 40	-1		20 37	
TUBINGEN	146.24	352.3	19 40	-2			
STRASBOURG	146.34	353.9	19 44	2		43 20	SS
PARIS	146.38	0.2	19 44	2		23 26	PP
EBINGEN	146.60	352.3	19 40	-2			
SOFIA	147.25	331.2	19 50	7			
TRIESTE	148.14	345.2	19 50	5			
RUMANGABO	148.97	240.6	19 44	-2		20 17	
PAVIA	149.51	350.9	19 45	-2			
MONACO	151.17	352.8	19 53	3			
TOLEDO	154.62	12.1	19 59	5			
GRANADA	157.31	13.0	20 49K	51			
MALAGA	157.57	15.0	20 32A	34		23 10	PP
TAMANRASSET	171.89	340.9	20 21	10		25 38	PP

JUNE 17 0.H 27.M 1.S EPICENTRE 43.49 140.99 DEPTH= 0.KM
A=-0.56556 B= 0.45811 C= 0.68576 D= 0.6294 E= 0.7771
G=-0.5329 H= 0.4316 K=-0.7278 HT= -3.0

SE= 4.00

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SAPPORO	0.49	147.9	0 29A	16	0 42	19		
SUTTSU	0.89	219.3	0 33	14	0 49	16		
ASAHIGAWA	1.04	73.3	0 39	18	0 59	22		
TOMAKOMAI	1.06	155.8	0 29	7	0 40	3		
MURORAN	1.16	180.8	0 27A	4	0 40	0		
MORI	1.42	192.8	0 31	4	0 47	1		1 44
OBIHIRO	1.71	108.6	0 38	7	0 57	3		
HAKODATE	1.72	186.8	0 32A	1	0 47	-7		
URAKAWA	1.88	134.9	0 34A	1	0 52	-6		
ABASHIRI	2.44	76.3	0 55	14	1 22	10		
KUSIRO	2.54	100.4	0 47	4	1 14	-1		
AOMORI	2.67	183.5	0 43	-2	1 6	-12		
HATINOHE	2.98	172.1	0 43	-6	1 7	-19		
NEMURO	3.35	91.1	0 59	5	1 32	-4		
Y.-SAKHLINSK	3.67	18.8	1 18	19	2 18	34		
MORIOKA	3.79	177.9	0 54	-6	1 24	-23		
AKITA	3.82	190.4	0 58	-3	1 31	-17		
MIYAKO	3.90	168.8	0 55	-7	1 26	-24		
MIZUSAWA	4.36	178.6	1 2	-7	1 37	-24		
ISINOMAKI	5.06	177.1	1 20	1	1 56	-23		
SENDAI	5.21	180.8	1 14	-7	2 0	-22		
HUKUSIMA	5.75	184.1	1 27	-1	2 23	-13		
NIIGATA	5.76	195.5	2 20	52				
AIKAWA	5.85	201.8	1 30	0				
SHIRAKAWA	6.39	185.6	1 34	-3	2 31	-21		
ONAHAMA	6.53	180.7	2 23	44				
VLADIVOSTOK	6.64	269.9	1 53	12	3 15	17		
UTUNOMIYA	6.98	187.5	2 4	18				2 44
MITO	7.11	183.4	2 31	44				
NAGANO	7.14	198.4	1 48	0				
MAEBASI	7.23	192.4	2 50	61				3 11
MATUSIRO	7.25	198.0	1 44K	-5	2 57	-16		2 3
KAKIOKA	7.28	185.2	1 42	-8	2 47	-27		
OIWAKE	7.39	195.5	2 6	15				
KUMAGAYA	7.43	190.1	2 8	16				2 56
MATUMOTO	7.59	198.8	2 5	11				
TITIBU	7.64	191.7	2 45	50				
TOKYO C.M.O.	7.86	187.4	2 39	41				3 1
KOHU	8.07	194.2	2 16	15				3 14
YOKOHAMA	8.11	187.8						3 10
HUNATU	8.16	192.9	2 21	19				
YAKUTSK	19.72	344.1	4 39	6	8 19	9		
SHILLONG	43.57	262.3	8 5K	-2				
COLLEGE	43.92	35.6	8 11	1				
CHITTAGONG	45.58	258.7	8 10	-13				
WARSAK DAM	53.56	284.8	9 19	-5				
RESOLUTE	56.46	15.3	9 45A	0				
APATITY	56.71	334.0	9 50	3				
QUETTA	58.92	283.6	10 2	-1				
SODANKYLA	58.93	335.7	10 4	1				

KIRUNA	60.40	337.9	10 15	2
MOSCOW	61.94	321.4	10 25	1
HELSINKI	64.26	330.1	10 40	1
CORVALLIS	64.66	51.9	10 40A	-1
SKALSTUGAN	65.82	337.5	10 49	0
UPPSALA	67.05	332.8	10 57	0
HUNGRY HORSE	67.33	44.3	10 57	-1
SHASTA	67.56	54.8	10 59	-1
MINERAL	68.25	54.7	11 2A	-2
BERKELEY	69.42	57.1	11 8	-3
BUTTE	69.61	45.5	11 12	-1
RENO	69.83	54.4	11 11	-3
LICK	70.14	57.2	11 13A	-3
FRESNO	71.63	56.6	11 22	-3
EUREKA	72.11	52.4	11 25	-3
BOULDER CITY	75.14	54.5	11 44	-1
RAPID CITY	75.70	42.0	11 47	-2
PRUHONICE	75.84	327.6	11 51	2
STUTTGART	78.85	329.8	12 7	1
TUCSON	80.11	54.8	12 11	-2
TUCSON TELE.	80.11	54.7	12 11	-2
OTTAWA	85.67	25.0	12 40	-1

JUNE 17 19.H 6.M 48.S EPICENTRE 24.53 142.34 DEPTH= 79.KM

DEPTH OF FOCUS= 0.007R

A=-0.72103 B= 0.55649 C= 0.41284 D= 0.6110 E= 0.7916
G=-0.3268 H= 0.2522 K=-0.9108 HT= 3.5

SE= 2.67

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	6.20	343.5	1	17	-13	2	28	-13				
HATIDYOZIMA	8.82	346.1	2	28	22						3	45
MERA	10.58	348.7	2	26	-4	4	22	-6				
OMAESAKI	10.66	341.3	2	35	4	5	1	31				
AJIRO	10.85	345.7	2	32	-2	4	31	-3				
SHIZUOKA	10.95	342.7	2	41	6	5	6	29				
MISIMA	10.96	345.2	2	33	-2	4	35	-2				
YOKOHAMA	11.11	348.5	2	35	-2	4	36	-5				
GUAM	11.23	167.9	2	37	-2							
TOKYO C.M.O.	11.34	349.2	2	39	-1	4	40	-6				
KAMEYAMA	11.48	335.0	2	49	7						4	14
KOHU	11.53	344.5	2	42	-1	4	50	-1				
NAGOYA	11.58	337.5	2	47	3							
IIDA	11.63	341.4	2	48	4							
TOKUSIMA	11.67	326.3	2	43	-2							
OSAKA	11.69	331.2	2	49	4	5	8	13			3	22
SUMOTO	11.74	328.1	2	47	1	4	56	0				
TITIBU	11.75	346.9	2	41	-5							
KAKIOKA	11.81	351.4	2	45	-2	4	50	-7				
KOTI	11.83	321.4	2	48	1	5	6	8				
GIHU	11.86	337.3	2	47	0							
KUMAGAYA	11.86	348.3	2	45	-2	4	51	-8				
ABUYAMA	11.86	331.9	2	46A	-1	4	54	-5				
KOBE	11.87	330.1	2	50	2						6	31
MITO	11.92	352.7	2	45	-3	4	53	-7				
HIKONE	11.93	335.2	2	53	5							
YAKUSIMA	12.05	301.9	2	51	1							
MIYAZAKI	12.11	309.9	2	51	0	5	14	9				
TAKAMATU	12.13	325.4	2	52	1							
MAEBASI	12.16	347.4	2	46	-5	5	0	-6			3	14
UTUNOMIYA	12.17	350.5	2	47	-5	4	57	-9				
OIWAKE	12.21	345.4	2	53	1	5	4	-3				
ONAHAMA	12.44	354.6	2	57	2	5	6	-6			6	41
MATUYAMA	12.48	320.1	2	52	-4						4	44
MATUSIRO	12.49	344.5	2	51A	-5	5	19	5			3	19
KAGOSIMA	12.55	306.6	3	0	3						3	50
NAGANO	12.61	344.6	2	57	0	5	38	21				
HUKUI	12.62	336.9	2	59	1							
SHIRAKAWA	12.68	352.3	2	53	-5	5	9	-9				
TOYOOKA	12.75	331.1	3	4	5						5	55
OOITA	12.77	315.2	3	2	2	5	31	11				
TOYAMA	12.91	341.2	3	4	3							
TAKADA	13.01	345.3	2	48	-15							

KUMAMOTO	13.13	311.6	3	9	5					
HUKUSIMA	13.28	353.5	3	1	-5	5	28	-4		
WAZIMA	13.63	341.3	3	8	-3					
NIIGATA	13.64	348.9	3	16	5	5	36	-5	6	32
HAMADA	13.64	321.6	3	15	4	6	0	19		
NAGASAKI	13.65	309.6	3	14	3	5	58	17		
SAGA	13.65	312.2	3	16	5				4	42
SENDAI	13.75	355.2	3	8	-4	5	33	-11		
HUKUOKA	13.77	313.6	3	17	4	5	53	9		
YAMAGATA	13.78	353.4	3	10	-3					
ISINOMAKI	13.89	356.7	3	11K	-3	5	40	-7		
AIKAWA	13.89	346.4	3	10	-4					
TOMIE	14.38	307.1	3	24	4					
SAKATA	14.48	352.2	3	21	-1	6	5	4		
MIZUSAWA	14.59	356.3	3	21	-2	5	57	-6		
MIYAKO	15.08	358.9	3	25	-5	6	3	-12		
MORIOKA	15.16	356.5	3	27	-4	6	7	-10		
AKITA	15.26	353.4	3	28	-4	6	11	-8	6	37
HATINO c	15.97	357.8	3	37	-4	6	28	-7		
AOMORI	16.30	355.8	3	48	3	7	0	17		
HAKODATE	17.26	355.9	3	58	1	7	21	17		
URAKAWA	17.58	1.1	4	2	1	7	18	6		
MORI	17.59	355.6	4	3	2	7	23	11		
MURORAN	17.79	356.7	4	6	3					
TOMAKOMAI	17.95	358.2	4	21	16					
SUTTSU	18.31	355.1	4	18	8	7	32	4		
OBIHIRO	18.36	2.0	4	13	3					
KUSIRO	18.48	4.8	4	11	-1	7	30	-2		
SAPPORO	18.51	357.7	4	15	3	7	39	7	8	24
KOROR	18.68	205.0	4	12	-2	8	2	26		
ILAN	18.72	275.0	4	15	1					
HWALIEN	18.90	272.6	4	48	32					
TAIPEI	18.91	275.9	4	17	0	7	58	17		
NEMURO	18.94	7.3	4	17	0	7	40	-2		
HSINKONG	19.24	270.1	4	23	3					
TRUK	19.25	150.2	4	18	-2				8	43
ABASHIRI	19.51	4.2	4	24	1					
ALISHAN	19.70	271.5	4	27	2					
TAWU	19.79	268.1	4	27	1	8	14	15		
HENGCHUN	19.99	267.1	4	53	25					
VLADIVOSTOK	20.44	337.7	4	29	-4					
BAGUIO CITY	21.90	252.5	4	47	0	8	51	12		
NANKING	22.01	295.2	4	47A	-2	8	48	7	5	6
Y.-SAKHLINSK	22.38	0.7	4	53	1	8	57	9		
MANILA	22.40	247.7	4	56	4	9	16	28		
CHANGCHUN	23.77	328.3	5	4A	-2	9	18	6	5	38
UGLEGORSK	24.51	359.6	5	13	0					
HONG KONG	25.93	270.9	5	26A	0	9	58	10	6	32
CANTON	26.61	272.9	5	33	1	10	8	9	5	59
PEKING	26.86	311.4	5	31A	-4	10	3	-1	6	7 *SP
PETROPAVLOVK	31.11	19.1	6	14	1	11	18	7		
PHU-LIEN	33.10	270.8	7	5	35				11	44
PORT MORESBY	34.05	171.5	6	35	-3	11	56	-1		
CHENGTU	34.40	288.9	6	39A	-2	12	5	3	7	52 PP
LANCHOW	34.98	298.4	6	46A	0	12	12	1	8	9 PP
MAGADAN	35.50	7.4	6	50	-1	12	22	3		
KUNMING	35.92	279.3	6	54A	0	12	29	3	8	23 PP
YAKUTSK	38.44	350.5	7	14	-1	13	4	0		
IRKUTSK	39.95	323.9	7	24	-4	13	28	1		
TOCKLAI	42.75	283.5	7	54A	3					
CHARTERS TS.	44.43	174.7	8	4K	0				14	31
SHILLONG	45.51	282.4	8	12A	-1	14	49	1		
LHASA	45.66	288.2	8	16A	2	14	56	6	10	3 PP
LEMBANG	46.00	231.8	8	7	-10	14	45	-10		
CHITTAGONG	46.19	278.1	8	17	-1					
MEDAN	46.90	250.7	8	25	1				9	7
TIKSI	47.75	354.3	8	30	-1	15	25	5		
CHATRA	49.44	285.1	8	45	1				10	53
NOUMEA	52.11	151.4	9	2A	-2				9	37
BRISBANE	52.72	168.0	9	6K	-2	16	29	0		
SEMIPALATNSK	53.84	315.5	9	14	-3	16	41	-3		
HONOLULU	54.59	80.5	9	24	2					
KIPAPA	54.63	80.4	9	24	2					
SUVA	55.11	136.9				17	8	7	19	22 SCS
DEHRA DUN	56.70	291.2	9	39	2					
KIVERVIEW	58.64	171.4	9	50	-1					
COLLEGE	59.51	27.7	9	57	0					
LAHORE	59.59	293.4	9	56	-2				10	8

NAMANGAN	60.13	304.5	10	0	-1	18	9	2				
WARSAK DAM	61.39	296.7	10	8A	-2							
MELBOURNE	62.08	177.6	10	13K	-1							
SVERDLOVSK	65.35	323.2	10	36	0	19	12	0				
OUETTA	66.08	293.6	10	39A	-1	19	23	2	10	51		
ONERAHI	67.19	152.1	10	52	5							
KARAPIRO	69.50	152.5	11	0	-2							
NORD	73.54	356.9	11	25A	-1							
ALBERNI	73.60	43.0	11	29	3							
APATITY	74.47	337.8	11	30	-1	20	59	1				
HORSESHOE B.	74.51	42.5	11	33	2							
RESOLUTE	74.52	13.4	11	31A	0	21	2	3			25	12 SS
VICTORIA	74.72	43.4	11	34A	1							
CORVALLIS	76.16	47.2	11	44	3							
SODANKYLA	76.83	339.0	11	43	-2							
MAKHACH-KALA	77.06	311.4				21	23	-4				
MOSCOW	77.90	326.0	11	47	-3	21	35	-1				
UKIAH	78.19	52.4	11	54	2				12	9		
SHASTA	78.20	50.7	11	55A	3							
KIRUNA	78.51	340.8	11	53	-1	[illegible]		5				
MINERAL	78.89	50.8	11	57A	1							
BERKELEY	79.37	53.3	12	0A	2							
PULKOVO	79.44	331.5	11	57	-2	21	51	-1				
LICK	80.03	53.6	12	5A	3						12	26
RENO	80.47	51.0	12	7A	3							
HUNGRY HORSE	80.54	41.1	12	7	2	22	20	16	12	20	30	45 PKKP
HELSINKI	81.48	333.3	12	8	-2							
FRESNO	81.60	53.5	12	13	3							
SOTCHI	82.01	314.3	12	11	-1	22	17	-2				
BUTTE	82.48	42.7	12	18	3							
EUREKA	83.19	49.8	12	21	3							
BOZEMAN	83.58	42.5	12	23	3						13	19
SKALSTUGAN	83.86	339.9	12	21A	-1						15	33 PP
PASADENA	83.91	55.3	12	24	2	22	48	10	12	36		
UPPSALA	84.57	335.4	12	24A	-1	22	39	-5	12	46	15	39 PP
SCORESBY SD.	84.60	354.8	12	35A	9							
SALT LAKE C.	85.41	47.1	12	32	2						13	23
BOULDER CITY	85.56	52.5	12	32	2				12	53		
KISHINEV	86.99	321.1	12	35	-2	23	10	2				
IASI	87.61	321.7	12	40	0	23	35	22				
LWOW	88.01	325.2	12	41	-1							
WARSAW	88.03	328.3	12	41A	-1	23	21	4				
COPENHAGEN	89.46	334.2	12	49K	0	23	46	15			23	34 SKS
KRAKOW	89.95	327.0	12	50	-1						16	20 PP
TUCSON	90.24	54.2	12	56	3							
TUCSON TELE.	90.28	54.1	12	56	3							
RACIBORZ	90.78	327.8	12	55	0						13	5 PCP
REYKJAVIK	90.78	353.2	12	57K	2							
COLLMBERG	92.36	330.9	13	3	0							
PRAGUE	92.57	329.4	13	5	1						14	18
PRUHONICE	92.58	329.3	13	2	-2						16	44 PP
HALLE	92.67	331.5	13	0	-4	23	53	-6	13	26	16	45 PP
JENA	93.25	331.3	13	5	-2				13	19	16	49 PP
ABERDEEN	93.29	341.5									39	32
PLAUEN	93.31	330.7	13	4	-3						16	49 PP
BENSBERG	95.09	333.4	13	14	-1							
DURHAM	95.17	340.0									17	1 PP
STUTTGART	95.88	331.0	13	17	-2						17	8 PP
TRIESTE	95.98	326.5	13	18	-1						17	4 PP
TUBINGEN	96.12	330.9	13	18	-2						13	42
UCCLE	96.34	334.7	13	49	28							
EBINGEN	96.42	330.7	13	20	-1							
STRASBOURG	96.65	331.6	13	18	-4	24	38	5	13	35	23	55 SKS
DOURBES	96.79	334.1	13	21	-2							
KEW	97.52	337.5	13	6	-20				13	26		
RATHFARNHAM	97.85	341.6	13	27A	0							
PARIS	98.65	334.5	13	30	-1						17	26 PP
CLERMONT-FD.	100.83	332.3									17	54
PALISADES	106.62	27.8									33	51 SS
RUMANGABO	111.43	278.7	19	4	39						20	27 PP
LWIRO	112.31	278.0	19	15	49							
SOUTH POLE	114.38	180.0	18	34	4						19	27 PP
BYRD STATION	115.40	169.0	18	33	1				19	24		
TAMANRASSET	117.00	314.9	18	38	3						19	42 PP
WINDHOEK	130.04	260.4									22	20
CHINCHINA	132.84	56.7	19	9	3						22	31 SKP
FUQUENE	133.93	54.5	19	13	5							
BOGOTA	134.24	55.7	19	25	17						22	44 SKP
HUANCAYO	142.27	77.7	19	22	-1							

LA PAZ 150.42 80.2 19 44 7 20 1 PKP2

JUNE 18 1.H 15.M 1.S EPICENTRE 68.87 -16.33 DEPTH= 0.KM

A= 0.34801 B=-0.10199 C= 0.93193 D=-0.2812 E=-0.9596
G= 0.8943 H=-0.2621 K=-0.3626 HT=-11.5

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SCORESBY SD.	2.54	312.2	0 37A	-6				
AKUREYRI	3.28	192.9	0 52	-1	1 25	-9		2 2
REYKJAVIK	5.25	207.7	1 19K	-2	2 26	3		2 10
BERGEN	12.49	122.2	2 46	-15				
SKALSTUGAN	12.61	101.0	3 4	1				
NORD	12.81	359.8	2 59	-7	5 18	-12		
ABERDEEN	13.34	144.5	3 11A	-2	5 56	13		5 6
KIRUNA	13.48	77.1	3 14	-1	5 56	10		
EDINBURGH	14.30	148.8			5 52	-14		8 7 PCP
DURHAM	15.69	146.9	3 42A	-2	6 42	3		
SODANKYLA	15.84	75.0	3 45	0				
RATHFARNHAM	16.32	158.1	3 52K	0	6 55	2		4 3 PP
UPPSALA	17.00	105.3	4 0	0	7 13	4		7 23 SP
APATITY	18.12	70.5	4 13	-1	7 39	4		
COPENHAGEN	18.55	121.0	4 20A	1	7 57	13		8 12 SS
KEW	19.07	148.1	4 25A	-1	8 2	6		4 51 PP
HELSINKI	19.39	96.2	4 30	1				
WITTEVEEN	19.39	134.4	4 29A	-1				
DE BILT	19.68	137.8	4 33A	0	8 19	10		
KHEYS	19.80	28.5	4 46	12	8 41	29		5 13 PP
UCCLE	20.68	140.6	4 42A	-2	8 34	3		
BENSBERG	21.22	135.8	4 49	0	8 51	10		
DOURBES	21.40	140.9	4 50	-1	8 56	12		
POTSDAM	21.57	125.1	4 54	1				9 55 SS
PULKOVO	21.60	91.7	4 53	0	8 51	3		
HALLE	22.02	127.8	4 58	1	9 6	10		5 30 PP
PARIS	22.16	145.6	4 59	0	9 31	32		5 14 PP
JENA	22.43	129.1	5 2	1	9 13	10		5 30 PP
COLLMBERG	22.50	126.5	5 3	1	9 18	13		
PLAUEN	22.97	128.7	5 5	-2	9 18	5		5 27 PP
KARLSRUHE	23.33	135.9	5 13	3	9 29	9		5 53 PP
CHEB	23.41	128.8	5 12	1	9 28	7		7 13
RESOLUTE	23.44	319.1	5 8	-3	9 19	-3		
STRASBOURG	23.57	137.3	5 14	2	9 33	9		10 33 SS
STUTTGART	23.75	134.9	5 15	1	9 39	12		10 19
TUBINGEN	23.94	135.3	5 17A	1				
PRAGUE	24.01	125.9	5 17K	0	9 39	7		5 56 PP
PRUHONICE	24.13	125.8	5 19	1	9 55	21		12 6
WARSAW	24.20	114.5	5 20A	1	9 41	6		
EBINGEN	24.24	135.8	5 20	1				
BASLE	24.50	138.5	5 24	3				10 7
RAVENSBURG	24.77	135.2	5 24	0				
NEUCHATEL	24.85	139.9	5 25	0				11 22
ZURICH	24.89	137.1	5 26	1				6 2
RACIBORZ	25.15	120.7	5 31	3				6 29
CLERMONT-FD.	25.19	146.8	5 30	2	10 2	10		10 56 SS
CHUR	25.61	136.2	5 34K	2				
KRAKOW	25.72	118.5	5 33	0	10 6	6		6 7
PAVIA	27.09	138.0	5 49	3	10 36	13		6 47 PPP
MOSCOW	27.23	91.4	5 50	3	10 27	2		
LWOW	27.24	113.6	5 49	2				
UZHGOROD	27.72	117.1	5 52	1				6 29 PP
TRIESTE	27.83	131.1	5 53	0	10 41	6		8 46 PCP
MONACO	28.05	141.6	5 54	0				
RAKHOV	28.92	115.6	5 59	-3				
CERNAUTI	29.22	113.0	6 3	-2				7 7 PP
TORTOSA	29.51	153.5	6 9	1	11 7	5		
TOLEDO	29.79	160.8	6 11	1	10 56	-10		11 55
BELGRADE	30.53	123.0	6 18A	1	11 26	7		
IASI	30.70	112.2	6 17	-1				
ROME	30.99	135.7	6 18	-3	11 34	9		7 34 PP
KISHINEV	31.28	110.9	6 24	1	11 30	0		
ALICANTE	31.78	155.9	6 19	-9	11 21	-17		7 21 PP
GRANADA	32.51	160.9	6 32A	-2	12 17	28		7 56 PP
BUCHAREST	32.67	116.4	6 35	0	11 59	7		

MALAGA	32.87	162.2	6	40	3	12	4	9	7	46 PP
ALMERIA	32.98	159.3	6	39	1				7	25 PP
SOFIA	33.33	121.1	6	41	0					
ALGIERS UNI.	33.89	151.4	6	47	1	12	13	3	7	57 PP
HALIFAX	34.10	249.3				12	13	-1	13	59 SS
SEVEN FALLS	34.45	259.3	6	50A	-1	12	19	0	14	41 SS
RELIZANE	34.48	155.3	6	50	-1				9	20 PCP
SVERDLOVSK	34.57	70.7	6	52	0					
SIMFEROPOL	34.90	106.9	7	3	8	12	35	9		
MESSINA	35.26	133.9	6	56	-2	12	28	-4	8	16 PP
YALTA	35.32	107.2							14	47 SS
SHAWINIGAN	35.63	260.8	7	0	-1					
ISTANBUL KA.	36.64	115.6	7	9	0	12	59	6		
BREBEUF	36.84	260.7	7	10A	-1					
OTTAWA	37.68	262.8	7	18A	0					
ATHENS	37.78	123.9	7	19	0					
TIKSI	37.87	17.1	7	20	0	13	16	4	8	45 PP
SOTCHI	38.06	102.1							13	23 PCS
HARVARD	38.71	256.2	7	26	-1					
WESTON	38.74	255.9	7	28K	1					
PALISADES	40.86	257.5	7	46	1	13	56	-1	9	19 PP
MAKHACH-KALA	41.38	94.8							14	10 PS
TIFLIS	41.50	98.4	7	52	2	14	14	8		
COLLEGE	42.26	331.6	7	56	0					
MORGANTOWN	44.24	262.6	8	13A	1					
KSARA	45.47	112.6	8	25	3	15	14	10	18	31 SS
BERMUDA	45.52	242.4				15	13	8	18	39
SEMIPALATNSK	46.41	61.4	8	30	0					
JERUSALEM	47.12	114.5	8	55	20					
YAKUTSK	47.17	21.0	8	37	1	15	28	0		
HELWAN	47.63	119.6	8	40	1	15	41	6		
TAMANRASSET	47.98	152.5	8	42A	0	15	16	-24	10	32 PP
KIZYL-ARVAT	48.02	89.2	8	50	8	15	48	8	19	17 SS
HUNGRY HORSE	48.56	298.1	8	44	-2					
RAPID CITY	48.67	286.6	8	49	2				10	18 PCP
COLUMBIA	49.65	260.2	8	55	0					
ASHKABAD	49.73	87.9	8	59	4	16	11	7	19	35 SS
TCHIMKENT	49.91	75.3	9	0	3	16	16	9		
BOZEMAN	49.95	294.1	8	56	-1				9	41
BUTTE	50.14	295.5	8	58	-1				9	20
TASHKENT	50.66	76.2	8	58	-5				16	22 PS
FRUNSE	51.13	70.7	9	8	2	16	29	5		
BAIRAM-ALI	51.40	84.7				16	37	10		
ALMATA	51.59	68.5	9	12	2				16	42 PS
NAMANGAN	51.80	74.3	9	14	3					
LARAMIE	51.94	286.9	9	42	30					
RYBACHE	52.02	69.7	9	15	2				16	48 PS
ANDIJAN	52.25	73.9	9	17	2				16	49 PS
KABANSK	52.33	40.9	8	59	-16					
FERGANA	52.37	74.6	9	13	-3				16	50 PS
FAYETTEVILLE	52.53	273.9	9	16	-1				10	31
NARYN	52.90	70.4	9	15	-4	16	56	8		
STALINABAD	52.94	78.2				16	55	6	11	43
BOULDER	52.98	286.0	9	19	-1					
DZHERGETAL	53.21	75.7							12	10
KYAKHTA	53.84	41.8	9	29	3					
KULYAB	53.88	77.7	9	37	10	17	4	3		
SALT LAKE C.	54.57	291.9	9	31	-1				10	4
ULAN-BATOR	56.23	42.6	9	45	1					
EUREKA	57.10	294.7	9	48	-2					
LUBBOCK	57.54	279.5	9	52	-1					
WARSAK DAM	58.01	78.2	9	55	-1					
SHASTA	58.06	300.6	9	57	0					
MINERAL	58.13	299.8	9	55	-2					
RENO	58.30	297.9	9	57	-1					
UKIAH	59.75	300.5	10	7	-1					
QUETTA	59.81	84.2	10	10	1	18	24	4		
BOULDER CITY	59.89	292.0	10	8	-1					
BERKELEY	60.60	299.1	10	15	1				12	11
FRESNO	60.82	296.6	10	16	0					
LICK	60.89	298.4	10	15	-1					
LAHORE	61.21	76.9	10	21	3				12	42 PP
TUCSON TELE.	61.79	286.7	10	25	3				12	29 PP
TUCSON	61.91	286.8	10	22	-1					
PASADENA	62.67	294.0	10	32	4	19	3	7		
MATUSIRO	73.21	21.2	11	35	1					
RUMANGABO	76.59	132.7	11	54	0				12	1
LWIRO	77.33	133.5	12	1	3					

HUANCAYO	90.61	237.0	13	9	4					
HALLEY BAY	144.31	184.4	19	33	-4				22	33 PP
SOUTH POLE	158.74	180.0	20	8	9					
BYRD STATION	158.76	208.0	20	36	37					

JUNE 18 2.H 23.M 25.S EPICENTRE 68.89 -16.36 DEPTH= 0.KM

A= 0.34759 B=-0.10204 C= 0.93208 D=-0.2817 E=-0.9595
G= 0.8943 H=-0.2626 K=-0.3623 HT=-11.5

SE= 2.73

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SCORESBY SD.	2.52	311.9	0	38A	-5	1	3	-12					
AKUREYRI	3.31	192.6	0	51	-3	1	29	-6					
REYKJAVIK	5.27	207.5	1	20	-2	2	29	4			2	54	
SKALSTUGAN	12.62	101.1	3	9	5								
NORD	12.78	359.8	3	4	-2								
ABERDEEN	13.37	144.5	3	2A	-12								
KIRUNA	13.48	77.1	3	17	2	5	59	12					
DURHAM	15.72	146.9	3	45	0	6	44	4					
SODANKYLA	15.85	75.1	3	45	-1								
RATHFARNHAM	16.34	158.1	3	57A	4	6	58	3			4	8	PP
UPPSALA	17.02	105.3	4	1	0	7	10	0					
APATITY	18.12	70.6	4	14	-1	7	39	4					
COPENHAGEN	18.57	121.0	4	21	0	8	2	16					
KEW	19.09	148.1	4	28	1	8	7	10					
HELSINKI	19.40	96.3	4	31	0								
DE BILT	19.70	137.8	4	35	1								
KHEYS	19.78	28.6	4	40	5	8	40	27			5	9	PP
UCCLE	20.71	140.6	4	45	0								
BENSBERG	21.24	135.8	4	49	-1						4	57	
DOURBES	21.42	140.9	4	50	-2	8	57	11					
POTSDAM	21.59	125.1	4	52	-2						5	59	
PULKOVO	21.61	91.7	4	53	-1	8	48	-1			8	57	PCP
HALLE	22.04	127.8	4	59	1	9	10	13			9	48	SS
PARIS	22.18	145.5	5	0	0						9	11	SS
JENA	22.45	129.1	5	2	0						6	7	
COLLMBERG	22.52	126.5	5	3	0								
PLAUEN	22.99	128.7	5	7	-1								
KARLSRUHE	23.35	135.9	5	15	4	9	33	12					
RESOLUTE	23.41	319.0	5	10	-2	9	23	1			10	55	
CHEB	23.44	128.8	5	23	11						6	28	
STRASBOURG	23.59	137.3	5	15	1	9	37	12			10	50	SS
STUTTGART	23.77	134.9	5	15	0	9	39	11			13	35	
TUBINGEN	23.96	135.3	5	17	0								
PRAGUE	24.04	125.9	5	22	4	9	43	10			11	56	
PRUHONICE	24.15	125.8	5	19	0						5	59	
WARSAW	24.22	114.5	5	22	2								
EBINGEN	24.26	135.8	5	19	-1								
RAVENSBURG	24.80	135.2	5	28	3								
CLERMONT-FD.	25.21	146.8	5	31	2	10	12	19					
KRAKOW	25.74	118.5	5	34	0						6	48	
MOSCOW	27.24	91.4	5	52	4	10	30	4					
LWOW	27.26	113.7									5	3	
UZHGOROD	27.74	117.1	5	53	0						6	25	
ROME	31.01	135.7	6	25	3	11	35	8			8	21	
ALICANTE	31.80	155.9	6	12	-17	11	6	-33					
SVERDLOVSK	34.57	70.7	6	50	-3								
SIMFEROPOL	34.92	106.9	6	50	-6								
MESSINA	35.29	133.9	6	51	-8								
OTTAWA	37.67	262.7	7	19	0								
PALISADES	40.85	257.5				13	54	-4			16	58	SS
COLLEGE	42.23	331.6	7	56	-1								
KSARA	45.49	112.6	8	33	10								
TAMANRASSET	48.00	152.4	8	44	1								
KIZYL-ARVAT	48.03	89.2	8	57	14								
HUNGRY HORSE	48.54	298.1	8	46	-1								
ASHKABAD	49.74	87.9	9	0	4						19	38	
BOZEMAN	49.93	294.0	8	57	-1								
BUTTE	50.12	295.5	9	0	1								
LARAMIE	51.93	286.9	9	16	3								
RYBACHE	52.02	69.7									11	31	
SALT LAKE C.	54.55	291.9	9	36	3								
EUREKA	57.08	294.6	9	50	-1								

TUCSON TELE.	61.78	286.7	10 23	0							
TUCSON	61.90	286.7	10 24	0							
SOUTH POLE	158.76	180.0	20 26	26							

JUNE 18 4.H 34.M 0.S EPICENTRE 68.88 -16.51 DEPTH= 0.KM

A= 0.34748 B=-0.10299 C= 0.93202 D=-0.2842 E=-0.9588
G= 0.8936 H=-0.2648 K=-0.3624 HT=-11.5

SE= 2.48

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
SCORESBY SD.	2.49	312.7	0 36A	-6	1 2	-12			
AKUREYRI	3.29	191.6	0 51	-3	1 30	-4		1 22	
REYKJAVIK	5.24	206.9	1 20	-1	2 30	7			
SKALSTUGAN	12.67	100.8	3 6	2					
NORD	12.79	359.9	3 1	-5					
ABERDEEN	13.39	144.2	3 17A	3					
EDINBURGH	14.34	148.4			5 55	-12		8 46	PCP
DURHAM	15.74	146.6	3 43A	-1	6 55	15			
SODANKYLA	15.90	75.0	3 50	3					
RATHFARNHAM	16.36	157.8	3 49	-3	6 53	-1		4 4	PPP
UPPSALA	17.07	105.1	4 4A	3	7 11	0			
APATITY	18.17	70.5	4 12	-3	7 39	3			
COPENHAGEN	18.61	120.8	4 23	2	7 59	13			
KEW	19.11	147.8	4 25A	-2	8 6	9			
HELSINKI	19.45	96.1	4 32	2					
DE BILT	19.73	137.5	4 34	0	8 20	9			
KHEYS	19.82	28.5	4 44	9	8 41	28		5 10	PP
UCCLE	20.74	140.3	4 45	1	8 35	3			
BENSBERG	21.27	135.6	4 50	0	8 18	-24			
DOURBES	21.45	140.6	4 49	-3	8 55	9			
PULKOVO	21.66	91.6	4 53	-1	8 50	0			
HALLE	22.08	127.6	5 0	2	9 9	12		5 28	PP
PARIS	22.20	145.3	5 0	1				9 9	SS
JENA	22.48	128.8	5 3	1	9 12	7			
PLAUEN	23.03	128.5	5 8	0	9 18	3			
KARLSRUHE	23.38	135.6	5 14	3	9 36	15			
RESOLUTE	23.38	319.0	5 10	-1	9 20	-1		11 0	
CHEB	23.47	128.6	5 14	2	9 31	9		6 48	
STRASBOURG	23.62	137.0	5 15	2	9 34	9		7 46	
STUTTGART	23.81	134.7	5 16	1	9 36	8		5 48	PP
TUBINGEN	23.99	135.1	5 18	1					
PRAGUE	24.07	125.7	5 16	-2	9 39	6			
PRUHONICE	24.19	125.6	5 20	1				6 11	
WARSAW	24.27	114.3	5 21	2	9 41	5			
RAVENSBURG	24.83	135.0	5 27	2					
NEUCHATEL	24.90	139.7	5 28	2					
CLERMONT-FD.	25.23	146.5	5 30	1	10 1	8			
KRAKOW	25.78	118.3	5 34	0	10 3	1			
PAVIA	27.14	137.8	6 33	47	10 55	31			
MOSCOW	27.29	91.3	5 46	-2	10 31	4			
LWOW	27.31	113.5	5 48	0					
UZHGOROD	27.78	116.9	6 0	8					
TRIESTE	27.89	130.9	5 52	-1	10 41	5			
CERNAUTI	29.28	112.8						6 5	PP
TORTOSA	29.55	153.2	5 38	-30	11 12	9			
ROME	31.04	135.4	6 23	2	11 35	8		7 59	PPP
ALICANTE	31.81	155.7	6 14	-14	11 8	-31			
GRANADA	32.54	160.6	6 45K	10					
BUCHAREST	32.73	116.2			12 5	12			
MALAGA	32.91	161.9	6 40A	2				7 36	PP
SEVEN FALLS	34.39	259.1	6 50	-1					
SVERDLOVSK	34.62	70.6	6 53	0					
SIMFEROPOL	34.97	106.7			12 25	-2			
MESSINA	35.32	133.7	6 56	-3	12 28	-5		8 29	PPP
OTTAWA	37.62	262.6	7 19	1					
TIKSI	37.87	17.1	7 19	-1				13 19	PCS
PALISADES	40.80	257.3			14 2	6		9 24	PP
TIFLIS	41.57	98.2	7 52	1				17 12	SS
COLLEGE	42.22	331.5	7 56	0					
KSARA	45.54	112.5	8 27	4					
TAMANRASSET	48.02	152.2	8 42	-1				10 15	
KIZYL-ARVAT	48.08	89.0						13 56	PCS
HUNGRY HORSE	48.49	298.0	8 44	-2					

COLUMBIA	49.59	260.1	8	57	2						
ASHKABAD	49.79	87.8	9	5	9	16	2	-3			
BOZEMAN	49.88	293.9	8	57	0					9	8
TCHIMKENT	49.97	75.2	8	57	-1						
FRUNSE	51.18	70.6								9	30
ALMATA	51.64	68.4	9	12	2					16	43 PS
NAMANGAN	51.86	74.2	9	13	1						
LARAMIE	51.88	286.8	9	11	-1						
RYBACHE	52.08	69.6	9	16	2						
ANDIJAN	52.31	73.7	9	17	2					11	20 PP
KABANSK	52.36	40.8	9	0	-16	16	49	9			
FERGANA	52.43	74.4	9	17	1						
BOULDER	52.92	285.8	9	19	-1						
KYAKHTA	53.87	41.7	9	26	-1						
SALT LAKE C.	54.50	291.7	9	31	-1						
ULAN-BATOR	56.26	42.5	9	46	2						
EUREKA	57.04	294.5	9	50	0						
MINERAL	58.06	299.6	9	55	-2						
RENO	58.23	297.7	9	58	0						
QUETTA	59.87	84.1	10	9	-1	18	17	-4			
LICK	60.82	298.2	10	16	0						
TUCSON TELE.	61.73	286.5	10	23	1						
TUCSON	61.85	286.6	10	23	0						

JUNE 19 5.H 18.M 8.S EPICENTRE 49.88 155.91 DEPTH= 70.KM

DEPTH OF FOCUS= 0.006R

A=-0.59063 B= 0.26408 C= 0.76251 D= 0.4082 E= 0.9129
G=-0.6961 H= 0.3112 K=-0.6470 HT= -5.4

SE= 2.10

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SEVERO-KUR.	0.80	8.6	0	18	0	0	32	1					
PETROPAVLOVK	3.68	26.7	0	56A	0	1	40	1			1	10	*SP
KLYUCHI	7.09	22.5	1	44	0	3	14	11			1	58	*SP
KURILSK	7.15	232.5	1	42	-3	3	6	1			2	2	
UGLEGORSK	9.05	270.2	2	11K	0	4	4	12			2	28	*SP
Y.-SAKHLINSK	9.25	256.6	2	13A	0	4	4	7			2	29	*SP
NEMURO	9.66	231.2	2	12	-7								
MAGADAN	10.13	345.1	2	26	1	4	32	14			2	46	
KUSIRO	10.51	233.4	2	30	0	4	42	15			5	42	
WAKKANAI	10.58	250.5	2	37	6	4	32	3					
ASAHIGAWA	11.09	241.8	2	38	0								
OBIHIRO	11.19	236.4	2	39	-1						2	58	
URAKAWA	11.95	234.7	2	39	-11	4	50	-12			5	53	
SAPPORO	12.12	241.4	2	51	-1	5	20	14					
TOMAKOMAI	12.34	238.9	3	6	11								
SUTTSU	12.93	242.8	3	19	16	5	40	15					
MORI	13.18	239.7	3	6	0	5	24	-7			6	20	
HAKODATE	13.31	238.3	3	8	0								
AOMORI	13.95	235.3	3	37	21								
MIZUSAWA	15.02	229.9	3	31	1	6	9	-6					
AKITA	15.10	233.8	3	26	-5						4	44	
ISINOMAKI	15.48	227.8	3	40	4	6	20	-5					
SENDAI	15.81	228.5	3	42	2	7	2	29			4	14	
SAKATA	15.85	232.3	3	42	2						4	14	
YAMAGATA	16.09	229.6	3	42	-1								
HUKUSIMA	16.42	228.3	3	50	2	6	58	11					
ONAHAMA	16.86	225.7	4	14	21						6	58	
NIIGATA	17.00	231.7	4	2	7								
SHIRAKAWA	17.05	227.5	3	51	-4	7	10	9					
AIKAWA	17.33	233.5	4	0	1	7	13	5					
UTUNOMIYA	17.67	227.1	4	4	1	7	12	-3					
KAKIOKA	17.79	225.9	4	2	-3	7	20	2			5	37	
TAKADA	18.03	231.6	4	5	-3								
MAEBASI	18.18	228.5	4	9	0	7	34	8			4	45	
KUMAGAYA	18.23	227.4	4	9	-1	7	59	31					
NAGANO	18.39	230.8	4	12	0	7	43	12			5	0	
TOKYO C.M.O.	18.44	225.8	4	13	1	7	37	5			5	18	
MATUSIRO	18.48	230.5	4	8K	-5	7	37	4			16	15	SCS
OIWAKE	18.48	229.5	4	16	3								
TITIBU	18.51	227.7	4	10	-3								
WAZIMA	18.52	234.8	4	18	5								

YOKOHAMA	18.69	225.5	4	15	0				4	40
MATUMOTO	18.84	230.5	4	16	-1					
TOYAMA	18.88	232.8	4	15	-2					
KOHU	19.03	228.1	4	22	3	7	53	8		
HUNATU	19.04	227.5	4	20	1					
AJIRO	19.25	226.0	4	20	-2					
MISIMA	19.27	226.4	4	16	-6					
OSIMA	19.36	225.0	4	23	0	8	1	9		
SUIHWA	19.48	271.5	4	25	1					
IIDA	19.48	229.4	4	21	-3					
SHIZUOKA	19.65	227.3	4	25	-1	8	5	7		
OMAESAKI	20.04	227.0	4	35	5	8	11	5	5	8
GIHU	20.10	231.2	4	29	-2	8	12	4		
IRUKISAN	20.32	231.9	4	37	-1					
HIKONE	20.47	231.9	4	36	1					
KAMEYAMA	20.69	230.8	4	37	0	8	17	-2		
TOYOOKA	21.01	234.9	4	38	-2	8	29	4	10	13
ARUYAMA	21.13	232.5	4	38A	-3	8	30	3		
SAIGO	21.32	238.7	4	45	2					
OSAKA	21.32	232.1	4	45	2	8	43	12	5	13
OWASE	21.44	230.0	4	42	-2	8	41	8		
KOBE	21.48	232.3	4	44	-1	8	36	2		
CHANGCHUN	21.69	265.6	4	46	-1	8	43	6		
SUMOTO	21.89	232.8	4	50	1	8	50	9	5	25
SIOMISAKI	22.15	229.8	4	52	1				5	21
TOKUSIMA	22.26	232.8	4	50	-2					
TAKAMATU	22.34	234.2	4	56	3	8	52	3		
HAMADA	22.97	238.3	5	1	2	9	8	8	5	24
HIROSIMA	23.17	236.9	5	6	5	9	10	6	5	26
KOTI	23.21	233.8	5	1	-1	9	9	4		
OOITA	24.47	236.3	5	15	1	9	36	10		
HUKUOKA	24.86	238.7	5	22	4	9	46	13		
TIKSI	25.06	340.1	5	18	-2				6	18 PPP
SAGA	25.18	238.4	5	23	2					
KUMAMOTO	25.28	237.1	5	25	3					
NAGASAKI	25.80	238.2	5	28	1					
KAGOSIMA	26.33	235.5	5	33	2					
TOMIE	26.50	239.6	5	30	-3					
PEKING	29.48	265.8	5	58	-2					
TATUNG	31.31	268.3	6	9	-7					
ULAN-BATOR	31.82	285.7	6	18	-3	11	52	27		
IRKUTSK	31.95	294.5	6	20	-2					
ZO-SE	32.00	247.2	6	21A	-1	11	33	6	7	37 PP
COLLEGE	32.55	41.3	6	26	-1	11	37	1	12	3
NANKING	32.77	251.2	6	27	-2					
SIAN	37.56	263.6	7	32	23					
LANCHOW	39.73	270.0	7	25	-2	13	27	1	8	48 PP
SITKA	39.95	52.5	7	32	3					
HONG KONG	42.71	245.4	7	53K	1	14	16	6		
CHENGTU	43.04	263.5	7	53	-2	14	17	2		
BAGUIO CITY	43.88	233.2	8	1	-1	14	31	4		
MANILA	45.23	231.3	8	14	2	15	10	24		
KIPAPA	45.97	111.0	8	18	0					
HONOLULU	46.01	111.2	8	20	2	15	2	4	15	55
KOROR	46.05	210.2	8	18	-1					
RESOLUTE	47.27	20.0	8	27A	-1	15	18	3	10	20 PP
KUNMING	47.75	259.0	8	30	-2	15	19	-3	10	24 PP
PHU-LIEN	48.39	251.5	8	38	1	15	39	8		
NORD	48.71	358.6	8	40	0	15	36	0		
VICTORIA	50.26	58.6	8	51A	0	16	3	6		
SEATTLE	51 37	58.9	9	2K	2					
LHASA	52.09	272.6	9	7	2	16	31	9	10	23 PP
CORVALLIS	52.60	62.6	9	9	0					
FRUNSE	53.94	296.0	9	20A	1				17	7 PS
SHILLONG	54.33	268.3	9	20K	-2				19	28
APATITY	55.21	336.8	9	22	-6					
HUNGRY HORSE	55.42	54.1	9	29	-1	17	12	5	38	44 PKPPKP
SHASTA	55.51	65.9	9	30	0					
UKIAH	56.01	67.9	9	34	0					
MINERAL	56.19	65.8	9	36A	1					
CHATRA	56.50	273.0	9	40	2				19	52
SODANKYLA	57.00	339.1	9	39	-2					
BERKELEY	57.39	68.4	9	44	0	17	41	8		
BUTTE	57.66	55.5	9	45	-1					
KIRUNA	57.97	341.7	9	45	-3	17	40	-1	13	25
TASHKENT	57.98	297.5	9	46	-2				18	6 PS
LICK	58.11	68.5	9	48A	-1					
BOZEMAN	58.70	55.0	9	53	0				11	8 PCP
PORT MORESBY	59.52	190.0	9	55	-4	18	3	2	18	35 PS

FRESNO	59.59	67.9	9	59	0						
SCORESBY SD.	59.95	359.2	10	1A	-1	18	9	2		39	31 PKPPKP
DEHRA DUN	59.96	282.4	10	7	5	20	11	124		15	18
EUREKA	60.05	63.2	10	2	0					39	15 PKPPKP
LAHORE	61.45	286.0	10	9	-3						
WARSAK DAM	61.49	289.8	10	9	-3						
SALT LAKE C.	61.52	59.7	10	13	1						
PULKOVO	62.15	332.3	10	16	0					12	34 PP
PASADENA	62.34	69.1	10	16K	-2	17	56	-41	10 30	22	22 SS
MOSCOW	62.91	326.0	10	21	-1						
BOULDER CITY	63.08	65.5	10	23	0						
SKALSTUGAN	63 33	342 7	10	24	0					11	43
HELSINKI	63 36	335 0	10	23	-1						
RAPID CITY	63.86	52.0	10	27	-1	19	8	12		39	20 PKPPKP
UPPSALA	65.52	338.3	10	38	0	19	8	-8		14	57
REYKJAVIK	66.32	359.0	10	46	2						
ASHKABAD	66.44	301.2	10	43A	-1	19	27	-1		11	10 PCP
MEDAN	66.62	246.1	10	47	2					21	4
BOULDER	65.63	56.4	10	39	0						
QUETTA	66.95	289.8	10	46A	-2	19	32	-2		11	14 PCP
TUCSON	68.05	65.8	10	55	1	20	13	26		39	13 PKPPKP
TUCSON TELE.	68.05	65.7	10	55	1					39	12 PKPPKP
HYDERABAD	68.83	272.1	11	3	4	20	0	4		20	42 PPS
KARACHI	70.01	286.5	11	17	11						
CHARTERS TS.	70.10	189.7	11	4	-3					11	26
LEMBANG	70.28	231.9	11	7	-1	20	32	19			
COPENHAGEN	70.49	339.0	11	8	-1	20	22	6		15	13 PPP
SUVA	70.60	157.3	11	9	-1	20	24	7		25	2 SS
TIFLIS	70.67	312.3	11	10	0					20	47 PS
WARSAW	71.31	332.6	11	14A	0	20	26	1		15	36 PPP
BOMBAY	71.39	277.4				21	18	52		20	8
GORIS	71.62	309.8	11	17	1	20	39	10		14	1 PP
ABERDEEN	71.78	347.6				20	34	4		13	52 PP
LUBBOCK	72.23	59.0	11	18	-2	20	38	2			
LWOW	72.47	329.6	11	21	0	20	42	4		11	34 PCP
SIMFEROPOL	72.85	320.8	11	24A	1					15	52 PPP
POTSDAM	73.36	337.3	11	27	1					12	0
IASI	73.50	326.1	11	27	0					12	16
KRAKOW	73.56	332.2	11	28	0					11	54 PCP
DURHAM	74.03	346.7	11	30	0	21	4	8			
RACIBORZ	74.05	333.2	11	22	-8						
FLORISSANT	74.19	48.0	11	32K	1	21	2	4	11 45	21	27 *SS
SKALNATE PL.	74.23	331.5	11	35	4						
COLLMBERG	74.37	336.8	11	33	1					12	8
ST. LOUIS !	74.38	48.0	11	33A	1	21	5	5	11 46	21	26 *SS
FAYETTEVILLE	74.41	52.3	11	32	0	21	27	27		13	22
WITTEVEEN	74.42	341.2	11	35	2						
HALLE	74.44	337.6	11	33	0	21	24	24		16	11 PPP
OTTAWA	75.04	34.9	11	35K	-1						
JENA	75.06	337.5	11	36	0	21	13	6		12	11
SHAWINIGAN	75.11	32.4	11	37	1						
PRAGUE	75.11	335.5	11	40	3	21	37	29		14	28 PP
PRUHONICE	75.16	335.4	11	37	0	21	22	14		14	37 PP
SEVEN FALLS	75.27	30.9	11	37K	0	21	14	4		26	37 SS
PLAUEN	75.31	337.0	11	36	-2						
DE BILT	75.40	341.8	11	40	2	21	14	3		22	12 PS
BREBEUF	75.72	33.5	11	39	-1					16	29 PPP
COLOMBO	75.76	263.8				21	22	7			
HURBANOVO	76.02	332.2	11	40	-2					14	11
CLEVELAND	76.02	40.7	11	42	0	21	20	2			
BENSBERG	76.06	340.2	11	43	1						
BRATISLAVA	76.08	333.0	11	42	0	21	25	6		15	4
RATHFARNHAM	76.10	349.1	11	45A	3	21	23	4		12	46
BUCHAREST	76.41	325.5	11	44	0	22	14	52	12 20		
UCCLE	76.80	341.9	11	46	0	21	30	4			
KEW	77.02	345.0	11	48A	1	21	30	1		21	58 SCS
BRISBANE	77.05	182.6				21	33	4		22	47
PITTSBURGH	77.55	40.3	11	50A	0	21	35	1			
STUTTGART	77.64	338.2	11	51	0	21	34	-1		12	4 PCP
TUBINGEN	77.90	338.2	11	52	0						
BELGRADE	78.03	329.3	11	54A	1	22	2	22		12	28 PCP
PENNSYLVANIA	78.11	38.7	11	54	1	22	8	28			
ISTANBUL KA.	78.13	321.8	11	55	2	21	40	-1			
STRASBOURG	78.16	339.0	11	54	0					14	59 PP
MORGANTOWN	78.23	40.8	11	55A	1	21	46	4			
EBINGEN	78.25	338.1	11	54	0						
SOFIA	78.90	326.4	11	58	0					14	37 PP
PARIS	79.07	342.5	11	58A	-1	21	54	3		14	46 PP

ZURICH	79.10	338.1	11	59	0					12	58	
BASLE	79.19	338.8	11	59	0							
WESTON	79.25	33.6	12	OK	0	21	56	3				
TRIESTE	79.34	334.0	12	0	0	21	52	-1		22	34	SP
CHUR	79.35	337.3	12	1K	1							
PALISADES	79.48	36.0	12	OA	-1	21	57	2	12 18	15	3	PP
C.C.N.Y.	79.63	36.1	12	43	41	22	40	43				
FORDHAM	79.63	36.1	12	2	0	21	59	2				
HALIFAX	79.79	27.5	11	59A	-3	21	57	-1		30	52	SS
NEUCHATEL	79.83	339.0	12	3	0							
WASHINGTON	80.04	39.2	12	5	1	22	7	6		15	10	PP
SKOPJE	80.22	327.3	12	6	1					13	2	
PAVIA	81.00	336.9	12	10A	1					18	39	
KSARA	81.21	313.2	12	10	0	22	19	6		15	19	PP
CHAPEL HILL	81.73	42.2	12	13	0							
CLERMONT-FD.	81.85	341.1	12	15A	2	21	52	-27				
COLUMBIA	82.46	44.6	12	17	1							
MONACO	82.80	337.5	12	19A	1							
ATHENS	82.89	323.8	12	18	-1							
ROME	83.14	333.4	12	20A	0	22	34	1		15	35	PP
JERUSALEM	83.20	312.5	12	20	0				12 39			
RIVERVIEW	83.44	184.0	12	20K	-1	21	43	-53				
TACUBAYA	84.56	66.4	12	32	5							
MESSINA	85.58	329.7	12	31	-1	22	59	2		17	45	PPP
REGGIO CALA.	85.64	329.6	12	30	-2							
CUGLIERI	85.83	335.5								13	57	
HELWAN	86.62	314.2	12	38	1	22	58	-9				
TORTOSA	87.13	341.6				23	4	-8				
MELBOURNE	87.86	188.6	12	45K	2							
MERIDA	88.82	58.3				23	37	10		23	16	
TOLEDO	88.90	344.7	12	48K	0	24	21	53				
KARAPIRO	89.12	164.6	12	48K	-1							
ALICANTE	89.71	341.6	12	55	3	23	47	12		16	30	PP
ALGIERS UNI.	90.45	338.5	12	54	-1	23	50	8		23	16	SKS
BERMUDA	90.53	33.4	12	56	0	23	52	9		16	33	PP
ALMERIA	91.56	342.8	13	2	1							
MALAGA	92.04	344.3	13	4K	1	24	4	8		16	21	PP
WELLINGTON	92.27	165.9				23	57	-1				
TAMANRASSET	103.04	332.1	13	51	-1	24	57	-32		17	57	PP
FUQUENE	110.18	53.9								19	7	PP
BOGOTA	110.71	54.7				25	7	9		18	55	PP
RUMANGABO	113.77	298.7								19	18	PP
LWIRO	114.82	298.6								19	32	PP
DUMONT	116.85	187.0	18	36	-1					19	44	PP
HUANCAYO	123.67	66.4	18	52	2							
SCOTT BASE	127.63	177.1	18	58	0					21	7	PP
LA PAZ	131.41	62.8	19	8A	3					22	38	PP
KIMBERLEY	137.61	281.2	19	19	3							
BYRD STATION	137.74	165.0	19	5	-12					22	45	SKP
SOUTH POLE	139.69	180.0	19	9	-11					22	17	PP

JUNE 19 18.H 2.M 17.S EPICENTRE -52.58 140.66 DEPTH= 0.KM

A=-0.47192 B= 0.38688 C=-0.79222 D= 0.6340 E= 0.7733
G= 0.6127 H=-0.5023 K=-0.6102 HT= -6.4

SE= 2.09

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
FORT NELSON	10.65	27.6	2	38A	1	5	6	28					
DUMONT	14.14	181.0	3	25	1	6	10	7			7	0	
MELBOURNE	15.06	13.3	3	34K	-2	6	31	7			3	43	PPP
RIVERVIEW	20.20	26.0	4	37A	-2	8	28	7					
WILKES	20.25	216.0	4	38	-2	8	24	2					
CAPE HALLETT	23.58	157.8	5	16A	3	9	43	18			6	6	PP
OASIS-BUNG.	23.93	220.0	5	15	-2	9	40	9					
BRISBANE	26.72	25.0	5	42K	-1	10	25	7					
SCOTT BASE	27.08	168.2	5	46	0						7	53	PCP
CHARTERS TS.	32.80	9.8	6	35	-2						19	18	
SOUTH POLE	37.61	180.0	7	17	-1						8	42	PP
MAWSON	38.62	216.9	7	28	1								
BYRD STATION	40.37	164.6	7	37	-4	13	46	-4			9	3	PP
PORT MORESBY	43.38	9.4	8	6	0	14	42	8			18	6	SS
SUVA	45.26	55.1	8	21	0	15	9	7					
HALLEY BAY	51.91	184.0	9	9	-4	16	18	-17					

LEMBANG	53.02	317.3	9	2¼A	3	17	3	13			
KOROR	59.91	352.9	9	58	-12						
MEDAN	66.19	313.1	10	51A	-1				11	47	
PHU-LIEN	78.84	327.7							20	55	
KUNMING	84.10	325.9	12	37	3	23	5	7	22	57	SKS
ZO-SE	85.05	343.3	12	38	-1	23	6	-2			
NANKING	86.41	341.5	12	45	-1	23	23	2			
SHILLONG	88.68	317.2	12	53	-4						
MATUSIRO	88.78	358.0	12	55	-2	23	46	3	16	42	
CHENGTU	88.86	329.0				23	45	1	23	28	SKS
WINDHOEK	90.54	230.4	13	5	0						
CHATRA	91.79	314.1	13	14	3						
LHASA	92.61	318.4	13	19	4						
LANCHOW	93.95	330.9	13	23	2	24	32	3			
EUREKA	127.66	72.0	19	8	0						
HUNGRY HORSE	134.24	63.9	19	25	5						
HELSINKI	144.92	308.4	19	37	-2						
COLUMBIA	145.04	105.4	19	40	1						
TRIESTE	145.25	280.2	19	39	-1						
SODANKYLA	145.76	321.1	19	39	-2						
PRUHONICE	146.84	287.5	19	43	1				19	50	PKP2
RELIZANE	147.31	255.0	19	44	1						
COLLMBERG	148.29	289.0	19	48	3						
UPPSALA	148.40	306.1	19	49	4						
PLAUEN	148.46	287.2	19	51	6						
POTSDAM	148.66	290.9	19	55	10						
RESOLUTE	148.81	25.0	19	48	2				42	23	SS
JENA	148.96	287.7	19	55	9				20	50	
HALLE	148.97	288.9	19	52	6				20	20	
EBINGEN	149.34	281.4	19	55	9						
TUBINGEN	149.44	282.1	19	55	8						
MORGANTOWN	149.46	98.7	19	54	7						
STUTTGART	149.47	282.6	19	48	1				20	0	PKP2
STRASBOURG	150.24	281.4	19	57	9				21	29	
WASHINGTON	150.70	102.7	18	56	-53						
GRANADA	150.73	252.6	20	42K	53						
MALAGA	150.87	251.0	19	50	1						
SKALSTUGAN	151.40	312.9	19	54	4						
DOURBES	152.75	282.6	20	3	11						
TOLEDO	152.77	256.4							20	10	PKP2
PARIS	153.51	278.7	20	6	13						
RATHFARNHAM	160.15	285.3	20	22A	21				20	44	

JUNE 20 0.H 47.M 57.S EPICENTRE -16.47-172.74 DEPTH= 0.KM

A=-0.95179 B=-0.12130 C=-0.28175 D=-0.1264 E= 0.9920
G= 0.2795 H= 0.0356 K=-0.9595 HT= 5.5

SE= 1.96

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
APIA	2.81	19.3	0	42	-5	1	12	-10					
SUVA	8.60	257.5	2	11A	2	3	54	6					
ONERAHI	22.40	208.4	5	2	0								
KARAPIRO	23.74	203.5	5	14	-1								
BRISBANE	33.48	245.0	7	0	17	12	18	13					
CHARTERS TS.	39.04	258.4	7	27	-3						7	43	
PORT MORESBY	36.67	275.1				13	47	8					
CAPE HALLETT	56.70	186.1	9	48	0						31	5	PKKP
DUMONT	58.81	200.0	10	1	-2								
SCOTT BASE	62.24	184.8	10	25	-1								
BYRD STATION	67.81	171.3	11	0	-2						39	54	PKPPKP
MATUSIRO	70.16	319.7	11	16	-1	20	23	-5					
BERKELEY	71.88	40.0	11	29A	2								
LICK	71.94	40.7	11	28A	1								
UKIAH	72.10	38.4	11	31	3								
PASADENA	72.31	45.2	11	30	0	20	47	-6					
FRESNO	72.76	42.1	11	33	1								
MINERAL	73.83	38.3	11	39A	0								
RENO	74.42	39.8	11	44	2								
BOULDER CITY	75.60	45.2	11	51	2								
TUCSON	76.51	50.2	11	54	0								
TUCSON TELE.	76.64	50.2	11	54	-1								
EUREKA	76.79	41.7	11	55	0								
LEMBANG	78.20	266.3	12	7	4								
SALT LAKE C.	80.14	42.3	12	15	1								

BUTTE	82.50	37.6	12	27	1						
HUNGRY HORSE	82.96	35.1	12	27	-1						
BOZEMAN	83.21	38.4	12	31	1						
COLLEGE	83.29	10.4	12	27	-3	22	48	-3			
LARAMIE	84.53	44.2	12	35	-1						
LA PAZ	98.78	110.1							24	27	SKKS
RESOLUTE	102.58	15.4				25	33	-9	32	43	SS
PALISADES	107.19	51.5				25	2	2	27	56	PS
WARSAW	142.69	346.0	19	27	-8				22	48	PP
HALLE	144.85	354.9	19	58	19				23	21	PKS
COLLMBERG	144.95	353.7	19	45	6						
KRAKOW	144.97	345.7	19	44	5						
RACIBORZ	145.33	347.6	19	41	1						
JENA	145.45	355.2	19	39	-1				21	24	
BENSBERG	145.59	0.1	19	43	3						
PLAUEN	145.83	354.4	19	39	-2						
PRAGUE	145.99	351.7	19	56	15				21	37	
PRUHONICE	146.06	351.6	19	42	1						
DOURBES	146.39	3.1	19	42	0						
BRATISLAVA	147.37	347.8	19	53	10						
PARIS	147.51	5.9	19	51	7				20	9	PKP2
STUTTGART	147.75	357.6	19	50	6						
STRASBOURG	147.97	359.4	19	52	8				22	32	
TUBINGEN	147.99	357.7	19	46	2						
EBINGEN	148.35	357.8	19	51	6						
KSARA	149.02	309.2	19	58	12				20	12	PKP2
JERUSALEM	150.40	306.1							24	57	
TRIESTE	150.40	350.8	19	51	3				27	10	PPP
CLERMONT-FD.	150.58	5.9	19	55	6						
LWIRO	151.74	230.8	19	53	3						
RUMANGABO	151.94	233.0	19	3	-48						
MALAGA	157.33	24.9	19	50	-8						
TAMANRASSET	173.51	14.4							25	7	PP

JUNE 20 17.H 32.M 38.S EPICENTRE -21.09-178.47 DEPTH= 573.KM

DEPTH OF FOCUS= 0.085R

A=-0.93348 B=-0.02497 C=-0.35775 D=-0.0267 E= 0.9996
G= 0.3576 H= 0.0096 K=-0.9338 HT= 4.4

SE= 3.20

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	4.14	314.5	1	22A	-3	2	31	-1				
APIA	9.66	42.4	2	14	-1	4	0	-3				
NOUMEA	14.07	262.3	3	2K	3	5	25	2				
ONERAHI	15.91	201.7	3	22	5							
KARAPIRO	17.56	195.9	3	34	1							
BRISBANE	26.71	250.6	4	54K	-2							
CHARTERS TS.	33.01	265.5	5	47K	-2	10	21	-9				
PORT MORESBY	35.06	284.1	6	5	-2							
MELBOURNE	35.67	234.0	6	11K	-1							
TRUK	40.69	311.1	6	58	6							
CAPE HALLETT	51.63	184.4	9	2	46							
SCOTT BASE	57.26	183.7	8	57	2							
BYRD STATION	64.13	170.4	9	29	-11							
MATUSIRO	70.43	324.1	10	15K	-3						13	1 PP
HONG KONG	78.59	299.3	11	4	0							
BERKELEY	78.91	42.1	11	7	2							
LICK	78.98	42.8	11	8A	2							
MINERAL	80.83	40.4	11	15	0							
RENO	81.44	41.9	11	20	2							
HALLEY BAY	82.01	173.1	11	22	1	21	0	12				
TUCSON TELE.	83.75	52.0	11	32	2				13	37		
EUREKA	83.85	43.7	11	31	1							
COLLEGE	88.88	12.6	11	52	-2				13	59	15	14 PP
HUNGRY HORSE	89.87	37.0	11	58	-1							
RESOLUTE	108.49	16.2							15	42		
QUETTA	121.02	293.2	17	48	1							
KIRUNA	131.78	350.5	18	6	-2							
UPPSALA	139.62	347.5	18	13	-10							
GOTEBORG	142.64	350.8	18	23	-6							
COPENHAGEN	144.51	349.4	18	30K	-2							
IWIRO	144.63	232.3	18	33A	1							

RUMANGABO	144.84	234.1	17	35	-57						
KSARA	147.15	300.0	18	41	6						
RATHFARNHAM	147.29	8.7	18	39	3						
POTSDAM	147.51	346.8	18	36	0						
JERUSALEM	148.13	296.5	18	40A	3						
COLLMBERG	148.54	346.2	18	42	4						
HALLE	148.58	347.5	18	42	4						
JENA	149.19	347.6	18	42	3						
PRUHONICE	149.38	343.4	18	44	5			21	0		
STUTTGART	151.71	349.3	18	49	7						
STRASBOURG	152.12	351.1	19	2	19					20	14
PARIS	152.33	358.6	18	23	-20						
TAMANRASSET	175.93	295.1	19	7	3			21	28	20	42 PKP2

JUNE 22 4.H 57.M 39.S EPICENTRE 44.02 147.16 DEPTH= 0.KM

A=-0.60611 B= 0.39123 C= 0.69250 D= 0.5423 E= 0.8402
G=-0.5818 H= 0.3756 K=-0.7214 HT= -3.2

SE= 2.77

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
NEMURO	1.34	239.4	0	25K	-1	0	36	-8				
ABASHIRI	2.08	270.9	0	40	4	1	6	3				
KUSIRO	2.26	243.5	0	37	-2	1	1	-7				
OBIHIRO	3.08	250.5	0	50	-1	1	24	-5				
ASAHIGAWA	3.47	267.7	0	59	3							
URAKAWA	3.71	241.3	0	59	0	1	37	-8				
SAPPORO	4.33	259.3	1	9	1	1	55	-6				
TOMAKOMAI	4.34	251.7	1	17	9	1	52	-9				
MURORAN	4.83	251.6	1	15	0	2	3	-10				
SUTTSU	5.19	258.8	1	38	18							
MORI	5.20	250.6	1	18	-2	2	11	-11				
HAKODATE	5.23	246.9	1	17	-4	2	10	-13				
HATINOHE	5.44	232.0	1	28	4	2	10	-18				
AOMORI	5.70	238.1	1	41	13	2	19	-16				
MIYAKO	5.84	223.3	1	21	-9	2	16	-22				
UGLEGORSK	6.16	327.1	1	43	9							
MORIOKA	6.21	228.0	1	28	-7	2	28	-20				
MIZUSAWA	6.66	224.8	1	43	2	2	37	-22				
AKITA	6.80	233.2	2	1	18	2	45	-17				
ISINOMAKI	7.11	220.2	1	33	-14	2	47	-23				
SENDAI	7.44	221.5	2	0	8	2	56	-22				
SAKATA	7.51	229.6	1	50	-3	3	3	-17				
HUKUSIMA	8.05	221.2	1	58	-3	3	12	-22				
ONAHAMA	8.52	216.1									3	20
MITO	9.19	216.1									3	35
UTUNOMIYA	9.31	219.2									3	28
KAKIOKA	9.44	216.8	2	13	-7						3	41
MAEBASI	9.80	221.8	3	46	81							
KUMAGAYA	9.86	219.8	2	32	6	3	57	-21				
NAGANO	10.03	226.0	2	32	4							
TOKYO C.M.O.	10.09	216.8	2	48	19	3	45	-39			3	8
MATUSIRO	10.11	225.5	2	20	-9	4	2	-23				
OIWAKE	10.11	223.5									3	16
TITIBU	10.14	220.4									3	58
WAZIMA	10.23	233.0	2	32	1							
YOKOHAMA	10.34	216.5	4	8	96						4	17
KOHU	10.66	221.1	2	50	13	4	15	-23				
HUNATU	10.68	220.0									4	21
MERA	10.70	214.4									4	12
MISIMA	10.91	218.2	3	30	50	4	20	-24				
VLADIVOSTOK	11.11	270.6	2	42	-1							
MAGADAN	15.71	6.9	3	49	5							
YAKUTSK	20.73	336.5	4	45	1							
ULAN-BATOR	28.02	292.3	5	53	-1							
COLLEGE	40.86	36.3	7	47	2							
SHILLONG	48.06	266.4	8	39A	-4							
NAMANGAN	53.90	294.9	9	26	-1							
NORD	54.33	357.1	9	30	0							
RESOLUTE	54.71	16.7	9	33K	0							
LAHORE	57.15	283.8	9	47	-3							
WARSAK DAM	57.70	287.8	9	51	-3							
SODANKYLA	60.22	337.4	10	11	-1							
KIRUNA	61.51	339.8	10	20	-1							
QUETTA	63.09	286.9	10	28	-3							

SHASTA	63.54	58.1	10 34A	0			
HUNGRY HORSE	63.76	47.3	10 36	0			
MINERAL	64.24	58.0	10 38A	-1			
MOSCOW	64.24	323.7	10 39	0			
BERKELEY	65.32	60.6	10 45A	-1			
KARACHI	65.69	283.0	10 49	1			
RENO	65.82	57.8	10 49	0			
HELSINKI	65.95	332.4	10 49	-1			
BUTTE	65.98	48.6	10 50	0			
LICK	66.03	60.7	10 50A	0			
SKALSTUGAN	66.94	339.8	10 54	-2			
FRESNO	67.54	60.2	11 0	0			
EUREKA	68.18	55.9	11 4	0			
UPPSALA	68.53	335.3	11 4	-2			
SALT LAKE C.	69.76	52.6	11 13	-1			
TIFLIS	69.91	308.9	11 14	0			
BOULDER CITY	71.13	58.1	11 22	0			
RAPID CITY	72.22	45.5	11 29	1			
BOULDER	73.94	49.6	11 40	2			
TUCSON	76.08	58.6	11 51	0			
TUCSON TELE.	76.09	58.5	11 51	0			
COLLMBERG	77.09	332.5	11 55	-1			
PRUHONICE	77.67	330.9	11 59	-1			
JENA	77.87	333.1	11 59	-2			
STUTTGART	80.51	333.3	12 15	0			
DOURBES	80.74	336.6	12 15	-1			
STRASBOURG	81.14	334.1	12 21	3			
PARIS	82.50	337.3	12 26	1			
OTTAWA	83.17	28.9	12 28	-1			
ATHENS	83.68	318.4	12 30K	-1			
BREBEUF	83.80	27.5	12 31A	-1			
MORGANTOWN	86.52	34.5	12 47K	1			
HUANCAYO	131.61	62.1	19 15	0			
BYRD STATION	133.57	166.1	19 13	-5			
SOUTH POLE	133.83	180.0	19 15	-4			

12 37

12 36 PCP

JUNE 22 5.H 29.M 33.S EPICENTRE 37.39 135.03 DEPTH= 369.KM

DEPTH OF FOCUS= 0.053R

A=-0.56353 B= 0.56289 C= 0.60464 D= 0.7067 E= 0.7075
G=-0.4278 H= 0.4273 K=-0.7965 HT= -0.7

SE= 1.74

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
WAZIMA	1.49	89.8	0	50	0	1	31	1				
KANAZAWA	1.55	123.0				1	30	0				
HUKUI	1.67	143.0	0	52	1	1	30	-2				
SAIGO	1.81	229.5	0	53	1	1	34	1				
TOYOOKA	1.86	185.3	0	53A	1	1	34	0				
TOYAMA	1.87	111.0	0	57	5	1	40	6				
TSURUGA	1.93	154.0	0	52	-1	1	34	0				
MAIZURU	1.95	169.4	0	53	0	1	34	-1				
IBUKISAN	2.28	151.1	0	55	0	1	37	-2				
HIKONE	2.33	154.7	0	57	1	1	42	2				
YONAGO	2.38	215.3	0	57	1	1	41	1				
GIHU	2.43	144.3	0	56A	-1	1	38	-3				
MATSUE	2.50	219.9	0	56	-1	1	43	1				
ABUYAMA	2.55	170.0	0	56A	-2	1	41	-2				
TAKADA	2.58	95.4	0	57	-1							
MATUMOTO	2.62	114.9	0	59	1	1	45	1				
AIKAWA	2.63	75.2	0	59	1	1	44	0				
NAGANO	2.63	104.9	0	59	1	1	44	0				
MATUSIRO	2.69	107.2	0	58K	-1	1	44	-1				
KOBE	2.71	177.4	0	58	-1	1	43	-2				
NAGOYA	2.71	144.2	0	59	0	1	42	-3				
OSAKA	2.76	171.5	0	59A	0	1	44	-2				
NARA	2.78	166.3	1	1	2	1	45	-1				
KAMEYAMA	2.79	154.9	0	57	-2	1	45	-1				
OKAYAMA	2.85	198.8	1	4	4							
TU	2.91	155.1	1	3	3							
IIDA	2.93	128.8	1	1	1	1	48	0				
OIWAKE	3.01	109.5	1	2	1	2	0	11				
SUMOTO	3.04	182.4	1	0A	-1	1	48	-2			2	34
TAKAMATU	3.17	194.9	1	2	-1	1	51	-1				

NIIGATA	3	23	79.3	0	55	-8	1	40	-13	2 34
TOKUSIMA	3.33		186.5	1	4A	0	1	55	0	
KOHU	3.35		120.6	1	4	0	1	53	-2	
MAEBASI	3.38		105.8	1	8	3	2	6	10	
HAMAMATU	3.44		139.9	1	7	2				
OWASE	3.45		163.7	1	5	0	1	55	-2	
HAMADA	3.45		224.9	1	5	0	1	56	-1	
TITIBU	3.54		112.2	1	3	-3				
HUNATU	3.55		120.9	1	5	-1				
SHIZUOKA	3.64		130.5	1	7	0	1	59	-1	
HIROSIMA	3.68		215.8	1	8	1	2	0	-1	
KUMAGAYA	3.70		108.2	1	12	4	1	58	-3	
OMAESAKI	3.80		136.2	1	12	3	2	3	1	
MISIMA	3.89		124.4	1	7	-2	2	2	-2	
UTUNOMIYA	3.96		100.7	1	8	-2	2	1	-4	
SIOMISAKI	3.98		171.1	1	10	0	2	3	-2	
MATUYAMA	4.01		208.3	1	10	-1	2	5	-1	
KOTI	4.02		198.2	1	10	-1	2	5	-1	
AJIRO	4.03		124.2	1	10	-1	2	17	10	
SAKATA	4.07		66.8	1	11	0	2	11	4	
SHIRAKAWA	4.15		92.1	1	11	-1	2	7	-2	
TOKYO C.M.O.	4.16		112.8	1	12	0	2	6	-3	1 50
MUROTO	4.19		189.8	1	13	1	2	9	0	
YOKOHAMA	4.21		116.3	1	17	4	2	9	-1	
KAKIOKA	4.29		104.1	1	14	1	2	10	-1	
HUKUSIMA	4.34		83.6	1	13	-1	2	12	0	
OSIMA	4.39		125.3	1	13	-1	2	11	-2	
MITO	4.47		101.4	1	15	0	2	12	-3	
MERA	4.60		121.0	1	15	-2	2	16	-1	
AKITA	4.60		58.1	1	17K	0	2	19	2	
UWAZIMA	4.62		206.8				2	16	-1	
ONAHAMA	4.71		93.6	1	15	-3	2	14	-5	
SENDAI	4.73		77.5	1	17K	-1	2	19	0	
SIMIDU	4.90		200.8	1	17	-3	2	21	-2	
TYOSI	4.97		107.8	1	18A	-3	2	23	-1	
ODITA	5.00		214.9	1	23	2	2	25	0	
MIZUSAWA	5.13		68.0	1	22	0	2	21	-6	
HUKUOKA	5.35		226.1	1	25	0	2	30	-1	
AOMORI	5.63		50.8	1	29	1				
SAGA	5.66		224.5	1	29	1	2	40	2	
KUMAMOTO	5.78		219.2	1	31	2	2	40	0	
MIYAKO	5.89		65.3	1	29	-2	2	36	-6	
VLADIVOSTOK	6.20		338.3	1	37	3				
HAKODATE	6.21		43.3	1	35K	1	2	51	2	
MIYAZAKI	6.21		209.7	1	33	-1	2	44	-5	
NAGASAKI	6.28		223.8	1	34	-1	2	52	2	
MORI	6.35		40.5	1	35	-1	2	50	-2	
SUTTSU	6.71		34.8	1	41	1	3	4	5	
KAGOSIMA	6.88		213.8				2	59	-5	
TOMAKOMAI	7.18		42.4	1	48	2				
SAPPORO	7.45		38.4	1	48	-1	3	12	-2	
URAKAWA	7.63		49.0	1	50	-1	3	14	-4	
OBIHIRO	8.34		46.0	1	58	-1	3	28	-5	
ASAHIGAWA	8.48		38.9	2	0	-1	3	32	-4	
KUSIRO	9.08		49.2	2	6	-2	3	43	-6	
CHANGCHUN	9.80		314.1	2	18K	2	4	11	7	
NEMURO	10.00		50.3	2	19	0	4	1	-7	
Y.-SAKHLINSK	11.12		28.4	2	29	-3				
UGLEGORSK	12.75		21.4							
ZO-SE	13.06		245.4	2	53K	-2	5	18	4	3 53
NANKING	14.37		253.0	3	8K	-1				
PEKING	14.96		285.9	3	14K	-1	5	55	2	
ULAN-BATOR	23.09		306.0	4	36	0				
HONG KONG	23.45		236.0	4	36	-3	8	27	3	
YAKUTSK	24.88		354.0	4	49	-3				
KUNMING	30.13		255.2	5	38	-1				
TIKSI	34.46		356.6	6	19	3				
SHILLONG	38.35		264.8	6	48	0				
LAHORE	49.64		282.3	8	16	-1				
COLLEGE	51.51		32.1	8	31	0				
QUETTA	55.95		284.2	9	2	-1	16	22	1	
CHARTERS TS.	58.06		167.5	9	16	-1				
RESOLUTE	63.48		13.1	9	52A	-1				
KIRUNA	64.31		337.5	9	58	-1				10 26 PCP
BRISBANE	66.70		162.6	10	15	1				
SKALSTUGAN	69.64		336.3	10	30	-2				
UPPSALA	70.31		331.6	10	35	-1				
SHASTA	74.88		50.2	11	3	1				

HUNGRY HORSE	74.90	40.2	11 3	1					
MINERAL	75.57	50.2	11 6A	0					
BERKELEY	76.65	52.5	11 13A	1					
RENO	77.15	50.0	11 15	0					
BUTTE	77.16	41.4	11 16	1					
LICK	77.36	52.6	11 17A	1					
BOZEMAN	78.19	40.9	11 23	2					
EUREKA	79.50	48.1	11 29	1	12 55				
SALT LAKE C.	81.04	45.0	11 38	2					
STUTTGART	81.67	327.2	11 38	-1					
STRASBOURG	82.43	327.8	11 44	1					
BOULDER CITY	82.46	50.2	11 44	1					
RAPID CITY	83.28	38.1	11 47	0	13 15				
KARAPIRO	83.74	148.9	11 50A	1					
TUCSON	87.42	50.7	12 9	2					
TUCSON TELE.	87.42	50.6	12 8	1					
OTTAWA	93.05	21.1	12 33	0					
SOUTH POLE	127.20	180.0	18 21	0	19 53	21 4	SKP		
BYRD STATION	129.23	167.5	18 24	-1	19 56	21 9	SKP		
HALLEY BAY	140.84	187.2	18 39	-8		23 38	SS		
HUANCAYO	142.91	55.1	18 50	-1					

JUNE 23 5.H 10.M 2.5 EPICENTRE 48.79 102.58 DEPTH= 0.KM

A=-0.14407 B= 0.64541 C= 0.75013 D= 0.9760 E= 0.2179
G=-0.1634 H= 0.7321 K=-0.6613 HT= -5.0

SE= 2.05

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
KYAKHTA	2.97	56.4	0 47K	-2				0 52	PG
ULAN-BATOR	3.01	105.3	0 48	-2				0 55	PG
IRKUTSK	3.65	17.0	1 1A	2				1 58	SG
KABANSK	4.17	37.0	1 6K	-1					
BAYANDAI	4.67	22.3	1 14	0					
PAOTOW	9.77	144.4	2 22	-3					
PEKING	13.06	127.1	3 2	-8	5 27	-10			
SEMIPALATNSK	14.57	284.8	3 31	1				6 21	
SIAN	15.28	159.7	3 40	1					
CHANGCHUN	16.45	99.0	3 55	1	7 0	3		4 1	*SP
SUIHWA	16.56	88.3	3 53	-2					
KURMENTY	17.82	260.3	4 13	2					
PRZHEVALSK	18.01	258.6	4 15	1				6 58	
CHENGTU	18.14	176.0	4 14	-1					
ILI	18.22	264.2	4 18	2				8 38	
ALMATA	18.59	262.4	4 22	1				7 58	SS
RYBACHE	19.53	261.0	4 33	1				4 56	PP
NARYN	20.08	258.5	4 39	1				5 5	PP
FRUNSE	20.32	263.6	4 41	0				8 32	
NANKING	20.71	137.9	4 42A	-3					
LHASA	21.07	209.0	4 49K	1	8 42	3		9 20	SS
TO-SF	22.60	134.6	5 1	-3					
ANDIJAN	22.79	260.7	5 9	3				10 16	SSS
NAMANGAN	23.13	261.9	5 11	2	9 16	-1		5 52	PP
FERGANA	23.37	260.5	5 14	3				12 32	PCS
KUNMING	23.70	179.8	5 12	-2	8 27	-60		7 51	
TCHIMKENT	23.86	266.7	5 19	3				12 42	PCS
TASHKENT	24.54	264.9	5 23	0				6 8	PPP
SHILLONG	24.65	203.7	5 24A	0	9 46	3		13 25	
CHATRA	24.99	214.2	5 11	-16			10 6		
KHOROG	25.11	254.8	5 30	2				10 0	
TOMIE	25.41	119.8						13 14	
HUKUOKA	25.69	116.0						13 13	
UGLEGORSK	25.74	74.3	5 32	-2	9 52	-10			
HAMADA	25.79	111.6			10 34	32		13 45	
SAGA	25.85	116.6						13 29	
TIKSI	25.92	18.7	5 38	2				6 34	PPP
NAGASAKI	25.98	118.1						13 27	
DEHRA DUN	26.24	234.3	5 43	4	10 17	7		11 51	SSS
SVERDLOVSK	26.24	303.8	5 40	1				10 26	
STALINABAD	26.32	259.8	5 42	3				10 25	
KUMAMOTO	26.39	116.8						13 54	
OOITA	26.65	114.9						13 52	
SUTTSU	26.72	88.7			10 19	1			
Y.-SAKHLINSK	26.77	78.6	5 44	0	10 17	-2		8 56	

CANTON	27.03	157.9	5	45	-1	10	25	2		
TOYOOKA	27.10	107.2							13	53
MORI	27.26	89.8	5	48	0				8	52
WAZIMA	27.31	101.8	6	0	12					
WARSAK DAM	27.34	248.8	5	48A	-1					
SAPPORO	27.35	87.3				10	31	3	12	18
LAHORE	27.39	241.5	5	49	0					
TAKAMATU	27.40	110.1				12	5	96		
SUMOTO	27.90	109.1				11	36	59	13	7
TOYAMA	27.90	102.7	5	55	1					
ABUYAMA	27.99	107.5	5	54A	-1					
HONG KONG	28.00	156.7	5	52	-3	10	32	-6		
AOMORI	28.01	92.1							9	6
AKITA	28.12	94.6							9	50
BOKARO	28.22	214.0				10	38	-4	13	49
GIHU	28.42	105.3	6	3	5					
CALCUTTA	28.55	208.4				10	50	3	13	32
NAGANO	28.57	101.7	6	15	15	11	2	14		
KAMEYAMA	28.57	106.5							7	58
MATUSIRO	28.65	101.9	6	3	2	10	42	-7		
NAGOYA	28.69	105.5	6	58	57					
URAKAWA	28.70	88.1	6	8	7				13	8
MORIOKA	28.83	93.8				12	0	68		
KOHII	29.43	103.0							9	17
MAGADAN	29.55	50.4	6	14	5	11	6	3	13	16 SSS
KUMAGAYA	29.64	101.4				12	13	68		
TOKYO C.M.O.	30.16	101.8							13	1
BAIRAM-ALI	31.20	264.3	6	26	3	11	31	2	12	24
QUETTA	32.80	248.7	6	36	-1	11	50	-4	7	41 PP
ASHKABAD	33.49	267.9	6	45	2				14	34 SS
KIZYL-ARVAT	34.29	271.1	6	52	2				17	17 SCS
PETROPAVLOVK	34.81	61.2	6	58	3	12	24	-1	14	52 SS
KLYUCHI	35.20	55.2				12	38	6		
BAGUIO CITY	35.48	149.3	6	58	-2					
MAKHACH-KALA	38.07	282.5	7	26	4	13	18	2		
BOMBAY	38.28	229.3							18	23
APATITY	38.47	324.8	7	26	0					
MOSCOW	39.02	305.5	7	31	1	13	25	-5		
TIFLIS	40.42	282.4	7	43	1	13	56	5	9	23 PP
GORIS	40.58	278.5	7	45	2	13	59	6	9	25 PP
SODANKYLA	41.08	325.2	7	48	1					
PULKOVO	41.50	313.3	7	52	1	14	8	1	9	29 PP
SOTCHI	42.74	287.6	8	1	0	14	27	2	9	43 PP
KIRUNA	43.26	326.7	8	5	0	14	34	1	9	52 PP
KODAIKANAL	43.80	217.1							22	17
SIMFEROPOL	45.53	292.2	8	23A	0	15	7	1	18	39
YALTA	45.75	291.7	8	24	-1				18	38
NORD	46.02	349.7	8	25	-2					
UPPSALA	47.40	316.9	8	37	-1	15	42	10	10	8 PCP
SKALSTUGAN	47.99	323.0	8	41	-2					
IASI	48.30	298.1	8	46	1				11	13
LWOW	48.97	302.7	8	51	1				18	37 SCS
WARSAW	49.37	306.7	8	51A	-2	16	3	3	10	46
BUCHAREST	50.66	295.7	9	4	1	16	25	7	21	49
KSARA	50.71	278.9	9	5	1	16	27	8	11	9 PP
ISTANBUL KA.	50.74	290.6	9	4	0	16	22	3		
GOTEBORG	51.02	316.3	9	2	-4					
SKALNATE PL.	51.40	303.7							18	19
COPENHAGEN	51.88	313.9	9	12	0	16	31	-4	11	11 PP
RACIBORZ	52.02	305.6	9	10	-4				23	48
JERUSALEM	52.42	277.3	9	16	-1					
BERGEN	52.44	321.6							22	46
TIMISOARA	52.76	299.6	10	34	75					
POTSDAM	53.41	310.2	9	23	-1				13	19
BRATISLAVA	53.69	304.1	9	26	0				11	26 PP
BELGRADE	53.75	299.0	9	26	0				12	48
PRAGUE	54.03	307.3	9	27	-1	17	16	12	11	21
COLLMBERG	54.06	309.2	9	27	-2				15	5 PP
COLLEGE	54.30	29.7	9	28	-2	17	6	-2	19	14 SCS
HALLE	54.48	309.8	9	33	1	17	11	1	11	40 PP
SCORESBY SD.	54.52	340.1	9	31A	-1	17	10	-1	21	11 SS
PLAUEN	54.97	308.7	9	34	-1				11	35 PP
JENA	55.01	309.4	9	34	-2	17	23	6	11	30 PP
ATHENS	55.91	290.5	9	41K	-1					
HELWAN	56.20	278.2	9	44	0				10	2
RESOLUTE	56.26	5.5	9	42	-3	17	29	-5		
TRIESTE	57.04	303.3				17	46	2		
BENSBERG	57.21	311.5	9	52	1					
ABERDFEN	57.47	321.3							22	53

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
STUTTGART	57.54	308.5	9	53	-1	17	52	1			10	14	
EBINGEN	58.03	308.1	9	57	0								
STRASBOURG	58.40	309.0	10	2	2	18	8	6			13	44	PPP
DURHAM	58.83	319.0	10	4K	1								
DOURBES	59.02	311.9	10	4	0	18	17	7					
BASLE	59.17	308.2									23	11	
KEW	60.47	315.5				18	29	0					
PARIS	60.91	311.9	10	16	-1						11	0	PCP
RATHFARNHAM	61.86	319.9	10	26A	2								
CLERMONT-FD.	62.64	309.0	10	29	0								
ALGIERS UNI.	68.95	302.0	11	6	-3	20	14	1			24	42	SS
ALICANTE	69.76	305.3	11	12	-2	20	18	-5			27	50	SSS
TOLEDO	70.52	308.6	11	12	-7	20	14	-18			13	42	PP
MALAGA	73.06	306.6	11	18	-16						13	58	PP
TAMANRASSET	77.66	290.3	12	0	0	21	58	6			14	58	PP
HUNGRY HORSE	78.19	24.0	12	2	-1								
BUTTE	80.72	24.0	12	16	-1						14	8	
LWIRO	81.07	256.2	12	20	1								
BOZEMAN	81.45	23.1	12	20	-1						13	9	
SHASTA	82.44	32.8	12	26	0								
MINERAL	83.03	32.5	12	29	0								
TANANARIVE	83.28	231.4	12	31	1						13	8	
SEVEN FALLS	84.30	355.5	12	34	-1								
RENO	84.38	31.6	12	37	1								
RAPID CITY	84.79	18.3	12	36	-2								
SHAWINIGAN	84.96	356.8	12	37	-1								
BERKELEY	84.98	34.1	12	37	-2								
LICK	85.68	33.9	12	43	1								
EUREKA	85.71	28.9	12	41	-1						13	15	
SALT LAKE C.	85.77	25.5	12	43	0								
BREBEUF	86.03	357.3	12	45	1								
OTTAWA	86.18	358.8	12	44	-1								
HALIFAX	86.19	350.2				23	17	-2					
FRESNO	86.86	32.8	12	49	1								
BRISBANE	88.29	136.7	12	54K	-1								
BOULDER CITY	89.27	29.5	13	0	1								
PASADENA	89.79	32.8	13	3	1								
PALISADES	90.53	357.3	13	5	0						25	13	PS
TUCSON TELE.	93.93	27.8	13	23	2								
TUCSON	93.98	27.9	13	23	2								
SOUTH POLE	138.60	180.0	19	19	-9						22	2	PP
HUANCAYO	143.33	356.6	19	37	1						21	U	
BYRD STATION	145.51	168.1	19	38	-2						23	38	SKP
HALLEY BAY	146.21	200.5	19	40	-1						23	20	PKS
LA PAZ	146.91	343.5	19	46	3								

JUNE 23 19.H 17.M 45.S EPICENTRE -18.20-177.93 DEPTH= 630.KM

DEPTH OF FOCUS= 0.094R

A=-0.94997 B=-0.03440 C=-0.31045 D=-0.0362 E= 0.9993
G= 0.3103 H= 0.0112 K=-0.9506 HT= 5.1

SE= 1.63

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	3.46	270.3	1	26A	1	2	31	-1					
NOUMEA	15.22	251.9	3	9K	-1								
KARAPIRO	20.46	194.9	3	58	0								
GEBBIES PASS	26.64	195.4	4	51	-2								
BRISBANE	28.26	245.7	5	6K	-1						10	46	
CHARTERS TS.	33.85	261.1	5	53K	-1						11	4	
PORT MORESBY	34.97	279.7	6	4	1								
MELBOURNE	37.82	231.2	6	26	-1								
KOROR	53.38	294.1	8	23	-2								
CAPE HALLETT	54.53	184.4	8	35	2								
SCOTT BASE	60.16	183.7	9	11	0								
BYRD STATION	66.89	170.7	9	53	0								
MATUSIRO	68.41	323.1	10	1K	-1	18	15	-1					
SOUTH POLE	71.91	180.0	10	23	0				12	31			
LEMBANG	73.16	268.2	10	31K	1								
HONG KONG	77.64	298.5	10	56	2						15	45	PPP
BOULDER CITY	80.37	47.2	11	5	-4								
EUREKA	81.41	43.7	11	15	1				13	22			
TUCSON	81.45	52.1	11	17	3								
MAWSON	83.73	199.7	11	26	0								

HALLEY BAY	84.80	173.0	11	30	-1	21	20	13				
COLLEGE	85.96	12.4	11	34	-2				13	59		
SHILLONG	97.83	294.3	12	34	3							
QUETTA	120.32	294.7	17	43A	2							
KIRUNA	129.02	351.1	17	58	0						19	42 SKP
SKALSTUGAN	134.12	353.7									20	42 SKP
DURHAM	143.39	3.6	18	23	-2							
RATHFARNHAM	144.37	8.6	18	27K	0							
KRAKOW	145.15	339.8	18	28	0						20	1
RACIBORZ	145.67	341.5	18	27	-2							
COLLMBERG	145.85	347.8	18	32	3							
HALLE	145.87	349.0	18	30	1							
LWIRO	146.75	235.0	18	33	3							
RUMANGABO	146.89	237.0	18	37	7							
BENSBERG	147.06	354.1	18	35	4							
ISTANBUL KA.	147.52	320.3	18	35K	4							
STUTTGART	148.96	350.8	18	34	1							
STRASBOURG	149.35	352.6	18	41	7							
PARIS	149.47	359.5	18	42A	8							
HELWAN	150.95	299.0	18	45	9						22	3
TAMANRASSET	174.42	325.2	19	0	2						24	33 PP

JUNE 24 0.H 9.M 11.S EPICENTRE -8.48 111.34 DEPTH= 102.KM

DEPTH OF FOCUS= 0.011R

A=-0.35999 B= 0.92140 C=-0.14641 D= 0.9314 E= 0.3639
G= 0.0533 H=-0.1364 K=-0.9892 HT= 6.7

SE= 1.36

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BANDUNG	3.98	292.9	1	1	1	1	35	-11					
LEMBANG	4.03	293.6	0	58	-3						15	53	SCS
DJAKARTA	5.02	296.7	1	16	2	1	57	-14					
MEDAN	17.40	313.0	3	58	1	6	43	-23					
KOROR	27.90	56.4	5	41	-1								
PORT MORESBY	35.38	94.3	6	47	0						21	30	
CHARTERS TS.	35.65	112.6	6	50A	0						17	17	
CHITTAGONG	36.13	328.4	6	38	-16								
SHILLONG	38.78	331.3	7	15A	-1								
GUAM	39.70	57.0	7	24	1								
TRUK	43.37	69.7	7	55	2								
BRISBANE	43.66	121.1	7	56A	0	14	22	5					
RIVERVIEW	44.46	130.5	8	25A	23								
MATUSIRO	51.41	27.8	8	56A	0	16	4	-2			19	44	SS
LAHORE	53.26	320.1	9	8	-2								
ULAN-BATOR	56.28	356.4	9	32	0								
QUETTA	57.39	314.0	9	37	-3	17	27	0					
OASIS-BUNG.	58.07	185.1	10	8	23								
IRKUTSK	60.80	355.1	10	3	0								
FRUNSE	61.10	329.8	10	4	-1								
NAMANGAN	61.26	326.5	10	5	-1								
TANANARIVE	62.56	253.1	10	15K	0				11	24			
GEBBIES PASS	63.56	134.7	10	21	-1								
KARAPIRO	64.52	127.9	10	28	0								
MAWSON	67.25	198.1	10	43	-2								
YAKUTSK	71.72	9.0	11	11	-1								
CAPE HALLETT	72.82	164.1	11	19	0								
SCOTT BASE	74.81	169.6	11	30	0								
SVERDLOVSK	77.17	334.1	11	43	-1								
PIETERMZBURG	78.02	241.5	11	49	1								
TIFLIS	78.59	315.5	11	52	0	21	42	4					
PRETORIA	80.24	245.3	12	3	2								
TIKSI	80.78	5.6	12	8	5	22	6	5					
SOUTH POLE	81.58	180.0	12	6	-2				12	52	13	2	*SP
RUMANGABO	81.90	269.9	12	10	1						12	35	
LWIRO	82.30	268.9	12	12A	1								
KSARA	82.78	305.7	12	16	2								
KIMBERLEY	82.98	242.0	12	15	0								
HELWAN	85.61	300.9	12	29	1								
SIMFEROPOL	87.00	316.1	12	35	0	23	9	6			16	45	
MOSCOW	87.92	327.1	12	40	1	23	16	4					
BYRD STATION	87.98	172.2	12	40	1								
ISTANBUL KA.	89.73	311.5	12	47A	-1	23	33	5					

WINDHOEK	90.67	247.2	12 53	1				
HALLEY BAY	92.47	189.7	12 59	-1				16 51 PP
PULKOVO	92.76	330.0			23 32	-23		
LWOW	94.68	319.5	14 11	61				
SODANKYLA	95.72	337.2	13 15	0				
KIRUNA	98.13	337.5	13 25	-1				
UPPSALA	99.13	329.3	13 31	0				
SKALSTUGAN	101.57	333.2	13 41	-1				
COLLEGE	102.23	25.4	14 7	23			15 10	17 47 PKP
TAMANRASSET	107.77	291.2	17 56	777				18 34 PP
RESOLUTE	112.15	7.3	18 25	2				28 57 PS
SHASTA	122.69	46.7	18 47	3				
MINERAL	123.37	46.9	18 48	3				
LICK	124.27	50.4	18 50	3				20 41 PP
HUNGRY HORSE	124.94	35.4	18 50	2				20 37 PP
BUTTE	126.99	37.2	18 55	3				
EUREKA	127.72	46.0	18 57	4				21 0 PP
PASADENA	127.92	53.1	18 55	1			19 12	
BOZEMAN	128.07	36.9	18 58	4				
BOULDER CITY	129.89	49.7	19 2	5				
SALT LAKE C.	130.02	42.7	19 1	3				
RAPID CITY	133.53	34.3	19 8	4				21 29 PP
SEVEN FALLS	141.45	2.4	19 20	1				
SHAWINIGAN	141.90	4.6	19 18	-2				
OTTAWA	142.71	8.2	19 20K	-1			20 21	
BREBEUF	142.86	5.8	19 21	0				
HALIFAX	143.72	353.9	19 22A	-1				
FAYETTEVILLE	143.99	36.4	19 24	1				22 46 PPP
CLEVELAND	145.21	17.1	19 39	14				
MORGANTOWN	147.37	16.3	19 35A	6				
TACUBAYA	148.49	66.6	19 29	-2				
COLUMBIA	152.16	22.4	19 39	3				
LA PAZ	155.18	181.2	19 49A	9				

JUNE 24 4.H 48.M 17.S EPICENTRE 40.45 78.67 DEPTH= 0.KM

A= 0.14998 B= 0.74825 C= 0.64624 D= 0.9805 E=-0.1965
G= 0.1270 H= 0.6336 K=-0.7631 HT= -1.9

SE= 2.36

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PRZHEVALSK	2.04	354.5						0 37 PG
NARYN	2.24	296.7	0 43	4				1 12 SG
KURMENTY	2.61	353.8	0 47	3				1 17 SG
RYBACHE	2.79	316.6	0 50	3				
ALMATA-2	2.98	341.5						0 53 PG
CHILIK	3.12	356.7	0 54	3				1 28 S*
FABRICHNAYA	3.21	328.9	0 55	2				1 43 SG
ILI	3.69	341.8	1 3	3				1 56 SG
FRUNSE	3.91	309.8	1 6	3				2 0 SG
ANDIJAN	4.80	275.6	1 19	4				2 38 SG
FERGANA	5.26	271.5	1 25	3				1 39
NAMANGAN	5.34	278.0	1 26	3				2 35 S*
DZHERGETAL	5.86	260.3	1 33	3				
TCHIMKENT	7.07	288.1	1 47	0				3 28 S*
LUNACHARSKOE	7.13	280.1						2 25 PG
TASHKENT	7.17	280.0	1 48	-1				3 27
KULYAB	7.36	252.6	1 52	1				2 28
STALINABAD	7.88	259.3	1 59	0	3 29	-1		
WARSAK DAM	8.58	223.6	2 8A	0				
SAMARKAND	9.00	268.8	2 11	-3				
LAHORE	9.55	202.9	2 20	-2	.. 4 9	-2		2 59 PG
SEMIPALATNSK	10.01	5.8	2 26	-2				4 20
DEHRA DUN	10.12	183.0	2 29	-1	4 21	-4		4 32 SS
BAIRAM-ALI	13.18	262.8	3 8	-3	5 31	-9		6 59
AGRA	13.30	182.5	3 10K	-3	5 30	-12		
QUETTA	14.00	226.6	3 19	-3	5 53	-6		
LHASA	14.78	133.0	3 35	3	6 21	3		
CHATRA	15.31	150.0	3 0	-39				7 47
ASHKABAD	15.95	267.5	3 51	4				7 3
BOKARO	17.63	157.9	4 3	-6	7 32	8		
SHILLONG	18.48	139.4	4 21	2	7 52	9		
CALCUTTA	19.65	152.5	4 36A	3	8 18	9		5 10 PPP
SVERDLOVSK	20.16	330.4	4 37	-2				8 22

LANCHOW	20.20	94.4	4	42A	3	8	16	-5		
IRKUTSK	21.16	47.5	4	49A	0	8	45	5	4	52 PCP
CHITTAGONG	21.20	144.4	4	52A	3	8	49	8		
ULAN-BATOR	21.50	60.3	4	52	0	8	48	1		
KYAKHTA	21.77	53.6	4	54A	-1					
BAKU	21.87	279.2	5	5	9				9	12 PCP
BOMBAY	22.06	194.9				9	16	19	11	12
KABANSK	22.41	49.5	5	1A	-1				9	13
MAKHACH-KALA	23.34	286.5	5	10	-1				9	32
PAOTOW	23.79	79.4	5	17	2					
GORIS	24.73	278.4	5	26	2				9	50
KUNMING	25.26	120.1	5	32A	3	9	56	3	6	10 PP
TIFLIS	25.47	284.0	5	35	4				6	26 PPP
PEKING	28.49	78.5	6	21	22	10	50	4		
SOTCHI	28.93	289.2	6	2	-1				10	51
MOSCOW	30.85	313.6	6	19	-1				11	2
SIMFEROPOL	32.73	292.9	6	36A	0				7	40 PP
YALTA	32.78	292.0	6	37	0				7	41 PP
NANKING	33.20	91.7				12	4	4		
KSARA	34.48	272.8	6	56	4	12	37	17	8	12 PP
HONG KONG	35.00	110.3	6	58	2	12	19	-9		
ZO-SE	35.44	91.6				12	37	2		
PULKOVO	35.51	319.4	7	0	0	12	34	-2	8	17 PP
APATITY	36.58	332.8	7	8	-1					
IASI	36.92	297.9	7	15	3					
ISTANBUL KA.	37.16	287.6	7	15K	1	13	3	2		
HELSINKI	38.23	319.4	7	22	-1					
BUCHAREST	38.45	293.8	7	27	2	16	11	170	8	56
LWOW	38.89	302.7	7	29	0				8	59 PP
SODANKYLA	38.96	331.0	7	27	-2					
HELWAN	39.70	269.8	7	40	4				13	43
TIKSI	39.85	22.3	7	40	3				9	13 PP
WARSAW	40.47	306.8	7	45	3				9	15 PP
KIRUNA	41.38	330.8	7	48A	-1				9	29 PP
KRAKOW	41.47	303.7	7	49	-1				9	24 PP
UPPSALA	41.89	318.6	7	53A	-1	14	11	-2	9	26 PP
ATHENS	42.07	285.1	7	57K	2					
RACIBORZ	42.56	304.0	7	30	-29				9	44
HURBANOVO	43.02	300.8							10	21
BRATISLAVA	43.67	301.5	8	7	-1				9	49
SKALSTUGAN	44.38	324.1	8	13A	-1				9	58 PP
UGLEGORSK	44.64	56.8				14	51	-2		
PRAGUE	44.93	304.7				15	18	21	22	40 SSS
GOTEBORG	44.98	315.8	8	13	-6				9	58 PP
COPENHAGEN	45.02	312.9	8	19A	0	15	0	2	10	5 PP
POTSDAM	45.26	308.2	8	20	-1				10	20
COLLMBERG	45.54	306.7	8	22	-1				10	7 PP
Y.-SAKHLINSK	45.61	59.5				15	7	0	18	17 SCS
MATUSIRO	46.01	74.8	8	25	-2	15	9	-3		
HALLE	46.13	307.2	8	27	-1	15	14	0	10	15 PCP
PLAUEN	46.25	305.8	8	26	-3				10	15 PCP
JENA	46.50	306.5	8	30	-1	15	15	-4	10	17 PP
TRIESTE	46.57	299.0							10	22 PP
MESSINA	47.94	288.8	8	43	1	15	37	-3	10	33 PP
STUTTGART	48.57	304.3	8	46	-1	15	49	0	10	39 PP
ROME	48.70	294.6	8	45	-3	15	51	1	10	44 PP
TUBINGEN	48.73	304.0	8	46	-2				9	42 PP
EBINGEN	48.90	303.6	8	49	-1				10	42 PP
BENSBERG	49.17	307.6	8	53	1				10	46 PP
STRASBOURG	49.53	304.4	8	53	-1				10	52 PP
DE BILT	50.03	309.5	8	58	0	16	14	5	10	56 PP
NEUCHATEL	50.58	302.7							10	49
UCCLE	50.92	308.1	9	11	6	16	24	3		
DOURBES	51.00	307.2	9	5	-1				11	5 PP
NORD	51.04	349.1	9	4	-2					
ABERDEEN	52.51	317.3							20	30
PARIS	52.74	306.2	9	57	38	16	47	1	11	45 PP
DURHAM	53.01	314.4				16	51	1	11	30 PCP
PETROPAVLOVK	53.44	47.6							17	22
KEW	53.46	310.2	9	23	-1	16	53	-3		
SCORESBY SD.	55.85	336.5				17	7	-21		
RATHFARNHAM	56.13	313.9	9	47	3					
RELIZANE	59.75	292.9	9	53	-16				10	21
TOLEDO	60.85	299.1	10	4	-12					
RUMANGABO	61.17	240.0	10	36	17					
LWIRO	62.20	239.7	10	25	-1					
TAMANRASSET	63.06	277.8	10	30	-1	18	56	-6	23	0 SS
RESOLUTE	65.08	358.1	10	41	-4	19	17	-9		

COLLEGE	68.90	19.4	11	6	-3					
WINDHOEK	84.88	234.7	12	39	1					
CHARTERS TS.	86.92	119.5	12	48	0					
SEVEN FALLS	88.68	339.7	12	56	0					
SHAWINIGAN	89.71	340.7	13	0A	-1					
HUNGRY HORSE	90.87	8.4	13	5	-2					
BREBEUF	90.90	340.9	13	6A	-1					
OTTAWA	91.50	342.3	13	9	-1					
BUTTE	93.33	7.8	13	17	-1					
BOZEMAN	93.82	6.8	13	6	-14					
PALISADES	95.18	339.5				24	0	-40	25 50	PS
RAPID CITY	95.84	1.4	13	29	-1					
EUREKA	99.34	11.4	13	44	-1					
CAPE HALLETT	128.46	157.0	19	12	3					
SOUTH POLE	130.26	180.0	19	13	0				21 17	PP
HALLEY BAY	132.53	199.2	19	17	0				22 41	PKS
BYRD STATION	139.71	175.2	19	22	-8				22 17	PP
LA PAZ	142.65	300.0	19	43	8					
HUANCAYO	143.61	313.7	18	45	-52					

JUNE 24 6.H 7.M 5.S EPICENTRE 42.23 13.42 DEPTH= 0.KM

A= 0.72238 B= 0.17242 C= 0.66965 D= 0.2322 E=-0.9727
G= 0.6514 H= 0.1555 K=-0.7427 HT= -2.5

SE= 3.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ROME	0.78	245.0									0	15	PG
FLORENCE X.	2.22	314.9	0	39	1	1	8	1					
PRATO	2.37	314.8				1	9	-2			0	41	PG
BOLOGNA	2.73	326.7	0	49K	3	1	18	-2					
TARANTO	3.38	120.2	0	52	-3	1	35	-1					
TRIESTE	3.42	3.8	0	55	-1	1	40	2			1	12	PG
ZAGREB	4.03	26.3	1	6	2	2	5	12			1	27	PP
PAVIA	4.27	315.1	1	38	31	2	38	39			2	1	PG
MESSINA	4.34	157.3	1	14	5	2	25	24			1	27	P*
REGGIO CALA.	4.47	156.8	1	23	13						1	53	
MONACO	4.65	290.8	1	11	-2	2	11	2			3	6	
OROPA	5.19	312.5	1	43	22	2	49	27			2	8	PG
CHUR	5.39	330.2	1	23K	0	2	25	-2					
BELGRADE	5.72	60.8	1	28	0	2	44	9			2	29	PGSG
KALOCSA	5.86	40.9	2	9	39						3	5	SG
SKOPJE	5.94	89.8	1	32K	1	2	55	14			3	28	
RAVENSBURG	6.17	335.4	1	41	7	3	7	20			2	7	PG
SZEGED	6.27	47.9				2	45	-4			3	33	SG
VIENNA-H.	6.37	18.0	1	36	-1	2	45	-7			2	5	PG
BRATISLAVA	6.48	22.4	1	35	-4	2	44	-10			2	6	PG
HURBANOVO	6.57	29.3				3	41	44					
BUDAPEST	6.60	35.5									2	21	PG
TIMISOARA	6.63	55.3	2	4	23	3	18	20					
NEUCHATEL	6.64	318.1	1	37	-4						3	58	
EBINGEN	6.73	333.7	1	35	-7	2	54	-7			2	12	PG
BASLE	6.73	323.9	1	38	-4	2	54	-7					
TUBINGEN	7.00	335.5	1	44	-2	3	3	-4			2	7	P*
STUTTGART	7.18	337.0	1	44	-5	3	9	-3			2	19	PG
STRASBOURG	7.49	329.9	1	53	0	3	22	2			2	36	
KARLSRUHE	7.63	334.3	2	2	7						3	20	SG
CLERMONT-FD.	8.23	298.9	2	7	4								
PLAUEN	8.32	354.4	2	2	-2	3	34	-6			2	43	
RACIBORZ	8.52	21.2	2	34	27	4	41	56			5	12	
JENA	8.79	352.3	2	8	-3	3	57	5			2	49	PG
ATHENS	8.96	114.9	2	13K	0						2	19	PP
KRAKOW	9.03	27.7	2	17	3	3	18	-40			4	33	
COLLMBERG	9.08	358.3	2	12	-3						5	5	
HALLE	9.33	354.3	2	22	4	4	1	-4			3	11	
BUCHAREST	9.49	72.4				3	45	-24			4	55	
ALGIERS UNI.	9.69	239.2	2	21	-3						3	53	
BENSBERG	9.73	335.9	2	37	13	4	11	-4					
TORTOSA	9.80	266.0				4	16	-1					
DOURBES	9.96	325.2	2	34	7	4	42	21					
PARIS	10.10	314.4	2	41	12	5	33	69			2	55	PP
POTSDAM	10.16	358.8									5	8	
LWOW	10.57	40.5	2	37	1	4	35	-1					
ISTANBUL KA.	11.77	90.4	2	49	-3	6	12	67					

KISHINEV	11.97	61.2	2 53	-2						
MALAGA	14.82	254.1			5 12	-66			5 32	SS
SIMFEROPOL	15.24	72.7	3 41	3	5 59	-29				
GOTEBORG	15.51	357.1	3 39	-2						
RATHFARNHAM	17.20	316.8	4 52	49						
UPPSALA	17.83	6.9	4 10	-1						
HELSINKI	19.31	17.6	4 27	-2						
PULKOVO	20.42	24.9	4 40	-1						
TAMANRASSET	20.49	201.3	4 42	0						
MOSCOW	20.71	41.0	4 44	0	8 38	7			8 40	
SKALSTUGAN	21.40	358.6	4 48A	-3						
TIFLIS	23.27	80.6	5 14	4						
KIRUNA	25.93	6.1	5 36	1						
SODANKYLA	26.20	11.6	5 34	-4						
COLLEGE	72.23	351.7	11 27	-2						
HUNGRY HORSE	78.60	327.3	12 3	-2						
TUCSON	89.92	315.5	13 1	-1						
SCOTT BASE	142.66	171.0	19 7	-28						

JUNE 25 1.H 14.M 1.S EPICENTRE 36.24 52.83 DEPTH= 0.KM

A= 0.48841 B= 0.64419 C= 0.58862 D= 0.7969 E=-0.6042
G= 0.3556 H= 0.4690 K=-0.8084 HT= -0.3

SE= 2.06

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KIZYL-ARVAT	3.90	43.4	1	3	1						2	17	SG
LENKORAN	4.07	309.5	1	4	-1						1	58	
ASHKABAD	4.73	67.2	1	16A	2						2	43	SG
SHEMAKHA	5.48	324.3									1	35	
GORIS	6.08	304.2	1	33	0						1	49	
NAKHICHEVAN	6.59	298.8	1	40A	0						3	41	SG
BAIRAM-ALI	7.56	76.9	1	55	1	3	27	5			2	33	
EREVAN	7.65	303.4	1	58	3	3	28	4			2	48	
MAKHACH-KALA	7.88	330.2	1	57	-1	3	29	0					
STEPANAVAN	8.14	308.2	2	1	-1								
TIFLIS	8.31	313.6	2	3	-1						3	59	
GROZNY	8.92	324.5	2	12	-1	3	56	1					
SAMARKAND	11.68	68.7	2	51	0						4	44	
SOTCHI	12.44	310.1	3	2	1						7	31	
STALINABAD	12.88	74.9									3	23	
QUETTA	13.27	113.1	3	13	1	6	4	22					
KULYAB	13.64	78.0	3	15	-2						6	2	
TASHKENT	13.79	63.5	3	21	2						5	40	
KSARA	14.10	265.1	3	27	4	5	59	-2			6	17	SS
TCHIMKENT	14.32	59.9	3	23	-3						6	39	
KHOROG	15.08	79.7	3	36	0						7	23	
JERUSALEM	15.27	258.1	3	37	-1								
FERGANA	15.43	68.8	3	40	-1	6	35	2			5	51	
NAMANGAN	15.46	66.5	3	41	0	6	35	1					
WARSAK DAM	15.48	92.8	3	41	0								
ANDIJAN	15.94	67.7	3	51	4						8	43	PCP
YALTA	16.42	305.8	3	54	1						7	13	
SIMFEROPOL	16.63	307.3	3	58	2	7	7	6			7	19	
FRUNSE	18.01	61.8	4	13	0						7	53	SS
LAHORE	18.44	98.5	4	7	-12								
RYBACHE	18.99	63.9	4	27	2						8	17	SS
HELWAN	19.09	256.7	4	26A	0						10	23	
ISTANBUL KA.	19.15	291.8	4	25	-2	8	2	4					
FABRICHNAYA	19.37	61.8	4	31	1								
ALMATA-2	20.09	62.0	4	42	4						8	46	PCP
SVERDLOVSK	21.25	11.9	4	48	-2						8	53	SSS
IASI	21.71	308.1	4	54	0								
BUCHAREST	21.88	300.1	3	59	-57	9	2	8			5	29	
MOSCOW	22.08	336.8	4	59	1	9	2	5					
ATHENS	23.24	283.0	5	15K	5								
SOFIA	23.59	294.9	5	15	2						6	21	
SEMIPALATNSK	24.28	45.8	5	24	4								
LWOW	24.87	312.1									5	52	PP
PULKOVO	27.68	335.3	5	51	-1						12	34	SCP
PULKOVO	27.68	335.3	6	43	52						12	34	SCP
MESSINA	29.63	285.1	6	8	-1								
HELSINKI	29.88	332.0	6	11	0								
UPPSALA	32.69	327.4	6	35A	-1						7	42	PP

COPENHAGEN	33.50	318.3	6	44	1				12	10
STUTTGART	34.06	305.4	6	46	-2				8	14
GOTEBORG	34.42	321.6	6	49A	-2				8	0 PP
SODANKYLA	34.57	342.5	6	52	0					
SHILLONG	34.94	96.6	6	55	0					
KIRUNA	36.52	340.0	7	9A	0				8	16 PP
SKALSTUGAN	36.75	330.9	7	10	-1				8	22 PP
PARIS	38.49	305.1	7	25	0					
TAMANRASSET	42.91	265.2	7	59	-3				9	37
RUMANGABO	43.32	215.5	8	5	0				8	26
LWIRO	44.37	215.6	8	14	0					
NORD	51.40	349.8	9	8	-1					
TANANARIVE	55.09	186.1	9	34	-2					
RESOLUTE	67.31	351.1	10	58	-1					
WINDHOEK	67.54	215.7	11	3	3					
COLLEGE	77.92	8.9	12	0	-1					

JUNE 25 9.H 36.M 33.S EPICENTRE -3.65 144.40 DEPTH= 0.KM
A=-0.81143 B= 0.58103 C=-0.06320 D= 0.5822 E= 0.8131
G= 0.0514 H=-0.0368 K=-0.9980 HT= 7.1

SE= 3.12

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	6.34	154.5	1	34	-3						2	35	
TRUK	13.32	34.0	3	OK	-13								
KOROR	14.73	317.8	3	30	-1								
CHARTERS TS.	16.36	173.8	3	52	-1	7	0	5					
BRISBANE	25.09	161.7	5	27K	-1	9	51	0					
NOUMEA	28.30	132.8	5	50	-7	10	38	-5			6	41	PP
MANILA	29.44	308.5	6	1	-7						14	9	
RIVERVIEW	30.68	168.9	6	22K	3	11	10	-11					
BAGUIO CITY	30.85	310.9	6	18	-2	11	8	-16					
MELBOURNE	34.02	179.2	6	46A	-2	12	18	5			14	30	SS
TORISIMA	34.16	353.7	7	49	60						15	13	
SUVA	36.30	116.0	7	1A	-6	12	39	-9					
YAKUSIMA	36.41	339.6	7	8	0						12	30	
BANDUNG	36.72	263.4	7	17	6	13	14	19					
LEMBANG	36.75	263.5	7	15	4						8	46	PP
KAGOSIMA	37.42	340.4	7	8	-9	13	7	1					
MIYAZAKI	37.46	341.7	7	17	0	13	31	25					
SIMIDU	37.81	344.2									8	51	
OWASE	38.30	349.0	7	20	-4						9	22	PP
UWAZIMA	38.35	343.9	7	26	2	13	11	-9					
KOTI	38.40	345.3	7	27	2	13	18	-2			8	57	PP
OMAESAKI	38.49	351.8	7	29	3						12	18	
OSIMA	38.50	353.4	7	19	-7	13	6	-16					
KUMAMOTO	38.52	341.3	7	30	4								
UNZENDAKE	38.59	340.7	7	17	-9	13	16	-7			12	33	
MERA	38.60	354.0	7	14	-13	13	18	-5					
OOITA	38.62	342.7	7	25K	-2	12	52	-32					
WAKAYAMA	38.67	347.7	7	28	1	13	17	-7			16	17	
NAGASAKI	38.71	340.3	7	25	-2								
AJIRO	38.81	353.1	7	29	1	13	19	-8			9	21	PP
SHIZUOKA	38.82	352.1	7	29	1	13	13	-14					
SUMOTO	38.84	347.4	7	25	-4	13	18	-9			9	11	PP
MATUYAMA	38.86	344.5	7	16	-13						9	6	PP
PERTH	38.88	220.4	7	29	0	14	5	37			8	57	PP
TU	38.89	349.6	7	31	2								
MISIMA	38.90	352.9	7	29	0	13	15	-13			9	38	
TOMIE	39.00	338.8	7	33	3	13	18	-11					
OSAKA	39.00	348.4	7	33K	3	13	31	2			9	3	PP
TAKAMATU	39.00	346.3	7	30	0	13	23	-7					
KAMEYAMA	39.01	349.6	7	29	-1	13	51	21			8	58	PP
SAGA	39.05	341.1	7	35	5								
HIMEJI	39.09	346.9	7	31	0						14	36	
KOBE	39.10	347.9	7	28	-3	13	28	-3			9	17	PP
YOKOHAMA	39.13	353.9	7	29	-2	13	29	-2			10	24	
ABUYAMA	39.20	348.5	7	26A	-6	13	25	-8					
FORT NELSON	39.20	176.6	7	32	0	13	35	2					
HONG KONG	39.22	312.5	7	30A	-2	13	38	5			9	5	PP
NAGOYA	39.24	350.4	7	33	1								
HUNATU	39.30	352.7	7	27	-5	13	26	-8					
HUKUOKA	39.31	341.4	7	33	1	13	31	-3			10	7	

TOKYO C.M.O.	39.36	354.0	7	45	12	13	17	-18	8	50 PP
KOHU	39.45	352.5	7	34	0	13	5	-31		
HIROSIMA	39.46	344.3	7	35	1	13	30	-6		
HIKONE	39.46	349.5	7	35	1	13	38	2		
GIHU	39.50	350.2	7	30	-4	13	25	-12	9	15 PP
IBUKISAN	39.54	349.7	7	35	1					
KAKIOKA	39.87	354.7	7	36	-1	13	33	-10		
KUMAGAYA	39.87	353.7	7	40	3	13	39	-4		
MITO	39.99	355.1	7	39	1	13	31	-13		
TOYOOKA	39.99	347.8	7	38	0	13	36	-8	9	13 PP
HAMADA	40.06	344.2	7	41	2	13	38	-7	8	34 PP
MATUMOTO	40.14	351.9	7	41	2					
OIWAKE	40.14	352.7	7	40	1					
MAEBASI	40.15	353.3	7	39	0	13	40	-7	8	39
TAKAYAMA	40.15	351.0	7	37	-2					
UTUNOMIYA	40.21	354.4	7	39	-1	13	37	-11	9	32 PP
HUKUI	40.22	349.8	7	41	1					
YONAGO	40.23	346.0	7	39	-1				15	49
ITUHARA	40.25	340.5	7	42	2					
MATSUE	40.32	345.7	7	43	2	13	41	-8		
CANTON	40.34	312.7	7	40A	-1	13	52	2	9	11 PP
MATUSIRO	40.40	352.3	7	35	-6	13	37	-14	10	0 PPP
ONAHAMA	40.52	355.7	7	44	2	13	44	-8	9	0
NAGANO	40.52	352.3	7	44A	2	14	18	26	19	21 SS
KANAZAWA	40.62	350.4	7	47	4					
TOYAMA	40.70	351.1	7	44	0				11	22
SHIRAKAWA	40.74	354.9	7	45	1	13	47	-9		
TAKADA	40.94	352.5	7	47	1					
SAIGO	40.97	346.3	7	50	4					
ZO-SE	41.04	329.0	7	44A	-3	13	54	-6	9	15 PP
HUKUSIMA	41.35	355.3	7	51	2	13	55	-10		
WAZIMA	41.41	351.0	7	53	3	13	53	-13		
SENDAI	41.83	355.9	7	50	-3	14	2	-10	15	19
AIKAWA	41.85	352.7	7	55	2	14	8	-4		
YAMAGATA	41.85	355.2	8	5	12	14	9	-3		
ONERAHI	42.28	142.8	8	3	6					
SAKATA	42.54	354.7	8	1	2	14	33	11	10	58
NANKING	43.03	327.5	8	0A	-3	14	28	-1	9	45 PP
MIYAKO	43.14	357.3	8	5	1	14	23	-8		
MORIOKA	43.24	356.4	8	3K	-2	14	26	-6		
AKITA	43.33	355.2	8	3	-2	14	27	-7	11	3
FUTZELING	43.87	324.4	8	11	1					
HATINOHE	44.04	356.9	8	11	0	14	36	-8		
AOMORI	44.38	356.1	8	15	1	14	46	-3		
APIA	44.40	105.9	8	21	7	14	40	-9		
KARAPIRO	44.42	144.2	8	11	-3					
COBB RIVER	45.13	149.6	8	21	1	15	2	2		
TONGARIRO	45.29	145.6	8	19	-2					
HAKODATE	45.34	356.1	8	22	0					
URAKAWA	45.61	358.3	8	26	2	15	3	-4	10	28 PPP
MORI	45.66	356.0	8	25	1	15	3	-4	10	12 PPP
TOMAKOMAI	46.02	357.1	8	31	4					
WELLINGTON	46.33	148.2	8	30K	1	15	10	-7	10	13 PP
OBIHIRO	46.36	358.8	8	31	1					
SUTTSU	46.38	355.8	8	34	4	15	2	-16	16	55
KUSIRO	46.41	0.0	8	29	-1	15	9	-9	9	44 PP
SAPPORO	46.58	356.9	8	29	-2	15	13	-8	19	19 SSS
NEMURO	46.77	1.2	8	34	1	15	20	-3		
GEBBIES PASS	47.07	152.0	8	35	0					
ROXBURGH	47.09	156.1	8	39	4	15	25	-3	10	12 PP
DAIREN	47.27	335.7	8	39	2					
ABASHIRI	47.45	359.9	8	41	3	15	29	-4		
VLADIVOSTOK	47.90	347.7	8	36	-6	15	35	-4	10	33 PP
WAKKANAI	48.91	357.5	8	59	9					
KUNMING	49.53	307.5	8	54A	0	16	5	3	10	49 PP
CHANGCHUN	50.29	342.1	8	55A	-5	16	7	-6	10	18 PCP
Y.-SAKHLINSK	50.40	358.5	8	55	-6	15	49	-25	16	9 PS
PEKING	50.60	332.0	9	1A	-2	16	16	-1	10	55 PP
PORT BLAIR	53.59	287.3	9	24	-1	16	21	-37	10	44 PCP
PAOTOW	54.09	327.9	9	29	0					
LANCHOW	54.76	319.8	9	32	-2	17	13	-1	9	51 *SP
TOCKLAI	56.65	305.4	9	58	11					
CHITTAGONG	57.48	299.3	10	0	7	18	5	15	12	16 PP
PETROPAVLOVK	57.83	10.1	9	49	-7				19	26 SCS
SHILLONG	58.58	302.9	9	59A	-2	18	8	4		
CALCUTTA	60.58	298.3	10	14K	-1	18	21	-9	12	21 PP
LHASA	60.83	306.9	10	15A	-1	18	38	5	19	50 SCS
ULAN-BATOR	60.93	332.1	10	14	-3	18	34	-1		
HONOLULU	61.50	63.5	10	16	-5	18	34	-8	22	31 SS

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

KIPAPA	61.61	63.4	10	16	-6				11	13
CHATRA	62.97	302.5	10	30	-1	19	12	12		
DUMONT	62.98	182.0	10	30	-1	18	58	-3	12	57 PP
BOKARO	63.20	298.9	10	34	2	19	7	4		
MAGADAN	63.21	3.6	10	29	-3					
HAWAII V.OB.	63.56	66.3	10	30	-5					
IRKUTSK	65.20	334.2	10	42A	-3				20	19 SCS
MADRAS	65.86	285.9	10	50	0	19	39	3	13	20 PP
WILKES	66.80	194.2	10	54	-2	19	44	-4		
KODAIKANAL	68.05	282.5	11	6K	3	20	9	6	13	39 PP
HYDERABAD	68.31	290.3	11	6A	1	20	3	-3	13	21 PP
OASIS-BUNG.	69.45	197.4	11	13	1	20	22	3	15	31 PPP
CAPE HALLETT	70.44	171.8	11	19K	1	20	35	4	14	1 PP
AGRA	70.87	300.2	11	19A	-2	20	38	2	13	59 PP
DEHRA DUN	71.67	303.4	11	31	5	20	49	4	14	16 PP
BOMBAY	73.84	290.7	11	42	4	21	12	2	14	25 PP
LAHORE	75.07	303.8	11	42	-3	21	26	3	11	55 PCP
SCOTT BASE	75.09	175.2	11	44	-2	21	34	10	14	53 PP
TIKSI	75.82	355.0							11	59 PCP
SEMIPALATNSK	76.71	323.7	11	54	-1					
FRUNSE	77.86	315.1	11	56A	-5	21	51	-3	16	24
WARSAK DAM	77.91	305.7	11	59A	-2					
KARACHI	80.24	296.8	12	8	-6					
QUETTA	81.01	301.2	12	17A	-1	22	26	-1	15	24 PP
STALINABAD	81.08	309.7							12	20 PCP
TASHKENT	81.28	312.6	12	17	-3	22	27	-3	12	27 PCP
MAWSON	83.40	202.4	12	32	2	22	51	0		
COLLEGE	84.03	23.4	12	28	-6	22	47	-11	16	11 PP
SOUTH POLE	86.38	180.0	12	43K	-2	23	22	1	16	9 PP
BYRD STATION	87.49	170.0	12	52A	1	23	20	-11	16	23 PP
SITKA	87.76	32.6	12	58	6					
ASHKABAD	89.10	307.9	12	58	-1	23	47	1	29	45 SS
SVERDLOVSK	89.61	326.9	13	0	-1	23	45	-6	16	37 PP
UKIAH	94.13	51.2	13	11	-11					
VICTORIA	94.16	41.8	13	27	5					
CORVALLIS	94.18	45.7	13	29	7					
SHASTA	94.80	49.6	13	26	1					
BERKELEY	94.86	52.5	13	30K	5	23	54	-43	16	57 PP
SEATTLE	94.90	42.6	13	27	2					
TANANARIVE	95.29	250.7	13	30	3	24	14	-27	16	54 PP
LICK	95.35	53.0	13	27	0					
MINERAL	95.40	50.0	13	27	-1					
RENO	96.78	50.8	13	34	0					
FRESNO	96.82	53.6	13	52	18					
PASADENA	98.19	56.2	13	40	0	25	4	-1	18	4 PP
GORIS	98.53	309.2	13	42	0				17	49 PP
TIFLIS	99.58	311.5							17	51 PP
EUREKA	99.75	50.7	13	47	0				16	53 PKP
HUNGRY HORSE	100.41	41.6	13	53	3				16	57 PKP
HALLEY BAY	100.77	182.3	13	50	-2				18	13 PP
BOULDER CITY	100.85	54.2	13	52	0				17	25 PKP
APATITY	101.27	338.5	13	58	4	24	41	-50		
RESOLUTE	101.33	13.5	13	53	-1	25	27	-5	17	55 PP
NORD	101.61	357.2	13	50	-6					
BUTTE	101.66	43.9	13	57	1				17	35 PKP
MOSCOW	102.41	326.3	13	55	-4				18	14
BOZEMAN	102.76	44.1	14	6	5				18	28 PP
SALT LAKE C.	102.79	49.2	14	5	4				18	17 PKP
TUCSON	104.43	57.8	18	29	777	27	52	115	14	42 P
PULKOVO	105.10	331.4	14	12	777				18	34 PP
KIRUNA	105.67	340.9	18	32	777	26	12	13		
SIMFEROPOL	106.86	315.9	14	19	777				18	50 PP
KSARA	107.39	304.2	14	25	777	25	7	-1	18	54 PP
LCO. MARQUES	107.82	241.4							18	53 PP
RAPID CITY	108.54	44.7	18	53	777				15	2 P
CHIHUAHUA	108.87	61.1	14	3	777				20	57 PP
SKALSTUGAN	110.85	339.2							18	59 PP
UPPSALA	110.86	334.4							19	14 PP
ISTANBUL KA.	111.35	312.8	18	18	-18				34	31 SS
LUBBOCK	111.74	55.3	19	20	43				28	56
HELWAN	111.77	300.6	14	48	777				19	27 PP
LWOW	112.02	322.9							19	27 PP
BUCHAREST	112.52	316.9	19	8	30				29	7
SCORESBY SD.	112.68	355.1							19	24 PP
WARSAW	112.80	326.1	19	34	55					
KRAKOW	114.36	324.3	18	25	-17				19	38 PP
GOTEBORG	114.50	334.2	18	51	9				19	47 PP
SKALNATE PL.	114.54	323.3							19	59 PP

RUMANGABO	114.91	266.9	19	2	19					
TIMISOARA	115.31	319.6	19	44	60				25	41
RACIBORZ	115.34	324.9							19	51 PP
LWIRO	115.36	265.8	18	48	4					
COPENHAGEN	115.46	332.2	14	57	777				19	45 PP
BUDAPEST	115.97	322.0	20	0	75	25	39	3	20	42 PPP
HERMANUS	116.08	228.8				25	2	-34	29	57 SCSP
TACUBAYA	116.09	70.3				27	17	101	25	17 SKS
BELGRADE	116.17	318.9							19	49 PP
HURBANOVO	116.33	322.7							19	59 PP
SKOPJE	116.57	315.6				28	32	174	21	0 PP
BRATISLAVA	116.86	323.4	18	50	3				20	3 PP
POTSDAM	117.00	328.9	18	53	6				20	3 PP
VIENNA-H.	117.25	323.7	18	56	9	25	52	12	20	10
PRAGUE	117.48	326.2							20	3 PP
COLLMBERG	117.61	327.9	18	51	3	25	27	-15	20	7 PP
HALLE	118.06	328.5	18	55	6				20	19 PP
PLAUEN	118.50	327.5	18	50	0				20	10 PP
JENA	118.57	328.1	18	50	0				20	11 PP
ZAGREB	118.61	321.4	18	56A	6	25	47	2	20	24 PP
VERA CRUZ	119.00	70.2				25	43	-4	29	35 PS
SONNEBERG	119.07	327.7	18	57	6				20	8 PP
FLORISSANT	119.30	47.0							20	6 PP
ST. LOUIS 1	119.46	47.2				25	46	-2	20	4 PP
TARANTO	120.04	315.4	19	20	27				30	20 PS
TRIESTE	120.07	322.0	18	58	5				20	22 PP
ABERDEEN	120.42	339.6							20	17 PP
BENSBERG	120.81	330.0	19	2	8				20	29 PP
STUTTGART	121.06	327.0	18	54	-1	25	55	1	20	22 PP
DE BILT	121.06	331.9							20	15 PP
TUBINGEN	121.26	326.9	18	57	2				20	27 PP
KARLSRUHE	121.34	327.6	18	56	1	25	26	-28	20	38 PP
EBINGEN	121.52	326.6	18	56	0					
EDINBURGH	121.77	339.2							29	35 PS
STRASBOURG	121.94	327.5	18	56	-1	25	40	-16	20	34 PP
CHUR	121.95	325.0	18	59A	2				31	9
DURHAM	122.06	337.5	18	55K	-2	25	50	-7	20	36 PP
REGGIO CALA.	122.12	313.4							20	30
BOLOGNA	122.13	321.9							20	48
MESSINA	122.15	313.6							37	0 SS
UCCLE	122.30	331.2				30	22	264	20	35 PP
WINDHOEK	122.33	240.5	19	0	3					
PRATO	122.59	321.3	19	13	15				20	56 PP
DOURBES	122.63	330.4	20	20	82					
BASLE	122.66	326.6							20	43
ROME	122.67	318.7	19	6	8				21	5 PP
PAVIA	123.08	323.5	19	6	7				21	1 PP
NEUCHATEL	123.32	326.4	19	0	1					
OROPA	123.54	324.5	19	7	7				21	2 PP
KEW	123.98	334.2	19	7	6	25	53	-10	20	49 PP
PARIS	124.52	330.3	19	9A	7	26	19	14	22	40 PKS
MERIDA	124.79	67.1							22	51 PP
MONACO	124.91	322.9	19	9	7					
RATHFARNHAM	124.95	339.0	19	3	1				20	57 PP
OTTAWA	125.63	34.0	19	2	-2	26	1	-7	22	32 PKS
CLERMONT-FD.	126.17	327.2	19	8	3				21	7 PP
MORGANTOWN	126.25	42.0	19	8K	3				20	53 PP
SHAWNIGAN	126.49	31.2	19	7	1					
BREBEUF	126.72	32.7	19	6K	0					
SEVEN FALLS	127.08	29.6	19	8	2	26	31	19	22	51 PKS
CONCEPCION	127.33	143.2				26	18	5	20	56 PP
COLUMBIA	128.10	48.8	19	9	1					
GEORGETOWN	128.54	41.3	19	12	3				21	7 PP
WASHINGTON	128.54	41.3	19	16	7	26	13	-3	21	14 PP
PALISADES	129.35	37.3	19	13	2				21	13 PP
BARCELONA	129.44	323.4							21	28
FORDHAM	129.46	37.5	19	7	-4				21	13 PP
WESTON	130.00	34.4	19	14	2				21	29 PP
SANTA LUCIA	130.42	140.9	22	52	219				25	26 PP
TORTOSA	130.78	323.8	19	26	12				22	39 PP
ALGIERS UNI.	131.57	317.9	19	17	2				21	37 PP
HALIFAX	132.34	27.0	19	21A	4	26	40	14	21	51 PP
ALICANTE	132.91	321.9	19	14	-4	26	26	-1	21	41 PP
TOLEDO	134.01	326.0	19	25	5				21	55 PP
ALMERIA	135.08	321.6	19	16	-6				21	54 PP
SERRA PILAR	135.49	330.7	19	21K	-1					
GRANADA	135.56	322.8	19	29A	7				22	7 PP
TAMANRASSET	135.90	299.3	19	18	-5				21	58 PP

BALBOA HTS.	136.02	80.9	19	25	2					
COIMBRA	136.11	329.7	19	24A	1				22 8	PP
MALAGA	136.34	322.9	19	30A	6				22 10	PP
HUANCAYO	137.54	112.2	19	29	3				22 16	PP
LISBON	137.59	328.9	19	36K	10					
TALA POZO	138.28	140.4							23 2	PKS
GALERAZAMBA	140.05	77.6	19	37	6				23 13	SKP
CHINCHINA	140.08	86.6	19	31	0				23 12	SKP
BERMUDA	140.51	40.3	20	1	30				23 19	PP
BOGOTA	141.63	87.2	19	35	2				22 57	SKP
FUQUENE	141.96	85.8	19	31	-3					
LA PAZ	142.13	122.8	19	34	0	26 35	-8		22 43	PKS
SAN JUAN	146.75	61.6	19	45	3				20 34	
ST. CLAUDE	151.55	62.6	19	59	9					
FORT FRANCE	152.52	64.7	19	55	4					
GRENADA	152.83	70.6	19	56	4					
ST. LUCIA	152.90	66.0	19	59	7					
ST. VINCENT	152.94	68.0	19	58	6					
BARBADOS	154.49	66.9	20	2	8					
MBOUR	158.75	301.3	20	7A	8				24 24	PP

JUNE 25 12.H 44.M 1.S EPICENTRE -5.36 151.61 DEPTH= 35.KM

DEPTH OF FOCUS= 0.000R

A=-0.87595 B= 0.47340 C=-0.09272 D= 0.4755 E= 0.8797
G= 0.0816 H=-0.0441 K=-0.9957 HT= 7.0

SE= 1.85

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT MORESBY	5.98	227.5	1	29	1	2	38	2				
TRUK	12.74	1.1	2	59	-2							
CHARTERS TS.	15.47	199.2	3	37K	0	6	33	5				
GUAM	19.91	340.0	4	33	2	8	19	11				
KOROR	21.24	306.2	4	47	2	8	45	11				
BRISBANE	22.04	176.6	4	54	1	8	55	6				
NOUMEA	22.13	141.0	4	53A	-1						5	28
BAGUIO CITY	37.55	305.7	7	13	0	13	0	1				
KARAPIRO	39.05	149.4	7	26K	1						9	34
GEBBIES PASS	42.45	157.3	8	6	13							
MATUSIRO	43.53	344.3	7	59A	-3	14	7	-21			10	50 PPP
HONG KONG	45.80	308.2	8	22	2	15	25	24				
ZO-SE	46.47	323.2	8	25A	0	15	14	4				
CANTON	46.91	308.5	8	30A	1							
NANKING	48.57	322.1	8	42A	0	15	45	5				
PEKING	55.70	327.4	9	36A	1	17	21	3			17	35 PS
KUNMING	56.34	304.8	9	40	0							
LANCHOW	60.82	316.6	10	12	1							
DUMONT	61.74	185.2	10	15	-2							
SHILLONG	65.58	301.0	10	41A	-1							
ULAN-BATOR	65.96	328.8	10	45	0							
LHASA	67.65	304.9	10	56A	1							
CAPE HALLETT	67.86	173.9	10	51K	-6							
CHATRA	69.99	300.9	11	11	1							
SCOTT BASE	72.89	176.7	11	27	0							
LAHORE	82.02	302.8	12	8	-10							
COLLEGE	82.81	22.0	12	20	-2							
BYRD STATION	84.56	169.9	12	34	3							
MAWSON	84.59	202.6	12	30	-1							
SOUTH POLE	84.68	180.0	12	50	19							
WARSAK DAM	84.77	304.7	12	30	-2							
QUETTA	88.06	300.4	12	47	-1							
BERKELEY	90.20	52.1	12	59	1							
CORVALLIS	90.23	45.4	13	0	2							
SHASTA	90.42	49.3	12	59A	0							
LICK	90.63	52.7	13	0	0							
HORSESHOE B.	90.84	40.6	13	0	-1							
MINERAL	90.98	49.7	13	1A	-1							
FRESNO	92.04	53.4	13	8	1							
RENO	92.27	50.7	13	9A	1							
PASADENA	93.15	56.2	13	12	0				13	31		
EUREKA	95.23	50.9	13	22	1						30	8 PKKP
BOULDER CITY	95.99	54.5	13	25	0							
HUNGRY HORSE	96.87	42.1	13	28	-1							
TUCSON	99.22	58.3	13	42	3							

HALLEY BAY	99.25	180.5	13 40	1			17 46 PP
RESOLUTE	101.24	14.4	13 47	-1			18 11 PP
RAPID CITY	104.61	46.0	14 4	1			
KIRUNA	109.55	324.4	18 27	0			
SKALSTUGAN	114.88	341.3	18 36	-1			
UPPSALA	115.41	336.3	18 37	-1			
GOTEBORG	119.05	336.6	18 44	-1			
OTTAWA	122.77	38.0	18 52	0			
HALLE	123.15	331.1	18 54	1			
JENA	123.69	330.8	18 54	0			
SHAWINIGAN	123.93	35.6	18 52	-3			
SEVEN FALLS	124.72	34.1	18 56	0			
STUTTGART	126.27	330.0	18 59	0			
HUANCAYO	130.22	110.6	19 10	3			
LA PAZ	135.10	119.7	19 14	-2			
TAMANRASSET	142.97	301.2	19 28	-2	27 26 52		22 47 PP
ST. CLAUDE	145.65	69.4	19 40	5			
ST. VINCENT	146.66	74.2	19 35	-1			
ST. LUCIA	146.76	72.6	19 39	2			
TRINIDAD	146.79	78.8	19 39	2			
BARBADOS	148.27	73.7	19 47	8			

JUNE 25 23.H 24.M 3.S EPICENTRE 52.13 152.45 DEPTH= 437.KM

DEPTH OF FOCUS= 0.064R

A=-0.54652 B= 0.28516 C= 0.78740 D= 0.4626 E= 0.8866
G=-0.6981 H= 0.3642 K=-0.6164 HT= -6.2

SE= 1.41

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SEVERO-KUR.	2.72	121.1	1 2	-3	1 52	-4		
PETROPAVLOVK	3.91	72.7	1 12	-2	2 11	-2		1 41
KLYUCHI	6.44	46.0	1 41	2	3 1	3		
UGLEGORSK	7.27	249.3	1 51	3	3 21	7		
MAGADAN	7.49	353.6	1 54	3	3 25	6		
KURILSK	7.54	205.4	1 50	-1	3 18	-1		
Y.-SAKHLINSK	8.18	234.5	1 59	1	3 35	3		2 11
MATUSIRO	18.55	218.5	3 49K	1	6 59	6		
TIKSI	22.19	340.4						5 37 PPP
COLLEGE	32.36	43.6	5 53	0				
HONG KONG	41.82	239.4	7 13	2				
TRUK	44.53	180.8	7 31	-1				
RESOLUTE	45.90	20.0	7 42A	-1				9 5 PCP
THULE	49.10	11.8	8 4	-3				
SHILLONG	52.30	263.9	8 31K	0				
SODANKYLA	54.09	337.2	8 44	0				
CHATRA	54.28	268.8	8 48	3				
KIRUNA	55.12	339.9	8 50	-1			10 20	
HUNGRY HORSE	55.85	53.6	8 56	0				
SHASTA	56.57	65.2	9 2A	1				
BUTTE	58.17	54.8	9 11	-1				
BERKELEY	58.58	67.6	9 15A	0				
RENO	58.80	64.6	9 17A	1				
BOZEMAN	59.17	54.2	9 20	1				
LICK	59.30	67.6	9 20A	0				
HELSINKI	60.37	332.8	9 27	0				
SKALSTUGAN	60.50	340.8	9 26	-2				
FRESNO	60.74	66.9	9 30	1				
EUREKA	60.96	62.2	9 32	1			11 2	36 52 PKPPKP
SALT LAKE C.	62.25	58.6	9 39	0				
UPPSALA	62.59	336.2	9 41A	-1			11 13	10 14 PCP
PASADENA	63.55	67.9	9 47	-1				
BOULDER CITY	64.10	64.2	9 52	1				
RAPID CITY	64.17	50.9	9 51	0				
GOTEBORG	65.86	338.0	10 2	0			11 31	
TUCSON TELE.	69.08	64.1	10 23	1				
TUCSON	69.08	64.3	10 23	1				
CHARTERS TS.	72.03	186.1	10 40K	0				
KEW	74.25	342.7	10 50	-2				
SHAWINIGAN	74.33	30.6	10 51	-2				
OTTAWA	74.39	33.0	10 52	-1				
ISTANBUL KA.	74.99	319.2	10 56	0				
STRASBOURG	75.24	336.6	10 57	-1				

MORGANTOWN	77.89	38.7									33	41
BYRD STATION	140.50	164.1	18	33	-6							
SOUTH POLE	141.94	180.0	18	35	-7				19	9		

JUNE 26 4.H 38.M 26.S EPICENTRE 54.29 159.35 DEPTH= 136.KM

DEPTH OF FOCUS= 0.016R

A=-0.54858 B= 0.20674 C= 0.81014 D= 0.3527 E= 0.9358
G=-0.7581 H= 0.2857 K=-0.5862 HT= -7.0

SE= 1.85

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	1.24	199.9	0	24	-2	0	42	-4					
KLYUCHI	2.19	21.2	0	39	2	1	9	4					
SEVERO-KUR.	4.14	210.0	1	0	-2	1	48	-3			1	30	*SP
MAGADAN	7.04	321.9	1	45	3	3	9	8					
KURILSK	11.71	223.9	2	41	-2						3	1	
UGLEGORSK	11.92	251.1	2	50	4	5	4	7			3	8	
Y.-SAKHLINSK	12.84	241.9	2	59	1	5	21	2			3	35	
NEMURO	14.21	225.1	3	17	1								
WAKKANAI	14.41	239.2	3	22	4								
KUSIRO	14.99	227.1	3	26	0	6	24	16					
ASAHIGAWA	15.28	233.4	3	30	1								
OBIHIRO	15.56	229.6	3	32	-1						4	10	
SAPPORO	16.30	233.8	3	42	0	7	17	38					
URAKAWA	16.36	228.8	3	41	-2	6	29	-12			4	8	
TOMAKOMAI	16.61	232.1	3	56	10								
SUTTSU	17.04	235.4	3	50	-1	7	39	41			15	32	SCS
MORI	17.41	233.2	3	53	-2	6	57	-8			15	38	SCS
HAKODATE	17.59	232.2	3	53	-5	6	50	-18					
HATINOHE	18.23	228.2	4	11	6	7	33	13					
AOMORI	18.33	230.2	4	6	0	7	16	-6			15	35	SCS
MIYAKO	18.77	225.8	4	3	-8	7	43	11					
MORIOKA	19.07	227.5	4	14	0	7	29	-9					
AKITA	19.52	229.6	4	17	-2	7	57	10			5	22	
MIZUSAWA	19.56	226.6	4	20	1	7	57	10					
SAKATA	20.31	228.7	4	27	0	8	13	11					
SENDAI	20.38	225.7	4	27K	0	8	7	4			5	9	
YAMAGATA	20.63	226.7	4	29	-1	8	9	1					
HUKUSIMA	21.00	225.7	4	33	-1	8	23	8			9	10	
VLADIVOSTOK	21.14	249.4	4	32	-3						5	2	PP
NIIGATA	21.47	228.6	4	44	6						5	39	
ONAHAMA	21.50	223.8	4	38	-1	8	26	2			5	9	
SHIRAKAWA	21.64	225.3	4	40	0	8	29	3					
AIKAWA	21.74	230.1	4	41	0	8	34	6					
TIKSI	21.79	334.3									5	13	PP
SUIHWA	21.83	262.7	4	43	1								
MITO	22.17	223.8	4	46	1						9	28	
UTUNOMIYA	22.27	225.1	4	46	0	8	40	3			5	21	
KAKIOKA	22.42	224.1	4	47	-1	8	44	4					
TAKADA	22.50	228.8	4	48	0								
MAEBASI	22.73	226.4	4	51K	0	8	52	7			6	46	
KUMAGAYA	22.82	225.5	4	53	2	8	57	10					
WAZIMA	22.88	231.5	4	53	1								
NAGANO	22.88	228.3	4	54	2	8	52	4			15	52	SCS
MATUSIRO	22.97	228.1	4	53K	0	8	52	3			9	43	*SS
OIWAKE	23.02	227.2	4	56	3								
TOKYO C.M.O.	23.07	224.2	4	55K	1	8	55	4					
TITIBU	23.09	225.8	4	56	2								
TOYAMA	23.30	230.0	4	56	0						5	23	
YOKOHAMA	23.32	224.1	5	4	8						5	47	
MATUMOTO	23.33	228.1	4	58	2								
KOHU	23.60	226.2	4	59	0	9	2	2					
HUNATU	23.63	225.7	4	59	0						10	0	
KANAZAWA	23.69	230.7	6	3	63								
AJIRO	23.88	224.6	5	5	3								
MISIMA	23.88	224.9	5	2K	0								
OSIMA	24.01	223.7	4	59	-4	9	9	2					
IIDA	24.01	227.3	5	5	2								
SHIZUOKA	24.24	225.7	5	6	1	9	12	1					
HUKUI	24.26	230.6	5	9	4								
CHANGCHUN	24.41	258.7	5	6K	-1	9	11	-3			6	0	PPP
GIHU	24.58	229.0	5	9	1	8	24	-53			15	55	SCS

OMAESAKI	24.63	225.5	5	12	3					5	51	
NAGOYA	24.68	228.3	5	10	1					5	37	
HAMAMATU	24.74	226.5	5	14	4							
IBUKISAN	24.77	229.6	5	12	2							
HIKONE	24.92	229.6	5	16	4					15	57	SCS
KAMEYAMA	25.17	228.8	5	17	3					5	48	
TU	25.25	228.5	5	17	2							
TOYOOKA	25.35	232.3	5	14	-2					5	42	
ABUYAMA	25.55	230.2	5	17K	0	9	49	16				
OSAKA	25.76	230.0	5	19K	0	9	46	10		5	43	
OWASE	25.95	228.2	5	22	1							
SUMOTO	26.30	230.7	5	23	-1	10	3	18		16	7	SCS
TOKUSIMA	26.67	230.8	5	27	-1							
HAMADA	27.17	235.6	5	31	-1					6	15	
KOTI	27.58	231.8	5	36	0					10	48	
COLLEGE	27.89	46.7	5	39	0	10	10	-1		6	48	PP
OOITA	28.74	234.2	5	48K	2	9	28	-56				
HUKUOKA	29.03	236.3	5	51	2					11	23	
SAGA	29.36	236.1	5	54	2							
KUMAMOTO	29.52	235.0	6	0	7							
DAIREN	29.72	254.4	4	51	-64							
NAGASAKI	29.99	236.1	5	57	-1	10	39	-5				
KAGOSIMA	30.62	233.8	6	0	-3	10	32	-22				
YAKUSIMA	31.58	232.7	6	11	0							
PEKING	32.09	261.6	6	16K	0	11	12	-5	6 45	7	1	*SP
IRKUTSK	32.26	289.4	6	17K	0	11	16	-4	6 44	13	34	SS
ULAN-BATOR	32.88	280.8	6	23	0				6 52			
PAOTOW	35.31	267.8	6	45	2							
SITKA	35.69	58.3	6	48	1	12	18	5	7 15	8	12	PP
ZO-SE	35.73	245.2	6	45K	-2	12	12	-1	7 15	8	10	PP
NANKING	36.28	248.9	6	51K	-1	12	20	-2	7 19	8	17	PP
LANCHOW	41.95	267.6	7	39K	0	13	44	-2	8 10	9	21	PP
RESOLUTE	42.38	22.3	7	42K	0	13	56	3		13	11	
NORD	44.33	359.2	7	59	1	14	20	-1		9	40	
ALBERNI	45.08	63.8	8	4A	0							
HORSESHOE B.	45.82	62.8	8	9A	-1							
KIPAPA	45.89	118.5	8	8	-2					10	31	PPP
HONOLULU	45.95	118.7	8	9	-2	14	24	-20		10	33	PPP
THULE	46.06	14.0	8	10A	-2	15	38	52	8 43	9	46	PCP
VICTORIA	46.27	63.8	8	13A	0	14	51	2		10	5	
CANTON	46.34	246.4	8	12K	-2	14	48	-2	8 42	9	44	PCP
HONG KONG	46.50	244.9	8	16	1	14	52	0	8 45			
TRUK	47.08	190.2	8	17	-3							
SEATTLE	47.40	64.1	8	23A	1	15	10	5				
BAGUIO CITY	48.22	233.7	8	28	0	15	17	1				
BANFF	48.63	56.7	8	13A	-19							
CORVALLIS	48.82	67.9	8	34A	1							
MANILA	49.63	232.1	8	36	-3	15	32	-4				
KUNMING	50.71	258.3	8	46K	-1	15	45	-6	9 16	10	3	PCP
KOROR	50.93	212.5	8	48	-1	15	53	-1				
SVERDLOVSK	51.11	315.7	8	51	1	15	57	1		10	47	PP
HUNGRY HORSE	51.20	58.7	8	50	-1					18	27	SCS
SHASTA	51.91	71.1	8	57A	1							
APATITY	51.98	336.7	8	56	-1	16	8	0				
UKIAH	52.52	73.1	9	1	0							
MINERAL	52.59	70.9	9	1A	0							
BUTTE	53.51	60.0	9	7	-1				10 40	13	58	
SODANKYLA	53.62	339.3	9	8	-1							
BERKELEY	53.94	73.5	9	11A	0	16	40	5				
FRUNSE	53.95	295.1	9	11	0				9 42	18	47	SCS
LHASA	54.04	272.0	9	13K	1	16	38	2	9 44	11	22	PP
RENO	54.14	70.4	9	13A	0							
KIRUNA	54.42	342.1	9	14K	-1	16	41	0	9 46	17	37	*SS
BOZEMAN	54.52	59.4	9	16	0				10 42	11	41	PP
LICK	54.66	73.6	9	16A	-1	16	48	4				
SCORESBY SD.	55.53	0.5	9	22K	-1	17	0	4		10	21	PCP
FRESNO	56.10	72.8	9	27A	0							
EUREKA	56.28	67.9	9	29	1				9 58	39	15	PKPPKP
SHILLONG	56.60	268.0	9	15	-16					18	16	
SALT LAKE C.	57.57	64.1	9	37	0					10	36	PCP
TASHKENT	57.84	297.2	9	36	-3	17	26	0	10 2	18	4	PS
CHATRA	58.40	272.8	9	42	-1					14	22	
PASADENA	58.91	73.8	9	45A	-2	17	45	5		13	25	PPP
CHITTAGONG	59.08	265.7	9	45	-3				10 17			
BOULDER CITY	59.43	70.0	9	50	0	18	0	13	10 17	39	25	PKPPKP
RAPID CITY	59.55	56.0	9	52	1	17	52	4	10 21	19	31	SCS
SKALSTUGAN	59.71	343.6	9	51K	-1	18	2	12	10 23	10	37	*SP
STALINABAD	60.12	295.3	9	54	-1	17	58	2				
MOSCOW	60.42	326.4	9	57	0	18	2	3	10 27	12	13	PP

DEHRA DUN	61.08	282.4	10	2	0	18	4	-4					
REYKJAVIK	61.91	0.6	10	8K	1				10	47			
WARSAK DAM	61.99	289.9	10	5	-3								
UPPSALA	62.16	339.3	10	7K	-2	18	22	1	10	39	19	18	*SS
LAHORE	62.27	286.1	10	7K	-3								
PORT MORESBY	64.28	193.4	10	24	1	18	52	4					
TUCSON TELE.	64.41	69.8	10	23	-1						39	12	PKPPKP
TUCSON	64.42	70.0	10	23	-1	19	0	10	10	48	12	58	PP
GOTEBORG	65.27	341.4	10	27K	-2	19	0	0	10	58	20	8	*SS
ASHKABAD	65.94	301.8	10	32K	-1	19	5	-3	11	5	13	1	PP
COPENHAGEN	67.08	340.4	10	41K	0	19	26	4			20	20	SKS
QUETTA	67.42	290.4	10	41K	-2	19	21	-5			12	51	PP
ABERDFEN	67.87	349.2	11	29K	44	19	34	3					
LUBBOCK	68.22	62.7	10	47	-1	19	39	4	11	17			
WARSAW	68.32	333.9	10	48K	0	19	42	5			13	17	PP
TIFLIS	69.22	313.3	10	54	0	19	52	5	11	26	20	42	*SS
LWOW	69.68	331.0	10	58	1	19	55	2	11	30	20	46	*SS
FLORISSANT	69.71	51.4	10	56A	-1	19	53	0	11	26	13	34	PP
ST. LOUIS 1	69.90	51.4	10	56A	-2	19	56	1	11	27	13	35	PP
POTSDAM	70.05	338.8	10	59	0	20	1	4	11	34	20	52	
FAYETTEVILLE	70.09	55.7	10	58A	-1	19	56	-1	11	28	20	58	PPS
DURHAM	70.17	348.4	10	58A	-2	20	1	3	11	29	20	50	*SS
OTTAWA	70.22	37.9	10	58A	-2	19	56	-3			13	36	PP
SHAWINIGAN	70.26	35.4	10	59	-1	19	59	0			20	47	PPS
MEDAN	70.31	247.5	11	0K	0	20	7	7					
GORIS	70.38	310.9	11	1	0	20	4	3			13	40	PP
SEVEN FALLS	70.40	33.8	11	0	-1	20	1	0	11	30	20	50	PS
KRAKOW	70.59	333.6	11	2	0	20	6	3			20	51	PPS
SIMFEROPOL	70.71	322.1	11	2K	-1	20	7	2	11	32	13	42	PP
KARACHI	70.75	287.5	11	6K	3								
BREBEUF	70.88	36.5	11	2A	-2	20	6	0					
IASI	70.96	327.5	11	4	0	21	14	67					
RACIBORZ	71.01	334.7	11	4	-1	20	16	8			20	56	SS
COLLMBERG	71.08	338.4	11	5	0	20	13	4			11	39	PCP
HALLE	71.12	339.1	11	5	0	20	12	3	11	36	20	56	SCS
JENA	71.73	339.2	11	9	0	20	19	3	11	41	21	16	*SS
DE BILT	71.81	343.6	11	10	1	20	23	6			11	42	PP
PRAGUE	71.92	337.1	11	12	2	20	26	8	11	42	21	1	SCS
PRUHONICE	71.98	337.0	11	10	0	20	22	3	11	43	13	47	PP
PLAUEN	72.02	338.7	11	10	-1	20	18	-2	11	40	21	2	
RATHFARNHAM	72.11	351.0	11	14	3								
BENSBERG	72.56	342.0	11	14K	0						11	46	
PITTSBURGH	72.84	43.4	11	15A	0				11	46			
HURBANOVO	73.05	333.8	11	48	31	20	42	11			14	4	PP
BRATISLAVA	73.05	334.6	11	17	0				11	45	20	38	PS
KEW	73.25	346.9	11	17	-1	20	35	2					
CAMPULUNG	73.48	328.2	11	21	2	21	20	44					
MORGANTOWN	73.53	43.8	11	19	0	20	37	0					
DOURBES	73.84	343.4	11	21	0	20	45	5					
BUCHAREST	73.90	327.1	11	22K	0	21	20	39	11	55	21	46	PS
SUVA	73.98	161.1	11	22A	0	20	56	14	11	50	12	2	*SP
TIMISOARA	74.17	330.9	11	21	-2	20	52	8					
KARLSRUHE	74.20	340.6	11	26	3	20	52	8	12	3	21	24	PS
STUTTGART	74.27	340.0	11	24K	0	20	49	4					
WESTON	74.41	36.5	11	24A	0	20	46	0					
TUBINGEN	74.53	340.0	11	26K	1								
LEMBANG	74.64	233.9	11	27	1	20	50						
PALISADES	74.68	39.0	11	24A	-2	20	46	-3	11	55	14	4	PP
BANDUNG	74.69	233.9	11	13	-13	20	25	-24					
STRASBOURG	74.73	340.9	11	27	1	20	52	2	11	59	14	16	PP
FORDHAM	74.83	39.0	11	27	0	20	49	-2	11	58			
CHARTERS TS.	74.85	192.7	11	26A	-1	20	52	1					
EBINGEN	74.88	340.0	11	28K	1								
HALIFAX	74.89	30.3	11	28K	1	20	52	0			29	22	SSS
RAVENSBURG	75.13	339.4	11	30	1								
BELGRADE	75.24	331.1	11	30K	1	20	55	-1			15	0	PP
WASHINGTON	75.31	42.2	11	27	-3	20	57	1	11	58	14	24	PP
PARIS	75.43	344.4	11	32	2	21	3	5			14	24	PP
BASLE	75.78	340.7	11	32K	0								
TRIESTE	76.23	335.9	11	34	-1	21	0	-6	12	7	22	4	SS
SOFIA	76.32	328.2	11	36	1	21	35	28			15	4	PP
NEUCHATEL	76.41	341.0	11	37	1	21	13	5					
NOUMEA	76.52	173.2	11	36A	0				12	6			
CHAPEL HILL	77.07	45.2	11	39	0								
OROPA	77.53	339.9									23	12	
PAVIA	77.70	338.9				21	20	-2					
COLUMBIA	77.87	47.6	11	43	-1	21	23	-1	12	15			
BOLOGNA	77.88	337.2				21	34	10			23	30	

CLERMONT-FD.	78.28	343.3	11 47K	1	21 31	3			22 31	PS
MONACO	79.45	339.7	11 53K	1			12 14			
KSARA	79.65	315.1	11 54	0	21 55	12	12 26		14 59	PP
ROME	80.07	335.5	11 56K	0	21 54	7	12 48		15 7	PP
TARANTO	80.16	331.6			21 55	7			14 55	PP
ATHENS	80.49	325.9	11 57K	-1	22 2	10				
TACUBAYA	80.93	69.5	12 3	3	21 55	-1			15 9	PP
BRISBANE	81.61	185.7	12 4	0	21 58	-5				
MESSINA	82.75	332.0	12 9	-1	22 21	6	12 58		23 33	*SS
REGGIO CALA.	82.82	331.9	12 11	1	22 16	1				
HELWAN	84.96	316.6	12 21	0	22 32	-5				
TOLEDO	85.12	347.3	12 23K	1	22 35	-3			23 37	PS
BERMUDA	85.69	36.1	13 19	55	22 50	6			23 46	
ALICANTE	86.11	344.2	12 26	0	22 56	8				
ALGIERS UMI.	87.03	341.1	12 30	-1	23 1	5			15 46	PP
GRANADA	87.72	346.4	12 37K	3	23 10	7			24 9	PS
ALMERIA	87.88	345.5	12 36	1	23 10	6				
RIVERVIEW	88.05	186.8	12 43K	7	23 10	4				
MALAGA	88.28	347.0	12 38A	1	22 44	-24	13 10		16 23	PP
MELBOURNE	92.59	191.4	13 29	32	23 53	6			24 39	SKKS
KARAPIRO	92.90	167.3	13 28	30						
TAMANRASSET	100.00	335.6	13 31	0	24 59	10			17 38	PP
CHINCHINA	105.40	57.8	16 34	777	24 27	8				
BOGOTA	106.46	56.6	18 28	777	24 28	-4				
MBOUR	111.53	356.2							26 58	
LWIRO	114.36	303.5	18 26A	3					23 44	
HUANCAYO	119.97	67.1	19 11	37					20 11	PP
CAPE HALLETT	126.53	175.9	18 43	-4			19 14			
LA PAZ	127.50	63.0	18 50A	1					20 54	PP
OASIS-BUNG.	128.04	206.1	18 50	0					22 24	PKS
SCOTT BASE	131.96	177.9	18 58	1					18 51	PP
PIETERMZBURG	135.99	282.9	19 7	2						
KIMBERLEY	138.50	289.3	19 0	-9						
BYRD STATION	141.44	163.9	19 11	-4			19 53		29 46	SKKP
SOUTH POLE	144.11	180.0	19 16A	-3			19 47		22 45	SKP

JUNE 26 7.H 39.M 19.S EPICENTRE 24.12 126.07 DEPTH= 0.KM

A=-0.53799 B= 0.73851 C= 0.40641 D= 0.8083 E= 0.5888
G=-0.2393 H= 0.3285 K=-0.9137 HT= 3.6

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ILAN	3.99	280.2	1	21	17	2	14	21					
HWALIEN	4.07	268.8	1	6	1	2	25	30					
TAIPEI	4.24	283.2	1	15	8								
HSINKONG	4.43	257.7	1	26	16								
HSINCHU	4.70	279.3	1	7	-7								
ALISHAN	4.87	264.0	1	18	2								
TAICHUNG	4.93	271.4	1	19	2								
HENGCHUN	5.34	247.7	1	25	2	2	18	-8					
ZO-SE	8.19	329.1	2	5	2	3	43	6					
BAGUIO CITY	9.23	214.9	2	18	0								
NANKING	10.17	322.5	2	33	3	4	29	2					
MANILA	10.64	207.7	2	33	-4	4	27	-11					
HONG KONG	11.10	263.0				5	19	30					
MATUSIRO	16.21	37.4	3	55	4	7	9	18					
PEKING	17.92	334.6	4	14K	2	7	37	6			4	32	*SP
KOROR	18.54	152.9	4	19	-1								
CHANGCHUN	19.67	358.4	4	31	-2	8	5	-5					
GUAM	20.59	117.6	4	44	1								
KUNMING	21.29	277.3	4	51K	1	8	44	1					
LANCHOW	22.58	307.0	5	3	0	9	10	3			5	34	PP
Y.-SAKHLINSK	26.39	26.2	5	41	1								
ULAN-BATOR	28.21	332.1	5	51	-5								
TRUK	29.73	119.6	6	9	-1								
CHITTAGONG	31.48	273.8	6	26	0	11	32	-2					
LHASA	31.65	287.7	6	28K	1								
YAKUTSK	37.96	2.8	7	19	-2								
LAHORE	46.00	291.3	8	27	0								
FRUNSE	46.08	307.0	8	27	0								
CHARTERS TS.	48.07	154.1	8	46	3								
NAMANGAN	48.07	304.2	8	44	1								
WARSAK DAM	48.18	294.8	8	44K	0								

QUETTA	52.46	290.4	9	16K	-1		
SVERDLOVSK	56.75	323.3	9	45	-3		
COLLEGE	66.80	27.6	10	54	-2		
MOSCOW	69.56	322.9	11	12	-1		
SOTCHI	71.25	310.0	11	22	-1		
SODANKYLA	71.53	336.3	11	24	-1		
PULKOVO	72.29	328.1	11	30	1		
NORD	72.84	354.7	11	31	-2		
KIRUNA	73.59	337.6	11	36K	-1		
SIMFEROPOL	74.69	312.6	11	43	0		
HELSINKI	74.69	329.4	11	43	0		
RESOLUTE	77.97	10.3	12	1K	-1		
UPPSALA	78.18	330.7	12	2K	-1		
SKALSTUGAN	78.55	335.3	12	3	-2		
LWOW	79.27	319.9	12	10	1		
THULE	79.30	3.4	14	8	119		
ISTANBUL KA.	79.53	310.3	12	9A	-1		
KRAKOW	81.55	321.2	12	21	0	13 41	
GOTEBORG	81.80	330.3	12	20K	-2		
HELWAN	82.20	299.1	12	24	0		
RACIBORZ	82.52	321.8	12	27	1		
COPENHAGEN	82.67	328.5	12	26	-1		
HALLE	85.19	325.1	12	46	6		
JENA	85.70	324.7	12	41	-1		
SHASTA	89.49	45.0	13	2	2		
HUNGRY HORSE	90.06	35.3	13	4	1		
MINERAL	90.18	45.0	13	4	0		
BUTTE	92.28	36.5	13	14	1		
BOZEMAN	93.33	36.1	14	20	62		
EUREKA	94.25	43.3	13	23	1		
BOULDER	100.23	37.6	13	14	-36		
TAMANRASSET	105.80	304.3				18 39 PP	
SOUTH POLE	113.98	180.0	19	37	56		
LA PAZ	164.68	63.0	20	10	4		

JUNE 26 23.H 29.M 40.S EPICENTRE 31.02 141.82 DEPTH= 50.KM

DEPTH OF FOCUS= 0.003R

A=-0.67486 B= 0.53070 C= 0.51276 D= 0.6182 E= 0.7861
G=-0.4031 H= 0.3170 K=-0.8585 HT= 1.5

SE= 2.81

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	1.41	248.1	0	25	1						1	31
HATIDYOZIMA	2.68	321.4	0	48	6						1	13
OSIMA	4.27	331.9	1	1	-3						2	11
AJIRO	4.62	331.1	1	10	1						2	23
OMAESAKI	4.68	320.6	1	18	8	2	0	-4				
MISIMA	4.75	330.3	1	9	-2	2	6	1				
YOKOHAMA	4.76	338.1	1	8	-3	2	5	-1			2	55
SHIZUOKA	4.88	324.8	1	8	-5						2	48
TOKYO C.M.O.	4.96	340.1	1	13	-1	2	8	-3				
HUNATU	5.15	331.1				2	18	4			2	35
KOHU	5.34	330.3	1	21	2	2	22	2				
TITIBU	5.45	335.9	1	17	-4							
MITO	5.46	348.5	1	21	0						2	51
KUMAGAYA	5.51	339.0	1	20	-1	2	22	-2				
IIDA	5.60	324.4	1	23	0							
OWASE	5.64	304.2	1	23	0						3	19
SIOMISAKI	5.67	296.9	1	25	1	2	46	18				
UTUNOMIYA	5.75	344.1	1	20	-5	2	20	-10				
TU	5.79	311.1	1	37	12							
NAGOYA	5.80	316.8	1	26	0						3	20
MAEBASI	5.84	337.6	1	50	24	2	37	5			2	27
KAMEYAMA	5.90	311.8	1	21	-6						3	18
OIWAKE	5.96	333.7	1	30	2	2	37	1				
ONAHAMA	5.97	352.9	1	30	2						2	26
GIHU	6.08	317.3	1	29	0	2	35	-4			3	42
MATUMOTO	6.13	329.4	1	30	0	2	48	8				
SHIRAKAWA	6.23	348.1	1	30	-1	2	34	-8				
MATUSIRO	6.28	332.5	1	30	-2	2	38	-5			4	20
IBUKISAN	6.30	315.1	1	35	3							
HIKONE	6.31	313.7	1	35	2						3	52

TAKAYAMA	6.38	324.5	1	35	1					
NAGANO	6.39	332.9	1	34	0	2	52	6		
ABUYAMA	6.51	307.8	1	33A	-2	3	10	21		
KOBE	6.67	304.9	1	40	2				3	45
SUMOTO	6.73	301.4	1	37	-1	2	56	1	2	35
TAKADA	6.75	334.9	1	58	19					
HUKUSIMA	6.81	350.9	1	40	0	2	50	-7		
TOKUSIMA	6.83	298.4	1	44	4					
HUKUI	6.83	318.8	1	58	18					
TOYAMA	6.85	327.1	1	49	9	3	14	16		
KANAZAWA	6.98	323.3	1	55	13					
NIIGATA	7.25	342.4	1	57	11	3	52	44		
SENDAI	7.27	354.3	1	44	-2	2	58	-10	3	45
YAMAGATA	7.32	350.9	1	42	-5	3	0	-9	3	50
TOYOOKA	7.39	309.4	1	46	-2	2	57	-14	3	20
ISINOMAKI	7.41	357.0	1	43	-5	3	1	-10		
KOTI	7.46	292.0	1	50	1	3	13	0	2	51
WAZIMA	7.54	328.6	1	51	1	3	13	-2		
SIMIDU	7.73	285.4	2	35	43	4	4	45		
SAKATA	8.03	348.8	1	54	-3	3	26	-1		
MIZUSAWA	8.11	356.2	1	59	1	3	16	-13		
MATUYAMA	8.16	292.5	2	6	8				4	20
YONAGO	8.35	304.1	2	2	1					
MATSUE	8.56	303.4	2	30	26					
HIROSIMA	8.59	295.4	2	1	-3					
MIYAKO	8.61	0.8							3	23
MORIOKA	8.68	356.7	2	5	0	3	31	-12		
AKITA	8.79	351.3	2	4	-3	3	38	-8		
OOITA	8.93	287.0	2	3	-6					
MIYAZAKI	8.93	278.5	2	18	9					
HAMADA	9.06	297.9	1	59	-12	3	58	6		
HATINOHE	9.49	358.7	1	56	-21	3	50	-13		
KUMAMOTO	9.62	283.7	2	22	4					
AOMORI	9.82	355.4				4	0	-11		
HUKUOKA	9.98	287.8	2	20	-3	4	19	4		
SAGA	10.02	285.8	2	26	2					
NAGASAKI	10.29	282.6	2	28	0	4	42	19		
URAKAWA	11.14	3.7	2	40	1	4	33	-10	5	7
TOMAKOMAI	11.48	359.1							5	14
SUTTSU	11.83	354.3	2	55	7					
OBIHIRO	11.93	4.9				4	57	-5		
KUSIRO	12.12	9.1				4	51	-16		
NEMURO	12.65	12.6				5	4	-16		
VLADIVOSTOK	14.43	329.6	3	19	-4					
Y.-SAKHLINSK	15.92	2.3	3	38	-4					
ZO-SE	17.69	275.6	4	2A	-2	7	14	-3	4	22 PPP
CHANGCHUN	18.27	319.0	4	8A	-3	7	31	1	4	55
TAIPEI	18.88	256.6	4	20	2	8	16	32		
HWALIEN	19.23	253.5	4	37	15					
NANKING	19.65	279.0	4	24A	-3					
PEKING	22.67	300.4	4	56A	-2	9	2	4	5	24 PP
BAGUIO CITY	24.21	238.0	5	13	0	9	31	6		
KOROR	24.55	197.8	5	14	-2	8	1	-89		
MANILA	25.16	234.1	5	9	-13					
TRUK	25.24	156.1	5	18	-5					
PETROPAVLOVK	25.26	24.1	5	7	-16					
HONG KONG	26.14	257.3	5	30	-1	10	10	13		
CANTON	26.56	259.7	5	35	0	10	34	30		
MAGADAN	29.17	9.4								
ULAN-BATOR	31.47	312.5				11	28	6		
YAKUTSK	32.00	349.2	6	24	0					
IRKUTSK	34.61	318.8	6	45	-1	12	17	6		
KUNMING	34.93	270.1	6	49	0	12	24	8		
TIKSI	41.27	353.8	7	46	4					
HASA	43.54	281.7	8	2	2	14	33	8	9	41 PP
CHITTAGONG	45.19	271.6	8	1	-13					
SEMIPALATNSK	49.04	311.8	8	43	-1	15	49	6		
CHARTERS TS.	50.91	174.6	8	57A	-1					
COLLEGE	54.06	29.8	9	20	-2	16	56	3	12	23 PPP
DEHRA DUN	54.15	286.9	9	50	28	16	51	-3		
NAMANGAN	56.24	301.1	9	37	0	17	27	5		
WARSAK DAM	58.25	293.1	9	49	-3					
BRISBANE	59.15	168.4	9	18	-40	17	59	-1		
SVERDLOVSK	59.96	321.1	10	4	1	18	14	4		
QUETTA	63.22	290.6	10	24	-1	18	57	6	11	1 PCP
APATITY	68.32	336.9	10	59	1	20	1	7		
RESOLUTE	68.34	13.8	10	56	-2	19	56	2	20	56 SCS
SODANKYLA	70.65	338.2	11	12	0					
KIRUNA	72.26	340.1	11	21	-1	20	38	-2		

MOSCOW	72.31	324.9	11	23	1	20	45	5			
MAKHACH-KALA	72.50	309.9	11	22	-1	20	46	4			
PULKOVO	73.56	330.6	11	28	-1	20	57	3			
SHASTA	74.50	51.7	11	36	1						
TIFLIS	74.85	309.7	11	38	1	21	14	5			
GORIS	74.85	307.1	11	37	0	21	17	8			
KARAPIRO	75.46	153.0	11	43	3						
HELSINKI	75.51	332.6	11	40	-1						
HUNGRY HORSE	76.00	41.8	11	44	1						
RENO	76.79	51.8	11	49	1						
SOTCHI	77.21	313.2	11	50	0	21	38	4			
SKALSTUGAN	77.64	339.3	11	52	-1						
BUTTE	78.07	43.3	11	55	0						
SCORESBY SD.	78.12	354.5	11	55	0	21	49	5			26 49 SS
UPPSALA	78.52	334.8	11	55	-2	21	49	1			
BOZEMAN	79.15	43.0	12	2	1						
EUREKA	79.39	50.3	12	3	1						
SIMFEROPOL	79.88	316.6	12	6	1	22	7	4			
ROXBURGH	80.20	160.8				22	20	14			
PASADENA	80.63	55.9	12	8	-1	22	6	-5			
SALT LAKE C.	81.36	47.5	12	13	0						
KISHINEV	81.69	320.5	12	11	-3	22	23	1			
BOULDER CITY	82.00	52.8	12	17	1						
GOTEBORG	82.11	335.4	12	30	14						
WARSAW	82.30	327.8				22	32	4			
LWOW	82.45	324.7	12	20	2	22	35	6			
COPENHAGEN	83.45	333.8	12	25	2	22	42	3			15 42 PP
KRAKOW	84.28	326.6	12	28	0	22	52	4			12 42 PCP
RAPID CITY	84.60	41.0	12	31	2						
BUCHAREST	84.80	319.6				23	2	9			
KSARA	84.96	306.5	12	33	2	23	1	7			15 50 PP
ISTANBUL KA.	85.15	315.6	12	8	-24	22	54	-2			
HALLE	86.78	331.3	12	40	0	23	15	3			
PRAGUE	86.78	329.1				23	18	6			
PRUHONICE	86.79	329.0	12	40	0	23	20	8	13 9		15 58 PP
TUCSON	86.83	54.1	12	43	3						
ABERDEEN	87.02	341.3									23 21 SKKS
JENA	87.36	331.1	12	42	-1	23	31	14			15 50
PLAUEN	87.45	330.5	12	46	3						
DE BILT	88.94	334.9	13	48	58	23	40	8			16 32 PP
DURHAM	88.94	339.8				23	39	7			
STUTTGART	90.01	330.9	12	55	0	23	45	3			
UCCLE	90.30	334.6				23	33	-11			
TRIESTE	90.34	326.5				23	17	-28			
STRASBOURG	90.75	331.5	13	9	10	23	54	5			25 6 SP
KEW	91.37	337.4									23 58
PARIS	92.62	334.5									25 0
ROME	93.73	324.6									17 1 PP
PALISADES	101.09	26.8				24	25	-52			17 57 PP
LWIRO	110.82	280.3									28 44
TAMANRASSET	112.05	316.5									18 11 PP
MBOUR	130.47	332.6	19	2	-3						
LA PAZ	149.13	69.0	19	47	9						

JUNE 27 5.H 44.M 33.S EPICENTRE 13.20 -88.36 DEPTH= 62.KM

DEPTH OF FOCUS= 0.005R

A= 0.02780 B=-0.97351 C= 0.22693 D=-0.9996 E=-0.0285
G= 0.0065 H=-0.2268 K=-0.9739 HT= 6.1

SE= 2.36

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SAN SALVADOR	0.99	302.0	0	18K	-1	0	31	-2					
COMITAN	4.74	310.2	1	8	-3	1	56	-9			1	24	
MERIDA	7.80	351.3	1	50	-3	3	29	8			3	8	
VERA CRUZ	9.55	309.7	2	13	-4	4	7	3			3	33	
BALBOA HTS.	9.61	115.1	2	18	0	4	10	4					
PUEBLA	11.08	302.8	3	27	49	5	7	26					
TACUBAYA	12.09	302.1	2	57	5	5	11	5			3	32	
GALERAZAMBA	13.03	99.2	3	27	23								
CHINCHINA	15.00	121.9	3	29	-1	6	30	15			15	44	SCS
GUADALAJARA	16.12	299.5	3	43	-1						7	31	
FUQUENE	16.35	116.7	3	50	3	7	5	19	3	57	15	43	SCS

BOGOTA	16.49	119.9	3	49	0	7	7	18			9	47 PCP
MAZATLAN	19.78	302.7				7	58	-4			5	4 PP
DALLAS	21.02	339.9	4	43	2	8	37	11				
COLUMBIA	21.75	16.6	4	52	4	8	53	13	5	3	6	22
SAN JUAN	22.01	73.6	4	53	2				5	9		
CHIHUAHUA	22.52	315.7				9	17	23			4	53 PP
FAYETTEVILLE	23.38	348.0	5	6A	2	9	21	12	5	17		
LUBBOCK	23.71	331.0	5	8	1	9	23	8				
GRENADA	26.01	89.5	5	26	-3							
ST. VINCENT	26.38	86.9	5	34	2						5	54
TRINIDAD	26.38	92.6	5	29	-3						8	55
FORT FRANCE	26.45	83.4	5	32	-1						10	3
ST. LUCIA	26.60	85.0	5	33	-2							
WASHINGTON	27.48	19.3	5	42	-1	9	53	-24	5	59	6	23 PP
TUCSON TELE.	27.96	316.6	5	48	1							
TUCSON	27.98	316.4	5	50	3	11	31	66	6	1		
BARBADOS	28.00	86.8	5	51	4							
PITTSBURGH	28.12	13.7	5	50	2							
HUANCAYO	28.22	152.2	5	48	-1	10	33	4			12	41
CLEVELAND	28.80	10.7	5	55	1	10	41	3				
BERMUDA	28.88	44.7	5	57	2	10	53	13			6	16 PP
PALISADES	30.45	21.9	6	10	1	11	4	0	6	26	7	4 PP
BOULDER	30.60	333.9	6	11	1							
WESTON	32.61	23.8	6	29A	1	11	40	2				
BOULDER CITY	32.87	318.2	6	31	1	12	52	70	6	48	9	30 PCP
RAPID CITY	33.30	340.4	6	36	2				6	52		
OTTAWA	33.84	16.1	6	39A	0	11	59	2	6	54	7	59 PP
PASADENA	34.14	312.7	6	42	1	12	5	3	6	57	7	49 PP
SALT LAKE C.	34.31	327.5	6	44	1	12	57	53	6	59	7	43
BREBEUF	34.54	18.4	6	45A	0	12	12	4				
LA PAZ	35.65	145.3	6	53	-1	12	27	2			15	23 SSS
EUREKA	35.74	322.1	6	55	0				7	12	8	33 PCP
SHAWINIGAN	35.74	18.5	6	55A	0				7	8		
FRESNO	36.63	315.4	7	15	13							
SEVEN FALLS	36.87	20.1	7	6	2				7	23	12	47 PP
BOZEMAN	37.64	333.7	7	12	1				7	26	7	53
HALIFAX	37.78	29.2	7	15A	3	12	59	1			7	27
RENO	38.15	319.2	7	17	2							
LICK	38.19	315.0	7	32	17						9	42 PCP
BUTTE	38.58	332.7	7	19	0	13	12	2			9	59 PCP
BERKELEY	38.88	315.3	7	40	19	13	21	7			9	49 PCP
MINERAL	39.74	319.1	7	29	1							
SHASTA	40.44	319.0									9	53 PCP
HUNGRY HORSE	41.01	333.9	7	39	0	13	21	-25	7	55	9	55 PCP
VICTORIA	45.61	327.7	8	15A	-1							
HORSESHOE B.	46.08	328.7	7	53	-27							
TALA POZO	47.00	150.3	8	37	10	15	12	-1			10	32 PPP
RESOLUTE	61.57	358.0	10	10A	-3	18	27	-2			25	27 SS
THULE	64.11	5.2	10	29	-1						18	58
COLLEGE	65.38	336.1	10	36	-2	19	48	32	10	53		
KIPAPA	66.55	287.8	10	44	-2				11	0		
HONOLULU	66.64	287.7	10	46	0				11	2		
REYKJAVIK	68.00	25.7	11	25	30							
HBOUR	69.08	79.5				20	57	56			24	33 SS
SCORESBY SD.	69.84	19.2	11	4	-2	20	6	-3	11	21	13	56 PP
NORD	74.37	8.3	11	31	-2	21	1	0	11	49		
MALAGA	77.45	54.9	11	51A	1				12	10		
PARIS	80.75	42.0	12	9	1						12	46
DOURBES	81.88	40.5	12	33	19							
SKALSTUGAN	82.96	26.3	12	18	-2						12	49
STRASBOURG	84.23	41.6	12	26	0						14	36
KIRUNA	84.79	21.1	12	27	-2	22	44	-6	12	46	16	3
STUTTGART	85.10	41.2	12	27	-4				12	47	15	54 PP
COPENHAGEN	85.21	33.9	12	29	-2	22	57	2	12	47	15	50 PP
JENA	86.03	38.7	12	32	-3				12	51	15	52 PP
HALLE	86.09	38.1	12	33	-2				12	52	15	44 PP
PLAUEN	86.50	39.0	12	35	-2				12	53	13	12
UPPSALA	86.54	29.1	12	37	-1				12	54		
SODANKYLA	87.13	20.6	12	38	-2							
PRAGUE	88.02	39.0				23	51	30			14	3
PRUHONICE	88.12	39.0	12	44	-1				13	2	15	59 PP
TAMANRASSET	88.48	67.1	12	44	-3	23	8	-18	13	3	16	18 PP
TIKSI	91.76	348.9	13	5	3							
PULKOVO	92.34	26.4									16	48 PP
SUVA	97.01	253.0									26	23 PS
YAKUTSK	99.29	342.9									17	0 PP
SIMFEROPOL	102.22	37.8									16	44
SOUTH POLE	103.12	180.0	13	51	-3						17	57 PP
KSARA	109.30	46.8									18	53 PP

IRKUTSK	113.88	351.5						9 42 PP
ULAN-BATOR	117.65	348.5						19 53 PP
MAWSON	122.47	167.4	19	6	17			
NAMANGAN	123.01	18.0	19	9	19			
CHARTERS TS.	127.40	254.8	18	59K	1			19 17
QUETTA	130.75	28.5	19	10	5			22 22 PKS
TANANARIVE	137.34	103.6	19	19	2			22 48
BAGUIO CITY	138.95	315.0	19	22	2			
SHILLONG	141.46	359.7	19	17	-7			

JUNE 28 19.H 29.M 58.S EPICENTRE 11.67 162.00 DEPTH= 0.KM

A=-0.93164 B= 0.30276 C= 0.20094 D= 0.3091 E= 0.9510
G=-0.1911 H= 0.0621 K=-0.9796 HT= 6.3

SE= 2.03

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TRUK	10.84	248.3	2	35	-5	4	34	-9				
GUAM	16.93	277.9	3	57	-3							
PORT MORESBY	25.61	215.8	5	34	1	10	14	14			8	49 PCP
KOROR	27.47	263.5	5	50	0	10	9	-21				
MATUSIRO	32.75	323.1	6	36A	-1	11	55	1			9	22 PCP
Y.-SAKHLINSK	38.75	338.8	7	28	0							
BRISBANE	39.87	192.5	7	38	0	13	57	14				
MANILA	40.01	278.8	8	37	58							
BAGUIO CITY	40.40	281.6	7	44	2	14	2	11				
UGLEGORSK	40.80	339.9	7	46	1							
NANKING	44.56	304.1	8	18A	2							
CHANGCHUN	44.99	322.3	8	17A	-2							
HONG KONG	46.77	289.6	8	35A	2	16	29	65				
CANTON	47.66	290.6	8	42	2							
PEKING	49.24	313.4	8	53A	0	16	8	9				
KARAPIRO	50.93	166.2	9	5A	-1						10	22
MELBOURNE	51.76	197.2	9	12A	0							
WELLINGTON	53.99	168.1	9	26	-2							
KAIMATA	54.61	171.5	9	32	-1							
YAKUTSK	55.40	342.2	9	39	0							
GEBBIES PASS	55.95	170.7	9	41	-2							
KUNMING	57.45	292.3	9	54A	1							
LANCHOW	57.57	305.4	9	56A	2							
IRKUTSK	61.29	323.7	10	19	-1							
TIKSI	63.21	348.8	10	36	3							
COLLEGE	63.28	21.5	10	32	-1							
SHILLONG	67.23	292.9	11	0A	1							
LHASA	67.84	297.3	11	6A	3							
CORVALLIS	71.02	46.8	11	23	1							
CHATRA	71.38	294.5	11	25	1							
SHASTA	71.60	50.9	11	26A	0							
BERKELEY	71.71	53.9	11	26A	0							
MINERAL	72.21	51.3	11	29A	0							
LICK	72.22	54.4	11	29A	0							
LILLOOET	72.25	40.4	11	22K	-7							
RENO	73.60	52.1	11	38A	1							
FRESNO	73.71	55.0	11	38A	0							
PASADENA	75.19	57.6	11	46	-1							
EUREKA	76.57	52.0	11	56	2							
HUNGRY HORSE	77.39	42.8	11	59	0							
BOULDER CITY	77.76	55.5	12	1	0							
SALT LAKE C.	79.59	50.4	12	12	1							
TUCSON	81.51	58.8	12	22	1							
TUCSON TELE.	81.59	58.7	12	22	0							
RESOLUTE	82.26	15.1	12	24A	-1							
WARSAK DAM	83.94	303.3	12	35K	1							
BOULDER	84.65	50.4	12	38	1							
RAPID CITY	85.40	46.1	12	40	-1							
SVERDLOVSK	86.46	327.3	12	45	-1							
THULE	87.28	10.5	12	48	-2							
QUETTA	88.52	300.4	12	57A	1							
KIRUNA	96.05	346.3	13	29	-2							
BYRD STATION	99.42	170.0	13	54	8							
SKALSTUGAN	101.46	346.7	13	54	-1							
SOUTH POLE	101.59	180.0	13	57	1							
OTTAWA	103.06	37.7	16	59	777							
UPPSALA	103.21	342.4	14	1	-2							

PALISADES	106.51	40.8								28	9 PS
HALLEY BAY	115.99	177.6	18	45	0	25	43	7			
HUANCAYO	123.99	96.7	19	5	4						
LA PAZ	131.24	101.7	19	18A	3					21	34 PP
TAMANRASSET	138.73	326.1	19	22	-7					22	15 PP

JUNE 29 3.H 25.M 47.S EPICENTRE -15.59 -71.33 DEPTH= 171.KM

DEPTH OF FOCUS= 0.022R

A= 0.30848 B=-0.91297 C=-0.26706 D=-0.9474 E=-0.3201
G=-0.0855 H= 0.2530 K=-0.9637 HT= 5.6

SE= 2.18

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LA PAZ	3.21	106.8	0	55A	3	1	33	1	1	3			
HUANCAYO	5.24	311.7	1	16A	-2	1	56	-22					
TALA POZO	13.83	152.8	3	7	-3	5	36	-4			5	56	SS
SANTA LUCIA	17.77	178.2	3	57	-1	7	14	5					
BOGOTA	20.26	352.1	4	23	-1	8	3	7			13	3	SCS
CHINCHINA	20.86	347.9	4	32	2	8	15	7			9	27	SS
FUQUENE	21.06	353.3	4	35	3	8	25	14	5	26	10	41	SCS
CONCEPCION	21.16	181.6	4	31	-2	8	45	32					
BALBOA HTS.	25.72	341.0	5	20	3	9	40	10					
GALERAZAMBA	26.49	351.3				9	47	4					
TRINIDAD	27.84	21.0	5	36	0								
ST. VINCENT	30.26	19.7	5	44	-13								
BARBADOS	30.79	22.8	6	4	2								
SANTIAGO MA.	33.50	328.7									9	38	PCP
SAN SALVADOR	34.09	327.8									9	1	
SAN JUAN	34.14	8.8	6	29	-2	11	41	-2			7	35	PP
COMITAN	37.71	326.1	9	1	120								
MERIDA	40.51	333.2	7	40	16						9	43	
VERA CRUZ	42.32	323.9	7	49	10								
TACUBAYA	44.28	320.8	7	57	2	14	32	17			10	31	PP
GUADALAJARA	47.81	318.0				15	25	20					
BERMUDA	48.12	7.6				15	3	-6			18	5	
COLUMBIA	50.17	349.5	8	40	0						13	5	
MORGANTOWN	55.52	351.9	9	19K	-1	16	52	2					
FAYETTEVILLE	55.76	337.6	9	18	-4	16	53	0			12	50	PPP
FORDHAM	56.20	357.7	9	22	-3								
PALISADES	56.36	357.7	9	23	-3	16	56	-5	10	0	11	0	*PPCP
ST. LOUIS 1	56.77	342.3	9	26	-3	17	4	-2	10	6	18	12	*SS
LUBBOCK	56.91	329.6	9	28	-2	16	39	-29			12	39	
FLORISSANT	56.96	342.3	9	29	-1	17	9	0	10	8	18	18	*SS
WESTON	57.68	0.0	9	33A	-2								
HALIFAX	60.33	6.3	9	51	-2	17	50	-2			19	27	SCS
TUCSON TELE.	60.77	322.0	9	56	0				10	38	13	15	SCP
TUCSON	60.77	321.9	9	56	0				10	36	17	55	SCS
OTTAWA	60.83	356.5	9	55K	-2	17	56	-3			12	8	PP
BREBEUF	60.83	358.2	9	55K	-2	17	48	-11					
MBOUR	61.43	63.7	10	1	0						19	39	SCS
HALLEY BAY	64.49	168.7	10	20	-1						12	44	
BOULDER CITY	65.75	322.2	10	29	0				11	12	13	59	PP
RAPID CITY	66.13	335.4	10	31	0				11	13	19	17	SCS
PASADENA	66.58	318.8	10	35K	1	19	14	4	11	2	11	19	*SP
SALT LAKE C.	67.50	327.7	10	40	0				11	24			
EUREKA	68.80	324.3	10	49	1						14	27	SCP
FRESNO	69.28	320.0	10	50K	-1								
LICK	70.78	319.5	11	1K	1								
RENO	71.06	322.3	11	3K	1								
BERKELEY	71.49	319.6	11	5K	1	20	14	7					
BUTTE	71.74	331.1	11	6	0				11	49	14	55	
MINERAL	72.63	322.0	11	11K	0								
SHASTA	73.32	321.9	11	14K	-1								
HUNGRY HORSE	74.13	331.9	11	19	-1				12	2	15	17	SCP
SOUTH POLE	74.51	180.0	11	23	1						14	5	PP
ALBERNI	79.99	327.7	11	53	1								
SCOTT BASE	81.20	190.5	12	0	2								
MALAGA	81.70	48.3	12	3A	2	22	0	3	12	42	23	19	PS
GRANADA	82.47	48.2	12	47A	42	22	50	45					
ALMERIA	83.15	48.9	12	8	0				12	48			
TOLEDO	83.35	45.6	12	9	0				12	51			
CAPE HALLETT	83.44	195.7	12	12	2								
TAMANRASSET	84.29	64.6	12	15	1	22	28	5	12	56	24	7	PS

RELIZANE	84.93	50.9	12	58	41					14	32	
ALICANTE	85.21	48.2	12	9	-10	22	25	-7		28	5	SS
CLERMONT-FD.	90.57	42.4				23	5	-17		24	31	PS
MAWSON	90.63	164.1	12	47	3							
KEW	90.70	36.3				23	1	-22				
DURHAM	91.40	32.9	12	54A	6	23	34	4				
THULE	91.84	0.7	12	51	1					23	37	PS
SCORESBY SD.	92.33	14.8				23	47	9		23	13	SKS
DOURBES	93.06	38.7	13	55	59							
UCCLE	93.16	38.0	13	31	35	23	16	-29				
STRASBOURG	94.51	40.9				23	19	-37		29	37	SS
BENSBERG	94.90	38.5								21	6	
ROME	95.75	48.2				23	32	-35				
APIA	96.11	253.9	4	19	-531	5	36	1114				
COLLEGE	98.36	335.2	13	20	0				14 5	15	38	
KAIMATA	98.42	221.6	7	1	-379							
COPENHAGEN	99.26	34.8				23	52	-45		18	8	PP
NORD	100.50	7.0				23	53	-54		19	33	PPP
SKALSTUGAN	101.00	26.9								20	30	PPP
KIRUNA	104.97	23.1	20	36	407							
KIRUNA	104.97	23.1								20	36	PPP
BUCHAREST	106.00	47.7								23	23	
QUETTA	139.15	61.8	18	32	-35							
SENDAI	143.74	314.8	19	6	-9					22	18	
GUAM	145.03	271.3	19	20	3							
MATUSIRO	146.45	314.1	19	22K	2				20 8	23	1	PP
PEKING	154.78	346.4	19	37K	5				20 22	23	33	PP
LHASA	158.58	46.2	19	42K	5				20 28	30	33	SKKS
LANCHOW	159.14	11.1	19	41K	3				20 27	30	28	SKKS
ZO-SE	160.78	325.6	19	43K	4				20 29	24	8	PP
NANKING	161.19	332.4	19	42K	2				20 24	24	8	PP
KUNMING	169.04	29.9	19	51K	5				20 37	31	23	SKKS

JUNE 29 9.H 14.M 39.S EPICENTRE -16.71-172.44 DEPTH= 0.KM

A=-0.94997 B=-0.12603 C=-0.28580 D=-0.1315 E= 0.9913
G= 0.2833 H= 0.0376 K=-0.9583 HT= 5.4

SE= 2.44

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
APIA	2.97	12.5	0	33	-16	1	15	-11					
SUVA	8.83	259.3	2	20	9	4	7	14			2	47	
NOUMEA	20.65	251.0	4	44	1						6	35	
ONERAHI	22.32	209.2	5	0	0	9	8	6					
KARAPIRO	23.63	204.3	5	12A	-1								
KAIMATA	29.19	204.9	6	19	14								
BRISBANE	33.63	245.4	6	42	-2	12	1	-6					
CHARTERS TS.	39.26	258.7	7	29	-3						8	39	
PORT MORESBY	39.97	275.3	7	37	0	13	46	2			19	9	SSS
MELBOURNE	42.84	232.0	7	59	-2								
CAPE HALLETT	56.49	186.2	9	49A	3	17	46	10			23	21	SSS
KOROR	57.67	290.2	9	47	-7	17	52	0					
DUMONT	58.68	200.1	10	0	-1	18	8	3			12	50	
SCOTT BASE	62.03	184.9	10	23	-1								
MATUSIRO	70.53	319.6	11	16A	-2	20	33	2					
BERKELEY	71.89	39.8	11	25	-1								
LICK	71.94	40.5	11	27	0								
PASADENA	72.28	45.0	11	29	0	20	56	4					
MANILA	72.70	291.5	11	28	-3								
FRESNO	72.75	41.9	11	32	1								
SOUTH POLE	73.39	180.0	11	34	-1						14	28	PP
OASIS-BUNG.	73.58	205.0	11	34	-2								
SHASTA	73.61	37.4	11	35	-2								
BAGUIO CITY	73.78	293.1	11	36	-1	21	13	5					
MINERAL	73.85	38.1	11	37	-1								
PETROPAVLOVK	73.89	342.4	11	45	7								
RENO	74.42	39.6	11	41	0								
Y.-SAKHLINSK	75.09	330.0	11	43	-2	21	22	-1					
BOULDER CITY	75.57	45.0	11	48	0								
TUCSON	76.45	50.1	11	53	0								
TUCSON TELE.	76.58	50.0	11	53	0								
EUREKA	76.78	41.5	11	54	-1								
UGLEGORSK	76.91	331.2	11	54	-1	21	45	2					
SEATTLE	78.19	32.0	12	4A	2								

VLADIVOSTOK	78.39	321.9	12	7	3	22	8	9		
SALT LAKE C.	80.13	42.2	12	13	0				12	48
HONG KONG	81.61	296.2	12	22	1	22	35	2		
MAGADAN	81.66	342.1	12	23	2	22	32	-1		
NANKING	81.73	306.9	12	22	1	22	38	4		
BUTTE	82.52	37.4	12	25	0					
CANTON	82.66	296.6	12	27A	1	22	50	6		
HUNGRY HORSE	83.00	34.9	12	26	-2					
BOZEMAN	83.23	38.3	12	29	0				13	7
COLLEGE	83.48	10.3	12	29	-1					
BOULDER	84.10	45.3	12	34	0					
MAWSON	86.84	198.4	12	48	1					
PEKING	87.03	313.2	12	51A	3	23	36	10	23	21 SKS
RAPID CITY	87.33	42.4	12	50	0					
PHU-LIEN	87.68	292.4	12	49	-2	23	7	-26		
YAKUTSK	90.65	336.5	13	3	-2					
KUNMING	92.45	295.3	13	15A	1	24	23	7	23	48 SKS
HUANCAYO	93.26	103.5	13	23	6					
LANCHOW	94.75	306.1	13	26	2	24	44	8	24	6 SKS
ULAN-BATOR	96.13	318.1	13	34	4					
PALISADES	107.12	51.5				25	16	45	17	28 PP
QUETTA	124.43	295.4	18	24	-37					
SKALSTUGAN	133.07	357.1	19	17	0					
PULKOVO	133.92	344.2							22	51 PKS
MOSCOW	134.81	336.4							21	53 PP
UPPSALA	136.30	352.7							22	44 PKS
TIFLIS	139.52	315.7	19	31	2					
DURHAM	141.37	8.5	19	48	16	26	48	7		
SIMFEROPOL	144.08	327.2	19	41	4					
LWOW	144.38	341.6	19	36	-2					
HALLE	145.12	355.2	19	39	0				21	8
COLLMBERG	145.22	354.0							20	39
KRAKOW	145.28	346.0	19	37	-2				21	0
RACIBORZ	145.62	347.8	19	42	2					
JENA	145.71	355.5	19	40	0				22	56 PP
BENSBERG	145.83	0.4	19	41	1					
PLAUEN	146.09	354.7	19	40	-1				21	2
SONNEBERG	146.29	355.8	19	42	1				20	4
BRATISLAVA	147.67	348.0	19	29	-14					
HURBANOVO	147.72	346.5							20	35
PARIS	147.72	6.3	19	40	-3					
KARLSRUHE	147.78	358.9	19	48	5				21	3
STUTTGART	148.00	357.9	19	44	0				20	39
STRASBOURG	148.22	359.7	19	45	1	26	45	-6	21	39 PKS
TUBINGEN	148.24	358.1	19	49	5				20	24
BUCHAREST	148.25	334.3	19	9	-35					
EBINGEN	148.60	358.2	19	47	2					
KSARA	149.39	309.1	19	50	4				23	21 PKS
ISTANBUL KA.	149.44	326.9	19	50	4					
NEUCHATEL	149.80	0.8	19	43	-4					
TRIESTE	150.69	351.1	19	54	6				23	13 PP
CLERMONT-FD.	150.79	6.4	19	54	6					
SOFIA	150.80	335.7	19	55	7					
LWIRO	151.81	230.0	19	57A	7					
HELWAN	154.60	305.3	19	54	0				23	54
GRANADA	157.35	23.7	20	31K	34				24	16 PP
MALAGA	157.43	25.7							24	37 PP
ALGIERS UNI.	159.63	10.4	20	4	4				20	36
TAMANRASSET	173.67	17.3	20	12	1				25	33 PP

JUNE 29 12.H 40.M 43.S EPICENTRE -16.67-172.28 DEPTH= 0.KM

A=-0.94982 B=-0.12883 C=-0.28503 D=-0.1344 E= 0.9909
G= 0.2824 H= 0.0383 K=-0.9585 HT= 5.4

SE= 2.87

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
APIA	2.89	9.6	0	44	-4	1	15	-9				
SUVA	8.99	259.2	2	14K	0	3	59	2				
NOUMEA	20.82	251.0	4	42	-4							
ONERAHI	22.44	209.5	5	0	-2						9	11
KARAPIRO	23.74	204.5	5	14	-1							
KAIHATA	29.30	205.1	6	14	8							
BRISBANE	33.80	245.4	6	47	1	12	1	-9				

CHARTERS TS.	39.43	258.6	7	27	-6					
PORT MORESBY	40.12	275.2	7	46	7				14	36
TRUK	42.83	301.3	8	12	11					
MELBOURNE	43.00	232.0	7	59	-4					
CAPE HALLETT	56.56	186.3	9	47K	0				10	9
KOROR	57.80	290.1	9	53	-2					
DUMONT	58.78	200.2	10	0	-2	18	7	0	10	29
SCOTT BASE	62.09	184.9	10	25	0					
MATUSIRO	70.60	319.5	11	13	-6					
BERKELEY	71.75	39.7	11	26	0					
LICK	71.80	40.4	11	27	1					
PASADENA	72.13	44.9	11	30	2	20	58	8	11	56
FRESNO	72.61	41.9	11	31	0					
SOUTH POLE	73.44	180.0	11	35	-1				14	20 PP
SHASTA	73.48	37.3	11	36	0					
MINERAL	73.72	38.0	11	37	-1					
PETROPAVLOVK	73.90	342.3	11	56	17					
BAGUIO CITY	73.90	293.0	11	37	-2					
RENO	74.29	39.6	11	41	0					
Y.-SAKHLINSK	75.13	329.9	11	43	-3					
BOULDER CITY	75.43	44.9	11	48	1					
TUCSON	76.30	50.0	11	53	1					
TUCSON TELE.	76.42	50.0	11	54	1					
EUREKA	76.64	41.4	11	55	1					
UGLEGORSK	76.95	331.1	11	55	-1					
VLADIVOSTOK	78.46	321.8				22	5	4		
SALT LAKE C.	79.99	42.1	12	13	0					
MAGADAN	81.66	342.0				22	34	0		
HONG KONG	81.73	296.2	12	22	0	22	42	7		
NANKING	81.83	306.8	12	25	3	22	38	3		
BUTTE	82.39	37.4	12	26	1					
CANTON	82.78	296.6	12	33K	6	22	50	5		
HUNGRY HORSE	82.87	34.9	12	26	-2				15	47 PP
BOZEMAN	83.09	38.3	12	29	0					
COLLEGE	83.40	10.3	12	29	-2				13	0
HALLEY BAY	85.60	171.8	12	43	1	23	28	15		
MAWSON	86.93	198.4	12	47	-1					
PEKING	87.12	313.2	12	51	2	23	35	7	23	19 SKS
RAPID CITY	87.18	42.4	12	49	0					
PHU-LIEN	87.81	292.3							21	39
YAKUTSK	90.68	336.4	13	7	1					
KUNMING	92.57	295.2	13	15	0	24	24	7	23	42 SKS
LANCHOW	94.86	306.1				24	3	-34		
TIFLIS	139.59	315.9	19	32	2					
DURHAM	141.30	8.6	18	54	-39	27	1	20		
LWOW	144.39	341.8	19	46	8					
HALLE	145.09	355.4	19	36	-3				23	30
COLLMBERG	145.19	354.2	19	38	-2					
KRAKOW	145.27	346.2	19	41	1				20	32
RACIBORZ	145.61	348.0	19	40	0					
JENA	145.68	355.7	19	40	0				23	2 PP
BENSBERG	145.79	0.6	19	41	0				20	27
PLAUEN	146.06	354.9	19	40	-1				20	57
PRAGUE	146.24	352.2	19	56	15				20	36
SONNEBERG	146.25	356.0	19	43	2				20	31
PARIS	147.66	6.5	19	47	3				19	58 PKP2
KARLSRUHE	147.74	359.2	19	46	2				20	15
STUTTGART	147.96	358.2	19	47	3				20	21
STRASBOURG	148.17	359.9	19	49	4				20	59
TUBINGEN	148.20	358.3	19	45	0				20	37
EBINGEN	148.56	358.4	19	50	5					
KSARA	149.48	309.3	19	49	2				23	26 PP
ISTANBUL KA.	149.49	327.2	20	8	21					
NEUCHATEL	149.75	1.1	20	6	19					
TRIESTE	150.67	351.4	19	54	6					
CLERMONT-FD.	150.73	6.6	20	9	20					
SOFIA	150.83	336.0	19	50	1				20	24
LWIRO	151.96	229.8	19	59A	9					
GRANADA	157.25	23.9	19	47A	-11				24	41 PP
TAMANRASSET	173.57	18.5	20	13	2				25	14

JUNE 30 8.H 42.M 44.S EPICENTRE 36.36 27.32 DEPTH= 109.KM

DEPTH OF FOCUS= 0.012R

A= 0.71717 B= 0.37050 C= 0.59025 D= 0.4590 E=-0.8884

G= 0.5244 H= 0.2709 K=-0.8072 HT= -0.4

SE= 1.86

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	3.30	300.3	0	53A	2	1	28	-2					
ISTANBUL KA.	4.90	15.7	1	11	-2	2	8	-1					
SOFIA	7.04	335.3	1	43	1	3	2	1					
SKOPJE	7.26	322.5	1	46A	1	3	23	17			4	11	SG
HELWAN	7.29	151.4	1	43	-2	2	58	-9					
KSARA	7.46	107.4	1	44	-4	2	55	-16			8	57	PCP
JERUSALEM	7.99	122.6	1	49	-6	2	47	-37					
BUCHAREST	8.11	353.8	1	56A	0	3	30	3			2	37	
TARANTO	8.91	[illegible].5	2	16	9	3	33	-13					
CAMPULUNG	9.[illegible]	349.7	2	8	-1								
FOCSANI	9.33	359.5	2	17	4								
REGGIO CALA.	9.47	284.1	2	13A	-2	3	50	-10					
MESSINA	9.56	284.6	2	14A	-2	3	52	-10			2	21	PP
BELGRADE	9.93	330.4	2	22	1						3	6	PG
SIMFEROPOL	10.01	28.9	2	21	-1	4	8	-5					
BACAU	10.21	358.4	2	31	7								
TIMISOARA	10.45	335.8	2	28	0	4	15	-8					
KISHINEV	10.71	5.6	2	29	-2	4	28	-2					
IASI	10.83	0.9	2	32K	-1	3	48	-45					
SZEGED	11.26	333.6	2	38	0						2	51	PPP
KALOCSA	11.93	331.0	2	47	0								
SOTCHI	11.93	49.0	2	46	-1	5	2	3					
BUDAPEST	12.69	333.7	2	57	0						3	17	PPP
ZAGREB	12.74	321.4	2	58A	0						4	4	PP
ROME	12.78	300.2	2	58	-1	5	17	-2			4	0	PP
HURBANOVO	13.33	332.4	3	9	3	5	46	14			4	44	
LWOW	13.68	350.9	3	11	1	5	47	7					
TRIESTE	13.81	316.4	2	49A	-23	5	55	12			5	36	
SKALNATE PL.	13.82	340.2	3	17	5						6	25	
BRATISLAVA	14.00	330.6	3	13A	-1	5	46	-1			4	40	
VIENNA-H.	14.36	329.2	3	20A	1	6	9	13			4	21	
TIFLIS	14.59	63.2	3	25	3								
BOLOGNA	14.63	308.7	3	25	3								
KRAKOW	14.70	340.9	3	23	0	6	17	13			3	29	PP
RACIBORZ	15.22	337.1	3	31	1	6	22	6			3	35	PP
GORIS	15.32	72.5	3	34	3	6	28	10					
PAVIA	16.30	308.3	3	44A	1						3	59	PP
WARSAW	16.48	346.2	3	46	0	6	50	5					
PRAGUE	16.58	329.7	3	46A	-1	7	2	15			4	44	
MAKHACH-KALA	16.86	60.8	3	52	2	7	11	17					
MONACO	16.89	301.9	3	50	-1						6	46	
CHUR	16.90	313.8	3	52A	1	6	52	-3					
OROPA	17.26	308.4	3	53	-2						4	44	
RAVENSBURG	17.36	316.6	3	57	1				4	20			
PLAUEN	17.87	327.0	4	1	-2	7	33	18	4	20	5	16	PP
EBINGEN	17.95	316.9	4	3	-1	7	22	5					
TUBINGEN	18.09	317.9	4	4	-1	7	28	8	4	23			
COLUMBERG	18.11	330.0	4	5	0	9	40	140			5	26	PP
STUTTGART	18.16	318.7	4	5	-1	7	28	6	4	24	4	37	*SP
SONNEBERG	18.21	325.3	4	6	-1				4	20	15	39	
BASLE	18.39	313.5	4	7A	-2						15	40	
JENA	18.43	327.1	4	9	0	7	38	11	4	30			
NEUCHATEL	18.51	311.4	4	9	-1	7	24	-5					
HALLE	18.69	328.9	4	12	0	7	25	-8			4	36	PPP
KARLSRUHE	18.73	318.3	4	12A	0	7	38	4			4	35	*SP
POTSDAM	18.92	332.3	4	16	1	8	2	24			5	32	
ALGIERS UNI.	19.49	278.5	4	19A	-2	7	51	1	4	31	4	49	PP
CLERMONT-FD.	20.46	304.8	4	30A	-1	8	18	10			4	51	PP
BENSBERG	20.53	321.6	4	31	0						6	28	
MOSCOW	20.61	16.7	4	32	0	8	13	2					
TORTOSA	21.40	290.2	4	38	-2	8	31	5					
RELIZANE	21.63	276.4	4	42	0				4	53	5	8	PP
COPENHAGEN	21.82	337.0	4	44A	0	8	39	6			5	1	PP
UCCLE	21.90	318.4	4	45A	0	9	18	43					
WITTEVEEN	21.95	325.1	4	46	1								
PARIS	22.00	312.2	4	46A	0	8	39	2			5	6	PP
ALICANTE	22.16	283.5	4	46	-2	8	40	1			5	12	PP
DE BILT	22.21	322.0	4	49	1	9	32	52	5	8			
IAMANRASSET	23.23	240.4	5	0	2	9	7	9	5	12	5	24	
PULKOVO	23.51	3.8	5	0	-1	9	3	0					
GOTEBORG	23.66	339.3	5	6A	4						12	16	PCS
HELSINKI	23.88	357.1	5	4	0								
ALMERIA	23.88	280.1	5	3	-1	9	23	14			5	38	PP

UPPSALA	24.33	348.1	5	7A	-1	9	15	-2			12	13	PCS
GRANADA	24.73	281.2	5	11K	-1	9	33	9			5	51	PP
KEW	24.79	316.2	5	12A	-1	9	42	17	5	27	5	54	PP
TOLEDO	24.86	287.7	5	15A	1	9	26	0	5	26	5	35	PP
MALAGA	25.43	280.3	5	20A	1	9	48	13			6	16	PP
DURHAM	27.06	322.0	5	31A	-3	10	0	-2			6	20	PP
SERRA PILAR	28.29	290.7	5	46A	1						6	38	PP
ABERDEEN	28.60	326.0									10	27	
SKALSTUGAN	28.76	346.0	5	47	-2								
RATHFARNHAM	28.88	316.5	5	48K	-2	10	36	5	6	1	6	54	PP
LISBON	28.90	285.8	5	51A	1	10	39	8			6	13	*SP
SVERDLOVSK	30.24	36.8	6	1	-1	10	51	-2					
SODANKYLA	31.06	359.5	6	7	-3								
APATITY	31.43	4.5	6	11	-2	11	7	-4					
KIRUNA	31.76	355.0	6	14A	-2	11	10	-7			12	32	
NAMANGAN	34.65	68.6	6	40	-1								
KARACHI	35.38	95.9	6	53K	6						8	19	PP
WARSAK DAM	35.99	80.4	6	51K	-1								
FRUNSE	36.59	64.9	6	58	1	12	34	3					
LWIRO	38.43	177.6	7	15K	3								
SEMIPALATNSK	40.10	52.4	7	48	22	13	23	-1					
REYKJAVIK	40.38	329.2	7	28A	0								
SCORESBY SD.	42.87	338.0	7	49A	0	14	9	4			9	31	PP
MBOUR	45.12	252.7	8	9	2	14	41	4			18	2	SS
NORD	47.99	352.1	8	28A	-2	15	16	-2			13	38	SCP
CHATRA	51.15	82.8	8	53	-1	16	1	-1					
LHASA	53.02	77.7	9	9K	1	16	29	2	9	29	14	5	SCP
IRKUTSK	54.74	47.2	9	20	0	16	51	1					
THULE	56.30	343.6	9	29	-2	17	8	-3			19	6	SCS
ULAN-BATOR	57.66	51.5	9	42	1	17	32	3					
TANANARIVE	58.21	157.4	9	47A	2						10	23	
LANCHOW	60.08	65.3	9	58	0	18	2	2					
PRETORIA	61.78	179.1	9	45	-24								
RESOLUTE	62.96	345.4	10	15A	-2	18	36	-1					
YAKUTSK	63.98	30.8	10	21	-3	18	47	-2					
KUNMING	64.30	76.9	10	26K	0	18	53	0	10	54	19	36	*SS
KIMBERLEY	64.81	182.5	10	30	1								
HALIFAX	66.18	308.7	10	38A	0								
PEKING	67.01	56.5	10	44	1	19	29	3	11	10	20	10	*SS
GRAHAMSTOWN	69.32	180.7	10	59	2								
SEVEN FALLS	69.33	313.7	10	58A	1	19	48	-6			13	25	PP
SHAWINIGAN	70.76	314.0	11	6	0								
BREBEUF	71.83	313.4	11	13A	0	20	27	4					
WESTON	72.15	309.7	11	16A	2				11	40	12	38	PP
MEDAN	72.89	98.3	11	17K	-2						11	35	PCP
NANKING	72.90	62.6	11	19	0	20	35	0	11	44	21	14	*SS
BERMUDA	73.10	297.9				20	44	7			12	1	PCP
OTTAWA	73.11	314.2	12	21A	61	20	38	1	11	46	13	55	PP
CANTON	73.59	73.3	11	24	1	20	47	4	11	50	21	30	*SS
MAGADAN	73.67	26.3	11	21	-2								
PALISADES	74.52	309.6	11	28	0	20	55	2			12	1	PCP
HONG KONG	74.71	73.5	11	30	1	20	58	3					
VLADIVOSTOK	75.33	47.1	11	32	-1								
UGLEGORSK	77.14	37.8	11	43	0								
WASHINGTON	77.73	309.3	11	46	0	21	32	4					
Y.-SAKHLINSK	78.89	39.1	11	52	-1								
COLLEGE	79.03	357.9	11	52	-1	21	41	-1			38	41	PKPPKP
MORGANTOWN	79.05	311.3	11	54A	0	21	45	3					
ST. VINCENT	81.20	279.8	12	6A	1								
SAN JUAN	82.01	286.8	12	10	1								
TRINIDAD	82.84	277.9	12	16	3								
MATUSIRO	83.22	49.3	12	15A	0	22	25	0			23	8	SCS
COLUMBIA	83.26	307.4	12	16	0								
BANFF	86.94	337.6	12	33A	-1								
RAPID CITY	88.21	326.8	12	39	-1	22	53	-20			23	15	
HUNGRY HORSE	88.90	335.4	12	43	0	23	0	-19			16	15	PP
FAYETTEVILLE	89.75	316.3	12	47A	0	23	2	-25			15	51	PP
BUTTE	90.39	333.3	12	51	1						13	54	
VICTORIA	91.57	341.0	12	55	-1	23	17	-26					
BOULDER	92.38	325.6	12	59	0								
EUREKA	97.30	332.2	13	22	0						16	22	PP
SHASTA	98.43	337.2									17	28	PP
MINERAL	98.49	336.5	13	27A	0						17	29	PP
RENO	98.63	334.9									17	30	PP
LICK	101.23	335.2									17	40	PP
TUCSON	101.31	324.8	13	40	0	24	10	-56			30	14	PKKP
PASADENA	102.82	331.2									17	46	PP
TACUBAYA	104.99	308.3	14	4	8						18	22	PP

HALLEY BAY	116.85	193.2	18	33	1				19	50	PP
CHARTERS TS.	124.62	90.4	18	49K	2				20	45	
SOUTH POLE	126.17	180.0	18	50	0	25	34	-9	19	17	27 29 PKKP
BYRD STATION	134.35	187.7	19	8	3				19	33	21 35 PP
SCOTT BASE	134.97	168.8	19	10	4						21 43 PP
KARAPIRO	154.67	103.1	19	50A	11						20 6 PKP2

JUNE 30 18.H 26.M 23.S EPICENTRE 31.13 141.88 DEPTH= 35.KM

DEPTH OF FOCUS= 0.000R

A=-0.67464 B= 0.52937 C= 0.51442 D= 0.6173 E= 0.7867
G=-0.4047 H= 0.3176 K=-0.8575 HT= 1.4

SE= 2.34

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HATIDYOZIMA	2.62	319.0	0	41	0	1	22	10				
MERA	4.15	336.1	1	2	0	1	59	9			1	46
OSIMA	4.19	330.6	1	1	-2	1	51	0			2	56
NAGATURO	4.30	324.4	1	31	27							
AJIRO	4.55	329.9	1	10	2	2	26	26			2	4
OMAESAKI	4.63	319.3	1	9	0	2	4	2			2	46
TYOSI	4.66	349.6	1	11	2	2	1	-2				
MISIMA	4.68	329.1	1	9A	-1	2	5	1				
YOKOHAMA	4.68	337.1	1	10	0	2	6	2				
SHIZUOKA	4.82	323.6	1	12	0						2	49
TOKYO C.M.O.	4.88	339.1	1	13	0	2	3	-6				
HAMAMATU	5.01	316.8	1	20	6							
HUNATU	5.08	330.0	1	16	1	2	5	-9				
KOHU	5.27	329.2	1	17	-1	2	18	-1			1	55
KAKIOKA	5.28	344.9	1	16	-2	2	15	-4				
MITO	5.37	347.7	1	18	-1	2	18	-3			2	37
TITIBU	5.37	335.0	1	19	-1							
KUMAGAYA	5.42	338.1	1	19	-1	2	32	10				
IIDA	5.54	323.3	1	23	1	2	28	3				
OWASE	5.62	303.0	1	24	1	2	41	14				
UTUNOMIYA	5.66	343.4	1	22	-2	2	21	-7				
SIOMISAKI	5.67	295.7	1	26	2	2	18	-10			2	56
MAEBASI	5.75	336.8	1	26	1	2	24	-7				
NAGOYA	5.76	315.7	1	25	0	2	39	8				
TU	5.76	310.0	1	26	1							
ONAHAMA	5.86	352.3	1	23	-3	2	27	-6			3	12
KAMEYAMA	5.87	310.7	1	26	0	2	29	-4				
OIWAKE	5.88	332.8	1	29	2	2	29	-5				
GIHU	6.04	316.2	1	29	0	3	1	23			3	36
MATUMOTO	6.06	328.5	1	32	3	2	52	14				
SHIRAKAWA	6.13	347.5	1	26	-4	2	35	-5				
MATUSIRO	6.20	331.6	1	29A	-2	2	41	-1			8	35 PCP
IBUKISAN	6.26	314.1	1	35	3	2	57	14				
HIKONE	6.27	312.7	1	33	1	2	49	6				
NAGANO	6.32	332.0	1	34	1	2	56	11				
TAKAYAMA	6.32	323.6	1	35	2							
OSAKA	6.39	305.0	1	34	0	2	59	12				
WAKAYAMA	6.45	300.4	1	35	0	2	50	2				
ABUYAMA	6.48	306.8	1	34A	-1	2	50	1				
TSURUGA	6.63	314.4	1	38	1	2	54	2			4	5
KOBE	6.65	303.9	1	39	1	2	59	6				
TAKADA	6.67	334.2	1	38	0	2	50	-4				
HUKUSIMA	6.71	350.4	1	35	-3	2	48	-6				
SUMOTO	6.71	300.4	1	38	0	3	10	15				
HUKUI	6.78	317.9	1	42	3	3	5	9				
TOKUSIMA	6.82	297.4	1	40	0	2	59	2				
MUROTO	6.86	290.0	1	41	1	3	44	46				
MAIZURU	6.89	310.6	1	45	4	3	2	3				
KANAZAWA	6.92	322.5	1	45	4							
HIMEJI	7.14	300.1	1	46	2	3	38	33				
NIIGATA	7.16	341.8	1	53	8	3	13	7				
SENDAI	7.17	353.8	1	41	-4	2	58	-8				
ISINOMAKI	7.30	356.5	1	44	-3	3	1	-8				
TAKAHATU	7.32	297.8	1	46	-1	3	22	12				
TOYOOKA	7.36	308.5	1	47A	0	3	37	26				
KOTI	7.47	291.0	1	50	1	3	12	-1			2	50
WAZIMA	7.47	327.9	1	50	1	3	9	-4				
AIKAWA	7.50	337.5	1	54	5	3	12	-2				
TOTTORI	7.74	306.3	1	54	1							

SIMIDU	7.75	284.6	1	53	0	3	30	10		
SAKATA	7.93	348.3	1	56	1	3	26	1	3	52
MIZUSAWA	8.01	355.8	1	55	-1	3	15	-12		
MATUYAMA	8.17	291.6	1	59	0	3	32	1		
UWAZIMA	8.18	287.3	2	1	2	3	42	11		
YONAGO	8.33	303.3	2	2	1	3	45	10		
MIYAKO	8.50	0.5	1	58	-5				4	26
MATSUE	8.54	302.6	2	5	1					
MORIOKA	8.57	356.3	2	0	-4	3	26	-15		
HIROSIMA	8.59	294.6	2	3	-1					
AKITA	8.69	350.9	2	4	-2	3	39	-5		
SAIGO	8.74	307.7							3	37
OOITA	8.94	286.2	2	9A	0	3	50	0		
MIYAZAKI	8.96	277.8	2	13	3	3	54	3		
HAMADA	9.05	297.1	2	13	2	3	55	2		
HATINOHE	9.38	358.4	2	10	-5	3	49	-12		
KUMAMOTO	9.65	283.0	2	21	2				5	5
SIMONOSEKI	9.66	289.8	2	21	2					
KAGOSIMA	9.70	275.5	2	19	-1	4	13	4		
AOMORI	9.71	355.0	2	21	1	4	2	-7		
YAKUSIMA	9.81	269.0	2	23A	2	4	23	12		
HUKUOKA	10.00	287.2	2	27	3	4	41	25		
SAGA	10.04	285.2	2	26	2					
HAKODATE	10.67	355.3	2	34	1					
MORI	11.00	354.9	2	32	-6	4	32	-8	5	39
URAKAWA	11.02	3.5	2	37	-1	4	28	-13		
ITUHARA	11.05	289.4	3	2	24	5	9	27		
MURORAN	11.20	356.5							4	33
TOMIE	11.25	281.0	2	44	3				5	49
TOMAKOMAI	11.37	358.9	2	57	14	4	46	-4		
SUTTSU	11.72	354.0	2	44	-3	4	47	-11		
OBIHIRO	11.82	4.7	2	38	-11	4	49	-11	5	28
SAPPORO	11.93	358.1	2	51	1	5	6	3	6	9
KUSIRO	12.00	8.9	2	49	-2	4	53	-12		
NEMURO	12.53	12.5	3	16	18	5	1	-16		
ABASHIRI	13.01	7.7	3	0	-5	5	18	-11		
WAKKANAI	14.27	359.4				6	21	22	4	9
VLADIVOSTOK	14.36	329.2	3	19	-3	6	2	1		
Y.-SAKHLINSK	15.81	2.1							7	51
ZO-SE	17.73	275.3	4	4A	-1	7	26	7		
GUAM	17.77	170.8	4	0	-6	7	22	2		
CHANGCHUN	18.22	318.7	4	6	-5					
DAIREN	18.29	300.6	4	10	-2					
SUIHWA	19.28	327.6	4	21	-3					
NANKING	19.68	278.7	4	26A	-2	8	1	-2	4	49 PP
PEKING	22.66	300.2	4	56A	-3	9	1	1	5	21 PP
BAGUIO CITY	24.31	237.9	5	13	-2	9	36	7		
KOROR	24.67	197.8	5	17	-1	9	26	-9		
PETROPAVLOVK	25.14	24.2	5	22	-1	9	47	4		
MANILA	25.27	234.0	5	30	6				11	44 SSS
TRUK	25.32	156.3	5	25	0	9	59	13		
HONG KONG	26.21	257.1	5	30	-3	10	3	3	6	17 PPP
CANTON	26.64	259.5	5	32A	-5					
MAGADAN	29.05	9.4	5	59	0	10	50	4		
ULAN-BATOR	31.43	312.3	6	20	0	11	25	1		
CHENGTU	32.40	279.1	6	25A	-3	11	40	1	13	41 SS
IRKUTSK	34.56	318.7	6	46A	-1	12	16	3	8	1 PP
PORT MORESBY	40.61	172.0	7	37	-1	13	31	-14	19	12 SSS
TIKSI	41.17	353.8	7	46	4	13	58	5	9	57 PPP
TOCKLAI	41.22	276.2	7	46	3					
LHASA	43.57	281.6	8	1A	-1	14	32	4	14	45 PS
SHILLONG	44.06	275.7	8	3A	-3	14	44	9		
CHATRA	47.65	279.3	8	32	-2					
CALCUTTA	48.15	273.4	8	54	16	15	36	2		
SEMIPALATNSK	49.00	311.7	8	44	-1	15	46	0	10	39 PP
BOKARO	49.84	276.1	8	43	-8					
LEMBANG	49.98	226.9	8	45	-7	15	59	0		
BANDUNG	50.02	226.8	8	54	1					
CHARTERS TS	51.02	174.7	8	59A	-1	16	14	0		
FRUNSE	53.70	302.7	9	16A	-4				16	54
COLLEGE	53.94	29.8	9	22	0	16	57	4	18	52 SCS
DEHRA DUN	54.17	286.8	9	26	2				17	18
HONOLULU	54.17	85.0	9	23	-1	17	13	16	20	58 SS
AGRA	55.25	283.2	9	29	-3	17	9	-2	11	32 PP
TASHKENT	57.89	301.9	9	49	-1	17	47	1	21	55 SS
NOUMEA	58.12	153.0	9	53	1				17	57
WARSAK DAM	58.26	293.1	9	52A	-1					
STALINABAD	59.03	298.9	9	58	0	18	16	15		

BRISBANE	59.24	168.5	10	OK	0	18	5	1				
SVERDLOVSK	59.91	321.1	10	4	0	18	14	2			12	22 PP
SUVA	60.28	139.3				18	25	8			20	23 SCS
SITKA	60.69	38.4	10	10	0							
BOMBAY	62.88	276.6									17	58
KARACHI	64.85	286.1	10	38	1							
RIVERVIEW	65.20	171.5				19	24	5				
NORD	66.95	356.6	10	50	-1	19	41	1			20	46
ASHKABAD	66.96	301.4	10	51	0						20	43 SCS
RESOLUTE	68.22	13.9	10	57A	-2	19	57	2				
APATITY	68.24	336.9	10	58	-1	19	56	1				
MELBOURNE	68.66	177.4	11	2	1	20	8	8				
HORSESHOE B.	70.00	43.9	11	10	0							
VICTORIA	70.27	44.7	11	12K	1	20	24	5				
SODANKYLA	70.56	338.2	11	12	-1							
THULE	71.05	7.2	11	15	-1	20	28	0			25	11 SS
CORVALLIS	72.04	48.5	11	28	6							
KIRUNA	72.18	340.1	11	22A	-1	20	44	3			21	25 SCS
MOSCOW	72.25	324.9	11	23	0	20	43	1			14	3 PP
PULKOVO	73.49	330.6	11	29	-1	20	56	0			14	13 PP
BANFF	73.62	39.8	11	32	1							
SHASTA	74.39	51.8	11	37	1							
TIFLIS	74.82	309.7	11	39	1	21	15	4			16	7 PPP
GORIS	74.83	307.1	11	40	2	21	16	5			14	33 PPP
MINERAL	75.09	51.8	11	40	0							
HELSINKI	75.44	332.6	11	41	-1							
KARAPIRO	75.54	153.1	11	43K	1							
BERKELEY	75.81	54.3	11	45	1	21	27	5				
HUNGRY HORSE	75.88	41.8	11	46	2							
LICK	76.49	54.5	11	48	0							
RENO	76.68	51.8	11	51	2							
SKALSTUGAN	77.55	339.3	11	53	-1						14	47 PP
BUTTE	77.95	43.3	11	57	1						12	17
SCORESBY SD.	78.02	354.5	11	57K	1	21	52	6			26	55 SS
FRESNO	78.06	54.3	11	57	1							
WELLINGTON	78.19	155.3				21	51	3				
UPPSALA	78.44	334.8	11	57A	-1	21	48	-2			14	54 PP
EUREKA	79.28	50.4	12	3	0							
SIMFEROPOL	79.84	316.6	12	6A	0	22	4	-1			15	9 PP
ROXBURGH	80.29	160.8				22	15	5				
PASADENA	80.53	55.9	12	11	1	22	10	-2	12	29	23	37 PS
SALT LAKE C.	81.25	47.5	12	16	2						12	51
BOULDER CITY	81.89	52.9	12	18	1						12	58
GOTEBORG	82.03	335.4	12	20A	2							
WARSAW	82.24	327.8	12	21	2	22	35	5				
LWOW	82.39	324.7	12	20	1	22	34	2				
COPENHAGEN	83.37	333.9	12	25	1	22	47	6			15	45 PP
KRAKOW	84.22	326.6	12	29	0	22	50	0			14	48
RAPID CITY	84.48	41.0	12	32	2							
SKALNATE PL.	84.66	325.9				22	59	5				
BUCHAREST	84.75	319.6	12	32K	1	22	59	4	13	10		
KSARA	84.94	306.5	12	34	2	23	4	7	13	4	16	21 PP
RACIBORZ	85.01	327.4	12	31	-2	23	3	5				
ISTANBUL KA.	85.11	315.6	12	33	0	22	56	-3				
POTSDAM	85.59	331.4	12	37	1	23	6	3				
BOULDER	85.75	45.2	12	39	3							
BUDAPEST	86.40	325.2	12	42	2	23	0	-11			23	17 SCS
COLLMBERG	86.42	330.7	12	40	0	23	14	3			16	0 PP
TIMISOARA	86.50	322.9	12	45	5	23	17	5				
JERUSALEM	86.55	305.2	12	37	-3							
HALLE	86.71	331.3	12	41	0						16	7 PP
PRAGUE	86.71	329.2	13	0	19	23	18	4			16	10 PP
TUCSON	86.72	54.1	12	42	1							
TUCSON TELE.	86.75	54.0	12	42	1							
BRATISLAVA	86.86	326.6	12	42	0	23	19	3			16	2 PP
ABERDEEN	86.93	341.3	13	25K	43	23	7	-9			16	15 PP
JENA	87.29	331.1	12	44	0	23	14	-6			16	9 PP
PLAUEN	87.37	330.5	12	43	-1	23	20	0			17	5
SOFIA	87.39	319.6	12	45	1	23	26	5				
BELGRADE	87.53	322.6	12	47A	2	23	27	5			23	7 SKS
CHEB	87.59	330.2	12	45	0	23	19	-3			16	10 PP
SONNEBERG	87.86	330.9	12	47	0	23	19	-6			16	12 PP
DURHAM	88.85	339.8	12	54K	3	23	36	2			23	18 SKS
DE BILT	88.86	335.0	12	53	2	23	37	3				
BENSBERG	89.03	333.3	12	52	0						16	27 PP
STUTTGART	89.93	330.9	12	56	0	23	47	3			29	31 SS
KARLSRUHE	90.07	331.5	13	4	7	23	52	7			15	50
TUBINGEN	90.18	330.8	12	56	-2							

UCCLE	90.22	334.6	12	58A	0						
TRIESTE	90.27	326.5	12	58	0	23	52	5	23	48	PS
HELWAN	90.38	305.6	12	58	-1	23	29	-19	16	30	PP
EBINGEN	90.49	330.6	12	58	-1						
STRASBOURG	90.67	331.5	13	0	0	23	56	5	16	43	PP
DOURBES	90.70	334.1	12	57A	-3						
KEW	91.29	337.5	13	3	0	24	0	4	16	40	PP
RATHFARNHAM	91.48	341.5	13	15	11						
LUBBOCK	91.93	48.5	13	9	3	23	43	-19			
NEUCHATEL	92.26	331.0	13	7	0						
BOLOGNA	92.27	327.0	13	13	6	24	8	3			
PARIS	92.54	334.5	13	7A	-2	24	8	1	16	50	PP
PAVIA	92.74	328.6	13	6	-3	24	13	4	16	53	PP
OROPA	92.92	329.6	13	9	-1	24	4	-7			
ROME	93.67	324.7	13	16A	2	24	23	6	17	5	PP
MONACO	94.65	328.7	13	18	0						
CLERMONT-FD.	94.82	332.4	13	21	2	23	59	-28	28	57	SS
FAYETTEVILLE	94.93	42.4	13	20K	1	23	55	-33			
ST. LOUIS 1	95.31	38.4	13	21	0	24	34	3	23	56	SKS
OTTAWA	96.52	25.6	13	27	0	24	2	-39	26	13	PS
BREBEUF	97.20	24.3	13	21	-9						
DUMONT	97.50	180.7							17	23	PP
WILKES	99.97	192.4							18	10	PP
PALISADES	100.96	26.8				24	26	-53	18	4	PP
FORDHAM	101.11	26.9				24	26	-54			
HALIFAX	101.11	18.2				25	23	3	32	26	SS
ALGIERS UNI.	102.22	327.3				25	28	-1	18	6	PP
TOLEDO	102.60	333.8				24	35	-57	25	39	
GRANADA	104.76	332.1				25	37	-13	28	34	PPS
CAPE HALLETT	105.01	171.3							18	22	
MALAGA	105.48	332.4	18	32A	777	26	19	5	20	46	PPP
LWIRO	110.85	280.4							19	10	PP
TAMANRASSET	112.01	316.6							19	14	PP
BERMUDA	112.02	24.1	19	22	51				23	57	
SOUTH POLE	120.96	180.0	18	48	-1				20	21	PP
BYRD STATION	121.93	168.3	18	52	2				20	28	PP
CHINCHINA	129.31	51.6	19	51	46				23	21	SKP
MBOUR	130.40	332.7							22	7	PP
BOGOTA	130.60	50.4	19	15	8	26	16	5	22	39	SKP
HUANCAYO	140.79	69.4	19	22	-4						
LA PAZ	149.05	68.9	19	45	5						

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained as part of a global earthquake relocation project (Villaseñor et al., 1997) initiated with funding from the US National Science Foundation through grant EAR-9725140 and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of Euroseismos project.

A digital hypocenter file of the ISS (Villaseñor and Engdahl, 2005) can be obtained from the USGS web site: http://earthquake.usgs.gov/scitech/iss/

Villaseñor, A., and E.R. Engdahl, *A digital hypocenter catalog for the International Seismological Summary,* Seism. Res. Lett., vol. 76, no. 5, pp. 554-559, 2005.

Villaseñor, A., E.A. Bergman, T.M. Boyd, E.R. Engdahl, D.W. Frazier, M.M. Harden, J.L. Orth, R.L. Parkes, and K.M. Shedlock*, Toward a comprehensive catalog of global historical seismicity,* Eos Trans. AGU, vol. 78, no. 50, pp. 581, 583, 588, 1997.