The Director of the I.S.S. wishes to express his thanks to H.M. Treasury, to UNESCO, and to the National Science Foundation of the United States, for financial support, which has covered the cost of the preparation and printing of this volume. Also to the United Kingdom Atomic Energy Authority for the services of their electronic computer which has performed the necessary calculations.

He also thanks the Director-General of the Meteorological Office and the Superintendent of Kew Observatory for the hospitality extended to the staff.

JANUARY 1 2.H 6.M 40.S EPICENTRE 84.04 -5.40 DEPTH= 0.KM

A= 0.10412 B=-0.00985 C= 0.99452 D=-0.0942 E=-0.9956
G= 0.9901 H=-0.0937 K=-0.1046 HT=-14.1

SE= 3.93

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
NORD	2.82	215.7	0 51K	4	1 19	-3		0 57 PG
KHEYS	8.46	86.0	2 1	-6	3 25	-19		4 29
THULE	12.15	268.5	2 57	0	5 3	-12		
SCORESBY SD.	13.99	203.3	3 23A	1				
RESOLUTE	16.47	290.3	3 54A	0	6 56	-1		
KIRUNA	17.09	145.8	3 58A	-4	7 19	7		
SODANKYLA	17.95	138.2	4 5	-8				
APATITY	18.28	129.8	4 8	-9	7 16	-23		
SKALSTUGAN	20.93	157.6	4 46	-1				5 22
TIKSI	23.07	35.4	5 5	-3	9 19	3		8 18
UPPSALA	24.89	152.0	5 26	0	9 51	4		
PULKOVO	25.74	137.1	5 35	1	9 54	-7		6 32 PPP
GOTEBORG	26.80	159.2	5 49	5				
COPENHAGEN	28.84	158.9			10 50	-2		
COLLEGE	30.24	328.9	6 17	2				
MOSCOW	30.31	130.1	6 24	9	11 28	13		
SVERDLOVSK	31.34	105.0	6 21	-3				
POTSDAM	32.16	158.6	6 29	-3				8 32
MUNSTER	32.39	164.9	6 36	2				
YAKUTSK	32.65	38.1	6 32	-4				
HALLE	33.00	160.0	6 34	-5				
COLLMBERG	33.24	158.8	6 39	-2				
JENA	33.56	160.5	6 41	-3				7 51 PPP
PLAUEN	34.01	159.9	6 46	-2				
PRUHONICE	34.62	157.2	6 52A	-1	12 22	0		8 6 PP
RACIBORZ	34.63	153.0	6 50	-3				
KRAKOW	34.79	151.1	6 52	-2				
LWOW	35.23	146.5	6 56	-2				
PARIS	35.44	171.0	6 58	-2				
STUTTGART	35.64	163.4	7 1A	-1	12 38	0		8 42 PP
SKALNATE PL.	35.68	150.8	6 58	-4				7 49 PP
STRASBOURG	35.79	165.0			12 53	12		
TUBINGEN	35.88	163.5	7 3	-1				
EBINGEN	36.22	163.7	7 6	-1				
BRATISLAVA	36.54	154.5	7 8	-1				8 37 PP
IASI	38.07	143.0	7 19	-3	13 6	-9		8 37 PP
KISHINEV	38.33	141.6	7 22	-2	13 12	-7		
TRIESTE	38.91	158.5	7 28	-1	13 33	5		9 4 PP
CAMPULUNG	39.84	146.1	7 39	2				
MONACO	40.63	165.7	7 42	-1				
KABANSK	40.71	61.3	7 40	-4				
SHAWINIGAN	41.63	253.5	8 1	9				
SOFIA	42.30	148.2	7 54	-3				9 41
ROME	42.61	160.2	7 59A	-1	14 32	9		9 52 PP
BREBEUF	42.75	254.2	8 5	4				
OTTAWA	43.06	256.3	8 7	4				
HUNGRY HORSE	44.06	294.6	8 14	3				
ISTANBUL UN.	44.29	142.3	8 9A	-4				9 50 PP
TIFLIS	44.81	125.3	8 17	0				
ULAN-BATOR	44.83	62.0	8 15K	-3				
BUTTE	46.23	292.8	8 32	3				
MESSINA	46.42	157.1	8 17	-13				10 27
BOZEMAN	46.43	291.3	8 34	4				
GRANADA	47.01	178.0	8 39A	4				
ATHENS	47.04	148.3	8 27	-8				
RAPID CITY	47.22	283.4	8 45	8				
MALAGA	47.46	178.9	8 39K	1				
ALGIERS UNI.	47.48	170.8	8 38	-1				10 28 PP
CINE	47.66	143.6	8 39	-1				
NAMANGAN	48.13	97.7	8 41	-3				
RELIZANE	48.47	173.5	8 42	-4				
LARAMIE	50.20	285.2	9 7	7				
CHANGCHUN	50.44	45.4	8 58	-3				
SALT LAKE C.	51.36	291.2	9 10	2				
KSARA	51.95	135.8	9 12	-1				11 26
SHASTA	52.42	301.2	9 25	9				
MINERAL	52.69	300.4	9 21	3				
EUREKA	53.03	294.9	9 24	3				10 31 PCP
RENO	53.33	298.6	9 26	3				
PEKING	53.48	54.5	9 21K	-3				

JERUSALEM	53.93	136.7	9 23K	-5				
WARSAK DAM	55.03	99.0	9 23	-13				
BERKELEY	55.21	300.7	9 44K	7				
LICK	55.68	300.0	9 49	9				
FRESNO	56.08	298.2	9 47	4				
LANCHOW	56.27	66.9	9 42	-3				
BOULDER CITY	56.39	293.3	9 48	2				
QUETTA	58.34	104.2	9 55	-4	17 51	-10		
PASADENA	58.52	296.3	10 3	2	18 14	10		
TUCSON TELE.	59.60	288.8	10 10	2			11 32	
TUCSON	59.70	288.9	10 11	2				
TAMANRASSET	61.47	168.5	10 19	-2				
CHENGTU	61.66	67.4	10 19K	-3				
SHILLONG	65.48	80.0	10 41	-6				
KUNMING	67.09	69.4	10 52K	-5				
CHITTAGONG	68.65	80.4	10 47	-20				
CANTON	70.04	59.3	11 13	-3				
TRINIDAD	76.10	237.2	11 52	1				
RUMANGABO	86.39	145.2	12 43	-2				
ASTRIDA	87.67	144.9	12 51	-1				
SOUTH POLE	174.00	180.0	20 3	-8			25 33	PP

JANUARY 1 7.H 26.M 12.S EPICENTRE -18.45-176.05 DEPTH= 0.KM

A=-0.94699 B=-0.06546 C=-0.31452 D=-0.0690 E= 0.9976
G= 0.3138 H= 0.0217 K=-0.9493 HT= 5.0

SE= 2.58

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SUVA	5.26	272.4	1 25	5				
AFIAMALU	6.11	42.9			2 57	14		
APIA	6.18	42.2	1 27	-6				
GEBBIES PASS	26.92	198.3	5 44	1				
BRISBANE	29.79	246.8	6 56A	47				
RIVERVIEW	33.02	235.8	6 36A	-1	12 2	8		
RABAUL	34.14	290.6	6 44	-3				
CANBERRA	35.19	234.4	6 55K	-1			7 6	7 40 PPP
PORT MORESBY	36.77	279.1	7 7A	-2	12 55	3		
MELBOURNE	39.07	232.2	7 26A	-2			7 36	
ADELAIDE	43.24	238.4	8 1	-2				
GUAM	50.00	306.6	8 55	-1				
CAPE HALLETT	54.44	185.1	9 30	1	17 25	20		
SCOTT BASE	60.04	184.1	10 7	-2	19 1	42		10 47 PCP
BYRD STATION	66.36	170.9	10 50	0	19 23	-15		
WILKES	66.59	205.1			19 49	8		
MATUSIRO	69.69	322.1	11 9	-2	20 29	11		
SOUTH POLE	71.67	180.0	11 23	0				
LEMBANG	74.94	267.7	11 39	-3				
BERKELEY	75.43	41.3	11 46	1				
LICK	75.50	42.0	11 47	1				
PASADENA	75.94	46.4	11 49	1	21 40	11		
SHASTA	77.09	38.9	11 57	2				
MINERAL	77.35	39.6	11 58	2				
RENO	77.96	41.1	11 59	0				
BOULDER CITY	79.24	46.4	12 0	-6				
TUCSON	80.20	51.3	12 15	3				
TUCSON TELE.	80.33	51.3	12 14	2				
EUREKA	80.37	42.9	12 13	1				
CHANGCHUN	81.93	321.4	12 25	4				
SALT LAKE C.	83.73	43.5	12 30	0				
PEKING	85.75	314.5	12 40	0				
COLLEGE	85.83	11.7	12 38	-2				
BUTTE	86.00	38.7	12 45	4				
HUNGRY HORSE	86.40	36.2	12 44	1				
KUNMING	90.10	296.3	13 3	2				
LA PAZ	101.03	111.6	14 21	30				
RESOLUTE	105.33	15.8					27 50	PS
LWOW	144.79	337.3	19 36	-1				
MUNSTER	146.42	355.9	19 42	3				
RACIBORZ	146.44	343.3	19 41K	2			20 0	PKP2
ASTRIDA	147.11	233.1	19 43A	3				
PRUHONICE	147.41	347.3	19 42	1				
KSARA	147.67	304.6	19 47	6				
RUMANGABO	148.23	234.5	19 47	5				

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JERUSALEM	148.86	301.3	19	46	3						23	26 PP
ISTANBUL UN.	148.90	321.7	19	46	3							
STUTTGART	149.46	353.2	19	50	6							
EBINGEN	150.06	353.3	19	49	4							
SOFIA	150.77	329.9	19	52	6	27	4	13			24	2 PP
CINE	151.54	317.0	19	53	6							
TRIESTE	151.68	345.4	19	49	1						25	3
ATHENS	153.99	322.4	19	57	6							
MALAGA	160.37	20.3									20	42 PKP2
ALGIERS UNI.	161.73	2.3									26	30
TAMANRASSET	175.45	341.5	20	12	3						25	41 PP

JANUARY 1 7.H 49.M 38.S EPICENTRE -18.01-176.24 DEPTH= 0.KM

A=-0.94959 B=-0.06242 C=-0.30722 D=-0.0656 E= 0.9978
G= 0.3066 H= 0.0201 K=-0.9516 HT= 5.1

SE= 2.19

	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
SUVA	5.07	267.5									2	40
AFIAMALU	5.93	47.1	1	30	-2	3	1	20				
APIA	5.99	46.4	1	32	-1							
NOUMEA	16.80	252.4	4	0	1	7	19	14				
AUCKLAND	20.38	201.0	5	5	24							
GEBBIES PASS	27.28	197.8	5	57	9							
BRISBANE	29.80	246.0	6	58K	47	12	29	82				
RIVERVIEW	33.12	235.2				11	58	-2				
RABAUL	33.82	290.2	6	44	-2							
CANBERRA	35.30	233.8	5	56K	-63						6	57 PP
PORT MORESBY	36.52	278.6	7	8A	-1	12	56	4				
MELBOURNE	39.20	231.7	7	28	-4							
FORT NELSON	39.56	223.2									18	35 SS
ADELAIDE	43.31	237.9	8	6	0							
GUAM	49.59	306.5	8	56	1							
CAPE HALLETT	54.86	185.0	9	36	1	17	26	11				
SCOTT BASE	60.46	184.1	10	11K	-3							
BYRD STATION	66.82	170.9	10	52	-4	19	27	-21			13	43 PP
MATUSIRO	69.23	322.1	11	10	-1							
SOUTH POLE	72.11	180.0	11	25	-4							
LEMBANG	74.77	267.7	11	43	-1							
BERKELEY	75.22	41.5	11	49	2							
LICK	75.30	42.2	11	46	-1							
PASADENA	75.77	46.6	11	52	2						22	28 SCS
FRESNO	76.15	43.6	11	53	1							
SHASTA	76.86	39.1	11	56	0							
MINERAL	77.13	39.7	11	58	1							
RENO	77.75	41.2	12	1	0							
BOULDER CITY	79.07	46.5	12	9	1							
TUCSON	80.07	51.5	12	15	1							
EUREKA	80.17	43.0	12	14	0							
TUCSON TELE.	80.20	51.4	12	13	-1							
SALT LAKE C.	83.54	43.6	12	33	1							
PEKING	85.31	314.6	12	40	-1							
COLLEGE	85.43	11.8	12	40	-1							
BUTTE	85.77	38.8	12	43	0							
HUNGRY HORSE	86.15	36.3	12	45	0							
BOZEMAN	86.50	39.6	12	45	-1							
SIAN	88.05	306.9	12	55	1							
KUNMING	89.74	296.4	13	2	0							
PAOTOW	89.77	313.0	13	4	2							
CHENGTU	90.57	302.0	13	8	2	24	10	10				
SHILLONG	99.22	293.9	15	41	116							
RACIBORZ	145.97	343.3	19	43	2							
JENA	146.56	351.0	19	43	1						23	4 PP
PRUHONICE	146.94	347.2	19	47K	4							
ASTRIDA	147.23	233.9	19	44A	1							
KSARA	147.27	305.1	19	47	4						23	13 PP
VIENNA-H.	148.13	344.0	19	51	6							
RUMANGARO	148.33	235.3	19	50	5							
ISTANBUL UN.	148.44	322.0	19	48	3						26	19 PP
STUTTGART	149.00	353.0	19	51	5							
EBINGEN	149.60	353.1	19	52	5							
SOFIA	150.30	330.1	19	53	5						23	30 PP
CINE	151.09	317.4	19	55K	6							

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TRIESTE	151.21	345.4	19	42	-8				20	3	PKP2
GRANADA	159.83	17.3	19	25A	-36						
MALAGA	160.02	19.5							20	40	PKP2
TAMANRASSET	174.97	341.1	20	13	1				25	41	PP

JANUARY 2 5.H 19.M 39.5 EPICENTRE 48.01 -3.93 DEPTH= 0.KM

A= 0.66986 B=-0.04600 C= 0.74106 D=-0.0685 E=-0.9977
G= 0.7393 H=-0.0508 K=-0.6714 HT= -4.7

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	
JERSEY	1.68	45.4	0	37	6	1	2	8					
FOLINIERE	2.42	70.5	0	44	2								
KEW	4.18	32.7	1	7	0	2	0	2			1	27	PG
CLERMONT-FD.	5.33	112.3	1	22K	-1						2	54	SG
RATHFARNHAM	5.50	345.1	1	25	-1	2	27	-3			1	44	PG
DURHAM	6.92	11.4	1	53	7						3	54	SG
HEERLEN	7.07	62.4	1	46	-2	3	10	0			2	27	PG
DE BILT	7.15	51.7				3	7	-4					
NEUCHATEL	7.44	93.8									3	0	
SERRA PILAR	7.65	207.5	1	52A	-4	3	22	-2			2	4	PP
BASLE	7.77	89.3	1	57K	0								
BENSBERG	7.81	63.7	1	57	-1	3	26	-2					
STRASBOURG	7.82	81.5	1	58	0	3	33	4			2	33	PG
TORTOSA	7.86	154.6	2	13	14	3	21	-8					
BARCELONA	7.88	144.6	2	10	11	3	28	-2					
MARSEILLES	8.06	122.4									4	1	
TOLEDO	8.13	180.7	2	3	0	3	37	1					
WITTEVEEN	8.30	50.6	2	4	-1	3	36	-4					
MUNSTER	8.43	57.7	2	5	-2	3	47	3					
OROPA	8.51	101.9	2	11	3	3	40	-6					
EBINGEN	8.64	84.1	2	9	-1	3	44	-5			4	47	SG
TUBINGEN	8.69	81.8	2	9	-1	3	48	-2			4	49	SG
STUTTGART	8.77	80.2	2	10	-1	3	47	-5			4	49	SG
MONACO	9.01	114.2	2	14	-1								
RAVENSBURG	9.11	86.4	2	15	-1						5	1	SG
CHUR	9.20	92.3	2	17	0								
ALICANTE	9.98	164.2	2	32	4	4	25	3			2	40	PP
LISBON	10.03	204.1	2	31A	2						4	34	SS
SONNEBERG	10.18	70.9	2	29	-2						5	26	
JENA	10.51	68.1	2	34	-1	4	42	7			3	39	PG
PLAUEN	10.80	70.7	2	43	4	4	43	1			5	50	SG
GRANADA	10.83	178.6	2	33A	-6						5	38	SG
HALLE	10.85	65.3	2	29	-11	4	41	-2					
CHEB	10.90	73.0	2	37	-4								
ALMERIA	11.21	174.0	2	40	-5						2	46	PP
PRATO	11.25	106.0	2	56	11	5	1	8					
COLLMBERG	11.45	67.0	2	47	-1	4	30	-28			3	33	PG
TOLMEZZO	11.64	91.7	2	49	-2	5	12	9			6	40	
POTSDAM	11.73	61.8									6	25	SG
PRAGUE	12.22	73.5	3	0	1	5	21	4					
PRUHONICE	12.30	73.9	2	57	-3								
TRIESTE	12.34	94.5	2	59	-1	5	15	-5			3	57	PGPG
ALGIERS UNI.	12.36	152.9	2	55	-5								
RELIZANE	12.70	163.2	3	10	5	5	28	0			3	18	PP
VIENNA-H.	13.56	81.4	3	16	0						4	40	
GOTEBORG	13.62	38.7	3	14	-3	5	37	-13					
ZAGREB	13.78	91.8	3	22	3						7	46	SG
BRATISLAVA	14.05	81.5	3	22	-1	5	53	-8			3	32	PP
RACIBORZ	14.65	73.6	3	38	7	6	40	25					
KRAKOW	15.77	73.7	3	45	0								
SKALNATE PL.	16.02	76.8	3	47	-2						6	26	SS
WARSAW	16.51	65.9	3	49	-6								
UPPSALA	17.26	38.7	4	3	-1	7	8	-8					
SKALSTUGAN	17.97	23.9	4	15A	2						8	26	
SOFIA	19.82	95.4	4	24	-11								
HELSINKI	20.66	43.2	4	59	15								
IASI	21.18	80.4	4	55	5								
KISHINEV	22.06	80.3	4	55	-3								
ATHENS	22.47	106.3	5	1	-2								
PULKOVO	23.07	46.6	5	9	1								
KIRUNA	23.40	23.2	5	12	0						10	45	
SODANKYLA	24.90	27.9	5	25	-1								
SIMFEROPOL	26.20	82.4	5	42	4								

TAMANRASSET	26.29	160.0	5 38	-1	
MOSCOW	26.45	57.4	5 41	0	
APATITY	27.23	30.6	5 47K	-1	10 16 -10
SEVEN FALLS	43.84	294.9	8 8	-2	
RESOLUTE	44.65	337.8	8 16	0	
QUETTA	55.87	81.3	9 39	-3	
COLLEGE	63.99	343.7	10 38	0	
HUNGRY HORSE	66.54	316.9	10 53	-1	
BUTTE	67.54	314.4	10 59	-2	
SHILLONG	75.12	68.4	11 48A	2	
MINERAL	76.14	315.8	11 51	-1	
TUCSON TELE.	76.68	303.6	11 55	0	
TUCSON	76.81	303.6	11 56	0	
LICK	78.54	313.9	12 10	5	

JANUARY 3 11.H 17.M 39.5 EPICENTRE -14.84 -75.70 DEPTH= 0.KM

A= 0.23883 B=-0.93712 C=-0.25450 D=-0.9690 E=-0.2470
G=-0.0629 H= 0.2466 K=-0.9671 HT= 5.8

SE= 1.49

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
LA PAZ	7.48	103.8	1 56A	3	3 15	-4		2 6 PP
TALA POZO	16.74	142.4	3 56	-1	7 1	-2		
SANTA LUCIA	19.06	167.0	4 25A	-1	7 51	-5		
BOGOTA	19.40	4.9	4 31	1	8 20	16		5 50 PP
CHINCHINA	19.68	0.2	4 31	-2	8 18	8		
TRINIDAD	28.98	29.8						6 54 PP
ST. VINCENT	31.28	27.9	6 23	-1				
VERA CRUZ	39.35	328.7						20 33
TACUBAYA	41.14	325.1	7 52	5	13 55	-6		
BERMUDA	48.12	12.5			14 31	-71		19 21 SS
COLUMBIA	48.83	354.1	8 47	-2				
FAYETTEVILLE	53.59	341.4	9 24	-1				
PALISADES	55.59	1.6	9 39	-1	17 21	-4		19 37 SCS
TUCSON	57.65	324.8	9 56	2				
TUCSON TELE.	57.66	324.9	9 56	2				
OTTAWA	59.95	360.0	10 9K	-1				
BREBEUF	60.08	1.7	10 10A	-1				
SHAWINIGAN	61.16	2.3	10 18	0				
SEVEN FALLS	61.83	3.8	10 23	0				
LARAMIE	62.33	334.9	10 27	1				
BOULDER CITY	62.64	324.8	10 29	1				
PASADENA	63.29	321.2	10 34	1	19 11	7		11 1
RAPID CITY	63.78	338.2	10 35	-1				
MBOUR	64.94	66.1	10 45	2	19 30	5		
EUREKA	65.80	326.7	10 50	1				39 15 PKPPKP
FRESNO	66.05	322.3	10 52	1				
LICK	67.52	321.7	11 1	1				
RENO	67.94	324.5	11 3	0				
BYRD STATION	68.14	187.5	11 3	-1	20 42	39		11 24 PCP
BOZEMAN	68.18	334.1	11 5	1				
BERKELEY	68.24	321.8	11 5	1				
BUTTE	69.11	333.4	11 9	-1				
MINERAL	69.50	324.1	11 7	-5				
SHASTA	70.18	324.0	11 16	0				
HUNGRY HORSE	71.55	334.1	11 25	0				
SOUTH POLE	75.26	180.0	11 46	0				11 58
SCOTT BASE	81.14	191.0	12 19A	0				12 31 PCP
CAPE HALLETT	82.99	196.4	12 29	1	22 41	-6		16 24 PP
GRANADA	85.17	49.7	12 39A	0				13 0
HERMANUS	85.73	124.3			23 15	1		
TAMANRASSET	87.81	65.9	12 53A	1	23 37	3		16 21 PP
RESOLUTE	90.14	355.0	13 2A	-1	23 51	-5		29 45 SS
THULE	91.18	1.7	13 7	-1				
FOLINIERE	91.58	39.8	13 10	0				
KIMBERLEY	91.87	120.2	13 11A	0				
COLLEGE	95.93	335.9	13 29	-1				17 19 PP
STUTTGART	97.70	41.7	13 37	-1				
MESSINA	99.98	53.1			24 14	-13		
HALLE	100.01	39.4	14 7	19				
PRUHONICE	101.37	41.2	13 55	1				
CHARTERS TS.	126.13	231.1	19 6	2				
PORT MORESBY	131.17	243.1						22 52 PKS

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QUETTA	142.47	59.6	19 33	-2
MATUSIRO	142.85	311.9	19 29	-6
WARSAK DAM	144.82	51.3	19 38	-1
LAHORE	147.97	53.5	19 47	3
POONA	150.62	78.6	19 50	2
SHILLONG	164.20	45.6	20 6A	1

JANUARY 4 3.H 16.M 37.S EPICENTRE -10.25 111.96 DEPTH= 0.KM

A=-0.36813 B= 0.91283 C=-0.17671 D= 0.9274 E= 0.3740
G= 0.0661 H=-0.1639 K=-0.9843 HT= 6.5

SE= 1.85

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
LEMBANG	5.47	308.0	1 25A	0	2 26	-3		
DJAKARTA	6.49	308.1	1 31K	-8	2 44	-11		
MEDAN	19.07	315.4	4 28K	2				
MANILA	26.23	20.1	5 24	-14	9 37	-32		
BAGUIO CITY	27.83	17.9	5 53	0				
HONG KONG	32.41	3.8	6 33	-1	11 47	-1		
CHARTERS TS.	34.44	110.4	6 49	-2				
ADELAIDE	34.63	139.4	6 53	0			8 15	PP
PORT MORESBY	34.67	91.7	6 54	1	12 22	-1	8 15	PP
KUNMING	36.23	345.7	7 9A	3	12 49	2		
CHITTAGONG	37.95	328.8	7 23A	2	13 18	5	8 54	PP
MADRAS	39.10	305.5	7 34	3	13 28	-3		
KODAIKANAL	39.89	299.6					9 22	PP
HOWRAH	39.99	324.8	7 36	-2	13 39	-5		
MELBOURNE	40.40	138.3	7 42	1				
SHILLONG	40.62	331.5	7 44A	1				
CHENGTU	41.38	349.6	7 50A	1	14 0	-5		
CANBERRA	41.91	132.5	7 55K	1				
ZO-SE	42.05	11.8	7 55	0				
RIVERVIEW	42.86	129.4					14	20
SIAN	44.34	356.4	8 14A	1				
LHASA	44.49	333.7	8 16	1	14 46	-4		
LANCHOW	46.71	350.9	8 33A	1				
POONA	47.24	307.1	8 35	-2				
AGRA	49.64	319.2	8 51A	-4	15 53	-11		
PEKING	50.17	4.2	9 0	1				
MATUSIRO	52.70	26.6	9 15	-3	16 33	-13	20 30	SS
LAHORE	55.01	320.5	9 37	2				
VLADIVOSTOK	56.14	17.5					17 20	
QUETTA	59.06	314.4	10 2A	-2	18 7	-3	10 52	PCP
TANANARIVE	62.66	254.0	10 28	-1			11 5	
NAMANGAN	63.07	326.7	10 29	-2				
SUVA	64.63	105.2			18 33	-48		
CAPE HALLETT	70.96	164.0	11 21	0			25 37	SS
SCOTT BASE	72.97	169.6	11 32	-1				
SVERDLOVSK	79.02	334.1	12 8	1				
SOUTH POLE	79.82	180.0	12 10	-2				
TIFLIS	80.28	315.6	12 15	1				
ASTRIDA	81.90	268.8	12 24	1				
UVIRA	82.35	267.8	12 26	1			12 39	
RUMANGABO	82.52	270.0	12 28	2			12 42	
KIMBERLEY	82.70	242.2	12 26A	-1				
LWIRO	82.88	269.0	12 28	0				
BYRD STATION	86.15	172.1	12 44	0				
MOSCOW	89.73	327.0	13 18	17				
WINDHOEK	90.56	247.1	13 6	1				
COLLEGE	103.55	25.6	18 23	3				
TAMANRASSET	108.98	290.6	18 55	24				
MINERAL	124.11	48.0	19 4	3				
LICK	124.90	51.5	19 5	3				
HUNGRY HORSE	126.00	36.4	19 5	1				
OTTAWA	144.35	9.3	19 37A	-1				
BREBEUF	144.55	6.8	19 38A	0				
TACUBAYA	148.58	69.5	19 44	-1	26 53	1	23 59	
LA PAZ	153.43	179.8	20 5	13			23 20	PKS

JANUARY 4 3.H 58.M 15.S EPICENTRE 15.56 53.77 DEPTH= 0.KM

A= 0.56965 B= 0.77743 C= 0.26666 D= 0.8066 E=-0.5911
G= 0.1576 H= 0.2151 K=-0.9638 HT= 5.6

SE= 4.54

	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	
BOMBAY	18.50	76.9	4	12	-7	7	54	11					
QUETTA	18.92	37.5	4	25	1	6	41	-72			4	39	PP
POONA	19.42	78.4	4	23	-7	8	12	8					
KODAIKANAL	23.69	100.1	5	18A	4	9	42	16					
HYDERABAD	23.73	82.1	5	19	5	9	39	12					
KSARA	24.31	321.6	5	24	4	9	46	9			10	45	SS
AGRA	25.30	58.9	5	34A	5	10	1	8			6	26	PPP
MADRAS	25.72	92.3	5	35	2						9	16	PCP
TIFLIS	27.19	345.2	6	0	13								
NAMANGAN	29.71	28.0	6	5	-4								
HOWRAH	33.33	72.6				12	14	12					
SIMFEROPOL	33.66	334.5	6	42	-2								
CHITTAGONG	36.54	73.4	7	15	6	11	52	-60					
SHILLONG	36.92	68.1	7	5	-7								
SOFIA	37.56	322.2	7	16	-1								
KISHINEV	37.59	331.8	7	15	-2								
MOSCOW	41.96	346.4	7	52	-2								
VIENNA-H.	44.76	324.8	8	15	-1								
TAMANRASSET	45.97	286.7	8	21	-5	15	18	6					
PRUHONICE	46.71	325.9	8	29A	-3								
PULKOVO	47.36	344.1	8	59	22								
SETIF	47.57	305.0	8	49	10								
PRETORIA	48.03	211.6	7	53	-49								
COLLMBERG	48.26	326.7	8	45	1								
HALLE	48.92	326.4	8	42	-7						9	5	
NURMIJARVI	49.58	341.6	8	53	-1								
STRASBOURG	49.91	321.4	9	4	7						9	4	
UPPSALA	51.46	337.6	9	5	-4								
KIMBERLEY	52.22	212.6	8	24	-50						9	3	
PARIS	53.23	319.9	9	24	2								
APATITY	53.61	350.5	9	23	-2								
SODANKYLA	54.70	347.5	9	37	4								
SKALSTUGAN	55.84	339.0	9	47	6						10	6	
KIRUNA	56.47	345.5	9	53	7								
MBOUR	68.04	279.5	10	57	-6	20	3	1					
THULE	82.06	348.3	12	27	4								
CHARTERS TS.	97.48	108.6									14	58	
COLLEGE	98.14	9.1	17	44	777								
CANBERRA	103.02	123.3									16	50	
CAPE HALLETT	112.68	162.7									23	47	PP
BYRD STATION	115.44	181.3	18	44	1								
EUREKA	124.41	350.4	18	56	-5								

JANUARY 5 9.H 35.M 11.S EPICENTRE -7.51 156.37 DEPTH= 38.KM

DEPTH OF FOCUS= 0.001R

A=-0.90840 B= 0.39740 C=-0.12989 D= 0.4008 E= 0.9162
G= 0.1190 H=-0.0521 K=-0.9915 HT= 6.8

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	
RABAUL	5.32	308.0	1	17	-2	2	31	11					
PORT MORESBY	9.31	257.7	2	18A	3	3	59	0					
CHARTERS TS.	15.82	217.3	3	41	0	6	40	4					
NOUMEA	17.62	147.6	4	6	2								
BRISBANE	20.11	188.7	4	32A	-1	8	22	10					
GUAM	23.83	331.0	5	10	0								
SUVA	23.93	118.3	5	44	33								
RIVERVIEW	26.63	189.7	5	35A	-2	10	8	1					
ADELAIDE	31.75	208.3	6	21	-2								
MELBOURNE	31.90	197.2	6	23	-1								
MANILA	41.40	302.0	7	44	0						10	27	
TUKUBASAM	46.11	341.7	8	21K	-1								
MATUSIRO	47.02	339.9	8	30	1	15	25	7			10	50	*SPP
LEMBANG	48.36	267.5	8	39	-1	15	37	1					
HONG KONG	50.86	306.7	8	45	-14	15	36	-35			16	21	*SS

CAPE HALLETT	65.29	175.4	10	41	1	19	38	19				
CHITTAGONG	69.80	297.0	11	7	-1	20	11	-3	11	37	13	48 PP
SCOTT BASE	70.52	177.7	11	13A	0							
SHILLONG	70.75	300.3	11	15	1							
CHATRA	75.15	300.2	11	47	7							
PYRO STATION	81.63	169.9	12	16	0							
SOUTH POLE	82.54	180.0	12	20	0							
COLLEGE	83.08	20.8	12	21	-2				12	46		
AGRA	83.14	298.5	12	20	-3							
POONA	85.33	289.3	12	33	-1							
WARSAK DAM	89.88	304.2	12	55	-1							
PASADENA	90.43	55.8	13	2	3							
EUREKA	92.92	50.7	13	14	4							
QUETTA	93.23	299.9	13	14	2	24	15	2	13	42	13	56 *SP
RESOLUTE	102.11	14.9	13	19A	-33							
ASTRIDA	125.82	261.3	19	6	8						20	47
UVIRA	126.25	260.1	19	8	9						21	0
GRANADA	145.31	331.3	19	47K	13						21	47
TAMANRASSET	148.13	301.6	19	43	5				20	4	20	22 PKP2

JANUARY 5 9.H 46.M 58.S EPICENTRE -22.31 171.59 DEPTH= 116.KM

DEPTH OF FOCUS= 0.013R

A=-0.91610 B= 0.13536 C=-0.37742 D= 0.1462 E= 0.9893
G= 0.3734 H=-0.0552 K=-0.9260 HT= 4.1

SE= 2.05

	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	
NOUMEA	4.76	269.1	1	11	0	2	2	-4					
SUVA	7.63	58.4	1	53	3	3	25	9					
ONERAHI	13.63	170.4	3	11	1	5	48	9					
AUCKLAND	14.77	169.9	3	26	2	6	17	12					
TUAI	17.11	165.1	3	54	0	7	5	5					
TONGARIRO	17.17	169.6	3	56K	2						4	7	
BRISBANE	17.61	249.2	4	2A	2	7	17	7					
AFIAMALU	17.88	64.9	3	54	-9								
APIA	17.92	64.6	3	34	-29								
COBB RIVER	18.74	177.3	4	14	2	7	52	18					
WELLINGTON	19.10	172.7	4	15K	-1	7	58	16			4	32	PP
KAIMATA	20.15	180.4	4	26	-1								
RIVERVIEW	21.34	233.0	4	43A	4	8	33	9					
GEBBIES PASS	21.35	177.9	4	38	-1	8	28	4					
ROXBURGH	23.26	184.0	4	58K	0	9	4	6					
CANBERRA	23.60	231.7	5	4A	3	9	11	7			7	2	
CHARTERS TS.	23.73	270.8	5	3	0	9	10	4					
RABAUL	26.04	310.9	5	22	-2						8	49	
PORT MORESBY	26.73	294.8	5	30A	-1						8	52	PCP
MELBOURNE	27.62	229.9	5	38A	-1	10	14	4	5	49	6	27	PP
FORT NELSON	28.80	218.8	5	43	-6	10	34	5					
ADELAIDE	31.33	239.1	6	11A	-1	11	10	1			7	12	PP
MACQUARIE I.	33.53	193.4	6	31	0	11	46	3			7	36	PP
GUAM	44.24	321.0	8	0	0						9	41	PP
CAPE HALLETT	50.02	180.5	8	45K	0	15	52	7			10	42	PP
PERTH	50.09	246.4	6	34	-131						8	45	
HONOLULU	52.46	36.4	9	3	0						10	12	PCP
SCOTT BASE	55.65	181.2	9	26A	-1	17	9	7			11	36	PP
WILKES	58.22	204.7	9	42	-3	17	38	3					
LEMBANG	63.38	273.5	10	20	0	18	45	4					
DJAKARTA	64.35	273.9	10	21	-5	18	46	-7					
BYRD STATION	64.54	169.6	10	25	-2	18	58	2			10	50	PCP
TUKUBASAN	65.39	332.3	10	25A	-8								
ABUYAMA	66.36	328.1	10	39A	0								
MATUSIRO	66.49	331.1	10	39A	-1								
SOUTH POLE	67.83	180.0	10	47	-1	19	37	2			11	11	PCP
HONG KONG	71.38	304.6	11	10	0	20	48	31					
ZO-SE	71.81	315.9	11	11A	-1								
CANTON	72.49	304.7	11	16A	0								
NANKING	73.97	315.3	11	25A	0						14	8	PP
MEDAN	75.63	280.0	11	34	0	21	8	4					
MAWSON	76.42	201.9	11	39	0								
CHANGCHUN	78.30	327.7	11	49A	0								
PEKING	80.69	320.2	12	2A	0	22	3	5			22	23	SCS
KUNMING	81.76	301.2	12	9A	1	22	15	6			15	17	PP
SIAN	81.91	312.0	12	9A	1	22	16	5					

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MAGADAN	83.33	349.5	12	14	-2					
PORT BLAIR	84.31	285.0	12	21	1	22	33	-2	17 22	PP
PAOTOW	84.76	317.7	12	25	2					
BERKELEY	86.23	46.5	12	32A	2					
LICK	86.37	47.2	12	33A	2					
LANCHOW	86.42	311.3	12	33A	2	23	1	6	15 55	PP
PASADENA	87.20	51.4	12	35A	0	23	10	7	15 55	PP
FRESNO	87.35	48.5	12	36	1					
SHASTA	87.65	44.0	12	38	1					
MINERAL	87.97	44.7	12	39	1					
RENO	88.74	46.1	12	43	1					
TOCKLAI	88.87	299.4	13	46	63					
CORVALLIS	89.16	40.4	12	46	2					
CHITTAGONG	89.46	294.3	12	47K	2	23	33	9	16 17	PP
BOULDER CITY	90.48	51.1	12	51	1				13 10	
SITKA	90.69	25.9	12	50	-1					
SHILLONG	90.73	297.3	12	53A	2					
ULAN-BATOR	90.75	322.5	12	52A	1	23	40	5		
ALBERNI	90.88	35.9	12	53K	1					
VICTORIA	91.24	37.1	12	53A	-1					
EUREKA	91.30	47.6	12	55	1	23	50	10	16 29	PP
HORSESHOE B.	91.78	36.4	12	56A	0					
TUCSON	91.81	55.9	12	58	2	23	32	-13	30 16	PKKP
TUCSON TELE.	91.93	55.8	12	58	1	23	53	7	30 16	PKKP
COLLEGE	92.35	16.1	12	56	-3				30 11	PKKP
HOWRAH	92.50	293.2	13	2	2	23	25	5		
LHASA	93.06	300.7	13	4A	2	23	27	3		
SALT LAKE C.	94.70	47.8	13	5	-5				13 46	
CHATRA	95.11	296.8	13	13	2	23	39	4		
BUTTE	96.48	42.8	13	17	-1				17 10	PP
HUNGRY HORSE	96.59	40.3	13	18	0				17 8	PP
BOZEMAN	97.29	43.6	13	22	1					
SANTA LUCIA	98.82	131.5							19 55	
BOULDER	99.00	50.5	13	30	1					
LARAMIE	99.27	49.2	13	30	0					
RAPID CITY	101.88	47.2	13	43	1				17 53	PP
AGRA	102.86	294.2	13	43	-3				17 49	
POONA	103.75	284.6	13	50	0				16 45	
BOMBAY	104.79	284.6				24	27	4	18 5	PP
ST. LOUIS 1	109.74	55.4							18 56	PP
LA PAZ	109.96	118.2	18	44	777				19 14	PP
NAMANGAN	111.56	306.7	18	22	1	24	55	4		
TANANARIVE	111.66	237.6	18	24	3				18 59	PP
RESOLUTE	112.26	16.7	18	19A	-3				19 4	PP
QUETTA	113.05	294.4	18	26	2	25	4	7		
GRAHAMSTOWN	115.40	212.1	18	30K	2					
KHEYS	116.80	350.2	18	28	-3				19 10	PP
THULE	118.46	13.4	18	25	-9				19 39	PP
SVERDLOVSK	119.83	323.7	18	35	-2					
KIMBERLEY	120.00	213.7	18	39K	2					
PRETORIA	120.50	218.6	18	39	1					
OTTAWA	121.30	49.5	18	39	-1					
SHAWINIGAN	123.34	48.1	18	44	0				20 19	PP
SEVEN FALLS	124.64	47.4	18	46	0					
SAN JUAN	126.01	83.0	18	48	-1				22 8	PKS
APATITY	127.84	341.1	18	51	-1				20 51	PP
WINDHOEK	128.94	210.8	18	57	2					
SODANKYLA	129.90	343.2	19	7	11					
KIRUNA	131.08	345.9	18	58	-1				22 11	PKS
SCORESBY SD.	131.15	6.0	18	57	-2				21 14	PP
TIFLIS	131.72	306.6	19	1	1					
MOSCOW	132.45	326.5	19	2	1	26	23	24		
UVIRA	135.26	239.7	18	55	-11				21 44	PP
ASTRIDA	135.29	241.3	19	1	-5				22 32	PP
NURMIJARVI	135.40	337.4	18	56	-11					
RUMANGABO	136.34	242.4	18	58	-10				21 49	PP
SKALSTUGAN	136.48	346.7	19	2	-7				22 32	PKS
UPPSALA	138.23	340.6	19	4	-8				22 36	PKS
SIMFEROPOL	138.62	313.4	19	13	0				22 50	PKS
KSARA	139.55	296.4	19	17	3				22 14	PP
JERUSALEM	140.24	293.3	19	9K	-7				22 14	
KISHINEV	141.23	318.6	19	16	-1					
IASI	141.91	319.5	19	21	2				22 56	PKS
LUANDA	142.50	216.7	19	22	2					
LWOW	142.54	325.2	19	16	-4					
FOCSANI	142.83	317.5	19	25	5					
COPENHAGEN	143.24	340.3	19	18K	-3				22 32	PP
ISTANBUL UN.	143.45	309.5	19	18	-3				22 42	PKS
BUCHAREST	144.11	316.2	19	22	0					

CAMPULUNG	144.38	318.1	19	25	2						
KRAKOW	144.49	328.2	19	21	-2				22	32	PP
SKALNATE PL.	144.89	326.8	19	20K	-4				22	34	PP
CINE	145.15	304.2	19	24	0				22	43	PP
RACIBORZ	145.29	329.6	19	25A	0				24	8	
POTSDAM	145.74	336.5	19	27	2	19	48				
COLLMBERG	146.62	335.4	19	27	0				22	53	PP
SOFIA	146.68	315.1	19	28	1				19	41	PKP2
HALLE	146.86	336.6	19	23	-4				22	33	PP
PRAGUE	146.99	332.7	19	32	5						
PRUHONICE	147.01	332.5	19	27A	0				23	47	PP
BRATISLAVA	147.13	327.9	19	29	1	19	44		22	50	PKS
DURHAM	147.18	352.7	19	29A	1						
BELGRADE	147.39	320.4	19	29	1						
WITTEVEEN	147.42	343.0	19	31A	3						
VIENNA-H.	147.43	328.7	19	27	-1				19	34	PKP2
JENA	147.45	336.3	19	28	0				22	58	PP
CHEB	147.83	334.6	19	30	1						
MUNSTER	147.90	341.3	19	29	0						
SONNEBERG	148.04	336.1	19	32	3						
ATHENS	148.33	306.8							19	34	PKP2
BANGUI	148.34	239.7	19	33	3				25	1	
BENSBURG	148.93	340.8	19	35A	5				26	32	PP
RATHFARNHAM	149.02	357.5	19	33A	2				19	45	PKP2
ZAGREB	149.27	325.6	19	37A	6						
STUTTGART	150.11	336.3	19	32K	0	19	50		23	15	PP
KEW	150.22	349.8	19	37	5						
TOLMEZZO	150.35	329.3	19	32	0						
TUBINGEN	150.36	336.2	19	32	0				23	16	
TRIESTE	150.53	327.5	19	30	-3				23	10	PP
EBINGEN	150.68	335.9	19	33	0						
RAVENSBURG	150.76	334.7	19	33	0						
STRASBOURG	150.79	337.7	19	34	1				23	20	PP
CHUR	151.55	333.7	19	35A	1						
BASLE	151.74	336.8	19	42A	7						
PARIS	152.17	344.5	19	45	10				23	33	PP
NEUCHATEL	152.42	337.0	19	36	0				23	23	PPP
FOLINIERE	152.85	348.5	19	37	1						
ROME	153.77	323.0							21	42	
CLERMONT-FD.	154.78	340.8	19	40	1				23	49	PP
MONACO	154.93	332.2	19	40	1						
SERRA PILAR	161.23	0.5	19	48K	1						
SETIF	161.68	322.1	19	47	0				24	13	PP
ALGIERS UNI.	162.50	328.0	19	48K	0				24	18	PP
ALICANTE	162.62	338.7	19	47	-1	26	51	12	20	34	PKP2
LISBON	163.63	2.1	19	49	0				24	32	PP
RELIZANE	164.50	331.7	19	51	1				24	33	PP
GRANADA	164.61	345.4	19	54K	4				24	30	PP
ALMERIA	164.62	341.8	19	50	0			20 4	24	34	PP
MALAGA	165.22	347.3	19	49	-2				24	35	PP
TAMANRASSET	167.12	274.7	19	55A	3				24	47	PP
MBOUR	168.68	132.7							19	55	PP

JANUARY 6 14.H 48.M 12.S EPICENTRE -7.40 106.05 DEPTH= 52.KM

DEPTH OF FOCUS= 0.003R

A=-0.27414 B= 0.95315 C=-0.12791 D= 0.9610 E= 0.2764
G= 0.0354 H=-0.1229 K=-0.9918 HT= 6.8

SE= 3.36

	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	
DJAKARTA	1.44	32.8	0	24K	0	0	45	3					
LEMBANG	1.66	70.2	0	27	0								
PERTH	26.08	160.8				10	26	31					
COLOMBO	29.72	297.9	6	8	5								
HONG KONG	30.57	14.9	5	56	-14	11	7	0					
CHITTAGONG	32.69	335.1	6	39	10	12	5	24			7	53	PP
MADRAS	32.73	308.1	6	30	1						7	36	
SHILLONG	35.55	337.6	6	50	-4								
CHATRA	38.63	332.4	7	19	0								
ADELAIDE	40.64	137.1	7	35K	-1								
PORT MORESBY	40.70	95.8	7	36A	-1	13	42	-1	7	50	9	22	PP
POONA	40.90	309.4	7	38	0	14	46	60					

CHARTERS TS.	40.91	112.0	7 37	-1			
BOMBAY	41.90	309.0	7 52	6	14 13 12		17 27
AGRA	43.76	322.7	7 0A	-62			
DEHRA DUN	46.13	325.7					8 19
MELBOURNE	46.44	136.6	8 23	0			8 37 *SP
CANBERRA	48.15	131.6	8 36A	0		8 52	
BRISBANE	48.71	120.2	8 40A	-1	15 42 4		
LAHORE	49.18	323.6	8 41	-3	15 42 -3		
RIVERVIEW	49.19	128.8	8 59A	15			
KARACHI	50.27	312.5	8 48	-5			
WARSAK DAM	52.56	323.7	9 8A	-2			
QUETTA	52.95	316.8	9 10A	-3	16 33 -4		11 10 PP
MATUSIRO	53.12	32.4	9 9A	-5	16 20 -19		20 20 SS
ULAN-BATOR	55.08	0.7	9 53	25			
NAMANGAN	57.57	329.6	9 44	-2			
TANANARIVE	57.87	252.4	9 45	-3			10 18
MIRNY	59.74	186.0	9 58	-3			10 16
NOUMEA	59.88	111.4	10 14	12			
MACQUARIE I.	63.08	148.5	10 39K	15			
MAWSON	66.70	196.6	10 5	-42			
GEBBIES PASS	68.06	134.1	10 55	-1			
TONGARIRO	69.48	129.0	11 3	-1			
SVERDLOVSK	73.99	336.0	11 30	-1			
TIFLIS	74.19	317.0	11 32	0			
CAPE HALLETT	75.31	163.5	11 39	0			
PRETORIA	75.92	245.4	11 43	1			
ASTRIDA	76.10	269.1	11 44A	1			
UVIRA	76.61	268.2	11 46	0			11 58
RUMANGABO	76.66	270.4	11 48	1			12 2
GRAHAMSTOWN	77.20	237.6	11 49	-1			
KIMBERLEY	78.85	242.2	11 59K	0			
AFIAMALU	80.71	102.9	12 25K	16			
SOUTH POLE	82.65	180.0	12 17	-2			
WINDHOEK	86.23	247.8	12 37K	0			
BANGUI	88.01	274.6	12 43	-2			12 58
BYRD STATION	89.72	172.8	12 53	0			13 7
APATITY	90.25	338.5	12 54	-2			
KHEYS	91.40	351.9	13 7	6			
NURMIJARVI	92.16	330.7	13 8	3			
SODANKYLA	92.72	337.6	13 5	-2			
KIRUNA	95.14	337.7	13 17	-1			
PRUHONICE	96.57	319.5					17 20 PP
STRASBOURG	100.98	318.0	13 57	12			
TAMANRASSET	102.50	291.7	14 1	10			17 55 PP
DURHAM	106.16	324.9	14 33A	777			
RESOLUTE	111.69	5.9					18 28 PP
SHASTA	125.69	44.5	18 46	-9			
HUNGRY HORSE	126.98	32.5	18 58	0			
BOZEMAN	130.23	33.6	19 10	6			
EUREKA	130.64	43.1	19 17	12			
TUCSON TELE.	137.79	48.9	19 36	18			
FAYETTEVILLE	145.97	30.0	19 6	-27			
MORGANTOWN	147.46	8.6	19 41	6			

JANUARY 7 5.H 13.M 10.S EPICENTRE 27.04 54.11 DEPTH= 32.KM

A= 0.52285 B= 0.72259 C= 0.45221 D= 0.8102 E=-0.5862
G= 0.2651 H= 0.3664 K=-0.8919 HT= 2.8

SE= 2.15

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KARACHI	11.65	93.0	2 46	-1	4 51	-6		
QUETTA	11.71	71.5	2 45A	-3	4 51	-7		2 58 PPP
TIFLIS	16.52	334.8	3 52	1	6 58	6		
WARSAK DAM	16.54	61.0	3 49	-2				
MAKHACH-KALA	16.78	343.0	3 57	3				7 9
KSARA	17.10	297.7	4 0	2	7 19	13		4 17 PP
JERUSALEM	17.12	290.5	3 57A	-1	7 14	8		
BOMBAY	19.02	111.3	4 22	0	7 57	8		5 13
POONA	20.05	110.9	4 33	0				
NAMANGAN	20.08	41.7	4 32	-1				
SOTCHI	20.20	328.5	4 33	-2	8 18	3		
DEHRA DUN	21.25	75.5	4 53	8				
AGRA	21.28	84.3	4 43A	-3	8 41	6		

SIMFEROPOL	23.99	323.3	5	13	0	9	19	-5			
CINE	24.31	302.2	5	16K	0				6	26	
ATHENS	27.74	300.8	5	48K	0						
CHATRA	29.43	82.8	6	4	1						
SVERDLOVSK	30.13	7.1	6	22	13						
MOSCOW	31.05	341.9	6	18	1						
SHILLONG	33.80	83.8	7	28	47						
MESSINA	34.11	298.9	6	45	1						
CHITTAGONG	34.49	89.4	6	50	3	12	11	-1	8	0	PP
KRAKOW	34.78	320.6	6	49	0						
RACIBORZ	35.78	319.7	6	58	0						
VIENNA-H.	36.12	316.1	7	2	1						
PULKOVO	36.58	340.0	7	4	-1						
RUMANGABO	36.95	224.2	7	9	1	13	37	47			
TRIESTE	36.96	310.9	7	6	-2						
ROME	37.01	304.5							15	1	
ASTRIDA	37.70	222.4	7	15A	1	13	19	17			
PRUHONICE	37.88	318.0	7	16A	0						
UVIRA	38.77	222.3	7	23A	0						
NURMIJARVI	38.99	337.3	7	26	1						
HALLE	39.98	319.2	7	28	-5				9	32	
JENA	40.00	318.3	7	33	0				8	10	
CHUR	40.10	311.6	7	34	0				13	31	PS
EBINGEN	40.79	313.4	7	35	-5						
STUTTGART	40.80	314.4	7	38A	-2				9	9	PP
UPPSALA	41.20	332.9	7	42A	-1				9	6	PP
BASLE	41.55	312.1	7	46	0						
STRASBOURG	41.67	313.7	7	46	-1						
NEUCHATEL	41.86	311.2	7	42	-7						
SETIF	42.10	295.0	7	49K	-2				9	21	PP
APATITY	42.44	348.4	7	54A	1						
GOTEBORG	42.55	327.8	7	57	3						
BENSBERG	42.66	317.0	7	58	3						
MUNSTER	42.68	318.6	7	57	2						
SODANKYLA	43.68	345.0	8	3	-1						
TAMANRASSET	44.06	275.6	8	7A	0	14	43	7	9	54	PP
PARIS	45.14	313.0	8	16	1						
SKALSTUGAN	45.43	335.2	8	17	-1						
KIRUNA	45.57	342.9	8	18A	-1						
ULAN-BATOR	45.78	48.4	8	21	1						
RELIZANE	46.06	294.6	8	22	-1				9	3	
TANANARIVE	46.13	188.6	8	22	-1						
FOLINIERE	47.08	312.6	8	30	-1						
KEW	47.36	316.2	8	33A	0						
DURHAM	48.71	320.4	8	48	5						
MALAGA	49.94	296.5	8	53A	0						
SERRA PILAR	52.76	302.5	9	19K	5						
KHEYS	53.11	359.6	9	20	3						
LISBON	53.44	299.6	9	18K	-1						
SIDA	58.23	330.2	9	53	-1						
YAKUTSK	59.78	31.9	10	2	-2						
SCORESBY SD.	60.12	337.9	10	9	2						
NORD	60.63	350.8	10	9	-1						
MBOUR	66.93	274.9	10	52	1						
MATUSIRO	70.01	58.5	11	9	-1						
RESOLUTE	76.55	351.9	11	48	-1						
COLLEGE	86.81	9.2	12	42	0						
SEVEN FALLS	91.06	325.9	13	1	-1						
SHAWINIGAN	92.42	326.5	13	33	24						
RAPID CITY	106.24	343.2	18	33	777						
EUREKA	113.18	351.7	18	29	-5						
SOUTH POLE	116.89	180.0	18	41	0						
BYRD STATION	126.86	181.4	19	2	1						

JANUARY 7 22.H 21.M 56.S EPICENTRE 36.75 29.22 DEPTH= 0.KM

A= 0.70097 B= 0.39211 C= 0.59573 D= 0.4882 E=-0.8727
G= 0.5199 H= 0.2908 K=-0.8032 HT= -0.5

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	
CINE	1.24	313.5									0	21	PG
ISTANBUL UN.	4.29	357.7	1	0	-8	1	53	-7					
ATHENS	4.55	287.2	1	12A	0	2	4	-3			2	28	SG

KSARA	6.18	116.3	1	36	1	2	46	-1	3	22	SG
JERUSALEM	7.02	133.2	1	44K	-3	3	3	-5			
SOFIA	7.48	324.4	1	55	2	3	21	1	2	27	
BUCHAREST	8.02	343.8	2	38	37	4	52	79			
SIMFEROPOL	8.99	22.8	2	15	1						
KISHINEV	10.27	358.5	2	38	6						
BELGRADE	10.44	323.2				4	36	3	5	52	SS
IASI	10.51	353.8	2	36	1						
REGGIO CALA.	10.88	281.2	2	40	0						
MESSINA	10.96	281.7	2	40	-1	4	43	-3	2	49	PP
TIFLIS	13.05	62.9	3	14	4						
ROME	13.94	296.8							8	31	
BRATISLAVA	14.48	325.8	3	26	-2						
TRIESTE	14.63	312.2							7	19	
VIENNA-H.	14.87	324.6	3	44	10						
KRAKOW	14.89	336.1							3	42	PP
RACIBORZ	15.52	332.6							3	48	PP
PRUHONICE	16.95	325.9	4	2A	2						
MONACO	18.01	299.5	4	18	4						
PLAUEN	18.42	323.6	4	17	-2						
COLLMBERG	18.58	326.6	4	20	-1						
EBINGEN	18.74	313.9	4	22	-1						
SONNEBERG	18.80	322.1	4	22	-1				5	9	
STUTTGART	18.92	315.7	4	23A	-2						
JENA	18.98	323.9	4	24	-1				4	40	PP
SETIF	19.16	275.5	4	31	3				5	59	
HALLE	19.19	325.6	4	26	-2				5	53	
BASLE	19.26	310.8	4	31	2						
NEUCHATEL	19.43	308.8	4	29	-2						
STRASBOURG	19.64	313.7	4	32	-1	8	28	19	4	52	PP
MOSCOW	19.83	14.1	4	35	0						
ALGIERS UNI.	20.95	277.9	4	46	-1						
BENSBERG	21.21	319.0	4	28A	-22						
MUNSTER	21.56	321.7	4	52	-1						
RELIZANE	23.11	276.1	5	8	-1						
GOTEBORG	23.87	336.8	5	23	7						
NURMIJARVI	23.96	354.4	5	20	3						
UPPSALA	24.30	345.7	5	20	0						
TAMANRASSET	24.76	242.4	5	26K	1	9	57	12	6	15	PPP
SVERDLOVSK	29.02	36.2	5	42	-22						
APATITY	30.94	3.1	6	20	-1						
KIRUNA	31.52	353.6	6	25	-1						
QUETTA	32.00	90.7	6	31	1						
BANGUI	33.66	199.3	6	46	1				7	34	
WARSAK DAM	34.42	81.7	6	50	-1						
ASTRIDA	39.15	179.2	7	33	2						
SCORESBY SD.	43.08	337.5	8	3	-1						
NORD	47.82	351.8	8	40	-1						
SHILLONG	53.91	83.1	9	23	-5						
CHITTAGONG	55.42	86.5	9	40	1						
THULE	56.36	343.7	9	36	-9						
RESOLUTE	62.97	345.7	10	29A	-2						
COLLEGE	78.69	358.7	12	6	0						
HUNGRY HORSE	89.17	336.5	12	58	-1						
SOUTH POLE	126.56	180.0	18	55	-11						

JANUARY 8 1.H 33.M 57.S EPICENTRE 15.37 -61.17 DEPTH= 132.KM

DEPTH OF FOCUS= 0.016R

A= 0.46525 B=-0.84507 C= 0.26343 D=-0.8760 E=-0.4823
G= 0.1270 H=-0.2308 K=-0.9647 HT= 5.7

SE= 2.27

	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	
FORT FRANCE	0.64	178.7	0	22A	1								
ST. LUCIA	1.34	173.1	0	26	-1								
ST. VINCENT	2.19	182.7	0	37	0								
BARBADOS	2.70	145.7	0	42	-2								
GRENADA	3.35	189.5	0	52A	0								
TRINIDAD	4.69	184.3	1	7K	-3								
SAN JUAN	5.61	302.9				2	25	-3			16	6	SCS
GALERAZAMBA	14.48	253.3	3	31	12	6	7	10					
BOGOTA	16.59	231.2	3	45	-1	6	48	1					
BERMUDA	17.23	349.9	3	51	-3	6	47	-15					

CHINCHINA	17.57	235.5	3	51K	-7	6	53	-15						
COLUMBIA	25.79	319.5	5	20	0	9	39	2						
SAN SALVADOR	27.21	270.2	5	33	0							6	22	
GEORGETOWN	27.29	332.2	5	31	-3	10	3	1				6	4	PP
MERIDA	27.58	285.8							6	0		6	36	PP
FORDHAM	27.69	338.9	6	4	27							11	59	
PALISADES	27.84	339.1	5	39	0	10	29	18				6	26	PP
WESTON	28.30	344.0	5	44A	1							11	16	
PENNSYLVANIA	29.20	333.4	5	54	3	10	35	3				6	44	PP
MORGANTOWN	29.23	329.4	5	53K	2									
COMITAN	29.79	275.9										6	26	*SP
CLEVELAND	31.42	329.9	6	12A	1	11	9	2						
BREBEUF	31.81	343.3	6	13A	-1	11	20	7						
OTTAWA	32.35	340.7	6	19A	0									
LA PAZ	32.41	192.5	6	16A	-3	12	0	37				13	38	SS
SHAWINIGAN	32.56	345.1	6	22	2									
SEVEN FALLS	32.66	347.7	6	22A	1									
VERA CRUZ	33.57	281.6				11	51	10				8	5	PP
ST. LOUIS 1	34.50	317.8	6	35A	-2	11	45	-10				7	57	PP
FLORISSANT	34.68	317.9	6	39	0	11	58	0				16	52	SCS
PUEBLA	35.52	281.3	6	51	5									
FAYETTEVILLE	35.94	311.2	6	49	0									
TACUBAYA	36.47	281.9	6	55	1	12	23	-2				8	23	PP
MBOUR	42.67	85.3	7	47	2	14	2	4						
TALA POZO	43.04	184.0	8	16A	28	14	33	30				9	43	PP
BOULDER	45.54	311.5	8	7	-1									
RAPID CITY	45.65	317.6	8	8	-1	14	49	8	8	43		13	22	SCP
LARAMIE	46.18	313.1	8	12	-1									
TUCSON TELE.	47.93	299.8	8	25	-2	15	21	8				13	32	SCP
TUCSON	48.01	299.7	8	27	0	15	24	10				10	25	PP
SANTA LUCIA	49.37	190.5	9	11	33							9	47	*SP
LA PLATA	50.09	176.5				15	33	-10				19	3	SS
SALT LAKE C.	50.54	310.4	8	45	-2				9	9		13	42	SCP
LISBON	51.06	52.4	8	50	-1	15	59	3						
BOZEMAN	51.42	316.7	8	54	1							13	47	SCP
BOULDER CITY	51.85	303.8	8	57	1									
SERRA PILAR	52.01	49.6	8	51K	-7							11	55	PPP
BUTTE	52.53	316.7	9	1	-1				9	34				
EUREKA	53.33	308.0	9	6	-1				9	25		13	50	SCP
HUNGRY HORSE	54.22	319.0	9	12	-2	16	41	2				11	16	PP
PASADENA	54.35	301.1	9	14K	-1	16	41	0	9	31		11	37	PP
MALAGA	54.43	55.7	9	16K	0	16	49	7				10	3	PCP
GRANADA	55.13	55.3	9	25K	4	16	59	8				12	36	PPP
TOLEDO	55.16	51.9	9	21A	0	16	57	5				11	13	PP
REYKJAVIK	55.64	19.7	9	24	0									
FRESNO	55.93	304.1	9	25K	-1									
ALMERIA	55.99	55.8	9	26	-1	17	2	-1				10	20	PCP
RENO	56.28	307.4	9	28K	-1									
SIDA	56.71	21.3	9	31	-1									
LICK	57.45	304.6	9	36K	-1							10	14	
ALICANTE	57.71	54.2	9	41	2	17	33	8				21	11	SS
MINERAL	57.75	308.2	9	25	-14							10	15	
BERKELEY	57.99	305.2	9	40K	-1									
RELIZANE	58.33	57.3	9	56	13	17	52	19	10	31		12	16	PP
SHASTA	58.39	308.5	9	41K	-3									
TORTOSA	58.73	51.4				18	44	65						
CORVALLIS	59.57	312.9	9	51K	-1									
ARCATA	59.68	308.6	9	53	0									
KEW	60.03	39.1	9	56K	1	17	58	3				19	31	SCS
SCORESBY SD.	60.04	14.2	9	55	0									
DURHAM	60.15	35.2	9	55	-1	17	44	-13				21	45	SS
VICTORIA	60.31	317.4	9	55K	-2									
ALGIERS UNI.	60.40	56.3	9	51	-6	18	0	0				10	40	PCP
ABERDEEN	60.59	32.4				18	8	6				25	47	
CLERMONT-FD.	61.24	46.0	10	45	42	18	18	7						
PARIS	61.27	42.5	10	5	2							10	52	PCP
ALBERNI	61.35	318.0	10	2	-2									
RESOLUTE	62.14	350.4	10	7A	-2	18	21	-1				28	51	PKKP
SETIF	62.28	57.0	10	13	3				10	42		12	28	PP
TAMANRASSET	63.01	72.0	10	16K	1	18	41	8	10	46		12	40	PP
DE BILT	63.51	39.1	10	21	3	18	44	5				19	58	SCS
NEUCHATEL	64.01	45.0	10	23	2							11	23	PCP
BASLE	64.49	44.4	10	25	1									
WITTEVEEN	64.52	38.5	10	26	1									
BENSBERG	64.58	40.6	10	26	1									
STRASBOURG	64.71	43.3	10	26	0	18	57	3				12	31	PP
MUNSTER	64.98	39.5	10	28	0									
EBINGEN	65.47	43.8	10	31	0									

STUTTGART	65.67	43.1	10	31	-1	19	7	1	11	1	20	11 SCS
CHUR	65.77	45.3	10	33	0							
JENA	67.35	40.9	10	43	0	19	48	22	11	27	13	23 PP
HALLE	67.62	40.3	10	40	-4	19	26	-3			11	39
ROME	67.79	50.7				19	56	25			12	30 PP
GOTEBORG	68.14	33.6	10	51	3						11	46
COPENHAGEN	68.21	35.8				19	40	4			27	3 SSS
COLLMBERG	68.27	40.6	10	48	0						14	23
POTSDAM	68.36	39.4	10	49	0							
SITKA	68.62	325.6	10	51	0							
TRIESTE	68.66	46.6				19	43	2			20	18 PS
NORD	68.79	6.3	10	50A	-2	19	41	-2				
SKALSTUGAN	68.99	27.3	10	53	0						11	49
PRAGUE	69.14	41.9	10	56	2	19	45	-2				
PRUHONICE	69.22	42.0	10	55	1	19	52	4			13	26 PP
MESSINA	70.31	54.5				20	0	-1			20	42 PS
BRATISLAVA	70.91	43.9	11	4	0							
UPPSALA	71.21	31.5	11	6	0	20	12	1				
RACIBORZ	71.57	41.9	11	10K	2							
KRAKOW	72.68	41.8	11	17	2	20	26	-2			21	10 PPS
KIRUNA	72.71	23.2	11	14	-1	20	30	2			12	7
WARSAW	73.24	39.5	11	15	-3	20	32	-2			21	18 PS
NURMIJARVI	74.71	30.8	11	26	-1							
COLLEGE	74.80	333.8	11	25	-2	20	43	-8	11	49	14	18 PP
HELSINKI	74.89	31.1	11	28	0							
SODANKYLA	75.09	23.6	11	29	0							
LWOW	75.34	41.8	10	44	-46						20	11
SOFIA	75.75	49.2	11	33	0	21	5	3			12	13
PULKOVO	77.61	31.2	11	43	0	21	22	0				
APATITY	77.67	23.1	11	44A	1	21	24	1	12	16	26	30 SS
KHEYS	78.87	9.4	11	53	3	21	44	9				
KISHINEV	78.92	44.2	11	47	-3	21	34	-2				
BANGUI	79.01	88.4	11	48	-3						14	46
ISTANBUL UN.	80.19	50.1	11	57	0						13	9
CINE	80.21	53.7	11	55	-2						12	33
MOSCOW	82.31	34.3	12	10	2	22	13	2				
SIMFEROPOL	82.97	45.4	12	19	8							
SOTCHI	87.22	45.6	12	33	1	23	2	3				
KSARA	87.28	55.8	12	35	2	23	8	9			16	17 PP
KIPAPA	90.67	292.3	12	49	0							
RUMANGABO	90.83	91.1	12	51	2	23	33	1				
TIFLIS	91.37	46.1	13	33	41	23	43	6				
ASTRIDA	91.54	92.3	12	52	-1	23	35	-3				
TIKSI	92.94	356.8	12	56	-3							
SVERDLOVSK	93.40	27.9	12	54	-7							
KIMBERLEY	93.79	118.6	13	2A	-1							
MAGADAN	100.96	344.1				23	58	-2			17	21 PP
YAKUTSK	102.39	354.8									17	22
NAMANGAN	108.93	35.9	18	44	777							
CAPE HALLETT	115.76	195.4	19	10	43						20	28 PP
ULAN-BATOR	116.10	8.9	18	55	28							
VLADIVOSTOK	120.57	348.9				24	57	-23			20	1 PP
PEKING	124.83	2.5				25	34	0			20	35 PP
MATUSIRO	125.21	340.9	18	10	-35						19	59 PP
ABUYAMA	127.57	342.6	18	51K	2							
CHENGTU	132.06	17.3									22	26 PKS
NANKING	132.85	0.0				25	55	0				
ZO-SE	133.74	357.2									21	28 PP
WUHAN	134.18	5.1									21	44 PP
RIVERVIEW	145.55	231.9	19	22A	0				20	10		
BRISBANE	146.08	243.5	19	25	2							
CANBERRA	146.48	228.1	19	25	1							
MELBOURNE	147.85	221.0	19	29	3							
BAGUIO CITY	148.36	356.8	19	31	4							
PORT MORESBY	151.73	278.8	19	40A	8				20	7	42	31 SS
MEDAN	152.56	48.3	19	42K	9						23	41 PP
CHARTERS TS.	153.48	256.0	19	35A	1							
ADELAIDE	153.58	218.9	19	43	8							

JANUARY 8 22.H 36.M 13.S EPICENTRE -4.58 138.11 DEPTH= 0.KM

A=-0.74209 B= 0.66558 C=-0.07936 D= 0.6677 E= 0.7444
G= 0.0591 H=-0.0530 K=-0.9968 HT= 7.1

SE= 2.98

	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	
PORT MORESBY	10.17	118.6	2	28	0	4	11	-12			2	36	PP
RABAUL	14.02	89.0	3	20	0								
CHARTERS TS.	17.27	153.3	4	1K	-1	7	21	9					
GUAM	19.11	20.1	4	26	1								
MANILA	25.51	318.5	5	29	0	10	12	18					
BRISBANE	26.85	149.6	5	46A	4	10	18	2					
BAGUIO CITY	27.13	320.7	5	42	-2	10	32	12					
ADELAIDE	30.20	179.0	6	9	-3						13	27	
RIVERVIEW	31.53	159.0				11	34	4					
CANBERRA	32.20	163.1	6	27K	-2						7	57	PPP
HONG KONG	35.53	319.7				12	30	-2			15	3	
ZO-SE	38.99	336.6	7	33A	6	13	34	9					
ABUYAMA	39.31	356.7	7	28A	-2								
TUKUBASAN	40.63	2.5	7	38A	-3								
NANKING	40.80	334.5				13	51	-1					
MATUSIRO	40.92	0.1	7	40K	-3	13	48	-6			12	14	
KUNMING	45.31	312.3	8	18	-1	14	54	-4					
KARAPIRO	47.57	139.4	8	34	-3				8	41			
VLADIVOSTOK	47.81	353.9	8	37	-2	15	19	-15					
CHENGTU	47.85	319.3	8	37	-2	15	28	-6					
KAIMATA	47.98	146.9	8	54	14								
TONGARIRO	48.31	140.8	8	47	5				8	54			
PEKING	48.77	337.6	8	44	-2	15	43	-4					
WELLINGTON	49.09	143.5	8	54	6								
TUAI	49.12	139.4	8	51	2								
GEBBIES PASS	49.44	147.2	8	49	-2								
CHITTAGONG	52.58	302.6	9	10	-5	16	40	0					
SHILLONG	53.94	306.2	9	24A	-1								
LHASA	56.49	310.1	9	44	0	17	33	1					
CHATRA	58.29	305.4	10	3	7								
ULAN-BATOR	59.02	336.0	10	2	1								
AGRA	65.98	302.2	10	48	0	19	30	-3					
YAKUTSK	66.73	355.7	10	51	-1								
DEHRA DUN	67.03	305.5	11	2	8	19	44	-2					
POONA	67.31	292.1	10	54	-2	19	46	-3					
BOMBAY	68.35	292.3				20	0	-2					
WARSAK DAM	73.43	307.3	11	32	-1								
SCOTT BASE	74.76	174.0	11	39	-2						11	53	PCP
KARACHI	75.11	298.1	11	47	4								
NAMANGAN	75.53	314.2	11	50	5	21	22	-2					
QUETTA	76.17	302.4	11	48	-1	21	32	1					
TIKSI	76.31	357.0	11	53	3								
MAWSON	80.16	202.1	12	9	-2								
SOUTH POLE	85.45	180.0	12	35	-3								
COLLEGE	87.42	24.3	12	45	-3								
BYRD STATION	87.66	170.2	12	47	-2								
APATITY	99.81	337.8	13	44	-1								
RESOLUTE	103.65	12.6	14	1	-1						18	22	PP
EUREKA	105.18	50.5	14	12	777								
ROME	119.10	316.0									25	12	
TAMANRASSET	130.78	296.2	19	19	8						21	31	PP
SAN JUAN	152.63	58.0	19	57	9								

JANUARY 9 1.H 55.M 3.S EPICENTRE 36.11 21.80 DEPTH= 0.KM

A= 0.75187 B= 0.30077 C= 0.58671 D= 0.3714 E=-0.9285
G= 0.5447 H= 0.2179 K=-0.8098 HT= -0.3

SE= 3.56

	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	2.41	39.0	0	44K	3						1	21	SG
REGGIO CALA.	5.30	293.8	1	19	-4	2	17	-8					
MESSINA	5.41	294.5	1	20	-4	2	29	1			1	42	PG
TARANTO	5.64	321.9	1	33	6						2	37	
SOFIA	6.69	9.7	1	56	14						3	4	
ISTANBUL UN.	7.48	46.7	2	1	8	3	19	-1					
BELGRADE	8.76	353.7				3	51	-1			4	51	SS
BUCHAREST	8.93	20.2	3	3	50	3	50	-6			4	53	
TIMISOARA	9.67	357.6									4	39	S*
SZEGED	10.21	353.4				4	23	-4			4	37	SSS
ZAGREB	10.65	337.4									3	44	PG
TRIESTE	11.31	329.9				4	40	-14			6	23	SGSGSG

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BUDAPEST	11.54	350.7				4	56	-4			
KSARA	11.77	97.1	2	51	-1	5	3	-3			
JERUSALEM	11.95	107.3	2	50	-5	4	57	-13			
KISHINEV	12.10	23.5	2	57	0						
TOLMEZZO	12.21	330.0	2	59	1						
BRATISLAVA	12.54	345.4	3	25	22						
VIENNA-H.	12.78	343.4	3	31	25						
SIMFEROPOL	12.86	42.9	3	14	7						
SETIF	13.26	275.2	3	18	6						
LWOW	13.81	6.0	3	9	-11	5	41	-14			
CHUR	14.12	323.3	3	22K	-2	5	48	-14			
RACIBORZ	14.21	350.5	3	32K	7						
RAVENSBURG	14.75	326.0	3	37	5	6	3	-14			
PRUHONICE	14.83	341.4	3	30	-3	6	11	-8			
PRAGUE	14.95	341.3	3	56	22	6	43	21			
EBINGEN	15.34	325.8	3	39	-1	6	13	-18			
NEUCHATEL	15.53	319.1	3	37	-5	6	28	-8			
BASLE	15.55	321.6	3	35	-7	6	47	11			
TUBINGEN	15.55	326.9	3	45	3						
STUTTGART	15.68	327.7	3	41	-3	6	46	7			
PLAUEN	15.99	337.1	3	50	2	6	51	5			
WARSAW	16.13	358.3	3	53	3	6	52	2			
STRASBOURG	16.18	324.7	3	49	-2	6	49	-2			
SONNEBERG	16.20	335.0	3	57	6						
COLLMBERG	16.45	340.2	3	51	-3						
JENA	16.54	336.8	3	46	-9	7	8	9			
HALLE	16.92	338.4	3	56	-4	7	12	4			
CLERMONT-FD.	17.06	310.2	3	56	-6						
POTSDAM	17.41	341.9	4	6	0						
ALICANTE	17.88	283.8	4	15	3	7	34	4			
BENSBERG	18.19	329.2	4	15	-1						
TIFLIS	18.73	65.6	4	24	2						
MUNSTER	18.80	331.9	4	23	0						
PARIS	19.02	317.9	4	25	-1						
TAMANRASSET	19.39	231.2	4	30	0	8	5	1			
GRANADA	20.40	280.6	4	25A	-16						
COPENHAGEN	20.59	344.8	4	46	3						
TOLEDO	20.70	288.3	4	51	7						
MALAGA	21.08	279.5	4	50A	2						
MOSCOW	22.40	23.9	5	3	1	9	3	-1			
GOTEBORG	22.57	346.2	5	5	2						
UPPSALA	23.91	354.8	5	14	-2						
PULKOVO	24.31	10.5	5	23	3						
NURMIJARVI	24.49	3.4	5	18	-4						
DURHAM	24.65	326.5				9	43	0			
SKALSTUGAN	28.11	351.0	5	53	-3						
SODANKYLA	31.43	3.6	6	25	0						
BANGUI	31.71	186.0	6	30	2						
KIRUNA	31.78	359.0	6	28	0						
APATITY	32.18	8.4	6	30	-2	11	41	-4			
SVERDLOVSK	33.19	39.0	6	39	-2						
QUETTA	38.00	85.6	7	21	-1	13	13	-1			
NAMANGAN	38.88	67.3	7	30	1						
ASTRIDA	39.21	167.4	7	34	2						
KARACHI	39.81	91.9	7	52	15						
UVIRA	39.97	168.6	7	32	-6						
WARSAK DAM	40.42	77.9	7	41	-1						
SCORESBY SD.	41.48	339.5	7	52	2						
KHEYS	45.63	7.1	8	2	-22						
THULE	55.27	343.3	9	28	-10						
TIKSI	61.24	20.2	10	16	-3						
CHITTAGONG	61.44	82.1	9	43	-38						
RESOLUTE	62.04	344.4	10	22	-3						
SEVEN FALLS	66.22	311.8	10	51	-1						
YAKUTSK	66.43	29.3	10	49	-4						
SHAWINIGAN	67.67	311.9	11	0	-1						
OTTAWA	70.02	312.0	11	15	-1						
COLLEGE	79.02	355.5	12	8	0						
RAPID CITY	85.87	323.7	12	53	10						
HUNGRY HORSE	87.16	332.3	12	49	0						
TUKUBASAN	88.01	45.4	12	6A	-47					15	23
BOGOTA	92.04	277.2	14	15	63					16	42
CHINCHINA	93.08	278.4	13	40	23					15	7
EUREKA	95.31	328.5	13	33	6						
SOUTH POLE	125.92	180.0	18	52	-12						
BYRD STATION	133.47	188.6	19	22	3						

BUDAPEST	11.54	350.7				4	56	-4			
KSARA	11.77	97.1	2	51	-1	5	3	-3			
JERUSALEM	11.95	107.3	2	50	-5	4	57	-13			
KISHINEV	12.10	23.5	2	57	0						
TOLMEZZO	12.21	330.0	2	59	1						
BRATISLAVA	12.54	345.4	3	25	22						
VIENNA-H.	12.78	343.4	3	31	25						
SIMFEROPOL	12.86	42.9	3	14	7						
SETIF	13.26	275.2	3	18	6						
LWOW	13.81	6.0	3	9	-11	5	41	-14			
CHUR	14.12	323.3	3	22K	-2	5	48	-14			
RACIBORZ	14.21	350.5	3	32K	7						
RAVENSBURG	14.75	326.0	3	37	5	6	3	-14			
PRUHONICE	14.83	341.4	3	30	-3	6	11	-8			
PRAGUE	14.95	341.3	3	56	22	6	43	21			
EBINGEN	15.34	325.8	3	39	-1	6	13	-18			
NEUCHATEL	15.53	319.1	3	37	-5	6	28	-8			
BASLE	15.55	321.6	3	35	-7	6	47	11			
TUBINGEN	15.55	326.9	3	45	3						
STUTTGART	15.68	327.7	3	41	-3	6	46	7		3	49 PP
PLAUEN	15.99	337.1	3	50	2	6	51	5		5	29
WARSAW	16.13	358.3	3	53	3	6	52	2		4	18 PPP
STRASBOURG	16.18	324.7	3	49	-2	6	49	-2		4	12 PPP
SONNEBERG	16.20	335.0	3	57	6						
COLLMBERG	16.45	340.2	3	51	-3					8	39
JENA	16.54	336.8	3	46	-9	7	8	9			
HALLE	16.92	338.4	3	56	-4	7	12	4		4	17 PP
CLERMONT-FD.	17.06	310.2	3	56	-6						
POTSDAM	17.41	341.9	4	6	0						
ALICANTE	17.88	283.8	4	15	3	7	34	4		4	30 PP
BENSBERG	18.19	329.2	4	15	-1						
TIFLIS	18.73	65.6	4	24	2						
MUNSTER	18.80	331.9	4	23	0						
PARIS	19.02	317.9	4	25	-1						
TAMANRASSET	19.39	231.2	4	30	0	8	5	1		4	48 PP
GRANADA	20.40	280.6	4	25A	-16						
COPENHAGEN	20.59	344.8	4	46	3						
TOLEDO	20.70	288.3	4	51	7						
MALAGA	21.08	279.5	4	50A	2					5	13 PP
MOSCOW	22.40	23.9	5	3	1	9	3	-1			
GOTEBORG	22.57	346.2	5	5	2						
UPPSALA	23.91	354.8	5	14	-2						
PULKOVO	24.31	10.5	5	23	3						
NURMIJARVI	24.49	3.4	5	18	-4						
DURHAM	24.65	326.5				9	43	0			
SKALSTUGAN	28.11	351.0	5	53	-3						
SODANKYLA	31.43	3.6	6	25	0						
BANGUI	31.71	186.0	6	30	2						
KIRUNA	31.78	359.0	6	28	0					15	16
APATITY	32.18	8.4	6	30	-2	11	41	-4			
SVERDLOVSK	33.19	39.0	6	39	-2						
QUETTA	38.00	85.6	7	21	-1	13	13	-1		8	48 PP
NAMANGAN	38.88	67.3	7	30	1						
ASTRIDA	39.21	167.4	7	34	2						
KARACHI	39.81	91.9	7	52	15						
UVIRA	39.97	168.6	7	32	-6						
WARSAK DAM	40.42	77.9	7	41	-1						
SCORESBY SD.	41.48	339.5	7	52	2						
KHEYS	45.63	7.1	8	2	-22						
THULE	55.27	343.3	9	28	-10						
TIKSI	61.24	20.2	10	16	-3						
CHITTAGONG	61.44	82.1	9	43	-38						
RESOLUTE	62.04	344.4	10	22	-3						
SEVEN FALLS	66.22	311.8	10	51	-1						
YAKUTSK	66.43	29.3	10	49	-4						
SHAWINIGAN	67.67	311.9	11	0	-1						
OTTAWA	70.02	312.0	11	15	-1						
COLLEGE	79.02	355.5	12	8	0						
RAPID CITY	85.87	323.7	12	53	10						
HUNGRY HORSE	87.16	332.3	12	49	0						
TUKUBASAN	88.01	45.4	12	6A	-47					15	23
BOGOTA	92.04	277.2	14	15	63					16	42
CHINCHINA	93.08	278.4	13	40	23					15	7
EUREKA	95.31	328.5	13	33	6						
SOUTH POLE	125.92	180.0	18	52	-12						
BYRD STATION	133.47	188.6	19	22	3						

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JANUARY 11 4.H 27.M 25.S EPICENTRE 36.65 29.08 DEPTH= 0.KM

A= 0.70280 B= 0.39092 C= 0.59435 D= 0.4861 E=-0.8739
G= 0.5194 H= 0.2889 K=-0.8042 HT= -0.5

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ISTANBUL UN.	4.38	359.1	1 9	0	1 59	-3		
ATHENS	4.47	288.7	1 18	8	2 4	0		2 29 SG
KSARA	6.24	114.9	1 36	1	2 48	0		3 28 SG
JERUSALEM	7.03	131.9	1 42	-5	3 1	-7		
SOFIA	7.49	325.5	1 54	1	3 26	6		4 1
BUCHAREST	8.09	344.6			3 41	6		5 31
SIMFEROPOL	9.12	23.1	2 15	-1	3 52	-8		
KISHINEV	10.36	359.0						3 42
BELGRADE	10.46	323.9	3 5	31				4 32
MESSINA	10.88	282.2	2 41	1				3 47
TIFLIS	13.20	62.7	3 15	4				
LWOW	13.67	346.0	3 22	5				5 26
GORIS	13.88	73.0	3 23	3				
BRATISLAVA	14.50	326.3	3 27	-1				
KRAKOW	14.94	336.6						3 42 PP
MAKHACH-KALA	15.48	60.3	3 44	3				
RACIBORZ	15.56	333.0	3 47	5				4 12 PPP
WARSAW	16.59	342.4	3 59	4	7 13	13		7 27 SS
PRUHONICE	16.97	326.3	4 2	2				
PRAGUE	17.09	326.3	4 2	0				
PLAUEN	18.44	324.0	4 18	0				
EBINGEN	18.73	314.2	4 22	0				
SONNEBERG	18.81	322.4	4 24	1				5 11
TUBINGEN	18.86	315.3	4 24	0				
STUTTGART	18.91	316.0	4 25A	1				
JENA	18.99	324.2	4 25	0				4 52 PP
SETIF	19.06	275.7	4 17	-9				
HALLE	19.21	326.0	4 23	-5				7 5
BASLE	19.25	311.1	4 27	-1				
POTSDAM	19.36	329.3	4 27	-3				
NEUCHATEL	19.41	309.1	4 27	-3				
STRASBOURG	19.63	314.1	4 32	-1				4 53 PP
MOSCOW	19.95	14.3	4 35	-1				
BENSBERG	21.21	319.3	4 47	-2				
MUNSTER	21.57	322.0	4 51	-2				
PARIS	22.88	310.4	5 11	5				
PULKOVO	23.15	1.6	5 9	0				
HELSINKI	23.68	354.9	5 14	0				
GOTEBORG	23.92	337.1	5 15	-1				
NURMIJARVI	24.04	354.6	5 16	-1				
UPPSALA	24.36	345.9	5 21	1				
TAMANRASSET	24.61	242.4	5 24K	1	9 46	4		5 58 PP
SKALSTUGAN	28.84	344.4	6 2	0				
SVERDLOVSK	29.16	36.2	6 3	-2				
SODANKYLA	30.80	358.1	6 17	-2				
APATITY	31.05	3.2	6 20A	-2				
KIRUNA	31.61	353.7	6 25	-2				
QUETTA	32.11	90.4	6 31	0				
BANGUI	33.53	199.1	6 46	3				11 58
UVIRA	39.92	179.9	7 39A	2				
NORD	47.90	351.8	8 39	-3				
THULE	56.42	343.7	9 34	-11				11 34 PP
RESOLUTE	63.04	345.7	10 29K	-2				
SEVEN FALLS	70.15	314.3	11 14	-2				
COLLEGE	78.78	358.7	12 5	-1				
HUNGRY HORSE	89.22	336.4	12 58	-1				
CHARTERS TS.	123.20	91.3	19 0	1				

JANUARY 11 7.H 22.M 43.S EPICENTRE 14.69 -90.34 DEPTH= 198.KM

DEPTH OF FOCUS= 0.026R

A=-0.00577 B=-0.96770 C= 0.25204 D=-1.0000 E= 0.0060
G=-0.0015 H=-0.2520 K=-0.9677 HT= 5.8

SE= 1.82

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	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	1.44	131.5	0	35A	2	1	0	1					
SANTIAGO MA.	2.17	123.1	0	42A	2	1	14	2					
COMITAN	2.32	312.2	0	39	-3	1	5	-10					
MERIDA	6.26	6.2	1	25	-6	2	41	-1					
OAXACA	6.60	291.4	1	32	-3	2	40	-10					
VERA CRUZ	7.12	309.8				2	4	-58					
PUEBLA	8.67	300.9				3	45	6					
TACUBAYA	9.68	300.2	2	16K	1	3	59	-3					
GALERAZAMBA	15.21	103.1	3	30	5	6	3	-5					
CHINCHINA	17.41	122.2	3	41K	-11	6	53	-5	3	59			
BOGOTA	18.89	120.4	4	8	1	7	38	11	4	33	15	25	SCS
COLUMBIA	20.99	22.0	4	30	2						4	47	
FAYETTEVILLE	21.58	351.5	4	36	2	8	17	1					
CHAPEL HILL	23.44	23.6	4	55	3				5	32			
SAN JUAN	23.50	77.7	4	53	0						5	10	
TUCSON TELE.	25.57	316.9	5	14	2				5	53	11	59	SCP
TUCSON	25.58	316.6	5	14	2				5	54	11	58	SCP
MORGANTOWN	26.46	18.2	5	22A	2				6	2			
CLEVELAND	27.76	14.3	5	32A	0	10	1	3					
DOMINICA	27.95	85.0	5	31	-3								
PENNSYLVANIA	28.19	20.3	5	37	1	10	8	3			6	36	PP
TRINIDAD	28.39	94.7	5	36	-2								
ST. LUCIA	28.42	87.6	5	37	-1								
LARAMIE	29.64	336.4	5	50	1				6	31			
FORDHAM	29.75	25.7	6	29	39								
PALISADES	29.87	25.5	5	51	0	11	44	72			6	48	PP
BARBADOS	29.87	89.2	5	50	-1								
BOULDER CITY	30.49	318.5	5	56	0				6	37	12	14	SCP
RAPID CITY	31.28	342.0	6	3	0				6	45	7	7	*SP
PASADENA	31.73	312.6	6	8	1	11	15	14	6	48	12	17	PCS
SALT LAKE C.	32.03	328.3	6	10	0				6	51			
WESTON	32.10	27.0	6	11A	1								
OTTAWA	33.01	19.1	6	19A	1	11	24	3					
EUREKA	33.40	322.5	6	23	2				7	4	12	23	SCP
BREBEUF	33.80	21.3	6	25A	0	11	36	3					
FRESNO	34.23	315.4	6	29	1				7	9			
SHAWINIGAN	35.00	21.3	6	36A	1	11	54	3					
BOZEMAN	35.47	334.7	6	41	2				7	23			
RENO	35.78	319.4	6	43	2				7	25			
LICK	35.78	314.9	6	43	2				7	24			
SEVEN FALLS	36.19	22.7	6	46A	1								
BUTTE	36.39	333.6	6	47	0				7	30			
BERKELEY	36.47	315.3	6	49	2				7	29			
MINERAL	37.37	319.2	6	53	-2				7	35			
HALIFAX	37.48	31.9	6	57A	1				7	39			
LA PAZ	37.97	143.9	7	1	1						9	13	
SHASTA	38.06	319.1	6	59	-1				7	41			
HUNGRY HORSE	38.84	334.7	7	7	0						9	13	PCP
VICTORIA	43.33	328.1	7	44	0								
HORSESHOE B.	43.82	329.1	7	48K	1								
ALBERNI	44.52	328.1	7	54	1								
RESOLUTE	60.04	358.6	9	46A	-2	17	41	-2	10	35	10	57	*SP
THULE	62.82	5.7	9	57	-9				10	45	11	17	*SP
COLLEGE	63.25	336.2	10	7	-2				10	54	39	6	PKPPKP
KIPAPA	64.28	286.9	10	14	-2				10	59			
HONOLULU	64.37	286.8									11	2	PCP
SCORESBY SD.	69.07	19.5	10	45	-1								
MBOUR	70.70	79.7									13	53	PP
NORD	73.18	8.5	11	9A	-1				11	59			
RATHFARNHAM	74.83	38.2	11	18	-2				12	4	16	44	
DURHAM	77.44	36.4	11	33	-1	20	54	-13					
MALAGA	78.17	55.0	11	34K	-4				12	22	14	34	PP
KEW	78.67	39.6	11	40	-1								
FOLINIERE	79.02	42.4	11	42	-1				12	32			
ALMERIA	79.67	54.6	11	44	-2								
PARIS	80.94	42.0	13	4	71						17	39	
CLERMONT-FD.	82.00	44.9	11	58	-1				12	48			
SKALSTUGAN	82.48	26.1	12	2	1				12	53	15	10	PP
BENSBERG	83.38	39.1	12	56	50								
MUNSTER	83.39	38.1	12	6	0								
KHEYS	83.41	6.1	12	6	0								
KIRUNA	84.09	20.9	12	9	0	22	19	4	12	59	15	25	PP
GOTEBORG	84.16	31.8	12	7	-3				12	57			
STRASBOURG	84.39	41.3	12	12	1				13	1	15	19	PP
COPENHAGEN	85.05	33.7				22	32	7					

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TUBINGEN	85.23	41.2	12	14A	-1					13	6			
STUTTGART	85.25	40.9	12	15A	0					13	5	15	35	PP
EBINGEN	85.27	41.5	12	15	0					13	6			
JENA	86.06	38.4	12	19	0					13	10	13	30	
UPPSALA	86.17	28.8	12	19	-1					13	10	15	44	PP
SODANKYLA	86.41	20.2	12	20	-1									
PLAUEN	86.54	38.7								13	11			
PRUHONICE	88.17	38.6	12	29	0					13	21			
APATITY	88.50	18.6	12	30	-1							16	1	
NURMIJARVI	89.05	26.6	12	33	0									
HELSINKI	89.35	26.9	12	37	2									
TAMANRASSET	89.67	66.7	12	35	-1					13	26	16	11	PP
PULKOVO	91.85	25.8										16	23	PP
BYRD STATION	95.78	184.9	13	5	1					13	51	16	33	PP
YAKUTSK	97.30	342.2	17	47	777									
CAPE HALLETT	106.74	198.4	24	19	777	24	19	6				27	19	PS
MIZUSAWA	108.09	320.2										16	6	
TIFLIS	110.27	34.3	18	45	37									
MATUSIRO	111.49	319.6	15	32	777									
BRISBANE	120.07	246.6	15	5	777									
NAMANGAN	122.16	16.0										20	3	PP
PORT MORESBY	123.65	268.4										27	0	SKKS
CHARTERS TS.	125.92	255.8	18	40	2									
QUETTA	130.31	26.0	18	48	2									
ADELAIDE	131.66	236.2	18	51K	2							21	59	PKS

JANUARY 12 14.H 16.M 35.S EPICENTRE 43.98 145.84 DEPTH= 128.KM

DEPTH OF FOCUS= 0.015R

A=-0.59736 B= 0.40539 C= 0.69197 D= 0.5615 E= 0.8274
G=-0.5726 H= 0.3886 K=-0.7219 HT= -3.2

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
NEMURO	0.68	196.2	0	21	0	0	34	-3				
SHIKOTAN	0.72	98.4	0	20K	-1	0	34	-4				
ABASHIRI	1.12	272.6	0	27	2	0	45	2				
LESOZAVODSK	1.25	50.1	0	26A	0	0	45	-1				
KUSIRO	1.45	226.8	0	28	0	0	47	-3				
GORNY	1.56	52.2	0	30K	1	0	51	-1				
KURILSK	1.92	48.6	0	35K	2	1	0	1				
OBIHIRO	2.19	242.0	0	38A	1	1	6	1				
HIROO	2.51	228.2	0	41A	0	1	9	-3				
ASAHIGAWA	2.52	266.7	0	43	2	1	16	4				
URAKAWA	2.89	231.8	0	46	0	1	21	0				
WAKKANAI	3.30	297.4	0	53	2	1	32	1				
SAPPORO	3.39	256.0	0	54K	1	1	32	-1				
TOMAKOMAI	3.44	246.3	0	58	5	1	34	0				
Y.-SAKHLINSK	3.69	324.7	0	57	0	1	38	-2				
MURORAN	3.92	246.8	0	56	-4	1	45	-1			1	13
SUTTSU	4.25	255.8	1	3	-1	1	55	1			2	12
MORI	4.29	245.9	1	6	1	1	56	1				
HAKODATE	4.36	241.5	1	5K	-1	1	52	-4			1	22
HATINOHE	4.70	224.3	1	8	-2	1	58	-6				
AOMORI	4.90	231.6	1	13	0	2	3	-6				
MIYAKO	5.20	215.1	1	15	-2	2	9	-7				
MORIOKA	5.52	220.8	1	19A	-2	2	17	-7				
UGLEGORSK	5.73	334.3	1	25	1	2	29	0				
MIZUSAWA	5.99	217.7	1	28	0	2	30	-6				
AKITA	6.04	227.1	1	28	0	2	33	-4				
ISINOMAKI	6.51	213.1	1	33	-2	2	41	-7				
SAKATA	6.79	223.7	1	39K	1	2	50	-5				
SENDAI	6.81	214.8	1	36A	-3	2	47	-8			1	58
YAMAGATA	7.06	217.8	1	42	0	2	55	-6				
HUKUSIMA	7.43	215.0	1	45	-2	3	1	-9				
ONAHAMA	7.96	209.8	1	53	-1	3	13	-10			2	12
SHIRAKAWA	8.07	213.9	1	55	-1	3	19	-7				
AIKAWA	8.27	226.5	1	58	0	3	24	-6				
MITO	8.63	210.2	2	1	-2	3	31	-8				
UTUNOMIYA	8.71	213.6	2	2	-2	3	34	-7				
KAKIOKA	8.87	211.1	2	2	-4	3	37	-8				
TUKUBASAN	8.91	211.5	2	4K	-3	3	37	-9				
TAKADA	8.97	222.6	2	7	-1							
TYOSI	9.07	206.4	2	8	-1	3	45	-4				

MAEBASI	9.17	216.6	2	9	-1	3	48	-4		2	29
KUMAGAYA	9.25	214.5	2	13	2	3	45	-9			
MATUSIRO	9.43	220.7	2	12A	-2	3	52	-6			
TOKYO C.M.O.	9.52	211.5	2	14	-1	3	55	-5			
TITIBU	9.52	215.2	2	13	-2						
SEVERO-KUR.	9.66	42.5	2	17	0						
YOKOHAMA	9.78	211.2	2	18	0	4	4	-3			
MATUMOTO	9.79	220.6	2	19	0	4	15	8			
KOHU	10.03	216.3	2	18	-4	4	6	-7			
HUNATU	10.06	215.1	2	31	9	4	11	-2			
MERA	10.17	209.2	2	23	-1	4	10	-6			
MISIMA	10.32	213.3	2	25	-1	4	13	-7			
IIDA	10.45	218.8	2	35	8						
SHIZUOKA	10.67	215.0								4	20
GIHU	11.05	222.2	2	36	1						
OMAESAKI	11.06	214.7	3	20	44	4	38	1			
NAGOYA	11.14	220.8	2	48	12	4	57	18			
IBUKISAN	11.26	223.5	2	37	-1						
HIKONE	11.41	223.6	2	41	1						
KAMEYAMA	11.64	221.6	3	5	22						
TOYOOKA	11.95	228.8	3	0	13						
ABUYAMA	12.06	224.5	2	48K	-1						
OSAKA	12.26	224.0	3	10	19						
PETROPAVLOVK	12.47	38.2	2	54	0	5	7	-3			
HAMADA	13.96	234.2	3	26	13	5	42	-3			
HIROSIMA	14.13	231.8	3	17	2	6	5	16			
CHANGCHUN	14.80	276.6	3	21K	-3						
OOITA	15.43	230.7	3	37	5					6	31
MAGADAN	15.89	9.3	3	37	0	6	31	2			
NAGASAKI	16.78	233.4	3	49	0	5	42	-70		4	44
PEKING	22.34	270.1	4	47K	-1	8	45	5			
ZO-SE	23.30	244.8	4	59	2	9	3	7			
NANKING	24.29	249.8	5	8K	1	9	19	6			
ULAN-BATOR	27.16	292.2	5	33K	0						
WUHAN	28.10	252.0	5	42K	0	10	22	6			
LANCHOW	32.84	270.7	6	23K	0						
HONG KONG	33.89	240.7	6	34	2	11	54	8			
CANTON	33.89	242.7	6	33K	1						
CHENGTU	35.45	262.3	6	46K	0	12	9	-1			
KUNMING	39.73	256.1	7	22	1	13	16	1		8	56 PP
COLLEGE	41.46	36.2	7	35	-1						
LHASA	45.35	270.6	8	9K	2	14	40	3			
SHILLONG	47.11	265.5	8	19K	-2						
KHEYS	47.68	346.4	8	10	-15						
SITKA	49.02	45.3	8	37	1						
CHITTAGONG	49.13	262.1	8	37A	1				9 8	10	33 PP
FRUNSE	50.23	295.1	8	45	0	15	49	3			
SVERDLOVSK	52.32	316.2	8	59	-2						
PORT MORESBY	53.14	178.4								17	19
NORD	54.32	356.9	9	12K	-3						
TASHKENT	54.44	295.8	9	15	-1	16	38	-5		9	58 *SP
RESOLUTE	55.02	16.4	9	16A	-4	16	45	-6		14	6 PCS
STALINABAD	56.21	293.1	9	28	-1	17	5	-2			
LAHORE	56.24	283.1	9	28K	-1	17	6	-1		18	57 SCS
WARSAK DAM	56.80	287.1	9	32K	-1						
APATITY	57.78	335.2	9	33	-7	17	13	-14			
THULE	57.92	9.0	9	36	-5						
ALBERNI	58.11	50.5	9	42K	0						
HORSESHOE B.	58.90	49.7	9	47A	-1						
SODANKYLA	59.89	337.0	9	52	-3						
KIRUNA	61.22	339.3	10	2	-2						
QUETTA	62.19	286.1	10	9K	-1	18	24	0	10 34	19	5 *SS
ASHKABAD	63.33	297.9	10	18	0						
CHARTERS TS.	63.67	179.6	10	21	1						
MOSCOW	63.70	323.2	10	19	-1						
SHASTA	64.37	57.4	10	25	1				10 54		
HUNGRY HORSE	64.48	46.7	10	26	1				10 54	12	50 PP
POONA	64.51	271.6								10	21
KARACHI	64.77	282.2	10	30	3						
MINERAL	65.06	57.3	10	34	5						
NURMIJARVI	65.39	332.2	10	30	-1						
RENO	66.65	57.1	10	39	0						
SKALSTUGAN	66.65	339.3	10	41	2						
LICK	66.88	60.0	10	41	1						
BOZEMAN	67.76	47.5	10	47	1						
UPPSALA	68.17	334.7	10	47	-1						
FRESNO	68.39	59.5	10	51	1				11 20		
EUREKA	68.99	55.1	10	54	1				11 23	13	31 PP

TIFLIS	69.19	308.2	10	55	0	19	53	4			
SALT LAKE C.	70.54	51.9	11	3	0				11	33	
PASADENA	71.09	60.7	11	6	0				11	35	
GOTEBORG	71.63	335.9	11	8	-1						
BOULDER CITY	71.95	57.3	11	13	2				11	43	
SIMFEROPOL	72.69	316.3	11	16	0						
RAPID CITY	72.93	44.8	11	18	1				11	47	
LARAMIE	73.64	48.1	11	22	1						
TUCSON	76.91	57.8	11	41	1				12	11	12 33 *SP
TUCSON TELE.	76.92	57.7	11	41	1				12	11	
PRUHONICE	77.24	330.2	11	44	2						
JENA	77.47	332.3	11	44	1						11 59
ADELAIDE	78.80	186.0	11	52	2						
FAYETTEVILLE	83.47	44.9	12	15	0						
SHAWINIGAN	83.60	25.7	12	15	0						
OTTAWA	83.66	28.1	12	15A	0						
SEVEN FALLS	83.68	24.2	12	15	-1						
BREBEUF	84.27	26.7	12	18	-1						
MORGANTOWN	87.09	33.7	12	34A	2						
BYRD STATION	133.75	166.1	19	4	2						22 21 SKP
SOUTH POLE	133.79	180.0	18	52	-10				19	3	22 34 PKS

JANUARY 13 1.H 15.M 27.S EPICENTRE 13.43 146.09 DEPTH= 0.KM

A=-0.80755 B= 0.54276 C= 0.23082 D= 0.5578 E= 0.8300
G=-0.1916 H= 0.1288 K=-0.9730 HT= 6.0

SE= 2.38

	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
GUAM	1.31	271.8	0	27A	2							
RABAUL	18.53	160.6	4	17	-3						4	43
SIOMISAKI	22.04	336.5	4	56	-2	9	1	4				
OSIMA	22.10	345.2	5	5	7	8	56	-2				
MERA	22.13	346.2	5	0	1							
OMAESAKI	22.25	342.6	4	57	-3	9	9	8				
OWASE	22.43	338.0	5	4	2							
MISIMA	22.54	344.6	5	3	0	9	8	2				
SHIZUOKA	22.54	343.3									9	14
YOKOHAMA	22.66	346.2	5	58	54	9	9	1				
SIMIDU	22.69	330.3	5	5	1	9	13	4				
PORT MORESBY	22.71	177.3	5	4K	0	9	9	0			5	35 PP
MIYAZAKI	22.80	326.2	5	7	2	9	14	3				
TOKYO C.M.O.	22.88	346.6	5	22	16						10	21
KAMEYAMA	23.03	339.4	5	7	-1							
TOKUSIMA	23.05	335.0	5	9	1							
KOTI	23.06	332.4	5	9	1	9	4	-11			5	33
KOHU	23.12	344.2	5	9	0	9	11	-5				
NAGOYA	23.16	340.7	5	16	7							
SUMOTO	23.18	335.9	5	19	10	9	53	36				
OSAKA	23.19	337.4	5	10	1	9	26	8			6	3
TUKUBASAN	23.32	347.7	5	5A	-5	9	9	-11			5	43 PP
KOBE	23.35	336.8	5	11	0						10	23
ABUYAMA	23.37	337.8	5	11K	0							
MITO	23.40	348.5	5	29	18							
KUMAGAYA	23.41	346.2	5	4	-7						9	48
GIHU	23.44	340.6	5	11	-1							
HIKONE	23.49	339.5	5	13	1							
TAKAMATU	23.49	334.3	5	11	-1	9	24	1				
IBUKISAN	23.55	339.8	5	14	1							
UTUNOMIYA	23.69	347.4	5	25	11	9	34	8				
OOITA	23.72	328.6	5	17	3	9	33	6				
MAEBASI	23.72	345.8	5	17	3	9	38	11			5	53
OIWAKE	23.79	344.8	5	35	20	9	52	24				
MATUMOTO	23.86	343.6	5	15	-1							
ONAHAMA	23.88	349.7	6	2	46							
KUMAMOTO	23.88	326.5	5	16	0							
MATUSIRO	24.08	344.3	5	16	-2	9	17	-16			9	35
SHIRAKAWA	24.17	348.5									9	44
NAGANO	24.20	344.4	5	38	19							
TOYOOKA	24.24	337.1	5	20	1							
HIROSIMA,	24.25	331.6	5	20	1						9	35
NAGASAKI	24.26	325.1	5	19A	-1	9	50	14			6	14
MANILA	24.39	275.7	5	31	10	9	39	0				
HUKUOKA	24.61	327.2	5	25	2	9	56	14			5	49

HUKUSIMA	24.73	349.3	5	23	-1	9	42	-2			
BAGUIO CITY	24.83	280.1	5	26	1	9	58	12			
HAMADA	24.85	331.7	5	31	6	9	39	-7	6	7	
SENDAI	25.16	350.4	5	26	-2				7	2	
NIIGATA	25.18	346.8				9	47	-5			
MIYAKO	26.37	352.8	5	14	-26						
AKITA	26.71	349.7							10	37	
ZO-SE	28.88	311.6	6	2	0	10	51	-1	6	56	PP
SAPPORO	29.81	353.0							10	59	
NANKING	31.11	311.1	6	21A	-1				7	24	PP
HONG KONG	31.58	290.8	6	25	-1	11	8	-27	7	31	PP
VLADIVOSTOK	32.02	340.2	6	27	-3	11	32	-10			
CHARTERS TS.	33.23	179.7	6	41	0						
WUHAN	33.67	305.5	6	45A	0	12	7	-1	7	54	PP
CHANGCHUN	35.15	333.5	6	57A	0	12	29	-2	8	16	PP
UGLEGORSK	35.70	355.5	7	4	2						
PEKING	37.31	320.8	7	15A	-1	13	1	-3			
SIAN	39.51	308.1	7	34A	0	13	37	0	9	13	PP
PETROPAVLOVK	40.84	11.6	7	46	1	14	1	4			
BRISBANE	41.22	170.6	7	49A	1	13	58	-5			
PAOTOW	41.53	317.4	7	50A	-1	14	10	3			
CHENGTU	42.32	300.9	7	57A	0	14	18	-1	9	35	PP
KUNMING	42.42	292.5	7	59A	1	14	21	1			
LEMBANG	43.19	244.5	8	4	0				10	17	
DJAKARTA	43.59	245.9	8	7K	0						
LANCHOW	44.07	308.4	8	11A	0	14	44	0			
SUVA	44.74	133.7	8	18	1						
MAGADAN	46.17	3.3	8	27	-1						
RIVERVIEW	47.24	174.3	8	37	0	15	28	-2			
ULAN-BATOR	47.31	324.7	8	37	0	15	29	-2			
CANBERRA	48.56	176.8	8	47K	0				9	11	
ADELAIDE	48.60	188.1	8	48A	1	15	48	-1			
YAKUTSK	49.92	350.0	8	55	-2	15	53	-14			
MELBOURNE	51.00	181.1	9	7	1	16	23	1			
IRKUTSK	51.10	328.3	9	5	-1						
CHITTAGONG	52.18	287.9	9	10	-4				11	7	PP
SHILLONG	52.21	292.0	9	13	-2	16	44	5			
LHASA	53.22	297.0	9	24A	2	16	55	2			
PERTH	53.64	212.1	9	28	3				14	11	
HOWRAH	55.41	288.2	9	42	4						
CHATRA	56.47	293.3	9	45	-1						
KARAPIRO	58.07	152.7	9	57	0				10	34	PCP
TIKSI	59.10	353.7	10	0	-4						
GEBBIES PASS	61.81	158.4	10	22	-1						
ROXBURGH	62.35	161.8				19	15	22			
MADRAS	63.98	278.0	10	38A	1	19	17	4	11	4	PCP
DEHRA DUN	64.50	297.3	10	44	3	19	21	2			
AGRA	64.63	293.8	10	36A	-6	19	16	-5	10	58	PCP
HYDERABAD	65.04	283.1	10	44A	0	19	27	1	19	47	PS
COLOMBO	65.35	271.5	10	48	2	19	33	3			
LAHORE	67.66	298.8	10	57	-4						
COLLEGE	67.84	24.9	10	59A	-3	19	54	-6	24	36	SS
POONA	69.24	284.9	11	8	-3	20	10	-7			
NAMANGAN	69.60	308.9	11	13	0				15	7	PCS
WARSAK DAM	69.89	301.5	11	13	-2						
BOMBAY	70.16	285.4	11	16	0	20	28	1	15	28	PPP
QUETTA	74.09	297.8	11	39	-1	21	11	-1	14	20	PP
KARACHI	74.54	293.4	11	42	0						
SVERDLOVSK	76.40	325.7	11	52	-1						
KHEYS	77.55	349.8	11	50	-9	21	27	-23			
SHASTA	82.51	50.0	12	27	1						
BERKELEY	83.17	52.8	12	31	2	22	49	0			
MINERAL	83.17	50.3	12	30	1						
WILKES	83.68	193.7	12	31	-1	22	56	2			
LICK	83.76	53.2	12	34	2						
RESOLUTE	84.43	13.5	12	34A	-2	22	53	-9	28	33	SS
RENO	84.69	50.8	12	39	2						
NORD	84.74	357.5	12	36	-1						
APATITY	86.04	339.2	12	41	-3	23	6	-11	23	19	SCS
HUNGRY HORSE	86.52	41.2	12	44A	-2				16	7	PP
MAKHACH-KALA	87.13	313.4	12	47	-2	22	57	-31			
PASADENA	87.23	55.7	12	50	1	23	30	1	29	21	SS
EUREKA	87.58	50.1	12	51A	0				13	30	
THULE	88.02	7.7	12	51	-2	23	33	-3	16	13	PP
BUTTE	88.15	43.1	12	56A	2						
SODANKYLA	88.42	340.3	12	54	-1						
GORIS	88.94	310.3	12	57	-1						
MOSCOW	89.08	327.5	12	58	0	23	20	-26			
BOZEMAN	89.27	43.1	12	59K	0						

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BOULDER CITY	89.40	53.2	13	2K	2							
TIFLIS	89.41	312.8	13	1	1	23	56	7				
KIRUNA	90.10	342.0	13	2	-1							
SCOTT BASE	91.87	175.7	13	15	4							
NURMIJARVI	92.89	335.0	13	14	-2							
TUCSON	93.67	55.8	13	19	-1						14	10
TUCSON TELE.	93.73	55.7	13	21	1							
LARAMIE	94.51	45.8	13	25	2							
RAPID CITY	95.04	42.6	13	27K	1						17	15 PP
SIMFEROPOL	95.51	318.6									17	27 PP
KISHINEV	97.85	322.1				24	17	1			17	29 PP
IASI	98.51	322.7				24	18	-2				
KSARA	98.74	307.8	13	44	1						17	38 PP
LWOW	99.13	326.2				24	24	1				
JERUSALEM	100.04	306.1	13	46A	-3						27	16 PP
BUCHAREST	100.81	320.8				24	35	4				
SOUTH POLE	103.35	180.0	13	52	-11						18	18 PP
BYRD STATION	103.90	169.7	14	21	15						18	21 PP
MUNSTER	105.62	334.8	9	57	777							
ST. LOUIS 1	106.20	42.7									33	39 SS
DE BILT	106.51	336.1									28	18 PS
STUTTGART	107.27	331.7	18	47	777							
STRASBOURG	108.06	332.3				24	51	-13			18	54 PP
ROME	110.33	324.8									28	10 PS
MESSINA	110.87	320.2									19	13 PP
PALISADES	114.40	32.3									20	2 PP
ASTRIDA	116.23	273.7									20	1 PP
UVIRA	117.03	272.9									20	1 PP
ALICANTE	119.73	330.1	18	49	-3	25	44	-5			20	13 PP
GRANADA	122.14	331.6									20	25 PP
MALAGA	122.89	331.9									20	38 PP
TAMANRASSET	127.21	312.6	19	10	3							
LA PAZ	146.82	99.6	19	47	5						20	33
MBOUR	147.68	328.1	19	52	8						46	31 SS

JANUARY 13 7.H 20.M 56.S EPICENTRE 53.05-167.79 DEPTH= 0.KM

A=-0.59002 B=-0.12763 C= 0.79724 D=-0.2114 E= 0.9774
G=-0.7792 H=-0.1686 K=-0.6037 HT= -6.5

SE= 2.09

	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
COLLEGE	15.60	32.9	3	44	2							
PETROPAVLOVK	20.05	283.7				9	17	59				
TIKSI	32.65	328.3	6	37	2							
SHASTA	32.85	93.5	6	39	2							
MINERAL	33.54	93.4	6	42	-1							
HUNGRY HORSE	33.70	75.9	6	45	1						9	22 PCP
RENO	35.12	93.0	6	58	1							
RESOLUTE	35.34	24.1	6	59	0						9	28 PCP
LICK	35.43	97.5	7	0	1							
BOZEMAN	36.82	78.1	7	13	2							
EUREKA	37.48	89.9	7	17	0						9	33 PCP
PASADENA	39.67	98.2	7	34	-1	13	38	-1				
TUKUBASAN	39.75	266.3	7	34	-2							
BOULDER CITY	40.43	93.2	7	43	2							
MATUSIRO	40.67	268.3	7	42K	-1	13	53	-1				
THULE	41.31	20.7	7	50	2						9	49 PCP
RAPID CITY	42.33	75.2	8	1	4						8	18
LARAMIE	42.58	80.0	8	0	1							
ABUYAMA	43.39	268.6	8	5A	0							
CHANGCHUN	43.81	285.9	8	8	-1							
KHEYS	45.21	351.0	8	13	-7							
TUCSON	45.39	93.8	8	22	0						8	53
TUCSON TELE.	45.40	93.7	8	23	1						8	52
SCORESBY SD.	54.34	13.4	9	31	1							
ZO-SE	54.68	276.2	9	32	-1							
OTTAWA	56.61	57.5	9	43	-4							
SHAWINIGAN	57.29	54.8	9	53	2							
BREBEUF	57.60	56.2	9	52K	-2							
SEVEN FALLS	57.83	53.2	9	54	-1							
APATITY	58.67	350.6	10	1	0							
WUHAN	59.04	280.6	10	2	-2							
KIRUNA	59.28	356.4	10	5	0							

SODANKYLA	59.41	353.6	10	6	0						
FORDHAM	60.78	60.1	10	47	31						
WESTON	60.99	57.3	10	18	1				20	5	
SVERDLOVSK	63.53	332.7	10	37	3						
SKALSTUGAN	63.71	360.0	10	37	2						
CHENGTU	65.11	288.3	10	44	0						
HONG KONG	65.38	274.7				19	24	-6	23	41	SS
NURMIJARVI	66.35	353.3	10	52	0						
PULKOVO	66.59	350.1	10	46	-8						
HELSINKI	66.67	353.1	10	55	1						
UPPSALA	67.37	357.0	10	59	0						
GOTEBORG	69.61	0.1	11	14	1						
LHASA	73.11	296.8	11	35	1						
COLLMBERG	76.02	359.5	11	51	1						
JENA	76.39	0.4	11	48	-4						
PRUHONICE	77.32	358.4	12	1	3						
CHITTAGONG	78.42	291.6	12	4	0	21	58	-1	12	15	PCP
STUTTGART	78.52	2.0	12	6	2						
WARSAK DAM	79.16	313.3	12	7	-1						
HOWRAH	80.21	294.4							19	5	
QUETTA	84.43	314.7	12	36A	1	23	0	-1	24	14	PPS
KSARA	91.07	340.5				24	3	-1			
BYRD STATION	135.64	169.3	19	23	1						
SOUTH POLE	142.87	180.0	19	28	-7						

JANUARY 13 7.H 33.M 38.S EPICENTRE -2.54 101.84 DEPTH= 56.KM

DEPTH OF FOCUS= 0.004R

A=-0.20490 B= 0.97779 C=-0.04410 D= 0.9787 E= 0.2051
G= 0.0090 H=-0.0432 K=-0.9990 HT= 7.1

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	
DJAKARTA	6.15	126.1	1	30	-1	2	55	15					
MEDAN	6.85	332.6	1	41	1								
LEMBANG	7.17	126.6	1	45	0	3	37	31					
PORT BLAIR	16.78	327.5				6	57	1					
COLOMBO	23.85	293.3	5	22	13	9	27	9					
MADRAS	26.47	306.2	5	34	0	9	30	-32					
CHITTAGONG	26.62	338.9	5	39	4								
HONG KONG	27.48	25.4	5	49	6	10	18	0			16	27	SCS
SHILLONG	29.57	341.5	6	0	-2								
BOKARO	30.51	330.1									10	10	
CHATRA	32.45	335.1	6	27	0								
POONA	34.60	308.4	6	42	-4								
WUHAN	35.06	19.3	6	50	0								
BOMBAY	35.62	308.0	6	55	1	12	33	7			8	18	PP
AGRA	37.39	323.7	7	5	-4	12	49	-4					
NANKING	37.99	23.7	7	16	2								
ZO-SE	38.19	27.4	7	18	2								
DEHRA DUN	39.80	327.0				13	27	-2			8	34	
LAHORE	42.82	324.5	7	52	-2	14	11	-3					
KARACHI	43.92	312.2	8	3	0								
PEKING	44.36	15.8	8	8	1								
PORT MORESBY	45.54	100.6	8	15	-1	15	8	15			10	4	PP
WARSAK DAM	46.20	324.5	8	18	-3								
QUETTA	46.56	317.0	8	22	-2	15	7	-1	9	1	10	13	PP
CHARTERS TS.	46.69	115.2	8	24	-1								
ADELAIDE	47.02	137.6	8	25	-3								
ULAN-BATOR	50.45	4.4	8	55	1								
NAMANGAN	51.31	330.8	8	56	-5								
MATUSIRO	51.57	37.6	9	5A	2								
CANBERRA	54.49	132.5	10	22	58								
BRISBANE	54.80	122.1	9	17	-10	17	0	-1					
RIVERVIEW	55.49	130.0									17	58	
TIFLIS	67.81	317.3	10	55	1								
SVERDLOVSK	67.89	337.0	10	54	-1								
MAWSON	70.21	194.8	11	13	4								
ASTRIDA	72.02	268.1	11	23A	3								
RUMANGABO	72.47	269.4	11	26	4								
KARAPIRO	75.59	128.4	11	43	2								
TIKSI	76.09	8.5	11	41	-2								
MOSCOW	77.90	328.6	10	55	-59								

SCOTT BASE	82.37	168.8	12 17	0	12 22 PCP
APATITY	84.23	339.0	12 25	-2	
NURMIJARVI	85.91	331.1	12 33	-2	
KHEYS	86.05	352.4	12 32	-4	
SODANKYLA	86.67	338.0	12 23	-16	
SOUTH POLE	87.47	180.0	12 41	-2	18 1
KIRUNA	89.09	338.0	12 48	-2	
PRUHONICE	90.18	319.8	12 59	3	
COLLMBERG	91.24	321.1	13 2	2	
HALLE	91.90	321.3	13 7	3	
SKALSTUGAN	92.06	333.4	13 2	-2	
BYRD STATION	95.01	173.4	13 21	3	
TAMANRASSET	96.80	292.5	13 30	4	
COLLEGE	100.85	24.1			17 51 PP
RESOLUTE	107.27	4.6	18 23	777	34 46 *SSS
HUNGRY HORSE	124.95	28.5	18 56	2	
EUREKA	129.70	38.1	19 7	4	22 31 PKS
PASADENA	131.24	45.2	19 14	8	
BOULDER CITY	132.51	41.1			22 41 PKS
RAPID CITY	133.07	24.7			22 43 PKS
TUCSON	137.40	42.5	19 29	12	22 59 PKS
TUCSON TELE.	137.42	42.3			22 59 PKS
FAYETTEVILLE	143.48	22.1	19 29	1	
CHAPEL HILL	146.78	1.3	19 39	5	20 4
COLUMBIA	148.59	4.6	19 42	5	

JANUARY 13 8.H 34.M 2.S EPICENTRE 9.19 -83.98 DEPTH= 0.KM

A= 0.10356 B=-0.98189 C= 0.15866 D=-0.9945 E=-0.1049
G= 0.0166 H=-0.1578 K=-0.9873 HT= 6.6

SE= 4.45

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
BALBOA HTS.	4.37	92.6	1 1	-7	2 3	3		
SANTIAGO MA.	6.14	314.6	1 32	-1				2 37
SAN SALVADOR	6.84	311.7	1 40	-3	2 56	-5		
CHINCHINA	9.29	116.3	2 8	-9	4 5	3		
COMITAN	10.60	312.3	2 30	-5	4 34	-1		5 30
BOGOTA	10.83	114.1	2 46	8	4 56	16		
MERIDA	12.89	335.7	3 6	0	5 34	4		6 43
VERA CRUZ	15.41	311.5	3 49	10				8 26
TACUBAYA	17.89	306.2	4 14	4	7 36	9		8 38 PCP
SAN JUAN	19.59	60.3	4 30	-1				
GRENADA	22.05	80.6	5 2	6				
TRINIDAD	22.17	84.3	5 0	3				
ST. VINCENT	22.62	77.8	5 6	4				
DOMINICA	22.87	72.4	5 7	3				
FORT FRANCE	22.99	74.0	5 7	1				
BARBADOS	24.23	78.5	5 19	1				
COLUMBIA	24.84	5.8	5 20	-3				
FAYETTEVILLE	28.35	342.4	5 50	-6				
LA PAZ	29.96	148.4	6 14	4	11 18	12		12 58 SS
MORGANTOWN	30.52	6.1	6 8	-7				
PENNSYLVANIA	31.94	8.8	6 32	4				
CLEVELAND	32.23	3.5	6 35A	5	11 49	7		
FORDHAM	32.78	14.2	7 21	46				
PALISADES	32.92	14.1	6 43K	7	12 23	30		7 41 PP
TUCSON TELE.	33.81	316.8	6 43	-1				9 30 PCP
TUCSON	33.83	316.6	6 39	-5				
WESTON	34.88	16.5	6 59A	6				
OTTAWA	36.77	9.7	7 11	2				9 13 PPP
BREBEUF	37.26	12.1	7 10	-3				
SHAWINIGAN	38.44	12.5	7 29	6				
RAPID CITY	38.56	337.6	7 19	-5				
BOULDER CITY	38.71	318.3	7 30	5				
SEVEN FALLS	39.42	14.2	7 28	-3				
SALT LAKE C.	39.99	326.5	7 38	2				9 53 PCP
PASADENA	40.01	313.5	7 41	5	13 44	3		8 8
TALA POZO	41.45	153.2			14 8	5		18 8 SCS
EUREKA	41.53	321.8	8 44	55				9 4
FRESNO	42.49	315.9	8 4	7				
BOZEMAN	43.15	332.2	8 5	3				
RENO	43.98	319.3	8 23	14				
LICK	44.05	315.5	8 7	-2				

	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	
BUTTE	44.12	331.4	8	13	3								
SANTA LUCIA	44.23	164.0				14	50	5			18	22	PP
MINERAL	45.57	319.2	8	24	3								
HUNGRY HORSE	46.50	332.6	8	25	-4								
MBOUR	65.62	78.4				19	33	4			24	16	SS
RESOLUTE	65.75	356.8	10	39	-8	19	21	-10			23	58	SS
THULE	67.74	4.0	10	54	-5								
COLLEGE	70.77	336.1	11	13	-5								
TOLEDO	76.46	51.2	11	50	-1								
GRANADA	76.86	54.0	12	3A	10	21	57	18			16	33	PPP
NORD	77.71	8.0	11	57	-1								
ALICANTE	79.28	52.7	11	56	-11	21	50	-15					
CLERMONT-FD.	81.47	45.0	12	11	-7				12	31			
MUNSTER	83.82	38.5	12	28	-2								
SETIF	84.15	54.4	12	35	3								
STRASBOURG	84.34	41.8	12	27	-6				12	53	13	8	*SP
SKALSTUGAN	84.62	26.5	12	40	6								
EBINGEN	85.19	42.1	12	35	-2								
STUTTGART	85.25	41.5	12	35	-3				12	51			
TAMANRASSET	86.04	67.7	12	42	0								
JENA	86.43	39.1	12	41	-2				12	54	13	42	
HALLE	86.55	38.5	12	35	-9								
KIRUNA	86.93	21.6	12	52	6								
COLLMBERG	87.24	38.6	12	43	-4								
UPPSALA	87.90	29.7	12	56	5								
PRUHONICE	88.47	39.7	12	52	-1				13	11			
SODANKYLA	89.32	21.2	13	0	3								
BYRD STATION	90.92	185.8	13	7	2								
SOUTH POLE	99.13	180.0	13	39	-3								
QUETTA	131.90	34.4	19	14	1						22	49	PKS
POONA	144.83	38.4	19	35	-2								
SHILLONG	145.22	6.6	19	30	-7								
CHITTAGONG	148.38	7.4	19	46	3								
PORT BLAIR	159.02	9.1									24	55	

JANUARY 13 9.H 37.M 20.S EPICENTRE -8.62 67.26 DEPTH= 0.KM

A= 0.38231 B= 0.91197 C=-0.14885 D= 0.9222 E=-0.3866
G=-0.0575 H=-0.1373 K=-0.9889 HT= 6.7
SE= 3.01

	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	
COLOMBO	19.89	39.6	4	0	-36	8	20	5					
KODAIKANAL	21.31	28.7				8	56	13			10	56	
TANANARIVE	21.68	239.8	4	54	0						5	8	PP
MADRAS	25.02	31.0	5	26	-1	9	58	9					
POONA	27.75	13.5									10	49	
BOMBAY	27.89	11.3	5	56	2	10	42	5			6	43	
HYDERABAD	28.15	23.1	5	59	3	10	44	3					
BOKARO	36.99	28.9									16	43	
ASTRIDA	37.80	276.9	7	19	-1						7	34	
RUMANGABO	38.44	278.8	7	29	4								
QUETTA	38.57	359.6	7	26K	0	13	25	2			8	58	PP
CHITTAGONG	39.08	37.6	7	30	-1	13	33	2			9	7	PP
DEHRA DUN	40.08	14.6									8	1	
CHATRA	40.19	28.1	7	38	-2						18	52	
LAHORE	40.51	9.3	7	42	0								
SHILLONG	41.58	34.5	7	49K	-2								
WARSAK DAM	42.58	5.3	7	59K	0								
KSARA	51.65	326.4	9	12	1								
HONG KONG	55.29	55.4				17	29	8					
TAMANRASSET	67.98	298.7	11	2	-1								
ADELAIDE	69.93	124.0	11	21	6								
COLLMBERG	75.71	328.3	11	46	-3								
JENA	76.25	327.4	11	57	5						12	10	
STUTTGART	76.44	324.7	11	56	3								
NURMIJARVI	76.65	339.9	11	58	4								
CHARTERS TS.	76.82	108.5	11	52	-3								
ALICANTE	78.31	312.0	12	3	-1	22	0	1			15	3	PP
CANBERRA	78.36	124.3	12	OK	-4								
UPPSALA	78.76	336.9	12	7	1								
GOTEBORG	79.81	333.4	12	25	13								
MATUSIRO	80.13	50.6	12	15	2								
RIVERVIEW	80.21	122.9									27	48	SS

GRANADA	80.24	310.0	12	9K	-5			23	51	
SODANKYLA	81.19	345.2	12	16	-3					
SOUTH POLE	81.44	180.0	12	20	0					
BRISBANE	82.35	116.6						28	20	SS
SKALSTUGAN	83.06	338.3	12	26	-3					
KIRUNA	83.16	343.8	12	27	-2					
BYRD STATION	91.42	178.8	13	6	-3					
KARAPIRO	98.87	130.5	13	52	9					
COLLEGE	118.70	16.2						20	1	PP
RAPID CITY	143.71	348.4	19	37	0					
LARAMIE	146.83	350.1	19	43	1					
SHASTA	146.92	13.5	19	44	1					
MINERAL	147.43	12.6	19	57	14					
FAYETTEVILLE	147.85	331.0	19	48	4					
RENO	148.57	10.5	20	6	21					
EUREKA	149.13	4.9	19	50	4			20	13	
LICK	150.29	14.4	19	55	7					
BOULDER CITY	152.70	3.7	20	0	9					
PASADENA	154.10	10.3	20	2	9					
TUCSON TELE.	156.32	355.7	20	2	6					
TUCSON	156.42	355.9	20	3	6					

JANUARY 14 13.H 17.M 40.S EPICENTRE -21.01-179.13 DEPTH= 619.KM

DEPTH OF FOCUS= 0.092R

A=-0.93421 B=-0.01420 C=-0.35645 D=-0.0152 E= 0.9999
G= 0.3564 H= 0.0054 K=-0.9343 HT= 4.4

SE= 0.96

	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
AFIAMALU	9.96	46.0	2	18	-1	4	7	-3				
NOUMEA	13.47	261.9	2	53	0	5	15	3				
KARAPIRO	17.47	194.2	3	31	0							
BRISBANE	26.15	250.3	4	49K	0							
RIVERVIEW	29.20	237.8	4	44	-31							
CANBERRA	31.35	236.1	5	33A	0							
CHARTERS TS.	32.40	265.5	5	43	1							
PORT MORESBY	34.45	284.4	6	OK	1	10	44	-3				
ADELAIDE	39.44	240.2	6	39K	-1							
BYRD STATION	64.31	170.4	9	37	-1				11	38		
MATUSIRO	70.00	324.5	10	11K	-1							
TUCSON	84.06	52.3	11	29	1				13	49		
TUCSON TELE.	84.19	52.3	11	30	2				13	45		
EUREKA	84.22	44.0	11	29	0				13	57		
COLLEGE	88.94	12.8	11	49	-2							
RESOLUTE	108.58	16.2									18	9 PP
SODANKYLA	130.87	347.1	18	9	7							
KIRUNA	131.60	350.2	18	3	-1							
NURMI JARVI	137.12	342.9	18	2	-12							
GOTEBORG	142.46	350.2	18	22	-2							
ASTRIDA	143.26	233.7	18	24K	-2							
LWIRO	144.19	233.1	18	28	1							
RUMANGABO	144.39	234.9	18	25	-2							
JERUSALEM	147.54	296.4	18	33	1							
COLLMBERG	148.31	345.5	18	38	5							
JENA	148.98	346.8	18	39	5							
PRUHONICE	149.13	342.7	18	40K	6							
TAMANRASSET	175.34	293.0	19	1	2						20	44 PKP2

JANUARY 15 21.H 20.M 29.S EPICENTRE -25.56 179.90 DEPTH= 475.KM

DEPTH OF FOCUS= 0.070R

A=-0.90328 B= 0.00156 C=-0.42905 D= 0.0017 E= 1.0000
G= 0.4290 H=-0.0007 K=-0.9033 HT= 3.2

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
RAOUL ISLAND	4.16	152.7	1	19	0							
SUVA	7.50	349.2	1	53	2	3	25	5				

NOUMEA	12.72	282.0	2	49	2	5	10	8				
KARAPIRO	12.87	195.7	2	50K	1							
TUAI	13.41	189.3	2	57	2	5	19	4				
AFIAMALU	13.99	35.6	2	55	-6	5	17	-9			10	31 SCP
TONGARIRO	14.09	194.1	3	1	-1	5	1	-27				
WELLINGTON	16.25	193.9	3	22	-1	6	4	-4			14	12 SCS
COBB RIVER	16.59	199.3	3	26	-1	6	12	-3				
KAIMATA	18.30	200.3	3	43	-1	6	42	-3			14	18 SCS
GEBBIES PASS	19.04	196.3	3	49	-2	6	54	-4				
ROXBURGH	21.69	200.4	4	20	4	7	29	-13				
BRISBANE	24.11	259.5	4	38K	0	6	52	-89				
RIVERVIEW	26.24	244.9	4	58	1	8	58	3				
CANBERRA	28.27	242.5	5	15K	0	9	31	4			6	45 PP
CHARTERS TS.	31.45	273.1	5	42	0	10	13	-3				
MELBOURNE	31.96	238.9	5	47	0						13	23
RABAUL	34.04	304.0	6	3	-1							
PORT MORESBY	34.99	291.4	6	11K	-1	11	8	-3	7	52	15	27 SCS
ADELAIDE	36.57	245.2	6	26	1	11	31	-3	7	51	8	43 PCP
SCOTT BASE	52.73	183.5	8	31	0							
WILKES	58.59	206.4	9	9	-3	16	31	-7			18	11 PS
BYRD STATION	60.01	169.9	9	21	0	16	59	3	11	1	18	25 SCS
SOUTH POLE	64.59	180.0	9	50	5				11	37	10	14 PCP
MANILA	69.87	298.0	10	21	-2	18	51	-3				
LEMBANG	71.11	271.4	10	30K	-1	19	8	0				
BAGUIO CITY	71.23	299.3	10	30	-1	19	9	-1				
TUKUBASAN	72.01	327.0	10	35K	-1	18	59	-19			11	0 PCP
MATUSIRO	73.21	326.0	10	42K	-1	19	33	1			22	30 *SS
ABUYAMA	73.32	323.1	10	43K	0							
MAWSON	76.17	200.6	10	41	-18							
HONG KONG	79.52	300.8	11	18	1	20	39	0			20	51 SCS
ZO-SE	79.53	311.8	11	17K	0	20	38	-1			14	23 PP
Y.-SAKHLINSK	79.60	335.1	11	15	-3						22	11 *PS
CANTON	80.63	301.0	11	23K	0	20	52	2			20	57 SKS
NANKING	81.71	311.3	11	29K	1	21	2	1	13	13	14	41 PP
BERKELEY	83.21	42.4	11	36A	0							
LICK	83.25	43.2	11	37A	1							
UKIAH	83.44	41.0	11	38	1	21	14	-4				
PASADENA	83.53	47.4	11	37A	-1	21	13	-6	13	25	14	57 PP
MEDAN	83.63	277.0	11	38	0	21	17	-3				
WUHAN	83.78	307.9	11	39K	0	21	21	0	13	24	21	14 SKS
FRESNO	84.05	44.5	11	41A	1							
PHU-LIEN	84.73	295.9				21	21	-9				
SHASTA	84.94	40.2	11	45A	0						13	32
MINERAL	85.18	40.8	11	45A	-1						13	4
CHANGCHUN	85.26	323.7	11	46K	0	21	39	4				
RENO	85.75	42.3	11	49A	1							
BOULDER CITY	86.82	47.5	11	54	0				13	42	20	29
TUCSON	87.53	52.5	11	59	2	21	42	-15	13	47	24	37
TUCSON TELE.	87.66	52.5	11	59	1	22	4	6	13	47	15	29 PP
EUREKA	88.09	44.2	12	0	0				13	49	15	12 PP
MAGADAN	88.12	345.6	11	59	-1	22	2	0				
PEKING	88.16	316.5	12	0K	0	22	7	5	13	47	21	41 SKS
VICTORIA	89.46	33.8	12	6	0							
SIAN	89.80	308.5	11	58	-10							
KUNMING	89.97	297.8	12	10K	2	22	23	5	13	55	21	55 SKS
TACUBAYA	90.39	68.8	12	14	4	21	50	-32				
SANTA LUCIA	90.91	127.9	12	11	-2	22	31	4				
CHENGTU	91.60	303.3	12	18K	2				14	2		
PAOTOW	92.36	314.3	12	21K	2							
PORT BLAIR	92.45	281.7				22	47	7			16	7 PP
VERA CRUZ	92.90	70.2				22	19	10				
COLLEGE	93.55	13.2	12	22	-3	22	0	12	14	17	22	48 SCS
HUNGRY HORSE	94.31	37.7	12	27	-1	22	9	8	14	17	16	21 PP
LANCHOW	94.33	308.0	12	30K	2							
BOULDER	95.34	48.1	12	33	0							
LARAMIE	95.77	46.9	12	35	0							
TOCKLAI	97.10	296.1									22	33
CHITTAGONG	97.72	291.0	12	57	13	22	35	0				
SHILLONG	98.98	294.0	12	49	0						16	29
HOWRAH	100.76	289.8									22	55 PP
LHASA	101.27	297.4				22	54	2			17	16 PP
IRKUTSK	101.55	322.6				23	55	-2				
LA PAZ	101.72	114.7				22	57	3			15	31
COLOMBO	101.97	272.0				22	56	1			17	21 PP
LITTLE ROCK	102.38	57.4				22	55	-2				
CHATRA	103.36	293.5									22	4
FLORISSANT	105.33	54.1									23	59 SKKS
ST. LOUIS 1	105.38	54.3									23	58 SKKS

BOGOTA	106.44	92.7			23	14	1			17	54 PP
AGRA	111.12	290.8								23	35
POONA	111.87	280.7	17	39	-1	23	34	-4			
DEHRA DUN	112.08	294.0								23	41
BOMBAY	112.91	280.7				23	39	-3		19	29
RESOLUTE	113.17	16.7	17	41K	-1	25	49	126		20	30 *PPP
OTTAWA	117.55	50.3	17	50	-1					19	9 PP
FRUNSE	117.80	306.7								19	8 PP
PALISADES	118.10	55.5				23	56	-5		19	12 PP
WARSAK DAM	118.36	296.3	17	52	0						
THULE	119.75	14.6	17	53	-2				20 43	19	21 PP
SHAWINIGAN	119.75	49.4	17	55K	0						
HARVARD	120.08	54.1							20 46		
KARACHI	120.14	286.2	17	57	1					19	23 PP
KIMBERLEY	120.95	205.5	18	OK	3						
SEVEN FALLS	121.13	48.9	17	57	-1					20	46
KHEYS	121.25	350.7	17	55	-3					20	46
QUETTA	121.31	291.1	17	59	1	24	14	2		19	32 PP
STALINABAD	121.44	301.0	18	0	2	24	16	4			
TASHKENT	121.45	304.3	18	2	4	24	12	0			
NORD	123.48	2.9	18	1	-1						
SVERDLOVSK	126.95	323.1	18	10	1						
ASHKABAD	129.52	299.1								20	26 PP
APATITY	133.26	343.1	18	15	-6					21	5 PP
SCORESBY SD.	133.31	9.9	18	15A	-6					21	6 SKP
SODANKYLA	135.06	345.7	18	22	-2					21	8
KIRUNA	135.89	349.0	18	18	-8					21	12 SKP
REYKJAVIK	138.89	14.3								21	22 SKP
MOSCOW	139.28	328.0	18	31	-1					27	34 SKKS
UVIRA	139.56	228.7								21	26 SKP
TIFLIS	139.77	305.1	18	27	-6					21	26 PP
ASTRIDA	139.77	230.3	18	27	-6					21	26 SKP
SIDA	140.00	12.3								21	25 SKP
RUMANGABO	140.95	231.2	18	33	-3					28	30 SKKS
SKALSTUGAN	141.12	351.2	18	31	-5					21	27 SKP
NURMIJARVI	141.14	340.7	18	28	-8						
HELSINKI	141.32	340.2	18	31	-6						
UPPSALA	143.58	345.0	18	36K	-4					21	50 PP
SIMFEROPOL	146.35	313.9	18	47	3				20 39		
GOTEBORG	146.74	348.2	18	40	-5				20 45		
KSARA	147.80	293.4	18	50	4						
JERUSALEM	148.49	289.6	18	52A	5						
COPENHAGEN	148.54	346.4	18	52	5						
IASI	149.24	321.7	18	55	7						
LWOW	149.41	328.7	18	55	7						
KASTAMONU	150.00	309.4	18	52	2					21	40 SKP
DURHAM	150.80	1.8	18	57	6						
KRAKOW	151.06	332.9	18	58	7						
ISTANBUL UN.	151.37	309.9	18	53	1				20 49		
RACIBORZ	151.72	334.7	19	0	8						
WITTEVEEN	152.30	351.1	19	2	9						
BANGUI	152.32	223.5	18	13	-40						
COLLMBERG	152.41	342.1	19	2	9					21	17
HALLE	152.51	343.6	18	28	-25					19	11
MUNSTER	152.98	349.5	19	4	10						
PRUHONICE	153.11	338.8	19	3K	9				21 3	22	57 PP
JENA	153.13	343.5	18	53	-1				20 51	22	39 PP
CINE	153.26	303.5	18	54	0					21	41 SKP
PLAUEN	153.37	342.4	18	53	-2						
BRATISLAVA	153.68	333.5	18	56	1				20 46	19	20 PKP2
STUTTGART	155.71	344.9	18	59	1				20 56		
TUBINGEN	155.97	344.9	19	30	32						
STRASBOURG	156.20	347.0	19	0	2				20 39		
TOLMEZZO	156.71	336.6								20	02 PKP2
GARCHY	158.17	354.2	19	3	2						
MBOUR	160.66	121.9								23	31 PP
TAMANRASSET	174.17	242.9	19	16	3				21 9	24	40 PP

JANUARY 16 1.H 31.M 26.S EPICENTRE 52.34-171.11 DEPTH= 41.KM

DEPTH OF FOCUS= 0.001R

A=-0.60622 B=-0.09478 C= 0.78963 D=-0.1545 E= 0.9880
G=-0.7802 H=-0.1220 K=-0.6136 HT= -6.3

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	
COLLEGE	17.32	34.6	4	2	1	7	19	9					
MAGADAN	22.25	303.9	4	56	1								
CORVALLIS	32.13	84.6	6	27	1								
TIKSI	32.21	329.0	6	27	0								
YAKUTSK	32.37	310.8	6	28	0								
KIPAPA	32.48	156.9	6	42	13								
SHASTA	34.85	89.7	6	50	0								
UKIAH	35.29	92.6	6	53	0						13	5	SCP
MINERAL	35.54	89.6	6	56	1								
HUNGRY HORSE	35.84	73.0	6	59	1	12	39	7			8	22	PP
BERKELEY	36.66	93.5	7	6K	1	12	48	3					
RESOLUTE	36.86	25.5	7	6	-1	12	58	10			9	28	PCP
RENO	37.13	89.3	7	9	0								
LICK	37.38	93.6	7	12K	1						9	30	
TUKUBASAN	37.68	264.4	7	4A	-9	12	45	-15			8	12	PP
BUTTE	37.86	75.6	7	15	0	13	15	12					
MATUSIRO	38.61	266.4	7	22A	1	13	16	2			9	22	PPP
FRESNO	38.87	92.8	7	24	1								
BOZEMAN	38.95	75.1	7	23	-1	13	19	-1					
EUREKA	39.52	86.5	7	29	0						13	21	SCP
SALT LAKE C.	41.25	81.9	7	44	1						10	24	PCP
ABUYAMA	41.34	266.6	7	45A	1								
PASADENA	41.60	94.5	7	46	0	14	0	1			14	23	*SS
CHANGCHUN	42.05	284.6	7	50A	0								
BOULDER CITY	42.43	89.7	7	53	0	13	33	-38					
THULE	42.68	19.9	7	54	-1						9	45	PCP
RAPID CITY	44.47	72.4	8	9	0						10	0	PP
LARAMIE	44.71	77.1	8	11	0								
KHEYS	45.58	350.4	8	11	-7								
NORD	45.60	5.1	8	18A	0						9	56	PCP
BOULDER	45.66	78.3	8	20	1								
TUCSON	47.39	90.5	8	32	0						10	11	PCP
TUCSON TELE.	47.39	90.3	8	31	-1						10	41	PP
IRKUTSK	48.80	305.6	8	43	0								
PEKING	49.77	286.2	8	50A	-1	15	56	0					
ULAN-BATOR	50.07	299.7	8	53	0								
ZO-SE	52.73	274.2	9	14A	1	16	39	2					
PAOTOW	52.99	290.6	9	15A	0	16	44	4					
FAYETTEVILLE	54.86	74.7	9	28	-1								
SCORESBY SD.	55.49	12.1	9	33	0						10	33	PCP
WUHAN	57.17	278.6	9	45A	0	17	35	-1					
SIAN	57.93	285.7	9	50A	-1								
CLEVELAND	58.37	61.9	9	53K	-1								
OTTAWA	58.69	55.2	9	55A	-1						12	6	PP
APATITY	59.02	349.3	9	59	1	18	1	1					
SHAWINIGAN	59.34	52.5	9	59A	-2								
LANCHOW	59.62	290.7	10	3A	0	18	9	1					
BREBEUF	59.67	53.9	10	1A	-2	18	19	10					
KIRUNA	59.84	355.0	10	4	0								
SEVEN FALLS	59.87	51.0	10	3	-1								
SODANKYLA	59.87	352.2	10	3	-1								
PENNSYLVANIA	60.82	60.2	10	11	0	18	25	2					
GEORGETOWN	62.61	61.2	10	23	0								
PALISADES	62.75	57.6	10	21	-3	18	47	-1			11	1	PCP
HARVARD	62.85	55.0	10	25	1								
FORDHAM	62.88	57.7	10	57	32						13	16	
WESTON	63.07	55.0	10	26A	0								
SVERDLOVSK	63.21	331.1	10	27	0								
CANTON	63.37	273.7	10	28A	0	18	56	0					
CHENGTU	63.39	286.3	10	29A	1	18	57	1					
CHAPEL HILL	63.69	64.8	10	30	0						10	45	
TACUBAYA	63.86	91.8	10	36	5						11	1	PCP
COLUMBIA	63.98	67.6	10	31	-1								
SKALSTUGAN	64.39	358.3	10	34	0						11	8	PCP
HALIFAX	65.11	48.7	10	40K	1						18	6	
PULKOVO	66.92	348.4	10	50	-1	19	39	0					
UPPSALA	67.95	355.3	10	56A	-1								
KUNMING	68.33	283.1	11	0A	1	19	58	2					
MOSCOW	69.71	343.1	11	7	-1								
PORT MORESBY	71.11	224.0	11	15	-1	20	27	-2	11	27			
LHASA	71.60	294.6	11	21A	2	20	39	5					
TOCKLAI	71.69	290.0	11	50	30								
COPENHAGEN	72.31	357.9	11	23K	0	20	56	14			14	10	PP
NAMANGAN	72.34	315.0	11	24	0								
DURHAM	72.91	6.3	11	11A	-16						14	19	PP
RATHFARNHAM	73.97	9.4	11	33	0								

SHILLONG	74.26	291.4	11	35A	0					
WITTEVEEN	75.20	1.4	11	44	4					
WARSAW	75.31	352.3	11	39	-2				14	26 PP
DE BILT	75.89	2.4	11	40	-4					
MUNSTER	76.06	0.8	11	47	2					
KEW	76.28	5.9	11	47	1					
HALLE	76.51	358.0	11	44	-4				13	8
COLLMBERG	76.68	357.3	11	49	0					
CHITTAGONG	76.77	289.3	11	49K	0	21	34	2	14	41 PP
BENSBERG	77.07	1.1	11	52K	1				12	48
JENA	77.08	358.3	11	51	0				14	2
LWOW	77.40	350.0	11	51	-2				16	51
PLAUEN	77.50	357.9	11	51	-2					
KRAKOW	77.56	352.7	11	54	0				12	4 PCP
PRAGUE	77.86	356.3	11	58	3					
PRUHONICE	77.95	356.3	11	59A	3				22	57 PPS
WARSAK DAM	78.15	311.1	11	56	-1					
HOWRAH	78.63	292.0	12	2	2					
LAHORE	78.85	307.7	11	59	-2					
FOLINIERE	78.96	6.3	12	2	1					
PARIS	79.08	4.3	12	4	2					
STUTTGART	79.27	359.8	12	4	1				12	11 PCP
MAKHACH-KALA	79.38	332.2	12	2	-2					
STRASBOURG	79.46	0.8	12	5A	1				12	18 PCP
TUBINGEN	79.51	359.9	12	5	1					
KISHINEV	79.56	346.3	12	4	-1					
IASI	79.56	347.2	12	5	0	22	23	21	14	55 PP
VIENNA-H.	79.59	354.9	12	8	3					
BRATISLAVA	79.63	354.4	12	5K	0				*2	14 PCP
RAVENSBURG	80.26	359.5	12	8	0					
AGRA	80.60	302.4	12	10A	0	22	10	-3	12	16 PCP
GARCHY	80.64	4.0	12	10	0	22	28	15		
SIMFEROPOL	80.69	342.1							12	21 PCP
CHARTERS TS.	81.03	220.1	12	12	0					
NEUCHATEL	81.03	1.3	12	13	1					
CHUR	81.19	359.6	12	14A	1					
TIFLIS	81.29	333.6	12	15	1	22	21	1		
TOLMEZZO	81.58	357.1	12	16	1				13	9
CLERMONT-FD.	82.15	4.1	12	20	2					
BUCHAREST	82.49	347.6							17	59
QUETTA	83.46	312.3	12	26A	1	22	46	4	15	35 PP
MONACO	84.30	1.1	12	28	-1					
SAN JUAN	84.45	67.2	12	28	-2				12	53
KASTAMONU	84.76	343.6	12	31	0				16	50 PPP
ISTANBUL UN.	85.38	344.9	12	34	-1					
BRISBANE	85.45	211.5				21	59	-62		
ROME	86.09	357.3				23	2	-6	24	27 PS
KARACHI	87.11	310.0	12	48A	5					
MEDAN	87.32	272.3	12	45A	1				15	8
CINE	88.88	344.9	12	51K	-1					
MESSINA	89.65	354.8				23	28	6		
POONA	89.82	300.7	12	57A	1	23	16	-5		
BOMBAY	90.06	301.7	12	53	-4	23	40	-5	23	19
MALAGA	90.56	10.6	13	1A	2			13 17	16	3 PP
KARAPIRO	90.64	190.5	12	57A	-3			13 17		
BOGOTA	90.68	81.6	13	12	12	2	28	-22	24	2 SKKS
KSARA	91.02	337.8	13	2	0					
RIVERVIEW	91.93	210.6	13	5	-1				30	43 SS
TAMANRASSET -	105.15	3.2	14	8	777				18	25 PP
MBOUR	109.89	26.7							28	37 PS
RUMANGABO	126.37	334.3	19	2	3					
LWIRO	127.39	334.6	19	2	1					
ASTRIDA	127.48	333.4	19	4A	3				21	52
UVIRA	128.48	333.8	19	5A	2					
BYRD STATION	135.32	168.8	19	5	-11				22	42 PP
SOUTH POLE	142.15	180.0	19	22	-6			19 31	23	1 PP
WINDHOEK	149.62	344.9	19	43	2					
PRETORIA	149.71	323.8	19	53	12					
MAWSON	150.17	218.6	19	46	4					
PIETERMZBURG	152.29	316.6	19	54K	9					
KIMBERLEY	153.64	327.2	19	52K	5					

JANUARY 16 16.H 50.M 42.S EPICENTRE 52.07-131.16 DEPTH= 0.KM

A=-0.40626 B=-0.46476 C= 0.78674 D=-0.7529 E= 0.6581
G=-0.5178 H=-0.5923 K=-0.6173 HT= -6.2

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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
ALBERNI	4.91	122.3	1 15	-1	2 17	2		
SITKA	5.55	335.8	1 28	3	2 24	-7		
HORSESHOE B.	5.68	115.2	1 32	5	2 49	15		
VICTORIA	6.10	122.6	1 32	-1	2 49	4		
CORVALLIS	9.14	142.0	2 14A	-2				
HUNGRY HORSE	11.58	102.0	2 50	1	5 30	29		3 44
ARCATA	12.20	153.8	3 6	8				
SHASTA	12.87	148.6	3 7	0				
BUTTE	13.59	109.1	3 15	-1	6 44	55		3 36 PP
UKIAH	14.07	153.8	3 22	0				
BOZEMAN	14.68	107.9	3 31	1				5 5
RENO	14.79	143.4	3 33A	1				
COLLEGE	15.44	332.6	3 43	3	6 55	22		
BERKELEY	15.51	152.8	3 39A	-2	6 43	8		
LICK	16.18	151.8	3 50A	0				
EUREKA	16.41	134.1	3 52	-1				
FRESNO	17.28	147.8	4 4	0				
SALT LAKE C.	17.40	122.9	4 5	0				4 53
BOULDER CITY	19.84	137.8	4 33	-2				
PASADENA	20.21	147.3	4 37A	-2				5 4
RAPID CITY	20.22	102.2	4 39	0	8 27	6		
LARAMIE	20.47	111.6	4 40	-1				
TUCSON TELE.	24.70	135.0	5 24	1				6 2
TUCSON	24.73	135.3	5 25	1	11 0	76		6 16
RESOLUTE	27.03	20.2	5 45	0	10 38	16		
CHIHUAHUA	29.94	131.7			10 58	-11		12 34 SS
THULE	33.80	22.2	6 45	0				
OTTAWA	36.39	78.0	7 8	1				8 30 PP
SHAWINIGAN	37.57	74.6	7 17	0				8 39
BREBEUF	37.60	76.6	7 16	-2				8 51 PP
SEVEN FALLS	38.43	72.7	7 25	0				9 14 PPP
PALISADES	39.91	82.7						16 39 SS
MAGADAN	42.08	312.0	7 54	-1				
NORD	42.22	11.5	7 58	2				
VERA CRUZ	42.70	126.9						26 50
TIKSI	44.58	333.6	8 13	-2				
SCORESBY SD.	47.72	25.4	8 42	2	15 48	12		10 8 PCP
KHEYS	48.12	359.2	8 39	-4	15 37	-5		
SODANKYLA	59.72	9.8	10 6	-2				
APATITY	60.14	6.8	10 8	-3				
SKALSTUGAN	61.20	17.7	10 20	2				
MATUSIRO	62.54	294.8	10 24	-3	19 12	17		
UPPSALA	65.63	16.7	10 47	-1				11 0
NURMI JARVI	66.11	12.8	10 48	-3				
BOGOTA	66.59	114.2	10 56	2	19 38	-7		
PULKOVO	67.52	10.0	11 2	2	19 58	2		
COPENHAGEN	68.47	21.2	11 5	-1	20 18	11		
MUNSTER	70.68	25.6	11 20	1				
SVERDLOVSK	71.03	353.2	11 27	6				
PARIS	72.02	30.2						16 39
MOSCOW	72.17	6.6	11 27	-1				
HALLE	72.21	23.2	11 26	-2				
WARSAW	73.47	17.4	11 39	3				21 30 PS
GARCHY	73.56	30.6	11 36	0				
STRASBOURG	73.79	27.0	11 41	3				11 56 PCP
PRUHONICE	74.24	22.2	11 40	0	21 28	14		
KRAKOW	75.34	18.8	11 46	-1				
LWOW	76.31	16.2	11 50	-2				
IASI	79.44	14.6	11 40	-29				12 12
HUANCAYO	79.86	124.7	12 17	5				
NAMANGAN	85.23	342.9	12 41	2				
MAKHACH-KALA	85.33	1.0	12 40	0				
ISTANBUL UN.	85.68	14.9	12 38	-3				
TIFLIS	86.52	3.0	12 47	1				
SHILLONG	94.01	321.8	13 20	-1				
TAMANRASSET	96.41	39.6	13 20	-12				17 20 PP
QUETTA	96.58	344.3	13 32	0	24 48	-3		24 10 SKS
SOUTH POLE	141.88	180.0	19 29	-4				
TANANARIVE	146.90	2.2	19 48	6				
KIMBERLEY	150.62	46.9						20 54

JANUARY 17 9.H 24.M 50.S EPICENTRE 10.29 125.96 DEPTH= 126.KM

DEPTH OF FOCUS= 0.015R

A=-0.57791 B= 0.79656 C= 0.17751 D= 0.8094 E= 0.5872
G=-0.1042 H= 0.1437 K=-0.9841 HT= 6.5

SE= 1.92

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MANILA	6.47	311.7	1 30	-4	2 53	6		
BAGUIO CITY	8.03	319.9	1 52	-4	3 32	7		
HONG KONG	16.44	318.0	3 46	1	7 5	21		
CANTON	17.57	317.9	3 58A	0				
GUAM	18.65	78.4	4 11	0				
ZO-SE	21.18	348.6	4 37A	0				
NANKING	22.64	344.0	4 51	0	8 59	13		
WUHAN	22.76	333.8	4 52	0	9 0	12		
LEMBANG	24.96	227.8	5 49	36				
PORT MORESBY	28.76	132.2	5 45	-3				
PEKING	30.87	345.3	6 6	-1				
CHITTAGONG	34.80	294.5	6 39	-2				
SHILLONG	35.68	299.8	6 49A	1				
CHARTERS TS.	36.14	146.4	6 49	-3				
LHASA	37.83	305.7	7 7	1				
CHATRA	40.08	299.6	6 26	-59				
ULAN-BATOR	40.80	340.4	7 32	1				
BRISBANE	45.81	145.7						18 20 SSS
ADELAIDE	46.57	165.5	8 16K	-1				10 10 PP
CANBERRA	50.33	155.4	8 46K	0			8 54	9 6 PCP
POONA	50.99	285.5	8 49	-2				
WARSAK DAM	54.93	304.4	9 20A	0				
NAMANGAN	56.57	312.6	9 32	0				
QUETTA	58.16	299.1	9 42A	-1				11 53 PP
TIKSI	61.32	1.1	10 4	-1				
SVERDLOVSK	68.03	327.4	10 47	-1				
KHEYS	77.15	350.1	11 40	-2				
COLLEGE	79.15	25.7	11 53	0				14 57 PP
MOSCOW	80.64	325.0	12 1	0				
APATITY	81.54	337.2	12 6A	1				
SODANKYLA	84.15	337.4	12 19	0				
KSARA	84.42	303.2	12 22	2				
ISFJORD	84.50	348.8	12 24	3				
JERUSALEM	85.29	301.3	12 23K	-1				
KIRUNA	86.32	338.5	12 28	-1				
NORD	86.53	354.9	12 31K	1				
HELSINKI	86.56	330.5	12 31	1				
NURMIJARVI	86.63	330.9	12 29	-2				
CINE	89.95	308.1	12 45	-2				
UPPSALA	90.17	331.4	12 47	-1				
SCOTT BASE	90.90	172.0	12 58	7				13 17 PCP
SKALSTUGAN	91.04	335.8	12 51	-1				
RESOLUTE	91.53	10.0	12 55A	1	23 46	6		
THULE	93.03	3.3	13 0	-1				
PRUHONICE	95.53	322.9	13 13	1				
SHASTA	99.25	45.7	13 30	1				
SOUTH POLE	100.22	180.0	13 33	0	24 6	6		16 37 PP
HUNGRY HORSE	101.31	36.1	13 41	3				
EUREKA	104.24	44.8	13 47	-4				18 11 PP
BYRD STATION	104.24	170.6	14 14	23				17 46 PP
RELIZANE	111.14	314.7						17 56 PP
TAMANRASSET	113.07	300.1	18 26	3				
SAN JUAN	149.12	22.8	19 42	12				
HUANCAYO	159.04	96.8	19 51	8				20 29 PKP2

JANUARY 18 14.H 41.M 13.S EPICENTRE -5.15 152.84 DEPTH= 41.KM

DEPTH OF FOCUS= 0.001R

A=-0.88616 B= 0.45471 C=-0.08923 D= 0.4565 E= 0.8897
G= 0.0794 H=-0.0407 K=-0.9960 HT= 7.0

SE= 1.97

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

RABAUL	1.16	324.9	0	22	2						
PORT MORESBY	7.04	232.9	1	42A	-1	3	0	-3			
CHARTERS TS.	16.09	202.9	3	45	0	7	26	45			
GUAM	20.17	336.6	4	31	-2						
BRISBANE	22.20	179.5	4	52K	-2	8	57	6			
RIVERVIEW	28.58	182.9	5	53A	-1	10	42	4			
CANBERRA	30.23	186.2	6	8K	-1				6	19	7 39 PPP
ADELAIDE	32.38	202.0	6	26	-2						
MELBOURNE	33.31	191.4	6	35	-1						
KARAPIRO	38.62	150.7	7	21	0						9 33
GEBBIES PASS	42.18	158.5	7	50	0						
MATUSIRO	43.68	342.9	8	0A	-2						9 49
LEMBANG	44.99	265.5	8	23	10						
HONG KONG	46.64	307.3	8	28	2	15	15	4			
ZO-SE	47.05	322.0	8	29A	0						
CANTON	47.75	307.6	8	35	0						
WUHAN	50.98	316.5	9	0A	0						
CHANGCHUN	54.71	335.8	9	25A	-2						
PEKING	56.20	326.5	9	36A	-2						
SIAN	57.02	316.8	9	44	0						
KUNMING	57.23	304.1	9	45	0						
CHENGTU	58.68	310.6	9	54A	-1	18	0	5			
PAOTOW	60.08	323.3	10	5A	0						
LANCHOW	61.52	315.9	10	15A	0						
MAGADAN	64.52	358.9	10	31	-4						
CHITTAGONG	65.61	297.2	10	40	-2						14 36 PPP
SHILLONG	66.53	300.6	10	47	-1						
CAPE HALLETT	67.94	174.3									34 8
LHASA	68.54	304.5	11	1A	1						
COLLEGE	82.17	21.8	12	16	-2						
LAHORE	82.94	302.5	12	22	0						
BYRD STATION	84.55	169.9	12	31	1	22	51	-1			15 44 PP
SOUTH POLE	84.88	180.0	12	32	0						30 29 PKKP
MAWSON	85.25	202.6	12	46	13						
WARSAK DAM	85.66	304.6	12	36A	1						
NAMANGAN	86.70	311.5	12	42	2						
QUETTA	89.01	300.3	12	52A	0	23	38	3			24 40 PS
SHASTA	89.37	49.2	12	54	1						
LICK	89.54	52.6	12	55	1						
MINERAL	89.92	49.6	12	56	0						
PASADENA	92.03	56.1	13	5	-1						
EUREKA	94.16	50.9	13	16	1						13 48
BOULDER CITY	94.88	54.4	13	20	1						
SVERDLOVSK	95.49	326.5	13	20	-1						
HUNGRY HORSE	95.90	42.0	13	24	1						
KHEYS	96.90	350.1	13	30	2						
TUCSON TELE.	98.17	58.2	13	36	2						14 25
RESOLUTE	100.74	14.5	13	46A	1						33 3 PSPS
THULE	105.31	9.3	14	4	-1						
OTTAWA	121.86	38.4	18	51	1						
SHAWINIGAN	123.06	36.0	18	54	2						
BREBEUF	123.09	37.5	18	54K	2						
COLLMBERG	123.18	331.1	18	54	2						
PRUHONICE	123.24	329.1	18	54	2						19 33
SEVEN FALLS	123.86	34.6	18	55	1						
JENA	124.10	331.4	18	56	2						19 19
TRIESTE	126.27	325.3	18	48	-10						
STUTTGART	126.69	330.7	19	1K	2						
STRASBOURG	127.51	331.4	19	3	2						
HUANCAYO	129.15	110.0									20 11 PP
GARCHY	130.64	333.1	19	9	2						
LA PAZ	134.13	118.8	19	17	4						
SETIF	137.01	320.3	19	13	-5						
SAN JUAN	139.77	67.6	19	27	4						
RELIZANE	140.28	323.7									22 1 PP
TAMANRASSET	143.91	302.2	19	30	-1						19 38 PKP2
GRENADA	145.17	76.4	19	34	1						
ST. VINCENT	145.44	74.3	19	34	1						
MBOUR	166.41	313.1									21 6 PKP2

JANUARY 18 19.H 25.M 56.S EPICENTRE -4.96 152.62 DEPTH= 62.KM

DEPTH OF FOCUS= 0.005P

A=-0.88469 B= 0.45819 C=-0.08591 D= 0.4599 E= 0.8880
G= 0.0763 H=-0.0395 K=-0.9963 HT= 7.0

SE= 2.96

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RABAUL	0.88	329.3	0 19	1				
PORT MORESBY	6.99	230.6	1 39	-3	2 57	-4		2 9
CHARTERS TS.	16.19	201.9	3 42	-3				
GUAM	19.91	337.0	4 29	0				
BRISBANE	22.40	179.0	4 48A	-6	8 53	2		
RIVERVIEW	28.76	182.5	6 1	7	10 54	17		
CANBERRA	30.39	185.9	6 14A	6			6 25	
ADELAIDE	32.48	201.6	6 23	-3				
KARAPIRO	38.89	150.6	7 19	-2				
MATUSIRO	43.44	343.1	7 56A	-2				9 45
SIAN	56.73	316.8	9 40	1				
PAOTOW	59.80	323.4	10 2A	1				
LANCHOW	61.23	315.9	10 12	1				
CHITTAGONG	65.33	297.2	10 37	0				
SHILLONG	66.25	300.6	9 43	-60				
LHASA	68.25	304.5	10 58	2				
CHATRA	70.65	300.5						12 11
TIKSI	78.01	352.5	11 52	-1				
COLLEGE	82.08	21.8	12 13	-2				13 1
BYRD STATION	84.77	169.9	12 35	7				
SOUTH POLE	85.07	180.0	12 29	-1				16 21 PP
WARSAK DAM	85.37	304.6	12 32A	1				
NAMANGAN	86.41	311.5	12 39	2				
QUETTA	88.73	300.3	12 48A	0				24 38 PS
PASADENA	92.10	56.1	13 3	0				
EUREKA	94.21	50.9	13 13	0				
HUNGRY HORSE	95.90	42.0	13 20	-1				
KHEYS	96.67	350.1	13 19	-5				
RESOLUTE	100.61	14.5	13 41	-1				
OTTAWA	121.84	38.3	18 48	1				
PRUHONICE	122.97	329.1	18 51	2				
SHAWINIGAN	123.03	35.9	18 51	2				
BREBEUF	123.07	37.3	18 50K	1				
SEVEN FALLS	123.83	34.4	18 52	1				
STUTTGART	126.42	330.7	18 57	1				
HUANCAYO	129.42	109.9	19 8	6				
SETIF	136.72	320.3	19 11	-4				
TAMANRASSET	143.62	302.3	19 27	-1				19 34 PKP2
ST. VINCENT	145.59	74.0	19 29	-2				

JANUARY 18 22.H 23.M 16.S EPICENTRE -18.92-178.02 DEPTH= 416.KM

DEPTH OF FOCUS= 0.060R

A=-0.94607 B=-0.03269 C=-0.32232 D=-0.0345 E= 0.9994
G= 0.3221 H= 0.0111 K=-0.9466 HT= 4.9

SE= 1.58

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SUVA	3.45	282.3			1 24	-39		
APIA	7.86	50.5	1 56	1	3 22	-3		
RAOUL ISLAND	10.28	179.5	2 18	-5	4 11	-4		8 26
AUCKLAND	18.96	198.0	3 58	4	7 5	2		
KARAPIRO	19.75	195.2	4 3A	1				5 12
TUAI	20.25	191.0			7 17	-8		
WELLINGTON	23.12	193.9	4 33	0	8 7	-6		14 44 SCS
COBB RIVER	23.46	197.8	4 34	-3	8 11	-8		
KAIMATA	25.17	198.6	4 50	-2				
GEBBIES PASS	25.92	195.6	4 57	-2	8 50	-8		
BRISBANE	27.89	246.8	5 17K	1	9 27	-2		
RIVERVIEW	31.21	235.4	5 45A	0	10 18	-3		
CANBERRA	33.39	234.0	6 5A	1			7 16	
CHARTERS TS.	33.66	262.1	6 6	0	10 53	-6		
PORT MORESBY	35.01	280.8	6 19K	2	11 17	-2		8 35 PCP
MELBOURNE	37.31	231.9	6 37A	1				
MACQUARIE I.	39.65	201.0	6 57	0			8 14	
ADELAIDE	41.40	238.4	7 10	0	12 48	-6		
CAPE HALLETT	53.81	184.4	8 48A	4	15 52	6	10 12	11 14 PP
SCOTT BASE	59.44	183.7	9 23	0				10 30

BYRD STATION	66.19	170.6	10	7	0	18	18	-4	11	46	21	24 *SS
TUKUBASAN	67.65	324.3	9	40	-36	19	36	57			10	15 PCP
MATUSIRO	68.93	323.4	10	23K	-1	18	56	2	12	4	10	44 PCP
SOUTH POLE	71.20	180.0	10	35	-2	19	16	-4	12	14		
LEMBANG	73.05	268.5	10	49	1	19	38	-2				
Y.-SAKHLINSK	74.49	333.3	10	55	-1						20	21 SCS
PETROPAVLOVK	74.54	345.7	10	55A	-1						12	37
ZO-SE	76.67	309.7	11	7K	-1	20	18	-2	12	54	20	38 SCS
VLADIVOSTOK	76.98	324.8	11	8	-2	20	19	-4				
BERKELEY	77.03	42.2	11	11A	1				12	53		
LICK	77.11	42.9	11	11A	0				12	53		
UKIAH	77.18	40.7	11	11	0				12	53		
PASADENA	77.63	47.2	11	13A	-1	20	30	0			14	13 PP
HONG KONG	77.91	298.7	11	17	2	20	33	0	13	8		
FRESNO	77.98	44.3	11	16A	1				12	59		
SHASTA	78.64	39.8	11	19A	0				13	2		
NANKING	78.90	309.4	11	21K	1	20	43	0	13	8	20	54 SCS
MINERAL	78.91	40.5	11	20A	0				13	3		
CANTON	78.99	299.1	11	21K	0	20	44	0	13	10		
RENO	79.56	41.9	11	24A	0				13	8		
BOULDER CITY	80.92	47.1	11	31	0				13	15		
CHANGCHUN	81.14	322.3	11	31K	-1	21	4	-2	13	17	14	9 *SP
WUHAN	81.33	306.3	11	33K	0	21	7	-1	13	19	14	10 *SP
TUCSON	81.96	52.1	11	37	1	21	17	3	13	21	14	51
EUREKA	81.99	43.7	11	37	1				13	21	31	31 PKKP
TUCSON TELE.	82.09	52.0	11	38	1				13	21	30	4 PKKP
MAGADAN	82.23	344.6	11	35A	-3	21	11	-6				
ALBERNI	82.65	31.9	11	39K	-1							
VICTORIA	82.89	33.1	11	40A	-1							
MAWSON	83.03	199.7	11	40	-2				13	26		
HORSESHOE B.	83.50	32.5	11	43A	-1						13	27
SITKA	83.67	21.9	11	46	1							
PEKING	84.76	315.3	11	50K	0	21	41	-1	13	41	21	28 SKS
SALT LAKE C.	85.37	44.2	11	53	0				13	39		
COLLEGE	86.68	12.4	11	57	-2	21	54	-6	13	42	21	38 SKS
SIAN	87.25	307.5	12	3K	1	22	8	3	13	50	21	44 SKS
BUTTE	87.54	39.4	12	4	0				13	49	14	50
HUNGRY HORSE	87.89	36.9	12	4	-1	21	49	-22	13	50	29	48 PKKP
BOZEMAN	88.29	40.2	12	9	2				13	55		
KUNMING	88.64	296.9	12	10	1	22	18	0	13	57		
PAOTOW	89.17	313.6	12	13K	2	22	27	4	14	1	21	56 SKS
BOULDER	89.46	47.2	12	13	0							
LARAMIE	89.82	45.9	12	14	0							
LANCHOW	91.81	307.5	12	24K	1	22	50	4	14	12	22	10 SKS
ULAN-BATOR	94.28	319.3	12	32	-3							
CHITTAGONG	97.14	291.1									16	42 PP
TIKSI	97.21	345.2									16	44 PP
IRKUTSK	97.47	322.7				22	40	-6				
HUANCAYO	97.85	105.6	12	56	5							
SHILLONG	98.05	294.2	12	51	-1							
ST. LOUIS 1	99.90	52.6	12	59	-1	24	2	8			23	29 SKKS
LHASA	99.91	297.9				23	57	3			22	53 SKS
HOWRAH	100.30	290.3				22	57	-2			17	14 PP
CHATRA	102.45	294.2									18	0 PP
RESOLUTE	106.29	16.0	17	34	777	24	44	-3			23	14 SKS
AGRA	110.47	292.6				23	36	-8				
OTTAWA	111.77	47.8	17	46	0							
PALISADES	112.67	52.7									27	53 PS
THULE	112.87	14.0	17	47	-2						18	27 PP
BREBEUF	113.25	47.9	17	48A	-1							
SHAWINIGAN	113.90	46.7	17	50	-1							
SEVEN FALLS	115.25	46.2	17	53	0							
FRUNSE	115.25	309.1									19	1 PP
WARSAK DAM	116.99	299.1	17	27	-30							
TASHKENT	119.15	307.3							19	27	24	14 SKKS
QUETTA	120.53	294.4	18	4K	1				20	4	19	35 PP
ISFJORD	120.55	357.2	18	4	1							
GRAHAMSTOWN	122.99	204.5	18	28K	20							
SCORESBY SD.	126.47	9.8	18	14	-1				20	11		
APATITY	127.43	345.4	18	16	-1							
ASHKABAD	127.72	303.7	18	16	-1							
KIMBERLEY	127.74	205.5	18	17A	0							
SODANKYLA	129.06	348.0	18	18	-2							
KIRUNA	129.72	351.0	18	21	0						20	59 SKP
PULKOVO	134.39	340.4	18	30	0						21	26
MOSCOW	134.50	332.5									21	16
SKALSTUGAN	134.82	353.5	18	31	0						21	19 SKP
NURMIJARVI	135.42	344.2	18	20	-12							
HELSINKI	135.63	343.8	18	33	1							

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UPPSALA	137.59	348.3	18	24	-12				21	25 SKP
GOTEBORG	140.58	351.6	18	34	-8				21	36 SKP
DURHAM	144.11	3.5	18	46	-2					
LWOW	144.47	335.3	18	48	0				21	43
IASI	144.88	329.2	18	50	1				23	10 PP
RATHFARNHAM	145.09	8.7	18	56	6					
UVIRA	145.23	233.0	18	50	0				20	46
ASTRIDA	145.32	234.8	18	49A	-1				20	45
POTSDAM	145.50	348.0	18	52	2				22	10 PP
KRAKOW	145.79	339.3	18	52	1					
WITTEVEEN	145.97	354.9	18	54K	3					
LWIRO	146.26	234.3	18	51A	0				20	49
RACIBORZ	146.32	341.1	18	53	2					
KSARA	146.37	303.0	18	57	6	20	46		22	25 PP
SKALNATE PL.	146.42	338.2	18	44	-8	20	35			
RUMANGABO	146.42	236.2	18	52A	0				20	49
COLLMBERG	146.54	347.4	18	50	-2				22	11 PP
HALLE	146.55	348.7	18	49	-3	20	40			
MUNSTER	146.72	353.6	18	54	2					
JENA	147.16	348.8	18	51	-2	20	47		22	20 PP
PRAGUE	147.37	345.1	18	56	3	20	48			
PRUHONICE	147.42	344.9	18	52A	-1	20	48		22	23 PP
PLAUEN	147.47	347.9	18	50	-3	20	43			
KEW	147.47	2.7	18	56	3	20	51			
BENSBERG	147.77	353.8	18	57	4					
BRATISLAVA	148.34	340.6	18	59	5	20	51			
VIENNA-H.	148.50	341.5	18	55	1				19	1
STUTTGART	149.66	350.5	18	56	0	20	54			
TUBINGEN	149.91	350.6	19	4	7	20	55			
BELGRADE	149.93	333.3	19	4A	7				21	0
STRASBOURG	150.04	352.3	19	3	6	20	0			
FOLINIERE	150.16	3.3	18	57	0					
PARIS	150.18	359.3	19	0	3	21	0			
CINE	150.57	314.6	19	4	6					
ZAGREB	150.78	339.7	19	4K	6	21	2			
TOLMEZZO	151.12	344.1	18	58	0				20	3
TRIESTE	151.61	342.5	19	5	6	20	57		19	18 PKP2
GARCHY	151.70	358.4	19	0	1				19	7
CLERMONT-FD.	153.21	358.2	19	11	10					
BANGUI	158.25	230.4	19	45	37				20	0
TOLEDO	158.48	12.7	19	7	-1				23	23 PP
ALICANTE	160.52	5.8	19	1	-10	25	17	-17	23	31 PP
GRANADA	161.16	13.9	20	0K	49				24	36 PP
MBOUR	161.30	101.1	19	14	3				19	53
MALAGA	161.40	16.3	19	12K	1	25	54	19	23	47 PP
ALMERIA	161.72	11.4	19	13	1				19	59 PKP2
SETIF	162.53	350.8	19	11	-2				23	38 PP
RELIZANE	163.19	4.0	19	13	0				23	59 PP
TAMANRASSET	174.93	319.8	19	21A	0	25	36	-6	24	53 PP

JANUARY 20 16.H 46.M 10.S EPICENTRE -8.74 126.78 DEPTH= 0.KM

A=-0.59184 B= 0.79179 C=-0.15101 D= 0.8010 E= 0.5987
G= 0.0904 H=-0.1210 K=-0.9885 HT= 6.7

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
LEMBANG	19.08	274.4	4	24	-2						5	34
DJAKARTA	19.94	276.0	4	39	3	8	22	7				
PORT MORESBY	20.13	93.4	4	39A	1						5	3 PP
CHARTERS TS.	21.92	122.8	4	55	-1	9	4	10				
MANILA	23.87	346.0	5	19	4	9	43	14				
PERTH	25.23	202.3	5	33	5	10	0	8			9	45
RAGUIO CITY	25.74	346.2	5	42	9						10	48
ADELAIDE	28.27	159.0	5	54	-2						12	3
MEDAN	30.57	292.5	6	18	1	11	23	4				
BRISBANE	31.02	130.3	6	25A	4							
HONG KONG	33.23	338.4	6	45	5	12	0	0				
MELBOURNE	33.30	153.2	6	40	-1						14	35
CANBERRA	33.36	145.8	6	42A	1							
RIVERVIEW	33.57	141.6	6	55A	12	12	20	14				
CANTON	34.28	337.6	6	50	1							
PHU-LIEN	35.41	326.2	6	58	-1	12	32	-2				
PORT BLAIR	39.47	300.4				13	27	-9			8	49 PP

ZO-SE	39.98	352.5	7	37	0						
KUNMING	40.98	325.6	7	47	1	13	58	-1			
NANKING	41.27	349.7	7	48	0						
CHENGTU	44.86	331.8	8	17	0	14	49	-6			
SIAN	45.99	339.3	8	28	2						
CHITTAGONG	46.14	312.6	8	26	-1	15	8	-6	10	15	PP
MATUSIRO	46.32	12.8	8	27	-2	15	24	8	9	16	
HOWRAH	48.85	310.2	8	49	0	15	46	-6			
COLOMBO	49.27	286.9							15	45	
LANCHOW	49.55	335.5	8	55	1	16	0	-2			
MADRAS	51.07	294.5	9	4	-2				12	10	
LHASA	51.37	319.4	9	8	0	16	24	-3			
ROXBURGH	51.75	142.8				16	38	6	20	44	SS
CHATRA	52.21	313.9	10	12	58						
KARAPIRO	52.56	131.5	9	16	-1				9	27	
KODAIKANAL	52.57	290.0							16	48	
POONA	58.82	297.8	10	2K	0	17	58	-9	18	21	PS
ULAN-BATOR	59.10	344.5	10	3	-1						
AGRA	59.18	308.7	10	4	-1	18	4	-8			
BOMBAY	59.86	297.7	10	5	-4	18	14	-6	10	30	PCP
DEHRA DUN	60.79	311.9	10	43	27				18	38	
LAHORE	64.17	311.2	10	37	-1	19	6	-9			
WARSAK DAM	67.40	312.3	10	57	-2						
CAPE HALLETT	68.71	166.9				20	24	14	24	58	SS
QUETTA	69.23	306.8	11	8	-2	20	10	-6	13	41	PP
YAKUTSK	70.58	1.5	11	16	-2						
MAGADAN	70.74	12.7	11	17	-2						
NAMANGAN	70.76	318.9	11	17	-3						
SCOTT BASE	72.06	171.8	11	27	0						
MAWSON	72.16	201.2	11	26	-2						
TANANARIVE	77.08	252.6	11	57	1						
TIKSI	80.21	0.7	12	10	-3						
SOUTH POLE	81.31	180.0	12	16	-3						
SVERDLOVSK	84.63	329.7	12	36	0						
BYRD STATION	85.45	170.8	12	39	-1	23	12	1	41	2	PKPPKP
TIFLIS	89.82	312.2	13	1	0						
LWIRO	97.54	266.6	13	44	7				17	43	
RESOLUTE	109.99	10.8	18	32	-1	24	50	-22	28	56	PS
HUNGRY HORSE	115.73	40.3	18	44	0						
EUREKA	116.49	50.2	18	47	2						
TUCSON TELE.	122.01	57.3	18	59	3						
TAMANRASSET	122.11	291.3							18	55	
OTTAWA	138.65	24.1	19	31	3						
SHAWINIGAN	138.78	20.5	19	33	5				23	3	SKP
SEVEN FALLS	138.92	18.3	19	29	1				23	3	SKP
PALISADES	142.99	26.4							20	25	
HUANCAYO	149.84	132.9	19	54	7						

JANUARY 21 11.H 8.M 12.S EPICENTRE 18.76 119.65 DEPTH= 0.KM

A=-0.46876 B= 0.82347 C= 0.31962 D= 0.8691 E= 0.4947
G=-0.1581 H= 0.2778 K=-0.9475 HT= 5.0

SE= 2.31

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
BAGUIO CITY	2.49	159.0	0	41	1	1	9	-2					
MANILA	4.34	162.8	1	5	-2	2	6	8					
HONG KONG	6.23	305.4	1	30A	-3	2	38	-7					
CANTON	7.34	306.9	1	44A	-5								
PHU-LIEN	12.43	281.6	3	4	5						3	16	PP
WUHAN	12.60	339.4	3	2	1	5	33	11					
NANKING	13.26	356.8	3	10	0	5	43	5					
KUNMING	16.94	294.7	3	56A	-2								
SIAN	18.15	330.3	4	14A	1	7	43	11					
CHENGTU	18.48	312.9	4	16A	-1	7	45	5					
TIENSHUI	20.03	324.6	4	35	0								
ABUYAMA	21.39	38.2	4	51K	2								
PEKING	21.41	352.7	4	50A	1	8	50	9					
LANCHOW	22.20	324.2	4	57	0	9	2	6			5	25	PP
PAOTOW	23.27	341.2	5	9A	2	9	27	12					
MATUSIRO	24.10	38.9	5	15K	0	9	44	14			9	10	
TUKUBASAN	25.04	41.9	5	22A	-3								
CHANGCHUN	25.45	9.6	5	31	3	10	5	13					
MEDAN	25.46	236.2	5	28	0						7	8	
CHITTAGONG	26.29	282.6	5	36	0						6	28	PPP

VLADIVOSTOK	26.40	20.4	5	40	3							
SHILLONG	26.57	289.8	5	38A	-1	10	12	1				
LHASA	28.18	298.0	5	55	2	10	41	4				
HOWRAH	29.53	282.8									9	21 PCP
ULAN-BATOR	30.89	343.2	6	22	4	11	25	5				
RABAUL	39.32	122.2	7	25	-5						7	40
DEHRA DUN	39.35	295.1	8	2	32	13	30	0				
YAKUTSK	43.79	6.8	8	6	0							
BOMBAY	44.22	278.1				14	45	3			18	16
WARSAK DAM	45.28	299.5	8	20	2							
NAMANGAN	46.45	309.1	8	29	1							
MAGADAN	46.52	21.3	8	27	-1							
CHARTERS TS.	46.53	144.5	8	28	0							
QUETTA	48.92	294.0	8	47	0	15	52	3			10	41 PP
TIKSI	53.15	3.6	9	18	-1	16	46	-1				
BRISBANE	56.20	144.0									10	39 PCP
ADELAIDE	56.38	161.2	9	43K	0				9	52		
SVERDLOVSK	57.65	326.1	9	52	1							
CANBERRA	60.56	152.6	10	11K	-1							
KHEYS	67.80	350.0	10	54	-5							
MOSCOW	70.25	323.5	11	13	-1							
APATITY	71.39	336.1	11	20K	-1						14	49
PULKOVO	73.66	328.2	11	24	-10							
SODANKYLA	74.01	336.3	11	36	0							
COLLEGE	74.27	26.3	11	37	-1							
HELSINKI	76.22	329.1	11	49	0							
KIRUNA	76.23	337.3	11	49	0							
NURMIJARVI	76.29	329.5	11	44	-5							
KARAPIRO	77.01	137.8	11	55	2				12	5		
TONGARIRO	77.77	138.8	11	59	1				12	9		
ISTANBUL UN.	78.42	309.5	11	59	-2							
UPPSALA	79.85	329.9	12	7	-2						12	18
CINE	80.00	306.3	12	9	-1						12	24
TANANARIVE	80.06	246.1	12	18	8							
KRAKOW	81.88	320.1	12	19	-1							
RESOLUTE	84.22	8.7	12	31K	-1	22	54	-1			28	21 SS
THULE	84.90	1.9	12	35	0						15	54 PP
PRUHONICE	85.14	321.3	12	37K	1							
COLLMBERG	85.51	322.9	12	37	-1							
SHASTA	97.48	42.6	13	35	1							
HUNGRY HORSE	97.83	32.9	13	38	2							
MINERAL	98.17	42.6	13	38	1							
EUREKA	102.22	40.8	13	57	2						18	1 PP

JANUARY 21 13.H 57.M 32.S EPICENTRE 13.90 51.69 DEPTH= 0.KM

A= 0.60193 B= 0.76202 C= 0.23877 D= 0.7847 E=-0.6199
G= 0.1480 H= 0.1874 K=-0.9711 HT= 5.9

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
KARACHI	18.66	48.2	4	16	-5	7	43	-4				
BOMBAY	20.86	73.4	4	46	0	8	48	13				
QUETTA	21.46	38.5	4	53	1	8	51	5			5	18 PP
POONA	21.76	74.8	4	53	-2	8	59	7				
KSARA	24.48	326.8	5	25	3	9	49	9			6	4 PP
GORIS	25.93	350.5	5	39	3	10	19	14				
HYDERABAD	25.99	78.7				10	15	9				
RUMANGABO	26.84	237.4	5	46	2							
WARSAK DAM	26.91	38.6	5	47	2							
LAHORE	27.19	46.0	5	49	2	10	35	10				
AGRA	27.87	57.7	5	53	0	10	37	1				
TIFLIS	28.36	349.1	6	0	2	10	56	12				
MAKHACH-KALA	29.19	353.7	6	8	3							
DEHRA DUN	29.27	51.7				11	2	3			6	44
SOTCHI	31.31	343.1	7	23	59							
NAMANGAN	32.12	29.1	6	33	2							
TANANARIVE	32.87	187.2	6	38	0						6	51
BANGUI	33.95	257.0	6	47	0							
SIMFEROPOL	34.36	337.7	6	51	0	12	32	14				
CHATRA	35.53	63.2									8	0 PP
KISHINEV	38.16	334.5	7	23	0							
CHITTAGONG	38.95	71.6	7	32	3	13	39	10				
SHILLONG	39.41	66.6	7	32K	-1							

MOSCOW	43.13	348.4	8	4	0						
SVERDLOVSK	43.38	7.1	8	6	0						
TAMANRASSET	44.56	288.4	8	16	1						
TOLMEZZO	45.81	322.9	8	24	-1						
PRUHONICE	46.99	327.8	8	34A	-1					10	5 PCP
PULKOVO	48.43	345.7	8	45	-1						
COLLMBERG	48.57	328.4	8	46	-1						
HALLE	49.22	328.1	8	48	-4					9	0
NURMIJARVI	50.54	343.1	9	1	-1						
UPPSALA	52.25	339.0	9	14	-1						
GARCHY	52.27	319.8	9	15	0						
APATITY	54.93	351.5	9	34K	-1	17	24	8		17	39 PS
SODANKYLA	55.90	348.6	9	40	-2						
SKALSTUGAN	56.69	340.1	9	45	-3						
KIRUNA	57.59	346.5	9	53	-1					10	2
KHEYS	66.17	0.1	10	54	2						
MBOUR	66.34	279.8								12	4
YAKUTSK	72.21	29.0								11	34 PCP
THULE	83.26	348.1	12	28	-2						
RESOLUTE	89.16	351.6	12	58	-1					29	48
COLLEGE	100.08	8.3	17	52	777						
COLLEGE	100.08	8.3	17	52	243						
HUNGRY HORSE	116.74	349.4								19	55 PP
EUREKA	125.66	348.3	19	7	3					20	43 PP
TUCSON TELE.	131.03	340.2	19	37	23						

JANUARY 22 5.H 10.M 32.S EPICENTRE 37.61 142.14 DEPTH= 43.KM

DEPTH OF FOCUS= 0.002R

A=-0.62705 B= 0.48741 C= 0.60765 D= 0.6137 E= 0.7895
G=-0.4798 H= 0.3729 K=-0.7942 HT= -0.8

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
ISINOMAKI	1.05	322.0	0	18K	0	0	34	2				
SENDAI	1.18	304.4	0	21K	1	0	38	2				
ONAHAMA	1.19	236.9	0	20K	0	0	35	-1				
HUKUSIMA	1.33	276.7	0	23	1	0	42	3				
YAMAGATA	1.56	294.9	0	27	2	0	44	-1				
SHIRAKAWA	1.61	253.0	0	27	1	0	44	-2				
MIZUSAWA	1.72	332.7	0	29	1	0	55	6				
MITO	1.81	228.1	0	32	3	0	54	3				
MIYAKO	2.04	356.3	0	31A	-1	0	55	-2				
KAKIOKA	2.09	229.4	0	30K	-3	0	49	-9				
UTUNOMIYA	2.10	240.6	0	32K	-1	0	53	-5				
TUKUBASAN	2.14	230.4	0	32K	-2	0	57	-2				
TYOSI	2.15	209.3	0	31A	-3	1	0	0				
MORIOKA	2.22	340.3	0	35A	0	1	6	5				
SAKATA	2.23	306.1	0	37	2	1	4	2				
NIIGATA	2.47	278.2	0	41K	3	1	11	3				
AKITA	2.65	323.5	0	43A	2							
KUMAGAYA	2.65	237.5	0	41A	0	1	13	1				
HONGO	2.69	225.9	0	40A	-1	1	21	8				
TOKYO C.M.O.	2.72	225.7	0	41A	-1	1	17	3				
MAEBASI	2.74	244.8	0	43K	1	1	22	8				
TITIBU	2.95	237.5	0	45	0	1	16	-4				
YOKOHAMA	2.96	223.5	0	45A	0	1	23	3				
HATINOHE	2.96	350.9	0	45A	0	1	20	0				
TAKADA	3.14	261.9	0	51	3	1	38	13				
OIWAKE	3.15	247.2	0	48	0	1	30	5				
MERA	3.27	215.6	0	48A	-2	1	28	0			1	10
NAGANO	3.29	254.7	0	52K	2	1	41	13				
MATUSIRO	3.31	252.6	0	52K	2	1	35	6				
AOMORI	3.38	342.2	0	51A	0	1	34	3				
HUNATU	3.43	233.3	0	53	1	1	37	5				
KOHU	3.49	236.6	0	53A	0	1	38	5				
AJIRO	3.54	224.8	0	53	-1	1	36	1				
MISIMA	3.58	227.0	0	52A	-2	1	42	6				
OSIMA	3.61	219.1	0	53A	-1	1	41	5			1	12
MATUMOTO	3.61	249.2	0	56	2	1	39	3				
SHIZUOKA	4.01	230.1	1	0A	0	1	58	11				
NAGATURO	4.01	222.6	1	0	0	1	53	6				
IIDA	4.05	240.3	1	4	3	1	50	2				
TOYAMA	4.05	258.6	1	2	1	1	55	7			1	24

WAZIMA	4.18	268.5	1	3	0	2	1	10	1	19	
TAKAYAMA	4.18	251.1	1	5	2				2	20	
HAKODATE	4.31	345.7	1	3A	-1	1	57	3	1	26	
OMAESAKI	4.37	227.8	1	4A	-1	2	0	4	1	18	
KANAZAWA	4.52	257.9	1	12	5						
URAKAWA	4.56	6.0	1	10	2	2	10	9			
HAMAMATU	4.59	232.5	0	59	-9				2	13	
MORI	4.65	345.4	1	9	0	2	9	6			
HIROO	4.75	10.6	1	8	-3	2	6	1	2	29	
MURORAN	4.80	349.6	1	13	2	2	29	22	2	1	
NAGOYA	4.83	241.3	1	13	1	2	13	6	1	41	
GIHU	4.86	244.6	1	13A	1	2	12	4			
HATIDYOZIMA	4.88	203.5	1	11	-1	2	16	8			
TOMAKOMAI	4.93	355.2	1	16	3	2	23	13			
HUKUI	4.96	253.5	1	17	3	2	28	18			
IBUKISAN	5.15	246.2	1	17A	1	2	28	13			
TSURUGA	5.26	250.0	1	20	2	2	25	7			
HIKONE	5.29	245.6	1	20A	2	2	22	3			
KAMEYAMA	5.35	240.7	1	20	1	2	39	19			
OBIHIRO	5.37	8.3	1	19	0	2	36	15			
TU	5.38	239.4	1	19	0	2	34	13			
SUTTSU	5.39	344.8	1	18	-2	2	22	1	1	59	
SAPPORO	5.49	353.9	1	18	-3	2	24	0			
KUSIRO	5.64	17.1	1	19	-4	2	22	-5			
MAIZURU	5.78	250.4	1	25	0	2	37	6			
NARA	5.88	242.1	1	27	1	2	46	12	3	2	
ABUYAMA	5.97	244.8	1	28A	0						
OWASE	5.98	235.6	1	27	-1	2	38	2			
OSAKA	6.11	243.1	1	30A	0	2	45	6	1	58	
ASAHIGAWA	6.17	1.5	1	29	-1	2	46	5			
TOYOOKA	6.25	252.8	1	36A	4	2	43	0			
NEMURO	6.29	23.5	1	27	-5	2	31	-13	1	57	
KOBE	6.34	244.7	1	34	1	2	53	8	1	53	
RUMOE	6.35	356.6	1	51	18	3	1	16			
WAKAYAMA	6.58	241.3	1	35A	-1				3	17	
ABASHIRI	6.61	13.5	1	35	-2	2	43	-9			
SIOMISAKI	6.65	233.3	1	36A	-1	3	11	18			
TOTTORI	6.71	254.1	1	40	2	2	59	5			
SUMOTO	6.72	243.3	1	39A	1	3	4	9			
HIMEJI	6.99	246.0	1	37	-5	3	8	7			
TOKUSIMA	7.08	242.4	1	44	1	3	11	8	3	32	
SAIGO	7.20	261.4	1	47	2	3	18	12	2	11	
OKAYAMA	7.26	248.8	1	47A	1	3	26	18			
TORISIMA	7.27	192.7	1	41	-5	3	0	-8			
TAKAMATU	7.33	245.9	1	46	-1	3	24	14	2	6	
YONAGO	7.40	255.6	1	49	1	3	20	9	4	7	
MATSUE	7.61	256.3	1	51	0	3	22	5			
WAKKANAI	7.81	357.6	1	54	1				2	47	
MUROTO	7.82	238.6	1	54	1	3	32	10			
KOTI	8.10	242.6	1	57A	0	3	36	7	3	26	
HIROSIMA	8.51	250.6	2	3A	0	3	43	4			
MATUYAMA	8.52	246.5	2	3A	0	3	39	0	3	25	
HAMADA	8.57	254.7	2	4K	0	3	34	-6	3	56	
KURILSK	8.75	27.6	2	5K	-1	3	32	-13			
SIMIDU	8.92	240.0	2	7	-2	3	40	-9			
UWAZIMA	8.96	243.7	2	9	0	4	10	20	4	35	
Y.-SAKHLINSK	9.35	2.4	2	10A	-5	3	52	-8	3	26	
VLADIVOSTOK-	9.56	308.4	2	19A	1	4	11	6			
OOITA	9.63	246.2	2	19	0	4	41	34			
SIMONOSEKI	9.81	251.5	2	21	0	4	24	13			
ASOSAN	10.20	245.9	2	30	4	4	26	6			
HUKUOKA	10.35	250.7	2	29	1	4	54	30			
MIYAZAKI	10.48	240.4	2	31A	1	4	50	23	4	29	
KUMAMOTO	10.51	246.4	2	30	-1	4	51	23			
SAGA	10.59	249.3	2	33	1				5	39	
UNZENDAKE	10.88	247.0	2	35A	-1				4	24	
ITUHARA	10.97	255.8	2	35	-2	5	13	34			
NAGASAKI	11.15	247.8	2	38A	-1	5	28	44	5	51	
KAGOSIMA	11.29	241.2	2	42A	1				5	59	
YAKUSIMA	12.00	236.9	2	49A	-2				5	4	
TOMIE	12.02	249.5	2	50A	-1	5	33	28			
CHANGCHUN	14.19	301.2	3	19A	-1	5	58	1			
SUIHWA	14.39	313.5	3	28	6						
DAIREN	16.17	280.9	3	45	0						
ZO-SE	18.47	255.6	4	10A	-4	7	31	-4			
PETROPAVLOVK	19.30	31.2	4	21	-3	7	56	2	4	37	PP
NANKING	19.93	260.8	4	27A	-3	8	6	-1			
PEKING	20.36	284.9	4	31A	-4	8	11	-5			

TAIPEI	21.57	240.4	4	44	-3	8	50	11		
ILAN	21.58	239.5	4	58	11					
HSINCHU	22.10	240.8	4	38	-15					
HWALIEN	22.20	238.1	4	53	-1					
TATUNG	22.57	285.3	4	54	-3					
MAGADAN	22.66	11.5	4	58	0	9	0	1		
TAICHUNG	22.72	239.9	5	14	15					
HSINKONG	22.96	236.8	5	2	1	9	15	11		
ALISHAN	23.05	238.5	4	39	-23	8	45	-21		
TAIYUAN	23.34	279.6	4	58	-7					
TAITUNG	23.35	236.6	5	1	-4	9	20	9		
TAWU	23.79	236.3	5	2	-7	9	28	10		
TAINAN	23.80	238.5	5	15	6	9	39	20		
WUHAN	23.86	261.0	5	8A	-2					
HENGCHUN	24.13	235.9	5	22	10	9	34	10		
GUAM	24.15	173.8	5	13K	0					
PAOTOW	25.03	286.8	5	20A	-1					
SIAN	27.03	273.0	5	38A	-2					
ULAN-BATOR	27.63	303.2	5	46A	1					
YINCHUAN	28.16	282.9	5	52	2					
BAGUIO CITY	28.41	227.8	5	50	-2	10	33	-2		
HONG KONG	28.50	245.6	5	53A	0	10	40	4	6	35 PP
CANTON	28.67	247.9	5	54A	0	10	42	3		
TIENSHUI	29.45	275.3	6	4	3	11	3	12		
MANILA	29.65	225.0	6	1	-2				11	50
IRKUTSK	30.13	311.3	6	8A	1	11	7	5	7	22 PPP
LANCHOW	30.57	279.0	6	11A	0	11	13	4		
WUWEI	31.07	282.9	6	16	0					
CHENGTU	32.15	269.0	6	28A	3					
TIKSI	34.78	352.7	6	46	-2	12	15	0	8	26 PPP
YUMEN	34.91	288.7	6	50	1					
PHU-LIEN	34.98	251.4	6	49K	-1	12	27	9	7	10 PP
KUNMING	35.71	261.0	6	55A	-1	12	32	3		
TOCKLAI	41.15	268.9	8	47	66					
RABAUL	42.63	165.1	7	53	0					
LHASA	42.85	274.9	7	57A	2	14	23	7	9	41 PP
SHILLONG	44.00	269.2	8	5	0	14	36	3	9	43 PP
SEMIPALATNSK	45.06	307.1	8	12	-1	14	49	1	10	4 PP
CHITTAGONG	45.63	265.3	8	19K	1	15	1	5	10	6 PP
PORT MORESBY	46.99	173.2	8	28	0	15	15	-1	10	18 PP
CHATRA	47.15	273.5	9	29	60	16	21	63		
COLLEGE	48.30	32.5	8	37A	-2	15	36	2	18	19 SCS
BOKARO	49.67	270.8	8	49	0	16	13	20	10	43 PP
FRUNSE	50.59	298.4	8	56	0	16	14	8	10	54 PP
PORT BLAIR	51.08	253.0	9	0	0	16	15	2	10	10 PCP
DEHRA DUN	52.75	282.3	9	17	5	16	53	17	11	8 PP
KHEYS	53.25	347.5	9	7	-9	16	29	-14	11	5 PP
HONOLULU	53.67	89.9	9	19	0	16	46	-2	10	22 PCP
AGRA	54.23	278.8	9	24A	1	16	55	-1	11	33 PP
VIZIANAGRAM	54.53	266.1				16	59	-1		
DJAKARTA	54.59	224.8	9	24A	-2	17	3	2		
LEMBANG	54.69	223.6	9	25	-2	17	5	3		
TASHKENT	54.83	298.3	9	28	0	17	8	4	21	10 SS
LAHORE	55.08	285.4	9	28A	-1	17	16	9	11	34 PP
SVERDLOVSK	55.11	318.5	9	30	0	17	11	3	12	48 PPP
SITKA	55.58	41.1	9	39K	6					
WARSAK DAM	56.12	289.3	9	37A	0	17	36	15		
STALINABAD	56.27	295.4							16	31
HAWAII V.OB.	56.91	90.1	9	42	-1	17	34	3		
CHARTERS TS.	57.44	175.4	9	43	-3	17	36	-2		
HYDERABAD	58.87	268.6	9	54A	-2	18	8	11	12	2 PP
MADRAS	60.02	263.3	9	58A	-6	18	18	6	12	20 PP
NORD	60.52	356.5	10	6A	-2	18	20	2		
ISFJORD	60.57	349.2	10	10	2	18	24	5	12	6 PP
QUETTA	61.33	287.4	10	12A	-1	18	28	-1	10 30	12 29 PP
RESOLUTE	61.91	14.6	10	15A	-2	18	40	4		14 12 PPP
POONA	61.92	272.4	10	16A	-1	18	42	6		22 38 SS
APATITY	62.41	335.8	10	19A	-1	18	44	2	10 32	12 28 PP
BOMBAY	62.54	273.4	10	20	-1	18	48	4		12 42 PP
KARACHI	63.43	283.1	10	29A	2	19	13	18		11 8 PCP
KODAIKANAL	63.79	262.6	10	28K	-1	19	19	19		12 58 PP
ASHKABAD	63.90	298.9	10	30A	0					11 50
COLOMBO	63.93	258.1	10	31	1					20 08
ALBERNI	64.43	46.5				19	5	-3		
SODANKYLA	64.66	337.3	10	33	-2					
SUVA	65.13	141.7								19 29
HORSESHOE B.	65.26	45.8	10	39	0	19	22	4		20 33
BRISBANE	65.54	169.4	10	48A	7	19	11	-10		

VICTORIA	65.60	46.7	10	45	4					
KIRUNA	66.19	339.3	10	44A	-1	19	24	-5	13 2	PP
MOSCOW	67.14	323.5	10	51	0	19	43	2	13 18	PP
CORVALLIS	67.67	50.4	10	55	1					
PULKOVO	67.99	329.6	10	55	-1				20 39	SCS
NURMIJARVI	69.71	332.1	11	6	-1					
HELSINKI	69.82	331.7	11	8	0					
SHASTA	70.30	53.5	11	10	0					
UKIAH	70.61	55.3	11	14K	2					
TIFLIS	70.92	308.2	11	14	0	20	29	4	13 55	PP
HUNGRY HORSE	70.97	43.3	11	14A	-1	20	30	4	13 51	PP
MINERAL	70.99	53.5	11	15	0					
GORIS	71.17	305.6	11	16	0	20	38	10	13 58	PP
RIVERVIEW	71.56	172.1	11	27A	9	20	36	3		
SKALSTUGAN	71.59	338.8	11	17A	-1				13 50	PP
SCORESBY SD.	71.61	354.4	11	18	0	20	36	3	13 59	PP
BERKELEY	71.93	55.9	11	18	-2	20	40	3		
ADELAIDE	72.24	183.0	11	22	0	20	40	0	14 2	PP
SASKATOON	72.47	37.1	11	29	6	20	49	6		
RENO	72.58	53.4	11	23	-1					
LICK	72.64	56.1	11	24	0					
UPPSALA	72.70	334.2	11	24A	-1	20	46	0	15 43	PCS
BUTTE	73.15	44.6	11	29	2	20	42	-9	14 14	PP
PERTH	73.43	203.2	12	12	43	21	3	9	19 48	
FRESNO	74.17	55.7	11	32	-1	21	7	5		
BOZEMAN	74.20	44.2	11	35K	1					
EUREKA	75.04	51.6	11	37	-1				39 21	PKPPKP
MELBOURNE	75.11	177.7	11	38	-1	21	14	1		
SIMFEROPOL	75.32	315.7	11	40A	0	21	17	2	14 34	PP
BERGEN	76.12	339.5	11	45A	0	21	27	3	29 45	
GOTEBORG	76.25	335.0	11	43	-2				14 36	PP
SALT LAKE C.	76.77	48.6	11	50A	2	21	32	1	12 42	
PASADENA	76.78	57.1	11	47K	-1	21	32	1	26 34	SS
WARSAW	76.90	327.3	11	49A	0	21	37	5	14 53	PP
LWOW	77.26	324.2	11	51	0	21	38	2	16 42	PPP
IASI	77.33	320.5	11	52	1	21	44	7	15 20	PP
COPENHAGEN	77.67	333.5	11	53A	0	21	45	4		
REYKJAVIK	77.82	352.9	11	58	4					
BOULDER CITY	77.87	53.9	11	55K	1				12 14	
BACAU	78.10	320.4	11	57	1	21	57	12	21 49	SKS
KRAKOW	78.95	326.2	12	1	1	21	42	-12		
SKALNATE PL.	79.44	325.5	12	0K	-3	22	19	20	15 4	P.
RAPID CITY	79.49	41.8	12	3	0				15 28	PP
RACIBORZ	79.69	327.1	12	1	-3				15 23	PP
CAMPULUNG	79.94	320.3	12	8	2	22	42	37	22 30	SKS
BUCHAREST	79.98	319.2	12	7	1	22	35	30	15 5	PP
POTSDAM	80.02	331.1	12	5	-1	22	13	7	13 51	
AUCKLAND	80.03	153.9				22	15	9	27 11	SS
LARAMIE	80.05	45.1	12	7	1					
ISTANBUL UN.	80.72	315.2	12	8	-2	22	18	5		
ABERDEEN	80.88	341.2	12	18A	7	22	33	19	15 33	PP
COLLMBERG	80.90	330.5	12	10	-1	22	13	-2	27 28	SS
BOULDER	81.06	45.9	12	13	1					
HALLE	81.15	331.1	12	8	-4	22	8	-9	15 18	PP
PRAGUE	81.28	329.0	12	13A	0	22	28	9	15 24	PP
KSARA	81.29	306.0	12	14	1	22	18	-1	15 20	PP
PRUHONICE	81.30	328.8	12	11A	-2	22	23	4	15 29	PP
HURBANOVO	81.33	325.6	12	16	3	22	30	11	16 6	PP
KECSKEMET	81.35	324.2	13	4	51	21	46	-33		
BRATISLAVA	81.60	326.4	12	13	-1	22	42	20	12 21	PCP
SZEGED	81.64	323.5	12	16	1	22	31	9		
JENA	81.74	330.9	12	16	1	22	32	9	15 36	PP
VIENNA-H.	81.85	326.8	12	17A	1	22	31	7	15 27	PP
PLAUEN	81.86	330.4	12	13	-3	22	28	3	15 53	
KALOCSA	81.97	324.3	12	16	0	22	52	26		
WITTEVEEN	81.99	334.5	12	20	4					
CHEB	82.10	330.0	12	18	1	22	34	7	15 30	PP
SONNEBERG	82.32	330.8	12	17	-1	22	34	5		
MUNSTER	82.36	333.6	12	18	0					
TONGARIRO	82.37	154.4	12	18	0					
BELGRADE	82.54	322.4	12	19	0	22	41	10	15 30	PP
SOFIA	82.62	319.4	12	21	1	22	37	5	15 37	PP
TUCSON	82.78	54.8	12	21K	1	22	36	2	15 53	PP
TUCSON TELE.	82.80	54.6	12	21K	0	22	53	19	39 3	PKPPKP
DURHAM	82.86	339.8	12	33A	12	22	37	2	15 48	PP
DE BILT	83.10	334.9	12	23	1	22	40	3	15 34	PP
COBB RIVER	83.16	157.2	12	25	3					
RENSBERG	83.36	333.2	12	23	0				24 47	PPS
CINE	83.56	313.1	12	23A	-1	22	45	3		

ZAGREB	83.88	325.4	12	26A	0	22	5C	5			28	17 SS
WELLINGTON	83.99	155.9	12	31	4	22	50	4			28	13 SS
KAIMATA	84.09	158.7	12	41	14							
STUTTGART	84.39	330.9	12	29A	0	22	53	3			15	58 PP
TUBINGEN	84.64	330.8	12	29A	-1	22	53	1				
TOLMEZZO	84.73	327.4	12	28	-2	22	59	6			14	5
TRIESTE	85.00	326.5	12	29	-3	22	58	2			15	51 PP
STRASBOURG	85.10	331.5	12	32A	0	22	55	-2			15	50 PP
KEW	85.40	337.5	12	37A	3	23	9	9			15	56 PP
RATHFARNHAM	85.42	341.6	12	36A	2	23	11	11			15	26 PP
GEBBIES PASS	85.53	158.3	12	37	3							
ATHENS	85.78	315.8	12	34	-2	22	56	-8				
CHUR	85.82	329.6	12	31A	-5	22	56	-8				
ROXBURGH	86.33	161.2	12	43	5	22	57	-12			27	58 SS
NEUCHATEL	86.71	331.1	12	40	0	23	21	9			17	46
PARIS	86.80	334.6	12	43	2							
BOLOGNA	86.96	327.2	12	42	1	23	3	-12			17	49 PPP
PAVIA	87.32	328.8	12	43A	0	23	9	-9			15	5
TARANTO	87.35	321.2	12	40	-3	23	6	-13			16	13 PP
OROPA	87.45	329.7	12	48	4	23	27	8			14	56
PRATO	87.56	326.9	12	46	2	23	37	17				
GARCHY	87.91	333.5	12	46	0	23	29	5				
JERSEY	87.96	337.4				23	31	7			14	34
CHIHUAHUA	88.25	54.8				23	13	-14			29	43 SS
ROME	88.52	324.9	12	48A	-1	23	19	-10			16	19 PP
CLERMONT-FD.	89.18	332.7	12	52	0	23	22	-14				
MONACO	89.23	329.0	12	51	-1							
FLORISSANT	89.91	38.3	12	53	-2	23	41	-1			16	32 PP
MESSINA	89.93	320.8	12	54A	-1	23	42	-1			16	32 PP
REGGIO CALA.	89.96	320.6	12	53	-3	23	43	0			16	26
FAYETTEVILLE	90.02	42.4	12	55	-1							
ST. LOUIS 1	90.11	38.3	12	55	-1	23	54	10			23	25 SKS
SHAWINIGAN	90.56	23.3	12	59	1	24	3	15			17	2 PP
OTTAWA	90.60	25.6	12	58	-1	23	48	-1			16	36 PP
SEVEN FALLS	90.64	21.8	12	58	-1	23	47	-2			30	2 SS
BREBEUF	91.22	24.3	13	0A	-1	23	53	-1				
CLEVELAND	91.76	31.3	13	7A	3	23	58	-1				
LITTLE ROCK	91.99	42.1	13	5	0	24	4	3				
PENNSYLVANIA	93.80	29.3	13	15	2	24	17	0			30	44 SS
MORGANTOWN	93.96	31.3	13	15	1	24	29	11				
TORTOSA	94.41	331.8				23	12	-70				
WESTON	94.75	24.2	13	31K	13	24	26	1			30	32
PALISADES	95.09	26.6	13	21	2	24	39	12	13	32	17	7 PP
FORDHAM	95.24	26.6	13	59	39	24	23	-6			25	18
GEORGETOWN	95.75	29.7				24	29	-4			17	11 PP
WASHINGTON	95.75	29.7	13	23	1						17	16 PP
MANZANILLO	95.90	60.7									23	12
SETIF	96.35	326.1	13	23	-2						17	18 PP
TOLEDO	96.88	334.5	13	27	0	24	58	15			17	8 PP
ALGIERS UNI.	96.88	328.0	13	26	-1	24	24	-19			17	26 PP
ALICANTE	96.94	331.3	13	7	-21	23	53	-50				
SERRA PILAR	97.20	338.2	13	38A	9	25	6	21			17	47 PP
COLUMBIA	98.22	35.1									17	45
RELIZANE	98.79	329.2	13	35	-1						18	11 PP
ALMERIA	99.00	331.9	13	41	4	25	12	11			17	51 PP
GRANADA	99.13	332.9	13	16K	-21	23	4	-118			17	10 PP
TACUBAYA	99.14	57.0	13	54	16						18	1 PP
MALAGA	99.83	333.3	13	42A	1						17	48 PP
VERA CRUZ	101.31	55.1				24	43	-37			25	4 SKKS
MERIDA	104.09	49.2	14	28	28						33	19 SS
TANANARIVE	104.83	257.5				25	4	-45			19	19 PP
BERMUDA	106.01	23.4	17	36	777						18	34
COMITAN	106.05	54.2									26	2
TAMANRASSET	107.39	318.4	14	15	777						18	40 PP
RUMANGABO	108.77	283.3	18	37	777							
LWIRO	109.76	282.9	14	25	777						18	59 PP
UVIRA	110.28	281.6	18	16	-11						19	4 PP
CAPE HALLETT	111.37	171.1				25	7	1			19	13 PP
BANGUI	113.03	295.4	19	7	35						19	32
BALBOA HTS.	119.46	49.0									20	22 PP
LCO. MARQUES	120.25	259.1	18	39	-7						20	10 PP
LUANDA	125.85	288.4	17	40	-77						21	26 PKS
BOGOTA	126.17	46.8	19	6	8						21	3 PP
SOUTH POLE	127.42	180.0	18	58	-2						21	2 PP
KIMBERLEY	127.68	260.2	19	0	0							
BYRD STATION	128.20	167.3	19	1	0	27	1	58			21	2 PP
HERMANUS	134.32	255.9									21	47 PP
HUANCAYO	137.96	62.7	19	23	3						22	16 PP

LA PAZ	146.05	60.0	19 36	2	26 49	13	23 15	PP
SANTA LUCIA	153.04	91.1	19 48K	3			27 13	PP
TALA POZO	155.81	73.9	20 23	35			24 18	PP
LA PLATA	163.58	86.6					31 23	SKKS

JANUARY 22 7.H 33.M 16.S EPICENTRE 43.53 144.31 DEPTH= 0.KM

A=-0.59069 B= 0.42433 C= 0.68631 D= 0.5834 E= 0.8122
G=-0.5574 H= 0.4004 K=-0.7273 HT= -3.0

SE= 2.63

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ABASHIRI	0.49	357.6	0 13A	0	0 22	-1		
KUSIRO	0.56	173.0	0 12	-2	0 19	-5		
NEMURO	0.95	101.8	0 20K	0	0 32	-2		
OBIHIRO	1.01	233.3	0 19A	-2	0 34	-2		
ASAHIGAWA	1.43	280.7	0 27	0	0 49	2		
HIROO	1.45	210.5	0 27A	0	0 46	-1		
URAKAWA	1.78	219.7	0 30	-2	0 52	-4		
SHIKOTAN	1.85	78.6	0 34K	1	0 59	2		
RUMOE	1.99	283.0	0 36	1	1 9	8		
SAPPORO	2.21	258.9	0 38K	0	1 8	2		
TOMAKOMAI	2.24	244.1	0 45	6	1 17	10		
WAKKANAI	2.66	316.0	0 53	8	1 31	13		
MURORAN	2.73	245.0	0 46	0	1 27	7		
KURILSK	3.07	55.2	0 52A	2	1 35	7		
SUTTSU	3.07	257.6	0 53	3	1 30	2		
MORI	3.10	243.8	0 51	0	1 30	1		
HAKODATE	3.17	237.7	0 52A	0	1 31	0	1 21	
Y.-SAKHLINSK	3.60	342.4	0 58A	0	1 40	-2		
HATINOHE	3.64	215.5	0 56	-3	1 40	-3		
AOMORI	3.77	225.3	1 0	0	1 48	1		
MIYAKO	4.26	205.1	1 7	0	1 48	-11		
MORIOKA	4.49	212.6	1 8	-3	2 2	-3	1 25	
AKITA	4.94	221.0	1 19	2	2 1	-15	2 31	
MIZUSAWA	5.01	209.6	1 20	2	2 12	-5		
ISINOMAKI	5.58	204.9	1 22	-4	2 22	-10	1 53	
SAKATA	5.73	217.6	1 29K	1	2 39	4		
UGLEGORSK	5.76	345.2	1 31	2				
SENDAI	5.86	207.3	1 27	-3	2 43	4	2 28	
YAMAGATA	6.07	210.9	1 40	7				
HUKUSIMA	6.47	208.1	1 29	-10			4 16	
NIIGATA	6.88	217.2					2 30	
ONAHAMA	7.07	202.8	1 46	-1	3 8	-1	2 45	
SHIRAKAWA	7.12	207.4	1 48	0	3 12	2		
MITO	7.73	203.7	1 57	1				
UTUNOMIYA	7.76	207.5	1 57	0	3 23	-3		
KAKIOKA	7.95	204.9	1 53	-6	3 28	-3		
TUKUBASAN	7.99	205.3	1 54	-6	3 21	-11		
MAEBASI	8.18	211.2	2 1	-1	3 42	5	2 29	
KUMAGAYA	8.29	208.8	2 6	2	3 57	18		
NAGANO	8.30	216.4	2 7	3				
MATUSIRO	8.39	215.8	2 0	-5	3 35	-7	4 11	
OIWAKE	8.44	213.5	2 6	0				
TOKYO C.M.O.	8.59	205.7	2 35	27	4 18	31	3 36	
MATUMOTO	8.75	215.9	2 12	2				
YOKOHAMA	8.85	205.5	2 35	23			3 10	
KOHU	9.05	211.2	2 16	1	4 18	20		
VLADIVOSTOK	9.06	271.7	2 14K	-1	4 6	7		
HUNATU	9.09	209.9	2 22	7				
TAKAYAMA	9.15	218.7	2 14	-2				
MERA	9.27	203.5					2 48	
MISIMA	9.37	208.1	2 25	6				
OSIMA	9.55	205.2			4 21	10		
SHIZUOKA	9.70	210.1	2 28	5				
GIHU	9.99	218.2	2 26	-2			4 44	
OMAESAKI	10.09	209.9			4 55	31		
NAGOYA	10.10	216.7	2 34	5				
IBUKISAN	10.18	219.6	2 29	-1				
HIKONE	10.34	219.7	2 32	0				
KAMEYAMA	10.58	217.6	2 40	4				
OSAKA	11.18	220.5	2 50	6			4 30	
KOBE	11.32	221.7			4 2	-52	6 19	
YONAGO	11.70	229.9	2 42	-9			6 15	

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SUMOTO	11.74	221.8	2 53	2				6 34
SIOMISAKI	12.08	216.4			5	5	-8	
TOKUSIMA	12.11	222.0	2 51	-5				
SUIHWA	12.62	290.2	3 6	3				
HAMADA	12.81	231.8	3 10	4				4 38
KOTI	13.04	223.8	3 0	-9				
PETROPAVLOVK	13.51	39.7	3 17	2				
CHANGCHUN	13.76	277.8	3 17	-1				
MAGADAN	16.53	11.7	3 53K	-1				
PEKING	21.23	270.2	4 47	-2				
ZO-SE	22.11	243.6	5 0	2	9	5	7	
NANKING	23.10	248.8	5 9	1				
TATUNG	23.31	272.2	5 9	-1				
PAOTOW	25.52	275.2	5 30	-1				
ULAN-BATOR	26.30	292.8	5 36	-3				
WUHAN	26.91	251.1	5 44	0				
IRKUTSK	27.89	302.4	5 50	-3				
SIAN	28.88	263.3	6 2	0				
TIKSI	29.17	350.0	5 52	-13				
LANCHOW	31.73	270.4	6 29	2				
HONG KONG	32.71	239.4	6 37	1	11	21	-31	
CHENGTU	34.29	261.6	6 50	0				
MANILA	35.09	221.8	6 54	-3				
KUNMING	38.55	255.2	7 24	-2	13	21	-1	
COLLEGE	42.47	35.9	7 57	-1				
LHASA	44.24	270.0	8 16	4	14	53	6	
KHEYS	47.85	346.4	8 30	-11				
SVERDLOVSK	51.88	316.0	9 12	0				
RESOLUTE	55.76	16.0	9 37A	-4				
WARSAK DAM	55.87	286.6	9 38	-3				
QUETTA	61.24	285.5	10 16	-3	18	37	-1	
KIRUNA	61.24	338.9	10 17	-2				
CHARTERS TS.	63.25	177.9	10 30	-2				
MOSCOW	63.39	322.7	10 34	1				
POONA	63.41	270.8	10 28	-5				
PULKOVO	63.75	329.0	10 36	0				
SHASTA	65.55	56.5	10 47	0				
HUNGRY HORSE	65.59	45.8	10 47	0				
SCORESBY SD.	65.86	355.0	10 48	-1				
UKIAH	65.99	58.3	10 52	2				
MINERAL	66.24	56.4	10 50	-2				
SKALSTUGAN	66.67	338.8	10 52	-2				
BERKELEY	67.35	58.9	10 59	0				
RENO	67.82	56.2	11 3	1				
BUTTE	67.84	47.1	11 1	-1				
LICK	68.07	59.0	11 4	1				
UPPSALA	68.09	334.1	11 1	-2				
TIFLIS	68.59	307.5	11 5	-1				
BOZEMAN	68.88	46.7	11 10	2				
FRESNO	69.57	58.5	11 13	1				
EUREKA	70.15	54.2	11 15	-1				
SALT LAKE C.	71.68	51.0	11 26	1				
SIMFEROPOL	72.24	315.6	11 31	2				
PASADENA	72.27	59.7	11 28	-1				
BOULDER CITY	73.13	56.3	11 36	2				
LWOW	73.42	324.3	11 37	2				
RAPID CITY	74.02	43.8	11 38	-1				
LARAMIE	74.76	47.2	11 42	-1				
KRAKOW	74.93	326.6	11 46	2				
BOULDER	75.81	47.9	11 50	1				
COLLMBERG	76.54	331.0	11 52	-1				
PRUHONICE	77.07	329.4	11 56	0				
TUCSON	78.09	56.8	12 2	0				
TUCSON TELE.	78.09	56.7	12 4	2				
ADELAIDE	78.25	184.7	12 3K	0				
BENSBERG	78.79	334.0	12 9	3				
STUTTGART	79.99	331.7	12 14	2				
STRASBOURG	80.64	332.4	12 41	25				
CINE	80.69	313.8	12 13	-3				12 19 PCP
GARCHY	83.31	334.6	12 33	3				
SHAWINIGAN	84.48	24.7	12 36	0				
SEVEN FALLS	84.54	23.3	12 37	1				
OTTAWA	84.57	27.1	12 33	-3				
BREBEUF	85.16	25.7	12 38K	-1				
MORGANTOWN	88.07	32.6	12 53K	0				
SOUTH POLE	133.34	180.0	19 13	-5				21 42 PP
BYRD STATION	133.58	166.1	19 4	-14				22 49 SKP

JANUARY 22 9.H 46.M 35.S EPICENTRE 37.57 142.61 DEPTH= 0.KM

A=-0.63130 B= 0.48250 C= 0.60716 D= 0.6072 E= 0.7945
G=-0.4824 H= 0.3687 K=-0.7946 HT= -0.8

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
ISINOMAKI	1.33	310.5	0 26K	0	0 44	0		
ONAHAMA	1.50	246.1	0 28A	0	0 45	-3		
SENDAI	1.52	297.8	0 29K	1	0 48	-1		
HUKUSIMA	1.71	276.6	0 32K	1	0 54	0		
YAMAGATA	1.91	291.5	0 35	1	1 2	3		
MIZUSAWA	1.94	323.7	0 35	1	1 7	7		
SHIRAKAWA	1.96	257.4	0 35	1				0 53
MITO	2.09	235.9	0 36	0				1 19
MIYAKO	2.14	346.6	0 37A	0	1 1	-4		
TYOSI	2.33	218.0	0 39A	-1	1 5	-4		
KAKIOKA	2.36	236.2	0 38	-2	0 57	-13		
MORIOKA	2.41	332.5	0 41A	0	1 9	-2		
UTUNOMIYA	2.42	245.9	0 41	0	1 7	-5		0 59
SAKATA	2.56	302.1	0 45K	2	1 19	4		
NIIGATA	2.84	278.1	0 57	10	1 25	2		
AKITA	2.91	318.3	0 49A	1				
HONGO	2.94	231.7	0 49	0				1 52
KUMAGAYA	2.95	242.3	0 48	-1	1 23	-2		
TOKYO C.M.O.	2.98	231.5	0 49	0	1 27	1		
MAEBASI	3.07	248.7	0 51	1	1 24	-4		
HATINOHE	3.07	344.5	0 52	2	1 30	2		
YOKOHAMA	3.20	229.0	0 52	0	1 33	1		
TITIBU	3.25	241.8	0 51	-2	1 30	-3		
MERA	3.47	221.2	0 57	1				
OIWAKE	3.48	250.4	0 59	3	1 45	6		
AIKAWA	3.48	278.7	0 59	3	1 49	10		
TAKADA	3.51	263.6	1 4	7	1 47	7		
AOMORI	3.54	336.9	1 7	10	1 54	13		
NAGANO	3.64	257.0	1 1A	3	1 52	9		
MATUSIRO	3.66	255.1	1 0A	1	1 43	-1		
HUNATU	3.72	237.4	1 1	1	1 48	3		
KOHU	3.78	240.4	1 3	2	1 50	3		
AJIRO	3.79	229.5	1 4	3	1 49	2		
OSIMA	3.83	224.0	0 59	-2				1 42
MISIMA	3.84	231.5	1 1	0	1 54	6		
MATUMOTO	3.94	251.9	1 7	4	1 59	8		
SHIZUOKA	4.28	233.9	1 6	-2	2 6	7		
IIDA	4.36	243.4	1 9	0	2 5	4		
TOYAMA	4.41	260.3	1 9	0	2 1	-2		
HAKODATE	4.45	341.5	1 14	4	2 6	2		2 28
TAKAYAMA	4.53	253.4	1 18	7				
WAZIMA	4.55	269.3	1 22	11	2 18	12		
URAKAWA	4.58	1.6	1 13	1	2 7	0		
OMAESAKI	4.63	231.5	1 21	8	2 24	16		
HIROO	4.73	6.4	1 16	2	2 6	-5		
MORI	4.79	341.5	1 23	8	2 19	7		
HAMAMATU	4.87	235.7			2 18	3		
KANAZAWA	4.88	259.5	1 21	5				
MURORAN	4.92	345.7	1 34	17				
TOMAKOMAI	5.01	351.2			2 31	13		1 44 PG
NAGOYA	5.14	243.9	1 23	3	2 23	2		
GIHU	5.18	247.0	1 21A	1	2 25	3		1 59
HUKUI	5.31	255.3	1 24	2				
OBIHIRO	5.36	4.6	1 28	5	2 29	3		2 45
IBUKISAN	5.48	248.3	1 25K	1	2 35	6		
SUTTSU	5.53	341.5	1 27	2	2 43	12		2 16
KUSIRO	5.57	13.7	1 29	3	2 25	-7		3 12
SAPPORO	5.58	350.5	1 29	3	2 37	5		2 55
TSURUGA	5.60	251.9	1 27	1	2 37	5		
HIKONE	5.62	247.8	1 28	1	2 36	3		
KAMEYAMA	5.66	243.2	1 28	1	2 34	0		
TU	5.68	241.9	1 28	1				
MAIZURU	6.12	252.1	1 35	1	2 43	-2		
NEMURO	6.18	20.6	1 34	0	2 37	-10		
NARA	6.20	244.3	1 44	9	3 2	15		
ASAHIGAWA	6.21	358.4	1 35	0				
OWASE	6.27	238.1	1 36	0	2 56	7		

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ABUYAMA	6.30	246.8	1	35A	-1					
OSAKA	6.43	245.2	1	38	0	2	57	4	3	27
ABASHIRI	6.57	10.6				3	23	27	2	22
IOYOOKA	6.59	254.3	1	40	0	2	55	-2		
KOBE	6.67	246.6	1	42	1	3	10	11		
WAKAYAMA	6.90	243.3	1	44	-1				3	23
SIOMISAKI	6.93	235.6	1	41	-4				3	31
SUMOTO	7.04	245.2	1	47	0				3	31
TOTTORI	7.06	255.5	1	49	2	3	21	12	4	2
TOKUSIMA	7.40	244.2	1	50	-2	3	11	-6		
TAKAMATU	7.66	247.5	1	59	4	3	57	33		
YONAGO	7.76	256.8	2	0	3	4	0	34		
WAKKANAI	7.87	355.2							4	17
MUROTO	8.12	240.4	2	3	1	3	56	21		
KOTI	8.41	244.2	2	4	-2	3	39	-4		
MATUYAMA	8.84	248.0	2	14	2	3	48	-5	4	32
HIROSIMA	8.85	251.9	2	12	0					
HAMADA	8.92	255.8	2	21	8	3	48	-7		
SIMIDU	9.22	241.6	2	16	-1	4	14	11		
VLADIVOSTOK	9.87	307.5	2	25	-1					
HUKUOKA	10.69	251.8				4	46	7		
MIYAZAKI	10.79	241.8	2	47	8					
UGLEGORSK	11.51	358.2	3	4	16					
CHANGCHUN	14.53	300.9	3	28	0					
ZO-SE	18.82	256.3	4	20	-3					
NANKING	20.29	261.4	4	36	-4					
PEKING	20.73	285.0	4	39	-5	8	19	-13		
MAGADAN	22.62	10.9	5	2	-1					
GUAM	24.08	174.9	5	28	10					
WUHAN	24.22	261.5	5	18	-1					
PAOTOW	25.39	287.0	5	29	-1					
YAKUTSK	25.75	346.0	5	32	-2	9	56	-5		
SIAN	27.40	273.3	5	46A	-3					
ULAN-BATOR	27.96	303.1	5	53	-1					
BAGUIO CITY	28.66	228.6	5	58	-2					
CANTON	29.00	248.5	6	2	-1					
MANILA	29.89	225.7	6	8	-3					
LANCHOW	30.94	279.2	6	19	-1					
CHENGTU	32.52	269.4	6	31	-3					
KUNMING	36.07	261.4	7	2	-3					
LHASA	43.22	275.2	8	4	0					
SHILLONG	44.37	269.5	8	10A	-4					
CHATRA	47.52	273.8	9	36	58					
COLLEGE	48.13	32.5	8	43	0					
KHEYS	53.36	347.5	9	13	-10	16	37	-17		
NAMANGAN	53.62	297.3	9	23	-2					
SVERDLOVSK	55.38	318.6	9	35	-3					
LAHORE	55.45	285.6	9	34	-4					
WARSAK DAM	56.48	289.5	9	44	-2					
CHARTERS TS.	57.37	175.9	9	48	-4					
ISFJORD	60.67	349.3	10	15	0					
QUETTA	61.70	287.7	10	20A	-2				12	31 PP
RESOLUTE	61.85	14.7	10	20A	-3				10	31
POONA	62.30	272.7	10	23	-3					
APATITY	62.59	335.9	10	26K	-2					
KARACHI	63.80	283.4	10	35A	-1					
SODANKYLA	64.84	337.4	10	40	-3					
KIRUNA	66.35	339.5	10	50	-2				13	25 PP
MOSCOW	67.39	323.7	10	57	-2					
PULKOVO	68.21	329.7	11	1	-3					
NURMIJARVI	69.92	332.3	11	12	-3					
SHASTA	70.02	53.7	11	15	0					
MINERAL	70.71	53.7	11	19	0					
HUNGRY HORSE	70.74	43.4	11	19	-1					
TIFLIS	71.23	308.4	11	21	-2					
BERKELEY	71.64	56.1	11	29	4					
SCORESBY SD.	71.68	354.6	11	24	-1					
SKALSTUGAN	71.76	339.0	11	23	-3				11	33
ADELAIDE	72.22	183.4	11	36	7					
RENO	72.31	53.6	11	30	1					
LICK	72.35	56.3	11	34	5					
UPPSALA	72.89	334.4	11	30K	-2				11	46 PCP
BUTTE	72.91	44.8	11	37	4					
SOTCHI	73.25	312.3	11	33	-2	20	58	-5		
FRESNO	73.88	55.9	11	44	6					
EUREKA	74.77	51.8	11	43	0					
SIMFEROPOL	75.61	316.0	11	46	-2					
PASADENA	76.49	57.3	11	57	4					
BOULDER CITY	77.59	54.2	11	59	0					

IASI	77.60	320.8	11	58	-1					
KRAKOW	79.19	326.5	12	6	-2				12	14 PCP
RAPID CITY	79.27	42.0	12	8	0					
LARAMIE	79.81	45.3	12	12	1					
RACIBORZ	79.92	327.3	12	11	-1				12	23 PCP
COLLMBERG	81.11	330.7	12	16	-2					
PRUHONICE	81.52	329.1	12	19A	-1				15	15 PP
KSARA	81.61	306.3	12	20	-1					
JENA	81.95	331.2	12	21	-2					
TUCSON	82.50	55.0	12	32	7					
CINE	83.86	313.4	12	30A	-2				12	38 PCP
STUTTGART	84.60	331.1	12	34	-2					
TUBINGEN	84.85	331.1	12	36	-1					
GARCHY	88.11	333.8	12	53	0					
SHAWINIGAN	90.44	23.6	13	4	0					
OTTAWA	90.47	25.9	13	3	-2					
SEVEN FALLS	90.53	22.1	13	4	-1					
BREBEUF	91.10	24.6	13	6K	-1					
TAMANRASSET	107.66	318.7							18	48 PP
SOUTH POLE	127.38	180.0	18	57	-10					
BYRD STATION	128.09	167.3	19	1	-7					
LA PAZ	145.75	60.6	19	42	2					

JANUARY 23 10.H 20.M 58.S EPICENTRE 16.48 -46.58 DEPTH= 0.KM

A= 0.65940 B=-0.69691 C= 0.28197 D=-0.7264 E=-0.6873
G= 0.1938 H=-0.2048 K=-0.9594 HT= 5.5

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
TRINIDAD	15.62	250.2	3	43	0							
SAN JUAN	18.74	278.7	4	35	13							
SHAWINIGAN	37.04	329.6	7	13	0							
LA PAZ	39.06	214.0	7	24	-6	13	18	-12				
HUANCAYO	40.15	226.9	7	43	4							
TAMANRASSET	49.27	74.0	8	53	1						11	56
GARCHY	50.99	41.9	9	6	1							
RAPID CITY	54.83	312.6	9	32	-2							
STUTTGART	55.36	41.7	9	36	-2							
SCORESBY SD.	56.03	9.7	9	43	1							
COLLMBERG	58.37	39.5	9	59	0							
TUCSON TELE.	59.71	298.1	10	9	1							
TUCSON	59.80	298.0	10	10	1							
BOZEMAN	60.59	313.4	10	15	1							
SALT LAKE C.	60.77	307.8	10	15	-1						10	36
THULE	61.01	354.3	10	9	-8							
BUTTE	61.69	313.7	10	22	0							
HUNGRY HORSE	62.90	316.2	10	28	-2						11	8
BOULDER CITY	63.04	302.3	10	31	0							
RESOLUTE	63.80	347.2	10	35	-1						18	13
EUREKA	63.90	306.2	10	35	-1							
PASADENA	65.86	300.4	10	49	0	19	40	4			13	47 PP
RENO	66.87	306.4	10	56	0						14	2
FRESNO	67.01	303.4	10	56	-1							
CINE	68.12	55.6	11	1	-2						11	11 PCP
MINERAL	68.20	307.3	11	4	0							
LICK	68.44	304.1	11	7	2						14	5
SHASTA	68.78	307.7	11	7	-1							
BERKELEY	68.89	304.7	11	8	0							
UKIAH	69.53	306.1	11	18	6							
MOSCOW	73.31	36.0	11	36	1							
KHEYS	75.38	10.2	11	50	3							
COLLEGE	79.91	334.8	12	10	-2							
KIMBERLEY	82.28	122.9	12	25	1							
SVERDLOVSK	85.44	31.8	12	43	3							

JANUARY 24 5.H 8.M 38.S EPICENTRE 37.42 141.17 DEPTH= 86.KM

DEPTH OF FOCUS= 0.008R

A=-0.62015 B= 0.49923 C= 0.60513 D= 0.6271 E= 0.7790

G=-0.4714 H= 0.3795 K=-0.7961 HT= -0.7

SE= 2.41

	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
ONAHAMA	0.52	204.2	0	14	-2	0	25	-4				
HUKUSIMA	0.64	300.6	0	16K	-1	0	29	-1				
SHIRAKAWA	0.81	248.3	0	17	-2	0	29	-4				
SENDAI	0.87	346.1	0	19K	0	0	32	-1				
ISINOMAKI	1.01	6.9	0	20K	0	0	35	0				
YAMAGATA	1.05	322.2	0	21	0	0	37	1				
MITO	1.18	208.3	0	21A	-1	0	35	-4				
UTUNOMIYA	1.36	230.3	0	23K	-2	0	41	-2				
KAKIOKA	1.43	213.9	0	23A	-3	0	40	-5				
TUKUBASAN	1.48	215.7	0	24K	-2	0	41	-5				
MIZUSAWA	1.70	359.1	0	30	1	0	49	-2				
TYOSI	1.72	188.6	0	27A	-2	0	48	-3				
NIIGATA	1.75	287.0	0	37	7	0	57	5				
SAKATA	1.81	324.8	0	31K	1	0	51	-2				
KUMAGAYA	1.92	228.9	0	31A	-1	0	52	-3				
MAEBASI	1.97	239.3	0	32A	0	0	53	-3				
HONGO	2.05	213.7	0	32K	-2	0	54	-4				
TOKYO C.M.O.	2.08	213.6	0	32A	-2	0	54	-5				
TITIBU	2.21	229.9	0	35	-1	0	55	-7				
MORIOKA	2.27	0.1	0	38A	1	1	7	3				
MIYAKO	2.31	15.6	0	37	0	1	6	1				
YOKOHAMA	2.34	212.0	0	37	-1	1	4	-1				
TAKADA	2.35	262.9	0	38	0	1	4	-2				
OIWAKE	2.36	243.3	0	41	3						1	18
AIKAWA	2.39	285.3	0	40	2	1	3	-4				
AKITA	2.44	340.3	0	41A	2	1	10	2				
NAGANO	2.49	253.3	0	41A	1	1	12	3				
MATUSIRO	2.51	250.6	0	40A	0	1	0	-10				
MERA	2.72	203.8	0	41	-2	1	12	-3				
HUNATU	2.72	225.9	0	44	1	1	17	2				
KOHU	2.75	230.2	0	43	0	1	14	-2				
MATUMOTO	2.82	246.4	0	46	2						1	10
AJIRO	2.90	215.8	0	44	-1	1	15	-4				
MISIMA	2.91	218.6	0	45K	-1	1	15	-5				
OSIMA	3.02	209.2	0	45	-2	1	17	-5				
HATINOHE	3.11	5.1	0	48A	0	1	25	0				
TOYAMA	3.25	258.3	0	50	0	1	30	2				
IIDA	3.29	235.7	0	54	3	1	32	3				
SHIZUOKA	3.32	223.2	0	51A	0	1	27	-3				
TAKAYAMA	3.39	249.1	0	53	1						1	46
WAZIMA	3.40	270.5	0	53	1	1	28	-4				
AOMORI	3.40	355.1	0	53	1	1	31	-1				
OMAESAKI	3.69	221.1	0	56	0	1	38	-1				
HAMAMATU	3.88	227.0	1	2	3						1	56
NAGOYA	4.07	237.7	1	2	1	1	32	-16				
GIHU	4.08	241.6	1	2A	0	1	31	-18			2	3
HUKUI	4.16	252.2	1	4	1	1	35	-16			2	20
HAKODATE	4.36	355.6	1	5A	-1	1	56	0			2	14
IBUKISAN	4.37	243.6	1	7A	1	2	10	14				
HATIDYOZIMA	4.45	194.6	1	8	1	1	51	-7				
TSURUGA	4.47	248.2	1	8	1	1	56	-2			3	9
HIKONE	4.51	243.0	1	11	3	2	13	14				
KAMEYAMA	4.59	237.3	1	10	1						2	15
TU	4.62	235.8	1	7	-2						2	23
MORI	4.69	354.6	1	11	1	2	7	3				
URAKAWA	4.88	14.3	1	13	0	2	7	-1				
MURORAN	4.90	358.3	1	12	-1	2	8	-1				
MAIZURU	4.99	248.7	1	16	2	2	12	1				
TOMAKOMAI	5.10	3.4	1	18	2	2	18	4				
NARA	5.12	239.2	1	16	0						1	40
HIROO	5.12	18.2	1	14A	-2	2	10	-4				
ABUYAMA	5.20	242.3	1	15A	-2							
OWASE	5.24	231.8	1	8	-10	1	48	-29				
OSAKA	5.34	240.5	1	20	1	2	30	10			1	54
SUTTSU	5.42	352.7	1	21	1	2	28	6				
TOYOOKA	5.45	251.6	1	20	0	2	18	-5			1	42
KOBE	5.57	242.3	1	29	7	2	38	13			2	58
SAPPORO	5.64	1.4	1	22	-1	2	25	-2			1	57
OBIHIRO	5.71	15.2	1	24	0	2	30	1				
WAKAYAMA	5.82	238.6	1	26	0						2	4
TOTTORI	5.91	253.1	1	28	1	2	31	-3			1	51
SIOMISAKI	5.93	229.6	1	24	-3	2	44	10				
SUMOTO	5.95	240.9	1	25	-2	2	32	-3			2	7

KUSIRO	6.08	23.0	1 29	0	2 33	-5			
HIMEJI	6.21	244.0	1 26	-5				2 53	
TOKUSIMA	6.31	239.9	1 32	0				3 20	
SAIGO	6.40	261.4	1 40	6				2 4	
ASAHIGAWA	6.41	7.8	1 33	-1	2 46	0			
OKAYAMA	6.48	247.1	1 34	-1					
TAKAMATU	6.55	243.9	1 37	1				3 15	
YONAGO	6.61	254.8	1 34	-2	2 47	-4			
NEMURO	6.79	28.4	1 36A	-3	2 48	-8			
MATSUE	6.82	255.6	1 45	6	3 6	10			
TORISIMA	6.96	186.2	1 38	-3	2 48	-12			
ABASHIRI	7.00	18.8	1 43	1	2 59	-2			
MUROTO	7.07	236.0	1 46	3	3 6	4			
KOTI	7.33	240.4	1 48	2	3 12	3			
HIROSIMA	7.72	249.3	1 58	6	3 26	8		2 53	
MATUYAMA	7.73	244.9	1 51	-1	3 27	8			
HAMADA	7.78	253.8	1 58	6	3 29	9		2 16	
SIMIDU	8.16	237.8	1 56	-2	3 4	-25			
UWAZIMA	8.19	241.8	1 58	0					
OOITA	8.85	244.6	2 8K	1				4 11	
SIMONOSEKI	9.02	250.4	2 9	0				4 6	
VLADIVOSTOK	9.08	311.7	2 8	-2					
KURILSK	9.28	30.8	2 11A	-2	3 50	-6			
HUKUOKA	9.56	249.5	2 27	10				4 54	
Y.-SAKHLINSK	9.59	6.4	2 13A	-4	4 1	-3			
MIYAZAKI	9.72	238.5	2 18	-1	4 10	3			
KUMAMOTO	9.72	244.9	2 20	1	4 4	-3			
SAGA	9.80	248.1	2 28	8					
UNZENDAKE	10.09	245.6	2 32K	8	4 19	3			
ITUHARA	10.17	255.1	2 24	-1					
NAGASAKI	10.36	246.5	2 28K	0				2 49	
KAGOSIMA	10.52	239.4	2 30	0				4 53	
TOMIE	11.23	248.4	2 41A	2				5 43	
YAKUSIMA	11.26	235.0	2 39	-1	4 43	-1			
CHANGCHUN	13.63	302.9	3 9A	-2	5 42	2		3 25	*SP
SUIHWA	13.96	315.6	3 10	-5					
DAIREN	15.44	281.5	3 33	-1					
ZO-SE	17.67	255.0	4 1	-1	7 12	-1		4 16	PP
NANKING	19.13	260.4	4 15	-4	7 39	-6		4 34	*SP
PEKING	19.66	285.3	4 19A	-5	7 48	-8		4 37	PP
PETROPAVLOVK	19.86	32.2	4 27A	0			4 46	4 55	PP
MAGADAN	23.00	12.6	4 58K	0	9 3	5	5 17		
WUHAN	23.06	260.5	4 58	-1	9 18	19	5 14		
GUAM	24.07	171.4	5 8	0	9 31	14	5 20	5 29	*SP
PAOTOW	24.34	287.1	5 9	-2				5 45	PP
SIAN	26.26	272.9	5 26A	-3	9 52	-1		5 45	*SP
ULAN-BATOR	27.08	303.7	5 35A	-2					
BAGUIO CITY	27.71	226.5	5 40	-2	10 5	-12			
HONG KONG	27.72	244.7	5 53	11	10 16	-1		10 43	*SS
CANTON	27.88	247.1	5 42	-2	10 16	-3		6 3	*SP
IRKUTSK	29.67	311.9	5 58A	-2	10 46	-2	6 14	7 1	PP
LANCHOW	29.83	278.9	5 58	-3	10 48	-2		6 56	PP
CHENGTU	31.37	268.7	6 3A	-12	11 10	-5		6 33	*SP
PHU-LIEN	34.19	250.7			11 57	-1	6 58	8 5	PP
TIKSI	34.86	353.2	6 43	-2	12 5	-4		8 8	PP
KUNMING	34.91	260.5	6 43	-2	12 5	-4			
LHASA	42.09	274.6	7 46A	1	13 58	0		8 11	*SP
RABAUL	42.66	163.7	7 48	-2					
SHILLONG	43.22	268.8	7 51A	-3	14 11	-3	8 11	9 33	PP
SEMIPALATNSK	44.55	307.1	8 3	-2	14 32	-1	8 24		
CHITTAGONG	44.84	264.8	8 9	2	14 35	-3	8 28	9 56	PP
CHATRA	46.38	273.1	9 17	58	15 59	59			
PORT MORESBY	46.91	171.9	8 23K	-1	15 7	0	9 0	9 12	*SP
COLLEGE	48.87	32.4	8 38	-1	15 37	2	9 1		
FRUNSE	50.00	298.3	8 47	-1	15 52	2		18 27	SCS
DEHRA DUN	52.03	282.0	9 5	2	16 17	-1			
KHEYS	53.26	347.5	9 2	-10	16 20	-15	9 24	10 59	
LEMBANG	54.03	222.7	9 17	-1	15 44	-61			
TASHKENT	54.23	298.1	9 21	2	16 53	5	9 43		
LAHORE	54.38	285.1	9 19	-1	16 51	1	9 39		
KIPAPA	54.45	89.0	9 22	1					
SVERDLOVSK	54.73	318.4	9 22	-1				22 40	SSS
WARSAK DAM	55.45	289.0	9 26	-2	17 6	2			
STALINABAD	55.64	295.1	9 28	-1	17 8	1			
CHARTERS TS.	57.33	174.3	9 39	-2					
MADRAS	59.23	262.8	9 54	-1	17 56	2	10 14		
ISFJORD	60.60	349.1	10 6	2			10 40		
QUETTA	60.65	287.1	10 2A	-2	18 11	-1	10 24	12 14	PP

NORD	60.65	356.4	10	3A	-1									
POONA	61.15	272.0	10	6	-2	18	20	1	10	27				
BOMBAY	61.77	272.9	10	10	-2	18	26	0			10	32	PCP	
APATITY	62.25	335.6	10	13A	-2	18	29	-3	10	35	19	16	*SS	
RESOLUTE	62.28	14.4	10	13A	-2	18	34	1	10	34	20	0	SCS	
KARACHI	62.71	282.7	10	21	3	18	46	8	10	42				
ASHKABAD	63.30	298.6	10	22A	0	18	46	0	10	42	12	39	PP	
NOUMEA	64.00	153.9	10	27	0									
SODANKYLA	64.53	337.0	10	28	-2									
THULE	64.90	7.4	10	31	-1				10	52	12	55	PP	
ALBERNI	65.12	46.1	10	34	0									
BRISBANE	65.52	168.4				19	18	5						
HORSESHOE B.	65.94	45.4	10	41	2									
KIRUNA	66.08	339.1	10	39	-1	19	22	2	11	2	13	6	PP	
VICTORIA	66.29	46.3	10	42	1									
MOSCOW	66.82	323.3	10	43	-2	19	30	1	11	5	13	11	PP	
PULKOVO	67.75	329.3	10	50	-1	19	39	-1	11	10	13	16		
NURMIJARVI	69.51	331.8	11	0	-1									
HELSINKI	69.61	331.4	11	3	1									
TIFLIS	70.42	307.8	11	6	-1	20	11	0	11	29	13	41	PP	
GORIS	70.64	305.2	11	8	0	20	14	0	11	29	13	43	PP	
SHASTA	71.03	53.0	11	13	2				11	35				
SKALSTUGAN	71.48	338.5	11	12	-1				11	35	13	44	PP	
RIVERVIEW	71.50	171.2	11	14K	1						21	6	SS	
HUNGRY HORSE	71.63	42.8	11	15	1				11	38				
SCORESBY SD.	71.71	354.1	11	16	1				11	37	13	45	PP	
MINERAL	71.72	53.0	11	16	1				11	38				
ADELAIDE	72.02	182.1	11	17K	1									
UPPSALA	72.52	333.8	11	17A	-2	20	35	0	11	40	13	26	PP	
BERKELEY	72.68	55.4	11	22	2				11	44				
CANBERRA	72.74	173.3	11	22A	1						12	46		
RENO	73.31	52.9	11	25	1				11	48				
LICK	73.38	55.6	11	27	3									
BUTTE	73.82	44.1	11	29	2				11	50				
BOZEMAN	74.87	43.8	11	44	11				12	4				
SIMFEROPOL	74.91	315.3	11	34A	1	21	2	0	11	54	14	20	PP	
FRESNO	74.91	55.2	11	35	2				11	58				
MELBOURNE	74.96	176.9	11	34	0									
EUREKA	75.76	51.1	11	39	1				12	2				
GOTEBORG	76.09	334.6	11	43	3									
LWOW	76.95	323.7	11	36	-9	21	14	-10	11	58	14	30	PP	
IASI	76.98	320.1	11	46	1						14	42	PP	
SALT LAKE C.	77.47	48.1	11	49	1				12	11				
PASADENA	77.53	56.6	11	58	10	21	33	2			26	40	SS	
SIDA	77.79	350.7	11	52	3									
BOULDER CITY	78.60	53.4	11	55	1						12	56		
KRAKOW	78.67	325.8	11	55	1	21	46	3						
KASTAMONU	79.07	314.1	11	46	-10						14	37	PP	
RACIBORZ	79.41	326.6	11	58	0									
BUCHAREST	79.61	318.7	11	59K	0	23	8	75			14	52	PP	
RAPID CITY	80.14	41.3	12	4	2				12	26				
ISTANBUL UN.	80.30	314.7	12	2	-1	22	3	3						
KSARA	80.76	305.5	12	6	0	22	8	3	12	28	15	12	PP	
HALLE	80.93	330.6	12	1	-5	21	51	-16	12	22	14	50	PP	
PRAGUE	81.03	328.5	12	11	4						14	47	PP	
HURBANOVO	81.04	325.1	12	11	4				12	29	13	1	*SP	
PRUHONICE	81.05	328.4	12	6A	-1	22	12	4	12	28	22	39	*SS	
BRATISLAVA	81.31	325.9	12	10	2				12	32	15	10	PP	
JENA	81.52	330.5	12	8	-1				12	31	15	33	PP	
VIENNA-H.	81.58	326.3	12	9A	-1				12	33				
PLAUEN	81.63	329.9	12	8	-2				12	29	15	28	PP	
WITTEVEEN	81.82	334.1	12	13	2									
MUNSTER	82.18	333.1	12	14	1									
BELGRADE	82.20	321.9	12	14K	1	22	23	3			15	27	PP	
SOFIA	82.25	318.9	12	13	0	22	26	6			12	36	PCP	
JERUSALEM	82.48	304.3	12	17K	3				12	38				
DURHAM	82.76	339.3	12	7	-9	22	9	-16						
CINE	83.12	312.6	12	17	-1	22	23	-6						
BENSBERG	83.16	332.7	12	18	0						15	30	PP	
TUCSON	83.52	54.2	12	22	2				12	45				
TUCSON TELE.	83.53	54.1	12	22	2				12	47				
ZAGREB	83.58	324.9	12	20A	0				12	43	15	33	PP	
STUTTGART	84.17	330.4	12	22	-1	22	40	1	12	45	15	48	PP	
TUBINGEN	84.42	330.3	12	24	0				12	46	12	57	*SP	
TOLMEZZO	84.46	326.9	12	23	-1	22	40	-2			12	51		
TRIESTE	84.72	326.0	12	25	-1	22	40	-5	12	46	15	45	PP	
STRASBOURG	84.88	331.0	12	28A	1	22	42	-4	12	49	15	52	PP	
KEW	85.27	337.0	12	30A	2	22	39	-11	12	52	15	49	PP	
RATHFARNHAM	85.34	341.1	12	32	3									

PARIS	86.63	334.1	12	38	3			13	0		
GARCHY	87.72	332.9	12	40	0						
ROME	88.22	324.3				23	21 3			16	9 PP
MONACO	88.98	328.4	12	46	0						
CLERMONT-FD.	88.98	332.1	12	48	2						
MESSINA	89.58	320.2	12	33	-16	23	21 -10			23	3 SKS
SHAWINIGAN	91.03	22.7	12	58K	2						
SEVEN FALLS	91.09	21.2	12	58	2						
OTTAWA	91.10	25.0	12	58	2						
BREBEUF	91.70	23.7	13	OK	1			13	30		
PALISADES	95.60	25.9				24	30 7			23	44 SKS
SETIF	96.06	325.4	13	18	-1			13	40	16	56 PP
ALGIERS UNI.	96.62	327.3				23	48 -1			17	16 PP
RELIZANE	98.54	328.5								17	25 PP
TAMANRASSET	107.00	317.6								18	34 PP
CAPE HALLETT	111.31	170.8								19	31 PP
BYRD STATION	128.19	167.3	19	2	5			19	27	21	2 PP
HUANCAYO	138.73	61.9	19	16	0						
LA PAZ	146.81	59.0	19	38	8			19	48	20	2 *SPKP

JANUARY 24 7.H 51.M 0.S EPICENTRE -1.86 115.80 DEPTH= 69.KM

DEPTH OF FOCUS= 0.006R

A=-0.43497 B= 0.89987 C=-0.03219 D= 0.9003 E= 0.4352
G= 0.0140 H=-0.0290 K=-0.9995 HT= 7.2

SE= 2.43

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
LEMBANG	9.53	238.5	2	12	-4	4	33	30					
DJAKARTA	9.92	244.1	3	21K	59	4	55	43					
MANILA	17.12	17.3	3	57	1								
MEDAN	17.94	287.5	4	5A	-1								
BAGUIO CITY	18.76	14.4	4	14	-2	7	51	12					
HONG KONG	24.06	356.3	5	11	2	9	12	-7					
PHU-LIEN	24.24	338.7	5	10	-1	9	40	18					
KUNMING	29.62	335.4	6	6	5								
PORT MORESBY	32.06	104.7	6	20A	-2	11	32	4			7	23	PP
WUHAN	32.23	358.0	6	22	-1								
ZO-SE	33.17	8.5	6	35	3								
NANKING	33.84	4.6	6	37	0								
CHENGTU	34.23	341.8	6	43	2								
CHARTERS TS.	34.81	123.4	6	44A	-2								
HOWRAH	36.15	313.7	6	59	2	11	43	-48					
SIAN	36.49	350.4	6	59	-1								
ADELAIDE	39.22	149.6	7	22	-1								
LHASA	39.26	324.8	7	25	2	13	21	3					
LANCHOW	39.36	344.6	7	25	1								
ABUYAMA	40.97	25.1	7	37K	0								
PEKING	41.69	0.4	7	42	-1								
PAOTOW	42.56	353.5	7	49	-1								
MATUSIRO	43.54	26.5	7	56	-2	14	33	11					
BRISBANE	43.80	129.0				14	47	22					
MELBOURNE	44.71	146.7	8	7A	-1								
CANBERRA	45.38	141.0	8	13K	0				8	18	8	40	PP
RIVERVIEW	45.86	137.8	8	21A	4						9	54	
POONA	45.96	298.1	8	17	-1	15	1	5					
ULAN-BATOR	50.18	352.2	8	53	3								
WARSAK DAM	54.77	314.8	9	25	0								
UGLEGORSK	55.59	20.7	9	30	-1								
QUETTA	56.40	308.5	9	35A	-1	17	25	5			10	31	PCP
NAMANGAN	58.52	321.8	9	51	0								
TANANARIVE	68.84	250.5	10	58	-1								
SVERDLOVSK	73.33	331.9	11	25	-1								
TIKSI	73.85	4.3	11	26	-3								
MAWSON	74.88	198.5	11	41	6								
KSARA	82.66	304.3	12	20	3								
ASTRIDA	85.99	267.5	12	33	-1								
UVIRA	86.57	266.6	12	37A	1								
LWIRO	86.93	267.9	12	40K	2								
PRETORIA	87.06	244.5	12	39	0								
KHEYS	87.40	351.0	12	34	-6								
SOUTH POLE	88.16	180.0	12	46	2								
GRAHAMSTOWN	88.35	236.9	12	46K	1								

ISTANBUL UN.	88.79	310.9	12 44	-3				
CINE	89.30	307.5	12 48	-1				
PULKOVO	89.31	329.7	12 48	-2				
KIMBERLEY	90.01	241.4	12 44	-9				
NURMIJARVI	92.17	330.3	13 2	-1				
KIRUNA	93.74	337.7	13 9	-1				
BYRD STATION	93.87	171.7	13 13	2			16 53 PP	
COLLEGE	94.39	25.2	13 11	-2				
RESOLUTE	105.04	8.1	14 0	0			18 10 PP	
TAMANRASSET	109.40	293.4	18 29	7			18 46 PP	
HUNGRY HORSE	117.01	34.9	18 36	-1				
EUREKA	119.94	44.6	18 43	1			20 4 PP	
PASADENA	120.37	51.0	18 43	0				
BOULDER CITY	122.21	47.8	18 49	2				
RAPID CITY	125.60	33.9	18 54	1				
TUCSON	126.78	50.3	18 57	1				
TUCSON TELE.	126.82	50.1	18 57	1				
SEVEN FALLS	134.55	6.4	19 11	1				
SHAWINIGAN	134.86	8.3	19 11	0				
HUANCAYO	162.30	141.6					20 48	

JANUARY 24 15.H 51.M 52.S EPICENTRE -17.70-174.62 DEPTH= 92.KM

DEPTH OF FOCUS= 0.009R

A=-0.94904 B=-0.08936 C=-0.30222 D=-0.0937 E= 0.9956
G= 0.3009 H= 0.0283 K=-0.9532 HT= 5.2

SE= 1.64

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
APIA	4.75	35.6	1 10	0	1 58	-7		
ONERAHI	20.48	206.4	4 32	0				
KARAPIRO	21.92	201.3	4 45A	-1			5 6	
TUAI	22.21	197.2	4 47	-2	8 44	1		
WELLINGTON	25.20	199.0	5 22	4				
COBB RIVER	25.71	202.4	5 19	-4				
KAIMATA	27.45	202.8	5 43	4				
GEBBIES PASS	28.06	199.9	5 47	3	10 43	22		
RABAUL	35.17	288.5	6 47	1				
CANBERRA	36.72	234.2	6 58A	-1				
CHARTERS TS.	37.04	260.1	7 1	-1				
PORT MORESBY	38.01	277.4	7 11	1			7 45	
ADELAIDE	44.78	238.0	8 4	-2				
BYRD STATION	66.88	171.1	10 44	0				
MATUSIRO	69.96	321.1	11 2	-1				11 26
SOUTH POLE	72.41	180.0	11 15	-3			11 34	12 0 *SP
BERKELEY	73.98	40.7	11 27	0				
LICK	74.04	41.4	11 28	1				
PASADENA	74.45	45.8	11 29	0				
FRESNO	74.88	42.8	11 32	0				
SHASTA	75.67	38.3	11 36	0				
MINERAL	75.92	39.0	11 38	0				
LEMBANG	76.33	267.1	11 41	1				
RENO	76.52	40.5	11 41	0				
TUCSON TELE.	78.81	50.8	11 54	0			12 27	13 54
EUREKA	78.91	42.3	11 54	0			12 28	
HONG KONG	80.19	297.2	12 3	2	21 46	-11		
SALT LAKE C.	82.26	43.0	12 13	1				
COLLEGE	84.83	11.1	12 24	-1			12 56	13 32 *SP
HUNGRY HORSE	85.00	35.7	12 25	-1			13 1	
RAPID CITY	89.46	43.1	12 48	1				
RESOLUTE	104.25	15.7	12 46	-68				
QUETTA	122.97	294.8	18 46	1				
NURMIJARVI	135.06	346.6	19 8	0				
DURHAM	142.62	6.6	19 24K	2				
WITTEVEEN	144.94	358.6	19 26	0				
KRAKOW	145.67	343.3	19 28	1				
MUNSTER	145.76	357.5	19 29	2				
HALLE	145.88	352.7	19 25	-3				
COLLMBERG	145.94	351.5	19 29	1				
KEW	146.01	6.4	19 30	2			20 2	
RACIBORZ	146.09	345.1	19 28	0				
BENSBERG	146.79	357.9	19 32	3				
PRUHONICE	146.97	349.1	19 32K	3				20 14 *SPKP
KASTAMONU	147.90	322.6	19 28	-3				19 37 PKP2

KSARA	148.34	306.4	19 37	5				
UVIRA	148.51	230.3	19 37	5				
ASTRIDA	148.64	232.3	19 37	5				
STUTTGART	148.86	355.1	19 33	1				
PARIS	148.88	3.7					20 53	
TUBINGEN	149.11	355.2	19 34	1				
STRASBOURG	149.14	356.9	19 38	5			20 16	*SPKP
LWIRO	149.57	231.6	19 40	6				
GARCHY	150.44	3.2	19 36	1				
CINE	151.89	319.4	19 36	-1				
TAMANRASSET	174.95	358.5	20 0	2				

JANUARY 24 19.H 42.M 28.S EPICENTRE 14.44 -92.45 DEPTH= 86.KM

DEPTH OF FOCUS= 0.008R

A=-0.04145 B=-0.96791 C= 0.24784 D=-0.9991 E= 0.0428
G=-0.0106 H=-0.2476 K=-0.9688 HT= 5.9

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
COMITAN	1.82	9.8	0 32A	1	0 56	3		
SAN SALVADOR	3.21	102.4	0 51K	1	1 31	4		
SANTIAGO MA.	3.98	103.3	1 1	1	1 48	2		
OAXACA	4.88	302.2	1 7K	-6				
VERA CRUZ	5.90	323.8	1 23K	-4	2 28	-6		
MERIDA	7.01	22.2	1 51A	9	3 13	12		
PUEBLA	7.15	310.4	1 44	0	3 4	-1		
TACUBAYA	8.12	308.3	1 56K	-1				
GUADALAJARA	12.07	302.4						2 56 PPP
MANZANILLO	12.26	293.6						5 28 SS
BALBOA HTS.	13.75	111.9	3 12	-1				
CHIHUAHUA	18.95	320.4	4 15	-2				8 2
LITTLE ROCK	20.25	0.2	4 36	5	8 5	-3		
BOGOTA	20.57	116.5	4 36K	2	8 31	17		9 24 SS
COLUMBIA	22.05	26.0	4 50	1				
ST. LOUIS 1	24.18	4.3	5 9A	-1	9 29	10		
FLORISSANT	24.33	4.0	5 11	0				5 48 PP
TUCSON	24.40	319.7	5 13	1				
TUCSON TELE.	24.40	319.7	5 13	1				
CHAPEL HILL	24.53	26.9	5 14	1				
SAN JUAN	25.55	77.6	5 22	-1				6 6 PP
WASHINGTON	27.89	26.3	5 46	2	10 0	-20		
CLEVELAND	28.56	17.3	5 49K	-1	11 55	85		
PENNSYLVANIA	29.18	23.1	5 55	-1				
BOULDER CITY	29.36	321.0	5 59	2				
PASADENA	30.42	314.7	6 7K	0				16 39 SCS
RAPID CITY	30.93	344.8	6 11	0				7 12 PP
PALISADES	31.01	27.9	6 10	-2	11 15	6	6 26	7 26
SALT LAKE C.	31.21	330.9	6 15	1				9 10
EUREKA	32.39	324.8	6 26	2				
FRESNO	33.00	317.4	6 29	0				
HARVARD	33.27	28.7	6 31	0				
WESTON	33.28	29.1	6 31K	-1				
OTTAWA	33.95	21.3	6 36A	-1				7 58 PP
LICK	34.53	316.7	6 44	2				
RENO	34.66	321.3	6 46	3				
BREBEUF	34.81	23.4	6 43A	-2				
BOZEMAN	34.86	337.0	6 48	3				
BUTTE	35.74	335.8	6 59	6				
SHAWINIGAN	36.01	23.3	6 54A	-1				9 22 PCP
MINERAL	36.25	321.0	6 58	1				
SHASTA	36.94	320.8						7 20
SEVEN FALLS	37.24	24.6	7 4	-1				9 25 PCP
HUNGRY HORSE	38.22	336.6	7 13	0	13 18	18		9 31 PCP
LA PAZ	39.02	141.1	7 23	3	13 22	10		9 12 PP
VICTORIA	42.49	329.6	7 50	2				
HORSESHOE B.	43.00	330.6	7 53	0				9 45
RESOLUTE	60.25	359.3	10 0A	-2	18 6	-1		10 47 PCP
COLLEGE	62.66	336.7	10 18	0				10 58 PCP
THULE	63.27	6.2	10 20	-2				
RATHFARNHAM	76.29	38.1	11 31	-10				
KEW	80.16	39.4	12 1	-2				
GARCHY	83.22	43.0	12 18	0				15 28

SKALSTUGAN	83.60	25.8	12	16	-4					
KHEYS	83.87	5.8	12	22	0					
RELIZANE	84.09	54.8	12	21	-2					
MUNSTER	84.84	37.7	12	25	-2					
ALGIERS UNI.	85.81	53.3	12	31	0					
STRASBOURG	85.92	40.3	12	31	-1					
STUTTGART	86.77	40.5	12	36	0					
SODANKYLA	87.35	19.8	12	38	-1					
SETIF	87.78	53.3	12	39	-2					
TIKSI	89.75	347.9	12	50	0					
MAGADAN	90.50	332.9	12	55	1					
TAMANRASSET	91.64	66.1	12	58	-1				15	59
MESSINA	94.78	48.8	13	13	0				17	2
MATUSIRO	110.33	318.4				26	43	110	33	36 SS
RIVERVIEW	119.73	239.2	18	21A	-19					
KIMBERLEY	120.52	115.0	18	46	4					
GRAHAMSTOWN	121.94	120.4	18	50	5					
ZO-SE	124.37	324.9	18	55	6					
NANKING	124.92	327.5	18	57	7					
LANCHOW	127.45	343.4	19	2	7					
SIAN	127.48	337.6	19	1	6					
WUHAN	128.28	330.1	19	4	7					
WARSAK DAM	129.47	17.3	19	3	4					
QUETTA	131.40	24.0	19	7	4				22	30 PKS
CHENGTU	132.44	340.7	19	12	7				22	39 PKS
LAHORE	132.54	15.4	19	10	5					
LHASA	136.05	355.6	19	19	7					
KUNMING	138.06	339.2	19	22	7					
SHILLONG	140.01	353.9	19	14	-5					
TANANARIVE	141.49	102.3	19	27	5				22	26
POONA	144.56	22.8	19	29	2				23	9 PP
LEMBANG	158.89	288.9	19	57	9					

JANUARY 24 19.H 55.M 15.S EPICENTRE 37.26 -24.41 DEPTH= 0.KM

A= 0.72657 B=-0.32976 C= 0.60280 D=-0.4133 E=-0.9106
G= 0.5489 H=-0.2491 K=-0.7979 HT= -0.7

SE= 2.45

	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	
PONTA DELGDA	1.11	295.5	0	18	-3	0	31	-6					
ANGRA DO HO.	2.63	302.8	0	41	-2	1	5	-10					
HORTA	3.57	292.1	0	56	0	1	34	-5					
LISBON	12.13	78.4	2	49K	-6	5	4	-8			3	1	PP
COIMBRA	12.82	71.9	3	5	0	5	36	8					
SERRA PILAR	12.86	67.6	2	58A	-7	5	19	-10			3	11	PP
MALAGA	16.00	85.9	3	47K	1	6	47	3			4	7	PPP
TOLEDO	16.14	74.4	3	43K	-5	7	17	30			4	5	PP
GRANADA	16.58	83.9	3	54	0	7	18	21			4	15	PP
ALMERIA	17.52	84.7	4	5A	0	7	33	14			4	22	PP
ALICANTE	18.94	79.4	4	22	-1	7	56	5					
TORTOSA	19.66	71.9	4	39	8	8	17	10					
JERSEY	20.07	46.5	4	36	0	8	24	8					
RELIZANE	20.11	86.7	4	36	0	8	36	20			4	57	PP
RATHFARNHAM	20.40	32.4	4	40A	1	8	34	12			5	34	PCP
BARCELONA	20.91	70.3	4	40	-5	8	47	15					
ALGIERS UNI.	21.91	82.9	4	53A	-2	8	54	3					
KEW	22.19	42.5	4	58A	1	9	5	9			5	19	PP
CLERMONT-FD.	22.22	58.8	5	0A	2	9	8	11					
GARCHY	22.56	55.0	5	0A	-1								
PARIS	22.68	50.9	5	2	0	9	9	4					
DURHAM	23.45	34.4	5	7A	-3	9	31	12			8	54	PCP
EDINBURGH	23.52	30.7				9	20	0			12	36	PCS
MBOUR	23.73	161.8	5	13	1	9	40	16					
SETIF	23.88	83.5	5	10	-4	9	30	4			5	45	PP
ABERDEEN	24.82	29.5				9	45	3			10	42	SS
MONACO	24.96	65.0	5	26	2								
NEUCHATEL	25.07	57.2	5	26	1	9	56	9			5	57	
DE BILT	25.52	45.0	5	33	3	10	0	6					
OROPA	25.54	60.7	5	37	7	9	50	-4			8	39	
BASLE	25.60	56.2	5	26	-4								
STRASBOURG	25.95	53.9	5	33A	-1	9	47	-4	5	54	11	33	SSS
BENSBERG	26.26	48.5	5	35	-2	9	45	-21					
PAVIA	26.33	61.9	5	50	13	10	20	13			8	53	

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.

WITTEVEEN	26.64	44.3	5	41K	1						
CHUR	26.78	58.3	5	41K	0	10	17	2			
TUBINGEN	26.78	54.5	5	42	1				7	24	
MUNSTER	26.87	46.6	5	43	1						
STUTTGART	26.92	54.0	5	40	-3	10	15	-2	9	8	PCP
RAVENSBURG	27.00	56.3	5	45	2	•			6	55	
PRATO	27.62	65.0	6	13	24						
BOLOGNA	27.81	63.6							9	46	
SONNEBERG	28.55	51.3	5	57	0	10	45	2	6	47	PP
ROME	28.66	69.1	5	57	-1	10	48	3	7	3	PP
JENA	28.92	50.3	5	59	-2	10	52	3	6	45	PP
TOLMEZZO	29.12	59.8	6	1	-1				7	15	
PLAUEN	29.17	51.3	6	0	-3						
CHEB	29.23	52.2	6	0	-3	11	3	9			
HALLE	29.29	49.2	6	1	-3	10	53	-2	12	38	SS
TAMANRASSET	29.51	110.8	6	4	-2	11	5	6	7	0	PP
TRIESTE	29.58	61.4	6	5A	-2	11	2	2	7	7	
BERGEN	29.85	29.6				11	4	0	12	29	SS
COLLMBERG	29.88	50.0	6	7	-2	11	9	4	6	48	PP
POTSDAM	30.19	47.9	6	12	0	11	4	-5	6	56	PP
HALIFAX	30.28	296.5	6	13K	0	11	11	0	9	13	PCP
PRAGUE	30.52	52.7	6	17	2	11	19	4	7	25	PP
PRUHONICE	30.58	52.9	6	15A	-1				7	19	PP
COPENHAGEN	30.87	41.5				11	25	5			
ZAGREB	31.14	61.2	6	21A	0	11	26	1	7	24	PP
GOTEBORG	31.42	37.7	6	26	3						
MESSINA	31.45	75.9	6	22	-1	11	32	3	7	34	PP
VIENNA-H.	31.55	56.5	6	26	2						
REGGIO CALA.	31.55	76.0	6	43	19						
BRATISLAVA	32.03	56.8	6	27	-1	11	36	-2	7	33	PP
HURBANOVO	32.75	57.4	6	36	1	11	44	-6	7	24	PP
RACIBORZ	32.93	53.4	6	36	0						
BERMUDA	33.24	273.8	6	31	-8	11	55	-2	7	45	PP
SCORESBY SD.	33.31	1.5	6	41	2	12	9	11	14	14	SS
KRAKOW	34.04	53.6	6	46	0	12	12	2	8	16	PPP
SZEGED	34.04	60.4	6	49	3				7	27	PP
BELGRADE	34.31	62.9	6	48K	0	12	17	3	8	8	PPP
SKALSTUGAN	34.38	28.3	6	49	0						
TIMISOARA	34.81	61.3	6	54	1	12	20	-2			
WARSAW	34.95	49.9	6	55K	1	12	26	2	8	13	PP
UPPSALA	34.97	36.1	6	53	-1	12	21	-3	8	10	PP
SEVEN FALLS	35.32	301.2	6	55	-2	12	30	1	9	27	PCP
WESTON	36.03	293.1	7	3A	0	12	47	7	15	39	
HARVARD	36.19	293.4	7	5	1						
SOFIA	36.60	66.2	7	7	0	12	53	4	8	44	PP
LWOW	36.66	54.2	7	9	1	12	55	5			
SHAWINIGAN	36.67	300.3	7	8	0				9	31	PCP
BREBEUF	37.33	298.6	7	14A	0	13	6	6			
ATHENS	37.80	73.8	7	16	-2						
PALISADES	38.17	291.4	7	20	-1	13	17	4	13	45	PCS
FORDHAM	38.18	291.1	7	58	37				16	51	
BUCHAREST	38.37	63.0	7	22A	-1				11	42	
OTTAWA	38.81	298.7	7	26	0	13	15	-8	9	37	PCP
IASI	39.10	58.4							7	28	PP
DOMINICA	39.37	246.3	7	32	1						
ST. LUCIA	39.91	244.4	7	37	2						
WASHINGTON	41.01	289.0	7	47	3						
SAN JUAN	41.01	254.3	7	43	-1				9	35	PCP
PULKOVO	41.14	38.9	7	44	-1	13	59	1			
PENNSYLVANIA	41.15	292.0	7	44K	-1	14	6	8			
CINE	41.23	72.9	7	44	-2	13	59	0			
SODANKYLA	41.41	27.1	7	45	-3						
GRENADA	41.77	242.9	7	51	0						
KASTAMONU	42.29	66.7	8	12	17				10	31	PPP
TRINIDAD	42.58	241.2	8	0	3						
CLEVELAND	43.68	294.0	8	7A	1	14	42	7			
ISFJORD	43.91	10.7	8	16	8						
SIMFEROPOL	43.93	60.8	8	9	1	14	41	2			
APATITY	43.97	27.9	8	8	0	14	40	1	9	22	PCP
NORD	44.56	1.6	8	12	-1	14	51	3			
MOSCOW	44.87	45.1	8	15	-1	14	55	3			
COLUMBIA	45.55	283.7	8	21	0						
SOTCHI	48.16	61.4	8	42	0	15	43	4			
KSARA	48.46	75.0	8	46	2	15	40	-3	10	1	PCP
JERUSALEM	48.74	77.8	8	47	1	15	53	6			
RESOLUTE	49.31	340.7	8	48	-3	16	1	6			
ST. LOUIS 1	50.89	293.0	9	2A	-1	16	20	3			
FLORISSANT	50.94	293.2	9	3	0	16	22	4			

BANGUI	51.15	119.1	9	2	-3					
KHEYS	51.25	12.5	9	11	6					
TIFLIS	52.29	62.2	9	14	1					
GALERAZAMBA	52.63	253.5	9	9	-7	16	59	18		
MAKHACH-KALA	53.76	59.9	9	25	1	16	54	-2		
LITTLE ROCK	53.92	289.3	9	28	3	16	57	-1		
GORIS	54.16	64.3	9	28	1	17	6	4		
FAYETTEVILLE	54.77	291.5	9	29	-2	17	12	2		
BOGOTA	55.73	246.8	9	37	-1	16	49	-34		
BALBOA HTS.	57.06	255.0	9	48	0	17	45	5		
SVERDLOVSK	57.22	40.6	9	46	-3					
RAPID CITY	58.02	303.5	9	52	-3					
BOZEMAN	62.45	307.9	10	24	-1					
LWIRO	63.00	116.1	10	28	-1					
HUNGRY HORSE	63.09	311.6	10	26	-3				39	17 PKPPKP
BUTTE	63.24	308.7	10	30	0					
ASTRIDA	63.91	115.6	10	33	-2				12	41 PP
UVIRA	64.04	116.7	10	35	-1					
SALT LAKE C.	65.22	303.3	10	42	-1					
TACUBAYA	66.63	277.1	10	51	-1				23	56 SS
LA PAZ	67.48	225.9	10	57K	0	19	59	7	13	26 PP
HUANCAYO	68.47	234.7	11	6	2	20	10	6		
EUREKA	68.60	303.8	11	4	0				39	20 PKPPKP
TUCSON TELE.	68.63	294.9	11	4	-1				39	21 PKPPKP
TUCSON	68.76	294.9	11	5	0	20	14	7	13	53 PP
COLLEGE	69.06	337.6	11	5	-2	20	16	5	39	12 PKPPKP
BOULDER CITY	69.64	300.1	11	11	0					
TIKSI	69.77	8.7	11	10	-2					
NAMANGAN	70.74	52.9	11	16	-2	20	36	6		
RENO	71.09	305.5	11	20	0					
WINDHOEK	71.20	139.7	11	20	0					
MINERAL	71.79	307.0	11	24	0				11	49
SHASTA	72.10	307.7	11	26	0					
FRESNO	72.60	303.1	11	28	-1					
PASADENA	72.94	300.0	11	31K	0	20	59	3	26	3 SS
QUETTA	73.44	64.6	11	32	-2	21	4	3	11	52 PCP
LICK	73.50	304.4	11	40	6					
BERKELEY	73.61	305.2							26	1 SS
WARSAK DAM	74.53	59.0	11	38	-2					
TALA POZO	74.76	216.0	11	45	4	21	15	-1	29	25 SS
LAHORE	77.86	59.7	12	2	3					
YAKUTSK	78.88	12.1	12	4	0					
PRETORIA	79.82	133.3	12	10	1					
KIMBERLEY	80.24	137.6	12	10	-2					
IRKUTSK	80.28	29.1	12	14	2	22	19	4		
DEHRA DUN	81.15	58.7	12	30	14	22	27	3		
HERMANUS	82.06	144.8							23	9 SCS
SANTA LUCIA	82.49	217.6	12	21K	-2	22	39	1		
LCO. MARQUES	82.61	130.4	12	25	1					
MAGADAN	83.47	2.5	12	31	3	22	54	6		
PIETERMZBURG	84.03	134.3	12	34	3					
BOMBAY	84.32	70.7	12	38	5	22	59	2	15	52 PP
ULAN-BATOR	84.74	30.5	12	38	3	23	0	-1		
GRAHAMSTOWN	84.78	139.2	12	35	0					
POONA	85.32	70.4	12	39	1	23	8	2		
TANANARIVE	87.73	115.7	12	53	3					
CHATRA	89.52	56.2	13	11	13					
LHASA	90.11	51.8	13	10	9	24	2	11	16	37 PP
PAOTOW	92.00	33.0	13	11	1	24	10	2	23	44 SKS
LANCHOW	92.67	39.6	13	15	2	24	17	3	17	0 PP
KODAIKANAL	93.17	74.7							23	55
UGLEGORSK	93.21	8.9	13	16	1					
MADRAS	93.51	70.9							24	29
CHANGCHUN	94.74	21.5				23	56	-5	25	53
PEKING	95.00	29.3	13	26	3	24	41	7	17	18 PP
SIAN	96.65	37.3	13	33	2	24	54	6	24	10 SKS
CHENGTU	96.97	42.9				24	10	-4	17	34 PP
COLOMBO	97.09	75.8							17	40
VLADIVOSTOK	97.15	17.2				24	11	-3		
KUNMING	100.52	47.4				24	31	0		
WUHAN	102.40	35.4				24	27	-14		
NANKING	102.96	31.5				24	41	-2		
ZO-SE	104.76	30.1				24	48	-4		
TUKUBASAN	105.50	12.9				24	54	0		
PHU-LIEN	106.10	47.3				24	53	-4	27	54
CANTON	107.96	40.7				25	8	3	28	18 PS
HONG KONG	109.07	40.4	14	30	777	25	12	1	28	31 PS
SOUTH POLE	127.07	180.0	19	2	-2					

BYRD STATION	127.30	192.6	19 5	1				21 1	PP
CAPE HALLETT	144.09	187.6	19 35K	0	26 55	14		22 47	PKS
RABAUL	146.95	6.3	19 41	1				23 1	PP
PORT MORESBY	151.24	17.5	20 2	15				23 36	PP
CHARTERS TS.	160.99	27.9	20 2	3					
KARAPIRO	164.17	261.5	20 5	2				24 45	PP
ADELAIDE	166.16	85.4	20 7A	3				25 3	PP
CANBERRA	174.34	72.0	20 13K	4					
RIVERVIEW	175.02	47.9	20 15	6				25 47	PP

JANUARY 26 1'.H 38.M 35.S EPICENTRE 36.73 29.13 DEPTH= 0.KM

A= 0.70182 B= 0.39104 C= 0.59543 D= 0.4867 E=-0.8736
G= 0.5201 H= 0.2898 K=-0.8034 HT= -0.5

SE= 2.34

	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	
CINE	1.20	316.8									0	21	PG
ISTANBUL UN.	4.31	358.6	1	12	4	2	8	8					
KSARA	6.24	115.7	1	37	1	2	50	1			2	6	PG
JERUSALEM	7.06	132.6	1	47	0								
SOFIA	7.45	325.0	1	55	2	3	15	-4			3	29	
BUCHAREST	8.02	344.3				3	53	20			4	34	SG
SIMFEROPOL	9.04	23.2	2	15	0	3	51	-7					
KISHINEV	10.29	358.9									4	3	
IASI	10.53	354.2	2	42	7								
SOTCHI	10.60	46.6	2	30	-6								
TIFLIS	13.13	62.9	3	9	-1								
ZAGREB	13.41	316.7									7	39	SG
TRIESTE	14.59	312.4									7	47	SGSGSG
MAKHACH-KALA	15.42	60.5	3	42	2								
RACIBORZ	15.50	332.8	3	47	6								
PRAGUE	17.04	326.1	4	20	19								
PLAUEN	18.39	323.8	4	17	-1								
COLLMBERG	18.56	326.8	4	19	-1								
SONNEBERG	18.77	322.2	4	22	-1								
STUTTGART	18.88	315.8	4	24A	0						5	24	
JENA	18.95	324.0	4	23	-2						5	5	
SETIF	19.08	275.5	4	27	1						5	17	
NEUCHATEL	19.38	308.9	4	28	-2								
STRASBOURG	19.60	313.9	4	33A	1						4	59	PPP
MOSCOW	19.87	14.3	4	35	0								
BENSBERG	21.18	319.1	4	48	-1						5	1	
MUNSTER	21.53	321.8	4	50	-3								
GARCHY	21.95	306.9	4	55	-2						5	7	
GOTEBORG	23.86	337.0	5	16	0								
NURMIJARVI	23.97	354.6	5	19	2								
UPPSALA	24.30	345.8	5	20A	0								
TAMANRASSET	24.68	242.3	5	24	0	9	53	10			6	3	PP
DURHAM	27.68	320.4	5	54K	2								
SODANKYLA	30.72	358.1	6	18	-1								
APATITY	30.97	3.2	5	44A	-37								
KIRUNA	31.54	353.7	6	25	-1								
QUETTA	32.08	90.6	6	34	3								
WARSAK DAM	34.50	81.7	6	50	-2								
LWIRO	38.78	180.5	7	30	2								
ASTRIDA	39.13	179.0	7	30	-1								
UVIRA	40.00	180.0	7	40A	2								
KHEYS	44.36	5.6	8	19	5								
NORD	47.83	351.8	8	39	-2								
THULE	56.36	343.7	9	43	-2								
RESOLUTE	62.97	345.7	10	29A	-2								
SEVEN FALLS	70.12	314.3	11	15	-1								
SHAWINIGAN	71.54	314.6	11	22	-3								
COLLEGE	78.71	358.7	12	4	-2								
HUNGRY HORSE	89.16	336.4	12	58	-1								
KARAPIRO	153.34	102.8	20	2	10						20	14	

JANUARY 27 0.H 20.M 24.S EPICENTRE 18.08 -68.66 DEPTH= 90.KM

DEPTH OF FOCUS= 0.009R

A= 0.34609 B=-0.88607 C= 0.30839 D=-0.9315 E=-0.3638
G= 0.1122 H=-0.2873 K=-0.9513 HT= 5.1

SE= 2.07

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SAN JUAN	2.44	82.5	0 39	0	1 7	-1		
DOMINICA	7.49	110.6	1 51	2	3 9	-4		
FORT FRANCE	7.94	113.7	1 52	-3	3 16	-8		
ST. LUCIA	8.39	117.5	1 59	-2				3 23
ST. VINCENT	8.63	123.4	2 0	-4				3 28
GRENADA	8.98	130.9	2 6	-3	3 37	-12		
GALERAZAMBA	9.67	222.3			4 0	-5		
BARBADOS	10.03	118.2	2 29	6				4 16
TRINIDAD	10.10	135.8	2 26	2	4 11	-5		
BOGOTA	14.38	202.2	3 22	1	5 50	-8		
BERMUDA	14.69	13.4	3 26	1	5 56	-9		
CHINCHINA	14.69	208.4	3 25	0	6 6	1		
COLUMBIA	19.33	327.5	4 20	-1				7 42 PCP
CHAPEL HILL	20.01	334.7	4 27	-1				
WASHINGTON	22.00	342.3	5 3	15	8 47	7	5 20	
FORDHAM	23.14	349.9	5 39	40	9 49	49		
PALISADES	23.30	349.9	5 1	0	9 11	8	5 11	5 31 PP
MORGANTOWN	23.60	337.8	5 7	3	9 26	18		
PENNSYLVANIA	23.99	342.6	5 11	4			5 28	5 43 *SP
WESTON	24.33	355.2	5 11A	0	9 40	20		5 35
HARVARD	24.48	354.8	5 14	2	9 43	20		
CLEVELAND	25.80	337.4	5 49A	24	10 19	34	6 1	
HALIFAX	26.80	8.0	5 33A	-1				6 7 *SP
BREBEUF	27.65	352.5	5 42	0	10 22	7		
OTTAWA	27.87	349.3	5 43	-1				
SHAWINIGAN	28.60	354.1	5 49	-1				
FAYETTEVILLE	28.82	313.6	5 50	-2				
TACUBAYA	28.93	277.5						7 16 PPP
SEVEN FALLS	29.02	357.0	5 53	-1				
HUANCAYO	30.65	192.9	6 1'	3				6 42 *SP
LA PAZ	34.36	179.1	6 40	0	12 6	6	7 14	17 42
RAPID CITY	38.87	319.4	7 40	22				9 3
LARAMIE	39.12	314.2	7 21	1				7 44
TUCSON TELE.	40.35	298.9	7 31	0			7 58	
TUCSON	40.43	298.7	7 31	0			7 55	
SALT LAKE C.	43.33	310.8	7 55	0			8 18	
BOULDER CITY	44.38	303.2	8 3	0				
BOZEMAN	44.56	317.6	8 6	1				
BUTTE	45.67	317.5	8 13	-1			8 37	
EUREKA	46.01	307.8	8 16	0			8 41	8 56 *SP
PASADENA	46.79	300.1	8 22	-1				8 51
HUNGRY HORSE	47.50	319.9	8 28	0			8 52	
FRESNO	48.46	303.4	8 36	0				
LICK	50.00	303.8	8 47	0			9 13	
MINERAL	50.43	307.7	8 48	-3			9 13	
BERKELEY	50.56	304.4					9 14	
VICTORIA	53.46	317.5	9 10	-3				
THULE	58.37	0.1	9 47	-1			10 12	
RESOLUTE	58.39	352.1	9 46K	-3	17 40	-2		
MALAGA	58.97	57.6	10 18K	25				
TOLEDO	59.29	54.0	10 17	22				
ALICANTE	62.06	55.7	9 58	-16	18 6	-23		12 16 PP
PARIS	64.25	44.0	10 50	22				
GARCHY	64.60	45.7	10 28	-2			10 54	
DE BILT	66.05	40.4	11 10	30				
SETIF	66.88	57.7	10 47	2			11 7	
MUNSTER	67.55	40.6	11 13	24				
STRASBOURG	67.74	44.2					11 13	11 28 *SP
STUTTGART	68.68	44.0	10 55	-1			11 20	
TAMANRASSET	69.02	72.0	10 58	0			11 22	
COLLEGE	69.19	333.3	10 57	-2				
HALLE	70.26	40.9	11 26	20			11 37	
COLLMBERG	70.94	41.1	11 15	5			11 35	
KIRUNA	73.08	23.4	11 21	-1				
SODANKYLA	75.50	23.5	11 35	-1				
NURMIJARVI	76.07	30.6	11 40	0				
BANGUI	86.08	86.7	12 31	-1			12 58	
SOUTH POLE	107.96	180.0	14 16	777				
CANBERRA	142.49	235.2	19 18	-5				
PORT MORESBY	144.21	279.1	19 23	-3				
CHARTERS TS.	146.96	260.9	19 31	1				
ADELAIDE	150.44	230.0	19 41	5				

JANUARY 27 3.H 35.M 28.S EPICENTRE 71.62 -1.44 DEPTH= 0.KM

A= 0.31714 B=-0.00798 C= 0.94835 D=-0.0251 E=-0.9997
G= 0.9480 H=-0.0238 K=-0.3172 HT=-12.2

SE= 2.45

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SCORESBY SD.	6.76	270.1	1 48	5	3 18	16		
KIRUNA	8.46	106.0	2 5	-2				
SKALSTUGAN	9.59	140.4	2 22	-1	4 4	-9		2 39
SIDA	10.04	226.8	2 32	3				
NORD	10.56	347.8	2 31	-5				
SODANKYLA	10.65	99.8	2 35	-2				
APATITY	12.69	91.5	3 3K	-2	5 24	-4		
UPPSALA	14.07	137.3	3 21	-2	6 22	21		3 32
KHEYS	14.84	33.1	3 47	14	6 49	30		4 16 PP
GOTEBORG	15.04	151.3	3 39	3				3 47
NURMIJARVI	15.19	123.8	3 39	1				
DURHAM	16.92	180.3	3 58A	-2	7 20	12		4 25 PP
COPENHAGEN	17.06	152.4	4 2K	0				
PULKOVO	17.36	116.8	4 2	-4	7 24	6		5 40
THULE	18.02	315.4	4 9	-5				
WITTEVEEN	19.21	164.9	4 28	0				
DE BILT	19.81	167.9	4 35	0				
MUNSTER	20.13	163.6	4 38	-1				
KEW	20.23	178.0	4 41A	1	8 27	5		
POTSDAM	20.36	153.8	4 40	-1				5 25 PP
HALLE	21.07	156.3	4 44	-5	8 53	14		5 1 PP
BENSBERG	21.10	164.7	4 48	-1				5 16 PP
COLLMBERG	21.40	154.6	4 51	-1	8 44	-1		5 18 PP
JENA	21.58	157.2	4 53	-1	8 52	3		5 17 PP
WARSAW	21.86	140.9	4 57	0	8 57	3		5 26 PP
PLAUEN	22.08	156.5	4 59	0				5 51 PPP
CHEB	22.52	156.3	5 2	-1				
PRAGUE	22.81	153.0	5 0	-6				6 22
MOSCOW	22.88	113.5	5 6	-1				
FOLINIERE	22.93	178.4	5 11	4				
PARIS	22.96	173.3	5 8	1	9 28	14		
RACIBORZ	23.39	146.9	5 13	1				5 33 PP
STUTTGART	23.45	162.1	5 13	1	9 33	10		5 49 PP
STRASBOURG	23.51	164.5	5 14	1	9 36	12		5 39 PP
KRAKOW	23.73	144.3	5 15	0				5 37 PP
RAVENSBURG	24.47	161.8	5 24	2				
GARCHY	24.51	172.6	5 22	0				
BASLE	24.54	165.2	5 19	-4				
RESOLUTE	24.62	320.4	5 24K	0	9 52	9		
LWOW	24.75	138.3	5 26	1				
VIENNA-H.	24.87	150.9	5 28	2				
NEUCHATEL	25.01	166.3	5 28	1				
BRATISLAVA	25.06	149.8	5 29	1				5 44 PP
HURBANOVO	25.53	148.3	5 52	20				6 18 PPP
CLERMONT-FD.	26.02	172.7	5 37A	0				
ZAGREB	27.18	152.7	5 47K	-1				
IASI	28.01	135.2	4 57	-58				
MONACO	28.30	166.4	5 57	-1				
SVERDLOVSK	29.09	87.5	6 6	1				
SERRA PILAR	30.78	190.6	6 15K	-5				
TOLEDO	31.84	183.8	6 28	-1				6 43
ALICANTE	33.35	178.6	6 48	6	12 5	2		
TIKSI	33.45	26.0	6 44	1	12 11	6		8 1 PP
KASTAMONU	34.27	134.6	6 57	7	12 29	12		
ALGIERS UNI.	35.00	173.7	6 55	-2				8 10 PP
MALAGA	35.00	184.1	6 55A	-2				
SETIF	35.67	170.5	7 2	0				8 25 PP
RELIZANE	35.95	177.2	6 57	-8				8 20 PP
ATHENS	36.10	145.2	7 5	-1				
SEVEN FALLS	39.73	270.3	7 38	2				
SHAWINIGAN	40.86	271.8	7 49A	3				
COLLEGE	41.86	339.3	7 55	1				
BREBEUF	42.06	271.8	7 54	-1				
KSARA	42.66	131.9	8 2	2				9 39 PP
OTTAWA	42.81	273.7	8 1	-1				
JERUSALEM	44.46	133.4	8 15	0				9 56 PP

TAMANRASSET	49.03	171.5	8 51A	0		10 46 PP
HUNGRY HORSE	51.30	307.9	9 7	-1		
RAPID CITY	52.35	297.0	9 18	2		
WARSAK DAM	52.78	93.9	9 17A	-2		
BOZEMAN	53.02	304.2	9 24	3		
BUTTE	53.09	305.6	9 22	0		
QUETTA	54.86	100.1	9 36A	1		11 37 PP
LAHORE	55.92	92.3	9 42	0		
FAYETTEVILLE	57.05	285.4	9 46	-5		
SALT LAKE C.	57.80	302.7	9 57	1		
KARACHI	58.95	101.9	9 51	-13		
EUREKA	60.09	305.7	10 11	-1		10 50
SHASTA	60.53	311.5	10 19	4		
MINERAL	60.67	310.7	10 15	-1		
RENO	61.00	308.9	10 20	2		
BOULDER CITY	63.09	303.4	10 34	2		
LICK	63.54	309.7	10 34	-1		
FRESNO	63.63	307.9	10 37	2		
CHATRA	64.37	82.2	10 41	1		
TUCSON TELE.	65.40	298.5	10 47	0		13 13 PP
TUCSON	65.52	298.6	10 48	0		13 14 PP
PASADENA	65.70	305.6	10 50	1		
SHILLONG	67.01	78.4	10 58A	1		
BANGUI	68.34	158.4	10 55	-11		
RUMANGABO	75.48	148.1	11 48	0		
LWIRO	76.30	148.8	11 53	0		
ASTRIDA	76.80	147.9	11 55	-1		
UVIRA	77.56	148.7	12 0	0		
SOUTH POLE	161.50	180.0	20 48	45		
BYRD STATION	163.71	213.3	20 58	53		

JANUARY 28 1.H 21.M 11.5 EPICENTRE 37.57 143.18 DEPTH= 0.KM

A=-0.63610 B= 0.47627 C= 0.60708 D= 0.5994 E= 0.8005
G=-0.4860 H= 0.3639 K=-0.7946 HT= -0.8

SE= 3.82

	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	1.70	301.0	0	30A	-1	0	50	-4				
ONAHAMA	1.92	252.0	0	31	-3	0	53	-6				
SENDAI	1.93	292.0	0	32A	-2	0	54	-6				
HUKUSIMA	2.16	275.7	0	37A	0	1	6	1				
MIZUSAWA	2.24	314.8	0	38	-1	1	16	9				
MIYAKO	2.29	335.9	0	37	-2	1	2	-7				
YAMAGATA	2.34	287.9	0	39	-1	1	6	-4				
SHIRAKAWA	2.40	260.2	0	39	-2	1	4	-7				
MITO	2.47	242.2	0	47	5	1	19	6				
TYOSI	2.63	226.2	0	52	8							
MORIOKA	2.65	324.2	0	43A	-1	1	13	-5				
KAKIOKA	2.75	241.9	0	44	-2	1	22	2				
UTUNOMIYA	2.83	250.0	0	45	-2	1	18	-4			1	38
SAKATA	2.95	297.8	0	51	2	1	27	1				
HATINOHE	3.23	337.1	0	55	2	1	36	3				
AKITA	3.23	312.7	0	59	6						1	34
NIIGATA	3.29	277.4				1	27	-7			1	51
TOKYO C.M.O.	3.34	236.7	0	57	3	1	43	8				
MAEBASI	3.49	251.8	0	56	0	1	47	8				
YOKOHAMA	3.55	234.2	0	55	-2	1	53	12				
TITIBU	3.65	245.5	0	56	-3							
AOMORI	3.75	330.9	1	8	8	1	45	-1				
MERA	3.78	226.7	1	0	-1							
OIWAKE	3.91	253.0	1	4	2							
AIKAWA	3.93	278.1	1	9	6	2	14	23				
TAKADA	3.95	264.7	1	20	17							
NAGANO	4.08	258.8	1	6	1	2	2	7			1	51
MATUSIRO	4.09	257.2	1	4A	-1						1	58
HUNATU	4.10	241.2	1	15	10						1	56
AJIRO	4.14	233.9	1	6	0	2	11	15				
OSIMA	4.15	228.9	1	13	7							
KOHU	4.18	243.9	1	11	5	2	10	13				
MISIMA	4.19	235.7	1	5	-1							
MATUMOTO	4.37	254.1	1	9	0							
URAKAWA	4.59	356.3	1	21	9	2	3	-4				
HAKODATE	4.62	336.5	1	15	3	2	14	6			2	40

SHIZUOKA	4.65	237.6	1	9	-4	2	19	10			
HIROO	4.71	1.3	1	22	8	2	11	1			
IIDA	4.76	246.2	1	17	2						
TOYAMA	4.85	261.6	1	33	17	2	35	21			
MORI	4.95	336.9	1	23	6	2	20	4			
OMAESAKI	4.99	235.1				2	29	11	3	32	
MURORAN	5.05	341.1				2	10	-9	2	54	
TOMAKOMAI	5.10	346.6	1	59	40				2	28	
OBIHIRO	5.35	0.2	1	28	5	2	30	4	2	51	
KUSIRO	5.49	9.4	1	30	5	2	23	-7	3	18	
NAGOYA	5.55	246.3	1	27	1	2	41	10			
GIHU	5.60	249.2	1	25	-1	2	38	6			
SAPPORO	5.67	346.3	1	46	19	2	36	2	2	54	
SUTTSU	5.69	337.6				2	46	11	2	46	
HUKUI	5.74	256.8	1	31	3						
IBUKISAN	5.89	250.3	1	32	1	2	46	6			
HIKONE	6.04	249.8	1	46	13	2	55	12			
NEMURO	6.04	16.9	1	30	-3	2	34	-9			
KAMEYAMA	6.06	245.5	1	42	9	3	12	28			
TU	6.08	244.3	1	49	16						
ASAHIGAWA	6.24	354.6	1	49	14						
ABASHIRI	6.50	7.0							2	49	
NARA	6.61	246.4	1	35	-6	3	20	22	3	0	
ABUYAMA	6.71	248.7	1	41K	-1						
OSAKA	6.84	247.1	2	3	19	3	43	40	2	54	
TAKAMATU	8.08	249.1	2	19	18				4	14	
VLADIVOSTOK	10.24	306.3	2	29	-2	4	31	3			
UGLEGORSK	11.54	356.4							4	20	
MAGADAN	22.54	10.2	5	2	-1						
YAKUTSK	25.87	345.4	5	32	-3	10	2	-1			
ULAN-BATOR	28.34	303.0	5	56	-1						
TIKSI	35.01	352.1	6	46	-10						
COLLEGE	47.89	32.5	8	42	0						
KHEYS	53.47	347.5	9	12	-12						
NAMANGAN	54.03	297.5	9	26	-2						
SVERDLOVSK	55.68	318.7	9	37	-3						
WARSAK DAM	56.91	289.8	9	46	-3						
RESOLUTE	61.74	14.8	10	20A	-2						
QUETTA	62.13	287.9	10	23	-2						
POONA	62.75	273.1	10	27	-2						
APATITY	62.78	336.0	10	27	-2	18	56	-2			
THULE	64.55	7.9	10	38	-3						
SODANKYLA	65.02	337.5	10	42	-2						
MOSCOW	67.66	323.9	10	59	-2						
NURMIJARVI	70.13	332.5	11	14	-2						
HUNGRY HORSE	70.43	43.7	11	14	-4						
UPPSALA	73.09	334.6	11	30	-4						
EUREKA	74.42	52.1	11	43	2						
COLLMBERG	81.33	331.0	12	17	-3						
STUTTGART	84.83	331.4	12	36	-1						
GARCHY	88.31	334.1	12	54	0						
SOUTH POLE	127.38	180.0	19	17	10						21 39 PP
BYRD STATION	127.98	167.3	18	55	-13						

JANUARY 28 10.H 4.M 9.S EPICENTRE -30.71 -78.93 DEPTH= 0.KM

A= 0.16540 B=-0.84525 C=-0.50813 D=-0.9814 E=-0.1920
G=-0.0976 H= 0.4987 K=-0.8613 HT= 1.6

SE= 2.16

	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	13.13	81.0	3	11	0						3	26	PPP
LA PAZ	17.24	37.3	4	7	3	7	33	18			4	23	PP
LA PLATA	18.13	108.9	4	11	-4	7	46	11					
HUANCAYO	18.86	10.9	4	27	3	8	13	21					
BOGOTA	35.43	8.4	7	5A	5	12	37	2			8	18	PP
CHINCHINA	35.62	5.7	7	4	3	12	58	20					
BALBOA HTS.	39.44	359.0	7	30	-4	13	37	1					
GALERAZAMBA	41.40	5.4				14	10	5					
GRENADA	45.61	23.9	8	24	0								
DOMINICA	48.75	22.7	8	47	-1								
SAN JUAN	50.34	15.9	8	59	-2								
BYRD STATION	52.09	188.3	9	14	0						10	25	PCP
TACUBAYA	53.50	336.0	9	22K	-2	17	1	4			11	15	

BERMUDA	64.18	13.4	10	37	-2	19	14	-1		
SCOTT BASE	65.07	192.3	10	43	-2				11	4
LITTLE ROCK	66.36	348.0	10	53K	0					
CAPE HALLETT	67.02	198.1	10	55K	-2	19	54	4	13	7 PP
FAYETTEVILLE	67.97	346.7	11	2	-1					
WASHINGTON	69.27	1.5	11	11	0					
TUCSON	69.53	331.4	11	13	0				39	20 PKPPKP
TUCSON TELE.	69.56	331.6	11	13	0				39	18 PKPPKP
ST. LOUIS 1	69.79	350.6	11	13K	-1	20	23	0		
FLORISSANT	69.97	350.5	11	14	-1					
MORGANTOWN	69.99	359.2	11	14A	-1					
PENNSYLVANIA	71.15	0.8	11	22	0	20	39	0		
PALISADES	71.51	4.0	11	24	-1	20	43	0	15	55 PPP
PASADENA	74.38	327.0	11	42	1	21	18	2	12	11
BOULDER CITY	74.42	330.4	11	42	0					
MBOUR	74.52	62.6	11	44	2	21	25	8		
OTTAWA	75.80	2.3	11	48K	-2					
BREBEUF	76.00	3.8	11	49K	-2					
SHAWINIGAN	77.10	4.4	11	56K	-1					
FRESNO	77.28	327.4	11	57K	-1					
SALT LAKE C.	77.38	335.0	11	59	1					
RAPID CITY	77.67	342.3	12	0	0					
SEVEN FALLS	77.81	5.6	12	1K	0					
EUREKA	77.86	331.5	12	2	1				30	53 PKKP
TERRE ADELIE	78.07	195.2	12	13	11	21	57	1		
LICK	78.61	326.5	12	7K	2					
BERKELEY	79.33	326.5	12	10K	1					
RENO	79.55	329.0	12	11K	1					
MINERAL	81.01	328.4	12	17K	-1					
SHASTA	81.65	328.1	12	21K	0					
BUTTE	82.23	337.1	12	25	1					
WILKES	83.12	183.8	12	29	0	22	49	0		
WINDHOEK	83.67	112.4	12	32K	0					
HUNGRY HORSE	84.75	337.3	12	37	0					
GRAHAMSTOWN	85.12	125.9	12	30K	-9					
CORVALLIS	85.15	329.9	12	41K	2					
KIMBERLEY	86.34	121.3	12	45	0					
VICTORIA	88.34	332.2	12	54K	-1					
HORSESHOE B.	88.97	332.8	12	56K	-2					
PIETERMZBURG	89.91	124.7	13	3	1					
TAMANRASSET	96.82	67.7	13	33	-1					
TOLEDO	98.72	48.7	13	44	1					
UVIRA	103.63	102.4							18	22 PP
LWIRO	104.02	101.2	18	3	777				18	25 PP
ASTRIDA	104.62	102.0							19	57
RUMANGABO	104.95	100.7							20	1
RESOLUTE	105.65	355.6	14	12	-1				18	31 PP
COLLEGE	109.09	335.1	18	31	0					
PORT MORESBY	120.47	235.6	18	55A	1	26	33	41	37	10 SS
SODANKYLA	123.91	26.7	19	7	7					
APATITY	126.51	26.2	19	5	0					
KHEYS	126.78	9.4	18	57	-9					
MOSCOW	129.56	41.0	19	2	-9					
TIKSI	136.34	347.6	19	9	-15					
SVERDLOVSK	141.70	35.1	19	36	2					
YAKUTSK	143.57	337.6	19	32	-5					
UGLEGORSK	144.12	312.6	19	36	-2					
TUKUBASAN	147.14	290.2	19	44K	1				20	24 PKP2
MATUSIRO	148.66	290.8	19	46A	1				22	10
KARACHI	149.71	90.7	19	49	2					
QUETTA	150.64	82.2	19	51	3	26	57	2	23	40 PP
BOMBAY	151.87	108.1	19	56	6					
POONA	152.52	109.8	19	53	2					
MEDAN	152.92	174.7	20	10	18					
NAMANGAN	154.16	58.5	19	54	1					
CHANGCHUN	156.79	311.1	19	57	0				24	4 PP
ULAN-BATOR	162.24	347.1							20	52
ZO-SE	162.74	276.5	20	5	1				20	53 PKP2
PEKING	164.59	311.2	20	5	0				24	48 PP
NANKING	164.80	279.6	20	7	1				24	50 PP
HONG KONG	165.60	237.6	20	25	19				21	32
CANTON	166.73	238.0	20	10	3				25	5 PP
CHITTAGONG	168.27	132.9	20	12	4				25	5 PP
WUHAN	168.38	272.6	20	10	2				25	8 PP
SHILLONG	170.40	120.0	20	12K	2					
LHASA	171.25	94.5	20	13K	3				25	24 PP
SIAN	172.49	300.1	20	12K	1				25	19 PP

LANCHOW	174.17	337.5	20	14K	3					25	36 PP
KUNMING	174.19	194.6	20	14K	3					21	46 PKP2
CHENGTU	177.47	269.6	20	14K	2					25	52 PP

JANUARY 28 13.H 59.M 57.S EPICENTRE 28.89 138.02 DEPTH= 539.KM

DEPTH OF FOCUS= 0.080R

A=-0.65189 B= 0.58651 C= 0.48067 D= 0.6688 E= 0.7434
G=-0.3573 H= 0.3215 K=-0.8769 HT= 2.2

SE= 1.92

	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
TOKUSIMA	5.94	331.2									3	1
KOTI	6.03	321.5	1	47	8	3	3	5				
KAMEYAMA	6.08	347.9	1	42	2	3	3	4				
MERA	6.20	13.9	1	39	-2							
MISIMA	6.26	7.0	1	41	0							
ABUYAMA	6.31	341.3	1	44K	2	3	6	3				
HIKONE	6.53	347.1				3	9	2				
GIHU	6.57	351.0				3	9	2				
IBUKISAN	6.62	348.3				3	11	3				
YOKOHAMA	6.66	11.5	1	45	0	3	7	-2			2	50
KOHU	6.73	3.8	1	48	2	3	12	2				
TOKYO C.M.O.	6.92	11.7	1	47	-1	3	12	-1				
TITIBU	7.12	6.9				3	13	-4				
HUKUI	7.29	348.7				3	23	3				
KUMAGAYA	7.33	8.6	1	51	-1	3	22	1				
OIWAKE	7.43	3.3	1	51	-2	3	21	-1				
TUKUBASAN	7.51	13.0	1	49K	-5	3	13	-11				
MAEBASI	7.54	6.5				3	22	-2				
KAKIOKA	7.54	13.4	1	52	-2	3	19	-5				
MATUSIRO	7.64	1.2	1	54K	-1	3	24	-2			2	31
MITO	7.75	14.8	1	56	0	3	24	-4				
NAGANO	7.76	1.1	1	55	-1	3	27	-1				
UTUNOMIYA	7.79	11.0	1	55	-1	3	24	-5				
ONAHAMA	8.39	16.0				3	37	-3				
SHIRAKAWA	8.41	12.1	2	3	0	3	38	-2				
HUKUSIMA	9.07	12.4	2	9	0	3	49	-3				
YAMAGATA	9.53	11.1				3	58	-3				
SENDAI	9.65	13.6	2	14	-1	4	1	-2				
ISINOMAKI	9.90	15.2	2	19	1	4	7	-1				
MIZUSAWA	10.53	13.3				4	22	3				
AKITA	10.94	8.5				4	31	4				
MORIOKA	11.09	12.7	2	31	1	4	31	1				
MIYAKO	11.21	15.9				4	33	1				
AOMORI	12.11	10.0				4	53	2				
MORI	13.34	8.2				5	21	9			4	33
URAKAWA	13.78	15.0									5	30
SAPPORO	14.40	9.8									5	16
ZO-SE	14.76	282.7				5	39	1				
KUSIRO	14.97	18.4									5	56
VLADIVOSTOK	15.03	342.5	3	10	0							
GUAM	16.57	156.4	3	26	1						8	55
NANKING	16.87	285.5				6	20	5				
CHANGCHUN	18.05	329.1	3	41	2	6	47	11				
BAGUIO CITY	20.29	236.0	4	0	0							
WUHAN	20.44	280.4	4	2	0							
PEKING	21.11	307.5	4	8	0	7	36	9				
MANILA	21.25	231.5	4	6	-3							
SIAN	25.32	289.6	4	45	-1							
LANCHOW	29.62	292.9	5	23	0	9	39	-2				
ULAN-BATOR	30.61	316.9	5	33	1							
MAGADAN	31.87	12.3	5	43	1							
YAKUTSK	33.58	352.9	5	55	-2							
TIKSI	43.08	355.8	7	13	-1							
CHATRA	44.73	280.0	7	27	0							
CHARTERS TS.	49.26	169.8	7	59	-2							
NAMANGAN	54.53	301.6	8	41	2							
WARSAK DAM	56.06	293.3	8	50A	0							
COLLEGE	57.53	29.1	8	59	-1							
QUETTA	60.87	290.3	9	22A	0						11	18
KHEYS	61.04	348.6	9	17	-6							
ADELAIDE	63.48	179.4	9	39A	0							
ISFJORD	68.47	349.4	10	12	2							

RESOLUTE	71.17	13.0	10	26A	0						
SODANKYLA	71.37	337.7	10	26	-1						
MOSCOW	72.13	324.2	10	30	-1						
THULE	73.66	6.3	10	40	0						
SHASTA	78.39	49.9	11	7	1						
SKALSTUGAN	78.42	338.2	11	6A	0						
UPPSALA	78.99	333.7	11	8A	-1						
MINERAL	79.09	50.0	11	11	1						
HUNGRY HORSE	79.76	40.2	11	15	2					13	11
BERKELEY	79.82	52.4	11	15	2						
LICK	80.51	52.7	11	18	1						
GOTEBORG	82.62	334.0	11	27	-1						
KASTAMONU	83.07	313.6	11	20	-10						
EUREKA	83.27	48.5	11	32	1						
COLLMBERG	86.66	329.0	11	47	0						
PRUHONICE	86.86	327.4	11	48	0						
TUCSON	90.73	52.2	12	9	3						
TUCSON TELE.	90.76	52.1	12	8	2						
SOUTH POLE	118.73	180.0	17	45	-2						
BYRD STATION	120.42	168.6	17	51	1						
HUANCAYO	144.71	68.6	18	41	5					20	35 PP

JANUARY 29 20.H 21.M 27.S EPICENTRE 51.88-173.79 DEPTH= 0.KM

A=-0.61626 B=-0.06709 C= 0.78468 D=-0.1082 E= 0.9941
G=-0.7801 H=-0.0849 K=-0.6199 HT= -6.1

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
PETROPAVLOVK	16.79	285.2	4	0	2							
COLLEGE	18.64	35.8	4	21	0	7	59	12				
MAGADAN	21.16	305.1	4	51	2							
SITKA	22.72	61.7	5	8	3							
UGLEGORSK	27.91	281.9	5	54	0							
Y.-SAKHLINSK	28.39	277.4	5	58	0							
ALBERNI	30.74	75.2	6	18	-1							
YAKUTSK	31.42	311.0	6	40	15							
HORSESHOE B.	31.62	74.2	6	27	0							
TIKSI	31.76	329.5	6	26	-2	11	41	3				
VICTORIA	31.89	75.7	6	30	1							
SHASTA	36.51	87.1	7	10	1							
MATUSIRO	36.93	264.7	7	13	0	12	59	1				
VLADIVOSTOK	36.95	278.3				12	51	-7				
HUNGRY HORSE	37.55	71.0	7	17	-1	13	27	20			17	23 SCS
RESOLUTE	37.98	25.1	7	21	0	13	13	-1			8	50 PP
BERKELEY	38.29	90.7	7	23	-1	13	21	2				
RENO	38.79	86.7	7	28	0							
LICK	39.00	90.9	7	30	0							
BUTTE	39.57	73.5	7	38	3						9	57
FRESNO	40.50	90.1	7	43	1							
CHANGCHUN	40.57	283.5	8	9	26							
BOZEMAN	40.66	73.1	7	43	-1							
EUREKA	41.20	84.0	7	49	1						8	5
PASADENA	43.22	91.8	8	9	4	14	28	-4			13	48 SCP
THULE	43.67	19.3	8	7	-1							
BOULDER CITY	44.09	87.2	8	35	23							
KHEYS	45.76	350.0	8	31	6							
RAPID CITY	46.17	70.4	8	28	0							
LARAMIE	46.42	74.9	8	30	0							
BOULDER	47.37	76.1	8	38	0							
PEKING	48.31	284.9	8	45	0							
TUCSON	49.04	88.0	8	51	0							
TUCSON TELE.	49.05	87.8	8	50	-1						9	53 PCP
ZO-SE	51.12	272.5	9	7	0							
NANKING	51.93	275.2	9	13	0							
WUHAN	55.60	277.0	9	40	0							
SIAN	56.46	284.2	9	47	1							
LANCHOW	58.23	289.2	9	59	0							
APATITY	59.15	348.2	10	4	-1	18	17	5				
CLEVELAND	60.04	60.1	10	11	0							
SODANKYLA	60.08	351.0	10	13	2							
KIRUNA	60.14	353.8	10	12	0							
OTTAWA	60.29	53.4	10	10A	-3							
SEMIPALATNSK	60.41	315.0	10	12	-2							

SHAWINIGAN	60.92	50.8	10	15	-2					
BREBEUF	61.26	52.1	10	17K	-2				12	45 PP
SEVEN FALLS	61.43	49.3	10	19	-2					
HONG KONG	61.77	270.6	10	22	-1	18	38	-7		
MORGANTOWN	62.20	60.6	10	24K	-2					
BAGUIO CITY	62.23	261.1	10	26	0					
PENNSYLVANIA	62.47	58.4	10	27	-1	18	52	-2		
SVERDLOVSK	62.79	329.8	10	33	3					
WASHINGTON	64.27	59.3	10	37	-2					
PALISADES	64.38	55.8	10	39	-1	19	14	-4	13	16 PP
FORDHAM	64.51	55.9	11	18	37					
WESTON	64.67	53.2	10	40	-2					
COLUMBIA	65.67	65.6	10	48	0					
HALIFAX	66.64	46.9	10	53	-2					
KUNMING	66.81	281.3	10	54	-2	19	46	-2		
UPPSALA	68.25	353.8	11	5	0				11	29 PCP
MOSCOW	69.65	341.7							11	42 PCP
PORT MORESBY	69.66	221.5	11	13	0	20	19	-3	11	30 PCP
NAMANGAN	71.48	313.4	11	23	-1					
SHILLONG	72.88	289.5	11	32A	-1					
CHATRA	74.62	293.8	11	43	0					
CHITTAGONG	75.35	287.4	11	48	1	21	26	-1	14	39 PP
BERMUDA	75.73	55.6	11	48	-1	21	30	-1		
HALLE	76.88	356.3	12	13	17				13	3
COLLMBERG	77.04	355.6	11	55	-2					
WARSAK DAM	77.18	309.3	11	55	-2					
HOWRAH	77.26	290.1	12	1	3					
JENA	77.47	356.5	11	57	-2				12	39
PLAUEN	77.87	356.1	12	20	19					
AGRA	79.43	300.5	12	7A	-3					
IASI	79.61	345.4	12	50	39					
CHARTERS TS.	79.63	217.9	12	11	0					
PARIS	79.64	2.5	12	12	1					
STUTTGART	79.70	358.0	12	12	1					
STRASBOURG	79.91	359.0	12	13	1				13	39
BACAU	80.33	345.7	12	47	32				15	39 PP
SIMFEROPOL	80.59	340.3	12	14	-2	22	25	2		
GARCHY	81.18	2.2	12	19	0					
QUETTA	82.52	310.4	12	26	0	22	41	-2	15	35 PP
CLERMONT-FD.	82.70	2.2	12	39	12				12	59
BRISBANE	84.22	209.3				23	1	1		
SAN JUAN	86.14	65.1	12	45	1				13	1
ROME	86.44	355.3				23	19	-2	16	9 PP
TARANTO	87.53	351.6							14	43
POONA	88.62	298.6	12	55	-1	23	36	-6		
BOMBAY	88.88	299.6	12	59	1	23	42	-2		
RUMANGABO	126.02	331.0	19	8	4				19	25
LWIRO	127.05	331.3	19	10	4				19	26
ASTRIDA	127.10	330.0	19	25	18					
SOUTH POLE	141.69	180.0	19	25	-9					
PRETORIA	149.04	319.0	19	50	4					
WINDHOEK	149.55	339.8	19	52K	5					
KIMBERLEY	153.06	321.9	19	59	7					

JANUARY 29 20.H 58.M 20.S EPICENTRE 52.14-173.86 DEPTH= 0.KM

A=-0.61278 B=-0.06590 C= 0.78750 D=-0.1069 E= 0.9943
G=-0.7830 H=-0.0842 K=-0.6163 HT= -6.2

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	
COLLEGE	18.46	36.3	4	18	1	8	10	30					
MAGADAN	20.97	304.6	4	37	-8						8	49	
YAKUTSK	31.22	310.7	6	20	-1								
SHASTA	36.54	87.4	7	6	-1								
MATUSIRO	36.91	264.3	7	11A	1						9	29	PCP
HUNGRY HORSE	37.51	71.3	7	16	1	13	30	27			9	33	PCP
RESOLUTE	37.76	25.2	7	18	1						9	33	PCP
BERKELEY	38.34	91.0	7	22A	0								
RENO	38.82	87.0	7	26A	0								
LICK	39.06	91.1	7	28A	0						9	37	PCP
FRESNO	40.55	90.3	7	41A	1								
BOZEMAN	40.63	73.3	7	41	0								
EUREKA	41.22	84.2	7	46	0						10	3	PCP
SALT LAKE C.	42.95	79.8	8	0	0								

PASADENA	43.27	92.0	8	2	-1			8	18		
THULE	43.44	19.3	8	5	1					9	52 PP
BOULDER CITY	44.12	87.4	8	32	23						
KHEYS	45.49	349.9	7	53	-27					13	45
RAPID CITY	46.13	70.6	8	25	-1						
ULAN-BATOR	48.69	298.4								10	11 PCP
TUCSON	49.08	88.1	8	48	-1					9	49 PCP
TUCSON TELE.	49.08	88.0	8	48	-1					9	3
APATITY	58.89	348.1	10	0	-1						
SODANKYLA	59.82	351.0	9	8	-59						
KIRUNA	59.87	353.8	10	9	2					10	46
CLEVELAND	59.95	60.2	10	7K	-1						
OTTAWA	60.17	53.5	10	8A	-1						
SHAWINIGAN	60.79	50.9	10	11	-3						
BREBEUF	61.13	52.2	10	15K	-1						
SEVEN FALLS	61.29	49.3	10	16A	-1						
BAGUIO CITY	62.23	260.9	10	25	2						
PENNSYLVANIA	62.37	58.5	10	25	1						
SVERDLOVSK	62.54	329.7	10	24	-1						
PALISADES	64.27	55.8	10	37	0	20	7	55		24	47 SS
WESTON	64.55	53.2	10	38A	-1						
TACUBAYA	65.55	89.6								11	10 PCP
COLUMBIA	65.60	65.7	10	45	0						
HALIFAX	66.50	46.9	10	50	-1						
NURMIJARVI	66.72	350.1	10	55	2						
HELSINKI	67.02	349.9	10	55	1						
UPPSALA	67.98	353.8	11	0A	0						
SHILLONG	72.75	289.4	11	30A	1						
CHATRA	74.47	293.6	11	40	1						
CHITTAGONG	75.23	287.3	11	46A	2	21	27	6			
HALLE	76.62	356.3	11	49	-3						
COLLMBERG	76.77	355.6	11	53	0						
WARSAK DAM	76.98	309.2	11	53	-1						
LAHORE	77.61	305.8	11	58	1						
PRUHONICE	78.01	354.5	12	1A	2						
FOLINIERE	79.31	4.5	12	7	0						
STUTTGART	79.43	357.9	12	8A	1						
STRASBOURG	79.65	358.9	12	10K	2						
TUBINGEN	79.68	358.0	12	10	1						
CHARTERS TS.	79.81	217.8	12	8	-1						
GARCHY	80.92	2.1	12	16	1						
QUETTA	82.32	310.3	12	24A	2	22	41	5		12	30 PCP
KASTAMONU	84.44	341.6	12	32	-1					12	47 PCP
SAN JUAN	86.07	65.0	12	42	1						
POONA	88.45	298.6	12	53	0						
RUMANGABO	125.77	331.0	19	4	3						
LWIRO	126.80	331.3	19	5	2					19	22
ASTRIDA	126.85	330.0	19	4	1					19	21
BYRD STATION	135.46	168.3	19	17	-3					23	1 PP
SOUTH POLE	141.95	180.0	19	25	-6					23	10 PP
PRETORIA	148.81	319.2	19	47	4						

JANUARY 29 23.H 24.M 33.S EPICENTRE 70.90 7.40 DEPTH= 0.KM

A= 0.32639 B= 0.04241 C= 0.94428 D= 0.1289 E=-0.9917
G= 0.9364 H= 0.1217 K=-0.3291 HT=-12.0

SE= 2.35

	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	
KIRUNA	5.54	117.6	1	23	-1	2	31	3			2	49	S*
ISFJORD	7.38	10.1	1	50	1	3	8	-6			5	52	
SKALSTUGAN	7.59	163.3	1	48	-4	3	13	-6					
APATITY	9.79	97.4	2	19A	-4	3	59	-15			2	25	*SP
BERGEN	10.58	185.7	2	32	-2						4	17	
AKUREYRI	10.73	253.3	2	38	2	4	25	-12			4	35	
UPPSALA	11.86	154.1	2	46K	-5	4	55	-9			5	42	
NORD	11.98	343.2	2	53	0	5	13	6					
SIDA	12.04	246.3	2	55	1	5	14	5			5	45	
NURMIJARVI	12.55	137.5	2	59	-1								
VIK	12.60	246.6	3	18	17	5	34	12					
HELSINKI	12.92	137.6	3	0	-5								
REYKJAVIK	12.97	253.0	3	9	3	5	33	2			3	39	
GOTEBORG	13.40	169.3	3	7	-5	5	32	-10			6	18	
KHEYS	13.94	30.5	3	31	12	6	9	15			3	51	

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ABERDEEN	14.37	201.2				6	21	16	4	52
PULKOVO	14.56	128.4	3	22	-5	5	54	-15	3	39
COPENHAGEN	15.44	169.2	3	34	-4	6	27	-3		
DURHAM	16.67	198.4	3	53K	-1	7	11	13	4	13 PP
WITTEVEEN	18.15	181.4	4	14K	1					
RATHFARNHAM	18.70	206.3	4	20K	1	7	54	9	4	39 PP
POTSDAM	18.77	169.2	4	19	-1	7	40	-6	4	49
DE BILT	18.90	184.2	4	23	1	7	55	6		
HALLE	19.58	171.5	4	24	-6	8	2	-2	4	40 PP
WARSAW	19.73	154.6	4	30	-1	8	13	5	4	49 PP
KEW	19.82	194.4	4	32K	0	8	12	2	4	49 PP
COLLMBERG	19.84	169.6	4	31	-2	8	16	6	6	32
BENSBERG	20.01	180.4	4	34	0	8	5	-9		
MOSCOW	20.02	123.7	4	34	-1	8	10	-4		
JENA	20.14	172.3	4	35	-1	8	11	-5	4	54 PP
THULE	20.49	319.1	4	38	-1	8	24	1		
PLAUEN	20.59	171.4	4	37	-4	8	27	2	6	29
SONNEBERG	20.67	173.1	4	41	0	8	33	6	5	6
CHEB	21.02	171.0	4	44	-1	8	39	5		
PRAGUE	21.16	167.4	4	51	5	8	47	11	5	19 PP
PRUHONICE	21.26	167.2	4	48	1	8	44	6		
RACIBORZ	21.49	160.8	4	50	0				8	52 PCP
KRAKOW	21.72	157.8	4	52	0	8	41	-6	5	18 PP
STUTTGART	22.22	176.9	4	56	-1	9	11	15	5	19 PP
JERSEY	22.25	196.6	5	7	10	8	58	1		
PARIS	22.29	188.6	4	58	0	9	3	6		
STRASBOURG	22.40	179.4	5	0K	1	9	7	8	5	27 PP
TUBINGEN	22.46	177.1	4	49	-10	8	57	-3		
FOLINIERE	22.52	193.7	5	0	0					
LWOW	22.52	151.1	5	1	1	9	3	2		
VIENNA-H.	23.12	164.6	5	7	1	9	22	10	5	30 PP
RAVENSBURG	23.22	176.2	5	8	1	9	25	11		
BRATISLAVA	23.27	163.4	5	8A	1	9	26	11		
BASLE	23.45	179.7	5	8	-1	9	30	12	5	27 PP
HURBANOVO	23.67	161.7	5	15	4				5	49 PP
GARCHY	23.79	187.3	5	12	0	9	29	5		
NEUCHATEL	23.98	180.8	5	16	2	9	39	12		
CHUR	24.15	176.4	5	17	1	9	42	12		
TOLMEZZO	24.73	170.7	5	23	2				6	56
KALOCSA	25.08	160.9	5	26	1				14	57
CLERMONT-FD.	25.29	187.0	5	28A	1	9	55	5		
OROPA	25.36	179.1	5	41	14	10	38	47	6	22
SZEGED	25.48	159.2	5	46	17	10	1	8		
ZAGREB	25.50	166.0	5	31	2	10	6	13	6	53 PPP
TRIESTE	25.52	169.6	5	27	-2	9	57	4	10	13
IASI	25.66	147.1	5	37	7				6	58 PP
PAVIA	25.81	177.1	5	37	5	10	34	36	6	19
TIMISOARA	26.10	157.7	5	43	9	10	15	11	6	12 PP
SVERDLOVSK	26.22	94.6	5	38	2	10	9	4	6	12 PP
BOLOGNA	26.55	173.7	5	57	18				10	2
RESOLUTE	26.92	325.0	5	40	-2	10	19	3	6	4
BELGRADE	26.93	159.2	5	43K	1	10	52	35	6	49 PP
CAMPULUNG	27.11	152.0	5	49	5					
PRATO	27.16	174.1	5	27	-17	10	27	7		
MONACO	27.25	180.0	5	46	1					
BUCHAREST	28.11	150.8	5	50K	-3	11	22	46	6	48 PP
ROME	29.19	172.2	6	3K	1	10	59	6	6	59 PP
SOFIA	29.38	155.7	6	4	0	11	1	5	9	38 PCP
TORTOSA	30.36	190.4	6	16	3					
TARANTO	30.92	165.3				11	22	2		
SERRA PILAR	30.94	203.9	6	19A	1				7	21 PP
TOLEDO	31.65	196.9	6	25A	1	11	36	4	13	22 SS
COIMBRA	31.83	203.3	6	28	2					
KASTAMONU	31.88	145.6	6	31	5				13	48 SS
ISTANBUL UN.	31.88	148.2	6	25	-1				7	43 PPP
TIKSI	32.75	30.0	6	34	0	11	50	1	7	42 PP
ALICANTE	32.88	191.5	6	37	2	11	51	0		
MESSINA	33.05	168.2	6	32	-4	11	51	-3	7	39 PP
LISBON	33.38	203.9	6	39K	0				7	37
ATHENS	34.09	156.7	6	46K	1					
ALGIERS UNI.	34.28	186.2	6	45	-2	12	11	-2	8	5 PP
GRANADA	34.28	195.7	6	52A	5	12	22	9	8	11 PP
ALMERIA	34.52	194.0	6	50	1	12	20	4	8	13 PP
SETIF	34.78	182.8	6	50	-1				8	2 PP
MALAGA	34.81	196.7	6	53A	1	12	25	4	8	9 PP
CINE	35.09	150.8	6	52	-2	12	9	-16		
RELIZANE	35.41	189.6	6	55	-2				8	17 PP
KSARA	40.18	142.0	7	39	2	13	51	8	9	13 PP

YAKUTSK	41.44	37.0	7	47	0						
JERUSALEM	42.03	143.6	7	52A	0					9	37 PP
HALIFAX	42.48	270.9	7	55	-1	14	19	2		9	45 PP
SEVEN FALLS	42.64	279.3	7	56A	-1	14	13	-6		9	30 PCP
COLLEGE	43.43	344.9	8	3	0	14	31	0		9	50 PP
SHAWINIGAN	43.77	280.6	8	5A	-1						
BREBEUF	44.98	280.6	8	14A	-2						
OTTAWA	45.74	282.4	8	20A	-2	15	3	-1		9	59 PCP
WESTON	47.01	276.6	8	31K	-1	15	20	-2			
MAGADAN	47.31	24.4	8	35	1	15	27	1		10	24 PP
TAMANRASSET	48.15	182.3	8	42A	1	15	49	11		10	36 PP
ULAN-BATOR	48.53	62.3	8	48	4	15	48	4			
PALISADES	49.09	278.2	8	47A	-1	15	54	3	8 53	10	38 PP
SITKA	49.63	334.3	8	51	-1						
WARSAK DAM	49.85	102.0	8	52	-2						
PENNSYLVANIA	50.56	281.6	9	0	1	16	17	5			
CLEVELAND	51.12	285.2	9	4K	0	16	13	-7			
QUETTA	51.92	108.5	9	10A	0	16	33	2		11	9 PP
GEORGETOWN	52.03	279.9	9	10	-1	16	36	4		10	13 PCP
WASHINGTON	52.03	279.9	9	8	-3	16	38	6		11	17 PP
MORGANTOWN	52.29	282.8	9	13	0						
LAHORE	53.00	100.4	9	20	2						
HUNGRY HORSE	53.92	315.2	9	23	-2					39	36 PKPPKP
BERMUDA	53.92	265.0	9	21	-4	17	3	5			
HORSESHOE B.	54.94	322.7	9	29	-3						
RAPID CITY	55.17	304.7	9	32	-2						
ALBERNI	55.35	323.9	9	32	-3						
DEHRA DUN	55.35	97.4	9	34	-1	17	17	0		21	7 SS
BOZEMAN	55.72	311.7	9	37	-1						
BUTTE	55.76	313.1	9	37	-1					12	15 PP
VICTORIA	55.79	322.5	9	36K	-2						
FLORISSANT	56.33	291.5	9	41	-1						
ST. LOUIS 1	56.43	291.3	9	40	-3	17	19	-12		21	24 SS
CHANGCHUN	57.31	49.5	9	52	3	17	45	2			
COLUMBIA	57.79	281.0	9	51	-1						
AGRA	58.29	98.8	9	54A	-2	17	56	0			
LANCHOW	58.41	70.9	9	59	2	17	58	1			
PEKING	58.42	58.6	9	57	0	17	59	1			
MBOUR	58.43	208.0	9	58	1	18	2	4			
CORVALLIS	59.53	321.1	10	6	1						
FAYETTEVILLE	59.99	293.6	10	4	-4	18	7	-11			
LHASA	60.24	85.3	10	12	3	18	28	7			
SALT LAKE C.	60.52	310.4	10	11	0						
LITTLE ROCK	60.64	291.4	10	11	-1						
CHATRA	61.57	90.1	10	24	6	18	43	5			
SIAN	61.67	67.2	10	18	-1						
EUREKA	62.75	313.4	10	25	-1	18	31	-22		19	26 SCS
SHASTA	63.05	319.1	10	28	0						
RENO	63.59	316.6	10	32	0						
BOKARO	63.90	92.7	10	35	1	19	10	3			
SHILLONG	64.28	86.2	10	36	0	19	16	4			
BOMBAY	64.30	107.2	10	38	1	19	5	-7			
UKIAH	64.73	319.2	10	40	1						
ADDIS ABABA	64.86	145.4	10	40	0						
POONA	64.97	106.3	10	40	-1	19	23	2			
BERKELEY	65.73	318.1	10	45	-1						
BOULDER CITY	65.80	311.2	10	45	-1						
FRESNO	66.23	315.7	10	50	1						
NANKING	66.63	59.5	10	53	2	19	44	3			
BANGUI	66.82	167.8	10	49	-4					11	26
WUHAN	66.83	63.7	10	53	0	19	45	2			
CHITTAGONG	67.24	87.5	10	59	4	19	54	6		13	32 PP
MATUSIRO	67.25	41.4	10	54	-1	19	50	2		24	13 SS
SAN JUAN	67.38	260.6	10	56	0						
TUKUBASAN	67.97	39.9	11	1A	1	19	59	2		11	27 PCP
ZO-SE	68.19	57.7	11	1	0						
TUCSON TELE.	68.20	306.5	11	1	0					39	11 PKPPKP
KUNMING	68.27	76.5	11	3	1	20	0	-1		20	57 SCS
TUCSON	68.31	306.5	11	2	0					14	8 PP
PASADENA	68.36	313.5	11	2	0	20	7	5	11 14	13	35 PP
ST. LUCIA	69.82	254.0	11	11	0						
ST. VINCENT	70.71	254.0	11	13	-4						
TRINIDAD	73.14	253.4	11	32	1						
RUMANGABO	73.53	157.1	11	34A	0						
LWIRO	74.37	157.8	11	39A	1	21	16	5			
HONG KONG	74.44	67.0	11	37	-2	21	10	-2			
ASTRIDA	74.83	156.8	11	41K	0						
UVIRA	75.62	157.6	11	45A	-1						

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TACUBAYA	77.11	291.9	11	59K	5	21	37	-4	14	55 PP
COLOMBO	77.81	104.4				21	47	-2		
BAGUIO CITY	81.90	63.0	12	22	2	22	36	5		
BOGOTA	82.87	263.4	12	26	1	22	47	6	23	40 PS
CHINCHINA	83.04	265.0	12	27	1	22	49	6		
MANILA	83.76	63.2	12	30	1					
TANANARIVE	93.79	142.3	13	19	2					
HUANCAYO	98.92	259.2	13	37	-3				17	43 PP
LA PAZ	100.82	251.0	13	53	4				27	4 PS
PORT MORESBY	113.65	44.1							29	3 PS
CHARTERS TS.	123.66	48.0	18	58	1					
ADELAIDE	135.79	62.3	19	22	2					
BYRD STATION	164.64	211.8	20	0	-2				24	45 PP

JANUARY 30 0.H 19.M 34.S EPICENTRE -9.84 160.93 DEPTH= 59.KM

DEPTH OF FOCUS= 0.004R

A=-0.93139 B= 0.32197 C=-0.16987 D= 0.3267 E= 0.9451
G= 0.1605 H=-0.0555 K=-0.9855 HT= 6.6

SE= 2.41

	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	10.34	302.2	2	31	3								
NOUMEA	13.47	157.5	3	6	-4	5	38	0					
PORT MORESBY	13.60	270.7	3	12K	1	5	50	9			3	34	
CHARTERS TS.	17.39	232.8	3	57	-3	7	13	4					
SUVA	18.87	117.8	4	20	3	7	51	9			4	30	
BRISBANE	19.06	202.0	4	15	-5	7	57	11					
RIVERVIEW	25.51	199.2	5	29A	5	9	58	13					
CANBERRA	27.60	201.4	5	40A	-3				5	46	9	46	
GUAM	28.19	325.0	5	29K	-20								
KARAPIRO	30.89	157.2	6	0	-13								
MELBOURNE	31.35	204.7	6	16	-1						11	23	
ADELAIDE	32.17	215.7	6	22A	-2	11	34	3					
TUAI	32.29	155.9	6	32	7								
GEBBIES PASS	35.23	165.2	6	53	3								
PERTH	47.09	235.3	8	36	9	15	26	12			18	41	SS
BAGUIO CITY	47.70	302.8	8	37	5	15	29	6					
TUKUBASAN	49.84	337.9	8	48K	-1						9	23	
ABUYAMA	50.54	332.9	8	54A	0								
HONOLULU	50.76	52.1	8	55A	-1								
MATUSIRO	50.85	336.4	8	55A	-1						13	37	SCP
KIPAPA	50.89	52.1	8	55A	-2								
LEMBANG	52.79	268.9	9	8	-3	16	35	2					
NANKING	57.93	317.8	9	48	0	17	51	9					
WUHAN	59.94	313.8	10	1	-1								
UGLEGORSK	60.97	345.9	10	9	0								
CHANGCHUN	62.45	331.6	10	18	-1	18	44	4					
CAPE HALLETT	62.67	176.8	10	18	-2	18	48	5			22	53	SS
PEKING	64.63	323.2	10	32A	-1	19	10	3					
WILKES	65.79	200.0				19	12	-9					
SIAN	65.96	314.4	10	40A	-2								
KUNMING	66.50	302.7	10	45A	0	19	35	5					
MAGADAN	69.64	354.5	11	2	-3						14	14	PP
LANCHOW	70.49	313.8	11	10A	0	20	23	6					
CHITTAGONG	74.87	296.4	11	37	1	21	5	-2			11	58	PCP
SHILLONG	75.81	299.5	11	42A	1								
BYRD STATION	78.55	169.9	11	53	-3				5	44			
SOUTH POLE	80.22	180.0	12	3	-2								
COLLEGE	83.70	19.6	12	22A	-1								
TIKSI	84.05	350.3	12	23	-2								
BERKELEY	85.75	50.6	12	34A	1								
LICK	86.08	51.2	12	36A	1						15	55	PP
SHASTA	86.43	47.8	12	37A	0								
FRESNO	87.36	52.2	12	42A	1								
PASADENA	88.03	55.0	12	45A	0	24	9	47	13	3	25	33	PS
RENO	88.03	49.5	12	45A	0								
EUREKA	90.91	50.2	12	59A	1						31	4	PKKP
BOULDER CITY	91.10	53.8	13	23A	24						16	57	PKP
TUCSON	93.70	58.1	13	11A	0						16	55	PP
TUCSON TELE.	93.81	58.0	13	12A	1						16	57	PP
SALT LAKE C.	94.25	49.5	13	14A	1								
BUTTE	94.58	44.2	13	14K	-1								
BOZEMAN	95.58	44.8	13	21K	2								

QUETTA	98.29	299.2	13	32	0						
RAPID CITY	100.98	46.9	13	45K	1					17	56
RESOLUTE	103.17	15.4	13	52	-2	25	46	14		18	14 PP
THULE	108.49	10.9	14	16	777					18	46 PP
OTTAWA	120.15	42.9	18	43	-1					20	6 PP
BREBEUF	121.52	42.2	18	45K	-2						
SHAWINIGAN	121.71	40.8	18	45	-2						
PALISADES	122.72	47.3								20	24 PP
SEVEN FALLS	122.73	39.6	18	48	-1					20	23 PP
ASTRIDA	129.85	258.3	19	20	17					21	15 PP
UVIRA	130.21	256.9								21	24 PP
RUMANGABO	130.56	259.7								21	22 PP
COLLMBERG	131.03	333.8	19	6	1						
PRUHONICE	131.26	331.6								21	22 PP
HALLE	131.34	334.6								22	27
STUTTGART	134.55	333.9	19	10	-1						
STRASBOURG	135.31	334.8								21	51 PP
ROME	137.73	324.5								23	2 PKS
GARCHY	138.24	337.3	19	26	8						
SETIF	145.63	323.6	19	30	-1					22	44 PP
ALGIERS UNI.	146.54	326.7	19	30	-3					19	49 PKP2
TOLEDO	147.24	338.4	19	38	4					23	6 PP
SERRA PILAR	147.50	345.2	19	37K	3						
RELIZANE	148.64	328.3	19	38	2					23	4 PP
ALMERIA	149.20	333.4	19	41	4					19	49 PKP2
TAMANRASSET	153.18	301.7	19	42	-1					23	28 PP

JANUARY 30 16.H 15.M 51.S EPICENTRE -27.67 -70.80 DEPTH= 52.KM

DEPTH OF FOCUS= 0.003R

A= 0.29162 B=-0.83757 C=-0.46199 D=-0.9444 E=-0.3288
G=-0.1519 H= 0.4363 K=-0.8869 HT= 2.6

SE= 1.71

	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	
ANTOFAGASTA	4.02	5.0	0	58	-3								
TALA POZO	5.81	92.9	1	29A	3								
LA PAZ	11.39	13.1	2	41A	-2	4	53	4			2	53	PP
LA PLATA	13.15	126.4	3	3A	-3	5	9	-23			6	4	
HUANCAYO	16.11	343.8	3	49	5	7	10	29					
BOGOTA	32.26	353.9	6	24	-2	11	38	4			12	4	*SS
CHINCHINA	32.78	351.1	6	33	3	11	39	-3			12	9	*SS
ST. VINCENT	41.64	14.1	7	43	-2								
ST. LUCIA	42.53	14.1	7	51	-1								
SAN JUAN	46.00	6.2	8	17	-3						10	7	PCP
VERA CRUZ	52.66	329.4	9	15	4								
TACUBAYA	54.28	326.4	9	24K	1	16	36	-19			11	31	PP
BYRD STATION	56.15	189.1	9	36	-1				9	51			
COLUMBIA	62.10	350.4	10	17	-1								
CHAPEL HILL	63.73	352.5	10	27	-1						10	44	
CHIHUAHUA	65.40	326.1	10	39	0						16	23	
WASHINGTON	66.49	354.7	10	44	-2								
MBOUR	66.85	58.3	10	51	3	19	42	6					
FAYETTEVILLE	67.15	339.6	11	46	56	19	40	1					
MORGANTOWN	67.50	352.4	12	51	118								
PALISADES	68.40	357.5	10	57	-1	19	55	1			24	39	SS
PENNSYLVANIA	68.44	354.2	10	59	1	19	56	1			11	13	
CLEVELAND	69.52	351.4	11	5K	0						11	19	PP
WESTON	69.71	359.6	11	6A	0								
TUCSON	70.72	324.7	11	12	0						11	27	
TUCSON TELE.	70.74	324.9	11	12	-1						11	27	
CAPE HALLETT	72.02	196.4	11	18	-2	20	39	3			14	41	PP
HALIFAX	72.24	5.4	11	22A	1	21	14	35			20	40	PPS
OTTAWA	72.86	356.4	11	24	-1								
BREBEUF	72.87	357.9	11	24K	-1								
SHAWINIGAN	73.89	358.6	11	31K	0								
SEVEN FALLS	74.44	360.0	11	34K	0								
BOULDER	74.62	333.2	11	35	0								
HERMANUS	74.96	121.1				21	14	4			21	44	SCS
BOULDER CITY	75.70	324.4	11	42	0								
LARAMIE	75.82	333.7	11	47	5								
PASADENA	76.11	321.1	11	44	0						11	59	
RAPID CITY	77.32	336.7	11	50	-1								
SALT LAKE C.	78.03	329.3	11	54	-1								

FRESNO	78.94	321.9	11 59	-1						
HAWSON	78.94	163.6	10 32	-88						
EUREKA	78.97	326.0	12 0	0						
LICK	80.36	321.2	12 7K	0						
GRAHAMSTOWN	80.95	122.8	12 11	1						
RENO	80.97	323.8	12 11K	1						
BERKELEY	81.09	321.2	12 11K	0						
KIMBERLEY	81.65	118.0	12 13K	-1						
BOZEMAN	81.65	332.7	12 15	1						
BUTTE	82.55	332.1	12 19	0					15 48	PP
HUNGRY HORSE	85.01	332.7	12 31	0						
CORVALLIS	86.41	325.4	12 39	1						
TAMANRASSET	89.10	63.7	12 51	0	23 38	5	13 13		16 29	PP
MALAGA	89.41	47.4	12 9K	-43	23 45	9	12 31			
TOLEDO	91.47	45.0	13 4	2						
SETIF	95.77	52.1	13 21	-1			13 43			
LWIRO	97.46	96.5							17 27	PP
ASTRIDA	98.11	97.2	13 35	3					17 31	PP
RESOLUTE	103.30	353.6	13 55	0	25 21	-14			24 21	SKS
CANBERRA	106.94	213.2	12 53	777						
COLLEGE	109.43	333.8							18 43	PP
QUETTA	143.09	75.8	19 26	-2			19 47		22 55	PP
GUAM	143.99	254.2	19 26	-4						
LEMBANG	145.67	177.2	19 35	2					19 50	
POONA	146.34	98.0	19 36	2						
WARSAK DAM	147.20	69.5	19 37	2						
LAHORE	149.52	74.2	19 41	2						
MATUSIRO	153.95	297.2	19 54	9					20 8	
SHILLONG	164.36	93.8	20 0	3						

JANUARY 30 18.H 9.M 55.S EPICENTRE -31.64 179.38 DEPTH= 486.KM

DEPTH OF FOCUS= 0.071R

A=-0.85292 B= 0.00929 C=-0.52196 D= 0.0109 E= 0.9999
G= 0.5219 H=-0.0057 K=-0.8530 HT= 1.3

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	
RAOUL ISLAND	3.33	45.2	1 12	-1					
ONERAHI	5.86	224.0	1 39	4	2 59	8			
KARAPIRO	7.02	205.7	1 49A	2				10 19	SCP
TUAI	7.38	193.7	1 49	-2	3 15	-3			
TONGARIRO	8.17	201.5	1 59	0	3 36	2			
WELLINGTON	10.31	199.8	2 20	-2	4 12	-3		13 55	SCS
COBB RIVER	10.84	207.7	2 25	-2	4 21	-4			
KAIMATA	12.58	208.0	2 43	-3	4 51	-8			
GEBBIES PASS	13.16	201.9	2 50	-2	5 4	-6			
SUVA	13.46	356.1	2 55	0	5 14	-2			
NOUMEA	14.80	305.8	3 9	0	5 50	9			
ROXBURGH	15.94	206.5	3 17	-3				5 21	
APIA	19.52	26.6	3 56	1	7 14	9			
BRISBANE	23.27	273.5	4 30K	0					
RIVERVIEW	23.82	257.1	4 46A	11	8 18	2			
CANBERRA	25.55	253.5	4 51A	1				5 20	PP
MELBOURNE	28.83	248.1	5 20	1				9 32	
CHARTERS TS.	31.86	283.2	5 45K	0	10 19	-3			
ADELAIDE	33.98	253.3	6 4A	1	10 53	-1		7 36	
PORT MORESBY	37.18	299.5	6 29K	-1	11 38	-4	7 51	12 27	PCS
RABAUL	37.39	311.3	6 29	-2					
CAPE HALLETT	41.01	184.2	7 4A	3	12 41	3		8 32	PP
SCOTT BASE	46.65	183.7	7 47	2				16 48	SS
WILKES	52.99	208.3	8 27	-5	15 22	-2			
BYRD STATION	54.14	169.1	8 40	0	15 45	6		10 43	PP
GUAM	55.80	318.1	8 48	-4				9 39	PCP
HONOLULU	56.89	25.2	8 58	-1					
KIPAPA	57.03	25.3	8 59	-1					
SOUTH POLE	58.54	180.0	9 10	-1			9 31	38 16	PKPPKP
MAWSON	70.35	201.4	9 11	-74					
LEMBANG	70.92	273.7	10 29	0	19 4	-1			
MANILA	72.41	300.1	10 36	-1				16 9	PPP
BAGUIO CITY	73.89	301.3	10 44	-2					
MATUSIRO	78.01	327.2	11 6K	-2				14 12	PP
HONG KONG	82.28	302.0	11 31A	1	21 6	1		17 36	

ZO-SE	83.26	312.8	11	32	-3	21	11	-4		
CANTON	83.41	302.1	11	36	0	21	12	-4		
NANKING	85.40	312.1	11	45	-1	21	20	-15	13	35
WUHAN	87.17	308.6	11	54K	0	21	32	-2		
PASADENA	87.97	47.4	11	59K	1					
LICK	87.99	43.1	11	59K	1				13	49
BERKELEY	87.99	42.4	11	59K	1				13	49
UKIAH	88.32	41.0	12	0	0					
FRESNO	88.69	44.5	12	2K	0				13	56
CHANGCHUN	89.88	324.1	12	7	0	21	44	-6	14	8
MINERAL	90.06	40.9	12	8	0				14	1
RENO	90.53	42.5	12	10K	0					
BOULDER CITY	91.24	47.7	12	15	2					
TUCSON	91.58	52.7	12	16	1	22	35	4	14	7
TUCSON TELE.	91.71	52.7	12	17	2				16	2 PP
CORVALLIS	92.06	37.0	12	20	3					
PEKING	92.24	316.7	12	18	0	22	0	-4	14	8
KUNMING	92.39	297.9	12	19	0	22	4	-1	14	17
EUREKA	92.75	44.4	12	21	1				16	7 PP
SIAN	93.21	308.6	12	24	2	22	9	0	14	19
VICTORIA	94.74	34.1	12	30	1					
HORSESHOE B.	95.41	33.6	12	33	1					
LANCHOW	97.68	307.7	12	42	-1	22	30	-3		
HUNGRY HORSE	99.37	38.4	12	50	0				16	55 PP
COLLEGE	99.55	13.6	12	48	-3				16	53 PP
BOULDER	99.70	48.9	12	52	0					
SHILLONG	100.98	293.2	12	58	1					
RAPID CITY	103.18	46.3	13	6	-1				17	27 PP
KIMBERLEY	115.26	204.6	17	46A	1					
RESOLUTE	119.10	17.7	17	50K	-3				19	15 PP
WARSAK DAM	120.49	293.4	17	54	-1					
OTTAWA	121.67	53.1	17	57K	-1				19	36 PP
PALISADES	121.79	58.5	17	57	-1				19	21 PP
QUETTA	122.88	287.6	18	1	1				19	35 PP
BREBEUF	123.13	53.4	18	0A	0					
SHAWINIGAN	123.93	52.4	18	1	-1				19	53 PP
SEVEN FALLS	125.35	52.0	18	4K	-1				20	27 PP
THULE	125.71	15.6	18	3	-2				20	1 PP
NORD	129.56	3.0	18	11	-2					
HALIFAX	129.95	56.1							20	48 PP
ISFJORD	133.05	356.0	18	21	2				21	1 PP
UVIRA	135.05	224.5	18	25	2				21	8 PP
LWIRO	136.22	225.2	18	28	3				29	12
RUHANGABO	136.62	226.6	18	18	-8				21	18 PP
APATITY	138.88	340.9	18	21A	-9	25	3	11	21	16
SCORESBY SD.	139.35	10.8	18	28	-3				21	18 PP
SODANKYLA	140.78	343.7	18	26	-8					
KIRUNA	141.72	347.3	18	29A	-7				21	23
AKUREYRI	144.30	12.3	18	39	-1					
REYKJAVIK	144.86	16.1	18	41	0					
SIDA	146.01	13.8	18	45	2				21	35
NURMIJARVI	146.64	337.4	18	41	-3					
HELSINKI	146.79	336.8	18	44	0					
SKALSTUGAN	147.01	349.4	18	45	1				21	37
BANGUI	147.41	217.6	18	45	0				19	39
UPPSALA	149.26	342.0	18	47	-1				20	51
KSARA	149.31	284.0	18	57	9					
GOTEBORG	152.53	345.3	18	52	0				19	12 PKP2
IASI	153.43	313.9	19	7	13				21	17 PP
LWOW	154.13	321.8	18	57	2				19	20
COPENHAGEN	154.26	342.8	18	55	0				19	19 PKP2
KRAKOW	156.05	326.1	19	27	30				22	48
RACIBORZ	156.83	328.1							19	31 PKP2
DURHAM	156.87	1.4							19	30 PKP2
POTSDAM	156.98	338.2							19	31 PKP2
MBOUR	157.22	135.2	19	3	4				42	41 SS
COLLMBERG	157.93	336.8	18	59	-1				23	16
RATHFARNHAM	157.97	9.1	19	1K	1				19	36
HALLE	158.10	338.6	18	53	-7				19	32 PKP2
WITTEVEEN	158.18	348.0							19	38 PKP2
PRAGUE	158.42	332.9	19	32	32				20	0 PKP2
PRUHONICE	158.45	332.6	19	0	0				23	19 PP
BRATISLAVA	158.69	325.9	18	59	-2				23	18 PP
JENA	158.71	338.4	19	0	-1				23	19 PP
PLAUEN	158.89	336.9	18	56	-5				23	15 PP
VIENNA-H.	158.98	327.0	19	11	10				19	42 PKP2
ATHENS	159.06	294.2							19	40 PKP2
CHEB	159.17	335.9							19	41 PKP2
SONNEBERG	159.31	338.2	19	0	-1				23	22 PP

BENSBERG	159.85	345.6	19	44A	42				23	25	
KEW	160.18	359.4	19	1	-1				23	25	PP
STUTTGART	161.34	339.3	19	3	0				19	51	PKP2
TUBINGEN	161.59	339.2							19	52	PKP2
TOLMEZZO	161.88	328.3	19	5	1				20	49	
STRASBOURG	161.92	341.8	19	0	-4	25	59	38	23	33	PP
RAVENSBURG	162.08	337.1							19	54	PKP2
TRIESTE	162.10	325.5							19	53	PKP2
FOLINIERE	162.89	359.7	19	5	0						
CHUR	162.92	335.7							19	56	PKP2
BASLE	162.93	340.8	19	20	15						
NEUCHATEL	163.59	341.4	20	1	56				22	32	PKS
GARCHY	164.12	350.8	19	6	0				20	13	
CLERMONT-FD.	165.59	349.4	20	10	63				21	14	
MONACO	166.36	334.5	19	7	-1				20	13	
SERRA PILAR	168.56	31.9	20	22A	73				24	10	PP
TAMANRASSET	169.62	213.3	19	12K	2				24	16	PP
LISBON	170.07	42.3	20	30A	80				24	22	PP
TOLEDO	171.32	17.7	19	13	2				24	27	PP
SETIF	173.23	313.9	19	11	-1				24	33	PP
ALICANTE	173.30	359.0	19	34	22	26	19	52	20	40	PKP2
GRANADA	173.95	23.2	19	12A	0				24	50	PP
MALAGA	174.04	30.6	20	49K	97	26	33	64	24	41	PP
ALGIERS UNI.	174.04	330.3	20	41	89				24	35	PP
RELIZANE	175.78	346.9	19	17	5				24	42	PP

JANUARY 30 20.H 38.M 57.S EPICENTRE 43.50 144.19 DEPTH= 0.KM

A=-0.59018 B= 0.42575 C= 0.68587 D= 0.5850 E= 0.8110
G=-0.5562 H= 0.4013 K=-0.7277 HT= -3.0

SE= 2.60

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
ABASHIRI	0.53	6.8	0	15A	0	0	25	1				
KUSIRO	0.54	163.7	0	12	-3	0	20	-5				
OBIHIRO	0.93	231.9	0	22A	2	0	33	-2				
NEMURO	1.02	98.9	0	20K	-2	0	29	-8				
ASAHIGAWA	1.35	282.7	0	29K	2	0	49	4				
HIROO	1.38	208.1	0	26A	-1	0	47	1				
URAKAWA	1.70	218.2	0	30	-2	0	53	-1				
RUMOE	1.92	284.5	0	36	1	1	9	9				
SHIKOTAN	1.94	78.0	0	34	-1	0	58	-2				
SAPPORO	2.12	259.4	0	40	2	1	8	3				
TOMAKOMAI	2.15	243.9	0	40	2	1	9	3				
WAKKANAI	2.63	317.7	0	45	0	1	23	5				
MURORAN	2.64	244.9	1	1	16						1	25
SUTTSU	2.98	257.8	0	48	-2	1	27	0				
HAKODATE	3.08	237.4	0	53A	2	1	35	6				
KURILSK	3.15	55.4	0	52	0	1	33	2				
HATINOHE	3.57	214.7	0	57	-1	1	39	-3				
Y.-SAKHLINSK	3.61	343.7	0	59A	0							
AOMORI	3.69	224.6	1	0	0	1	47	2				
MIYAKO	4.19	204.2	1	7	0	1	53	-5				
MORIOKA	4.42	211.9	1	9	-1							
AKITA	4.86	220.5	1	18	1	2	19	4				
MIZUSAWA	4.94	208.9	1	20	2	2	23	7				
ISINOMAKI	5.51	204.2	1	23	-3	2	18	-13			1	45
UGLEGORSK	5.77	346.0	1	32K	3	2	44	7			2	58
SENDAI	5.79	206.6	1	26	-4	2	43	5				
YAMAGATA	6.00	210.4	1	32	-1	2	58	15				
HUKUSIMA	6.40	207.5	1	36	-2	2	54	1			3	18
NIIGATA	6.80	216.8				3	21	18				
ONAHAMA	7.01	202.2	1	46	-1	3	10	2			2	25
SHIRAKAWA	7.06	206.8	1	48	1	3	18	9				
AIKAWA	7.09	221.5	1	47	-1	3	6	-4				
MITO	7.66	203.2	1	57	1							
UTUNOMIYA	7.69	207.0	1	53	-3	3	21	-4			2	24
TAKADA	7.84	217.4	2	6	8							
KAKIOKA	7.89	204.4	1	56	-3	3	25	-5				
TUKUBASAN	7.92	204.8	1	55A	-5	3	23	-8			2	23
MAEBASI	8.11	210.7	2	16	14	3	44	8			3	3
TYOSI	8.18	199.5	2	2	-1							
KUMAGAYA	8.22	208.4	2	4	0	3	36	-2				
NAGANO	8.22	216.0	2	3	-1	3	39	1			3	10

WAZIMA	8.26	224.7	2 6	2	3 57	18	
MATUSIRO	8.31	215.4	2 0K	-5	3 36	-5	
OIWAKE	8.37	213.1	2 13	7			4 6 S*
TITIBU	8.48	209.4	2 17	10			
HONGO	8.49	205.2	2 18	10			4 1
TOKYO C.M.O.	8.53	205.2	2 13	5	3 43	-3	
TOYAMA	8.65	220.6	2 16	6			
MATUMOTO	8.67	215.5	2 7	-3			4 15
YOKOHAMA	8.79	205.1	2 11	-1	3 44	-9	4 9
VLADIVOSTOK	8.97	271.8	2 18	4			
KOHU	8.97	210.8	2 17	3	4 37	40	
HUNATU	9.02	209.5	2 19	4			3 52
MISIMA	9.30	207.6	2 17	-2	4 1	-4	
AJIRO	9.31	206.8	2 34	15			4 42 S*
IIDA	9.36	213.8	2 19	-1	4 15	8	
OSIMA	9.48	204.8			4 5	-5	4 51 S*
HUKUI	9.61	222.0	2 21	-2			
SHIZUOKA	9.63	209.7	2 37	14	4 20	7	
GIHU	9.91	217.8	2 25	-2	4 12	-8	
NAGOYA	10.02	216.3	2 31	2	4 32	9	3 57
OMAESAKI	10.02	209.6	2 33	4	4 54	31	4 24
OKHA	10.10	355.7	2 29K	-1			
HAMAMATU	10.10	212.0	2 58	28			
IBUKISAN	10.11	219.3	2 32	2			
HIKONE	10.26	219.4	2 32	0	4 50	21	
KAMEYAMA	10.51	217.3	2 43	8	4 55	20	
TU	10.59	216.8	2 33	-3			
TOYOOKA	10.75	225.4	2 39	0	4 35	-6	
SEVERO-KUR.	10.83	44.3	2 42A	2	4 59	16	
ABUYAMA	10.90	220.7	2 39A	-2			
NARA	10.94	219.2	2 40	-1			
SAIGO	11.08	232.5	2 45	2			3 58
TOTTORI	11.08	227.3	2 44	1	4 55	6	
OSAKA	11.10	220.2	3 36	53			5 54
KOBE	11.24	221.5					5 14
OWASE	11.29	216.1	2 45	-1			5 48
SUMOTO	11.66	221.5	2 49	-2			5 33
SIOMISAKI	12.00	216.1	3 24	28	6 3	52	6 55
TOKUSIMA	12.03	221.7	2 55	-1			
TAKAMATU	12.09	224.1	2 52	-5			
SUIHWA	12.56	290.4	3 13	10			
HAMADA	12.72	231.6	3 2	-3	5 26	-3	
MUROTO	12.89	220.8	3 15	7			6 52
HIROSIMA	12.91	229.0	3 6	-2	5 53	20	
KOTI	12.96	223.5	3 5	-4	5 51	16	
MATUYAMA	13.14	226.6	3 13	2	5 55	16	
PETROPAVLOVK	13.59	39.8	3 20A	3	6 10	20	
CHANGCHUN	13.68	277.9	3 19	1	5 54	2	
UWAZIMA	13.72	225.5	3 18	-1			3 49
SIMIDU	13.86	223.2	3 10	-10			
SIMONOSEKI	14.06	231.7	3 23	0			
HUKUOKA	14.62	232.0	3 22	-8	7 0	46	
ITUHARA	14.85	236.3	3 27	-6			
KUMAMOTO	15.02	229.3	3 35	-1			
NAGASAKI	15.55	231.0	3 40A	-3	6 11	-25	
KAGOSIMA	16.06	226.7	3 46	-3	7 30	42	
TOMIE	16.27	233.3	3 51	-1	7 15	22	
MAGADAN	16.58	11.9	3 55K	-1			7 15 SS
KLYUCHI	16.63	33.7	4 3	7			4 11 PP
DAIREN	17.58	262.6	4 8	0			
PEKING	21.15	270.2	4 48K	-1	8 34	-7	
ZO-SE	22.02	243.5	4 57K	-1	9 3	6	
NANKING	23.01	248.7	5 7K	-1	9 16	1	
TATUNG	23.23	272.3	5 12	2			
FUTZELING	25.16	250.4	5 31	2			
ULAN-BATOR	26.24	292.8	5 41	2	10 10	0	
WUHAN	26.82	251.0	5 44	0	10 17	-2	
IRKUTSK	27.84	302.5	5 53A	0	10 29	-7	
SIAN	28.79	263.3	6 2A	0			6 52 PP
YINCHUAN	28.89	273.1	6 7	4			
TIKSI	29.19	350.1	6 3	-3			6 26 PPP
TIENSHUI	30.93	266.4	6 24	3			
LANCHOW	31.65	270.4	6 26A	-1			
WUWEI	31.74	274.3	6 50	22			
CANTON	32.62	241.4	6 35	-1	11 51	-1	
HONG KONG	32.62	239.3	6 37	1	11 52	0	8 5
SINING	32.90	272.6	6 40	2			
BAGUIO CITY	33.63	224.0	5 44	-61	12 6	-1	
CHENGTU	34.20	261.6	6 48A	-2	12 13	-3	14 24 SS

YUMEN	34.89	281.3	6	57	1					
MANILA	35.00	221.7	6	55	-2	12	40	11		
KUNMING	38.46	255.1	7	25A	-1	13	20	-2		
PHU-LIEN	38.57	246.2	7	27	0	13	21	-2	7	51
COLLEGE	42.55	35.8	7	57	-2					
SEMIPALATNSK	42.98	302.5	8	1	-2	14	26	-3		
LHASA	44.16	270.0	8	16	4	14	50	4		
SHILLONG	45.88	264.7	8	28A	2	15	20	9	10	15 PP
KHEYS	47.87	346.4	8	35	-7				10	32 PP
CHITTAGONG	47.88	261.3	8	44	2	15	46	7		
RABAUL	48.02	169.3	8	44	1					
CHATRA	48.56	269.5	8	48	1	15	59	10		
FRUNSE	49.36	294.8	8	52	-1	16	6	6	10	50 PP
SITKA	50.20	44.6	9	3	3					
SVERDLOVSK	51.85	316.0	9	14	2				20	27 SS
PORT MORESBY	52.71	176.3	9	21A	2	16	47	1	17	38 *SS
DEHRA DUN	53.20	279.0	9	25	2	16	50	-3	11	8 PP
TASHKENT	53.57	295.3	9	25	0	17	20	22	11	29 PP
PORT BLAIR	54.42	250.4	9	4	-27	16	39	-30	20	20 SS
NORD	54.74	356.6	9	30	-4					
AGRA	55.03	275.8	9	37	1	17	15	-3		
LAHORE	55.18	282.5	9	35	-2	17	19	-1		
STALINARAD	55.30	292.6	9	40	2	17	27	6		
WARSAK DAM	55.80	286.5	9	40	-2					
RESOLUTE	55.82	16.0	9	38A	-4	17	27	-1	13	3 PPP
APATITY	57.71	334.9	9	52K	-3	17	46	-7	23	23 SSS
THULE	58.57	8.6	9	57	-4	18	4	0	13	4 PPP
SODANKYLA	59.86	336.6	10	8	-2					
LEMBANG	60.05	223.1	10	10A	-1					
HORSESHOE B.	60.12	48.9	10	13	1					
VICTORIA	60.52	49.7	10	14	-1					
HYDERABAD	60.69	266.6	10	18	2	18	35	3	22	44 SS
QUETTA	61.17	285.4	10	17A	-2	18	33	-5	12	32 PP
KIRUNA	61.25	338.9	10	16	-4	18	42	3		
MADRAS	62.35	261.5	10	28	1	18	54	1	12	43 PP
ASHKABAD	62.50	297.3	10	26	-2				20	20 SCS
CHARTERS TS.	63.22	177.8	10	33	0					
POONA	63.33	270.7	10	32	-1	19	1	-4		
MOSCOW	63.37	322.7	10	33	-1	19	6	0	12	51 PP
KARACHI	63.70	281.4	10	40	4	19	17	7		
PULKOVO	63.73	328.9	10	34	-2	19	10	0	11	10 PCP
BOMBAY	63.84	271.7	10	37	0	19	13	1	10	55 PCP
NURMIJARVI	65.26	331.7	10	44	-2					
HELSINKI	65.39	331.3	10	46	-1					
HUNGRY HORSE	65.68	45.8	10	47	-2				39	24 PKPPKP
SCORESBY SD.	65.89	354.9	10	51	1					
UKIAH	66.07	58.2	10	51	0					
KODAIKANAL	66.17	261.3				19	20	-20		
MINERAL	66.33	56.3	10	52	-1					
SKALSTUGAN	66.68	338.7	10	53	-2					
COLOMBO	66.74	256.9				19	5	-42		
BERKELEY	67.44	58.8	11	1	1	20	6	10		
RENO	67.91	56.1	11	4K	1					
BUTTE	67.92	47.1	11	3	0				13	35 PP
UPPSALA	68.09	334.1	11	2	-2	19	59	-4		
LICK	68.15	58.9	11	5K	1					
TIFLIS	68.54	307.5	11	7	0					
BOZEMAN	68.96	46.6	11	11	2					
GORIS	69.05	304.8	11	9	-1	20	19	4		
FRESNO	69.66	58.4	11	15K	1					
EUREKA	70.24	54.1	11	12	-5					
BRISBANE	71.09	171.7				20	38	-1		
GOTEBORG	71.57	335.2	11	26	1					
SALT LAKE C.	71.77	50.9	11	26	0					
SIDA	72.15	351.8	12	29	60					
SIMFEROPOL	72.21	315.5	11	29	0	20	54	2	21	12 PS
PASADENA	72.36	59.6	11	31	1	20	54	1	14	34 PP
WARSAW	72.79	327.4	11	30A	-3	20	56	-2	15	59 PPP
COPENHAGEN	73.09	333.8	11	34	0	21	5	3		
BOULDER CITY	73.21	56.3	11	36	1					
IASI	73.78	320.6	11	41	3				14	59 PP
RAPID CITY	74.11	43.8	11	40	0				14	30 PP
LARAMIE	74.84	47.1	11	43	-1					
KRAKOW	74.92	326.5	11	47	2	21	24	2		
RACIBORZ	75.58	327.4	11	49	0					
POTSDAM	75.61	331.5	11	48	-1	21	33	3		
BOULDER	75.90	47.9	11	51	1					
COLLMBERG	76.53	330.9	11	53	-1	21	50	10		

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BUCHAREST	76.54	319.5	11	52	-2	21	44	4	12	27
HALLE	76.73	331.6	11	51	-4	21	38	-4	14	33 PP
PRAGUE	77.02	329.4	12	2	5	21	51	6		
PRUHONICE	77.05	329.3	11	56K	-1	21	48	3		
RIVERVIEW	77.22	174.1	12	5	7	21	50	3		
WITTEVEEN	77.33	335.2	11	59	1					
JENA	77.33	331.5	11	57	-2	21	49	1	12	27
HURBANOVO	77.34	326.1				21	55	6	26	21 SS
PLAUEN	77.49	330.9	11	56	-3				12	9
BRATISLAVA	77.54	326.8	11	47	-13	21	34	-17		
CHEB	77.76	330.6	12	5	4					
VIENNA-H.	77.77	327.3	12	3	2				12	9 PCP
DURHAM	77.86	340.5	11	58	-3					
SONNEBERG	77.93	331.4	12	3	1					
TUCSON	78.18	56.8	12	5	2				14	30
TUCSON TELE.	78.18	56.6	12	3	0				15	1 PP
ADELAIDE	78.21	184.6	12	4	1					
BENSBERG	78.78	333.9	12	6	0	22	7	3		
BELGRADE	78.81	322.9	12	8K	1	22	5	1	17	10 PPP
KSARA	79.07	306.4	12	19	11	22	27	20		
SOFIA	79.15	319.9	12	11	3					
ZAGREB	79.90	326.1	12	12K	-1	22	19	3		
STUTTGART	79.99	331.6	12	12	-1	22	20	3		
TUBINGEN	80.24	331.6	12	13	-1					
RATHFARNHAM	80.30	342.5	12	16	1				15	50 PP
KEW	80.53	338.4	12	17K	1	22	25	3	15	19 PP
TOLMEZZO	80.59	328.1	12	17	1				12	49
STRASBOURG	80.64	332.4	12	17	1	22	27	3	15	25 PP
RAVENSBURG	80.68	330.9	12	18	1					
JERUSALEM	80.91	305.4	12	20	2				17	9 PPP
TRIESTE	80.93	327.3	12	17	-1	22	29	2	22	46 SKKS
MELBOURNE	80.95	179.4	12	20	2					
CHUR	81.51	330.4	12	23	2					
BASLE	81.61	331.9	12	20	-2					
NEUCHATEL	82.28	332.0	12	26	1					
BOLOGNA	82.83	328.1				22	56	11		
FOLINIERE	83.02	337.3	12	31	2					
OROPA	83.12	330.7				23	3	15		
GARCHY	83.31	334.5	12	32	2					
PRATO	83.44	327.9	12	35	4	22	53	1		
TARANTO	83.70	322.2	12	49	17	23	3	8	17	23
SHAWINIGAN	84.55	24.6	12	37	0					
ROME	84.56	326.0	12	35	-2	23	4	1	15	55 PP
SEVEN FALLS	84.60	23.2	12	36	-1					
CLERMONT-FD.	84.63	333.8	12	39	2				15	54
OTTAWA	84.64	27.0	12	36K	-1					
FAYETTEVILLE	84.65	43.9	12	38	1					
MONACO	84.95	330.1	12	38	-1					
BREBEUF	85.23	25.6	12	39K	-1					
KARAPIRO	85.88	155.6	12	44	1					
CLEVELAND	85.94	32.6	12	46K	2				23	20 SKKS
MESSINA	86.31	321.9							23	30
PENNSYLVANIA	87.92	30.6	12	56	3					
MORGANTOWN	88.14	32.6	14	55	121	25	25	124		
WESTON	88.76	25.5	13	59A	62					
HALIFAX	88.83	19.5				23	49	5		
PALISADES	89.14	27.8	13	0	1	23	49	2	23	25 SKS
WASHINGTON	89.88	31.0	12	56	-7					
TORTOSA	89.91	333.3	13	45	42					
TOLEDO	92.19	336.1	13	14	1					
SETIF	92.27	327.8	13	9	-5					
ALICANTE	92.47	332.9	13	11	-3	24	10	-7	30	21 SS
COLUMBIA	92.53	36.2	13	17	2					
RELIZANE	94.46	331.1							17	11 PP
GRANADA	94.54	334.7							17	13 PP
BERMUDA	100.00	24.5							26	49
TAMANRASSET	103.91	321.1	14	3	-3				18	12 PP
RUMANGABO	108.77	286.7							19	3 PP
LWIRO	109.79	286.4							19	11 PP
UVIRA	110.44	285.2							19	12 PP
BANGUI	111.72	299.2							19	5
BYRD STATION	133.57	166.2	18	33	-46				19	20
HUANCAYO	133.74	59.5	19	25	6					
LA PAZ	141.59	55.6	19	43	9					

JANUARY 30 22.H 16.M 48.S EPICENTRE 43.49 144.37 DEPTH= 0.KM

A=-0.59159 B= 0.42404 C= 0.68572 D= 0.5826 E= 0.8128
G=-0.5573 H= 0.3995 K=-0.7279 HT= -3.0

SE= 2.44

	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
KUSIRO	0.51	177.3	0	12	-2	0	21	-2				
ABASHIRI	0.54	353.2	0	13A	-1	0	20	-4				
NEMURO	0.90	99.6	0	17K	-2	0	28	-5				
OBIHIRO	1.02	236.9	0	25	4	0	37	0				
HIROO	1.43	212.9	0	27A	0	0	46	-1				
ASAHIGAWA	1.48	282.2	0	29K	1	0	46	-2				
URAKAWA	1.77	221.7	0	32	0	0	53	-3				
RUMOE	2.05	284.1	0	37	1	1	8	5				
SAPPORO	2.24	260.4	0	40K	1	1	9	1				
TOMAKOMAI	2.26	245.7	0	44	5							
WAKKANAI	2.73	316.1	0	52	6	1	34	14				
MURORAN	2.75	246.3	0	49K	3	1	26	6				
KURILSK	3.06	54.0	0	53	3	1	33	5				
SUTTSU	3.10	258.7	0	56	5	1	37	8			1	21
MORI	3.12	244.9	0	55K	4	1	34	4				
HAKODATE	3.19	238.9	0	52	0	1	34	2				
HATINOHE	3.63	216.6	0	58	-1	1	41	-2				
Y.-SAKHLINSK	3.65	342.0	0	59K	0						1	15
AOMORI	3.77	226.3	1	4	4	1	53	6				
MIYAKO	4.23	206.0	1	7	0	1	52	-6				
MORIOKA	4.48	213.5	1	8	-3	2	1	-4				
AKITA	4.94	221.8	1	20	3	2	26	10				
MIZUSAWA	4.99	210.4	1	19	1	2	25	8				
ISINOMAKI	5.55	205.6	1	23	-3	2	28	-3				
UGLEGORSK	5.82	344.9	1	29K	0							
SENDAI	5.83	207.9	1	31	1	2	45	7			3	7
YAMAGATA	6.05	211.6	1	31	-2	2	45	1				
HUKUSIMA	6.45	208.7	1	37	-1	2	46	-8			3	2
NIIGATA	6.87	217.8				3	11	6				
ONAHAMA	7.05	203.3	1	41	-6	3	2	-7			2	6
SHIRAKAWA	7.10	207.9	1	47	-1	3	10	0				
AIKAWA	7.17	222.4	1	56	8	3	26	14				
MITO	7.70	204.2	1	55	-1	3	19	-6				
UTUNOMIYA	7.74	208.0	1	55	-1	3	16	-10			2	35
TAKADA	7.91	218.3	1	57	-2							
KAKIOKA	7.93	205.3	1	57	-2	3	23	-8				
TUKUBASAN	7.96	205.7	1	51A	-9	3	24	-8			2	15
MAEBASI	8.16	211.7	2	1	-1	3	46	10			2	26
TYOSI	8.22	200.5	2	1	-2	3	29	-9				
KUMAGAYA	8.27	209.3	2	4	0						4	14
NAGANO	8.29	216.8	2	7	3	3	39	-1			4	14
WAZIMA	8.34	225.5	2	9	4							
MATUSIRO	8.38	216.3	2	3	-2	3	32	-10			3	55
OIWAKE	8.43	214.0	2	8	2						4	16
TITIBU	8.53	210.3	2	10	2							
HONGO	8.54	206.1	2	9	1						3	1
TOKYO C.M.O.	8.57	206.1	2	7	-1	3	40	-7				
TOYAMA	8.72	221.4	2	19	9	4	19	29				
MATUMOTO	8.74	216.4	2	10	0						4	16
YOKOHAMA	8.83	205.9	2	10	-2	3	50	-3			4	17
KOHU	9.03	211.6	2	16	2	4	34	36			3	55
HUNATU	9.07	210.3	2	15	0							
VLADIVOSTOK	9.10	272.0	2	17A	2							
TAKAYAMA	9.14	219.1	2	9	-7							
MERA	9.25	203.9	2	16	-1							
MISIMA	9.35	208.5	2	12	-7	4	0	-6			4	24
AJIRO	9.36	207.6	2	20	1	4	27	21				
IIDA	9.42	214.6	2	29	9	4	38	30				
OSIMA	9.52	205.6				4	2	-8				
SHIZUOKA	9.68	210.5	2	33	10	4	35	21				
HUKUI	9.69	222.7	2	25	1							
GIHU	9.98	218.6	2	26	-2						5	16
OMAESAKI	10.07	210.3	2	34	5	4	40	16			5	20
NAGOYA	10.08	217.0	2	31	2	4	26	2			5	4
OKHA	10.12	355.1	2	29A	0							
HAMAMATU	10.16	212.7	3	33	63							
IBUKISAN	10.18	220.0	2	32	2							
HIKONE	10.33	220.1	2	33	1						5	37
KAMEYAMA	10.57	218.0	2	41	5	5	7	31				
TU	10.65	217.5	2	37	0							

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SEVERO-KUR.	10.75	43.9	2	44A	6	4	53	13			
TOYOOKA	10.83	226.0	2	41	2	4	46	4			
ABUYAMA	10.98	221.3	2	40K	-1						
NARA	11.01	219.8	2	42	0						
TOTTORI	11.17	227.8	2	45	1	5	20	29			
OSAKA	11.17	220.8	3	4	20	5	41	50			
KOBE	11.32	222.1							5	16	
OWASE	11.35	216.8	2	46	0				5	59	
YONAGO	11.71	230.3	2	54	3				5	52	
SUMOTO	11.73	222.1	2	50	-2	5	36	32			
MATSUE	11.85	231.2							5	58	
SIOMISAKI	12.07	216.7	3	24	28				6	53	
TOKUSIMA	12.10	222.3	2	57	0						
TAKAMATU	12.17	224.7	2	54	-3						
SUIHWA	12.68	290.3	3	6	2						
HAMADA	12.81	232.1	3	6	0	5	22	-9			
MUROTO	12.96	221.4	3	10	2						
HIROSIMA	13.00	229.5	3	8	-1						
KOTI	13.04	224.1	3	8	-1	6	3	27			
MATUYAMA	13.23	227.1	3	12	0	5	42	1			
PETROPAVLOVK	13.52	39.5	3	18K	3	5	53	5	3	50	
UWAZIMA	13.80	226.0	3	21	2						
CHANGCHUN	13.81	278.0	3	20	1	5	57	3			
SIMIDU	13.94	223.7	3	15	-6						
SIMONOSEKI	14.15	232.2	3	24	0						
OOITA	14.30	228.5	3	42	16	6	24	18			
HUKUOKA	14.71	232.4	3	24	-7				6	34	
ITUHARA	14.95	236.7	3	32	-2						
KUMAMOTO	15.11	229.8	3	37	1						
NAGASAKI	15.64	231.5	3	42	-1	6	13	-25			
KAGOSIMA	16.15	227.1	3	48	-2				7	52	
TOMIE	16.36	233.7	3	52	0				7	23	
MAGADAN	16.56	11.5	3	53K	-2						
KLYUCHI	16.57	33.5							4	13	PPP
YAKUSIMA	17.06	224.9	3	57	-4						
DAIREN	17.70	262.8	4	9	0						
PEKING	21.27	270.4	4	49K	-1	8	39	-3			
ZO-SE	22.12	243.7	4	59	0	9	3	5			
NANKING	23.12	249.0	5	10	2	9	19	3	5	43	PP
ULAN-BATOR	26.36	292.9	5	41	2	10	11	0			
WUHAN	26.93	251.3	5	45A	0	10	21	0			
IRKUTSK	27.95	302.5	5	54	0	10	37	0			
SIAN	28.92	263.5	6	2A	-1				7	3	PP
TIKSI	29.22	350.0	6	1	-4	10	49	-9	6	56	PP
GUAM	29.91	179.3							7	10	PP
TIENSHUI	31.06	266.6	6	25	3						
LANCHOW	31.78	270.5	6	28A	0	11	31	-7	7	37	PP
WUWEI	31.86	274.4	6	29	0						
CANTON	32.72	241.6	6	37	1	11	53	0	7	48	PP
HONG KONG	32.72	239.5	6	38	2	11	50	-3			
SINING	33.03	272.7	6	40	1						
BAGUIO CITY	33.71	224.2	6	45	0	12	7	-1			
CHENGTU	34.32	261.7	6	49	-1	12	15	-3			
MANILA	35.08	222.0	6	57	0	12	30	1			
KUNMING	38.58	255.3	7	25	-1	13	22	-1			
PHU-LIEN	38.68	246.4	7	27	0	13	24	0	13	38	
COLLEGE	42.49	35.8	7	57	-1						
LHASA	44.29	270.1	8	17	4	14	47	0	18	11	SCS
SHILLONG	46.01	264.8	8	25	-2	15	15	3	10	11	PP
KHEYS	47.91	346.5	8	32	-10				10	25	PP
RABAUL	47.98	169.5	8	43	1						
CHITTAGONG	48.00	261.4	8	44	2	15	38	-3	10	26	PP
CHATRA	48.69	269.6	8	47	-1	15	58	8			
FRUNSE	49.48	294.8	8	54	0				10	53	PP
SITKA	50.12	44.6	9	16	17				9	38	
SVERDLOVSK	51.94	316.1	9	13	0	16	40	5	20	36	SS
PORT MORESBY	52.69	176.5	9	18A	0	16	46	1	17	34	*SS
DEHRA DUN	53.33	279.1	9	25	2	16	52	-2	21	4	SSS
TASHKENT	53.69	295.4	9	25	-1	16	58	-1			
PORT BLAIR	54.53	250.6	9	35	3	17	10	0	19	16	SCS
NORD	54.76	356.6	9	33	0						
ISFJORD	55.12	348.9	9	40	4						
AGRA	55.16	275.9	9	39A	3	17	20	1	21	4	SS
LAHORE	55.31	282.6	9	36	-1	17	20	-1			
STALINABAD	55.42	292.7	9	37	-1	17	23	1			
RESOLUTE	55.80	16.0	9	36	-5	17	16	-11			
WARSAK DAM	55.92	286.6	9	41	-1						
APATITY	57.78	334.9	9	53	-2	17	47	-7			
THULE	58.57	8.6	9	57	-4				10	48	PCP

ALBERNI	59.24	49.7	10	5	0					
SODANKYLA	59.92	336.7	10	9	-1					
HORSESHOE B.	60.03	48.9	10	9A	-2					
LEMBANG	60.12	223.2	10	10A	-1				12	46
VICTORIA	60.43	49.8	10	13A	0					
HYDERABAD	60.81	266.7	10	15	-1	18	29	-4	19	12 PS
QUETTA	61.30	285.5	10	18	-1	18	32	-7	12	39 PP
KIRUNA	61.30	339.0	10	17	-2	18	40	1		
MADRAS	62.47	261.7	10	29	2	19	0	6	12	42 PP
ASHKABAD	62.62	297.4	10	27	-1					
CHARTERS TS.	63.20	178.0	10	32	0					
POONA	63.45	270.8	10	32	-2	19	3	-3		
MOSCOW	63.46	322.7	10	33	-1	19	5	-1	20	25 SCS
PULKOVO	63.81	329.0	10	35	-1	19	10	-1		
KARACHI	63.83	281.6	10	40	4	19	19	8		
BOMBAY	63.97	271.8	10	36	-1	19	13	0	23	29 SS
NURMIJARVI	65.33	331.8	10	43	-3					
HELSINKI	65.47	331.4	10	45	-2					
HUNGRY HORSE	65.59	45.9	10	47	-1				29	34 PKKP
SCORESBY SD.	65.91	355.0	10	50	0					
UKIAH	65.97	58.3	10	51	1					
MINERAL	66.23	56.4	10	52A	0					
KODAIKANAL	66.29	261.4				19	44	3		
SKALSTUGAN	66.73	338.8	10	53A	-2					
COLOMBO	66.86	257.0				19	47	-1		
BERKELEY	67.34	58.9	10	59A	0					
RENO	67.81	56.2	11	2A	0					
BUTTE	67.84	47.1	11	3	1				13	32 PP
LICK	68.05	59.0	11	4A	1					
UPPSALA	68.15	334.2	11	1	-3	20	1	-3		
TIFLIS	68.65	307.6	11	8	1				13	10 PP
BOZEMAN	68.88	46.7	11	10	2				11	26
GORIS	69.17	304.9	11	8	-2				20	18 PS
FRESNO	69.55	58.5	11	13A	0					
EUREKA	70.14	54.2	11	16	0				13	56 PP
BRISBANE	71.06	171.9	11	23K	1					
GOTEBORG	71.64	335.3	11	30	5					
SALT LAKE C.	71.68	51.0	11	26	1					
SIDA	72.18	351.9	11	31	3					
PASADENA	72.26	59.7	11	29	0	20	56	4	11	43
SIMFEROPOL	72.31	315.6	11	28	-1					
WARSAW	72.87	327.5	11	33	1	21	1	2	16	10 PPP
BOULDER CITY	73.12	56.4	11	36	2				11	51
COPENHAGEN	73.16	333.9	11	34	0	21	5	3		
LWOW	73.48	324.3	11	36	0	21	7	2	29	18 SSS
IASI	73.87	320.7	11	40	2					
RAPID CITY	74.03	43.9	11	40	1					
LARAMIE	74.76	47.2	11	44	1					
KRAKOW	75.00	326.6	11	45	0	21	22	0		
RACIBORZ	75.66	327.5	11	49	0					
POTSDAM	75.68	331.6	11	47	-2	21	32	2	12	15
BOULDER	75.81	48.0	11	50	1					
COLLMBERG	76.60	331.0	11	53	-1	21	42	2		
BUCHAREST	76.63	319.6	11	56	2	21	45	5		
HALLE	76.80	331.7	11	50	-5	21	36	-6	12	46
PRAGUE	77.10	329.5	11	41	-16	21	48	3		
PRUHONICE	77.13	329.4	11	57K	0	21	48	2		
RIVERVIEW	77.19	174.2	11	58A	1	21	52	6		
WITTEVEEN	77.39	335.3	12	0	2					
JENA	77.40	331.6	11	58	0	21	48	-1	12	29
PLAUEN	77.57	331.0	11	57	-2				12	20
BRATISLAVA	77.62	326.9	11	59	-1	21	52	1	12	8 PCP
CHEB	77.83	330.7				21	34	-19		
TIMISOARA	77.83	323.1	12	7	6	22	0	7	14	54 PP
DURHAM	77.91	340.6	11	55	-6	21	54	0		
SONNEBERG	78.00	331.5	12	1	-1					
TUCSON	78.08	56.9	12	2	0					
TUCSON TELE.	78.08	56.7	12	3	1				13	18
ADELAIDE	78.21	184.7	12	4K	1					
DE BILT	78.47	335.7				22	12	12		
CANBERRA	78.54	176.1	12	7K	2					
BELGRADE	78.89	323.0	12	10K	3	22	6	1	25	32
KSARA	79.18	306.5	12	12	4				15	12 PP
SOFIA	79.24	320.0	11	20	-48	22	11	3	11	38
ZAGREB	79.98	326.2	12	14K	2	22	29	13		
STUTTGART	80.06	331.7	12	11	-2	22	20	3		
TUBINGEN	80.31	331.7	12	14	0					
RATHFARNHAM	80.35	342.6	12	16	2					

KEW	80.59	338.5	12	16	0	22	21	-1			
TOLMEZZO	80.66	328.2	12	17	1				12	35	
STRASBOURG	80.71	332.5	12	17	1	22	29	5	15	40	PP
RAVENSBURG	80.75	331.0	12	18	1						
MELBOURNE	80.94	179.5	12	18	0						
TRIESTE	81.00	327.4	12	12	-6	22	27	0	22	47	SKKS
JERUSALEM	81.02	305.5	12	18K	0						
CHUR	81.58	330.5	12	21A	0	22	38	5			
BASLE	81.68	332.0	12	17	-4						
PARIS	82.18	335.7	12	26	2				12	41	
NEUCHATEL	82.35	332.1	12	24	-1	22	34	-7			
ATHENS	82.71	316.7	12	28K	1						
BOLOGNA	82.91	328.2	12	33	5						
PAVIA	83.14	329.9	13	21	52				24	52	
OROPA	83.19	330.8	13	24	55				24	54	
GARCHY	83.37	334.6	12	30	0	22	51	0			
PRATO	83.52	328.0	12	31	0	22	55	3			
TARANTO	83.79	322.3	12	7	-25	22	32	-23			
FLORISSANT	84.29	39.9	12	36	1	23	0	0			
ST. LOUIS 1	84.48	39.9	12	36A	0						
SHAWINIGAN	84.50	24.7	12	37	1						
SEVEN FALLS	84.57	23.3	12	36	0						
FAYETTEVILLE	84.57	44.0	12	36	0	23	1	-2			
OTTAWA	84.59	27.1	12	35	-1						
ROME	84.64	326.1	12	38	1	22	59	-5	24	24	PPS
CLERMONT-FD.	84.70	333.9	12	40	3						
MONACO	85.02	330.2	12	39	1						
BREBEUF	85.18	25.7	12	39K	0						
KARAPIRO	85.82	155.8	12	44	2						
CLEVELAND	85.88	32.8	12	44A	1				23	20	SKKS
MESSINA	86.40	322.0	12	41	-4						
LITTLE ROCK	86.53	43.6	12	46	0						
PENNSYLVANIA	87.87	30.7	12	54	2	23	32	-3			
MORGANTOWN	88.08	32.7	14	54	121	25	5	88			
WESTON	88.71	25.6	12	58A	2						
HALIFAX	88.80	19.6				23	6	-37			
PALISADES	89.09	28.0	12	58	0	23	50	4	23	28	SKS
FORDHAM	89.25	28.0	13	40	41						
GEORGETOWN	89.82	31.1	13	3	1						
WASHINGTON	89.82	31.1	13	4	2						
TORTOSA	89.98	333.4	13	8	6						
ROXBURGH	91.39	162.7				24	17	10	30	18	SS
TOLEDO	92.25	336.2	13	14	1	23	45	-1	24	17	PS
SETIF	92.34	327.9	13	11	-2	23	49	2	16	34	
COLUMBIA	92.46	36.3	13	15	1						
ALICANTE	92.53	333.1	13	9	-5	24	8	-9	16	50	PP
ALGIERS UNI.	92.72	329.8	13	14	-1						
RELIZANE	94.53	331.2	13	23	0				17	11	PP
GRANADA	94.60	334.8				24	13	-22	18	5	PP
MALAGA	95.27	335.3	13	19	-8				20	9	PPP
TAMANRASSET	103.99	321.3	14	6	0				18	23	PP
LWIRO	109.92	286.5	19	10A	777				28	41	
UVIRA	110.56	285.4							19	14	PP
BANGUI	111.84	299.3							17	28	
CAPE HALLETT	116.91	171.4							23	4	PPP
MAWSON	126.30	208.1	19	10	5						
SOUTH POLE	133.29	180.0	19	8	-10						
BYRD STATION	133.53	166.2	19	21	2				21	49	PP
HUANCAYO	133.64	59.7	19	24	5						
LA PAZ	141.49	55.9	19	34	1						

FEBRUARY 1 3.H 13.M 35.S EPICENTRE 36.69 70.95 DEPTH= 234.KM

DEPTH OF FOCUS= 0.032R

A= 0.26236 B= 0.75980 C= 0.59487 D= 0.9452 E=-0.3264
G= 0.1942 H= 0.5623 K=-0.8038 HT= -0.5

SE= 1.97

	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
KHOROG	0.95	33.1	0	33	0	0	58	-1				
KULYAB	1.53	322.7	0	38	1	1	5	-2				
NUREK	2.14	323.5	0	42	-1	1	14	-2				
OBI-GARM	2.24	334.1	0	43	-1	1	14	-4				
GARM	2.36	347.6	0	44	-1	1	15	-5				

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KARA-SU	2.38	319.4	0	45	0	1	19	-1				
DZHERGETAL	2.54	4.7							1	10		
STALINABAD	2.54	317.7	0	48	1	1	22	-1				
ZIMCHURUD	2.69	321.3	0	49	1	1	25	-1				
WARSAK DAM	2.73	169.5	0	46	-3	1	21	-6				
MURGAB	2.90	53.8	0	52	1	1	30	0				
FERGANA	3.74	9.8	1	0	0	1	46	-1				
ANDIJAN	4.20	14.9	1	7	1	1	56	-1				
SAMARKAND	4.32	314.8	1	5	-2	1	55	-5				
NAMANGAN	4.32	7.3	1	8	1	1	58	-2				
TASHKENT	4.80	344.8	1	15	2	2	8	-2				
TCHIMKENT	5.70	349.9	1	25	1	2	28	-2	1	43		
LAHORE	5.84	150.4	1	24	-2	2	26	-8				
QUETTA	7.30	208.4	1	44K	-1	3	3	-4	2	33	*SP	
PRZHEVALSK	8.15	42.5	1	56	0				2	53		
ALMATA-2	8.21	34.9	1	56	0	3	25	-3	2	52		
KURMENTY	8.49	39.3							2	11		
DEHRA DUN	8.69	134.9	2	1	-1	3	33	-6	3	44	SS	
ASHKABAD	10.12	280.9	2	18	-3	4	3	-8	4	49		
AGRA	11.26	145.8	2	33K	-2	4	27	-11				
KARACHI	11.33	198.2	2	45K	9	4	49	10	3	40	*SP	
KIZYL-ARVAT	11.84	285.8	2	42	0	4	28	-23				
SEMIPALATNSK	15.26	23.1							5	8		
CHATRA	16.92	120.9	3	43	-1	6	49	6				
BOMBAY	17.80	174.2	4	51	58	7	14	13				
LHASA	18.21	106.9	3	59K	1	7	13	4				
POONA	18.27	171.2	3	59	1	7	24	14				
TIFLIS	20.84	292.0	4	27	3				5	6	PP	
SHILLONG	21.01	115.9	4	26K	0	8	4	3	5	4	PP	
SVERDLOVSK	21.31	344.3	4	28	-1				5	38		
TOCKLAI	22.50	109.3							7	7		
CHITTAGONG	23.03	122.6	4	48	3	8	41	6	5	54	*SP	
MADRAS	25.00	158.3	5	8	4	9	9	1	10	0	SSS	
LANCHOW	26.40	81.4	5	17	1							
CHENGTU	28.07	92.6	5	33	1							
ULAN-BATOR	28.61	55.6	5	35	-1							
KSARA	28.69	274.8	5	45	8	10	19	12	11	49	*SS	
SIMFEROPOL	28.87	298.2				10	8	-2	6	32	PP	
KUNMING	29.47	104.2	6	51	67							
MOSCOW	29.48	320.8	5	45	1	10	20	0	6	22	6 45	PP
PORT BLAIR	31.70	136.3				10	57	2				
PULKOVO	34.74	324.7	6	30	1	11	41	0				
PEKING	35.33	70.5							8	3	PP	
LWOW	36.02	306.5	6	41	1				8	33		
WUHAN	36.60	86.7							9	1		
SOFIA	36.74	294.4							7	59		
ATHENS	37.26	286.6	6	52K	1							
APATITY	37.43	337.4	6	52A	0	12	31	9				
NURMIJARVI	37.65	324.2	6	53	-1							
WARSAW	38.07	310.2	6	56	-1	12	30	-2	15	29	SS	
SODANKYLA	39.55	334.9	7	10	1							
RACIBORZ	39.79	306.7	7	11	0				8	46	PP	
BRATISLAVA	40.59	303.8	7	15	-3				8	9	8 54	PP
UPPSALA	40.90	321.8	7	20A	0							
VIENNA-H.	41.07	304.0	7	18	-4							
KIRUNA	41.90	334.0	7	27	-2							
PRUHONICE	42.14	306.7	7	32	1				8	16		
COLLMBERG	43.04	308.8	7	38	0							
TRIESTE	43.16	300.5							9	23	PP	
MESSINA	43.45	289.4	7	41	0				17	23	SS	
TOLMEZZO	43.55	301.7	6	41	-61	12	54	-59	8	24		
GOTEBORG	43.59	318.1	7	42A	0							
HALLE	43.69	309.1	7	39	-4				9	21		
JENA	43.96	308.3	7	45	0				8	37	10 35	
SKALSTUGAN	44.03	326.6	7	46A	0							
KHEYS	44.23	354.9	7	49	1				9	26	PP	
SONNEBERG	44.26	307.6	7	48	0							
TIKSI	45.61	22.1	7	57	-1	14	22	0	9	12	*SP	
STUTTGART	45.75	305.6	8	0	1				9	32	PCP	
TUBINGEN	45.87	305.2	8	1	1							
EBINGEN	45.99	304.8	8	6	5							
MUNSTER	46.32	310.1	8	5	1							
STRASBOURG	46.72	305.5	8	1	-6				8	49	9 36	PCP
BENSBERG	46.73	308.8	8	7	0							
ISFJORD	47.76	346.3	8	18	3							
GARCHY	50.08	304.7	8	33	0							
PARIS	50.10	306.7	8	34	1							
KEW	51.28	310.6	8	41A	0							

SETIF	51.76	290.4	8 45	0					10 4		
MATUSIRO	52.93	68.6	8 52K	-2				9 47	9 58	PCP	
NORD	53.61	349.5	8 58A	-1				10 0			
MAGADAN	54.26	38.1	9 2	-1							
RATHFARNHAM	54.38	313.9	8 25	-39							
LWIRO	55.09	234.9	9 9A	0							
SCORESBY SD.	56.87	336.4	9 22	0							
TAMANRASSET	57.49	275.5	9 28	2	17	6	2	10 18	11 25	PP	
BANGUI	57.66	249.1	9 22	-6					10 39		
TANANARIVE	59.56	205.9	9 40	-1							
THULE	64.27	350.1	10 10	-2					12 33	PP	
RESOLUTE	68.52	356.0	10 38A	0							
BULAWAYO	69.23	222.6	10 42	-1							
PRETORIA	74.03	219.6	11 11	0							
COLLEGE	74.32	16.1	11 12	-1				12 17	14 37	PP	
KIMBERLEY	78.22	220.3	11 38K	3							
MBOUR	79.92	280.4	11 45	1							
PORT MORESBY	84.68	105.8	12 7	-1							
SEVEN FALLS	89.81	335.0	12 34	1							
CHARTERS TS.	90.61	114.5	12 35	-1							
SHAWINIGAN	90.96	335.9	12 38K	0							
OTTAWA	92.93	337.2	12 48K	1							
HORSESHOE B.	93.38	9.3	12 49	0							
ADELAIDE	95.12	130.2	12 55	-2							
HUNGRY HORSE	95.22	3.3	12 57	-1				13 46	16 35	PP	
RAPID CITY	99.43	355.7							17 23	PP	
EUREKA	103.94	5.5	13 39	2					17 52	PP	
TUCSON TELE.	111.31	1.5	18 7	2					18 50		
SOUTH POLE	126.50	180.0	18 33	-2							
BYRD STATION	136.36	177.4	18 43	-10							
LA PAZ	138.64	288.0	19 0	2							
HUANCAYO	141.03	300.3	19 1	-1							

FEBRUARY 2 3.H 56.M 50.S EPICENTRE -6.74 127.00 DEPTH= 455.KM

DEPTH OF FOCUS= 0.067R

A=-0.59769 B= 0.79321 C=-0.11654 D= 0.7987 E= 0.6018
G= 0.0701 H=-0.0931 K=-0.9932 HT= 6.9

SE= 1.49

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
DJAKARTA	20.05	270.4			7 17	0			
PORT MORESBY	20.13	98.9	4 4A	1				6 31	PP
MANILA	22.00	344.3	4 20	-1	6 46	-64			
CHARTERS TS.	22.88	127.1	4 28K	-1	8 7	3			
BAGUIO CITY	23.87	344.6	4 36	-1					
RABAUL	25.18	85.6	4 50	1					
GUAM	26.72	41.3	4 59	-4					
ADELAIDE	30.06	160.5	5 32	0	9 58	0		6 40	
BRISBANE	32.18	132.9	5 52A	2				7 19	
CANTON	32.53	336.0	5 53K	0					
CANBERRA	34.90	147.6	6 14A	1	11 40	28		9 21	PCP
RIVERVIEW	35.02	143.6	6 9	-5	11 20	6			
WUHAN	38.93	342.8	6 47K	1					
NANKING	39.35	349.0	6 50K	0					
KUNMING	39.48	324.0	6 52K	1					
ABUYAMA	42.17	10.5	7 14K	1					
CHENGTU	43.22	330.6	7 20K	-1					
SIAN	44.21	338.4	7 28K	-1					
MATUSIRO	44.33	13.0	7 30K	0	13 32	2		9 6	PCP
TUKUBASAN	44.47	15.2	7 30A	-1				9 5	PCP
SHILLONG	46.87	314.6	7 49K	0					
PEKING	47.59	348.7	7 55K	0					
LANCHOW	47.83	334.5	7 57K	0					
CHANGCHUN	50.35	358.4	8 15K	-1					
ULAN-BATOR	57.24	344.0	9 6	1					
BOMBAY	59.15	296.6						16 48	
QUETTA	68.22	306.1	10 15	-1				11 51	
YAKUTSK	68.58	1.4	10 18	0					
MAGADAN	68.74	12.7	10 20	1					
TIKSI	78.22	0.6	11 13	0					
SVERDLOVSK	83.02	329.5	11 38	0					
SOUTH POLE	83.31	180.0	11 38	-1			12 3		

BYRD STATION	87.38	170.8	11 59	0	12 24		
TIFLIS	88.64	312.1	12 6	1			
KHEYS	94.00	350.3	12 25	-4			
COLLEGE	94.00	25.2	12 29	0	13 9		
KIRUNA	102.43	338.1	13 6	-1			
RESOLUTE	107.99	10.8	13 33A	-2		17 36	PKP
BANGUI	108.73	272.3				23 2	
HUNGRY HORSE	114.06	39.7	17 49	2			
PASADENA	114.27	55.7	17 51	4			
EUREKA	115.03	49.5	17 52	4	18 57		
PARIS	117.35	322.2	17 56	3			
TUCSON	120.66	56.5	18 3	4			
TUCSON TELE.	120.74	56.4	18 3	4		19 29	PP
TAMANRASSET	121.57	292.5	18 3	2		19 38	PP
RAPID CITY	122.62	41.1	18 5	2			
OTTAWA	136.73	23.4	18 17	-13		21 25	SKP
SHAWINIGAN	136.84	20.0	18 32	2		21 25	SKP
SEVEN FALLS	136.96	17.8	18 19	-11		21 25	SKP
BREBEUF	137.44	21.5	18 34A	3			
MBOUR	143.81	285.1	18 44	1			
HUANCAYO	150.99	130.0	19 2A	8			
LA PAZ	152.48	147.2	19 9	13			

FEBRUARY 5 1.H 4.M 51.S EPICENTRE 57.42-156.87 DEPTH= 74.KM

DEPTH OF FOCUS= 0.006R

A=-0.49753 B=-0.21251 C= 0.84101 D=-0.3928 E= 0.9196
G=-0.7734 H=-0.3304 K=-0.5410 HT= -8.1

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
COLLEGE	8.65	26.5	2 5	1	3 39	-2		
SITKA	11.68	82.7	2 45	0	4 44	-10		
ALBERNI	20.64	99.5	4 36K	1				
HORSESHOE B.	21.40	97.6	4 43	0				
VICTORIA	21.82	99.7	4 44	-3				
CORVALLIS	24.44	107.2					5 35	
MAGADAN	26.86	296.8	5 36	1	10 6	2		
HUNGRY HORSE	26.98	91.1	5 36	0			5 59	6 19
SHASTA	27.70	112.2	5 43	0			6 5	
MINERAL	28.36	111.7	5 49	0			6 11	
RESOLUTE	28.56	29.4	5 49	-1	10 28	-4		
BUTTE	29.19	93.7	5 56	0			6 21	
RENO	29.88	110.7					6 24	
BERKELEY	29.95	115.8					6 24	
BOZEMAN	30.23	92.9	6 5	0				
LICK	30.67	115.6					6 30	
EUREKA	31.89	106.4	6 20	0			6 43	9 13 PCP
FRESNO	32.02	114.1					6 43	
TIKSI	32.42	325.3	6 26	1				
THULE	34.88	24.4	6 44	-2				7 48 PP
PASADENA	34.91	115.0	7 8	22	13 3	52		7 18
BOULDER CITY	35.13	109.3	6 48	0			7 11	
YAKUTSK	35.47	308.8	6 51	0				
RAPID CITY	35.51	88.4	6 51	0				8 49 PCP
KIPAPA	35.97	181.8	6 54	-1				8 20 PP
LARAMIE	36.10	93.9						12 57
UGLEGORSK	36.31	283.7	6 58	0				
NORD	39.58	8.5	7 26	1				
TUCSON	40.11	108.8	7 31	2			7 53	9 51 PCP
KHEYS	41.76	352.7	7 35	-8				
ISFJORD	44.65	2.8	8 14	8				
MATUSIRO	46.89	272.6	8 24K	0	15 4	-5		9 55 PCP
SCORESBY SD.	48.42	18.6	8 37	1				
CHANGCHUN	48.47	289.1	8 35	-2				
OTTAWA	49.05	67.2	8 40	-1				
ABUYAMA	49.58	273.3	8 45A	0				
BREBEUF	50.02	65.7	8 47	-1				
SEVEN FALLS	50.22	62.4	8 50	0				
PALISADES	53.14	69.8						17 3
WESTON	53.42	66.9	9 14K	0				19 50
KIRUNA	55.04	1.2	9 25A	-1				
APATITY	55.11	355.2	9 25A	-1				
SODANKYLA	55.49	358.4	9 27	-2				

PEKING	55.89	292.2	9	31A	-1					
SKALSTUGAN	59.04	5.6	9	53	-1					
ZO-SE	60.18	281.8	10	2A	0					
NANKING	60.69	284.3	10	4A	-1					
SVERDLOVSK	62.19	337.8	10	15	0					
NURMIJARVI	62.40	359.1	10	16	-1					
HELSINKI	62.74	359.0	10	19	0					
UPPSALA	62.99	3.1	10	20A	-1					
PULKOVO	63.01	355.9	10	20	-1					
SIAN	64.01	293.2	10	28A	1					
WUHAN	64.10	286.5	10	28A	0					
GOTEBORG	64.88	6.6	10	36A	3					
LANCHOW	65.03	298.1	10	34A	0	19	6	-3		
DURHAM	66.38	15.3	10	42A	-1					
MOSCOW	66.60	351.1	11	4	20					
COPENHAGEN	66.92	6.6	10	46A	0					
RATHFARNHAM	67.06	18.7	10	49A	2					
CHENGTU	69.34	294.6	11	1A	0	20	0	-1		
KEW	69.77	15.4	11	4A	0					
MUNSTER	70.23	10.1	11	7	0					
CANTON	70.78	282.8	11	11A	1					
HALLE	71.05	7.4	11	8	-4				11	54
BENSBERG	71.19	10.6	11	12	0					
COLLMBERG	71.32	6.7	11	13	0					
JENA	71.59	7.7	11	15	0				12	51
PLAUEN	72.06	7.3	11	16	-2					
FOLINIERE	72.38	16.1	11	19	0					
CHEB	72.50	7.2	11	19	-1					
PRUHONICE	72.73	5.8	11	22	1				11	42 PCP
PARIS	72.76	14.1	11	23	1				11	32 PCP
RACIBORZ	72.79	3.3	11	22A	0					
KRAKOW	72.86	2.2	11	22	0				11	38 PCP
LWOW	73.11	359.4	11	24	0					
STUTTGART	73.55	9.6	11	40	14					
STRASBOURG	73.60	10.6	11	27A	0				11	41 PCP
TUBINGEN	73.77	9.7	11	28A	0					
NAMANGAN	73.85	323.8	11	28	0					
EBINGEN	74.11	9.8	11	31	1					
GARCHY	74.34	14.0	11	31	0					
BASLE	74.62	10.9	11	33A	1					
KUNMING	74.63	292.3	11	32A	-1					
BRATISLAVA	74.66	4.2	11	25K	-8					
NEUCHATEL	75.08	11.4	11	36	1					
KISHINEV	75.82	356.0	11	38	-1					
CLERMONT-FD.	75.83	14.3	11	40A	1					
LHASA	76.31	303.9	11	45A	3					
MONACO	78.36	11.6	11	54	1					
SHILLONG	79.41	301.1	11	58A	-1					
TIFLIS	79.56	343.7	12	1	1					
WARSAK DAM	80.22	320.9	12	2A	-2					
TOLEDO	80.40	20.9	12	5	0					
PORT MORESBY	80.66	236.0				22	9	3		
LAHORE	81.46	317.7	12	12	2					
CHITTAGONG	82.18	299.5	12	16	2	22	20	-1	12	25 PCP
ALICANTE	82.54	18.5	12	19	3	22	36	11	17	24 PPP
MALAGA	83.39	22.0	12	22K	2					
ALGIERS UNI.	84.65	16.1	12	24	-2					
QUETTA	85.26	323.0	12	30A	1	22	46	-6	15	43 PP
KARACHI	89.25	321.3	12	53A	4					
CHARTERS TS.	90.46	232.0	12	54	0					
POONA	93.40	312.6	13	8	0					
TAMANRASSET	98.75	16.4	13	31	-1				17	16 PP
LWIRO	124.80	353.1	18	53K	2				20	38
BYRD STATION	138.86	170.7	19	14	-3				22	43 PP
BULAWAYO	142.55	351.5	19	24	0					
SOUTH POLE	147.25	180.0	19	29	-3			19 57	23	1 PP
PRETORIA	148.15	351.3	19	38	4					
KIMBERLEY	151.32	357.0	19	39	1					
PIETERMZBURG	151.75	346.5	19	46K	7					

FEBRUARY 5 10.H 5.M 40.S EPICENTRE 36.28 141.70 DEPTH= 0.KM

A=-0.63410 B= 0.50081 C= 0.58916 D= 0.6198 E= 0.7848
G=-0.4624 H= 0.3652 K=-0.8080 HT= -0.3

SE= 3.60

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
TYOSI	0.89	231.1	0	18K	-2	0	31	-2				
ONAHAMA	0.93	316.3	0	20	0	0	32	-2				
MITO	1.00	276.0	0	20	-1	0	34	-2				
KAKIOKA	1.23	268.0	0	24K	0	0	35	-7				
TUKUBASAN	1.29	267.7	0	24K	-1	0	43	-1				
SHIRAKAWA	1.45	305.6	0	28K	0	0	47	-1				
UTUNOMIYA	1.50	280.8	0	28	0	0	49	0				
HONGO	1.66	250.5	0	31	0							
TOKYO C.M.O.	1.69	249.8	0	30K	-1	0	50	-4				
HUKUSIMA	1.76	326.5	0	33K	1	0	56	0				
YOKOHAMA	1.87	243.5	0	34A	0	1	7	9				
KUMAGAYA	1.88	266.7	0	32	-2	0	55	-4				
MERA	2.04	228.8	0	35	-1							
SENDAI	2.08	342.4	0	37A	0	1	3	-1				
MAEBASI	2.13	274.0	0	37	0	1	3	-2				
TITIBU	2.14	262.7	0	37	-1	1	2	-3				
ISINOMAKI	2.17	352.1	0	38	0	1	4	-2				
YAMAGATA	2.24	331.7	0	40	1	1	4	-4			1	24
AJIRO	2.45	240.6	0	42	0	1	13	0				
HUNATU	2.50	252.7	0	45	2	1	22	8				
MISIMA	2.52	243.4	0	42A	-1	1	10	-5				
OIWAKE	2.54	272.0	0	47	4	1	21	6			0	59
KOHU	2.62	256.5	0	44	0	1	28	11				
NIIGATA	2.68	308.5	0	52	7	1	23	4				
MATUSIRO	2.82	276.5	0	47K	0	1	21	-1				
NAGANO	2.85	278.9	0	49	1	1	23	0				
MIZUSAWA	2.88	351.2	0	52	4	1	27	3				
TAKADA	2.89	287.4	0	50K	2	1	25	1				
SHIZUOKA	2.99	245.0	0	50	0	1	33	6				
MATUMOTO	3.01	270.5	0	52	2	1	29	2				
IIDA	3.23	257.5	0	53	0	1	44	11				
AIKAWA	3.26	303.2	0	54	1	1	45	11				
OMAESAKI	3.30	240.4	0	56	2						1	58
MIYAKO	3.37	3.6	0	57	2	1	37	0				
MORIOKA	3.44	353.2	0	56	0	1	36	-2				
HATIDYOZIMA	3.53	206.4				1	34	-7				
TAKAYAMA	3.60	269.2	1	0	2							
HAMAMATU	3.60	245.5	1	22	24						2	38
TOYAMA	3.65	277.9	1	0	1						1	24
AKITA	3.66	340.3	1	3	4	1	46	2			1	37
WAZIMA	4.00	287.3	1	5	1							
NAGOYA	4.00	255.3	1	7	3	2	3	10				
KANAZAWA	4.08	275.0	1	10	5							
GIHU	4.10	259.1	1	5A	0	2	3	8				
HATINOHE	4.24	358.3	1	10	3	2	9	10				
HUKUI	4.40	268.6	1	16	6							
KAMEYAMA	4.50	253.0	1	20	9	2	18	13				
TU	4.50	251.4	1	12	1	2	18	13				
HIKONE	4.54	258.8	1	14	2	2	15	9				
AOMORI	4.59	351.3	1	13	1	2	13	6				
TSURUGA	4.61	263.8	1	13	0	2	12	4				
OWASE	5.01	245.5	1	28	10	2	38	20				
NARA	5.05	253.3	1	21	2	2	26	7				
MAIZURU	5.12	262.7	1	22K	2	2	27	6				
ABUYAMA	5.19	256.0	1	20A	-1							
OSAKA	5.29	253.9	1	26	4	2	39	14			2	4
HAKODATE	5.54	352.4	1	28	2	2	45	14			3	35
KOBE	5.55	255.2	1	40	14	2	51	20				
SIOMISAKI	5.63	241.6	1	36	9	2	54	21				
TOYOOKA	5.63	264.4	1	25	-2	2	33	0				
WAKAYAMA	5.72	250.9	1	27	-1							
MORI	5.88	351.8	1	38	7	2	52	12				
SUMOTO	5.90	252.9	1	45	14						2	11
URAKAWA	5.92	7.8	1	38	7	2	39	-2				
MURORAN	6.07	354.9	1	40	7	2	56	12				
TOTTORI	6.11	264.9	1	53	19	3	12	26				
HIROO	6.12	11.4	1	37	3	2	58	12				
HIMEJI	6.22	255.5	1	44	9	2	59	11				
TOMAKOMAI	6.23	359.2	2	2	26						3	11
TOKUSIMA	6.23	251.3	1	35	-1	2	45	-4				
OKAYAMA	6.54	258.1	1	54	14							
TAKAMATU	6.55	254.9	1	45	5	3	17	20				
SUTTSU	6.61	350.6	1	52	11						3	19
OBIHIRO	6.73	9.5	1	47	4	2	57	-4				
SAIGO	6.76	271.8	1	42	-1						3	10

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SAPPORO	6.79	357.8	1	47	4	2	51	-11			3	22
YONAGO	6.83	265.3									3	45
MUROTO	6.89	246.1	2	5	20	3	39	34				
KUSIRO	7.01	16.5	1	54	8	3	11	3			3	48
MATSUE	7.06	265.8	2	3	16							
KOTI	7.24	250.3	1	56	6	3	29	15			2	24
ASAHIGAWA	7.51	3.7	1	54	1							
NEMURO	7.65	21.8	1	55	0	3	11	-13				
MATUYAMA	7.73	254.2	1	52	-5						3	26
HIROSIMA	7.81	258.6	1	57	-1	3	32	4				
ABASHIRI	7.98	13.5				3	18	15				
OOITA	8.83	252.8									4	31
SAGA	9.85	255.4	2	28	2							
VLADIVOSTOK	10.17	315.1				4	22	-4				
NAGASAKI	10.37	253.5	2	31A	-2						4	56
Y.-SAKHLINSK	10.69	3.8	2	35	-2	4	30	-9				
UGLEGORSK	12.79	1.1	3	42	36							
CHANGCHUN	14.63	306.0	3	28	-2							
ZO-SE	17.83	259.1	4	7	-4							
NANKING	19.40	264.1	4	24	-6							
PEKING	20.40	288.3	4	35	-6							
WUHAN	23.33	263.6	5	6	-5							
MAGADAN	24.02	11.4	5	17	0							
SIAN	26.77	275.4	5	40A	-3							
YAKUTSK	26.84	347.5	5	40	-4							
MANILA	28.46	225.9	5	48	-11							
LANCHOW	30.45	281.0	6	12A	-5							
IRKUTSK	30.75	313.2	6	16	-3							
CHENGTU	31.80	270.9	6	25A	-3							
KUNMING	35.17	262.5	6	53A	-5							
TIKSI	36.04	353.1	7	2	-3							
LHASA	42.62	276.1	7	59A	-1							
CHITTAGONG	45.18	266.3	8	18	-2	15	3	2			10	2 PP
COLLEGE	49.61	31.9	8	54	-1							
LEMBANG	53.49	223.8	9	21A	-3							
NAMANGAN	53.57	297.8	9	23	-2							
KHEYS	54.46	347.7	9	22	-10							
LAHORE	55.09	286.1	9	35	-1							
SVERDLOVSK	55.87	319.0	9	39	-3							
CHARTERS TS.	56.15	174.8	9	55	11							
QUETTA	61.40	287.9	10	17	-3							
POONA	61.63	272.9	10	19	-3							
ISFJORD	61.80	349.3	10	29	6							
NORD	61.82	356.5	10	20	-3							
RESOLUTE	63.28	14.4	10	30A	-3							
APATITY	63.47	335.9	10	31A	-3							
SODANKYLA	65.75	337.4	10	44	-5							
THULE	65.98	7.4	10	45	-5							
KIRUNA	67.30	339.4	10	56A	-3							
MOSCOW	67.99	323.7	11	0	-3							
PULKOVO	68.95	329.7	11	5	-4							
NURMIJARVI	70.72	332.2	11	16	-4							
SHASTA	71.37	52.9	11	24	0							
MINERAL	72.07	52.9	11	27	-1							
HUNGRY HORSE	72.18	42.8	11	27	-2							
SCORESBY SD.	72.89	354.3	11	31	-2							
RENO	73.66	52.8	11	42	5							
LICK	73.67	55.6	11	34	-3							
UPPSALA	73.73	334.2	11	35	-3							
BUTTE	74.34	44.2	11	40	-1							
FRESNO	75.21	55.2	11	56	10							
EUREKA	76.14	51.1	11	51	-1							
GOTEBORG	77.30	335.0	11	57K	-1							
PASADENA	77.80	56.6	12	18	17							
SALT LAKE C.	77.91	48.2	12	1	0							
COPENHAGEN	78.70	333.4	12	4	-2							
BOULDER CITY	78.93	53.5	12	8	1							
RAPID CITY	80.71	41.4	12	15	-2							
LARAMIE	81.24	44.7	12	19	0							
COLLMBERG	81.87	330.3	12	20	-3							
HALLE	82.13	331.0	12	17	-7						12	28
PRUHONICE	82.25	328.7	12	23	-2						15	29 PP
JENA	82.72	330.8	12	25	-2							
TUCSON	83.84	54.4	12	33	0							
STUTTGART	85.37	330.7	12	38	-2							
GARCHY	88.93	333.2	12	56	-2							
TAMANRASSET	108.13	317.7	14	55	777						18	43 PP
BYRD STATION	126.99	167.5	19	5	-1							

FEBRUARY 6 14.H 33.M 5.S EPICENTRE 51.72-176.02 DEPTH= 44.KM

DEPTH OF FOCUS= 0.002R

A=-0.62064 B=-0.04318 C= 0.78291 D=-0.0694 E= 0.9976
G=-0.7810 H=-0.0543 K=-0.6221 HT= -6.0

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	
PETROPAVLOVK	15.50	285.2	3	37	0	6	43	16					
COLLEGE	19.60	37.0	4	26	-1	8	1	1					
MAGADAN	20.12	305.9	4	33	0	8	31	20					
SITKA	24.02	61.1	5	16	5				5	29			
UGLEGORSK	26.58	281.0	5	36	0								
Y.-SAKHLINSK	27.04	276.3	5	36	-4								
YAKUTSK	30.49	311.0	6	7	-4								
TIKSI	31.20	329.9	6	14	-3								
ALBERNI	32.12	73.8	6	27	2	11	40	7					
HORSESHOE B.	32.99	72.8	6	35	2	11	53	6			9	16	PCP
VICTORIA	33.28	74.3	6	36	1	11	56	5					
HONOLULU	33.41	148.6	6	35	-1	12	1	8	6	49			
TUKUBASAN	34.59	260.8	6	45A	-1	11	13	-59			12	27	
MATUSIRO	35.54	263.0	6	54A	0	12	29	3					
VLADIVOSTOK	35.59	277.0	6	54	-1								
SHASTA	37.90	85.2	7	17	3								
ABUYAMA	38.27	263.2	7	18A	1								
UKIAH	38.31	87.9	7	28	10								
MINERAL	38.60	85.1	7	21A	1				7	36			
RESOLUTE	38.72	24.8	7	21	0	13	13	-2			8	55	PP
HUNGRY HORSE	38.91	69.7	7	24	1	13	17	-1	7	36	17	31	SCS
CHANGCHUN	39.25	282.3	7	24A	-2	13	16	-7			8	59	PP
BERKELEY	39.68	88.7	7	30A	1	13	33	4					
RENO	40.18	84.9	7	35	2				7	49			
LICK	40.39	88.9	7	37A	2				7	50			
BUTTE	40.95	72.0	7	41	1				7	53			
FRESNO	41.89	88.2	7	53	6								
BOZEMAN	42.03	71.6	7	50	1						8	18	
EUREKA	42.59	82.2	7	53	0				8	9	13	31	SCP
THULE	44.28	18.8	8	5	-2				8	21	9	49	PP
SALT LAKE C.	44.34	78.0	8	9	2				8	23			
PASADENA	44.60	89.8	8	10	1	14	44	2			10	8	PP
BOULDER CITY	45.48	85.3	8	17	1				8	32			
NORD	46.47	4.1	8	24	0								
IRKUTSK	46.67	303.8	8	21	-5								
PEKING	47.00	283.6	8	28A	0	15	15	-1					
RAPID CITY	47.53	69.0	8	29	-4						13	49	SCP
ULAN-BATOR	47.71	297.6	8	33	-1								
LARAMIE	47.80	73.4	8	34	-1								
TATUNG	48.70	285.5	8	45	3								
ZO-SE	49.73	271.0	8	52	2								
TUCSON	50.43	86.1	8	57	2				9	12			
TUCSON TELE.	50.44	86.0	8	56	1				9	11	10	29	PCP
NANKING	50.56	273.7	8	57A	1								
WUHAN	54.24	275.4	9	22A	-1								
SIAN	55.15	282.8	9	30A	0								
SCORESBY SD.	56.68	10.1	9	41	0								
LANCHOW	56.96	287.8	9	42A	-1	17	36	4					
FAYETTEVILLE	57.94	71.1	9	51	1								
APATITY	59.02	347.3	9	52	-5								
SEMIPALATNSK	59.53	313.8	9	58	-3								
SODANKYLA	60.02	350.1	10	5	1								
KIRUNA	60.14	352.9	10	5	0								
CANTON	60.36	270.3	10	5A	-2								
HONG KONG	60.38	269.0	10	6K	-1	18	34	17					
CHENGTU	60.62	283.1	10	8A	0	18	21	1					
BAGUIO CITY	60.84	259.3	10	7	-3	18	44	22					
OTTAWA	61.50	52.1	10	13	-1								
RABAUL	61.94	216.6	10	14	-3						10	27	
SVERDLOVSK	62.23	328.7	10	17	-2								
BREBEUF	62.45	50.8	10	18	-3						12	16	PP
SEVEN FALLS	62.58	47.9	10	19	-3								
MORGANTOWN	63.48	59.1	10	26A	-2								
PENNSYLVANIA	63.73	56.9	10	30	1	19	1	2	10	46			
KUNMING	65.48	279.8	10	39A	-1	19	21	1					

WASHINGTON	65.54	57.9	9	58	-43			10	41
PALISADES	65.61	54.3	10	41	0	19	20 -2	20	30 SCS
WESTON	65.87	51.7	10	42A	-1				
CHAPEL HILL	66.67	61.3	10	50	2			11	6
TACUBAYA	66.90	87.7	10	43	-6	19	17 -21	14	38 PPP
NURMIJARVI	66.90	349.0	10	48	-1				
COLUMBIA	67.00	64.0	10	50	0				
HALIFAX	67.75	45.5				19	37 -11	20	37 SCS
UPPSALA	68.24	352.6	10	56	-2			39	23 PKPPKP
PORT MORESBY	68.63	219.4	10	59K	-1	19	57 -1	11	18 PCP
LHASA	69.06	291.4	11	4A	1	20	9 6		
MOSCOW	69.35	340.4						11	17 PCP
NAMANGAN	70.57	312.0	11	11	-1			20	41
GOTEBORG	70.75	355.5	11	14	1				
SHILLONG	71.62	288.0	11	17A	-1	20	46 13		
COPENHAGEN	72.74	355.0	11	31	6	21	19 33		
CHATRA	73.41	292.2	11	30	1				
DURHAM	73.78	3.4	11	35A	4	21	11 13		
CHITTAGONG	74.07	285.8	11	35A	2	21	5 4	14	21 PP
RATHFARNHAM	75.00	6.4						13	5
NOUMEA	75.28	196.8	11	39	-1				
DEHRA DUN	75.78	300.9						21	43
WARSAK DAM	76.20	307.7	11	43A	-2				
DE BILT	76.55	359.2	11	49	2	21	31 3		
LAHORE	76.76	304.3	11	49	1				
HALLE	76.94	354.9	12	0	11			12	37
BERMUDA	76.96	54.0	11	55	6	21	35 2		
COLLMBERG	77.08	354.2	11	49	-1				
LWOW	77.40	346.9	12	0	8				
JENA	77.53	355.1	11	52	-1			13	13
BENSBERG	77.67	357.9	11	55	2			12	27
PLAUEN	77.93	354.7	11	51	-4				
PRUHONICE	78.28	353.1	11	58	1			14	59 PP
AGRA	78.31	299.0	11	57	0				
MAKHACH-KALA	78.43	328.9	11	57	0				
DOURBES	78.56	359.6	11	53	-5	19	58-112		
CHARTERS TS.	78.67	215.9	11	58A	-1	21	50 -1		
STUTTGART	79.79	356.5	12	5	0	21	55 -8	22	43 SCS
FOLINIERE	79.82	3.0	12	7	2				
STRASBOURG	80.03	357.4	12	3	-3			15	21 PP
SIMFEROPOL	80.26	338.8						12	7 PCP
TIFLIS	80.41	330.2						12	10 PCP
GARCHY	81.38	0.6	12	16	3			12	23 PCP
QUETTA	81.56	308.8	12	15A	1	22	23 2	15	19 PP
NEUCHATEL	81.63	357.9						12	40 PCP
PORT BLAIR	81.72	278.2	12	13	-2	22	33 10		
TRIESTE	82.65	353.1	12	22	2	22	42 10		
BELGRADE	82.80	348.3	12	24A	3	22	32 -2	23	59 PPS
CLERMONT-FD.	82.89	0.6	12	24	3			15	22 PP
BRISBANE	83.41	207.4	12	22A	-2	22	18 -22		
MEDAN	84.29	268.5	12	29K	1				
KARACHI	85.11	306.3	12	36A	4				
ROME	86.47	353.7						24	25
LEMBANG	86.95	255.1	12	40	-1			12	57
SAN JUAN	87.46	63.4	12	44	0		13 1		
POONA	87.47	296.9	12	44	0	23	17 -3	13	0
ONERAHI	87.52	187.8						13	6
BOMBAY	87.74	297.9	12	46	1	23	23 1		
TOLEDO	88.51	6.2	12	53	4	23	13 -16		
KARAPIRO	89.57	186.7	12	53	-1			13	6
RIVERVIEW	89.92	206.8	12	57	2	23	27 -15		
ALICANTE	90.23	3.5	12	56	-1	23	48 3		
KSARA	90.34	333.9	12	56	-1	23	58 12	16	34 PP
ALGIERS UNI.	91.88	0.7	13	2	-3			25	42 PPS
ROXBURGH	97.71	190.3				24	25 -25		
TAMANRASSET	105.82	358.5	14	41	777	24	40 -3	18	13 PP
LWIRO	126.50	328.5	18	11	-47				
BYRD STATION	135.32	168.1	19	14	-1			22	42 PP
SOUTH POLE	141.53	180.0	19	21	-5		19 51	23	34 SKP
BULAWAYO	143.07	319.3	19	27	-2				
WINDHOEK	149.18	335.8	19	41A	2				
PIETERMZBURG	150.47	308.2	19	49K	8				
KIMBERLEY	152.29	317.9	19	45	1				

FEBRUARY 7 9.H 36.M 54.S EPICENTRE -3.70 -81.71 DEPTH= 0.KM

A= 0.14396 B=-0.98751 C=-0.06403 D=-0.9895 E=-0.1443
G=-0.0092 H= 0.0634 K=-0.9979 HT= 7.1

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
HUANCAYO	10.43	143.1	2 23A	-9				
CHINCHINA	10.54	35.3	2 30	-4	4 30	-3		
BOGOTA	11.24	42.8	2 41A	-3	5 25	35		
BALBOA HTS.	12.75	9.6	3 8A	4	5 25	-2		
LA PAZ	18.43	134.6	4 17A	0	7 52	13		4 39 PP
SAN SALVADOR	18.85	336.8	4 24	2	8 1	12		
ANTOFAGASTA	22.64	152.2	5 3	1	8 14	-50		
TRINIDAD	24.65	54.4	5 25	4				
GRENADA	25.28	51.5	5 30	2				
OAXACA	25.40	324.6	5 31	2	10 5	13		6 16 PP
MERIDA	25.69	342.7	5 27A	-4	10 0	3		10 6
ST. VINCENT	26.32	50.1	5 41	4				
SAN JUAN	26.78	34.5	5 40A	-1	10 27	12		
VERA CRUZ	26.82	328.5	5 43A	1	10 30	14		7 58
FORT FRANCE	27.39	47.6	5 47	0	10 33	8		
DOMINICA	27.58	46.3	5 49	0				
PUEBLA	27.81	324.9	5 50	-1	10 42	10		
TACUBAYA	28.68	323.8	6 0A	1	10 54	8		6 52 PP
TALA POZO	29.20	147.0	6 3A	0			6 16	
MANZANILLO	31.73	316.2	6 32	6	11 40	6		13 36 SS
GUADALAJARA	32.19	319.7	6 33	3	11 46	5		8 6 PP
MAZATLAN	35.97	319.1	7 0K	-2	12 42	2		15 32 SSS
COLUMBIA	37.50	0.9	7 14A	-1	13 2	-1		
LA PLATA	38.08	147.5	7 19A	-1	13 11	-1		9 1 PPP
BERMUDA	39.35	23.0			13 19	-12		8 54 PP
CHAPEL HILL	39.49	3.4	7 32	0				7 58
CHIHUAHUA	39.77	325.5	7 30K	-4	13 36	-1		9 38 PPP
FAYETTEVILLE	41.27	344.6	7 47	1				
GEORGETOWN	42.60	5.3	7 56	-1	14 14	-5		9 42 PP
WASHINGTON	42.60	5.3	7 56K	-1				9 51 PCP
ST. LOUIS 1	42.86	350.2	7 58A	-1	14 23	0		
FLORISSANT	43.04	350.1	8 0A	-1	14 28	2		9 44 PP
MORGANTOWN	43.14	2.0	8 2	0	14 25	-2		
PENNSYLVANIA	44.42	4.2	8 10	-2	14 43	-3		13 47
FORDHAM	44.91	8.4	8 59	43	15 34	41		
CLEVELAND	44.96	0.2	8 16A	-1				18 1 SS
PALISADES	45.06	8.3	8 16A	-1	14 59	4		10 3 PP
TUCSON	45.20	324.5	8 18A	0	14 56	-1		18 27 SCS
WESTON	46.82	10.6	8 30A	-1	15 20	0		18 29 SS
BOULDER	48.61	335.8	8 45	0				
OTTAWA	49.17	5.6	8 47A	-3	15 52	-1		10 44 PP
BREBEUF	49.51	7.5	8 48A	-4	15 56	-2		
LARAMIE	49.81	336.5	8 50	-4	16 7	5		
BOULDER CITY	50.18	324.8	8 57A	0	16 16	9		9 16
SHAWINIGAN	50.65	8.0	8 59	-2				
HALIFAX	50.76	16.7	9 1A	-1	16 13	-2		10 56 PP
PASADENA	50.96	320.6	9 2A	-1	16 15	-3		20 20 SS
RAPID CITY	51.33	340.2	9 6A	0	16 26	3		11 30 PP
SEVENFALLS	51.50	9.5	9 7A	0	16 25	-1		19 3 SCS
SALT LAKE C.	52.14	331.1	9 12A	0	16 39	5		10 18 PCP
EUREKA	53.29	327.1	9 20A	-1				39 22 PKPPKP
VINEYARD	54.63	321.0	9 32A	1				
LICK	55.17	321.4	9 34A	0				39 28 PKPPKP
RENO	55.48	324.6	9 36A	-1				39 53 PKPPKP
BOZEMAN	55.64	335.4	9 37A	-1				10 48 PCP
BERKELEY	55.88	321.6	9 39A	-1	17 31	6		21 51 SS
BUTTE	56.56	334.6	9 43	-2	17 22	-12		12 14 PP
MINERAL	57.05	324.3	9 46A	-2				39 28 PKPPKP
UKIAH	57.25	322.2	9 51K	2	17 43	0		39 49 PKPPKP
SHASTA	57.74	324.1	9 51A	-2				39 25 PKPPKP
ARCATA	58.85	323.3	10 1	0				
HUNGRY HORSE	59.01	335.4	10 0A	-2	18 11	5		12 8 PP
SASKATOON	59.50	342.5	10 3	-2	18 13	1		13 52 PPP
OHIGGINS	62.01	168.1	10 23	1				21 22 SS
VICTORIA	63.42	330.4	10 31A	-1	19 7	5		
HORSESHOE B.	63.93	331.1	10 34A	-1	19 11	2		
ALBERNI	64.61	330.3	10 38	-1	19 21	4		
ANGRA DO HO.	65.53	44.4	10 47	2	19 37	9	10 57	24 1 SS
PONTA DELGDA	66.22	45.9	10 52K	2	19 51	14	11 5	11 29 PCP
MBOUR	66.61	72.7	11 2	10	19 43	2		
TAHITI	67.55	252.4	11 6	8	20 3	10		
SITKA	74.34	332.8	11 41A	2	21 19	8		14 34 PP

HAWAII V.OB.	75.80	291.0	11	48	1	21	30	2			
BYRD STATION	78.43	186.3	11	56	-6				14	44	PP
RESOLUTE	78.66	356.5	12	1A	-2	21	55	-4	14	59	PP
HONOLULU	78.71	292.4	12	4A	0	21	54	-5	23	6	PPS
LISBON	78.81	49.5	12	4A	0				13	4	
COIMBRA	79.70	48.2	12	9	0	22	6	-3			
SERRA PILAR	79.80	47.3	12	9K	0	22	13	3	15	12	PP
REYKJAVIK	80.64	22.6	12	16	2						
MALAGA	82.06	52.3	12	23K	2	22	38	4	15	42	PP
GRANADA	82.78	52.0	12	16A	-9	22	44	3	15	38	PP
AKUREYRI	82.79	22.0	12	32	7						
TOLEDO	82.92	49.2	12	25A	-1	22	43	0	15	40	PP
COLLEGE	83.42	336.9	12	26A	-2	22	46	-2	15	30	PP
ALMERIA	83.61	52.5	12	28A	-1	22	38	-12	15	30	PP
SCORESBY SD.	83.76	17.0	12	30A	0	22	54	3	15	38	PP
RATHFARNHAM	84.29	35.7	12	33A	0	23	26	30	15	55	PP
ALICANTE	85.40	51.2	12	40	2	23	10	3	15	57	PP
RELIZANE	85.86	53.9	12	41A	0	23	23	11	16	9	PP
JERSEY	86.00	40.3	12	39A	-2	23	9	-4			
SOUTH POLE	86.33	180.0	12	41	-2	23	20	4	30	37	PKKP
TORTOSA	86.50	48.9	12	48	4	23	11	-7			
EDINBURGH	86.63	33.5	12	31	-13	23	13	-6	16	11	PP
FOLINIERE	86.98	40.9	12	46	0						
DURHAM	87.31	34.9	12	42	-6	23	29	3	16	22	PP
KEW	87.51	38.2	12	48A	-1	23	31	4	16	14	PP
BARCELONA	87.80	48.4	12	51	1						
ALGIERS UNI.	87.99	53.1	12	49	-2	23	20	-12	16	8	PP
TAMANRASSET	88.86	67.2	12	55A	0	23	40	0	16	22	PP
PARIS	88.93	41.1	12	57	2	23	42	1			
CLERMONT-FD.	89.01	44.2	12	57A	1	24	6	25			
GARCHY	89.14	42.7	12	55A	-1	23	42	-1			
APIA	89.20	256.3	13	7	10				16	19	
SETIF	89.82	53.9	12	58	-2	23	46	-3	16	30	PP
NORD	90.08	7.7	13	0	-1	23	52	1	23	28	SKS
UCCLE	90.34	39.3	13	4	2	23	32	-22			
DOURBES	90.43	40.0	13	2	0	23	54	0			
SCOTT BASE	90.86	191.4	12	53	-11	24	0	2	16	42	PP
DE BILT	90.97	38.0	13	5A	0	23	58	-1	25	10	PS
BERGEN	91.70	29.7	13	8	0	24	6	0	16	50	PP
NEUCHATEL	91.76	43.2	13	8	-1				22	42	
MONACO	91.90	46.5	13	9	0						
CAPE HALLETT	91.91	196.9	13	10	1	24	14	6	16	44	PP
BENSBERG	92.13	39.3	13	12	2	24	13	4			
BASLE	92.22	42.7	13	11A	0				22	52	
STRASBOURG	92.40	41.7	13	11A	-1	24	12	0	16	42	PP
EBINGEN	93.18	42.1	13	15	0	23	48	-31			
PAVIA	93.21	45.1	13	15	0				16	54	PP
TUBINGEN	93.26	41.7	13	14	-1						
STUTTGART	93.35	41.5	13	15A	-1	24	32	12	17	1	PP
CHUR	93.52	43.4	13	18A	1				23	52	
RAVENSBURG	93.60	42.5	13	16	-1						
LUANDA	94.30	99.1	13	21A	1				17	6	PP
PRATO	94.56	46.4	13	22	1	24	36	6			
ISFJORD	94.70	12.0	13	27	5	24	1	-31	14	47	
BOLOGNA	94.74	45.8	13	24	2				20	40	
JENA	94.92	39.4	13	23	0	24	38	4	17	11	PP
SKALSTUGAN	95.07	26.6	13	23A	-1				17	9	PP
GOTEBORG	95.08	32.5	13	25	1				17	29	PP
HALLE	95.15	38.8	13	20	-4	24	35	0	17	8	PP
PLAUEN	95.29	39.8	13	23	-2	24	0	-1	25	52	PS
COPENHAGEN	95.38	34.6	13	25	0	24	42	5	17	12	PP
CHEB	95.44	40.2	13	27	2	24	44	6	17	28	PP
ROME	95.57	48.4	13	26	0	24	47	8	17	14	PP
COLLMBERG	95.81	39.0	13	27	0	24	46	5	16	19	PP
POTSDAM	95.83	37.9	13	28	1	24	46	5	17	19	PP
TOLMEZZO	95.92	43.9	13	27	-1	24	9	7	17	20	
TRIESTE	96.44	44.6	13	30	0	24	50	4	17	32	PP
WINDHOEK	96.71	113.1	13	30	-1				13	59	
PRAGUE	96.76	40.2	13	33A	2	24	52	3	17	47	PP
PRUHONICE	96.84	40.3	13	32A	0	24	55	5	17	44	PP
HERMANUS	96.92	125.2	13	31	-1	24	17	10	17	22	PP
TONGARIRO	97.53	229.9	13	38	3						
WELLINGTON	97.69	227.7	13	34A	-2	25	1	4	17	34	PP
UPPSALA	97.87	30.2	13	35A	-1	24	8	-4	17	30	PP
MESSINA	97.97	52.1	13	34	-3	24	16	3	16	30	PP
KIRUNA	97.98	22.0	13	36A	-1	24	13	-1	17	32	PP
ZAGREB	98.00	44.4	13	35A	-2	24	14	0	17	37	PP
REGGIO CALA.	98.06	52.2	13	47	10						

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VIENNA-H.	98.13	41.9	13	40	2	24	16	2	17 40 PP
BRATISLAVA	98.62	42.0	13	43	3	24	18	2	17 43 PP
ONERAHI	99.09	233.1	13	45	3				
RACIBORZ	99.18	40.0	13	41	-1				
COBB RIVER	99.24	227.5	13	58	15				
HURBANOVO	99.38	42.2	13	41	-2	24	11	-9	17 51 PPP
KALOCSA	100.03	43.5							14 7 PCP
KRAKOW	100.29	39.9	13	49	2	25	25	6	17 55 PP
SODANKYLA	100.40	21.9	13	39	-9				
ROXBURGH	100.51	222.5	14	6A	18	26	6	45	18 6 PP
KHEYS	100.56	7.3	13	49	0	24	27	1	17 57 PP
SKALNATE PL.	100.60	40.8	13	59	10	24	31	5	18 13 PP
WARSAW	100.70	37.6	13	48A	-1	25	27	5	18 4 PP
SZEGED	100.84	43.8				25	41	17	13 58 PCP
BELGRADE	101.22	45.2	13	54K	2	24	28	-1	18 16 PP
NURMIJARVI	101.23	28.9	13	51	-1				
TIMISOARA	101.65	44.2	14	1	7	24	34	2	18 0 PP
APATITY	102.82	20.9	13	57A	-2	25	18	-22	17 53 PP
LWOW	102.94	39.8	14	0	1	24	37	0	32 36 SS
SOFIA	103.54	47.1	14	8	6	25	24	-22	30 54 SS
PULKOVO	104.16	28.9	14	4	-1	24	39	-4	18 23 PP
CAMPULUNG	104.38	44.3	14	26	20				18 36 PP
ATHENS	104.42	51.9							18 30 PP
BUCHAREST	105.27	45.0	14	14	777	25	8	-40	18 28 PP
BACAU	105.43	42.7							18 28 PP
IASI	105.75	42.0	13	29	777				
PRETORIA	106.17	118.0							17 40
PIETERMZBURG	107.19	122.4							18 49
BULAWAYO	107.68	112.4	14	22	777				15 41
CINE	107.90	51.8	18	24	777				
ISTANBUL UN.	107.98	48.1	18	2A	777				18 59
NOUMEA	108.65	245.1	18	41	777	28	2	-1	
MOSCOW	109.23	31.5	14	29	777	24	53	-12	18 55 PP
TIKSI	109.46	350.2							28 16 PS
MIRNY	109.82	177.8							19 2 PP
LCO. MARQUES	109.99	119.2							19 4 PP
LWIRO	110.29	93.7	14	33	777				26 55
SIMFEROPOL	110.72	43.1	18	32	0				14 34 P
MAGADAN	111.38	334.3	14	40	777				19 18 PP
KSARA	114.85	54.4	18	37	-3	25	30	3	19 34 PP
FORT NELSON	115.90	218.1							29 30 PS
RIVERVIEW	117.78	228.6	15	13	777				36 10 SS
CANBERRA	118.68	226.2	18	40A	-8				
BRISBANE	118.85	235.9	15	17	777				20 29 PP
TIFLIS	119.14	43.5	18	50	1	25	41	-2	15 11 P
SVERDLOVSK	119.19	22.6	15	13	777				20 11 PP
MELBOURNE	120.20	221.8				26	2	15	20 15 PP
GORIS	121.09	45.4	18	50	-3	25	41	-8	15 20 P
Y.-SAKHLINSK	122.34	325.4	18	57	2				20 33 PP
TANANARIVE	125.25	116.2	19	1	0				20 42 PP
RABAUL	125.60	262.2	19	2	1				
ADELAIDE	125.99	221.2	19	3K	1	26	4	-1	20 54 PP
CHARTERS TS.	127.34	241.5	19	4A	-1				21 5 PP
PORT MORESBY	129.61	254.7	19	9K	0				21 19 PP
TUKUBASAN	129.73	315.5	19	10K	1				21 16 PP
VLADIVOSTOK	130.71	327.7	19	10	-1				21 11 PP
MATUSIRO	130.86	316.9	19	13K	2				21 27 PP
SEMIPALATNSK	131.03	15.2	19	15	3				21 28 PP
IRKUTSK	131.33	355.1	19	12	0				16 6 P
GUAM	133.13	284.9	19	15	-1				
CHANGCHUN	133.44	333.1	19	14A	-2				21 42 PP
ABUYAMA	133.58	316.6	19	19A	3				
TASHKENT	134.38	30.7	19	21	3				16 20 P
ULAN-BATOR	135.32	351.8	19	20	0				21 56 PP
FRUNSE	135.65	25.0	19	20	0				22 56 PKS
STALINAPAD	136.11	33.9	19	23	2				28 19 SKKS
QUETTA	140.36	44.9	19	23	-6	26	34	-2	22 59 PKS
PEKING	140.38	338.3	19	21A	-8	26	14	-22	22 14 PP
PERTH	140.82	203.9	19	18	-12				42 29 SS
WARSAK DAM	140.90	36.4	19	25	-5				
PAOTOW	141.79	345.5	19	24A	-7				22 33 PP
LAHORE	144.28	36.4	19	38	2				
YINCHUAN	144.63	349.2	19	38	2				
ZO-SE	145.24	324.2	19	36	-1				22 52 PP
WUWEI	145.70	353.9	19	40	2				
NANKING	145.85	328.0	19	39A	1	26	53	9	23 1 PP
DEHRA DUN	147.33	33.7	19	45	4				21 30
LANCHOW	147.37	351.7	19	41A	0				23 9 PP
SIAN	148.03	343.2	19	42	0				

TAIPEI	149.19	315.7	19	45	1						
ILAN	149.20	315.0	19	51	7						
WUHAN	149.20	331.8	19	46A	2					23	21 PP
AGRA	149.69	37.7	19	45K	0	26	46	-3		20	25 PP
HWALIEN	149.79	314.0	19	47	2						
HSINKONG	150.50	312.9	19	56	10						
TAITUNG	150.87	312.6	19	46	0						
BOMBAY	150.88	56.8	19	48	2	26	52	1		23	59 PP
TAWU	151.29	312.2	19	48	1						
TAINAN	151.39	314.1	19	37	-10						
KAOHSIUNG	151.59	313.4	19	56	9						
HENGCHUN	151.62	311.8	19	43	-5						
SEHORE	151.79	44.8	18	58	-50						
POONA	151.91	56.5	19	49	1					23	31
CHENGTU	152.64	349.2	19	47A	-2	27	6	13		23	36 PP
LHASA	153.30	14.2	19	52A	2					23	43 PP
CHATRA	154.65	23.7	19	40	-12						
BAGUIO CITY	154.72	301.6	19	54	2						
MANILA	155.16	297.3	19	52	0					23	52 PP
CANTON	155.88	324.4	19	55A	2					23	58 PP
HONG KONG	155.94	321.6	19	57	4					24	0 PP
HYDERABAD	156.23	53.5	19	57	3					23	49
BOKARO	156.63	30.0	19	59	5					23	59
TOCKLAI	156.83	8.0	20	5	10						
SHILLONG	157.39	15.2	19	56A	1					24	4 PP
KUNMING	158.35	349.2	19	58A	1					24	1 PP
MADRAS	159.85	61.6	20	3	5						
CHITTAGONG	160.41	18.1	20	1	2						
PHU-LIEN	161.16	335.2	20	0	0					24	26 PP
COLOMBO	161.38	79.4	20	3	3					24	30
LEMBANG	166.00	221.7	20	6	2					20	21
DJAKARTA	167.00	221.0	20	4A	-1					45	44 SS
PORT BLAIR	170.34	34.6	20	9	2					22	30
MEDAN	179.60	253.3	20	10	0					26	1 PP

FEBRUARY 7 10.H 53.M 0.S EPICENTRE 13.30 -45.01 DEPTH= 0.KM

A= 0.68826 B=-0.68851 C= 0.22858 D=-0.7072 E=-0.7070
G= 0.1616 H=-0.1617 K=-0.9735 HT= 6.1

SE= 2.28

	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 JUAN	20.92	286.7	4	48	1							
MBOUR	27.24	84.4	5	49	1							
LA PAZ	37.40	218.3	7	17	0							
HUANCAYO	39.22	231.3	7	34A	2							
BREBEUF	40.22	328.6	7	41	1							
GRANADA	43.89	49.6	8	14A	4						10	36
TAMANRASSET	48.77	71.3	8	48	-1	15	39	-13			10	38 PP
ALGIERS UNI.	48.80	52.5	8	42	-7							
GARCHY	52.39	39.8	9	15	-1							
NEUCHATEL	54.74	41.3	9	32	-2							
STUTTGART	56.77	39.9	9	53	5							
RAPID CITY	58.11	313.8	9	58	0							
TRIESTE	58.86	44.5	10	4	1							
SCORESBY SD.	58.91	8.8	10	4	1							
JENA	58.92	38.1	10	2	-2							
PLAUEN	59.13	38.7	10	0	-5							
LARAMIE	59.29	310.3	10	6	0							
ZAGREB	60.43	44.7	10	19	5							
PRUHONICE	60.46	39.8	10	15	1						10	37 PCP
VIENNA-H.	61.20	42.0	10	18	-1							
TUCSON TELE.	62.57	299.6	10	28	0						13	4 PP
TUCSON	62.66	299.5	10	28	-1							
BOZEMAN	63.88	314.5	10	37	0							
SALT LAKE C.	63.93	309.0	10	37	0							
UPPSALA	64.97	29.7	10	49	5							
BUTTE	64.98	314.7	10	44	0							
BOULDER CITY	66.04	303.6	10	51	0							
HUNGRY HORSE	66.25	317.1	10	50	-2							
EUREKA	67.01	307.4	10	57	0							
RESOLUTE	67.23	347.3	10	57A	-1							
KIRUNA	68.59	21.8	11	6	-1							
PASADENA	68.80	301.6	11	10	2							

RENO	69.98	307.4	11 16	0			
FRESNO	70.04	304.5	11 18	2			
MINERAL	71.34	308.3	11 22	-2			
LICK	71.49	305.1	11 26	1			
SHASTA	71.93	308.7	11 26	-1			
LWIRO	74.79	96.0	11 43	-1			
COLLEGE	83.42	335.2	12 29	-2			
CAPE HALLETT	117.43	191.5	19 24	36	25 56 15		19 55 PP

FEBRUARY 7 20.H 8.M 17.S EPICENTRE 37.34 21.00 DEPTH= 0.KM

A= 0.74403 B= 0.28567 C= 0.60400 D= 0.3584 E=-0.9336
G= 0.5639 H= 0.2165 K=-0.7970 HT= -0.7

SE= 2.93

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ATHENS	2.24	73.0	0 42A	3				0 49 PG
REGGIO CALA.	4.31	281.7	1 7	-1	1 54	-6		
MESSINA	4.41	282.9	1 8	-1	1 54	-8		2 11 S*
SKOPJE	4.64	3.6	1 26	13	2 19	11		
SOFIA	5.64	17.7	1 33	6				2 58
CINE	5.64	85.3	1 29	2	2 29	-4		
ISTANBUL UN.	7.22	56.8	1 50	1	3 19	6		
BELGRADE	7.48	357.0	2 31K	38	3 18	-1		2 47
ROME	8.00	307.3	1 59	-1	3 23	-9		
TIMISOARA	8.40	1.1						2 52 PG
ZAGREB	9.27	337.6	2 23	6				5 44 SG
TRIESTE	9.92	329.1	2 46	19	4 23	3		5 28 SGSG
PRATO	9.96	314.0	3 16	49	4 53	32		
TOLMEZZO	10.83	329.2	2 39	0	4 25	-17		3 17
KISHINEV	11.27	28.5	2 44	-1				
VIENNA-H.	11.42	344.2	2 43	-4				
MONACO	12.13	305.9	2 55	-2				
SIMFEROPOL	12.46	48.3	3 2	1				
SETIF	12.57	269.5	3 6	3	5 26	2		3 16 PP
KSARA	12.61	101.8	3 4	1				
LWOW	12.67	8.9	3 6	2				
CHUR	12.75	321.8	3 5A	0				5 20
RAVENSBURG	13.37	324.8	3 19	6	5 55	11		
PRUHONICE	13.46	341.8	3 11	-3	5 38	-8		
PRAGUE	13.57	341.7	3 17	1				
EBINGEN	13.96	324.7	3 21	0	6 8	10		
NEUCHATEL	14.18	317.3	3 30	6				5 48
BASLE	14.19	320.1	3 23	-1				
STUTTGART	14.29	326.8	3 23	-2	5 57	-9		
PLAUEN	14.60	337.1	3 29	0				6 26
STRASBOURG	14.81	323.5	3 37	5				
SONNEBERG	14.81	334.8	3 37	5				
COLLMBERG	15.07	340.4	3 36	0	6 55	31		
JENA	15.16	336.6	3 34	-3				7 11
HALLE	15.54	338.5	3 42	0	6 34	-1		3 48 PP
CLERMONT-FD.	15.79	307.8	4 7	22				4 14
GARCHY	16.53	312.5	3 59	5				4 46
BENSBERG	16.81	328.5	4 3	5				4 27
DOURBES	17.36	322.4	4 4	-1	7 25	8		
TIFLIS	18.85	69.2	4 25	2				
COPENHAGEN	19.24	345.2			8 1	1		
FOLINIERE	19.34	313.0	4 25	-4				
TAMANRASSET	19.71	226.9	4 35	2	8 19	9		4 52 PP
TOLEDO	19.73	285.1	4 32	-1				
GOTEBORG	21.22	346.5	4 44	-5				
MOSCOW	21.55	26.1	4 50	-3				
UPPSALA	22.63	355.6	5 0	-3	9 2	-5		6 0
HELSINKI	22.99	5.1	5 5	-2				
SERRA PILAR	23.19	288.6	5 8K	-1				
PULKOVO	23.23	12.0	5 6	-3	9 14	-4		
DURHAM	23.27	325.7	5 7A	-3	9 17	-2		5 29 PP
NURMIJARVI	23.30	4.6	5 7	-3				
SKALSTUGAN	26.80	351.3	5 39	-4				
SODANKYLA	30.24	4.3	6 11	-3				
KIRUNA	30.54	359.6	6 19	2				
APATITY	31.06	9.2	6 19	-2				
QUETTA	38.56	86.8	7 25	-1				
NAMANGAN	39.01	68.5	6 30	-59				

WARSAK DAM	40.81	79.0			7	43	-1					
ISFJORD	40.94	357.7			8	6	21					
THULE	53.90	343.0			9	22	-5					
RESOLUTE	60.68	344.1			10	13	-2					
SEVEN FALLS	64.93	311.1			10	42	-1					
COLLEGE	77.74	355.1			12	1	1					
HUNGRY HORSE	85.77	331.8			12	41	-1					
MATUSIRO	86.30	45.9			12	30	-15					

FEBRUARY 8 1.H 2.M 25.S EPICENTRE 49.12 -28.34 DEPTH= 0.KM

A= 0.57822 B=-0.31189 C= 0.75391 D=-0.4747 E=-0.8801
G= 0.6635 H=-0.3579 K=-0.6570 HT= -5.1

SE= 2.49

	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	
ANGRA DO HO.	10.50	175.2				4	42	8					
PONTA DELGDA	11.55	169.4	2	53K	4								
RATHFARNHAM	14.43	64.8	3	26A	-1						3	34	PP
REYKJAVIK	15.44	10.7	3	46	5								
SIDA	15.72	17.0	3	42	-2								
SERRA PILAR	16.03	112.5	3	49	1	6	49	2			4	3	PP
COIMBRA	16.70	114.8	3	58	1	7	0	-3					
JERSEY	17.16	79.8	4	2A	-1	8	21	68					
LISBON	17.25	119.9	4	4A	0								
DURHAM	17.38	60.9	4	3A	-2	7	22	4			4	22	PP
KEW	18.01	71.9	4	13A	0	7	44	11			4	41	PP
FOLINIERE	18.27	80.5	4	16	0								
TOLEDO	19.57	109.0	4	33A	1	8	20	13			4	48	PP
PARIS	20.18	79.1	4	39	0	8	26	5					
GARCHY	20.95	83.1	4	46A	-1	8	36	0					
UCCLE	21.01	73.0	4	46	-1	8	37	-1					
DOURBES	21.28	74.8	4	49	-1	8	34	-9					
MALAGA	21.37	116.5	4	52K	1	8	44	0			5	15	PP
CLERMONT-FD.	21.46	87.0	4	52A	0	8	59	13					
GRANADA	21.53	114.4	4	52A	-1	8	57	10			5	19	PP
SCORESBY SD.	21.64	5.8	4	56	2	8	59	10			5	14	PP
TORTOSA	21.93	101.3	4	51	-6	8	51	-4					
ALMERIA	22.43	113.5	5	8A	6	9	15	11			5	45	
ALICANTE	22.70	107.8	5	9	5	9	17	8			5	39	PP
BENSBERG	22.75	71.8	5	5A	0	9	12	2					
NEUCHATEL	23.56	81.7	5	13	0								
STRASBOURG	23.63	77.5	5	14A	1	9	28	3			10	3	SS
BASLE	23.80	80.1	5	17	2						14	3	
HALIFAX	24.38	272.8	5	22A	1	9	41	3			10	11	SSS
TUBINGEN	24.48	77.1	5	23	1								
STUTTGART	24.50	76.5	5	21A	-1	9	45	5					
EBINGEN	24.51	77.9	5	24	2								
RELIZANE	24.99	111.5	5	26	-1						6	10	PP
RAVENSBURG	25.05	78.5	5	28	1								
MONACO	25.08	88.8	5	28	1								
GOTEBORG	25.18	54.7	5	25	-3								
CHUR	25.28	80.7	5	31	2								
SONNEBERG	25.38	72.0	5	30	0						6	45	
COPENHAGEN	25.44	59.5	5	32A	1	10	3	7					
JENA	25.50	70.6	5	31	0	10	8	11			6	47	
HALLE	25.62	69.2	5	29	-4	9	48	-11			6	14	PP
PAVIA	25.64	84.5	5	37	4	9	46	-13			6	49	
ALGIERS UNI.	25.89	106.7	5	33	-2	10	23	19			6	41	PPP
PLAUEN	25.94	71.4	5	33	-3						7	22	
POTSDAM	26.14	67.0	5	35	-2								
CHEB	26.18	72.3	5	45	7	10	10	1					
SKALSTUGAN	26.19	41.3	5	39	1								
COLLMBERG	26.30	69.4	5	39	0	10	19	9					
BOLOGNA	27.32	84.5	6	9	21						12	1	
PRATO	27.42	85.9	6	3	14	10	53	24					
PRUHONICE	27.56	71.7	5	51	1						6	48	PPP
TOLMEZZO	27.69	79.8	5	50	-2						10	35	
SETIF	27.73	105.0	5	51	-1	10	50	16			6	50	PP
SEVEN FALLS	28.17	282.3	5	55A	-1								
UPPSALA	28.20	50.2	5	54	-2	10	33	-8					
TRIESTE	28.44	80.8	5	58	0	10	47	2					
VIENNA-H.	29.21	74.5	6	6	1	10	52	-6					
ROME	29.22	88.7	6	7	2	11	5	7			6	45	PP

BRATISLAVA	29.70	74.3	6	11	1				9	5	PCP
RACIBORZ	29.80	70.2	6	10	-1						
ZAGREB	29.82	79.3	6	13K	2						
WESTON	30.41	273.7	6	16K	0						
KIRUNA	30.48	34.3	6	16	-1	11	16	-2			
HURBANOVO	30.50	74.4	6	16	-1	11	23	5	7	23	PP
BREBEUF	30.56	280.6	6	16A	-1	11	16	-3			
KRAKOW	30.88	69.6	6	20	0	11	25	1	7	18	PP
WARSAW	30.95	65.2	6	23K	2	11	27	2	7	24	PP
THULE	31.62	343.2	6	25	-2						
NURMIJARVI	31.70	48.8	6	26	-1						
BERMUDA	31.83	251.9	6	31	2	11	33	-6			
HELSINKI	31.88	49.4	6	29	0						
OTTAWA	31.96	281.6	6	29A	-1	11	24	-17	7	43	PPP
SODANKYLA	32.74	35.9	6	37	0						
PALISADES	32.77	273.2	6	34	-3	11	40	-14	7	40	PP
NORD	32.83	3.1	6	36A	-1						
ISFJORD	32.96	14.8	6	47	9						
BELGRADE	33.11	78.6	6	40K	0	11	56	-3	7	59	PPP
MESSINA	33.14	92.5	6	39	-1	12	1	2	7	50	PP
TIMISOARA	33.22	76.6							7	32	PP
REGGIO CALA.	33.26	92.5	6	54	13						
LWOW	33.46	68.5	6	43	0	11	54	-10			
PULKOVO	34.60	49.6	6	52	-1	12	24	2			
APATITY	35.37	35.8	6	59A	0	12	35	1			
PENNSYLVANIA	35.47	275.6	7	0	0	12	34	-1			
MBOUR	35.88	161.0	7	6	2	12	52	10			
SOFIA	35.93	80.3	7	4	0	12	48	5	10	45	
GEORGETOWN	35.94	272.2	7	3	-1						
WASHINGTON	35.94	272.2	7	4	0				8	22	PP
BUCHAREST	36.91	76.1							8	17	
RESOLUTE	37.22	336.2	7	15K	0	13	1	-1			
MORGANTOWN	37.44	275.3	7	17A	0	13	7	1			
TAMANRASSET	37.46	122.3	7	16	-1	13	11	5	8	49	PP
KISHINEV	37.49	70.9	7	22	5						
CLEVELAND	37.51	278.9	7	18A	1	13	11	4			
ATHENS	38.64	86.7	7	27K	0						
CHAPEL HILL	38.92	269.7	7	31	2				9	5	
MOSCOW	39.37	54.5	7	33	0	13	32	-3			
ISTANBUL UN.	40.42	79.2	7	40	-1				9	16	PP
COLUMBIA	41.37	268.8	7	50	1	14	15	10			
CINE	41.71	84.1	7	45	-7						
SIMFEROPOL	41.71	71.1	7	52	0	14	10	0			
SAN JUAN	43.17	238.3	7	53	-11						
ST. LOUIS 1	44.66	280.7	8	16A	0				10	4	PP
FLORISSANT	44.66	281.0	8	17	1	14	54	1			
SOTCHI	45.87	69.9	8	28	2	15	13	3			
FAYETTEVILLE	48.71	280.4	8	48	0						
KSARA	49.04	83.1	8	52	1	16	0	5	10	45	PP
RAPID CITY	49.74	294.3	9	4	8				10	53	PP
TIFLIS	50.02	69.2	9	0	2	16	10	1			
SVERDLOVSK	50.49	45.4	9	2	0	16	15	0			
MAKHACH-KALA	50.95	66.4	9	10	5						
LARAMIE	52.76	292.6	9	18	-1						
BOULDER	53.36	291.2	9	23	0						
BOZEMAN	53.42	300.0	9	30	6						
HUNGRY HORSE	53.52	304.2	9	22	-2				21	48	
BUTTE	54.07	301.1	9	28	0				11	33	PP
COLLEGE	57.07	333.7	9	50	0	17	55	11	39	44	PKPPKP
BOGOTA	58.84	236.5	9	52	-11	18	4	-4	18	14	PS
CHINCHINA	59.41	238.2	9	47	-20	18	5	-10			
EUREKA	60.10	296.9	10	10	-1				12	32	PP
TUCSON TELE.	61.63	287.5	10	20	-2				39	31	PKPPKP
BOULDER CITY	61.73	293.2	10	22	0						
TUCSON	61.76	287.5	10	22	-1				11	51	
RENO	62.29	299.2	10	26	0						
MINERAL	62.76	300.9	10	27K	-2						
SHASTA	62.97	301.6	10	28A	-3						
TACUBAYA	63.11	268.9	10	27	-5				12	53	PP
SEMIPALATNSK	63.56	42.6	10	33	-2						
FRESNO	64.16	296.9	10	37K	-1						
UKIAH	64.51	300.8	10	47	6				12	57	PP
BERKELEY	64.83	299.3	10	42	-1						
LICK	64.84	298.5	10	43K	0						
PASADENA	64.98	293.8	10	43	-1	19	28	3	23	17	SS
VINEYARD	65.09	297.8	10	45	0						
NAMANGAN	66.04	54.7	10	52	1	19	43	5			
YAKUTSK	67.83	11.0	11	1	-1						

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WARSAK DAM	70.98	60.0	11	20	-1					
QUETTA	71.06	65.7	11	22	0	20	49	11	14	3 PP
IRKUTSK	71.27	28.5	11	22	-1	20	41	1		
HUANCAYO	73.62	228.2	11	40A	3					
LA PAZ	74.25	219.6	11	41	0	21	23	9	22	1 SS
LAHORE	74.37	59.9	11	41	0					
ULAN-BATOR	75.87	29.2	11	50	0					
DEHRA DUN	77.39	58.2	12	14	16				21	52
AGRA	79.80	60.3	12	10K	-2					
UGLEGORSK	81.83	6.4	12	24	2					
BOMBAY	82.97	69.4	12	48	20				22	49
POONA	83.89	68.9	12	33	0					
Y.-SAKHLINSK	84.00	6.1	12	34	1					
CHANGCHUN	84.60	18.8	12	36	0					
LHASA	84.82	49.6	12	41A	3	23	13	8		
CHATRA	85.09	54.0	13	1	22					
BULAWAYO	85.49	127.8	12	45	4					
SHILLONG	88.57	51.3	12	54K	-2					
SIAN	88.70	34.2	12	56K	-1					
CHENGTU	89.93	39.6	13	3A	1	23	58	4		
BYRD STATION	138.13	195.1	19	22	-5				22	13 PP
SOUTH POLE	138.93	180.0	19	22	-7				22	4 PP
SCOTT BASE	150.60	186.5	19	55	7				24	22

FEBRUARY 8 5.H 46.M 18.5 EPICENTRE -23.31-179.93 DEPTH= 583.KM

DEPTH OF FOCUS= 0.087R

A=-0.91935 B=-0.00113 C=-0.39345 D=-0.0012 E= 1.0000
G= 0.3934 H= 0.0005 K=-0.9193 HT= 3.8

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	
SUVA	5.36	343.0	1	37	1	2	51	0			1	47	
NOUMEA	12.60	271.9	2	42	-3	5	12	15					
ONERAHI	13.37	200.5	2	54	1	5	20	9					
TUAI	15.64	188.5	3	15	0	5	49	-3					
TONGARIRO	16.31	192.7	3	20	-1	6	11	8					
WELLINGTON	18.46	192.7	3	40	-2	6	44	4			6	39	
COBB RIVER	18.76	197.5	3	44	0	6	50	5					
GEBBIES PASS	21.24	195.0	4	7	0	7	23	-3					
BRISBANE	24.76	254.7	4	39A	0						7	15	
RIVERVIEW	27.39	241.0	5	5K	3	9	8	5					
CANBERRA	29.49	239.0	5	21A	1	9	42	7			6	54	PP
CHARTERS TS.	31.55	269.4	5	37A	0	10	8	1					
PORT MORESBY	34.38	288.2	6	2	1	10	52	2			13	55	*SS
ADELAIDE	37.69	242.6	6	28A	0	11	40	1					
HONOLULU	49.18	27.3	7	57	-1								
GUAM	50.31	313.0	8	6	0								
SCOTT BASE	54.97	183.4	8	40A	1						9	33	PCP
BYRD STATION	62.19	170.1	9	27	-1	17	14	5	11	19			
SOUTH POLE	66.83	180.0	9	57	0				11	56	27	12	PKKP
MATUSIRO	71.45	325.5	10	24	0						19	2	
BERKELEY	81.45	42.5	11	18	0								
LICK	81.52	43.3	11	19	0								
PASADENA	81.90	47.6	11	23	2	20	57	11			13	27	
SHASTA	83.13	40.3	11	27	0								
MINERAL	83.39	40.9	11	28	0								
TUCSON	86.04	52.5	11	42	1								
TUCSON TELE.	86.17	52.5	11	42	0				13	51			
EUREKA	86.38	44.2	11	42	0				13	46	37	42	PKPPKP
COLLEGE	91.33	13.1	12	3	-3				14	10			
HUNGRY HORSE	92.45	37.6	12	9	-2						15	41	
RESOLUTE	110.98	16.5	17	26	-2						20	11	*PPP
THULE	117.54	14.3									19	0	PP
SEVEN FALLS	119.53	47.9	17	46	2								
QUETTA	120.62	292.3	17	49	3								
SODANKYLA	132.92	346.3	17	57	-13								
KIRUNA	133.72	349.5	18	13	1						20	50	SKP
SKALSTUGAN	138.93	351.7	18	22	1						21	2	SKP
NURMIJARVI	139.07	341.7	18	14	-7								
HELSINKI	139.26	341.2	18	11	-11								
UPPSALA	141.45	345.9	18	20	-7								
GOTEBORG	144.58	349.0	18	28	-4								
KSARA	147.00	296.6	18	48	13				20	50			

KRAKOW	149.11	334.7	18 45	7						
HALLE	150.40	344.9	18 44	4						
JENA	151.01	344.9	18 43	2			21 11			
PRUHONICE	151.06	340.5	18 49	8			21 3			
PLAUEN	151.27	343.9	18 49	8			20 59			
STUTTGART	153.58	346.4	18 46	1						
STRASBOURG	154.05	348.3	18 55	10						
PARIS	154.48	356.3	19 3	17					19 17	
GARCHY	155.96	355.0	18 50	2					19 21	PKP2
CLERMONT-FD.	157.46	354.4	18 27	-23						
TAMANRASSET	174.95	265.1	19 6	3			21 30		24 49	PP

FEBRUARY 9 4.H 42.M 35.S EPICENTRE 50.00-177.64 DEPTH= 0.KM

A=-0.64474 B=-0.02655 C= 0.76394 D=-0.0411 E= 0.9992
G=-0.7633 H=-0.0314 K=-0.6453 HT= -5.4

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
MAGADAN	20.37	310.0	4 39	1	8 29	8		
COLLEGE	21.59	35.3	4 52	1	8 48	3		
UGLEGORSK	25.94	283.6	5 34	1				
Y.-SAKHLINSK	26.24	278.7	5 36	0	10 9	3		
YAKUTSK	30.87	313.1	6 17	-1	11 18	-2		
TIKSI	32.19	331.4	6 29	0	11 43	2		
HONOLULU	32.55	144.6	6 32	0	11 47	1		
TUKUBASAN	33.32	261.9	6 37	-2				
ALBERNI	33.63	70.5	6 41	-1				
MATUSIRO	34.32	264.0	6 46A	-2	12 15	1		8 1 PP
HORSESHOE B.	34.52	69.6	6 51	2				
VICTORIA	34.77	71.1	6 52	0				
VLADIVOSTOK	34.80	278.4	6 53	1	12 23	2		
ABUYAMA	37.05	264.0	7 10K	-1				
CHANGCHUN	38.63	283.4	7 24K	0	13 22	2		8 57 PP
SHASTA	39.12	82.0	7 26K	-2				
UKIAH	39.45	84.6	7 51	20				
MINERAL	39.81	81.9	7 34K	0				
HUNGRY HORSE	40.50	67.0	7 39	-1				9 43 PCP
RESOLUTE	40.70	23.9	7 41A	0	13 56	5		9 25 PP
BERKELEY	40.79	85.5	7 42K	0	14 4	12		
LICK	41.50	85.7	7 48K	0				
VINEYARD	42.02	86.3	7 53	1				
BUTTE	42.49	69.3	7 59	3				
FRESNO	43.02	85.1	8 0K	0				
BOZEMAN	43.58	69.0	8 5	0				
EUREKA	43.88	79.4	8 8	1				
PASADENA	45.68	86.9	8 21	-1	15 8	5		18 43 SS
SALT LAKE C.	45.74	75.3	8 22	0				
THULE	46.23	18.0	8 25	-1				
PEKING	46.41	284.1	8 26K	-2	15 13	-1		10 18 PP
BOULDER CITY	46.69	82.6	8 29	-1				
IRKUTSK	46.78	304.4	8 30	0	15 25	6		
ULAN-BATOR	47.60	298.2	8 38	1				
NORD	48.25	3.7	8 41	-1				19 43 SSS
ZO-SE	48.74	271.2	8 46K	0	15 48	1		10 38 PP
RAPID CITY	49.13	66.7	8 47	-2				10 53 PP
LARAMIE	49.30	71.0	8 48	-2				
NANKING	49.65	273.9	8 51K	-2	15 59	-1		10 47 PP
PAOTOW	49.89	288.4	8 54K	-1				10 54 PP
TUCSON	51.61	83.6	9 7	-1				9 34
WUHAN	53.38	275.5	9 20K	-1	16 50	-1		19 8 SCS
SIAN	54.53	282.8	9 27K	-2				
LANCHOW	56.51	287.8	9 43K	-1	17 37	4		11 52 PP
SCORESBY SD.	58.55	9.3	9 59	1				
HONG KONG	59.32	268.7	10 3	0	18 7	-3		21 46 SS
CANTON	59.34	270.0	10 2K	-2	18 14	4		19 47 SCS
FAYETTEVILLE	59.49	69.1	10 0	-5				
BAGUIO CITY	59.50	258.9	10 4	-1	18 12	0		
SEMIPALATNSK	59.97	313.7	10 5	-3				
CHENGTU	60.00	283.0	10 7K	-1				12 22 PP
APATITY	60.46	346.8	10 9	-2	18 22	-2		
MANILA	60.63	257.2	10 10	-2	18 22	-4		
SODANKYLA	61.53	349.6	10 17	-1				
KIRUNA	61.71	352.3	10 19	-1				10 30

SVERDLOVSK	63.15	328.4	11 2	33						
OTTAWA	63.37	50.5	10 29	-2						
BREBEUF	64.34	49.2	10 37	0						
SEVEN FALLS	64.50	46.4	10 38	0						
KUNMING	64.75	279.4	10 37K	-3	19 18	0			12 56	PP
MORGANTOWN	65.25	57.4	10 43A	0						
SKALSTUGAN	66.49	355.2	10 51	0						
PORT MORESBY	66.65	218.3	10 50	-2	19 40	-1	10 57		20 6	PS
PALISADES	67.45	52.7	10 55	-2	19 54	3			24 50	SS
TACUBAYA	68.02	85.8	11 9	8						
PULKOVO	68.25	345.2	11 2	0	20 2	1				
NURMIJARVI	68.38	348.3	11 1	-2						
CHAPEL HILL	68.41	59.7	11 3	0					11 14	
COLUMBIA	68.69	62.4	11 3	-2						
LHASA	68.72	290.9	11 8K	3	20 12	6				
UPPSALA	69.80	351.9	11 11K	0	20 17	-2				
MOSCOW	70.61	339.7	11 18	2	20 29	1				
NAMANGAN	70.95	311.5	11 20	2						
SHILLONG	71.16	287.4	11 18K	-2	20 38	3				
GOTEBORG	72.37	354.6	1' 24	-3						
CHATRA	73.09	291.5	11 33	2						
CHITTAGONG	73.54	285.2	11 34K	0	21 0	-2			14 17	PP
COPENHAGEN	74.35	354.1	11 39	0	21 17	6				
DURHAM	75.55	2.4	11 46A	1	21 19	-5			14 37	PP
DEHRA DUN	75.77	300.2	11 51	4	21 31	4				
BOKARO	76.15	290.4	11 48	-1	21 51	20				
WARSAK DAM	76.42	307.0	11 49	-1						
CHARTERS TS.	76.68	214.7	11 50	-2					21 36	
RATHFARNHAM	76.81	5.3	11 55K	2					12 26	
AGRA	78.22	298.1	11 54K	-6						
DE BILT	78.25	358.2	12 4	4	22 6	12				
HALLE	78.55	353.9	11 59	-3	21 56	-1			14 50	PP
COLLMBERG	78.67	353.2	12 2	-1						
BERMUDA	78.81	52.6	12 5	1	22 5	5			15 5	PP
LWOW	78.83	345.9	12 6	2						
KEW	78.88	1.7	12 5K	1	22 2	2				
JENA	79.14	354.1	12 5	0					14 55	
KRAKOW	79.20	348.6	12 6	0						
BENSBERG	79.33	356.9	12 8	2					12 27	
MAKHACH-KALA	79.35	328.0	12 7	0						
RACIBORZ	79.38	349.7	12 5	-2						
PLAUEN	79.53	353.7	12 6	-1					12 27	
UCCLE	79.56	358.7	12 10	2	22 11	3				
PRUHONICE	79.85	352.0	12 10	1	22 15	4			15 12	PP
SKALNATE PL.	80.01	348.2							14 50	PP
DOURBES	80.26	358.5	12 12	1	22 18	3				
KISHINEV	80.68	342.0	12 14	0	22 21	2				
IASI	80.75	342.9	12 15	1						
PORT BLAIR	80.94	277.3	12 18	3						
SOTCHI	81.25	333.5	12 18	1	22 29	4				
TIFLIS	81.37	329.3	12 19	2	22 31	5				
BRATISLAVA	81.39	350.1	12 20A	3					15 26	PP
BRISBANE	81.42	206.1	12 19A	1	22 30	3				
STUTTGART	81.43	355.4	12 18	0					15 34	PP
SIMFEROPOL	81.47	337.8	12 18	0	22 28	1				
PARIS	81.57	359.9	12 22	4	22 36	8				
FOLINIERE	81.58	1.9	12 18	0						
TUBINGEN	81.68	355.5	12 20	1						
STRASBOURG	81.69	356.4	12 19	0	22 35	5			15 35	PP
QUETTA	81.82	307.8	12 19	-1	22 35	4			15 29	PP
EBINGEN	82.03	355.5	12 23	2						
BASLE	82.74	356.4	12 25	1						
GORIS	82.84	327.2	12 27	2	22 46	5				
GARCHY	83.10	359.5	12 26A	0					13 34	
MEDAN	83.21	267.5	12 27A	0						
NEUCHATEL	83.30	356.8	12 29	2						
TOLMEZZO	83.54	352.6	12 20	-8					13 1	
BUCHAREST	83.71	343.1			23 5	15			22 54	SKS
ZAGREB	83.83	350.5	12 28	-2	23 4	13			15 55	PP
TRIESTE	84.22	352.0	12 32	0	23 0	5			15 53	PP
BELGRADE	84.25	347.2	12 31K	-1	22 50	-5			16 8	PP
CLERMONT-FD.	84.61	359.5	12 35	1	23 19	20				
KASTAMONU	85.65	339.0	12 41	2					15 58	PP
ISTANBUL UN.	86.37	340.1	12 42	-1					12 47	PP
MONACO	86.55	356.3	12 44	1						
POONA	87.31	295.7	12 47K	0	23 26	1			16 15	
BOMBAY	87.61	296.7	12 49	0	23 30	2			16 17	PP
RIVERVIEW	87.93	205.6	12 58A	8	23 38	7				
ROME	88.05	352.5	12 53	2	23 25	-7			32 55	SSS

CINE	89.86	339.8	12 57	-2						
CANBERRA	89.94	206.7	13 0A	0						
MESSINA	91.41	349.6							16 48	
KSARA	91.41	332.6	13 7	1	24 7	4			16 49	PP
ADELAIDE	92.96	214.6	13 24	10						
GRANADA	93.03	4.8	13 10K	-4						
TAMANRASSET	107.49	356.9	15 21	777	25 8	10			18 49	PP
MBOUR	113.68	20.5							17 57	
CAPE HALLETT	122.30	184.3							37 45	SS
LWIRO	127.38	325.9	19 6A	2					21 5	
BYRD STATION	133.85	168.1	19 16	0					22 39	PP
SOUTH POLE	139.81	180.0	19 21	-6						
BULAWAYO	143.63	315.5	19 33	-1						
PRETORIA	148.64	311.0	19 48	6						
PIETERMZBURG	150.64	303.4	19 52	6						

FEBRUARY 9 21.H 13.M 25.S EPICENTRE -4.76 153.67 DEPTH= 87.KM
DEPTH OF FOCUS= 0.008R

A=-0.89317 B= 0.44210 C=-0.08242 D= 0.4436 E= 0.8962
G= 0.0739 H=-0.0366 K=-0.9966 HT= 7.0

SE= 2.49

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RABAUL	1.59	290.4	0 28	0				
PORT MORESBY	7.94	234.2	1 54K	-1	3 21	-3		
CHARTERS TS.	16.79	204.8	3 53	2	7 8	14		
GUAM	20.16	334.1	4 31	1	8 7	1	4 48	5 16 PP
NOUMEA	21.38	145.8	4 41	-1	9 2	33		
RIVERVIEW	29.02	184.3	5 54A	0	10 39	1		
CANBERRA	30.71	187.5	6 9K	0			6 39	7 20 PP
ADELAIDE	33.06	202.9	6 30	0	11 41	0		9 11 PCP
MELBOURNE	33.86	192.4	6 36A	-1	11 55	1		
KARAPIRO	38.56	151.8	7 16A	0	13 8	3	7 36	10 8
BAGUIO CITY	38.90	303.5	7 19	0	13 50	39		
TONGARIRO	39.60	153.0	7 26	1			7 45	
COBB RIVER	40.00	157.4	7 29	1			7 53	
KAIMATA	40.78	159.8	7 42	7				
WELLINGTON	40.98	155.6	7 35A	-1				
GEBBIES PASS	42.25	159.5	7 46	-1				
MATUSIRO	43.56	341.9	7 55	-2				10 10 *SPP
LEMBANG	45.84	265.1	8 14	-2	14 51	-1		
HONG KONG	47.07	306.4	8 26	1	14 59	-11	8 45	
ZO-SE	47.25	321.1	8 26	-1				10 24 PP
NANKING	49.39	320.3	8 45	2	15 45	3		9 3 *SP
MACQUARIE I.	49.78	176.0	8 46	0				
WUHAN	51.27	315.8	8 58	0				9 17 *SP
HONOLULU	53.90	59.4	9 18	1				
CHANGCHUN	54.70	335.1	9 20	-3				9 41 *SP
MEDAN	55.56	277.6	9 29K	0				11 1
PEKING	56.34	325.8	9 33	-2				9 52 *SP
SIAN	57.31	316.1	9 40A	-2	17 29	0		10 0 *SP
KUNMING	57.70	303.5	9 45	1	17 37	3		10 4 *SP
PAOTOW	60.27	322.8	10 1A	-1				10 21 *SP
LANCHOW	61.82	315.4	10 8A	-5	18 29	2		10 33 *SP
CHITTAGONG	66.16	296.8	11 3	22				
ULAN-BATOR	66.53	327.7	10 42	-1				
SHILLONG	67.04	300.2	10 44A	-2				
WILKES	68.27	197.4						10 49 PP
LHASA	69.00	304.1	11 0	1	19 57	2		11 19 *SP
CHATRA	71.45	300.2	11 17	4				11 42
SCOTT BASE	73.37	177.1	11 24K	-1				11 45 PCP
MIRNY	74.28	201.3	11 28	-2	20 56	1		
DEHRA DUN	80.06	301.7	12 13	11				21 58
COLLEGE	81.50	21.6	12 7	-3			12 27	
POONA	81.89	289.4	12 10	-2				12 38
BOMBAY	82.90	289.6	12 17	0	22 26	-1		12 45
SITKA	83.79	31.3	12 48	27				
BYRD STATION	84.79	169.9	12 25	-1			12 47	15 46 PP
SOUTH POLE	85.27	180.0	12 18	-11			12 51	15 45 PP
WARSAK DAM	86.12	304.4	12 32A	-1				
SHASTA	88.49	49.1	12 44	0				
LICK	88.64	52.5						13 17
QUETTA	89.53	300.2	12 49A	0	23 33	3	13 16	23 10 SKS

FRESNO	90.04	53.3					13 21	
PASADENA	91.12	56.0	12 58	1			13 20	
EUREKA	93.27	50.8	13 7	0		13 35	30 15	PKKP
BOULDER CITY	93.98	54.4	13 11	1		13 38	16 58	PP
HUNGRY HORSE	95.06	42.0	13 14	-1		13 42	16 47	PP
BOZEMAN	97.07	44.7	13 48	24				
RESOLUTE	100.15	14.6	14 3A	25				
RAPID CITY	102.73	46.0	18 29	777			29 48	PKKP
NURMIJARVI	112.46	335.4	18 55	29				
KSARA	115.62	305.2				19 2	19 52	PP
UPPSALA	115.67	337.1				18 59		
GOTEBORG	119.30	337.6				18 58		
OTTAWA	121.04	38.6	18 43	0				
SEVEN FALLS	123.07	34.8	18 47	0				
COLLMBERG	123.24	331.6	18 47	0			20 45	
PRIHONICE	123.32	329.6	18 46	-1		19 12		
HALLE	123.60	332.3	19 13	25				
JENA	124.15	332.0	19 12	23			21 16	
LWIRO	124.48	264.0	18 52	2			19 21	
BENSBERG	126.11	334.4				19 22		
DURHAM	126.27	342.5	19 7K	14				
TOLMEZZO	126.36	327.0	19 20	27			19 35	
STUTTGART	126.75	331.3	18 54	0		19 23		
TUBINGEN	126.98	331.2				19 21		
EBINGEN	127.27	330.9				19 22		
STRASBOURG	127.56	332.0	19 10	14			20 2	*SPKP
HUANCAYO	128.50	109.4	19 3K	0				
GARCHY	130.66	333.9	19 3	1		19 29	22 19	SKP
CLERMONT-FD.	131.78	332.5	19 35	31		19 56		
LA PAZ	133.59	118.0	18 59	-8			23 43	
BANGUI	135.19	271.4	19 8	-2			22 40	
SETIF	137.23	321.2	19 11	-3		19 40	22 48	PKS
TAMANRASSET	144.39	303.2	19 27A	0		19 55	22 55	PP
MBOUR	166.72	316.7					21 3	PKP2

FEBRUARY 11 3.H 43.M 37.5 EPICENTRE 9.17 126.76 DEPTH= 0.KM

A=-0.59097 B= 0.79101 C= 0.15831 D= 0.9011 E= 0.5985
G=-0.0949 H= 0.1268 K=-0.9874 HT= 6.6

SE= 2.04

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MANILA	7.81	314.1	2 8	10	4 8	40		
BAGUIO CITY	9.39	320.7	2 23	3				
GUAM	18.14	74.7	4 14	-1				
CANTON	18.93	318.5	4 26	1				
ZO-SE	22.43	347.4	5 2A	0	9 7	3		
PHU-LIEN	22.59	303.0	5 21	17				5 41 PP
NANKING	23.94	343.1	5 17A	0	9 39	8		
WUHAN	24.11	333.5	5 16	-2				
LEMBANG	24.83	230.8	5 29K	4				9 34
PORT MORESBY	27.43	131.7	5 49	0	10 23	-6		6 32 PP
MEDAN	28.44	260.6	5 58K	-1				10 3
MATUSIRO	29.18	19.2	6 9	4				10 14
PEKING	32.15	344.6	6 32	0				
VLADIVOSTOK	34.12	6.7			12 9	-5		
CHANGCHUN	34.55	358.1	6 56	4				
CHARTERS TS.	34.77	146.6	6 53A	-1				10 59
CHITTAGONG	35.99	295.5	7 1	-4	12 41	-3		8 24 PP
SHILLONG	36.93	300.7	7 10A	-3				11 12
LHASA	39.13	306.3	7 31	0				
ULAN-BATOR	42.12	340.1	8 11	15				
BRISBANE	44.44	145.8	8 17A	2	14 43	-7		
ADELAIDE	45.29	166.1	8 20	-1				
RIVERVIEW	48.43	152.7	8 51	3				19 24
CANBERRA	48.98	155.8	8 51A	1				10 47
POONA	52.05	286.3	9 12	-2				13 16
YAKUTSK	52.80	1.9	9 17	-2				
MAGADAN	53.45	15.0	9 28	4				
WARSAK DAM	56.21	304.8	9 42	-2				
QUETTA	59.40	299.6	10 4	-3	18 9	-6		
TIKSI	62.42	0.8	10 25	-2	18 49	-5		
KARAPIRO	65.30	139.1	10 46A	0				14 50
SVERDLOVSK	69.40	327.5	11 10	-2				

KHEYS	78.38	350.1	11 58	-6			16 23	
COLLEGE	79.81	25.6	12 11	-1				
MOSCOW	82.01	325.2	12 21	-2			16 25	
APATITY	82.87	337.3	12 26	-2				
PULKOVO	85.38	329.7	12 38	-3			16 52	
KSARA	85.70	303.4	12 46	4				
KIRUNA	87.65	338.6	13 0	8				
NURMIJARVI	87.99	331.0	12 51	-2				
KASTAMONU	88.47	311.5	12 41	-15				
UPPSALA	91.53	331.5	13 15	5				
RESOLUTE	92.49	10.2	13 13A	-1	24 23	6	17 19	PP
THULE	94.10	3.5	13 20	-2			17 3	PP
HUNGRY HORSE	101.74	36.5					17 58	PP
TUCSON	111.37	50.2					19 22	PP
TUCSON TELE.	111.41	50.1					19 18	PP
HUANCAYO	158.10	99.5					20 10	PKP2

FEBRUARY 11 13.H 52.M 16.S EPICENTRE 16.14 -97.40 DEPTH= 0.KM
A=-0.12386 B=-0.95308 C= 0.27623 D=-0.9917 E= 0.1289
G=-0.0356 H=-0.2739 K=-0.9611 HT= 5.5

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	
OAXACA	1.07	34.7									0	26	PG
PUEBLA	2.97	345.3	0	50	1								
VERA CRUZ	3.28	21.6	0	56	3								
TACUBAYA	3.67	332.5	1	OK	1	1	50	6					
GUADALAJARA	7.21	309.7	1	53	4						3	24	
SAN SALVADOR	8.26	105.8	2	6	2	4	10	31					
MERIDA	8.80	55.9	2	14	3	4	2	10					
CHIHUAHUA	14.79	328.7	3	34	2						7	44	
FAYETTEVILLE	20.08	7.6	4	37	-1	8	37	19					
TUCSON	20.15	325.2	4	38	0	8	12	-8			4	58	PP
TUCSON TELE.	20.16	325.5	4	39	1								
COLUMBIA	23.10	36.7	4	56	-12								
BOULDER CITY	25.13	325.1	5	30	2								
CHAPEL HILL	25.61	36.3	5	33	1								
BOGOTA	25.61	114.0	5	37	5	10	8	9					
PASADENA	25.89	317.7	5	36	1	10	27	23					
LARAMIE	26.06	345.9	5	37	0								
SALT LAKE C.	27.56	335.8	5	52	2						6	24	
MORGANTOWN	27.93	29.6	5	52K	-2								
RAPID CITY	28.28	351.2	6	12	15								
EUREKA	28.35	328.7	5	58	1								
FRESNO	28.58	320.2	5	59	0								
PENNSYLVANIA	29.84	30.7	6	12	1								
LICK	30.08	319.3	6	13	0								
RENO	30.43	324.4	6	17	1								
BERKELEY	30.79	319.5				11	56	33					
BOZEMAN	31.59	341.6	6	28	2								
FORDHAM	31.95	34.9	7	16	47								
MINERAL	31.99	323.8	6	30	0								
PALISADES	32.05	34.7	6	30	0	11	37	-5			8	57	PCP
BUTTE	32.38	340.1	6	34	1								
SHASTA	32.67	323.5	6	34	-2								
BERMUDA	33.76	55.4	6	44	-1								
OTTAWA	34.33	27.4	6	49A	-2								
HUNGRY HORSE	34.90	340.5	6	55	0						9	0	PCP
BREBEUF	35.42	29.3	6	59A	0								
HUANCAYO	35.51	140.7	7	4	4						9	31	PCP
SEVEN FALLS	37.93	29.9	7	20	-1								
VICTORIA	38.69	332.2	7	26A	-1								
HORSESHOE B.	39.26	333.2	7	30A	-2								
LA PAZ	43.42	137.0	8	6	0	14	38	3			9	51	PP
RESOLUTE	58.56	0.8	9	58A	-3	18	12	8					
COLLEGE	59.25	337.5	10	3	-2						10	50	PCP
THULE	62.17	7.5	10	24	-1								
RATHFARNHAM	77.90	37.9	12	7A	6								
SERRA PILAR	78.69	50.4	12	2A	-3								
LISBON	78.74	52.9	12	6A	0								
DURHAM	80.29	35.8	12	13K	-1								
TOLEDO	82.35	50.8	12	23	-2								
FOLINIERE	82.50	41.5	12	26	0								

KHEYS	82.65	5.1	12 24	-2						
MALAGA	82.88	54.0	12 28K	0						
GRANADA	83.38	53.3	12 38K	8						
SKALSTUGAN	84.13	25.1	12 34	0						
ALMERIA	84.34	53.4	12 34	-1						
GARCHY	85.22	42.2	12 39	0					12 45	PCP
ALICANTE	85.44	51.5	12 37	-3	23	8	-3		17 53	PPP
TORTOSA	85.44	48.9	12 16	-24						
CLERMONT-FD.	85.73	43.6	12 42	0						
MUNSTER	86.39	36.8	12 45	0						
BENSBERG	86.50	37.8	12 46	0						
MAGADAN	86.79	331.7	12 47	0						
RELIZANE	86.99	53.8	12 48K	0						
TIKSI	87.06	346.7	12 46	-2						
STRASBOURG	87.74	39.9	12 52	0					16 10	PP
UPPSALA	88.10	27.2	12 52	-1						
STUTTGART	88.54	39.4	12 54A	-2						
JENA	89.08	36.8	12 54	-4						
PRUHONICE	91.21	36.8	13 8A	0						
YAKUTSK	93.72	339.7	13 18	-2						
TAMANRASSET	95.28	64.6	13 26A	-1					17 17	PP
BYRD STATION	96.70	183.8	13 31	-2						
MATUSIRO	105.85	316.3							18 28	
QUETTA	131.55	18.2	19 16	1					22 51	PKS
TANANARIVE	146.50	100.0	19 40	-2						
LEMBANG	153.82	287.8	19 52A	-1						

FEBRUARY 12 17.H 3.M 14.S EPICENTRE -21.97 171.88 DEPTH= 0.KM

A=-0.91894 B= 0.13113 C=-0.37196 D= 0.1413 E= 0.9900
G= 0.3682 H=-0.0525 K=-0.9283 HT= 4.2

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	5.04	265.3	1 24	5	2 22	4		
SUVA	7.23	59.5			2 25	-48		3 29
ONERAHI	13.92	171.6	3 25	4				3 43
TUAI	17.37	166.1	4 7	2	7 23	5		
BRISBANE	17.97	248.5	4 16K	3	7 29	-3		
COBB RIVER	19.07	178.0	4 31	5				
WELLINGTON	19.41	173.4	4 28	-2	8 10	6	4 46	
KAIMATA	20.49	181.0	4 41	-1				
GEBBIES PASS	21.68	178.5	4 52	-2				
RIVERVIEW	21.75	232.7	4 55K	0	8 54	3		
ROXBURGH	23.61	184.5			10 16	51		
CHARTERS TS.	23.99	269.9	5 16A	-1	9 21	-11		
CANBERRA	24.01	231.4	5 17K	0				9 30 PCP
RABAUL	26.02	309.9	5 37	1				5 59
PORT MORESBY	26.84	293.9	5 44A	0	10 15	-4		7 13
MELBOURNE	28.04	229.7	5 53	-2	10 28	-11		5 6 PP
ADELAIDE	31.73	238.7	6 26	-2	11 26	-11		14 1
CAPE HALLETT	50.36	180.6			16 4	-9		19 9 SS
SCOTT BASE	55.99	181.3	9 39A	-3				
LEMBANG	63.62	273.2	10 33A	-2				11 35
BYRD STATION	64.83	169.7	10 38	-5				
ABUYAMA	66.21	327.9	10 52A	0				
MATUSIRO	66.32	330.8	10 52	0	19 38	-3		11 7
SOUTH POLE	68.16	180.0	11 0	-4				12 52 PP
ZO-SE	71.75	315.7	11 25A	-1				
CANTON	72.52	304.5	11 30A	0				
NANKING	73.91	315.0	11 37A	-1				
MEDAN	75.83	279.8	11 48	-2				
WUHAN	75.85	311.5	11 49A	-1				
CHANGCHUN	78.16	327.5	12 2A	0				
PEKING	80.60	320.0	12 16A	0	22 16	-7		
KUNMING	81.81	301.1	12 23A	1				
SIAN	81.88	311.8	12 21	-1				
CHENGTU	83.53	306.6	12 31A	0	22 45	-8		
BERKELEY	85.81	46.4	12 45	3				
LICK	85.95	47.1	12 43	0				
LANCHOW	86.39	311.2	12 45A	0	23 15	-6		23 2 SKS
PASADENA	86.79	51.3	12 47	0	23 23	-1		
FRESNO	86.92	48.4	12 49	1				
SHASTA	87.22	43.9	12 50	1				

MINERAL	87.55	44.6	12	52	1						
RENO	88.31	46.0	12	56	1						
CHITTAGONG	89.56	294.2	13	0A	0	23	45	-5			
BOULDER CITY	90.06	51.0	13	4	1						
ULAN-BATOR	90.64	322.4	13	5	0						
SHILLONG	90.81	297.2	13	4A	-2						
EUREKA	90.88	47.5	13	7	0						
TUCSON	91.40	55.8	13	11	2						
TUCSON TELE.	91.53	55.7	13	11	1						
COLLEGE	91.95	16.0	13	9	-2					13	36
RESOLUTE	111.87	16.6	18	47	10					29	4 PS
QUETTA	113.15	294.5	18	38	-1						
LWIRO	136.64	241.0	19	24	0						
KRAKOW	144.34	328.7	19	36	-2						
RACIBORZ	145.14	330.0	19	38	-1						
CINE	145.17	304.8	19	38A	-1					20	6
COLLMBERG	146.42	335.9	19	41	0						
SOFIA	146.63	315.6	19	41	-1						
PRUHONICE	146.83	332.9	19	44A	2					19	54 PKP2
BRATISLAVA	146.98	328.4	19	43	1						
JENA	147.25	336.8	19	44	1					21	1
PLAUEN	147.39	335.8	19	42	-1						
SONNEBERG	147.84	336.5	19	46	2						
STRASBOURG	150.57	338.3	19	53	5					20	8 PKP2
GARCHY	153.18	343.0								20	12 PKP2
SETIF	161.57	323.3	19	59	-3					20	48 PKP2
TAMANRASSET	167.35	276.2	20	7	0					24	56 PP

FEBRUARY 13 15.H 9.M 19.S EPICENTRE -20.42-177.86 DEPTH= 500.KM

DEPTH OF FOCUS= 0.074R

A=-0.93726 B=-0.03502 C=-0.34688 D=-0.0373 E= 0.9993
G= 0.3466 H= 0.0130 K=-0.9379 HT= 4.6

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	4.17	302.2				2	24	0				
APIA	8.78	42.4	1	43	-22	3	15	-30				
NOUMEA	14.74	259.9	3	7	0	5	50	11				
KARAPIRO	18.36	196.8	3	43A	0							
TUAI	18.81	192.2	3	49	1	6	51	0			7	10
WELLINGTON	21.72	195.1	4	16	1	7	39	-1				
BRISBANE	27.47	249.5	5	6A	0						6	0
RIVERVIEW	30.51	237.6	5	23A	-10							
CANBERRA	32.66	235.9	5	51A	0							
CHARTERS TS.	33.63	264.3	5	59K	0						7	50
PORT MORESBY	35.46	282.8	6	14K	0							
ADELAIDE	40.76	239.9	6	57	-1						9	11
SCOTT BASE	57.96	183.8	9	5	0							
BYRD STATION	64.70	170.5	9	48	3							
SOUTH POLE	69.70	180.0	10	20	0							
BERKELEY	78.04	41.9	11	7	0							
LICK	78.10	42.6	11	7	0							
PASADENA	78.54	46.9	11	9	-1							
HONG KONG	78.76	298.9	11	14	3						14	57 PP
SHASTA	79.70	39.5	11	16	0							
MINERAL	79.96	40.2	11	17	0							
TUCSON TELE.	82.89	51.8	11	32	0							
EUREKA	82.97	43.5	11	32	0							
COLLEGE	88.11	12.4	1'	55	-2				13	43		
HUNGRY HORSE	89.00	36.8	12	0	-1							
QUETTA	121.28	293.5	17	57	2							
LWIRO	145.49	232.3	18	44	4							
PRUHONICE	148.90	344.4	18	52	7							
GARCHY	153.20	358.6									19	15 PKP2
TAMANRASSET	176.08	307.3									35	36

FEBRUARY 14 4.H 36.M 15.S EPICENTRE -7.70 121.77 DEPTH= 0.KM

A=-0.52175 B= 0.84264 C=-0.13316 D= 0.8502 E= 0.5264
G= 0.0701 H=-0.1132 K=-0.9911 HT= 6.8

SE= 2.38

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
LEMBANG	14.06	272.6	3 20	-1				
DJAKARTA	14.90	274.9	3 31A	-1	6 9	-9		
MANILA	22.15	358.0	4 58	1				7 40
BAGUIO CITY	24.00	357.2	5 16	1	9 28	0		
PERTH	24.75	192.1			9 56	15		
PORT MORESBY	25.16	95.7	5 25	-1	9 44	-4		6 2 PP
MEDAN	25.62	295.1	5 30	0	10 33	38		
CHARTERS TS.	26.69	119.8	5 38	-2	10 32	19		
RABAUL	30.43	85.2						7 2 PP
HONG KONG	30.73	346.1	6 37	20	11 14	-4		
ADELAIDE	31.26	152.5	6 18A	-3	11 23	-3		12 21
CANTON	31.70	345.0	6 25	0				
PORT BLAIR	34.71	303.4	6 51	0	12 17	-3		8 27 PPP
BRISBANE	35.53	127.5	6 56A	-2	12 20	-12		
MELBOURNE	36.62	148.5	7 5K	-2			7 15	15 18 SS
CANBERRA	37.13	141.7	7 9	-3			7 19	8 32 PP
KUNMING	37.49	330.8	7 17K	2	13 7	4		8 48 PP
RIVERVIEW	37.57	137.9	7 19A	4	13 10	6		
WUHAN	38.64	350.0	7 26A	2	13 24	4		
NANKING	39.63	356.1	7 35A	2	13 38	3		
CHENGTU	41.77	336.8	7 50	0	14 5	-2		
CHITTAGONG	41.87	316.2	7 52	1	14 11	3		9 33 PP
SIAN	43.46	344.5	8 4	0	14 32	0		
SHILLONG	44.04	319.6	8 9K	0	14 41	1		9 49 PP
MADRAS	46.15	296.2	8 28	2	15 12	2		10 23 PP
MATUSIRO	46.65	18.3	8 27	-2	15 14	-3		8 49
LANCHOW	46.71	339.9	8 30K	0	15 20	2		10 21 PP
LHASA	47.45	322.9	8 37K	1	15 30	1		
PEKING	47.77	354.2	8 38A	0	15 32	-1		
CHANGCHUN	51.39	3.3	9 11	5				
VLADIVOSTOK	51.41	9.5	9 5	-1				
POONA	53.97	299.5	9 23	-2				
AGRA	54.71	311.0	9 31	0				
COBB RIVER	56.01	134.9	9 42	2				
ULAN-BATOR	56.92	348.1	9 47	0				
GEBBIES PASS	56.96	137.8	9 50	3				10 3
WELLINGTON	57.52	134.5	9 47	-4				
TUAI	58.46	131.0	10 5	7				
WILKES	58.93	185.3	10 4	3	18 12	7		
IRKUTSK	61.58	347.9	10 8	-11	18 33	-6		
WARSAK DAM	63.08	314.3	10 26	-3				
QUETTA	64.67	308.5	10 36	-3	19 12	-5		
NAMANGAN	66.77	320.8	10 52	-1	19 43	0		
YAKUTSK	69.79	4.0	11 9	-2				
CAPE HALLETT	70.88	166.0			22 11	99		30 56 SSS
MAGADAN	70.93	15.2	11 18	0	20 34	2		
SCOTT BASE	73.82	171.0	11 38	2				
TIKSI	79.31	2.3	12 4	-2	21 59	-6		
SOUTH POLE	82.35	180.0	12 26	4				
TIFLIS	85.47	313.0	12 40	2				
BYRD STATION	87.25	171.2	12 45	-2				
BULAWAYO	90.33	249.8	13 0	-2				
MOSCOW	93.01	325.7	13 13	-1				
KHEYS	94.08	350.6	13 15	-4				
APATITY	96.42	337.3	13 32	2				
COLLEGE	97.09	25.5	13 32	-1				
PRUHONICE	106.92	319.9						18 53 PP
SHASTA	114.52	48.8						19 38 PP
GARCHY	114.93	318.8						19 51 PP
TAMANRASSET	117.11	291.6	18 45	1				19 54 PP
FRESNO	117.28	52.6						19 54 PP
HUNGRY HORSE	118.09	38.7	18 48	2				
EUREKA	119.59	48.8	18 50	1				
TUCSON	125.51	55.8	19 2	1				
TUCSON TELE.	125.58	55.6	19 2	1				
RAPID CITY	126.71	39.4	19 5	2				20 58 PP
SEVEN FALLS	139.27	13.2	19 30	4				
MORGANTOWN	142.72	28.1	19 30K	-3				
WESTON	143.58	16.4	19 35	0				19 45
PALISADES	144.02	20.4	19 33	-2				23 5 PP
FORDHAM	144.17	20.5						20 21
WASHINGTON	144.61	25.8	19 36	0				
CHAPEL HILL	146.07	31.1	19 41	3				19 50
COLUMBIA	146.43	35.6	19 41	2				

LA PAZ	154.04	157.9	19 57	6		
HUANCAYO	154.04	138.9	19 59	8		20 31 PKP2

FEBRUARY 14 22.H 10.M 42.S EPICENTRE 27.58 96.57 DEPTH= 0.KM

A=-0.10158 B= 0.88187 C= 0.46052 D= 0.9934 E= 0.1144
G=-0.0527 H= 0.4575 K=-0.8877 HT= 2.6

SE= 2.18

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SHILLONG	4.66	245.6	1 15A	2	2 8	-1		1 25 PP
LHASA	5.28	294.2	1 25A	3	2 30	6		
KUNMING	6.03	113.3	1 36A	4	2 45	2		
CHITTAGONG	6.75	220.7	1 42	0	2 56	-5		2 14 PG
CHENGTU	7.19	63.0			3 18	6		
CHATRA	8.40	267.1	2 5	-1				4 34
BOKARO	10.40	251.4			4 20	-12		
LANCHOW	10.48	34.2	2 35A	1				
SIAN	12.51	54.9			5 37	14		
WUHAN	16.00	75.1	3 47	-1				
PORT BLAIR	16.23	193.6	3 49	-2	6 59	8		
DEHRA DUN	16.44	284.0	3 53	0	7 6	10		
AGRA	16.49	272.7	3 54	0				6 42
HONG KONG	16.80	104.4	3 56	-2				
PAOTOW	17.07	37.1	4 2	1				
LAHORE	19.74	286.9	4 33	-1				
NANKING	19.79	71.6	4 32	-2				
PEKING	20.43	47.6	4 42	1				
MADRAS	21.10	229.8	4 48	0				8 49
ULAN-BATOR	21.85	18.9	4 57	1	9 1	8		
WARSAK DAM	22.40	292.8	5 2	1	9 3	0		
POONA	22.73	251.5	5 0	-4				5 33 PP
BOMBAY	23.44	253.5	5 16	5	9 26	4		9 36
MEDAN	23.95	174.8	5 18K	2				
NAMANGAN	24.44	309.6	5 24	3				
IRKUTSK	25.34	11.2	5 33	3				
QUETTA	26.03	282.8	5 33	-3	9 59	-7		
VLADIVOSTOK	32.44	52.1						13 23
MATUSIRO	36.18	65.0	7 5A	-1				19 12
YAKUTSK	40.84	23.2	7 44	-1				
TIFLIS	44.23	302.5	8 16	4				
MOSCOW	50.30	321.0	8 59	-1				
APATITY	54.60	335.1	9 32	0				
PULKOVO	54.68	325.4	9 33	0				
KASTAMONU	54.76	302.8	9 16	-17				
KHEYS	55.69	351.5	9 37	-3				
SODANKYLA	57.15	334.4	9 48	-2				
HELSINKI	57.39	325.7	9 53	1				
NURMIJARVI	57.55	326.1	9 55	2				
LWOW	58.45	313.5	9 56	-4				
KIRUNA	59.55	334.7	10 6A	-1				
KRAKOW	61.04	314.2	10 22	5				
UPPSALA	61.09	325.5	10 17	-1				
RABAUL	62.18	111.5	10 25	0				
SKALSTUGAN	63.17	330.1	10 32	0				
BRATISLAVA	63.21	312.5	10 32	0				
GOTEBORG	64.31	323.6	10 33	-6				
PRUHONICE	64.45	314.9	10 40A	0				
COLLMBERG	65.1	316.5	10 44	0				
HALLE	65.70	316.9	10 44	-4				
JENA	66.07	316.4	10 50	0				
STUTTGART	68.14	314.6	11 3A	-1				
STRASBOURG	69.11	314.7	11 10	0				
PARIS	72.32	316.2	11 30	1				11 39
GARCHY	72.52	314.6	11 29	-1				11 49 PCP
KEW	72.98	319.5	11 34	1				
SETIF	75.16	303.2	11 44	-2				
COLLEGE	75.37	23.5	11 46	-1				
THULE	75.82	356.4	11 49	0				
TAMANRASSET	80.66	290.7	12 16	0				15 18 PP
GRANADA	81.26	307.3	12 23	4				
SOUTH POLE	117.42	180.0	18 51	4				
BYRD STATION	125.35	172.8	19 3	0				

FEBRUARY 14 22.H 25.M 48.S EPICENTRE 27.58 96.48 DEPTH= 0.KM

A=-0.10025 B= 0.88198 C= 0.46051 D= 0.9936 E= 0.1129
G=-0.0520 H= 0.4576 K=-0.8877 HT= 2.6

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
SHILLONG	4.59	245.2	1	16	4	2	6	-1				
LHASA	5.21	294.5	1	25A	4							
KUNMING	6.10	113.0	1	36A	2	2	51	6				
CHITTAGONG	6.70	220.2	1	42	0							
CHENGTU	7.26	63.2	1	52	2	3	20	6				
CHATRA	8.33	267.0	2	5	0						4	25
SINING	10.07	25.1	2	31	2							
BOKARO	10.33	251.2	2	33	1						4	18
LANCHOW	10.52	34.5	2	35A	0	4	31	-4				
WUMEI	11.55	25.1	2	52	3							
SIAN	12.57	55.0	3	2	-1							
CANTON	15.83	102.7	3	49	3							
WUHAN	16.08	75.2	3	46	-3	6	40	-8				
PORT BLAIR	16.22	193.3	3	52	1	6	57	6			4	4 PP
DEHRA DUN	16.37	284.0	3	53	0	7	1	6			4	5 PP
AGRA	16.41	272.7	3	50	-3	6	50	-6				
HONG KONG	16.87	104.2	4	0	1	7	20	14				
PAOTOW	17.12	37.3	4	1	-1							
TATUNG	18.69	43.8	4	26	4							
HYDERABAD	19.46	242.5	4	29A	-2	8	13	8			8	26 SS
LAHORE	19.67	286.9	4	30	-3							
NANKING	19.86	71.6	4	33A	-2	8	17	3				
PEKING	20.48	47.7	4	42A	0	8	32	5				
MADRAS	21.04	229.7	4	47K	-1	8	48	10			5	15 PP
ZO-SE	21.80	74.8	4	55	0	8	58	6				
ULAN-BATOR	21.87	19.0	4	57	1	9	1	7				
WARSAK DAM	22.33	292.8	5	2A	1	8	58	-4				
POONA	22.66	251.4	5	4	0	9	10	2			5	33 PP
BOMBAY	23.37	253.4	6	12	61	9	26	5			7	30
FRUNSE	23.42	316.4	5	14	3							
MEDAN	23.96	174.6	5	18A	1	9	33	2				
IRKUTSK	25.35	11.3	5	32A	2							
STALINABAD	25.58	302.4	5	32	0							
SEMIPALATNSK	25.94	335.9	5	36	1	10	4	0				
QUETTA	25.96	282.8	5	36A	0	10	1	-4				
TASHKENT	26.16	308.6	5	37	-1						6	26 PP
MANILA	26.20	114.6	5	20	-18						6	30
KARACHI	26.34	273.0	5	40	1							
CHANGCHUN	28.28	47.4	5	56	-1							
VLADIVOSTOK	32.51	52.1	6	34	0						14	30 SSS
ASHKABAD	33.49	297.8	6	45	2							
LEMBANG	35.86	160.9	7	1K	-2						8	6 PP
MATUSIRO	36.25	65.0	7	5K	-2							
SVERDLOVSK	38.72	329.0	7	30	3							
Y.-SAKHLINSK	40.88	49.1	7	46	1							
GORIS	42.96	299.4	8	3	1							
TIFLIS	44.17	302.5	8	12	0							
TIKSI	47.59	13.3	8	38	-1	15	33	-2			10	25 PP
MOSCOW	50.25	321.0	9	1	1	16	12	0			10	59 PP
KSARA	51.84	292.7	9	14	2	16	45	11				
SIMFEROPOL	51.93	307.0	9	12	-1							
APATITY	54.57	335.2	9	31K	-1							
PULKOVO	54.64	325.4	9	33	0							
KASTAMONU	54.69	302.8	9	14	-19						11	14 PP
KHEYS	55.68	351.5	9	37	-3						10	36 PCP
IASI	56.32	310.1	9	36	-9							
SODANKYLA	57.12	334.4	9	39	-11							
HELSINKI	57.35	325.7	9	53	1							
NURMIJARVI	57.51	326.1	9	52	-1							
KIRUNA	59.52	334.7	10	7	0							
SOFIA	59.95	305.4	10	10	0							
ATHENS	60.66	300.0	10	14A	-1							
KRAKOW	60.98	314.2	10	16	-1							
UPPSALA	61.04	325.5	10	17A	-1							
PORT MORESBY	61.28	119.5	10	18	-1						10	59 PCP
BELGRADE	61.58	308.2	10	21K	0							
RACIBORZ	62.07	314.4	10	25	0							

RABAUL	62.25	111.4	10	25	-1				/10	39	
SKALSTUGAN	63.13	330.1	10	31A	-1						
BRATISLAVA	63.16	312.5	10	32	0						
VIENNA-H.	63.62	312.7	10	36	1						
GOTEBORG	64.27	323.6	10	32	-7						
PRUHONICE	64.40	314.9	10	40A	0				13	0	PP
COPENHAGEN	64.42	321.4	10	40K	0						
ZAGREB	64.43	310.1	10	41K	1						
PRAGUE	64.46	315.0	10	40	0				12	46	
COLLMBERG	65.06	316.5	10	43	-1						
HALLE	65.65	316.9	10	44	-4				13	5	PP
PLAUEN	65.77	315.8	10	46	-3						
JENA	66.02	316.4	10	49	-1				13	14	PP
NORD	66.16	351.5	10	49A	-2						
TOLMEZZO	66.28	311.3	10	49	-3				13	26	
SONNEBERG	66.39	315.9	10	53	0						
STUTTGART	68.09	314.6	11	4	0				13	56	PP
RAVENSBURG	68.12	313.5	11	8	4						
MUNSTER	68.12	318.2	11	11	7						
TUBINGEN	68.24	314.4	11	4	0						
EBINGEN	68.41	314.0	11	7	1						
CHUR	68.45	312.5	11	5A	-1						
BENSBERG	68.69	317.3	11	7	0						
STRASBOURG	69.05	314.7	11	9	0				13	52	PP
BASLE	69.50	313.7	11	11	-1						
NEUCHATEL	70.08	313.3	11	15	-1						
MONACO	70.86	309.9	11	20	-1						
LWIRO	71.41	257.2	11	23	-1						
PARIS	72.26	316.2	11	30	1				12	13	
DURHAM	72.35	323.0	11	29K	0						
GARCHY	72.47	314.5	11	30	0						
KEW	72.93	319.5	11	33	0						
CLERMONT-FD.	73.00	313.1	11	32A	-1						
ADELAIDE	73.89	144.9	11	37	-1						
FOLIMIERE	74.09	316.9	11	39	-1						
SETIF	75.10	303.2	11	44	-1				14	34	PP
COLLEGE	75.40	23.4	11	46	-1						
RATHFARNHAM	75.49	322.8	12	28	40						
SIDA	75.59	335.3	11	50	2						
THULE	75.81	356.3	11	49	-1						
RESOLUTE	77.73	3.1	12	0A	0	21	54	2	22	42	PPS
ALICANTE	78.47	307.2	12	7	3	22	4	4			
CANBERRA	79.82	138.8	12	8	-4						
RIVERVIEW	80.09	136.4	12	17	4						
TOLEDO	80.26	309.9	12	14	0				13	23	
ALMERIA	80.55	306.6	12	16	1				15	12	PP
TAMANRASSET	80.59	290.7	12	17A	1				15	19	PP
GRANADA	81.20	307.3	12	44	25						
PIETERMZBURG	85.02	233.0	12	39K	1						
KIMBERLEY	88.61	236.5	12	56	0						
HUNGRY HORSE	99.62	20.1	13	47	0				17	47	PP
RAPID CITY	106.45	14.7							18	42	PP
EUREKA	106.74	25.7	18	29	0						
TUCSON TELE.	115.03	25.3	18	45	2						
TUCSON	115.07	25.4	18	45	2						
SOUTH POLE	117.42	180.0	18	49	1				19	49	
BYRD STATION	125.36	172.8	19	3	0						
LA PAZ	161.99	304.6	20	7	4						

FEBRUARY 15 3.H 59.M 24.S EPICENTRE -59.52 -25.72 DEPTH= 0.KM

A= 0.45934 B=-0.22124 C=-0.86027 D=-0.4339 E=-0.9009
G=-0.7751 H= 0.3733 K=-0.5098 HT= -8.8

SE= 3.21

	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	30.65	180.0	6	16	-2						7	15	PP
LA PLATA	32.38	305.1	6	26	-7	11	41	-6			7	36	PP
BYRD STATION	32.74	198.8	6	34	-2	12	57	64			7	27	PP
HERMANUS	38.52	69.7	7	31	6	13	24	2			7	56	
SANTIAGO	39.33	291.3	7	31	-1	13	33	-1					
SANTA LUCIA	39.34	291.2	7	30A	-2	13	35	1					
TALA POZO	41.18	303.1	7	46A	-1	14	1	-1			9	31	PP
SCOTT BASE	42.67	183.9	8	18	19	14	26	2					

GRAHAMSTOWN	42.99	76.3	8	0	-2					
KIMBERLEY	45.86	70.8	8	24	-1					
MIRNY	46.34	151.0	8	27	-2	15	13	-4	9	14
WINDHOEK	47.63	58.3	8	43	4					
PIETERMZBURG	47.89	77.0	8	45	4					
CAPE HALLETT	48.00	186.5	8	43	1	15	57	17	10	36 PP
LCO. MARQUES	52.00	76.4	9	12	-1	16	33	-3		
LA PAZ	52.85	305.7	9	16A	-3	16	50	3	11	6 PP
BULAWAYO	54.98	68.7	9	34	-1					
HUANCAYO	59.89	300.5	10	13	4	18	29	8		
LWIRO	70.78	59.5	11	22K	2				25	1
BANGUI	72.64	46.9	11	26	-5					
MBOUR	73.98	8.8	11	42	3	21	18	7		
BOGOTA	74.40	309.3	11	42	1					
ROXBURGH	74.57	190.9	11	44	2	21	26	9	14	51 PP
GEBBIES PASS	76.04	193.6	11	54	4					
WELLINGTON	78.15	195.6	12	1A	-1	22	29	33	27	18 SS
FORT FRANCE	79.36	325.2	12	18	9					
TONGARIRO	80.08	196.6	12	10	-3					
BALBOA HTS.	80.56	306.0				22	0	-22	15	29 PP
MELBOURNE	82.70	172.6	12	24	-2					
PERTH	83.48	147.9	12	32	2	22	50	-2	15	46 PP
ADELAIDE	85.02	167.2	12	38	0	23	2	-5		
CANBERRA	85.41	175.7	12	42A	2					
TAMANRASSET	85.92	28.7	12	45	2	23	13	-3	15	29
RIVERVIEW	86.97	177.4	12	48	0	23	23	-3		
BRISBANE	93.32	178.9	13	21	3				16	28 PKP
VERA CRUZ	96.87	296.3				25	6	12	27	8
BERMUDA	97.07	327.6	13	32	-3	24	56	1	17	20 PP
ALMERIA	97.93	18.6	13	25	-13	25	21	18	17	42
GRANADA	98.07	17.7	13	32A	-7	25	14	10	27	38 PPS
TACUBAYA	98.47	293.8	13	56	15	24	18	-2	17	47 PP
SETIF	98.79	25.0	13	45	3					
ALGIERS UNI.	98.85	23.0	13	38	-5	24	22	9	26	34 PS
TOLEDO	100.65	16.8	13	30	-21				17	50 PP
MESSINA	103.17	32.3				25	42	-4	18	16 PP
ROME	105.86	28.7	18	56	777	26	28	6		
KSARA	105.94	49.6	14	26	777				18	45 PP
PALISADES	107.77	323.7	14	20	777	26	28	-1	18	50 PP
PAVIA	108.20	25.2							28	38
HALIFAX	108.35	332.5				25	12	11	18	58 *PPP
GARCHY	109.01	20.3							19	1 PP
NEUCHATEL	109.48	23.1	12	8	777					
TRIESTE	109.70	28.3							38	49 SSS
CHUR	109.87	24.9	12	1K	777					
PORT MORESBY	111.08	172.5							34	40 SS
STRASBOURG	111.15	23.1	18	54	19				28	6 PS
ST. LOUIS 1	111.29	310.6	18	36	1	25	15	-2	19	17 PP
FLORISSANT	111.49	310.6				25	20	2	19	25 PP
HYDERABAD	112.04	93.0	18	26	-11				28	53
KEW	112.53	16.9				27	29	127	35	6 SS
PLAUEN	113.89	25.4	19	32	52				27	52
JENA	114.17	24.9	19	38	57				20	6
HALLE	114.79	24.9							19	43 PP
TUCSON	114.84	291.5	18	46	4				19	48 PP
TUCSON TELE.	114.86	291.7	18	39	-3				29	24 PKKP
KRAKOW	115.33	30.7							18	44
QUETTA	116.80	75.7	18	47	1	25	37	-1	20	2 PP
PASADENA	119.92	287.1	18	54	2				22	35 SKP
RAPID CITY	121.11	304.7	19	4	10					
SALT LAKE C.	122.24	296.4	18	58	1					
FRESNO	122.81	287.6	18	59	1					
EUREKA	123.13	292.5	18	58	0				20	42 PP
UPPSALA	123.74	24.6	18	59	-1					
LICK	124.16	286.7	19	3K	3					
CHATRA	124.29	94.9	18	58	-3					
BERKELEY	124.88	286.6	19	5K	3					
RENO	125.00	289.7	19	6K	4					
MOSCOW	125.45	38.4	19	7	4					
SHILLONG	125.63	100.0	19	13	10					
BOZEMAN	125.75	300.6	19	5	2					
NURMIJARVI	125.92	28.1	19	8	4					
MINERAL	126.49	289.0	19	7K	2					
PULKOVO	126.72	31.6	19	9	4				27	57 SKKS
SHASTA	127.15	288.7	19	8K	2					
MANILA	128.89	136.9	19	35	26					
HUNGRY HORSE	129.11	300.8	19	10	0				22	30 PKS
SCORESBY SD.	129.73	1.6	19	12	1				22	37 PKS

SODANKYLA	132.28	24.5	19	17	1						
HONG KONG	133.29	124.9	19	24	6					21	24 PP
APATITY	133.94	27.3	19	18	-1						
RESOLUTE	141.36	336.5	19	25	-7					22	22 PP
SITKA	144.48	297.6	19	43	5						
KHEYS	145.94	17.7	19	44	4					23	13 PKS
OMAESAKI	152.93	149.9								10	5 PP
COLLEGE	153.33	306.3	19	46	-6					24	49 PKS
MATUSIRO	154.77	148.5	20	6	12					20	18
VLADIVOSTOK	158.61	130.2	19	55	-4						
Y.-SAKHLINSK	165.67	146.3	20	7	1						
PETROPAVLOVK	173.15	202.6	20	9	-1					30	28 PPP
MAGADAN	178.23	87.4	20	8	-4						

FEBRUARY 15 4.H 2.M 30.S EPICENTRE 44.32 83.54 DEPTH= 45.KM

DEPTH OF FOCUS= 0.002R

A= 0.08075 B= 0.71329 C= 0.69620 D= 0.9937 E=-0.1125
G= 0.0783 H= 0.6918 K=-0.7178 HT= -3.3

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	
ALMATA-2	4.59	259.0	1	8	-1						2	15	S*
ALMATA	4.89	259.9	1	14	1						2	14	S*
RYBACHE	5.75	253.7	1	28	3	2	31	0			1	49	
SEMIPALATNSK	6.48	341.0	1	33	-2						3	21	SG
FRUNSE	6.66	260.7	1	38	0						3	10	S*
ANDIJAN	8.98	250.5	2	12	2						2	51	
NAMANGAN	9.36	253.2	2	16	1						4	39	
FERGANA	9.55	249.8	2	22	4						3	0	
YUMEN	10.76	107.2	2	31	-3								
TASHKENT	10.90	259.0									3	24	
KHOROG	11.32	237.0	2	42	0						6	8	
KULYAB	12.19	243.0	2	51	-3						6	31	
STALINABAD	12.49	247.6	2	53	-5						6	27	
SAMARKAND	13.16	255.1	3	8	1						6	49	
LAHORE	14.66	212.7	3	26	0						3	38	PP
WUWEI	15.73	107.3	3	42	2								
LHASA	15.81	155.4	3	43A	2	6	49	14					
IRKUTSK	15.91	52.7	3	45	3	6	40	3					
ULAN-BATOR	16.58	69.2	3	50	-1								
KYAKHTA	16.63	60.5	3	50	-1						7	7	
KABANSK	17.19	55.1	3	58	0						7	20	
LANCHOW	17.51	111.1	4	2	0	7	23	9					
CHATRA	17.69	169.3	4	3	-2	7	19	1					
YINCHUAN	18.00	101.1	4	10	2								
SVERDLOVSK	19.08	319.1	4	19	-2	7	40	-9			8	0	SS
QUETTA	19.27	228.5	4	21	-3	7	54	1					
PAOTOW	19.87	91.6	4	28	-2								
SHILLONG	19.89	157.4	4	28A	-2								
ASHKABAD	19.97	260.1	4	32	1						12	23	SCP
BOKARO	20.52	174.1	4	35A	-2						8	32	
KIZYL-ARVAT	21.00	264.9	4	41	-1						7	42	
CHENGTU	21.13	123.3	4	43A	0	8	46	15					
SIAN	21.99	108.5	4	51A	-1								
KARACHI	22.78	221.4	5	13	14								
CHITTAGONG	22.94	160.0	5	1	0	9	11	7					
PEKING	24.46	88.7	5	16	0	9	43	13					
KUNMING	24.73	134.7	5	18	0	9	46	11					
BOMBAY	26.89	202.9	5	51	12	10	30	20					
POONA	26.96	200.6	5	38	-1						10	27	
GORIS	27.94	273.2	5	48	0								
WUHAN	28.03	108.9	5	50	1								
TIFLIS	28.27	278.4	6	5	13								
MOSCOW	31.06	308.0	6	15	-1						7	3	
MADRAS	31.34	186.3	7	16	58	12	23	62					
YAKUTSK	31.97	40.0	6	25	1	11	36	5					
HONG KONG	33.41	121.0	6	36	0						8	59	PCP
TIKSI	34.89	23.2	6	47	-2						7	12	
APATITY	34.95	329.0	6	48	-2								
PULKOVO	35.12	315.2	6	50	-1	12	18	-2			9	12	
SODANKYLA	37.47	327.8	7	14	3								
HELSINKI	37.81	315.9	7	21	7								
NURMIJARVI	37.95	316.5	7	16	1								

KSARA	37.98	270.7	7 13	-2				
KASTAMONU	38.26	284.6	7 4	-13			8 26	PP
IASI	38.45	294.7					10 32	
OKHA	39.03	54.6	7 25	1				
UGLEGORSK	39.56	61.7	7 29	1				
KIRUNA	39.89	328.1	7 31	0				
UPPSALA	41.51	315.9	7 44K	0				
MAGADAN	42.23	44.3	7 50	0				
KRAKOW	42.45	301.2	7 52	0				
MEDAN	42.71	157.4	7 54	0			9 36	
MANILA	43.45	121.1	8 0	0				
SKALSTUGAN	43.46	322.0	8 0	0				
RACIBORZ	43.50	301.7	8 8	7				
ATHENS	44.62	283.4	8 10A	0				
BRATISLAVA	44.82	299.5	8 11	0			10 3	PP
VIENNA-H.	45.25	299.8	8 14	-1			8 23	
PRUHONICE	45.75	302.7	8 19A	0			9 55	PP
PRAGUE	45.79	302.9	8 31	12				
COLLMBERG	46.21	304.9	8 21	-1			10 59	PP
HALLE	46.75	305.5	8 23	-4			10 20	PCP
PLAUEN	47.00	304.1	8 25	-3				
JENA	47.18	304.9	8 29	-1			10 9	PP
NORD	47.94	348.8	8 31	-5				
MUNSTER	49.08	307.4	8 52	7				
STUTTGART	49.44	303.0	8 47A	0				
TUBINGEN	49.62	302.8	8 55	6				
BENSBERG	49.74	306.4	8 56	6				
STRASBOURG	50.38	303.3	9 0	5	16 14	11	10 56	PP
UCCLE	51.43	307.1					10 40	PP
MONACO	52.81	297.9	9 18	5				
PARIS	53.40	305.6	9 18	1				
KEW	53.76	309.5	9 25K	5				
GARCHY	53.79	303.7	9 19	-1			10 25	PCP
CLERMONT-FD.	54.49	302.0	9 42	17				
FOLINIERE	55.14	306.7	9 29	-1				
SETIF	58.08	291.2	9 51	0			11 50	PP
THULE	58.20	352.5	9 43	-9				
ALGIERS UNI.	59.32	293.0	9 42	-18			11 56	PP
ALICANTE	60.73	296.3	10 4	-5	18 17	-4		
RESOLUTE	61.29	359.5	10 7	-6				
COLLEGE	64.02	21.8	10 30	-1				
RABAUL	77.86	108.2	11 54	-1			13 57	
PORT MORESBY	78.35	115.5	11 58	1		12 7	16 44	
CHARTERS TS.	85.84	123.1	12 35A	-1				
SEVEN FALLS	86.18	342.8	12 37	-1				
HUNGRY HORSE	86.44	11.6	12 39	0				
BUTTE	88.92	11.2	12 51	0				
BOZEMAN	89.47	10.2	12 55	2				
RAPID CITY	91.78	4.9	12 55	-9				
ADELAIDE	93.44	137.5	13 13	1				
SALT LAKE C.	94.17	11.7	13 18	3				
EUREKA	94.75	15.0	13 18	0				
MELBOURNE	98.82	135.3					19 30	PPP
CANBERRA	99.03	131.1	13 38	1				
FORT NELSON	103.87	137.2					18 44	
HUANCAYO	143.08	324.1	19 33	4				

FEBRUARY 15 4.H 42.M 34.5 EPICENTRE -59.71 -25.77 DEPTH= 0.KM

A= 0.45656 B=-0.22044 C=-0.86195 D=-0.4348 E=-0.9005
G=-0.7762 H= 0.3748 K=-0.5070 HT= -8.8

SE= 2.25

	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	30.46	180.0	6	16	-1								
LA PLATA	32.47	305.4	6	31	-3	11	46	-3			7	51	PPP
BYRD STATION	32.55	198.9	6	33	-2	11	39	-11			8	57	PP
HERMANUS	38.62	69.5				13	28	4					
TALA POZO	41.26	303.3	7	51	2	14	16	13					
SCOTT BASE	42.48	183.9	8	3	4	14	23	2			9	51	PCP
GRAHAMSTOWN	43.06	76.1	8	1	-2								
KIMBERLEY	45.95	70.6	8	25	-2								
MIRNY	46.19	150.9	8	28	0						9	29	
WINDHOEK	47.75	58.2	8	41	0						8	54	

CAPE HALLETT		47.81	186.6	8	46	5	15	33	-5	10 58 PP
PIETERMZBURG		47.96	76.9	8	41	-1				
LCO. MARQUES		52.07	76.4	9	17	3	16	47	10	20 20 SS
LA PAZ		52.94	305.9	9	20A	0	16	26	-23	11 45 PP
BULAWAYO		55.08	68.7	9	34	-2				
LUANDA		58.62	46.8	10	OK	-1				10 38
HUANCAYO		59.97	300.7	10	12	1				
LWIRO		70.90	59.5	11	22A	1				12 4
MBOUR		74.17	8.9	11	41	1	21	7	-6	
ROXBURGH		74.38	191.0	11	38A	-3				26 37 SS
WELLINGTON	r	77.96	195.7	12	OA	-2	22	22	27	12 20
COBB RIVER		78.42	194.2	12	7	3				
TONGARIRO		79.89	196.7	12	11	-1				
PERTH		83.33	147.9							28 25 SS
ADELAIDE		84.84	167.3	12	36	-2	23	10	4	23 59
CANBERRA		85.23	175.7	12	40K	0				
TAMANRASSET		86.10	28.7	12	46	2	23	13	-5	15 57 PP
RIVERVIEW		86.78	177.4	12	43K	-4	23	24	-1	
BRISBANE		93.14	178.9	13	19A	2				13 48
OAXACA		95.33	294.7							19 42
MERIDA		95.60	302.5				24	5	1	20 5
VERA CRUZ		96.93	296.3				24	54	-1	27 10 PPS
GRANADA		98.26	17.7	14	13A	32	25	22	16	18 6 PP
TACUBAYA		98.52	293.8				24	20	0	17 56 PP
SETIF		98.97	25.1	13	45	1				17 47 PP
ALGIERS UNI.		99.04	23.1	13	44	0				17 50 PP
TOLEDO		100.84	16.9	14	21	29				
COLUMBIA		103.87	315.3							18 45 PP
MAZATLAN		105.15	289.8							20 35
KSARA		106.09	49.7							18 50 PP
PALISADES		107.90	323.7							34 22 SS
CHIHUAHUA		109.62	293.1							18 38
TRIESTE		109.88	28.3							34 38 SS
BOMBAY		110.44	87.5							28 43
ZAGREB		110.59	29.8							20 6 PP
BELGRADE		110.85	33.4	19	0	25				28 46
PORT MORESBY		110.89	172.5	18	57	22				
STRASBOURG		111.34	23.2	18	47	11				
ST. LOUIS 1		111.40	310.6	18	34	-2	25	15	-3	19 22 PP
STUTTGART		111.81	24.1							19 0 PP
BREBEUF		111.93	325.8							19 13 PP
OTTAWA		112.45	324.3	18	37	-1				
KEW		112.72	16.9							35 1' SS
BRATISLAVA		113.05	29.7	18	51	12				
CHEB		113.73	25.8							19 25 PP
PRUHONICE		114.12	27.2	18	42	1				
TUCSON		114.88	291.5	18	43K	0				19 42 PP
TUCSON TELE.		114.90	291.6	18	44K	1				19 43 PP
COLLMBERG		115.01	25.7							19 43 PP
KRAKOW		115.51	30.7							19 50
DURHAM		115.75	15.3	19	1	16	25	56	21	20 44
QUETTA		116.87	75.8	18	47	0				
PASADENA		119.95	287.0	18	53	0				22 29 SKP
RAPID CITY		121.20	304.7	18	54A	-1				22 31 PKS
SALT LAKE C.		122.30	296.3	19	0A	3				
FRESNO		122.84	287.6	18	59	1				
EUREKA		123.17	292.4	18	59A	0				20 51 PP
VINEYARD		123.59	286.3	19	3	3				
UPPSALA		123.93	24.7	18	58	-2				19 18
LICK		124.19	286.6	19	2K	1				
CHATRA		124.30	95.0	19	1	0				
BERKELEY		124.91	286.5	19	4K	2				
RENO		125.04	289.6	19	4	1				
MOSCOW		125.62	38.5	19	7	3				
BOZEMAN		125.82	300.5	19	5A	1				
HELSINKI		125.88	28.5	19	6	2				
NURMIJARVI		126.10	28.2	19	7	2				
BUTTE		126.76	299.7	19	6K	0				20 26 PP
PULKOVO		126.89	31.7	19	5	-1				
SHASTA		127.18	288.6	19	7	0				
LHASA		128.55	96.5							21 25 PP
MANILA		128.77	137.1	19	28	18				
HUNGRY HORSE		129.19	300.7	19	10A	0				22 30 PKS
SCORESBY SD.		129.92	1.7	19	12	0				22 35 PKS
BAGUIO CITY		130.33	135.8							22 26 PKS
KUNMING		130.46	111.0							21 33 PP
FRUNSE		130.64	72.4							22 36 SKP
KIRUNA		131.63	21.5	19	15	0				
SODANKYLA		132.46	24.6	19	6	-11				

HONG KONG	133.20	125.2	19	21	3				22	48 PP
CANTON	133.52	123.7	19	21	2				21	57 PP
APATITY	134.12	27.4	19	20	0					
CHENGTU	135.80	108.2	19	24	1				21	57 PP
LANCHOW	140.10	103.3	19	27	-4				23	7 PKS
WUHAN	140.57	119.9	19	31	-1					
SIAN	141.10	110.3	19	30	-3					
NORD	141.17	2.1	19	33	0				25	17 PPP
RESOLUTE	141.53	336.5	19	25	-8				23	10 PKS
NANKING	143.71	123.7	19	33	-4				22	47 PP
70-SE	143.86	127.5	19	34	-3				22	53 PP
KHEYS	146.13	17.8				26	45	-4	23	14 PP
PAOTOW	146.65	105.0	19	44	2					
PEKING	149.17	112.5	19	42	-4					
ULAN-BATOR	150.34	92.1	19	48	0					
IRKUTSK	151.72	82.9	19	48	-2					
ABUYAMA	152.32	145.5	19	58K	7					
COLLEGE	153.42	306.0	19	48	-4				21	52
MATUSIRO	154.62	148.8	19	57	3					
TUKUBASAN	154.78	152.4							19	50 PKP2
CHANGCHUN	156.35	119.3	19	53	-3					
VLADIVOSTOK	158.50	130.6	19	57	-2					
TIKSI	164.31	30.1	20	0	-5					
Y.-SAKHLINSK	165.52	146.9	20	7	1					
PETROPAVLOVK	172.97	202.3	20	8	-3					
MAGADAN	178.25	93.6	20	10	-2					

FEBRUARY 16 0.H 39.M 32.S EPICENTRE -1.36 -81.25 DEPTH= 0.KM

A= 0.15216 B=-0.98807 C=-0.02357 D=-0.9883 E=-0.1522
G=-0.0036 H= 0.0233 K=-0.9997 HT= 7.2

SE= 3.41

	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
BOGOTA	9.31	50.3	2	17	-1	3	54	-11				
BALBOA HTS.	10.39	9.3	2	34	1	4	30	-1				
HUANCAYO	12.13	151.3	3	1	4	5	14	0				
GALERAZAMBA	13.45	26.1	3	22	8	6	0	14				
SAN SALVADOR	16.95	332.4	3	56	-4							
CARACAS	18.49	50.1	4	14	-5	7	41	-2				
LA PAZ	19.83	140.1	4	36A	1	8	38	25	5	2 PP		
MERIDA	23.64	340.2	5	4K	-9	9	16	-9				
ST. VINCENT	24.52	53.3	5	25	3							
SAN JUAN	24.62	36.5	5	23	0							
VERA CRUZ	25.12	325.1	5	23	-5				6	8 PPP		
BARBADOS	25.85	55.5	5	34	0							
TACUBAYA	27.14	320.4	5	42K	-4	10	19	-5	6	29 PP		
TALA POZO	30.94	149.8	6	23	3	11	28	3	13	58 SSS		
COLUMBIA	35.17	0.3	6	56	-1							
BERMUDA	37.04	23.6	7	18	5	12	53	-6	8	28 PP		
CHAPEL HILL	37.14	3.0	7	14	0							
FAYETTEVILLE	39.16	343.3	7	30	-1							
MORGANTOWN	40.81	1.5	7	43	-1							
PENNSYLVANIA	42.07	3.8	7	55	0	14	11	-4				
PALISADES	42.70	8.2	8	0	0	14	20	-4	9	38 PP		
TUCSON TELE.	43.60	322.8	8	9	2				10	3 PP		
TUCSON	43.60	322.7	8	9	2	14	46	9	9	57 PP		
BOULDER	46.70	334.5	8	32	0							
OTTAWA	46.82	5.3	8	30	-3							
BREBEUF	47.15	7.3	8	34A	-1							
LARAMIE	47.88	335.3	8	41	0							
SHAWINIGAN	48.29	7.8	8	45	1							
BOULDER CITY	48.57	323.2	8	51	4							
SEVEN FALLS	49.14	9.4	8	49	-2							
RAPID CITY	49.31	339.2	8	54	2				11	28 PP		
PASADENA	49.49	319.1	8	55	1	16	7	6	19	51 SS		
EUREKA	51.61	325.8	9	12	2							
FRESNO	52.14	320.7	9	23	9							
BOZEMAN	53.74	334.4	10	4	38							
RENO	53.88	323.4	9	39	12							
BUTTE	54.68	333.6	9	33	0				11	43 PP		
HUNGRY HORSE	57.10	334.5	9	51	1							
MBOUR	65.50	73.6	10	46	-1	19	38	7				
RESOLUTE	70.38	356.3	11	50	-2	21	32	-5	25	58 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.

SERRA PILAR	77.87	47.5	12	OK	-1							
THULE	78.03	3.1	12	1	-1							
BYRD STATION	80.79	186.3	12	0	-16							
TOLEDO	81.06	49.4	12	18	0					13	32	
SCORESBY SD.	81.41	17.0	12	22	2							
COLLEGE	81.47	336.7	12	20	0	22	29	-2		15	35	PP
RATHFARNHAM	82.14	35.8	12	40	16							
FOLINIERE	84.92	41.0	12	37	-1							
DURHAM	85.14	34.9	12	37K	-2					15	52	PP
KEW	85.40	38.3	12	39A	-1	23	3	-8				
ALGIERS UNI.	86.23	53.2	12	40	-4	23	13	-6		16	3	PP
PARIS	86.88	41.2	12	48	1	23	30	5				
CLERMONT-FD.	87.03	44.2	12	47	-1							
GARCHY	87.12	42.7	12	48	-1					16	4	PP
TAMANRASSET	87.54	67.3	12	51	0	23	23	-8		16	15	PP
SOUTH POLE	88.65	180.0	13	0	4							
NEUCHATEL	89.75	43.2	13	2	1							
MONACO	89.97	46.4	13	4	2							
BENSBERG	90.04	39.2	13	3	0					13	8	
BASLE	90.20	42.7	13	9	6							
STRASBOURG	90.36	41.6	13	3	-1							
TUBINGEN	91.22	41.7	13	7	-1							
STUTTGART	91.31	41.4	13	6	-2							
JENA	92.83	39.3	13	15	0							
HALLE	93.05	38.7	13	13	-3					16	50	PP
PLAUEN	93.21	39.7	12	44	-33							
ROME	93.68	48.3				23	8	-79		24	38	
COLLMBERG	93.72	38.9	13	21	2							
PRUHONICE	94.77	40.1	13	26	2							
MESSINA	96.18	51.9				24	29	-19		31	19	
RACIBORZ	97.11	39.8	13	16	-19							
TARANTO	97.35	49.5				23	51	-23				
HERMANUS	97.87	124.9								24	28	SKKS
KASTAMONU	107.31	47.0	19	12	777							
LWIRO	109.97	92.9								15	4	
KSARA	113.11	53.7	18	39	0					19	29	PP
MATUSIRO	129.45	318.5	19	12	1					38	22	
PORT MORESBY	130.63	256.5								28	30	
QUETTA	138.37	43.4	19	30	3	26	40	4		23	6	PKS
WARSAK DAM	138.75	35.2	19	26	-2							
NANKING	144.09	330.2	19	38	1							
DEHRA DUN	145.13	32.3	19	34	-5							
LANCHOW	145.14	352.8	19	41A	2					22	57	PP
SIAN	145.93	344.9	19	43	3					23	2	PP
POONA	150.20	53.5	19	51	4							
CHENGTU	150.44	350.8	19	52	4					23	28	PP
LHASA	150.93	13.9	19	55	7							
CHATRA	152.34	22.7	19	55	5							
CANTON	154.21	327.9	19	59	6							
HONG KONG	154.35	325.3	19	38	-15					23	23	PP
SHILLONG	155.03	14.9	19	57A	3							
KUNMING	156.15	351.2	20	1	5					24	2	PP
CHITTAGONG	158.06	17.4	19	56	-2							

FEBRUARY 16 7.H 54.M 33.S EPICENTRE -24.93 179.91 DEPTH= 505.KM

DEPTH OF FOCUS= 0.075R

A=-0.90792 B= 0.00146 C=-0.41914 D= 0.0016 E= 1.0000
G= 0.4191 H=-0.0007 K=-0.9079 HT= 3.4

SE= 2.07

	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	
SUVA	6.88	348.2	1	43	-3	3	11	1					
NOUMEA	12.61	279.2	2	47	1	5	6	7					
APIA	13.56	36.8	2	32	-23	5	4	-13					
TUAI	14.03	188.9				5	22	-4			14	2	SCS
TONGARIRO	14.70	193.5	3	7	0	5	49	11					
WELLINGTON	16.86	193.5	3	29	0	6	16	-1			14	13	SCS
COBB RIVER	17.18	198.6	3	31	-1	6	30	7			6	21	
KAIMATA	18.89	199.7				6	58	5					
GEBBIES PASS	19.65	195.8	3	53	-2	7	11	6			5	47	
BRISBANE	24.23	258.1	4	38K	0						10	54	
RIVERVIEW	26.51	243.8	4	54A	-4								

CANBERRA	28.57	241.5	6 15A	59				
CHARTERS TS.	31.43	272.1	5 50K	10				
MELBOURNE	32.29	238.1	5 48K	0				
PORT MORESBY	34.77	290.6	6 7K	-1	10 51	-13		7 58
ADELAIDE	36.84	244.5	6 25K	-1				
GUAM	51.31	314.1	8 16	-2				10 22 PP
BYRD STATION	60.62	170.0	9 23	0				
SOUTH POLE	65.22	180.0	9 52	4			11 36	
MANILA	69.58	297.8	10 14	-5				
MATUSIRO	72.70	325.9	10 36K	-1				
ABUYAMA	72.82	323.0	10 39K	1				
HONG KONG	79.20	300.7	11 13	0				
NANKING	81.30	311.2	11 24	0				
WUHAN	83.40	307.9	11 34K	0				
SHASTA	84.46	40.2	11 40	0				
MINERAL	84.70	40.9	11 41	0				
CHANGCHUN	84.75	323.7	11 41K	0				
TUCSON	87.14	52.5	11 53	1			13 46	
TUCSON TELE.	87.27	52.5	11 54	1			13 47	
KUNMING	89.68	297.8	12 6K	2				
CHENGTU	91.26	303.3	12 13K	1				
COLLEGE	92.93	13.2	12 17	-2			14 10	
HUNGRY HORSE	93.81	37.7	12 23	0				
LANCHOW	93.95	308.0	12 24	0				
RESOLUTE	112.57	16.7	17 36	-3				
OTTAWA	117.14	50.1						20 34 SKP
THULE	119.14	14.5	17 48	-3				
SEVEN FALLS	120.71	48.6						20 41 SKP
QUETTA	121.08	291.4	17 55	0				
SODANKYLA	134.45	345.9	18 24	4				
KIRUNA	135.28	349.1						21 5 SKP
NURMIJARVI	140.55	341.0	18 25	-7				
LWIRO	141.07	230.2	18 28	-5				19 25
UPPSALA	142.98	345.2	18 31K	-5				18 49
GOTEBORG	146.13	348.4	18 35	-6				
KSARA	147.56	294.3	18 46	3				
KASTAMONU	149.61	310.3	18 46	0				19 15
RACIBORZ	151.16	335.2	18 56	8				
PRUHONICE	152.52	339.3	18 59	9				
JENA	152.53	343.9	18 50	0				
STUTTGART	155.11	345.3	18 54	0				
GARCHY	157.55	354.4	18 58	1				19 32 PKP2
TAMANRASSET	174.44	248.6	19 11	1				20 46 PKP2

FEBRUARY 16 17.H 54.M 15.S EPICENTRE 13.11 -87.34 DEPTH= 0.KM

A= 0.04529 B=-0.97321 C= 0.22540 D=-0.9989 E=-0.0465
G= 0.0105 H=-0.2252 K=-0.9743 HT= 6.1

SE= 3.90

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SAN SALVADOR	1.94	288.7	0 31	-4	0 58	-3		
MERIDA	8.09	344.7			3 12	-23		2 36
BALBOA HTS.	8.68	117.6	3 57	107				6 19
OAXACA	9.91	294.3			4 53	33		4 12
VERA CRUZ	10.39	306.8			4 36	4		5 24
TACUBAYA	12.99	300.3	3 19	10	6 12	36		3 31 PP
BOGOTA	15.58	121.6	3 44	1	6 46	9		
CARACAS	20.14	95.2	4 32	-7	8 21	1		
SAN JUAN	21.07	72.9	4 56	7				
COLUMBIA	21.57	14.4	4 55	1				
CHAPEL HILL	23.91	16.8	5 19	2				5 33
MORGANTOWN	27.21	12.5	5 54	6				
HUANCAYO	27.69	154.0	5 55	3				
TUCSON TELE.	28.72	315.6	6 1	0				8 3
TUCSON	28.74	315.4	6 4	2				
OTTAWA	33.66	14.8	6 42	-3				
RAPID CITY	33.73	339.2	6 44	-2				
BREBEUF	34.32	17.2	6 47K	-4				
SHAWINIGAN	35.52	17.4	7 4	3				
EUREKA	36.43	321.4	7 9	0				
SEVEN FALLS	36.62	19.0	7 12	2				
BOZEMAN	38.17	332.9	7 58	35				
HUNGRY HORSE	41.53	333.1	7 46	-5				
RESOLUTE	61.70	357.7	10 17A	-6				

THULE	64.11	4.9	10 34	-5
COLLEGE	65.87	336.0	10 44	-6
NORD	74.31	8.3	12 4	22
KEW	78.02	39.7	12 1A	-1
GARCHY	80.77	43.6	12 17	0
CLERMONT-FD.	81.05	45.1	12 18	-1
STUTTGART	84.51	41.3	12 37	0
UPPSALA	86.13	29.3	12 45	0

FEBRUARY 17 12.H 3.M 4.S EPICENTRE 51.10-171.23 DEPTH= 0.KM

A=-0.62317 B=-0.09618 C= 0.77615 D=-0.1525 E= 0.9883
G=-0.7671 H=-0.1184 K=-0.6305 HT= -5.8

SE= 2.20

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	18.39	32.5	4 14	-4	7 21	-20		
PETROPAVLOVK	18.55	288.1	4 22	2	7 48	3		
SITKA	21.70	60.1	4 59	4	9 13	22		
MAGADAN	22.91	306.4	5 5	-2	9 15	2		
UGLEGORSK	29.65	284.6	6 9	0	11 4	-1		
Y.-SAKHLINSK	30.10	280.4	6 14	1	11 14	2		
HORSESHOE B.	30.29	74.2	6 14K	-1				9 15
VICTORIA	30.53	75.8	6 19K	2				
HONOLULU	31.47	156.1	6 24	-2				
YAKUTSK	33.14	312.3	6 37	-3				
TIKSI	33.24	330.0	6 37	-4	11 58	-3		
SHASTA	34.94	87.9	6 57K	1				
MINERAL	35.64	87.8	7 2K	0				
HUNGRY HORSE	36.28	71.3	7 7	0				9 30 PCP
BERKELEY	36.67	91.7	7 11K	1				
RENO	37.23	87.6	7 14K	-1				
LICK	37.39	91.9	7 17K	1				
TUKUBASAN	37.50	265.9	7 17K	0	13 6	-1		8 39 PP
VINEYARD	37.91	92.5	7 23	2				
RESOLUTE	38.02	24.8	7 20K	-2	13 16	1		9 14 PPP
BUTTE	38.26	74.0	7 24	0				9 31 PCP
MATUSIRO	38.48	267.9	7 25K	-1	13 24	2		9 38
VLADIVOSTOK	38.65	281.0	7 25	-2	13 22	-2		
FRESNO	38.90	91.2	7 30K	1				
BOZEMAN	39.35	73.6	7 34	1				7 54
EUREKA	39.68	84.9	7 36	0				
ABUYAMA	41.21	268.0	7 47	-1				
SALT LAKE C.	41.51	80.5	7 51	0				10 32
PASADENA	41.58	93.0	7 52	1	14 11	3		9 48 PCP
CHANGCHUN	42.31	285.9	7 56	-1	14 13	-6		
BOULDER CITY	42.52	88.3	8 0	1				
THULE	43.88	19.4	8 7	-3	14 35	-7		
RAPID CITY	44.92	71.2	8 18	0				10 7 PP
BOULDER	45.99	77.1	8 28	1				
KHEYS	46.80	350.6	8 23	-10				
NORD	46.84	5.0	8 31	-3				
TUCSON	47.46	89.2	8 39	1	16 23	50		10 30 PP
TUCSON TELE.	47.47	89.1	8 39	0	16 58	85		10 32 PP
IRKUTSK	49.48	306.4	8 54	0	15 58	-3		
PEKING	50.06	287.1	8 57	-2	16 3	-7		
ULAN-BATOR	50.63	300.5	9 2	-1	16 13	-4		
GUAM	51.63	239.6	9 7	-4				
ZO-SE	52.76	275.1	9 18	-1	16 47	0		
PAOTOW	53.37	291.4	9 23	0				
NANKING	53.61	277.7	9 26	1	17 1	3		
FAYETTEVILLE	55.27	73.8	9 35K	-2				
SCORESBY SD.	56.72	11.9	9 47	-1				
WUHAN	57.29	279.3	9 51	-1	17 47	0		
SIAN	58.21	286.4	9 58K	0	18 1	2		
WUWEI	59.42	293.6	10 8	1				
OTTAWA	59.46	54.5	10 5	-2				
LANCHOW	60.00	291.3	10 10K	-1	18 22	-1		
SHAWINIGAN	60.15	51.9	10 9	-3				
APATITY	60.23	349.4	10 12	0				
BREBEUF	60.46	53.3	10 11K	-3	18 29	0		
SEVEN FALLS	60.71	50.4	10 13	-3				
KIRUNA	61.07	355.0	10 16K	-2				
SODANKYLA	61.09	352.2	10 15	-3				

MORGANTOWN	61.17	61.8	10	16K	-3					
PENNSYLVANIA	61.50	59.6	10	23	2	18	41	-1	12	38 PP
WASHINGTON	63.27	60.6	10	31	-2				10	55
PABAUL	63.36	221.7	11	31	58					
CANTON	63.39	274.3	10	33	-1	19	7	1		
HONG KONG	63.39	273.0	10	32	-2	19	2	-4	23	24 SS
PALISADES	63.48	57.0	10	32	-2	19	6	-1	11	10 PCP
FORDHAM	63.61	57.1	11	22	47	20	0	52		
BAGUIO CITY	63.71	263.6	10	38	2	19	12	2		
WESTON	63.84	54.4	10	35K	-2					
TACUBAYA	63.90	91.1	10	37	0					
SVERDLOVSK	64.26	331.3	10	39	0					
COLUMBIA	64.52	67.0	10	38	-3					
MANILA	64.86	262.0	10	43	0	18	13	-71		
SKALSTUGAN	65.63	358.3	10	46	-2					
HALIFAX	65.99	48.2	10	53	3	19	44	6		
NURMIJARVI	68.01	351.6	11	2	-1					
PULKOVO	68.12	348.4	10	59	-5					
HELSINKI	68.32	351.4	11	6	1					
KUNMING	68.54	283.5	11	5	-2	20	5	-3		
UPPSALA	69.18	355.2	11	8	-2				39	12 PKPPKP
SUVA	69.54	190.5	11	33	20					
PORT MORESBY	70.17	224.2	11	16K	-1	20	28	0	20	54 PS
MOSCOW	70.88	343.2	11	23	2					
LHASA	72.06	294.9	11	30	2	20	55	5		
NAMANGAN	73.17	315.2	11	34	0	21	2	0		
COPENHAGEN	73.55	357.8	11	37K	0					
DURHAM	74.15	6.2	11	39A	-1	21	10	-3	14	25 PP
SHILLONG	74.65	291.6	11	34K	-9	21	6	-13		
BERMUDA	74.83	57.2	11	44	0	21	18	-3	26	6 SS
RATHFARNHAM	75.21	9.3	11	47K	1	22	18	53	13	16
CHITTAGONG	77.12	289.5	12	0	3	21	48	2	12	12 PCP
DE BILT	77.13	2.3	11	56	-1	21	50	4	22	26 PS
MUNSTER	77.30	0.7	12	2	4					
KEW	77.52	5.8	12	0	1	21	47	-3		
HALLE	77.74	358.0	11	57	-4	21	50	-3	12	10 PCP
COLLMBERG	77.92	357.3	12	1	0					
BENSBERG	78.31	1.0	12	4	0	22	0	1		
JENA	78.32	358.2	12	4	0	21	56	-3	15	0 PP
UCCLE	78.41	2.9	12	19	15	22	20	20		
DEHRA DUN	78.64	304.4	12	8	3	21	57	-5		
PLAUEN	78.74	357.8	12	4	-2				15	38
KRAKOW	78.78	352.7	12	6	0				12	14 PCP
SONNEBERG	78.88	358.4	12	7	0				13	23
RACIBORZ	78.88	353.8	12	7	0	22	7	2	12	17 PCP
WARSAK DAM	78.91	311.2	12	5K	-2					
PRAGUE	79.10	356.3	12	15	7	22	12	5		
PRUHONICE	79.18	356.2	12	9A	1	22	7	-1	22	24 SCS
LAHORE	79.55	307.8	12	9K	-1	22	10	-2	12	18 PCP
SKALNATE PL.	79.62	352.4	12	17	6					
CHARTERS TS.	80.03	220.2	12	12K	-1					
FOLINIERE	80.20	6.2	12	14	0					
PARIS	80.33	4.2	12	17	2	22	26	6		
STUTTGART	80.51	359.7	12	16	0	22	18	-4	12	26 PCP
STRASBOURG	80.70	0.7	12	18A	1	22	20	-4	12	25 PCP
KISHINEV	80.75	346.2	12	18	1	22	21	-3		
TUBINGEN	80.75	359.8	12	17	0					
IASI	80.75	347.1	12	19	2	22	24	0		
VIENNA-H.	80.82	354.9	12	19A	2					
BRATISLAVA	80.85	354.4	12	20A	3					
EBINGEN	81.10	359.9	12	19	0					
RAVENSBURG	81.50	359.4	12	23	2					
BASLE	81.75	0.8	12	22A	0					
SIMFEROPOL	81.85	342.1	12	25	2	22	38	2		
GARCHY	81.88	3.9	12	23	0	22	37	1		
NEUCHATEL	82.27	1.3	12	25	0	22	44	4		
TIFLIS	82.37	333.6	12	25	0	22	42	1		
CHUR	82.43	359.5	12	26	0					
TOLMEZZO	82.81	357.0	12	33	5	22	43	-3	13	57
CAMPULUNG	82.99	348.5	12	33	5	23	1	14		
ZAGREB	83.26	354.9	12	32A	2	22	54	4	22	51 SKS
CLERMONT-FD.	83.39	4.0	12	31	0					
TRIESTE	83.54	356.5	12	33	2	22	53	0	28	30 SS
BUCHAREST	83.68	347.6	12	34	2				13	18
BELGRADE	83.93	351.7	12	30K	-3	23	1	4		
GORIS	83.98	331.7	12	32	-1					
PAVIA	84.10	359.7	12	36	2	23	4	5		
QUETTA	84.24	312.3	12	35K	0	23	0	0	15	50 PP

BRISBANE	84.35	211.4	12	36	1			21	51
BOLOGNA	84.76	358.2	12	40	3	23	9 4		
PORT BLAIR	84.79	282.0	12	35	-3	22	55 -10	16	5 PP
SAN JUAN	85.00	67.0	12	37	-2				
PRATO	85.38	358.3	12	43	2	23	17 6		
MONACO	85.55	1.0	12	41	0				
KASTAMONU	85.93	343.6	12	39	-4			16	0 PP
ISTANBUL UN.	86.56	344.8	12	49K	3			12	56 PCP
SERRA PILAR	86.91	13.1	12	47K	-1				
MEDAN	87.30	272.3	12	51A	1			16	13 PP
ROME	87.33	357.2	13	54	64	22	17 -73		
COIMBRA	87.84	13.1	12	52	-1				
KARACHI	87.85	309.9	12	58	5	23	47 12	16	32 PP
TORTOSA	88.18	6.3	13	2	8				
TOLEDO	88.71	9.8	12	56	-1	23	30 -13	16	34 PP
HYDERABAD	88.74	296.4				23	20 -23		
LISBON	89.19	13.9	12	56K	-3				
LEMBANG	89.74	258.9	13	1	-1			16	48 PP
ATHENS	90.34	348.2	13	2	-2				
POONA	90.40	300.6	13	4	-1	23	57 -1	16	40 PP
ALICANTE	90.56	7.3	13	3	-2	23	54 -6	16	38 PP
BOMBAY	90.65	301.6	13	7	1	24	2 2	25	13 PS
RIVERVIEW	90.82	210.5	13	7K	0	24	13 11		
GRANADA	91.43	9.9	13	14K	5	24	17 10	17	54 PPP
MALAGA	91.79	10.6	13	13A	2				
ALMERIA	91.87	9.0	13	14A	3	23	57 -14	16	43 PP
KSARA	92.14	337.7	13	45	32	24	22 8	16	54 PP
ALGIERS UNI.	92.36	4.6	13	15	1	24	20 4	23	48 SKS
CANBERRA	92.89	211.6	13	15	-1				
ROXBURGH	97.73	193.7				24	16 1	31	59 SS
TAMANRASSET	106.39	3.1	14	10	777	26	17 0	18	30 PP
LA PAZ	110.86	90.6						19	22 PP
MBOUR	111.03	26.8				25	31 14	19	20 PP
CAPE HALLETT	123.78	186.7						21	12 PP
LWIRO	128.48	334.1	19	10	1				
SCOTT BASE	129.40	185.9	19	11	0				
BYRD STATION	134.11	169.0	19	16	-4				
MIRNY	137.45	216.1	19	26	0			23	4
SOUTH POLE	140.91	180.0	19	24	-8	26	29 -12	23	11 PP
BULAWAYO	145.38	325.9	19	41	1				
WINDHOEK	150.79	344.1	19	50	1				
KIMBERLEY	154.63	325.6	19	57	3				

FEBRUARY 17 12.H 49.M 22.S EPICENTRE 31.34 141.05 DEPTH= 76.KM

DEPTH OF FOCUS= 0.007R

A=-0.66544 B= 0.53783 C= 0.51762 D= 0.6286 E= 0.7777
G=-0.4026 H= 0.3254 K=-0.8556 HT= 1.4

SE= 2.28

	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	1.08	217.1	0	20	-1	0	33	-3				
HATIDYOZIMA	2.03	329.7	0	25	-9	0	48	-10				
OSIMA	3.69	338.1	0	56	-1	1	35	-4				
MERA	3.71	344.3	0	57	0	1	35	-5				
OMAESAKI	4.03	324.5	1	4	3	1	48	0				
AJIRO	4.04	336.6	1	2	1	1	45	-3				
MISIMA	4.16	335.5	1	1	-2	1	49	-2				
YOKOHAMA	4.24	344.3	1	3	-1	1	50	-3				
SHIZUOKA	4.25	329.1	1	5	1	1	54	1				
TYOSI	4.37	357.8	1	5	-1							
TOKYO C.M.O.	4.46	346.2	1	6	-1	1	54	-4				
HUNATU	4.56	335.9	1	10	1	1	59	-2				
KOHU	4.75	334.8	1	15	4	2	8	2				
TITIBU	4.91	340.9	1	14	1							
OWASE	4.91	304.9	1	12	-1							
KAKIOKA	4.93	351.7	1	13	-1	2	8	-2				
TUKUBASAN	4.93	351.0	1	12A	-2	2	7	-3				
SIOMISAKI	4.94	296.6	1	13	-1	2	11	1				
KUMAGAYA	4.99	344.2	1	14	-1	2	9	-3				
MITO	5.05	354.6	1	15	0							
TU	5.09	312.8	1	16	0							
NAGOYA	5.12	319.2	1	17	1	2	12	-3				
KAMEYAMA	5.20	313.5	1	19	2						2	18

UTUNOMIYA	5.28	349.6	1	19	0	2	11	-8			
MAEBASI	5.31	342.4	1	19K	0	2	18	-1			1 40
OIWAKE	5.39	337.9	1	26	6	2	25	3			
GIHU	5.40	319.6	1	21	1	2	19	-3			
NARA	5.51	308.6	1	22	0	2	29	5			
MATUMOTO	5.53	333.2	1	26	4	2	30	5			
ONAHAMA	5.59	358.7	1	20	-3	2	18	-9			
IBUKISAN	5.61	317.1	1	25	2	2	29	2			
HIKONE	5.61	315.5	1	24	1						
OSAKA	5.69	306.9	1	24K	0	2	26	-3			2 48
MATUSIRO	5.70	336.4	1	23A	-1	2	18	-11			2 46
WAKAYAMA	5.73	301.7	1	25	0						
TAKAYAMA	5.75	327.6	1	24	-1						
ABUYAMA	5.79	308.8	1	26A	0						
SHIRAKAWA	5.80	353.4	1	25	-1	2	25	-7			
NAGANO	5.82	336.7	1	31	5	2	38	6			
KOBE	5.95	305.5	1	29	1						
SUMOTO	6.00	301.6	1	32	4						3 37
TOKUSIMA	6.10	298.2	1	29K	-1						
HUKUI	6.16	320.9	1	43	12						
MAIZURU	6.22	312.9	1	32	0	2	51	9			
TOYAMA	6.23	330.1	1	47	15	2	47	5			
HUKUSIMA	6.41	355.9	1	32	-2	2	39	-8			
HIMEJI	6.42	301.1	1	35	1						
TAKAMATU	6.60	298.6	1	36	-1						
TOYOOKA	6.68	310.4	1	39	1						
OKAYAMA	6.85	300.9	1	40	0						
SENDAI	6.91	359.0	1	39	-2	2	50	-9			2 12
YAMAGATA	6.91	355.4	1	39	-2	2	55	-4			
SIMIDU	7.01	283.9	1	42	-1						
AIKAWA	7.05	341.6	1	44	1						
ISINOMAKI	7.07	1.7	1	40	-3	2	59	-4			
MATUYAMA	7.43	291.7	1	48	0	3	1	-11			
SAKATA	7.60	352.8	1	59	8	3	17	1			
MIZUSAWA	7.77	0.4	1	52	-1	3	11	-9			
MIYAZAKI	8.23	276.5	2	13	14						
MIYAKO	8.32	4.9				3	23	-11			
MORIOKA	8.34	0.6	1	57	-4	3	24	-10			
AKITA	8.39	355.0	2	29	28						
KUMAMOTO	8.91	282.2	2	9	1						
YAKUSIMA	9.11	267.1	2	12	1						
HATINOHE	9.17	2.3	2	10	-2	3	44	-11			
SAGA	9.30	284.6	2	14	0						
AOMORI	9.46	358.7				3	54	-8			
URAKAWA	10.87	6.8	2	35	0	4	25	-11			
HIROO	11.06	8.8				4	27	-14			
TOMAKOMAI	11.16	2.0				4	43	0			
OBIHIRO	11.68	7.8	2	49	3	4	46	-9			4 32
SAPPORO	11.71	1.1				4	47	-9			
KUSIRO	11.92	12.0	2	45	-4	4	48	-13			
NEMURO	12.49	15.4	2	51	-6	5	1	-14			
CHANGCHUN	17.60	319.5	4	0	-2						
GUAM	18.11	168.4	4	9	1	7	33	9			4 30
NANKING	18.95	278.0	4	16	-2						
PEKING	21.94	300.1	4	46	-3						
BAGUIO CITY	23.84	236.2	5	6	-1						
MANILA	24.83	232.3	5	13	-4						
PORT MORESBY	40.93	170.8	7	37	0						8 8
SHILLONG	43.34	275.2	7	48A	-9						
CHARTERS TS.	51.30	173.7	8	58K	-1						10 35
COLLEGE	54.11	29.9	9	20	0						
WARSAK DAM	57.52	292.7	9	42	-2						
BRISBANE	59.60	167.7	9	57	-2						13 52
QUETTA	62.49	290.1	10	16	-2	18	35	-3			
ADELAIDE	65.96	182.1	10	40	-1						
CANBERRA	66.73	172.9	10	46A	0						
APATITY	67.76	336.7	10	50A	-2						
RESOLUTE	68.18	13.7	10	54A	-1						
SODANKYLA	70.10	338.0	11	5	-1						
THULE	70.93	7.0	11	10	-1						11 56
KIRUNA	71.73	339.9	11	16	0	11	37				
SHASTA	74.81	51.5	11	36K	2						
NURMIJARVI	74.83	332.7	11	36	2						
HELSINKI	74.92	332.3	11	29	-6						
MINERAL	75.51	51.5	11	40K	2						
HUNGRY HORSE	76.19	41.6	11	43	1						12 4
BERKELEY	76.26	54.0	11	44K	2						
LICK	76.94	54.2	11	48K	2						

SKALSTUGAN	77.10	339.0	11 46	-1			12 6	
RENO	77.11	51.6	11 48K	1				
SCORESBY SD.	77.73	354.2	11 53	2				12 12 PCP
UPPSALA	77.94	334.5	11 50A	-2			12 10	
BUTTE	78.28	43.1	11 55	1				
FRESNO	78.50	54.0	11 57K	2				
EUREKA	79.68	50.0	12 3	2				12 23
PASADENA	80.99	55.6	12 9	1			12 24	
KRAKOW	83.65	326.3	12 22	0				
KSARA	84.24	306.1	12 28	3				
RAPID CITY	84.78	40.7	12 29	1				
LARAMIE	85.14	44.0	12 30	1				
COLLMBERG	95.88	330.3	12 31	-2				
BOULDER	86.09	44.8	12 37	3				
PRUHONICE	86.18	328.7	12 36	2			12 55	
TUCSON	87.17	53.7	12 42	3				13 13
TUCSON TELE.	87.19	53.6	12 42	3				
STRASBOURG	90.15	331.1	12 45	-8				
GARCHY	93.08	332.8	13 7	0				
FOLINIERE	93.16	335.7	13 37	30				
CAPE HALLETT	105.33	171.1			23 35	-3		27 45 PPS
SOUTH POLE	121.17	180.0	18 45	0				
BYRD STATION	122.28	168.3	18 47	0				
LA PAZ	149.62	67.7	19 46	10				

FEBRUARY 18 1.H 57.M 22.S EPICENTRE -23.93-179.42 DEPTH= 450.KM

DEPTH OF FOCUS= 0.066R

A=-0.91503 B=-0.00919 C=-0.40328 D=-0.0100 E= 0.9999
G= 0.4033 H= 0.0041 K=-0.9151 HT= 3.7

SE= 1.44

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SUVA	6.09	340.4	1 38	2	2 58	6		2 13
APIA	12.40	37.0	2 42	-3	4 47	-10		
ONERAHI	12.97	203.1	2 53	2	5 16	8		
TUAI	15.11	190.3	3 12	-1	5 49	-1		
TONGARIRO	15.82	194.5	3 20	-1	6 9	6		
WELLINGTON	17.97	194.3	3 42	0	6 41	-1		
COBB RIVER	18.32	199.2	3 45	-1	6 47	-1		
KAIMATA	20.04	200.1	4 2	0	7 12	-6		
GEBBIES PASS	20.77	196.4	4 8	-1	7 32	2		
BRISBANE	25.05	256.0	4 52A	4				6 31
CANBERRA	29.58	240.2	5 28	0				
CHARTERS TS.	32.01	270.2	5 48K	-1				10 26
MELBOURNE	33.34	237.0	6 0K	0				
PORT MORESBY	35.01	288.7	6 13	-1	11 1	-13		
ADELAIDE	37.83	243.4	6 37	-1	11 51	-6		
GUAM	51.06	312.9	8 20	-1				
SCOTT BASE	54.38	183.6	8 47	2				
BYRD STATION	61.50	170.1	9 33	0			11 14	
SOUTH POLE	66.22	180.0	10 3	-1			11 47	
MANILA	69.66	297.1	10 22	-3				
LEMBANG	71.70	270.6	10 36K	-1				
MATUSIRO	72.22	325.3	10 38K	-2				
HONG KONG	79.22	300.2	11 19	1				
NANKING	81.11	310.8	11 28K	0				
WUHAN	83.27	307.5	11 40K	1				
CHANGCHUN	84.32	323.3	11 44K	0				
TUCSON	86.05	52.3	11 55	2			13 43	
TUCSON TELE.	86.18	52.2	11 56	3			13 39	
EUREKA	86.50	43.9	11 55	0			13 37	
SIAN	89.28	308.2	12 9K	1				
KUNMING	89.76	297.5	12 11K	1				
COLLEGE	91.83	12.9	12 19	-1			14 2	
HUNGRY HORSE	92.65	37.4					14 46	
LANCHOW	93.82	307.8	12 29K	0				
RESOLUTE	111.44	16.5	17 40	-2				
OTTAWA	116.04	49.6	17 50	-1				
QUETTA	121.28	291.8	18 2	1				
APATITY	131.88	343.7						21 3
SODANKYLA	133.63	346.4	18 25	1				
NURMIJARVI	139.80	341.8	18 37	1				

UPPSALA	142.16	346.0	18 34	-7			21 31 SKP
LWIRO	142.18	230.4	18 39A	-2			
GOTEBORG	145.27	349.3	18 46	0			
KSARA	147.69	295.8	18 56	7			
KASTAMONU	149.41	311.9	18 52	0	20 47		
KRAKOW	149.87	334.8	18 58	6			
COLLMBERG	151.04	343.8	18 59	5	20 54		
HALLE	151.11	345.2	18 57	3	20 50		
JENA	151.73	345.2	18 56	1	20 53		
PRUHONICE	151.80	340.7	19 3K	8	20 59		
STUTTGART	154.29	346.8	18 59	0			
GARCHY	156.61	355.7	19 1	-1			19 34 PKP2
TAMANRASSET	175.32	256.9	19 17	1			24 50 PP

FEBRUARY 18 12.H 5.M 33.S EPICENTRE 42.17 142.95 DEPTH= 78.KM

DEPTH OF FOCUS= 0.007R

A=-0.59330 B= 0.44786 C= 0.66889 D= 0.6025 E= 0.7981
G=-0.5339 H= 0.4030 K=-0.7434 HT= -2.5

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
URAKAWA	0.13	259.4	0 9	-3	0 17	-4		
HIROO	0.29	68.7	0 9K	-5	0 15	-9		
OBIHIRO	0.77	13.7	0 16	-2				
TOMAKOMAI	1.07	289.2	0 23	2	0 39	3		
KUSIRO	1.34	52.5	0 21	-3	0 38	-4		
MURORAN	1.48	276.7	0 26	0	0 45	0		
SAPPORO	1.48	307.7	0 27	1	0 46	1		
ASAHIGAWA	1.66	345.3	0 30	2	0 49	0		
HAKODATE	1.71	257.4	0 28	-1	0 49	-1		2 24
MORI	1.77	268.4	0 31A	1	0 53	1		
HATINOHE	1.96	213.6	0 31	-1	0 54	-2		
ABASHIRI	2.09	27.3	0 35	1	1 1	2		
SUTTSU	2.11	288.2	0 35	1	1 1	1		
AOMORI	2.12	231.1	0 36	2	1 1	1		
NEMURO	2.25	58.3	0 35	-1	0 58	-5		
MIYAKO	2.63	196.8	0 39	-2	1 8	-4		
HORIOKA	2.82	209.2	0 43	-1	1 12	-5		
AKITA	3.27	222.3	0 52	2	1 27	-1		
MIZUSAWA	3.34	205.1	0 50	-1	1 36	6		
ISINOMAKI	3.94	199.0	0 57	-3	1 44	-1		
SAKATA	4.04	217.1	1 2	1	1 56	8		
SENDAI	4.20	202.6	1 2	-1	1 57	5		
YAMAGATA	4.40	207.8	1 4	-2				
Y.-SAKHLINSK	4.78	358.1	1 11	0	2 6	0		
HUKUSIMA	4.81	204.2	1 10	-2	2 5	-2		1 38
NIIGATA	5.20	216.5	1 35	18				
ONAHAMA	5.45	197.6	1 49	29				2 41
SHIRAKAWA	5.47	203.6	1 20	-1				2 38
AIKAWA	5.50	222.5	1 22	1				
MITO	6.10	199.2	1 26	-3				
UTUNOMIYA	6.10	204.0	1 27	-2	2 32	-7		
TAKADA	6.23	217.1	1 41	10				
KAKIOKA	6.31	200.8	1 30	-2	2 38	-6		
TUKUBASAN	6.34	201.4	1 29A	-4	2 37	-8		
MAEBASI	6.50	208.8	1 41	6	3 0	12		3 22
NAGANO	6.61	215.3	1 44	8	3 12	21		
KUMAGAYA	6.62	205.9	1 37	0	3 2	11		
WAZIMA	6.68	226.2	1 42	5				
MATUSIRO	6.71	214.7	1 36A	-2	2 36	-17		3 43
OIWAKE	6.76	211.8	1 51	12				
UGLEGORSK	6.93	355.2	1 41	0				
TOKYO C.M.O.	6.95	202.1	1 38	-3	2 54	-5		
MATUMOTO	7.07	214.8	1 48	5				
YOKOHAMA	7.21	202.0	1 52	7				3 2
HUNATU	7.42	207.4						2 4
MISIMA	7.71	205.3	1 48	-4				
VLADIVOSTOK	8.20	280.3	1 47	-11				
NAGOYA	8.41	215.7						2 25
ABUYAMA	9.30	220.8	2 14A	1				
CHANGCHUN	13.02	283.3	3 4	1				
MAGADAN	18.07	13.0	4 6	-1				
PEKING	20.27	272.9	4 29	-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.

YAKUTSK	21.39	342.8	4 36	-7	
LHASA	43.25	270.5	8 0	5	
COLLEGE	44.16	35.0	8 1	-2	
SHILLONG	44.86	265.1	8 8	0	
NAMANGAN	51.86	294.3	9 3	1	
WARSAK DAM	55.30	286.7	9 28	0	
RESOLUTE	57.34	15.5	9 40K	-2	
APATITY	58.52	334.9	9 50	0	
THULE	60.01	8.1	9 57	-4	
QUETTA	60.64	285.4	10 5	0	
SODANKYLA	60.71	336.6	10 4	-1	
CHARTERS TS.	61.94	176.5	10 13	-1	10 45
KIRUNA	62.15	338.8	10 14	-1	
POONA	62.43	270.5	10 7	-10	
MOSCOW	63.87	322.6	10 24	-2	
NURMIJARVI	65.99	331.5	10 46	6	
HELSINKI	66.11	331.1	10 40	-1	
SHASTA	67.13	55.3	10 49	2	
HUNGRY HORSE	67.26	44.8	10 49	1	
TIFLIS	68.62	307.3	10 58	1	
UPPSALA	68.87	333.8	10 57	-1	
EUREKA	71.76	53.1	11 17	1	
PASADENA	73.82	58.3	11 31	3	
BOULDER CITY	74.71	55.3	11 34	1	
RAPID CITY	75.69	42.9	11 40	2	
COLLMBERG	77.23	330.4	11 47	0	
PRUHONICE	77.72	328.8	11 52A	2	
JENA	78.05	331.0	11 51	-1	
TUCSON	79.67	55.8	12 3	3	
TUCSON TELE.	79.68	55.7	12 3	2	
STUTTGART	80.71	331.0	12 7	1	
FOLINIERE	83.88	336.6	12 23	1	
GARCHY	84.10	333.8	12 24	1	12 49
BYRD STATION	132.50	166.4	19 9	3	

FEBRUARY 20 4.H 12.M 56.S EPICENTRE -30.64 -71.10 DEPTH= 63.KM

DEPTH OF FOCUS= 0.005R

A= 0.27917 B=-0.81539 C=-0.50715 D=-0.9461 E=-0.3239
G=-0.1643 H= 0.4798 K=-0.8619 HT= 1.6

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
SANTA LUCIA	2.80	172.8	0 43	0	1 23	7		
TALA POZO	6.61	66.5	1 36K	0	2 46	-5		
LA PLATA	11.87	114.4	2 39K	-9	4 59	-1		
LA PAZ	14.34	11.6	3 23A	2	6 6	7	3 34	3 39 PP
HUANCAYO	18.91	347.1	4 21	3				6 35
BOGOTA	35.18	354.9	6 51	2	12 22	5		
CARACAS	41.10	6.2	7 40A	1	13 46	-1		
GALERAZAMBA	41.38	353.8			14 1	10		
ST. VINCENT	44.57	13.7	8 7	0				
FORT FRANCE	46.11	13.4	8 15	-4				
SAN JUAN	48.97	6.3	8 40	-2				10 37 PP
BYRD STATION	53.19	189.4	9 14	0			9 34	11 37 PP
TACUBAYA	56.62	327.8	9 39	1				17 44
SOUTH POLE	59.53	180.0	9 59	0			10 26	12 53 PP
CHAPEL HILL	66.63	353.0	10 44	-2				
LITTLE ROCK	68.09	341.2	10 53A	-2				
MBOUR	68.64	57.5	11 0	2	20 1	6		
FAYETTEVILLE	69.83	340.2	11 6	1				
MORGANTOWN	70.40	352.8	11 7A	-2				
ST. LOUIS 1	71.20	344.3	11 13A	-1	20 26	1	11 38	
PALISADES	71.34	357.8	11 13	-2	20 59	33		14 59 PPP
FLORISSANT	71.38	344.2	11 14	-1	20 27	0		
TUCSON	73.00	325.5	11 24	0				
TUCSON TELE.	73.02	325.6	11 24	-1				
HALIFAX	75.21	5.5	11 38A	1				
OTTAWA	75.80	356.6	11 39A	-2				
BREBEUF	75.82	358.2	11 39A	-2				
SHAWINIGAN	76.85	358.8	11 46	0				
BOULDER	77.15	333.7	11 48	0				
SEVEN FALLS	77.40	0.2	11 49	-1				

BOULDER CITY	77.97	325.0	11	52	-1							
PASADENA	78.26	321.7	11	54A	0	22	0	17	12	10	12	23 *SP
LARAMIE	78.36	334.2	11	55	0							
GRAHAMSTOWN	79.57	122.5	12	2K	1							
RAPID CITY	79.94	337.1	12	3	0				12	27		
SALT LAKE C.	80.44	329.8	12	6	0							
FRESNO	81.11	322.4	12	9A	-1							
EUREKA	81.28	326.5	12	11	0							
VINEYARD	81.94	321.4	12	15	1							
LICK	82.52	321.6	12	17A	0							
RENO	83.21	324.2	12	20	0							
BERKELEY	83.24	321.6	12	20A	-1						12	56
BOZEMAN	84.16	333.1	12	25	0							
PIETERMZBURG	84.27	121.0	12	27	1							
MINERAL	84.73	323.7	12	28	0							
BUTTE	85.05	332.4	12	30	0							
SHASTA	85.39	323.5	12	31A	0							
HUNGRY HORSE	87.53	332.9	12	41	-1				13	13	31	19 PKKP
BULAWAYO	87.88	112.1	12	45	2							
CORVALLIS	88.70	325.6	12	52	5							
TAMANRASSET	90.64	63.9	12	58A	2	23	52	7	13	31	16	47 PP
SERRA PILAR	91.82	42.1	12	55A	-7							
TOLEDO	93.74	45.2	13	11	0							
ALICANTE	95.08	48.1	13	25	8	24	39	16				
ALGIERS UNI.	96.50	51.0	13	24K	1						14	31
LWIRO	97.37	97.0	13	29A	2						17	24
FOLINIERE	101.02	39.5	13	43	-1							
GARCHY	102.20	42.1	13	47	-2						17	51 PP
RESOLUTE	106.21	353.6									18	30 PP
THULE	106.82	0.7	14	16	8						18	37 PP
COLLMBERG	109.82	41.6				25	21	26				
PRUHONICE	110.19	43.3	18	57	33						19	17 PP
COLLEGE	111.97	333.4	18	27	-1						19	9 PP
KRAKOW	113.43	44.6				25	21	11				
UPPSALA	115.35	33.9									24	29
CHARTERS TS.	118.14	220.3	18	40	0							
NURMI JARVI	118.92	34.2	18	44	3							
HELSINKI	119.00	34.6	18	41	0							
SODANKYLA	120.83	26.5	18	43	-2							
APATITY	123.46	26.5	18	50K	0							
KHEYS	125.56	10.3	18	56	2							
PORT MORESBY	125.84	228.9	18	55	1							
QUETTA	143.97	79.8	19	27	-1							
POONA	146.06	102.6	19	35	3							
NAMANGAN	148.31	60.7	19	37	2							
WARSAK DAM	148.37	74.0	19	36	1							
LAHORE	150.45	79.2	19	53	14							
MATUSIRO	154.93	291.5	19	46A	1						21	13 SPKP
SHILLONG	164.15	104.4	19	55A	0							

FEBRUARY 20 18.H 16.M 20.S EPICENTRE 15.94 -90.59 DEPTH= 48.KM

DEPTH OF FOCUS= 0.002R

A=-0.00995 B=-0.96196 C= 0.27300 D=-0.9999 E= 0.0103
G=-0.0028 H=-0.2730 K=-0.9620 HT= 5.6

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
COMITAN	1.51	281.8	0	28K	3	0	47	3				
SAN SALVADOR	2.57	148.9	0	39	-1	1	11	0				
MERIDA	5.06	10.4	1	12	-3	2	13	0				
OAXACA	6.02	281.1	1	26K	-3	2	25	-12				
VERA CRUZ	6.19	302.3	1	32K	1	2	47	5				
PUEBLA	7.88	294.0	1	52	-3	2	23	-60				
TACUBAYA	8.89	294.0	2	10K	1	3	55	6				
BALBOA HTS.	12.81	121.5	3	0	-2	5	36	12				
GALERAZAMBA	15.76	107.1	3	59	19	6	59	26				
LITTLE ROCK	18.82	355.5	4	19	1	7	32	-11				
CHIHUAHUA	19.07	314.1	4	11	-10	7	32	-16				
BOGOTA	19.75	123.0	4	30	2	8	18	15				
COLUMBIA	19.94	23.9	4	33	2	8	10	3				
FAYETTEVILLE	20.32	351.6	4	35A	0	8	6	-9				
CHAPEL HILL	22.40	25.2	4	59	3	9	7	14				
ST. LOUIS 1	22.61	0.7	4	59A	1	9	12	15				

FLORISSANT	22.77	0.5	5	1A	2	9	16	16			
SAN JUAN	23.50	80.5	5	8	2					8	52 PCP
CARACAS	23.65	100.3	5	5A	-3	9	16	0			
TUCSON TELE.	24.50	315.4	5	17	1					8	29
TUCSON	24.52	315.1	5	17	1	10	6	35	5	48	
MORGANTOWN	25.36	19.4	5	26K	2	10	24	39			
WASHINGTON	25.76	24.8	5	16	-12	10	7	16		6	11 PP
CLEVELAND	26.62	15.3	5	37	1	9	56	-9			
PENNSYLVANIA	27.12	21.5	5	41	1	10	49	36			
BOULDER	27.21	334.8	5	41	0						
GUADELOUPE	28.19	85.4								6	19
LARAMIE	28.40	335.8	5	51	-1						
PALISADES	28.86	26.8	5	51	-5	11	8	27		17	8 SCS
BOULDER CITY	29.40	317.3	6	0	-1				6	33	
RAPID CITY	30.02	341.7	6	8	2				6	41	6 57 *SP
PASADENA	30.71	311.3	6	13A	0	11	40	29			
SALT LAKE C.	30.85	327.5	6	13	-1					7	8
WESTON	31.11	28.3	6	17K	1						
HUANCAYO	31.65	150.6	6	23	2						
OTTAWA	31.92	20.0	6	23A	0						
EUREKA	32.27	321.6	6	27	1				6	47	
BREBEUF	32.73	22.3	6	31K	1				6	53	
FRESNO	33.18	314.3	6	33A	-1						
SHAWINIGAN	33.94	22.2	6	41	0						
BOZEMAN	34.24	334.2	6	34	-9				6	56	7 16 *SP
RENO	34.68	318.4	6	47A	0						8 12
LICK	34.74	313.8	6	48A	0						
SEVEN FALLS	35.14	23.7	6	50	-1						
BUTTE	35.17	333.1	6	50	-1						8 14 PP
BERKELEY	35.43	314.2	6	54A	1						
MINERAL	36.27	318.3	7	5A	4						8 34
HALIFAX	36.56	33.0									17 34 SCS
UKIAH	36.70	315.4	7	4	0						
SHASTA	36.97	318.2	7	5	-1						8 42
HUNGRY HORSE	37.61	334.2	7	11	-1						8 39 PP
LA PAZ	39.12	144.5	7	25K	1	13	24	4			9 8 PP
CORVALLIS	39.70	322.8	7	35	6						
VICTORIA	42.15	327.5	7	47A	-2						
RESOLUTE	58.79	358.7	9	53A	-3	18	0	4	10	24	22 7 SS
THULE	61.60	5.8	10	14	-1						
COLLEGE	62.02	336.0	10	16	-2				10	56	
SCORESBY SD.	67.98	19.7	10	56	0						
MBOUR	70.72	80.1	11	14	1	20	29	7			
NORD	71.99	8.5	11	19	-1						
RATHFARNHAM	74.00	38.4	11	50	18						
DURHAM	76.58	36.6	11	46K	-1	21	24	-4			21 32 SKS
MALAGA	77.65	55.2	11	56A	3						
KEW	77.87	39.8	11	54	0						
GRANADA	78.20	54.6	11	59A	3						
FOLINIERE	78.26	42.5	11	56	0						
GARCHY	80.90	43.5	12	9	-2						15 19 PP
CLERMONT-FD.	81.29	45.0	12	12	-1						
MUNSTER	82.56	38.1	12	20	1						
BENSBERG	82.57	39.2	12	19	0						12 24 PCP
KIRUNA	83.02	20.9	12	22	0						
NEUCHATEL	83.53	43.1	12	25	1						
STRASBOURG	83.62	41.4	12	23	-2				12	52	15 34 PP
BASLE	83.80	42.4	12	24	-1						
TUBINGEN	84.46	41.2	12	28	-1						12 34 PCP
STUTTGART	84.46	40.9	12	29	0						12 34 PCP
EBINGEN	84.50	41.5	12	30	1						
SONNEBERG	85.19	39.0	12	32	0						
UPPSALA	85.19	28.8	12	32	0						
JENA	85.24	38.4	12	32	-1						13 18
HALLE	85.27	37.8	12	29	-4						13 56
SODANKYLA	85.33	20.2	12	33	0						
SETIF	85.45	53.8	12	31	-3						
PLAUEN	85.72	38.7	12	32	-3						
PRUHONICE	87.35	38.6	12	43A	0				13	16	
APATITY	87.40	18.6	12	43	0						
NURMIJARVI	88.04	26.6	12	51	5						
TRIESTE	88.43	42.8	12	48	0						16 23 PP
TIKSI	88.66	348.4	12	48	-1						
TAMANRASSET	89.40	66.6	12	53	0						13 9 PCP
MAGADAN	89.98	333.4	12	56	0						
KRAKOW	90.50	37.1	12	58	0						13 7 PCP
YAKUTSK	96.04	342.1	13	28	5						
LWIRO	118.84	83.7	18	46	3						
NAMANGAN	121.02	15.6									20 20

ADDIS ABABA	124.06	67.2	18	56A	3							
CHARTERS TS.	125.98	256.6	18	52	-5							
WARSAK DAM	127.50	18.7	19	OK	0							
QUETTA	129.29	25.3	19	5	2						22	28 PKS
ADELAIDE	132.14	237.2	19	8	-1						33	7
KARACHI	133.12	28.0	19	15	4							
POONA	142.47	24.7	19	21	-7							
LEMBANG	160.00	294.9	19	55	1						20	33

FEBRUARY 22 3.H 30.M 40.S EPICENTRE 28.92 91.85 DEPTH= 0.KM

A=-0.02835 B= 0.87618 C= 0.48115 D= 0.9995 E= 0.0323
G=-0.0156 H= 0.4809 K=-0.8766 HT= 2.2

SE= 2.78

	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	
LHASA	1.01	315.3	0	22A	1								
SHILLONG	3.34	179.7	0	57A	3	1	35	-1			1	3	PP
TOCKLAI	3.37	129.3	0	50	-5								
CHATRA	4.64	244.4	1	19	6	2	35	27					
CHITTAGONG	6.54	180.3	1	38	-2	2	55	-1			2	10	PG
HOWRAH	7.10	207.4	1	48	1	2	20	-50					
BOKARO	7.43	228.3	1	50	-2						4	42	
KUNMING	10.40	109.3	2	35	2								
DEHRA DUN	12.09	280.0	2	57	1	5	23	10			3	13	PP
AGRA	12.35	265.0	2	55	-5								
LANCHOW	12.36	51.7	2	57	-3								
LAHORE	15.37	284.1	3	37	-3								
SIAN	15.48	65.6	3	40	-1								
PHU-LIEN	15.65	117.8				6	52	14					
WARSAK DAM	18.04	291.4	4	13	0								
PAOTOW	18.89	47.2	4	26	2								
MADRAS	19.21	216.8	4	26	-2						8	10	
POONA	19.44	241.8	4	32K	2	8	23	19			10	16	
WUHAN	19.78	79.8	4	34	0	8	9	-3					
BOMBAY	20.03	244.3	4	37	0	8	35	17					
CANTON	20.11	101.9	4	40	2	8	22	3					
NAMANGAN	20.40	311.5	4	43	2						8	33	
TATUNG	20.83	52.0	4	42	-3								
HONG KONG	21.16	103.0	4	48	-1	8	44	4					
QUETTA	21.69	279.4	4	56	2	8	56	6					
KARACHI	22.24	267.9	5	5	5								
ULAN-BATOR	22.26	27.5	5	1	1								
PEKING	22.83	54.6	5	7	1								
NANKING	23.41	75.6							9	23	2		
ZO-SE	25.46	77.8							10	7	11		
MEDAN	26.03	164.3	5	40A	4								
CHANGCHUN	30.53	51.8	6	18	1								
VLADIVOSTOK	35.01	55.2	6	32	-24								
SVERDLOVSK	35.51	330.6	7	2	2								
ABUYAMA	37.36	69.5	7	11K	-5								
MATUSIRO	39.43	66.6	7	49	16								
YAKUTSK	41.35	26.0	7	52	3								
UGLEGORSK	43.00	47.8	6	52	-70								
MOSCOW	46.63	320.9	8	33	1								
TIKSI	47.29	15.1	8	45	8								
KSARA	47.55	290.8	8	31	-8								
MAGADAN	49.88	34.8	9	16	19								
PULKOVO	51.21	325.2	8	51	-16								
APATITY	51.64	335.3	9	13	3								
KHEYS	53.77	352.1	9	21	-5								
SODANKYLA	54.14	334.3	9	31	2								
PRUHONICE	60.54	313.7	10	14	0								
COLLMBERG	61.26	315.4	10	22	3								
JENA	62.21	315.2	10	27	2								
STUTTGART	64.22	313.2	10	38	-1								
PORT MORESBY	65.52	117.0	10	47	0								
LWIRO	67.78	254.2	11	2A	1								
SETIF	70.93	301.3	11	18	-3								
CHARTERS TS.	71.57	126.3	11	23	-2								
ALGIERS UNI.	72.45	302.7	11	30	0								
THULE	74.18	355.2	11	37	-3								
COLLEGE	75.76	22.4	11	47	-2								
TAMANRASSET	76.29	288.6	11	52	0						14	41	PP

RESOLUTE	76.56	1.8	11	51	-3						
ADELAIDE	77.40	142.1	12	0	2						
WINDHOEK	88.31	243.1	12	29	-25						
HUNGRY HORSE	99.65	17.2	13	46	-1						
BYRD STATION	127.18	173.5	19	31	25						

FEBRUARY 22 10.H 26.M 25.S EPICENTRE -5.99 130.81 DEPTH= 163.KM

DEPTH OF FOCUS= 0.021R

A=-0.65009 B= 0.75275 C=-0.10374 D= 0.7568 E= 0.6536
G= 0.0678 H=-0.0785 K=-0.9946 HT= 7.0

SE= 1.71

	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	
PORT MORESBY	16.54	102.8	3	43K	-1	6	36	-8			11	50	SCP
CHARTERS TS.	20.48	134.3	4	26	0	8	8	7					
RABAUL	21.34	86.2	4	36	1								
MANILA	22.65	334.6	4	49	1	8	49	9					
LEMBANG	23.06	266.7	4	50	-2								
GUAM	23.78	35.5	4	59	1	8	59	0			5	32	PP
DJAKARTA	23.85	268.3	4	57K	-2								
BAGUIO CITY	24.46	335.7	5	5	0	9	15	5					
ADELAIDE	29.70	166.8	5	53K	0	10	43	8			6	43	
BRISBANE	30.04	137.9	5	54K	-2						6	47	PP
HONG KONG	32.50	330.4	6	15	-2	1'	11	-8					
MEDAN	33.47	285.7	6	25	0	11	49	15					
RIVERVIEW	33.51	148.4	6	26K	0	11	39	5					
CANBERRA	33.65	152.6	6	28A	1	11	40	3			8	45	PP
MELBOURNE	34.21	159.9	6	32K	0	11	50	5			7	46	
ZO-SE	38.02	346.5	7	8	4				7	38			
NOUMEA	38.02	118.8	7	3	-1						8	11	
WUHAN	39.51	337.7	7	16A	0	13	6	0	7	44	8	9	*SP
NANKING	39.53	343.9	7	16A	0	13	8	2			8	11	*SP
ABUYAMA	40.89	6.0	7	28A	1								
KUNMING	41.25	319.6	7	32A	2	13	33	2			8	25	*SP
MATUSIRO	42.89	8.8	7	43A	-1	13	53	-2			9	31	PP
TUKUBASAN	42.89	11.1	7	42A	-2	13	54	-1					
CHENGTU	44.57	326.4	7	56A	-1	14	19	-1					
SIAN	45.06	334.1	8	2A	1	14	27	0	8	32			
CHITTAGONG	47.44	307.7	8	20	0	15	3	3					
PEKING	47.75	344.8	8	22A	0	15	5	0			9	14	*SP
VLADIVOSTOK	48.89	1.1	8	31	0	15	24	3					
LANCHOW	48.92	330.8	8	33A	2	15	23	2					
SHILLONG	49.15	311.4	8	32A	-1								
CHANGCHUN	49.84	354.8	8	38A	0	15	35	1			9	29	*SP
PAOTOW	50.13	339.4	8	41A	1								
KARAPIRO	51.50	134.7	8	51K	0								
LHASA	52.09	315.1	8	56	1	16	8	3					
CHATRA	53.38	309.8	9	5	0								
MADRAS	53.72	290.8	9	7	0								
UGLEGORSK	55.72	8.9	9	22	0	16	57	4					
ULAN-BATOR	57.67	341.2	9	36	1								
DEHRA DUN	62.08	308.8	10	2	-3								
IRKUTSK	62.28	342.0	10	7	0	18	23	5					
MAGADAN	67.24	10.9	10	39	0								
YAKUTSK	67.82	359.4	9	46	-56								
WARSAK DAM	68.62	309.9	10	48	1								
KARACHI	69.44	300.3	10	53	1								
QUETTA	70.88	304.6	11	2A	1	20	6	5					
NAMANGAN	71.43	316.7	11	6	2	20	10	2					
SCOTT BASE	74.22	172.6	12	22	62								
TIKSI	77.48	359.4	11	38	-1								
TANANARIVE	81.73	251.8	12	1	0						13	38	
SOUTH POLE	84.05	180.0	12	14	1						12	53	
SVERDLOVSK	84.34	328.7	12	17	2								
BYRD STATION	87.49	170.5	12	32	2								
COLLEGE	91.72	25.0	12	49	-1						16	40	PP
ADDIS ABABA	92.94	278.7	13	0	4								
KHEYS	93.91	350.2	12	55	-5								
MOSCOW	96.71	325.3	13	12	-1								
APATITY	98.33	337.4	13	19	-1								
SODANKYLA	100.95	337.5	13	25	-7								
KIRUNA	103.15	338.6	13	41	-1								
RESOLUTE	106.54	11.5	13	56	0						18	20	PP

HUNGRY HORSE	111.06	40.3	18 15	1				
PRUHONICE	111.31	321.6					18 56	PP
EUREKA	111.66	49.9	14 29	777			19 1	PP
COLLMBERG	1'1.85	323.3	18 18	3			19 8	
STUTTGART	1'5.01	321.6	18 23	2			19 19	PP
TUCSON TELE.	117.16	56.8	18 29	4				
RAPID CITY	119.54	42.1	18 32	2				
ALGIERS UNI.	123.43	310.5	18 41	3				
TAMANRASSET	124.77	293.5	18 45	5			20 28	PP
RELIZANE	125.68	310.2	19 34	52			20 36	PKP2
SERRA PILAR	129.69	320.3					22 1	
LISBON	131.33	317.9					22 7	
OTTAWA	134.47	26.2	19 0	1			22 17	SKP
SHAWINIGAN	134.76	22.9	19 0	1			22 18	
SEVEN FALLS	135.00	20.9	19 2	2			22 19	SKP
BREBEUF	135.28	24.4	19 3K	3				
MORGANTOWN	136.55	35.1					22 24	PP
MBOUR	147.25	287.2	19 28	6			23 0	PP
HUANCAYO	148.42	124.6	19 32	9			20 18	PKP2
LA PAZ	150.83	140.3	19 40	13			23 8	PP
SAN JUAN	159.40	51.8	20 20	42			21 3	PP
LARAMIE	118.88	45.8	18 32	3				
GARCHY	119.38	321.8	18 32	2				
BOULDER	119.49	47.1	18 34	4				

FEBRUARY 23 1.H 58.M 46.5 EPICENTRE -5.77 149.37 DEPTH= 45.KM

DEPTH OF FOCUS= 0.002R

A=-0.35614 B= 0.50698 C=-0.09995 D= 0.5095 E= 0.8605
G= 0.0360 H=-0.0509 K=-0.9950 HT= 7.0

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
RABAUL	3.20	60.9	0 48	-2					
PORT MORESBY	4.22	211.3	1 5K	1	1 51	-2		6 57	
CHARTERS TS.	14.47	131.8	3 22K	-2	6 9	5			
GUAM	19.66	346.5	4 31	3	7 42	-20			
BRISBANE	21.87	171.2	4 47K	-4	8 42	-3			
NOUMEA	23.29	136.5	5 8	3	9 32	22			
RIVERVIEW	27.36	176.8	5 48	-1	10 27	-1			
CANBERRA	29.40	130.6	6 0K	-2			6 10		
ADELAIDE	30.63	197.3	6 12	-1	11 26	16		12 44	PCS
SUVA	30.32	116.0	6 32	17				12 46	
MELBOURNE	32.16	136.6	6 23	-3	11 30	-4		13 8	
MANILA	34.66	306.0	7 4	16					
BAGUIO CITY	36.02	303.2	6 59	0				15 45	
FORT NELSON	37.04	182.5			12 35	-16		17 32	
APIA	39.06	104.7	7 29	4					
KARAPIRO	39.87	147.0	7 28	-3				9 33	
PERTH	40.74	226.0	7 38	0	13 52	6		9 54	PPP
LEMBANG	41.50	266.2	7 47	2	13 23	-34			
ARUYAMA	42.47	343.1	7 54A	1					
TUKUBASAN	42.67	348.9	7 55	1	14 41	27		17 20	SS
GERRIES PASS	42.97	155.1	8 4	7					
ROYBURGH	43.26	159.5			14 20	-3		17 26	
MATUSIRO	43.38	346.9	8 1A	1	14 17	-7			
?IZUSAWA	45.32	351.0	8 13	-3					
TO-SE	45.50	325.4	8 19A	2	15 8	13			
WUHAN	49.13	319.4	8 47	2					
VLADIVOSTOK	51.18	343.6	9 2	1					
Y.-SAKHLINSK	52.82	354.3	9 12	-1					
CHANGCHUN	53.94	338.6	9 22A	0	17 6	14			
KUNMING	54.76	306.1			17 28	25			
PEKING	54.38	329.1	9 28	-1					
UGLEGORSK	55.00	354.1	9 30	1					
PAOTOW	58.58	325.5	9 56	1					
PETROPAVLOVK	59.21	6.5						1	
MAGADAN	65.13	0.3	10 37	-2					
ULAN-BATOR	65.18	330.0	10 39	0					
WILKES	66.06	196.2	10 45	0	19 16	-12		23 32	SS
CAPE HALLETT	67.70	173.2	11 0	5	19 40	-8		20 45	SCS
YAKUTSK	69.28	350.2	11 7	-3	20 32	26			
MIRNY	71.81	200.5	11 18	-2	20 33	-3			

TIKSI	78.42	353.5	11	55	-3	22	11	22			
BOMPAY	79.22	290.4				22	21	24			
WARSAK DAM	83.18	305.1	12	22	-1						
COLLEGE	84.04	22.5	12	23	-4						
SOUTH POLE	84.26	180.0	12	26	-3	22	47	-2	12	39	
NAMANGAN	84.54	312.0	12	3	-27						
QUETTA	86.35	300.7	12	42	3						
PASADENA	95.24	56.3	13	25	5						25 54 PS
EUREKA	97.23	51.0	13	29	0						
HUNGRY HORSE	98.67	42.1	13	34	-2						
RESOLUTE	102.19	14.2	13	49	-3	24	44	17			18 15 PP
MOSCOW	106.91	326.7									18 24 PP
KRAKOW	118.94	325.3									21 26
OTTAWA	124.46	37.2	18	55	0						
STUTTGART	125.48	328.6	18	57	0						
SHAWINIGAN	125.56	34.7	18	57	0						
BREBEUF	125.66	36.2	18	48	-9						
SEVEN FALLS	126.30	33.2	18	58	0						
PALISADES	127.85	41.1									20 55 PP
GARCHY	129.55	330.7									22 23
HUANCAYO	132.16	111.8	17	14	-116						
LA PAZ	136.81	121.4	19	18	0						
TOLEDO	138.47	328.7									22 46
RELIZANE	138.64	320.4	19	23	2						22 25 PP
TAMANRASSET	141.26	299.5	19	27	1						22 42 PP
CARACAS	143.78	80.2	19	25	-6						27 54
ST. VINCENT	148.93	74.1									19 43 PKP2
TRINIDAD	149.06	78.9									19 44 PKP2
MBOUR	164.07	303.5	19	38	-20						

FEBRUARY 23 10.H 31.M 20.S EPICENTRE 53.08 158.66 DEPTH= 131.KM

DEPTH OF FOCUS= 0.015R

A=-0.56194 B= 0.21959 C= 0.79750 D= 0.3640 E= 0.9314
G=-0.7428 H= 0.2903 K=-0.6033 HT= -6.5

SE= 1.74

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
PETROPAVLOVK	0.05	356.1	0	16	-2	0	27	-5				
SEVERO-KUR.	2.89	214.3	0	43	-3	1	9	-12				
KLYUCHI	3.47	19.8	0	56	2	1	32	-3				
MAGADAN	7.82	329.2	1	54	2	3	23	3				
OKHA	9.43	279.2	2	16	2	4	2	3				
UGLEGORSK	11.17	255.7	2	40	3	4	47	7				
LANCHOW	41.49	268.4	7	35	-1							
RESOLUTE	43.67	21.7	7	54K	1	14	15	2			9 39	PP
KHEYS	40.93	345.3	7	22	-9				7	46	8 46	PP
ULAN-BATOR	32.72	282.2	6	22	0							
PAOTOW	34.87	268.9	6	39	-2							
Y.-SAKHLINSK	11.93	245.5	2	48	1	4	59	1				
TUKUBASAN	21.30	225.1	4	36	-2							
MATUSIRO	21.86	229.0	4	43K	0	9	37	6			5 12	
TIKSI	22.72	335.9	4	51	0				5	16	9 46	SS
CHANGCHUN	23.78	260.6	5	0K	-2	9	2	-2				
ABUYAMA	24.46	231.1	5	9A	1							
COLLEGE	29.04	45.0	5	51	1	10	33	3			6 56	PP
PEKING	31.51	262.8	6	9	-3							
IRKUTSK	32.30	290.9	6	18	-1				6	46	7 37	PP
NORD	45.54	359.0	8	8	0							
THULE	47.34	13.6	8	20	-3	15	3	-2			13 35	SCP
MANILA	48.56	232.1	8	32	0							
HUNGRY HORSE	52.19	57.5	9	0	0						13 56	SCP
SHASTA	52.71	69.7	9	4A	1							
APATITY	52.94	336.8	9	3	-2							
MINERAL	53.39	69.5	9	8A	0							
BUTTE	54.48	58.9	9	17	1							
SODANKYLA	54.62	339.4	9	15	-2							
BERKELEY	54.70	72.2	9	17	-1						9 46	
RENO	54.95	69.1	9	21	1							
LICK	55.42	72.3	9	24A	1							
KIRUNA	55.46	342.1	9	22K	-1							
SHILLONG	56.14	268.3	9	27	-1							
SCORESBY SD.	56.75	0.7	9	32	-1							
FRESNO	56.87	71.5	9	34	0							

EUREKA	57.13	66.7	9	36	1			10	3	11	46 PP
RABAUL	57.33	187.7	9	37	0						
SALT LAKE C.	58.48	63.0	9	46	1						
CHITTAGONG	58.58	265.8	9	50	5						
PASADENA	59.66	72.6	9	53	0						
PULKOVO	60.10	332.8	9	54	-2					10	39 PCP
BOULDER CITY	60.25	68.8	9	58	1			10	26		
RAPID CITY	60.58	55.0	9	59	0			10	26	10	40 PCP
SKALSTUGAN	60.76	343.5	9	59A	-1						
NURMIJARVI	60.94	336.0	10	2	0						
MOSCOW	61.20	326.4	10	2	-1						
LARAMIE	61.39	58.6	10	5	0						
WARSAK DAM	62.02	290.0	10	6	-3						
BOULDER	62.48	59.4	10	13	1						
PORT MORESBY	63.00	192.8	10	15	0						
UPPSALA	63.15	339.2	10	15K	-1						
TUCSON TELE.	65.23	68.8	10	31	1			10	58		
TUCSON	65.23	68.9	10	30	0			10	58	12	57 PP
GOTEBORG	66.29	341.2	10	36K	-1					10	42
QUETTA	67.46	290.4	10	43	-1						
FAYETTEVILLE	71.12	54.9	11	5	-1						
DURHAM	71.28	348.1	11	8	1						
OTTAWA	71.44	37.2	11	7	-1					13	48 PP
SHAWINIGAN	71.49	34.7	11	9	1						
SEVEN FALLS	71.65	33.2	11	10	1						
COLLMBERG	72.06	338.1	11	11	-1						
HALLE	72.11	338.9	11	8	-4						
JENA	72.72	338.9	11	15	-1						
PRUHONICE	72.93	336.7	11	17	0					11	33 PCP
RATHFARNHAM	73.25	350.6	1	24	5						
BENSBERG	73.59	341.7	11	21	0						
KEW	74.34	346.5	11	26K	1						
MORGANTOWN	74.70	43.1	11	27A	0						
DOURBES	74.89	343.0	11	28	0						
STUTTGART	75.27	339.7	11	30	0						
TUBINGEN	75.53	339.7	11	32	0						
STRASBOURG	75.75	340.5	11	34A	1					12	17
KASTAMONU	75.75	322.2	11	54	21						
EBINGEN	75.88	339.6	11	35	1						
PALISADES	75.89	38.3				21	5 1			26	1 SS
FORDHAM	76.04	38.3	12	24	49						
TOLMEZZO	76.64	336.3	11	40	2						
BASLE	76.79	340.3	11	39	0						
FOLINIERE	77.00	346.0	11	40	0						
CHUR	77.02	338.8	11	41K	1						
NEUCHATEL	77.42	340.6	11	43	1						
GARCHY	77.88	343.3	11	46	1					11	55 PCP
CLERMONT-FD.	79.33	342.8	11	54	1						
CINE	80.04	322.2	11	54	-3						
MONACO	80.45	339.3	12	0	1						
ATHENS	81.27	325.5	12	3A	0						
TACUBAYA	81.75	68.8	12	2	-4						
TOLEDO	86.21	346.7	12	31	3						
ALICANTE	87.16	343.7	12	32	-1	23	7 8				
CANBERRA	88.43	187.9	12	40A	1						
MALAGA	89.37	346.5	12	47A	4						
TAMANRASSET	100.94	334.9	13	38	2	24	8 7			17	41 PP
LA PAZ	128.42	63.2	19	0	8					21	5 PP
KIMBERLEY	138.49	287.3	19	3	-7						
SOUTH POLE	142.89	180.0	19	14	-4					22	48 PP

FEBRUARY 23 16.H 4.M 56.S EPICENTRE 50.29 157.00 DEPTH= 63.KM

DEPTH OF FOCUS= 0.005R

A=-0.59050 B= 0.25060 C= 0.76714 D= 0.3907 E= 0.9205
G=-0.7062 H= 0.2997 K=-0.6415 HT= -5.5

SE= 2.44

	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	
SEVERO-KUR.	0.69	303.9	0	18	2	0	34	6					
PETROPAVLOVK	3.02	19.1	0	44	-3	1	22	-1			1	2	*SP
KLYUCHI	6.45	19.0	1	34	-1	2	54	6					
OKHA	9.29	296.0	2	18	4						2	36	*SP
UGLEGORSK	9.76	268.6	2	23	2	4	25	15			2	40	*SP

MAGADAN	9.94	341.4	2	24	1	4	30	16			
Y.-SAKHLINSK	10.03	256.0	2	25	1	4	31	15		2	45 *SP
VLADIVOSTOK	18.59	257.0	4	13	-2						
TUKUBASAN	18.63	227.4	4	12A	-3						
MATUSIRO	19.28	231.7	4	21A	-2	8	0	8		8	25 PCP
ABUYAMA	21.94	233.5	4	49A	-1						
CHANGCHUN	22.42	265.5	4	52	-3	9	1	9		5	48 PP
TIKSI	24.92	339.2	5	18	-1					6	4 PP
PEKING	30.22	266.0	5	45	-22						
COLLEGE	31.78	41.7	6	18	-3				6 32		
ULAN-BATOR	32.39	285.6	6	25	-1						
IRKUTSK	32.42	294.3	6	27A	0					7	51 PPP
ZO-SE	32.81	247.9	6	29A	-1						
WUHAN	37.23	254.2	7	8	0						
LANCHOW	40.43	270.3	7	35A	1	13	52	14			
KHEYS	43.38	345.8	7	51	-7					18	4 SSS
HONG KONG	43.53	246.1	7	14	-46	14	54	31			
MANILA	46.04	232.3	8	17	-3						
RESOLUTE	46.64	20.3	8	24A	0	15	18	10		9	44 PCP
NORD	48.31	358.8	8	36	-1						
KUNMING	48.52	259.6	8	39A	0						
THULE	50.30	12.6	8	50	-3						
LHASA	52.78	273.1	9	13A	2						
SVERDLOVSK	53.01	316.8	9	14	1						
RARAIL	54.43	185.9	9	19	-5						
HUNGRY HORSE	54.60	54.9	9	23	-2					9	34
SHASTA	54.70	66.8	9	25	0						
SHILLONG	55.05	268.9	9	29A	1						
APATITY	55.11	337.0	9	28K	0						
MINERAL	55.38	66.7	9	31	1						
BERKELEY	56.59	69.3	9	47	8						
SODANKYLA	56.87	339.4	9	38	-3						
RENO	56.96	66.3	9	50	8						
LICK	57.31	69.4	9	51	7						
CHITTAGONG	57.36	266.2	9	47	2	17	45	11			
KIRUNA	57.80	342.0	9	47	-1						
BOZEMAN	57.88	55.8	9	46	-2						
EUREKA	59.20	64.1	9	55	-3					10	6
FRESNO	58.78	68.8	10	3	9						
SCORESBY SD.	59.54	359.6	9	59	-1						
PORT MORESBY	60.06	191.2	10	0	-3	18	12	2			
PASADENA	61.53	70.0	10	13	0						
WARSAK DAM	62.02	290.3	10	16A	0						
PULKOVO	62.11	332.7	10	15	-2						
MOSCOW	62.96	326.4	10	22	-1						
RAPID CITY	63.05	52.8	10	22	-1				10	33	
NURMIJARVI	63.07	335.8	10	25	1						
SKALSTUGAN	63.14	343.2	10	24	0						
LARAMIE	63.76	56.4	10	29	1						
UPPSALA	65.39	338.8	10	38K	-1						
TUCSON	67.24	66.7	10	53	3						
TUCSON TELE.	67.24	66.5	10	52	2				10	59	
QUETTA	67.47	290.4	10	51A	-1	19	47	5			20 50 SCS
GOTEBORG	68.59	340.7	10	58	-1						
COPENHAGEN	70.35	339.6	11	9	0						
KARACHI	70.56	287.1	11	16A	5						
CHARTERS TS.	70.63	190.7	11	17K	6						
TIFLIS	70.91	312.8	11	14	1						25 16 SS
POONA	71.65	277.0	11	19A	2						
LWOW	72.46	330.2	11	22	0						
SIMFEROPOL	72.97	321.4	11	25A	0						
POTSDAM	73.25	337.9	11	28	1						
KRAKOW	73.52	332.8	11	29	1						
IASI	73.54	326.7	11	29	1						
FAYETTEVILLE	73.60	53.1	11	26	-3						
DURHAM	73.79	347.3	11	30K	0						14 20 PP
RACIBORZ	73.99	333.8	11	31	0						
COLLMBERG	74.26	337.5	11	33	0						12 22
OTTAWA	74.30	35.6	11	31	-2						
HALLE	74.33	338.7	11	29	-4						12 23
SHAWINIGAN	74.38	33.2	11	31A	-2						
SEVEN FALLS	74.55	31.7	11	33	-1						
JENA	74.94	338.2	11	37	0						12 56
BREBEUF	74.98	34.3	11	34A	-3						
PRUHONICE	75.08	336.0	11	38	1						11 43 PCP
PLAUEN	75.21	337.7	11	36	-2						
SONNEBERG	75.55	338.2	11	41	1						
RATHFARNHAM	75.83	349.7	11	42	0						

BENSBERG	75.91	340.9	11 42	0						
BRATISLAVA	76.03	333.6	11 44	1						
VIENNA-H.	76.16	334.1	11 39	-4						
KEW	76.80	345.7	11 47	0						
DOURBES	77.25	342.2	11 54	4						
KASTAMONU	77.31	321.5	11 43	-7						
MORGANTOWN	77.46	41.5	11 48K	-3						
STUTTGART	77.52	338.8	11 52A	1						
TUBINGEN	77.77	338.8	11 53A	1						
STRASBOURG	78.02	339.7	11 55A	1						
BELGRADE	78.03	330.0	11 54K	0						
EBINGEN	78.13	338.8	11 57A	3						
ZAGREB	78.49	333.3	11 58A	2						
PALISADES	78.73	36.8	11 56	-2	21 55 6				30 39	PKKP
TOLMEZZO	78.77	335.5	11 58	0					12 48	
PARIS	78.88	343.1	12 1	2						
BASLE	79.06	339.4	11 59	0						
CHUR	79.24	337.9	12 0A	0						
TRIESTE	79.27	334.7	12 1	0					14 59	PP
FOLINIERE	79.44	345.1	12 2	0						
NEUCHATEL	79.70	339.7	12 6	3						
GARCHY	80.24	342.3	12 7	1					22 34	SCS
CLERMONT-FD.	81.68	341.9	12 15	2						
MONACO	82.68	338.3	12 21	2						
ATHENS	82.97	324.6	12 20K	0						
TOLEDO	88.68	345.5	12 49	1	24 6 38				13 1	PCP
ALICANTE	89.54	342.5	12 54	2	23 45 9					
SETIF	90.31	337.4	12 55	-1						
TAMANRASSET	103.00	333.1	13 54	1					17 7	
KIMBERLEY	138.21	282.6	19 19	0						
SOUTH POLE	140.10	180.0	19 16	-6						

FEBRUARY 23 22.H 21.M 11.S EPICENTRE -28.47-177.48 DEPTH= 83.KM

DEPTH OF FOCUS= 0.008R

A=-0.87955 B=-0.03870 C=-0.47422 D=-0.0440 E= 0.9990
G= 0.4738 H= 0.0208 K=-0.8804 HT= 2.3

SE= 1.76

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
ONERAHI	10.03	221.4	2 26	3				3 23	
SUVA	10.94	339.1	2 34	-2				4 56	
KARAPIRO	11.09	210.0	2 41	3				4 20	
TUAI	11.23	202.1			4 31	-13			
WELLINGTON	14.26	204.4	3 18	-1	5 38	-18			
COBB RIVER	14.92	210.0			5 55	-16			
GEBBIES PASS	17.14	204.9	3 51	-5	6 42	-20			
BRISBANE	26.04	265.1	5 28A	1					
RIVERVIEW	27.31	250.8	5 40A	1					
CANBERRA	29.17	247.9	5 57A	1					
MELBOURNE	32.61	243.6	6 25K	-1					
CHARTERS TS.	34.02	276.2	6 39K	1					
ADELAIDE	37.59	248.8	7 7K	-1				9 24	PCP
PORT MORESBY	38.25	292.7	7 13	-1				16 7	SS
SCOTT BASE	49.99	184.3	8 48A	0					
GUAM	55.44	313.7	9 27	-1					
SOUTH POLE	61.69	180.0	10 10	-2			10 23	39 17	PKPPKP
LEMBANG	73.51	271.1	11 25A	-1					
MATUSIRO	76.93	324.7	11 45K	0	21 52 27				
ABUYAMA	77.04	321.9	11 47K	1					
PASADENA	83.82	45.8	12 19	-3					
LICK	83.82	41.6	12 23	1					
BERKELEY	83.83	40.8	12 23	1					
FRESNO	84.53	43.0	12 27	2					
SHASTA	85.70	38.7	12 33	2					
MINERAL	85.90	39.4	12 33	1					
BOULDER CITY	87.09	46.2	12 39	1					
TUCSON TELE.	87.62	51.1	12 42	2				13 1	
EUREKA	88.58	42.9	12 46	1				13 5	
CHANGCHUN	88.98	322.5	12 47	0					
PEKING	91.87	315.3	13 0	0					
HUNGRY HORSE	95.21	36.8	13 12	-4					
COLLEGE	95.86	12.3	13 17	-2					
SHILLONG	102.27	292.4	13 49	1					

RESOLUTE	115.27	17.0	18	31	-1						
THULE	121.95	15.2	18	43	-2						
KHEYS	124.49	350.8	18	46	-4						
QUETTA	124.49	288.6	18	52	2						
BULAWAYO	125.49	210.5	18	53	1						
APATITY	136.72	343.3	19	14	1						
KIRUNA	139.17	349.7	19	23	5						
LWIRO	140.38	223.9	19	22A	2						
ADDIS ABABA	140.83	247.6	19	7	-14						
MOSCOW	142.98	327.3	19	21	-3						
PULKOVO	143.43	336.7	19	23	-2						
SKALSTUGAN	144.32	352.5	19	25K	-2						
NURMIJARVI	144.65	341.2	19	29	2						
HELSINKI	144.84	340.6	19	28	0						
UPPSALA	146.97	346.0	19	32K	1						
GOTEBORG	150.04	349.8	19	46K	10						
SIMFEROPOL	150.04	311.8	19	43	7						
COPENHAGEN	151.89	348.0	19	46K	7						
KASTAMONU	153.63	306.7	19	45	4						
RACIBORZ	155.34	335.3	19	55	11						
COLLMBERG	155.87	343.8	19	56	12						
JENA	156.55	345.5	19	45	0						
PRUHONICE	156.64	340.2								20	16 PKP2
DOURBES	158.34	356.4								20	27 PKP2
STUTTGART	159.09	347.5	19	48	0					20	27 PKP2
TOLMEZZO	160.29	338.0	19	50	0						
GARCHY	161.22	358.8	19	51	0					20	35 PKP2
GRANADA	169.91	29.1								25	9 PP
RELIZANE	172.55	12.5	20	0	1					25	19 PP
TAMANRASSET	173.72	206.2	20	2A	2					25	20 PP

FEBRUARY 24 12.H 45.M 42.S EPICENTRE 10.87 122.70 DEPTH= 68.KM

DEPTH OF FOCUS= 0.006R

A=-0.53068 B= 0.82660 C= 0.18739 D= 0.8415 E= 0.5402
G=-0.1012 H= 0.1577 K=-0.9823 HT= 6.4

SE= 2.17

	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	4.05	335.7	1	1	0	1	47	-1					
BAGUIO CITY	5.89	339.7	1	26	0	3	6	33					
HONG KONG	13.99	325.4	3	3	-13	6	11	21					
PHU-LIEN	18.33	304.5	4	9	-2	7	41	12			5	16	
70-SE	20.18	356.2	4	32	1	8	17	8					
WUHAN	20.97	340.0	4	38	-1	8	33	9					
GUAM	21.71	80.9	4	49	2								
LEMBANG	23.12	221.1	5	3K	2	9	24	21					
DJAKARTA	23.16	223.7	5	9	8								
KUNMING	23.65	309.3	5	5A	-1	10	22	70					
MEDAN	24.89	254.9	5	17A	-1								
ABUYAMA	26.61	24.1	5	35A	1								
MATUSIRO	29.16	26.2	5	56K	-1						7	4	PP
PEKING	29.61	349.8	6	1	0	11	0	10					
LANCHOW	30.37	328.8	6	7	0								
PORT MORESBY	31.58	128.7	6	17	-1	11	29	8			13	30	SS
SHILLONG	32.62	300.8	6	23A	-4	11	30	-7					
CHANGCHUN	32.91	3.5	6	31	1								
RABAUL	32.93	115.5	6	29	-1								
CHARTERS TS.	38.47	142.8	7	16K	-1								
ULAN-BATOR	39.25	343.2	7	25	2								
UGLEGORSK	41.37	19.3	7	44	3								
POONA	47.74	285.1	8	31	-1	15	22	0					
ADELAIDE	48.01	162.2	8	33	-1						10	1	PCP
BRISBANE	48.14	143.0	8	33	-2								
BOMBAY	48.73	285.6	8	44	5	15	39	3					
YAKUTSK	51.31	4.2	8	58	-1								
WARSAK DAM	51.96	304.8	9	3A	-1								
CANBERRA	52.24	152.7	9	5A	-1								
MAGADAN	52.94	17.5	9	13	2								
NAMANGAN	53.83	313.2	9	18	0								
KARACHI	54.51	293.9	9	22	-1								
QUETTA	55.08	299.2	9	26A	-1	17	7	4					
TIKSI	60.83	2.2	10	7	0								
SVERDLOVSK	65.83	327.8	10	39	-1								

KHEYS	76.03	350.3	11 38	-3			
MOSCOW	78.33	324.9	11 54	0			
APATITY	79.76	337.0	12 2	0			
COLLEGE	80.02	25.7	12 4	1	12 25		
SODANKYLA	82.38	337.2	12 16	0			
ADDIS ABABA	82.43	277.7	12 19	3			
KASTAMONU	84.35	310.9	12 14	-12		12 32 PCP	
HELSINKI	84.48	330.2	12 27	1			
NURMIJARVI	84.56	330.5	12 29	2			
KIRUNA	84.60	338.1	12 27K	0			
UPPSALA	88.12	330.8	12 43K	-1			
RESOLUTE	91.51	9.3	13 1A	1			
THULE	92.62	2.6	13 5	0			
PRUHONICE	93.12	322.1	13 8A	1			
JENA	94.53	323.7	13 13	-1	13 42		
SCORESBY SD.	95.33	348.7	13 20	2			
SOUTH POLE	100.80	180.0	13 36	-6			
EUREKA	106.06	43.5	14 11	6			
SEVEN FALLS	121.02	10.7	18 46	1			

FEBRUARY 25 10.H 2.M 57.S EPICENTRE -19.00-177.65 DEPTH= 587.KM

DEPTH OF FOCUS= 0.087R

A=-0.94537 B=-0.03887 C=-0.32368 D=-0.041 E= 0.9992
G= 0.3234 H= 0.0133 K=-0.9462 HT= 4.9

SE= 1.76

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SUVA	3.82	282.2	1 20	-4	2 23	-8		3 13
APIA	7.64	48.3	1 48	-8	3 13	-16		
ONERAHI	18.13	201.3	3 40	2	6 51	17		6 2
KARAPIRO	19.77	196.1	3 54K	0	7 10	9		5 23
WELLINGTON	23.13	194.7	4 22	-2				
COBB RIVER	23.49	198.5	4 26	-1				
BRISBANE	28.18	247.1	5 10K	1	9 17	2		
CANBERRA	33.63	234.3	5 55A	0			8 31	8 39 PP
CHARTERS TS.	34.00	262.2	5 57	-1	10 43	-1		
PORT MORESBY	35.37	280.7	6 8K	-1	1' 5	0		8 24 PCP
MELBOURNE	37.53	232.1	6 27K	0				
ADELAIDE	41.66	238.5	7 0K	0				
GUAM	49.13	308.3	7 56	-1				
MATUSIRO	69.21	323.1	10 9K	-2	18 37	6		21 49 *SS
SOUTH POLE	71.11	180.0	10 20	-2				10 31 PCP
LEMBANG	73.40	268.4	10 35	0				
BERKELEY	76.85	42.0	10 54	0				
LICK	76.93	42.7	10 54K	0				
PASADENA	77.43	47.0	10 57	0				
FRESNO	77.79	44.1	10 59	0				
SHASTA	78.48	39.6	11 2K	-1				
MINERAL	78.75	40.3	11 3K	-1				
RENO	79.38	41.8	11 7K	0				
CHANGCHUN	81.42	322.1	11 18K	0	20 50	9		
TUCSON	81.74	51.9	11 21	2			13 18	
EUREKA	81.81	43.5	11 20	0				
TUCSON TELE.	81.86	51.9	11 22	2			13 19	
PEKING	85.07	315.2	11 36	0				
COLLEGE	86.68	12.3	11 41	-3			13 40	
HUNGRY HORSE	87.74	36.7	11 48	-1				
BOZEMAN	88.12	40.1	11 51	1				
KUNMING	89.00	296.8	11 56	2				
BOULDER	89.26	47.0					21 56	1
PAOTOW	89.48	313.5	11 56	-1				
CHENGTU	89.97	302.4	12 0	1	22 14	13		
LANCHOW	92.14	307.4	12 10	1				
RAPID CITY	92.38	44.0	12 11	1				
ULAN-BATOR	94.57	319.2	12 20	0				
RESOLUTE	106.28	15.9	17 18	0				
THULE	112.87	14.0	17 25	-6				
QUETTA	120.89	294.3	17 49	2				
APATITY	127.60	345.5	18 0	0				
SODANKYLA	129.22	348.1	18 2	-1				
NURMIJARVI	135.59	344.4	18 6	-9				
HELSINKI	135.81	344.0	18 17	2				

SIMFEROPOL	143.05	321.5	18 29	0			
ADDIS ABABA	143.38	259.4	18 36	7			
DURHAM	144.17	3.9	18 29K	-2			
KISHINEV	144.64	328.2	18 32	1			
LWOW	144.69	335.6	18 32	1			
IASI	145.13	329.5	18 34	2			
KRAKOW	145.99	339.6	18 35	2		19 21	
LWIRO	146.50	233.7	18 38A	4		20 46	
RACIBORZ	146.51	341.4	18 37	3			
COLLMBERG	146.69	347.8	18 35	1			
HALLE	146.70	349.1	18 32	-2		19 1	
MUNSTER	146.84	354.0	18 39	5			
KASTAMONU	147.08	318.8	18 32	-3		18 50	
JENA	147.31	349.2	18 37	2		20 45	
PRUHONICE	147.59	345.3	18 38A	2	20 46		
PLAUEN	147.62	348.3	18 34	-2		20 45	
BENSBERG	147.89	354.3	18 41	5			
SONNEBERG	147.91	349.3	18 41	5			
VIENNA-H.	148.69	341.9	18 39	2			
STUTTGART	149.80	351.0	18 40	1	20 56		
TUBINGEN	150.05	351.0	18 47K	8			
STRASBOURG	150.17	352.8	18 47	8			
FOLINIERE	150.22	3.8	18 41	1			
PARIS	150.27	359.8	18 49A	9			
EBINGEN	150.40	351.0	18 48	8			
ZAGREB	150.98	340.1	18 47A	6			
TOLMEZZO	151.30	344.5	18 46	5			
GARCHY	151.79	359.0	18 44	2		19 1	PKP2
SETIF	162.66	351.7	18 56	1		19 48	
TAMANRASSET	175.22	322.3	19 6K	3	20 45	24 42	PP

FEBRUARY 25 11.H 19.M 9.S EPICENTRE 28.43 138.81 DEPTH= 537.KM

DEPTH OF FOCUS= 0.080R

A=-0.66275 B= 0.58007 C= 0.47359 D= 0.6586 E= 0.7525
G=-0.3564 H= 0.3119 K=-0.8807 HT= 2.3

SE= 1.95

	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
SIOMISAKI	5.64	333.2	1	36	1	2	50	-1				
OWASE	6.05	339.0	1	40K	1	3	0	2				
OMAESAKI	6.17	355.5	1	40K	0	3	0	0				
MUROTO	6.24	321.5	1	42	1	2	59	-2				
HAMAMATU	6.34	351.9				3	3	0				
OSIMA	6.34	4.3				2	59	-4				
MERA	6.53	7.4	1	41	-2	3	1	-5				
SHIZUOKA	6.53	357.1	1	42	-1	3	5	-1				
WAKAYAMA	6.57	332.6				3	9	2				
TU	6.58	343.3	1	44	0	3	8	1				
AJIRO	6.61	2.1	1	43	-1	3	5	-2				
SIMIDU	6.64	312.2				3	9	1				
MISIMA	6.67	1.0	1	46	1	3	5	-3				
TOKUSIMA	6.69	328.3	1	46	1	3	11	2				
KAMEYAMA	6.70	343.3	1	48	3	3	10	1				
NARA	6.73	338.6	1	46	1	3	12	3				
SUMOTO	6.79	331.4	1	48	2	3	13	3			4	10
OSAKA	6.80	336.6	1	53	7	3	12	1				
KOTI	6.82	319.7	1	47	1	3	8	-3				
NAGOYA	6.90	347.4	1	49	2	3	13	1				
KOBE	6.96	334.5	2	22	34	3	17	4				
ABUYAMA	6.99	337.6	1	49A	1	3	16	2				
YOKOHAMA	7.02	5.7	1	45	-3	3	11	-3				
HUNATU	7.05	359.8	1	47	-1	3	12	-3				
HIMEJI	7.13	329.2				3	9	-8			5	8
TAKAMATU	7.14	326.5	1	47	-2	3	20	3				
HIKONE	7.16	343.0	2	10	20	3	21	4				
GIHU	7.16	346.5	1	49	-1	3	17	0				
KOHU	7.18	358.5	1	50	0	3	15	-2				
IBUKISAN	7.23	344.0	2	4	14	3	18	0				
TOKYO C.M.O.	7.27	6.1	1	51	0	3	15	-4				
MIYAZAKI	7.28	300.4	1	52	1	3	24	5				
HONGO	7.31	6.2	1	59	8	2	15	-65				
TYOSI	7.47	12.9				3	21	-2				
MATUYAMA	7.48	317.6	1	54	1	3	15	-8			4	27

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.

YAKUSIMA	7.52	287.5				3	23	-1	
TITIBU	7.53	1.7	1	52	-1	3	20	-4	
TSURUGA	7.56	342.8	2	8	14	3	26	2	
KUMAGAYA	7.71	3.5	1	53	-2	3	23	-4	
KAGOSIMA	7.81	295.6	1	54K	-2	3	33	4	
OOITA	7.81	309.5	1	57A	1	3	34	5	
MATUMOTO	7.83	355.0	1	55	-1	3	30	1	
TUKUBASAN	7.85	7.7	1	53K	-3	3	24	-5	3 17 *SP
KAKIOKA	7.86	8.1	1	53	-4	3	25	-5	
OIWAKE	7.88	358.5	1	56	-1	3	27	-3	
HUKUI	7.90	344.9	1	58	1	3	31	1	
MAEBASI	7.95	1.5	1	56	-1	3	27	-4	4 14
HIROSIMA	8.05	319.0	1	58	0	3	28	-5	
TOTTORI	8.05	332.3	1	58	0	3	30	-3	
MITO	8.05	9.6	1	59	1	3	31	-2	
MATUSIRO	8.11	356.7	1	57A	-2	3	30	-4	7 11 PCP
UTUNOMIYA	8.15	6.1	1	57	-2	3	28	-7	
NAGANO	8.23	356.6	1	59	-1	3	34	-2	
KUMAMOTO	8.24	304.1	2	1	1	3	39	3	
KANAZAWA	8.28	347.9				3	38	1	
TOYAMA	8.36	351.1	2	19	17	3	47	8	
MATSUE	8.53	326.6	2	3	0	3	44	2	
TAKADA	8.66	357.0	2	8	3				
ONAHAMA	8.68	11.2	2	4	-1	3	41	-3	
SHIRAKAWA	8.75	7.5	2	5	0	3	41	-5	
SAGA	8.75	305.4	2	7	2	3	50	4	
NAGASAKI	8.81	301.3	2	6	0	3	48	1	
HUKUOKA	8.84	307.6	2	7	1	3	48	1	
SAIGO	9.03	330.5	2	8	0	3	53	2	
WAZIMA	9.07	350.3				3	47	-5	
HUKUSIMA	9.40	8.1	2	7	-5	3	55	-3	
YAMAGATA	9.88	7.1	2	15	-2	4	5	-2	
SENDAI	9.97	9.6	2	17K	-1	4	6	-2	
ISINOMAKI	10.19	11.2	2	22	2	4	12	-1	
SAKATA	10.48	4.4				4	18	-1	
MIZUSAWA	10.85	9.6	2	28	1	4	27	2	
AKITA	11.31	5.1				4	36	2	
MORIOKA	11.41	9.3	2	33	0	4	30	-5	
MIYAKO	11.49	12.3	2	32	-1	4	37	0	
HATINOHE	12.28	9.8	2	33	-8	4	53	1	
AOMORI	12.47	7.0				4	57	2	
HAKODATE	13.41	6.2				5	17	4	
MORI	13.72	5.5				5	22	4	
MURORAN	13.98	6.7							4 27
URAKAWA	14.07	12.2	3	5	5	5	30	5	
TOMAKOMAI	14.24	8.4				5	34	6	
HIROO	14.30	13.7				5	40	11	
SUTTSU	14.39	4.2				5	34	4	
SAPPORO	14.75	7.3				5	40	3	
OBIHIRO	14.89	12.7				5	47	7	
KUSIRO	15.21	15.8	3	14	3	5	51	6	
ZO-SE	15.54	284.2	3	13	-1	5	52	1	
VLADIVOSTOK	15.68	341.0	3	18	2				
NEMURO	15.84	18.4				6	3	6	
ABASHIRI	16.17	14.3							5 24
DAIREN	17.68	310.6	3	37	2				
Y.-SAKHLINSK	18.74	8.4	3	46	1				
CHANGCHUN	18.80	328.4	3	46A	0				
BAGUIO CITY	20.62	238.5	4	1	-2	7	23	5	
UGLEGORSK	20.77	6.1	4	5	1				
WUHAN	21.20	281.6	4	6	-2	7	28	0	
MANILA	21.52	233.9	4	8	-3				
PEKING	21.94	307.7	4	14A	-1	7	38	-2	
HONG KONG	23.06	260.2	4	26	1	7	59	1	5 17 PP
TATUNG	24.01	305.7	4	33	-1				
PADTOW	26.51	304.8	4	57A	1	8	53	0	
CHENGTU	30.28	282.8	5	28	0	9	48	-3	
LANCHOW	30.43	293.5	5	29A	-1	9	51	-3	
ULAN-BATOR	31.42	317.0	5	38	0				
MAGADAN	32.18	11.5	5	44	-1				
KUNMING	32.36	272.6	5	45	-1	10	21	-2	
YAKUTSK	34.13	352.4	6	0	-1				
IRKUTSK	34.94	322.6	6	8	0				
PORT MORESBY	38.46	166.7	6	36	0	11	51	-4	15 9
SHILLONG	41.72	277.4	7	2K	-1				
TIKSI	43.60	355.4	7	18	0				
MEDAN	45.45	244.5	7	34	2	13	37	3	
LEMBANG	46.19	225.4	7	36	-2				

CHARTERS TS.	48.69	170.7	7	56	-1						9	35
DEHRA DUN	52.42	287.8									15	10
NAMANGAN	55.36	302.0	8	45	0							
WARSAK DAM	56.87	293.8	8	56A	1	16	8	1				
COLLEGE	57.60	29.0	8	59	-1				10	45		
SVERDLOVSK	60.34	321.7	9	17	-1	17	45	54				
KHEYS	61.62	348.6	9	20	-7							
QUETTA	61.68	290.8	9	27A	0	17	9	1				
ADELAIDE	63.02	180.1	9	36A	0							
CANBERRA	64.13	170.7	9	43A	0							
APATITY	69.66	336.7	10	16A	-1							
RESOLUTE	71.46	13.1	10	27A	0	18	59	-4	12	18		
SODANKYLA	72.06	337.9	10	29	-2							
MOSCOW	72.90	324.5	10	36	1							
KIRUNA	73.78	339.6	10	40	0							
THULE	74.04	6.4	10	40	-2				12	31		
KARAPIRO	74.43	150.6	10	44K	0						11	0
TIFLIS	74.46	309.2	10	45	1							
COBB RIVER	75.97	154.2									24	17
NURMIJARVI	76.51	332.3	10	57	2							
HELSINKI	76.57	332.0	10	57	1							
KAIMATA	76.73	155.8									23	40
SHASTA	78.16	50.1	11	5A	1							
GEBBIES PASS	78.20	155.6	11	7	2						22	53
MINERAL	78.86	50.2	11	8A	0							
SKALSTUGAN	79.10	338.5	11	9	0						14	16 PP
BERKELEY	79.56	52.7	11	13A	1							
HUNGRY HORSE	79.66	40.4	11	14	2				13	5		
UPPSALA	79.71	334.0	11	11A	-2							
LICK	80.24	52.9	11	16A	1							
SCORESBY SD.	80.41	353.5	11	18	2				13	14		
RENO	80.45	50.2	11	17	1							
BUTTE	81.74	41.9	11	24	1				13	16		
BOZEMAN	82.82	41.6	11	30	2							
EUREKA	83.06	48.8	11	31	1				13	31		
GOTEBORG	83.33	334.4	11	29	-2							
KASTAMONU	83.88	314.0	11	24	-10						15	40 PP
PASADENA	84.26	54.3	11	36	1							
RAPID CITY	88.26	39.5	11	56	1				13	50		
TUCSON	90.47	52.6	12	7	2							
STUTTGART	90.94	329.3	12	6	-1							
STRASBOURG	91.71	329.9	12	10	-1							
GARCHY	94.74	331.5	12	24	0						16	20 PP
TAMANRASSET	112.02	313.6	17	30	-8						18	27 PP
SOUTH POLE	118.27	180.0	17	43	-3							

FEBRUARY 25 20.H 8.M 6.S EPICENTRE -1.80 128.67 DEPTH= 116.KM

DEPTH OF FOCUS= 0.013R

A=-0.62460 B= 0.78033 C=-0.03112 D= 0.7807 E= 0.6249
G= 0.0194 H=-0.0243 K=-0.9995 HT= 7.2

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
MANILA	17.97	335.1	4	1	-2							
BAGUIO CITY	19.79	336.5	4	23	0	8	5	11				
PORT MORESBY	19.87	113.1	4	21	-3	8	1	5				
LEMBANG	21.58	256.0	4	38K	-3	8	33	5				
GUAM	22.00	46.0	4	45	0							
DJAKARTA	22.22	258.1	4	50A	3	8	57	18				
RABAUL	23.58	96.4	5	0	0							
CHARTERS TS.	24.96	137.7	5	13K	-1	9	35	9				
HONG KONG	27.82	330.2	5	40	0	10	22	9			11	3
MEDAN	30.45	280.1	6	13A	10	11	2	8				
PHU-LIEN	31.15	317.2	6	8K	-1	11	11	6				
ZO-SE	33.48	348.3	6	29A	-1							
ADELAIDE	34.27	165.3	6	34K	-2						8	5
BRISBANE	34.59	139.8	6	35K	-4	12	5	6				
WUHAN	34.85	338.4	6	41A	0							
NANKING	34.94	345.3	6	43A	1	12	12	8				
KUNMING	36.70	318.3	6	58A	1	12	40	9				
ABUYAMA	37.04	9.4	7	1A	1							
RIVERVIEW	38.18	149.0	7	16K	7	13	22	28				
CANBERRA	38.34	152.7	7	10A	-1						7	22

MELBOURNE	38.86	159.3	7 14	-1						
MATUSIRO	39.17	12.2	7 17A	0	13 13	5			12 7	
TUKUBASAN	39.29	14.7	7 19K	1						
CHENGTU	39.92	325.9	7 24A	0	13 23	3				
PEKING	43.17	345.9	7 51A	1						
CHITTAGONG	43.23	305.8	7 51A	0			8 39		9 49	PP
LANCHOW	44.24	330.8	8 0A	1	14 30	7			9 44	PP
VLADIVOSTOK	44.80	3.4	8 5	2						
SHILLONG	44.81	309.8	8 2A	-1						
PAOTOW	45.48	340.0	8 8	-1						
CHANGCHUN	45.52	356.6	8 9A	0					9 57	PP
HOWRAH	46.19	304.0	8 13	-1	14 57	6				
LHASA	47.64	314.0	8 28A	2	15 20	9				
Y.-SAKHLINSK	50.09	12.5	9 1	16	16 17	32				
ULAN-BATOR	53.03	341.8	9 8	1						
KARAPIRO	55.97	135.9	9 28K	0					9 41	
TONGARIRO	56.59	137.2	9 32	0						
WELLINGTON	57.12	139.7	10 6	30						
TUAI	57.51	136.1	9 44	5					9 57	
POONA	57.56	293.2	9 37	-2						
IRKUTSK	57.66	342.5	9 39	-1						
DEHRA DUN	57.81	307.8	9 42	1					17 34	
LAHORE	61.24	307.7	10 4	0						
YAKUTSK	63.65	0.6	10 19	-1	18 52	8				
WARSAK DAM	64.32	309.3	10 24A	-1						
KARACHI	65.51	299.4	10 30	-3						
QUETTA	66.77	303.9	10 39	-2	19 27	5	11 25		20 31	*SS
NAMANGAN	66.94	316.4	10 41	-1	19 31	7				
TIKSI	73.30	0.1	11 21	1						
SVERDLOVSK	79.66	328.8	11 55	-1						
TANANARIVE	81.02	251.2	12 3	0						
TIFLIS	86.61	311.8	12 32	1						
SOUTH POLE	88.22	180.0	12 36	-3					16 30	
COLLEGE	88.85	25.1	12 42	0			13 38		16 18	PP
KHEYS	89.44	350.3	12 40	-4						
ADDIS ABABA	90.18	279.0	13 9	21						
MOSCOW	92.06	325.5	12 57	0						
APATITY	93.66	337.5	13 4	0						
KIRUNA	98.49	338.6	13 25A	-1						
RESOLUTE	102.86	10.8	13 46A	1					18 3	PP
THULE	104.84	4.1	13 56	2					17 56	PKP
PRUHONICE	106.71	322.0							18 31	PP
HUNGRY HORSE	109.20	38.9	14 12	777					18 24	PKP
EUREKA	110.55	48.3	14 42	777					18 40	PKP
TAMANRASSET	121.10	295.5	18 42	3					20 7	PP
HUANCAYO	152.47	120.6	19 50	15						

FEBRUARY 27 15.H 20.M 30.S EPICENTRE -22.38-174.89 DEPTH= 0.KM

A=-0.92192 B=-0.08237 C=-0.37852 D=-0.0890 E= 0.9960
G= 0.3770 H= 0.0337 K=-0.9256 HT= 4.1

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
SUVA	7.55	302.7	2	8	14	3	55	34				
ONERAHI	16.30	212.7	4	1	9							
KARAPIRO	17.55	205.9	4	5	-3						7	24
TUAI	17.73	200.8				7	6	-20				
WELLINGTON	20.76	202.4				8	14	-19				
COBB RIVER	21.37	206.4				8	27	-17				
GEBBIES PASS	23.64	203.0				9	15	-11				
CHARTERS TS.	36.23	266.4	7	4K	-3							
MELBOURNE	37.67	236.6	7	18K	-1							
PORT MORESBY	38.60	283.4	7	25K	-1						13	40
ADELAIDE	42.24	242.2	7	55A	-2							
SOUTH POLE	67.76	180.0	10	59	-3							
MATUSIRO	73.44	322.2	11	35A	-1	21	11	6				
LICK	77.72	40.8	12	1	1							
PASADENA	77.90	45.2	12	2	1							
FRESNO	78.48	42.2	12	4	-1							
SHASTA	79.49	37.8	12	10	0							
MINERAL	79.71	38.5	12	11	0							
TUCSON TELE.	81.96	50.3	12	24	1							
EUREKA	82.53	42.0	12	26	0							

CHANGCHUN	85.65	321.2	12	43A	1					
WUHAN	85.72	305.3	12	41A	-1					
HUNGRY HORSE	88.93	35.6	12	56	-2					
PEKING	89.26	314.2	13	1	2					
COLLEGE	89.45	11.2	13	0	0					
KUNMING	92.79	295.8	13	17	1					
RAPID CITY	93.03	43.3	13	18	1				13	38
QUETTA	124.58	292.0	19	3	1					
GOTEBORG	144.36	353.7	19	33	-5					
ADDIS ABABA	145.08	253.1	19	42	3					
LWIRO	146.32	226.4	19	44A	2					
DURHAM	147.27	7.2	19	44A	1					
HALLE	150.45	351.3	19	55	7					
COLLMBERG	150.48	349.9	19	55	7					
RACIBORZ	150.50	342.8	19	55	7					
JENA	151.06	351.5	19	55	6					
BENSBERG	151.43	357.3	19	54	4					
PRUHONICE	151.47	347.2	19	57A	7					
BRATISLAVA	152.53	342.4	19	8	-43					
STUTTGART	153.46	353.9	20	13	20					
STRASBOURG	153.77	356.0							20	12 PKP2
TAMANRASSET	179.45	316.3	20	14	2				26	2 PP

FEBRUARY 27 18.H 47.M 9.S EPICENTRE -6.78 125.69 DEPTH= 585.KM

DEPTH OF FOCUS= 0.087R

A=-0.57937 B= 0.80658 C=-0.11734 D= 0.8122 E= 0.5834
G= 0.0685 H=-0.0953 K=-0.9931 HT= 6.9

SE= 1.04

	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	
PORT MORESBY	21.40	98.4	4	8A	0	7	33	6			10	37	
MANILA	21.73	347.6	4	11	0	7	40	7					
CHARTERS TS.	23.90	125.4	4	30A	0						10	41	
GUAM	27.63	43.2	5	2	-1	9	7	1			6	8	
MEDAN	28.86	290.1				9	20	-5			6	39	PP
ADELAIDE	30.47	158.6	5	27A	0	9	49	-1			6	53	
HONG KONG	31.03	339.0	5	31	-1	9	57	-1					
BRISBANE	33.11	131.7	5	52	2						13	21	SS
MELBOURNE	35.52	153.3	6	11A	1						11	20	
CANBERRA	35.57	146.2	6	7	-3	12	15	68					
RIVERVIEW	35.77	142.2	6	12K	0								
PORT BLAIR	37.57	299.0									11	30	
ZO-SE	37.91	353.7	6	29K	0								
WUHAN	38.60	344.5	6	34K	-1	11	53	1					
KUNMING	38.77	325.5	6	37K	1	11	56	2					
NANKING	39.17	350.7	6	41K	2	12	3	3					
ABUYAMA	42.47	12.1	7	7K	1								
CHITTAGONG	44.03	312.1	7	18	0	13	9	0					
MATUSIRO	44.68	14.4	7	23K	0						8	54	PCP
LANCHOW	47.33	335.8	7	43K	0	13	56	1					
LHASA	49.19	319.2	7	58K	1	14	23	3					
CHATRA	50.09	313.5	8	3	-1						9	13	
CHANGCHUN	50.38	359.6	8	4K	-2								
KARAPIRO	54.67	132.2	8	37A	1						10	4	
GEBBIES PASS	55.08	139.7	8	39	0								
ULAN-BATOR	56.94	345.0	8	52	0								
UGLEGORSK	57.45	12.7	8	56	1								
LAHORE	62.07	311.0	9	24	-2	17	4	-2					
WARSAK DAM	65.29	312.2	9	47	1	17	46	1					
QUETTA	67.20	306.6	9	58	0	18	7	0					
NAMANGAN	68.59	318.8	10	7	1								
YAKUTSK	68.67	2.0	10	6	-1								
TIKSI	78.28	1.0	11	1	0								
SOUTH POLE	83.26	180.0	11	26	0								
SOUTH POLE	83.26	180.0	11	26	0				13	34			
TIFLIS	87.71	312.3	11	49	1								
COLLEGE	94.60	25.3	12	19	0								
APATITY	97.09	337.2	12	31	1								
RESOLUTE	108.28	10.5	13	22A	777						17	58	PP
HUNGRY HORSE	114.93	39.4	17	38	4						18	11	
EUREKA	116.05	49.3	17	41	4								
TUCSON TELE.	121.84	56.1	17	53	5								

SHAWINIGAN	137.31	18.8	18 19	2					21	3	SKP
SEVEN FALLS	137.39	16.7	18 14	-3					21	3	SKP
MBOUR	142.57	284.7	18 27	-1							
CHAPEL HILL	143.19	34.5	18 30	2							

FEBRUARY 27 20.H 56.M 43.S EPICENTRE 27.67 128.49 DEPTH= 91.KM

DEPTH OF FOCUS= 0.009R

A=-0.55202 B= 0.69421 C= 0.46190 D= 0.7827 E= 0.6224
G=-0.2875 H= 0.3615 K=-0.8869 HT= 2.6

SE= 2.71

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
YAKUSIMA	3.28	31.9	0 45	-6	1 25	-4		
KAGOSIMA	4.28	24.3	1 5K	1	2 5	11		
TOMIE	4.94	2.7	1 13K	0				3 13
MIYAZAKI	4.94	30.3	1 12	-1	2 20	10		
ISIGAKIZIMA	5.12	230.4	1 17	1	2 16	2		
NAGASAKI	5.19	13.1	1 16	-1	2 19	3		
UNZENDAKE	5.27	16.4	1 24A	6	2 29	11		
KUMAMOTO	5.48	19.9	1 20	-1	2 30	7		
ASOSAN	5.67	22.5	1 24	1	2 32	4		
SAGA	5.78	15.2	1 28	3				
HUKUOKA	6.12	15.3	1 34A	4	2 43	4		
OOITA	6.17	25.2	1 29	-1				
SIMIDU	6.40	36.2	1 36	3				3 17
ITUHARA	6.55	5.7	1 33	-2				
UWAZIMA	6.56	31.3	1 54	18	3 1	11		
SIMONOSEKI	6.60	17.9	1 38	2	2 54	3		
ILAN	6.71	246.0	1 36	-2	2 0	-53		
TAIPEI	6.78	248.8	1 43	4				
MATUYAMA	7.15	29.8	1 44	0	2 55	-9		4 51
HWALIEN	7.20	240.8	1 44	-1				
ZO-SE	7.24	299.9	1 42K	-3	3 6	0		
KOTI	7.29	35.3	1 46	0	3 6	-2		
HSINCHU	7.33	248.8	1 54	8				
MUROTO	7.42	40.0	1 44	-4	3 11	0		
HIROSIMA	7.49	25.9	1 45	-3	3 11	-1		4 27
TAICHUNG	7.86	245.3	1 57	4				
HSINKONG	7.88	236.3	1 45	-9				
TAKAMATU	8.17	34.4	1 56	-2	3 39	10		
SIOMISAKI	8.52	45.7	1 57	-5				
SUMOTO	8.62	37.9	2 0	-4	4 1	21		5 30
MATSUE	8.68	25.6						3 29
TAWU	8.68	234.1	2 17	12				
WAKAYAMA	8.70	39.6	1 56	-9				
TAINAN	8.81	240.0	2 31	25				
HENGCHUN	9.01	232.9	2 9	0				
KOBE	9.03	37.7	2 11	2				
OWASE	9.19	44.2	2 9	-3				
OSAKA	9.21	39.2	2 16	4	4 8	14		4 57
TOTTORI	9.21	30.6	2 11	-1	4 2	7		
ABUYAMA	9.39	38.4	2 10A	-4				
NARA	9.40	40.1	2 11	-3				
NANKING	9.48	299.8	2 14K	-1	4 10	9		
TOYOOKA	9.51	33.0	2 13	-3	4 29	27		5 48
TU	9.84	42.3	2 16	-4				
KAMEYAMA	9.89	41.7	2 20	-1				3 59
HIKONE	10.06	39.2	2 25	2				
IBUKISAN	10.21	39.2	2 26	1				
NAGOYA	10.41	42.0	2 29	1				4 14
GIHU	10.45	40.4	2 28	-1	4 28	4		6 8
HUKUI	10.65	36.4	2 33	2				
OMAESAKI	10.82	47.9	2 45	11	5 1	28		5 49
FUTZELING	11.22	291.7	2 39	0				
MISIMA	11.61	47.7	2 47	3				
KOHU	11.69	44.7	2 40	-5				5 24
OSIMA	11.70	50.1	2 46	1				5 30
MATUMOTO	11.74	40.9	2 55	9				
WAZIMA	12.00	34.1	3 3	14				
MERA	12.09	50.5	2 49	-1				
MATUSIRO	12.09	40.5	2 47A	-3	5 32	28		
OIWAKE	12.14	42.1	3 8	17				

NAGANO	12.17	40.0	3	3	12	5	37	31		
YOKOHAMA	12.26	48.1	3	4	11				5	59
TOKYO C.M.O.	12.47	47.4	3	3	8	5	28	15	6	33
MAEBASI	12.49	43.2	2	59	3				3	44
WUHAN	12.51	286.5	2	54	-2	5	21	7		
KUMAGAYA	12.52	44.8	2	58	2					
DAIREN	12.58	334.7	2	59	2					
TUKUBASAN	13.02	46.2	3	OK	-3	5	29	3	3	36 PPP
KAKIOKA	13.08	46.4	3	1	-3					
UTUNOMIYA	13.08	44.6	3	4	0	5	51	24		
MITO	13.36	46.5	3	16	9					
BAGUIO CITY	13.38	214.8	3	6	-1	5	36	2		
NIIGATA	13.53	38.3	3	37	28					
SHIRAKAWA	13.66	43.5	3	10	-1	5	49	8		
ONAHAMA	13.98	45.4	3	36	21					
HONG KONG	14.04	250.8	3	17	1	6	12	22		
HIIKIISIMA	14.23	42.0	3	18	0					
CANTON	14.49	255.0	3	19K	-3	6	8	8		
YAMAGATA	14.49	40.3	3	22	0					
MANILA	14.78	209.7	3	23	-2	6	20	13		
SENDAI	14.82	41.4	3	25	-1					
AKITA	15.40	35.8	3	27	-6					
MIZUSAWA	15.54	39.4	3	36	1	6	31	6		
VLADIVOSTOK	15.66	9.3	3	38	1	6	33	5		
PEKING	16.00	323.5	3	43A	2	6	53	18		
CHANGCHUN	16.33	351.8	3	45A	0	6	56	13		
HATINOHE	16.74	36.7	3	47	-3					
MORI	17.45	31.3	3	58	-1					
MURORAN	17.82	31.6	4	32	29					
SIAN	18.01	296.2	4	6	0					
TOMAKOMAI	18.25	32.3	4	22	14					
URAKAWA	18.56	35.2	4	11	-1	7	35	2		
SAPPORO	18.57	30.8	4	15	3	7	45	12	4	49
SUIHWA	18.95	356.8	4	15	-2					
OBIHIRO	19.34	34.3	4	19	-2	8	1	12		
PAOTOW	19.94	315.0	4	26A	-1	8	16	15		
KUSIRO	19.99	36.0	4	35	7					
TIENSHUI	20.63	295.1	4	35	1					
GUAM	20.73	129.7	4	31	-4	8	23	7		
NEMURO	20.86	37.0	4	31	-5					
PHU-LIEN	21.06	255.8	4	36	-2	8	26	3		
Y.-SAKHLINSK	22.26	26.4	4	52	2	8	53	9		
LANCHOW	22.52	298.0	4	52A	-1	8	59	10		
KUNMING	23.26	269.5	4	59A	-1	9	9	7		
WUWEI	23.95	301.8	5	9	2					
SINING	24.25	298.3	5	9	-1					
ULAN-BATOR	26.30	326.0	5	28	-1					
IRKUTSK	30.50	330.3	6	4	-3				7	20 PPP
LHASA	32.83	282.5	6	27A	0	11	42	6		
CHITTAGONG	33.57	269.2	6	32	-1	11	55	7		
PETROPAVLOVK	33.83	32.9	6	35	-1	11	56	4	7	52 PP
MAGADAN	35.37	19.5	6	48	-1				8	13 PP
CHATRA	36.62	278.5	6	57	-2	12	40	5		
PORT BLAIR	37.08	251.7	7	2	-1	12	48	6	17	12 SCS
MEDAN	37.18	235.2	7	4A	0				7	24
RABAUL	39.06	140.5	7	18	-2	13	13	1		
PORT MORESBY	41.04	151.3	7	33	-3	13	41	0	9	12 PP
BOKARO	38.50	274.2	7	13	-2				8	43 PP
SEMIPALATNSK	42.87	315.4	7	49	-2				17	29 SS
DEHRA DUN	43.91	286.0	8	1	2				14	24
TIKSI	44.00	0.2	7	58	-2				9	42 PP
FRUNSE	45.80	304.0	8	14	0					
LAHORE	46.85	288.5	8	20	-3					
WARSAK DAM	48.77	292.2	8	39	1					
TASHKENT	49.78	302.1	8	44	-1	15	53	7	10	43 PP
STALINABAD	50.41	298.5	8	47	-3	15	57	2		
CHARTERS TS.	50.42	158.1	8	48	-2	15	58	3		
POONA	50.74	272.0	8	54	1				15	51
QUETTA	53.34	288.4	9	11	-1	16	39	4	10	17 PCP
KARACHI	54.40	283.2	9	24	4				10	27 PCP
SVERDLOVSK	55.28	321.7	9	26	0					
ASHKABAD	58.60	299.4	9	50	0				13	29 PPP
BRISBANE	59.68	154.7	9	56K	-1	18	1	2		
KHEYS	60.58	348.8	9	55	-8				10	37 PCP
NOUMEA	61.75	139.7	10	20	9					
COLLEGE	62.66	28.5	10	16	-1	19	0	23	10	35
ADELAIDE	63.01	170.6	10	17K	-3					
RIVERVIEW	64.83	159.2	10	44A	13	19	9	5		
CANBERRA	65.58	161.7	10	35K	-1				10 49	14 49

APATITY	66.65	335.4	10	42K	-1						
MELBOURNE	66.96	165.9	10	44	-1					10	58
GORIS	67.28	303.8	10	47	0					20	42 SCS
TIFLIS	67.72	306.5	10	49	-1					21	2 SCS
MOSCOW	68.08	322.4	10	51	-1					11	21 PCP
SODANKYLA	69.18	336.1	10	58	-1						
NORD	69.52	354.9	10	59	-2						
PULKOVO	70.45	327.9	11	6	-1					11	25 PCP
SITKA	70.45	35.2	11	7	0						
KIRUNA	71.16	337.6	11	9A	-2						
NURMIJARVI	72.75	329.8	11	21	1						
HELSINKI	72.76	329.4	11	20	0						
SIMEEROPOL	73.91	312.5	11	26A	-1						
RESOLUTE	74.10	10.9	11	28A	0	20	56	4		21	53 SCS
THULE	75.63	4.0	11	34	-3						
UPPSALA	76.16	330.9	11	39A	-1						
SKALSTUGAN	76.24	335.6	11	39	-1					11	57
ONERAHI	76.51	143.1	11	42	0						
KSARA	77.16	301.5	11	46	1	21	39	13		14	31 PP
KASTAMONU	77.62	310.2	11	36	-12					12	24
LWOW	77.97	320.1	11	50	0						
KARAPIRO	78.73	143.8	11	53K	-1					15	3
ISTANBUL UN.	78.97	310.5	11	52	-3						
COBB RIVER	79.75	147.6	12	14	14						
GOTEBORG	79.80	330.8	12	1A	1					12	17
SCORESBY SD.	79.88	350.3	12	1	1						
KRAKOW	80.15	321.7	12	2	0						
TUAI	80.24	143.5								17	20
COPENHAGEN	80.79	329.0	12	6A	1						
RACIBORZ	81.08	322.3	11	57	-10						
GEBBIES PASS	81.75	149.3	12	10	0						
SOFIA	81.89	314.1	12	12	1					15	20
BELGRADE	82.59	317.0	12	14A	0						
BRATISLAVA	82.73	321.1	12	15	0						
CORVALLIS	82.82	43.2	12	17A	1						
PRUHONICE	83.09	323.5	12	18A	1						
VIENNA-H.	83.09	321.4	12	19	2						
COLLMBERG	83.11	325.2	12	18	1					14	33
HALLE	83.52	325.8	12	15	-4					14	56
ATHENS	84.01	309.8	12	21A	-1						
PLAUEN	84.02	324.9	12	20	-2						
JENA	84.05	325.4	12	23	1					12	53
CHEB	84.16	324.4	12	28	6						
SONNEBERG	84.58	325.1	12	25	1					12	40
ZAGREB	84.68	319.5	12	25	0						
MUNSTER	85.33	327.8	12	28	0						
SHASTA	85.46	46.1	12	31A	2						
ADDIS ABABA	85.62	277.8	12	32	2						
UKIAH	85.77	47.8	12	30	0						
HUNGRY HORSE	85.92	36.4	12	33	2					15	55 PP
TOLMEZZO	86.02	321.2	12	32	0					13	1
TRIESTE	86.05	320.3	12	32	0						
MINERAL	86.15	46.1	12	33A	1						
BENSBERG	86.20	327.2	12	33K	1					12	47
STUTTGART	86.60	324.7	12	35A	1						
TUBINGEN	86.82	324.6	12	35	0						
RAVENSBURG	87.01	323.7	12	39	3						
BERKELEY	87.08	48.4	12	37A	0					12	41
EBINGEN	87.09	324.3	12	37	0						
STRASBOURG	87.45	325.1	12	40	1	23	29	19		13	44
CHUR	87.64	323.1	12	40	1						
UCCLE	87.64	328.3	12	54	15	23	12	0			
RENO	87.75	46.0	12	41A	1						
LICK	87.78	48.6	12	41A	1						
BUTTE	88.15	37.6	12	43	1						
BASLE	88.23	324.4	12	44	2					16	44
ROME	89.03	317.9	11	46A	-60	22	13	-72		23	52 PS
BOZEMAN	89.19	37.2	12	47	0						
KEW	89.27	330.8	12	47	0						
MESSINA	89.31	313.5	12	47	0	23	44	17		16	18 PP
FRESNO	89.32	48.3	12	49	2						
PARIS	89.89	327.7	12	51	1						
EUREKA	90.20	44.3	12	53	2						
FOLINIERE	91.30	329.0	12	55	-2						
PASADENA	91.91	49.6	13	1	2				13 15	13	38
BOULDER CITY	93.03	46.5	13	6	1					13	18
RAPID CITY	94.36	34.6	13	10	-1						
LARAMIE	95.07	37.8	13	15	1						

SETIF	96.90	317.0	13 25	3				
TUCSON	97.94	47.4	13 30	3			17 27	PP
TUCSON TELE.	97.96	47.2	13 29	2			17 27	PP
LWIRO	99.63	272.5	13 37A	2				
OTTAWA	104.01	17.3					17 47	PP
BANGUI	105.40	283.4					20 57	
TAMANRASSET	105.53	306.5					18 25	PP
PALISADES	108.58	17.7	14 28	777	24 22	0	18 46	PP
KIMBERLEY	113.93	249.0	18 31	3				
SOUTH POLE	117.51	180.0	18 34	-1			19 59	PP
BYRD STATION	120.85	169.1	18 44	2			20 24	PP
HUANCAYO	152.82	59.9	19 46	7				
LA PAZ	161.03	57.6	19 54	5			20 33	PKP2

FEBRUARY 28 1.H 32.M 24.S EPICENTRE 53.02-168.06 DEPTH= 0.KM

A=-0.59099 B=-0.12497 C= 0.79694 D=-0.2069 E= 0.9784
G=-0.7797 H=-0.1649 K=-0.6041 HT= -6.5

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	
COLLEGE	15.71	33.1	3	47	3	7	33	54					
PETROPAVLOVK	19.90	283.7	4	8	-28								
MAGADAN	23.43	302.6	5	13	2						9	12	
UGLEGORSK	31.08	283.1									7	32	PPP
TIKSI	32.59	328.3	6	36	1								
SHASTA	33.01	93.3	6	36	-3								
YAKUTSK	33.33	310.6	6	39	-2								
MINERAL	33.70	93.1	6	45	0								
HUNGRY HORSE	33.86	75.7	6	46	0						9	23	PCP
RENO	35.28	92.7	6	59	1								
RESOLUTE	35.43	26.0	7	0A	1	12	42	7			9	28	PCP
LICK	35.59	97.2	6	52	-9								
BOZEMAN	36.98	77.9	7	13	0								
FRESNO	37.07	96.3	7	14	1								
EUREKA	37.64	89.7	7	18	0						9	50	PCP
PASADENA	39.82	97.9	7	37	1	13	44	3			7	49	
MATUSIRO	40.50	268.1	7	39A	-3	13	47	-5					
BOULDER CITY	40.59	93.0	7	44	1								
THULE	41.39	20.6	7	49	0								
RAPID CITY	42.49	75.0	8	10	12								
ABUYAMA	43.23	268.4	8	3A	-1								
CHANGCHUN	43.67	285.8	8	6A	-2								
TUCSON	45.55	93.6	8	23	0						10	9	PP
TUCSON TELE.	45.56	93.4	8	23	0						10	53	PPP
PEKING	51.35	287.6	9	7	-1								
PADTOW	54.47	292.1	9	30	-1								
ZO-SE	54.52	276.0	9	30A	-2								
OTTAWA	56.76	57.3	9	46A	-2								
SHAWINIGAN	57.43	54.6	9	51	-2								
BREBEUF	57.75	56.0	9	53A	-2								
SEVEN FALLS	57.98	53.0	9	55	-1								
MORGANTOWN	58.56	64.8	9	57	-3								
APATITY	58.67	350.5	10	24	23								
KIRUNA	59.30	356.3	10	6	0								
SODANKYLA	59.42	353.5	10	8	2								
WUWEI	60.42	294.6	10	0A	-13								
PALISADES	60.80	59.8	10	15	-1	18	29	-4			22	55	SS
FORDHAM	60.93	60.0	11	6	49								
LANCHOW	61.10	292.4	10	16	-2								
WESTON	61.14	57.2	10	18K	0								
HALIFAX	63.25	50.8				18	58	-5					
SKALSTUGAN	63.74	359.8	10	35	0								
HONG KONG	65.22	274.5	10	14	-31	19	14	-14					
NURMIJARVI	66.36	353.2	10	54	2								
HELSINKI	66.67	352.9	10	55	1								
UPPSALA	67.39	356.9	10	58	-1								
MOSCOW	69.56	344.8	11	10	-2								
GOTEBORG	69.64	360.0	11	15	2								
KUNMING	69.96	285.1	11	13A	-2								
RATHFARNHAM	72.96	11.3	11	51	18								
COLLMBERG	76.05	359.3	11	52	1								
JENA	76.42	0.2	11	52	-1								
KRAKOW	77.08	354.7	11	57	1						12	9	PCP

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PRUHONICE	77.35	358.3	11 58	0						
PARIS	78.23	6.4	12 5	2					22 17	PCP
CHITTAGONG	78.28	291.5	12 3	0	22	5	7		12 11	PCP
STUTTGART	78.56	1.8	12 6A	1						
STRASBOURG	78.71	2.8	12 7	2						
WARSAK DAM	79.06	313.1	12 6	-1						
BRATISLAVA	79.09	356.5	12 11	4						
GARCHY	79.79	6.1	12 12	1					12 49	
LAHORE	79.87	309.8	12 11	-1						
NEUCHATEL	80.26	3.5	12 15	1						
TIFLIS	81.46	335.7	12 22	2						
CHARTERS TS.	82.77	222.7	12 38	11						
MONACO	83.55	3.3	12 32	1						
QUETTA	84.34	314.5	12 35A	0	23	1	1			
KASTAMONU	84.58	345.9	12 35	-1						
KARAPIRO	91.69	192.9	13 16	6						
SOUTH POLE	142.84	180.0	19 29	-6						
KIMBERLEY	153.96	333.6	19 33	-20						

FEBRUARY 28 11.H 44.M 6.S EPICENTRE -55.00 146.57 DEPTH= 0.KM

A=-0.48084 B= 0.31745 C=-0.81732 D= 0.5510 E= 0.8345
G= 0.6821 H=-0.4503 K=-0.5762 HT= -7.2

SE= 1.51

	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	
MACQUARIE I.	7.19	91.1	1	49	0								
FORT NELSON	12.09	2.7				5	40	27			7	17	SSS
MELBOURNE	17.21	355.7	4	3	0	7	22	8					
CANBERRA	19.75	5.9	4	33	-1	8	28	17					
WILKES	20.60	222.7	4	42	-1	8	52	23			9	2	PCP
ADELAIDE	20.80	341.6	4	44A	-1	8	50	17					
RIVERVIEW	21.41	10.5	4	54A	3	8	57	12					
WELLINGTON	23.09	65.3									9	35	
KARAPIRO	25.99	60.9	5	18	-18						6	3	
BRISBANE	27.90	12.3	5	53A	0	10	37	1					
CHARTERS TS.	34.93	359.5	6	53	-2						15	10	
SOUTH POLE	35.18	180.0	6	59	2						8	13	PP
BYRD STATION	37.07	163.2	7	13	0						9	7	PCP
PORT MORESBY	45.48	0.8	8	25	3	15	9	5			15	25	PS
PORT BLAIR	80.29	306.6									22	23	
MATUSIRO	91.46	353.3	13	8A	-1	25	17	70			24	9	SKS
SHILLONG	92.87	312.4									28	41	
EUREKA	125.13	69.8	19	4	2								
COLLEGE	129.60	30.3	19	13	2								
LWOW	145.44	285.8	19	40	0								
MORGANTOWN	145.63	97.0	19	50	10								
PULKOVO	146.50	304.7	19	44	3								
APATITY	147.31	319.2	19	45	2								
KRAKOW	147.83	283.7	19	47	3								
NURMIJARVI	149.42	304.3	19	50	4								
RESOLUTE	149.44	27.3	19	48	2						43	24	PSPS
TOLMEZZO	149.85	273.0	19	50	3								
PALISADES	149.99	100.8									43	41	SS
PRUHONICE	150.83	280.3	20	0	12								
OTTAWA	151.68	92.1	19	55	5								
KIRUNA	152.27	318.8	19	58	8								
COLLMBERG	152.31	281.8	19	58	7								
UPPSALA	152.67	301.2	20	1	10								
BREBEUF	152.95	93.7	20	0	9								
STUTTGART	153.29	274.4	20	1	9								
SHAWINIGAN	154.03	92.5	20	5	12								
THULE	154.94	18.6	19	51	-3						20	26	
SEVEN FALLS	155.46	93.1	20	1	6								
GARCHY	156.06	266.4	20	28	32								

MARCH 1 0.H 31.M 19.S EPICENTRE 74.73 8.61 DEPTH= 0.KM

A= 0.26201 B= 0.03965 C= 0.96425 D= 0.1496 E=-0.9887
G= 0.9534 H= 0.1443 K=-0.2650 HT=-12.8

SE= 2.59

	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	
KIRUNA	7.89	145.5	1	56	-3	3	38	8					
NORD	8.50	334.9	2	4	-4								
SCORESBY SD.	9.99	260.2	2	23	-5	4	9	-13					
KHEYS	10.59	40.7	2	47	11	4	48	11			2	56	PP
APATITY	10.68	119.6	2	30	-8	4	22	-17					
SKALSTUGAN	11.28	171.6	2	44	-2								
SIDA	14.28	233.9	3	29	3						3	44	
REYKJAVIK	14.84	240.4	3	36	3								
UPPSALA	15.32	162.6	3	34	-5	6	43	12			4	1	
PULKOVO	17.01	140.2	3	56	-5	6	50	-20			7	17	SS
GOTEBORG	17.16	173.8	4	7	4								
THULE	17.99	311.8	4	7	-6								
COPENHAGEN	19.19	173.4	4	26K	-2	8	5	5					
DURHAM	20.45	197.1	4	41K	-1						5	19	PP
WITTEVEEN	22.01	183.1	4	59	1								
RATHFARNHAM	22.34	203.9	5	6A	5								
POTSDAM	22.51	172.8	5	5	2	9	11	5					
DE BILT	22.76	185.5	5	7	2								
MUNSTER	22.85	181.6	5	6	0						6	17	
WARSAW	23.15	160.3	5	11A	2	9	19	2			8	39	PCP
HALLE	23.36	174.7	5	7	-4	9	22	1			5	36	PP
COLLMBERG	23.59	173.1	5	13	0	9	30	5			8	51	PCP
KEW	23.64	194.0	5	15A	1	9	29	3					
BENSBERG	23.87	182.2	5	17A	1						5	52	PP
JENA	23.92	175.4	5	17	0	9	35	4			5	45	PP
RESOLUTE	24.06	320.7	5	17	-1	9	43	10					
UCCLE	24.09	186.4	5	20	2	9	38	4					
PLAUEN	24.37	174.5	5	19	-2	9	44	5			7	5	
SONNEBERG	24.47	176.0	5	22	0	9	46	6					
DOURBES	24.78	186.2	5	16	-9	9	37	-9					
CHEB	24.79	174.2	5	32	7								
PRAGUE	24.87	171.1	5	29	3	10	6	19			11	16	SS
PRUHONICE	24.97	170.9	5	28	1	10	5	16			11	23	SS
RACIBORZ	25.07	165.3	5	29	1						6	6	PP
KRAKOW	25.22	162.7	5	29	0	9	54	1			6	0	PP
LWOW	25.82	156.7	5	35	0						6	24	PP
JERSEY	26.04	196.1									11	31	SS
STUTTGART	26.06	179.1	5	37	0	10	9	2			6	41	PP
PARIS	26.15	189.2	5	39	1						6	19	PP
STRASBOURG	26.25	181.3	5	41	2	10	11	1			6	19	PP
TUBINGEN	26.30	179.3	5	39K	0								
FOLINIERE	26.34	193.6	5	39	-1								
SVERDLOVSK	26.48	103.6	5	36	-5	10	22	8					
EBINGEN	26.65	179.5	5	43	1								
VIENNA-H.	26.78	168.4	5	45	1						6	36	PP
RAVENSBURG	27.05	178.5	5	43	-3								
BASLE	27.30	181.5	5	48	0								
CERNAUTI	27.56	154.5	5	48	-3	10	31	0			6	40	PP
GARCHY	27.65	188.1	5	51	-1						6	43	PP
NEUCHATEL	27.84	182.4	5	53	0								
CHUR	27.98	178.6	5	55A	0								
TOLMEZZO	28.49	173.6	6	0	1						12	47	
IASI	28.81	152.6	6	1	-1						8	21	
CLERMONT-FD.	29.16	187.9	6	5	0								
ZAGREB	29.19	169.4	6	10	4								
TRIESTE	29.26	172.6	6	6	0	11	3	4			7	12	PP
TIKSI	29.29	34.0	6	11	5	11	9	10					
BACAU	29.36	153.8				10	56	-4			7	14	PP
CAMPULUNG	30.43	156.8	6	18	1								
BELGRADE	30.46	163.3	6	19K	2	11	20	2			7	29	PPP
MONACO	31.10	181.6	6	22	-1								
SIMFEROPOL	31.92	144.7	6	36	6	11	46	5					
THEODOSIA	32.05	143.0	6	31	0								
ALUSHTA	32.21	144.4	6	32	0								
YALTA	32.39	144.8	6	31	-3								
SOFIA	32.81	159.8	6	34	-3	12	2	7			7	42	PP
ROME	32.97	174.7	6	40	1	11	58	1			6	54	PP
SKOPJE	33.36	162.5	6	48A	6						7	59	PPP
SOTCHI	34.18	138.1									8	8	PP
TORTOSA	34.21	191.0	6	50	0								
PIATIGORSK	34.37	133.7	6	51	0								
KASTAMONU	34.96	150.3	6	51	-5						8	2	PP
ISTANBUL UN.	35.06	152.7	6	55	-2	12	26	-3					
TOLEDO	35.44	196.9	7	10A	10						9	29	PCP
GROZNY	35.58	130.8	7	2	1	12	39	2			8	20	PP

MAKHACH-KALA	36.27	128.8	7	8	1	12	50	2		
ALICANTE	36.72	192.0	7	11	0	12	53	-2	8	35 PP
MESSINA	36.77	170.8	7	10	-1	12	50	-6	8	30 PP
TIFLIS	36.93	132.6	7	11	-2	13	1	3	8	36 PP
ATHENS	37.54	160.2	7	17A	-1					
GRANADA	38.09	195.0	7	24K	2	13	15	-1	8	48 PP
ALGIERS UNI.	38.14	187.2	7	22	-1	13	19	2	8	55 PP
YAKUTSK	38.22	40.7	7	18	-6	13	12	-6		
ALMERIA	38.34	194.4	7	24	-1				8	27 PP
MALAGA	38.60	196.8	7	27K	0				8	57 PP
SETIF	38.65	184.2	7	26	-1				9	1 PP
RELIZANE	39.26	190.4	7	31	-1				9	6 PP
COLLEGE	39.81	344.5	7	38	1	13	46	4		
LENKORAN	40.58	129.1	7	44	1				9	17 PP
IRKUTSK	41.89	66.3	7	55	1				9	38 PP
KIZYL-ARVAT	41.95	120.5	7	58	4	13	59	-15	9	30 PP
SEVEN FALLS	42.48	276.2	7	53	-6	14	24	2		
KABANSK	42.65	64.5	8	1	1	14	30	6	9	44 PP
HALIFAX	42.88	267.9	8	1	-1	14	26	-1	9	46
TASHKENT	42.95	105.4	8	3	0	14	29	1	9	46 PP
KSARA	43.09	146.1	8	6	2	14	33	2	9	46 PP
ASHKABAD	43.46	118.7	8	8	1	14	42	6	17	56 SCS
SHAWINIGAN	43.51	277.7	8	9	2					
MAGADAN	43.68	26.9	8	9	0	14	41	2		
NAMANGAN	43.88	103.1	8	11	1				9	53 PP
KYAKHTA	44.16	65.6	8	15	3				10	5 PP
ANDIJAN	44.28	102.5	8	20	7					
FERGANA	44.47	103.3	8	16	1				10	4 PP
BREBEUF	44.71	277.9	8	16A	-1	15	4	10		
JERUSALEM	45.00	147.3	8	20K	1				10	11 PP
OTTAWA	45.35	279.8	8	21	-1					
ULAN-BATOR	46.54	66.5	8	34	3					
KHOROG	47.16	104.8	8	39	3					
PALISADES	48.97	275.9	8	55	5	15	55	0	10	43 PP
PENNSYLVANIA	50.21	279.5	9	0	0	16	14	2		
WARSAK DAM	50.44	106.3	8	59	-3					
HUNGRY HORSE	51.46	314.1	9	9	0					
WASHINGTON	51.78	278.0	9	5	-7				15	57
MORGANTOWN	51.85	281.0	9	13	1					
TAMANRASSET	52.02	183.6	9	13K	-1	16	36	-1	10	22 PCP
UGLEGORSK	52.65	36.9	9	19	1					
OUETTA	52.93	112.5	9	20	-1	16	54	5	11	20 PP
RAPID CITY	53.31	303.4	9	24	1				10	32
BUTTE	53.42	312.1	9	23	-1				11	25 PP
BOZEMAN	53.45	310.7	9	23	-1					
LAHORE	53.48	104.4	9	24	-1					
PADTOW	54.21	67.0	9	33	3					
CHANGCHUN	54.60	52.5	9	32	-1					
BERMUDA	54.66	263.4	9	33	0	17	17	4		
Y.-SAKHLINSK	54.83	37.0	9	35	1				14	56 PCS
DEHRA DUN	55.61	101.2	10	1	21	17	30	5		
PEKING	56.20	61.8	9	45	1					
VLADIVOSTOK	56.62	47.1	9	48	1					
LANCHOW	56.92	74.3	9	50	0	17	48	5	12	0 PP
KARACHI	57.12	113.9	9	59	8				12	13 PP
COLUMBIA	57.45	279.7	9	52	-1					
BOULDER	57.64	303.8	9	53	-2					
SALT LAKE C.	58.32	309.7	10	0	1					
FAYETTEVILLE	58.80	292.6	10	1	-2				12	17 PPP
LHASA	59.68	88.7	10	13	4	18	28	9		
SIAN	59.94	70.3	10	11	0					
EUREKA	60.38	312.9	10	13	-1				12	38 PP
SHASTA	60.38	318.7	10	14	0					
MINERAL	60.59	317.9	10	15	0					
RENO	61.05	316.2	10	18	0					
CHATRA	61.33	93.4	10	20	0					
MBOUR	61.99	208.3	10	24	-1				19	55 SCS
CHENGTU	62.11	76.1	10	24	-1	18	53	3		
BERKELEY	63.11	317.9	10	30	-2					
LICK	63.52	317.2	10	31	-4					
BOULDER CITY	63.54	310.9	10	35	0					
FRESNO	63.74	315.4	10	37	1					
SHILLONG	63.77	89.3	10	35K	-1					
MATUSIRO	64.17	43.6	10	39	0					
POONA	65.80	109.2	10	50A	1	19	37	1		
ZO-SE	65.90	60.2	11	20	30					
PASADENA	65.97	313.3	10	50	-1	18	45	-53		
TUCSON TELE.	66.20	306.2	10	52	0				13	4 PP
TUCSON	66.31	306.3	10	53	0				13	17 PP

KUNMING	67.11	79.1	10	58	0	19	56	4				
ADDIS ABABA	67.87	147.6	11	3	0							
SAN JUAN	68.38	260.2	11	5	-1							
TACUBAYA	76.00	292.1	11	51	0							
RUMANGABO	76.97	158.7	11	57	1							
LWIRO	77.82	159.3	12	1K	0							
ASTRIDA	78.26	158.4	12	3K	-1							
BOGOTA	83.64	264.1	12	33	1	27	58	4			23	48 PS
KARAPIRO	142.58	17.1	19	32	-3							
SOUTH POLE	164.63	180.0	21	0	54						25	8 PP
BYRD STATION	167.96	221.1	21	18	70						25	7 PP

MARCH 1 16.H 49.M 11.S EPICENTRE -0.97 134.18 DEPTH= 0.KM

A=-0.69682 B= 0.71705 C=-0.01674 D= 0.7172 E= 0.6969
G= 0.0117 H=-0.0120 K=-0.9999 HI= 7.2

SE= 3.43

	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	
PORT MORESBY	15.39	123.4	3	33	-5	6	22	-7					
GUAM	17.76	35.8	4	2K	-6	7	5	-18					
RABAUL	18.25	100.5	4	12	-2						7	53	
MANILA	20.23	320.3	4	34	-3	7	49	-29					
BAGUIO CITY	21.88	322.7	4	52	-2	8	51	1					
CHARTERS TS.	22.31	148.8	4	56	-2	9	2	4					
HENGCHUN	26.32	330.9	5	42	5	10	8	1					
TAWU	26.55	331.6	4	35	-64								
TAITUNG	26.77	332.5	5	33	-8								
ISIGAKIZIMA	26.96	339.5	5	44	2	11	33	76					
HSINKONG	26.98	333.3	5	56	13	11	11	53					
KAOHSIUNG	27.08	330.8	6	35	51								
TAINAN	27.43	331.1	5	57	10	10	29	4					
ALISHAN	27.60	332.7	5	52	4								
HWALIEN	27.63	334.6	5	31	-17	11	18	50					
DJAKARTA	27.77	258.6	5	47K	-3	10	23	-7					
TAICHUNG	28.20	333.2	6	16	22								
ILAN	28.28	335.6	5	43	-11								
TAIPEI	28.60	335.5	6	15	18	10	44	0					
HONG KONG	30.26	321.0	6	9A	-3	11	9	-1	6	33			
CANTON	31.39	320.9	6	19A	-3	11	24	-4			6	44	*SP
YAKUSIMA	31.44	353.9	6	22	0	11	21	-8			7	44	
TORISIMA	31.81	10.1	6	31	5						13	33	
BRISBANE	31.97	147.2	6	19A	-8	11	4	-33					
KAGOSIMA	32.54	354.2	6	34	2	11	54	8					
MIYAZAKI	32.81	355.7	6	47	12	11	59	9					
SIMIDU	33.58	358.2	6	43	2								
NAGASAKI	33.76	353.5	6	41	-2	11	58	-7			14	11	
KUMAMOTO	33.76	354.7	6	40	-3						11	26	
TOMIE	33.79	351.8	6	44	1	12	2	-3			7	51	
UWAZIMA	34.05	357.6				12	9	0					
ADELAIDE	34.05	173.3	6	44A	-1	12	4	-5			8	51	
OOITA	34.10	356.2	6	44	-2	12	18	7					
ZO-SE	34.20	339.9	6	43A	-4	12	8	-4			8	6	PP
SAGA	34.23	354.2	6	50	3						12	35	
SIOMISAKI	34.26	2.4	6	46	-1	12	19	6					
KOTI	34.34	359.0	6	47	-1	12	15	1			7	18	
HUKUOKA	34.54	354.5	6	51	2	12	6	-11					
PHU-LIEN	34.56	310.3	6	46A	-4	12	9	-8	7	7	8	15	PP
MATUYAMA	34.64	357.9	6	48	-2	12	14	-4			17	17	
TOKUSIMA	34.85	0.6	6	49	-3								
SIMONOSEKI	34.86	355.3	6	50	-2						13	42	
OWASE	34.90	2.9	6	51	-2	12	23	1					
WAKAYAMA	35.02	1.4	6	54	0						17	40	
TAKAMATU	35.10	359.8	6	51	-3	12	14	-12					
SUMOTO	35.14	1.0	6	54	-1	12	14	-12			15	18	
HIROSIMA	35.19	357.5	6	53	-2	12	19	-8					
ITUHARA	35.28	353.0	7	12	16								
PERTH	35.36	207.5	6	55	-1	12	44	15			7	41	*SP
OSAKA	35.45	1.9	7	2	5	12	32	1			8	25	
KOBE	35.47	1.4	7	1	4	12	26	-5			14	42	
NARA	35.49	2.3	6	52	-6								
ABUYAMA	35.67	2.0	6	57A	-2								
KAMEYAMA	35.69	3.2	6	59	0	12	32	-3					
HAMADA	35.73	357.0	7	2	2	12	33	-2					

MEDAN	35.77	277.4	6	57K	-3	12	28	-8					
NANKING	35.92	337.4	6	59A	-2	12	37	-1			8	26	PP
SHIZUOKA	35.97	5.9	6	57	-5						15	22	
NAGOYA	36.04	3.9	7	2	0	12	44	4					
HIKONE	36.10	2.9	7	5	2								
AJIRO	36.12	6.9									8	23	PP
MISIMA	36.17	6.6	7	2	-1	12	31	-11					
YONAGO	36.22	358.9	7	8	4						8	11	
IBUKISAN	36.22	3.0	7	0	-4								
MATSUE	36.24	358.5	7	12	8	12	43	0					
GIHU	36.26	3.6	7	3	-1	12	37	-6			8	57	
MAIZURU	36.27	1.8	7	2	-2						13	39	
TOTTORI	36.28	0.1	7	6	2								
FUTZELING	36.30	333.6	7	4	0								
TOYOOKA	36.31	0.9	7	1	-4	12	36	-8			9	17	
RIVERVIEW	36.36	155.8	7	8K	3	12	44	-1					
IIDA	36.46	5.0	7	10	4								
WUHAN	36.47	330.8	7	3A	-3	12	45	-2			8	31	PP
HUNATU	36.53	6.3	7	10	4								
YOKOHAMA	36.57	7.5									11	53	
KOHU	36.64	6.0	7	12	5						13	25	
TOKYO C.M.O.	36.83	7.6	7	7	-2	12	39	-13					
CANBERRA	36.86	159.6	7	9A	0	12	58	5	7	40	8	37	PP
HUKUI	36.88	2.8	7	11	2								
SAIGO	36.98	358.9	7	15	5	13	10	15					
TITIBU	37.04	6.6	7	19	8								
MATUMOTO	37.19	5.1	7	14	2	13	0	2			8	39	
KUMAGAYA	37.24	7.0	7	18	6						9	52	
OIWAKE	37.33	5.8	7	24	11								
KAKIOKA	37.42	8.0	7	20	6								
MAEBASI	37.45	6.5	7	11	-3						9	1	
MATUSIRO	37.51	5.3	7	9	-6	12	54	-9	7	28	8	41	*PPP
TOYAMA	37.58	4.0	7	17	2	12	55	-9					
MITO	37.61	8.3	7	15	0						13	54	
NAGANO	37.63	5.3	7	17	1	13	1	-3			8	50	PP
UTUNOMIYA	37.70	7.5	7	15	-1	12	55	-10			7	55	
NOUMEA	37.88	126.4	7	14	-4	13	20	12					
MELBOURNE	38.01	166.1	7	17	-2	13	8	-2	7	38	8	58	PP
TAKADA	38.06	5.3	7	24	5						16	7	
ONAHAMA	38.24	8.7	7	22	1	13	7	-7			9	25	
WAZIMA	38.24	3.5	7	24	3	13	11	-3					
SHIRAKAWA	38.31	7.8	7	21	0	13	4	-11					
HUKSIMA	38.96	7.9	7	17	-10	13	22	-3					
HUKUSIMA	38.96	7.9	7	17	-10						13	22	
AIKAWA	38.97	5.1	7	32	5						9	13	
YAMAGATA	39.43	7.7	7	33	2	13	33	1					
SENDAI	39.53	8.3	7	26	-5	13	24	-9			15	52	
ISINOMAKI	39.75	8.8	7	31	-2								
KUNMING	39.99	312.5	7	33A	-2	13	37	-3			9	13	PP
SAKATA	40.01	6.9	7	45	10								
MIZUSAWA	40.41	8.3	7	33	-6	13	40	-6					
AKITA	40.85	7.0	7	45	3	13	56	3					
MORIOKA	40.97	8.2	7	43	0	14	9	14			9	19	
MIYAKO	41.04	9.2	7	40	-4	13	51	-5					
DAIREN	41.32	345.1	7	49	3								
HATINOHE	41.84	8.4	7	50	0	14	2	-6					
AOMORI	42.02	7.5	7	53	1								
SIAN	42.30	328.3	7	52A	-2	14	19	5					
CHENGTU	42.58	320.2	7	54A	-3	14	16	-2			9	43	PP
HAKODATE	42.96	7.2	7	59	-1	14	31	7					
PORT BLAIR	43.06	288.2	8	4	4	14	30	5			9	43	PP
MORI	43.25	6.9	8	5	3	14	27	-1					
FORT NELSON	43.41	165.9	8	9	6	14	24	-7					
URAKAWA	43.62	9.3	8	6	1	14	37	3			12	39	
TOMAKOMAI	43.80	7.9	8	11	5	14	46	10					
VLADIVOSTOK	43.93	357.6	8	6A	-2	14	35	-3			9	48	PP
PEKING	44.00	340.0	8	5A	-3	14	36	-3			9	50	PP
TIENSHUI	44.27	325.8	8	9	-1								
SAPPORO	44.31	7.5	8	11	0	14	39	-5					
OBIHIRO	44.43	9.5	8	8	-4								
KUSIRO	44.70	10.7	8	11	-3	14	43	-6			18	18	SS
NEMURO	45.27	11.7	8	17	-1	14	55	-2					
CHANGCHUN	45.30	351.0	8	13	-6	14	53	-5			10	3	PP
LANCHOW	46.44	325.6	8	25A	-3	15	13	-1					
WAKKANAI	46.66	7.3	8	35	6								
PAOTOW	46.84	334.7	8	28A	-3	15	23	3					
YINCHUAN	46.91	329.8	8	35	4								
CHITTAGONG	47.34	302.0	8	33	-2	15	23	-4	9	2	10	23	PP

SUIHWA	47.81	353.3	8	39	1					
SINING	47.99	324.5	8	39	-1					
Y.-SAKHLINSK	48.30	7.8	8	39K	-3	15	41	0	10	30 PP
WUWEI	48.42	326.4	8	43	0					
SHILLONG	48.65	305.9	8	43A	-2	15	50	5	8	49 PP
ONERAHI	50.88	137.4	9	2	0				11	10 PP
LHASA	51.18	310.2	9	3A	-1	16	19	-1	10	13 PCP
AUCKLAND	51.78	138.4				16	48	19		
KARAPIRO	52.85	139.0	9	15A	-2					
COBB RIVER	52.98	143.8	9	19	1					
CHATRA	53.01	305.1	9	15	-3	16	57	11		
BOKARO	53.03	301.0	9	25	7	16	58	12	11	18 PP
YUMEN	53.23	324.8	9	22	2					
VIZIANAGRAM	53.37	293.4	9	28	7					
TONGARIRO	53.58	140.4	9	20	-2				10	13 PP
ROXBURGH	54.10	150.0	9	25	-1	17	15	15	20	23 SS
ULAN-BATOR	54.17	337.6	9	28	1					
WELLINGTON	54.32	142.9	9	21	-7	17	12	9	21	6 SS
TUAI	54.40	139.1	9	26	-2	17	4	0		
GEBBIES PASS	54.60	146.4	9	30	0					
COLOMBO	54.75	279.1	9	32	1	17	19	10		
MADRAS	55.31	286.5	9	33	-2	17	19	2	11	32 PP
MACQUARIE I.	57.10	163.1	9	48	0	17	14	-26	10 12	11 59 PP
KODAIKANAL	57.50	282.7	9	50K	-1	17	58	12		12 9 PP
PETROPAVLOVK	57.65	17.2	9	46	-6					21 31 SS
HYDERABAD	57.83	291.2	9	55	2	17	59	9		12 8 PP
IRKUTSK	58.69	339.0	9	56A	-3					
MAGADAN	61.73	9.5	10	16A	-4					18 44 PS
DEHRA DUN	61.74	305.4	10	18	-2	18	38	-2		12 22 PP
POONA	62.33	291.4	10	20A	-4	18	54	6		12 41 PP
BOMBAY	63.36	291.6	10	32	2	19	6	5		12 52 PP
LAHORE	65.16	305.6	10	43	1					
TERRE ADELIE	65.92	176.9	10	16	-31	19	27	-5		
WILKES	67.24	190.2	11	3	8	19	48	0	11 25	13 6 PP
WARSAK DAM	68.13	307.3	10	59	-2					
SEMIPALATNSK	68.66	326.3	11	1	-3	20	7	2		11 28 PCP
FRUNSE	68.87	317.2	11	3	-3	20	9	1		13 37 PP
HONOLULU	69.67	67.0	11	11	1	20	17	0		
KARACHI	69.95	297.9	11	10	-2	20	14	-7		13 51 PP
QUETTA	70.93	302.4	11	16	-2	20	14	-18	11 44	13 58 PP
STALINABAD	71.59	311.3	11	19	-3	20	43	3		13 59 PP
TASHKENT	72.03	314.2	11	23	-2					25 19 SS
TIKSI	72.55	358.2	11	29	1	20	49	-2		14 4 PP
CAPE HALLETT	74.75	169.2	11	47	6	21	20	5		14 37 PP
TAHITI	76.87	107.9	12	2	9	22	2	23		
SCOTT BASE	78.76	173.3	12	8	5	21	26	-33	12 21	15 43 PP
ASHKABAD	79.44	308.8	12	8	1					22 19 SCS
SVERDLOVSK	81.86	327.8				22	27	-4		15 28 PP
COLLEGE	85.78	24.8	12	35A	-4	23	12	2		30 47 PKKP
TANANARIVE	86.50	251.2	12	43	0	23	34	17		16 16 PP
GORIS	88.94	309.3	12	55	0	23	20	-3		16 29 PP
SOUTH POLE	89.04	180.0	12	54	-1	23	1	-23		16 28 PP
TIFLIS	90.17	311.5	13	0	-1	23	21	-9		16 39 PP
SITKA	91.08	33.1	13	10	5					
BYRD STATION	91.86	170.4	13	8	0	23	41	0	13 24	16 49 PP
APATITY	95.00	337.7	13	20	-3	23	59	1		17 15 PP
ADDIS ABABA	95.49	278.9	13	33	8					
KSARA	97.44	303.8	13	39	5	24	17	6		17 44 PP
SODANKYLA	97.59	338.1	13	33	-2					
PULKOVO	97.80	330.3	13	39	4					
SIMFEROPOL	97.81	315.1								19 41 PPP
NORD	98.34	355.8	13	37	-1	24	1	-16		26 21 PS
KIRUNA	99.69	339.4	13	42	-2					26 40 PS
LCO. MARQUES	99.98	243.6				26	37	81		31 41 SS
NURMIJARVI	100.36	331.7	13	45	-2					
UKIAH	100.38	50.5								18 41 PP
KASTAMONU	100.69	311.8	13	48	-1					17 43 PP
SHASTA	100.80	48.8	13	53	4					17 58 PP
RESOLUTE	100.97	11.8	13	46	-4					17 59 PP
BERKELEY	101.29	51.7	13	53	2	24	2	-28		17 54 PP
MINERAL	101.45	49.1	13	53	1					17 16
LICK	101.85	52.1	13	56	2					18 9 PP
IASI	101.96	318.1								18 27 PP
ISTANBUL UN.	102.07	311.7	14	7	12					18 16 PP
RENO	102.94	49.7	14	0	1					18 14 PP
FRESNO	103.39	52.5	14	3	2					
BUCHAREST	103.53	315.5				24	46	5		18 27 PP
THULE	103.57	5.3	13	58	-3					18 18 PP

UPPSALA	103.89	332.3	14	0	-3	24	35	8		18	21 PP
BULAWAYO	104.27	249.1	14	13	9					18	19
ASTRIDA	104.39	267.1	14	10	5					27	40 PS
WARSAW	104.78	324.2				25	28	-28	14 23	25	36 S
RUMANGABO	104.82	268.4	14	12	5					27	32 SP
UVIRA	104.97	266.2	13	55	-13	26	31	34			
HUNGRY HORSE	105.07	39.9	14	15A	777					18	29 PP
PASADENA	105.12	54.9	14	10	777	24	53	0		18	38 PP
LWIRO	105.33	267.4	14	11A	777	26	2	2			
EUREKA	105.86	49.2	14	14A	777					18	1 PP
SOFIA	105.88	314.3	18	41	777	24	54	0		22	46 PKS
KRAKOW	106.11	322.3	17	58	777					18	43 PP
SKALNATE PL.	106.19	321.4	14	30	777					19	1 PP
KIMBERLEY	106.48	239.7	17	20	777						
TIMISOARA	106.56	317.7	18	56	777					33	34
BUTTE	106.68	41.9	17	53	777						
RACIBORZ	107.16	322.7	18	21	777						
BELGRADE	107.35	317.0	18	54	777					29	54 PPS
SKOPJE	107.45	313.9	18	55K	777	25	45	0	19 21	22	5 PPP
GOTEBORG	107.47	331.6	14	23	777					18	56 PP
BOULDER CITY	107.47	52.6	14	20A	777					18	50 PP
BOZEMAN	107.80	42.0	14	31	777					18	53 PP
COPENHAGEN	108.16	329.5	18	0	777					18	31 PP
SALT LAKE C.	108.63	47.1	14	25	777						
SCORESBY SD.	108.85	351.7	14	11	777	25	11	0	14 35	18	9 PKP
VIENNA-H.	108.92	321.3								19	7 PP
BERGEN	109.03	335.9								33	53 SS
POTSDAM	109.26	326.2								19	3 PP
PRUHONICE	109.39	323.5	14	31	777					19	2 PP
PRAGUE	109.42	323.6	18	44	17					19	15 PP
COLLMBERG	109.76	325.2	18	1	-27					19	9 PP
HERMANUS	109.83	232.8				25	29	22		19	19 PP
ZAGREB	110.02	319.0	18	20	-10					28	30
HALLE	110.27	325.7	14	20	777	25	3	-6	15 7	19	3 PP
PLAUEN	110.58	324.7	18	23	-8				19 1		
CHEB	110.63	324.2								11	19 PP
JENA	110.72	325.2	18	16	-16					19	12 PP
TUCSON	111.52	55.6	14	40	-233					19	19 PP
TRIESTE	111.54	319.4	18	32	-1	25	13	-1	18 57	19	24 PP
TUCSON TELE.	111.59	55.5	14	40A	777					18	40 PP
TOLMEZZO	111.72	320.4	18	38	4					29	50 PS
MUNSTER	112.43	327.5	18	41	6						
WITTEVEEN	112.51	328.6								19	38 PP
MESSINA	112.82	311.4	18	26	-10				18 53	19	14 PP
STUTTGART	113.07	323.9	18	38	2	27	21	121		19	29 PP
BENSBERG	113.18	326.7								19	34 PP
TUBINGEN	113.25	323.7								19	28 PP
EBINGEN	113.47	323.4								19	34 PP
BOLOGNA	113.57	319.0	19	43	66					29	25 PS
RAPID CITY	113.58	41.5	14	54	777					19	26 PP
DE BILT	113.66	328.4								19	34 PP
CHUR	113.73	321.9	18	40A	2						
ROME	113.79	316.0	19	40	62					23	15 PKS
PRATO	113.97	318.5	19	17	39	26	1	38			
STRASBOURG	113.99	324.2				25	29	6		19	39 PP
WINDHOEK	114.48	244.7	18	43	4						
BASLE	114.60	323.2								19	43 PP
PAVIA	114.68	320.4				24	58	-28		19	45 PP
UCCLE	114.79	327.5								19	44 PP
DOURBES	115.03	326.8								19	45 PP
NEUCHATEL	115.23	323.0								19	48 PP
EDINBURGH	115.33	335.0								19	34 PP
DURHAM	115.39	333.4	18	10	-31					29	33 PS
CHIHUAHUA	116.36	58.4								19	53 PP
MONACO	116.44	319.6	18	44	1					19	57 PP
KEW	116.83	330.0	18	46	2					20	8 PP
PARIS	116.88	326.4								20	3 PP
CUGLIERI	117.18	315.6								21	19
GARCHY	117.38	324.7	18	46	1					20	4 PP
CLERMONT-FD.	118.14	323.2	18	48	2					36	29 SS
RATHFARNHAM	118.44	334.2								20	20 PP
FOLINIERE	118.52	327.6	18	48	1						
LUANDA	120.39	259.3								20	22 PP
GUADALAJARA	120.59	66.5								21	19
SETIF	121.09	312.6	18	58	6	25	39	-10		20	25 PP
TORTOSA	122.34	319.5	18	39	-15					20	41 PP
ALGIERS UNI.	122.55	314.1	19	1	6	25	49	-5	19 29	20	33 PP
FAYETTEVILLE	123.22	46.4	18	55	-1						
ALICANTE	124.26	317.4	18	50	-8	25	33	-26		20	34 PP

FLORISSANT	124.56	41.7	19	2	3	26	8	8			20	47 PP
TACUBAYA	124.65	67.1	15	55	777						21	0 *PPP
ST. LOUIS 1	124.73	41.8	18	59	0						20	44 PP
RELIZANE	124.82	314.2	19	0	1						20	48 PP
LITTLE ROCK	125.15	46.9									20	48 PP
TAMANRASSET	125.66	297.5	19	3	2	25	53	-10	19	31	20	47 PP
TOLEDO	125.77	320.8	19	0	-1	25	18	-45			20	56 PP
ALMERIA	126.39	316.8	18	53	-9						21	6 PP
GRANADA	126.98	317.8	19	18A	15	26	39	32			21	9 PP
MALAGA	127.76	317.7	19	16K	11	26	9	0			21	9 PP
SERRA PILAR	127.77	324.7	19	12A	7							
COIMBRA	128.26	323.7	19	14	8							
CLEVELAND	128.40	34.0	19	3	-3						28	16 SKKS
OTTAWA	128.50	26.7	19	5	-1						21	5 PP
SHAWINIGAN	128.85	23.7	19	6	-1							
SEVEN FALLS	129.13	21.9	19	7	0							
BREBEUF	129.34	25.1	19	7	-1						21	26 *PPP
LISBON	129.63	322.7	19	18K	10						22	26 PP
WAYNESBURG	130.22	34.7									21	29 PP
MORGANTOWN	130.53	34.8	19	13	3						21	36 PKS
PENNSYLVANIA	130.86	32.2	19	17	6						21	28 PP
GEORGETOWN	132.65	33.4	19	21	7						22	44 PP
WASHINGTON	132.65	33.4	19	18	4	26	13	-9			21	39 PP
PALISADES	132.73	29.0	19	16	2	25	39	-43			21	39 PP
FORDHAM	132.86	29.1	20	6	52						23	36 SKP
MERIDA	132.88	62.0									22	49
COLUMBIA	133.47	41.3	19	19	3						21	43 PP
CHAPEL HILL	133.52	37.8	19	21	5							
HALIFAX	133.76	17.6	19	22	6						21	50 PP
SANTA LUCIA	138.55	147.9	19	34A	9						40	39 SS
LA PLATA	142.56	163.5	19	39	7	26	49	11			22	29 PP
BERMUDA	144.05	27.8	19	35	0						23	19 PKS
TALA POZO	146.35	149.7	19	49	10	26	9	-35			34	19 PS
HUANCAYO	147.97	114.7	18	47	-54						21	22
MBOUR	148.52	296.4	19	51	9	27	4	17				
BOGOTA	151.56	82.1	19	51	4						19	59 PKP2
LA PAZ	151.97	129.2	19	58K	11				20	7	23	13 PKS
SAN JUAN	153.61	47.8	19	53	3						23	45 PP

MARCH 2 1.H 37.M 46.S EPICENTRE -5.49 103.54 DEPTH= 0.KM
A=-0.23313 B= 0.96780 C=-0.09496 D= 0.9722 E= 0.2342
G= 0.0222 H=-0.0923 K=-0.9955 HT= 7.0

SE= 2.80

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S H	S	O-C S	*PP M	S	SUPP. M	S
DJAKARTA	3.34	102.1	0	58K	4	1	36	0				
MEDAN	10.23	331.6	2	44	13	4	46	18				
KUNMING	30.36	358.5	6	16	0							
SHILLONG	32.89	340.3	6	38	0							
LHASA	36.93	341.7	7	12	0	12	54	-4				
POONA	37.77	309.9	7	17	-2							
LANCHOW	41.35	0.3	7	49	0							
PORT MORESBY	43.39	97.8	8	5	-1							
ADELAIDE	43.72	136.8	8	8A	0							
CHARTERS TS.	43.94	113.2	8	9	-1	14	39	-3				
LAHORE	46.18	324.7	8	27	-1							
PEKING	46.76	13.3	8	33	0							
KARACHI	47.16	313.0	8	45	9							
WARSAK DAM	49.57	324.7	8	53	-2							
QUETTA	49.86	317.5	8	56	-1	15	52	-15			10	56 PP
RIVERVIEW	52.31	129.0				16	41	1				
MATUSIRO	52.92	35.0	9	17K	-3						10	14
ULAN-BATOR	53.26	2.8	9	22	-1							
NAMANGAN	54.69	330.7	9	32	-1	17	8	-5				
TANANARIVE	56.11	251.0	9	58	15							
ADDIS ABABA	66.15	282.3	10	53	2							
YAKUTSK	70.27	12.8	11	14	-3							
TIFLIS	71.11	317.4	11	21	-1							
SVERDLOVSK	71.25	336.7				20	35	-5				
ASTRIDA	73.65	268.9	11	36A	-1							
BULAWAYO	74.00	250.7	11	38	-1							
RUMANGABO	74.16	270.2	11	40	0							
UVIRA	74.18	267.9	11	40	0							
LWIRO	74.61	269.2	11	42K	-1							

MAGADAN	74.79	22.8	11 44	0			
TIKSI	78.74	7.9	12 4	-2			
SIMFEROPOL	79.54	317.5	12 14	4			
KASTAMONU	80.83	313.3	12 3	-14			
MOSCOW	81.29	328.5	12 18	-1			
SOUTH POLE	84.55	180.0	12 34	-2			
APATITY	87.57	338.8	13 1	10			
KHEYS	89.17	352.2	12 55	-4			
NURMI JARVI	89.29	331.0	12 58	-1			
SODANKYLA	90.02	337.9	13 12	9			
KRAKOW	90.07	320.2	13 2	-1			
RACIBORZ	91.18	320.0	13 8	0			
BYRD STATION	91.91	173.2	13 11	0			
KIRUNA	92.44	337.8	13 24	10			
UPPSALA	92.65	329.7	13 14	-1		17 5	
HALLE	95.25	321.1	13 33	6			
STUTTGART	96.95	318.3	13 44	9			
TAMANRASSET	99.49	292.1	13 24	-22		17 12	PP
COLLEGE	102.81	24.5				18 19	PP
RESOLUTE	110.04	5.1	18 32	-1			
HUNGRY HORSE	126.66	30.5	19 6	1			
MINERAL	126.72	42.5	19 7	1			
LICK	128.07	45.9	19 10	2			
EUREKA	130.88	40.6	19 16	2		20 29	
PASADENA	132.02	48.0				22 40	
PALISADES	144.56	356.7	19 37	-1			
FAYETTEVILLE	145.46	25.8	19 39	-1			
MORGANTOWN	145.86	4.8	19 42	1			

MARCH 2 9.H 13.M 44.S EPICENTRE -8.20 127.76 DEPTH= 0.KM

A=-0.60614 B= 0.78264 C=-0.14163 D= 0.7906 E= 0.6123
G= 0.0867 H=-0.1120 K=-0.9899 HT= 6.8

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
PORT MORESBY	19.20	95.0	4 30A	2	8 2	3		4 42 PP
CHARTERS TS.	21.42	125.2	4 49	-2	8 43	-2		
MANILA	23.61	343.4	5 16	3	9 42	17		
RABAUL	24.59	82.2	5 22	-1				
BAGUIO CITY	25.47	343.8	5 30	-1	10 20	23		
PERTH	26.11	203.5	5 42	5	10 11	4		
ADELAIDE	28.45	160.9	5 56	-2				8 56 PCP
BRISBANE	30.65	131.9	6 18A	0	11 14	-6		
MEDAN	31.27	290.9	6 22K	-1	11 27	-3		
HONG KONG	33.10	336.5	6 43	3				7 56 PPP
MELBOURNE	33.36	154.8	6 41	-1				16 42 SCS
RIVERVIEW	33.41	143.1	6 41A	-1	11 59	-4		
CANTON	34.16	335.8	6 54	5	12 30	15		
PHU-LIEN	35.52	324.5	7 14	14	12 46	10		
ZO-SE	39.58	351.1	7 39	5				
NOUMEA	39.74	115.1	7 34	-2			10 57	
PORT BLAIR	40.05	299.1	7 39	1	13 41	-4	9 15	PP
KUNMING	41.10	324.2	7 50	3	14 0	-1		
CHENGTU	44.85	330.5	8 17	0	14 51	-5	10 7	PP
MATUSIRO	45.58	11.8	8 21	-2	15 10	4	9 52	PCP
CHITTAGONG	46.50	311.5	8 32	1	15 23	4	10 20	PP
SHILLONG	48.43	315.0	8 34	-12				
PEKING	49.17	348.2	8 50	-1				
LANCHOW	49.47	334.4	8 53	-1	15 58	-3		
VLADIVOSTOK	51.21	3.9	9 37	30				
LHASA	51.60	318.4	9 9	-1	16 26	-4		
KARAPIRO	52.20	132.2	9 22	7				
KODAIKANAL	53.30	289.2			16 54	0		
ULAN-BATOR	58.84	343.7	10 2	0				
WILKES	59.14	188.1			18 8	-3		10 24 PCP
DEHRA DUN	61.16	311.2	10 38	20				
LAHORE	64.54	310.6	10 37	-4				
WARSAK DAM	67.75	311.8	10 59A	-2				
CAPE HALLETT	69.03	167.2	11 23	14	20 18	4	2[illegible]	16 SS
QUETTA	69.68	306.3	11 10A	-3	20 16	-6	13 42	PP
YAKUTSK	70.02	1.0	11 11	-4	20 18	-8		
NAMANGAN	71.00	318.4	11 19	-2				
TANANARIVE	78.17	252.4	12 4	1				12 24

TIKSI	79.66	0.4	12	9	-2	22	7	-6			
SOUTH POLE	81.86	180.0	12	21	-1						
SVERDLOVSK	84.65	329.4	12	34	-3						
BYRD STATION	85.83	170.7	12	41	-1						
COLLEGE	94.99	25.3	13	27	2						
RESOLUTE	109.27	11.0	18	30	-3						
MESSINA	112.46	307.9								28 36	PS
										28 12	
HUNGRY HORSE	114.69	40.3	18	42	0						
EUREKA	115.39	50.2	18	44	0						
TUCSON	120.82	57.4	18	55	1						
TUCSON TELE.	120.90	57.2	18	56	2						
TAMANRASSET	122.81	291.7	18	59	1					21 40	PP
DALLAS	132.10	52.7	15	22	777						
OTTAWA	137.75	24.7	19	15	-11						
SHAWINIGAN	137.93	21.2	19	27	0						
SEVEN FALLS	138.09	19.0	19	27	0					23 0	SKP
BREBEUF	138.50	22.8	19	29	1						
MORGANTOWN	140.07	34.0								23 5	PP
PALISADES	142.07	27.0	19	32	-2					22 58	PKS
MBOUR	144.90	283.3	19	41	2						
HUANCAYO	149.48	130.9	19	55	9					20 25	PKP2
SAN JUAN	163.14	51.7								20 54	PKP2

MARCH 2 11.H 22.M 37.S EPICENTRE 33.12 49.46 DEPTH= 0.KM

A= 0.54549 B= 0.63774 C= 0.54380 D= 0.7599 E=-0.6500
G= 0.3535 H= 0.4132 K=-0.8392 HT= 0.8

SE= 2.90

	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	6.85	339.3	2	11	27							
TIFLIS	9.35	338.0	2	37	18	5	5	59				
MAKHACH-KALA	9.95	351.7	2	31	4							
KSARA	11.36	277.2	2	47	1	5	2	7			3	58
JERUSALEM	12.10	267.5									4	28
SOTCHI	12.93	326.7	3	9	2							
QUETTA	15.18	96.4	3	35	-2	6	31	4				
SIMFEROPOL	16.75	319.3	4	1	4							
KASTAMONU	16.98	304.4	3	34	-26	6	18	-51				
ISTANBUL UN.	18.12	301.7	4	13	-1							
NAMANGAN	19.35	59.7	4	29	0							
ATHENS	21.47	290.3	4	55A	3							
SOFIA	22.65	302.5	5	6	3						9	21
MOSCOW	24.07	343.5	5	19	2							
DEHRA DUN	24.45	88.8	5	31	10							
SVERDLOVSK	24.93	14.6	5	28	2							
KRAKOW	27.57	316.6	5	49	-1							
MESSINA	27.92	290.1	6	11	18	9	56	-40				
PULKOVO	29.52	340.3	6	7	-1							
TRIESTE	30.05	305.2	6	13	1							
TOLMEZZO	30.71	306.4	6	15	-3						6	38
NURMIJARVI	31.84	336.8	6	24	-4							
COLLMBERG	32.11	315.4	6	29	-2							
STUTTGART	33.75	309.7	6	42	-3							
UPPSALA	33.97	331.5	6	48	1							
MONACO	34.26	300.4	6	48	-1							
BASLE	34.58	307.1	6	49	-3							
NEUCHATEL	34.93	306.1	6	53	-2							
GOTEBORG	35.28	325.6	6	56	-2							
MUNSTER	35.51	314.7	6	58	-2							
APATITY	35.72	349.5	7	0	-2							
SETIF	36.14	287.5	7	4	-1						8	17 PP
SODANKYLA	36.80	345.5	7	8	-3							
CLERMONT-FD.	37.45	303.6	7	22	6							
SHILLONG	37.53	90.2	7	11K	-6							
GARCHY	37.59	306.1	7	16	-1							
PARIS	38.13	308.5	7	26	4							
SKALSTUGAN	38.24	334.1	7	7	-16							
KIRUNA	38.59	342.8	7	25	-1							
RUMANGABO	39.18	213.0	7	34	3							
TAMANRASSET	39.91	266.6	7	36	-1						9	6 PP
FOLINIERE	40.08	308.1	7	36	-2							
RELIZANE	40.09	287.8	7	28	-10							
ASTRIDA	40.12	211.6	7	40	1							

BANGUI	40.56	231.8	7 41	-1
UVIRA	41.18	211.8	7 49	2
ULAN-BATOR	45.08	53.2	8 21	2
TANANARIVE	51.78	182.3	9 10	-1
MBOUR	62.65	269.8	10 27	-1
THULE	64.15	346.6	10 39	1
RESOLUTE	69.95	350.5	11 11	-4
COLLEGE	81.40	7.4	12 21	1
SOUTH POLE	122.94	180.0	18 55	-3
BYRD STATION	132.78	182.6	19 15	-2

MARCH 2 15.H 51.M 41.S EPICENTRE 36.44 70.60 DEPTH= 213.KM

DEPTH OF FOCUS= 0.028R

A= 0.26781 B= 0.76062 C= 0.59139 D= 0.9432 E=-0.3321
G= 0.1964 H= 0.5578 K=-0.8064 HT= -0.4

SE= 1.77

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KHOROG	1.31	37.3	0 35	1	1 0	0		
KULYAB	1.60	336.0	0 37	0	1 3	-2		
NUREK	2.20	333.0	0 44	2				
OBI-GARM	2.37	342.6	0 45	1	1 16	-2		
CHUIAN-GARON	2.48	333.1	0 45	0	1 17	-3		
WARSAK DAM	2.55	162.1	0 45	-1				
STALINABAD	2.56	325.9	0 47	1	1 20	-2		
GARM	2.57	354.7	0 47	1	1 20	-2		
ZIMCHURUD	2.73	328.9	0 49	1				
DZHERGETAL	2.82	9.8	0 49	0	1 26	-1		
MURGAB	3.28	53.0	0 55	1				
SAMARKAND	4.31	319.5	1 3	-4	1 50	-9		
ANDIJAN	4.52	17.3	1 10	0	2 0	-3		
NAMANGAN	4.61	10.1	1 10	-1	2 0	-5		
TASHKENT	4.98	348.4	1 15	0	2 12	-2		
LUNACHARSKOE	4.98	348.9	1 15	0	2 15	1		
LAHORE	5.78	146.5	1 24	-1	2 23	-9		1 59 *SP
TCHIMKENT	5.90	352.7	1 27	0	2 30	-5		
NARYN	6.52	38.5	1 33	-2				2 19
BAIRAM-ALI	6.89	282.2	1 38	-2				2 16
QUETTA	6.95	207.1	1 40K	-1	2 56	-3		2 22 *SP
FRUNSE	7.12	24.3	1 43	0	3 0	-3		2 33
RYBACHE	7.35	33.5	1 46	0				2 48
FABRICHNAYA	8.07	31.7	1 55	0				
ALMATA	8.38	33.6	1 59	0				2 49
PRZHEVALSK	8.53	42.6	2 1	0	3 34	-2		3 52
DEHRA DUN	8.72	132.3	2 1	-2	3 33	-7		2 10 PP
KURMENTY	8.86	39.5	2 3	-2				
ILI	8.99	31.4	2 5	-2				
ASHKABAD	9.89	282.4	2 19	0	4 7	0		3 32
KARACHI	11.01	197.1	2 43K	10	4 46	13		
AGRA	11.22	143.7	2 27K	-9	4 22	-16		
KIZYL-ARVAT	11.64	287.1	2 41	0	4 38	-9		
SEHORE	14.36	155.3	3 17	2	5 45	-4		3 27 PP
SEMIPALATNSK	15.59	23.5	3 29	-1	6 17	0		4 23 *SP
CHATRA	17.03	119.6	3 48	1	6 55	6		
BOMBAY	17.58	173.0	3 52	-1	7 4	4		4 46 *SP
POONA	18.07	170.0	3 58A	0	7 12	3	4 24	8 20 SS
BOKARO	18.16	129.6	4 3K	4	7 17	6		
LHASA	18.41	105.7	4 3A	1	7 20	4		7 50 PCP
HYDERABAD	20.17	157.8	4 18K	-2	7 59	10		8 38 SS
YUMEN	21.04	71.4	4 30	2				
SHILLONG	21.16	114.8	4 29	0	8 10	3	4 54	8 47 SS
SVERDLOVSK	21.47	344.9	4 34	2				5 36 *SP
VIZIANAGRAM	21.49	144.7	4 33	1				
CHITTAGONG	23.14	121.5	4 50A	2	8 44	3	5 30	9 52 *SP
SOTCHI	24.61	296.4	5 3	1			5 45	10 19 SS
MADRAS	24.88	157.3	5 5	0	9 11	1		10 13 SS
SINING	25.00	80.2	5 7	1				
WUWEI	25.50	77.0	5 12	1				
LANCHOW	26.72	80.8	5 22A	0	9 42	2		7 14
KODAIKANAL	26.83	164.9			9 39	-2		
CHENGTU	28.34	92.0	5 36A	0	10 7	1	6 22	6 40 PP
KSARA	28.43	275.1	6 24	47	11 14	67	7 6	7 15 PP
IRKUTSK	28.51	45.6	5 38A	0				6 42

TIENSHUI	28.58	83.2	5	39	1							
YALTA	28.69	297.6	5	39	0							
SIMFEROPOL	28.74	298.6	5	41	1	10	13	1	6	22	11	31 *SS
ULAN-BATOR	28.98	55.3	5	41	-1							
KYAKHTA	29.21	50.2	5	43A	-1	10	29	9			6	53 *SP
MOSCOW	29.50	321.3	5	46	-1	10	24	0	6	30	6	54 PP
JERUSALEM	29.56	271.4	5	53	6							
KUNMING	29.68	103.4	5	47A	-1	10	27	0			12	24 SS
KABANSK	29.80	47.0	5	50A	1				6	34	6	59 *SP
COLOMBO	30.60	161.7	7	48	112	10	43	2				
PAOTOW	30.95	70.2	5	59A	0	10	50	3			7	4
KASTAMONU	31.19	291.4	5	41	-20				6	24		
SIAN	31.20	82.5	5	31A	-30							
PORT BLAIR	31.72	135.4	6	8	2	11	1	2	6	51		
ISTANBUL UN.	32.56	291.0	6	13	0				6	58		
IASI	33.44	302.4	6	20	-1				7	6	16	19 SCS
TATUNG	33.47	70.5	6	24	3							
BACAU	33.87	301.2	6	22	-2						16	22 SCS
BUCHAREST	34.45	297.4	6	32A	3						7	45
PULKOVO	34.78	325.0				11	46	0			12	58 *SS
PHU-LIEN	35.02	106.5	6	33A	-1	11	49	-1				
PEKING	35.67	70.1	6	40A	0						8	7 PP
LWOW	35.95	306.7	6	43	1						7	42
SOFIA	36.59	294.7	6	49	2	12	30	16			7	33 *SP
WUHAN	36.89	86.2	6	49A	-1	12	19	1			8	28 PP
ATHENS	37.07	286.8	6	50	-1				7	36		
HELSINKI	37.43	324.0	6	55	1							
NURMIJARVI	37.69	324.4	6	55	-2							
SKOPJE	38.10	293.8	7	1K	1						8	6 PP
BELGRADE	38.45	298.5	7	4K	1						8	27 PP
KRAKOW	38.60	306.9	7	5	1						8	33 PP
CANTON	39.06	97.9	7	8A	0						8	16 *SP
SODANKYLA	39.66	335.1	7	13	0							
RACIBORZ	39.71	307.0	7	12	-1						9	9 PPP
ADDIS ABABA	39.74	234.6	7	16	2							
NANKING	39.76	81.8	7	14A	0						8	22 *SP
HONG KONG	40.16	98.3	7	17	0	13	10	3				
BRATISLAVA	40.50	304.0	7	21K	1				8	9	8	41 PP
UPPSALA	40.92	322.0	7	23A	0						8	58 PP
VIENNA-H.	40.98	304.2	7	25	1						9	36
ZAGREB	41.48	300.6	7	30K	2							
MEDAN	41.69	135.1	7	28A	-1	13	25	-5				
CHANGCHUN	41.82	62.4	7	31	1						8	41 *SP
ZO-SE	41.99	82.1	7	32A	0	13	37	3			8	41 *SP
KIRUNA	42.00	334.2	7	32A	0							
PRUHONICE	42.07	306.9	7	35	3	13	39	4	8	17	17	7 SS
PRAGUE	42.14	307.1	7	34	1				8	21	9	27 PCP
POTSDAM	42.90	310.5	7	39	0						10	29
COLLMBERG	42.98	309.0	7	41	1				8	27	9	27 PP
TRIESTE	43.05	300.6	7	41	1	13	55	6	8	26	9	24 PP
REGGIO CALA.	43.22	289.4	7	42	0	13	53	1				
COPENHAGEN	43.25	315.4	7	43K	1				8	30	17	27
MESSINA	43.27	289.6	7	42K	0	13	53	0	8	30	16	59 SS
TOLMEZZO	43.44	301.8	7	42	-2				8	21	11	10
PLAUEN	43.57	307.9	7	53	8						10	37
GOTEBORG	43.59	318.3	7	45A	0				8	32	9	30 PP
HALLE	43.63	309.3	7	41	-4	13	56	-2	8	27	9	41 PP
JENA	43.90	308.5	7	48	1	13	58	-4	8	33	9	28 PP
SKALSTUGAN	44.08	326.8	7	48A	-1						9	33 PP
SONNEBERG	44.19	307.8	7	50	0				8	35		
KHEYS	44.32	355.5	7	54	3				8	29	9	41 PP
PRATO	45.22	298.6	7	57	-1	14	12	-9				
STUTTGART	45.67	305.7	8	2A	1	14	31	4	8	45	9	33 PCP
CHUR	45.75	303.0	8	1A	-1							
TUBINGEN	45.79	305.4	8	2A	0				8	49		
EBINGEN	45.91	304.9	8	4A	1							
TIKSI	45.94	22.0	8	2	-1						9	45 PP
MUNSTER	46.27	310.3	8	6	0							
STRASBOURG	46.63	305.6	8	9A	0				8	57	10	1 PP
BENSBERG	46.67	309.0	8	9	0						9	29 PCP
WITTEVEEN	46.76	311.6	8	9	-1							
BASLE	46.94	304.2	8	11	0						11	3
NEUCHATEL	47.46	303.6	8	14	-1							
MONACO	47.84	299.2	8	18	0						9	5 PP
BAGUIO CITY	48.41	100.7	8	23	1							
DOURBES	48.42	308.1									11	0 PP
GARCHY	49.99	304.8	8	34A	0						13	25 SCP
PARIS	50.03	306.8	8	35	0				9	23		

CLERMONT-FD.	50.32	302.8	8	36A	-1	15	37	5				
KEW	51.22	310.7	8	44A	0				9	31	17 6	*SS
DURHAM	51.32	315.0	8	44A	0							
SETIF	51.59	290.4	8	44K	-2				9	34	10 32	PP
OKHA	51.64	46.5	8	47	0				9	35	15 53	
FOLINIERE	51.95	307.4	8	47	-2							
UGLEGORSK	52.11	52.2	8	50	0						9 57	PCP
Y.-SAKHLINSK	53.10	54.6	8	57	-1						17 35	
ALGIERS UNI.	53.15	292.0	9	19K	21				10	7		
MATUSIRO	53.28	68.3	8	47A	-12	16	10	-2			10 59	PP
TORTOSA	53.60	297.6	8	57	-4							
RUMANGABO	53.68	234.9	9	3	1	16	28	10				
NORD	53.80	349.5	9	2A	-1							
RATHFARNHAM	54.35	314.0									9 58	
ASTRIDA	54.37	233.5	9	8A	1	16	33	6				
MAGADAN	54.63	38.0	9	7K	-2	16	31	1			10 5	PCP
LWIRO	54.72	234.7	9	10	1	16	35	4				
TUKUBASAN	54.81	67.9	9	8A	-2							
ALICANTE	55.18	295.0	9	1	-12	16	41	3			11 7	PP
RELIZANE	55.41	291.7	9	14A	0				10	3	11 13	PP
UVIRA	55.43	233.4	9	14	-1						13 48	SCP
SCORESBY SD.	56.98	336.4	9	29	3				10	15	10 33	*SP
TOLEDO	57.19	298.0	9	28A	1				10	16	10 40	
TAMANRASSET	57.23	275.5	9	25A	-2	17	4	-1	10	14	11 35	PP
BANGUI	57.31	249.0	9	26	-2						10 14	
SIDA	57.44	328.2	9	30	1							
GRANADA	57.91	294.9	10	21A	49						11 54	PP
MALAGA	58.69	294.7	9	34K	-3				10	26		
REYKJAVIK	58.94	329.2	9	41	2							
TANANARIVE	59.22	205.6	9	42	1				10	32		
THULE	64.47	350.1	10	15	-1				11	1	12 38	PP
RESOLUTE	68.74	355.9	10	42A	-1	19	30	3			20 54	*SS
BULAWAYO	68.86	222.4	10	43	0							
COLLEGE	74.63	16.0	11	16	-2				12	10	38 8	PKPPKP
PIETERMZBURG	75.79	215.4	11	23	-1							
WINDHOEK	77.43	229.6	11	33	0							
KIMBERLEY	77.85	220.1	11	35K	-1							
MBOUR	79.69	280.2	11	47	2	21	31	3				
GRAHAMSTOWN	80.67	216.1	11	50A	-1							
PORT MORESBY	84.88	105.5	12	12A	0	22	21	0			23 51	PS
RABAUL	85.70	98.4	12	15	-1							
SEVEN FALLS	89.92	334.8	12	37	1							
CHARTERS TS.	90.76	114.3	12	39A	-1							
SHAWINIGAN	91.07	335.7	12	41	0							
OTTAWA	93.04	337.0	12	51	0							
HORSESHOE B.	93.67	9.0	12	53A	0							
ADELAIDE	95.17	130.0	12	59K	-1							
HUNGRY HORSE	95.49	3.1	13	2	0				14	0	16 50	PP
BOZEMAN	98.25	1.2	13	16	2							
RAPID CITY	99.66	355.5	13	21	0							
SHASTA	102.31	10.1									17 55	PP
RENO	103.79	8.3									17 53	PP
EUREKA	104.21	5.2	13	43	2						16 59	PP
LICK	105.72	10.1									18 8	PP
FRESNO	106.52	8.7									18 13	PP
PASADENA	109.30	7.7									18 20	PP
TUCSON TELE.	111.57	1.2	17	32	-37						18 40	PP
TUCSON	111.66	1.3	17	31	-38						19 1	PP
SOUTH POLE	126.26	180.0	18	36	-1						21 29	PP
SAN SALVADOR	126.59	335.3									22 7	PP
BYRD STATION	136.12	177.5	18	53	-3						22 8	PP
HUANCAYO	140.91	299.7	19	5	0						22 24	SKP

MARCH 2 23.H 27.M 15.S EPICENTRE 36.78-121.85 DEPTH= 0.KM

A=-0.42370 B=-0.68200 C= 0.59612 D=-0.8494 E= 0.5277
G=-0.3146 H=-0.5064 K=-0.8029 HT= -0.5

SE= 3.13

	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
VINEYARD	0.38	94.0	0	10	-3							
LICK	0.59	16.7	0	11K	-5							
BRANNER	0.69	337.8	0	15K	-2							
SAN FRANCSCO	1.10	334.4	0	21K	-2							

BERKELEY	1.14	343.5	0	21K	-3	0	36	-4			
FRESNO	1.65	89.6	0	28A	-3						
UKIAH	2.59	335.7	0	41	-3	1	18	1			
TINEMAHA	2.92	83.4	0	48	-1	1	21	-4			
ISABELLA	2.95	111.2	0	47	-2						
RENO	3.19	29.6	0	51A	-2						
HAIWEE	3.21	100.3	0	53	0	1	30	-3			
CHINA LAKE	3.56	104.3	0	57	-1						
MINERAL	3.57	3.1	0	56K	-2	1	40	-2			
PASADENA	3.99	130.0	1	3	-1	1	45	-8			
ARCATA	4.45	337.7	1	13	2				2	47	
EUREKA	5.36	58.0	1	21	-3						
BOULDER CITY	5.72	95.9	1	29	0	2	14	-22	1	48	
CORVALLIS	7.87	352.4	2	0A	1						
SALT LAKE C.	8.77	59.9	2	12	1	3	47	-5			
TUCSON	10.15	113.2	2	32	1				3	18	
TUCSON TELE.	10.19	112.5	2	29	-2						
BUTTE	11.56	34.1	2	51	1	5	14	13			
VICTORIA	11.79	354.9	3	3	10						
BOZEMAN	12.03	39.1	3	1	5	5	8	-4			
HORSESHOE B.	12.64	355.7	2	59	-5						
BOULDER	13.38	70.9	3	15	1						
LARAMIE	13.43	65.3	3	16	1						
RAPID CITY	15.95	57.0	3	54	6						
DALLAS	20.93	93.4	4	47	0						
FAYETTEVILLE	22.24	83.4	5	3	3						
COLLEGE	32.08	339.4	6	38	7						
RESOLUTE	40.10	10.8	7	39	0						
THULE	46.22	15.3	8	37	8						
HUANCAYO	65.37	128.7							13	50	PP
MATUSIRO	76.00	305.2	11	51	0						

MARCH 4 0.H 52.M 49.S EPICENTRE 51.75 159.32 DEPTH= 0.KM

A=-0.58164 B= 0.21957 C= 0.78325 D= 0.3532 E= 0.9356
G=-0.7328 H= 0.2766 K=-0.6217 HT= -6.1

SE= 3.04

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
PETROPAVLOVK	1.44	343.8	0	31K	4	0	53	6			0	41	*SP
KLYUCHI	4.66	10.0	1	16	3								
MAGADAN	9.18	331.8	2	23	6	4	15	13					
KURILSK	10.01	233.8	2	35	7								
OKHA	10.12	286.7	2	38	8								
UGLEGORSK	11.32	263.1	2	52	6								
Y.-SAKHLINSK	11.84	252.6	2	59A	6								
VLADIVOSTOK	20.36	255.7	4	38	-3								
MATUSIRO	21.33	232.8	4	50A	-1						6	30	
TIKSI	24.11	336.8	5	18	0								
COLLEGE	29.71	43.4	6	9	-1								
LANCHOW	41.88	270.4	7	53	-1								
RESOLUTE	44.76	21.3	8	16A	-1								
CHENGTU	45.39	264.5	8	18	-4								
HONG KONG	45.45	247.1	8	23	1								
THULE	48.54	13.5	8	45	-2						9	16	
ISFJORD	48.76	351.0	8	51	2								
KUNMING	50.22	260.3	8	58A	-2								
HUNGRY HORSE	52.57	57.0	9	16	-2								
SHASTA	52.79	69.2	9	24	5								
MINERAL	53.48	69.0	9	37	13								
APATITY	54.32	337.5	9	29	-1								
SODANKYLA	56.01	339.9	9	41	-2								
SHILLONG	56.53	269.7	9	45	-1								
KIRUNA	56.85	342.7	9	48	-1								
EUREKA	57.29	66.3	9	50	-2						10	18	
CHITTAGONG	58.90	267.2	9	59	-4								
RAPID CITY	61.01	54.8	10	17	-1								
PULKOVO	61.47	333.4	10	20	-1								
SKALSTUGAN	62.15	344.0	10	24	-1								
NURMIJARVI	62.33	336.6	10	25	-1								
MOSCOW	62.54	327.1	10	25	-3								
UPPSALA	64.54	339.7	10	40A	-1								
TUCSON TELE.	65.33	68.7	10	54	8						11	33	PCP
TUCSON	65.34	68.8	10	52	6								

GOTEBORG	67.68	341.7	11 2A	1	
QUETTA	68.31	291.4	11 3	-2	
TIFLIS	70.97	313.9	11 20	-1	
LWOW	71.90	331.4	11 27	0	
OTTAWA	72.25	37.3	11 27	-2	
SHAWINIGAN	72.35	34.8	11 28	-2	
CHARTERS TS.	72.36	192.9	11 27	-3	
DURHAM	72.67	348.5			11 51
SIMFEROPOL	72.72	322.6	11 33	1	
ALUSHTA	72.82	322.2	11 32	0	
POONA	72.90	278.3	11 32	-1	
BREBEUF	72.95	35.9	11 31K	-2	
YALTA	73.11	322.3	11 34	0	
RACIBORZ	73.31	335.0	11 35	0	
COLLMBERG	73.45	338.7	11 36	0	
HALLE	73.50	339.4	11 32	-4	11 43 PCP
JENA	74.11	339.4	11 38	-2	
PRUHONICE	74.32	337.2	11 41A	0	14 23 PP
BRATISLAVA	75.35	334.9	11 48	1	
DOURBES	76.28	343.6			15 7 PP
STUTTGART	76.66	340.2	11 54	0	
KASTAMONU	77.05	322.8	11 49	-8	
STRASBOURG	77.14	341.1	11 58	1	
PARIS	77.89	344.6	12 5	4	
NEUCHATEL	78.81	341.1	12 7	1	
GARCHY	79.27	343.8	12 9	0	
SOUTH POLE	141.56	180.0	20 9	36	

MARCH 4 18.H 55.M 6.S EPICENTRE -20.62-175.21 DEPTH= 84.KM

DEPTH OF FOCUS= 0.008R

A=-0.93345 B=-0.07829 C=-0.35006 D=-0.0836 E= 0.9965
G= 0.3488 H= 0.0293 K=-0.9367 HT= 4.5

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
SUVA	6.47	291.1	1 46	11	3 21	33		
APIA	7.53	26.3	1 47	-2	3 6	-7		
NOUMEA	17.16	261.1	3 59	4				
ONERAHI	17.65	209.0	4 3	2	7 17	4		4 39
KARAPIRO	19.02	203.0	4 14	-3			4 31	
TONGARIRO	20.16	201.3	4 27	-2				
WELLINGTON	22.29	200.2	4 55	4	8 36	-9		
COBB RIVER	22.83	204.0	4 58	2	8 51	-4		
GEBBIES PASS	25.15	201.0	5 17	-1	9 35	0		
BRISBANE	29.74	250.5	6 0A	0	10 51	2		
CHARTERS TS.	36.09	264.0	6 54K	-1			7 20	
MELBOURNE	38.42	234.7	7 10	-4				
ADELAIDE	42.82	240.5	7 49A	-2				
BYRD STATION	64.10	170.8	10 27	0				
SOUTH POLE	69.51	180.0	11 1	0			11 47	
MATUSIRO	71.88	322.0	11 16	1				
LICK	76.59	41.2	11 36	-7				
PASADENA	76.87	45.6	11 59	15				
SHASTA	78.28	38.2	11 52	0				
MINERAL	78.52	38.9	11 55	2				
RENO	79.08	40.4	12 20	24				
TUCSON	80.95	50.7	12 10	4				
TUCSON TELE.	81.07	50.7	12 10	3				
EUREKA	81.42	42.3	12 11	2			12 39	
HUNGRY HORSE	87.68	35.8	12 37	-3				
COLLEGE	87.79	11.3	12 40	0			13 2	13 20 *SP
NORD	118.32	3.5	14 46	777				
QUETTA	123.64	293.1	18 51	3				
DURHAM	145.56	6.5	19 6A	-22			19 24	
UVIRA	146.19	227.6	19 33	4				
ASTRIDA	146.38	229.5	19 39K	10				
LWIRO	147.29	228.8	19 37A	6				
RUMANGABO	147.55	230.7	19 37	6				
HALLE	148.67	351.4	19 23	-10			20 0	
COLLMBERG	148.71	350.1	19 35	2				
JENA	149.28	351.6	19 42	8			20 16	
BENSBERG	149.66	357.0	19 42	7			20 20	

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PRUHONICE	149.69	347.5	19 43A	8					20	3	PKP2
KASTAMONU	149.80	319.0	19 39	4			20	2			
STUTTGART	151.69	353.8	19 40	2			20	14			
TAMANRASSET	177.75	342.7	18 58	-62			19	24			

MARCH 4 19.H 57.M 59.S EPICENTRE 12.15 92.67 DEPTH= 0.KM

A=-0.04563 B= 0.97684 C= 0.20906 D= 0.9989 E= 0.0467
G=-0.0098 H= 0.2088 K=-0.9779 HT= 6.2

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	
PORT BLAIR	0.48	174.6									0	17	PG
CHITTAGONG	10.19	355.5	2	37K	7								
MEDAN	10.38	144.6	2	36K	3	4	59	28					
VIZIANAGRAM	10.70	304.8	2	39	2								
MADRAS	12.23	275.3	3	0	2	5	12	-4	3	9	5	25	SS
BOKARO	13.33	331.6	3	21	8	5	31	-12					
SHILLONG	13.37	356.9	3	11A	-2	5	38	-6	3	26	5	55	SS
CHATRA	15.50	341.3	3	42	1	6	46	12					
PHU-LIEN	15.90	55.4	3	57	11	7	14	30					
KUNMING	15.95	35.0	3	54	7	6	58	13					
LHASA	17.47	355.3	4	8	2	7	20	0					
POONA	19.22	291.6	4	31	3	8	8	9					
BOMBAY	20.26	291.8	4	31	-8	8	16	-6			8	45	SS
CHENGTU	21.20	27.9	4	48K	-1	8	37	-4					
DEHRA DUN	22.60	325.4	5	8	5	9	11	4			9	48	SSS
LAHORE	25.67	321.7	5	34	1								
LANCHOW	25.87	21.0	5	34	-1	10	11	8					
SIAN	26.51	31.3	5	39K	-2								
WARSAK DAM	29.05	321.9	6	6K	2								
QUETTA	29.84	310.9	6	13K	2								
PAOTOW	32.18	25.3	6	30	-1								
NAMANGAN	34.13	331.1	6	49	1								
PEKING	34.66	32.6	6	52	-1								
CHANGCHUN	42.25	35.5	7	56	0								
MATUSIRO	47.51	51.2	8	37	-1						10	7	PCP
SVERDLOVSK	50.93	337.9	9	4	-1								
TIFLIS	50.98	314.4	9	7	2								
SIMFEROPOL	59.37	315.2	10	6	0								
MOSCOW	60.70	327.9	10	14	-1								
KASTAMONU	61.04	310.6	10	3	-14								
CHARTERS TS.	61.66	120.7	10	22	0								
TIKSI	63.35	12.1	10	31	-2								
ADELAIDE	63.99	138.8	10	35	-2								
ASTRIDA	64.22	261.1	10	41A	2								
RUMANGABO	64.29	262.6	10	41	2								
UVIRA	65.03	260.4	10	45	1								
PULKOVO	65.80	330.6	10	43	-6								
APATITY	67.35	339.0	10	58K	-1								
HELSINKI	68.50	330.2	11	5	-1								
NURMIJARVI	68.73	330.5	11	6	-1								
SODANKYLA	69.73	337.9	11	12	-1								
KHEYS	70.42	353.1	11	15	-3								
BRISBANE	70.50	125.0	11	25	7								
BULAWAYO	70.71	243.5	11	20	1								
BRATISLAVA	71.43	316.9	11	24A	0								
UPPSALA	72.07	329.2	11	26K	-2								
KIRUNA	72.15	337.7	11	27K	-1								
PRUHONICE	73.17	318.7	11	34K	0								
COLLMBERG	74.17	320.1	11	40	0								
COPENHAGEN	74.55	324.6	11	39	-3								
HALLE	74.83	320.3	11	39	-5								
GOTEBORG	74.85	326.7	11	42	-2								
SKALSTUGAN	74.93	332.8	11	43K	-1								
JENA	75.07	319.7	11	44	-1								
STUTTGART	76.69	317.5	11	53	-1								
MUNSTER	77.50	320.9	11	59	0								
STRASBOURG	77.64	317.4	11	59	0								
SETIF	80.76	305.1	12	15	-1								
NORD	80.84	351.9	12	15	-2						16	5	
GARCHY	80.93	316.4	12	17A	0								
PARIS	81.10	318.0	12	19	1								
ALGIERS UNI.	82.54	305.9	12	25	-1								

TAMANRASSET	82.80	291.7	12 27K	0	15 34 PP
RELIZANE	84.71	305.3	12 35	-2	
THULE	90.88	355.6	13 4	-2	
COLLEGE	90.95	21.8	13 5	-2	
RESOLUTE	93.22	2.0	13 16K	-1	
SOUTH POLE	102.07	180.0	17 16	777	
HUNGRY HORSE	115.28	19.4	18 43	0	
EUREKA	122.13	26.0	18 57	1	
TUCSON TELE.	130.43	26.2	19 15	3	
HUANCAYO	168.27	269.2	21 23A	75	

MARCH 4 23.H 0.M 52.S EPICENTRE 37.55 138.70 DEPTH= 219.KM

DEPTH OF FOCUS= 0.029R

A=-0.59716 B= 0.52454 C= 0.60684 D= 0.6599 E= 0.7513
G=-0.4559 H= 0.4005 K=-0.7948 HT= -0.8

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
AIKAWA	0.59	322.8	0 30	-1	0 52	-2		
NAGANO	0.96	204.9	0 31	-1	0 56	-1		
MATUSIRO	1.07	201.4	0 32K	-1	0 56	-2		
MAEBASI	1.18	165.5	0 34K	0	0 59	0		
OIWAKE	1.22	185.9	0 33	-1	0 59	-1		
SHIRAKAWA	1.28	109.0	0 35	1	0 59	-2		
UTUNOMIYA	1.36	136.5	0 36K	1	1 2	0		
HUKUSIMA	1.42	81.3	0 36A	1	1 2	-1		
MATUMOTO	1.42	204.7	0 35	-1	1 3	0		
WAZIMA	1.45	263.9	0 36	0	1 3	0		
TOYAMA	1.47	235.3	0 35	-1	1 1	-3		
KUMAGAYA	1.50	158.6	0 35K	-1	1 4	0		
TITIBU	1.59	169.0	0 37	0	1 6	0		
SAKATA	1.62	32.9	0 38	1	1 8	2		
TUKUBASAN	1.73	139.4	0 37	-1	1 4	-4		
KAKIOKA	1.77	137.6	0 38	0	1 5	-3		
TAKAYAMA	1.82	220.3	0 39	0	1 8	-1		
MITO	1.83	129.0	0 39	0	1 7	-2		
ONAHAMA	1.85	108.1	0 39K	0	1 8	-1		
SENDAI	1.88	66.8	0 40A	1	1 9	-1		
KOHU	1.92	183.3	0 39K	-1	1 9	-1		
KANAZAWA	1.93	238.9	0 45	5	1 12	2		
HONGO	2.02	154.6	0 40	-1	1 12	0		
HUNATU	2.04	178.5	0 40	-1	1 11	-1		
TOKYO C.M.O.	2.05	155.4	0 41K	0	1 12	0		
ISINOMAKI	2.25	66.1	0 43A	0	1 14	-2		
YOKOHAMA	2.25	159.9	0 43K	0	1 17	1		
AKITA	2.43	26.3	0 46A	1	1 20	0		
MISIMA	2.43	175.2	0 44K	-1	1 18	-2		
HUKUI	2.46	233.3	0 46	1	1 20	0		
MIZUSAWA	2.48	49.6	0 47	1	1 18	-3		
TYOSI	2.51	135.9	0 45K	-1	1 20	-1		
AJIRO	2.51	172.6	0 46	0	1 19	-2		
SHIZUOKA	2.58	185.6	0 47	0	1 21	-2		
GIHU	2.65	216.6	0 48A	1	1 23	-1		
NAGOYA	2.75	211.1	0 49	0	1 24	-2		
MERA	2.78	160.5	0 47K	-2	1 25	-2		
OSIMA	2.83	168.6	0 48	-1	1 24	-3		
TSURUGA	2.84	229.0	1 28	38				
IBUKISAN	2.86	221.6	0 50A	0	1 28	0		
MORIOKA	2.89	41.2	0 51A	1	1 28	-1		
HAMAMATU	2.93	196.1	0 58	8	1 31	1		
OMAESAKI	2.97	187.7	0 51K	0	1 30	0		1 12
HIKONE	3.01	221.8	0 52	1	1 29	-2		
KAMEYAMA	3.24	214.5	0 54	0	1 34	-2		
MIYAKO	3.31	49.6	0 56A	1	1 35	-2		
TU	3.32	212.8	0 55	0	1 36	-2		
MAIZURU	3.33	232.5	0 56	1	1 37	-1		
AOMORI	3.64	25.6	1 0	1	1 44	-1		
ABUYAMA	3.68	224.4	0 58A	-1				
NARA	3.69	220.0	0 58	-1	1 44	-1		
HATINOHE	3.70	35.6	1 0	0	1 45	-1		
TOYOOKA	3.72	238.4	1 0	0	1 44	-2		
OSAKA	3.87	222.6	1 1	-1	1 46	-3		
OWASE	4.02	211.1	1 2	-1	1 49	-4		

KOBE	4.04	226.0	1	4	0	1	50	-3			
TOTTORI	4.14	241.8	1	6	1	1	53	-2			
WAKAYAMA	4.38	222.0	1	6	-2	1	58	-3			
SUMOTO	4.45	225.3	1	8	-1	1	57	-5			2 38
HAKODATE	4.50	19.6	1	10	1	2	1	-2			
SAIGO	4.51	254.3				2	10	6			
HATIDYOZIMA	4.53	168.0	1	10	0						
HIMEJI	4.63	230.2	1	6	-5	1	55	-11			
SIOMISAKI	4.74	211.2	1	13	1	2	1	-7			
MORI	4.77	16.9	1	17	4	2	8	-1			
OKAYAMA	4.82	235.0	1	13	0						
TOKUSIMA	4.82	225.2	1	13A	0	2	7	-3			
TAKAMATU	4.96	230.9	1	14	-1	2	7	-7			
MURORAN	5.08	19.3	1	18	1	2	13	-3			
TOMAKOMAI	5.43	23.1	1	31	10	2	24	0			
URAKAWA	5.56	33.0	1	22	-1	2	24	-3			
MUROTO	5.66	222.1	1	24	0	2	26	-3			
KOTI	5.80	228.1	1	25	-1						2 17
SAPPORO	5.87	19.3	1	27	0	2	31	-3			
HIROO	5.91	35.5	1	26	-1	2	29	-6			
HAMADA	5.98	245.8	1	28	0						3 0
MATUYAMA	6.10	234.3	1	29	-1	2	36	-3			
OBIHIRO	6.37	31.2	1	33	0	2	41	-5			
SIMIDU	6.68	226.3	1	35	-2	2	39	-14			
ASAHIGAWA	6.82	23.0	1	37	-2						
KUSIRO	6.96	37.0	1	38	-3	2	50	-9			
TORISIMA	7.17	168.9	1	43	0						
OOITA	7.21	235.4	1	44	0						2 13
VLADIVOSTOK	7.61	319.1	1	49	0	3	16	2			
ABASHIRI	7.72	31.4	1	48	-3	3	16	-1			
NEMURO	7.80	40.1	1	49	-3	3	9	-10			
HUKUOKA	7.82	242.1	1	53	1						
KUMAMOTO	8.07	236.6	1	56	1						
SAGA	8.09	240.5	1	57	2						
NAGASAKI	8.68	239.0	2	3	0	3	36	-3			4 37
KAGOSIMA	8.98	230.8	2	8	1	3	52	6			
Y.-SAKHLINSK	9.85	16.3	2	16	-2						
UGLEGORSK	11.78	10.9	2	40	-3	4	48	-2			
CHANGCHUN	11.94	305.9	2	44K	-1	4	57	3			
ZO-SE	15.83	251.2	3	31	-2	6	28	7			
NANKING	17.23	257.4	3	47	-2						
PEKING	17.74	285.0	3	52	-2	7	0	-2			
WUHAN	21.16	257.8	4	30	1	8	9	3			
MAGADAN	23.35	15.6	4	51	1						
YAKUTSK	25.13	350.0	5	6	-1						
ULAN-BATOR	25.39	304.2	5	7	-2						
HONG KONG	26.03	241.2	5	16	1						
CANTON	26.15	243.8	5	19	3						
MANILA	27.77	219.2	5	30	-1	9	54	-2			
SHILLONG	41.27	267.1	7	25A	0						
COLLEGE	49.81	32.4	8	34	2						9 24
NAMANGAN	50.86	296.0	8	41	1						
LAHORE	52.45	283.8	8	51	-1						
KHEYS	52.71	347.4	8	46	-8						
SVERDLOVSK	53.33	317.9	8	59	0						
WARSAK DAM	53.55	287.9	9	0	0						
QUETTA	58.73	285.8	9	37	0						10 25 PCP
APATITY	61.32	335.0	9	54K	0						
RESOLUTE	62.64	13.9	10	3K	0						
SODANKYLA	63.64	336.4	10	9	-1						
THULE	65.02	6.8	10	17	-2						
KIRUNA	65.26	338.4	10	20K	0						
MOSCOW	65.54	322.4	10	22	0						
PULKOVO	66.64	328.5	10	39	10						
NURMIJARVI	68.46	330.9	10	9	-31						
SKALSTUGAN	70.63	337.6	10	53K	0						13 22
SCORESBY SD.	71.37	353.3	10	59	1						
UPPSALA	71.53	332.9	10	58K	-1						
HUNGRY HORSE	72.86	41.8	11	9	2						12 1
COPENHAGEN	76.47	332.0	11	28K	1						
EUREKA	77.19	49.9	11	35	4						12 27
KASTAMONU	77.56	312.8	11	6	-27						
COLLMBERG	79.56	328.8	11	45	1						
PRUHONICE	79.90	327.1	11	47K	1						
JENA	80.43	329.2	11	49	0						
RAPID CITY	81.32	40.0	11	56	3						
STUTTGART	83.08	329.1	12	2	0						
PARIS	85.64	332.7	12	17	2						

TAMANRASSET 105.57 315.7 10 8 PP

MARCH 5 0.H 15.M 6.S EPICENTRE 54.05 160.28 DEPTH= 0.KM

A=-0.55511 B= 0.19903 C= 0.80761 D= 0.3375 E= 0.9413
G=-0.7602 H= 0.2726 K=-0.5897 HT= -6.9

SE= 2.29

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PETROPAVLOVK	1.34	227.2	0 33	7	0 51	6		
MAGADAN	7.58	320.5	2 4	9	3 39	17		
UGLEGORSK	12.36	253.7	3 9	9				
Y.-SAKHLINSK	13.22	244.6	3 1	-11				
YAKUTSK	17.89	308.7	4 16	4				
TIKSI	22.25	334.1	5 13	13				
TUKUBASAN	22.67	226.3	5 6A	2				6 33
MATUSIRO	23.22	230.1	5 11K	1	9 25	6		
ABUYAMA	25.82	232.1	5 35A	0				
COLLEGE	27.67	46.4	5 51	-1				
KHEYS	40.24	345.2	7 31	-9				
RESOLUTE	42.40	22.4	7 59A	1	14 14	-6		
HORSESHOE B.	45.45	63.1	8 22	-1				
VICTORIA	45.89	64.1	8 26	0				
HUNGRY HORSE	50.86	59.1	9 5	0				11 7 PP
SHASTA	51.47	71.5	9 10	1				
MINERAL	52.15	71.3	9 14	-1				
APATITY	52.42	337.2	9 17	0				
RENO	53.71	70.8	9 29	3				
SODANKYLA	54.04	339.8	9 28	-1				
BOZEMAN	54.17	59.8	9 30	0				
LICK	54.21	74.0	9 30	0				
KIRUNA	54.82	342.6	9 34	0				
FRESNO	55.65	73.2	9 41	1				
SCORESBY SD.	55.77	0.9	9 40	-1				
EUREKA	55.87	68.3	9 42	0				
SHILLONG	57.13	269.0	9 44A	-7				
SALT LAKE C.	57.18	64.6	9 52	1				
NAMANGAN	57.42	296.1	10 20	27				
PASADENA	58.46	74.3	9 59	-1				
BOULDER CITY	59.01	70.5	10 4	0				
RAPID CITY	59.23	56.4	10 5	-1				
PULKOVO	59.67	333.3	10 9	0				
LARAMIE	60.07	60.1	10 11	0				
SKALSTUGAN	60.09	344.1	10 11	-1				
NURMIJARVI	60.44	336.6	10 14	0				
HELSINKI	60.67	336.2	10 17	1				
MOSCOW	60.92	327.0	10 17	0				
UPPSALA	62.58	339.8	10 28K	0				11 8 PCP
WARSAK DAM	62.59	290.7	10 27	-1				
TUCSON TELE.	63.98	70.4	10 37	-1				11 3
TUCSON	63.99	70.5	10 38	0				
GOTEBORG	65.67	342.0	10 53	4				
COPENHAGEN	67.49	340.9	11 1	1				
QUETTA	68.02	291.2	11 2	-1				
TIFLIS	69.78	313.9	11 14	0				
OTTAWA	70.08	38.4	11 15	-1				
SHAWINIGAN	70.14	35.9	11 18	1				
SEVEN FALLS	70.30	34.4	11 18A	0				
DURHAM	70.52	349.0	11 3K	-16				
MEDAN	70.73	248.4	11 21K	1				
BREBEUF	70.75	37.0	11 19	-1				
COLLMBERG	71.51	339.0	11 25	0				
HALLE	71.54	339.8	11 21	-4				12 0
MUNSTER	71.91	342.6	11 27	0				
JENA	72.15	339.8	11 29	0				12 12
PRUHONICE	72.41	337.6	11 30A	0				
MORGANTOWN	73.33	44.4	11 36K	0				
STUTTGART	74.69	340.6	11 43	0				
CHARTERS TS.	74.73	193.7	11 42	-2				15 1
TUBINGEN	74.94	340.6	11 45	0				
STRASBOURG	75.14	341.5	11 46	0				
ERINGEN	75.30	340.6	11 48	1				
KASTAMONU	75.56	323.2	11 42	-6				12 26
PARIS	75.81	345.1	11 50	0				

TOLMEZZO	76.13	337.3	12	6	14					
BASLE	76.19	341.3	11	50K	-2					
FOLINIERE	76.28	347.0	11	52	-1					
NEUCHATEL	76.81	341.6	11	57	1					
CHAPEL HILL	76.85	45.8	11	56	0					
GARCHY	77.21	344.3	11	57A	-1				12	10 PCP
KSARA	80.21	315.8	12	15	1					
ATHENS	81.00	326.6	12	17A	-1					
ADELAIDE	90.55	197.6	13	5	-1					
SOUTH POLE	143.86	180.0	19	32	-5					

MARCH 5 14.H 9.M 50.S EPICENTRE 44.05 146.93 DEPTH= 109.KM

DEPTH OF FOCUS= 0.012R

A=-0.60430 B= 0.39345 C= 0.69284 D= 0.5456 E= 0.8380
G=-0.5806 H= 0.3780 K=-0.7211 HT= -3.2

SE= 3.03

	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
SHIKOTAN	0.20	204.6	0	14	-3	0	24	-5				
LESOZAVODSK	0.74	13.7	0	20A	0	0	34	-1				
KOSMODEMANSK	0.76	274.3	0	19K	-1	0	33	-2				
GORNY	0.98	27.4	0	22K	0	0	38	0				
NEMURO	1.22	234.3	0	22K	-2	0	38	-4				
KURILSK	1.36	29.2	0	26	0	0	46	1				
REIDOVOE	1.45	32.3	0	28	1	0	48	1				
ABASHIRI	1.91	270.1	0	33	0	0	59	2				
KUSIRO	2.13	240.8	0	34	-2	0	59	-3				
OBIHIRO	2.94	248.7	0	46	-1	1	13	-8				
HIROO	3.18	237.5	0	48A	-2	1	23	-4				
ASAHIGAWA	3.31	266.9	0	53	2							
URAKAWA	3.58	239.5	0	55	0	1	34	-3				
WAKKANAI	3.99	292.0	1	4	3	1	55	8				
Y.-SAKHLINSK	4.15	315.9	1	4A	1	1	54	3				
SAPPORO	4.17	258.4	1	3A	0	1	50	-1				
TOMAKOMAI	4.20	250.5	1	6	2	1	50	-2				
MURORAN	4.69	250.6	1	9	-1	2	0	-4				
MORI	5.05	249.5	1	19	4	2	10	-3				
HAKODATE	5.09	245.7	1	15	-1	2	7	-7			1	47
HATINOHE	5.33	230.6	1	16	-3	2	12	-8				
AOMORI	5.58	236.8	1	27	5	2	19	-7				
MIYAKO	5.75	221.8	1	24	-1	2	19	-11				
UGLEGORSK	6.05	328.1	1	31A	2	2	42	5				
MORIOKA	6.11	226.7	1	27	-3	2	26	-13				
MIZUSAWA	6.56	223.5	1	33	-3	2	42	-8				
AKITA	6.68	232.0	1	44	7	2	47	-6				
ISINOMAKI	7.03	218.9	1	37	-5	2	51	-10				
SENDAI	7.35	220.3	1	45	-1	2	58	-11				
SAKATA	7.41	228.5	2	0	13	3	5	-5				
YAMAGATA	7.63	222.8	1	47	-3	3	6	-10				
HUKUSIMA	7.97	220.1	1	56	1	3	12	-12				
ONAHAMA	8.45	215.0	2	25	24	3	24	-12				
NIIGATA	8.54	226.9	2	55	52							
SHIRAKAWA	8.60	218.7	2	15	12	3	29	-10				
AIKAWA	8.90	230.4				3	36	-11				
MITO	9.11	215.0	2	15	5	3	41	-11				
UTUNOMIYA	9.23	218.1	2	8	-4	3	44	-10			2	24
KAKIOKA	9.36	215.8	2	8	-6	3	46	-12				
TUKUBASAN	9.40	216.1	2	8K	-6	3	44	-15				
TYOSI	9.54	211.4	2	16	0							
TAKADA	9.58	226.5	2	18	2							
MAEBASI	9.72	220.8	2	15	-3	4	2	-4				
KUMAGAYA	9.78	218.8	2	19	0	4	3	-5				
OKHA	9.87	345.9	2	22A	2							
NAGANO	9.93	225.1	2	23	2	4	5	-6				
TOKYO C.M.O.	10.01	215.8	2	27	5	4	0	-13				
MATUSIRO	10.01	224.5	2	18K	-4	4	4	-9				
OIWAKE	10.02	222.6	2	22	0							
TITIBU	10.06	219.4	2	28	5							
WAZIMA	10.11	232.2	2	40	16	4	11	-4				
YOKOHAMA	10.27	215.5	3	4	38	4	10	-9				
MATUMOTO	10.37	224.4	2	39	12							
KOHU	10.58	220.2	2	27	-3	4	19	-8				
HUNATA	10.59	219.1				4	12	-15				

MISIMA	10.83	217.3				4	24	-9			2	45	
VLADIVOSTOK	10.95	270.4	2	34A	-1	4	38	2					
SHIZUOKA	11.20	218.9				4	30	-12					
OMAESAKI	11.59	218.5				4	47	-4					
NAGOYA	11.72	224.2	2	43	-2	4	51	-3					
IBUKISAN	11.86	226.7	2	36	-11								
HIKONE	12.02	226.8	2	38	-11	4	54	-7					
KAMEYAMA	12.23	224.8				5	5	0					
ABUYAMA	12.68	227.6	2	56A	-2								
OSAKA	12.87	227.0									4	44	
CHANGCHUN	15.58	276.7	3	32A	-3	6	20	-4	3	49			
MAGADAN	15.70	7.3	3	37	1								
OOITA	16.09	233.0	3	45	4	6	43	8					
PEKING	23.13	270.7	4	58	1	9	3	6					
NANKING	25.06	251.0				9	36	6					
PAOTOW	27.36	275.7	5	38A	1								
ULAN-BATOR	27.86	292.2	5	41	-1								
TIKSI	29.02	348.3	5	45	-7								
SIAN	30.82	264.6	6	16	8								
LANCHOW	33.63	271.4	6	34A	2	11	47	1					
CHENGTU	36.24	263.1				12	26	0					
KUNMING	40.52	257.0				13	30	-1					
COLLEGE	40.94	36.3	7	34	1				8	0	8	16	*SP
SHILLONG	47.90	266.2	8	27	-2								
RABAUL	48.26	173.0	8	30	-2						9	3	
FRUNSE	50.92	295.5	8	52	0								
SVERDLOVSK	52.82	316.5	9	4	-3								
RESOLUTE	54.73	16.7	9	18	-3						17	40	*SS
ISFJORD	54.92	349.3	9	18	-4								
STALINABAD	56.91	293.7	9	36	0	17	22	2					
LAHORE	56.99	283.7	9	36	-1	17	22	1					
WARSAK DAM	57.53	287.7	9	40	-1								
THULE	57.72	9.3	9	39	-3								
APATITY	58.05	335.5	9	41	-3								
SODANKYLA	60.13	337.3	9	57	-2								
KIRUNA	61.43	339.7	10	6	-1								
QUETTA	62.92	286.7	10	17	0	18	37	0	10	49	12	36	PP
SHASTA	63.67	58.0	10	22	0								
CHARTERS TS.	63.74	180.7	10	21K	-2						10	43	
HUNGRY HORSE	63.86	47.2	10	23	0				10	48			
MOSCOW	64.12	323.6	10	25	0								
PULKOVO	64.27	329.9	10	26	0						27	26	
MINERAL	64.36	57.9	10	39	12						10	57	
SCORESBY SD.	65.50	355.9	10	36	2								
NURMIJARVI	65.70	332.7	10	33	-2								
HELSINKI	65.85	332.3	10	35	-1								
LICK	66.16	60.6	10	39	1				11	4			
SKALSTUGAN	66.86	339.8	10	41	-2								
FRESNO	67.67	60.1	10	46	-2								
EUREKA	68.30	55.8	10	51	-1				11	17			
UPPSALA	68.44	335.2	10	52K	0								
TIFLIS	69.76	308.7	11	3	2								
PASADENA	70.36	61.3	11	4	0								
BRISBANE	71.40	174.3	11	15A	5						11	47	
GOTEBORG	71.88	336.4	11	11	-2								
RAPID CITY	72.32	45.3	11	16	0				11	41			
LWOW	74.09	325.6									28	40	SSS
KRAKOW	75.53	327.9	11	35	1						12	0	PCP
TUCSON	76.21	58.5	11	49	11								
TUCSON TELE.	76.21	58.4	11	49	11								
COLLMBERG	76.99	332.4	11	29	-14								
HALLE	77.16	333.0	11	40	-4								
KASTAMONU	77.48	316.2	11	39	-6						11	45	PCP
PRUHONICE	77.57	330.8	11	47	1				12	21			
JENA	77.77	332.9	11	48	1				12	27			
ADELAIDE	78.96	186.9	11	53A	0								
BENSBERG	79.13	335.4	11	56	2								
RATHFARNHAM	80.34	344.1	12	0	-1								
STUTTGART	80.42	333.2	12	1	0				12	30			
TUBINGEN	80.67	333.1	12	3	0								
KEW	80.72	340.0	12	4K	1								
EBINGEN	81.01	333.0	12	5	1								
PARIS	82.41	337.2	12	15	3								
OTTAWA	83.22	28.7	12	30	14								
FOLINIERE	83.25	339.0	12	16	0								
GARCHY	83.63	336.2	12	22	4				12	42			
KARAPIRO	85.60	157.7	12	27	-1				13	5			
MORGANTOWN	86.59	34.4	12	34	2								

MBOUR	120.03	341.9	18	13	-25						
SOUTH POLE	133.86	180.0	19	33	28					22	34 PP

MARCH 5 22.H 55.M 45.S EPICENTRE 2.05 97.74 DEPTH= 130.KM

DEPTH OF FOCUS= 0.015R

A=-0.13462 B= 0.99026 C= 0.03562 D= 0.9909 E= 0.1347
G=-0.0048 H= 0.0353 K=-0.9994 HT= 7.2

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
MEDAN	1.78	31.7	0	25A	-7							
PORT BLAIR	10.77	332.7	2	47	16	5	7	37			2	57 PP
DJAKARTA	12.22	132.1	2	58A	8	5	30	26				
LEMBANG	13.23	131.9	2	59	-5	5	36	8				
MADRAS	20.50	302.9	4	30	1	8	23	17			9	3 SS
PHU-LIEN	20.55	24.3	4	29A	-1	8	17	10				
CHITTAGONG	20.99	344.5	4	33	-1	8	29	14			4	57 PP
VIZIANAGRAM	21.25	319.6	4	39	2							
KUNMING	23.35	11.4	4	58A	1	9	12	15				
SHILLONG	24.05	346.9	5	2A	-2							
BOKARO	24.54	332.9	5	9A	0	9	28	11				
HONG KONG	25.69	37.2	5	26	7	10	27	51			6	2 PP
MANILA	26.10	60.3	5	11	-12							
LHASA	28.16	347.6	5	42	0	10	32	16				
POONA	28.57	306.5	5	46	0	10	33	10				
BOMBAY	29.60	306.1				10	51	12			9	40
SIAN	33.69	16.8	6	29	-1							
DEHRA DUN	33.75	328.4	6	37	6	11	50	6				
LANCHOW	34.32	8.8	6	34	-2							
LAHORE	36.73	325.4	6	55	-1							
PAOTOW	39.93	14.6	7	24	1							
WARSAK DAM	40.11	325.3	7	24	0							
QUETTA	40.43	316.9	7	27	0	13	33	8			9	7 PP
PEKING	41.34	21.6	7	34	0							
NAMANGAN	45.34	332.1	8	7	0							
ULAN-BATOR	46.37	8.5	8	15	0							
CHANGCHUN	48.26	26.7	8	1	-29							
PORT MORESBY	50.52	103.9	8	44	-3							
MATUSIRO	50.71	42.5	8	47	-1	15	51	-1			10	13 PCP
CHARTERS TS.	52.38	117.2	8	58K	-3						10	52
ADELAIDE	53.16	137.7	9	5A	-2							
Y.-SAKHLINSK	59.32	34.3	9	48	-2							
UGLEGORSK	60.21	32.0	9	56	0							
BRISBANE	60.71	123.1	9	58A	-2						15	48
TIFLIS	61.68	317.3	10	6	0							
SVERDLOVSK	62.11	338.0	10	8	-1							
YAKUTSK	64.46	16.1									11	23
KSARA	65.66	306.3	10	25	-7							
ASTRIDA	68.15	266.4	10	48	0							
RUMANGABO	68.48	267.8	10	46	-4							
WILKES	68.73	174.5									18	51 PP
UVIRA	68.81	265.5	10	53	1							
LWIRO	69.06	266.8	10	55	1							
SIMFEROPOL	70.10	317.4	11	0	0							
MAGADAN	70.33	25.6	11	10	9							
BULAWAYO	71.20	248.0	11	6	-1							
KASTAMONU	71.48	313.1	10	54	-14						13	40 PP
MOSCOW	71.88	328.9	11	11	0							
TIKSI	72.24	9.9	11	12	-1							
ISTANBUL UN.	72.71	312.4	11	13	-2						12	25
KIMBERLEY	76.11	239.9	11	48	13							
PULKOVO	77.00	331.3	11	41	1							
LWOW	77.96	320.5	11	31	-14							
APATITY	78.51	339.3	11	49A	1							
HELSINKI	79.70	331.0	12	2	7							
NURMIJARVI	79.93	331.3	11	56	0							
SODANKYLA	80.91	338.2	12	2	1							
KHEYS	80.99	352.8	12	0	-2							
KARAPIRO	81.64	128.6	12	6	1							
TONGARIRO	81.85	129.9	12	12	6							
BRATISLAVA	82.23	318.2	11	57	-11							
UPPSALA	83.26	329.9	12	13	0							

KIRUNA	83.32	338.1	12 14	1								
PRUHONICE	84.05	319.9	12 19	2								
TOLMEZZO	84.87	316.2	12 21	0								
COLLMBERG	85.11	321.1	12 19	-3								
JENA	85.99	320.7	12 26	-1			13 4					
GOTEBORG	86.00	327.5	12 46	19								
SKALSTUGAN	86.15	333.5	12 29	2								
ISFJORD	86.78	348.0	12 28	-3								
SETIF	90.69	306.1	12 50	1								
TAMANRASSET	91.26	292.7	12 51	-1								
NORD	91.46	352.3	12 53	0								
GARCHY	91.68	317.2	12 55	1					13 31			
SOUTH POLE	92.04	180.0	12 55	0								
ALGIERS UNI.	92.55	306.8	12 58	0								
RESOLUTE	103.00	3.4	13 46	1					18 3	PP		
MBOUR	113.33	286.5							32 55	PKKS		
HUNGRY HORSE	122.70	24.7	18 43	3					20 40	PP		
EUREKA	128.38	33.2	18 55	4					21 3	PP		
PASADENA	130.64	39.9	19 0	4								
TUCSON TELE.	136.45	35.8	19 23	17					22 38	PP		

MARCH 7 9.H 12.M 35.S EPICENTRE -2.89 102.34 DEPTH= 44.KM

DEPTH OF FOCUS= 0.002R

A=-0.21341 B= 0.97568 C=-0.05002 D= 0.9769 E= 0.2137
G= 0.0107 H=-0.0489 K=-0.9987 HT= 7.1

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	
DJAKARTA	5.55	126.3	1	21A	-1	2	25	0					
LEMBANG	6.56	126.9	1	35A	-1	3	15	24					
MEDAN	7.39	330.3	1	50K	2								
PHU-LIEN	23.91	9.9	5	11K	1	9	49	28			5	34	PP
COLOMBO	24.44	293.5	5	16	0	9	46	16					
MANILA	25.34	46.3	5	25	1						7	25	
BAGUIO CITY	26.32	42.6	5	36	3	10	34	33					
CHITTAGONG	27.11	338.2	5	43	2	10	16	2			6	25	PP
HONG KONG	27.57	24.2	5	46	1	11	1	40			16	20	SCS
KUNMING	27.77	0.7	6	48	61	12	0	95					
SHILLONG	30.05	340.9	6	4	-3								
BOMBAY	36.22	307.9									8	25	PP
SIAN	37.45	9.0	7	12	1								
LANCHOW	38.79	1.9	7	47	25								
DEHRA DUN	40.35	326.7	7	59	24						13	37	
LAHORE	43.38	324.3	7	58	-2								
KARACHI	44.52	312.0	8	4	-5	14	39	-2					
PORT MORESBY	44.99	100.4	8	15	2								
CHARTERS TS.	46.09	115.1	8	20	-1						10	7	
ADELAIDE	46.43	137.7	8	22A	-2								
WARSAK DAM	46.77	324.3	8	25	-2	15	15	2					
QUETTA	47.15	316.8	8	28	-2	15	10	-8					
ULAN-BATOR	50.75	4.0	8	55	-2								
CHANGCHUN	50.88	21.4	8	4	-54								
MATUSIRO	51.54	37.1	9	2	-1	16	24	5			12	1	
NAMANGAN	51.85	330.6	9	4	-2	16	25	1					
CANBERRA	53.89	132.6	9	23	2								
BRISBANE	54.19	122.0	9	21K	-2						11	25	
RIVERVIEW	54.89	130.0	9	31	3	17	13	8					
YAKUTSK	68.03	13.5	10	53	-4	19	51	0					
TIFLIS	68.40	317.2	11	9	10	19	58	2					
SVERDLOVSK	68.40	336.8	10	59	0								
KSARA	72.28	306.8	11	26	4								
ASTRIDA	72.51	268.2	11	26	2								
RUMANGABO	72.97	269.5	11	26	-1								
UVIRA	73.09	267.3	11	26	-1								
BULAWAYO	73.74	250.0	11	30	-1								
KARAPIRO	74.99	128.4	11	41	3								
TONGARIRO	75.17	129.7	11	40	1								
TIKSI	76.36	8.4	11	43	-3								
SIMFEROPOL	76.82	317.4	11	52	3								
MOSCOW	78.46	328.5	11	55	-3								
ISTANBUL UN.	79.41	312.5	12	2	-1								
RAOUL ISLAND	79.65	119.1	13	1	57								
PULKOVO	83.52	331.0	12	27	3								

APATITY	84.73	338.9	12	32	2							
NURMIJARVI	86.45	331.0	12	37	-2							
KHEYS	86.45	352.3	12	34	-5							
SOUTH POLE	87.13	180.0	12	42	0							
SODANKYLA	87.17	337.9	12	42	0							
KIRUNA	89.59	337.9	12	52	-2							
PRUHONICE	90.76	319.8	13	6	7				13	30		
HALLE	92.48	321.3									16	13
SKALSTUGAN	92.59	333.4	13	10	2							
BYRD STATION	94.62	173.3	13	16	-1							
TAMANRASSET	97.39	292.5	13	29	-1						17	28 PP
THULE	106.35	357.7	19	23	777							
RESOLUTE	107.57	4.7	18	25	777							
HUNGRY HORSE	125.01	28.9	18	54	-1							
EUREKA	129.66	38.5	19	4	0							
PASADENA	131.13	45.7	19	1	-6							
RAPID CITY	133.17	25.2									22	37 PKS
TUCSON	137.30	43.1									22	52 PKS
TUCSON TELE.	137.33	42.9	19	25	6						22	52 PKS

MARCH 8 11.H 17.M 11.S EPICENTRE 40.21 19.85 DEPTH= 0.KM

A= 0.72027 B= 0.26009 C= 0.64309 D= 0.3396 E=-0.9406
G= 0.6049 H= 0.2184 K=-0.7658 HT= -1.8

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	
SKOPJE	2.12	33.0	0	39A	2						0	52	PG
SOFIA	3.60	45.3	1	0	2						1	55	SG
ATHENS	3.75	125.4	1	1K	1	1	55	9					
REGGIO CALA.	3.89	238.5	1	3	1						1	46	
MESSINA	3.90	240.4	1	3	1						2	13	
BELGRADE	4.62	5.3	1	15K	3						1	35	PG
BUCHAREST	6.25	45.7	3	0	17						3	54	
ZAGREB	6.28	334.4	1	40	4						2	18	PG
CINE	6.93	109.5	1	46	1	3	3	-3					
TRIESTE	7.04	322.5	1	49	3	2	56	-12			2	15	PGPG
TOLMEZZO	7.94	323.4	1	59	0	3	37	6					
BRATISLAVA	8.20	347.0	1	59	-4						4	26	SG
KASTAMONU	8.36	78.5	2	35	30						2	59	
VIENNA-H.	8.41	343.9									2	51	PG
RACIBORZ	9.94	353.8	2	27	0								
PRUHONICE	10.46	340.8	2	33A	-1	4	28	-5					
RAVENSBURG	10.56	319.1	2	40	5								
PRAGUE	10.57	340.6				5	6	30					
EBINGEN	11.15	319.2	2	41	-2								
TUBINGEN	11.33	320.7	2	44	-2								
STUTTGART	11.44	321.9	2	44	-3								
BASLE	11.48	313.6				5	19	20					
SIMFEROPOL	11.53	61.1	2	49	0								
NEUCHATEL	11.55	310.2				4	52	-8					
STRASBOURG	12.02	318.1	3	32	37	5	20	9					
COLLMBERG	12.07	339.0	2	56	0								
JENA	12.17	334.4	2	57	0						6	44	SG
JENA	12.17	334.4	2	57	0								
GARCHY	14.02	305.8	3	22	0								
GOTEBORG	18.23	346.4	4	22	6								
TIFLIS	18.88	77.3	4	24	0								
MOSCOW	19.47	31.2	4	27	-4								
UPPSALA	19.71	356.7	4	31	-2								
HELSINKI	20.23	7.4	4	39	0								
NURMIJARVI	20.54	6.8	4	40	-2								
PULKOVO	20.65	15.1									5	40	
TAMANRASSET	21.20	219.2	4	48	-1								
SKALSTUGAN	23.83	351.6	5	14	-1								
SODANKYLA	27.47	5.7	5	35	-14								
APATITY	28.40	10.9	5	55	-3								
LWIRO	43.04	166.8	8	2K	-1								
THULE	50.90	342.3	9	2	-2						12	57	
RESOLUTE	57.68	343.4	9	52	-2								
SHILLONG	60.69	80.1	11	9	54								
COLLEGE	74.81	354.6	11	42	-2								
HUNGRY HORSE	82.82	331.0	12	28	1								

MARCH 9 18.H 44.M 29.S EPICENTRE 41.16 142.37 DEPTH= 67.KM

DEPTH OF FOCUS= 0.005R

A=-0.59796 B= 0.46105 C= 0.65565 D= 0.6106 E= 0.7919
G=-0.5192 H= 0.4003 K=-0.7551 HT= -2.1

SE= 2.59

	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
HATINOHE	0.89	225.5	0	14K	-4	0	24	-8				
URAKAWA	1.04	17.3	0	21	1	0	37	3				
AOMORI	1.25	254.7	0	20K	-3	0	38	-1				
HIROO	1.33	32.2	0	24A	0	0	42	1				
HAKODATE	1.38	297.1	0	23K	-1	0	41	-1				
TOMAKOMAI	1.48	336.9	0	28	2	0	49	4				
MIYAKO	1.54	191.5	0	23	-3	0	38	-8				
MURORAN	1.57	318.7	0	26K	-1	0	46	-1				
MORI	1.64	305.5	0	28	0	0	50	2				
MORIOKA	1.72	212.4	0	26K	-3	0	45	-5				
OBIHIRO	1.87	19.2	0	33	2	0	56	2				
SAPPORO	2.05	338.7	0	34K	1	0	59	1				
MIZUSAWA	2.24	205.4	0	33	-3	0	58	-5				
AKITA	2.25	231.0	0	34K	-2	1	3	0				
KUSIRO	2.37	39.1	0	36	-2	1	3	-3				
ASAHIGAWA	2.62	0.1	0	44	3	1	13	1				
ISINOMAKI	2.84	196.8	0	42	-2	1	15	-3				
SAKATA	2.98	221.6	0	46	0	1	18	-3				
SENDAI	3.10	201.9	0	45	-3	1	17	-7				
ABASHIRI	3.19	25.7	0	50	1	1	27	1				
NEMURO	3.22	46.7	0	49	-1	1	22	-5				
YAMAGATA	3.30	208.8	0	49	-2	1	25	-4				
HUKUSIMA	3.71	203.9	0	56	0	1	36	-3				
NIIGATA	4.13	219.5				2	11	21			1	25
ONAHAMA	4.36	195.7				1	57	1			1	19
SHIRAKAWA	4.37	203.2	1	7	1						2	35
AIKAWA	4.47	226.7	1	6	-1	1	57	-1				
MITO	5.00	197.9	1	15	1	2	29	17				
UTUNOMIYA	5.00	203.7	1	13	-1	2	9	-3				
TAKADA	5.16	219.6	1	17	0							
KAKIOKA	5.21	199.9	1	13	-4	2	29	12				
TUKUBASAN	5.24	200.5	1	13A	-5	2	12	-6			2	34
MAEBASI	5.41	209.5	1	23	3	2	29	7				
KUMAGAYA	5.52	206.0	1	25	3	2	32	7				
NAGANO	5.54	217.3	1	23	1	2	32	7				
TYOSI	5.56	192.8	1	18	-4							
MATUSIRO	5.63	216.4	1	21A	-2	2	28	1			2	8
OIWAKE	5.67	213.0	1	32	8							
WAZIMA	5.68	230.1	1	26	2	2	34	6				
TITIBU	5.78	207.5	1	29	4							
Y.-SAKHLINSK	5.79	2.4	1	26	1	2	33	2				
TOKYO C.M.O.	5.84	201.4	1	23	-3						2	45
MATUMOTO	5.99	216.4	1	27	-1							
TOYAMA	6.00	223.8	1	30	2							
YOKOHAMA	6.11	201.3	1	26	-4	2	55	16			3	29
KOHU	6.27	209.6	1	34	2						2	51
HUNATU	6.32	207.7	1	59	26						2	47
MERA	6.54	198.6	1	35	-1							
MISIMA	6.60	205.1	1	47	10							
AJIRO	6.62	203.9	1	46	9	2	57	5				
SHIZUOKA	6.93	208.1	1	53	12	3	34	35				
GIHU	7.24	219.2	1	45	-1	3	12	5				
OMAESAKI	7.32	207.9	2	18	31						3	29
NAGOYA	7.34	217.1	1	50	3	3	23	14				
IBUKISAN	7.45	221.1	1	49	1	3	21	9				
HIKONE	7.60	221.3	1	51	1	3	27	11				
KAMEYAMA	7.83	218.3	1	56	2	3	32	10				
UGLEGORSK	7.92	358.6	1	54	-1							
VLADIVOSTOK	8.02	287.6	1	54	-2							
ABUYAMA	8.26	222.7	1	57A	-3							
NARA	8.28	220.7	1	58	-2							
OSAKA	8.45	221.9	2	12	10	3	54	17			5	9
CHANGCHUN	12.87	287.6	3	2	0	6	26	62				
MAGADAN	19.15	13.2	4	19	-2							
ZO-SE	19.79	246.3	4	25	-3							

PEKING	19.91	275.4	4 25	-4				
NANKING	20.94	251.8	4 37	-2				
PAOTOW	24.39	279.4	5 11	-2				
WUHAN	24.81	253.6	5 16	-1				
ULAN-BATOR	26.00	297.1	5 30	2				
SIAN	27.23	266.2	5 40	0				
IRKUTSK	28.04	306.3	5 46	-1				
LANCHOW	30.37	273.1	6 10	2				
CHENGTU	32.55	263.6	6 24	-3				
KUNMING	36.57	256.4	7 0	-1				
SHILLONG	44.34	265.7						9 44 PP
COLLEGE	45.24	34.4	8 13	0			8 31	
CHITTAGONG	46.20	262.0	8 22	2	15 11 10			
CHATRA	47.20	270.4	8 28	0				
KHEYS	49.83	346.8	8 39	-9				
NAMANGAN	51.88	294.7	9 4	0				
SVERDLOVSK	52.60	316.8	9 9	0				
LAHORE	54.37	283.1	9 21	-1				
WARSAK DAM	55.18	287.1	9 29	1				
NORD	56.99	356.4	9 40	-1			9 55	
ISFJORD	57.12	348.8	9 41	-1				
RESOLUTE	58.43	15.2	9 50	-1				
APATITY	59.25	335.0	9 56	-1				
QUETTA	60.49	285.6	10 5A	0	18 18 4			
CHARTERS TS.	60.96	175.8	10 8	-1				
THULE	61.08	7.9	10 7	-2			10 23	10 35 *SP
SODANKYLA	61.47	336.6	10 11	-1				
KIRUNA	62.94	338.8	10 21A	-1			10 36	
MOSCOW	64.40	322.7	10 31	0				
NURMIJARVI	66.67	331.5	10 46	0				
HELSINKI	66.79	331.1	10 53	6				
SHASTA	68.07	54.7	10 57	2				
SCORESBY SD.	68.09	354.4	10 56	1				
HUNGRY HORSE	68.29	44.3	10 57	1			11 13	
SKALSTUGAN	68.35	338.4	10 55	-1			11 9	
MINERAL	68.77	54.6	10 59	0				
TIFLIS	68.88	307.3	11 1	1				
UPPSALA	69.59	333.7	11 2	-2			11 18	
BUTTE	70.52	45.5	10 59	-11				
EUREKA	72.72	52.5	11 25	2			11 42	
GOTEBORG	73.12	334.7	11 25	0				
COPENHAGEN	74.58	333.2	11 34K	0				
KRAKOW	76.11	325.9	11 42	0				
RAPID CITY	76.74	42.4	11 47	1			12 2	
RACIBORZ	76.81	326.8	11 47	1				
KASTAMONU	77.14	314.1	11 41	-7			11 54	
COLLMBERG	77.90	330.2	11 52	0				
HALLE	78.13	330.9	11 44	-10				11 59
PRUHONICE	78.36	328.6	11 55A	0			12 10	14 53 PP
JENA	78.72	330.8	11 56	-1				
BRATISLAVA	78.74	326.1	11 58	1				12 13 PCP
VIENNA-H.	78.98	326.6	11 31	-27				
RAOUL ISLAND	79.11	145.3						15 55
KSARA	79.35	305.7	12 3	3				
BENSBERG	80.27	333.1	12 21	16				
TUCSON TELE.	80.61	55.2	12 8	1			12 25	
JERUSALEM	81.14	304.5	12 11	1				
CINE	81.27	312.9	12 11	1			12 25	
STUTTGART	81.38	330.8	12 11A	0			12 27	
TUBINGEN	81.63	330.7	12 12	0			12 28	
TOLMEZZO	81.84	327.3	12 14	1				12 33
EBINGEN	81.96	330.6	12 15	1			12 31	
STRASBOURG	82.06	331.5	12 31	16				
TRIESTE	82.14	326.4	12 16	1			12 30	
PARIS	83.67	334.6	12 41	18				
KARAPIRO	84.34	154.2	12 44	18				
GARCHY	84.81	333.5	12 29A	1			12 46	
SHAWINIGAN	87.23	23.4	12 42	2				
BREBEUF	87.91	24.4	12 44K	0				
TAMANRASSET	104.83	319.2						18 2 PP
BYRD STATION	131.62	166.6	19 1	-5				

MARCH 9 22.H 3.M 3.5 EPICENTRE 15.09 -90.97 DEPTH= 171.KM

DEPTH OF FOCUS= 0.022R

A=-0.01629 B=-0.96587 C= 0.25868 D=-0.9999 E= 0.0169
G=-0.0044 H=-0.2586 K=-0.9660 HT= 5.7

SE= 2.45

	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	
COMITAN	1.61	316.0	0	31	-2	0	54	-5					
SAN SALVADOR	2.16	128.5	0	38	-1	1	7	-2					
SANTIAGO MA.	2.90	123.0	0	49	1	1	55	30					
OAXACA	5.90	289.8	1	23	-4	2	31	-3					
MERIDA	5.97	12.2	1	27K	-1	2	39	3					
VERA CRUZ	6.41	310.4				2	49	3			3	28	
PUEBLA	7.95	300.5	1	54	0	3	26	3			2	46	
TACUBAYA	8.96	299.8	2	8K	1	3	47	1					
DALLAS	18.45	344.4	4	5	0						7	27	
FAYETTEVILLE	21.11	352.7	4	33K	1								
CARACAS	23.87	98.2	4	56K	-3	9	1	1					
SAN JUAN	24.01	78.7	5	12	12				5	30			
TUCSON TELE.	24.87	317.1	5	9	1				5	43	6	20	PP
TUCSON	24.88	316.8	5	11	2				5	48	12	5	SCP
MORGANTOWN	26.29	19.5	5	22K	0						12	11	PCS
WASHINGTON	26.69	24.7	5	25	0	9	52	6	5	58			
CLEVELAND	27.54	15.5	5	35A	2								
BOULDER	27.83	336.0	6	11	35								
PENNSYLVANIA	28.04	21.5	5	39	1	10	12	4					
LARAMIE	29.04	336.9	5	47	1								
BERMUDA	29.46	49.6	5	57	7	10	47	17			6	57	PP
PALISADES	29.78	26.5	5	52	-1	10	36	1			6	8	PP
BOULDER CITY	29.79	318.7	5	54	1				6	30			
RAPID CITY	30.72	342.6	6	39	38				7	2			
PASADENA	31.02	312.6	6	4	0	12	9	74			8	54	
HUANCAYO	31.09	149.3	6	6K	1								
SALT LAKE C.	31.38	328.7	6	45	38								
WESTON	32.03	28.0	6	13A	0								
EUREKA	32.72	322.8	6	20	1				6	43	7	16	PP
OTTAWA	32.84	20.0	6	20A	0	11	31	8					
FRESNO	33.52	315.5							7	6			
BREBEUF	33.66	22.2	6	27A	0	11	41	5					
BOZEMAN	34.86	335.1	7	15	38								
SHAWINIGAN	34.86	22.2	6	37A	0								
LICK	35.07	315.0	6	39	0				7	20			
RENO	35.08	319.5	6	34	-5								
SEVEN FALLS	36.08	23.6	6	47A	0	12	17	4					
MINERAL	36.67	319.3	6	53	1								
HALIFAX	37.47	32.7	6	59	0								
HUNGRY HORSE	38.23	335.0	7	5	0				7	43	12	46	SCP
LA PAZ	38.64	143.4	7	20	11								
RESOLUTE	59.63	358.8	9	46A	-2	17	41	-2			10	27	PP
THULE	62.48	5.9	10	6	-2								
COLLEGE	62.65	336.3	10	6	-3				10	44			
SCORESBY SD.	68.91	19.7	10	47	-1				11	25			
RATHFARNHAM	74.89	38.2									13	40	
FOLINIERE	79.13	42.3	11	46	-1								
PARIS	81.05	41.9	11	58	1						12	40	
SKALSTUGAN	82.40	26.1	12	3A	-1				12	45			
BENSBERG	83.46	39.1							12	51			
GOTEBORG	84.14	31.7	12	14	1				12	58			
STRASBOURG	84.49	41.3	12	9	-6				12	55	13	19	*SP
STUTTGART	85.34	40.8	12	17	-2				13	0	15	43	PP
UPPSALA	86.11	28.7	12	23	0				13	5			
JENA	86.13	38.3	12	22	-1				13	4	13	25	*SP
HALLE	86.16	37.6	12	19	-4						13	15	
PLAUEN	86.61	38.5							13	5			
COLLMBERG	86.85	37.6	12	27	0								
PRUHONICE	88.24	38.5							13	16			
TRIESTE	89.30	42.7							13	23			
TAMANRASSET	90.06	66.5	12	39	-3						13	19	

MARCH 10 17.H 48.M 20.S EPICENTRE -15.37 30.25 DEPTH= 0.KM

A= 0.83335 B= 0.48593 C=-0.26343 D= 0.5037 E=-0.8639
G=-0.2276 H=-0.1327 K=-0.9647 HT= 5.7

SE= 3.08

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

	DEG.	DEG.	M	S	S	M	S	S	M	S	M	S	
BULAWAYO	4.99	198.0	1	19	1	2	14	-4					
PRETORIA	10.50	190.3	2	33	-2	4	25	-10			2	53	
LCO. MARQUES	10.77	168.6	2	38	-1	4	33	-8			2	58	PP
UVIRA	11.87	354.5	2	50	-4	4	59	-9					
ASTRIDA	12.70	357.7	3	0	-5	5	28	0					
LWIRO	13.12	353.6	3	7	-4	5	58	20					
RUMANGABO	13.98	356.2	3	17	-5								
KIMBERLEY	14.24	199.9	3	21	-4	5	50	-15			7	52	
WINDHOEK	14.34	238.1	3	26A	-1						7	4	
GRAHAMSTOWN	18.18	189.9	4	18	2								
BANGUI	22.75	328.7	5	11	6						9	12	
ADDIS ABABA	25.67	19.8	5	36	3								
TAMANRASSET	44.99	326.9	8	19	0						10	7	PP
KSARA	49.21	6.2	8	57	5	16	2	4					
QUETTA	57.46	37.9	9	53	0								
WARSAK DAM	62.91	38.0	10	30K	-1								
PRUHONICE	66.52	349.0	10	59	5								
STUTTGART	66.54	345.0	10	59	5								
STRASBOURG	66.73	344.0	11	16	21								
JENA	68.01	347.4	11	7	3								
COLLMBERG	68.08	348.4	11	2	-2								
SHILLONG	72.48	56.4	11	30K	-1								
GOTEBORG	74.36	349.9	11	55	13								
UPPSALA	75.65	353.5	11	48	-1								
SKALSTUGAN	79.93	351.9	12	12	-1								
KIRUNA	83.28	356.3	12	30	0								
BYRD STATION	83.45	185.1	12	32	1								
COLLEGE	130.54	358.9	19	13	0								
HUNGRY HORSE	135.95	325.9	19	28	5								
TUCSON TELE.	140.77	302.6	19	32	0								
EUREKA	141.94	315.7	19	27	-7								
MINERAL	145.08	321.0	19	41	1								
SHASTA	145.34	322.1	19	41	1								
FRESNO	145.91	314.3	19	44	3								
PASADENA	145.97	309.1	19	45	4						20	10	
LICK	146.85	316.6	19	33	-10								

MARCH 11 2.H 59.M 54.S EPICENTRE 28.23 103.89 DEPTH= 0.KM
A=-0.21176 B= 0.85660 C= 0.47053 D= 0.9708 E= 0.2400
G=-0.1129 H= 0.4568 K=-0.8824 HT= 2.4

• SE= 1.57

	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	
KUNMING	3.35	199.1	0	56	1	1	27	-9			1	5	PG
SIAN	7.39	34.4	1	53A	1	3	15	-2			2	24	PG
LANCHOW	7.83	359.6	1	58	0	3	21	-7			2	32	PG
WUHAN	9.59	73.6	2	21	-1	4	0	-12					
CANTON	9.90	119.1	2	25	-2								
HONG KONG	11.02	120.1	2	46	4								
SHILLONG	11.05	258.9	2	40	-2								
CHITTAGONG	12.38	244.5	2	44	-16								
PAOTOW	13.32	20.7	3	13	0	5	36	-7					
PEKING	15.54	37.6	3	43	1								
ULAN-BATOR	19.80	6.0	4	36	1								
IRKUTSK	24.02	0.7	5	20	3								
VLADIVOSTOK	27.02	49.2									14	21	
WARSAK DAM	28.20	289.9	5	58	2								
QUETTA	32.21	282.5	6	33	1								
YAKUTSK	37.86	19.6									17	31	
MOSCOW	53.91	320.2	9	27	0								
KHEYS	56.06	350.5	9	39	-4								
APATITY	56.78	334.4	9	48K	0								
JERUSALEM	58.67	291.8	10	2	1								
SODANKYLA	59.39	334.0	10	5	-2								
NURMIJARVI	60.63	326.1	10	16	1								
KIRUNA	61.74	334.7	10	22	-1								
LWOW	62.67	314.1	10	28	-1								
CHARTERS TS.	63.07	134.7	10	29	-2								
ADDIS ABABA	63.89	266.3	10	40	3								
UPPSALA	64.20	326.0	10	37	-2								
SKALSTUGAN	65.81	330.6	10	48	-1								
PRUHONICE	68.53	316.1	11	7	1								

JENA	70.01	317.7	11	15	0
ADELAIDE	70.92	150.2	11	19	-2
COLLEGE	72.11	25.2	11	27	-1
STUTTGART	72.23	316.2	11	29A	0
EBINGEN	72.60	315.7	11	31	0
THULE	75.49	358.1	11	47	-1
RESOLUTE	76.62	5.0	11	54A	0
RUHANGABO	77.05	261.4	11	58	1
ASTRIDA	77.32	260.1	11	58	0
LWIRO	77.96	260.9	12	1A	-1
UVIRA	78.28	259.6	12	4	1
TAMANRASSET	86.41	293.8	12	46	0
HUNGRY HORSE	96.54	24.4	13	34	1

MARCH 12 1.H 29.M 11.S EPICENTRE 7.22 144.57 DEPTH= 0.KM

A=-0.80844 B= 0.57520 C= 0.12479 D= 0.5797 E= 0.8148
G=-0.1017 H= 0.0723 K=-0.9922 HT= 6.9

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	
RABAUL	13.64	146.0	3	12	-4								
PORT MORESBY	16.71	171.1	3	50	-5	6	59	-1			8	13	SS
MANILA	24.27	289.5	5	17	-1	9	37	4					
BAGUIO CITY	25.17	293.5	5	28	1	9	58	10					
CHARTERS TS.	27.11	176.5	5	42K	-3	10	21	1					
ABUYAMA	28.74	344.5	6	36K	37								
TUKUBASAN	29.16	352.6	5	55	-8	10	51	-2			6	53	PP
MATUSIRO	29.77	349.7	6	6A	-2	10	46	-17			7	15	PP
ZO-SE	32.30	320.4	6	30A	-1	11	40	-3			7	41	PP
HONG KONG	32.90	300.4	6	36	0	10	33	-79					
CANTON	33.96	301.1	6	46	1	12	15	6					
BRISBANE	35.45	167.0	6	57	-1	12	4	-28					
WUHAN	36.44	313.4	7	6A	0	12	49	2					
VLADIVOSTOK	37.46	344.7	7	15	0								
PHU-LIEN	39.09	294.2				13	35	8					
Y.-SAKHLINSK	39.62	358.0	7	36	3	13	32	-3					
DJAKARTA	39.93	251.4	7	25K	-11	13	21	-19					
CHANGCHUN	40.18	338.3	7	38A	0	13	44	0			9	9	PP
RIVERVIEW	41.29	171.7	7	54	7	13	54	-6					
PEKING	41.40	326.5	7	47A	-1	14	4	2			9	25	PP
UGLEGORSK	41.77	357.5	8	5	14								
SUVA	41.86	127.4									17	22	SS
ADELAIDE	42.28	187.1	7	52	-3	14	13	-2			9	39	PP
SIAN	42.46	314.3	7	57A	1								
CANBERRA	42.51	174.6	7	58	1				8	8			
TATUNG	43.08	324.3	8	0	-1								
MELBOURNE	44.81	179.5	8	19K	4	14	57	5			18	17	SS
PAOTOW	45.30	322.6	8	19A	0						10	5	PP
MEDAN	45.81	268.0	8	26	3	15	13	7					
LANCHOW	46.99	313.7	8	34	1	15	11	-12			10	22	PP
PETROPAVLOVK	47.20	11.5	8	35	1								
PERTH	47.63	213.6				15	42	10					
FORT NELSON	49.97	177.3				16	0	-6			20	4	
PORT BLAIR	51.28	279.1	9	22	16						15	6	
ULAN-BATOR	51.64	328.4	9	9	1	16	25	-3					
MAGADAN	52.43	4.0	9	13	-1								
CHITTAGONG	52.90	292.5	9	18A	0	16	48	3			11	23	PP
SHILLONG	53.37	296.5	9	20	-1								
KARAPIRO	53.38	149.5	9	25	4						9	48	
TONGARIRO	54.37	150.5	9	27	-2								
TUAI	54.87	149.0	9	37	5								
IRKUTSK	55.68	331.3	9	37	-1								
YAKUTSK	55.78	351.6	9	38	-1								
HONOLULU	57.01	69.4				18	5	25					
ROXBURGH	57.02	159.5				17	43	3					
AGRA	65.89	296.4	10	46A	-2	19	34	1					
DEHRA DUN	66.14	299.9	10	54	5	19	10	-26					
POONA	69.50	287.0	11	10	0	20	17	1					
BOMBAY	70.47	287.4	11	15	-1	20	32	5			21	16	PS
WARSAK DAM	71.93	303.3	11	25A	0								
NAMANGAN	72.40	310.6	11	27	-1								
COLLEGE	74.08	24.2	11	34	-4								
KARACHI	75.69	294.7	11	48	1								

QUETTA	75.72	299.2	11	48A	1	21	31	4	12	1	PCP
WILKES	77.32	193.5				21	43	-1	26	41	SS
SVERDLOVSK	80.69	326.4	12	13	-1						
CAPE HALLETT	81.11	172.3				22	36	12	27	52	SS
MIRNY	82.39	198.4							22	42	
KHEYS	83.36	349.9	12	23	-5						
SCOTT BASE	85.83	175.4	12	44	4	23	15	3	16	25	PP
CORVALLIS	86.51	45.7	12	49	5						
SHASTA	87.65	49.5	12	49	0						
BERKELEY	88.12	52.2	12	51	-1				16	48	PP
MINERAL	88.29	49.7	12	51	-1						
LICK	88.68	52.7	12	54	0						
RENO	89.77	50.3	12	56	-3						
FRESNO	90.22	53.0	13	1	-1						
MAKHACH-KALA	90.28	313.2	13	2	0	23	30	-23			
RESOLUTE	90.79	13.2	13	2A	-2	23	59	1			
APATITY	91.27	339.0	13	10	4	23	38	-24	30	18	SS
PASADENA	91.96	55.4	13	8	-2	24	17	9	30	37	SS
HUNGRY HORSE	92.17	40.9	13	9	-2				17	4	PP
TIFLIS	92.48	312.4	13	11	-1	23	56	-17			
EUREKA	92.71	49.8	13	12	-1						
MOSCOW	93.48	327.2	13	14	-3						
BUTTE	93.69	42.9	13	16	-2						
SODANKYLA	93.72	340.0	13	18	0						
BOULDER CITY	94.31	53.1	13	21	1						
THULE	94.34	7.4	13	18	-2						
BOZEMAN	94.81	43.0	13	23	0						
SALT LAKE C.	95.50	47.9	13	27	1						
KIRUNA	95.50	341.6	13	32	6				25	56	
PULKOVO	95.66	332.4	13	29	2				26	5	PS
NURMIJARVI	97.84	334.3	13	38	2						
TUCSON	98.38	56.0	13	49	10						
TUCSON TELE.	98.45	55.9	13	36	-3				17	40	PP
RAPID CITY	100.61	42.7	13	54	5				17	58	PP
UPPSALA	101.14	335.7							18	4	PP
KISHINEV	101.76	321.0							18	5	PP
JERUSALEM	102.39	304.6							17	36	PP
LWOW	103.38	325.0							18	19	
COLLMBERG	108.43	330.3	18	5	777						
PRUHONICE	108.46	328.6	19	3	777				34	19	SS
JENA	109.36	330.6	19	25	777						
STUTTGART	111.94	329.9	19	21	46						
ASTRIDA	114.96	270.5	18	56	15						
RUMANGABO	115.20	271.9							19	51	PP
UVIRA	115.66	269.6							19	35	
KIMBERLEY	119.51	241.1	18	49	-1						
PALISADES	120.41	33.1							20	26	PP
TAMANRASSET	130.06	307.8	19	12	2				21	33	PP
HUANCAYO	140.40	100.1	19	36	7						
CARACAS	144.04	61.0	19	31	-4	27	7	26			
LA PAZ	146.74	109.1	19	44	4						
MBOUR	151.79	319.5	20	2	14						

MARCH 13 16.H 40.M 19.S EPICENTRE -21.23-176.55 DEPTH= 202.KM

DEPTH OF FOCUS= 0.027R

A=-0.93123 B=-0.05613 C=-0.36007 D=-0.0602 E= 0.9982
G= 0.3594 H= 0.0217 K=-0.9329 HT= 4.4

SE= 2.13

	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	5.64	302.1	1	27	4	2	34	6				
APIA	8.68	32.4	1	59	-4	3	25	-14				
KARAPIRO	17.98	200.7	3	55	-3							
WELLINGTON	21.29	198.3	4	33	2	8	11	0				
COBB RIVER	21.77	202.3	4	34	-2							
KAIMATA	23.50	202.7	4	59	6							
GEBBIES PASS	24.14	199.4	4	58	-1	9	4	5				
CANBERRA	33.24	237.6	6	19	-1				6	59	7	33 PP
RABAUL	34.77	294.8	6	31	-2							
CHARTERS TS.	34.78	265.2	6	32K	-1							
PORT MORESBY	36.84	283.0	6	50K	0							
MELBOURNE	37.04	234.9	6	50	-2							

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ADELAIDE	41.43	240.9	7	27	-1		
SCOTT BASE	57.24	184.2	9	29	1		
BYRD STATION	63.70	170.6	10	11	-1	11	0
SOUTH POLE	68.90	180.0	10	45	0		
LICK	77.88	41.8	11	38	1		
SHASTA	79.55	38.8	11	47	1		
MINERAL	79.79	39.5	11	48	1		
TUCSON TELE.	82.44	51.2	12	3	2	12	54
EUREKA	82.72	42.8	12	3	1	12	55
COLLEGE	88.64	11.8	12	30	-1	13	24
HUNGRY HORSE	88.92	36.3	12	33	0		
QUETTA	122.72	292.9	18	34	2		
SODANKYLA	131.60	348.2	18	48	-1		
NURMIJARVI	138.01	344.5	18	55	-6		
UPPSALA	140.12	348.9	18	57	-8		
GOTEBORG	143.05	352.4	19	5	-5		
ADDIS ABABA	143.90	255.8	19	15	4		
UVIRA	144.85	228.7	19	16K	3		
COPENHAGEN	144.95	351.1	19	14K	1		
ASTRIDA	145.03	230.5	19	16K	3		
LWIRO	145.93	229.8	19	19K	4		
RUMANGABO	146.18	231.6	19	21K	6		
RATHFARNHAM	147.13	10.8	19	26	9		
LWOW	147.14	335.2	19	20	3		
WITTEVEEN	148.37	356.3	19	24	5		
KRAKOW	148.43	339.6	19	19	0		
RACIBORZ	148.94	341.5	19	25	5	19	54
HALLE	149.07	349.6	19	20	0		
COLLMBERG	149.08	348.3	19	20	0	20	23
MUNSTER	149.15	355.0	19	26	6		
KASTAMONU	149.42	317.2	19	21	1	19	24 PKP2
KEW	149.68	4.7	19	28	7		
JENA	149.68	349.8	19	29	8		
JERUSALEM	149.79	297.0	19	30	9		
PRAGUE	149.94	345.8	19	31	10		
PRUHONICE	150.00	345.6	19	29K	8		
PLAUEN	150.00	348.9	19	26	5		
BENSBERG	150.19	355.3	19	29	8		
SONNEBERG	150.28	350.0	19	28	6		
STUTTGART	152.14	351.8	19	32K	8		
FOLINIERE	152.35	5.6	19	33	8		
TUBINGEN	152.40	351.9	19	33	8		
STRASBOURG	152.50	353.8	19	35A	10		
EBINGEN	152.75	351.9	19	35	10		
CINE	153.16	312.8	19	34	8		

MARCH 13 19.H 8.M 4.S EPICENTRE 34.30 26.44 DEPTH= 0.KM

A= 0.74128 B= 0.36866 C= 0.56089 D= 0.4453 E=-0.8954
G= 0.5022 H= 0.2498 K=-0.8279 HT= 0.4

SE= 2.76

	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	
CINE	3.56	21.6	0	59	2								
ATHENS	4.28	329.8	1	11K	3	2	3	3			2	15	S*
ISTANBUL UN.	7.03	16.0	1	49	2	3	6	-2					
JERUSALEM	7.79	106.4	1	55	-2						2	17	P*
KASTAMONU	7.85	24.6	2	15	17						4	1	S*
KSARA	7.85	90.8	1	56	-2	3	21	-8					
SOFIA	8.74	344.7	2	13	3	4	19	28					
REGGIO CALA.	9.51	296.6				4	0	-10					
MESSINA	9.62	297.0				4	1	-11					
SIMFEROPOL	12.17	26.8	3	8	11								
LWOW	15.62	354.2	3	49	6								
TOLMEZZO	15.81	323.9	3	54	9	6	53	11					
TIFLIS	16.24	57.5	3	53	2	6	57	5					
KRAKOW	16.45	345.0	3	53	-1						4	32	
RACIBORZ	16.89	341.5	3	55	-4						4	44	
CHUR	17.90	319.5	4	13	1								
PRUHONICE	17.95	334.4	4	11A	-1	7	34	3					
PRAGUE	18.06	334.4	4	15	1	7	40	6					
MAKHACH-KALA	18.56	56.0	4	19	-1	7	47	2					
EBINGEN	19.04	322.0	4	25	-1								
TUBINGEN	19.22	322.9	4	27	-1								

PLAUEN	19.27	331.5	4	26	-2					5	24	
STUTTGART	19.32	323.6	4	30	1							
BASLE	19.37	318.7	4	29	-1	8	8	5				
NEUCHATEL	19.42	316.6	4	30	0	8	4	0				
SONNEBERG	19.56	329.8	4	31	-1							
COLLMBERG	19.59	334.2	4	31	-1							
JENA	19.83	331.4	4	33	-2	8	25	12		5	21	
STRASBOURG	19.91	321.4	4	35	-1				4 46	6	2	
HALLE	20.14	333.0	4	33	-5					5	32	
CLERMONT-FD.	21.14	309.8	4	50	1							
TAMANRASSET	21.62	243.4	4	56K	2	9	0	11		5	21	PP
BENSBERG	21.76	325.7	4	55	0							
MUNSTER	22.26	328.2	5	0	0							
MOSCOW	22.79	16.5	5	5	0	9	10	0				
UCCLE	23.03	322.4	5	18	10	9	23	8				
FOLINIERE	24.64	314.1	5	23	0							
GOTEBORG	25.36	341.8	5	26	-4							
PULKOVO	25.61	4.5	5	30	-2							
KEW	25.84	319.7	5	45	10							
UPPSALA	26.21	349.9	5	36	-2							
NURMIJARVI	26.25	358.0	5	38	0							
ADDIS ABABA	27.58	152.9	5	55	4							
RATHFARNHAM	29.93	319.4	6	32	20							
SKALSTUGAN	30.60	347.6	6	15	-3							
SVERDLOVSK	32.33	35.3	6	33	0							
SODANKYLA	33.12	0.1	6	37	-3							
APATITY	33.54	4.9	6	41A	-2							
KIRUNA	33.76	355.9	6	43A	-2							
QUETTA	34.35	85.4	6	50	0							
NAMANGAN	36.11	65.8	7	6	1							
LWIRO	36.42	176.0	7	5	-3							
ASTRIDA	36.83	174.5	7	13	2							
WARSAK DAM	37.10	77.4	7	13	-1							
SCORESBY SD.	44.52	339.0	8	16	1							
BULAWAYO	54.17	177.5	9	30	1							
THULE	58.07	343.9	9	55	-2							
KIMBERLEY	62.72	181.6	10	29	0							
RESOLUTE	64.77	345.5	10	41	-1							
COLLEGE	81.06	357.5	12	18	0							
RAPID CITY	89.53	326.3	13	1	1							
HUNGRY HORSE	90.47	334.9	13	5	0							
SOUTH POLE	124.12	180.0	19	3	2							

MARCH 14 2.H 55.M 40.S EPICENTRE 45.27 150.57 DEPTH= 110.KM

DEPTH OF FOCUS= 0.012R

A=-0.61508 B= 0.34701 C= 0.70800 D= 0.4914 E= 0.8710
G=-0.6166 H= 0.3479 K=-0.7062 HT= -3.6

SE= 3.76

	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
NEMURO	4.07	243.4	0	59	-3	1	49	0				
ABASHIRI	4.66	256.7	0	55	-15	2	11	8				
KUSIRO	4.99	245.0	1	12	-2	2	23	11			5	16
Y.-SAKHLINSK	5.71	289.9	1	45	21							
OBIHIRO	5.80	248.8	1	29	4						3	3
HIROO	6.04	242.9	1	32	3	2	59	22				
ASAHIGAWA	6.05	258.7	1	28	-1							
URAKAWA	6.45	243.9	1	33	-1	2	49	2			3	10
UGLEGORSK	6.94	306.4	1	41	0	3	9	10				
SAPPORO	6.98	254.9	1	48	6	3	24	24			5	0
MURORAN	7.54	250.5	2	7	18	4	5	51			2	52
MORI	7.91	249.9	1	56	2	3	20	-3			3	56
MORIOKA	8.89	234.6	2	3	-4	3	41	-6				
MIZUSAWA	9.31	232.1									3	51
PETROPAVLOVK	9.48	31.0	2	13	-2							
SENDAI	10.05	229.3									3	54
HUKUSIMA	10.66	228.7	2	39	8							
TUKUBASAN	12.02	224.9	2	42	-7	4	51	-10			3	13
MATUSIRO	12.76	231.3	2	54	-5	5	18	-1				
VLADIVOSTOK	13.57	267.5	2	59	-10							
MAGADAN	14.31	0.5	3	22	3							
CHANGCHUN	18.04	274.4	4	6	1							
YAKUTSK	20.68	331.6	4	33	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.

PEKING	25.71	270.5	5 28	6			
PAOTOW	29.83	275.5	6 7	8			
LANCHOW	36.19	272.0	6 47	-7	11 28	-57	
COLLEGE	38.41	37.2	7 8	-5			
SHILLONG	50.56	267.8	9 53A	63			
CHITTAGONG	52.63	264.7	8 59	-6			
RESOLUTE	52.80	17.7	9 3	-3	16 34	9	18 38 SCS
NAMANGAN	55.57	295.7	9 27	0			
THULE	56.08	10.3	9 24	-6			
WARSAK DAM	59.61	289.0	9 57	2			
SODANKYLA	59.98	338.2	9 55	-3			
SHASTA	60.82	60.4	10 4	1			
HUNGRY HORSE	61.11	49.3	10 2	-3			
KIRUNA	61.17	340.7	10 3	-3			
MINERAL	61.51	60.3	10 7	-1			
BUTTE	63.32	50.7	10 22	2			
BOZEMAN	64.37	50.3	10 39	12			
SCORESBY SD.	64.44	357.2	10 26	-1			
QUETTA	65.03	288.3	10 33	2	19 17	14	
EUREKA	65.46	58.1	10 33	-1			
NURMIJARVI	65.78	333.9	10 36	0			
HELSINKI	65.94	333.6	10 35	-2			
SKALSTUGAN	66.59	341.1	10 39	-2			
UPPSALA	68.39	336.6	10 51K	-1			
MAKHACH-KALA	68.68	309.9	10 45	-9			
RAPID CITY	69.60	47.6	11 9	9			
TIFLIS	70.99	310.4	11 10	2			
GOTEBORG	71.77	338.0	11 13K	0			
TUCSON	73.35	61.0	11 27	5			
TUCSON TELE.	73.36	60.8	11 30	8			
LWOW	74.51	327.3	11 30	1			
KISHINEV	74.80	322.9	11 27	-3			
RACIBORZ	76.42	330.7	11 40	1			
COLLMBERG	77.07	334.2	11 43	0			
PRUHONICE	77.73	332.7	11 48	1			
JENA	77.82	334.9	11 47	0			12 5
MUNSTER	78.02	337.6	11 49	1			
PLAUEN	78.03	334.3	11 47	-1			
KASTAMONU	78.35	318.2	11 45	-5			
BENSBERG	79.05	337.4	11 55	1			
STUTTGART	80.45	335.2	12 2	1			
KSARA	81.57	310.1	12 1	-6			
PARIS	82.24	339.3	12 13	2			
CINE	82.59	317.5	12 14	1			
JERUSALEM	83.48	309.2	12 22	5			
GARCHY	83.51	338.4	12 18	1			12 23 PCP

MARCH 16 8.H 2.M 20.S EPICENTRE 45.64 151.35 DEPTH= 66.KM

DEPTH OF FOCUS= 0.005R

A=-0.61565 B= 0.33641 C= 0.71261 D= 0.4795 E= 0.8775
G=-0.6253 H= 0.3417 K=-0.7016 HT= -3.8

SE= 3.10

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KURILSK	2.48	261.7	0 36	-3	1 10	1		
NEMURO	4.73	242.8	1 2	-9	2 0	-5		
ABASHIRI	5.28	254.6	1 19	1	2 20	2		
KUSIRO	5.65	244.4	1 20	-3	2 29	1		
Y.-SAKHLINSK	6.12	285.4	1 30	0				
OBIHIRO	6.45	247.9	1 35	1				2 53
ASAHIGAWA	6.66	257.0	1 44	7				
HIROO	6.70	242.7	1 41	3	2 50	-3		
WAKKANAI	6.79	271.6						3 18
URAKAWA	7.10	243.6	1 42	-2	2 53	-11		
UGLEGORSK	7.18	302.0	1 46	1	3 22	17		
SAPPORO	7.61	253.8	1 50	0	3 23	7		
TOMAKOMAI	7.69	249.5	2 5	13				
MURORAN	8.18	249.8	1 56	-2	3 28	-2		2 37
MORI	8.55	249.4	2 12	9	3 47	8		
HAKODATE	8.61	247.1	2 1	-3	3 34	-7		4 4
HATINOHE	8.81	238.0			3 35	-11		4 15
PETROPAVLOVK	8.88	29.8			3 50	2		
AOMORI	9.09	241.7	3 45	94				

MORIOKA	9.56	235.2	2 11	-6	3 47	-17				
MIZUSAWA	9.97	232.8	4 1	98	4 25	11				
AKITA	10.17	238.4	2 47	21					4 25	
ISINOMAKI	10.36	229.5	4 4	96						
SENDAI	10.71	230.2			4 23	-9			4 47	
HUKUSIMA	11.32	229.7	2 43	2						
ONAHAMA	11.70	225.7							4 51	
MITO	12.36	225.3							4 58	
KAKIOKA	12.62	225.8	3 7	9	5 14	-4				
TUKUBASAN	12.67	226.0	2 51	-8	5 2	-17				
MAEBASI	13.07	229.4	3 43	39	5 52	23			4 53	
KUMAGAYA	13.09	227.8							5 12	
NAGANO	13.34	232.4	3 21	13						
OIWAKE	13.40	230.5	3 27	18	5 31	-5			6 4	
MATUSIRO	13.42	232.0	3 2	-7	5 22	-15				
MAGADAN	13.94	358.8	3 15	-1						
VLADIVOSTOK	14.13	266.7	3 16	-2						
CHANGCHUN	18.56	273.7	4 13	-1						
YAKUTSK	20.62	330.4	4 38	2						
PEKING	26.25	270.3	5 32	1						
ULAN-BATOR	30.21	290.6							7 4	
PAOTOW	30.33	275.3	6 7	0						
LANCHOW	36.72	272.1	7 3A	1						
COLLEGE	37.78	37.5	7 10	-1			7 23			
SHILLONG	51.12	268.1	8 59A	1						
RESOLUTE	52.28	17.9	9 5A	-2	16 42	17			19 4	SCS
CHITTAGONG	53.21	265.0	9 12	-2	16 42	4			10 19	PCP
THULE	55.61	10.5	9 28	-3						
NAMANGAN	55.89	295.9	9 33	0						
SODANKYLA	59.84	338.4	10 30	29						
WARSAK DAM	60.01	289.3	10 1A	-1						
HUNGRY HORSE	60.45	49.8	10 4	-1						
BUTTE	62.66	51.3	10 31	11						
BOZEMAN	63.71	50.8	10 27	0						
SCORESBY SD.	64.09	357.5	10 29	0						
EUREKA	64.80	58.7	10 33	-1						
QUETTA	65.43	288.6	10 38A	0						
NURMIJARVI	65.68	334.2	10 39	-1						
SKALSTUGAN	66.41	341.3	10 47	3						
UPPSALA	68.26	336.9	10 53	-3						
TIFLIS	71.16	310.7	11 14	1						
GOTEBORG	71.62	338.4	11 18	2						
TUCSON	72.69	61.6	11 22	-1						
LWOW	74.48	327.7	11 33	0						
RACIBORZ	76.35	331.1	11 44	0						
DURHAM	77.36	344.3	11 48K	-1						
PRUHONICE	77.64	333.1	11 51A	0						
BENSBERG	78.92	337.8	11 58	0						
STUTTGART	80.34	335.7	12 6A	1						
TUBINGEN	80.59	335.7	12 7	0						
STRASBOURG	80.91	336.5	12 9	0						
EBINGEN	80.93	335.6	12 9	0						
BREBEUF	80.94	30.2	12 26	17						
KSARA	81.74	310.6	12 5	-8						
PARIS	82.08	339.8	12 17	2						
CINE	82.68	318.0	12 17	-1						
FOLINIERE	82.81	341.6	12 19	1						
MONACO	85.42	334.6	12 32	1						
BYRD STATION	134.41	165.9	19 15	4						
SOUTH POLE	135.45	180.0	19 12	-1						

MARCH 17 8.H 25.M 20.S EPICENTRE 26.99 129.73 DEPTH= 0.KM

A=-0.57036 B= 0.68620 C= 0.45146 D= 0.7690 E= 0.6392
G=-0.2886 H= 0.3472 K=-0.8923 HT= 2.8

SE= 2.65

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
YAKUSIMA	3.51	10.9	0 56K	-1	1 35	-5		
KAGOSIMA	4.62	8.7	1 12K	-1	2 3	-5		
MIYAZAKI	5.12	16.3	1 20	0	2 16	-5		2 3
TOMIE	5.67	351.7	1 34	6	2 36	2		
ISIGAKIZIMA	5.68	243.4	1 26	-2				3 15
NAGASAKI	5.72	1.2	1 27A	-1	2 31	-5		3 12

UNZENDAKE	5.73	4.4	1	29A	1				3	2	
KUMAMOTO	5.87	8.0	1	31	1	2	41	2			
ASOSAN	6.00	10.8	1	34	2	2	48	5	2	8	
SAGA	6.25	4.4	1	38K	2	2	47	-2			
SIMIDU	6.41	25.2	1	37	-1	2	42	-11			
OOITA	6.43	14.3	1	37	-1	2	43	-10	2	34	
HUKUOKA	6.59	5.0	1	41K	0				3	33	
UWAZIMA	6.68	20.7	1	48	6	3	10	11	3	37	
SIMONOSEKI	7.01	8.2	1	55	9				3	1	
ITUHARA	7.19	357.0	1	51	2	3	15	3			
MATUYAMA	7.29	20.2	1	50	0	3	18	3	4	3	
KOTI	7.31	25.8	1	51	0	3	28	13			
MUROTO	7.33	30.6	1	52	1				3	59	
ILAN	7.52	254.6	1	40	-14	3	48	27			
TAIPEI	7.64	257.0	2	0	5	3	30	6			
HIROSIMA	7.71	16.9	1	56	0				3	58	
HWALIEN	7.92	249.5	2	5	6	3	58	27			
HAMADA	8.13	13.7	2	18	16	3	40	4			
HSINCHU	8.19	256.5	2	31	28						
TOKUSIMA	8.20	29.5	2	22	19	3	25	-12			
SIOMISAKI	8.29	37.6	2	4	0	3	54	14			
OKAYAMA	8.46	24.1	2	6	-1				3	35	
HSINKONG	8.52	244.7	2	0	-7	4	27	42			
ZO-SE	8.53	300.7	2	6A	-2						
SUMOTO	8.57	29.9	2	7	-1	3	51	4	4	57	
WAKAYAMA	8.60	31.7	2	8	-1	3	35	-12			
TAICHUNG	8.65	252.9	2	13	4	4	18	29			
ALISHAN	8.79	248.8	2	10	-1						
TAITUNG	8.86	243.4	2	6	-6	4	29	35			
YONAGO	8.96	19.3	2	19	5						
KOBE	8.98	30.1	2	12	-2	4	9	12	4	51	
OWASE	8.99	36.8	2	13	-1	3	48	-9			
OSAKA	9.11	31.7	2	28	12				5	17	
TAWU	9.27	242.0	2	14	-4	5	4	60			
NARA	9.28	32.9	2	16	-2						
TOTTORI	9.31	23.3	2	17	-1				4	40	
ABUYAMA	9.31	31.1	2	16K	-2						
TAINAN	9.50	247.3	2	46	25						
TOYOOKA	9.56	25.8	2	21	-1	4	9	-2	4	41	
HENGCHUN	9.57	240.6	2	24	2						
KAOHSIUNG	9.64	245.2	2	21	-2						
TU	9.67	35.4	2	23	0				2	51	
SAIGO	9.68	17.6	2	19	-5						
KAMEYAMA	9.73	34.8	2	24	0				4	40	
HIKONE	9.96	32.5	2	27	0				2	55	
IBUKISAN	10.11	32.6	2	30	1				2	55	
TSURUGA	10.19	30.6	2	31	0				6	51	
NAGOYA	10.24	35.5	2	30	-1	4	31	3	5	46	
GIHU	10.32	34.0	2	31	-1				5	33	
OMAESAKI	10.52	41.8	2	37	2	4	40	5			
HUKUI	10.61	30.1	2	47	11						
NANKING	10.77	300.5	2	37	-2	4	36	-5			
SHIZUOKA	10.88	41.0	2	36	-4				6	7	
IIDA	10.96	37.2	2	42	1						
MISIMA	11.31	42.0	2	47	1				5	33	
OSIMA	11.34	44.6	2	46	0						
KOHU	11.45	39.1	2	57	9				5	18	
HUNATU	11.47	40.1	2	40	-8						
TOYAMA	11.57	31.4	3	5	16	5	37	36			
MATUMOTO	11.59	35.2	2	53	3						
HERA	11.72	45.2	2	59	8				3	19	
YOKOHAMA	11.94	42.8	2	57	3				4	54	
MATUSIRO	11.95	35.0	2	52K	-3	5	20	10	4	11	
OIWAKE	11.95	36.7	2	59	4				6	24	
TITIBU	11.99	39.4	2	57	2						
WAZIMA	12.00	28.6	2	59	4				7	51	
NAGANO	12.03	34.6	2	57	1				6	40	
TOKYO C.M.O.	12.17	42.2	3	7	9				5	32	
KUMAGAYA	12.28	39.6	2	53	-6				5	36	
MAEBASI	12.29	38.0	3	4	5				4	43	
TUKUBASAN	12.74	41.3	3	4K	-1	5	38	9	3	15	PP
KAKIOKA	12.80	41.4	2	59	-7						
UTUNOMIYA	12.84	39.6	3	7	0				5	31	
MITO	13.07	41.7	3	2	-8				5	50	
AIKAWA	13.13	31.0	3	23	13						
NIIGATA	13.43	33.5	3	29	15	6	2	17			
SHIRAKAWA	13.44	38.7	3	13	-2						
BAGUIO CITY	13.52	220.8	3	19	3	6	1	13			
ONAHAMA	13.71	40.9	3	17	-1	5	5	13			

WUHAN	13.77	288.4	3	16A	-3					
HUKUSIMA	14.04	37.5	3	22	0	6	7	7		
YAMAGATA	14.34	35.9	3	27	1					
SAKATA	14.57	32.9	3	50	21					
SENDAI	14.65	37.1	3	30	0	6	14	0	4	20
MANILA	14.81	215.2	3	32	0	6	28	10		
HONG KONG	14.90	255.1	3	42	8	6	24	4		
AKITA	15.35	31.6	3	40	0	6	48	17		
MIZUSAWA	15.40	35.4	3	43	3	6	36	4		
CANTON	15.41	259.0	3	37	-3					
MORIOKA	15.85	34.1	3	44	-2	6	45	2		
VLADIVOSTOK	16.19	5.7	3	55	5				4	12 PPP
MIYAKO	16.22	35.9	3	47	-4				7	27
AOMORI	16.54	30.7	3	57	2					
HATINOHE	16.67	32.9	3	53	-3	7	25	23		
CHANGCHUN	17.18	349.1	4	3A	0	7	7	-7	4	15 PP
PEKING	17.20	322.5	4	2	-1	7	5	-9	4	15 PP
HAKODATE	17.29	28.7	4	7	3					
MORI	17.49	27.7	4	9	2					
SUTTSU	17.94	25.8	4	13	1	7	33	2	5	13
TOMAKOMAI	18.26	29.0	4	41	25					
URAKAWA	18.51	31.9	4	19	0	7	49	5		
SAPPORO	18.62	27.5	4	16	-5	7	42	-4	6	48
HIROO	18.87	32.6	4	22	-2					
TATUNG	18.90	317.9	4	26	2					
SIAN	19.30	297.1	4	27A	-2	7	58	-3		
OBIHIRO	19.31	31.2	4	28	-1	8	9	7		
GUAM	19.45	130.8	4	31	0					
SUIHWA	19.71	354.4	4	37	3					
KUSIRO	19.92	33.0	4	33	-3	8	9	-6		
ABASHIRI	20.65	30.9	4	44	0	8	41	11		
WAKKANAI	20.72	24.3	4	45	1	8	43	11		
NEMURO	20.76	34.2	4	42	-3	8	33	0		
PAOTOW	21.19	314.7	4	47A	-2					
TIENSHUI	21.91	296.0	4	56	-1					
PHU-LIEN	21.99	258.7	4	58	1	9	4	8		
Y.-SAKHLINSK	22.40	23.8	5	0	-1				9	28 SS
LANCHOW	23.82	298.8	5	13A	-2	9	23	-6		
KUNMING	24.37	271.5	5	21A	0	9	34	-4	10	20 SS
WUWEI	25.24	302.4	5	30	1	9	52	-1		
ULAN-BATOR	27.47	325.5	5	50	0	10	31	1		
OKHA	28.28	16.7	5	56	-1					
IRKUTSK	31.63	329.8	6	23	-4					
PETROPAVLOVK	33.80	31.6	6	43	-3				16	53 SCS
SHILLONG	33.90	276.3	6	44	-3	12	5	-6	7	58 PP
CHITTAGONG	34.67	270.8	6	53A	0	12	21	-2	8	8 PP
MAGADAN	35.65	18.3	7	0	-2	12	36	-2	8	20 PP
MEDAN	37.73	237.3	7	21A	2	13	13	3		
CHATRA	37.82	279.7	7	20	0	13	6	-6		
RABAUL	37.84	141.6	7	20	0				8	21
PORT BLAIR	37.94	253.6	7	22	1	13	9	-4	8	53 PP
BOKARO	39.66	275.5	7	34	-1	13	37	-2	9	9 PP
DJAKARTA	39.74	217.2	7	37A	1	13	46	5		
PORT MORESBY	39.93	152.6	7	38K	1	14	38	55		
SEMIPALATNSK	44.12	315.7	8	9	-3	14	37	-8	9	58 PCP
DEHRA DUN	45.16	286.9	8	22	2	14	55	-5	10	22 PP
AGRA	45.77	282.5	8	23	-2	15	1	-8	18	17 SS
FRUNSE	47.09	304.5	8	34	-1	15	25	-3		
LAHORE	48.12	289.3	8	43A	0	15	33	-9		
HYDERABAD	48.15	269.7	8	46	2	15	40	-3	10	36 PP
MADRAS	48.31	263.4	8	45	0	15	46	1	10	37 PP
CHARTERS TS.	49.39	159.4	8	54K	1	16	2	2		
WARSAK DAM	50.05	292.9	8	57	-1					
TASHKENT	51.07	302.6	9	4	-2	16	21	-2	10	18 PCP
STALINABAD	51.70	299.1	9	11	0	16	32	0		
POONA	51.87	273.0	9	12	0	16	31	-3		
BOMBAY	52.66	273.9	9	21	3	16	41	-4	10	20 PCP
QUETTA	54.61	289.2	9	31A	-1	17	9	-2		
KARACHI	55.63	284.0	9	41	1	17	27	2		
SVERDLOVSK	56.49	322.0	9	44	-2	17	30	-7		
BRISBANE	58.81	155.7	10	1	0	18	6	1		
ASHKABAD	59.89	300.0	10	8	-2	18	22	1	13	53 SCP
PERTH	60.09	193.6	10	11	0	18	32	8		
KHEYS	61.45	348.8	10	11	-10	18	19	-22	12	21 PP
ADELAIDE	62.17	171.7	10	26K	1				12	48 PP
COLLEGE	62.72	28.4	10	27	-2	18	57	0	20	17 SCS
RIVERVIEW	63.81	160.2	10	35A	-1	19	16	5		
CANBERRA	64.60	162.6	10	42A	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.

HONOLULU	65.30	77.7	10	45	-1	19	28	-1		
KIPAPA	65.33	77.6	10	46	0					
MELBOURNE	66.05	166.8	10	52K	1					
APATITY	67.72	335.6	11	0A	-1	19	51	-7	13	37 PP
GORIS	68.57	304.3	11	6	-1	20	9	0		
ISFJORD	68.91	348.4	11	12	3					
TIFLIS	69.00	307.0	11	9	0					
MOSCOW	69.28	322.8	11	10	-1	20	13	-4	11	27 PCP
NORD	70.29	355.0	11	14	-3	20	21	-8		
SITKA	70.36	35.3	11	17	-1					
PULKOVO	71.61	328.3	11	19	-6	20	28	-16	11	34 PCP
KIRUNA	72.20	337.9	11	26	-3				11	39
NURMIJARVI	73.89	330.2	11	38	-1					
HELSINKI	73.90	329.8	11	36	-3					
RESOLUTE	74.55	11.2	11	41K	-1	21	15	-3	25	58 SS
SIMFEROPOL	75.17	313.0	11	45	-1	21	22	-2		
THULE	76.22	4.3	11	48	-4					
UPPSALA	77.28	331.3	11	55K	-3				12	19
SKALSTUGAN	77.31	336.0	11	56	-2				12	10
KARAPIRO	77.54	144.5	11	59	0					
IASI	78.35	317.1	12	3	-1	21	58	-1	14	19 PP
KSARA	78.45	302.0	12	4	0	21	57	-3	15	6 PP
TONGARIRO	78.51	145.4	12	3	-2					
KASTAMONU	78.89	310.7	11	56	-11					
LWOW	79.19	320.6	12	8	0	22	6	-2	15	7 PP
ALBERNI	79.31	40.0	12	8	-1					
WARSAW	79.64	323.7	12	11	0	22	7	-6	15	9 PP
JERUSALEM	79.82	300.4	12	13	1	22	20	5		
HORSESHOE B.	80.14	39.4	12	11	-2					
ISTANBUL UN.	80.24	311.1	12	4	-10					
VICTORIA	80.49	40.2	12	13	-2					
BUCHAREST	80.55	315.1	12	19	3	22	24	2	22	51 PS
ROXBURGH	80.68	153.0							27	58 SS
SCORESBY SD.	80.73	350.7	12	15	-2	22	23	-1	23	2 PS
CAMPULUNG	80.81	316.2	12	56	39	22	24	-1	22	44 PS
GOTEBORG	80.92	331.2	12	16K	-2				12	30
KRAKOW	81.36	322.2	12	20	0	22	29	-2	12	31 PCP
SKALNATE PL.	81.64	321.3	12	40	19					
COPENHAGEN	81.98	329.4	12	22K	-1	22	35	-1		
RACIBORZ	82.28	322.8	12	24	-1				12	34 PCP
CINE	82.46	308.3	12	21	-5					
CORVALLIS	82.55	43.6	12	27K	1					
SOFIA	83.15	314.6	12	30	1	22	39	-10	15	39 PP
BUDAPEST	83.22	320.3				22	50	1		
SZEGED	83.26	318.8							15	15 PP
HURBANOVO	83.50	320.9				22	57	5	23	41 PS
POTSDAM	83.61	326.5	12	30	-2	22	52	-2	15	53 PP
BELGRADE	83.83	317.5	12	35K	2	22	55	-1	23	19 SKKS
BRATISLAVA	83.94	321.6	12	28A	-5	22	55	-2	23	42 PPS
PRUHONICE	84.28	324.0	12	39A	4	22	58	-2	16	4 PP
PRAGUE	84.29	324.2	12	40	5	22	59	-1	23	44 PS
VIENNA-H.	84.30	321.9	12	37	2	23	1	1		
HALLE	84.70	326.3	12	32	-5	22	56	-8	15	54 PP
SKOPJE	84.75	314.7	12	38A	1	24	8	63	13	5 PCP
SHASTA	85.12	46.6	12	39K	0					
PLAUEN	85.21	325.4	12	40	0	23	4	-5	13	44
JENA	85.23	326.0	12	39	-1	23	12	2	15	55 PP
ATHENS	85.29	310.3	12	38A	-2					
CHEB	85.35	325.0				23	10	-1	23	51 PS
UKIAH	85.39	48.2	12	43	3					
SONNEBERG	85.76	325.7	12	45	3	23	15	0		
HUNGRY HORSE	95.80	36.9	12	42	0				16	19 PP
MINERAL	85.82	46.6	12	42K	-1					
ZAGREB	95.91	320.1	12	46K	3	23	18	2	23	7 SKS
WITTEVEEN	86.37	329.4	12	48	3					
MUNSTER	86.49	328.3	12	49	3				13	15
BERKELEY	86.69	48.9	12	46K	-1	23	42	18		
ABERDEEN	86.88	336.0				23	28	3	29	27 SS
TOLMEZZO	87.23	321.8	12	49	0	23	30	1		
TRIESTE	87.27	320.9	12	51	1	23	29	0	23	15 SCS
BENSBERG	87.36	327.8	12	52	2	23	30	0		
LICK	87.39	49.1	12	51K	1				13	25
RENO	87.42	46.5	12	50K	0					
DE BILT	87.53	329.4	12	51	0	23	33	1		
STUTTGART	87.79	325.2	12	50	-2	23	4	-30	16	33 PP
BUTTE	88.01	38.1	12	54	1				16	48 PP
TUBINGEN	88.01	325.1	12	52	-1					
EBINGEN	88.28	324.9	12	54	-1					

DURHAM	88.48	334.2	12	58	3	23	43	3	23 30	SKS
STRASBOURG	88.63	325.7	12	56	0	23	40	-2	23 24	SKS
UCCLE	88.79	328.8	12	58	1	23	25	-18		
CHUR	88.84	323.6	13	0	3					
FRESNO	88.94	48.8	12	57	-1					
BOZEMAN	89.06	37.7	12	58	0					
BOLOGNA	89.33	321.0	13	20	20	24	2	14		
BASLE	89.42	325.0	12	58	-2	23	51	2		
PRATO	89.85	320.6	13	10	8	23	51	-2		
EUREKA	89.90	44.9	13	3	1					
NEUCHATEL	90.09	324.9	13	8	5	23	58	3		
PAVIA	90.10	322.5	13	5	2	23	40	-15	25 2	PS
ROME	90.27	318.4	13	15	11	23	55	-2	23 33	SKS
KEW	90.40	331.4	13	5	1	23	55	-3	23 34	SKS
MESSINA	90.57	314.0	13	5	0	23	59	-1	16 38	PP
PARIS	91.05	328.2	13	8	1	23	42	-22		
PASADENA	91.50	50.2	13	10	0	24	13	5	16 53	PP
SALT LAKE C.	91.65	41.9	13	11	1				13 37	
TANANARIVE	91.75	249.8	13	10	-1					
FOLINIERE	92.44	329.6	13	13	-1					
BOULDER CITY	92.68	47.2	13	15	0					
CLERMONT-FD.	92.87	325.8	13	19	3	24	24	4		
WILKES	94.06	187.7	13	35	14	24	46	16	17 11	PP
RAPID CITY	94.28	35.2	13	22	0				17 14	PP
LARAMIE	94.91	38.4	13	25	0					
TUCSON	97.58	48.1	13	38	1				17 34	PP
TUCSON TELE.	97.59	48.0	13	38	1				17 33	PP
SETIF	98.14	317.6	13	40	0					
ALGIERS UNI.	99.15	319.3	13	36	-8	25	13	0	17 55	PP
RUMANGABO	99.87	273.5	14	8	20					
ALICANTE	100.02	322.4	13	49	1	25	20	-1	36 5	SSS
ASTRIDA	100.09	272.2	13	52	3					
LWIRO	100.76	273.0	13	53K	1				18 17	PP
TOLEDO	100.77	325.6	13	51	-1	24	13	-74	17 53	PP
UVIRA	101.03	271.7	13	52	-1				18 29	PP
ALMERIA	102.19	322.6	13	49	-9	25	16	-23	17 53	PP
GRANADA	102.56	323.5	12	39A	-81				16 13	
CAPE HALLETT	102.85	168.2	14	23	22	24	57	-47	18 22	PP
SHAWINIGAN	104.02	15.8							18 17	PP
OTTAWA	104.32	18.2							18 2	PP
BREBEUF	104.79	16.8							18 6	PP
TAMANRASSET	106.81	307.1				26	24	0	18 48	PP
SCOTT BASE	106.38	172.3							18 52	PP
HALIFAX	107.70	10.0							28 18	PS
PENNSYLVANIA	107.85	21.7				26	25	0		
MORGANTOWN	108.17	23.7							18 53	PP
PALISADES	108.87	18.7				25	31	0	18 57	PP
KIMBERLEY	114.72	249.1	18	44	2					
SOUTH POLE	116.84	180.0	18	47	0				20 3	PP
BERMUDA	119.38	14.0							20 15	PP
BYRD STATION	119.98	169.1	18	53	0				20 15	PP
MBOUR	127.69	317.8							21 21	PP
CARACAS	139.37	25.7	19	22	-7	26	50	12		
FUQUENE	140.54	38.6	19	36	5				23 11	SKP
BOGOTA	141.05	39.8	19	27	-5				23 14	SKP
HUANCAYO	152.17	62.6	20	3K	12				20 49	PKP2
LA PAZ	160.42	61.4	20	6K	5				24 26	PP

MARCH 17 12.H 58.M 56.S EPICENTRE -57.41 -25.35 DEPTH= 0.KM

A= 0.48907 B=-0.23175 C=-0.84089 D=-0.4282 E=-0.9037
G=-0.7599 H= 0.3601 K=-0.5412 HT= -8.1

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	
SOUTH POLE	32.77	180.0	6	38	2	12	27	34					
BYRD STATION	34.80	197.7	6	55	1	12	45	20			16	40	SCS
HERMANUS	37.65	71.8				13	10	1			16	30	
SCOTT BASE	44.79	183.6	8	18K	1								
KIMBERLEY	45.01	72.4	8	17A	-1								
WINDHOEK	46.37	59.5	9	27	-2								
LA PAZ	51.80	304.0	9	11A	0	16	34	1			20	24	SS
WILKES	52.34	159.1									20	29	SS
BULAWAYO	54.06	69.8	9	27	-1						9	41	
TERRE ADELIE	55.69	173.7	9	6	-34								

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HUANCAYO	59.01	299.1	10	5K	2					
UVIRA	68.62	60.7	11	7	1					
LWIRO	69.54	59.8	11	14A	2				20	23
ASTRIDA	69.68	60.9	11	14	1					
RUMANGABO	70.60	59.9	11	20	1				11	42
MBOUR	71.86	8.6	11	27	1	20	51	4		
GRENADA	75.41	323.2	11	46	-1					
CARACAS	75.76	317.7	11	46A	-3	21	21	-10		
ST. VINCENT	76.32	324.0	11	52	0					
TONGARIRO	82.16	196.2	12	23	-1					
SAN JUAN	82.78	321.3	12	26	-1					
KARAPIRO	83.41	196.5	12	29	-1					
TAMANRASSET	83.97	28.4	12	34	1	22	54	-3		
ADDIS ABABA	84.13	63.3	12	38	4					
ADELAIDE	87.04	167.0	12	50	2					
RIVERVIEW	89.07	177.1	12	51	-7	23	49	4		
PALISADES	106.18	323.8							27	49 PS
TUCSON	114.23	292.1	18	41	0					
TUCSON TELE.	114.25	292.3	18	42	1				19	43 PP
RAPID CITY	120.05	305.5	19	5	13				20	15 PP
UPPSALA	121.74	23.9	18	53	-3					
FRESNO	122.33	288.7	19	11	14					
EUREKA	122.48	293.5	18	58	1				19	16
LICK	123.72	287.7	19	1A	2					
BERKELEY	124.44	287.7	19	1A	0					
RENO	124.45	290.8	19	2	1					
BOZEMAN	124.82	301.6	19	4	2					
MINERAL	125.97	290.2	19	6A	2					
SHASTA	126.63	289.9	19	5	0					
SCORESBY SD.	127.62	1.4	19	14	7					
HUNGRY HORSE	128.18	302.0	19	7	-1				22	22 PKS
KIRUNA	129.40	20.6	19	10	0					
SODANKYLA	130.27	23.6	19	12	0					
KUNMING	131.04	108.7							22	36
THULE	136.34	346.5	19	22	-1				22	15 PP
RESOLUTE	139.49	337.4	19	18	-11				22	28 PP
NANKING	144.75	120.5	19	38	0					
ZO-SE	145.03	124.4	19	39A	0					
PEKING	149.77	108.4	19	52A	5					
ULAN-BATOR	150.11	87.7	19	53	6					
COLLEGE	152.18	309.5	19	46	-4					

MARCH 18 0.H 41.M 21.5 EPICENTRE 27.10 129.76 DEPTH= 0.KM

A=-0.57016 B= 0.68524 C= 0.45317 D= 0.7687 E= 0.6396
G=-0.2898 H= 0.3483 K=-0.8914 HT= 2.7

SE= 2.79

	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
ILAN	7.58	253.9	1	59	5	3	38	16				
TAIPEI	7.69	256.3	2	7	11	3	49	25				
HWALIEN	7.99	248.8	2	24	24							
HSINCHU	8.24	255.8				3	37	-1				
ZO-SE	8.50	300.0	2	7	0							
HSINKONG	8.59	244.2				3	29	-18				
TAICHUNG	8.71	252.3	2	13	3							
TAITUNG	8.94	242.9	2	9	-4	4	36	41				
ABUYAMA	9.20	31.3				4	9	6				
TAWU	9.34	241.5	2	46	28	4	42	37				
TAINAN	9.57	246.8	2	8	-14	4	46	35				
NANKING	10.74	299.9	2	28	-10							
MATUSIRO	11.84	35.2	2	53K	0	5	8	1			5	35
TUKUBASAN	12.65	41.5	3	4K	1							
BAGUIO CITY	13.62	220.6	3	18	2	6	8	18				
WUHAN	13.76	287.9	3	16	-2						3	27 PP
MANILA	14.31	215.1	4	37	64	7	30	70				
HONG KONG	14.95	254.7	3	24	-10	6	24	3			3	45 PP
CANTON	15.46	258.6	3	45	5							
VLADIVOSTOK	16.07	5.7	3	53	5							
CHANGCHUN	17.07	349.0	4	2	1	7	16	5			4	20 PP
PEKING	17.13	322.2	4	5A	3	7	18	6				
SIAN	19.27	296.8	4	27A	-1	8	3	3				
GUAM	19.51	131.1	4	29	-2	7	59	-7				
PAOTOW	21.13	314.5	4	47A	-1	8	42	3				

TIENSHUI	21.89	295.8	4	55	-1				
PHU-LIEN	22.04	258.4	4	53	-4				
Y.-SAKHLINSK	22.29	23.9	5	0	0			5	57
CHENGTU	22.81	285.0	5	2	-3	9	8 -2	5	32 PP
LANCHOW	23.79	298.5	5	14A	-1	9	30 2		
UGLEGORSK	23.92	20.2	5	17	1				
KUNMING	24.40	271.3	5	20A	0	9	39 1		
WUWEI	25.21	302.2	5	29	1				
ULAN-BATOR	27.40	325.4	5	49	0	10	35 7		
PETROPAVLOVK	33.70	31.6	6	44	0				
SHILLONG	33.91	276.1	6	48A	2	12	6 -5	7	58 PP
YAKUTSK	34.91	360.0	6	54	-1	12	24 -2		
MAGADAN	35.54	18.3	6	59	-1				
HOWRAH	37.76	272.4	7	26	7	13	11 1		
MEDAN	37.81	237.2	7	20A	1	13	14 3		
CHATRA	37.83	279.6	7	19	0	13	5 -6		
PORT BLAIR	37.99	253.5	7	22	1	13	11 -3	8	46 PP
BOKARO	39.68	275.3	7	36	1	13	35 -4	9	8 PP
LEMBANG	39.97	215.6	7	35	-2	13	42 -2		
PORT MORESBY	40.01	152.7	7	37	-1	13	48 4	16	40 SS
SEMIPALATNSK	44.06	315.6	8	7	-4	14	37 -7		
DEHRA DUN	45.15	286.8	8	24	4	14	53 -7	18	19 SS
AGRA	45.78	282.4	8	22	-3	15	1 -8		
LAHORE	48.11	289.2	8	43	0				
HYDERABAD	48.18	269.6				15	39 -4		
MADRAS	48.35	263.3	8	44	-1	15	44 -1	10	34 PP
NAMANGAN	49.25	302.0	8	51	-1	15	57 -1		
CHARTERS TS.	49.49	159.4	8	54	0	16	3 2		
WARSAK DAM	50.03	292.9	8	57	-1				
COLOMBO	51.37	256.4	9	0	-8	16	30 3		
POONA	51.89	273.0	9	11	-1	16	31 -3		
BOMBAY	52.68	273.8	9	34	16	16	34 -11		
QUETTA	54.60	289.1	9	31	-1	17	9 -2	19	11 SCS.
KARACHI	55.63	284.0	9	44	5				
SVERDLOVSK	56.42	321.9	9	45	0	17	35 0		
BRISBANE	58.70	155.7	9	55	-6	18	1 -4		
KHEYS	61.35	348.8	10	12	-7	18	30 -9		
ADELAIDE	62.28	171.7	10	25	-1			12	43 PP
COLLEGE	62.61	28.5	10	26	-2	18	58 3	23	54 SS
RIVERVIEW	63.91	160.2	10	36K	0	19	14 2		
CANBERRA	64.69	162.7	9	41	-61				
MELBOURNE	66.15	166.9	10	51	0				
APATITY	67.63	335.6	10	59	-1	19	52 -5		
ISFJORD	68.81	348.4	11	9	1				
TIFLIS	68.96	307.0	11	8	-1				
MOSCOW	69.21	322.8	11	7	-3	20	11 -5		
SODANKYLA	70.16	336.4	11	14	-2				
NORD	70.18	355.0	11	14	-2				
PULKOVO	71.53	328.2	11	21	-3				
KIRUNA	72.11	337.9	11	26	-2				
NURMIJARVI	73.81	330.2	11	37	-1				
RESOLUTE	74.44	11.2	11	40K	-1	21	15 -1	16	17 PPP
SIMFEROPOL	75.12	313.0	11	46	1				
THULE	76.11	4.3	11	48	-3				
UPPSALA	77.19	331.3	11	55K	-2	21	43 -3		
SKALSTUGAN	77.22	336.0	11	56	-1				
KISHINEV	77.60	316.5	11	57	-2	21	43 -7		
IASI	78.28	317.1	12	2	-1	21	57 -1		
KSARA	78.42	302.0	12	7	3	22	0 1		
KASTAMONU	78.84	310.7	11	55	-11			14	47 PP
LWOW	79.12	320.6	12	7	0				
WARSAW	79.56	323.7	12	9	-1	22	13 2		
JERUSALEM	79.78	300.4	12	11	0				
BUCHAREST	80.49	315.1	12	17	2	22	4 -17	22	20 PS
SCORESBY SD.	80.62	350.7	12	15	-1	22	25 3	22	57 PS
GOTEBORG	80.84	331.2	12	18K	1				
KRAKOW	81.29	322.2	12	18	-1			23	30 PPS
COPENHAGEN	81.85	329.4	12	22A	0	22	38 3		
RACIBORZ	82.21	322.8	12	24	0				
CORVALLIS	82.45	43.6	12	26	1				
SOFIA	83.09	314.6	12	27	-1	22	45 -3	14	54
HURBANOVO	83.43	320.9				22	56 5		
POTSDAM	83.54	326.6	12	31	0	22	55 3		
BELGRADE	83.77	317.5	12	31	-1	22	55 0		
BRATISLAVA	83.87	321.6	12	31A	-1	22	57 1		
PRUHONICE	84.21	324.0	12	35K	1	22	51 -8	23	45 PS
PRAGUE	84.22	324.2	12	40	6	22	59 0		
COLLMBERG	84.22	325.7	12	33	-1			13	27

VIENNA-H.	84.23	321.9	12 36	2				23 46	PS	
HALLE	84.62	326.3	12 31	-5	22 59	-4		14 9		
SKOPJE	84.69	314.7	12 38	2				24 1		
SHASTA	85.03	46.6	12 39	1						
JENA	85.16	326.0	12 40	1	23 7	-1		13 51		
ATHENS	85.24	310.3	12 37	-2						
CHEB	85.27	325.0	12 42	3						
SONNEBERG	85.69	325.7	12 43	2						
HUNGRY HORSE	85.70	36.9	12 42	0						
MINERAL	85.73	46.6	12 54	12						
ZAGREB	85.84	320.1	12 38K	-4						
WITTEVEEN	86.29	329.4	12 45	1						
MUNSTER	86.41	328.3	12 43	-2						
BERKELEY	86.60	48.9	12 46	0						
ADDIS ABABA	86.82	278.5	12 50	3						
TOLMEZZO	87.16	321.8	12 51	2				13 51		
TRIESTE	87.21	320.9	12 49	0	23 31	3		16 20	PP	
BENSBERG	87.29	327.8	12 58	9	23 34	5				
LICK	87.30	49.1	12 50	1						
RENO	87.32	46.5	12 51	2						
DE BILT	87.45	329.4			23 38	8		24 35	PS	
STUTTGART	87.71	325.2	12 50	-1	23 31	-2		24 27	PS	
BUTTE	87.90	38.1	12 53	1						
TARANTO	88.13	315.2	13 9	16				22 39		
DURHAM	88.39	334.2			23 40	1		23 27	SKS	
STRASBOURG	88.56	325.7	12 57	2	23 39	-2		24 45	PS	
UCCLE	88.71	328.8			23 40	-2		33 52		
CHUR	88.77	323.6	13 4	8						
FRESNO	88.85	48.8	12 58	1						
BASLE	89.34	325.0	13 13	14						
EUREKA	89.80	44.9	13 1	0				14 51		
ROME	90.20	318.4			23 56	0				
KEW	90.31	331.4	12 51	-13						
MESSINA	90.51	314.1						24 52		
PARIS	90.97	328.3	13 6	-1						
RATHFARNHAM	91.30	335.4	13 9	1						
PASADENA	91.41	50.2	13 10	1						
SALT LAKE C.	91.55	41.9	13 11	2						
GARCHY	91.76	326.9	13 7	-3				13 23		
BOULDER CITY	92.59	47.2	13 26	12						
RAPID CITY	94.18	35.2	13 22	1				17 8	PP	
LARAMIE	94.81	38.5	13 24	0				21 15		
TUCSON	97.48	48.1	13 59	23						
TUCSON TELE.	97.50	48.0	13 37	0						
ALICANTE	99.95	322.5	13 43	-5	25 14	-5		17 50	PP	
TOLEDO	100.69	325.6	14 1	10						
GRANADA	102.48	323.5						36 7		
PALISADES	108.76	18.7						19 4	PP	
SOUTH POLE	116.95	180.0	18 44	-2						
HUANCAYO	152.10	62.4	20 2	12						
LA PAZ	160.34	61.2	20 3	2						

MARCH 18 7.H 26.M 47.S EPICENTRE 36.68 141.09 DEPTH= 90.KM

DEPTH OF FOCUS= 0.009R

A=-0.62555 B= 0.50501 C= 0.59468 D= 0.6282 E= 0.7781
G=-0.4627 H= 0.3736 K=-0.8040 HT= -0.5

SE= 2.20

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ONAHAMA	0.31	331.5	0 14K	-1	0 23	-3		
MITO	0.58	239.5	0 15K	-2	0 27	-3		
SHIRAKAWA	0.82	302.9	0 18	-1	0 30	-3		
KAKIOKA	0.85	239.0	0 18	-1	0 31	-2		
TUKUBASAN	0.92	240.6	0 17	-3	0 31	-3		
TYOSI	0.97	191.4	0 20K	0	0 34	-1		
UTUNOMIYA	0.99	263.1	0 20	0	0 33	-2		
HUKUSIMA	1.18	335.6	0 23A	1	0 39	0		
HONGO	1.44	228.3	0 25	-1	0 43	-2		
TOKYO C.M.O.	1.47	227.8	0 25K	-1	0 44	-2		
KUMAGAYA	1.47	249.7	0 25	-1	0 44	-2		
SENDAI	1.60	354.7	0 28A	0	0 48	0		
MAEBASI	1.65	261.0	0 28A	0	0 46	-3		
YAMAGATA	1.68	339.8	0 30	1	0 49	-1		

YOKOHAMA	1.70	223.6	0	30	1	0	53	2			
ISINOMAKI	1.76	6.0	0	30A	0	0	52	0			
TITIBU	1.76	247.4	0	29	-1	0	48	-4			
MERA	2.03	210.6	0	32A	-1	0	56	-2			
NIIGATA	2.04	308.0	0	42	8	1	12	14			
OIWAKE	2.07	261.2	0	33	-1	1	1	2			
HUNATU	2.21	238.7	0	36	0	0	54	-8			
AJIRO	2.29	225.4	0	36	-1	1	1	-3			
KOHU	2.29	243.6	0	46A	9	1	7	3			
MATUSIRO	2.31	267.8	0	37A	0				1	6	
TAKADA	2.31	281.4	0	39	2	1	2	-3			
NAGANO	2.32	270.7	0	38	1				1	11	
MISIMA	2.33	228.8	0	36A	-1	0	57	-8			
OSIMA	2.35	216.6	0	37A	-1	1	2	-4			
MIZUSAWA	2.45	0.8	0	40	1	1	8	0			
MATUMOTO	2.55	261.3	0	40	0	1	11	0			
AIKAWA	2.63	301.6	0	40	-2	1	2	-11			
SHIZUOKA	2.77	232.9	0	43A	-1	1	16	0			
IIDA	2.88	247.4	0	48	3						
MORIOKA	3.02	1.2	0	48A	1	1	23	1			
MIYAKO	3.05	12.9	0	46A	-1	1	20	-3			
OMAESAKI	3.12	229.3	0	49	1	1	25	0			
TOYAMA	3.12	271.6	0	49	1	1	21	-4			
AKITA	3.14	346.0	0	51	2	1	24	-1			
TAKAYAMA	3.14	261.5	0	58	9	1	25	0			
HAMAMATU	3.36	235.5	1	1	9	1	29	-2			
WAZIMA	3.42	283.1	0	52A	-1						
KANAZAWA	3.57	269.0	0	58	3						
NAGOYA	3.66	247.0	0	57	1	1	42	4	1	22	
HATIDYOZIMA	3.71	196.5	0	57	0	1	35	-4			
GIHU	3.72	251.3	0	56A	-1	1	46	6	1	24	
HATINOHE	3.86	5.0	0	57	-2	1	42	-1			
HUKUI	3.94	262.3	1	2	2	1	50	5			
IBUKISAN	4.03	252.7	1	2	1	1	49	2			
AOMORI	4.15	356.8	1	3A	0	1	52	2	1	30	
HIKONE	4.17	251.8	1	1	-2	1	51	0			
KAMEYAMA	4.17	245.5	1	3	0	1	47	-4	1	31	
TSURUGA	4.19	257.3	1	4	1				1	34	
TU	4.19	243.8	1	2	-1				2	6	
MAIZURU	4.71	256.9	1	12	2	2	6	2			
NARA	4.72	246.6	1	10	0	2	10	6	1	43	
ABUYAMA	4.83	249.7	1	11A	-1						
OSAKA	4.95	247.6	1	14	0	2	11	1	2	44	
HAKODATE	5.11	356.9	1	16	0	2	29	15	2	56	
TOYOOKA	5.20	259.2	1	17	0	2	19	3			
KOBE	5.20	249.2	1	16	-1	2	29	13			
WAKAYAMA	5.41	244.9	1	18	-2	2	28	7			
SIOMISAKI	5.42	235.1	1	19	-1	2	23	1			
MORI	5.43	355.9	1	20	0	2	50	28			
SUMOTO	5.57	247.2	1	23	1	2	49	24	3	9	
URAKAWA	5.62	13.0	1	22	-1	2	25	-2			
MURORAN	5.65	359.1	1	21	-2	2	28	1			
TOTTORI	5.67	260.1	1	23	0				2	1	
TOMAKOMAI	5.85	3.6	1	33	7	2	35	3			
HIROO	5.86	16.5	1	24	-2	2	23	-9			
TOKUSIMA	5.92	245.9	1	26	-1						
SUTTSU	6.15	354.1	1	38	8						
OKAYAMA	6.16	253.3	1	29	-1	3	8	28			
TAKAMATU	6.20	249.8	1	30	-1	2	45	4			
SAIGO	6.27	268.0	1	33	1						
YONAGO	6.39	261.1	1	33	0	2	45	0			
SAPPORO	6.39	1.7	1	26	-7	2	40	-6			
OBIHIRO	6.45	14.0	1	36	2	2	43	-4			
MATSUE	6.61	261.7	1	37	1						
KUSIRO	6.79	21.0	1	37	-2	2	46	-9			
KOTI	6.93	245.5	1	41	0	3	14	15			
MATUYAMA	7.39	249.8	1	46	-1	3	8	-2			
HIROSIMA	7.42	254.5	1	40	-8	3	1	-10			
NEMURO	7.49	26.0	1	45	-3	3	1	-11			
HAMADA	7.54	259.1	1	57	8				3	43	
SIMIDU	7.73	242.2	1	51	-1						
ABASHIRI	7.73	17.4	1	52	0	3	13	-5			
HUKUOKA	9.27	253.7				3	32	-23			
MIYAZAKI	9.30	242.1	2	15	2						
KUMAMOTO	9.37	248.8	2	14	0						
SAGA	9.49	252.1	2	28	12	4	54	53			
VLADIVOSTOK	9.55	315.2	2	17	1	4	6	3			
NAGASAKI	10.03	250.2	2	22	-1	4	24	10	5	22	

KAGOSIMA	10.11	242.8	2 26	2						
YAKUSIMA	10.79	237.9	2 34	1						
UGLEGORSK	12.42	3.0	2 50	-5						
CHANGCHUN	14.00	305.6	3 17	2						
ZO-SE	17.43	257.2	3 57	-2						
NANKING	18.96	262.4	4 16	-1						
PEKING	19.81	287.3	4 22	-4						
WUHAN	22.89	262.2	4 55	-2	8 50	-6				
GUAM	23.34	171.0	5 1	0						
MAGADAN	23.74	12.3	5 6	1	9 15	5				
PAOTOW	24.51	288.7	5 10	-2	9 30	7				
SIAN	26.25	274.3	5 27	-2						
YAKUTSK	26.35	347.9	5 28	-1	9 54	0				
ULAN-BATOR	27.45	304.9	5 47	7	10 15	3				
LANCHOW	29.89	280.2	6 1	0	10 51	0				
CHENGTU	31.30	269.9	6 12	-2	11 7	-6				
KUNMING	34.73	261.5	6 41	-2	12 1	-5				
SHILLONG	43.15	269.5	7 52	-1						
CHITTAGONG	44.72	265.5	8 8	2					8 36	9 56 PP
PORT MORESBY	46.18	171.7	8 17	-1						
COLLEGE	49.54	32.1	8 43	-1						
NAMANGAN	52.95	297.4	9 9	0						
SVERDLOVSK	55.25	318.7	9 25	-1						
WARSAK DAM	55.63	289.4	9 27	-2						
QUETTA	60.81	287.4	10 4	-1	18 9	-5	10 30		12 23 PP	
ISFJORD	61.32	349.1	10 7	-1						
APATITY	62.91	335.7	10 15	-4						
RESOLUTE	63.02	14.3	10 18	-2					14 49 *PPPP	
BRISBANE	64.80	168.3	10 35	4						
SODANKYLA	65.19	337.2	10 33	-1						
KIRUNA	66.76	339.2	11 4	20						
MOSCOW	67.38	323.4	10 46	-2						
CORVALLIS	68.91	49.7	10 58	1						
NURMIJARVI	70.14	331.9	11 4	-1						
ADELAIDE	71.27	182.1	11 10	-2					11 35 PCP	
SHASTA	71.53	52.8	11 14K	1						
MINERAL	72.22	52.8	11 18K	1						
HUNGRY HORSE	72.23	42.6	11 18	1						
BERKELEY	73.15	55.2	11 23K	0						
UPPSALA	73.17	333.9	11 21	-2						
RENO	73.82	52.7	11 27K	0						
LICK	73.86	55.4	11 28K	1						
BUTTE	74.40	44.0	11 31	1			11 54			
FRESNO	75.39	55.0	11 36K	0						
BOZEMAN	75.46	43.6	11 36	0						
EUREKA	76.28	50.9	11 42	1			12 6			
GOTEBORG	76.74	334.7	11 45	2						
LWOW	77.51	323.8	11 48	1						
PASADENA	78.00	56.4	11 51	1					12 15	
SALT LAKE C.	78.01	47.9	11 52	2			12 16			
BOULDER CITY	79.10	53.2	11 57	1						
RAPID CITY	80.74	41.1	12 5	0			12 29			
KARAPIRO	80.77	153.1	12 6A	1			12 30			
COLLMBERG	81.28	330.0	12 6	-2						
LARAMIE	81.30	44.4	12 9	1						
PRUHONICE	81.65	328.4	12 10K	0			12 32			
JENA	82.14	330.5	12 11	-1			12 34			
TUCSON	84.01	54.1	12 23	1			12 48			
TUCSON TELE.	84.02	54.0	12 23	1			12 47			
STUTTGART	84.79	330.4	12 25	-1						
TUBINGEN	85.03	330.3	12 27	0						
EBINGEN	85.35	330.1	12 28	0						
GARCHY	88.36	332.9	12 42	-1						
SHAWINIGAN	91.74	22.6	13 2K	3						
OTTAWA	91.81	25.0	12 59K	0						
SEVEN FALLS	91.81	21.2	12 59	0						
BREBEUF	92.41	23.6	13 2K	0						
TAMANRASSET	107.51	317.3							18 37 PP	
BYRD STATION	127.48	167.5	18 55	0						
HUANCAYO	139.13	62.6	19 16	0						
LA PAZ	147.25	59.9	19 35	4			19 53			

MARCH 19 H.H 25.M 34.S EPICENTRE 35.15 -36.12 DEPTH= 0.KM

A= 0.66192 B=-0.48310 C= 0.57312 D=-0.5895 E=-0.8077
G= 0.4629 H=-0.3379 K=-0.8195 HT= 0.1

SE= 4.41

	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	
ANGRA DO HO.	7.93	61.3	1	53	-5	3	38	9					
PONTA DELGDA	8.80	70.0	2	4	-6								
LISBON	21.85	72.6	4	43K	-11	8	52	2	4	54			
SERRA PILAR	22.41	66.3	4	59A	-1						5	37	PPP
COIMBRA	22.45	68.8	4	52A	-8	8	55	-6					
HALIFAX	23.02	302.6	5	2A	-4	9	19	8			5	28	PP
BERMUDA	23.87	271.5	5	21	7	9	39	13					
MALAGA	25.68	77.2	5	34	3						6	14	PP
TOLEDO	25.80	69.9	5	27	-5	9	59	0			6	12	PP
GRANADA	26.27	76.0	5	48A	11	10	38	31			6	56	PP
MBOUR	26.93	135.4	5	39	-4	9	47	-30					
ALMERIA	27.20	76.5	5	51	6	10	39	17			6	35	PP
RATHFARNHAM	27.74	39.9	5	56	6						12	7	
WESTON	28.23	295.5	5	56A	1	10	42	4					
SEVEN FALLS	28.51	305.5	5	48	-9	10	49	6			12	36	SS
JERSEY	28.58	50.1	6	3	5	10	53	9					
ALICANTE	28.63	73.0	6	0	2	10	49	4			6	53	PP
SHAWINIGAN	29.71	303.8	6	7	-1						6	54	
RELIZANE	29.77	78.1	5	51	-17	10	59	-4			6	49	PP
FORDHAM	30.13	292.3	6	9	-3	12	24	75					
PALISADES	30.15	292.6	6	13	1	11	7	-2			7	5	PP
BREBEUF	30.15	301.5	6	10K	-2						7	17	PP
VIK	30.21	15.2									13	50	
FORT FRANCE	30.32	234.2	6	5	-8						13	35	
KEW	30.36	46.4	6	18	4	11	10	-2					
EDINBURGH	30.59	37.0	6	2	-14	10	52	-24			12	20	SS
DURHAM	30.88	39.8	6	24K	6	11	24	4			13	15	SS
SAN JUAN	31.40	245.7	6	24	1								
CLERMONT-FD.	31.40	58.2	6	19A	-4	10	27	-62					
PARIS	31.43	52.3	6	22	-1	11	42	13					
GARCHY	31.55	55.3	6	21	-3						8	37	
ALGIERS UNI.	31.60	75.4	6	21	-4	11	39	7			7	24	PP
OTTAWA	31.61	301.1	6	24	-1	11	32	0					
ABERDEEN	31.72	35.4				11	38	4			7	48	PPP
GEORGETOWN	32.71	288.9	6	39	5								
WASHINGTON	32.71	288.9	6	35	1	11	42	-7			7	45	PP
UCCLE	33.02	49.1	6	47	10	11	42	-12					
PENNSYLVANIA	33.15	292.4	6	42	4	12	8	12			7	48	PP
SETIF	33.57	75.9	6	36	-6						7	50	PP
DE BILT	33.82	47.0	6	50	6	12	16	10					
NEUCHATEL	34.15	56.4	6	45	-2								
BASLE	34.62	55.5	6	47	-4	11	25	-54					
BENSBERG	34.80	49.5	7	1	9	12	8	-13					
MORGANTOWN	34.85	290.6	6	57K	4	12	7	-15					
STRASBOURG	34.85	53.7	6	52	-1	12	36	14			8	4	PP
WITTEVEEN	34.87	46.2	6	47	-6								
MUNSTER	35.26	47.8	6	56	0								
EBINGEN	35.61	54.5	6	54	-5								
PAVIA	35.62	59.7	7	6	7	12	49	15			8	58	
TUBINGEN	35.70	53.9	6	54	-6								
STUTTGART	35.81	53.5	6	55	-6	12	46	9			8	9	PP
CLEVELAND	35.86	294.0	7	5	4	12	37	-1					
SCORESBY SD.	36.21	8.0	7	6	2	12	46	3			15	1	SS
COLUMBIA	36.76	281.5	7	11	2	13	2	10					
BOLOGNA	37.17	60.8	7	22	10						8	54	
SONNEBERG	37.26	51.0	7	11	-2	13	8	9					
JENA	37.56	50.2	7	14	-2	13	11	7			8	38	PP
PLAUEN	37.88	50.9	7	13	-5								
CHEB	37.99	51.6	7	18	-1	13	19	9					
ROME	38.20	64.9	7	28A	7	13	22	8			15	55	SS
TAMANRASSET	38.20	97.4	7	18	-3	13	14	0			8	52	PP
TOLMEZZO	38.31	57.6	7	28	6						8	28	
COPENHAGEN	38.79	42.7	7	32	6								
TRIESTE	38.84	58.8	7	34	3	13	31	8			9	10	PP
GOTEBORG	38.98	39.4	7	30	2								
PRAGUE	39.31	51.8	7	32	2	13	43	13					
PRUHONICE	39.38	51.9	7	31	0	13	32	0			9	3	PP
ZAGREB	40.39	58.4	7	42	3	13	53	6					
VIENNA-H.	40.56	54.6	7	48	7								
TERRE HAUTE	40.58	291.8	6	41	-60						8	6	
SKALSTUGAN	40.89	30.7	7	45	2								
MESSINA	41.12	70.0	7	23	-22						9	26	
RACIBORZ	41.74	51.8	7	50	0						9	51	PCP
TARANTO	41.97	66.3	7	49	-3						16	19	

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UPPSALA	42.33	37.2	7	53	-2				8	1	
ST. LOUIS 1	42.89	291.2	6	55	-65	14	30	6	9	41	PP
FLORISSANT	42.96	291.5				14	32	7			
GALERAZAMBA	43.03	245.4				14	45	19	18	7	SSS
THULE	43.88	349.5	8	4	-4						
KIRUNA	45.44	26.4	8	21	1						
LWOW	45.50	51.9	8	21	0						
FUQUENE	45.53	238.4	8	35	14	15	25	23			
LITTLE ROCK	45.54	286.5	8	24	3	15	11	9			
NURMIJARVI	45.90	37.0	8	23	-1						
BOGOTA	46.37	237.9	8	31	3	15	20	6	18	18	SS
FAYETTEVILLE	46.59	288.9	8	21	-8	15	26	9	8 33	10	29 PP
CAMPULUNG	46.77	58.1	8	39	8						
NORD	47.12	3.8	8	30	-4	15	27	3			
BALBOA HTS.	47.42	247.3	8	44	8	15	41	12			
SODANKYLA	47.65	27.7	8	39	1						
ISFJORD	47.87	12.4	9	2	23						
IASI	48.18	55.1	8	45	3						
RESOLUTE	48.28	342.3	8	30	-13	15	45	4		10	34 PP
APATITY	50.27	27.9	8	59	1						
RAPID CITY	51.14	301.5	9	3	-2	16	36	15		11	5 PP
SASKATOON	51.69	312.2								16	41
KASTAMONU	51.73	61.9	8	24	-45					11	22 PP
MOSCOW	52.97	42.9	9	17	-1						
SIMFEROPOL	53.11	56.7	9	23	4	16	51	3			
LARAMIE	53.59	298.8	9	17	-6					24	58
KHEYS	55.34	12.2	9	39	3						
BOZEMAN	56.08	305.3	9	35	-6						
BUTTE	56.98	306.1	9	41	-7	17	49	10		11	46 PP
HUNGRY HORSE	57.21	309.1	9	46	-3					10	40 PCP
TACUBAYA	57.35	271.7	9	53	3	17	36	-8		11	50 PP
SOTCHI	57.36	56.8	9	52	2						
LOGAN	57.88	301.1	9	42	-12						
KSARA	58.11	68.8	10	5	10	17	46	-8		12	3 PP
SALT LAKE C.	58.25	300.0	9	49	-7					11	5
BANGUI	58.99	108.2	10	7	5						
LA PAZ	59.68	216.1	9	55	-11	18	27	12		12	15 PP
HUANCAYO	59.85	225.7	10	9	2	18	44	27			
TUCSON TELE.	60.70	290.6	10	13	0					39	53 PKPPKP
TUCSON	60.82	290.6	10	14	0	18	44	15		12	40 PP
TIFLIS	61.53	57.2	10	15	-4						
EUREKA	61.66	300.1	10	19	-1					39	41 PKPPKP
BOULDER CITY	62.26	296.0	10	30	6						
RENO	64.34	301.5	10	36	-1						
CORVALLIS	64.55	307.8	10	38	-1						
SVERDLOVSK	64.80	37.1	10	37	-3						
MINERAL	65.23	303.0	10	35	-8						
PASADENA	65.53	295.5	10	51	6	19	43	15		13	15 PP
FRESNO	65.54	298.7	10	48	3						
SHASTA	65.62	303.6	10	37	-9						
LICK	66.60	300.0	10	45	-7					13	18 PP
BERKELEY	66.79	300.8	10	55	2	19	58	14		21	1 SCS
UKIAH	66.89	302.4	10	54	0						
COLLEGE	67.12	334.5	10	54	-1	19	57	10		21	15 SCS
TALA POZO	68.04	206.8				20	1	3		27	56 SSS
RUMANGABO	70.91	105.8	11	15	-4						
LWIRO	71.05	106.9	11	15	-5						
ASTRIDA	72.00	106.6	11	22	-3						
UVIRA	72.06	107.7	11	20	-6						
ADDIS ABABA	72.52	91.2	11	33	5						
SANTA LUCIA	75.52	209.3								14	46 PP
NAMANGAN	79.35	47.2	12	5	-2						
QUETTA	82.75	58.2	12	20	-5	22	35	-6		15	26 PP
WARSAK DAM	83.55	52.8	12	16	-13						
MAGADAN	85.48	356.5	12	48	9						
DEHRA DUN	90.13	52.1								23	44
ULAN-BATOR	90.93	23.9	13	15	10						
PETROPAVLOVK	91.15	351.2	13	12	6						
BOMBAY	93.86	63.8								24	4
HONOLULU	101.40	306.2								19	42 PP
MATUSIRO	108.47	4.8				26	50	22		30	22 PPS
HONG KONG	116.29	30.8				25	40	7		32	52 SKSP
BYRD STATION	123.22	192.0	19	0	3					20	49 PP
SOUTH POLE	124.97	180.0	19	7	7						
RABAUL	148.26	344.1	19	52	10						
PORT MORESBY	154.20	352.6	19	58	7					43	34 SS
RIVERVIEW	173.85	280.3	20	18	9						
ADELAIDE	175.76	88.5	20	11	2					21	58 PKP2

MARCH 20 1.H 2.M 40.S EPICENTRE 51.62 159.08 DEPTH= 0.KM

A=-0.58240 B= 0.22261 C= 0.78183 D= 0.3570 E= 0.9341
G=-0.7303 H= 0.2791 K=-0.6235 HT= -6.0

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PETROPAVLOVK	1.54	350.3	0 32	3	0 55	5		
MAGADAN	9.22	332.8	2 23	6				
UGLEGORSK	11.16	263.5	2 50	6				
Y.-SAKHLINSK	11.66	252.8	2 54	3				
VLADIVOSTOK	20.18	255.8	4 36	-3				
TUKUBASAN	20.49	228.7	4 41A	-1				5 1
MATUSIRO	21.14	232.7	4 49A	0	8 52	12		
ABUYAMA	23.79	234.4	5 16A	1				
COLLEGE	29.91	43.2	6 11	-1				
KHEYS	42.41	345.7	7 48	-10				
RESOLUTE	44.93	21.2	8 18A	0	15 2	5		
HONG KONG	45.26	247.0	8 23	2				
NORD	47.01	359.1	8 34	-1				
THULE	48.71	13.4	8 46	-2				9 12
ISFJORD	48.87	351.0	8 52	3				
HUNGRY HORSE	52.77	56.8	9 19	0				
SHASTA	52.98	68.9	9 20	0				
MINERAL	53.66	68.8	9 27	2				
APATITY	54.39	337.4	9 30	-1				
RENO	55.23	68.4	9 51	14				
LICK	55.62	71.6	9 57	17				
SODANKYLA	56.08	339.9	9 44	1				
SHILLONG	56.38	269.6	9 44	-1				
KIRUNA	56.93	342.6	9 48A	-1				
EUREKA	57.48	66.1	9 52	-1				
NAMANGAN	57.85	296.7	9 54	-2				
CHITTAGONG	58.75	267.1	10 3A	1				
RAPID CITY	61.21	54.6	10 22	3				
LARAMIE	61.94	58.2	10 30	6				
SKALSTUGAN	62.24	343.9	10 23	-3				12 10
NURMIJARVI	62.39	336.5	10 27	0				
MOSCOW	62.57	327.1	10 25	-3				
HELSINKI	62.60	336.2	10 28	0				
LAHORE	62.89	287.2	10 29A	-1				
UPPSALA	64.61	339.6	10 40A	-1				
TUCSON TELE.	65.52	68.5	11 5	18				
TUCSON	65.52	68.6	11 5	18				
QUETTA	68.22	291.3	11 4A	0				
COPENHAGEN	69.55	340.6	11 12	-1				
TIFLIS	70.95	313.8	11 25	4				
LWOW	71.95	331.2	11 26	-1				
CHARTERS TS.	72.20	192.7	11 27	-2				
OTTAWA	72.45	37.1	11 28	-2				
SHAWINIGAN	72.54	34.7	11 29	-2				
KRAKOW	72.92	333.8	11 33	0				11 54 PCP
BREBEUF	73.14	35.8	11 32K	-2				
RACIBORZ	73.36	334.9	11 36	1				
JENA	74.18	339.3	11 40	0				11 53
PRUHONICE	74.38	337.1	11 40	-1				
MORGANTOWN	75.59	43.1	11 47K	-1				
STUTTGART	76.74	340.1	11 55A	0				
TUBINGEN	76.99	340.1	11 56	0				
KASTAMONU	77.07	322.7	11 50	-7				
STRASBOURG	77.21	340.9	11 58K	1				
EBINGEN	77.34	340.0	11 59	1				
PARIS	77.97	344.4	12 4K	2				
BASLE	78.25	340.7	11 59	-4				
FOLINIERE	78.48	346.4	12 5	1				
NEUCHATEL	78.89	341.0	12 7	0				
GARCHY	79.35	343.6	12 10A	1				12 17 PCP
KSARA	81.44	315.2	12 21	1				
MONACO	81.91	339.7	12 23	0				
ATHENS	82.62	325.9	12 25K	-1				
JERUSALEM	83.46	314.6	12 30K	-1				
BYRD STATION	138.90	164.8	19 39	11				
SOUTH POLE	141.43	180.0	19 18	-15				

MARCH 20 15.H 44.M 34.S EPICENTRE 37.09 142.96 DEPTH= 68.KM

DEPTH OF FOCUS= 0.006R

A=-0.63824 B= 0.48173 C= 0.60049 D= 0.6024 E= 0.7982
G=-0.4793 H= 0.3618 K=-0.7996 HT= -0.6

SE= 3.38

	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
ONAHAMA	1.65	265.7	0	36	8	0	52	4			1	41
ISINOMAKI	1.86	316.4	0	27A	-4	0	50	-3			1	14
SENDAI	2.01	306.4	0	30	-2	0	54	-3			2	7
HUKUSIMA	2.09	289.1	0	31A	-3	1	5	6			3	24
MITO	2.12	251.2	0	33	-1	1	8	8				
SHIRAKAWA	2.19	271.6	0	33	-2						2	29
YAMAGATA	2.37	300.0	0	39	1							
KAKIOKA	2.39	249.8	0	35	-3	1	1	-5				
TUKUBASAN	2.46	250.1	0	36A	-3	0	56	-12				
MIZUSAWA	2.49	325.3	0	35	-4	1	3	-6				
UTUNOMIYA	2.53	258.6	0	37	-3	1	5	-5			1	23
MIYAKO	2.67	343.4	0	35	-7	1	5	-8				
HONGO	2.92	242.7	0	48	3							
TOKYO C.M.O.	2.94	242.4	0	44	-2	1	31	11			1	9
MORIOKA	2.96	332.2	0	41	-5	1	15	-5				
KUMAGAYA	3.03	253.0	0	44	-3	1	20	-2			2	11
SAKATA	3.06	307.1	0	50	3	1	36	13				
YOKOHAMA	3.14	239.2	0	46	-2	1	34	9			2	49
MAEBASI	3.20	258.7	0	49K	0						1	26
NIIGATA	3.21	286.1	1	3	14	1	58	31				
TITIBU	3.31	251.6	0	49	-2							
MERA	3.33	230.4	0	47	-4	1	40	10				
AKITA	3.45	320.4	0	57	4	1	41	8				
HATINOHE	3.61	342.5	0	50	-5	1	46	9				
OIWAKE	3.62	259.2	0	55	0							
HUNATU	3.73	246.1	0	58	1						1	33
TAKADA	3.76	271.5	1	1	4							
MISIMA	3.79	240.0	0	55	-2						1	17
KOHU	3.83	248.9	1	37	39						3	23
NAGANO	3.84	265.1	1	0	2						2	23
MATUSIRO	3.84	263.3	0	57A	-1						2	46
AIKAWA	3.85	285.3	1	4	6						3	0
AOMORI	4.09	336.2	1	17	15	2	7	18				
MATUMOTO	4.09	259.7	1	1	-1							
SHIZUOKA	4.26	241.5	1	2	-2						3	23
IIDA	4.43	250.8	1	9	3	2	9	12				
OMAESAKI	4.58	238.5	1	20	12						2	16
TOYAMA	4.63	266.9	1	8	-1	2	11	9				
WAZIMA	4.84	275.2	1	16	4							
HAKODATE	4.99	340.4	1	14	0	2	9	-2			2	48
HIROO	5.19	3.0				2	7	-9				
NAGOYA	5.21	250.2	1	22	5	2	23	6				
GIHU	5.28	253.2	1	19	1	2	7	-11			2	39
MORI	5.33	340.5	1	20	1						2	20
MURORAN	5.45	344.3	1	15	-5	2	13	-10				
HUKUI	5.48	261.1	1	21	0							
TOMAKOMAI	5.52	349.4	1	43	22							
IBUKISAN	5.58	254.1	1	25	3							
KAMEYAMA	5.71	248.9	1	25	1						3	9
HIKONE	5.72	253.5	1	26	2							
TU	5.73	247.6	1	34	10							
OBIHIRO	5.83	1.8	1	22	-4						1	48
KUSIRO	5.99	10.2	1	26	-2	2	23	-13				
SUTTSU	6.07	340.7	1	44	15						3	17
SAPPORO	6.10	348.9	1	46	17						2	30
NARA	6.26	249.5	1	32	0							
OWASE	6.28	243.3	1	30	-2						3	33
ABUYAMA	6.38	251.9	1	32A	-1							
OSAKA	6.50	250.2	1	39	4						3	11
NEMURO	6.55	17.0	1	27	-9	2	33	-17				
ASAHIGAWA	6.70	356.4	1	31	-7							
TOYOOKA	6.75	259.1	1	36	-2						3	16
KOBE	6.75	251.4	1	51	12	3	18	23				
SIOMISAKI	6.91	240.4									3	17
SUMOTO	7.11	249.8	1	41	-3						3	34
TOKUSIMA	7.46	248.6	1	45	-3							
TAKAMATU	7.75	251.7	1	44	-8							
WAKKANAI	8.38	353.8									3	19

KOTI	8.47	248.1	2 0	-2						ϕ 35
HIROSIMA	8.98	255.5	2 8	-1						
HAMADA	9.09	259.3	2 9	-2						5 15
SIMIDU	9.26	245.3								4 52
Y.-SAKHLINSK	9.85	359.1	2 14	-7	4 4	-7				
OOITA	10.05	250.8	2 17	-7						
VLADIVOSTOK	10.39	308.8	2 26	-2						
HUKUOKA	10.82	254.8								4 55
KUMAMOTO	10.92	250.6	2 42	7						
SAGA	11.04	253.4	2 36	-1						
NAGASAKI	11.58	251.8	2 24K	-20	5 14	21				6 43
UGLEGORSK	12.00	357.2	2 43	-7						
CHANGCHUN	15.01	302.1	3 26	-3	6 6	-8				
ZO-SE	18.98	258.0	4 19	1						
PETROPAVLOVK	19.42	29.4	4 28	5						
NANKING	20.50	262.9	4 34	0	8 25	10				
PEKING	21.12	286.2	4 39	-2	8 30	3				
MAGADAN	23.04	10.2	4 58	-2						
WUHAN	24.43	262.8	5 15A	2	9 37	12				
PAOTOW	25.80	288.0	5 29	3	10 2	14				
SIAN	27.71	274.4	5 45A	1	10 29	10				
ULAN-BATOR	28.46	303.8	5 52	2	10 45	14				
HONG KONG	28.89	247.4	5 5	-49						5 56 PP
CANTON	29.09	249.7	5 57	1	10 51	10				
IRKUTSK	30.95	311.8	6 14	1	11 23	12				
LANCHOW	31.29	280.1	6 15A	-1	11 25	9				
CHENGTU	32.80	270.3	6 28	-1	11 37	-3				
PHU-LIEN	35.44	252.9			12 34	14				
KUNMING	36.27	262.3	7 0	2						
CHITTAGONG	46.24	266.3	8 24	4						
CHATRA	47.83	274.4	8 33	1						
COLLEGE	48.39	32.3	8 36	-1						9 28
KHEYS	53.89	347.6	9 9	-9						
NAMANGAN	54.09	297.7	9 22	2						
LEMBANG	54.77	224.7	9 25	0						
SVERDLOVSK	55.92	318.9	9 34	1						
CHARTERS TS.	56.88	176.3	9 50	10						
WARSAK DAM	56.90	290.0	10 3K	23						
QUETTA	62.11	288.1	10 17	1						
RESOLUTE	62.24	14.7	10 14A	-3						
POONA	62.60	273.2	10 20	1						
BRISBANE	64.92	170.1	10 46	12						
SODANKYLA	65.39	337.6	10 36	-1						
MOSCOW	67.94	323.9	10 51	-2						
NURMIJARVI	70.47	332.5	11 9	0						
HUNGRY HORSE	70.90	43.5	11 11	0						
TIFLIS	71.75	308.7	11 17	0						
ADELAIDE	71.76	183.7	11 30	13						
UPPSALA	73.44	334.6	11 24	-3						
EUREKA	74.85	51.9	11 34	-1			11 58			
LWOW	78.05	324.6	11 55	2						
PRUHONICE	82.07	329.3	12 16	2			12 30			
KSARA	82.11	306.5	12 11	-3			12 38			
UCCLE	85.21	335.1	12 24	-6						
GARCHY	88.66	334.0	12 48	1						13 47
PRETORIA	124.17	261.8								13 22
BYRD STATION	127.56	167.4	18 43	-14						

MARCH 20 23.H 53.M 24.S EPICENTRE -10.10 116.99 DEPTH= 0.KM

A=-0.44689 B= 0.87747 C=-0.17416 D= 0.8911 E= 0.4538
G= 0.0790 H=-0.1552 K=-0.9847 HT= 6.5

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
LEMBANG	9.82	288.6	2	26	1						4	53
MEDAN	22.74	305.8	5	8K	4						9	8
MANILA	24.83	9.2	5	27	2						11	31
PORT MORESBY	29.73	91.3	6	9	-1	11	7	2				
CHARTERS TS.	29.89	112.7	6	11	0						20	1
HONG KONG	32.31	355.1	6	34	2							
MELBOURNE	37.35	142.2	7	14	-1						20	52
KUNMING	37.62	338.5	7	22	4							
BRISBANE	38.06	122.0	7	21	0	13	14	-1				

CANBERRA	38.46	135.8	7	24	-1					
RIVERVIEW	39.21	132.3	7	35	4	13	34	2		
WUHAN	40.46	356.8	7	45	4					
ZO-SE	41.16	5.5	7	48A	1					
SHILLONG	43.07	325.8	7	57K	-6					
SIAN	44.76	350.5	8	17	0					
LANCHOW	47.58	345.5	8	41	2					
PEKING	49.88	359.2	8	56A	-1					
MATUSIRO	50.52	22.2	9	0A	-1	16	10	-5	9	46
POONA	51.19	303.6	9	6	-1					
KARAPIRO	59.13	128.2	10	7	3					
KARACHI	60.29	307.4	10	10A	-2				10	56 PCP
WARSAK DAM	61.50	317.7	10	19A	-1					
QUETTA	62.58	311.6	10	27A	-1	18	52	-3	12	48 PP
NAMANGAN	65.77	323.8	10	48	0					
YAKUTSK	72.58	6.3	11	29	-1					
MAGADAN	74.52	17.1	11	41	-1					
ADDIS ABABA	80.13	281.0	12	18	5					
TIFLIS	83.68	314.2	12	33	2					
BULAWAYO	85.08	250.5	12	40	2					
BYRD STATION	85.60	171.6	12	40	-1					
KASTAMONU	93.77	311.2	13	9	-11				13	57
SODANKYLA	99.38	336.9	13	37	-8					
NURMIJARVI	99.85	329.9	13	44	-3					
KIRUNA	101.76	337.3	13	54A	-2					
RESOLUTE	112.97	8.8	18	39	0				24	14
TAMANRASSET	113.56	290.4							18	37 PP
MINERAL	120.30	49.1	18	55	2					
LICK	120.91	52.5	18	57	3					
PASADENA	124.32	55.5	19	4	3					
EUREKA	124.71	48.7	19	3	2					
TUCSON	130.75	56.0	19	17	4				22	38 PP
TUCSON TELE.	130.82	55.8	19	17	4				22	38 PP.
SEVEN FALLS	142.51	8.8	19	33	-1					
SHAWINIGAN	142.73	11.1	19	35	0					
OTTAWA	143.17	15.0	19	33	-3					
BREBEUF	143.57	12.6	19	37	1					
HALIFAX	145.60	0.7	19	42A	2					
WESTON	147.03	11.3	19	46A	4					
HUANCAYO	154.82	150.6	20	10	16					

MARCH 21 4.H 27.M 25.S EPICENTRE -18.66-177.80 DEPTH= 576.KM

DEPTH OF FOCUS= 0.086R

A=-0.94741 B=-0.03632 C=-0.31795 D=-0.0383 E= 0.9993
G= 0.3177 H= 0.0122 K=-0.9481 HT= 5.0

SE= 1.55

	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	
SUVA	3.61	277.4	1	25	3	2	27	0			3	17	
APIA	7.54	51.0	1	53	-2	3	20	-7					
RAOUL ISLAND	10.55	180.5	2	25	0	4	22	2					
NOUMEA	15.19	253.5	3	11	0	5	51	7					
KARAPIRO	20.06	195.5	3	58K	1	7	22	15			6	26	SP
TUAI	20.55	191.3				7	9	-6					
TONGARIRO	21.27	194.4	4	5	-3								
WELLINGTON	23.43	194.2	4	27	0	8	3	2					
COBB RIVER	23.78	198.0	4	30	-1	8	4	-3					
KAIMATA	25.49	198.7	4	44	-2	8	29	-5					
GEBBIES PASS	26.23	195.8	4	50	-2	8	44	-2					
BRISBANE	28.18	246.5	5	10	1	9	10	-6					
RIVERVIEW	31.53	235.2	5	38K	0								
RABAUL	32.67	292.4	5	45	-2	10	23	-2					
CANBERRA	33.72	233.8	5	57A	1						9	7	PCP
CHARTERS TS.	33.90	261.7	5	57K	-1	10	40	-4					
PORT MORESBY	35.16	280.3	6	9	1	11	1	-2			8	22	PCP
MELBOURNE	37.63	231.7	6	29K	1	11	39	0					
ADELAIDE	41.71	238.2	7	2K	1	12	37	-1					
GUAM	48.80	308.2	7	54	-2								
SCOTT BASE	59.71	183.7	9	14A	2						11	9	PP
BYRD STATION	66.42	170.7	9	55	0				11	56			
MATUSIRO	68.84	323.2	10	8K	-1	18	28	0			22	3	
SOUTH POLE	71.46	180.0	10	26	1				12	27			
MIRNY	72.74	204.8	10	31	-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.

UGLEGORSK	76.28	334.1	10	51	-1						19	51
ZO-SE	76.66	309.5	10	53	-1	19	53	-1				
BERKELEY	76.69	42.1	10	54K	0							
LICK	76.78	42.8	10	55	0				12	55		
UKIAH	76.85	40.6	10	55	0				12	54		
PASADENA	77.30	47.2	10	58	1						12	55
FRESNO	77.65	44.2	10	59K	0				13	0		
SHASTA	78.31	39.7	11	3	0							
MINERAL	78.58	40.4	11	3K	-1				13	3		
NANKING	78.89	309.3	11	6K	0	20	21	3				
CANTON	79.04	298.9	11	8K	1	20	26	7				
RENO	79.22	41.9	11	8K	0							
CORVALLIS	80.15	36.2	11	13	1							
BOULDER CITY	80.59	47.1	12	16	61							
CHANGCHUN	81.06	322.1	11	17K	0	20	45	6				
WUHAN	81.34	306.2	11	18K	0							
TUCSON	81.64	52.0	11	22	2	20	52	7	13	25		
EUREKA	81.66	43.6	11	20	0				13	20	14	47 PP
TUCSON TELE.	81.76	52.0	11	22	1				13	25		
PEKING	84.71	315.2	11	35K	0	21	16	1				
SALT LAKE C.	85.03	44.1	11	37	0							
COLLEGE	86.38	12.3	11	41	-2				13	45		
SIAN	87.26	307.4	11	49K	2	21	47	9				
BOZEMAN	87.95	40.1	12	1	10							
KUNMING	88.70	296.9	11	56K	2							
BOULDER	89.13	47.1	11	57	1							
CHENGTU	89.66	302.5	12	2K	3	23	8	68				
YAKUTSK	90.46	338.0	11	58	-4	21	35	-32				
LANCHOW	91.81	307.5	12	9K	1	22	27	8				
RAPID CITY	92.24	44.1	12	10	0							
ULAN-BATOR	94.21	319.3	12	20	1							
SHILLONG	98.13	294.2	12	36	-1							
RESOLUTE	105.98	15.9	17	18	0							
SHAWINIGAN	113.57	46.7	17	34A	0							
SEVEN FALLS	114.92	46.1	17	37	1							
QUETTA	120.61	294.5	17	49A	2	23	59	7	20	1	19	20 PP
SCORESBY SD.	126.18	9.8	17	56	-2							
APATITY	127.22	345.5	17	59	-1							
KIMBERLEY	128.06	205.4	18	4K	2							
SODANKYLA	128.85	348.1	18	8	5							
KIRUNA	129.49	351.1	18	4	0							
MOSCOW	134.36	332.7	18	15	1							
SKALSTUGAN	134.58	353.7	18	4	-10							
NURMIJARVI	135.22	344.4	18	10	-5							
UPPSALA	137.38	348.6	18	7	-12						21	0 SKP
SIMFEROPOL	142.68	321.7	18	27	-2							
ADDIS ABABA	143.29	259.9	18	32	2							
DURHAM	143.84	3.7	18	28K	-3							
KISHINEV	144.27	328.3	18	30	-2							
LWOW	144.32	335.6	18	33	1							
RATHFARNHAM	144.80	8.8	18	31	-2						24	8
UVIRA	145.55	233.0	18	36	2							
KRAKOW	145.61	339.7	18	34	0							
ASTRIDA	145.64	234.9							18	35	22	3 *SPKP
ASTRIDA	145.64	234.9	18	35	1						22	3 *SPKP
WITTEVEEN	145.73	355.2	18	36	2							
RACIBORZ	146.13	341.4	18	33	-2							
HALLE	146.33	349.0	18	33	-2						18	46
KSARA	146.40	303.4	19	19	44				20	57		
MUNSTER	146.48	353.9	18	39	4							
LWIRO	146.58	234.3	18	38	3						19	41
KASTAMONU	146.72	319.0	18	32	-3				20	49		
RUHANGABO	146.74	236.2	18	39K	3				20	55		
JENA	146.94	349.1	18	36	0				20	51	21	7 PP
PRAGUE	147.16	345.4	18	42	6							
KEW	147.20	2.9	18	36	0				20	51		
PRUHONICE	147.22	345.2	18	41	5				20	52		
BENSBERG	147.53	354.1	18	41K	4				20	53		
JERUSALEM	147.53	300.2	18	38	1						20	55
SONNEBERG	147.54	349.2	18	37	0				20	52		
VIENNA-H.	148.31	341.8	18	43	5							
STUTTGART	149.43	350.9	18	40	0				20	55		
TUBINGEN	149.68	350.9	18	46	6							
BELGRADE	149.79	333.7	18	46A	6						21	0
STRASBOURG	149.81	352.6	18	41A	1				20	56	18	47 PKP2
FOLINIERE	149.88	3.5	18	41	1							
PARIS	149.92	359.6	18	48K	8							
EBINGEN	150.04	350.9	18	48K	8							

RAVENSBURG	150.32	349.9	18 48	7								
ZAGREB	150.60	340.2	18 45	4								
BASLE	150.87	352.5	18 49A	7								
CHUR	151.24	349.5	18 43K	1								
TRIESTE	151.42	342.9	18 43	1				21 7				
GARCHY	151.44	358.8	18 51	8								
NEUCHATEL	151.46	353.2	18 47	4								
CLERMONT-FD.	152.95	358.6	18 47A	2				21 0				
ATHENS	153.11	320.1	18 52K	7								
GRANADA	160.86	14.2	18 53K	-2						23 47	PP	
TAMANRASSET	174.85	323.4	19 6K	2				21 13		24 37	PP	

MARCH 21 19.H 46.M 2.S EPICENTRE -20.03-178.69 DEPTH= 0.KM

A=-0.94002 B=-0.02145 C=-0.34043 D=-0.0228 E= 0.9997
G= 0.3403 H= 0.0078 K=-0.9403 HT= 4.7

SE= 3.95

	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	3.30	304.0	2	28	95	3	32	118					
APIA	9.06	48.0	3	20	65	5	9	70					
RAOUL ISLAND	9.21	175.8	2	58	41	4	36	34					
NOUMEA	14.04	258.1	3	52	30	6	14	14					
KARAPIRO	18.52	194.5	4	28	9	7	23	-21					
TUAI	19.05	190.0	4	33	7	7	18	-38					
TONGARIRO	19.75	193.4	4	37	3								
WELLINGTON	21.90	193.3	4	57	1	8	3	-51					
COBB RIVER	22.22	197.3	4	59	0	8	10	-50					
KAIMATA	23.93	198.2	5	20	4	8	36	-54					
GEBBIES PASS	24.69	195.1	5	19	-4	8	48	-55					
CANBERRA	32.24	235.0	6	32	0						11	54	
RABAUL	32.45	295.2	6	40	6						11	58	
CHARTERS TS.	32.89	263.9	6	41	4						11	58	
PORT MORESBY	34.61	282.8	6	59K	7						8	39	
ADELAIDE	40.28	239.3	7	38K	-2								
HONOLULU	45.75	27.3	8	37	13								
SCOTT BASE	58.30	183.6	9	50	-8	17	44	-16			10	37	PCP
BYRD STATION	65.21	170.5	10	35	-10								
MATUSIRO	69.44	324.0	11	15K	3						11	30	
SOUTH POLE	70.10	180.0	10	6	-70	19	11	-75			10	23	PCP
MIRNY	71.15	205.0	11	10	-12								
BERKELEY	78.27	42.3	12	5	2								
LICK	78.35	43.1	12	5	2								
PASADENA	78.84	47.4	12	8	2								
CANTON	78.97	299.5				22	16	11					
NANKING	79.12	309.9	12	4	-3	21	19	-48					
FRESNO	79.21	44.4	12	10	2								
SHASTA	79.89	40.0	12	13	1								
MINERAL	80.16	40.6	12	14	1								
WUHAN	81.48	306.7	12	16	-4								
CHANGCHUN	81.63	322.7	12	19K	-2								
TUCSON	83.14	52.2	12	29	0						14	44	
EUREKA	83.23	43.8	12	29	0								
TUCSON TELE.	83.26	52.2	12	30	1						14	45	
PEKING	85.10	315.6	12	35	-4								
COLLEGE	87.89	12.7	12	49	-3						15	4	
CHENGTU	89.69	302.8				23	2	-49					
ULAN-BATOR	94.70	319.5									22	54	
KHEYS	116.01	351.4	19	36	51								
SODANKYLA	130.00	347.5									21	31	PP
MOSCOW	135.18	331.6									21	47	PP
PULKOVO	135.21	339.6									21	47	
SKALSTUGAN	135.84	353.0	19	3	-19								
NURMIJARVI	136.30	343.5									21	52	PP
TIFLIS	137.42	310.4									21	53	
UPPSALA	138.54	347.6	19	9	-18								
SIMFEROPOL	143.21	320.0	19	26	-10								
ASTRIDA	144.17	234.3	19	24A	-13								
LWIRO	145.10	233.7	19	28A	-11								
RUMANGABO	145.28	235.6	19	29A	-10								
KASTAMONU	147.17	316.9	19	31	-11								
HALLE	147.50	347.6	19	34	-9								
PRUHONICE	148.31	343.7	19	48	4								
STUTTGART	150.63	349.3	19	45	-3						22	11	

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TAMANRASSET 175.21 305.7 20 1

MARCH 22 22.H 36.M 36.S EPICENTRE 46.66 -3.53 DEPTH= 0.KM

A= 0.68744 B=-0.04239 C= 0.72500 D=-0.0616 E=-0.9981
G= 0.7236 H=-0.0446 K=-0.6887 HT= -4.2

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	
JERSEY	2.70	20.4	1	0	14	1	36	17					
FOLINIERE	2.95	43.2									0	52	PG
GARCHY	4.56	79.8									1	31	PG
PARIS	4.59	59.9	1	15	2	1	56	-12					
CLERMONT-FD.	4.70	98.5	1	28	14						2	29	SG
KEW	5.25	22.5	1	23	1	2	31	7			3	6	SG
SERRA PILAR	6.63	215.3	1	35A	-6	2	47	-12			2	3	PG
UCCLE	6.65	48.6	1	41	-1								
TOLEDO	6.79	183.4	1	55	11	3	7	4					
RATHFARNHAM	6.88	346.1	1	45	0	3	7	2			3	45	SG
NEUCHATEL	7.20	83.5	1	49	0	3	40	27					
BASLE	7.63	79.4	1	58A	3	3	36	12					
STRASBOURG	7.87	71.8	2	2	3	3	36	6			2	42	PG
DURHAM	8.21	7.9	2	3	-1								
BENSBERG	8.27	54.7	2	4	0	3	33	-6					
MONACO	8.28	106.8	2	2	-2	3	37	-3					
ALICANTE	8.61	163.8	2	4	-5	3	37	-11			3	49	SS
EBINGEN	8.61	75.3	2	8	-1						2	52	PG
TUBINGEN	8.72	73.0	2	11	0	3	46	-4			2	52	PG
STUTTGART	8.84	71.6	2	11	-1	3	56	2			2	54	PG
CHUR	8.97	84.1	2	14	0								
MUNSTER	9.01	49.8	2	14	-1	4	33	35					
RAVENSBURG	9.02	78.1				3	46	-12			4	56	SG
ALMERIA	9.84	175.0	2	26	0						2	33	PP
SONNEBERG	10.45	63.8	2	35	1						5	26	SG
JENA	10.84	61.3	2	39	-1	4	57	14			3	35	PG
ALGIERS UNI.	11.03	151.3				4	36	-12					
PLAUEN	11.07	64.0	2	36	-7	4	40	-9			3	35	PG
HALLE	11.24	58.8	2	47	2	4	56	3			3	45	PG
TOLMEZZO	11.41	85.3	1	51	-57	3	51	-66			2	50	
TRIESTE	12.03	88.5				5	12	0					
POTSDAM	12.20	56.0									6	36	
ROME	12.42	106.8									6	34	
PRAGUE	12.42	67.5	3	35	34	5	45	24					
PRUHONICE	12.48	68.0	3	6A	4	6	4	41			5	17	
COPENHAGEN	13.46	42.1	3	12	-3								
VIENNA-H.	13.56	76.0	3	21	5						6	43	
RACIBORZ	14.83	68.7									8	54	PCP
KRAKOW	15.94	69.1									8	53	PCP
WARSAW	16.87	61.7				7	12	5			8	56	PCP
UPPSALA	18.18	35.7	4	16	0								
SKALSTUGAN	19.11	21.9	4	28A	1						8	55	PCP
HELSINKI	21.49	40.6	4	53	0								
NURMIJARVI	21.50	39.6	4	55	2								
TAMANRASSET	24.93	159.9	5	29	3								
SODANKYLA	25.98	26.4	5	36	0								
ISFJORD	32.21	6.6									10	23	
RESOLUTE	46.01	338.3	8	26	-1								
COLLEGE	65.37	344.1	10	47	0								

MARCH 23 7.H 10.M 22.S EPICENTRE 39.56-118.03 DEPTH= 0.KM

A=-0.36332 B=-0.68236 C= 0.63434 D=-0.8827 E= 0.4700
G=-0.2981 H=-0.5599 K=-0.7731 HT= -1.5

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	
RENO	1.37	269.7	0	26A	0								
EUREKA	1.60	92.2	0	29	-1								
TINEMAHA	2.50	183.6	0	43	1	1	20	6					
MINERAL	2.85	287.2	0	47A	0								
FRESNO	3.11	207.1	0	52K	1								

HAIWEE	3.42	178.9	0	54	-1							
SHASTA	3.53	290.2	0	57A	0							
LICK	3.60	233.1	0	57K	-1						1	50
BERKELEY	3.71	244.3	0	58K	-2						1	56
CHINA LAKE	3.75	174.6	1	0	0							
SAN FRANCSCO	3.89	244.1	1	0K	-2							
BRANNER	3.89	238.0	1	1K	-1	1	40	-10				
UKIAH	4.04	265.5	1	5	1							
BOULDER CITY	4.38	143.6	1	10	1							
ARCATA	4.81	287.8	1	15	0							
FERNDALE	4.88	284.0	1	30	14							
SALT LAKE C.	4.89	73.7	1	20	4	2	33	18				
STA. BARBARA	5.28	195.2	1	27	5	2	48	23				
PASADENA	5.40	181.2	1	24	0	2	53	26				
PALOMAR	6.27	171.0	1	36	0	3	12	23				
CORVALLIS	6.36	323.7	1	38	1						3	26
BUTTE	7.60	30.1	1	56	1	3	54	31				
BOZEMAN	7.98	37.9	2	3	3	3	40	8			2	33
HUNGRY HORSE	9.25	16.8	2	18	0							
TUCSON TELE.	9.33	138.3	2	20	1							
TUCSON	9.34	139.1	2	20	1						2	54
VICTORIA	9.76	338.4	2	23	-2						4	36
HORSESHOE B.	10.51	340.9	2	35	0						5	39
ALBERNI	10.85	335.7	2	46	6							
RAPID CITY	11.95	63.0	2	54	-1	5	57	47				
CHIHUAHUA	14.71	134.2	3	34K	3	6	29	13				
SASKATOON	14.85	28.4	3	38	5	6	42	23			7	49
MAZATLAN	19.08	145.4	4	33	7							
FAYETTEVILLE	19.14	92.9	4	26K	-1	8	10	12				
SITKA	20.83	332.8	4	48	2							
LITTLE ROCK	20.99	95.1	4	47	0							
FLORISSANT	21.43	83.2	4	51K	-1	8	55	10				
ST. LOUIS 1	21.57	83.5	4	55K	2							
TERRE HAUTE	23.57	80.4	4	15	-58	8	36	-48				
TACUBAYA	25.83	135.6	5	31	-4	9	52	-11			6	2 PP
CLEVELAND	27.69	74.1	5	50	-2							
VERA CRUZ	27.72	130.7				11	26	52			11	46 SS
OAXACA	29.10	134.5									9	42
MORGANTOWN	29.20	77.5	6	4K	-1						12	12
COLUMBIA	30.01	88.9	6	13	1	11	2	-8				
PENNSYLVANIA	30.53	74.6				11	24	6				
MERIDA	30.57	119.0				11	59	40				
COLLEGE	30.67	335.4	6	18	0	11	2	-19			9	18 PCP
CHAPEL HILL	30.88	84.3	6	20	0							
WASHINGTON	31.55	77.9	6	25	-1	11	47	13				
BREBEUF	32.93	64.9	6	40	2						7	55
PALISADES	33.42	73.0	6	45	3	12	3	-1			14	15 SS
SHAWINIGAN	33.43	62.9	6	41	-1							
FORDHAM	33.48	73.3	7	51	68	13	15	70				
SEVEN FALLS	34.71	61.6	6	52	-1	12	22	-2				
WESTON	35.04	69.9	7	52A	56							
RESOLUTE	36.82	10.0	7	10	-1	12	57	1			8	42 PP
KIPAPA	38.54	254.0	7	25	-1							
HONOLULU	38.67	253.9	7	31	4							
HALIFAX	40.08	64.5				13	52	6			9	38 PP
BERMUDA	43.24	82.3	7	54	-11	14	43	11			9	42 PCP
BALBOA HTS.	45.89	121.1	8	24	-2	14	57	-13				
FUQUENE	52.35	118.6	9	16	0						20	32 SS
BOGOTA	52.74	119.6	9	18	-1	16	55	9			11	23 PP
NORD	52.77	10.4	9	16	-3	16	51	4				
CARACAS	53.68	108.2	9	24	-2	17	0	1				
SCORESBY SD.	55.26	24.0	9	36	-1	17	19	-1				
PETROPAVLOVK	55.91	313.7	9	42	0	17	32	3				
MAGADAN	57.46	322.8	9	53	0	17	57	8				
KHEYS	60.52	2.0	10	8	-6	18	22	-7				
HUANCAYO	64.90	132.9	10	46K	3							
YAKUTSK	65.08	331.2	10	55.	11							
UGLEGORSK	67.01	315.3	10	57	0	19	53	3				
Y.-SAKHLINSK	67.85	313.1	11	3	1	20	0	0				
SKALSTUGAN	69.90	21.3	11	13	-2							
SODANKYLA	70.07	13.8	11	16	0							
APATITY	71.04	11.2	11	22	0	20	38	0				
DURHAM	71.49	33.2	12	4A	40							
LA PAZ	72.62	129.7	11	30	-1						12	20 PP
KEW	74.33	35.1				21	19	4				
UPPSALA	74.43	21.5	11	40	-2	21	18	2				
GOTEBORG	74.44	25.3	11	43A	1							
NURMIJARVI	75.70	18.0	11	51	2							

FOLINIERE	76.17	37.2	11	51	-1					
COPENHAGEN	76.20	26.3	11	52	0	21	43	7		
VLADIVOSTOK	76.24	314.9	11	51	-1					
MATUSIRO	76.81	306.5	11	54	-1	21	39	-3	30	29 SSS
UCCLE	76.85	33.4	11	57	2	21	46	3		
MUNSTER	77.31	31.0	11	59	1					
PULKOVO	77.64	15.8	11	58	-2	21	53	2		
BENSBERG	77.90	31.9	12	1	0				27	41
CHANGCHUN	79.24	318.8	12	6	-2	22	10	2		
HALLE	79.36	29.2	12	5	-4					
JENA	79.67	29.7	12	11	0				13	56
SONNEBERG	79.97	30.2	12	13	1					
STRASBOURG	79.98	33.2	12	13	0	22	10	-6		
PLAUEN	80.24	29.7	12	10	-4					
STUTTGART	80.43	32.3	12	14	-1	22	24	3		
TOLEDO	80.60	45.5	12	16	0				17	7 PPP
EBINGEN	80.80	32.8	12	18	1					
IRKUTSK	81.41	335.2	12	19	-1	22	32	1		
PRUHONICE	81.56	28.7	12	21	0	22	41	8	23	5 PS
WARSAW	81.89	24.0	12	17	-6	22	27	-9	12	36 PCP
MALAGA	82.61	47.9	12	24K	-2					
MOSCOW	82.84	13.6	12	28	1					
MONACO	83.58	36.5	12	30	-1					
ALMERIA	83.62	46.7	12	31A	0					
ALICANTE	83.64	44.5	12	27	-5	22	44	-10	17	32 PPP
TOLMEZZO	83.88	31.7	12	36	3					
SVERDLOVSK	83.97	0.7	12	36	3					
ULAN-BATOR	84.19	331.5	12	35	1				15	50 PP
TRIESTE	84.79	31.7	12	38	1	21	12	-113	15	59 PP
SANTA LUCIA	84.83	141.9	12	28A	-10	23	14	9		
LWOW	84.92	23.6	12	38	0					
RELIZANE	86.09	45.7	12	40	-4					
PEKING	86.61	321.4	12	46	0	23	14	-9	16	8 PP
ALGIERS UNI.	86.70	43.5				23	30	6		
ROME	87.30	34.6	12	51	1					
BELGRADE	88.07	28.2	12	53K	0				13	55
PAOTOW	89.00	325.5	13	0A	2	23	30	-15		
MBOUR	89.27	72.0							16	30 PP
NANKING	91.38	314.7	13	9	0	24	8	1	23	41 SKS
SIMFEROPOL	92.22	19.4							25	26 PS
SIAN	94.69	322.6	13	24	0	24	44	9		
SOTCHI	94.83	16.0	13	25	0					
WUHAN	94.85	316.5	13	26	1	24	40	3	17	19 PP
LANCHOW	95.42	327.1	13	31A	3	24	50	8	24	6 SKS
TIFLIS	97.61	12.9	13	41	4					
TAMANRASSET	98.63	51.1	13	40	-2					
NAMANGAN	99.35	352.6							17	43 PP
CANTON	101.41	312.8				25	38	6		
HONG KONG	101.51	311.7				23	56	-38		
KSARA	103.10	22.1	13	58	-4				30	53
KUNMING	105.33	322.2				24	55	3		
SHILLONG	109.45	331.5	18	2	-30					
BYRD STATION	119.33	180.3	18	54	3				29	7 PKKP
SOUTH POLE	129.37	180.0	20	13	62				27	41 PKKP
BULAWAYO	145.47	65.7	19	40	0					
KIMBERLEY	147.60	82.1							19	46 PKP2
MIRNY	147.82	202.8	19	45	1				20	32

MARCH 24 17.H 18.M 23.S EPICENTRE 33.82 141.89 DEPTH= 0.KM

A=-0.65504 B= 0.51383 C= 0.55399 D= 0.6172 E= 0.7868
G=-0.4359 H= 0.3419 K=-0.8325 HT= 0.5

SE= 3.37

	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
HATIDYOZIMA	1.86	247.9	0	39	5						1	25
MERA	2.03	303.4	0	33	-3						0	41
TYOSI	2.08	336.0	0	29	-8	0	58	-6				
YOKOHAMA	2.45	311.7	0	41	-1						1	16
TOKYO C.M.O.	2.56	317.1	0	43	0	1	10	-6				
HONGO	2.57	317.8	0	40	-4						1	20
AJIRO	2.61	298.8	0	43	-1	1	12	-5			2	27
MISIMA	2.75	298.9	0	44	-2						1	46
KAKIOKA	2.78	330.2	0	45	-2	1	16	-5				

MITO	2.81	335.9	0	46	-1	1	15	-7			
TUKUBASAN	2.81	329.0	0	44A	-3						
HUNATU	3.07	304.0	0	52	1				2	1	
SHIZUOKA	3.10	292.7	0	51	0	1	24	-6	3	24	
OMAESAKI	3.14	285.4	0	54	2				1	47	
TITIBU	3.16	313.8	0	52	0						
UTUNOMIYA	3.19	329.3	0	50	-2	1	23	-9			
ONAHAMA	3.23	345.8	0	56	3	1	24	-9	3	25	
KOHU	3.28	304.4	0	53	-1				1	54	
MAEBASI	3.46	318.9	0	55	-1	1	41	2	4	13	
SHIRAKAWA	3.56	338.0	0	56	-2	1	32	-10			
HAMAMATU	3.57	285.7							1	22	
OIWAKE	3.71	313.4	0	59	-1	1	40	-5	2	35	
MATUMOTO	4.03	308.1	1	3	-1				1	56	
MATUSIRO	4.06	313.2	1	4A	-1	1	48	-6	2	48	
HUKUSIMA	4.09	344.0	1	3	-2	1	46	-9			
NAGANO	4.15	314.3	1	8	2	1	44	-13			
NAGOYA	4.28	289.7	1	17	9				2	31	
GIHU	4.51	291.9	1	10	-1				2	14	
SENDAI	4.51	350.1	1	8K	-3	1	54	-12			
YAMAGATA	4.59	344.7	1	10	-2	1	59	-9			
KAMEYAMA	4.60	284.4	1	25	13						
ISINOMAKI	4.62	354.5	1	9	-4	1	56	-12	3	16	
NIIGATA	4.70	331.4	1	16	2	2	5	-5	2	50	
OWASE	4.74	274.6	1	13	-1						
TOYAMA	4.79	308.2	1	17	2				2	36	
IBUKISAN	4.80	290.5	1	23	8	2	26	13			
HIKONE	4.87	288.8	1	23	7						
NARA	5.09	281.4	1	20	1						
SIOMISAKI	5.12	267.6	1	37	17				3	5	
HUKUI	5.12	297.3	1	19	-1						
AIKAWA	5.13	325.9	1	20	0				2	27	
ABUYAMA	5.33	283.1	1	22A	-1						
OSAKA	5.33	280.7	1	28	5				3	8	
MIZUSAWA	5.34	353.6							2	2	
SAKATA	5.34	342.5	1	30	7				2	21	
WAZIMA	5.40	312.6	1	22	-2						
KOBE	5.62	280.7							2	7	
MIYAKO	5.82	0.6	1	39	9	2	26	-12			
SUMOTO	5.84	277.1	1	35	5				2	51	
MORIOKA	5.90	354.6	1	32	1	2	27	-13			
AKITA	6.06	346.8	1	37	4				2	47	
TOKUSIMA	6.08	274.4	1	36	3						
TAKAMATU	6.52	276.6							2	12	
HATINOHE	6.70	357.7	1	49	7	2	48	-12			
KOTI	6.97	270.1				3	14	6			
AOMORI	7.04	353.1	1	55	8	2	55	-14			
YONAGO	7.22	285.2	1	54	5				3	34	
HAKODATE	8.00	353.7	2	28	28				3	24	
HAMADA	8.19	280.3	2	4	1				4	24	
MORI	8.33	353.2							2	42	
URAKAWA	8.35	4.6	2	6	1	3	26	-15	7	6	
HIROO	8.52	7.2				3	31	-14			
MURORAN	8.53	355.4				3	32	-13	2	46	
TOMAKOMAI	8.69	358.5				3	37	-13			
MIYAZAKI	9.01	260.7							5	57	
SUTTSU	9.06	352.2							3	36	
OBIHIRO	9.14	6.1	2	11	-5				3	45	
SAPPORO	9.25	357.5	3	41	83	5	13	69	5	41	
KUSIRO	9.36	11.4	2	21	2	4	0	-6			
HUKUOKA	9.56	271.7	2	26	4						
NEMURO	9.92	15.8							5	2	
ABASHIRI	10.35	9.6				4	15	-16	3	30	
VLADIVOSTOK	12.14	322.8	2	51	-6	4	59	-15			
Y.-SAKHLINSK	13.13	2.5	3	4	-7	5	23	-16			
UGLEGORSK	15.25	0.5	3	44	6	6	39	10			
CHANGCHUN	16.31	312.7	3	46	-6	6	40	-14			
ZO-SE	17.69	266.9	4	7	-2						
NANKING	19.46	271.2	4	29	-2	7	56	-9			
GUAM	20.42	172.0	4	45	4	8	48	22	5	19	
PEKING	21.44	294.3	4	49	-3	8	38	-8	5	9	PP
PETROPAVLOVK	22.71	26.8	5	34	29						
WUHAN	23.34	269.4	5	7	-4	9	7	-13			
PAOTOW	26.16	294.2	5	36	-2						
MAGADAN	26.41	10.2	5	40	0	10	11	-1			
MANILA	26.93	229.7	5	39	-6				9	9	
HONG KONG	26.93	252.0				10	28	7	6	30	PP
SIAN	27.26	280.2	5	44	-4	10	11	-15			

YAKUTSK	29.27	348.3	6	3	-3	10	52	-7			
ULAN-BATOR	29.69	308.9	6	7	-3	11	12	7			
LANCHOW	31.16	285.1	6	19	-4						
CHENGTU	32.08	274.9	6	33	2	11	41	-2			
IRKUTSK	32.59	315.9	6	33	-2	11	48	-3			
COLLEGE	51.62	30.9	9	10	0						
LEMBANG	51.85	225.3	9	9	-3						
DEHRA DUN	53.44	284.9							10	12	PCP
NAMANGAN	54.88	299.4	9	34	-1	17	11	-4			
KHEYS	56.90	348.0	9	39	-10						
SVERDLOVSK	57.84	320.1	9	54	-2						
QUETTA	62.33	289.2	10	24A	-3	18	46	-6	11	7	PCP
RESOLUTE	65.62	14.1	10	47A	-1	19	31	-2	23	43	SS
SODANKYLA	68.08	337.8	10	58	-6						
VICTORIA	68.37	45.5	11	6	1						
THULE	68.39	7.3	11	3	-3						
MOSCOW	70.07	324.3	11	13	-3						
MAKHACH-KALA	70.76	309.2				20	14	-21			
PULKOVO	71.16	330.2	11	20	-3	20	28	-11			
SHASTA	72.74	52.4	11	35	3						
NURMIJARVI	72.97	332.6	11	33	0						
TIFLIS	73.12	309.1	11	33	-1	20	58	-4			
MINERAL	73.43	52.4	11	39	3						
LICK	74.94	55.1	11	47	2						
SOTCHI	75.34	312.8	11	30	-17						
SCORESBY SD.	75.35	354.5	11	37	-10						
BUTTE	76.00	43.8	11	52	1						
UPPSALA	76.02	334.5	11	49K	-2						
BOZEMAN	77.07	43.5	12	0	3						
EUREKA	77.57	50.8	12	2	3						
SIMFEROPOL	77.90	316.2				21	56	2			
KARAPIRO	77.93	153.4	12	3	2						
PASADENA	79.03	56.3	12	1	-7						
SALT LAKE C.	79.44	47.9	12	12	2						
WARSAW	79.98	327.6							22	56	PS
LWOW	80.21	324.5	12	11	-3						
KASTAMONU	82.01	314.8	12	14	-9						
RAPID CITY	82.45	41.3	12	28	2				13	11	
ISTANBUL UN.	83.26	315.4	12	29	-1						
KSARA	83.35	306.3	12	25	-5	22	51	0	15	40	PP
PRUHONICE	84.43	329.0	12	34	-2						
JENA	84.94	331.0	12	37	-1				12	56	
JERUSALEM	85.01	305.0	12	39	0						
PLAUEN	85.04	330.5	12	35	-4				12	53	
MUNSTER	85.66	333.6	12	42	0						
STUTTGART	87.59	330.9	12	50	-1						
ADDIS ABABA	95.75	284.8	13	30	1						
BYRD STATION	124.55	167.9	19	4	2						
HUANCAYO	139.77	66.4	19	32	2						
LA PAZ	147.98	64.9	20	11	27						

MARCH 26 2.H 24.M 20.S EPICENTRE -6.99 155.69 DEPTH= 97.KM

DEPTH OF FOCUS= 0.010R

A=-0.90464 B= 0.40867 C=-0.12088 D= 0.4117 E= 0.9113
G= 0.1102 H=-0.0498 K=-0.9927 HT= 6.9

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
RABAUL	4.47	308.2	1	7	1							
PORT MORESBY	8.79	253.6	2	5	0	3	45	1			2	26
CHARTERS TS.	15.85	214.3	3	39A	1	6	36	5				
NOUMEA	18.42	146.8	4	7K	-3	7	35	7				
BRISBANE	20.54	186.7	4	32K	0	8	19	8				
GUAM	23.05	331.9	5	1	4	9	3	6	5	16	5	45 PP
SUVA	24.78	118.7	5	26	12							
RIVERVIEW	27.04	188.3	5	35	0	10	9	6				
CANBERRA	28.86	191.4	5	51A	0				6	7	6	52 PP
ADELAIDE	31.89	207.0	6	17	-1	11	25	5	6	29	7	23 PP
MELBOURNE	32.21	196.0	6	20K	0	11	28	3	6	36	7	23 PP
APIA	32.68	104.6	6	23	-2							
RAOUL ISLAND	33.30	135.0	6	28	-2							
KARAPIRO	35.66	152.6	6	49	-1						9	15 PCP
TUAI	37.13	151.7	7	4	2							

COBB RIVER	37.19	158.5	7	6	3							
MANILA	40.55	302.0	7	30	-1	13	36	4				
PERTH	44.65	230.8	8	5	1	14	40	8			18	4
ABUYAMA	45.76	336.7	8	13A	0							
MATUSIRO	46.31	340.5	8	16A	-1	14	44	-12	8	33	9	51 PP
LEMBANG	47.70	267.1	8	28A	0						15	19
HONG KONG	50.01	306.7	8	47	1	15	32	-16	9	1	9	15 *SP
CANTON	51.11	307.1	8	55A	1							
NANKING	52.38	319.9	9	4A	0	16	27	7				
KIPAPA	53.47	56.9	9	11	-1							
WUHAN	54.26	315.6	9	16A	-2	16	50	4				
VLADIVOSTOK	54.35	338.7	9	18	0							
Y.-SAKHLINSK	54.92	349.2	9	21	-2							
PHU-LIEN	55.53	301.0	9	28	1	17	8	5				
UGLEGORSK	57.09	349.4	9	38	0						17	11
CHANGCHUN	57.56	334.3	9	40A	-1	17	35	5				
MEDAN	57.86	278.6	9	44K	1	17	55	21				
PEKING	59.30	325.4	9	52A	-1	17	58	6				
SIAN	60.30	316.0	10	0A	0	18	11	6				
CHENGTU	62.03	310.0	10	11A	-1	18	34	7			20	0 SCS
LANCHOW	64.81	315.2	10	31A	1	19	8	6				
PORT BLAIR	65.31	286.2	10	9	-24	19	10	2				
MAGADAN	66.44	357.3	10	39	-2	19	13	-8				
WILKES	66.77	198.2				19	30	4			23	41 SS
ULAN-BATOR	69.48	327.3	11	0A	0							
SHILLONG	69.90	300.3	11	3A	1							
SCOTT BASE	71.06	177.5	11	8A	-1							
MIRNY	72.96	201.8	11	20	0							
IRKUTSK	73.41	329.9	11	22	-1							
COLLEGE	82.84	21.0	12	12	-3				12	32	38	29 PKPPKP
DEHRA DUN	82.93	301.7	12	37	22							
SOUTH POLE	83.06	180.0	12	15	-1							
POONA	84.52	289.4	12	23A	0	22	41	1				
BOMBAY	85.54	289.6	12	27	-1	22	53	3				
LAHORE	86.31	302.2	12	31	-1							
LICK	88.40	52.3	12	42	0							
SHASTA	88.42	48.9	12	44	2							
MINERAL	88.95	49.3	12	51	7							
WARSAK DAM	89.03	304.3	12	46	1							
NAMANGAN	90.04	311.1	12	50	0							
RENO	90.18	50.3	12	51	1							
PASADENA	90.70	55.8	12	52	-1	23	50	12			13	19
QUETTA	92.38	300.0	13	1A	1						16	43 PP
EUREKA	93.11	50.8	13	4	0				13	24	30	13 PKKP
BOULDER CITY	93.64	54.4	13	7	1							
TUCSON	96.62	58.4									17	15 PP
TUCSON TELE.	96.72	58.3									17	14 PP
RESOLUTE	101.78	14.8	13	41A	-2	24	10	-3			26	46 PS
MOSCOW	111.33	327.6									19	4 PP
KIRUNA	112.30	343.2	18	24	0							
NURMIJARVI	115.31	335.6	18	34	4							
ADDIS ABABA	117.57	276.5	18	39A	5							
SKALSTUGAN	117.69	342.5	18	34	0						28	56 PKKP
UPPSALA	118.49	337.4	18	36	0						28	53 PKKP
KSARA	118.54	304.7	18	39	3							
JERUSALEM	119.47	302.5	18	40	2							
KASTAMONU	120.48	314.3	18	37	-3				18	51		
BULAWAYO	121.40	241.4	18	44	2							
OTTAWA	121.47	40.2	18	42K	0						28	44 PKKP
GOTEBORG	122.11	338.0	18	45A	2						28	43 PKKP
BREBEUF	122.76	39.4	18	44K	0							
REYKJAVIK	122.94	358.7	18	38	-7							
SIDA	123.14	356.7	19	2	17							
COPENHAGEN	123.37	336.1	18	47K	2							
KRAKOW	123.43	327.4	18	46	1				19	0		
SEVEN FALLS	123.70	36.6	18	45	-1							
RACIBORZ	124.32	328.2	18	47	0							
PALISADES	124.47	44.3	18	48	0						20	58 PP
ASTRIDA	125.23	261.9	18	51	2						20	54 PP
UVIRA	125.67	260.7	18	51	1						19	6
RUMANGABO	125.84	263.3	18	53	3							
HUANCAYO	125.86	110.2	18	55	5						20	50 PP
LWIRO	126.21	262.1	18	53	2							
PRUHONICE	126.25	329.8	18	52	1				19	7		
HALLE	126.49	332.6	18	49	-2						21	23
ATHENS	126.78	312.8	18	52K	0							
JENA	127.05	332.3	18	54	2				19	9	20	49 PP
WITTEVEEN	127.78	336.7	18	56	2							

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BENSBERG	128.98	334.9	18	58	2			19	15		
DURHAM	128.98	343.3	18	56K	0						
TOLMEZZO	129.31	327.2	18	54	-3					22	19
TRIESTE	129.37	326.0	18	59	2			19	13	22	22 SKP
STUTTGART	129.66	331.7	18	58	1			19	12	21	43 PP
TUBINGEN	129.89	331.5	18	59	1						
RAVENSBURG	130.15	330.5	19	1	3						
EBINGEN	130.18	331.3	19	0A	2					22	19 SKP
STRASBOURG	130.46	332.4	19	0K	1			19	14	21	23 PP
LA PAZ	130.77	118.7	19	4	4					22	22
CHUR	130.83	329.7	19	1	1						
BASLE	131.30	331.5	19	2K	1						
KEW	131.42	340.2								22	2 PKS
NEUCHATEL	131.98	331.5	19	4	2						
ROME	132.37	322.8								22	25
MESSINA	132.44	316.8								22	22
PARIS	132.57	336.1	19	5	2					22	30 SKP
GARCHY	133.53	334.4	19	6A	1					22	32 SKP
FOLINIERE	133.74	338.3	19	6	1					22	32 PP
ALGIERS UNI.	141.26	323.9	19	19	0						
ALICANTE	142.06	328.9	19	16	-4					23	0 PKS
TOLEDO	142.54	334.0	19	19	-2						
SERRA PILAR	143.23	340.0	19	21	-1						
RELIZANE	143.41	325.0	19	20K	-3			19	38	22	31 PP
ALMERIA	144.22	329.3	19	22	-2						
GRANADA	144.52	330.9	19	24A	-1					19	59
MALAGA	145.27	331.3	19	29K	3			19	44		
LISBON	145.57	338.8	19	29A	2					19	44
TAMANRASSET	147.28	301.9	19	31A	2			19	49		
MBOUR	169.71	316.1	19	58	3						

MARCH 26 5.H 24.M 58.S EPICENTRE -0.10 125.21 DEPTH= 124.KM

DEPTH OF FOCUS= 0.014R

A=-0.57654 B= 0.81706 C=-0.00172 D= 0.8171 E= 0.5765
G= 0.0010 H=-0.0014 K=-1.0000 HT= 7.2

SE= 2.58

	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	15.17	344.2	3	31	2	6	19	5					
BAGUIO CITY	17.04	344.7	3	50	-2	7	50	51					
LEMBANG	18.78	248.8	4	11	-1	7	44	10					
DJAKARTA	19.31	251.4	4	27K	9	7	58	13					
GUAM	23.59	54.4	5	3	2	9	4	2			5	22	
PORT MORESBY	23.72	113.5	5	2	0	9	11	7			12	21	SCP
HONG KONG	24.73	334.9	5	11	0						5	41	PP
CANTON	25.80	334.1	5	20A	-1								
MEDAN	26.76	278.1	5	28A	-2	10	12	17					
PHU-LIEN	27.59	319.9	5	38	0						6	8	PP
CHARTERS TS.	28.58	135.1	5	46K	-1						12	34	
WUHAN	32.10	342.5	6	17	-1	11	25	5					
PORT BLAIR	34.32	291.0	7	55	78						17	0	
ABUYAMA	36.11	14.5	6	53A	1								
CHENGTU	36.63	328.5	6	55A	-1	12	31	2			8	19	PP
ADELAIDE	36.88	161.3	6	58A	0								
SIAN	37.43	337.5	7	3	0								
BRISBANE	38.14	137.8	7	7A	-2						9	27	PCP
MATUSIRO	38.41	17.0	7	11A	0	13	12	16			8	40	PP
CHITTAGONG	39.44	306.7	7	8	-12								
PEKING	40.78	349.4	7	31	0								
SHILLONG	41.08	310.9	7	27	-6								
LANCHOW	41.12	333.3	7	34	0	13	39	2					
RIVERVIEW	41.45	146.6	7	36K	0	13	53	11					
CANBERRA	41.47	150.1	7	36K	0				7	44			
MELBOURNE	41.73	156.3	7	37K	-2								
PAOTOW	42.78	342.9	7	48	1								
VLADIVOSTOK	43.44	7.1	7	52	0	14	13	2					
CHANGCHUN	43.74	0.1	7	54A	-1								
Y.-SAKHLINSK	49.30	15.8	8	28	-10								
ULAN-BATOR	50.41	344.1	8	47	0								
UGLEGORSK	51.10	14.2	8	37	-15								
BOMBAY	54.74	293.3									16	47	
IRKUTSK	55.06	344.5	9	20	-1								
LAHORE	57.47	308.2	9	37	-2								

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KARAPIRO	59.60	135.1	9 53	0			10 4	
WARSAK DAM	60.57	309.8	9 58	-2				
QUETTA	62.95	304.2	10 14	-2	18 43	9	12 33	PP
NAMANGAN	63.33	317.0	10 18	0				
MIRNY	70.11	193.1	11 0	-1				
SCOTT BASE	80.78	171.8	12 0A	-1				
TIFLIS	82.90	311.9	12 13	1	22 25	6		
ADDIS ABABA	86.50	279.0	12 33	3				
KHEYS	87.20	350.4	12 37	3				
MOSCOW	88.71	325.6	12 40	-1				
COLLEGE	88.80	25.2	12 41	0			16 37	PP
KSARA	89.49	303.6	12 46	1				
SOUTH POLE	89.90	180.0	12 47	1				
JERUSALEM	90.04	301.6	12 49	2			13 10	
SIMFEROPOL	90.84	314.8	12 50	-1				
PULKOVO	92.56	329.7	12 59	0	23 52	3		
SODANKYLA	93.40	337.5	13 4	1				
KASTAMONU	93.40	311.3	12 57	-6				
ISTANBUL UN.	94.76	311.0	13 6	-3				
NURMIJARVI	95.28	330.8	13 13	2				
KIRUNA	95.65	338.4	13 19	6				
UPPSALA	98.85	330.9	13 35	8				
RESOLUTE	101.83	10.1	13 42	1			22 30	
JENA	104.77	323.2	18 11	0				
STUTTGART	106.94	321.6					18 25	PP
EUREKA	111.97	47.0	19 9	48			19 31	
TAMANRASSET	117.24	295.6	18 34	3				
TUCSON	118.31	53.0					20 15	PP
TUCSON TELE.	118.37	52.8	18 38	5				
SEVEN FALLS	131.12	14.5	19 1	3	19 26		22 20	SKP
SHAWINIGAN	131.13	16.4					22 20	SKP
OTTAWA	131.25	19.6	19 1	3	19 24		22 20	SKP
BREBEUF	131.83	17.7					22 23	
BERMUDA	146.56	15.3	19 22	-4			22 12	PP
HUANCAYO	156.31	121.3	19 49	9			20 18	PKP2
LA PAZ	158.90	142.1	20 26	43				

MARCH 27 7.H 2.M 9.S EPICENTRE 17.26 -63.05 DEPTH= 155.KM

DEPTH OF FOCUS= 0.019R

A= 0.43300 B=-0.85179 C= 0.29490 D=-0.8914 E=-0.4532
G= 0.1336 H=-0.2629 K=-0.9555 HT= 5.3

SE= 1.84

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
FORT FRANCE	3.11	143.7	0 50K	0	1 26	-2		
SAN JUAN	3.13	291.3	0 52	2	1 30	1		
ST. VINCENT	4.42	156.8	1 7K	0	2 1	2		
GRENADA	5.34	165.9	1 19	0				
TRINIDAD	6.72	167.0	1 38	0	2 53	0		
CARACAS	7.70	209.7	1 49	-2	3 11	-6		
BERMUDA	15.13	354.7	3 25	-2	5 59	-11		4 3 PPP
FUQUENE	15.70	223.0	3 44	10				
BOGOTA	16.56	221.9	3 44	-1	6 47	1		7 27 SS
CHINCHINA	17.34	226.7	3 53	-1	6 51	-13		
BALBOA HTS.	18.06	244.9	4 1	-1	7 2	-14		
COLUMBIA	23.19	319.4	4 56	2	9 18	27		5 26
CHAPEL HILL	23.39	325.7	4 58	2			5 27	
WASHINGTON	24.79	333.2	5 10	1				5 46
FORDHAM	25.30	340.5	6 22	68				11 28
PALISADES	25.45	340.6	5 16	1	9 33	4		5 56 PP
WESTON	26.01	345.9	5 22K	1				
HALIFAX	27.28	359.1	5 33	1				
BREBEUF	29.51	344.8	5 53K	1				
OTTAWA	29.99	342.0	5 57K	1				8 53 PCP
SHAWINIGAN	30.30	346.7	6 0K	1				
SEVEN FALLS	30.46	349.5	6 2K	1				
HUANCAYO	31.55	203.4	6 13	3				
FAYETTEVILLE	33.34	310.4	6 27	1				
LA PAZ	33.92	188.8	6 29	-1	11 37	-6		
RAPID CITY	43.04	317.1	7 47	1				9 32 PCP
LARAMIE	43.58	312.4	7 51	1				13 10
TUCSON TELE.	45.43	298.6	8 6	1			8 19	9 55 PP

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TUCSON	45.52	298.4	8 6	0	14 56 21		8 28		9 42	PCP
SALT LAKE C.	47.94	309.7	8 25	0						
BOZEMAN	48.81	316.2	8 32	0					13 32	SCP
BOULDER CITY	49.31	302.8	8 36	1						
BUTTE	49.92	316.2	8 40	0					9 58	PCP
EUREKA	50.75	307.1	8 46	0			9 4		10 4	PCP
HUNGRY HORSE	51.61	318.6	8 53	0						
PASADENA	51.83	300.1	8 54K	-1						
FRESNO	53.38	303.2	9 5	-1						
BANFF	53.46	321.6	9 4A	-3						
RENO	53.70	306.6	9 8	0						
LICK	54.90	303.8	9 17	0					10 16	
MINERAL	55.16	307.4	9 18	-1					10 18	
BERKELEY	55.43	304.4	9 20	-1						
GRANADA	55.57	56.5	10 13A	51						
SHASTA	55.80	307.7	9 22	-2						
UKIAH	56.28	305.8	9 27	0						
CORVALLIS	56.96	312.3	9 30	-2						
VICTORIA	57.70	316.9	9 35K	-2					10 26	
HORSESHOE B.	57.77	317.9	9 35K	-2						
ALBERNI	58.74	317.5	9 43	-1						
FOLINIERE	59.18	43.1	9 47	0						
DURHAM	59.68	36.1	9 49K	-2						
KEW	59.74	40.1	9 51K	0						
RESOLUTE	59.99	350.7	9 52K	-1					10 36	PCP
PARIS	61.13	43.4	10 1	1						
CLERMONT-FD.	61.26	46.9	9 59	-2		10 21				
GARCHY	61.36	45.2	10 2K	0		10 29				
NEUCHATEL	63.98	45.7	10 19	0						
TAMANRASSET	64.17	72.6	10 21K	0						
BENSBERG	64.35	41.3	10 21	-1						
BASLE	64.43	45.1	10 16	-6						
STRASBOURG	64.60	44.0	10 24K	1					12 14	
EBINGEN	65.39	44.4	10 28K	0						
STUTTGART	65.55	43.8	10 29K	0		10 51				
RAVENSBURG	65.82	44.9				10 57				
SITKA	66.04	325.3	10 33	0						
NORD	67.13	6.6	10 37K	-2						
JENA	67.13	41.5	10 38	-1		11 6				
HALLE	67.37	40.9	10 38	-3						
PLAUEN	67.49	41.9	10 38	-4						
GOTEBORG	67.59	34.1	10 46K	4						
COPENHAGEN	67.76	36.3	10 44A	1						
TOLMEZZO	68.16	46.4	10 45	-1						
SKALSTUGAN	68.16	27.8	10 46	0						
ISFJORD	70.47	12.4	11 2	2						
UPPSALA	70.57	31.9	11 0K	0						
KIRUNA	71.70	23.4	11 7	0						
COLLEGE	72.31	333.5	11 10	-1		11 31				
KRAKOW	72.50	42.1							11 12	PCP
NURMIJARVI	74.03	30.9	11 25	4						
SODANKYLA	74.10	23.7	11 21	0						
HELSINKI	74.22	31.3	11 22	0						
APATITY	76.65	23.1	11 26	-10						
ATHENS	77.10	54.0	11 39K	1						
KHEYS	77.31	9.3	11 43	4						
ISTANBUL UN.	80.38	50.1	11 56	0						
MOSCOW	81.78	34.2	12 4	1						
SIMFEROPOL	82.94	45.2	12 11	2						
KSARA	87.72	55.4	12 35	2						
JERUSALEM	87.85	57.5	12 35	2						
LWIRO	92.43	91.6	12 56A	1						
RUMANGABO	92.67	90.6	12 57	1						
ASTRIDA	93.42	91.7	13 2	3						
MATUSIRO	122.83	339.7	18 38K	0					20 17	
SHILLONG	130.93	30.4	18 52	-2						
BRISBANE	145.23	246.6	19 21K	1						
CANBERRA	146.31	231.5	19 23	2					22 45	
MANILA	148.11	352.6	19 28	4						
PORT MORESBY	149.62	281.0	19 33K	6						
CHARTERS TS.	152.10	259.8	20 31	61						
ADELAIDE	153.79	223.6	19 25	-8						

MARCH 28 19.H 47.M 9.S EPICENTRE -20.07-178.17 DEPTH= 567.KM

DEPTH OF FOCUS= 0.084R

A=-0.93953 B=-0.02998 C=-0.34117 D=-0.0319 E= 0.9995
G= 0.3410 H= 0.0109 K=-0.9400 HT= 4.7

SE= 1.46

	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	3.74	300.2	1	23	1	2	18	-9					
APIA	8.73	45.4	2	5	-2	3	41	-6					
NOUMEA	14.51	258.5	3	5A	1	5	39	7					
AUCKLAND	17.83	198.7	3	43	7	6	3	-27					
KARAPIRO	18.61	195.8	3	44A	0	6	49	6					
TUAI	19.10	191.2	3	47	-1	6	57	5			14	6	SCS
WELLINGTON	21.98	194.3	4	13K	-2	7	47	8			14	19	SCS
COBB RIVER	22.33	198.3	4	16	-2	7	42	-3			7	56	
GEBBIES PASS	24.78	196.0	4	37	-3	8	38	14					
BRISBANE	27.32	248.8	5	3K	1	9	4	1					
ROXBURGH	27.42	199.3									11	21	
RIVERVIEW	30.46	236.9	5	29A	0	9	51	-1					
CANBERRA	32.62	235.3	5	48K	1	10	24	-1			7	23	PP
RABAUL	32.91	294.7	5	49	-1						12	10	
CHARTERS TS.	33.38	263.9	5	54	0	10	29	-8					
PORT MORESBY	35.10	282.5	6	8K	0	11	1	-2	7	45	14	9	*SS
MELBOURNE	36.49	233.0	6	19A	-1	11	20	-3	8	4	14	27	*SS
FORT NELSON	36.81	223.9				11	17	-11			14	33	*SS
ADELAIDE	40.68	239.5	6	53	0	12	21	-3			15	54	SCS
GUAM	49.41	309.4	8	0	-1								
TERRE ADELIE	53.38	198.7									10	50	PP
SCOTT BASE	58.29	183.7	9	4	1	16	13	-9	10	55	11	21	PP
PERTH	59.69	244.1	9	12	-1	16	41	1			12	7	
WILKES	64.28	205.2				17	35	-1	11	40	12	11	PP
BYRD STATION	65.09	170.5	9	27	-20	17	29	-17	11	22			
TUKUBASAN	68.49	324.7	10	7	-1						12	53	
MANILA	69.02	295.1	10	11	0						18	59	
MATUSIRO	69.77	323.7	10	15K	-1	18	39	-1			13	18	*SP
SOUTH POLE	70.05	180.0	10	17	0	18	36	-8			12	13	PP
BAGUIO CITY	70.24	296.6	10	18	0	18	50	4					
MIRNY	71.32	205.0	10	23	-2	19	2	4					
LEMBANG	72.88	268.9	10	34K	0	19	15	0					
DJAKARTA	73.83	269.2	10	38K	-1	19	23	-2					
Y.-SAKHLINSK	75.45	333.5	10	48	0								
PETROPAVLOVK	75.61	345.8	10	47	-2								
ZO-SE	77.30	310.0	10	59K	1	20	2	0	13	4	14	6	PP
UGLEGORSK	77.40	334.5	10	58	-1								
VLADIVOSTOK	77.83	325.0	11	1	0								
BERKELEY	77.97	42.1	11	2K	0								
LICK	78.05	42.8	11	3K	1				13	8			
UKIAH	78.15	40.6	11	3	0								
HONG KONG	78.33	299.0	11	5K	1						14	11	PP
PASADENA	78.51	47.1	11	5K	0	20	20	5	13	8	14	19	PP
FRESNO	78.90	44.2	11	7K	0								
CANTON	79.42	299.3	11	11K	2	20	27	3	13	14	14	25	PP
NANKING	79.52	309.7	11	11K	1	20	29	4	13	17	14	23	PP
SHASTA	79.61	39.7	11	10K	0								
MINERAL	79.88	40.4	11	11K	-1				13	28			
RENO	80.50	41.9	11	16K	1								
BOULDER CITY	81.81	47.1	11	23	1				13	28			
WUHAN	81.90	306.5	11	22K	0								
MAWSON	81.90	199.8	11	21K	-1				13	26			
CHANGCHUN	81.96	322.4	11	22	0	20	51	1	13	33	14	50	PP
TUCSON	82.78	52.0	11	27	0	20	55	-3	13	33	29	46	PKKP
TUCSON TELE.	82.91	52.0	11	28	1				13	32	29	45	PKKP
EUREKA	82.92	43.6	11	28	1				13	33	29	47	PKKP
MAGADAN	83.30	344.7	11	28	-1	21	0	-3					
VICTORIA	83.92	33.1	11	31K	-1								
PHU-LIEN	84.02	294.6	11	34	2	21	1	-9					
HORSESHOE B.	84.54	32.5	11	35K	0								
MEDAN	84.79	275.7	11	37K	1	21	17	0					
PEKING	85.47	315.4	11	40K	0	21	28	5	13	52	15	17	PP
SALT LAKE C.	86.29	44.2	11	43	-1								
TACUBAYA	86.73	68.1	11	54	8	21	39	4	13	58			
COLLEGE	87.83	12.5	11	49	-2	21	43	-2	13	57			
SIAN	87.84	307.6	11	52	1	21	54	9	14	1	15	0	*SP
BUTTE	88.52	39.4	11	54	0	21	54	3	13	59	15	28	PP
HUNGRY HORSE	88.89	36.9	11	55	-1								
BOZEMAN	89.25	40.2	11	58	1				14	8			
BANFF	89.60	34.0	11	57A	-2								

PAOTOW	89.85	313.7	12	1K	1	22	12	9	14	11	15	8	*SP
CHENGTU	90.12	302.6	12	2K	1	22	12	6	14	14	15	11	*SP
BOULDER	90.34	47.2	12	3	0								
LARAMIE	90.72	46.0	12	3	-1								
LANCHOW	92.40	307.5	12	13K	1	22	36	11	14	24	15	22	*SP
PORT BLAIR	93.11	281.2	14	30	135	21	52	-3			16	22	PP
RAPID CITY	93.49	44.2	12	17	0				14	28	29	20	PKKP
ULAN-BATOR	95.05	319.3	12	23K	-1						15	31	PP
HUANCAYO	97.68	105.8									22	27	SKKS
IRKUTSK	98.29	322.7				22	19	-3			16	44	PP
SHILLONG	98.38	294.1	12	39K	0								
LA PAZ	102.28	112.7				22	45	4			25	29	S
CHATRA	102.79	294.0	12	59	0								
RESOLUTE	107.43	16.1	13	19	777	24	32	10			26	21	SP
DEHRA DUN	111.40	295.6									25	10	
BOMBAY	113.56	282.4									18	33	
THULE	114.02	14.1	17	33	-2						18	12	
LAHORE	114.77	296.3	17	37	0								
KHEYS	116.13	351.4	17	34	-5						28	16	PS
SEVEN FALLS	116.14	46.6	17	38	-1								
WARSAK DAM	117.42	298.6	17	41	-1								
NAMANGAN	117.91	306.5	17	43	0	23	44	0					
QUETTA	120.87	293.8	17	50K	1	23	58	4	20	11	19	27	PP
KIMBERLEY	126.64	205.3	18	0	0								
SCORESBY SD.	127.62	9.9	18	2	0				20	9			
APATITY	128.50	345.1	18	1K	-2						21	24	PKS
SODANKYLA	130.15	347.7	18	5	-2								
KIRUNA	130.83	350.8	18	6	-2				20	27	21	32	PKS
PULKOVO	135.42	339.9	18	15	-1								
MOSCOW	135.45	331.9	18	15	-1						21	51	PKS
MAKHACH-KALA	135.55	311.4	18	17	0						20	56	
SKALSTUGAN	135.94	353.3	18	5	-12								
NURMIJARVI	136.48	343.8	18	11	-7								
HELSINKI	136.69	343.4	18	8	-11								
TIFLIS	137.82	310.5	18	20	-1						21	3	
UPPSALA	138.68	348.0	18	11	-11						21	56	PKS
SOTCHI	140.67	315.2	18	21	-6						22	4	PKS
GOTEBORG	141.69	351.2	18	22	-7						18	41	
ADDIS ABABA	142.68	258.3	18	30	0						19	0	
COPENHAGEN	143.56	349.9	18	29K	-3								
SIMFEROPOL	143.56	320.3	18	30	-2						22	12	PKS
ASTRIDA	144.54	233.7	18	34K	1				20	50			
DURHAM	145.26	3.5	18	31A	-3								
KISHINEV	145.27	327.0	18	35	1								
LWOW	145.45	334.5	18	34	-1						20	49	
LWIRO	145.47	233.1	18	38K	3						21	14	
RUMANGABO	145.66	234.9	18	37K	2				20	53			
IASI	145.78	328.2	18	36	1								
BACAU	146.55	328.0	18	40	4								
POTSDAM	146.59	347.5	18	36	0				20	54			
KRAKOW	146.80	338.5	18	38	2								
KSARA	146.87	301.5	18	40	4				20	59	22	22	PP
WITTEVEEN	147.10	354.6	18	45A	8						21	0	
RACIBORZ	147.35	340.3	18	38	1								
SKALNATE PL.	147.42	337.3	18	41	4								
KASTAMONU	147.54	317.3	18	28	-10				20	39			
COLLMBERG	147.62	346.9	18	33	-5				20	53	22	7	PP
HALLE	147.64	348.2	18	35	-3				20	54	22	24	PP
MUNSTER	147.84	353.3	18	38	0						18	43	
JERUSALEM	147.91	298.1	18	44	6						20	59	PKS
DE BILT	147.93	356.1	18	45	7								
JENA	148.26	348.2	18	40	1				20	57			
BUCHAREST	148.43	325.8	18	38	-1								
PRAGUE	148.43	344.4	18	45	6				20	41	22	26	*SPKP
PRUHONICE	148.49	344.2	18	40K	1				21	0	19	2	PKP2
PLAUEN	148.55	347.3	18	35	-4				20	57			
KEW	148.62	2.6	18	38	-1				20	58	18	43	PKP2
ISTANBUL UN.	148.85	318.1	18	38	-1				20	56			
SONNEBERG	148.86	348.4	18	40	0				21	0	19	4	
BENSBERG	148.89	353.5	18	39	-1						21	17	
CHEB	148.90	346.8	18	41	1								
HURBANOVO	149.26	338.2	18	47	7								
BRATISLAVA	149.37	339.8	18	41A	1				20	53			
VIENNA-H.	149.53	340.7	18	41K	0						19	12	PKP2
DOURBES	149.96	356.4	18	39	-2								
STUTTGART	150.76	350.0	18	42	0				21	3	22	19	*SPKP
BELGRADE	150.88	332.2	18	43	0				21	5			
TUBINGEN	151.01	350.0	18	43K	0				21	3			
SOFIA	151.07	326.0	18	44	1	25	50	54			21	8	

STRASBOURG	151.16	351.8	18	43K	0				21	9	22	39 PP
FOLINIERE	151.31	3.2	18	43	0							
PARIS	151.32	359.1	18	46K	3						21	13 SKP
EBINGEN	151.37	350.0	18	44	1				21	7		
RAVENSBURG	151.65	348.9	18	52	8							
ZAGREB	151.80	338.8	18	45K	1						19	8
TOLMEZZO	152.18	343.3	18	44	0						19	8 PKP2
BASLE	152.21	351.6	18	43	-2							
CHUR	152.56	348.5	18	45K	0							
TRIESTE	152.66	341.6	18	45	0				21	10	22	37 PP
NEUCHATEL	152.82	352.3	18	46	1							
GARCHY	152.84	358.1	18	46K	1						21	17 SKP
ATHENS	153.94	317.9	18	46	-1							
CLERMONT-FD.	154.35	357.9	18	47K	0						19	15
PRATO	155.03	344.0	18	47	-1						20	34
ROME	156.44	339.8	18	50K	0	26	4	62			23	3 PP
BANGUI	157.40	228.6	19	26	34						28	58
MESSINA	158.37	329.5	18	36	-17						20	22
TOLEDO	159.62	13.1	18	55K	1						23	17 PP
MBOUR	161.18	104.5	18	57	1							
GRANADA	162.31	14.4	18	51A	-6							
MALAGA	162.54	16.9	18	56A	-1	25	20	13	21	12	19	50 PKP2
ALGIERS UNI.	163.33	356.6	18	55	-3				21	15	23	39 PP
TAMANRASSET	175.63	308.7	19	6K	1				21	47	24	41 PP

MARCH 29 19.H 9.M 35.S EPICENTRE 45.07 137.30 DEPTH= 325.KM

DEPTH OF FOCUS= 0.046R

A=-0.52079 B= 0.48058 C= 0.70556 D= 0.6782 E= 0.7349
G=-0.5185 H= 0.4785 K=-0.7086 HT= -3.6

SE= 1.94

	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
Y.-SAKHLINSK	4.22	61.6	1	13	2	2	7	1				
VLADIVOSTOK	4.35	245.3	1	15	3	2	13	4				
UGLEGORSK	5.17	37.4	1	23	1	2	27	2				
KOSMODEMANSK	6.20	96.0	1	33	-1	2	46	-1				
MIZUSAWA	6.58	153.0	1	36	-2	2	51	-4				
SHIKOTAN	6.92	96.6	1	40	-2	2	56	-6				
LESOZAVODSK	7.02	88.9	1	43	0	3	3	-1				
GORNY	7.28	87.5	1	47	1	3	11	1				
KURILSK	7.48	85.0	1	48	-1	3	12	-2				
REIDOVOE	7.59	84.7	1	49	-1	3	17	1				
MATUSIRO	8.54	175.0	2	1A	-1	3	37	0				
CHANGCHUN	8.67	266.0	2	5K	2	3	45	5				
TUKUBASAN	9.09	165.5	2	5	-3	3	41	-8				
OKHA	9.25	21.4	2	11	1	3	56	3				
PEKING	16.35	259.5	3	32	-1	6	27	3				
MAGADAN	16.63	24.5	3	36	0	6	31	1				
NANKING	19.39	234.3				7	24	3				
PAOTOW	20.45	267.0	4	15	0							
ULAN-BATOR	21.06	288.7	4	20K	0							
IRKUTSK	22.79	300.3	4	37	0							
LANCHOW	26.81	262.2	5	14	0	9	24	-1				
HONG KONG	29.57	227.5	5	41	3							
CHENGTU	29.72	252.6				10	7	-4				
KUNMING	34.31	246.1				11	22	0			14	3 SS
FRUNSE	44.18	290.4	7	41	1	13	49	1				
COLLEGE	44.20	36.3	7	38	-2				8	51		
SVERDLOVSK	47.22	313.2	8	5	2							
LAHORE	50.03	277.1	8	23	-2							
STALINABAD	50.11	288.0	8	27	2	15	13	2				
WARSAK DAM	50.62	281.5	8	29K	0							
NORD	52.82	355.4	8	45	0							
APATITY	54.11	332.6	8	51	-3							
QUETTA	56.00	280.4	9	7K	-1	16	25	-4			18	20 *SS
SODANKYLA	56.37	334.2	9	9	-1							
THULE	57.69	6.9	9	17	-3				10	29		
KIRUNA	57.91	336.4	9	20K	-1							
POONA	58.44	264.9	9	26	1							
MOSCOW	59.04	319.4	9	28	-1							
PULKOVO	59.74	325.9	9	32	-2							
NURMIJARVI	61.43	328.7	9	49	4							

HELSINKI	61.55	328.3	9 44	-2							
SKALSTUGAN	63.31	335.8	9 56	-1							
TIFLIS	63.60	303.4	10 1	2	18 9	3					
UPPSALA	64.41	330.9	10 2K	-2						10 35	PCP
CHARTERS TS.	65.28	170.7	10 11	1							
SIMFEROPOL	67.54	311.6	10 25K	1	18 55	2					
GOTEBORG	67.96	331.8	10 26	0							
SHASTA	68.78	53.4	10 33A	2							
LWOW	69.13	320.5	10 34	0							
IASI	69.33	316.7	10 36	1	19 17	3					
COPENHAGEN	69.38	330.2	10 36A	1							
MINERAL	69.47	53.2	10 36A	0							
BERKELEY	70.75	55.5	10 44A	1							
RENO	71.03	52.9	10 46	1							
LICK	71.47	55.6	10 48A	0							
RACIBORZ	71.48	323.6	10 49	1							
KASTAMONU	71.77	310.6	10 41	-8			13 13				
COLLMBERG	72.63	327.1	10 51	-4							
HALLE	72.88	327.8	10 52	-4							
FRESNO	72.93	55.0	10 57	1							
PRUHONICE	73.06	325.4	10 48	-9							
EUREKA	73.21	50.7	10 59	1			12 16				
JENA	73.47	327.6	10 59	0						14 5	
PLAUEN	73.60	327.0	10 58	-2							
VIENNA-H.	73.66	323.3	11 2	1							
KSARA	74.09	301.9	11 5	2							
BENSBERG	75.07	330.0	11 9	0							
PASADENA	75.71	55.9	11 13	1							
JERUSALEM	75.91	300.8	11 15A	2							
STUTTGART	76.13	327.6	11 15	0							
RAPID CITY	76.25	40.2	11 16	1							
BOULDER CITY	76.33	52.6	11 16	0							
TUBINGEN	76.37	327.5	11 17	1							
EBINGEN	76.70	327.4	11 19	1							
STRASBOURG	76.82	328.3	11 19	1						12 0	
KEW	77.11	334.4	11 20K	0							
LARAMIE	77.25	43.4	11 21	0							
BASLE	77.76	327.8	11 20	-3							
BOULDER	78.37	44.1	11 28	1							
PARIS	78.51	331.4	11 29K	2							
FOLINIERE	79.52	333.1	11 33	0							
GARCHY	79.62	330.3	11 34	1						11 41	PCP
TUCSON TELE.	81.31	52.6	11 43	1						14 54	PP
TUCSON	81.31	52.7	11 43	1							
OTTAWA	85.29	22.7	12 5	3							
ADDIS ABABA	89.65	282.3	12 26	3							
TAMANRASSET	99.45	315.8								17 13	PP
SOUTH POLE	134.88	180.0	19 20	39						21 50	PP

MARCH 29 23.H 7.M 15.S EPICENTRE 37.30 23.77 DEPTH= 0.KM

A= 0.72978 B= 0.32142 C= 0.60341 D= 0.4031 E=-0.9152
G= 0.5522 H= 0.2432 K=-0.7974 HT= -0.7

SE= 2.70

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ATHENS	0.67	356.6						0 14 PG
SKOPJE	5.02	339.4	1 23	5	2 33	15		1 42 PG
SOFIA	5.40	356.6	1 27	3	2 28	1		2 59 SG
ISTANBUL UN.	5.51	45.8	1 27	2	2 35	5		
TARANTO	5.99	303.9			2 35	-8		
REGGIO CALA.	6.49	279.5			2 48	-7		
MESSINA	6.58	280.3	1 53	13	2 50	-8		
KASTAMONU	6.78	51.0			3 46	44		2 13 PG
BUCHAREST	7.33	13.2	1 52	1	3 33	17		
BELGRADE	7.92	342.6	1 58K	-1	3 37	7		4 2 PS
TIMISOARA	8.66	348.1	1 48	-21				4 49 S*
SZEGED	9.34	344.3			4 17	11		5 27
ZAGREB	10.31	328.0	2 37	5				6 0 SG
KISHINEV	10.41	19.5	2 32	-1				
KSARA	10.46	105.8	2 32	-2				
SIMFEROPOL	10.92	42.4	2 42	2				
JERUSALEM	10.93	116.9	2 38	-2	3 39	-66		
TRIESTE	11.22	321.2			5 1	9		4 40
TOLMEZZO	12.11	322.0	2 58	2	5 21	8		

LWOW	12.53	0.7	3	6	4				7	11
KRAKOW	13.04	349.0	3	7	-2				6	53
PRUHONICE	14.31	335.3	3	32	6					
WARSAW	15.05	353.5	3	7	-28					
PLAUEN	15.60	331.4	3	32	-11					
STUTTGART	15.62	321.8	3	41	-2					
NEUCHATEL	15.77	313.2	3	47	2					
SONNEBERG	15.88	329.4	3	48	2					
COLLMBERG	15.95	334.7	3	46	-1					
JENA	16.16	331.3	3	52	2				4	1 PP
STRASBOURG	16.22	319.1	3	51	0					
HALLE	16.49	333.2	3	53	-1					
POTSDAM	16.85	336.9	4	29	30					
GORIS	17.81	76.0	4	14	3	7	39	11		
BENSBERG	18.06	324.4	4	15	1					
GARCHY	18.22	309.7	4	15A	-1				4	32 PP
MAKHACH-KALA	18.98	65.3	4	27	2					
PARIS	19.27	313.4	4	27	-1				4	38 PP
COPENHAGEN	19.92	341.0	4	33A	-3					
MOSCOW	20.68	22.6	4	43	-1					
FOLINIERE	21.01	310.7	4	44	-3					
TAMANRASSET	21.37	232.5	4	53	2	8	50	6		
GOTEBORG	21.85	342.9	4	54	-2					
PULKOVO	22.88	8.5	5	6	0					
UPPSALA	22.91	352.0	5	3	-3					
NURMIJARVI	23.24	1.1	5	14	5					
SKALSTUGAN	27.22	348.8	5	44	-3					
SODANKYLA	30.16	2.2	6	11	-3					
KIRUNA	30.64	357.5	6	15	-3					
APATITY	30.79	7.2	6	17	-2					
ADDIS ABABA	31.25	150.5	6	26	3					
LWIRO	39.63	172.1	7	38A	3					
SCORESBY SD.	40.94	338.5	7	49	3					
KHEYS	44.25	6.8							9	58 PP
NORD	46.68	352.5	8	29	-3					
THULE	54.58	343.2	9	28	-4					
RESOLUTE	61.32	344.6	10	17A	-2					
BREBEUF	69.10	311.7	11	9K	-1					
OTTAWA	70.39	312.5	11	16	-2					
COLLEGE	77.95	356.3	12	0	-1					
LARAMIE	89.09	324.4	12	56	-2					

MARCH 31 7.H 20.M 46.S EPICENTRE -15.25-173.01 DEPTH= 0.KM

A=-0.95806 B=-0.11740 C=-0.26140 D=-0.1216 E= 0.9926
G= 0.2595 H= 0.0318 K=-0.9652 HT= 5.7

SE= 2.44

	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	1.87	39.8	0	28	-5	0	46	-12					
SUVA	8.69	249.4	2	16	6								
NOUMEA	20.66	247.1	4	47A	3								
ONERAHI	23.35	206.6	5	13	2								
KARAPIRO	24.75	202.0	5	23	-1								
WELLINGTON	28.02	199.8	5	53	-1								
GEBBIES PASS	30.88	200.5	6	19	-1								
BRISBANE	33.77	243.2	6	42K	-3	12	4	-5					
CHARTERS TS.	39.03	257.0	7	26	-4						9	5	
HONOLULU	39.16	22.3	7	32	1								
KIPAPA	39.30	22.4	7	33	1						8	2	
PORT MORESBY	39.31	273.8	7	31	-1	13	34	0			16	24	SS
MELBOURNE	43.32	230.6	8	2	-3								
FORT NELSON	43.67	222.7									21	5	
ADELAIDE	47.40	236.4	8	35	-3								
CAPE HALLETT	57.88	186.0				18	6	11			25	4	SSS
TERRE ADELIE	59.51	199.2	10	40	33								
SCOTT BASE	63.43	184.7	10	32	-2								
TUKUBASAN	67.69	320.4	10	58K	-3	20	9	11					
BYRD STATION	69.05	171.4	11	15	6								
MATUSIRO	69.06	319.6	11	9A	0	20	19	5			11	45	*SP
WILKES	70.70	204.7	11	16	-3	20	59	25					
BERKELEY	71.13	40.4	11	23	1	21	18	39					
LICK	71.19	41.1	11	19	-3								
PASADENA	71.65	45.6	11	25	0	20	22	-23			21	25	PS

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FRESNO	72.04	42.5	11	27	-1					
SHASTA	72.80	38.0	11	33	1					
MINERAL	73.05	38.6	11	37	3					
Y.-SAKHLINSK	73.55	330.1	12	37	61					
RENO	73.66	40.2	11	42	5					
SOUTH POLE	74.85	180.0	11	42	-2				12	43
UGLEGORSK	75.38	331.3	11	47	0					
TUCSON	75.95	50.6	11	50	0				13	30
EUREKA	76.06	42.0	11	50	-1					
TUCSON TELE.	76.07	50.5	11	51	0				14	45 PP
VLADIVOSTOK	76.91	321.9	11	56	0	21	54	11		
MIRNY	77.72	204.1	11	59	-1	22	0	8		
LEMBANG	78.01	266.1	11	42	-20					
ZO-SE	78.17	306.9	12	2A	-1	22	9	12	18	4 PP
SJTKA	78.55	19.9	12	3	-2					
SALT LAKE C.	79.42	42.6	12	10	1					
MAGADAN	80.11	342.2	12	12	-1	22	19	2		
TACUBAYA	80.35	66.9	12	24	10				13	31
NANKING	80.41	306.9	12	15A	0	22	35	14	23	26 PS
HONG KONG	80.48	296.2				22	32	11		
CHANGCHUN	81.31	319.9	12	20A	1	22	44	14		
CANTON	81.52	296.7	12	23	3	22	48	16		
BUTTE	81.70	37.8	12	22	1					
COLLEGE	82.15	10.6	12	21	-3	22	37	-2	22	20
BOZEMAN	82.43	38.6	12	26	1				12	52
WUHAN	83.15	304.1	12	28A	-1	23	1	12	22	51 SKS
BOULDER	83.48	45.7	12	31	0					
PEKING	85.64	313.3	12	42A	1	23	22	9	23	10 SKS
RAPID CITY	86.63	42.7	12	47	1				13	39
PAOTOW	90.20	312.1	13	4A	1					
KUNMING	91.33	295.5	13	11	2					
CHENGTU	91.77	301.2	13	11	0	24	19	9	23	53 SKS
LANCHOW	93.45	306.3	13	19	1					
ULAN-BATOR	94.68	318.3	13	24	0				17	10 PP
RESOLUTE	101.49	15.4	13	54	-1	25	28	-5	24	28 SKS
PALISADES	106.65	51.3	14	28	777	25	0	0	18	44 PP
CARACAS	108.08	83.7	12	50	777	25	4	0		
THULE	108.18	13.9							19	2 PP
KHEYS	112.08	352.4	19	0	23					
BERMUDA	113.34	61.0				25	26	1		
HALIFAX	114.34	47.7							29	9 PS
NAMANGAN	118.90	308.6							20	0 PP
QUETTA	123.31	296.2	19	1	2	26	6	5		
NURMIJARVI	133.02	348.1	19	20	2					
MOSCOW	133.26	336.7	19	17	-1					
MAKHACH-KALA	135.74	316.9	19	23	0				22	55 PKS
SOTCHI	140.32	322.0	19	33	2				23	9 PKS
SIMFEROPOL	142.56	327.8	19	32	-3				22	42 PKS
LWOW	142.82	341.7	19	34	-1					
KISHINEV	143.48	334.7	19	33	-3					
COLLMBERG	143.72	353.6	19	35	-2					
KRAKOW	143.73	345.9	19	36	-1					
RACIBORZ	144.09	347.7	19	36	-1					
JENA	144.22	355.0	19	36	-2				20	37
BENSBERG	144.38	359.8	19	38	0				19	48
PLAUEN	144.59	354.3	19	36	-2					
SONNEBERG	144.80	355.3	19	39	0					
PRUHONICE	144.82	351.5	19	40	1					
FOLINIERE	146.02	8.8	19	42	1					
VIENNA-H.	146.20	348.7	19	46	5				20	2
STUTTGART	146.53	357.3	19	43	1					
STRASBOURG	146.76	359.1	19	44	2				21	41
TUBINGEN	146.77	357.5	19	45	3					
KASTAMONU	146.81	326.3	19	38	-4				19	56 PKP2
EBINGEN	147.12	357.6	19	46	3					
BASLE	147.81	359.2	19	48K	4					
GARCHY	147.90	5.0	19	47	3				19	53 PKP2
ISTANBUL UN.	147.99	327.7	19	45	1					
KSARA	148.03	310.6	19	45	1				23	19 PP
ADDIS ABABA	148.34	262.4	19	52	7					
BELGRADE	148.40	341.6	19	50K	5				20	11
CHUR	148.42	356.7	19	46K	1					
TRIESTE	149.17	350.7	19	53	7					
CLERMONT-FD.	149.40	5.3	19	52	6					
JERUSALEM	149.46	307.6	19	49A	3					
ASTRIDA	151.34	233.6	19	52A	3					
LWIRO	152.28	233.0	20	1K	10				23	42
RUMANGABO	152.44	235.2	20	1	10					

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ATHENS	152.96	330.0	19 59	7		
MBOUR	156.83	89.0	19 59	2	45 29	SSP
TAMANRASSET	172.38	10.3	20 12	2	25 28	PP

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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.